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Minor Planet Center
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Telephone 617-495-7244/7440/7444 (for emergency use only)
TWX 710-320-6842 ASTROGRAM CAM EASYLINK 62794505
MARSDEN@CFA.BITNET or .SPAN BRIAN@CFAPS1.SPAN GARETH@CFAPS1.SPAN
Brian G. Marsden, Director Gareth V. Williams, Associate Director

ERRATA.

MPC	Line	
21156	- 1	For S. Bortolini read S. Bartolini
21304	9	For S. Bortolini read S. Bartolini
21548	28 to 33	The orbit for (5424) 1983 TN1 was inadvertently given for an incorrect epoch. An orbit for the current standard epoch is given on MPC 21764.
21559	20	For (MPC 383) read (d, MPC 383)

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CORRECTED OBSERVATIONS.

The following observations correct those previously published.

Object		Date	UT	R. A. (2000)	Decl.	Reference	Mag.	N	Obs.
1950 CD		1950 02	08.15644	07 13 53.21	+20 01 44.4	MPC 5212		1	760
1950 CD		1950 02	08.18074	07 13 52.48	+20 01 53.0	MPC 5212		1	760
1950 QM		1950 08	17.12749	20 22 10.69	-15 24 51.4	MPC 10503		2	760
1950 QM		1950 08	17.17677	20 22 08.02	-15 25 00.4	MPC 10503		2	760
1954 JC		1954 05	04.21176	14 43 05.50	-03 12 56.9	MPC 7442		3	760
1962 VK		1962 11	01.14786	01 09 38.86	+06 37 18.9	MPC 16988		4	760
1962 XF1		1962 12	03.29856	04 13 56.92	+19 40 02.4	MPC 15822		5	760
1962 XF1		1962 12	03.34370	04 13 53.85	+19 39 51.6	MPC 15822		5	760
1974 FE1	*	1974 03	21.91238	11 57 46.19	+10 33 19.6	MPC 4102	16.5	6	095
(12)		1938 02	18.8500	09 55 38	-01 08.8	RI 1756	10.7		006
(25)		1935 06	26.8	16 57.2	+11 08	RI 1196		7	073
(36)		1935 03	28.96941	13 12.8	-17 08	RI 1166	12.4		078
(45)		1938 07	02.9236	18 31 11	-14 52.7	RI 1816	10.3		006
(51)		1935 07	02.8	17 33.6	-06 22	RI 1196		7	073
(51)		1935 07	03.9	17 32.8	-06 24	RI 1196		7	073
(69)		1935 07	13.8	20 49.6	-07 04	RI 1196		7	073
(87)		1938 06	23.85854	18 01.6	-27 33	RI 1803	12		078
(121)		1935 03	27.9965	12 51 10	+04 42.3	RI 1151	12.0		006
(125)		1938 01	22.8458	08 11 59	+14 41.4	RI 1756	12.2		006
(127)		1938 02	05.04438	10 07.3	+24 58	RI 1710	10.2		022
(130)		1935 05	22.9	15 23.4	+13 07	RI 1196		7	073
(130)		1935 06	04.9	15 14.8	+13 05	RI 1196		7	073
(137)		1935 06	04.9	16 11.8	-06 34	RI 1196		7	073
(137)		1935 06	12.8	16 06.1	-05 59	RI 1196		7	073
(194)		1935 07	18.9	21 14.1	+03 29	RI 1196		7	073
(200)		1938 08	30.9063	22 13 39	-09 14.5	RI 1861	11.2	8	006
(204)		1935 07	13.8	20 30.9	-04 02	RI 1196		7	073
(204)		1935 07	18.8	20 27.0	-04 11	RI 1196		7	073

(220)	1935 04 30.89385	15 37.7	-25 52	RI	1175	13			078
(227)	1938 08 30.9063	22 08 06	-10 33.5	RI	1861	12.4	8		006
(246)	1938 03 31.88	10 14.0	+11 39	RI	1780				012
(306)	1935 05 22.8	14 56.7	-03 21	RI	1196		7		073
(363)	1938 01 30.81252	07 30.7	+28 51	RI	1705	11.7			029
(374)	1938 04 25.89740	14 18.6	-14 51	RI	1793	11.5			078
(456)	1937 05 05.91410	14 59.0	-18 41	RI	1584	11			078
(457)	1938 10 21.87674	23 21.0	+15 03	RI	1890	13.5			022
(485)	1936 10 23.57	01 37.7	+05 03	RI	1502				904
(506)	1937 07 30.86073	20 59.8	-18 36	RI	1621	12.5			078
(534)	1938 04 03.98	12 24.3	+02 44	RI	1766	13.2			094
(538)	1935 02 07.04	09 35.6	+13 54	RI	1103				012
(744)	1937 06 16.00	18 06.1	-14 18	RI	1586	13.7			020
(994)	1935 03 25.90	11 37.6	+05 26	RI	1157	13.5	9		094
(1049)	1937 12 29.8368	08 02.3	+39 02	RI	1698				053
(1062)	1937 01 20.08	06 07.6	+30 47	RI	1555			A	020
(1086)	1938 08 30.9063	22 12 24	-06 48.4	RI	1861	13.0	8		006
(1090)	1957 02 25.21316	10 52 50.69	+15 17 58.9	MPC	2130	14.0			760
(1105)	1958 08 09.16771	19 39 11.34	-22 29 29.5	MPC	5775				760
(1189)	1936 12 21.04	07 06.2	+21 42	RI	1512				012
(1429)	1965 05 03.15972	14 01 19.68	-09 24 46.2	MPC	3622	16.8		B	760
(1429)	1965 05 03.19861	14 01 17.50	-09 24 38.8	MPC	3622			B	760
(1664)	1965 05 02.20556	14 04 36.60	-10 58 45.3	MPC	3030	15.3		B	760
(1664)	1965 05 02.25001	14 04 33.86	-10 58 45.5	MPC	3030			B	760
(1664)	1965 05 03.15972	14 03 39.95	-10 58 24.0	MPC	3030	15.9		B	760
(1664)	1965 05 03.19861	14 03 37.59	-10 58 23.1	MPC	3030			B	760
(3590)	1991 04 14.47882	13 04 40.50	+05 28 29.1	MPC	18178	15.5			400
(3590)	1991 04 14.49826	13 04 39.69	+05 28 33.7	MPC	18178				400
(3590)	1991 04 16.51007	13 02 52.60	+05 39 29.8	MPC	18178	15.5			400
(3590)	1991 04 16.52396	13 02 51.76	+05 39 32.1	MPC	18178				400

Note 1: 1950 CD = (4930). 2: 1950 QM = (4729). 3: 1954 JC = (3590).
4: 1962 VK = (1013). 5: 1962 XF1 = (4842). 6: 1974 FE1 = (3590).
7: year originally given as 1934. 8: date corrected by +10 days.
9: originally given as (944). A: date corrected by -1 day.
B: time corrected.

* * * * *

DELETED OBSERVATIONS.

The following observations are to be deleted.

Object	Date	UT	R. A. (2000)	Decl.	Reference		Obs.
(18)	1937 02 06.84	03 08.1	+03 20.8	RI	1555		020
(21)	1938 05 05.948	11 51.6	+06 24	RI	1781		057
(26)	1935 04 06.8	12 03.3	+03 23	RI	1169		073
(31)	1938 09 26.98639	01 52.2	+00 51	RI	1844		029
(32)	1935 02 07.98	09 19.0	+05 53	RI	1108		012
(41)	1935 07 13.8	21 05.4	+03 48	RI	1196		073
(43)	1935 03 07.00	08 44.9	+13 20	RI	1130		012
(91)	1935 03 27.98	13 54.1	-12 21	RI	1142		020
(154)	1935 01 12.25	13 58.9	+00 16	RI	1104		990
(154)	1935 01 14.24	14 00.2	+00 09	RI	1104		990
(190)	1938 06 04.00577	18 01.6	-15 40	RI	1788		022
(191)	1937 09 06.86709	22 50.8	-08 11	RI	1649		078
(230)	1937 07 22.93	21 15.0	+00 42	RI	1614		020
(393)	1935 06 04.97577	18 04.1	-01 36	RI	1178		073
(444)	1935 02 07.97	08 55.8	+04 00	RI	1111		990
(469)	1935 02 04.97	09 29.2	+20 42	RI	1111		990

(478)	1937 07 22.93	21 15.7	+03 40	RI	1614		020
(556)	1938 10 25.88	23 03.2	+02 43	RI	1854		012
(604)	1935 03 27.98	13 53.5	-12 48	RI	1155		020
(655)	1938 10 24.07007	03 04.1	+06 46	RI	1853		029
(692)	1935 04 29.9645	15 19.4	-04 25	RI	1165		053
(713)	1935 02 02.02	09 15.2	+00 30	RI	1111		990
(761)	1938 11 23.00	05 01.1	+25 09	RI	1883		020
(788)	1937 07 22.93	20 59.8	-01 00	RI	1614		020
(865)	1937 07 13.0323	19 35 21	-03 00.7	RI	1596		022
(1187)	1935 02 11.91914	11 23.7	-00 39	RI	1136		078
(1211)	1938 01 30.98	10 02.1	+16 05	RI	1716		020
(1313)	1937 07 07.05	20 20.3	-20 51	RI	1597		020

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IDENTIFICATION CHANGES.

Continuation to MPC 21302.

Object		Date	UT	R. A. (2000)	Decl.	Old desig.	Mag.	Obs.
1930 QZ	*	1930 08	21.82241	21 07.7	-09 27	239	13.8	078
1930 SH1	*	1930 09	28.96698	23 13.3	-15 52	553	14.4	078
1930 SH1		1930 10	14.81871	23 03.0	-15 56	553	14.0	078
1935 AA	*	1935 01	10.00	08 30.1	+20 16	487		990
1935 BM	*	1935 01	22.70	06 41.5	+34 14	844	14.0	094
1935 BN	*	1935 01	22.70	06 42.5	+34 10	1118	14.0	094
1935 CC1	*	1935 02	09.10	10 48.8	+04 06	706		012
1935 EY	*	1935 03	05.82299	05 04 21	+20 18.4	755	13.5	029
1935 EY		1935 03	05.85688	05 04 23	+20 18.5	755	13.5	029
1935 FY	*	1935 03	28.83228	12 30.7	-00 36	794	13.5	078
1935 PG	*	1935 08	06.01	20 56.7	-17 04	1228		012
1937 FC	*	1937 03	17.0313	13 02.4	-00 37	961	13.9	053
1937 GP	*	1937 04	08.89156	12 54.4	-05 06	1074	13.5	078
1937 GQ	*	1937 04	10.87052	14 28.1	-00 44	1017	13.5	078
1937 JQ	*	1937 05	05.86874	14 39.2	-09 34	1208	14	078
1937 JR	*	1937 05	05.86874	14 39.2	-15 20	617	12.7	078
1937 LT	*	1937 06	02.86743	17 56.6	-28 13	963	14	078
1937 LU	*	1937 06	10.92177	17 52.1	-20 49	1224	13.1	078
1937 NB1	*	1937 07	14.86910	18 49.7	-23 31	1100	13	078
1937 RU	*	1937 09	05.04605	00 40.8	+04 49	848	13.7	024
1937 RU		1937 09	09.00	00 38.4	+04 35	848	13.2	020
1937 RU		1937 09	14.06	00 35.1	+04 15	848	13.3	020
1937 RU		1937 09	30.89626	00 22.5	+02 55	848	13.7	024
1937 RV	*	1937 09	13.74935	20 46.7	-19 59	739	14	078
1937 VR	*	1937 11	03.09799	04 20 17.7	+21 59.3	1253	16	029
1937 VR		1937 11	03.12778	04 20 16.2	+21 59.5	1253	16	029
1937 WR	*	1937 11	25.94917	05 58.8	+21 21	561	12.5	022
1937 WR		1937 11	26.95653	05 58.1	+21 21	561	12.5	022
1937 WR		1937 11	28.09924	05 57.5	+21 20	561	13.2	029
1937 WS	*	1937 11	27.86238	04 43.3	+20 17	1307	13.2	029
1937 XD	*	1937 12	01.93423	05 33.3	+17 50	353		057
1938 CS	*	1938 02	05.90376	09 01.8	+20 37	684	13.6	029
1938 CT	*	1938 02	05.90376	09 04.7	+20 26	1261	13.3	029
1938 CU	*	1938 02	09.12848	09 49 24	+20 04.9	1270	15.5	029
1938 CU		1938 02	09.17146	09 49 22	+20 05.0	1270		029
1938 DS2	*	1938 02	22.98	10 04.8	+09 58	1228		012
1938 FS	*	1938 03	21.94994	12 35 38	+01 36.0	1131	16.5	029
1938 FS		1938 03	21.99362	12 35 35	+01 36.2	1131	16.5	029

1938 FT	*	1938 03 23.97084	12 32 47	+04 26.5	1386	15.5	029
1938 FT		1938 03 24.01584	12 32 45	+04 26.9	1386	15.5	029
1938 KE	*	1938 05 23.87116	16 32.3	-31 01	574	14.5	078
1938 NA	*	1938 07 01.92673	19 41.6	-19 46	1064	13	078
1938 OG	*	1938 07 22.9	20 13.2	-08 47	1058	12.9	008
1938 OH	*	1938 07 23.86527	19 45.7	-23 02	1027	13.5	078
1938 SQ1	*	1938 09 27.99	01 08.8	+00 41	1012	14.2	094
1938 YO	*	1938 12 17.78410	23 47 51	+10 12.0	457	13.9	029
1938 YO		1938 12 17.82084	23 47 52	+10 12.1	457		029
1990 KV3	*	1990 05 24.93534	16 29 24.50	-06 11 02.6	1990 KD3	16.2	095
1991 PS31	*	1991 08 09.33872	22 30 41.38	-04 20 24.9	1991 RV6		675
1991 PS31		1991 08 09.37257	22 30 39.79	-04 20 30.1	1991 RV6		675
1993 AL	*	1993 01 03.77517	08 19 05.49	+13 11 44.7	1993 AA	17	885

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IDENTIFICATIONS.

The following identifications with numbered minor planets, by G. V. Williams, continue the list on MPC 21156:

1930 QZ = (1398)	1930 SH1 = (1185)	1935 AA = (111)
1935 BM = (1118)	1935 BN = (844)	1935 EY = (46)
1935 FY = (1156)	1937 FC = (736)	1937 JR = (1794)
1937 LU = (1142)	1937 NB1 = (1010)	1937 RU = (2524)
1937 RV = (4460)	1937 WR = (515)	1938 CS = (1261)
1938 CT = (684)	1938 CU = (1512)	1938 KE = (884)
1938 OG = (107)	1938 OH = (2138)	1938 YO = (516)

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IDENTIFICATION WITH A COMET.

S. Nakano reports the following identification (cf. MPC 19357):

1991 PO25= P/Van Biesbroeck

* * * * *

CRITICAL LIST OF MINOR PLANETS.

The following list updates and is in the same form as that on MPC 19357:

1. Object observed at only one opposition:
719

2. Objects observed at only two oppositions:
2608 3360 3671 3688 3757 3908 4401 4503 4544 4581 4688 4769
5189 5335 5370 5381

3. Objects accurately observed at only three oppositions:
2059 2061 2101 2202 2340 2552 2937 3102 3144 3270 3289 3352
3446 3551 3833 3838 3988 4034 4055 4257 4341 4486 4487 4587
4660 4707 4776 4783 4791 4792 4827 4828 4829 4946 4947 5164
5175 5206 5269 5324

4. Objects observed at four or more oppositions, last during 1979-1981:
1221 1565 1575 1920 2077 2096 2215 2221 2262 2263 2337 2463
2536 2594

5. Objects observed at four or more oppositions, last during 1982:
1051 1441 1530 1531 1556 1584 1885 1926 2005 2168 2302 2423
2639 2699 2735 2782 2783

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OBSERVATIONS OF COMETS.

Observations are published here for the following observatory codes:

006 Fabra Observatory, Barcelona. 0.38-m f/11 Mailhat astrograph. Observers J. M. Codina, J. Nunez and N. Torras.
010 Caussols. 0.9-m Schmidt. Observer C. Pollas.
049 Kvistaberg. 0.4-m Schmidt. Observer T. Oja.
104 San Marcello Pistoiese. 0.40-m reflector. Observers L. Tesi and P. Gigli. Measured by L. Tesi. Reductions by G. Cattani.
106 Crni Vrh Observatory. Observer H. Mikuz. 0.19-m f/4 flat field camera + CCD.
107 Cavezzo. 0.40-m f/2.23 reflector + CCD. Observers R. Calanca and F. Calzolari.
108 Montelupo. 0.20-m f/10 reflector + CCD. Observer M. Tombelli. Measured by S. Bortolini.
364 JCPM Kagoshima Station. 0.25-m f/4.2 Wright-Schmidt telescope. Observer M. Mukai. Measured by M. Takeishi.
372 Geisei. 0.60-m f/3.5 reflector. Observer T. Seki. In part from Orient. Astron. Assoc. Comet Bull.
376 Uenohara. 0.30-m reflector + CCD. Observer N. Kawasato.
385 Nihondaira Observatory Oohira Station. 0.25-m f/3.4 hyperboloid camera. Observer T. Urata.
410 Sengamine. 0.20-m f/4.8 reflector + CCD. Observer K. Ito.
411 Oizumi. 0.16-m f/6.3 reflector + CCD. Observer T. Kobayashi.
540 Linz. 0.3-m f/2 Schmidt-Cassegrain. Observers E. Meyer, E. Obermair and H. Raab.
589 Santa Lucia Stroncone. 0.50-m f/2.8 Ritchey-Chretien + CCD. Observers A. Vagnozzi, V. Risoldi and G. Bernabei.
596 Colleverde di Guidonia. 0.31-m f/2.8 Baker-Schmidt + CCD. Observer V. S. Casulli.
658 Dominion Astrophysical Observatory. 1.85-m reflector + CCD. Observers D. D. Balam, J. B. Tatum and G. C. L. Aikman. Measured by D. D. Balam.
691 Kitt Peak. 0.91-m Spacewatch telescope. Observer J. V. Scotti.
786 U.S. Naval Observatory, Washington. 0.61-m reflector + CCD. Observers J. A. DeYoung and R. E. Schmidt. Measured by J. A. DeYoung.
801 Oak Ridge. 1.5-m reflector + CCD. Observers R. E. McCrosky and C.-Y. Shao.
892 YGCO Nagano Station. 0.13-m f/4.8 reflector. Observer S. Hayakawa.
900 Kiryuu Observatory, Ohtsu. 0.26-m f/2.9 reflector + CCD. Observer Y. Ikari.
902 Ootake. 0.25-m f/3.3 reflector. Observer K. Takehashi. Measured by H. Nakahira.

Object	Date	UT	R. A. (2000)	Decl.	Mag.		N Obs.
		Periodic Comet Smirnova-Chernykh					
/1984 V	1993	01 19.75174	13 54 17.29	-04 59 59.9	17	T	372
/1984 V	1993	01 19.76354	13 54 17.72	-05 00 03.0			372
/1984 V	1993	01 25.48785	13 57 19.24	-05 09 51.7	20.4	N 1	691
/1984 V	1993	01 25.50767	13 57 19.80	-05 09 52.2	16.1	T	691

/1984 V	1993 01 25.52622	13 57 20.34	-05 09 54.0	16.3 T			691
/1984 V	1993 01 28.76736	13 58 50.30	-05 14 07.1				411
/1984 V	1993 01 28.77058	13 58 50.28	-05 14 08.0				411
	Periodic Comet Schwassmann-Wachmann 2						
/1987 XIX	1993 01 24.09853	00 26 44.36	-00 40 40.0	20.9 N	2		691
/1987 XIX	1993 01 24.11123	00 26 45.14	-00 40 35.6	17.9 T			691
/1987 XIX	1993 01 24.12384	00 26 45.78	-00 40 29.4	17.9 T			691
	Periodic Comet Helin-Roman-Alu 1						
/1987 XXXVII	1993 01 24.34430	08 36 29.06	+28 15 15.3	21.2 T	3		691
/1987 XXXVII	1993 01 24.35383	08 36 28.69	+28 15 16.9	21.4 T			691
/1987 XXXVII	1993 01 24.36596	08 36 28.21	+28 15 19.6	21.1 T			691
/1987 XXXVII	1993 01 25.32042	08 35 52.67	+28 17 57.3	21.9 T			691
/1987 XXXVII	1993 01 25.34166	08 35 51.92	+28 18 01.4	21.9 T			691
/1987 XXXVII	1993 01 25.36210	08 35 51.10	+28 18 05.2	21.2 T			691
	Periodic Comet Tempel 2						
/1988 XIV	1993 01 25.45219	13 16 16.46	+05 05 50.8	20.4 T			691
/1988 XIV	1993 01 25.46400	13 16 16.65	+05 05 53.7	21.2 T			691
/1988 XIV	1993 01 25.47537	13 16 16.82	+05 05 55.4	20.9 T			691
	Periodic Comet Gunn						
/1989 XI	1993 01 24.18719	04 46 13.74	+25 22 43.8	21.4 N	4		691
/1989 XI	1993 01 24.19162	04 46 13.64	+25 22 43.4	18.8 T			691
/1989 XI	1993 01 25.17336	04 45 56.61	+25 22 38.4	19.3 T	5		691
	Periodic Comet Schwassmann-Wachmann 1						
/1989 XV	1992 12 30.60382	05 24 55.56	+31 28 06.4				376
/1989 XV	1993 02 10.40473	05 12 04.27	+30 16 48.8	14.1 T			411
/1989 XV	1993 02 10.40838	05 12 04.23	+30 16 48.0				411
/1989 XV	1993 02 10.41020	05 12 04.24	+30 16 47.8				411
/1989 XV	1993 02 12.43263	05 11 59.39	+30 13 21.7	11.2 T			411
/1989 XV	1993 02 12.44045	05 11 59.35	+30 13 20.5				411
/1989 XV	1993 02 12.44436	05 11 59.33	+30 13 20.6				411
/1989 XV	1993 02 12.46007	05 11 59.37	+30 13 19.0	12.0 T			892
/1989 XV	1993 02 12.48090	05 11 59.28	+30 13 17.4				892
/1989 XV	1993 02 13.42514	05 11 58.20	+30 11 41.9				411
/1989 XV	1993 02 13.43020	05 11 58.20	+30 11 41.6				411
/1989 XV	1993 02 13.43273	05 11 58.19	+30 11 41.4				411
/1989 XV	1993 02 13.46007	05 11 58.25	+30 11 38.5				892
/1989 XV	1993 02 13.48090	05 11 58.15	+30 11 36.0				892
/1989 XV	1993 02 15.47708	05 11 58.10	+30 08 17.6				892
/1989 XV	1993 02 15.49549	05 11 58.17	+30 08 17.7				892
	Periodic Comet Van Biesbroeck						
/1991 VI	1993 01 23.14500	01 54 12.37	+05 01 14.9	22.3 N	6		691
/1991 VI	1993 01 23.15257	01 54 12.50	+05 01 16.6	21.5 N			691
/1991 VI	1993 01 23.16078	01 54 12.63	+05 01 17.9	19.7 T			691
	Periodic Comet McNaught-Hughes						
/1991 IX	1993 01 01.24807	04 56 45.15	+21 13 38.9	22.5 T			691
/1991 IX	1993 01 01.25638	04 56 44.86	+21 13 38.8	22.3 T			691
/1991 IX	1993 01 01.26475	04 56 44.53	+21 13 39.0	21.9 T			691
/1991 IX	1993 01 22.13808	04 46 47.41	+21 23 42.0	22.0 N			691
/1991 IX	1993 01 22.14651	04 46 47.25	+21 23 41.8	22.8 N			691
/1991 IX	1993 01 22.20047	04 46 46.33	+21 23 44.3	21.3 N			691

Periodic Comet Levy

/1991 XI	1993 01 01.40094	10 32 55.16	+09 26 30.9	22.1	T	7	691
/1991 XI	1993 01 01.40917	10 32 54.94	+09 26 31.2	22.1	T		691
/1991 XI	1993 01 01.41723	10 32 54.62	+09 26 28.3	22.3	T		691
/1991 XI	1993 01 21.48867	10 24 43.84	+09 57 13.2	21.7	N		691
/1991 XI	1993 01 21.49670	10 24 43.64	+09 57 14.1	21.8	N		691
/1991 XI	1993 01 21.50892	10 24 43.22	+09 57 16.2	22.4	N		691

Periodic Comet Faye

/1991 XXI	1993 01 23.47343	12 03 09.97	-06 06 27.9	20.4	T		691
/1991 XXI	1993 01 23.48465	12 03 09.91	-06 06 27.0	20.6	T		691
/1991 XXI	1993 01 23.49611	12 03 09.78	-06 06 26.0	20.7	T		691
/1991 XXI	1993 01 23.51155	12 03 09.53	-06 06 25.2	22.4	N	8	691

Periodic Comet Chernykh

/1991o	1993 01 23.34546	08 17 36.02	+18 43 24.7	20.7	N	9	691
/1991o	1993 01 23.37378	08 17 34.82	+18 43 31.1	17.9	T		691
/1991o	1993 01 23.40186	08 17 33.52	+18 43 36.0	21.3	N		691
/1991o	1993 01 24.30786	08 16 54.61	+18 46 40.8	18.2	T		691
/1991o	1993 01 24.32029	08 16 54.08	+18 46 42.9	20.8	N	A	691

Comet Shoemaker-Levy (1991a1)

/1991a 1	1992 07 11.89236	11 03 41.85	+60 01 22.7				006
/1991a 1	1992 07 11.90069	11 03 45.82	+60 00 05.9				006
/1991a 1	1992 07 11.90486	11 03 47.87	+59 59 29.9				006
/1991a 1	1992 07 13.89167	11 17 19.98	+55 10 13.7				006
/1991a 1	1992 07 13.90556	11 17 24.78	+55 08 10.3				006
/1991a 1	1992 07 13.90903	11 17 26.01	+55 07 37.8				006
/1991a 1	1992 07 14.87083	11 22 45.18	+52 45 38.3				006
/1991a 1	1992 07 14.87778	11 22 47.45	+52 44 31.7				006
/1991a 1	1992 07 14.88472	11 22 49.49	+52 43 31.7				006
/1991a 1	1992 07 20.89931	11 45 01.82	+38 06 56.5				006
/1991a 1	1992 07 20.90278	11 45 02.43	+38 06 28.6				006
/1991a 1	1992 07 20.90625	11 45 03.03	+38 06 00.7				006

Comet Tanaka-Machholz (1992d)

/1992d	1993 01 02.78611	08 41 15.76	+28 12 13.2	19	T		372
/1992d	1993 01 23.24186	08 07 22.79	+26 49 07.6	21.0	N	B	691
/1992d	1993 01 23.27154	08 07 19.98	+26 48 58.9	18.2	T		691
/1992d	1993 01 23.30128	08 07 17.14	+26 48 49.9	18.1	T		691

Comet Spacewatch (1992h)

/1992h	1993 01 01.43849	13 56 33.71	+11 55 55.0	16.6	T		691
/1992h	1993 01 01.44616	13 56 33.90	+11 56 00.7	16.6	T		691
/1992h	1993 01 01.45397	13 56 34.01	+11 56 07.1	19.7	N	C	691
/1992h	1993 01 23.52245	14 00 08.63	+17 56 34.0	19.0	N	D	691
/1992h	1993 01 23.53031	14 00 08.61	+17 56 43.3	16.1	T		691
/1992h	1993 01 23.53849	14 00 08.60	+17 56 53.1	16.1	T		691
/1992h	1993 01 28.74235	13 59 42.83	+19 44 56.2				411
/1992h	1993 01 28.75021	13 59 42.78	+19 45 06.9				411
/1992h	1993 01 28.75413	13 59 42.72	+19 45 12.2				411
/1992h	1993 01 30.70112	13 59 23.66	+20 28 00.8				411
/1992h	1993 01 30.70896	13 59 23.54	+20 28 11.5				411
/1992h	1993 02 02.69236	13 58 43.40	+21 36 17.8	16.5	T		372
/1992h	1993 02 02.83472	13 58 41.14	+21 39 39.7				372
/1992h	1993 02 13.64715	13 54 11.26	+26 11 38.8	16	T		900
/1992h	1993 02 15.67829	13 52 56.73	+27 06 42.3	16	T		900
/1992h	1993 02 15.69099	13 52 56.20	+27 07 04.1				900

/1992h	1993 02 18.66644	13 50 51.45	+28 29 43.6	16.3	T			410
/1992h	1993 02 18.69051	13 50 50.38	+28 30 25.1					410
	Periodic Comet Giclas							
/1992l	1993 01 19.03867	04 02 43.50	+15 30 37.3					801
/1992l	1993 01 19.05586	04 02 44.12	+15 30 44.7					801
/1992l	1993 01 25.18119	04 06 58.30	+16 17 07.1	20.6	N	E		691
/1992l	1993 01 25.18895	04 06 58.63	+16 17 10.7	16.6	T			691
/1992l	1993 01 25.19700	04 06 59.02	+16 17 14.5	16.5	T			691
/1992l	1993 01 26.06013	04 07 39.39	+16 23 43.0					801
/1992l	1993 01 26.07716	04 07 40.31	+16 23 50.6					801
	Periodic Comet Wolf							
/1992m	1993 01 25.11664	01 51 43.29	-01 07 34.1	20.7	T			691
/1992m	1993 01 25.12405	01 51 43.83	-01 07 32.2	20.4	T			691
/1992m	1993 01 25.13174	01 51 44.32	-01 07 31.0	20.6	T			691
	Periodic Comet Daniel							
/1992o	1993 01 24.52347	12 15 34.54	+32 54 54.8	20.6	N	F		691
/1992o	1993 01 24.53234	12 15 34.53	+32 55 00.3	17.2	T			691
/1992o	1993 01 24.54117	12 15 34.46	+32 55 06.0	17.3	T			691
	Periodic Comet Brewington							
/1992p	1993 01 21.26707	09 09 25.26	+34 11 35.9					801
/1992p	1993 01 21.28262	09 09 24.07	+34 11 36.2					801
/1992p	1993 01 24.38433	09 05 30.27	+34 10 32.6	20.4	N	G		691
/1992p	1993 01 24.42276	09 05 27.31	+34 10 31.0	17.4	T			691
/1992p	1993 01 24.46115	09 05 24.35	+34 10 29.3	17.5	T			691
/1992p	1993 01 31.38058	08 56 49.78	+34 01 41.8					658
/1992p	1993 01 31.38437	08 56 49.44	+34 01 39.3					658
/1992p	1993 01 31.38854	08 56 49.05	+34 01 42.5					658
	Periodic Comet Ciffreo							
/1992s	1993 01 24.02061	01 09 04.87	+06 58 21.4					786
/1992s	1993 01 24.02233	01 09 04.99	+06 58 22.4					786
/1992s	1993 01 24.13737	01 09 19.28	+07 00 50.2	19.3	N	H		691
/1992s	1993 01 24.14493	01 09 20.22	+07 00 59.3	16.6	T			691
	Periodic Comet Swift-Tuttle							
/1992t	1992 11 08.69097	17 27 12.67	+33 21 45.6					049
/1992t	1992 11 30.42795	18 59 18.31	+04 39 23.8					364
/1992t	1992 11 30.43299	18 59 19.39	+04 39 03.2					364
/1992t	1992 12 01.41823	19 02 16.24	+03 34 13.9					364
/1992t	1992 12 01.42188	19 02 16.83	+03 33 59.8					364
/1992t	1992 12 02.41962	19 05 11.74	+02 29 54.7					364
/1992t	1992 12 02.42188	19 05 11.99	+02 29 46.1					364
/1992t	1992 12 02.65890	19 05 53.01	+02 14 42.1					049
/1992t	1992 12 14.36608	19 35 19.69	-08 34 58.5	6	T			372
	Periodic Comet Vaisala 1							
/1992u	1993 01 02.64479	09 53 51.58	+10 19 05.6	17	T			376
/1992u	1993 01 02.65955	09 53 52.08	+10 19 08.8					376
/1992u	1993 01 19.28639	09 58 35.65	+12 05 07.7					801
/1992u	1993 01 19.30764	09 58 35.71	+12 05 19.0					801
/1992u	1993 01 22.59157	09 58 45.57	+12 35 49.4					411
/1992u	1993 01 22.59943	09 58 45.56	+12 35 53.1					411
/1992u	1993 01 22.60336	09 58 45.55	+12 35 55.4					411
/1992u	1993 01 24.49621	09 58 43.67	+12 54 54.0	18.1	N	I		691
/1992u	1993 01 24.50574	09 58 43.59	+12 54 59.7	14.9	T			691

/1992u	1993	01	24.51374	09 58 43.59	+12 55 04.5	14.9	T		691
/1992u	1993	01	26.29201	09 58 38.39	+13 13 47.5				801
/1992u	1993	01	26.30825	09 58 38.27	+13 13 58.2				801
/1992u	1993	01	28.72248	09 58 24.13	+13 40 41.8				411
/1992u	1993	01	28.73033	09 58 24.06	+13 40 47.4				411
/1992u	1993	01	28.73427	09 58 24.01	+13 40 50.2				411
/1992u	1993	01	29.67420	09 58 16.77	+13 51 38.1				411
/1992u	1993	01	29.68205	09 58 16.67	+13 51 43.8				411
/1992u	1993	01	30.59423	09 58 08.75	+14 02 24.8				411
/1992u	1993	01	30.60208	09 58 08.67	+14 02 30.2				411
/1992u	1993	01	30.60600	09 58 08.64	+14 02 32.7				411
/1992u	1993	02	11.60151	09 55 08.10	+16 37 38.4				411
/1992u	1993	02	11.60653	09 55 07.99	+16 37 42.5				411
/1992u	1993	02	11.60904	09 55 07.94	+16 37 44.5				411
/1992u	1993	02	12.53715	09 54 49.98	+16 50 31.7				411
/1992u	1993	02	12.54216	09 54 49.88	+16 50 35.9				411
/1992u	1993	02	12.54466	09 54 49.83	+16 50 38.3				411
/1992u	1993	02	13.52616	09 54 30.31	+17 04 13.4				411
/1992u	1993	02	13.53121	09 54 30.17	+17 04 18.0				411
/1992u	1993	02	13.53374	09 54 30.11	+17 04 20.5				411
/1992u	1993	02	13.62528	09 54 28.00	+17 05 36.8	14	T		900
/1992u	1993	02	13.63838	09 54 27.67	+17 05 46.8				900
/1992u	1993	02	13.95104	09 54 21.52	+17 10 05.5				107
			Periodic Comet Gehrels 3						
/1992v	1993	01	22.15600	04 42 30.03	+21 44 20.8	20.1	T	J	691
/1992v	1993	01	22.17882	04 42 29.78	+21 44 20.3	21.7	N		691
/1992v	1993	01	22.20874	04 42 29.46	+21 44 18.9				691
			Periodic Comet Schaumasse						
/1992x	1992	12	16.90347	03 54 25.25	+17 24 44.4				104
/1992x	1992	12	16.91389	03 54 24.49	+17 24 53.0				104
/1992x	1992	12	17.87778	03 53 05.59	+17 38 59.1				104
/1992x	1992	12	17.89097	03 53 04.66	+17 39 09.4				104
/1992x	1992	12	18.49792	03 52 15.87	+17 48 16.7				364
/1992x	1992	12	18.50833	03 52 14.96	+17 48 25.9				364
/1992x	1992	12	29.59444	03 39 10.93	+20 53 47.1	11	T		372
/1992x	1992	12	29.59792	03 39 10.78	+20 53 53.1				372
/1992x	1993	01	01.73010	03 36 26.89	+21 52 46.2				108
/1992x	1993	01	01.73723	03 36 26.47	+21 52 54.3				108
/1992x	1993	01	01.75302	03 36 25.53	+21 53 11.0				108
/1992x	1993	01	05.94778	03 33 35.72	+23 16 14.0				108
/1992x	1993	01	05.95099	03 33 35.75	+23 16 16.0				108
/1992x	1993	01	05.95428	03 33 35.67	+23 16 21.8				108
/1992x	1993	01	05.95760	03 33 35.63	+23 16 24.3				108
/1992x	1993	01	05.96017	03 33 35.27	+23 16 25.5				108
/1992x	1993	01	05.96365	03 33 35.07	+23 16 29.5				108
/1992x	1993	01	05.96687	03 33 35.01	+23 16 34.5				108
/1992x	1993	01	15.79792	03 31 29.25	+26 47 44.8				104
/1992x	1993	01	15.81042	03 31 29.21	+26 47 59.2				104
/1992x	1993	01	16.03797	03 31 31.26	+26 53 09.8				786
/1992x	1993	01	16.04021	03 31 31.26	+26 53 12.9				786
/1992x	1993	01	16.59444	03 31 36.16	+27 05 45.4	10.5	T		372
/1992x	1993	01	16.59722	03 31 36.33	+27 05 50.2				372
/1992x	1993	01	16.84167	03 31 39.88	+27 11 21.0				104
/1992x	1993	01	16.84931	03 31 39.90	+27 11 31.0				104
/1992x	1993	01	17.41455	03 31 48.31	+27 24 26.5				411
/1992x	1993	01	17.41819	03 31 48.34	+27 24 31.9				411
/1992x	1993	01	17.42001	03 31 48.36	+27 24 34.4				411

/1992x	1993 01 18.98179	03 32 18.42	+28 00 29.1				786
/1992x	1993 01 18.98588	03 32 18.50	+28 00 34.9				786
/1992x	1993 01 19.01035	03 32 18.93	+28 01 08.2				801
/1992x	1993 01 19.01892	03 32 19.09	+28 01 19.5				801
/1992x	1993 01 19.96332	03 32 43.24	+28 23 17.7				786
/1992x	1993 01 19.96468	03 32 43.27	+28 23 19.5				786
/1992x	1993 01 19.96604	03 32 43.30	+28 23 21.5				786
/1992x	1993 01 19.96740	03 32 43.32	+28 23 23.4				786
/1992x	1993 01 19.96875	03 32 43.36	+28 23 25.3				786
/1992x	1993 01 19.97010	03 32 43.39	+28 23 27.3				786
/1992x	1993 01 19.97147	03 32 43.42	+28 23 29.1				786
/1992x	1993 01 19.97284	03 32 43.45	+28 23 31.1				786
/1992x	1993 01 19.97419	03 32 43.48	+28 23 33.0				786
/1992x	1993 01 19.97554	03 32 43.51	+28 23 35.0				786
/1992x	1993 01 19.97690	03 32 43.54	+28 23 36.6				786
/1992x	1993 01 19.97828	03 32 43.56	+28 23 38.6				786
/1992x	1993 01 19.97963	03 32 43.59	+28 23 40.6				786
/1992x	1993 01 19.98778	03 32 43.77	+28 23 52.2				786
/1992x	1993 01 19.98845	03 32 43.81	+28 23 54.1				786
/1992x	1993 01 19.99053	03 32 43.84	+28 23 56.1				786
/1992x	1993 01 19.99189	03 32 43.87	+28 23 58.0				786
/1992x	1993 01 19.99324	03 32 43.89	+28 23 59.8				786
/1992x	1993 01 19.99459	03 32 43.92	+28 24 01.8				786
/1992x	1993 01 19.99596	03 32 43.95	+28 24 03.6				786
/1992x	1993 01 19.99733	03 32 43.98	+28 24 05.6				786
/1992x	1993 01 19.99868	03 32 44.01	+28 24 07.5				786
/1992x	1993 01 20.00005	03 32 44.04	+28 24 09.4				786
/1992x	1993 01 20.00141	03 32 44.07	+28 24 11.3				786
/1992x	1993 01 20.00278	03 32 44.10	+28 24 13.3				786
/1992x	1993 01 20.00413	03 32 44.13	+28 24 15.2				786
/1992x	1993 01 20.00549	03 32 44.16	+28 24 17.2				786
/1992x	1993 01 20.00684	03 32 44.19	+28 24 19.0				786
/1992x	1993 01 20.00819	03 32 44.22	+28 24 20.9				786
/1992x	1993 01 20.00956	03 32 44.25	+28 24 22.9				786
/1992x	1993 01 20.01091	03 32 44.28	+28 24 24.8				786
/1992x	1993 01 20.01362	03 32 44.34	+28 24 28.6				786
/1992x	1993 01 20.01499	03 32 44.37	+28 24 30.5				786
/1992x	1993 01 20.01635	03 32 44.40	+28 24 32.4				786
/1992x	1993 01 20.79896	03 33 07.56	+28 42 50.6				104
/1992x	1993 01 20.81007	03 33 07.77	+28 43 04.8				104
/1992x	1993 01 21.03078	03 33 14.89	+28 48 16.8				801
/1992x	1993 01 21.04166	03 33 15.20	+28 48 32.0				801
/1992x	1993 01 21.45451	03 33 29.31	+28 58 19.1				364
/1992x	1993 01 22.43437	03 34 05.53	+29 21 28.9				411
/1992x	1993 01 22.43802	03 34 05.67	+29 21 33.6				411
/1992x	1993 01 22.43984	03 34 05.72	+29 21 36.2				411
/1992x	1993 01 22.50723	03 34 07.94	+29 23 09.3	12.8	T		410
/1992x	1993 01 22.51443	03 34 08.22	+29 23 21.7				410
/1992x	1993 01 22.51836	03 34 08.46	+29 23 26.7				410
/1992x	1993 01 25.14399	03 36 10.64	+30 26 24.8	17.2	N	K	691
/1992x	1993 01 25.15281	03 36 11.05	+30 26 37.4				691
/1992x	1993 01 25.16183	03 36 11.47	+30 26 50.5				691
/1992x	1993 01 25.43576	03 36 26.73	+30 33 28.5				364
/1992x	1993 01 25.88576	03 36 51.23	+30 44 18.9				104
/1992x	1993 01 25.89688	03 36 51.68	+30 44 34.1				104
/1992x	1993 01 26.82222	03 37 46.96	+31 07 05.9				104
/1992x	1993 01 26.84028	03 37 48.02	+31 07 30.0				104
/1992x	1993 01 27.01181	03 37 58.96	+31 11 43.5				801
/1992x	1993 01 27.02110	03 37 59.48	+31 11 57.9				801

/1992x	1993	01	27.85069	03 38 52.98	+31 32 12.0		104
/1992x	1993	01	27.86111	03 38 53.47	+31 32 28.2		104
/1992x	1993	01	28.40690	03 39 31.51	+31 45 55.7		411
/1992x	1993	01	28.41056	03 39 31.75	+31 46 01.8		411
/1992x	1993	01	28.41238	03 39 31.86	+31 46 04.4		411
/1992x	1993	01	30.41024	03 42 02.11	+32 35 22.5		411
/1992x	1993	01	30.41388	03 42 02.38	+32 35 28.1		411
/1992x	1993	01	30.41570	03 42 02.51	+32 35 30.9		411
/1992x	1993	01	31.72007	03 43 52.60	+33 07 50.2		107
/1992x	1993	02	02.98071	03 47 24.06	+34 04 22.6		786
/1992x	1993	02	02.98780	03 47 24.73	+34 04 33.3		786
/1992x	1993	02	02.99212	03 47 25.15	+34 04 39.7		786
/1992x	1993	02	10.39414	04 02 18.68	+37 10 18.3		411
/1992x	1993	02	10.39778	04 02 19.18	+37 10 23.3		411
/1992x	1993	02	10.39960	04 02 19.41	+37 10 26.5		411
/1992x	1993	02	10.49763	04 02 32.77	+37 12 55.1	11.8 T	410
/1992x	1993	02	10.50480	04 02 33.86	+37 13 03.9		410
/1992x	1993	02	12.41840	04 07 18.40	+38 00 38.9	11.0 T	892
/1992x	1993	02	12.42558	04 07 19.43	+38 00 49.7		411
/1992x	1993	02	12.42779	04 07 19.73	+38 00 53.0		411
/1992x	1993	02	12.42889	04 07 19.89	+38 00 55.0		411
/1992x	1993	02	12.43125	04 07 20.36	+38 01 00.3		892
/1992x	1993	02	13.41840	04 09 55.76	+38 25 19.1		892
/1992x	1993	02	13.41863	04 09 55.75	+38 25 20.3		411
/1992x	1993	02	13.42083	04 09 56.02	+38 25 24.2		411
/1992x	1993	02	13.42197	04 09 56.18	+38 25 25.8		411
/1992x	1993	02	13.43125	04 09 57.86	+38 25 42.5		892
/1992x	1993	02	13.57446	04 10 20.06	+38 29 07.2		900
/1992x	1993	02	13.57957	04 10 20.86	+38 29 13.8		900
/1992x	1993	02	13.87446	04 11 09.13	+38 36 28.3		107
/1992x	1993	02	15.45347	04 15 34.64	+39 15 09.3		892
/1992x	1993	02	15.46181	04 15 36.02	+39 15 18.5		892

Comet Shoemaker (1992y)

/1992y	1992	12	16.85486	02 32 54.80	+41 20 58.4		104
/1992y	1992	12	16.88194	02 32 51.39	+41 21 13.8		104
/1992y	1992	12	27.85903	02 10 41.96	+43 07 57.9		104
/1992y	1992	12	27.87083	02 10 40.59	+43 08 03.7		104
/1992y	1993	01	05.71840	01 56 58.55	+44 18 28.4		589
/1992y	1993	01	05.78990	01 56 52.48	+44 18 57.6		589
/1992y	1993	01	05.88762	01 56 45.35	+44 19 46.1		108
/1992y	1993	01	05.89480	01 56 44.21	+44 19 47.3		108
/1992y	1993	01	05.90085	01 56 43.87	+44 19 49.0		108
/1992y	1993	01	05.91261	01 56 42.86	+44 19 53.5		108
/1992y	1993	01	05.91651	01 56 42.45	+44 19 56.5		108
/1992y	1993	01	05.91915	01 56 41.96	+44 19 58.6		108
/1992y	1993	01	05.92249	01 56 41.57	+44 20 00.4		108
/1992y	1993	01	05.93509	01 56 41.07	+44 20 08.3		108
/1992y	1993	01	18.97109	01 43 47.82	+45 56 38.1		801
/1992y	1993	01	18.99186	01 43 46.61	+45 56 46.4		801
/1992y	1993	01	21.43750	01 42 17.05	+46 15 23.8		364
/1992y	1993	01	25.42361	01 40 25.07	+46 46 35.9		364
/1992y	1993	01	25.95528	01 40 13.48	+46 50 52.5		801
/1992y	1993	01	25.96891	01 40 13.07	+46 50 59.8		801

Periodic Comet Kojima

/1992z	1993	01	23.17515	02 04 28.51	+11 41 21.9	22.8 N	691
/1992z	1993	01	23.18309	02 04 28.81	+11 41 23.2	23.3 N	691
/1992z	1993	01	23.19550	02 04 29.24	+11 41 23.7	23.7 N	691

Comet Mueller (1993a)

/1993a	1993	01	12.85702	09	32	51.96	+49	49	39.6	596
/1993a	1993	01	12.87812	09	32	49.86	+49	50	00.6	596
/1993a	1993	01	12.88496	09	32	49.21	+49	50	07.8	596
/1993a	1993	01	12.89887	09	32	47.85	+49	50	19.9	596
/1993a	1993	01	12.92278	09	32	45.71	+49	50	43.8	589
/1993a	1993	01	16.60364	09	26	49.62	+50	48	13.7	14.5 T 372
/1993a	1993	01	16.83368	09	26	26.00	+50	51	46.1	372
/1993a	1993	01	17.06111	09	26	02.99	+50	55	18.1	L 010
/1993a	1993	01	17.10289	09	25	59.30	+50	55	49.6	L 010
/1993a	1993	01	17.52880	09	25	15.12	+51	02	25.4	411
/1993a	1993	01	17.53524	09	25	14.45	+51	02	31.8	411
/1993a	1993	01	17.53847	09	25	14.13	+51	02	34.8	411
/1993a	1993	01	17.81944	09	24	44.97	+51	06	50.3	540
/1993a	1993	01	17.86458	09	24	40.25	+51	07	33.0	540
/1993a	1993	01	19.49167	09	21	47.61	+51	32	08.1	385
/1993a	1993	01	19.49583	09	21	47.16	+51	32	12.5	385
/1993a	1993	01	19.50000	09	21	46.81	+51	32	15.7	385
/1993a	1993	01	20.87847	09	19	15.66	+51	52	50.3	104
/1993a	1993	01	20.89167	09	19	14.33	+51	52	59.1	104
/1993a	1993	01	21.58854	09	17	56.07	+52	03	12.6	14.8 T 902
/1993a	1993	01	21.59549	09	17	55.16	+52	03	16.8	902
/1993a	1993	01	22.56279	09	16	05.14	+52	17	22.8	14.3 T 410
/1993a	1993	01	22.56748	09	16	04.56	+52	17	26.3	410
/1993a	1993	01	22.57447	09	16	03.79	+52	17	32.7	410
/1993a	1993	01	22.60972	09	15	59.64	+52	18	03.5	411
/1993a	1993	01	22.61478	09	15	59.07	+52	18	08.2	411
/1993a	1993	01	22.61730	09	15	58.75	+52	18	10.5	411
/1993a	1993	01	25.93120	09	09	25.43	+53	04	48.3	106
/1993a	1993	01	25.96711	09	09	20.85	+53	05	16.2	106
/1993a	1993	01	26.38587	09	08	29.23	+53	10	58.7	801
/1993a	1993	01	26.39353	09	08	28.28	+53	11	04.8	801
/1993a	1993	01	26.57626	09	08	06.00	+53	13	35.8	14.1 T 410
/1993a	1993	01	26.58177	09	08	05.23	+53	13	39.0	410
/1993a	1993	01	26.65935	09	07	55.63	+53	14	43.4	14 T 900
/1993a	1993	01	26.67023	09	07	54.27	+53	14	50.5	900
/1993a	1993	01	26.90417	09	07	25.48	+53	17	58.8	104
/1993a	1993	01	26.91736	09	07	23.61	+53	18	09.9	104
/1993a	1993	01	27.92292	09	05	17.86	+53	31	32.7	104
/1993a	1993	01	27.93611	09	05	16.08	+53	31	44.5	104
/1993a	1993	01	28.49648	09	04	05.13	+53	39	03.8	411
/1993a	1993	01	28.50152	09	04	04.52	+53	39	09.3	411
/1993a	1993	01	29.61736	09	01	41.07	+53	53	31.1	13.8 T 410
/1993a	1993	01	29.61944	09	01	40.65	+53	53	34.5	410
/1993a	1993	01	30.32617	09	00	08.80	+54	02	27.8	658
/1993a	1993	01	30.33230	09	00	08.06	+54	02	33.3	658
/1993a	1993	01	30.33844	09	00	07.26	+54	02	37.8	658
/1993a	1993	01	30.54876	08	59	39.83	+54	05	16.1	411
/1993a	1993	01	30.55381	08	59	39.20	+54	05	19.9	411
/1993a	1993	01	30.55633	08	59	38.83	+54	05	22.0	411
/1993a	1993	02	08.47595	08	39	10.09	+55	44	05.8	411
/1993a	1993	02	08.48101	08	39	09.33	+55	44	10.1	411
/1993a	1993	02	08.48353	08	39	09.00	+55	44	11.7	411
/1993a	1993	02	10.54589	08	34	12.06	+56	03	12.4	14.0 T 410
/1993a	1993	02	10.55233	08	34	11.04	+56	03	15.5	410
/1993a	1993	02	10.80278	08	33	34.69	+56	05	28.5	540

/1993a	1993	02	10.83542	08 33 30.03	+56 05 45.6				540
/1993a	1993	02	11.55437	08 31 45.71	+56 11 57.3				411
/1993a	1993	02	11.55939	08 31 44.86	+56 11 59.6				411
/1993a	1993	02	11.56190	08 31 44.62	+56 12 01.4				411
/1993a	1993	02	12.49671	08 29 28.50	+56 19 47.7				411
/1993a	1993	02	12.50173	08 29 27.82	+56 19 50.0				411
/1993a	1993	02	12.50424	08 29 27.44	+56 19 51.4				411
/1993a	1993	02	12.88576	08 28 31.87	+56 22 56.3				540
/1993a	1993	02	12.91771	08 28 27.59	+56 23 11.6			M	540
/1993a	1993	02	13.49682	08 27 02.51	+56 27 46.1				411
/1993a	1993	02	13.50188	08 27 01.73	+56 27 47.3				411
/1993a	1993	02	13.50440	08 27 01.41	+56 27 49.5				411
/1993a	1993	02	13.59202	08 26 48.45	+56 28 30.2	13.5	T		900
/1993a	1993	02	13.60522	08 26 46.57	+56 28 36.3				900
/1993a	1993	02	13.60615	08 26 46.58	+56 28 34.7	13.7	T		410
/1993a	1993	02	13.61784	08 26 44.70	+56 28 40.6				410
/1993a	1993	02	13.92759	08 25 59.42	+56 31 04.8				107
/1993a	1993	02	15.64020	08 21 48.54	+56 43 35.0	13.5	T		900
/1993a	1993	02	15.64824	08 21 47.41	+56 43 38.6				900
			Periodic Comet Bus						
/1993b	1993	01	01.19512	05 05 01.43	+19 27 56.9	21.8	N	N	691
/1993b	1993	01	01.20817	05 05 00.83	+19 27 56.1	21.0	N		691
/1993b	1993	01	01.22023	05 05 00.36	+19 27 56.4	21.5	N		691
/1993b	1993	01	01.23231	05 04 59.76	+19 27 55.7	21.6	N		691
/1993b	1993	01	21.13902	04 53 40.89	+19 21 00.7	22.1	N	O	691
/1993b	1993	01	21.15178	04 53 40.53	+19 21 00.4	21.8	N		691
/1993b	1993	01	21.16389	04 53 40.22	+19 21 00.6	21.7	N		691
/1993b	1993	01	21.17677	04 53 39.91	+19 21 00.3	21.8	N		691
			Periodic Comet Tempel 1						
/1993c	1993	01	21.19826	06 33 22.43	+31 00 14.4	20.7	N	P	691
/1993c	1993	01	21.20728	06 33 21.95	+31 00 15.0	21.2	N		691
/1993c	1993	01	21.21597	06 33 21.49	+31 00 15.6	21.2	N		691
/1993c	1993	01	21.22474	06 33 21.02	+31 00 16.3	21.0	N		691
/1993c	1993	01	22.26829	06 32 26.75	+31 01 11.8	21.2	N	P	691
/1993c	1993	01	22.27729	06 32 26.30	+31 01 12.2	21.4	N		691
/1993c	1993	01	22.28610	06 32 25.82	+31 01 12.6	21.3	N		691

Note 1: coma diameter 14", 5′.85 tail in p.a. 294 . 2: coma diameter 12", 0′.52 tail in p.a. 68 . 3: coma diameter 8", 0′.45 tail in p.a. 270 . 4: coma diameter 12", 0′.59 tail in p.a. 243 . 5: coma diameter 12", 0′.72 tail in p.a. 247 . 6: coma diameter 9". 7: very weak and uncertain image, very close to Leo. 8: coma diameter 11", narrow 6′.8 tail in p.a. 286 . 9: coma diameter 15", 0′.33 tail in p.a. 22 , faint 0′.79 trail in p.a. 291 . A: coma diameter 15", 0′.36 tail in p.a. 20 , faint 1′.52 trail in p.a. 284 . B: coma diameter 18", 3′.70 tail in p.a. 5 , with a broad fan bracketing it between p.a. 331 and p.a. 24 . C: coma diameter 20", 0′.52 tail in p.a. 200 . D: coma diameter 21", 1′.04 tail in p.a. 201 . E: coma diameter 29", 1′.22 tail in p.a. 76 , faint 1′.73 trail in p.a. 257 . F: asymmetric fanshaped coma 0′.5 0′.9 between p.a. 138 and p.a. 290 . G: coma diameter 27", 4′.41 tail in p.a. 291 . H: coma diameter 20", 0′.47 tail in p.a. 65 . I: coma diameter 27", 5′.03 tail in p.a. 283 . J: coma diameter 10". K: coma diameter 13′.7, 10′.3 ion tail in p.a. 80 .4. L: poor image. M: involved with star. N: stellar. O: slight hint of nonstellar nature. P: essentially stellar.

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.
010 Caussols						
E. W. Elst, Royal Observatory, B-1180 Brussels, Belgium						
C. Pollas, Observatoire de la Cote d'Azur, Avenue Copernic, F-06130 Grasse, France						
Observers D. Albanese, E. W. Elst, C. Pollas						
Measurer E. W. Elst						
0.9-m Schmidt telescope						
1978 NY7	1993 01	27.01944	09 30 43.77	+17 12 17.7	18.5	010
1978 NY7	1993 01	27.02986	09 30 43.37	+17 12 20.3		010
1978 NY7	1993 01	27.04039	09 30 42.94	+17 12 22.7		010
1978 NY7	1993 01	28.01528	09 30 00.68	+17 16 16.2		010
1978 NY7	1993 01	28.02569	09 30 00.15	+17 16 18.5		010
1978 NY7	1993 01	28.03611	09 29 59.71	+17 16 21.5		010
1981 QP3	1993 01	16.92106	05 55 46.83	+25 05 57.9	18.5	010
1981 QP3	1993 01	16.93160	05 55 46.33	+25 05 58.4		010
1981 QP3	1993 01	16.94219	05 55 45.85	+25 05 58.2		010
1981 QP3	1993 01	17.90833	05 55 05.37	+25 06 21.5		010

1981 QP3	1993 01 17.91910	05 55 04.89	+25 06 22.5		010
1981 QP3	1993 01 17.92957	05 55 04.48	+25 06 22.5		010
1981 SU2	1993 01 27.01944	09 35 24.03	+14 12 34.5	18.0	010
1981 SU2	1993 01 27.02986	09 35 23.46	+14 12 37.3		010
1981 SU2	1993 01 27.04039	09 35 22.77	+14 12 39.5		010
1981 SU2	1993 01 28.01528	09 34 22.39	+14 16 28.5		010
1981 SU2	1993 01 28.02569	09 34 21.69	+14 16 31.5		010
1981 SU2	1993 01 28.03611	09 34 21.05	+14 16 33.7		010
1984 QS	1993 01 27.01944	09 27 35.60	+17 37 44.6	18.7	010
1984 QS	1993 01 27.02986	09 27 35.20	+17 37 47.1		010
1984 QS	1993 01 27.04039	09 27 34.75	+17 37 49.4		010
1984 QS	1993 01 28.01528	09 26 51.67	+17 41 26.9		010
1984 QS	1993 01 28.02569	09 26 51.34	+17 41 29.6		010
1984 QS	1993 01 28.03611	09 26 50.86	+17 41 30.6		010
1985 RP2	1993 01 27.01944	09 32 34.52	+14 30 23.9	18.2	010
1985 RP2	1993 01 27.02986	09 32 33.98	+14 30 26.3		010
1985 RP2	1993 01 27.04039	09 32 33.49	+14 30 28.0		010
1985 RP2	1993 01 28.01528	09 31 48.31	+14 34 17.5		010
1985 RP2	1993 01 28.02569	09 31 47.81	+14 34 20.0		010
1985 RP2	1993 01 28.03611	09 31 47.33	+14 34 22.1		010
1987 EQ	1993 01 16.92106	06 10 07.49	+26 20 48.7	18.2	010
1987 EQ	1993 01 16.93160	06 10 06.81	+26 20 48.2		010
1987 EQ	1993 01 16.94219	06 10 06.17	+26 20 46.7		010
1987 EQ	1993 01 17.90833	06 09 11.66	+26 19 27.5		010
1987 EQ	1993 01 17.91910	06 09 11.03	+26 19 27.0		010
1987 EQ	1993 01 17.92957	06 09 10.43	+26 19 25.6		010
1987 UJ	1993 01 27.01944	09 23 50.26	+17 00 50.6	18.3	010
1987 UJ	1993 01 27.02986	09 23 49.72	+17 00 52.2		010
1987 UJ	1993 01 27.04039	09 23 49.03	+17 00 54.4		010
1988 PV1	1993 01 16.92106	06 01 07.44	+24 29 57.7	18.6	010
1988 PV1	1993 01 16.93160	06 01 06.87	+24 29 55.1		010
1988 PV1	1993 01 16.94219	06 01 06.36	+24 29 53.5		010
1988 PV1	1993 01 17.90833	06 00 22.09	+24 27 22.8		010
1988 PV1	1993 01 17.91910	06 00 21.59	+24 27 20.7		010
1988 PV1	1993 01 17.92957	06 00 21.07	+24 27 18.6		010
1991 PK3	1993 01 16.92106	06 01 10.69	+25 53 47.2	18.5	010
1991 PK3	1993 01 16.93160	06 01 10.18	+25 53 47.6		010
1991 PK3	1993 01 16.94219	06 01 09.61	+25 53 47.8		010
1991 PK3	1993 01 17.90833	06 00 25.04	+25 53 52.7		010
1991 PK3	1993 01 17.91910	06 00 24.49	+25 53 53.3		010
1991 PK3	1993 01 17.92957	06 00 24.09	+25 53 53.7		010
1991 PJ5	1993 01 28.01528	09 36 31.41	+13 13 41.4		010
1991 PJ5	1993 01 28.02569	09 36 30.78	+13 13 43.7		010
1991 PJ5	1993 01 28.03611	09 36 30.17	+13 13 46.2		010
1991 PC6	1993 01 27.01944	09 27 34.69	+16 51 31.1	18.4	010
1991 PC6	1993 01 27.02986	09 27 34.08	+16 51 36.2		010
1991 PC6	1993 01 27.04039	09 27 33.57	+16 51 40.6		010
1991 PC6	1993 01 28.01528	09 26 38.81	+16 59 54.1		010
1991 PC6	1993 01 28.02569	09 26 38.19	+16 59 59.3		010
1991 PC6	1993 01 28.03611	09 26 37.61	+17 00 03.2		010
1991 PC13	1993 01 16.92106	06 07 33.37	+28 27 43.5	18.6	010
1991 PC13	1993 01 16.93160	06 07 32.77	+28 27 41.3		010
1991 PC13	1993 01 16.94219	06 07 32.18	+28 27 41.0		010
1991 PC13	1993 01 17.90833	06 06 41.14	+28 26 06.4		010
1991 PC13	1993 01 17.91910	06 06 40.51	+28 26 05.8		010
1991 PC13	1993 01 17.92957	06 06 40.00	+28 26 04.7		010
1991 RQ21	1993 01 16.92106	06 09 45.04	+27 32 22.9	18.4	010
1991 RQ21	1993 01 16.93160	06 09 44.44	+27 32 22.4		010
1991 RQ21	1993 01 16.94219	06 09 43.89	+27 32 22.3		010

1991 RQ21	1993 01 17.90833	06 08 59.68	+27 32 38.0		010
1991 RQ21	1993 01 17.91910	06 08 59.15	+27 32 38.1		010
1991 RQ21	1993 01 17.92957	06 08 58.74	+27 32 37.9		010
1992 YC	1993 01 16.87292	04 12 02.05	+17 13 44.2	16.5	010
1992 YC	1993 01 16.88681	04 12 02.45	+17 13 34.1		010
1992 YC	1993 01 16.89207	04 12 02.71	+17 13 27.7		010
1992 YC	1993 01 18.83750	04 13 16.61	+16 44 20.6		010
1992 YC	1993 01 18.85139	04 13 17.05	+16 44 11.0		010
1992 YC	1993 01 18.85660	04 13 17.32	+16 44 05.6		010
1992 YC1	1993 01 16.92106	05 55 31.75	+24 20 25.0	18.5	010
1992 YC1	1993 01 16.93160	05 55 31.19	+24 20 25.8		010
1992 YC1	1993 01 16.94219	05 55 30.70	+24 20 25.6		010
1992 YC1	1993 01 17.90833	05 54 51.44	+24 20 51.7		010
1992 YC1	1993 01 17.91910	05 54 50.93	+24 20 52.9		010
1992 YC1	1993 01 17.92957	05 54 50.55	+24 20 52.7		010
1992 YE1	1993 01 16.92106	05 53 43.42	+26 20 25.3	18.4	010
1992 YE1	1993 01 16.93160	05 53 42.89	+26 20 26.1		010
1992 YE1	1993 01 16.94219	05 53 42.42	+26 20 26.9		010
1992 YM1	1993 01 16.92106	05 59 40.67	+25 54 07.9	18.5	010
1992 YM1	1993 01 16.93160	05 59 40.21	+25 54 10.9		010
1992 YM1	1993 01 16.94219	05 59 39.72	+25 54 14.9		010
1992 YM1	1993 01 17.90833	05 58 55.75	+25 59 27.9		010
1992 YM1	1993 01 17.91910	05 58 55.27	+25 59 33.1		010
1992 YM1	1993 01 17.92957	05 58 54.80	+25 59 36.0		010
1992 YP1	1993 01 16.92106	05 56 11.40	+26 56 41.9	18.5	010
1992 YP1	1993 01 16.93160	05 56 10.84	+26 56 42.6		010
1992 YP1	1993 01 16.94219	05 56 10.27	+26 56 43.0		010
1992 YP1	1993 01 17.90833	05 55 24.86	+26 57 56.9		010
1992 YP1	1993 01 17.91910	05 55 24.35	+26 57 58.6		010
1992 YP1	1993 01 17.92957	05 55 23.86	+26 57 58.7		010
1992 YU1	1993 01 16.92106	06 01 23.72	+24 23 16.9	18.4	010
1992 YU1	1993 01 16.93160	06 01 23.16	+24 23 15.5		010
1992 YU1	1993 01 16.94219	06 01 22.67	+24 23 14.3		010
1992 YU1	1993 01 17.90833	06 00 40.74	+24 21 20.6		010
1992 YU1	1993 01 17.91910	06 00 40.23	+24 21 19.3		010
1992 YU1	1993 01 17.92957	06 00 39.82	+24 21 18.9		010
1992 YW1	1993 01 16.92106	05 56 29.17	+25 47 35.7	18.5	010
1992 YW1	1993 01 16.93160	05 56 28.49	+25 47 33.9		010
1992 YW1	1993 01 16.94219	05 56 27.90	+25 47 32.5		010
1992 YW1	1993 01 17.90833	05 55 37.62	+25 45 16.3		010
1992 YW1	1993 01 17.91910	05 55 36.98	+25 45 14.6		010
1992 YW1	1993 01 17.92957	05 55 36.57	+25 45 13.8		010
1992 YY1	1993 01 16.92106	05 59 21.06	+25 05 52.7	18.7	010
1992 YY1	1993 01 16.93160	05 59 20.49	+25 05 54.1		010
1992 YY1	1993 01 16.94219	05 59 19.94	+25 05 55.9		010
1992 YY1	1993 01 17.90833	05 58 35.56	+25 07 51.5		010
1992 YY1	1993 01 17.91910	05 58 35.05	+25 07 53.6		010
1992 YY1	1993 01 17.92957	05 58 34.61	+25 07 54.5		010
1992 YA2	1993 01 16.92106	06 01 10.63	+24 47 59.6	18.6	010
1992 YA2	1993 01 16.93160	06 01 09.97	+24 47 58.2		010
1992 YA2	1993 01 16.94219	06 01 09.45	+24 47 56.3		010
1992 YA2	1993 01 17.90833	06 00 22.51	+24 45 50.9		010
1992 YA2	1993 01 17.91910	06 00 22.09	+24 45 49.7		010
1992 YA2	1993 01 17.92957	06 00 21.63	+24 45 47.4		010
1992 YC2	1993 01 16.92106	06 04 57.55	+23 42 16.8	18.4	010
1992 YC2	1993 01 16.93160	06 04 56.98	+23 42 16.1		010
1992 YC2	1993 01 16.94219	06 04 56.55	+23 42 15.3		010
1992 YC2	1993 01 17.90833	06 04 17.34	+23 41 28.5		010
1992 YC2	1993 01 17.91910	06 04 16.91	+23 41 27.6		010

1992	YC2		1993	01	17.92957	06	04	16.54	+23	41	27.4		010
1992	YE2		1993	01	16.92106	06	04	42.89	+25	05	09.0	18.3	010
1992	YE2		1993	01	16.93160	06	04	42.33	+25	05	07.2		010
1992	YE2		1993	01	16.94219	06	04	41.73	+25	05	05.0		010
1992	YE2		1993	01	17.90833	06	03	53.42	+25	01	33.8		010
1992	YE2		1993	01	17.91910	06	03	52.83	+25	01	31.1		010
1992	YE2		1993	01	17.92957	06	03	52.40	+25	01	29.3		010
1992	YG2		1993	01	16.92106	06	03	46.33	+25	34	35.5	18.5	010
1992	YG2		1993	01	16.93160	06	03	45.77	+25	34	34.0		010
1992	YG2		1993	01	16.94219	06	03	45.24	+25	34	32.6		010
1992	YG2		1993	01	17.90833	06	03	01.26	+25	32	01.9		010
1992	YG2		1993	01	17.91910	06	03	00.77	+25	32	00.5		010
1992	YG2		1993	01	17.92957	06	03	00.43	+25	31	59.0		010
1992	YH2		1993	01	16.92106	06	11	15.32	+26	54	05.9	18.4	010
1992	YH2		1993	01	16.93160	06	11	14.81	+26	54	06.9		010
1992	YH2		1993	01	16.94219	06	11	14.30	+26	54	08.5		010
1992	YH2		1993	01	17.90833	06	10	32.26	+26	56	30.9		010
1992	YH2		1993	01	17.91910	06	10	31.80	+26	56	32.9		010
1992	YH2		1993	01	17.92957	06	10	31.39	+26	56	35.1		010
1992	YJ2		1993	01	16.92106	06	06	55.50	+25	59	04.7	18.3	010
1992	YJ2		1993	01	16.93160	06	06	54.95	+25	59	06.4		010
1992	YJ2		1993	01	16.94219	06	06	54.32	+25	59	08.1		010
1992	YJ2		1993	01	17.90833	06	06	07.79	+26	02	07.1		010
1992	YJ2		1993	01	17.91910	06	06	07.26	+26	02	09.8		010
1992	YJ2		1993	01	17.92957	06	06	06.82	+26	02	11.3		010
1992	YL2		1993	01	16.92106	06	12	34.81	+25	40	31.2	18.0	010
1992	YL2		1993	01	16.93160	06	12	34.28	+25	40	33.7		010
1992	YL2		1993	01	16.94219	06	12	33.73	+25	40	35.5		010
1992	YL2		1993	01	17.90833	06	11	49.69	+25	44	00.6		010
1992	YL2		1993	01	17.91910	06	11	49.17	+25	44	02.4		010
1992	YL2		1993	01	17.92957	06	11	48.74	+25	44	04.7		010
1992	YM2		1993	01	16.92106	06	08	35.37	+26	50	27.2	18.5	010
1992	YM2		1993	01	16.93160	06	08	34.69	+26	50	29.1		010
1992	YM2		1993	01	16.94219	06	08	34.17	+26	50	30.3		010
1992	YM2		1993	01	17.90833	06	07	46.33	+26	53	07.9		010
1992	YM2		1993	01	17.91910	06	07	45.73	+26	53	10.6		010
1992	YM2		1993	01	17.92957	06	07	45.31	+26	53	11.4		010
1992	YN2		1993	01	16.92106	06	07	54.35	+25	18	00.5	18.3	010
1992	YN2		1993	01	16.93160	06	07	53.70	+25	18	00.7		010
1992	YN2		1993	01	16.94219	06	07	53.06	+25	18	01.4		010
1992	YN2		1993	01	17.90833	06	07	02.86	+25	19	02.0		010
1992	YN2		1993	01	17.91910	06	07	02.26	+25	19	03.1		010
1992	YN2		1993	01	17.92957	06	07	01.84	+25	19	03.8		010
1992	YP2		1993	01	16.92106	06	09	52.22	+28	11	39.2	18.6	010
1992	YP2		1993	01	16.93160	06	09	51.57	+28	11	41.6		010
1992	YP2		1993	01	16.94219	06	09	50.96	+28	11	44.4		010
1992	YP2		1993	01	17.90833	06	09	05.11	+28	15	31.5		010
1992	YP2		1993	01	17.91910	06	09	04.62	+28	15	34.0		010
1992	YP2		1993	01	17.92957	06	09	04.11	+28	15	36.9		010
1992	YR2		1993	01	16.92106	06	08	48.30	+27	48	42.4	18.8	010
1992	YR2		1993	01	16.93160	06	08	47.66	+27	48	44.2		010
1992	YR2		1993	01	16.94219	06	08	47.01	+27	48	44.5		010
1992	YR2		1993	01	17.90833	06	07	55.04	+27	49	42.8		010
1992	YR2		1993	01	17.91910	06	07	54.44	+27	49	43.2		010
1992	YR2		1993	01	17.92957	06	07	53.91	+27	49	44.9		010
1993	BQ	*	1993	01	16.92106	05	55	51.19	+26	49	47.6	18.7	010
1993	BQ		1993	01	16.93160	05	55	50.77	+26	49	47.3		010
1993	BQ		1993	01	16.94219	05	55	50.32	+26	49	47.5		010
1993	BQ		1993	01	17.90833	05	55	13.04	+26	49	37.7	18.8	010

1993	BQ		1993	01	17.91910	05	55	12.60	+26 49 37.3	010
1993	BQ		1993	01	17.92957	05	55	12.19	+26 49 37.8	010
1993	BT	*	1993	01	16.92106	05	57	59.09	+24 44 26.0 18.5	010
1993	BT		1993	01	16.93160	05	57	58.68	+24 44 19.5	010
1993	BT		1993	01	16.94219	05	57	58.21	+24 44 13.1	010
1993	BT		1993	01	17.90833	05	57	26.53	+24 35 23.6	010
1993	BT		1993	01	17.91910	05	57	26.17	+24 35 18.3	010
1993	BT		1993	01	17.92957	05	57	25.80	+24 35 13.8	010
1993	BU	*	1993	01	16.92106	05	58	27.22	+24 04 10.6 19.3	010
1993	BU		1993	01	16.93160	05	58	26.71	+24 04 09.7	010
1993	BU		1993	01	16.94219	05	58	26.35	+24 04 08.2	010
1993	BU		1993	01	17.90833	05	57	50.46	+24 02 37.0	010
1993	BU		1993	01	17.91910	05	57	50.04	+24 02 36.1	010
1993	BU		1993	01	17.92957	05	57	49.77	+24 02 34.5	010
1993	BX	*	1993	01	16.92106	05	59	57.74	+26 09 12.3 18.3	010
1993	BX		1993	01	16.93160	05	59	57.31	+26 09 10.7	010
1993	BX		1993	01	16.94219	05	59	56.81	+26 09 08.5	010
1993	BX		1993	01	17.90833	05	59	15.95	+26 06 23.5	010
1993	BX		1993	01	17.91910	05	59	15.48	+26 06 22.0	010
1993	BX		1993	01	17.92957	05	59	15.06	+26 06 20.3	010
1993	BC1	*	1993	01	16.92106	06	02	49.80	+27 18 27.4 18.1	010
1993	BC1		1993	01	16.93160	06	02	49.27	+27 18 25.7	010
1993	BC1		1993	01	16.94219	06	02	48.76	+27 18 23.6	010
1993	BC1		1993	01	17.90833	06	02	06.74	+27 15 26.6	010
1993	BC1		1993	01	17.91910	06	02	06.26	+27 15 24.9	010
1993	BC1		1993	01	17.92957	06	02	05.84	+27 15 23.1	010
1993	BD1	*	1993	01	16.92106	06	03	27.82	+27 45 49.1 18.2	010
1993	BD1		1993	01	16.93160	06	03	27.31	+27 45 46.4	010
1993	BD1		1993	01	16.94219	06	03	26.80	+27 45 43.4	010
1993	BD1		1993	01	17.90833	06	02	45.42	+27 41 15.9	010
1993	BD1		1993	01	17.91910	06	02	44.94	+27 41 13.3	010
1993	BD1		1993	01	17.92957	06	02	44.54	+27 41 10.0	010
1993	BE1	*	1993	01	16.92106	06	03	30.28	+24 28 22.3 19.0	010
1993	BE1		1993	01	16.93160	06	03	29.73	+24 28 25.4	010
1993	BE1		1993	01	16.94219	06	03	29.27	+24 28 26.5	010
1993	BE1		1993	01	17.90833	06	02	49.33	+24 30 52.9	010
1993	BE1		1993	01	17.91910	06	02	48.89	+24 30 54.9	010
1993	BE1		1993	01	17.92957	06	02	48.47	+24 30 55.9	010
1993	BJ1	*	1993	01	16.92106	06	05	37.83	+26 47 14.2 18.7	010
1993	BJ1		1993	01	16.93160	06	05	37.17	+26 47 15.0	010
1993	BJ1		1993	01	16.94219	06	05	36.52	+26 47 13.4	010
1993	BJ1		1993	01	17.90833	06	04	48.67	+26 46 27.9	010
1993	BJ1		1993	01	17.91910	06	04	48.08	+26 46 27.1	010
1993	BJ1		1993	01	17.92957	06	04	47.61	+26 46 26.9	010
1993	BN1	*	1993	01	16.92106	06	08	43.85	+25 53 38.9 18.6	010
1993	BN1		1993	01	16.93160	06	08	43.25	+25 53 37.7	010
1993	BN1		1993	01	16.94219	06	08	42.58	+25 53 35.6	010
1993	BN1		1993	01	17.90833	06	07	51.97	+25 51 00.9	010
1993	BN1		1993	01	17.91910	06	07	51.36	+25 50 57.9	010
1993	BN1		1993	01	17.92957	06	07	50.87	+25 50 56.7	010
1993	BQ1	*	1993	01	16.92106	06	11	07.79	+27 11 47.9 18.6	010
1993	BQ1		1993	01	16.93160	06	11	07.22	+27 11 49.4	010
1993	BQ1		1993	01	16.94219	06	11	06.64	+27 11 50.3	010
1993	BQ1		1993	01	17.90833	06	10	22.65	+27 12 55.6	010
1993	BQ1		1993	01	17.91910	06	10	22.14	+27 12 57.0	010
1993	BQ1		1993	01	17.92957	06	10	21.73	+27 12 58.3	010
1993	BS1	*	1993	01	16.92106	06	11	19.61	+23 49 57.1 18.6	010
1993	BS1		1993	01	16.93160	06	11	18.93	+23 49 58.7	010
1993	BS1		1993	01	16.94219	06	11	18.34	+23 49 59.2	010

1993	BS1		1993	01	17.90833	06	10	25.49	+23	51	40.5		010
1993	BS1		1993	01	17.91910	06	10	24.86	+23	51	41.9		010
1993	BS1		1993	01	17.92957	06	10	24.33	+23	51	42.7		010
1993	BT1	*	1993	01	16.92106	06	11	21.24	+27	26	14.1	18.8	010
1993	BT1		1993	01	16.93160	06	11	20.71	+27	26	14.5		010
1993	BT1		1993	01	16.94219	06	11	20.24	+27	26	13.9		010
1993	BT1		1993	01	17.90833	06	10	37.82	+27	25	36.0		010
1993	BT1		1993	01	17.91910	06	10	37.26	+27	25	36.0		010
1993	BT1		1993	01	17.92957	06	10	36.82	+27	25	35.5		010
1993	BU1	*	1993	01	16.92106	06	12	05.00	+24	55	35.3	19.2	010
1993	BU1		1993	01	16.93160	06	12	04.41	+24	55	35.1		010
1993	BU1		1993	01	16.94219	06	12	03.94	+24	55	35.5		010
1993	BU1		1993	01	17.90833	06	11	22.58	+24	55	18.9	19.0	010
1993	BU1		1993	01	17.91910	06	11	22.17	+24	55	19.4		010
1993	BU1		1993	01	17.92957	06	11	21.69	+24	55	19.7		010
1993	BV1	*	1993	01	16.92106	06	12	11.68	+27	54	04.1	18.8	010
1993	BV1		1993	01	16.93160	06	12	11.08	+27	54	04.5		010
1993	BV1		1993	01	16.94219	06	12	10.54	+27	54	06.2		010
1993	BV1		1993	01	17.90833	06	11	23.05	+27	55	35.5		010
1993	BV1		1993	01	17.91910	06	11	22.55	+27	55	37.0		010
1993	BV1		1993	01	17.92957	06	11	22.09	+27	55	37.8		010
1993	BX1	*	1993	01	16.92106	06	14	13.49	+24	44	37.5	18.6	010
1993	BX1		1993	01	16.93160	06	14	12.83	+24	44	38.3		010
1993	BX1		1993	01	16.94219	06	14	12.36	+24	44	39.6		010
1993	BX1		1993	01	17.90833	06	13	23.49	+24	47	02.8		010
1993	BX1		1993	01	17.91910	06	13	22.94	+24	47	05.2		010
1993	BX1		1993	01	17.92957	06	13	22.49	+24	47	06.5		010
1993	BY1	*	1993	01	16.92106	06	14	58.70	+24	03	34.7	18.5	010
1993	BY1		1993	01	16.93160	06	14	58.04	+24	03	35.4		010
1993	BY1		1993	01	16.94219	06	14	57.44	+24	03	36.4		010
1993	BY1		1993	01	17.90833	06	14	13.15	+24	05	13.3		010
1993	BY1		1993	01	17.91910	06	14	12.50	+24	05	14.9		010
1993	BY1		1993	01	17.92957	06	14	12.04	+24	05	16.5		010
1993	BZ1	*	1993	01	16.92106	06	15	00.87	+26	08	58.5	18.4	010
1993	BZ1		1993	01	16.93160	06	15	00.32	+26	08	58.1		010
1993	BZ1		1993	01	16.94219	06	14	59.79	+26	08	57.0		010
1993	BZ1		1993	01	17.90833	06	14	17.92	+26	07	39.2		010
1993	BZ1		1993	01	17.91910	06	14	17.43	+26	07	38.9		010
1993	BZ1		1993	01	17.92957	06	14	17.00	+26	07	38.2		010
1993	BA2	*	1993	01	16.92106	06	16	21.74	+26	06	11.9	18.5	010
1993	BA2		1993	01	16.93160	06	16	21.11	+26	06	14.1		010
1993	BA2		1993	01	16.94219	06	16	20.60	+26	06	16.2		010
1993	BA2		1993	01	17.90833	06	15	33.30	+26	10	09.4		010
1993	BA2		1993	01	17.91910	06	15	32.70	+26	10	11.5		010
1993	BA2		1993	01	17.92957	06	15	32.29	+26	10	13.5		010
1993	BB2	*	1993	01	16.92106	06	16	36.04	+25	44	32.2	18.5	010
1993	BB2		1993	01	16.93160	06	16	35.51	+25	44	33.7		010
1993	BB2		1993	01	16.94219	06	16	34.93	+25	44	36.0		010
1993	BB2		1993	01	17.90833	06	15	49.38	+25	48	08.7		010
1993	BB2		1993	01	17.91910	06	15	48.79	+25	48	11.4		010
1993	BB2		1993	01	17.92957	06	15	48.30	+25	48	14.4		010
1993	BW2		1993	02	02.98084	06	44	00.54	+39	58	44.4		010
1993	BW2		1993	02	02.98582	06	44	01.09	+39	59	03.3		010
1993	BW2		1993	02	02.98848	06	44	01.44	+39	59	14.2		010
1993	BZ3	*	1993	01	27.01944	09	21	03.28	+15	10	56.8	18.4	010
1993	BZ3		1993	01	27.02986	09	21	02.68	+15	10	58.9		010
1993	BZ3		1993	01	27.04039	09	21	02.17	+15	11	00.6		010
1993	BZ3		1993	01	28.01528	09	20	11.90	+15	14	30.5		010
1993	BZ3		1993	01	28.02569	09	20	11.32	+15	14	33.2		010

1993	BZ3		1993	01	28.03611	09 20 10.75	+15 14 33.1			010
1993	BA4	*	1993	01	27.01944	09 21 04.97	+14 41 04.5		18.5	010
1993	BA4		1993	01	27.02986	09 21 04.48	+14 41 11.1			010
1993	BA4		1993	01	27.04039	09 21 03.90	+14 41 18.6			010
1993	BA4		1993	01	28.01528	09 20 20.54	+14 51 16.9			010
1993	BA4		1993	01	28.02569	09 20 20.04	+14 51 24.7			010
1993	BA4		1993	01	28.03611	09 20 19.58	+14 51 29.4			010
1993	BB4	*	1993	01	27.01944	09 22 29.31	+14 38 25.7		18.5	010
1993	BB4		1993	01	27.02986	09 22 28.74	+14 38 25.9			010
1993	BB4		1993	01	27.04039	09 22 28.24	+14 38 26.1			010
1993	BB4		1993	01	28.01528	09 21 34.99	+14 38 27.5			010
1993	BB4		1993	01	28.02569	09 21 34.39	+14 38 27.8			010
1993	BB4		1993	01	28.03611	09 21 33.74	+14 38 25.6			010
1993	BC4	*	1993	01	27.01944	09 22 38.77	+16 26 31.1		18.5	010
1993	BC4		1993	01	27.02986	09 22 38.07	+16 26 33.7			010
1993	BC4		1993	01	27.04039	09 22 37.40	+16 26 37.1			010
1993	BC4		1993	01	28.01528	09 21 35.35	+16 30 42.3			010
1993	BC4		1993	01	28.02569	09 21 34.64	+16 30 44.9			010
1993	BC4		1993	01	28.03611	09 21 33.97	+16 30 46.1			010
1993	BD4	*	1993	01	27.01944	09 22 42.92	+14 36 02.5		18.0	010
1993	BD4		1993	01	27.02986	09 22 42.61	+14 36 04.2			010
1993	BD4		1993	01	27.04039	09 22 42.38	+14 36 05.7			010
1993	BD4		1993	01	28.01528	09 22 14.70	+14 39 25.2			010
1993	BD4		1993	01	28.02569	09 22 14.40	+14 39 27.4			010
1993	BD4		1993	01	28.03611	09 22 14.13	+14 39 29.4			010
1993	BE4	*	1993	01	27.01944	09 23 41.53	+16 19 06.4		18.7	010
1993	BE4		1993	01	27.02986	09 23 40.90	+16 19 09.2			010
1993	BE4		1993	01	27.04039	09 23 40.35	+16 19 12.2			010
1993	BE4		1993	01	28.01528	09 22 47.62	+16 24 26.4			010
1993	BE4		1993	01	28.02569	09 22 47.09	+16 24 28.8			010
1993	BE4		1993	01	28.03611	09 22 46.55	+16 24 32.0			010
1993	BF4	*	1993	01	27.01944	09 23 51.62	+15 13 09.3		18.5	010
1993	BF4		1993	01	27.02986	09 23 51.10	+15 13 14.8			010
1993	BF4		1993	01	27.04039	09 23 50.56	+15 13 20.1			010
1993	BF4		1993	01	28.01528	09 22 59.86	+15 21 37.0			010
1993	BF4		1993	01	28.02569	09 22 59.30	+15 21 41.1			010
1993	BF4		1993	01	28.03611	09 22 58.81	+15 21 45.2			010
1993	BG4	*	1993	01	27.01944	09 25 00.97	+16 13 40.3		18.5	010
1993	BG4		1993	01	27.02986	09 25 00.33	+16 13 43.6			010
1993	BG4		1993	01	27.04039	09 24 59.68	+16 13 46.7			010
1993	BG4		1993	01	28.01528	09 24 03.23	+16 18 55.6			010
1993	BG4		1993	01	28.02569	09 24 02.57	+16 18 59.6			010
1993	BG4		1993	01	28.03611	09 24 01.85	+16 19 01.7			010
1993	BH4	*	1993	01	27.01944	09 25 40.45	+14 50 56.5		18.6	010
1993	BH4		1993	01	27.02986	09 25 39.85	+14 50 58.9			010
1993	BH4		1993	01	27.04039	09 25 39.25	+14 51 01.7			010
1993	BH4		1993	01	28.01528	09 24 48.16	+14 53 58.7			010
1993	BH4		1993	01	28.02569	09 24 47.64	+14 54 01.4			010
1993	BH4		1993	01	28.03611	09 24 47.06	+14 54 01.4			010
1993	BJ4	*	1993	01	27.01944	09 25 41.39	+14 39 39.6		18.7	010
1993	BJ4		1993	01	27.02986	09 25 40.76	+14 39 42.7			010
1993	BJ4		1993	01	27.04039	09 25 40.38	+14 39 46.9			010
1993	BJ4		1993	01	28.01528	09 24 49.98	+14 45 53.3			010
1993	BJ4		1993	01	28.02569	09 24 49.43	+14 45 58.1			010
1993	BJ4		1993	01	28.03611	09 24 48.89	+14 45 59.5			010
1993	BK4	*	1993	01	27.01944	09 25 49.82	+13 51 03.3		18.3	010
1993	BK4		1993	01	27.02986	09 25 49.21	+13 51 05.2			010
1993	BK4		1993	01	27.04039	09 25 48.51	+13 51 07.5			010
1993	BK4		1993	01	28.01528	09 24 47.96	+13 54 38.0			010

1993	BK4		1993	01	28.02569	09	24	47.26	+13 54 40.0	010
1993	BK4		1993	01	28.03611	09	24	46.62	+13 54 42.1	010
1993	BL4	*	1993	01	27.01944	09	25	50.12	+15 14 53.9	18.7 010
1993	BL4		1993	01	27.02986	09	25	49.65	+15 14 56.5	010
1993	BL4		1993	01	27.04039	09	25	49.20	+15 14 58.2	010
1993	BL4		1993	01	28.01528	09	25	03.72	+15 18 40.5	010
1993	BL4		1993	01	28.02569	09	25	03.16	+15 18 42.0	010
1993	BL4		1993	01	28.03611	09	25	02.70	+15 18 44.0	010
1993	BM4	*	1993	01	27.01944	09	25	50.67	+14 07 24.9	18.7 010
1993	BM4		1993	01	27.02986	09	25	50.18	+14 07 30.3	010
1993	BM4		1993	01	27.04039	09	25	49.66	+14 07 35.9	010
1993	BM4		1993	01	28.01528	09	25	06.92	+14 15 31.4	010
1993	BM4		1993	01	28.02569	09	25	06.45	+14 15 37.5	010
1993	BM4		1993	01	28.03611	09	25	05.93	+14 15 42.9	010
1993	BN4	*	1993	01	27.01944	09	26	20.37	+16 35 13.5	18.5 010
1993	BN4		1993	01	27.02986	09	26	19.71	+16 35 16.8	010
1993	BN4		1993	01	27.04039	09	26	19.02	+16 35 21.4	010
1993	BN4		1993	01	28.01528	09	25	19.66	+16 41 31.3	010
1993	BN4		1993	01	28.02569	09	25	18.91	+16 41 34.3	010
1993	BN4		1993	01	28.03611	09	25	18.30	+16 41 38.2	010
1993	BO4	*	1993	01	27.01944	09	26	43.66	+14 59 47.0	18.6 010
1993	BO4		1993	01	27.02986	09	26	43.09	+14 59 48.3	010
1993	BO4		1993	01	27.04039	09	26	42.43	+14 59 49.2	010
1993	BO4		1993	01	28.01528	09	25	43.68	+15 02 35.0	010
1993	BO4		1993	01	28.02569	09	25	43.02	+15 02 35.4	010
1993	BO4		1993	01	28.03611	09	25	42.42	+15 02 37.7	010
1993	BP4	*	1993	01	27.01944	09	27	06.85	+15 53 27.4	17.9 010
1993	BP4		1993	01	27.02986	09	27	06.28	+15 53 34.6	010
1993	BP4		1993	01	27.04039	09	27	05.73	+15 53 40.3	010
1993	BP4		1993	01	28.01528	09	26	16.10	+16 03 02.0	010
1993	BP4		1993	01	28.02569	09	26	15.50	+16 03 07.4	010
1993	BP4		1993	01	28.03611	09	26	14.92	+16 03 13.5	010
1993	BQ4	*	1993	01	27.01944	09	27	13.26	+15 47 14.2	18.4 010
1993	BQ4		1993	01	27.02986	09	27	12.62	+15 47 18.3	010
1993	BQ4		1993	01	27.04039	09	27	12.01	+15 47 21.9	010
1993	BQ4		1993	01	28.01528	09	26	16.77	+15 53 06.4	010
1993	BQ4		1993	01	28.02569	09	26	16.10	+15 53 10.9	010
1993	BQ4		1993	01	28.03611	09	26	15.45	+15 53 14.5	010
1993	BR4	*	1993	01	27.01944	09	27	27.53	+15 35 58.8	18.5 010
1993	BR4		1993	01	27.02986	09	27	26.97	+15 35 59.9	010
1993	BR4		1993	01	27.04039	09	27	26.49	+15 36 03.1	010
1993	BR4		1993	01	28.01528	09	26	37.13	+15 39 46.2	010
1993	BR4		1993	01	28.02569	09	26	36.61	+15 39 48.2	010
1993	BR4		1993	01	28.03611	09	26	36.01	+15 39 51.7	010
1993	BS4	*	1993	01	27.01944	09	27	51.95	+16 12 28.3	18.6 010
1993	BS4		1993	01	27.02986	09	27	51.50	+16 12 30.3	010
1993	BS4		1993	01	27.04039	09	27	51.04	+16 12 32.4	010
1993	BS4		1993	01	28.01528	09	27	07.68	+16 16 00.7	010
1993	BS4		1993	01	28.02569	09	27	07.18	+16 16 03.1	010
1993	BS4		1993	01	28.03611	09	27	06.73	+16 16 04.2	010
1993	BT4	*	1993	01	27.01944	09	27	59.11	+17 37 16.8	18.5 010
1993	BT4		1993	01	27.02986	09	27	58.57	+17 37 18.8	010
1993	BT4		1993	01	27.04039	09	27	57.99	+17 37 22.4	010
1993	BT4		1993	01	28.01528	09	27	12.67	+17 41 49.8	010
1993	BT4		1993	01	28.02569	09	27	12.17	+17 41 52.9	010
1993	BT4		1993	01	28.03611	09	27	11.54	+17 41 55.6	010
1993	BU4	*	1993	01	27.01944	09	28	04.85	+16 28 55.9	18.7 010
1993	BU4		1993	01	27.02986	09	28	04.26	+16 28 59.8	010
1993	BU4		1993	01	27.04039	09	28	03.60	+16 29 01.7	010

1993 BU4		1993 01 28.01528	09 27 04.34	+16 34 24.5				010
1993 BU4		1993 01 28.02569	09 27 03.63	+16 34 27.8				010
1993 BU4		1993 01 28.03611	09 27 03.03	+16 34 29.7				010
1993 BV4	*	1993 01 27.01944	09 28 24.61	+15 08 36.6		18.5		010
1993 BV4		1993 01 27.02986	09 28 23.99	+15 08 42.2				010
1993 BV4		1993 01 27.04039	09 28 23.52	+15 08 48.1				010
1993 BV4		1993 01 28.01528	09 27 35.44	+15 17 45.5				010
1993 BV4		1993 01 28.02569	09 27 34.89	+15 17 50.1				010
1993 BV4		1993 01 28.03611	09 27 34.24	+15 17 55.4				010
1993 BW4	*	1993 01 27.01944	09 28 43.54	+15 01 37.1		18.6		010
1993 BW4		1993 01 27.02986	09 28 43.01	+15 01 37.9				010
1993 BW4		1993 01 27.04039	09 28 42.47	+15 01 38.8				010
1993 BW4		1993 01 28.01528	09 27 53.19	+15 03 13.2				010
1993 BW4		1993 01 28.02569	09 27 52.64	+15 03 15.5				010
1993 BW4		1993 01 28.03611	09 27 52.05	+15 03 17.5				010
1993 BX4	*	1993 01 27.01944	09 29 16.54	+14 35 57.5		18.7		010
1993 BX4		1993 01 27.02986	09 29 16.04	+14 36 00.1				010
1993 BX4		1993 01 27.04039	09 29 15.57	+14 36 01.7				010
1993 BX4		1993 01 28.01528	09 28 31.07	+14 39 35.9				010
1993 BX4		1993 01 28.02569	09 28 30.50	+14 39 40.1				010
1993 BX4		1993 01 28.03611	09 28 30.02	+14 39 41.4				010
1993 BY4	*	1993 01 27.01944	09 29 23.63	+14 55 40.3		18.7		010
1993 BY4		1993 01 27.02986	09 29 23.00	+14 55 42.6				010
1993 BY4		1993 01 27.04039	09 29 22.36	+14 55 44.8				010
1993 BY4		1993 01 28.01528	09 28 22.13	+14 59 23.4				010
1993 BY4		1993 01 28.02569	09 28 21.46	+14 59 25.1				010
1993 BY4		1993 01 28.03611	09 28 20.73	+14 59 27.0				010
1993 BZ4	*	1993 01 27.01944	09 29 27.94	+16 06 58.0		18.6		010
1993 BZ4		1993 01 27.02986	09 29 27.34	+16 07 02.4				010
1993 BZ4		1993 01 27.04039	09 29 26.74	+16 07 06.8				010
1993 BZ4		1993 01 28.01528	09 28 37.25	+16 13 35.8				010
1993 BZ4		1993 01 28.02569	09 28 36.55	+16 13 39.6				010
1993 BZ4		1993 01 28.03611	09 28 35.99	+16 13 43.0				010
1993 BA5	*	1993 01 27.01944	09 29 36.00	+16 47 48.1		18.2		010
1993 BA5		1993 01 27.02986	09 29 35.38	+16 47 54.6				010
1993 BA5		1993 01 27.04039	09 29 34.78	+16 48 00.5				010
1993 BA5		1993 01 28.01528	09 28 41.87	+16 57 19.6				010
1993 BA5		1993 01 28.02569	09 28 41.33	+16 57 25.3				010
1993 BA5		1993 01 28.03611	09 28 40.69	+16 57 30.2				010
1993 BB5	*	1993 01 27.01944	09 29 50.66	+13 45 24.8		18.7		010
1993 BB5		1993 01 27.02986	09 29 50.22	+13 45 25.8				010
1993 BB5		1993 01 27.04039	09 29 49.78	+13 45 27.7				010
1993 BB5		1993 01 28.01528	09 29 07.02	+13 47 37.0				010
1993 BB5		1993 01 28.02569	09 29 06.53	+13 47 37.9				010
1993 BB5		1993 01 28.03611	09 29 06.12	+13 47 39.2				010
1993 BC5	*	1993 01 27.01944	09 30 04.35	+14 31 51.5		18.2		010
1993 BC5		1993 01 27.02986	09 30 03.80	+14 31 54.6				010
1993 BC5		1993 01 27.04039	09 30 03.34	+14 31 55.8				010
1993 BC5		1993 01 28.01528	09 29 18.45	+14 35 43.2				010
1993 BC5		1993 01 28.02569	09 29 17.87	+14 35 46.3				010
1993 BC5		1993 01 28.03611	09 29 17.31	+14 35 48.2				010
1993 BD5	*	1993 01 27.01944	09 30 17.58	+15 41 07.4		19.5		010
1993 BD5		1993 01 27.02986	09 30 17.25	+15 41 12.6				010
1993 BD5		1993 01 27.04039	09 30 16.85	+15 41 17.3				010
1993 BD5		1993 01 28.01528	09 29 33.62	+15 48 51.0				010
1993 BD5		1993 01 28.02569	09 29 33.14	+15 48 55.2				010
1993 BD5		1993 01 28.03611	09 29 32.63	+15 48 59.3				010
1993 BE5	*	1993 01 27.01944	09 30 33.35	+14 31 29.5		18.3		010
1993 BE5		1993 01 27.02986	09 30 32.95	+14 31 31.4				010

1993	BE5		1993	01	27.04039	09	30	32.58	+14 31 32.6	010
1993	BE5		1993	01	28.01528	09	29	52.62	+14 34 19.6	010
1993	BE5		1993	01	28.02569	09	29	52.18	+14 34 21.1	010
1993	BE5		1993	01	28.03611	09	29	51.73	+14 34 22.4	010
1993	BF5	*	1993	01	27.01944	09	30	46.96	+17 30 59.8	18.5 010
1993	BF5		1993	01	27.02986	09	30	46.38	+17 31 04.2	010
1993	BF5		1993	01	27.04039	09	30	45.78	+17 31 08.1	010
1993	BF5		1993	01	28.01528	09	29	53.06	+17 38 20.2	010
1993	BF5		1993	01	28.02569	09	29	52.39	+17 38 23.9	010
1993	BF5		1993	01	28.03611	09	29	51.83	+17 38 27.7	010
1993	BG5	*	1993	01	27.01944	09	30	51.97	+15 12 51.3	18.5 010
1993	BG5		1993	01	27.02986	09	30	51.21	+15 12 53.0	010
1993	BG5		1993	01	27.04039	09	30	50.56	+15 12 53.5	010
1993	BG5		1993	01	28.01528	09	29	49.14	+15 15 12.8	010
1993	BG5		1993	01	28.02569	09	29	48.42	+15 15 14.3	010
1993	BG5		1993	01	28.03611	09	29	47.71	+15 15 14.7	010
1993	BH5	*	1993	01	27.01944	09	30	57.49	+15 06 08.7	18.7 010
1993	BH5		1993	01	27.02986	09	30	56.83	+15 06 10.7	010
1993	BH5		1993	01	27.04039	09	30	56.18	+15 06 14.4	010
1993	BH5		1993	01	28.01528	09	30	05.12	+15 10 44.9	010
1993	BH5		1993	01	28.02569	09	30	04.59	+15 10 47.5	010
1993	BH5		1993	01	28.03611	09	30	04.03	+15 10 49.5	010
1993	BJ5	*	1993	01	27.01944	09	31	09.81	+14 55 41.8	18.5 010
1993	BJ5		1993	01	27.02986	09	31	09.40	+14 55 43.4	010
1993	BJ5		1993	01	27.04039	09	31	08.99	+14 55 45.2	010
1993	BJ5		1993	01	28.01528	09	30	30.47	+14 57 32.1	010
1993	BJ5		1993	01	28.02569	09	30	30.07	+14 57 32.8	010
1993	BJ5		1993	01	28.03611	09	30	29.64	+14 57 32.5	010
1993	BK5	*	1993	01	27.01944	09	31	46.26	+17 29 45.4	18.7 010
1993	BK5		1993	01	27.02986	09	31	45.88	+17 29 49.9	010
1993	BK5		1993	01	27.04039	09	31	45.47	+17 29 55.1	010
1993	BK5		1993	01	28.01528	09	31	00.53	+17 39 49.2	010
1993	BK5		1993	01	28.02569	09	31	00.11	+17 39 55.7	010
1993	BK5		1993	01	28.03611	09	30	59.63	+17 40 02.0	010
1993	BL5	*	1993	01	27.01944	09	31	55.06	+15 49 38.9	18.7 010
1993	BL5		1993	01	27.02986	09	31	54.53	+15 49 41.9	010
1993	BL5		1993	01	27.04039	09	31	53.97	+15 49 44.1	010
1993	BL5		1993	01	28.01528	09	31	08.85	+15 53 09.1	010
1993	BL5		1993	01	28.02569	09	31	08.42	+15 53 11.4	010
1993	BL5		1993	01	28.03611	09	31	07.98	+15 53 13.4	010
1993	BM5	*	1993	01	27.01944	09	32	05.24	+16 26 51.9	18.5 010
1993	BM5		1993	01	27.02986	09	32	04.66	+16 26 55.2	010
1993	BM5		1993	01	27.04039	09	32	04.12	+16 26 58.0	010
1993	BM5		1993	01	28.01528	09	31	16.00	+16 31 25.1	010
1993	BM5		1993	01	28.02569	09	31	15.45	+16 31 28.0	010
1993	BM5		1993	01	28.03611	09	31	14.92	+16 31 31.3	010
1993	BN5	*	1993	01	27.01944	09	32	28.52	+16 08 05.8	18.0 010
1993	BN5		1993	01	27.02986	09	32	27.95	+16 08 12.0	010
1993	BN5		1993	01	27.04039	09	32	27.40	+16 08 18.2	010
1993	BN5		1993	01	28.01528	09	31	39.87	+16 18 12.2	010
1993	BN5		1993	01	28.02569	09	31	39.34	+16 18 17.3	010
1993	BN5		1993	01	28.03611	09	31	38.74	+16 18 24.0	010
1993	BO5	*	1993	01	27.01944	09	32	53.13	+16 40 02.3	19.5 010
1993	BO5		1993	01	27.02986	09	32	52.58	+16 40 06.2	010
1993	BO5		1993	01	27.04039	09	32	52.13	+16 40 08.6	010
1993	BO5		1993	01	28.01528	09	32	00.36	+16 45 12.1	010
1993	BO5		1993	01	28.02569	09	31	59.82	+16 45 15.4	010
1993	BO5		1993	01	28.03611	09	31	59.25	+16 45 15.8	010
1993	BP5	*	1993	01	27.01944	09	33	16.04	+14 12 50.2	18.6 010

1993	BP5		1993	01	27.02986	09	33	15.60	+14 12 54.6	010
1993	BP5		1993	01	27.04039	09	33	15.05	+14 12 55.7	010
1993	BP5		1993	01	28.01528	09	32	30.71	+14 16 38.5	010
1993	BP5		1993	01	28.02569	09	32	30.27	+14 16 41.8	010
1993	BP5		1993	01	28.03611	09	32	29.74	+14 16 43.9	010
1993	BQ5	*	1993	01	27.01944	09	33	29.80	+16 16 28.8	18.6 010
1993	BQ5		1993	01	27.02986	09	33	29.25	+16 16 32.1	010
1993	BQ5		1993	01	27.04039	09	33	28.68	+16 16 35.8	010
1993	BQ5		1993	01	28.01528	09	32	38.02	+16 22 19.2	010
1993	BQ5		1993	01	28.02569	09	32	37.45	+16 22 22.9	010
1993	BQ5		1993	01	28.03611	09	32	36.74	+16 22 27.2	010
1993	BR5	*	1993	01	27.01944	09	33	58.96	+15 14 02.1	18.2 010
1993	BR5		1993	01	27.02986	09	33	58.29	+15 14 05.8	010
1993	BR5		1993	01	27.04039	09	33	57.68	+15 14 07.6	010
1993	BR5		1993	01	28.01528	09	32	59.03	+15 17 54.0	010
1993	BR5		1993	01	28.02569	09	32	58.39	+15 17 55.8	010
1993	BR5		1993	01	28.03611	09	32	57.70	+15 17 59.3	010
1993	BS5	*	1993	01	27.01944	09	35	02.55	+17 02 38.3	18.7 010
1993	BS5		1993	01	27.02986	09	35	01.94	+17 02 42.6	010
1993	BS5		1993	01	27.04039	09	35	01.33	+17 02 46.7	010
1993	BS5		1993	01	28.01528	09	34	05.80	+17 09 41.9	010
1993	BS5		1993	01	28.02569	09	34	05.24	+17 09 46.8	010
1993	BS5		1993	01	28.03611	09	34	04.60	+17 09 50.1	010
1993	BT5	*	1993	01	27.01944	09	35	28.03	+15 19 42.2	18.6 010
1993	BT5		1993	01	27.02986	09	35	27.56	+15 19 44.0	010
1993	BT5		1993	01	27.04039	09	35	27.26	+15 19 45.7	010
1993	BT5		1993	01	28.01528	09	34	42.94	+15 23 18.2	010
1993	BT5		1993	01	28.02569	09	34	42.50	+15 23 20.9	010
1993	BT5		1993	01	28.03611	09	34	42.05	+15 23 22.7	010
1993	BU5	*	1993	01	27.01944	09	35	30.67	+15 39 48.9	18.4 010
1993	BU5		1993	01	27.02986	09	35	30.08	+15 39 49.7	010
1993	BU5		1993	01	27.04039	09	35	29.57	+15 39 49.7	010
1993	BU5		1993	01	28.01528	09	34	39.49	+15 40 11.9	010
1993	BU5		1993	01	28.02569	09	34	38.95	+15 40 11.2	010
1993	BU5		1993	01	28.03611	09	34	38.48	+15 40 12.6	010
1993	BV5	*	1993	01	27.01944	09	35	34.35	+16 45 02.8	18.7 010
1993	BV5		1993	01	27.02986	09	35	33.68	+16 45 04.8	010
1993	BV5		1993	01	27.04039	09	35	33.07	+16 45 05.2	010
1993	BV5		1993	01	28.01528	09	34	35.18	+16 47 24.9	010
1993	BV5		1993	01	28.02569	09	34	34.56	+16 47 25.8	010
1993	BV5		1993	01	28.03611	09	34	33.99	+16 47 27.7	010
1993	BW5	*	1993	01	27.01944	09	36	10.25	+16 19 38.0	18.7 010
1993	BW5		1993	01	27.02986	09	36	09.74	+16 19 41.3	010
1993	BW5		1993	01	27.04039	09	36	09.27	+16 19 45.1	010
1993	BW5		1993	01	28.01528	09	35	22.35	+16 26 43.3	010
1993	BW5		1993	01	28.02569	09	35	21.79	+16 26 47.7	010
1993	BW5		1993	01	28.03611	09	35	21.32	+16 26 50.7	010
1993	BX5	*	1993	01	27.01944	09	36	12.51	+16 35 29.6	18.7 010
1993	BX5		1993	01	27.02986	09	36	11.97	+16 35 34.5	010
1993	BX5		1993	01	27.04039	09	36	11.52	+16 35 38.9	010
1993	BX5		1993	01	28.01528	09	35	24.51	+16 42 12.3	010
1993	BX5		1993	01	28.02569	09	35	24.04	+16 42 16.4	010
1993	BX5		1993	01	28.03611	09	35	23.53	+16 42 19.6	010
1993	BY5	*	1993	01	27.01944	09	36	14.09	+16 53 26.8	19.4 010
1993	BY5		1993	01	27.02986	09	36	13.60	+16 53 28.5	010
1993	BY5		1993	01	27.04039	09	36	13.09	+16 53 29.6	010
1993	BY5		1993	01	28.01528	09	35	25.41	+16 57 20.9	010
1993	BY5		1993	01	28.02569	09	35	24.88	+16 57 22.8	010
1993	BY5		1993	01	28.03611	09	35	24.35	+16 57 26.2	010

1993	BZ5	*	1993	01	27.01944	09	36	14.67	+16 09 14.2	18.3	010
1993	BZ5		1993	01	27.02986	09	36	14.03	+16 09 18.4		010
1993	BZ5		1993	01	27.04039	09	36	13.44	+16 09 21.6		010
1993	BZ5		1993	01	28.01528	09	35	17.62	+16 15 49.2		010
1993	BZ5		1993	01	28.02569	09	35	17.01	+16 15 53.6		010
1993	BZ5		1993	01	28.03611	09	35	16.36	+16 15 58.0		010
1993	BA6	*	1993	01	27.01944	09	36	20.77	+17 34 41.9	18.5	010
1993	BA6		1993	01	27.02986	09	36	20.15	+17 34 45.6		010
1993	BA6		1993	01	27.04039	09	36	19.71	+17 34 48.8		010
1993	BA6		1993	01	28.01528	09	35	25.75	+17 40 33.7		010
1993	BA6		1993	01	28.02569	09	35	25.07	+17 40 37.4		010
1993	BA6		1993	01	28.03611	09	35	24.46	+17 40 39.7		010
1993	BB6	*	1993	01	27.01944	09	36	47.36	+15 56 29.3	18.8	010
1993	BB6		1993	01	27.02986	09	36	46.78	+15 56 32.0		010
1993	BB6		1993	01	27.04039	09	36	46.30	+15 56 34.0		010
1993	BB6		1993	01	28.01528	09	35	59.32	+16 00 14.7		010
1993	BB6		1993	01	28.02569	09	35	58.80	+16 00 16.6		010
1993	BB6		1993	01	28.03611	09	35	58.30	+16 00 19.2		010
1993	BC6	*	1993	01	27.01944	09	36	51.28	+16 44 58.3	19.3	010
1993	BC6		1993	01	27.02986	09	36	50.84	+16 45 00.4		010
1993	BC6		1993	01	27.04039	09	36	50.39	+16 45 03.8		010
1993	BC6		1993	01	28.01528	09	36	03.87	+16 49 49.4		010
1993	BC6		1993	01	28.02569	09	36	03.37	+16 49 52.4		010
1993	BC6		1993	01	28.03611	09	36	02.88	+16 49 55.8		010
1993	BD6	*	1993	01	27.01944	09	38	04.12	+15 17 19.9	18.6	010
1993	BD6		1993	01	27.02986	09	38	03.63	+15 17 20.8		010
1993	BD6		1993	01	27.04039	09	38	03.05	+15 17 23.0		010
1993	BD6		1993	01	28.01528	09	37	12.17	+15 20 57.7		010
1993	BD6		1993	01	28.02569	09	37	11.55	+15 21 00.8		010
1993	BD6		1993	01	28.03611	09	37	10.95	+15 21 02.6		010
1993	BE6	*	1993	01	27.01944	09	38	08.64	+15 29 09.6	18.4	010
1993	BE6		1993	01	27.02986	09	38	07.98	+15 29 11.2		010
1993	BE6		1993	01	27.04039	09	38	07.39	+15 29 12.6		010
1993	BE6		1993	01	28.01528	09	37	11.72	+15 32 02.4		010
1993	BE6		1993	01	28.02569	09	37	11.13	+15 32 04.9		010
1993	BE6		1993	01	28.03611	09	37	10.50	+15 32 06.2		010
1993	BF6	*	1993	01	27.01944	09	38	09.86	+14 20 41.9	18.8	010
1993	BF6		1993	01	27.02986	09	38	09.24	+14 20 43.9		010
1993	BF6		1993	01	27.04039	09	38	08.69	+14 20 48.4		010
1993	BF6		1993	01	28.01528	09	37	14.47	+14 26 58.4		010
1993	BF6		1993	01	28.02569	09	37	13.84	+14 27 02.2		010
1993	BF6		1993	01	28.03611	09	37	13.30	+14 27 05.8		010
1993	BG6	*	1993	01	27.01944	09	39	09.98	+13 48 30.9	18.8	010
1993	BG6		1993	01	27.02986	09	39	09.38	+13 48 31.6		010
1993	BG6		1993	01	27.04039	09	39	08.67	+13 48 34.9		010
1993	BG6		1993	01	28.01528	09	38	10.16	+13 52 05.4		010
1993	BG6		1993	01	28.02569	09	38	09.51	+13 52 07.3		010
1993	BG6		1993	01	28.03611	09	38	08.85	+13 52 08.5		010
1993	BH6	*	1993	01	27.01944	09	39	37.38	+16 05 25.3	18.4	010
1993	BH6		1993	01	27.02986	09	39	36.82	+16 05 29.6		010
1993	BH6		1993	01	27.04039	09	39	36.30	+16 05 34.5		010
1993	BH6		1993	01	28.01528	09	38	46.32	+16 12 09.9		010
1993	BH6		1993	01	28.02569	09	38	45.78	+16 12 14.2		010
1993	BH6		1993	01	28.03611	09	38	45.16	+16 12 18.3		010
1993	BJ6	*	1993	01	27.01944	09	39	41.79	+14 05 59.1	18.7	010
1993	BJ6		1993	01	27.02986	09	39	41.23	+14 05 58.9		010
1993	BJ6		1993	01	27.04039	09	39	40.58	+14 05 59.6		010
1993	BJ6		1993	01	28.01528	09	38	44.85	+14 07 42.1		010
1993	BJ6		1993	01	28.02569	09	38	44.29	+14 07 43.7		010

1993 BJ6		1993 01 28.03611	09 38 43.63	+14 07 44.8			010
1993 BK6	*	1993 01 27.01944	09 39 45.09	+17 15 28.2	18.3		010
1993 BK6		1993 01 27.02986	09 39 44.52	+17 15 30.7			010
1993 BK6		1993 01 27.04039	09 39 43.99	+17 15 34.2			010
1993 BK6		1993 01 28.01528	09 38 57.07	+17 20 50.9			010
1993 BK6		1993 01 28.02569	09 38 56.50	+17 20 54.3			010
1993 BK6		1993 01 28.03611	09 38 55.93	+17 20 57.8			010
1993 BL6	*	1993 01 27.01944	09 41 19.57	+15 25 39.3	18.5		010
1993 BL6		1993 01 27.02986	09 41 18.99	+15 25 42.4			010
1993 BL6		1993 01 27.04039	09 41 18.53	+15 25 44.9			010
1993 BL6		1993 01 28.01528	09 40 33.82	+15 30 29.0			010
1993 BL6		1993 01 28.02569	09 40 33.29	+15 30 32.1			010
1993 BL6		1993 01 28.03611	09 40 32.76	+15 30 35.3			010
1993 BM6	*	1993 01 27.01944	09 41 26.83	+16 33 27.3	18.5		010
1993 BM6		1993 01 27.02986	09 41 26.03	+16 33 27.9			010
1993 BM6		1993 01 27.04039	09 41 25.30	+16 33 26.9			010
1993 BM6		1993 01 28.01528	09 40 18.86	+16 34 02.8			010
1993 BM6		1993 01 28.02569	09 40 18.04	+16 34 03.4			010
1993 BM6		1993 01 28.03611	09 40 17.25	+16 34 04.0			010
1993 BN6	*	1993 01 27.01944	09 41 34.22	+16 10 27.2	19.0		010
1993 BN6		1993 01 27.02986	09 41 33.75	+16 10 30.7			010
1993 BN6		1993 01 27.04039	09 41 33.21	+16 10 34.4			010
1993 BN6		1993 01 28.01528	09 40 39.67	+16 17 05.7			010
1993 BN6		1993 01 28.02569	09 40 38.99	+16 17 10.3			010
1993 BN6		1993 01 28.03611	09 40 38.36	+16 17 15.4			010
1993 BO6	*	1993 01 27.01944	09 41 39.41	+16 05 39.7	18.7		010
1993 BO6		1993 01 27.02986	09 41 38.84	+16 05 43.2			010
1993 BO6		1993 01 27.04039	09 41 38.44	+16 05 45.5			010
1993 BO6		1993 01 28.01528	09 40 54.12	+16 11 13.5			010
1993 BO6		1993 01 28.02569	09 40 53.65	+16 11 18.4			010
1993 BO6		1993 01 28.03611	09 40 53.13	+16 11 20.6			010
1993 BP6	*	1993 01 27.01944	09 42 07.54	+14 49 19.1	18.5		010
1993 BP6		1993 01 27.02986	09 42 06.64	+14 49 12.3			010
1993 BP6		1993 01 27.04039	09 42 05.73	+14 49 04.3			010
1993 BP6		1993 01 28.01528	09 40 40.07	+14 37 12.3			010
1993 BP6		1993 01 28.02569	09 40 39.10	+14 37 05.9			010
1993 BP6		1993 01 28.03611	09 40 38.05	+14 36 57.2			010
1993 BQ6	*	1993 01 27.01944	09 40 11.53	+16 41 07.9	18.6		010
1993 BQ6		1993 01 27.02986	09 40 11.04	+16 41 11.9			010
1993 BQ6		1993 01 27.04039	09 40 10.49	+16 41 16.4			010
1993 BQ6		1993 01 28.01528	09 39 23.97	+16 47 55.7			010
1993 BQ6		1993 01 28.02569	09 39 23.48	+16 48 00.3			010
1993 BQ6		1993 01 28.03611	09 39 22.95	+16 48 04.8			010
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(996)		1993 01 16.92106	06 13 43.88	+24 19 41.4	17.5		010
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(996)		1993 01 17.90833	06 13 00.84	+24 19 39.0			010
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(996)		1993 01 17.92957	06 12 59.89	+24 19 39.0			010
(1096)		1993 01 16.92106	06 06 30.61	+27 51 14.6	17.5		010
(1096)		1993 01 16.93160	06 06 30.02	+27 51 15.5			010
(1096)		1993 01 16.94219	06 06 29.44	+27 51 16.9			010
(1096)		1993 01 17.90833	06 05 41.53	+27 53 01.5			010
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(1118)		1993 01 27.01944	09 37 49.86	+14 48 33.7	17.0		010

(1118)	1993 01 27.02986	09 37 49.28	+14 48 34.2			010
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(1589)	1993 01 16.92106	05 54 23.14	+24 50 20.7	17.7		010
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(1697)	1993 01 27.04039	09 35 35.55	+17 26 26.5			010
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(1748)	1993 01 27.02986	09 34 35.37	+15 18 50.0			010
(1748)	1993 01 27.04039	09 34 35.00	+15 18 51.8			010
(1748)	1993 01 28.01528	09 34 00.83	+15 22 05.2			010
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(2300)	1993 01 16.92106	06 09 29.67	+26 40 56.3	18.0		010
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(2300)	1993 01 16.94219	06 09 28.59	+26 40 55.9			010
(2300)	1993 01 17.90833	06 08 45.25	+26 40 43.6			010
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(2403)	1993 01 16.92106	06 14 40.58	+24 11 59.6	18.0		010
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(2403)	1993 01 16.94219	06 14 39.38	+24 11 58.8			010
(2403)	1993 01 17.90833	06 13 51.12	+24 11 04.4			010
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(2883)	1993 01 17.92957	05 58 44.75	+25 20 10.7			010
(2887)	1993 01 27.01944	09 40 06.04	+16 10 20.7	17.8		010
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(2887)	1993 01 28.01528	09 39 10.43	+16 17 08.9			010
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(2895)	1993 01 27.01944	09 36 11.15	+17 03 38.3	18.0		010
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(2895)	1993 01 27.04039	09 36 10.42	+17 03 45.4			010

(2895)	1993 01 28.01528	09 35 42.14	+17 09 04.8			010
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(3658)	1993 01 16.92106	06 00 08.69	+27 56 38.8		18.0	010
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(3658)	1993 01 17.90833	05 59 21.93	+27 53 22.2			010
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(3658)	1993 01 17.92957	05 59 20.93	+27 53 18.9			010
(3778)	1993 01 27.01944	09 25 48.93	+16 04 27.8		18.2	010
(3778)	1993 01 27.02986	09 25 48.38	+16 04 29.8			010
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(4009)	1993 01 27.01944	09 42 06.43	+16 54 46.3		18.3	010
(4009)	1993 01 27.02986	09 42 05.93	+16 54 49.5			010
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(4585)	1993 01 16.92106	06 13 33.57	+27 36 34.0		18.5	010
(4585)	1993 01 16.93160	06 13 32.99	+27 36 34.9			010
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(4585)	1993 01 17.90833	06 12 43.46	+27 38 12.8			010
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(4585)	1993 01 17.92957	06 12 42.40	+27 38 16.0			010
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(4980)	1993 01 16.93160	05 57 05.44	+25 07 28.9			010
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(4980)	1993 01 17.90833	05 56 29.35	+25 07 34.3			010
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(5002)	1993 01 27.01944	09 26 13.48	+16 15 20.5		18.3	010
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(5002)	1993 01 28.01528	09 25 14.87	+16 20 33.9			010
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(5002)	1993 01 28.03611	09 25 13.61	+16 20 40.2			010
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(5074)	1993 01 27.02986	09 27 31.45	+13 43 41.4			010
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012 Uccle
T. Pauwels, Observatoire Royal de Belgique, Avenue Circulaire 3,
B-1180 Brussels, Belgium
Observers E. Delporte, T. Pauwels
Measurers E. W. Elst, T. Pauwels

1933 SS1	* 1933 09 21.94090	00 16 53.22	+00 55 28.8		17.5	012
1933 SS1	1933 09 25.90920	00 12 40.21	+01 12 04.7			012
1990 QF	1933 09 25.90920	00 04 43.20	+07 14 52.1		17.5	012
1990 QF	1933 09 27.95742	00 02 35.69	+07 10 53.7			012
(324)	1993 01 26.00477	10 31 49.94	+09 42 13.0			012
(324)	1993 01 26.02554	10 31 48.95	+09 42 15.2			012
(324)	1993 01 26.04910	10 31 47.88	+09 42 17.9			012

033 Tautenburg
F. Borngen, Thuringer Landessternwarte, Dorfstrasse 73,
O-6901 Tautenburg, Federal Republic of Germany

1955	QN	1992	09	21.80660	20	00	18.59	-10	38	59.6			033
1955	QN	1992	09	22.78472	20	00	42.88	-10	40	44.0	18.1		033
1955	QN	1992	09	22.82257	20	00	43.72	-10	40	47.1			033
1955	QN	1992	09	26.78993	20	02	41.07	-10	46	59.5			033
1955	QN	1992	09	28.78854	20	03	51.09	-10	49	33.4			033
1976	SK3	1992	09	23.04097	03	03	07.48	+22	16	40.9	17.9		033
1976	SK3	1992	09	25.06181	03	02	27.36	+22	22	07.0			033
1976	SK3	1992	09	25.10417	03	02	26.44	+22	22	13.9			033
1976	SK3	1992	09	27.05764	03	01	41.82	+22	27	06.3			033
1976	SK3	1992	09	28.08681	03	01	15.93	+22	29	31.5			033
1976	SK3	1992	09	29.05625	03	00	50.27	+22	31	42.1			033
1977	QK1	1992	10	24.11979	07	10	58.38	+24	57	11.8		V	033
1977	QK1	1992	11	01.08403	07	16	33.18	+24	55	19.2	18.4		033
1977	QK1	1992	11	01.12569	07	16	34.50	+24	55	19.9			033
1977	QK1	1992	11	02.10556	07	17	06.50	+24	55	19.6			033
1977	QK1	1992	12	29.98264	06	46	42.85	+26	06	16.9	17.5		033
1977	QK1	1992	12	30.02917	06	46	39.35	+26	06	18.9			033
1981	ER6	1992	11	23.93472	02	26	27.11	+20	19	31.4	19.0		033
1981	ER6	1992	11	23.97708	02	26	25.03	+20	19	15.1			033
1985	FD	1992	12	29.98264	06	40	57.70	+25	23	02.3	16.7		033
1985	FD	1992	12	30.02917	06	40	54.68	+25	23	17.2			033
1985	FD	1993	01	01.02500	06	38	47.08	+25	33	57.7			033
1985	RU2	1992	11	23.93472	02	28	43.42	+17	51	34.1	17.0		033
1985	RU2	1992	11	23.97708	02	28	41.46	+17	51	27.4			033
1985	TN	1992	11	23.93472	02	19	22.43	+18	11	18.9	18.9		033
1985	TN	1992	11	23.97708	02	19	20.49	+18	11	16.4			033
1986	RD5	1992	09	23.04097	03	10	49.86	+21	28	13.5	18.9		033
1986	RD5	1992	09	25.06181	03	10	28.55	+21	30	43.5			033
1986	RD5	1992	09	25.10417	03	10	27.97	+21	30	47.0			033
1986	RD5	1992	09	27.05764	03	10	01.18	+21	32	46.4			033
1986	RD5	1992	09	28.08681	03	09	44.54	+21	33	39.5			033
1986	RD5	1992	09	29.05625	03	09	27.42	+21	34	22.4			033
1986	RD5	1992	10	31.94583	02	47	56.33	+20	55	49.8			033
1986	RD5	1992	10	31.98958	02	47	53.93	+20	55	42.1	17.8		033
1986	RD5	1992	11	01.97361	02	47	02.14	+20	52	50.3			033
1986	RD5	1992	11	23.93472	02	29	03.04	+19	38	24.3	17.9		033
1986	RD5	1992	11	23.97708	02	29	01.18	+19	38	15.1			033
1988	RD3	1992	11	24.08507	07	43	30.47	+18	10	54.2	19.5		033
1988	RD3	1992	12	30.00694	07	18	04.75	+18	37	46.5	18.8		033
1988	RD3	1992	12	30.07292	07	18	00.26	+18	37	53.7			033
1988	RD3	1993	01	01.04583	07	15	46.68	+18	41	41.5			033
1988	RK8	1992	12	30.00694	07	18	58.92	+18	02	18.1	17.7		033
1988	RK8	1992	12	30.07292	07	18	54.40	+18	02	26.5			033
1988	RK8	1993	01	01.04583	07	16	43.54	+18	06	52.2			033
1988	VR	1992	11	01.08403	07	09	47.86	+26	21	33.4	17.0		033
1988	VR	1992	11	01.12569	07	09	49.28	+26	21	44.2			033
1988	VR	1992	11	02.10556	07	10	23.33	+26	25	55.0			033
1989	AE7	1992	09	23.04097	03	05	04.61	+21	45	44.6	18.7		033
1989	AE7	1992	09	25.06181	03	04	47.54	+21	47	48.7			033
1989	AE7	1992	09	25.10417	03	04	47.03	+21	47	51.4			033
1989	AE7	1992	09	27.05764	03	04	24.06	+21	49	23.0			033
1989	AE7	1992	09	28.08681	03	04	09.35	+21	50	00.5			033
1989	AE7	1992	09	29.05625	03	03	54.01	+21	50	27.9			033
1989	AE7	1992	10	31.94583	02	42	26.74	+20	54	02.4			033
1989	AE7	1992	10	31.98958	02	42	24.24	+20	53	52.2	17.3		033
1989	AE7	1992	11	01.97361	02	41	30.96	+20	50	11.1			033
1989	AE7	1992	11	23.93472	02	22	57.60	+19	15	21.0	17.5		033
1989	AE7	1992	11	23.97708	02	22	55.75	+19	15	09.4			033
1989	AE7	1992	12	29.88229	02	14	27.62	+17	40	04.4	18.7	F	033

1989 AE7		1992	12	29.93507	02	14	28.46	+17	40	03.0	V 033
1989 SL		1992	07	24.93264	20	41	24.72	-06	27	41.9	033
1989 SL		1992	07	24.96736	20	41	22.63	-06	27	43.0	033
1989 SL		1992	07	25.93194	20	40	26.17	-06	28	18.4	033
1989 SL		1992	07	26.96875	20	39	24.75	-06	29	08.0	17.3 033
1989 SL		1992	07	27.96806	20	38	25.20	-06	30	06.1	033
1989 SL		1992	07	28.95278	20	37	26.22	-06	31	14.0	033
1989 SL		1992	07	30.94167	20	35	26.24	-06	33	59.7	033
1989 UE4		1992	07	24.93264	20	35	41.07	-06	26	00.0	033
1989 UE4		1992	07	24.96736	20	35	39.12	-06	26	04.5	033
1989 UE4		1992	07	25.93194	20	34	47.31	-06	28	15.6	033
1989 UE4		1992	07	26.96875	20	33	51.30	-06	30	42.4	18.1 033
1989 UE4		1992	07	27.96806	20	32	57.19	-06	33	10.4	033
1989 UE4		1992	07	28.95278	20	32	03.82	-06	35	42.8	033
1989 UE4		1992	07	30.94167	20	30	16.03	-06	41	07.4	033
1989 UE4		1992	09	21.80660	20	02	32.40	-09	52	59.5	S 033
1989 UE4		1992	09	22.78472	20	02	36.70	-09	55	50.5	19.0 033
1989 UE4		1992	09	26.78993	20	03	07.59	-10	06	56.2	S 033
1989 UE4		1992	09	27.78854	20	03	18.83	-10	09	32.5	033
1989 UE4		1992	09	28.78854	20	03	31.50	-10	12	04.1	033
1992 SG13		1992	10	31.94583	02	45	58.09	+21	17	44.4	033
1992 SG13		1992	10	31.98958	02	45	55.15	+21	17	47.5	16.6 033
1992 SG13		1992	11	01.97361	02	44	52.86	+21	18	57.0	033
1992 SQ23	*	1992	09	23.04097	02	59	56.14	+21	05	37.9	18.5 033
1992 SQ23		1992	09	25.06181	02	59	42.39	+20	54	26.9	033
1992 SQ23		1992	09	25.10417	02	59	41.90	+20	54	12.8	033
1992 SQ23		1992	09	27.05764	02	59	18.58	+20	42	24.3	033
1992 SQ23		1992	09	28.08681	02	59	02.27	+20	35	46.5	033
1992 SQ23		1992	09	29.05625	02	58	44.64	+20	29	17.5	033
1992 SR23	*	1992	09	23.04097	03	02	23.75	+22	50	01.3	18.4 033
1992 SR23		1992	09	25.06181	03	02	00.48	+22	49	38.8	033
1992 SR23		1992	09	25.10417	03	01	59.84	+22	49	37.5	033
1992 SR23		1992	09	27.05764	03	01	29.21	+22	48	33.4	033
1992 SR23		1992	09	28.08681	03	01	09.80	+22	47	42.5	033
1992 SR23		1992	09	29.05625	03	00	49.69	+22	46	44.0	033
1992 SS23	*	1992	09	23.04097	03	04	34.16	+21	15	11.4	19.1 033
1992 SS23		1992	09	25.06181	03	03	50.01	+21	19	02.8	033
1992 SS23		1992	09	25.10417	03	03	48.96	+21	19	07.9	033
1992 SS23		1992	09	27.05764	03	02	59.47	+21	22	23.4	033
1992 SS23		1992	09	28.08681	03	02	30.55	+21	23	55.5	033
1992 SS23		1992	09	29.05625	03	02	01.76	+21	25	15.2	033
1992 ST23	*	1992	09	23.04097	03	07	19.19	+22	42	56.5	19.0 033
1992 ST23		1992	09	25.06181	03	07	02.36	+22	52	44.2	033
1992 ST23		1992	09	25.10417	03	07	01.88	+22	52	56.1	033
1992 ST23		1992	09	27.05764	03	06	38.29	+23	02	02.4	033
1992 ST23		1992	09	28.08681	03	06	22.96	+23	06	39.0	033
1992 ST23		1992	09	29.05625	03	06	06.69	+23	10	55.6	033
1992 SU23	*	1992	09	25.06181	03	08	01.58	+22	10	25.8	033
1992 SU23		1992	09	25.10417	03	08	01.64	+22	10	35.8	033
1992 SU23		1992	09	27.05764	03	08	07.31	+22	18	22.9	033
1992 SU23		1992	09	28.08681	03	08	06.86	+22	22	15.8	033
1992 SU23		1992	09	29.05625	03	08	04.51	+22	25	48.4	033
1992 UO2		1992	09	23.04097	03	11	57.26	+22	19	38.3	16.9 033
1992 UO2		1992	09	25.06181	03	11	23.77	+22	36	10.5	033
1992 UO2		1992	09	25.10417	03	11	22.91	+22	36	30.5	033
1992 UO2		1992	09	27.05764	03	10	41.99	+22	52	11.8	033
1992 UO2		1992	09	28.08681	03	10	16.97	+23	00	19.0	033
1992 UO2		1992	09	29.05625	03	09	51.38	+23	07	53.6	033
1992 UM3		1992	09	23.04097	03	10	22.55	+22	50	17.7	18.2 033

1992	UM3		1992	09	25.06181	03	10	05.55	+22 47 19.7	033
1992	UM3		1992	09	25.10417	03	10	05.08	+22 47 15.6	033
1992	UM3		1992	09	27.05764	03	09	42.89	+22 43 53.3	033
1992	UM3		1992	09	28.08681	03	09	28.90	+22 41 54.4	033
1992	UM3		1992	09	29.05625	03	09	14.39	+22 39 54.8	033
1992	UM3		1992	10	31.94583	02	49	54.25	+20 19 19.6	033
1992	UM3		1992	10	31.98958	02	49	52.05	+20 19 03.7 16.9	033
1992	UR4		1992	10	31.94583	02	47	50.41	+19 41 30.8	033
1992	UR4		1992	10	31.98958	02	47	47.91	+19 41 19.6 18.0	033
1992	UR4		1992	11	01.97361	02	46	54.89	+19 37 12.8	033
1992	UR4		1992	11	23.93472	02	28	29.21	+17 50 22.1 18.4	033
1992	UR4		1992	11	23.97708	02	28	27.47	+17 50 10.2	033
1992	UP8	*	1992	10	31.94583	02	36	20.64	+19 49 21.6	033
1992	UP8		1992	10	31.98958	02	36	18.09	+19 49 10.2 17.4	033
1992	UP8		1992	11	01.97361	02	35	24.94	+19 44 49.9	033
1992	UP8		1992	11	23.93472	02	18	22.38	+17 57 07.2 18.0	033
1992	UP8		1992	11	23.97708	02	18	20.86	+17 56 55.8	033
1992	UQ8	*	1992	10	31.94583	02	37	36.72	+21 42 25.0	033
1992	UQ8		1992	10	31.98958	02	37	33.72	+21 42 27.3 18.1	033
1992	UQ8		1992	11	01.97361	02	36	29.96	+21 43 29.2	033
1992	UR8	*	1992	10	31.94583	02	38	59.14	+19 49 18.4	033
1992	UR8		1992	10	31.98958	02	38	56.05	+19 49 13.3 18.2	033
1992	UR8		1992	11	01.97361	02	37	49.32	+19 47 24.9	033
1992	US8	*	1992	10	31.94583	02	39	04.59	+20 42 32.4	033
1992	US8		1992	10	31.98958	02	39	01.96	+20 42 19.2 17.9	033
1992	US8		1992	11	01.97361	02	38	07.03	+20 37 23.2	033
1992	US8		1992	11	23.93472	02	20	55.02	+18 35 19.4 18.7	033
1992	US8		1992	11	23.97708	02	20	53.57	+18 35 06.2	033
1992	UT8	*	1992	10	31.94583	02	39	30.12	+22 16 00.0	033
1992	UT8		1992	10	31.98958	02	39	27.10	+22 15 55.7 19.1	033
1992	UT8		1992	11	01.97361	02	38	21.52	+22 14 49.9	033
1992	UU8	*	1992	10	31.94583	02	39	57.81	+19 35 24.8	033
1992	UU8		1992	10	31.98958	02	39	54.83	+19 35 17.2 18.8	033
1992	UU8		1992	11	01.97361	02	38	49.98	+19 32 10.8	033
1992	UV8	*	1992	10	31.94583	02	41	01.19	+19 46 29.9	033
1992	UV8		1992	10	31.98958	02	40	58.18	+19 46 21.8 18.9	033
1992	UV8		1992	11	01.97361	02	39	52.84	+19 43 11.5	033
1992	UW8	*	1992	10	31.94583	02	42	45.54	+20 30 36.4	033
1992	UW8		1992	10	31.98958	02	42	42.54	+20 30 34.7 19.0	033
1992	UW8		1992	11	01.97361	02	41	38.51	+20 30 06.1	033
1992	UX8	*	1992	10	31.94583	02	42	52.61	+22 26 20.0	033
1992	UX8		1992	10	31.98958	02	42	49.52	+22 26 11.7 18.7	033
1992	UX8		1992	11	01.97361	02	41	43.45	+22 23 07.7	033
1992	UY8	*	1992	10	31.94583	02	44	33.88	+22 13 09.7	033
1992	UY8		1992	10	31.98958	02	44	31.77	+22 12 32.6 18.6	033
1992	UY8		1992	11	01.97361	02	43	46.90	+21 58 33.9	033
1992	UZ8	*	1992	10	31.94583	02	44	45.07	+20 42 58.0	033
1992	UZ8		1992	10	31.98958	02	44	41.95	+20 42 44.9 18.9	033
1992	UZ8		1992	11	01.97361	02	43	34.47	+20 37 50.6	033
1992	UA9	*	1992	10	31.94583	02	46	37.58	+20 22 19.8	033
1992	UA9		1992	10	31.98958	02	46	35.12	+20 22 13.2 18.7	033
1992	UA9		1992	11	01.97361	02	45	41.95	+20 19 54.9	033
1992	UB9	*	1992	10	31.94583	02	46	45.64	+22 25 28.7	033
1992	UB9		1992	10	31.98958	02	46	42.69	+22 25 22.1 19.3	033
1992	UB9		1992	11	01.97361	02	45	39.02	+22 22 55.5	033
1992	UC9	*	1992	10	31.94583	02	47	10.72	+21 11 10.7	033
1992	UC9		1992	10	31.98958	02	47	07.81	+21 11 11.7 18.8	033
1992	UC9		1992	11	01.97361	02	46	05.59	+21 11 43.2	033
1992	UD9	*	1992	10	31.94583	02	47	11.40	+22 21 01.1	033

1992	UD9		1992	10	31.98958	02	47	08.71	+22 20 44.9	18.5	033
1992	UD9		1992	11	01.97361	02	46	12.23	+22 14 33.0		033
1992	UE9	*	1992	10	31.94583	02	48	30.20	+22 16 24.1		033
1992	UE9		1992	10	31.98958	02	48	27.55	+22 16 21.1	18.8	033
1992	UE9		1992	11	01.97361	02	47	29.46	+22 15 14.0		033
1992	UF9	*	1992	10	31.94583	02	49	24.38	+20 59 57.1		033
1992	UF9		1992	10	31.98958	02	49	21.78	+20 59 36.9	19.2	033
1992	UF9		1992	11	01.97361	02	48	26.00	+20 52 00.0		033
1992	UG9	*	1992	10	31.94583	02	49	25.09	+22 11 44.7		033
1992	UG9		1992	10	31.98958	02	49	22.23	+22 11 51.7	19.0	033
1992	UG9		1992	11	01.97361	02	48	19.11	+22 14 47.4		033
1992	UH9	*	1992	10	31.94583	02	49	30.18	+21 00 18.3		033
1992	UH9		1992	10	31.98958	02	49	27.36	+21 00 18.1	18.6	033
1992	UH9		1992	11	01.97361	02	48	25.65	+21 00 16.7		033
1992	VP	*	1992	11	01.08403	07	18	06.42	+26 48 05.2	17.5	033
1992	VP		1992	11	01.12569	07	18	06.99	+26 47 42.4		033
1992	VP		1992	11	02.10556	07	18	20.78	+26 38 22.9		033
1992	YY		1992	12	30.00694	07	16	55.83	+17 08 24.1	16.8	033
1992	YY		1992	12	30.07292	07	16	51.57	+17 08 13.8		033
1992	YY		1993	01	01.04583	07	14	46.52	+17 03 24.6		033
1992	YT2		1992	12	30.00694	07	19	08.98	+17 06 11.1	17.4	033
1992	YT2		1992	12	30.07292	07	19	03.95	+17 07 05.4		033
1992	YT2		1993	01	01.04583	07	16	36.99	+17 34 09.2	I	033
1992	YF4	*	1992	12	29.98264	06	36	43.66	+25 08 38.8	18.8	033
1992	YF4		1992	12	30.02917	06	36	40.85	+25 08 42.8		033
1992	YF4		1993	01	01.02500	06	34	47.22	+25 11 43.8		033
1992	YG4	*	1992	12	29.98264	06	37	46.65	+25 20 29.5	18.0	033
1992	YG4		1992	12	30.02917	06	37	43.34	+25 20 17.4		033
1992	YG4		1993	01	01.02500	06	35	27.64	+25 11 30.4		033
1992	YH4	*	1992	12	29.98264	06	40	11.31	+25 06 13.1	17.4	033
1992	YH4		1992	12	30.02917	06	40	08.48	+25 06 14.8		033
1992	YH4		1993	01	01.02500	06	38	10.86	+25 07 44.7		033
1992	YJ4	*	1992	12	29.98264	06	41	23.65	+25 51 47.5	17.6	033
1992	YJ4		1992	12	30.02917	06	41	20.21	+25 51 37.1		033
1992	YJ4		1993	01	01.02500	06	39	01.43	+25 43 49.7		033
1992	YK4	*	1992	12	29.98264	06	41	24.67	+24 52 22.8	18.5 I	033
1992	YK4		1992	12	30.02917	06	41	21.66	+24 52 36.0		033
1992	YK4		1993	01	01.02500	06	39	18.82	+25 03 22.2		033
1992	YL4	*	1992	12	29.98264	06	42	28.33	+25 06 00.0	17.3	033
1992	YL4		1992	12	30.02917	06	42	25.69	+25 06 05.8		033
1992	YL4		1993	01	01.02500	06	40	33.16	+25 09 39.5		033
1992	YM4	*	1992	12	29.98264	06	44	30.38	+24 58 01.3	18.1	033
1992	YM4		1992	12	30.02917	06	44	27.90	+24 58 08.8	I	033
1992	YM4		1993	01	01.02500	06	42	52.03	+25 04 55.4	I	033
1992	YN4	*	1992	12	29.98264	06	44	42.51	+25 40 38.1	18.7	033
1992	YN4		1992	12	30.02917	06	44	39.91	+25 40 41.7		033
1992	YN4		1993	01	01.02500	06	42	47.00	+25 43 32.9		033
1992	YO4	*	1992	12	29.98264	06	44	47.37	+24 36 33.2	17.8	033
1992	YO4		1992	12	30.02917	06	44	44.64	+24 36 35.4		033
1992	YO4		1993	01	01.02500	06	42	48.84	+24 38 11.5		033
1992	YP4	*	1992	12	29.98264	06	46	45.52	+23 35 12.3	18.4	033
1992	YP4		1992	12	30.02917	06	46	42.59	+23 35 11.0		033
1992	YP4		1993	01	01.02500	06	44	39.12	+23 34 18.2		033
1992	YQ4	*	1992	12	29.98264	06	47	14.45	+25 48 59.6	18.3	033
1992	YQ4		1992	12	30.02917	06	47	11.36	+25 49 08.3		033
1992	YQ4		1993	01	01.02500	06	45	04.92	+25 55 42.3		033
1992	YR4	*	1992	12	29.98264	06	49	20.36	+25 43 00.4	18.6	033
1992	YR4		1992	12	30.02917	06	49	16.90	+25 43 07.4		033
1992	YR4		1993	01	01.02500	06	46	51.60	+25 48 48.1		033

1992 YS4	*	1992 12 29.98264	06 49 39.35	+25 12 23.5	17.9		033
1992 YS4		1992 12 30.02917	06 49 36.48	+25 12 31.0			033
1992 YS4		1993 01 01.02500	06 47 34.23	+25 17 14.7			033
1992 YT4	*	1992 12 29.98264	06 50 14.76	+24 17 06.2	18.4		033
1992 YT4		1992 12 30.02917	06 50 12.23	+24 17 10.9			033
1992 YT4		1993 01 01.02500	06 48 24.04	+24 20 19.6			033
1992 YU4	*	1992 12 30.00694	07 11 59.71	+18 49 32.8	18.4		033
1992 YU4		1992 12 30.07292	07 11 55.80	+18 49 40.6			033
1992 YU4		1993 01 01.04583	07 10 02.80	+18 54 05.5			033
1992 YV4	*	1992 12 30.00694	07 13 34.02	+18 27 54.4	18.3		033
1992 YV4		1992 12 30.07292	07 13 29.58	+18 28 01.7			033
1992 YV4		1993 01 01.04583	07 11 18.40	+18 32 07.7			033
1992 YW4	*	1992 12 30.00694	07 14 13.02	+17 33 39.4	19.0		033
1992 YW4		1992 12 30.07292	07 14 09.39	+17 33 39.6			033
1992 YW4		1993 01 01.04583	07 12 24.14	+17 34 32.4			033
1992 YX4	*	1992 12 30.00694	07 15 57.66	+18 01 00.0	18.7		033
1992 YX4		1992 12 30.07292	07 15 54.16	+18 01 15.2			033
1992 YX4		1993 01 01.04583	07 14 11.96	+18 09 22.0			033
1992 YY4	*	1992 12 30.00694	07 15 58.99	+19 13 39.5	19.1		033
1992 YY4		1992 12 30.07292	07 15 54.58	+19 13 45.1			033
1992 YY4		1993 01 01.04583	07 13 45.03	+19 17 28.9			033
1992 YZ4	*	1992 12 30.00694	07 16 26.45	+18 27 03.3	18.9		033
1992 YZ4		1992 12 30.07292	07 16 22.22	+18 27 19.2			033
1992 YZ4		1993 01 01.04583	07 14 16.25	+18 35 35.5			033
1992 YA5	*	1992 12 30.00694	07 17 56.16	+18 09 27.8	17.8		033
1992 YA5		1992 12 30.07292	07 17 51.74	+18 09 15.7			033
1992 YA5		1993 01 01.04583	07 15 41.90	+18 03 31.7			033
1992 YB5	*	1992 12 30.00694	07 19 38.53	+18 06 03.2	19.0		033
1992 YB5		1992 12 30.07292	07 19 33.84	+18 05 59.4			033
1992 YB5		1993 01 01.04583	07 17 16.48	+18 04 12.8			033
1992 YC5	*	1992 12 30.00694	07 20 17.56	+17 17 54.9	18.5		033
1992 YC5		1992 12 30.07292	07 20 12.95	+17 17 53.9			033
1992 YC5		1993 01 01.04583	07 17 57.75	+17 17 48.5			033
1992 YD5	*	1992 12 30.00694	07 21 53.97	+18 10 42.7	18.9		033
1992 YD5		1992 12 30.07292	07 21 49.51	+18 10 43.6			033
1992 YD5		1993 01 01.04583	07 19 40.90	+18 11 41.3			033
1992 YE5	*	1992 12 30.00694	07 23 08.19	+18 32 26.1	18.8		033
1992 YE5		1992 12 30.07292	07 23 04.09	+18 32 36.0			033
1992 YE5		1993 01 01.04583	07 21 05.72	+18 37 42.5			033
(43)		1992 09 23.04097	03 10 43.95	+22 10 18.4	12.9		033
(43)		1992 09 25.06181	03 10 13.97	+22 09 32.6			033
(43)		1992 09 25.10417	03 10 13.18	+22 09 31.2			033
(43)		1992 09 27.05764	03 09 35.99	+22 08 09.3			033
(43)		1992 09 28.08681	03 09 13.12	+22 07 10.7			033
(43)		1992 09 29.05625	03 08 49.70	+22 06 05.8			033
(43)		1992 10 31.94583	02 40 33.12	+19 56 37.8			033
(43)		1992 10 31.98958	02 40 30.10	+19 56 21.0	11.8		033
(43)		1992 11 01.97361	02 39 24.54	+19 50 10.1			033
(65)		1992 12 30.00694	07 14 02.07	+18 36 37.2	13.0		033
(65)		1992 12 30.07292	07 13 59.00	+18 36 42.8			033
(65)		1993 01 01.04583	07 12 28.39	+18 39 54.5			033
(271)		1992 09 25.12708	06 50 05.11	+26 25 44.2	16		033
(271)		1992 09 27.08333	06 52 13.19	+26 24 46.1			033
(271)		1992 09 27.12222	06 52 15.70	+26 24 45.1			033
(271)		1992 09 28.11389	06 53 19.17	+26 24 16.0			033
(271)		1992 09 29.10208	06 54 21.42	+26 23 46.7			033
(271)		1992 10 24.11979	07 14 29.93	+26 16 05.7			033
(271)		1992 10 24.15313	07 14 30.91	+26 16 05.7			033
(271)		1992 10 27.09757	07 15 59.64	+26 16 19.4			033

(271)	1992 11 01.08403	07 18 00.35	+26 17 28.6	15.5	033
(271)	1992 11 01.12569	07 18 01.13	+26 17 30.0		033
(271)	1992 11 02.10556	07 18 20.31	+26 17 50.6		033
(271)	1992 11 24.05972	07 18 35.58	+26 36 20.2	15.7	033
(271)	1992 11 24.13403	07 18 34.14	+26 36 26.3		033
(766)	1992 09 23.04097	02 59 34.92	+23 10 16.8	15.3	033
(766)	1992 09 25.06181	02 59 02.68	+23 17 44.8		033
(766)	1992 09 25.10417	02 59 01.88	+23 17 53.3		033
(766)	1992 09 27.05764	02 58 24.47	+23 24 42.9		033
(830)	1992 09 25.12708	06 53 42.04	+26 38 21.6	15.5	033
(830)	1992 09 27.08333	06 55 40.03	+26 37 34.8		033
(830)	1992 09 27.12222	06 55 42.32	+26 37 34.4		033
(830)	1992 09 28.11389	06 56 40.78	+26 37 11.1		033
(830)	1992 09 29.10208	06 57 38.07	+26 36 48.2		033
(830)	1992 10 24.11979	07 16 05.95	+26 32 53.4		033
(830)	1992 10 24.15313	07 16 06.84	+26 32 53.9		033
(830)	1992 10 27.09757	07 17 27.43	+26 33 36.6		033
(830)	1992 11 01.08403	07 19 16.43	+26 35 36.8	16.5	033
(830)	1992 11 01.12569	07 19 17.12	+26 35 38.3		033
(830)	1992 11 02.10556	07 19 34.34	+26 36 09.1		033
(830)	1992 11 24.05972	07 19 37.03	+26 57 45.4	15.5	033
(830)	1992 11 24.13403	07 19 35.67	+26 57 51.8		033
(1114)	1992 09 21.80660	20 01 52.49	-08 33 35.3		033
(1114)	1992 09 22.78472	20 01 59.90	-08 37 59.1	17.1	033
(1114)	1992 09 22.82257	20 02 00.21	-08 38 09.4		033
(1114)	1992 09 26.78993	20 02 43.57	-08 55 17.1		033
(1114)	1992 09 27.78854	20 02 57.82	-08 59 24.4		033
(1114)	1992 09 28.78854	20 03 13.30	-09 03 26.7		033
(1179)	1992 09 23.04097	03 00 33.05	+22 41 13.6	18.6	033
(1179)	1992 09 25.06181	02 59 43.69	+22 44 54.1		033
(1179)	1992 09 25.10417	02 59 42.54	+22 44 58.0		033
(1179)	1992 09 27.05764	02 58 48.99	+22 48 05.7		033
(1179)	1992 09 28.08681	02 58 18.33	+22 49 34.9		033
(1179)	1992 09 29.05625	02 57 48.17	+22 50 52.0		033
(1311)	1992 12 30.00694	07 14 26.37	+19 18 30.1	16.0	033
(1311)	1992 12 30.07292	07 14 22.09	+19 18 31.3		033
(1311)	1993 01 01.04583	07 12 17.00	+19 19 32.8		033
(1458)	1992 09 21.80660	19 57 52.80	-08 57 36.3		033
(1458)	1992 09 22.78472	19 58 29.16	-09 04 55.0	16.3	033
(1458)	1992 09 22.82257	19 58 30.55	-09 05 11.9		033
(1458)	1992 09 26.78993	20 01 13.33	-09 33 17.8		033
(1458)	1992 09 27.78854	20 01 58.06	-09 39 58.7		033
(1458)	1992 09 28.78854	20 02 44.32	-09 46 29.4		033
(1768)	1992 12 29.88229	02 10 03.17	+16 56 01.2	16.7	033
(1768)	1992 12 29.93507	02 10 05.19	+16 56 10.1		033
(1776)	1992 07 24.93264	20 32 44.41	-07 42 52.5		033
(1776)	1992 07 24.96736	20 32 42.75	-07 43 00.4		033
(1776)	1992 07 25.93194	20 31 59.97	-07 46 56.9		033
(1776)	1992 07 26.96875	20 31 13.69	-07 51 16.1	16.5	033
(1776)	1992 07 27.96806	20 30 29.00	-07 55 31.0		033
(1776)	1992 07 28.95278	20 29 45.01	-07 59 47.8		033
(1776)	1992 07 30.94167	20 28 16.12	-08 08 40.1		033
(1867)	1992 12 30.00694	07 23 30.25	+19 34 52.4	16.7	033
(1867)	1992 12 30.07292	07 23 27.78	+19 34 46.8		033
(1867)	1993 01 01.04583	07 22 15.10	+19 31 56.1		033
(1878)	1992 12 30.00694	07 19 18.29	+19 28 33.4	16.6	033
(1878)	1992 12 30.07292	07 19 14.57	+19 28 39.3		033
(1878)	1993 01 01.04583	07 17 26.00	+19 31 53.4		033
(1950)	1992 11 24.05972	07 12 01.85	+24 26 06.9	16.9	033

(1950)	1992 11 24.13403	07 12 01.12	+24 26 22.5				033
(1967)	1992 11 24.05972	07 16 16.32	+25 30 19.5	15.9			033
(1967)	1992 11 24.13403	07 16 15.47	+25 30 36.6				033
(2513)	1992 12 30.00694	07 20 02.12	+19 43 52.4	17.3			033
(2513)	1992 12 30.07292	07 19 57.37	+19 43 55.4				033
(2513)	1993 01 01.04583	07 17 39.36	+19 45 25.6				033
(2543)	1992 12 29.88229	02 12 03.76	+18 18 43.5	17.0			033
(2543)	1992 12 29.93507	02 12 04.24	+18 18 54.5				033
(2658)	1992 07 26.96875	20 33 04.23	-05 24 08.5	18.5			033
(2658)	1992 07 27.96806	20 32 17.68	-05 27 05.9				033
(2658)	1992 07 28.95278	20 31 31.98	-05 30 05.1				033
(2975)	1992 09 23.04097	03 10 04.83	+22 00 53.4	18.8			033
(2975)	1992 09 25.06181	03 09 44.58	+21 57 38.8				033
(2975)	1992 09 25.10417	03 09 44.03	+21 57 34.1				033
(2975)	1992 09 27.05764	03 09 17.10	+21 53 47.2				033
(2975)	1992 09 28.08681	03 08 59.97	+21 51 32.2				033
(2975)	1992 09 29.05625	03 08 42.10	+21 49 15.3				033
(3053)	1992 09 23.04097	03 06 25.01	+20 19 12.3	17.4			033
(3053)	1992 09 25.06181	03 05 58.78	+20 24 40.3				033
(3053)	1992 09 25.10417	03 05 58.05	+20 24 47.4				033
(3053)	1992 09 27.05764	03 05 23.93	+20 29 30.3				033
(3053)	1992 09 28.08681	03 05 02.36	+20 31 46.8				033
(3053)	1992 09 29.05625	03 04 40.05	+20 33 46.1				033
(3053)	1992 12 29.88229	02 09 20.18	+18 18 59.8	17.6			033
(3053)	1992 12 29.93507	02 09 21.50	+18 19 03.6				033
(3110)	1992 11 24.05972	07 12 56.67	+25 50 57.5	17.2			033
(3110)	1992 11 24.13403	07 12 55.51	+25 51 03.7				033
(3325)	1992 12 29.88229	02 15 54.01	+17 11 21.4	17.5			033
(3325)	1992 12 29.93507	02 15 53.64	+17 11 33.8				033
(3866)	1992 12 30.00694	07 17 05.00	+17 42 36.1	17.9			033
(3866)	1992 12 30.07292	07 17 01.54	+17 42 39.9				033
(3866)	1993 01 01.04583	07 15 20.11	+17 44 43.1				033
(4207)	1992 12 29.88229	02 16 27.51	+19 06 32.3	17.1			033
(4207)	1992 12 29.93507	02 16 28.00	+19 06 22.1				033
(4515)	1992 12 29.88229	02 15 02.81	+16 35 51.9	18.1			033
(4515)	1992 12 29.93507	02 15 04.36	+16 35 56.3				033
(5397)	1992 09 23.04097	03 06 26.80	+21 10 06.0	17.5			033
(5397)	1992 09 25.06181	03 06 34.41	+20 58 14.0				033
(5397)	1992 09 25.10417	03 06 34.38	+20 57 58.9				033
(5397)	1992 09 27.05764	03 06 33.60	+20 45 34.3				033
(5397)	1992 09 28.08681	03 06 29.90	+20 38 40.2				033
(5397)	1992 09 29.05625	03 06 24.54	+20 31 56.2				033
(5401)	1992 09 25.12708	06 50 16.70	+28 03 12.7	18			033
(5401)	1992 09 27.08333	06 53 06.36	+28 08 18.8				033
(5401)	1992 09 27.12222	06 53 09.64	+28 08 25.4				033
(5401)	1992 09 28.11389	06 54 34.33	+28 11 01.3				033
(5401)	1992 09 29.10208	06 55 57.80	+28 13 38.1				033
(5413)	1992 12 29.98264	06 49 36.46	+23 29 52.1	16.5			033
(5413)	1992 12 30.02917	06 49 33.94	+23 29 55.5				033
(5413)	1993 01 01.02500	06 47 44.88	+23 32 11.2				033

091 Aurec-sur-Loire
R. Chanal, Observatoire de Nurol, F-43110 Aurec-sur-Loire, France
0.41-m reflector

(4)	1992 04 20.87396	11 08 05.37	+17 02 24.8				091
(712)	1992 08 24.98125	21 05 40.32	+05 36 30.1				091
(753)	1992 11 23.93194	01 24 06.24	+01 38 37.7				091
(843)	1992 11 23.96806	03 24 14.60	+30 36 26.6				091
(843)	1992 11 24.07292	03 24 06.47	+30 36 07.8				091

(1520)	1992 09 25.92083	21 57 23.28	+11 41 39.9		091
(1520)	1992 09 25.95764	21 57 22.36	+11 41 24.2		091
(1565)	1992 07 26.89722	18 41 37.40	-01 02 11.5		091
(1565)	1992 07 26.95833	18 41 33.17	-01 01 41.7		091
(1622)	1992 03 01.00764	10 47 20.75	+13 02 31.9		091
(2060)	1992 02 23.93958	08 20 44.45	+11 47 10.4		091
(2361)	1992 02 23.91910	07 58 18.76	+23 04 54.1		091
(2361)	1992 02 23.97535	07 58 17.12	+23 04 55.2		091
(2451)	1992 02 29.92639	10 18 13.13	+09 48 39.2		091
(2451)	1992 02 29.99028	10 18 09.60	+09 48 45.2		091
(3765)	1992 11 23.88918	04 17 50.33	+21 31 09.7		091
(3765)	1992 11 24.04515	04 17 40.99	+21 30 44.4		091

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
AGK3, SAOC

1992 WD5	1993 01 20.83611	05 51 38.07	+48 54 06.0		104
1992 WD5	1993 01 20.85069	05 51 38.21	+48 53 56.6		104
1992 WD5	1993 01 26.86424	05 55 41.49	+47 48 45.6		104
1992 WD5	1993 01 26.87917	05 55 42.30	+47 48 34.6		104
1992 WD5	1993 01 27.88472	05 56 41.03	+47 35 55.6		104
1992 WD5	1993 01 27.89931	05 56 41.68	+47 35 43.8		104
(4179)	1992 12 16.93924	09 22 03.34	+10 15 56.9		104
(4179)	1992 12 16.94340	09 22 01.15	+10 16 15.8		104
(4179)	1992 12 16.95799	09 21 53.06	+10 17 25.4		104
(4179)	1992 12 16.96354	09 21 50.13	+10 17 51.5		104
(4179)	1992 12 16.96945	09 21 46.99	+10 18 18.7		104
(4179)	1992 12 16.97396	09 21 44.54	+10 18 39.1		104
(4179)	1992 12 17.93299	09 14 11.67	+11 25 27.3		104
(4179)	1992 12 17.93611	09 14 10.32	+11 25 39.3		104
(4179)	1992 12 17.93924	09 14 08.99	+11 25 52.2		104
(4179)	1992 12 19.01007	09 06 55.79	+12 28 05.5		104
(4179)	1992 12 19.01285	09 06 54.71	+12 28 13.7		104
(4179)	1992 12 25.92847	08 37 44.11	+16 21 15.7		104
(4179)	1992 12 25.93200	08 37 43.48	+16 21 22.0		104
(4179)	1992 12 25.93542	08 37 42.77	+16 21 27.5		104
(4179)	1992 12 26.90347	08 34 57.67	+16 41 23.1		104
(4179)	1992 12 26.90799	08 34 56.96	+16 41 29.7		104
(4179)	1992 12 29.94271	08 27 26.58	+17 33 47.4		104
(4179)	1992 12 29.94688	08 27 25.90	+17 33 51.5		104
(4179)	1993 01 15.83542	08 02 25.61	+20 04 06.5		104
(4179)	1993 01 15.84167	08 02 25.23	+20 04 08.4		104
(5176)	1992 12 16.80764	02 54 34.16	+09 25 35.4		104
(5176)	1992 12 16.82083	02 54 33.98	+09 25 41.2		104
(5176)	1992 12 17.83750	02 54 26.06	+09 32 18.8		104
(5176)	1992 12 17.85069	02 54 25.93	+09 32 24.7		104
(5176)	1992 12 18.84445	02 54 20.19	+09 38 59.2		104
(5176)	1992 12 18.85764	02 54 20.07	+09 39 04.8		104
(5438)	1992 12 29.96528	10 09 02.82	+01 24 42.6		104
(5438)	1992 12 29.97847	10 09 02.89	+01 24 23.6		104

303 Merida
O. A. Naranjo, Dept. de Fisica, Universidad de los Andes,
Merida 5101, Venezuela
Observer O. A. Naranjo
1.0-m Schmidt

1992 AU3	*	1992 01 13.33032	08 54 24.52	-04 16 13.1	16	303
1992 AU3		1992 01 14.25694	08 53 29.90	-04 29 43.4	16	303
1992 AV3	*	1992 01 13.33032	08 57 17.02	-01 35 12.4	16	303
1992 AV3		1992 01 14.25694	08 56 10.03	-01 41 34.2	16	303
1992 AW3	*	1992 01 13.33032	08 57 44.57	-01 38 46.6	18	303
1992 AW3		1992 01 14.25694	08 57 03.60	-01 39 57.8	18	303
1992 AX3	*	1992 01 13.33032	08 57 52.72	-02 56 10.6	16	303
1992 AX3		1992 01 14.25694	08 57 10.57	-02 58 50.2	16	303
1992 AY3	*	1992 01 13.33032	08 58 03.90	-00 57 37.8	18	303
1992 AY3		1992 01 14.25694	08 57 17.90	-01 00 24.6	18	303
1992 AZ3	*	1992 01 13.33032	08 59 44.78	-02 32 06.0	16	303
1992 AZ3		1992 01 14.25694	08 59 08.91	-02 29 52.2	16	303
1992 AA4	*	1992 01 13.26319	08 56 55.23	+35 44 20.3	16	303
1992 AA4		1992 01 14.31823	08 55 59.86	+35 56 47.6	16	303
1992 AB4	*	1992 01 13.26319	08 57 55.85	+36 15 02.7	17	303
1992 AB4		1992 01 14.31823	08 57 00.70	+36 25 41.2	17	303
1992 AC4	*	1992 01 13.26319	09 01 55.91	+38 51 09.1	16	303
1992 AC4		1992 01 14.31823	09 00 41.88	+38 54 42.3	16	303
1992 AD4	*	1992 01 13.26319	09 04 12.62	+36 49 36.1	16	303
1992 AD4		1992 01 14.31823	09 03 25.85	+37 00 00.6	16	303
1992 AE4	*	1992 01 13.26319	09 07 08.15	+35 20 48.0	17	303
1992 AE4		1992 01 14.31823	09 06 10.88	+35 22 59.0	17	303
1992 AF4	*	1992 01 13.26319	09 09 59.13	+37 53 27.2	17	303
1992 AF4		1992 01 14.31823	09 08 57.40	+38 01 54.6	17	303
1992 PT6	*	1992 08 04.14896	21 18 41.11	-21 12 04.0	17	303
1992 PT6		1992 08 07.28819	21 15 34.57	-21 22 19.3	17	303
1992 PU6	*	1992 08 04.14896	21 20 28.20	-24 29 01.9	16	303
1992 PU6		1992 08 07.28819	21 17 09.28	-24 24 21.3	17	303
(193)		1992 01 13.26319	08 53 06.41	+36 33 55.5	14	303
(193)		1992 01 14.31823	08 51 50.07	+36 33 34.2	14	303
(309)		1992 08 04.14896	21 12 49.93	-20 49 11.3	14	303
(309)		1992 08 07.28819	21 09 55.03	-20 56 59.9	15	303
(436)		1992 01 13.26319	09 05 29.94	+37 33 04.9	15	303
(436)		1992 01 14.31823	09 04 29.75	+37 35 37.8	15	303
(1126)		1992 08 04.14896	21 16 15.65	-24 10 06.4	16	303
(1126)		1992 08 07.28819	21 12 46.65	-24 19 38.6	16	303
(1308)		1992 08 04.14896	21 08 09.94	-22 25 37.9	14	303
(1548)		1992 08 04.14896	21 08 34.58	-23 37 17.7	15	303
(2930)		1992 08 04.14896	21 17 49.77	-20 28 49.6	17	303
(3211)		1992 08 04.14896	21 10 30.06	-23 41 25.0	16	303
(3964)		1992 08 04.14896	21 21 24.86	-21 00 27.7	16	303
(3964)		1992 08 07.28819	21 18 20.35	-21 00 00.3	16	303
(4679)		1992 01 13.33032	08 54 44.63	-03 00 22.1	16	303
(4679)		1992 01 14.25694	08 54 07.98	-02 57 30.4	16	303
(4975)		1992 01 13.33032	09 01 02.10	-00 57 04.8	16	303
(4975)		1992 01 14.25694	09 00 24.53	-00 53 55.3	16	303
(5137)		1992 01 13.33032	09 01 11.13	-05 00 40.2	16	303
(5137)		1992 01 14.25694	09 00 28.63	-05 02 23.7	16	303

327 Peking Observatory, Xinglong Station
Y.-L. Ge, Purple Mountain Observatory, Nanking, Peoples Republic of China
Observer Y.-L. Ge
Measurer Q. Wang

1977 AL1	1988 11 04.72686	02 32 25.09	+01 51 37.0	16	327
1977 AL1	1988 11 04.76992	02 32 22.28	+01 51 39.0		327
1977 UO5	1988 11 03.53311	02 03 33.82	+10 17 13.5	16.5	327
1977 UO5	1988 11 03.57200	02 03 31.99	+10 17 06.8		327
1979 MX6	1987 11 15.56668	01 48 25.01	+17 23 19.5	17.5	327
1979 MX6	1987 11 15.62328	01 48 22.27	+17 22 53.9		327

1981 EQ28		1988	11	03.62478	02	08	57.09	+07 29 40.5	16	327
1981 EQ28		1988	11	03.66436	02	08	55.11	+07 29 27.9		327
1981 KJ		1988	11	04.65360	02	39	04.52	+18 06 16.0	17	327
1981 KJ		1988	11	04.70985	02	39	01.31	+18 06 16.1		327
1982 BD13		1987	11	12.52569	01	56	56.84	+21 01 03.2	17	327
1982 BD13		1987	11	12.56632	01	56	54.33	+21 00 48.6		327
1982 PR		1988	11	03.54839	02	22	00.32	+14 24 20.0	16.5	327
1982 PR		1988	11	03.58346	02	21	58.55	+14 24 12.9		327
1982 PR		1988	11	03.59631	02	21	57.83	+14 24 10.4	16.5	327
1982 PR		1988	11	03.63832	02	21	55.72	+14 24 01.8		327
1982 PR		1988	11	04.52443	02	21	12.78	+14 20 54.9		327
1987 UA1		1987	11	15.56668	01	44	11.84	+16 44 35.4	17	327
1987 UA1		1987	11	15.62328	01	44	09.85	+16 43 53.8		327
1987 UW1		1987	11	16.58080	02	04	37.75	+14 54 10.4		327
1987 VK1	*	1987	11	12.52569	01	53	39.02	+22 26 59.2	17	327
1987 VK1		1987	11	12.56632	01	53	37.17	+22 26 40.2		327
1987 VL1	*	1987	11	12.52569	01	56	21.61	+21 52 35.2	16	327
1987 VL1		1987	11	12.56632	01	56	19.50	+21 52 19.2		327
1987 VM1	*	1987	11	12.52569	02	07	20.86	+24 48 32.3	17.5	327
1987 VM1		1987	11	12.56632	02	07	19.07	+24 48 05.7		327
1987 VN1	*	1987	11	12.52569	02	10	27.64	+23 49 44.7	16	327
1987 VN1		1987	11	12.56632	02	10	25.24	+23 49 35.5		327
1987 VO1	*	1987	11	13.47083	02	01	53.48	+26 54 23.5	16	327
1987 VO1		1987	11	13.53125	02	01	50.77	+26 53 55.9		327
1987 VP1	*	1987	11	13.60312	02	46	06.36	+24 14 58.0	17	327
1987 VP1		1987	11	13.64340	02	46	03.14	+24 15 05.8		327
1987 VQ1	*	1987	11	15.47154	01	38	52.32	+23 28 11.9	18	327
1987 VQ1		1987	11	15.52328	01	38	49.63	+23 27 55.7		327
1987 VR1	*	1987	11	15.53925	02	29	44.95	+19 40 04.9	16.5	327
1987 VR1		1987	11	15.60973	02	29	41.18	+19 39 30.5		327
1987 VS1	*	1987	11	15.53925	02	34	15.37	+19 41 53.8	16.5	327
1987 VS1		1987	11	15.60973	02	34	10.40	+19 42 02.9		327
1987 VT1	*	1987	11	15.53925	02	35	13.19	+16 24 18.4	16	327
1987 VT1		1987	11	15.60973	02	35	08.58	+16 24 24.4		327
1987 VU1	*	1987	11	15.53925	02	36	51.96	+19 07 42.6	16	327
1987 VU1		1987	11	15.60973	02	36	47.81	+19 07 20.1		327
1987 VV1	*	1987	11	15.53925	02	41	45.81	+18 24 31.3	17.5	327
1987 VV1		1987	11	15.60973	02	41	41.31	+18 24 20.2		327
1987 VW1	*	1987	11	15.56668	01	38	02.14	+19 15 36.8	17	327
1987 VW1		1987	11	15.62328	01	37	59.94	+19 15 11.7		327
1987 VX1	*	1987	11	15.56668	01	42	32.41	+19 12 13.4	17	327
1987 VX1		1987	11	15.62328	01	42	30.36	+19 11 43.2		327
1987 VY1	*	1987	11	15.56668	01	44	48.18	+18 29 06.8	17	327
1987 VY1		1987	11	15.62328	01	44	46.05	+18 28 43.5		327
1987 VZ1	*	1987	11	15.56668	01	48	15.18	+19 13 21.2	17	327
1987 VZ1		1987	11	15.62328	01	48	12.87	+19 13 00.4		327
1987 VA2	*	1987	11	15.58265	01	38	35.88	+26 10 51.4		327
1987 VB2	*	1987	11	15.58265	01	41	56.03	+29 33 37.4		327
1987 VC2	*	1987	11	15.58265	01	46	54.25	+26 34 40.2		327
1987 VD2	*	1987	11	15.58265	01	50	04.15	+27 55 02.2		327
1987 WF		1987	11	15.53925	02	35	05.58	+16 22 59.3	16	327
1987 WF		1987	11	15.60973	02	35	00.82	+16 22 56.4		327
1987 WQ		1987	11	13.60312	02	37	16.99	+22 29 30.3	16	327
1987 WQ		1987	11	13.64340	02	37	14.33	+22 29 41.6		327
1987 WU4		1987	11	18.68959	03	32	15.59	+15 25 45.7		327
1987 WO5	*	1987	11	16.58080	02	01	10.53	+13 36 21.6		327
1987 WP5	*	1987	11	16.58080	02	07	36.36	+12 37 37.2		327
1987 WQ5	*	1987	11	16.64990	02	47	58.25	+22 47 12.2		327
1987 WR5	*	1987	11	16.64990	02	48	35.26	+22 33 26.2		327

1987	WS5	*	1987	11	16.64990	02	49	07.36	+22 04 49.8	327
1987	WT5	*	1987	11	16.64990	02	56	09.41	+23 08 32.3	327
1987	WU5	*	1987	11	16.64990	02	57	20.34	+25 03 59.6	327
1987	WV5	*	1987	11	18.66008	03	51	09.51	+14 11 30.9 17	327
1987	WV5		1987	11	18.71193	03	51	06.96	+14 11 11.6	327
1987	WW5	*	1987	11	18.68959	03	31	19.37	+17 17 46.0	327
1988	TQ4		1988	11	04.56436	02	43	01.31	+13 30 39.8 16	327
1988	TQ4		1988	11	04.61089	02	42	58.77	+13 30 28.8	327
1988	UP		1988	11	03.56124	02	26	11.50	+11 29 52.2	327
1988	UO1		1988	11	04.69422	02	15	10.53	+20 02 49.3 15.5	327
1988	UO1		1988	11	04.75846	02	15	06.93	+20 02 19.5	327
1988	VA		1988	11	03.54839	02	32	22.41	+14 10 24.9 16.5	327
1988	VA		1988	11	03.58346	02	32	20.69	+14 09 56.0	327
1988	VB		1988	11	04.56436	02	44	52.43	+15 36 48.7 15.5	327
1988	VB		1988	11	04.61089	02	44	49.46	+15 36 52.6	327
1988	VF		1988	11	03.59631	02	13	07.64	+14 09 15.0 16	327
1988	VF		1988	11	03.63832	02	13	04.97	+14 09 20.8	327
1988	VF		1988	11	04.52443	02	12	12.19	+14 11 37.3	327
1988	VK		1988	11	04.59666	02	49	31.81	+04 23 39.4 16	327
1988	VK		1988	11	04.63797	02	49	29.10	+04 23 34.7	327
1988	VL		1988	11	04.59666	02	44	59.63	+05 37 06.7 16	327
1988	VL		1988	11	04.63797	02	44	57.40	+05 36 45.1	327
1988	VR		1988	11	03.56124	02	31	36.05	+09 15 07.1	327
1988	VV		1988	11	03.54839	02	32	43.68	+15 37 58.0 16.5	327
1988	VV		1988	11	03.58346	02	32	41.74	+15 37 42.3	327
1988	VY		1988	11	03.54839	02	32	47.01	+13 59 17.2 17.5	327
1988	VY		1988	11	03.58346	02	32	45.17	+13 59 07.7	327
1988	VY		1988	11	04.67200	02	31	50.85	+13 54 06.7	327
1988	VO1		1988	11	03.54839	02	27	19.70	+15 39 47.1 16.5	327
1988	VO1		1988	11	03.58346	02	27	17.56	+15 39 31.9	327
1988	VQ1		1988	11	04.56436	02	48	29.09	+15 59 27.5 16.5	327
1988	VQ1		1988	11	04.61089	02	48	25.81	+15 59 26.1	327
1988	VZ1		1988	11	03.54839	02	37	09.56	+15 34 04.6 16.5	327
1988	VZ1		1988	11	03.58346	02	37	07.72	+15 33 56.5	327
1988	VA2		1988	11	04.56436	02	48	51.18	+16 37 35.6 16.5	327
1988	VA2		1988	11	04.61089	02	48	47.99	+16 37 30.2	327
1988	VC2		1988	11	04.56436	02	52	55.15	+16 07 48.7 17	327
1988	VC2		1988	11	04.61089	02	52	52.56	+16 07 45.5	327
1988	VD2		1988	11	04.56436	02	52	37.41	+14 42 10.0 17	327
1988	VD2		1988	11	04.61089	02	52	34.27	+14 42 05.5	327
1988	VU2		1988	11	03.58346	02	31	05.49	+16 21 39.0	327
1988	VX2		1988	11	04.56436	02	47	26.91	+16 02 59.2 16.5	327
1988	VX2		1988	11	04.61089	02	47	24.74	+16 02 38.7	327
1988	VC5		1988	11	03.59631	02	11	44.74	+14 21 31.3 17	327
1988	VC5		1988	11	03.63832	02	11	42.46	+14 21 11.1	327
1988	VC5		1988	11	04.52443	02	10	58.57	+14 13 50.3	327
1988	VG5		1988	11	03.54839	02	30	45.66	+14 26 36.8 17	327
1988	VG5		1988	11	03.58346	02	30	43.55	+14 26 29.1	327
1988	VH5		1988	11	03.54839	02	38	07.19	+14 49 20.0 17	327
1988	VH5		1988	11	03.58346	02	38	04.79	+14 49 10.8	327
1988	VN8		1988	11	04.65360	02	37	05.05	+17 10 54.5 16	327
1988	VN8		1988	11	04.70985	02	37	01.62	+17 10 54.2	327
1988	VG11	*	1988	11	03.53311	02	12	35.27	+09 08 03.2 16.5	327
1988	VG11		1988	11	03.57200	02	12	33.43	+09 07 54.7	327
1988	VH11	*	1988	11	03.53311	02	16	38.58	+09 26 03.5 17.5	327
1988	VH11		1988	11	03.57200	02	16	36.63	+09 25 50.4	327
1988	VJ11	*	1988	11	03.54839	02	23	44.29	+14 01 05.3 17.5	327
1988	VJ11		1988	11	03.58346	02	23	42.40	+14 00 58.3	327
1988	VJ11		1988	11	04.67200	02	22	49.36	+13 57 43.1	327

1988 VK11	*	1988	11	03.54839	02	25	41.95	+13	35 47.7	17	327
1988 VK11		1988	11	03.58346	02	25	39.83	+13	35 41.1		327
1988 VK11		1988	11	04.67200	02	24	38.22	+13	32 06.5		327
1988 VL11	*	1988	11	03.54839	02	30	07.32	+13	01 49.3	17.5	327
1988 VL11		1988	11	03.58346	02	30	05.36	+13	01 49.9		327
1988 VM11	*	1988	11	03.54839	02	32	43.85	+14	14 48.1	16.5	327
1988 VM11		1988	11	03.58346	02	32	41.51	+14	14 39.3		327
1988 VM11		1988	11	04.67200	02	31	33.68	+14	09 54.9		327
1988 VN11	*	1988	11	03.54839	02	34	32.42	+12	35 26.7	17.5	327
1988 VN11		1988	11	03.58346	02	34	30.05	+12	35 29.5		327
1988 VN11		1988	11	04.67200	02	33	21.93	+12	36 02.3		327
1988 VO11	*	1988	11	03.59631	02	14	50.77	+14	10 27.9	17.5	327
1988 VO11		1988	11	03.63832	02	14	48.36	+14	10 14.7		327
1988 VP11	*	1988	11	03.59631	02	15	03.67	+14	17 43.5	17.5	327
1988 VP11		1988	11	03.63832	02	15	01.36	+14	17 35.6		327
1988 VQ11	*	1988	11	03.59631	02	15	19.00	+15	51 31.1	17	327
1988 VQ11		1988	11	03.63832	02	15	16.45	+15	51 34.7		327
1988 VQ11		1988	11	04.52443	02	14	24.18	+15	52 36.9		327
1988 VR11	*	1988	11	03.59631	02	15	19.58	+13	08 12.4	16.5	327
1988 VR11		1988	11	03.63832	02	15	17.00	+13	07 55.7		327
1988 VR11		1988	11	04.52443	02	14	25.64	+13	01 54.9		327
1988 VS11	*	1988	11	03.59631	02	15	39.91	+13	57 02.1	16.5	327
1988 VS11		1988	11	03.63832	02	15	37.29	+13	56 41.9		327
1988 VS11		1988	11	04.52443	02	14	48.09	+13	49 40.0		327
1988 VT11	*	1988	11	03.59631	02	17	05.67	+13	07 39.7	16.5	327
1988 VT11		1988	11	03.63832	02	17	03.56	+13	07 31.6		327
1988 VT11		1988	11	04.52443	02	16	22.36	+13	04 57.6		327
1988 VU11	*	1988	11	03.59631	02	19	00.79	+13	34 28.4	16.5	327
1988 VU11		1988	11	03.63832	02	18	57.89	+13	34 27.0		327
1988 VU11		1988	11	04.52443	02	18	00.52	+13	33 48.4		327
1988 VV11	*	1988	11	03.61020	02	26	57.14	+04	14 25.6	17	327
1988 VV11		1988	11	03.65047	02	26	55.23	+04	14 45.1		327
1988 VW11	*	1988	11	03.61020	02	28	20.58	+06	17 44.5	17	327
1988 VW11		1988	11	03.65047	02	28	18.45	+06	17 32.4		327
1988 VX11	*	1988	11	03.61020	02	28	58.95	+05	40 30.3	16.5	327
1988 VX11		1988	11	03.65047	02	28	56.41	+05	40 19.1		327
1988 VY11	*	1988	11	03.61020	02	29	20.36	+04	27 19.3	15.5	327
1988 VY11		1988	11	03.65047	02	29	17.13	+04	27 24.0		327
1988 VZ11	*	1988	11	03.61020	02	30	00.47	+07	22 41.7	16.5	327
1988 VZ11		1988	11	03.65047	02	29	57.84	+07	22 36.4		327
1988 VA12	*	1988	11	03.61020	02	30	53.10	+07	36 52.5	17	327
1988 VA12		1988	11	03.65047	02	30	50.81	+07	36 45.7		327
1988 VB12	*	1988	11	03.61020	02	31	51.41	+07	01 40.4	17	327
1988 VB12		1988	11	03.65047	02	31	49.06	+07	01 39.8		327
1988 VC12	*	1988	11	03.61020	02	35	43.24	+06	57 23.3	16.5	327
1988 VC12		1988	11	03.65047	02	35	40.97	+06	57 23.5		327
1988 VD12	*	1988	11	03.62478	02	09	03.32	+05	28 13.6	16	327
1988 VD12		1988	11	03.66436	02	09	01.25	+05	28 03.2		327
1988 VE12	*	1988	11	03.62478	02	09	04.84	+06	16 50.9	16.5	327
1988 VE12		1988	11	03.66436	02	09	02.97	+06	16 25.1		327
1988 VF12	*	1988	11	03.62478	02	09	38.77	+05	44 47.1	16	327
1988 VF12		1988	11	03.66436	02	09	36.63	+05	44 45.1		327
1988 VG12	*	1988	11	03.62478	02	09	42.18	+07	12 17.7	16.5	327
1988 VG12		1988	11	03.66436	02	09	40.44	+07	12 00.5		327
1988 VH12	*	1988	11	03.62478	02	09	45.67	+03	14 41.4	16.5	327
1988 VH12		1988	11	03.66436	02	09	43.89	+03	14 33.5		327
1988 VJ12	*	1988	11	03.62478	02	10	58.31	+07	23 41.7	16.5	327
1988 VJ12		1988	11	03.66436	02	10	56.00	+07	23 33.9		327
1988 VK12	*	1988	11	03.62478	02	12	03.72	+06	56 36.7	16.5	327

1988 VK12		1988	11	03.66436	02	12	00.72	+06	56	24.9		327
1988 VL12	*	1988	11	03.62478	02	14	31.14	+04	33	28.6	17	327
1988 VL12		1988	11	03.66436	02	14	27.73	+04	33	23.0		327
1988 VM12	*	1988	11	03.62478	02	15	45.51	+04	09	34.8	17	327
1988 VM12		1988	11	03.66436	02	15	42.48	+04	09	31.8		327
1988 VN12	*	1988	11	04.56436	02	46	17.38	+13	14	52.0	17	327
1988 VN12		1988	11	04.61089	02	46	14.04	+13	14	49.7		327
1988 VO12	*	1988	11	04.56436	02	48	33.56	+16	48	28.4	16.5	327
1988 VO12		1988	11	04.61089	02	48	30.79	+16	48	09.2		327
1988 VP12	*	1988	11	04.56436	02	50	18.61	+12	56	21.7	16.5	327
1988 VP12		1988	11	04.61089	02	50	15.27	+12	56	19.9		327
1988 VQ12	*	1988	11	04.56436	02	54	42.52	+12	46	23.8	17	327
1988 VQ12		1988	11	04.61089	02	54	40.16	+12	46	14.2		327
1988 VR12	*	1988	11	04.57964	01	47	23.03	+04	40	29.1	16.5	327
1988 VR12		1988	11	04.62617	01	47	21.29	+04	40	13.6		327
1988 VS12	*	1988	11	04.57964	01	53	11.76	+05	07	57.4	17	327
1988 VS12		1988	11	04.62617	01	53	09.44	+05	07	39.7		327
1988 VT12	*	1988	11	04.57964	01	54	03.98	+03	17	52.0	16	327
1988 VT12		1988	11	04.62617	01	54	01.82	+03	17	35.3		327
1988 VU12	*	1988	11	04.57964	01	56	27.05	+06	58	11.7	17	327
1988 VU12		1988	11	04.62617	01	56	24.20	+06	58	10.5		327
1988 VV12	*	1988	11	04.57964	01	56	39.24	+06	41	43.2	17	327
1988 VV12		1988	11	04.62617	01	56	36.82	+06	41	39.4		327
1988 VW12	*	1988	11	04.57964	01	56	40.09	+06	47	26.3	17	327
1988 VW12		1988	11	04.62617	01	56	37.40	+06	47	21.9		327
1988 VX12	*	1988	11	04.57964	01	56	54.89	+07	43	11.3	17	327
1988 VX12		1988	11	04.62617	01	56	53.07	+07	42	58.7		327
1988 VY12	*	1988	11	04.57964	01	59	14.32	+07	12	23.3	16.5	327
1988 VY12		1988	11	04.62617	01	59	12.06	+07	12	11.2		327
1988 VZ12	*	1988	11	04.57964	02	00	08.05	+06	43	07.9	16	327
1988 VZ12		1988	11	04.62617	02	00	05.23	+06	43	18.2		327
1988 VA13	*	1988	11	04.59666	02	42	07.51	+06	30	11.0	16.5	327
1988 VA13		1988	11	04.63797	02	42	05.20	+06	29	58.3		327
1988 VB13	*	1988	11	04.59666	02	43	36.80	+05	52	02.0	17.5	327
1988 VB13		1988	11	04.63797	02	43	33.99	+05	51	54.5		327
1988 VC13	*	1988	11	04.59666	02	46	25.09	+06	19	12.8	17	327
1988 VC13		1988	11	04.63797	02	46	22.77	+06	18	53.2		327
1988 VD13	*	1988	11	04.59666	02	46	36.94	+06	21	49.9	16.5	327
1988 VD13		1988	11	04.63797	02	46	35.05	+06	21	21.7		327
1988 VE13	*	1988	11	04.59666	02	47	55.10	+05	26	35.0	17	327
1988 VE13		1988	11	04.63797	02	47	52.91	+05	26	32.1		327
1988 VF13	*	1988	11	04.59666	02	50	16.07	+07	37	35.6	16.5	327
1988 VF13		1988	11	04.63797	02	50	13.18	+07	37	28.6		327
1988 VG13	*	1988	11	04.59666	02	50	33.33	+06	22	28.5	16.5	327
1988 VG13		1988	11	04.63797	02	50	30.82	+06	22	30.0		327
1988 VH13	*	1988	11	04.59666	02	50	34.28	+03	39	34.8	17	327
1988 VH13		1988	11	04.63797	02	50	31.88	+03	39	30.5		327
1988 VJ13	*	1988	11	04.59666	02	51	11.90	+07	00	43.6	17	327
1988 VJ13		1988	11	04.63797	02	51	09.88	+07	00	28.8		327
1988 VK13	*	1988	11	04.59666	02	51	57.88	+05	55	52.5	16	327
1988 VK13		1988	11	04.63797	02	51	54.72	+05	56	10.6		327
1988 VL13	*	1988	11	04.59666	02	54	32.12	+03	31	19.6	16	327
1988 VL13		1988	11	04.63797	02	54	29.84	+03	31	03.8		327
1988 VM13	*	1988	11	04.59666	02	56	04.21	+06	37	54.4	17.5	327
1988 VM13		1988	11	04.63797	02	56	01.53	+06	37	38.8		327
1988 VN13	*	1988	11	04.65360	02	26	15.07	+18	10	56.6	17.5	327
1988 VN13		1988	11	04.70985	02	26	11.52	+18	10	36.9		327
1988 VO13	*	1988	11	04.65360	02	27	13.86	+18	52	30.1	16	327
1988 VO13		1988	11	04.70985	02	27	10.25	+18	52	21.9		327

1988 VP13	*	1988	11	04.65360	02	27	51.18	+18 10 02.6	16.5	327
1988 VP13		1988	11	04.70985	02	27	47.83	+18 09 45.1		327
1988 VQ13	*	1988	11	04.65360	02	28	01.81	+19 23 29.0	17	327
1988 VQ13		1988	11	04.70985	02	27	58.34	+19 22 57.6		327
1988 VR13	*	1988	11	04.65360	02	28	18.36	+19 05 02.0	17	327
1988 VR13		1988	11	04.70985	02	28	14.98	+19 04 49.4		327
1988 VS13	*	1988	11	04.65360	02	29	49.32	+18 43 59.2	16	327
1988 VS13		1988	11	04.70985	02	29	45.69	+18 43 49.5		327
1988 VT13	*	1988	11	04.65360	02	31	35.43	+19 20 09.2	16.5	327
1988 VT13		1988	11	04.70985	02	31	32.78	+19 19 43.6		327
1988 VU13	*	1988	11	04.65360	02	34	29.49	+18 46 48.6	16	327
1988 VU13		1988	11	04.70985	02	34	26.19	+18 46 20.0		327
1988 VV13	*	1988	11	04.65360	02	34	38.13	+19 22 05.7	16	327
1988 VV13		1988	11	04.70985	02	34	34.68	+19 22 02.5		327
1988 VW13	*	1988	11	04.65360	02	36	20.10	+19 44 43.9	17	327
1988 VW13		1988	11	04.70985	02	36	16.43	+19 44 19.5		327
1988 VX13	*	1988	11	04.69422	02	07	39.95	+18 08 35.1	16.5	327
1988 VX13		1988	11	04.75846	02	07	36.66	+18 08 17.7		327
1988 VY13	*	1988	11	04.69422	02	08	25.68	+17 47 03.0	16	327
1988 VY13		1988	11	04.75846	02	08	22.36	+17 46 42.1		327
1988 VZ13	*	1988	11	04.69422	02	08	44.21	+18 13 04.0	16.5	327
1988 VZ13		1988	11	04.75846	02	08	36.78	+18 13 48.3		327
1988 VA14	*	1988	11	04.69422	02	10	03.87	+19 34 40.5	15.5	327
1988 VA14		1988	11	04.75846	02	10	00.34	+19 34 13.0		327
1988 VB14	*	1988	11	04.69422	02	13	04.93	+20 43 39.8	16.5	327
1988 VB14		1988	11	04.75846	02	13	02.07	+20 43 53.0		327
1988 VC14	*	1988	11	04.69422	02	13	06.06	+19 38 47.1	16.5	327
1988 VC14		1988	11	04.75846	02	13	01.67	+19 38 46.4		327
1988 VD14	*	1988	11	04.69422	02	13	29.89	+19 16 48.6	16	327
1988 VD14		1988	11	04.75846	02	13	26.20	+19 16 28.9		327
1988 VE14	*	1988	11	04.69422	02	13	39.20	+17 22 26.9	17	327
1988 VE14		1988	11	04.75846	02	13	35.86	+17 22 17.3		327
1988 VF14	*	1988	11	04.69422	02	13	55.68	+17 35 32.5	16.5	327
1988 VF14		1988	11	04.75846	02	13	51.53	+17 35 30.7		327
1988 VG14	*	1988	11	04.69422	02	15	59.45	+17 37 25.1	16	327
1988 VG14		1988	11	04.75846	02	15	56.42	+17 36 38.3		327
1989 EQ		1987	11	13.47083	02	07	18.63	+27 06 54.8	16.5	327
1989 EQ		1987	11	13.53125	02	07	15.82	+27 06 36.2		327
1990 EJ2		1987	11	15.53925	02	43	52.91	+17 30 24.0	16.5	327
1990 EJ2		1987	11	15.60973	02	43	49.78	+17 29 59.7		327
1991 LC1		1988	11	04.56436	02	49	41.75	+12 55 18.6	17	327
1991 LC1		1988	11	04.61089	02	49	38.98	+12 54 57.4		327
1991 LE2		1988	11	04.74457	02	18	12.72	+02 14 18.7	16	327
1991 LE2		1988	11	04.78103	02	18	10.61	+02 14 18.2		327
1992 AB1		1987	11	15.53925	02	35	57.66	+19 56 24.6	16.5	327
1992 AB1		1987	11	15.60973	02	35	53.52	+19 55 52.5		327
1992 TD1		1988	11	04.59666	02	46	58.69	+05 10 50.7	16.5	327
1992 TD1		1988	11	04.63797	02	46	56.44	+05 10 23.9		327
1992 UQ		1988	11	04.57964	01	55	09.64	+06 48 54.1	16	327
1992 UQ		1988	11	04.62617	01	55	07.43	+06 48 40.9		327
1992 UT5		1987	11	16.58080	02	06	42.63	+12 13 52.5		327
4581 P-L		1987	11	18.52032	03	33	25.37	+19 16 32.1	16.5	327
4581 P-L		1987	11	18.58126	03	33	21.13	+19 16 26.6		327
2114 T-2		1988	11	04.56436	02	52	09.33	+12 20 30.1	16.5	327
2114 T-2		1988	11	04.61089	02	52	06.44	+12 20 14.9		327
4053 T-2		1988	11	04.57964	01	53	27.10	+07 15 19.4	16.5	327
4053 T-2		1988	11	04.62617	01	53	25.02	+07 15 08.9		327
3006 T-3		1987	11	16.58080	01	52	32.10	+13 47 58.7		327
3107 T-3		1988	11	03.54839	02	23	15.02	+14 43 46.8	16.5	327

3107 T-3	1988 11 03.58346	02 23 13.15	+14 43 41.0				327
(66)	1988 11 03.59631	02 06 12.47	+15 42 45.3				327
(66)	1988 11 03.63832	02 06 10.16	+15 42 36.8				327
(66)	1988 11 04.52443	02 05 22.56	+15 39 48.9				327
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(224)	1987 11 13.61910	01 59 25.36	+19 15 24.4				327
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(461)	1988 11 03.57200	02 16 02.65	+11 36 01.7				327
(503)	1987 11 18.54515	03 49 44.92	+18 19 29.4				327
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(604)	1988 11 03.59631	02 09 33.84	+16 26 17.2				327
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(668)	1988 11 03.63832	02 12 51.25	+12 46 37.1				327
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(707)	1987 11 13.51493	02 04 53.68	+20 20 26.4				327
(707)	1987 11 13.61910	02 04 48.22	+20 19 39.3				327
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(1618)	1988 11 03.56124	02 25 31.36	+09 45 53.3			327
(1701)	1988 11 04.59666	02 48 29.41	+07 24 08.6			327
(1701)	1988 11 04.63797	02 48 27.03	+07 24 10.5			327
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(2037)	1987 11 16.64990	02 55 26.70	+22 12 15.4			327
(2123)	1988 11 03.54839	02 32 23.66	+16 40 28.1			327
(2123)	1988 11 03.58346	02 32 21.77	+16 40 20.2			327
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(2153)	1988 11 03.58346	02 37 17.10	+15 08 22.6			327
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(2193)	1988 11 03.63832	02 12 30.70	+13 17 52.0			327
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(2222)	1988 11 03.57200	02 10 54.70	+09 27 04.9			327
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(3294)	1987 11 13.51493	02 07 34.17	+19 15 45.1		327
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(3411)	1988 11 03.57200	02 17 11.37	+08 13 31.3		327
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(3494)	1987 11 15.53925	02 33 19.61	+16 39 25.8	16	327
(3494)	1987 11 15.60973	02 33 15.65	+16 38 54.7		327
(3584)	1987 11 18.59723	03 47 31.44	+23 06 08.0	17.5	327
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(3748)	1987 11 18.56494	03 34 54.44	+23 13 44.9	17.5	327
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(3773)	1987 11 16.61234	02 21 40.60	+13 14 02.4		327
(3944)	1988 11 03.66436	02 18 52.63	+05 45 17.4		327
(3952)	1988 11 04.65360	02 38 26.55	+18 54 43.5	16	327
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(3977)	1988 11 03.58346	02 24 26.26	+14 02 19.6		327
(4026)	1988 11 03.56124	02 38 05.00	+09 46 22.3		327
(4155)	1987 11 13.51493	01 56 14.36	+17 18 22.6	16	327
(4155)	1987 11 13.61910	01 56 09.37	+17 18 20.8		327
(4172)	1987 11 15.53925	02 30 21.15	+18 30 37.7	17	327
(4172)	1987 11 15.60973	02 30 16.79	+18 30 16.5		327
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(4454)	1988 11 03.58346	02 35 21.63	+16 09 28.1		327
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(4949)	1988 11 04.59666	02 56 00.16	+07 13 34.4	15.5	327
(4949)	1988 11 04.63797	02 55 57.66	+07 13 27.6		327
(5018)	1988 11 03.59631	02 09 10.56	+13 55 25.8	16	327
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(5401)	1987 11 18.59723	03 48 47.38	+23 26 25.1	17	327
(5401)	1987 11 18.67814	03 48 42.03	+23 26 35.0		327

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

1982 UD2		1992 10 31.57396	02 44 14.46	+15 47 01.0				364
1982 UD2		1992 10 31.58854	02 44 13.67	+15 46 57.3				364
1982 UT5		1992 10 31.54479	02 32 14.58	+15 31 46.3				364
1982 UT5		1992 10 31.55868	02 32 13.79	+15 31 42.0				364
1985 CE2		1993 01 26.61563	09 44 26.13	+09 37 54.5		17		364
1985 CE2		1993 01 26.62951	09 44 25.37	+09 37 59.0				364
1988 BK		1993 01 21.56632	09 07 51.11	+14 30 50.3		17		364
1988 BK		1993 01 21.58021	09 07 50.58	+14 30 55.6				364
1988 BK		1993 01 25.55660	09 04 43.28	+15 03 57.9				364
1988 BK		1993 01 25.57049	09 04 42.62	+15 04 04.9				364
1988 BK		1993 02 12.51701	08 49 29.68	+17 40 57.3				364
1988 BK		1993 02 12.53090	08 49 28.82	+17 41 06.1				364
1993 BS3	*	1993 01 26.58958	09 33 32.41	+09 57 52.0		16.5		364
1993 BS3		1993 01 26.60174	09 33 31.49	+09 57 52.0				364
1993 BS3		1993 01 30.61215	09 29 27.22	+09 55 46.3				364
1993 BS3		1993 01 30.62604	09 29 26.36	+09 55 46.3				364
1993 BS3		1993 02 01.57326	09 27 22.84	+09 55 22.7				364
1993 BS3		1993 02 01.58715	09 27 21.93	+09 55 21.4				364
1993 BS3		1993 02 12.54688	09 15 25.52	+09 58 43.5				364
1993 BS3		1993 02 12.56076	09 15 24.59	+09 58 43.9				364
1993 BS6	*	1993 01 30.61215	09 29 06.76	+10 47 21.5		17		364
1993 BS6		1993 01 30.62604	09 29 06.09	+10 47 18.5				364
1993 BS6		1993 02 01.57326	09 27 09.59	+10 41 51.3				364
1993 BS6		1993 02 01.58715	09 27 08.87	+10 41 49.2				364
1993 BS6		1993 02 12.54688	09 16 01.33	+10 13 48.9				364
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(158)		1993 01 26.61563	09 55 32.98	+11 34 46.6		13.5		364
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(874)		1992 10 21.58229	02 38 11.98	+08 19 02.4				364
(874)		1992 10 21.59618	02 38 11.43	+08 18 56.6				364
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(2017)		1993 01 26.56007	09 19 04.85	+10 47 40.5				364
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(2606)		1992 10 25.57326	02 27 33.13	+08 43 41.6				364
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(3776)		1992 10 26.50660	02 32 43.99	+13 36 48.4				364
(3776)		1992 10 26.52049	02 32 43.20	+13 36 49.7				364
(3776)		1992 10 31.54479	02 27 41.54	+13 44 36.7				364
(3776)		1992 10 31.55868	02 27 40.62	+13 44 38.2				364

(3844)		1993 01 21.59479	09 20 07.09	+14 55 56.7					364
(3844)		1993 01 21.60868	09 20 06.36	+14 56 02.3					364
(4426)		1992 10 31.54479	02 28 04.81	+15 42 14.3					364
(4426)		1992 10 31.55868	02 28 03.96	+15 42 08.1					364
(5397)		1992 10 31.57396	02 48 09.22	+15 00 29.3					364
(5397)		1992 10 31.58854	02 48 08.32	+15 00 18.9					364
(5427)		1992 10 31.57396	02 45 02.76	+15 11 18.5					364
(5427)		1992 10 31.58854	02 45 01.84	+15 11 00.9					364

365 Uto Observatory
F. Uto, Mise Machi 2340-1, Kasihara, Nara-Ken 634, Japan
0.20-m f/4.0 reflector
PPM

1993 BS3		1993 01 29.69539	09 30 24.13	+09 56 05.8		16.0		W	365
1993 BS3		1993 01 29.72144	09 30 22.56	+09 56 03.6					365
1993 BS3		1993 01 30.68498	09 29 22.61	+09 55 41.7		16.0		W	365
1993 BS3		1993 01 30.73845	09 29 18.74	+09 55 45.5				W	365
1993 CC		1993 02 14.64750	10 45 28.19	+16 29 18.1		16.5			365
1993 CC		1993 02 14.67528	10 45 26.94	+16 29 35.4					365
1993 CL	*	1993 02 13.64924	11 03 22.51	+13 00 12.4		17.0		W	365
1993 CL		1993 02 13.66764	11 03 21.65	+13 00 20.0					365
1993 CL		1993 02 14.57667	11 02 45.44	+13 05 05.3					365
1993 CL		1993 02 14.60653	11 02 44.10	+13 05 17.6					365

366 Miyasaka Observatory
S. Miyasaka, 3-8-501, 4 Chome, Nagayama, Tama, Tokyo 206, Japan
Observers S. Miyasaka, A. Takahashi
Measurer S. Miyasaka
0.25-m reflector
PPM

1981 YS1		1992 10 27.73721	05 29 00.37	+14 23 58.9					366
1981 YS1		1992 10 27.75754	05 29 00.98	+14 23 53.1					366
1981 YS1		1992 11 21.75334	05 31 42.73	+12 47 13.2					366
1981 YS1		1992 11 21.77337	05 31 42.30	+12 47 12.0					366

367 Yatsuka
S. Miyasaka, 3-8-501, 4 Chome, Nagayama, Tama, Tokyo 206, Japan
Observer H. Abe
Measurer S. Miyasaka
0.26-m reflector
PPM

1981 YS1		1992 11 23.58681	05 30 57.80	+12 42 12.2					367
1981 YS1		1992 11 23.60486	05 30 57.24	+12 42 10.0					367
1981 YS1		1992 11 28.60695	05 28 19.79	+12 31 02.2					367
1981 YS1		1992 11 28.61736	05 28 19.37	+12 31 01.0					367

372 Geisei
T. Seki, Kamimachi 2-9-35, Kochi, Japan
0.60-m f/3.5 reflector
ACRS

1978 RL1		1990 11 10.69906	02 59 53.80	+14 15 51.4		17			372
1978 RL1		1990 11 10.70938	02 59 53.30	+14 15 50.5					372
1981 UC26		1992 12 28.54931	04 36 50.77	+16 27 03.9		18			372
1981 UC26		1992 12 28.56076	04 36 50.35	+16 27 02.5					372
1987 QF7		1992 11 25.54478	04 09 46.04	+18 27 29.2		16			372
1987 QF7		1992 11 25.55451	04 09 45.57	+18 27 26.1					372
1987 QF7		1992 11 29.58090	04 05 58.10	+18 03 45.1		16			372
1987 QF7		1992 11 29.59444	04 05 57.43	+18 03 41.3					372
1987 XC		1993 01 26.74097	10 24 18.74	+35 01 42.2		18			372

1987 XC		1993 01 26.75972	10 24 18.11	+35 01 51.1		372
1987 XC		1993 02 12.56424	10 07 42.50	+36 51 22.6	18	372
1987 XC		1993 02 12.57431	10 07 41.66	+36 51 26.0		372
1987 XC		1993 02 13.60035	10 06 35.80	+36 56 20.3	18.5	372
1988 SD		1992 10 27.67222	03 06 35.56	+22 17 33.0	17.5	372
1988 SD		1992 10 27.68403	03 06 34.88	+22 17 30.6		372
1989 CF		1992 12 21.70485	08 01 26.86	+12 44 27.9	16.5	372
1989 CF		1992 12 25.67708	07 58 54.40	+13 07 14.0	16	372
1989 FL		1993 01 16.73472	09 50 59.50	+21 00 15.2	17.5	372
1989 FL		1993 01 16.74618	09 50 58.90	+21 00 17.4		372
1989 FL		1993 01 19.67882	09 48 50.99	+21 07 05.0	17.5	372
1989 FL		1993 01 19.69236	09 48 50.33	+21 07 07.5		372
1989 FL		1993 01 26.69028	09 42 56.70	+21 23 39.8	17.5	372
1989 FL		1993 01 26.70191	09 42 56.04	+21 23 42.5		372
1989 FL		1993 01 30.73576	09 39 07.19	+21 32 46.6	17.5	372
1989 FL		1993 01 30.74826	09 39 06.25	+21 32 47.3		372
1989 YM		1992 09 04.62153	21 24 28.51	-05 01 50.0	17.5	372
1989 YM		1992 09 04.63194	21 24 28.07	-05 01 50.7		372
1990 DA1		1993 01 22.73993	09 46 13.15	+18 39 47.2	17	372
1990 DA1		1993 01 22.74965	09 46 12.65	+18 39 54.2		372
1990 DA1		1993 01 25.73611	09 43 10.50	+18 49 29.9	18	372
1990 DA1		1993 01 26.61944	09 42 15.00	+18 52 23.3	18	372
1990 DA1		1993 01 26.63142	09 42 14.28	+18 52 25.2		372
1990 DA1		1993 01 28.67049	09 40 02.11	+18 59 01.7	18	372
1990 DA1		1993 01 28.68264	09 40 01.47	+18 59 00.7		372
1990 US13		1990 11 10.69906	02 59 37.25	+13 50 06.5	17	372
1990 US13		1990 11 10.70938	02 59 36.31	+13 50 01.9		372
1990 VX15	*	1990 11 10.69906	03 00 05.17	+13 59 16.8	17	372
1990 VX15		1990 11 10.70938	03 00 04.77	+13 59 13.8		372
1991 AW4	*	1991 01 09.59792	07 38 34.48	+15 57 52.4	18	372
1991 AW4		1991 01 09.60938	07 38 34.18	+15 57 55.5		372
1991 AX4	*	1991 01 09.59792	07 39 19.94	+15 32 18.0	17	372
1991 AX4		1991 01 09.60938	07 39 19.47	+15 32 20.0		372
1991 GR2		1992 11 01.61736	02 33 24.61	+16 38 27.7	17.5	372
1991 GR2		1992 11 01.62777	02 33 23.84	+16 38 25.0		372
1991 JU		1992 10 27.69688	03 32 04.99	+17 07 27.5	18	372
1991 JU		1992 10 27.70800	03 32 04.15	+17 07 27.6		372
1991 RA16		1993 01 19.63646	09 06 46.54	+18 04 31.2	17	372
1991 RA16		1993 01 19.64653	09 06 46.09	+18 04 34.0		372
1991 RA16		1993 01 22.76319	09 04 08.70	+18 23 52.4	17	372
1991 RA16		1993 01 25.63819	09 01 37.81	+18 41 50.5	16.5	372
1991 RA16		1993 01 26.59618	09 00 46.15	+18 47 51.6	16.5	372
1991 VH16	*	1991 11 15.81215	09 30 59.49	+16 51 14.2	18	372
1991 VH16		1991 11 15.82292	09 31 00.09	+16 51 16.6		372
1991 WP	*	1991 11 17.73368	09 16 43.32	+17 49 16.4	18	372
1991 WP		1991 11 17.74653	09 16 43.92	+17 49 14.0		372
1992 UN3		1992 10 27.64896	02 59 20.64	+21 29 14.5	17	372
1992 UN3		1992 10 27.66076	02 59 20.11	+21 29 12.6		372
1992 UF5		1992 10 24.55625	02 38 23.77	+10 05 48.5	18	372
1992 UF5		1992 10 24.56771	02 38 23.07	+10 05 43.4		372
1992 UR8		1992 10 27.50868	02 43 56.82	+19 56 20.0	18	372
1992 UR8		1992 10 27.52049	02 43 55.86	+19 56 20.6		372
1992 UU8		1992 10 27.50868	02 44 49.16	+19 48 24.7	18	372
1992 UU8		1992 10 27.52049	02 44 48.29	+19 48 24.4		372
1992 UJ9	*	1992 10 21.67396	02 38 45.85	+09 44 44.6	18	372
1992 UJ9		1992 10 21.68646	02 38 45.15	+09 44 37.0		372
1992 UJ9		1992 10 24.55625	02 36 09.57	+09 17 13.3	18	372
1992 UJ9		1992 10 24.56771	02 36 08.94	+09 17 07.6		372
1992 UK9	*	1992 10 21.67396	02 40 23.53	+09 47 10.3	18	372

1992	UK9		1992	10	21.68646	02	40	22.94	+09 47 09.2	372
1992	UK9		1992	10	24.55625	02	37	51.23	+09 36 11.6 18	372
1992	UK9		1992	10	24.56771	02	37	50.39	+09 36 11.6	372
1992	UK9		1992	10	25.61146	02	36	54.26	+09 32 14.9 18	372
1992	UK9		1992	10	25.62258	02	36	53.80	+09 32 15.0	372
1992	UK9		1992	10	30.62396	02	32	17.88	+09 13 40.1 18	372
1992	UK9		1992	10	30.63472	02	32	17.54	+09 13 38.0	372
1992	UL9	*	1992	10	21.72257	02	16	31.71	+21 05 09.4 17	372
1992	UL9		1992	10	21.73368	02	16	31.18	+21 05 11.7	372
1992	UL9		1992	10	25.58785	02	13	12.29	+20 58 05.0 17	372
1992	UL9		1992	10	25.59896	02	13	11.62	+20 58 05.1	372
1992	WG		1992	10	27.69688	03	36	09.47	+17 10 07.5 18	372
1992	WG		1992	10	27.70800	03	36	08.92	+17 10 10.5	372
1992	WL2		1992	11	29.53819	03	39	07.81	+21 12 06.8 18	372
1992	WL2		1992	11	29.54722	03	39	06.97	+21 12 05.9	372
1992	WP3		1992	11	25.50139	03	31	45.28	+29 12 57.8 17	372
1992	WP3		1992	11	25.51285	03	31	44.69	+29 12 55.4	372
1992	WG4		1992	11	25.54478	04	05	30.21	+17 47 50.7 17	372
1992	WG4		1992	11	25.55451	04	05	29.49	+17 47 48.4	372
1992	YB4		1993	01	16.67604	07	08	22.70	+28 16 25.6 18	372
1992	YB4		1993	01	16.71111	07	08	20.80	+28 16 25.3	372
1992	YE4		1993	01	16.65417	07	45	31.71	+17 09 49.9 18	372
1992	YE4		1993	01	16.66458	07	45	30.78	+17 09 53.3	372
1992	YE4		1993	01	18.49375	07	43	39.42	+17 18 08.1 18	372
1992	YE4		1993	01	18.50521	07	43	38.74	+17 18 12.2	372
1993	BA	*	1993	01	16.73472	09	49	42.59	+21 00 31.1 17.5	372
1993	BA		1993	01	16.74618	09	49	42.11	+21 00 35.2	372
1993	BA		1993	01	19.67882	09	47	48.15	+21 29 07.1 17	372
1993	BA		1993	01	19.69236	09	47	47.76	+21 29 14.4	372
1993	BA		1993	01	22.69583	09	45	39.25	+21 58 56.7 17	372
1993	BA		1993	01	22.70626	09	45	38.87	+21 59 02.6	372
1993	BB	*	1993	01	16.78229	10	11	24.52	+09 21 56.1 18	372
1993	BB		1993	01	16.79341	10	11	24.27	+09 22 00.0	372
1993	BB		1993	01	19.70417	10	10	26.44	+09 37 47.0 18	372
1993	BB		1993	01	19.71493	10	10	26.38	+09 37 53.4	372
1993	BB		1993	01	25.75521	10	07	35.29	+10 17 05.3 18	372
1993	BB		1993	01	25.77049	10	07	34.93	+10 17 08.9	372
1993	BB		1993	01	26.64288	10	07	05.13	+10 23 28.8 17.5	372
1993	BB		1993	01	26.65486	10	07	04.73	+10 23 33.8	372
1993	BB		1993	01	30.69410	10	04	29.44	+10 54 48.2 17	372
1993	BB		1993	01	30.70451	10	04	28.92	+10 54 54.8	372
1993	BC	*	1993	01	16.78229	10	11	50.56	+08 45 47.9 18	372
1993	BC		1993	01	16.79341	10	11	50.27	+08 45 52.0	372
1993	BC		1993	01	19.70417	10	10	03.89	+08 52 11.6 18	372
1993	BC		1993	01	19.71493	10	10	03.56	+08 52 14.7	372
1993	BC		1993	01	25.78264	10	05	35.45	+09 10 07.0 18	372
1993	BC		1993	01	25.79342	10	05	34.80	+09 10 12.8	372
1993	BC		1993	01	26.66598	10	04	51.94	+09 13 12.5 18	372
1993	BC		1993	01	26.67639	10	04	51.55	+09 13 16.7	372
1993	BD	*	1993	01	16.80451	09	49	57.60	+17 20 06.7 17	372
1993	BD		1993	01	16.81528	09	49	57.38	+17 20 13.3	372
1993	BD		1993	01	18.55486	09	49	02.62	+17 35 41.6 17	372
1993	BD		1993	01	18.56563	09	49	02.52	+17 35 47.3	372
1993	BD		1993	01	22.73993	09	46	26.04	+18 14 28.8 17	372
1993	BD		1993	01	22.74965	09	46	25.63	+18 14 39.8	372
1993	BD		1993	01	25.73611	09	44	16.82	+18 43 21.1 17.5	372
1993	BD		1993	01	26.61944	09	43	36.42	+18 51 59.1 17.5	372
1993	BD		1993	01	26.63142	09	43	35.81	+18 52 03.0	372
1993	BD		1993	01	28.67049	09	41	57.82	+19 12 05.3 18	372

1993 BD		1993 01 28.68264	09 41 57.51	+19 12 04.9		372
1993 BG	*	1993 01 16.65417	07 44 09.95	+17 24 50.5	18	372
1993 BG		1993 01 16.66458	07 44 09.09	+17 24 57.9		372
1993 BG		1993 01 18.49375	07 42 07.93	+17 40 56.6	18	372
1993 BG		1993 01 18.50521	07 42 07.41	+17 41 03.6		372
1993 BG		1993 01 25.53785	07 34 38.64	+18 41 38.4	18	372
1993 BG		1993 01 25.54896	07 34 38.04	+18 41 43.0		372
1993 BH	*	1993 01 16.65417	07 45 17.20	+16 44 53.2	18	372
1993 BH		1993 01 16.66458	07 45 16.57	+16 44 55.5		372
1993 BH		1993 01 18.49375	07 43 42.88	+16 53 56.3	18	372
1993 BH		1993 01 18.50521	07 43 42.43	+16 53 57.8		372
1993 BH		1993 01 25.56076	07 37 47.48	+17 28 37.9	17.5	372
1993 BH		1993 01 25.57257	07 37 46.75	+17 28 44.3		372
1993 BG2	*	1993 01 19.63646	09 07 44.38	+18 34 30.9	17	372
1993 BG2		1993 01 19.64653	09 07 43.55	+18 34 33.9		372
1993 BG2		1993 01 22.76319	09 04 51.87	+18 40 43.0	17	372
1993 BG2		1993 01 25.63819	09 02 08.91	+18 46 24.4	17	372
1993 BG2		1993 01 26.59618	09 01 13.42	+18 48 17.1	16.5	372
1993 BH2	*	1993 01 19.63646	09 08 07.44	+18 04 51.0	17	372
1993 BH2		1993 01 19.64653	09 08 06.86	+18 04 54.1		372
1993 BH2		1993 01 22.68299	09 05 17.02	+18 22 39.2	17	372
1993 BH2		1993 01 22.76319	09 05 11.96	+18 23 07.9		372
1993 BH2		1993 01 25.63819	09 02 23.73	+18 40 12.8	17	372
1993 BH2		1993 01 26.59618	09 01 25.73	+18 45 56.4	16.5	372
1993 BJ2	*	1993 01 19.65660	09 17 29.03	+17 16 59.1	17	372
1993 BJ2		1993 01 19.66702	09 17 28.58	+17 17 05.0		372
1993 BJ2		1993 01 22.71840	09 14 46.10	+17 37 31.7	17	372
1993 BJ2		1993 01 22.72917	09 14 45.52	+17 37 35.2		372
1993 BJ2		1993 01 25.65938	09 12 02.14	+17 57 33.1	16.5	372
1993 BJ2		1993 01 25.67049	09 12 01.37	+17 57 40.3		372
1993 BJ2		1993 01 28.64931	09 09 09.26	+18 18 10.6	17	372
1993 BJ2		1993 01 30.65174	09 07 10.88	+18 32 00.1	17	372
1993 BJ2		1993 01 30.66215	09 07 10.10	+18 32 02.6		372
1993 BJ2		1993 02 02.74340	09 04 06.03	+18 53 01.8		372
1993 BJ2		1993 02 02.75347	09 04 05.36	+18 53 07.2		372
1993 BK2	*	1993 01 19.65660	09 17 34.44	+17 20 55.5	17	372
1993 BK2		1993 01 19.66702	09 17 33.71	+17 20 58.9		372
1993 BK2		1993 01 22.71840	09 14 57.88	+17 29 54.3	17	372
1993 BK2		1993 01 22.72917	09 14 57.45	+17 30 00.6		372
1993 BK2		1993 01 25.65938	09 12 20.52	+17 38 49.3	16.5	372
1993 BK2		1993 01 25.67049	09 12 20.02	+17 38 54.2		372
1993 BK2		1993 01 28.60556	09 09 37.74	+17 47 49.0	16.5	372
1993 BK2		1993 01 28.61597	09 09 37.26	+17 47 51.1		372
1993 BK2		1993 01 30.65174	09 07 42.43	+17 54 02.8	17	372
1993 BK2		1993 01 30.66215	09 07 42.21	+17 54 03.2		372
1993 BL2	*	1993 01 19.65660	09 19 02.96	+16 40 29.0	17	372
1993 BL2		1993 01 19.66702	09 19 02.59	+16 40 37.4		372
1993 BL2		1993 01 22.71840	09 16 27.81	+17 07 27.0	17	372
1993 BL2		1993 01 22.72917	09 16 27.35	+17 07 34.4		372
1993 BL2		1993 01 25.65938	09 13 49.00	+17 34 05.0	17.5	372
1993 BL2		1993 01 25.67049	09 13 48.18	+17 34 15.7		372
1993 BL2		1993 01 28.60556	09 11 01.90	+18 01 11.0	17.5	372
1993 BL2		1993 01 28.61597	09 11 01.31	+18 01 17.2		372
1993 BL2		1993 01 30.65174	09 09 01.99	+18 20 06.9	17	372
1993 BL2		1993 01 30.66215	09 09 01.50	+18 20 13.8		372
1993 BL2		1993 02 02.74340	09 05 57.76	+18 48 33.7		372
1993 BL2		1993 02 02.75347	09 05 57.34	+18 48 38.5		372
1993 BY2	*	1993 01 25.61181	08 55 45.59	+16 52 11.6	17	372
1993 BY2		1993 01 25.62292	08 55 44.83	+16 52 14.3		372

1993 BY2		1993	01	26.54757	08	54	54.95	+16 53 34.3	17	372
1993 BY2		1993	01	28.56632	08	53	05.04	+16 56 30.3	17.5	372
1993 BY2		1993	01	28.57535	08	53	04.48	+16 56 32.2		372
1993 BZ2	*	1993	01	25.61181	08	56	08.35	+16 52 17.3	17	372
1993 BZ2		1993	01	25.62292	08	56	07.43	+16 52 12.5		372
1993 BZ2		1993	01	26.54757	08	55	02.95	+16 51 14.1	17	372
1993 BZ2		1993	01	30.63160	08	50	16.85	+16 46 57.2	17.5	372
1993 BZ2		1993	01	30.64653	08	50	16.19	+16 46 55.6		372
1993 BA3	*	1993	01	25.61181	08	56	40.24	+16 30 32.5	17	372
1993 BA3		1993	01	25.62292	08	56	39.43	+16 30 31.8		372
1993 BA3		1993	01	26.54757	08	55	48.94	+16 31 18.6	17	372
1993 BA3		1993	01	28.56632	08	53	58.20	+16 33 01.7	17.5	372
1993 BA3		1993	01	28.57535	08	53	57.76	+16 33 06.8		372
1993 BA3		1993	01	30.63160	08	52	04.59	+16 34 53.5	17.5	372
1993 BA3		1993	01	30.64653	08	52	03.76	+16 34 56.1		372
1993 BB3	*	1993	01	25.73611	09	44	02.41	+19 20 54.0	18	372
1993 BB3		1993	01	26.61944	09	43	09.93	+19 26 14.1	18	372
1993 BB3		1993	01	26.63142	09	43	09.25	+19 26 12.4		372
1993 BB3		1993	01	28.67049	09	41	04.64	+19 38 27.0	18	372
1993 BB3		1993	01	28.68264	09	41	03.96	+19 38 31.5		372
1993 BH3	*	1993	01	25.71319	10	37	46.38	-05 24 38.3	16.5	372
1993 BH3		1993	01	25.72431	10	37	45.89	-05 24 40.8		372
1993 BH3		1993	01	28.72569	10	36	11.44	-05 34 35.2	17	372
1993 BH3		1993	01	30.71458	10	35	02.44	-05 40 13.4	16	372
1993 BH3		1993	01	30.72396	10	35	02.09	-05 40 14.8		372
1993 BH3		1993	02	02.70035	10	33	10.23	-05 47 16.5	16	372
1993 BH3		1993	02	02.71424	10	33	09.67	-05 47 17.5		372
1993 BJ3	*	1993	01	25.75521	10	07	10.24	+10 17 19.7	18	372
1993 BJ3		1993	01	25.77049	10	07	09.87	+10 17 22.4		372
1993 BJ3		1993	01	26.64288	10	06	32.03	+10 21 12.1	17.5	372
1993 BJ3		1993	01	26.65486	10	06	31.45	+10 21 16.5		372
1993 BJ3		1993	01	30.69410	10	03	20.05	+10 40 33.7	17	372
1993 BJ3		1993	01	30.70451	10	03	19.56	+10 40 37.5		372
1993 BQ3	*	1993	01	18.51840	07	43	32.40	+19 21 58.5	17	372
1993 BQ3		1993	01	18.53194	07	43	31.81	+19 22 09.1		372
1993 BQ3		1993	01	22.64861	07	41	02.27	+20 21 46.5	17	372
1993 BQ3		1993	01	22.65903	07	41	01.66	+20 21 51.4		372
1993 BT3	*	1993	01	26.69028	09	41	51.84	+21 32 07.5	18	372
1993 BT3		1993	01	26.70191	09	41	51.46	+21 32 15.5		372
1993 BT3		1993	01	30.73576	09	39	01.25	+22 17 30.0	18	372
1993 BT3		1993	01	30.74826	09	39	00.75	+22 17 39.9		372
1993 BT3		1993	02	02.76285	09	36	44.37	+22 50 47.9	17	372
1993 BT3		1993	02	02.77431	09	36	43.95	+22 50 56.3		372
1993 BT3		1993	02	04.85000	09	35	07.01	+23 13 12.9	17	372
1993 BR6	*	1993	01	26.69028	09	42	07.16	+21 23 34.7	18	372
1993 BR6		1993	01	26.70191	09	42	06.76	+21 23 39.8		372
1993 BR6		1993	01	30.73576	09	39	44.96	+21 54 25.3	18.5	372
1993 BR6		1993	01	30.74826	09	39	44.55	+21 54 30.8		372
1993 BT6	*	1993	01	30.76024	10	30	26.98	+21 11 19.8	17.5	372
1993 BT6		1993	01	30.77257	10	30	26.66	+21 11 27.5		372
1993 BT6		1993	02	02.78576	10	28	22.34	+21 38 01.8	17	372
1993 BT6		1993	02	02.79688	10	28	21.76	+21 38 05.9		372
1993 BU6	*	1993	01	30.78472	11	11	28.50	+18 44 53.6	17.5	372
1993 BU6		1993	01	30.79688	11	11	28.17	+18 44 58.2		372
1993 BU6		1993	02	02.72118	11	09	48.81	+18 58 15.8	17	372
1993 BU6		1993	02	02.73507	11	09	48.30	+18 58 22.0		372
1993 BU6		1993	02	04.80313	11	08	31.99	+19 07 52.9	17	372
1993 BU6		1993	02	04.81388	11	08	31.52	+19 07 56.3		372
1993 CA	*	1993	02	02.80868	10	59	29.85	+09 45 06.7	18	372

1993 CA		1993	02	02.82118	10	59	29.56	+09	45	10.0		372
1993 CA		1993	02	04.85972	10	58	21.10	+09	53	55.2	18	372
1993 CA		1993	02	04.86840	10	58	20.77	+09	53	57.5		372
1993 CB	*	1993	02	02.80868	11	00	10.31	+09	02	12.5	18	372
1993 CB		1993	02	02.82118	11	00	10.06	+09	02	17.0		372
1993 CB		1993	02	04.85972	10	59	11.96	+09	16	50.8	18	372
1993 CB		1993	02	04.86840	10	59	11.70	+09	16	58.6		372
1993 CD	*	1993	02	12.56424	10	06	02.96	+36	59	35.1	18	372
1993 CD		1993	02	12.57431	10	06	02.27	+36	59	38.9		372
1993 CD		1993	02	13.60035	10	05	09.41	+37	08	02.6	17.5	372
1993 CE	*	1993	02	12.62986	10	14	53.86	+16	42	31.4	18	372
1993 CE		1993	02	13.57465	10	14	04.63	+16	50	57.7	18	372
1993 CV	*	1993	02	12.54271	09	44	02.95	+18	00	39.3	17	372
1993 CV		1993	02	13.55382	09	43	04.60	+18	07	22.8	17	372
1993 CV		1993	02	13.56389	09	43	04.25	+18	07	23.8		372
1993 CW	*	1993	02	12.54271	09	44	12.43	+18	09	05.5	18	372
1993 CW		1993	02	13.55382	09	43	35.45	+18	13	57.1	18	372
1993 CW		1993	02	13.56389	09	43	34.95	+18	13	57.6		372
(503)		1993	01	16.73472	09	50	20.69	+21	02	45.6	14	372
(503)		1993	01	16.74618	09	50	20.19	+21	02	47.6		372
(625)		1993	02	12.54271	09	47	19.25	+18	15	19.8	16	372
(625)		1993	02	13.55382	09	46	26.69	+18	22	31.8	16	372
(625)		1993	02	13.56389	09	46	26.30	+18	22	34.7		372
(1649)		1993	02	04.85972	10	56	55.58	+08	58	41.3	17	372
(1649)		1993	02	04.86840	10	56	55.34	+08	58	48.0		372
(1777)		1991	11	08.78784	09	41	55.66	+15	47	54.8	17	372
(1777)		1991	11	08.80035	09	41	56.46	+15	47	54.6		372
(1821)		1993	02	12.52257	08	54	48.03	+16	21	14.1	18	372
(1821)		1993	02	13.54271	08	53	46.89	+16	24	49.4	18	372
(2342)		1993	02	12.52257	08	51	49.55	+17	10	44.0	17	372
(2342)		1993	02	12.53229	08	51	49.15	+17	10	45.8		372
(2342)		1993	02	13.54271	08	51	03.72	+17	13	55.2	16.5	372
(2342)		1993	02	15.45938	08	49	38.04	+17	19	46.8		372
(2342)		1993	02	17.51944	08	48	09.30	+17	25	53.3	17	372
(2395)		1993	02	15.45938	08	52	29.71	+17	49	45.5	18	372
(2630)		1993	01	28.64931	09	08	58.90	+18	41	32.1	17	372
(2630)		1993	01	28.65903	09	08	58.47	+18	41	36.9		372
(2630)		1993	01	30.65174	09	07	16.50	+18	48	20.9	17	372
(2630)		1993	01	30.66215	09	07	15.86	+18	48	21.0		372
(2630)		1993	02	02.74340	09	04	37.77	+18	58	35.6		372
(2630)		1993	02	02.75347	09	04	37.24	+18	58	39.1		372
(3413)		1993	01	16.78229	10	13	08.59	+09	14	45.7	17	372
(3413)		1993	01	16.79341	10	13	08.42	+09	14	42.7		372
(3413)		1993	01	19.70417	10	11	25.22	+09	13	43.6	16.5	372
(3413)		1993	01	19.71493	10	11	24.84	+09	13	43.2		372
(3413)		1993	01	25.78264	10	06	59.37	+09	15	29.2	17	372
(3413)		1993	01	25.79342	10	06	58.69	+09	15	31.6		372
(3413)		1993	01	26.66598	10	06	15.76	+09	16	11.5	17	372
(3413)		1993	01	26.67639	10	06	15.22	+09	16	14.9		372
(3480)		1991	01	09.59792	07	38	14.15	+15	54	52.1	17	372
(3480)		1991	01	09.60938	07	38	13.35	+15	54	54.2		372
(3847)		1993	02	12.54271	09	47	54.69	+18	21	30.0	17.5	372
(3847)		1993	02	13.55382	09	47	05.68	+18	25	48.4		372
(3847)		1993	02	13.56389	09	47	05.28	+18	25	52.5		372
(3884)		1993	01	22.68299	09	04	26.91	+18	23	21.1	17.5	372
(3884)		1993	01	22.76319	09	04	22.88	+18	23	35.9		372
(3884)		1993	01	25.63819	09	02	00.59	+18	33	22.4	16.5	372
(3884)		1993	01	26.59618	09	01	11.85	+18	36	37.2	16.5	372
(3999)		1993	01	25.61181	08	54	06.04	+16	29	30.0	16	372

(3999)	1993 01 25.62292	08 54 05.33	+16 29 30.6			372
(3999)	1993 01 26.54757	08 53 09.49	+16 31 44.1	16		372
(4126)	1992 10 25.61146	02 34 21.80	+10 31 34.5	17		372
(4126)	1992 10 25.62258	02 34 21.31	+10 31 32.0			372
(4195)	1992 11 29.58090	04 03 59.55	+17 45 05.0	16.5		372
(4195)	1992 11 29.59444	04 03 58.88	+17 45 07.4			372
(4600)	1993 02 12.52257	08 53 56.47	+16 18 33.5	17		372
(4600)	1993 02 13.54271	08 53 10.62	+16 24 28.1			372
(4983)	1993 02 12.52257	08 51 27.10	+17 02 52.0	17		372
(4983)	1993 02 13.53229	08 50 26.51	+17 05 59.0	16.5		372
(4983)	1993 02 13.54271	08 50 26.00	+17 06 00.0			372
(5077)	1993 01 25.65938	09 14 42.81	+17 56 59.0	17.5		372
(5077)	1993 01 25.67049	09 14 41.91	+17 57 02.4			372
(5208)	1993 01 16.80451	09 53 40.51	+17 06 47.7	16.5		372
(5208)	1993 01 16.81528	09 53 40.37	+17 06 57.4			372
(5208)	1993 01 18.55486	09 52 45.26	+17 25 44.3	16.5		372
(5208)	1993 01 18.56563	09 52 45.18	+17 25 48.8			372
(5319)	1992 10 24.63368	03 09 42.85	+13 48 03.1	17.5		372
(5319)	1992 10 24.64549	03 09 42.28	+13 47 58.0			372

376 Uenohara
N. Kawasato, 3-11-10, Hana-Koganei, Kodaira, Tokyo 187, Japan
0.30-m reflector + CCD
GSC

1988 VD7	1993 01 17.55417	09 06 09.29	+24 53 58.2			376
1988 VD7	1993 01 17.57153	09 06 08.21	+24 54 04.7			376
1988 VD7	1993 02 13.44826	08 36 47.53	+27 08 34.4			376
1988 VD7	1993 02 13.45984	08 36 46.83	+27 08 36.3			376
(2060)	1993 01 02.73657	09 32 04.81	+07 07 07.9			376
(2060)	1993 01 02.77824	09 32 04.30	+07 07 08.4			376

385 Nihondaira Observatory Oohira station
T. Urata, 6-1, Muramatsuhara 1 Chome, Shimizu, Shizuoka-Ken 424, Japan
0.25-m f/3.4 hyperboloid astrocamera
GSC

1991 RN	1993 01 20.54028	07 37 25.31	+27 06 32.0	17.5		385
1991 RN	1993 01 20.55208	07 37 24.71	+27 06 31.4			385
1991 RA30	1993 01 20.48125	06 33 06.46	+22 51 39.4	16.5		385
1991 RA30	1993 01 20.48889	06 33 06.06	+22 51 41.8			385
1991 UP1	1993 01 20.68959	10 58 50.41	-11 46 14.2	17.5		385
1991 UP1	1993 02 15.61111	10 43 33.06	-11 17 19.8	17		385
1991 UP1	1993 02 15.62865	10 43 32.18	-11 17 15.5			385
1992 UX	1992 12 14.47049	02 00 31.77	+09 08 13.4	17.3		385
1992 UX	1992 12 14.48264	02 00 31.85	+09 08 17.5			385
1992 UZ	1992 12 14.47049	02 04 20.47	+09 47 15.1	17		385
1992 UZ	1992 12 14.48264	02 04 20.48	+09 47 20.9			385
1992 UB2	1992 11 26.55087	01 37 44.27	+03 18 18.9	17		385
1992 UB2	1992 11 26.58333	01 37 43.84	+03 18 24.3			385
1992 UT3	1993 01 20.45000	03 01 06.07	+19 52 51.0	17.5		385
1992 UT3	1993 01 20.46458	03 01 06.75	+19 52 57.1			385
1992 WM3	1992 12 14.54253	05 13 49.58	+23 36 25.9	16		385
1992 WM3	1992 12 14.54792	05 13 49.23	+23 36 25.4			385
1992 WM3	1993 01 17.49826	04 47 21.63	+23 57 10.8	17		385
1992 WM3	1993 01 17.54861	04 47 21.04	+23 57 12.4			385
1992 WN3	1992 12 14.54253	05 16 55.87	+26 04 53.5	15.5		385
1992 WN3	1992 12 14.54792	05 16 55.48	+26 04 54.1			385
1992 WN3	1993 01 17.51198	04 52 38.54	+27 57 11.1	17.3		385
1992 WN3	1993 01 17.56250	04 52 37.84	+27 57 17.5			385
1992 WN3	1993 02 08.41944	04 57 12.51	+28 45 36.9	17.5		385

1992	WN3		1993	02	11.43819	04 59 04.67	+28	51	51.3	17.5	385
1992	WN3		1993	02	11.45069	04 59 05.09	+28	51	52.9		385
1992	WO3		1992	12	14.51198	05 36 48.74	-08	26	56.1	16	385
1992	WO3		1992	12	14.51667	05 36 48.44	-08	27	01.6		385
1992	WO3		1993	01	17.52431	05 16 01.78	-12	22	41.3	16.5	385
1992	WO3		1993	01	17.57361	05 16 01.42	-12	22	33.7		385
1992	WO3		1993	02	11.41319	05 26 12.32	-09	39	39.4	17	385
1992	WO3		1993	02	11.42222	05 26 12.72	-09	39	34.5		385
1992	YB		1992	12	30.56042	06 22 15.32	+14	56	15.7		385
1992	YB		1992	12	31.61250	06 21 08.18	+15	00	14.0	17	385
1992	YB		1993	01	17.59584	06 05 29.56	+16	13	53.5	17.5	385
1992	YB		1993	01	17.61250	06 05 28.74	+16	13	57.8		385
1992	YB		1993	01	19.51493	06 04 09.84	+16	22	58.5	17.5	385
1992	YB		1993	01	19.52917	06 04 09.17	+16	23	04.1		385
1992	YM		1993	01	20.48125	06 32 01.44	+22	47	24.2	17	385
1992	YM		1993	01	20.48889	06 32 01.12	+22	47	28.5		385
1992	YN		1993	01	19.54444	06 32 25.33	+18	54	07.6	17	385
1992	YN		1993	01	19.55347	06 32 24.92	+18	54	07.8		385
1992	YU2		1993	01	20.50139	07 09 20.91	+15	28	15.3	17	385
1992	YU2		1993	01	20.51042	07 09 20.43	+15	28	16.1		385
1992	YA3		1993	01	02.66892	07 50 26.18	+18	26	39.4	16	385
1992	YA3		1993	01	02.67622	07 50 25.72	+18	26	39.0		385
1992	YA3		1993	01	20.52106	07 33 53.68	+18	14	34.2	15.5	385
1992	YA3		1993	01	20.52847	07 33 53.27	+18	14	33.1		385
1992	YA3		1993	01	29.68229	07 25 59.10	+18	09	18.1	16.5	385
1992	YA3		1993	01	29.69375	07 25 58.53	+18	09	18.3		385
1993	AA		1993	01	17.65220	08 04 18.72	+13	39	57.4	17	385
1993	AA		1993	01	17.65799	08 04 18.29	+13	40	00.0		385
1993	AA		1993	01	20.57014	08 01 07.87	+13	48	08.6	17	385
1993	AA		1993	01	21.58125	08 00 02.18	+13	51	02.6	17	385
1993	AA		1993	01	21.59201	08 00 01.62	+13	51	05.3		385
1993	AG		1993	01	02.71366	08 14 59.73	+12	56	44.8	17	385
1993	AG		1993	01	02.72847	08 14 59.36	+12	56	45.5		385
1993	AG		1993	01	17.65220	08 04 50.74	+13	41	20.6	17	385
1993	AG		1993	01	17.65799	08 04 50.52	+13	41	23.3		385
1993	AG		1993	01	20.57014	08 02 34.60	+13	54	00.9	16.5	385
1993	AG		1993	01	20.57778	08 02 34.17	+13	53	59.7		385
1993	AG		1993	01	21.58125	08 01 47.21	+13	58	36.3	16.5	385
1993	AG		1993	01	21.59201	08 01 46.69	+13	58	39.1		385
1993	BE	*	1993	01	20.54028	07 29 35.04	+27	16	43.2	17	385
1993	BE		1993	01	20.55208	07 29 34.32	+27	16	44.6		385
1993	BE		1993	01	21.52986	07 28 33.31	+27	19	02.0	17	385
1993	BE		1993	01	21.54167	07 28 32.57	+27	19	04.1		385
1993	BF	*	1993	01	20.54028	07 30 02.20	+26	08	09.0	16.5	385
1993	BF		1993	01	20.55208	07 30 01.35	+26	08	07.2		385
1993	BF		1993	01	21.52986	07 28 50.20	+26	06	06.9	16.5	385
1993	BF		1993	01	21.54167	07 28 49.34	+26	06	03.6		385
1993	BF		1993	01	28.65955	07 20 45.41	+25	48	49.4	16.5	385
1993	BF		1993	01	28.67240	07 20 44.40	+25	48	48.0		385
1993	BF		1993	02	14.54618	07 07 22.24	+24	54	21.7	17	385
1993	BF		1993	02	14.55764	07 07 21.84	+24	54	19.6		385
1993	BF		1993	02	15.53611	07 06 52.85	+24	50	47.3	17	385
1993	BF		1993	02	15.54884	07 06 52.61	+24	50	46.0		385
1993	BJ	*	1993	01	20.54028	07 33 47.38	+26	31	53.9	17	385
1993	BJ		1993	01	20.55208	07 33 46.32	+26	31	54.5		385
1993	BJ		1993	01	21.52986	07 32 37.17	+26	31	54.0	17	385
1993	BJ		1993	01	21.54167	07 32 36.38	+26	31	53.8		385
1993	BJ		1993	01	28.65955	07 24 43.02	+26	28	48.2	17	385
1993	BJ		1993	01	28.67240	07 24 42.22	+26	28	50.8		385

1993 BJ		1993 02 14.54618	07 11 22.84	+26 03 14.2	17.5		385
1993 BJ		1993 02 14.55764	07 11 22.40	+26 03 12.9			385
1993 BJ		1993 02 15.53611	07 10 52.80	+26 01 06.0	17.5		385
1993 BJ		1993 02 15.54884	07 10 52.38	+26 01 06.3			385
1993 BK	*	1993 01 20.54028	07 36 53.61	+27 52 26.5	16		385
1993 BK		1993 01 20.55208	07 36 52.87	+27 52 30.8			385
1993 BK		1993 01 21.52986	07 35 53.94	+27 58 57.3	16		385
1993 BK		1993 01 21.54167	07 35 53.25	+27 59 02.6			385
1993 BL	*	1993 01 20.54028	07 38 16.45	+28 19 52.7	17		385
1993 BL		1993 01 20.55208	07 38 15.60	+28 19 52.2			385
1993 BL		1993 01 21.52986	07 37 10.37	+28 20 23.4	17		385
1993 BL		1993 01 21.54167	07 37 09.62	+28 20 24.3			385
1993 BM	*	1993 01 20.60382	09 30 01.57	+18 23 38.5	17		385
1993 BM		1993 01 20.61528	09 30 00.89	+18 23 40.8			385
1993 BM		1993 01 21.60799	09 29 09.10	+18 24 40.6	17		385
1993 BM		1993 01 21.62222	09 29 08.57	+18 24 42.4			385
1993 BM		1993 01 28.70694	09 22 30.93	+18 32 05.0	16.5		385
1993 BM		1993 01 28.71667	09 22 30.32	+18 32 02.7			385
1993 BM		1993 02 14.57014	09 05 36.42	+18 42 52.3	16.5		385
1993 BM		1993 02 14.57847	09 05 35.90	+18 42 52.2			385
1993 BN	*	1993 01 20.60382	09 30 10.80	+17 08 31.9	16.5		385
1993 BN		1993 01 20.61528	09 30 10.23	+17 08 30.5			385
1993 BN		1993 01 21.60799	09 29 16.63	+17 08 06.1	16.5		385
1993 BN		1993 01 21.62222	09 29 15.83	+17 08 04.9			385
1993 BN		1993 01 28.70694	09 22 22.81	+17 05 43.0	16		385
1993 BN		1993 01 28.71667	09 22 22.07	+17 05 42.7			385
1993 BX2		1993 01 21.60799	09 31 19.54	+19 00 21.1	16		385
1993 BX2		1993 01 21.62222	09 31 18.69	+19 00 19.4			385
1993 BR3	*	1993 01 21.60799	09 31 18.04	+19 13 57.0	17		385
1993 BR3		1993 01 21.62222	09 31 17.26	+19 14 04.2			385
1993 CN	*	1993 02 14.58976	11 13 02.08	+20 04 51.0	16.5		385
1993 CN		1993 02 14.59861	11 13 01.80	+20 04 54.3			385
1993 CN		1993 02 15.58976	11 12 22.04	+20 12 43.5	16.5		385
1993 CN		1993 02 15.59861	11 12 21.77	+20 12 46.4			385
1993 CN		1993 02 17.70532	11 10 54.48	+20 29 12.2	16.5		385
1993 CN		1993 02 17.71406	11 10 53.99	+20 29 14.3			385
1993 CS	*	1993 02 14.57014	09 07 49.21	+19 06 51.0	17		385
1993 CS		1993 02 14.57847	09 07 48.76	+19 06 53.2			385
1993 CS		1993 02 15.56528	09 06 54.03	+19 12 23.5	17.3		385
1993 CT	*	1993 02 14.58976	11 12 16.94	+19 29 18.9	17		385
1993 CT		1993 02 14.59861	11 12 16.45	+19 29 22.5			385
1993 CT		1993 02 15.58976	11 11 27.24	+19 33 49.6	17.3		385
2559 P-L		1993 01 21.60799	09 31 25.21	+19 05 19.4	17		385
2559 P-L		1993 01 21.62222	09 31 24.65	+19 05 26.4			385

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 hyperboloid astrocamera
GSC

1987 UW1		1993 02 13.62986	09 11 45.03	+01 43 58.6	17.2		399
1987 UW1		1993 02 13.64444	09 11 44.11	+01 44 01.5			399
1987 UW1		1993 02 15.55556	09 10 04.41	+01 53 53.4	17.3		399
1987 UW1		1993 02 15.57014	09 10 03.64	+01 53 59.1			399
1988 TL		1992 12 15.49410	03 57 16.30	+22 31 34.3	16.8		399
1988 TL		1992 12 15.50868	03 57 15.58	+22 31 29.8			399
1988 TC1		1993 01 22.61047	08 38 52.72	+26 25 03.1	16.5		399

1988 TC1		1993	01	22.62494	08	38	51.69	+26	25	05.3		399
1988 XK1		1993	01	13.50417	08	16	48.83	+22	21	41.3	17.2	399
1988 XK1		1993	01	13.51875	08	16	47.85	+22	21	44.0		399
1988 XK1		1993	01	20.59688	08	08	55.36	+22	49	57.5	17	399
1988 XK1		1993	01	20.61181	08	08	54.24	+22	50	00.9		399
1991 UZ2		1993	01	22.64942	06	43	41.52	+20	59	41.8	16.8	399
1991 UZ2		1993	01	22.66400	06	43	40.86	+20	59	42.5		399
1991 UM4		1993	01	22.68588	09	11	54.46	+19	03	39.8	16.8	399
1991 UM4		1993	01	22.70035	09	11	53.50	+19	03	42.7		399
1991 UM4		1993	02	10.47343	08	52	02.52	+20	14	16.2	17	399
1991 UM4		1993	02	10.48801	08	52	01.58	+20	14	17.4		399
1991 UM4		1993	02	13.55174	08	48	50.79	+20	23	37.5	16.8	399
1991 UM4		1993	02	13.56672	08	48	49.77	+20	23	38.2		399
1992 UM9	*	1992	10	19.52847	01	48	00.27	+07	22	56.0	17.2	399
1992 UM9		1992	10	19.54306	01	47	59.71	+07	22	49.4		399
1992 UM9		1992	10	22.58854	01	45	47.13	+07	03	44.0	17	399
1992 UM9		1992	10	22.60313	01	45	46.42	+07	03	38.2		399
1992 UN9	*	1992	10	19.52847	01	50	01.02	+10	00	25.6	17.2	399
1992 UN9		1992	10	19.54306	01	50	00.06	+10	00	18.0		399
1992 UN9		1992	10	22.58854	01	47	04.01	+09	39	57.7	17.2	399
1992 UN9		1992	10	22.60313	01	47	03.08	+09	39	52.8		399
1992 WJ		1992	11	02.63218	03	34	18.40	+21	04	49.8	17.2	399
1992 WJ		1992	11	02.64653	03	34	17.64	+21	04	47.8		399
1992 WG3		1992	12	15.42708	03	42	02.84	+17	43	00.6	17.2	399
1992 WG3		1992	12	15.44167	03	42	02.38	+17	43	00.5		399
1992 WG3		1992	12	17.42639	03	40	51.35	+17	38	29.5	17.2	399
1992 WG3		1992	12	17.44444	03	40	50.70	+17	38	27.0		399
1992 YD4		1993	01	13.43611	05	44	43.16	+20	09	26.5	16.8	399
1992 YD4		1993	01	13.45069	05	44	42.47	+20	09	28.5		399
1993 AE		1993	01	13.50417	08	21	26.60	+19	20	54.8	16	399
1993 AE		1993	01	13.51875	08	21	25.65	+19	20	51.3		399
1993 AM	*	1993	01	13.50417	08	21	07.77	+21	18	51.5	16.7	399
1993 AM		1993	01	13.51875	08	21	06.84	+21	18	49.6		399
1993 AM		1993	01	20.59688	08	13	24.13	+21	03	09.7	16.8	399
1993 AM		1993	01	20.61181	08	13	23.22	+21	03	09.1		399
1993 AN	*	1993	01	13.50417	08	22	06.41	+20	32	31.0	17	399
1993 AN		1993	01	13.51875	08	22	05.63	+20	32	34.4		399
1993 AN		1993	01	20.59688	08	16	03.95	+21	00	04.5	16.7	399
1993 AN		1993	01	20.61181	08	16	03.27	+21	00	07.6		399
1993 AO	*	1993	01	13.50417	08	22	44.00	+22	51	46.0	16	399
1993 AO		1993	01	13.51875	08	22	43.11	+22	51	49.8		399
1993 AO		1993	01	20.59688	08	16	06.06	+23	27	04.6	15.8	399
1993 AO		1993	01	20.61181	08	16	05.06	+23	27	08.5		399
1993 AP	*	1993	01	13.50417	08	24	55.13	+19	55	15.9	16.8	399
1993 AP		1993	01	13.51875	08	24	54.29	+19	55	17.1		399
1993 AP		1993	01	20.59688	08	16	25.24	+20	10	57.8	16.5	399
1993 AP		1993	01	20.61181	08	16	24.23	+20	11	01.0		399
1993 AQ	*	1993	01	13.53750	08	33	00.04	+13	38	10.8	16.8	399
1993 AQ		1993	01	13.55214	08	32	59.24	+13	38	09.1		399
1993 AQ		1993	01	20.63079	08	25	37.20	+13	31	43.3	16.8	399
1993 AQ		1993	01	20.64653	08	25	36.17	+13	31	42.9		399
1993 AR	*	1993	01	13.53750	08	33	55.65	+13	40	27.9	16.8	399
1993 AR		1993	01	13.55214	08	33	54.68	+13	40	28.3		399
1993 AR		1993	01	20.63079	08	26	20.95	+13	51	12.6	16.7	399
1993 AR		1993	01	20.64653	08	26	19.87	+13	51	14.5		399
1993 AS	*	1993	01	13.50417	08	21	56.69	+22	09	12.4	16.8	399
1993 AS		1993	01	13.51875	08	21	55.72	+22	09	10.1		399
1993 AS		1993	01	20.59688	08	14	29.81	+21	46	46.2	16.7	399
1993 AS		1993	01	20.61181	08	14	28.81	+21	46	44.0		399

1993	BD		1993	02	10.50537	09	30	25.22	+21 14 33.2	16.8	399
1993	BD		1993	02	10.51995	09	30	24.55	+21 14 43.2		399
1993	BD		1993	02	13.58750	09	27	33.11	+21 41 22.1	16.8	399
1993	BD		1993	02	13.60208	09	27	32.31	+21 41 27.2		399
1993	BO		1993	01	13.53750	08	38	47.95	+13 52 24.5	16	399
1993	BO		1993	01	13.55214	08	38	47.04	+13 52 28.6		399
1993	BO		1993	01	20.63079	08	31	29.17	+14 20 45.6	16	399
1993	BO		1993	01	20.64653	08	31	28.09	+14 20 49.5		399
1993	BG2		1993	02	10.47343	08	47	10.03	+19 12 16.9	17	399
1993	BG2		1993	02	10.48801	08	47	09.17	+19 12 17.8		399
1993	BG2		1993	02	13.55174	08	44	32.54	+19 15 28.9	16.8	399
1993	BG2		1993	02	13.56672	08	44	31.75	+19 15 30.9		399
1993	BH2		1993	02	10.47343	08	46	02.45	+20 11 32.6	17	399
1993	BH2		1993	02	10.48801	08	46	01.43	+20 11 38.7		399
1993	BJ2		1993	02	10.47347	08	56	24.74	+19 43 44.5	17.2	399
1993	BJ2		1993	02	10.48801	08	56	23.81	+19 43 49.9		399
1993	BJ2		1993	02	13.55174	08	53	26.57	+20 02 40.6	17	399
1993	BJ2		1993	02	13.56672	08	53	25.64	+20 02 47.3		399
1993	BK2		1993	01	22.68588	09	14	59.43	+17 29 52.3	17.2	399
1993	BK2		1993	01	22.70035	09	14	58.54	+17 29 55.3		399
1993	BL2		1993	02	10.47343	08	58	17.35	+19 57 23.1	17	399
1993	BL2		1993	02	10.48801	08	58	16.54	+19 57 28.1		399
1993	BM2		1993	01	22.61047	08	43	06.22	+27 07 49.0	16.8	399
1993	BM2		1993	01	22.62494	08	43	05.08	+27 07 46.4		399
1993	BH8		1993	02	10.44079	07	53	37.04	+22 09 06.1	16.7	399
1993	BH8		1993	02	10.45537	07	53	36.28	+22 09 10.4		399
1993	BM12	*	1993	01	22.68588	09	06	39.59	+17 20 03.0	16.3	399
1993	BM12		1993	01	22.70035	09	06	38.75	+17 20 04.2		399
1993	BM12		1993	02	10.47347	08	47	21.64	+18 20 40.5	16.3	399
1993	BM12		1993	02	10.48801	08	47	20.78	+18 20 45.1		399
1993	BM12		1993	02	13.55174	08	44	20.43	+18 29 05.6	16.5	399
1993	BM12		1993	02	13.56672	08	44	19.51	+18 29 07.8		399
1993	BO13	*	1993	01	22.68588	09	06	30.16	+19 50 31.0	17	399
1993	BO13		1993	01	22.70035	09	06	29.21	+19 50 37.1		399
1993	BO13		1993	02	10.47343	08	47	49.98	+21 32 02.4	17.2	399
1993	BO13		1993	02	10.48801	08	47	49.16	+21 32 04.8		399
1993	BO13		1993	02	13.55174	08	45	01.52	+21 44 57.8	17	399
1993	BO13		1993	02	13.56672	08	45	00.57	+21 45 01.5		399
1993	BP13	*	1993	01	22.72153	09	29	18.88	-01 18 57.0	15.7	399
1993	BP13		1993	01	22.73611	09	29	18.02	-01 18 59.7		399
1993	BP13		1993	02	13.62986	09	08	15.69	-01 40 08.5	15.5	399
1993	BP13		1993	02	13.64444	09	08	14.77	-01 40 08.3		399
1993	BP13		1993	02	15.55556	09	06	25.47	-01 37 18.2	15.2	399
1993	BP13		1993	02	15.57014	09	06	24.68	-01 37 17.0		399
1993	CO	*	1993	02	10.50537	09	22	33.45	+19 30 18.5	16.7	399
1993	CO		1993	02	10.51995	09	22	32.65	+19 30 21.2		399
1993	CO		1993	02	13.58750	09	19	51.56	+19 41 37.1	16.8	399
1993	CO		1993	02	13.60208	09	19	50.83	+19 41 41.0		399
1993	CP	*	1993	02	10.50537	09	30	37.98	+20 09 13.8	16.2	399
1993	CP		1993	02	10.51995	09	30	37.18	+20 09 24.2		399
1993	CP		1993	02	13.58750	09	28	06.70	+20 47 25.6	16.2	399
1993	CP		1993	02	13.60208	09	28	06.04	+20 47 35.8		399
1993	CQ	*	1993	02	10.50537	09	32	33.27	+19 09 35.4	16.5	399
1993	CQ		1993	02	10.51995	09	32	32.63	+19 09 42.3		399
1993	CQ		1993	02	13.58750	09	29	53.24	+19 31 45.4	16.8	399
1993	CQ		1993	02	13.60208	09	29	52.59	+19 31 52.4		399
1993	CR	*	1993	02	10.50537	09	35	42.30	+22 25 10.8	16.8	399
1993	CR		1993	02	10.51995	09	35	41.41	+22 25 14.8		399
1993	CR		1993	02	13.58750	09	32	36.73	+22 32 09.0	17	399

1993 CR		1993 02 13.60208	09 32 35.75	+22 32 12.0			399
1993 CX	*	1993 02 15.58843	09 31 27.42	+10 11 09.5	16.7		399
1993 CX		1993 02 15.60278	09 31 26.65	+10 11 12.2			399
1993 CX		1993 02 16.52720	09 30 37.66	+10 14 37.0	16.5		399
1993 CX		1993 02 16.54653	09 30 36.58	+10 14 40.1			399
1993 CY	*	1993 02 15.58843	09 32 51.81	+09 31 05.9	16.8		399
1993 CY		1993 02 15.60278	09 32 51.00	+09 31 05.7			399
1993 CY		1993 02 16.52720	09 31 50.38	+09 30 40.3	17		399
1993 CY		1993 02 16.54653	09 31 49.22	+09 30 38.9			399
1993 CZ	*	1993 02 15.58843	09 33 46.24	+09 28 42.2	16.8		399
1993 CZ		1993 02 15.60278	09 33 45.33	+09 28 51.6			399
1993 CZ		1993 02 16.52720	09 32 57.17	+09 38 17.0	16.8		399
1993 CZ		1993 02 16.54653	09 32 56.15	+09 38 29.8			399

400 Kitami
K. Watanabe, 3-8 Mason Hashimoto B-203, atsubetsu cyuo 3 jo 4 chome, Atsubetsu-ku, Sapporo 004, Japan
Observer K. Endate
Measurer K. Watanabe
0.25-m f/2.6 Schmidt camera
GSC

1991 PS		1993 01 23.52361	08 54 59.51	+13 16 36.4	16.5		400
1991 PS		1993 01 23.53819	08 54 58.59	+13 16 35.9			400
1991 PS		1993 01 24.52986	08 53 53.94	+13 18 33.1	16.5		400
1991 PS		1993 01 24.54444	08 53 52.90	+13 18 35.9			400
1992 UN4		1992 11 16.50347	02 33 28.38	+04 48 08.2	16.5		400
1992 UN4		1992 11 16.51736	02 33 27.70	+04 48 09.7			400
1992 WT		1992 12 15.45833	03 13 17.72	+18 49 59.9	17		400
1992 WT		1992 12 15.47361	03 13 17.38	+18 49 57.7			400
1992 YG3		1993 01 13.48681	08 04 24.66	+20 00 04.3	16.5		400
1992 YG3		1993 01 13.50347	08 04 23.92	+20 00 07.8			400
1992 YG3		1993 01 14.54444	08 03 30.15	+20 03 29.2	16.5		400
1992 YG3		1993 01 14.55833	08 03 29.58	+20 03 31.5			400
1993 AD	*	1993 01 13.45556	08 14 45.63	+29 38 40.1	16.0		400
1993 AD		1993 01 13.47014	08 14 44.98	+29 38 39.3			400
1993 AD		1993 01 14.51458	08 13 38.99	+29 37 35.9	16.0		400
1993 AD		1993 01 14.52847	08 13 38.21	+29 37 34.7			400
1993 AD		1993 02 13.46736	07 46 43.66	+27 58 54.4	17		400
1993 AD		1993 02 13.48472	07 46 43.03	+27 58 49.2			400
1993 AE	*	1993 01 13.48681	08 21 27.85	+19 20 54.7	16.0		400
1993 AE		1993 01 13.50347	08 21 26.77	+19 20 53.2			400
1993 AE		1993 01 14.54444	08 20 18.49	+19 18 09.6	16.0		400
1993 AE		1993 01 14.55833	08 20 17.57	+19 18 06.8			400
1993 AF	*	1993 01 13.52083	08 03 28.93	+09 04 26.5	16.5		400
1993 AF		1993 01 14.57431	08 02 22.19	+09 07 08.6	17		400
1993 AF		1993 01 14.58819	08 02 21.55	+09 07 08.0			400
1993 AG	*	1993 01 13.52083	08 07 59.90	+13 25 18.5	16.5		400
1993 AG		1993 01 13.53542	08 07 59.11	+13 25 22.9			400
1993 AG		1993 01 14.57431	08 07 12.41	+13 29 09.2	16.5		400
1993 AG		1993 01 14.58819	08 07 11.93	+13 29 13.6			400
1993 AH	*	1993 01 13.52083	08 15 17.38	+12 01 42.3	17		400
1993 AH		1993 01 13.53542	08 15 16.44	+12 01 46.7			400
1993 AH		1993 01 14.57431	08 14 15.71	+12 06 29.3	17		400
1993 AH		1993 01 14.58819	08 14 14.62	+12 06 32.2			400
1993 AJ	*	1993 01 13.55174	08 37 32.81	+20 16 24.7	16.5		400
1993 AJ		1993 01 13.56597	08 37 32.32	+20 16 28.9			400
1993 AJ		1993 01 14.60556	08 36 34.92	+20 27 02.8	16.5		400
1993 AJ		1993 01 14.61806	08 36 33.90	+20 27 09.6			400
1993 AK	*	1993 01 13.55174	08 41 08.57	+20 18 03.7	16.0		400

1993 AK		1993 01 13.56597	08 41 07.66	+20 18 15.6		400
1993 AK		1993 01 14.60556	08 40 12.99	+20 30 18.0	16.0	400
1993 AK		1993 01 14.61806	08 40 12.02	+20 30 26.1		400
1993 BF2		1993 01 18.47361	08 29 42.55	+26 26 43.0	15.5	400
1993 BF2		1993 01 18.48819	08 29 41.69	+26 26 50.8		400
1993 BQ2	*	1993 01 18.47361	08 41 31.37	+24 51 42.0	17	400
1993 BQ2		1993 01 18.48819	08 41 30.20	+24 51 47.8		400
1993 BQ2		1993 01 23.46042	08 34 30.79	+25 23 44.6	17	400
1993 BQ2		1993 01 23.47431	08 34 29.86	+25 23 47.0		400
1993 BR2		1993 01 23.49236	08 47 52.31	+24 16 23.3	16.8	400
1993 BR2		1993 01 23.50764	08 47 51.25	+24 16 23.3		400
1993 BR2		1993 01 24.49792	08 46 54.41	+24 18 29.3	16.8	400
1993 BR2		1993 01 24.51458	08 46 53.32	+24 18 28.7		400
1993 BS2	*	1993 01 23.49236	08 48 31.17	+20 14 49.5	17	400
1993 BS2		1993 01 23.50764	08 48 30.16	+20 14 55.3		400
1993 BS2		1993 01 24.49792	08 47 26.17	+20 22 23.0	17	400
1993 BS2		1993 01 24.51458	08 47 25.08	+20 22 28.5		400
1993 BT2	*	1993 01 23.49236	08 55 34.55	+21 12 48.4	16.0	400
1993 BT2		1993 01 23.50764	08 55 33.81	+21 12 49.5		400
1993 BT2		1993 01 24.49792	08 54 34.26	+21 13 51.2	15.7	400
1993 BT2		1993 01 24.51458	08 54 33.19	+21 13 53.0		400
1993 BT2		1993 02 13.50278	08 34 25.76	+21 18 55.7	16.5	400
1993 BT2		1993 02 13.52083	08 34 24.92	+21 18 55.0		400
1993 BU2	*	1993 01 23.50764	08 54 44.26	+23 04 04.8	16.5	400
1993 BU2		1993 01 24.49792	08 53 35.68	+23 05 18.1	16.3	400
1993 BU2		1993 01 24.51458	08 53 34.49	+23 05 19.1		400
1993 BV2	*	1993 01 23.52361	08 54 47.30	+13 39 37.8	15	400
1993 BV2		1993 01 23.53819	08 54 46.39	+13 39 38.6		400
1993 BV2		1993 01 24.52986	08 53 50.38	+13 40 10.6	15.0	400
1993 BV2		1993 01 24.54444	08 53 49.55	+13 40 10.8		400
1993 BV2		1993 02 10.51354	08 38 08.78	+13 56 23.0	15.5	400
1993 BV2		1993 02 10.52743	08 38 08.24	+13 56 24.7		400
1993 BX2	*	1993 01 23.55625	09 29 21.07	+18 54 56.1	16.5	400
1993 BX2		1993 01 23.57153	09 29 20.36	+18 54 56.7		400
1993 BX2		1993 01 24.56111	09 28 18.30	+18 52 10.6	16.5	400
1993 BX2		1993 01 24.57569	09 28 17.30	+18 52 09.0		400
1993 BF3	*	1993 01 23.49236	08 47 11.39	+22 07 21.1	16.5	400
1993 BF3		1993 01 23.50764	08 47 10.41	+22 07 20.6		400
1993 BF3		1993 01 24.49792	08 46 08.62	+22 08 35.6	16.5	400
1993 BF3		1993 01 24.51458	08 46 07.24	+22 08 35.5		400
1993 BG3	*	1993 01 23.52361	09 03 06.76	+14 42 32.8	17	400
1993 BG3		1993 01 23.53819	09 03 05.98	+14 42 38.2		400
1993 BG3		1993 01 24.52986	09 02 16.14	+14 49 17.7	17	400
1993 BG3		1993 01 24.54444	09 02 15.50	+14 49 23.8		400
(4179)		1993 01 13.48681	08 04 48.06	+19 51 19.2	12	400
(4179)		1993 01 13.50347	08 04 46.81	+19 51 26.3		400
(4179)		1993 01 14.54444	08 03 41.22	+19 57 19.3	12	400
(4179)		1993 01 14.55833	08 03 40.27	+19 57 25.5		400

402 Dynic Astronomical Observatory
A. Sugie, Dynic Astronomical Observatory, Taga 270, Taga-Cho, Inukami-Gun, Shiga-Ken, 522-03, Japan
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GSC

1993 BF2	1993 01 22.58333	08 25 32.25	+26 59 09.8	16.0	402
1993 BF2	1993 01 22.59931	08 25 31.31	+26 59 17.5		402
1993 BV2	1993 01 17.56389	09 00 08.76	+13 38 19.2	16.0	402
1993 BV2	1993 01 17.57639	09 00 08.15	+13 38 19.6		402
1993 BV2	1993 01 22.55139	08 55 41.74	+13 39 12.4		402

1993 BV2		1993 01 22.57292	08 55 40.42	+13 39 13.6			402
1993 BL12		1993 02 13.56250	09 41 30.06	+21 24 16.4		17.5	402
1993 BL12		1993 02 13.57361	09 41 29.37	+21 24 22.1			402
1993 BL12		1993 02 14.56319	09 40 29.75	+21 29 40.5			402
1993 BL12		1993 02 14.57639	09 40 28.87	+21 29 44.6			402
1993 CF	*	1993 02 13.56250	09 39 45.34	+21 26 17.4		17.0	402
1993 CF		1993 02 13.57361	09 39 44.52	+21 26 15.1			402
1993 CF		1993 02 14.56319	09 38 35.65	+21 25 18.6			402
1993 CF		1993 02 14.57639	09 38 34.69	+21 25 17.4			402
1993 CG	*	1993 02 13.56250	09 53 25.00	+24 37 54.2		17.0	402
1993 CG		1993 02 13.57361	09 53 24.32	+24 38 02.2			402
1993 CG		1993 02 14.56319	09 52 19.67	+24 42 50.8		16.5	402
1993 CG		1993 02 14.57639	09 52 18.82	+24 42 55.2			402
1993 CH	*	1993 02 13.58264	10 26 53.77	+23 27 20.1		17.0	402
1993 CH		1993 02 13.59375	10 26 53.07	+23 27 26.2			402
1993 CH		1993 02 14.58542	10 25 55.79	+23 34 07.7			402
1993 CH		1993 02 14.59861	10 25 54.74	+23 34 12.9			402
1993 CJ	*	1993 02 13.60278	10 41 39.78	+20 55 12.9		17.0	402
1993 CJ		1993 02 13.61412	10 41 39.15	+20 55 16.5			402
1993 CJ		1993 02 14.60833	10 40 43.58	+21 01 23.7			402
1993 CJ		1993 02 14.62083	10 40 42.99	+21 01 29.9			402

403 Kani
T. Furuta, Mitsuike 17-2, Kakiya-Cho, Tokai, Aichi-Ken 477, Japan
Observer Y. Mizuno
Measurer T. Furuta
0.20-m f/4.0 hyperboloid astrocamera
GSC

1988 BK		1993 01 21.64722	09 07 47.34	+14 31 29.2		16.0	403
1988 BK		1993 01 21.66018	09 07 46.68	+14 31 36.4			403
1993 AE		1993 01 17.53102	08 16 58.96	+19 10 13.5		16.0	403
1993 AE		1993 01 17.54236	08 16 58.22	+19 10 12.8			403
1993 AE		1993 01 21.53681	08 12 28.28	+18 59 31.7			403
1993 AE		1993 01 21.55012	08 12 27.21	+18 59 28.5			403
1993 AJ		1993 01 17.58264	08 33 47.00	+20 57 08.5		16.5	403
1993 AJ		1993 01 17.59572	08 33 46.27	+20 57 14.7			403
1993 AJ		1993 01 21.56528	08 29 55.59	+21 36 57.2			403
1993 AJ		1993 01 21.57824	08 29 54.96	+21 37 02.3			403
1993 BO	*	1993 01 17.60902	08 34 39.53	+14 08 14.4		16.5	403
1993 BO		1993 01 17.62222	08 34 38.72	+14 08 17.3			403
1993 BO		1993 01 21.59305	08 30 28.19	+14 24 52.3			403
1993 BO		1993 01 21.60603	08 30 27.27	+14 24 56.6			403

410 Sengamine
K. Ito, 4-13-7, Sakuragaoka Higashi Mati, Nishi-ku, Kobe 651-22, Japan
0.20-m f/4.8 reflector + CCD
GSC

1993 BC2		1993 01 29.57708	07 21 44.87	+14 40 24.4		15.8 V	410
1993 BC2		1993 01 29.57969	07 21 45.91	+14 40 15.3			410
1993 BC2		1993 01 29.58954	07 21 50.00	+14 39 39.7			410

411 Oizumi
T. Kobayashi, 1717-2 Shimo-Koizumi, Oizumi-machi, Ora-gun,
Gunma-ken, 370-05 Japan
0.16-m f/6.3 reflector + CCD
GSC

1987 VC1		1993 02 12.57480	10 40 04.15	+15 36 31.9			411
1987 VC1		1993 02 12.58541	10 40 03.51	+15 36 34.0			411
1989 NB1		1993 02 12.60905	10 43 35.52	+16 09 30.0			411

1991	PJ3		1993	01	22.50401	06	58	13.35	+30	14	57.4		411
1991	PJ3		1993	01	22.51186	06	58	12.86	+30	14	56.9		411
1991	PJ3		1993	01	22.51579	06	58	12.61	+30	14	57.1		411
1991	PJ3		1993	01	28.45282	06	52	55.58	+30	01	05.4		411
1991	PJ3		1993	01	28.46067	06	52	55.28	+30	01	04.3		411
1991	PJ3		1993	01	28.46459	06	52	55.00	+30	01	03.4		411
1991	PJ3		1993	01	29.59986	06	52	02.30	+29	57	52.8		411
1991	PJ3		1993	01	29.60771	06	52	01.92	+29	57	52.9		411
1991	PJ3		1993	01	29.61164	06	52	01.75	+29	57	51.5		411
1991	PJ3		1993	01	30.48987	06	51	23.46	+29	55	19.9		411
1991	PJ3		1993	01	30.49771	06	51	23.09	+29	55	18.6		411
1991	PJ3		1993	01	30.50164	06	51	22.92	+29	55	17.9		411
1992	YB1		1993	01	17.51157	07	32	35.14	+23	54	27.2		411
1992	YB1		1993	01	17.51942	07	32	34.68	+23	54	27.1		411
1992	YB1		1993	01	17.52334	07	32	34.39	+23	54	28.6		411
1992	YB1		1993	01	22.52058	07	27	52.93	+24	02	25.6		411
1992	YB1		1993	01	22.52843	07	27	52.52	+24	02	25.9		411
1992	YB1		1993	01	22.53236	07	27	52.24	+24	02	27.5		411
1992	YB1		1993	01	30.56215	07	20	55.59	+24	12	03.9		411
1992	YB1		1993	01	30.56999	07	20	55.17	+24	12	04.7		411
1992	YB1		1993	01	30.57392	07	20	55.01	+24	12	04.0		411
1992	YA3		1993	02	08.45672	07	19	05.57	+18	03	24.6		411
1992	YA3		1993	02	08.46459	07	19	05.32	+18	03	25.0		411
1992	YA3		1993	02	08.46852	07	19	05.16	+18	03	24.5		411
1992	YA3		1993	02	11.53748	07	17	20.70	+18	01	27.0		411
1992	YA3		1993	02	11.54531	07	17	20.43	+18	01	25.9		411
1992	YA3		1993	02	11.54922	07	17	20.35	+18	01	26.7		411
1992	YA3		1993	02	12.45388	07	16	52.25	+18	00	50.9		411
1992	YA3		1993	02	12.46170	07	16	51.99	+18	00	50.1		411
1992	YA3		1993	02	12.46562	07	16	51.82	+18	00	50.2		411
1992	YA3		1993	02	13.44083	07	16	22.87	+18	00	12.0		411
1992	YA3		1993	02	13.44794	07	16	22.68	+18	00	11.4		411
1992	YA3		1993	02	13.45150	07	16	22.60	+18	00	11.3		411
1992	YG3		1993	01	22.54169	07	56	33.04	+20	28	54.8		411
1992	YG3		1993	01	22.54954	07	56	32.60	+20	28	56.2		411
1992	YG3		1993	01	22.55347	07	56	32.40	+20	28	57.0		411
1992	YG3		1993	01	29.65413	07	50	33.36	+20	50	11.3		411
1992	YG3		1993	01	29.66198	07	50	32.99	+20	50	12.6		411
1992	YG3		1993	01	29.66591	07	50	32.77	+20	50	12.9		411
1993	AG		1993	01	28.47494	07	56	36.82	+14	32	16.8		411
1993	AG		1993	01	28.48278	07	56	36.47	+14	32	19.8		411
1993	AG		1993	01	28.48671	07	56	36.30	+14	32	21.1		411
1993	BR3		1993	02	11.58564	09	13	44.98	+23	00	17.9		411
1993	BR3		1993	02	11.59346	09	13	44.64	+23	00	22.0		411
1993	BR3		1993	02	11.59738	09	13	44.40	+23	00	24.0		411
1993	BR3		1993	02	12.51771	09	12	56.66	+23	09	25.0		411
1993	BR3		1993	02	12.52553	09	12	56.30	+23	09	30.5		411
1993	BR3		1993	02	12.52944	09	12	56.08	+23	09	32.0		411
1993	BR3		1993	02	13.51014	09	12	05.49	+23	19	00.0		411
1993	BR3		1993	02	13.51801	09	12	05.08	+23	19	04.9		411
1993	BR3		1993	02	13.52194	09	12	04.86	+23	19	05.3		411
1993	CC	*	1993	02	12.62212	10	46	53.96	+16	06	33.2	15	411
1993	CC		1993	02	12.63268	10	46	53.51	+16	06	40.2		411
1993	CC		1993	02	13.54050	10	46	15.82	+16	16	50.8		411
1993	CC		1993	02	13.54838	10	46	15.42	+16	16	56.2		411
1993	CC		1993	02	13.55230	10	46	15.34	+16	16	57.7		411
1993	CK		1993	02	13.54050	10	45	53.13	+16	32	48.7		411
1993	CK		1993	02	13.54838	10	45	52.82	+16	32	51.3		411
1993	CK		1993	02	13.55231	10	45	52.42	+16	32	52.3		411

1993 CK	*	1993	02	14.52023	10	44	59.75	+16 38 07.4	15.5	411
1993 CK		1993	02	14.52667	10	44	59.33	+16 38 09.3		411
1993 CK		1993	02	14.52990	10	44	59.12	+16 38 11.7		411
(3)		1993	02	08.39931	06	04	46.43	+06 00 13.3		411
(3)		1993	02	08.40024	06	04	46.41	+06 00 13.9		411
(3)		1993	02	11.38888	06	05	21.85	+06 31 03.2		411
(3)		1993	02	11.38975	06	05	21.85	+06 31 03.6		411
(10)		1993	02	10.49472	07	21	49.19	+20 46 32.7		411
(10)		1993	02	10.49556	07	21	49.16	+20 46 32.7		411
(10)		1993	02	11.46179	07	21	15.22	+20 47 04.5		411
(10)		1993	02	11.46266	07	21	15.20	+20 47 04.5		411
(18)		1993	02	08.43934	06	56	34.95	+13 58 52.2		411
(18)		1993	02	08.44027	06	56	34.92	+13 58 52.8		411
(18)		1993	02	10.48124	06	55	46.42	+14 14 34.2		411
(18)		1993	02	10.48209	06	55	46.41	+14 14 34.6		411
(18)		1993	02	11.43947	06	55	26.65	+14 21 50.5		411
(18)		1993	02	11.44034	06	55	26.63	+14 21 50.8		411
(25)		1993	02	08.40557	06	11	11.64	-04 18 08.8		411
(25)		1993	02	08.40650	06	11	11.61	-04 18 08.4		411
(25)		1993	02	11.39486	06	10	13.21	-03 59 20.1		411
(25)		1993	02	11.39573	06	10	13.19	-03 59 19.7		411
(32)		1993	02	08.42638	06	44	15.21	+15 04 26.5		411
(32)		1993	02	08.42732	06	44	15.18	+15 04 26.5		411
(32)		1993	02	10.46517	06	43	22.27	+15 08 51.6		411
(32)		1993	02	10.46602	06	43	22.25	+15 08 51.6		411
(32)		1993	02	11.41578	06	43	00.19	+15 10 56.0		411
(32)		1993	02	11.41665	06	43	00.16	+15 10 56.1		411
(55)		1993	02	10.57492	09	06	53.27	+25 54 18.5		411
(65)		1993	02	08.43108	06	46	23.12	+19 45 23.3		411
(65)		1993	02	08.43201	06	46	23.10	+19 45 23.4		411
(65)		1993	02	10.46953	06	45	31.16	+19 48 31.6		411
(65)		1993	02	10.47037	06	45	31.14	+19 48 31.7		411
(65)		1993	02	11.42332	06	45	08.50	+19 49 58.1		411
(65)		1993	02	11.42418	06	45	08.48	+19 49 58.1		411
(83)		1993	01	17.49814	04	09	19.48	+26 55 28.6		411
(83)		1993	01	17.50038	04	09	19.46	+26 55 28.4		411
(83)		1993	01	17.50150	04	09	19.45	+26 55 28.3		411
(88)		1993	02	10.49658	07	22	34.62	+19 21 56.9		411
(88)		1993	02	10.49742	07	22	34.59	+19 21 56.9		411
(88)		1993	02	11.46370	07	21	58.40	+19 22 37.3		411
(88)		1993	02	11.46457	07	21	58.37	+19 22 37.5		411
(93)		1993	02	10.53222	08	09	40.47	+30 52 22.0		411
(93)		1993	02	10.53307	08	09	40.41	+30 52 21.8		411
(104)		1993	02	10.50883	07	35	04.25	+25 44 31.7		411
(104)		1993	02	10.50967	07	35	04.22	+25 44 31.7		411
(104)		1993	02	11.48186	07	34	31.15	+25 45 01.2		411
(104)		1993	02	11.48273	07	34	31.12	+25 45 01.2		411
(112)		1993	01	22.45866	05	09	37.34	+25 51 55.2		411
(112)		1993	01	22.46370	05	09	37.24	+25 51 54.8		411
(112)		1993	01	22.46623	05	09	37.18	+25 51 54.5		411
(116)		1993	02	10.51072	07	43	16.45	+26 21 01.5		411
(116)		1993	02	10.51157	07	43	16.41	+26 21 01.4		411
(116)		1993	02	11.48863	07	42	37.21	+26 22 15.6		411
(116)		1993	02	11.48950	07	42	37.17	+26 22 15.7		411
(160)		1993	02	10.58464	09	21	25.57	+20 22 42.5		411
(198)		1993	02	10.49274	07	17	57.55	+14 49 39.2		411
(198)		1993	02	10.49359	07	17	57.52	+14 49 39.2		411
(209)		1993	02	10.51263	07	45	50.32	+29 53 53.1		411
(209)		1993	02	10.51348	07	45	50.28	+29 53 53.1		411

(209)	1993 02 11.49057	07 45 09.12	+29 53 12.8			411
(209)	1993 02 11.49145	07 45 09.09	+29 53 12.8			411
(224)	1993 02 08.42880	06 45 27.44	+30 18 17.0			411
(224)	1993 02 08.42974	06 45 27.40	+30 18 16.9			411
(224)	1993 02 10.46741	06 44 27.59	+30 13 24.0			411
(224)	1993 02 10.46827	06 44 27.56	+30 13 23.8			411
(224)	1993 02 11.42117	06 44 02.28	+30 11 01.7			411
(224)	1993 02 11.42204	06 44 02.25	+30 11 01.7			411
(232)	1993 02 10.51499	07 46 00.94	+16 38 01.1			411
(232)	1993 02 10.51617	07 46 00.89	+16 38 01.5			411
(232)	1993 02 11.49281	07 45 17.69	+16 43 20.3			411
(232)	1993 02 11.49368	07 45 17.66	+16 43 20.5			411
(237)	1993 02 10.56481	08 53 33.63	+28 44 53.0			411
(241)	1993 02 10.54782	08 33 34.86	+13 33 43.8			411
(241)	1993 02 10.54869	08 33 34.81	+13 33 44.0			411
(249)	1993 02 11.47935	07 30 03.56	+30 09 58.4			411
(249)	1993 02 11.48057	07 30 03.48	+30 09 58.2			411
(254)	1993 02 12.61949	10 48 16.00	+14 46 24.7			411
(254)	1993 02 12.63006	10 48 15.35	+14 46 28.3			411
(270)	1993 02 10.53729	08 17 59.45	+16 25 03.4			411
(270)	1993 02 10.53815	08 17 59.39	+16 25 03.6			411
(270)	1993 02 11.52983	08 17 02.26	+16 28 15.7			411
(271)	1993 02 11.40819	06 22 06.36	+26 50 03.1			411
(271)	1993 02 11.40942	06 22 06.36	+26 50 02.9			411
(284)	1993 02 08.44477	06 57 57.85	+12 36 19.0			411
(284)	1993 02 08.44613	06 57 57.79	+12 36 19.0			411
(284)	1993 02 11.44461	06 56 09.79	+12 43 29.7			411
(284)	1993 02 11.44585	06 56 09.76	+12 43 29.8			411
(311)	1993 02 10.49871	07 24 43.49	+24 55 58.9			411
(311)	1993 02 11.46589	07 24 09.46	+24 57 12.6			411
(311)	1993 02 11.46712	07 24 09.42	+24 57 13.1			411
(319)	1993 02 10.52228	07 51 46.24	+07 14 14.1			411
(319)	1993 02 11.50749	07 51 13.39	+07 19 47.0			411
(319)	1993 02 11.50873	07 51 13.35	+07 19 47.4			411
(327)	1993 02 10.53960	08 18 18.94	+27 37 37.1			411
(327)	1993 02 10.54078	08 18 18.86	+27 37 37.2			411
(332)	1993 02 10.54219	08 23 16.52	+23 37 44.5			411
(332)	1993 02 10.54337	08 23 16.46	+23 37 44.6			411
(332)	1993 02 11.53109	08 22 27.01	+23 39 46.0			411
(332)	1993 02 11.53198	08 22 26.95	+23 39 46.4			411
(337)	1993 02 10.58083	09 18 46.46	+25 05 00.4			411
(337)	1993 02 10.58170	09 18 46.40	+25 05 00.3			411
(349)	1993 01 17.49409	04 05 24.29	+29 18 10.5			411
(349)	1993 01 17.49562	04 05 24.27	+29 18 10.4			411
(349)	1993 01 17.49639	04 05 24.28	+29 18 10.4			411
(357)	1993 02 11.45479	07 04 28.70	+14 44 54.3			411
(357)	1993 02 11.45567	07 04 28.67	+14 44 54.4			411
(382)	1993 02 08.44792	07 02 59.00	+26 01 47.6			411
(382)	1993 02 08.44923	07 02 58.96	+26 01 47.8			411
(382)	1993 02 10.48688	07 01 47.47	+25 58 47.1			411
(382)	1993 02 10.48806	07 01 47.43	+25 58 47.0			411
(382)	1993 02 11.45002	07 01 15.69	+25 57 17.8			411
(382)	1993 02 11.45091	07 01 15.66	+25 57 17.7			411
(384)	1993 02 08.38514	05 39 04.14	+30 16 51.2			411
(384)	1993 02 08.38610	05 39 04.16	+30 16 51.2			411
(387)	1993 02 08.41080	06 18 24.64	+14 20 39.7			411
(387)	1993 02 08.41175	06 18 24.62	+14 20 40.1			411
(387)	1993 02 11.40256	06 17 16.70	+14 36 52.3			411
(387)	1993 02 11.40345	06 17 16.68	+14 36 52.5			411

(390)	1993 02 08.40211	06 08 28.25	+28 19 11.7			411
(390)	1993 02 08.40342	06 08 28.23	+28 19 11.2			411
(393)	1993 02 08.40802	06 14 57.83	+05 30 02.5			411
(393)	1993 02 08.40931	06 14 57.81	+05 30 02.7			411
(393)	1993 02 11.39718	06 13 55.66	+05 40 41.0			411
(393)	1993 02 11.39842	06 13 55.65	+05 40 41.2			411
(403)	1993 02 10.56063	08 49 15.66	+03 06 28.6			411
(403)	1993 02 10.56150	08 49 15.61	+03 06 28.9			411
(420)	1993 01 17.42744	03 59 47.96	+18 50 37.4			411
(420)	1993 01 17.42967	03 59 47.97	+18 50 37.4			411
(420)	1993 01 17.43079	03 59 47.96	+18 50 37.5			411
(431)	1993 02 10.54998	08 36 59.29	+19 08 43.7			411
(431)	1993 02 10.55117	08 36 59.25	+19 08 43.9			411
(432)	1993 02 08.38724	05 41 31.25	+27 25 55.1			411
(432)	1993 02 08.38819	05 41 31.24	+27 25 55.2			411
(454)	1993 02 08.41332	06 24 36.49	+32 09 39.0			411
(454)	1993 02 08.41427	06 24 36.46	+32 09 38.9			411
(454)	1993 02 11.41075	06 23 31.40	+32 03 41.3			411
(454)	1993 02 11.41164	06 23 31.37	+32 03 41.2			411
(477)	1993 02 10.50401	07 26 58.45	+29 20 39.5			411
(477)	1993 02 10.50520	07 26 58.40	+29 20 39.4			411
(477)	1993 02 11.47141	07 26 16.17	+29 19 44.3			411
(477)	1993 02 11.47264	07 26 16.11	+29 19 44.1			411
(503)	1993 02 10.58783	09 30 12.33	+23 28 20.6			411
(503)	1993 02 10.58870	09 30 12.29	+23 28 20.9			411
(506)	1993 02 10.55542	08 38 45.78	+18 50 51.6			411
(509)	1993 02 10.57219	09 06 16.97	-05 46 56.7			411
(509)	1993 02 10.57306	09 06 16.93	-05 46 56.4			411
(527)	1993 02 10.56804	08 59 37.69	+20 35 35.6			411
(527)	1993 02 10.56923	08 59 37.62	+20 35 36.2			411
(537)	1993 02 10.50129	07 24 55.24	+21 17 37.4			411
(537)	1993 02 10.50248	07 24 55.20	+21 17 37.5			411
(537)	1993 02 11.46858	07 24 21.46	+21 20 25.0			411
(537)	1993 02 11.46982	07 24 21.39	+21 20 25.2			411
(550)	1993 02 10.48964	07 04 08.99	+16 35 25.3			411
(550)	1993 02 11.45236	07 03 35.50	+16 35 39.3			411
(550)	1993 02 11.45361	07 03 35.46	+16 35 39.3			411
(580)	1993 02 08.43653	06 52 40.88	+24 05 35.4			411
(580)	1993 02 08.43784	06 52 40.87	+24 05 35.6			411
(580)	1993 02 10.47667	06 51 50.49	+24 08 00.0			411
(580)	1993 02 10.47786	06 51 50.45	+24 07 59.6			411
(580)	1993 02 11.43472	06 51 28.97	+24 09 03.4			411
(580)	1993 02 11.43597	06 51 28.94	+24 09 03.5			411
(581)	1993 02 10.54495	08 30 01.73	+33 04 46.8			411
(581)	1993 02 10.54614	08 30 01.66	+33 04 47.3			411
(585)	1993 02 10.57080	09 00 46.38	+07 08 23.8			411
(632)	1993 02 10.49871	07 23 53.89	+24 46 09.8			411
(632)	1993 02 10.49989	07 23 53.84	+24 46 10.1			411
(651)	1993 02 10.56628	08 54 19.34	+33 41 13.4			411
(660)	1993 02 10.59660	09 40 46.27	+07 43 34.6			411
(660)	1993 02 10.59748	09 40 46.21	+07 43 35.0			411
(675)	1993 02 10.59534	09 35 55.07	+00 00 18.0			411
(697)	1993 02 10.59017	09 30 54.90	+34 29 21.4			411
(697)	1993 02 10.59137	09 30 54.83	+34 29 21.3			411
(702)	1993 02 10.50672	07 30 09.23	+16 37 27.8			411
(702)	1993 02 10.50760	07 30 09.19	+16 37 27.7			411
(702)	1993 02 11.47688	07 29 30.12	+16 35 17.6			411
(702)	1993 02 11.47780	07 29 30.09	+16 35 17.4			411
(706)	1993 02 11.48404	07 39 25.26	+30 13 55.3			411

(706)	1993 02 11.48530	07 39 25.14	+30 13 55.3			411
(722)	1993 02 12.64834	10 51 54.23	+16 57 21.4			411
(737)	1993 02 10.52619	08 00 43.38	+05 24 59.0			411
(737)	1993 02 10.52739	08 00 43.33	+05 24 59.5			411
(737)	1993 02 11.51376	07 59 59.87	+05 30 49.2			411
(737)	1993 02 11.51466	07 59 59.82	+05 30 49.5			411
(790)	1993 02 08.44178	06 57 32.38	+05 00 55.6			411
(790)	1993 02 08.44311	06 57 32.34	+05 00 55.4			411
(790)	1993 02 10.48350	06 56 32.85	+05 03 50.5			411
(790)	1993 02 11.44179	06 56 06.29	+05 05 16.5			411
(790)	1993 02 11.44306	06 56 06.26	+05 05 16.5			411
(807)	1993 02 11.52504	08 08 35.78	+18 43 52.7			411
(830)	1993 02 08.41567	06 26 07.59	+27 25 59.8			411
(830)	1993 02 08.41700	06 26 07.56	+27 25 59.7			411
(830)	1993 02 11.41296	06 25 16.00	+27 21 32.0			411
(830)	1993 02 11.41422	06 25 15.99	+27 21 31.9			411
(850)	1993 02 08.43351	06 51 51.79	+19 36 09.9			411
(850)	1993 02 08.43498	06 51 51.74	+19 36 10.2			411
(850)	1993 02 11.42908	06 50 23.54	+19 50 07.7			411
(850)	1993 02 11.43035	06 50 23.51	+19 50 07.8			411
(853)	1993 02 10.59889	09 47 26.16	+02 56 23.6			411
(853)	1993 02 10.60010	09 47 26.06	+02 56 23.8			411
(872)	1993 02 10.57841	09 17 27.85	+05 43 55.0			411
(872)	1993 02 10.57931	09 17 27.81	+05 43 55.4			411
(916)	1993 02 11.47403	07 26 59.87	+30 19 04.7			411
(916)	1993 02 11.47531	07 26 59.83	+30 19 04.4			411
(929)	1993 01 17.45638	04 01 52.48	+17 57 25.4			411
(929)	1993 01 17.45960	04 01 52.47	+17 57 25.1			411
(957)	1993 02 10.52893	08 06 31.12	-02 18 34.3			411
(957)	1993 02 10.53014	08 06 31.06	-02 18 34.0			411
(957)	1993 02 11.52318	08 05 49.27	-02 14 16.4			411
(975)	1993 02 10.55689	08 41 59.50	+22 19 21.0			411
(983)	1993 02 11.50136	07 49 20.47	+03 48 12.0			411
(983)	1993 02 11.50263	07 49 20.42	+03 48 12.1			411
(999)	1993 02 10.59534	09 35 47.82	+00 09 53.3			411
(1026)	1993 02 12.57216	10 41 29.65	+15 00 54.7			411
(1026)	1993 02 12.58276	10 41 29.14	+15 00 58.9			411
(1111)	1993 01 17.48475	04 04 15.61	+16 34 33.3			411
(1111)	1993 01 17.48909	04 04 15.59	+16 34 33.9			411
(1145)	1993 02 11.52711	08 16 07.83	+25 59 33.7			411
(1145)	1993 02 11.52840	08 16 07.75	+25 59 33.7			411
(1171)	1993 01 17.47921	04 02 41.09	+17 49 43.6			411
(1171)	1993 01 17.48145	04 02 41.10	+17 49 44.0			411
(1177)	1993 02 10.49130	07 06 00.43	+08 04 01.9			411
(1177)	1993 02 11.45708	07 05 33.07	+08 05 13.5			411
(1177)	1993 02 11.45836	07 05 32.95	+08 05 13.3			411
(1249)	1993 02 10.51756	07 46 17.23	+14 22 55.8			411
(1249)	1993 02 10.51880	07 46 17.18	+14 22 56.0			411
(1249)	1993 02 11.49496	07 45 34.45	+14 24 29.0			411
(1249)	1993 02 11.49624	07 45 34.39	+14 24 28.9			411
(1351)	1993 02 11.40529	06 17 50.87	+36 04 05.7			411
(1351)	1993 02 11.40658	06 17 50.87	+36 04 05.5			411
(1356)	1993 02 10.56341	08 49 27.77	+28 09 29.1			411
(1419)	1993 02 08.44477	06 57 54.97	+12 29 30.0			411
(1419)	1993 02 08.44613	06 57 54.94	+12 29 30.5			411
(1419)	1993 02 10.48512	06 57 18.95	+12 37 34.2			411
(1419)	1993 02 11.44718	06 57 05.33	+12 41 23.5			411
(1419)	1993 02 11.44847	06 57 05.30	+12 41 23.7			411
(1457)	1993 02 11.50450	07 49 40.10	+19 42 09.2			411

(1457)	1993 02 11.50579	07 49 40.05	+19 42 09.4			411
(1534)	1993 02 11.51955	08 03 50.52	+36 44 42.1			411
(1534)	1993 02 11.52085	08 03 50.46	+36 44 42.3			411
(1582)	1993 01 28.41769	05 47 45.47	+24 31 33.8			411
(1582)	1993 01 28.42554	05 47 45.21	+24 31 34.6			411
(1582)	1993 01 28.42946	05 47 45.15	+24 31 36.1			411
(1584)	1993 02 10.57686	09 09 10.88	+00 18 11.1			411
(1715)	1993 01 28.44352	06 14 02.60	+38 27 07.5			411
(1715)	1993 01 28.44745	06 14 02.41	+38 27 06.6			411
(1719)	1993 02 11.52711	08 15 36.91	+25 55 13.9			411
(1719)	1993 02 11.52840	08 15 36.81	+25 55 14.0			411
(1723)	1993 02 11.40006	06 15 43.03	+13 37 10.6			411
(1723)	1993 02 11.40138	06 15 43.02	+13 37 11.0			411
(1951)	1993 02 11.51659	08 01 53.28	+28 39 14.6			411
(1951)	1993 02 11.51791	08 01 53.12	+28 39 19.5			411
(2043)	1993 01 22.59157	09 59 07.87	+12 29 03.7			411
(2043)	1993 01 22.59943	09 59 07.56	+12 29 04.9			411
(2043)	1993 01 22.60336	09 59 07.40	+12 29 05.9			411
(2060)	1993 01 22.55823	09 27 30.16	+07 23 11.2			411
(2060)	1993 01 22.56187	09 27 30.15	+07 23 11.4			411
(2060)	1993 01 22.56369	09 27 30.09	+07 23 11.0			411
(2060)	1993 01 30.62505	09 25 15.93	+07 33 08.5			411
(2060)	1993 01 30.63009	09 25 15.81	+07 33 09.3			411
(2060)	1993 01 30.63262	09 25 15.77	+07 33 09.0			411
(2235)	1993 02 11.49832	07 48 18.03	-07 34 52.2			411
(2235)	1993 02 11.49966	07 48 17.99	-07 34 51.5			411
(2338)	1993 01 17.45960	04 01 23.61	+18 13 12.3			411
(2338)	1993 01 17.46599	04 01 23.59	+18 13 12.7			411
(2338)	1993 01 17.47384	04 01 23.57	+18 13 13.1			411
(2381)	1993 02 10.55278	08 38 06.90	+11 37 59.5			411
(2381)	1993 02 10.55407	08 38 06.83	+11 38 00.4			411
(2617)	1993 02 11.41851	06 43 48.60	+35 01 03.8			411
(2617)	1993 02 11.41987	06 43 48.60	+35 01 04.3			411
(3300)	1993 01 22.44486	04 59 21.04	+43 45 00.5			411
(3300)	1993 01 22.44991	04 59 20.83	+43 45 00.3			411
(3300)	1993 01 22.45243	04 59 20.76	+43 44 59.6			411
(3578)	1993 02 08.43351	06 52 10.86	+19 28 06.6			411
(3578)	1993 02 08.43498	06 52 10.92	+19 28 04.2			411
(3578)	1993 02 10.47192	06 51 06.37	+19 23 31.2			411
(3578)	1993 02 10.47360	06 51 06.38	+19 23 31.3			411
(3578)	1993 02 11.43182	06 50 37.76	+19 21 22.3			411
(3578)	1993 02 11.43322	06 50 37.78	+19 21 22.2			411
(3728)	1993 02 10.53538	08 11 09.69	-03 50 19.8			411
(4000)	1993 01 22.45866	05 09 24.25	+25 47 37.0			411
(4000)	1993 01 22.46370	05 09 24.13	+25 47 36.3			411
(4000)	1993 01 22.46623	05 09 24.06	+25 47 35.7			411
(4179)	1993 01 22.54169	07 57 08.04	+20 32 16.8			411
(4179)	1993 01 22.54954	07 57 07.66	+20 32 18.5			411
(4179)	1993 01 22.55347	07 57 07.48	+20 32 19.3			411
(4179)	1993 02 10.52420	07 53 04.44	+21 02 48.1			411
(4179)	1993 02 11.51068	07 53 14.87	+21 02 55.8			411
(4307)	1993 02 12.59586	10 42 37.47	+15 16 39.4			411
(4307)	1993 02 12.60641	10 42 36.86	+15 16 41.2			411
(4440)	1993 02 11.42591	06 49 29.01	+07 54 04.0			411
(4440)	1993 02 11.42737	06 49 28.86	+07 54 01.7			411
(4929)	1993 01 17.46599	04 02 42.01	+18 07 27.4			411
(4929)	1993 01 17.47384	04 02 41.94	+18 07 26.5			411
(5145)	1993 01 22.57968	09 29 41.52	+23 28 12.3			411
(5145)	1993 01 22.58472	09 29 41.49	+23 28 14.0			411

(5145)		1993 01 22.58725	09 29 41.40	+23 28 13.8						411
(5145)		1993 01 30.63903	09 27 24.19	+23 50 43.0						411
(5145)		1993 01 30.64688	09 27 24.07	+23 50 44.4						411
(5145)		1993 01 30.65080	09 27 23.95	+23 50 45.3						411
(5208)		1993 02 10.59329	09 35 11.81	+21 51 31.4						411
(5322)		1993 01 22.46623	05 09 27.95	+25 29 39.8						411
(5338)		1993 01 17.51157	07 33 05.10	+23 46 49.7						411
(5338)		1993 01 17.52334	07 33 04.45	+23 46 51.4						411
(5338)		1993 01 22.52058	07 28 28.28	+24 00 54.3						411
(5338)		1993 01 22.52843	07 28 27.93	+24 00 54.9						411
(5338)		1993 01 22.53236	07 28 27.65	+24 00 56.2						411
(5338)		1993 01 30.56215	07 21 41.67	+24 19 56.7						411
(5338)		1993 01 30.56999	07 21 41.28	+24 19 58.6						411
(5338)		1993 01 30.57392	07 21 41.12	+24 19 58.5						411
(5401)		1993 01 22.49088	06 53 01.43	+37 11 59.1						411
(5401)		1993 01 22.49593	06 53 01.15	+37 11 59.2						411
(5409)		1993 01 22.47144	06 19 41.61	+23 40 39.9						411
(5409)		1993 01 22.47929	06 19 41.19	+23 40 37.6						411
(5409)		1993 01 22.48322	06 19 41.04	+23 40 37.3						411

413 Siding Spring
R. H. McNaught, Siding Spring Observatory, Coonabarabran, N.S.W. 2357, Australia
Observers C. P. Cass, M. J. Drinkwater, R. H. McNaught
Measurer R. H. McNaught
Uppsala Southern Schmidt, U.K. Schmidt

1987 HA		1992 09 04.67201	00 59 34.46	-30 53 19.4	18.5	V	F			413
1988 VN3		1993 01 30.61345	10 48 45.36	-01 14 53.4			b			413
1988 VN3		1993 01 30.65512	10 48 44.14	-01 14 50.2						413
1993 BW3	*	1993 01 30.61345	10 54 00.02	-00 45 06.5	17	V	b			413
1993 BW3		1993 01 30.65512	10 53 56.37	-00 45 16.9						413
1993 BW3		1993 02 02.67832	10 49 04.95	-00 57 49.4						413
1993 BW3		1993 02 02.69360	10 49 03.32	-00 57 52.8			b			413
1993 BW3		1993 02 02.70549	10 49 02.07	-00 57 55.7						413
1993 BW3		1993 02 02.73187	10 48 59.58	-00 58 01.4						413
1993 BW3		1993 02 03.70938	10 47 22.55	-01 01 34.5						413
1993 BW3		1993 02 14.54694	10 28 34.41	-01 25 44.2			b			413
1993 BX3	*	1993 01 31.59756	10 53 11.50	-24 14 48.7	17	V				413
1993 BX3		1993 01 31.64270	10 53 18.30	-24 12 14.2						413
1993 BX3		1993 02 02.66066	10 59 27.68	-22 16 10.8						413
1993 BX3		1993 02 02.66760	10 59 28.56	-22 15 47.0						413
1993 BX3		1993 02 03.72257	11 02 18.54	-21 16 35.0						413
1993 BX3		1993 02 14.58569	11 21 09.36	-12 09 33.3						413
1993 BX3		1993 02 14.59417	11 21 09.59	-12 09 10.9						413

474 Mount John
A. C. Gilmore, P.O. Box 57, Lake Tekapo, New Zealand
Observer A. C. Gilmore
Measurer P. M. Kilmartin
0.6-m f/14 Cassegrain reflector
AGK3, SAOC, CPZ, field plates from Carter Observatory

1993 BX3		1993 02 15.50961	11 22 01.90	-11 27 46.3			t			474
1993 BX3		1993 02 15.53160	11 22 02.51	-11 26 49.6			t			474
1993 BX3		1993 02 16.61528	11 22 54.83	-10 39 15.9			t			474
1993 BX3		1993 02 16.63715	11 22 55.19	-10 38 18.0			t			474

494 Stakenbridge
B. Manning, Moonrakers, Stakenbridge, Churchill, Kidderminster, Worcs. DY10 3LS, England

(2536)	1992 12 16.94542	06 02 37.53	+24 36 49.5	15.5		494
(2536)	1992 12 16.96829	06 02 35.71	+24 36 46.1			494
(2536)	1992 12 20.92742	05 57 42.00	+24 24 42.4	14.3		494
(3545)	1993 01 17.98253	09 05 02.32	+20 51 32.1	17.0		494
(3997)	1993 01 17.98253	09 05 36.35	+20 54 39.4	16.7		494
(4002)	1993 01 17.98253	09 05 50.12	+20 54 29.9	15.5		494
(4119)	1993 01 17.98253	09 06 49.55	+20 54 14.5	15.8		494

541 Stefanik Observatory
J. Manek, Pruchova 38/583, C-15000 Prague 5-Kosire, Czech Republic
0.2-m f/7 refractor, 0.37-m f/9 Maksutov-Cassegrain

(4179)	1992 12 28.92509	08 29 47.27	+17 17 41.7		t	541
(4179)	1992 12 28.93750	08 29 45.33	+17 17 54.8		t	541
(4179)	1992 12 28.95139	08 29 43.13	+17 18 09.0		t	541
(4179)	1992 12 28.96574	08 29 40.87	+17 18 23.3		t	541
(4179)	1992 12 28.97924	08 29 38.68	+17 18 37.6		t	541
(4179)	1992 12 29.02094	08 29 32.04	+17 19 18.7		t	541
(4179)	1992 12 29.02469	08 29 31.48	+17 19 22.2		t	541
(4179)	1992 12 29.04137	08 29 28.75	+17 19 39.6		t	541
(4179)	1992 12 29.05807	08 29 26.08	+17 19 56.0		t	541
(4179)	1992 12 29.06250	08 29 25.38	+17 19 59.6		t	541
(4179)	1992 12 29.06603	08 29 24.84	+17 20 02.9		t	541
(4179)	1992 12 29.08339	08 29 22.03	+17 20 19.7		t	541
(4179)	1992 12 29.10074	08 29 19.36	+17 20 36.4		t	541
(4179)	1992 12 29.10421	08 29 18.80	+17 20 39.3		t	541
(4179)	1992 12 29.14586	08 29 12.25	+17 21 17.9		t	541
(4179)	1992 12 29.18750	08 29 05.86	+17 21 55.6		t	541

557 Ondrejov
P. Pravec, Astronomical Institute, Czech Academy of Sciences,
CS-25165 Ondrejov, Czech Republic
0.18-m f/5.6 Maksutov + CCD

1992 YG3	1993 01 17.92213	08 00 34.6	+20 14 18		557
1992 YG3	1993 01 18.16377	08 00 21.5	+20 15 06		557

568 Mauna Kea Observatory
D. J. Tholen, Institute for Astronomy, 2680 Woodlawn Drive,
Honolulu, HI 96822, U.S.A.
Observers W. F. Golisch, C. D. Kaminski, J. R. Spencer, D. J. Tholen
IRTF encoders
Ida 93 catalogue, PPM

(243)	1993 02 17.47917	12 25 56.87	-03 41 24.3		568
(243)	1993 02 17.48125	12 25 56.84	-03 41 24.1		568
(243)	1993 02 18.61424	12 25 28.79	-03 39 02.1		568
(243)	1993 02 18.61563	12 25 28.75	-03 39 02.1		568
(4179)	1993 01 12.31319	08 06 06.16	+19 44 26.6		568

573 Eldagsen
W. Bonk, Nordstrasse 33, W-3257 Springe 3, Federal Republic of Germany

(357)	1993 01 14.86472	07 22 49.42	+11 57 23.9		573
(357)	1993 01 14.87225	07 22 49.02	+11 57 26.2		573
(387)	1993 01 18.78764	06 31 08.27	+12 28 45.8		573
(387)	1993 01 18.79129	06 31 08.07	+12 28 47.2		573

586 Pic du Midi
A. Barucci, Observatoire de Paris, Section de Meudon, Place Jules Janssen,
F-92195 Meudon, France
Observers A. Barucci, D. Lazzaro, A. Caruso, F. Colas, J. Lecacheux, P. Laques
2-m and 1-m reflectors + CCD

1992 YG3	1993 01 17.1656	08 01 13.7	+20 11 53		586
1992 YG3	1993 01 17.2126	08 01 11.2	+20 12 02		586
1992 YG3	1993 01 17.8446	08 00 38.7	+20 14 03		586
1992 YG3	1993 01 18.1468	08 00 22.5	+20 15 02		586

587 Sormano
P. Sicoli, Via Valli 9, I-22040 Garbagnate Monastero (Como), Italy
Observers E. Colzani, P. Sicoli, G. Ventre, M. Cavagna, E. Galliani
0.5-m f/5.9 reflector
GSC

1992 WD5	1992 12 26.87778	06 02 13.25	+49 19 35.7		587
1992 WD5	1992 12 26.97431	06 02 07.04	+49 20 22.4		587
1992 WD5	1992 12 30.74227	05 58 47.30	+49 44 30.5		587
1992 WD5	1992 12 30.77193	05 58 45.70	+49 44 41.5		587
1993 BC2	1993 01 25.86921	06 54 32.97	+18 27 46.3		587
1993 BC2	1993 01 25.87165	06 54 34.06	+18 27 38.4		587
1993 BC2	1993 01 25.89444	06 54 43.90	+18 26 11.2		587
(2215)	1993 01 16.85451	04 28 01.59	+26 52 54.3		587
(2215)	1993 01 16.94583	04 28 01.66	+26 53 13.7		587
(2215)	1993 01 23.74722	04 29 10.74	+27 17 30.9		587
(2215)	1993 01 25.78021	04 29 50.36	+27 24 40.2		587
(2215)	1993 01 25.90715	04 29 52.93	+27 25 06.6		587

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

1982 QM	1993 02 12.88811	08 54 40.52	+14 49 09.8		589
1982 QM	1993 02 12.90424	08 54 39.64	+14 49 15.4		589
1982 QM	1993 02 12.91824	08 54 38.94	+14 49 19.8		589
1982 QM	1993 02 13.77129	08 53 56.33	+14 53 54.7		589
1982 QM	1993 02 13.79069	08 53 55.37	+14 54 01.4		589
1982 QM	1993 02 13.80324	08 53 54.73	+14 54 05.4		589
1983 CY2	1993 02 13.90264	08 53 25.46	+20 21 57.1		589
1983 CY2	1993 02 13.91422	08 53 24.80	+20 21 57.2		589
1983 CY2	1993 02 13.92683	08 53 24.12	+20 21 57.2		589
1988 BK	1993 02 12.83499	08 49 13.83	+17 43 41.7		589
1988 BK	1993 02 12.85106	08 49 13.02	+17 43 50.0		589
1988 BK	1993 02 12.86644	08 49 12.25	+17 43 58.2		589
1988 XZ	1993 01 20.91153	07 52 50.77	+14 43 50.9		589
1988 XZ	1993 01 20.92030	07 52 50.17	+14 43 51.7		589
1988 XZ	1993 01 20.93427	07 52 49.27	+14 43 53.0		589
1990 DL	1993 01 13.75058	05 25 57.20	+30 56 29.1		589
1990 DL	1993 01 13.79296	05 25 55.13	+30 56 19.8		589
1990 DL	1993 01 13.81549	05 25 54.11	+30 56 14.7		589
1990 DL	1993 01 13.84141	05 25 52.78	+30 56 08.5		589
1990 DL	1993 01 14.74354	05 25 12.14	+30 52 36.1		589
1990 DL	1993 01 26.77304	05 19 06.91	+30 04 10.7		589
1990 DL	1993 01 26.81820	05 19 05.89	+30 04 01.3		589
1990 DL	1993 01 26.84016	05 19 05.58	+30 03 56.1		589
1990 DL	1993 02 12.75428	05 20 15.30	+29 01 11.1		589
1990 DL	1993 02 12.79269	05 20 16.01	+29 01 02.6		589
1990 DL	1993 02 12.81105	05 20 16.49	+29 00 58.9		589
1991 PR10	1993 01 26.89928	06 08 59.80	+12 51 51.4		589
1991 PR10	1993 01 26.90693	06 08 59.53	+12 51 52.6		589
1991 PR10	1993 01 26.91882	06 08 59.03	+12 51 54.4		589
1991 PR10	1993 01 26.92614	06 08 58.75	+12 51 55.3		589
1991 PC13	1993 01 21.82730	06 03 27.69	+28 19 18.8		589

1991 PC13	1993 01 21.84896	06 03 26.70	+28 19 15.2				589
1991 PC13	1993 01 21.87360	06 03 25.44	+28 19 13.3				589
1991 RQ21	1993 01 22.76372	06 05 40.59	+27 33 02.0				589
1991 RQ21	1993 01 22.79494	06 05 39.41	+27 33 02.1				589
1991 RQ21	1993 01 22.81245	06 05 38.72	+27 33 02.0				589
1991 RQ21	1993 01 22.83603	06 05 37.92	+27 33 02.2				589
1993 BC2	1993 01 31.90271	07 36 55.46	+12 29 15.9				589
1993 BC2	1993 01 31.91025	07 36 58.09	+12 28 51.7				589
1993 BC2	1993 01 31.91924	07 37 01.15	+12 28 22.2				589
1993 BC2	1993 01 31.92629	07 37 03.60	+12 27 59.6				589
1993 BC2	1993 02 02.76110	07 48 03.80	+10 52 44.4				589
1993 BC2	1993 02 02.80361	07 48 17.77	+10 50 39.4				589
1993 BC2	1993 02 02.84574	07 48 31.21	+10 48 34.6				589
1993 BC2	1993 02 03.75421	07 53 37.77	+10 04 22.7				589
1993 BC2	1993 02 03.76142	07 53 40.04	+10 04 02.7				589
1993 BC2	1993 02 03.79384	07 53 50.19	+10 02 32.0				589
1993 BC2	1993 02 03.81827	07 53 57.75	+10 01 22.9				589
4234 T-2	1993 02 13.85080	08 49 15.60	+25 03 23.2				589
4234 T-2	1993 02 13.86771	08 49 14.81	+25 03 25.0				589
4234 T-2	1993 02 13.88257	08 49 14.15	+25 03 27.2				589
2327 T-3	1993 02 13.94632	08 54 30.53	+13 51 41.0				589
2327 T-3	1993 02 13.97590	08 54 28.95	+13 51 47.1				589

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

1941 UN	1993 01 21.91587	10 00 10.27	+23 35 17.5				596
1941 UN	1993 01 21.93183	10 00 09.38	+23 35 21.7				596
1941 UN	1993 01 21.94651	10 00 08.58	+23 35 25.0				596
1941 UN	1993 01 21.95764	10 00 07.96	+23 35 27.3				596
1943 DL	1993 01 15.85955	08 20 09.90	+38 28 05.0				596
1943 DL	1993 01 15.87244	08 20 09.00	+38 28 05.3				596
1943 DL	1993 01 15.88521	08 20 07.99	+38 28 05.7				596
1943 DL	1993 01 15.89570	08 20 07.15	+38 28 06.0				596
1976 AH	1993 01 22.83132	06 55 19.35	+07 54 31.1				596
1976 AH	1993 01 22.84160	06 55 18.71	+07 54 30.2				596
1982 FF2	1993 01 21.86705	08 14 32.48	+12 33 34.3				596
1982 FF2	1993 01 21.88733	08 14 31.34	+12 33 36.0				596
1982 FF2	1993 01 21.89719	08 14 30.68	+12 33 37.5				596
1983 AW	1993 01 31.76825	07 28 41.31	+14 37 59.9				596
1983 AW	1993 01 31.80896	07 28 39.37	+14 38 14.8			I	596
1988 RP1	1993 01 15.92090	09 33 30.45	+24 49 02.3				596
1988 RP1	1993 01 15.94198	09 33 29.22	+24 49 09.4				596
1988 RP1	1993 01 15.95794	09 33 28.18	+24 49 13.8				596
1988 XZ	1993 01 20.85105	07 52 54.66	+14 43 44.8				596
1988 XZ	1993 01 20.86405	07 52 53.87	+14 43 45.5				596
1988 XZ	1993 01 20.87681	07 52 53.06	+14 43 46.6				596
1988 XE1	1993 01 20.77062	06 50 09.53	+15 38 51.4				596
1988 XE1	1993 01 20.81066	06 50 07.33	+15 38 50.7				596
1989 AD	1993 01 31.82986	08 36 36.06	+27 55 37.8			I	596
1989 AD	1993 01 31.85518	08 36 34.07	+27 55 40.9				596
1989 AD	1993 01 31.86687	08 36 33.24	+27 55 41.2				596
1989 EL1	1993 01 20.90303	08 51 34.95	+02 35 28.9				596
1989 EL1	1993 01 20.92044	08 51 34.00	+02 35 35.1				596
1989 UH2	1993 01 16.76424	06 22 28.08	+57 56 53.0				596
1989 UH2	1993 01 16.77403	06 22 27.06	+57 56 53.0				596
1993 BC2	1993 01 26.80635	07 01 48.47	+17 28 36.9				596
1993 BC2	1993 01 26.81087	07 01 50.40	+17 28 19.6				596

1993 BC2	1993 01 26.81474	07 01 52.11	+17 28 05.5				596
1993 BC2	1993 01 26.81834	07 01 53.66	+17 27 52.2				596
(1582)	1993 01 13.75635	05 56 49.64	+23 59 20.8				596
(1582)	1993 01 13.77596	05 56 48.75	+23 59 23.3				596
(1582)	1993 01 13.79374	05 56 47.86	+23 59 25.8				596
(2365)	1993 01 13.75635	05 56 59.20	+24 00 32.9			I	596
(2365)	1993 01 13.77596	05 56 58.35	+24 00 31.7				596
(2365)	1993 01 13.79374	05 56 57.46	+24 00 30.1				596
(3032)	1993 01 13.75635	05 56 45.06	+24 08 55.5				596
(3032)	1993 01 13.77596	05 56 43.96	+24 08 57.2			I	596
(3032)	1993 01 13.79374	05 56 43.31	+24 08 59.1			I	596
(5394)	1993 01 15.77751	06 37 26.92	+23 37 39.8				596
(5394)	1993 01 15.81884	06 37 24.82	+23 37 38.9				596
(5394)	1993 01 15.83655	06 37 23.52	+23 37 37.3				596
(5410)	1993 01 30.83385	08 08 16.75	+18 04 28.1				596
(5410)	1993 01 30.85087	08 08 15.84	+18 04 34.7				596
(5410)	1993 01 30.86062	08 08 15.49	+18 04 37.2				596
(5438)	1993 01 15.97799	10 01 02.04	-03 47 59.8				596
(5438)	1993 01 15.98481	10 01 01.67	-03 48 07.6				596
(5438)	1993 01 15.99304	10 01 01.26	-03 48 16.7				596
(5438)	1993 01 15.99853	10 01 01.01	-03 48 22.3				596

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

(10)	1993 01 18.86449	07 39 06.07	+20 25 43.0				597
(10)	1993 01 18.87324	07 39 05.58	+20 25 43.3				597
(88)	1993 01 18.86007	07 41 08.55	+18 59 28.3				597
(88)	1993 01 18.87766	07 41 07.54	+18 59 29.8				597
(131)	1992 11 28.94589	04 15 29.24	+21 19 42.3				597
(131)	1992 11 28.95337	04 15 28.71	+21 19 41.8				597
(250)	1992 11 28.92317	04 14 30.68	+35 05 00.8				597
(250)	1992 11 28.92623	04 14 30.46	+35 05 01.2				597
(455)	1992 12 01.94785	05 16 10.77	+22 43 19.7				597
(455)	1992 12 01.96291	05 16 09.74	+22 43 23.4				597
(520)	1993 01 01.00779	05 39 52.48	+37 25 20.2				597
(520)	1993 01 01.01215	05 39 52.20	+37 25 20.6				597
(537)	1993 01 18.86449	07 41 29.25	+20 01 22.6				597
(537)	1993 01 18.86887	07 41 29.04	+20 01 23.4				597
(753)	1992 10 19.92089	01 54 25.79	+01 34 12.9				597
(753)	1992 10 19.93003	01 54 25.16	+01 34 11.8				597
(1063)	1992 12 01.96950	04 47 09.88	+18 11 34.7				597
(1063)	1992 12 01.97833	04 47 09.22	+18 11 35.1				597
(1096)	1992 12 28.89127	06 25 32.60	+27 01 47.3				597
(1096)	1992 12 28.90464	06 25 31.70	+27 01 49.2				597
(1116)	1992 12 28.86777	06 46 11.95	+50 57 53.5				597
(1116)	1992 12 28.87648	06 46 11.25	+50 57 52.7				597
(1246)	1992 11 28.96946	04 23 11.47	+40 40 09.3				597
(1246)	1992 11 28.97818	04 23 10.81	+40 40 04.3				597
(2215)	1992 11 30.88634	05 00 23.22	+23 15 14.9				597
(2215)	1992 11 30.89470	05 00 22.64	+23 15 18.1				597
(4179)	1993 01 14.88080	08 03 20.82	+19 59 06.8				597
(4179)	1993 01 14.89068	08 03 20.12	+19 59 10.3				597
(4179)	1993 01 18.83566	07 59 47.35	+20 18 06.3				597
(4179)	1993 01 18.85361	07 59 46.44	+20 18 11.0				597

600 TLC Observatory, Bologna
M. Fabio, Piazza dell' Unita' 14, 40128 Bologna, Italy
0.30-m Schmidt camera
Long. and Parallax 11.4708, 0.71618, +0.69564 (see MPC 19348)

1992 LR	1992 07 21.91806	17 51 43.35	+00 40 36.3			600
1992 LR	1992 07 21.92847	17 51 47.32	+00 40 51.0			600

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, P. M. Krol
0.25-m Schmidt, 0.5-m reflector + CCD

1993 BC2	1993 01 23.12344	06 32 06.38	+21 23 50.3			657
1993 BC2	1993 01 23.16510	06 32 26.76	+21 21 16.2			657
1993 BC2	1993 01 23.17889	06 32 33.38	+21 20 25.7			657
1993 BC2	1993 01 23.18032	06 32 34.03	+21 20 20.1			657
1993 BC2	1993 01 23.18175	06 32 34.75	+21 20 14.9			657

658 Dominion Astrophysical Observatory, Victoria
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, G. C. L. Aikman
1.85-m reflector + CCD
GSC

1992 ST	1993 01 30.11102	02 46 44.95	+25 26 21.3			658
1992 ST	1993 01 30.11575	02 46 45.72	+25 26 24.6			658
1992 ST	1993 01 30.12293	02 46 46.57	+25 26 28.4			658
1992 ST	1993 01 31.13855	02 49 09.80	+25 36 42.2			658
1992 ST	1993 01 31.14874	02 49 11.26	+25 36 48.8			658

670 Camarillo
J. E. Rogers, 441 Rowland Avenue, Camarillo, CA 93010
0.25-m Schmidt-Cassegrain + CCD
GSC

1993 BC2	1993 01 23.22069	06 32 53.48	+21 18 11.2	14.1 V		670
1993 BC2	1993 01 23.22555	06 32 55.81	+21 17 52.3			670
1993 BC2	1993 01 23.23249	06 32 59.10	+21 17 25.9			670
(2536)	1993 01 23.25675	05 29 27.71	+22 42 20.0	15.1 V		670
(2536)	1993 01 23.27899	05 29 27.24	+22 42 16.2			670

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)
9 = 3 + 6
Observers B. M. Cudnik (3, S), R. Eschelman (3, S), T. Gehrels (4, L), E. Helin (2, S), H. E. Holt (3, S), C. T. Kowal (6, L), K. Lawrence (2, S), G. J. Leonard (3, S), D. H. Levy (3, S), P. Rose (2, S), C. S. Shoemaker (3, S), E. M. Shoemaker (3, S), K. Zeigler (3, S)
Measurers K. Lawrence (2), C. M. Olmstead (6), P. Rose (2), C. S. Shoemaker (3), B. A. Skiff (9), P. W. Tracadas (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

1941 UN		1979 01 25.22917	05 57 15.22	+36 50 24.0	14.5	2		675
1941 UN		1979 01 25.27361	05 57 14.81	+36 50 10.2		2		675
1943 DF		1992 10 01.33785	00 22 38.07	+09 11 53.7	17.8	9		675
1943 DF		1992 10 04.28767	00 18 35.12	+09 14 04.0		9		675
1943 DF		1992 10 04.32205	00 18 32.13	+09 14 04.0		9		675
1953 QV	*	1953 08 16.42813	23 54 45.75	+08 49 16.2	18.2	6		675

1953	QV		1953	08	16.45139	23	54	44.91	+08	49	15.8		6	675
1953	RT1	*	1953	09	06.25938	21	22	23.48	-08	02	30.5	18.2	6	675
1953	RT1		1953	09	06.28472	21	22	23.01	-08	02	41.1		6	675
1953	TT3	*	1953	10	12.37743	02	25	21.86	+23	21	35.9		6	675
1953	TT3		1953	10	12.40208	02	25	20.48	+23	21	29.7	17.0	6	675
1953	TU3	*	1953	10	12.37743	02	28	14.68	+22	16	45.1		6	675
1953	TU3		1953	10	12.40208	02	28	13.46	+22	16	47.2	17.5	6	675
1954	DH	*	1954	02	26.30556	09	41	09.25	+10	01	18.7	18.0	6	675
1954	DH		1954	02	26.32778	09	41	07.93	+10	01	25.0		6	675
1955	XJ1	*	1955	12	11.21806	03	44	29.28	+04	24	59.8		6	675
1955	XJ1		1955	12	11.23924	03	44	28.59	+04	24	55.2		6	675
1964	BF		1988	06	08.30660	16	17	41.59	-15	31	28.0		9	675
1964	BF		1988	06	08.33594	16	17	39.85	-15	31	26.1		9	675
1971	QR1		1992	10	01.33785	00	20	53.59	+08	38	37.3	16.8	9	675
1971	QR1		1992	10	04.28767	00	19	10.10	+08	13	18.4		9	675
1971	QR1		1992	10	04.32205	00	19	08.58	+08	13	00.1		9	675
1972	RU1		1992	04	27.23750	13	19	09.78	-08	33	00.2		9	675
1972	RU1		1992	04	27.28056	13	19	07.60	-08	32	39.3		9	675
1973	SR6		1992	04	27.23750	13	26	48.17	-10	49	31.6		9	675
1973	SR6		1992	04	27.28056	13	26	45.62	-10	49	30.5		9	675
1975	NC		1953	10	12.37743	02	28	28.14	+22	06	55.3		6	675
1975	NC		1953	10	12.40208	02	28	27.00	+22	06	52.8		6	675
1975	VR5		1953	01	09.27222	07	08	38.92	+17	57	18.7		6	675
1975	VR5		1953	01	09.29167	07	08	37.47	+17	57	25.3		6	675
1976	GD2		1953	09	06.25938	21	10	18.51	-04	13	04.7		6	675
1976	GD2		1953	09	06.28472	21	10	17.68	-04	13	16.3		6	675
1976	UH16		1953	08	16.42813	23	39	48.78	+07	18	47.0		6	675
1976	UH16		1953	08	16.45139	23	39	48.17	+07	18	39.7		6	675
1978	LG		1953	09	06.25938	21	30	47.27	-03	51	35.3		6	675
1978	LG		1953	09	06.28472	21	30	46.38	-03	51	38.8		6	675
1978	RK1		1988	06	08.30660	16	28	57.15	-20	17	35.9		9	675
1978	RK1		1988	06	08.33594	16	28	55.61	-20	17	35.6		9	675
1978	SU5		1953	08	16.42813	23	52	24.37	+07	50	13.9		6	675
1978	SU5		1953	08	16.45139	23	52	23.66	+07	50	11.9		6	675
1978	SA7		1992	10	01.33785	00	48	00.58	+11	16	22.2	17.0	9	675
1978	SA7		1992	10	02.30781	00	47	07.84	+11	16	01.5		9	675
1978	SA7		1992	10	02.34184	00	47	05.94	+11	16	00.9		9	675
1978	SA7		1992	10	04.28767	00	45	19.36	+11	14	58.4		9	675
1978	SA7		1992	10	04.32205	00	45	17.47	+11	14	58.3		9	675
1979	MR3		1953	01	09.27222	07	32	33.60	+19	09	50.2		6	675
1979	MR3		1953	01	09.27778	07	32	33.13	+19	09	52.4		6	675
1980	AA		1953	10	12.40208	02	17	27.82	+27	46	52.5		6	675
1980	UM1		1953	10	12.37743	02	29	58.20	+22	43	58.1		6	675
1980	UM1		1953	10	12.40208	02	29	56.96	+22	43	53.0		6	675
1981	ES4		1953	08	16.42812	23	33	50.96	+04	33	13.4		6	675
1981	EO15		1992	10	04.28767	00	38	50.95	+10	00	29.5		9	675
1981	EO15		1992	10	04.32205	00	38	49.29	+10	00	14.0	17.2	9	675
1981	EX43		1953	09	06.25938	21	14	41.66	-06	50	09.7		6	675
1981	EX43		1953	09	06.28472	21	14	40.93	-06	50	19.3		6	675
1981	QV2		1953	01	09.27222	07	10	42.76	+15	32	08.9		6	675
1981	QV2		1953	01	09.29167	07	10	41.55	+15	32	16.3		6	675
1981	WH		1953	01	09.27222	07	16	28.69	+18	18	57.3		6	675
1981	WH		1953	01	09.29167	07	16	27.25	+18	19	06.7		6	675
1982	UM6		1992	04	05.36823	13	02	06.92	-08	01	54.5		9	675
1982	UM6		1992	04	05.39948	13	02	04.94	-08	01	46.1		9	675
1982	VB1		1953	08	16.42812	23	38	27.76	+07	35	57.0		6	675
1982	VB1		1953	08	16.45139	23	38	27.11	+07	35	53.5		6	675
1984	BK		1953	08	16.42812	23	51	48.46	+04	02	53.1		6	675
1984	BK		1953	08	16.45139	23	51	47.83	+04	02	53.7		6	675

1985	VC1		1992	04	27.23750	13	26	45.16	-05	18	00.3		9	675
1985	VC1		1992	04	27.28056	13	26	42.60	-05	17	57.1		9	675
1986	CB		1993	01	23.23315	06	10	15.35	+04	10	38.4	16.3	3	675
1986	CB		1993	01	23.27517	06	10	14.75	+04	12	01.4		3	675
1986	CB		1993	01	26.22934	06	09	55.48	+05	47	14.5		3	675
1986	CB		1993	01	28.25538	06	09	54.58	+06	51	02.5		3	675
1986	CB		1993	01	28.29531	06	09	54.47	+06	52	15.6		3	675
1986	RS2		1954	02	26.30556	09	45	21.71	+10	03	16.3		6	675
1986	RS2		1954	02	26.32778	09	45	20.63	+10	03	21.2		6	675
1986	TW9		1953	10	12.37743	02	12	06.99	+25	11	41.3		6	675
1986	TW9		1953	10	12.40208	02	12	05.65	+25	11	38.9		6	675
1987	KD1		1992	10	21.42222	03	19	10.88	-03	59	47.0	18	3	675
1987	KD1		1992	10	21.45069	03	19	09.56	-04	00	00.6		3	675
1987	KD1		1992	11	25.25885	02	49	13.05	-06	50	05.0	18	3	675
1987	KD1		1992	11	27.27465	02	47	45.61	-06	51	05.2		3	675
1987	KD1		1992	11	27.31094	02	47	44.03	-06	51	04.7		3	675
1988	AV1		1951	11	08.44375	06	52	00.83	+15	33	50.0		6	675
1988	AV1		1951	11	08.46806	06	52	01.53	+15	33	51.2		6	675
1988	KC		1988	06	08.30660	16	26	47.12	-13	47	05.7		9	675
1988	KC		1988	06	08.33594	16	26	45.35	-13	46	51.6		9	675
1988	LV	*	1988	06	08.30660	16	15	45.39	-17	13	57.1	17.5	9	675
1988	LV		1988	06	08.33594	16	15	43.24	-17	14	00.9		9	675
1988	LW	*	1988	06	08.30660	16	20	32.79	-15	55	40.9	17.8	9	675
1988	LW		1988	06	08.33594	16	20	31.31	-15	55	42.6		9	675
1988	LX	*	1988	06	08.30660	16	32	34.19	-15	55	53.5	17.2	9	675
1988	LX		1988	06	08.33594	16	32	32.66	-15	55	58.3		9	675
1988	LY	*	1988	06	08.30660	16	36	16.75	-16	53	02.4	17.2	9	675
1988	LY		1988	06	08.33594	16	36	15.03	-16	53	00.9		9	675
1988	RR2		1953	01	09.27222	07	29	46.44	+19	08	03.3		6	675
1988	RR2		1953	01	09.28472	07	29	45.61	+19	08	06.4		6	675
1988	TH1		1993	01	23.33420	08	37	44.32	+08	40	54.8	18.2	3	675
1988	TH1		1993	01	23.37222	08	37	43.29	+08	41	00.3		3	675
1989	CF		1993	01	21.31354	07	35	18.10	+16	34	56.2	16.0	2	675
1989	CF		1993	01	21.33611	07	35	16.87	+16	35	07.9		2	675
1989	CX2		1992	09	29.27795	23	50	18.48	+13	46	35.5	17.5	9	675
1989	CX2		1992	09	29.31580	23	50	16.72	+13	46	23.6		9	675
1989	TO11		1952	08	24.27361	21	09	41.89	-01	24	11.1		6	675
1989	TO11		1952	08	24.29598	21	09	41.20	-01	24	16.6		6	675
1989	TO11		1953	08	16.42813	23	54	44.35	+06	49	01.1		6	675
1989	TO11		1953	08	16.45139	23	54	43.78	+06	48	59.3		6	675
1989	TO11		1955	12	11.21806	03	54	27.19	+08	40	38.6		6	675
1989	UH2		1993	01	21.26510	06	14	56.38	+57	51	14.3	16	2	675
1989	UH2		1993	01	21.28351	06	14	54.49	+57	51	11.8		2	675
1989	UT5		1992	04	05.36823	13	17	04.71	-08	47	43.8		9	675
1989	UT5		1992	04	05.39948	13	17	03.14	-08	47	26.5		9	675
1989	YK		1992	10	01.33785	00	36	47.45	+06	27	47.1	16.8	9	675
1989	YK		1992	10	04.28767	00	34	16.28	+06	05	34.2		9	675
1989	YK		1992	10	04.32205	00	34	14.34	+06	05	19.2		9	675
1989	YK8		1953	06	14.21528	14	54	18.71	-07	41	27.1		9	675
1990	FP		1951	09	08.44722	03	16	13.64	-01	33	39.4		6	675
1990	FP		1951	09	08.47292	03	16	13.72	-01	33	47.1		6	675
1990	OE4		1953	09	06.25938	21	21	44.21	-02	15	06.4		6	675
1990	OE4		1953	09	06.28472	21	21	43.75	-02	15	17.5		6	675
1990	SM28		1992	04	27.23750	13	03	40.19	-10	57	19.5		9	675
1990	SM28		1992	04	27.28056	13	03	37.99	-10	57	04.1		9	675
1990	VB4		1988	06	08.30660	16	43	22.60	-17	42	17.0	16.8	9	675
1990	VB4		1988	06	08.33594	16	43	21.05	-17	42	11.2		9	675
1991	CT1		1953	10	12.37743	02	25	01.39	+21	36	11.3		6	675
1991	CT1		1953	10	12.40208	02	24	59.79	+21	36	11.9	17.5	6	675

1991	GZ		1992	10	01.33785	00	35	07.92	+08	43	35.7	18.0	9	675
1991	GZ		1992	10	04.28767	00	32	21.71	+08	21	06.0		9	675
1991	GZ		1992	10	04.32205	00	32	19.72	+08	20	49.1	17.0	9	675
1991	GZ1		1992	11	26.23072	01	49	03.51	+08	52	42.3	18	3	675
1991	GZ1		1992	11	28.20625	01	46	56.75	+09	15	35.6		3	675
1991	GZ1		1992	11	28.24184	01	46	54.46	+09	16	00.5		3	675
1991	GE2		1992	11	25.26579	03	08	12.96	-00	00	19.1	18.2	3	675
1991	GE2		1992	11	25.30017	03	08	10.91	-00	00	11.7		3	675
1991	GE2		1992	11	27.26753	03	06	21.67	+00	04	37.6		3	675
1991	GE2		1992	11	27.30364	03	06	19.62	+00	04	43.6		3	675
1991	NP		1993	01	21.16337	04	39	20.15	+31	48	08.3	16.5	2	675
1991	NP		1993	01	21.18264	04	39	19.78	+31	47	54.4		2	675
1991	PW12		1954	02	26.30556	09	48	22.80	+13	57	26.1		6	675
1991	PW12		1954	02	26.32778	09	48	21.79	+13	57	30.8		6	675
1992	FD		1951	09	08.44722	03	31	00.09	-00	48	40.9		6	675
1992	FA1		1992	04	27.23750	13	11	30.16	-12	26	43.2		9	675
1992	FA1		1992	04	27.28056	13	11	28.03	-12	26	22.5		9	675
1992	GC		1992	04	05.36823	13	21	18.26	-04	47	55.8		9	675
1992	GC		1992	04	05.39948	13	21	16.09	-04	47	55.3		9	675
1992	GS1		1992	04	05.36823	13	21	04.17	-07	29	08.4	19.6	9	675
1992	GS1		1992	04	05.39948	13	21	02.91	-07	28	56.4		9	675
1992	GF5	*	1992	04	05.36823	13	17	36.98	-06	33	08.7	17.8	9	675
1992	GF5		1992	04	05.39948	13	17	35.40	-06	32	57.6		9	675
1992	HZ3		1992	04	27.23750	13	31	30.81	-10	53	47.8		9	675
1992	HZ3		1992	04	27.28056	13	31	28.68	-10	53	38.4		9	675
1992	HL4		1992	04	27.23750	13	19	58.54	-10	09	52.4	16.8	9	675
1992	HL4		1992	04	27.28056	13	19	55.84	-10	09	54.1		9	675
1992	QD1		1992	09	29.27795	23	55	21.61	+09	37	48.0		9	675
1992	QD1		1992	09	29.31580	23	55	19.66	+09	37	40.1		9	675
1992	SG		1992	10	01.33785	00	25	23.18	+07	11	48.3	16.5	9	675
1992	SG		1992	10	04.28767	00	22	07.29	+07	11	51.1		9	675
1992	SG		1992	10	04.32205	00	22	04.88	+07	11	50.8		9	675
1992	SK		1953	10	12.40208	02	15	21.55	+27	24	22.9		6	675
1992	SK		1992	10	02.30781	01	11	50.54	+11	21	07.0		9	675
1992	SK		1992	10	02.34184	01	11	43.38	+11	21	24.9		9	675
1992	SB1		1992	10	01.33785	00	48	27.48	+10	52	07.5	16.8	9	675
1992	SB1		1992	10	02.30781	00	47	29.80	+10	53	16.8		9	675
1992	SB1		1992	10	02.34184	00	47	27.79	+10	53	20.4		9	675
1992	SB1		1992	10	04.28767	00	45	31.73	+10	55	27.1		9	675
1992	SB1		1992	10	04.32205	00	45	29.67	+10	55	29.9		9	675
1992	ST2		1992	09	29.27795	00	01	30.00	+09	27	27.2	17.0	9	675
1992	ST2		1992	09	29.31580	00	01	28.35	+09	26	37.0		9	675
1992	SY12		1992	10	02.30781	01	00	48.83	+09	43	52.1		9	675
1992	SY12		1992	10	02.34184	01	00	46.48	+09	44	00.6		9	675
1992	SD13		1992	10	01.33785	00	50	53.03	+09	48	07.3		9	675
1992	SD13		1992	10	02.30781	00	50	13.71	+09	39	44.2		9	675
1992	SD13		1992	10	02.34184	00	50	12.36	+09	39	27.0		9	675
1992	SD13		1992	10	04.28767	00	48	53.20	+09	22	28.6		9	675
1992	SD13		1992	10	04.32205	00	48	51.73	+09	22	09.7		9	675
1992	SK13		1992	10	02.30781	00	48	11.11	+14	47	40.1		9	675
1992	SK13		1992	10	02.34184	00	48	09.07	+14	47	33.4		9	675
1992	SV23	*	1992	09	29.27795	00	08	26.52	+14	24	04.6	17.8	9	675
1992	SV23		1992	09	29.31580	00	08	24.71	+14	23	57.9		9	675
1992	SV23		1992	10	04.23247	00	04	30.42	+14	06	21.2		9	675
1992	SV23		1992	10	04.27257	00	04	28.49	+14	06	11.3		9	675
1992	SW23	*	1992	09	29.27795	00	09	40.50	+16	57	29.7	17.0	9	675
1992	SW23		1992	09	29.31580	00	09	38.10	+16	57	27.6		9	675
1992	SW23		1992	10	04.23247	00	04	40.22	+16	49	35.7		9	675
1992	SW23		1992	10	04.27257	00	04	37.72	+16	49	31.9		9	675

1992	SX23	*	1992	09	29.27795	00	14	16.58	+12	52	24.7	17.5	9	675
1992	SX23		1992	09	29.31580	00	14	14.28	+12	52	12.6		9	675
1992	SX23		1992	10	04.23247	00	09	20.65	+12	23	58.7		9	675
1992	SX23		1992	10	04.27257	00	09	18.21	+12	23	42.8		9	675
1992	SY23	*	1992	09	29.27795	00	14	36.57	+16	26	43.2	17.8	9	675
1992	SY23		1992	09	29.31580	00	14	34.73	+16	26	34.1		9	675
1992	SY23		1992	10	04.23247	00	10	45.38	+16	03	06.3		9	675
1992	SY23		1992	10	04.27257	00	10	43.50	+16	02	53.8		9	675
1992	SZ23	*	1992	09	29.27795	00	14	52.17	+11	13	00.0	17.2	9	675
1992	SZ23		1992	09	29.31580	00	14	50.19	+11	12	47.1		9	675
1992	SZ23		1992	10	04.23247	00	11	03.20	+10	42	51.7		9	675
1992	SZ23		1992	10	04.27257	00	11	01.29	+10	42	37.3		9	675
1992	SA24	*	1992	09	29.27795	00	15	39.44	+10	26	20.2	17.5	9	675
1992	SA24		1992	09	29.31580	00	15	37.69	+10	25	58.2		9	675
1992	SA24		1992	10	04.23247	00	12	12.24	+09	38	12.3		9	675
1992	SA24		1992	10	04.27257	00	12	10.55	+09	37	49.5		9	675
1992	SB24	*	1992	09	29.27795	00	20	27.67	+14	27	43.0	17.2	9	675
1992	SB24		1992	09	29.31580	00	20	25.74	+14	27	30.0		9	675
1992	SB24		1992	10	04.23247	00	16	19.95	+13	58	44.8		9	675
1992	SB24		1992	10	04.27257	00	16	17.93	+13	58	31.6		9	675
1992	SC24	*	1992	09	29.31580	00	05	36.25	+10	20	34.6		9	675
1992	SC24		1992	10	04.23247	00	01	32.59	+09	39	06.2		9	675
1992	SC24		1992	10	04.27257	00	01	30.57	+09	38	45.8		9	675
1992	SD24	*	1992	09	30.28854	00	44	17.66	+14	19	51.2	17.8	9	675
1992	SD24		1992	09	30.32614	00	44	15.54	+14	19	52.3		9	675
1992	SD24		1992	10	02.30781	00	42	20.54	+14	20	35.9		9	675
1992	SD24		1992	10	02.34184	00	42	18.48	+14	20	36.4		9	675
1992	SE24	*	1992	09	30.28854	00	44	57.72	+14	03	12.7	17.8	9	675
1992	SE24		1992	09	30.32614	00	44	55.16	+14	03	07.2		9	675
1992	SE24		1992	10	02.30781	00	42	49.70	+13	57	53.8		9	675
1992	SE24		1992	10	02.34184	00	42	47.53	+13	57	48.4		9	675
1992	SF24	*	1992	09	30.28854	00	49	38.02	+15	57	43.3	17.8	9	675
1992	SF24		1992	09	30.32614	00	49	36.04	+15	57	32.2		9	675
1992	SF24		1992	10	02.30781	00	47	55.58	+15	47	47.5	17.0	9	675
1992	SF24		1992	10	02.34184	00	47	53.70	+15	47	36.9		9	675
1992	TO1	*	1992	10	01.33785	00	23	00.03	+09	25	04.2	17.5	9	675
1992	TO1		1992	10	04.28767	00	19	59.22	+09	10	36.9	17.5	9	675
1992	TO1		1992	10	04.32205	00	19	57.24	+09	10	22.9		9	675
1992	TP1	*	1992	10	01.33785	00	31	38.36	+09	14	50.2	17.2	9	675
1992	TP1		1992	10	04.28767	00	29	33.06	+08	53	00.7	17.2	9	675
1992	TP1		1992	10	04.32205	00	29	31.59	+08	52	45.2		9	675
1992	TQ1	*	1992	10	01.33785	00	35	29.83	+14	02	16.2	17.5	9	675
1992	TQ1		1992	10	04.28767	00	32	37.71	+14	02	54.0	17.5	9	675
1992	TQ1		1992	10	04.32205	00	32	35.68	+14	02	54.7		9	675
1992	TR1		1992	10	02.30781	00	48	19.32	+13	06	56.1	17.5	9	675
1992	TR1		1992	10	02.34184	00	48	17.69	+13	06	47.5		9	675
1992	TR1	*	1992	10	04.28767	00	46	47.09	+12	58	30.0	18.0	9	675
1992	TR1		1992	10	04.32205	00	46	45.62	+12	58	23.5		9	675
1992	TS1		1992	10	02.30781	00	51	04.21	+12	14	15.4	17.5	9	675
1992	TS1		1992	10	02.34184	00	51	02.27	+12	13	57.0		9	675
1992	TS1	*	1992	10	04.28767	00	49	16.66	+11	57	00.7	18.0	9	675
1992	TS1		1992	10	04.32205	00	49	14.82	+11	56	42.8		9	675
1992	UR3		1953	09	06.25938	21	15	33.63	-05	42	10.7		6	675
1992	UR3		1953	09	06.28472	21	15	32.90	-05	42	15.3		6	675
1992	US4		1988	09	10.32687	23	53	35.21	+02	10	12.4		9	675
1992	US4		1988	09	10.36298	23	53	33.34	+02	10	02.0		9	675
1992	US4		1988	09	12.34566	23	51	52.03	+02	00	22.8	16.8	9	675
1992	US4		1988	09	12.38733	23	51	49.77	+02	00	09.7		9	675
1992	US4		1988	09	15.39097	23	49	11.54	+01	44	47.2	17.5	9	675

1992	US4		1988	09	15.42500	23	49	09.70	+01	44	37.1		9	675
1992	US4		1988	09	16.39757	23	48	17.33	+01	39	26.2	16.8	9	675
1992	US4		1988	09	16.43194	23	48	15.39	+01	39	16.3		9	675
1992	WP4		1993	01	21.16962	04	49	05.55	+39	50	39.7	15.5	2	675
1992	WP4		1993	01	21.18854	04	49	05.59	+39	50	27.5		2	675
1992	WP4		1993	01	22.13021	04	49	08.11	+39	40	17.2		2	675
1992	WP4		1993	01	22.15469	04	49	08.13	+39	40	01.5		2	675
1992	WZ5		1993	01	21.15764	04	44	16.43	+18	12	42.8	16	2	675
1992	WZ5		1993	01	22.24410	04	44	28.66	+18	05	30.2		2	675
1992	WZ5		1993	01	22.27101	04	44	28.91	+18	05	20.3		2	675
1993	BC2	*	1993	01	21.25122	06	15	43.55	+23	24	04.7	14.0	2	675
1993	BC2		1993	01	21.25538	06	15	45.50	+23	23	49.6		2	675
1993	BC2		1993	01	21.26910	06	15	52.38	+23	22	54.7		2	675
1993	BC2		1993	01	21.27326	06	15	54.35	+23	22	41.7		2	675
1993	BC2		1993	01	22.10399	06	23	19.96	+22	29	40.2		2	675
1993	BC2		1993	01	22.10955	06	23	22.55	+22	29	18.9		2	675
1993	BC2		1993	01	22.25503	06	24	33.78	+22	20	12.2		2	675
1993	BC2		1993	01	22.26059	06	24	36.25	+22	19	52.8		2	675
1993	BC2		1993	01	22.38785	06	25	38.16	+22	11	33.2		2	675
1993	BC2		1993	01	22.39271	06	25	40.22	+22	11	20.7		2	675
1993	BN2	*	1993	01	21.15764	04	59	39.59	+18	21	57.5	15	2	675
1993	BN2		1993	01	22.24410	04	59	18.10	+18	44	32.8		2	675
1993	BN2		1993	01	22.27101	04	59	17.65	+18	45	06.7		2	675
1993	BO2	*	1993	01	21.25330	06	19	12.75	+23	19	45.9	16.5	2	675
1993	BO2		1993	01	21.27118	06	19	12.20	+23	19	52.1		2	675
1993	BO2		1993	01	22.10677	06	18	53.33	+23	24	06.8		2	675
1993	BO2		1993	01	22.25781	06	18	49.42	+23	24	51.8		2	675
1993	BP2	*	1993	01	21.25330	06	22	38.42	+24	41	43.5	16	2	675
1993	BP2		1993	01	21.27118	06	22	37.14	+24	41	25.5		2	675
1993	BP2		1993	01	22.10677	06	21	43.88	+24	27	24.6		2	675
1993	BP2		1993	01	22.25781	06	21	33.95	+24	24	53.2		2	675
1993	BW2	*	1993	01	28.26198	06	31	49.62	+31	25	37.9	15.7	3	675
1993	BW2		1993	01	28.30122	06	31	53.78	+31	30	03.4		3	675
1993	BW2		1993	01	28.44340	06	32	10.02	+31	45	52.1		3	675
1993	BW2		1993	01	29.19322	06	33	50.12	+33	07	34.2		3	675
1993	BW2		1993	01	29.20104	06	33	51.07	+33	08	19.7		3	675
1993	BW2		1993	01	29.30781	06	34	02.45	+33	19	28.4		3	675
1993	BW2		1993	01	29.38368	06	34	10.79	+33	27	12.4		3	675
1993	BK3		1993	01	28.34079	07	48	45.59	+19	30	21.2	17.5	3	675
1993	BK3		1993	01	28.37534	07	48	43.97	+19	30	25.4		3	675
1993	BY3	*	1993	01	23.30399	07	34	38.25	+24	17	03.4	18	3	675
1993	BY3		1993	01	23.34166	07	34	36.99	+24	17	03.4		3	675
1993	BY3		1993	01	24.26770	07	34	05.57	+24	16	52.1		3	675
1993	BY3		1993	01	24.30520	07	34	04.21	+24	16	51.5		3	675
1993	BY3		1993	01	27.30746	07	32	23.83	+24	16	04.8		3	675
1993	BY3		1993	01	27.32344	07	32	23.29	+24	16	04.0		3	675
2023	P-L		1954	07	03.37847	20	37	24.65	-19	01	46.8		6	675
2023	P-L		1954	07	03.40278	20	37	23.81	-19	01	49.7		6	675
2592	P-L	*	1960	09	24.46184	00	48	13.05	+03	21	15.5	18.8	4	675
2592	P-L		1960	09	28.43822	00	44	52.36	+02	50	42.1		4	675
2592	P-L		1960	09	29.39514	00	44	03.50	+02	43	17.4		4	675
2592	P-L		1960	10	17.31529	00	29	16.72	+00	32	20.6		4	675
2592	P-L		1960	10	22.26809	00	25	48.56	+00	02	02.5		4	675
2592	P-L		1960	10	25.30351	00	23	54.47	-00	14	40.4		4	675
2592	P-L		1960	10	26.35766	00	23	17.40	-00	20	05.4		4	675
3027	P-L	*	1960	09	24.27708	00	17	27.90	+13	54	23.2	17.4	4	675
3027	P-L		1960	09	24.36250	00	17	23.02	+13	53	59.2		4	675
3027	P-L		1960	09	24.47431	00	17	16.49	+13	53	26.9		4	675
3027	P-L		1960	09	25.22986	00	16	35.22	+13	49	50.3		4	675

3027	P-L		1960	09	25.36042	00	16	27.72	+13 49 11.2		4 675
3027	P-L		1960	09	25.46250	00	16	21.80	+13 48 40.4		4 675
3027	P-L		1960	09	26.24514	00	15	38.91	+13 44 47.1		4 675
3027	P-L		1960	09	26.29514	00	15	36.02	+13 44 33.6		4 675
3027	P-L		1960	09	26.40208	00	15	29.97	+13 43 59.3		4 675
3027	P-L		1960	09	27.27569	00	14	41.77	+13 39 31.3		4 675
3027	P-L		1960	09	28.34722	00	13	42.56	+13 33 52.4		4 675
3027	P-L		1960	09	29.34722	00	12	47.66	+13 28 25.8		4 675
3027	P-L		1960	09	29.47153	00	12	40.56	+13 27 44.1		4 675
4087	P-L	*	1960	09	24.37573	00	36	51.87	+04 11 29.6	19.2	4 675
4087	P-L		1960	09	24.41183	00	36	49.91	+04 11 17.5		4 675
4087	P-L		1960	09	25.42780	00	35	55.36	+04 06 16.4		4 675
4087	P-L		1960	09	26.30558	00	35	08.23	+04 01 53.1		4 675
4087	P-L		1960	09	26.31530	00	35	07.64	+04 01 49.1		4 675
4087	P-L		1960	09	27.40836	00	34	08.15	+03 56 20.1		4 675
4087	P-L		1960	09	28.39725	00	33	14.31	+03 51 19.3		4 675
4087	P-L		1960	10	17.27085	00	16	41.08	+02 18 17.7		4 675
4087	P-L		1960	10	17.31529	00	16	38.97	+02 18 06.7		4 675
4087	P-L		1960	10	22.22293	00	12	59.49	+01 57 32.8		4 675
4087	P-L		1960	10	26.32573	00	10	16.81	+01 42 25.2		4 675
4722	P-L		1992	04	05.36823	13	12	46.33	-08 26 28.3		9 675
4722	P-L		1992	04	05.39948	13	12	44.62	-08 26 15.7		9 675
6063	P-L	*	1960	09	24.33613	00	07	56.25	+04 54 42.0	17.9	4 675
6063	P-L		1960	09	25.32502	00	06	58.03	+04 49 42.0		4 675
6063	P-L		1960	09	26.27573	00	06	02.39	+04 44 49.5		4 675
6063	P-L		1960	09	28.32780	00	04	03.04	+04 34 15.2		4 675
6063	P-L		1960	10	17.21390	23	49	13.27	+03 04 18.3		4 675
6063	P-L		1960	10	22.15559	23	46	56.48	+02 47 22.1		4 675
6063	P-L		1960	10	24.18787	23	46	14.58	+02 41 37.8		4 675
6063	P-L		1960	10	26.26113	23	45	40.44	+02 36 32.1		4 675
6530	P-L	*	1960	09	24.35002	00	12	00.22	-00 41 26.1	16.5	4 675
6530	P-L		1960	09	26.28543	00	10	29.92	-00 58 47.0		4 675
6530	P-L		1960	09	27.34237	00	09	40.39	-01 08 12.2		4 675
6530	P-L		1960	09	28.33822	00	08	54.02	-01 17 02.0		4 675
6530	P-L		1960	10	17.28198	23	56	09.80	-03 43 34.5		4 675
6530	P-L		1960	10	22.23406	23	53	58.83	-04 10 58.4		4 675
6530	P-L		1960	10	25.25350	23	52	58.34	-04 24 47.7		4 675
6530	P-L		1960	10	26.31531	23	52	40.71	-04 29 08.1		4 675
1114	T-1		1953	09	06.25938	21	14	25.37	-08 26 17.0		6 675
1114	T-1		1953	09	06.28472	21	14	24.66	-08 26 23.5		6 675
2066	T-1		1971	03	24.37118	12	01	59.71	+03 30 28.8		4 675
2066	T-1		1971	03	25.24340	12	01	08.58	+03 36 47.7		4 675
2066	T-1	*	1971	03	25.28715	12	01	05.88	+03 37 07.0	19.1	4 675
2066	T-1		1971	03	26.25208	12	00	09.33	+03 43 58.2		4 675
2066	T-1		1971	03	27.31181	11	59	07.42	+03 51 24.6		4 675
2258	T-1		1992	11	21.43212	05	21	12.94	+33 23 44.9	15.5	2 675
2258	T-1		1992	11	21.45503	05	21	11.40	+33 23 52.8		2 675
2258	T-1		1992	11	22.42465	05	20	06.82	+33 27 54.3		2 675
2258	T-1		1992	11	22.45313	05	20	04.77	+33 28 01.1		2 675
3266	T-1		1971	03	24.42015	12	39	48.79	-04 22 10.8		4 675
3266	T-1		1971	03	25.33090	12	39	08.44	-04 18 10.7		4 675
3266	T-1		1971	03	26.29653	12	38	25.40	-04 13 55.4		4 675
3266	T-1	*	1971	03	26.33611	12	38	23.60	-04 13 46.1	18.0	4 675
3266	T-1		1971	03	27.33854	12	37	38.60	-04 09 16.3		4 675
3266	T-1		1971	04	02.42604	12	33	03.41	-03 41 54.0		4 675
3266	T-1		1971	04	16.22812	12	23	20.62	-02 43 36.8		4 675
3266	T-1		1971	04	16.30139	12	23	17.62	-02 43 18.7		4 675
3266	T-1		1971	05	14.19427	12	12	44.89	-01 41 39.2	19.5	4 675
3266	T-1		1971	05	14.24549	12	12	44.62	-01 41 37.5	19.5	4 675

3266	T-1		1971	05	16.27535	12	12	37.21	-01 41 11.3	19.5	4 675
4193	T-1		1971	03	24.40486	12	33	53.49	+01 23 22.7		4 675
4193	T-1		1971	03	26.31007	12	32	07.11	+01 35 42.4		4 675
4193	T-1	*	1971	03	26.34896	12	32	04.79	+01 35 58.0	19.0	4 675
4193	T-1		1971	03	27.35208	12	31	08.77	+01 42 20.5		4 675
4193	T-1		1971	04	02.43993	12	25	30.66	+02 19 47.0		4 675
4262	T-1		1971	03	24.40486	12	37	17.91	+01 28 08.4		4 675
4262	T-1		1971	03	26.31007	12	35	42.84	+01 37 38.9		4 675
4262	T-1	*	1971	03	26.34896	12	35	40.74	+01 37 51.0	17.8	4 675
4262	T-1		1971	03	27.35208	12	34	50.27	+01 42 44.8		4 675
4262	T-1		1971	04	02.43993	12	29	43.74	+02 11 31.6		4 675
4262	T-1		1971	04	16.21476	12	19	09.18	+03 02 34.2		4 675
4262	T-1		1971	04	16.27708	12	19	06.58	+03 02 45.6		4 675
4262	T-1		1971	05	13.20278	12	08	46.08	+03 17 09.7	18.5	4 675
4262	T-1		1971	05	14.23246	12	08	43.19	+03 15 16.3	18.5	4 675
1152	T-2		1973	09	19.18611	00	19	21.84	-00 09 44.9		4 675
1152	T-2		1973	09	19.21250	00	19	20.23	-00 09 48.5		4 675
1152	T-2		1973	09	19.23785	00	19	18.62	-00 09 56.3		4 675
1152	T-2		1973	09	19.26354	00	19	17.01	-00 09 58.5		4 675
1152	T-2		1973	09	20.22847	00	18	18.86	-00 13 18.6		4 675
1152	T-2		1973	09	20.27795	00	18	15.96	-00 13 27.7		4 675
1152	T-2		1973	09	24.34688	00	14	08.59	-00 27 23.1		4 675
1152	T-2		1973	09	24.37431	00	14	06.87	-00 27 25.0		4 675
1152	T-2		1973	09	24.44167	00	14	02.62	-00 27 38.4		4 675
1152	T-2		1973	09	25.26875	00	13	12.80	-00 30 27.7		4 675
1152	T-2		1973	09	25.30729	00	13	10.36	-00 30 36.7		4 675
1152	T-2		1973	09	25.33299	00	13	08.82	-00 30 39.8		4 675
1152	T-2	*	1973	09	29.25330	00	09	13.33	-00 43 30.8	17.8	4 675
1152	T-2		1973	09	29.27986	00	09	11.73	-00 43 34.1		4 675
1152	T-2		1973	09	29.31806	00	09	09.26	-00 43 43.4		4 675
1152	T-2		1973	09	29.34375	00	09	07.79	-00 43 46.1		4 675
1152	T-2		1973	09	30.21007	00	08	16.99	-00 46 30.5		4 675
1152	T-2		1973	09	30.23524	00	08	15.40	-00 46 32.2		4 675
1152	T-2		1973	09	30.27431	00	08	13.09	-00 46 43.1		4 675
1152	T-2		1973	09	30.30174	00	08	11.37	-00 46 44.9		4 675
1152	T-2		1973	10	04.28958	00	04	22.95	-00 58 31.7		4 675
1152	T-2		1973	10	04.31493	00	04	21.56	-00 58 30.8		4 675
1152	T-2		1973	10	04.35208	00	04	19.28	-00 58 41.1		4 675
1152	T-2		1973	10	04.37674	00	04	17.98	-00 58 42.9		4 675
1152	T-2		1973	10	05.31684	00	03	26.19	-01 01 15.9		4 675
1152	T-2		1973	10	05.34167	00	03	24.83	-01 01 20.8		4 675
1152	T-2		1973	10	05.37917	00	03	22.65	-01 01 25.9		4 675
1152	T-2		1973	10	05.40347	00	03	21.33	-01 01 29.3		4 675
1493	T-2		1992	04	05.36823	13	22	26.74	-06 44 45.0		9 675
1493	T-2		1992	04	05.39948	13	22	25.25	-06 44 35.1		9 675
2127	T-2		1992	04	05.36823	13	13	29.20	-10 37 50.4		9 675
2127	T-2		1992	04	05.39948	13	13	27.30	-10 37 43.6		9 675
4180	T-2		1973	09	19.22500	00	40	42.73	+00 09 34.8		4 675
4180	T-2		1973	09	19.27865	00	40	40.48	+00 09 18.9		4 675
4180	T-2		1973	09	20.30278	00	39	59.48	+00 03 57.8		4 675
4180	T-2		1973	09	24.38750	00	37	06.18	-00 17 39.9		4 675
4180	T-2		1973	09	24.45434	00	37	03.04	-00 18 01.3		4 675
4180	T-2		1973	09	25.28125	00	36	26.99	-00 22 26.7		4 675
4180	T-2		1973	09	25.34601	00	36	23.85	-00 22 48.2		4 675
4180	T-2	*	1973	09	29.29219	00	33	24.56	-00 43 32.4	16.8	4 675
4180	T-2		1973	09	29.35694	00	33	21.36	-00 43 51.8		4 675
4180	T-2		1973	09	30.24826	00	32	40.59	-00 48 27.4		4 675
4180	T-2		1973	09	30.31476	00	32	37.26	-00 48 46.8		4 675
4180	T-2		1973	10	04.32708	00	29	32.56	-01 08 30.0		4 675

4180	T-2		1973	10	04.38889	00	29	29.51	-01	08	48.7			4	675
4180	T-2		1973	10	05.35382	00	28	45.86	-01	13	17.1			4	675
4180	T-2		1973	10	05.41597	00	28	42.86	-01	13	33.1			4	675
3134	T-3		1992	04	05.36823	13	09	37.35	-06	19	21.7		17.8	9	675
3134	T-3		1992	04	05.39948	13	09	35.29	-06	19	06.0			9	675
3186	T-3		1977	10	07.27031	01	29	33.17	+05	07	54.9			4	675
3186	T-3		1977	10	11.28819	01	25	53.42	+04	53	47.5			4	675
3186	T-3		1977	10	11.35642	01	25	49.42	+04	53	33.2			4	675
3186	T-3		1977	10	12.28681	01	24	57.32	+04	50	17.6			4	675
3186	T-3		1977	10	12.35347	01	24	53.49	+04	50	03.2			4	675
3186	T-3	*	1977	10	16.27309	01	21	10.81	+04	36	42.3		16.6	4	675
3186	T-3		1977	10	16.33872	01	21	06.90	+04	36	30.2			4	675
3186	T-3		1977	10	17.27552	01	20	13.48	+04	33	27.0			4	675
3186	T-3		1977	10	17.34236	01	20	09.52	+04	33	13.8			4	675
3186	T-3		1977	10	21.39792	01	16	20.55	+04	20	50.5			4	675
3186	T-3		1977	10	21.45799	01	16	17.08	+04	20	39.3			4	675
3186	T-3		1977	10	22.39844	01	15	25.42	+04	17	59.5			4	675
3186	T-3		1977	10	22.45920	01	15	21.96	+04	17	49.6			4	675
3220	T-3		1954	07	03.37847	20	43	25.88	-16	47	54.8			6	675
3220	T-3		1954	07	03.40278	20	43	24.94	-16	48	00.1			6	675
3422	T-3		1977	10	07.27031	01	18	36.01	+04	32	04.0			4	675
3422	T-3		1977	10	11.28819	01	14	44.69	+04	25	50.7			4	675
3422	T-3		1977	10	11.30000	01	14	44.14	+04	25	49.0			4	675
3422	T-3		1977	10	11.35642	01	14	40.69	+04	25	45.4			4	675
3422	T-3		1977	10	11.36771	01	14	40.14	+04	25	42.7			4	675
3422	T-3		1977	10	12.28681	01	13	47.15	+04	24	18.7			4	675
3422	T-3		1977	10	12.29826	01	13	46.33	+04	24	19.1			4	675
3422	T-3		1977	10	12.35347	01	13	43.19	+04	24	12.8			4	675
3422	T-3		1977	10	12.36441	01	13	42.38	+04	24	12.1			4	675
3422	T-3	*	1977	10	16.27309	01	09	57.34	+04	18	39.5		17.0	4	675
3422	T-3		1977	10	16.33872	01	09	53.40	+04	18	33.9			4	675
3422	T-3		1977	10	17.27552	01	09	00.05	+04	17	20.0			4	675
3422	T-3		1977	10	17.34236	01	08	56.18	+04	17	15.3			4	675
3422	T-3		1977	10	21.39792	01	05	08.92	+04	12	28.7			4	675
3422	T-3		1977	10	21.45799	01	05	05.55	+04	12	24.6			4	675
3422	T-3		1977	10	22.39844	01	04	14.43	+04	11	27.2			4	675
3422	T-3		1977	10	22.45920	01	04	11.02	+04	11	22.3			4	675
(19)			1992	04	27.23750	13	16	03.77	-08	16	18.7			9	675
(19)			1992	04	27.28056	13	16	01.60	-08	16	05.5			9	675
(63)			1992	10	01.33785	00	21	21.03	+07	44	55.3			9	675
(75)			1992	04	05.36823	13	24	53.80	-11	52	39.4			9	675
(75)			1992	04	05.39948	13	24	52.04	-11	52	32.4			9	675
(75)			1992	04	27.23750	13	05	20.12	-10	21	37.6			9	675
(75)			1992	04	27.28056	13	05	17.92	-10	21	26.3			9	675
(108)			1955	04	20.16111	10	39	10.89	+08	23	51.8			6	675
(108)			1955	04	20.18611	10	39	10.77	+08	23	51.7			6	675
(179)			1953	09	06.25938	21	29	37.21	-02	13	08.4			6	675
(179)			1953	09	06.28472	21	29	36.16	-02	13	15.3			6	675
(184)			1992	04	05.36823	13	27	15.50	-10	33	15.3			9	675
(184)			1992	04	05.39948	13	27	14.06	-10	33	08.0			9	675
(184)			1992	04	27.23750	13	11	13.15	-09	02	10.1			9	675
(184)			1992	04	27.28056	13	11	11.37	-09	02	00.1			9	675
(230)			1988	06	08.30660	16	41	54.96	-18	17	00.2		11.0	9	675
(230)			1988	06	08.33594	16	41	53.11	-18	16	50.0			9	675
(231)			1992	10	01.33785	00	34	53.23	+06	26	51.0			9	675
(231)			1992	10	04.28767	00	32	25.74	+06	15	23.6			9	675
(231)			1992	10	04.32205	00	32	23.90	+06	15	16.0			9	675
(313)			1953	09	06.25938	21	07	41.63	-07	03	49.3			6	675
(313)			1953	09	06.28472	21	07	40.69	-07	04	00.8			6	675

(391)		1992	04	27.23750	13	26	49.54	-11 59 46.4	9 675
(391)		1992	04	27.28056	13	26	47.28	-11 59 16.0	9 675
(415)		1953	06	14.21528	14	51	48.56	-05 49 52.0	9 675
(420)		1953	08	16.42813	23	45	48.39	+07 55 11.9	6 675
(420)		1953	08	16.45139	23	45	47.84	+07 55 10.8	6 675
(439)		1992	09	29.27795	00	03	32.48	+09 44 32.8	9 675
(439)		1992	09	29.31580	00	03	30.95	+09 44 10.2	9 675
(451)		1988	06	08.30660	16	48	54.52	-16 28 11.2	9 675
(451)		1988	06	08.33594	16	48	52.92	-16 28 15.5	9 675
(523)		1953	08	16.42812	23	37	35.32	+04 17 37.8	6 675
(523)		1953	08	16.45139	23	37	34.60	+04 17 36.1	6 675
(560)		1988	06	08.30660	16	20	50.23	-13 58 01.0	9 675
(560)		1988	06	08.33594	16	20	48.58	-13 58 00.8	9 675
(570)		1992	04	05.36823	13	25	40.34	-10 02 00.4	9 675
(570)		1992	04	05.39948	13	25	39.06	-10 01 52.8	9 675
(570)		1992	04	27.23750	13	11	20.45	-08 29 01.7	9 675
(570)		1992	04	27.28056	13	11	18.83	-08 28 51.5	9 675
(634)		1951	09	08.44722	03	28	21.12	+02 53 52.0	6 675
(634)		1951	09	08.47292	03	28	21.76	+02 53 43.9	6 675
(647)		1953	10	12.37743	02	18	02.82	+24 05 54.5	6 675
(647)		1953	10	12.40208	02	18	01.67	+24 05 49.5	6 675
(648)		1992	09	29.27795	00	03	13.80	+15 33 41.5	9 675
(648)		1992	09	29.31580	00	03	11.96	+15 33 32.4	9 675
(648)		1992	10	04.23247	23	59	22.44	+15 11 52.0	9 675
(648)		1992	10	04.27257	23	59	20.65	+15 11 38.4	9 675
(655)		1988	06	08.30660	16	39	48.32	-14 05 42.8	9 675
(655)		1988	06	08.33594	16	39	46.81	-14 05 42.8	9 675
(659)		1992	04	05.36823	13	20	00.33	-11 26 50.1	9 675
(659)		1992	04	05.39948	13	19	59.35	-11 26 46.3	9 675
(659)		1992	04	27.23750	13	09	30.29	-10 31 22.8	9 675
(659)		1992	04	27.28056	13	09	29.15	-10 31 16.4	9 675
(685)		1992	04	05.36823	13	22	40.23	-12 37 19.8	9 675
(685)		1992	04	05.39948	13	22	38.31	-12 37 06.4	9 675
(685)		1992	04	27.23750	13	01	28.34	-09 54 05.2	9 675
(685)		1992	04	27.28056	13	01	26.01	-09 53 45.6	9 675
(701)		1988	06	08.30660	16	27	51.71	-20 22 21.2	9 675
(701)		1988	06	08.33594	16	27	50.21	-20 22 14.2	9 675
(736)		1954	07	03.37847	20	23	16.58	-15 38 16.8	6 675
(736)		1954	07	03.40278	20	23	15.68	-15 38 23.7	6 675
(746)		1992	10	04.28767	00	33	15.01	+08 33 12.0	9 675
(746)		1992	10	04.32205	00	33	12.83	+08 33 13.6	9 675
(760)		1992	09	29.27795	00	10	45.06	+11 44 09.6	9 675
(760)		1992	09	29.31580	00	10	43.31	+11 44 02.6	9 675
(760)		1992	10	04.23247	00	07	00.13	+11 28 10.9	9 675
(760)		1992	10	04.27257	00	06	58.30	+11 28 03.1	9 675
(821)		1951	11	08.44375	06	46	54.19	+17 23 04.1	6 675
(821)		1951	11	08.46806	06	46	53.93	+17 23 00.8	6 675
(881)		1953	01	09.27222	07	07	02.68	+19 10 36.5	6 675
(881)		1953	01	09.29167	07	07	01.20	+19 10 36.7	6 675
(900)		1953	09	06.25938	21	29	50.62	-03 21 03.6	6 675
(900)		1953	09	06.28472	21	29	49.96	-03 21 19.7	6 675
(954)		1992	04	05.36823	13	13	52.59	-06 47 27.3	9 675
(954)		1992	04	05.39948	13	13	51.14	-06 47 17.9	9 675
(971)		1951	09	08.44722	03	20	16.48	+01 47 08.8	6 675
(971)		1951	09	08.47292	03	20	17.06	+01 47 05.9	6 675
(971)		1988	06	08.30660	16	25	55.37	-16 53 43.6	9 675
(971)		1988	06	08.33594	16	25	53.57	-16 53 47.7	9 675
(992)		1953	08	16.42813	23	44	58.98	+09 35 54.6	6 675
(992)		1953	08	16.45139	23	44	58.31	+09 35 51.4	6 675

(1014)		1954	07	03.37847	20	28	13.26	-16	46	29.0	6	675
(1014)		1954	07	03.40278	20	28	12.13	-16	46	31.8	6	675
(1030)		1953	08	16.42812	23	54	54.67	+06	16	32.4	6	675
(1030)		1953	08	16.45139	23	54	54.11	+06	16	26.5	6	675
(1066)		1992	04	27.23750	13	08	03.40	-12	26	27.3	9	675
(1066)		1992	04	27.28056	13	08	01.06	-12	26	15.5	9	675
(1085)		1988	06	08.30660	16	45	10.73	-13	03	37.7	9	675
(1085)		1988	06	08.33594	16	45	09.22	-13	03	37.8	9	675
(1091)		1992	04	27.23750	13	30	38.16	-08	05	52.7	9	675
(1091)		1992	04	27.28056	13	30	36.39	-08	05	43.6	9	675
(1092)		1954	02	26.30556	09	45	31.09	+10	32	22.1	6	675
(1092)		1954	02	26.32778	09	45	29.95	+10	32	26.1	6	675
(1101)		1992	09	29.27795	23	51	46.92	+10	36	17.1	9	675
(1101)		1992	09	29.31580	23	51	45.46	+10	35	51.8	9	675
(1156)		1992	04	27.23750	13	22	08.96	-06	17	50.4	9	675
(1156)		1992	04	27.28056	13	22	06.51	-06	17	37.7	9	675
(1173)		1953	10	12.37743	02	30	54.91	+23	11	29.0	6	675
(1173)		1953	10	12.40208	02	30	54.16	+23	11	26.4	6	675
(1231)		1992	09	30.28854	00	35	43.23	+13	16	03.8	9	675
(1231)		1992	09	30.32614	00	35	41.01	+13	15	58.0	9	675
(1231)		1992	10	01.33785	00	34	42.61	+13	13	33.4	9	675
(1231)		1992	10	04.28767	00	31	52.52	+13	05	56.6	9	675
(1231)		1992	10	04.32205	00	31	50.48	+13	05	50.8	9	675
(1243)		1951	11	08.44375	06	49	02.06	+17	09	00.6	6	675
(1243)		1951	11	08.46806	06	49	01.86	+17	08	54.0	6	675
(1268)		1992	04	05.36823	13	22	47.82	-11	54	02.8	9	675
(1268)		1992	04	05.39948	13	22	46.52	-11	53	57.1	9	675
(1268)		1992	04	27.23750	13	09	00.15	-10	46	01.7	9	675
(1268)		1992	04	27.28056	13	08	58.63	-10	45	54.2	9	675
(1288)		1992	09	29.27795	00	01	04.51	+12	05	53.5	9	675
(1288)		1992	09	29.31580	00	01	02.57	+12	05	44.0	9	675
(1288)		1992	10	04.23247	23	57	04.40	+11	43	09.5	9	675
(1288)		1992	10	04.27257	23	57	02.44	+11	42	57.9	9	675
(1295)		1953	01	09.27222	07	25	55.34	+17	45	42.5	6	675
(1295)		1953	01	09.29167	07	25	54.25	+17	45	43.9	6	675
(1387)		1992	04	27.23750	13	19	33.86	-07	35	47.7	9	675
(1387)		1992	04	27.28056	13	19	31.45	-07	35	27.8	9	675
(1419)		1953	09	06.25938	21	11	42.67	-07	12	55.1	6	675
(1419)		1953	09	06.28472	21	11	41.69	-07	13	03.5	6	675
(1426)		1992	09	30.28854	00	46	10.34	+14	23	38.0	9	675
(1426)		1992	09	30.32614	00	46	08.09	+14	23	31.0	9	675
(1426)		1992	10	02.30781	00	44	12.27	+14	17	12.6	9	675
(1426)		1992	10	02.34184	00	44	10.18	+14	17	05.0	9	675
(1477)		1953	08	16.42813	23	44	06.41	+09	36	30.4	6	675
(1477)		1953	08	16.45139	23	44	05.57	+09	36	37.5	6	675
(1482)		1992	04	27.23750	13	30	14.68	-06	05	42.3	9	675
(1482)		1992	04	27.28056	13	30	12.47	-06	05	32.4	9	675
(1530)		1992	09	29.27795	00	16	45.62	+12	29	56.1	9	675
(1530)		1992	09	29.31580	00	16	43.55	+12	29	45.8	9	675
(1530)		1992	10	04.23247	00	12	34.47	+12	04	49.0	9	675
(1530)		1992	10	04.27257	00	12	32.36	+12	04	36.0	9	675
(1557)		1992	10	01.33785	00	46	37.99	+10	09	18.0	9	675
(1557)		1992	10	04.28767	00	43	58.40	+10	05	10.0	9	675
(1557)		1992	10	04.32205	00	43	56.47	+10	05	07.5	9	675
(1578)		1992	04	05.36823	13	23	07.59	-07	49	45.1	9	675
(1578)		1992	04	05.39948	13	23	06.36	-07	49	38.1	9	675
(1578)		1992	04	27.23750	13	10	03.22	-06	33	09.6	9	675
(1578)		1992	04	27.28056	13	10	01.65	-06	33	00.2	9	675
(1599)		1992	04	27.23750	13	27	00.94	-06	28	12.9	9	675

(1599)	1992	04	27.28056	13	26	58.98	-06	28	06.0	9	675
(1631)	1992	04	05.36823	13	29	47.87	-10	21	07.4	9	675
(1631)	1992	04	05.39948	13	29	45.79	-10	21	02.7	9	675
(1631)	1992	04	27.23750	13	05	52.12	-09	10	55.2	9	675
(1631)	1992	04	27.28056	13	05	49.37	-09	10	47.4	9	675
(1748)	1988	06	08.30660	16	40	27.07	-18	26	19.6	9	675
(1748)	1988	06	08.33594	16	40	25.69	-18	26	18.9	9	675
(1771)	1953	06	14.21528	14	50	08.25	-07	38	59.4	9	675
(1805)	1992	04	05.36823	13	18	49.01	-04	37	06.7	9	675
(1805)	1992	04	05.39948	13	18	47.51	-04	36	58.1	9	675
(1829)	1954	07	03.37847	20	36	06.24	-18	09	25.5	6	675
(1829)	1954	07	03.40278	20	36	05.02	-18	09	25.2	6	675
(1885)	1992	10	01.33785	00	21	39.00	+11	57	59.4	9	675
(1885)	1992	10	04.23247	00	18	54.49	+11	51	38.9	9	675
(1885)	1992	10	04.27257	00	18	52.03	+11	51	31.5	9	675
(1885)	1992	10	04.28767	00	18	51.08	+11	51	30.0	9	675
(1885)	1992	10	04.32205	00	18	49.14	+11	51	25.7	9	675
(1886)	1953	06	14.21528	14	53	46.52	-06	28	11.6	9	675
(1964)	1954	02	26.30556	09	46	07.25	+09	24	38.2	6	675
(1964)	1954	02	26.32778	09	46	06.03	+09	24	45.1	6	675
(1984)	1955	04	20.16111	10	33	50.33	+07	19	44.6	6	675
(1984)	1955	04	20.18611	10	33	50.14	+07	19	48.2	6	675
(2017)	1951	11	08.44375	06	52	42.36	+16	12	51.4	6	675
(2017)	1951	11	08.46806	06	52	42.18	+16	12	48.7	6	675
(2043)	1955	04	20.16111	10	38	45.36	+06	30	30.0	6	675
(2043)	1955	04	20.18611	10	38	45.10	+06	30	31.6	6	675
(2049)	1992	10	02.30781	00	46	51.04	+13	36	06.2	9	675
(2049)	1992	10	02.34184	00	46	49.37	+13	35	05.6	9	675
(2049)	1992	10	04.28767	00	45	21.84	+12	37	36.9	9	675
(2049)	1992	10	04.32205	00	45	20.31	+12	36	36.3	9	675
(2097)	1992	10	01.33785	00	42	19.43	+11	06	40.3	9	675
(2097)	1992	10	04.28767	00	40	00.00	+10	56	51.6	9	675
(2097)	1992	10	04.32205	00	39	58.29	+10	56	44.8	9	675
(2217)	1992	04	27.23750	13	20	53.51	-05	06	25.8	9	675
(2217)	1992	04	27.28056	13	20	51.59	-05	06	15.7	9	675
(2237)	1992	04	27.23750	13	20	31.20	-05	01	29.8	9	675
(2237)	1992	04	27.28056	13	20	29.42	-05	01	20.8	9	675
(2238)	1992	04	27.23750	13	31	45.64	-09	24	39.4	9	675
(2238)	1992	04	27.28056	13	31	43.63	-09	24	28.1	9	675
(2249)	1988	06	08.30660	16	42	00.44	-16	05	10.8	9	675
(2249)	1988	06	08.33594	16	41	58.94	-16	05	10.6	9	675
(2295)	1992	10	02.30781	01	12	17.05	+11	30	47.8	9	675
(2295)	1992	10	02.34184	01	12	15.39	+11	30	39.8	9	675
(2297)	1988	06	08.30660	16	29	16.81	-19	24	32.9	9	675
(2297)	1988	06	08.33594	16	29	15.29	-19	24	31.5	9	675
(2320)	1951	09	08.44722	03	21	59.29	+03	10	19.2	6	675
(2320)	1951	09	08.47292	03	21	59.82	+03	10	13.4	6	675
(2411)	1954	02	26.30556	09	54	22.76	+13	45	07.6	6	675
(2411)	1954	02	26.32778	09	54	21.36	+13	45	15.8	6	675
(2427)	1955	04	20.16111	10	37	32.85	+03	52	45.2	6	675
(2427)	1955	04	20.18611	10	37	32.65	+03	52	49.9	6	675
(2459)	1992	10	02.30781	01	04	19.18	+12	32	10.5	9	675
(2459)	1992	10	02.34184	01	04	17.68	+12	31	55.9	9	675
(2478)	1992	10	02.30781	01	14	45.80	+12	17	24.4	9	675
(2478)	1992	10	02.34184	01	14	43.89	+12	17	09.3	9	675
(2529)	1992	04	05.36823	13	01	20.97	-07	58	43.5	9	675
(2529)	1992	04	05.39948	13	01	19.38	-07	58	29.6	9	675
(2569)	1988	06	08.30660	16	30	51.42	-20	25	19.9	9	675
(2569)	1988	06	08.33594	16	30	49.59	-20	25	23.1	9	675

(2589)	1988	06	08.30660	16	27	55.75	-17	48	49.5	9 675
(2589)	1988	06	08.33594	16	27	54.09	-17	48	46.9	9 675
(2598)	1992	04	05.36823	13	10	11.21	-07	28	28.7	9 675
(2598)	1992	04	05.39948	13	10	09.69	-07	28	15.4	9 675
(2631)	1992	04	05.36823	13	11	08.87	-05	34	35.1	9 675
(2631)	1992	04	05.39948	13	11	07.19	-05	34	29.3	9 675
(2675)	1992	04	27.23750	13	13	48.86	-09	38	27.6	9 675
(2675)	1992	04	27.28056	13	13	46.36	-09	38	16.0	9 675
(2689)	1992	04	27.23750	13	27	54.14	-05	19	36.5	9 675
(2689)	1992	04	27.28056	13	27	51.95	-05	19	15.3	9 675
(2723)	1988	06	08.30660	16	30	25.92	-18	55	37.8	9 675
(2729)	1992	04	27.23750	13	32	41.88	-06	41	23.7	9 675
(2729)	1992	04	27.28056	13	32	39.72	-06	41	13.4	9 675
(2759)	1955	04	20.20347	10	37	54.66	+06	50	58.5	6 675
(2777)	1992	04	05.36823	13	26	23.63	-06	12	01.5	9 675
(2777)	1992	04	05.39948	13	26	21.66	-06	11	55.2	9 675
(2795)	1988	06	08.30660	16	26	43.23	-15	01	32.1	9 675
(2795)	1988	06	08.33594	16	26	41.47	-15	01	25.8	9 675
(2904)	1988	06	08.30660	16	24	51.96	-17	50	51.2	9 675
(2904)	1988	06	08.33594	16	24	50.11	-17	50	56.3	9 675
(2905)	1992	04	05.36823	13	15	54.44	-10	32	29.5	9 675
(2905)	1992	04	05.39948	13	15	52.64	-10	32	27.0	9 675
(3031)	1992	10	02.30781	01	12	25.64	+14	23	36.4	9 675
(3031)	1992	10	02.34184	01	12	23.55	+14	23	28.2	9 675
(3088)	1955	12	11.21806	03	39	24.72	+05	14	32.1	6 675
(3088)	1955	12	11.23924	03	39	23.90	+05	14	31.3	6 675
(3105)	1953	01	09.27222	07	11	42.52	+16	32	13.0	6 675
(3105)	1953	01	09.29167	07	11	41.09	+16	32	19.2	6 675
(3106)	1951	09	08.44722	03	20	41.24	-02	04	51.7	6 675
(3106)	1951	09	08.47292	03	20	42.06	-02	05	00.7	6 675
(3125)	1951	09	08.44722	03	26	07.54	+02	18	37.7	6 675
(3125)	1951	09	08.47292	03	26	08.19	+02	18	28.7	6 675
(3149)	1953	06	14.21528	14	46	21.09	-07	50	22.3	9 675
(3180)	1992	10	01.33785	00	48	52.16	+08	43	17.4	9 675
(3180)	1992	10	04.28767	00	45	48.45	+08	38	23.5	9 675
(3180)	1992	10	04.32205	00	45	46.28	+08	38	20.7	9 675
(3285)	1951	11	08.44375	06	50	48.87	+16	25	31.8	6 675
(3285)	1951	11	08.46806	06	50	49.01	+16	25	09.9	6 675
(3297)	1992	04	27.23750	13	30	27.65	-05	58	42.1	9 675
(3297)	1992	04	27.28056	13	30	25.66	-05	58	31.3	9 675
(3353)	1988	06	08.30660	16	45	24.04	-13	02	14.2	9 675
(3353)	1988	06	08.33594	16	45	21.71	-13	01	29.3	9 675
(3372)	1992	04	27.23750	13	27	02.87	-09	55	35.7	9 675
(3372)	1992	04	27.28056	13	27	00.67	-09	55	25.5	9 675
(3472)	1992	10	01.33785	00	17	04.21	+09	05	47.4	9 675
(3479)	1953	08	16.42813	23	44	57.33	+08	19	17.0	6 675
(3479)	1953	08	16.45139	23	44	56.83	+08	19	10.6	6 675
(3486)	1992	04	05.36823	13	24	54.68	-06	22	37.3	9 675
(3486)	1992	04	05.39948	13	24	52.81	-06	22	25.6	9 675
(3546)	1992	10	01.33785	00	33	49.64	+10	35	47.8	9 675
(3546)	1992	10	04.28767	00	31	09.38	+10	25	17.1	9 675
(3546)	1992	10	04.32205	00	31	07.50	+10	25	09.4	9 675
(3547)	1954	07	03.37847	20	34	32.66	-16	20	47.3	6 675
(3547)	1954	07	03.40278	20	34	31.67	-16	20	48.3	6 675
(3571)	1953	09	06.25938	21	09	25.28	-05	36	58.9	6 675
(3571)	1953	09	06.28472	21	09	24.61	-05	37	02.9	6 675
(3572)	1992	04	05.36823	13	25	15.37	-11	48	29.0	9 675
(3572)	1992	04	05.39948	13	25	13.91	-11	48	18.3	9 675
(3572)	1992	04	27.23750	13	07	50.97	-09	43	57.8	9 675

(3572)	1992	04	27.28056	13	07	48.98	-09 43 45.6	9	675
(3574)	1992	04	27.23750	13	23	16.06	-11 01 52.1	9	675
(3574)	1992	04	27.28056	13	23	13.97	-11 01 35.0	9	675
(3584)	1992	10	02.30781	00	56	32.63	+09 22 00.9	9	675
(3584)	1992	10	02.34184	00	56	31.05	+09 21 52.2	9	675
(3590)	1992	08	03.36962	22	28	31.37	-12 52 18.8	17.5	9 675
(3590)	1992	08	03.40608	22	28	29.80	-12 52 36.3	9	675
(3590)	1992	08	06.42865	22	26	17.39	-13 16 25.2	9	675
(3590)	1992	08	06.47378	22	26	15.23	-13 16 46.2	9	675
(3595)	1954	07	03.37847	20	20	59.57	-15 22 53.6	6	675
(3595)	1954	07	03.40278	20	20	58.48	-15 22 55.1	6	675
(3604)	1992	04	05.36823	13	19	30.28	-07 54 01.3	9	675
(3604)	1992	04	05.39948	13	19	28.25	-07 54 02.1	9	675
(3630)	1955	04	20.16111	10	32	29.42	+06 28 39.9	6	675
(3630)	1955	04	20.18611	10	32	28.95	+06 28 42.0	6	675
(3637)	1992	09	29.27795	23	58	36.46	+10 21 58.6	9	675
(3637)	1992	09	29.31580	23	58	34.65	+10 21 32.4	9	675
(3679)	1955	04	20.16111	10	38	22.84	+04 22 41.0	6	675
(3679)	1955	04	20.18611	10	38	22.51	+04 22 44.4	6	675
(3689)	1953	08	16.42813	23	35	59.03	+06 57 12.3	6	675
(3689)	1953	08	16.45139	23	35	58.26	+06 57 07.4	6	675
(3761)	1992	10	02.30781	00	52	42.49	+12 07 13.7	9	675
(3761)	1992	10	02.34184	00	52	41.02	+12 06 51.9	9	675
(3762)	1954	02	26.30556	09	52	47.49	+12 16 42.4	6	675
(3762)	1954	02	26.32778	09	52	46.10	+12 16 50.3	6	675
(3814)	1954	07	03.37847	20	41	44.75	-17 22 17.3	6	675
(3814)	1954	07	03.40278	20	41	43.95	-17 22 20.4	6	675
(3814)	1988	09	11.33697	23	19	42.96	-05 23 36.7	9	675
(3814)	1988	09	11.37100	23	19	41.44	-05 23 48.6	9	675
(3814)	1988	10	07.25938	23	03	09.80	-07 13 06.5	9	675
(3814)	1988	10	07.28715	23	03	08.98	-07 13 11.9	9	675
(3814)	1988	10	09.23435	23	02	13.11	-07 19 09.5	9	675
(3814)	1988	10	09.26317	23	02	12.28	-07 19 14.7	9	675
(3859)	1988	06	08.30660	16	29	33.62	-18 26 31.2	9	675
(3859)	1988	06	08.33594	16	29	32.05	-18 26 29.6	9	675
(3869)	1953	01	09.27222	07	08	19.15	+18 21 16.8	6	675
(3869)	1953	01	09.29167	07	08	17.73	+18 21 18.4	6	675
(3881)	1992	04	27.23750	13	23	54.91	-07 46 41.2	9	675
(3881)	1992	04	27.28056	13	23	52.60	-07 46 32.2	9	675
(3896)	1951	11	08.44375	06	46	55.23	+16 26 18.5	6	675
(3896)	1951	11	08.46806	06	46	55.11	+16 26 12.3	6	675
(3929)	1953	01	09.27222	07	14	55.51	+18 47 12.8	6	675
(3929)	1953	01	09.29167	07	14	54.11	+18 47 16.7	6	675
(3948)	1988	06	08.30660	16	45	26.99	-17 14 49.4	9	675
(3948)	1988	06	08.33594	16	45	25.06	-17 14 45.2	9	675
(3977)	1992	09	29.27795	00	05	23.72	+12 58 29.6	9	675
(3977)	1992	09	29.31580	00	05	21.96	+12 58 05.4	9	675
(3977)	1992	10	04.23247	00	01	45.87	+12 04 28.4	9	675
(3977)	1992	10	04.27257	00	01	44.10	+12 04 01.9	9	675
(4037)	1992	04	27.23750	13	14	04.70	-10 55 43.1	9	675
(4037)	1992	04	27.28056	13	14	02.52	-10 55 36.0	9	675
(4117)	1953	09	06.25938	21	26	04.73	-07 16 34.9	6	675
(4117)	1953	09	06.28472	21	26	04.05	-07 16 49.4	6	675
(4147)	1992	10	02.30781	00	52	36.71	+15 52 29.0	9	675
(4147)	1992	10	02.34184	00	52	34.65	+15 52 18.4	9	675
(4189)	1992	04	05.36823	13	28	33.10	-08 15 16.1	9	675
(4189)	1992	04	05.39948	13	28	31.52	-08 15 02.1	9	675
(4189)	1992	04	27.23750	13	08	57.61	-05 22 02.1	9	675
(4189)	1992	04	27.28056	13	08	55.38	-05 21 41.5	9	675

(4196)	1955 04 20.16111	10 40 20.92	+08 23 29.6			6	675
(4196)	1955 04 20.18611	10 40 20.74	+08 23 31.8			6	675
(4222)	1992 04 27.23750	13 23 42.38	-08 45 09.1			9	675
(4222)	1992 04 27.28056	13 23 40.16	-08 44 52.3			9	675
(4300)	1953 01 09.27222	07 13 27.29	+16 02 22.5			6	675
(4300)	1953 01 09.29167	07 13 25.87	+16 02 25.0			6	675
(4312)	1988 06 08.30660	16 32 24.89	-19 32 36.9			9	675
(4312)	1988 06 08.33594	16 32 22.95	-19 32 37.7			9	675
(4320)	1953 08 16.45139	23 54 58.62	+04 30 48.8			6	675
(4320)	1988 06 08.30660	16 36 24.72	-12 09 11.4			9	675
(4320)	1988 06 08.33594	16 36 22.92	-12 09 08.3			9	675
(4330)	1988 06 08.30660	16 29 35.47	-18 01 25.8			9	675
(4330)	1988 06 08.33594	16 29 33.56	-18 01 22.1			9	675
(4334)	1992 04 05.36823	13 31 21.79	-07 59 31.7			9	675
(4349)	1988 06 08.30660	16 37 33.32	-16 47 33.7			9	675
(4349)	1988 06 08.33594	16 37 31.40	-16 47 36.8			9	675
(4366)	1992 04 27.23750	13 27 29.98	-08 39 26.1			9	675
(4366)	1992 04 27.28056	13 27 28.01	-08 39 16.2			9	675
(4370)	1988 06 08.30660	16 35 24.18	-19 25 16.2			9	675
(4370)	1988 06 08.33594	16 35 22.12	-19 25 11.2			9	675
(4372)	1992 04 05.36823	13 12 26.67	-07 48 54.5			9	675
(4372)	1992 04 05.39948	13 12 25.15	-07 48 46.1			9	675
(4385)	1992 04 05.36823	13 13 53.19	-07 14 30.6		19.0	9	675
(4385)	1992 04 05.39948	13 13 52.05	-07 14 24.6			9	675
(4393)	1988 09 10.31667	23 27 53.65	-05 47 46.4		17.8	9	675
(4393)	1988 09 10.35330	23 27 52.05	-05 47 56.8			9	675
(4393)	1988 09 11.33697	23 27 10.53	-05 52 42.6		18.5	9	675
(4393)	1988 09 11.37100	23 27 08.92	-05 52 53.1			9	675
(4393)	1988 09 12.33993	23 26 28.09	-05 57 34.7		18.0	9	675
(4393)	1988 09 12.38177	23 26 26.28	-05 57 46.6			9	675
(4393)	1988 09 16.35597	23 23 38.91	-06 16 43.2			9	675
(4393)	1988 09 16.38872	23 23 37.44	-06 16 52.3			9	675
(4393)	1988 10 07.25938	23 10 33.31	-07 41 03.5		18.5	9	675
(4393)	1988 10 09.23435	23 09 34.14	-07 47 01.3			9	675
(4393)	1988 10 09.26317	23 09 33.26	-07 47 07.3			9	675
(4393)	1992 04 05.36823	13 21 12.54	-05 00 07.3			9	675
(4393)	1992 04 05.39948	13 21 10.97	-04 59 58.7			9	675
(4434)	1951 11 08.46806	06 47 11.53	+14 43 15.1			6	675
(4436)	1951 09 08.44722	03 14 41.28	-02 38 42.5			6	675
(4436)	1951 09 08.47292	03 14 41.45	-02 38 48.4			6	675
(4459)	1954 07 03.37847	20 32 00.34	-15 44 43.1			6	675
(4459)	1954 07 03.40278	20 31 59.29	-15 44 48.4			6	675
(4472)	1992 04 05.36823	13 21 00.11	-11 11 09.7			9	675
(4472)	1992 04 05.39948	13 20 58.04	-11 11 03.5			9	675
(4475)	1992 10 01.33785	00 36 44.62	+06 15 12.1			9	675
(4475)	1992 10 04.28767	00 33 47.37	+05 59 21.6			9	675
(4475)	1992 10 04.32205	00 33 45.16	+05 59 11.8			9	675
(4493)	1953 01 09.27222	07 19 09.97	+16 41 19.8			6	675
(4493)	1953 01 09.29167	07 19 08.74	+16 41 17.7			6	675
(4498)	1992 10 04.23247	00 13 38.93	+17 03 40.1			9	675
(4498)	1992 10 04.27257	00 13 36.91	+17 03 25.4			9	675
(4539)	1992 10 02.30781	01 11 41.58	+16 21 53.6			9	675
(4539)	1992 10 02.34184	01 11 39.89	+16 21 42.2			9	675
(4540)	1992 10 02.30781	00 50 51.79	+13 45 53.8			9	675
(4540)	1992 10 02.34184	00 50 50.01	+13 45 41.4			9	675
(4543)	1955 04 20.16111	10 33 03.97	+02 35 33.1			6	675
(4543)	1955 04 20.18611	10 33 03.70	+02 35 33.8			6	675
(4568)	1992 04 05.36823	13 09 28.90	-10 48 46.9			9	675
(4568)	1992 04 05.39948	13 09 27.23	-10 48 43.5			9	675

(4606)	1953	08	16.42812	23	53	51.94	+03 42 58.5	6	675
(4606)	1953	08	16.45139	23	53	51.16	+03 42 56.4	6	675
(4648)	1953	08	16.42812	23	37	58.13	+04 23 06.3	6	675
(4648)	1953	08	16.45139	23	37	57.17	+04 23 10.4	6	675
(4707)	1953	08	16.42812	23	54	16.57	+05 52 15.8	6	675
(4707)	1953	08	16.45139	23	54	16.10	+05 52 15.6	6	675
(4767)	1953	08	16.42813	23	47	36.58	+08 10 51.5	6	675
(4767)	1953	08	16.45139	23	47	35.93	+08 10 44.9	6	675
(4772)	1992	04	05.36823	13	22	54.77	-11 33 37.4	9	675
(4772)	1992	04	05.39948	13	22	53.50	-11 33 25.1	9	675
(4772)	1992	04	27.23750	13	08	21.63	-09 02 30.7	9	675
(4772)	1992	04	27.28056	13	08	20.06	-09 02 14.0	9	675
(4812)	1992	04	27.28056	13	21	11.54	-11 53 44.6	9	675
(4821)	1992	04	27.23750	13	19	14.43	-06 51 42.9	9	675
(4821)	1992	04	27.28056	13	19	12.57	-06 51 32.7	9	675
(4902)	1954	02	26.30556	09	53	53.69	+08 30 43.9	6	675
(4902)	1954	02	26.32778	09	53	53.01	+08 30 49.6	6	675
(5126)	1953	01	09.27222	07	28	11.39	+17 43 50.2	6	675
(5126)	1953	01	09.29862	07	28	10.50	+17 43 56.8	6	675
(5133)	1953	06	14.21528	14	53	35.65	-06 59 33.7	9	675
(5141)	1992	04	05.36823	13	22	26.72	-04 36 53.0	9	675
(5141)	1992	04	05.39948	13	22	25.07	-04 36 40.5	9	675
(5187)	1954	07	03.37847	20	36	35.82	-17 41 32.0	6	675
(5187)	1954	07	03.40278	20	36	34.91	-17 41 36.1	6	675
(5229)	1954	02	26.30556	09	52	41.14	+10 35 59.5	6	675
(5229)	1954	02	26.32778	09	52	39.97	+10 36 04.2	6	675
(5244)	1955	04	20.16111	10	35	31.99	+03 25 06.2	6	675
(5244)	1955	04	20.18611	10	35	31.75	+03 25 08.4	6	675
(5305)	1954	07	03.37847	20	20	12.75	-16 36 05.5	6	675
(5305)	1954	07	03.40278	20	20	11.50	-16 36 08.1	6	675
(5376)	1992	09	29.27795	00	06	25.11	+15 03 03.9	16.8	9 675
(5376)	1992	09	29.31580	00	06	22.43	+15 03 03.9	9	675
(5376)	1992	10	04.23247	00	00	47.10	+15 00 36.3	9	675
(5376)	1992	10	04.27257	00	00	44.32	+15 00 34.0	9	675
(5388)	1992	10	01.33785	00	36	31.05	+08 12 31.4	17.2	9 675
(5388)	1992	10	04.28767	00	33	26.05	+08 12 02.2	9	675
(5388)	1992	10	04.32205	00	33	23.84	+08 12 02.3	17.2	9 675
(5398)	1992	09	29.27795	00	02	38.69	+13 46 54.0	17.0	9 675
(5398)	1992	09	29.31580	00	02	36.80	+13 46 46.6	9	675
(5398)	1992	10	04.23247	23	58	39.02	+13 27 06.0	9	675
(5398)	1992	10	04.27257	23	58	37.06	+13 26 55.6	9	675
(5421)	1992	10	01.33785	00	19	52.30	+09 24 09.1	16.8	9 675
(5421)	1992	10	04.28767	00	17	18.41	+09 05 27.7	9	675
(5421)	1992	10	04.32205	00	17	16.36	+09 05 13.3	9	675
(5426)	1992	11	28.47552	06	35	13.59	+17 56 52.4	17	3 675
(5426)	1992	11	28.51631	06	35	11.65	+17 57 34.8	3	675
(5426)	1992	11	30.44496	06	33	37.13	+18 31 00.4	3	675
(5426)	1992	11	30.47326	06	33	35.57	+18 31 30.6	3	675
(5431)	1993	01	21.18264	04	55	55.40	+30 49 17.8	2	675
(5431)	1993	01	22.26476	04	56	03.10	+30 29 38.2	2	675
(5438)	1979	01	25.22917	06	07	09.74	+34 32 32.9	15.0	2 675
(5438)	1979	01	25.27361	06	07	07.04	+34 31 55.5	2	675

688 Lowell Observatory, Anderson Mesa Station
E. Bowell, Lowell Observatory, 1400 West Mars Hill Road, Flagstaff AZ 86001, U.S.A.
Observer B. A. Skiff
Measurer B. A. Skiff
1.8-m Perkin reflector + CCD, 1.1-m f/8 Hall reflector + CCD

1988 VP4	1991 08 07.38924	23 17 32.87	+10 19 54.2		w	688
1988 VP4	1991 08 07.39618	23 17 32.56	+10 19 54.4		w	688
1990 KL	1992 02 02.17402	05 17 24.11	+10 46 17.3			688
1990 KL	1992 02 02.17812	05 17 24.06	+10 46 18.1			688
1990 KL	1992 02 05.13854	05 16 51.04	+10 55 08.8			688
1990 KL	1992 02 05.14282	05 16 50.98	+10 55 09.8			688
1991 VB	1992 02 02.14549	04 11 14.05	+17 01 32.9			688
1991 VB	1992 02 02.14936	04 11 14.48	+17 01 33.8			688
1991 VB	1992 02 05.11684	04 17 12.93	+17 08 11.8			688
1991 VB	1992 02 05.12257	04 17 13.70	+17 08 12.9			688
1991 XB	1992 02 03.12998	05 38 21.42	-02 47 38.1			688
1991 XB	1992 02 03.13247	05 38 21.69	-02 47 38.2			688
(1134)	1992 02 03.15058	05 59 03.31	+44 06 14.3			688
(1134)	1992 02 03.15243	05 59 03.16	+44 06 12.2			688
(2061)	1992 02 03.28003	09 08 01.12	+10 19 26.6			688
(2061)	1992 02 03.28750	09 08 00.49	+10 19 29.8			688
(4257)	1991 08 07.24631	20 27 33.08	+29 18 41.1	20.0 R		688

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

1978 NY7	1993 01 29.24842	09 29 06.50	+17 21 12.9			691
1978 NY7	1993 01 29.26036	09 29 05.95	+17 21 15.7	18.1 V		691
1978 NY7	1993 01 29.27175	09 29 05.43	+17 21 18.7			691
1978 PE	1993 01 24.10594	00 37 25.77	-01 02 50.0			691
1978 RU	1993 01 22.38797	09 25 45.81	+20 40 24.9	18.1 V		691
1978 RU	1993 01 22.42190	09 25 44.00	+20 40 34.0			691
1978 RU	1993 01 22.45571	09 25 42.12	+20 40 42.2			691
1978 RU	1993 01 26.35454	09 22 08.16	+20 57 08.8	17.6 V		691
1978 RU	1993 01 26.38946	09 22 06.14	+20 57 17.8			691
1978 RU	1993 01 26.42351	09 22 04.17	+20 57 26.3			691
1985 FH	1993 01 22.50411	13 27 46.16	-06 24 37.5			691
1985 FH	1993 01 22.51381	13 27 46.82	-06 24 38.5	17.2 V		691
1985 FH	1993 01 22.52296	13 27 47.43	-06 24 39.1			691
1985 UQ	1993 01 24.09825	00 26 20.24	-00 49 38.0	19.5 V		691
1985 UQ	1993 01 24.11097	00 26 21.78	-00 49 25.6			691
1986 CC2	1993 01 26.25296	08 44 05.63	+21 03 51.7	16.8 V		691
1986 CC2	1993 01 26.28741	08 44 03.00	+21 03 53.6			691
1986 CC2	1993 01 26.32165	08 44 00.39	+21 03 54.9			691
1987 UJ	1993 01 29.31394	09 21 38.82	+17 09 25.7			691
1987 UJ	1993 01 29.32591	09 21 38.08	+17 09 28.3	17.7 V		691
1987 UJ	1993 01 29.33794	09 21 37.39	+17 09 30.9			691
1988 RF7	1993 01 22.36246	08 48 56.63	+20 36 10.9			691
1988 RF7	1993 01 22.39639	08 48 54.27	+20 36 23.3	17.2 V		691
1988 RF7	1993 01 22.43019	08 48 51.91	+20 36 36.7			691
1988 RF7	1993 01 26.25324	08 44 30.53	+21 01 25.4	16.9 V		691
1988 RF7	1993 01 26.28770	08 44 28.09	+21 01 39.2			691
1988 RF7	1993 01 26.32194	08 44 25.66	+21 01 52.1			691
1988 RY10	1993 01 26.16287	08 12 39.26	+20 25 15.4			691
1988 RY10	1993 01 26.18523	08 12 38.53	+20 25 18.5	19.0 V		691
1988 RY10	1993 01 26.20740	08 12 37.79	+20 25 21.2			691
1988 SJ3	1993 01 24.38408	09 05 08.16	+34 00 35.4			691
1988 SJ3	1993 01 24.42252	09 05 06.79	+34 00 45.4	19.8 V		691
1988 SJ3	1993 01 24.46094	09 05 05.44	+34 00 54.8			691
1988 XK1	1993 01 25.21588	08 03 48.63	+23 06 40.1			691
1988 XK1	1993 01 25.25016	08 03 46.32	+23 06 48.2	17.5 V		691

1988	XK1		1993	01	25.28481	08	03	43.89	+23	06	55.6			691
1990	OJ4		1991	09	16.25268	02	01	56.57	+36	00	28.8	16.9	V	691
1990	OJ4		1991	09	16.26977	02	01	56.18	+36	00	31.3			691
1990	OJ4		1991	09	16.28722	02	01	55.78	+36	00	34.1			691
1991	AM		1993	01	23.42104	09	51	10.87	+21	55	57.0	18.3	V	691
1991	AM		1993	01	23.43875	09	51	09.29	+21	56	24.0	18.4	V	691
1991	AM		1993	01	23.45649	09	51	07.71	+21	56	50.8	18.4	V	691
1991	AM		1993	01	25.39042	09	48	14.20	+22	46	52.8	18.2	V	691
1991	AM		1993	01	25.40790	09	48	12.53	+22	47	20.4	18.2	V	691
1991	AM		1993	01	25.43582	09	48	09.79	+22	48	04.2	18.5	V	691
1991	PM11		1993	01	24.49923	10	03	04.90	+12	56	49.9	17.8	V	691
1991	PM11		1993	01	24.50875	10	03	04.41	+12	56	51.4			691
1991	PM11		1993	01	24.51675	10	03	03.88	+12	56	55.1			691
1991	PM11		1993	01	31.46332	09	56	59.11	+13	20	45.7			691
1991	PM11		1993	01	31.47161	09	56	58.62	+13	20	47.3	17.4	V	691
1991	PM11		1993	01	31.47923	09	56	58.19	+13	20	49.0			691
1991	UA2		1991	11	06.18298	02	19	52.50	+15	42	16.1			691
1991	UA2		1991	11	06.22538	02	19	50.25	+15	42	05.3	18.2	V	691
1992	GF5		1992	04	07.33110	13	16	04.74	-06	22	38.1			691
1992	GF5		1992	04	07.35533	13	16	03.57	-06	22	30.6	18.6	V	691
1992	GF5		1992	04	07.37975	13	16	02.35	-06	22	22.1			691
1992	WX2		1991	09	08.12083	20	57	51.45	-12	51	19.8	19.0	V	691
1992	WX2		1991	09	08.14236	20	57	50.76	-12	51	25.2			691
1992	WX2		1991	09	08.16373	20	57	49.82	-12	51	26.9			691
1992	WG3		1992	11	27.17730	03	57	30.17	+18	42	12.1			691
1992	WG3		1992	11	27.19878	03	57	28.84	+18	42	07.5	16.8	V	691
1992	WG3		1992	11	27.21814	03	57	27.61	+18	42	02.7			691
1992	WO4		1992	11	24.43252	04	57	01.71	+21	10	43.8			691
1992	WO4		1992	11	24.45581	04	57	00.27	+21	10	45.4			691
1992	WO4		1992	11	24.48168	04	56	58.67	+21	10	46.9	18.2	V	691
1992	YB3		1993	01	22.10474	04	01	52.95	+19	08	16.3	22.1	V	691
1992	YB3		1993	01	22.11646	04	01	53.70	+19	08	24.3	20.9	V	691
1992	YB3		1993	01	22.12488	04	01	54.27	+19	08	29.2	21.0	V	691
1992	YC3		1993	01	24.21538	08	09	33.11	+06	15	44.7	15.0	V	691
1992	YC3		1993	01	24.24729	08	09	29.89	+06	15	20.5	14.9	V	691
1992	YC3		1993	01	24.27911	08	09	26.67	+06	14	56.3	14.9	V	691
1992	YT3		1993	01	26.16893	08	21	24.59	+20	24	18.2			691
1992	YT3		1993	01	26.19129	08	21	23.17	+20	24	27.4			691
1992	YT3		1993	01	26.21345	08	21	21.77	+20	24	36.5	17.7	V	691
1993	AE		1993	01	23.34050	08	10	25.84	+18	54	37.6			691
1993	AE		1993	01	23.36880	08	10	23.92	+18	54	33.1	15.7	V	691
1993	AE		1993	01	23.39688	08	10	21.97	+18	54	28.3			691
1993	BC2		1993	01	22.22061	06	24	16.25	+22	22	30.5	14.5	V	691
1993	BC2		1993	01	22.22963	06	24	20.65	+22	21	55.8	14.6	V	691
1993	BC2		1993	01	22.24137	06	24	26.38	+22	21	10.6	14.7	V	691
1993	BC2		1993	01	22.24763	06	24	29.36	+22	20	46.6	14.7	V	691
1993	BC2		1993	01	22.25417	06	24	32.47	+22	20	21.4	14.8	V	691
1993	BD2	*	1993	01	22.10551	04	02	59.82	+19	17	22.1	20.3	V	691
1993	BD2		1993	01	22.11722	04	02	59.53	+19	17	42.0	20.4	V	691
1993	BD2		1993	01	22.12563	04	02	59.28	+19	17	56.3	20.1	V	691
1993	BD2		1993	01	23.20429	04	02	32.12	+19	47	24.7	20.9	V	691
1993	BD2		1993	01	23.21255	04	02	31.91	+19	47	38.4	20.8	V	691
1993	BD2		1993	01	23.22055	04	02	31.68	+19	47	51.0	20.9	V	691
1993	BD2		1993	01	24.16234	04	02	12.00	+20	13	31.0	20.3	V	691
1993	BD2		1993	01	24.17025	04	02	11.88	+20	13	43.6	20.1	V	691
1993	BD2		1993	01	24.17813	04	02	11.64	+20	13	56.4	20.5	V	691
1993	BD2		1993	01	30.12036	04	01	20.73	+22	53	37.6			691
1993	BE2		1993	01	23.25291	08	23	19.74	+26	52	41.2	16.5	V	691
1993	BE2		1993	01	23.28260	08	23	18.10	+26	52	50.7			691

1993	BE2		1993	01	23.31236	08	23	16.44	+26	53	01.0			691
1993	BF2		1993	01	23.25396	08	24	51.11	+27	04	18.0			691
1993	BF2		1993	01	23.28365	08	24	49.24	+27	04	30.6	14.9	V	691
1993	BF2		1993	01	23.31341	08	24	47.37	+27	04	44.1			691
1993	BT2		1993	01	29.37817	08	49	32.18	+21	18	13.9	15.3	V	691
1993	BT2		1993	01	29.38755	08	49	31.57	+21	18	14.2			691
1993	BT2		1993	01	29.39709	08	49	30.95	+21	18	14.6			691
1993	BC3	*	1993	01	26.25144	08	41	54.34	+21	13	17.9	18.6	V	691
1993	BC3		1993	01	26.28587	08	41	49.68	+21	12	24.9	18.5	V	691
1993	BC3		1993	01	26.32008	08	41	45.04	+21	11	31.1	18.5	V	691
1993	BC3		1993	01	26.49091	08	41	22.00	+21	06	59.5	18.6	V	691
1993	BC3		1993	01	26.49606	08	41	21.38	+21	06	52.0	18.5	V	691
1993	BC3		1993	01	29.15967	08	35	40.71	+19	56	33.8	18.3	V	691
1993	BC3		1993	01	29.17168	08	35	39.15	+19	56	15.1	18.3	V	691
1993	BC3		1993	01	29.18370	08	35	37.58	+19	55	55.8	18.2	V	691
1993	BD3	*	1993	01	26.33290	08	50	53.53	+20	52	03.3	19.5	V	691
1993	BD3		1993	01	26.36817	08	51	21.56	+20	48	52.1	19.5	V	691
1993	BD3		1993	01	26.40255	08	51	49.08	+20	45	43.8	19.5	V	691
1993	BD3		1993	01	26.43783	08	52	17.62	+20	42	25.4	19.5	V	691
1993	BD3		1993	01	26.50395	08	53	12.12	+20	36	10.0	19.5	V	691
1993	BD3		1993	01	26.51108	08	53	17.95	+20	35	29.3	19.5	V	691
1993	BD3		1993	01	29.44821	09	33	23.41	+16	07	55.4			691
1993	BD3		1993	01	29.46042	09	33	31.85	+16	06	44.6	19.9	V	691
1993	BD3		1993	01	29.47222	09	33	40.11	+16	05	38.4	20.5	V	691
1993	BD3		1993	01	29.48977	09	33	52.02	+16	03	59.2	19.9	V	691
1993	BD3		1993	01	29.49593	09	33	56.34	+16	03	24.2			691
1993	BD3		1993	01	29.50200	09	34	00.55	+16	02	49.4			691
1993	BD3		1993	01	31.45547	09	56	56.31	+13	09	21.5	20.1	V	691
1993	BD3		1993	01	31.46334	09	57	01.04	+13	08	38.8			691
1993	BD3		1993	01	31.47170	09	57	06.00	+13	07	54.6			691
1993	BU3	*	1993	01	29.38050	08	52	53.86	+20	53	29.5	18.7	V	691
1993	BU3		1993	01	29.38989	08	52	54.11	+20	53	12.3	18.7	V	691
1993	BU3		1993	01	29.39944	08	52	54.34	+20	52	54.6	18.7	V	691
1993	BU3		1993	01	31.34861	08	54	06.86	+19	55	20.6	19.0	V	691
1993	BU3		1993	01	31.35712	08	54	07.05	+19	55	05.9	19.0	V	691
1993	BU3		1993	01	31.36551	08	54	07.24	+19	54	51.1	18.9	V	691
1993	BU3		1993	01	31.37952	08	54	07.58	+19	54	26.2			691
1993	BU3		1993	02	01.44361	08	54	44.39	+19	24	02.1	18.9	V	691
1993	BU3		1993	02	01.45204	08	54	44.60	+19	23	47.5	19.2	V	691
1993	BU3		1993	02	01.46031	08	54	44.81	+19	23	33.0	18.9	V	691
1993	BV3	*	1993	01	26.33678	08	56	29.85	+20	53	46.6	20.5	V	691
1993	BV3		1993	01	26.37169	08	56	26.43	+20	53	53.4	21.2	V	691
1993	BV3		1993	01	26.40571	08	56	23.28	+20	54	02.8	20.1	V	691
1993	BV3		1993	01	29.37963	08	51	38.93	+21	02	44.5	22.2	V	691
1993	BV3		1993	01	29.39855	08	51	37.09	+21	02	47.1	21.7	V	691
1993	BN4		1993	01	29.31556	09	23	59.32	+16	49	43.1			691
1993	BN4		1993	01	29.32754	09	23	58.56	+16	49	47.7	18.0	V	691
1993	BN4		1993	01	29.33956	09	23	57.78	+16	49	52.3			691
1993	BL5		1993	01	29.44588	09	30	01.30	+15	58	09.4	18.1	V	691
1993	BL5		1993	01	29.45798	09	30	00.57	+15	58	14.1			691
1993	BM5		1993	01	29.41023	09	30	05.83	+16	37	51.8			691
1993	BM5		1993	01	29.42205	09	30	05.22	+16	37	55.2	17.6	V	691
1993	BM5		1993	01	29.43402	09	30	04.55	+16	37	58.6			691
1993	BN5		1993	01	29.41051	09	30	30.26	+16	32	24.3	17.1	V	691
1993	BN5		1993	01	29.42233	09	30	29.65	+16	32	31.7			691
1993	BN5		1993	01	29.43430	09	30	28.96	+16	32	38.9			691
1993	BQ5		1993	01	29.41113	09	31	23.43	+16	30	36.2			691
1993	BQ5		1993	01	29.42295	09	31	22.76	+16	30	40.6	17.8	V	691
1993	BQ5		1993	01	29.43491	09	31	22.03	+16	30	44.7			691

1993	BW5		1993	01	29.41309	09	34	13.30	+16	36	48.9	18.2 V	691
1993	BW5		1993	01	29.42491	09	34	12.67	+16	36	54.0		691
1993	BW5		1993	01	29.43687	09	34	12.09	+16	36	59.1		691
1993	BB6		1993	01	29.44919	09	34	48.79	+16	05	40.3	17.4 V	691
1993	BB6		1993	01	29.46130	09	34	48.18	+16	05	42.4		691
1993	BB6		1993	01	29.47300	09	34	47.58	+16	05	46.0		691
1993	BB6		1993	01	29.49040	09	34	46.71	+16	05	49.3	17.6 V	691
1993	BB6		1993	01	29.49651	09	34	46.41	+16	05	50.6		691
1993	BB6		1993	01	29.50253	09	34	46.09	+16	05	51.8		691
1993	BF8	*	1993	01	21.24938	08	10	29.03	+20	08	34.6		691
1993	BF8		1993	01	21.28326	08	10	26.73	+20	08	45.2	18.5 V	691
1993	BF8		1993	01	21.31725	08	10	24.47	+20	08	56.0		691
1993	BF8		1993	01	26.15765	08	05	07.34	+20	33	55.0		691
1993	BF8		1993	01	26.18000	08	05	05.88	+20	34	05.1	18.9 V	691
1993	BF8		1993	01	26.20217	08	05	04.41	+20	34	12.2		691
1993	BG8	*	1993	01	21.25037	08	11	55.33	+19	50	31.5	20.1 V	691
1993	BG8		1993	01	21.28427	08	11	53.58	+19	50	45.5		691
1993	BG8		1993	01	21.31826	08	11	51.88	+19	50	58.4		691
1993	BG8		1993	01	26.15956	08	07	53.17	+20	22	44.6		691
1993	BG8		1993	01	26.18192	08	07	52.14	+20	22	54.7	20.0 V	691
1993	BG8		1993	01	26.20409	08	07	51.01	+20	23	03.8		691
1993	BH8	*	1993	01	21.25132	08	13	17.16	+20	01	55.6		691
1993	BH8		1993	01	21.28521	08	13	14.99	+20	02	09.3	16.9 V	691
1993	BH8		1993	01	21.31919	08	13	12.82	+20	02	23.3		691
1993	BH8		1993	01	26.15977	08	08	11.23	+20	35	09.5		691
1993	BH8		1993	01	26.18213	08	08	09.82	+20	35	19.3	17.1 V	691
1993	BH8		1993	01	26.20429	08	08	08.40	+20	35	28.4		691
1993	BJ8	*	1993	01	21.25255	08	15	03.93	+20	13	45.8		691
1993	BJ8		1993	01	21.28644	08	15	02.26	+20	13	56.1		691
1993	BJ8		1993	01	21.32044	08	15	00.54	+20	14	02.0	19.2 V	691
1993	BJ8		1993	01	26.16175	08	11	02.86	+20	32	35.3		691
1993	BJ8		1993	01	26.18411	08	11	01.73	+20	32	41.0	19.8 V	691
1993	BJ8		1993	01	26.20628	08	11	00.63	+20	32	46.4		691
1993	BK8	*	1993	01	21.25343	08	16	20.36	+20	04	34.2	19.6 V	691
1993	BK8		1993	01	21.28732	08	16	18.05	+20	04	41.5		691
1993	BK8		1993	01	21.32130	08	16	15.74	+20	04	48.5		691
1993	BK8		1993	01	26.16171	08	10	59.06	+20	21	16.8		691
1993	BK8		1993	01	26.18406	08	10	57.59	+20	21	22.1	20.0 V	691
1993	BK8		1993	01	26.20623	08	10	56.13	+20	21	26.6		691
1993	BL8	*	1993	01	21.25441	08	17	45.06	+20	03	24.4		691
1993	BL8		1993	01	21.28830	08	17	42.75	+20	03	39.2	18.6 V	691
1993	BL8		1993	01	21.32228	08	17	40.46	+20	03	53.9		691
1993	BL8		1993	01	26.16274	08	12	27.88	+20	38	05.1		691
1993	BL8		1993	01	26.18509	08	12	26.40	+20	38	14.9	19.1 V	691
1993	BL8		1993	01	26.20726	08	12	24.94	+20	38	24.5		691
1993	BM8	*	1993	01	21.25466	08	18	06.46	+20	06	44.0		691
1993	BM8		1993	01	21.28855	08	18	04.54	+20	06	51.0		691
1993	BM8		1993	01	21.32254	08	18	02.74	+20	07	00.3	17.8 V	691
1993	BM8		1993	01	26.16359	08	13	41.62	+20	25	45.1		691
1993	BM8		1993	01	26.18594	08	13	40.41	+20	25	50.6		691
1993	BM8		1993	01	26.20811	08	13	39.19	+20	25	55.8	18.6 V	691
1993	BN8	*	1993	01	21.25587	08	19	51.84	+20	14	41.3		691
1993	BN8		1993	01	21.28976	08	19	49.52	+20	14	47.4	20.8 V	691
1993	BN8		1993	01	21.32375	08	19	47.16	+20	14	53.9		691
1993	BN8		1993	01	26.16411	08	14	27.12	+20	29	31.3		691
1993	BN8		1993	01	26.18647	08	14	25.58	+20	29	36.0		691
1993	BN8		1993	01	26.20863	08	14	24.07	+20	29	40.0	20.9 V	691
1993	BO8	*	1993	01	21.25629	08	20	27.62	+19	53	57.3		691
1993	BO8		1993	01	21.29018	08	20	25.70	+19	54	06.4	19.6 V	691

1993	BO8		1993	01	21.32417	08	20	23.76	+19	54	15.8		691
1993	BO8		1993	01	26.16509	08	15	51.56	+20	15	45.8		691
1993	BO8		1993	01	26.18744	08	15	50.27	+20	15	52.1	20.0 V	691
1993	BO8		1993	01	26.20961	08	15	48.99	+20	15	54.1		691
1993	BP8	*	1993	01	21.25898	08	24	20.78	+20	05	32.1		691
1993	BP8		1993	01	21.29287	08	24	18.90	+20	05	42.1	20.0 V	691
1993	BP8		1993	01	21.32686	08	24	16.95	+20	05	52.4		691
1993	BP8		1993	01	26.16786	08	19	51.54	+20	29	18.8	20.6 V	691
1993	BP8		1993	01	26.19021	08	19	50.26	+20	29	25.5		691
1993	BP8		1993	01	26.21238	08	19	49.02	+20	29	31.8		691
1993	BQ8	*	1993	01	21.26423	08	31	55.64	+20	03	54.9		691
1993	BQ8		1993	01	21.29812	08	31	53.46	+20	04	06.0	20.0 V	691
1993	BQ8		1993	01	21.33211	08	31	51.27	+20	04	18.4		691
1993	BQ8		1993	01	26.17269	08	26	49.79	+20	30	52.5		691
1993	BQ8		1993	01	26.19504	08	26	48.37	+20	30	59.6		691
1993	BQ8		1993	01	26.21721	08	26	46.93	+20	31	06.4	19.8 V	691
1993	BR8	*	1993	01	21.26579	08	34	10.36	+20	02	08.4		691
1993	BR8		1993	01	21.29968	08	34	08.34	+20	02	17.1		691
1993	BR8		1993	01	21.33366	08	34	06.32	+20	02	25.8	19.1 V	691
1993	BR8		1993	01	26.17449	08	29	26.05	+20	22	31.9		691
1993	BR8		1993	01	26.19685	08	29	24.75	+20	22	36.7		691
1993	BR8		1993	01	26.21901	08	29	23.41	+20	22	42.2	19.6 V	691
1993	BS8	*	1993	01	21.26597	08	34	26.20	+19	54	57.9		691
1993	BS8		1993	01	21.29986	08	34	23.88	+19	55	07.1		691
1993	BS8		1993	01	21.33384	08	34	21.48	+19	55	18.1	19.5 V	691
1993	BS8		1993	01	26.17431	08	29	10.24	+20	18	57.5	20.4 V	691
1993	BS8		1993	01	26.19666	08	29	08.82	+20	19	03.9		691
1993	BS8		1993	01	26.21883	08	29	07.42	+20	19	10.2		691
1993	BT8	*	1993	01	21.26640	08	35	04.04	+20	10	24.1	19.9 V	691
1993	BT8		1993	01	21.30029	08	35	01.84	+20	10	29.4		691
1993	BT8		1993	01	26.17485	08	29	56.92	+20	22	42.5	19.9 V	691
1993	BT8		1993	01	26.19720	08	29	55.49	+20	22	45.0		691
1993	BT8		1993	01	26.21937	08	29	54.07	+20	22	47.8		691
1993	BU8	*	1993	01	21.33840	08	35	39.98	+20	02	58.1		691
1993	BU8		1993	01	21.37214	08	35	37.73	+20	03	13.4		691
1993	BU8		1993	01	21.40595	08	35	35.51	+20	03	27.7	19.6 V	691
1993	BU8		1993	01	26.17524	08	30	31.13	+20	38	13.0	19.1 V	691
1993	BU8		1993	01	26.19760	08	30	29.68	+20	38	21.7		691
1993	BU8		1993	01	26.21976	08	30	28.20	+20	38	31.2		691
1993	BV8	*	1993	01	21.34814	08	50	14.69	+20	13	45.5	20.1 V	691
1993	BV8		1993	01	21.38186	08	50	12.70	+20	14	00.6		691
1993	BV8		1993	01	21.41567	08	50	10.69	+20	14	15.2		691
1993	BV8		1993	01	22.36268	08	49	15.70	+20	21	23.8	20.6 V	691
1993	BV8		1993	01	22.39662	08	49	13.66	+20	21	37.8		691
1993	BV8		1993	01	22.43042	08	49	11.59	+20	21	53.2		691
1993	BV8		1993	01	26.25387	08	45	25.08	+20	50	25.3		691
1993	BV8		1993	01	26.28833	08	45	22.94	+20	50	41.1	20.3 V	691
1993	BV8		1993	01	26.32258	08	45	20.79	+20	50	56.2		691
1993	BW8	*	1993	01	21.34891	08	51	21.97	+20	13	36.8	19.2 V	691
1993	BW8		1993	01	21.38264	08	51	20.07	+20	13	46.9		691
1993	BW8		1993	01	21.41645	08	51	18.11	+20	13	57.2		691
1993	BW8		1993	01	22.36349	08	50	25.17	+20	18	46.5	19.8 V	691
1993	BW8		1993	01	22.39742	08	50	23.19	+20	18	56.1		691
1993	BW8		1993	01	22.43122	08	50	21.20	+20	19	06.1		691
1993	BX8	*	1993	01	21.34921	08	51	47.50	+20	15	10.9		691
1993	BX8		1993	01	21.38293	08	51	45.39	+20	15	23.3	19.9 V	691
1993	BX8		1993	01	21.41674	08	51	43.33	+20	15	33.8		691
1993	BX8		1993	01	22.36373	08	50	45.93	+20	20	59.1	20.5 V	691
1993	BX8		1993	01	22.39766	08	50	43.82	+20	21	09.6		691

1993	BX8		1993	01	22.43146	08	50	41.65	+20	21	21.3		691
1993	BY8	*	1993	01	21.34969	08	52	29.42	+20	08	02.5	18.5 V	691
1993	BY8		1993	01	21.41722	08	52	25.32	+20	08	26.9		691
1993	BY8		1993	01	22.36423	08	51	29.60	+20	14	10.1	18.9 V	691
1993	BY8		1993	01	22.39816	08	51	27.49	+20	14	21.5		691
1993	BY8		1993	01	22.43196	08	51	25.27	+20	14	34.1		691
1993	BZ8	*	1993	01	21.35031	08	53	22.66	+20	14	35.1	20.1 V	691
1993	BZ8		1993	01	21.38403	08	53	20.72	+20	14	42.3		691
1993	BZ8		1993	01	21.41784	08	53	18.72	+20	14	49.4		691
1993	BZ8		1993	01	22.36487	08	52	24.73	+20	18	02.3	20.4 V	691
1993	BZ8		1993	01	22.39880	08	52	22.77	+20	18	08.4		691
1993	BZ8		1993	01	22.43261	08	52	20.75	+20	18	15.9		691
1993	BA9	*	1993	01	21.35059	08	53	47.12	+20	11	23.3		691
1993	BA9		1993	01	21.38431	08	53	44.88	+20	11	28.7	19.8 V	691
1993	BA9		1993	01	21.41811	08	53	42.60	+20	11	34.0		691
1993	BA9		1993	01	22.36505	08	52	40.69	+20	14	00.3		691
1993	BA9		1993	01	22.39898	08	52	38.40	+20	14	04.2		691
1993	BA9		1993	01	22.43278	08	52	36.08	+20	14	10.1	20.5 V	691
1993	BB9	*	1993	01	21.35150	08	55	05.61	+20	04	03.1	19.7 V	691
1993	BB9		1993	01	21.38522	08	55	03.80	+20	04	20.1		691
1993	BB9		1993	01	21.41903	08	55	01.96	+20	04	37.1		691
1993	BB9		1993	01	26.33270	08	50	36.18	+20	45	54.9		691
1993	BB9		1993	01	26.36762	08	50	34.19	+20	46	12.1	20.1 V	691
1993	BB9		1993	01	26.40166	08	50	32.24	+20	46	28.8		691
1993	BB9		1993	01	29.37712	08	47	48.11	+21	11	04.9		691
1993	BB9		1993	01	29.38650	08	47	47.56	+21	11	07.9	19.9 V	691
1993	BB9		1993	01	29.39604	08	47	47.03	+21	11	12.5		691
1993	BC9	*	1993	01	21.35291	08	57	08.35	+20	12	22.3		691
1993	BC9		1993	01	21.38664	08	57	06.33	+20	12	29.9	18.5 V	691
1993	BC9		1993	01	21.42044	08	57	04.27	+20	12	37.6		691
1993	BC9		1993	01	22.36744	08	56	07.74	+20	16	15.7		691
1993	BC9		1993	01	22.40137	08	56	05.63	+20	16	23.2		691
1993	BC9		1993	01	22.43518	08	56	03.56	+20	16	30.5	19.0 V	691
1993	BD9	*	1993	01	21.35346	08	57	55.51	+20	10	19.7		691
1993	BD9		1993	01	21.38718	08	57	53.78	+20	10	26.7	19.0 V	691
1993	BD9		1993	01	21.42099	08	57	52.01	+20	10	33.7		691
1993	BD9		1993	01	22.36809	08	57	03.75	+20	13	58.4	19.2 V	691
1993	BD9		1993	01	22.40202	08	57	01.94	+20	14	05.2		691
1993	BD9		1993	01	22.43583	08	57	00.17	+20	14	12.3		691
1993	BE9	*	1993	01	21.35408	08	58	48.99	+19	56	52.3		691
1993	BE9		1993	01	21.38780	08	58	47.26	+19	57	14.5	20.2 V	691
1993	BE9		1993	01	21.42161	08	58	45.44	+19	57	36.8		691
1993	BE9		1993	01	26.33538	08	54	28.49	+20	51	38.3	20.3 V	691
1993	BE9		1993	01	26.37030	08	54	26.55	+20	52	00.9		691
1993	BE9		1993	01	26.40434	08	54	24.63	+20	52	23.2		691
1993	BF9	*	1993	01	21.35439	08	59	16.15	+20	12	55.5	17.9 V	691
1993	BF9		1993	01	21.38811	08	59	14.07	+20	13	02.7		691
1993	BF9		1993	01	21.42192	08	59	12.03	+20	13	09.7		691
1993	BF9		1993	01	22.36891	08	58	15.15	+20	16	41.7		691
1993	BF9		1993	01	22.40284	08	58	13.00	+20	16	49.1	18.6 V	691
1993	BF9		1993	01	22.43665	08	58	10.86	+20	16	56.2		691
1993	BG9	*	1993	01	21.35465	08	59	38.48	+20	06	49.7	18.8 V	691
1993	BG9		1993	01	21.38837	08	59	36.41	+20	07	05.7		691
1993	BG9		1993	01	21.42218	08	59	34.32	+20	07	21.3		691
1993	BG9		1993	01	22.36918	08	58	37.88	+20	14	56.6	19.3 V	691
1993	BG9		1993	01	22.40311	08	58	35.77	+20	15	12.5		691
1993	BG9		1993	01	22.43691	08	58	33.68	+20	15	28.8		691
1993	BG9		1993	01	26.33543	08	54	33.25	+20	46	37.7	18.9 V	691
1993	BG9		1993	01	26.37035	08	54	30.94	+20	46	53.9		691

1993	BG9		1993	01	26.40439	08	54	28.70	+20 47 10.1	691
1993	BG9		1993	01	29.37941	08	51	19.36	+21 10 37.6	691
1993	BG9		1993	01	29.38879	08	51	18.74	+21 10 41.9 19.0 V	691
1993	BG9		1993	01	29.39833	08	51	18.12	+21 10 46.3	691
1993	BH9	*	1993	01	21.35467	08	59	40.14	+19 48 03.1 18.9 V	691
1993	BH9		1993	01	21.38839	08	59	38.54	+19 48 07.4	691
1993	BH9		1993	01	21.42221	08	59	36.89	+19 48 12.1	691
1993	BH9		1993	01	31.34689	08	51	37.59	+20 09 45.7	691
1993	BH9		1993	01	31.35539	08	51	37.15	+20 09 45.9 19.3 V	691
1993	BH9		1993	01	31.36377	08	51	36.76	+20 09 46.4	691
1993	BJ9	*	1993	01	21.35519	09	00	25.70	+20 04 30.0	691
1993	BJ9		1993	01	21.38892	09	00	23.83	+20 04 43.8	691
1993	BJ9		1993	01	21.42273	09	00	21.95	+20 04 57.5 20.7 V	691
1993	BJ9		1993	01	29.38048	08	52	52.00	+20 58 58.2	691
1993	BJ9		1993	01	29.38986	08	52	51.46	+20 59 02.4 20.7 V	691
1993	BJ9		1993	01	29.39940	08	52	50.93	+20 59 05.8	691
1993	BK9	*	1993	01	21.35621	09	01	54.17	+20 13 03.8	691
1993	BK9		1993	01	21.38994	09	01	52.16	+20 13 20.6 20.2 V	691
1993	BK9		1993	01	29.38103	08	53	39.63	+21 19 32.5	691
1993	BK9		1993	01	29.39041	08	53	39.03	+21 19 37.8 20.0 V	691
1993	BK9		1993	01	29.39995	08	53	38.40	+21 19 41.5	691
1993	BL9	*	1993	01	21.35631	09	02	02.16	+19 50 02.8 19.4 V	691
1993	BL9		1993	01	21.39002	09	01	59.73	+19 50 02.3	691
1993	BL9		1993	01	21.42383	09	01	57.25	+19 50 01.5	691
1993	BL9		1993	01	31.34594	08	50	08.98	+19 43 55.0	691
1993	BL9		1993	01	31.35445	08	50	08.37	+19 43 54.8 20.1 V	691
1993	BL9		1993	01	31.36283	08	50	07.74	+19 43 54.1	691
1993	BL9		1993	01	31.38872	08	50	05.89	+19 43 51.9 20.0 V	691
1993	BL9		1993	01	31.39727	08	50	05.26	+19 43 51.7	691
1993	BL9		1993	01	31.40555	08	50	04.72	+19 43 50.8	691
1993	BM9	*	1993	01	21.35714	09	03	14.34	+19 58 16.0	691
1993	BM9		1993	01	21.39086	09	03	12.36	+19 58 32.2 20.7 V	691
1993	BM9		1993	01	21.42467	09	03	10.39	+19 58 48.2	691
1993	BM9		1993	01	29.38214	08	55	16.43	+21 02 27.6	691
1993	BM9		1993	01	29.39153	08	55	15.84	+21 02 31.9 20.6 V	691
1993	BM9		1993	01	29.40106	08	55	15.25	+21 02 36.9	691
1993	BN9	*	1993	01	21.35887	09	05	44.48	+20 12 43.3 20.0 V	691
1993	BN9		1993	01	21.39260	09	05	42.56	+20 12 51.8	691
1993	BN9		1993	01	21.42640	09	05	40.57	+20 13 00.6	691
1993	BN9		1993	01	22.37343	09	04	46.57	+20 17 11.7	691
1993	BN9		1993	01	22.40736	09	04	44.49	+20 17 20.2	691
1993	BN9		1993	01	22.44117	09	04	42.51	+20 17 29.2 20.5 V	691
1993	BO9	*	1993	01	21.35911	09	06	04.76	+20 10 14.3 19.5 V	691
1993	BO9		1993	01	21.39283	09	06	03.16	+20 10 22.9	691
1993	BO9		1993	01	21.42665	09	06	01.49	+20 10 31.5	691
1993	BO9		1993	01	22.37377	09	05	15.86	+20 14 30.1	691
1993	BO9		1993	01	22.40771	09	05	14.19	+20 14 38.3 20.1 V	691
1993	BO9		1993	01	22.44152	09	05	12.47	+20 14 46.8	691
1993	BP9	*	1993	01	21.36357	09	12	31.08	+20 13 47.8	691
1993	BP9		1993	01	21.39729	09	12	29.06	+20 13 56.7 18.3 V	691
1993	BP9		1993	01	21.43110	09	12	27.21	+20 14 05.4	691
1993	BP9		1993	01	22.37812	09	11	32.89	+20 18 21.1 18.9 V	691
1993	BP9		1993	01	22.41205	09	11	30.81	+20 18 30.2	691
1993	BP9		1993	01	22.44586	09	11	28.78	+20 18 39.0	691
1993	BQ9	*	1993	01	22.36228	08	48	40.41	+20 32 08.7 21.3 V	691
1993	BQ9		1993	01	22.39621	08	48	38.24	+20 32 17.0	691
1993	BQ9		1993	01	22.43001	08	48	36.08	+20 32 27.4	691
1993	BQ9		1993	01	26.25332	08	44	36.75	+20 50 23.0 21.0 V	691
1993	BQ9		1993	01	26.28777	08	44	34.53	+20 50 33.2	691

1993	BQ9		1993	01	26.32202	08	44	32.27	+20 50 43.0	691
1993	BR9	*	1993	01	22.36242	08	48	53.22	+20 33 34.4	691
1993	BR9		1993	01	22.39635	08	48	51.10	+20 33 42.0	691
1993	BR9		1993	01	22.43016	08	48	48.91	+20 33 50.0 20.3 V	691
1993	BR9		1993	01	26.25347	08	44	50.34	+20 49 36.7	691
1993	BR9		1993	01	26.28793	08	44	48.08	+20 49 44.6 20.1 V	691
1993	BR9		1993	01	26.32217	08	44	45.88	+20 49 53.4	691
1993	BS9	*	1993	01	22.36247	08	48	56.75	+20 31 22.3	691
1993	BS9		1993	01	22.39640	08	48	54.76	+20 31 30.4	691
1993	BS9		1993	01	22.43020	08	48	52.75	+20 31 39.3 19.6 V	691
1993	BS9		1993	01	26.25373	08	45	12.86	+20 48 46.4 19.5 V	691
1993	BS9		1993	01	26.28819	08	45	10.77	+20 48 56.0	691
1993	BS9		1993	01	26.32244	08	45	08.70	+20 49 04.7	691
1993	BT9	*	1993	01	22.36428	08	51	33.82	+20 39 13.6 20.6 V	691
1993	BT9		1993	01	22.39821	08	51	31.64	+20 39 19.8	691
1993	BT9		1993	01	22.43201	08	51	29.50	+20 39 26.6	691
1993	BT9		1993	01	26.25534	08	47	31.82	+20 52 39.8	691
1993	BT9		1993	01	26.28979	08	47	29.56	+20 52 47.3 20.5 V	691
1993	BT9		1993	01	26.32404	08	47	27.31	+20 52 53.7	691
1993	BU9	*	1993	01	22.36455	08	51	57.38	+20 36 14.9 20.7 V	691
1993	BU9		1993	01	22.39848	08	51	54.98	+20 36 21.7	691
1993	BU9		1993	01	22.43228	08	51	52.63	+20 36 29.1	691
1993	BU9		1993	01	26.25531	08	47	29.37	+20 49 58.7	691
1993	BU9		1993	01	26.28976	08	47	26.83	+20 50 05.8	691
1993	BU9		1993	01	26.32400	08	47	24.39	+20 50 12.8 20.5 V	691
1993	BV9	*	1993	01	22.36470	08	52	10.08	+20 41 29.4 19.3 V	691
1993	BV9		1993	01	22.39862	08	52	07.67	+20 41 31.4	691
1993	BV9		1993	01	22.43243	08	52	05.26	+20 41 33.9	691
1993	BV9		1993	01	26.25548	08	47	44.45	+20 46 04.4	691
1993	BV9		1993	01	26.28994	08	47	41.98	+20 46 07.4	691
1993	BV9		1993	01	26.32418	08	47	39.53	+20 46 09.2 19.9 V	691
1993	BW9	*	1993	01	22.36604	08	54	05.98	+20 38 11.5 20.0 V	691
1993	BW9		1993	01	22.39997	08	54	04.32	+20 38 20.0	691
1993	BW9		1993	01	22.43378	08	54	02.65	+20 38 29.0	691
1993	BW9		1993	01	26.33289	08	50	52.89	+20 55 28.2 19.5 V	691
1993	BW9		1993	01	26.36781	08	50	51.10	+20 55 37.1	691
1993	BW9		1993	01	26.40186	08	50	49.37	+20 55 45.7	691
1993	BW9		1993	01	29.37736	08	48	22.22	+21 08 26.0 19.5 V	691
1993	BW9		1993	01	29.38675	08	48	21.76	+21 08 28.2	691
1993	BW9		1993	01	29.39628	08	48	21.25	+21 08 30.8	691
1993	BX9	*	1993	01	22.36742	08	56	06.06	+20 33 54.6 18.7 V	691
1993	BX9		1993	01	22.40135	08	56	04.16	+20 34 05.8	691
1993	BX9		1993	01	22.43516	08	56	02.28	+20 34 16.8	691
1993	BX9		1993	01	26.33398	08	52	27.46	+20 55 54.2	691
1993	BX9		1993	01	26.36890	08	52	25.40	+20 56 05.7 18.4 V	691
1993	BX9		1993	01	26.40294	08	52	23.42	+20 56 16.4	691
1993	BY9	*	1993	01	22.36813	08	57	07.31	+20 19 31.2	691
1993	BY9		1993	01	22.40206	08	57	05.08	+20 19 42.8	691
1993	BY9		1993	01	22.43586	08	57	02.93	+20 19 52.1 21.4 V	691
1993	BY9		1993	01	29.37823	08	49	36.97	+20 56 12.3 21.0 V	691
1993	BY9		1993	01	29.38761	08	49	36.34	+20 56 15.3	691
1993	BY9		1993	01	29.39714	08	49	35.67	+20 56 18.0	691
1993	BZ9	*	1993	01	22.36818	08	57	11.42	+20 28 04.7	691
1993	BZ9		1993	01	22.40211	08	57	09.55	+20 28 15.3	691
1993	BZ9		1993	01	22.43592	08	57	07.69	+20 28 26.7 21.7 V	691
1993	BZ9		1993	01	29.37894	08	50	39.16	+21 06 10.8	691
1993	BZ9		1993	01	29.38833	08	50	38.63	+21 06 13.5	691
1993	BZ9		1993	01	29.39786	08	50	38.09	+21 06 17.0 21.0 V	691
1993	BA10	*	1993	01	22.36847	08	57	37.14	+20 43 41.6	691

1993	BA10		1993	01	22.40240	08 57 35.05	+20 43 46.5		691
1993	BA10		1993	01	22.43621	08 57 32.99	+20 43 51.2	20.7 V	691
1993	BA10		1993	01	29.37892	08 50 36.83	+21 01 21.0		691
1993	BA10		1993	01	29.38830	08 50 36.26	+21 01 22.6	20.5 V	691
1993	BA10		1993	01	29.39784	08 50 35.66	+21 01 24.0		691
1993	BB10	*	1993	01	22.36872	08 57 58.37	+20 35 08.0	19.4 V	691
1993	BB10		1993	01	22.40265	08 57 56.29	+20 35 17.2		691
1993	BB10		1993	01	22.43646	08 57 54.25	+20 35 25.8		691
1993	BB10		1993	01	26.33506	08 54 01.21	+20 52 40.0	19.0 V	691
1993	BB10		1993	01	26.36998	08 53 58.99	+20 52 49.0		691
1993	BB10		1993	01	26.40402	08 53 56.80	+20 52 57.7		691
1993	BB10		1993	01	29.37912	08 50 54.30	+21 05 35.7	19.0 V	691
1993	BB10		1993	01	29.38850	08 50 53.74	+21 05 37.9		691
1993	BB10		1993	01	29.39804	08 50 53.10	+21 05 40.2		691
1993	BC10	*	1993	01	22.36882	08 58 07.26	+20 23 57.0	21.2 V	691
1993	BC10		1993	01	22.40275	08 58 05.07	+20 24 14.0		691
1993	BC10		1993	01	22.43655	08 58 02.82	+20 24 29.6		691
1993	BC10		1993	01	26.36990	08 53 51.54	+20 56 17.4		691
1993	BC10		1993	01	26.40394	08 53 49.25	+20 56 33.5	20.9 V	691
1993	BD10	*	1993	01	22.36939	08 58 56.83	+20 16 30.5	19.0 V	691
1993	BD10		1993	01	22.40332	08 58 54.52	+20 16 42.9		691
1993	BD10		1993	01	22.43712	08 58 52.20	+20 16 54.7		691
1993	BD10		1993	01	29.37928	08 51 08.23	+20 57 35.0		691
1993	BD10		1993	01	29.38866	08 51 07.57	+20 57 38.2	18.7 V	691
1993	BD10		1993	01	29.39820	08 51 06.92	+20 57 41.3		691
1993	BE10	*	1993	01	22.36960	08 59 14.29	+20 30 57.6	19.1 V	691
1993	BE10		1993	01	22.40353	08 59 12.56	+20 31 06.0		691
1993	BE10		1993	01	22.43734	08 59 10.74	+20 31 14.4		691
1993	BE10		1993	01	29.38070	08 53 11.58	+20 59 43.7		691
1993	BE10		1993	01	29.39009	08 53 11.10	+20 59 45.9	18.8 V	691
1993	BE10		1993	01	29.39962	08 53 10.57	+20 59 48.0		691
1993	BF10	*	1993	01	22.37012	09 00 00.04	+20 39 08.2	20.7 V	691
1993	BF10		1993	01	22.40406	08 59 58.39	+20 39 16.1		691
1993	BF10		1993	01	22.43787	08 59 56.78	+20 39 23.5		691
1993	BF10		1993	01	29.38162	08 54 31.25	+21 04 54.7		691
1993	BF10		1993	01	29.39101	08 54 30.71	+21 04 56.8		691
1993	BF10		1993	01	29.40054	08 54 30.17	+21 04 58.5	20.9 V	691
1993	BG10	*	1993	01	22.37017	09 00 03.89	+20 38 51.9		691
1993	BG10		1993	01	22.40410	09 00 01.82	+20 38 59.4		691
1993	BG10		1993	01	22.43790	08 59 59.74	+20 39 06.4	20.2 V	691
1993	BG10		1993	01	26.33648	08 56 04.12	+20 52 54.2	19.7 V	691
1993	BG10		1993	01	26.37140	08 56 01.90	+20 53 01.4		691
1993	BG10		1993	01	26.40544	08 55 59.69	+20 53 08.3		691
1993	BG10		1993	01	29.38052	08 52 55.48	+21 03 13.9		691
1993	BG10		1993	01	29.38990	08 52 54.88	+21 03 15.8	20.0 V	691
1993	BG10		1993	01	29.39944	08 52 54.27	+21 03 17.6		691
1993	BH10	*	1993	01	22.37019	09 00 05.35	+20 34 41.0	20.3 V	691
1993	BH10		1993	01	22.40412	09 00 03.66	+20 34 50.7		691
1993	BH10		1993	01	22.43793	09 00 01.94	+20 34 59.3		691
1993	BH10		1993	01	26.33699	08 56 48.29	+20 53 28.9		691
1993	BH10		1993	01	26.37192	08 56 46.44	+20 53 38.4	19.9 V	691
1993	BH10		1993	01	26.40596	08 56 44.64	+20 53 47.6		691
1993	BH10		1993	01	29.38140	08 54 11.95	+21 07 36.3		691
1993	BH10		1993	01	29.39078	08 54 11.43	+21 07 38.9	19.6 V	691
1993	BH10		1993	01	29.40032	08 54 10.92	+21 07 41.4		691
1993	BJ10	*	1993	01	22.37045	09 00 28.06	+20 30 02.2	18.7 V	691
1993	BJ10		1993	01	22.40438	09 00 26.25	+20 30 09.4		691
1993	BJ10		1993	01	22.43819	09 00 24.42	+20 30 16.5		691
1993	BJ10		1993	01	29.39079	08 54 11.67	+20 54 47.7	18.3 V	691

1993	BJ10		1993	01	29.40032	08	54	11.13	+20	54	49.6		691
1993	BK10	*	1993	01	22.37063	09	00	44.05	+20	33	44.6	21.0 V	691
1993	BK10		1993	01	22.40456	09	00	42.00	+20	33	55.9		691
1993	BK10		1993	01	22.43837	09	00	39.97	+20	34	07.5		691
1993	BK10		1993	01	26.33701	08	56	50.25	+20	56	21.3		691
1993	BK10		1993	01	26.37194	08	56	48.00	+20	56	32.8	20.4 V	691
1993	BK10		1993	01	26.40597	08	56	45.84	+20	56	44.2		691
1993	BK10		1993	01	29.38109	08	53	45.02	+21	13	10.4	20.4 V	691
1993	BK10		1993	01	29.39047	08	53	44.44	+21	13	13.0		691
1993	BK10		1993	01	29.40001	08	53	43.78	+21	13	16.1		691
1993	BL10	*	1993	01	22.37098	09	01	14.59	+20	42	46.5	20.8 V	691
1993	BL10		1993	01	22.40492	09	01	12.60	+20	42	59.4		691
1993	BL10		1993	01	22.43872	09	01	10.65	+20	43	12.3		691
1993	BL10		1993	01	26.33741	08	57	24.60	+21	07	35.2	20.0 V	691
1993	BL10		1993	01	26.37233	08	57	22.41	+21	07	47.7		691
1993	BL10		1993	01	26.40637	08	57	20.32	+21	08	00.9		691
1993	BM10	*	1993	01	22.37100	09	01	15.51	+20	27	30.4	21.5 V	691
1993	BM10		1993	01	22.40493	09	01	13.68	+20	27	39.6		691
1993	BM10		1993	01	22.43874	09	01	11.85	+20	27	48.6		691
1993	BM10		1993	01	29.38198	08	55	02.27	+20	58	51.4	21.0 V	691
1993	BM10		1993	01	29.39136	08	55	01.66	+20	58	53.4		691
1993	BM10		1993	01	29.40090	08	55	01.21	+20	58	56.5		691
1993	BN10	*	1993	01	22.37139	09	01	49.71	+20	21	29.8	20.2 V	691
1993	BN10		1993	01	22.40532	09	01	47.37	+20	21	41.4		691
1993	BN10		1993	01	22.43912	09	01	45.02	+20	21	53.0		691
1993	BN10		1993	01	29.38118	08	53	52.61	+21	00	43.4		691
1993	BN10		1993	01	29.39056	08	53	51.90	+21	00	47.0	19.9 V	691
1993	BN10		1993	01	29.40009	08	53	51.23	+21	00	49.8		691
1993	BO10	*	1993	01	22.37144	09	01	53.94	+20	37	45.0		691
1993	BO10		1993	01	22.40537	09	01	52.17	+20	37	48.6	18.0 V	691
1993	BO10		1993	01	22.43918	09	01	50.38	+20	37	51.8		691
1993	BO10		1993	01	26.33813	08	58	27.22	+20	44	34.0	17.5 V	691
1993	BO10		1993	01	26.37306	08	58	25.31	+20	44	37.2		691
1993	BO10		1993	01	26.40710	08	58	23.49	+20	44	40.0		691
1993	BP10	*	1993	01	22.37266	09	03	39.61	+20	35	10.0		691
1993	BP10		1993	01	22.40659	09	03	37.84	+20	35	14.6	20.2 V	691
1993	BP10		1993	01	22.44040	09	03	36.14	+20	35	20.2		691
1993	BP10		1993	01	26.33940	09	00	16.92	+20	46	08.8		691
1993	BP10		1993	01	26.37433	09	00	15.10	+20	46	12.8	19.8 V	691
1993	BP10		1993	01	26.40837	09	00	13.28	+20	46	17.9		691
1993	BQ10	*	1993	01	22.37371	09	05	10.67	+20	39	33.6	21.1 V	691
1993	BQ10		1993	01	22.40764	09	05	08.70	+20	39	39.2		691
1993	BQ10		1993	01	22.44145	09	05	06.81	+20	39	44.7		691
1993	BQ10		1993	01	26.34018	09	01	24.22	+20	50	13.7	20.6 V	691
1993	BQ10		1993	01	26.37510	09	01	22.14	+20	50	18.8		691
1993	BQ10		1993	01	26.40914	09	01	20.08	+20	50	24.0		691
1993	BR10	*	1993	01	22.37410	09	05	44.54	+20	34	30.6	19.1 V	691
1993	BR10		1993	01	22.40803	09	05	42.43	+20	34	45.2		691
1993	BR10		1993	01	22.44184	09	05	40.40	+20	35	00.3		691
1993	BR10		1993	01	26.34042	09	01	45.12	+21	03	53.2		691
1993	BR10		1993	01	26.37534	09	01	42.89	+21	04	08.6		691
1993	BR10		1993	01	26.40938	09	01	40.65	+21	04	24.1	18.7 V	691
1993	BS10	*	1993	01	22.37521	09	07	20.45	+20	21	36.8		691
1993	BS10		1993	01	22.40914	09	07	18.37	+20	21	51.6	20.9 V	691
1993	BS10		1993	01	22.44295	09	07	16.37	+20	22	06.5		691
1993	BS10		1993	01	26.34155	09	03	22.90	+20	50	34.9	20.4 V	691
1993	BS10		1993	01	26.37647	09	03	20.67	+20	50	49.9		691
1993	BS10		1993	01	26.41051	09	03	18.51	+20	51	05.1		691
1993	BT10	*	1993	01	22.37554	09	07	49.10	+20	43	30.9	18.5 V	691

1993	BT10		1993	01	22.40947	09	07	46.93	+20	43	41.4		691
1993	BT10		1993	01	22.44327	09	07	44.83	+20	43	51.5		691
1993	BT10		1993	01	26.34177	09	03	41.85	+21	03	35.7	18.2 V	691
1993	BT10		1993	01	26.37669	09	03	39.53	+21	03	45.6		691
1993	BT10		1993	01	26.41072	09	03	37.21	+21	03	55.5		691
1993	BU10	*	1993	01	22.37558	09	07	52.60	+20	38	58.6		691
1993	BU10		1993	01	22.40951	09	07	50.53	+20	39	10.3		691
1993	BU10		1993	01	22.44332	09	07	48.47	+20	39	22.1	20.8 V	691
1993	BU10		1993	01	26.34188	09	03	51.86	+21	01	43.8		691
1993	BU10		1993	01	26.37680	09	03	49.63	+21	01	56.0		691
1993	BU10		1993	01	26.41084	09	03	47.41	+21	02	07.4	20.2 V	691
1993	BV10	*	1993	01	22.37625	09	08	50.39	+20	44	47.7	20.1 V	691
1993	BV10		1993	01	22.41018	09	08	48.56	+20	44	57.9		691
1993	BV10		1993	01	22.44399	09	08	46.78	+20	45	07.7		691
1993	BV10		1993	01	26.34292	09	05	21.41	+21	04	10.4	19.6 V	691
1993	BV10		1993	01	26.37784	09	05	19.52	+21	04	20.4		691
1993	BV10		1993	01	26.41188	09	05	17.62	+21	04	30.0		691
1993	BW10	*	1993	01	22.37644	09	09	06.84	+20	42	35.1	19.7 V	691
1993	BW10		1993	01	22.41037	09	09	04.86	+20	42	46.6		691
1993	BW10		1993	01	22.44417	09	09	02.87	+20	42	58.5		691
1993	BW10		1993	01	26.34284	09	05	15.03	+21	05	34.8	19.2 V	691
1993	BW10		1993	01	26.37777	09	05	12.90	+21	05	46.7		691
1993	BW10		1993	01	26.41180	09	05	10.77	+21	05	58.7		691
1993	BX10	*	1993	01	22.37706	09	10	00.83	+20	30	07.8	19.5 V	691
1993	BX10		1993	01	22.41099	09	09	58.77	+20	30	21.8		691
1993	BX10		1993	01	22.44480	09	09	56.80	+20	30	35.1		691
1993	BX10		1993	01	26.34346	09	06	08.17	+20	56	35.8	19.1 V	691
1993	BX10		1993	01	26.37838	09	06	05.99	+20	56	49.7		691
1993	BX10		1993	01	26.41242	09	06	03.84	+20	57	02.7		691
1993	BY10	*	1993	01	22.37756	09	10	44.09	+20	30	01.3	19.0 V	691
1993	BY10		1993	01	22.41149	09	10	42.30	+20	30	10.1		691
1993	BY10		1993	01	22.44530	09	10	40.56	+20	30	18.2		691
1993	BY10		1993	01	26.34427	09	07	18.87	+20	46	34.8		691
1993	BY10		1993	01	26.37920	09	07	17.00	+20	46	43.2		691
1993	BY10		1993	01	26.41324	09	07	15.09	+20	46	51.4	18.6 V	691
1993	BZ10	*	1993	01	22.37765	09	10	52.15	+20	40	09.9		691
1993	BZ10		1993	01	22.41159	09	10	50.35	+20	40	18.7	19.1 V	691
1993	BZ10		1993	01	22.44540	09	10	48.59	+20	40	27.2		691
1993	BZ10		1993	01	26.34434	09	07	24.86	+20	57	09.6	18.7 V	691
1993	BZ10		1993	01	26.37927	09	07	22.92	+20	57	18.5		691
1993	BZ10		1993	01	26.41331	09	07	21.01	+20	57	27.7		691
1993	BA11	*	1993	01	22.37817	09	11	36.51	+20	27	03.6		691
1993	BA11		1993	01	22.41210	09	11	34.50	+20	27	16.7	20.3 V	691
1993	BA11		1993	01	22.44590	09	11	32.51	+20	27	29.7		691
1993	BA11		1993	01	26.34458	09	07	45.65	+20	52	20.1	19.8 V	691
1993	BA11		1993	01	26.37950	09	07	43.52	+20	52	33.2		691
1993	BA11		1993	01	26.41354	09	07	41.45	+20	52	45.9		691
1993	BB11	*	1993	01	22.37892	09	12	41.73	+20	31	31.1	20.8 V	691
1993	BB11		1993	01	22.41285	09	12	39.54	+20	31	38.4		691
1993	BB11		1993	01	22.44665	09	12	37.41	+20	31	45.9		691
1993	BB11		1993	01	26.34513	09	08	32.75	+20	45	42.4		691
1993	BB11		1993	01	26.38005	09	08	30.43	+20	45	49.9	20.5 V	691
1993	BB11		1993	01	26.41408	09	08	28.20	+20	45	57.3		691
1993	BC11	*	1993	01	22.37929	09	13	13.98	+20	29	20.0	19.6 V	691
1993	BC11		1993	01	22.41322	09	13	12.04	+20	29	31.4		691
1993	BC11		1993	01	22.44703	09	13	10.09	+20	29	42.8		691
1993	BC11		1993	01	26.34577	09	09	29.00	+20	51	49.3		691
1993	BC11		1993	01	26.38070	09	09	26.95	+20	52	01.1		691
1993	BC11		1993	01	26.41474	09	09	24.87	+20	52	12.4	19.3 V	691

1993	BD11	*	1993	01	22.38008	09	14	22.57	+20	33	44.8	20.9 V	691
1993	BD11		1993	01	22.41402	09	14	20.79	+20	33	53.4		691
1993	BD11		1993	01	22.44783	09	14	19.02	+20	34	01.9		691
1993	BD11		1993	01	26.34678	09	10	56.07	+20	50	40.8		691
1993	BD11		1993	01	26.41575	09	10	52.28	+20	50	58.4	19.9 V	691
1993	BE11	*	1993	01	22.38058	09	15	05.61	+20	33	50.5	19.8 V	691
1993	BE11		1993	01	22.41451	09	15	03.76	+20	34	05.3		691
1993	BE11		1993	01	22.44832	09	15	01.94	+20	34	20.2		691
1993	BE11		1993	01	26.34718	09	11	30.43	+21	03	14.9	19.6 V	691
1993	BE11		1993	01	26.38210	09	11	28.43	+21	03	30.5		691
1993	BE11		1993	01	26.41614	09	11	26.46	+21	03	45.6		691
1993	BF11	*	1993	01	22.38077	09	15	21.79	+20	33	10.9		691
1993	BF11		1993	01	22.41470	09	15	19.94	+20	33	27.6	20.8 V	691
1993	BF11		1993	01	22.44851	09	15	18.23	+20	33	43.6		691
1993	BF11		1993	01	26.34751	09	11	59.01	+21	04	04.8		691
1993	BF11		1993	01	26.38243	09	11	57.13	+21	04	20.7		691
1993	BF11		1993	01	26.41648	09	11	55.28	+21	04	37.1	20.2 V	691
1993	BG11	*	1993	01	22.38490	09	21	19.76	+20	35	30.9	19.4 V	691
1993	BG11		1993	01	22.41883	09	21	17.87	+20	35	46.2		691
1993	BG11		1993	01	22.45264	09	21	16.02	+20	36	01.2		691
1993	BG11		1993	01	26.35149	09	17	44.18	+21	05	13.8	18.8 V	691
1993	BG11		1993	01	26.38642	09	17	42.09	+21	05	29.8		691
1993	BG11		1993	01	26.42046	09	17	40.07	+21	05	44.7		691
1993	BH11	*	1993	01	22.38574	09	22	32.86	+20	38	49.1		691
1993	BH11		1993	01	22.41967	09	22	30.76	+20	38	59.3	20.2 V	691
1993	BH11		1993	01	22.45348	09	22	28.68	+20	39	09.0		691
1993	BH11		1993	01	26.38691	09	18	24.60	+20	58	48.9	19.8 V	691
1993	BH11		1993	01	26.42094	09	18	22.28	+20	59	00.5		691
1993	BJ11	*	1993	01	22.38827	09	26	11.32	+20	33	51.6		691
1993	BJ11		1993	01	22.42220	09	26	09.64	+20	34	04.1		691
1993	BJ11		1993	01	22.45601	09	26	07.88	+20	34	16.6	20.1 V	691
1993	BJ11		1993	01	26.38994	09	22	47.34	+20	58	48.9	19.8 V	691
1993	BJ11		1993	01	26.42398	09	22	45.49	+20	59	01.7		691
1993	BK11	*	1993	01	22.38870	09	26	48.65	+20	26	06.6	20.1 V	691
1993	BK11		1993	01	22.42263	09	26	47.18	+20	26	20.9		691
1993	BK11		1993	01	22.45644	09	26	45.56	+20	26	33.9		691
1993	BK11		1993	01	26.35569	09	23	47.93	+20	52	58.6		691
1993	BK11		1993	01	26.39062	09	23	46.27	+20	53	12.9		691
1993	BK11		1993	01	26.42467	09	23	44.62	+20	53	26.6	19.6 V	691
1993	BL11	*	1993	01	22.38909	09	27	22.45	+20	35	09.5	19.7 V	691
1993	BL11		1993	01	22.42302	09	27	20.94	+20	35	17.6		691
1993	BL11		1993	01	22.45683	09	27	19.33	+20	35	24.6		691
1993	BL11		1993	01	26.35603	09	24	17.53	+20	49	52.0	19.3 V	691
1993	BL11		1993	01	26.42501	09	24	14.11	+20	50	05.6		691
1993	BM11	*	1993	01	22.38934	09	27	44.34	+20	43	04.7	19.8 V	691
1993	BM11		1993	01	22.42327	09	27	42.56	+20	43	15.3		691
1993	BM11		1993	01	22.45708	09	27	40.71	+20	43	23.8		691
1993	BM11		1993	01	26.35596	09	24	11.32	+21	01	26.3		691
1993	BM11		1993	01	26.39089	09	24	09.33	+21	01	36.2	19.3 V	691
1993	BM11		1993	01	26.42493	09	24	07.39	+21	01	45.7		691
1993	BN11	*	1993	01	22.38956	09	28	03.76	+20	15	30.7	18.5 V	691
1993	BN11		1993	01	22.42350	09	28	01.74	+20	15	50.1		691
1993	BN11		1993	01	22.45730	09	27	59.65	+20	16	09.1		691
1993	BN11		1993	01	26.35592	09	24	07.80	+20	52	42.9		691
1993	BN11		1993	01	26.39084	09	24	05.57	+20	53	02.5	17.9 V	691
1993	BN11		1993	01	26.42488	09	24	03.43	+20	53	21.6		691
1993	BO11	*	1993	01	22.39038	09	29	14.42	+20	37	33.0		691
1993	BO11		1993	01	22.42431	09	29	12.62	+20	37	50.8	19.9 V	691
1993	BO11		1993	01	22.45812	09	29	10.83	+20	38	07.9		691

1993	BO11		1993	01	26.35701	09	25	42.29	+21	11	44.9	19.3 V	691
1993	BO11		1993	01	26.39194	09	25	40.25	+21	12	02.9		691
1993	BO11		1993	01	26.42598	09	25	38.28	+21	12	20.9		691
1993	BP11	*	1993	01	22.39105	09	30	12.29	+20	35	58.5		691
1993	BP11		1993	01	22.42498	09	30	10.39	+20	36	09.7	18.9 V	691
1993	BP11		1993	01	22.45879	09	30	08.48	+20	36	20.4		691
1993	BP11		1993	01	26.35755	09	26	28.47	+20	57	13.4	18.4 V	691
1993	BP11		1993	01	26.39247	09	26	26.28	+20	57	25.2		691
1993	BP11		1993	01	26.42651	09	26	24.22	+20	57	35.8		691
1993	BQ11	*	1993	01	22.39193	09	31	28.40	+20	39	45.5		691
1993	BQ11		1993	01	22.42586	09	31	26.66	+20	39	56.0	19.8 V	691
1993	BQ11		1993	01	22.45967	09	31	24.89	+20	40	05.6		691
1993	BQ11		1993	01	26.35866	09	28	04.73	+21	00	04.9	19.6 V	691
1993	BQ11		1993	01	26.39358	09	28	02.73	+21	00	15.9		691
1993	BQ11		1993	01	26.42762	09	28	00.81	+21	00	26.2		691
1993	BR11	*	1993	01	22.40029	08	54	32.29	+20	36	18.6		691
1993	BR11		1993	01	22.43410	08	54	30.07	+20	36	26.7	20.6 V	691
1993	BR11		1993	01	26.33250	08	50	18.96	+20	52	14.1	20.0 V	691
1993	BR11		1993	01	26.36742	08	50	16.50	+20	52	22.1		691
1993	BR11		1993	01	26.40145	08	50	14.22	+20	52	29.9		691
1993	BR11		1993	01	29.37682	08	46	57.20	+21	04	06.7		691
1993	BR11		1993	01	29.38621	08	46	56.55	+21	04	08.8	20.3 V	691
1993	BR11		1993	01	29.39574	08	46	55.88	+21	04	11.0		691
1993	BS11	*	1993	01	22.40324	08	58	47.73	+20	39	59.6	22.2 V	691
1993	BS11		1993	01	22.43705	08	58	45.69	+20	40	06.9		691
1993	BS11		1993	01	29.37978	08	51	51.28	+21	10	33.6		691
1993	BS11		1993	01	29.38916	08	51	50.66	+21	10	36.4		691
1993	BS11		1993	01	29.39869	08	51	50.03	+21	10	38.8	20.9 V	691
1993	BT11	*	1993	01	22.47175	09	58	47.61	+21	48	37.2	20.4 V	691
1993	BT11		1993	01	22.47999	09	58	47.22	+21	48	40.6		691
1993	BT11		1993	01	22.48826	09	58	46.81	+21	48	44.5		691
1993	BT11		1993	01	23.42582	09	58	04.35	+21	55	24.8		691
1993	BT11		1993	01	23.44353	09	58	03.49	+21	55	32.0		691
1993	BT11		1993	01	23.46128	09	58	02.64	+21	55	40.0	21.0 V	691
1993	BU11	*	1993	01	22.47205	09	59	12.95	+21	45	43.4		691
1993	BU11		1993	01	22.48028	09	59	12.61	+21	45	47.2	20.1 V	691
1993	BU11		1993	01	22.48855	09	59	12.18	+21	45	49.9		691
1993	BU11		1993	01	23.42614	09	58	32.51	+21	52	18.1	21.2 V	691
1993	BU11		1993	01	23.44386	09	58	31.70	+21	52	24.7		691
1993	BV11	*	1993	01	22.47223	09	59	29.31	+21	54	33.1		691
1993	BV11		1993	01	22.48047	09	59	28.90	+21	54	36.4		691
1993	BV11		1993	01	22.48874	09	59	28.49	+21	54	40.2	19.6 V	691
1993	BV11		1993	01	23.42627	09	58	43.90	+22	01	01.4		691
1993	BV11		1993	01	23.44399	09	58	42.99	+22	01	08.8		691
1993	BV11		1993	01	23.46173	09	58	42.09	+22	01	15.9	20.2 V	691
1993	BW11	*	1993	01	22.47249	09	59	51.34	+21	44	46.7		691
1993	BW11		1993	01	22.48073	09	59	51.03	+21	44	51.2	17.8 V	691
1993	BW11		1993	01	22.48899	09	59	50.65	+21	44	56.2		691
1993	BW11		1993	01	23.42658	09	59	09.95	+21	53	42.4	18.0 V	691
1993	BW11		1993	01	23.44429	09	59	09.13	+21	53	52.4		691
1993	BW11		1993	01	23.46204	09	59	08.32	+21	54	02.7		691
1993	BX11	*	1993	01	23.42754	10	00	33.34	+22	16	12.4	16.9 V	691
1993	BX11		1993	01	23.44525	10	00	32.61	+22	16	28.9		691
1993	BX11		1993	01	23.46300	10	00	31.87	+22	16	45.0		691
1993	BX11		1993	01	25.39804	09	59	13.56	+22	46	25.7		691
1993	BX11		1993	01	25.41552	09	59	12.77	+22	46	41.6	17.0 V	691
1993	BX11		1993	01	25.44346	09	59	11.53	+22	47	07.1		691
1993	BY11	*	1993	01	24.49746	10	00	31.83	+12	49	24.4	21.0 V	691
1993	BY11		1993	01	24.50698	10	00	31.41	+12	49	24.9		691

1993	BY11		1993	01	24.51498	10	00	30.99	+12 49 26.2	691
1993	BY11		1993	01	31.46228	09	55	18.12	+13 00 04.3	691
1993	BY11		1993	01	31.47058	09	55	17.67	+13 00 05.8	18.8 V 691
1993	BY11		1993	01	31.47820	09	55	17.23	+13 00 07.4	691
1993	BZ11	*	1993	01	24.49859	10	02	09.75	+12 58 10.5	19.6 V 691
1993	BZ11		1993	01	24.50811	10	02	09.31	+12 58 11.8	691
1993	BZ11		1993	01	24.51611	10	02	08.94	+12 58 12.8	691
1993	BZ11		1993	01	31.46310	09	56	40.41	+13 15 27.8	691
1993	BZ11		1993	01	31.47140	09	56	39.98	+13 15 28.9	19.3 V 691
1993	BZ11		1993	01	31.47902	09	56	39.57	+13 15 29.9	691
1993	BA12	*	1993	01	24.49911	10	02	54.26	+12 42 25.6	21.2 V 691
1993	BA12		1993	01	24.50863	10	02	53.90	+12 42 27.0	691
1993	BA12		1993	01	24.51663	10	02	53.53	+12 42 29.5	691
1993	BA12		1993	01	31.46388	09	57	47.90	+13 07 36.7	691
1993	BA12		1993	01	31.47217	09	57	47.49	+13 07 39.0	20.5 V 691
1993	BA12		1993	01	31.47980	09	57	47.11	+13 07 40.3	691
1993	BB12	*	1993	01	26.33394	08	52	24.05	+21 04 54.2	691
1993	BB12		1993	01	26.36886	08	52	21.65	+21 04 53.8	19.3 V 691
1993	BB12		1993	01	26.40290	08	52	19.27	+21 04 53.4	691
1993	BB12		1993	01	29.37781	08	49	01.29	+21 04 28.0	691
1993	BB12		1993	01	29.38720	08	49	00.68	+21 04 27.7	691
1993	BB12		1993	01	29.39673	08	49	00.00	+21 04 27.8	19.5 V 691
1993	BC12	*	1993	01	26.33468	08	53	28.41	+21 00 02.5	20.6 V 691
1993	BC12		1993	01	26.36960	08	53	25.88	+21 00 10.8	691
1993	BC12		1993	01	26.40364	08	53	23.38	+21 00 18.0	691
1993	BC12		1993	01	29.37840	08	49	51.88	+21 11 47.1	20.5 V 691
1993	BC12		1993	01	29.38778	08	49	51.09	+21 11 47.6	691
1993	BC12		1993	01	29.39731	08	49	50.52	+21 11 51.3	691
1993	BD12	*	1993	01	26.33487	08	53	44.88	+21 04 57.5	18.7 V 691
1993	BD12		1993	01	26.36979	08	53	42.47	+21 04 56.9	691
1993	BD12		1993	01	26.40383	08	53	40.12	+21 04 56.2	691
1993	BD12		1993	01	29.37873	08	50	20.37	+21 03 58.1	691
1993	BD12		1993	01	29.38811	08	50	19.73	+21 03 58.0	18.9 V 691
1993	BD12		1993	01	29.39764	08	50	19.05	+21 03 57.6	691
1993	BE12	*	1993	01	26.33549	08	54	38.24	+21 05 21.1	19.1 V 691
1993	BE12		1993	01	26.37042	08	54	36.47	+21 05 27.4	691
1993	BE12		1993	01	26.40446	08	54	34.68	+21 05 34.5	691
1993	BE12		1993	01	29.37992	08	52	03.36	+21 15 17.2	18.9 V 691
1993	BE12		1993	01	29.38930	08	52	02.88	+21 15 18.8	691
1993	BE12		1993	01	29.39884	08	52	02.39	+21 15 20.4	691
1993	BF12	*	1993	01	26.33592	08	55	15.36	+20 53 35.5	20.2 V 691
1993	BF12		1993	01	26.37084	08	55	12.79	+20 53 40.7	691
1993	BF12		1993	01	26.40487	08	55	10.26	+20 53 45.3	691
1993	BF12		1993	01	29.37965	08	51	40.60	+21 00 33.6	691
1993	BF12		1993	01	29.38903	08	51	39.91	+21 00 34.9	691
1993	BF12		1993	01	29.39857	08	51	39.22	+21 00 36.3	20.2 V 691
1993	BG12	*	1993	01	26.33643	08	55	59.87	+21 09 29.4	20.1 V 691
1993	BG12		1993	01	26.37135	08	55	57.75	+21 09 36.5	691
1993	BG12		1993	01	26.40540	08	55	55.70	+21 09 44.0	691
1993	BG12		1993	01	29.38057	08	53	00.41	+21 19 53.5	20.0 V 691
1993	BG12		1993	01	29.38996	08	52	59.85	+21 19 55.9	691
1993	BG12		1993	01	29.39949	08	52	59.23	+21 19 57.0	691
1993	BH12	*	1993	01	26.33773	08	57	51.89	+21 01 57.8	691
1993	BH12		1993	01	26.37265	08	57	49.90	+21 02 06.6	20.1 V 691
1993	BH12		1993	01	26.40669	08	57	47.97	+21 02 15.3	691
1993	BH12		1993	01	29.38197	08	55	01.66	+21 14 34.6	20.0 V 691
1993	BH12		1993	01	29.39136	08	55	01.10	+21 14 36.6	691
1993	BH12		1993	01	29.40089	08	55	00.55	+21 14 39.0	691
1993	BJ12	*	1993	01	26.33782	08	58	00.18	+21 15 51.1	691

1993 BJ12		1993	01	26.37274	08	57	57.85	+21	15	55.3	19.6 V	691
1993 BJ12		1993	01	26.40678	08	57	55.53	+21	15	59.6		691
1993 BJ12		1993	01	29.38169	08	54	36.84	+21	21	57.5		691
1993 BJ12		1993	01	29.39107	08	54	36.20	+21	21	59.4	19.7 V	691
1993 BJ12		1993	01	29.40061	08	54	35.52	+21	22	00.5		691
1993 BK12	*	1993	01	26.33823	08	58	35.81	+20	53	36.8	19.7 V	691
1993 BK12		1993	01	26.37315	08	58	33.19	+20	53	39.8		691
1993 BK12		1993	01	26.40718	08	58	30.64	+20	53	42.6		691
1993 BK12		1993	01	29.38190	08	54	55.20	+20	57	51.1		691
1993 BK12		1993	01	29.39128	08	54	54.50	+20	57	51.9	19.6 V	691
1993 BK12		1993	01	29.40082	08	54	53.75	+20	57	52.1		691
1993 DA	*	1993	02	17.38782	10	42	59.52	+09	09	35.5	20.0 V	691
1993 DA		1993	02	17.42945	10	42	11.34	+08	58	35.8	19.8 V	691
1993 DA		1993	02	17.43742	10	42	01.89	+08	56	24.9	19.4 V	691
1993 DA		1993	02	17.45307	10	41	44.17	+08	52	19.3		691
1993 DA		1993	02	17.45894	10	41	37.36	+08	50	44.3		691
1993 DA		1993	02	17.46654	10	41	28.51	+08	48	41.5		691
1993 DA		1993	02	17.47440	10	41	19.63	+08	46	37.5	19.9 V	691
1993 DA		1993	02	17.48016	10	41	13.13	+08	45	06.4		691
1993 DA		1993	02	17.48645	10	41	06.23	+08	43	26.4		691
1993 DA		1993	02	17.49415	10	40	57.31	+08	41	22.1	20.0 V	691
1993 DA		1993	02	17.49992	10	40	50.80	+08	39	47.2		691
1993 DA		1993	02	17.51316	10	40	35.85	+08	36	17.2		691
1993 DA		1993	02	17.52490	10	40	22.90	+08	33	10.6	20.4 V	691
1993 DA		1993	02	17.53270	10	40	14.08	+08	31	03.1		691
1993 DA		1993	02	17.53842	10	40	07.82	+08	29	32.6		691
1993 DA		1993	02	18.19154	10	28	45.58	+05	33	56.8		691
1993 DA		1993	02	18.19745	10	28	38.90	+05	32	22.8		691
1993 DA		1993	02	18.20266	10	28	32.84	+05	30	56.1		691
4601 P-L		1993	01	21.36596	09	15	58.26	+20	06	17.9	16.9 V	691
4601 P-L		1993	01	21.39968	09	15	56.52	+20	06	27.7		691
4601 P-L		1993	01	21.43349	09	15	54.42	+20	06	37.2		691
4240 T-2		1993	01	22.37680	09	09	38.29	+20	44	01.5		691
4240 T-2		1993	01	22.41073	09	09	36.12	+20	44	14.0	17.9 V	691
4240 T-2		1993	01	22.44453	09	09	34.00	+20	44	26.5		691
4240 T-2		1993	01	26.34301	09	05	29.67	+21	08	09.4	17.4 V	691
4240 T-2		1993	01	26.37793	09	05	27.37	+21	08	21.9		691
4240 T-2		1993	01	26.41197	09	05	25.10	+21	08	33.9		691
(332)		1993	01	25.23974	08	38	14.55	+22	51	53.2		691
(332)		1993	01	25.27402	08	38	12.42	+22	52	00.9		691
(332)		1993	01	25.30866	08	38	10.42	+22	52	07.0	13.2 V	691
(506)		1993	01	21.35486	08	59	56.77	+19	47	06.7	11.9 V	691
(506)		1993	01	21.38858	08	59	54.62	+19	47	01.4		691
(506)		1993	01	21.42239	08	59	52.46	+19	46	56.3		691
(506)		1993	01	31.38842	08	49	15.20	+19	21	14.8	12.2 V	691
(506)		1993	01	31.39698	08	49	14.64	+19	21	13.5		691
(506)		1993	01	31.40526	08	49	14.16	+19	21	11.9		691
(835)		1993	01	21.26130	08	27	42.03	+19	46	28.4		691
(835)		1993	01	21.29520	08	27	40.26	+19	46	32.6	15.7 V	691
(835)		1993	01	21.32919	08	27	38.45	+19	46	37.0		691
(1068)		1993	01	25.21461	08	01	58.69	+23	15	20.8	14.9 V	691
(1068)		1993	01	25.24889	08	01	56.67	+23	15	23.6		691
(1068)		1993	01	25.28354	08	01	54.53	+23	15	25.9		691
(1162)		1993	01	29.21296	09	27	56.35	+17	33	37.8	15.3 V	691
(1162)		1993	01	29.22486	09	27	55.86	+17	33	40.1		691
(1162)		1993	01	29.23625	09	27	55.42	+17	33	42.3		691
(1162)		1993	01	29.24759	09	27	54.88	+17	33	44.3	15.1 V	691
(1162)		1993	01	29.25953	09	27	54.41	+17	33	46.5		691
(1162)		1993	01	29.27093	09	27	53.94	+17	33	49.0		691

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(1332)	1993	01	21.39422	09	08	03.10	+19	46	12.0	691
(1332)	1993	01	21.42803	09	08	01.42	+19	46	18.8	691
(1430)	1993	01	31.46414	09	58	10.03	+12	53	37.2	691
(1430)	1993	01	31.47243	09	58	09.61	+12	53	40.0	16.2 V 691
(1445)	1993	01	31.34640	08	50	55.26	+19	49	33.2	16.3 V 691
(1445)	1993	01	31.35491	08	50	54.83	+19	49	35.0	691
(1445)	1993	01	31.36328	08	50	54.40	+19	49	36.8	691
(1445)	1993	01	31.38917	08	50	53.08	+19	49	42.5	16.3 V 691
(1445)	1993	01	31.39772	08	50	52.65	+19	49	44.4	691
(1445)	1993	01	31.40600	08	50	52.23	+19	49	46.1	691
(1638)	1993	01	23.34990	08	23	59.94	+18	55	04.5	15.9 V 691
(1638)	1993	01	23.37820	08	23	58.28	+18	55	10.1	691
(1638)	1993	01	23.40628	08	23	56.77	+18	55	15.4	691
(1713)	1993	01	22.39122	09	30	27.18	+20	37	32.4	691
(1713)	1993	01	22.42515	09	30	25.12	+20	37	44.7	17.1 V 691
(1713)	1993	01	22.45896	09	30	23.06	+20	37	56.6	691
(1925)	1993	01	21.35633	09	02	03.90	+20	00	07.1	15.5 V 691
(1925)	1993	01	21.39005	09	02	02.00	+20	00	20.4	691
(1925)	1993	01	21.42386	09	02	00.07	+20	00	33.5	691
(1925)	1993	01	29.38151	08	54	21.32	+20	51	57.6	691
(1925)	1993	01	29.39089	08	54	20.78	+20	52	01.1	15.8 V 691
(1925)	1993	01	29.40043	08	54	20.16	+20	52	05.1	691
(1991)	1993	01	29.37900	08	50	44.23	+20	52	29.4	17.2 V 691
(1991)	1993	01	29.38838	08	50	43.57	+20	52	31.1	691
(1991)	1993	01	29.39792	08	50	42.88	+20	52	32.5	691
(2197)	1993	01	24.14014	01	13	19.39	+06	52	31.1	17.5 V 691
(2197)	1993	01	24.14770	01	13	19.79	+06	52	33.9	691
(2412)	1993	01	26.15933	08	07	32.84	+20	37	40.0	15.9 V 691
(2412)	1993	01	26.18168	08	07	31.50	+20	37	42.0	691
(2412)	1993	01	26.20385	08	07	30.16	+20	37	43.7	691
(2415)	1993	01	31.34902	08	54	42.47	+19	55	48.1	691
(2415)	1993	01	31.35753	08	54	41.98	+19	55	50.7	15.8 V 691
(2415)	1993	01	31.36590	08	54	41.48	+19	55	53.1	691
(2565)	1993	01	31.34591	08	50	03.85	+19	43	19.1	691
(2565)	1993	01	31.35442	08	50	03.26	+19	43	20.8	17.4 V 691
(2565)	1993	01	31.36280	08	50	02.64	+19	43	22.6	691
(2565)	1993	01	31.38869	08	50	00.88	+19	43	27.8	691
(2565)	1993	01	31.39724	08	50	00.29	+19	43	29.6	17.4 V 691
(2565)	1993	01	31.40552	08	49	59.77	+19	43	31.3	691
(2837)	1993	01	22.38045	09	14	54.44	+20	14	16.4	15.8 V 691
(2837)	1993	01	22.41439	09	14	52.92	+20	14	28.7	691
(2837)	1993	01	22.44819	09	14	50.93	+20	14	34.5	691
(3240)	1993	01	23.35155	08	26	22.79	+18	47	58.5	691
(3240)	1993	01	23.37986	08	26	21.84	+18	48	00.9	17.8 V 691
(3240)	1993	01	23.40795	08	26	20.98	+18	48	03.6	691
(3485)	1993	01	26.16367	08	13	49.15	+20	31	31.5	16.7 V 691
(3485)	1993	01	26.18603	08	13	47.73	+20	31	35.7	691
(3485)	1993	01	26.20819	08	13	46.28	+20	31	39.5	691
(4178)	1993	01	26.23711	08	21	13.13	+21	05	09.3	691
(4178)	1993	01	26.27157	08	21	11.16	+21	05	13.9	16.9 V 691
(4178)	1993	01	26.30582	08	21	09.32	+21	05	20.3	691
(4308)	1993	01	26.18660	08	14	37.51	+20	15	31.3	16.1 V 691
(4308)	1993	01	26.20877	08	14	36.01	+20	15	29.5	691
(4942)	1993	01	22.24525	06	30	48.62	+22	22	00.9	691
(4942)	1993	01	22.25145	06	30	48.22	+22	22	01.2	16.0 V 691
(4942)	1993	01	22.25797	06	30	47.86	+22	22	01.0	691
(5002)	1993	01	29.40626	09	23	51.65	+16	27	56.8	17.9 V 691
(5002)	1993	01	29.41809	09	23	50.91	+16	28	00.3	691

(5002)		1993 01 29.43005	09 23 50.15	+16 28 04.1			691
(5014)		1993 01 22.14639	04 46 36.49	+21 19 48.1	18.5 V		691
(5015)		1993 01 22.49979	13 21 02.37	-06 16 08.3	18.6 V		691
(5015)		1993 01 22.50949	13 21 02.79	-06 16 09.6			691
(5015)		1993 01 22.51864	13 21 03.15	-06 16 11.0			691
(5368)		1993 01 24.10157	00 31 07.67	-00 35 39.9	18.2 V		691
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695 Kitt Peak
T. J. Balonek, Dept. of Physics and Astronomy, Colgate University,
Hamilton, NY 13346, U.S.A.
Observers T. J. Balonek, M. McKenzie, B. Elmegreen, R. Tropoli, C. Strom
Burrell Schmidt

1993 BM3	*	1993 01 26.39355	10 17 34.29	+21 51 27.7			695
1993 BM3		1993 01 26.41639	10 17 33.09	+21 51 36.4			695
1993 BM3		1993 01 26.43447	10 17 32.31	+21 51 42.2			695
1993 BM3		1993 01 26.44677	10 17 31.70	+21 51 45.7			695
1993 BM3		1993 01 26.45690	10 17 31.24	+21 51 49.2			695
1993 BM3		1993 01 26.46545	10 17 30.79	+21 51 52.1			695
1993 BM3		1993 01 29.38367	10 15 07.03	+22 08 07.3			695
1993 BM3		1993 01 29.38793	10 15 06.81	+22 08 08.7	17.8 V		695
1993 BM3		1993 01 29.39214	10 15 06.58	+22 08 10.2	17.8 V		695
1993 BM3		1993 01 29.39919	10 15 06.19	+22 08 12.7	17.9 V		695
1993 BM3		1993 01 29.40351	10 15 05.97	+22 08 14.1	17.8 V		695
1993 BN3	*	1993 01 26.39355	10 18 03.36	+21 46 21.0			695
1993 BN3		1993 01 26.41639	10 18 02.24	+21 46 30.4			695
1993 BN3		1993 01 26.43447	10 18 01.24	+21 46 34.9			695
1993 BN3		1993 01 26.44677	10 18 00.63	+21 46 39.7			695
1993 BN3		1993 01 26.45690	10 18 00.13	+21 46 42.9			695
1993 BN3		1993 01 26.46545	10 17 59.71	+21 46 45.6			695
1993 BN3		1993 01 29.38367	10 15 27.59	+22 03 52.9	18.4 V		695
1993 BN3		1993 01 29.38793	10 15 27.36	+22 03 54.4	18.4 V		695
1993 BN3		1993 01 29.39214	10 15 27.09	+22 03 55.9	18.6 V		695
1993 BN3		1993 01 29.39919	10 15 26.73	+22 03 58.6	18.4 V		695
1993 BN3		1993 01 29.40351	10 15 26.48	+22 04 00.2	18.3 V		695

760 Goethe Link
E. Bowell, Lowell Observatory, 1400 West Mars Hill Road,
Flagstaff, AZ 86001, U.S.A.
Observers P.E. Barnhart, D. M. Bimbane, R. C. Cameron, H. S. Charlip,
M. L. Connelley, F. K. Edmondson, P. Guyer, J. F. Heath, Jr.,
G. W. Karthas, C. Keller, T. Mears, J. E. Michlovic, G. Nozicka,
C. L. Perry, A. I. Poland, D. L. Rogers, S. F. Strother, T. L. Swihart,
Y. Terzian, C. T. van Sant, F. R. West, H. J. Wood
Measurers B. A. Skiff, P. W. Tracadas
0.25-m refractor
PDS scanning microdensitometer
PPM, global solutions

1979 SP13		1956 11 03.11391	00 23 49.74	-04 56 33.3			760
1979 SP13		1956 11 03.20767	00 23 47.83	-04 56 26.5			760
1981 RQ1		1962 11 30.17910	04 35 57.11	+18 07 15.5			760
1981 RQ1		1962 11 30.22424	04 35 54.40	+18 07 09.1			760
1981 SU2		1950 08 17.12749	20 34 03.10	-18 42 30.0			760
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1985 XS		1950 07 15.27425	20 48 22.65	-15 07 36.1			760
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1987 DW6		1965 05 02.20556	14 05 53.30	-13 25 10.9			760

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1990 DM2	1950 07 15.27425	20 43 57.45	-17 25 27.6					760
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(269)	1954 05 30.15722	14 16 49.92	-04 19 46.9	13.5				760
(269)	1954 05 30.19924	14 16 48.71	-04 19 44.3					760
(274)	1958 08 09.16771	19 47 03.57	-23 44 31.9				F	760
(284)	1965 05 01.15006	13 42 59.01	-16 08 00.5	13.3				760
(284)	1965 05 01.24172	13 42 53.99	-16 07 05.4					760
(316)	1950 02 11.07394	07 01 19.43	+22 15 10.8				I	760
(321)	1957 02 25.23539	10 59 29.96	+10 12 37.0					760
(368)	1964 10 30.19119	00 54 31.91	+11 11 17.0	14.6				760
(369)	1959 11 30.33604	05 28 37.55	+16 46 53.5					760
(369)	1959 11 30.38118	05 28 34.84	+16 47 04.2				t	760
(378)	1965 05 01.15006	13 51 43.01	-15 03 55.5	15.4				760
(378)	1965 05 01.24172	13 51 38.67	-15 03 23.3					760
(396)	1950 02 11.07394	07 02 20.46	+20 13 13.8					760
(396)	1950 02 11.10241	07 02 19.51	+20 13 15.2					760
(414)	1958 08 09.16771	19 53 37.87	-22 57 54.2				F	760
(414)	1958 08 09.20972	19 53 36.39	-22 57 59.0				F	760
(431)	1952 11 16.09323	01 47 23.60	+08 12 49.0					760
(431)	1952 11 16.13420	01 47 22.20	+08 12 42.7					760
(499)	1950 02 08.15644	07 27 46.94	+19 59 15.0					760
(499)	1950 02 08.18074	07 27 46.09	+19 59 16.1					760
(526)	1965 05 02.20556	14 05 43.22	-09 21 44.7	14.6				760
(526)	1965 05 02.25001	14 05 41.20	-09 21 33.0					760
(526)	1965 05 03.15972	14 05 01.29	-09 18 04.0	14.7				760
(526)	1965 05 03.19861	14 04 59.48	-09 17 55.4					760
(537)	1950 02 08.15644	07 17 11.51	+20 55 31.3	15.6			R	760
(537)	1950 02 08.18074	07 17 10.46	+20 55 35.6					760
(652)	1966 02 20.35150	10 31 42.34	+32 21 43.5					760
(655)	1950 02 11.07394	06 57 02.85	+20 23 01.7					760
(655)	1950 02 11.10241	06 57 02.06	+20 23 07.4					760
(680)	1965 05 02.20556	14 15 53.49	-12 13 03.8	13.5				760
(680)	1965 05 02.25001	14 15 50.46	-12 13 12.6				f	760
(680)	1965 05 03.15972	14 14 52.14	-12 15 55.1	13.0				760
(680)	1965 05 03.19861	14 14 49.58	-12 16 02.4					760
(692)	1963 11 15.30553	04 20 02.36	+19 19 50.2	14.0				760
(743)	1965 05 01.15006	13 58 02.97	-14 01 47.1	14.8				760
(743)	1965 05 01.24172	13 57 58.62	-14 01 15.2					760
(873)	1950 02 11.07394	06 56 20.23	+18 30 34.9					760
(873)	1950 02 11.10241	06 56 19.31	+18 30 40.6					760
(902)	1964 10 30.19119	00 46 25.34	+12 04 49.5	15.4				760
(1007)	1958 08 09.16771	20 03 15.64	-20 38 37.5				F	760

(1007)	1958	08	09.20972	20	03	13.61	-20	38	38.4		F 760
(1027)	1962	11	01.14786	01	10	44.42	+07	19	37.7		760
(1056)	1959	11	30.33604	05	37	36.72	+19	13	50.4		760
(1056)	1959	11	30.38118	05	37	33.62	+19	13	52.3		760
(1062)	1962	12	02.43073	06	10	04.23	+31	39	56.4		760
(1130)	1965	05	02.20556	14	15	16.86	-13	26	41.6	15.5	760
(1130)	1965	05	02.25001	14	15	14.15	-13	26	20.8		760
(1130)	1965	05	03.15972	14	14	17.87	-13	20	32.2	15.5	760
(1130)	1965	05	03.19861	14	14	15.42	-13	20	15.6		760
(1170)	1962	09	29.21800	01	09	17.72	+19	14	19.6	13.9	760
(1170)	1962	09	29.26383	01	09	13.23	+19	15	14.4		760
(1173)	1964	10	30.19119	00	36	48.93	+13	20	09.9	15.8	760
(1214)	1962	12	02.43073	05	52	21.32	+29	38	49.8		760
(1284)	1950	07	15.27425	21	02	14.07	-16	20	26.7	14.7	760
(1284)	1950	07	15.32844	21	02	11.37	-16	20	25.2		760
(1284)	1950	08	17.12749	20	30	28.39	-16	14	48.8	14.6	760
(1284)	1950	08	17.17677	20	30	25.59	-16	14	46.6		760
(1288)	1950	02	08.15644	07	21	07.55	+22	29	04.6		760
(1288)	1950	02	08.18074	07	21	06.33	+22	29	03.0		I 760
(1289)	1950	02	08.15644	07	28	05.31	+19	41	28.0		I 760
(1289)	1950	02	08.18074	07	28	04.47	+19	41	31.9		I 760
(1299)	1954	05	04.21176	15	01	51.50	-07	07	52.4		760
(1299)	1954	05	04.25620	15	01	49.05	-07	07	40.2		760
(1302)	1963	11	15.30553	04	23	32.44	+19	34	22.1		760
(1302)	1963	11	15.35136	04	23	30.31	+19	34	19.9		760
(1328)	1964	10	30.19119	00	35	10.26	+07	42	40.8		760
(1388)	1962	12	02.43073	06	03	30.98	+31	14	15.1		I 760
(1391)	1959	11	30.33604	05	48	21.17	+18	20	25.4		I 760
(1391)	1959	12	04.31968	05	44	39.99	+18	26	36.9		760
(1397)	1957	02	25.21316	10	46	43.56	+13	24	06.5		760
(1429)	1965	05	02.20556	14	02	16.59	-09	27	37.6	16.9	F 760
(1429)	1965	05	02.25001	14	02	14.00	-09	27	28.9		760
(1586)	1956	11	03.11391	00	23	51.25	-03	39	52.4		760
(1586)	1956	11	03.20767	00	23	48.38	-03	40	04.8		760
(1723)	1957	02	25.21323	10	43	37.38	+10	18	05.1		760
(1723)	1957	02	25.23539	10	43	36.46	+10	18	19.2		760
(1762)	1950	02	08.15644	07	15	21.80	+20	02	24.2		c 760
(1762)	1950	02	08.18074	07	15	21.06	+20	02	27.3		I 760
(1791)	1959	11	30.33604	05	36	41.88	+16	41	16.2		760
(1880)	1954	05	30.15722	14	09	23.96	-05	41	05.8		760
(1880)	1954	05	30.19924	14	09	22.62	-05	41	05.7		760
(1926)	1959	11	30.33604	05	54	01.41	+18	28	15.1		760
(1938)	1962	12	03.29856	04	19	12.54	+16	08	39.4		760
(1938)	1962	12	03.34380	04	19	09.77	+16	08	32.3		760
(1957)	1956	11	03.11391	00	28	51.14	-06	59	48.2		760
(1957)	1956	11	03.20767	00	28	48.45	-06	59	35.7		760
(1978)	1952	11	16.09323	01	52	57.31	+09	33	12.6		760
(1978)	1952	11	16.13420	01	52	55.51	+09	33	12.6		760
(2009)	1950	08	17.12749	20	26	10.94	-20	40	03.8		760
(2009)	1950	08	17.17677	20	26	09.27	-20	40	11.9		760
(2012)	1964	10	30.19119	00	53	51.02	+11	10	56.4		760
(2045)	1964	10	30.19119	00	51	20.41	+07	59	00.6		760
(2119)	1964	10	30.19119	00	39	48.70	+10	49	11.8		760
(2121)	1962	12	03.34380	04	40	06.54	+14	51	12.7		E 760
(2184)	1964	10	30.19119	00	55	47.21	+12	47	31.8		E 760
(2294)	1950	02	11.07394	06	39	30.89	+22	56	35.2		I 760
(2294)	1950	02	11.10241	06	39	29.84	+22	56	31.4		760
(2361)	1962	11	01.14786	01	02	13.94	+05	45	37.2		760
(2399)	1954	05	30.15722	14	15	57.64	-04	06	55.2		760

(2399)	1954	05	30.19924	14	15	56.15	-04	06	52.7	760
(2415)	1952	11	16.09323	01	59	45.86	+09	11	33.7	760
(2415)	1952	11	16.13420	01	59	44.07	+09	11	27.8	760
(2438)	1962	11	30.17910	04	25	48.94	+23	54	57.8	760
(2438)	1962	11	30.22424	04	25	45.51	+23	54	55.2	760
(2525)	1958	08	09.16771	19	59	34.65	-23	10	33.1	F 760
(2547)	1964	10	30.19119	00	47	18.66	+12	30	22.7	760
(2627)	1950	08	17.12749	20	20	32.72	-20	41	22.5	760
(2649)	1959	12	04.31968	05	38	25.69	+18	24	48.8	760
(2691)	1962	12	02.43073	05	57	15.17	+28	26	45.3	760
(2698)	1965	05	02.20556	13	58	41.99	-10	30	23.8	760
(2698)	1965	05	02.25001	13	58	39.71	-10	30	01.3	760
(2708)	1950	02	11.07394	07	03	45.22	+23	01	20.0	760
(2708)	1950	02	11.10241	07	03	44.54	+23	01	21.6	760
(2723)	1950	08	17.12749	20	25	00.11	-18	00	43.6	I 760
(2730)	1957	02	25.21323	10	54	06.74	+11	50	16.2	760
(2730)	1957	02	25.23539	10	54	05.67	+11	50	19.1	760
(2769)	1965	05	02.20556	14	13	13.29	-09	41	15.5	760
(2769)	1965	05	02.25001	14	13	11.29	-09	41	04.7	760
(2769)	1965	05	03.15972	14	12	30.16	-09	38	03.8	760
(2769)	1965	05	03.19861	14	12	28.32	-09	37	56.0	760
(2856)	1965	05	01.15006	13	51	45.62	-16	09	55.8	760
(2856)	1965	05	01.24172	13	51	40.78	-16	09	49.4	760
(3032)	1965	05	02.20556	14	12	20.32	-09	17	55.6	760
(3032)	1965	05	02.25001	14	12	18.07	-09	17	44.0	760
(3032)	1965	05	03.15972	14	11	34.42	-09	14	36.4	I 760
(3032)	1965	05	03.19861	14	11	32.44	-09	14	28.9	760
(3033)	1959	12	04.31968	05	30	10.11	+15	21	20.2	u 760
(3057)	1952	11	16.09323	02	05	53.86	+05	22	48.7	F 760
(3057)	1952	11	16.13420	02	05	51.49	+05	22	45.5	F 760
(3067)	1962	12	02.43073	06	13	57.01	+32	14	35.0	760
(3076)	1952	11	16.09323	01	58	01.03	+04	51	37.9	t 760
(3076)	1952	11	16.13420	01	57	59.92	+04	51	21.6	760
(3189)	1956	11	03.11391	00	28	24.24	-01	41	45.4	760
(3302)	1962	12	03.29856	04	14	10.29	+15	34	36.3	f 760
(3302)	1962	12	03.34380	04	14	07.30	+15	34	27.4	760
(3340)	1965	05	02.20556	14	04	37.72	-12	50	59.8	760
(3340)	1965	05	02.25001	14	04	34.51	-12	50	52.5	760
(3340)	1965	05	03.15972	14	03	33.78	-12	48	26.3	760
(3340)	1965	05	03.19861	14	03	31.20	-12	48	19.1	760
(3467)	1959	11	30.33604	05	28	38.53	+19	20	24.5	760
(3467)	1959	12	04.27211	05	24	49.37	+19	25	09.3	760
(3494)	1962	12	03.29856	04	36	13.21	+19	26	05.4	760
(3543)	1952	11	16.09323	01	47	26.31	+09	54	37.4	760
(3543)	1952	11	16.13420	01	47	25.02	+09	54	28.8	760
(3590)	1950	02	11.10241	07	03	25.37	+21	07	34.7	760
(3590)	1954	05	30.15722	14	21	57.71	-02	35	05.8	760
(3590)	1954	05	30.19924	14	21	56.29	-02	35	07.8	760
(3590)	1957	02	25.21316	10	43	22.29	+14	29	55.4	760
(3596)	1962	09	29.21800	01	10	38.25	+20	53	51.3	760
(3596)	1962	09	29.26383	01	10	36.23	+20	53	51.8	760
(3623)	1962	12	03.29856	04	39	17.19	+18	35	35.5	760
(3623)	1962	12	03.34380	04	39	14.64	+18	35	32.7	760
(3809)	1950	08	17.12749	20	39	29.01	-19	48	16.0	760
(3809)	1950	08	17.17677	20	39	26.57	-19	48	29.4	760
(3903)	1962	11	01.14786	00	54	05.82	+07	07	57.5	760
(3994)	1965	05	02.20556	13	59	27.86	-10	22	43.3	760
(3994)	1965	05	02.25001	13	59	25.16	-10	22	32.2	760
(3994)	1965	05	03.15972	13	58	37.13	-10	19	19.2	760

(3994)	1965 05 03.19861	13 58 34.86	-10 19 05.0			760
(4069)	1962 11 30.22424	04 39 13.24	+21 15 08.4			760
(4069)	1962 12 03.29856	04 35 34.37	+21 04 43.8			760
(4069)	1962 12 03.34380	04 35 31.35	+21 04 33.7		F	760
(4188)	1954 05 04.21176	14 47 05.64	-05 40 14.9			760
(4188)	1954 05 30.15722	14 24 46.99	-04 21 47.6			760
(4188)	1954 05 30.19924	14 24 45.19	-04 21 45.7			760
(4234)	1950 08 17.17677	20 42 43.20	-20 55 26.1			760
(4249)	1950 02 08.15644	07 13 42.09	+25 09 59.1		V	760
(4249)	1950 02 08.18074	07 13 41.38	+25 09 58.2			760
(4330)	1959 12 04.31968	05 42 27.58	+19 14 15.1			760
(4330)	1962 11 01.14786	01 11 01.61	+06 49 41.1			760
(4376)	1950 02 08.15644	07 21 28.44	+20 34 48.8		V	760
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(4519)	1965 05 03.15972	14 13 04.64	-08 25 55.0			760
(4546)	1965 05 02.20556	14 02 08.57	-08 31 58.6			760
(4546)	1965 05 02.25001	14 02 06.23	-08 31 42.6			760
(4651)	1962 12 03.29856	04 17 04.44	+18 50 45.2			760
(4651)	1962 12 03.34380	04 17 01.89	+18 50 39.2			760
(4758)	1965 05 03.15972	14 16 59.26	-12 44 39.3			760
(4758)	1965 05 03.19861	14 16 57.57	-12 44 30.9			760
(4821)	1962 12 03.29856	04 23 47.83	+19 47 12.9			760
(4821)	1962 12 03.34380	04 23 45.58	+19 47 07.2			760
(4936)	1950 07 15.27425	20 43 36.05	-12 31 01.0		F	760
(4936)	1950 07 15.32844	20 43 33.37	-12 31 15.3		F	760
(4938)	1965 05 03.19861	13 57 45.88	-12 57 46.2			760
(5008)	1956 11 03.11391	00 21 20.43	-05 07 52.5			760
(5008)	1956 11 03.20767	00 21 18.09	-05 08 05.3			760
(5133)	1959 11 30.33604	05 53 21.55	+20 32 02.6			760
(5133)	1959 11 30.38118	05 53 18.82	+20 32 13.8		I	760
(5305)	1965 05 01.15006	14 05 41.10	-13 41 45.6			760
(5305)	1965 05 01.24172	14 05 36.11	-13 41 14.3			760
(5305)	1965 05 03.15972	14 03 58.24	-13 30 01.4			760
(5305)	1965 05 03.19861	14 03 56.33	-13 29 47.3			760
(5337)	1959 12 04.31968	05 49 28.07	+20 01 27.8			760
(5338)	1965 05 03.15972	14 10 13.60	-08 52 38.3			760
(5338)	1965 05 03.19861	14 10 11.65	-08 52 34.4			760
(5354)	1950 02 08.15644	07 06 54.49	+20 17 12.3		V	760
(5354)	1950 02 08.18074	07 06 53.91	+20 17 12.9		V	760
(5357)	1950 02 11.07394	06 47 29.03	+24 59 37.0		I	760
(5357)	1950 02 11.10241	06 47 28.25	+24 59 29.2		I	760

786 U.S. Naval Observatory
J. A. DeYoung, U.S. Naval Observatory, 3450 Massachusetts Avenue NW,
Washington, DC 20392-5420, U.S.A.
Observers J. A. DeYoung, R. E. Schmidt
Measurer J. A. DeYoung
0.61-m reflector + CCD
GSC

1965 UA1	1993 02 15.03060	05 47 28.99	+23 41 54.4			786
1965 UA1	1993 02 15.03230	05 47 29.02	+23 41 54.3			786
1965 UA1	1993 02 15.03573	05 47 29.12	+23 41 54.1			786
1965 UA1	1993 02 15.04321	05 47 29.31	+23 41 53.8			786
1988 XE1	1993 02 15.06207	06 36 08.20	+15 51 03.8			786
1988 XE1	1993 02 15.06561	06 36 08.16	+15 51 04.1			786
1988 XE1	1993 02 15.06866	06 36 08.14	+15 51 04.2			786
1988 XE1	1993 02 15.07237	06 36 08.10	+15 51 04.5			786
(66)	1993 01 25.98601	00 22 06.76	+03 26 36.5			786
(66)	1993 01 25.99056	00 22 07.20	+03 26 39.8			786

(198)	1993 02 03.08660	07 23 22.95	+14 45 19.6				786
(198)	1993 02 03.13010	07 23 20.72	+14 45 20.0				786
(198)	1993 02 03.17831	07 23 18.25	+14 45 22.4				786
(349)	1993 01 26.03020	04 06 04.33	+29 10 15.0				786
(349)	1993 01 26.03168	04 06 04.34	+29 10 14.9				786
(349)	1993 01 26.03269	04 06 04.36	+29 10 14.8				786
(349)	1993 01 26.03369	04 06 04.37	+29 10 14.8				786
(2060)	1993 01 20.12954	09 28 08.74	+07 20 31.7				786
(2060)	1993 01 20.13090	09 28 08.72	+07 20 31.8				786
(2060)	1993 01 20.13226	09 28 08.70	+07 20 31.9				786
(2060)	1993 01 20.13361	09 28 08.68	+07 20 32.0				786
(2060)	1993 01 20.13499	09 28 08.65	+07 20 32.1				786
(2060)	1993 01 20.13634	09 28 08.64	+07 20 32.2				786
(2060)	1993 01 20.13770	09 28 08.61	+07 20 32.2				786
(2060)	1993 01 20.13905	09 28 08.59	+07 20 32.3				786
(2060)	1993 01 20.14042	09 28 08.57	+07 20 32.4				786
(2060)	1993 01 20.14177	09 28 08.55	+07 20 32.5				786
(5145)	1993 01 20.15093	09 30 20.86	+23 21 19.0				786
(5145)	1993 01 20.15228	09 30 20.84	+23 21 19.3				786
(5145)	1993 01 20.15363	09 30 20.82	+23 21 19.5				786
(5145)	1993 01 20.15499	09 30 20.79	+23 21 19.7				786
(5145)	1993 01 20.15634	09 30 20.76	+23 21 20.0				786
(5145)	1993 01 20.15771	09 30 20.74	+23 21 20.3				786
(5145)	1993 01 20.15906	09 30 20.73	+23 21 20.5				786
(5145)	1993 01 20.16043	09 30 20.71	+23 21 20.7				786
(5145)	1993 01 20.16178	09 30 20.68	+23 21 20.9				786
(5145)	1993 01 20.16314	09 30 20.66	+23 21 21.2				786

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

1933 UM1	1993 01 21.31252	10 14 21.70	+10 58 24.3				801
1933 UM1	1993 01 21.33330	10 14 20.93	+10 58 28.2				801
1933 UM1	1993 01 27.29522	10 10 29.21	+11 17 58.1				801
1937 NN	1993 01 19.36582	12 42 05.97	-10 54 23.8				801
1937 NN	1993 01 19.37656	12 42 06.49	-10 54 30.0				801
1937 NN	1993 01 21.38987	12 43 49.27	-11 15 16.9				801
1937 NN	1993 01 21.40484	12 43 49.98	-11 15 26.0				801
1964 TA2	1993 01 19.18678	07 02 46.69	+30 13 40.4				801
1964 TA2	1993 01 19.20212	07 02 45.55	+30 13 40.4				801
1964 TA2	1993 01 27.19115	06 54 24.88	+29 59 48.7				801
1964 TA2	1993 01 27.20922	06 54 23.79	+29 59 46.4				801
1964 TU2	1993 01 21.02580	05 00 55.69	+30 08 13.5				801
1964 TU2	1993 01 21.06551	05 00 55.35	+30 08 02.6				801
1964 TU2	1993 01 27.08383	05 01 03.41	+29 41 47.4			I	801
1964 TU2	1993 01 27.11860	05 01 03.53	+29 41 37.5			I	801
1974 XT	1993 01 20.03663	04 08 55.14	-03 16 03.0				801
1974 XT	1993 01 20.04465	04 08 55.43	-03 15 49.2				801
1974 XT	1993 01 26.08039	04 13 32.72	-00 29 22.7				801
1974 XT	1993 01 26.08883	04 13 33.13	-00 29 09.2				801
1976 QE1	1993 01 21.39611	12 51 12.94	-08 12 57.8				801
1976 QE1	1993 01 21.42241	12 51 13.41	-08 13 12.1				801
1976 QE1	1993 01 24.37799	12 52 02.05	-08 35 09.6				801
1976 QE1	1993 01 24.40196	12 52 02.37	-08 35 19.8				801
1977 EW5	1993 01 19.13506	06 21 52.47	+29 56 37.5				801
1977 EW5	1993 01 19.15428	06 21 51.56	+29 56 35.2				801

1977	EW5	1993	01	21.13631	06	20	26.75	+29	52	48.6	801
1977	EW5	1993	01	21.15862	06	20	25.92	+29	52	45.2	801
1978	PT4	1993	01	19.32747	11	08	19.38	+18	01	01.6	801
1978	PT4	1993	01	19.34921	11	08	19.00	+18	01	13.1	801
1978	PT4	1993	01	21.33856	11	07	45.97	+18	19	47.5	801
1978	PT4	1993	01	21.36001	11	07	45.55	+18	19	59.5	801
1978	RV5	1993	01	21.18115	07	29	57.94	+27	19	05.5	801
1978	RV5	1993	01	21.19624	07	29	56.85	+27	19	06.4	801
1978	RV5	1993	01	26.18319	07	24	23.34	+27	22	42.4	801
1978	RV5	1993	01	26.19699	07	24	22.41	+27	22	42.6	801
1978	SH1	1993	01	26.17394	05	54	38.56	+32	11	10.0	801
1978	SM5	1993	01	20.18194	07	27	22.21	+27	30	50.0	801
1978	SM5	1993	01	20.20013	07	27	21.07	+27	30	52.7	801
1978	SM5	1993	01	27.22764	07	20	35.47	+27	43	43.9	801
1978	SM5	1993	01	27.27475	07	20	32.86	+27	43	48.2	801
1979	QX3	1993	01	19.17089	06	52	03.23	+31	52	59.6	801
1979	QX3	1993	01	19.19109	06	52	02.13	+31	52	57.4	801
1979	QX3	1993	01	27.18850	06	45	42.70	+31	38	49.4	801
1979	QX3	1993	01	27.21147	06	45	41.68	+31	38	46.6	801
1980	FZ3	1993	01	19.03256	03	56	56.45	+33	05	08.0	801
1980	FZ3	1993	01	19.05257	03	56	57.21	+33	05	01.8	801
1980	FZ3	1993	01	27.06951	04	03	35.46	+32	29	56.6	801
1980	FZ3	1993	01	27.09199	04	03	36.80	+32	29	50.5	801
1980	TW5	1992	12	25.30392	07	52	10.86	+19	04	44.9	801
1980	TW5	1993	01	20.19213	07	30	12.87	+19	31	05.9	801
1980	TW5	1993	01	20.20880	07	30	11.99	+19	31	06.9	801
1980	TW5	1993	01	26.18013	07	25	11.95	+19	37	18.5	801
1980	TW5	1993	01	26.20118	07	25	10.88	+19	37	19.5	801
1980	TB12	1992	12	28.20245	05	56	18.34	+13	28	58.2	801
1980	TB12	1993	01	19.11573	05	41	00.89	+13	22	36.6	801
1980	TB12	1993	01	19.14479	05	40	59.90	+13	22	37.0	801
1980	TB12	1993	01	21.09042	05	40	01.49	+13	23	37.0	801
1980	TB12	1993	01	21.12302	05	40	00.51	+13	23	38.1	801
1981	DT2	1993	01	19.23531	08	06	01.60	+33	29	22.4	801
1981	DT2	1993	01	19.24988	08	06	00.45	+33	29	19.6	801
1981	DT2	1993	01	27.23493	07	56	04.65	+32	59	13.1	801
1981	DT2	1993	01	27.27701	07	56	01.55	+32	59	01.6	801
1981	UB1	1993	01	25.99418	03	01	00.61	+15	48	20.6	801
1981	UB1	1993	01	26.01049	03	01	00.80	+15	48	21.0	801
1981	UB1	1993	01	26.98676	03	01	46.14	+15	52	03.7	801
1981	UB1	1993	01	27.00264	03	01	46.86	+15	52	07.2	801
1981	WR	1993	01	21.37080	12	02	30.16	+04	35	22.0	801
1981	WR	1993	01	21.40808	12	02	30.71	+04	35	26.2	801
1981	WR	1993	01	26.33838	12	03	28.41	+04	47	19.9	801
1981	WR	1993	01	26.40304	12	03	28.75	+04	47	31.2	801
1983	AW	1993	01	26.19211	07	33	13.91	+14	14	07.6	801
1983	AW	1993	01	26.20667	07	33	13.19	+14	14	09.3	801
1983	AW	1993	01	27.23289	07	32	19.25	+14	18	28.5	801
1983	AW	1993	01	27.27949	07	32	16.72	+14	18	40.0	801
1983	HB1	1993	01	26.21375	08	10	03.86	+22	56	54.2	801
1983	HB1	1993	01	26.23385	08	10	02.84	+22	56	59.7	801
1983	HB1	1993	01	27.23890	08	09	13.76	+23	01	46.9	801
1983	HB1	1993	01	27.28735	08	09	11.31	+23	02	01.2	801
1984	CM1	1992	12	27.39064	10	47	05.19	+01	47	10.9	801
1984	CM1	1993	01	26.32503	10	55	26.67	+02	30	19.4	801
1984	CM1	1993	01	26.35431	10	55	26.39	+02	30	29.1	801
1984	DE	1993	01	25.40951	12	30	28.46	-08	42	03.5	801
1984	DE	1993	01	25.44854	12	30	28.72	-08	42	14.5	801
1984	EC	1993	01	25.41402	13	01	51.99	-06	58	04.0	r 801

1984	EC	1993	01	25.43323	13	01	52.50	-06 58 13.0	r	801
1984	EX	1993	01	26.31921	10	36	19.13	+12 00 19.8		801
1984	EX	1993	01	27.30038	10	35	45.86	+12 02 18.5		801
1984	EX	1993	01	27.40536	10	35	42.05	+12 02 31.8		801
1984	QQ	1993	01	20.09704	05	48	02.32	+11 14 31.8		801
1984	QQ	1993	01	20.12356	05	48	01.37	+11 14 36.0		801
1984	QQ	1993	01	21.09322	05	47	31.12	+11 17 38.3		801
1984	QQ	1993	01	21.11978	05	47	30.26	+11 17 43.2		801
1984	UX1	1993	01	21.24719	08	46	20.21	+30 39 42.8		801
1984	UX1	1993	01	21.26378	08	46	19.04	+30 39 47.7		801
1985	FC2	1993	01	26.25267	08	57	18.77	+38 22 01.4		801
1985	FC2	1993	01	26.26811	08	57	17.73	+38 22 07.4		801
1985	HL	1993	01	26.32694	11	07	59.54	+00 18 36.9		801
1985	HL	1993	01	26.40828	11	07	59.68	+00 18 48.1		801
1985	TO	1993	01	21.04778	03	33	58.21	+24 16 56.8		801
1985	TO	1993	01	21.07466	03	33	58.81	+24 16 56.1		801
1985	UG2	1993	01	21.24520	08	44	57.98	+16 32 15.9		801
1985	UG2	1993	01	21.26128	08	44	56.87	+16 32 21.1		801
1986	EE2	1993	01	20.16126	06	50	20.41	+07 39 43.6		801
1986	EE2	1993	01	20.17429	06	50	19.70	+07 39 47.5		801
1986	EE2	1993	01	27.19852	06	44	41.93	+08 23 14.1		801
1986	EE2	1993	01	27.21440	06	44	41.20	+08 23 20.5		801
1986	EZ4	1992	12	21.43108	10	37	32.43	+09 47 18.4		801
1986	EZ4	1993	01	26.32080	10	48	05.26	+08 45 24.2		801
1986	EZ4	1993	01	26.35206	10	48	04.40	+08 45 28.7		801
1986	EZ4	1993	01	27.30287	10	47	43.72	+08 47 23.6		801
1986	EZ4	1993	01	27.40756	10	47	41.06	+08 47 37.3		801
1986	RD5	1993	01	18.98476	02	27	32.74	+18 43 12.2		801
1986	RD5	1993	01	19.00275	02	27	33.49	+18 43 14.5		801
1986	RD5	1993	01	26.97840	02	33	03.03	+19 01 04.8		801
1986	RD5	1993	01	26.99391	02	33	03.70	+19 01 07.3		801
1986	RF13	1993	01	20.06176	05	20	28.89	+20 47 12.2		801
1986	RF13	1993	01	20.08850	05	20	28.13	+20 47 13.2		801
1986	RF13	1993	01	27.10622	05	17	51.42	+20 53 33.8		801
1986	RF13	1993	01	27.14693	05	17	50.59	+20 53 35.6		801
1986	SD2	1993	01	20.03317	04	24	23.58	+32 34 25.2		801
1986	SD2	1993	01	20.05834	04	24	23.42	+32 34 16.0		801
1986	SD2	1993	01	27.08115	04	24	31.00	+31 52 28.4		801
1986	TU6	1993	01	20.16370	07	10	34.56	+21 33 00.0		801
1986	TU6	1993	01	20.17829	07	10	33.75	+21 33 00.0		801
1986	VD1	1993	01	19.28274	09	55	17.81	+12 01 52.9		801
1986	VD1	1993	01	19.29856	09	55	17.06	+12 01 53.9		801
1986	VD1	1993	01	26.28838	09	49	46.05	+12 08 47.8		801
1986	VD1	1993	01	26.30491	09	49	45.20	+12 08 49.2		801
1986	VF5	1993	01	19.22432	07	52	05.47	+35 35 47.8		801
1986	VF5	1993	01	19.24382	07	52	04.21	+35 35 48.1		801
1986	VF5	1993	01	21.19054	07	50	02.04	+35 36 21.3		801
1986	VF5	1993	01	21.23161	07	49	59.41	+35 36 21.5		801
1986	WQ2	1993	01	24.44681	15	02	58.30	+08 32 55.9		801
1986	WQ2	1993	01	24.45800	15	02	59.42	+08 32 55.6		801
1986	WN7	1993	01	19.22699	07	47	33.35	+23 19 01.3		801
1986	WN7	1993	01	19.24628	07	47	32.26	+23 19 02.1		801
1986	WN7	1993	01	21.18581	07	45	46.01	+23 20 19.7		801
1986	WN7	1993	01	21.21565	07	45	44.36	+23 20 20.4		801
1986	WO7	1993	01	20.16909	07	26	15.54	+25 02 15.8		801
1986	WO7	1993	01	20.18713	07	26	14.50	+25 02 15.2		801
1986	WP8	1993	01	21.13866	06	21	40.89	+21 00 07.4		801
1986	WP8	1993	01	21.16082	06	21	39.93	+21 00 07.9		801
1986	WP8	1993	01	27.18322	06	18	03.24	+21 07 54.3		801

1986	WP8	1993 01 27.20730	06	18	02.42	+21 07 55.3	801
1987	QM	1993 01 18.98030	02	18	11.06	+35 57 35.6	801
1987	QM	1993 01 18.99560	02	18	11.99	+35 57 32.2	801
1987	QM	1993 01 25.99731	02	26	13.22	+35 35 58.5	801
1987	SV11	1993 01 21.43587	13	37	47.91	-07 30 10.2	801
1987	SV11	1993 01 21.44707	13	37	48.65	-07 30 15.7	801
1987	SV11	1993 01 26.42472	13	43	25.09	-08 09 45.4	801
1987	SV11	1993 01 26.44483	13	43	26.31	-08 09 54.3	801
1987	UN	1993 01 19.29304	10	01	50.42	+34 43 22.3	801
1987	UN	1993 01 25.35617	09	56	24.24	+35 29 46.3	801
1987	UN	1993 01 25.38332	09	56	22.61	+35 29 58.7	801
1987	VU	1993 01 21.18333	07	43	37.52	+32 21 28.2	801
1987	VU	1993 01 21.19979	07	43	36.47	+32 21 31.7	801
1987	VU	1993 01 27.23012	07	37	31.62	+32 39 37.2	801
1987	VU	1993 01 27.28183	07	37	28.54	+32 39 44.1	801
1988	AG	1993 01 19.31551	10	58	19.19	+10 05 16.8	801
1988	AG	1993 01 19.35475	10	58	18.31	+10 05 13.1	801
1988	AG	1993 01 21.32505	10	57	38.62	+10 03 00.9	801
1988	AG	1993 01 21.36273	10	57	37.72	+10 02 58.5	801
1988	BK2	1993 01 19.37931	13	26	22.00	+18 30 59.8	801
1988	BK2	1993 01 19.40287	13	26	22.89	+18 31 03.8	801
1988	BK2	1993 01 25.40410	13	29	52.47	+18 47 53.9	801
1988	BK2	1993 01 25.42742	13	29	53.12	+18 47 58.5	801
1988	BK4	1993 01 20.08600	05	29	35.67	+01 59 17.0	801
1988	BK4	1993 01 20.10324	05	29	35.26	+01 59 28.2	801
1988	BK4	1993 01 26.10431	05	27	40.78	+02 57 20.9	801
1988	BO4	1992 12 26.33000	09	02	41.77	+11 18 24.8	801
1988	BO4	1993 01 21.23889	08	44	42.41	+11 12 59.3	801
1988	BO4	1993 01 21.25626	08	44	41.49	+11 13 00.1	801
1988	BK5	1993 01 27.13546	05	44	42.90	+34 46 35.7	801
1988	BK5	1993 01 27.15333	05	44	42.48	+34 46 26.3	801
1988	CA	1993 01 19.37410	13	10	45.85	-03 47 35.9	801
1988	CA	1993 01 19.38987	13	10	46.72	-03 47 36.2	801
1988	CA	1993 01 21.39848	13	12	44.35	-03 47 19.0	801
1988	CA	1993 01 21.41437	13	12	45.24	-03 47 18.3	801
1988	EB	1993 01 19.37177	13	03	09.91	-00 24 54.5	801
1988	EB	1993 01 19.39507	13	03	10.68	-00 24 59.3	801
1988	EB	1993 01 24.39226	13	05	43.64	-00 38 22.5	801
1988	EB	1993 01 24.41314	13	05	44.19	-00 38 25.3	801
1988	FK	1993 01 21.10275	05	54	58.15	-07 26 40.6	801
1988	FK	1993 01 21.11355	05	54	57.68	-07 26 29.1	801
1988	FK	1993 01 27.13854	05	51	14.25	-05 33 33.4	801
1988	FK	1993 01 27.14997	05	51	13.76	-05 33 20.3	801
1988	JL	1993 01 21.34229	11	14	35.62	+41 47 15.9	801
1988	JL	1993 01 21.35491	11	14	35.35	+41 47 29.7	801
1988	JL	1993 01 25.38664	11	13	05.82	+43 02 23.2	801
1988	JL	1993 01 25.39542	11	13	05.57	+43 02 30.2	801
1988	PV	1993 01 27.13269	05	45	44.02	+16 43 43.2	801
1988	PV	1993 01 27.16177	05	45	43.25	+16 43 45.4	801
1988	RR	1993 01 27.12541	05	45	38.51	+25 46 24.5	801
1988	RR	1993 01 27.15616	05	45	37.70	+25 46 23.1	801
1988	TC1	1993 01 21.23625	08	40	29.25	+26 20 36.6	801
1988	TC1	1993 01 21.24965	08	40	28.27	+26 20 40.1	801
1988	TH1	1993 01 19.23924	08	39	44.52	+08 31 23.7	801
1988	TH1	1993 01 19.25603	08	39	44.02	+08 31 26.3	801
1988	TH1	1993 01 26.21988	08	36	18.80	+08 48 00.4	801
1988	TH1	1993 01 26.24484	08	36	18.01	+08 48 04.3	801
1988	TA3	1993 01 27.19557	07	13	48.94	+13 04 54.9	801
1988	TA3	1993 01 27.21978	07	13	48.24	+13 04 58.0	801

1988	VP	1993	01	25.98875	02	47	42.72	+20	57	47.0		801
1988	VP	1993	01	26.00752	02	47	43.56	+20	57	54.4		801
1988	VP	1993	01	26.98093	02	48	29.29	+21	04	11.4		801
1988	VP	1993	01	26.99759	02	48	30.07	+21	04	17.8		801
1988	VO1	1993	01	20.07999	05	22	31.14	+16	49	51.2		801
1988	VO1	1993	01	20.10617	05	22	30.35	+16	49	51.6		801
1988	VO1	1993	01	27.11539	05	19	40.16	+16	52	08.0		801
1988	VJ2	1993	01	27.01495	03	42	55.64	+13	03	22.0		801
1988	VJ2	1993	01	27.02598	03	42	56.54	+13	03	25.7		801
1988	VE7	1992	10	29.31741	05	23	02.04	+11	51	19.0		801
1988	VE7	1993	01	19.06483	04	38	41.71	+13	58	26.8		801
1988	VE7	1993	01	19.08995	04	38	41.90	+13	58	37.2		801
1988	VE7	1993	01	24.07903	04	39	56.54	+14	32	43.9		801
1988	VE7	1993	01	24.10437	04	39	57.01	+14	32	54.7		801
1988	XQ	1993	01	19.04905	04	13	16.59	+17	42	18.7		801
1988	XQ	1993	01	27.07603	04	19	20.55	+17	18	59.1		801
1988	XQ	1993	01	27.09488	04	19	21.51	+17	18	56.6		801
1988	XE1	1993	01	19.17375	06	51	39.52	+15	39	01.4		801
1988	XE1	1993	01	19.18882	06	51	38.63	+15	39	01.9		801
1988	XE1	1993	01	21.14917	06	49	48.40	+15	38	51.1		801
1988	XE1	1993	01	21.17212	06	49	47.12	+15	38	50.2		801
1988	XX1	1993	01	19.02905	03	47	30.92	+37	59	54.1	V	801
1988	XX1	1993	01	19.06995	03	47	31.63	+37	59	47.1		801
1988	XX1	1993	01	26.04594	03	50	36.31	+37	41	09.0		801
1988	XX1	1993	01	26.07032	03	50	37.17	+37	41	06.8		801
1989	AL1	1993	01	21.39304	12	54	17.02	+04	04	16.6	r	801
1989	AL1	1993	01	24.38130	12	56	09.42	+04	08	07.2		801
1989	AL1	1993	01	24.41580	12	56	10.62	+04	08	10.6		801
1989	BN1	1993	01	20.18986	07	26	51.46	+14	57	41.8		801
1989	BN1	1993	01	26.17733	07	21	47.96	+15	35	00.6		801
1989	BN1	1993	01	26.19478	07	21	47.10	+15	35	07.2		801
1989	CY1	1993	01	24.42831	13	35	23.66	-09	17	51.8		801
1989	CY1	1993	01	24.43931	13	35	24.41	-09	17	54.3		801
1989	CU8	1992	12	23.13823	03	59	38.73	+23	05	24.1		801
1989	EL1	1993	01	26.26209	08	46	59.92	+03	07	40.2		801
1989	EL1	1993	01	26.27584	08	46	59.18	+03	07	45.6		801
1989	JK	1993	01	24.42501	13	33	36.17	-04	53	19.7		801
1989	JK	1993	01	24.43594	13	33	36.93	-04	53	19.3		801
1989	JK	1993	01	26.42134	13	35	54.78	-04	51	11.7		801
1989	JK	1993	01	26.43873	13	35	55.91	-04	51	12.7		801
1989	LJ	1993	01	25.44140	14	09	48.12	+04	50	20.9		801
1989	LJ	1993	01	25.45580	14	09	49.04	+04	50	21.4		801
1989	PA	1993	01	18.97674	01	40	42.29	+29	55	41.9		801
1989	PA	1993	01	18.98844	01	40	43.92	+29	55	36.6		801
1989	PA	1993	01	24.95234	01	54	42.98	+29	10	33.1		801
1989	PA	1993	01	24.95856	01	54	43.71	+29	10	30.7		801
1989	PE	1993	01	21.10594	05	59	49.94	-11	45	47.3		801
1989	PE	1993	01	21.11719	05	59	49.36	-11	45	32.4		801
1989	PE	1993	01	27.16637	05	55	56.48	-09	22	06.8		801
1989	PE	1993	01	27.18082	05	55	56.06	-09	21	47.4		801
1989	QO	1992	12	22.09925	03	53	09.32	-08	51	46.4		801
1989	QO	1993	01	21.05846	03	49	26.95	+05	26	19.6		801
1989	QO	1993	01	21.07010	03	49	27.25	+05	26	36.4		801
1989	QO	1993	01	27.01838	03	53	11.36	+08	03	13.7		801
1989	QO	1993	01	27.02991	03	53	11.84	+08	03	31.4		801
1989	TO11	1993	01	21.15230	06	52	56.64	+06	20	42.4	V	801
1989	TO11	1993	01	21.17484	06	52	56.00	+06	20	44.8	V	801
1989	WL2	1993	01	26.31170	10	19	07.72	+11	00	20.5		801
1989	WL2	1993	01	26.32244	10	19	07.27	+11	00	34.8		801

1989 WL2	1993 01 27.29788	10 18 27.61	+11 22 03.3			801
1989 WL2	1993 01 27.30921	10 18 27.11	+11 22 18.2			801
1990 BW	1993 01 24.38878	13 04 38.05	+15 25 27.5			801
1990 BW	1993 01 24.39882	13 04 38.63	+15 25 36.2			801
1990 BW	1993 01 26.38149	13 06 45.77	+15 54 42.3			801
1990 BW	1993 01 26.40029	13 06 46.90	+15 54 59.0			801
1990 CH	1993 01 20.04212	04 32 17.37	+29 19 55.3			801
1990 CH	1993 01 20.07567	04 32 16.99	+29 19 47.5			801
1990 CH	1993 01 27.07914	04 32 00.86	+28 52 15.9			801
1990 CH	1993 01 27.12207	04 32 00.99	+28 52 06.3			801
1990 DL	1993 01 20.06957	05 21 48.04	+30 31 19.6			801
1990 DL	1993 01 20.09067	05 21 47.30	+30 31 14.5			801
1990 DL	1993 01 27.11262	05 19 01.15	+30 02 52.3			801
1990 DL	1993 01 27.14411	05 19 00.76	+30 02 43.1			801
1990 DA1	1993 01 26.28535	09 42 36.14	+18 51 17.2			801
1990 DA1	1993 01 26.29985	09 42 35.20	+18 51 19.9			801
1990 DA1	1993 01 27.29279	09 41 31.81	+18 54 32.6			801
1990 DA1	1993 01 27.30664	09 41 30.91	+18 54 35.2			801
1990 EA	1993 01 20.08308	05 25 37.43	+14 40 51.0			801
1990 EA	1993 01 20.10982	05 25 36.76	+14 41 00.5			801
1990 EA	1993 01 26.09891	05 24 00.28	+15 18 59.2			801
1990 EA	1993 01 26.12541	05 24 00.02	+15 19 09.6			801
1990 HR	1992 12 25.02106	03 00 31.53	+20 04 53.7			801
1990 QQ	1993 01 24.41944	13 30 17.34	-18 52 54.6			801
1990 QQ	1993 01 24.43235	13 30 18.10	-18 53 03.3			801
1990 QB4	1993 01 26.28328	09 42 26.87	+10 23 53.5			801
1990 QB4	1993 01 26.30282	09 42 26.07	+10 23 59.6			801
1990 QB4	1993 01 27.29029	09 41 45.97	+10 28 48.8			801
1990 QB4	1993 01 27.31215	09 41 45.03	+10 28 55.2			801
1990 RE6	1993 01 19.44602	14 24 47.48	-12 20 46.9			801
1990 RE6	1993 01 19.45222	14 24 48.10	-12 20 49.0			801
1990 RE6	1993 01 24.44310	14 32 57.92	-12 50 13.8			801
1990 RE6	1993 01 24.45025	14 32 58.54	-12 50 16.6			801
1990 UQ11	1993 01 19.40885	13 26 00.92	+01 40 24.1			801
1990 UQ11	1993 01 19.43335	13 26 01.63	+01 40 21.2			801
1990 VU1	1993 01 19.21308	08 18 27.03	+40 27 25.5			801
1990 VU1	1993 01 19.23177	08 18 26.29	+40 27 28.6			801
1991 LE1	1993 01 26.02341	03 03 45.04	-06 59 21.1			801
1991 LE1	1993 01 26.03685	03 03 45.55	-06 59 05.5			801
1991 LE1	1993 01 26.98944	03 04 23.39	-06 41 45.1			801
1991 LE1	1993 01 27.00022	03 04 23.81	-06 41 33.3			801
1991 MA	1993 01 26.38950	12 10 53.53	+47 06 30.3			801
1991 MA	1993 01 26.39679	12 10 53.67	+47 06 39.2			801
1991 NT2	1993 01 19.08388	04 54 42.81	+28 57 07.3			801
1991 NT2	1993 01 19.10727	04 54 42.25	+28 57 00.2			801
1991 NT2	1993 01 21.08221	04 53 56.81	+28 46 46.6			801
1991 NT2	1993 01 21.11054	04 53 56.16	+28 46 37.9			801
1991 PQ	1993 01 18.95465	00 43 05.71	+25 49 24.3			801
1991 PQ	1993 01 18.96821	00 43 06.51	+25 49 23.6			801
1991 PQ	1993 01 26.95340	00 51 00.27	+25 55 56.9			801
1991 PQ	1993 01 26.96796	00 51 01.15	+25 55 57.0			801
1991 PS	1992 12 24.35539	09 17 38.25	+13 09 46.7			801
1991 PS	1992 12 27.32980	09 16 37.31	+13 04 51.6			801
1991 PS	1992 12 27.36182	09 16 36.34	+13 04 48.3			801
1991 PS	1993 01 26.25734	08 52 00.20	+13 22 07.8			801
1991 PS	1993 01 26.27289	08 51 59.16	+13 22 09.9			801
1991 PM1	1993 01 26.25510	08 51 58.67	+28 06 39.3			801
1991 PM1	1993 01 26.27073	08 51 57.71	+28 06 45.5			801
1991 PH8	1993 01 25.99146	02 53 53.60	+15 03 22.0			801

1991	PH8	1993	01	26.01348	02	53	54.35	+15	03	26.6	801
1991	PH8	1993	01	26.98373	02	54	27.74	+15	07	06.6	801
1991	PH8	1993	01	27.00569	02	54	28.44	+15	07	11.7	801
1991	PQ10	1993	01	21.35168	11	42	18.57	-04	53	16.1	801
1991	PQ10	1993	01	21.38153	11	42	18.84	-04	53	25.3	801
1991	PY14	1993	01	21.24179	08	45	15.20	+17	33	17.3	801
1991	PY14	1993	01	21.25900	08	45	14.06	+17	33	17.6	801
1991	PN18	1993	01	26.34279	12	19	21.19	-09	02	43.9	801
1991	PN18	1993	01	26.37595	12	19	21.58	-09	02	54.7	801
1991	RG	1993	01	20.19727	07	32	38.65	+15	15	42.1	801
1991	RG	1993	01	20.21157	07	32	37.64	+15	15	43.7	801
1991	RG	1993	01	26.20414	07	26	08.78	+15	29	01.1	801
1991	RJ	1992	12	24.23709	07	00	53.45	+39	39	29.4	801
1991	RJ	1992	12	24.24722	07	00	52.75	+39	39	32.1	801
1991	RS1	1993	01	21.34682	11	32	35.79	+08	18	50.9	801
1991	RS1	1993	01	21.38538	11	32	35.05	+08	18	47.1	801
1991	RX2	1993	01	19.30122	10	04	38.31	+07	32	53.6	801
1991	RX2	1993	01	19.32086	10	04	37.56	+07	32	53.0	801
1991	RX2	1993	01	21.30192	10	03	23.83	+07	33	34.2	801
1991	RX2	1993	01	21.32288	10	03	22.97	+07	33	34.8	801
1991	RP15	1992	12	27.28240	07	40	30.48	+23	23	08.1	801
1991	RP15	1993	01	20.16670	07	19	02.19	+24	14	48.5	801
1991	RP15	1993	01	20.18434	07	19	01.23	+24	14	50.0	801
1991	RP15	1993	01	27.22277	07	13	15.79	+24	24	42.3	801
1991	RP15	1993	01	27.24142	07	13	14.94	+24	24	43.9	r 801
1991	RQ21	1993	01	19.15194	06	08	04.83	+27	32	50.4	801
1991	RQ21	1993	01	21.13332	06	06	42.82	+27	33	02.0	801
1991	RQ21	1993	01	21.15587	06	06	41.84	+27	33	02.2	801
1991	RP25	1993	01	21.29377	09	43	24.21	+33	11	52.4	801
1991	RP25	1993	01	21.30988	09	43	23.40	+33	11	58.0	801
1991	RP25	1993	01	26.28104	09	39	06.38	+33	38	53.0	801
1991	RP25	1993	01	26.29670	09	39	05.53	+33	38	57.6	801
1991	RA30	1993	01	19.16486	06	34	18.65	+22	46	06.3	801
1991	RA30	1993	01	19.18205	06	34	17.63	+22	46	10.3	801
1991	RA30	1993	01	21.14672	06	32	30.60	+22	54	24.9	801
1991	RA30	1993	01	21.16990	06	32	29.33	+22	54	30.4	801
1991	TS4	1993	01	19.31200	10	50	44.05	+10	58	33.5	801
1991	TS4	1993	01	19.33765	10	50	43.23	+10	58	34.7	801
1991	TS4	1993	01	21.31610	10	49	39.94	+11	01	46.6	801
1991	TS4	1993	01	21.33626	10	49	39.22	+11	01	48.8	801
1991	UL2	1993	01	19.33433	11	44	04.80	+06	03	05.5	801
1991	UL2	1993	01	19.39913	11	44	04.70	+06	03	16.0	801
1991	UL2	1993	01	26.33596	11	43	23.71	+06	25	39.6	r 801
1991	UL2	1993	01	26.37808	11	43	23.21	+06	25	50.2	r 801
1991	UT2	1993	01	21.32745	10	59	52.73	+22	19	24.0	801
1991	UT2	1993	01	21.34898	10	59	52.26	+22	19	33.2	801
1991	UZ2	1993	01	20.15894	06	45	37.77	+20	56	11.5	801
1991	UZ2	1993	01	20.17622	06	45	36.91	+20	56	12.5	801
1991	UZ2	1993	01	27.18634	06	40	25.09	+21	05	50.2	801
1991	UZ2	1993	01	27.20547	06	40	24.28	+21	05	51.5	801
1991	UQ3	1993	01	19.32453	11	03	48.67	+09	41	15.0	801
1991	UQ3	1993	01	19.36297	11	03	48.06	+09	41	23.6	801
1991	UQ3	1993	01	21.33025	11	03	18.69	+09	49	29.4	801
1991	UQ3	1993	01	21.36524	11	03	17.99	+09	49	38.2	801
1991	UM4	1993	01	21.27332	09	13	16.66	+18	58	02.0	801
1991	UM4	1993	01	21.28859	09	13	15.75	+18	58	05.7	801
1991	VM1	1993	01	25.41887	12	59	55.30	-01	22	07.5	801
1991	VM1	1993	01	25.43735	12	59	56.12	-01	22	08.9	801
1991	VZ1	1993	01	19.34656	12	19	31.17	+12	56	11.8	801

1991 VZ1	1993 01 19.38432	12 19 31.75	+12 56 19.0				801
1991 VZ1	1993 01 21.37957	12 20 01.72	+13 03 04.2				801
1991 VZ1	1993 01 21.41964	12 20 02.21	+13 03 12.5				801
1991 VK5	1993 01 21.23433	08 22 40.07	+26 21 50.4				801
1991 VK5	1993 01 21.25326	08 22 39.05	+26 21 56.3				801
1991 VK5	1993 01 26.21670	08 18 16.26	+26 47 47.5				801
1991 VK5	1993 01 26.23646	08 18 15.19	+26 47 53.3				801
1992 AJ	1993 01 19.42367	14 00 18.76	+01 47 18.1				801
1992 AJ	1993 01 19.44262	14 00 19.55	+01 47 20.0				801
1992 BX1	1993 01 21.40186	13 20 02.07	+07 10 03.2				801
1992 BX1	1993 01 21.42581	13 20 02.99	+07 10 10.2				801
1992 BX1	1993 01 26.41426	13 23 12.97	+07 34 28.6				801
1992 BX1	1993 01 26.44201	13 23 13.95	+07 34 37.9				801
1992 SN1	1993 01 18.96547	01 08 39.24	+18 56 04.3				801
1992 SN1	1993 01 26.96069	01 21 16.92	+20 17 31.2				801
1992 SN1	1993 01 26.97081	01 21 17.78	+20 17 38.7				801
1992 SW17	1993 01 24.95609	01 46 32.53	+22 19 18.9				801
1992 SW17	1993 01 26.96493	01 49 21.75	+22 20 04.7				801
1992 SW17	1993 01 26.97390	01 49 22.51	+22 20 05.2				801
1992 UG	1993 01 26.00192	03 06 03.30	+16 27 55.4				801
1992 UG	1993 01 26.01605	03 06 04.29	+16 28 01.7				801
1992 UG	1993 01 27.00961	03 07 16.72	+16 36 40.2				801
1992 VM	1993 01 19.04221	03 54 45.71	+01 45 16.4				801
1992 VM	1993 01 19.04648	03 54 46.17	+01 45 21.8				801
1992 VM	1993 01 26.05679	04 07 59.37	+04 24 26.3				801
1992 VM	1993 01 26.06668	04 08 00.52	+04 24 38.4				801
1992 WY4	1993 01 19.05869	04 42 54.50	+17 37 09.4				801
1992 WY4	1993 01 19.08106	04 42 54.48	+17 36 52.9				801
1992 WY4	1993 01 21.07860	04 43 02.46	+17 13 43.5				801
1992 WY4	1993 01 21.09576	04 43 02.50	+17 13 32.0				801
1992 WD5	1993 01 19.20877	05 51 02.57	+49 08 20.4				801
1992 WD5	1993 01 19.22936	05 51 02.74	+49 08 08.8				801
1992 WD5	1993 01 26.25016	05 55 06.39	+47 56 09.6				801
1992 WD5	1993 01 26.26567	05 55 07.12	+47 55 57.5				801
1992 YG3	1993 01 19.19667	07 59 27.68	+20 18 21.9				801
1992 YG3	1993 01 19.21883	07 59 26.48	+20 18 26.6				801
1992 YG3	1993 01 20.22006	07 58 34.09	+20 21 36.4				801
1992 YG3	1993 01 20.24025	07 58 32.99	+20 21 40.5				801
1993 BW2	1993 02 18.14792	07 16 57.67	+49 45 49.9				801
1993 BW2	1993 02 18.15744	07 16 58.86	+49 45 59.8				801
1993 BW3	1993 02 18.22888	10 22 05.22	-01 28 09.6				801
1993 BW3	1993 02 18.23983	10 22 04.03	-01 28 10.1				801
2019 P-L	1993 01 20.09356	05 43 17.08	+18 26 26.6				801
2019 P-L	1993 01 20.13554	05 43 15.59	+18 26 27.4				801
2557 P-L	1993 01 21.27112	09 10 52.72	+23 57 36.5				801
2557 P-L	1993 01 21.28618	09 10 51.75	+23 57 40.8				801
2835 P-L	1993 01 21.29147	09 40 03.62	+28 51 51.6				801
2835 P-L	1993 01 21.30788	09 40 02.69	+28 51 56.6				801
2835 P-L	1993 01 26.27900	09 35 12.47	+29 12 49.0				801
2835 P-L	1993 01 26.29477	09 35 11.45	+29 12 52.7				801
3233 T-1	1992 12 24.18330	05 06 39.98	+35 00 05.1				801
3233 T-1	1992 12 28.18135	05 02 48.40	+34 50 43.7				801
3233 T-1	1992 12 28.19624	05 02 47.67	+34 50 42.7				801
1617 T-2	1993 01 20.05067	05 10 24.95	+28 35 29.2				801
1617 T-2	1993 01 20.07278	05 10 24.22	+28 35 26.6				801
1617 T-2	1993 01 27.10358	05 07 28.18	+28 18 40.9				801
1617 T-2	1993 01 27.14157	05 07 27.43	+28 18 35.6				801
2114 T-2	1993 01 19.13740	06 23 50.02	+17 02 17.8				801
2114 T-2	1993 01 21.14160	06 22 21.05	+17 07 18.9				801

2114 T-2	1993 01 21.16413	06 22 20.01	+17 07 22.0				801
2041 T-3	1993 01 19.16104	06 29 13.62	+20 03 12.4				801
2041 T-3	1993 01 19.17949	06 29 12.67	+20 03 12.0				801
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(243)	1992 12 21.37620	12 11 51.95	-01 41 49.6				801
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(243)	1993 01 19.27405	12 27 44.44	-03 37 18.9				801
(243)	1993 01 19.30421	12 27 44.95	-03 37 22.8				801
(243)	1993 01 19.36064	12 27 45.79	-03 37 31.0				801
(243)	1993 01 19.40653	12 27 46.47	-03 37 37.1				801
(243)	1993 01 21.38744	12 28 15.84	-03 41 46.4				801
(243)	1993 01 21.43928	12 28 16.46	-03 41 51.9				801
(243)	1993 01 25.40693	12 28 59.28	-03 48 29.1				801
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(1864)	1993 01 24.05405	01 16 23.27	+49 06 31.7				801
(1864)	1993 01 24.06664	01 16 27.63	+49 06 38.1				801
(1864)	1993 01 25.94431	01 27 13.86	+49 21 35.5				801
(1864)	1993 01 25.94822	01 27 15.17	+49 21 36.9				801
(1908)	1993 01 25.98590	02 32 16.03	+18 56 08.0				801
(1908)	1993 01 26.00468	02 32 16.72	+18 56 10.9				801
(1908)	1993 01 26.97840	02 32 53.98	+18 58 36.5				801
(1908)	1993 01 26.99391	02 32 54.55	+18 58 38.8				801
(2235)	1993 01 19.19916	08 04 17.89	-09 41 24.7				801
(2235)	1993 01 19.21660	08 04 17.06	-09 41 22.2				801
(2536)	1993 01 19.09825	05 31 01.59	+22 52 53.5				801
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(2536)	1993 01 21.08553	05 30 11.96	+22 47 41.2				801
(2536)	1993 01 21.12579	05 30 10.92	+22 47 35.9				801
(3389)	1993 01 26.17733	07 21 54.56	+15 36 50.7				801
(3389)	1993 01 26.19478	07 21 53.69	+15 36 56.0				801
(3552)	1993 01 25.95994	02 01 38.42	+48 09 22.6				801
(3552)	1993 01 25.97779	02 01 39.38	+48 09 17.3				801
(3944)	1993 01 19.11845	05 50 44.16	+29 32 04.1				801
(3944)	1993 01 19.14163	05 50 43.11	+29 32 04.9				801
(3944)	1993 01 21.09866	05 49 23.22	+29 33 43.8				801
(3944)	1993 01 21.12845	05 49 22.01	+29 33 45.1				801
(4179)	1993 01 19.19667	07 59 29.26	+20 19 41.9				801
(4179)	1993 01 19.21883	07 59 28.00	+20 19 47.4				801
(4957)	1993 01 20.03900	03 53 09.67	-00 17 18.0				801
(4957)	1993 01 20.04706	03 53 10.04	-00 17 24.1				801
(4957)	1993 01 27.03258	03 59 30.14	-01 29 21.8			r	801
(4957)	1993 01 27.07304	03 59 32.42	-01 29 42.6			r	801
(5410)	1992 12 21.35091	08 33 56.14	+15 16 44.1				801
(5444)	1993 01 19.10216	05 32 49.25	+22 22 30.9				801
(5444)	1993 01 19.12758	05 32 48.51	+22 22 31.4				801
(5444)	1993 01 21.08808	05 32 00.70	+22 23 19.8				801
(5444)	1993 01 21.13093	05 31 59.67	+22 23 21.2				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
Measurer E. W. Elst
1.0-m Schmidt
PPM

1975	LQ	1993	01	23.17977	09	14	25.06	+11 30 17.5	18.6	809
1975	LQ	1993	01	23.19293	09	14	24.26	+11 30 21.5		809
1975	LQ	1993	01	23.20609	09	14	23.52	+11 30 26.8		809
1975	LQ	1993	01	28.20556	09	09	47.68	+11 56 47.3		809
1975	LQ	1993	01	28.21875	09	09	46.87	+11 56 51.9		809
1975	LQ	1993	01	28.23194	09	09	46.11	+11 56 55.8		809
1981	EY18	1992	07	24.24792	21	26	33.84	-12 55 10.8		809
1981	EY18	1992	07	24.25833	21	26	33.19	-12 55 10.9		809
1981	EY18	1992	07	24.26875	21	26	32.63	-12 55 10.4		809
1981	EB28	1992	07	24.24792	21	39	01.38	-13 35 10.3		809
1981	EB28	1992	07	24.25833	21	39	00.78	-13 35 15.0		809
1981	EB28	1992	07	24.26875	21	39	00.24	-13 35 18.1		809
1981	SA5	1993	01	22.22336	08	51	02.85	+15 34 41.2		809
1981	SA5	1993	01	22.23652	08	51	02.09	+15 34 44.3		809
1981	SA5	1993	01	22.24968	08	51	01.37	+15 34 46.9		809
1981	SA5	1993	01	28.16181	08	45	51.34	+15 56 00.6	18.4	809
1981	SA5	1993	01	28.17500	08	45	50.59	+15 56 02.3		809
1981	SA5	1993	01	28.18819	08	45	49.80	+15 56 05.2		809
1983	AB	1992	09	23.15694	23	40	39.61	-07 54 42.9	18.5	809
1983	AB	1992	09	23.17014	23	40	38.91	-07 54 47.3		809
1983	AB	1992	09	23.18333	23	40	38.14	-07 54 52.4		809
1987	SM4	1993	01	23.17977	09	08	03.81	+11 20 29.4	18.4	809
1987	SM4	1993	01	23.19293	09	08	02.96	+11 20 32.0		809
1987	SM4	1993	01	23.20609	09	08	02.19	+11 20 30.8		809
1987	SM4	1993	01	28.20556	09	03	02.78	+11 27 50.9		809
1987	SM4	1993	01	28.21875	09	03	01.98	+11 27 53.7		809
1987	SM4	1993	01	28.23194	09	03	01.15	+11 27 54.3		809
1988	BK	1993	01	22.22336	09	07	21.09	+14 36 14.9		809
1988	BK	1993	01	22.23652	09	07	20.42	+14 36 22.1		809
1988	BK	1993	01	22.24968	09	07	19.76	+14 36 28.7		809
1988	BK	1993	01	28.16181	09	02	34.73	+15 26 21.5	17.8	809
1988	BK	1993	01	28.17500	09	02	34.02	+15 26 28.2		809
1988	BK	1993	01	28.18819	09	02	33.33	+15 26 34.4		809
1988	RE10	1992	07	24.28542	21	50	30.79	-10 11 45.8		809
1988	RE10	1992	07	24.29583	21	50	30.49	-10 11 48.4		809
1988	RE10	1992	07	24.30625	21	50	30.08	-10 11 50.2		809
1988	US	1993	01	22.22336	08	53	45.32	+14 30 04.5		809
1988	US	1993	01	22.23652	08	53	44.39	+14 30 07.2		809
1988	US	1993	01	22.24968	08	53	43.49	+14 30 09.0		809
1988	US	1993	01	28.16181	08	47	14.14	+14 47 30.9	18.3	809
1988	US	1993	01	28.17500	08	47	13.22	+14 47 32.8		809
1988	US	1993	01	28.18819	08	47	12.18	+14 47 35.3		809
1991	EJ1	1992	07	24.28542	21	42	24.89	-12 17 32.1		809
1991	EJ1	1992	07	24.29583	21	42	24.35	-12 17 36.3		809
1991	EJ1	1992	07	24.30625	21	42	23.83	-12 17 40.9		809
1991	PS	1993	01	22.22336	08	56	23.13	+13 14 16.5		809
1991	PS	1993	01	22.23652	08	56	22.18	+13 14 18.0		809
1991	PS	1993	01	22.24968	08	56	21.28	+13 14 19.0		809
1991	PS	1993	01	28.16181	08	49	54.44	+13 26 22.8	18.3	809
1991	PS	1993	01	28.17500	08	49	53.47	+13 26 23.6		809
1991	PS	1993	01	28.18819	08	49	52.57	+13 26 25.1		809
1991	PW17	1993	01	23.17977	09	09	03.09	+09 40 07.1	18.1	809
1991	PW17	1993	01	23.19293	09	09	02.22	+09 40 09.7		809
1991	PW17	1993	01	23.20609	09	09	01.45	+09 40 13.4		809
1991	PW17	1993	01	28.20556	09	04	07.25	+10 04 20.5		809
1991	PW17	1993	01	28.21875	09	04	06.36	+10 04 24.5		809
1991	PW17	1993	01	28.23194	09	04	05.52	+10 04 28.3		809
1992	OY2	1992	07	24.24792	21	34	18.83	-14 03 29.5		809
1992	OY2	1992	07	24.25833	21	34	18.29	-14 03 34.7		809

1992 OY2		1992 07 24.26875	21 34 17.87	-14 03 38.7				809
1992 PH1		1992 07 24.28542	21 45 31.72	-12 22 17.1				809
1992 PH1		1992 07 24.29583	21 45 31.03	-12 22 17.8				809
1992 PH1		1992 07 24.30625	21 45 30.40	-12 22 19.7				809
1992 PW1		1992 07 24.28542	21 50 48.42	-11 26 41.0				809
1992 PW1		1992 07 24.29583	21 50 47.97	-11 26 43.4				809
1992 PW1		1992 07 24.30625	21 50 47.51	-11 26 46.0				809
1992 PW1		1992 07 31.23750	21 45 20.26	-11 57 29.4		18.5		809
1992 PW1		1992 07 31.24792	21 45 19.61	-11 57 33.6				809
1992 PW1		1992 07 31.25833	21 45 19.05	-11 57 36.5				809
1993 BV2		1993 01 22.22336	08 55 59.61	+13 39 12.6				809
1993 BV2		1993 01 22.23652	08 55 58.77	+13 39 13.0				809
1993 BV2		1993 01 22.24968	08 55 57.97	+13 39 13.6				809
1993 BV2		1993 01 28.16181	08 50 22.14	+13 42 50.3		18.0		809
1993 BV2		1993 01 28.17500	08 50 21.25	+13 42 50.4				809
1993 BV2		1993 01 28.18819	08 50 20.41	+13 42 50.8				809
1993 BY2		1993 01 22.22336	08 58 45.81	+16 47 28.4				809
1993 BY2		1993 01 22.23652	08 58 45.10	+16 47 28.5				809
1993 BY2		1993 01 22.24968	08 58 44.39	+16 47 29.6				809
1993 BY2		1993 01 28.16181	08 53 27.01	+16 56 02.6		18.4		809
1993 BY2		1993 01 28.17500	08 53 26.27	+16 56 03.3				809
1993 BY2		1993 01 28.18819	08 53 25.51	+16 56 04.3				809
1993 BZ2		1993 01 28.16181	08 53 09.89	+16 49 42.2		18.4		809
1993 BZ2		1993 01 28.17500	08 53 08.84	+16 49 41.2				809
1993 BZ2		1993 01 28.18819	08 53 07.93	+16 49 39.2				809
1993 BA3		1993 01 22.22336	08 59 42.75	+16 27 45.7				809
1993 BA3		1993 01 22.23652	08 59 41.99	+16 27 46.9				809
1993 BA3		1993 01 22.24968	08 59 41.23	+16 27 46.9				809
1993 BA3		1993 01 28.16181	08 54 20.59	+16 32 51.2		18.4		809
1993 BA3		1993 01 28.17500	08 54 19.84	+16 32 51.4				809
1993 BA3		1993 01 28.18819	08 54 19.02	+16 32 52.2				809
1993 BG3		1993 01 22.22336	09 04 10.99	+14 33 52.8				809
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1993 BG3		1993 01 22.24968	09 04 09.60	+14 34 03.4				809
1993 BG3		1993 01 28.16181	08 59 08.58	+15 14 34.8		18.4		809
1993 BG3		1993 01 28.17500	08 59 07.85	+15 14 40.0				809
1993 BG3		1993 01 28.18819	08 59 07.06	+15 14 44.8				809
1993 BV6	*	1993 01 23.17977	09 06 42.94	+12 07 58.0		18.4		809
1993 BV6		1993 01 23.19293	09 06 42.12	+12 07 57.8				809
1993 BV6		1993 01 23.20609	09 06 41.40	+12 07 57.8				809
1993 BV6		1993 01 28.20556	09 02 03.23	+12 11 15.6				809
1993 BV6		1993 01 28.21875	09 02 02.42	+12 11 16.4				809
1993 BV6		1993 01 28.23194	09 02 01.65	+12 11 17.5				809
1993 BW6	*	1993 01 23.17977	09 07 09.48	+09 08 01.0		18.5		809
1993 BW6		1993 01 23.19293	09 07 08.67	+09 08 05.7				809
1993 BW6		1993 01 23.20609	09 07 07.80	+09 08 09.1				809
1993 BW6		1993 01 28.20556	09 02 29.80	+09 36 37.5				809
1993 BW6		1993 01 28.21875	09 02 29.01	+09 36 41.6				809
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1993 BX6		1993 01 23.19293	09 07 19.12	+09 50 54.2				809
1993 BX6		1993 01 23.20609	09 07 18.37	+09 50 56.1				809
1993 BX6		1993 01 28.20556	09 02 40.83	+10 05 30.0				809
1993 BX6		1993 01 28.21875	09 02 40.14	+10 05 31.0				809
1993 BX6		1993 01 28.23194	09 02 39.35	+10 05 34.1				809
1993 BY6	*	1993 01 23.17977	09 08 57.18	+11 23 32.5		18.3		809
1993 BY6		1993 01 23.19293	09 08 56.31	+11 23 35.5				809
1993 BY6		1993 01 23.20609	09 08 55.44	+11 23 38.7				809
1993 BY6		1993 01 28.20556	09 03 45.20	+11 46 11.4				809

1993	BY6		1993	01	28.21875	09	03	44.33	+11 46 14.2	809
1993	BY6		1993	01	28.23194	09	03	43.39	+11 46 18.3	809
1993	BZ6	*	1993	01	23.17977	09	10	23.36	+11 59 58.0 18.4	809
1993	BZ6		1993	01	23.19293	09	10	22.56	+12 00 00.6	809
1993	BZ6		1993	01	23.20609	09	10	21.72	+12 00 03.1	809
1993	BZ6		1993	01	28.20556	09	05	31.64	+12 19 46.7	809
1993	BZ6		1993	01	28.21875	09	05	30.77	+12 19 49.9	809
1993	BZ6		1993	01	28.23194	09	05	29.97	+12 19 52.1	809
1993	BA7	*	1993	01	23.17977	09	10	24.47	+10 28 49.9 18.6	809
1993	BA7		1993	01	23.19293	09	10	23.67	+10 28 49.2	809
1993	BA7		1993	01	23.20609	09	10	22.95	+10 28 49.3	809
1993	BA7		1993	01	28.20556	09	05	50.24	+10 30 00.0	809
1993	BA7		1993	01	28.21875	09	05	49.47	+10 30 00.6	809
1993	BA7		1993	01	28.23194	09	05	48.74	+10 30 00.1	809
1993	BB7	*	1993	01	23.17977	09	10	57.47	+10 36 33.6 18.1	809
1993	BB7		1993	01	23.19293	09	10	56.82	+10 36 37.8	809
1993	BB7		1993	01	23.20609	09	10	56.17	+10 36 42.2	809
1993	BB7		1993	01	28.20556	09	07	11.21	+11 07 23.2	809
1993	BB7		1993	01	28.21875	09	07	10.52	+11 07 28.2	809
1993	BB7		1993	01	28.23194	09	07	09.90	+11 07 32.8	809
1993	BC7	*	1993	01	23.17977	09	10	57.64	+09 59 22.2 19.0	809
1993	BC7		1993	01	23.19293	09	10	56.79	+09 59 27.4	809
1993	BC7		1993	01	23.20609	09	10	56.09	+09 59 29.4	809
1993	BC7		1993	01	28.20556	09	06	21.99	+10 24 39.7	809
1993	BC7		1993	01	28.21875	09	06	21.13	+10 24 44.1	809
1993	BC7		1993	01	28.23194	09	06	20.39	+10 24 47.8	809
1993	BD7	*	1993	01	23.17977	09	11	11.48	+12 29 11.2 18.5	809
1993	BD7		1993	01	23.19293	09	11	10.75	+12 29 14.7	809
1993	BD7		1993	01	23.20609	09	11	10.11	+12 29 19.2	809
1993	BD7		1993	01	28.20556	09	06	58.25	+12 57 16.7	809
1993	BD7		1993	01	28.21875	09	06	57.51	+12 57 20.8	809
1993	BD7		1993	01	28.23194	09	06	56.79	+12 57 25.4	809
1993	BE7	*	1993	01	23.17977	09	12	05.90	+08 35 02.7 18.7	809
1993	BE7		1993	01	23.19293	09	12	05.11	+08 35 03.4	809
1993	BE7		1993	01	23.20609	09	12	04.31	+08 35 04.1	809
1993	BE7		1993	01	28.20556	09	07	02.65	+08 43 17.8	809
1993	BE7		1993	01	28.21875	09	07	01.80	+08 43 19.4	809
1993	BE7		1993	01	28.23194	09	07	00.87	+08 43 20.6	809
1993	BF7	*	1993	01	23.17977	09	12	12.77	+10 00 21.6 18.2	809
1993	BF7		1993	01	23.19293	09	12	11.83	+10 00 18.5	809
1993	BF7		1993	01	23.20609	09	12	10.84	+10 00 15.3	809
1993	BF7		1993	01	28.20556	09	06	23.62	+09 41 57.0	809
1993	BF7		1993	01	28.21875	09	06	22.61	+09 41 53.9	809
1993	BF7		1993	01	28.23194	09	06	21.67	+09 41 51.1	809
1993	BG7	*	1993	01	23.17977	09	12	45.54	+09 02 56.1 18.4	809
1993	BG7		1993	01	23.19293	09	12	44.75	+09 02 56.5	809
1993	BG7		1993	01	23.20609	09	12	43.88	+09 02 58.5	809
1993	BG7		1993	01	28.20556	09	07	54.82	+09 12 53.9	809
1993	BG7		1993	01	28.21875	09	07	53.94	+09 12 56.2	809
1993	BG7		1993	01	28.23194	09	07	53.05	+09 12 57.2	809
1993	BH7	*	1993	01	23.17977	09	12	46.77	+12 21 34.4 18.2	809
1993	BH7		1993	01	23.19293	09	12	46.14	+12 21 38.6	809
1993	BH7		1993	01	23.20609	09	12	45.48	+12 21 42.6	809
1993	BH7		1993	01	28.20556	09	08	46.49	+12 51 42.1	809
1993	BH7		1993	01	28.21875	09	08	45.81	+12 51 47.0	809
1993	BH7		1993	01	28.23194	09	08	45.16	+12 51 51.7	809
1993	BJ7	*	1993	01	23.17977	09	13	08.17	+11 57 20.8 18.4	809
1993	BJ7		1993	01	23.19293	09	13	07.46	+11 57 27.6	809
1993	BJ7		1993	01	23.20609	09	13	06.79	+11 57 34.6	809

1993	BJ7		1993	01	28.20556	09	08	55.81	+12 43 06.5	809
1993	BJ7		1993	01	28.21875	09	08	55.07	+12 43 13.9	809
1993	BJ7		1993	01	28.23194	09	08	54.36	+12 43 21.1	809
1993	BK7	*	1993	01	23.17977	09	14	26.26	+12 12 40.8	18.4 809
1993	BK7		1993	01	23.19293	09	14	25.49	+12 12 45.4	809
1993	BK7		1993	01	23.20609	09	14	24.62	+12 12 49.5	809
1993	BK7		1993	01	28.20556	09	09	21.58	+12 45 09.2	809
1993	BK7		1993	01	28.21875	09	09	20.79	+12 45 13.5	809
1993	BK7		1993	01	28.23194	09	09	19.87	+12 45 19.9	809
1993	BL7	*	1993	01	23.17977	09	15	44.80	+12 14 56.9	18.5 809
1993	BL7		1993	01	23.19293	09	15	44.11	+12 15 00.3	809
1993	BL7		1993	01	23.20609	09	15	43.35	+12 15 02.2	809
1993	BL7		1993	01	28.20556	09	11	19.88	+12 29 47.2	809
1993	BL7		1993	01	28.21875	09	11	19.15	+12 29 49.6	809
1993	BL7		1993	01	28.23194	09	11	18.37	+12 29 52.0	809
1993	BM7	*	1993	01	23.17977	09	16	01.86	+08 29 52.1	18.7 809
1993	BM7		1993	01	23.19293	09	16	01.12	+08 29 56.2	809
1993	BM7		1993	01	23.20609	09	16	00.43	+08 29 59.3	809
1993	BM7		1993	01	28.20556	09	11	19.29	+08 56 42.1	809
1993	BM7		1993	01	28.21875	09	11	18.33	+08 56 46.2	809
1993	BM7		1993	01	28.23194	09	11	17.54	+08 56 50.2	809
1993	BN7	*	1993	01	23.17977	09	16	08.39	+09 24 59.4	18.6 809
1993	BN7		1993	01	23.19293	09	16	07.70	+09 25 04.1	809
1993	BN7		1993	01	23.20609	09	16	07.00	+09 25 08.4	809
1993	BN7		1993	01	28.20556	09	12	01.15	+09 56 38.3	809
1993	BN7		1993	01	28.21875	09	12	00.40	+09 56 43.9	809
1993	BN7		1993	01	28.23194	09	11	59.73	+09 56 48.7	809
1993	BO7	*	1993	01	23.17977	09	16	19.90	+10 18 22.0	18.3 809
1993	BO7		1993	01	23.19293	09	16	19.49	+10 18 24.5	809
1993	BO7		1993	01	23.20609	09	16	19.05	+10 18 26.6	809
1993	BO7		1993	01	28.20556	09	13	57.15	+10 37 58.8	809
1993	BO7		1993	01	28.21875	09	13	56.74	+10 38 02.1	809
1993	BO7		1993	01	28.23194	09	13	56.29	+10 38 05.0	809
1993	BP7	*	1993	01	23.17977	09	16	54.83	+10 45 54.0	18.3 809
1993	BP7		1993	01	23.19293	09	16	54.13	+10 46 02.1	809
1993	BP7		1993	01	23.20609	09	16	53.52	+10 46 08.7	809
1993	BP7		1993	01	28.20556	09	12	57.52	+11 36 48.8	809
1993	BP7		1993	01	28.21875	09	12	56.83	+11 36 57.1	809
1993	BP7		1993	01	28.23194	09	12	56.11	+11 37 04.8	809
1993	BQ7	*	1993	01	23.17977	09	17	46.42	+08 49 40.0	18.6 809
1993	BQ7		1993	01	23.19293	09	17	45.62	+08 49 41.3	809
1993	BQ7		1993	01	23.20609	09	17	44.85	+08 49 43.0	809
1993	BQ7		1993	01	28.20556	09	12	46.48	+09 01 11.7	809
1993	BQ7		1993	01	28.21875	09	12	45.65	+09 01 13.7	809
1993	BQ7		1993	01	28.23194	09	12	44.74	+09 01 15.3	809
1993	BR7	*	1993	01	23.17977	09	17	58.05	+09 29 42.7	19.2 809
1993	BR7		1993	01	23.19293	09	17	57.52	+09 29 45.8	809
1993	BR7		1993	01	23.20609	09	17	56.98	+09 29 50.6	809
1993	BR7		1993	01	28.20556	09	14	15.39	+09 58 00.9	809
1993	BR7		1993	01	28.21875	09	14	14.69	+09 58 05.5	809
1993	BR7		1993	01	28.23194	09	14	14.04	+09 58 10.0	809
1993	BS7	*	1993	01	23.17977	09	18	27.84	+11 54 46.9	18.5 809
1993	BS7		1993	01	23.19293	09	18	26.79	+11 54 45.6	809
1993	BS7		1993	01	23.20609	09	18	26.09	+11 54 44.0	809
1993	BS7		1993	01	28.20556	09	13	03.08	+11 47 49.3	809
1993	BS7		1993	01	28.21875	09	13	02.23	+11 47 48.2	809
1993	BS7		1993	01	28.23194	09	13	01.32	+11 47 47.8	809
1993	BT7	*	1993	01	23.17977	09	19	04.85	+11 49 24.4	18.6 809
1993	BT7		1993	01	23.19293	09	19	04.08	+11 49 27.1	809

1993	BT7		1993	01	23.20609	09	19	03.27	+11 49 29.9	809
1993	BT7		1993	01	28.20556	09	14	49.33	+12 01 02.9	809
1993	BT7		1993	01	28.21875	09	14	48.44	+12 01 06.0	809
1993	BT7		1993	01	28.23194	09	14	47.63	+12 01 09.4	809
1993	BU7	*	1993	01	23.17977	09	19	07.33	+11 05 18.5	19.2 809
1993	BU7		1993	01	23.19293	09	19	06.73	+11 05 21.2	809
1993	BU7		1993	01	23.20609	09	19	05.98	+11 05 23.3	809
1993	BU7		1993	01	28.20556	09	14	17.73	+11 26 02.0	809
1993	BU7		1993	01	28.21875	09	14	16.87	+11 26 06.3	809
1993	BU7		1993	01	28.23194	09	14	16.15	+11 26 09.4	809
1993	BV7	*	1993	01	23.17977	09	19	10.98	+10 27 37.6	19.3 809
1993	BV7		1993	01	23.19293	09	19	10.34	+10 27 40.2	809
1993	BV7		1993	01	23.20609	09	19	09.75	+10 27 42.3	809
1993	BV7		1993	01	28.20556	09	15	18.46	+10 44 17.8	809
1993	BV7		1993	01	28.21875	09	15	17.79	+10 44 21.3	809
1993	BV7		1993	01	28.23194	09	15	17.13	+10 44 23.0	809
1993	BW7	*	1993	01	23.17977	09	19	58.72	+12 51 22.4	18.5 809
1993	BW7		1993	01	23.19293	09	19	58.07	+12 51 25.5	809
1993	BW7		1993	01	23.20609	09	19	57.32	+12 51 28.8	809
1993	BW7		1993	01	28.20556	09	15	13.62	+13 12 36.0	809
1993	BW7		1993	01	28.21875	09	15	12.76	+13 12 40.1	809
1993	BW7		1993	01	28.23194	09	15	11.99	+13 12 43.1	809
1993	BX7	*	1993	01	23.17977	09	22	12.53	+11 35 39.5	18.2 809
1993	BX7		1993	01	23.19293	09	22	11.91	+11 35 48.2	809
1993	BX7		1993	01	23.20609	09	22	11.34	+11 35 55.8	809
1993	BX7		1993	01	28.20556	09	18	21.40	+12 29 36.0	809
1993	BX7		1993	01	28.21875	09	18	20.68	+12 29 45.1	809
1993	BX7		1993	01	28.23194	09	18	20.06	+12 29 53.4	809
1993	BY7	*	1993	01	23.17977	09	22	39.48	+08 05 17.3	18.2 809
1993	BY7		1993	01	23.19293	09	22	38.78	+08 05 23.0	809
1993	BY7		1993	01	23.20609	09	22	38.17	+08 05 28.4	809
1993	BY7		1993	01	28.20556	09	18	32.64	+08 48 21.9	809
1993	BY7		1993	01	28.21875	09	18	31.91	+08 48 28.9	809
1993	BY7		1993	01	28.23194	09	18	31.21	+08 48 35.7	809
1993	BZ7	*	1993	01	23.17977	09	23	00.83	+08 38 11.9	18.3 809
1993	BZ7		1993	01	23.19293	09	23	00.11	+08 38 16.2	809
1993	BZ7		1993	01	23.20609	09	22	59.45	+08 38 20.7	809
1993	BZ7		1993	01	28.20556	09	18	48.25	+09 07 59.1	809
1993	BZ7		1993	01	28.21875	09	18	47.56	+09 08 04.0	809
1993	BZ7		1993	01	28.23194	09	18	46.82	+09 08 08.7	809
1993	BA8	*	1993	01	23.17977	09	23	31.24	+10 28 08.3	18.2 809
1993	BA8		1993	01	23.19293	09	23	30.57	+10 28 11.4	809
1993	BA8		1993	01	23.20609	09	23	29.93	+10 28 14.3	809
1993	BA8		1993	01	28.20556	09	19	29.42	+10 46 34.7	809
1993	BA8		1993	01	28.21875	09	19	28.75	+10 46 37.7	809
1993	BA8		1993	01	28.23194	09	19	28.01	+10 46 41.2	809
1993	BB8	*	1993	01	23.17977	09	23	54.35	+08 15 36.1	18.6 809
1993	BB8		1993	01	23.19293	09	23	53.61	+08 15 36.1	809
1993	BB8		1993	01	23.20609	09	23	52.74	+08 15 36.1	809
1993	BB8		1993	01	28.20556	09	18	55.53	+08 18 49.6	809
1993	BB8		1993	01	28.21875	09	18	54.50	+08 18 49.3	809
1993	BB8		1993	01	28.23194	09	18	53.76	+08 18 48.3	809
1993	BC8	*	1993	01	23.17977	09	24	00.23	+10 51 26.5	18.3 809
1993	BC8		1993	01	23.19293	09	23	59.56	+10 51 32.4	809
1993	BC8		1993	01	23.20609	09	23	58.98	+10 51 38.1	809
1993	BC8		1993	01	28.20556	09	20	01.20	+11 31 17.4	809
1993	BC8		1993	01	28.21875	09	20	00.54	+11 31 24.2	809
1993	BC8		1993	01	28.23194	09	19	59.79	+11 31 30.9	809
1993	BD8	*	1993	01	23.17977	09	24	23.70	+09 22 55.2	18.5 809

1993	BD8		1993	01	23.19293	09	24	23.06	+09 22 57.5	809
1993	BD8		1993	01	23.20609	09	24	22.45	+09 22 58.2	809
1993	BD8		1993	01	28.20556	09	20	28.90	+09 35 24.5	809
1993	BD8		1993	01	28.21875	09	20	28.19	+09 35 26.5	809
1993	BD8		1993	01	28.23194	09	20	27.51	+09 35 28.3	809
1993	BE8	*	1993	01	23.17977	09	25	04.09	+09 33 02.9	18.6 809
1993	BE8		1993	01	23.19293	09	25	03.34	+09 33 06.6	809
1993	BE8		1993	01	23.20609	09	25	02.55	+09 33 10.1	809
1993	BE8		1993	01	28.20556	09	20	11.22	+09 59 18.5	809
1993	BE8		1993	01	28.21875	09	20	10.35	+09 59 22.9	809
1993	BE8		1993	01	28.23194	09	20	09.51	+09 59 26.7	809
1993	BM12		1993	01	22.22336	09	07	06.36	+17 18 35.9	809
1993	BM12		1993	01	22.23652	09	07	05.54	+17 18 38.8	809
1993	BM12		1993	01	22.24968	09	07	04.76	+17 18 41.6	809
1993	BM12		1993	01	28.16181	09	01	10.99	+17 38 25.4	18.0 809
1993	BM12		1993	01	28.17500	09	01	10.12	+17 38 28.0	809
1993	BM12		1993	01	28.18819	09	01	09.24	+17 38 30.9	809
1993	BN12	*	1993	01	22.22336	08	48	05.51	+15 12 27.8	809
1993	BN12		1993	01	22.23652	08	48	04.73	+15 12 32.8	809
1993	BN12		1993	01	22.24968	08	48	03.94	+15 12 37.9	809
1993	BN12		1993	01	28.16181	08	42	20.47	+15 54 11.5	18.6 809
1993	BN12		1993	01	28.17500	08	42	19.62	+15 54 16.2	809
1993	BN12		1993	01	28.18819	08	42	18.72	+15 54 21.3	809
1993	BO12	*	1993	01	22.22336	08	49	39.31	+15 40 26.4	809
1993	BO12		1993	01	22.23652	08	49	38.49	+15 40 32.3	809
1993	BO12		1993	01	22.24968	08	49	37.52	+15 40 35.4	809
1993	BO12		1993	01	28.16181	08	43	27.81	+16 15 56.1	18.7 809
1993	BO12		1993	01	28.17500	08	43	26.89	+16 16 00.3	809
1993	BO12		1993	01	28.18819	08	43	25.97	+16 16 04.6	809
1993	BP12	*	1993	01	22.22336	08	50	27.08	+17 14 46.3	809
1993	BP12		1993	01	22.23652	08	50	26.39	+17 14 51.5	809
1993	BP12		1993	01	22.24968	08	50	25.72	+17 14 55.9	809
1993	BP12		1993	01	28.16181	08	45	14.06	+17 51 52.0	18.5 809
1993	BP12		1993	01	28.17500	08	45	13.33	+17 51 56.1	809
1993	BP12		1993	01	28.18819	08	45	12.52	+17 52 01.7	809
1993	BQ12	*	1993	01	22.22336	08	52	04.06	+14 44 21.9	809
1993	BQ12		1993	01	22.23652	08	52	03.36	+14 44 28.0	809
1993	BQ12		1993	01	22.24968	08	52	02.62	+14 44 34.0	809
1993	BQ12		1993	01	28.16181	08	47	05.83	+15 30 59.3	18.4 809
1993	BQ12		1993	01	28.17500	08	47	05.15	+15 31 05.1	809
1993	BQ12		1993	01	28.18819	08	47	04.38	+15 31 10.4	809
1993	BR12	*	1993	01	22.22336	08	53	03.52	+17 32 09.1	809
1993	BR12		1993	01	22.23652	08	53	02.77	+17 32 11.7	809
1993	BR12		1993	01	22.24968	08	53	01.98	+17 32 13.8	809
1993	BR12		1993	01	28.16181	08	46	58.46	+17 51 34.1	19.2 809
1993	BR12		1993	01	28.17500	08	46	57.55	+17 51 36.1	809
1993	BR12		1993	01	28.18819	08	46	56.65	+17 51 36.9	809
1993	BS12	*	1993	01	22.22336	08	53	12.34	+16 25 39.9	809
1993	BS12		1993	01	22.23652	08	53	11.51	+16 25 46.8	809
1993	BS12		1993	01	22.24968	08	53	10.82	+16 25 53.6	809
1993	BS12		1993	01	28.16181	08	47	35.50	+17 17 45.1	18.5 809
1993	BS12		1993	01	28.17500	08	47	34.70	+17 17 52.8	809
1993	BS12		1993	01	28.18819	08	47	33.92	+17 17 58.6	809
1993	BT12	*	1993	01	22.22336	08	53	32.77	+17 34 28.5	809
1993	BT12		1993	01	22.23652	08	53	32.13	+17 34 33.3	809
1993	BT12		1993	01	22.24968	08	53	31.35	+17 34 39.1	809
1993	BT12		1993	01	28.16181	08	48	15.57	+18 14 20.8	18.5 809
1993	BT12		1993	01	28.17500	08	48	14.70	+18 14 26.9	809
1993	BT12		1993	01	28.18819	08	48	13.94	+18 14 32.2	809

1993 BU12	*	1993 01 22.22336	08 55 23.90	+13 53 12.5				809
1993 BU12		1993 01 22.23652	08 55 23.27	+13 53 16.4				809
1993 BU12		1993 01 22.24968	08 55 22.63	+13 53 19.3				809
1993 BU12		1993 01 28.16181	08 50 36.03	+14 20 41.5		18.5		809
1993 BU12		1993 01 28.17500	08 50 35.18	+14 20 45.3				809
1993 BU12		1993 01 28.18819	08 50 34.53	+14 20 48.4				809
1993 BV12	*	1993 01 22.22336	08 55 33.41	+15 44 51.6				809
1993 BV12		1993 01 22.23652	08 55 32.40	+15 44 48.8				809
1993 BV12		1993 01 22.24968	08 55 31.39	+15 44 44.6				809
1993 BV12		1993 01 28.16181	08 48 25.49	+15 19 50.9		18.4		809
1993 BV12		1993 01 28.17500	08 48 24.40	+15 19 47.6				809
1993 BV12		1993 01 28.18819	08 48 23.43	+15 19 43.5				809
1993 BW12	*	1993 01 22.22336	08 56 36.66	+15 45 07.4				809
1993 BW12		1993 01 22.23652	08 56 35.84	+15 45 08.2				809
1993 BW12		1993 01 22.24968	08 56 35.05	+15 45 09.0				809
1993 BW12		1993 01 28.16181	08 50 58.82	+15 49 06.4		18.5		809
1993 BW12		1993 01 28.17500	08 50 57.98	+15 49 06.4				809
1993 BW12		1993 01 28.18819	08 50 57.13	+15 49 06.3				809
1993 BX12	*	1993 01 22.22336	08 57 29.03	+15 39 31.1				809
1993 BX12		1993 01 22.23652	08 57 28.15	+15 39 36.1				809
1993 BX12		1993 01 22.24968	08 57 27.21	+15 39 39.7				809
1993 BX12		1993 01 28.16181	08 51 10.29	+16 15 37.4		18.4		809
1993 BX12		1993 01 28.17500	08 51 09.40	+16 15 41.2				809
1993 BX12		1993 01 28.18819	08 51 08.55	+16 15 46.3				809
1993 BY12	*	1993 01 22.22336	08 57 57.42	+15 33 50.8				809
1993 BY12		1993 01 22.23652	08 57 56.56	+15 33 52.4				809
1993 BY12		1993 01 22.24968	08 57 55.58	+15 33 54.8				809
1993 BY12		1993 01 28.16181	08 51 21.80	+15 47 17.9		18.3		809
1993 BY12		1993 01 28.17500	08 51 20.86	+15 47 18.6				809
1993 BY12		1993 01 28.18819	08 51 19.89	+15 47 20.1				809
1993 BZ12	*	1993 01 22.22336	08 58 15.21	+17 43 16.5				809
1993 BZ12		1993 01 22.23652	08 58 14.81	+17 43 19.5				809
1993 BZ12		1993 01 22.24968	08 58 14.43	+17 43 21.9				809
1993 BZ12		1993 01 28.16181	08 55 10.40	+18 04 42.4		18.3		809
1993 BZ12		1993 01 28.17500	08 55 09.93	+18 04 44.8				809
1993 BZ12		1993 01 28.18819	08 55 09.46	+18 04 48.2				809
1993 BA13	*	1993 01 22.22336	08 59 18.68	+14 53 58.7				809
1993 BA13		1993 01 22.23652	08 59 17.69	+14 54 00.5				809
1993 BA13		1993 01 22.24968	08 59 16.63	+14 54 01.7				809
1993 BA13		1993 01 28.16181	08 52 29.67	+15 07 02.9		18.6		809
1993 BA13		1993 01 28.17500	08 52 28.65	+15 07 05.2				809
1993 BA13		1993 01 28.18819	08 52 27.69	+15 07 06.8				809
1993 BB13	*	1993 01 22.22336	08 59 43.17	+13 10 21.0				809
1993 BB13		1993 01 22.23652	08 59 42.50	+13 10 24.8				809
1993 BB13		1993 01 22.24968	08 59 41.72	+13 10 27.1				809
1993 BB13		1993 01 28.16181	08 54 41.93	+13 36 36.2		18.7		809
1993 BB13		1993 01 28.17500	08 54 41.21	+13 36 40.4				809
1993 BB13		1993 01 28.18819	08 54 40.45	+13 36 44.8				809
1993 BC13	*	1993 01 22.22336	08 59 56.93	+14 54 15.7				809
1993 BC13		1993 01 22.23652	08 59 56.14	+14 54 19.2				809
1993 BC13		1993 01 22.24968	08 59 55.35	+14 54 23.5				809
1993 BC13		1993 01 28.16181	08 54 00.46	+15 23 38.2		18.5		809
1993 BC13		1993 01 28.17500	08 53 59.53	+15 23 41.5				809
1993 BC13		1993 01 28.18819	08 53 58.62	+15 23 45.0				809
1993 BD13	*	1993 01 22.22336	09 01 36.95	+15 32 40.6				809
1993 BD13		1993 01 22.23652	09 01 36.26	+15 32 42.9				809
1993 BD13		1993 01 22.24968	09 01 35.58	+15 32 43.9				809
1993 BD13		1993 01 28.16181	08 56 43.69	+15 45 19.5		18.5		809
1993 BD13		1993 01 28.17500	08 56 42.97	+15 45 20.7				809

1993	BD13		1993	01	28.18819	08	56	42.21	+15 45 22.7	809
1993	BE13	*	1993	01	22.22336	09	02	01.66	+17 13 05.1	809
1993	BE13		1993	01	22.23652	09	02	00.90	+17 13 07.8	809
1993	BE13		1993	01	22.24968	09	02	00.07	+17 13 09.2	809
1993	BE13		1993	01	28.16181	08	57	00.55	+17 41 39.3	18.8 809
1993	BE13		1993	01	28.17500	08	56	59.83	+17 41 43.4	809
1993	BE13		1993	01	28.18819	08	56	59.09	+17 41 46.2	809
1993	BF13	*	1993	01	22.22336	09	02	07.22	+14 15 26.0	809
1993	BF13		1993	01	22.23652	09	02	06.36	+14 15 26.8	809
1993	BF13		1993	01	22.24968	09	02	05.49	+14 15 27.7	809
1993	BF13		1993	01	28.16181	08	55	46.31	+14 22 34.4	18.4 809
1993	BF13		1993	01	28.17500	08	55	45.32	+14 22 34.8	809
1993	BF13		1993	01	28.18819	08	55	44.39	+14 22 36.5	809
1993	BG13	*	1993	01	22.22336	09	02	55.91	+14 09 44.9	809
1993	BG13		1993	01	22.23652	09	02	55.05	+14 09 47.7	809
1993	BG13		1993	01	22.24968	09	02	54.20	+14 09 49.7	809
1993	BG13		1993	01	28.16181	08	57	02.68	+14 30 26.5	18.4 809
1993	BG13		1993	01	28.17500	08	57	01.68	+14 30 29.7	809
1993	BG13		1993	01	28.18819	08	57	00.87	+14 30 32.7	809
1993	BH13	*	1993	01	22.22336	09	03	00.22	+17 04 02.8	809
1993	BH13		1993	01	22.23652	09	02	59.54	+17 04 07.6	809
1993	BH13		1993	01	22.24968	09	02	58.93	+17 04 11.1	809
1993	BH13		1993	01	28.16181	08	58	13.53	+17 30 35.0	18.2 809
1993	BH13		1993	01	28.17500	08	58	12.79	+17 30 38.8	809
1993	BH13		1993	01	28.18819	08	58	12.08	+17 30 42.1	809
1993	BJ13	*	1993	01	22.22336	09	03	07.66	+14 01 51.5	809
1993	BJ13		1993	01	22.23652	09	03	07.04	+14 01 54.5	809
1993	BJ13		1993	01	22.24968	09	03	06.30	+14 01 58.2	809
1993	BJ13		1993	01	28.16181	08	58	21.05	+14 24 35.7	18.8 809
1993	BJ13		1993	01	28.17500	08	58	20.25	+14 24 37.8	809
1993	BJ13		1993	01	28.18819	08	58	19.53	+14 24 40.1	809
1993	BK13	*	1993	01	22.22336	09	04	00.42	+14 52 38.6	18.6 809
1993	BK13		1993	01	22.23652	09	03	59.77	+14 52 42.3	809
1993	BK13		1993	01	22.24968	09	03	59.05	+14 52 44.2	809
1993	BK13		1993	01	28.16181	08	58	52.59	+15 17 03.9	18.5 809
1993	BK13		1993	01	28.17500	08	58	51.71	+15 17 08.0	809
1993	BK13		1993	01	28.18819	08	58	51.03	+15 17 11.4	809
1993	BL13	*	1993	01	22.22336	09	04	18.44	+14 56 49.0	809
1993	BL13		1993	01	22.23652	09	04	17.50	+14 56 51.5	809
1993	BL13		1993	01	22.24968	09	04	16.74	+14 56 52.4	809
1993	BL13		1993	01	28.16181	08	58	00.53	+15 11 16.5	18.7 809
1993	BL13		1993	01	28.17500	08	57	59.68	+15 11 18.4	809
1993	BL13		1993	01	28.18819	08	57	58.80	+15 11 21.1	809
1993	BM13	*	1993	01	22.22336	09	07	13.65	+16 03 06.2	809
1993	BM13		1993	01	22.23652	09	07	12.97	+16 03 11.8	809
1993	BM13		1993	01	22.24968	09	07	12.37	+16 03 15.6	809
1993	BM13		1993	01	28.16181	09	02	40.91	+16 37 11.9	18.5 809
1993	BM13		1993	01	28.17500	09	02	40.24	+16 37 16.1	809
1993	BM13		1993	01	28.18819	09	02	39.64	+16 37 20.3	809
1993	BN13	*	1993	01	22.22336	09	07	25.82	+14 16 38.4	809
1993	BN13		1993	01	22.23652	09	07	25.08	+14 16 41.6	809
1993	BN13		1993	01	22.24968	09	07	24.42	+14 16 44.2	809
1993	BN13		1993	01	28.16181	09	02	26.60	+14 39 49.9	18.5 809
1993	BN13		1993	01	28.17500	09	02	25.77	+14 39 52.5	809
1993	BN13		1993	01	28.18819	09	02	25.10	+14 39 55.9	809
4349	T-1		1993	01	23.17977	09	08	23.96	+10 33 11.0	18.5 809
4349	T-1		1993	01	23.19293	09	08	23.25	+10 33 14.6	809
4349	T-1		1993	01	23.20609	09	08	22.62	+10 33 18.0	809
4349	T-1		1993	01	28.20556	09	04	08.97	+10 59 23.9	809

4349 T-1	1993 01 28.21875	09 04 08.33	+10 59 27.7			809
4349 T-1	1993 01 28.23194	09 04 07.66	+10 59 31.3			809
5016 T-3	1993 01 22.22336	09 04 52.31	+13 49 18.5			809
5016 T-3	1993 01 22.23652	09 04 51.60	+13 49 25.4			809
5016 T-3	1993 01 22.24968	09 04 50.94	+13 49 31.0			809
5016 T-3	1993 01 28.16181	08 59 57.54	+14 34 27.4	18.5		809
5016 T-3	1993 01 28.17500	08 59 56.79	+14 34 33.1			809
5016 T-3	1993 01 28.18819	08 59 56.05	+14 34 40.1			809
(474)	1993 01 23.17977	09 14 52.65	+09 22 28.3	17.9		809
(474)	1993 01 23.19293	09 14 51.96	+09 22 32.0			809
(474)	1993 01 23.20609	09 14 51.21	+09 22 36.3			809
(474)	1993 01 28.20556	09 10 23.35	+09 51 00.6			809
(474)	1993 01 28.21875	09 10 22.58	+09 51 05.7			809
(474)	1993 01 28.23194	09 10 21.82	+09 51 10.1			809
(1173)	1993 01 22.22336	09 01 43.52	+12 50 57.2	18.1		809
(1173)	1993 01 22.23652	09 01 43.10	+12 50 58.8			809
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(1434)	1993 01 23.17977	09 24 56.66	+10 10 01.2	17.8		809
(1434)	1993 01 23.19293	09 24 56.06	+10 10 05.5			809
(1434)	1993 01 23.20609	09 24 55.46	+10 10 09.7			809
(1434)	1993 01 28.20556	09 21 17.88	+10 38 31.2			809
(1434)	1993 01 28.21875	09 21 17.25	+10 38 36.1			809
(1434)	1993 01 28.23194	09 21 16.57	+10 38 40.5			809
(2017)	1993 01 23.17977	09 22 18.61	+10 29 56.3	18.1		809
(2017)	1993 01 23.19293	09 22 17.79	+10 30 00.5			809
(2017)	1993 01 23.20609	09 22 17.05	+10 30 05.3			809
(2017)	1993 01 28.20556	09 17 27.44	+10 56 47.5			809
(2017)	1993 01 28.21875	09 17 26.55	+10 56 52.5			809
(2017)	1993 01 28.23194	09 17 25.75	+10 56 56.4			809
(2119)	1993 01 22.22336	08 47 09.77	+13 53 50.7			809
(2119)	1993 01 22.23652	08 47 08.80	+13 53 52.7			809
(2119)	1993 01 22.24968	08 47 07.92	+13 53 54.7			809
(2342)	1993 01 22.22336	09 08 54.16	+15 57 44.6	18.3		809
(2342)	1993 01 22.23652	09 08 53.49	+15 57 47.5			809
(2342)	1993 01 22.24968	09 08 52.79	+15 57 51.0			809
(2596)	1993 01 22.22336	09 01 40.83	+14 21 18.6			809
(2596)	1993 01 22.23652	09 01 40.17	+14 21 23.5			809
(2596)	1993 01 22.24968	09 01 39.51	+14 21 27.6			809
(2596)	1993 01 28.16181	08 56 59.69	+14 57 48.5	18.5		809
(2596)	1993 01 28.17500	08 56 58.92	+14 57 53.0			809
(2596)	1993 01 28.18819	08 56 58.28	+14 57 57.0			809
(3708)	1993 01 23.17977	09 07 53.31	+09 50 26.4	18.1		809
(3708)	1993 01 23.19293	09 07 52.85	+09 50 27.6			809
(3708)	1993 01 23.20609	09 07 52.36	+09 50 27.4			809
(3708)	1993 01 28.20556	09 05 19.41	+09 55 36.8			809
(3708)	1993 01 28.21875	09 05 18.90	+09 55 37.4			809
(3708)	1993 01 28.23194	09 05 18.48	+09 55 38.4			809
(3999)	1993 01 22.22336	08 57 27.42	+16 21 32.9			809
(3999)	1993 01 22.23652	08 57 26.61	+16 21 34.3			809
(3999)	1993 01 22.24968	08 57 25.77	+16 21 36.3			809
(3999)	1993 01 28.16181	08 51 30.62	+16 35 51.5	17.5		809
(3999)	1993 01 28.17500	08 51 29.70	+16 35 52.5			809
(3999)	1993 01 28.18819	08 51 28.84	+16 35 54.7			809
(4145)	1993 01 22.22336	08 48 17.25	+15 53 04.6			809
(4145)	1993 01 22.23652	08 48 16.37	+15 53 06.9			809
(4145)	1993 01 22.24968	08 48 15.43	+15 53 07.7			809
(4145)	1993 01 28.16181	08 41 41.42	+16 08 58.7	18.3		809
(4145)	1993 01 28.17500	08 41 40.43	+16 09 00.0			809
(4145)	1993 01 28.18819	08 41 39.53	+16 09 01.7			809

(4196)	1993 01 22.22336	09 01 55.58	+15 39 42.5			809
(4196)	1993 01 22.23652	09 01 55.01	+15 39 45.4			809
(4196)	1993 01 22.24968	09 01 54.46	+15 39 47.8			809
(4196)	1993 01 28.16181	08 57 58.65	+15 57 20.1		18.2	809
(4196)	1993 01 28.17500	08 57 57.99	+15 57 22.3			809
(4196)	1993 01 28.18819	08 57 57.46	+15 57 24.6			809
(4491)	1993 01 28.16181	08 51 22.08	+18 11 05.6		18.1	809
(4491)	1993 01 28.17500	08 51 21.14	+18 11 07.2			809
(4491)	1993 01 28.18819	08 51 20.26	+18 11 09.1			809
(4574)	1993 01 23.17977	09 05 31.30	+09 46 34.0		18.0	809
(4574)	1993 01 23.19293	09 05 30.58	+09 46 34.1			809
(4574)	1993 01 23.20609	09 05 29.84	+09 46 34.5			809
(4708)	1993 01 28.16181	08 42 51.94	+14 01 35.7		18.3	809
(4708)	1993 01 28.17500	08 42 51.42	+14 01 36.8			809
(4708)	1993 01 28.18819	08 42 50.90	+14 01 36.6			809
(4754)	1993 01 23.17977	09 19 32.70	+10 15 22.8		18.2	809
(4754)	1993 01 23.19293	09 19 32.26	+10 15 25.2			809
(4754)	1993 01 23.20609	09 19 31.83	+10 15 27.2			809
(4754)	1993 01 28.20556	09 17 05.43	+10 32 06.9			809
(4754)	1993 01 28.21875	09 17 04.99	+10 32 09.8			809
(4754)	1993 01 28.23194	09 17 04.57	+10 32 12.4			809
(4849)	1993 01 23.17977	09 20 55.43	+11 04 25.1		18.2	809
(4849)	1993 01 23.19293	09 20 54.67	+11 04 28.3			809
(4849)	1993 01 23.20609	09 20 53.83	+11 04 32.2			809
(4849)	1993 01 28.20556	09 15 56.86	+11 29 03.0			809
(4849)	1993 01 28.21875	09 15 56.00	+11 29 06.6			809
(4849)	1993 01 28.23194	09 15 55.14	+11 29 10.9			809
(4928)	1993 01 28.20556	09 15 36.91	+11 51 20.7			809
(4928)	1993 01 28.21875	09 15 35.98	+11 51 24.9			809
(4928)	1993 01 28.23194	09 15 35.14	+11 51 28.7			809

877 Okutama
S. Hayakawa, 1-31-33, Nagano, Gyoda-Shi, Saitama-Ken, 361 Japan
Observer T. Hioki
Measurers S. Hayakawa, T. Hioki
0.30-m f/3.8 hyperboloid astrocamera
GSC

1986 EZ4	1993 02 13.62581	10 36 33.52	+09 48 06.6	16.0		877
1986 EZ4	1993 02 13.65104	10 36 32.07	+09 48 14.2			877
1988 VJ2	1992 11 21.65069	03 10 10.78	+12 41 53.1	16.5		877
1988 VJ2	1992 11 21.67569	03 10 09.93	+12 41 40.0			877
1988 VK2	1992 11 22.58385	02 54 29.18	+11 00 20.9	16.5		877
1988 VK2	1992 11 23.59971	02 53 34.93	+11 01 28.2	16.5		877
1988 VK2	1992 11 29.62812	02 48 38.71	+11 10 35.1	16.5		877
1988 VK2	1992 11 29.65174	02 48 37.45	+11 10 38.3			877
1989 CE8	1992 12 05.74306	05 25 17.81	+21 59 31.4			877
1989 CE8	1992 12 05.76250	05 25 16.62	+21 59 25.8			877
1991 PJ5	1993 02 14.64444	09 18 44.94	+14 25 49.0	15.5		877
1991 PJ5	1993 02 14.66736	09 18 43.48	+14 25 55.6			877
1991 PJ5	1993 02 17.58194	09 15 57.04	+14 37 07.7			877
1991 PJ5	1993 02 17.60278	09 15 55.80	+14 37 11.5			877
1991 PK11	1993 01 21.73229	10 06 25.82	+10 37 15.6	16.5		877
1991 PK11	1993 01 21.77778	10 06 23.77	+10 37 17.0			877
1991 PK11	1993 01 28.81597	10 00 50.74	+10 42 10.8			877
1991 PK11	1993 01 28.83958	10 00 49.36	+10 42 11.5			877
1992 YB1	1993 01 28.59363	07 22 32.09	+24 10 04.8	17.0		877
1992 YB1	1993 01 28.61944	07 22 30.78	+24 10 08.0			877
1992 YG3	1993 01 17.63542	08 00 49.43	+20 13 24.0	16.0		877
1992 YG3	1993 01 17.66181	08 00 47.99	+20 13 29.3			877

1992 YG3		1993 01 20.60938	07 58 13.78	+20 22 50.7				877
1992 YG3		1993 01 20.66667	07 58 10.60	+20 23 02.4				877
1992 YG3		1993 01 28.64132	07 51 22.81	+20 47 17.4				877
1992 YG3		1993 01 28.66701	07 51 21.54	+20 47 20.9				877
1992 YG3		1993 01 29.77101	07 50 27.45	+20 50 31.6				877
1992 YG3		1993 01 29.79167	07 50 26.66	+20 50 32.8				877
1993 BE3	*	1993 01 17.63542	07 54 10.14	+20 49 19.2	17.0			877
1993 BE3		1993 01 17.66181	07 54 08.78	+20 49 36.4				877
1993 BE3		1993 01 20.60938	07 51 20.08	+21 25 12.2				877
1993 BE3		1993 01 20.66667	07 51 16.65	+21 25 54.5				877
1993 BK3	*	1993 01 17.63542	07 57 48.68	+18 59 06.3	16.5		F	877
1993 BK3		1993 01 17.66181	07 57 47.13	+18 59 12.1				877
1993 BK3		1993 01 28.64132	07 48 31.10	+19 31 10.5				877
1993 BK3		1993 01 28.66701	07 48 30.22	+19 31 16.9				877
1993 CA1		1993 01 21.80596	09 48 54.44	+16 06 10.5	16.5			877
1993 CA1		1993 01 21.83229	09 48 52.92	+16 06 06.7				877
1993 CA1	*	1993 02 14.64444	09 23 20.97	+15 23 42.7	16.0			877
1993 CA1		1993 02 14.66736	09 23 19.37	+15 23 41.2				877
1993 CA1		1993 02 17.58194	09 20 08.14	+15 17 24.8				877
1993 CA1		1993 02 17.60278	09 20 06.68	+15 17 22.9				877
(1669)		1993 02 15.71192	11 42 40.46	+02 43 12.9	15.5			877
(1669)		1993 02 15.76736	11 42 38.66	+02 43 24.0				877
(1669)		1993 02 17.80567	11 41 33.57	+02 50 10.4				877
(1669)		1993 02 17.83212	11 41 32.61	+02 50 16.4				877
(1859)		1993 02 14.68438	10 56 28.73	+08 08 17.4	16.0			877
(1859)		1993 02 14.73166	10 56 26.66	+08 08 22.9				877
(1859)		1993 02 17.72066	10 54 11.75	+08 15 40.7				877
(1859)		1993 02 17.74375	10 54 10.57	+08 15 44.0				877
(2026)		1993 01 21.73229	10 09 06.36	+10 55 02.0	15.5			877
(2026)		1993 01 21.77778	10 09 04.53	+10 55 06.2				877
(3599)		1993 02 17.76166	11 30 40.83	+03 10 35.7	16.5			877
(3599)		1993 02 17.78854	11 30 40.03	+03 10 46.8				877
(4179)		1993 01 17.63542	08 00 46.30	+20 12 55.3	12.0			877
(4179)		1993 01 17.66181	08 00 44.65	+20 13 02.9				877
(4229)		1993 02 15.66389	11 31 25.57	+02 51 50.1	15.5			877
(4229)		1993 02 15.69253	11 31 24.48	+02 52 04.2				877
(4229)		1993 02 17.76166	11 30 13.00	+03 08 07.4				877
(4229)		1993 02 17.78854	11 30 12.04	+03 08 21.2				877
(5338)		1993 01 20.56424	07 30 14.97	+23 55 36.4				877
(5338)		1993 01 20.59149	07 30 13.65	+23 55 38.6				877

881 Toyota
T. Urata, 6-1, Muramatsuhara 1 Chome, Shimizu, Shizuoka-Ken 424, Japan
Observer K. Suzuki
Measurer T. Urata
0.25-m f/4.2 Wright-Schmidt camera
GSC

1992 WM5		1992 12 29.59965	04 31 44.83	+20 04 24.2	16.5			881
1992 WM5		1992 12 29.61007	04 31 44.42	+20 04 26.2				881

885 JCPM Yakiimo Station
T. Urata, 6-1, Muramatsuhara 1 Chome, Shimizu, Shizuoka-Ken 424, Japan
Observer A. Natori
Measurer T. Urata
0.25-m f/3.4 hyperboloid astrocamera
GSC

1990 OJ4		1992 12 26.68021	07 33 02.55	+15 42 36.8	16.5			885
1990 OJ4		1992 12 26.69410	07 33 01.88	+15 42 35.5				885
1992 WM5		1992 12 26.47222	04 34 09.39	+19 53 35.4	16			885

1992 XB		1992 12 16.50035	05 14 50.93	+22 02 10.5	16		885
1992 XB		1992 12 16.51285	05 14 50.10	+22 02 05.7			885
1992 XB		1992 12 23.62569	05 08 36.59	+21 19 05.2	16		885
1992 XB		1992 12 23.63194	05 08 36.24	+21 19 02.6			885
1992 YH		1993 01 19.49167	05 52 41.76	+35 40 08.5	17		885
1992 YH		1993 01 19.50556	05 52 41.13	+35 40 11.7			885
1992 YM		1993 01 21.47118	06 31 13.33	+22 55 45.4	17		885
1992 YM		1993 01 21.48576	06 31 12.64	+22 55 55.5			885
1993 AB		1993 01 17.59063	07 15 50.77	+32 09 39.6	16.5		885
1993 AB		1993 01 17.60521	07 15 50.12	+32 09 46.0			885
1993 AB		1993 01 21.49549	07 12 12.71	+32 31 31.2	16.5		885
1993 AB		1993 01 21.50938	07 12 11.86	+32 31 36.1			885
1993 BF		1993 01 31.64375	07 17 44.53	+25 40 23.7	16.5		885
1993 BF		1993 01 31.65903	07 17 43.59	+25 40 20.7			885
1993 BX2		1993 01 30.73229	09 21 29.66	+18 34 19.7	16		885
1993 BX2		1993 01 30.73924	09 21 29.06	+18 34 16.5			885
1993 BL3	*	1993 01 28.69340	09 41 55.59	+28 15 39.0	16		885
1993 BL3		1993 01 28.70799	09 41 54.73	+28 15 44.5			885
1993 BL3		1993 01 29.65486	09 40 53.24	+28 22 38.3	16		885
1993 BL3		1993 01 29.66181	09 40 52.58	+28 22 41.8			885
1993 BO3	*	1993 01 30.77049	10 31 39.58	+16 54 46.7	16.5		885
1993 BO3		1993 01 30.78438	10 31 39.00	+16 54 55.4			885
1993 BO3		1993 01 31.69097	10 30 57.62	+17 01 45.4	16.5		885
1993 BO3		1993 01 31.70556	10 30 56.81	+17 01 53.2			885
1993 BP3	*	1993 01 30.79132	10 32 33.00	+13 22 58.3	16.5		885
1993 BP3		1993 01 30.80174	10 32 32.17	+13 22 52.0			885
1993 BP3		1993 01 31.66910	10 31 20.85	+13 14 18.9	17		885
1993 BP3		1993 01 31.68368	10 31 19.58	+13 14 11.4			885
1993 BP3		1993 02 01.68646	10 29 55.01	+13 04 16.5	16.5		885
1993 BP3		1993 02 01.69340	10 29 54.26	+13 04 13.1			885
1993 BR3		1993 01 31.71354	09 23 16.84	+21 05 43.4	17		885
1993 BR3		1993 02 01.65417	09 22 28.37	+21 16 03.4	17		885
1993 BR3		1993 02 01.66944	09 22 27.65	+21 16 11.9			885
1993 CL		1993 02 13.65590	11 03 22.32	+13 00 13.8	16.5		885
1993 CL		1993 02 13.66285	11 03 22.02	+13 00 16.8			885
1993 CL		1993 02 14.61076	11 02 44.50	+13 05 13.5	16.5		885
1993 CL		1993 02 14.61771	11 02 44.11	+13 05 14.6			885
1993 CM	*	1993 02 13.69271	10 45 49.25	+13 48 27.1	16.5		885
1993 CM		1993 02 13.69965	10 45 48.95	+13 48 27.6			885
1993 CM		1993 02 14.58750	10 45 01.89	+13 52 51.5	16.5		885
1993 CM		1993 02 14.60104	10 45 01.17	+13 52 55.5			885

886 Susono
T. Furuta, 17-2 Mitsuike, Kagiya, Tokai 477, Japan
Observer M. Akiyama
Measurer T. Furuta
0.25-m f/4.2 Wright-Schmidt camera
GSC

1985 CE2		1993 01 29.58681	09 42 08.66	+09 56 19.0	16.0		886
1985 CE2		1993 01 29.59757	09 42 08.03	+09 56 22.0			886

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

1991 VK5		1993 01 20.70556	08 23 07.96	+26 18 57.4	17.0		894
1991 VK5		1993 01 20.71917	08 23 07.04	+26 19 03.1			894
1991 VK5		1993 01 29.61563	08 15 17.91	+27 04 14.9	16.5		894

1991 VK5		1993	01	29.62882	08	15	17.11	+27	04	18.5		894
1992 XE		1993	01	17.59028	05	14	18.09	+22	26	17.6	16.5	894
1992 XE		1993	01	19.53929	05	13	34.57	+22	33	45.8	16.8	894
1992 XE		1993	01	19.55243	05	13	34.26	+22	33	49.0		894
1992 XE		1993	01	20.56563	05	13	15.27	+22	37	43.0		894
1992 XK		1992	12	26.60104	05	24	43.83	+23	46	55.4	17.0	894
1992 XK		1992	12	26.61424	05	24	42.99	+23	46	53.9		894
1992 XK		1992	12	27.62054	05	23	46.92	+23	45	07.6	17.0	894
1992 XK		1992	12	27.63310	05	23	46.13	+23	45	06.4		894
1992 XK		1992	12	29.59902	05	22	00.88	+23	41	41.6		894
1992 XK		1992	12	29.61215	05	22	00.22	+23	41	39.9		894
1992 XL		1992	12	27.62054	05	28	28.64	+24	21	38.7	17.2	894
1992 XL		1992	12	27.63310	05	28	27.93	+24	21	41.3		894
1992 XL		1992	12	29.59902	05	26	41.03	+24	26	55.0	17.2	894
1992 XL		1992	12	29.61215	05	26	40.36	+24	26	57.6		894
1992 YS2		1992	12	15.56354	05	39	47.45	+23	56	22.4	17.0	894
1992 YS2		1992	12	15.57472	05	39	46.83	+23	56	23.6		894
1992 YS2		1992	12	16.55836	05	38	49.76	+23	57	00.6		894
1992 YS2		1992	12	16.57083	05	38	48.97	+23	56	58.6		894
1992 YS2		1992	12	26.60104	05	29	17.63	+24	01	36.7		894
1992 YS2		1992	12	26.61424	05	29	16.94	+24	01	36.3		894
1992 YS2		1992	12	27.62054	05	28	22.30	+24	01	54.6	17.0	894
1992 YS2		1992	12	27.63310	05	28	21.57	+24	01	55.4		894
1992 YS2		1992	12	29.59902	05	26	36.92	+24	02	29.3	17.0	894
1992 YS2		1992	12	29.61215	05	26	36.25	+24	02	29.1		894
1992 YG3		1993	01	17.69905	08	00	45.88	+20	13	35.5	16.5	894
1992 YG3		1993	01	17.71215	08	00	45.13	+20	13	39.3		894
1992 YG3		1993	01	21.57639	07	57	23.23	+20	25	54.8	16.5	894
1992 YG3		1993	01	21.58889	07	57	22.55	+20	25	56.5		894
1993 AE		1993	01	21.60243	08	12	23.53	+18	59	22.2	16.0	894
1993 AE		1993	01	21.61563	08	12	22.55	+18	59	18.1		894
1993 BF2		1992	12	29.76528	08	46	50.44	+23	39	41.2	16.5	894
1993 BF2		1993	01	04.78920	08	42	20.85	+24	30	52.5	16.5	894
1993 BF2		1993	01	04.80243	08	42	20.32	+24	30	58.2		894
1993 BF2		1993	01	20.70556	08	27	26.80	+26	44	34.2	16.3	894
1993 BF2		1993	01	20.71917	08	27	25.90	+26	44	39.3		894
1993 BF2		1993	01	29.61563	08	18	24.60	+27	49	52.6	16.5	894
1993 BF2		1993	01	29.62882	08	18	23.71	+27	49	57.8		894
1993 CU	*	1993	02	13.67188	10	05	10.07	+14	00	29.9	17.0	894
1993 CU		1993	02	13.68507	10	05	09.21	+14	00	30.8		894
1993 CU		1993	02	14.59491	10	04	16.92	+14	01	18.2		894
1993 CU		1993	02	14.60799	10	04	16.10	+14	01	19.7		894
1993 DB	*	1993	02	17.71551	10	51	45.10	+12	27	48.0	16.0	894
1993 DB		1993	02	17.72986	10	51	44.32	+12	27	51.9		894
1993 DB		1993	02	18.68478	10	50	48.37	+12	31	40.4		894
1993 DB		1993	02	18.69861	10	50	47.52	+12	31	43.1		894
(158)		1993	01	30.77882	09	52	22.05	+11	49	53.3	14.0	894
(158)		1993	01	30.79271	09	52	21.34	+11	49	56.6		894
(158)		1993	02	02.76701	09	49	57.51	+12	01	25.6		894
(158)		1993	02	02.78007	09	49	56.89	+12	01	28.8		894
(2727)		1992	11	18.73125	04	03	39.71	+17	08	11.4	16.5	894
(2727)		1992	11	18.74375	04	03	38.74	+17	08	06.3		894
(2727)		1992	11	21.55521	04	00	57.26	+16	56	20.3	16.0	894
(2727)		1992	11	21.56840	04	00	56.56	+16	56	18.3		894
(4006)		1993	01	17.69905	07	59	20.93	+20	22	53.6		894
(4006)		1993	01	17.71215	07	59	19.97	+20	22	54.1		894
(4006)		1993	01	21.57639	07	55	13.76	+20	29	08.2		894
(4006)		1993	01	21.58889	07	55	12.94	+20	29	08.2		894
(4021)		1992	12	29.76528	08	37	25.98	+24	05	03.2		894

(4021)		1992 12 29.77951	08 37 25.20	+24 05 07.6					894
(4179)		1993 01 17.69905	08 00 42.31	+20 13 12.7	13.0				894
(4179)		1993 01 17.71215	08 00 41.49	+20 13 15.8					894
(4179)		1993 01 21.57639	07 57 45.41	+20 28 57.2	13.5				894
(4179)		1993 01 21.58889	07 57 44.81	+20 28 59.8					894
(4940)		1992 11 18.73125	04 04 25.68	+17 35 47.1	16.5				894
(4940)		1992 11 18.74375	04 04 25.05	+17 35 44.2					894
(4940)		1992 11 21.55521	04 01 57.17	+17 30 04.1	16.0				894
(4940)		1992 11 21.56840	04 01 56.56	+17 30 02.9					894
(5392)		1992 11 21.58229	03 53 57.25	+23 16 02.4	15.5				894
(5392)		1992 11 21.59549	03 53 55.74	+23 16 12.0					894
(5402)		1992 11 21.61424	04 10 20.28	+18 09 00.6	16.0				894
(5402)		1992 11 21.62743	04 10 19.36	+18 08 45.9					894

896 Yatsugatake South Base Observatory
O. Muramatsu, 119-1, 2-8 Sakurazutsumi, Musashino, Tokyo 180, Japan
Observer Y. Kushida
Measurers Y. Kushida, O. Muramatsu
0.25-m f/3.4 reflector
PPM

1992 WU3		1992 12 15.48576	04 22 30.74	+24 58 45.2					896
1992 WU3		1992 12 15.51424	04 22 29.23	+24 58 40.4					896
1992 WU3		1992 12 29.58576	04 13 32.10	+24 19 34.5					896
1992 WU3		1992 12 29.63090	04 13 31.06	+24 19 27.7					896
1992 WV3		1992 12 29.59688	04 13 10.1	+30 07 57				W	896
1992 WV3		1992 12 29.64201	04 13 08.35	+30 07 47.0					896
1992 YW3		1993 01 12.50287	07 50 18.79	+30 28 38.6					896
1992 YW3		1993 01 12.52917	07 50 17.23	+30 28 53.5					896
1992 YW3		1993 01 17.55938	07 45 25.78	+31 13 26.9					896
1992 YW3		1993 01 17.59618	07 45 23.48	+31 13 43.5					896
1992 YW3		1993 02 14.48958	07 24 54.72	+33 44 07.8					896
1992 YW3		1993 02 14.54514	07 24 53.38	+33 44 16.7					896
1992 YX3		1992 12 30.73490	07 55 05.34	+31 01 49.0					896
1992 YX3		1993 01 12.50287	07 43 25.89	+32 04 11.7					896
1992 YX3		1993 01 12.52917	07 43 24.23	+32 04 19.3					896
1992 YX3		1993 01 17.54861	07 38 38.49	+32 23 52.7					896
1992 YX3		1993 01 17.58333	07 38 36.43	+32 23 59.6					896
1992 YX3		1993 01 29.60243	07 27 55.5	+32 56 38					896
1993 AT	*	1993 01 12.50287	07 45 21.19	+30 54 40.3	17.0				896
1993 AT		1993 01 12.52917	07 45 19.50	+30 54 44.5					896
1993 AT		1993 01 17.54861	07 39 55.9	+31 09 03				W	896
1993 AT		1993 01 17.58333	07 39 53.60	+31 09 08.8					896
1993 BE2	*	1993 01 17.62222	08 28 21.83	+26 19 09.9	17			d	896
1993 BE2		1993 01 19.69931	08 26 31.20	+26 31 47.8					896
1993 BE2		1993 01 22.67569	08 23 51.06	+26 49 23.9					896
1993 BE2		1993 01 22.70295	08 23 49.53	+26 49 29.6					896
1993 BE2		1993 01 29.72743	08 17 31.84	+27 27 37.5					896
1993 BE2		1993 01 29.75243	08 17 30.6	+27 27 46					896
1993 BF2	*	1993 01 17.62222	08 30 33.42	+26 19 49.3	16.0				896
1993 BF2		1993 01 17.65208	08 30 31.62	+26 20 01.7					896
1993 BF2		1993 01 19.69931	08 28 27.99	+26 36 34.2					896
1993 BF2		1993 01 22.67569	08 25 26.39	+26 59 56.6					896
1993 BF2		1993 01 22.70295	08 25 24.69	+27 00 03.5					896
1993 BF2		1993 01 29.72743	08 18 17.63	+27 50 35.5					896
1993 BF2		1993 01 29.75243	08 18 16.18	+27 50 45.1					896
1993 BF2		1993 02 10.46979	08 07 28.4	+28 57 59				W	896
1993 BF2		1993 02 10.49583	08 07 27.00	+28 58 07.1					896
1993 BF2		1993 02 14.55694	08 04 16.17	+29 15 55.5					896
1993 BF2		1993 02 14.58559	08 04 14.89	+29 16 03.3					896

1993 BM2	*	1993 01 20.62917	08 45 26.05	+27 10 44.3	17.0			896
1993 BM2		1993 01 20.66042	08 45 23.7	+27 10 40			W	896
1993 BM2		1993 01 21.64774	08 44 14.24	+27 09 16.6				896
1993 BM2		1993 01 21.67847	08 44 12.1	+27 09 16			W	896
1993 BR2	*	1993 01 20.61892	08 50 34.5	+24 09 57	17.0		E	896
1993 BR2		1993 01 20.65017	08 50 32.7	+24 10 00			E	896
1993 BR2		1993 01 21.63715	08 49 37.4	+24 12 17			E	896
1993 BR2		1993 01 21.66840	08 49 35.7	+24 12 23			E	896
1993 BR2		1993 01 29.73854	08 41 49.34	+24 27 50.5				896
1993 BR2		1993 01 29.76389	08 41 48.14	+24 27 52.5				896
1993 BR2		1993 02 10.50625	08 31 02.07	+24 37 20.8				896
1993 BR2		1993 02 10.52865	08 31 00.93	+24 37 21.1				896
1993 BL12	*	1993 01 30.78542	09 55 02.54	+19 57 27.5	17.5			896
1993 BL12		1993 01 30.81597	09 55 00.71	+19 57 39.6				896
1993 BL12		1993 02 10.48333	09 44 37.0	+21 06 42				896
1993 BL12		1993 02 10.51806	09 44 35.1	+21 06 55				896
1993 CC		1993 02 13.55660	10 46 15.13	+16 16 59.5	16.5			896
1993 CC		1993 02 13.58750	10 46 13.62	+16 17 22.5				896
1993 CC		1993 02 14.67465	10 45 27.00	+16 29 34.5				896
1993 CC		1993 02 14.70486	10 45 25.80	+16 29 54.3				896
(2157)		1993 01 17.54861	07 38 43.08	+32 20 02.4				896

901 Tajimi
T. Furuta, 17-2 Mitsuike, Kagiya, Tokai 477, Japan
Observer T. Mizuno
Measurer T. Furuta
0.15-m f/5.0 reflector
GSC

1979 HH3		1993 01 26.57535	09 32 44.98	+27 26 41.4	16.0			901
1979 HH3		1993 01 26.59028	09 32 44.14	+27 26 48.8				901

905 Nachi-Katsuura Observatory
T. Urata, 6-1, Muramatsuhara 1 Chome, Shimizu, Shizuoka-Ken 424, Japan
Observer Y. Shimizu
Measurer T. Urata
0.30-m f/3.8 hyperboloid astrocamera
GSC

1993 BN		1993 01 30.66898	09 20 21.28	+17 05 04.2	16			905
1993 BN		1993 01 30.67737	09 20 20.71	+17 05 03.0				905

906 Cobram
P. Camilleri, R.M.B. 2013, Cottons Road, Cobram, Vic. 3644, Australia
Observer P. J. Camilleri
Measurer P. M. Kilmartin
0.20-m f/7.2 reflector

(4179)		1992 12 08.72434	12 49 05.96	-20 30 18.0				906
(4179)		1992 12 10.71897	11 15 11.55	-07 35 04.3				906
(4179)		1992 12 10.72638	11 14 54.60	-07 32 35.4				906
(4179)		1992 12 10.72873	11 14 49.54	-07 31 47.5				906

* * * * *

ORBITAL ELEMENTS.

Orbital elements have been computed by the following contributors:

C. M. Bardwell, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, U.S.A.

E. Bowell, Lowell Observatory, 1400 West Mars Hill Road, Flagstaff, AZ 86001, U.S.A. (E)
T. Kobayashi, 1717-2 Shimo-Koizumi, Oizumi-machi, Ora-gun, Gunma-ken, 370-05 Japan
B. G. Marsden, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, U.S.A. (M)
S. Nakano, 3-19, 1 chome, Takenokuchi, Sumoto, Hyogo-ken 656, Japan (N)
L. D. Schmadel, Astronomisches Rechen-Institut, Monchhofstrasse 12-14, W-6900 Heidelberg, Federal Republic of Germany
P. Sicoli, Via Valli 9, I-22040 Garbagnate Monastero (Como), Italy
T. Urata, 6-1, Muramatsuhara 1 Chome, Shimizu, Shizuoka-Ken 424, Japan (U)
G. V. Williams, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, U.S.A. (W)

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.

Periodic Comet Helin-Roman-Alu 1 (1987 XXXVII)
Epoch 1987 Oct. 12.0 TT = JDT 2447080.5

T 1987 Oct. 12.56492 TT				Marsden
q 3.7076950		(2000.0)	P	Q
n 0.10371617	Peri.	216.36199	+0.33158314	+0.92931412
a 4.4864730	Node	73.50351	-0.82066416	+0.36911972
e 0.1735836	Incl.	9.76140	-0.46536326	+0.01122042
P 9.50				

From 22 observations 1988 Aug. 10-1993 Jan. 25, mean residual 0".78.

Periodic Comet McNaught-Hughes (1991 IX)
Epoch 1991 July 3.0 TT = JDT 2448440.5

T 1991 June 16.11972 TT				Marsden
q 2.1253431		(2000.0)	P	Q
n 0.14697067	Peri.	224.42735	+0.69410018	+0.70857501
a 3.5561680	Node	89.98156	-0.62003266	+0.67812832
e 0.4023502	Incl.	7.30023	-0.36576556	+0.19509855
P 6.71				

From 25 observations 1991 Sept. 30-1993 Jan. 22, mean residual 0".57.

Periodic Comet Levy (1991 XI)
Epoch 1991 July 3.0 TT = JDT 2448440.5
T 1991 July 8.19321 TT Marsden

q 0.9825245	(2000.0)	P	Q	
n 0.01922385	Peri. 41.46858	+0.96324683	-0.21025640	
a 13.8009540	Node 329.43050	+0.05782213	+0.77006350	
e 0.9288075	Incl. 19.19044	+0.26232069	+0.60232421	

P 51.27
From 81 observations 1991 June 15-1993 Jan. 21, mean residual 0".77.

Comet Shoemaker-Levy (1991 XXIV)
Epoch 1992 Jan. 19.0 TT = JDT 2448640.5 Nakano
T 1991 Dec. 31.18037 TT

q 2.2650352	(2000.0)	P	Q	
z +0.0028662	Peri. 74.36499	-0.34226912	+0.75618225	
+/-0.0000015	Node 145.12951	-0.39181155	-0.65435486	
e 0.9935079	Incl. 77.28810	+0.85401145	+0.00285013	

From 362 observations 1991 Jan. 22-1992 Nov. 28, mean residual 0".86.

Comet Tanaka-Machholz (1992d)
Epoch 1992 Apr. 8.0 TT = JDT 2448720.5
T 1992 Apr. 22.69020 TT Marsden

q 1.2614975	(2000.0)	P	Q	
z +0.0031980	Peri. 65.47460	+0.35636146	-0.39541291	
+/-0.0000096	Node 300.50823	-0.60497441	+0.59282590	
e 0.9959658	Incl. 79.29237	+0.71204808	+0.70157400	

From 144 observations 1992 Apr. 1-1993 Jan. 23, mean residual 0".82.

Comet Spacewatch (1992h)
Epoch 1993 Sept. 10.0 TT = JDT 2449240.5
T 1993 Sept. 5.54534 TT Nakano

q 3.0071098	(2000.0)	P	Q	
z -0.0000030	Peri. 83.39848	-0.32730414	+0.88653299	
+/-0.0000152	Node 203.32364	+0.10372518	+0.37768238	
e 1.0000089	Incl. 124.31774	+0.93920876	+0.26723638	

From 41 observations 1992 May 1-1993 Feb. 18, mean residual 0".56.

Comet Mueller (1993a)
T 1994 Jan. 13.03517 TT Marsden

q 1.9326730	(2000.0)	P	Q	
	Peri. 130.80775	+0.78323009	+0.40181204	
	Node 144.68567	-0.26998714	-0.46758528	
e 1.0	Incl. 124.83997	+0.56005140	-0.78734433	

From 87 observations 1993 Jan. 2-Feb. 15.

One-opposition minor planets

Planet	H	Epoch	M	Peri.	Node	Incl.	e	a	Arc	O	N	C
1987 WQ	13.0	871121	17.19	345.04	31.98	12.35	0.3151	2.7413	16	0		W
1987 WU4	12.0	871121	180.48	166.41	68.42	10.19	0.1037	2.6928	8	3	E	W
1988 VF	14.5	881115	21.18	331.92	36.29	6.35	0.2598	2.2705	27	0		W
1988 VC5	12.5	881026	65.32	80.11	221.55	9.84	0.2515	2.7557	2	7	E	W
1988 VG5	15.0	881026	350.59	351.21	60.07	0.50	0.2004	2.1996	9	9	E	W
1988 VH5	12.5	881026	190.98	150.90	59.02	1.11	0.0750	2.1801	8	6	E	W
1989 CH4	14.0	890203	322.44	221.27	328.81	1.88	0.1514	2.3793	10	0		W
1989 YG3	12.0	921224	339.72	15.10	124.33	1.78	0.1454	3.1459	18	0		W
1992 HL4	14.0	920428	335.95	220.88	24.13	7.60	0.1812	2.3011	4	5		W
1992 QD1	14.0	920826	336.53	92.59	294.09	4.13	0.2337	2.2139	34	3		W
1992 ST2	14.0	920915	339.25	190.84	195.31	23.77	0.1273	2.3388	7	6		W
1992 SD13	12.5	921005	32.49	123.78	205.62	11.53	0.1590	3.1537	23	7		E

1992	SK13	14.5	921005	3.98	59.81	308.49	4.63	0.1799	2.2922	6	8		E
1992	SR23	14.0	920915	45.43	57.51	264.33	4.24	0.2018	2.4803	6	6		W
1992	SS23	14.0	920915	89.07	272.02	10.05	6.83	0.1769	2.5308	6	6		W
1992	ST23	14.0	920915	345.76	38.79	10.11	9.01	0.1318	2.7971	6	6		W
1992	SU23		920915	354.99	45.12	348.70	4.11	0.2260	2.6569	4	5		W
1992	UX	13.5	921204	29.20	304.63	67.02	7.63	0.1278	2.3399	54	0		U
1992	UZ	12.9	921204	39.80	281.51	60.01	13.47	0.2879	2.5948	54	0		U
1992	UM3	12.0	921005	296.06	229.09	239.75	9.10	0.0635	3.0207	54	0		W
1992	UN3	12.2	921025	296.49	233.50	233.98	14.63	0.0144	2.6963	21	0		N
1992	UF5	14.2	921025	31.49	152.75	190.25	6.29	0.2712	2.7206	4	6	E	N
1992	UP8	15.5	921025	350.56	114.02	298.72	2.01	0.2207	2.3291	23	5		W
1992	UR8	14.3	921025	200.70	179.28	21.56	7.06	0.0411	2.3231	5	5		N
1992	US8	16.0	921025	6.23	95.15	292.94	2.27	0.2064	2.1962	23	5		W
1992	UK9	13.9	921025	17.78	280.54	96.91	3.86	0.0414	2.6167	9	7		N
1992	WG	14.0	921114	13.08	335.49	54.77	7.51	0.2411	2.7555	22	6		N
1992	WJ	14.0	921114	315.36	85.98	25.86	2.52	0.1549	2.4163	25	0		N
1992	WL2	13.7	921204	311.45	69.33	55.74	9.83	0.1425	2.6809	11	9		N
1992	WP3	12.4	921114	24.74	99.23	283.28	8.96	0.1627	3.0555	8	6		N
1992	WG4	14.8	921204	32.74	280.59	100.98	2.38	0.1640	2.2294	6	8	E	N
1992	XE	13.3	921224	345.27	6.32	99.99	6.21	0.1046	2.2567	37	0		N
1992	XK	14.1	921224	30.07	118.43	283.72	1.15	0.2084	2.3895	14	0		N
1992	YB	13.8	921224	45.28	256.73	143.49	6.40	0.1052	2.3405	34	0		U
1992	YC	13.0	921224	25.36	129.33	264.99	24.54	0.2832	2.2843	32	0		M
1992	YH	12.7	921224	31.24	338.37	70.14	13.83	0.1935	2.5896	32	0		U
1992	YM	12.9	930113	4.67	350.83	108.11	14.73	0.1131	2.5767	29	9		U
1992	YC1	13.0	921224	290.19	93.38	83.18	2.51	0.1199	3.1175	30	0		M
1992	YE1	14.5	921224	24.97	341.06	79.08	4.72	0.1411	2.5468	29	9		W
1992	YM1	13.0	921224	80.85	268.13	94.06	23.45	0.0975	3.1352	30	0		M
1992	YP1	15.0	921224	325.19	58.87	74.34	4.46	0.0647	2.3044	30	0		M
1992	YW1	14.5	921224	263.20	260.33	302.65	3.78	0.1091	2.2591	30	0		M
1992	YY1	15.0	921224	69.36	277.48	90.06	5.04	0.1536	2.2907	30	0		M
1992	YC2	14.5	921224	42.69	102.52	287.47	1.64	0.2298	2.6308	30	0		M
1992	YE2	13.0	921224	221.90	316.46	284.96	11.90	0.1223	2.6505	30	0		M
1992	YG2	15.0	921224	53.24	82.04	303.08	3.43	0.1586	2.2124	30	0		M
1992	YH2	13.0	921224	55.57	306.16	87.10	10.72	0.0710	3.1760	30	0		M
1992	YJ2	14.5	921224	64.11	285.51	90.51	7.69	0.1378	2.3972	30	0		M
1992	YL2	13.0	921224	351.28	12.41	93.41	11.41	0.0555	2.9954	30	0		M
1992	YM2	14.5	921224	72.63	285.34	86.49	7.94	0.0990	2.4469	30	0		M
1992	YN2	15.0	921224	310.07	83.14	76.37	2.28	0.1449	2.2981	30	0		M
1992	YP2	15.0	921224	8.15	359.89	85.18	8.79	0.1204	2.4562	30	0		M
1992	YR2	14.5	921224	231.76	160.05	68.99	5.04	0.0579	2.3752	30	0		M
1992	YB3	19.5	921224	10.99	315.56	100.21	6.50	0.3095	2.3178	29	0		M
1992	YG3	12.1	930113	342.08	16.81	124.37	1.77	0.1494	3.1441	30	0		N
1992	YT3	15.5	921224	33.83	306.31	119.03	5.12	0.1798	2.3919	33	9		W
1992	YW3	12.4	930113	359.58	26.55	87.96	12.01	0.2090	2.8001	47	0		N
1992	YB4	14.8	921224	15.88	71.78	5.22	2.94	0.2054	2.3500	18	4		N
1992	YE4	13.8	930113	55.65	240.41	151.50	4.00	0.2470	2.5899	24	0		N
1993	AG	14.4	930113	355.33	311.05	174.94	3.64	0.3060	2.6337	26	0		N
1993	AJ	12.7	930113	49.79	289.54	116.86	13.12	0.2382	2.6642	8	8		N
1993	BA	12.5	930113	202.98	178.59	114.76	15.05	0.0728	2.5710	7	9		W
1993	BB	14.4	930202	336.88	27.08	144.79	5.85	0.1403	2.3008	14	9		N
1993	BC	14.2	930113	53.62	161.65	262.64	1.64	0.1702	2.3604	10	8		N
1993	BD	14.2	930202	12.74	7.03	113.00	6.92	0.1398	2.3265	28	0		N
1993	BF	12.4	930202	112.91	39.36	309.80	9.49	0.1568	2.2574	26	0		U
1993	BG	14.8	930113	71.17	260.12	127.97	9.61	0.1331	2.2045	9	6		N
1993	BH	12.0	930113	150.00	185.90	128.60	13.89	0.2234	2.9157	9	6		N
1993	BJ	12.8	930202	110.86	22.29	326.36	5.52	0.1860	2.2830	26	0		N
1993	BM	12.6	930113	346.44	179.39	326.92	8.02	0.1023	2.7481	25	8		U
1993	BE2	11.9	930202	105.04	269.81	97.70	11.90	0.1122	3.0084	12	9		N

1993 BG2	13.1	930202	32.59	116.06	324.77	4.05	0.2307	2.8662	25	9		N	
1993 BH2	12.9	930202	276.06	121.99	113.43	3.65	0.1726	2.4118	22	7		N	
1993 BJ2	12.6	930202	221.15	158.01	122.55	6.82	0.1259	2.4063	25	0		N	
1993 BK2	13.1	930202	25.70	122.71	334.01	2.16	0.1782	2.7814	11	0		N	
1993 BL2	13.9	930202	315.51	59.43	125.27	7.80	0.0778	2.2936	22	0		N	
1993 BT2	12.9	930202	337.59	195.50	329.21	5.42	0.2089	2.6311	21	9		N	
1993 BX2	13.2	930202	5.59	164.51	321.89	11.40	0.1915	2.5597	9	8		N	
1993 BY2	13.5	930113	8.23	167.61	305.77	4.41	0.1925	3.0184	6	0		W	
1993 BZ2	13.5	930113	48.75	104.62	307.86	10.64	0.2345	2.5602	5	8	E	W	
1993 BA3	12.0	930113	115.34	59.85	307.19	10.28	0.0538	3.0315	8	0	E	W	
1993 BB3	13.9	930202	181.21	261.53	54.78	3.35	0.1321	2.1823	3	5	E	N	
1993 BC3	18.5	930113	3.09	165.62	309.37	21.62	0.1532	1.8257	3	8		M	
1993 BG3	13.5	930113	338.64	13.41	139.95	6.75	0.1102	2.6796	6	0	E	W	
1993 BH3	11.4	930202	337.97	261.69	279.78	11.55	0.1372	3.0699	8	7		N	
1993 BJ3	13.9	930202	357.76	333.86	170.38	1.36	0.0467	2.3068	5	5	E	N	
1993 BP3	14.0	930202	31.11	127.60	327.74	20.52	0.2192	2.2602	2	6		N	
1993 BR3	13.3	930202	4.36	9.28	120.73	13.09	0.1014	2.6156	23	0		N	
1993 BS3	13.2	930202	352.49	211.20	295.72	6.86	0.1170	2.3102	17	0		N	
1993 BT3	14.5	930202	14.40	0.11	112.04	10.33	0.2524	2.7586	9	7		N	
1993 BY3	10.0	930113	113.37	44.44	301.51	15.15	0.1353	5.2674	4	6	E	W	
1993 BN4	15.0	930113	53.05	297.84	114.36	2.42	0.2236	2.3704	2	9	E	W	
1993 BL5	14.0	930113	353.55	146.69	354.10	1.18	0.1345	3.1488	2	8	E	W	
1993 BM5	14.5	930113	355.10	54.13	83.30	1.35	0.1139	2.7943	2	9	E	W	
1993 BN5	13.0	930113	179.89	180.34	133.37	21.09	0.1325	2.6267	2	9	E	W	
1993 BQ5	15.0	930113	355.54	23.13	112.58	2.53	0.0967	2.4644	2	9	E	W	
1993 BW5	13.5	930113	173.40	190.13	129.23	10.27	0.1119	2.6738	2	9	E	W	
1993 BB6	14.5	930113	356.07	131.03	6.16	1.28	0.1418	2.8824	2	0	E	W	
1993 BS6	12.4	930202	350.89	200.67	310.06	18.64	0.1460	3.1774	13	6		N	
1993 BU6	11.6	930202	75.94	22.97	34.63	10.03	0.1619	3.1546	5	6	E	N	
1993 BH8	13.5	930202	274.08	103.99	120.67	8.00	0.1277	2.4370	20	8		N	
1993 BV8	17.0	930113	217.35	152.16	115.52	7.81	0.0120	2.4341	5	9	E	W	
1993 BB9	16.0	930113	115.93	237.34	121.04	14.93	0.1223	2.6904	8	9		W	
1993 BG9	16.0	930113	285.92	93.49	111.91	6.22	0.0596	2.2433	8	0		W	
1993 BW9	15.0	930113	189.78	197.66	99.82	4.57	0.0446	3.1446	7	9		W	
1993 BB10	17.0	930113	2.45	75.59	44.70	1.72	0.1414	2.3845	7	9		W	
1993 BG10	17.0	930113	328.79	160.13	358.67	2.67	0.0359	2.5113	7	9		W	
1993 BH10	17.0	930113	342.58	69.75	82.83	2.86	0.2173	3.0269	7	9		W	
1993 BK10	18.5	930113	5.40	34.29	81.82	2.42	0.1503	2.3010	7	9		W	
1993 BR11	17.5	930113	297.51	188.16	11.33	1.89	0.1207	2.3166	7	8		W	
1993 BO13	14.0	930202	12.51	26.16	89.67	2.63	0.1226	2.3389	22	6		N	
1993 BP13	11.5	930222	0.38	236.03	268.78	12.46	0.1051	2.5973	24	6		N	
1993 CC	12.7	930222	9.13	16.94	125.24	9.66	0.1452	2.5049	2	0		N	
1993 CN	11.7	930222	44.77	354.98	99.20	10.81	0.1979	3.1527	3	6		U	

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(77) Frigga Obs. 106 M 274.53066 Peri. 60.62323
H 8.52 G 0.16 Opp. 35 n 0.22616324 Node 1.57475
rms res. 0".95 (M-C) 1914-1991 e 0.1338091 Incl. 2.43391

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(431) Nephele Obs. 97 M 147.74233 Peri. 212.45007
H 8.72 G 0.15 Opp. 30 n 0.17836430 Node 117.54631
rms res. 0".90 (M-C) 1902-1990 e 0.1836511 Incl. 1.82691

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(1134) Kepler Obs. 30 M 149.86843 Peri. 331.87135
H 14.3 G 0.15 Opp. 6 n 0.22416356 Node 6.51300
rms res. 0".94 (M-C) 1929-1992 e 0.4657918 Incl. 15.18762

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(1530) Rantaseppa Obs. 31 M 29.04519 Peri. 84.15752
H 13.1 G 0.15 Opp. 5 n 0.29233981 Node 286.24060
rms res. 1".06 (M-C) 1938-1992 e 0.1994601 Incl. 4.41936

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(1762) Russell Obs. 81 M 4.92436 Peri. 231.87384
H 11.8 G 0.15 Opp. 13 n 0.20209386 Node 161.01122
rms res. 0".84 (M-C) 1950-1992 e 0.0770678 Incl. 2.27045

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(1802) Zhang Heng Obs. 118 M 261.80854 Peri. 295.33995
H 11.9 G 0.15 Opp. 12 n 0.20557236 Node 142.82233
rms res. 0".83 (M-C) 1949-1992 e 0.0371157 Incl. 2.68091

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(1832) Mrkos Obs. 58 M 340.39246 Peri. 85.87697
H 11.0 G 0.15 Opp. 12 n 0.17161216 Node 303.75692
rms res. 0".93 (M-C) 1937-1992 e 0.1151255 Incl. 15.00314

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(1945) Wesselink Obs. 27 M 83.93311 Peri. 194.34227
H 12.2 G 0.15 Opp. 8 n 0.24145124 Node 142.97077
rms res. 0".87 (M-C) 1930-1992 e 0.1792400 Incl. 4.21213

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(2049) Grietje Obs. 22 M 62.49202 Peri. 141.56057
H 14.9 G 0.15 Opp. 6 n 0.36221029 Node 200.22670
rms res. 0".90 (M-C) 1973-1992 e 0.0845484 Incl. 24.41961

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(2061) Anza Obs. 39 M 170.24397 Peri. 156.12079
H 16.56 G 0.15 Opp. 4 n 0.28864783 Node 207.88522
rms res. 0".87 (M-C) 1960-1992 e 0.5366472 Incl. 3.74766

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(2194) Arpola Obs. 25 M 352.29049 Peri. 102.08774
H 12.6 G 0.15 Opp. 7 n 0.27750984 Node 47.40570
rms res. 0".73 (M-C) 1940-1991 e 0.0415558 Incl. 8.52766

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(2237) Melnikov Obs. 27 M 223.07568 Peri. 268.23338
H 11.3 G 0.15 Opp. 9 n 0.17633467 Node 118.58357
rms res. 0".96 (M-C) 1938-1992 e 0.2115911 Incl. 2.39608

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Sicoli
(2335) James Obs. 26 M 285.06285 Peri. 79.48906
H 12.9 G 0.15 Opp. 4 n 0.31849788 Node 20.16642
rms res. 0".95 (M-C) 1974-1992 e 0.3591771 Incl. 36.34502

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
(2536) Kozyrev Obs. 12 M 65.33368 Peri. 89.59918
H 13.0 G 0.15 Opp. 6 n 0.28153510 Node 275.63486
rms res. 1".00 (M-C) 1939-1992 e 0.2281763 Incl. 4.86687

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(2569) Madeline Obs. 26 M 264.49063 Peri. 313.35977
H 11.2 G 0.15 Opp. 7 n 0.23170652 Node 76.70012
rms res. 0".94 (M-C) 1951-1989 e 0.1626851 Incl. 11.48332

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(2672) Pisek Obs. 23 M 56.81967 Peri. 152.83928
H 11.7 G 0.15 Opp. 7 n 0.23346697 Node 129.18705
rms res. 0".53 (M-C) 1953-1992 e 0.1515847 Incl. 14.15565

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(2891) McGetchin Obs. 37 M 276.83940 Peri. 246.11652
H 11.2 G 0.15 Opp. 9 n 0.15961714 Node 115.38190
rms res. 0".90 (M-C) 1933-1992 e 0.1165631 Incl. 9.32481

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(2893) Peiroos Obs. 32 M 185.47971 Peri. 170.01291
H 9.23 G 0.15 Opp. 10 n 0.08288787 Node 108.76045
rms res. 0".76 (M-C) 1933-1992 e 0.0762842 Incl. 14.62405

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(2992) Vondel Obs. 25 M 333.37510 Peri. 266.47573
H 13.0 G 0.15 Opp. 6 n 0.21642987 Node 185.50687
rms res. 0".65 (M-C) 1960-1992 e 0.1872464 Incl. 7.03961

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(3048) Guangzhou Obs. 20 M 134.55194 Peri. 265.36389
H 13.4 G 0.15 Opp. 8 n 0.26533903 Node 214.75611
rms res. 0".88 (M-C) 1951-1992 e 0.1455640 Incl. 1.93705

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(3057) Malaren Obs. 26 M 139.89911 Peri. 121.92180
H 13.4 G 0.15 Opp. 5 n 0.28999447 Node 75.52902
rms res. 0".91 (M-C) 1952-1988 e 0.0744422 Incl. 7.27840

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(3076) Garber Obs. 28 M 25.59969 Peri. 166.09909
H 13.7 G 0.15 Opp. 10 n 0.29442845 Node 195.75863
rms res. 0".93 (M-C) 1905-1992 e 0.1898647 Incl. 7.70781

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(3140) Stellafane Obs. 22 M 66.18582 Peri. 263.69323
H 10.9 G 0.15 Opp. 8 n 0.18835225 Node 102.11396
rms res. 0".95 (M-C) 1962-1991 e 0.1108342 Incl. 11.26283

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(3180) Morgan Obs. 20 M 10.82214 Peri. 43.83992
H 14.6 G 0.15 Opp. 6 n 0.29590016 Node 354.47712
rms res. 0".94 (M-C) 1962-1992 e 0.1480181 Incl. 5.28154

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(3486) Fulchignoni Obs. 44 M 190.73076 Peri. 18.54962
H 13.5 G 0.15 Opp. 8 n 0.26016026 Node 47.33302
rms res. 0".84 (M-C) 1952-1992 e 0.1828451 Incl. 3.21082

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(3498) Belton Obs. 40 M 215.83434 Peri. 190.36536
H 13.4 G 0.15 Opp. 6 n 0.27281247 Node 223.80858
rms res. 0".79 (M-C) 1979-1992 e 0.1025265 Incl. 6.24095

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
(3590) Holst Obs. 52 M 252.70615 Peri. 354.36460
H 13.3 G 0.15 Opp. 7 n 0.29176064 Node 128.85052
rms res. 0".86 (M-C) 1950-1992 e 0.0805227 Incl. 6.70289

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(3814) Hoshi-no-mura Obs. 65 M 46.45052 Peri. 69.92758
H 12.4 G 0.15 Opp. 10 n 0.17682842 Node 142.17267
rms res. 0".84 (M-C) 1954-1992 e 0.1157971 Incl. 1.53855

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(3869) Norton Obs. 34 M 293.69440 Peri. 67.80824
H 13.0 G 0.15 Opp. 8 n 0.25668825 Node 249.36206
rms res. 0".92 (M-C) 1953-1992 e 0.1266895 Incl. 4.36850

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(3903) Kliment Ohridski Obs. 43 M 93.50029 Peri. 304.68241
H 12.1 G 0.15 Opp. 8 n 0.19660388 Node 342.63246
rms res. 0".82 (M-C) 1951-1992 e 0.0844771 Incl. 1.31689

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
(3964) 1974 RG1 Obs. 19 M 14.60245 Peri. 8.36545
H 13.1 G 0.15 Opp. 6 n 0.21540515 Node 334.40603
rms res. 1".15 (M-C) 1951-1992 e 0.1687026 Incl. 8.68376

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(4117) Wilke Obs. 22 M 93.02109 Peri. 140.06182
H 12.6 G 0.15 Opp. 7 n 0.20603886 Node 169.33442
rms res. 0".94 (M-C) 1953-1991 e 0.1734855 Incl. 13.38845

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(4257) Ubasti Obs. 43 M 152.19219 Peri. 278.88790
H 15.8 G 0.15 Opp. 3 n 0.46629743 Node 169.37328
rms res. 0".89 (M-C) 1987-1991 e 0.4685264 Incl. 40.70537

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(4263) Abashiri Obs. 76 M 94.87917 Peri. 306.99670
H 12.4 G 0.15 Opp. 10 n 0.29493749 Node 298.38310
rms res. 0".86 (M-C) 1952-1992 e 0.1384342 Incl. 5.80286

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(4312) 1978 WW11 Obs. 20 M 339.73925 Peri. 286.37704
H 13.1 G 0.15 Opp. 5 n 0.26771124 Node 91.40855
rms res. 0".84 (M-C) 1930-1989 e 0.1531821 Incl. 4.42406

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(4320) 1981 EJ17 Obs. 29 M 284.96039 Peri. 277.22797
H 15.6 G 0.15 Opp. 6 n 0.30265523 Node 191.23733
rms res. 0".86 (M-C) 1953-1992 e 0.1131640 Incl. 6.44474

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(4330) Vivaldi Obs. 31 M 338.34204 Peri. 209.26712
H 13.6 G 0.15 Opp. 7 n 0.29354007 Node 199.79920
rms res. 0".76 (M-C) 1959-1991 e 0.0380107 Incl. 2.66285

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(4393) Dawe Obs. 31 M 40.15081 Peri. 84.63440
H 12.5 G 0.15 Opp. 7 n 0.17186100 Node 125.54960
rms res. 0".97 (M-C) 1949-1992 e 0.1389313 Incl. 2.19872

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
(4543) Phoinix Obs. 15 M 192.36381 Peri. 83.99557
H 9.8 G 0.15 Opp. 5 n 0.08602806 Node 325.42509
rms res. 0".86 (M-C) 1955-1990 e 0.0959233 Incl. 14.74333

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5					Bowell
(4606) Saheki	Obs. 24	M	98.02167	Peri.	251.34354
H 12.7 G 0.15	Opp. 6	n	0.29173034	Node	241.61381
rms res. 0".86 (M-C)	1953-1990	e	0.1018446	Incl.	2.63061
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5					Bowell
(4707) Khryses	Obs. 41	M	106.77010	Peri.	64.79631
H 10.2 G 0.15	Opp. 4	n	0.08382149	Node	310.29455
rms res. 0".75 (M-C)	1953-1990	e	0.1230485	Incl.	7.10842
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5					Williams
(4708) Polydoros	Obs. 30	M	96.68421	Peri.	103.60460
H 9.4 G 0.15	Opp. 5	n	0.08071789	Node	281.18076
rms res. 0".71 (M-C)	1988-1993	e	0.0595172	Incl.	6.96767
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5					Bowell
(4767) 1987 GC	Obs. 22	M	90.99968	Peri.	24.90836
H 12.8 G 0.15	Opp. 5	n	0.22308954	Node	194.22800
rms res. 0".84 (M-C)	1953-1991	e	0.1060669	Incl.	13.30226
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5					Bowell
(4823) 1986 TO3	Obs. 31	M	344.27284	Peri.	52.04110
H 13.7 G 0.15	Opp. 7	n	0.31061249	Node	334.40483
rms res. 0".70 (M-C)	1951-1992	e	0.1074947	Incl.	1.12096
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5					Bowell
(4894) 1986 RJ	Obs. 50	M	17.67019	Peri.	46.87025
H 13.6 G 0.15	Opp. 5	n	0.30745297	Node	263.95986
rms res. 0".75 (M-C)	1957-1992	e	0.1946323	Incl.	2.63581
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5					Bowell
(4902) 1989 AN2	Obs. 32	M	159.48574	Peri.	271.37194
H 9.5 G 0.15	Opp. 5	n	0.08278681	Node	170.35591
rms res. 0".81 (M-C)	1954-1991	e	0.0437733	Incl.	9.06961
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5					Bowell
(5126) 1989 CH2	Obs. 29	M	140.59396	Peri.	353.38177
H 10.1 G 0.15	Opp. 5	n	0.08281553	Node	116.49174
rms res. 0".88 (M-C)	1953-1992	e	0.0265933	Incl.	29.90626
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5					Bowell
(5133) 1990 PA	Obs. 32	M	197.31920	Peri.	279.51663
H 11.6 G 0.15	Opp. 7	n	0.22025172	Node	87.92663
rms res. 0".84 (M-C)	1953-1992	e	0.2240584	Incl.	11.99656
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5					Bowell
(5244) 1973 SQ1	Obs. 38	M	264.04485	Peri.	124.81503
H 9.9 G 0.15	Opp. 6	n	0.08427817	Node	213.32026
rms res. 0".81 (M-C)	1955-1992	e	0.0267134	Incl.	6.15952
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5					Bowell
(5305) 1978 VS5	Obs. 29	M	80.91143	Peri.	13.98935
H 13.4 G 0.15	Opp. 8	n	0.25892119	Node	231.94546
rms res. 0".84 (M-C)	1954-1992	e	0.1565644	Incl.	1.79087
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5					Bardwell
(5424) 1983 TN1	Obs. 29	M	268.01102	Peri.	151.75716
H 13.2 G 0.15	Opp. 6	n	0.29478148	Node	238.19733
rms res. 1".24 (M-C)	1969-1992	e	0.0442074	Incl.	3.24071

(5452)* 1937 NN = 1956 AR = 1973 GK1 = 1983 FD = 1987 SN = 1990 MD2
Discovered 1937 July 5 by C. Jackson at Johannesburg.
Id. H. Kaneda (MPC 19009)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	297.43325	(2000.0)	P	Q
n	0.29750962	Peri. 312.30238	-0.29851277	+0.94988660
a	2.2222967	Node 300.10771	-0.84107353	-0.30775985
e	0.2224748	Incl. 6.15588	-0.45109360	-0.05476605
P	3.31	H 13.2	G 0.15	

Residuals in seconds of arc

370705	078(71.2+	70.7-)X		830410	688	(1.8+	3.0-)		911103	801	0.4+ 0.0
370712	078(64.9+	59.0-)X		870918	095	1.5+	2.3-		911107	801	0.4- 0.1+
370728	078(40.4+	59.6-)X		870919	688	0.2+	0.0		921225	801	0.0 0.8+
370809	078(15.3-	22.6-)X		870919	688	0.6-	0.9+		921225	801	0.0 0.3+
560114	760	1.3-	0.0	870923	095	1.4+	1.9-		930119	801	0.1- 0.7-
730405	095 (8.7-	0.1+)		871001	372	0.6-	1.4+		930119	801	0.5- 0.2-
830316	688	1.1+	0.6+	871001	372	0.5-	1.8+		930121	801	0.7- 0.1-
830316	688	0.8+	0.6+	900630	808	0.2-	0.2+		930121	801	0.9- 0.0
830410	688	0.1+	2.1-	900630	808	0.7-	0.3-				

(5453)* 1975 VS5 = 1975 XM4 = 1978 QG1 = 1978 RG4 = 1985 VU5
Discovered 1975 Nov. 3 by T. M. Smirnova at the Crimean Astrophysical Observatory.
Id. B. G. Marsden (d, MPC 6880), L. D. Schmadel (MPC 7140), T. Urata (ibid.), H. Oishi (MPC 13297)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	34.08198	(2000.0)	P	Q
n	0.29097719	Peri. 244.98554	+0.60954075	-0.79238757
a	2.2554338	Node 167.37067	+0.76130296	+0.57659998
e	0.1558084	Incl. 6.33483	+0.22108340	+0.19913413
P	3.39	H 14.0	G 0.15	

Residuals in seconds of arc

751103	095	1.1-	1.4+	830120	372	(4.5-	0.9-)		921029	801	1.4- 0.2-
751112	095	1.3+	0.2-	830121	801	0.4-	2.4+		921029	801	0.3+ 0.2-
751203	095	0.4-	1.3+	830122	688	2.5+	1.5-		921129	801	0.1- 0.2-
780831	095	0.5+	1.3+	830122	688	0.3-	0.4+		921129	801	0.1- 0.4-
780905	095	1.0-	0.8+	851111	095	0.4+	2.1-		921220	596	0.4- 0.3+
830109	801	0.7+	0.7+	921023	801	0.4-	0.8-		921220	596	1.2+ 0.3-
830120	372	2.5-	0.4-	921023	801	0.4-	0.3-		921220	596	0.8+ 0.0

(5454)* 1977 EW5 = 1974 RE = 1988 CC6 = 1991 PF16
Discovered 1977 Mar. 12 by H. Kosai and K. Hurukawa at the Kiso Station of the Tokyo Astronomical Observatory.
Id. H. Kaneda (MPC 19290)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	36.00176	(2000.0)	P	Q
n	0.17486624	Peri. 78.18477	+0.55689347	-0.82980797
a	3.1671264	Node 337.85825	+0.72015122	+0.50393059
e	0.1235452	Incl. 5.46490	+0.41382592	+0.23973463
P	5.64	H 12.5	G 0.15	

Residuals in seconds of arc

740911	095	0.2+	2.0+	880214	809	1.7+	0.1-		910807	675	0.9+ 1.3-
770312	381	1.3-	1.2+	880214	809	1.3+	0.2-		910808	675	0.4+ 2.7-
770312	381	1.0-	0.2+	880215	809	0.2+	0.5-		910911	675	1.8+ 0.1-
770314	381	0.6+	0.6+	880215	809	1.3+	0.2-		910911	675	0.2+ 0.2-
770314	381	0.7+	0.3-	880216	809	0.5-	0.4+		910914	691	0.7- 0.6+
770315	381	0.4-	0.2-	880216	809	0.4-	0.3+		910914	691	1.3- 0.4+
770315	381	1.0-	0.3+	880317	675	1.6-	1.7-		910914	675	1.0- 0.5-
880214	809	0.4+	0.4+	880317	675	0.9+	0.8-		910914	691	1.5- 0.5+

910914	675	1.1+	0.1-	921221	801	0.1+	0.1-	930119	801	0.6-	0.2-
910915	675	1.0-	0.5-	921221	801	0.2+	0.2-	930121	801	1.3-	0.5+
910915	675	0.7+	0.8-	921225	801	0.0	0.1+	930121	801	0.3+	0.2-
910917	675	0.3+	1.0+	921225	801	0.0	0.0				
910917	675	0.6+	1.4+	930119	801	0.2-	0.0				

(5455)* 1978 RV5 = 1988 RS

Discovered 1978 Sept. 13 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. S. Nakano (MPC 13684)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	96.70873	(2000.0)	P	Q	
n	0.29261573	Peri.	0.18446	+0.99871581	-0.05058490
a	2.2470062	Node	2.71986	+0.04640616	+0.89113112
e	0.1157238	Incl.	3.39604	+0.02032739	+0.45091740
P	3.37	H	13.4	G 0.15	

Residuals in seconds of arc

780913	095	1.1-	2.2+	830115	095	(4.4+	5.7+)	880922	399	0.0	1.6-
780926	095	2.3-	1.8+	880912	071	1.0-	1.1+	881004	807	0.0	0.2+
780927	095	0.9-	1.3+	880912	071	0.5+	1.0+	881005	807	0.3+	0.1-
780930	049	0.2+	0.4-	880913	399	2.2+	1.0-	881008	807	0.6+	0.1-
780930	049	0.3+	0.6-	880913	399	1.0+	1.4-	900124	888	0.6-	1.5-
781001	049	0.3+	0.5-	880913	399	1.2-	0.5-	900124	888	0.5-	0.6-
781002	095	1.2-	0.0	880913	399	0.1+	0.6-	921225	801	0.1+	0.4-
781003	095	0.1+	0.1-	880914	071	1.7-	1.2+	921225	801	0.0	0.2-
781004	675	1.6+	1.2+	880914	071	0.7-	0.8+	921227	801	0.4+	0.7+
781005	675	1.4+	0.0	880916	807	0.8+	0.7-	921227	801	0.2+	0.6+
781027	675	0.1-	0.0	880917	399	0.2+	0.1-	930121	801	0.1-	0.3-
781028	675	0.6+	0.7-	880917	399	1.4-	2.0-	930121	801	0.2-	0.3-
781029	675	0.3+	0.0	880917	399	1.2+	1.7-	930126	801	0.0	0.3+
781128	675	0.7-	0.6-	880917	399	0.8+	0.3+	930126	801	0.2-	0.2+
781129	675	0.1-	0.4-	880922	399	0.4+	1.1+				

(5456)* 1979 HH3 = 1979 GS = 1979 KK1 = 1982 BK11 = 1991 RB6

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

Id. K. Hurukawa (d, MPC 9678), H. E. Holt (k, MPC 19013), G. V. Williams (ibid.)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	304.65551	(2000.0)	P	Q	
n	0.27235178	Peri.	144.29039	-0.98551595	+0.14638722
a	2.3571248	Node	44.37467	-0.16952625	-0.86346644
e	0.0497836	Incl.	7.03146	+0.00437809	-0.48269710
P	3.62	H	13.1	G 0.15	

Residuals in seconds of arc

790406	808	0.2+	1.0-	910912	675	1.0+	0.8-	911014	691	0.9-	0.8+
790406	808	0.8+	0.6-	910913	675	(0.7-	3.5+)	921221	801	0.4-	1.2-
790425	095	0.3+	0.1-	910913	675	0.0	1.4+	921221	801	0.4-	1.2-
790430	095	1.1-	1.5-	910916	675	0.7+	0.0	921225	801	0.7-	0.0
790501	323	0.5-	0.2+	910916	675	0.3+	0.1-	921225	801	0.8-	0.2+
790502	323	0.2+	1.0+	910917	675	(0.5+	3.6-)	930126	901	0.0	0.6-
790517	323	0.2+	2.3+	910917	675	0.7+	2.0-	930126	901	1.3+	1.1+
790518	323	(0.2+	5.6-)	911014	691	1.0-	0.4+				
820120	095	0.2+	1.7+	911014	691	0.9-	0.7+				

(5457)* 1980 TW5 = 1988 BL4

Discovered 1980 Oct. 9 by C. S. Shoemaker at Palomar.

Id. C. M. Bardwell (MPC 13464)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bardwell

M	169.24045		(2000.0)		P		Q				
n	0.18318844	Peri.	32.42741		+0.54206628		+0.83752119				
a	3.0704639	Node	270.48348		-0.78490973		+0.47541010				
e	0.0324435	Incl.	3.94060		-0.30013474		+0.26933898				
P	5.38	H	12.2	G	0.15						

Residuals in seconds of arc

541123	675	0.1-	1.9+	880126	809	0.7+	1.3-	911009	033	0.1-	0.3+
541123	675	0.8+	1.0+	880128	809	1.1-	1.0-	911009	033	0.3-	0.2+
801007	675	0.5+	0.8-	880128	809	0.6-	1.1-	911010	033	0.8+	0.1+
801008	675	2.1-	1.9-	880130	809	1.3-	0.4-	911010	801	0.6+	0.7+
801009	675	1.5-	1.1-	880130	809	1.1-	0.4-	911010	801	0.8+	0.7+
801010	675	0.2+	1.7-	910910	033	0.4-	0.4-	911011	801	0.6+	0.4+
801010	095	1.6+	2.1+	910911	033	0.1-	0.1+	911011	801	0.9+	0.4+
801015	095	(3.2+	4.4+)	910911	033	0.2+	0.0	911107	691	0.3-	1.1+
801107	675	1.3+	0.0	910913	033	0.7-	0.6+	911107	691	0.5+	0.9+
880121	809	0.1+	1.2+	910913	033	1.0-	0.4+	911107	691	0.3-	0.9+
880121	809	0.0	1.3+	910914	033	0.7-	0.2+	911107	675	0.5-	2.3-
880121	809	0.2+	1.4+	910915	033	0.3-	0.4+	911110	675	0.3-	2.2-
880122	809	0.2+	0.4-	911005	033	0.8-	0.4-	911110	675	(0.2+	3.3-)
880122	809	0.7+	0.2-	911005	675	(0.4+	3.1-)	921225	801	0.4-	0.7+
880124	809	0.2+	0.8-	911006	033	0.5+	0.5+	930120	801	0.4-	0.3+
880124	809	0.5+	0.8-	911006	033	0.4+	0.4+	930120	801	0.3-	0.2+
880124	809	0.6+	0.8-	911006	675	0.1+	1.4-	930126	801	0.1+	0.5+
880126	809	0.4+	1.2-	911006	675	2.0+	1.2-	930126	801	0.3-	0.2+

(5458)* 1980 TB12 = 1980 VM = 1972 HM1 = 1989 GY2

Discovered 1980 Oct. 10 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. T. Furuta (d, JAM 1953), C. M. Bardwell (MPC 14614)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bardwell

M	110.58390		(2000.0)		P		Q				
n	0.17478750	Peri.	117.16283		+0.93121878		+0.34798128				
a	3.1680776	Node	222.71609		-0.36444738		+0.88654060				
e	0.0384832	Incl.	9.19111		-0.00311365		+0.30488487				
P	5.64	H	12.1	G	0.15						

Residuals in seconds of arc

720419	805	0.2-	0.9+	890408	809	0.4+	0.5-	911004	033	0.2-	0.7+
720419	805	0.2+	0.0	890410	809	0.9-	1.6-	911005	033	0.6-	0.1+
801010	095	0.4+	3.0+	890410	809	0.6-	1.3-	911005	033	0.6+	0.4+
801017	095	0.7-	0.1+	890410	809	0.5-	1.9-	911009	801	0.3+	0.2-
801109	688	(3.2+	7.8-)	910910	675	0.1+	0.4+	911009	801	0.4+	0.3-
801109	688	(3.6+	3.3-)	910910	675	0.9-	0.7-	911013	894	0.7-	0.5-
890403	809	0.9-	1.2+	910913	801	0.2+	0.1-	911013	894	0.7+	0.4-
890403	809	0.4-	1.1+	910913	801	0.1+	0.2-	921227	801	0.1-	0.2+
890403	809	0.9-	0.9+	910913	675	0.9+	0.6-	921227	801	0.5+	0.3-
890405	809	0.5+	0.3+	910913	675	0.7+	0.9-	921228	801	0.2-	0.4-
890405	809	1.2+	0.0	910914	675	0.5+	2.1-	930119	801	0.4+	0.1+
890405	809	0.3+	0.6+	910914	675	0.5-	0.6-	930119	801	0.3-	0.3-
890408	809	0.8+	0.6-	910917	675	0.2-	1.2+	930121	801	0.2-	0.6-
890408	809	0.9+	0.3-	910917	675	0.7-	0.0	930121	801	0.2-	0.6-

(5459)* 1981 QP3 = 1989 EB2

Discovered 1981 Aug. 26 by H. Debehogne at the European Southern Observatory.

Id. D. W. E. Green (MPC 14472)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	159.27932	(2000.0)	P	Q
n	0.20144898	Peri. 219.88494	+0.43618549	+0.89828580
a	2.8819913	Node 76.03529	-0.81100359	+0.41802095
e	0.0501334	Incl. 3.13954	-0.38989153	+0.13542930
P	4.89	H 12.6	G 0.15	

Residuals in seconds of arc

810826	809	0.8-	0.3-	810905	809	0.5-	0.6+	911009	801	0.2-	0.1-
810826	809	1.1-	0.3-	810905	809	0.7-	0.9+	911009	801	0.1-	0.0
810826	809	0.1+	0.1+	810906	809	0.8-	0.5+	911107	675	0.2+	1.2-
810827	809	1.1-	0.7+	810906	809	0.7-	0.2+	911107	675	0.2+	1.0-
810827	809	0.1+	0.5+	810906	809	1.0-	0.3+	911109	675	0.5+	1.4-
810827	809	0.4+	0.5+	810907	809	0.5+	0.3+	911109	675	0.0	1.4-
810828	809	1.2+	0.1-	810907	809	0.4+	0.9+	921218	010	0.6-	1.2-
810828	809	1.2+	0.4-	810907	809	0.4+	0.6+	921219	010	0.3-	0.9-
810828	809	1.6+	0.6-	860929	095	0.7+	0.1-	921219	010	1.4-	0.6-
810831	809	0.7+	1.1-	890305	046	(0.3+	2.3+)	921219	010	0.1+	1.0+
810831	809	1.2+	0.8-	890305	046	0.7+	1.1-	921219	010	1.0-	0.9+
810831	809	1.2+	0.7-	890306	046	1.1+	0.9-	921220	010	0.2-	0.6+
810902	809	0.6-	0.5+	890306	046	0.6-	1.3-	921221	801	1.2+	0.4+
810902	809	1.1-	0.5+	890307	046	0.5-	0.3+	921221	801	0.2+	1.0-
810902	809	0.5-	0.5+	890307	046	2.0-	0.3+	921226	801	1.4+	0.8+
810903	809	0.5-	0.1+	910902	413	0.1-	0.0	921226	801	0.6+	1.2+
810903	809	1.0-	0.1+	910903	413	0.4-	0.3+	930116	010	0.0	0.1+
810903	809	0.8-	0.1-	910913	801	0.4+	0.1+	930116	010	0.5-	0.4+
810904	809	0.1+	0.3-	910913	801	0.4+	0.7-	930116	010	0.6-	0.0
810904	809	0.3+	0.1-	910913	675	0.2+	0.0	930117	010	0.3+	0.0
810904	809	0.4+	0.1+	910913	675	0.3+	0.6-	930117	010	0.0	0.7+
810905	809	0.3-	0.3+	910916	675	0.9+	0.2-	930117	010	0.5+	0.5+

(5460)* 1983 AW = 1980 GP1

Discovered 1983 Jan. 12 by B. A. Skiff at the Anderson Mesa Station of the Lowell Observatory.

Id. E. Bowell (MPC 18108)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	358.53729	(2000.0)	P	Q
n	0.29543085	Peri. 282.28610	-0.44448674	-0.89564923
a	2.2327092	Node 194.13567	+0.84472368	-0.41328310
e	0.1679484	Incl. 3.66715	+0.29811649	-0.16434577
P	3.34	H 14.3	G 0.15	

Residuals in seconds of arc

800408	675	0.6-	1.6-	880911	675	1.0-	1.3-	921225	801	0.3+	1.2+
800409	675	0.7-	2.0-	880916	675	0.4+	0.1-	921225	372	(3.0-	2.4+)
830112	688	(3.7-	0.6+)	880916	675	1.4+	0.5-	930126	801	1.1-	2.3+
830112	688	0.4-	0.9-	881007	675	0.3-	0.1+	930126	801	0.3+	0.4+
830112	046	(5.4-	4.8+)	881007	675	0.9+	1.9-	930127	801	0.1-	0.6+
830112	046	1.1-	1.6+	921221	372	0.1+	0.8-	930127	801	0.1-	0.6+
830114	095	0.6+	1.3-	921221	372	0.7-	1.0-	930131	596	1.2+	0.5-
830121	688	0.1+	0.0	921223	372	0.7+	2.1-	930131	596	(0.5+	3.4+)
830121	688	0.1+	0.1-	921223	372	1.0-	1.8-				
830210	095	0.4+	0.8-	921225	801	0.3+	1.1+				

(5461)* 1983 HB1 = 1934 PK = 1989 GS6

Discovered 1983 Apr. 18 by N. G. Thomas at the Anderson Mesa Station of the Lowell Observatory.

Id. B. G. Marsden (MPC 14947)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	175.24503	(2000.0)	P	Q
n	0.17707220	Peri. 190.98561	+0.54784719	+0.81076948
a	3.1407675	Node 112.53859	-0.74963025	+0.58517744
e	0.1563465	Incl. 12.89976	-0.37137305	+0.01483973
P	5.57	H 11.2	G 0.15	

Residuals in seconds of arc

340807	078	(36.1-	21.9-)X	900729	675	0.6+	0.4-	911109	675	0.1-	0.2+
830410	095	0.1-	1.1+	900730	675	0.6+	0.3+	911113	894	(1.0+	2.1-)
830412	095	(1.3-	2.3+)	900730	675	0.3+	0.0	911113	894	1.1+	0.1-
830418	688	(1.9-	2.2-)	900816	801	1.0-	0.4+	921226	801	0.1-	0.2+
830418	688	(0.4-	3.0-)	900820	801	0.4+	0.1+	921226	801	1.1+	0.9+
830501	095	0.1-	1.4-	900820	801	0.2+	0.2+	930126	801	0.3-	0.3-
890405	809	0.3-	0.3-	900915	675	0.6-	0.5-	930126	801	0.5-	0.6-
890407	809	0.4+	0.1-	900915	675	0.7-	0.4+	930127	801	0.1-	0.4-
890411	809	0.6+	0.4-	911107	675	0.2-	0.0	930127	801	0.6-	0.2+
890413	809	0.6-	0.3-	911107	675	0.4-	0.8-				
900729	675	0.1+	1.1-	911109	675	0.6+	0.5-				

(5462)* 1984 SX5 = 1977 SK2 = 1977 TC7 = 1979 FA2 = 1986 EE3

Discovered 1984 Sept. 21 by H. Debehogne at the European Southern Observatory.

Id. S. Nakano (MPC 12579)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	80.59193	(2000.0)	P	Q
n	0.27879580	Peri. 252.71748	+0.55669673	-0.83007998
a	2.3206620	Node 163.33314	+0.79871006	+0.52408507
e	0.1061408	Incl. 6.50572	+0.22836592	+0.19053102
P	3.54	H 13.7	G 0.15	

Residuals in seconds of arc

540307	760	0.4-	1.9-	840928	809	0.6+	0.0	910907	511	0.1-	0.5-
540307	760	0.3+	1.5+	840928	809	0.6+	0.1+	910907	511	2.4-	0.2-
770919	095	(0.2-	4.2-)	840928	809	1.2+	0.1+	910908	808	0.6+	1.2+
771009	095	1.1-	0.1-	840929	809	0.7-	0.7-	910908	808	1.4+	1.1+
790323	095	1.9-	1.8+	840929	809	0.5-	0.7-	910908	675	0.4-	1.2+
840921	809	0.1-	1.0+	840929	809	0.6-	0.6-	910908	675	1.0-	0.7+
840921	809	0.3+	0.9+	840930	809	0.0	0.6-	910909	801	0.4+	0.6+
840921	809	0.4+	0.8+	840930	809	0.3+	0.4-	910909	801	0.3+	0.6+
840922	809	0.3-	0.1-	840930	809	0.7+	0.4-	910911	675	0.3-	0.6-
840922	809	0.0	0.2-	841001	809	0.1-	0.1-	910911	675	0.5-	0.8-
840922	809	0.0	0.0	841001	809	0.0	0.1-	910912	801	0.4+	0.5+
840923	809	0.0	0.2+	841001	809	0.1+	0.0	910912	801	0.3+	0.8+
840923	809	0.5+	0.3+	860312	809	1.3+	0.6-	910913	675	0.4+	0.4+
840923	809	1.2+	0.7+	900526	675	0.3+	0.1+	910913	675	1.2-	0.3-
840924	809	0.1-	0.5+	900526	675	1.1+	0.4+	910915	675	2.0+	1.5-
840924	809	0.1+	0.4+	910807	675	0.7-	0.3-	910916	675	0.6+	0.1-
840924	809	0.3+	0.6+	910808	675	0.9-	2.1-	910916	675	0.5+	0.2-
840926	809	0.2-	0.3+	910808	675	0.3-	0.9-	910917	675	1.4+	1.1-
840926	809	0.1+	0.1-	910808	675	1.2-	2.2-	910917	675	0.6+	0.0
840926	809	0.1-	0.3+	910905	675	0.4-	0.0	910917	675	0.9+	0.5-
840927	809	0.1-	0.2+	910905	675	1.6-	0.6+	910917	675	0.7+	0.0
840927	809	0.5-	0.3+	910906	511	1.4-	0.8+				
840927	809	0.1-	0.9+	910906	511	1.6-	0.8-				

(5463)* 1985 TO = 1931 TX2 = 1974 HG2 = 1991 JE

Discovered 1985 Oct. 15 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. T. Urata (MPC 18284)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	105.61252	(2000.0)	P	Q
n	0.29267859	Peri. 312.54209	+0.72525974	+0.68846003
a	2.2466845	Node 3.95775	-0.61055583	+0.64624581
e	0.1412816	Incl. 3.81583	-0.31815075	+0.32922506
P	3.37	H 13.0	G 0.15	

Residuals in seconds of arc

311010	690	0.6+	2.1-	851015	688	0.4+	0.5-	910505	385	0.3+	0.0
311011	690	(54.8+	42.8-)X	851015	688	2.2-	0.5-	910505	385	0.3+	0.1-
740424	805	1.5+	0.5-	851020	688	1.0-	0.1-	921221	801	0.3-	0.4-
850915	095	0.8+	0.8+	851020	688	0.4+	0.5-	921221	801	0.3-	0.4-
850920	095	1.0+	2.0+	851107	688	2.0+	0.1+	921225	801	0.2-	0.1-
850922	095	0.1-	0.8+	851107	688	0.4-	0.6-	921225	801	0.4+	0.0
851011	010	(3.3-	0.4+)	910503	385	1.5-	0.8-	930121	801	0.1-	0.3-
851011	010	(4.0-	2.7-)	910503	385	1.3-	0.9-	930121	801	0.2-	0.4-

(5464)* 1985 VC1 = 1972 XG1 = 1976 QQ2

Discovered 1985 Nov. 7 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. D. W. E. Green (MPC 14196)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	230.78866	(2000.0)	P	Q
n	0.22604060	Peri. 355.76972	+0.84306370	-0.51787130
a	2.6689786	Node 36.62416	+0.50029640	+0.65617317
e	0.1771426	Incl. 14.07667	+0.19735021	+0.54885890
P	4.36	H 13.4	G 0.15	

Residuals in seconds of arc

721203	095	1.5-	0.6+	901214	801	0.2+	0.4+	910119	801	0.3+	0.2+
760829	808	0.1-	0.8+	901214	801	0.1+	0.3+	920404	691	1.4-	0.2+
760829	808	0.3+	1.6+	901217	801	0.1+	0.2+	920404	691	1.2-	0.0
851018	095	0.2+	1.2-	901217	801	0.1+	0.2+	920404	691	0.4-	0.9-
851107	688	0.2+	0.8-	910118	801	0.5+	0.1+	920427	675	1.4+	0.8-
851107	688	2.3+	1.5-	910118	801	0.3+	0.4-	920427	675	1.7-	0.8-
851112	095	0.3-	1.6-	910119	801	0.3+	0.1+				

(5465)* 1986 RF13 = 1971 SV = 1976 SG7 = 1980 KL2

Discovered 1986 Sept. 9 by L. G. Karachkina at the Crimean Astrophysical Observatory.

Id. T. Kobayashi (MPC 14949), C. M. Bardwell

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bardwell

M	138.27168	(2000.0)	P	Q
n	0.19808415	Peri. 183.19957	+0.61568986	+0.78666063
a	2.9145370	Node 124.80766	-0.72172329	+0.58625694
e	0.0685612	Incl. 3.19262	-0.31629336	+0.19356615
P	4.98	H 12.1	G 0.15	

Residuals in seconds of arc

710916	808	0.5-	0.6-	910914	675	0.1-	0.4-	921221	801	0.0	0.1-
760925	095	0.2-	2.0+	910916	675	0.3-	1.1-	921221	801	0.2+	0.2+
800518	808	0.1-	0.0	910916	675	0.6-	0.9-	921224	801	0.1-	1.0+
860909	095	1.0-	1.0+	911008	801	0.2+	0.0	921224	801	0.1-	0.1-
860929	095	1.7+	1.7+	911008	801	0.4+	0.3+	930120	801	0.3-	0.0
861002	095	(1.9-	4.9+)	911009	801	0.0	0.3+	930120	801	0.1-	0.3-
861006	095	(5.2+	4.0+)	911009	801	0.1+	0.6+	930127	801	0.8+	0.1+
910911	675	1.1+	0.3-	911011	801	0.3-	0.4+	930127	801	0.4-	0.4-
910911	675	0.8-	1.6-	920101	801	0.3-	0.7-				
910914	675	0.4+	0.3-	920101	801	0.8+	1.3-				

(5466)* 1986 WP8 = 1975 VT = 1988 CA6

Discovered 1986 Nov. 30 by H. Kosai and K. Hurukawa at the Kiso Station of the Tokyo Astronomical Observatory.

Id. A. Lowe (MPC 13163), G. V. Williams (MPC 19019)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	339.75885	(2000.0)	P	Q
n	0.17953142	Peri. 336.90082	-0.61995036	-0.78444057
a	3.1120202	Node 151.40227	+0.72555279	-0.58172311
e	0.1250988	Incl. 2.12342	+0.29872177	-0.21506095
P	5.49	H 12.5	G 0.15	

Residuals in seconds of arc

751101	095	0.9-	0.1+	880317	675	1.3+	0.6-	911109	675	1.9+	0.0
861130	381	0.1+	0.9+	880321	675	0.4-	0.2-	921225	801	0.2-	0.0
861130	381	1.0+	0.7+	880321	675	0.3-	0.5-	921225	801	0.2-	0.2+
861201	381	0.2+	0.4+	880322	675	0.2+	0.6-	921228	801	0.3-	1.1-
861201	381	0.2+	1.1+	880322	675	0.9-	0.4+	921228	801	0.4-	1.2-
880214	809	(2.8-	0.9+)	910911	675	0.2-	0.9-	930121	801	0.1-	1.2+
880214	809	0.7-	0.2-	910911	675	0.3+	1.6-	930121	801	0.6-	0.0
880214	809	0.6+	0.0	911005	691	1.0-	0.1-	930127	801	0.6+	0.7+
880215	809	0.2-	1.3-	911005	691	0.9-	0.1+	930127	801	0.2+	0.1-
880215	809	0.2-	0.6+	911005	691	0.8-	0.2-				
880317	675	0.1+	0.2-	911109	675	1.8+	1.4-				

(5467)* 1988 AG = 1974 DO

Discovered 1988 Jan. 11 by T. Hioki and N. Kawasato at Okutama.

Id. S. Nakano (MPC 12944)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	16.82290	(2000.0)	P	Q
n	0.20931917	Peri. 140.28110	-0.49932932	-0.86477172
a	2.8092909	Node 339.50231	+0.75120886	-0.40146863
e	0.1689077	Incl. 8.75392	+0.43168910	-0.30165015
P	4.71	H 12.8	G 0.15	

Residuals in seconds of arc

740216	095	(9.2-	1.9-)	880210	877	0.7+	1.0+	911008	801	0.0	0.7+
740217	095	0.5-	1.3-	880210	877	0.1-	0.5+	911008	801	0.1-	0.7+
880111	877	0.8+	0.3-	880213	877	1.1+	0.3-	921225	801	0.9+	0.3+
880111	877	1.9-	1.7-	880213	877	0.4+	1.2-	921225	801	0.8+	0.6+
880112	033	1.4+	1.2+	910907	801	0.9+	0.0	930119	801	0.3+	0.9+
880112	033	0.8+	1.5+	910907	801	0.7+	0.1+	930119	801	1.0-	0.1+
880120	877	0.9+	0.6+	910914	675	0.0	1.0-	930121	801	0.2+	0.2+
880120	877	0.4-	1.1+	910914	675	0.4+	1.0-	930121	801	0.2+	0.1+
880124	877	1.6-	1.7-	911004	801	0.9-	0.5+				
880124	877	2.2-	1.3-	911004	801	0.9-	0.2+				

(5468)* 1988 BK = 1962 XH = 1969 FL = 1985 QQ6

Discovered 1988 Jan. 16 by M. Mukai and M. Takeishi at the YCPM Kagoshima Station.

Id. D. W. E. Green (MPC 14198), S. Nakano (ibid.)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	307.06115	(2000.0)	P	Q
n	0.20192420	Peri. 68.65151	-0.89789177	+0.41551076
a	2.8774677	Node 135.55050	-0.43975626	-0.86171088
e	0.2206342	Incl. 11.98357	+0.02011949	-0.29121325
P	4.88	H 12.1	G 0.15	

Residuals in seconds of arc

621201	760	0.7+	0.3-	850911	095	1.4-	0.5+	880121	364	1.0-	0.3-
621201	760	0.9-	0.5+	880116	364	(5.2+	2.8+)	880121	364	1.3-	0.1-
690324	095	(6.2+	13.4-)	880116	364	(2.9+	0.1+)	880121	364	(0.9+	2.6-)
850824	095	0.7-	2.0+	880121	364	1.5+	0.1+	880127	364	(3.1+	1.4+)

880127	364	1.0-	1.9-	930121	364	0.4+	0.1-	930128	809	0.8+	0.2-
880216	881	1.6+	1.3-	930121	403	0.1-	1.0+	930128	809	0.4+	0.4-
880216	881	1.8+	0.3-	930121	403	0.8-	1.9+	930128	809	0.4+	1.0-
890701	801	0.2+	0.8-	930122	809	1.5+	0.7-	930212	364	1.1+	1.5-
900917	675	1.4+	0.4-	930122	809	0.9+	0.1+	930212	364	1.0-	0.1+
900920	675	0.4+	0.5-	930122	809	0.5+	0.2+	930212	589	0.8-	0.1+
900920	675	0.2+	1.6-	930125	364	1.2-	1.1+	930212	589	0.7-	0.1+
930121	364	1.4-	1.5+	930125	364	0.6-	0.9+	930212	589	0.6-	0.3+

(5469)* 1988 BK4 = 1977 DK

Discovered 1988 Jan. 21 by H. Debehogne at the European Southern Observatory.

Id. S. Nakano (MPC 13451)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	15.57504		(2000.0)	P	Q
n	0.17832596	Peri.	286.62757	+0.29082161	-0.93772432
a	3.1260290	Node	144.61653	+0.95413881	+0.26950740
e	0.1409354	Incl.	19.15394	+0.07100646	+0.21917771
P	5.53	H	13.2	G 0.15	

Residuals in seconds of arc

770218	381	0.0	1.1-	880124	809	0.8+	0.7+	880216	809	0.2+	0.2+
770218	381	0.0	0.6+	880126	809	0.5-	1.1+	880216	809	0.2+	0.4-
770219	381	0.3+	0.2+	880126	809	0.4-	0.7+	910909	801	0.7-	0.0
770219	381	0.4-	0.3+	880128	809	0.7-	0.2-	910909	801	0.2-	0.1+
880121	809	1.2+	0.2+	880128	809	1.0-	0.2-	910912	801	0.4+	0.9+
880121	809	1.1+	0.1-	880130	809	0.9-	0.4-	910912	801	0.5+	0.0
880121	809	1.2+	0.3+	880130	809	0.3-	0.8-	921221	801	0.0	0.5-
880122	809	0.2-	0.4-	880213	809	1.1-	1.5-	921221	801	0.1+	0.2-
880122	809	0.5+	0.2+	880213	809	0.6-	0.3+	930120	801	0.3-	1.1-
880124	809	0.3+	0.7+	880214	809	(7.7-	5.7+)	930120	801	0.0	0.4+
880124	809	0.4+	0.7+	880214	809	(6.1-	4.8+)	930126	801	0.2+	0.7+

(5470)* 1988 BK5

Discovered 1988 Jan. 28 by R. H. McNaught at Siding Spring.

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	5.89407		(2000.0)	P	Q
n	0.17141225	Peri.	142.30507	+0.00940391	-0.96752908
a	3.2095303	Node	305.74377	+0.82498468	+0.15024925
e	0.1381800	Incl.	18.13180	+0.56507685	-0.20325513
P	5.75	H	12.3	G 0.15	

Residuals in seconds of arc

770411	413	0.5-	0.1-	880223	413	0.1+	0.9+	911008	801	0.4+	0.0
770411	413	1.0+	0.5-	880312	413	0.3+	0.0	911008	801	0.8+	0.4-
850724	413	0.2+	0.2+	880312	413	0.4+	0.9+	921226	801	0.2-	0.5+
850724	413	0.5-	0.1+	910907	801	0.5-	0.6+	921226	801	0.2-	0.7+
850724	413	0.6-	1.2-	910907	801	0.5-	0.2+	921228	801	0.4+	0.6-
850724	413	(3.9+	0.1-)	910908	801	0.4-	0.4+	930127	801	0.1-	0.4-
880128	413	0.3-	0.0	910908	801	0.4-	0.2+	930127	801	0.3+	0.4-
880128	413	(2.2+	1.3+)	911005	801	0.7+	0.1+				
880223	413	0.4-	0.6-	911005	801	0.3+	0.3+				

(5471)* 1988 PK1 = 1932 YN = 1976 FE = 1991 BC

Discovered 1988 Aug. 13 by E. W. Elst at Haute Provence.

Id. T. Urata (MPC 17823)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 349.04353 (2000.0) P Q
n 0.18979905 Peri. 31.00132 +0.19750975 +0.96838282
a 2.9987483 Node 250.76299 -0.92923755 +0.13542613
e 0.0661385 Incl. 9.28867 -0.31226188 +0.20951007
P 5.19 H 11.8 G 0.15
Residuals in seconds of arc

321223	024	0.0	0.3-	880914	511	2.0+	1.6-	910123	402	1.1+	1.2-
760331	095	(0.2+	6.4-)	880914	511	0.9+	0.2-	910123	402	0.6+	1.1-
880813	511	1.2+	0.7+	910117	885	2.6-	1.6+	920206	801	0.2-	1.6-
880813	511	0.6+	0.8+	910117	885	2.1-	0.3-	920206	801	0.2-	2.0-
880815	511	0.3-	1.0-	910119	885	1.2-	2.0-	920506	801	0.2-	0.6+
880815	511	0.7+	1.5-	910119	402	0.7+	1.2+	920506	801	0.2-	0.1-
880911	511	1.9-	0.7-	910119	885	0.1+	2.6-	920507	801	0.0	0.1-
880911	511	1.5-	0.3-	910119	402	2.6+	1.7+	920507	801	0.2+	0.1+

(5472)* 1988 RR = 1971 TQ = 1978 TA9 = 1978 VU15 = 1980 FZ7
Discovered 1988 Sept. 13 by S. Ueda and H. Kaneda at Kushiro.
Id. S. Nakano (MPC 14621)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 103.18691 (2000.0) P Q
n 0.28757814 Peri. 324.32498 +0.96084787 +0.27692806
a 2.2731711 Node 19.60401 -0.24753156 +0.87263682
e 0.1077924 Incl. 1.54868 -0.12449699 +0.40226338
P 3.43 H 14.1 G 0.15
Residuals in seconds of arc

711010	095	0.7+	0.6-	880917	399	0.8-	0.9-	900228	809	0.0	0.9-
781009	095	1.0-	1.8+	881004	807	1.0+	0.5+	900228	809	0.1+	1.0-
781101	095	0.0	0.5+	881005	807	1.2+	0.4+	900301	809	0.0	0.3-
800323	809	1.9-	0.1-	881008	807	1.1+	0.2+	900301	809	0.0	0.1-
880818	511	2.4-	0.0	881016	071	1.4-	1.1+	900301	809	0.2+	1.2+
880818	511	0.5-	0.0	881016	071	2.2-	0.7+	921218	010	1.0-	0.6+
880913	399	0.2+	0.0	881103	807	1.5+	0.8-	921219	010	1.3-	0.6+
880913	399	(2.7+	0.7+)	881106	807	0.8+	0.9-	921219	010	2.1-	0.1-
880913	399	1.0+	0.7-	881108	807	1.9+	0.2-	921219	010	0.2-	0.1-
880914	807	0.5+	0.3-	900224	809	0.4-	0.0	921219	010	1.9-	0.2+
880915	807	1.1+	0.3-	900224	809	0.0	0.0	921220	010	2.0-	0.0
880916	807	0.7+	0.8-	900224	809	0.4+	0.1-	921226	801	1.5+	0.6-
880917	399	0.6+	0.6+	900225	809	0.3+	0.2-	921226	801	1.6+	0.0
880917	399	0.2-	0.5-	900225	809	0.7+	0.2-	921228	801	1.3+	0.0
880917	399	2.1-	0.7-	900225	809	1.0+	0.1-	930127	801	1.2+	0.5-
880917	399	(3.9-	0.4+)	900228	809	0.0	0.8-	930127	801	1.6+	0.1-

(5473)* 1988 VR = 1973 QE1
Discovered 1988 Nov. 5 by Y. Kushida and O. Muramatsu at the Yatsugatake South Base Observatory.
Id. S. Nakano (MPC 14025)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 60.60166 (2000.0) P Q
n 0.26775694 Peri. 325.23411 +0.90058442 -0.41791089
a 2.3840145 Node 59.89959 +0.42355201 +0.78182236
e 0.1616548 Incl. 7.94448 +0.09773122 +0.46271404
P 3.68 H 13.3 G 0.15
Residuals in seconds of arc

730828	095	0.1+	1.3-	881103	327	(3.5-	1.3-)	881105	386	0.6-	1.1-
730901	095	1.1+	1.3-	881103	896	(2.9-	7.1+)Y	881105	896	1.3+	1.0- Y
881102	896	(3.6-	0.7-)	881104	046	(4.0-	0.3+)	881105	046	(4.9-	1.9+)
881102	896	1.5+	1.9+	881104	046	(7.0-	0.8+)	881105	046	(4.8-	1.6+)
881103	896	1.2-	1.0+ Y	881105	896	(0.1+	3.9+)Y	881107	896	0.3-	0.6+

881107	896	1.9-	2.5+		921006	657	0.9-	0.1-		921129	801	0.2-	1.0-	
881112	386	0.1-	0.1-		921101	033	0.9-	0.1+		921215	896	0.5+	0.3+	
881112	386	0.6-	0.5+		921101	033	0.9-	0.2+		921215	896	0.4+	0.3-	Y
900320	896	0.6+	1.3+		921102	033	0.8-	0.3-		921220	896	1.6+	0.3-	Y
900320	896	(5.5+	0.5-)		921128	801	0.2-	0.9-		921220	896	1.3+	1.1-	Y
921006	657	1.1-	0.5+		921128	801	0.3-	0.8-						
921006	657	0.1-	0.1+		921129	801	0.2-	0.9-						

(5474)* 1988 XE1 = 1955 YK = 1971 BO2

Discovered 1988 Dec. 3 by T. Fujii and K. Watanabe at Kitami.

Id. C. M. Bardwell (MPC 21261)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bardwell

M	329.65649		(2000.0)	P	Q
n	0.26792740	Peri.	255.24473	-0.79009493	-0.60499408
a	2.3830032	Node	247.42994	+0.59545197	-0.71927665
e	0.0680942	Incl.	6.13284	+0.14555737	-0.34150148
P	3.68	H	12.6	G 0.15	

Residuals in seconds of arc

551219	210	(36.2-	48.3-)X		910805	657	2.6+	1.2+		911005	801	0.1-	0.1-	
710127	805	0.1-	0.0		910806	657	0.2-	0.1+		911007	801	0.2-	0.3-	
880910	033	0.6+	0.2-		910806	657	0.5+	0.1-		911008	801	0.5-	0.1-	
880910	033	0.1-	0.8-		910806	657	0.5-	0.3+		921227	801	0.6-	0.3+	
881115	400	(3.3+	0.6-)		910806	675	0.2-	1.8-		921227	801	0.7-	0.4+	
881115	400	(4.9+	2.6+)		910806	675	(0.5-	4.4-)		921228	801	0.5-	1.0-	
881116	400	1.2+	3.0+		910811	801	0.2+	0.3-		921228	801	0.5-	1.4-	
881116	400	(4.5+	2.6+)		910811	801	0.0	0.3-		930119	801	0.5-	0.5-	
881116	400	2.0-	1.0+		910812	801	0.1+	0.5-		930119	801	0.4-	0.1+	
881203	400	(2.5+	4.5+)		910812	801	0.1+	0.3-		930120	596	1.5-	0.5-	
881203	400	1.0+	1.5-		910814	657	1.0-	0.6-		930120	596	0.3-	1.3-	
881203	400	2.1+	0.5+		910814	657	0.9-	0.4+		930121	801	0.6-	0.3-	
881210	400	0.9-	0.4+		910906	801	0.4-	0.6-		930121	801	0.1-	1.1-	
881210	400	1.6-	0.6+		910906	801	0.4-	0.4-		930215	786	1.1+	0.5-	
881210	400	0.0	2.1+		910912	801	0.1-	1.9-		930215	786	1.0+	0.4-	
910805	657	1.1+	0.3+		910912	801	0.2+	0.7-		930215	786	1.2+	0.4-	
910805	657	1.7+	0.9+		911005	801	0.0	0.4-		930215	786	1.1+	0.3-	

(5475)* 1989 QO

Discovered 1989 Aug. 26 by R. H. McNaught at Siding Spring.

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	21.20499		(2000.0)	P	Q
n	0.37104325	Peri.	307.53447	+0.49890337	-0.77450360
a	1.9180195	Node	108.07249	+0.86637703	+0.43429156
e	0.1203954	Incl.	24.14688	+0.02205169	+0.45992936
P	2.66	H	14.7	G 0.15	

Residuals in seconds of arc

730727	413	0.7-	0.7+		890903	413	0.4+	0.2+		910609	688	0.5+	0.1-	
730728	413	1.7-	0.1+		890906	413	1.6+	0.4-		921222	801	1.0-	0.1+	
761023	413	0.8-	0.2-		890906	413	0.8-	0.4-		921228	801	0.2-	0.4+	
761023	413	2.7+	1.0+		890923	413	0.1+	0.3-		921228	801	0.2-	0.2+	
890826	413	0.7-	1.2-		890926	413	0.3+	0.6+		930121	801	0.3+	0.5+	
890826	413	1.3+	0.0		891024	474	0.2-	0.7+		930121	801	0.1-	1.6-	
890903	413	0.2+	0.1+		891024	474	0.3-	0.2+		930127	801	0.4-	0.2-	
890903	413	0.3-	0.2+		910609	688	0.7+	0.2-		930127	801	0.5-	0.3-	

(5476)* 1989 TO11 = 1990 UW13

Discovered 1989 Oct. 2 by S. J. Bus at Cerro Tololo.

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	173.24067	(2000.0)		P	Q
n	0.08453144	Peri.	93.59126	+0.36891827	+0.92639033
a	5.1419029	Node	198.61595	-0.91870041	+0.35111681
e	0.0724523	Incl.	13.68076	-0.14102790	+0.13608063
P	11.66	H	10.3	G 0.15	

Residuals in seconds of arc

520824	675	0.8+	0.6-	891031	807	0.6+	0.1-	901113	691	0.6-	0.4+
520824	675	0.4-	0.9-	900125	688	0.2+	0.1-	901113	691	0.5-	0.4+
530816	675	0.3+	1.1-	900125	688	0.3-	0.2-	901113	691	0.4-	0.4+
530816	675	1.8-	0.5+	900128	688	0.1-	0.3-	901114	675	0.0	0.1+
551211	675	1.7+	0.5-	900128	688	0.1+	0.8-	901115	675	0.6-	0.4-
891002	807	1.0+	0.2+	900918	801	0.5-	0.7+	901115	675	0.6+	0.9-
891003	809	0.0	0.5+	900918	801	0.0	0.9+	920102	801	0.7-	0.5-
891003	809	0.1-	0.4+	901015	801	0.5+	1.2+	920102	801	0.5-	0.5-
891003	809	0.2-	0.3+	901016	801	0.3+	1.3+	920106	801	0.7-	0.7-
891003	809	0.0	0.7-	901016	801	0.7+	0.7+	920106	801	0.8-	0.2-
891003	809	0.1-	0.7-	901017	801	0.6+	1.4+	921221	801	0.6-	0.5-
891003	809	0.0	0.7-	901017	801	0.5+	1.2+	921221	801	0.2+	0.5-
891004	807	0.1+	0.0	901020	809	(3.9-	0.7-)	921224	801	0.2-	0.9-
891006	809	0.1+	0.6-	901020	809	(7.3-	2.5-)	921224	801	0.8+	0.7-
891006	809	0.3+	0.4-	901020	809	(9.4-	5.3-)	930121	801	0.1-	0.1-
891006	809	0.4+	0.5-	901021	675	0.7-	0.2-	930121	801	0.2+	0.0
891028	807	0.1+	0.0	901021	675	(1.1-	2.5-)				

(5477)* 1989 UH2

Discovered 1989 Oct. 27 by E. F. Helin at Palomar.

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	119.80203	(2000.0)		P	Q
n	0.37131009	Peri.	289.99040	+0.88068432	+0.37412804
a	1.9171005	Node	49.25755	-0.13870608	+0.79015666
e	0.0755331	Incl.	22.55047	-0.45294123	+0.48546953
P	2.65	H	12.8	G 0.15	

Residuals in seconds of arc

891027	675	0.6-	0.3+	891203	010	0.6-	2.7+	910510	675	2.0+	0.7+
891029	675	0.8-	0.3+	891203	010	0.2+	0.2+	910510	675	2.0+	0.7+
891029	675	1.6-	0.9+	891203	010	1.1-	0.9-	921022	801	0.5+	0.2-
891102	675	(4.5-	2.5+)	910409	675	0.4-	0.5+	921022	801	0.2+	0.5+
891102	675	0.4-	0.1+	910411	675	0.7-	0.3+	921024	801	1.1+	0.6+
891103	675	0.4-	0.1+	910411	675	2.2-	0.1-	921024	801	0.2-	0.3-
891103	675	1.5+	0.1+	910503	894	(3.6+	2.7-)Y	921130	596	1.0-	0.2-
891129	675	0.6+	0.3-	910503	894	(1.3+	3.4-)Y	921130	596	0.5+	0.0
891201	675	0.3-	0.9-	910505	894	1.5+	2.2+ Y	921130	596	0.7-	2.5+
891202	010	1.3-	2.0+	910505	894	1.4+	0.4+ Y	921130	596	0.3-	0.6+
891202	010	0.2+	0.3+	910508	675	0.4+	0.5+	930116	596	0.1+	0.7-
891202	010	(1.3-	3.2+)	910508	675	0.6+	0.3+	930116	596	0.7+	0.8-

(5478)* 1989 UE4 = 1985 VK3

Discovered 1989 Oct. 23 by F. Borngen at Tautenburg.

Id. S. Nakano (MPC 15568)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Schmadel

M	225.57375	(2000.0)		P	Q
n	0.24250408	Peri.	250.82398	-0.55581201	-0.82365750
a	2.5467717	Node	233.45973	+0.80561040	-0.50027905
e	0.1399531	Incl.	8.05081	+0.20509726	-0.26703782
P	4.06	H	13.0	G 0.15	

Residuals in seconds of arc

851110	095	0.8+	0.9+	891023	033	0.1-	1.6+	891026	033	0.1+	1.8+
851120	095	0.8-	0.7-	891023	033	0.3+	1.5+	891124	871	0.1-	1.6-

900129 033 0.2- 0.1+ 920724 033 0.4+ 0.3+ 920921 033 (4.8- 1.4-)
900129 033 0.5- 0.1+ 920724 033 0.2- 0.4+ 920922 033 0.6- 0.4+
910420 391 1.8+ 2.1+ 920725 033 0.2+ 0.3- 920926 033 0.4+ 0.8+
910420 391 (1.4+ 4.6+) 920726 033 0.4+ 0.0 920927 033 0.1- 0.2-
910420 391 1.1- 1.4+ 920727 033 0.1+ 0.2+ 920928 033 0.7- 0.8-
920609 413 0.5- 0.1- 920728 033 0.0 0.0
920609 413 0.6- 0.0 920730 033 0.6+ 0.3+

(5479)* 1989 UT5 = 2165 P-L = 1985 VP4
Discovered 1989 Oct. 30 by S. J. Bus at Cerro Tololo.
Id. S. Nakano (MPC 16237)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	323.58589	(2000.0)	P	Q
n	0.23870425	Peri. 124.63997	+0.81658464	+0.57125916
a	2.5737278	Node 200.90730	-0.57572529	+0.79570983
e	0.2206406	Incl. 13.41303	-0.04159223	+0.20126807
P	4.13	H 13.3	G 0.15	

Residuals in seconds of arc
600926 675 0.5+ 1.0- 890929 809 0.3+ 0.1+ 920405 675 1.1+ 1.4-
600928 675 0.2- 0.5- 890930 809 0.6- 0.0 920429 691 1.5- 0.1+
600929 675 0.1- 0.4+ 890930 809 0.1- 0.0 920429 691 1.8- 0.5-
851111 095 0.2+ 0.8- 890930 809 0.3+ 0.2+ 920429 691 1.6- 0.6-
890928 809 0.7- 0.3- 890930 675 0.1- 0.6- 920430 801 1.3+ 0.1-
890928 809 0.4- 0.3- 890930 675 0.5+ 1.7- 920430 801 0.9- 0.6-
890928 809 0.2- 0.4- 891030 807 0.6+ 0.5+ 920506 801 1.4+ 0.1-
890929 809 0.3- 0.3- 891101 807 0.6+ 0.8+
890929 809 0.1+ 0.2- 920405 675 1.1+ 1.2-

(5480)* 1989 YK8 = 1976 OT
Discovered 1989 Dec. 23 by S. Ueda and H. Kaneda at Kushiro.
Id. H. Kaneda (MPC 18295)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	5.32881	(2000.0)	P	Q
n	0.17711296	Peri. 160.15051	+0.20046784	+0.97469384
a	3.1402856	Node 121.29975	-0.91376954	+0.22243460
e	0.0790305	Incl. 6.64777	-0.35332403	-0.02224358
P	5.56	H 11.2	G 0.15	

Residuals in seconds of arc
530614 675 0.2- 0.6+ 910209 400 0.9+ 0.5- 920603 675 0.3+ 0.6-
760727 095 0.8+ 0.6- 920428 675 0.1- 0.7- 920603 675 0.0 0.0
760801 095 (1.0- 4.6-) 920428 675 0.2- 0.1+ 920606 675 0.1+ 0.3-
891223 399 0.2- 0.4- 920502 399 0.6- 1.0+ 920606 675 0.4- 0.2+
891223 399 1.2- 0.7+ 920502 399 (1.5- 4.2+) 920625 675 0.8- 0.8-
891223 399 2.1+ 0.5+ 920504 402 1.1+ 0.9+ 920625 675 0.5- 0.3-
891231 399 0.2+ 1.2- 920504 402 0.3+ 0.3- 920626 675 0.6+ 0.8-
891231 399 1.7- 1.2- 920505 402 0.7- 0.3- 920626 675 0.2- 1.4-
891231 399 1.0+ 0.5+ 920505 402 0.7+ 0.5+ 920628 675 0.3- 0.3-
900101 511 0.8- 0.5- 920520 399 0.7- 0.3+ 920628 675 0.3- 0.9-
900102 511 0.1- 1.3- 920529 801 0.1- 0.5+
910209 400 0.6+ 0.2+ 920529 801 0.1- 0.7+

(5481)* 1990 CH = 1970 SR
Discovered 1990 Feb. 15 by K. Endate and K. Watanabe at Kitami.
Id. B. G. Marsden (MPC 16240), H. Kaneda (ibid.)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	235.93143	(2000.0)	P	Q
n	0.27546907	Peri. 250.20914	-0.80021348	+0.59694301
a	2.3393084	Node 326.36955	-0.50392971	-0.72136496
e	0.0618752	Incl. 5.96939	-0.32513572	-0.35112910
P	3.58	H 13.1	G 0.15	

Residuals in seconds of arc

700927	095	1.5+	0.5+	900316	400	(2.5-	1.0-)	910907	809	0.3+	0.2-
701001	095	0.3-	2.8-	900316	400	(2.2-	0.2+)	910907	809	0.1+	0.7-
900215	400	0.2-	0.2+	910805	675	0.2-	0.3-	911008	801	0.8-	0.3+
900215	400	(3.3-	0.0)	910805	675	0.8+	0.5-	911009	801	0.1+	0.7+
900222	406	1.1-	0.6+	910807	675	1.1+	1.3-	911010	801	1.5-	0.6+
900222	406	0.2+	0.7-	910807	675	0.0	0.8-	911011	801	0.8-	0.6+
900223	046	0.1+	0.8-	910904	809	1.2+	1.1+	921222	801	0.0	0.2+
900223	046	0.2+	1.1-	910904	809	0.2+	1.8+	921222	801	0.1-	0.3+
900224	033	(3.2-	0.1-)	910904	809	0.3+	1.3+	921224	801	0.1+	0.4+
900224	046	0.9+	1.3+	910905	809	1.0+	0.8-	921224	801	0.5-	0.4-
900224	046	(1.0-	3.7+)	910905	809	0.8-	0.6-	930120	801	0.1+	0.1+
900228	400	0.9-	0.2+	910905	809	1.1-	1.0-	930120	801	0.3+	0.7+
900228	400	1.0+	0.5+	910906	809	0.6+	1.3+	930127	801	0.1+	0.4+
900302	400	0.4+	0.9+	910906	809	1.3-	1.8+	930127	801	0.2-	0.4+
900302	400	(2.8+	0.5+)	910906	809	1.3-	1.2+				

(5482)* 1990 DX = 1984 WO3 = 1986 EY1 = 1987 SB23

Discovered 1990 Feb. 27 by K. Suzuki and T. Urata at Toyota.

Id. T. Urata (MPC 16241)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	207.63138	(2000.0)	P	Q
n	0.24635547	Peri. 294.65158	-0.52302343	+0.84999806
a	2.5201588	Node 303.66785	-0.75214747	-0.49498051
e	0.1920228	Incl. 4.33073	-0.40089984	-0.18027088
P	4.00	H 12.9	G 0.15	

Residuals in seconds of arc

841127	010	1.0-	1.5+	900321	391	(4.0-	4.9+)	910928	385	(0.5+	3.1+)
841128	010	0.5+	1.4-	900326	391	1.8+	0.7+	910928	385	1.6+	1.8-
860306	688	2.0+	1.2-	900326	391	0.1-	0.9-	921118	385	0.4-	1.6+
860306	688	2.0-	1.0-	910808	675	(2.2-	3.5-)	921118	385	0.7-	0.5+
870923	095	0.5-	0.1-	910808	675	(3.0-	2.6-)	921123	411	0.2+	0.2+
900227	881	(3.0-	0.5-)	910808	675	0.6+	1.7-	921123	411	0.2+	0.3-
900227	881	0.6-	1.3-	910831	385	0.3-	1.4-	921123	411	0.3+	0.1-
900302	809	0.1+	2.2-	910831	385	0.6+	1.7-	921126	411	0.5+	0.3+
900302	809	(0.1-	2.8-)	910907	511	2.2+	2.4-	921126	411	0.4-	1.0+
900302	809	(0.4-	2.8-)	910909	801	0.5+	0.3-	921126	411	0.5+	1.0-
900304	809	1.1-	1.4-	910909	801	0.4+	0.3-	921219	411	1.4+	0.2-
900304	809	1.9-	1.7-	910912	801	0.5+	0.3-	921219	411	1.2+	0.0
900304	809	1.3-	1.9-	910912	801	1.3+	0.4-	921219	411	0.3+	0.4-
900305	881	2.4-	0.2-	910913	691	1.5-	0.0	921223	885	1.2-	1.3-
900305	881	0.6+	0.4-	910913	691	1.4-	0.2+	921223	885	1.7-	0.5+
900319	881	1.0-	0.2+	910913	691	1.2-	0.2-	921230	385	0.5+	0.8-
900319	881	0.0	0.5-	910916	675	0.5+	1.0-	921230	385	1.2+	0.2-
900320	095	1.7+	1.3+	910916	675	0.6+	0.7-	921230	385	0.4-	0.7-
900320	095	1.4-	0.6-	910917	675	1.1+	0.2-				
900321	391	(1.3-	6.2+)	910917	675	0.9+	0.2-				

(5483)* 1990 UQ11 = 1977 KL1 = 1985 XE1 = 1987 EL = 1992 AG1

Discovered 1990 Oct. 17 by L. I. Chernykh at the Crimean Astrophysical Observatory.

Id. S. Nakano (MPC 19680)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	281.73993	(2000.0)	P	Q
n	0.17846199	Peri. 206.11190	-0.06141565	+0.98604193
a	3.1244403	Node 60.71660	-0.88188005	+0.01900819
e	0.0823716	Incl. 10.22008	-0.46745662	-0.16540861
P	5.52	H 10.7	G 0.15	

Residuals in seconds of arc

770518	675	0.6-	0.9-	901115	095	(5.7+	2.5+)	920114	376	0.1-	0.1+
770519	675	0.5-	0.9-	901115	095	0.0	1.1-	920124	376	0.5+	0.3-
851214	010	(6.5-	7.1-)	901121	095	0.1-	1.5+	920124	376	1.2-	0.9-
851214	010	(4.1+	4.4-)	901121	095	1.2+	2.7-	921225	801	0.2+	0.0
870303	688	0.9+	0.7+	901123	095	0.1+	1.6+	921225	801	0.4-	0.3-
870303	688	0.8+	0.1+	901123	095	1.8+	0.3+	930119	801	0.2+	0.2-
901017	095	0.6-	0.7-	920110	376	0.7-	0.1+	930119	801	0.9-	1.3-
901017	095	0.9-	1.1-	920110	376	0.2-	0.7+				

(5484)* 1990 VH1 = 1968 YD = 1979 VP2 = 1981 JU

Discovered 1990 Nov. 7 by T. Urata at the Oohira Station of the Nihondaira Observatory.

Id. T. Urata (MPC 18298)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	101.88425	(2000.0)	P	Q
n	0.26302783	Peri. 109.87067	-0.91409409	-0.37083724
a	2.4125051	Node 48.74150	+0.23923611	-0.81983696
e	0.1439964	Incl. 12.60473	+0.32741118	-0.43628786
P	3.75	H 12.4	G 0.15	

Residuals in seconds of arc

681223	095	0.0	0.6-	901116	385	1.5-	1.8+	920421	596	0.0	0.1+
791114	095	0.7-	1.6+	901122	385	0.2+	0.4+	920421	596	0.3+	0.2+
810505	688	1.8-	0.2+	901122	385	1.2+	1.4+	920430	801	0.2-	0.1-
810505	688	2.5+	1.2+	920301	801	0.1+	0.2+	920430	801	0.0	0.1-
901026	385	1.7-	2.1-	920301	801	0.2+	0.2-	920501	385	0.5-	0.6-
901107	385	0.4-	0.1-	920407	563	0.7+	1.5-	920501	385	1.8+	1.1-
901107	385	(3.5+	4.4-)	920407	563	0.2+	0.8+	920503	385	0.4-	0.7+
901110	385	0.6+	1.8-	920412	385	0.3-	0.2+	920503	385	0.3+	1.4+
901110	385	0.5-	0.9-	920412	385	0.9+	0.5-	920506	801	0.1-	0.4+
901111	385	0.0	0.5+	920420	596	1.8-	0.2-	920506	801	0.2-	0.3+
901111	385	0.8+	1.5+	920420	596	0.2-	0.4+				
901116	385	0.9+	0.7+	920420	596	0.4-	0.3+				

(5485)* 1991 RQ21 = 2081 T-1 = 1976 JM6 = 1980 DG5 = 1989 EA2

Discovered 1991 Sept. 11 by H. E. Holt at Palomar.

Id. G. V. Williams (MPC 19870)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	347.96425	(2000.0)	P	Q
n	0.21775214	Peri. 64.62847	-0.43696075	-0.89835327
a	2.7362835	Node 51.35642	+0.80315660	-0.41221243
e	0.1113049	Incl. 3.30433	+0.40497503	-0.15179697
P	4.53	H 13.3	G 0.15	

Residuals in seconds of arc

710324	675	1.8-	1.8-	890306	046	0.4+	0.6-	910915	675	0.3+	0.5+
710325	675	0.4+	0.6-	890306	046	1.3-	1.6-	910916	675	0.4+	1.2-
710325	675	0.4-	0.9-	890307	046	0.4+	0.9-	910916	675	0.1+	1.8-
710326	675	0.4+	0.4+	890307	046	0.6-	0.3-	910917	675	0.6-	0.7-
710327	675	0.1-	0.2+	910911	675	0.1+	0.6+	910917	675	1.3+	0.8-
760503	809	0.0	0.5+	910911	675	0.4-	0.4-	910917	675	0.2+	0.0
800221	095	1.4+	1.7+	910912	675	0.8+	0.9-	910917	675	0.6-	0.1-
890305	046	0.4+	1.1-	910912	675	0.4+	0.1+	921218	010	0.4+	1.0-
890305	046	1.3-	0.1+	910915	675	0.4+	0.0	921219	010	0.4+	1.4-

921219	010	0.2-	1.3-		921229	894	0.6-	0.1+		930119	801	0.1+	0.7-
921219	010	0.2-	0.9-		921230	894	0.4-	1.0-		930121	801	0.4+	0.6-
921219	010	0.0	0.8-		921230	894	0.6-	0.1-		930121	801	0.2-	0.5-
921220	010	0.6-	0.8-		930116	010	1.4+	1.9+		930122	589	0.4-	0.3+
921225	801	0.4-	0.1+		930116	010	0.2+	1.2+		930122	589	0.1-	0.3+
921225	801	0.5-	0.0		930116	010	0.2-	0.9+		930122	589	0.3-	0.2+
921227	801	0.2+	0.3+		930117	010	0.2-	1.4+		930122	589	1.1+	0.3+
921227	801	0.4+	0.4+		930117	010	0.6-	1.3+					
921229	894	0.3-	0.3-		930117	010	0.5+	1.0+					

(5486)* 1991 UT2 = 1974 WP1 = 1977 KQ1

Discovered 1991 Oct. 31 by S. Ueda and H. Kaneda at Kushiro.

Id. H. Kaneda (MPC 19513)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	224.40426		(2000.0)		P		Q
n	0.23463852	Peri.	219.65131		+0.22587776		+0.96108813
a	2.6033737	Node	63.93626		-0.84280648		+0.27466464
e	0.0617872	Incl.	10.19666		-0.48852479		-0.02947793
P	4.20	H	12.0	G	0.15		

Residuals in seconds of arc

550313	675	0.8-	1.4+		911031	399	1.2-	0.6+		911209	399	0.2+	0.4-
550313	675	0.5+	2.3+		911104	399	0.9+	1.2+		911209	399	1.7-	1.3-
741117	808	1.5+	1.1-		911104	399	1.3-	1.0+		921225	801	0.2-	1.1-
741117	808	1.6+	0.6+		911205	399	0.9+	0.1+		921225	801	0.1+	0.6-
770518	675	0.4-	0.1-		911205	399	1.0+	0.7-		930121	801	0.0	1.4-
770519	675	0.1-	0.5+		911207	399	1.0+	0.1-		930121	801	0.4+	1.1-
911031	399	1.4-	0.6+		911207	399	1.5-	0.4-					

(5487)* 1991 UM4 = 1983 RD8 = 1990 LC

Discovered 1991 Oct. 18 by S. Ueda and H. Kaneda at Kushiro.

Id. H. Kaneda (MPC 20642)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	267.45166		(2000.0)		P		Q
n	0.26297474	Peri.	241.76017		-0.53252068		+0.84641244
a	2.4128298	Node	356.06055		-0.76172379		-0.48066381
e	0.1586358	Incl.	2.31602		-0.36905094		-0.22923413
P	3.75	H	13.0	G	0.15		

Residuals in seconds of arc

830911	095	0.3+	0.5-		911029	399	2.2-	2.2-		930121	801	0.5+	0.4-
900614	413	0.1-	0.1-		911031	399	0.6-	0.2+		930122	399	0.3-	0.2+
900615	413	0.1+	0.1+		911031	399	0.4+	0.9+		930122	399	1.5-	0.4-
911018	399	1.1+	1.9+		911109	399	1.1-	1.8-		930210	399	0.1-	1.4+
911018	399	1.9+	1.6+		911109	399	0.1+	1.0-		930210	399	0.0	0.2-
911019	399	0.5+	0.7+		921226	801	0.9+	0.2+		930213	399	0.2+	0.7+
911019	399	1.0+	0.8+		921226	801	0.7+	0.0		930213	399	0.9-	1.2-
911029	399	1.2-	0.9-		930121	801	0.6+	0.5-					

(5488)* 1991 VK5 = 1951 ED1 = 1977 AB3 = 1978 GC3

Discovered 1991 Nov. 13 by S. Otomo at Kiyosato.

Id. S. Nakano (MPC 19683)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	165.80253		(2000.0)		P		Q
n	0.18654086	Peri.	215.82597		+0.67010145		+0.71639211
a	3.0335656	Node	97.12272		-0.62726602		+0.68648212
e	0.0760192	Incl.	11.29119		-0.39686444		+0.12459793
P	5.28	H	11.4	G	0.15		

Residuals in seconds of arc

510309	760	0.2-	0.5-		770112	675	0.4-	0.1+		780406	330	0.1+	0.3+
510309	760	0.1-	1.7-		770113	675	0.1+	1.0+		911104	894	0.1+	0.5-

911104	894	0.5-	0.9-		921225	801	0.0	0.0	930121	801	0.3+ 0.1+
911113	894	1.0-	0.2-		921225	801	0.2-	0.4+	930126	801	0.3- 0.1+
911113	894	0.8-	0.3+		921227	801	0.0	0.5+	930126	801	0.3- 0.0
911117	894	0.4-	0.0		921227	801	0.3+	0.1-	930129	894	0.7+ 0.1+
911117	894	0.3+	0.4+		930120	894	1.2+	0.9-	930129	894	0.6- 0.0
911207	894	1.0+	0.2-		930120	894	1.3-	0.4+			
911207	894	1.9+	0.3+		930121	801	0.2+	0.3+			

(5489)* 1993 BF2 = 1951 EW2 = 1952 KC1 = 1952 MF = 1959 CD = 1966 VO = 1980 BS3 = 1985 DN1 = 1986 LH1

Discovered 1993 Jan. 17 by Y. Kushida and O. Muramatsu at the Yatsugatake South Base Observatory.

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	93.23964	(2000.0)	P	Q	
n	0.23142285	Peri.	265.02196	+0.96263990	-0.13300129
a	2.6274344	Node	102.47606	+0.20960641	+0.91746600
e	0.1827014	Incl.	13.97954	-0.17143390	+0.37492240
P	4.26	H	11.4	G 0.15	

Residuals in seconds of arc

510315	711	2.1+	1.0+	Y	860608	688	0.5+	0.6-	930122	896	0.2-	1.1-
520525	711	(11.4-	6.5-)Y		921229	894	0.3-	0.6+	930123	691	1.6-	1.1+
520525	711	(4.2-	7.0+)Y		930104	894	0.2-	0.6-	930123	691	1.6-	0.1+
520617	760	0.8-	0.9+		930104	894	1.6+	1.6-	930123	691	1.4-	0.0
520617	760	0.3+	0.1+		930117	896	0.2-	0.8+	930129	894	0.9+	0.5+
590204	024	1.4-	0.3-		930117	896	0.4+	1.4-	930129	894	0.2-	0.4+
661113	095	1.4+	0.3+		930118	400	1.3+	0.4+	930129	896	0.5-	1.0-
661123	095	0.9-	1.4+		930118	400	1.8+	1.1+	930129	896	0.4+	1.2-
800122	095	1.2-	0.4+		930119	896	0.1+	0.7-	930210	896	0.6+	0.1+ Y
850225	688	1.1-	1.5+		930120	894	0.4+	0.6+	930210	896	0.3-	0.7+
850225	688	0.5+	0.2+		930120	894	0.2-	0.6-	930214	896	0.6-	1.0-
850322	688	0.4-	0.6-		930122	402	0.2-	0.1+	930214	896	0.1-	0.1-
850322	688	1.2+	0.8-		930122	402	0.7+	0.4+				
860608	688	0.5-	0.2-		930122	896	(0.5-	4.5+)				

(5490)* 2019 P-L = 1983 EP = 1983 GK1

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. H. Kaneda (MPC 15901), T. Kobayashi (ibid.)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	332.84639	(2000.0)	P	Q	
n	0.28194764	Peri.	272.38462	-0.68621620	-0.72645839
a	2.3033348	Node	221.02868	+0.68774917	-0.63143130
e	0.1187455	Incl.	3.22710	+0.23687215	-0.27120607
P	3.50	H	13.6	G 0.15	

Residuals in seconds of arc

600924	675	0.1-	1.3-		830409	095	0.2-	2.1+	921216	886	0.1+	0.9+
600928	675	0.4-	0.6+		900329	801	0.9-	0.9+	921217	399	0.4-	0.1+
600929	675	1.3+	1.2+		910805	675	(0.0	4.3-)	921217	399	0.4-	0.5+
601017	675	0.5-	0.2+		910805	675	0.4-	0.6-	921218	403	2.0+	0.6-
601022	675	0.8-	0.6-		910913	675	0.5+	1.4+	921227	801	0.2-	0.0
601025	675	0.1+	0.5+		910913	675	0.7+	0.1-	921228	801	0.2-	0.4-
601026	675	0.9-	0.3-		910913	675	0.6-	0.6-	921228	801	0.3-	0.4-
601026	675	0.3+	0.4+		910913	675	0.9+	2.1-	930120	801	0.0	0.1+
601026	675	0.2+	0.5+		910914	675	0.0	0.5-	930120	801	0.5-	0.2+
830309	688	1.8+	1.2-		910914	675	0.2-	0.9+				
830309	688	0.7-	1.7-		921216	886	0.1-	1.3-				

(5491)* 3128 T-1 = 1966 TL = 1966 VS = 1979 VY1 = 1979 YC1 = 1982 TC = 1990 DL9

Discovered 1971 Mar. 26 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.
Id. D. W. E. Green (MPC 19323), N. S. Chernykh (d, ibid.)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5			Williams
M 32.19890	(2000.0)	P	Q
n 0.30613204	Peri. 88.12130	+0.48274713	-0.87492287
a 2.1803700	Node 332.90830	+0.76637367	+0.44319872
e 0.1262178	Incl. 4.82140	+0.42382378	+0.19515345
P 3.22	H 13.8	G 0.15	

Residuals in seconds of arc

661013 095	1.4+	0.7-	791114 095	0.1+	0.3+	921027 801	(2.7+	1.2-)
661111 095	1.3-	0.2+	791217 095	(4.0+	1.4+)	921027 801	0.4+	0.2+
710326 675	0.7-	0.9-	821011 688	0.9+	1.3-	921213 596	0.6-	1.8-
710326 675	0.1-	0.0	821011 688	0.9+	2.1-	921213 596	0.2-	0.6-
710327 675	0.9-	0.2+	821021 688	0.5-	0.3-	921218 596	0.5+	0.2+
710402 675	0.9+	1.4+	821021 688	(1.3-	3.4-)	921218 596	0.1-	0.5-
710416 675	0.5-	2.2-	900221 808	0.6-	1.7-	921225 801	0.3+	0.5+
710416 675	0.3-	1.6-	900221 808	1.0-	1.2+	921225 801	0.1+	0.5+
710513 675	(0.7-	2.6-)	921023 801	0.1+	0.4+	921227 801	0.4+	0.8+
710514 675	0.4+	0.7-	921023 801	0.3+	0.1+	921227 801	0.2+	1.0+

(5492)* 3227 T-1 = 1959 TK = 1987 SM27 = 1987 UM8

Discovered 1971 Mar. 26 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.
Id. D. W. E. Green (MPC 19324), N. S. Chernykh (d, ibid.)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5			Williams
M 52.36918	(2000.0)	P	Q
n 0.21242190	Peri. 190.88240	+0.92554876	-0.37367713
a 2.7818680	Node 191.63497	+0.36613351	+0.92436949
e 0.1382719	Incl. 17.61525	+0.09646626	+0.07685340
P 4.64	H 12.3	G 0.15	

Residuals in seconds of arc

591005 024	0.2+	1.3-	710416 675	0.2-	0.5+	921023 801	0.6+	0.0
710324 675	1.8+	0.6-	710416 675	0.8+	0.2+	921023 801	0.5+	0.1+
710325 675	0.0	0.8-	710513 675	1.0+	0.1+	921028 801	0.3+	0.2-
710326 675	0.4-	0.2-	710514 675	0.1-	0.6+	921028 801	0.6+	0.0
710326 675	0.6-	0.9-	710516 675	0.6+	1.3+	921129 801	0.7-	0.1+
710327 675	0.8-	0.0	870927 095	0.2-	1.3+	921129 801	0.9-	0.0
710402 675	2.1-	0.0	871023 095	(0.3+	7.7-)			

(5493)* 1617 T-2 = 1954 JP = 1983 GN2 = 1984 SY3 = 1988 XP4 = 1990 ED8 = 1991 PR17

Discovered 1973 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.
Id. E. Bowell (k, MPC 19882), G. V. Williams (ibid.)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5			Williams
M 233.64792	(2000.0)	P	Q
n 0.27183746	Peri. 233.79633	-0.64058692	+0.76787379
a 2.3600970	Node 356.35941	-0.68117122	-0.57080647
e 0.1421852	Incl. 3.85653	-0.35447732	-0.29077449
P 3.63	H 13.3	G 0.15	

Residuals in seconds of arc

540501 839	1.2+	0.2-	730924 675	1.3+	1.3-	840927 033	0.8+	1.1+
730919 675	0.1-	0.8-	730925 675	0.5-	2.2-	881214 888	0.2+	0.5+
730919 675	0.2+	0.3+	730925 675	0.7-	0.3-	881214 888	0.3+	0.3-
730920 675	1.8-	1.7-	830410 095	(0.5+	6.7-)	900304 809	0.5-	0.8-
730924 675	0.1-	2.0-	840927 033	1.0+	0.4+	900304 809	0.7-	0.8-

900304 809 0.4- 0.7- 900309 809 0.5- 0.5+ 910917 675 0.2+ 1.3+
900306 809 0.3+ 0.5- 910808 675 0.2+ 0.7+ 910917 675 0.2+ 0.4+
900306 809 0.7+ 0.5- 910808 675 0.2- 0.2+ 921224 801 0.3+ 0.2+
900306 809 0.7+ 0.4- 910908 691 0.6- 0.9+ 921224 801 0.2+ 0.3+
900308 809 0.6- 0.0 910908 691 0.5- 0.5+ 921227 801 0.1- 0.6+
900308 809 0.1- 0.1+ 910908 691 0.6- 0.6+ 930120 801 0.5+ 0.1+
900308 809 0.4+ 0.2+ 910911 675 0.6+ 0.4- 930120 801 0.7+ 0.7+
900309 809 1.3- 0.6+ 910911 675 0.2+ 0.3- 930127 801 0.1- 0.0
900309 809 1.0- 0.6+ 910916 675 0.8+ 0.2- 930127 801 0.4- 0.1+

1966 BB = 1966 CE = 1983 CV2 = 1993 BP4
Id. H. Oishi (d, MPC 16995), B. G. Marsden
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden
M 330.39443 (2000.0) P Q
n 0.29295654 Peri. 36.95814 -0.96940012 -0.22843565
a 2.2452632 Node 129.58934 +0.18794540 -0.92619641
e 0.1350434 Incl. 6.69864 +0.15792383 -0.29996227
P 3.36 H 14.5 G 0.15
Residuals in seconds of arc
660120 760 0.9- 0.4- 830215 688 0.4- 1.2- 930127 010 0.3+ 0.0
660120 760 1.1+ 0.8- 830215 688 0.2+ 0.2+ 930128 010 0.3+ 1.6+
660213 330 0.7- 1.4- 930127 010 0.4+ 0.9- 930128 010 0.2- 0.9+
660216 330 0.4+ 0.4+ 930127 010 0.1+ 0.3+ 930128 010 0.4- 1.0+

1975 NC = 1975 PM = 1980 RY7
Id. T. Urata (d, MPC 4576), E. Bowell (d, ibid.), S. J. Bus (MPC 18280)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
M 333.86779 (2000.0) P Q
n 0.21632201 Peri. 356.86611 -0.04890512 +0.99374713
a 2.7483302 Node 270.31488 -0.91418760 -0.08501569
e 0.1537688 Incl. 5.76079 -0.40232986 +0.07238082
P 4.56 H 13.1 G 0.15
Residuals in seconds of arc
531012 675 0.5- 1.4- 750814 805 0.9- 0.6- 800913 675 0.4+ 0.0
531012 675 0.4+ 1.5+ 750815 805 1.3+ 1.7+ 800914 675 0.4- 0.2-
750715 805 1.5- 1.4- 750816 805 1.0+ 0.3+

1976 AH = 1991 RL29
Id. E. Bowell (MPC 20627)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 328.70174 (2000.0) P Q
n 0.17174900 Peri. 256.39923 -0.85873319 -0.41846971
a 3.2053337 Node 258.18224 +0.50208729 -0.80246965
e 0.1828570 Incl. 17.58626 -0.10239950 -0.42535345
P 5.74 H 10.5 G 0.15
Residuals in seconds of arc
760103 808 0.8+ 0.2- 760305 808 1.2- 1.0- 921128 801 0.5+ 0.4-
760103 808 0.3+ 1.2+ 910913 675 0.1+ 0.2+ 921128 801 0.5+ 0.4-
760106 808 0.0 0.5+ 910913 675 0.3+ 0.4- 921129 801 0.5+ 0.4-
760106 808 0.1+ 0.0 910914 675 0.3- 0.3- 921129 801 0.4+ 0.4-
760222 808 0.0 0.0 910915 675 0.3- 0.7+ 930122 596 0.4- 0.1-
760227 808 0.3- 0.1- 910916 675 0.2+ 0.2- 930122 596 2.3- 0.4+
760227 808 0.6+ 0.2+ 921029 801 0.4+ 0.2+
760305 808 (1.7+ 4.1+) 921029 801 0.5+ 0.2+

1977 RQ19 = 1981 UT23 = 1992 UD5
Id. A. Lowe (k), G. V. Williams

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	48.32730	(2000.0)	P	Q
n	0.26719333	Peri. 205.17403	+0.99677206	-0.07780696
a	2.3873658	Node 159.25972	+0.07981108	+0.93363801
e	0.0830643	Incl. 3.20306	+0.00869729	+0.34966576
P	3.69	H 15.5	G 0.15	

Residuals in seconds of arc

770909	675	0.0	0.6-	811025	675	0.3+	0.3-	921025	372	0.9-	0.6-
770910	675	0.0	0.4+	921021	372	(5.2+	2.5+)	921025	372	0.4+	1.6-
811024	675	0.1-	0.2-	921021	372	0.3+	2.8+				

1977 XZ2 = 1986 RA1 = 1986 RR8 = 1991 PQ15 = 1992 WB3
Id. A. Lowe, G. V. Williams (d)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	125.68589	(2000.0)	P	Q
n	0.19516965	Peri. 311.99729	+0.44364801	+0.89618143
a	2.9434807	Node 344.33647	-0.81560626	+0.40099456
e	0.0913944	Incl. 1.26093	-0.37143354	+0.18990055
P	5.05	H 12.5	G 0.15	

Residuals in seconds of arc

771207	675	0.2-	1.0+	910806	675	0.3+	0.2+	921118	399	0.6+	0.7+
771208	675	0.0	0.4+	910806	675	0.1+	0.3-	921118	399	0.7-	0.4-
860901	801	0.2+	0.2+	910810	675	0.9-	0.6+	921121	399	0.0	0.6-
860908	095	0.4-	0.1+	910810	675	0.5+	0.6-	921121	399	0.3+	1.1-

1978 LG = 1982 BR11 = 1990 SK15
Id. A. Lowe (k, MPC 18281), G. V. Williams (ibid.)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	16.75784	(2000.0)	P	Q
n	0.18770033	Peri. 212.41397	-0.68469493	-0.70991673
a	3.0210601	Node 281.38957	+0.69942672	-0.57638295
e	0.0657678	Incl. 9.68734	+0.20492708	-0.40472327
P	5.25	H 12.0	G 0.15	

Residuals in seconds of arc

530906	675	1.2-	0.5-	900918	675	1.0+	0.1-	920106	801	0.1-	0.1+
530906	675	1.0+	0.8+	900920	675	0.8+	1.5-	920206	801	0.1+	0.2-
780601	809	0.3+	0.5-	900920	675	0.4-	0.2+	920206	801	0.4-	0.0
780602	809	0.6-	0.7-	920102	801	0.3+	0.1+	920207	801	0.2-	0.0
820120	095	0.2-	1.1-	920102	801	0.2+	0.0	920207	801	0.5-	0.1+
900918	675	0.5-	0.0	920106	801	0.3+	0.3-				

1980 AA = 1993 BC2
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	1.01204	(2000.0)	P	Q
n	0.37865168	Peri. 168.03947	-0.29728523	-0.95265818
a	1.8922396	Node 299.22616	+0.86986976	-0.24271391
e	0.4438949	Incl. 4.18905	+0.39363445	-0.18311841
P	2.60	H 18.5	G 0.15	

Residuals in seconds of arc

531012	675	1.0+	4.2-	800116	054	1.7+	0.3-	800120	330	(0.4-	2.7+)
800113	046	1.0-	0.2-	800116	054	0.5+	0.4+	800120	046	0.3-	0.7+
800113	046	(4.9+	7.2-)	800116	054	1.4+	0.3-	800120	046	1.5-	1.5+
800114	046	2.0-	0.4+	800118	046	0.8-	1.0+	800121	046	0.3+	0.8+
800114	046	2.3-	1.7+	800118	046	1.1+	0.4-	800121	046	1.3-	1.1+
800115	046	(3.0+	1.2-)	800119	046	1.2+	0.4-	800121	046	1.5+	0.9-
800115	046	1.2-	0.8+	800119	046	0.6-	1.3+	800121	046	0.5+	0.2-
800115	046	1.6+	0.8-	800120	801	0.0	0.9+	800121	046	1.6+	1.2-
800115	046	(3.9+	2.6-)	800120	673	(2.6+	1.5-)	800121	046	0.5-	0.2+
800116	688	2.1+	1.4-	800120	673	(6.5-	7.7+)	800122	688	(4.2+	2.3+)

800122 688 (3.0+ 1.6+) 930121 675 (0.8+ 4.1-) 930125 587 (3.6+ 0.3+)
800123 046 0.1- 1.4- 930121 675 0.4- 1.2- 930125 587 (3.8+ 1.6+)
800123 046 1.3- 0.6- 930122 675 (4.4+ 1.0-) 930125 587 1.0+ 0.8+
800205 043 0.5+ 0.3- 930122 675 1.7+ 2.0- 930126 596 0.6+ 0.3-
800209 879 (3.4- 0.8+) 930122 691 1.3- 0.8+ 930126 596 0.4+ 0.9-
800209 879 (3.0- 0.6+) 930122 691 0.7- 0.6+ 930126 596 1.1+ 0.8-
800213 801 0.7+ 0.9+ 930122 691 0.2+ 0.4+ 930126 596 1.2+ 0.8-
800214 046 0.7+ 0.7- 930122 691 0.3- 0.5+ 930129 410 (2.6- 1.3-)
800214 046 0.4+ 0.6- 930122 691 1.0- 0.5+ 930129 410 1.8- 1.2-
800215 046 0.1+ 1.1- 930122 675 (3.4+ 3.1-) 930129 410 (3.6+ 2.1-)
800215 046 0.1- 0.7- 930122 675 0.4+ 1.1- 930131 589 0.3- 0.3+
800219 046 0.3+ 1.6- 930122 675 0.3- 0.9- 930131 589 0.2+ 0.5+
800219 046 0.5+ 1.3- 930122 675 (5.1- 6.1+) 930131 589 0.3- 0.0
800220 046 0.1- 0.9- 930123 657 (2.1+ 2.9-) 930131 589 0.0 0.3+
800220 046 0.2- 0.8- 930123 657 1.8+ 0.9- 930202 589 1.3- 1.8+
800221 046 0.6- 0.8- 930123 657 0.7+ 0.6+ 930202 589 0.3+ 1.3+
800221 046 0.3+ 0.3+ 930123 657 0.1+ 0.4+ 930202 589 0.8- 0.4+
800223 046 1.0- 0.4- 930123 657 0.5+ 0.6+ 930203 589 1.0- 1.6+
800223 046 2.5- 0.4- 930123 670 0.1+ 0.4+ 930203 589 1.0- 1.7+
930121 675 0.8+ 2.1- 930123 670 0.5+ 0.1+ 930203 589 0.7- 1.7+
930121 675 0.6- 1.4- 930123 670 0.7+ 0.2+ 930203 589 0.5- 1.0+

1980 BJ4 = 1988 WH = 1992 PM5
Id. A. Lowe
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 54.80904 (2000.0) P Q
n 0.20090512 Peri. 244.46731 +0.53584130 +0.84315203
a 2.8871901 Node 58.00483 -0.75465694 +0.50184336
e 0.0331874 Incl. 2.99897 -0.37863836 +0.19299712
P 4.91 H 12.0 G 0.15
Residuals in seconds of arc
800122 095 1.6- 0.4+ 881117 399 1.0- 1.0- 881202 399 3.0+ 0.1+
800123 095 1.7+ 0.1+ 881117 399 1.0+ 0.7+ 920803 675 0.9+ 1.0-
881114 399 1.1+ 0.2- 881117 399 0.2+ 1.1+ 920803 675 0.0 0.2-
881114 399 2.1- 0.2- 881202 399 2.1- 0.5+ 920806 675 0.3- 0.7+
881114 399 0.1+ 1.2- 881202 399 2.0- 1.0- 920806 675 0.8- 0.9+
881117 399 0.2+ 0.8+ 881202 399 1.8+ 0.3+

1980 UM1 = 1970 WH1 = 1987 XA1
Id. G. V. Williams
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
M 180.27707 (2000.0) P Q
n 0.29192360 Peri. 174.28780 +0.10588471 -0.99079087
a 2.2505564 Node 269.61360 +0.90895056 +0.13085408
e 0.0991793 Incl. 4.84113 +0.40323356 -0.03479445
P 3.38 H 14.2 G 0.15
Residuals in seconds of arc
531012 675 0.0 0.3+ 801014 675 0.6- 0.7- 801102 675 0.1- 0.2-
531012 675 0.1- 0.3+ 801014 675 0.4+ 0.5+ 871215 046 2.7- 1.2-
701123 033 0.0 0.2- 801031 675 0.4+ 0.0 871215 046 2.7+ 1.4+

1980 UW1 = 1991 TX7
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
M 136.09133 (2000.0) P Q
n 0.26558594 Peri. 39.11999 +0.98250143 +0.18492302
a 2.3969887 Node 310.20872 -0.17735972 +0.89243485
e 0.1955713 Incl. 1.66843 -0.05687235 +0.41153799
P 3.71 H 15.0 G 0.15

Residuals in seconds of arc

801014 675	0.0	0.3-	910917 675	0.1-	0.6-	911007 033	0.3-	0.3+
801031 675	0.7+	0.2-	910917 675	0.5+	0.1+	911008 033	0.0	0.6+
801102 675	0.6-	0.2+	911007 033	0.1-	0.2-			

1981 ES4 = 1991 PS10
Id. E. Bowell (MPC 18806)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell

M 105.94557		(2000.0)	P		Q
n 0.23347578	Peri.	35.51232	+0.98685280		-0.06563491
a 2.6120100	Node	327.28982	-0.03537165		+0.80396529
e 0.1813376	Incl.	15.86137	+0.15770353		+0.59104304
P 4.22	H	13.4	G	0.15	

Residuals in seconds of arc

530816 675	0.5-	0.7+	810307 413	1.7+	0.4+	810430 413	1.2-	0.3-
810209 413	0.7-	0.6-	810310 413	1.5+	0.9+	810502 413	0.6-	0.3-
810214 413	0.9+	2.0-	810312 413	1.5-	0.0	910807 675	0.4+	0.5-
810302 413 (4.1-		0.8-)	810312 413	2.1+	0.0	910808 675	0.2-	0.2+
810302 413	1.6+	0.5+	810409 413	1.8-	0.6+			
810307 413	0.8-	1.0+	810409 413	1.0-	0.4+			

1981 ER23 = 1993 BO5
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M 26.80111		(2000.0)	P		Q
n 0.24055321	Peri.	6.90962	-0.14216460		-0.98939285
a 2.5605226	Node	91.26661	+0.90672846		-0.14226395
e 0.0996380	Incl.	1.71095	+0.39702988		-0.02937277
P 4.10	H	16.0	G	0.15	

Residuals in seconds of arc

810209 413	0.3+	0.2-	810311 413	1.1-	0.5-	930127 010	0.7-	0.5+
810213 413	0.6-	0.4+	810329 413	0.0	1.0+	930127 010	1.1+	0.3-
810303 413 (1.6+		2.9-)	810426 413	1.1+	0.2+	930128 010	0.2-	1.0+
810307 413	1.7+	1.6-	810502 413	0.4-	0.6+	930128 010	0.4+	1.1+
810311 413	1.1-	0.1+	930127 010	1.0-	0.2-	930128 010	0.5+	1.7-

1981 EX43 = 1988 CL5
Id. S. Nakano (MPC 13157)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M 266.31925		(2000.0)	P		Q
n 0.27077058	Peri.	157.97847	+0.99852323		-0.03484003
a 2.3662924	Node	204.13136	+0.02020637		+0.95041291
e 0.1381033	Incl.	5.85198	+0.05042887		+0.30903312
P 3.64	H	14.5	G	0.15	

Residuals in seconds of arc

530906 675	0.3-	3.1-	810308 413	0.3+	1.6-	860911 095	0.4+	1.7-
530906 675	1.9+	1.9-	810311 413	2.0-	1.3+	880213 809	0.6-	0.3+
810212 413	0.8-	0.1+	810315 413	2.3-	1.9+	880215 809	0.1-	1.7-
810212 413	1.7+	0.6+	810410 413	0.8+	0.4+	880216 809	0.4-	2.3-
810214 413	1.3-	0.5-	810410 413	1.3+	1.7-	880216 809	0.2-	1.5-
810306 413	1.2+	1.1+	810502 413	0.1-	1.2-	880216 809	0.2+	1.9-
810308 413 (4.4-		0.6+)	810503 413	0.2-	1.6-			

1984 QS = 1978 NB8
Id. T. Kobayashi (MPC 12455)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	192.02452	(2000.0)	P	Q
n	0.17362217	Peri. 241.99227	+0.58790402	+0.80833261
a	3.1822376	Node 64.04980	-0.72950338	+0.54640079
e	0.2093663	Incl. 1.98214	-0.34956213	+0.21919071
P	5.68	H 13.0	G 0.15	

Residuals in seconds of arc

780707 675	0.4-	1.0-	840828 801	0.1-	0.0	930127 010	0.5-	0.8+
780708 675	0.0	0.7-	840829 801	0.4-	1.8+	930127 010	0.2-	0.7+
780709 675	0.4+	0.6-	900918 675	0.1+	2.1-	930128 010	0.7-	1.0-
840824 801	0.6-	0.1-	900918 675	0.2+	0.3-	930128 010	1.3+	0.7-
840827 801	1.0+	0.4+	930127 010	1.5-	0.6+	930128 010	1.2+	2.0-

1984 WA4 = 1976 SN5 = 1991 PA22 = 1993 BL

Id. T. Urata (k), S. Nakano

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	84.59605	(2000.0)	P	Q
n	0.25627132	Peri. 30.91436	+0.93258437	-0.36065367
a	2.4547243	Node 350.19262	+0.31106307	+0.82364527
e	0.0652542	Incl. 4.94198	+0.18310150	+0.43764986
P	3.85	H 13.3	G 0.15	

Residuals in seconds of arc

760924 095	0.3+	0.8-	841128 010	2.1-	0.5-	930120 385	0.2-	0.0
841119 675	1.8+	0.5+	910810 675	0.5-	0.3+	930121 385	0.4-	0.6-
841121 675	0.8+	0.7+	910810 675	0.1+	0.5+	930121 385	0.4+	0.1-
841127 010	0.4-	0.2-	930120 385	0.2+	1.0+			

1985 RM6 = 1993 BX4

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	106.28820	(2000.0)	P	Q
n	0.17393041	Peri. 148.47784	+0.98592863	-0.16715588
a	3.1784767	Node 221.14480	+0.15276169	+0.90555632
e	0.1809590	Incl. 0.16655	+0.06788675	+0.38990597
P	5.67	H 12.5	G 0.15	

Residuals in seconds of arc

850915 095	0.3+	0.9-	930127 010	0.2-	0.6-	930128 010	1.0+	0.4-
850920 095	0.2-	1.2+	930127 010	0.5-	0.2-	930128 010	0.2-	1.5+
850922 095	0.0	0.4-	930127 010	0.1-	0.9-	930128 010	0.0	0.6+

1987 EQ = 1991 PW2

Id. B. G. Marsden (MPC 18811)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	261.55383	(2000.0)	P	Q
n	0.30822941	Peri. 238.07141	-0.89441278	+0.44672162
a	2.1704677	Node 328.44705	-0.39515841	-0.81192826
e	0.0555410	Incl. 2.36319	-0.20946503	-0.37578225
P	3.20	H 15.0	G 0.15	

Residuals in seconds of arc

870224 809	(2.7+	0.4-)	870302 809	0.8-	0.8+	870305 809	0.5-	0.3-
870224 809	(2.8+	0.4-)	870303 688	(1.1-	2.5-)	870306 809	0.7+	0.5-
870224 809	(2.7+	0.4-)	870303 809	0.9-	0.4+	870306 809	0.6+	0.5-
870225 809	0.7+	0.5-	870303 809	0.6-	0.4+	870306 809	0.8+	0.5-
870225 809	0.8+	0.6-	870303 809	0.1-	0.4+	870307 809	1.0+	0.9-
870225 809	1.0+	0.6-	870303 688	(2.5-	0.6-)	870307 809	1.1+	0.7-
870228 809	0.6-	0.4+	870304 809	1.0-	0.4-	870307 809	1.4+	0.2-
870228 809	0.4-	1.1+	870304 809	0.7-	0.6-	870310 809	(3.6+	1.0-)
870228 809	0.0	0.5+	870304 809	0.4-	0.3-	870310 809	(3.4+	1.0-)
870302 809	1.1-	0.6+	870305 809	0.6-	0.2-	870310 809	(3.4+	1.0-)
870302 809	1.0-	0.6+	870305 809	0.6-	0.4-	910802 809	0.3-	1.1+

910802 809 0.0 1.2+ 910904 809 1.0+ 1.8- 910907 809 1.0+ 0.0
910802 809 0.6- 1.5+ 910904 809 0.7- 1.5- 910907 809 0.8+ 0.7-
910807 809 1.7- 0.4+ 910905 809 (3.2+ 2.3-) 930116 010 0.4+ 0.4-
910807 809 (2.3- 0.2+) 910905 809 (1.3+ 2.5-) 930116 010 0.3- 0.0
910807 809 1.3- 0.5+ 910905 809 (0.1+ 2.1-) 930116 010 0.4- 0.6-
910814 809 (1.0- 2.1+) 910906 809 1.2+ 1.7- 930117 010 0.1+ 0.1+
910814 809 (1.3- 1.9+) 910906 809 1.1+ 1.2- 930117 010 0.0 0.5+
910814 809 (1.2- 2.4+) 910906 809 0.8+ 1.3- 930117 010 0.1+ 0.0
910904 809 (2.7+ 1.8-) 910907 809 (3.4+ 0.4-)

1987 SF7 = 1992 AV3
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M 166.38291		(2000.0)	P	Q
n 0.28134846	Peri.	115.93996	+0.80546141	-0.48886326
a 2.3066039	Node	275.00712	+0.34731721	+0.84743031
e 0.2893036	Incl.	19.65238	+0.48021107	+0.20706177
P 3.50	H	13.0	G 0.15	

Residuals in seconds of arc
870926 675 1.0+ 0.5+ 871122 675 0.5+ 2.0- 920114 303 0.9- 0.5+
871018 675 2.6- 0.6+ 871123 675 0.4- 0.3-
871020 675 1.0+ 1.1+ 920113 303 1.2+ 0.1+

1987 UJ = 1983 VN1
Id. S. Nakano (MPC 12580), T. Kobayashi (ibid.)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M 119.94212		(2000.0)	P	Q
n 0.23789604	Peri.	20.83285	+0.99972870	+0.01576100
a 2.5795537	Node	338.24281	-0.02167043	+0.89930946
e 0.1360597	Incl.	2.65179	+0.00853879	+0.43702870
P 4.14	H	13.4	G 0.15	

Residuals in seconds of arc
831107 046 (0.4+ 4.7-) 871031 399 1.2- 0.4+ Y 911008 691 1.2- 0.1-
831107 046 1.4+ 3.0- 871115 399 0.7- 0.6- 911008 691 1.1- 0.1+
831107 046 (0.1- 4.1-) 871115 399 2.1+ 0.6+ 911008 691 1.2- 0.2+
831108 046 (1.2+ 3.5-) 871117 399 1.7+ 1.0- 911009 033 0.6+ 0.9+
831108 381 (4.2- 0.4-) 871117 399 1.0- 0.5+ 911009 033 0.6+ 0.5+
831108 381 2.1- 0.7+ 871117 399 0.5- 1.0- 911109 675 1.0- 0.7-
870925 095 1.3+ 1.7+ 910911 675 1.2+ 0.9- 911109 675 0.4- 1.2-
871021 881 0.8- 1.1+ 910911 675 0.6+ 1.5- 911110 675 1.7- 0.9-
871021 881 1.0+ 1.3+ 910913 801 0.8+ 0.2- 930127 010 0.2+ 0.3-
871025 399 2.3+ 0.7- Y 910913 801 0.7+ 0.0 930127 010 1.1+ 1.1-
871025 399 0.4- 0.4- Y 910914 675 0.6+ 0.7- 930127 010 0.0 1.2-
871025 399 0.7- 0.8+ Y 910928 385 1.0- 1.2- 930129 691 0.4- 0.5+
871027 881 2.4- 0.1+ 911001 894 0.4- 0.2- 930129 691 0.8- 0.5+
871027 881 0.2- 1.6+ 911001 894 0.3- 1.2+ 930129 691 0.4- 0.4+
871031 399 1.1+ 0.3+ Y 911003 881 1.3+ 0.4+
871031 399 1.2- 1.5+ Y 911003 881 2.4+ 0.7-

1987 VR = 1992 TP1
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell

M 326.38227		(2000.0)	P	Q
n 0.18406481	Peri.	217.32759	+0.34150201	-0.93600419
a 3.0607101	Node	212.95246	+0.89571684	+0.35159927
e 0.0800919	Incl.	9.02002	+0.28472393	+0.01655615
P 5.35	H	12.2	G 0.15	

Residuals in seconds of arc

871027 095	1.8+	0.2-	871123 046	0.7-	0.4+	921004 675	0.2-	0.5-
871115 046	1.8-	0.1-	871125 046	1.5-	0.9-	921004 675	0.5+	0.6-
871115 046	(2.2-	3.3+)	871125 046	0.5+	1.2-			
871123 046	1.0+	1.9+	921001 675	0.0	1.3+			

1988 BX = 1988 CE7 = 1993 BP2
Id. R. Rajamohan (d, MPC 13436), G. V. Williams
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M 49.32597		(2000.0)	P	Q	
n 0.38558957	Peri.	119.02380	+0.59794402	-0.74167455	
a 1.8694730	Node	291.00365	+0.57420456	+0.66093524	
e 0.0676445	Incl.	19.00046	+0.55924241	+0.11438301	
P 2.56	H	13.0	G 0.15		

Residuals in seconds of arc

880117 809	0.3+	0.4-	880126 809	0.4-	1.1+	880129 809	0.2-	0.3+
880117 809	0.3+	0.3-	880126 809	0.1-	0.7+	880129 809	0.0	0.2+
880117 809	0.4+	0.3-	880126 809	0.0	0.5+	880130 809	0.8-	0.4+
880118 809	0.4+	0.6-	880126 220	0.6+	0.3- Y	880130 809	0.1-	0.8+
880118 809	0.4+	0.7-	880126 220	(7.8+	1.5+)Y	880210 220	0.4-	2.0- Y
880120 809	0.2-	0.1-	880127 809	0.5+	0.4+	880211 220	(4.9+	1.1+)Y
880120 809	0.0	0.2-	880127 809	0.7+	0.4+	930121 675	0.7+	0.4-
880122 809	0.7-	0.1+	880127 809	0.5+	0.4+	930121 675	0.2+	0.3-
880122 809	0.1-	0.1-	880128 809	0.3-	0.1+	930122 675	1.0-	1.0+
880124 809	0.2-	0.0	880128 809	0.2-	0.0	930122 675	0.1-	0.5-
880124 809	0.1-	0.2-	880128 809	0.2-	0.2-			
880124 809	0.2+	0.1-	880129 809	0.2-	0.3+			

1988 VR3 = 1992 YV4
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M 67.21097		(2000.0)	P	Q	
n 0.26286673	Peri.	193.63493	+0.95609542	-0.29304625	
a 2.4134907	Node	183.40816	+0.27241967	+0.89167758	
e 0.2051481	Incl.	2.24947	+0.10802348	+0.34501448	
P 3.75	H	13.5	G 0.15		

Residuals in seconds of arc

881113 400	1.4-	0.5-	881201 888	(0.6-	4.1-)	881211 400	0.0	0.3+
881113 400	1.9+	0.0	881203 888	0.2+	0.0	881214 877	(0.5-	3.6+)Y
881116 400	0.8+	0.4+	881203 888	0.2-	0.6-	881214 877	0.8+	1.2+ Y
881116 400	0.6-	0.7-	881206 400	1.3-	1.0+	921230 033	0.3-	0.2+
881116 400	0.7-	1.0-	881206 400	0.8-	0.2+	921230 033	0.3+	0.5-
881201 400	0.9+	0.4+	881207 888	(3.2+	6.5-)	930101 033	0.1-	0.2-
881201 400	0.5+	0.7+	881207 888	(0.6+	5.1-)			
881201 888	(2.5-	7.3-)	881211 400	0.2-	1.0-			

1988 XG2 = 1983 VX4 = 1992 SB24
Id. H. E. Holt (k), G. V. Williams
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M 327.83821		(2000.0)	P	Q	
n 0.21030194	Peri.	178.89050	+0.10639694	-0.98670589	
a 2.8005319	Node	264.99336	+0.91132174	+0.14618469	
e 0.1949428	Incl.	7.08356	+0.39770890	-0.07100368	
P 4.69	H	13.5	G 0.15		

Residuals in seconds of arc

831108 381	0.1-	1.8+	881217 888	1.7+	1.1+	890103 888	2.3-	0.8+
881215 888	2.5+	1.7-	890101 888	1.3-	0.6+	890105 888	(5.6+	0.1+)
881215 888	1.3+	1.3-	890101 888	0.6-	0.6-	890105 888	(6.8+	0.1-)
881217 888	1.3+	0.8+	890103 888	2.3-	1.4+	890127 888	0.6+	0.4-

890127 888 0.3- 0.3+ 920929 675 0.3- 0.0 921004 675 0.7+ 0.1+
890129 888 0.2- 1.5- 920929 675 0.3+ 0.6-
890129 888 0.3- 1.2- 921004 675 0.0 1.4-

1989 BK = 1951 WL = 1955 VY = 1993 BK
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Urata
M 36.87294 (2000.0) P Q
n 0.24184724 Peri. 314.47078 +0.65965154 -0.73621061
a 2.5513808 Node 93.62637 +0.72538218 +0.57101653
e 0.3024925 Incl. 8.71259 +0.19667370 +0.36322729
P 4.08 H 13.0 G 0.15
Residuals in seconds of arc
511125 094(26.8- 75.3+)X 890203 888 0.4+ 1.1- 890226 888 0.1- 0.7+
511204 711 1.3+ 1.8+ Y 890203 888 0.6- 1.0- 890226 888 0.7- 0.9+
511222 711 0.8- 3.2- Y 890205 888 0.3- 0.2- 930120 385 0.1+ 0.8+
551114 388 0.3- 0.3+ 890205 888 0.3- 0.3- 930120 385 0.2+ 0.3+
890128 888 1.7+ 1.8+ 890207 888 0.1- 0.2- 930121 385 0.4- 0.4+
890128 888 (1.0+ 3.2+) 890207 888 1.2- 0.3- 930121 385 0.2+ 1.0+
890129 888 0.3- 0.2- 890210 888 1.2+ 0.7-
890129 888 0.4- 0.2- 890210 888 0.4+ 0.4-

1989 BE1 = 1993 CV
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 37.56222 (2000.0) P Q
n 0.25671421 Peri. 335.12536 +0.11471955 -0.99114621
a 2.4519001 Node 108.23004 +0.92279588 +0.08140933
e 0.1534310 Incl. 4.03582 +0.36781407 +0.10488901
P 3.84 H 13.7 G 0.15
Residuals in seconds of arc
890126 046 2.3+ 0.4+ 890205 071 0.3+ 0.7- 930212 372 0.1+ 0.3-
890126 046 0.7- 0.9+ 890205 071 (9.0+ 0.4+) 930213 372 1.8- 1.7+
890127 046 1.3- 0.7- 890206 071 0.9+ 0.3+ 930213 372 1.7+ 1.4-
890127 046 0.5- 0.8- 890206 071 1.0- 0.5+

1989 CF
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 312.77773 (2000.0) P Q
n 0.23188467 Peri. 42.14228 -0.97155675 -0.14507820
a 2.6239448 Node 128.53899 +0.09584280 -0.96363574
e 0.1057967 Incl. 13.84416 +0.21654479 -0.22440695
P 4.25 H 12.5 G 0.15
Residuals in seconds of arc
890202 372 (5.0- 3.0+) 890207 400 0.0 1.2+ 890308 372 1.4- 0.9+
890203 372 0.5+ 0.9- 890211 372 (0.5- 3.4-) 921221 372 1.6- 0.6+
890204 372 1.8- 2.1- 890211 372 1.3- 1.6- 921221 372 1.1- 0.9+
890204 372 0.8- 2.0+ 890212 400 2.4+ 0.6- 921223 372 0.1- 1.2-
890206 372 (3.0- 0.2+) 890212 400 2.4+ 1.5- 921225 372 1.6+ 0.4-
890206 372 1.9- 1.1+ 890212 400 1.4+ 0.8- 930121 675 0.2- 0.2+
890207 400 2.1+ 0.6+ 890214 372 2.7- 0.5- 930121 675 1.3+ 0.0
890207 400 2.2+ 1.8+ 890214 372 1.1- 0.3+

1989 DK = 1979 YY = 1993 AE
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 3.85056 (2000.0) P Q
n 0.23437249 Peri. 175.45829 -0.41109573 -0.89350598
a 2.6053433 Node 298.72178 +0.82974582 -0.28467694
e 0.1007360 Incl. 11.89014 +0.37752108 -0.34728390
P 4.21 H 12.6 G 0.15

Residuals in seconds of arc

791217	095	0.0	0.0	890302	809	0.3+	0.1+	930117	403	2.8-	1.8-
890228	809	0.0	0.2+	890303	809	0.2-	0.4-	930117	403	2.2-	0.8-
890228	809	0.1-	0.3+	890303	809	0.7-	0.2-	930121	403	2.3+	0.6+
890228	809	0.1+	0.1+	930113	400	0.1+	1.4-	930121	403	0.3+	0.5-
890301	809	0.1+	0.0	930113	400	0.6+	0.4-	930121	894	0.1+	1.6+
890301	809	0.3+	0.3-	930113	399	1.2-	1.2+	930121	894	0.7-	0.4-
890301	809	0.2+	0.1-	930113	399	0.8-	0.1-	930123	691	0.8-	0.4+
890302	809	0.2-	0.2+	930114	400	2.5+	0.5+	930123	691	0.1-	0.6+
890302	809	0.2+	0.2+	930114	400	2.8+	0.2-	930123	691	0.0	0.6+

1989 FL = 1990 QC9
Id. B. G. Marsden (MPC 17443)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	296.35661		(2000.0)	P	Q
n	0.21593793	Peri.	228.20482	-0.82702376	+0.56085129
a	2.7515881	Node	345.77050	-0.45818997	-0.71209911
e	0.1649973	Incl.	8.99674	-0.32572022	-0.42232770
P	4.56	H	13.4	G 0.15	

Residuals in seconds of arc

890329	372	0.5-	1.7-	900818	809	0.7-	0.6-	900913	809	2.0-	0.5+
890329	372	0.1-	0.1+	900818	809	1.1-	0.5-	900913	809	1.8-	0.6+
890404	372	0.6+	0.2-	900824	809	1.9+	0.4-	900913	809	0.7-	0.1-
890404	372	1.3+	0.3+	900824	809	1.8+	0.1-	900914	809	0.4-	0.3-
890405	474	0.4-	1.8+	900824	809	1.4+	0.4+	900914	809	0.3-	0.2-
890405	474	0.9-	1.7+	900826	809	1.3+	1.0+	930116	372	0.6+	0.0
890406	474	0.6-	1.5+	900826	809	2.1+	0.6+	930116	372	0.8-	0.6+
890406	474	1.0-	1.7+	900826	809	1.0+	0.9+	930119	372	0.9+	0.0
890411	372	0.9+	1.2-	900911	809	1.2-	0.7+	930119	372	0.7+	0.5+
890411	372	0.3+	1.1-	900911	809	0.6-	0.7+	930126	372	0.2+	0.1+
890412	474	1.1+	1.0-	900911	809	0.4-	0.7+	930126	372	0.2+	1.2+
900816	809	0.9+	0.8-	900912	809	1.1-	1.0+	930130	372	1.0+	0.3+
900816	809	0.4+	1.0-	900912	809	0.8-	0.9+	930130	372	1.6-	0.5-
900816	809	1.0+	1.2-	900912	809	0.5-	1.0+				
900818	809	0.4-	1.1-	900912	809	1.8-	0.6+				

1990 BA
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	104.52334		(2000.0)	P	Q
n	0.42944043	Peri.	170.63834	-0.53970039	-0.84145950
a	1.7399393	Node	312.01991	+0.77011794	-0.48106201
e	0.3377814	Incl.	1.99580	+0.34006153	-0.24601882
P	2.30	H	17.5	G 0.15	

From 23 observations 1990 Jan. 21-Apr. 22, mean residual 0".83.

1990 EQ2 = 1993 AR
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	8.17090		(2000.0)	P	Q
n	0.30432793	Peri.	215.84492	-0.35102915	-0.93447958
a	2.1889786	Node	254.77091	+0.87279715	-0.30357137
e	0.0891080	Incl.	3.52851	+0.33912192	-0.18599017
P	3.24	H	14.3	G 0.15	

Residuals in seconds of arc

900224	809	0.6-	2.2-	900302	809	0.1+	0.4+	930113	399	0.9-	0.7-
900224	809	0.6-	1.5-	900304	809	0.4+	1.1+	930120	399	0.6+	0.5+
900224	809	0.5-	1.2-	900304	809	0.7+	1.0+	930120	399	0.7+	0.6+
900302	809	0.0	1.0+	900304	809	0.4+	0.3+				
900302	809	0.1+	0.7+	930113	399	0.3-	0.1-				

1990 FP
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	226.67775	(2000.0)	P	Q
n	0.24130093	Peri. 113.11949	-0.86291515	+0.42051033
a	2.5552303	Node 92.74636	-0.50128918	-0.78243611
e	0.1246455	Incl. 16.29526	+0.06392651	-0.45930905
P	4.08	H 12.0	G 0.15	

Residuals in seconds of arc

510908	675	0.6+	0.3+	900325	675	0.9-	0.9+	900526	413	1.6+	0.2-
510908	675	0.0	1.4-	900325	675	0.3-	0.3-	921001	801	0.1-	0.6-
881206	675	0.8+	0.3+	900426	675	0.2+	0.1+	921001	801	1.1+	0.1-
881206	675	0.4+	0.0	900426	675	0.4+	0.5-	921023	801	0.2-	0.3+
881207	675	0.5-	0.2-	900427	675	0.2+	0.0	921023	801	0.0	0.7+
900323	675	0.5-	0.6+	900427	675	0.1+	0.3-	921029	801	0.5-	0.0
900323	675	0.3-	0.7-	900526	413	0.1-	0.3-	921029	801	0.9-	0.2+

1990 KL = 1990 KV3
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	219.64538	(2000.0)	P	Q
n	0.25808659	Peri. 102.33050	+0.52665426	+0.84809541
a	2.4432004	Node 199.78002	-0.83128555	+0.49952947
e	0.3291184	Incl. 9.87673	-0.17776282	+0.17664792
P	3.82	H 14.0	G 0.15	

Residuals in seconds of arc

900502	413	0.0	1.3+	900620	413	0.7-	0.9+	900919	801	0.7+	0.3+
900502	413	1.0-	0.5+	900620	413	0.4-	0.6+	900920	801	1.3-	0.1+
900521	675	0.5-	2.9+	900625	675	0.6+	1.1-	900921	801	0.0	0.8+
900521	675	0.2-	1.6-	900625	675	0.5+	1.1+	920202	688	0.0	0.4-
900523	675	0.3+	1.2-	900628	675	1.1+	1.0-	920202	688	0.2+	0.3-
900523	675	0.2-	0.5+	900628	675	0.8+	2.3-	920205	688	0.1+	0.1-
900524	095	0.5-	1.3-	900919	801	0.7+	0.0	920205	688	0.2-	0.2+

1990 OT4 = 1993 BN7
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	222.64270	(2000.0)	P	Q
n	0.22689016	Peri. 126.18717	+0.18308107	+0.97889400
a	2.6623120	Node 153.91643	-0.95522427	+0.19897124
e	0.1700910	Incl. 11.92045	-0.23243904	-0.04665823
P	4.34	H 13.5	G 0.15	

Residuals in seconds of arc

900725	675	0.0	0.0	900730	675	0.0	0.2-	930123	809	0.8-	0.3-
900725	675	0.0	0.1+	900730	675	0.2-	0.4-	930128	809	0.6+	0.3-
900728	675	0.3-	0.3+	930123	809	0.6+	0.3+	930128	809	0.3-	0.2+
900728	675	0.6+	0.2+	930123	809	0.0	0.2+	930128	809	0.1-	0.2-

1990 QF = 1952 SG1 = 1987 SL25
Id. S. Nakano (MPC 17024, unpublished)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	231.54495	(2000.0)	P	Q
n	0.31062234	Peri. 51.29001	+0.91958593	-0.39032996
a	2.1593063	Node 331.60286	+0.32489349	+0.81955709
e	0.1527357	Incl. 5.40153	+0.22092065	+0.41948623
P	3.17	H 13.5	G 0.15	

Residuals in seconds of arc

330925	012	2.7+	2.1+	870926	095	(2.8-	5.0-)	900824	372	0.2+	0.3-
330927	012	3.7-	0.3-	900820	372	1.7-	1.1-	900824	372	0.1-	0.0
520917	094	(37.6-	17.0+)X	900820	372	1.6+	0.4-	900824	403	(2.1-	0.0)Y
841121	010	0.6+	1.6-	900821	403	(9.9-	5.4-)Y	900824	403	1.3-	1.6+ Y
870923	095	0.9-	0.9+	900821	403	(7.4-	2.9-)Y	900824	046	(2.1+	2.9-)

900824 046 (4.3+ 3.2-) 900910 372 1.6+ 2.0- 900922 675 1.2- 0.6+
900826 403 (5.5- 1.7+)Y 900910 372 (2.6- 0.4+) 900924 675 0.7+ 0.8+
900826 372 0.5- 0.8- 900915 675 0.9+ 1.4- 900924 675 1.0+ 0.2+
900826 372 1.1- 0.4- 900915 675 (1.1+ 2.3-)
900828 372 1.4+ 0.8+ 900922 675 (2.0+ 3.7-)

1990 VB4 = 1955 RA
Id. T. Urata (MPC 17645)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bowell
M 236.94155 (2000.0) P Q
n 0.17412573 Peri. 84.09599 +0.72001296 +0.68395628
a 3.1760994 Node 232.67999 -0.68069207 +0.66313847
e 0.0638441 Incl. 8.49002 -0.13505420 +0.30405784
P 5.66 H 11.5 G 0.15
Residuals in seconds of arc
550913 760 1.2- 0.8+ 901113 675 0.5+ 0.5- 901121 881 1.4- 0.1+
550913 760 (2.9- 1.9+) 901113 675 0.8+ 0.9- 901121 881 1.5- 0.1+
550919 760 0.0 0.3- 901114 675 0.5+ 0.5- 901208 881 0.5+ 1.1+
550919 760 1.1+ 0.1- 901114 675 0.0 0.0 901208 881 1.5- 0.2+
880608 675 0.8+ 0.2- 901114 881 1.1+ 0.7- 901218 881 1.0+ 0.0
880608 675 0.8- 0.9- 901114 881 (2.6+ 1.0-) 901218 881 (3.2- 0.6-)

1991 AM
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 289.30165 (2000.0) P Q
n 0.44554985 Peri. 152.52984 +0.19217371 +0.89308063
a 1.6977426 Node 125.62463 -0.96694180 +0.24311262
e 0.6955563 Incl. 30.02951 -0.16760913 -0.37855414
P 2.21 H 16.5 G 0.15
Residuals in seconds of arc
910114 691 0.7- 0.6- 910116 691 0.5- 0.5+ 910219 691 0.4+ 0.5+
910114 691 0.8- 1.0- 910116 691 0.4- 0.2+ 910219 691 0.2- 0.6+
910114 691 0.6- 0.8- 910116 691 0.2- 0.3+ 910219 691 0.3+ 0.4+
910114 691 0.1- 0.6- 910118 801 0.9+ 0.6+ 930123 691 0.0 0.4+
910115 691 0.2- 0.6- 910119 801 0.8+ 0.3- 930123 691 0.1- 0.6+
910115 691 1.9+ 1.1- 910119 691 1.5- 0.2+ 930123 691 0.1- 0.5+
910115 691 0.1- 0.8- 910119 691 0.4+ 0.1+ 930125 691 0.1- 0.1+
910115 691 1.0+ 0.4- 910119 691 0.2- 0.2+ 930125 691 0.3+ 0.2+
910115 691 0.9+ 0.1- 910205 691 0.2+ 0.4+ 930125 691 0.3- 0.0
910115 691 0.2+ 0.4- 910205 691 0.5- 0.4+

1991 CB1 = 1993 BV3
Id. J. V. Scotti
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden
M 191.99495 (2000.0) P Q
n 0.44976293 Peri. 345.53953 +0.55198624 +0.81640317
a 1.6871238 Node 317.59233 -0.73787630 +0.38343951
e 0.5946905 Incl. 14.57375 -0.38839382 +0.43181015
P 2.19 H 18.0 G 0.15
Residuals in seconds of arc
910215 691 0.0 0.5+ 910217 691 0.3- 0.4+ 930126 691 0.0 0.2-
910215 691 0.1+ 0.3- 910220 691 0.3+ 0.2- 930126 691 0.5- 0.2+
910215 691 0.3- 0.1+ 910220 691 0.2- 0.4- 930126 691 (1.5+ 3.5+)
910216 691 0.2+ 0.1- 910220 691 0.4+ 0.1- 930129 691 0.1+ 0.3+
910216 691 0.1+ 0.0 910222 691 0.5- 0.3+ 930129 691 0.3+ 0.3-
910217 691 0.4+ 0.3+ 910222 691 0.6- 0.1+
910217 691 0.2- 0.4- 910222 691 0.8+ 0.2-

1991 GZ1
Id. C. S. Shoemaker (1992 observations)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 274.49173 (2000.0) P Q
n 0.36827458 Peri. 106.08782 -0.84138816 -0.44837923
a 1.9276206 Node 48.39609 +0.19125312 -0.76917016
e 0.0543995 Incl. 23.79552 +0.50545842 -0.45533870
P 2.68 H 14.5 G 0.15
Residuals in seconds of arc

910415	675	0.6-	0.6-	910512	675	1.1+	0.4+	910608	675	0.5+	1.0-
910417	675	0.3+	0.8-	910515	675	1.2-	0.2-	921126	675	0.5-	0.1-
910417	675	0.1-	1.3-	910515	675	0.4+	0.8+	921128	675	0.0	0.2+
910509	675	0.6-	2.1+	910607	675	1.0+	1.8-	921128	675	0.1+	0.3+
910509	675	1.6+	1.7+	910607	675	0.3-	0.2-				
910512	675	1.7-	0.8+	910608	675	0.1+	0.2+				

1991 GE2
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 120.34910 (2000.0) P Q
n 0.26059636 Peri. 182.42851 +0.23526830 +0.94174772
a 2.4274883 Node 101.25363 -0.88754767 +0.30894860
e 0.1944770 Incl. 14.18448 -0.39611610 -0.13289847
P 3.78 H 13.0 G 0.15
Residuals in seconds of arc

910415	675	0.9-	0.3+	910606	675	0.0	0.4-	910710	675	0.1+	0.3+
910417	675	0.3-	0.8-	910606	675	0.5+	0.5-	921125	675	(0.6-	3.8-)
910419	675	(1.6+	17.0+)	910608	675	0.9-	0.3-	921125	675	1.3-	1.0-
910513	675	1.4+	0.3-	910608	675	0.4-	0.1+	921127	675	0.9+	0.1+
910513	675	0.5-	0.2+	910708	675	0.3-	0.8+	921127	675	0.7+	0.4+
910515	675	0.1+	0.6+	910708	675	0.2+	0.6+				
910515	675	0.3+	0.5+	910710	675	0.3+	1.7-				

1991 GR2 = 1991 FG4 = 1971 TY1
Id. S. Nakano (d, MPC 19821; unpublished)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 86.09695 (2000.0) P Q
n 0.28246599 Peri. 294.99756 +0.68945984 +0.72421893
a 2.3005161 Node 18.60690 -0.64984318 +0.62599418
e 0.1882421 Incl. 2.21496 -0.31992025 +0.28920275
P 3.49 H 14.1 G 0.15
Residuals in seconds of arc

711012	095	0.5-	1.2+	910325	809	0.7+	0.2+	910410	809	1.1-	1.1-
910323	809	0.7+	0.2-	910408	809	0.5+	0.9+	910419	809	0.9+	1.1+
910323	809	0.7+	0.3-	910408	809	1.5-	0.9-	910419	809	0.9+	0.5+
910323	809	0.8+	0.2-	910408	809	(3.3-	1.4-)	910419	809	0.9-	1.0+
910325	809	0.1+	0.5+	910410	809	1.5-	0.3-	921101	372	0.5+	0.2-
910325	809	0.4+	0.5+	910410	809	0.3-	1.1-	921101	372	0.3-	0.4-

1991 LE2 = 1992 WM1
Id. S. Nakano (MPC 21577)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 60.15415 (2000.0) P Q
n 0.25672300 Peri. 269.28220 +0.99179985 +0.00371886
a 2.4518442 Node 90.49885 +0.04724107 +0.91811116
e 0.1628327 Incl. 7.33969 -0.11874908 +0.39630552
P 3.84 H 13.5 G 0.15
Residuals in seconds of arc

881104	327	0.4-	0.4+	910518	809	0.5+	1.3+	910518	809	0.3-	0.8+
881104	327	0.0	0.6+	910518	809	0.5-	2.2+	910606	809	0.1+	1.6-

910606 809 0.8- 2.0- 910608 809 1.4- 0.2+ 921121 399 0.1+ 1.5+
910606 809 (3.5- 1.4-) 910608 809 0.4+ 0.3- 921121 399 1.4- 2.1+
910606 809 0.4+ 0.5- 921117 400 2.0- 1.5- 921127 399 1.3+ 1.8+
910606 809 0.0 0.8- 921117 400 1.4+ 2.8- 921127 399 (0.8+ 4.0+)
910606 809 1.0+ 0.6- 921118 400 0.5- 1.5- 921219 400 0.4+ 0.7-
910608 809 0.3+ 0.4+ 921118 400 0.8+ 0.7- 921219 400 0.6+ 0.0

1991 NF3 = 1989 CU6 = 1992 YA5
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 69.70538 (2000.0) P Q
n 0.22935234 Peri. 102.21229 +0.94571392 -0.25299051
a 2.6432238 Node 272.70619 +0.15590473 +0.90393521
e 0.2068875 Incl. 11.78501 +0.28516468 +0.34481434
P 4.30 H 13.5 G 0.15
Residuals in seconds of arc
890204 809 0.4- 0.2- 910711 809 0.5- 0.5+ 910715 809 0.4+ 0.4-
890204 809 0.5- 0.1+ 910711 809 0.1+ 0.5+ 910715 809 0.6+ 0.6-
890204 809 0.8+ 0.1- 910711 809 0.7+ 0.5+ 910715 809 1.0+ 0.7-
910704 809 (2.4+ 0.2+) 910712 809 0.6- 0.8+ 910716 809 0.5+ 0.1-
910704 809 (2.5+ 0.4+) 910712 809 0.1- 0.7+ 910716 809 1.0+ 0.2-
910704 809 (2.6+ 0.2+) 910712 809 0.3+ 1.0+ 910716 809 1.4+ 0.2+
910705 809 1.9- 0.9- 910714 809 0.6- 0.3- 921230 033 0.3- 0.2+
910705 809 1.6- 0.9- 910714 809 0.0 0.0 921230 033 0.2- 0.2-
910705 809 1.0- 1.0- 910714 809 0.5+ 0.2+ 930101 033 0.4+ 0.3-

1991 PJ3 = 1981 UJ27 = 1988 TR4
Id. E. Bowell (k, MPC 20639), G. V. Williams (ibid.)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 9.44700 (2000.0) P Q
n 0.28034258 Peri. 107.31938 -0.12346937 -0.99223630
a 2.3121181 Node 349.73852 +0.87571014 -0.10187505
e 0.0967328 Incl. 4.80267 +0.46678376 -0.07133447
P 3.52 H 14.5 G 0.15
Residuals in seconds of arc
811024 675 0.9- 2.3+ 910807 809 0.3+ 0.2- 930128 411 1.0- 0.6+
811025 675 1.0- 1.6+ 910814 809 1.1- 0.4- 930129 411 0.3+ 1.6-
881013 888 0.5+ 2.7- 910814 809 1.5- 0.6- 930129 411 0.2+ 0.1-
881013 888 1.1+ 0.7- 910814 809 1.8- 1.0- 930129 411 0.4+ 0.8-
910802 809 1.6+ 0.7- 930122 411 0.6+ 0.4- 930130 411 0.2- 0.8-
910802 809 1.0+ 0.5- 930122 411 0.5+ 0.0 930130 411 0.3- 0.8-
910802 809 0.1- 0.9- 930122 411 0.5+ 0.6+ 930130 411 0.2- 0.8-
910807 809 1.9+ 1.8+ 930128 411 1.1- 0.8+
910807 809 0.3+ 0.6+ 930128 411 0.0 0.9+

1991 PC6 = 1982 BA14
Id. S. J. Bus (MPC 20024)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden
M 71.75027 (2000.0) P Q
n 0.26934981 Peri. 278.12894 +0.71148031 -0.69485584
a 2.3746062 Node 125.96352 +0.68487456 +0.65231392
e 0.1262830 Incl. 7.43549 +0.15729780 +0.30275718
P 3.66 H 15.0 G 0.15
Residuals in seconds of arc
820130 675 0.7+ 2.3- 910806 809 0.2+ 0.2- 910904 809 0.5+ 1.8+
820131 675 1.2- 0.4- 910814 809 0.4+ 0.9- 910904 809 1.4+ 1.0+
910806 809 0.8+ 0.5- 910814 809 1.1- 1.7- 910904 809 1.0+ 0.3+
910806 809 0.6- 1.3- 910814 809 0.6- 1.2- 910906 809 0.5- 0.6-

910906 809 1.2- 0.4+ 930127 010 1.3- 0.4+ 930128 010 0.7+ 0.3+
910906 809 0.4+ 0.6+ 930127 010 0.1+ 0.5- 930128 010 1.1+ 1.0-
930127 010 1.3- 0.6+ 930128 010 0.8+ 0.4+

1991 PK11 = 1973 UY2
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 37.27820 (2000.0) P Q
n 0.21655563 Peri. 130.77722 +0.09058346 -0.99218686
a 2.7463532 Node 313.80263 +0.87416537 +0.12048560
e 0.1754231 Incl. 6.82672 +0.47710538 -0.03237989
P 4.55 H 12.6 G 0.15
Residuals in seconds of arc
731027 095 0.1- 0.2+ 910908 511 0.3- 1.3+ 930121 877 1.0- 0.3+
910809 675 0.5+ 0.4- 910914 675 0.0 0.0 930121 877 1.3- 0.9+
910810 675 0.1+ 0.5- 910914 675 0.0 0.3- 930128 877 2.0+ 0.4-
910906 511 0.3+ 1.3- 910917 675 0.4- 0.2+ 930128 877 0.0 1.1-
910907 511 0.4+ 0.4+ 910917 675 0.3- 0.2+

1991 PY11 = 1952 HH2 = 1959 JN = 1988 VR11
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 224.68064 (2000.0) P Q
n 0.28283075 Peri. 25.05911 -0.49999119 +0.86475542
a 2.2985377 Node 214.99546 -0.80773006 -0.48521173
e 0.1362069 Incl. 4.69846 -0.31237951 -0.12948989
P 3.48 H 13.0 G 0.15
Residuals in seconds of arc
520424 711 1.3+ 4.5+ Y 881103 327 0.1+ 0.2- 910808 675 0.4- 1.1-
590508 760 0.7- 1.9- 881104 327 1.1- 0.5+ 910808 675 0.9- 1.2-
590508 760 0.5- 2.7- 910807 675 1.5+ 1.4+ 910914 675 0.3+ 0.7-
881103 327 1.0+ 0.7- 910807 675 1.1- 2.4+ 910914 675 0.4+ 0.1+

1991 PY12 = 1987 SP16 = 1993 BM2
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 35.52713 (2000.0) P Q
n 0.22343887 Peri. 103.01915 +0.30458320 -0.94600982
a 2.6896570 Node 328.54793 +0.77063789 +0.31317183
e 0.1775438 Incl. 12.26904 +0.55977345 +0.08359921
P 4.41 H 13.0 G 0.15
Residuals in seconds of arc
870925 095 0.2- 0.4+ 910912 675 0.7- 0.7+ 930121 896 1.1+ 1.0+ Y
870926 095(40.4- 7.5+) 910912 675 0.3+ 2.0- 930122 399 0.9- 0.9-
910805 675 0.4+ 0.2- 930120 896 1.5+ 2.1+ 930122 399 2.1- 2.1-
910808 675 0.5+ 0.5+ 930120 896 0.4+ 0.3+ Y
910808 675 0.1+ 0.2+ 930121 896 0.2- 1.1-

1991 PC18 = 1993 BX
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden
M 34.96458 (2000.0) P Q
n 0.20971728 Peri. 121.81767 +0.52347528 -0.84655089
a 2.8057345 Node 296.31810 +0.74079251 +0.50818810
e 0.0787085 Incl. 6.18472 +0.42095140 +0.15841859
P 4.70 H 13.0 G 0.15
Residuals in seconds of arc
910808 675 0.0 0.0 910914 675 0.3+ 0.9- 930116 010 0.0 0.2-
910808 675 0.0 0.0 910914 675 0.2- 0.5- 930117 010 0.2- 0.3-
910912 675 0.3- 0.8+ 930116 010 0.2- 0.0 930117 010 0.2- 0.1+
910912 675 0.2+ 0.6+ 930116 010 0.4+ 0.2+ 930117 010 0.2+ 0.2+

1991 RS1 = 1987 SL14 = 1987 SN14 = 1987 SS16
Id. H. Kaneda (MPC 19034)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	53.07804	(2000.0)	P	Q
n	0.23542777	Peri. 91.44547	+0.18323470	-0.98198492
a	2.5975520	Node 347.70126	+0.79360577	+0.17546862
e	0.1697233	Incl. 12.51530	+0.58018525	+0.07011693
P	4.19	H 12.0	G 0.15	

Residuals in seconds of arc

870922	095	0.7+	1.1-	910913	400	0.4-	0.6+	911008	400	0.8+	2.0+
870923	095	(3.8+	0.2-)	910913	400	0.6+	0.9+	921225	801	0.1+	0.5+
870925	095	0.6+	1.2-	910915	675	0.0	0.8-	921225	801	0.4+	0.5+
910907	400	2.8-	0.2+	910915	675	0.3-	0.7-	930121	801	0.6+	0.1-
910907	400	0.2-	0.2+	910930	400	0.1+	0.1-	930121	801	0.1-	0.4+
910913	675	0.1+	1.1-	910930	400	0.7+	1.4+				
910913	675	0.3-	1.0-	911008	400	0.5-	1.2+				

1991 RX2 = 1984 WM4
Id. H. Kaneda (MPC 19313)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	352.61834	(2000.0)	P	Q
n	0.26100063	Peri. 223.52081	-0.80870288	-0.58426076
a	2.4249810	Node 280.60736	+0.55688109	-0.72318158
e	0.0863483	Incl. 3.97347	+0.18942837	-0.36830391
P	3.78	H 14.0	G 0.15	

Residuals in seconds of arc

841119	675	0.4+	0.1+	910914	033	0.1-	0.5+	911007	033	0.4-	0.2-
841121	675	0.4-	0.1-	911003	033	0.1+	0.3-	911007	033	1.4+	0.6-
910909	033	0.4-	0.2-	911003	033	0.8+	0.1-	930119	801	0.1+	0.7+
910910	033	0.3+	0.7+	911004	033	0.4-	0.3-	930119	801	0.1-	0.1-
910912	033	0.2-	0.1-	911004	033	0.3+	0.1-	930121	801	0.1+	0.3-
910912	033	0.4+	0.5+	911004	033	0.4-	0.1-	930121	801	0.0	0.3-
910913	033	0.1+	0.0	911005	033	1.5-	0.5+				

1991 SL2 = 1980 TM14 = 1980 VK = 1980 VL2 = 1992 YX3
Id. S. Nakano, B. G. Marsden (d, MPC 10195)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	62.99023	(2000.0)	P	Q
n	0.17436292	Peri. 325.19170	+0.82449013	-0.54095595
a	3.1732183	Node 68.39745	+0.55124299	+0.70148602
e	0.1471836	Incl. 10.28980	+0.12785612	+0.46398710
P	5.65	H 11.8	G 0.15	

Residuals in seconds of arc

801013	095	1.0+	1.2+	910915	675	0.8+	0.3+	930112	896	0.2-	2.0-
801108	688	0.6+	0.6-	910917	675	0.7-	0.4-	930112	896	1.8-	1.3-
801108	688	0.3-	2.6-	910917	675	0.4-	0.1-	930117	896	0.4+	1.2-
801111	330	0.8-	1.2+	921229	896	2.7+	0.8+ Y	930117	896	0.1-	1.8-
910912	675	0.4-	0.0	921229	896	0.0	2.0+	930129	896	1.1-	1.0+ Y
910912	675	0.1+	0.3+	921230	896	0.4+	3.0+				
910915	675	0.3+	0.6+	921230	896	(0.7+	22.8+)Y				

1991 UA2 = 1993 BZ3
Id. B. G. Marsden
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	330.05253	(2000.0)	P	Q
n	0.20708070	Peri. 218.95118	-0.95669496	-0.29066378
a	2.8294996	Node 304.14411	+0.27161611	-0.87186262
e	0.0363229	Incl. 1.09319	+0.10468738	-0.39417020
P	4.76	H 13.0	G 0.15	

Residuals in seconds of arc

911029	399	0.6+	0.3+	911106	691	0.2+	0.2+	930127	010	0.7+	1.0-
911029	399	1.6-	0.2-	911109	399	0.0	0.6-	930128	010	0.2-	1.0+
911031	399	1.3+	0.8+	911109	399	0.3-	0.4+	930128	010	0.6-	1.5+
911031	399	0.6-	0.8-	930127	010	0.8+	0.3-	930128	010	0.8-	0.8-
911106	691	0.3+	0.0	930127	010	0.1+	0.4-				

1991 VB

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5				Bowell	
M 131.51636		(2000.0)	P		Q
n	0.29412454	Peri.	134.31127	+0.85281556	-0.51083803
a	2.2393151	Node	256.69077	+0.44180164	+0.81645246
e	0.4101010	Incl.	6.39543	+0.27841861	+0.26916516
P	3.35	H	17.0	G 0.15	

From 19 observations 1991 Sept. 15-1992 Feb. 5, mean residual 0".80.

1991 XB

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5				Bowell	
M 79.53270		(2000.0)	P		Q
n	0.19254850	Peri.	171.72840	+0.45780505	-0.84981158
a	2.9701334	Node	250.68364	+0.79903087	+0.52211957
e	0.5796748	Incl.	16.06931	+0.38982587	-0.07219023
P	5.12	H	18.1	G 0.15	

From 27 observations 1991 Dec. 1-1992 Feb. 3, mean residual 0".45.

1992 SK = 1985 SD = 1985 TO2

Id. G. V. Williams (MPC 21115)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5				Williams	
M 169.77080		(2000.0)	P		Q
n	0.70642866	Peri.	233.47172	-0.46564273	+0.88399250
a	1.2486015	Node	9.06748	-0.70377072	-0.34136107
e	0.3248453	Incl.	15.32147	-0.53654788	-0.31942118
P	1.40	H	17.5	G 0.15	

Residuals in seconds of arc

531012	675	0.3-	0.2+	921002	675	0.2+	0.9-	921013	413	0.5+	0.2-
850922	675	0.1-	0.9+	921002	675	0.3-	1.2-	921020	675	0.1+	0.1-
850922	675	(3.8+	0.3+)	921005	413	1.8-	1.0+	921020	675	0.2-	0.8-
851012	010	1.8-	1.9+	921005	413	1.2+	0.7-	921027	657	0.7-	0.8+
851012	010	(0.3+	3.1+)	921006	413	0.3+	0.1-	921027	657	0.1+	0.1+
920924	675	(6.9+	3.8-)	921006	413	0.3+	0.1-	921027	657	0.4+	0.3-
920924	675	(0.2+	3.5-)	921010	413	0.1-	0.2-	921028	801	0.4+	0.4+
920926	675	1.4+	0.7-	921010	413	0.7-	0.3-	921028	801	0.2+	0.7+
920926	675	(2.9+	2.0-)	921013	413	0.7+	0.3-				

1992 ST

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5				Williams	
M 11.51143		(2000.0)	P		Q
n	0.24152854	Peri.	15.24814	+0.69040734	-0.71961397
a	2.5536248	Node	31.20041	+0.64785928	+0.56945206
e	0.3944857	Incl.	8.22584	+0.32189448	+0.39734126
P	4.08	H	14.0	G 0.15	

From 30 observations 1992 Sept. 23-1993 Jan. 31, mean residual 0".83.

1992 SW17
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bardwell
M 27.74533 (2000.0) P Q
n 0.21645564 Peri. 94.16731 +0.93520422 -0.26254215
a 2.7471990 Node 281.17974 +0.14144761 +0.89215158
e 0.1563148 Incl. 14.01757 +0.32463153 +0.36761007
P 4.55 H 11.5 G 0.15
From 11 observations 1992 Sept. 29-1993 Jan. 26, mean residual 0".51.

1992 SQ23 = 1981 JP6
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 66.03147 (2000.0) P Q
n 0.28128808 Peri. 101.45301 +0.77652644 +0.62397523
a 2.3069340 Node 220.02705 -0.61804741 +0.72728163
e 0.3106849 Incl. 7.82205 -0.12257279 +0.28586071
P 3.50 H 15.0 G 0.15
Residuals in seconds of arc

810508	675	0.4+	0.5+	920925	033	0.1- 0.7-	920928 033	0.0 0.0
810509	675	0.4-	0.5-	920925	033	0.2+ 0.0	920929 033	0.2- 0.2-
920923	033	0.0	0.3+	920927	033	0.1+ 0.6+		

1992 UG = 1971 UH2 = 1991 KE2
Id. S. Nakano, C. M. Bardwell
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Bardwell
M 26.22122 (2000.0) P Q
n 0.23547239 Peri. 302.03292 +0.89730812 -0.42675943
a 2.5972239 Node 83.44508 +0.43351593 +0.80395162
e 0.2825774 Incl. 6.51715 +0.08307876 +0.41417168
P 4.19 H 13.5 G 0.15
Residuals in seconds of arc

711021	095	1.6+	3.5-	921027	402	0.3+ 0.6+	921215 877	0.0 0.2-
910517	809	0.5-	0.6+	921027	402	0.1+ 0.8+	921215 877	0.1- 0.3-
910517	809	0.1+	0.4+	921031	894	0.5- 0.0	921215 877	0.5+ 0.7+
910517	809	0.7+	0.1+	921031	894	0.9- 0.0	921218 877	0.3+ 0.1+
921021	402	0.2-	1.4+	921101	894	0.9- 0.3-	921218 877	0.1- 0.8+
921021	402	1.2-	1.9+	921101	894	0.4+ 0.2-	930126 801	0.1- 0.2+
921024	402	0.3+	0.0	921117	402	0.0 0.3-	930126 801	0.1- 0.9-
921024	402	0.3-	0.4+	921117	402	0.4+ 0.2-	930127 801	0.8+ 0.6-

1992 UT3 = 1985 UO4
Id. S. Nakano (MPC 21274)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 358.04879 (2000.0) P Q
n 0.28251289 Peri. 17.96256 +0.23457856 -0.96770637
a 2.3002615 Node 58.56163 +0.87808716 +0.17020470
e 0.1361310 Incl. 6.20972 +0.41705615 +0.18594284
P 3.49 H 13.5 G 0.15
Residuals in seconds of arc

851022	095	0.0	0.5+	921027	372	(4.9- 2.3+)	921114 385	0.3+ 0.6-
851109	095	2.9-	2.4+	921030	885	0.3+ 0.2+	921116 399	0.9- 0.2+
851111	095	2.2+	1.3-	921030	885	1.0- 0.8-	921116 399	0.8- 0.3-
921027	385	2.1+	1.0+	921031	894	0.1- 0.9-	930120 385	0.6+ 0.2-
921027	385	1.6+	0.9+	921031	894	1.1- 1.1-	930120 385	0.6- 0.8+
921027	372	(5.1-	2.0+)	921114	385	0.2+ 0.7-		

1992 VM
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 13.30109 (2000.0) P Q
n 0.21443947 Peri. 253.92119 +0.71451608 -0.69266595
a 2.7643916 Node 149.70753 +0.69297940 +0.68137214
e 0.5087902 Incl. 11.24815 +0.09615780 +0.23652883
P 4.60 H 15.0 G 0.15
From 21 observations 1992 Nov. 3-1993 Jan. 26, mean residual 0".66.

1992 WM3 = 1979 VD = 1984 FH1
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 16.47987 (2000.0) P Q
n 0.31078639 Peri. 357.32024 +0.29971209 -0.95277119
a 2.1585464 Node 75.23596 +0.87624458 +0.25460467
e 0.0788471 Incl. 2.90382 +0.37731698 +0.16554008
P 3.17 H 13.6 G 0.15
Residuals in seconds of arc

791111 095	0.3+	0.7-	921126 885	0.6+	0.8-	921217 399	2.4-	0.2+
840328 801	0.2-	0.6-	921126 885	0.3+	1.0-	921217 399	0.8+	0.0
921123 385	0.7-	0.3-	921203 885	0.3-	0.4+	930117 385	0.4-	0.2+
921123 385	0.2-	0.2-	921203 885	0.1-	1.0+	930117 385	0.2-	0.8-
921124 885	0.4+	0.0	921214 385	0.6+	0.9+			
921124 885	0.0	0.3+	921214 385	1.3+	0.1+			

1992 WN3
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Urata
M 26.47776 (2000.0) P Q
n 0.21471919 Peri. 338.25780 +0.64021252 -0.75169492
a 2.7619903 Node 71.56572 +0.72711899 +0.52644504
e 0.2209622 Incl. 9.61003 +0.24784251 +0.39725354
P 4.59 H 12.8 G 0.15
From 17 observations 1992 Nov. 23-1993 Feb. 11, mean residual 0".63.

1992 WO3
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Urata
M 0.42273 (2000.0) P Q
n 0.28072717 Peri. 237.39262 -0.11636283 -0.96491951
a 2.3100059 Node 221.39868 +0.98799791 -0.08821919
e 0.2610341 Incl. 20.84825 +0.10158657 -0.24728062
P 3.51 H 13.6 G 0.15
From 17 observations 1992 Nov. 23-1993 Feb. 11, mean residual 0".57.

1992 WP4 = 1932 CH = 1969 EJ = 1973 EL = 1975 RX
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 35.14398 (2000.0) P Q
n 0.24084086 Peri. 77.83772 +0.72064933 -0.67813288
a 2.5584834 Node 324.56160 +0.49896637 +0.65173231
e 0.1698802 Incl. 14.40266 +0.48134925 +0.33967747
P 4.09 H 11.5 G 0.15
Residuals in seconds of arc

320212 029 (7.3+ 21.5+)X			730309 029	0.0	0.7+	921201 675	1.1-	0.1-
320213 754(17.2+ 70.1+)			750903 095	1.8-	0.6+	921201 675	0.6-	0.8-
320213 754(24.0+ 70.4+)			750906 095	0.5+	1.3+	930121 675	1.0+	0.5-
690312 095	3.3+	0.4+	921121 675	0.9-	0.4+	930121 675	1.7+	0.4-
730307 029	1.1-	0.9+	921121 675	0.5+	0.7+	930122 675	0.5+	0.0
730307 029	1.1-	0.5+	921122 675	0.4-	1.0+	930122 675	0.4+	0.0

1992 WY4 = 1989 UC2
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 358.61557 (2000.0) P Q
n 0.36143776 Peri. 187.28943 -0.07710932 -0.94873010
a 1.9518527 Node 267.48446 +0.92953882 +0.04278181
e 0.0753595 Incl. 17.86850 +0.36057140 -0.31317872
P 2.73 H 14.0 G 0.15
Residuals in seconds of arc

891026 675	0.2+	2.3+	921121 675	1.2-	1.6-	930119 801	0.0	0.6+
891026 675	0.7+	1.4+	921122 675	0.0	0.1-	930119 801	0.2+	0.1+
891028 675	0.0	1.9-	921125 675	0.2-	0.2+	930121 801	0.1+	0.4-
891028 675	1.0-	1.8-	921125 675	0.3+	0.2+	930121 801	0.3-	0.2-
921121 675	1.1-	0.5+	921127 675	2.1+	0.8+			

1992 WD5
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 346.94380 (2000.0) P Q
n 0.41019161 Peri. 122.17723 -0.67303475 -0.73930650
a 1.7939549 Node 10.20811 +0.63187673 -0.58967001
e 0.3038120 Incl. 6.87551 +0.38439045 -0.32513871
P 2.40 H 15.5 G 0.15
From 37 observations 1992 Nov. 21-1993 Jan. 27, mean residual 0".67.

1992 WZ5 = 1975 XV2 = 1987 QJ6 = 1989 AP2
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams
M 1.32775 (2000.0) P Q
n 0.23246658 Peri. 185.20484 +0.02772381 -0.97044361
a 2.6195641 Node 263.35917 +0.92561850 +0.11547602
e 0.2218785 Incl. 13.96621 +0.37744111 -0.21190682
P 4.24 H 13.5 G 0.15
Residuals in seconds of arc

751202 095	0.0	2.0-	890112 413	0.2+	0.4+	930121 675	1.5+	0.8-
870826 809	0.1-	1.4-	890112 413	1.1+	0.4+	930122 675	0.9+	1.4-
870826 809	0.9+	0.1+	921121 675	0.6-	0.3+	930122 675	0.5+	0.6-
890111 413	1.7-	0.7-	921121 675	1.3+	2.3+			
890111 413	0.5-	0.4-	921122 675	2.2-	1.9+			

1992 XL = 1971 UF4 = 1971 VV
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 78.83818 (2000.0) P Q
n 0.19101042 Peri. 274.11194 +0.97890979 +0.04112734
a 2.9860564 Node 83.61467 +0.04558022 +0.91086675
e 0.1217871 Incl. 11.61647 -0.19914333 +0.41064621
P 5.16 H 12.8 G 0.15
Residuals in seconds of arc

711022 805	0.9-	0.7+	921215 894	1.6+	0.3+	921222 894	0.5+	1.4+
711022 805	0.2+	1.1+	921215 894	0.5+	0.6-	921222 894	0.3-	1.6-
711022 805	0.4+	1.2-	921216 894	0.3+	1.3+	921227 894	0.5-	0.1-
711110 805	0.1+	0.7+	921216 894	1.4+	0.0	921227 894	0.5-	0.5+
711110 805	0.4-	0.1-	921220 894	0.2-	0.1-	921229 894	1.7-	0.8-
711110 805	0.6+	1.3-	921220 894	0.1+	0.1-	921229 894	1.0-	0.2-

1992 YN = 1977 VH1 = 1988 UO1
Id. T. Urata

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	38.73075	(2000.0)	P	Q
n	0.26991237	Peri. 158.82895	+0.52789041	-0.84462495
a	2.3713056	Node 259.20930	+0.76561734	+0.51865969
e	0.1078839	Incl. 5.20462	+0.36764358	+0.13266806
P	3.65	H 13.1	G 0.15	

Residuals in seconds of arc

771109 049	0.5+	0.6-	881104 327	1.6-	0.5+	930102 885	0.7-	0.7-
771109 049	0.1+	1.2-	881104 327	0.2+	0.9+	930102 885	0.4-	0.7-
881019 400	0.8+	0.1+	921224 385	0.6+	0.3+	930119 385	0.5-	0.1-
881019 400	0.1+	1.6+	921224 385	2.1+	1.3+	930119 385	0.4+	0.6+
881019 400	0.1+	1.3-	921225 885	1.6-	0.9-			

1992 YB1 = 1940 AE = 1981 SH4

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Kobayashi

M	250.36535	(2000.0)	P	Q
n	0.20383148	Peri. 230.14887	-0.70726543	+0.70694356
a	2.8594897	Node 354.83606	-0.63971527	-0.64152332
e	0.0280982	Incl. 1.61263	-0.30089863	-0.29778958
P	4.84	H 11.7	G 0.15	

Residuals in seconds of arc

400113 024	0.2+	0.5+	921230 877	0.4-	0.8-	930128 877	1.7-	0.2-
810925 095	0.2-	0.5+	930117 411	0.2+	0.6+	930128 877	1.4-	1.4+
921224 877	0.5+	1.2-	930117 411	0.2+	0.4-	930130 411	0.8+	0.7+
921224 877	0.7+	0.4+	930117 411	0.6-	0.7+	930130 411	0.4+	1.0+
921225 877	1.3-	0.6-	930122 411	0.1+	0.6-	930130 411	0.9+	0.1+
921225 877	0.1-	0.0	930122 411	1.9+	1.0-			
921230 877	0.2-	0.6-	930122 411	0.2-	0.3+			

1992 YS2 = 1986 RW12 = 1991 RV22

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	3.16620	(2000.0)	P	Q
n	0.19672406	Peri. 9.39989	+0.04380981	-0.99753578
a	2.9279550	Node 78.10358	+0.91292443	+0.01769413
e	0.0360170	Incl. 3.21042	+0.40577047	+0.06789170
P	5.01	H 12.4	G 0.15	

Residuals in seconds of arc

860909 095	1.7-	3.8+	921216 894	0.3-	1.7+	921226 894	0.3+	0.2+
910915 675	0.6+	0.2-	921216 894	0.9-	0.8-	921227 894	1.0+	0.9-
910915 675	0.1+	0.8-	921220 894	0.8+	0.0	921227 894	0.5+	0.3-
910917 675	0.9-	0.8-	921220 894	0.1+	0.5-	921229 894	1.5-	0.6-
910917 675	2.0+	2.2-	921222 894	0.9+	0.5+	921229 894	0.9-	1.0-
921215 894	0.2-	0.1-	921222 894	0.2+	0.2+			
921215 894	0.5+	0.7+	921226 894	0.5-	0.8+			

1992 YU2 = 1971 TA2 = 1971 VB

Id. T. Urata, B. G. Marsden (d)

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Urata

M	25.80006	(2000.0)	P	Q
n	0.23820432	Peri. 198.73371	+0.39464102	-0.91735852
a	2.5773276	Node 228.05925	+0.85170646	+0.38648595
e	0.2620949	Incl. 4.01449	+0.34475292	+0.09529933
P	4.14	H 13.9	G 0.15	

Residuals in seconds of arc

711012 095	0.1+	0.7+	921226 385	0.3-	0.6+	930102 385	1.3+	0.7+
711110 029	0.5-	0.5-	921229 881	2.1-	1.0-	930120 385	0.2+	0.4+
711110 029	0.4+	0.1-	921229 881	0.2-	1.6-	930120 385	0.1+	0.3+
921226 385	0.9+	0.2+	930102 385	0.0	0.5+			

1992 YC3 = 1983 AZ2 = 1988 AJ = 1989 PL

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5				Williams
M 37.19429		(2000.0)	P	Q
n 0.40210167	Peri.	145.48868	+0.31214656	-0.90977372
a 1.8179369	Node	284.96544	+0.79528013	+0.40778878
e 0.1430319	Incl.	16.45382	+0.51970573	-0.07758927
P 2.45	H	14.5	G 0.15	

Residuals in seconds of arc

830107 033	0.4+	0.3-	890801 675	1.2+	2.1-	930101 691	0.7-	0.6-
880115 688	0.0	2.0+	921226 691	0.7+	1.4-	930124 691	0.7-	0.8-
880115 688	0.5+	1.9+	921226 691	0.5+	1.2-	930124 691	0.9-	0.4-
890729 675	0.9+	0.2-	921226 691	0.6+	1.4-	930124 691	1.0-	0.0
890729 675	0.7-	0.3-	930101 691	1.2-	0.7-			
890801 675	0.9+	1.7-	930101 691	0.7-	0.6-			

1993 AA = 1953 XV = 1980 TD13 = 1980 VU3 = 1984 YK2

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5				Urata
M 64.23729		(2000.0)	P	Q
n 0.25477253	Peri.	149.91807	+0.91906336	-0.38975866
a 2.4643420	Node	233.13636	+0.34547310	+0.86806029
e 0.2676248	Incl.	4.18607	+0.18965989	+0.30750532
P 3.87	H	13.5	G 0.15	

Residuals in seconds of arc

531208 024	0.4+	2.7-	841223 095	0.2-	1.4-	930120 385	0.6+	1.0+
801010 095	1.1+	2.0+	930102 385	0.2+	0.7+	930121 385	1.1-	0.4-
801017 095	2.4+	1.6+	930102 385	0.4+	1.5+	930121 385	1.2+	0.5+
801101 675	2.4-	0.4-	930117 385	0.1+	1.0-			
801102 675	1.4-	0.6-	930117 385	0.5-	0.7+			

1993 AB = 1975 XP2 = 1979 UP1

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5				Urata
M 5.98366		(2000.0)	P	Q
n 0.23538724	Peri.	22.70614	-0.18278310	-0.97054405
a 2.5978502	Node	78.11091	+0.87560746	-0.23330122
e 0.2167392	Incl.	9.22981	+0.44710391	+0.06012304
P 4.19	H	13.5	G 0.15	

Residuals in seconds of arc

751202 095	0.0	0.0	930102 885	0.2+	0.2-	930117 885	(2.4-	1.9-)
791021 805	1.0+	0.5+	930102 885	0.7-	1.2+	930117 885	0.7+	0.7-
791023 805	1.0-	0.6-	930103 885	1.8-	0.4+	930121 885	1.6+	0.8-
791023 805	0.1+	0.1-	930103 885	0.7-	0.6+	930121 885	0.8+	0.4-

1993 AD = 1986 OT = 1991 RW34

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5				Nakano
M 13.27342		(2000.0)	P	Q
n 0.20008129	Peri.	118.74923	-0.05770871	-0.99622872
a 2.8951099	Node	334.31405	+0.85589429	-0.01596134
e 0.2587045	Incl.	8.59705	+0.51392088	-0.08528521
P 4.93	H	12.5	G 0.15	

Residuals in seconds of arc

860727 413	0.6-	0.2-	910912 675	0.8-	0.6+	930114 400	1.4-	0.0
860727 413	1.9+	1.4+	910912 675	0.7+	0.3-	930114 400	0.2+	0.4-
860801 413	2.1-	0.9-	930113 400	2.4-	0.3-	930213 400	1.5+	1.0+
860801 413	0.4+	0.3+	930113 400	1.3+	0.5-	930213 400	1.1+	1.1+

1993 BN = 1986 OM
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Urata
M 336.02992 (2000.0) P Q
n 0.22640991 Peri. 201.19419 -0.94107159 -0.32078204
a 2.6660754 Node 319.59181 +0.32918913 -0.79610363
e 0.1369438 Incl. 9.51531 +0.07758078 -0.51314509
P 4.35 H 12.5 G 0.15
Residuals in seconds of arc

860727	413	0.2-	0.4+	930120	385	0.1-	1.1+	
860727	413	1.8+	1.1+	930120	385	0.9+	0.1-	
860801	413	2.3-	1.1-	930121	385	1.3-	0.5-	
860801	413	0.6+	0.1-	930121	385	1.2-	1.5-	
930128	385	0.4+	0.3+					
930128	385	1.3-	0.2+					
930130	905	1.5+	0.9+					
930130	905	1.2+	0.1-					

1993 BO = 1973 QT1 = 1975 EY3 = 1984 RG = 1984 SY2 = 1991 NK6
Id. S. Nakano, F. N. Bowman (d)
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 68.50919 (2000.0) P Q
n 0.26920467 Peri. 199.24278 +0.82887499 -0.55930616
a 2.3754596 Node 194.78333 +0.51921624 +0.77706652
e 0.1708169 Incl. 2.68500 +0.20828047 +0.28869402
P 3.66 H 13.0 G 0.15
Residuals in seconds of arc

730829	095	0.2+	0.4-	910711	809	0.4-	1.2-	
750315	095	0.2-	0.2-	910712	809	0.0	0.3-	
840902	046	1.3-	1.3-	910712	809	0.5+	0.3-	
840902	046	(4.0-	4.4-)	910712	809	0.8+	0.2-	
840928	688	0.4+	0.4+	910716	809	0.1-	0.1+	
840928	688	1.2+	0.4+	910716	809	0.3+	0.1+	
910711	809	0.6-	1.0-	910716	809	0.7+	0.2+	
910711	809	0.5-	0.9-	930113	399	0.8-	0.3-	
930113	399	1.0-	0.5+					
930117	403	0.1+	0.9-					
930117	403	0.7+	1.3-					
930120	399	0.0	0.7-					
930120	399	0.7-	0.8-					
930121	403	0.9+	0.7-					
930121	403	0.0	0.3+					

1993 BD2
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden
M 326.86925 (2000.0) P Q
n 0.31647294 Peri. 64.89937 -0.86261091 -0.26661984
a 2.1326111 Node 97.15109 +0.13689074 -0.94115359
e 0.3953411 Incl. 25.67545 +0.48699418 -0.20771083
P 3.11 H 18.5 G 0.15
From 10 observations 1993 Jan. 22-30.

1993 BR2 = 1991 TV7
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 1.27221 (2000.0) P Q
n 0.20314956 Peri. 125.41804 -0.51179448 -0.85908252
a 2.8658852 Node 355.35074 +0.75943879 -0.44881066
e 0.1952459 Incl. 4.67459 +0.40164554 -0.24606140
P 4.85 H 13.5 G 0.15
Residuals in seconds of arc

911007	033	0.1-	0.7-	930121	896	0.3-	0.7- Y	
911007	033	0.4-	0.6+	930121	896	1.5+	1.0+ Y	
911008	033	0.4+	0.2+	930123	400	1.2+	2.1+	
930120	896	0.2-	0.1+ Y	930123	400	1.0-	0.0	
930120	896	0.0	1.3- Y	930124	400	0.0	2.0+	
930124	400	1.4-	0.7-					
930129	896	2.1-	1.6-					
930129	896	2.2+	1.6-					
930210	896	0.2-	0.3+					
930210	896	0.2+	0.4+					

1993 BV2 = 1950 TX3 = 1950 UC = 1975 XE1 = 1979 WW4 = 1987 SG19 = 1991 PS31
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	10.64406	(2000.0)	P	Q
n	0.23659068	Peri. 183.80284	-0.27557644	-0.95862127
a	2.5890332	Node 282.20386	+0.88387333	-0.22346999
e	0.2436392	Incl. 4.19126	+0.37792271	-0.17637011
P	4.17	H 12.7	G 0.15	

Residuals in seconds of arc

501006	760	0.1+	0.1-	910809	675	1.5+	0.7-	930123	400	0.0	0.6+
501006	760(16.4+	0.3+)		930117	402	0.3+	0.4+	930124	400	0.1+	1.0+
501017	760	0.1-	0.7+	930117	402	1.2+	0.8+	930124	400	0.5+	0.6+
501017	760	0.7-	0.2+	930122	809	0.2+	1.3-	930128	809	0.3+	0.6-
751201	095	2.3+	2.1+	930122	809	0.7-	1.2-	930128	809	1.0-	1.2-
791117	095	1.4-	3.4-	930122	809	1.1-	0.9-	930128	809	1.5-	1.5-
870917	095	0.5-	1.6+	930122	402	1.3+	0.1+	930210	400	2.3-	0.1+
870923	095	1.4-	0.7-	930122	402	0.3+	0.6+	930210	400	0.3+	0.8+
910809	675	1.8+	1.2-	930123	400	0.9+	0.3+				

1993 BW2
Epoch 1993 Feb. 2.0 TT = JDT 2449020.5 Marsden

M	47.39930	(2000.0)	P	Q
n	0.64153523	Peri. 287.21007	+0.60489438	-0.73006065
a	1.3314424	Node 121.22495	+0.79517620	+0.57504776
e	0.3044194	Incl. 21.82986	-0.04239816	+0.36923099
P	1.54	H 17.5	G 0.15	

From 12 observations 1993 Jan. 28-Feb. 18.

1993 BD3
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	355.47580	(2000.0)	P	Q
n	0.47126400	Peri. 168.38608	-0.53604714	-0.84411430
a	1.6354096	Node 314.02769	+0.77327933	-0.48567563
e	0.3752581	Incl. 0.88922	+0.33866287	-0.22713482
P	2.09	H 26.0	G 0.15	

From 15 observations 1993 Jan. 26-31.

1993 BU3
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	3.93638	(2000.0)	P	Q
n	0.26559783	Peri. 144.14291	-0.18610898	-0.98049405
a	2.3969172	Node 316.48360	+0.87871392	-0.13731967
e	0.5114730	Incl. 5.26674	+0.43957399	-0.14062262
P	3.71	H 21.0	G 0.15	

From 10 observations 1993 Jan. 29-Feb. 1.

1993 BW3
Epoch 1993 Feb. 2.0 TT = JDT 2449020.5 Marsden

M	54.80491	(2000.0)	P	Q
n	0.31345241	Peri. 74.14024	+0.79320396	-0.55875622
a	2.1462895	Node 318.96041	+0.31304020	+0.71517372
e	0.5288042	Incl. 21.63850	+0.52233449	+0.41990243
P	3.14	H 14.5	G 0.15	

From 10 observations 1993 Jan. 30-Feb. 18.

1993 BX3
Epoch 1993 Feb. 2.0 TT = JDT 2449020.5 Marsden

M	16.47561	(2000.0)	P	Q
n	0.59523552	Peri. 289.77030	-0.26679388	-0.96374660
a	1.3996201	Node 175.69823	+0.90155539	-0.25092166
e	0.2830413	Incl. 2.80848	+0.34061548	-0.09072378
P	1.66	H 21.0	G 0.15	

From 11 observations 1993 Jan. 31-Feb. 16.

1993 BL12 = 1988 XC5
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	30.15086	(2000.0)	P	Q
n	0.27147751	Peri. 16.00325	-0.01443106	-0.99750511
a	2.3621827	Node 74.86274	+0.90935724	-0.04182984
e	0.1563700	Incl. 4.10517	+0.41576574	+0.05686668
P	3.63	H 13.7	G 0.15	

Residuals in seconds of arc

881205	381	1.1+	0.9-	930130	896	0.7+	0.3-	930213	402	0.7-	0.6-
881206	381	0.8-	0.2+	930130	896	0.8-	0.4-	930213	402	0.5-	1.4+
881207	381	0.4-	0.3+	930210	896	(3.4-	0.2+)Y	930214	402	0.7+	0.2-
881208	381	0.0	0.4+	930210	896	0.5+	0.5+ Y	930214	402	0.0	0.4-

1993 BM12 = 1955 BE1 = 1974 CJ = 1976 UO2 = 1991 RW10
Id. G. V. Williams; 1989 CH4 = 1976 UO2 (MPC 15252) is invalid, therefore 1989 CH4 = 1979 QY7 (ibid.) is unsupported
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	307.22362	(2000.0)	P	Q
n	0.25998155	Peri. 229.25295	-0.97867093	+0.20454653
a	2.4313139	Node 322.53858	-0.17776518	-0.88974369
e	0.1276151	Incl. 1.79736	-0.10296965	-0.40806479
P	3.79	H 13.5	G 0.15	

Residuals in seconds of arc

550129	059	(71.2-	95.7-)	910916	675	0.5+	1.5-	930128	809	0.8-	1.4-
740214	095	1.6+	2.1+	910916	675	0.5+	0.4-	930128	809	1.2-	1.2-
740218	095	0.4-	2.4+	930122	809	1.1-	2.4-	930210	399	1.5+	0.7-
761024	381	0.5-	0.4+	930122	809	1.5-	2.1-	930210	399	2.1+	1.4+
761024	381	1.9-	0.7+	930122	809	1.4-	1.9-	930213	399	1.5+	1.6+
761026	095	1.2+	1.5+	930122	399	0.9-	1.9+	930213	399	1.1+	1.4+
910910	675	0.8+	0.2+	930122	399	0.5-	0.3+				
910910	675	0.6-	0.4-	930128	809	0.5-	1.3-				

1993 DA
Epoch 1993 Feb. 2.0 TT = JDT 2449020.5 Marsden

M	171.98565	(2000.0)	P	Q
n	1.09040414	Peri. 352.55527	+0.78811708	+0.60577736
a	0.9348553	Node 329.31253	-0.55314232	+0.61926564
e	0.0945544	Incl. 12.34483	-0.27000934	+0.49954365
P	0.90	H 26.5	G 0.15	

From 18 observations 1993 Feb. 17-18.

2592 P-L = 1993 BC7
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	247.81096	(2000.0)	P	Q
n	0.25598487	Peri. 73.65482	-0.33566757	+0.94196591
a	2.4565552	Node 176.71799	-0.89544613	-0.31735211
e	0.0878120	Incl. 5.25622	-0.29240982	-0.10948909
P	3.85	H 14.5	G 0.15	

Residuals in seconds of arc

600924	675	0.6+	0.0	601025	675	0.2+	0.6-	930128	809	0.7+	0.2+
600928	675	0.8-	0.7+	601026	675	0.3-	0.0	930128	809	0.6-	0.4+
600929	675	0.0	0.3-	930123	809	1.1+	0.6-	930128	809	0.1-	0.0
601017	675	0.9+	1.0-	930123	809	0.7-	0.9+				
601022	675	0.6-	1.2+	930123	809	0.4-	0.9-				

3027 P-L = 1991 PV8 = 1992 YA2

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	136.04310	(2000.0)	P	Q	
n	0.25241592	Peri.	24.15208	+0.66510474	+0.73942452
a	2.4796567	Node	287.71848	-0.70172240	+0.57108301
e	0.1533860	Incl.	6.28864	-0.25538473	+0.35653272
P	3.90	H	14.0	G 0.15	

Residuals in seconds of arc

600924	675	0.3+	0.1+	600929	675	1.3-	0.5+	921219	010	1.6+	1.0-
600924	675	1.2+	0.1+	910805	675	0.3-	0.5-	921219	010	0.8+	0.1+
600924	675	0.3-	0.1+	910805	675	0.1-	0.1-	921219	010	0.6+	0.7+
600925	675	0.1+	0.8+	910806	809	(1.0+	2.4-)	921220	010	1.6+	0.6-
600925	675	0.9+	0.3-	910806	809	1.4+	2.0-	930116	010	0.7-	0.2-
600925	675	0.2+	0.7-	910806	809	(2.2+	2.5-)	930116	010	(2.3-	0.2-)
600926	675	0.3-	0.8-	910808	675	0.3-	0.7+	930116	010	2.1-	0.7-
600926	675	0.3-	0.7+	910808	675	0.2-	0.9+	930117	010	(3.4-	0.7+)
600926	675	1.6+	1.0-	910814	808	(52.9-	2.2+)	930117	010	1.9-	0.9+
600927	675	1.2-	0.0	910814	808	(54.2-	2.1+)	930117	010	1.1-	0.0
600928	675	0.3-	0.9+	921218	010	(2.2+	0.3-)				
600929	675	0.6-	0.5+	921219	010	0.7+	0.6-				

4087 P-L = 1993 BJ1

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	312.43351	(2000.0)	P	Q	
n	0.25227710	Peri.	155.94050	-0.93310378	-0.35960245
a	2.4805662	Node	2.98555	+0.32391597	-0.84271232
e	0.1139008	Incl.	2.03213	+0.15619147	-0.40065199
P	3.91	H	14.5	G 0.15	

Residuals in seconds of arc

600924	675	0.9-	1.5+	600928	675	1.2+	1.3-	930116	010	0.6+	0.7+
600924	675	0.5-	0.0	601017	675	0.5-	0.3+	930116	010	0.6-	0.4-
600925	675	0.3-	0.6+	601017	675	0.5+	1.1+	930117	010	0.6-	0.1+
600926	675	0.7+	0.0	601022	675	1.0-	0.3+	930117	010	1.2-	0.1-
600926	675	0.0	1.1-	601026	675	0.4+	0.7-	930117	010	0.3-	0.2+
600927	675	0.3+	0.5-	930116	010	2.0+	0.6-				

6063 P-L = 1992 UZ8

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	88.75836	(2000.0)	P	Q	
n	0.30994861	Peri.	5.19479	+0.76395244	+0.64458779
a	2.1624343	Node	314.62409	-0.59351972	+0.68386277
e	0.1450913	Incl.	2.39318	-0.25320152	+0.34181616
P	3.18	H	16.0	G 0.15	

Residuals in seconds of arc

600924	675	0.3-	0.4+	601017	675	0.1+	0.0	921031	033	0.2+	0.3+
600925	675	0.1+	0.6+	601022	675	0.8-	1.1-	921031	033	0.1-	0.1+
600926	675	0.2-	0.5-	601024	675	1.0+	0.3-	921101	033	0.3-	0.1+
600928	675	0.2-	0.7+	601026	675	0.4+	0.4-				

6530 P-L = 1952 QQ = 1993 AH
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 62.09527 (2000.0) P Q
n 0.25180350 Peri. 227.84545 +0.76946353 -0.63853940
a 2.4836756 Node 171.80360 +0.61097934 +0.72956105
e 0.1565056 Incl. 5.59658 +0.18609170 +0.24496553
P 3.91 H 13.3 G 0.15
Residuals in seconds of arc

520828	024	2.3-	3.2+	600928	675	0.9+	0.7-	930113	400	0.1+	1.1+
520828	024	0.8+	2.9+	601017	675	0.9-	0.1+	930113	400	0.8-	1.5+
600924	675	1.2+	1.1-	601022	675	0.6-	0.1+	930114	400	(4.8+	1.6+)
600926	675	0.6+	1.6-	601025	675	0.8-	0.7+	930114	400	1.2+	0.7+
600927	675	0.5+	1.2-	601026	675	0.2-	0.2-				

2066 T-1 = 1979 XF1 = 1985 RR2 = 1990 BR2 = 1992 YD4
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano
M 55.73110 (2000.0) P Q
n 0.30537252 Peri. 252.48369 +0.87335245 -0.48584171
a 2.1839838 Node 136.56653 +0.46391017 +0.80786594
e 0.1353219 Incl. 2.90414 +0.14846835 +0.33363222
P 3.23 H 14.2 G 0.15
Residuals in seconds of arc

710324	675	0.6-	3.0-	850905	809	0.4+	0.8-	900130	046	(2.0+	3.9-)
710325	675	0.1+	0.6-	850905	809	0.9+	0.1+	921217	399	0.3-	1.0+
710325	675	0.5-	0.1-	850910	809	0.0	1.0-	921217	399	0.1-	0.8+
710326	675	0.2-	0.8-	850910	809	0.1-	0.6-	921218	403	2.9+	1.3+
710327	675	0.1+	0.9-	850910	809	0.1-	0.1-	921218	403	0.7+	1.3-
791214	095	0.3+	3.3-	900129	046	(1.0-	4.2-)	930113	399	0.9-	0.9+
791218	095	0.1-	1.6-	900129	046	1.9-	0.5-	930113	399	1.3-	0.8+
850905	809	0.0	1.7-	900130	046	(3.3+	5.7-)				

3266 T-1 = 1982 DG5 = 1993 BT5
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden
M 321.97052 (2000.0) P Q
n 0.17553497 Peri. 177.05278 -0.99980466 +0.01973714
a 3.1590775 Node 4.07859 -0.01842034 -0.91138166
e 0.1210937 Incl. 0.83993 -0.00716470 -0.41108869
P 5.61 H 14.0 G 0.15
Residuals in seconds of arc

710324	675	0.4+	0.6-	710416	675	0.9+	0.6-	930127	010	0.1-	0.2-
710325	675	0.7-	0.2-	710416	675	0.6-	0.8+	930127	010	0.1+	0.7-
710326	675	0.3-	0.9-	710514	675	1.2-	0.4-	930127	010	(2.8+	1.3-)
710326	675	(0.3+	2.2-)	710514	675	0.2-	0.2+	930128	010	0.6-	0.2+
710327	675	0.5+	0.1+	710516	675	1.2+	0.1+	930128	010	0.1+	0.6+
710402	675	0.2-	1.3+	820222	010	(15.5-	8.4+)	930128	010	0.7+	0.2+

4193 T-1 = 1991 PF27 = 1993 BZ5
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden
M 51.76084 (2000.0) P Q
n 0.26418193 Peri. 301.42027 +0.53515948 -0.84335707
a 2.4054739 Node 116.14905 +0.79223228 +0.48112803
e 0.2039379 Incl. 3.09782 +0.29321042 +0.23930040
P 3.73 H 15.0 G 0.15
Residuals in seconds of arc

710324	675	1.9+	1.0-	910805	809	0.0	0.7-	930127	010	0.4+	0.7-
710326	675	0.0	0.2+	910805	809	0.5+	0.1+	930128	010	0.3-	0.4-
710326	675	1.1-	0.8+	910805	809	0.4-	0.1-	930128	010	0.1-	0.2-
710327	675	0.8+	1.3-	930127	010	0.2+	0.2+	930128	010	0.4-	0.1+
710402	675	1.5-	1.4+	930127	010	0.1-	0.3+				

4262 T-1 = 1980 FM10 = 1992 YS4
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	305.73523	(2000.0)	P	Q
n	0.21715895	Peri. 91.13465	-0.96855364	-0.24258566
a	2.7412642	Node 74.82800	+0.19936572	-0.88962509
e	0.0821821	Incl. 3.28358	+0.14885277	-0.38693591
P	4.54	H 13.5	G 0.15	

Residuals in seconds of arc

710324 675	1.7+	1.1-	710416 675	1.2+	0.9-	921229 033	0.1+	0.3-
710326 675	0.4-	0.1-	710416 675	1.9+	0.1+	921230 033	0.7+	0.6+
710326 675	1.5-	0.4+	710513 675	0.7+	1.0+	930101 033	0.8-	0.0
710327 675	2.1-	2.3-	710514 675	0.4+	0.4+			
710402 675	1.9-	2.1+	800316 095	0.3+	0.6+			

1152 T-2 = 1992 UU8
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	110.35650	(2000.0)	P	Q
n	0.26356058	Peri. 275.52374	+0.32555002	+0.94531452
a	2.4092530	Node 13.52653	-0.83024574	+0.29588698
e	0.1949603	Incl. 4.89075	-0.45244799	+0.13722739
P	3.74	H 14.5	G 0.15	

Residuals in seconds of arc

730919 675	0.6+	0.8-	730925 675	0.8+	0.8+	731004 675	0.8-	1.5-
730919 675	0.9+	1.0+	730929 675	0.5-	1.5-	731004 675	1.1+	0.8+
730919 675	0.3+	1.6-	730929 675	0.1+	0.2+	731005 675	0.4-	0.8+
730919 675	0.1+	1.5+	730929 675	1.6-	1.8-	731005 675	0.5+	0.1-
730920 675	1.5-	0.8-	730929 675	0.2+	0.3+	731005 675	0.2-	0.8+
730920 675	1.4+	0.3+	730930 675	0.2+	1.4-	731005 675	0.6+	1.2+
730924 675	0.6-	1.8-	730930 675	0.7-	1.6+	921027 372	1.5-	0.3-
730924 675	0.3-	1.8+	730930 675	0.5+	2.0-	921027 372	2.7-	1.3+
730924 675	0.4-	2.1+	730930 675	0.1-	1.3+	921031 033	1.6+	0.5-
730925 675	0.4-	0.1-	731004 675	0.2-	2.4-	921031 033	1.3+	0.0
730925 675	0.5-	1.3-	731004 675	1.1+	2.7+	921101 033	1.3+	0.4-

4180 T-2 = 1991 NQ5 = 1993 BU4
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Marsden

M	99.74121	(2000.0)	P	Q
n	0.26972827	Peri. 263.53989	+0.99130583	-0.12800373
a	2.3723844	Node 103.81125	+0.12968241	+0.91133260
e	0.2348693	Incl. 1.79747	+0.02225358	+0.39126453
P	3.65	H 14.5	G 0.15	

Residuals in seconds of arc

730919 675	1.5+	0.7-	730930 675	0.2+	0.7-	910711 809	0.3-	0.1+
730919 675	1.7+	0.1+	730930 675	0.1-	0.2+	910711 809	0.2+	0.2+
730920 675	0.1-	0.4-	731004 675	0.0	0.6+	910711 809	0.8+	0.3+
730924 675	0.8-	1.0+	731004 675	0.2-	0.7-	930127 010	1.2-	0.4+
730924 675	0.4-	1.0+	731005 675	0.5-	0.4-	930127 010	0.4-	0.9+
730925 675	0.5-	0.2-	731005 675	0.4-	0.7+	930127 010	0.5-	0.7-
730925 675	0.7-	1.1-	910710 809	0.8-	0.7-	930128 010	0.8+	0.3-
730929 675	0.1+	0.2-	910710 809	0.1-	0.6-	930128 010	0.0	0.4-
730929 675	0.5+	0.4+	910710 809	0.4+	0.7-	930128 010	0.8+	2.0-

3186 T-3 = 1981 YL1 = 1993 BE
Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Williams

M	38.48929	(2000.0)	P	Q
n	0.26993659	Peri. 2.27098	+0.54099699	-0.83971314
a	2.3711637	Node 54.98112	+0.77071852	+0.47265589
e	0.1923448	Incl. 3.28634	+0.33662326	+0.26735416
P	3.65	H 14.0	G 0.15	

Residuals in seconds of arc

771007	675	0.1+	0.6+	771017	675	1.2-	0.0	811228	033	0.2+	0.7+
771011	675	0.5-	0.7+	771017	675	0.3-	0.3-	930120	385	0.7-	0.4+
771011	675	0.0	0.7+	771021	675	1.4-	1.2+	930120	385	0.1+	0.0
771012	675	0.9-	0.0	771021	675	1.5-	0.4+	930121	385	0.1+	0.9-
771012	675	1.2+	0.4-	771022	675	1.0+	0.8-	930121	385	0.4+	0.5-
771016	675	0.9+	1.3-	771022	675	1.0+	0.5-				
771016	675	1.6+	0.4-	811228	033	0.1-	0.4+				

3422 T-3 = 1993 CT

Epoch 1993 Jan. 13.0 TT = JDT 2449000.5 Nakano

M	180.00192		(2000.0)	P	Q
n	0.21763185	Peri.	299.81690	+0.84754616	+0.52279938
a	2.7372917	Node	28.95314	-0.39804388	+0.74003360
e	0.0296765	Incl.	10.87808	-0.35103644	+0.42312064
P	4.53	H	12.4	G 0.15	

Residuals in seconds of arc

771007	675	1.1+	0.4+	771012	675	1.4+	1.2-	771021	675	0.6-	0.5+
771011	675	2.0-	0.6+	771012	675	0.9-	1.0-	771022	675	2.0+	0.3+
771011	675	0.3+	0.1-	771016	675	0.1-	0.2+	771022	675	1.3+	0.8-
771011	675	1.0-	1.5+	771016	675	1.1-	0.2-	930214	385	0.3+	0.3-
771011	675	0.9+	0.2-	771017	675	0.9-	0.1+	930214	385	0.3-	0.9+
771012	675	1.0+	1.3-	771017	675	0.1-	0.6+	930215	385	0.1+	0.6-
771012	675	0.9-	0.1+	771021	675	0.5-	0.7+				

* * * * *

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1993 BW2 a,e,i = 1.33, 0.30, 22 Elements MPC 21804

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1993 03	04	07 48.32	+51 48.0	0.465	1.289	120.1	41.7	18.0
1993 03	14	08 11.35	+51 31.1	0.564	1.335	115.1	42.4	18.5
1993 03	24	08 34.28	+50 23.1	0.666	1.379	110.5	42.6	19.0
1993 04	03	08 56.94	+48 40.5	0.770	1.422	106.2	42.5	19.3
1993 04	13	09 19.11	+46 33.9	0.875	1.462	102.0	42.1	19.7
1993 04	23	09 40.72	+44 09.3	0.982	1.500	98.0	41.6	20.0
1993 05	03	10 01.80	+41 31.5	1.089	1.535	94.0	40.9	20.2

1991 AM a,e,i = 1.70, 0.70, 30 Elements MPC 21792

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1993 03	04	08 13.78	+39 55.2	0.840	1.662	130.1	27.2	18.4
1993 03	14	07 47.86	+42 42.5	0.855	1.565	115.4	35.0	18.6
1993 03	24	07 28.02	+44 35.9	0.880	1.464	102.3	41.7	18.7
1993 04	03	07 15.22	+45 55.2	0.904	1.357	90.7	47.5	18.7
1993 04	13	07 08.77	+46 58.4	0.919	1.244	80.5	52.7	18.7
1993 04	23	07 07.24	+47 56.8	0.918	1.125	71.5	57.9	18.7

1980 AA a,e,i = 1.89, 0.44, 4 Elements MPC 21783

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1993 03	04	09 24.59	-00 26.7	0.223	1.198	155.4	20.2	16.6
1993 03	14	09 42.43	-01 10.4	0.283	1.250	151.3	22.4	17.3
1993 03	24	09 58.24	-01 28.4	0.353	1.306	146.4	25.0	18.0
1993 04	03	10 13.41	-01 40.4	0.434	1.365	141.0	27.5	18.6
1993 04	13	10 28.52	-01 56.4	0.526	1.425	135.4	29.6	19.2
1993 04	23	10 43.77	-02 20.7	0.628	1.487	129.7	31.4	19.7
1993 05	03	10 59.31	-02 55.5	0.740	1.549	124.0	32.6	20.2
1993 05	13	11 15.08	-03 40.4	0.862	1.611	118.5	33.5	20.6
1993 05	23	11 31.05	-04 34.4	0.992	1.672	113.0	33.9	21.0

1993 BW3 a,e,i = 2.15, 0.53, 22 Elements MPC 21804

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1993	03 04	09 59.76	-01 17.0	1.266	2.234	163.2	7.4	17.3
1993	03 14	09 47.08	-00 58.2	1.364	2.292	152.5	11.6	17.7
1993	03 24	09 38.21	-00 38.1	1.486	2.349	141.4	15.4	18.1
1993	04 03	09 33.20	-00 22.1	1.628	2.404	130.9	18.3	18.4
1993	04 13	09 31.67	-00 13.5	1.784	2.457	121.1	20.5	18.7
1993	04 23	09 33.09	-00 13.7	1.951	2.508	112.0	21.8	19.0
1993	05 03	09 36.94	-00 23.4	2.126	2.558	103.6	22.5	19.3
1993	05 13	09 42.74	-00 42.5	2.303	2.605	95.7	22.7	19.5
1993	05 23	09 50.08	-01 10.6	2.482	2.651	88.2	22.4	19.7

1993 BX3 a,e,i = 1.40, 0.28, 3 Elements MPC 21805

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1993	03 04	11 27.42	-01 22.7	0.135	1.124	169.5	9.3	17.5
1993	03 14	11 26.98	+02 38.6	0.169	1.163	177.7	2.0	17.7
1993	03 24	11 27.13	+05 12.9	0.211	1.204	166.9	10.9	18.7
1993	04 03	11 29.51	+06 32.6	0.263	1.246	156.9	18.4	19.5
1993	04 13	11 34.56	+06 54.3	0.323	1.288	148.1	24.3	20.2
1993	04 23	11 42.09	+06 33.5	0.393	1.331	140.2	28.9	20.9
1993	05 03	11 51.86	+05 41.3	0.471	1.374	133.0	32.4	21.4

Comet Spacewatch (1992h) Elements MPC 21758

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1993	03 04	13 37.42	+35 00.8	2.752	3.512	133.8	11.8	19.2
1993	03 14	13 22.43	+39 58.4	2.684	3.464	135.5	11.6	19.0
1993	03 24	13 03.00	+44 36.1	2.662	3.417	132.7	12.4	19.0
1993	04 03	12 39.70	+48 32.5	2.685	3.373	126.2	13.8	18.9
1993	04 13	12 13.99	+51 33.3	2.746	3.330	117.5	15.5	18.9
1993	04 23	11 48.04	+53 34.7	2.838	3.290	107.9	16.9	18.9
1993	05 03	11 24.12	+54 42.7	2.950	3.252	98.2	17.9	19.0
1993	05 13	11 03.87	+55 10.0	3.074	3.216	88.8	18.3	19.0
1993	05 23	10 47.99	+55 09.6	3.201	3.183	79.9	18.3	19.1
1993	06 02	10 36.48	+54 53.1	3.323	3.152	71.5	17.8	19.1
1993	06 12	10 28.88	+54 29.4	3.436	3.124	63.8	17.0	19.1
1993	06 22	10 24.61	+54 04.4	3.535	3.099	56.9	15.9	19.2
1993	07 02	10 23.10	+53 42.3	3.615	3.076	50.9	14.9	19.2
1993	07 12	10 23.83	+53 26.1	3.674	3.057	46.0	13.8	19.2
1993	07 22	10 26.39	+53 18.0	3.710	3.041	42.6	13.1	19.2
1993	08 01	10 30.43	+53 20.0	3.723	3.028	40.8	12.6	19.2

1983 RB a,e,i = 2.22, 0.51, 19 Elements MPC 8394

Date	TT	R. A. (2000)	Decl.	Delta	r	Variation		V
1993	03 04	15 51.19	-03 50.2	0.971	1.572	-3.60	+4.6	18.4
1993	03 14	16 19.45	-00 51.9	0.850	1.505	-4.20	+5.9	18.1
1993	03 24	16 50.07	+03 06.4	0.745	1.439	-4.88	+8.4	17.7
1993	04 03	17 23.38	+08 05.2	0.659	1.376	-5.62	+12.6	17.5
1993	04 13	17 59.78	+13 53.6	0.593	1.315	-6.39	+19.2	17.2
1993	04 23	18 39.40	+20 06.5	0.546	1.259	-7.11	+28.6	17.1
1993	05 03	19 22.10	+26 05.7	0.516	1.209	-7.67	+40.0	17.0
1993	05 13	20 07.33	+31 13.1	0.500	1.167	-7.96	+52.0	17.0
1993	05 23	20 53.94	+35 02.5	0.494	1.133	-7.92	+62.7	17.0
1993	06 02	21 40.39	+37 22.1	0.493	1.110	-7.56	+70.6	17.0
1993	06 12	22 25.16	+38 14.4	0.494	1.099	-6.99	+75.1	17.0
1993	06 22	23 06.79	+37 48.3	0.495	1.100	-6.34	+76.1	17.0
1993	07 02	23 44.15	+36 12.9	0.493	1.113	-5.76	+73.8	17.0
1993	07 12	00 16.56	+33 36.0	0.490	1.138	-5.30	+68.5	17.0
1993	07 22	00 43.37	+30 01.7	0.483	1.173	-5.01	+60.6	16.9
1993	08 01	01 04.10	+25 30.3	0.476	1.217	-4.89	+50.0	16.8

1990 TR a,e,i = 2.14, 0.44, 8 Elements MPC 20020

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1993	03 04	16 39.73	-26 56.0	2.027	2.278	91.4	25.8	19.0
1993	03 14	16 52.41	-27 58.8	1.856	2.230	98.4	26.2	18.8
1993	03 24	17 03.80	-29 02.7	1.688	2.180	105.7	26.1	18.5
1993	04 03	17 13.48	-30 09.6	1.525	2.129	113.3	25.6	18.2
1993	04 13	17 20.97	-31 21.2	1.371	2.076	121.2	24.4	17.9
1993	04 23	17 25.64	-32 39.2	1.228	2.023	129.6	22.5	17.6
1993	05 03	17 26.77	-34 04.1	1.097	1.968	138.5	19.8	17.2
1993	05 13	17 23.65	-35 34.3	0.981	1.913	147.7	16.4	16.7
1993	05 23	17 15.68	-37 04.2	0.883	1.857	156.6	12.5	16.3
1993	06 02	17 02.93	-38 23.9	0.806	1.800	163.1	9.5	15.9
1993	06 12	16 46.55	-39 20.7	0.748	1.743	162.2	10.3	15.7
1993	06 22	16 28.94	-39 45.0	0.711	1.686	154.3	15.1	15.7
1993	07 02	16 13.39	-39 36.1	0.693	1.629	144.1	21.5	15.8
1993	07 12	16 02.68	-39 03.6	0.688	1.573	133.8	27.8	15.9
1993	07 22	15 58.44	-38 20.7	0.693	1.518	124.2	33.6	16.0
1993	08 01	16 01.22	-37 38.1	0.704	1.465	115.8	38.6	16.1
1993	08 11	16 10.71	-37 00.5	0.717	1.414	108.5	42.8	16.2
1993	08 21	16 26.41	-36 26.7	0.730	1.367	102.3	46.3	16.3
1993	08 31	16 47.79	-35 51.5	0.741	1.324	97.1	49.1	16.3
1993	09 10	17 14.16	-35 06.6	0.750	1.287	93.0	51.4	16.3
1993	09 20	17 44.92	-34 02.4	0.758	1.255	89.7	53.2	16.3
1993	09 30	18 19.28	-32 29.1	0.765	1.231	87.2	54.4	16.4

1988 WC a,e,i = 2.22, 0.40, 22 Elements MPC 20147

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1993	03 04	18 17.76	-19 54.6	2.428	2.276	69.4	24.1	18.5
1993	03 14	18 29.99	-18 38.8	2.344	2.321	76.4	24.6	18.5
1993	03 24	18 40.11	-17 15.7	2.254	2.365	83.9	24.8	18.5
1993	04 03	18 47.91	-15 46.6	2.161	2.408	91.7	24.5	18.4
1993	04 13	18 53.17	-14 12.6	2.067	2.449	100.0	23.8	18.3
1993	04 23	18 55.66	-12 35.0	1.976	2.490	108.8	22.5	18.2
1993	05 03	18 55.19	-10 55.9	1.892	2.529	118.2	20.6	18.1
1993	05 13	18 51.71	-09 17.5	1.819	2.567	127.9	18.1	18.0
1993	05 23	18 45.29	-07 43.1	1.761	2.603	138.0	15.1	17.8
1993	06 02	18 36.33	-06 16.8	1.725	2.639	147.8	11.8	17.7
1993	06 12	18 25.52	-05 02.8	1.712	2.673	156.2	8.8	17.6
1993	06 22	18 13.84	-04 05.0	1.726	2.706	160.5	7.2	17.6
1993	07 02	18 02.40	-03 26.0	1.768	2.737	157.9	8.0	17.7
1993	07 12	17 52.24	-03 05.9	1.837	2.768	150.5	10.4	17.9
1993	07 22	17 44.11	-03 03.1	1.930	2.797	141.4	13.1	18.1
1993	08 01	17 38.47	-03 14.5	2.043	2.825	132.0	15.5	18.4
1993	08 11	17 35.46	-03 36.2	2.173	2.851	122.7	17.4	18.6
1993	08 21	17 34.99	-04 04.8	2.315	2.876	113.8	18.8	18.8
1993	08 31	17 36.90	-04 37.0	2.465	2.900	105.3	19.6	19.0
1993	09 10	17 40.91	-05 10.1	2.621	2.923	97.2	20.0	19.1

Periodic Comet Lovas 2 (1986 XIII) Elements MPC 16380

Date	TT	R. A. (2000)	Decl.	Delta	r	Variation		m1
1993	03 14	21 36.56	-13 51.9	2.460	1.696	-1.47	-7.8	21.2
1993	03 24	22 04.93	-11 17.8	2.373	1.646	-1.52	-8.8	21.0
1993	04 03	22 33.59	-08 28.2	2.290	1.601	-1.57	-9.7	20.8
1993	04 13	23 02.55	-05 25.8	2.215	1.561	-1.61	-10.5	20.7
1993	04 23	23 31.78	-02 13.9	2.148	1.527	-1.65	-11.0	20.5
1993	05 03	00 01.28	+01 03.5	2.089	1.499	-1.68	-11.2	20.4
1993	05 13	00 31.02	+04 21.6	2.038	1.479	-1.70	-11.1	20.2
1993	05 23	01 00.97	+07 35.7	1.995	1.466	-1.71	-10.7	20.2
1993	06 02	01 31.04	+10 40.8	1.960	1.462	-1.72	-10.0	20.1

1993 06 12	02 01.14	+13 32.5	1.931	1.466	-1.71	-9.0	20.1
1993 06 22	02 31.10	+16 06.9	1.907	1.478	-1.70	-7.8	20.1
1993 07 02	03 00.70	+18 21.3	1.886	1.497	-1.67	-6.6	20.1
1993 07 12	03 29.70	+20 14.1	1.866	1.524	-1.63	-5.3	20.2
1993 07 22	03 57.83	+21 44.8	1.847	1.558	-1.58	-4.0	20.3
1993 08 01	04 24.75	+22 54.0	1.826	1.597	-1.53	-2.8	20.3
1993 08 11	04 50.18	+23 43.4	1.803	1.642	-1.47	-1.8	20.4
1993 08 21	05 13.82	+24 15.2	1.775	1.692	-1.42	-0.8	20.5
1993 08 31	05 35.36	+24 32.4	1.743	1.745	-1.37	+0.0	20.6
1993 09 10	05 54.55	+24 38.1	1.705	1.802	-1.33	+0.7	20.7
1993 09 20	06 11.08	+24 35.7	1.664	1.861	-1.31	+1.2	20.8
1993 09 30	06 24.65	+24 28.4	1.618	1.922	-1.30	+1.7	20.9
1993 10 10	06 34.97	+24 19.3	1.570	1.985	-1.32	+2.0	21.0
1993 10 20	06 41.70	+24 10.9	1.521	2.050	-1.37	+2.3	21.0
1993 10 30	06 44.57	+24 05.2	1.476	2.115	-1.44	+2.5	21.1
1993 11 09	06 43.43	+24 03.0	1.439	2.181	-1.52	+2.5	21.2
1993 11 19	06 38.36	+24 03.6	1.414	2.247	-1.63	+2.4	21.3
1993 11 29	06 29.89	+24 05.2	1.407	2.314	-1.72	+2.1	21.4
1993 12 09	06 19.00	+24 05.5	1.422	2.381	-1.78	+1.6	21.5
1993 12 19	06 07.10	+24 02.4	1.465	2.447	-1.80	+1.0	21.7
1993 12 29	05 55.75	+23 55.8	1.537	2.514	-1.76	+0.5	21.9
1994 01 08	05 46.24	+23 46.9	1.636	2.580	-1.68	+0.0	22.2

Periodic Comet Reinmuth 2 Elements MPC 18258

Date TT	R. A. (2000) Decl.	Delta	r	Elong.	Phase	m2
1993 03 24	15 07.59 -26 22.8	2.947	3.680	131.1	11.8	20.9
1993 04 03	15 03.84 -26 26.3	2.803	3.639	141.5	9.8	20.7
1993 04 13	14 58.20 -26 19.0	2.681	3.598	152.1	7.5	20.5
1993 04 23	14 51.01 -26 00.0	2.585	3.556	162.4	4.9	20.2
1993 05 03	14 42.81 -25 29.3	2.516	3.514	170.1	2.8	20.0
1993 05 13	14 34.32 -24 48.8	2.477	3.471	167.6	3.6	20.0
1993 05 23	14 26.28 -24 01.6	2.466	3.427	158.2	6.3	20.1
1993 06 02	14 19.42 -23 12.1	2.483	3.383	147.6	9.2	20.2
1993 06 12	14 14.26 -22 24.6	2.523	3.339	137.0	12.0	20.4
1993 06 22	14 11.12 -21 43.2	2.583	3.294	126.8	14.3	20.5
1993 07 02	14 10.17 -21 10.5	2.658	3.249	117.1	16.2	20.6
1993 07 12	14 11.40 -20 48.2	2.743	3.203	107.8	17.6	20.6
1993 07 22	14 14.72 -20 36.6	2.834	3.157	99.0	18.5	20.7
1993 08 01	14 19.99 -20 35.5	2.929	3.111	90.7	19.0	20.8

Periodic Comet Kowal 1 (1991i) Elements MPC 20775

Date TT	R. A. (2000) Decl.	Delta	r	Elong.	Phase	m1
1993 03 24	16 49.25 -25 09.9	4.460	4.883	109.4	11.1	20.6
1993 04 03	16 49.89 -25 20.6	4.329	4.894	119.1	10.3	20.6
1993 04 13	16 49.05 -25 28.8	4.210	4.905	129.1	9.1	20.5
1993 04 23	16 46.78 -25 34.2	4.109	4.916	139.3	7.7	20.5
1993 05 03	16 43.23 -25 36.7	4.030	4.927	149.8	5.9	20.5
1993 05 13	16 38.67 -25 35.9	3.976	4.939	160.3	3.9	20.4
1993 05 23	16 33.42 -25 31.9	3.949	4.951	170.8	1.9	20.4
1993 06 02	16 27.89 -25 25.1	3.951	4.963	175.7	0.9	20.4
1993 06 12	16 22.52 -25 16.3	3.982	4.975	166.4	2.7	20.5
1993 06 22	16 17.68 -25 06.4	4.042	4.987	156.0	4.8	20.5
1993 07 02	16 13.75 -24 56.6	4.127	5.000	145.6	6.6	20.6
1993 07 12	16 10.95 -24 48.1	4.236	5.012	135.5	8.2	20.6

Comet Shoemaker-Levy (1991 XXIV) Elements MPC 21758

Date TT	R. A. (2000) Decl.	Delta	r	Elong.	Phase	m1
1993 03 24	21 56.02 -04 40.8	5.909	5.121	34.7	6.4	17.0
1993 04 03	22 01.94 -04 42.1	5.888	5.201	42.9	7.5	17.0

1993 04 13	22 07.17	-04 45.9	5.848	5.280	51.4	8.5	17.1
1993 04 23	22 11.61	-04 53.2	5.791	5.360	60.0	9.4	17.1
1993 05 03	22 15.19	-05 05.1	5.720	5.439	68.9	10.0	17.1
1993 05 13	22 17.83	-05 22.7	5.639	5.518	78.0	10.3	17.2
1993 05 23	22 19.46	-05 46.7	5.551	5.597	87.4	10.4	17.2
1993 06 02	22 20.02	-06 17.9	5.462	5.676	97.0	10.2	17.2
1993 06 12	22 19.46	-06 56.8	5.376	5.755	106.9	9.7	17.3
1993 06 22	22 17.79	-07 43.5	5.299	5.833	117.2	8.9	17.3
1993 07 02	22 15.02	-08 37.9	5.235	5.911	127.7	7.8	17.3
1993 07 12	22 11.26	-09 38.9	5.191	5.989	138.4	6.5	17.4
1993 07 22	22 06.64	-10 45.3	5.170	6.067	149.4	4.9	17.4
1993 08 01	22 01.36	-11 55.1	5.178	6.145	160.6	3.1	17.5
1993 08 11	21 55.68	-13 06.1	5.217	6.222	171.9	1.3	17.5
1993 08 21	21 49.90	-14 16.0	5.289	6.299	176.6	0.5	17.6
1993 08 31	21 44.31	-15 22.3	5.395	6.376	165.4	2.3	17.7
1993 09 10	21 39.19	-16 23.3	5.532	6.453	154.2	3.9	17.8
1993 09 20	21 34.79	-17 17.6	5.698	6.530	143.2	5.3	17.9
1993 09 30	21 31.28	-18 04.4	5.890	6.606	132.3	6.4	18.1
1993 10 10	21 28.77	-18 43.5	6.103	6.682	121.7	7.3	18.2
1993 10 20	21 27.33	-19 15.0	6.332	6.758	111.3	7.9	18.3
1993 10 30	21 26.94	-19 39.3	6.572	6.834	101.2	8.2	18.4
1993 11 09	21 27.57	-19 57.1	6.817	6.909	91.2	8.2	18.6
1993 11 19	21 29.14	-20 08.9	7.062	6.985	81.5	8.0	18.7
1993 11 29	21 31.56	-20 15.7	7.303	7.060	71.9	7.6	18.8
1993 12 09	21 34.72	-20 18.0	7.535	7.134	62.5	7.0	18.9
1993 12 19	21 38.52	-20 16.7	7.754	7.209	53.3	6.3	19.0
1993 12 29	21 42.83	-20 12.5	7.956	7.283	44.2	5.4	19.1
1994 01 08	21 47.56	-20 06.0	8.138	7.358	35.3	4.4	19.2

Periodic Comet Ashbrook-Jackson (1992j) Elements MPC 16380

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1993 03 24	22 17.25	-18 04.9	3.203	2.446	34.4	13.3	17.9
1993 04 03	22 35.73	-16 06.0	3.114	2.425	39.3	15.1	17.8
1993 04 13	22 53.74	-14 03.9	3.020	2.405	44.2	16.9	17.7
1993 04 23	23 11.28	-11 59.7	2.921	2.388	49.1	18.6	17.6
1993 05 03	23 28.31	-09 54.3	2.818	2.372	54.1	20.1	17.5
1993 05 13	23 44.77	-07 48.7	2.711	2.358	59.1	21.6	17.4
1993 05 23	00 00.64	-05 43.8	2.601	2.345	64.2	22.9	17.3
1993 06 02	00 15.80	-03 40.8	2.489	2.335	69.5	24.0	17.2
1993 06 12	00 30.19	-01 40.3	2.375	2.327	74.9	24.9	17.0
1993 06 22	00 43.65	+00 16.7	2.260	2.322	80.6	25.6	16.9
1993 07 02	00 56.02	+02 09.5	2.146	2.318	86.5	26.0	16.8
1993 07 12	01 07.10	+03 57.3	2.033	2.316	92.8	26.0	16.7
1993 07 22	01 16.62	+05 39.5	1.922	2.317	99.5	25.6	16.6
1993 08 01	01 24.28	+07 15.3	1.815	2.320	106.7	24.8	16.4
1993 08 11	01 29.77	+08 44.0	1.715	2.325	114.4	23.4	16.3
1993 08 21	01 32.74	+10 04.5	1.622	2.332	122.9	21.4	16.2
1993 08 31	01 32.93	+11 15.6	1.542	2.341	132.0	18.7	16.1
1993 09 10	01 30.26	+12 16.0	1.476	2.352	141.9	15.3	16.1
1993 09 20	01 24.87	+13 04.0	1.429	2.366	152.4	11.3	16.0
1993 09 30	01 17.35	+13 38.9	1.405	2.381	163.2	7.0	16.0
1993 10 10	01 08.64	+14 01.2	1.404	2.398	172.4	3.2	16.0
1993 10 20	00 59.92	+14 13.4	1.430	2.417	169.7	4.2	16.1
1993 10 30	00 52.41	+14 19.9	1.483	2.437	159.4	8.2	16.2
1993 11 09	00 46.99	+14 25.6	1.559	2.459	148.7	12.1	16.4
1993 11 19	00 44.20	+14 34.9	1.656	2.483	138.3	15.3	16.5
1993 11 29	00 44.21	+14 51.4	1.772	2.508	128.5	17.9	16.7
1993 12 09	00 46.88	+15 16.6	1.903	2.535	119.3	19.8	16.9
1993 12 19	00 51.98	+15 51.1	2.044	2.562	110.7	21.1	17.1

1993 12 29	00 59.20	+16 34.6	2.194	2.591	102.5	21.7	17.3
1994 01 08	01 08.22	+17 25.8	2.350	2.621	94.8	22.0	17.5
1994 01 18	01 18.77	+18 23.7	2.508	2.652	87.4	21.7	17.7
1994 01 28	01 30.60	+19 26.7	2.668	2.684	80.4	21.2	17.9
1994 02 07	01 43.51	+20 33.4	2.826	2.717	73.6	20.4	18.1
1994 02 17	01 57.33	+21 42.5	2.982	2.751	67.0	19.3	18.3
1994 02 27	02 11.91	+22 52.5	3.133	2.785	60.7	18.1	18.4
1994 03 09	02 27.15	+24 02.2	3.279	2.820	54.5	16.7	18.6
1994 03 19	02 42.94	+25 10.6	3.417	2.855	48.4	15.1	18.7
1994 03 29	02 59.19	+26 16.5	3.547	2.891	42.5	13.5	18.9
1994 04 08	03 15.82	+27 19.2	3.668	2.927	36.7	11.8	19.0
1994 04 18	03 32.75	+28 17.8	3.778	2.964	31.1	10.1	19.1

Periodic Comet Howell (1992c) Elements MPC 16379

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1993 03 24	22 21.25	-13 13.6	2.192	1.436	31.3	21.1	17.3
1993 04 03	22 51.41	-10 24.7	2.190	1.461	33.2	22.0	17.3
1993 04 13	23 20.00	-07 33.4	2.191	1.492	35.4	22.9	17.4
1993 04 23	23 47.08	-04 44.1	2.192	1.529	37.9	23.8	17.5
1993 05 03	00 12.71	-02 00.6	2.193	1.572	40.7	24.7	17.7
1993 05 13	00 36.96	+00 34.5	2.192	1.620	43.7	25.5	17.8
1993 05 23	00 59.88	+02 59.2	2.186	1.671	47.1	26.4	17.9
1993 06 02	01 21.49	+05 11.9	2.176	1.726	50.9	27.1	18.1
1993 06 12	01 41.77	+07 12.0	2.160	1.783	55.0	27.8	18.2
1993 06 22	02 00.69	+08 59.0	2.137	1.843	59.5	28.4	18.3
1993 07 02	02 18.15	+10 32.8	2.107	1.904	64.5	28.8	18.4
1993 07 12	02 34.03	+11 53.5	2.069	1.966	69.9	29.0	18.5
1993 07 22	02 48.18	+13 01.5	2.025	2.030	75.7	29.0	18.6
1993 08 01	03 00.36	+13 57.2	1.974	2.093	82.2	28.7	18.7
1993 08 11	03 10.34	+14 41.0	1.918	2.158	89.2	28.0	18.8
1993 08 21	03 17.82	+15 13.4	1.860	2.222	96.9	26.9	18.8
1993 08 31	03 22.51	+15 34.7	1.800	2.286	105.4	25.2	18.9
1993 09 10	03 24.14	+15 45.2	1.744	2.350	114.7	22.9	18.9
1993 09 20	03 22.54	+15 44.9	1.695	2.413	124.8	20.0	19.0
1993 09 30	03 17.74	+15 34.3	1.659	2.476	135.7	16.4	19.0
1993 10 10	03 10.08	+15 13.9	1.640	2.539	147.4	12.2	19.1
1993 10 20	03 00.26	+14 45.7	1.644	2.601	159.7	7.6	19.2
1993 10 30	02 49.33	+14 12.7	1.674	2.662	172.2	2.9	19.4
1993 11 09	02 38.52	+13 39.4	1.734	2.722	174.6	2.0	19.5
1993 11 19	02 28.90	+13 10.2	1.824	2.782	162.3	6.2	19.7
1993 11 29	02 21.33	+12 49.3	1.941	2.840	150.4	9.9	20.0
1993 12 09	02 16.22	+12 38.9	2.082	2.898	139.0	12.9	20.2
1993 12 19	02 13.67	+12 39.9	2.243	2.956	128.3	15.1	20.5
1993 12 29	02 13.60	+12 52.0	2.420	3.012	118.2	16.7	20.7

Periodic Comet Encke Elements MPC 18256

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m2
1993 05 03	00 22.13	+06 30.7	4.053	3.281	35.2	10.2	20.8
1993 05 13	00 31.70	+07 44.9	3.902	3.226	42.2	12.1	20.7
1993 05 23	00 41.04	+08 58.9	3.736	3.168	49.2	14.0	20.7
1993 06 02	00 50.06	+10 12.4	3.555	3.107	56.2	15.7	20.6
1993 06 12	00 58.66	+11 25.2	3.362	3.045	63.3	17.3	20.5
1993 06 22	01 06.70	+12 36.8	3.159	2.980	70.6	18.8	20.3
1993 07 02	01 14.01	+13 47.0	2.948	2.912	78.0	20.0	20.2
1993 07 12	01 20.39	+14 55.2	2.732	2.841	85.6	20.9	20.0
1993 07 22	01 25.56	+16 01.0	2.512	2.767	93.5	21.5	19.8
1993 08 01	01 29.14	+17 03.5	2.293	2.691	101.8	21.7	19.5
1993 08 11	01 30.70	+18 01.6	2.076	2.611	110.6	21.3	19.2
1993 08 21	01 29.65	+18 53.5	1.867	2.528	119.9	20.3	18.9

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1993 08 31    01 25.29   +19 35.9    1.668    2.442   129.9    18.5    18.5
1993 09 10    01 16.85   +20 04.0    1.484    2.351   140.7    15.7    18.1
1993 09 20    01 03.60   +20 10.5    1.321    2.257   152.0    12.1    17.6
1993 09 30    00 45.26   +19 46.0    1.183    2.159   162.3     8.1    17.1
1993 10 10    00 22.44   +18 41.5    1.076    2.056   164.6     7.4    16.8
1993 10 20    23 56.97   +16 54.3    1.002    1.948   154.3    12.8    16.7
1993 10 30    23 31.76   +14 33.8    0.960    1.835   139.9    20.4    16.7
1993 11 09    23 09.60   +11 59.6    0.944    1.715   124.9    28.3    16.8
1993 11 19    22 52.29   +09 33.0    0.945    1.590   110.6    35.6    16.8
1993 11 29    22 40.37   +07 28.4    0.953    1.457    97.4    42.2    16.9
1993 12 09    22 33.33   +05 50.8    0.956    1.316    85.4    48.2    16.8
1993 12 19    22 30.18   +04 37.6    0.947    1.166    74.2    54.3    16.7
1993 12 29    22 29.48   +03 40.0    0.918    1.006    63.8    61.3    16.5
1994 01 08    22 28.98   +02 38.5    0.861    0.834    53.2    70.9    16.3
1994 01 18    22 24.12   +00 46.6    0.774    0.651    41.4    86.9    16.1

1993 03 24    13 28.26   -16 18.0    2.322    3.259   156.1     7.1    16.4
- 5.90 -0.62  + 41.6 + 6.6   1990 VB4    21792   - 6.51 +0.43  + 63.6 - 0.1
1993 04 23    13 07.70   -13 27.9    2.256    3.242   166.5     4.1    16.2

1993 04 23    14 16.17   -39 04.6    2.028    2.961   153.3     8.8    17.5
-11.06 -0.17  + 54.8 +13.5   1987 SF7    21787   - 7.20 +1.27  +106.8 + 2.2
1993 05 23    13 46.13   -34 41.2    2.037    2.942   147.5    10.7    17.6

1993 04 23    15 04.48   -18 43.9    1.701    2.682   163.9     6.0    17.6
- 8.87 -0.78  + 24.9 + 4.3   1981 EB23    9752   - 8.78 +0.81  + 34.0 - 2.0
1993 05 23    14 35.05   -17 03.8    1.651    2.624   159.7     7.7    17.5

1993 04 23    15 04.24   -11 31.8    1.128    2.115   165.0     7.1    16.4
- 8.28 -0.80  + 53.5 + 0.4   1982 CE     14615   - 6.93 +1.14  + 26.2 - 8.6
1993 05 23    14 37.84   -09 15.6    1.179    2.149   157.3    10.5    16.7

1993 04 23    15 04.03   -15 23.1    2.043    3.025   164.9     5.0    17.0
- 7.10 -0.50  + 35.4 + 1.9   2249 T-2    16037   - 6.48 +0.67  + 30.5 - 3.5
1993 05 23    14 41.50   -13 34.3    2.078    3.050   160.1     6.5    17.1

1993 04 23    15 03.60   -04 57.5    2.114    3.091   163.2     5.4    16.7
- 6.80 -0.46  + 58.5 - 2.3    (5170)     19997   - 6.20 +0.62  + 27.0 - 7.5
1993 05 23    14 42.12   -02 39.6    2.165    3.107   154.0     8.2    16.9

1993 04 23    15 06.47   -11 22.0    1.816    2.798   164.4     5.5    18.0
- 7.79 -0.60  + 47.1 + 0.5   3013 T-2    17836   - 7.24 +0.74  + 30.4 - 5.8
1993 05 23    14 41.46   -09 14.0    1.840    2.805   158.0     7.8    18.1

1993 04 23    15 08.45   -21 18.4    1.101    2.081   162.0     8.6    16.4
- 8.97 -1.06  + 26.3 + 7.3   1980 FY     13152   - 8.40 +1.21  + 45.2 - 2.3
1993 05 23    14 38.19   -19 13.2    1.095    2.079   160.8     9.2    16.4

1993 04 23    15 08.76   -08 36.0    1.367    2.348   163.4     7.0    18.1
- 8.93 -0.76  + 47.4 - 1.3   1989 AL3    19677   - 8.05 +0.99  + 16.2 - 8.2
1993 05 23    14 40.07   -06 47.7    1.409    2.371   156.3     9.9    18.3

1993 04 23    15 11.43   -25 37.5    1.176    2.146   159.2     9.6    16.0
- 8.43 -1.22  + 22.0 +10.0   1990 OQ3    20926   - 9.14 +1.05  + 63.8 + 1.5
1993 05 23    14 40.85   -23 13.1    1.095    2.080   161.6     8.9    15.8

1993 04 23    15 12.45   -21 58.3    1.415    2.388   160.9     7.9    17.7
- 8.05 -0.96  + 50.1 + 7.6   1990 TM5    20149   - 8.31 +0.88  + 70.8 - 2.0
1993 05 23    14 44.50   -18 39.2    1.359    2.344   162.2     7.6    17.6
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1993 04 23    15 11.73   -21 18.5    1.603    2.576   161.4     7.2    16.6
- 7.45 -0.85  + 70.5 + 7.6   1081 T-3    14971   - 7.81 +0.75  + 89.1 - 2.5
1993 05 23    14 45.86   -17 00.5    1.522    2.505   162.2     7.1    16.4

1993 04 23    15 10.90   -19 37.5    2.326    3.298   162.2     5.3    16.3
- 6.92 -0.54  + 46.3 + 3.8    (5191)     20005   - 6.85 +0.55  + 53.0 - 1.9
1993 05 23    14 48.24   -16 57.8    2.302    3.282   162.8     5.2    16.2

1993 04 23    15 15.33   -09 19.6    1.816    2.789   162.0     6.4    18.2
- 8.15 -0.75  + 43.2 - 0.1   1988 CL2    19300   - 8.44 +0.66  + 23.4 - 6.2
1993 05 23    14 47.85   -07 28.5    1.784    2.751   158.3     7.8    18.2

1993 04 23    15 15.61   -18 46.7    2.150    3.119   161.4     5.9    17.7
- 6.81 -0.65  + 23.1 + 3.2   1981 EW20   19858   - 7.22 +0.53  + 29.9 - 1.4
1993 05 23    14 52.37   -17 18.7    2.095    3.081   163.8     5.3    17.6

1993 04 23    15 19.79   -26 16.0    1.448    2.407   157.3     9.3    18.3
- 8.96 -1.14  + 21.3 + 8.9   1987 SE7    15249   -10.02 +0.86  + 60.6 + 2.2
1993 05 23    14 47.62   -24 00.9    1.362    2.349   163.0     7.2    18.1

1993 04 23    15 16.69   +04 16.1    1.653    2.600   155.2     9.3    16.3
- 7.38 -0.67  + 66.5 - 7.6   1984 FS     12965   - 7.07 +0.73    +1.3 -12.3
1993 05 23    14 52.45   +06 06.3    1.718    2.636   148.7    11.5    16.5

1993 04 23    15 16.61   -16 16.6    1.892    2.864   161.8     6.3    16.6
- 7.38 -0.66  + 57.7 + 3.0    (5185)     20003   - 7.34 +0.66  + 54.5 - 4.2
1993 05 23    14 52.10   -13 14.9    1.895    2.876   162.3     6.1    16.6

1993 04 23    15 19.19   -14 30.7    2.010    2.980   161.4     6.2    17.3
- 8.36 -0.65  + 17.9 + 1.4    (5056)     19665   - 8.27 +0.65  + 13.6 - 2.9
1993 05 23    14 51.84   -13 35.6    2.039    3.020   162.4     5.8    17.3

1993 04 23    15 19.15   +01 03.5    2.280    3.229   156.7     7.1    18.2
- 7.67 -0.55  + 55.4 - 4.3   1992 AL     19686   - 7.64 +0.54  + 13.7 - 8.6
1993 05 23    14 54.18   +02 54.9    2.322    3.248   151.6     8.5    18.3

1993 04 23    15 23.52   -17 29.6    1.548    2.516   159.9     7.9    17.4
- 9.21 -0.93  + 18.3 + 3.3   1991 VJ3    20643   - 9.49 +0.83  + 22.9 - 2.4
1993 05 23    14 52.22   -16 17.2    1.549    2.536   163.5     6.5    17.4

1993 04 23    15 23.97   -33 56.8    1.024    1.968   151.7    14.0    16.3
- 8.93 -1.39  +117.6 +21.2   1988 PL1    19300   - 9.02 +1.30  +196.4 + 0.1
1993 05 23    14 52.05   -25 26.6    0.971    1.964   163.7     8.3    16.0

1993 04 23    15 24.93   -21 02.2    1.428    2.392   158.6     8.8    17.3
- 8.12 -1.19  + 15.3 + 5.6   1990 TU8    19307   - 9.93 +0.70  + 35.9 - 0.1
1993 05 23    14 54.38   -19 35.0    1.323    2.315   164.7     6.6    16.9

1993 04 23    15 21.01   -12 14.0    2.319    3.286   160.9     5.7    17.9
- 6.39 -0.58  + 40.2 + 0.8   1981 EG36   10622   - 6.78 +0.46  + 30.2 - 4.0
1993 05 23    14 59.33   -10 19.5    2.300    3.279   162.3     5.4    17.8

1993 04 23    15 25.59   -14 19.9    1.634    2.601   159.8     7.7    17.7
- 8.45 -0.82  + 40.3 + 1.8   1991 VG2    19519   - 8.59 +0.75  + 31.8 - 4.6
1993 05 23    14 57.12   -12 19.7    1.659    2.644   162.9     6.5    17.7

1993 04 23    15 24.11   -17 45.0    1.838    2.803   159.7     7.1    15.4
- 7.18 -0.80  + 18.3 + 2.9    (5139)     19848   - 7.88 +0.59  + 22.7 - 1.9
1993 05 23    14 58.95   -16 34.8    1.805    2.795   165.1     5.3    15.3
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1993 04 23	15 22.54	-18 33.8	2.447	3.409	159.9	5.8	18.1
- 6.74 -0.61	+ 27.4 + 2.9	1304 T-2	15079	- 7.31 +0.44	+ 33.1 - 1.3		
1993 05 23	14 59.53	-16 55.3	2.394	3.383	165.3	4.3	17.9
1993 04 23	15 23.32	-17 34.3	2.037	3.002	160.0	6.6	17.9
- 6.71 -0.66	+ 26.6 + 2.6	1981 EJ19	10384	- 7.03 +0.55	+ 28.5 - 2.2		
1993 05 23	15 00.48	-16 02.9	2.046	3.036	165.3	4.9	17.9
1993 04 23	15 28.29	-09 26.9	1.674	2.637	158.8	7.9	18.0
- 8.24 -0.89	+ 46.7 - 0.2	1991 YX	19870	- 9.01 +0.65	+ 25.2 - 6.7		
1993 05 23	14 59.58	-07 27.0	1.654	2.630	160.5	7.4	17.9
1993 04 23	15 28.70	-22 04.1	1.281	2.243	157.4	9.9	16.9
- 7.77 -1.11	+ 22.3 + 6.3	1989 GO4	20016	- 8.50 +0.87	+ 41.9 - 1.0		
1993 05 23	15 00.64	-20 14.3	1.280	2.276	166.2	6.1	16.8
1993 04 23	15 24.65	-14 16.4	2.626	3.588	160.1	5.5	18.1
- 6.43 -0.54	+ 37.2 + 1.3	1978 PJ2	18281	- 6.84 +0.40	+ 32.5 - 2.9		
1993 05 23	15 03.01	-12 24.1	2.612	3.597	164.2	4.4	18.1
1993 04 23	15 25.91	-18 27.2	1.842	2.805	159.2	7.3	17.0
- 6.18 -0.82	+ 24.8 + 3.4	1981 EQ42	16424	- 7.23 +0.51	+ 31.2 - 1.7		
1993 05 23	15 03.34	-16 53.8	1.776	2.770	166.2	5.0	16.8
1993 04 23	15 31.89	-29 48.4	1.398	2.339	153.1	11.2	17.5
- 8.23 -1.35	- 16.8 + 8.8	1990 QN2	18121	-10.49 +0.74	+ 35.1 + 6.1		
1993 05 23	14 59.95	-29 16.1	1.303	2.293	164.0	7.0	17.1
1993 04 23	15 30.37	-27 10.2	1.397	2.346	154.8	10.5	17.0
- 7.62 -1.22	+ 26.7 + 9.3	1979 ML1	17955	- 9.32 +0.74	+ 68.9 + 2.6		
1993 05 23	15 01.33	-24 34.5	1.310	2.306	166.0	6.1	16.7
1993 04 23	15 30.85	-17 44.3	1.455	2.417	158.2	8.9	18.3
- 7.96 -1.14	+ 15.1 + 3.5	4192 T-1	19326	- 9.66 +0.66	+ 22.0 - 1.9		
1993 05 23	15 01.10	-16 38.8	1.382	2.376	165.6	6.1	18.1
1993 04 23	15 28.06	-05 48.5	1.636	2.596	158.0	8.4	16.7
- 6.22 -0.87	+ 65.6 - 1.3	1990 VD6	18434	- 7.36 +0.54	+ 32.2 - 9.1		
1993 05 23	15 05.09	-03 07.3	1.590	2.557	158.1	8.5	16.6
1993 04 23	15 29.47	-10 09.0	1.333	2.298	158.7	9.2	16.0
- 5.74 -1.07	+107.4 + 3.3	1990 WE2	18435	- 7.39 +0.60	+ 85.8 -10.3		
1993 05 23	15 06.70	-04 53.9	1.259	2.237	159.8	9.0	15.9
1993 04 23	15 32.75	-28 25.1	1.875	2.812	153.7	9.1	15.2
- 7.89 -0.86	+ 44.9 + 8.1	1986 SZ1	20814	- 8.51 +0.66	+ 77.1 + 1.3		
1993 05 23	15 05.34	-25 09.5	1.851	2.846	166.7	4.7	15.0
1993 04 23	15 31.30	-12 28.0	1.065	2.034	158.4	10.5	15.0
- 6.37 -1.23	+ 50.2 + 1.3	1990 RE6	19505	- 7.68 +0.83	+ 29.0 - 8.1		
1993 05 23	15 06.40	-10 11.8	1.056	2.047	163.5	8.1	14.9
1993 04 23	15 32.88	-13 45.1	1.009	1.978	158.1	10.9	16.2
- 6.81 -1.47	+ 33.1 + 2.4	1984 SH	9826	- 9.42 +0.78	+ 22.1 - 6.5		
1993 05 23	15 04.35	-12 05.7	0.932	1.926	164.3	8.2	15.8
1993 04 23	15 31.29	-30 14.0	2.221	3.149	152.9	8.4	18.3
- 6.80 -0.80	+8.6 + 6.8	1981 EJ7	20328	- 7.86 +0.48	+ 42.8 + 3.4		
1993 05 23	15 06.93	-28 50.9	2.151	3.142	165.5	4.6	18.1

1993 04 23	15 34.70	-16 09.6	1.561	2.519	157.5	8.8	17.6
- 7.60 -1.14	+ 64.1 + 5.1	1990 TB	17217	- 9.84 +0.51	+ 70.4 - 3.9		
1993 05 23	15 05.49	-12 31.2	1.436	2.428	164.8	6.3	17.2
1993 04 23	15 31.53	-21 02.9	1.455	2.413	157.2	9.3	16.8
- 5.91 -0.96	+ 46.2 + 5.5	1988 LH	15889	- 6.86 +0.66	+ 57.6 - 2.5		
1993 05 23	15 09.37	-18 12.4	1.448	2.447	167.9	5.0	16.7
1993 04 23	15 35.69	-15 43.6	1.800	2.755	157.3	8.1	16.4
- 7.27 -0.96	+ 11.0 + 1.8	1981 SE7	20922	- 8.94 +0.47	+ 10.8 - 2.2		
1993 05 23	15 08.73	-15 03.5	1.724	2.719	166.7	4.9	16.2
1993 04 23	15 33.73	-16 45.5	2.666	3.616	157.6	6.1	18.4
- 6.26 -0.61	+ 33.8 + 2.1	1981 ER17	17817	- 7.13 +0.34	+ 35.2 - 1.8		
1993 05 23	15 11.90	-14 54.7	2.612	3.606	167.3	3.5	18.2
1993 04 23	15 30.82	-37 29.2	4.917	5.796	148.2	5.2	17.7
- 4.94 -0.37	+9.3 + 4.4	1989 AV2	18431	- 5.46 +0.21	+ 33.0 + 3.1		
1993 05 23	15 14.14	-36 23.3	4.824	5.792	161.3	3.2	17.6
1993 04 23	15 35.80	-19 28.4	2.566	3.512	156.6	6.5	17.8
- 6.60 -0.69	+ 16.7 + 2.7	1973 QG2	10829	- 7.81 +0.33	+ 24.9 - 0.4		
1993 05 23	15 12.32	-18 20.3	2.478	3.477	168.7	3.3	17.5
1993 04 23	15 37.21	-17 52.1	2.082	3.031	156.7	7.6	17.2
- 6.90 -0.82	+ 18.0 + 2.6	1992 CT	19873	- 8.20 +0.43	+ 22.9 - 1.4		
1993 05 23	15 12.28	-16 43.5	2.027	3.025	168.2	3.9	17.0
1993 04 23	15 40.36	-20 42.5	1.554	2.503	155.3	9.7	18.6
- 7.50 -1.23	+ 10.0 + 4.5	6647 P-L	13314	-10.24 +0.47	+ 28.1 + 0.4		
1993 05 23	15 10.60	-19 37.9	1.430	2.431	168.5	4.8	18.1
1993 04 23	15 36.03	-04 24.8	2.208	3.151	155.6	7.6	16.5
- 6.09 -0.69	+ 51.6 - 2.0	1991 AY1	20820	- 7.13 +0.37	+ 22.8 - 7.1		
1993 05 23	15 14.24	-02 23.8	2.180	3.145	158.7	6.7	16.4
1993 04 23	15 32.44	-24 28.2	4.577	5.509	155.7	4.3	17.4
- 4.54 -0.36	+8.5 + 2.3	6581 P-L	20515	- 5.11 +0.17	+ 18.4 + 0.8		
1993 05 23	15 16.99	-23 45.0	4.509	5.508	169.7	1.9	17.2
1993 04 23	15 42.36	-19 11.8	1.411	2.362	155.2	10.3	18.8
- 7.30 -1.32	+8.7 + 3.8	1990 ST8	19306	-10.33 +0.49	+ 21.8 - 0.5		
1993 05 23	15 12.58	-18 18.1	1.296	2.297	168.7	5.0	18.3
1993 04 23	15 39.17	-19 58.9	2.801	3.740	155.8	6.3	17.6
- 6.36 -0.62	+ 19.3 + 2.6	1991 AR1	18635	- 7.39 +0.30	+ 27.2 - 0.4		
1993 05 23	15 16.85	-18 43.5	2.743	3.744	169.8	2.7	17.3
1993 04 23	15 41.13	-22 04.9	2.017	2.958	154.7	8.3	17.5
- 6.11 -0.91	+6.1 + 3.8	4582 P-L	17974	- 8.03 +0.35	+ 22.3 + 0.8		
1993 05 23	15 17.60	-21 16.8	1.914	2.917	170.2	3.4	17.1
1993 04 23	15 42.74	-22 16.8	1.622	2.566	154.3	9.8	17.2
- 6.41 -1.18	+7.8 + 4.8	1980 TE4	13056	- 9.27 +0.38	+ 29.5 + 1.3		
1993 05 23	15 16.35	-21 14.5	1.483	2.486	169.9	4.1	16.7
1993 04 23	15 41.91	-18 06.3	1.389	2.341	155.5	10.3	17.7
- 5.78 -1.22	+ 39.6 + 4.7	6053 P-L	12699	- 8.48 +0.46	+ 48.6 - 2.6		
1993 05 23	15 17.41	-15 40.7	1.283	2.284	168.9	4.9	17.2

1993 04 23	15 47.09	-36 06.4	2.296	3.185	146.7	10.0	15.5
- 8.26 -1.00	- 42.8 + 7.4	1973 SS4	20327	-10.10 +0.45		+6.0 + 7.3	
1993 05 23	15 16.88	-37 01.5	2.264	3.239	161.1	5.8	15.3
1993 04 23	15 47.51	-20 44.8	1.678	2.618	153.7	9.8	18.5
- 7.91 -1.19	+ 15.1 + 4.4	3241 T-3	16039	-10.57 +0.44		+ 32.4 + 0.3	
1993 05 23	15 16.78	-19 25.9	1.573	2.576	169.9	4.0	18.0
1993 04 23	15 46.03	-26 12.8	1.344	2.282	152.2	11.9	17.2
- 6.79 -1.40	-8.4 + 6.8	1986 QR1	17819	- 9.84 +0.55		+ 29.5 + 3.9	
1993 05 23	15 17.47	-25 36.0	1.256	2.259	169.1	4.9	16.7
1993 04 23	15 47.83	-19 40.3	1.361	2.306	153.8	11.1	17.1
- 7.75 -1.28	+ 16.1 + 4.3	1991 VX3	20643	- 9.97 +0.64		+ 28.6 - 1.1	
1993 05 23	15 17.68	-18 23.5	1.326	2.330	169.9	4.4	16.7
1993 04 23	15 44.12	+02 11.5	1.958	2.878	150.9	9.8	17.4
- 6.53 -0.88	+ 61.0 - 4.4	1990 VE1	17643	- 8.33 +0.35		+ 12.7 -10.7	
1993 05 23	15 19.57	+04 13.8	1.895	2.837	153.3	9.2	17.3
1993 04 23	15 43.93	-16 43.3	2.452	3.391	155.2	7.1	18.1
- 6.06 -0.75	+ 19.9 + 1.9	1978 VP11	15552	- 7.72 +0.26		+ 22.2 - 1.4	
1993 05 23	15 21.40	-15 34.2	2.345	3.346	169.7	3.1	17.8
1993 04 23	15 44.37	-13 27.7	0.978	1.938	155.3	12.5	16.6
- 5.04 -1.44	+ 97.3 + 4.2	1976 GD2	10830	- 7.67 +0.68		+ 77.1 -10.8	
1993 05 23	15 21.38	-08 38.1	0.947	1.942	164.9	7.8	16.4
1993 04 23	15 44.37	+06 22.8	2.438	3.337	148.5	9.1	16.2
- 5.40 -0.66	+ 77.9 - 5.1	1992 CE1	20153	- 6.62 +0.28		+ 28.2 -10.4	
1993 05 23	15 24.60	+09 11.6	2.435	3.344	149.0	9.0	16.2
1993 04 23	15 47.65	-02 57.2	2.050	2.978	152.4	9.0	16.3
- 6.37 -0.82	+ 56.8 - 2.6	1992 AS1	20031	- 7.90 +0.35		+ 22.0 - 8.2	
1993 05 23	15 24.10	-00 48.6	2.025	2.990	158.4	7.1	16.2
1993 04 23	15 46.23	-20 40.5	3.520	4.446	154.0	5.7	17.9
- 5.36 -0.51	+7.7 + 2.0	1989 VW	17825	- 6.40 +0.19		+ 14.8 + 0.2	
1993 05 23	15 27.30	-20 03.5	3.464	4.469	172.4	1.7	17.7
1993 04 23	15 53.30	-23 22.7	1.555	2.486	151.7	11.1	18.6
- 6.58 -1.32	+ 15.7 + 5.7	2164 P-L	17461	-10.07 +0.33		+ 42.8 + 1.9	
1993 05 23	15 25.29	-21 48.0	1.418	2.425	171.9	3.4	18.0
1993 04 23	15 53.35	-10 59.6	1.333	2.274	152.9	11.6	17.1
- 6.93 -1.25	+ 51.5 + 0.3	4379 T-3	14361	- 9.27 +0.55		+ 29.4 - 7.4	
1993 05 23	15 25.72	-08 44.2	1.313	2.308	165.6	6.2	16.9
1993 04 23	15 52.58	-22 47.1	0.978	1.925	152.0	14.2	16.2
- 5.33 -1.70	+ 24.7 + 7.7	1978 UL7	20808	- 9.37 +0.59		+ 54.9 + 0.3	
1993 05 23	15 26.28	-20 34.2	0.905	1.913	172.2	4.1	15.6
1993 04 23	16 02.52	+16 58.5	0.987	1.862	138.3	21.1	15.9
- 9.20 -1.88	+ 28.7 -18.9	1986 WQ2	16580	-13.45 +0.70		-120.9 -25.8	
1993 05 23	15 23.75	+14 53.3	0.930	1.845	143.5	19.1	15.6
1993 04 23	15 54.13	-17 05.3	2.321	3.248	152.8	8.1	17.6
- 6.04 -0.82	+ 25.9 + 2.0	1979 QC2	17816	- 7.93 +0.25		+ 28.3 - 1.6	
1993 05 23	15 31.21	-15 37.3	2.244	3.249	171.7	2.6	17.2

1993 04 23	15 55.04	-13 00.4	1.764	2.697	152.7	9.9	18.4
- 5.86 -1.08	+ 72.8 + 3.0	1990 VS4	18434	- 8.67 +0.26	+ 67.6 - 5.2		
1993 05 23	15 30.80	-09 14.6	1.643	2.639	166.7	5.1	18.0
1993 04 23	15 55.42	-27 42.4	2.182	3.092	149.7	9.5	18.6
- 6.10 -0.97	- 10.1 + 4.8	1981 EM26	15880	- 8.52 +0.26	+ 18.0 + 3.6		
1993 05 23	15 31.21	-27 28.2	2.085	3.088	170.5	3.1	18.2
1993 04 23	15 56.76	-20 08.0	1.031	1.974	151.7	14.0	16.1
- 4.83 -1.70	+ 12.9 + 5.0	(5248)	20488	- 9.75 +0.36	+ 31.2 - 0.4		
1993 05 23	15 31.10	-18 52.2	0.918	1.927	173.1	3.6	15.4
1993 04 23	15 57.45	-28 00.3	2.381	3.285	149.1	9.0	16.6
- 6.48 -0.97	- 28.7 + 3.9	3045 T-3	15572	- 9.13 +0.19	-1.9 + 4.1		
1993 05 23	15 31.93	-28 46.6	2.259	3.260	169.7	3.2	16.2
1993 04 23	16 05.87	-40 32.4	1.372	2.245	141.1	16.3	18.3
- 6.82 -1.99	- 81.3 + 8.6	1983 RW3	17433	-13.58 +0.20	+2.2 +16.6		
1993 05 23	15 31.26	-42 46.3	1.218	2.186	157.0	10.4	17.8
1993 04 23	15 58.36	-09 54.9	1.471	2.404	151.6	11.5	16.4
- 5.45 -1.26	+ 56.7 + 0.9	1990 UJ	17455	- 8.96 +0.25	+ 37.4 - 7.3		
1993 05 23	15 33.96	-07 18.6	1.359	2.353	165.4	6.2	16.0
1993 04 23	16 03.42	-22 55.8	1.565	2.485	149.5	11.8	17.2
- 7.36 -1.36	+4.8 + 4.7	1989 EW1	19678	-10.84 +0.36	+ 28.3 + 1.8		
1993 05 23	15 32.94	-22 01.0	1.479	2.487	173.6	2.6	16.6
1993 04 23	16 01.58	-23 41.1	2.257	3.166	149.8	9.2	18.2
- 6.66 -0.99	+ 21.0 + 4.4	1990 YA	18436	- 9.37 +0.19	+ 41.7 + 1.6		
1993 05 23	15 35.35	-22 01.9	2.117	3.126	174.2	1.9	17.6
1993 04 23	16 03.32	-11 15.6	1.280	2.211	150.5	12.9	18.1
- 6.21 -1.37	+ 55.4 + 0.5	4157 T-3	19884	- 9.39 +0.44	+ 33.4 - 7.6		
1993 05 23	15 36.59	-08 47.3	1.248	2.247	167.0	5.8	17.8
1993 04 23	16 03.06	-23 31.9	1.659	2.576	149.5	11.4	18.9
- 5.65 -1.28	+ 11.1 + 4.9	2110 P-L	12698	- 9.43 +0.19	+ 35.4 + 2.1		
1993 05 23	15 37.74	-22 17.0	1.520	2.529	174.6	2.1	18.2
1993 04 23	16 03.31	-14 06.9	2.112	3.029	150.7	9.4	17.7
- 6.65 -0.93	+ 36.8 + 1.2	1988 CH	13052	- 8.84 +0.27	+ 31.4 - 3.2		
1993 05 23	15 37.87	-12 16.2	2.061	3.064	170.2	3.2	17.3
1993 04 23	16 05.56	-24 53.9	2.111	3.015	148.5	10.0	15.7
- 6.97 -1.09	- 46.5 + 2.8	1990 VA7	17646	- 9.97 +0.21	- 23.8 + 4.0		
1993 05 23	15 37.77	-26 41.5	2.037	3.043	172.1	2.6	15.2
1993 04 23	16 02.67	-15 27.1	2.342	3.257	150.8	8.7	16.5
- 5.97 -0.85	+ 10.1 + 0.9	1990 VU14	19867	- 8.15 +0.19	+8.6 - 1.6		
1993 05 23	15 39.57	-14 54.3	2.273	3.279	172.6	2.3	16.1
1993 04 23	16 04.29	-17 13.7	2.575	3.484	150.3	8.2	17.8
- 6.59 -0.84	+6.1 + 1.4	1990 WC	17646	- 8.86 +0.16	+9.3 - 0.6		
1993 05 23	15 39.27	-16 46.9	2.474	3.482	173.9	1.8	17.4
1993 04 23	16 06.28	-42 49.8	2.074	2.914	139.6	12.9	16.2
- 6.12 -1.32	- 35.6 + 8.9	1981 DG3	11837	- 9.83 +0.25	+ 28.9 +10.8		
1993 05 23	15 39.46	-43 03.4	1.961	2.920	157.1	7.8	15.8

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1993 04 23    16 08.75   -30 32.3    1.348    2.252   145.8    14.5    17.2
- 6.04 -1.64  - 28.6 + 7.2   1978 EN10   18104   -10.81 +0.31  + 22.6 + 7.8
1993 05 23    15 39.88   -30 42.6    1.255    2.257   168.9     4.9    16.7

1993 04 23    15 58.29   -33 54.3    4.622    5.485   146.2     5.9    17.5
- 4.41 -0.49    +1.0 + 3.5    (5023)     19488   - 5.69 +0.09  + 21.5 + 2.9
1993 05 23    15 42.09   -33 19.5    4.490    5.480   166.7     2.4    17.2

1993 04 23    16 05.50   -14 27.9    1.754    2.674   150.2    10.8    16.9
- 5.85 -1.16  + 50.0 + 2.5   1990 RR2    19504   - 9.17 +0.18  + 47.3 - 3.8
1993 05 23    15 40.51   -11 50.3    1.636    2.640   170.2     3.8    16.4

1993 04 23    16 08.32   -25 38.9    1.062    1.986   147.7    15.7    17.0
- 5.10 -1.83  - 13.0 + 6.4   1980 FF12    9589   -10.56 +0.33  + 26.8 + 4.8
1993 05 23    15 40.85   -25 15.5    0.973    1.982   173.6     3.2    16.2

1993 04 23    16 09.20   -29 36.1    1.466    2.368   146.1    13.7    17.0
- 6.01 -1.56  - 19.9 + 6.5   1990 QH1    17213   -10.86 +0.20  + 25.9 + 7.0
1993 05 23    15 40.63   -29 28.1    1.337    2.341   170.1     4.3    16.4

1993 04 23    16 08.94   -11 04.7    1.520    2.438   149.2    12.2    16.9
- 6.47 -1.26  + 19.6 - 0.7    (5100)     19833   - 9.64 +0.32    +2.0 - 5.0
1993 05 23    15 41.86   -10 24.5    1.481    2.483   169.0     4.5    16.5

1993 04 23    16 05.54   -04 58.6    2.017    2.924   148.8    10.3    17.5
- 5.85 -0.94  + 66.5 - 1.6   4577 P-L    19689   - 8.21 +0.22  + 36.6 - 7.9
1993 05 23    15 42.33   -02 12.2    1.972    2.948   161.2     6.4    17.3

1993 04 23    16 10.58   -24 00.6    1.372    2.286   147.7    13.6    16.7
- 6.37 -1.51  + 34.0 + 6.7   1991 VB3    19520   -10.40 +0.35  + 62.5 + 1.2
1993 05 23    15 42.01   -21 25.8    1.292    2.303   175.8     1.8    16.0

1993 04 23    16 04.60   -12 25.5    2.461    3.371   150.3     8.5    17.7
- 5.32 -0.84  + 26.3 + 0.5   1989 TT2    17824   - 7.77 +0.10  + 19.1 - 3.0
1993 05 23    15 43.24   -11 11.1    2.330    3.332   169.8     3.1    17.3

1993 04 23    16 09.98   -32 16.9    1.720    2.607   144.8    12.8    17.5
- 6.30 -1.33  - 17.5 + 7.2   1983 CA1    14189   - 9.81 +0.31  + 29.1 + 6.6
1993 05 23    15 42.78   -31 58.6    1.657    2.656   168.0     4.6    17.1

1993 04 23    16 12.75   -20 14.3    1.490    2.402   148.0    12.8    18.5
- 6.94 -1.35  + 37.0 + 4.3   1984 SS1    14786   -10.23 +0.38  + 48.5 - 1.4
1993 05 23    15 43.81   -17 55.7    1.452    2.463   175.5     1.9    18.0

1993 04 23    16 10.18   -14 34.0    1.165    2.093   149.0    14.3    16.4
- 5.03 -1.58  + 36.1 + 2.0    (5109)     19837   - 9.66 +0.27  + 28.0 - 5.0
1993 05 23    15 44.72   -12 44.9    1.088    2.094   171.4     4.1    15.9

1993 04 23    16 08.60   -22 33.9    1.913    2.820   148.5    10.7    17.0
- 5.32 -1.11  + 11.8 + 3.8   1979 QP     17626   - 8.54 +0.16  + 28.9 + 1.1
1993 05 23    15 45.47   -21 28.1    1.807    2.818   176.6     1.2    16.4

1993 04 23    16 10.59   -32 32.6    2.431    3.302   144.6    10.2    16.2
- 5.96 -1.01    +0.2 + 5.8    (5357)     20920   - 8.85 +0.14  + 36.3 + 5.1
1993 05 23    15 46.25   -31 36.7    2.306    3.304   168.6     3.5    15.7

1993 04 23    16 14.16   -29 06.1    1.495    2.391     +1.89    -1.8  17.1
- 5.65 -1.56  + 10.0 + 7.5   1990 OT     17638   -10.80 +0.11  + 57.1 + 6.2
1993 05 23    15 46.41   -27 23.2    1.336    2.344     +2.09    -3.9  16.3
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1993 04 23    16 17.41   -28 58.3    1.298    2.197   144.7    15.3    16.4
- 6.37 -1.75  - 26.9 + 6.5   1986 CE2    19499   -11.61 +0.27  + 20.1 + 7.2
1993 05 23    15 46.71   -29 10.1    1.218    2.223   170.9     4.1    15.8

1993 04 23    16 09.58   -02 05.9    1.044    1.965   147.0    16.2    16.0
- 4.02 -1.58  + 64.2 - 5.0    (5327)     20796   - 8.56 +0.28    -0.4 -14.8
1993 05 23    15 47.27   -00 11.8    0.997    1.977   159.4    10.4    15.7

1993 04 23    16 11.82   -19 53.1    2.180    3.081   148.2     9.9    17.8
- 5.34 -1.01  + 37.9 + 3.6   1980 TC5    17956   - 8.49 +0.07  + 49.6 - 0.3
1993 05 23    15 49.07   -17 34.6    2.028    3.039   176.1     1.3    17.1

1993 04 23    16 18.45   -22 17.6    2.644    3.525   146.3     9.1    18.5
- 7.13 -0.85  - 20.2 + 2.3    (5164)     19994   - 9.24 +0.20    -6.2 + 1.9
1993 05 23    15 51.98   -22 56.5    2.651    3.663   177.0     0.8    18.1

1993 04 23    16 23.35   -40 23.3    1.906    2.741   138.5    14.1    17.2
- 6.54 -1.53  - 41.0 + 8.0    (5206)     20134   -11.43 +0.13  + 22.4 +11.2
1993 05 23    15 53.34   -40 57.3    1.795    2.766   159.6     7.3    16.8

1993 04 23    16 20.67   -23 19.1    1.892    2.781   145.6    11.8    18.3
- 5.87 -1.30  - 15.6 + 2.7   1982 US6    11431   -10.43 -0.03   +3.0 + 2.8
1993 05 23    15 53.90   -23 38.3    1.731    2.742   176.7     1.2    17.6

1993 04 23    16 18.28   -17 09.1    2.290    3.181   147.0     9.9    18.0
- 5.53 -1.00  + 20.8 + 1.7   1981 UB23   20498   - 8.79 +0.02  + 24.0 - 1.1
1993 05 23    15 54.92   -15 56.8    2.146    3.157   175.3     1.5    17.4

1993 04 23    16 24.72   -29 07.4    1.665    2.542   143.1    13.7    18.9
- 6.02 -1.57  - 25.7 + 4.7   1992 DL4    20342   -11.78 -0.07  + 12.9 + 6.9
1993 05 23    15 55.27   -29 30.9    1.495    2.500   171.0     3.6    18.2

1993 04 23    16 16.99   -04 58.6    1.614    2.512   146.1    12.9    17.3
- 4.61 -1.19  + 84.2 - 1.4   4092 T-3    16039   - 8.12 +0.14  + 47.4 -10.2
1993 05 23    15 55.46   -01 24.8    1.561    2.539   160.8     7.5    17.0

1993 04 23    16 26.04   -40 08.0    2.245    3.068   138.2    12.6    17.5
- 6.69 -1.38  - 38.1 + 6.7   1990 ST10   20020   -11.42 +0.01  + 16.7 +10.1
1993 05 23    15 56.31   -40 46.4    2.094    3.064   159.8     6.6    17.1

1993 04 23    16 22.73   -33 10.6    2.120    2.978   142.0    12.0    17.5
- 5.39 -1.29  - 14.7 + 5.6   1980 VG     20010   -10.09 -0.08  + 27.1 + 7.2
1993 05 23    15 57.30   -32 55.2    1.915    2.912   167.6     4.3    16.9

1993 04 23    16 24.04   -24 28.9    1.841    2.723   144.6    12.4    17.9
- 5.62 -1.31    +1.1 + 3.9   1990 QY2    17448   -10.04 +0.02  + 24.2 + 2.8
1993 05 23    15 58.11   -23 49.1    1.706    2.718   176.7     1.2    17.2

1993 05 23    15 59.87   +17 55.6    1.270    2.157   141.5    17.0    17.1
-10.74 +0.29  - 67.6 -21.4   1982 BJ     10828   - 4.61 +1.47  -158.5 - 7.8
1993 06 22    15 34.69   +11 51.3    1.436    2.224   129.4    20.7    17.5

1993 05 23    16 00.83   -16 26.4    1.448    2.459   175.9     1.7    17.2
-10.25 +0.11  + 51.3 - 1.7   1991 VF2    19519   - 5.16 +1.36  + 23.0 - 6.8
1993 06 22    15 35.41   -14 25.6    1.593    2.489   144.1    13.9    18.0

1993 05 23    16 02.29   -27 28.9    2.052    3.060   173.0     2.3    16.4
- 9.36 -0.03    -3.6 + 4.0   1990 TA13   20507   - 5.75 +1.10    +8.9 - 0.2
1993 06 22    15 37.55   -27 13.2    2.168    3.071   147.0    10.4    17.0
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1993 05 23    16 02.25   -16 02.2    1.991    3.001   175.4     1.5    16.6
- 8.88 +0.02  + 56.9 - 1.1    (5105)     19835   - 5.34 +1.03  + 34.4 - 5.7
1993 06 22    15 39.06   -13 36.8    2.108    2.994   144.6    11.3    17.2

1993 05 23    16 02.65   -24 15.0    2.200    3.211   176.2     1.2    16.2
- 8.23 +0.01  + 21.7 + 2.2    (5339)     20801   - 4.92 +0.97  + 22.4 - 2.0
1993 06 22    15 41.17   -23 01.2    2.329    3.233   147.5     9.7    16.8

1993 05 23    16 02.43   +12 23.3    1.166    2.090   147.0    15.3    17.3
-10.52 -0.03  +111.6 -21.9   1991 TD1    19508   - 5.25 +1.53  - 20.2 -18.6
1993 06 22    15 35.91   +14 33.9    1.276    2.061   127.7    23.0    17.7

1993 05 23    16 03.49   +14 38.8    1.953    2.841   144.8    11.9    17.4
- 9.45 -0.01  + 20.4 -14.7   1985 CT     19860   - 5.91 +1.06  - 61.0 -10.9
1993 06 22    15 38.49   +13 30.9    2.070    2.821   128.9    16.3    17.7

1993 05 23    16 05.63   -10 51.9    1.726    2.729   170.2     3.6    17.2
- 9.47 -0.03  + 26.6 - 4.0   1990 OO3    19679   - 5.67 +1.14    -6.0 - 6.1
1993 06 22    15 40.79   -10 17.4    1.846    2.731   143.7    12.7    17.8

1993 05 23    16 05.17   -11 43.6    2.160    3.164   171.1     2.8    17.5
- 8.04  0.00  + 20.8 - 3.0   1987 DP6    17439   - 4.97 +0.91    -3.9 - 4.7
1993 06 22    15 43.98   -11 15.2    2.302    3.187   144.8    10.6    18.0

1993 05 23    16 07.58   -35 02.6    1.543    2.536   165.4     5.8    17.4
-15.32 -0.62  - 67.6 + 9.6   1990 SK     17448   -11.47 +1.72  - 13.8 + 5.5
1993 06 22    15 23.07   -36 56.9    1.566    2.457   143.2    14.3    17.7

1993 05 23    16 06.34   -20 44.1    1.931    2.943   178.4     0.6    15.9
- 8.71 -0.04  + 27.0 + 0.9   1985 TB1    20012   - 5.27 +1.06  + 19.5 - 3.3
1993 06 22    15 43.35   -19 26.5    2.040    2.947   147.3    10.7    16.6

1993 05 23    16 07.88   -17 46.8    1.412    2.424   176.6     1.4    15.9
-10.32 -0.06    +1.3 - 0.6    (5180)     20001   - 5.74 +1.38  - 11.6 - 3.5
1993 06 22    15 41.14   -17 56.7    1.531    2.443   146.5    13.3    16.6

1993 05 23    16 07.26   -17 22.1    4.557    5.568   176.3     0.7    17.1
- 5.12 -0.02  + 12.1 - 0.3   1973 SH1    17197   - 3.83 +0.43    +6.1 - 1.6
1993 06 22    15 53.00   -16 52.6    4.672    5.567   148.9     5.4    17.5

1993 05 23    16 08.65   -44 29.0    1.829    2.785   156.0     8.5    15.3
-11.95 -0.16  + 14.7 +12.9    (5186)     20003   - 7.06 +1.54  + 69.6 + 3.8
1993 06 22    15 37.01   -42 05.6    1.885    2.776   144.5    12.3    15.5

1993 05 23    16 07.66   -17 57.8    2.108    3.119   176.8     1.0    16.8
- 8.34 +0.05  + 42.9 - 0.7   1992 AF     19686   - 4.92 +0.96  + 26.1 - 4.4
1993 06 22    15 46.10   -16 07.5    2.284    3.185   147.1    10.0    17.6

1993 05 23    16 10.39   -50 27.4    2.141    3.060     +1.32    -4.0  18.2
-14.53 -0.14    -3.7 +14.5   1991 XC     20030   - 9.08 +1.67  + 61.4 + 5.4
1993 06 22    15 31.64   -48 44.0    2.243    3.100     +1.16    -5.5  18.4

1993 05 23    16 09.41   -08 10.5    2.297    3.293   167.4     3.8    17.8
- 8.71 -0.07    +8.2 - 4.1   1990 VC1    17643   - 6.05 +0.87  - 20.1 - 4.8
1993 06 22    15 45.53   -08 27.0    2.405    3.281   143.9    10.5    18.2

1993 05 23    16 09.55   -13 52.3    4.757    5.763   172.9     1.2    17.9
- 4.92 -0.02  + 31.2 - 1.0   1987 YU1    16428   - 3.73 +0.40  + 20.5 - 2.4
1993 06 22    15 55.79   -12 32.1    4.866    5.753   147.9     5.4    18.2
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1993 05 23	16 12.43	-47 18.4	2.261	3.197	153.1	8.2	17.9
-11.53 -0.07	+9.7 +11.7	1982 DU	11842	- 7.05 +1.35	+ 60.6	+ 4.0	
1993 06 22	15 41.95	-45 18.7	2.375	3.253	144.1	10.6	18.1
1993 05 23	16 11.67	-17 47.1	2.780	3.790	176.0	1.1	17.8
- 7.62 -0.09	+ 18.7 - 0.2	1989 SV1	18117	- 5.54 +0.72	+ 10.1	- 2.6	
1993 06 22	15 50.42	-16 59.5	2.860	3.763	148.3	8.2	18.2
1993 05 23	16 12.24	-20 18.7	1.388	2.400	177.0	1.3	16.9
-10.06 -0.02	+ 33.5 + 0.7	1989 GA3	20635	- 5.30 +1.37	+ 20.1	- 4.7	
1993 06 22	15 46.66	-18 48.3	1.529	2.451	147.9	12.7	17.7
1993 05 23	16 12.79	-27 08.1	2.080	3.088	172.8	2.4	17.8
- 9.83 -0.05	+ 19.3 + 3.9	1992 BK	20031	- 6.33 +1.08	+ 28.4	- 1.1	
1993 06 22	15 46.46	-25 47.2	2.212	3.127	149.0	9.6	18.3
1993 05 23	16 12.16	-02 18.4	1.230	2.213	161.5	8.4	16.1
- 7.90 -0.16	+ 83.4 -10.8	1990 UG4	17965	- 3.99 +1.29	+3.2	-13.5	
1993 06 22	15 51.67	-00 03.5	1.307	2.189	140.5	17.2	16.5
1993 05 23	16 14.02	-09 14.9	1.973	2.971	168.2	4.0	16.7
- 7.80 -0.18	+ 62.1 - 3.5	1981 DB1	15703	- 5.38 +0.91	+ 26.3	- 7.6	
1993 06 22	15 52.24	-06 54.9	2.007	2.895	144.5	11.8	17.0
1993 05 23	16 15.85	-39 14.5	2.644	3.616	161.0	5.2	16.9
- 9.33 -0.07	+ 24.7 + 7.3	(5190)	20005	- 6.27 +0.98	+ 54.0	+ 1.8	
1993 06 22	15 50.52	-37 06.2	2.745	3.651	148.5	8.4	17.2
1993 05 23	16 16.89	-24 51.2	2.000	3.009	174.1	2.0	17.1
-10.34 -0.17	- 13.5 + 3.0	1982 WE	12949	- 7.19 +1.09	-3.0	0.0	
1993 06 22	15 48.28	-25 10.3	2.109	3.028	149.3	9.9	17.7
1993 05 23	16 15.85	-20 24.1	2.495	3.506	176.2	1.1	16.6
- 8.02 -0.08	+ 21.2 + 0.6	(5138)	19848	- 5.55 +0.81	+ 16.0	- 2.3	
1993 06 22	15 53.86	-19 22.8	2.617	3.532	149.7	8.3	17.1
1993 05 23	16 18.85	-23 27.0	1.444	2.454	174.7	2.2	18.0
-10.45 -0.40	+ 16.1 + 3.2	1986 PU1	17437	- 7.19 +1.35	+ 20.3	- 2.3	
1993 06 22	15 49.16	-22 22.0	1.457	2.388	149.2	12.6	18.5
1993 05 23	16 18.57	-18 44.9	1.816	2.826	175.2	1.7	17.5
- 7.86 -0.21	+ 34.9 + 0.2	1981 EK7	19858	- 5.18 +1.00	+ 22.4	- 4.1	
1993 06 22	15 56.78	-17 11.0	1.868	2.794	149.8	10.5	18.0
1993 05 23	16 18.54	-29 32.0	1.869	2.872	170.0	3.5	15.0
- 8.58 -0.20	+ 14.0 + 5.0	1981 EY26	11046	- 5.53 +1.09	+ 30.6	- 0.1	
1993 06 22	15 55.01	-28 15.5	1.942	2.873	150.9	9.9	15.4
1993 05 23	16 21.39	-10 14.3	1.270	2.271	168.4	5.1	16.7
- 8.92 -0.35	+ 40.0 - 5.2	1978 PW3	12948	- 5.65 +1.30	-5.3	- 8.7	
1993 06 22	15 56.50	-09 15.8	1.308	2.228	146.6	14.5	17.1
1993 05 23	16 22.18	-23 14.0	1.074	2.084	174.1	2.9	15.7
-10.08 -0.35	+ 23.3 + 3.3	(5124)	19842	- 5.57 +1.60	+ 22.5	- 3.7	
1993 06 22	15 55.10	-21 52.2	1.141	2.087	150.5	13.9	16.4
1993 05 23	16 20.87	-34 52.5	4.628	5.612	164.9	2.7	17.3
- 5.86 -0.09	+7.1 + 3.2	(5025)	19489	- 4.66 +0.46	+ 21.2	+ 1.3	
1993 06 22	16 04.06	-34 06.6	4.692	5.609	152.0	4.9	17.4

1993 05 23	16 22.80	-18 48.0		2.221	3.230	174.2	1.8	16.0
- 8.62 -0.21	-4.9	0.0	1992 EL1	20035	- 6.41 +0.87		-9.9	- 1.8
1993 06 22	15 58.25	-19 06.8		2.297	3.222	150.7	8.9	16.4
1993 05 23	16 24.06	-36 54.6		1.942	2.924	162.8	5.9	16.6
-11.70 -0.45	- 27.6	+ 8.5	1990 TK3	20021	- 8.93 +1.25		+ 16.0	+ 4.3
1993 06 22	15 49.97	-37 04.3		1.975	2.890	148.4	10.6	16.9
1993 05 23	16 23.07	-25 02.5		2.821	3.828	173.0	1.9	17.4
- 8.07 -0.13	+ 11.3	+ 2.2	1990 UE3	17458	- 6.05 +0.74		+ 16.6	- 0.6
1993 06 22	16 00.29	-24 15.6		2.929	3.856	152.0	7.1	17.8
1993 05 23	16 27.37	-55 34.7		1.822	2.711	+2.09	-2.4	17.7
-15.79 -0.76	-4.8	+18.3	1990 QB	17638	-10.97 +2.04		+ 91.2	+10.1
1993 06 22	15 42.03	-53 09.8		1.790	2.651	+1.85	-5.5	17.7
1993 05 23	16 26.93	-36 19.6		2.084	3.067	163.1	5.5	16.0
- 8.91 -0.25	+ 39.5	+ 7.9	1991 AJ3	18125	- 6.13 +1.05		+ 69.5	+ 1.2
1993 06 22	16 01.97	-33 23.7		2.124	3.057	151.7	9.1	16.2
1993 05 23	16 27.26	-19 05.7		1.757	2.765	173.3	2.4	17.1
- 9.77 -0.34	+ 20.6	+ 0.5	1979 WX3	17013	- 7.26 +1.07		+ 12.4	- 3.3
1993 06 22	15 59.11	-18 09.2		1.798	2.729	150.6	10.5	17.5
1993 05 23	16 28.18	-22 34.3		1.702	2.710	173.0	2.6	18.1
- 9.94 -0.29	+ 24.5	+ 2.2	1981 EH23	10385	- 6.96 +1.14		+ 24.1	- 2.5
1993 06 22	16 00.19	-21 12.4		1.779	2.717	151.6	10.3	18.6
1993 05 23	16 28.74	-24 37.5		1.494	2.501	172.1	3.2	16.7
- 9.90 -0.34	+ 23.0	+ 3.5	1990 SF11	21108	- 6.64 +1.26		+ 28.3	- 2.1
1993 06 22	16 00.97	-23 09.9		1.564	2.507	152.0	11.0	17.2
1993 05 23	16 29.27	-21 04.5		1.303	2.311	173.0	3.0	16.7
-10.70 -0.52	+9.8	+ 1.7	1987 RJ	12448	- 7.64 +1.39		+7.3	- 2.9
1993 06 22	15 58.23	-20 30.4		1.329	2.272	151.0	12.5	17.1
1993 05 23	16 30.95	-31 35.6		1.488	2.485	166.9	5.3	17.3
-11.35 -0.39	+ 17.2	+ 7.8	1984 WM1	12205	- 7.66 +1.42		+ 45.5	+ 0.4
1993 06 22	15 59.10	-29 47.6		1.559	2.500	151.7	11.1	17.6
1993 05 23	16 29.68	-22 22.4		1.172	2.181	172.8	3.4	16.9
- 9.55 -0.35	+ 28.0	+ 2.3	4247 P-L	14960	- 5.61 +1.44		+ 23.1	- 3.9
1993 06 22	16 03.64	-20 54.3		1.262	2.213	152.3	12.3	17.5
1993 05 23	16 31.29	-19 36.5		1.366	2.374	172.5	3.2	16.9
-10.56 -0.32	+ 42.3	+ 0.8	1978 VR4	14945	- 6.93 +1.34		+ 28.3	- 5.1
1993 06 22	16 02.00	-17 39.7		1.457	2.398	151.1	11.8	17.4
1993 05 23	16 30.53	-24 23.6		1.151	2.158	171.9	3.8	17.8
- 9.37 -0.61	+ 30.9	+ 4.5	1981 EB11	11042	- 6.42 +1.46		+ 37.5	- 3.0
1993 06 22	16 03.03	-22 27.1		1.146	2.101	152.4	12.9	18.2
1993 05 23	16 32.85	-31 00.5		1.749	2.746	167.1	4.7	17.5
-10.40 -0.40	+ 11.0	+ 6.4	1990 QW1	19865	- 7.63 +1.19		+ 36.3	+ 0.9
1993 06 22	16 02.87	-29 39.2		1.800	2.742	152.5	9.9	17.8
1993 05 23	16 32.06	-17 44.4		2.689	3.694	171.8	2.2	17.7
- 6.88 -0.20	+ 19.5	- 0.3	6030 P-L	19318	- 5.41 +0.65		+ 10.8	- 2.5
1993 06 22	16 12.06	-16 55.0		2.757	3.693	153.2	7.1	18.1

1993 05 23	16 32.70	-18 42.1	2.593	3.598	172.0	2.3	17.9
- 7.71 -0.25	+ 16.0 + 0.1	(5045)	19661	- 6.27 +0.69	+9.9 - 2.2		
1993 06 22	16 09.99	-17 59.2	2.631	3.567	153.1	7.4	18.2
1993 05 23	16 33.80	-11 39.3	0.973	1.974	167.9	6.2	15.7
- 8.84 -0.57	+ 17.2 - 6.0	1990 QM4	17448	- 5.57 +1.48	- 28.2 - 7.8		
1993 06 22	16 08.41	-11 52.6	1.016	1.965	150.4	14.8	16.1
1993 05 23	16 34.47	-18 21.4	1.926	2.931	171.5	2.9	17.1
- 7.85 -0.30	+ 15.3 - 0.3	1981 EB1	12790	- 5.83 +0.89	+5.4 - 2.9		
1993 06 22	16 11.75	-17 45.4	1.998	2.943	153.4	8.9	17.4
1993 05 23	16 39.34	-36 21.8	1.075	2.062	162.0	8.7	16.3
-11.71 -0.76	- 48.5 +12.4	1982 FC	14347	- 7.73 +1.82	+ 16.6 + 6.3		
1993 06 22	16 05.39	-36 58.2	1.148	2.097	151.4	13.4	16.7
1993 05 23	16 35.81	-27 32.7	4.386	5.384	169.2	2.0	17.6
- 5.60 -0.15	+1.0 + 1.7	1973 SR1	16421	- 4.79 +0.40	+8.1 + 0.5		
1993 06 22	16 19.20	-27 16.7	4.443	5.389	156.3	4.4	17.8
1993 05 23	16 41.89	-21 27.7	1.697	2.700	170.1	3.7	17.2
-10.42 -0.56	+ 31.7 + 2.3	1987 UP2	15416	- 8.68 +1.06	+ 31.6 - 2.7		
1993 06 22	16 10.24	-19 43.4	1.694	2.643	153.6	9.9	17.4
1993 05 23	16 41.12	-15 59.4	1.484	2.486	169.1	4.4	16.3
- 8.33 -0.64	+ 49.7 - 0.1	1979 VN	10516	- 7.13 +1.01	+ 30.6 - 6.0		
1993 06 22	16 14.89	-13 47.9	1.431	2.380	152.7	11.3	16.5
1993 05 23	16 45.95	-32 55.6	1.894	2.881	163.9	5.6	17.1
-10.20 -0.49	- 11.7 + 6.5	1983 AA3	18808	- 8.14 +1.07	+ 20.4 + 2.9		
1993 06 22	16 15.56	-32 35.7	1.963	2.914	154.7	8.6	17.4
1993 05 23	16 44.28	-19 05.7	2.013	3.014	169.4	3.6	16.7
- 7.72 -0.44	+ 13.0 + 0.1	6564 P-L	16036	- 6.57 +0.79	+6.5 - 2.4		
1993 06 22	16 20.57	-18 31.8	2.015	2.971	155.6	8.1	16.9
1993 05 23	16 45.05	-05 13.1	2.076	3.051	161.1	6.2	17.0
- 8.13 -0.40	+ 38.5 - 5.3	1991 AO2	17833	- 6.97 +0.75	-2.1 - 7.4		
1993 06 22	16 20.29	-04 14.8	2.097	3.012	148.7	10.1	17.2
1993 05 23	16 47.39	-25 21.3	1.887	2.885	168.0	4.2	17.6
- 9.56 -0.61	-3.3 + 2.9	1977 VL1	21098	- 8.54 +0.91	+9.4 + 0.5		
1993 06 22	16 17.43	-25 07.5	1.865	2.824	155.9	8.4	17.7
1993 05 23	16 42.75	-21 57.0	4.980	5.979	169.8	1.7	16.9
- 5.24 -0.16	-3.7 + 0.5	(5283)	20621	- 4.74 +0.32	-2.8 - 0.2		
1993 06 22	16 26.92	-22 05.5	5.022	5.976	157.8	3.7	17.0
1993 05 23	16 48.38	-27 46.0	1.416	2.413	166.7	5.5	16.7
- 9.89 -0.82	+ 18.1 + 5.7	1982 OF	15882	- 8.66 +1.19	+ 41.0 + 0.5		
1993 06 22	16 16.85	-26 07.6	1.372	2.336	155.8	10.3	16.8
1993 05 23	16 44.06	-23 30.2	4.484	5.482	169.3	2.0	17.2
- 5.20 -0.18	+ 10.4 + 0.9	1992 HS3	20513	- 4.64 +0.35	+ 12.4 - 0.3		
1993 06 22	16 28.34	-22 53.7	4.514	5.471	158.3	3.9	17.3
1993 05 23	16 43.95	-17 40.8	4.146	5.144	169.1	2.1	16.8
- 5.13 -0.18	+ 17.0 - 0.3	(5244)	20486	- 4.53 +0.36	+ 11.4 - 1.5		
1993 06 22	16 28.47	-16 55.9	4.187	5.138	156.9	4.4	17.0

1993 05 23	16 47.95	-14 50.2	2.113	3.108	167.1	4.2	17.5
- 8.38 -0.38	+ 51.5 - 1.1	1990 UJ1	20149	- 7.02 +0.78	+ 32.2 - 5.0		
1993 06 22	16 22.71	-12 37.5	2.156	3.101	153.9	8.3	17.7
1993 05 23	16 50.93	-20 20.0	1.753	2.751	168.0	4.4	17.6
- 9.72 -0.49	+ 21.1 + 0.9	1987 VQ	19676	- 7.96 +0.99	+ 16.9 - 2.5		
1993 06 22	16 21.67	-19 16.5	1.813	2.772	156.1	8.5	17.9
1993 05 23	16 47.63	-37 33.1	4.060	5.024	+0.54	+1.0	17.4
- 6.22 -0.23	+ 19.1 + 4.2	1991 EN	18438	- 5.42 +0.47	+ 39.2 + 2.1		
1993 06 22	16 28.89	-36 01.9	4.074	5.020	+0.53	+0.7	17.5
1993 05 23	16 52.38	-21 13.0	1.170	2.170	167.6	5.7	16.3
- 9.89 -0.64	+ 46.5 + 1.7	1991 XK	20511	- 7.27 +1.34	+ 36.7 - 4.9		
1993 06 22	16 22.99	-18 55.7	1.237	2.206	156.3	10.7	16.7
1993 05 23	16 49.62	-21 06.0	2.516	3.513	168.3	3.4	16.4
- 7.73 -0.33	+8.8 + 0.8	(5193)	20006	- 6.60 +0.67	+8.1 - 1.2		
1993 06 22	16 26.28	-20 36.9	2.583	3.543	157.4	6.3	16.6
1993 05 23	16 52.00	-19 18.8	1.578	2.576	167.6	4.8	18.2
- 9.23 -0.63	+ 28.7 + 0.7	1981 EY10	17628	- 7.92 +1.00	+ 20.7 - 3.4		
1993 06 22	16 23.26	-17 57.1	1.585	2.548	156.1	9.3	18.4
1993 05 23	16 51.22	-15 08.7	2.169	3.163	166.6	4.3	18.1
- 8.48 -0.45	-1.7 - 1.6	1990 VS5	18298	- 7.55 +0.73	- 14.7 - 2.6		
1993 06 22	16 25.00	-15 31.5	2.193	3.147	155.6	7.7	18.2
1993 05 23	16 48.29	-19 46.7	4.861	5.856	168.5	2.0	16.6
- 5.34 -0.18	-9.0 0.0	(5254)	20490	- 4.97 +0.30	- 10.0 - 0.4		
1993 06 22	16 31.93	-20 14.3	4.892	5.850	158.6	3.6	16.7
1993 05 23	16 51.80	-21 50.9	2.009	3.007	167.8	4.1	17.2
- 7.77 -0.53	+7.4 + 1.2	6543 P-L	9302	- 7.04 +0.76	+8.6 - 1.1		
1993 06 22	16 27.21	-21 22.8	1.991	2.957	157.8	7.5	17.3
1993 05 23	16 49.59	-26 36.5	3.950	4.942	167.0	2.6	17.7
- 5.59 -0.23	+3.5 + 1.6	1973 SE1	20804	- 5.07 +0.39	+ 10.3 + 0.4		
1993 06 22	16 32.45	-26 13.5	3.973	4.937	159.3	4.2	17.8
1993 05 23	16 51.87	-19 49.8	1.760	2.757	167.7	4.5	16.3
- 7.45 -0.52	+ 14.1 + 0.3	2563 P-L	6207	- 6.33 +0.85	+8.1 - 2.4		
1993 06 22	16 28.69	-19 11.7	1.783	2.751	157.7	8.1	16.5
1993 05 23	16 54.95	-19 55.2	0.929	1.929	167.0	6.8	16.3
- 8.96 -1.13	-8.0 - 0.4	1990 MG	18121	- 8.09 +1.42	- 15.8 - 2.6		
1993 06 22	16 24.63	-20 26.9	0.899	1.877	157.0	12.2	16.4
1993 05 23	16 59.96	+13 53.6	1.006	1.912	142.5	18.8	16.4
-12.58 -0.95	- 62.5 -26.0	1988 MF	16027	-10.44 +1.52	-196.1 -13.9		
1993 06 22	16 20.84	+07 03.0	1.021	1.918	140.6	19.7	16.4
1993 05 23	16 50.65	-22 03.7	4.573	5.567	168.0	2.2	17.3
- 5.03 -0.18	+ 14.0 + 0.6	(5258)	20492	- 4.58 +0.32	+ 14.2 - 0.6		
1993 06 22	16 35.31	-21 19.3	4.616	5.580	159.6	3.6	17.4
1993 05 23	16 56.97	-37 15.4	1.744	2.714	159.2	7.6	17.0
- 8.85 -0.72	- 25.6 + 8.0	1981 EQ	15553	- 7.71 +1.04	+ 20.3 + 5.5		
1993 06 22	16 28.88	-37 18.6	1.769	2.727	155.5	8.9	17.1

1993 05 23	16 55.72	-17 56.8	1.890	2.884	166.5	4.7	17.8
- 8.27 -0.55	+ 17.7 - 0.3	1990 WS4	18435	- 7.41 +0.80	+8.1 - 2.9		
1993 06 22	16 29.73	-17 13.3	1.899	2.864	157.3	7.9	17.9
1993 05 23	16 57.38	-14 56.7	1.144	2.138	165.1	7.0	16.3
- 8.86 -0.97	+ 27.3 - 2.3	1983 QH1	17818	- 8.28 +1.16	-0.3 - 6.5		
1993 06 22	16 27.73	-14 08.4	1.106	2.075	155.7	11.6	16.3
1993 05 23	16 55.82	-10 02.6	2.021	3.003	162.8	5.7	16.7
- 8.15 -0.48	+ 51.3 - 3.1	1977 TD1	17426	- 7.32 +0.73	+ 20.5 - 6.5		
1993 06 22	16 30.37	-08 08.4	2.035	2.977	153.0	8.9	16.8
1993 05 23	16 58.15	-17 16.5	1.934	2.926	165.8	4.9	16.8
- 8.25 -0.54	+ 21.5 - 0.6	1990 VC15	19505	- 7.45 +0.77	+ 10.1 - 3.2		
1993 06 22	16 32.19	-16 24.3	1.950	2.915	157.6	7.6	16.9
1993 05 23	16 57.97	-09 28.2	1.754	2.735	162.1	6.5	17.3
- 8.27 -0.61	+ 15.6 - 4.5	1981 QV2	17431	- 7.67 +0.79	- 18.1 - 6.0		
1993 06 22	16 31.46	-09 29.2	1.748	2.699	154.1	9.5	17.4
1993 05 23	17 00.64	-28 42.1	1.753	2.740	163.9	5.9	17.4
- 9.93 -0.74	+ 11.6 + 5.0	1988 CC2	18289	- 9.16 +0.96	+ 34.4 + 1.4		
1993 06 22	16 28.85	-27 26.3	1.736	2.707	158.4	7.9	17.4
1993 05 23	16 59.14	-16 05.1	1.456	2.449	165.2	6.1	17.7
- 8.16 -0.75	+ 26.0 - 1.4	6612 P-L	18303	- 7.54 +0.93	+6.9 - 4.8		
1993 06 22	16 32.47	-15 09.4	1.438	2.407	157.1	9.4	17.8
1993 05 23	17 00.83	-31 21.3	1.372	2.358	162.5	7.4	16.1
- 9.59 -0.84	+ 21.1 + 7.5	1981 EF2	12321	- 8.23 +1.21	+ 53.4 + 1.6		
1993 06 22	16 30.31	-29 18.5	1.380	2.356	158.5	9.1	16.2
1993 05 23	17 00.62	-26 03.6	1.698	2.688	164.9	5.6	17.2
- 9.54 -0.77	+7.7 + 3.6	1971 TF	14613	- 8.99 +0.93	+ 23.3 + 0.6		
1993 06 22	16 29.67	-25 11.4	1.670	2.643	158.7	8.0	17.3
1993 05 23	16 59.93	-23 21.3	2.257	3.248	165.7	4.4	16.3
- 8.21 -0.51	- 14.3 + 1.4	1990 XB	20150	- 7.60 +0.69	-7.5 + 0.5		
1993 06 22	16 34.00	-23 52.4	2.285	3.257	159.6	6.2	16.4
1993 05 23	16 59.73	-14 39.9	1.332	2.324	164.5	6.7	16.5
- 7.83 -0.76	+ 84.2 - 0.6	3051 P-L	15074	- 7.06 +0.99	+ 54.3 - 8.7		
1993 06 22	16 34.16	-10 57.0	1.316	2.280	155.4	10.7	16.6
1993 05 23	17 02.16	-21 27.8	1.279	2.273	165.4	6.5	16.9
- 8.68 -0.99	+ 58.9 + 3.7	1982 UU8	21103	- 8.59 +1.04	+ 60.5 - 4.0		
1993 06 22	16 32.49	-18 14.5	1.206	2.183	158.3	9.9	16.8
1993 05 23	17 03.16	-17 56.4	1.402	2.394	164.8	6.4	17.6
- 9.14 -0.68	+ 14.8 - 0.9	1981 EE1	10820	- 7.76 +1.06	+2.0 - 3.4		
1993 06 22	16 34.59	-17 26.6	1.463	2.437	158.5	8.8	17.9
1993 05 23	17 03.07	-12 47.4	2.168	3.150	162.9	5.4	17.1
- 7.49 -0.44	+ 16.4 - 2.6	1981 EH1	19857	- 6.71 +0.66	-4.1 - 3.9		
1993 06 22	16 39.74	-12 26.5	2.237	3.199	157.4	7.0	17.3
1993 05 23	17 04.95	-11 53.6	1.766	2.747	162.1	6.5	17.4
- 8.54 -0.59	+ 25.3 - 3.3	1988 BY3	17821	- 7.78 +0.81	-2.2 - 5.3		
1993 06 22	16 37.90	-11 15.3	1.803	2.764	156.4	8.5	17.6