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Brian G. Marsden, Director Gareth V. Williams, Associate Director

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ERRATA.

MPC	Line				
15470	-9	For	56 9	read	56.9
19484	24	For	(M-P)	read	(M-C)

* * * * *

CORRECTED OBSERVATIONS.

The following observations correct those previously published.

Object	Date	UT	R. A. (2000)	Decl.	Reference	Mag.	N	Obs.
1931 TZ2	1931 10	10.20833	00 01 54.81 +03	36 11.3	MPC 15331			690
1931 TZ2	1931 10	11.21181	00 01 26.04 +03	20 36.5	MPC 15331			690
1990 HM3	* 1990 04	29.76870	18 40 05.55 -23	05 39.6	MPC 17101			413
1990 HM3	1990 05	02.74389	18 40 10.01 -23	07 10.1	MPC 17101			413
1990 HN3	* 1990 04	29.76870	18 40 19.92 -23	32 34.0	MPC 17101			413
1990 HN3	1990 05	02.74389	18 41 10.07 -23	32 25.3	MPC 17101			413
1990 HO3	* 1990 04	29.76870	18 43 28.80 -23	54 06.5	MPC 17101			413
1990 HO3	1990 05	02.74389	18 43 26.37 -23	56 08.7	MPC 17101			413
1967 GK1	1967 04	15.91667	12 46 47.15 +12	05 41.4	MPC 10678			1 033
1992 AD	1992 01	31.89052	08 04 37.89 +20	50 48.8	MPC 19575			2 049
(12)	1929 11	29.0049	05 16 50 +18	47.9	RI 269	10.5	3	006
(56)	1929 11	29.0049	05 28 44 +12	46.6	RI 269	12.4	3	006
(306)	1929 11	29.0049	05 36 49 +12	47.0	RI 269	11.6	3	006
(329)	1929 11	06.0069	05 04 14 +00	35.4	RI 258	12.5	3	006
(339)	1929 10	28.0014	03 27 05 +06	59.3	RI 248	12.7		006
(354)	1929 11	06.0069	05 11 01 -03	27.6	RI 258	10.0	3	006
(482)	1929 07	05.8851	18 36 04 -00	42.3	RI 247	11.4	4	990
(483)	1929 07	05.8851	18 39 43 +02	39.0	RI 247	12.0	4	990
(554)	1929 10	06.81021	23 40.9 +03	21	RI 237	10.2	5	094
(569)	1929 03	12.9292	12 00.49 -01	52.6	RI 229	12.0		022
(1001)	1982 01	28.90521	05 53 20.88 +18	43 01.2	MPC 7562		4	560
(1001)	1982 01	28.95243	05 53 19.89 +18	42 56.2	MPC 7562		4	560
(2111)	1979 06	01.89167	16 21 50.71 -06	28 24.3	MPC 5879		6	552
(2111)	1979 06	01.90972	16 21 49.83 -06	28 21.4	MPC 5879		6	552
(2271)	1981 11	29.50972	04 37 32.21 +17	14 09.4	MPC 6628		6	879
(2271)	1981 11	29.52361	04 37 31.21 +17	14 11.4	MPC 6628	16.0	6	879
(2284)	1988 10	17.16239	00 36 06.42 -03	10 46.2	MPC 15035		6	808
(2284)	1988 10	17.19771	00 36 04.53 -03	10 58.8	MPC 15035		6	808
(3327)	1990 04	29.76870	18 40 19.03 -23	32 24.2	MPC 17104			413
(3327)	1990 05	02.74389	18 40 47.48 -23	33 34.5	MPC 17104			413

Note 1: 1967 GK1 = (2301). 2: time corrected. 3: date corrected by +1 day.
 4: date corrected by -1 day. 5: originally given as (354). 6:
 observations interchanged.

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DELETED OBSERVATIONS.

The following observations are to be deleted.

Object	Date	UT	R. A. (2000)	Decl.	Reference	Obs.
1959 VG	* 1959 11 10.38		05 11.6	+19 55	MPC 2007	760
1959 VG	1959 11 10.42907		05 11 31.57	+19 55 40.3	MPC 12042	760
(238)	1929 11 05.9096		01 01 24	-00 18.5	RI 248	990
(238)	1929 11 07.9131		01 00 06	-00 30.4	RI 248	990
(270)	1929 07 10.9007		19 15 34	-20 03.7	RI 247	990
(597)	1929 11 05.9096		00 49 02	-00 11.8	RI 248	990
(597)	1929 11 07.9131		00 47 50	-00 04.1	RI 248	990
(601)	1929 10 07.8752		23 55 22	-05 56.1	RI 256	990
(617)	1929 10 28.8644		01 01 49	-07 46.7	RI 248	990
(906)	1972 10 06.00764		01 41 03.95	+03 18 43.2	MPC 3600	056
(906)	1972 10 06.04792		01 41 02.10	+03 18 56.1	MPC 3600	056
(914)	1942 07 04.91910		18 17 13.61	-02 24 40.7	RI 2400	028
(914)	1957 03 25.66250		13 46 15.48	-43 52 05.5	MPC 2612	388
(919)	1955 11 13.54097		03 20 31.75	+18 11 05.2	MPC 2587	388
(924)	1971 01 16.78528		05 34 43.44	+12 27 35.2	MPC 5117	073
(924)	1971 01 16.80329		05 34 42.64	+12 27 42.4	MPC 5117	073
(925)	1976 11 17.83615		01 22 40.37	+42 24 50.8	MPC 6234	020
(925)	1976 11 17.83892		01 22 39.65	+42 24 51.9	MPC 6234	020
(929)	1967 02 08.10469		11 44 55.04	-04 54 18.6	MPC 3343	020
(929)	1967 02 08.13725		11 44 54.58	-04 54 26.5	MPC 3343	020
(929)	1967 02 15.08308		11 41 42.43	-04 37 41.9	MPC 3343	020
(929)	1967 02 15.10594		11 41 42.06	-04 37 48.1	MPC 3343	020
(929)	1968 09 04.96488		00 19 33.60	+08 08 09.4	MPC 3445	020
(929)	1968 09 04.97874		00 19 32.63	+08 08 07.1	MPC 3445	020
(936)	1966 12 17.13732		08 05 22.89	+22 34 00.7	MPC 3343	020
(936)	1966 12 17.15255		08 05 21.43	+22 34 17.8	MPC 3343	020
(936)	1966 12 23.05983		08 01 36.68	+22 53 42.1	MPC 3343	020
(936)	1966 12 23.07575		08 01 35.30	+22 53 50.3	MPC 3343	020
(937)	1982 01 22.21184		08 51 03.07	+12 16 04.2	MPC 15033	808
(938)	1971 10 19.98657		01 45 46.55	+06 33 11.7	MPC 6381	020
(939)	1969 02 17.91603		08 51 55.38	+18 19 34.2	MPC 3445	020
(939)	1969 02 17.93058		08 51 54.99	+18 19 38.5	MPC 3445	020
(940)	1971 12 17.11699		07 32 05.95	+26 24 24.3	MPC 6381	020
(940)	1971 12 17.12877		07 32 05.42	+26 24 36.7	MPC 6381	020
(954)	1968 01 18.75993		06 31 18.74	+21 55 37.3	MPC 3445	020
(954)	1968 01 18.77378		06 31 17.82	+21 55 45.7	MPC 3445	020
(954)	1969 02 18.00814		10 32 09.68	+08 40 42.1	MPC 3445	020
(954)	1969 02 18.02268		10 32 08.75	+08 40 48.2	MPC 3445	020
(954)	1971 07 29.99937		22 40 22.07	-07 48 39.2	MPC 5117	073
(954)	1971 07 30.00699		22 40 21.94	-07 48 39.6	MPC 5117	073
(960)	1955 11 10.66736		05 24 01.57	+23 24 16.5	MPC 2587	388
(960)	1957 03 06.67847		12 26 00.56	-07 42 45.5	MPC 8947	388
(962)	1956 12 22.46285		04 32 00.00	+18 08 46.3	MPC 2158	388
(963)	1968 09 05.04694		00 35 31.74	-10 59 14.4	MPC 3446	020
(963)	1968 09 05.06426		00 35 30.79	-10 59 12.9	MPC 3446	020
(966)	1966 11 25.14632		05 30 04.51	+24 35 29.7	MPC 3343	020

(966)	1966	11	25.15673	05	30	04.14	+24	35	40.7	MPC	3343	020
(968)	1969	08	25.03673	23	39	24.19	+09	03	06.7	MPC	3446	020
(968)	1969	08	25.04366	23	39	23.32	+09	03	18.8	MPC	3446	020
(968)	1969	10	06.92589	23	10	34.39	+04	14	44.8	MPC	3446	020
(968)	1969	10	06.93905	23	10	33.22	+04	14	53.6	MPC	3446	020
(974)	1938	01	30.94244	10	05	21.76	+19	17	08.2	MPC	3222	020
(974)	1955	05	18.50452	14	44	58.77	-10	23	48.1	MPC	2612	388
(974)	1955	05	20.65578	14	43	12.59	-10	19	42.5	MPC	1413	377
(975)	1975	04	09.09753	15	51	08.02	-20	41	17.8	MPC	4880	020
(975)	1975	04	09.11381	15	51	07.89	-20	41	16.3	MPC	4881	020
(978)	1957	07	20.93162	18	26	13.16	+07	21	36.7	MPC	1822	020
(981)	1971	07	30.94526	20	04	26.48	-23	50	44.7	MPC	6382	020
(981)	1971	07	30.95288	20	04	25.71	-23	50	42.0	MPC	6382	020
(984)	1967	02	08.10469	11	44	04.55	-05	25	11.0	MPC	3343	020
(984)	1967	02	08.13725	11	44	03.67	-05	25	12.8	MPC	3343	020
(984)	1967	02	15.08308	11	40	00.86	-05	18	33.3	MPC	3343	020
(984)	1967	02	15.10594	11	39	59.74	-05	18	20.6	MPC	3343	020
(996)	1939	03	14.87828	09	42	39.19	+14	03	47.7	MPC	3223	020
(996)	1939	03	14.92191	09	42	37.95	+14	03	54.6	MPC	3223	020
(999)	1978	11	05.15311	22	55	07.95	+00	18	18.5	MPC	9545	808
(999)	1978	11	05.17804	22	55	09.39	+00	18	08.7	MPC	9545	808

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IDENTIFICATION CHANGES.

Continuation to MPC 19159.

Object	Date	UT	R. A. (2000)	Decl.	Old desig.	Mag.	N Obs.
A910 NC	* 1910 07	15.00778	20 00 56.33	-24 07 10.3	1029		024
A921 UH	* 1921 10	25.90340	02 26 31.78	+14 36 36.1	1029		024
A922 OC	* 1922 07	29.98979	21 12 04.61	-16 38 33.7	928		024
1927 BQ	* 1927 01	28.76890	05 03.4	-05 23	1051	16.0	024
1930 AH	* 1930 01	06.97348	06 17.1	+33 34	227	13.5	094
1930 DC1	* 1930 02	21.83578	03 47.8	+25 42	408	15.5	024
1930 DD1	* 1930 02	28.90063	11 02.1	-07 37	583	12.7	094
1933 BA1	* 1933 01	24.28615	09 23 42.60	+16 21 32.9	1933 BV	15.0	754
1933 BB1	* 1933 01	31.26626	09 16 34.84	+16 44 50.4	1933 BV	16.0	754
1942 NC	* 1942 07	13.88	19 59.3	-35 47	1087	12.0	078
1947 GK	* 1947 04	11.89260	11 43 07.68	+08 08 01.1	924		012
1947 GK	1947 04	16.95444	11 40 28.25	+08 26 25.7	924		012
1948 KJ	* 1948 05	31.886	16 46.5	-23 45	1079	14.0	078
1951 FD	* 1951 03	26.89	12 48.5	+00 52	1087	13.7	020
1957 YA1	* 1957 12	22.79260	04 49 51.75	+24 38 10.0	966		024
1978 WY16	* 1978 11	30.31702	04 08 56.62	+19 08 48.9	6372 P-L	18.5V	675
1978 WY16	1978 12	01.33472	04 07 58.05	+19 05 24.1	6372 P-L		675
1982 DJ7	* 1982 02	27.97367	11 01 13.21	+08 21 59.2	1982 DJ5		010
1986 CM2	* 1986 02	15.03822	10 07 12.78	+20 03 37.0	1986 CO		046
1989 CK9	* 1989 02	10.35694	11 24 04.06	+05 00 56.8	1989 CM8		809
1989 CK9	1989 02	10.36250	11 24 03.75	+05 00 58.7	1989 CM8		809
1989 CK9	1989 02	10.36806	11 24 03.47	+05 01 00.3	1989 CM8		809
1991 PP17	* 1991 08	10.44618	00 22 53.46	+06 48 36.1	1987 QZ1		675
1991 PQ17	* 1991 08	08.44149	23 42 22.70	+01 18 17.0	1991 PV10	17.2	675
1991 TE8	* 1991 10	08.47049	23 45 44.29	+06 40 07.1	1991 SP1	16.5	400
1991 TE8	1991 10	08.48785	23 45 43.42	+06 40 03.2	1991 SP1		400
1992 CA1	* 1992 02	01.56632	10 21 42.33	+08 49 49.1	1992 BY		364
1992 CA1	1992 02	01.58021	10 21 41.84	+08 49 55.0	1992 BY		364

ERRONEOUS IDENTIFICATIONS.

The following identifications are erroneous:

A924 LB = (1032)	Ref. 1	1933 BV = (2267)	Ref. 2	1963 MB = (1061)	Ref. 3
Ref. 1: MPC 6484. 2: MPC 14977. 3: MPC 2506.					

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IDENTIFICATIONS.

Continuation to MPC 18665:

A910 NC = (1063)	Note 1	1930 DC1 = (1040)	Note 1	1933 BV = (300)	Note 1
1933 BB1 = (2267)	Note 2	1942 NC = (1132)	Note 1	1947 GK = (627)	Note 1
1948 KJ = (1162)	Note 1	1951 FD = (301)	Note 1	1957 YA1 = (198)	Note 1
1963 MB = (3459)	Note 1				

Note 1: identification by G. V. Williams. 2: by S. Nakano.

* * * * *

OBSERVATIONS OF COMETS.

Observations are published here for the following observatory codes:

098 Cima Ekar. Observers A. Boattini and M. Tombelli.
 323 Perth Observatory, Bickley. Observer G. Lowe. Measured by T. Smith.
 364 JCPM Kagoshima Station. 0.25-m f/4.2 Wright-Schmidt. Observer M. Mukai. Measured by M. Takeishi.
 372 Geisei. 0.60-m reflector. Observer T. Seki. In part from Orient. Astron. Assoc. Comet Bull.
 373 Oishi. 0.31-m f/4.2 and f/5.3 reflectors. Observer M. Tsumura. Measured by S. Hayakawa and M. Takeishi.
 376 Uenohara. 0.30-m reflector + CCD. Observer N. Kawasato.
 399 Kushiro. 0.25-m f/3.5 reflector. Observer S. Ueda. Measured by H. Kaneda.
 411 Oizumi. 0.16-m f/4.8 reflector + CCD. Observer T. Kobayashi.
 413 Siding Spring. Uppsala Southern Schmidt and 1.0-m reflector + CCD. Observers R. H. McNaught and S. D. Ryder. Measured by McNaught.
 415 Kambah, near Canberra. Observer D. Herald.
 474 Mt. John. 0.6-m reflector. Observer A. C. Gilmore. Measured by P. M. Kilmartin.
 540 Linz. 0.3-m f/5.2 Schmidt-Cassegrain. Observers E. Meyer, E. Obermair and H. Raab.
 587 Sormano. 0.21-m f/4.9 astrograph. Observers S. Barni, M. Cavagna, E. Colzani, P. Sicoli and G. Ventre.
 595 Farra d'Isonzo. Observers G. Lombardi and F. Piani.
 598 Loiano. 0.2-m f/8 reflector + CCD. Observer G. Del Zanna. Long. and Parallax 11.3333, 0.71739, +0.69433 (see MPC 19348).
 658 Dominion Astrophysical Observatory, Victoria. 1.85-m reflector + CCD. Observer G. C. L. Aikman. Measured by D. D. Balam.
 675 Palomar. 0.46-m Schmidt. Observers H. E. Holt, K. A. Lawler and J. Stiffler. Measured by C. M. Olmstead and B. A. Skiff.

- 801 Oak Ridge Observatory. 1.5-m reflector + CCD. Observers R. E. McCrosky and C.-Y. Shao.
 809 European Southern Observatory. 2.2-m and 1.5-m reflectors. Observers W. Landgraf (1988) and R. M. West (1991).
 894 Otomo. 0.25-m f/3.4 reflector. Observer S. Otomo.
 950 La Palma. 2-m Nordic optical telescope. Observers K. Aksnes and O. Dahl.
 984 Eastfield Observatory. 0.17-m f/7 astrograph. Observer H. B. Ridley.

Object	Date	UT	R. A. (2000)	Decl.	Mag.	N Obs.
Periodic Comet Smirnova-Chernykh						
/1984 V	1992 02	04.67257	09 36 19.17	+22 37 42.6	16.7 T	894
/1984 V	1992 02	04.69896	09 36 18.05	+22 37 48.5		894
/1984 V	1992 02	05.55417	09 35 43.73	+22 41 23.4	16 T	399
/1984 V	1992 02	05.56947	09 35 42.93	+22 41 26.6		399
/1984 V	1992 02	21.49696	09 24 58.41	+23 38 37.5		411
/1984 V	1992 02	21.49932	09 24 58.25	+23 38 37.0		411
/1984 V	1992 02	21.50438	09 24 58.12	+23 38 38.8		411
/1984 V	1992 02	21.50786	09 24 57.95	+23 38 38.6		411
/1984 V	1992 02	22.56784	09 24 17.01	+23 41 40.0		411
/1984 V	1992 02	22.56947	09 24 16.94	+23 41 39.5		411
/1984 V	1992 02	22.57609	09 24 16.72	+23 41 40.8		411
/1984 V	1992 02	22.57780	09 24 16.73	+23 41 41.3		411
Periodic Comet Halley						
/1986 III	1988 05	12.00273	09 31 29.66	-04 21 22.0		809
/1986 III	1991 03	12.09039	09 16 33.92	-03 57 28.7		809
/1986 III	1991 03	12.18940	09 16 32.42	-03 57 16.8		809
/1986 III	1991 03	13.07279	09 16 19.17	-03 55 31.4		809
/1986 III	1991 03	13.17625	09 16 17.64	-03 55 21.6		809
/1986 III	1991 03	14.21069	09 16 02.58	-03 53 18.1		809
/1986 III	1991 03	16.07571	09 15 35.89	-03 49 35.1		809
/1986 III	1991 03	16.17674	09 15 34.37	-03 49 23.2		809
/1986 III	1991 03	17.05153	09 15 22.08	-03 47 40.9		809
/1986 III	1991 03	17.18258	09 15 20.23	-03 47 23.2		809
/1986 III	1991 03	18.05688	09 15 08.20	-03 45 37.3		809
Periodic Comet Schwassmann-Wachmann 1						
/1989 XV	1992 02	07.52986	03 11 47.42	+27 16 16.8		376
/1989 XV	1992 02	21.47468	03 16 40.16	+27 09 37.9		411
/1989 XV	1992 02	21.47633	03 16 40.40	+27 09 38.2		411
/1989 XV	1992 02	22.43834	03 17 05.10	+27 09 30.7		411
/1989 XV	1992 02	22.44244	03 17 05.13	+27 09 28.1		411
Comet Levy (1990 XX)						
/1990 XX	1992 02	05.21907	08 56 31.78	+31 33 31.4		801
/1990 XX	1992 02	05.24241	08 56 30.26	+31 33 39.8		801
/1990 XX	1992 02	07.25259	08 54 28.81	+31 44 07.5		801
/1990 XX	1992 02	07.26721	08 54 27.95	+31 44 11.8		801
Comet Shoemaker-Levy (1991d)						
/1991d	1992 01	03.22095	16 54 20.65	+39 34 24.1		098
/1991d	1992 02	05.45125	18 46 28.02	+40 20 15.3		801
/1991d	1992 02	05.45288	18 46 28.32	+40 20 15.5		801
/1991d	1992 02	06.43392	18 49 21.51	+40 20 46.2		801
/1991d	1992 02	06.43587	18 49 21.86	+40 20 46.3		801
/1991d	1992 02	22.79653	19 33 16.67	+40 29 51.2	12.5 T	372

/1991d	1992 02 22.80313	19 33 17.40	+40 29 51.8						372
/1991d	1992 02 27.79027	19 45 05.22	+40 33 44.6	12	T				372
Periodic Comet Kowal 1									
/1991i	1992 02 26.76771	13 59 07.51	-11 29 41.8	17.5	T				372
/1991i	1992 02 27.76285	13 59 02.24	-11 29 43.5						372
Comet Helin-Lawrence (1991l)									
/1991l	1991 12 10.62538	13 16 45.19	-58 58 16.9						474
/1991l	1991 12 10.63152	13 16 46.07	-58 58 37.6						474
/1991l	1992 02 05.49285	00 34 54.17	-56 11 50.6						474
/1991l	1992 02 05.51038	00 34 56.21	-56 10 49.8						474
Periodic Comet Faye									
/1991n	1991 11 10.87222	01 52 43.21	+02 56 58.4						595
/1991n	1991 12 05.89517	02 09 27.89	+00 47 50.7						598
/1991n	1991 12 05.89844	02 09 28.07	+00 47 50.6						598
/1991n	1992 02 03.00039	03 41 48.96	+07 44 41.9						801
/1991n	1992 02 03.00388	03 41 49.44	+07 44 44.0						801
/1991n	1992 02 06.02860	03 47 42.79	+08 13 09.8						801
/1991n	1992 02 06.04059	03 47 44.17	+08 13 16.6						801
/1991n	1992 02 07.44287	03 50 29.34	+08 26 17.8						411
/1991n	1992 02 07.44410	03 50 29.56	+08 26 20.2						411
/1991n	1992 02 07.44525	03 50 29.62	+08 26 20.4						411
/1991n	1992 02 07.44623	03 50 29.75	+08 26 21.8						411
/1991n	1992 02 21.45575	04 18 35.85	+10 29 29.5						411
/1991n	1992 02 21.45729	04 18 36.08	+10 29 30.0						411
/1991n	1992 02 21.45864	04 18 36.28	+10 29 31.4						411
/1991n	1992 02 21.46002	04 18 36.40	+10 29 31.9						411
/1991n	1992 02 21.46133	04 18 36.56	+10 29 32.2						411
/1991n	1992 02 21.46264	04 18 36.67	+10 29 33.2						411
/1991n	1992 02 22.44741	04 20 37.29	+10 37 36.9						411
/1991n	1992 02 22.44889	04 20 37.48	+10 37 38.4						411
/1991n	1992 02 22.45023	04 20 37.52	+10 37 38.9						411
/1991n	1992 02 22.45155	04 20 37.74	+10 37 38.4						411
/1991n	1992 02 22.45290	04 20 38.04	+10 37 38.8						411
/1991n	1992 02 22.45425	04 20 38.05	+10 37 39.5						411
Periodic Comet Chernykh									
/1991o	1991 09 15.35226	23 33 48.60	-08 42 24.3	17.2	T				675
/1991o	1991 09 15.38958	23 33 47.38	-08 42 37.9						675
/1991o	1991 09 17.33941	23 32 45.50	-08 53 20.8	17.0	T				675
/1991o	1991 09 17.37222	23 32 44.40	-08 53 30.3						675
Periodic Comet Levy									
/1991q	1992 02 05.21517	08 29 55.35	+30 30 25.1						801
/1991q	1992 02 05.23163	08 29 54.19	+30 30 22.6						801
/1991q	1992 02 07.23492	08 27 34.07	+30 25 54.1						801
/1991q	1992 02 07.24850	08 27 33.08	+30 25 52.2						801
Periodic Comet Hartley 2									
/1991t	1992 02 05.26506	10 27 59.43	-07 40 52.9						801
/1991t	1992 02 05.28075	10 27 58.16	-07 40 46.3						801
/1991t	1992 02 07.32976	10 25 15.46	-07 24 17.9						801
/1991t	1992 02 07.33850	10 25 14.65	-07 24 14.7						801
Periodic Comet McNaught-Hughes									
/1991y	1992 01 15.44255	00 22 01.07	-04 23 42.1						413
/1991y	1992 01 15.44578	00 22 01.52	-04 23 41.2						413

Comet Shoemaker-Levy (1991a1)

/1991a 1	1992 02 05.96993	00 10 36.56	+29 18 08.0	801
/1991a 1	1992 02 06.00537	00 10 36.74	+29 18 06.3	801
/1991a 1	1992 02 06.96869	00 10 42.40	+29 17 36.7	801
/1991a 1	1992 02 06.99377	00 10 42.54	+29 17 36.0	801
/1991a 1	1992 02 07.42898	00 10 45.28	+29 17 26.2	411
/1991a 1	1992 02 24.76944	00 14 48.62	+29 39 13.2	540

Periodic Comet Shoemaker-Levy 7

/1991d 1	1991 12 24.96941	03 35 08.49	+37 25 34.7	950
/1991d 1	1991 12 24.99728	03 35 09.62	+37 25 14.9	950

Periodic Comet Kowal 2

/1991f 1	1992 01 04.58993	08 29 29.93	-08 33 10.3	373
/1991f 1	1992 01 04.60069	08 29 29.45	-08 33 19.8	373
/1991f 1	1992 02 05.20823	08 06 04.30	-11 07 27.9	801
/1991f 1	1992 02 05.23612	08 06 03.30	-11 07 21.6	801
/1991f 1	1992 02 07.18291	08 05 03.26	-10 59 25.5	801
/1991f 1	1992 02 07.20709	08 05 02.47	-10 59 19.1	801
/1991f 1	1992 02 07.30800	08 04 59.62	-10 58 53.8	658
/1991f 1	1992 02 07.31042	08 04 59.52	-10 58 52.0	658
/1991f 1	1992 02 22.54277	08 01 20.18	-09 18 19.3	411
/1991f 1	1992 02 22.54516	08 01 20.19	-09 18 17.9	411
/1991f 1	1992 02 22.55769	08 01 20.10	-09 18 11.6	411
/1991f 1	1992 02 22.56006	08 01 20.11	-09 18 11.0	411

14.5 T

Comet Zanotta-Brewington (1991g1)

/1991g 1	1991 12 29.77640	21 06 32.30	+16 40 53.7	587
/1991g 1	1991 12 30.71458	21 10 11.21	+16 15 14.3	595
/1991g 1	1991 12 30.72159	21 10 12.69	+16 15 04.0	595
/1991g 1	1991 12 30.72847	21 10 14.37	+16 14 52.9	595
/1991g 1	1991 12 31.72049	21 14 10.07	+15 46 40.7	595
/1991g 1	1991 12 31.72847	21 14 11.94	+15 46 26.3	595
/1991g 1	1991 12 31.73542	21 14 13.57	+15 46 15.5	595
/1991g 1	1992 01 01.70764	21 18 08.88	+15 17 29.2	595
/1991g 1	1992 01 01.71597	21 18 10.79	+15 17 14.2	595
/1991g 1	1992 01 01.72431	21 18 12.79	+15 16 58.5	595
/1991g 1	1992 01 01.74167	21 18 16.81	+15 16 28.2	587
/1991g 1	1992 01 13.71806	22 12 07.55	+07 21 30.0	595
/1991g 1	1992 01 13.72639	22 12 10.08	+07 21 02.6	595
/1991g 1	1992 01 13.73750	22 12 13.26	+07 20 29.4	595
/1991g 1	1992 01 14.76944	22 17 17.74	+06 26 16.6	587
/1991g 1	1992 01 21.40382	22 51 00.58	-00 24 59.8	364
/1991g 1	1992 01 21.40382	22 51 00.58	-00 24 59.8	364
/1991g 1	1992 01 21.40833	22 51 02.04	-00 25 18.1	364
/1991g 1	1992 01 21.40833	22 51 02.04	-00 25 18.1	364
/1991g 1	1992 01 24.39549	23 06 33.22	-04 07 03.6	894
/1991g 1	1992 01 27.39660	23 22 06.42	-08 10 45.0	372
/1991g 1	1992 01 27.40632	23 22 09.47	-08 11 33.9	372
/1991g 1	1992 02 01.42788	23 47 36.56	-15 34 22.4	413
/1991g 1	1992 02 01.42788	23 47 36.56	-15 34 22.4	413
/1991g 1	1992 02 01.43234	23 47 37.77	-15 34 46.0	413
/1991g 1	1992 02 01.43234	23 47 37.77	-15 34 46.0	413
/1991g 1	1992 02 10.40625	00 29 41.50	-29 11 00.4	372
/1991g 1	1992 02 10.40868	00 29 42.13	-29 11 12.2	372
/1991g 1	1992 02 10.41111	00 29 42.71	-29 11 26.9	372
/1991g 1	1992 02 11.76493	22 02 41.14	+08 57 22.2	984
/1991g 1	1992 02 25.46863	01 32 01.85	-47 45 17.4	415
/1991g 1	1992 02 25.47116	01 32 02.48	-47 45 26.5	415

Comet Mueller (1991h1)

/1991h 1	1992 01 04.55816	08 37 43.42	+49 05 18.4			373
/1991h 1	1992 01 04.56887	08 37 39.68	+49 05 34.3			373
/1991h 1	1992 01 23.42188	05 35 16.49	+48 19 58.5	14	T	372
/1991h 1	1992 01 27.49601	04 46 41.88	+44 07 29.4	14	T	372
/1991h 1	1992 01 28.61632	04 34 15.62	+42 40 39.3			372
/1991h 1	1992 01 28.62135	04 34 12.39	+42 40 17.1	14	T	372
/1991h 1	1992 02 01.58229	03 54 45.00	+36 50 06.4	14	T	372
/1991h 1	1992 02 03.00661	03 42 22.58	+34 33 14.6			801
/1991h 1	1992 02 03.00819	03 42 21.72	+34 33 05.8			801
/1991h 1	1992 02 04.57569	03 29 46.91	+31 59 15.7	13.5	T	372
/1991h 1	1992 02 04.57778	03 29 45.87	+31 59 06.9			372
/1991h 1	1992 02 04.58021	03 29 45.04	+31 58 54.2	13.5	T	372
/1991h 1	1992 02 04.58021	03 29 44.94	+31 58 54.0			372
/1991h 1	1992 02 06.03031	03 19 05.09	+29 35 39.8			801
/1991h 1	1992 02 06.03514	03 19 03.08	+29 35 11.4			801
/1991h 1	1992 02 07.45920	03 09 23.80	+27 15 16.3			411
/1991h 1	1992 02 07.46072	03 09 23.17	+27 15 05.6			411
/1991h 1	1992 02 07.46211	03 09 22.56	+27 14 58.8			411
/1991h 1	1992 02 07.50574	03 09 05.32	+27 10 40.4			411
/1991h 1	1992 02 07.50766	03 09 04.68	+27 10 30.5			411
/1991h 1	1992 02 08.52008	03 02 41.48	+25 32 07.7			411
/1991h 1	1992 02 08.52244	03 02 40.82	+25 31 54.9			411
/1991h 1	1992 02 08.52572	03 02 39.59	+25 31 36.9			411
/1991h 1	1992 02 08.52763	03 02 38.83	+25 31 26.0			411
/1991h 1	1992 02 08.52934	03 02 38.16	+25 31 14.7			411
/1991h 1	1992 02 08.53116	03 02 37.53	+25 31 04.4			411
/1991h 1	1992 02 08.81736	03 00 53.53	+25 03 31.0			540
/1991h 1	1992 02 08.82674	03 00 50.01	+25 02 35.1			540
/1991h 1	1992 02 08.83681	03 00 46.37	+25 01 37.1			540
/1991h 1	1992 02 08.84618	03 00 43.01	+25 00 44.8			540
/1991h 1	1992 02 10.42309	02 51 38.67	+22 31 17.3	13	T	372
/1991h 1	1992 02 10.55903	02 50 53.50	+22 18 28.3			894
/1991h 1	1992 02 19.40620	02 11 44.35	+09 58 43.6			411
/1991h 1	1992 02 19.40903	02 11 43.70	+09 58 31.5			411
/1991h 1	1992 02 19.41081	02 11 43.19	+09 58 23.5			411
/1991h 1	1992 02 19.41289	02 11 42.89	+09 58 13.9			411
/1991h 1	1992 02 19.41387	02 11 42.60	+09 58 09.5			411
/1991h 1	1992 02 19.41480	02 11 42.41	+09 58 05.2			411
/1991h 1	1992 02 22.41384	02 01 18.31	+06 26 49.7	8.5	T	411
/1991h 1	1992 02 22.41483	02 01 18.13	+06 26 45.6			411
/1991h 1	1992 02 22.41586	02 01 17.97	+06 26 41.0			411
/1991h 1	1992 02 22.41702	02 01 17.72	+06 26 36.9			411
/1991h 1	1992 02 22.41844	02 01 17.32	+06 26 31.4			411
/1991h 1	1992 02 22.42064	02 01 17.00	+06 26 21.8			411
/1991h 1	1992 02 22.42208	02 01 16.66	+06 26 15.4			411
/1991h 1	1992 02 23.40763	01 58 02.39	+05 20 49.6			411
/1991h 1	1992 02 23.40866	01 58 02.23	+05 20 47.1			411
/1991h 1	1992 02 23.40969	01 58 01.98	+05 20 41.8			411
/1991h 1	1992 02 23.41073	01 58 01.73	+05 20 37.3			411
/1991h 1	1992 02 23.41377	01 58 01.11	+05 20 23.8			411
/1991h 1	1992 02 23.41569	01 58 00.74	+05 20 17.2			411
/1991h 1	1992 02 23.41769	01 58 00.50	+05 20 09.6			411
/1991h 1	1992 02 25.40017	01 51 40.91	+03 14 01.1			376
/1991h 1	1992 02 25.41476	01 51 38.06	+03 13 05.7			376
/1991h 1	1992 02 25.45000	01 51 31.28	+03 10 56.7			364
/1991h 1	1992 02 25.45278	01 51 30.85	+03 10 45.0			364
/1991h 1	1992 02 26.43056	01 48 27.56	+02 11 10.8			364
/1991h 1	1992 02 26.43403	01 48 26.89	+02 10 58.1			364

/1991h 1	1992 02 26.43681	01 48 26.32	+02 10 47.0	8.7 T	372
/1991h 1	1992 02 28.79097	01 41 09.69	-00 06 24.6	8 T	540
/1991h 1	1992 02 28.79861	01 41 08.29	-00 06 50.3		540
Comet Helin-Alu (1992a)					
/1992a	1992 02 02.48104	08 02 32.72	+01 37 55.4		411
/1992a	1992 02 02.48644	08 02 32.26	+01 37 53.9		411
/1992a	1992 02 02.49191	08 02 32.25	+01 37 53.5		411
/1992a	1992 02 04.60868	08 00 46.27	+01 22 11.3		372
/1992a	1992 02 04.62153	08 00 45.82	+01 22 08.8	17.5 T	372
/1992a	1992 02 05.65451	07 59 55.00	+01 14 40.5	17.5 T	372
/1992a	1992 02 06.12359	07 59 32.17	+01 11 17.1		801
/1992a	1992 02 06.14454	07 59 31.17	+01 11 08.1		801
/1992a	1992 02 08.64329	07 57 31.19	+00 53 39.9		411
/1992a	1992 02 08.64978	07 57 30.95	+00 53 38.2		411
/1992a	1992 02 10.51007	07 56 04.39	+00 41 01.3	17 T	372
/1992a	1992 02 25.42928	07 46 18.25	-00 47 16.2		376
/1992a	1992 02 25.47789	07 46 16.66	-00 47 28.7		376
/1992a	1992 02 29.78125	07 44 12.13	-01 09 04.7		540
/1992a	1992 02 29.82361	07 44 11.13	-01 09 16.8		540
Comet Bradfield (1992b)					
/1992b	1992 02 03.73782	16 31 11.71	-42 01 19.9		413
/1992b	1992 02 10.82986	17 35 19.99	-41 47 01.8		323
/1992b	1992 02 12.73354	17 53 36.84	-41 18 04.8		413
/1992b	1992 02 12.74081	17 53 41.05	-41 17 57.0		413
/1992b	1992 02 12.74476	17 53 43.35	-41 17 52.7		413
/1992b	1992 02 13.62640	18 02 15.89	-41 00 21.9		1 474
/1992b	1992 02 13.62987	18 02 17.68	-41 00 18.9		1 474
/1992b	1992 02 13.63769	18 02 22.13	-41 00 07.7		1 474
/1992b	1992 02 13.63959	18 02 23.13	-41 00 04.8		1 474

Note 1: poor seeing; increasing cloud, last image very weak, only three reference stars on second pair.

* * * * *

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.
012 Uccle							
T. Pauwels, Observatoire Royal de Belgique, Avenue Circulaire 3, B-1180 Brussels, Belgium							
Double astrograph							
1992 AC	1992 01	30.00365	09 45 24.24	+27 45 27.3			012
1992 AC	1992 01	30.00417	09 45 24.25	+27 45 27.3			012
1992 AC	1992 01	30.01875	09 45 26.22	+27 46 26.0			012
1992 AC	1992 01	30.03750	09 45 28.79	+27 47 40.3			012
(362)	1992 01	30.00365	09 41 11.57	+27 02 29.0			012
(362)	1992 01	30.00417	09 41 11.57	+27 02 28.5			012
(362)	1992 01	30.01875	09 41 10.63	+27 02 33.2			012
(362)	1992 01	30.01875	09 41 10.68	+27 02 32.5			012
(362)	1992 01	30.03750	09 41 09.57	+27 02 37.7			012
(362)	1992 01	30.06806	09 41 07.68	+27 02 46.0			012
(1002)	1935 02	08.05775	10 05 30.17	+17 33 30.9		R	012
(1002)	1935 02	08.05845	10 05 30.32	+17 33 29.9		T	012
(1002)	1935 02	10.08969	10 03 37.75	+17 38 52.1			012
(1002)	1935 02	10.10700	10 03 36.94	+17 38 55.1			012
033 Tautenburg							
F. Borngen, Karl Schwarzschild Observatorium, O-6901 Tautenburg, Federal Republic of Germany							
L. D. Schmadel, Astronomisches Rechen-Institut, W-6900 Heidelberg, Federal Republic of Germany							
Observers F. Borngen, L. D. Schmadel							
1.3-m Schmidt telescope							
PPM							
1979 SD9	1991 12	10.92222	06 23 28.33	+26 16 18.5			033
1979 SD9	1991 12	10.98056	06 23 25.15	+26 16 23.6	17.5	I	033
1979 SD9	1991 12	12.00347	06 22 31.12	+26 17 57.7			033
1979 SD9	1992 01	02.98264	06 01 56.35	+26 38 10.7	17.3		033
1979 SD9	1992 01	03.02292	06 01 54.22	+26 38 11.2			033
1981 GM1	1991 10	07.88333	00 05 16.60	+02 00 12.9	18.3		033
1981 GM1	1991 10	07.92917	00 05 13.94	+02 00 08.8			033
1981 GM1	1991 10	08.89028	00 04 19.65	+01 58 39.0			033
1982 FA	1991 12	10.92222	06 15 46.80	+23 47 29.5			033
1982 FA	1991 12	10.98056	06 15 43.08	+23 47 35.0	17.4		033
1982 FA	1991 12	12.00347	06 14 38.56	+23 48 59.9			033
1989 CW	1991 12	10.92222	06 18 59.25	+24 34 13.6			033

1989 CW		1991 12	10.98056	06 18	55.35	+24 34	15.9	18.5	033
1989 CW		1991 12	12.00347	06 17	48.88	+24 34	42.9		033
1991 PO17	*	1991 08	14.99618	00 28	19.32	+02 41	22.8	18.5	033
1991 PO17		1991 08	16.04931	00 28	13.22	+02 41	47.9		033
1991 RQ2		1991 10	07.88333	00 07	36.12	+04 01	49.7	18.8	I 033
1991 RQ2		1991 10	07.92917	00 07	34.30	+04 01	22.2		033
1991 RQ2		1991 10	08.89028	00 06	59.25	+03 51	31.8		033
1991 RD7		1991 10	07.88333	00 07	58.03	+03 31	08.3	16.2	033
1991 RD7		1991 10	07.92917	00 07	54.77	+03 31	21.3		033
1991 RD7		1991 10	08.89028	00 06	49.47	+03 35	38.8		033
1991 RR9		1991 10	07.88333	00 00	39.00	+03 01	32.9	17.6	033
1991 RR9		1991 10	07.92917	00 00	36.89	+03 01	28.9		033
1991 RR9		1991 10	08.89028	23 59	56.86	+03 00	03.8		033
1991 RT9		1991 10	07.88333	00 06	47.60	+03 45	57.5	18.0	033
1991 RT9		1991 10	07.92917	00 06	45.45	+03 45	45.9		033
1991 RT9		1991 10	08.89028	00 06	03.72	+03 41	33.3		033
1991 RU9		1991 10	07.88333	00 06	50.81	+03 20	46.5	18.1	033
1991 RU9		1991 10	07.92917	00 06	48.54	+03 20	32.5		033
1991 RU9		1991 10	08.89028	00 06	04.29	+03 15	19.9		033
1991 RA13		1991 10	07.88333	23 58	55.45	+01 18	11.9	19.1	033
1991 RA13		1991 10	07.92917	23 58	53.35	+01 17	57.1		033
1991 RA13		1991 10	08.89028	23 58	11.60	+01 12	36.2		033
1991 RF14		1991 10	07.88333	00 02	48.60	+03 29	30.3	17.4	033
1991 RF14		1991 10	07.92917	00 02	46.46	+03 29	03.6		033
1991 RF14		1991 10	08.89028	00 02	04.47	+03 19	38.7		033
1991 TM7	*	1991 10	07.88333	00 00	42.70	+02 06	04.8	19.1	033
1991 TM7		1991 10	07.92917	00 00	40.57	+02 05	45.5		033
1991 TM7		1991 10	08.89028	23 59	57.10	+01 59	18.2		033
1991 TN7	*	1991 10	07.88333	00 00	59.93	+01 15	10.3	18.5	033
1991 TN7		1991 10	07.92917	00 00	57.73	+01 15	00.4		033
1991 TN7		1991 10	08.89028	00 00	15.24	+01 11	52.1		033
1991 TO7	*	1991 10	07.88333	00 02	09.81	+04 04	04.0	19.2	033
1991 TO7		1991 10	07.92917	00 02	08.01	+04 03	46.5		033
1991 TO7		1991 10	08.89028	00 01	32.54	+03 57	30.2		033
1991 TP7	*	1991 10	07.88333	00 04	11.96	+01 22	45.2	19.2	033
1991 TP7		1991 10	07.92917	00 04	09.13	+01 22	35.8		033
1991 TP7		1991 10	08.89028	00 03	12.53	+01 19	34.4		033
1991 TQ7	*	1991 10	07.88333	00 05	49.30	+03 41	20.5	18.2	033
1991 TQ7		1991 10	07.92917	00 05	46.55	+03 41	20.2		033
1991 TQ7		1991 10	08.89028	00 04	50.78	+03 41	15.5		033
1991 TR7	*	1991 10	07.88333	00 06	00.44	+03 15	11.0	19.4	033
1991 TR7		1991 10	07.92917	00 05	58.51	+03 14	49.2		033
1991 TR7		1991 10	08.89028	00 05	21.92	+03 06	56.2		033
1991 TS7	*	1991 10	07.88333	00 06	01.97	+01 51	50.9	18.4	033
1991 TS7		1991 10	07.92917	00 05	59.43	+01 51	37.7		033
1991 TS7		1991 10	08.89028	00 05	08.20	+01 47	00.1		033
1991 TT7	*	1991 10	07.88333	00 06	16.93	+03 56	44.2	19.4	033
1991 TT7		1991 10	07.92917	00 06	14.97	+03 56	21.8		033
1991 TT7		1991 10	08.89028	00 05	36.32	+03 48	41.4		033
1991 TU7	*	1991 10	07.88333	00 06	42.27	+03 12	25.9	19.5	033
1991 TU7		1991 10	07.92917	00 06	39.68	+03 12	08.0		033
1991 TU7		1991 10	08.89028	00 05	48.34	+03 05	28.7		033
1991 TV7	*	1991 10	07.88333	00 06	52.11	+02 11	36.4	19.0	033
1991 TV7		1991 10	07.92917	00 06	49.81	+02 11	26.8		033
1991 TV7		1991 10	08.89028	00 06	03.40	+02 07	39.2		033
1991 TW7	*	1991 10	07.88333	00 07	51.84	+03 55	04.2	19.2	033
1991 TW7		1991 10	07.92917	00 07	49.13	+03 54	51.6		033
1991 TW7		1991 10	08.89028	00 06	55.64	+03 50	04.2		033
1991 TX7	*	1991 10	07.88333	00 08	21.80	+04 04	19.3	17.9	033

1991 TX7		1991 10 07.92917	00 08 19.57	+04 04 06.9		033
1991 TX7		1991 10 08.89028	00 07 36.07	+03 59 38.6		033
1991 TY7	*	1991 10 07.88333	23 57 10.17	+01 31 37.7	19.3	033
1991 TY7		1991 10 07.92917	23 57 07.77	+01 31 31.3		033
1991 TY7		1991 10 08.89028	23 56 20.81	+01 29 18.4		033
1991 TZ7	*	1991 10 07.88333	23 57 26.01	+03 21 53.5	19.3	033
1991 TZ7		1991 10 07.92917	23 57 23.87	+03 21 27.4		033
1991 TZ7		1991 10 08.89028	23 56 40.47	+03 12 57.0		033
1991 TA8	*	1991 10 07.88333	23 58 15.39	+02 17 21.4	19.7	033
1991 TA8		1991 10 07.92917	23 58 13.60	+02 17 01.0		033
1991 TA8		1991 10 08.89028	23 57 37.26	+02 09 41.2		033
1991 TB8	*	1991 10 07.88333	23 58 25.17	+02 49 39.5	19.5	033
1991 TB8		1991 10 07.92917	23 58 23.25	+02 49 33.0		033
1991 TB8		1991 10 08.89028	23 57 46.01	+02 46 48.5		033
1991 TC8	*	1991 10 07.88333	23 58 40.12	+04 19 05.7	19.0	033
1991 TC8		1991 10 07.92917	23 58 37.80	+04 18 56.2		033
1991 TC8		1991 10 08.89028	23 57 51.02	+04 15 18.9		033
1991 TD8	*	1991 10 07.88333	23 59 13.33	+02 11 45.4	18.6	033
1991 TD8		1991 10 07.92917	23 59 11.08	+02 11 22.8		033
1991 TD8		1991 10 08.89028	23 58 26.78	+02 03 16.2		033
1991 XF1	*	1991 12 10.92222	06 16 41.35	+26 15 48.3		033
1991 XF1		1991 12 10.98056	06 16 38.01	+26 15 48.5	19.1	033
1991 XF1		1991 12 12.00347	06 15 41.46	+26 15 31.3		033
1991 XG1	*	1991 12 10.92222	06 17 47.54	+24 46 17.9		033
1991 XG1		1991 12 10.98056	06 17 45.46	+24 46 28.6	18.3	033
1991 XG1		1991 12 12.00347	06 17 08.35	+24 49 38.3		033
1991 XH1	*	1991 12 10.92222	06 26 05.04	+25 39 27.3		033
1991 XH1		1991 12 10.98056	06 26 01.61	+25 39 35.8	17.9	033
1991 XH1		1991 12 12.00347	06 25 02.53	+25 41 39.0		033
1991 XJ1	*	1991 12 10.92222	06 29 05.69	+23 58 58.5		033
1991 XJ1		1991 12 10.98056	06 29 01.95	+23 59 12.2	18.6	033
1991 XJ1		1991 12 12.00347	06 27 57.33	+24 02 57.2		033
3289 T-1		1991 10 07.88333	23 58 48.69	+03 20 12.8	16.6	033
3289 T-1		1991 10 07.92917	23 58 46.62	+03 19 49.0		033
3289 T-1		1991 10 08.89028	23 58 05.94	+03 11 30.2		033
(222)		1991 11 11.00243	06 34 27.81	+23 27 00.8	15.5	033
(222)		1991 11 11.04861	06 34 27.06	+23 27 02.3		033
(222)		1991 12 10.92222	06 17 23.99	+23 51 12.3		033
(222)		1991 12 10.98056	06 17 21.11	+23 51 15.9	15.4	033
(222)		1991 12 12.00347	06 16 31.07	+23 52 03.9		033
(585)		1991 08 14.99618	00 25 39.60	+04 28 35.6	14.5	033
(585)		1991 08 16.04931	00 25 24.66	+04 24 52.9		033
(585)		1991 08 19.02917	00 24 34.09	+04 13 19.0		033
(656)		1991 11 11.00243	06 32 21.54	+22 34 04.6	16.0	033
(656)		1991 11 11.04861	06 32 21.11	+22 34 04.3		033
(1162)		1991 11 11.00243	06 39 26.34	+24 50 03.9	17.3	033
(1162)		1991 11 11.04861	06 39 25.71	+24 50 05.6		033
(1162)		1991 12 10.92222	06 25 18.06	+25 13 34.6		033
(1162)		1991 12 10.98056	06 25 15.68	+25 13 37.9	16.6	033
(1162)		1991 12 12.00347	06 24 34.60	+25 14 21.2		033
(1453)		1991 10 07.88333	00 04 35.69	+01 25 51.0	15.3	033
(1453)		1991 10 07.92917	00 04 30.86	+01 26 15.7		033
(1453)		1991 10 08.89028	00 02 52.22	+01 34 44.8		033
(1496)		1991 12 10.92222	06 16 31.62	+25 13 36.9		033
(1496)		1991 12 10.98056	06 16 27.49	+25 13 37.0	17.0	033
(1496)		1991 12 12.00347	06 15 16.51	+25 13 23.0		033
(1780)		1992 01 02.98264	06 07 22.19	+27 13 50.8	16.2	033
(1780)		1992 01 03.02292	06 07 19.94	+27 13 45.1		033
(1836)		1991 12 10.92222	06 16 19.18	+24 06 05.6		033

(1836)	1991 12 10.98056	06 16 15.90	+24 06 02.3	17.6	033
(1836)	1991 12 12.00347	06 15 19.39	+24 04 53.3		033
(1841)	1991 12 10.92222	06 18 10.74	+25 55 56.0		033
(1841)	1991 12 10.98056	06 18 07.96	+25 56 00.1	16.3	033
(1841)	1991 12 12.00347	06 17 19.54	+25 57 03.0		033
(1841)	1992 01 02.98264	05 58 44.82	+26 10 50.4	16.9	033
(1841)	1992 01 03.02292	05 58 42.85	+26 10 50.6		033
(2098)	1991 08 14.99618	00 29 38.43	+05 18 16.5	16.0	033
(2098)	1991 08 16.04931	00 29 28.11	+05 22 14.9		033
(2098)	1991 08 19.02917	00 28 47.70	+05 32 27.8		033
(2186)	1991 11 11.00243	06 36 59.34	+24 40 10.3	18.2	033
(2186)	1991 11 11.04861	06 36 59.10	+24 40 09.4		033
(2186)	1991 12 10.92222	06 20 45.06	+24 32 44.8		033
(2186)	1991 12 10.98056	06 20 41.72	+24 32 44.2	16.9	033
(2186)	1991 12 12.00347	06 19 43.80	+24 32 16.9		033
(2618)	1992 01 02.98264	06 03 02.38	+25 17 39.2	17.8	033
(2618)	1992 01 03.02292	06 03 00.16	+25 17 32.4		033
(2633)	1991 12 10.92222	06 22 50.30	+25 37 42.8		033
(2633)	1991 12 10.98056	06 22 46.24	+25 37 51.2	17.2	033
(2633)	1991 12 12.00347	06 21 36.08	+25 40 06.5		033
(2633)	1992 01 02.98264	05 54 57.15	+26 12 16.7	17.2	033
(2633)	1992 01 03.02292	05 54 54.39	+26 12 17.8		033
(2926)	1991 10 07.88333	00 02 02.11	+03 53 27.2	17.5	033
(2926)	1991 10 07.92917	00 01 59.71	+03 53 07.1		033
(2926)	1991 10 08.89028	00 01 12.08	+03 45 54.7		033
(2939)	1991 08 14.99618	00 29 03.95	+03 17 36.8	17.5	033
(2939)	1991 08 16.04931	00 28 41.58	+03 16 47.8		033
(3454)	1991 10 07.88333	00 05 49.38	+01 48 21.9	16.5	033
(3454)	1991 10 07.92917	00 05 46.99	+01 47 56.7		033
(3454)	1991 10 08.89028	00 04 59.77	+01 39 04.2		033
(4331)	1992 01 02.98264	06 07 30.29	+26 57 26.7	18.2	033
(4331)	1992 01 03.02292	06 07 27.41	+26 57 30.2		033
(4623)	1991 12 10.92222	06 27 09.32	+25 56 23.1		033
(4623)	1991 12 10.98056	06 27 06.09	+25 56 27.1	17.8	033
(4623)	1991 12 12.00347	06 26 10.59	+25 57 22.9		033
(4623)	1992 01 02.98264	06 04 41.05	+26 06 09.6	17.6	033
(4623)	1992 01 03.02292	06 04 38.76	+26 06 09.0		033
(4805)	1991 12 10.92222	06 28 59.15	+24 37 17.1		033
(4805)	1991 12 10.98056	06 28 57.21	+24 37 13.7	18.5	033
(4805)	1991 12 12.00347	06 28 22.77	+24 36 24.5		033

046 Klet

A. Mrkos, Klet Observatory, CS-38101 Cesky Krumlov, Czechoslovakia
 Observers A. Mrkos, Z. Vavrova

0.6-m Maksutov reflector

1985 CJ1	1991 11 26.80657	03 43 02.47	+19 53 39.0	16.8	U 046
1985 CJ1	1991 11 26.82069	03 43 01.56	+19 53 42.3		046
1985 CJ1	1991 11 27.79303	03 41 58.61	+19 52 31.8	16.7	U 046
1985 CJ1	1991 11 27.80715	03 41 57.80	+19 52 31.1		046

049 Kvistaberg

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

Observer T. Oja

Measurer A. Erikson

AGK3

1990 TG16	* 1990 10 10.80144	23 05 54.82	+19 37 43.9	16.5	049
1990 TG16	1990 10 10.81598	23 05 54.53	+19 37 46.0		049
1990 VB14	1990 11 18.94427	04 41 32.88	+24 41 23.6	16.5	049

1990 VB14	1990 11 18.95881	04 41 32.05	+24 41 21.8		049
1990 VB14	1990 12 20.93169	04 12 18.50	+23 01 45.6	16.5	049
1990 VB14	1990 12 20.94762	04 12 17.85	+23 01 44.1		049
1990 WB15	* 1990 11 18.94427	04 35 51.55	+23 43 40.4	16.5	049
1990 WB15	1990 11 18.95881	04 35 50.50	+23 43 40.0		049
1990 WC15	* 1990 11 18.94427	04 36 09.26	+23 15 00.4	16.5	049
1990 WC15	1990 11 18.95881	04 36 08.32	+23 15 00.6		049
1992 AC	1992 02 04.94088	10 00 20.58	+34 11 52.9		049
1992 AC	1992 02 04.96166	10 00 23.69	+34 13 12.1		049
1992 AD	1992 02 04.92392	08 03 25.52	+20 59 52.9		049

091 Aurec-sur-Loire

R. Chanal, Observatoire de Nurol, F-43110 Aurec-sur-Loire, France

0.41-m reflector

1991 JY	1991 05 19.94028	15 30 49.67	-12 53 12.7		091
1991 JY	1991 05 19.94722	15 30 41.46	-12 55 05.6		091
1991 JY	1991 05 19.95833	15 30 27.28	-12 58 08.3		091
(3)	1991 07 12.01181	19 36 37.20	-04 37 32.4	9.5	091
(920)	1991 09 08.87917	22 14 16.17	+00 01 33.9	15.0	091
(920)	1991 09 08.95486	22 14 12.73	+00 00 50.2	15.0	091
(1322)	1991 10 03.91806	22 59 19.78	+34 53 00.8	16.2	091
(1322)	1991 10 03.96806	22 59 17.81	+34 52 17.4	16.2	091
(1360)	1991 10 03.93889	23 28 33.00	+18 18 05.8	15.2	091
(1360)	1991 10 03.98403	23 28 30.64	+18 18 07.4	15.2	091
(2420)	1991 08 16.90972	20 32 32.64	+04 29 32.8	15.3	V 091
(2420)	1991 08 17.09514	20 32 23.83	+04 28 11.4	15.3	V 091
(2642)	1991 08 16.89514	19 59 54.61	+04 35 45.0	15.2	091
(2642)	1991 08 17.08194	19 59 47.26	+04 33 59.9	15.2	091
(4308)	1991 08 04.92569	21 31 41.07	-10 05 56.7	15.8	V 091
(4308)	1991 08 04.98403	21 31 37.77	-10 06 01.8	15.8	V 091
(4558)	1991 07 14.91042	16 09 58.63	-11 06 25.4	15.0	V 091
(4558)	1991 07 14.96528	16 09 57.36	-11 05 34.5	15.0	V 091
(4558)	1991 07 15.92778	16 09 41.85	-10 51 37.8	15.0	r 091
(4558)	1991 07 15.96181	16 09 41.22	-10 51 09.2	15.0	r 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 AC	1992 01 25.85694	09 35 40.93	+23 15 50.3		104
1992 AC	1992 01 25.87014	09 35 42.62	+23 16 42.1		104
1992 AC	1992 01 28.85833	09 42 40.56	+26 30 16.4		104
1992 AC	1992 01 28.86667	09 42 41.78	+26 30 47.5		104
1992 AC	1992 01 30.88750	09 47 34.18	+28 43 33.1		104
1992 AC	1992 01 30.90451	09 47 36.60	+28 44 41.8		104
1992 AC	1992 01 30.92049	09 47 38.82	+28 45 45.4		104
1992 AC	1992 01 31.88750	09 50 01.96	+29 49 17.8		104
1992 AC	1992 02 01.95556	09 52 41.97	+30 59 25.0		104
1992 AC	1992 02 01.96597	09 52 43.25	+31 00 04.8		104
1992 AC	1992 02 06.89514	10 05 30.83	+36 14 12.2		104
1992 AC	1992 02 06.90278	10 05 32.04	+36 14 40.6		104
(1622)	1992 02 05.91458	11 10 42.67	+11 31 05.5		104
(1622)	1992 02 05.92986	11 10 41.99	+11 31 09.3		104
(1622)	1992 02 06.92431	11 10 00.04	+11 34 26.3		104
(2083)	1992 01 31.92604	04 53 12.26	+10 25 52.6		104
(2083)	1992 02 01.85208	04 53 33.49	+10 20 31.6		104
(2083)	1992 02 01.87292	04 53 34.02	+10 20 23.6		104

(2083)	1992 02 05.86597	04 55 27.71	+09 59 45.4	104
(2083)	1992 02 06.85069	04 56 01.23	+09 55 16.2	104
(2083)	1992 02 06.86667	04 56 01.71	+09 55 11.6	104

293 Burlington remote site

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

0.26-m f/3.9 Wright-Schmidt camera

SAOC

1984 FS	1992 01 01.19618	05 38 44.98	+04 25 18.9	W	293
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303 Merida

O. A. Naranjo, Dept. de Fisica, Universidad de los Andes,

Merida 5101, Venezuela

Observers O. A. Naranjo, J. D. Stock

1983 QH1	1992 02 06.20854	09 28 12.22	+12 57 23.4		303
1983 QH1	1992 02 07.21896	09 27 10.39	+13 03 41.9		303
1990 QY7	1992 02 06.20854	09 34 55.27	+16 14 18.2		303
1990 QY7	1992 02 07.21896	09 33 45.56	+16 17 21.0		303
1991 RR9	1991 10 04.15963	00 03 25.26	+03 07 41.5		303
1991 RR9	1991 10 05.17161	00 02 38.68	+03 05 59.8		303
1991 RB13	1991 10 04.15963	00 03 59.75	+06 26 35.1		303
1991 RB13	1991 10 05.17161	00 03 07.22	+06 25 35.6		303
1991 RV13	1991 10 04.15963	23 52 37.02	+05 29 31.3		303
1991 RV13	1991 10 05.17161	23 51 52.04	+05 20 12.9		303
1991 RA14	1991 10 04.15963	23 55 50.10	+05 06 28.8		303
1991 RA14	1991 10 05.17161	23 55 08.69	+05 04 16.6		303
1991 RE14	1991 10 04.15963	23 55 25.19	+06 15 05.8		303
1991 RE14	1991 10 05.17161	23 54 26.52	+06 13 33.4		303
1991 TF8	* 1991 10 04.15963	00 04 20.43	+06 50 04.3		303
1991 TF8	* 1991 10 05.17161	00 03 44.50	+06 45 52.7		303
1991 TG8	* 1991 10 04.15963	23 53 46.82	+05 14 25.1		303
1991 TG8	* 1991 10 05.17161	23 52 56.80	+05 13 33.3		303
1991 TH8	* 1991 10 04.15963	23 54 16.46	+03 49 13.5		303
1991 TH8	* 1991 10 05.17161	23 53 31.53	+03 43 34.9		303
1991 TJ8	* 1991 10 04.33133	03 39 46.6	+07 32 14		303
1991 TJ8	* 1991 10 05.32339	03 39 57.9	+07 33 43		303
1992 CV	* 1992 02 06.20854	09 25 24.73	+16 28 40.0	18	303
1992 CV	* 1992 02 07.21896	09 24 30.27	+16 34 14.2	18	303
1992 CW	* 1992 02 06.20854	09 30 57.67	+15 20 57.3	17	303
1992 CW	* 1992 02 07.21896	09 29 45.99	+15 19 59.4	17	303
1992 CX	* 1992 02 06.20854	09 33 59.02	+16 09 19.6	16	303
1992 CX	* 1992 02 07.21896	09 32 55.39	+16 10 17.8	16	303
1992 CY	* 1992 02 06.20854	09 35 28.86	+14 20 21.2	17	303
1992 CY	* 1992 02 07.21896	09 34 37.65	+14 24 57.5	17	303
1992 CZ	* 1992 02 06.20854	09 37 49.19	+14 37 03.4	18	303
1992 CZ	* 1992 02 07.21896	09 36 46.09	+14 45 02.1	18	303
3289 T-1	1991 10 04.15963	00 01 36.41	+03 53 21.3		303
3289 T-1	1991 10 05.17161	00 00 49.43	+03 44 13.8		303
(62)	1991 10 05.00494	16 46 22.96	-21 06 35.1		303
(147)	1991 10 05.00494	16 46 33.98	-21 46 23.3		303
(311)	1991 09 11.28222	01 56 04.70	+07 30 36.2		303
(311)	1991 09 12.30289	01 55 44.85	+07 28 06.4		303
(1813)	1991 09 11.28222	01 55 15.94	+07 47 22.2		303
(1813)	1991 09 12.30289	01 54 50.31	+07 46 17.6		303
(2098)	1991 10 04.15963	23 52 31.84	+05 12 27.7		303
(2098)	1991 10 05.17161	23 51 37.48	+05 09 42.9		303
(2162)	1991 09 11.28222	01 54 34.88	+06 43 08.4		303
(2162)	1991 09 12.30289	01 54 28.47	+06 39 36.7		303
(2392)	1992 02 06.20854	09 33 35.39	+14 13 04.7		303

(2392)	1992 02 07.21896	09 32 36.19	+14 20 15.2	303
(2450)	1992 02 06.20854	09 26 18.21	+16 28 33.8	303
(2450)	1992 02 07.21896	09 25 28.51	+16 33 17.2	303
(2492)	1992 02 06.20854	09 30 55.45	+15 48 19.8	303
(2492)	1992 02 07.21896	09 30 07.92	+15 52 05.2	303
(2926)	1991 10 04.15963	00 05 14.81	+04 22 00.7	303
(2926)	1991 10 05.17161	00 04 21.13	+04 14 09.7	303
(3300)	1991 09 11.28222	01 56 14.51	+06 13 29.5	303
(3300)	1991 09 12.30289	01 55 42.49	+06 14 50.6	303
(3844)	1991 09 11.28222	02 04 15.00	+07 27 23.4	303
(3844)	1991 09 12.30289	02 04 04.77	+07 23 58.6	303

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

1981 DG3	1992 02 08.61771	10 20 55.78	+10 07 46.1	16.5	364
1981 DG3	1992 02 08.63160	10 20 55.16	+10 07 50.1		364
1981 DG3	1992 02 08.64792	10 20 54.25	+10 07 49.3		364
1981 DG3	1992 02 08.66528	10 20 53.48	+10 07 49.8		364
1981 DG3	1992 02 22.53715	10 08 32.75	+10 15 02.2	17	364
1981 DG3	1992 02 22.55104	10 08 31.92	+10 15 02.0		364
1981 DG3	1992 02 22.56424	10 08 31.30	+10 15 03.0		364
1981 DG3	1992 02 22.57813	10 08 30.39	+10 15 02.1		364
1981 DG3	1992 02 26.59549	10 04 52.24	+10 17 13.3	17	364
1981 DG3	1992 02 26.60938	10 04 51.50	+10 17 13.2		364
1990 VH4	1992 02 02.53785	09 24 17.48	+19 40 12.1		364
1990 VH4	1992 02 02.55174	09 24 16.88	+19 40 17.4		364
1992 CA1	1992 02 08.61771	10 17 21.66	+09 35 23.5	16.5	364
1992 CA1	1992 02 08.63160	10 17 21.09	+09 35 29.4		364
1992 CA1	1992 02 08.64792	10 17 20.32	+09 35 36.2		364
1992 CA1	1992 02 08.66528	10 17 19.57	+09 35 42.2		364
1992 CA1	1992 02 22.53715	10 07 25.17	+11 14 48.4	16.5	364
1992 CA1	1992 02 22.55104	10 07 24.60	+11 14 54.7		364
1992 DX	* 1992 02 25.62951	10 09 39.17	+10 16 22.8	16.5	364
1992 DX	1992 02 25.64340	10 09 38.51	+10 16 28.0		364
1992 DX	1992 02 26.59549	10 08 51.09	+10 24 01.0	16.5	364
1992 DX	1992 02 26.60938	10 08 50.57	+10 24 04.1		364
(227)	1992 02 25.60174	10 02 25.68	+11 11 47.6	13	364
(227)	1992 02 25.61563	10 02 24.90	+11 11 48.9		364
(689)	1992 02 25.62951	10 00 32.34	+09 25 51.8	16.5	364
(689)	1992 02 25.64340	10 00 31.53	+09 25 58.7		364
(1098)	1992 02 25.62951	10 10 22.34	+09 52 36.1		364
(1098)	1992 02 25.64340	10 10 21.46	+09 52 36.9		364
(3842)	1992 02 25.60174	10 10 09.20	+13 05 11.5	16.5	364
(3842)	1992 02 25.61563	10 10 08.28	+13 05 16.8		364
(3842)	1992 02 26.53854	10 09 11.59	+13 07 57.1		364
(3842)	1992 02 26.55243	10 09 10.84	+13 07 59.0		364

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

1990 UP13	* 1990 10 20.54375	23 50 49.28	-02 34 30.8	367
1990 UP13	1990 10 20.56458	23 50 48.55	-02 34 36.1	367

1992 AC	1992 02 05.56597	10 01 59.89	+34 51 35.7	367
1992 AC	1992 02 05.57639	10 02 01.32	+34 52 13.5	367
1992 AC	1992 02 05.58681	10 02 02.90	+34 52 54.8	367

372 Geisei

T. Seki, Kamimachi 2-9-35, Kochi, Japan

0.60-m reflector

1973 RF	1992 02 27.73681	11 51 05.04	+08 39 53.5	17	372
1973 RF	1992 02 27.74826	11 51 04.44	+08 39 56.1		372
1973 RF	1992 03 03.73125	11 46 18.46	+08 51 06.7		372
1973 RF	1992 03 03.74271	11 46 17.69	+08 51 08.5		372
1978 PJ2	1992 02 10.71076	11 23 20.23	+00 25 44.1	18	372
1978 PJ2	1992 02 10.72257	11 23 19.77	+00 25 45.5		372
1978 PJ2	1992 02 12.70208	11 22 15.28	+00 33 54.6	18	372
1978 PJ2	1992 02 12.71267	11 22 14.90	+00 33 57.4		372
1982 WE	1992 01 28.68333	10 33 25.23	+33 56 11.7	17	372
1982 WE	1992 01 28.69375	10 33 25.22	+33 56 21.4		372
1990 UF	1992 01 27.56007	06 33 06.61	+16 42 40.7	19.5	372
1990 VE1	1992 02 05.74340	10 34 34.18	+13 12 36.1	17	372
1990 VE1	1992 02 05.75521	10 34 33.66	+13 12 42.8		372
1990 VP2	1992 01 12.80868	11 14 50.77	+26 25 53.8	17	372
1990 VP2	1992 01 12.82153	11 14 50.65	+26 25 59.7		372
1990 VP2	1992 02 04.74201	11 05 40.67	+28 55 45.9	17.5	372
1990 VP2	1992 02 24.66493	10 49 14.25	+30 39 23.4	17.5	372
1990 VP2	1992 02 24.67674	10 49 13.68	+30 39 26.9		372
1990 VS6	1992 02 25.61285	08 10 26.06	+24 55 36.0	19.5	372
1992 AC	1992 02 13.72569	10 24 16.84	+42 41 03.2	13	372
1992 AC	1992 02 13.73264	10 24 17.93	+42 41 23.2		372
1992 AC	1992 02 22.77465	10 49 57.58	+49 01 55.7	14	372
1992 AP1	1992 01 23.47066	07 04 49.15	+22 11 10.6	17	372
1992 AP1	1992 01 23.47952	07 04 48.72	+22 11 10.4		372
1992 BN	1992 01 14.76771	09 54 49.43	+16 47 35.4	16.5	372
1992 BN	1992 01 14.78160	09 54 48.77	+16 47 41.6		372
1992 BU	1992 02 05.71771	09 38 58.69	+18 33 44.6	17.5	372
1992 BU	1992 02 05.73021	09 38 57.92	+18 33 47.3		372
1992 BR1	* 1992 01 27.51250	07 58 20.37	+21 06 38.7	17.5	372
1992 BR1	1992 02 04.59342	07 49 52.01	+21 46 00.1	18	372
1992 CG	* 1992 02 08.75903	09 49 38.58	+17 04 15.3	17.5	372
1992 CG	1992 02 08.76944	09 49 37.87	+17 04 17.0		372
1992 CG	1992 02 09.59827	09 48 45.75	+17 06 37.1	17	372
1992 CG	1992 02 09.61111	09 48 45.04	+17 06 37.7		372
1992 CK	* 1992 02 04.68472	09 46 25.64	+13 38 14.3	17.5	372
1992 CK	1992 02 04.69583	09 46 24.78	+13 38 20.7		372
1992 CK	1992 02 13.75857	09 37 49.73	+15 02 32.6	17.5	372
1992 CK	1992 02 13.76875	09 37 48.91	+15 02 38.4		372
1992 CL	* 1992 02 05.69271	09 34 19.35	+18 24 02.4	18	372
1992 CL	1992 02 05.70451	09 34 18.73	+18 24 07.0		372
1992 CL	1992 02 08.66528	09 31 54.32	+18 42 02.1	17.5	372
1992 CL	1992 02 08.67627	09 31 53.67	+18 42 05.9		372
1992 CM	* 1992 02 05.69271	09 34 42.43	+18 43 26.7	17	372
1992 CM	1992 02 05.70451	09 34 41.83	+18 43 30.8		372
1992 CM	1992 02 08.66528	09 31 33.91	+18 57 50.6	17.5	372
1992 CM	1992 02 08.67627	09 31 33.07	+18 57 55.2		372
1992 CN	* 1992 02 05.69271	09 35 10.05	+18 38 50.8	18.5	372
1992 CN	1992 02 05.70451	09 35 09.55	+18 38 54.0		372
1992 CN	1992 02 08.66528	09 32 49.26	+18 56 31.4	18.5	372
1992 CN	1992 02 08.67627	09 32 48.59	+18 56 37.2		372
1992 CP	* 1992 02 08.70958	10 16 08.11	+15 49 32.0	18	372
1992 CP	1992 02 08.72015	10 16 07.52	+15 49 39.5		372

1992 CP		1992 02 13.82101	10 13 19.89	+16 38 05.9	18	372
1992 CP		1992 02 13.83299	10 13 19.33	+16 38 12.8		372
1992 CQ	*	1992 02 08.70958	10 17 22.36	+15 46 03.6	17	372
1992 CQ		1992 02 08.72015	10 17 21.87	+15 46 11.7		372
1992 CQ		1992 02 13.82101	10 13 54.86	+16 35 28.8	17	372
1992 CQ		1992 02 13.83299	10 13 54.12	+16 35 35.7		372
1992 CR	*	1992 02 04.65972	09 01 36.59	+21 03 20.7	18.5	372
1992 CR		1992 02 04.67015	09 01 35.95	+21 03 26.4		372
1992 CR		1992 02 10.54096	08 55 48.27	+21 56 29.2	18	372
1992 CR		1992 02 10.55139	08 55 47.60	+21 56 29.1		372
1992 CS		1992 02 05.76997	10 23 07.60	+14 51 54.9	17.5	372
1992 CS		1992 02 05.78264	10 23 06.99	+14 52 01.8		372
1992 CS	*	1992 02 08.80208	10 21 11.09	+15 20 03.7	18	372
1992 CS		1992 02 08.81284	10 21 10.72	+15 20 12.4		372
1992 CS		1992 02 13.80069	10 17 49.43	+16 06 42.2	17.5	372
1992 CS		1992 02 13.81110	10 17 48.89	+16 06 50.9		372
1992 CS		1992 02 25.62813	10 09 28.56	+17 54 05.9	18	372
1992 CS		1992 02 25.63992	10 09 28.00	+17 54 09.6		372
1992 CS		1992 02 26.57396	10 08 48.65	+18 02 15.9	17.5	372
1992 CS		1992 02 27.66702	10 08 02.64	+18 11 36.3	18	372
1992 CS		1992 02 27.67847	10 08 02.08	+18 11 43.7		372
1992 CT		1992 02 05.76997	10 25 12.85	+14 41 59.8	17.5	372
1992 CT		1992 02 05.78264	10 25 12.34	+14 42 03.3		372
1992 CT	*	1992 02 08.80208	10 22 51.34	+14 57 30.4	18	372
1992 CT		1992 02 08.81284	10 22 50.77	+14 57 34.5		372
1992 CT		1992 02 13.80069	10 18 45.29	+15 23 11.0	18	372
1992 CT		1992 02 13.81110	10 18 44.76	+15 23 15.5		372
1992 CT		1992 02 24.64028	10 09 29.29	+16 15 51.8	18	372
1992 CT		1992 02 24.65242	10 09 28.67	+16 15 54.2		372
1992 CT		1992 02 25.65140	10 08 37.71	+16 20 22.6	18	372
1992 CT		1992 02 25.66250	10 08 37.14	+16 20 27.1		372
1992 CC1		1992 02 27.71494	11 25 09.00	+19 05 54.0	16	s 372
1992 CC1		1992 02 27.72552	11 25 06.90	+19 05 48.4		s 372
1992 CF1	*	1992 02 13.80069	10 21 30.61	+15 13 55.1	18	372
1992 CF1		1992 02 13.81110	10 21 30.33	+15 13 56.1		372
1992 CF1		1992 02 24.64028	10 10 22.13	+15 52 48.2	18	372
1992 CF1		1992 02 24.65242	10 10 21.59	+15 52 50.9		372
1992 CF1		1992 02 25.65140	10 09 19.15	+15 56 01.6	18	372
1992 CF1		1992 02 25.66250	10 09 18.46	+15 56 05.8		372
1992 CF1		1992 02 26.59688	10 08 20.43	+15 59 00.5	18	372
1992 CF1		1992 02 26.60800	10 08 19.45	+15 59 03.1		372
1992 CF1		1992 02 27.64479	10 07 15.44	+16 02 09.1	17	372
1992 CF1		1992 02 27.65592	10 07 14.75	+16 02 10.8		372
1992 DA	*	1992 02 24.61458	10 10 18.80	+17 43 19.5	16	372
1992 DA		1992 02 24.62742	10 10 18.10	+17 43 21.4		372
1992 DA		1992 02 25.62813	10 09 16.66	+17 47 01.0	16	372
1992 DA		1992 02 25.63992	10 09 15.83	+17 47 03.1		372
1992 DA		1992 02 26.57396	10 08 19.10	+17 50 19.1	16	372
1992 DA		1992 02 26.58508	10 08 18.30	+17 50 21.7		372
1992 DA		1992 02 27.66702	10 07 12.37	+17 54 00.6	16.5	372
1992 DA		1992 02 27.67847	10 07 11.80	+17 54 02.5		372
1992 DA		1992 03 05.67465	10 00 28.81	+18 12 22.1	17	372
1992 DA		1992 03 05.73507	10 00 25.36	+18 12 28.5		372
1992 DN	*	1992 02 25.72119	10 54 29.45	+15 45 20.8	18	372
1992 DN		1992 02 26.55175	10 53 45.75	+15 47 20.8	18	372
1992 DN		1992 02 27.69097	10 52 45.17	+15 50 02.1	18	372
1992 DO	*	1992 02 25.72119	10 55 05.31	+16 03 48.7	18	372
1992 DO		1992 02 26.55175	10 54 20.76	+16 04 51.1	18	372
1992 DO		1992 02 27.69097	10 53 18.24	+16 06 20.6	18	372

1992 DP	*	1992 02	26.59688	10 08	31.93	+15 40	22.5	17.5	372
1992 DP		1992 02	26.60800	10 08	31.21	+15 40	27.7		372
1992 DP		1992 02	27.64479	10 07	28.72	+15 44	51.0	17.5	372
1992 DP		1992 02	27.65592	10 07	28.16	+15 44	53.6		372
1992 DA1	*	1992 02	27.71494	11 25	32.91	+18 43	30.6	17.5	372
1992 DA1		1992 02	27.72552	11 25	32.40	+18 43	35.6		372
1992 DA1		1992 03	03.75487	11 21	29.16	+19 16	17.7	18	372
1992 DA1		1992 03	03.76562	11 21	28.73	+19 16	18.8		372
1992 DB1	*	1992 02	27.73681	11 53	06.19	+08 15	51.8	18	372
1992 DB1		1992 02	27.74826	11 53	05.75	+08 15	59.1		372
1992 DB1		1992 03	03.73125	11 49	52.00	+08 58	35.1	18	372
1992 DB1		1992 03	03.74271	11 49	51.49	+08 58	41.2		372
1992 EG	*	1992 03	03.81910	13 05	58.00	+05 59	03.9	18	372
1992 EG		1992 03	03.83125	13 05	57.32	+05 59	10.7		372
1992 EG		1992 03	05.74635	13 04	52.20	+06 10	22.1	18	372
1992 EG		1992 03	05.75799	13 04	51.54	+06 10	27.3		372
(545)		1992 01	15.84166	10 06	27.82	+15 41	48.6	15	372
(545)		1992 01	15.84549	10 06	27.50	+15 41	51.3		372
(1358)		1992 02	04.63681	08 46	48.75	+21 09	55.8	17	372
(1358)		1992 02	04.64792	08 46	48.00	+21 09	57.7		372
(1800)		1992 02	26.59688	10 08	06.78	+15 58	45.0	17.5	372
(1800)		1992 02	26.60800	10 08	06.20	+15 58	50.0		372
(1800)		1992 02	27.64479	10 07	07.42	+16 05	42.4	18	372
(1800)		1992 02	27.65592	10 07	06.82	+16 05	47.1		372
(2065)		1992 01	09.73542	09 40	02.86	+17 19	40.8	17	372
(2065)		1992 01	09.74897	09 40	02.37	+17 19	45.4		372
(3066)		1992 02	12.67986	11 03	12.49	-01 17	02.9	17	372
(3066)		1992 02	12.69306	11 03	11.95	-01 16	57.3		372
(3326)		1992 02	08.64337	09 25	11.51	+19 15	48.9	17.5	372
(3326)		1992 02	08.65452	09 25	11.06	+19 15	48.3		372
(3869)		1992 02	12.67986	11 03	17.32	-01 06	33.3	18	372
(3869)		1992 02	12.69306	11 03	16.55	-01 06	31.3		372

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N. Kawasato, 3-51, Hana-Koganei, Kodaira, Tokyo 187, Japan

0.30-m reflector + CCD

GSC

1988 ED		1992 02	10.58808	08 18	35.10	+30 45	47.5		376
1988 ED		1992 02	10.60856	08 18	33.76	+30 45	42.0		376
1991 YD		1992 02	22.44421	07 02	31.88	+29 03	55.1		376
1991 YD		1992 02	22.47656	07 02	31.85	+29 03	45.8		376
1992 AH1		1992 02	04.54826	07 58	44.45	+31 03	59.8		376
1992 AH1		1992 02	04.55625	07 58	44.08	+31 03	58.4		376
1992 AH1		1992 02	04.70422	07 58	35.44	+31 03	12.3		376
1992 CH	*	1992 02	10.76910	10 57	42.47	-02 47	48.9	17	376
1992 CH		1992 02	10.79219	10 57	41.25	-02 47	53.6		376
1992 CH		1992 02	13.71840	10 55	07.12	-02 54	53.1		376
1992 CH		1992 02	13.73681	10 55	06.08	-02 54	54.9		376
1992 CJ	*	1992 02	10.76910	11 06	24.57	-01 52	21.7	17.5	376
1992 CJ		1992 02	10.79219	11 06	23.63	-01 52	17.2		376
1992 CJ		1992 02	13.75035	11 04	25.52	-01 39	27.9		376
1992 CJ		1992 02	13.76910	11 04	24.57	-01 39	21.8		376
1992 CJ		1992 02	27.55660	10 52	57.48	-00 13	28.2		376
1992 CJ		1992 02	27.57882	10 52	56.04	-00 13	15.7		376
1992 CB1	*	1992 02	13.81597	11 04	37.25	+21 29	59.9	17.5	376
1992 CB1		1992 02	13.83438	11 04	36.55	+21 30	06.1		376
1992 CB1		1992 02	25.63785	10 54	45.08	+22 20	31.6		376
1992 CB1		1992 02	25.65590	10 54	43.96	+22 20	36.5		376
1992 CB1		1992 02	27.59201	10 53	00.68	+22 27	23.3		376

1992 CB1		1992 02 27.61215	10 52 59.69	+22 27 26.3				376
1992 DD	*	1992 02 25.63785	10 56 56.5	+21 56 39	17			376
1992 DD		1992 02 25.65590	10 56 55.5	+21 56 41				376
1992 DD		1992 02 27.59201	10 55 20.28	+22 03 27.5				376
1992 DD		1992 02 27.61215	10 55 19.24	+22 03 31.0				376
1992 DE	*	1992 02 25.63785	10 58 40.55	+22 42 55.3	17			376
1992 DE		1992 02 25.65590	10 58 39.12	+22 42 59.8				376
1992 DE		1992 02 27.59201	10 56 28.31	+22 45 05.9				376
1992 DE		1992 02 27.61215	10 56 26.92	+22 45 08.2				376
1992 DK		1992 02 27.79826	12 15 52.99	+17 05 35.9	16.5			376
1992 DK		1992 02 27.82188	12 15 51.95	+17 05 42.2				376
1992 DY	*	1992 02 27.69167	11 12 38.38	+14 12 38.6	17			376
1992 DY		1992 02 27.71076	11 12 37.39	+14 12 48.5				376
1992 DY		1992 03 03.70660	11 07 57.38	+14 58 34.7				376
1992 DY		1992 03 03.72535	11 07 56.23	+14 58 43.3				376
1992 DZ	*	1992 02 27.69167	11 19 09.98	+14 06 41.6	16.5			376
1992 DZ		1992 02 27.71076	11 19 09.05	+14 06 56.6				376
1992 DZ		1992 03 03.74479	11 15 27.60	+15 09 32.4				376
1992 DZ		1992 03 03.76667	11 15 26.55	+15 09 51.5				376
(991)		1992 02 10.80799	11 44 51.5	+04 35 46	17		W	376
(991)		1992 02 10.82951	11 44 50.8	+04 35 51			W	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

1990 VF2		1992 02 09.65208	09 19 30.49	+10 30 59.7	17			385
1992 AL		1992 02 02.52500	09 12 24.53	+12 27 51.7	16			385
1992 AL		1992 02 02.54444	09 12 23.37	+12 28 06.0				385
1992 AB1		1992 02 09.56806	07 37 29.05	+13 16 10.6	17			385
1992 AB1		1992 02 09.57708	07 37 28.59	+13 16 10.0				385
1992 BG		1992 02 09.56806	07 35 06.31	+15 03 03.9	16.8			385
1992 BG		1992 02 09.57708	07 35 05.90	+15 03 07.7				385
1992 BG		1992 02 21.45417	07 28 10.41	+16 36 34.2	17			385
1992 BG		1992 02 21.47222	07 28 09.93	+16 36 43.1				385
1992 BH		1992 02 09.59583	07 43 41.90	+13 07 48.2	16.5			385
1992 BH		1992 02 09.61389	07 43 41.18	+13 07 57.3				385
1992 BH		1992 02 21.49097	07 37 44.47	+14 57 58.3	16.8			385
1992 BH		1992 02 21.50000	07 37 44.32	+14 58 02.3				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/3.5 reflector (Hyperboloid Astro-Camera)

GSC

1985 CJ1		1991 11 11.60417	03 59 17.17	+20 08 23.6	16			399
1985 CJ1		1991 11 11.61910	03 59 16.25	+20 08 22.6				399
1985 CS1		1992 03 02.58843	11 35 06.56	+01 50 02.5	16			399
1985 CS1		1992 03 02.60313	11 35 05.82	+01 50 11.8				399
1985 CS1		1992 03 03.57500	11 34 17.64	+01 58 33.7	16			399
1985 CS1		1992 03 03.58993	11 34 16.78	+01 58 42.5				399
1987 SM13		1992 02 26.62569	11 45 59.32	+12 08 04.6	17			399
1987 SM13		1992 02 26.64067	11 45 58.46	+12 08 11.0				399
1987 SM13		1992 02 29.71285	11 42 58.23	+12 28 55.8	17			399
1987 SM13		1992 02 29.72622	11 42 57.45	+12 29 01.2				399
1987 UX1		1992 01 24.51389	08 22 52.84	+12 58 04.1	17			399
1987 UX1		1992 01 24.52917	08 22 51.82	+12 58 06.8				399

1987 UX1	1992 01	28.45972	08 18	31.91	+13	08 19.4	17	399
1987 UX1	1992 01	28.47465	08 18	31.10	+13	08 19.3		399
1987 VB	1992 02	22.54236	10 20	50.49	+06	01 45.2	17	399
1987 VB	1992 02	22.56215	10 20	49.23	+06	01 49.3		399
1987 VB	1992 02	25.51667	10 17	42.88	+06	16 59.0	16.5	399
1987 VB	1992 02	25.53160	10 17	41.83	+06	17 04.9		399
1987 VB	1992 02	26.49965	10 16	41.36	+06	22 04.7	16.5	399
1988 CO	1990 10	27.64855	02 07	13.60	+14	06 10.2	16.5	399
1988 CO	1990 10	27.66383	02 07	12.62	+14	06 08.5		399
1988 CO	1992 02	05.59242	10 53	52.73	+12	53 59.3	17.5	399
1988 CO	1992 02	05.61215	10 53	51.85	+12	54 03.8		399
1988 CO	1992 02	08.71771	10 51	31.38	+13	08 15.3	17	399
1988 CO	1992 02	08.73576	10 51	30.50	+13	08 19.5		399
1988 CO	1992 02	25.55069	10 36	10.39	+14	27 55.9	16.5	399
1988 CO	1992 02	25.56562	10 36	09.40	+14	27 59.6		399
1988 CO	1992 02	26.55417	10 35	10.93	+14	32 22.6	16.5	399
1988 CO	1992 02	26.56944	10 35	10.04	+14	32 26.4		399
1989 EL2	1992 01	28.53056	09 13	43.38	+23	59 01.5	17	399
1989 EL2	1992 01	28.54549	09 13	42.34	+23	59 06.7		399
1989 EL2	1992 01	29.51736	09 12	35.36	+24	03 50.4	17	399
1989 EL2	1992 01	29.53229	09 12	34.24	+24	03 55.4		399
1989 EL2	1992 02	05.48333	09 04	20.15	+24	34 47.6	17	399
1989 EL2	1992 02	05.49826	09 04	18.98	+24	34 52.1		399
1989 EL2	1992 02	08.59410	09 00	37.17	+24	46 29.7	17	399
1989 EL2	1992 02	08.60938	09 00	35.99	+24	46 34.8		399
1990 UE	1992 02	05.55417	09 39	00.87	+19	51 11.9	17	399
1990 UE	1992 02	05.56947	09 38	59.83	+19	51 16.2		399
1990 UE	1992 02	08.63264	09 35	36.79	+20	07 23.2	16.5	399
1990 UE	1992 02	08.64757	09 35	35.78	+20	07 28.3		399
1990 UE	1992 02	21.45833	09 21	25.76	+21	04 49.2	17	399
1990 UE	1992 02	21.47326	09 21	24.79	+21	04 53.1		399
1990 UE	1992 02	22.46042	09 20	22.61	+21	08 23.4	17	399
1990 UE	1992 02	22.48333	09 20	21.20	+21	08 28.0		399
1990 UG2	1992 02	05.55417	09 36	04.87	+22	38 01.9	16.5	399
1990 UG2	1992 02	05.56947	09 36	04.03	+22	38 09.4		399
1990 UR2	1992 02	26.59028	11 30	58.76	-11	25 26.6	16.5	399
1990 UR2	1992 02	26.60521	11 30	58.03	-11	25 27.0		399
1990 UR2	1992 02	29.68924	11 28	19.74	-11	26 30.2	16.5	399
1990 UR2	1992 03	02.66545	11 26	35.89	-11	26 13.8	16.5	399
1990 UR2	1992 03	02.68056	11 26	35.07	-11	26 12.2		399
1990 VO3	1992 03	02.51736	10 29	37.47	-03	47 08.7	17	399
1990 VO3	1992 03	02.53229	10 29	36.81	-03	47 02.7		399
1990 VO3	1992 03	03.50139	10 28	53.39	-03	41 48.2	17	399
1990 VO3	1992 03	03.51632	10 28	52.67	-03	41 45.2		399
1990 XH	1992 02	21.42361	09 11	58.79	+09	41 36.6	17	399
1990 XH	1992 02	21.43854	09 11	58.14	+09	41 41.0		399
1990 XH	1992 02	22.42569	09 11	18.61	+09	47 45.2	17	399
1990 XH	1992 02	22.44062	09 11	17.98	+09	47 53.0		399
1991 YH	1987 11	22.57546	02 03	48.23	+15	53 33.4	16	399
1991 YH	1987 11	22.59144	02 03	47.47	+15	53 32.1		399
1991 YH	1987 11	28.63970	01 59	27.66	+15	48 50.2	16	399
1991 YH	1987 11	28.65486	01 59	27.14	+15	48 48.0		399
1992 AC	1992 01	29.62124	09 44	28.81	+27	20 23.1	12	399
1992 AC	1992 01	29.62818	09 44	29.80	+27	20 50.8		399
1992 AC	1992 01	29.63513	09 44	30.59	+27	21 19.3		399
1992 AD	1992 02	08.55833	08 02	22.96	+21	07 52.5	17	399
1992 AD	1992 02	08.57332	08 02	22.66	+21	07 53.5		399
1992 AF1	1992 01	28.53056	09 18	24.66	+24	31 56.7	16.5	399
1992 AF1	1992 01	28.54549	09 18	23.63	+24	32 01.9		399

1992 AF1	1992 01	29.51736	09 17	19.74	+24	36	16.7	16.5	399
1992 AF1	1992 01	29.53229	09 17	18.57	+24	36	20.7		399
1992 AR1	1992 02	08.55833	07 53	13.16	+17	38	17.4	16.5	399
1992 AR1	1992 02	08.57332	07 53	12.28	+17	38	17.5		399
1992 BM	1992 02	05.48333	09 08	31.77	+22	57	36.8	17	399
1992 BM	1992 02	05.49826	09 08	30.56	+22	57	38.3		399
1992 BM	1992 02	08.59410	09 04	50.54	+23	00	55.7	17	399
1992 BM	1992 02	08.60938	09 04	49.48	+23	00	57.0		399
1992 BN	1992 02	05.55417	09 40	05.02	+19	14	38.9	17	399
1992 BN	1992 02	05.56947	09 40	04.17	+19	14	46.6		399
1992 BN	1992 02	08.63264	09 37	37.40	+19	35	33.0	17	399
1992 BN	1992 02	08.64757	09 37	36.71	+19	35	37.3		399
1992 BN	1992 02	21.45833	09 27	27.61	+20	55	35.4	17	399
1992 BN	1992 02	21.47326	09 27	26.64	+20	55	39.7		399
1992 BN	1992 02	22.46042	09 26	41.92	+21	01	13.2	17	399
1992 BN	1992 02	22.48333	09 26	40.74	+21	01	21.2		399
1992 BO	1992 02	05.55417	09 45	18.74	+21	22	14.6	17	399
1992 BO	1992 02	05.56947	09 45	17.77	+21	22	18.3		399
1992 BO	1992 02	08.63264	09 41	52.09	+21	36	33.0	17	399
1992 BO	1992 02	08.64757	09 41	51.16	+21	36	36.3		399
1992 BP	1992 02	05.59242	10 45	50.84	+11	06	39.3	17	399
1992 BP	1992 02	05.61215	10 45	49.82	+11	06	41.7		399
1992 BP	1992 02	08.71771	10 43	11.67	+11	08	49.4	16.5	399
1992 BP	1992 02	08.73576	10 43	10.81	+11	08	51.6		399
1992 BP	1992 02	25.55069	10 26	38.51	+11	23	32.6	16.5	399
1992 BP	1992 02	25.56562	10 26	37.52	+11	23	33.0		399
1992 BP	1992 02	26.55417	10 25	35.75	+11	24	18.8	16	399
1992 BP	1992 02	26.56944	10 25	34.65	+11	24	21.2		399
1992 BQ	1992 02	05.59242	10 54	11.27	+10	28	48.6	17	399
1992 BQ	1992 02	05.61215	10 54	10.54	+10	28	51.9		399
1992 BQ	1992 02	08.71771	10 51	47.17	+10	36	16.4	17	399
1992 BQ	1992 02	08.73576	10 51	46.48	+10	36	19.1		399
1992 BQ	1992 02	25.55069	10 36	10.23	+11	22	55.2	16.5	399
1992 BQ	1992 02	25.56562	10 36	09.33	+11	22	57.1		399
1992 BQ	1992 02	26.55417	10 35	09.21	+11	25	44.0	16	399
1992 BQ	1992 02	26.56944	10 35	08.26	+11	25	46.0		399
1992 BT	1992 02	05.48333	09 01	47.38	+23	40	49.6	17	399
1992 BT	1992 02	05.49826	09 01	46.45	+23	40	50.2		399
1992 BU	1992 02	05.55417	09 39	09.37	+18	33	33.0	17.5	399
1992 BU	1992 02	05.56947	09 39	08.34	+18	33	33.5		399
1992 BU	1992 02	08.63264	09 35	58.16	+18	36	35.6	17.5	399
1992 BU	1992 02	08.64757	09 35	57.05	+18	36	36.2		399
1992 BX	1992 02	08.67431	09 10	13.51	+05	03	26.0	16.5	399
1992 BX	1992 02	08.68929	09 10	12.46	+05	03	25.4		399
1992 BZ	1992 02	05.55417	09 46	29.37	+18	50	41.7	17	399
1992 BZ	1992 02	05.56947	09 46	28.53	+18	50	46.0		399
1992 BZ	1992 02	08.63264	09 43	30.82	+19	08	40.4	16.5	399
1992 BZ	1992 02	08.64757	09 43	29.73	+19	08	46.7		399
1992 BZ	1992 02	21.45833	09 31	11.89	+20	12	54.6	17	399
1992 BZ	1992 02	21.47326	09 31	10.98	+20	13	00.7		399
1992 BZ	1992 02	22.46042	09 30	17.87	+20	17	00.9	17	399
1992 BZ	1992 02	22.48333	09 30	16.70	+20	17	05.1		399
1992 BJ1	* 1992 01	28.53056	09 10	50.59	+22	13	20.5	17	399
1992 BJ1	1992 01	28.54549	09 10	49.64	+22	13	25.6		399
1992 BJ1	1992 01	29.51736	09 09	54.50	+22	18	55.8	17.5	399
1992 BJ1	1992 01	29.53229	09 09	53.46	+22	19	00.1		399
1992 BJ1	1992 02	05.48333	09 03	15.08	+22	55	34.8	17	399
1992 BJ1	1992 02	05.49826	09 03	14.07	+22	55	39.3		399
1992 BJ1	1992 02	08.59410	09 00	19.82	+23	09	54.1	17	399

1992 BJ1		1992 02 08.60938	09 00 18.91	+23 10 02.0		399
1992 CE		1992 02 25.51667	10 11 22.02	+06 54 30.3	16.5	399
1992 CE		1992 02 25.53160	10 11 21.42	+06 54 31.4		399
1992 CE		1992 02 26.49965	10 10 45.23	+06 58 39.2	16.5	399
1992 CG1	*	1992 02 08.71771	10 44 39.59	+11 20 21.9	17	399
1992 CG1		1992 02 08.73576	10 44 38.83	+11 20 27.4		399
1992 CG1		1992 02 25.55069	10 32 23.13	+12 53 30.2	16.5	399
1992 CG1		1992 02 25.56562	10 32 22.53	+12 53 35.1		399
1992 CG1		1992 02 26.55417	10 31 35.74	+12 59 01.3	16	399
1992 CG1		1992 02 26.56944	10 31 35.05	+12 59 06.7		399
1992 DB		1992 02 25.58472	11 21 05.78	+09 14 20.0	16	399
1992 DB		1992 02 25.59931	11 21 05.05	+09 14 27.0		399
1992 DB		1992 02 26.51806	11 20 19.51	+09 22 06.3	16	399
1992 DB		1992 02 26.53299	11 20 18.70	+09 22 13.4		399
1992 DF	*	1992 02 25.55069	10 34 15.86	+13 18 29.5	17	399
1992 DF		1992 02 25.56562	10 34 14.94	+13 18 37.3		399
1992 DF		1992 02 26.55417	10 33 17.43	+13 25 59.0	17	399
1992 DF		1992 02 26.56944	10 33 16.56	+13 26 04.6		399
1992 DG	*	1992 02 25.55069	10 35 31.17	+14 40 42.9	17	399
1992 DG		1992 02 25.56562	10 35 30.39	+14 40 54.6		399
1992 DG		1992 02 26.55417	10 34 40.71	+14 52 43.6	17	399
1992 DG		1992 02 26.56944	10 34 39.95	+14 52 54.2		399
1992 DH	*	1992 02 25.58472	11 20 30.70	+09 03 39.2	16.5	399
1992 DH		1992 02 25.59931	11 20 30.02	+09 03 46.6		399
1992 DH		1992 02 26.51806	11 19 45.32	+09 11 51.1	16.5	399
1992 DH		1992 02 26.53299	11 19 44.64	+09 11 58.3		399
1992 DQ	*	1992 02 25.51667	10 16 24.55	+05 34 50.2	17	399
1992 DQ		1992 02 25.53160	10 16 23.67	+05 34 54.7		399
1992 DQ		1992 02 26.49965	10 15 25.42	+05 40 03.8	17	399
1992 DR	*	1992 02 25.51667	10 16 43.32	+08 07 51.2	17	399
1992 DR		1992 02 25.53160	10 16 42.55	+08 07 56.1		399
1992 DR		1992 02 26.49965	10 15 46.36	+08 11 03.7	17	399
1992 DS	*	1992 02 25.58472	11 16 55.74	+10 51 00.2	16.5	399
1992 DS		1992 02 25.59931	11 16 55.00	+10 51 04.1		399
1992 DS		1992 02 26.51806	11 16 09.45	+10 57 22.1	16.5	399
1992 DS		1992 02 26.53299	11 16 08.67	+10 57 27.7		399
1992 DT	*	1992 02 25.58472	11 23 05.06	+09 03 20.2	17	399
1992 DT		1992 02 25.59931	11 23 04.30	+09 03 21.5		399
1992 DT		1992 02 26.51806	11 22 15.10	+09 06 09.1	17	399
1992 DT		1992 02 26.53299	11 22 14.33	+09 06 11.9		399
1992 DV	*	1992 02 25.58472	11 24 37.38	+07 42 47.1	17	399
1992 DV		1992 02 25.59931	11 24 36.73	+07 42 57.2		399
1992 DV		1992 02 26.51806	11 24 10.29	+07 53 39.6	17	399
1992 DV		1992 02 26.53299	11 24 09.71	+07 53 50.0		399
1992 DW	*	1992 02 26.62569	11 54 13.06	+11 48 00.4	16	399
1992 DW		1992 02 26.64067	11 54 12.22	+11 48 04.9		399
1992 DW		1992 02 29.71285	11 51 26.39	+12 02 13.4	16.5	399
1992 DW		1992 02 29.72622	11 51 25.59	+12 02 18.3		399
1992 DC1	*	1992 02 26.62569	11 43 33.10	+12 13 07.5	17	399
1992 DC1		1992 02 26.64067	11 43 32.39	+12 13 14.8		399
1992 DC1		1992 03 02.62523	11 39 37.14	+13 00 56.9	17	399
1992 DC1		1992 03 02.63999	11 39 36.48	+13 01 01.9		399
1992 EA	*	1992 03 02.55579	11 13 43.61	+04 42 44.9	17	399
1992 EA		1992 03 02.57049	11 13 42.76	+04 42 50.1		399
1992 EA		1992 03 03.53681	11 12 44.64	+04 48 14.3	17	399
1992 EA		1992 03 03.55174	11 12 43.70	+04 48 17.8		399
1992 EB	*	1992 03 02.55579	11 16 34.18	+04 01 50.5	17	399
1992 EB		1992 03 02.57049	11 16 33.21	+04 01 56.0		399
1992 EB		1992 03 03.53681	11 15 33.78	+04 07 43.7	17	399

1992 EB		1992 03 03.55174	11 15 32.89	+04 07 48.1			399
1992 EC	*	1992 03 02.58843	11 28 57.01	+03 52 15.5	17		399
1992 EC		1992 03 02.60313	11 28 55.98	+03 52 17.7			399
1992 EC		1992 03 03.57500	11 27 57.19	+03 54 51.0	17		399
1992 EC		1992 03 03.58993	11 27 56.21	+03 54 51.1			399
1992 ED	*	1992 03 02.58843	11 29 07.34	+03 27 55.9	16.5		399
1992 ED		1992 03 02.60313	11 29 06.39	+03 27 59.3			399
1992 ED		1992 03 03.57500	11 28 08.59	+03 31 50.3	16.5		399
1992 ED		1992 03 03.58993	11 28 07.56	+03 31 52.7			399
1992 EE	*	1992 03 02.58843	11 36 41.67	+03 37 29.7	17		399
1992 EE		1992 03 02.60313	11 36 40.94	+03 37 30.0			399
1992 EE		1992 03 03.57500	11 35 44.00	+03 38 47.3	17		399
1992 EE		1992 03 03.58993	11 35 42.94	+03 38 49.4			399
1992 EF	*	1992 03 02.51736	10 31 58.91	-04 49 18.6	17		399
1992 EF		1992 03 02.53229	10 31 58.18	-04 49 16.1			399
1992 EF		1992 03 03.50139	10 31 11.36	-04 45 31.7	17		399
1992 EF		1992 03 03.51632	10 31 10.63	-04 45 28.5			399
2536 P-L		1991 09 30.45816	23 57 43.30	-05 41 41.0	16		399
2536 P-L		1991 09 30.47326	23 57 42.44	-05 41 41.5			399
7068 P-L		1991 11 09.60307	04 06 17.44	+14 19 59.1	16.5		399
7068 P-L		1991 11 09.62049	04 06 16.71	+14 19 52.2			399
7068 P-L		1991 11 11.56806	04 04 37.69	+14 04 51.6	16.5		399
7068 P-L		1991 11 11.58333	04 04 36.84	+14 04 44.3			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/3.0 reflector, 0.25-m f/2.5 Schmidt

GSC

1985 CJ1		1991 11 09.52951	04 01 18.89	+20 09 36.2	16.0		400
1985 CJ1		1991 11 09.54688	04 01 17.68	+20 09 38.0			400
1985 CJ1		1991 11 10.49965	04 00 22.69	+20 09 04.4			400
1985 CJ1		1991 11 10.51563	04 00 21.76	+20 09 04.4			400
1992 BP		1992 02 09.55313	10 42 27.74	+11 09 27.4	16.0		400
1992 BP		1992 02 09.57396	10 42 26.63	+11 09 29.9			400
1992 BE1		1992 02 02.52535	10 12 01.54	+18 18 57.3	16.5		400
1992 BE1		1992 02 02.54549	10 12 00.24	+18 19 07.6			400
1992 CE	*	1992 02 05.57604	10 23 28.08	+05 37 19.4	16.5		400
1992 CE		1992 02 05.59687	10 23 27.46	+05 37 22.7			400
1992 CE		1992 02 09.51215	10 21 13.84	+05 50 55.3	16.5		400
1992 CE		1992 02 09.53229	10 21 13.23	+05 50 59.9			400
1992 CD1	*	1992 02 09.59201	10 44 49.79	+04 26 29.0	16.0		400
1992 CD1		1992 02 09.61285	10 44 48.88	+04 26 36.8			400
1992 CD1		1992 02 24.57535	10 32 30.97	+06 01 18.0	16.0		400
1992 CD1		1992 02 24.59410	10 32 29.93	+06 01 25.3			400
1992 CE1	*	1992 02 09.59201	10 45 34.42	-00 28 43.9	16.0		400
1992 CE1		1992 02 09.61285	10 45 33.66	-00 28 33.1			400
1992 CE1		1992 02 24.53993	10 36 14.92	+01 43 51.1	16.5		400
1992 CE1		1992 02 24.55938	10 36 14.13	+01 44 00.5			400
(765)		1992 02 05.57604	10 33 17.52	+08 46 35.2	16.0		400
(765)		1992 02 05.59687	10 33 16.39	+08 46 39.7			400

402 Dynic Astronomical Observatory

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

0.25-m f/3.4 Schmidt

PPM

1990 OO3	1992 01	10.73056	08 40	31.57	+12 58	50.4	17.5	402
1990 OO3	1992 01	10.74531	08 40	30.76	+12 58	55.8		402
1990 OO3	1992 01	11.62778	08 39	46.35	+13 03	52.8		402
1990 OO3	1992 01	11.64167	08 39	45.61	+13 03	57.0		402
1992 AD	1992 02	05.56956	08 03	14.51	+21 01	20.0	17.5	402
1992 AD	1992 02	05.59876	08 03	13.83	+21 01	25.0		402
1992 AC1	1992 02	05.54167	07 55	48.79	+08 29	52.5	17.0	402
1992 AC1	1992 02	05.55697	07 55	47.98	+08 29	54.4		402
1992 AC1	1992 02	09.55069	07 52	38.67	+08 26	50.5		402
1992 AC1	1992 02	09.56458	07 52	38.12	+08 26	49.6		402
1992 AD1	1992 02	05.54167	07 57	12.47	+08 32	00.7	16.5	402
1992 AD1	1992 02	05.55697	07 57	11.58	+08 32	01.0		402
1992 AD1	1992 02	09.55069	07 53	36.23	+08 30	52.0		402
1992 AD1	1992 02	09.56458	07 53	35.53	+08 30	52.3		402
1992 BK1	* 1992 01	26.64028	10 15	20.84	+05 52	13.6	16.0	402
1992 BK1	1992 01	26.65278	10 15	20.26	+05 52	12.6		402
1992 BK1	1992 02	05.63889	10 06	16.31	+05 26	03.4	15.5	402
1992 BK1	1992 02	05.65278	10 06	15.47	+05 26	01.9		402
1992 BK1	1992 02	26.60069	09 44	11.00	+05 05	42.8	15.5	402
1992 BK1	1992 02	26.61875	09 44	09.81	+05 05	42.2		402
1992 BK1	1992 02	27.51111	09 43	17.03	+05 05	33.0		402
1992 BK1	1992 02	27.52569	09 43	16.15	+05 05	32.8		402
1992 DJ	* 1992 02	26.60069	09 49	33.75	+05 29	14.6	17.0	402
1992 DJ	1992 02	26.61875	09 49	32.86	+05 29	26.7		402
1992 DJ	1992 02	27.51111	09 48	54.27	+05 40	15.7		402
1992 DJ	1992 02	27.52569	09 48	53.60	+05 40	23.1		402
1992 DK	* 1992 02	26.69028	12 16	39.71	+17 00	44.8	17.0	402
1992 DK	1992 02	26.70764	12 16	39.07	+17 00	49.5		402
1992 DK	1992 02	27.65492	12 15	59.18	+17 04	58.7		402
1992 DK	1992 02	27.67361	12 15	58.48	+17 05	05.0		402
1992 DL	* 1992 02	26.69028	12 18	58.70	+14 10	33.9	17.5	402
1992 DL	1992 02	26.70764	12 18	57.96	+14 10	36.0		402
1992 DL	1992 02	27.65492	12 18	17.91	+14 13	52.8		402
1992 DL	1992 02	27.67361	12 18	17.11	+14 13	58.1		402
1992 DM	* 1992 02	26.69028	12 20	16.56	+13 19	52.5	17.5	402
1992 DM	1992 02	26.70764	12 20	15.94	+13 20	00.2		402
1992 DM	1992 02	27.65492	12 19	39.02	+13 27	03.7		402
1992 DM	1992 02	27.67361	12 19	38.17	+13 27	11.5		402

403 Kani

T. Furuta, Mitsuike 17-2, Kakiya-Cho, Tokai, Aichi-Ken 477, Japan

Observers Y. Mizuno, T. Furuta

Measurer T. Furuta

0.25-m f/4.2 Wright-Schmidt camera

GSC

1992 DB	1992 02	26.57130	11 20	16.70	+09 22	35.8	16.0	403
1992 DB	1992 02	26.58206	11 20	16.27	+09 22	41.7		403
1992 DB	1992 02	27.59236	11 19	25.12	+09 31	06.0		403
1992 DB	1992 02	27.60313	11 19	24.44	+09 31	12.6		403

411 Oizumi

T. Kobayashi, 1717-2 Shimo-Koizumi, Oizumi-machi, Ora-gun,
Gunma-ken, 370-05 Japan

0.16-m f/4.8 reflector

AGK3, SAOC

1992 AC	1992 02	22.58599	10 49	28.53	+48 55	42.1	13.5	411
1992 AC	1992 02	22.58695	10 49	28.66	+48 55	44.4		411
1992 AC	1992 02	22.58786	10 49	28.80	+48 55	46.2		411

1992 AC	1992 02	22.58954	10 49	29.05	+48 55	49.7	411
1992 AC	1992 02	22.59047	10 49	29.19	+48 55	51.5	411
1992 AC	1992 02	22.59316	10 49	29.60	+48 55	56.9	411
1992 AC	1992 02	22.59482	10 49	29.86	+48 56	00.3	411
(2060)	1992 02	22.51384	08 21	04.30	+11 45	24.2	16 411
(2060)	1992 02	22.51872	08 21	04.28	+11 45	24.5	411
(2060)	1992 02	22.52383	08 21	04.25	+11 45	24.2	411
(2060)	1992 02	22.52858	08 21	04.14	+11 45	24.3	411
(2060)	1992 02	22.53316	08 21	04.04	+11 45	25.8	411
(2060)	1992 02	22.53654	08 21	04.04	+11 45	25.5	411

413 Siding Spring

R. H. McNaught, Siding Spring Observatory, Coonabarabran, N.S.W. 2357,
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Observers J. A. Dawe, R. H. McNaught, S. D. Ryder, D. I. Steel,
K. P. Tritton

Measurers R. H. McNaught, A. N. Zytchow, M. J. Irwin

1.2-m U.K. Schmidt, Uppsala Southern Schmidt, 1.0-m reflector + CCD

1982 BJ	1992 01	15.48344	02 21	21.82	-11 57	04.9	413
1982 BJ	1992 01	15.48736	02 21	21.95	-11 57	01.1	413
1988 RG1	1992 01	15.57215	05 58	50.98	-02 37	51.1	413
1988 RG1	1992 01	15.57619	05 58	50.86	-02 37	49.9	413
1988 RG1	1992 01	15.57986	05 58	50.76	-02 37	49.5	413
1990 DJ	1992 01	15.49227	02 38	43.53	-13 42	48.2	413
1990 DJ	1992 01	15.49611	02 38	43.70	-13 42	44.8	413
1990 HM3	1990 05	01.75077	18 40	09.81	-23 06	38.3	413
1990 HN3	1990 05	01.75077	18 40	55.28	-23 32	26.2	413
1990 HO3	1990 05	01.75077	18 43	28.44	-23 55	26.1	413
1990 HG5	* 1990 04	29.76870	18 34	49.64	-24 00	24.2	413
1990 HG5	1990 05	01.75077	18 35	42.97	-24 07	46.3	413
1990 HG5	1990 05	02.74389	18 36	06.79	-24 11	33.7	413
1990 HH5	* 1990 04	29.76870	18 35	22.99	-23 47	02.4	413
1990 HH5	1990 05	01.75077	18 35	29.78	-23 45	42.5	413
1990 HH5	1990 05	02.74389	18 35	31.18	-23 45	03.3	413
1990 HJ5	* 1990 04	29.76870	18 36	23.63	-22 57	24.4	413
1990 HJ5	1990 05	01.75077	18 36	30.81	-22 55	51.8	413
1990 HJ5	1990 05	02.74389	18 36	32.26	-22 55	07.4	413
1990 HK5	* 1990 04	29.76870	18 37	49.62	-25 03	30.1	413
1990 HK5	1990 05	01.75077	18 38	05.34	-25 00	19.3	413
1990 HK5	1990 05	02.74389	18 38	10.90	-24 58	43.5	413
1990 HL5	* 1990 04	29.76870	18 37	59.29	-23 29	12.4	413
1990 HL5	1990 05	01.75077	18 37	54.36	-23 29	19.9	413
1990 HL5	1990 05	02.74389	18 37	50.07	-23 29	25.2	413
1990 HM5	* 1990 04	29.76870	18 38	10.20	-22 29	54.3	413
1990 HM5	1990 05	01.75077	18 38	06.35	-22 30	29.9	413
1990 HM5	1990 05	02.74389	18 38	02.87	-22 30	50.2	413
1990 HN5	* 1990 04	29.76870	18 38	27.00	-22 26	17.5	413
1990 HN5	1990 05	01.75077	18 39	48.37	-22 29	12.6	413
1990 HN5	1990 05	02.74389	18 40	25.96	-22 30	44.8	413
1990 HO5	* 1990 04	29.76870	18 38	45.26	-21 46	42.0	413
1990 HO5	1990 05	01.75077	18 39	00.49	-21 50	30.4	413
1990 HO5	1990 05	02.74389	18 39	05.70	-21 52	29.8	413
1990 HP5	* 1990 04	29.76870	18 38	58.15	-24 49	02.9	413
1990 HP5	1990 05	01.75077	18 39	21.26	-24 49	38.1	413
1990 HP5	1990 05	02.74389	18 39	30.59	-24 49	57.8	413
1990 HQ5	* 1990 04	29.76870	18 39	52.04	-22 19	33.0	413

1990 HQ5		1990 05 01.75077	18 40 07.84	-22 22 50.8	413
1990 HQ5		1990 05 02.74389	18 40 13.11	-22 24 34.2	413
1990 HR5	*	1990 04 29.76870	18 39 59.83	-24 39 35.6	413
1990 HR5		1990 05 01.75077	18 40 04.76	-24 43 33.5	413
1990 HR5		1990 05 02.74389	18 40 05.06	-24 45 35.7	413
1990 HS5	*	1990 04 29.76870	18 40 12.53	-23 55 46.9	413
1990 HS5		1990 05 01.75077	18 41 22.13	-23 59 45.1	413
1990 HS5		1990 05 02.74389	18 41 54.17	-24 01 50.1	413
1990 HT5	*	1990 04 29.76870	18 40 39.26	-22 00 36.6	413
1990 HT5		1990 05 01.75077	18 41 18.22	-21 58 49.9	413
1990 HT5		1990 05 02.74389	18 41 34.95	-21 57 59.2	413
1990 HU5	*	1990 04 29.76870	18 41 07.76	-22 42 01.9	413
1990 HU5		1990 05 01.75077	18 41 20.09	-22 45 24.5	413
1990 HU5		1990 05 02.74389	18 41 24.11	-22 47 09.7	413
1990 HV5	*	1990 04 29.76870	18 41 28.41	-24 47 08.5	413
1990 HV5		1990 05 01.75077	18 42 17.26	-24 46 11.4	413
1990 HV5		1990 05 02.74389	18 42 39.13	-24 45 44.2	413
1990 HW5	*	1990 04 29.76870	18 41 47.13	-21 58 01.9	413
1990 HW5		1990 05 01.75077	18 41 59.64	-21 49 29.6	413
1990 HW5		1990 05 02.74389	18 42 03.15	-21 45 12.0	413
1990 HX5	*	1990 04 29.76870	18 42 17.30	-22 04 38.1	413
1990 HX5		1990 05 01.75077	18 42 40.83	-22 07 20.0	413
1990 HX5		1990 05 02.74389	18 42 49.84	-22 08 46.9	413
1990 HY5	*	1990 04 29.76870	18 43 19.88	-23 23 37.8	413
1990 HY5		1990 05 01.75077	18 43 42.93	-23 21 52.2	413
1990 HY5		1990 05 02.74389	18 43 51.67	-23 21 02.1	413
1990 HZ5	*	1990 04 29.76870	18 43 37.47	-22 00 38.2	413
1990 HZ5		1990 05 01.75077	18 43 32.47	-22 03 48.9	413
1990 HZ5		1990 05 02.74389	18 43 28.12	-22 05 27.5	413
1990 HA6	*	1990 04 29.76870	18 44 25.75	-23 09 09.1	413
1990 HA6		1990 05 01.75077	18 44 47.16	-23 14 02.4	413
1990 HA6		1990 05 02.74389	18 44 55.23	-23 16 34.9	413
1990 HB6	*	1990 04 29.76870	18 44 41.36	-23 42 02.2	413
1990 HB6		1990 05 01.75077	18 45 19.06	-23 43 22.4	413
1990 HB6		1990 05 02.74389	18 45 35.68	-23 44 05.7	413
1990 HC6	*	1990 04 29.76870	18 44 48.22	-23 26 09.4	413
1990 HC6		1990 05 01.75077	18 45 51.63	-23 27 03.9	413
1990 HC6		1990 05 02.74389	18 46 20.66	-23 27 34.8	413
1990 HD6	*	1990 04 29.76870	18 44 52.81	-22 03 02.6	413
1990 HD6		1990 05 01.75077	18 45 04.96	-22 04 30.7	413
1990 HD6		1990 05 02.74389	18 45 08.91	-22 05 18.5	413
1990 HE6	*	1990 04 29.76870	18 45 49.20	-23 24 29.2	413
1990 HE6		1990 05 01.75077	18 46 36.71	-23 25 44.3	413
1990 HE6		1990 05 02.74389	18 46 58.18	-23 26 25.4	413
1990 HF6	*	1990 04 29.76870	18 46 01.54	-24 12 38.9	413
1990 HF6		1990 05 01.75077	18 46 18.19	-24 14 47.4	413
1990 HF6		1990 05 02.74389	18 46 24.21	-24 15 55.2	413
1990 HG6	*	1990 04 29.76870	18 46 13.03	-22 17 55.8	413
1990 HG6		1990 05 01.75077	18 46 30.29	-22 15 26.4	413
1990 HG6		1990 05 02.74389	18 46 36.74	-22 14 13.2	413
1990 HH6	*	1990 04 29.76870	18 46 32.13	-24 08 17.4	413
1990 HH6		1990 05 01.75077	18 46 31.96	-24 09 08.1	413
1990 HH6		1990 05 02.74389	18 46 30.05	-24 09 35.6	413
1990 HJ6	*	1990 04 29.76870	18 46 57.83	-22 57 51.2	413
1990 HJ6		1990 05 01.75077	18 47 29.52	-22 59 29.8	413
1990 HJ6		1990 05 02.74389	18 47 42.86	-23 00 23.5	413
1990 HK6	*	1990 04 29.76870	18 47 11.06	-23 35 33.3	413
1990 HK6		1990 05 01.75077	18 48 03.69	-23 37 26.9	413

1990 HK6		1990 05 02.74389	18 48 27.30	-23 38 27.5	413
1990 HL6	*	1990 04 29.76870	18 48 09.76	-21 58 54.7	413
1990 HL6		1990 05 01.75077	18 48 20.55	-21 59 22.5	413
1990 HL6		1990 05 02.74389	18 48 23.41	-21 59 40.3	413
1990 HM6	*	1990 04 29.76870	18 48 38.20	-23 32 40.4	413
1990 HM6		1990 05 01.75077	18 49 04.00	-23 30 56.1	413
1990 HM6		1990 05 02.74389	18 49 14.72	-23 30 05.6	413
1990 HN6	*	1990 04 29.76870	18 35 55.64	-21 44 32.4	413
1990 HN6		1990 05 01.75077	18 35 38.06	-21 46 18.1	413
1990 HO6	*	1990 04 29.76870	18 39 19.19	-22 30 48.3	413
1990 HO6		1990 05 01.75077	18 39 26.44	-22 26 27.2	413
1990 HP6	*	1990 04 29.76870	18 43 31.39	-22 35 01.4	413
1990 HP6		1990 05 01.75077	18 43 25.38	-22 38 29.4	413
1990 HQ6	*	1990 04 29.76870	18 44 12.91	-22 27 28.1	413
1990 HQ6		1990 05 02.74389	18 44 22.73	-22 22 30.4	413
1990 HR6	*	1990 04 29.76870	18 45 39.14	-22 15 06.6	413
1990 HR6		1990 05 01.75077	18 45 46.89	-22 10 47.2	413
1990 HS6	*	1990 04 29.76870	18 45 46.38	-21 45 43.5	413
1990 HS6		1990 05 01.75077	18 45 34.66	-21 42 15.7	413
1990 HT6	*	1990 04 29.76870	18 46 32.51	-22 02 01.3	413
1990 HT6		1990 05 01.75077	18 46 37.28	-22 01 26.3	413
1990 HU6	*	1990 04 29.76870	18 49 04.96	-25 02 29.1	413
1990 HU6		1990 05 01.75077	18 49 22.10	-24 57 55.3	413
1990 HV6	*	1990 04 29.76870	18 49 11.95	-23 10 59.8	413
1990 HV6		1990 05 01.75077	18 49 14.55	-23 11 40.7	413
1990 JN1	*	1990 05 01.75077	18 34 40.50	-22 37 22.9	413
1990 JN1		1990 05 02.74389	18 34 45.08	-22 36 47.9	413
1990 JO1	*	1990 05 01.75077	18 34 55.93	-22 25 33.4	413
1990 JO1		1990 05 02.74389	18 35 07.68	-22 31 20.2	413
1990 JP1	*	1990 05 01.75077	18 35 35.55	-23 00 18.7	413
1990 JP1		1990 05 02.74389	18 36 04.97	-22 58 08.9	413
1990 JQ1	*	1990 05 01.75077	18 38 09.41	-24 54 17.3	413
1990 JQ1		1990 05 02.74389	18 38 43.74	-24 54 00.2	413
1990 JR1	*	1990 05 01.75077	18 39 21.42	-22 59 04.2	413
1990 JR1		1990 05 02.74389	18 39 23.26	-22 59 27.8	413
1990 JS1	*	1990 05 01.75077	18 41 17.80	-22 49 09.5	413
1990 JS1		1990 05 02.74389	18 41 24.11	-22 47 09.7	413
1990 JT1	*	1990 05 01.75077	18 41 20.09	-22 45 24.6	413
1990 JT1		1990 05 02.74389	18 41 36.61	-22 42 12.8	413
1990 JU1	*	1990 05 01.75077	18 41 24.39	-22 12 11.2	413
1990 JU1		1990 05 02.74389	18 41 32.78	-22 11 27.9	413
1990 JV1	*	1990 05 01.75077	18 43 07.88	-22 49 54.0	413
1990 JV1		1990 05 02.74389	18 43 05.02	-22 45 45.3	413
1990 JW1	*	1990 05 01.75077	18 43 08.32	-24 32 57.0	413
1990 JW1		1990 05 02.74389	18 43 34.28	-24 35 14.2	413
1990 JX1	*	1990 05 01.75077	18 44 40.97	-23 55 45.1	413
1990 JX1		1990 05 02.74389	18 44 46.39	-23 54 18.8	413
1990 JY1	*	1990 05 01.75077	18 48 00.98	-23 09 44.1	413
1990 JY1		1990 05 02.74389	18 48 12.61	-23 09 01.2	413
1991 VB		1992 01 13.51855	03 32 50.83	+16 32 25.1	413
1991 VB		1992 01 13.52042	03 32 51.04	+16 32 24.4	413
1991 VB		1992 01 13.52236	03 32 51.26	+16 32 25.1	413
1991 VB3		1990 04 29.76870	18 39 36.60	-22 07 48.8	413
1991 VB3		1990 05 01.75077	18 39 59.58	-22 02 19.1	413
1991 VB3		1990 05 02.74389	18 40 08.23	-21 59 34.8	413
1992 AD		1977 07 22.76513	23 55 21.45	-21 52 30.6	413
1992 AD		1982 08 22.71951	01 27 26.44	-17 29 15.7	413
1992 AD		1992 02 11.56142	08 01 33.27	+21 14 17.6	413
1992 AD		1992 02 11.56676	08 01 33.18	+21 14 18.2	413

1992 AD	1992 02	11.57350	08 01	33.07	+21 14	19.0	413
1992 AD	1992 02	12.58154	08 01	16.95	+21 16	25.9	413
1992 BB	1992 02	11.50042	05 39	25.57	-55 09	12.4	413
1992 BB	1992 02	11.50432	05 39	25.68	-55 09	07.5	413
1992 BB	1992 02	11.50757	05 39	25.80	-55 09	03.4	413
1992 BB	1992 02	12.49163	05 40	04.06	-54 48	43.8	413
1992 BB	1992 02	12.49441	05 40	04.16	-54 48	40.2	413
1992 BB	1992 02	12.62093	05 40	08.88	-54 45	57.6	413
5119 T-3	1992 01	15.56417	05 34	49.74	-20 27	02.4	413
5119 T-3	1992 01	15.56726	05 34	49.67	-20 26	59.8	413
(196)	1990 04	29.76870	18 43	45.18	-24 43	05.2	413
(196)	1990 05	01.75077	18 44	00.80	-24 47	21.3	413
(196)	1990 05	02.74389	18 44	06.51	-24 49	34.0	413
(557)	1990 04	29.76870	18 47	22.46	-24 47	11.6	413
(557)	1990 05	01.75077	18 47	40.99	-24 46	45.9	413
(557)	1990 05	02.74389	18 47	47.68	-24 46	35.0	413
(2415)	1990 04	29.76870	18 47	36.10	-22 29	17.4	413
(2415)	1990 05	01.75077	18 48	10.00	-22 29	53.1	413
(2415)	1990 05	02.74389	18 48	24.58	-22 30	14.4	413
(2483)	1990 04	29.76870	18 37	11.64	-21 43	43.6	413
(2483)	1990 05	01.75077	18 36	56.66	-21 42	39.8	413
(2483)	1990 05	02.74389	18 36	47.84	-21 42	08.9	413
(3303)	1990 04	29.76870	18 37	47.94	-24 51	29.6	413
(3303)	1990 05	01.75077	18 38	07.56	-24 53	43.2	413
(3303)	1990 05	02.74389	18 38	15.11	-24 54	52.8	413
(3327)	1990 05	01.75077	18 40	39.39	-23 33	09.8	413
(3839)	1990 04	29.76870	18 38	43.50	-22 15	23.2	413
(3839)	1990 05	01.75077	18 40	01.52	-22 10	17.1	413
(3839)	1990 05	02.74389	18 40	37.73	-22 07	43.6	413
(5048)	1990 04	29.76870	18 46	18.41	-24 24	35.5	413
(5048)	1990 05	01.75077	18 47	05.27	-24 23	52.2	413
(5048)	1990 05	02.74389	18 47	25.90	-24 23	32.6	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

1978 PT4	1991 11	05.57138	02 09	09.72	-16 22	37.0	474
1978 PT4	1991 11	05.58880	02 09	08.83	-16 22	41.5	474
1992 BF	1992 02	05.54372	09 29	54.16	+13 47	10.4	474
1992 BF	1992 02	05.55240	09 29	50.53	+13 47	01.2	474

493 Calar Alto

K. Birkle, Max-Planck-Institut fur Astronomie, Konigstuhl, D-6900

Heidelberg 1, Federal Republic of Germany

Observers K. Birkle, U. Hopp

0.8-m f/3 Schmidt

1992 CH1	* 1992 02	08.06250	10 50	05.42	-01 33	54.8	16	R	493
1992 CH1	1992 02	09.10938	10 53	14.95	+00 22	55.7			493
1992 CH1	1992 02	09.99132	10 55	58.12	+02 03	56.0			493
1992 CH1	1992 02	11.20920	10 59	38.93	+04 26	29.0			493
1992 CH1	1992 02	11.21192	10 59	39.31	+04 26	47.6			493
1992 CH1	1992 02	11.92299	11 01	54.56	+05 51	24.2			493
1992 CH1	1992 02	11.92455	11 01	54.72	+05 51	36.4			493
1992 CH1	1992 02	12.20764	11 02	42.96	+06 25	34.5			493
1992 CH1	1992 02	12.20920	11 02	43.25	+06 25	46.5			493
1992 CH1	1992 02	15.19392	11 11	55.63	+12 28	10.1			493

1992 CH1	1992 02 15.19416	11 11 55.69	+12 28 11.8	493
(148)	1992 01 24.93588	05 10 31.78	-06 12 40.1	493
(148)	1992 01 26.88576	05 10 19.13	-05 42 06.8	493
(148)	1992 02 01.88738	05 10 20.91	-04 07 12.4	493
(148)	1992 02 07.89097	05 11 23.82	-02 32 20.3	493
(148)	1992 02 09.90035	05 11 58.20	-02 00 50.0	493
(148)	1992 02 13.85000	05 13 24.40	-00 59 34.8	493

511 Haute Provence

E. W. Elst, Royal Observatory, B-1180 Brussels, Belgium

Observer E. W. Elst

Measurers E. W. Elst, J. P. Olivier

0.6-m Schmidt

1991 YG	1991 12 30.07049	06 58 19.26	+16 30 33.7	511
1991 YG	1991 12 30.10938	06 58 16.52	+16 30 27.9	511
1991 YG	1992 01 02.02118	06 55 09.68	+16 25 43.7	17.3 511
1991 YG	1992 01 02.05521	06 55 07.47	+16 25 40.4	511

565 Bassano Bresciano

U. Quadri, Osservatorio di Bassano Bresciano, Via S. Michele 4,
I-25020 Bassano Bresciano (Brescia), Italy

Observers U. Quadri, L. Strabla

0.3-0.4-m f/3.3 Schmidt

(5058)	1992 01 25.82869	06 59 00.20	+23 21 36.2	17.5 565
(5058)	1992 01 25.84921	06 58 59.08	+23 21 44.3	565

567 Osservatorio Chaonis

J. M. Baur, Via Zara 20, I-33083 Chions, Italy

Observers J. M. Baur, G. Carniel

Measurer J. M. Baur

0.6-m f/3 Wright-Schmidt reflector

1990 VC	1991 12 15.06528	09 13 42.06	-02 36 14.8	18.3 567
1990 VC	1991 12 15.09305	09 13 41.99	-02 36 26.8	567
1990 VC	1991 12 15.12083	09 13 41.85	-02 36 39.1	567
1990 VC	1991 12 16.05139	09 13 37.66	-02 43 22.5	567
1990 VC	1991 12 16.07916	09 13 37.47	-02 43 35.3	567
1990 VC	1991 12 16.09652	09 13 37.37	-02 43 42.8	567
1990 VC	1991 12 31.01667	09 09 27.37	-04 14 44.3	567
1990 VC	1991 12 31.03750	09 09 26.74	-04 14 50.7	567
1990 VC	1991 12 31.05833	09 09 26.07	-04 14 55.7	567
1990 VC	1992 01 25.92778	08 50 30.11	-05 06 19.5	567
1990 VC	1992 01 25.94583	08 50 29.07	-05 06 17.9	567
1990 VC	1992 01 27.91944	08 48 40.01	-05 03 39.2	567
1990 VC	1992 01 27.93750	08 48 38.96	-05 03 37.8	567
1990 VC	1992 01 27.95556	08 48 37.96	-05 03 35.4	567

573 Eldagsen

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

AGK3

(145)	1992 02 23.76694	10 19 03.62	+32 32 09.3	573
(145)	1992 02 23.77440	10 19 03.11	+32 32 12.3	573
(346)	1992 02 23.79257	09 26 14.20	+25 32 59.0	573
(346)	1992 02 23.79651	09 26 13.99	+25 33 00.4	573

587 Sormano

P. Sicoli, Via Valli 9, I-22040 Garbagnate Monastero (Como), Italy

Observers M. Cavagna, E. Colzani, P. Sicoli, A. Testa

0.5-m f/5.9 reflector, 0.21-m f/4.9 astrograph

PPM

1991 VL	1991 12 02.80108	00 08 27.44	+18 10 17.1	587
1991 VL	1991 12 29.82222	23 56 36.07	+12 54 58.3	587
1992 AC	1992 01 31.93368	09 50 08.62	+29 52 22.5	587

595 Farra d'Isonzo

L. Bittesini, Via dei Conventi 10, I-34070 Farra D'Isonzo (GO), Italy

Observers G. Lombardi, F. Piani

Measurers G. Lombardi, F. Piani

0.4-m f/4.5 reflector

PPM

(2719)	1991 10 10.93542	01 34 03.78	+08 33 20.6	595
(3285)	1991 12 03.87222	02 40 42.03	+22 09 45.9	595
(4159)	1991 12 27.88681	05 50 46.18	+23 08 32.8	595
(4159)	1991 12 27.94028	05 50 42.38	+23 08 53.8	595

597 Springe

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

(38)	1992 01 10.90764	06 46 35.52	+25 27 01.9	597
(38)	1992 01 10.91970	06 46 34.75	+25 26 59.6	597
(193)	1992 01 10.88351	08 55 53.46	+36 33 33.6	597
(193)	1992 01 10.89498	08 55 52.66	+36 33 34.4	597
(278)	1992 01 08.02808	06 11 33.32	+30 20 15.4	597
(278)	1992 01 08.03569	06 11 32.85	+30 20 15.7	597
(679)	1992 01 10.95492	09 00 22.85	+24 23 54.3	597
(679)	1992 01 10.97308	09 00 21.81	+24 24 09.3	597
(773)	1992 01 10.96454	09 04 20.40	+24 44 33.3	597
(773)	1992 01 10.97308	09 04 19.96	+24 44 33.6	597
(785)	1992 01 08.00064	06 44 16.65	+33 26 53.4	597
(785)	1992 01 08.01834	06 44 15.31	+33 26 59.0	597
(928)	1992 01 10.93889	07 02 27.50	+11 43 21.3	597
(928)	1992 01 10.94253	07 02 27.33	+11 43 23.5	597

657 Victoria, Climenhaga Observatory

J. B. Tatum, Dept. of Physics, University of Victoria, P.O. Box 1700,
Victoria, BC V8W 2Y2, Canada

Observers J. B. Tatum, D. D. Balam

0.25-m astrograph, 0.5-m reflector + CCD

1992 CC1	1992 02 28.25096	11 23 22.73	+19 00 29.7	657
1992 CC1	1992 02 28.25513	11 23 21.78	+19 00 26.7	657
1992 CC1	1992 02 28.26146	11 23 20.40	+19 00 23.4	657
(1286)	1991 10 03.29660	00 48 49.85	+07 38 48.9	657
(1286)	1991 10 03.33826	00 48 48.12	+07 38 28.5	657
(1493)	1991 09 03.28854	22 53 20.65	-06 02 29.4	657
(1493)	1991 09 03.32674	22 53 18.58	-06 02 36.2	657
(1971)	1991 09 03.27674	22 29 35.08	-00 31 44.7	657
(1971)	1991 09 03.31563	22 29 33.20	-00 31 49.2	657
(2878)	1991 09 17.42090	01 07 53.30	+20 38 31.2	657
(2878)	1991 09 17.47785	01 07 50.95	+20 38 31.9	657

658 Dominion Astrophysical Observatory, Victoria

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Victoria, BC V8W 2Y2, Canada

Observer G. C. L. Aikman

Measurer D. D. Balam

1.85-m reflector + CCD

GSC

1992 AA	1992 02 06.30220	05 47 34.64	+34 02 07.4	658
1992 AA	1992 02 06.30334	05 47 35.36	+34 02 11.7	658
1992 AA	1992 02 06.30630	05 47 35.91	+34 02 14.8	658

1992 AA	1992 02 07.25279	05 50 30.97	+34 17 49.2	658
1992 AA	1992 02 07.25973	05 50 32.19	+34 17 55.8	658
1992 AA	1992 02 07.26425	05 50 32.96	+34 17 59.7	658
1992 AC	1992 02 06.40973	10 04 11.78	+35 44 14.1	658
1992 AC	1992 02 06.41112	10 04 11.99	+35 44 19.2	658
1992 AC	1992 02 07.49010	10 07 04.07	+36 50 33.8	658
1992 AC	1992 02 07.49150	10 07 04.28	+36 50 38.8	658
1992 AD	1992 02 06.32503	08 03 01.12	+21 03 00.1	658
1992 AD	1992 02 06.32882	08 03 01.00	+21 03 00.1	658
1992 AD	1992 02 06.33304	08 03 00.93	+21 03 00.4	658
1992 AD	1992 02 07.27778	08 02 44.75	+21 05 05.0	658
1992 AD	1992 02 07.28126	08 02 44.67	+21 05 06.1	658
1992 AD	1992 02 07.28647	08 02 44.58	+21 05 06.5	658
1992 AE	1992 02 07.12780	03 30 06.56	+19 25 08.1	658
1992 AE	1992 02 07.13384	03 30 07.34	+19 25 12.0	658
1992 BC	1992 02 07.40869	10 02 22.56	+53 17 06.1	658
1992 BC	1992 02 07.40991	10 02 23.06	+53 17 19.7	658
1992 BC	1992 02 07.42639	10 02 30.38	+53 20 26.9	658
(1981)	1992 02 07.54828	14 15 06.68	+21 52 37.4	658
(1981)	1992 02 07.55035	14 15 06.90	+21 52 35.4	658
(1981)	1992 02 07.55209	14 15 07.11	+21 52 33.5	658

675 Palomar

E. Helin, MS 183-501, Jet Propulsion Laboratory, Pasadena,
CA 91109, U.S.A. (2)

C. Shoemaker, P.O. Box 984, Flagstaff, AZ 86002, U.S.A. (3)

C. J. van Houten, Sterrewacht Leiden, Postbus 9513, NL-2300 RA Leiden,
The Netherlands (4)

E. Bowell, Lowell Observatory, 1400 West Mars Hill Road,
Flagstaff, AZ 86001, U.S.A. (6)

J. Mueller, Palomar Observatory, Palomar Mountain, CA 92060, U.S.A. (7)

9 = 3 + 6

Observers T. Gehrels (4, L), E. Helin (2, S), H. E. Holt (9, S), T. M.
King (3, S), C. Kowal (6, L), K. A. Lawler (9, S), K. Lawrence (2, S),
D. H. Levy (3, S), J. D. Mendenhall (7, L), P. Rose (2, S), C. S.
Shoemaker (3, S), E. M. Shoemaker (3, S), J. Stiffler (9, S)

Measurers J. Alu (2), K. Lawrence (2), T. M. King (3), J. Mueller (7),
C. M. Olmstead (9), P. Rose (2), C. S. Shoemaker (2), B. A. Skiff (9),
C. J. van Houten (4), I. van Houten-Groeneveld (4), A. Wisse (4)

1.2-m (L) and 0.46-m (S) Schmidt telescopes

1969 TQ1	1991 09 11.37431	00 09 29.34	-03 52 51.8	18.0	9	675
1969 TQ1	1991 09 14.39288	00 07 22.73	-04 06 45.1	17.5	9	675
1969 TQ1	1991 09 14.44635	00 07 20.27	-04 06 59.3		9	675
1969 TQ1	1991 09 15.36128	00 06 40.99	-04 11 11.7	18.0	9	675
1969 TQ1	1991 09 15.39861	00 06 39.33	-04 11 22.1		9	675
1969 TQ1	1991 09 16.38663	00 05 56.31	-04 15 58.1	17.0	9	675
1969 TQ1	1991 09 16.42674	00 05 54.48	-04 16 08.8		9	675
1976 GO3	1978 11 30.26007	03 40 20.08	+16 51 49.6	17.5 V	6	675
1976 GO3	1978 12 01.27691	03 39 23.61	+16 49 21.1		6	675
1977 RG	1991 09 11.35451	23 02 43.46	-05 41 15.2		9	675
1977 RG	1991 09 17.22847	22 58 28.37	-06 28 03.0		9	675
1978 VP1	1978 11 30.26007	03 21 46.06	+19 30 32.4	17.2 V	6	675
1978 VP1	1978 12 01.27691	03 21 01.08	+19 25 24.7		6	675
1978 VN2	1978 11 30.26007	03 26 59.72	+20 36 48.8	16.8 V	6	675
1978 VN2	1978 12 01.27691	03 26 11.25	+20 33 57.5		6	675
1978 VO2	1978 11 30.26007	03 26 05.60	+19 45 54.7	17.0 V	6	675
1978 VO2	1978 12 01.27691	03 25 13.76	+19 39 07.0		6	675
1978 VP2	1978 11 30.26007	03 22 19.41	+20 55 23.0	18.2 V	6	675
1978 VP2	1978 12 01.27691	03 21 17.72	+20 50 32.6		6	675

1978 VQ2		1978 11 30.26007	03 24 08.58	+20 10 41.7	17.8 V	6 675
1978 VQ2		1978 12 01.27691	03 23 12.33	+20 04 15.3		6 675
1978 WZ16	*	1978 11 30.26007	03 20 46.64	+17 54 52.4	17.2 V	6 675
1978 WZ16		1978 12 01.27691	03 19 56.08	+17 52 46.7		6 675
1978 WA17	*	1978 11 30.26007	03 21 14.73	+20 13 06.3	18.2 V	6 675
1978 WA17		1978 12 01.27691	03 20 16.78	+20 13 03.2		6 675
1978 WB17	*	1978 11 30.26007	03 21 59.83	+16 52 10.2	17.8 V	6 675
1978 WB17		1978 12 01.27691	03 21 00.38	+16 53 00.6		6 675
1978 WC17	*	1978 11 30.26007	03 22 17.91	+18 04 43.8	18.0 V	6 675
1978 WC17		1978 12 01.27691	03 21 31.37	+18 01 46.4		6 675
1978 WD17	*	1978 11 30.26007	03 22 50.05	+18 40 38.9	16.8 V	6 675
1978 WD17		1978 12 01.27691	03 21 58.39	+18 41 12.5		6 675
1978 WE17	*	1978 11 30.26007	03 24 03.22	+18 57 07.3	18.2 V	6 675
1978 WE17		1978 12 01.27691	03 23 13.59	+18 53 44.8		6 675
1978 WF17	*	1978 11 30.26007	03 24 09.15	+20 17 23.6	17.8 V	6 675
1978 WF17		1978 12 01.27691	03 23 20.92	+20 14 05.0		6 675
1978 WG17	*	1978 11 30.26007	03 24 20.80	+18 56 15.5	18.5 V	6 675
1978 WG17		1978 12 01.27691	03 23 43.77	+18 56 57.0		6 675
1978 WH17	*	1978 11 30.26007	03 25 30.06	+20 49 51.9	18.5 V	6 675
1978 WH17		1978 12 01.27691	03 24 32.44	+20 45 34.7		6 675
1978 WJ17	*	1978 11 30.26007	03 25 54.55	+19 17 03.5	17.5 V	6 675
1978 WJ17		1978 12 01.27691	03 24 53.18	+19 17 56.1		6 675
1978 WK17	*	1978 11 30.26007	03 27 13.12	+19 58 10.0	18.0 V	6 675
1978 WK17		1978 12 01.27691	03 26 03.40	+20 01 55.8		6 675
1978 WL17	*	1978 11 30.26007	03 27 47.64	+18 50 10.6	18.8 V	6 675
1978 WL17		1978 12 01.27691	03 26 56.35	+18 40 20.5		6 675
1978 WM17	*	1978 11 30.26007	03 27 58.69	+18 57 27.4	17.8 V	6 675
1978 WM17		1978 12 01.27691	03 27 10.49	+18 53 29.7		6 675
1978 WN17	*	1978 11 30.26007	03 28 26.67	+18 09 48.0	18.8 V	6 675
1978 WN17		1978 12 01.27691	03 27 40.39	+18 07 03.2		6 675
1978 WO17	*	1978 11 30.26007	03 28 27.52	+16 11 38.1	18.2 V	6 675
1978 WO17		1978 12 01.27691	03 27 21.73	+16 10 49.2		6 675
1978 WP17	*	1978 11 30.26007	03 28 30.32	+19 27 14.5	17.5 V	6 675
1978 WP17		1978 12 01.27691	03 27 24.88	+19 26 32.9		6 675
1978 WQ17	*	1978 11 30.26007	03 28 51.88	+18 43 07.7	17.0 V	6 675
1978 WQ17		1978 12 01.27691	03 27 51.68	+18 41 21.8		6 675
1978 WR17	*	1978 11 30.26007	03 28 53.89	+20 04 31.0	17.2 V	6 675
1978 WR17		1978 12 01.27691	03 27 55.27	+19 58 19.3		6 675
1978 WS17	*	1978 11 30.26007	03 29 30.51	+18 36 14.0	18.2 V	6 675
1978 WS17		1978 12 01.27691	03 28 30.61	+18 31 26.8		6 675
1978 WT17	*	1978 11 30.26007	03 30 36.18	+16 58 30.6	17.8 V	6 675
1978 WT17		1978 12 01.27691	03 29 46.69	+16 57 00.5		6 675
1978 WU17	*	1978 11 30.26007	03 30 55.37	+16 53 00.7	18.5 V	6 675
1978 WU17		1978 12 01.27691	03 30 14.48	+16 50 42.1		6 675
1978 WV17	*	1978 11 30.26007	03 31 03.62	+17 53 36.1	18.2 V	6 675
1978 WV17		1978 12 01.27691	03 30 03.41	+17 51 58.9		6 675
1978 WW17	*	1978 11 30.26007	03 31 41.13	+19 31 15.9	18.5 V	6 675
1978 WW17		1978 12 01.27691	03 30 42.03	+19 32 19.8		6 675
1978 WX17	*	1978 11 30.26007	03 32 45.72	+20 41 33.2	17.2 V	6 675
1978 WX17		1978 12 01.27691	03 31 53.98	+20 36 28.6		6 675
1978 WY17	*	1978 11 30.26007	03 32 57.68	+17 25 43.2	19.8 V	6 675
1978 WY17		1978 12 01.27691	03 32 26.43	+17 24 09.7		6 675
1978 WZ17	*	1978 11 30.26007	03 33 04.92	+18 40 59.8	17.5 V	6 675
1978 WZ17		1978 12 01.27691	03 32 15.12	+18 37 46.0		6 675
1978 WA18	*	1978 11 30.26007	03 33 32.83	+21 11 59.1	17.8 V	6 675
1978 WA18		1978 12 01.27691	03 32 40.83	+21 09 07.4		6 675
1978 WB18	*	1978 11 30.26007	03 33 43.95	+20 08 51.7	18.2 V	6 675
1978 WB18		1978 12 01.27691	03 32 54.76	+20 06 01.3		6 675
1978 WC18	*	1978 11 30.26007	03 33 58.71	+18 14 45.7	18.0 V	6 675

1978 WC18		1978 12 01.27691	03 33 03.07	+18 16 10.8		6	675
1978 WD18	*	1978 11 30.26007	03 34 18.09	+15 50 03.9	17.5 V	6	675
1978 WD18		1978 12 01.27691	03 33 17.29	+15 51 05.6		6	675
1978 WE18	*	1978 11 30.26007	03 34 32.65	+21 38 19.5	18.0 V	6	675
1978 WE18		1978 12 01.27691	03 33 37.10	+21 35 25.4		6	675
1978 WF18	*	1978 11 30.26007	03 34 35.53	+16 16 13.7	17.8 V	6	675
1978 WF18		1978 12 01.27691	03 33 31.21	+16 20 23.5		6	675
1978 WG18	*	1978 11 30.26007	03 34 36.44	+15 55 42.5	18.2 V	6	675
1978 WG18		1978 12 01.27691	03 33 45.25	+15 47 24.9		6	675
1978 WH18	*	1978 11 30.26007	03 34 48.77	+18 54 06.3	17.2 V	6	675
1978 WH18		1978 12 01.27691	03 34 00.90	+18 50 22.1		6	675
1978 WJ18	*	1978 11 30.26007	03 35 16.31	+15 57 10.3	17.8 V	6	675
1978 WJ18		1978 12 01.27691	03 34 26.57	+15 57 17.0		6	675
1978 WK18	*	1978 11 30.26007	03 35 28.91	+20 31 32.8	17.8 V	6	675
1978 WK18		1978 12 01.27691	03 34 20.87	+20 31 03.4		6	675
1978 WL18	*	1978 11 30.26007	03 35 35.84	+20 51 08.9	17.0 V	6	675
1978 WL18		1978 12 01.27691	03 34 47.94	+20 44 37.4		6	675
1978 WM18	*	1978 11 30.26007	03 35 52.19	+20 43 56.0	17.2 V	6	675
1978 WM18		1978 12 01.27691	03 34 48.60	+20 44 55.7		6	675
1978 WN18	*	1978 11 30.26007	03 35 56.77	+21 22 20.9	17.5 V	6	675
1978 WN18		1978 12 01.27691	03 34 59.49	+21 16 47.3		6	675
1978 WO18	*	1978 11 30.26007	03 36 51.21	+21 06 01.7	17.8 V	6	675
1978 WO18		1978 12 01.27691	03 35 54.72	+21 03 22.4		6	675
1978 WP18	*	1978 11 30.26007	03 38 01.08	+20 56 26.0	18.2 V	6	675
1978 WP18		1978 12 01.27691	03 37 06.88	+20 48 33.8		6	675
1978 WQ18	*	1978 11 30.26007	03 38 11.48	+19 09 27.3	16.5 V	6	675
1978 WQ18		1978 12 01.27691	03 37 19.09	+19 00 10.0		6	675
1978 WR18	*	1978 11 30.26007	03 38 32.64	+19 52 42.7	17.2 V	6	675
1978 WR18		1978 12 01.27691	03 37 30.44	+19 51 11.0		6	675
1978 WS18	*	1978 11 30.26007	03 38 36.82	+21 08 36.2	17.5 V	6	675
1978 WS18		1978 12 01.27691	03 37 45.60	+21 04 01.8		6	675
1978 WT18	*	1978 11 30.26007	03 38 49.20	+16 38 34.4	18.0 V	6	675
1978 WT18		1978 12 01.27691	03 37 57.10	+16 36 50.1		6	675
1978 WU18	*	1978 11 30.26007	03 38 50.89	+18 09 00.8	18.2 V	6	675
1978 WU18		1978 12 01.27691	03 37 56.25	+18 04 53.8		6	675
1978 WV18	*	1978 11 30.26007	03 38 52.25	+17 14 07.4	18.0 V	6	675
1978 WV18		1978 12 01.27691	03 37 56.44	+17 13 17.6		6	675
1978 WW18	*	1978 11 30.26007	03 38 57.17	+20 32 22.0	16.5 V	6	675
1978 WW18		1978 12 01.27691	03 37 58.19	+20 26 47.6		6	675
1978 WX18	*	1978 11 30.26007	03 38 57.42	+17 15 03.6	18.0 V	6	675
1978 WX18		1978 12 01.27691	03 38 05.52	+17 12 00.3		6	675
1978 WY18	*	1978 11 30.26007	03 39 35.16	+16 36 44.7	18.0 V	6	675
1978 WY18		1978 12 01.27691	03 38 42.23	+16 30 53.2		6	675
1978 WZ18	*	1978 11 30.26007	03 39 46.55	+18 19 45.3	16.2 V	6	675
1978 WZ18		1978 12 01.27691	03 38 50.24	+18 13 25.0		6	675
1978 WA19	*	1978 11 30.26007	03 40 02.82	+17 08 54.6	18.2 V	6	675
1978 WA19		1978 12 01.27691	03 39 05.92	+17 11 36.0		6	675
1978 WB19	*	1978 11 30.26007	03 40 09.93	+15 44 12.9	17.5 V	6	675
1978 WB19		1978 12 01.27691	03 39 09.20	+15 44 51.4		6	675
1978 WC19	*	1978 11 30.26007	03 40 19.74	+21 10 29.9	18.5 V	6	675
1978 WC19		1978 12 01.27691	03 39 12.68	+21 13 01.4		6	675
1978 WD19	*	1978 11 30.26007	03 40 36.99	+16 43 48.4	18.5 V	6	675
1978 WD19		1978 12 01.27691	03 39 41.17	+16 37 03.8		6	675
1978 WE19	*	1978 11 30.26007	03 40 46.44	+19 06 16.7	17.5 V	6	675
1978 WE19		1978 12 01.27691	03 39 57.47	+19 03 50.1		6	675
1978 WF19	*	1978 11 30.26007	03 40 50.90	+15 47 19.6	18.0 V	6	675
1978 WF19		1978 12 01.27691	03 39 49.72	+15 45 50.4		6	675
1978 WG19	*	1978 11 30.26007	03 40 52.99	+21 15 43.6	18.2 V	6	675
1978 WG19		1978 12 01.27691	03 39 57.58	+21 09 07.0		6	675

1978	WH19	*	1978	11	30.26007	03	41	04.50	+16	42	58.8	18.0	V	6	675
1978	WH19		1978	12	01.27691	03	40	01.80	+16	46	02.1			6	675
1978	WJ19	*	1978	11	30.26007	03	41	08.26	+15	43	08.8	17.5	V	6	675
1978	WJ19		1978	12	01.27691	03	40	22.69	+15	36	22.5			6	675
1978	WK19	*	1978	11	30.26007	03	41	13.68	+20	32	34.4	17.5	V	6	675
1978	WK19		1978	12	01.27691	03	40	12.27	+20	31	49.9			6	675
1978	WL19	*	1978	11	30.26007	03	41	36.46	+15	41	51.6	18.0	V	6	675
1978	WL19		1978	12	01.27691	03	40	45.09	+15	39	38.1			6	675
1978	WM19	*	1978	11	30.26007	03	41	39.18	+19	32	56.8	16.8	V	6	675
1978	WM19		1978	12	01.27691	03	40	35.16	+19	33	55.9			6	675
1978	WN19	*	1978	11	30.26007	03	41	57.92	+20	40	06.5	17.0	V	6	675
1978	WN19		1978	12	01.27691	03	41	06.34	+20	34	15.2			6	675
1978	WO19	*	1978	11	30.26007	03	42	09.16	+18	42	49.2	16.2	V	6	675
1978	WO19		1978	12	01.27691	03	41	17.65	+18	40	31.1			6	675
1978	WP19	*	1978	11	30.26007	03	42	34.04	+16	56	45.6	16.0	V	6	675
1978	WP19		1978	12	01.27691	03	41	39.24	+16	52	22.4			6	675
1978	XW		1978	11	30.26007	03	18	50.51	+16	01	46.6	17.2	V	6	675
1978	XX		1978	11	30.26007	03	22	06.53	+16	22	18.0	17.5	V	6	675
1978	XX		1978	12	01.27691	03	21	06.34	+16	23	29.3			6	675
1978	XH1		1978	11	30.26007	03	34	36.40	+16	39	29.8	17.5	V	6	675
1978	XH1		1978	12	01.27691	03	33	36.50	+16	26	02.7			6	675
1978	XJ1		1978	11	30.26007	03	35	07.91	+18	04	06.2	17.0	V	6	675
1978	XJ1		1978	12	01.27691	03	34	06.46	+17	59	13.7			6	675
1980	TX3		1992	02	02.44878	09	57	08.43	+10	27	52.9	16.5		2	675
1980	TX3		1992	02	03.38941	09	56	24.38	+10	31	53.9			2	675
1980	TX3		1992	02	03.40747	09	56	23.37	+10	31	57.9			2	675
1981	EK7		1978	11	30.26007	03	34	09.73	+17	29	40.8	18.2	V	6	675
1981	EK7		1978	12	01.27691	03	33	23.11	+17	26	10.5			6	675
1981	EH11		1991	09	11.29878	23	09	41.24	-03	56	31.7	16.2		9	675
1981	EH11		1991	09	11.35451	23	09	37.46	-03	56	22.8			9	675
1981	EH11		1991	09	17.22847	23	03	16.77	-03	39	22.1			9	675
1981	EH11		1991	09	17.27188	23	03	13.88	-03	39	14.8			9	675
1981	EW20		1978	11	30.26007	03	24	44.81	+19	35	27.9	18.2	V	6	675
1981	EW20		1978	12	01.27691	03	23	57.92	+19	32	41.2			6	675
1981	EO40		1991	09	11.29878	23	10	20.66	-02	33	48.6	17.2		9	675
1981	EO40		1991	09	11.35451	23	10	18.30	-02	34	33.5			9	675
1981	EO40		1991	09	17.22847	23	06	30.16	-03	52	38.7			9	675
1981	JO		1981	05	08.35938	14	55	12.19	-16	41	47.9	16.5		6	675
1981	JO		1981	05	09.31562	14	54	15.53	-16	33	18.8			6	675
1981	JM2		1981	05	08.35938	14	55	21.70	-16	04	07.0			6	675
1981	JM2		1981	05	09.31562	14	54	28.23	-15	59	10.4			6	675
1981	JP2		1981	05	08.35938	14	46	51.64	-18	59	19.2			6	675
1981	JP2		1981	05	09.28958	14	45	57.34	-18	53	45.3			6	675
1981	JR2		1981	05	08.33333	14	52	28.89	-18	05	22.2			6	675
1981	JS2		1981	05	08.35938	14	54	52.37	-19	48	12.2			6	675
1981	JT2		1981	05	08.35938	14	55	34.22	-18	34	13.1			6	675
1981	JB3		1981	05	08.35938	14	54	00.96	-15	07	25.0			6	675
1981	JB3		1981	05	09.31562	14	52	59.36	-15	07	07.3			6	675
1981	JE3		1981	05	08.35938	14	59	20.07	-15	53	44.1			6	675
1981	JE3		1981	05	09.31562	14	58	30.94	-15	49	32.1			6	675
1981	JM3	*	1981	05	08.33333	14	47	00.85	-15	58	30.3			6	675
1981	JM3		1981	05	09.28958	14	46	02.30	-15	55	07.5			6	675
1981	JN3	*	1981	05	08.35938	14	46	03.11	-19	59	53.6	18.5		6	675
1981	JN3		1981	05	09.31562	14	45	04.93	-19	53	13.0			6	675
1981	JO3	*	1981	05	08.35938	14	46	12.55	-18	01	53.0	18.0		6	675
1981	JO3		1981	05	09.31562	14	45	19.62	-17	54	52.9			6	675
1981	JP3	*	1981	05	08.35938	14	46	41.50	-16	46	33.7	17.0		6	675
1981	JP3		1981	05	09.31562	14	45	53.26	-16	38	59.2			6	675
1981	JQ3	*	1981	05	08.35938	14	46	45.04	-15	53	52.8			6	675

1981 JQ3		1981 05 09.31562	14 45 50.61	-15 52 32.0				6	675
1981 JR3	*	1981 05 08.35938	14 46 52.20	-17 32 42.1	19.5			6	675
1981 JR3		1981 05 09.31562	14 46 05.38	-17 29 11.2				6	675
1981 JS3	*	1981 05 08.35938	14 47 14.81	-15 31 52.1	18.5			6	675
1981 JS3		1981 05 09.31562	14 46 17.45	-15 29 28.4				6	675
1981 JT3	*	1981 05 08.35938	14 47 18.83	-19 22 28.7				6	675
1981 JT3		1981 05 09.31562	14 46 21.07	-19 18 20.1				6	675
1981 JU3	*	1981 05 08.35938	14 48 10.36	-18 26 58.2	16.5			6	675
1981 JU3		1981 05 09.31562	14 47 16.41	-18 22 11.5				6	675
1981 JV3	*	1981 05 08.35938	14 48 19.47	-20 07 20.3	19.0			6	675
1981 JV3		1981 05 09.31562	14 47 20.04	-20 00 51.3				6	675
1981 JW3	*	1981 05 08.35938	14 48 49.85	-18 35 57.1	16.5			6	675
1981 JW3		1981 05 09.31562	14 47 56.93	-18 26 45.8				6	675
1981 JX3	*	1981 05 08.35938	14 49 14.89	-19 19 23.5	19.0			6	675
1981 JX3		1981 05 09.31562	14 48 18.79	-19 17 25.5				6	675
1981 JY3	*	1981 05 08.35938	14 49 23.21	-15 58 25.8	19.0			6	675
1981 JY3		1981 05 09.31562	14 48 38.56	-15 55 14.4				6	675
1981 JZ3	*	1981 05 08.35938	14 49 34.08	-18 13 57.6	17.5			6	675
1981 JZ3		1981 05 09.31562	14 48 42.83	-18 10 42.7				6	675
1981 JA4	*	1981 05 08.35938	14 49 50.53	-17 21 04.3				6	675
1981 JA4		1981 05 09.31562	14 49 04.35	-17 18 07.9				6	675
1981 JB4	*	1981 05 08.35938	14 49 52.26	-18 25 43.7	18.0			6	675
1981 JB4		1981 05 09.31562	14 48 56.67	-18 23 43.4				6	675
1981 JC4	*	1981 05 08.35938	14 49 57.67	-15 45 38.2	17.0			6	675
1981 JC4		1981 05 09.31562	14 49 00.71	-15 39 26.6				6	675
1981 JD4	*	1981 05 08.35938	14 50 01.12	-17 24 53.0	19.5			6	675
1981 JD4		1981 05 09.31562	14 49 09.68	-17 24 46.3				6	675
1981 JE4	*	1981 05 08.35938	14 50 10.46	-17 13 58.9				6	675
1981 JE4		1981 05 09.31562	14 49 05.18	-17 11 46.2				6	675
1981 JF4	*	1981 05 08.35938	14 50 25.28	-19 10 16.1	17.0			6	675
1981 JF4		1981 05 09.31562	14 49 20.29	-19 07 57.6				6	675
1981 JG4	*	1981 05 08.35938	14 50 41.80	-18 06 41.2	17.0			6	675
1981 JG4		1981 05 09.31562	14 49 45.19	-18 05 24.6				6	675
1981 JH4	*	1981 05 08.35938	14 51 34.55	-20 07 37.0	16.5			6	675
1981 JH4		1981 05 09.31562	14 50 44.46	-20 04 18.6				6	675
1981 JJ4	*	1981 05 08.35938	14 51 39.31	-20 18 17.8	18.5			6	675
1981 JJ4		1981 05 09.31562	14 50 36.70	-20 15 33.1				6	675
1981 JK4	*	1981 05 08.35938	14 51 45.01	-18 26 45.0				6	675
1981 JK4		1981 05 09.31562	14 50 44.88	-18 24 01.8				6	675
1981 JL4	*	1981 05 08.35938	14 52 56.98	-14 50 30.5	18.5			6	675
1981 JL4		1981 05 09.31562	14 52 02.10	-14 47 58.2				6	675
1981 JM4	*	1981 05 08.35938	14 53 37.00	-19 56 08.5	18.0			6	675
1981 JM4		1981 05 09.31562	14 52 46.85	-19 51 55.8				6	675
1981 JN4	*	1981 05 08.35938	14 54 07.53	-17 45 12.3	17.0			6	675
1981 JN4		1981 05 09.31562	14 53 17.05	-17 44 34.1				6	675
1981 JO4	*	1981 05 08.35938	14 54 23.58	-17 06 28.5	19.5			6	675
1981 JO4		1981 05 09.31562	14 53 29.81	-17 02 13.6				6	675
1981 JP4	*	1981 05 08.35938	14 54 53.90	-16 26 25.6	17.0			6	675
1981 JP4		1981 05 09.31562	14 53 53.84	-16 24 19.1				6	675
1981 JQ4	*	1981 05 08.35938	14 56 21.91	-19 28 56.6	19.0			6	675
1981 JQ4		1981 05 09.31562	14 55 27.65	-19 23 22.4				6	675
1981 JR4	*	1981 05 08.35938	14 56 56.43	-17 02 05.1	18.0			6	675
1981 JR4		1981 05 09.31562	14 55 59.07	-16 59 16.4				6	675
1981 JS4	*	1981 05 08.35938	14 56 57.87	-16 29 28.8	17.0			6	675
1981 JS4		1981 05 09.31562	14 56 00.94	-16 24 25.9				6	675
1981 JT4	*	1981 05 08.35938	14 57 02.39	-18 34 42.9	18.0			6	675
1981 JT4		1981 05 09.31562	14 56 01.15	-18 29 16.7				6	675
1981 JU4	*	1981 05 08.35938	14 57 02.49	-14 18 50.9	17.0			6	675
1981 JU4		1981 05 09.31562	14 56 03.35	-14 16 16.1				6	675

1981 JV4	*	1981 05 08.35938	14 57 05.03	-17 22 09.1	17.0	6	675
1981 JV4		1981 05 09.31562	14 56 17.40	-17 13 38.9		6	675
1981 JW4	*	1981 05 08.35938	14 57 14.49	-18 14 06.6	18.0	6	675
1981 JW4		1981 05 09.31562	14 56 26.21	-18 05 24.1		6	675
1981 JX4	*	1981 05 08.35938	14 57 36.34	-16 38 25.3	17.0	6	675
1981 JX4		1981 05 09.31562	14 56 40.28	-16 34 58.0		6	675
1981 JY4	*	1981 05 08.35938	14 58 03.35	-18 18 50.3	19.0	6	675
1981 JY4		1981 05 09.31562	14 57 15.20	-18 17 22.1		6	675
1981 JZ4	*	1981 05 08.35938	14 58 29.91	-19 11 55.5	18.0	6	675
1981 JZ4		1981 05 09.31562	14 57 33.68	-19 06 16.5		6	675
1981 JA5	*	1981 05 08.35938	14 58 46.36	-17 58 39.6	17.0	6	675
1981 JA5		1981 05 09.31562	14 57 52.29	-17 56 34.7		6	675
1981 JB5	*	1981 05 08.35938	14 58 52.43	-15 21 04.7	18.0	6	675
1981 JB5		1981 05 09.31562	14 58 00.77	-15 16 07.5		6	675
1981 JC5	*	1981 05 08.35938	14 59 24.59	-16 28 45.3	17.0	6	675
1981 JC5		1981 05 09.31562	14 58 36.85	-16 24 56.5		6	675
1981 JD5	*	1981 05 08.35938	14 59 32.45	-16 37 50.7	19.0	6	675
1981 JD5		1981 05 09.31562	14 58 38.70	-16 32 38.5		6	675
1981 JE5	*	1981 05 08.35938	14 59 59.75	-17 11 51.3	17.0	6	675
1981 JE5		1981 05 09.31562	14 59 11.66	-17 09 33.8		6	675
1981 JF5	*	1981 05 08.35938	15 00 30.65	-16 07 35.0	17.0	6	675
1981 JF5		1981 05 09.31562	14 59 37.23	-16 07 42.8		6	675
1981 JG5	*	1981 05 08.35938	15 00 41.13	-17 52 32.9	19.0	6	675
1981 JG5		1981 05 09.31562	14 59 59.00	-17 46 32.8		6	675
1981 JH5	*	1981 05 08.35938	15 00 53.48	-15 09 02.6		6	675
1981 JH5		1981 05 09.31562	15 00 07.72	-15 06 20.4		6	675
1981 JJ5	*	1981 05 08.35938	15 01 54.04	-18 51 04.7	19.0	6	675
1981 JJ5		1981 05 09.31562	15 00 57.17	-18 49 04.9		6	675
1981 JK5	*	1981 05 08.35938	15 01 59.44	-15 18 00.1	18.5	6	675
1981 JK5		1981 05 09.31562	15 01 18.96	-15 16 28.8		6	675
1981 JL5	*	1981 05 08.35938	15 02 34.77	-17 05 03.9		6	675
1981 JL5		1981 05 09.31562	15 01 35.75	-17 04 57.1		6	675
1981 JM5	*	1981 05 08.35938	15 03 18.35	-16 29 37.9	18.5	6	675
1981 JM5		1981 05 09.31562	15 02 24.47	-16 27 50.6		6	675
1981 JN5	*	1981 05 08.35938	15 03 24.04	-16 04 43.9	18.0	6	675
1981 JN5		1981 05 09.31562	15 02 38.39	-16 01 18.0		6	675
1981 JO5	*	1981 05 08.35938	15 03 31.82	-16 12 36.2	19.0	6	675
1981 JO5		1981 05 09.31562	15 02 34.67	-16 12 07.0		6	675
1981 JP5	*	1981 05 08.35938	15 03 33.36	-17 07 42.9	18.5	6	675
1981 JP5		1981 05 09.31562	15 02 44.19	-17 01 04.5		6	675
1981 JQ5	*	1981 05 08.35938	15 03 58.63	-17 42 53.4	19.5	6	675
1981 JQ5		1981 05 09.31562	15 03 10.09	-17 39 13.0		6	675
1981 JR5	*	1981 05 08.35938	15 04 33.30	-14 18 40.4	17.0	6	675
1981 JR5		1981 05 09.31562	15 03 44.53	-14 16 05.7		6	675
1981 JS5	*	1981 05 08.35938	15 04 36.40	-16 06 36.6	18.0	6	675
1981 JS5		1981 05 09.31562	15 03 49.51	-16 03 06.9		6	675
1981 JT5	*	1981 05 08.35938	15 05 12.61	-17 54 53.1	17.0	6	675
1981 JT5		1981 05 09.31562	15 04 28.62	-17 47 00.2		6	675
1981 JU5	*	1981 05 08.35938	15 05 15.73	-18 49 35.6	17.0	6	675
1981 JU5		1981 05 09.31562	15 04 20.80	-18 42 44.4		6	675
1981 JV5	*	1981 05 08.35938	15 05 25.55	-16 38 51.6	18.0	6	675
1981 JV5		1981 05 09.31562	15 04 23.58	-16 36 19.5		6	675
1981 JW5	*	1981 05 08.35938	15 06 38.31	-14 58 03.4	16.0	6	675
1981 JW5		1981 05 09.31562	15 05 08.69	-15 10 48.7		6	675
1981 JX5	*	1981 05 08.35938	15 07 00.07	-17 26 14.3	18.5	6	675
1981 JX5		1981 05 09.31562	15 06 12.91	-17 23 23.4		6	675
1981 JY5	*	1981 05 08.35938	15 07 05.35	-15 16 30.3	18.5	6	675
1981 JY5		1981 05 09.31562	15 06 15.24	-15 11 38.2		6	675
1981 JZ5	*	1981 05 08.35938	15 07 14.64	-20 04 58.4	16.5	6	675

1981 JZ5		1981 05 09.31562	15 06 16.83	-19 59 34.4				6	675
1981 JA6	*	1981 05 08.35938	15 07 20.18	-14 26 16.3	17.0			6	675
1981 JA6		1981 05 09.31562	15 06 34.84	-14 20 47.5				6	675
1981 JB6	*	1981 05 08.35938	15 07 29.03	-19 56 53.8	16.5			6	675
1981 JB6		1981 05 09.31562	15 06 30.47	-19 57 18.5				6	675
1981 JC6	*	1981 05 08.35938	15 08 24.34	-19 32 54.4	18.5			6	675
1981 JC6		1981 05 09.31562	15 07 17.83	-19 31 23.5				6	675
1981 JD6	*	1981 05 08.35938	15 08 57.28	-19 44 53.5	17.5			6	675
1981 JD6		1981 05 09.31562	15 07 53.33	-19 42 59.9				6	675
1981 JE6	*	1981 05 08.35938	15 09 01.59	-17 31 37.7	17.0			6	675
1981 JE6		1981 05 09.31562	15 08 04.18	-17 28 18.8				6	675
1981 JF6	*	1981 05 08.35938	15 09 44.46	-17 33 07.5	16.5			6	675
1981 JF6		1981 05 09.31562	15 08 47.18	-17 32 30.2				6	675
1981 JG6	*	1981 05 08.35938	15 10 39.62	-14 27 22.6	17.0			6	675
1981 JG6		1981 05 09.31562	15 09 52.82	-14 20 28.8				6	675
1982 UT6		1991 09 11.29878	23 00 40.37	-07 00 00.2	17.2			9	675
1982 UT6		1991 09 11.35451	23 00 37.44	-07 00 15.0				9	675
1982 UT6		1991 09 17.27188	22 55 56.90	-07 24 29.5				9	675
1982 UY6		1981 05 08.35938	14 51 46.37	-18 57 39.6				6	675
1983 WJ		1978 11 30.26007	03 37 27.95	+16 11 08.5	16.2	V		6	675
1983 WJ		1978 12 01.27691	03 36 35.73	+16 09 34.9				6	675
1984 SX5		1991 09 11.29878	23 25 35.57	-05 03 22.3	16.8			9	675
1984 SX5		1991 09 11.35451	23 25 32.61	-05 03 54.5				9	675
1984 SX5		1991 09 15.38958	23 22 08.63	-05 42 30.2				9	675
1984 SX5		1991 09 17.22847	23 20 36.18	-05 59 55.1				9	675
1984 SX5		1991 09 17.27188	23 20 33.84	-06 00 18.6				9	675
1984 SX5		1991 09 17.33941	23 20 30.29	-06 00 57.3	16.8			9	675
1984 SX5		1991 09 17.37222	23 20 28.55	-06 01 15.3				9	675
1985 CH2		1991 09 11.29878	23 09 55.41	-09 01 47.6	18.0			9	675
1985 CH2		1991 09 11.35451	23 09 51.37	-09 02 23.4				9	675
1986 PD1		1986 08 02.38021	22 03 51.08	-12 33 42.9				2	675
1986 PD1		1986 08 02.40278	22 03 50.22	-12 33 57.9				2	675
1986 QB1		1991 09 15.35226	23 41 28.28	-07 02 45.8	17.0			9	675
1986 QB1		1991 09 15.38958	23 41 26.44	-07 02 56.5				9	675
1986 QB1		1991 09 17.33941	23 39 52.35	-07 11 58.6	16.5			9	675
1986 QB1		1991 09 17.37222	23 39 50.73	-07 12 07.6				9	675
1986 TN1		1981 05 08.35938	15 10 25.79	-20 13 51.5				6	675
1986 TN1		1981 05 09.31562	15 09 31.86	-20 04 25.5				6	675
1986 TL4		1981 05 08.35938	15 01 00.69	-15 47 11.9				6	675
1986 TL4		1981 05 09.31562	15 00 03.60	-15 44 06.7				6	675
1986 TR6		1990 01 26.46927	10 41 33.00	-04 59 26.0	17.9			3	675
1986 TR6		1990 01 26.52274	10 41 31.75	-04 59 26.8				3	675
1986 TR6		1990 01 28.45052	10 40 47.64	-04 59 39.3				3	675
1986 TR6		1990 01 28.48681	10 40 46.75	-04 59 38.0				3	675
1986 TR6		1990 02 20.36267	10 30 01.54	-04 36 35.5	17.7			3	675
1986 TR6		1990 02 20.39531	10 30 00.51	-04 36 31.7				3	675
1986 TR6		1990 03 27.17378	10 13 31.66	-03 01 59.0	17.9			3	675
1986 TR6		1990 03 27.20573	10 13 30.94	-03 01 53.1				3	675
1987 QZ1		1991 09 13.39444	00 08 42.89	+07 55 52.2	17.2			9	675
1987 QZ1		1991 09 13.43212	00 08 40.81	+07 55 48.6				9	675
1987 QZ1		1991 09 15.37153	00 06 58.40	+07 52 42.8	17.0			9	675
1987 QZ1		1991 09 15.40851	00 06 56.30	+07 52 38.4				9	675
1987 QS7		1978 11 30.26007	03 23 36.27	+15 39 41.6	17.5	V		6	675
1987 QS7		1978 12 01.27691	03 22 47.68	+15 36 49.2				6	675
1987 QW7		1991 09 11.29878	23 08 54.98	-01 44 41.3	16.8			9	675
1987 QW7		1991 09 11.35451	23 08 51.90	-01 44 59.4				9	675
1987 QW7		1991 09 17.22847	23 04 11.84	-02 20 55.0				9	675
1987 QW7		1991 09 17.27188	23 04 09.70	-02 21 11.4				9	675
1987 RA1		1978 11 30.26007	03 36 03.43	+20 04 16.0	16.5	V		6	675

1987 RA1		1978 12 01.27691	03 35 11.81	+20 01 01.8		6	675
1987 SG2		1991 09 17.27188	23 26 24.28	-04 37 22.8		9	675
1988 PL		1981 05 08.35938	14 49 18.94	-15 02 50.5		6	675
1988 PL		1981 05 09.31562	14 48 18.34	-14 57 19.3		6	675
1988 PZ1		1981 05 08.38542	14 45 35.82	-16 15 26.0		6	675
1988 RD5		1981 05 08.35938	14 57 42.79	-16 34 23.1		6	675
1988 RD5		1981 05 09.31562	14 56 58.45	-16 31 36.1		6	675
1988 SK2		1978 11 30.26007	03 26 59.89	+16 50 43.2	19.5 V	6	675
1988 SK2		1978 12 01.27691	03 26 30.17	+16 48 59.4		6	675
1988 SW2		1981 05 08.35938	15 09 09.73	-17 15 39.5		6	675
1988 SW2		1981 05 09.31562	15 08 23.62	-17 13 03.9		6	675
1989 BK2	*	1989 01 31.28333	07 54 11.56	+21 40 55.2	17.5	3	675
1989 BK2		1989 01 31.32144	07 54 10.03	+21 41 02.0		3	675
1989 CA		1991 09 11.29878	23 12 26.62	-02 23 56.2	16.8	9	675
1989 CA		1991 09 11.35451	23 12 23.48	-02 24 17.7		9	675
1989 CA		1991 09 17.22847	23 07 07.98	-03 01 47.6		9	675
1989 CA		1991 09 17.27188	23 07 05.48	-03 02 04.0		9	675
1989 CH2		1990 01 26.48681	11 54 20.08	+28 04 42.4	18.3	3	675
1989 CH2		1990 01 26.53958	11 54 19.49	+28 05 03.8		3	675
1989 CH2		1990 01 28.51319	11 54 01.91	+28 19 16.2		3	675
1989 CH2		1990 01 28.54601	11 54 01.71	+28 19 29.6		3	675
1989 CH2		1990 03 27.24010	11 29 23.89	+33 47 28.9	18	3	675
1989 CH2		1990 03 27.27865	11 29 22.71	+33 47 35.2		3	675
1989 CL3		1981 05 08.35938	15 05 27.76	-19 44 55.1		6	675
1989 CL3		1981 05 09.31562	15 04 39.48	-19 40 18.7		6	675
1989 EC2		1991 09 15.35226	23 41 12.48	-06 32 41.2	18.0	9	675
1989 EC2		1991 09 15.38958	23 41 10.78	-06 32 49.8		9	675
1989 EC2		1991 09 17.33941	23 39 41.45	-06 39 51.0	17.5	9	675
1989 EC2		1991 09 17.37222	23 39 39.97	-06 39 58.1		9	675
1989 GN		1992 01 30.11476	06 08 46.59	+08 54 55.6	15.5	2	675
1989 GN		1992 01 30.14219	06 08 45.80	+08 55 06.8		2	675
1989 GN		1992 02 01.13628	06 07 54.49	+09 09 20.3		2	675
1989 GN		1992 02 01.16111	06 07 53.91	+09 09 30.7		2	675
1989 NE		1992 01 30.46806	10 17 22.60	+12 36 59.1	16.5	2	675
1989 NE		1992 01 30.50764	10 17 20.87	+12 37 19.6		2	675
1989 NE		1992 01 31.53733	10 16 38.93	+12 46 34.7		2	675
1990 DP9	*	1990 02 20.43299	11 38 18.20	+13 26 46.3	16.0	3	675
1990 DP9		1990 02 20.48993	11 38 16.30	+13 28 15.1		3	675
1990 DP9		1990 02 22.43125	11 37 15.09	+14 19 01.9		3	675
1990 OE		1981 05 08.35938	14 59 41.50	-17 35 44.7		6	675
1990 OE		1981 05 09.31562	14 58 50.32	-17 28 22.4		6	675
1990 SW3		1992 01 30.37500	08 41 03.66	+28 31 19.6	16.0	2	675
1990 SW3		1992 01 30.39757	08 41 02.33	+28 31 26.8		2	675
1990 SW3		1992 02 02.43194	08 38 10.21	+28 48 31.9		2	675
1990 SW3		1992 02 02.45451	08 38 08.96	+28 48 41.3		2	675
1990 SB4		1992 01 30.46806	10 29 04.48	+13 33 59.4	15.5	2	675
1990 SB4		1992 01 30.50764	10 29 02.29	+13 33 59.2		2	675
1990 SB4		1992 01 31.53733	10 28 05.72	+13 33 54.4		2	675
1990 TL4		1992 01 09.46181	07 52 06.86	+17 37 37.9	16	2	675
1990 TL4		1992 01 09.47934	07 52 05.91	+17 37 37.6		2	675
1990 TV12		1978 11 30.26007	03 41 01.35	+21 11 06.6	17.8 V	6	675
1990 TV12		1978 12 01.27691	03 40 28.01	+21 06 22.1		6	675
1990 XE		1981 05 08.35938	15 03 40.18	-19 34 43.1		6	675
1990 XE		1981 05 09.31562	15 02 44.26	-19 28 51.4		6	675
1991 EG		1981 05 08.35938	15 02 37.23	-17 05 53.7	17.0	6	675
1991 EG		1981 05 09.31562	15 01 32.48	-17 04 15.0		6	675
1991 LW5	*	1991 06 07.26302	15 05 45.89	-12 21 15.3	18.9	3	675
1991 LW5		1991 06 09.25260	15 04 36.09	-12 18 45.5		3	675
1991 LW5		1991 06 09.28698	15 04 34.93	-12 18 44.3		3	675

1991 LX5	*	1991 06 07.26302	15 08 25.51	-12 26 42.2	18.9	3 675
1991 LX5		1991 06 07.29965	15 08 24.43	-12 26 35.6		3 675
1991 LX5		1991 06 09.28698	15 07 09.86	-12 21 36.2		3 675
1991 NX2		1991 07 16.29010	19 09 15.54	-26 15 00.6	17.2	9 675
1991 NX2		1991 07 16.32602	19 09 13.17	-26 15 05.6		9 675
1991 PY5		1991 08 05.29363	21 52 59.97	-12 54 20.9	17.0	9 675
1991 PY5		1991 08 05.32951	21 52 58.50	-12 54 43.2		9 675
1991 PE10		1991 09 11.29878	22 53 29.04	-05 15 24.9	17.5	9 675
1991 PE10		1991 09 11.35451	22 53 25.74	-05 15 26.9		9 675
1991 PF10		1991 09 11.29878	22 57 43.60	-08 18 55.4	17.2	9 675
1991 PF10		1991 09 11.35451	22 57 40.35	-08 19 18.9		9 675
1991 PH10		1991 09 11.29878	23 04 56.49	-08 19 58.3	17.2	9 675
1991 PH10		1991 09 11.35451	23 04 53.57	-08 20 17.3		9 675
1991 PH10		1991 09 17.22847	23 00 05.75	-08 52 50.2		9 675
1991 PH10		1991 09 17.27188	23 00 03.55	-08 53 02.8		9 675
1991 PN10		1991 09 11.29878	23 09 20.77	-05 25 24.2	16.8	9 675
1991 PN10		1991 09 11.35451	23 09 17.82	-05 26 45.7		9 675
1991 PN10		1991 09 17.22847	23 04 36.90	-07 47 38.6		9 675
1991 PU11		1991 09 11.29878	23 03 13.87	-05 24 16.8	16.2	9 675
1991 PU11		1991 09 11.35451	23 03 10.37	-05 24 20.8		9 675
1991 PU11		1991 09 17.22847	22 57 31.79	-05 30 39.5		9 675
1991 PU11		1991 09 17.27188	22 57 29.22	-05 30 41.6		9 675
1991 PO16		1991 09 11.29878	23 26 16.77	-06 24 08.6	17.2	9 675
1991 PO16		1991 09 11.35451	23 26 14.12	-06 24 45.8		9 675
1991 PO16		1991 09 15.35226	23 23 16.42	-07 08 13.8	17.5	9 675
1991 PO16		1991 09 15.38958	23 23 14.71	-07 08 38.2		9 675
1991 PO16		1991 09 17.22847	23 21 54.15	-07 28 10.9		9 675
1991 PO16		1991 09 17.33941	23 21 49.20	-07 29 21.3	17.2	9 675
1991 PO16		1991 09 17.37222	23 21 47.70	-07 29 41.6		9 675
1991 PP16		1991 09 15.35226	23 31 34.68	-07 00 59.9	16.5	9 675
1991 PP16		1991 09 15.38958	23 31 32.85	-07 01 20.0		9 675
1991 PP16		1991 09 17.33941	23 30 03.76	-07 18 39.7	16.5	9 675
1991 PP16		1991 09 17.37222	23 30 02.19	-07 18 56.4		9 675
1991 PS16		1991 09 15.35226	23 30 33.00	-09 16 53.7	17.2	9 675
1991 PS16		1991 09 15.38958	23 30 30.86	-09 17 11.7		9 675
1991 PS16		1991 09 17.33941	23 28 44.07	-09 32 52.7	17.0	9 675
1991 PS16		1991 09 17.37222	23 28 42.25	-09 33 08.0		9 675
1991 PU16		1991 09 15.35226	23 36 06.70	-05 53 21.0	17.0	9 675
1991 PU16		1991 09 15.38958	23 36 04.50	-05 53 29.3		9 675
1991 PU16		1991 09 17.33941	23 34 14.20	-06 00 55.4	17.5	9 675
1991 PU16		1991 09 17.37222	23 34 12.27	-06 01 01.9		9 675
1991 PV16		1991 09 15.35226	23 40 41.14	-07 19 49.5	17.2	9 675
1991 PV16		1991 09 15.38958	23 40 39.37	-07 20 01.4		9 675
1991 PV16		1991 09 17.33941	23 39 09.04	-07 30 20.0	17.2	9 675
1991 PV16		1991 09 17.37222	23 39 07.64	-07 30 32.2		9 675
1991 PR17	*	1991 08 08.42483	23 33 40.23	-04 59 50.9	17.5	9 675
1991 PR17		1991 08 08.45660	23 33 39.12	-04 59 55.8		9 675
1991 PR17		1991 09 11.29878	23 04 53.52	-07 09 50.5	17.2	9 675
1991 PR17		1991 09 11.35451	23 04 50.09	-07 10 04.6		9 675
1991 PR17		1991 09 17.22847	22 59 12.66	-07 33 50.3		9 675
1991 PR17		1991 09 17.27188	22 59 10.15	-07 34 01.3		9 675
1991 PS17	*	1991 08 07.39306	23 34 45.86	-08 06 39.9	18.8	9 675
1991 PS17		1991 08 07.42257	23 34 45.02	-08 06 44.2		9 675
1991 PS17		1991 09 11.29878	23 07 24.12	-10 01 27.2	17.2	9 675
1991 PS17		1991 09 11.35451	23 07 20.46	-10 01 37.2	17.8	9 675
1991 PT17	*	1991 08 07.40035	22 52 43.79	+04 26 43.4		9 675
1991 PT17		1991 08 07.43166	22 52 42.89	+04 26 32.0		9 675
1991 RL		1991 09 11.29878	23 00 26.01	-02 36 34.7	17.2	9 675
1991 RL		1991 09 11.35451	23 00 20.43	-02 36 02.0		9 675

1991 RF1	1991 09 11.29878	23 19 03.92	-06 49 16.8	17.5	9 675
1991 RF1	1991 09 11.35451	23 19 00.72	-06 49 44.5		9 675
1991 RF1	1991 09 15.35226	23 15 28.70	-07 20 57.3		9 675
1991 RF1	1991 09 15.38958	23 15 26.60	-07 21 12.4		9 675
1991 RF1	1991 09 17.33941	23 13 46.50	-07 35 40.7	17.5	9 675
1991 RF1	1991 09 17.37222	23 13 44.98	-07 35 54.5		9 675
1991 RG1	1991 09 11.29878	23 21 00.77	-06 56 47.2	17.2	9 675
1991 RG1	1991 09 11.35451	23 20 57.65	-06 57 02.0		9 675
1991 RG1	1991 09 15.35226	23 17 32.18	-07 13 08.1		9 675
1991 RG1	1991 09 15.38958	23 17 30.15	-07 13 16.0	18.5	9 675
1991 RG1	1991 09 17.33941	23 15 52.25	-07 20 35.8	17.8	9 675
1991 RG1	1991 09 17.37222	23 15 50.57	-07 20 43.6		9 675
1991 RH1	1991 09 11.29878	23 23 38.48	-06 13 10.8	17.2	9 675
1991 RH1	1991 09 11.35451	23 23 35.05	-06 13 13.9		9 675
1991 RH1	1991 09 15.35226	23 19 43.34	-06 15 50.2		9 675
1991 RH1	1991 09 15.38958	23 19 41.00	-06 15 49.4		9 675
1991 RH1	1991 09 17.27188	23 17 53.23	-06 16 41.4		9 675
1991 RH1	1991 09 17.33941	23 17 49.13	-06 16 43.2	17.8	9 675
1991 RH1	1991 09 17.37222	23 17 47.23	-06 16 42.8		9 675
1991 RJ1	1991 09 11.29878	23 23 48.29	-06 39 32.9	16.8	9 675
1991 RJ1	1991 09 11.35451	23 23 44.65	-06 39 15.8		9 675
1991 RJ1	1991 09 15.35226	23 19 41.75	-06 17 21.2		9 675
1991 RJ1	1991 09 15.38958	23 19 39.35	-06 17 07.4		9 675
1991 RJ1	1991 09 17.22847	23 17 50.08	-06 06 49.0		9 675
1991 RJ1	1991 09 17.27188	23 17 47.35	-06 06 34.1		9 675
1991 RJ1	1991 09 17.33941	23 17 43.14	-06 06 10.9	16.8	9 675
1991 RJ1	1991 09 17.37222	23 17 41.16	-06 05 59.3		9 675
1991 RC2	1991 09 11.29878	23 06 22.60	-02 05 56.7	17.0	9 675
1991 RC2	1991 09 11.35451	23 06 18.90	-02 06 02.9		9 675
1991 RH2	1991 09 11.29878	23 24 16.68	-05 52 00.3	17.8	9 675
1991 RH2	1991 09 11.35451	23 24 13.61	-05 52 05.9		9 675
1991 RH2	1991 09 15.35226	23 20 42.28	-05 57 54.0		9 675
1991 RH2	1991 09 15.38958	23 20 40.34	-05 57 55.2	18.2	9 675
1991 RH2	1991 09 17.33941	23 18 57.87	-06 00 34.3	18.0	9 675
1991 RH2	1991 09 17.37222	23 18 56.21	-06 00 36.9		9 675
1991 RJ2	1991 09 11.29878	22 59 34.28	-02 56 29.6	17.5	9 675
1991 RJ2	1991 09 11.35451	22 59 38.23	-02 58 07.5		9 675
1991 RK2	1991 09 15.35226	23 18 00.85	-10 16 41.1	16.5	9 675
1991 RK2	1991 09 15.38958	23 17 59.03	-10 17 02.1		9 675
1991 RK2	1991 09 17.33941	23 16 30.76	-10 35 22.3	16.8	9 675
1991 RK2	1991 09 17.37222	23 16 29.17	-10 35 40.6		9 675
1991 RN4	1991 09 11.29878	23 03 45.83	-07 45 14.2	16.8	9 675
1991 RN4	1991 09 11.35451	23 03 43.20	-07 45 49.0		9 675
1991 RN4	1991 09 17.22847	22 59 35.38	-08 46 15.3		9 675
1991 RM6	1991 09 15.35226	23 33 27.50	-09 35 51.1	17.2	9 675
1991 RM6	1991 09 15.38958	23 33 25.47	-09 36 11.1		9 675
1991 RM6	1991 09 17.33941	23 31 44.56	-09 53 23.9	17.0	9 675
1991 RM6	1991 09 17.37222	23 31 42.79	-09 53 39.6		9 675
1991 RN6	1991 09 11.29878	23 11 55.92	-07 29 32.2	16.8	9 675
1991 RN6	1991 09 11.35451	23 11 53.77	-07 30 22.8		9 675
1991 RN6	1991 09 17.27188	23 08 41.51	-08 56 39.3		9 675
1991 RT17	1991 09 17.22847	23 13 50.56	-02 18 32.2		9 675
1991 RT17	1991 09 17.27188	23 13 48.54	-02 18 44.3		9 675
1991 RU17	1991 09 17.22847	23 14 49.08	-02 33 29.2		9 675
1991 RU17	1991 09 17.27188	23 14 46.74	-02 33 49.9		9 675
1991 RV17	1991 09 17.22847	23 17 38.82	-02 33 08.3		9 675
1991 RV17	1991 09 17.27188	23 17 36.58	-02 33 18.0		9 675
1991 RX17	1991 09 17.22847	23 20 57.90	-03 13 39.0		9 675
1991 RX17	1991 09 17.27188	23 20 55.80	-03 14 03.1		9 675

1991 RY17		1991 09 15.35226	23 25 35.13	-06 47 32.3		9 675
1991 RY17		1991 09 15.38958	23 25 32.54	-06 47 32.7		9 675
1991 RY17		1991 09 17.22847	23 23 31.59	-06 47 40.6		9 675
1991 RY17		1991 09 17.27188	23 23 28.52	-06 47 40.6		9 675
1991 RY17		1991 09 17.33941	23 23 23.89	-06 47 40.9	16.8	9 675
1991 RY17		1991 09 17.37222	23 23 21.65	-06 47 40.5		9 675
1991 RD18		1991 09 17.33941	23 28 33.99	-05 09 12.0	17.8	9 675
1991 RD18		1991 09 17.37222	23 28 32.15	-05 09 25.0		9 675
1991 RE18		1991 09 15.35226	23 30 42.75	-07 06 18.2	17.5	9 675
1991 RE18		1991 09 15.38958	23 30 40.87	-07 06 31.4		9 675
1991 RE18		1991 09 17.33941	23 29 03.97	-07 18 11.5	17.0	9 675
1991 RE18		1991 09 17.37222	23 29 02.33	-07 18 22.3		9 675
1991 RS20		1991 09 17.33941	23 41 02.04	-06 31 46.2	17.8	9 675
1991 RS20		1991 09 17.37222	23 41 00.45	-06 31 54.8		9 675
1991 RT20		1991 09 17.33941	23 42 28.28	-06 46 22.2	17.5	9 675
1991 RT20		1991 09 17.37222	23 42 26.29	-06 46 28.1		9 675
1991 RQ21	*	1991 09 11.29878	23 16 31.08	-09 37 39.1	17.8	9 675
1991 RQ21		1991 09 11.35451	23 16 28.15	-09 37 56.0	17.5	9 675
1991 RQ21		1991 09 15.35226	23 13 07.09	-09 56 26.4	18.2	9 675
1991 RQ21		1991 09 15.38958	23 13 05.16	-09 56 35.9		9 675
1991 RQ21		1991 09 17.22847	23 11 33.71	-10 04 45.4		9 675
1991 RQ21		1991 09 17.27188	23 11 31.62	-10 04 56.9		9 675
1991 RQ21		1991 09 17.33941	23 11 28.09	-10 05 13.7	18.2	9 675
1991 RQ21		1991 09 17.37222	23 11 26.36	-10 05 22.3		9 675
1991 RR21	*	1991 09 11.29878	23 17 32.53	-08 43 08.8	17.8	9 675
1991 RR21		1991 09 11.35451	23 17 29.82	-08 43 28.0		9 675
1991 RR21		1991 09 15.35226	23 14 22.86	-09 05 46.1	17.8	9 675
1991 RR21		1991 09 15.38958	23 14 20.99	-09 05 58.0		9 675
1991 RR21		1991 09 17.33941	23 12 51.19	-09 16 25.6	18.0	9 675
1991 RR21		1991 09 17.37222	23 12 49.56	-09 16 34.9		9 675
1991 RS21	*	1991 09 15.35226	23 20 25.03	-09 32 55.0	17.5	9 675
1991 RS21		1991 09 15.38958	23 20 22.65	-09 33 02.6		9 675
1991 RS21		1991 09 17.27188	23 18 27.97	-09 39 40.1		9 675
1991 RS21		1991 09 17.33941	23 18 23.79	-09 39 54.1	17.5	9 675
1991 RS21		1991 09 17.37222	23 18 21.72	-09 40 00.2		9 675
1991 RT21	*	1991 09 15.35226	23 23 05.31	-08 29 46.6	18.0	9 675
1991 RT21		1991 09 15.38958	23 23 03.49	-08 29 55.2		9 675
1991 RT21		1991 09 17.33941	23 21 31.64	-08 37 35.9	17.8	9 675
1991 RT21		1991 09 17.37222	23 21 30.05	-08 37 42.1		9 675
1991 RU21	*	1991 09 15.35226	23 40 54.85	-07 29 24.3	16.5	9 675
1991 RU21		1991 09 15.38958	23 40 53.11	-07 29 30.3		9 675
1991 RU21		1991 09 17.33941	23 39 23.74	-07 34 28.4	16.5	9 675
1991 RU21		1991 09 17.37222	23 39 22.13	-07 34 32.8		9 675
1991 RV21	*	1991 09 15.35226	23 42 20.99	-09 26 30.2	17.0	9 675
1991 RV21		1991 09 15.38958	23 42 18.95	-09 26 41.4		9 675
1991 RV21		1991 09 17.33941	23 40 40.07	-09 36 30.0	17.0	9 675
1991 RV21		1991 09 17.37222	23 40 38.27	-09 36 39.3		9 675
1991 RW21	*	1991 09 11.29878	23 06 12.54	-03 33 49.9	17.0	9 675
1991 RW21		1991 09 11.35451	23 06 08.57	-03 33 47.7		9 675
1991 RW21		1991 09 17.22847	22 59 32.15	-03 29 51.7		9 675
1991 RW21		1991 09 17.27188	22 59 29.08	-03 29 49.5		9 675
1991 RX21	*	1991 09 11.29878	23 25 38.47	-07 39 40.8	17.5	9 675
1991 RX21		1991 09 11.35451	23 25 36.25	-07 40 09.3		9 675
1991 RX21		1991 09 15.35226	23 22 58.79	-08 14 53.5		9 675
1991 RX21		1991 09 15.38958	23 22 57.25	-08 15 13.1		9 675
1991 RX21		1991 09 17.33941	23 21 40.66	-08 31 53.9	17.8	9 675
1991 RX21		1991 09 17.37222	23 21 39.37	-08 32 09.4		9 675
1991 RY21	*	1991 09 15.35226	23 14 03.67	-10 20 49.5	18.2	9 675
1991 RY21		1991 09 15.38958	23 14 01.48	-10 21 01.6		9 675

1991 RY21		1991 09 17.33941	23 12 16.89	-10 32 01.7	17.5	9 675
1991 RY21		1991 09 17.37222	23 12 14.97	-10 32 11.9		9 675
1991 RZ21	*	1991 09 15.35226	23 18 45.24	-09 16 43.4	18.8	9 675
1991 RZ21		1991 09 15.38958	23 18 43.18	-09 16 46.8		9 675
1991 RZ21		1991 09 17.33941	23 16 59.51	-09 19 37.2	18.5	9 675
1991 RZ21		1991 09 17.37222	23 16 57.63	-09 19 39.3		9 675
1991 RA22	*	1991 09 15.35226	23 19 15.96	-07 58 58.9		9 675
1991 RA22		1991 09 15.38958	23 19 13.95	-07 59 04.5		9 675
1991 RA22		1991 09 17.33941	23 17 33.66	-08 04 53.1	17.5	9 675
1991 RA22		1991 09 17.37222	23 17 31.86	-08 04 58.2		9 675
1991 RB22	*	1991 09 15.35226	23 22 07.37	-08 24 14.9	17.8	9 675
1991 RB22		1991 09 15.38958	23 22 04.87	-08 24 16.6		9 675
1991 RB22		1991 09 17.33941	23 20 02.80	-08 25 18.7	17.8	9 675
1991 RB22		1991 09 17.37222	23 20 00.61	-08 25 18.7		9 675
1991 RC22	*	1991 09 15.35226	23 22 11.84	-11 11 28.8	17.2	9 675
1991 RC22		1991 09 15.38958	23 22 09.56	-11 11 35.4		9 675
1991 RC22		1991 09 17.33941	23 20 17.22	-11 17 24.7	17.0	9 675
1991 RC22		1991 09 17.37222	23 20 15.21	-11 17 30.1		9 675
1991 RD22	*	1991 09 15.35226	23 22 48.50	-12 08 04.8		9 675
1991 RD22		1991 09 15.38958	23 22 46.55	-12 08 13.7	18.8	9 675
1991 RD22		1991 09 17.33941	23 21 12.01	-12 15 21.7	17.5	9 675
1991 RD22		1991 09 17.37222	23 21 10.27	-12 15 28.5		9 675
1991 RE22	*	1991 09 15.35226	23 23 02.16	-07 31 20.5		9 675
1991 RE22		1991 09 15.38958	23 22 59.88	-07 31 17.3		9 675
1991 RE22		1991 09 17.33941	23 21 20.26	-07 34 29.5	18.0	9 675
1991 RE22		1991 09 17.37222	23 21 18.70	-07 34 38.0		9 675
1991 RF22	*	1991 09 15.35226	23 23 18.87	-07 56 21.0	18.0	9 675
1991 RF22		1991 09 15.38958	23 23 16.37	-07 56 17.1		9 675
1991 RF22		1991 09 17.33941	23 21 06.68	-07 52 17.4	17.5	9 675
1991 RF22		1991 09 17.37222	23 21 04.38	-07 52 13.1		9 675
1991 RG22	*	1991 09 15.35226	23 24 53.99	-09 23 08.9	18.0	9 675
1991 RG22		1991 09 15.38958	23 24 51.83	-09 23 11.8		9 675
1991 RG22		1991 09 17.33941	23 23 05.02	-09 26 15.0	17.5	9 675
1991 RG22		1991 09 17.37222	23 23 03.24	-09 26 17.4		9 675
1991 RH22	*	1991 09 15.35226	23 25 47.62	-05 51 22.4		9 675
1991 RH22		1991 09 15.38958	23 25 45.69	-05 51 31.9	18.8	9 675
1991 RH22		1991 09 17.33941	23 24 06.62	-05 59 12.5	17.8	9 675
1991 RH22		1991 09 17.37222	23 24 04.99	-05 59 19.4		9 675
1991 RJ22	*	1991 09 15.35226	23 26 04.11	-12 40 54.2	16.2	9 675
1991 RJ22		1991 09 15.38958	23 26 02.34	-12 41 11.2		9 675
1991 RJ22		1991 09 17.33941	23 24 39.93	-12 55 02.2	15.8	9 675
1991 RJ22		1991 09 17.37222	23 24 38.41	-12 55 15.7		9 675
1991 RK22	*	1991 09 15.35226	23 26 16.08	-06 50 15.3		9 675
1991 RK22		1991 09 15.38958	23 26 14.28	-06 50 24.5		9 675
1991 RK22		1991 09 17.33941	23 24 48.11	-06 59 19.9	17.8	9 675
1991 RK22		1991 09 17.37222	23 24 46.61	-06 59 27.8		9 675
1991 RL22	*	1991 09 15.35226	23 26 27.99	-12 23 54.3	18.2	9 675
1991 RL22		1991 09 15.38958	23 26 26.12	-12 24 09.2		9 675
1991 RL22		1991 09 17.33941	23 24 59.34	-12 35 13.6	17.5	9 675
1991 RL22		1991 09 17.37222	23 24 57.77	-12 35 24.3		9 675
1991 RM22	*	1991 09 15.35226	23 26 46.03	-08 00 53.3		9 675
1991 RM22		1991 09 15.38958	23 26 44.46	-08 01 15.1	18.2	9 675
1991 RM22		1991 09 17.33941	23 25 24.56	-08 20 09.1	17.5	9 675
1991 RM22		1991 09 17.37222	23 25 23.15	-08 20 26.8		9 675
1991 RN22	*	1991 09 15.35226	23 27 15.93	-07 31 02.7	18.5	9 675
1991 RN22		1991 09 15.38958	23 27 13.55	-07 31 06.3		9 675
1991 RN22		1991 09 17.33941	23 25 16.05	-07 33 52.3	17.8	9 675
1991 RN22		1991 09 17.37222	23 25 13.94	-07 33 54.1		9 675
1991 RO22	*	1991 09 15.35226	23 27 21.02	-07 22 13.8	18.0	9 675

1991 RO22		1991 09 15.38958	23 27 19.29	-07 22 25.5		9 675
1991 RO22		1991 09 17.33941	23 25 50.59	-07 32 40.3	18.2	9 675
1991 RO22		1991 09 17.37222	23 25 49.06	-07 32 49.9		9 675
1991 RP22	*	1991 09 15.35226	23 27 35.53	-12 22 26.3	17.5	9 675
1991 RP22		1991 09 15.38958	23 27 33.33	-12 22 29.9		9 675
1991 RP22		1991 09 17.33941	23 25 43.39	-12 25 06.9	17.8	9 675
1991 RP22		1991 09 17.37222	23 25 41.47	-12 25 10.0		9 675
1991 RQ22	*	1991 09 15.35226	23 29 40.57	-05 24 47.7		9 675
1991 RQ22		1991 09 15.38958	23 29 38.50	-05 24 50.6		9 675
1991 RQ22		1991 09 17.33941	23 27 56.72	-05 27 51.5	17.8	9 675
1991 RQ22		1991 09 17.37222	23 27 54.99	-05 27 54.2		9 675
1991 RR22	*	1991 09 15.35226	23 30 05.09	-07 52 47.8	17.0	9 675
1991 RR22		1991 09 15.38958	23 30 03.48	-07 53 10.7		9 675
1991 RR22		1991 09 17.33941	23 28 41.97	-08 12 57.1	16.8	9 675
1991 RR22		1991 09 17.37222	23 28 40.54	-08 13 16.7		9 675
1991 RS22	*	1991 09 15.35226	23 30 55.10	-10 27 58.7	17.8	9 675
1991 RS22		1991 09 15.38958	23 30 53.62	-10 28 22.8		9 675
1991 RS22		1991 09 17.33941	23 29 38.48	-10 48 46.3	17.5	9 675
1991 RS22		1991 09 17.37222	23 29 37.20	-10 49 07.0		9 675
1991 RT22	*	1991 09 15.35226	23 32 07.86	-07 49 53.7	18.5	9 675
1991 RT22		1991 09 15.38958	23 32 05.95	-07 50 03.9		9 675
1991 RT22		1991 09 17.33941	23 30 31.35	-07 58 56.3	18.5	9 675
1991 RT22		1991 09 17.37222	23 30 29.77	-07 59 03.4		9 675
1991 RU22	*	1991 09 15.35226	23 32 10.39	-10 42 07.1	17.8	9 675
1991 RU22		1991 09 15.38958	23 32 08.69	-10 42 23.8		9 675
1991 RU22		1991 09 17.33941	23 30 48.52	-10 57 04.7	17.8	9 675
1991 RU22		1991 09 17.37222	23 30 46.99	-10 57 18.8		9 675
1991 RV22	*	1991 09 15.35226	23 32 34.90	-08 16 03.6	17.5	9 675
1991 RV22		1991 09 15.38958	23 32 33.06	-08 16 15.0		9 675
1991 RV22		1991 09 17.33941	23 31 01.70	-08 25 37.0	17.5	9 675
1991 RV22		1991 09 17.37222	23 31 00.31	-08 25 47.7		9 675
1991 RW22	*	1991 09 15.35226	23 34 17.15	-10 30 36.6	16.8	9 675
1991 RW22		1991 09 15.38958	23 34 14.80	-10 30 40.7		9 675
1991 RW22		1991 09 17.33941	23 32 16.25	-10 34 07.8	16.5	9 675
1991 RW22		1991 09 17.37222	23 32 14.14	-10 34 10.7		9 675
1991 RX22	*	1991 09 15.35226	23 34 53.09	-13 04 57.9	17.5	9 675
1991 RX22		1991 09 15.38958	23 34 51.40	-13 05 10.8		9 675
1991 RX22		1991 09 17.33941	23 33 26.61	-13 15 05.2	17.0	9 675
1991 RX22		1991 09 17.37222	23 33 25.16	-13 15 14.5		9 675
1991 RY22	*	1991 09 15.35226	23 35 11.19	-08 57 23.8	17.5	9 675
1991 RY22		1991 09 15.38958	23 35 08.84	-08 57 28.7		9 675
1991 RY22		1991 09 17.33941	23 33 12.02	-09 01 08.9	17.2	9 675
1991 RY22		1991 09 17.37222	23 33 10.20	-09 01 12.4		9 675
1991 RZ22	*	1991 09 15.35226	23 35 16.51	-08 33 38.5	18.5	9 675
1991 RZ22		1991 09 15.38958	23 35 14.24	-08 33 41.6		9 675
1991 RZ22		1991 09 17.33941	23 33 15.40	-08 37 00.8	18.0	9 675
1991 RZ22		1991 09 17.37222	23 33 13.41	-08 37 02.3		9 675
1991 RA23	*	1991 09 15.35226	23 35 48.74	-09 26 33.2	18.0	9 675
1991 RA23		1991 09 15.38958	23 35 46.43	-09 26 35.1		9 675
1991 RA23		1991 09 17.33941	23 33 46.35	-09 28 34.6	18.2	9 675
1991 RA23		1991 09 17.37222	23 33 44.26	-09 28 37.1		9 675
1991 RB23	*	1991 09 15.35226	23 37 01.14	-09 18 32.2	17.5	9 675
1991 RB23		1991 09 15.38958	23 36 59.57	-09 18 50.7		9 675
1991 RB23		1991 09 17.33941	23 35 38.37	-09 34 51.1	17.8	9 675
1991 RB23		1991 09 17.37222	23 35 36.94	-09 35 06.3		9 675
1991 RC23	*	1991 09 15.35226	23 37 06.45	-08 11 24.8	18.0	9 675
1991 RC23		1991 09 15.38958	23 37 04.93	-08 11 43.3		9 675
1991 RC23		1991 09 17.33941	23 35 46.84	-08 27 17.9	18.2	9 675
1991 RC23		1991 09 17.37222	23 35 45.53	-08 27 32.6		9 675

1991 RD23	*	1991 09 15.35226	23 37 12.54	-06 59 49.3		9	675
1991 RD23		1991 09 15.38958	23 37 10.92	-07 00 02.6		9	675
1991 RD23		1991 09 17.33941	23 35 53.03	-07 11 11.4	17.8	9	675
1991 RD23		1991 09 17.37222	23 35 51.58	-07 11 21.6		9	675
1991 RE23	*	1991 09 15.35226	23 37 13.47	-08 47 07.8	17.2	9	675
1991 RE23		1991 09 15.38958	23 37 11.76	-08 47 26.6		9	675
1991 RE23		1991 09 17.33941	23 35 45.82	-09 03 18.4	17.5	9	675
1991 RE23		1991 09 17.37222	23 35 44.28	-09 03 32.9		9	675
1991 RF23	*	1991 09 15.35226	23 38 22.62	-12 53 20.3	17.5	9	675
1991 RF23		1991 09 15.38958	23 38 20.17	-12 53 26.0		9	675
1991 RF23		1991 09 17.33941	23 36 20.59	-12 57 30.2	17.2	9	675
1991 RF23		1991 09 17.37222	23 36 18.37	-12 57 33.5		9	675
1991 RG23	*	1991 09 15.35226	23 38 22.90	-05 45 51.9	17.8	9	675
1991 RG23		1991 09 15.38958	23 38 20.44	-05 45 55.6		9	675
1991 RG23		1991 09 17.33941	23 36 15.84	-05 48 51.9	17.5	9	675
1991 RG23		1991 09 17.37222	23 36 13.76	-05 48 54.4		9	675
1991 RH23	*	1991 09 15.35226	23 39 40.09	-07 10 09.9	17.8	9	675
1991 RH23		1991 09 15.38958	23 39 37.47	-07 10 12.2		9	675
1991 RH23		1991 09 17.33941	23 37 30.34	-07 12 06.4	17.5	9	675
1991 RH23		1991 09 17.37222	23 37 28.10	-07 12 06.5		9	675
1991 RJ23	*	1991 09 15.35226	23 42 26.57	-09 40 26.5	17.2	9	675
1991 RJ23		1991 09 15.38958	23 42 24.09	-09 40 26.8		9	675
1991 RJ23		1991 09 17.33941	23 40 19.98	-09 40 26.2	17.5	9	675
1991 RJ23		1991 09 17.37222	23 40 17.81	-09 40 25.1		9	675
1991 RK23	*	1991 09 15.35226	23 42 38.24	-08 53 45.9	17.5	9	675
1991 RK23		1991 09 15.38958	23 42 35.93	-08 53 59.5		9	675
1991 RK23		1991 09 17.33941	23 40 46.43	-09 06 03.7	17.5	9	675
1991 RK23		1991 09 17.37222	23 40 44.49	-09 06 15.5		9	675
1991 RL23	*	1991 09 15.35226	23 42 49.99	-08 13 08.9	18.0	9	675
1991 RL23		1991 09 15.38958	23 42 47.79	-08 13 19.5		9	675
1991 RL23		1991 09 17.33941	23 40 58.87	-08 23 08.3	17.5	9	675
1991 RL23		1991 09 17.37222	23 40 56.98	-08 23 16.7		9	675
1991 RM23	*	1991 09 15.35226	23 43 17.25	-08 50 20.7	17.2	9	675
1991 RM23		1991 09 15.38958	23 43 15.44	-08 50 37.9		9	675
1991 RM23		1991 09 17.33941	23 41 45.83	-09 06 09.9	17.2	9	675
1991 RM23		1991 09 17.37222	23 41 44.21	-09 06 24.9		9	675
1991 RN23	*	1991 09 15.35226	23 43 19.55	-08 18 09.2	17.5	9	675
1991 RN23		1991 09 15.38958	23 43 17.70	-08 18 22.5		9	675
1991 RN23		1991 09 17.33941	23 41 44.99	-08 29 59.8	17.0	9	675
1991 RN23		1991 09 17.37222	23 41 43.37	-08 30 11.5		9	675
1991 RO23	*	1991 09 15.35226	23 43 25.77	-09 46 16.0	16.8	9	675
1991 RO23		1991 09 15.38958	23 43 23.57	-09 46 15.2		9	675
1991 RO23		1991 09 17.33941	23 41 32.41	-09 45 25.5	16.8	9	675
1991 RO23		1991 09 17.37222	23 41 30.46	-09 45 24.5		9	675
1991 RP23	*	1991 09 15.35226	23 43 33.16	-10 18 11.0	17.8	9	675
1991 RP23		1991 09 15.38958	23 43 30.62	-10 18 11.6		9	675
1991 RP23		1991 09 17.33941	23 41 23.85	-10 18 07.7	17.8	9	675
1991 RP23		1991 09 17.37222	23 41 21.65	-10 18 06.4		9	675
1991 SJ		1991 09 15.35226	23 20 38.93	-09 10 24.3	18.2	9	675
1991 SJ		1991 09 15.38958	23 20 36.67	-09 10 42.7		9	675
1991 SJ		1991 09 17.33941	23 18 47.57	-09 25 59.9	18.2	9	675
1991 SJ		1991 09 17.37222	23 18 45.70	-09 26 16.3		9	675
1991 SK		1991 09 11.29878	23 22 25.88	-08 51 25.3	16.8	9	675
1991 SK		1991 09 11.35451	23 22 23.11	-08 51 35.6		9	675
1991 SK		1991 09 15.35226	23 19 12.94	-09 01 55.3	17.0	9	675
1991 SK		1991 09 15.38958	23 19 11.11	-09 02 00.7		9	675
1991 SK		1991 09 17.22847	23 17 44.57	-09 06 24.3		9	675
1991 SK		1991 09 17.33941	23 17 39.21	-09 06 42.1	16.8	9	675
1991 SK		1991 09 17.37222	23 17 37.58	-09 06 46.8		9	675

1991 SU1		1991 09 11.29878	23 24 54.83	-04 22 22.8	17.0	9	675
1991 SU1	*	1991 09 16.37674	23 16 02.66	-03 28 50.5	17.8	9	675
1991 SU1		1991 09 16.41684	23 15 58.34	-03 28 24.9		9	675
1991 TL1		1991 11 13.28715	02 20 32.15	-05 34 17.3	17.0	3	675
1991 TL1		1991 11 13.32535	02 20 30.84	-05 34 57.3		3	675
1991 TL1		1991 12 01.23906	02 14 27.90	-09 21 49.8	17.0	3	675
1991 TL1		1991 12 01.27483	02 14 27.68	-09 22 04.6		3	675
1991 TL1		1991 12 03.23438	02 14 22.04	-09 36 11.3		3	675
1991 UP1		1981 05 08.35938	14 56 02.70	-15 52 04.1	16.5	6	675
1991 UP1		1981 05 09.31562	14 55 13.48	-15 44 45.3		6	675
1991 VB		1991 12 02.15434	02 22 14.40	+20 10 53.1	18.5	3	675
1991 VB		1991 12 03.22865	02 23 41.53	+19 57 39.0		3	675
1991 VB3		1978 11 30.26007	03 32 25.96	+20 42 14.9	15.8 V	6	675
1991 VB3		1978 12 01.27691	03 31 25.43	+20 34 40.7		6	675
1991 XC		1992 02 04.25989	07 53 51.22	+59 01 36.5	16.8	3	675
1991 XC		1992 02 05.22222	07 52 44.37	+58 42 31.7		3	675
1991 XC		1992 02 05.25989	07 52 41.59	+58 41 49.8		3	675
1991 XX		1989 11 05.34618	02 35 25.03	+26 28 49.4	16.8	3	675
1991 XX		1989 11 05.38263	02 35 23.76	+26 28 44.0		3	675
1991 XX		1989 11 24.23506	02 25 20.60	+25 36 24.6	17	3	675
1991 XX		1989 11 24.27048	02 25 19.58	+25 36 20.2		3	675
1991 XX		1989 11 25.23541	02 24 52.26	+25 33 24.1		3	675
1991 XX		1989 11 25.27188	02 24 51.27	+25 33 20.5		3	675
1991 XX		1992 02 05.13055	05 48 08.40	+30 56 08.3	18.2	3	675
1991 XX		1992 02 05.18541	05 48 07.67	+30 56 06.1		3	675
1991 XX		1992 02 08.11579	05 47 23.61	+30 52 04.0		3	675
1991 XX		1992 02 08.17222	05 47 22.78	+30 51 59.2		3	675
1991 XK1	*	1991 12 02.17205	03 06 37.17	+21 39 44.7	17.5	3	675
1991 XK1		1991 12 02.20347	03 06 35.70	+21 39 00.4		3	675
1991 XK1		1991 12 03.25920	03 05 49.19	+21 12 12.7		3	675
1991 YA		1992 02 04.12586	04 56 32.56	-00 04 08.8		3	675
1991 YA		1992 02 04.20938	04 56 35.08	-00 06 21.2		3	675
1991 YX		1991 12 03.44913	07 41 22.86	+14 59 40.2	17.5	3	675
1991 YX		1991 12 03.48073	07 41 22.47	+14 59 40.8		3	675
1992 AA		1992 02 04.16631	05 41 08.51	+33 24 17.1	16.5	3	675
1992 AA		1992 02 04.22188	05 41 17.66	+33 25 17.5		3	675
1992 AA		1992 02 05.16996	05 44 09.56	+33 42 39.3		3	675
1992 AB		1992 02 04.15329	03 51 32.62	+33 40 06.2	18	3	675
1992 AB		1992 02 05.11493	03 51 21.58	+34 06 41.1		3	675
1992 AB		1992 02 05.15451	03 51 20.97	+34 07 48.9		3	675
1992 AD		1989 11 06.37014	05 57 28.92	+07 35 07.1		7	675
1992 AD		1989 11 06.39097	05 57 28.74	+07 35 06.4		7	675
1992 AD		1989 11 06.41181	05 57 28.56	+07 35 05.8		7	675
1992 AD		1991 01 19.23874	06 48 31.29	+15 00 48.1	17.6	3	675
1992 AD		1991 01 19.27951	06 48 30.40	+15 00 53.3		3	675
1992 AD		1992 02 04.30365	08 03 36.65	+20 58 29.8	17.9	3	675
1992 AD		1992 02 04.33594	08 03 35.99	+20 58 31.1		3	675
1992 AD		1992 02 05.29583	08 03 19.07	+21 00 41.1		3	675
1992 AD		1992 02 05.35295	08 03 18.13	+21 00 50.1		3	675
1992 AG		1992 01 10.39728	07 59 33.85	+30 13 49.9	15.0	2	675
1992 AG		1992 01 10.42135	07 59 32.09	+30 14 29.5		2	675
1992 AG		1992 01 11.41771	07 58 25.90	+30 43 10.5		2	675
1992 AG		1992 01 30.21823	07 36 56.01	+38 28 23.5	15.0	2	675
1992 AG		1992 01 30.24271	07 36 54.36	+38 28 53.0		2	675
1992 AG		1992 02 01.28802	07 34 51.75	+39 08 00.7		2	675
1992 AM		1992 01 30.12899	06 38 52.91	+33 20 05.3	16.5	2	675
1992 AM		1992 01 30.15451	06 38 51.78	+33 20 25.9		2	675
1992 AN		1992 01 30.16701	06 42 43.32	+19 11 57.1	16.5	2	675
1992 AN		1992 01 30.18872	06 42 42.30	+19 12 10.9		2	675

1992 AN		1992 02	01.17361	06 41	12.85	+19	34	26.0		2	675
1992 AO		1992 01	30.17257	06 57	35.76	+14	20	13.2	16.0	2	675
1992 AO		1992 01	30.19410	06 57	34.75	+14	20	30.7		2	675
1992 AO		1992 01	31.19792	06 56	48.67	+14	35	06.0		2	675
1992 AO		1992 01	31.22205	06 56	47.49	+14	35	25.8		2	675
1992 AO		1992 02	01.22448	06 56	03.17	+14	49	55.4		2	675
1992 AQ		1992 01	31.20451	07 08	11.81	+34	47	19.4	16.5	2	675
1992 AQ		1992 01	31.22899	07 08	10.45	+34	47	49.5		2	675
1992 AQ		1992 02	01.18455	07 07	20.50	+35	07	37.6		2	675
1992 AQ		1992 02	01.20660	07 07	19.20	+35	08	04.9		2	675
1992 AR		1992 01	30.12899	06 39	00.81	+28	57	11.9	16.5	2	675
1992 AR		1992 01	30.15451	06 38	40.01	+28	57	20.3		2	675
1992 AR		1992 02	01.16808	06 37	54.75	+29	07	09.4		2	675
1992 AX		1992 02	04.30365	07 49	11.63	+24	27	20.7	16.5	3	675
1992 AX		1992 02	05.29583	07 47	50.20	+24	40	32.1		3	675
1992 AX		1992 02	05.35295	07 47	45.25	+24	41	17.7		3	675
1992 AU1	*	1992 01	09.41441	07 48	43.88	+43	28	14.5	15.0	2	675
1992 AU1		1992 01	09.44236	07 48	41.78	+43	29	03.7		2	675
1992 AU1		1992 01	10.40365	07 47	35.51	+43	57	12.7		2	675
1992 AU1		1992 01	11.25330	07 46	36.58	+44	21	42.0		2	675
1992 AU1		1992 01	11.40625	07 46	24.74	+44	26	05.0		2	675
1992 AU1		1992 01	30.20625	07 22	58.25	+51	32	03.3	15.0	2	675
1992 AU1		1992 01	30.23073	07 22	56.56	+51	32	27.0		2	675
1992 AU1		1992 02	01.25781	07 20	46.44	+52	03	20.4		2	675
1992 AV1	*	1992 01	09.40851	07 25	12.97	+20	24	17.9	16.0	2	675
1992 AV1		1992 01	09.43681	07 25	10.35	+20	25	00.5		2	675
1992 AV1		1992 01	10.38507	07 23	52.31	+20	49	22.8		2	675
1992 AV1		1992 01	11.24705	07 22	41.29	+21	11	26.5		2	675
1992 AV1		1992 01	11.39288	07 22	28.59	+21	15	11.9		2	675
1992 AV1		1992 01	30.17795	06 58	33.83	+28	36	44.1	16.0	2	675
1992 AV1		1992 01	30.19948	06 58	32.46	+28	37	09.9		2	675
1992 AV1		1992 02	01.26510	06 56	29.98	+29	18	11.7		2	675
1992 AX1	*	1992 01	10.47674	08 16	00.79	-03	41	41.6	16.5	2	675
1992 AX1		1992 01	10.51372	08 15	58.63	-03	40	59.8		2	675
1992 AX1		1992 01	29.37170	07 57	51.56	+03	08	11.2	16.5	2	675
1992 AX1		1992 01	29.39497	07 57	50.15	+03	08	43.3		2	675
1992 AX1		1992 01	29.41840	07 57	48.97	+03	09	16.8		2	675
1992 AX1		1992 01	30.25417	07 57	06.06	+03	28	52.5		2	675
1992 BF1	*	1992 01	29.49132	09 53	08.54	+22	00	21.8	16.5	2	675
1992 BF1		1992 01	30.43125	09 52	30.84	+22	22	34.7		2	675
1992 BF1		1992 01	30.45538	09 52	29.51	+22	23	08.1		2	675
1992 BF1		1992 02	02.44306	09 50	18.88	+23	34	21.3		2	675
1992 BF1		1992 02	02.46563	09 50	17.77	+23	34	52.5		2	675
1992 BG1	*	1992 01	30.20625	07 19	07.28	+51	58	05.7	16.5	2	675
1992 BG1		1992 01	30.23073	07 19	05.84	+51	58	05.1		2	675
1992 BG1		1992 02	01.25781	07 17	04.27	+51	57	03.9		2	675
1992 BH1	*	1992 01	30.21823	07 36	00.00	+37	35	30.1	16.5	2	675
1992 BH1		1992 01	30.24271	07 35	58.29	+37	35	18.9		2	675
1992 BH1		1992 02	01.28802	07 33	50.36	+37	20	03.3		2	675
1992 BJ1		1992 01	29.44774	09 09	58.08	+22	18	33.3	16.5	2	675
1992 BJ1		1992 01	29.47222	09 09	56.68	+22	18	39.3		2	675
1992 BJ1		1992 01	31.45156	09 08	03.36	+22	29	40.2		2	675
1992 BJ1		1992 01	31.47431	09 08	01.93	+22	29	46.1		2	675
1992 BL1	*	1992 01	30.46806	10 26	26.81	+12	49	24.5	15.5	2	675
1992 BL1		1992 01	30.50764	10 26	24.97	+12	50	19.6		2	675
1992 BL1		1992 01	31.53733	10 25	41.40	+13	14	14.0		2	675
1992 BM1	*	1992 01	29.48455	09 38	15.23	+06	18	40.4	16.0	2	675
1992 BM1		1992 01	30.41979	09 37	24.60	+06	34	32.8		2	675
1992 BM1		1992 01	30.44288	09 37	23.31	+06	34	56.2		2	675

1992 BN1	*	1992 01	29.48455	09 50	43.23	+03	44	41.8	17	2	675
1992 BN1		1992 01	30.41979	09 50	02.13	+04	05	01.0		2	675
1992 BN1		1992 01	30.44288	09 50	01.06	+04	05	31.2		2	675
1992 BO1	*	1992 01	31.28472	07 02	37.71	+34	35	54.9	16.5	2	675
1992 BO1		1992 02	01.18455	07 01	47.27	+34	25	53.4		2	675
1992 BO1		1992 02	01.20660	07 01	46.00	+34	25	38.0		2	675
1992 BP1	*	1992 01	31.28472	07 12	01.91	+33	28	56.3	16.0	2	675
1992 BP1		1992 02	01.18455	07 10	53.16	+33	21	23.3		2	675
1992 BP1		1992 02	01.20600	07 10	51.44	+33	21	12.9		2	675
1992 BQ1	*	1992 01	30.22431	07 46	48.65	-02	38	32.0	16.0	2	675
1992 BQ1		1992 01	30.24826	07 46	47.42	-02	38	19.3		2	675
1992 BQ1		1992 01	31.30208	07 45	58.01	-02	28	50.1		2	675
1992 BQ1		1992 01	31.32500	07 45	57.00	-02	28	38.1		2	675
1992 BS1	*	1992 01	30.22431	07 46	05.79	-02	39	25.5	16.5	2	675
1992 BS1		1992 01	30.24826	07 46	04.42	-02	39	15.9		2	675
1992 BS1		1992 01	31.30208	07 45	13.79	-02	32	57.2		2	675
1992 BS1		1992 01	31.32500	07 45	12.64	-02	32	47.8		2	675
1992 BT1	*	1992 01	30.19410	06 55	37.14	+11	08	43.0	17.0	2	675
1992 BT1		1992 01	31.19792	06 54	54.70	+11	12	13.3		2	675
1992 BT1		1992 01	31.22205	06 54	53.58	+11	12	19.7		2	675
1992 BU1	*	1992 01	30.37500	08 46	07.13	+26	28	42.5	16.5	2	675
1992 BU1		1992 01	30.39757	08 46	05.43	+26	28	47.9		2	675
1992 BU1		1992 02	02.43194	08 42	28.01	+26	38	31.4		2	675
1992 BU1		1992 02	02.45451	08 42	26.40	+26	38	34.1		2	675
1992 CC1	*	1992 02	09.51649	12 20	31.44	+21	04	37.6	17.7	3	675
1992 CC1		1992 02	09.54983	12 20	26.32	+21	04	30.2		3	675
1992 CC1		1992 02	25.31197	11 33	09.37	+19	28	38.9	16.8	3	675
1992 CC1		1992 02	25.34131	11 33	03.37	+19	28	22.6	16.8	3	675
1992 CC1		1992 02	26.27517	11 29	57.64	+19	19	50.6	17.8	3	675
1992 CC1		1992 02	26.30764	11 29	50.99	+19	19	31.0	17.8	3	675
1992 CC1		1992 02	26.41545	11 29	29.05	+19	18	30.2	16.8	3	675
1992 CC1		1992 02	27.28975	11 26	34.87	+19	10	07.4		3	675
1992 CC1		1992 02	27.46840	11 25	58.35	+19	08	21.9		3	675
1992 CC1		1992 02	28.28350	11 23	16.03	+19	00	12.6		3	675
1992 CC1		1992 02	28.45156	11 22	41.68	+18	58	29.9		3	675
1992 DC	*	1992 02	26.22500	10 00	13.94	+25	09	42.0	17.5	3	675
1992 DC		1992 02	26.26128	10 00	12.85	+25	08	34.9		3	675
1992 DC		1992 02	27.32065	09 59	48.31	+24	35	04.6		3	675
1992 DC		1992 02	27.35781	09 59	47.20	+24	33	53.8		3	675
1992 DC		1992 02	28.25086	09 59	29.34	+24	05	25.0		3	675
1992 DC		1992 02	28.41927	09 59	24.52	+24	00	00.4		3	675
2530 P-L	*	1960 09	24.46184	00 57	02.02	+03	35	56.6	17.5	4	675
2530 P-L		1960 09	26.37988	00 55	14.02	+03	30	32.0		4	675
2530 P-L		1960 09	28.43822	00 53	14.28	+03	24	30.8		4	675
2530 P-L		1960 09	29.39514	00 52	17.79	+03	21	42.3		4	675
2530 P-L		1960 10	17.31529	00 34	21.65	+02	31	43.8		4	675
2530 P-L		1960 10	22.26809	00 30	00.74	+02	22	20.3		4	675
2530 P-L		1960 10	25.30351	00 27	37.51	+02	18	14.1		4	675
2530 P-L		1960 10	26.35766	00 26	51.09	+02	17	09.2		4	675
4319 P-L	*	1960 09	24.37573	00 34	52.89	+10	06	20.9	19.2	4	675
4319 P-L		1960 09	25.42780	00 33	50.93	+09	59	05.2		4	675
4319 P-L		1960 09	26.30558	00 32	59.66	+09	52	55.1		4	675
4319 P-L		1960 09	28.36808	00 30	57.44	+09	38	02.1		4	675
4319 P-L		1960 10	26.32573	00 08	34.51	+06	11	56.9		4	675
4556 P-L	*	1960 09	24.41183	00 36	20.55	+00	27	39.9	17.8	4	675
4556 P-L		1960 09	26.31530	00 34	51.34	+00	20	01.5		4	675
4556 P-L		1960 09	27.40836	00 33	59.37	+00	15	39.6		4	675
4556 P-L		1960 09	28.39725	00 33	12.35	+00	11	42.7		4	675
4556 P-L		1960 10	17.31529	00 18	54.42	-00	53	19.3		4	675

4556	P-L		1960	10	22.26809	00	15	50.38	-01	04	35.1		4	675
4556	P-L		1960	10	25.25350	00	14	12.62	-01	09	44.8		4	675
4556	P-L		1960	10	25.30351	00	14	11.11	-01	09	51.4		4	675
4556	P-L		1960	10	26.31531	00	13	40.39	-01	11	16.8		4	675
4556	P-L		1960	10	26.35766	00	13	39.19	-01	11	22.0		4	675
4559	P-L	*	1960	09	26.31530	00	36	51.69	+03	46	39.8	18.8	4	675
4559	P-L		1960	09	27.40836	00	36	04.20	+03	41	24.0		4	675
4559	P-L		1960	09	28.39725	00	35	21.25	+03	36	35.0		4	675
4559	P-L		1960	10	17.31529	00	22	16.93	+02	08	53.1		4	675
4559	P-L		1960	10	22.26809	00	19	28.51	+01	49	57.0		4	675
4559	P-L		1960	10	25.30351	00	17	57.67	+01	39	44.0		4	675
4559	P-L		1960	10	26.35766	00	17	28.43	+01	36	28.0		4	675
4641	P-L		1991	09	11.29878	23	18	47.74	-07	45	58.4	18.5	9	675
4641	P-L		1991	09	11.35451	23	18	44.93	-07	46	18.5		9	675
4641	P-L		1991	09	17.33941	23	14	00.51	-08	24	07.5	18.5	9	675
6058	P-L	*	1960	09	24.33613	00	03	40.61	+04	22	41.7	18.3	4	675
6058	P-L		1960	09	25.32502	00	02	42.08	+04	20	10.8		4	675
6058	P-L		1960	09	26.27573	00	01	46.12	+04	17	42.0		4	675
6058	P-L		1960	09	28.32780	23	59	46.45	+04	12	17.2		4	675
6058	P-L		1960	10	17.21390	23	44	34.34	+03	26	48.6		4	675
6058	P-L		1960	10	22.15559	23	41	58.91	+03	19	06.8		4	675
6058	P-L		1960	10	24.18787	23	41	07.28	+03	16	44.2		4	675
6058	P-L		1960	10	26.26113	23	40	22.04	+03	14	49.6		4	675
6328	P-L	*	1960	09	24.33613	00	14	52.02	+00	59	42.4	19.1	4	675
6328	P-L		1960	09	25.32502	00	13	59.78	+00	55	05.7		4	675
6328	P-L		1960	09	26.27573	00	13	09.58	+00	50	39.7		4	675
6328	P-L		1960	09	28.32780	00	11	21.18	+00	41	07.5		4	675
6328	P-L		1960	10	17.28198	23	56	12.95	-00	36	42.8		4	675
6328	P-L		1960	10	22.23406	23	53	07.40	-00	51	38.3		4	675
6328	P-L		1960	10	25.25350	23	51	28.89	-00	59	11.0		4	675
6328	P-L		1960	10	26.26113	23	50	58.72	-01	01	25.9		4	675
6328	P-L		1960	10	26.31531	23	50	57.11	-01	01	34.3		4	675
6588	P-L	*	1960	09	24.35002	00	03	44.63	-00	41	01.5	18.5	4	675
6588	P-L		1960	09	26.28543	00	02	20.10	-00	50	09.1		4	675
6588	P-L		1960	09	27.34237	00	01	34.00	-00	55	06.0		4	675
6588	P-L		1960	09	28.33822	00	00	50.76	-00	59	44.3		4	675
6588	P-L		1960	10	17.21390	23	48	41.46	-02	16	02.5		4	675
6588	P-L		1960	10	22.15559	23	46	18.45	-02	30	21.7		4	675
6588	P-L		1960	10	24.18787	23	45	27.34	-02	35	21.9		4	675
6588	P-L		1960	10	26.26113	23	44	40.26	-02	39	53.6		4	675
6615	P-L	*	1960	09	24.35002	23	55	28.76	-03	30	24.0	18.4	4	675
6615	P-L		1960	09	26.28543	23	53	30.35	-03	38	42.9		4	675
6615	P-L		1960	09	27.34237	23	52	26.10	-03	43	08.7		4	675
6615	P-L		1960	09	28.33822	23	51	26.19	-03	47	13.9		4	675
6615	P-L		1960	10	17.22501	23	35	25.15	-04	42	14.7		4	675
6615	P-L		1960	10	22.16324	23	32	33.04	-04	47	52.4		4	675
6615	P-L		1960	10	24.23753	23	31	32.83	-04	48	59.4		4	675
6615	P-L		1960	10	26.27157	23	30	40.89	-04	49	22.8		4	675
9508	P-L		1978	11	30.26007	03	36	07.57	+17	16	19.1	17.8 V	6	675
9508	P-L		1978	12	01.27691	03	35	19.40	+17	14	07.9		6	675
9575	P-L	*	1960	10	17.22501	23	49	11.46	-07	32	21.6	18.2	4	675
9575	P-L		1960	10	22.16324	23	47	45.10	-07	23	03.1		4	675
9575	P-L		1960	10	24.23753	23	47	24.37	-07	17	11.6		4	675
9575	P-L		1960	10	26.27157	23	47	13.58	-07	10	17.8		4	675
1081	T-1		1971	03	24.38924	12	03	09.51	-03	02	57.5		4	675
1081	T-1		1971	03	25.27326	12	02	29.39	-02	58	32.7		4	675
1081	T-1	*	1971	03	25.31562	12	02	27.37	-02	58	20.6	18.4	4	675
1081	T-1		1971	03	26.26771	12	01	44.32	-02	53	37.2		4	675
1081	T-1		1971	03	27.32500	12	00	56.43	-02	48	22.8		4	675

1081	T-1		1971	04	02.40000	11	56	27.93	-02	18	14.4		4	675
1181	T-1		1971	03	24.38924	12	12	58.59	-05	16	44.2		4	675
1181	T-1		1971	03	25.27326	12	12	15.20	-05	13	10.3		4	675
1181	T-1	*	1971	03	25.31562	12	12	13.13	-05	13	00.3	17.2	4	675
1181	T-1		1971	03	26.26771	12	11	26.34	-05	09	06.8		4	675
1181	T-1		1971	03	27.32500	12	10	34.31	-05	04	45.5		4	675
1181	T-1		1971	04	02.40000	12	05	41.15	-04	39	22.7		4	675
1181	T-1		1971	04	16.18087	11	56	03.11	-03	45	03.3		4	675
1181	T-1		1971	04	16.26458	11	56	00.10	-03	44	46.5		4	675
1181	T-1		1971	05	13.18941	11	48	12.38	-02	50	38.5		4	675
1181	T-1		1971	05	14.21962	11	48	15.02	-02	50	28.9		4	675
1198	T-1		1971	03	24.38924	12	14	28.08	-06	47	55.6		4	675
1198	T-1		1971	03	25.27326	12	13	46.41	-06	44	21.1		4	675
1198	T-1	*	1971	03	25.31562	12	13	44.34	-06	44	10.4	18.1	4	675
1198	T-1		1971	03	26.26771	12	12	59.35	-06	40	19.7		4	675
1198	T-1		1971	03	27.32500	12	12	09.38	-06	35	57.5		4	675
1198	T-1		1971	04	02.40000	12	07	27.67	-06	10	17.8		4	675
1198	T-1		1971	04	16.18087	11	58	11.06	-05	13	34.0		4	675
1198	T-1		1971	04	16.26458	11	58	08.10	-05	13	14.6		4	675
1198	T-1		1971	05	13.18941	11	50	14.35	-04	06	36.8		4	675
1198	T-1		1971	05	14.21962	11	50	15.34	-04	05	47.0		4	675
1293	T-1		1971	03	25.27326	12	20	46.24	-04	47	58.7		4	675
1293	T-1	*	1971	03	25.31562	12	20	43.41	-04	47	47.5	18.8	4	675
1293	T-1		1971	03	25.33090	12	20	42.34	-04	47	41.6		4	675
1293	T-1		1971	03	26.26771	12	19	42.40	-04	43	01.6		4	675
1293	T-1		1971	03	26.29653	12	19	40.45	-04	42	54.7		4	675
1293	T-1		1971	03	26.33611	12	19	37.85	-04	42	43.1		4	675
1293	T-1		1971	03	27.32500	12	18	34.62	-04	37	46.3		4	675
1293	T-1		1971	04	02.40000	12	12	09.50	-04	07	00.2		4	675
1293	T-1		1971	04	16.18087	11	59	19.76	-03	02	24.0		4	675
1293	T-1		1971	04	16.26458	11	59	15.46	-03	02	00.6		4	675
1293	T-1		1971	05	13.18941	11	47	52.76	-02	03	08.3		4	675
1293	T-1		1971	05	14.21962	11	47	51.73	-02	03	12.4		4	675
1295	T-1		1971	03	24.42015	12	21	42.22	-03	42	46.4		4	675
1295	T-1		1971	03	25.27326	12	21	03.98	-03	37	12.7		4	675
1295	T-1	*	1971	03	25.31562	12	21	02.05	-03	36	55.3	18.5	4	675
1295	T-1		1971	03	25.33090	12	21	01.29	-03	36	49.5		4	675
1295	T-1		1971	03	26.26771	12	20	19.38	-03	30	43.3		4	675
1295	T-1		1971	03	26.29653	12	20	17.88	-03	30	31.0		4	675
1295	T-1		1971	03	26.33611	12	20	16.01	-03	30	16.1		4	675
1295	T-1		1971	03	27.32500	12	19	31.97	-03	23	51.8		4	675
1295	T-1		1971	03	27.33854	12	19	30.81	-03	23	41.6		4	675
1295	T-1		1971	04	02.40000	12	15	00.79	-02	44	05.8		4	675
1295	T-1		1971	04	16.18087	12	05	51.67	-01	20	06.9		4	675
1295	T-1		1971	04	16.26458	12	05	48.67	-01	19	40.2		4	675
2081	T-1		1971	03	24.37118	12	03	27.48	+04	10	50.8		4	675
2081	T-1		1971	03	25.24340	12	02	43.04	+04	14	43.5		4	675
2081	T-1	*	1971	03	25.28715	12	02	40.66	+04	14	54.8	17.5	4	675
2081	T-1		1971	03	26.25208	12	01	51.42	+04	19	07.9		4	675
2081	T-1		1971	03	27.31181	12	00	57.42	+04	23	38.9		4	675
2151	T-1		1971	03	24.37118	12	09	31.28	+03	17	14.2		4	675
2151	T-1		1971	03	25.24340	12	08	44.68	+03	23	55.5		4	675
2151	T-1	*	1971	03	25.28715	12	08	42.28	+03	24	15.3	19.5	4	675
2151	T-1		1971	03	26.25208	12	07	50.61	+03	31	34.4		4	675
2151	T-1		1971	03	27.31181	12	06	53.95	+03	39	33.0		4	675
2151	T-1		1971	04	02.41285	12	01	36.64	+04	23	23.7		4	675
3048	T-1		1971	03	24.42015	12	23	58.73	-02	07	58.0		4	675
3048	T-1		1971	03	25.33090	12	23	09.75	-02	04	12.7		4	675
3048	T-1		1971	03	26.29653	12	22	17.65	-02	00	10.9		4	675

3048	T-1		1971	03	26.31007	12	22	16.95	-02	00	10.0		4	675
3048	T-1	*	1971	03	26.33611	12	22	15.37	-02	00	01.7	17.7	4	675
3048	T-1		1971	03	26.34896	12	22	14.71	-02	00	00.6		4	675
3048	T-1		1971	03	27.33854	12	21	21.02	-01	55	52.0		4	675
3048	T-1		1971	03	27.35208	12	21	20.38	-01	55	51.5		4	675
3048	T-1		1971	04	02.40000	12	15	55.81	-01	31	02.6		4	675
3048	T-1		1971	04	16.16458	12	05	04.87	-00	43	26.1		4	675
3048	T-1		1971	04	16.18087	12	05	04.19	-00	43	22.4		4	675
3048	T-1		1971	04	16.25069	12	05	01.20	-00	43	10.6		4	675
3048	T-1		1971	04	16.26458	12	05	00.78	-00	43	07.7		4	675
3048	T-1		1971	05	13.18941	11	56	14.79	-00	23	12.4		4	675
3048	T-1		1971	05	14.21962	11	56	18.26	-00	24	42.8		4	675
3068	T-1		1971	03	25.33090	12	24	21.65	-06	42	38.0		4	675
3068	T-1		1971	03	26.29653	12	23	34.44	-06	36	37.2		4	675
3068	T-1	*	1971	03	26.33611	12	23	32.51	-06	36	22.3	20.5	4	675
3068	T-1		1971	03	27.33854	12	22	43.53	-06	30	03.3		4	675
3090	T-1		1971	03	25.33090	12	25	47.10	-07	18	40.7		4	675
3090	T-1		1971	03	26.29653	12	24	50.32	-07	15	21.0		4	675
3090	T-1	*	1971	03	26.33611	12	24	47.94	-07	15	11.4	19.8	4	675
3090	T-1		1971	03	27.33854	12	23	48.69	-07	11	37.8		4	675
3090	T-1		1971	04	16.18087	12	05	13.43	-05	55	39.7		4	675
3090	T-1		1971	04	16.26458	12	05	08.92	-05	55	19.0		4	675
3100	T-1		1971	03	25.33090	12	26	37.74	-08	11	48.0		4	675
3100	T-1		1971	03	26.29653	12	25	49.19	-08	04	04.9		4	675
3100	T-1	*	1971	03	26.33611	12	25	47.02	-08	03	45.4	17.7	4	675
3100	T-1		1971	03	27.33854	12	24	56.77	-07	55	38.2		4	675
3100	T-1		1971	04	02.40000	12	19	56.55	-07	05	58.9		4	675
3100	T-1		1971	04	02.42604	12	19	55.29	-07	05	47.5		4	675
3100	T-1		1971	04	16.18087	12	09	54.80	-05	15	52.2		4	675
3100	T-1		1971	04	16.26458	12	09	51.64	-05	15	14.8		4	675
3159	T-1		1971	03	24.42015	12	31	49.06	-06	31	54.8		4	675
3159	T-1		1971	03	25.33090	12	30	58.81	-06	25	11.0		4	675
3159	T-1		1971	03	26.29653	12	30	04.99	-06	17	56.5		4	675
3159	T-1	*	1971	03	26.33611	12	30	02.68	-06	17	38.9	18.7	4	675
3159	T-1		1971	03	27.33854	12	29	06.50	-06	10	01.8		4	675
3159	T-1		1971	04	02.42604	12	23	23.96	-05	22	47.9		4	675
3163	T-1		1971	03	24.42015	12	31	14.60	-02	59	38.4		4	675
3163	T-1		1971	03	25.33090	12	30	47.90	-02	56	45.5		4	675
3163	T-1		1971	03	26.29653	12	30	20.76	-02	54	07.4		4	675
3163	T-1	*	1971	03	26.33611	12	30	19.59	-02	54	01.3	20.5	4	675
3163	T-1		1971	03	27.33854	12	29	51.39	-02	51	15.4		4	675
3163	T-1		1971	04	02.42604	12	26	59.50	-02	34	36.7		4	675
3279	T-1		1971	03	25.33090	12	40	31.25	-04	55	26.6		4	675
3279	T-1		1971	03	26.29653	12	39	29.19	-04	55	36.1		4	675
3279	T-1	*	1971	03	26.33611	12	39	26.59	-04	55	36.2	19.5	4	675
3279	T-1		1971	03	27.33854	12	38	21.35	-04	55	41.5		4	675
3279	T-1		1971	04	02.42604	12	31	41.00	-04	55	43.6		4	675
3332	T-1		1971	03	25.33090	12	44	14.51	-07	23	54.8		4	675
3332	T-1		1971	03	26.29653	12	43	18.88	-07	18	16.6		4	675
3332	T-1	*	1971	03	26.33611	12	43	16.55	-07	18	03.0	19.5	4	675
3332	T-1		1971	03	27.33854	12	42	18.72	-07	12	07.9		4	675
3332	T-1		1971	04	02.42604	12	36	26.10	-06	35	21.0		4	675
4195	T-1		1971	03	24.40486	12	33	37.78	+01	43	12.0		4	675
4195	T-1		1971	03	26.31007	12	32	07.26	+01	53	19.1		4	675
4195	T-1	*	1971	03	26.34896	12	32	05.33	+01	53	29.9	18.5	4	675
4195	T-1		1971	03	27.35208	12	31	17.18	+01	58	42.9		4	675
4195	T-1		1971	04	02.43993	12	26	25.68	+02	29	26.5		4	675
4195	T-1		1971	04	16.21476	12	16	18.50	+03	26	34.7		4	675
4195	T-1		1971	04	16.27708	12	16	15.81	+03	26	48.2		4	675

4195	T-1		1971	05	13.17535	12	05	34.02	+04	00	46.7		4	675	
4195	T-1		1971	05	13.20278	12	05	33.86	+04	00	42.9		4	675	
4195	T-1		1971	05	14.20694	12	05	28.03	+03	59	47.3		4	675	
4195	T-1		1971	05	14.23246	12	05	27.95	+03	59	44.4		4	675	
4195	T-1		1971	05	16.29774	12	05	20.36	+03	57	17.9		4	675	
4195	T-1		1971	05	16.31510	12	05	20.36	+03	57	20.2		4	675	
4214	T-1		1971	03	24.40486	12	34	25.28	+00	29	22.1		4	675	
4214	T-1		1971	03	26.31007	12	32	51.57	+00	43	12.2		4	675	
4214	T-1	*	1971	03	26.34896	12	32	49.64	+00	43	28.9	19.1	4	675	
4214	T-1		1971	03	27.35208	12	32	00.03	+00	50	43.1		4	675	
4214	T-1		1971	04	02.43993	12	27	00.50	+01	33	14.4		4	675	
4214	T-1		1971	04	16.21476	12	16	56.02	+02	53	47.7		4	675	
4214	T-1		1971	04	16.27708	12	16	53.37	+02	54	05.2		4	675	
4232	T-1		1971	03	24.40486	12	35	42.51	-01	27	04.1		4	675	
4232	T-1		1971	03	26.31007	12	33	56.01	-01	23	22.1		4	675	
4232	T-1	*	1971	03	26.34896	12	33	53.77	-01	23	17.3	17.7	4	675	
4232	T-1		1971	03	27.35208	12	32	57.60	-01	21	19.0		4	675	
4232	T-1		1971	04	02.43993	12	27	17.13	-01	09	57.5		4	675	
4232	T-1		1971	04	16.21476	12	15	42.85	-00	52	28.0		4	675	
4232	T-1		1971	04	16.27708	12	15	39.85	-00	52	24.6		4	675	
4232	T-1		1971	05	13.20278	12	04	38.68	-01	18	16.6		4	675	
4232	T-1		1971	05	14.21962	12	04	35.84	-01	21	01.9		4	675	
4232	T-1		1971	05	14.23246	12	04	35.69	-01	21	05.2		4	675	
4277	T-1		1971	03	24.40486	12	37	59.93	-01	26	03.4		4	675	
4277	T-1		1971	03	26.31007	12	36	43.89	-01	13	57.5		4	675	
4277	T-1	*	1971	03	26.34896	12	36	42.33	-01	13	41.3	17.7	4	675	
4277	T-1		1971	03	27.35208	12	36	02.14	-01	07	19.4		4	675	
4277	T-1		1971	04	02.43993	12	31	56.46	-00	28	55.4		4	675	
4277	T-1		1971	04	16.21476	12	23	13.48	+00	51	10.9		4	675	
4277	T-1		1971	04	16.27708	12	23	11.29	+00	51	29.7		4	675	
4277	T-1		1971	05	13.20278	12	12	49.92	+02	29	13.0		4	675	
4277	T-1		1971	05	14.23246	12	12	40.68	+02	31	00.1		4	675	
4277	T-1		1971	05	16.29774	12	12	25.70	+02	34	09.2		4	675	
4349	T-1		1971	03	24.40486	12	43	01.07	+01	52	17.4		4	675	
4349	T-1		1971	03	26.31007	12	41	35.45	+02	04	55.8		4	675	
4349	T-1	*	1971	03	26.34896	12	41	33.70	+02	05	11.4	19.3	4	675	
4349	T-1		1971	03	27.35208	12	40	48.61	+02	11	42.9		4	675	
4349	T-1		1971	04	02.43993	12	36	11.65	+02	50	58.8		4	675	
4349	T-1		1971	04	16.21476	12	26	07.80	+04	10	35.6		4	675	
4349	T-1		1971	04	16.27708	12	26	05.29	+04	10	55.1		4	675	
4854	T-1		1971	04	16.21476	12	35	06.73	+01	43	53.2	18.5	4	675	
4854	T-1		1971	04	16.27708	12	35	03.59	+01	43	59.3	18.5	4	675	
4854	T-1	*	1971	05	13.20278	12	19	39.41	+01	37	11.8	19.5	4	675	
4854	T-1		1971	05	14.23246	12	19	20.88	+01	35	07.0	19.5	4	675	
4854	T-1		1971	05	16.29774	12	18	47.83	+01	30	35.3	19.5	4	675	
1079	T-2		1981	05	08.33333	15	01	05.83	-19	10	48.5	18.0	6	675	
1079	T-2		1981	05	09.34167	15	00	10.14	-19	07	30.8		6	675	
1107	T-2		1978	11	30.26007	03	20	26.28	+20	36	39.3	18.5	V	6	675
1107	T-2		1978	12	01.27691	03	19	35.06	+20	32	33.8		6	675	
1210	T-2		1973	09	19.18611	00	23	10.73	+04	07	00.0		4	675	
1210	T-2		1973	09	19.23785	00	23	07.54	+04	06	46.7		4	675	
1210	T-2		1973	09	20.22847	00	22	08.49	+04	02	18.2		4	675	
1210	T-2		1973	09	24.34688	00	17	58.49	+03	42	57.4		4	675	
1210	T-2		1973	09	24.41597	00	17	54.14	+03	42	38.1		4	675	
1210	T-2		1973	09	25.24375	00	17	03.75	+03	38	36.7		4	675	
1210	T-2		1973	09	25.30729	00	16	59.80	+03	38	20.8		4	675	
1210	T-2	*	1973	09	29.25330	00	12	58.45	+03	19	02.3	18.0	4	675	
1210	T-2		1973	09	29.31806	00	12	54.41	+03	18	43.0		4	675	
1210	T-2		1973	09	30.21007	00	12	00.36	+03	14	20.8		4	675	

1210	T-2		1973	09	30.27431	00	11	56.37	+03	14	01.5		4	675
1210	T-2		1973	10	04.28958	00	07	56.61	+02	54	22.1		4	675
1210	T-2		1973	10	04.35208	00	07	52.75	+02	54	05.5		4	675
1210	T-2		1973	10	05.31684	00	06	56.60	+02	49	25.6		4	675
1210	T-2		1973	10	05.37917	00	06	52.82	+02	49	07.5		4	675
1221	T-2		1973	09	19.18611	00	21	06.27	+04	55	58.9		4	675
1221	T-2		1973	09	19.23785	00	21	04.02	+04	55	45.5		4	675
1221	T-2		1973	09	20.22847	00	20	20.39	+04	51	11.2		4	675
1221	T-2		1973	09	24.34688	00	17	17.27	+04	31	40.6		4	675
1221	T-2		1973	09	24.41597	00	17	14.20	+04	31	19.2		4	675
1221	T-2		1973	09	25.24375	00	16	37.26	+04	27	16.1		4	675
1221	T-2		1973	09	25.30729	00	16	34.34	+04	27	00.7		4	675
1221	T-2	*	1973	09	29.25330	00	13	37.85	+04	07	40.2	18.7	4	675
1221	T-2		1973	09	29.31806	00	13	34.79	+04	07	20.8		4	675
1221	T-2		1973	09	30.21007	00	12	55.20	+04	02	57.1		4	675
1221	T-2		1973	09	30.27431	00	12	52.23	+04	02	39.1		4	675
1221	T-2		1973	10	04.28958	00	09	55.80	+03	42	49.0		4	675
1221	T-2		1973	10	04.35208	00	09	53.05	+03	42	29.6		4	675
1221	T-2		1973	10	05.31684	00	09	11.49	+03	37	46.5		4	675
1221	T-2		1973	10	05.37917	00	09	08.70	+03	37	29.1		4	675
1274	T-2		1973	09	19.18611	00	25	18.03	+02	17	13.1		4	675
1274	T-2		1973	09	19.19948	00	25	17.44	+02	17	10.6		4	675
1274	T-2		1973	09	19.22500	00	25	16.11	+02	17	05.3		4	675
1274	T-2		1973	09	19.23785	00	25	15.43	+02	16	59.8		4	675
1274	T-2		1973	09	19.25006	00	25	14.98	+02	16	56.4		4	675
1274	T-2		1973	09	20.22847	00	24	27.27	+02	12	32.5		4	675
1274	T-2		1973	09	20.30278	00	24	23.57	+02	12	15.1		4	675
1274	T-2		1973	09	24.34688	00	21	02.45	+01	53	32.3		4	675
1274	T-2		1973	09	24.38750	00	21	00.30	+01	53	23.2		4	675
1274	T-2		1973	09	24.41597	00	20	58.78	+01	53	13.6		4	675
1274	T-2		1973	09	24.45434	00	20	56.81	+01	53	04.5		4	675
1274	T-2		1973	09	25.24375	00	20	17.36	+01	49	20.4		4	675
1274	T-2		1973	09	25.30729	00	20	14.13	+01	49	03.9		4	675
1274	T-2	*	1973	09	29.25330	00	16	54.36	+01	30	31.0	18.5	4	675
1274	T-2		1973	09	29.31806	00	16	50.96	+01	30	13.7		4	675
1274	T-2		1973	09	30.21007	00	16	05.86	+01	26	03.4		4	675
1274	T-2		1973	09	30.27431	00	16	02.59	+01	25	45.4		4	675
1274	T-2		1973	10	04.28958	00	12	41.87	+01	07	12.0		4	675
1274	T-2		1973	10	04.35208	00	12	38.68	+01	06	53.9		4	675
1274	T-2		1973	10	05.31684	00	11	51.38	+01	02	33.3		4	675
1274	T-2		1973	10	05.37917	00	11	48.24	+01	02	17.3		4	675
1607	T-2		1991	09	11.29878	22	56	31.84	-06	39	17.9	17.8	9	675
1607	T-2		1991	09	11.35451	22	56	28.15	-06	39	21.4		9	675
1617	T-2		1973	09	19.18611	00	04	58.17	+00	52	32.0		4	675
1617	T-2		1973	09	19.23785	00	04	55.08	+00	52	18.6		4	675
1617	T-2		1973	09	20.22847	00	03	56.71	+00	47	37.6		4	675
1617	T-2		1973	09	24.34688	23	59	54.11	+00	28	10.6		4	675
1617	T-2	*	1973	09	24.41597	23	59	50.03	+00	27	51.8	17.7	4	675
1617	T-2		1973	09	25.24375	23	59	01.74	+00	23	56.9		4	675
1617	T-2		1973	09	25.30729	23	58	57.89	+00	23	40.8		4	675
2067	T-2		1973	09	19.19948	00	34	20.09	+07	21	38.1		4	675
2067	T-2		1973	09	19.25006	00	34	17.79	+07	21	28.1		4	675
2067	T-2		1973	09	20.26458	00	33	32.12	+07	17	38.0		4	675
2067	T-2		1973	09	24.36181	00	30	23.52	+07	01	30.5		4	675
2067	T-2		1973	09	24.42847	00	30	20.32	+07	01	14.4		4	675
2067	T-2		1973	09	25.25642	00	29	41.87	+06	57	47.8		4	675
2067	T-2		1973	09	25.32031	00	29	38.72	+06	57	31.7		4	675
2067	T-2		1973	09	29.26632	00	26	32.84	+06	40	51.5		4	675
2067	T-2	*	1973	09	29.33073	00	26	29.73	+06	40	36.0	18.1	4	675

2067 T-2		1973 09	30.22257	00 25	47.64	+06 36	41.8		4	675
2067 T-2		1973 09	30.28785	00 25	44.53	+06 36	24.9		4	675
2067 T-2		1973 10	04.30208	00 22	35.44	+06 18	45.1		4	675
2067 T-2		1973 10	04.36476	00 22	32.46	+06 18	28.4		4	675
2067 T-2		1973 10	05.32917	00 21	47.40	+06 14	11.3		4	675
2067 T-2		1973 10	05.39132	00 21	44.48	+06 13	55.9		4	675
1194 T-3		1977 10	16.25156	01 06	43.45	+18 38	50.5		4	675
1194 T-3		1977 10	16.31684	01 06	39.31	+18 38	30.0		4	675
1194 T-3	*	1977 10	17.25365	01 05	43.29	+18 33	32.5	17.6	4	675
1194 T-3		1977 10	17.32083	01 05	39.17	+18 33	11.3		4	675
1194 T-3		1977 10	22.42812	01 00	44.08	+18 04	24.3		4	675
1194 T-3		1977 10	22.48003	01 00	41.09	+18 04	06.1		4	675
2247 T-3		1977 10	07.25868	01 14	27.17	+14 56	38.7		4	675
2247 T-3		1977 10	11.27743	01 10	20.27	+14 34	31.9		4	675
2247 T-3		1977 10	11.34375	01 10	16.04	+14 34	09.4		4	675
2247 T-3		1977 10	12.27587	01 09	19.12	+14 28	46.9		4	675
2247 T-3		1977 10	12.34271	01 09	14.90	+14 28	23.1		4	675
2247 T-3	*	1977 10	16.26233	01 05	18.17	+14 05	08.2	18.3	4	675
2247 T-3		1977 10	16.32795	01 05	14.15	+14 04	44.8		4	675
2247 T-3		1977 10	17.26458	01 04	18.71	+13 59	06.7		4	675
2247 T-3		1977 10	17.33177	01 04	14.61	+13 58	41.2		4	675
2247 T-3		1977 10	21.40868	01 00	20.04	+13 33	39.8		4	675
2247 T-3		1977 10	21.46910	01 00	16.49	+13 33	17.5		4	675
2247 T-3		1977 10	22.41528	00 59	24.18	+13 27	28.5		4	675
2247 T-3		1977 10	22.46962	00 59	21.19	+13 27	06.9		4	675
2327 T-3		1977 10	07.25868	01 19	36.48	+12 22	08.0		4	675
2327 T-3		1977 10	11.27743	01 16	20.13	+12 00	50.7		4	675
2327 T-3		1977 10	11.34375	01 16	16.69	+12 00	29.8		4	675
2327 T-3		1977 10	12.27587	01 15	30.85	+11 55	20.3		4	675
2327 T-3		1977 10	12.34271	01 15	27.39	+11 54	58.8		4	675
2327 T-3	*	1977 10	16.26233	01 12	14.10	+11 32	50.4	18.0	4	675
2327 T-3		1977 10	16.32795	01 12	10.80	+11 32	29.4		4	675
2327 T-3		1977 10	17.26458	01 11	24.93	+11 27	09.0		4	675
2327 T-3		1977 10	17.33177	01 11	21.58	+11 26	45.8		4	675
2327 T-3		1977 10	21.40868	01 08	05.78	+11 03	12.3		4	675
2327 T-3		1977 10	21.46910	01 08	02.84	+11 02	49.6		4	675
2327 T-3		1977 10	22.41528	01 07	18.62	+10 57	22.4		4	675
2327 T-3		1977 10	22.46962	01 07	15.93	+10 57	03.2		4	675
3220 T-3		1977 10	07.27031	01 26	25.72	+08 32	02.4		4	675
3220 T-3		1977 10	11.28819	01 23	24.72	+08 13	06.8		4	675
3220 T-3		1977 10	11.35642	01 23	21.55	+08 12	47.6		4	675
3220 T-3		1977 10	12.28681	01 22	39.53	+08 08	22.6		4	675
3220 T-3		1977 10	12.35347	01 22	36.44	+08 08	02.0		4	675
3220 T-3	*	1977 10	16.27309	01 19	38.64	+07 49	24.3	18.8	4	675
3220 T-3		1977 10	16.33872	01 19	35.56	+07 49	04.2		4	675
3220 T-3		1977 10	17.27552	01 18	53.42	+07 44	40.8		4	675
3220 T-3		1977 10	17.34236	01 18	50.25	+07 44	20.2		4	675
3220 T-3		1977 10	21.39792	01 15	49.77	+07 25	21.0		4	675
3220 T-3		1977 10	21.45799	01 15	47.10	+07 25	04.4		4	675
3220 T-3		1977 10	22.39844	01 15	06.33	+07 20	45.1		4	675
3220 T-3		1977 10	22.45920	01 15	03.49	+07 20	28.4		4	675
4179 T-3		1978 11	30.26007	03 25	52.00	+16 24	23.6	19.5 V	6	675
4179 T-3		1978 12	01.27691	03 25	19.93	+16 23	07.8		6	675
(46)		1978 11	30.26007	03 37	51.45	+15 50	52.2		6	675
(46)		1978 12	01.27691	03 36	56.70	+15 47	39.2		6	675
(107)		1991 09	11.29878	23 19	03.56	-03 03	57.2		9	675
(107)		1991 09	11.35451	23 19	01.40	-03 04	17.6		9	675
(107)		1991 09	17.22847	23 15	21.77	-03 40	27.4		9	675
(107)		1991 09	17.27188	23 15	20.09	-03 40	43.5		9	675

(153)	1978 11 30.26007	03 39 03.94	+17 37 22.0		6 675
(153)	1978 12 01.27691	03 38 25.82	+17 34 15.3		6 675
(171)	1991 09 15.35226	23 32 05.94	-06 40 29.2		9 675
(171)	1991 09 15.38958	23 32 04.30	-06 40 39.9		9 675
(171)	1991 09 17.33941	23 30 40.91	-06 49 49.2	13.8	9 675
(171)	1991 09 17.37222	23 30 39.46	-06 49 57.8		9 675
(184)	1978 11 30.26007	03 43 52.72	+21 26 25.9		6 675
(184)	1978 12 01.27691	03 43 02.77	+21 23 39.5		6 675
(503)	1978 11 30.26007	03 26 37.65	+17 15 21.2		6 675
(503)	1978 12 01.27691	03 25 41.25	+17 14 43.4		6 675
(519)	1981 05 08.35938	15 11 39.82	-19 13 27.6		6 675
(519)	1981 05 09.31562	15 10 43.69	-19 13 03.0		6 675
(522)	1991 09 11.29878	23 16 24.54	-09 54 13.5	14.8	9 675
(522)	1991 09 11.35451	23 16 22.30	-09 54 29.8		9 675
(522)	1991 09 15.35226	23 13 46.60	-10 13 12.4		9 675
(522)	1991 09 15.38958	23 13 45.10	-10 13 22.6		9 675
(522)	1991 09 17.22847	23 12 34.43	-10 21 39.0		9 675
(522)	1991 09 17.27188	23 12 32.72	-10 21 50.7		9 675
(522)	1991 09 17.33941	23 12 30.07	-10 22 08.9	14.8	9 675
(522)	1991 09 17.37222	23 12 28.73	-10 22 17.1		9 675
(546)	1988 10 08.36111	02 58 08.67	+22 51 03.2		7 675
(546)	1988 10 08.38889	02 58 07.35	+22 51 10.1		7 675
(637)	1978 11 30.26007	03 37 32.94	+19 48 17.1		6 675
(637)	1978 12 01.27691	03 36 43.02	+19 45 29.3		6 675
(749)	1991 09 15.35226	23 41 22.08	-11 04 58.5		9 675
(749)	1991 09 15.38958	23 41 19.83	-11 05 15.0		9 675
(749)	1991 09 17.33941	23 39 25.83	-11 18 52.8	15.2	9 675
(749)	1991 09 17.37222	23 39 23.85	-11 19 05.9		9 675
(802)	1991 09 11.29878	23 05 15.61	-09 39 51.8	16.2	9 675
(802)	1991 09 11.35451	23 05 11.90	-09 40 04.4		9 675
(809)	1991 09 15.35226	23 42 54.79	-07 07 28.9		9 675
(809)	1991 09 15.38958	23 42 53.09	-07 07 52.3		9 675
(809)	1991 09 17.33941	23 41 34.46	-07 30 20.3	14.0	9 675
(809)	1991 09 17.37222	23 41 33.03	-07 30 42.3		9 675
(901)	1978 11 30.26007	03 33 55.36	+21 53 52.6		6 675
(901)	1978 12 01.27691	03 32 53.84	+21 47 45.7		6 675
(951)	1981 05 08.38542	14 47 06.42	-19 21 49.0		6 675
(951)	1981 05 09.28958	14 46 09.44	-19 16 18.5		6 675
(958)	1991 09 11.29878	23 04 16.54	-05 40 50.0	16.5	9 675
(958)	1991 09 11.35451	23 04 14.28	-05 41 00.0		9 675
(958)	1991 09 17.22847	23 00 27.24	-05 58 07.9		9 675
(958)	1991 09 17.27188	23 00 25.56	-05 58 15.0		9 675
(1044)	1991 09 15.35226	23 18 49.51	-12 04 08.5		9 675
(1044)	1991 09 15.38958	23 18 47.47	-12 04 17.8		9 675
(1044)	1991 09 17.33941	23 17 05.33	-12 11 57.5	14.8	9 675
(1044)	1991 09 17.37222	23 17 03.50	-12 12 04.9		9 675
(1061)	1991 09 15.35226	23 32 21.09	-07 23 01.5		9 675
(1061)	1991 09 15.38958	23 32 19.36	-07 23 12.9		9 675
(1061)	1991 09 17.33941	23 30 52.13	-07 32 52.6	15.2	9 675
(1061)	1991 09 17.37222	23 30 50.60	-07 33 01.8		9 675
(1062)	1977 10 17.26458	01 20 24.62	+14 37 58.3		4 675
(1062)	1977 10 17.33177	01 20 21.04	+14 37 45.0		4 675
(1080)	1991 09 11.29878	23 06 12.66	-08 24 15.0	15.0	9 675
(1080)	1991 09 11.35451	23 06 09.07	-08 24 25.8		9 675
(1080)	1991 09 17.22847	23 00 11.18	-08 42 05.7		9 675
(1080)	1991 09 17.27188	23 00 08.45	-08 42 12.5		9 675
(1164)	1991 09 15.35226	23 31 42.87	-13 16 17.1		9 675
(1164)	1991 09 15.38958	23 31 40.87	-13 16 49.4		9 675
(1164)	1991 09 17.33941	23 30 00.00	-13 44 27.2		9 675

(1164)	1991 09 17.37222	23 29 58.40	-13 44 50.3	9 675
(1232)	1988 10 08.36111	02 45 38.91	+25 58 42.2	7 675
(1232)	1988 10 08.38889	02 45 37.86	+25 58 37.7	7 675
(1261)	1991 09 15.35226	23 32 07.69	-06 32 52.0	9 675
(1261)	1991 09 15.38958	23 32 06.07	-06 33 01.9	9 675
(1261)	1991 09 17.33941	23 30 42.61	-06 41 34.9	9 675
(1261)	1991 09 17.37222	23 30 41.68	-06 41 41.0	9 675
(1318)	1991 09 15.35226	23 28 48.61	-10 00 34.8	9 675
(1318)	1991 09 15.38958	23 28 45.74	-10 00 32.8	9 675
(1318)	1991 09 17.33941	23 26 17.47	-09 58 56.3	16.8 9 675
(1318)	1991 09 17.37222	23 26 14.92	-09 58 54.0	9 675
(1319)	1978 11 30.26007	03 44 20.22	+20 54 23.0	6 675
(1319)	1978 12 01.27691	03 43 29.13	+20 51 02.0	6 675
(1438)	1981 05 08.35938	15 05 39.40	-17 57 13.9	6 675
(1438)	1981 05 09.31562	15 04 55.30	-17 53 52.6	6 675
(1439)	1981 05 08.35938	15 05 23.85	-18 43 07.1	6 675
(1439)	1981 05 09.31562	15 04 44.72	-18 41 12.6	6 675
(1448)	1991 09 15.35226	23 39 10.25	-10 37 30.6	9 675
(1448)	1991 09 15.38958	23 39 08.01	-10 37 42.0	9 675
(1448)	1991 09 17.33941	23 37 12.45	-10 47 11.2	16.8 9 675
(1448)	1991 09 17.37222	23 37 10.43	-10 47 20.8	9 675
(1497)	1981 05 08.35938	15 11 12.28	-19 24 24.3	6 675
(1497)	1981 05 09.31562	15 10 23.06	-19 21 06.8	6 675
(1545)	1991 09 11.29878	23 16 17.73	-08 53 43.9	17.0 9 675
(1545)	1991 09 11.35451	23 16 14.98	-08 54 01.1	9 675
(1545)	1991 09 15.35226	23 13 00.97	-09 12 45.4	9 675
(1545)	1991 09 15.38958	23 12 59.15	-09 12 55.6	9 675
(1545)	1991 09 17.22847	23 11 30.82	-09 21 16.3	9 675
(1545)	1991 09 17.27188	23 11 28.63	-09 21 27.8	9 675
(1545)	1991 09 17.33941	23 11 25.36	-09 21 46.4	16.8 9 675
(1545)	1991 09 17.37222	23 11 23.70	-09 21 54.4	9 675
(1561)	1978 11 30.26007	03 42 30.29	+18 52 55.8	6 675
(1561)	1978 12 01.27691	03 41 43.41	+18 49 32.9	6 675
(1587)	1988 10 08.36111	02 59 32.05	+25 08 49.2	7 675
(1587)	1988 10 08.38889	02 59 30.99	+25 08 54.6	7 675
(1688)	1978 11 30.26007	03 34 27.61	+21 11 45.4	6 675
(1688)	1978 12 01.27691	03 33 32.83	+21 05 01.7	6 675
(1713)	1978 11 30.26007	03 31 04.73	+18 56 52.2	6 675
(1713)	1978 12 01.27691	03 30 00.08	+18 55 09.0	6 675
(1770)	1991 09 15.35226	23 33 37.02	-07 55 45.8	9 675
(1770)	1991 09 15.38958	23 33 34.80	-07 55 54.2	9 675
(1770)	1991 09 17.33941	23 31 42.54	-08 03 00.7	15.8 9 675
(1770)	1991 09 17.37222	23 31 40.59	-08 03 07.1	9 675
(1837)	1988 10 08.36111	03 09 32.76	+23 23 57.2	7 675
(1837)	1988 10 08.38889	03 09 31.67	+23 23 54.3	7 675
(1841)	1981 05 08.35938	14 58 14.27	-17 01 54.3	6 675
(1841)	1981 05 09.31562	14 57 30.70	-16 59 30.9	6 675
(1879)	1981 05 08.35938	15 08 52.12	-18 43 28.5	6 675
(1879)	1981 05 09.31562	15 07 51.87	-18 38 50.7	6 675
(1897)	1978 11 30.26007	03 24 05.13	+18 05 49.5	6 675
(1897)	1978 12 01.27691	03 23 04.51	+18 04 32.4	6 675
(1974)	1991 09 11.29878	23 25 44.00	-04 00 51.6	17.5 9 675
(1974)	1991 09 11.35451	23 25 41.70	-04 01 16.1	17.8 9 675
(1974)	1991 09 17.22847	23 21 44.70	-04 44 35.7	9 675
(2057)	1981 05 08.35938	15 03 46.63	-18 25 10.7	18.0 6 675
(2057)	1981 05 09.31562	15 03 01.66	-18 22 19.9	6 675
(2174)	1991 09 11.29878	23 08 38.30	-10 08 50.3	15.8 9 675
(2174)	1991 09 11.35451	23 08 34.86	-10 08 42.1	9 675
(2174)	1991 09 17.22847	23 02 58.58	-09 52 19.5	9 675

(2174)	1991 09	17.27188	23 02	55.96	-09 52	11.1		9	675
(2181)	1991 09	15.35226	23 41	00.04	-11 55	44.3		9	675
(2181)	1991 09	15.38958	23 40	57.64	-11 55	51.5		9	675
(2181)	1991 09	17.33941	23 39	01.58	-12 00	00.7	16.8	9	675
(2181)	1991 09	17.37222	23 38	59.57	-12 00	04.5		9	675
(2182)	1981 05	09.31562	15 10	48.28	-17 37	48.4		6	675
(2213)	1992 01	29.38333	08 34	13.13	+18 44	18.2	16.0	2	675
(2213)	1992 01	29.40677	08 34	11.54	+18 44	27.3		2	675
(2213)	1992 01	31.39653	08 31	57.54	+18 56	44.8		2	675
(2213)	1992 01	31.42448	08 31	55.64	+18 56	53.9		2	675
(2236)	1988 10	08.36111	02 53	21.56	+24 18	45.1		7	675
(2236)	1988 10	08.38889	02 53	19.97	+24 18	50.6		7	675
(2300)	1991 09	11.29878	23 00	54.79	-09 16	38.4	16.2	9	675
(2300)	1991 09	11.35451	23 00	51.96	-09 16	52.5		9	675
(2363)	1977 10	16.26233	01 20	22.55	+15 04	33.0		4	675
(2363)	1977 10	16.32795	01 20	20.54	+15 04	09.3		4	675
(2363)	1977 10	17.26458	01 19	53.20	+14 58	13.3		4	675
(2363)	1977 10	17.33177	01 19	51.23	+14 57	48.2		4	675
(2393)	1978 11	30.26007	03 37	08.39	+16 09	21.0		6	675
(2393)	1978 12	01.27691	03 36	22.35	+16 04	14.4		6	675
(2425)	1981 05	08.35938	14 52	19.34	-14 16	53.8		6	675
(2425)	1981 05	09.31562	14 51	27.38	-14 16	32.6		6	675
(2426)	1978 11	30.26007	03 41	14.83	+19 02	20.0		6	675
(2426)	1978 12	01.27691	03 40	24.64	+18 57	32.1		6	675
(2454)	1981 05	08.35938	15 01	25.06	-20 13	08.5		6	675
(2454)	1981 05	09.31562	15 00	24.84	-20 06	38.2		6	675
(2606)	1973 09	24.34688	23 58	40.27	+05 15	11.8		4	675
(2606)	1973 09	24.41597	23 58	37.13	+05 14	41.5		4	675
(2606)	1973 09	25.24375	23 58	00.66	+05 08	35.3		4	675
(2606)	1973 09	25.30729	23 57	57.65	+05 08	09.0		4	675
(2651)	1992 01	30.31094	08 14	45.54	+18 33	54.6	15.0	2	675
(2651)	1992 01	30.33924	08 14	44.06	+18 34	12.2		2	675
(2651)	1992 02	01.23247	08 13	05.53	+18 53	44.1		2	675
(2651)	1992 02	01.27222	08 13	03.48	+18 54	09.2		2	675
(2712)	1978 11	30.26007	03 23	42.99	+17 10	10.7		6	675
(2712)	1978 12	01.27691	03 22	41.32	+17 06	25.3		6	675
(2918)	1991 09	11.29878	23 15	09.75	-06 41	29.1	16.2	9	675
(2918)	1991 09	11.35451	23 15	07.21	-06 41	46.6		9	675
(2918)	1991 09	17.22847	23 10	54.73	-07 11	50.8		9	675
(2918)	1991 09	17.27188	23 10	52.74	-07 12	04.2		9	675
(2921)	1978 11	30.26007	03 35	22.55	+17 08	33.9		6	675
(2921)	1978 12	01.27691	03 34	35.35	+17 06	04.3		6	675
(2959)	1991 09	15.35226	23 16	36.81	-10 39	13.7		9	675
(2959)	1991 09	15.38958	23 16	35.29	-10 39	24.3		9	675
(2959)	1991 09	17.33941	23 15	20.52	-10 48	57.0	16.5	9	675
(2959)	1991 09	17.37222	23 15	19.16	-10 49	06.3		9	675
(2981)	1978 11	30.26007	03 45	12.81	+18 54	11.0		6	675
(2981)	1978 12	01.27691	03 44	24.47	+18 51	33.4		6	675
(2982)	1981 05	08.35938	14 50	59.60	-17 09	54.4		6	675
(2982)	1981 05	09.31562	14 50	09.03	-17 08	52.9		6	675
(2996)	1991 09	11.29878	23 18	46.81	-02 53	48.1	16.2	9	675
(2996)	1991 09	11.35451	23 18	43.84	-02 54	01.5		9	675
(2996)	1991 09	17.22847	23 13	48.98	-03 17	28.5		9	675
(2996)	1991 09	17.27188	23 13	46.75	-03 17	39.0		9	675
(3019)	1991 09	11.29878	23 17	57.39	-09 21	21.8	16.5	9	675
(3019)	1991 09	11.35451	23 17	54.56	-09 21	40.6		9	675
(3019)	1991 09	15.35226	23 14	46.52	-09 42	55.0		9	675
(3019)	1991 09	15.38958	23 14	44.66	-09 43	06.8		9	675
(3019)	1991 09	17.22847	23 13	19.36	-09 52	29.9		9	675

(3019)	1991 09	17.27188	23 13	17.28	-09 52	42.5		9	675
(3019)	1991 09	17.33941	23 13	14.04	-09 53	03.4	16.5	9	675
(3019)	1991 09	17.37222	23 13	12.43	-09 53	12.6		9	675
(3032)	1991 09	15.35226	23 15	41.33	-10 17	15.9		9	675
(3032)	1991 09	15.38958	23 15	39.49	-10 17	26.2		9	675
(3032)	1991 09	17.33941	23 14	08.97	-10 26	40.9	16.0	9	675
(3032)	1991 09	17.37222	23 14	07.35	-10 26	49.8		9	675
(3111)	1981 05	08.35938	15 04	47.40	-14 49	01.1		6	675
(3111)	1981 05	09.31562	15 03	46.57	-14 45	14.8		6	675
(3138)	1978 12	01.27691	03 44	32.53	+17 24	36.0		6	675
(3238)	1988 10	08.36111	03 07	25.14	+26 02	23.0		7	675
(3238)	1988 10	08.38889	03 07	24.21	+26 02	34.3		7	675
(3280)	1991 09	11.29878	23 17	52.52	-02 12	47.3	15.5	9	675
(3280)	1991 09	11.35451	23 17	49.46	-02 13	02.1		9	675
(3280)	1991 09	17.22847	23 12	50.40	-02 37	57.2		9	675
(3280)	1991 09	17.27188	23 12	48.11	-02 38	08.5		9	675
(3297)	1978 11	30.26007	03 31	19.12	+15 58	39.1		6	675
(3297)	1978 12	01.27691	03 30	31.79	+15 56	50.0		6	675
(3541)	1978 11	30.26007	03 41	57.68	+16 20	24.2		6	675
(3541)	1978 12	01.27691	03 40	57.33	+16 18	27.8		6	675
(3748)	1981 05	08.35938	15 02	37.66	-19 52	59.5		6	675
(3748)	1981 05	09.31562	15 01	38.25	-19 51	34.5		6	675
(3785)	1991 09	11.29878	23 08	13.96	-06 22	38.4	16.5	9	675
(3785)	1991 09	11.35451	23 08	11.45	-06 22	55.9		9	675
(3785)	1991 09	17.22847	23 04	01.61	-06 53	24.2		9	675
(3785)	1991 09	17.27188	23 03	59.69	-06 53	37.8		9	675
(3807)	1991 09	11.29878	22 56	35.36	-07 26	28.3	16.0	9	675
(3807)	1991 09	11.35451	22 56	32.41	-07 26	57.3		9	675
(3814)	1978 11	30.26007	03 36	35.38	+17 11	31.2		6	675
(3814)	1978 12	01.27691	03 35	47.84	+17 09	00.1		6	675
(3821)	1991 09	11.29878	22 59	19.00	-07 10	01.0	18.0	9	675
(3821)	1991 09	11.35451	22 59	16.48	-07 10	17.2		9	675
(3837)	1981 05	08.35938	14 57	11.47	-17 54	55.6		6	675
(4042)	1991 09	15.35226	23 31	09.17	-09 32	06.9	18.0	9	675
(4042)	1991 09	17.33941	23 29	17.70	-09 43	02.9	17.8	9	675
(4042)	1991 09	17.37222	23 29	15.90	-09 43	13.0		9	675
(4056)	1991 09	15.35226	23 33	30.69	-13 03	43.7	17.5	9	675
(4056)	1991 09	17.33941	23 31	57.70	-13 20	37.7	17.2	9	675
(4056)	1991 09	17.37222	23 31	56.14	-13 20	54.1		9	675
(4261)	1981 05	09.28958	14 52	41.20	-19 09	02.6		6	675
(4406)	1991 09	11.29878	23 25	57.42	-06 22	40.3	18.5	9	675
(4406)	1991 09	11.35451	23 25	54.85	-06 22	55.8		9	675
(4406)	1991 09	17.33941	23 21	39.36	-06 50	38.3	18.0	9	675
(4406)	1991 09	17.37222	23 21	37.98	-06 50	46.3		9	675
(4441)	1978 11	30.26007	03 32	47.75	+18 56	36.5		6	675
(4441)	1978 12	01.27691	03 31	56.75	+18 54	21.4		6	675
(4506)	1978 11	30.26007	03 33	39.99	+18 50	11.0		6	675
(4506)	1978 12	01.27691	03 32	47.41	+18 48	08.4		6	675
(4619)	1977 10	12.28681	01 05	58.95	+09 56	05.9		4	675
(4619)	1977 10	12.35347	01 05	55.45	+09 55	45.5		4	675
(4734)	1981 05	08.33333	15 04	27.77	-18 26	01.5		6	675
(4734)	1981 05	09.31562	15 03	29.46	-18 22	16.1		6	675
(4741)	1973 09	30.22257	00 47	25.99	+02 49	02.5		4	675
(4741)	1973 09	30.28785	00 47	22.89	+02 48	45.3		4	675
(4741)	1973 10	05.32917	00 43	34.77	+02 26	59.0		4	675
(4741)	1973 10	05.39132	00 43	31.85	+02 26	43.2		4	675
(4778)	1981 05	08.35938	15 02	55.66	-17 45	06.6		6	675
(4778)	1981 05	09.31562	15 02	11.21	-17 42	21.2		6	675
(4846)	1981 05	08.35938	14 54	48.80	-19 53	12.2		6	675

(4846)	1981 05 09.31562	14 54 02.52	-19 51 00.0		6 675
(4971)	1991 09 15.35226	23 42 09.03	-07 34 55.2	17.0	9 675
(4971)	1991 09 15.38958	23 42 06.90	-07 35 10.7		9 675
(4971)	1991 09 17.33941	23 40 18.89	-07 48 19.3	16.8	9 675
(4971)	1991 09 17.37222	23 40 17.00	-07 48 32.4		9 675
(4972)	1978 11 30.26007	03 43 23.03	+18 00 49.9		6 675
(4972)	1978 12 01.27691	03 42 33.50	+17 58 07.5		6 675
(4980)	1991 09 11.29878	23 22 28.05	-06 58 20.1	17.0	9 675
(4980)	1991 09 11.35451	23 22 25.30	-06 58 36.1		9 675
(4980)	1991 09 15.35226	23 19 26.89	-07 16 36.9	17.5	9 675
(4980)	1991 09 15.38958	23 19 25.16	-07 16 45.7		9 675
(4980)	1991 09 17.22847	23 18 03.45	-07 24 51.9		9 675
(4980)	1991 09 17.27188	23 18 01.52	-07 25 02.2		9 675
(4980)	1991 09 17.33941	23 17 58.40	-07 25 20.5	17.0	9 675
(4980)	1991 09 17.37222	23 17 56.87	-07 25 28.0		9 675
(4988)	1991 09 11.29878	23 19 19.41	-02 57 03.4	16.0	9 675
(4988)	1991 09 11.35451	23 19 16.63	-02 57 26.0		9 675
(4988)	1991 09 17.22847	23 14 49.20	-03 37 38.5		9 675
(4988)	1991 09 17.27188	23 14 47.16	-03 37 56.1		9 675
(5000)	1991 09 15.35226	23 35 36.82	-07 36 55.8	16.5	9 675
(5000)	1991 09 15.38958	23 35 35.25	-07 37 19.0		9 675
(5000)	1991 09 17.33941	23 34 19.88	-07 56 56.7	16.8	9 675
(5000)	1991 09 17.37222	23 34 18.47	-07 57 15.7		9 675
(5005)	1978 11 30.26007	03 24 05.60	+21 24 09.4		6 675
(5005)	1978 12 01.27691	03 23 11.38	+21 20 10.6		6 675
(5009)	1978 11 30.26007	03 40 18.94	+20 19 29.7		6 675
(5009)	1978 12 01.27691	03 39 12.45	+20 16 24.0		6 675
(5043)	1991 12 06.24322	03 56 34.82	+21 06 36.3		9 675
(5043)	1991 12 06.37344	03 56 28.19	+21 06 20.1		9 675

688 Lowell Observatory, Anderson Mesa Station

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AZ 86001, U.S.A.

Observers H. L. Giclas, B. A. Skiff

Measurer B. A. Skiff

1991 VL	1982 07 24.30833	22 20 11.19	-08 33 31.0		688
1991 VL	1982 07 24.31875	22 20 09.51	-08 33 37.2		688
1991 XX	1974 08 10.16944	16 39 13.33	-30 51 33.6		688

690 Lowell Observatory

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Observers E. C. Slipher, C. W. Tombaugh

Measurers C. M. Olmstead, B. A. Skiff

1931 TX2	1931 10 10.20833	23 49 30.02	-00 50 16.6		R 690
1931 TZ2	1931 10 07.22500	00 03 28.86	+04 23 34.6		P 690
1983 TR2	1930 12 13.19236	03 19 21.21	+32 14 18.4		690
1983 TR2	1930 12 16.19444	03 17 11.94	+32 07 26.8		R 690
1987 DE6	1930 12 13.19236	03 25 39.50	+27 09 50.6		R 690
1987 DE6	1930 12 14.20069	03 25 03.69	+27 05 15.0		R 690
1987 DE6	1930 12 16.19444	03 23 57.57	+26 56 18.3		R 690
(41)	1931 10 07.22500	00 03 25.69	-01 41 31.7		690
(41)	1931 10 10.20833	00 01 24.60	-02 05 11.3		690
(41)	1931 10 11.21181	00 00 45.23	-02 12 57.0		690
(302)	1931 10 07.22500	23 44 03.47	-02 20 06.3		690
(302)	1931 10 10.20833	23 41 39.87	-02 29 09.6		690
(302)	1931 10 11.21181	23 40 53.87	-02 31 57.8		690
(334)	1931 10 07.22500	00 15 04.18	-03 45 15.8		690
(334)	1931 10 10.20833	00 13 21.38	-03 56 51.6		690

(334)	1931 10 11.21181	00 12 47.63	-04 00 36.2		690
(516)	1930 12 14.20069	02 42 32.03	+34 03 11.1		690
(572)	1931 10 07.22500	23 49 49.16	+02 32 30.4		690
(572)	1931 10 10.20833	23 48 09.72	+01 55 25.9		690
(572)	1931 10 11.21181	23 47 38.67	+01 43 15.6		690
(1030)	1931 10 07.22500	23 41 26.50	+01 15 41.6	R	690
(1030)	1931 10 10.20833	23 39 46.64	+00 54 11.2		690
(1030)	1931 10 11.21181	23 39 14.49	+00 47 03.2		690
(1155)	1930 12 16.19444	03 23 16.20	+22 41 03.1	R	690
(1176)	1930 12 14.20069	03 24 59.26	+23 57 32.4	P	690
(1205)	1931 10 07.22500	00 08 51.72	-05 00 39.4		690
(1205)	1931 10 10.20833	00 06 16.95	-04 45 30.9		690
(1205)	1931 10 11.21181	00 05 27.09	-04 40 04.3		690
(1223)	1931 10 07.22500	00 05 24.99	-02 01 15.9		690
(1223)	1931 10 10.20833	00 03 11.72	-02 12 23.5		690
(1223)	1931 10 11.21181	00 02 28.28	-02 15 57.1		690
(1396)	1930 12 13.19236	03 24 22.23	+25 09 04.5	R	690
(1442)	1931 10 10.20833	00 04 33.65	+01 43 40.0	R	690
(1442)	1931 10 11.21181	00 03 52.08	+01 38 34.9		690
(1495)	1930 12 13.19236	03 35 24.86	+34 34 52.8	P	690
(1495)	1930 12 14.20069	03 34 31.09	+34 31 41.3	V	690
(1495)	1930 12 16.19444	03 32 47.82	+34 25 03.3	R	690
(1576)	1931 10 07.22500	23 37 04.25	-02 50 14.0		690
(1576)	1931 10 10.20833	23 35 17.00	-03 02 37.4	R	690
(1576)	1931 10 11.21181	23 34 42.60	-03 06 36.0		690
(1622)	1930 12 13.19236	03 27 51.10	+27 54 42.8	R	690
(1622)	1930 12 14.20069	03 26 57.17	+27 50 50.7	V	690
(3588)	1930 12 16.19444	03 36 39.59	+29 45 22.1	R	690
(3820)	1930 12 13.19236	02 48 28.84	+30 57 30.2	I	690
(3820)	1930 12 16.19444	02 47 16.83	+30 40 05.7	P	690

691 Kitt Peak, Steward Observatory
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Observers T. Gehrels, D. Rabinowitz, J. V. Scotti

0.91-m SPACEWATCH telescope

GSC

See also MPC 9198, MPC 10373 and Astron. J. 91, 1242, 1986

1992 BA	1992 02 10.09623	07 49 20.66	+16 49 18.5		691
1992 BA	1992 02 10.10243	07 49 20.16	+16 49 29.3	20.6 V	691
1992 BA	1992 02 10.10751	07 49 19.78	+16 49 37.1		691
1992 BD	1992 02 09.09299	03 23 13.78	+25 28 12.0	19.3 V	691
1992 BD	1992 02 09.10812	03 23 14.75	+25 28 27.5		691
1992 BD	1992 02 09.12060	03 23 15.57	+25 28 40.6		691
1992 BE	1992 02 09.14033	07 53 39.49	+24 36 32.3		691
1992 BE	1992 02 09.16687	07 53 38.68	+24 36 34.3		691
1992 BE	1992 02 09.19621	07 53 37.80	+24 36 35.8	20.3 V	691
1992 DU	* 1992 02 26.46413	11 42 29.59	+02 53 55.1	19.3 V	691
1992 DU	1992 02 26.48371	11 41 58.11	+02 43 56.8	19.5 V	691
1992 DU	1992 02 26.50207	11 41 28.52	+02 34 25.2	19.5 V	691
1992 DU	1992 02 26.50974	11 41 16.83	+02 30 40.9	19.8 V	691
1992 DU	1992 02 26.52461	11 40 53.08	+02 23 04.5	19.9 V	691
1992 DU	1992 02 26.53906	11 40 29.91	+02 15 36.0	19.6 V	691
1992 DU	1992 02 27.20973	11 24 04.32	-03 16 44.6	19.9 V	691
1992 DU	1992 02 27.21714	11 23 53.51	-03 20 14.7	19.5 V	691
1992 DU	1992 02 27.22411	11 23 42.87	-03 23 36.3	19.5 V	691
1992 DU	1992 02 27.23704	11 23 23.37	-03 29 47.6	19.0 V	691
1992 DU	1992 02 27.24368	11 23 13.34	-03 32 57.0	19.0 V	691
1992 DU	1992 02 27.33861	11 20 49.96	-04 17 58.8	19.1 V	691

1992 DU	1992 02	27.34542	11 20	39.44	-04 21	14.2	19.2 V	691
1992 DU	1992 02	27.48743	11 17	08.29	-05 27	18.2	19.4 V	691
1992 DU	1992 02	27.49472	11 16	58.00	-05 30	33.0	20.4 V	691
1992 DU	1992 02	28.29057	10 59	10.18	-11 16	48.7		691
1992 DU	1992 02	28.30489	10 58	50.53	-11 22	37.7	19.1 V	691
1992 DU	1992 02	29.29157	10 38	42.54	-17 27	38.2	19.8 V	691
1992 DU	1992 02	29.29867	10 38	33.68	-17 30	02.6	19.8 V	691
1992 DU	1992 02	29.30327	10 38	28.11	-17 31	34.2	19.8 V	691

760 Goethe Link

E. Bowell, Lowell Observatory, 1400 West Mars Hill Road,
Flagstaff, AZ 86001, U.S.A.

Observer V. Pytko

Measurer C. M. Olmstead

0.25-m refractor

PDS scanning microdensitometer

PPM, global solutions

1966 DA	1966 02	17.10740	08 16	47.28	+05 15	58.3		760
1966 DA	1966 02	17.15288	08 16	44.90	+05 16	02.3		760
(429)	1966 02	17.10740	08 39	50.27	+03 12	08.1	E	760
(429)	1966 02	17.15288	08 39	48.07	+03 12	24.3	E	760
(777)	1966 02	17.10740	08 33	46.90	+09 02	52.8		760
(777)	1966 02	17.15288	08 33	44.71	+09 02	53.4		760

801 Oak Ridge

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

Observers R. E. McCrosky, C.-Y. Shao

1.5-m reflector + CCD

GSC

1931 UD	1992 02	03.11336	06 41	34.15	+37 39	14.2		801
1931 UD	1992 02	03.13166	06 41	33.46	+37 39	06.5		801
1931 UD	1992 02	06.11542	06 39	46.90	+37 18	40.4		801
1931 UD	1992 02	06.14693	06 39	45.79	+37 18	27.0		801
1936 QE1	1992 01	01.28429	08 00	15.03	+02 25	55.5		801
1936 QE1	1992 01	06.29427	07 55	55.26	+02 43	59.2		801
1936 QE1	1992 01	06.31377	07 55	54.17	+02 44	04.0		801
1940 GO	1992 01	01.43375	14 21	39.76	-01 46	59.6		801
1940 GO	1992 01	01.44582	14 21	40.96	-01 47	03.4		801
1940 GO	1992 02	06.38951	15 07	13.60	-03 34	13.6		801
1940 GO	1992 02	06.40157	15 07	14.32	-03 34	13.8		801
1972 RX1	1991 12	31.95957	00 37	07.27	+00 48	54.6		801
1972 RX1	1992 01	05.98133	00 44	24.50	+01 34	06.9		801
1976 WC1	1992 02	06.16844	08 12	52.20	+34 52	39.3		801
1976 WC1	1992 02	06.18308	08 12	51.09	+34 52	43.5		801
1976 WC1	1992 02	07.22887	08 11	42.21	+34 58	03.3		801
1976 WC1	1992 02	07.24326	08 11	41.25	+34 58	07.3		801
1978 LG	1992 02	06.05027	03 54	04.11	+24 23	49.4		801
1978 LG	1992 02	06.07947	03 54	04.98	+24 23	45.8		801
1978 LG	1992 02	07.06722	03 54	37.31	+24 21	45.2		801
1978 LG	1992 02	07.09441	03 54	38.17	+24 21	42.0		801
1978 RH1	1991 10	09.25436	01 31	10.81	+07 38	55.0		801
1978 RH1	1991 10	09.27045	01 31	09.83	+07 38	47.5		801
1978 RH1	1991 10	11.23611	01 29	13.40	+07 23	37.7		801
1978 RH1	1991 10	11.25145	01 29	12.50	+07 23	30.5		801
1978 RH1	1991 11	06.12221	01 06	00.33	+04 26	37.9		801
1978 RH1	1991 11	06.13916	01 05	59.60	+04 26	32.7		801
1979 YO	1992 02	06.33633	13 03	05.31	+02 01	48.7		801
1979 YO	1992 02	06.36618	13 03	05.70	+02 01	55.8		801

1980 TX3	1992 02 05.25818	09 54 54.80	+10 39 55.0	801
1980 TX3	1992 02 05.27316	09 54 54.09	+10 39 57.1	801
1980 TL13	1992 02 06.44787	16 11 10.31	-20 29 50.5	801
1980 TL13	1992 02 06.45115	16 11 10.65	-20 29 50.0	801
1981 EY17	1987 11 23.27904	04 41 06.99	+18 03 27.6	801
1981 RP2	1992 02 07.19231	08 08 28.82	+16 55 41.7	801
1981 RP2	1992 02 07.20902	08 08 27.85	+16 55 41.6	801
1981 SD4	1992 02 07.04163	03 31 31.77	+20 01 17.2	801
1981 SD4	1992 02 07.06234	03 31 32.57	+20 01 18.7	801
1981 WA1	1991 12 05.19065	04 13 58.53	+17 12 36.2	801
1981 WA1	1991 12 05.21535	04 13 57.20	+17 12 32.8	801
1982 DU	1992 02 05.25433	09 53 39.30	+26 15 49.5	801
1982 DU	1992 02 05.30317	09 53 35.76	+26 15 41.1	801
1982 DU	1992 02 07.32093	09 51 12.46	+26 09 41.1	801
1982 DU	1992 02 07.33446	09 51 11.47	+26 09 38.5	801
1982 FJ	1992 02 06.04692	04 07 51.78	+40 08 02.6	801
1982 FJ	1992 02 06.08264	04 07 52.35	+40 07 54.4	801
1982 FJ	1992 02 07.07959	04 08 13.02	+40 03 34.4	801
1982 FJ	1992 02 07.10787	04 08 13.62	+40 03 27.6	801
1982 WE	1992 02 07.32348	10 24 58.59	+35 11 47.9	801
1982 WE	1992 02 07.33650	10 24 57.78	+35 11 53.1	801
1982 YQ	1992 02 05.35002	13 37 37.87	+10 30 52.9	801
1982 YQ	1992 02 05.36823	13 37 38.51	+10 30 58.7	801
1982 YQ	1992 02 05.37438	13 37 38.65	+10 30 59.9	801
1982 YQ	1992 02 05.39615	13 37 39.41	+10 31 05.7	801
1983 AA3	1992 02 07.28669	09 16 35.33	+31 51 02.5	801
1983 AA3	1992 02 07.30258	09 16 34.27	+31 51 04.0	801
1983 CE	1992 02 05.38729	13 51 08.32	+05 16 28.7	801
1983 CE	1992 02 05.40102	13 51 08.82	+05 16 31.3	801
1983 CE	1992 02 06.39206	13 51 52.10	+05 21 40.0	801
1983 CE	1992 02 06.40936	13 51 52.82	+05 21 45.3	801
1983 RC5	1992 02 05.31287	11 02 01.35	+04 07 22.5	801
1983 RC5	1992 02 05.33164	11 02 00.41	+04 07 23.4	801
1983 TD2	1992 02 07.05355	03 35 52.65	+09 58 10.7	801
1983 TD2	1992 02 07.06481	03 35 53.52	+09 58 15.9	801
1984 DN	1992 02 06.11329	06 47 38.76	+15 29 54.2	801
1984 DN	1992 02 06.13683	06 47 38.08	+15 30 03.8	801
1984 FS	1992 02 03.03984	05 22 25.93	+08 42 59.7	801
1984 FS	1992 02 03.05726	05 22 25.93	+08 43 07.0	801
1985 CG	1992 02 07.02468	03 21 15.68	+17 18 14.8	801
1985 CG	1992 02 07.03427	03 21 16.46	+17 18 18.5	801
1985 DY1	1992 02 07.11105	04 35 31.40	+22 19 10.7	801
1985 DY1	1992 02 07.14093	04 35 32.19	+22 19 12.3	801
1985 GW	1992 02 07.10473	04 26 37.24	+20 02 44.2	801
1985 GW	1992 02 07.13432	04 26 38.19	+20 02 53.4	801
1985 RS	1992 02 05.22632	09 38 22.81	+27 46 45.0	801
1985 RS	1992 02 05.25090	09 38 21.13	+27 46 47.8	801
1985 UB5	1992 02 06.12762	08 07 21.66	+04 39 52.0	801
1985 UB5	1992 02 06.15696	08 07 20.33	+04 40 00.5	801
1985 UB5	1992 02 07.18800	08 06 35.01	+04 44 45.3	801
1985 UB5	1992 02 07.20139	08 06 34.39	+04 44 48.7	801
1986 QS	1992 02 06.96263	01 45 26.03	+19 11 27.3	801
1986 QS	1992 02 06.97463	01 45 27.17	+19 11 32.4	801
1986 RD1	1992 02 07.00617	02 16 56.60	+22 15 34.1	801
1986 RD1	1992 02 07.01655	02 16 57.46	+22 15 36.3	801
1986 RP1	1991 10 09.29891	01 47 32.59	+08 39 31.7	801
1986 RP1	1991 10 09.31531	01 47 31.79	+08 39 25.8	801
1986 RP1	1992 01 08.00167	01 27 13.98	+05 39 03.8	801
1986 RP1	1992 01 08.01811	01 27 14.63	+05 39 08.1	801

1986 RP1	1992 01 08.97127	01 27 54.65	+05 43 12.4	801
1986 RP1	1992 01 08.99428	01 27 55.62	+05 43 18.5	801
1986 RU5	1992 02 07.10176	04 21 10.02	+05 27 11.2	801
1986 RU5	1992 02 07.13839	04 21 10.65	+05 27 21.3	801
1986 TM1	1992 02 07.33194	10 18 46.81	-08 29 02.6	801
1986 TM1	1992 02 07.34581	10 18 46.17	-08 28 59.9	801
1987 DJ	1992 02 07.28308	09 14 13.97	+28 38 39.7	801
1987 DJ	1992 02 07.29826	09 14 13.15	+28 38 44.1	801
1987 DS6	1992 02 03.12882	07 12 39.04	+10 36 59.9	801
1987 DS6	1992 02 03.14837	07 12 38.31	+10 37 04.7	801
1987 EH	1992 02 07.26214	09 00 35.74	+07 47 37.0	801
1987 EH	1992 02 07.27894	09 00 34.93	+07 47 43.5	801
1987 SM13	1992 02 06.31339	12 00 11.76	+09 57 47.2	801
1987 SM13	1992 02 06.33896	12 00 11.12	+09 57 55.0	801
1987 UX1	1992 02 06.13142	08 09 31.90	+13 32 30.1	801
1987 UX1	1992 02 06.16157	08 09 30.04	+13 32 35.0	801
1987 UX1	1992 02 07.19576	08 08 30.63	+13 35 31.2	801
1987 UX1	1992 02 07.21322	08 08 29.61	+13 35 34.0	801
1987 WF	1992 02 06.30388	11 09 37.03	+18 50 51.5	801
1987 WF	1992 02 06.32413	11 09 36.13	+18 50 58.9	801
1988 BN2	1992 02 05.35481	13 50 17.09	+28 01 53.6	801
1988 BN2	1992 02 05.37124	13 50 17.60	+28 02 03.7	801
1988 BN2	1992 02 06.35157	13 50 59.26	+28 10 16.6	801
1988 BN2	1992 02 06.36966	13 50 59.98	+28 10 25.9	801
1988 CD4	1992 02 07.02797	03 24 44.73	+19 37 42.3	801
1988 CD4	1992 02 07.04867	03 24 45.62	+19 37 43.1	801
1988 ED	1992 02 06.17082	08 23 19.62	+31 05 08.1	801
1988 ED	1992 02 06.18547	08 23 18.61	+31 05 04.4	801
1988 ED	1992 02 07.23112	08 22 08.86	+31 00 47.9	801
1988 ED	1992 02 07.24507	08 22 07.92	+31 00 44.2	801
1988 EU	1992 02 05.97690	01 42 31.77	+12 08 09.5	801
1988 EU	1992 02 06.00209	01 42 33.41	+12 08 20.0	801
1988 EU	1992 02 06.97233	01 43 38.94	+12 15 14.7	801
1988 EU	1992 02 06.99718	01 43 40.59	+12 15 25.3	801
1988 EM1	1991 12 05.34970	08 41 15.83	+02 06 23.5	801
1988 EM1	1991 12 05.37634	08 41 16.47	+02 06 13.6	801
1988 EM1	1992 02 07.19763	08 12 54.15	+04 07 25.4	801
1988 GH	1992 02 06.05297	04 20 06.13	+32 06 42.4	801
1988 GH	1992 02 06.08897	04 20 06.72	+32 06 39.8	801
1988 GH	1992 02 07.09800	04 20 24.74	+32 05 03.7	801
1988 GH	1992 02 07.14365	04 20 25.54	+32 04 59.5	801
1988 PK1	1992 02 06.37770	14 12 01.10	-21 59 53.8	801
1988 PK1	1992 02 06.39542	14 12 01.71	-21 59 58.9	801
1988 RA1	1992 02 06.09922	06 40 03.19	+33 15 10.0	801
1988 RA1	1992 02 06.13410	06 40 02.29	+33 15 05.5	801
1989 GF	1991 12 05.25041	06 39 21.90	+24 31 20.4	801
1989 GN	1992 02 03.09797	06 07 11.63	+09 23 32.0	801
1989 GN	1992 02 03.11778	06 07 11.20	+09 23 40.6	801
1989 TZ15	1992 02 06.33284	12 02 09.91	+01 41 59.3	801
1989 TZ15	1992 02 06.37212	12 02 09.10	+01 41 58.1	801
1990 BG	1992 02 05.44484	18 05 33.58	+13 50 41.3	801
1990 BG	1992 02 05.44794	18 05 34.71	+13 50 37.1	801
1990 BG	1992 02 06.42916	18 11 46.10	+13 25 35.9	801
1990 BG	1992 02 06.43081	18 11 46.72	+13 25 33.6	801
1990 HC1	1992 02 06.00917	02 23 00.83	-08 03 40.0	801
1990 HC1	1992 02 06.02396	02 23 01.81	-08 03 32.0	801
1990 HC1	1992 02 07.01013	02 24 08.79	-07 54 39.2	801
1990 HC1	1992 02 07.02045	02 24 09.45	-07 54 32.2	801
1990 OJ2	1992 02 06.29714	10 46 39.29	+15 46 41.8	801

r

1990 OJ2	1992 02 06.31024	10 46 38.61	+15 46 47.2	801
1990 OD4	1992 02 07.11339	04 53 44.61	+08 29 36.3	801
1990 OD4	1992 02 07.14603	04 53 44.96	+08 29 45.5	801
1990 PA	1992 02 06.29301	10 41 24.27	+24 24 31.7	801
1990 PA	1992 02 06.30797	10 41 23.57	+24 24 38.6	801
1990 RV2	1992 02 06.12581	08 06 08.18	+06 31 03.2	801
1990 RV2	1992 02 06.15419	08 06 06.73	+06 31 10.7	801
1990 RV2	1992 02 07.18618	08 05 17.17	+06 35 48.6	801
1990 RV2	1992 02 07.21816	08 05 15.60	+06 35 57.2	801
1990 SA1	1992 02 06.12935	08 09 29.17	+14 07 45.6	801
1990 SA1	1992 02 06.15913	08 09 27.31	+14 07 50.5	801
1990 SA1	1992 02 07.19397	08 08 25.45	+14 10 39.8	801
1990 SA1	1992 02 07.21081	08 08 24.42	+14 10 42.6	801
1990 TN	1992 02 05.34703	13 16 08.08	+01 55 03.2	801
1990 TN	1992 02 05.38427	13 16 08.58	+01 55 01.7	801
1990 TK1	1992 01 02.34686	09 45 49.71	+13 34 31.9	801
1990 TK1	1992 01 02.37579	09 45 49.19	+13 34 36.8	801
1990 TK1	1992 01 08.34572	09 43 32.26	+13 52 11.1	801
1990 TK1	1992 01 08.36994	09 43 31.59	+13 52 15.6	801
1990 TZ2	1992 02 05.32057	12 00 15.99	+07 01 27.1	801
1990 TZ2	1992 02 05.33767	12 00 15.70	+07 01 35.2	801
1990 UY	1992 02 06.17829	08 33 22.02	+08 45 30.0	801
1990 UY	1992 02 06.19727	08 33 21.11	+08 45 36.6	801
1990 UY	1992 02 07.22502	08 32 33.99	+08 51 35.1	801
1990 UY	1992 02 07.24090	08 32 33.25	+08 51 40.4	801
1990 UG2	1992 02 05.22130	09 36 21.24	+22 35 44.1	801
1990 UG2	1992 02 05.24547	09 36 20.01	+22 35 54.2	801
1990 VD2	1992 02 06.32854	11 49 46.03	+00 30 15.7	801
1990 VD2	1992 02 06.35970	11 49 45.37	+00 30 19.9	801
1990 VP2	1992 02 06.30144	11 04 36.12	+29 05 38.5	801
1990 VP2	1992 02 06.32168	11 04 35.22	+29 05 46.1	801
1990 XH	1992 02 07.29480	09 22 06.59	+08 14 40.9	801
1990 XH	1992 02 07.30775	09 22 06.02	+08 14 45.6	801
1991 CC	1992 02 05.39880	14 40 38.50	+00 34 03.1	801
1991 CC	1992 02 05.43066	14 40 39.38	+00 34 05.4	801
1991 VL	1992 02 02.96079	00 22 11.60	+10 28 42.1	801
1991 VL	1992 02 02.98060	00 22 12.81	+10 28 38.8	801
1991 VL	1992 02 05.97412	00 25 21.53	+10 18 11.0	801
1991 VL	1992 02 05.99920	00 25 23.05	+10 18 05.0	801
1991 YA	1992 02 03.02522	04 55 57.15	+00 27 07.1	801
1991 YA	1992 02 03.03447	04 55 57.45	+00 26 51.4	801
1991 YA	1992 02 07.11572	04 58 21.32	-01 22 38.0	801
1991 YA	1992 02 07.12894	04 58 21.83	-01 22 57.8	801
1992 AA	1992 02 06.10522	05 46 59.48	+33 58 52.0	801
1992 AA	1992 02 06.10777	05 46 59.79	+33 58 53.0	801
1992 AB	1992 02 03.01058	03 51 50.40	+33 08 08.8	801
1992 AB	1992 02 03.01742	03 51 50.30	+33 08 19.1	801
1992 AB	1992 02 06.04340	03 51 13.86	+34 32 10.4	801
1992 AB	1992 02 06.06019	03 51 13.70	+34 32 37.6	801
1992 AB	1992 02 07.07668	03 51 09.02	+35 00 15.2	801
1992 AB	1992 02 07.09206	03 51 08.93	+35 00 40.2	801
1992 AD	1992 02 05.20126	08 03 20.78	+21 00 31.3	801
1992 AD	1992 02 05.23963	08 03 20.09	+21 00 36.4	801
1992 AE	1992 02 06.02657	03 27 33.92	+19 11 09.8	801
1992 AE	1992 02 07.03117	03 29 53.01	+19 23 55.4	801
1992 AE	1992 02 07.03751	03 29 53.88	+19 24 00.1	801
1992 BC	1992 02 05.19331	09 47 23.89	+46 23 50.5	801
1992 BC	1992 02 05.19510	09 47 24.42	+46 24 10.6	801
1992 BC	1992 02 06.28584	09 54 05.26	+49 45 16.9	801

r
rt
t

1992 BC	1992 02 06.28700	09 54 05.69	+49 45 28.8	801
1992 BF	1992 02 06.16373	09 25 45.36	+13 33 53.3	801
1992 BF	1992 02 06.16576	09 25 44.55	+13 33 49.5	801
4577 P-L	1992 02 07.22052	08 23 53.26	+04 08 16.7	801
4577 P-L	1992 02 07.23858	08 23 52.39	+04 08 26.8	801
7068 P-L	1991 10 09.31236	04 19 35.39	+18 02 32.1	801
7068 P-L	1991 10 09.34207	04 19 35.49	+18 02 22.0	801
7068 P-L	1991 11 07.24497	04 08 13.00	+14 38 21.8	801
7068 P-L	1991 11 07.26909	04 08 11.79	+14 38 10.5	801
7571 P-L	1988 12 10.21721	05 53 28.02	+32 02 14.7	801
7604 P-L	1992 02 07.25509	08 50 20.38	+23 09 33.4	801
7604 P-L	1992 02 07.26950	08 50 19.47	+23 09 37.7	801
1017 T-3	1991 11 03.15870	01 21 43.55	+21 10 06.7	801
1017 T-3	1991 11 03.17480	01 21 42.80	+21 09 59.9	801
2078 T-3	1992 02 06.34779	13 45 43.32	-14 24 55.4	801
2078 T-3	1992 02 06.36300	13 45 43.94	-14 25 03.0	801
5119 T-3	1992 02 06.10280	05 36 42.18	-14 04 35.4	801
5119 T-3	1992 02 06.11013	05 36 42.37	-14 04 25.9	801
5119 T-3	1992 02 07.11980	05 37 13.96	-13 43 50.4	801
5119 T-3	1992 02 07.13110	05 37 14.30	-13 43 36.2	801
(243)	1992 02 06.09117	05 02 21.69	+23 54 53.2	801
(243)	1992 02 06.15173	05 02 22.15	+23 54 51.5	801
(348)	1992 02 05.45571	15 23 24.94	-09 43 53.8	801
(348)	1992 02 05.45829	15 23 25.09	-09 43 53.9	801
(348)	1992 02 06.41856	15 24 12.58	-09 45 30.7	801
(348)	1992 02 06.44152	15 24 13.70	-09 45 33.2	801
(944)	1992 02 06.34404	13 27 44.83	+16 52 15.2	801
(944)	1992 02 06.37446	13 27 44.10	+16 52 17.5	801
(1134)	1992 02 07.12510	05 57 26.13	+43 39 02.8	801
(1134)	1992 02 07.15074	05 57 25.61	+43 38 51.9	801
(1346)	1992 02 07.05117	02 46 45.29	+01 02 14.2	801
(1346)	1992 02 07.05980	02 46 45.99	+01 02 19.7	801
(3200)	1992 02 06.96544	01 40 35.92	+15 36 21.6	801
(3200)	1992 02 06.99968	01 40 36.65	+15 36 02.9	801

808 El Leoncito

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Observers M. R. Cesco, R. Gil-Hutton, C. E. Lopez, H. S. Lopez, H. Mira,

J. G. Sanguin, J. E. Torres, J. A. Vicentela

1974 OE	1991 03 19.21412	12 44 57.11	-02 27 59.5	G 808
1974 OE	1991 03 19.26260	12 44 54.36	-02 27 49.0	G 808
1974 OE	1991 03 21.24086	12 42 57.86	-02 21 59.8	808
1974 OE	1991 03 21.27549	12 42 55.50	-02 21 53.1	808
1980 TL13	1991 01 21.11974	06 58 38.83	-27 43 19.8	808
1980 TL13	1991 01 21.14052	06 58 37.67	-27 43 17.3	808
1988 RB	1991 02 21.24183	11 31 20.39	-15 36 37.5	808
1988 RB	1991 02 21.28338	11 31 18.54	-15 36 35.4	808
1988 RR2	1991 03 19.21412	12 47 24.92	-02 09 36.8	G 808
1988 RR2	1991 03 19.26260	12 47 22.39	-02 09 18.4	G 808
1990 VJ15	* 1990 11 15.18010	03 06 26.10	+01 34 37.2	808
1990 VJ15	1990 11 15.21473	03 06 24.83	+01 34 26.8	808
1990 WD15	* 1990 11 17.25290	05 36 18.04	-18 18 44.6	b 808
1990 WD15	1990 11 17.30207	05 36 16.86	-18 19 10.7	b 808
1990 WE15	* 1990 11 17.25290	05 37 33.76	-17 55 20.7	b 808
1990 WE15	1990 11 17.30207	05 37 30.45	-17 55 41.7	b 808
1990 WF15	* 1990 11 17.25290	05 38 51.86	-18 31 21.2	b 808
1990 WF15	1990 11 17.30207	05 38 50.09	-18 31 34.8	b 808
1990 WG15	* 1990 11 17.25290	05 42 25.02	-18 41 32.0	b 808

1990 WG15		1990 11 17.30207	05 42 22.72	-18 41 40.3	b	808
1990 WH15	*	1990 11 17.25290	05 42 57.28	-17 02 41.1	b	808
1990 WH15		1990 11 17.30207	05 42 55.42	-17 03 31.6	b	808
1990 WJ15	*	1990 11 17.25290	05 44 15.57	-18 17 41.1	b	808
1990 WJ15		1990 11 17.30207	05 44 14.23	-18 17 59.1	b	808
1990 WK15	*	1990 11 17.25290	05 45 24.01	-16 55 27.3	b	808
1990 WK15		1990 11 17.30207	05 45 24.37	-16 55 52.9	b	808
1991 FQ4	*	1991 03 19.21412	12 36 58.82	-03 13 15.0	G	808
1991 FQ4		1991 03 19.26260	12 36 56.05	-03 13 08.5	G	808
1991 FQ4		1991 03 21.24086	12 34 56.15	-03 11 28.7		808
1991 FQ4		1991 03 21.27549	12 34 53.66	-03 11 26.0		808
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(68)		1991 06 06.08291	14 06 52.91	-13 21 31.5		808
(146)		1991 04 20.18215	12 57 18.44	+14 48 00.7		808
(146)		1991 04 20.22301	12 57 16.21	+14 47 59.4		808
(177)		1991 05 21.21039	16 00 08.98	-22 34 36.6		808
(177)		1991 05 21.23809	16 00 07.28	-22 34 36.4		808
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(218)		1990 11 24.28884	05 33 32.54	+01 12 11.7		808
(218)		1990 11 24.31828	05 33 31.24	+01 12 05.5		808
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(309)		1991 03 21.27549	12 34 36.74	-04 46 54.1		808
(330)		1990 11 21.16891	02 54 59.21	+02 07 20.7		808
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(373)		1991 06 13.15313	16 22 22.90	-43 11 59.5		808
(373)		1991 06 13.18499	16 22 21.52	-43 12 00.1		808
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(502)		1990 11 23.17384	03 25 24.28	-22 20 31.1		808
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(694)	1991 06 06.08291	14 21 31.66	-14 03 06.4	808
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(951)	1991 05 21.23809	15 58 19.72	-22 00 39.9	808
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(4116)	1990 11 24.19847	04 40 13.18	-19 52 02.8		808
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(4885)	1991 03 19.21412	12 39 44.29	-02 43 19.8	G	808
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(4885)	1991 03 21.24086	12 38 05.26	-02 28 54.4	p	808
(4885)	1991 03 21.27549	12 38 03.28	-02 28 36.1	p	808

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A. Smette

GPO 0.4-m astrograph, 1.0-m Schmidt, 1.5-m reflector + CCD

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1976 YP1	1991 07 10.27257	20 02 19.72	-22 52 18.5		3	809
1976 YP1	1991 07 11.19341	20 01 35.38	-22 54 30.5		3	809
1976 YP1	1991 07 11.20383	20 01 34.84	-22 54 31.8		3	809
1977 RW6	1991 07 10.25174	19 59 28.24	-24 00 30.2	16.0	3	809
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1977 RW6	1991 07 11.20383	19 58 39.40	-24 03 00.9	3	809
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1978 RM2	1991 07 08.10660	20 07 39.52	-12 35 05.7	3	809
1978 RM2	1991 07 11.22534	20 05 09.29	-12 41 46.0	3	809
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1978 RM2	1991 07 15.30313	20 01 44.85	-12 51 51.7	3	809
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1981 EO8	1991 07 12.12743	19 55 39.58	-19 48 46.6	17.7	3 809
1981 EO8	1991 07 12.13785	19 55 39.01	-19 48 47.5	3	809
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1981 EO8	1991 07 13.06702	19 54 47.10	-19 50 06.8	3	809
1981 EO8	1991 07 13.07742	19 54 46.52	-19 50 07.7	3	809
1981 EO8	1991 07 13.08784	19 54 45.94	-19 50 08.9	3	809
1981 EZ18	1991 07 10.31737	20 14 12.70	-19 18 24.8	17.1	3 809
1981 EZ18	1991 07 10.32987	20 14 12.07	-19 18 26.2	3	809
1981 EZ18	1991 07 10.34236	20 14 11.44	-19 18 27.3	3	809
1981 EZ18	1991 07 11.36389	20 13 19.20	-19 20 28.4	3	809
1981 EZ18	1991 07 11.37639	20 13 18.54	-19 20 30.0	3	809
1981 EZ18	1991 07 11.38888	20 13 17.88	-19 20 31.5	3	809
1981 EZ18	1991 07 12.36319	20 12 27.53	-19 22 27.4	3	809
1981 EZ18	1991 07 12.37430	20 12 26.96	-19 22 28.7	3	809
1981 EZ18	1991 07 12.38542	20 12 26.39	-19 22 30.1	3	809
1981 SU2	1991 07 21.31424	20 47 54.13	-18 29 33.3	16.5	3 809
1981 SU2	1991 07 21.32465	20 47 53.52	-18 29 35.2	3	809
1981 SU2	1991 07 21.33507	20 47 52.91	-18 29 36.8	3	809
1981 SU2	1991 07 22.34862	20 46 54.68	-18 32 17.5	3	809
1981 SU2	1991 07 22.35834	20 46 54.13	-18 32 19.0	3	809
1981 SU2	1991 07 22.36806	20 46 53.58	-18 32 20.4	3	809

1981 SW7	1991 07 06.12813	19 37 15.10	-22 53 54.2	16.2	3	809
1981 SW7	1991 07 06.13853	19 37 14.55	-22 53 54.5		3	809
1981 SW7	1991 07 06.14896	19 37 14.02	-22 53 54.7		3	809
1981 SW7	1991 07 07.30000	19 36 14.39	-22 54 06.0		3	809
1981 SW7	1991 07 07.30695	19 36 14.03	-22 54 06.0		3	809
1981 SW7	1991 07 08.07222	19 35 34.57	-22 54 15.5		3	809
1981 SW7	1991 07 08.08055	19 35 34.15	-22 54 15.6		3	809
1981 SW7	1991 07 12.05763	19 32 03.38	-22 54 39.4		3	809
1981 SW7	1991 07 12.06876	19 32 02.78	-22 54 39.8		3	809
1981 SW7	1991 07 12.07987	19 32 02.19	-22 54 39.8		3	809
1984 AR	1991 07 03.96458	15 30 23.61	-20 00 14.7	17.5	3	809
1984 AR	1991 07 03.98264	15 30 23.35	-20 00 13.7		3	809
1984 AR	1991 07 04.00070	15 30 23.08	-20 00 12.6		3	809
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1984 AR	1991 07 04.98264	15 30 08.88	-19 59 19.6		3	809
1984 AR	1991 07 05.00070	15 30 08.62	-19 59 18.4		3	809
1986 PS4	1991 07 05.18195	21 21 01.79	-18 45 02.3	16.9	3	809
1986 PS4	1991 07 05.19444	21 21 01.40	-18 45 02.0		3	809
1986 PS4	1991 07 05.20694	21 21 01.03	-18 45 01.9		3	809
1986 PS4	1991 07 06.20070	21 20 31.39	-18 44 47.2		3	809
1986 PS4	1991 07 06.21320	21 20 31.01	-18 44 47.2		3	809
1986 PS4	1991 07 06.22569	21 20 30.63	-18 44 47.0		3	809
1986 PS4	1991 07 08.38542	21 19 21.11	-18 44 29.3		3	809
1986 PS4	1991 07 08.39792	21 19 20.75	-18 44 29.0		3	809
1987 SQ1	1991 07 06.05869	19 29 02.40	-19 33 51.4	17.3	3	809
1987 SQ1	1991 07 06.06909	19 29 01.86	-19 33 52.5		3	809
1987 SQ1	1991 07 06.07951	19 29 01.33	-19 33 53.6		3	809
1987 SQ1	1991 07 07.26181	19 27 59.28	-19 35 57.3		3	809
1987 SQ1	1991 07 07.26875	19 27 58.92	-19 35 58.0		3	809
1988 VO1	1991 07 11.25729	20 03 42.78	-09 51 19.7	15.6	3	809
1988 VO1	1991 07 11.26772	20 03 42.20	-09 51 19.7		3	809
1988 VO1	1991 07 11.27812	20 03 41.66	-09 51 19.7		3	809
1988 VO1	1991 07 12.30035	20 02 47.26	-09 51 18.0		3	809
1988 VO1	1991 07 12.31076	20 02 46.69	-09 51 18.0		3	809
1988 VO1	1991 07 12.32118	20 02 46.14	-09 51 18.0		3	809
1989 AM1	1991 07 12.05763	19 36 55.15	-24 36 41.2	15.4	3	809
1989 AM1	1991 07 12.06876	19 36 54.55	-24 36 40.6		3	809
1989 AM1	1991 07 12.07987	19 36 53.96	-24 36 39.7		3	809
1989 AM1	1991 07 13.03334	19 36 02.67	-24 35 36.5		3	809
1989 AM1	1991 07 13.04375	19 36 02.11	-24 35 35.9		3	809
1989 AM1	1991 07 13.05452	19 36 01.52	-24 35 35.4		3	809
1989 AM1	1991 07 14.21216	19 34 58.96	-24 34 15.8		3	809
1989 AM1	1991 07 14.22256	19 34 58.40	-24 34 14.9		3	809
1989 AM1	1991 07 14.23299	19 34 57.81	-24 34 14.2		3	809
1990 DU3	1991 07 11.40451	21 30 27.58	-17 59 58.9	16.2	3	809
1990 DU3	1991 07 11.41771	21 30 27.10	-17 59 58.4		3	809
1990 DU3	1991 07 11.43091	21 30 26.63	-17 59 57.9		3	809
1990 DU3	1991 07 12.39999	21 29 51.69	-17 59 18.2		3	809
1991 MB	* 1991 06 29.97153	15 37 53.92	-19 57 46.2	17.1	3	809
1991 MB	1991 06 29.99235	15 37 53.61	-19 57 45.2		3	809
1991 MB	1991 06 30.01320	15 37 53.29	-19 57 44.2		3	809
1991 MB	1991 07 01.97084	15 37 23.35	-19 56 11.2		3	809
1991 MB	1991 07 01.98889	15 37 23.07	-19 56 10.3		3	809
1991 MB	1991 07 02.00694	15 37 22.80	-19 56 09.4		3	809
1991 MB	1991 07 04.02153	15 36 57.91	-19 54 54.3		3	809
1991 MB	1991 07 04.03958	15 36 57.68	-19 54 53.6		3	809
1991 MB	1991 07 04.05763	15 36 57.46	-19 54 52.9		3	809
1991 MB	1991 07 05.02014	15 36 47.80	-19 54 24.7		3	809
1991 MB	1991 07 05.03819	15 36 47.64	-19 54 24.0		3	809

1991 MB		1991 07 05.05624	15 36 47.45	-19 54 23.5		3	809
1991 NJ		1991 07 06.12813	19 41 26.08	-22 29 58.0	15.6	3	809
1991 NJ		1991 07 06.13853	19 41 25.55	-22 30 04.5		3	809
1991 NJ		1991 07 06.14896	19 41 25.03	-22 30 11.0		3	809
1991 NJ		1991 07 07.30000	19 40 26.62	-22 42 35.5		3	809
1991 NJ		1991 07 07.30695	19 40 26.27	-22 42 40.0		3	809
1991 NJ		1991 07 08.07222	19 39 47.49	-22 50 57.5		3	809
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1991 NJ		1991 07 12.06876	19 36 16.41	-23 34 18.1		3	809
1991 NJ		1991 07 12.07987	19 36 15.84	-23 34 25.3		3	809
1991 NJ		1991 07 13.03334	19 35 24.20	-23 44 44.3		3	809
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1991 NJ		1991 07 13.05452	19 35 23.08	-23 44 58.5		3	809
1991 NJ		1991 07 14.21216	19 34 19.50	-23 57 30.5		3	809
1991 NJ		1991 07 14.22256	19 34 18.93	-23 57 37.3		3	809
1991 NJ		1991 07 14.23299	19 34 18.36	-23 57 43.9		3	809
1991 NP2		1991 07 05.18195	21 26 47.05	-19 00 48.2	16.9	3	809
1991 NP2		1991 07 05.19444	21 26 46.76	-19 00 46.6		3	809
1991 NP2		1991 07 05.20694	21 26 46.48	-19 00 45.1		3	809
1991 NP2		1991 07 06.20070	21 26 23.51	-18 58 42.6		3	809
1991 NP2		1991 07 06.21320	21 26 23.21	-18 58 41.1		3	809
1991 NP2		1991 07 06.22569	21 26 22.92	-18 58 39.8		3	809
1991 NP2		1991 07 08.38542	21 25 25.01	-18 54 29.7		3	809
1991 NP2		1991 07 08.39792	21 25 24.64	-18 54 28.1		3	809
1991 NU2	*	1991 07 03.11493	19 24 40.70	-24 07 50.9	15.0	3	809
1991 NU2		1991 07 03.12674	19 24 40.09	-24 07 55.7		3	809
1991 NU2		1991 07 03.13853	19 24 39.46	-24 08 00.9		3	809
1991 NU2		1991 07 04.07987	19 23 49.75	-24 14 51.6		3	809
1991 NU2		1991 07 04.09236	19 23 49.09	-24 14 57.0		3	809
1991 NU2		1991 07 04.10486	19 23 48.42	-24 15 02.4		3	809
1991 NU2		1991 07 05.07465	19 22 56.47	-24 22 03.7		3	809
1991 NU2		1991 07 05.08507	19 22 55.92	-24 22 08.2		3	809
1991 NU2		1991 07 05.09549	19 22 55.36	-24 22 12.8		3	809
1991 NV2	*	1991 07 03.11493	19 25 12.26	-25 19 39.8	15.9	3	809
1991 NV2		1991 07 03.12674	19 25 11.61	-25 19 38.5		3	809
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1991 NV2		1991 07 04.07987	19 24 17.95	-25 18 07.4		3	809
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1991 NW2	*	1991 07 04.02153	15 39 23.27	-20 03 53.5	17.7	3	809
1991 NW2		1991 07 04.03958	15 39 23.05	-20 03 52.8		3	809
1991 NW2		1991 07 04.05763	15 39 22.84	-20 03 52.3		3	809
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1991 NW2		1991 07 05.03819	15 39 11.47	-20 03 17.0		3	809
1991 NW2		1991 07 05.05624	15 39 11.23	-20 03 16.5		3	809
1991 NX2	*	1991 07 04.07987	19 22 53.69	-25 27 54.8	15.9	3	809
1991 NX2		1991 07 04.09236	19 22 52.85	-25 27 58.3		3	809
1991 NX2		1991 07 04.10486	19 22 52.03	-25 28 01.8		3	809
1991 NX2		1991 07 05.07465	19 21 48.15	-25 32 07.8		3	809
1991 NX2		1991 07 05.08507	19 21 47.46	-25 32 10.5		3	809
1991 NX2		1991 07 05.09549	19 21 46.77	-25 32 13.0		3	809
1991 NY2	*	1991 07 04.07987	19 25 19.65	-25 25 07.0	16.2	3	809
1991 NY2		1991 07 04.09236	19 25 18.98	-25 25 13.0		3	809
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1991 NY2		1991 07 05.07465	19 24 27.55	-25 33 13.6		3	809

1991 NY2		1991 07 05.08507	19 24 27.01	-25 33 18.7		3	809
1991 NY2		1991 07 05.09549	19 24 26.48	-25 33 23.8		3	809
1991 NZ2	*	1991 07 04.07987	19 27 29.41	-24 33 19.5	16.5	3	809
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1991 NZ2		1991 07 05.07465	19 26 37.37	-24 34 03.4		3	809
1991 NZ2		1991 07 05.08507	19 26 36.83	-24 34 03.9		3	809
1991 NZ2		1991 07 05.09549	19 26 36.29	-24 34 04.3		3	809
1991 NA3	*	1991 07 04.12013	19 26 55.98	-23 22 34.8	17.0	3	809
1991 NA3		1991 07 04.13264	19 26 55.23	-23 22 35.2		3	809
1991 NA3		1991 07 04.14514	19 26 54.49	-23 22 35.8		3	809
1991 NA3		1991 07 05.10729	19 25 56.42	-23 23 02.1		3	809
1991 NA3		1991 07 05.11771	19 25 55.77	-23 23 02.3		3	809
1991 NA3		1991 07 05.12813	19 25 55.14	-23 23 02.7		3	809
1991 NB3	*	1991 07 04.12013	19 26 58.68	-22 27 39.3	16.3	3	809
1991 NB3		1991 07 04.13264	19 26 57.87	-22 27 38.3		3	809
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1991 NB3		1991 07 05.10729	19 25 54.97	-22 26 14.4		3	809
1991 NB3		1991 07 05.11771	19 25 54.30	-22 26 13.7		3	809
1991 NB3		1991 07 05.12813	19 25 53.61	-22 26 13.0		3	809
1991 NC3	*	1991 07 04.12013	19 27 33.39	-21 56 26.6	16.9	3	809
1991 NC3		1991 07 04.13264	19 27 32.59	-21 56 22.7		3	809
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1991 NC3		1991 07 05.10729	19 26 31.03	-21 51 28.7		3	809
1991 NC3		1991 07 05.11771	19 26 30.35	-21 51 25.3		3	809
1991 NC3		1991 07 05.12813	19 26 29.68	-21 51 22.1		3	809
1991 ND3	*	1991 07 04.12013	19 28 12.18	-21 58 08.9	17.1	3	809
1991 ND3		1991 07 04.13264	19 28 11.43	-21 58 09.7		3	809
1991 ND3		1991 07 04.14514	19 28 10.66	-21 58 10.3		3	809
1991 ND3		1991 07 05.10729	19 27 13.10	-21 58 59.4		3	809
1991 ND3		1991 07 05.11771	19 27 12.45	-21 58 59.8		3	809
1991 ND3		1991 07 05.12813	19 27 11.83	-21 59 00.2		3	809
1991 NE3	*	1991 07 04.15973	20 06 46.89	-11 22 33.4	17.5	3	809
1991 NE3		1991 07 04.16806	20 06 46.54	-11 22 34.8		3	809
1991 NE3		1991 07 04.17639	20 06 46.20	-11 22 36.2		3	809
1991 NE3		1991 07 05.14133	20 06 04.22	-11 25 20.5		3	809
1991 NE3		1991 07 05.15244	20 06 03.72	-11 25 22.8		3	809
1991 NE3		1991 07 05.16354	20 06 03.22	-11 25 24.8		3	809
1991 NE3		1991 07 08.09618	20 03 51.16	-11 34 31.8		3	809
1991 NE3		1991 07 08.10660	20 03 50.70	-11 34 34.1		3	809
1991 NE3		1991 07 10.28368	20 02 08.09	-11 41 56.5		3	809
1991 NE3		1991 07 10.29410	20 02 07.60	-11 41 58.6		3	809
1991 NE3		1991 07 10.30452	20 02 07.10	-11 42 00.7		3	809
1991 NF3	*	1991 07 04.15973	20 07 45.97	-13 02 30.5	16.6	3	809
1991 NF3		1991 07 04.16806	20 07 45.54	-13 02 28.4		3	809
1991 NF3		1991 07 04.17639	20 07 45.11	-13 02 26.7		3	809
1991 NF3		1991 07 05.14133	20 06 55.87	-12 58 45.2		3	809
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1991 NF3		1991 07 11.22534	20 01 24.71	-12 36 55.6		3	809
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1991 NF3		1991 07 11.24619	20 01 23.55	-12 36 51.4		3	809
1991 NF3		1991 07 12.26633	20 00 24.73	-12 33 27.9		3	809
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1991 NF3		1991 07 15.31354	19 57 25.44	-12 23 50.2		3	809
1991 NF3		1991 07 15.32396	19 57 24.83	-12 23 48.3		3	809
1991 NF3		1991 07 16.29271	19 56 26.85	-12 20 52.5		3	809
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1991 NF3		1991 07 16.31354	19 56 25.62	-12 20 48.4		3	809
1991 NG3	*	1991 07 04.15973	20 08 12.23	-11 09 19.1	16.6	3	809
1991 NG3		1991 07 04.16806	20 08 11.83	-11 09 15.9		3	809
1991 NG3		1991 07 04.17639	20 08 11.44	-11 09 12.8		3	809
1991 NG3		1991 07 05.14133	20 07 24.52	-11 03 36.4		3	809
1991 NG3		1991 07 05.15244	20 07 23.97	-11 03 32.6		3	809
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1991 NG3		1991 07 08.09618	20 04 53.50	-10 47 07.4		3	809
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1991 NG3		1991 07 10.28368	20 02 55.02	-10 35 29.3		3	809
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1991 NG3		1991 07 10.30452	20 02 53.88	-10 35 22.3		3	809
1991 NG3		1991 07 11.25729	20 02 01.14	-10 30 27.7		3	809
1991 NG3		1991 07 11.26772	20 02 00.56	-10 30 24.4		3	809
1991 NG3		1991 07 11.27812	20 02 00.00	-10 30 20.9		3	809
1991 NG3		1991 07 12.30035	20 01 02.28	-10 25 12.2		3	809
1991 NG3		1991 07 12.31076	20 01 01.71	-10 25 09.0		3	809
1991 NG3		1991 07 12.32118	20 01 01.13	-10 25 05.8		3	809
1991 NH3	*	1991 07 06.02257	19 31 11.37	-20 22 50.3	17.0	3	809
1991 NH3		1991 07 06.03299	19 31 10.75	-20 22 49.0		3	809
1991 NH3		1991 07 06.04340	19 31 10.12	-20 22 47.6		3	809
1991 NH3		1991 07 07.26181	19 29 58.16	-20 19 56.4		3	809
1991 NH3		1991 07 07.26875	19 29 57.76	-20 19 55.0		3	809
1991 NJ3	*	1991 07 06.05869	19 28 30.55	-18 56 09.8	16.3	3	809
1991 NJ3		1991 07 06.06909	19 28 29.97	-18 56 06.3		3	809
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1991 NJ3		1991 07 07.27708	19 27 22.18	-18 49 44.3		3	809
1991 NK3	*	1991 07 06.05869	19 28 56.01	-19 28 56.9	17.6	3	809
1991 NK3		1991 07 06.06909	19 28 55.38	-19 28 55.1		3	809
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1991 NK3		1991 07 07.27708	19 27 42.07	-19 25 24.9		3	809
1991 NL3	*	1991 07 06.05869	19 32 08.41	-18 06 43.9	16.9	3	809
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1991 NM3	*	1991 07 06.09271	19 36 33.01	-23 58 11.2	16.4	3	809
1991 NM3		1991 07 06.10312	19 36 32.46	-23 58 15.6		3	809
1991 NM3		1991 07 06.11354	19 36 31.91	-23 58 20.3		3	809
1991 NM3		1991 07 07.28542	19 35 30.52	-24 06 46.5		3	809
1991 NM3		1991 07 07.29236	19 35 30.18	-24 06 49.5		3	809
1991 NN3	*	1991 07 06.09271	19 36 43.92	-24 14 47.7	16.8	3	809
1991 NN3		1991 07 06.10312	19 36 43.29	-24 14 49.1		3	809
1991 NN3		1991 07 06.11354	19 36 42.66	-24 14 50.6		3	809
1991 NN3		1991 07 07.28542	19 35 32.49	-24 17 19.4		3	809
1991 NN3		1991 07 07.29236	19 35 32.05	-24 17 19.9		3	809
1991 NO3	*	1991 07 06.09271	19 38 33.45	-23 18 17.2	15.6	3	809
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1991 NO3		1991 07 07.28542	19 37 27.34	-23 14 17.9		3	809
1991 NO3		1991 07 07.29236	19 37 26.95	-23 14 16.0		3	809
1991 NO3		1991 07 12.05763	19 32 59.92	-22 57 39.3		3	809
1991 NO3		1991 07 12.06876	19 32 59.31	-22 57 37.2		3	809
1991 NO3		1991 07 12.07987	19 32 58.69	-22 57 35.0		3	809
1991 NO3		1991 07 14.21216	19 30 57.52	-22 49 55.0		3	809
1991 NO3		1991 07 14.22256	19 30 56.91	-22 49 52.8		3	809

1991 NO3		1991 07 14.23299	19 30 56.30	-22 49 50.3		3	809
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1991 NP3		1991 07 06.10312	19 38 58.41	-24 42 16.0		3	809
1991 NP3		1991 07 06.11354	19 38 57.75	-24 42 15.4		3	809
1991 NP3		1991 07 07.28542	19 37 45.54	-24 40 25.4		3	809
1991 NP3		1991 07 07.29236	19 37 45.08	-24 40 24.8		3	809
1991 NQ3	*	1991 07 06.12813	19 34 53.16	-23 04 41.2	17.3	3	809
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1991 NQ3		1991 07 06.14896	19 34 51.97	-23 04 51.0		3	809
1991 NQ3		1991 07 07.28542	19 33 47.68	-23 13 20.1		3	809
1991 NQ3		1991 07 07.29236	19 33 47.30	-23 13 23.0		3	809
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1991 NR3		1991 07 06.13853	19 37 19.59	-21 48 03.6		3	809
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1991 NX3		1991 07 08.22014	19 45 57.90	-19 16 58.7		3	809
1991 NX3		1991 07 08.28993	19 45 53.53	-19 17 03.4		3	809
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1991 NB4		1991 07 11.04826	19 34 46.45	-19 31 00.8		3	809
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1991 NC4		1991 07 08.18091	19 38 48.92	-20 53 34.0		3	809
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1991 ND4		1991 07 08.19131	19 38 50.02	-19 05 36.5		3	809
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1991 ND4		1991 07 10.05035	19 37 17.02	-19 06 49.4		3	809
1991 ND4		1991 07 11.02743	19 36 26.87	-19 07 31.5		3	809
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1991 NF4		1991 07 11.04826	19 38 34.83	-20 15 04.6		3	809
1991 NG4	*	1991 07 08.17049	19 41 58.82	-20 34 27.0	16.9	3	809
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1991 NH4		1991 07 10.06424	19 42 27.09	-22 21 06.6		3	809
1991 NH4		1991 07 10.07465	19 42 26.42	-22 21 02.6		3	809
1991 NJ4	*	1991 07 08.25729	19 45 06.68	-17 47 18.4	17.6	3	809
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1991 NJ4		1991 07 08.27812	19 45 05.40	-17 47 25.9		3	809
1991 NJ4		1991 07 10.10938	19 43 14.10	-17 58 52.6		3	809
1991 NJ4		1991 07 10.11980	19 43 13.48	-17 58 56.5		3	809
1991 NJ4		1991 07 10.13020	19 43 12.85	-17 59 00.5		3	809
1991 NJ4		1991 07 11.06076	19 42 15.68	-18 04 52.3		3	809
1991 NJ4		1991 07 11.07118	19 42 15.06	-18 04 56.7		3	809
1991 NJ4		1991 07 11.08160	19 42 14.42	-18 05 01.0		3	809
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1991 NK4		1991 07 08.26772	19 45 07.60	-17 25 34.9		3	809
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1991 NL4	*	1991 07 08.25729	19 46 48.17	-18 26 00.1	17.4	3	809
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1991 NL4		1991 07 18.11458	19 38 06.26	-18 51 16.1		3	809
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1991 NM4		1991 07 08.27812	19 49 04.20	-17 04 39.7		3	809
1991 NM4		1991 07 10.10938	19 47 24.63	-16 58 54.9		3	809
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1991 NM4		1991 07 10.13020	19 47 23.49	-16 58 51.1		3	809
1991 NM4		1991 07 11.06076	19 46 32.16	-16 55 58.2		3	809
1991 NM4		1991 07 11.07118	19 46 31.57	-16 55 56.3		3	809
1991 NM4		1991 07 11.08160	19 46 31.02	-16 55 54.6		3	809
1991 NN4	*	1991 07 08.25729	19 49 43.65	-18 31 19.6	17.4	3	809
1991 NN4		1991 07 08.26772	19 49 43.09	-18 31 21.1		3	809
1991 NN4		1991 07 08.27812	19 49 42.55	-18 31 22.5		3	809
1991 NN4		1991 07 18.11458	19 40 52.39	-18 54 30.5		3	809
1991 NN4		1991 07 18.12292	19 40 51.95	-18 54 31.7		3	809
1991 NN4		1991 07 18.13126	19 40 51.51	-18 54 32.8		3	809
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1991 NO4		1991 07 10.08681	19 49 56.22	-20 00 41.6		3	809

1991 NO4		1991 07 10.09792	19 49 55.63	-20 00 44.3		3	809
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1991 NP4		1991 07 08.30035	19 51 36.85	-20 14 26.0		3	809
1991 NP4		1991 07 08.31076	19 51 36.10	-20 14 23.5		3	809
1991 NP4		1991 07 10.08681	19 49 29.21	-20 07 06.9		3	809
1991 NP4		1991 07 10.09792	19 49 28.43	-20 07 03.7		3	809
1991 NQ4	*	1991 07 08.35695	20 52 04.98	-14 23 18.5	14.6	3	809
1991 NQ4		1991 07 08.36945	20 52 04.55	-14 23 26.6		3	809
1991 NQ4		1991 07 10.35834	20 51 01.82	-14 43 47.0		3	809
1991 NQ4		1991 07 10.37083	20 51 01.42	-14 43 54.7		3	809
1991 NQ4		1991 07 10.38333	20 51 01.04	-14 44 02.4		3	809
1991 NR4	*	1991 07 08.35695	20 54 22.85	-15 16 44.6	16.8	3	809
1991 NR4		1991 07 08.36945	20 54 22.34	-15 16 45.9		3	809
1991 NR4		1991 07 10.35834	20 52 58.96	-15 20 22.2		3	809
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1991 NR4		1991 07 10.38333	20 52 57.92	-15 20 25.0		3	809
1991 NS4	*	1991 07 10.02951	19 40 47.71	-19 09 40.7	17.1	3	809
1991 NS4		1991 07 10.03993	19 40 47.15	-19 09 45.5		3	809
1991 NS4		1991 07 10.05035	19 40 46.57	-19 09 50.4		3	809
1991 NS4		1991 07 11.02743	19 39 53.24	-19 17 22.4		3	809
1991 NS4		1991 07 11.03784	19 39 52.67	-19 17 27.2		3	809
1991 NS4		1991 07 11.04826	19 39 52.12	-19 17 32.0		3	809
1991 NT4	*	1991 07 10.02951	19 41 17.32	-18 34 14.6	17.7	3	809
1991 NT4		1991 07 10.03993	19 41 16.52	-18 34 13.6		3	809
1991 NT4		1991 07 10.05035	19 41 15.73	-18 34 12.4		3	809
1991 NT4		1991 07 11.02743	19 40 01.32	-18 32 27.1		3	809
1991 NT4		1991 07 11.03784	19 40 00.50	-18 32 26.1		3	809
1991 NT4		1991 07 11.04826	19 39 59.69	-18 32 25.0		3	809
1991 NU4	*	1991 07 10.10938	19 47 29.68	-16 39 18.2	16.8	3	809
1991 NU4		1991 07 10.11980	19 47 29.14	-16 39 17.7		3	809
1991 NU4		1991 07 10.13020	19 47 28.60	-16 39 17.3		3	809
1991 NU4		1991 07 11.06076	19 46 40.09	-16 38 45.0		3	809
1991 NU4		1991 07 11.07118	19 46 39.55	-16 38 44.7		3	809
1991 NU4		1991 07 11.08160	19 46 39.00	-16 38 44.5		3	809
1991 NV4	*	1991 07 10.14410	19 51 32.73	-23 27 12.2	17.5	3	809
1991 NV4		1991 07 10.15451	19 51 32.13	-23 27 13.3		3	809
1991 NV4		1991 07 10.16493	19 51 31.53	-23 27 14.8		3	809
1991 NV4		1991 07 11.09410	19 50 39.30	-23 29 17.2		3	809
1991 NV4		1991 07 11.10451	19 50 38.72	-23 29 18.4		3	809
1991 NV4		1991 07 11.11493	19 50 38.14	-23 29 20.0		3	809
1991 NW4	*	1991 07 10.14410	19 54 04.23	-22 45 41.7	17.2	3	809
1991 NW4		1991 07 10.15451	19 54 03.65	-22 45 42.3		3	809
1991 NW4		1991 07 10.16493	19 54 03.07	-22 45 42.9		3	809
1991 NW4		1991 07 11.09410	19 53 11.59	-22 46 31.7		3	809
1991 NW4		1991 07 11.10451	19 53 11.01	-22 46 32.0		3	809
1991 NW4		1991 07 11.11493	19 53 10.44	-22 46 32.6		3	809
1991 NX4	*	1991 07 10.14410	19 55 19.04	-23 29 43.9	17.4	3	809
1991 NX4		1991 07 10.15451	19 55 18.36	-23 29 45.4		3	809
1991 NX4		1991 07 10.16493	19 55 17.68	-23 29 47.0		3	809
1991 NX4		1991 07 11.09410	19 54 16.62	-23 32 11.9		3	809
1991 NX4		1991 07 11.10451	19 54 15.93	-23 32 13.6		3	809
1991 NX4		1991 07 11.11493	19 54 15.25	-23 32 15.3		3	809
1991 NY4	*	1991 07 10.14410	19 56 54.10	-24 09 10.4	17.7	3	809
1991 NY4		1991 07 10.15451	19 56 53.30	-24 09 10.5		3	809
1991 NY4		1991 07 10.16493	19 56 52.48	-24 09 10.1		3	809
1991 NY4		1991 07 11.09410	19 55 41.47	-24 09 12.9		3	809
1991 NY4		1991 07 11.10451	19 55 40.65	-24 09 12.8		3	809
1991 NY4		1991 07 11.11493	19 55 39.86	-24 09 12.9		3	809
1991 NZ4	*	1991 07 10.14410	19 57 42.35	-23 08 39.2	16.6	3	809

1991 NZ4		1991 07 10.15451	19 57 41.81	-23 08 39.1		3	809
1991 NZ4		1991 07 10.16493	19 57 41.28	-23 08 39.1		3	809
1991 NZ4		1991 07 11.09410	19 56 51.97	-23 08 31.1		3	809
1991 NZ4		1991 07 11.10451	19 56 51.41	-23 08 30.9		3	809
1991 NZ4		1991 07 11.11493	19 56 50.86	-23 08 30.9		3	809
1991 NA5	*	1991 07 10.14410	19 58 37.59	-23 50 15.2	15.9	3	809
1991 NA5		1991 07 10.15451	19 58 36.99	-23 50 20.0		3	809
1991 NA5		1991 07 10.16493	19 58 36.38	-23 50 24.7		3	809
1991 NA5		1991 07 10.25174	19 58 31.33	-23 51 04.6		3	809
1991 NA5		1991 07 10.26215	19 58 30.72	-23 51 09.4		3	809
1991 NA5		1991 07 10.27257	19 58 30.13	-23 51 14.3		3	809
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1991 NA5		1991 07 11.10451	19 57 41.65	-23 57 38.3		3	809
1991 NA5		1991 07 11.11493	19 57 41.04	-23 57 43.0		3	809
1991 NA5		1991 07 11.19341	19 57 36.48	-23 58 19.1		3	809
1991 NA5		1991 07 11.20383	19 57 35.87	-23 58 23.8		3	809
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1991 NB5		1991 07 10.16493	19 58 39.31	-23 10 11.0		3	809
1991 NB5		1991 07 11.09410	19 57 54.53	-23 12 51.5		3	809
1991 NB5		1991 07 11.10451	19 57 54.04	-23 12 53.2		3	809
1991 NB5		1991 07 11.11493	19 57 53.52	-23 12 55.4		3	809
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1991 NC5		1991 07 10.15451	19 58 50.30	-24 08 45.2		3	809
1991 NC5		1991 07 10.16493	19 58 49.72	-24 08 45.9		3	809
1991 NC5		1991 07 11.09410	19 57 58.31	-24 09 51.0		3	809
1991 NC5		1991 07 11.10451	19 57 57.73	-24 09 51.7		3	809
1991 NC5		1991 07 11.11493	19 57 57.16	-24 09 52.5		3	809
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1991 NC5		1991 07 11.20383	19 57 52.25	-24 09 58.7		3	809
1991 ND5	*	1991 07 10.17674	19 50 47.58	-20 41 21.1	17.5	3	809
1991 ND5		1991 07 10.18715	19 50 47.03	-20 41 24.4		3	809
1991 ND5		1991 07 10.19757	19 50 46.46	-20 41 27.7		3	809
1991 ND5		1991 07 11.12674	19 49 56.97	-20 45 52.8		3	809
1991 ND5		1991 07 11.13715	19 49 56.41	-20 45 55.8		3	809
1991 ND5		1991 07 11.14757	19 49 55.85	-20 45 58.7		3	809
1991 NE5	*	1991 07 10.17674	19 51 49.87	-22 16 03.1	16.4	3	809
1991 NE5		1991 07 10.18715	19 51 49.37	-22 16 05.0		3	809
1991 NE5		1991 07 10.19757	19 51 48.87	-22 16 06.8		3	809
1991 NE5		1991 07 11.12674	19 51 03.60	-22 18 46.4		3	809
1991 NE5		1991 07 11.13715	19 51 03.07	-22 18 48.0		3	809
1991 NE5		1991 07 11.14757	19 51 02.57	-22 18 49.4		3	809
1991 NF5	*	1991 07 10.17674	19 53 52.28	-22 02 59.9	17.3	3	809
1991 NF5		1991 07 10.18715	19 53 51.72	-22 03 03.0		3	809
1991 NF5		1991 07 10.19757	19 53 51.17	-22 03 06.6		3	809
1991 NF5		1991 07 11.12674	19 53 01.30	-22 08 01.5		3	809
1991 NF5		1991 07 11.13715	19 53 00.75	-22 08 04.9		3	809
1991 NF5		1991 07 11.14757	19 53 00.17	-22 08 08.0		3	809
1991 NG5	*	1991 07 10.17674	19 55 50.68	-20 58 46.0	16.1	3	809
1991 NG5		1991 07 10.18715	19 55 50.16	-20 58 45.1		3	809
1991 NG5		1991 07 10.19757	19 55 49.62	-20 58 43.9		3	809
1991 NG5		1991 07 11.12674	19 55 01.34	-20 56 47.6		3	809
1991 NG5		1991 07 11.13715	19 55 00.81	-20 56 46.2		3	809
1991 NG5		1991 07 11.14757	19 55 00.27	-20 56 44.9		3	809
1991 NG5		1991 07 23.17708	19 44 08.75	-20 31 24.4		3	809
1991 NG5		1991 07 23.18958	19 44 08.09	-20 31 22.8		3	809
1991 NG5		1991 07 24.20416	19 43 14.50	-20 29 09.6		3	809
1991 NG5		1991 07 24.21667	19 43 13.85	-20 29 07.7		3	809
1991 NH5	*	1991 07 10.17674	19 58 36.37	-21 54 13.0	17.4	3	809

1991 NH5		1991 07 10.18715	19 58 35.81	-21 54 13.5		3	809
1991 NH5		1991 07 10.19757	19 58 35.25	-21 54 14.0		3	809
1991 NH5		1991 07 10.21979	19 58 33.88	-21 54 15.2	17.1	3	809
1991 NH5		1991 07 10.23021	19 58 33.33	-21 54 15.6		3	809
1991 NH5		1991 07 10.24063	19 58 32.76	-21 54 16.1		3	809
1991 NH5		1991 07 11.12674	19 57 45.21	-21 54 53.8		3	809
1991 NH5		1991 07 11.13715	19 57 44.64	-21 54 54.2		3	809
1991 NH5		1991 07 11.14757	19 57 44.09	-21 54 54.4		3	809
1991 NH5		1991 07 11.16077	19 57 43.29	-21 54 54.5		3	809
1991 NH5		1991 07 11.17117	19 57 42.74	-21 54 54.8		3	809
1991 NH5		1991 07 11.18159	19 57 42.18	-21 54 55.5		3	809
1991 NK5	*	1991 07 10.21979	20 01 36.44	-22 28 26.5	16.8	3	809
1991 NK5		1991 07 10.23021	20 01 35.94	-22 28 27.8		3	809
1991 NK5		1991 07 10.24063	20 01 35.44	-22 28 29.0		3	809
1991 NK5		1991 07 11.16077	20 00 50.99	-22 30 25.4		3	809
1991 NK5		1991 07 11.17117	20 00 50.49	-22 30 26.5		3	809
1991 NK5		1991 07 11.18159	20 00 50.00	-22 30 27.6		3	809
1991 NL5	*	1991 07 10.21979	20 02 30.34	-20 56 43.8	17.3	3	809
1991 NL5		1991 07 10.23021	20 02 29.99	-20 56 43.6		3	809
1991 NL5		1991 07 10.24063	20 02 29.63	-20 56 43.5		3	809
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1991 NL5		1991 07 11.17117	20 01 56.70	-20 56 30.5		3	809
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1991 NM5	*	1991 07 10.21979	20 03 35.41	-20 50 49.7	17.5	3	809
1991 NM5		1991 07 10.23021	20 03 34.73	-20 50 51.4		3	809
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1991 NM5		1991 07 11.18159	20 02 33.18	-20 54 00.2		3	809
1991 NN5	*	1991 07 10.21979	20 03 44.09	-20 58 33.9	17.3	3	809
1991 NN5		1991 07 10.23021	20 03 43.48	-20 58 33.0		3	809
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1991 NN5		1991 07 11.17117	20 02 48.15	-20 57 09.6		3	809
1991 NN5		1991 07 11.18159	20 02 47.54	-20 57 08.5		3	809
1991 NO5	*	1991 07 10.21979	20 04 08.62	-21 34 53.1	16.8	3	809
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1991 NP5	*	1991 07 10.21979	20 04 40.12	-20 46 45.6	16.9	3	809
1991 NP5		1991 07 10.23021	20 04 39.65	-20 46 48.5		3	809
1991 NP5		1991 07 10.24063	20 04 39.16	-20 46 51.5		3	809
1991 NP5		1991 07 11.16077	20 03 58.00	-20 51 15.2		3	809
1991 NP5		1991 07 11.17117	20 03 57.53	-20 51 18.6		3	809
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1991 NQ5		1991 07 11.16077	20 04 23.29	-20 58 54.2		3	809
1991 NQ5		1991 07 11.17117	20 04 22.73	-20 58 56.6		3	809
1991 NQ5		1991 07 11.18159	20 04 22.17	-20 58 59.1		3	809
1991 NR5	*	1991 07 10.21979	20 06 30.93	-21 30 23.2	16.8	3	809
1991 NR5		1991 07 10.23021	20 06 30.33	-21 30 26.2		3	809
1991 NR5		1991 07 10.24063	20 06 29.73	-21 30 29.5		3	809
1991 NR5		1991 07 11.16077	20 05 36.65	-21 35 15.1		3	809
1991 NR5		1991 07 11.17117	20 05 36.05	-21 35 18.3		3	809
1991 NR5		1991 07 11.18159	20 05 35.43	-21 35 21.7		3	809

1991 NS5	*	1991 07 10.25174	20 02 33.51	-23 39 00.4	17.7	3	809
1991 NS5		1991 07 10.26215	20 02 32.99	-23 39 01.2		3	809
1991 NS5		1991 07 10.27257	20 02 32.49	-23 39 01.9		3	809
1991 NS5		1991 07 11.19341	20 01 47.72	-23 40 09.0		3	809
1991 NS5		1991 07 11.20383	20 01 47.23	-23 40 09.9		3	809
1991 NT5	*	1991 07 10.25174	20 05 25.68	-23 29 26.3	17.5	3	809
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1991 NU5	*	1991 07 10.28368	20 03 07.43	-10 34 07.9	17.4	3	809
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1991 NU5		1991 07 12.30035	20 01 36.97	-10 41 35.1		3	809
1991 NU5		1991 07 12.31076	20 01 36.48	-10 41 37.4		3	809
1991 NU5		1991 07 12.32118	20 01 36.01	-10 41 39.9		3	809
1991 NV5	*	1991 07 10.31737	20 07 19.10	-19 10 43.0	17.3	3	809
1991 NV5		1991 07 10.32987	20 07 18.49	-19 10 44.7		3	809
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1991 NV5		1991 07 11.36389	20 06 28.15	-19 13 03.0		3	809
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1991 NV5		1991 07 11.38888	20 06 26.94	-19 13 06.4		3	809
1991 NW5	*	1991 07 10.31737	20 08 29.61	-18 21 08.1	17.8	3	809
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1991 NW5		1991 07 10.34236	20 08 28.12	-18 21 06.1		3	809
1991 NW5		1991 07 12.36319	20 06 27.49	-18 17 33.0		3	809
1991 NW5		1991 07 12.37430	20 06 26.80	-18 17 31.4		3	809
1991 NW5		1991 07 12.38542	20 06 26.12	-18 17 29.8		3	809
1991 NX5	*	1991 07 10.31737	20 08 47.97	-18 39 32.0	16.6	3	809
1991 NX5		1991 07 10.32987	20 08 47.40	-18 39 33.9		3	809
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1991 NX5		1991 07 11.36389	20 08 00.91	-18 42 22.6		3	809
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1991 NY5		1991 07 11.36389	20 08 04.52	-19 11 03.9		3	809
1991 NY5		1991 07 11.37639	20 08 03.84	-19 11 01.6		3	809
1991 NY5		1991 07 11.38888	20 08 03.15	-19 10 59.2		3	809
1991 NY5		1991 07 12.36319	20 07 09.80	-19 08 04.8		3	809
1991 NY5		1991 07 12.37430	20 07 09.19	-19 08 02.6		3	809
1991 NY5		1991 07 12.38542	20 07 08.57	-19 08 00.6		3	809
1991 NZ5	*	1991 07 10.31737	20 09 12.85	-18 21 44.5	17.6	3	809
1991 NZ5		1991 07 10.32987	20 09 12.17	-18 21 44.5		3	809
1991 NZ5		1991 07 10.34236	20 09 11.48	-18 21 44.5		3	809
1991 NZ5		1991 07 11.36389	20 08 15.11	-18 21 45.9		3	809
1991 NZ5		1991 07 11.37639	20 08 14.42	-18 21 45.9		3	809
1991 NZ5		1991 07 11.38888	20 08 13.72	-18 21 45.8		3	809
1991 NZ5		1991 07 12.36319	20 07 19.61	-18 21 48.3		3	809
1991 NZ5		1991 07 12.37430	20 07 18.99	-18 21 48.2		3	809
1991 NZ5		1991 07 12.38542	20 07 18.39	-18 21 48.2		3	809
1991 NA6	*	1991 07 10.31737	20 09 42.49	-17 48 24.7	17.6	3	809

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1991 NA6		1991 07 11.32292	20 08 43.70	-17 50 24.4		3	809
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1991 NA6		1991 07 11.34792	20 08 42.24	-17 50 27.1		3	809
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1991 NA6		1991 07 11.38888	20 08 39.84	-17 50 31.6		3	809
1991 NA6		1991 07 12.36319	20 07 42.20	-17 52 29.3		3	809
1991 NA6		1991 07 12.37430	20 07 41.54	-17 52 30.6		3	809
1991 NA6		1991 07 12.38542	20 07 40.87	-17 52 31.8		3	809
1991 NA6		1991 07 15.08090	20 04 59.99	-17 58 06.0		3	809
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1991 NA6		1991 07 15.10173	20 04 58.74	-17 58 08.5		3	809
1991 NA6		1991 07 16.03021	20 04 02.58	-18 00 04.1		3	809
1991 NA6		1991 07 16.04062	20 04 01.95	-18 00 05.3		3	809
1991 NA6		1991 07 16.05104	20 04 01.33	-18 00 06.6		3	809
1991 NB6	*	1991 07 10.31737	20 12 21.69	-18 27 49.0	16.8	3	809
1991 NB6		1991 07 10.32987	20 12 21.19	-18 27 56.6		3	809
1991 NB6		1991 07 10.34236	20 12 20.66	-18 28 04.5		3	809
1991 NB6		1991 07 11.36389	20 11 39.56	-18 38 42.0		3	809
1991 NB6		1991 07 11.37639	20 11 39.05	-18 38 49.8		3	809
1991 NB6		1991 07 11.38888	20 11 38.58	-18 38 57.7		3	809
1991 NB6		1991 07 12.36319	20 10 58.47	-18 49 15.4		3	809
1991 NB6		1991 07 12.37430	20 10 58.01	-18 49 22.5		3	809
1991 NB6		1991 07 12.38542	20 10 57.56	-18 49 29.4		3	809
1991 NC6	*	1991 07 10.31737	20 13 02.18	-19 13 33.0	17.6	3	809
1991 NC6		1991 07 10.32987	20 13 01.53	-19 13 35.8		3	809
1991 NC6		1991 07 10.34236	20 13 00.87	-19 13 38.5		3	809
1991 NC6		1991 07 11.36389	20 12 07.25	-19 17 31.0		3	809
1991 NC6		1991 07 11.37639	20 12 06.59	-19 17 33.6		3	809
1991 NC6		1991 07 11.38888	20 12 05.93	-19 17 36.4		3	809
1991 NC6		1991 07 12.36319	20 11 13.65	-19 21 21.4		3	809
1991 NC6		1991 07 12.37430	20 11 13.06	-19 21 23.8		3	809
1991 NC6		1991 07 12.38542	20 11 12.44	-19 21 26.3		3	809
1991 ND6	*	1991 07 10.31737	20 14 07.47	-18 20 29.7	16.8	3	809
1991 ND6		1991 07 10.32987	20 14 06.89	-18 20 31.3		3	809
1991 ND6		1991 07 10.34236	20 14 06.31	-18 20 32.8		3	809
1991 ND6		1991 07 11.36389	20 13 18.45	-18 22 42.3		3	809
1991 ND6		1991 07 11.37639	20 13 17.87	-18 22 44.3		3	809
1991 ND6		1991 07 11.38888	20 13 17.31	-18 22 45.8		3	809
1991 ND6		1991 07 12.36319	20 12 31.13	-18 24 50.4		3	809
1991 ND6		1991 07 12.37430	20 12 30.60	-18 24 51.7		3	809
1991 ND6		1991 07 12.38542	20 12 30.09	-18 24 53.5		3	809
1991 NE6	*	1991 07 10.31737	20 14 50.11	-19 00 25.1	16.2	3	809
1991 NE6		1991 07 10.32987	20 14 49.48	-19 00 24.9		3	809
1991 NE6		1991 07 10.34236	20 14 48.85	-19 00 24.3		3	809
1991 NE6		1991 07 11.36389	20 13 56.87	-19 00 01.3		3	809
1991 NE6		1991 07 11.37639	20 13 56.23	-19 00 00.8		3	809
1991 NE6		1991 07 11.38888	20 13 55.60	-19 00 00.4		3	809
1991 NE6		1991 07 12.36319	20 13 05.63	-18 59 38.2		3	809
1991 NE6		1991 07 12.37430	20 13 05.04	-18 59 37.9		3	809
1991 NE6		1991 07 12.38542	20 13 04.45	-18 59 37.8		3	809
1991 NF6	*	1991 07 10.39860	21 38 11.99	-18 14 30.2	17.3	3	809
1991 NF6		1991 07 10.41251	21 38 11.62	-18 14 35.3		3	809
1991 NF6		1991 07 10.42639	21 38 11.27	-18 14 40.3		3	809
1991 NF6		1991 07 11.40451	21 37 45.67	-18 20 37.3		3	809
1991 NF6		1991 07 11.41771	21 37 45.34	-18 20 42.3		3	809
1991 NF6		1991 07 11.43091	21 37 45.00	-18 20 47.2		3	809

1991 NG6	*	1991 07 11.22534	20 00 02.78	-12 47 24.7	17.3	3	809
1991 NG6		1991 07 11.23576	20 00 02.27	-12 47 27.2		3	809
1991 NG6		1991 07 11.24619	20 00 01.76	-12 47 29.6		3	809
1991 NG6		1991 07 12.26633	19 59 11.73	-12 51 32.5		3	809
1991 NG6		1991 07 12.27673	19 59 11.24	-12 51 35.0		3	809
1991 NG6		1991 07 12.28716	19 59 10.70	-12 51 37.4		3	809
1991 NH6	*	1991 07 11.22534	20 02 21.98	-13 20 35.8	17.2	3	809
1991 NH6		1991 07 11.23576	20 02 21.34	-13 20 34.4		3	809
1991 NH6		1991 07 11.24619	20 02 20.70	-13 20 32.9		3	809
1991 NH6		1991 07 12.26633	20 01 18.11	-13 18 30.9		3	809
1991 NH6		1991 07 12.27673	20 01 17.48	-13 18 29.7		3	809
1991 NH6		1991 07 12.28716	20 01 16.86	-13 18 28.4		3	809
1991 NH6		1991 07 14.28021	19 59 12.79	-13 14 44.6		3	809
1991 NH6		1991 07 14.29062	19 59 12.14	-13 14 43.4		3	809
1991 NH6		1991 07 14.30104	19 59 11.51	-13 14 42.3		3	809
1991 NH6		1991 07 15.30313	19 58 08.48	-13 12 57.9		3	809
1991 NH6		1991 07 15.31354	19 58 07.83	-13 12 56.8		3	809
1991 NH6		1991 07 15.32396	19 58 07.16	-13 12 55.8		3	809
1991 NH6		1991 07 16.29271	19 57 06.14	-13 11 19.3		3	809
1991 NH6		1991 07 16.30313	19 57 05.48	-13 11 18.5		3	809
1991 NH6		1991 07 16.31354	19 57 04.82	-13 11 17.4		3	809
1991 NJ6	*	1991 07 11.22534	20 03 14.28	-13 07 30.1	17.5	3	809
1991 NJ6		1991 07 11.23576	20 03 13.71	-13 07 30.7		3	809
1991 NJ6		1991 07 11.24619	20 03 13.16	-13 07 31.3		3	809
1991 NJ6		1991 07 12.26633	20 02 18.59	-13 08 33.3		3	809
1991 NJ6		1991 07 12.27673	20 02 18.02	-13 08 33.6		3	809
1991 NJ6		1991 07 12.28716	20 02 17.46	-13 08 34.1		3	809
1991 NJ6		1991 07 15.30313	19 59 31.74	-13 12 27.4	16.9	3	809
1991 NJ6		1991 07 15.31354	19 59 31.10	-13 12 27.1		3	809
1991 NJ6		1991 07 15.32396	19 59 30.46	-13 12 26.9		3	809
1991 NJ6		1991 07 16.29271	19 58 36.25	-13 13 59.4		3	809
1991 NJ6		1991 07 16.30313	19 58 35.67	-13 14 00.2		3	809
1991 NJ6		1991 07 16.31354	19 58 35.10	-13 14 01.1		3	809
1991 NK6	*	1991 07 11.28923	19 59 20.34	-15 55 15.7	16.6	3	809
1991 NK6		1991 07 11.29965	19 59 19.73	-15 55 17.1		3	809
1991 NK6		1991 07 11.31007	19 59 19.12	-15 55 18.8		3	809
1991 NK6		1991 07 12.33194	19 58 20.22	-15 57 47.9		3	809
1991 NK6		1991 07 12.34166	19 58 19.67	-15 57 49.3		3	809
1991 NK6		1991 07 12.35140	19 58 19.11	-15 57 50.6		3	809
1991 NK6		1991 07 16.09757	19 54 37.95	-16 07 36.4		3	809
1991 NK6		1991 07 16.10799	19 54 37.33	-16 07 38.2		3	809
1991 NK6		1991 07 16.11841	19 54 36.71	-16 07 39.8		3	809
1991 NL6	*	1991 07 11.28923	20 02 09.26	-15 56 15.4	17.4	3	809
1991 NL6		1991 07 11.29965	20 02 08.67	-15 56 15.2		3	809
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1991 NL6		1991 07 12.34166	20 01 09.07	-15 56 08.3		3	809
1991 NL6		1991 07 12.35140	20 01 08.50	-15 56 08.1		3	809
1991 NL6		1991 07 16.09757	19 57 29.62	-15 56 34.9		3	809
1991 NL6		1991 07 16.10799	19 57 29.01	-15 56 35.1		3	809
1991 NL6		1991 07 16.11841	19 57 28.41	-15 56 35.1		3	809
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1991 NM6		1991 07 11.29965	20 02 46.69	-15 11 29.5		3	809
1991 NM6		1991 07 11.31007	20 02 46.17	-15 11 32.0		3	809
1991 NM6		1991 07 12.33194	20 01 55.78	-15 15 33.4		3	809
1991 NM6		1991 07 12.34166	20 01 55.30	-15 15 35.6		3	809
1991 NM6		1991 07 12.35140	20 01 54.82	-15 15 37.9		3	809
1991 NM6		1991 07 16.09757	19 58 46.24	-15 31 00.5		3	809
1991 NM6		1991 07 16.10799	19 58 45.72	-15 31 03.0		3	809

1991 NM6		1991 07 16.11841	19 58 45.20	-15 31 05.3		3	809
1991 NN6	*	1991 07 11.28923	20 03 47.19	-14 33 59.5	16.8	3	809
1991 NN6		1991 07 11.29965	20 03 46.59	-14 34 00.3		3	809
1991 NN6		1991 07 11.31007	20 03 45.98	-14 34 01.4		3	809
1991 NN6		1991 07 12.33194	20 02 46.57	-14 35 46.8		3	809
1991 NN6		1991 07 12.34166	20 02 46.00	-14 35 47.8		3	809
1991 NN6		1991 07 12.35140	20 02 45.46	-14 35 48.9		3	809
1991 NO6	*	1991 07 11.28923	20 06 07.23	-15 45 47.0	17.5	3	809
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1991 NO6		1991 07 12.35140	20 05 22.37	-15 45 54.2		3	809
1991 NP6	*	1991 07 11.32292	20 08 58.56	-17 03 33.7	16.9	3	809
1991 NP6		1991 07 11.33542	20 08 57.84	-17 03 31.4		3	809
1991 NP6		1991 07 11.34792	20 08 57.12	-17 03 29.2		3	809
1991 NP6		1991 07 15.08090	20 05 20.95	-16 52 31.0		3	809
1991 NP6		1991 07 15.09132	20 05 20.35	-16 52 29.5		3	809
1991 NP6		1991 07 15.10173	20 05 19.75	-16 52 27.6		3	809
1991 NP6		1991 07 16.03021	20 04 24.51	-16 49 46.8		3	809
1991 NP6		1991 07 16.04062	20 04 23.90	-16 49 44.8		3	809
1991 NP6		1991 07 16.05104	20 04 23.27	-16 49 43.3		3	809
1991 NQ6	*	1991 07 11.32292	20 09 08.62	-17 15 32.0	16.8	3	809
1991 NQ6		1991 07 11.33542	20 09 07.89	-17 15 31.8		3	809
1991 NQ6		1991 07 11.34792	20 09 07.13	-17 15 31.7		3	809
1991 NQ6		1991 07 15.08090	20 05 20.47	-17 15 06.5		3	809
1991 NQ6		1991 07 15.09132	20 05 19.84	-17 15 06.3		3	809
1991 NQ6		1991 07 15.10173	20 05 19.21	-17 15 06.2		3	809
1991 NQ6		1991 07 16.03021	20 04 20.97	-17 15 05.8		3	809
1991 NQ6		1991 07 16.04062	20 04 20.32	-17 15 05.6		3	809
1991 NQ6		1991 07 16.05104	20 04 19.67	-17 15 05.4		3	809
1991 NR6	*	1991 07 11.32292	20 10 37.14	-17 13 00.3	17.3	3	809
1991 NR6		1991 07 11.33542	20 10 36.46	-17 13 03.7		3	809
1991 NR6		1991 07 11.34792	20 10 35.81	-17 13 06.9		3	809
1991 NR6		1991 07 15.08090	20 07 14.48	-17 28 51.2		3	809
1991 NR6		1991 07 15.09132	20 07 13.90	-17 28 53.8		3	809
1991 NR6		1991 07 15.10173	20 07 13.34	-17 28 56.8		3	809
1991 NS6	*	1991 07 11.32292	20 11 51.27	-17 04 40.3	17.6	3	809
1991 NS6		1991 07 11.33542	20 11 50.65	-17 04 44.6		3	809
1991 NS6		1991 07 11.34792	20 11 50.02	-17 04 48.9		3	809
1991 NS6		1991 07 15.08090	20 08 43.24	-17 26 20.1		3	809
1991 NS6		1991 07 15.09132	20 08 42.71	-17 26 23.7		3	809
1991 NS6		1991 07 15.10173	20 08 42.19	-17 26 27.3		3	809
1991 NS6		1991 07 16.03021	20 07 54.04	-17 32 02.0		3	809
1991 NS6		1991 07 16.04062	20 07 53.50	-17 32 05.8		3	809
1991 NS6		1991 07 16.05104	20 07 52.96	-17 32 09.8		3	809
1991 NT6	*	1991 07 11.40451	21 36 57.25	-18 44 55.9	16.8	3	809
1991 NT6		1991 07 11.41771	21 36 56.93	-18 45 02.7		3	809
1991 NT6		1991 07 11.43091	21 36 56.62	-18 45 09.4		3	809
1991 NT6		1991 07 12.39999	21 36 33.75	-18 53 35.5		3	809
1991 NU6	*	1991 07 12.05763	19 38 11.60	-23 45 26.9	16.8	3	809
1991 NU6		1991 07 12.06876	19 38 10.90	-23 45 25.8		3	809
1991 NU6		1991 07 12.07987	19 38 10.20	-23 45 24.8		3	809
1991 NU6		1991 07 13.03334	19 37 09.82	-23 43 39.2		3	809
1991 NU6		1991 07 13.04375	19 37 09.15	-23 43 38.1		3	809
1991 NU6		1991 07 13.05452	19 37 08.47	-23 43 36.9		3	809
1991 NU6		1991 07 14.21216	19 35 54.79	-23 41 26.9		3	809
1991 NU6		1991 07 14.22256	19 35 54.13	-23 41 25.8		3	809
1991 NU6		1991 07 14.23299	19 35 53.48	-23 41 24.5		3	809

1991 NV6	*	1991 07 12.05763	19 38 39.15	-24 29 34.3	17.2	3 809
1991 NV6		1991 07 12.06876	19 38 38.55	-24 29 34.0		3 809
1991 NV6		1991 07 12.07987	19 38 37.96	-24 29 33.9		3 809
1991 NV6		1991 07 13.03334	19 37 47.52	-24 29 30.0		3 809
1991 NV6		1991 07 13.04375	19 37 46.96	-24 29 29.9		3 809
1991 NV6		1991 07 13.05452	19 37 46.40	-24 29 29.7		3 809
1991 NV6		1991 07 14.21216	19 36 44.79	-24 29 22.2		3 809
1991 NV6		1991 07 14.22256	19 36 44.24	-24 29 22.2		3 809
1991 NV6		1991 07 14.23299	19 36 43.69	-24 29 22.0		3 809
1991 NW6	*	1991 07 12.12743	19 51 48.34	-20 15 08.2	16.6	3 809
1991 NW6		1991 07 12.13785	19 51 47.71	-20 15 08.1		3 809
1991 NW6		1991 07 12.14827	19 51 47.09	-20 15 08.1		3 809
1991 NW6		1991 07 13.06702	19 50 51.96	-20 15 04.9		3 809
1991 NW6		1991 07 13.07742	19 50 51.34	-20 15 04.7		3 809
1991 NW6		1991 07 13.08784	19 50 50.71	-20 15 04.5		3 809
1991 NX6	*	1991 07 12.12743	19 54 53.21	-19 50 01.4	17.9	3 809
1991 NX6		1991 07 12.13785	19 54 52.58	-19 50 01.7		3 809
1991 NX6		1991 07 12.14827	19 54 51.95	-19 50 02.0		3 809
1991 NX6		1991 07 13.06702	19 53 57.65	-19 50 19.7		3 809
1991 NX6		1991 07 13.07742	19 53 57.02	-19 50 19.9		3 809
1991 NX6		1991 07 13.08784	19 53 56.40	-19 50 20.1		3 809
1991 NY6	*	1991 07 12.12743	19 57 31.27	-19 28 22.0	16.8	3 809
1991 NY6		1991 07 12.13785	19 57 30.72	-19 28 26.3		3 809
1991 NY6		1991 07 12.14827	19 57 30.17	-19 28 30.4		3 809
1991 NY6		1991 07 13.06702	19 56 41.35	-19 34 35.6		3 809
1991 NY6		1991 07 13.07742	19 56 40.81	-19 34 39.7		3 809
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1991 NY6		1991 07 15.11354	19 54 49.68	-19 48 11.9		3 809
1991 NY6		1991 07 15.12396	19 54 49.12	-19 48 16.1		3 809
1991 NY6		1991 07 15.13437	19 54 48.55	-19 48 20.3		3 809
1991 NY6		1991 07 16.06424	19 53 57.33	-19 54 34.7		3 809
1991 NY6		1991 07 16.07465	19 53 56.76	-19 54 38.9		3 809
1991 NY6		1991 07 16.08507	19 53 56.19	-19 54 43.2		3 809
1991 NZ6	*	1991 07 12.12743	19 57 51.78	-20 16 44.1	17.5	3 809
1991 NZ6		1991 07 12.13785	19 57 51.26	-20 16 46.4		3 809
1991 NZ6		1991 07 12.14827	19 57 50.74	-20 16 48.8		3 809
1991 NZ6		1991 07 12.23299	19 57 46.49	-20 17 06.9		3 809
1991 NZ6		1991 07 12.24341	19 57 45.96	-20 17 09.1		3 809
1991 NZ6		1991 07 12.25381	19 57 45.44	-20 17 11.3		3 809
1991 NZ6		1991 07 13.06702	19 57 04.65	-20 20 10.2		3 809
1991 NZ6		1991 07 13.07742	19 57 04.14	-20 20 12.7		3 809
1991 NZ6		1991 07 13.08784	19 57 03.62	-20 20 15.4		3 809
1991 NZ6		1991 07 15.11354	19 55 19.70	-20 27 43.4		3 809
1991 NZ6		1991 07 15.12396	19 55 19.17	-20 27 45.5		3 809
1991 NZ6		1991 07 15.13437	19 55 18.63	-20 27 48.0		3 809
1991 NZ6		1991 07 16.06424	19 54 30.65	-20 31 14.2		3 809
1991 NZ6		1991 07 16.07465	19 54 30.10	-20 31 16.6		3 809
1991 NZ6		1991 07 16.08507	19 54 29.57	-20 31 19.1		3 809
1991 NA7	*	1991 07 12.12743	19 58 25.38	-20 23 42.4	17.6	3 809
1991 NA7		1991 07 12.13785	19 58 24.75	-20 23 41.5		3 809
1991 NA7		1991 07 12.14827	19 58 24.12	-20 23 40.6		3 809
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1991 NA7		1991 07 12.24341	19 58 18.37	-20 23 33.2		3 809
1991 NA7		1991 07 12.25381	19 58 17.74	-20 23 32.4		3 809
1991 NA7		1991 07 13.06702	19 57 28.51	-20 22 28.6		3 809
1991 NA7		1991 07 13.07742	19 57 27.88	-20 22 27.6		3 809
1991 NA7		1991 07 13.08784	19 57 27.25	-20 22 27.0		3 809
1991 NA7		1991 07 15.11354	19 55 22.00	-20 19 53.2		3 809
1991 NA7		1991 07 15.12396	19 55 21.36	-20 19 52.4		3 809

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1991 NA7		1991 07 16.06424	19 54 23.05	-20 18 39.2		3	809
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1991 NA7		1991 07 16.08507	19 54 21.76	-20 18 37.7		3	809
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1991 NB7		1991 07 12.17117	19 50 17.13	-17 32 42.7		3	809
1991 NB7		1991 07 12.18159	19 50 16.58	-17 32 45.3		3	809
1991 NB7		1991 07 15.04617	19 47 42.96	-17 44 12.1		3	809
1991 NB7		1991 07 15.05660	19 47 42.41	-17 44 14.6		3	809
1991 NB7		1991 07 15.06702	19 47 41.86	-17 44 16.9		3	809
1991 NC7	*	1991 07 12.16077	19 51 31.02	-17 35 00.8	17.4	3	809
1991 NC7		1991 07 12.17117	19 51 30.43	-17 35 01.3		3	809
1991 NC7		1991 07 12.18159	19 51 29.87	-17 35 01.8		3	809
1991 NC7		1991 07 14.24548	19 49 35.93	-17 36 28.3		3	809
1991 NC7		1991 07 14.25591	19 49 35.35	-17 36 28.7		3	809
1991 NC7		1991 07 14.26633	19 49 34.77	-17 36 28.9		3	809
1991 NC7		1991 07 15.04617	19 48 51.76	-17 37 04.7		3	809
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1991 NC7		1991 07 16.25798	19 47 43.07	-17 38 04.8		3	809
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1991 NC7		1991 07 16.27882	19 47 41.90	-17 38 05.4		3	809
1991 ND7	*	1991 07 12.16077	19 53 09.61	-17 48 28.7	17.4	3	809
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1991 ND7		1991 07 15.06702	19 50 36.11	-17 57 33.1		3	809
1991 ND7		1991 07 16.25798	19 49 32.05	-18 01 22.1		3	809
1991 ND7		1991 07 16.26840	19 49 31.50	-18 01 24.4		3	809
1991 ND7		1991 07 16.27882	19 49 30.94	-18 01 26.6		3	809
1991 NE7	*	1991 07 12.16077	19 53 18.88	-17 27 11.1	17.1	3	809
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1991 NE7		1991 07 12.18159	19 53 17.86	-17 27 11.9		3	809
1991 NE7		1991 07 13.10104	19 52 33.07	-17 27 48.3		3	809
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1991 NE7		1991 07 16.27882	19 49 56.36	-17 30 08.0		3	809
1991 NF7	*	1991 07 12.16077	19 56 41.22	-16 55 23.8	17.4	3	809
1991 NF7		1991 07 12.17117	19 56 40.69	-16 55 25.5		3	809
1991 NF7		1991 07 12.18159	19 56 40.14	-16 55 27.1		3	809
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1991 NF7		1991 07 14.26633	19 54 50.47	-17 01 29.0		3	809
1991 NF7		1991 07 15.04617	19 54 09.53	-17 03 48.7		3	809
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1991 NF7		1991 07 15.06702	19 54 08.45	-17 03 52.4		3	809
1991 NF7		1991 07 16.25798	19 53 04.39	-17 07 31.4		3	809

1991 NF7		1991 07 16.26840	19 53 03.83	-17 07 33.3		3	809
1991 NF7		1991 07 16.27882	19 53 03.28	-17 07 35.3		3	809
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1991 NG7		1991 07 12.20070	19 59 14.27	-17 56 10.6		3	809
1991 NG7		1991 07 12.20903	19 59 13.85	-17 56 11.6		3	809
1991 NG7		1991 07 15.15938	19 56 43.85	-18 03 46.4		3	809
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1991 NH7	*	1991 07 12.19237	20 05 51.30	-18 07 39.1	17.4	3	809
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1991 NH7		1991 07 12.20903	20 05 50.25	-18 07 43.5		3	809
1991 NH7		1991 07 15.15938	20 02 46.78	-18 20 50.8		3	809
1991 NH7		1991 07 15.16978	20 02 46.12	-18 20 53.5		3	809
1991 NH7		1991 07 15.18021	20 02 45.46	-18 20 56.0		3	809
1991 NJ7	*	1991 07 12.23299	20 00 52.22	-19 59 49.9	17.3	3	809
1991 NJ7		1991 07 12.24341	20 00 51.66	-19 59 50.5		3	809
1991 NJ7		1991 07 12.25381	20 00 51.09	-19 59 51.3		3	809
1991 NJ7		1991 07 14.31285	19 59 00.10	-20 01 56.4		3	809
1991 NJ7		1991 07 14.32326	19 58 59.52	-20 01 56.9		3	809
1991 NJ7		1991 07 14.33368	19 58 58.95	-20 01 57.5		3	809
1991 NJ7		1991 07 15.11354	19 58 16.81	-20 02 45.7		3	809
1991 NJ7		1991 07 15.12396	19 58 16.25	-20 02 46.2		3	809
1991 NJ7		1991 07 15.13437	19 58 15.67	-20 02 47.1		3	809
1991 NJ7		1991 07 16.06424	19 57 24.59	-20 03 45.0		3	809
1991 NJ7		1991 07 16.07465	19 57 24.00	-20 03 45.4		3	809
1991 NJ7		1991 07 16.08507	19 57 23.45	-20 03 46.1		3	809
1991 NK7	*	1991 07 12.23299	20 02 45.68	-19 48 50.6	17.8	3	809
1991 NK7		1991 07 12.24341	20 02 45.00	-19 48 51.6		3	809
1991 NK7		1991 07 12.25381	20 02 44.32	-19 48 52.3		3	809
1991 NK7		1991 07 14.31285	20 00 29.99	-19 51 24.7		3	809
1991 NK7		1991 07 14.32326	20 00 29.31	-19 51 25.3		3	809
1991 NK7		1991 07 14.33368	20 00 28.64	-19 51 25.8		3	809
1991 NL7	*	1991 07 12.23299	20 03 32.83	-20 08 59.1	17.1	3	809
1991 NL7		1991 07 12.24341	20 03 32.18	-20 09 00.6		3	809
1991 NL7		1991 07 12.25381	20 03 31.55	-20 09 02.0		3	809
1991 NL7		1991 07 14.31285	20 01 24.74	-20 13 42.8		3	809
1991 NL7		1991 07 14.32326	20 01 24.09	-20 13 44.2		3	809
1991 NL7		1991 07 14.33368	20 01 23.44	-20 13 45.6		3	809
1991 NL7		1991 07 15.11354	20 00 35.54	-20 15 32.4		3	809
1991 NL7		1991 07 15.12396	20 00 34.90	-20 15 33.7		3	809
1991 NL7		1991 07 15.13437	20 00 34.23	-20 15 35.5		3	809
1991 NL7		1991 07 16.06424	19 59 36.32	-20 17 41.4		3	809
1991 NL7		1991 07 16.07465	19 59 35.69	-20 17 42.9		3	809
1991 NL7		1991 07 16.08507	19 59 35.06	-20 17 44.6		3	809
1991 NM7	*	1991 07 12.23299	20 03 47.53	-19 21 58.8	16.9	3	809
1991 NM7		1991 07 12.24341	20 03 47.01	-19 22 00.5		3	809
1991 NM7		1991 07 12.25381	20 03 46.52	-19 22 02.2		3	809
1991 NM7		1991 07 14.31285	20 02 07.50	-19 28 10.4		3	809
1991 NM7		1991 07 14.32326	20 02 06.99	-19 28 12.4		3	809
1991 NM7		1991 07 14.33368	20 02 06.49	-19 28 14.1		3	809
1991 NM7		1991 07 15.11354	20 01 28.95	-19 30 32.6		3	809
1991 NM7		1991 07 15.12396	20 01 28.43	-19 30 34.4		3	809
1991 NM7		1991 07 15.13437	20 01 27.93	-19 30 36.4		3	809
1991 NM7		1991 07 16.06424	20 00 42.69	-19 33 23.3		3	809
1991 NM7		1991 07 16.07465	20 00 42.19	-19 33 25.2		3	809
1991 NM7		1991 07 16.08507	20 00 41.70	-19 33 27.1		3	809
1991 NN7	*	1991 07 12.33194	20 00 54.17	-16 09 56.6	16.5	3	809
1991 NN7		1991 07 12.34166	20 00 53.69	-16 09 59.2		3	809
1991 NN7		1991 07 12.35140	20 00 53.19	-16 10 01.9		3	809

1991 NN7		1991 07 16.09757	19 57 43.69	-16 27 57.6		3	809
1991 NN7		1991 07 16.10799	19 57 43.17	-16 28 00.9		3	809
1991 NN7		1991 07 16.11841	19 57 42.62	-16 28 03.6		3	809
1991 NO7	*	1991 07 15.19409	20 10 46.58	-22 45 42.4	16.5	3	809
1991 NO7		1991 07 15.20451	20 10 45.91	-22 45 42.0		3	809
1991 NO7		1991 07 15.21494	20 10 45.27	-22 45 41.5		3	809
1991 NO7		1991 07 16.13091	20 09 48.76	-22 44 51.1		3	809
1991 NO7		1991 07 16.14133	20 09 48.11	-22 44 50.5		3	809
1991 NO7		1991 07 16.15173	20 09 47.47	-22 44 50.0		3	809
1991 NP7	*	1991 07 15.19409	20 12 11.07	-23 08 06.8	16.9	3	809
1991 NP7		1991 07 15.20451	20 12 10.61	-23 08 11.1		3	809
1991 NP7		1991 07 15.21494	20 12 10.14	-23 08 15.5		3	809
1991 NP7		1991 07 16.13091	20 11 28.88	-23 14 47.3		3	809
1991 NP7		1991 07 16.14133	20 11 28.39	-23 14 51.7		3	809
1991 NP7		1991 07 16.15173	20 11 27.91	-23 14 56.3		3	809
1991 NQ7	*	1991 07 15.23715	20 08 31.53	-20 43 22.4	16.8	3	809
1991 NQ7		1991 07 15.24757	20 08 30.99	-20 43 23.7		3	809
1991 NQ7		1991 07 15.25798	20 08 30.44	-20 43 25.3		3	809
1991 NQ7		1991 07 16.17882	20 07 42.82	-20 45 28.9		3	809
1991 NQ7		1991 07 16.18924	20 07 42.28	-20 45 30.2		3	809
1991 NQ7		1991 07 16.19965	20 07 41.74	-20 45 31.7		3	809
1991 NR7	*	1991 07 15.23715	20 09 10.60	-21 06 15.6	16.8	3	809
1991 NR7		1991 07 15.24757	20 09 10.07	-21 06 17.2		3	809
1991 NR7		1991 07 15.25798	20 09 09.51	-21 06 18.8		3	809
1991 NR7		1991 07 16.17882	20 08 20.70	-21 08 47.0		3	809
1991 NR7		1991 07 16.18924	20 08 20.15	-21 08 48.7		3	809
1991 NR7		1991 07 16.19965	20 08 19.59	-21 08 50.3		3	809
1991 NS7	*	1991 07 15.23715	20 10 25.62	-20 57 38.4	16.9	3	809
1991 NS7		1991 07 15.24757	20 10 24.99	-20 57 42.3		3	809
1991 NS7		1991 07 15.25798	20 10 24.35	-20 57 46.0		3	809
1991 NS7		1991 07 16.17882	20 09 29.39	-21 03 23.5		3	809
1991 NS7		1991 07 16.18924	20 09 28.78	-21 03 27.5		3	809
1991 NS7		1991 07 16.19965	20 09 28.16	-21 03 31.2		3	809
1991 NT7	*	1991 07 15.23715	20 11 30.73	-21 20 45.0	16.0	3	809
1991 NT7		1991 07 15.24757	20 11 30.20	-21 20 50.4		3	809
1991 NT7		1991 07 15.25798	20 11 29.68	-21 20 55.7		3	809
1991 NT7		1991 07 16.17882	20 10 42.67	-21 28 44.6		3	809
1991 NT7		1991 07 16.18924	20 10 42.12	-21 28 49.8		3	809
1991 NT7		1991 07 16.19965	20 10 41.60	-21 28 55.2		3	809
1991 NU7	*	1991 07 15.37952	20 15 43.26	-23 47 01.7	16.9	3	809
1991 NU7		1991 07 15.38992	20 15 42.63	-23 47 03.6		3	809
1991 NU7		1991 07 15.40034	20 15 42.02	-23 47 06.3		3	809
1991 NU7		1991 07 16.22327	20 14 53.51	-23 50 02.2		3	809
1991 NU7		1991 07 16.23367	20 14 52.89	-23 50 04.6		3	809
1991 NU7		1991 07 16.24409	20 14 52.28	-23 50 06.7		3	809
1991 NV7	*	1991 07 15.37952	20 16 22.65	-22 32 43.0	16.8	3	809
1991 NV7		1991 07 15.38992	20 16 22.14	-22 32 45.5		3	809
1991 NV7		1991 07 15.40034	20 16 21.62	-22 32 47.6		3	809
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1991 NV7		1991 07 16.23367	20 15 39.55	-22 36 04.3		3	809
1991 NV7		1991 07 16.24409	20 15 39.02	-22 36 06.6		3	809
1991 NW7	*	1991 07 15.37952	20 18 39.13	-23 40 56.6	17.0	3	809
1991 NW7		1991 07 15.38992	20 18 38.67	-23 40 59.6		3	809
1991 NW7		1991 07 15.40034	20 18 38.19	-23 41 02.5		3	809
1991 NW7		1991 07 16.22327	20 18 00.89	-23 44 40.8		3	809
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1991 NW7		1991 07 16.24409	20 17 59.94	-23 44 47.0		3	809
1991 OC1	*	1991 07 18.16736	20 31 14.93	-21 27 52.6	17.4	3	809
1991 OC1		1991 07 18.17569	20 31 14.25	-21 27 51.0		3	809

1991 OC1		1991 07 18.18402	20 31 13.57	-21 27 49.7		3	809
1991 OC1		1991 07 19.31424	20 29 40.68	-21 24 25.0		3	809
1991 OC1		1991 07 19.32465	20 29 39.82	-21 24 23.1		3	809
1991 OD1	*	1991 07 18.16736	20 33 20.69	-22 33 40.2	17.1	3	809
1991 OD1		1991 07 18.17569	20 33 20.17	-22 33 40.6		3	809
1991 OD1		1991 07 18.18402	20 33 19.65	-22 33 41.4		3	809
1991 OD1		1991 07 19.31424	20 32 09.79	-22 34 59.4		3	809
1991 OD1		1991 07 19.32465	20 32 09.16	-22 34 59.7		3	809
1991 OE1	*	1991 07 18.16736	20 35 36.88	-21 10 24.5	16.8	3	809
1991 OE1		1991 07 18.17569	20 35 36.40	-21 10 24.2		3	809
1991 OE1		1991 07 18.18402	20 35 35.91	-21 10 24.0		3	809
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1991 OE1		1991 07 19.32465	20 34 27.65	-21 09 39.3		3	809
1991 OF1	*	1991 07 18.16736	20 36 52.81	-21 31 16.4	16.0	3	809
1991 OF1		1991 07 18.17569	20 36 52.43	-21 31 22.3		3	809
1991 OF1		1991 07 18.18402	20 36 52.03	-21 31 28.0		3	809
1991 OF1		1991 07 19.31424	20 36 00.59	-21 44 47.4		3	809
1991 OF1		1991 07 19.32465	20 36 00.12	-21 44 54.9		3	809
1991 OG1	*	1991 07 18.19618	20 32 09.76	-19 18 09.1	16.0	3	809
1991 OG1		1991 07 18.20660	20 32 09.26	-19 18 13.7		3	809
1991 OG1		1991 07 18.21701	20 32 08.73	-19 18 18.2		3	809
1991 OG1		1991 07 19.33577	20 31 15.23	-19 26 32.9		3	809
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1991 OH1		1991 07 18.20660	20 33 18.74	-20 09 55.3		3	809
1991 OH1		1991 07 18.21701	20 33 18.23	-20 09 57.6		3	809
1991 OH1		1991 07 19.33577	20 32 24.10	-20 14 37.4		3	809
1991 OH1		1991 07 19.34618	20 32 23.60	-20 14 40.1		3	809
1991 OJ1	*	1991 07 18.19618	20 34 32.11	-20 14 15.0	17.3	3	809
1991 OJ1		1991 07 18.20660	20 34 31.61	-20 14 13.9		3	809
1991 OJ1		1991 07 18.21701	20 34 31.10	-20 14 12.7		3	809
1991 OJ1		1991 07 19.33577	20 33 38.19	-20 12 21.9		3	809
1991 OJ1		1991 07 19.34618	20 33 37.71	-20 12 20.8		3	809
1991 OK1	*	1991 07 18.19618	20 34 51.15	-19 33 23.2	17.2	3	809
1991 OK1		1991 07 18.20660	20 34 50.64	-19 33 23.3		3	809
1991 OK1		1991 07 18.21701	20 34 50.11	-19 33 23.6		3	809
1991 OK1		1991 07 19.33577	20 33 54.40	-19 33 46.0		3	809
1991 OK1		1991 07 19.34618	20 33 53.87	-19 33 46.1		3	809
1991 OL1	*	1991 07 18.19618	20 35 52.66	-19 18 44.1	17.0	3	809
1991 OL1		1991 07 18.20660	20 35 52.17	-19 18 46.4		3	809
1991 OL1		1991 07 18.21701	20 35 51.71	-19 18 48.4		3	809
1991 OL1		1991 07 19.33577	20 35 01.79	-19 23 03.2		3	809
1991 OL1		1991 07 19.34618	20 35 01.33	-19 23 05.5		3	809
1991 OM1	*	1991 07 18.23090	20 38 07.97	-18 11 53.0	15.5	3	809
1991 OM1		1991 07 18.24132	20 38 07.42	-18 11 54.1		3	809
1991 OM1		1991 07 18.25174	20 38 06.86	-18 11 55.3		3	809
1991 OM1		1991 07 19.35799	20 37 07.87	-18 14 03.5		3	809
1991 OM1		1991 07 19.36841	20 37 07.29	-18 14 04.9		3	809
1991 OM1		1991 07 21.31424	20 35 22.22	-18 17 55.6		3	809
1991 OM1		1991 07 21.32465	20 35 21.66	-18 17 56.7		3	809
1991 OM1		1991 07 21.33507	20 35 21.10	-18 17 58.0		3	809
1991 ON1	*	1991 07 18.23090	20 38 39.81	-19 31 03.6	17.5	3	809
1991 ON1		1991 07 18.24132	20 38 39.30	-19 31 03.9		3	809
1991 ON1		1991 07 18.25174	20 38 38.80	-19 31 04.1		3	809
1991 ON1		1991 07 21.31424	20 35 59.85	-19 32 54.2		3	809
1991 ON1		1991 07 21.32465	20 35 59.29	-19 32 54.7		3	809
1991 ON1		1991 07 21.33507	20 35 58.75	-19 32 55.3		3	809
1991 OO1	*	1991 07 18.23090	20 45 22.95	-18 33 39.4	17.5	3	809
1991 OO1		1991 07 18.24132	20 45 22.44	-18 33 39.4		3	809

1991 OO1		1991 07 18.25174	20 45 21.95	-18 33 39.1		3	809
1991 OO1		1991 07 21.31424	20 42 39.68	-18 32 03.7		3	809
1991 OO1		1991 07 21.32465	20 42 39.10	-18 32 03.2		3	809
1991 OO1		1991 07 21.33507	20 42 38.52	-18 32 02.7		3	809
1991 OP1	*	1991 07 18.27812	20 46 21.33	-21 11 28.1	16.8	3	809
1991 OP1		1991 07 18.28854	20 46 20.88	-21 11 35.7		3	809
1991 OP1		1991 07 18.29895	20 46 20.45	-21 11 43.1		3	809
1991 OP1		1991 07 18.31285	20 46 19.84	-21 11 53.3		3	809
1991 OP1		1991 07 18.32326	20 46 19.39	-21 12 01.1		3	809
1991 OP1		1991 07 18.33368	20 46 18.94	-21 12 08.7		3	809
1991 OP1		1991 07 19.38785	20 45 33.44	-21 24 57.6		3	809
1991 OP1		1991 07 19.39827	20 45 32.98	-21 25 05.3		3	809
1991 OQ1	*	1991 07 18.31285	20 50 08.22	-21 15 21.8	17.0	3	809
1991 OQ1		1991 07 18.32326	20 50 07.72	-21 15 23.9		3	809
1991 OQ1		1991 07 18.33368	20 50 07.22	-21 15 26.0		3	809
1991 OQ1		1991 07 19.38785	20 49 16.91	-21 19 07.5		3	809
1991 OQ1		1991 07 19.39827	20 49 16.36	-21 19 10.3		3	809
1991 PQ1		1991 07 23.37987	21 37 30.04	-13 03 38.2	17.0	3	809
1991 PQ1		1991 07 23.39653	21 37 29.41	-13 03 41.8		3	809
1991 PQ1		1991 07 23.41319	21 37 28.78	-13 03 45.8		3	809
1991 PQ1		1991 07 24.41562	21 36 50.90	-13 07 45.4		3	809
1991 PQ1		1991 07 24.43021	21 36 50.35	-13 07 49.0		3	809
1991 PN8		1991 07 23.37987	21 36 00.56	-12 00 14.7	17.4	3	809
1991 PN8		1991 07 23.39653	21 35 59.94	-12 00 18.2		3	809
1991 PN8		1991 07 23.41319	21 35 59.33	-12 00 21.7		3	809
1991 PN8		1991 07 24.41562	21 35 21.92	-12 03 51.5		3	809
1991 PN8		1991 07 24.43021	21 35 21.36	-12 03 54.3		3	809
1992 AD		1992 02 06.17292	08 03 03.50	+21 02 41.7	17.0 V	5	809
4045 T-3		1991 07 06.02257	19 28 52.89	-20 20 27.5	16.8	3	809
4045 T-3		1991 07 06.03299	19 28 52.26	-20 20 30.8		3	809
4045 T-3		1991 07 06.04340	19 28 51.63	-20 20 34.2		3	809
4045 T-3		1991 07 07.26181	19 27 39.35	-20 27 03.5		3	809
4045 T-3		1991 07 07.26875	19 27 38.93	-20 27 05.8		3	809
4157 T-3		1991 11 02.21389	03 59 19.91	+10 58 36.8	19.4	4	809
4157 T-3		1991 11 02.22708	03 59 19.17	+10 58 31.0		4	809
4157 T-3		1991 11 02.24028	03 59 18.42	+10 58 26.7		4	809
4157 T-3		1991 11 06.11806	03 56 00.20	+10 36 45.3	19.5	4	809
4157 T-3		1991 11 06.13125	03 55 59.46	+10 36 40.5		4	809
4157 T-3		1991 11 06.14444	03 55 58.78	+10 36 34.6		4	809
4157 T-3		1991 11 09.11528	03 53 14.19	+10 20 13.0	19.4	4	809
4157 T-3		1991 11 09.12847	03 53 13.39	+10 20 09.2		4	809
4157 T-3		1991 11 09.14375	03 53 12.50	+10 20 03.7		4	809
(1589)		1991 07 23.13333	19 46 25.72	-25 16 02.9		3	809
(1589)		1991 07 23.14583	19 46 25.02	-25 16 07.8		3	809
(1589)		1991 07 24.14514	19 45 24.33	-25 20 48.0		3	809
(1589)		1991 07 24.15833	19 45 23.54	-25 20 51.8		3	809
(1721)		1991 07 06.20070	21 26 41.32	-19 14 09.3	16.4	3	809
(1721)		1991 07 06.21320	21 26 40.88	-19 14 08.8		3	809
(1721)		1991 07 06.22569	21 26 40.45	-19 14 08.5		3	809
(1721)		1991 07 08.38542	21 25 24.92	-19 13 13.4		3	809
(1721)		1991 07 08.39792	21 25 24.51	-19 13 12.7		3	809
(4941)		1991 07 22.40973	21 52 31.63	-13 12 59.2	16.1	3	809
(4941)		1991 07 22.41945	21 52 31.27	-13 13 01.1		3	809
(4941)		1991 07 22.42917	21 52 30.93	-13 13 02.7		3	809
(5055)		1991 07 06.02257	19 30 50.74	-19 46 44.5	16.8	3	809
(5055)		1991 07 06.03299	19 30 50.23	-19 46 46.4		3	809
(5055)		1991 07 06.04340	19 30 49.72	-19 46 48.3		3	809
(5055)		1991 07 07.26181	19 29 51.12	-19 50 12.0		3	809
(5055)		1991 07 07.26875	19 29 50.80	-19 50 13.0		3	809

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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

1988 CC2	1992 02	08.69201	11 13	36.89	+02 19	40.0	16.5	F	877
1988 CC2	1992 02	08.72396	11 13	35.72	+02 19	42.7		F	877
1990 VD2	1992 02	08.74271	11 48	53.82	+00 36	09.1	16.5		877
1990 VD2	1992 02	08.77361	11 48	53.06	+00 36	12.3			877
1990 VD2	1992 02	09.73264	11 48	30.26	+00 38	45.7			877
1990 VD2	1992 02	09.75972	11 48	29.36	+00 38	52.4			877
1992 AG	1992 02	02.56389	07 33	39.17	+39 31	07.9	15.0		877
1992 AG	1992 02	02.57847	07 33	38.31	+39 31	22.5			877
1992 AG	1992 02	10.55903	07 27	30.40	+41 34	18.0	15.5		877
1992 AG	1992 02	10.58333	07 27	29.36	+41 34	36.2			877
1992 AL	1992 01	27.57396	09 17	50.98	+11 15	30.9	16.0		877
1992 AL	1992 01	27.59201	09 17	49.80	+11 15	45.3			877
1992 AL	1992 02	04.61215	09 10	28.62	+12 53	25.2	15.5		877
1992 AL	1992 02	04.62951	09 10	27.56	+12 53	38.8			877
1992 AL	1992 02	08.61632	09 06	48.97	+13 42	08.0			877
1992 AL	1992 02	08.63403	09 06	47.68	+13 42	22.8			877
1992 AY	1992 01	28.62344	09 11	12.12	+28 53	28.2	16.5		877
1992 AY	1992 01	28.64294	09 11	11.50	+28 53	37.2			877
1992 AY	1992 02	09.60243	09 01	07.50	+30 34	19.0	16.0		877
1992 AY	1992 02	09.65660	09 01	04.61	+30 34	40.3			877
1992 AY	1992 02	09.67523	09 01	03.67	+30 34	52.2			877
1992 AY	1992 02	10.63993	09 00	15.81	+30 41	50.9			877
1992 AY	1992 02	10.66042	09 00	15.07	+30 41	58.2			877
1992 AE1	1992 01	28.65775	09 21	09.88	+26 46	36.9			877
1992 AE1	1992 01	28.67465	09 21	08.71	+26 46	47.5			877
1992 AF1	1992 01	28.65775	09 18	16.30	+24 32	32.2			877
1992 AF1	1992 01	28.67465	09 18	15.01	+24 32	36.0			877
1992 AO1	1992 02	01.58368	09 52	42.00	+21 13	16.4	16.5		877
1992 AO1	1992 02	01.59063	09 52	40.98	+21 13	20.5			877
1992 AO1	1992 02	02.59132	09 51	46.83	+21 19	31.3	15.5		877
1992 AO1	1992 02	02.60885	09 51	45.88	+21 19	37.9			877
1992 BN	1992 02	13.76181	09 33	29.73	+20 09	09.4	16.5		877
1992 BN	1992 02	13.78229	09 33	28.96	+20 09	13.1			877
1992 CC	* 1992 02	04.64514	10 45	27.84	+06 25	53.7	16.5		877
1992 CC	1992 02	04.66354	10 45	27.15	+06 26	03.7			877
1992 CC	1992 02	08.65243	10 43	30.02	+07 04	25.3	16.0		877
1992 CC	1992 02	08.67431	10 43	29.28	+07 04	37.9			877
1992 CD	* 1992 02	04.64514	10 55	13.98	+07 06	29.7	16.5		877
1992 CD	1992 02	04.66354	10 55	13.21	+07 06	33.2			877
1992 CD	1992 02	08.65243	10 52	49.78	+07 18	08.3	16.5		877
1992 CD	1992 02	08.67431	10 52	48.94	+07 18	13.8			877
(687)	1992 02	07.64907	10 54	04.01	+07 11	27.5			877
(687)	1992 02	07.67118	10 54	02.91	+07 11	31.3			877
(687)	1992 02	13.82882	10 48	27.59	+07 20	07.0			877
(687)	1992 02	13.84583	10 48	26.39	+07 20	02.1			877

885 JCPM Yakiimo Station

T. Urata, 6-1, Muramatsuhara 1 Chome, Shimizu, Shizuoka-Ken 424, Japan

Observers A. Natori, T. Urata

Measurer T. Urata

0.20-m f/4.0 hyperboloid astrocamera

1992 BH	1992 02	22.50313	07 37	23.23	+15 06	54.0	16.8		885
1992 BH	1992 02	22.53229	07 37	22.67	+15 07	09.8			885

1992 CB	*	1992 02 02.56424	09 17 29.75	+01 13 09.6	16.5	885
1992 CB		1992 02 02.57813	09 17 28.77	+01 13 05.7		885
1992 CB		1992 02 08.67361	09 11 10.46	+00 59 23.0	16	885
1992 CB		1992 02 08.68125	09 11 09.96	+00 59 22.8		885

886 Susono

T. Furuta, 17-2 Mitsuike, Kagiya, Tokai 477, Japan

Observers M. Akiyama, T. Furuta

Measurer T. Furuta

0.25-m f/4.2 Wright-Schmidt camera

GSC

1990 QY7		1992 02 02.57535	09 39 01.75	+16 03 08.4	16.0	886
1990 QY7		1992 02 02.58628	09 39 01.03	+16 03 11.6		886
1992 CU	*	1992 02 13.71667	11 11 54.77	+20 59 00.1	16.0	886
1992 CU		1992 02 13.72882	11 11 54.29	+20 59 04.4		886
1992 CU		1992 02 14.76250	11 11 13.98	+21 06 48.1		886
1992 CU		1992 02 14.77344	11 11 13.49	+21 06 51.5		886
1992 CU		1992 02 25.66563	11 03 13.70	+22 22 59.5	16.0	886
1992 CU		1992 02 25.67639	11 03 13.10	+22 23 03.8		886
1992 CU		1992 02 26.53264	11 02 32.45	+22 28 29.7		886
1992 CU		1992 02 26.54028	11 02 32.07	+22 28 32.8		886
1992 DB	*	1992 02 25.64132	11 21 02.91	+09 14 48.3	16.0	886
1992 DB		1992 02 25.65208	11 21 02.54	+09 14 52.5		886
1992 DB		1992 02 27.78785	11 19 14.57	+09 32 46.5		886

889 Karasuyama

T. Urata, 6-1, Muramatsubara 1 Chome, Shimizu, Shizuoka-Ken 424, Japan

Observers S. Inoda, T. Urata

Measurer T. Urata

0.31-m f/5.6 reflector

ACRS, GSC

1991 YX		1992 01 11.60451	07 08 43.14	+17 35 40.9	17	889
1991 YX		1992 01 11.62396	07 08 41.85	+17 35 48.0		889

894 Otomo

S. Otomo, Kiyosato 3545-3902, Takane-cho, Kitakoma-gun, Yamanashi-ken,
407-03, Japan

0.25-m f/3.4 reflector

PPM

1976 GU3		1992 01 24.54444	07 48 41.06	+23 44 27.8	17.5	894
1976 GU3		1992 01 24.55694	07 48 40.27	+23 44 32.2		894
1982 DU		1992 02 06.66667	09 51 59.23	+26 11 44.4	16.0	894
1982 DU		1992 02 06.73733	09 51 53.96	+26 11 31.5		894
1987 DW6		1992 01 24.54444	07 46 30.22	+23 30 23.9	17.2	894
1987 DW6		1992 01 24.55694	07 46 29.50	+23 30 24.3		894
1987 DW6		1992 01 26.60662	07 44 41.48	+23 34 30.0	17.5	894
1987 DW6		1992 01 26.61910	07 44 40.84	+23 34 31.1		894
1987 VQ		1992 01 12.64223	07 45 41.60	+18 02 57.2	16.5	894
1987 VQ		1992 01 12.65521	07 45 40.71	+18 02 59.2		894
1987 VQ		1992 01 15.73385	07 42 32.28	+18 11 48.9	16.5	894
1990 SM2		1992 01 10.68438	07 29 56.81	+25 57 42.8	16.8	894
1990 SM2		1992 01 10.69826	07 29 55.87	+25 57 45.2		894
1990 SQ16		1992 02 26.64410	10 49 32.19	+15 57 33.0	17.0	894
1990 SQ16		1992 02 26.65729	10 49 31.41	+15 57 38.9		894
1990 SQ16		1992 02 27.64931	10 48 30.94	+16 04 47.9		894
1990 SQ16		1992 02 27.66458	10 48 29.97	+16 04 48.8		894
1990 TL4		1992 01 12.64223	07 49 05.84	+17 39 12.5	16.6	894
1990 TL4		1992 01 12.65521	07 49 05.06	+17 39 11.2		894
1990 TL4		1992 01 15.73385	07 46 08.49	+17 40 52.6	16.8	894

1991 RA22		1991 09 09.68715	23 24 10.72	-07 40 23.3	16.8	894
1991 RA22		1991 09 09.70035	23 24 10.05	-07 40 26.3		894
1991 VF4		1991 11 12.61510	02 57 33.33	+07 51 16.9	16.7	894
1991 VF4		1991 11 12.62639	02 57 32.63	+07 51 16.8		894
1991 VK5		1991 12 07.50781	02 55 20.45	+05 06 05.5	17.0	894
1991 VK5		1991 12 07.53472	02 55 19.51	+05 06 09.3		894
1991 XU		1992 02 02.51215	06 51 09.51	+21 10 59.6	16.7	894
1991 XU		1992 02 02.52674	06 51 08.80	+21 10 55.2		894
1991 XU		1992 02 09.52882	06 46 43.00	+20 44 29.2	17.0	894
1991 YF		1992 01 24.50625	07 03 27.93	+23 17 09.1	16.5	894
1991 YF		1992 01 25.53576	07 02 24.02	+23 12 58.4		894
1991 YF		1992 01 25.54965	07 02 23.13	+23 12 56.1		894
1991 YF		1992 01 26.57755	07 01 20.96	+23 08 43.3	16.5	894
1991 YF		1992 01 26.59132	07 01 20.04	+23 08 39.2		894
1991 YF		1992 01 27.60938	07 00 20.16	+23 04 27.2	16.6	894
1991 YF		1992 01 28.67789	06 59 19.10	+22 59 58.3	16.7	894
1992 AC		1992 01 14.66337	09 12 01.84	+12 35 11.6		894
1992 AC		1992 01 14.66529	09 12 02.08	+12 35 18.1		894
1992 AC		1992 01 14.66944	09 12 02.39	+12 35 31.2		894
1992 AL		1992 01 26.63576	09 18 40.94	+11 04 19.9	16.8	894
1992 AL		1992 01 26.66215	09 18 39.36	+11 04 38.0		894
1992 AL		1992 01 27.63854	09 17 47.29	+11 16 16.3	16.6	894
1992 AL		1992 01 27.65243	09 17 46.53	+11 16 28.8		894
1992 AL1		1992 02 10.59809	07 30 20.02	+24 10 09.8	17.0	894
1992 AL1		1992 02 10.61076	07 30 19.40	+24 10 12.2		894
1992 AW1		1992 01 12.65521	07 39 32.88	+19 09 55.4	16.5	894
1992 AW1	*	1992 01 15.73385	07 36 20.57	+19 12 58.8	16.8	894
1992 AW1		1992 01 15.74479	07 36 19.86	+19 12 59.1		894
1992 CF	*	1992 02 08.61288	09 26 31.32	+04 32 10.7	17.0	894
1992 CF		1992 02 08.62674	09 26 30.35	+04 32 13.0		894
1992 CF		1992 02 10.62569	09 24 21.31	+04 34 21.4	17.0	894
1992 CF		1992 02 10.63958	09 24 20.36	+04 34 22.0		894
1992 CF		1992 02 21.49549	09 12 59.99	+04 53 02.0	17.0	894
1992 CF		1992 02 21.50660	09 12 59.04	+04 53 04.7		894
1992 CF		1992 02 26.55451	09 08 13.05	+05 04 33.9	17.0	894
1992 CF		1992 02 27.50804	09 07 22.30	+05 06 50.1	17.2	894
1992 CF		1992 02 27.52188	09 07 21.47	+05 06 50.8		894
1992 CO	*	1992 02 12.71898	10 42 11.63	+19 16 32.4	17.0	894
1992 CO		1992 02 12.73333	10 42 11.06	+19 16 39.3		894
1992 CO		1992 02 14.79566	10 40 42.93	+19 32 14.4	16.8	894
1992 CO		1992 02 14.80833	10 40 42.43	+19 32 21.9		894
1992 CO		1992 03 01.57951	10 28 36.25	+21 21 26.1	17.2	894
1992 CO		1992 03 01.59271	10 28 35.43	+21 21 34.1		894
1992 CO		1992 03 03.56563	10 27 03.90	+21 33 13.3		894
1992 CO		1992 03 03.57951	10 27 03.47	+21 33 17.3		894
4113 P-L		1992 01 09.64271	07 40 25.73	+17 49 37.8	17.2	894
4113 P-L		1992 01 09.65729	07 40 24.67	+17 49 38.3		894
4113 P-L		1992 01 12.64223	07 37 21.27	+17 56 20.0	17.0	894
4113 P-L		1992 01 12.65521	07 37 20.39	+17 56 22.9		894
(922)		1992 02 08.61288	09 25 33.28	+05 08 53.8		894
(922)		1992 02 08.62674	09 25 32.46	+05 08 56.6		894
(922)		1992 02 10.62569	09 23 50.43	+05 18 39.6		894
(922)		1992 02 10.63958	09 23 49.68	+05 18 43.5		894
(3586)		1992 02 26.64410	10 49 07.94	+16 10 29.6		894
(3586)		1992 02 26.65729	10 49 07.04	+16 10 31.4		894
(4968)		1992 01 09.64271	07 44 03.82	+18 00 09.5	16.5	894
(4968)		1992 01 09.65729	07 44 02.80	+18 00 12.3		894
(4968)		1992 01 12.64223	07 41 02.74	+18 15 13.4	16.0	894
(4968)		1992 01 12.65521	07 41 01.88	+18 15 16.4		894

(4968)	1992 01 15.73385	07 37 55.17	+18 30 56.4	16.5	894
(4968)	1992 01 15.74479	07 37 54.41	+18 30 59.3		894
(5059)	1991 12 14.77361	06 54 14.32	+31 21 51.6		894

898 Fujieda

M. Kizawa, 1458-10, Minami Numagami, Shizuoka-Ken 420, Japan
 Observers H. Shiozawa, M. Kizawa

Measurer M. Kizawa

0.20-m f/4.0 hyperboloid astrocamera, 0.20-m f/4.9 reflector

GSC

1989 FA	1991 12 14.68097	07 00 22.51	+17 18 19.9	16	898
1989 FA	1991 12 14.69240	07 00 21.79	+17 18 20.0	16	898
1989 FA	1991 12 30.49578	06 44 31.51	+17 50 28.1	16.5	898
1989 FA	1991 12 30.51862	06 44 29.96	+17 50 32.0	16.5	898
1989 FA	1992 01 01.63672	06 42 08.19	+17 56 14.1	16	898
1989 FA	1992 01 01.65891	06 42 06.51	+17 56 16.6	16	898

950 La Palma

K. Aksnes, Institute of Theoretical Astrophysics, P.O. Box 1029,
 N-0315 Blindern, Oslo, Norway

Observers K. Aksnes, O. Dahl

2-m Nordic optical telescope + CCD

1988 QY	1991 12 25.06676	04 57 44.12	+00 56 20.0		950
1988 QY	1991 12 25.07707	04 57 43.81	+00 56 18.7		950
1988 RG1	1991 12 24.16181	06 09 47.55	-03 23 52.5		950
1988 RG1	1991 12 24.16598	06 09 47.35	-03 23 52.6		950
1988 RY10	1991 12 24.21003	06 02 53.40	+22 27 18.7		950
1988 RY10	1991 12 24.21690	06 02 53.16	+22 27 18.7		950
1988 RY10	1991 12 24.22357	06 02 52.97	+22 27 18.3		950
(4450)	1991 12 24.98924	03 43 58.22	+27 47 32.0		950
(4450)	1991 12 25.01308	03 43 56.13	+27 47 22.6		950

* * * * *

ORBITAL ELEMENTS.

Orbital elements have been computed by the following contributors:

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The name of the orbit computer is shown on the line giving T for a comet and Epoch for a displayed minor-planet orbit; for many of the minor planets (O-C) residuals are shown in full (in R.A. and Decl.); observations are identified by date and observatory code, X referring to an approximate and Y to a semiaccurate position. For displayed minor planets "Id." shows those involved in establishing the identifications (generally with the prin-

cipal contributors first), "k" indicating key identifications and "d" (only double (or multiple) designations; no identifier is shown if only the orbit computer is involved and the results were not previously published. J-P indicates that only the perturbations by the outer planets were considered, and a and n are then related by a gravitational constant augmented by the masses of the inner planets. For the one-opposition orbits, equinox 2000.0 is used, and the columns headed Arc and O show the time span in days covered by the observations and the number of observations utilized in the computation (0 = 10 or more). In the note column N, D means that there are double (or multiple) designations, E means that the value of the eccentricity was assumed, F means both; the double designations are listed at the end; the codes for the orbit computers (column C) are as listed above.

Comet Zanotta-Brewington (1991g1)

Epoch 1992 Jan. 19.0 TT = JDT 2448640.5

T 1992 Jan. 31.99137 TT

				Nakano	
q		(2000.0)	P	Q	
z	-0.0000810	Peri.	197.87249	+0.05743377	-0.67023040
	+/-0.0000173	Node	254.90884	+0.98374193	+0.16431336
e	1.0000522	Incl.	50.02786	+0.17015632	-0.72373499

From 182 observations 1991 Dec. 24-1992 Feb. 25, mean residual 0".84.

Comet Bradfield (1992b)

T 1992 Mar. 19.53924 TT

				Marsden	
q		(2000.0)	P	Q	
		Peri.	15.33682	+0.33700658	+0.87624642
		Node	275.35027	-0.89611684	+0.18632197
e	1.0	Incl.	20.23783	-0.28879261	+0.44438310

From 19 observations 1992 Feb. 2-13.

Comet Mueller (1991h1)

Epoch 1992 Apr. 8.0 TT = JDT 2448720.5

T 1992 Mar. 21.20003 TT

				Nakano	
q		(2000.0)	P	Q	
z	-0.0008790	Peri.	306.99023	+0.26709932	+0.20195118
	+/-0.0001541	Node	288.78477	-0.18351411	-0.94924194
e	1.0001747	Incl.	95.56640	-0.94603410	+0.24115443

From 103 observations 1991 Dec. 13-1992 Feb. 26, mean residual 0".99.

Comet Helin-Alu (1992a)

Epoch 1992 June 27.0 TT = JDT 2448800.5

T 1992 July 8.86540 TT

				Marsden	
q		(2000.0)	P	Q	
z	-0.0014623	Peri.	239.97194	-0.79666361	-0.08676706
	+/-0.0000822	Node	288.87765	+0.45300696	-0.74087677
e	1.0044050	Incl.	39.21009	-0.40013970	-0.66601283

From 35 observations 1992 Jan. 9-Feb. 29, mean residual 1".17.

One-opposition minor planets

Planet	H	Epoch	M	Peri.	Node	Incl.	e	a	Arc	O	N	C
1931 TZ2		311006	38.70	109.70	196.48	12.57	0.2500	2.2687	4	3	E	E
1978 VN2	12.6	781108	38.46	358.43	1.82	1.35	0.1817	3.0935	31	5		E
1978 VO2	13.8	781108	321.14	215.60	244.42	7.21	0.0944	2.6251	31	5		E
1978 VP2	15.1	781108	291.88	217.97	284.31	1.88	0.1832	2.3575	31	5		E
1978 VQ2	15.3	781108	322.71	208.51	252.19	3.93	0.1333	2.3081	31	5		E
1978 XW	13.4	781128	328.84	349.07	104.80	1.92	0.0884	2.9185	6	6		E
1978 XX	13.4	781128	212.02	147.56	62.95	14.68	0.0984	2.6230	6	6		E
1978 XH1	14.4	781128	74.19	74.43	237.05	23.56	0.3000	2.3854	6	5	E	E
1978 XJ1	14.3	781128	92.80	88.79	227.58	2.85	0.1000	2.2226	6	5	E	E

1981	JO	14.6	810516	307.87	74.14	227.07	5.88	0.1861	2.1848	6	6	D	E
1981	JP2	15.4	810516	325.19	22.31	260.39	2.31	0.2200	2.2207	6	5	E	E
1981	JT2	15.0	810516	349.48	212.74	34.23	4.15	0.2252	2.7825	6	4		E
1990	HM3		900419	245.26	305.53	84.66	2.69	0.1333	3.1638	3	3	E	M
1990	HN3		900419	52.04	182.19	9.11	0.32	0.1008	2.3648	3	3	E	M
1990	HO3		900419	183.65	12.42	68.12	2.39	0.1589	2.9013	3	3	E	M
1990	HG5		900419	11.99	160.71	70.08	7.05	0.2408	2.7995	3	3		M
1990	HH5		900419	278.49	95.97	270.08	3.69	0.2065	3.2239	3	3	E	M
1990	HK5		900419	276.64	82.55	271.82	7.61	0.1091	2.8492	3	3	E	M
1990	HL5		900419	182.92	138.18	302.99	0.45	0.1242	3.2327	3	3	E	M
1990	HM5		900419	247.76	292.49	97.19	2.97	0.1227	3.8540	3	3	E	M
1990	HN5		900419	11.58	150.83	78.46	3.32	0.1881	2.2641	3	3	E	M
1990	HO5		900419	218.59	318.85	87.01	8.43	0.1046	2.4748	3	3	E	M
1990	HP5		900419	287.06	17.11	337.80	1.33	0.2023	2.9001	3	3	E	M
1990	HQ5		900419	47.17	97.86	84.91	5.72	0.2553	2.8677	3	3		M
1990	HR5		900419	75.70	95.23	71.50	6.44	0.1562	3.0428	3	3	E	M
1990	HS5		900419	302.30	253.04	66.31	3.99	0.1092	2.1646	3	3	E	M
1990	HT5		900419	235.88	199.12	186.25	0.81	0.0870	2.1407	3	3	E	M
1990	HU5		900419	59.10	111.12	84.86	7.43	0.0517	3.0510	3	3	E	M
1990	HV5		900419	359.31	320.75	295.05	2.01	0.1946	2.9602	3	3		M
1990	HW5		900419	105.68	243.75	254.45	10.64	0.1172	2.3441	3	3		M
1990	HX5		900419	132.56	30.15	86.30	5.22	0.0827	2.2548	3	3	E	M
1990	HY5		900419	49.13	277.47	265.17	2.01	0.2288	2.6640	3	3	E	M
1990	HZ5		900419	184.55	351.08	90.51	11.49	0.1893	3.0797	3	3	E	M
1990	HA6		900419	149.49	23.60	78.87	7.58	0.0931	2.2922	3	3		M
1990	HB6		900419	316.62	247.75	69.16	2.44	0.1646	3.0013	3	3		M
1990	HC6		900419	308.89	245.77	67.12	1.75	0.0957	2.2789	3	3		M
1990	HD6		900419	230.26	309.09	92.52	4.94	0.1310	2.7751	3	3	E	M
1990	HE6		900419	301.53	265.30	73.44	2.56	0.2100	2.7269	3	3		M
1990	HF6		900419	230.95	337.57	65.82	3.27	0.1843	2.4963	3	3	E	M
1990	HG6		900419	43.65	322.29	253.29	3.30	0.0212	2.9640	3	3		M
1990	HH6		900419	201.46	33.23	36.06	1.22	0.1621	3.1364	3	3		M
1990	HJ6		900419	239.23	313.87	80.32	3.37	0.1849	2.2350	3	3	E	M
1990	HK6		900419	358.94	186.94	68.35	2.66	0.0547	2.3558	3	3	E	M
1990	HL6		900419	143.91	5.55	99.21	2.47	0.1858	2.2626	3	3	E	M
1990	HM6		900419	274.63	92.66	271.54	3.00	0.1584	2.8245	3	3	E	M
1990	VB14	13.5	901125	5.62	124.38	293.72	1.62	0.1995	2.4226	36	8		W
1991	BA3	12.6	910305	216.38	145.51	140.20	10.87	0.0549	3.0046	54	0	D	N
1991	FX2	13.1	910325	164.19	5.71	18.56	12.65	0.1517	2.5915	21	0	D	N
1991	GR2	14.3	910414	264.65	295.67	18.60	2.23	0.1887	2.3005	27	0	D	N
1991	GA3	15.0	910414	28.66	332.02	192.44	6.14	0.1030	2.4820	27	0	D	N
1991	MB	11.5	910703	359.34	211.25	40.90	0.72	0.1095	3.1477	5	0	E	W
1991	NJ	13.0	910703	339.28	210.77	106.45	13.65	0.1703	2.5984	8	0		W
1991	NU2	11.5	910703	0.63	186.41	98.28	9.19	0.1389	2.6280	2	9	E	W
1991	NE3	13.5	910703	37.09	69.26	168.87	6.36	0.2077	2.8910	6	0	E	W
1991	NF3	12.5	910703	301.32	101.32	272.71	11.78	0.2001	2.6387	12	0		W
1991	NG3	13.0	910703	321.91	81.47	267.75	11.48	0.2103	2.5747	8	0		W
1991	NR3	12.0	910703	359.80	358.37	290.01	7.82	0.0958	2.7789	2	7	E	W
1991	NS3	11.5	910703	180.04	172.48	296.16	2.00	0.1379	2.4278	2	7	E	W
1991	NU3	12.5	910703	295.48	97.95	287.08	5.84	0.1945	2.4464	4	8	E	W
1991	NX3	13.0	910703	181.36	196.00	272.89	3.60	0.1002	2.2832	3	0	E	W
1991	NY3	11.5	910703	176.13	1.17	113.07	16.52	0.1062	2.7219	3	0	E	W
1991	NZ3	13.0	910703	358.13	47.73	248.46	7.75	0.1174	2.8299	4	0	E	W
1991	NA4	13.0	910703	358.54	33.08	263.59	11.11	0.1122	3.0934	4	0	E	W
1991	NB4	13.0	910703	178.98	196.74	272.97	4.12	0.0937	2.2994	3	9	E	W
1991	NE4	14.0	910703	359.86	29.73	258.90	1.80	0.0989	2.5131	3	0	E	W
1991	NF4	13.0	910703	179.03	183.22	287.32	11.08	0.1293	2.4478	3	0	E	W
1991	NJ4	13.5	910703	174.91	350.69	123.22	9.72	0.1158	2.2518	3	9	E	W
1991	NK4	13.0	910703	351.80	176.85	123.16	6.92	0.2096	2.2366	16	0		W

1991	NM4	13.0	910703	359.05	11.84	280.16	11.44	0.1389	2.9155	3 9	E W
1991	NG5	14.0	910703	358.14	358.70	292.98	4.39	0.2265	2.3930	14 0	W
1991	NU5	13.0	910703	358.82	129.98	164.80	7.62	0.1396	2.9031	2 9	E W
1991	NX5	12.0	910703	358.98	147.20	148.15	1.72	0.1289	3.1638	2 9	E W
1991	NZ5	12.5	910703	175.63	189.09	289.30	9.48	0.1304	2.6586	2 9	E W
1991	NA6	13.5	910703	99.82	271.05	264.19	2.64	0.1781	2.4539	6 0	E W
1991	NB6	14.0	910703	358.04	176.34	118.38	10.42	0.2258	2.5923	2 9	E W
1991	NC6	15.0	910703	357.76	166.76	127.80	1.47	0.1153	2.2687	2 9	E W
1991	ND6	12.5	910703	359.00	62.59	232.83	1.00	0.1381	2.9053	2 9	E W
1991	NE6	12.0	910703	358.59	4.23	291.72	6.40	0.1232	2.8559	2 9	E W
1991	NH6	12.5	910703	174.98	200.68	277.79	14.14	0.1369	2.4263	5 0	E W
1991	NJ6	14.5	910703	356.75	74.35	221.22	3.73	0.1273	2.3032	5 0	E W
1991	NK6	14.0	910703	357.36	92.87	200.92	2.30	0.0849	2.2003	5 9	E W
1991	NM6	13.5	910703	357.35	139.96	155.62	4.36	0.1339	2.6117	5 9	E W
1991	NP6	13.5	910703	356.67	11.79	285.46	9.67	0.1274	2.5920	5 9	E W
1991	NQ6	13.5	910703	297.21	95.06	275.93	4.52	0.1445	2.2466	5 9	E W
1991	NU6	14.5	910703	359.59	345.91	302.11	5.59	0.1365	2.3348	2 9	E W
1991	NV6	12.5	910703	2.61	336.30	309.48	5.94	0.1175	3.1341	2 9	E W
1991	NY6	14.0	910703	357.55	173.50	119.80	5.39	0.1301	2.3169	4 0	E W
1991	NZ6	13.5	910703	1.31	171.34	118.88	2.90	0.1087	2.8220	4 0	E W
1991	NA7	15.0	910703	359.05	359.28	292.11	5.25	0.1256	2.3052	4 0	E W
1991	NC7	14.5	910703	327.83	83.02	253.31	2.71	0.1878	2.4943	4 0	E W
1991	ND7	14.5	910703	24.79	80.05	169.73	1.89	0.2390	2.6165	4 0	E W
1991	NE7	12.5	910703	357.92	31.17	263.70	4.21	0.1206	3.1437	4 0	E W
1991	NF7	14.5	910703	22.85	51.25	195.14	1.57	0.2950	2.2834	4 9	E W
1991	NJ7	14.0	910703	356.98	7.80	287.75	2.55	0.1431	2.6433	4 0	E W
1991	NL7	13.0	910703	173.13	189.01	289.75	1.63	0.0787	2.3310	4 0	E W
1991	NM7	12.5	910703	0.27	158.00	135.14	1.91	0.0927	3.0462	4 0	E W
1991	OM1	10.5	910703	174.06	184.22	300.89	4.65	0.1322	2.6575	3 8	E W
1991	PU5	16.1	910812	33.09	159.29	121.57	2.88	0.1037	2.1782	29 9	D N
1991	PX5	15.0	910812	0.53	339.75	340.78	5.73	0.0398	2.3621	31 0	D N
1991	PN8	14.0	910812	314.50	211.89	175.51	1.95	0.2335	2.7656	45 0	W
1991	PE10	13.8	910901	336.12	37.46	338.74	8.70	0.1774	2.7894	35 7	E
1991	PH10	13.8	910901	324.04	274.38	116.22	1.67	0.1496	2.6177	41 0	E
1991	PU11	13.7	910901	343.92	22.27	343.34	4.94	0.1777	2.2647	41 0	E
1991	PT14	14.2	910812	486.26	51.28	141.85	2.81	0.0446	2.3721	31 0	D N
1991	PA15	15.5	910812	347.47	154.27	191.79	5.21	0.1688	2.3480	29 7	D N
1991	PO16	13.2	910901	56.62	110.33	162.68	13.33	0.1609	2.6706	41 0	E
1991	PP16	14.0	910901	3.34	189.86	151.71	5.40	0.1562	2.3923	41 0	E
1991	PS16	13.2	910901	101.92	92.61	138.87	6.14	0.1269	2.2728	41 6	E
1991	PU16	14.5	910901	17.63	303.49	21.14	3.27	0.1226	2.3730	41 0	E
1991	PV16	12.9	910901	330.91	289.24	96.89	3.06	0.1255	2.9330	41 6	E
1991	RL	13.5	910901	30.48	302.68	343.86	36.74	0.3207	3.0405	7 9	E
1991	RF1	15.0	910901	41.13	133.94	147.63	3.06	0.2291	2.2365	10 0	W
1991	RG1	15.1	910921	16.78	294.29	32.43	1.72	0.2000	2.3704	10 0	E
1991	RH1	15.4	910921	352.01	5.65	359.51	5.02	0.2033	2.2755	10 0	E
1991	RJ1	14.7	910921	6.61	344.95	354.66	10.90	0.3107	2.6961	10 0	E
1991	RC2	13.5	910901	288.40	93.47	334.49	8.33	0.1042	2.3506	5 5	W
1991	RE2	14.5	910901	310.04	147.67	265.79	4.60	0.1420	2.2679	11 7	D N
1991	RH2	13.5	910901	342.20	12.90	355.58	10.11	0.1035	3.0279	10 0	W
1991	RQ2	16.0	910921	341.99	187.57	203.44	5.46	0.2315	2.3263	29 0	W
1991	RM6	13.5	910901	298.12	285.25	138.71	6.29	0.1402	2.3461	13 7	W
1991	RD7	13.0	910921	2.93	354.30	4.06	16.42	0.1835	2.5650	36 9	W
1991	RY8	14.2	910921	350.86	7.79	8.64	3.72	0.1389	2.2869	19 6	D N
1991	RR9	15.5	910921	4.64	5.37	347.32	3.29	0.2505	2.3381	29 9	W
1991	RT9	15.0	910921	15.14	22.46	315.03	1.64	0.2267	2.3846	29 7	W
1991	RU9	15.0	910921	11.53	64.42	281.31	1.17	0.1667	2.2901	29 7	W
1991	RN10	12.9	910921	0.11	6.25	3.83	5.76	0.1126	2.7667	25 0	D N
1991	RA13	14.5	910921	67.26	61.82	213.84	1.73	0.1653	2.7190	29 7	W

1991	RN13	14.5	910921	29.44	43.35	273.95	4.25	0.1956	2.2041	25	8	D	N
1991	RS13	14.0	910921	53.18	4.60	288.23	4.35	0.1459	2.2338	17	6	D	W
1991	RV13	14.0	910921	340.91	167.88	217.11	5.75	0.1202	2.3629	22	6		W
1991	RA14	13.0	910921	351.35	38.41	338.73	7.73	0.2698	3.9536	22	6		W
1991	RE14	14.0	910921	31.13	335.08	343.42	8.48	0.1656	2.3860	22	6		W
1991	RU17	14.0	910812	330.18	180.16	191.25	3.32	0.0293	2.2474	40	0	D	W
1991	RX17	14.2	910921	23.26	144.84	177.50	4.63	0.1401	2.3522	4	6		E
1991	RY17	14.6	910921	336.27	23.86	1.19	7.49	0.1507	2.2155	4	0		E
1991	RD18	13.6	910921	144.95	41.71	160.22	4.93	0.1000	2.4602	4	6	E	E
1991	RE18	13.8	910921	319.99	292.55	113.56	2.47	0.1553	2.6453	4	8		E
1991	RS20	12.8	910921	261.62	52.98	50.51	3.25	0.1000	2.9171	4	0	E	E
1991	RT20	12.7	910921	228.42	132.28	10.65	9.86	0.2485	2.4281	3	6		E
1991	RX21	12.8	910921	311.16	253.10	158.92	13.80	0.1275	3.2111	6	6		E
1991	RA22	14.7	910921	353.42	338.20	24.07	2.85	0.2039	2.4300	8	6		N
1991	SJ	14.5	910921	118.91	81.92	139.65	5.20	0.1129	2.1977	15	6		W
1991	SK	12.0	910921	1.61	335.99	11.88	7.15	0.0893	3.2289	19	9		W
1991	XU	12.1	920119	301.96	251.55	288.71	11.92	0.1148	2.5987	58	0		N
1991	YD	13.6	920119	1.24	118.16	352.71	5.35	0.1602	2.4625	56	0		N
1992	AG	12.4	920119	18.43	342.65	103.82	27.24	0.2454	2.3847	40	0		N
1992	AM	13.5	920119	42.23	300.12	100.24	23.76	0.2782	2.3450	21	6		W
1992	AN	12.5	920119	78.51	240.74	117.26	23.45	0.2786	2.3399	23	6		W
1992	AO	12.5	920119	54.08	280.14	127.21	22.24	0.0937	2.3533	23	8		W
1992	AQ	14.5	920119	352.96	19.68	105.82	24.91	0.2198	2.2884	22	8		W
1992	AR	13.0	920119	356.58	19.87	93.98	10.56	0.1858	2.6307	23	6		W
1992	AY	11.6	920119	6.60	18.78	100.98	15.35	0.1515	3.1277	37	0		N
1992	AB1	13.5	920119	10.21	214.70	252.39	5.84	0.0691	2.3261	30	0		U
1992	AC1	13.4	920119	30.78	156.62	272.58	11.59	0.2694	2.6176	30	0		N
1992	AE1	12.4	920119	2.73	27.01	97.66	10.64	0.1956	2.7323	18	8		N
1992	AL1	13.2	920119	19.26	343.12	111.89	6.71	0.0619	2.3468	31	0		N
1992	AO1	13.5	920208	23.84	40.89	62.51	4.08	0.2125	2.4121	25	9		N
1992	AP1	12.7	920208	358.95	209.52	267.43	0.64	0.1704	3.1655	11	6	E	N
1992	AR1	12.8	920119	328.83	235.30	290.21	6.57	0.1918	2.6760	33	0		N
1992	AU1	13.0	920119	350.29	45.01	87.93	24.81	0.2537	2.2769	23	8		W
1992	AV1	14.0	920119	28.08	329.90	110.72	24.74	0.0728	1.9460	23	8		W
1992	AX1	14.0	920119	37.64	263.57	146.66	21.73	0.3250	2.2999	20	6		W
1992	BD	15.0	920119	343.52	20.74	79.16	29.00	0.0702	1.9102	11	0		M
1992	BG	13.0	920208	295.42	58.37	147.18	9.89	0.1529	2.3296	28	0		U
1992	BH	11.8	920208	331.41	21.16	140.55	18.30	0.1537	3.1185	29	0		U
1992	BN	11.4	920208	128.21	240.93	121.90	11.38	0.1109	3.0013	39	0		N
1992	BO	13.5	920208	281.65	212.29	19.36	4.76	0.1188	2.2437	11	9		N
1992	BU	13.9	920208	0.47	160.97	337.85	7.41	0.1404	2.6411	11	9		N
1992	BX	13.7	920208	24.55	177.15	285.52	9.82	0.1945	2.3852	11	6		N
1992	BE1	13.3	920208	352.93	81.43	69.59	3.80	0.0583	2.2084	7	6		N
1992	BF1	14.5	920119	316.02	66.35	122.93	17.95	0.1525	1.9982	4	4		W
1992	BJ1	13.8	920208	33.69	3.01	78.11	3.94	0.2382	2.6767	11	8		N
1992	BK1	11.9	920208	13.15	180.33	309.09	12.12	0.1165	2.5831	32	8		N
1992	CF	13.1	920228	280.60	308.74	284.20	9.71	0.0594	2.3831	19	8		N
1992	CJ	13.8	920208	288.22	35.70	204.40	5.45	0.1131	2.2391	17	6		N
1992	CO	11.8	920228	265.98	143.31	111.39	10.88	0.0554	3.0301	20	8		N
1992	CS	12.0	920208	154.70	210.72	140.16	23.29	0.0675	3.2409	22	0		N
1992	CB1	12.4	920228	349.90	129.37	37.75	10.70	0.0301	2.9990	14	6		N
1992	CF1	13.7	920228	272.20	259.68	357.61	5.93	0.1529	2.4813	14	9		N
1992	DB	13.7	920228	30.47	343.85	123.92	3.56	0.2967	2.3762	2	0		N
1992	DN	11.9	920228	209.51	323.41	356.71	18.23	0.2812	2.9504	2	3	E	N

1981 JO = 1981 JJ3 (S. Nakano, MPC 10752)

1991 BA3 = 1991 EB2 (S. Nakano)

1991 FX2 = 1991 GL2 (S. Nakano)

1991 GR2 = 1991 FG4 (S. Nakano)

1991 GA3 = 1991 FH4 (S. Nakano)

1991 PU5 = 1991 RG12 (S. Nakano)
 1991 PX5 = 1991 RF12 (S. Nakano)
 1991 PT14 = 1991 RQ12 (S. Nakano)
 1991 PA15 = 1991 RW6 (S. Nakano)
 1991 RE2 = 1991 RH19 (S. Nakano)
 1991 RY8 = 1991 SK1 (S. Nakano)
 1991 RN10 = 1991 TS5 (S. Nakano)
 1991 RN13 = 1991 SO1 (S. Nakano)
 1991 RS13 = 1991 SP1 (G. V. Williams, S. Nakano)
 1991 RU17 = 1991 PQ17 (S. Nakano)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
 (1308) Halleria Obs. 48 M 145.06622 Peri. 164.81117
 H 10.8 G 0.15 Opp. 14 n 0.19858034 Node 354.55582
 rms res. 1".19 (M-C) 1901-1990 e 0.0084870 Incl. 5.57598

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
 (1310) Villigera Obs. 42 M 147.80189 Peri. 87.72705
 H 11.45 G 0.15 Opp. 15 n 0.26642602 Node 357.92398
 rms res. 1".09 (M-C) 1932-1991 e 0.3566006 Incl. 21.06559

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
 (1312) Vassar Obs. 56 M 233.89875 Peri. 262.83057
 H 10.8 G 0.15 Opp. 13 n 0.18165645 Node 129.61816
 rms res. 0".90 (M-C) 1933-1991 e 0.2196964 Incl. 21.92948

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
 (2327) Gershberg Obs. 34 M 83.58238 Peri. 210.60563
 H 13.9 G 0.15 Opp. 4 n 0.27042928 Node 175.16441
 rms res. 1".07 (M-C) 1969-1987 e 0.1289768 Incl. 4.02868

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
 (4778) 1978 TV8 Obs. 22 M 132.77776 Peri. 42.38771
 H 12.6 G 0.15 Opp. 5 n 0.17574660 Node 35.39071
 rms res. 0".86 (M-C) 1978-1991 e 0.1770129 Incl. 1.58728

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
 (4846) 6575 P-L Obs. 19 M 81.80162 Peri. 82.52168
 H 12.2 G 0.15 Opp. 5 n 0.17056497 Node 23.08168
 rms res. 0".73 (M-C) 1960-1990 e 0.1325742 Incl. 5.27616

(5072)* 1931 TS1 = 1981 UX15 = 1986 WW10 = 1987 BH
 Discovered 1931 Oct. 9 by K. Reinmuth at Heidelberg.
 Id. S. Nakano (MPC 12795), H. Oishi (d, MPC 12560)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
 M 88.42279 (2000.0) P Q
 n 0.19862233 Peri. 359.75966 +0.98060680 -0.19585702
 a 2.9092698 Node 11.54249 +0.17987227 +0.88502068
 e 0.0841545 Incl. 2.03194 +0.07782206 +0.42234869
 P 4.96 H 12.1 G 0.15

Residuals in seconds of arc

311009	024	1.0+	2.5-	861201	381	1.0+	2.0+	911108	801	0.1+	0.1+
311017	024	0.2+	0.0	861201	381	0.2+	0.4+	911108	801	0.0	0.2+
311020	024	(7.4-	0.4-)	870130	887	1.0-	0.4-	911203	675	0.7-	1.2+
311102	024	(7.3-	0.4-)	870130	887	0.1+	0.9+	911203	675	0.6-	0.3-
311103	024	1.1+	2.9-	900915	675	0.4-	1.8+	911205	801	0.2-	0.0
811024	095	(3.1+	2.0+)	900915	675	0.5-	1.8+	911205	801	0.1-	0.6-
861130	381	(0.8+	2.7+)	901114	801	0.3-	0.6+				
861130	381	0.0	1.4+	901114	801	0.2-	0.2+				

(5073)* 1943 EN = 1973 FW = 1978 YN = 1983 GM1

Discovered 1943 Mar. 3 by Y. Vaisala at Turku.

Id. T. Kobayashi (MPC 14342)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kobayashi

M	273.47989		(2000.0)		P		Q		
n	0.29674627	Peri.	183.99510		-0.94662463		+0.32098541		
a	2.2261061	Node	14.83039		-0.29245365		-0.81677503		
e	0.1005298	Incl.	6.61794		-0.13554581		-0.47942353		
P	3.32	H	13.2		G	0.15			

Residuals in seconds of arc

430303	062	0.6-	0.9+	781222	095	0.3-	0.5+	911103	801	0.2-	0.3-
430307	062	0.4-	0.8-	830409	095	0.1-	0.3+	911103	801	0.3-	0.1-
430309	062	0.0	0.5-	830411	095	0.1-	0.4-	911106	801	0.1-	0.5-
430325	062	1.0+	0.0	911010	801	0.0	0.1+	911106	801	0.3-	0.4-
730326	095	0.6-	0.6+	911010	801	0.1+	0.2+				

(5074)* 1949 QQ1 = 1980 RE4 = 1983 EL1

Discovered 1949 Aug. 24 at the Goethe Link Observatory.

Id. A. Lowe (k, MPC 13480), C. M. Bardwell (MPC 17011)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bardwell

M	48.73442		(2000.0)		P		Q		
n	0.19025881	Peri.	84.87347		+0.80821476		-0.57785737		
a	2.9939155	Node	310.37325		+0.46388223		+0.74339948		
e	0.0974803	Incl.	8.56371		+0.36277014		+0.33680568		
P	5.18	H	11.5		G	0.15			

Residuals in seconds of arc

490824	760	2.2-	0.9+	900722	801	0.3+	0.9-	911103	801	0.5+	1.2-
490824	760	0.7+	2.2+	900722	801	0.4+	1.0-	911106	801	0.1+	0.2-
490921	760	(6.8+	2.0+)	900816	801	0.1+	1.2-	911106	801	0.1+	0.2-
490921	760	(8.9+	2.6+)	900816	801	0.3+	0.8-	911205	801	0.2+	0.1-
800907	095	0.9-	1.5+	900817	801	0.6+	1.1-	911205	801	0.1-	0.4-
800909	095	1.7-	2.0+	900817	801	0.8+	1.1-				
830314	095	0.5+	0.8+	911103	801	0.6+	1.3-				

(5075)* 1969 TN4 = 1973 YA2 = 1988 XJ

Discovered 1969 Oct. 13 by B. A. Burnasheva at the Crimean Astrophysical Observatory.

Id. T. Kobayashi (MPC 14183)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kobayashi

M	333.31480		(2000.0)		P		Q		
n	0.26282538	Peri.	183.85556		+0.06324156		-0.99773655		
a	2.4137438	Node	262.51957		+0.91626090		+0.06712296		
e	0.1731543	Incl.	1.32076		+0.39555843		+0.00403550		
P	3.75	H	13.5		G	0.15			

Residuals in seconds of arc

691013	095	0.8-	1.5+	881205	385	0.4-	0.5-	910807	675	0.0	2.7-
691016	095	0.8-	1.9+	881205	385	0.9-	0.0	910904	809	0.2+	0.8+
691111	095	(3.7-	0.5+)	881206	385	0.2+	0.4+	910904	809	0.1+	0.4-
691113	095	1.3+	2.1-	881206	385	0.1+	0.2+	910904	809	0.4+	0.5+
731220	095	0.3+	2.7-	881228	896	1.7+	2.1+	910906	809	2.3+	0.9+
881203	385	(4.2-	3.3-)	910805	675	0.6-	1.7-	910906	809	0.6-	1.1+
881203	385	0.7-	1.0-	910805	675	1.1-	1.2-	910906	809	0.4+	1.0+

(5076)* 1973 SG4 = 1973 US3 = 1988 RS2

Discovered 1973 Sept. 26 by L. I. Chernykh at the Crimean Astrophysical Observatory.

Id. B. G. Marsden (d, MPC 9064), T. Kobayashi (MPC 13852)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kobayashi
 M 332.82689 (2000.0) P Q
 n 0.26234903 Peri. 219.02130 +0.66091810 -0.74994110
 a 2.4166648 Node 189.71985 +0.72321865 +0.64639759
 e 0.2326367 Incl. 9.49469 +0.20035481 +0.14056493
 P 3.76 H 12.8 G 0.15

Residuals in seconds of arc

730926	095	0.8-	0.0	881015	399	0.6+	0.3-	910609	801	0.0	0.3-
731002	095	(0.8-	5.1-)	881015	399	0.1+	1.8-	910613	801	0.9-	0.3-
731029	095	0.8+	0.2+	881015	399	0.4-	0.5-	910709	801	0.1+	0.3+
880905	675	0.9+	0.1+	900327	675	0.4-	1.0-	910709	801	0.0	0.6+
880907	675	0.8-	0.6+	900327	675	0.2-	1.1-	910710	801	0.2+	0.2+
880917	095	(0.8-	6.1+)	910609	801	0.1-	0.5-	910710	801	0.8+	0.7-

(5077)* 1974 MG = 1981 SE3 = 1981 UH13
 Discovered 1974 June 17 at El Leoncito.

Id. T. Furuta (JAM 1946)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
 M 131.51036 (2000.0) P Q
 n 0.29604068 Peri. 337.36163 +0.52724551 +0.84787856
 a 2.2296419 Node 324.38837 -0.76418796 +0.44443870
 e 0.1843213 Incl. 5.49946 -0.37152246 +0.28909548
 P 3.33 H 14.2 G 0.15

Residuals in seconds of arc

740617	808	0.5+	0.3-	740724	808	1.3+	0.1-	910913	675	0.6+	0.5-
740617	808	0.4-	0.6-	810927	095	0.1+	0.4-	910915	675	0.5-	0.3-
740622	808	0.1-	0.5+	811023	095	0.1+	0.4-	910915	675	0.0	0.1+
740622	808	0.7-	0.0	870501	801	0.2+	0.4+	911106	801	0.1+	1.0+
740719	808	0.5-	0.3+	910913	801	0.4-	0.5+	911106	801	0.3+	0.8+
740719	808	0.3-	0.9-	910913	801	0.3-	0.4+				
740724	808	0.3+	1.1+	910913	675	0.1-	0.7-				

(5078)* 1974 SW = 1978 NY1 = 1987 RC = 1987 SZ5 = 1987 SV6

Discovered 1974 Sept. 19 by L. I. Chernykh at the Crimean Astrophysical Observatory.

Id. S. Nakano (MPC 12695)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
 M 33.57583 (2000.0) P Q
 n 0.22615343 Peri. 123.06013 +0.97851963 +0.20313283
 a 2.6680907 Node 225.24746 -0.20177737 +0.90875594
 e 0.2137567 Incl. 2.83807 -0.04225185 +0.36455411
 P 4.36 H 13.6 G 0.15

Residuals in seconds of arc

740919	095	0.2-	1.4+	870902	095	0.3-	2.3-	910611	801	0.3+	0.0
740921	095	0.1+	1.3+	870916	095	(0.6+	4.5-)	910614	801	1.9-	0.9+
740923	095	1.1-	1.0+	870918	071	(3.5+	10.4-)	910614	801	1.2+	0.9+
741009	095	0.2-	0.2+	870918	071	(2.7+	3.3-)	910709	801	0.4-	0.8-
780706	095	0.3-	1.2+	870920	095	0.5-	1.9-	910709	801	0.1+	0.6-
870827	095	2.4+	0.3-	870921	046	(3.7+	4.1-)	910710	801	0.7-	0.0
870901	046	(7.6+	2.4-)	870921	046	(7.3+	2.2-)	910710	801	0.4+	0.5+
870901	046	(8.3+	3.5-)	910611	801	1.0+	0.6-				

(5079)* 1975 DB = 1979 BN = 1989 OK

Discovered 1975 Feb. 16 at El Leoncito.

Id. H. Oishi (JAM 1625), L. D. Schmadel (MPC 15062), C. M. Bardwell (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bardwell

M	20.82424		(2000.0)		P		Q
n	0.22985568	Peri.	245.14338	-0.88898890			-0.41812039
a	2.6393636	Node	269.67334	+0.45772204			-0.79908984
e	0.2092683	Incl.	10.76312	+0.01375752			-0.43200783
P	4.29	H	12.6	G	0.15		

Residuals in seconds of arc

750216	808	0.3-	0.1+	750307	808	0.6+	0.1-	790126	330	0.2-	1.1-
750216	808	0.4-	0.5+	750307	808	0.2+	0.4+	890729	675	1.1+	0.8+
750217	808	0.1-	0.0	750307	808	0.3-	0.2-	890729	675	1.7+	0.4+
750217	808	0.0	0.2-	750307	808	0.2+	0.5-	890731	675	0.5-	1.3-
750218	808	0.4+	0.2-	750308	808	0.6+	0.3+	890731	675	1.5-	1.9-
750218	808	0.2-	0.4+	750308	808	0.5+	0.4+	911106	801	0.2+	0.3+
750219	808	0.1+	0.2+	750308	808	0.5-	0.3-	911106	801	0.3+	0.2+
750219	808	0.1-	0.2+	750308	808	0.6-	0.9-	920106	801	0.2-	0.2-
750306	808	0.0	1.3+	750309	808	0.3+	0.1-	920106	801	0.1-	0.2-
750306	808	0.2+	0.5+	750309	808	0.8+	0.8-	920107	801	0.2-	0.3-
750306	808	1.1-	0.4-	750309	808	0.5-	0.4-	920107	801	0.2-	0.4-
750306	808	0.1+	0.2+	750309	808	0.1-	0.3-				

(5080)* 1976 EB = A924 SB = 1951 WO = 1951 XA = 1988 XH

Discovered 1976 Mar. 2 by C.-I. Lagerkvist at the Uppsala Kvistaberg Station.

Id. T. Kobayashi (MPC 14185), O. Kippes (d, MPC 969)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	16.30485		(2000.0)		P		Q
n	0.29362604	Peri.	88.78485	+0.27659314			-0.96067535
a	2.2418489	Node	345.08862	+0.83953268			+0.25395183
e	0.1239191	Incl.	5.45822	+0.46763353			+0.11230021
P	3.36	H	12.6	G	0.15		

Residuals in seconds of arc

240929	024	(5.4+	0.4-)	760321	414	0.7+	1.5+	910807	801	0.6+	0.3-
241001	024	0.8-	1.0+	760321	414	2.3-	0.3+	910807	801	0.7+	0.3-
511128	094	(65.3-	26.6-)	760322	414	(2.7-	7.4-)	910807	675	0.7+	1.3-
511203	760	1.0-	0.6+	760322	414	(1.2-	27.0+)	910808	675	0.7+	1.4-
511203	760	1.2+	0.1+	881202	888	2.5+	2.8-	910812	801	0.7+	0.0
760302	049	0.0	0.1-	881202	888	2.3+	1.8-	910812	801	0.5+	0.0
760302	049	0.7+	0.0	881203	888	0.1-	1.5+	910907	801	0.2-	0.6+
760303	049	0.0	0.5-	881203	888	1.8-	1.5+	910907	801	0.4-	0.5+
760303	049	0.2+	0.1+	881207	888	1.2-	0.7+	910909	801	0.3-	0.5+
760304	049	1.7+	0.7-	881207	888	1.4-	1.6+	910909	801	0.5-	0.4+
760304	049	2.3+	1.2-	881210	888	1.2-	1.1-	910913	675	0.1-	0.4-
760321	414	(2.9-	0.6-)	881210	888	1.4+	2.5-	910913	675	1.0-	0.1+
760321	414	2.6-	0.2+	890101	888	0.7+	0.8+	910916	675	0.1-	0.1-
760321	414	1.5-	0.1+	890101	888	1.4-	0.3+	910916	675	0.1-	0.1+

(5081)* 1976 WC1 = 1968 HD1 = 1989 JN

Discovered 1976 Nov. 18 at El Leoncito.

Id. B. G. Marsden (MPC 14780)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	291.51389		(2000.0)		P		Q
n	0.27908563	Peri.	162.61023	-0.39763862			+0.88906810
a	2.3190551	Node	83.46859	-0.86663761			-0.28273277
e	0.1145550	Incl.	13.19634	-0.30136817			-0.36002792
P	3.53	H	12.2	G	0.15		

Residuals in seconds of arc

680426	095	0.6+	0.3-	761123	808	0.5+	0.0	761126	808	0.8-	1.7-
761118	808	0.3+	0.0	761123	808	0.4-	0.2-	890505	046	0.5-	0.3+
761118	808	0.4-	0.6+	761126	808	0.0	1.0-	890505	046	0.8-	0.1+

890507	046	1.2-	0.6-	901120	801	1.0+	0.1-	920112	886	0.3-	0.5-
890507	046	0.3-	0.0	901215	801	0.1+	0.5-	920112	886	1.9+	0.8-
890508	046	1.8-	0.7+	901215	801	0.4+	0.5-	920114	402	0.3-	0.1+
890508	046	0.4-	0.3-	920102	402	0.4+	0.6+	920114	402	0.5+	0.3+
890509	046	1.5+	0.1-	920102	402	0.6+	0.9+	920206	801	0.4+	0.6-
890509	046	0.5+	0.7-	920108	801	0.0	0.7+	920206	801	0.9-	1.0-
890509	046	0.1+	0.3-	920108	801	0.3-	0.1+	920207	801	0.9-	0.2-
890509	046	0.9+	1.0-	920110	402	0.3+	0.3+	920207	801	0.8-	0.4-
901120	801	0.6+	0.1-	920110	402	0.3+	0.7+				

(5082)* 1977 DN4 = 1975 WS = 1978 LY

Discovered 1977 Feb. 18 by H. Kosai and K. Hurukawa at the Kiso Station of the Tokyo Astronomical Observatory.

Id. S. J. Bus (k, MPC 11153), L. D. Schmadel (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				P		Williams	
M 264.60660 (2000.0)				P		Q	
n	0.17746168	Peri.	58.86661	-0.95165542		-0.30306876	
a	3.1361704	Node	103.45137	+0.26140338		-0.88456728	
e	0.1199770	Incl.	2.94765	+0.16130789		-0.35452794	
P	5.55	H	12.8	G	0.15		

Residuals in seconds of arc

751128	095	0.1+	1.7-	780610	675	0.4+	0.8+	861201	381	0.4+	0.8+
770218	381	0.5+	0.3-	780610	675	0.3+	0.2-	910912	675	0.0	0.2+
770218	381	0.4+	1.7+	861125	010	(6.1-	5.4-)	910912	675	0.5-	0.3-
770219	381	0.1+	0.4+	861125	010	(0.0	4.4-)	910914	675	1.1-	0.3-
770219	381	0.8+	0.8-	861125	010	(3.4-	4.8-)	910914	675	0.6+	2.0-
770312	381	0.7-	0.1-	861130	381	0.6+	1.4+	911109	675	(3.0-	0.3+)
770312	381	0.6-	0.4-	861130	381	0.0	1.5+	911109	675	0.3+	0.1+
770315	381	0.6-	0.1-	861201	801	(0.4+	4.0+)				
770315	381	0.7-	1.1-	861201	381	0.3-	0.1+				

(5083)* 1977 EV = 1989 CD2

Discovered 1977 Mar. 13 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. S. Nakano (MPC 14343)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				P		Nakano	
M 242.20742 (2000.0)				P		Q	
n	0.24183306	Peri.	238.27932	-0.92168410		+0.35452744	
a	2.5514806	Node	321.82907	-0.20893163		-0.79572955	
e	0.0812701	Incl.	14.76547	-0.32687305		-0.49104457	
P	4.08	H	11.9	G	0.15		

Residuals in seconds of arc

770313	095	0.5+	1.3-	890205	071	(2.0-	4.4-)	890305	033	0.6-	0.7+
770322	095	0.8+	0.5+	890205	872	1.8-	0.7+	900714	474	0.0	0.7+
770325	095	0.6+	2.4+	890205	872	(3.7-	0.1+)	900714	474	0.4-	0.7+
870922	095	1.4-	0.2+	890210	872	1.7+	2.5-	911105	801	0.0	0.9+
870925	095	0.6-	0.9-	890210	872	0.7+	1.3+	911105	801	0.0	0.9+
870926	095	0.4-	1.1-	890226	872	1.4+	1.1+	911107	801	0.3+	1.1+
890204	220	(1.1-	5.2-)	890228	872	2.1-	0.0	911107	801	0.1+	1.1+
890204	220	(1.3+	5.9-)	890228	872	0.4+	1.2-	911205	801	0.0	0.3+
890204	071	(3.8+	0.4-)	890305	033	0.3-	0.4+	911205	801	0.4+	0.1+

(5084)* 1977 FN1 = 1982 DB1 = 1988 GU

Discovered 1977 Mar. 26 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. C. M. Bardwell (MPC 13310)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bardwell

M 293.48441		(2000.0)		P	Q
n 0.17624513	Peri.	120.96453	-0.95228636		-0.29258025
a 3.1505857	Node	42.19683	+0.21676096		-0.84873583
e 0.0970805	Incl.	7.43156	+0.21486129		-0.44050458
P 5.59	H 11.8		G 0.15		

Residuals in seconds of arc

770326 095	0.2+	0.3+	880409 054	0.2-	0.1+	911106 801	0.6-	0.2-
770515 095	0.3+	0.1+	880415 054	0.1+	0.0	911106 801	0.7-	0.1-
770518 095	1.5-	1.6+	880415 054	0.0	0.6+	911205 801	0.4+	0.6+
820221 688	2.6+	1.9-	900529 413	3.3+	0.5-	911205 801	0.4-	0.1+
820221 688	1.5-	1.4-	911103 801	0.9-	0.4+			
880409 054	0.6+	0.7+	911103 801	0.7-	0.4+			

(5085)* 1977 NN = 1977 PX = 1984 SK5

Discovered 1977 July 14 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. H. Oishi (d, JAM 1391), S. Nakano (MPC 9754)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M 143.36076		(2000.0)		P	Q
n 0.29095554	Peri.	353.99259	+0.66177413		+0.74750644
a 2.2555457	Node	317.42325	-0.68426232		+0.57098094
e 0.1800679	Incl.	4.86258	-0.30633329		+0.33943318
P 3.39	H 13.9		G 0.15		

Residuals in seconds of arc

770714 095	1.1+	2.0-	840927 675	0.4-	0.0	911103 801	0.3+	0.6+
770722 095	1.2+	1.1+	841020 095	0.7+	1.4+	911103 801	0.4-	0.6+
770814 095	2.3-	1.5+	911008 801	0.7+	1.4-	911106 801	0.0	0.5+
790127 675	0.3-	0.1+	911008 801	0.6-	0.2-	911106 801	0.1-	0.1-
790129 675	0.5+	0.7+	911011 801	0.1-	0.8-			
840926 675	0.4-	1.0-	911011 801	0.2+	0.7-			

(5086)* 1978 RH1 = 1978 TM1 = 1987 HA2

Discovered 1978 Sept. 5 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. T. Furuta (d, JAM 1968), T. Kobayashi (MPC 13056)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kobayashi

M 182.90179		(2000.0)		P	Q
n 0.30696944	Peri.	82.02251	-0.07998331		+0.99679006
a 2.1764029	Node	183.39577	-0.93623700		-0.07632846
e 0.1142067	Incl.	3.38665	-0.34214463		-0.02415657
P 3.21	H 13.7		G 0.15		

Residuals in seconds of arc

780905 095	0.2+	0.5-	900226 809	0.4-	0.6+	900319 403	0.7-	0.2-
781002 095	0.6+	0.6-	900226 809	0.0	0.4+	900322 095	1.4-	1.8-
781008 095	1.3-	2.2+	900227 809	0.1-	0.3-	900424 801	0.5+	0.1-
870428 046	0.5-	0.2-	900227 809	0.6+	0.4-	900424 801	0.5+	0.2-
870428 046	0.6+	0.0	900227 809	1.2+	0.5-	911009 801	0.3-	0.6+
870429 046	0.3+	1.3+	900301 809	0.1-	0.2-	911009 801	0.3-	0.5+
870429 046	0.0	0.5+	900301 809	0.6+	0.3-	911011 801	0.2+	0.5+
900224 809	1.0+	0.6+	900301 809	1.2+	0.4-	911011 801	0.9+	0.4+
900224 809	1.2+	0.7+	900318 400	(1.1-	4.4+)	911106 801	0.5-	0.2-
900224 809	1.3+	0.8+	900318 400	2.0-	1.3+	911106 801	0.7-	0.3-
900226 809	1.0-	0.7+	900319 403	1.4-	0.8+			

(5087)* 1978 RM2 = 1985 DB2

Discovered 1978 Sept. 12 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. H. Oishi (MPC 11142)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	34.71311	(2000.0)	P		Nakano	Q
n	0.21669745	Peri.	147.02381	+0.92888940	+0.36997974	
a	2.7451549	Node	191.29878	-0.35558724	+0.87831588	
e	0.0085459	Incl.	4.89466	-0.10354799	+0.30278077	
P	4.55	H	12.9	G	0.15	

Residuals in seconds of arc

780901	095	1.3+	0.0	850227	809	0.2+	1.1+	910712	801	0.4+	1.1+
780912	095	1.8-	0.3+	850227	809	0.1+	0.5+	910712	801	1.0+	0.2-
780928	095	0.8+	1.8+	870916	095	(11.1+	2.1+)	910712	809	0.4-	0.5+
781004	095	0.5-	0.2+	900327	400	(4.8-	7.7+)	910712	809	0.2+	0.7+
781009	095	0.3-	0.3-	900327	400	(1.9-	8.9+)	910712	809	0.4+	0.8+
850220	809	1.5+	0.1-	900329	400	0.0	0.3-	910714	809	0.8-	0.2+
850220	809	1.6+	0.0	900329	400	0.4-	2.1-	910714	809	0.4-	0.6+
850220	809	1.9+	0.1+	910704	809	1.3+	0.9+	910714	809	0.3-	0.4+
850222	809	0.1-	0.5+	910704	809	1.4+	0.8+	910715	809	1.1-	1.1-
850222	809	0.3+	0.4+	910704	809	1.7+	0.7+	910715	809	0.7-	1.1-
850222	809	0.6+	0.5+	910705	809	1.0-	0.6+	910715	809	0.3-	1.2-
850224	809	0.0	0.1+	910705	809	0.5-	0.5+	910716	809	0.7-	0.4-
850224	809	0.0	0.1-	910705	809	0.5-	0.4+	910716	809	0.7-	0.3-
850224	809	0.2-	0.1-	910708	809	0.6-	1.3-	910716	809	0.6-	0.3-
850225	809	0.3-	0.2+	910708	809	0.1-	1.2-	910807	801	0.2+	0.0
850225	809	0.1-	0.2+	910711	801	0.0	0.1+	910807	801	0.7+	0.3+
850225	809	0.3-	0.3+	910711	809	0.5-	1.1+	910808	801	0.4+	0.5-
850226	809	1.4-	0.9+	910711	801	0.2-	0.0	910808	801	0.2+	0.4-
850226	809	1.1-	1.2+	910711	809	0.2+	1.2+				
850226	809	1.0-	1.0+	910711	809	0.7+	1.2+				

(5088)* 1979 QZ1 = 1982 DP6 = 1985 RS3

Discovered 1979 Aug. 22 by C.-I. Lagerkvist at the European Southern Observatory.

Id. H. Oishi (JAM 2034), E. Goffin (MPC 11514)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	11.16072	(2000.0)	P		Nakano	Q
n	0.17934568	Peri.	84.90678	-0.02746113	-0.99962214	
a	3.1141685	Node	6.66719	+0.91294499	-0.02557442	
e	0.1447277	Incl.	0.59889	+0.40715763	-0.01007648	
P	5.50	H	12.5	G	0.15	

Residuals in seconds of arc

790822	809	0.0	0.7-	850911	809	0.1+	0.1+	850921	809	1.0-	1.6+
790822	809	0.6+	0.1-	850911	809	0.3+	0.2+	850921	809	0.9-	1.7+
790822	809	0.3-	0.4-	850914	809	0.1+	0.7+	850922	809	0.1-	0.2-
790823	809	0.5-	1.5-	850914	809	0.1+	0.8+	850922	809	0.0	0.1-
790823	809	0.9-	1.1-	850914	809	0.5+	0.8+	870130	801	0.7-	0.5-
790826	809	0.3-	0.2-	850915	809	0.3+	0.7-	900529	413	(4.1+	1.8+)
790826	809	0.1+	1.1-	850915	809	0.5+	0.7-	900529	413	(0.6+	4.4+)
790826	809	0.2+	1.0-	850915	809	0.5+	0.7-	900816	511	1.2-	1.3+
790830	809	1.0+	0.2-	850916	809	0.5-	0.6+	900915	675	0.4+	0.1-
790830	809	(0.6+	10.7-)	850916	809	0.2-	0.6+	900915	675	0.2+	0.3+
820227	010	0.9+	0.1+	850916	809	0.1-	0.6+	911103	801	0.3+	0.2-
850907	809	0.9+	0.4-	850918	809	0.1-	0.5+	911103	801	0.3+	0.1-
850907	809	0.7+	0.3-	850918	809	0.2+	0.6+	911106	801	0.1-	0.7-
850907	809	0.9+	0.3-	850918	809	0.4+	0.7+	911106	801	0.1-	0.7-
850908	809	0.4+	0.5-	850920	809	0.8-	0.1-	911205	801	0.6-	0.6-
850908	809	0.6+	0.4-	850920	809	0.8-	0.3-	911205	801	0.0	0.5-
850908	809	0.7+	0.3-	850920	809	0.8-	0.1-				
850911	809	0.1-	0.1+	850921	809	0.9-	1.6+				

(5089)* 1979 SN = 1979 SG = 1977 FG2 = 1986 CO = 1988 RJ9

Discovered 1979 Sept. 25 by A. Mrkos at Klet.

Id. S. Nakano (d, MPC 10610; MPC 14945)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Nakano			
M 159.84253 (2000.0)				P		Q	
n	0.21114411	Peri.	126.40291	-0.37801577		-0.92407836	
a	2.7930802	Node	345.48779	+0.76088851		-0.27538602	
e	0.0806692	Incl.	13.01189	+0.52740189		-0.26503154	
P	4.67	H	12.5	G	0.15		

Residuals in seconds of arc

770326 095	0.9+	0.4+	880904 809	0.1+	0.3+	880919 809	0.5+	1.1-
790917 046	1.5+	0.5+	880904 809	0.2+	0.3+	880919 809	0.5+	0.9-
790917 046	0.7+	0.3+	880905 809	0.3-	0.5+	891130 046	1.2+	0.7+
790925 046	0.3+	0.2-	880905 809	0.3-	0.3+	891130 046	0.2-	0.3+
790925 046	1.3+	1.0-	880905 809	0.4-	1.1+	891201 046	(3.7+	1.0+)
790926 046	1.2-	1.6-	880907 809	0.8-	0.4+	891201 046	0.9-	0.2+
790926 046	0.3+	0.7-	880907 809	0.7-	0.4+	910211 801	0.5-	0.5-
790927 046	(0.9-	2.2-)	880910 809	1.1-	0.7+	910211 801	0.8-	0.4-
790927 046	1.8-	0.5-	880910 809	0.9-	0.7+	910212 801	0.7-	0.2-
860207 046	(4.9+	0.1-)	880910 809	0.9-	0.6+	910212 801	0.3-	0.8+
880901 809	0.9+	0.4+	880913 809	0.8-	0.1-	910314 046	0.4-	0.9+
880901 809	1.1+	0.2+	880913 809	0.7-	0.3-	910314 046	(2.7-	0.1+)
880901 809	1.2+	0.2+	880913 809	0.6-	0.1-	910315 046	(2.6-	1.1-)
880903 809	0.2+	0.2+	880917 809	0.6+	0.8-	910315 046	(2.1-	1.1-)
880903 809	0.4+	0.2+	880917 809	0.4+	0.7-	910318 402	0.3+	0.2-
880903 809	0.5+	0.1+	880917 809	0.1+	0.4-	910318 402	0.6+	0.6-
880904 809	0.1-	0.2+	880919 809	0.5+	1.0-	910319 402	0.5-	1.1-

(5090)* 1980 CG = 1934 PG = 1978 NV1 = 1986 LJ

Discovered 1980 Feb. 9 at the Agassiz Station of the Harvard College Observatory.

Id. S. Nakano (MPC 11423; unpublished)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Nakano			
M 104.67883 (2000.0)				P		Q	
n	0.24480387	Peri.	228.91138	+0.96387120		-0.24856420	
a	2.5307963	Node	145.16718	+0.26540470		+0.92674452	
e	0.2933332	Incl.	9.65035	-0.02264198		+0.28170985	
P	4.03	H	12.7	G	0.15		

Residuals in seconds of arc

340804 078	0.0	0.4-	860604 675	(26.4+	2.2-)	911205 801	0.2-	0.1-
780706 095	1.4+	1.5+	860606 675	(28.9+	4.7-)	911205 801	0.6-	0.1+
800209 801	0.2+	0.1-	860606 675	(31.2+	4.6-)	911229 877	(8.6+	1.9+)
800211 801	0.4+	0.4+	900626 801	0.4-	1.0-	911229 877	(2.7+	0.5+)
800213 801	(3.9-	0.5-)	900626 801	0.5-	0.8-	911230 877	0.9+	0.5-
800218 801	1.6-	0.3-	900816 801	0.9-	0.5-	911230 877	0.9+	0.6-
800312 801	0.5+	0.4+	911106 801	0.4-	0.0			
860604 675	(24.9+	4.8-)	911106 801	0.4-	0.2-			

(5091)* 1981 SD4 = 1973 YO3 = 1977 UA2 = 1979 FF1 = 1990 OS3

Discovered 1981 Sept. 25 by L. I. Chernykh at the Crimean Astrophysical Observatory.

Id. S. Nakano (MPC 17013), R. Nagata (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Nakano			
M 231.26552 (2000.0)				P		Q	
n	0.21238399	Peri.	324.35653	-0.57308869		+0.81759389	
a	2.7821990	Node	270.61415	-0.73835226		-0.54467001	
e	0.0142655	Incl.	3.19686	-0.35553521		-0.18674797	
P	4.64	H	12.0	G	0.15		

Residuals in seconds of arc

731225	095	0.4+	1.4-	900727	675	1.7+	2.1-	911206	675	0.4-	0.9-
771020	033	0.2+	0.0	900727	675	0.8-	0.5-	911206	675	0.5+	1.0-
790323	095	1.1-	0.9-	900730	675	0.2-	1.4-	920207	801	0.1+	0.3+
810925	095	1.8+	1.2+	900730	675	0.3+	1.5-	920207	801	0.2-	0.3+
810928	095	2.5-	0.9+	900916	675	0.7+	0.6+				
811005	095	1.1-	0.2+	900916	675	0.8+	0.7+				

(5092)* 1982 FJ = 1950 TA3 = 1979 VY = 1990 QR3

Discovered 1982 Mar. 21 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. E. Bowell (k, MPC 17014), G. V. Williams (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	268.29637		(2000.0)		P		Q
n	0.17248553	Peri.	207.70597	-0.88997554		+0.45599897	
a	3.1962024	Node	359.39974	-0.34984693		-0.68686493	
e	0.0618152	Incl.	16.13342	-0.29249045		-0.56593418	
P	5.71	H	11.0	G	0.15		

Residuals in seconds of arc (or two decimals in units of degrees)

501013	760	0.8+	0.2-	900915	095	0.1+	0.8+	901015	095	(0.1-	3.0+)
501013	760	(0.03-	0.02-)X	900915	095	(1.0+	4.3+)	920106	801	0.2+	0.3-
791114	095	2.1-	0.2+	900918	675	0.7-	0.4+	920106	801	0.6-	0.6+
820321	688	2.4-	1.0+	900918	675	0.3-	0.5+	920108	801	0.2+	0.2-
820321	688	0.2-	0.6+	900920	675	1.0-	1.4-	920108	801	0.1+	0.3-
820414	688	0.3+	0.5-	900920	675	0.7-	0.0	920206	801	0.4+	0.9-
820414	688	2.3+	0.0	900923	095	0.0	1.1+	920206	801	0.8-	0.4+
820425	688	0.7+	0.0	901010	400	1.8+	0.3-	920207	801	0.7+	0.2-
820425	688	0.2-	0.2-	901010	400	(3.7+	1.6+)	920207	801	0.9+	0.4+
900824	675	0.7+	0.5-	901010	400	(4.1+	1.8+)				
900824	675	0.3+	0.7-	901015	095	0.2-	0.9+				

(5093)* 1982 TG1 = 1969 UL2 = 1988 FL1

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

Id. T. Kobayashi (MPC 10939), S. Nakano (MPC 13448)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	71.49670		(2000.0)		P		Q
n	0.22669592	Peri.	190.88267	+0.68211809		-0.71951872	
a	2.6638325	Node	216.32260	+0.68635130		+0.69150413	
e	0.1666679	Incl.	12.71903	+0.25226334		+0.06414715	
P	4.35	H	13.0	G	0.15		

Residuals in seconds of arc

691018	095	1.0-	2.2+	860909	095	(1.7+	5.4+)	911103	801	0.6+	0.1+
691105	095	1.3+	1.3+	860929	095	0.4-	1.6+	911106	801	0.6+	0.3-
821014	095	0.7+	2.5-	861003	095	(1.3+	55.2+)	911106	801	1.1+	0.2-
821020	095	1.3-	0.5+	861006	801	0.1-	1.4-	911205	801	1.4-	0.9-
821024	095	0.7-	0.3+	880317	033	0.2-	0.3-	911205	801	0.0	0.8-
860804	801	1.4+	0.7-	880317	033	0.8-	0.1-				
860902	801	0.1+	1.3-	911103	801	0.4+	0.0				

(5094)* 1982 UT6 = 1977 UF1 = 1980 GW

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

Id. W. Landgraf (k, MPC 9032), T. Furuta (k, JAM 1631), H. Oishi (MPC 16425)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	58.57974		(2000.0)			P			Nakano			Q		
n	0.20606507	Peri.	348.28947			+0.97332917			+0.22941165					
a	2.8387891	Node	358.44744			-0.20806272			+0.88129320					
e	0.0864677	Incl.	1.66782			-0.09664487			+0.41314960					
P	4.78	H	13.0			G	0.15							

Residuals in seconds of arc

770919	095	0.0	1.0+	821114	095	2.5-	1.5-	910906	801	1.2-	0.3-
771007	095	(0.6+	3.1+)	910807	801	0.1-	0.8+	910906	801	0.3-	0.4+
771013	095	(4.4+	0.0)	910807	801	0.4-	0.6+	910909	801	0.3-	0.2+
771017	095	0.8-	1.1+	910807	675	0.7-	0.1-	910909	801	0.2-	0.3+
800414	805	0.2-	0.2-	910807	675	(3.3-	0.7-)	910909	894	(2.5+	2.3-)
800415	805	0.3-	0.3+	910808	675	0.3-	0.8+	910909	894	1.8+	1.4-
800416	805	0.6+	0.2+	910808	675	0.5+	0.3-	910911	675	1.4+	0.5-
821020	095	1.4+	0.2+	910810	675	0.6-	0.0	910911	675	0.4-	1.2-
821025	095	1.7+	0.8+	910811	801	(0.6+	2.3-)	910917	675	1.1+	0.6-
821109	095	0.2-	0.4-	910811	801	0.0	0.4+				

(5095)* 1983 NL = 1967 GD1 = 1990 HA1

Discovered 1983 July 10 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. G. V. Williams (MPC 16578)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	110.71543		(2000.0)			P			Williams			Q		
n	0.26030368	Peri.	187.18901			+0.89856950			+0.41678216					
a	2.4293076	Node	147.07137			-0.38899541			+0.90137255					
e	0.2198126	Incl.	14.63576			-0.20311432			+0.11755916					
P	3.79	H	12.9			G	0.15							

Residuals in seconds of arc

670411	033	1.7-	0.8+	830713	688	(5.2-	0.2+)	900519	675	0.4+	0.7-
670411	033	1.7+	0.7-	830813	688	0.5+	0.2-	900519	675	0.6-	0.9+
790528	413	0.0	0.7+	830813	688	1.1+	0.3+	910812	801	0.6-	0.1-
830614	413	0.1+	0.3+	900426	675	0.2+	1.0-	910812	801	0.2-	0.2-
830710	688	0.6-	0.9+	900426	675	0.6+	0.3-	910908	801	0.3+	0.2-
830710	688	1.4-	0.1-	900429	675	0.3+	0.4+	910908	801	0.3+	0.1-
830713	688	0.3+	1.5-	900429	675	1.1-	0.2-				

(5096)* 1983 RC5 = 1972 TH = 1981 CO = 1985 FA1 = 1985 GZ1 = 1990 SK16

Discovered 1983 Sept. 5 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.

Id. G. V. Williams (MPC 18283)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	102.43578		(2000.0)			P			Williams			Q		
n	0.27328563	Peri.	109.04445			+0.29188784			-0.95353904					
a	2.3517520	Node	323.71704			+0.82329311			+0.29018266					
e	0.1499215	Incl.	7.24183			+0.48681613			+0.08097733					
P	3.61	H	12.9			G	0.15							

Residuals in seconds of arc

721004	095	(10.5-	4.8+)	850324	688	0.2+	1.3-	900917	675	0.2+	0.6+
810208	688	0.9-	1.5-	850414	688	0.9-	0.8+	900917	675	0.3-	0.4+
810208	688	0.6-	0.1+	850414	688	0.9+	0.7-	900920	675	0.5+	0.2+
830905	095	0.9-	0.7+	900826	095	0.2-	2.0+	900920	675	0.5-	0.5+
830907	095	1.0+	0.3+	900826	095	(7.7+	2.4-)	920102	801	0.2+	0.8+
830909	095	(2.9+	1.0-)	900828	095	0.1+	0.6-	920102	801	0.2+	0.5+
830912	095	1.4+	1.2-	900828	095	(1.1-	3.9-)	920107	801	0.6+	0.1+
850321	688	1.0+	0.0	900830	095	0.6-	1.6-	920107	801	0.7+	0.1+
850321	688	0.7-	0.4-	900830	095	0.3-	1.1-	920205	801	0.2+	0.2-
850324	688	1.0-	0.1+	900914	675	0.2+	1.3-	920205	801	0.1-	0.4+

(5097)* 1983 TW1 = 1966 RG = 1978 JG2 = 1987 SZ1

Discovered 1983 Oct. 12 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. T. Kobayashi (MPC 12454)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Kobayashi			
M	(2000.0)			P	Q		
n	82.99486	Peri.	180.96746	+0.57609495	+0.81546505		
a	0.23532024	Node	124.21113	-0.74947884	+0.55431650		
e	2.5983433	Incl.	3.88000	-0.32618412	+0.16658323		
P	0.2250174	H	13.4	G	0.15		

Residuals in seconds of arc

660915	095	0.4-	2.3-	871001	372	(1.4-	15.9+)	910717	675	1.1+	2.0+
780506	095	1.7+	1.1-	900303	809	0.8-	0.6-	910803	809	1.3-	0.1+
831011	688	1.2-	2.2-	900303	809	0.8-	0.7-	910803	809	1.4-	0.3-
831011	688	0.7+	0.4+	900303	809	0.8-	0.7-	910803	809	1.1-	1.0+
831012	688	2.7+	1.2-	900308	809	0.4-	1.0-	910805	675	0.1-	0.4-
831012	688	1.0+	1.7-	900308	809	0.4-	1.1-	910805	675	0.0	0.4-
831104	688	0.0	0.1-	900308	809	0.4-	1.0-	910806	801	0.2+	0.2-
831104	688	1.6+	1.3-	900316	046	(3.7-	2.1-)	910806	801	0.0	0.5-
870827	095	1.1+	1.2+	900316	046	1.6-	3.5-	910807	675	0.3+	1.0-
870902	095	(5.3+	0.5-)	910712	801	0.0	0.7-	910807	675	0.5-	1.2-
870916	372	(7.3-	1.7+)Y	910712	801	0.1-	0.7-	910811	801	0.5+	0.6-
870917	372	2.7-	0.9+ Y	910712	675	1.6+	0.6-	910811	801	0.6+	0.7-
870918	372	(4.6-	1.4+)Y	910712	675	0.5+	0.0	910906	809	(1.3+	3.8+)
870920	095	1.4-	0.9-	910713	801	0.1-	0.4-	910906	809	(0.0	4.3+)
870922	095	1.2+	2.0+	910714	675	0.1+	0.0	910906	809	(0.5-	3.7+)
870926	372	0.5+	0.1+	910717	675	1.9+	0.3-				

(5098)* 1985 CH2 = 1979 UN1 = 1981 EJ1

Discovered 1985 Feb. 14 by H. Debehogne at the European Southern Observatory.

Id. K. Hurukawa (MPC 10310), A. Lowe (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Williams			
M	(2000.0)			P	Q		
n	299.36807	Peri.	328.58226	-0.53614963	-0.84083401		
a	0.23907190	Node	153.61772	+0.80504931	-0.53586029		
e	2.5710885	Incl.	9.64419	+0.25384875	-0.07649785		
P	0.0718285	H	13.8	G	0.15		

Residuals in seconds of arc

791021	805	0.6+	1.5+	850214	809	0.2-	1.5+	850220	809	0.6-	0.6-
791023	805	0.1-	0.8+	850214	809	0.0	1.5+	850220	809	0.5-	0.8-
791023	805	1.2-	0.4+	850214	809	0.0	1.6+	850220	809	0.3-	0.5-
810306	809	0.1+	0.5+	850215	809	0.3+	0.0	850221	809	0.0	0.5-
810306	809	0.2-	0.5+	850215	809	0.3+	0.1-	850221	809	0.3+	0.9-
810306	809	1.2-	1.4+	850215	809	0.5+	0.1-	850221	809	0.4+	0.9-
810307	809	0.9+	0.1-	850216	809	0.5-	0.0	850222	809	0.2+	0.2+
810307	809	1.3+	0.8-	850216	809	0.3-	0.2+	850222	809	0.1+	0.2+
810307	809	1.3+	0.4+	850216	809	0.0	0.4+	850222	809	0.0	0.1-
810308	809	0.4-	1.0+	850217	809	0.2+	0.2-	850224	809	0.8+	1.7-
810308	809	0.1+	1.0+	850217	809	0.1+	0.0	850224	809	0.8+	1.5-
810308	809	0.4+	1.0+	850217	809	0.4+	0.3+	850224	809	0.8+	1.4-
810309	809	0.9-	0.9-	850218	809	0.9-	0.5+	850225	809	0.5+	1.6-
810309	809	0.7-	0.4-	850218	809	0.8-	0.5+	850225	809	0.2+	1.6-
810309	809	0.1+	0.1+	850218	809	0.8-	0.4+	850225	809	0.5+	1.5-
810310	809	0.0	0.9+	850219	809	0.4-	0.3+	850227	809	0.3-	0.4-
810310	809	0.0	1.0+	850219	809	0.5-	0.0	850227	809	0.4-	0.3-
810310	809	0.3+	0.9+	850219	809	0.1-	0.3-	850227	809	0.5-	0.3-

850228	809	(2.9+	2.6-)	910808	675	0.7+	0.4-	910929	413	0.4+	0.1+
850228	809	(3.1+	2.9-)	910911	675	0.7+	1.1-	910930	413	0.9-	0.7-
910808	675	0.4-	0.4-	910911	675	(18.2-	8.3-)				

(5099)* 1985 DY1 = 1971 TD1 = 1979 WC7 = 1990 HJ2

Discovered 1985 Feb. 16 by H. Debehogne at the European Southern Observatory.

Id. S. Nakano (MPC 16579)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	111.88814		(2000.0)			P				Nakano	Q
n	0.25166554	Peri.	288.91023			+0.98483861				-0.17226805	
a	2.4845832	Node	81.01346			+0.16592108				+0.90108085	
e	0.0518420	Incl.	1.18412			+0.05062723				+0.39796610	
P	3.92	H	13.1			G	0.15				

Residuals in seconds of arc

711011	095	0.6+	1.6-	850222	809	0.5-	0.5-	850228	809	0.1+	0.4-
791117	095	0.5+	1.0-	850222	809	0.4-	0.5-	900427	413	1.3+	0.4+
850216	809	0.2-	0.3-	850223	809	0.1-	0.4-	900427	413	1.5-	0.3+
850216	809	0.2-	0.3-	850223	809	0.2-	0.3-	900430	413	2.5+	0.1+
850216	809	0.2-	0.2-	850223	809	0.4-	0.3-	900430	413	0.2+	0.6-
850220	809	0.5-	0.9+	850224	809	0.8-	0.5-	900722	801	1.6-	0.3-
850220	809	0.0	0.7+	850224	809	0.5-	0.5-	920102	801	0.4+	0.5+
850220	809	0.6+	0.4+	850224	809	0.4-	0.5-	920106	801	0.1+	0.6+
850221	809	0.3-	0.1+	850226	809	0.9+	0.2+	920106	801	0.3-	0.3+
850221	809	0.0	0.2+	850226	809	1.2+	0.3+	920207	801	0.4-	0.4+
850221	809	0.3+	0.1+	850226	809	1.6+	0.2+	920207	801	0.1-	0.0
850222	809	0.6-	0.2-	850228	809	0.4-	0.4-				

(5100)* 1985 GW = 1978 NC8

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

Id. E. Bowell (MPC 11154)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	0.49306		(2000.0)			P				Williams	Q
n	0.25384329	Peri.	36.35780			-0.74092557				-0.65853726	
a	2.4703525	Node	101.90515			+0.58005033				-0.72637705	
e	0.1349259	Incl.	7.73814			+0.33848324				-0.19673603	
P	3.88	H	13.3			G	0.15				

Residuals in seconds of arc

780707	675	0.6+	0.4+	850515	688	1.3+	0.6-	900914	675	0.3-	1.4-
780708	675	0.2-	0.3-	850515	688	0.4+	1.1-	920106	801	0.2-	0.0
780709	675	0.5-	0.1-	900529	413	(6.4+	1.1-)	920106	801	0.0	0.1+
850415	688	(2.5+	0.1-)	900529	413	1.8+	1.4+	920109	801	0.1+	0.2-
850415	688	1.0-	0.1-	900725	675	0.2-	0.0	920109	801	0.1-	0.2-
850424	688	0.8-	0.9+	900725	675	0.6-	0.3+	920207	801	0.5+	0.7-
850424	688	0.3-	0.8-	900914	675	0.1+	1.6-	920207	801	0.3+	0.7-

(5101)* 1985 UB5 = 1969 TQ

Discovered 1985 Oct. 22 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.

Id. C. M. Bardwell (MPC 12317)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	121.23046		(2000.0)			P				Bardwell	Q
n	0.18860471	Peri.	174.28258			+0.93530305				-0.34421112	
a	3.0113948	Node	206.31646			+0.31687699				+0.91792191	
e	0.1085477	Incl.	10.66139			+0.15747120				+0.19732734	
P	5.23	H	12.1			G	0.15				

Residuals in seconds of arc

691007	095	0.2-	0.5-	901015	095	(0.5+	4.4+)	920101	801	0.4-	0.4-
691016	095	0.5+	0.6-	901015	095	1.9+	1.3-	920101	801	0.5+	0.3+
851022	095	0.3+	1.7+	901016	801	0.4-	0.1+	920107	801	0.2+	0.2-
851109	095	1.0+	0.8+	901016	801	0.4-	0.1+	920107	801	0.3+	0.3-
851111	095	1.6+	0.4+	901017	801	0.2-	0.0	920206	801	0.2-	0.3-
851120	095	2.9-	1.1-	901017	801	0.2-	0.1+	920206	801	0.1-	0.2+
900924	095	0.6+	1.6-	901119	801	0.1-	0.4+	920207	801	0.0	0.0
900930	095	1.2-	1.4+	901119	801	0.1-	0.2+	920207	801	0.4-	0.4-

(5102)* 1986 RD1 = 1930 UA1 = 1939 PB = 1988 AJ1

Discovered 1986 Sept. 2 by A. Mrkos at Klet.

Id. T. Kobayashi (MPC 11857), S. Nakano (MPC 13159; unpublished)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	67.12629	(2000.0)	P	Q
n	0.21047038	Peri. 50.99785	+0.98201116	-0.16356828
a	2.7990376	Node 318.17120	+0.09712994	+0.86602066
e	0.1966085	Incl. 8.13204	+0.16192548	+0.47249723
P	4.68	H 12.2	G 0.15	

Residuals in seconds of arc

301017	690	(35.9+	21.4-)X	860911	046	(3.8+	3.6-)	911007	046	1.9-	1.0-
301019	690	(27.8-	15.7-)X	860929	010	(23.1-	2.1+)	911007	046	2.0-	0.9-
390808	020	1.3+	0.6-	860929	010	(16.7-	3.3+)	911013	366	1.1-	0.7+
390811	020	0.3-	1.7-	880110	046	0.5-	1.6-	911013	366	0.3-	0.2+
390811	020	(2.4+	7.8+)	880110	046	1.4-	1.8-	911017	367	1.3+	0.4+
830114	095	0.5+	1.4+	880112	046	1.0+	1.2-	911017	367	0.2+	0.8+
860806	095	(3.8-	0.5-)	880112	046	0.1-	1.7-	911017	367	1.8+	1.4+
860808	095	1.4-	1.3+	880113	046	0.1-	0.2-	911103	801	0.1-	0.6+
860812	095	(5.2-	1.7+)	880113	046	1.8+	0.8-	911103	801	0.1-	0.6+
860829	095	(5.7-	1.0-)	880119	046	1.9-	0.1-	911106	801	0.1-	0.7+
860902	046	2.6+	1.9-	880119	046	0.9-	1.7-	911106	801	0.1-	0.6+
860902	046	1.9+	2.3-	880120	046	0.6+	0.3-	911115	366	0.6+	0.5+
860904	046	(4.6+	0.5+)	880120	046	2.1-	0.9+	920207	801	0.3+	0.8-
860904	046	(3.8+	0.5-)	911007	801	0.3-	0.6+	920207	801	0.1-	0.9-
860911	046	0.4+	2.6-	911007	801	0.6-	0.4+				

(5103)* 1986 RP1 = 1977 QT3 = 1977 RD9 = 1985 JR1

Discovered 1986 Sept. 4 by A. Mrkos at Klet.

Id. H. Oishi (MPC 15245)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	141.52528	(2000.0)	P	Q
n	0.21632819	Peri. 110.66213	+0.45158908	+0.89217860
a	2.7482779	Node 186.20712	-0.84700527	+0.42543727
e	0.0161482	Incl. 4.88116	-0.28044496	+0.15172496
P	4.56	H 12.7	G 0.15	

Residuals in seconds of arc

770823	095	1.6-	0.3+	860904	046	0.4+	0.6+	911009	801	0.0	0.3-
770909	675	0.8+	0.1+	860905	046	0.7-	1.1-	911009	801	0.4-	0.0
770909	095	0.0	0.5+	860905	046	0.1-	0.5+	920108	801	0.4+	0.2-
770910	675	0.5+	0.5-	900625	801	0.4+	0.3+	920108	801	0.2+	0.0
850514	675	(1.4-	9.0+)	900625	801	0.8+	0.2-	920108	801	0.1-	0.0
860829	095	1.9+	2.1+	900720	801	0.5-	0.1+	920108	801	0.1+	0.2+
860904	046	1.2-	2.0-	900720	801	0.8-	0.5-				

(5104)* 1986 RU5 = 1982 SN4 = 1989 OQ = 1990 TE

Discovered 1986 Sept. 7 by L. I. Chernykh at the Crimean Astrophysical Observatory.

Id. G. V. Williams (MPC 17205)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 283.85136 (2000.0) P Q
n 0.23315298 Peri. 8.17517 -0.89525723 +0.43858095
a 2.6144202 Node 198.46347 -0.42152216 -0.89080278
e 0.1156927 Incl. 14.35023 -0.14433835 -0.11881565
P 4.23 H 11.7 G 0.15

Residuals in seconds of arc
820920 095 (3.5+ 3.5-) 890729 675 (1.0- 2.5-) 901009 413 0.5- 1.1+
860907 095 0.2+ 1.0+ 890729 675 0.4- 1.5- 901011 413 0.4- 1.1-
860911 095 0.8- 0.6- 900918 675 0.6+ 0.5- 901011 413 0.1- 1.4+
861005 095 0.7+ 0.8- 900918 675 0.7+ 0.7- 920102 801 0.0 0.6-
861010 095 (0.9+ 2.9-) 900920 675 1.3+ 0.1- 920102 801 0.2+ 0.7-
890705 675 0.2+ 0.6+ 900920 675 1.2+ 0.6- 920106 801 0.1- 0.7-
890705 675 0.2- 0.7+ 900926 095 2.1- 1.4+ 920106 801 0.1- 0.5-
890707 675 0.3- 1.4- 900926 095 (5.1- 5.8+) 920207 801 0.2+ 0.1+
890707 675 0.4+ 1.5- 901009 413 0.5- 0.9- 920207 801 0.6- 0.2-

(5105)* 1986 TM1 = 1982 UL10 = 1990 SQ10

Discovered 1986 Oct. 4 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. H. E. Holt (k, MPC 17632), R. H. McNaught (k, ibid.), B. G. Marsden (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden
M 109.34069 (2000.0) P Q
n 0.23544545 Peri. 189.95973 +0.54840024 -0.82315200
a 2.5974220 Node 226.96032 +0.78040612 +0.56704961
e 0.1564291 Incl. 11.62163 +0.30037222 +0.02958917
P 4.19 H 12.5 G 0.15

Residuals in seconds of arc
821023 095 0.8- 0.4- 861204 688 1.4+ 1.5+ 901012 413 0.2- 0.0
861003 095 (1.3- 4.7-) 900917 675 0.3+ 0.7+ 901012 413 0.2- 0.0
861004 688 0.9+ 0.3- 900917 675 0.6- 0.9+ 901012 413 1.0+ 1.0+
861004 688 0.5- 0.1+ 900917 675 1.0- 2.8- 901012 413 1.0+ 1.0+
861007 095 0.3- 2.2- 900917 675 0.1- 0.8- 920107 801 0.6+ 0.4-
861011 095 1.9+ 0.9- 900919 675 0.2- 0.5+ 920107 801 0.4+ 0.4-
861105 688 1.4- 1.4+ 900919 675 0.3- 1.3+ 920207 801 0.9- 0.5-
861105 688 1.9- 0.9+ 900920 675 0.1- 1.7- 920207 801 0.2- 0.3-
861204 688 1.6+ 0.4+ 900920 675 0.3- 1.1-

(5106)* 1987 DJ = 1985 YN1

Discovered 1987 Feb. 19 by P. Jensen at Brorfelde.

Id. S. Nakano (MPC 12001)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
M 147.30972 (2000.0) P Q
n 0.18710149 Peri. 279.47484 +0.98113412 -0.04869267
a 3.0275028 Node 83.48401 +0.12308104 +0.90362164
e 0.1161532 Incl. 10.85431 -0.14908688 +0.42555488
P 5.27 H 11.7 G 0.15

Residuals in seconds of arc
851217 010 0.9+ 0.3- 870302 054 1.1- 2.1+ 901214 801 0.6- 0.1+
851217 010 (5.3+ 0.8+) 880419 801 0.2- 2.8- 901220 801 1.0- 0.3+
851219 010 1.8+ 1.7- 901020 402 0.1+ 0.5- 901220 801 1.2- 0.2+
870219 054 0.6- 0.3- 901020 402 1.8+ 0.7+ 920106 801 0.6+ 0.2-
870220 054 0.4- 1.0+ 901021 402 0.5- 0.2- 920106 801 0.7+ 0.0
870222 054 0.4+ 0.9+ 901021 402 0.0 0.2- 920207 801 0.4+ 0.5-
870224 054 1.6+ 0.5- 901027 413 0.1- 0.6- 920207 801 0.3+ 0.6-
870226 054 2.5- 0.2+ 901214 801 0.6- 0.1+

(5107)* 1987 DS6 = 1976 GE1 = 1985 VY2

Discovered 1987 Feb. 24 by H. Debehogne at the European Southern Observatory.

Id. C. M. Bardwell (MPC 13313)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Bardwell			
M	(2000.0)			P	Q		
n	0.17734520	Peri.	277.68470	-0.11677097	-0.99315516		
a	3.1375435	Node	179.00882	+0.96184504	-0.11377009		
e	0.0733031	Incl.	9.03298	+0.24742405	-0.02644246		
P	5.56	H	12.0	G	0.15		

Residuals in seconds of arc

760401 095	0.6+	2.5-	870301 809	0.3+	0.3-	870310 809	(2.5-	0.2-)
760402 095	(5.3-	3.2-)	870301 809	0.6+	0.4-	870310 809	(2.4-	0.2-)
760404 095	0.2+	2.1-	870302 809	0.4-	0.5-	870310 809	(2.2-	0.2-)
851110 095	2.4-	2.2+	870302 809	0.2-	0.6-	890801 675	0.0	1.5-
870224 809	0.9-	0.8+	870302 809	0.0	0.9-	890801 675	0.3+	0.7-
870224 809	0.6-	1.3+	870303 809	0.2-	0.2+	900922 095	1.1+	0.2-
870224 809	0.0	1.4+	870303 809	0.0	0.2+	900922 095	(1.3+	3.0-)
870225 809	0.7-	0.2+	870303 809	0.2+	0.3+	901020 801	0.2+	1.1-
870225 809	0.3-	0.1+	870304 809	0.1+	0.4-	901020 801	0.5+	0.9-
870225 809	0.1-	0.4+	870304 809	0.0	0.3-	901120 801	0.5-	0.9-
870226 809	0.4+	0.1+	870304 809	0.1-	0.3-	901215 801	0.3+	0.7-
870226 809	0.6+	0.1+	870306 809	0.1+	0.3-	901215 801	0.3+	0.6-
870226 809	0.8+	0.0	870306 809	0.1-	0.3-	920102 801	0.4-	0.5-
870227 809	0.0	0.3-	870306 809	0.0	0.4-	920102 801	0.2-	0.7-
870227 809	0.1+	0.0	870307 809	0.4-	0.2+	920107 801	0.9+	0.0
870227 809	0.1+	0.2-	870307 809	0.7-	0.1-	920107 801	0.9+	0.2-
870228 809	0.3+	0.4+	870307 809	0.4-	0.2+	920203 801	0.5+	0.3-
870228 809	0.3+	0.3+	870308 809	0.8-	0.0	920203 801	0.6+	0.8-
870228 809	0.4+	0.3+	870308 809	0.9-	0.2+			
870301 809	0.6+	0.2-	870308 809	0.6-	0.2+			

(5108)* 1987 QG2 = 1952 RP = 1952 SQ1 = 1989 CU

Discovered 1987 Aug. 21 by E. W. Elst at the European Southern Observatory.

Id. S. Nakano (MPC 14351)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Nakano			
M	(2000.0)			P	Q		
n	0.28161570	Peri.	77.57397	+0.69926718	-0.71236059		
a	2.3051444	Node	327.79438	+0.60460251	+0.63392835		
e	0.1093458	Incl.	6.43491	+0.38142001	+0.30112661		
P	3.50	H	13.2	G	0.15		

Residuals in seconds of arc

520914 074	1.6-	0.4+	870826 809	0.1+	0.2+	890213 049	0.7-	1.1+
520916 839	0.4+	0.4+	870826 809	1.6+	0.1-	911007 801	0.6+	0.3-
520916 839	0.2-	2.1+	890204 399	0.5-	0.7-	911007 801	0.6+	0.6+
870821 809	0.9+	0.0	890204 399	(3.0+	1.5-)	911010 801	0.3+	0.3+
870821 809	0.4-	0.0	890204 399	1.2+	0.5+	911010 801	0.2+	0.2+
870821 809	1.7-	0.1-	890204 399	1.0+	0.7+	911103 801	0.4+	0.1+
870824 809	0.2-	0.7-	890205 399	1.1+	0.9+	911103 801	0.4+	0.2+
870824 809	(2.8+	0.3-)	890207 399	0.3+	0.2+	911106 801	1.0-	0.5-
870825 809	0.5-	0.6+	890207 399	(2.8-	0.9+)	911106 801	0.5-	0.3+
870825 809	0.8+	1.2+	890207 399	(2.6-	1.1+)	911201 675	0.0	0.7-
870825 809	0.3+	0.6+	890211 399	0.2+	0.6+	911201 675	0.4-	0.8+
870825 809	0.6-	1.3-	890211 399	1.8-	0.1-	911203 675	0.2-	1.7-
870825 809	0.1-	0.7-	890211 399	2.0+	1.0-	911203 675	0.1+	0.0
870826 809	0.1+	0.2-	890213 049	1.3-	0.0			

(5109)* 1987 RM1 = 1989 CK

Discovered 1987 Sept. 13 by H. Debehogne at the European Southern Observatory.

Id. S. Nakano (MPC 14352)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Nakano			
M 271.00651 (2000.0)				P Q			
n	0.29394786	Peri.	83.30045	-0.63921537	+0.76827412		
a	2.2402123	Node	146.88763	-0.72789672	-0.59015312		
e	0.0661710	Incl.	3.57232	-0.24813319	-0.24793983		
P	3.35	H	13.7	G	0.15		

Residuals in seconds of arc

870913	809	1.4-	0.3-	870928	809	1.4+	0.4+	900625	801	0.4+	0.1-
870913	809	0.0	0.8-	890104	413	1.0+	0.9+	900625	801	0.7+	0.3+
870913	809	0.2-	0.9-	890104	413	0.8+	0.2-	900719	801	0.3+	0.0
870916	809	0.4-	0.1-	890106	413	1.0+	0.4+	900720	801	0.4-	0.0
870916	809	0.2-	0.1+	890110	413	0.9-	1.2+	900720	801	0.9+	0.2+
870916	809	0.2-	0.2+	890110	413	1.0+	1.6-	900725	675	(3.4-	0.7+)
870917	809	0.3-	0.6-	890112	413	(3.6-	2.1-)	900725	675	(2.6-	0.9+)
870917	809	0.3-	0.7-	890113	413	1.6-	0.1-	900727	675	0.9-	0.0
870917	809	0.1-	0.7-	890113	413	(3.1-	1.8+)	900727	675	0.8-	0.3+
870918	809	0.2-	0.1+	890115	413	(2.5-	1.7+)	900728	675	1.1-	1.0+
870918	809	0.0	0.2+	890201	567	0.2-	0.2+	900728	675	0.8-	0.5+
870918	809	0.1+	0.1+	890201	567	0.8+	0.0	900816	801	0.5+	1.0+
870924	809	(2.4-	0.1+)	890208	567	0.1-	0.5+	900816	801	0.1+	0.6+
870924	809	0.1-	0.6+	890208	567	0.4-	0.1-	900817	801	0.6+	0.1+
870924	809	0.0	0.5+	890209	567	0.3-	0.2+	900817	801	0.2+	0.2+
870926	809	2.1-	0.2+	890209	567	0.5-	1.0-	911107	801	0.3+	0.0
870926	809	0.9+	0.5+	890210	567	0.7-	0.8+	911107	801	0.1+	0.3+
870926	809	0.9+	0.4+	890210	567	1.1-	0.2+	911205	801	0.7-	0.3+
870928	809	0.9+	0.5+	890227	567	1.2+	1.9+	911205	801	0.3+	0.0
870928	809	1.1+	0.5+	890227	567	1.2+	0.8+				

(5110)* 1987 SV = 1937 AW = 1937 AC1 = 1937 BH = 1939 RG = 1974 CG

Discovered 1987 Sept. 19 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. S. Nakano (MPC 12449)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Nakano			
M 79.47082 (2000.0)				P Q			
n	0.26722071	Peri.	76.34142	+0.86327027	-0.50244165		
a	2.3872028	Node	313.79511	+0.43348471	+0.78687009		
e	0.1087361	Incl.	3.82352	+0.25856420	+0.35831251		
P	3.69	H	12.8	G	0.15		

Residuals in seconds of arc (or two decimals in units of degrees)

370107	020	(0.08+	0.05-)	X	870828	095	0.5-	0.8-	871026	688	0.2+	1.6+
370109	020	(7.0+	3.6-)		870916	095	1.0-	0.5-	871026	688	0.6-	0.7+
370117	029	0.9-	0.8-		870919	688	1.0+	0.4+	911114	901	0.2-	0.1-
370117	029	0.7+	0.4-		870919	688	1.1-	0.6+	911114	901	0.7+	1.0-
390908	024	0.2-	1.1+		870926	688	0.1-	0.2-	920102	801	0.1-	0.2-
390909	024	1.0+	2.8-		870926	688	0.5-	0.3-	920102	801	0.1-	0.1-
740214	095	0.1+	0.7+		871016	688	1.2+	1.6+	920108	801	0.2-	0.0
740218	095	0.5+	1.1+		871016	688	(1.0-	2.5+)	920108	801	0.2-	0.1-

(5111)* 1987 SE4 = 1962 XO = 1980 TV14

Discovered 1987 Sept. 29 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. S. Nakano (MPC 12450)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 126.97451	(2000.0)			P		Nakano		Q	
n 0.27288571	Peri.	98.65484		+0.96704716		+0.23678639			
a 2.3540491	Node	247.69029		-0.25459335		+0.89733407			
e 0.1263817	Incl.	5.80376		-0.00141845		+0.37245640			
P 3.61	H	13.0		G 0.15					

Residuals in seconds of arc

621202 760	0.5-	0.1+	870926 095	0.1+	0.6+	871026 688	0.6+	0.8+
621202 760	0.6+	0.9+	870929 688	1.5+	1.2+	911007 801	0.4+	0.2-
801015 095	0.7+	0.9+	870929 688	1.0+	0.4+	911007 801	0.3+	0.1-
801017 095	0.6-	0.1+	871016 688	0.1-	1.3-	911009 801	0.2+	0.6-
801101 675	0.5-	0.2+	871016 688	1.8-	1.6-	911009 801	0.3+	0.3-
801102 675	0.5-	0.3-	871023 095	0.1+	0.1+	920108 801	0.4-	0.0
870902 095	0.5-	0.2+	871025 054	0.1-	0.9-	920108 801	0.3-	0.0
870917 095	0.6-	1.2+	871026 688	0.2+	1.6-			

(5112)* 1987 SM13 = 1987 SL29 = 1971 TK1 = 1990 OV1

Discovered 1987 Sept. 23 by S. Ueda and H. Kaneda at Kushiro.

Id. H. Kaneda (MPC 17634)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 145.12558	(2000.0)			P		Kaneda		Q	
n 0.30727372	Peri.	341.50885		+0.71326693		-0.69516068			
a 2.1749658	Node	62.87283		+0.65507100		+0.61579553			
e 0.1301246	Incl.	5.76853		+0.24926346		+0.37087397			
P 3.21	H	13.5		G 0.15					

Residuals in seconds of arc

711011 095	0.2-	0.3+	900729 675	0.7+	0.1-	920206 801	0.7+	0.4-
870923 399	(3.2+	1.2+)	900729 675	0.2+	0.0	920206 801	1.0+	1.0-
870923 399	(4.3+	1.1-)	900730 675	0.2+	0.2+	920226 399	2.3-	0.6+
870923 399	1.6+	1.2-	900730 675	0.4+	0.4+	920226 399	1.9-	0.9+
870924 095	(5.2-	0.4+)	900914 675	0.8-	1.0-	920229 399	0.6+	0.9-
871025 399	0.1-	0.3+	900914 675	0.1-	0.7-	920229 399	1.3+	0.8-
871025 399	1.2-	0.2-	900915 675	0.5+	0.3+			
871025 399	0.1+	0.0	900915 675	0.9-	0.3+			

(5113)* 1988 BN

Discovered 1988 Jan. 19 by T. Seki at Geisei.

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 342.37144	(2000.0)			P		Nakano		Q	
n 0.22679728	Peri.	217.34829		-0.94094343		+0.03051725			
a 2.6630388	Node	320.04314		+0.23199379		-0.66724569			
e 0.2267679	Incl.	31.67087		-0.24658538		-0.74421226			
P 4.35	H	12.6		G 0.15					

Residuals in seconds of arc

880119 372	2.6+	0.2-	880213 675	(9.7-	1.8-)	890701 474	(3.2-	0.4-)
880120 372	0.6-	2.7-	880213 894	(3.2-	0.4-)	890728 474	0.6+	0.5+
880123 372	0.8+	2.1+	880213 894	0.4-	2.1+	890728 474	1.2+	0.4+
880125 372	0.1+	0.3+	880218 871	(3.2+	2.2+)	900921 372	(3.6-	0.9+)
880129 372	0.1-	2.1+	880221 372	0.9-	2.0-	900921 372	0.1-	1.6+
880208 372	0.0	0.1-	880221 372	0.1+	0.9-	911209 372	0.2+	0.5-
880208 372	0.3-	0.1-	880414 801	0.1+	0.6-	911209 372	1.5+	1.2+
880211 675	(13.2-	1.9-)	890629 474	0.7-	0.6+	911229 372	0.4+	0.8-
880212 894	0.5+	0.3-	890629 474	1.6-	0.5+	911229 372	1.5-	0.8+
880212 894	0.4+	1.7+	890701 474	2.7-	0.6-	920102 372	0.5-	0.3-

(5114)* 1988 CO = 1986 TS3

Discovered 1988 Feb. 15 by S. Ueda and H. Kaneda at Kushiro.

Id. T. Kobayashi (MPC 12952)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kobayashi

M	309.94704		(2000.0)		P		Q
n	0.25366763	Peri.	213.43055	-0.52943056			+0.84781266
a	2.4714928	Node	24.64342	-0.76156777			-0.45924038
e	0.0120689	Incl.	4.16466	-0.37378845			-0.26516404
P	3.89	H	12.6	G	0.15		

Residuals in seconds of arc

861004	046	1.4+	1.6+	880211	399	1.8-	0.8+	901027	399	0.5+	0.2+	
861004	046	(1.8+	2.5+)	880211	399	1.0+	0.4+	901111	400	0.7-	0.9-	
861005	046	2.1-	1.5+	880211	399	1.7+	1.0+	901111	400	0.2-	0.5+	
861005	046	(5.2-	0.9-)	880215	399	(3.3-	1.1+)	920205	399	1.4-	0.4+	
861009	046	0.2-	1.5-	880215	399	0.1-	0.0	920205	399	1.4-	0.5-	
861009	046	0.2+	0.3-	880215	399	1.6+	0.4+	920208	399	0.2+	1.3-	
861010	046	(5.0-	4.2-)	880219	399	(0.6+	4.6+)	Y	920208	399	0.3+	2.1-
861010	046	(2.1-	3.0-)	880219	399	0.0	1.6+		920225	399	1.1+	0.1-
880208	399	0.1-	1.1-	880219	399	1.2-	0.2-	Y	920225	399	0.1-	0.4-
880208	399	1.2+	0.3-	880312	054	2.1-	1.4+		920226	399	0.4-	0.4+
880208	399	1.0+	0.1-	880312	054	(3.6-	1.5+)		920226	399	0.2+	0.2+
880211	399	(3.9-	1.0+)	901027	399	1.0+	1.3-					

(5115)* 1988 CD4 = 1985 QR3 = 1990 MS

Discovered 1988 Feb. 13 by E. W. Elst at the European Southern Observatory.

Id. E. Bowell (k, MPC 16697), B. G. Marsden (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	92.75905		(2000.0)		P		Q
n	0.18780036	Peri.	93.53873	+0.98053897			+0.12925688
a	3.0199872	Node	259.07450	-0.17573125			+0.91344055
e	0.1311068	Incl.	8.65578	+0.08753204			+0.38590027
P	5.25	H	12.2	G	0.15		

Residuals in seconds of arc

850823	675	0.2-	0.8-	880223	413	0.1-	0.5+	900728	675	0.4+	2.1-
850823	675	0.9+	0.3-	880225	413	0.8-	0.3-	900728	675	0.3+	0.6-
880213	809	0.4+	1.1-	880225	413	1.0+	0.4-	900728	675	0.8+	2.4-
880215	809	0.2+	2.1-	900618	675	1.5+	0.3-	900729	675	1.0-	0.5+
880216	809	0.2+	1.1-	900618	675	0.6+	0.2-	900729	675	0.8-	0.2+
880216	809	0.0	1.1-	900621	675	0.0	0.1-	900730	675	0.2+	0.2-
880216	809	0.2-	1.1-	900621	675	0.5+	0.7-	900730	675	0.9+	1.0-
880221	809	1.5-	0.1+	900724	675	1.1-	0.5-	911205	801	0.6+	1.7-
880221	809	1.3-	0.2+	900724	675	0.1+	0.4-	911205	801	0.4+	2.2-
880221	809	1.6-	0.3+	900725	675	1.2+	1.3-	920207	801	0.2+	1.4-
880223	809	0.0	1.1-	900725	675	0.6+	2.6-	920207	801	0.1-	1.0-
880223	809	0.5-	1.3-	900727	675	1.1-	1.6+				
880223	809	0.6-	1.8-	900728	675	0.3+	0.1-				

(5116)* 1988 EU = 1970 BC = 1982 DH3 = 1982 HQ2

Discovered 1988 Mar. 13 by P. Jensen at Brorfelde.

Id. S. Nakano (MPC 13161)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	14.42050		(2000.0)		P		Q
n	0.17283654	Peri.	29.30186	+0.49273968			-0.86886021
a	3.1918735	Node	31.24856	+0.77933976			+0.41617462
e	0.1191873	Incl.	5.29243	+0.38708803			+0.26810561
P	5.70	H	11.4	G	0.15		

Residuals in seconds of arc

700131	095	0.4-	1.4-	710402	675	0.7-	0.4-	710514	675	2.1-	0.4+
710326	675	0.2+	1.4-	710416	675	0.4+	1.6-	710516	675	0.5-	1.8+
710326	675	0.5+	1.4-	710416	675	2.3-	2.3-	820220	033	1.6+	0.1+
710327	675	0.4+	0.8-	710513	675	0.3-	1.7+	820220	033	1.6+	0.2+

820220	033	1.6+	0.0	880314	054	0.4-	0.8-	911009	595	0.5+	0.0
820427	033	2.0-	1.2-	880318	054	0.3-	0.0	911009	595	0.2-	0.8-
820427	033	1.2-	0.8-	880323	809	0.5-	0.7+	911009	595	0.5-	0.5+
850818	095	(3.4+	4.1-)	880323	809	1.8-	0.6-	920205	801	0.2-	0.4-
850823	095	2.5+	1.5-	880324	809	1.3+	0.8-	920206	801	0.7-	0.6-
850915	095	0.1-	1.9-	880324	809	1.4-	0.2+	920206	801	0.2-	0.1-
850920	095	2.7+	2.7-	911008	596	0.9-	0.3-	920206	801	0.4-	0.1-
880313	054	1.7+	0.2-	911008	596	1.0+	1.1-				
880313	054	0.3-	0.3-	911008	596	0.0	0.8+				

(5117)* 1988 GH = 1972 GH = 1980 XP1

Discovered 1988 Apr. 8 by K. Endate and K. Watanabe at Kitami.

Id. S. Nakano (MPC 13154), T. Kobayashi (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	305.01106		(2000.0)			P		Q			
n	0.18447860	Peri.	153.14399			-0.99551280		-0.06648644			
a	3.0561316	Node	23.33904			+0.02020403		-0.84450476			
e	0.0749417	Incl.	9.78556			+0.09244495		-0.53140500			
P	5.34	H	11.8			G	0.15				

Residuals in seconds of arc

720414	095	(3.8-	2.0-)	880416	399	0.7-	1.3+	901020	801	0.1-	0.3+
801210	095	0.5+	1.1-	880416	046	2.2+	1.9-	901021	801	0.0	0.4+
851018	095	(1.2+	3.8+)	880416	046	1.0+	1.1-	920101	801	0.4+	0.5+
880408	400	1.5-	0.6-	880509	400	0.1+	0.0	920106	801	0.1-	0.3+
880408	400	2.3+	1.7+	880509	400	0.5-	0.5+	920106	801	0.1-	0.1+
880410	046	0.3-	0.2+	880509	400	0.0	1.6+	920206	801	0.1-	0.6-
880410	046	1.9-	1.2-	900914	809	0.2+	0.6-	920206	801	0.1+	0.4+
880414	046	2.3-	1.9-	900914	809	0.9+	0.7-	920207	801	0.1-	0.4-
880414	046	0.1-	0.5-	900914	809	0.2+	0.8-	920207	801	0.3-	0.1-
880416	399	0.2-	0.5+	901020	801	0.1-	0.3+				
880416	399	0.9+	0.1+	901020	801	0.3-	0.2+				

(5118)* 1988 RB = 1937 KH = 1976 YB1 = 1980 TS11 = 1980 VH2

Discovered 1988 Sept. 7 by P. Jensen at Brorfelde.

Id. B. G. Marsden (MPC 13682)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	348.68797		(2000.0)			P		Q			
n	0.23457809	Peri.	61.19914			+0.67881288		+0.70635172			
a	2.6038208	Node	253.02550			-0.72539635		+0.60257924			
e	0.2163981	Incl.	12.11306			-0.11407549		+0.37143710			
P	4.20	H	11.6			G	0.15				

Residuals in seconds of arc (or two decimals in units of degrees)

370531	078	(0.03+	0.04+)X	880907	054	0.9-	1.1-	881002	054	0.3+	0.5+
761216	095	3.5-	2.5-	880908	054	0.0	0.2-	910221	808	0.8-	0.2+
761218	095	1.3+	1.0-	880909	054	0.1+	0.4-	910221	808	0.6-	1.2-
801009	095	0.2+	0.4+	880916	054	0.3-	1.0-	910506	413	0.7+	1.3-
801110	330	2.2+	3.6+	880920	054	0.5+	0.2-				
880907	054	0.5+	0.0	880920	054	0.5+	0.9-				

(5119)* 1988 RA1

Discovered 1988 Sept. 8 by P. Jensen at Brorfelde.

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	133.31204		(2000.0)			P		Q			
n	0.08304403	Peri.	15.52164			+0.88039338		+0.43575051			
a	5.2031192	Node	317.02718			-0.45908342		+0.68408423			
e	0.1078242	Incl.	15.93633			-0.11895339		+0.58493611			
P	11.87	H	10.2			G	0.15				

Residuals in seconds of arc

880908	054	0.6-	0.2+	890929	675	0.9+	0.4-	911202	675	0.3+	0.2+
880909	054	0.8+	1.9+	890929	675	0.5+	0.9-	911202	675	0.7+	0.7-
880909	054	0.8-	0.2+	891101	675	1.3-	0.9+	911206	675	0.2-	0.1+
880911	675	0.9+	1.9-	891101	675	0.0	0.2+	911206	675	0.3-	0.0
880911	675	0.3+	1.1-	891122	675	0.2+	1.1-	920106	801	0.3+	1.0+
880916	054	0.7-	1.0+	891122	675	1.4-	0.3-	920106	801	0.5+	0.5+
880920	054	0.2+	0.8+	901111	675	0.2+	1.6+	920206	801	0.7-	0.6+
881002	054	0.1+	1.3+	901111	675	0.6+	0.9-	920206	801	0.8-	0.5+
881010	054	0.1+	1.2+	901114	675	0.8+	1.2-				
881010	054	0.9-	1.9-	901114	675	0.4+	1.2-				

(5120)* 1988 TZ1

Discovered 1988 Oct. 13 by C. S. Shoemaker at Palomar.

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	155.96397	(2000.0)	P	Q
n	0.08100230	Peri. 22.54667	+0.71607341	+0.58570137
a	5.2901884	Node 295.89754	-0.68735312	+0.49689745
e	0.1091144	Incl. 24.96836	-0.12159178	+0.64034899
P	12.17	H 9.8	G 0.15	

Residuals in seconds of arc

880914	675	0.2-	1.3+	891102	675	0.4-	0.2-	911202	675	0.5-	1.0+
880914	675	0.3-	1.9+	891103	675	1.0-	1.5-	911202	675	(2.3+	5.0-)
881013	675	0.3-	0.6+	891103	675	0.1-	1.6-	911206	675	1.0+	1.0-
881013	675	0.4-	1.2+	901111	675	1.7+	1.9-	920102	801	0.1+	1.2+
881104	675	0.4+	1.3-	901113	675	0.5+	1.7-	920102	801	0.2+	1.1+
881106	675	0.2-	0.2-	910120	675	0.5-	0.4+	920106	801	0.2+	0.7+
891102	675	0.7-	0.1+	910120	675	(4.7-	1.3-)	920106	801	0.3+	0.7+

(5121)* 1989 AX1 = 1941 WO = 1954 PA = 1984 QF1

Discovered 1989 Jan. 15 by M. Yanai and K. Watanabe at Kitami.

Id. T. Kobayashi (MPC 15893)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	95.48114	(2000.0)	P	Q
n	0.29579389	Peri. 20.31172	+0.94632412	-0.32320641
a	2.2308819	Node 358.53600	+0.27882895	+0.82082611
e	0.1702326	Incl. 6.46353	+0.16347804	+0.47093748
P	3.33	H 13.0	G 0.15	

Residuals in seconds of arc

411116	062	0.3+	0.8+	890130	400	1.3-	1.4-	911104	411	1.1+	0.6-
411116	062	0.1-	2.2+	890207	400	0.3-	2.2-	911106	366	0.5-	0.8+
540807	760	1.6-	2.1-	890207	400	(1.0+	4.3-)	911106	366	(0.5-	2.6+)
540807	760	0.5+	0.3+	910812	801	0.6-	0.4+	911130	366	1.1+	0.1+
840831	688	0.7+	2.1-	910812	801	0.0	1.2+	911130	366	0.1+	0.4+
840831	688	1.8+	1.0-	910912	801	0.2-	0.5+	911130	367	0.4-	0.5+
840831	688	1.7+	0.7-	910912	801	0.2-	0.6+	911130	367	0.9-	0.3+
890113	400	(0.3-	5.3-)	911007	801	0.2+	0.4+	911130	367	0.8-	0.3+
890113	400	(0.9-	6.4-)	911007	801	0.0	0.2+	911201	902	1.4+	0.5+
890115	400	(1.0-	7.9-)	911009	801	0.1+	0.3+	911201	902	1.1-	1.0-
890115	400	(2.8-	9.4-)	911009	801	0.1+	0.4+	911201	366	0.4-	0.7-
890115	400	(0.2+	10.0-)	911103	366	(2.3+	0.9-)	911204	367	0.5-	1.5-
890130	400	0.3+	0.2-	911103	366	0.2-	0.0	911204	367	0.0	1.1-
890130	400	0.1+	2.4-	911104	411	1.2+	0.3-	911204	367	1.3-	0.8-

(5122)* 1989 AZ1 = 1979 UH3 = 1983 NV = 1985 BE

Discovered 1989 Jan. 3 by A. Mrkos at Klet.

Id. S. Nakano (MPC 14358)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	9.67670		(2000.0)		P		Nakano		Q
n	0.23664361	Peri.	259.40094		+0.95389126		-0.22146223		
a	2.5886472	Node	113.14989		+0.27681129		+0.91004822		
e	0.2011777	Incl.	12.72900		-0.11604729		+0.35038082		
P	4.16	H	12.1		G	0.15			

Residuals in seconds of arc

620803	760	(3.7-	4.1+)	890104	046	2.6+	0.0	900325	801	0.5-	0.6+
620803	760	(4.4-	4.8+)	890104	046	1.7+	0.3+	910610	801	0.0	0.4-
791025	808	0.0	0.8+	890109	046	(3.3-	1.2-)	910610	801	0.4-	0.6-
791025	808	1.1-	0.5+	890109	046	2.1-	1.9-	910611	801	0.0	0.9-
830713	688	1.0+	2.7-	890111	675	1.2-	1.2-	910611	801	0.0	1.1-
830713	688	(1.3-	5.3-)	890111	675	0.5-	0.9-	910614	293	(1.3+	3.1-)
850116	046	(3.5+	2.0-)	890114	293	1.7-	1.2+	910709	801	(0.0	2.8-)
850116	046	1.0+	0.9+	890114	293	(3.3-	2.6+)	910709	801	0.0	0.7+
850118	046	0.8+	0.1+	890207	071	0.8-	0.2-	910711	801	0.6+	0.2+
850118	046	(3.3+	1.1+)	890207	071	1.3-	1.3+	910711	801	0.0	0.1-
890103	046	1.4+	1.3-	890207	071	0.4-	1.0-				
890103	046	1.9+	1.9-	900325	801	0.7-	0.6+				

(5123)* 1989 BL = 1951 YW = 1986 WA9

Discovered 1989 Jan. 28 by Y. Oshima at the Gekko Observatory.

Id. H. Oishi (MPC 14358)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	120.18346		(2000.0)		P		Nakano		Q
n	0.08226012	Peri.	30.62635		-0.31879716		-0.93663892		
a	5.2361227	Node	78.29743		+0.83680206		-0.35006528		
e	0.1043171	Incl.	8.52594		+0.44511873		-0.01272128		
P	11.98	H	9.9		G	0.15			

Residuals in seconds of arc

511223	711	1.0-	3.6+	890203	888	0.0	0.0	900128	675	1.7-	0.1+
511223	711	(0.7-	7.5+)	890203	888	0.1-	0.4+	900221	675	0.7+	1.8-
861130	381	0.0	0.6-	890205	888	0.2+	0.0	900221	675	1.7+	0.4-
861130	381	0.4+	0.8-	890205	888	0.3-	0.1+	900327	675	2.3+	0.7+
861201	381	1.4+	0.5-	890207	888	0.7-	0.6+	900327	675	(1.5-	2.6-)
861201	381	0.1-	1.2-	890207	888	0.2-	0.4+	910309	675	0.9+	0.1-
890111	675	0.9-	0.4-	890210	888	0.0	0.3+	910312	675	0.6+	1.7+
890111	675	0.9-	0.9+	890210	888	0.2-	0.1-	910312	675	0.2+	0.7+
890128	888	(3.3-	2.6+)	890213	888	(7.1-	1.8-)	910414	675	0.4-	0.3-
890128	888	(4.2-	4.3+)	890213	888	(6.0-	0.1-)	910414	675	0.6+	0.6-
890129	888	0.2-	0.4-	890226	888	0.9-	0.1+	910416	675	0.7-	0.3+
890129	888	0.3-	0.1-	890226	888	0.7-	0.2-	910514	675	(3.0-	0.5-)
890131	675	1.9+	1.2-	900126	675	0.6-	0.2+	910516	675	1.0-	1.0-
890201	675	0.5+	2.0-	900126	675	0.1-	0.5+	910518	675	0.9-	0.7-
890201	675	1.4+	0.3+	900128	675	1.1-	0.1-				

(5124)* 1989 CW = 1982 BL10 = 1990 OP3

Discovered 1989 Feb. 4 by T. Seki at Geisei.

Id. H. E. Holt (k, MPC 16876), G. V. Williams (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	264.92700		(2000.0)		P		Williams		Q
n	0.28924231	Peri.	280.94142		-0.43095465		+0.90232730		
a	2.2644435	Node	323.52604		-0.82179085		-0.39663387		
e	0.0799537	Incl.	0.88099		-0.37274374		-0.16878099		
P	3.41	H	13.7		G	0.15			

Residuals in seconds of arc

820119	095	0.3+	1.4+	890205	049	0.2-	2.3-	890206	875	0.2-	1.3+
890204	372	(6.3-	3.6-)	890205	049	0.3-	0.8-	890210	875	2.1-	0.6+
890204	372	(0.4+	3.0-)	890206	875	0.4+	0.0	890210	372	(4.1-	1.1-)Y

890210	875	(5.4-	2.6+)	890213	372	2.3-	0.1+	900914	675	2.2+	2.3-
890211	372	0.8-	0.6-	890214	809	0.3+	0.7-	900914	675	1.4+	0.9-
890211	372	1.1-	0.6-	890214	809	0.6+	0.1-	900915	675	1.6+	0.3-
890212	809	0.4-	0.2-	890214	372	1.4-	0.1+	900915	675	1.0-	0.6-
890212	809	0.1-	0.1-	890214	372	1.0+	0.3-	900918	675	1.4+	1.5-
890212	809	0.3-	0.2-	890227	399	(3.6-	0.5-)	900918	675	(2.1+	3.9-)
890213	049	0.3-	0.8-	890227	399	1.4+	2.1-	911204	372	1.1+	1.0-
890213	049	(0.2-	3.2+)	890227	399	1.8+	0.7-	911208	372	1.4+	0.9+
890213	049	0.7+	0.8-	890306	372	0.8-	0.1-	911208	372	(3.1-	0.1+)
890213	049	1.2+	0.7+	890306	372	0.9+	0.8+	911210	033	0.3+	1.3-
890213	809	0.3+	0.5-	900727	675	0.5-	0.7-	911210	033	0.4-	0.7-
890213	809	0.5+	0.7-	900727	675	0.2+	0.2-	911211	372	2.5-	1.1+
890213	809	0.3+	0.6-	900730	675	1.4-	1.2-	911212	033	0.0	0.2+
890213	875	2.3-	1.4+	900730	675	0.9-	0.4-	911229	372	(3.5-	0.6-)
890213	875	0.9-	0.4-	900815	372	(1.6-	2.9+)	911229	372	0.1-	0.8+
890213	372	1.7+	0.4-	900815	372	0.2-	1.0+				

(5125)* 1989 CN1 = 1976 YX4

Discovered 1989 Feb. 10 by S. Ueda and H. Kaneda at Kushiro.

Id. T. Kobayashi (MPC 14478)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Kaneda	
M		(2000.0)		P	Q
n	0.25473428	Peri.	85.29463	-0.32315763	-0.94595879
a	2.4645887	Node	23.61450	+0.83929875	-0.29968655
e	0.1594678	Incl.	3.87040	+0.43720333	-0.12389487
P	3.87	H	13.2	G	0.15

Residuals in seconds of arc

761218	095	0.7-	1.4+	890227	399	1.1-	1.2+	910915	675	0.8+	0.8-
761220	095	0.1-	1.4+	890227	399	0.1-	0.8-	910917	675	1.5+	1.3-
870924	413	0.7-	0.1+	890308	372	1.9-	1.1-	910917	675	0.7+	1.1-
870924	413	0.7+	1.1+	890308	372	1.3-	1.1-	910930	399	0.7-	0.2+
890210	399	0.4-	0.5-	910907	399	1.3-	0.9+	910930	399	0.2-	0.1+
890210	399	1.5+	0.6-	910907	399	0.4-	1.5+	911008	801	0.2-	1.0-
890210	399	0.4-	0.8+	910913	801	0.3+	0.4+	911008	801	0.1-	1.1-
890212	400	0.2+	1.0-	910913	801	0.5+	0.4+	911009	801	0.3-	1.0-
890212	400	1.6+	0.6+	910915	675	0.4-	0.2-	911009	801	0.3-	0.8-
890212	400	0.0	1.8-	910915	675	0.6+	0.0				
890227	399	0.4-	0.4-	910915	675	2.0+	2.5-				

(5126)* 1989 CH2

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

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Marsden	
M		(2000.0)		P	Q
n	0.08283711	Peri.	353.38876	-0.35373403	-0.82202520
a	5.2117802	Node	116.48882	+0.87937989	-0.45483522
e	0.0268170	Incl.	29.90749	+0.31868988	+0.34263610
P	11.90	H	10.1	G	0.15

Residuals in seconds of arc

890111	675	1.4-	1.4+	900128	675	1.9+	0.6-	910313	801	0.1+	1.0+
890111	675	0.7-	0.9+	900221	675	0.1-	0.3-	910313	801	0.0	0.7+
890201	675	1.1+	0.5+	900224	675	0.5-	0.3-	910317	801	0.0	0.7+
890201	675	0.4+	0.3+	900327	675	0.8-	0.7-	910317	801	0.0	1.0+
890307	675	0.5+	0.3+	900327	675	0.8-	0.0	910414	675	1.2+	0.3-
890308	675	0.6-	1.2-	910209	801	0.5-	0.4+	910414	675	0.6+	1.1-
900126	675	0.9+	0.6-	910209	801	0.4-	0.3+	910416	675	0.1-	0.3-
900126	675	0.7-	1.8-	910216	801	0.1+	0.4-				
900128	675	0.0	0.1+	910216	801	0.3-	0.6+				

(5127)* 1989 CO3 = 1969 TX = 1980 TR7

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

Id. S. Nakano (MPC 14623)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Nakano	
M		(2000.0)	P	Q	
n	46.48768	Peri. 202.04576	+0.67729033	-0.73428076	
a	0.26899640	Node 205.39404	+0.68998862	+0.65562150	
e	2.3766856	Incl. 6.14835	+0.25533022	+0.17604606	
P	0.1524348	H 14.5	G 0.15		

Residuals in seconds of arc

691007 095	0.8-	0.3+	890302 809	2.3-	0.1+	910914 033	0.3-	0.9+
691016 095	0.2-	0.9+	890302 809	1.7-	0.7+	910915 033	0.1-	1.1+
801010 095	2.0+	2.4-	890303 809	1.7+	0.0	910915 033	0.5-	0.5+
890204 809	0.6-	0.2-	890303 809	1.3+	0.3-	910915 675	0.6-	0.3-
890204 809	0.6-	0.3-	890303 809	1.5+	0.4-	910918 033	0.3-	1.5+
890204 809	1.5+	0.5-	890303 809	1.2-	0.3+	911003 033	1.5+	0.1-
890207 809	1.3+	0.3+	890303 809	1.6-	0.2-	911004 033	1.3+	0.2-
890207 809	0.5+	1.1+	890303 809	0.8-	0.6-	911004 033	0.9+	0.1-
890207 809	0.6+	0.6+	910913 033	0.5-	0.2+	911109 675	1.2-	0.7-
890302 809	1.0+	0.1-	910913 033	0.4-	0.5+	911109 675	0.3-	0.7+
890302 809	0.5+	0.2+	910913 675	0.5-	0.8-	911110 801	0.5-	0.1-
890302 809	0.6+	0.0	910913 675	0.7+	0.8-	911110 801	0.2-	0.4+
890302 809	1.8-	0.0	910913 033	0.5+	0.7+	911110 675	1.0-	1.8-

(5128)* 1989 FJ = 1970 AK = 1980 KW = 1982 UA5

Discovered 1989 Mar. 30 by M. Koishikawa at the Ayashi Station of the Sendai Astronomical Observatory.

Id. S. Nakano (MPC 14625)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Nakano	
M		(2000.0)	P	Q	
n	269.21143	Peri. 123.38063	-0.95342552	-0.29145402	
a	0.21419770	Node 39.83009	+0.22039042	-0.84896879	
e	2.7664713	Incl. 6.96594	+0.20593165	-0.44080216	
P	0.1433714	H 12.3	G 0.15		

Residuals in seconds of arc

700104 095	0.2+	1.0-	890405 391	1.4-	0.8+	910913 801	0.4-	0.7+
800517 095	0.2-	0.1+	890405 391	2.0-	1.3+	910913 675	0.1+	0.8-
821020 033	0.4-	0.0	890406 391	0.4+	0.1+	910913 675	0.3+	0.3-
890330 391	(8.4-	0.9+)	890406 391	1.9-	2.0+	910916 675	0.2+	1.0-
890330 391	(9.6-	0.5-)	890413 391	1.4-	1.0-	910916 675	0.1+	1.4-
890331 391	(6.4-	0.8+)	890413 391	(3.9-	0.2+)	911106 801	0.8+	0.2-
890331 391	1.3-	1.4+	890428 391	0.5+	2.4-	911106 801	0.3-	0.1-
890402 391	2.3+	1.6+	890428 391	0.3-	1.8-	911107 675	0.5+	1.0+
890402 391	2.3+	0.3+	890429 391	2.2+	2.4-	911107 675	1.3-	0.7+
890404 391	0.1-	0.6+	890429 391	1.5+	1.5-	911109 675	1.2+	0.9+
890404 391	0.2-	0.2+	910913 801	0.3-	0.7+	911109 675	0.6-	0.2+

(5129)* 1989 GN = 1949 MH

Discovered 1989 Apr. 7 by E. F. Helin at Palomar.

Id. B. G. Marsden (MPC 17020)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Marsden	
M		(2000.0)	P	Q	
n	356.05995	Peri. 350.94817	-0.93196286	-0.36053560	
a	0.26840734	Node 167.70897	+0.34285671	-0.91068169	
e	2.3801617	Incl. 10.33771	+0.11787492	-0.20167532	
P	0.0849552	H 12.1	G 0.15		

Residuals in seconds of arc

490620	024	0.1-	1.7-	890502	675	1.1+	1.6+	900925	675	(0.7+	3.1-)
890406	400	1.5-	0.4-	900818	675	1.8-	0.0	900925	675	(0.7+	2.7-)
890406	400	1.9-	0.2-	900818	675	0.7-	0.3-	911009	801	0.0	0.2-
890406	400	0.3+	0.2+	900820	675	0.4-	0.7+	911009	801	0.8-	1.0-
890407	675	0.5-	0.2-	900820	675	0.5-	0.4+	920130	675	0.2+	0.0
890407	675	0.4-	1.2-	900826	095	2.4+	0.7-	920130	675	0.5+	0.6-
890408	675	(1.4-	2.8-)	900826	095	(6.3+	1.5-)	920201	675	0.7-	0.7-
890408	675	0.9-	1.2-	900914	675	0.8+	2.1-	920201	675	0.1+	1.0-
890430	675	1.8+	1.9-	900914	675	(0.3+	2.8-)	920203	801	0.2+	0.6-
890430	675	0.5+	0.6-	900923	675	(1.8+	3.4-)	920203	801	0.2+	0.7-
890502	675	0.7+	1.4+	900923	675	1.2+	2.0-				

(5130)* 1989 SC7 = 1990 VE8

Discovered 1989 Sept. 30 by C. S. Shoemaker at Palomar.

Id. C. S. Shoemaker (MPC 17637)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	102.66937		(2000.0)		P		Q
n	0.08117653	Peri.	105.38868		+0.94602159		+0.21792074
a	5.2826163	Node	242.53870		-0.28039062		+0.92154797
e	0.0096927	Incl.	15.68616		+0.16255541		+0.32134077
P	12.14	H	9.8		G	0.15	

Residuals in seconds of arc

880914	675	0.5+	1.0-	901022	675	0.3+	0.1+	911206	675	1.1-	1.4-
880914	675	(7.3+	4.3+)	901111	675	0.7-	0.3+	920101	675	0.1-	1.1-
890830	675	1.3-	0.3+	901111	675	0.5-	0.3+	920101	675	0.9+	0.0
890901	675	2.5+	0.8+	901113	675	0.2+	1.1+	920102	801	0.1+	1.0+
890902	675	0.3+	2.6-	901113	675	0.1+	0.6+	920102	801	0.1+	1.2+
890930	675	0.3-	0.5+	911107	675	0.9+	2.3-	920104	675	0.2-	0.3+
890930	675	0.0	0.3-	911107	675	0.6+	2.1-	920106	801	0.3-	0.8+
891101	675	0.5-	1.1+	911109	675	0.3+	0.7-	920106	801	0.3-	0.8+
891102	675	1.0-	0.1-	911202	675	1.3-	0.2+				
901020	675	0.5+	0.6+	911206	675	0.0	0.5+				

(5131)* 1990 BG

Discovered 1990 Jan. 21 by E. F. Helin and B. Roman at Palomar.

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bardwell

M	58.84932		(2000.0)		P		Q
n	0.54383002	Peri.	135.68276		-0.27564949		+0.78464704
a	1.4864852	Node	110.54580		-0.96061800		-0.24593454
e	0.5698419	Incl.	36.37087		+0.03507732		-0.56907400
P	1.81	H	14.1		G	0.15	

Residuals in seconds of arc

781206	413	0.4+	0.8+	900220	675	0.1-	1.5-	900324	675	2.1-	0.0
781206	413	0.4+	1.5-	900223	675	0.6+	0.6-	900324	675	2.0-	0.2+
900121	675	1.0-	0.8+	900223	675	0.4+	0.7-	900327	801	1.0+	0.4+
900122	675	(0.8+	3.1-)	900227	801	2.6+	0.2-	900327	801	1.3+	0.4+
900124	675	0.6+	0.9-	900228	801	1.7+	0.2+	900621	413	0.4-	0.3-
900124	675	0.4+	0.5-	900228	801	1.0+	0.4-	900917	474	0.4-	1.2+
900125	675	0.3-	0.7-	900228	675	0.7+	0.1-	900917	474	0.6+	0.1+
900126	675	1.3-	1.2+	900228	675	0.6+	0.7+	900919	474	0.5+	0.3-
900126	675	(2.9-	1.1+)	900301	675	1.1-	0.1+	900919	474	0.8+	0.0
900126	657	0.3+	2.7+	900301	675	1.1-	0.5+	910210	801	0.8-	0.8-
900130	675	1.9-	0.2-	900322	801	0.6+	0.2-	910211	801	1.1-	0.9-
900203	685	(4.3+	10.1-)	900322	801	0.5+	0.2-	920101	801	0.7+	0.3-
900203	685	(13.2+	17.1-)	900322	675	0.5-	0.1+	920101	801	0.5-	0.1-
900220	675	0.9+	0.6-	900322	675	0.9-	0.6+	920102	801	0.8+	0.0

920102 801 0.5+ 0.3+	920109 675 (5.3- 1.2+)	920205 801 0.2- 0.7+
920106 801 0.3- 0.1+	920109 675 (5.0+ 1.0+)	920206 801 0.7- 0.9-
920106 801 0.1- 0.3+	920205 801 0.4+ 0.3+	920206 801 0.7- 0.7-

(5132)* 1990 ME = 1973 QU1 = 1976 GQ = 1985 HW1 = 1986 QS5

Discovered 1990 June 22 by H. E. Holt at Palomar.

Id. G. V. Williams (MPC 16881)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 135.20443	(2000.0)	P	Q
n 0.22550456	Peri. 142.31866	+0.56984752	+0.81953698
a 2.6732065	Node 162.16604	-0.79367155	+0.56790356
e 0.1148961	Incl. 11.35027	-0.21297714	+0.07645056
P 4.37	H 12.0	G 0.15	

Residuals in seconds of arc

730831 095 0.1- 2.6+	900622 675 0.5- 1.1-	911004 801 0.1+ 0.3+
730905 095 0.2- 0.7-	900622 675 0.4- 0.6-	911004 801 0.1- 0.1+
760401 095 0.2+ 2.2+	900623 675 0.7- 1.3-	911004 801 0.1+ 0.2+
760402 095 (6.2- 3.9+)	900623 675 0.8- 1.2-	911007 801 0.1- 0.3+
760404 095 0.2- 2.4+	900818 675 0.8- 2.2+	911007 801 0.3- 0.0
850419 046 2.4+ 1.6-	900818 675 1.2+ 0.8+	911108 801 0.1+ 0.1-
850419 046 1.0- 2.2+	900821 675 1.9+ 0.8+	911108 801 0.0 0.3-
860830 095 0.1+ 1.7+	911004 801 0.1+ 0.3+	

(5133)* 1990 PA = 1983 EB3

Discovered 1990 Aug. 12 by R. H. McNaught at Siding Spring.

Id. G. V. Williams (MPC 17212)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 153.53465	(2000.0)	P	Q
n 0.22011256	Peri. 279.22608	+0.97039275	-0.12330658
a 2.7166863	Node 88.05890	+0.19860128	+0.89671419
e 0.2234874	Incl. 11.99375	-0.13746068	+0.42508722
P 4.48	H 11.6	G 0.15	

Residuals in seconds of arc

790324 413 0.2+ 0.5+	901015 801 0.3- 0.8+	901206 592 (2.9- 4.2-)
830314 095 0.5- 0.0	901015 413 0.2+ 0.0	910114 592 2.1+ 0.2+
880124 413 1.3+ 0.5-	901016 801 0.2- 0.1+	910114 592 1.4+ 0.8+
900812 413 0.6- 0.1+	901016 801 0.3- 0.0	910115 592 (3.5- 1.2-)
900813 413 0.5+ 0.1-	901016 095 1.7+ 0.9-	910115 592 (4.2- 0.8-)
900818 413 0.8+ 0.6+	901016 095 1.2+ 0.8-	920108 801 0.5- 0.3-
900828 413 1.2- 1.1-	901108 413 0.3- 0.1-	920108 801 1.2- 0.2+
900916 413 0.6+ 0.8-	901109 413 0.0 0.1+	920206 801 0.1- 0.4-
901014 095 0.6+ 0.4-	901205 592 1.2- 2.0+	920206 801 0.2+ 0.4-
901014 095 0.4- 0.5-	901205 592 1.5- 0.8+	
901015 801 0.3- 0.8+	901206 592 1.6- 1.4-	

(5134)* 1990 SM2 = 1947 LL = 1981 WN6 = 1983 CG = 1985 PL2 = 1986 WS6

Discovered 1990 Sept. 17 by H. E. Holt at Palomar.

Id. S. Nakano (MPC 17450)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M 220.33839	(2000.0)	P	Q
n 0.21145106	Peri. 195.07891	+0.26960769	+0.95261039
a 2.7903765	Node 90.71645	-0.86828894	+0.30374093
e 0.0358240	Incl. 8.09899	-0.41639646	-0.01657987
P 4.66	H 12.0	G 0.15	

Residuals in seconds of arc

470615 690 0.6+ 0.4-	830211 688 0.0 0.5-	861128 010 1.3+ 2.6-
470616 690 1.0- 0.6-	830215 688 0.7- 2.3-	861128 010 0.4- 1.3-
811124 095 0.5+ 0.8+	830215 688 0.3- 2.1-	861128 010 0.3- 1.5-
830211 688 0.3+ 1.0-	850813 095 2.2+ 2.8-	900917 675 0.4+ 0.8-

900917	675	0.1-	0.8-	900930	372	0.7-	0.2+	911228	376	0.3-	1.1+
900919	675	0.2-	1.8-	901001	809	0.5-	0.6+	920102	801	0.2-	0.5+
900919	675	0.7+	0.5-	901001	809	0.2-	0.7+	920102	801	0.0	0.4+
900930	809	0.4-	0.9+	901001	809	0.3+	0.8+	920106	801	0.1+	0.5+
900930	809	0.2-	1.1+	911205	801	0.4+	0.4+	920106	801	0.1+	0.6+
900930	809	0.3+	1.1+	911205	801	0.4+	0.6+	920110	894	0.8+	1.1+
900930	372	1.1-	0.8-	911228	376	0.9-	1.0+	920110	894	0.6-	0.2-

(5135)* 1990 UE = 1969 JG = 1982 DE = 1989 GV7

Discovered 1990 Oct. 16 by S. Ueda and H. Kaneda at Kushiro.

Id. H. Kaneda (MPC 17454)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kaneda

M 287.97692		(2000.0)		P		Q	
n	0.29408571	Peri.	229.35668	-0.08672778		+0.99566131	
a	2.2395122	Node	35.71047	-0.89570488		-0.06311586	
e	0.1279951	Incl.	3.31156	-0.43610900		-0.06837353	
P	3.35	H	12.9	G	0.15		

Residuals in seconds of arc

690505	095	(5.0-	1.8-)	901016	399	0.2-	1.0+	920129	399	0.2-	1.7+
690516	095	0.4-	1.5+	901016	399	0.7+	0.6+	920205	399	0.2+	0.5+
820216	046	0.5-	0.5-	901016	399	0.2-	0.7+	920205	399	0.1+	0.2-
820216	046	0.5+	0.5+	901019	399	0.4-	1.4-	920208	399	0.5-	1.5-
820220	688	(3.6+	2.9-)	901019	399	1.1-	0.7-	920208	399	0.3-	1.0-
820220	688	1.9+	2.4-	901019	399	1.5+	1.0-	920221	399	1.6-	0.7+
890404	391	0.6-	0.4-	901022	399	0.2+	0.2+	920221	399	1.5-	1.3+
890404	391	1.6-	1.2+	920128	399	1.0+	0.0	920222	399	1.0-	0.8+
890412	400	1.5+	1.8-	920128	399	1.6+	0.5-	920222	399	0.1-	0.5+
890412	400	0.7+	1.4-	920129	399	0.4+	0.8+				

(5136)* 1990 UG2 = 1964 WC = 1979 RF

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

Id. G. V. Williams (MPC 17827)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 112.83708		(2000.0)		P		Q	
n	0.18715226	Peri.	290.31797	+0.74914104		-0.63683390	
a	3.0269552	Node	109.69944	+0.65669812		+0.67794170	
e	0.1072581	Incl.	11.16434	+0.08680599		+0.36720245	
P	5.27	H	11.9	G	0.15		

Residuals in seconds of arc

641129	760	0.2-	2.0-	901022	413	(3.9-	1.4-)	920101	801	0.4+	0.4-
641129	760	1.8+	1.5-	901022	413	(3.3+	1.7+)	920108	801	0.4+	0.5+
790901	095	1.4-	1.0-	901108	413	2.2-	1.1+	920108	801	0.3+	0.3+
890830	413	1.1+	0.0	901109	413	0.6-	0.7+	920204	894	0.5+	0.8+
901014	095	0.3+	1.2+	901109	413	0.5-	1.6+	920204	894	0.3+	2.4+
901014	095	(2.6+	2.9-)	901215	675	0.8+	0.4+	920205	801	0.3+	0.1-
901016	095	1.7+	0.1-	901215	675	0.4-	1.1-	920205	801	0.2+	0.1-
901016	095	2.3+	0.8-	901218	675	1.3-	0.5-	920205	399	1.0-	1.6-
901020	413	1.3-	0.8+	901218	675	0.6+	0.2+	920205	399	1.9-	0.5-
901020	413	(2.1+	3.2+)	920101	801	0.3+	0.2+				

(5137)* 1990 VC = 1982 VR5 = 1982 XO4 = 1986 WS3

Discovered 1990 Nov. 8 by J. M. Baur at Chions.

Id. B. G. Marsden (MPC 17643)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M 281.61018		(2000.0)		P		Q	
n	0.23991987	Peri.	24.54174	-0.27319560		+0.94339185	
a	2.5650268	Node	230.18146	-0.91809088		-0.31407591	
e	0.0706274	Incl.	14.17463	-0.28718166		+0.10662145	
P	4.11	H	13.3	G	0.15		

Residuals in seconds of arc

821114	381	1.5+	2.4+	901113	567	0.2-	1.0-	910215	493	0.7-	0.5-
821114	381	1.4+	1.7+	901113	567	0.8-	1.6-	911215	567	0.4-	0.8-
821214	381	0.3+	0.9+	901206	567	1.7+	0.7-	911215	567	0.7+	0.6-
821214	381	0.1+	0.2-	901206	567	0.7+	0.1+	911215	567	0.7+	0.7-
861125	010	(3.0-	3.3+)	901206	567	1.1+	0.0	911216	567	0.1-	0.7+
861125	010	3.4-	0.6+	901207	493	1.3+	0.0	911216	567	0.2-	0.1-
861125	010	(4.7-	0.0)	901207	493	1.1+	0.3-	911216	567	0.0	0.1-
861125	010	3.3-	0.1+	901211	567	0.0	0.7-	911231	567	0.5+	0.0
901108	567	0.9+	0.0	901211	567	0.3+	0.5-	911231	567	0.3+	0.3-
901108	567	1.1-	0.6+	901211	567	0.6+	0.3-	911231	567	0.5-	0.7+
901109	567	0.1+	1.2-	901212	493	0.8+	0.5+	920125	567	0.1-	0.1-
901109	567	(3.1-	1.7-)	901212	493	0.8-	0.0	920125	567	0.5-	0.3+
901110	567	0.7+	0.4-	901215	567	0.1-	1.0+	920127	567	0.2-	0.3-
901110	567	0.1+	0.3-	901215	567	1.0-	1.1+	920127	567	0.5-	0.6-
901112	567	0.4-	1.5-	901215	567	1.9-	1.0+	920127	567	0.0	0.1+
901112	567	0.4+	0.6-	910215	493	2.1+	0.2+				

(5138)* 1990 VD2 = 1957 VB = 1987 HX

Discovered 1990 Nov. 13 by T. Hioki and S. Hayakawa at Okutama.

Id. G. V. Williams (MPC 19307)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	74.76140	(2000.0)	P	Q
n	0.18048242	Peri. 264.50075	-0.14465853	-0.98947607
a	3.1010787	Node 193.81808	+0.91324331	-0.13222135
e	0.1694232	Incl. 0.79595	+0.38086818	-0.05877597
P	5.46	H 11.7	G 0.15	

Residuals in seconds of arc

571114	330	0.4+	0.5+	901113	877	1.5-	0.6+	920106	801	0.2+	0.3-
571116	330	(0.6-	3.8+)	901115	877	1.2-	0.5-	920106	801	0.3+	0.1+
571118	330	0.5-	0.4-	901115	877	0.3+	0.6+	920107	801	0.1-	0.3-
870423	046	(0.3-	3.9-)	901115	095	(7.0+	5.9+)	920107	801	0.6+	0.3+
870423	046	0.5-	1.7-	901115	095	(0.7+	3.3+)	920206	801	0.2+	0.2+
901028	095	2.1-	0.4-	901117	399	0.1+	0.7-	920206	801	0.3+	0.2+
901029	095	1.9+	0.4+	901117	399	1.6+	0.2-	920208	877	0.2+	1.2+
901112	399	(1.7-	5.2-)	901123	877	1.3-	0.7+	920208	877	0.2+	0.4-
901112	399	1.7+	0.5-	901123	877	2.3-	0.1+	920209	877	0.7+	1.3-
901112	399	1.6+	2.2-	901123	095	1.7+	0.4+	920209	877	2.2-	1.0+
901113	877	2.1-	0.1-	901123	095	2.1+	0.5+				

(5139)* 1990 VH4 = 1956 UM = 1959 JH = 1973 FG2 = 1989 QK1

Discovered 1990 Nov. 13 by M. Mukai and M. Takeishi at JCPM Kagoshima Station.

Id. H. Kaneda (MPC 18433)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kaneda

M	247.90904	(2000.0)	P	Q
n	0.20411048	Peri. 222.49469	+0.16962444	+0.98461533
a	2.8568834	Node 57.31239	-0.89026370	+0.17135084
e	0.0315487	Incl. 2.85735	-0.42267967	+0.03422780
P	4.83	H 11.3	G 0.15	

Residuals in seconds of arc

561029	760	0.0	0.2+	901017	095	2.6+	0.4-	901115	095	1.1+	1.0-
590502	760	1.2-	2.2+	901028	095	0.5-	2.6+	901121	364	(3.5-	2.0-)
590502	760	0.8+	0.2-	901029	095	0.0	0.4+	901121	364	1.1-	0.7-
730330	095	3.0+	1.7+	901113	364	1.9+	1.4-	901121	095	0.2-	0.3-
730331	095	(4.9+	1.8+)	901113	364	(3.2+	2.1-)	901121	095	0.4-	0.0
890829	808	0.6-	0.5+	901114	095	(6.1+	0.4+)	901122	364	2.0-	0.6+
890829	808	0.9+	0.1-	901114	095	0.1+	1.1+	901122	364	0.8-	0.1-
901017	095	0.2-	0.6+	901115	095	(9.8+	3.2+)	901123	095	1.6-	0.9+

901123	095	0.1+	0.3+	920126	364	0.2+	2.0-	920202	364	0.6-	0.5-
920112	372	(2.3-	4.4+)	920126	364	0.6-	0.6+	920202	364	1.5+	1.0+
920114	372	(2.4-	4.8+)	920127	364	1.0-	1.4-				
920115	372	0.8-	1.8+	920127	364	0.4-	1.5-				

(5140)* 1990 XH = 1950 TP3 = 1953 FC1 = 1967 TF = 1976 GH6 = 1978 RG
 Discovered 1990 Dec. 8 by S. Ueda and H. Kaneda at Kushiro.

Id. H. Kaneda (MPC 17648)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	138.31333		(2000.0)			P		Kaneda		Q	
n	0.17311167	Peri.	210.49955			+0.96433936				-0.25915436	
a	3.1884907	Node	164.24589			+0.26461733				+0.94005595	
e	0.1056232	Incl.	11.41724			+0.00522261				+0.22166152	
P	5.69	H	11.2			G	0.15				

Residuals in seconds of arc

501013	760	0.1-	1.1+	901208	399	1.4-	0.7-	920129	399	0.0	0.7+
530316	024	(0.7-	4.2-)	901208	399	1.5-	0.3-	920129	399	1.6-	0.5-
530320	024	0.7-	1.7-	901213	399	0.1-	1.2+	920202	399	0.3-	0.2-
671012	095	2.0+	0.4+	901213	399	1.1+	1.9-	920202	399	(2.9-	0.8+)
671029	095	1.7-	1.8-	901223	399	1.3+	0.2+	920207	801	1.4+	0.0
760402	095	(3.7-	5.5+)	901223	399	1.2+	0.5+	920207	801	1.7+	0.1+
780901	095	(1.8+	3.7-)	920102	801	0.9+	0.5+	920221	399	0.8+	1.4+
780905	095	0.7-	0.4-	920102	801	1.2+	0.6+	920221	399	0.3+	0.3+
780907	095	0.8+	1.3+	920128	399	0.0	0.5-	920222	399	0.9-	1.2-
901208	399	0.9-	0.6-	920128	399	1.4-	0.1-	920222	399	1.2-	1.0+

(5141)* 1990 YB = 1974 RZ = 1977 DD10 = 1979 RP = 1979 SK4 = 1985 XN2
 = 1989 UE9

Discovered 1990 Dec. 16 by T. Seki at Geisei.

Id. S. Nakano (MPC 17828), N. S. Chernykh (d, ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	259.33754		(2000.0)			P		Nakano		Q	
n	0.20244580	Peri.	184.90635			+0.79354824				+0.60758705	
a	2.8725231	Node	137.61868			-0.55659252				+0.74696889	
e	0.0607702	Incl.	2.84479			-0.24593894				+0.26995454	
P	4.87	H	12.6			G	0.15				

Residuals in seconds of arc

740911	095	(7.4-	2.9+)	890930	675	0.6+	0.6+	901219	372	0.1-	0.2-
770219	381	1.2-	0.6+	890930	675	0.7-	0.0	901219	372	1.3+	0.0
770219	381	1.1+	0.8-	891030	095	2.5+	0.7-	901221	372	0.0	0.5-
790902	095	0.0	0.5-	891030	095	1.7+	1.4-	901221	372	0.7+	1.3+
790924	095	1.2-	2.5+	891103	675	0.8-	0.2+	901227	372	(4.2+	1.6-)
790924	095	1.2+	2.0-	891103	675	0.5-	0.5+	901227	372	0.6+	0.4+
851214	675	(20.9+	0.8-)	891104	675	0.7-	0.3+	910118	511	0.2+	1.1-
851214	675	(23.2+	0.2-)	891104	675	0.1+	0.9+	910118	511	0.7+	0.9-
890928	675	0.8-	0.3+	901216	372	0.4-	0.5-	910121	372	2.2-	0.5-
890928	675	1.4-	1.0-	901216	372	0.6-	2.3+	910121	372	(0.1-	4.1+)

(5142)* 1990 YD = A921 TD = 1929 SN = 1933 SF = 1971 CE = 1974 YR
 = 1975 BN1

Discovered 1990 Dec. 18 by T. Hioki and S. Hayakawa at Okutama.

Id. R. Nagata (MPC 17649)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	161.11244		(2000.0)			P		Nakano		Q	
n	0.24335885	Peri.	192.61284			+0.78602456				-0.61639639	
a	2.5408047	Node	205.62371			+0.57622802				+0.75814062	
e	0.2724662	Incl.	6.25609			+0.22388982				+0.21278697	
P	4.05	H	12.0			G	0.15				

Residuals in seconds of arc

211010	024	(6.9-	6.8-)	741220	330	1.4+	0.4+	901223	877	0.7-	0.6-
211011	024	0.2-	1.1-	750116	330	(10.3-	1.0+)	901223	877	0.9-	0.6-
211031	024	(2.3-	3.5+)	901115	095	1.9+	0.5-	910106	877	0.3-	0.1+
290929	690	1.6+	0.8+	901116	095	(0.8+	2.3-)	910106	877	0.5-	0.2-
291009	690	1.3-	0.9+	901218	877	0.7+	1.1-	910113	877	0.3-	0.2+
330921	012	0.6-	0.7+	901218	877	0.6+	0.0	910114	877	0.1-	1.3+
710201	029	0.1+	0.4+	901219	877	0.1+	0.1+	910114	877	0.8+	0.7-
710202	029	0.5-	1.7+	901219	877	1.6-	0.4+				

(5143)* 1991 VL = 1962 PG

Discovered 1991 Nov. 7 by C. S. Shoemaker at Palomar.

Id. G. V. Williams (MPC 19682), B. A. Skiff (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	41.67923		(2000.0)			P		Q	
n	0.39682620	Peri.	226.31476			-0.99170650		-0.04346574	
a	1.8340133	Node	310.80872			+0.09758039		-0.86710085	
e	0.7714824	Incl.	9.19515			-0.08364379		-0.49623265	
P	2.48	H	13.9	G	0.15				

Residuals in seconds of arc

620803	760	0.1-	0.9-	911108	675	0.2+	1.5-	911229	587	(2.4-	2.7+)
620803	760	0.1-	1.9+	911109	675	0.2+	0.6+	911231	675	0.7+	1.5-
820724	688	0.4+	0.0	911129	587	0.4+	1.3-	911231	675	0.2+	1.4-
820724	688	0.5+	0.5-	911201	675	0.8-	0.1-	920101	801	0.1-	0.7+
820820	413	0.4-	0.0	911201	675	0.5-	0.6+	920101	801	0.3-	0.7+
820820	413	0.2-	0.0	911202	587	0.3-	0.7+	920105	801	0.0	0.8+
911005	675	0.8-	0.8-	911203	675	0.7+	0.3-	920105	801	0.1-	0.8+
911005	675	0.7-	0.2-	911203	675	0.6+	0.1+	920202	801	0.1+	0.1-
911010	675	0.3-	1.2-	911204	801	0.2-	1.0+	920202	801	0.1+	0.5+
911010	675	2.0+	1.7-	911205	801	0.3-	0.6+	920205	801	0.7-	0.4+
911012	675	0.8-	0.6+	911206	801	0.2-	1.0+	920205	801	0.8-	0.3+
911012	675	0.3+	1.0+	911206	801	0.1-	1.2+				
911107	675	0.9+	1.6-	911207	587	1.0-	1.2+				

(5144)* 1991 XX = 1939 PC = 1951 PK = 1975 QA = 1987 QV11 = 1988 SS4

Discovered 1991 Dec. 2 by C. S. Shoemaker at Palomar.

Id. G. V. Williams, C. S. Shoemaker (1989 obs.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	160.40815		(2000.0)			P		Q	
n	0.08199434	Peri.	329.38628			+0.38624647		+0.91775640	
a	5.2474316	Node	323.10878			-0.81204226		+0.29081642	
e	0.2712291	Incl.	8.85390			-0.43749403		+0.27046072	
P	12.02	H	8.9	G	0.15				

Residuals in seconds of arc (or two decimals in units of degrees)

390809	020	(9.6-	1.8-)X	870827	095	0.1-	0.7+	911202	675	0.2+	0.3+
390811	020	(0.04-	0.00+)X	880917	095	1.3-	2.3+	911202	675	0.6+	0.6+
510806	711	1.8+	2.4- Y	891105	675	0.8-	0.4+	911206	675	0.4+	0.7-
510806	711	0.3-	0.7- Y	891105	675	0.7-	0.4+	911206	675	0.1+	0.4-
510808	094	(0.03-	0.00-)X	891124	675	0.1+	1.5-	920205	675	1.3-	2.3-
740810	688	1.1-	1.1-	891124	675	0.3+	0.5+	920205	675	1.1+	0.1-
750825	485	0.1-	0.7+	891125	675	0.6-	2.2-	920208	675	0.3+	0.1-
750825	485	1.2+	0.0	891125	675	0.2+	0.7+	920208	675	0.2+	0.2-

(5145)* 1992 AD

Discovered 1992 Jan. 9 by Spacewatch at Kitt Peak.

Id. C. S. Shoemaker (1991 obs.), J. Mueller (1989 obs.), R. H. McNaught (1977, 1982 obs.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	2.91832		(2000.0)			P			Q
n	0.01063419	Peri.	354.88402	-0.41810032					-0.83234241
a	20.4801433	Node	119.38374	+0.84755304					-0.50156630
e	0.5758518	Incl.	24.68233	+0.32687302					+0.23587574
P	92.68	H	7.3	G	0.15				

Residuals in seconds of arc

770722	413	0.2+	1.1+	920118	413	0.4+	0.1-	920205	691	1.0-	0.7+
820822	413	1.0-	1.3+	920118	413	0.4+	0.0	920205	691	1.1-	0.8+
891106	675	0.4+	0.5-	920118	413	0.5+	0.2-	920205	801	0.5+	0.5+
891106	675	0.8+	0.8-	920123	372	0.2+	0.6-	920205	801	0.4+	0.5+
891106	675	1.2+	0.9-	920123	568	0.3+	0.3+	920205	675	(0.4-	2.4-)
910119	675	0.6+	0.9-	920124	399	0.3+	1.0+	920205	675	0.8+	1.0-
910119	675	1.5-	0.5-	920124	399	0.4+	1.0+	920205	402	(2.8+	0.2+)
920101	675	1.2+	0.9-	920125	399	1.1-	1.0+	920205	402	0.6+	1.3+
920101	675	(1.6+	3.3-)	920125	399	1.1-	1.0+	920206	809	(3.9-	1.0+)
920109	691	0.4-	0.4-	920126	691	0.7-	0.1+	920206	658	0.2-	0.7+
920109	691	0.2-	0.5-	920126	691	1.0-	0.1-	920206	658	1.0-	0.2+
920109	691	0.5-	0.1-	920126	691	1.1-	0.1+	920206	658	0.9-	0.0
920109	675	1.3+	0.9-	920126	657	0.6+	0.7+	920207	658	0.5+	0.5+
920110	691	0.7-	0.2-	920126	657	0.3+	0.7+	920207	658	0.2+	1.1+
920110	691	0.5-	0.3-	920126	402	(1.8+	2.0+)	920207	658	0.3+	0.8+
920110	691	0.3-	0.0	920126	402	0.2-	0.4+	920208	399	0.8+	1.0+
920110	675	1.1+	0.6+	920127	372	0.6+	0.2+	920208	399	0.2+	0.0
920113	691	0.4-	0.1+	920131	049	1.3-	1.9-	920211	413	0.6+	0.1-
920113	691	0.3-	0.0	920204	675	0.9+	1.7-	920211	413	0.6+	0.2-
920113	691	0.6-	0.2-	920204	675	(0.2-	4.7-)	920211	413	0.6+	0.3-
920114	399	0.2+	0.2-	920204	049	1.6-	0.8-	920212	413	1.4+	0.4-
920114	399	0.6+	0.6-	920205	691	1.2-	0.4+				

(5146)* 1992 BP = 1974 DC2 = 1974 DE2 = 1975 LH = 1980 RS6 = 1980 TX6
= 1988 JU2

Discovered 1992 Jan. 28 by S. Ueda and H. Kaneda at Kushiro.

Id. H. Kaneda, T. Urata (d, NOC 1160)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kaneda

M	307.42403		(2000.0)			P			Q
n	0.21667669	Peri.	272.56966	-0.30693760					+0.94780352
a	2.7453302	Node	338.92160	-0.74958500					-0.29665924
e	0.1525868	Incl.	13.89372	-0.58643980					-0.11688364
P	4.55	H	11.7	G	0.15				

Residuals in seconds of arc

740227	808	0.5+	0.2+	880512	808	0.1+	0.7-	920208	399	1.5-	0.5-
740227	808	0.4-	0.0	880512	808	0.3+	1.0-	920208	399	0.2+	0.9+
740228	808	0.6+	0.4-	920128	399	0.6+	0.2-	920209	400	0.8+	1.1-
750613	805	2.1-	0.3+	920128	399	1.4+	0.2-	920209	400	1.2+	0.4+
750614	805	1.1-	0.2-	920129	399	0.1+	1.4+	920225	399	0.3-	0.2+
800913	675	2.0+	0.6-	920129	399	(2.9+	1.4+)	920225	399	0.8-	0.1-
800914	675	2.1+	0.1-	920205	399	1.0-	1.0-	920226	399	0.7+	0.4-
801012	095	1.8-	0.6+	920205	399	1.4-	0.6+	920226	399	1.1-	1.3+

(5147)* 1992 BQ = 1950 JU = 1972 TS8 = 1981 SS7 = 1981 WE5 = 1984 JT
= 1986 XS1 = 1988 GD2

Discovered 1992 Jan. 28 by S. Ueda and H. Kaneda at Kushiro.

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kaneda

M	306.15979		(2000.0)			P			Q
n	0.23218342	Peri.	275.01303	-0.14302104					+0.98915121
a	2.6216934	Node	346.62330	-0.84088601					-0.13931590
e	0.2021642	Incl.	8.33554	-0.52197289					-0.04659368
P	4.24	H	12.1	G	0.15				

Residuals in seconds of arc

500511	839	0.8+	1.7+	861201	010	(3.5-	0.0)	920205	399	(3.9+	0.1-)
500512	839	0.0	0.6-	861201	010	1.3+	0.9-	920208	399	2.0-	0.6+
721006	095	0.9-	0.2-	880413	054	1.9+	0.9-	920208	399	0.9+	0.6+
810929	095	0.8+	2.7+	920128	399	0.6-	0.1+	920225	399	0.2-	0.1+
811124	095	0.1-	0.0	920128	399	0.0	0.5+	920225	399	0.3+	0.5-
840503	688	0.6-	1.2-	920129	399	(3.1-	0.4-)	920226	399	0.8+	0.6+
840503	688	0.5-	0.5-	920129	399	2.4-	2.2+	920226	399	0.9+	0.0
861201	010	1.9-	2.1-	920205	399	1.5+	0.7-				

(5148)* 5557 P-L = 1974 CS = 1980 GC1

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

Id. K. Hurokawa (MPC 9301)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	72.52802		(2000.0)			P		Q			
n	0.17825465	Peri.	218.17449			-0.89074773		+0.45448075			
a	3.1268627	Node	348.85498			-0.41178587		-0.81070151			
e	0.1334608	Incl.	1.17595			-0.19235613		-0.36906680			
P	5.53	H	13.5			G	0.15				

Residuals in seconds of arc

600924	675	0.9-	0.0	740214	095	0.5+	1.5+	910325	809	0.5+	1.1-
600926	675	0.9-	0.0	800414	805	0.6+	1.2+	910325	809	1.0+	1.1-
600928	675	0.5-	0.6+	800415	805	0.9+	0.1+	910325	809	1.1+	1.4-
601017	675	0.4-	1.3+	800416	805	0.2-	1.7+	910419	809	1.8+	1.8+
601022	675	0.8+	0.9+	910323	809	1.6-	0.5-	910419	809	(0.8-	3.5+)
601025	675	0.5+	1.4+	910323	809	1.9-	0.3-	910419	809	0.4+	1.7+
601026	675	0.3-	0.4-	910323	809	1.7-	0.0				

(5149)* 6582 P-L = 1985 DF4

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

Id. E. Bowell (MPC 11844)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	142.73493		(2000.0)			P		Q			
n	0.17618224	Peri.	103.71615			-0.42760670		-0.90396100			
a	3.1513354	Node	11.60069			+0.82419353		-0.39107503			
e	0.1566429	Incl.	0.75542			+0.37129172		-0.17295905			
P	5.59	H	12.6			G	0.15				

Residuals in seconds of arc

600924	675	0.4+	1.2-	881008	807	1.0-	0.9-	910324	809	1.1-	0.5+
600926	675	0.1+	1.4-	881103	807	0.9+	0.3-	910324	809	0.9-	0.5+
600927	675	1.3+	0.5-	881106	807	0.3+	0.2-	910324	809	0.9-	0.5+
600928	675	0.1+	1.0-	881108	807	0.5+	0.7-	910325	809	0.8-	1.6+
601017	675	1.1-	1.4-	910317	809	1.4+	0.6-	910325	809	0.6-	1.5+
601022	675	0.0	0.3-	910317	809	1.6+	0.7-	910325	809	0.3-	1.6+
601024	675	0.9-	1.4+	910317	809	1.9+	0.6-	910408	809	0.4-	0.5-
601026	675	2.1+	0.2-	910319	809	0.7+	0.4-	910408	809	0.8-	0.6-
850222	675	1.2-	1.7-	910319	809	0.7+	0.4-	910408	809	1.4-	2.3-
850223	675	0.2-	1.7-	910319	809	0.8+	0.6-	910410	809	0.3-	1.8-
880916	807	1.1+	0.2+	910323	809	0.4+	0.7+	910410	809	1.1-	1.8-
880918	807	1.2+	0.4-	910323	809	0.6+	0.4+	910410	809	2.1-	2.0-
881004	807	1.5-	1.1-	910323	809	0.8+	0.6+				

(5150)* 7571 P-L = 1939 EK = 1970 EW = 1974 FL1 = 1976 UG5 = 1978 EJ3
= 1978 GL1 = 1978 JL2

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

Id. S. Nakano (MPC 11522)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	268.11264		(2000.0)		P		Q
n	0.25290182	Peri.	120.12949	-0.90504262			-0.42002992
a	2.4764795	Node	35.15747	+0.33922724			-0.80771454
e	0.1091402	Incl.	6.66959	+0.25655943			-0.41372949
P	3.90	H	12.9	G	0.15		

Residuals in seconds of arc

390314	062	0.1-	0.1+	761030	095	(3.5+ 0.2-)	881210	801	0.8-	0.0
390318	062	(1.3-	9.6-)	780306	095	0.5- 1.5+	910905	413	1.2+	0.5+
601017	675	0.2-	0.1-	780407	095	(4.0- 0.4+)	910905	413	(2.6+	1.0+)
601022	675	0.6-	0.3-	780509	095	1.3- 0.1+	911008	801	0.3+	0.5+
601025	675	0.1+	0.2-	841119	675	0.2+ 0.4+	911009	801	1.5-	0.3+
601026	675	0.1+	0.3-	841121	675	0.5+ 0.9+	911011	801	0.6+	0.0
700307	095	1.2+	1.3-	841127	010	0.4- 0.1+	911011	801	0.7+	0.3-
740321	095	0.6+	0.4-	841128	010	0.5- 1.2-				

(5151)* 2160 T-2 = 1962 WB2 = 1979 WA6 = 1985 VL3 = 1987 GH = 1990 QW8

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

Id. D. W. E. Green (k, MPC 14965; MPC 17464), S. Nakano (MPC 17464)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	61.31194		(2000.0)		P		Q
n	0.17163065	Peri.	4.65483	+0.61227459			-0.79054416
a	3.2068069	Node	47.59165	+0.72484907			+0.55486561
e	0.1880138	Incl.	0.98087	+0.31577470			+0.25916034
P	5.74	H	12.8	G	0.15		

Residuals in seconds of arc

621130	760	0.8+	0.6+	851110	095	0.9+ 0.1-	900911	809	0.2-	0.6+
621130	760	0.3-	1.3+	851120	095	0.0 1.6+	900912	809	1.0-	0.1-
730919	675	1.1-	0.4+	870401	675	(14.9- 1.0-)	900912	809	0.9-	0.1-
730919	675	0.1+	0.0	870401	675	(12.5- 1.8-)	900912	809	0.5-	0.1-
730920	675	1.1-	1.2-	870403	675	(12.9- 0.9-)	900912	809	(3.3-	1.6+)
730924	675	1.8-	0.5+	870403	675	(12.1- 2.1-)	900913	809	(3.1-	1.7+)
730924	675	1.4-	0.7+	900816	809	(2.2+ 0.3-)	900913	809	(2.8-	1.7+)
730925	675	0.7+	1.4-	900816	809	0.1+ 1.6-	900913	809	0.6-	1.0+
730925	675	1.0+	1.9-	900816	809	(1.0- 2.4-)	900914	809	0.4-	1.0+
730929	675	0.3-	1.2-	900818	809	1.8+ 0.3-	900914	809	0.5-	1.0+
730929	675	0.1+	0.6-	900818	809	0.4+ 0.7-	900916	675	0.7-	1.1-
730930	675	0.6+	0.2-	900818	809	0.2+ 1.1-	900916	675	(1.3-	4.6-)
730930	675	0.3+	0.7-	900826	809	0.2+ 1.1+	911205	801	0.6-	0.2+
731004	675	1.0+	0.1+	900826	809	0.0 1.7+	911205	801	0.1+	0.1-
731004	675	0.9+	0.3+	900826	809	1.5+ 1.8+	920101	801	0.2-	0.1+
731005	675	0.7+	1.4-	900910	809	0.2- 0.3+	920101	801	0.6-	0.2+
731005	675	(2.4-	3.1+)	900910	809	0.2+ 0.4+	920107	801	0.4-	0.0
731005	675	0.9+	0.8-	900910	809	0.6+ 0.6+	920107	801	0.2+	0.4-
731005	675	(0.9-	2.8+)	900911	809	0.7- 0.9+				
791117	095	0.7+	0.0	900911	809	0.4- 0.9+				

A920 TA = 1978 WW18 = 1981 JZ5

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	246.43372		(2000.0)		P		Q
n	0.25526799	Peri.	82.09815	+0.87647079			+0.47694828
a	2.4611522	Node	249.39486	-0.46475749			+0.80251553
e	0.2604069	Incl.	4.02622	-0.12569579			+0.35845385
P	3.86	H	13.5	G	0.15		

Residuals in seconds of arc

201008	029	1.2+	2.1+	201017	029	(3.7- 1.7-)	781201	675	0.1-	0.2+
201010	029	0.5-	2.6-	201020	029	1.1- 0.9-	810508	675	0.6-	0.5+
201017	029	0.2+	1.6+	781130	675	0.0 0.5+	810509	675	0.8+	0.5+

1931 FC = 1982 DJ5 = 1983 RE8 = 2177 T-2
 Id. S. Nakano (MPC 15062), G. V. Williams
 Epoch 1992 June 27.0 TT = JDT 2448800.5

				Williams			
M	(2000.0)			P	Q		
n	0.28974449	Peri.	223.82602	-0.79809417	+0.60243190		
a	2.2618263	Node	353.19166	-0.52403649	-0.70303333		
e	0.1260397	Incl.	5.33506	-0.29737425	-0.37791526		
P	3.40	H	13.5	G	0.15		

Residuals in seconds of arc

310316	024	2.2-	2.4+	730925	675	0.9-	2.4-	731005	675	1.5+	1.2-
310318	024	2.6+	0.5+	730925	675	1.2-	0.8-	731005	675	1.9+	0.2+
310326	024	2.2+	1.5+	730929	675	0.3-	2.6+	820222	010	0.5-	0.6-
730919	675	1.0-	0.2+	730929	675	0.3+	2.7+	830911	095	1.3-	2.4+
730919	675	1.8-	0.8+	730930	675	0.1+	0.2+	900920	675	0.3+	0.2+
730920	675	1.6-	0.2+	730930	675	0.0	1.0-	900920	675	0.1-	1.3+
730924	675	(3.4-	0.8+)	731004	675	1.0+	0.3-				
730924	675	(3.7-	1.6+)	731004	675	0.9+	0.6-				

1936 QE1 = 1986 RU1

Id. H. Kaneda (MPC 16574)
 Epoch 1992 June 27.0 TT = JDT 2448800.5

				Kaneda			
M	(2000.0)			P	Q		
n	0.23677513	Peri.	202.92914	+0.98239584	-0.17848808		
a	2.5876885	Node	166.98516	+0.18531103	+0.96842036		
e	0.1662201	Incl.	14.17271	-0.02362718	+0.17408049		
P	4.16	H	12.3	G	0.15		

Residuals in seconds of arc

360828	024	(0.4-	6.7-)	860912	095	2.4+	1.9-	900817	801	0.1+	0.7+
360911	024	0.4+	3.2-	900718	801	0.4-	0.1-	900819	801	0.2+	0.7+
360917	024	(4.1+	6.5+)	900718	801	0.4-	0.0	900819	801	0.2+	0.5+
860905	046	1.0-	0.7+	900720	801	0.0	0.1+	920101	801	0.2-	0.2+
860906	046	0.9-	1.4+	900720	801	0.3+	0.4-	920106	801	0.2+	0.5+
860907	095	1.2-	1.5+	900817	801	0.1+	0.7+	920106	801	0.0	0.4+

1969 TQ1 = 1980 TN15 = 1986 WD2

Id. H. Oishi (JAM 2056; unpublished)
 Epoch 1992 June 27.0 TT = JDT 2448800.5

				Nakano			
M	(2000.0)			P	Q		
n	0.17677925	Peri.	328.72381	+0.79244087	-0.60800479		
a	3.1442364	Node	68.79998	+0.56984254	+0.70952584		
e	0.1690670	Incl.	2.99165	+0.21752460	+0.35623483		
P	5.58	H	12.9	G	0.15		

Residuals in seconds of arc

691008	095	0.6+	1.3-	861130	046	0.0	1.6+	910914	675	0.4-	0.3+
691013	095	1.4+	0.7-	861201	046	0.8-	2.2-	910915	675	0.4-	1.7+
691016	095	0.5+	3.0-	861201	046	0.1+	0.8-	910915	675	0.0	1.6+
691104	095	(7.4-	0.4-)	861203	046	1.0+	2.1+	910916	675	0.1-	0.4-
801005	046	0.8-	1.7+	861203	046	1.1-	0.1-	910916	675	0.2-	0.1-
801005	046	0.3-	0.7-	910911	675	0.6-	0.2-				
861130	046	0.4+	1.8+	910914	675	0.8+	0.2-				

1972 RU1 = 1979 UE4 = 3159 T-1

Id. S. Nakano, T. Kobayashi
 Epoch 1992 June 27.0 TT = JDT 2448800.5

				Nakano			
M	(2000.0)			P	Q		
n	0.28363153	Peri.	119.29625	+0.85210563	+0.52187290		
a	2.2942093	Node	209.29840	-0.50384759	+0.79752510		
e	0.1759898	Incl.	4.63640	-0.14161073	+0.30265886		
P	3.47	H	14.4	G	0.15		

Residuals in seconds of arc

710324	675	0.9+	1.0+	710327	675	0.9-	0.1+	721013	095	2.0+	2.3-
710325	675	1.5+	0.8-	710402	675	2.3-	0.4-	791016	095	0.6-	2.0+
710326	675	0.2+	1.0-	720911	095	1.2-	0.0				
710326	675	0.1-	1.3-	721005	095	0.4+	1.6-				

1974 OE = 1978 TR6 = 1978 TN9

Id. E. Bowell (k, MPC 10612), B. G. Marsden (d, ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	35.54345		(2000.0)			P		Williams		Q	
n	0.28041145	Peri.	277.90367			+0.40396178				+0.91412950	
a	2.3117395	Node	16.05558			-0.78267168				+0.36483711	
e	0.1175588	Incl.	7.14127			-0.47353977				+0.17680819	
P	3.51	H	13.5			G	0.15				

Residuals in seconds of arc

740716	808	0.0	0.1-	740720	808	0.7+	0.5+	910319	808	1.2+	1.6-
740716	808	0.1-	0.4-	740818	809	(5.1+	5.9-)	910319	808	(3.6+	0.5+)
740717	808	0.1-	0.2+	781002	095	0.0	0.1+	910321	808	1.3-	1.4+
740717	808	0.7-	0.6-	781004	675	0.3+	0.0	910321	808	(4.6-	1.9+)
740720	808	0.1+	0.4+	781005	675	0.2-	0.4-				

1975 SK = 1981 WZ8 = 1986 RG13 = 1991 NB5

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	344.28041		(2000.0)			P		Williams		Q	
n	0.17579838	Peri.	324.52085			+0.82529093				-0.56332039	
a	3.1559211	Node	69.81200			+0.52735408				+0.74375148	
e	0.1959613	Incl.	2.41572			+0.20197168				+0.35986648	
P	5.61	H	12.5			G	0.15				

Residuals in seconds of arc

750930	675	0.4+	1.3-	860909	095	0.3-	0.7+	910711	809	0.3-	0.5+
751001	675	0.4+	0.4-	910710	809	0.4-	0.2-	910711	809	0.0	0.7+
751002	675	0.0	0.2-	910710	809	0.1+	0.1+	910711	809	0.0	0.3+
811125	095	0.4-	2.0+	910710	809	0.3+	0.2+				

1976 GO3 = 1981 NX = 1984 CF1

Id. H. Oishi (MPC 12122)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	284.48320		(2000.0)			P		Williams		Q	
n	0.23036868	Peri.	90.93370			-0.91308514				+0.40627229	
a	2.6354438	Node	113.03786			-0.38758482				-0.83810507	
e	0.0941645	Incl.	2.17376			-0.12670257				-0.36403670	
P	4.28	H	13.5			G	0.15				

Residuals in seconds of arc

760401	095	1.4-	1.3+	840204	688	1.7+	1.6+	900826	809	1.3-	1.6-
760402	095	(2.0-	4.3-)	900816	809	(3.5+	1.3+)	900826	809	1.0-	1.7-
760404	095	0.6-	1.7-	900816	809	1.7+	2.1+	900826	809	1.3-	2.0-
760423	095	1.2-	1.7-	900816	809	1.3+	0.9+	900827	675	(0.2-	4.0-)
781130	675	0.1-	0.7-	900820	809	1.4+	2.0+	900827	675	0.9-	2.3-
781201	675	0.0	0.8-	900820	809	1.1+	1.6+	900913	675	2.1-	1.3-
810702	805	2.1+	0.9+	900820	809	1.7+	0.6+	900913	675	0.9-	0.9-
810702	805	1.1+	1.7+	900823	675	1.3-	0.5-				
840204	688	0.3+	1.1-	900823	675	(0.6-	2.7-)				

1977 EX = 1991 NO7

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	191.02189		(2000.0)		P		Williams		Q
n	0.22797678	Peri.	229.59914			-0.98177460			-0.08148944
a	2.6538455	Node	305.04799			+0.15804224			-0.85181852
e	0.1049366	Incl.	12.10595			-0.10555223			-0.51745984
P	4.32	H	12.5		G	0.15			

Residuals in seconds of arc

770313	095	0.1-	0.1+	910715	809	0.6+	0.2-	910716	809	0.8-	0.2+
770322	095	0.9-	0.4-	910715	809	0.4+	0.3-	910716	809	0.6-	0.3+
770325	095	1.1+	0.3+	910715	809	0.8+	0.4-	910716	809	0.3-	0.3+

1977 RW6 = 1975 EP5 = 1982 SM4

Id. S. Nakano (MPC 9754)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	20.60251		(2000.0)		P		Nakano		Q
n	0.20090007	Peri.	327.76537			+0.98989983			+0.14096495
a	2.8872385	Node	24.14454			-0.12099531			+0.89547123
e	0.0853207	Incl.	2.11186			-0.07388138			+0.42220867
P	4.91	H	12.6		G	0.15			

Residuals in seconds of arc

750315	095	3.5-	2.5-	870925	095	(4.8+	0.9-)	910710	809	0.6+	0.7-
770911	095	1.0-	0.8+	871022	095	1.9-	2.3-	910711	809	2.2-	0.4-
770918	095	0.2+	1.1-	871027	095	0.4-	0.4+	910711	809	1.7-	0.5-
770921	095	1.5+	0.6-	900401	675	2.0+	0.1+	910711	809	1.5-	0.3-
790127	675	0.2-	0.1-	900401	675	0.6+	1.0+	910711	809	1.4+	0.0
790129	675	0.2-	1.1-	900525	675	1.1+	0.3-	910711	809	1.7+	0.1+
820920	095	2.8+	1.2+	910710	809	0.3+	0.4-				
820926	095	0.2+	0.8+	910710	809	0.5+	0.3-				

1978 VP1 = 1989 UD4

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	169.36666		(2000.0)		P		Williams		Q
n	0.17973809	Peri.	173.81504			+0.52595771			-0.84587117
a	3.1096342	Node	244.42048			+0.77605264			+0.51997545
e	0.1345374	Incl.	5.64449			+0.34800975			+0.11885915
P	5.48	H	13.5		G	0.15			

Residuals in seconds of arc

781030	010	0.7+	0.2-	781201	675	0.1+	0.0	891026	033	0.3-	0.3-
781101	010	0.8-	0.1-	891023	033	0.4+	0.1+				
781130	675	0.0	0.1+	891023	033	0.0	0.5+				

1978 VN3 = 3068 T-1

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	356.54801		(2000.0)		P		Nakano		Q
n	0.21890362	Peri.	214.40791			+0.18530614			-0.98153064
a	2.7266794	Node	224.96583			+0.91603584			+0.19004592
e	0.0903673	Incl.	3.85661			+0.35572457			+0.02191238
P	4.50	H	15.9		G	0.15			

Residuals in seconds of arc

710325	675	0.7+	1.4+	781105	675	0.0	0.4+	781129	675	(5.2-	1.2-)
710326	675	0.9-	0.4-	781106	675	1.8-	0.2+	781129	675	2.2+	0.6+
710326	675	0.1+	0.4-	781107	675	1.3+	0.7-	781130	675	2.6-	0.7-
710327	675	0.1+	0.6-	781108	675	0.9+	0.2+	781130	675	(3.7+	1.5+)

1980 TT3 = 1991 TA5

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	62.71818		(2000.0)		P		Kaneda	Q
n	0.27194411	Peri.	37.23286	+0.78045368				-0.62520549
a	2.3594799	Node	1.47598	+0.53972670				+0.67115946
e	0.1193065	Incl.	7.10544	+0.31557431				+0.39832534
P	3.62	H	14.3	G	0.15			

Residuals in seconds of arc

801007	675	1.2-	0.4+	801015	095	(5.1+	2.2-)	911009	033	0.3+	0.0
801008	675	1.0-	0.6-	911005	033	0.5-	0.3-	911009	033	0.4-	0.0
801009	675	1.0+	0.2-	911006	033	0.0	0.6+	911010	033	0.8+	0.5-
801010	675	1.2+	0.3+	911006	033	0.2-	0.3+				

1981 DF = 1992 BT

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	30.73712		(2000.0)		P		Kaneda	Q
n	0.17514262	Peri.	153.47499	-0.58158017				-0.80660262
a	3.1637937	Node	331.71266	+0.70115875				-0.43119256
e	0.1034719	Incl.	12.87874	+0.41248141				-0.40430829
P	5.63	H	12.5	G	0.15			

Residuals in seconds of arc

810228	809	0.1+	0.2+	810304	809	0.4+	0.2-	810308	809	0.6+	0.1+
810228	809	0.6+	0.1+	810304	809	0.6+	0.3-	810308	809	0.6+	0.1-
810228	809	1.3+	0.1+	810304	809	0.5+	0.0	810308	809	0.2+	0.3+
810301	809	0.3-	0.3+	810305	809	0.6-	0.4-	810309	809	0.0	0.2-
810301	809	0.1-	0.4+	810305	809	0.9-	0.5-	810309	809	0.2-	0.1+
810301	809	0.1+	0.3+	810305	809	1.2-	0.6-	810309	809	0.5-	0.3+
810302	809	0.6-	0.0	810306	809	0.5+	0.0	920128	399	(5.5-	0.0)
810302	809	0.7-	0.1-	810306	809	0.9+	0.0	920128	399	(4.8-	0.2-)
810302	809	0.6-	0.1-	810306	809	1.2+	0.2-	920129	399	1.0+	0.5-
810303	809	0.8-	0.0	810307	809	0.1-	0.3+	920129	399	0.6-	0.1+
810303	809	0.6-	0.1-	810307	809	0.1-	0.2+	920205	399	0.0	0.4-
810303	809	0.3-	0.1-	810307	809	0.2-	0.3+	920205	399	0.4-	0.7+

1981 EH1 = 1992 CA1

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	23.97719		(2000.0)		P		Urata	Q
n	0.17839616	Peri.	356.21599	-0.85614599				-0.51376401
a	3.1252088	Node	152.64612	+0.47719884				-0.82716947
e	0.1718759	Incl.	6.91526	+0.19823044				-0.22767787
P	5.52	H	12.5	G	0.15			

Residuals in seconds of arc

810306	809	0.7+	0.5-	810309	809	0.1+	0.1-	920201	364	1.4+	0.6-
810306	809	0.0	0.1-	810309	809	0.3+	0.1-	920201	364	1.3+	0.2+
810306	809	0.4+	0.2-	810309	809	0.4+	0.0	920208	364	0.8-	0.1+
810307	809	0.4-	0.6-	810310	809	0.3-	0.2+	920208	364	0.7-	0.3+
810307	809	0.2-	0.9-	810310	809	0.2-	0.3+	920208	364	2.0-	0.5+
810307	809	0.1+	0.8-	810310	809	0.1-	0.3+	920208	364	2.3-	0.6-
810308	809	0.1-	0.8+	810314	809	0.3-	0.2-	920222	364	1.1+	0.1+
810308	809	0.1+	0.8+	810314	809	0.5-	0.1-	920222	364	2.0+	0.3+
810308	809	0.4+	0.9+	810314	809	0.5-	0.1+				

1981 ES5 = 1991 NP3

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	14.96340		(2000.0)		P		Williams	Q
n	0.22868855	Peri.	76.95317	+0.94487658				-0.29029987
a	2.6483361	Node	299.74293	+0.18920277				+0.86156556
e	0.1880926	Incl.	10.04481	+0.26722753				+0.41645020
P	4.31	H	14.0	G	0.15			

Residuals in seconds of arc

810202	413	0.0	1.1-	810409	413	1.5-	0.1+	910706	809	0.1-	0.2+
810307	413	0.5-	1.4+	810409	413	0.4+	0.3-	910707	809	0.1+	0.4-
810307	413	1.0+	0.2-	810429	413	0.7+	1.4-	910707	809	0.1-	0.5-
810310	413	1.2-	1.4+	910706	809	0.0	0.3+				
810312	413	1.2+	0.1-	910706	809	0.0	0.5+				

1981 EK7 = 1989 UG7

Id. S. Nakano (MPC 15879)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 263.05811

(2000.0)

P

Bowell

Q

n 0.17599646 Peri. 73.78129 +0.43183866 +0.90054164

a 3.1535527 Node 221.91920 -0.85366451 +0.39004335

e 0.1463358 Incl. 4.32647 -0.29115678 +0.19207015

P 5.60 H 13.7 G 0.15

Residuals in seconds of arc

781130	675	0.3+	0.3-	810315	413	0.6+	1.3-	810430	413	(4.6+	3.1-)
781201	675	0.3-	0.3-	810405	413	1.2-	0.8-	810502	413	0.0	1.1-
810209	413	0.2-	1.3+	810405	413	0.1-	1.3-	891023	033	1.2+	1.1-
810301	413	1.5+	0.1+	810406	413	(2.0-	1.2+)	891023	033	0.1-	0.6+
810307	413	1.6+	0.7+	810406	413	0.3+	0.5-	891025	033	0.1+	0.6+
810307	413	1.2+	0.0	810407	413	1.2-	1.0+	891025	033	0.1+	0.7+
810311	413	1.6-	1.0+	810407	413	0.6+	0.4+	891027	033	1.4-	0.6-
810311	413	0.1-	0.2-	810412	413	0.2-	1.1+				
810315	413	1.1-	0.4-	810412	413	(3.3+	1.8-)				

1981 EZ18

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 43.48967

(2000.0)

P

Williams

Q

n 0.22348460 Peri. 50.48320 +0.90391249 +0.42683117

a 2.6892900 Node 284.23442 -0.40062059 +0.82235598

e 0.0474533 Incl. 1.62696 -0.14981773 +0.37622572

P 4.41 H 13.5 G 0.15

Residuals in seconds of arc

770424	675	0.8+	1.5+	810311	413	0.5+	0.1+	810502	413	0.8-	1.6-
770425	675	0.2+	1.2+	810311	413	1.2+	0.5-	910710	809	0.2+	0.2-
810209	413	0.2+	0.4-	810316	413	1.2-	0.8+	910710	809	0.6+	0.2-
810213	413	0.7-	0.4-	810316	413	(4.3+	1.2-)	910710	809	0.9+	0.1+
810302	413	0.1+	0.5+	810329	413	0.7+	0.6-	910711	809	0.7-	0.4-
810302	413	0.2+	1.1-	810329	413	(3.3-	1.1-)	910711	809	0.7-	0.6-
810303	413	(2.3-	0.9+)	810408	413	1.1-	0.5+	910711	809	0.7-	0.7-
810303	413	1.0+	1.1-	810408	413	1.2-	0.4+	910712	809	0.1-	0.2+
810307	413	0.1-	1.0+	810411	413	1.2-	0.0	910712	809	0.2+	0.2+
810307	413	1.7+	0.3-	810430	413	1.0-	0.4-	910712	809	0.5+	0.0

1981 EW20 = 1989 VU5

Id. E. Bowell (MPC 18621)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 232.96198

(2000.0)

P

Bowell

Q

n 0.17420583 Peri. 299.97321 +0.71367795 +0.70046093

a 3.1751257 Node 15.56416 -0.63705849 +0.65159204

e 0.1322365 Incl. 0.91275 -0.29123918 +0.29117400

P 5.66 H 13.1 G 0.15

Residuals in seconds of arc

781130	675	0.5-	1.1+	810303	413	1.6+	0.9-	810316	413	1.2-	0.0
781201	675	0.1-	1.2+	810303	413	0.8+	0.1+	810316	413	(2.7-	0.1+)
810202	413	1.3+	1.6-	810307	413	1.2-	1.5+	810329	413	0.9-	1.1+
810213	413	0.0	1.4-	810307	413	1.1+	0.6-	810329	413	(1.9-	1.8+)
810302	413	1.2-	0.8+	810311	413	1.0+	0.4-	810408	413	0.8-	0.0

810408 413 0.2+ 0.1-	810426 413 (1.2+ 3.4-)	891103 675 1.0+ 0.9-
810411 413 0.8- 0.3-	810502 413 0.6- 0.3+	891104 675 0.4+ 0.5-
810411 413 0.4+ 0.0	891103 675 0.9- 1.1-	891104 675 0.6+ 0.4-

1981 EZ25 = 1955 SD2 = 1955 TH = 1992 DO

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M 133.60813	(2000.0)	P	Q
n 0.17149528	Peri. 31.61824	+0.89284664	-0.44921840
a 3.2084943	Node 354.75848	+0.30397060	+0.65362046
e 0.1902779	Incl. 20.54351	+0.33230521	+0.60908384
P 5.75	H 12.4	G 0.15	

Residuals in seconds of arc

550922 024 2.2+ 2.3-	810306 413 1.3+ 0.2-	810409 413 1.5+ 0.7+
551011 760(95.1+ 55.1+)X	810311 413 0.9- 0.0	810501 413 0.8+ 0.7-
810212 413 1.1- 0.1-	810311 413 0.1+ 0.1-	810503 413 0.2- 1.5-
810212 413 0.8- 0.4-	810315 413 1.3- 0.2+	920225 372 0.4+ 0.7+
810213 413 0.0 1.2-	810406 413 1.3- 1.7+	920226 372 (5.5+ 3.0-)
810302 413 1.0- 0.2-	810408 413 0.6+ 1.0-	920227 372 0.3+ 0.0
810302 413 0.6+ 0.7-	810408 413 0.4- 0.9-	
810306 413 0.8- 0.1-	810409 413 0.5- 1.0+	

1981 ES27 = 3279 T-1

Id. S. Nakano, T. Kobayashi

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M 114.51698	(2000.0)	P	Q
n 0.29467349	Peri. 200.88794	-0.89616050	+0.44356553
a 2.2365331	Node 5.48942	-0.38710043	-0.76819108
e 0.1533828	Incl. 7.25574	-0.21690922	-0.46166231
P 3.34	H 17.0	G 0.15	

Residuals in seconds of arc

710325 675 (5.0+ 3.1-)	810212 413 0.7- 1.2+	810315 413 1.1+ 0.3-
710326 675 1.2+ 2.1-	810213 413 0.6- 1.2+	810410 413 0.8+ 2.1+
710326 675 2.5+ 1.8-	810302 413 1.2+ 0.9-	810501 413 0.6+ 0.1+
710327 675 2.5- 0.6+	810311 413 0.8+ 0.7-	810503 413 0.5- 0.6+
710402 675 2.3- 1.3+	810311 413 0.7+ 0.2+	
810209 413 0.5- 0.1-	810315 413 1.9- 0.8-	

1981 WA1 = 1988 EO2 = 1990 OG3

Id. A. Lowe (k, MPC 17013), G. V. Williams (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 85.36245	(2000.0)	P	Q
n 0.19912549	Peri. 249.06256	+0.95614514	-0.29010445
a 2.9043669	Node 127.77963	+0.28409797	+0.88511819
e 0.0709266	Incl. 2.92432	+0.07123780	+0.36387524
P 4.95	H 12.5	G 0.15	

Residuals in seconds of arc

811124 688 0.3+ 1.8-	900727 675 1.1- 0.5-	900918 675 1.7+ 0.6+
811124 688 0.0 0.1-	900730 675 0.8- 0.4+	900918 675 1.2+ 1.8-
811202 688 (4.1+ 2.1-)	900730 675 0.1- 0.7-	911205 801 0.3- 0.8+
811202 688 0.2+ 0.1+	900914 675 0.8+ 0.6-	911205 801 0.2+ 0.3-
880310 552 0.3+ 1.7-	900914 675 1.2- 0.8+	920102 801 0.1- 0.7+
880310 552 1.0- 0.6-	900915 675 0.1- 0.2-	920102 801 0.2- 0.5+
900727 675 0.6- 0.3-	900915 675 1.0+ 0.4+	

1982 UR6 = 1981 JM3

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	240.92688		(2000.0)		P		Q						
n	0.26466368	Peri.	313.81277		+0.99918433		-0.01097585						
a	2.4025540	Node	46.85719		+0.02665823		+0.90213593						
e	0.2212837	Incl.	3.05303		-0.03033173		+0.43131229						
P	3.72	H	13.9	G	0.15								

Residuals in seconds of arc

810508	675	0.3+	0.5-	821020	095	0.4-	0.3+	821109	095	0.6+	0.0
810509	675	0.0	1.3+	821025	095	0.1+	0.0	821114	095	0.6-	0.4+

1985 CT = 1978 EC6 = 1992 BM1

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	105.83289		(2000.0)		P		Q						
n	0.28001079	Peri.	258.58711		+0.65164199		-0.72890677						
a	2.3139441	Node	147.50512		+0.75305544		+0.65485537						
e	0.2355731	Incl.	22.99871		-0.09094073		+0.19964808						
P	3.52	H	13.0	G	0.15								

Residuals in seconds of arc

780306	095	2.6-	0.7+	850225	688	2.2+	0.8-	850324	688	0.3+	0.3+
850212	675	1.2+	0.1+	850318	688	0.5+	0.3-	920129	675	1.2-	0.1+
850216	675	0.5-	1.2-	850318	688	1.0+	1.3-	920130	675	0.7-	0.2+
850225	688	1.4+	1.7+	850324	688	1.3-	0.6+	920130	675	0.3-	0.0

1985 CJ1 = 1987 SF22 = 1989 FK

Id. T. Kobayashi (MPC 14616; unpublished), G. V. Williams

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	13.98330		(2000.0)		P		Q						
n	0.26248743	Peri.	54.17953		-0.39766582		-0.91566170						
a	2.4158152	Node	59.35377		+0.81835260		-0.38280533						
e	0.1251273	Incl.	3.90083		+0.41492279		-0.12257131						
P	3.75	H	10.5	G	0.15								

Residuals in seconds of arc

850215	046	0.0	0.0	890404	372	0.7+	1.2-	911110	400	1.2+	0.6+
850215	046	(2.9-	0.3+)	890404	372	0.1+	1.1-	911111	399	0.3+	0.2-
850216	046	0.8-	0.5+	890411	372	1.3-	1.2+	911111	399	0.4+	0.6-
850216	046	1.2-	0.0	890411	372	(0.3+	2.7+)	911126	046	1.3-	2.3-
850220	046	1.8+	0.6-	890412	372	(0.4+	3.3-)	911126	046	0.9-	1.9+
850220	046	(2.9+	1.3-)	890412	372	0.8-	1.6-	911127	046	1.5-	0.0
870918	095	0.8+	1.8-	911109	400	1.6+	1.0-	911127	046	0.2+	0.2+
890329	372	0.6+	1.1+	911109	400	0.9-	1.2+				
890329	372	(1.4-	3.0+)	911110	400	0.8+	0.1+				

1985 CM1 = 1992 DH

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kaneda

M	1.13582		(2000.0)		P		Q						
n	0.28311169	Peri.	69.55288		-0.92091695		+0.38478314						
a	2.2970168	Node	133.02016		-0.38171485		-0.85820426						
e	0.0958686	Incl.	4.87092		-0.07877649		-0.33974605						
P	3.48	H	13.7	G	0.15								

Residuals in seconds of arc

850213	809	0.6-	0.6+	850217	809	1.1-	0.3+	850220	809	1.4-	0.4-
850213	809	0.5-	0.4+	850218	809	1.0+	0.1+	850220	809	0.8-	0.6+
850213	809	0.6-	0.3+	850218	809	1.4+	0.1-	850221	809	0.5+	0.9-
850215	809	1.4+	0.6-	850218	809	1.7+	0.0	850221	809	0.7+	0.8-
850215	809	1.0+	0.3-	850219	809	0.3-	1.0+	850221	809	0.9+	0.8-
850215	809	0.4+	0.2-	850219	809	0.2+	0.8+	850224	809	0.2+	0.8-
850217	809	1.7-	0.8+	850219	809	0.7+	0.6+	850224	809	0.9-	0.5-
850217	809	1.4-	0.5+	850220	809	1.4-	0.6-	850224	809	1.6-	0.4-

850227	809	0.4-	0.0	850228	809	1.2+	0.2-	920226	399	0.6-	0.5+
850227	809	0.7-	0.1-	850228	809	1.5+	0.2-	920226	399	0.6+	0.3-
850227	809	1.0-	0.1-	920225	399	0.3-	0.6+				
850228	809	1.2+	0.3-	920225	399	0.6+	0.3+				

1986 RX2 = 1964 TD1 = 1975 TR1 = 1991 NK5

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	16.52366		(2000.0)			P		Q			
n	0.17796143	Peri.	15.87965	+0.99997025				-0.00097603			
a	3.1302963	Node	344.17035	-0.00234721				+0.90641575			
e	0.2006692	Incl.	1.60736	+0.00734765				+0.42238552			
P	5.54	H	13.0	G	0.15						

Residuals in seconds of arc

641008	330	0.1-	0.8+	860929	046	(4.8-	4.1+)	910710	809	0.3-	0.1+
751003	095	0.1+	1.1-	860930	046	(4.5+	1.7+)	910710	809	0.0	0.2+
860906	688	1.8-	0.4-	860930	046	(4.0+	2.2+)	910710	809	0.3+	0.3+
860906	688	1.3-	0.1-	861001	046	(5.7-	1.5+)	910711	809	0.4-	0.4-
860912	688	(5.9+	0.5+)	861001	046	3.0+	1.9+	910711	809	0.0	0.2-
860912	688	0.2+	0.7-	861006	095	(5.0+	2.1-)	910711	809	0.5+	0.1+
860929	046	(0.3+	3.6+)	861010	095	0.2-	0.4-				

1986 TR4 = 1943 VH = 1992 AW1

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	108.45937		(2000.0)			P		Q			
n	0.22776177	Peri.	108.40632	+0.93165812				-0.35642515			
a	2.6555154	Node	272.52277	+0.30099499				+0.86584834			
e	0.1867123	Incl.	4.04827	+0.20350717				+0.35109511			
P	4.33	H	12.5	G	0.15						

Residuals in seconds of arc

431103	062	1.1+	0.4-	860911	095	0.2-	0.5-	920112	894	0.1-	0.7+
431104	062	1.1-	0.1+	861005	095	0.0	0.6-	920115	894	0.2+	0.1-
860907	095	0.4+	0.4+	861011	054	0.3-	1.0+	920115	894	0.0	0.4-

1986 WM5 = 1991 NO3

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	60.89965		(2000.0)			P		Q			
n	0.18152562	Peri.	0.61780	+0.41562678				+0.88926834			
a	3.0891862	Node	293.95470	-0.83537582				+0.29020582			
e	0.1826164	Incl.	12.05971	-0.35972436				+0.35352849			
P	5.43	H	11.5	G	0.15						

Residuals in seconds of arc

860909	095	0.5-	1.0+	910706	809	0.8+	1.2+	910712	809	0.2-	0.5-
860929	095	0.3-	0.4+	910706	809	1.1+	1.3+	910712	809	0.2+	0.6-
861003	095	0.6+	0.9-	910707	809	0.1-	1.4-	910714	809	0.6-	0.0
861127	010	0.2+	0.5-	910707	809	0.0	1.0-	910714	809	0.6-	0.1-
910706	809	0.7+	1.0+	910712	809	0.7-	0.3-	910714	809	0.5-	0.1+

1986 XR5 = 1991 RU21

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	43.05258		(2000.0)			P		Q			
n	0.18351189	Peri.	338.31277	+0.98291915				-0.17990692			
a	3.0668550	Node	32.12818	+0.17774946				+0.87342030			
e	0.3001591	Incl.	4.18111	+0.04769771				+0.45251572			
P	5.37	H	13.3	G	0.15						

Residuals in seconds of arc

861130	381	0.1+	0.2+	861201	381	0.1+	0.7-	910915	675	0.3+	0.0
861130	381	0.0	0.2-	861205	801	0.7-	0.7+	910917	675	0.2+	0.3-
861201	381	0.5+	0.1-	910915	675	0.6-	0.2+	910917	675	0.0	0.1+

1987 DK6 = 1991 PJ16 = 1991 RJ17

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 161.52615

(2000.0)

P

Nakano

Q

n	0.30938859	Peri.	293.43987	-0.17827296	+0.98368678
a	2.1650429	Node	326.26309	-0.88623515	-0.17114218
e	0.1819778	Incl.	2.48331	-0.42755819	-0.05541361
P	3.19	H	14.3	G	0.15

Residuals in seconds of arc

870223	809	0.2+	0.5-	870228	809	0.8-	0.3+	870305	809	0.3+	0.4-
870223	809	0.4+	0.4-	870228	809	1.0-	0.4+	870305	809	0.7+	0.6-
870223	809	1.0+	0.4-	870228	809	1.0-	0.1+	870305	809	0.3+	0.8-
870224	809	0.6-	0.5-	870301	809	0.1-	0.2-	870306	809	0.3+	0.7-
870224	809	0.1-	0.5-	870301	809	0.3+	0.1+	870306	809	0.5+	0.6-
870224	809	0.2-	0.6-	870301	809	0.6+	0.2+	870306	809	0.2+	0.6-
870225	809	0.9-	0.3+	870302	809	0.4+	0.3+	910807	675	1.6+	1.4-
870225	809	0.8-	0.1+	870302	809	0.9+	0.3+	910808	675	0.4+	2.4-
870225	809	0.8-	0.2+	870302	809	0.8+	0.1+	910911	675	1.9+	1.6+
870226	809	1.3-	0.0	870303	809	0.1+	0.1+	910911	675	0.3-	1.4+
870226	809	1.3-	0.0	870303	809	0.3+	0.3+	910913	675	0.5-	1.2-
870226	809	1.1-	0.3+	870303	809	0.5+	0.4+	910913	675	1.1-	0.4-
870227	809	0.2-	0.1-	870304	809	0.3+	0.2-	910916	675	0.9-	0.8-
870227	809	0.1+	0.5+	870304	809	0.4+	0.2-	910916	675	0.4+	0.3+
870227	809	0.5-	0.5+	870304	809	0.5+	0.1-				

1987 QZ1 = 1989 CG5 = 1991 TE8

Id. T. Kobayashi (MPC 15067; unpublished)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 45.38601

(2000.0)

P

Kobayashi

Q

n	0.26026274	Peri.	78.67929	+0.78558191	-0.61563417
a	2.4295623	Node	319.27647	+0.52408254	+0.71537036
e	0.1522976	Incl.	5.46146	+0.32893550	+0.33051449
P	3.79	H	13.8	G	0.15

Residuals in seconds of arc

870821	809	0.5+	1.4+	870828	809	0.7-	0.3-	870903	809	0.7+	2.2-
870821	809	0.5-	1.5+	870829	809	2.2+	1.1+	890202	033	0.5-	0.4+
870821	809	0.3+	1.8+	870829	809	1.4+	1.5+	890204	033	0.3+	0.2-
870825	809	2.8-	1.9-	870829	809	1.1+	1.5+	890210	033	0.3+	0.1+
870825	809	0.3-	0.6-	870831	809	2.1+	0.8+	890210	033	0.1+	0.3+
870825	809	1.5-	1.2+	870831	809	0.2+	0.1-	910913	675	0.0	0.2-
870826	809	0.0	1.1-	870831	809	0.3-	0.1+	910913	675	0.4-	0.5-
870826	809	0.3+	1.0-	870831	809	1.3-	0.2-	910915	675	0.2-	0.4+
870826	809	0.5-	0.4-	870831	809	1.2-	0.5+	910915	675	0.4-	0.1-
870828	809	0.5-	0.7-	870831	809	1.0-	0.7-	911008	400	0.3+	0.2+
870828	809	0.8+	0.5-	870903	809	0.7+	1.8-	911008	400	0.6+	0.3+

1987 SR1 = 1987 WD3 = 1978 JZ = 1991 PT17

Id. S. Nakano (d, MPC 15384), E. Bowell (k), G. V. Williams

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 101.38588

(2000.0)

P

Williams

Q

n	0.23899811	Peri.	111.67139	+0.45101657	+0.89234480
a	2.5716177	Node	185.23810	-0.87316123	+0.43710020
e	0.1834609	Incl.	11.02481	-0.18486080	+0.11253518
P	4.12	H	13.5	G	0.15

Residuals in seconds of arc

780505	095	0.0	0.2-	870929	688	(0.6-	4.3-)	910807	675	0.3+	0.6+
870902	095	0.7-	0.9-	870929	688	0.8-	1.5+	910807	675	0.4-	0.2-
870921	688	0.3-	1.9-	871117	010	0.2+	0.6-				
870921	688	1.9+	1.1+	871117	010	0.4-	0.2+				

1987 UQ3 = 1979 HO4 = 1984 YG6

Id. S. Nakano (MPC 15416); 1987 UQ3 = 1959 VG (ibid.) is invalid (cf.

MPC 19724, where these observations are deleted)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Williams			
M	(2000.0)			P	Q		
n	0.27865445	Peri.	257.38279	+0.93084008	+0.34889155		
a	2.3214468	Node	82.11780	-0.27796997	+0.86908234		
e	0.1234284	Incl.	6.29900	-0.23721182	+0.35067161		
P	3.54	H	13.5	G	0.15		

Residuals in seconds of arc

790424	095	0.0	0.1+	871026	054	0.9+	1.0+	920102	801	0.0	0.4+
841223	010	(14.7-	16.8-)	871026	054	0.9-	0.3+	920107	801	0.0	0.1+
841223	010	(14.2-	15.2-)	911205	801	0.1+	0.1-	920107	801	0.2+	0.1+
870927	095	1.0+	1.1-	911205	801	0.4-	1.3-				
871023	095	1.0-	0.1+	920102	801	0.0	0.4+				

1987 WO1 = 1991 UX1

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Kaneda			
M	(2000.0)			P	Q		
n	0.23868387	Peri.	162.73077	+0.79280809	-0.60213746		
a	2.5738743	Node	234.66776	+0.54464838	+0.76937176		
e	0.0359684	Incl.	6.63517	+0.27352053	+0.21330162		
P	4.13	H	12.8	G	0.15		

Residuals in seconds of arc

871122	688	0.7+	1.2+	871126	046	1.3-	0.3+	911031	399	0.1-	1.4-
871122	688	1.4-	0.7-	871126	046	0.4-	0.4-	911031	399	0.1+	0.8-
871123	046	0.7+	0.4-	871127	046	0.7+	0.4+	911109	399	0.2+	0.1+
871123	046	(6.1+	2.3+)	911029	399	0.5+	0.9+	911109	399	0.0	0.6+
871126	046	1.0+	0.3-	911029	399	0.7-	0.6+				

1988 FM = 1951 EL2 = 1992 DE

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Nakano			
M	(2000.0)			P	Q		
n	0.24005680	Peri.	181.76922	-0.95621985	+0.28589820		
a	2.5640513	Node	15.29276	-0.26550656	-0.75770094		
e	0.1130852	Incl.	13.70674	-0.12308476	-0.58664427		
P	4.11	H	13.1	G	0.15		

Residuals in seconds of arc

510313	711	1.3+	1.7+	Y	880409	875	0.1-	2.1+	920225	376	0.8+	3.1-
880318	875	0.9+	0.3-		880409	875	0.1-	0.5+	920225	376	1.6-	0.1+
880318	875	0.7+	0.8-		880409	875	0.9-	2.0-	920227	376	0.0	0.3+
880323	875	0.7-	1.7+		880413	875	0.8+	1.3-	920227	376	0.4+	1.5+
880323	875	2.3-	1.2+		880413	875	1.2+	2.0-				

1988 RW3 = 1981 JA4

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Bowell			
M	(2000.0)			P	Q		
n	0.17409007	Peri.	292.97401	+0.70892371	+0.70519651		
a	3.1765331	Node	22.18579	-0.63575717	+0.64582137		
e	0.1429636	Incl.	1.69703	-0.30535225	+0.29259637		
P	5.66	H	13.7	G	0.15		

Residuals in seconds of arc

810508	675	0.2-	0.3+	880910	033	0.5-	0.3-	881005	807	0.9+	0.1-
810509	675	0.2+	0.3-	880910	033	1.2-	0.6-	881008	807	1.4+	0.3-
880908	033	0.1+	0.9+	880911	033	1.0-	0.3-	881104	807	0.2-	0.7+
880909	033	0.1-	0.8+	880915	675	0.4+	0.1-	881106	807	0.4-	0.1-
880909	033	0.7+	0.1+	880915	675	0.2-	0.7-				

1988 ST2 = 1981 JH5

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	276.65332		(2000.0)		P		Q
n	0.17337655	Peri.	228.31245	+0.63056182			+0.77517529
a	3.1852424	Node	80.82091	-0.69995293			+0.58948462
e	0.1300295	Incl.	2.24471	-0.33534712			+0.22718089
P	5.68	H	12.8	G	0.15		

Residuals in seconds of arc

810508	675	0.8-	0.2+	880918	807	0.2+	0.1-	881008	807	0.6+	1.0-
810509	675	0.8+	0.1-	881004	807	1.0-	0.1+	881105	807	0.2+	0.4+
880916	807	0.2+	0.1+	881005	807	0.4+	0.1+	881107	807	0.7-	0.5+

1989 EL2 = 1990 RY1

Id. H. E. Holt (MPC 17636)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	299.69554		(2000.0)		P		Q
n	0.30428695	Peri.	223.64973	-0.37396976			+0.92687296
a	2.1891751	Node	24.44395	-0.82792727			-0.31786998
e	0.1032038	Incl.	4.49799	-0.41795103			-0.19966269
P	3.24	H	13.5	G	0.15		

Residuals in seconds of arc

890312	399	1.4+	0.3+	890404	399	0.6+	0.6-	900922	809	(5.2+	0.4-)
890312	399	0.9+	0.4+	890406	399	0.5-	0.8-	900922	809	(4.8+	0.5-)
890312	399	(2.5-	0.6+)	890406	399	0.9-	1.5-	920128	399	1.0-	0.8-
890312	399	1.9-	1.5+	890406	399	0.6-	1.0-	920128	399	0.8-	0.1-
890312	399	0.6-	0.5-	900915	809	0.2+	1.2-	920129	399	1.2+	0.5-
890326	399	0.5-	0.5+	900915	809	0.4-	1.3-	920129	399	0.5+	0.1+
890326	399	0.4+	0.4+	900915	809	0.5+	0.6-	920205	399	0.2+	0.6-
890326	399	1.5-	0.5-	900915	675	0.3+	0.6+	920205	399	0.8-	0.2+
890326	399	1.2+	0.1+	900917	675	0.1-	0.2-	920208	399	0.6+	0.2-
890404	399	1.1+	0.3-	900917	675	0.5+	0.9+	920208	399	0.2-	1.7+
890404	399	(1.7+	2.2-)	900922	809	(5.0+	0.6-)				

1989 FA = 1990 OJ3

Id. S. Nakano (MPC 17020)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	18.47011		(2000.0)		P		Q
n	0.28876770	Peri.	350.93320	-0.75388612			-0.65611213
a	2.2669240	Node	147.97972	+0.60676640			-0.71528187
e	0.0871109	Incl.	3.70290	+0.25197274			-0.24060074
P	3.41	H	13.6	G	0.15		

Residuals in seconds of arc

890328	402	1.1+	1.2-	900730	675	0.1-	0.2-	911214	898	0.9+	0.7-
890328	402	0.9+	0.4-	900730	675	0.1-	0.3-	911214	898	0.8-	1.6-
890329	402	1.2-	1.4-	900914	675	1.3+	0.2-	911230	898	0.1-	0.0
890329	402	2.0-	0.2-	900914	675	0.1-	0.0	911230	898	0.2+	0.1+
900727	675	0.0	1.6-	900915	675	0.1-	2.3-	920101	898	0.8+	0.1+
900727	675	0.5+	1.0-	900915	675	0.0	0.2+	920101	898	1.1-	1.1-

1989 GF1 = 1992 AK

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kaneda

M	40.06003		(2000.0)		P		Q
n	0.28660742	Peri.	150.33831	-0.62692481			-0.77871129
a	2.2783010	Node	338.45682	+0.70133387			-0.55070450
e	0.1052128	Incl.	3.74096	+0.33925814			-0.30055494
P	3.44	H	14.0	G	0.15		

Residuals in seconds of arc

890403	809	0.4-	0.5-	890403	809	0.5-	0.3-	890405	809	0.9+	0.4+
890403	809	0.5-	0.6-	890405	809	1.3+	0.5+	890405	809	0.6+	0.7+

890408 809	0.2+	0.3+	890410 809	0.1-	0.6-	920104 877	0.7-	0.8+
890408 809	0.3-	0.7+	890410 809	1.0-	0.8-	920104 877	(4.0-	1.8+)
890408 809	0.0	0.3+	920103 877	1.4+	0.8+			
890410 809	0.1+	0.2-	920103 877	0.7-	1.6-			

1990 BF2 = 1991 NX2

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 272.03333

(2000.0)

P

Williams

Q

n	0.29846195	Peri.	40.93669	-0.49282315	-0.86722297
a	2.2175669	Node	78.70092	+0.77825179	-0.47583880
e	0.0393596	Incl.	4.15562	+0.38916514	-0.14663482
P	3.30	H	13.5	G	0.15

Residuals in seconds of arc

900121 402	0.4+	0.1+	900202 399	(3.2+	0.5-)	900302 399	0.3+	0.9+
900121 402	0.1-	0.5-	900202 399	(5.6+	2.6+)	900302 399	1.4+	1.0-
900127 675	0.4-	1.0-	900218 399	(3.7-	0.5-)	910704 809	0.9+	0.2+
900127 675	0.1+	1.5-	900218 399	0.8-	2.0+	910704 809	0.9+	0.0
900130 675	0.1-	1.6-	900218 399	0.8-	2.6+	910704 809	1.2+	0.1-
900130 675	0.6-	0.4-	900223 675	0.8+	0.1+	910705 809	0.9-	0.2-
900130 399	0.3-	0.3-	900223 675	0.5-	0.8-	910705 809	0.7-	0.1-
900130 399	1.8-	0.7-	900228 399	1.0+	0.9-	910705 809	0.4-	0.2+
900130 399	0.3+	0.9-	900228 399	1.0+	2.3+	910716 675	1.1-	2.1-
900202 399	(0.6+	3.2+)	900302 399	0.3-	0.1+	910716 675	0.2+	0.1+

1990 DM2 = 1978 RK3 = 1987 QT2 = 1988 VH4

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 96.41658

(2000.0)

P

Ichikawa

Q

n	0.21393666	Peri.	308.66083	-0.48001905	+0.87618984
a	2.7687213	Node	292.60075	-0.78960650	-0.45302744
e	0.0378847	Incl.	2.68696	-0.38223460	-0.16449164
P	4.61	H	12.3	G	0.15

Residuals in seconds of arc

780903 095	0.7-	1.7+	870826 809	0.7+	0.9-	900225 809	0.8-	1.8+
870822 809	0.3+	0.0	870826 809	0.7+	1.3-	900225 809	0.5-	1.8+
870822 809	0.8-	0.3-	881103 054	0.0	0.4-	900225 809	0.1-	1.8+
870822 809	0.6+	0.4-	881103 054	1.2+	0.4-	900301 809	0.3-	0.7-
870825 809	0.6-	0.1+	881104 054	0.8-	0.5-	900301 809	0.1-	0.9-
870825 809	0.0	0.1+	900224 809	0.6+	1.6-	900301 809	0.0	0.8-
870825 809	0.8+	0.4-	900224 809	0.9+	1.4-	900317 095	1.1-	1.9-
870826 809	0.1+	2.1-	900224 809	1.3+	1.4-	900317 095	1.7-	0.4-

1990 QW1 = 1992 CG

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 100.32596

(2000.0)

P

Nakano

Q

n	0.25211174	Peri.	80.77455	+0.42138765	-0.90647204
a	2.4816508	Node	344.21804	+0.78780127	+0.38075935
e	0.1065882	Incl.	5.74375	+0.44922333	+0.18256714
P	3.91	H	13.7	G	0.15

Residuals in seconds of arc

900816 809	1.5-	0.9-	900828 675	1.9+	0.1+	900919 675	0.2-	1.1-
900816 809	2.2-	0.2-	900828 675	2.1+	0.9+	920208 372	0.7+	0.3-
900816 809	2.3-	0.4-	900914 675	0.9-	0.5-	920208 372	0.2+	0.3-
900822 675	1.9+	1.1+	900914 675	0.3-	0.3+	920209 372	1.3-	1.2+
900822 675	2.0+	0.8+	900919 675	0.7-	0.1+	920209 372	0.6+	0.3-

1990 Q03 = 1990 SL26

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	65.83773		(2000.0)		P		Q
n	0.17813991	Peri.	48.71594		+0.72360025		-0.69001877
a	3.1282052	Node	354.83473		+0.56508144		+0.60607872
e	0.0741279	Incl.	10.64878		+0.39634031		+0.39565474
P	5.53	H	12.0	G	0.15		

Residuals in seconds of arc

900816	801	0.1+	0.9+	900826	809	0.6-	1.3-	900921	095	2.2+	0.0
900816	801	0.4-	0.4+	900827	675	0.1+	2.3-	901015	801	0.1-	0.0
900817	801	0.7+	0.9+	900827	675	0.7-	0.5-	901015	801	0.3+	0.3+
900817	801	0.2+	0.0	900828	095	(3.1-	2.5-)	901016	801	0.1+	0.2+
900818	801	0.3-	0.6+	900828	095	1.8+	1.1-	901016	801	0.2+	0.2+
900818	801	0.2-	0.7+	900913	809	1.4-	0.3-	901018	801	0.3+	0.1+
900819	801	0.5+	0.6+	900913	809	1.0-	0.3-	901018	801	0.3+	0.2+
900819	801	0.4-	0.5+	900913	809	0.6-	0.3-	901021	801	0.2-	0.4+
900820	809	1.6+	0.5+	900914	809	1.3-	0.5+	901021	801	0.0	0.4+
900820	809	0.2+	0.7+	900914	809	1.2-	0.4+	901114	801	0.1-	0.0
900820	809	0.4-	0.2+	900914	809	0.8-	0.1+	901115	801	0.1+	0.1-
900820	801	0.5+	0.8+	900914	675	0.4+	0.6-	901116	801	0.7-	0.1+
900820	801	0.3+	0.9+	900914	675	0.1+	0.5-	901116	801	0.4+	0.4+
900823	675	0.7-	0.2+	900916	801	0.2+	0.2+	911008	801	0.3-	0.3-
900823	675	0.3-	0.3+	900916	801	0.4+	0.2+	911008	801	0.5-	0.1+
900825	675	1.3+	0.6-	900919	801	0.2+	0.4+	911103	801	0.4+	0.2+
900825	675	0.1+	0.1+	900919	801	0.1+	0.3+	911103	801	0.1+	0.1-
900826	809	1.2-	1.2-	900919	675	0.1+	1.2-	911107	801	0.1+	0.2-
900826	809	0.8-	1.7-	900919	675	0.7+	0.1-	911107	801	0.1+	0.2+

1990 SK6 = 1978 GT1 = 1985 DM1 = 1992 BS

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kaneda

M	332.60312		(2000.0)		P		Q
n	0.27271213	Peri.	174.44537		-0.90892267		+0.41148608
a	2.3550479	Node	30.13727		-0.38753848		-0.77405651
e	0.0615340	Incl.	7.71147		-0.15386196		-0.48116080
P	3.61	H	13.9	G	0.15		

Residuals in seconds of arc

780407	095	0.6-	1.3+	900922	809	0.1+	0.7-	920128	399	1.2-	1.5-
850225	688	0.3-	0.2+	900922	809	0.7+	0.5-	920128	399	0.9-	2.0+
850225	688	2.1+	2.2-	900922	809	0.2-	0.2-	920129	399	1.5+	0.1+
900915	809	0.2-	0.8-	900925	809	0.7+	1.6+	920129	399	0.7-	0.5+
900915	809	0.9-	1.1-	900925	809	0.3+	1.4+				
900915	809	0.4-	0.6-	900925	809	0.0	1.4+				

1990 SZ7 = 1992 DW

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kaneda

M	56.52029		(2000.0)		P		Q
n	0.29361141	Peri.	99.17605		-0.76069216		-0.64483799
a	2.2419234	Node	40.72125		+0.54176196		-0.69381927
e	0.1059893	Incl.	6.54614		+0.35754919		-0.32062250
P	3.36	H	13.8	G	0.15		

Residuals in seconds of arc

900914	809	0.1-	0.2-	900922	809	0.2+	0.5-	920226	399	0.9-	0.9+
900914	809	1.0+	0.6+	900925	809	0.1+	0.3+	920229	399	0.8+	1.4-
900914	809	0.7-	0.0	900925	809	0.0	0.5+	920229	399	0.5+	0.1-
900922	809	0.1-	0.6-	900925	809	0.2-	0.2+				
900922	809	0.2-	0.4-	920226	399	0.5-	0.6+				

1990 SD14 = 1978 WH18

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 132.55791	(2000.0)			P	Q
n 0.24120817	Peri. 161.69512	+0.81695913	-0.57641779		
a 2.5558854	Node 233.51713	+0.52628811	+0.75788055		
e 0.2521843	Incl. 1.27546	+0.23579357	+0.30554802		
P 4.09	H 15.0	G 0.15			

Residuals in seconds of arc

781130 675	0.3+ 0.9-	900924 809	0.3- 0.3+	900925 809	1.0+ 0.1+
781201 675	0.3- 0.8+	900924 809	0.0 0.4+	900927 809	0.8- 0.7+
900923 809	0.3- 0.8-	900924 809	0.2+ 0.2+	900927 809	0.4- 0.7+
900923 809	0.0 1.0-	900925 809	0.3- 0.2-	900927 809	0.1+ 0.6+
900923 809	0.5+ 1.0-	900925 809	0.2+ 0.2+		

1990 TK1 = 1975 VU4 = 1979 ON4 = 1985 UB4 = 1985 VT3

Id. H. Kaneda (MPC 17452), L. V. Zhuravleva (d, ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kaneda

M 106.34264	(2000.0)			P	Q
n 0.19656547	Peri. 281.68309	+0.62815027	-0.77702524		
a 2.9295297	Node 129.32570	+0.73282699	+0.57320280		
e 0.0721825	Incl. 3.01826	+0.26151835	+0.26013521		
P 5.01	H 12.1	G 0.15			

Residuals in seconds of arc

751102 095	(4.1+ 2.9-)	901111 809	0.7- 0.9-	901117 809	0.1- 0.4-
790724 675	1.5- 1.2+	901111 809	0.8- 0.7-	901117 809	0.2+ 0.5-
790724 413	0.2- 1.7-	901111 809	0.7- 0.6-	901117 809	0.1- 0.4-
790725 675	0.7- 0.7+	901111 400	1.2+ 0.2-	901120 809	0.4- 1.2-
790727 675	2.5+ 0.8-	901111 400	2.0+ 0.4-	901120 809	0.6- 1.2-
851021 095	(6.3- 0.4-)	901112 809	0.4- 0.9+	901120 809	0.7- 0.9-
851111 095	0.2+ 0.6-	901112 809	0.5+ 1.4+	920102 801	0.4- 0.6-
901015 400	0.2- 1.1+	901112 809	0.8+ 1.2+	920102 801	0.4+ 0.1-
901015 400	0.3+ 1.3+	901114 809	0.3- 0.6+	920108 801	0.2- 0.3+
901019 400	(0.7+ 5.0+)	901114 809	0.3- 0.5+	920108 801	0.1+ 0.0
901019 400	(3.6- 3.1+)	901114 809	0.2+ 0.8+		

1990 TV12 = 1989 SX13

Id. B. G. Marsden (MPC 18124)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 107.52022	(2000.0)			P	Q
n 0.08303387	Peri. 111.52184	+0.92322577	+0.12963042		
a 5.2035436	Node 242.65914	-0.20973491	+0.95878091		
e 0.0910774	Incl. 24.03051	+0.32197119	+0.25285394		
P 11.87	H 10.5	G 0.15			

Residuals in seconds of arc

781130 675	0.0 0.6+	891004 493	0.1+ 0.4-	901018 033	0.1- 0.4+
781201 675	0.2+ 0.8+	891005 493	0.7+ 0.6+	901113 675	0.2+ 0.8-
890926 493	(4.9- 4.8-)	901014 033	0.2+ 0.2-	901113 675	0.8- 0.4-
890927 493	(5.4- 5.7-)	901015 033	0.1+ 0.4+	901114 675	0.4- 0.2-
891003 493	0.5+ 1.0-	901015 033	0.2- 0.4+	901114 675	0.3- 0.8-
891003 493	1.3- 0.6+	901018 033	1.0+ 0.1+		

1990 VU14 = 1990 UM13 = 1990 WU11 = 1979 UJ1

Id. A. Lowe (d), G. V. Williams

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 67.06643	(2000.0)			P	Q
n 0.18413795	Peri. 19.56290	-0.18867259	-0.97289650		
a 3.0598996	Node 81.48984	+0.88204072	-0.22773702		
e 0.1064642	Incl. 7.76938	+0.43174856	+0.04010302		
P 5.35	H 11.5	G 0.15			

Residuals in seconds of arc

791021 805	1.0+	1.4+	901029 095	0.5+	0.4-	901121 095	(2.6-	5.2-)
791023 805	1.2-	0.9-	901115 095	(8.4+	1.4+)	901123 809	0.1-	0.4-
791023 805	0.3+	0.5-	901115 095	0.2+	1.1+	901123 809	0.2-	0.3-
901028 095	0.9-	0.0	901121 095	(0.8-	5.6-)	901123 809	0.4+	0.1+

1990 WE = 1983 EP3 = 1992 DM

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	81.46900		(2000.0)		P		Nakano	Q
n	0.21720198	Peri.	3.61353	-0.08350219				-0.98395786
a	2.7409022	Node	91.22170	+0.91027907				-0.13969092
e	0.1959371	Incl.	9.07275	+0.40548663				+0.11096566
P	4.54	H	12.6	G	0.15			

Residuals in seconds of arc

830315 095	1.1+	2.2+	901119 413	1.3+	1.3+	920226 402	0.1+	0.4-
901012 808	0.5-	0.3-	901121 372	0.7+	0.8-	920227 402	0.7+	0.1-
901012 808	0.8-	0.1-	901121 413	0.4+	0.7+	920227 402	0.4-	0.7-
901014 808	2.3-	0.3-	901123 372	1.2+	0.6-			
901119 413	0.1+	1.4+	920226 402	1.1-	0.3-			

1991 NT3

Epoch 1991 July 3.0 TT = JDT 2448440.5

M	36.11271		(2000.0)		P		Williams	Q
n	0.40441963	Peri.	292.68952	-0.73784328				+0.63509727
a	1.8109838	Node	287.53766	-0.49712420				-0.74037602
e	0.3039627	Incl.	13.86880	-0.45656853				-0.22021538
P	2.44	H	14.5	G	0.15			

From 37 observations 1991 July 6-24.

1991 PY5 = 1991 RN12 = 1980 PM3

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	102.18234		(2000.0)		P		Nakano	Q
n	0.18122187	Peri.	118.01898	-0.16781683				+0.96794552
a	3.0926372	Node	140.86493	-0.97606898				-0.13655233
e	0.2034479	Incl.	17.22185	-0.13829988				-0.21079596
P	5.44	H	13.4	G	0.15			

Residuals in seconds of arc

800803 675	0.0	0.2+	910806 809	0.3-	1.3-	910904 809	0.1+	2.0-
800805 675	0.0	0.3-	910814 809	1.4+	0.1+	910906 809	0.6-	0.9+
910805 675	0.3-	1.6+	910814 809	0.5+	0.0	910906 809	1.1-	1.0+
910805 675	0.0	1.8+	910814 809	0.3+	0.2-	910906 809	0.7-	1.0+
910806 809	0.9-	1.1-	910904 809	0.9+	0.5-			
910806 809	0.0	0.8-	910904 809	0.7+	0.4-			

1991 PO8 = 1991 RC12 = 1982 RL1

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	46.93140		(2000.0)		P		Nakano	Q
n	0.21455081	Peri.	24.83070	+0.99701906				+0.04902254
a	2.7634352	Node	332.16069	-0.07225072				+0.86414280
e	0.2819991	Incl.	7.32990	+0.02707087				+0.50085329
P	4.59	H	14.8	G	0.15			

Residuals in seconds of arc

820914 046	(7.2+	1.1-)	910805 675	0.6-	0.9+	910904 809	0.6+	0.6+
820914 046	2.3+	0.5+	910806 675	0.2+	0.1-	910904 809	0.3+	1.0+
820915 046	2.6-	0.3-	910806 675	0.8+	0.7+	910904 809	0.6+	0.5+
820915 046	1.2+	0.5-	910807 675	0.6-	1.7-	910906 809	0.2-	1.0-
820916 046	1.3+	0.1+	910807 675	1.7-	0.2-	910906 809	1.0-	0.3-
820916 046	2.2-	0.2+	910810 675	2.5+	0.9-	910906 809	0.7-	0.4-
910805 675	1.8-	0.3+	910810 675	1.4+	0.6+			

1991 PF10 = 1969 TS2 = 1988 TD3

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	83.17899		(2000.0)		P		Williams	Q	
n	0.31302016	Peri.	209.14345		+0.99431001			+0.10420104	
a	2.1482649	Node	144.85400		-0.08876652			+0.92532339	
e	0.0694114	Incl.	2.20319		-0.05889072			+0.36458027	
P	3.15	H	14.5	G	0.15				

Residuals in seconds of arc

691007	095	0.3+	0.7-	881017	071	0.0	2.0+	910808	675	0.0	0.1+
881015	071	1.4-	0.7-	910807	675	1.4-	0.5-	910810	675	0.2+	0.3-
881015	071	0.9+	0.9-	910807	675	0.3-	0.8-	910911	675	0.6+	0.6+
881017	071	0.5+	0.4-	910808	675	0.3+	0.2+	910911	675	0.3+	1.1+

1991 PT10 = 1987 SL20

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	70.59459		(2000.0)		P		Kaneda	Q	
n	0.24355198	Peri.	68.06720		+0.98516301			+0.16334302	
a	2.5394613	Node	282.50098		-0.17052155			+0.89695710	
e	0.2656221	Incl.	3.09187		-0.01939696			+0.41083697	
P	4.05	H	14.5	G	0.15				

Residuals in seconds of arc

870917	095	1.1-	0.4-	910808	675	1.1-	0.5+	910917	675	0.5-	0.5+
870926	095	1.5+	0.6-	910915	675	0.2-	0.2-	910917	675	0.8-	0.4+
910807	675	1.7+	1.2-	910915	675	0.6+	0.8+				

1991 PO14 = 1991 RL12 = 1981 QW1 = 1986 QS2 = 1989 CM8 = 1989 EC1

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	286.25058		(2000.0)		P		Nakano	Q	
n	0.19213266	Peri.	118.76716		-0.22993777			-0.97211698	
a	2.9744174	Node	344.32267		+0.82295993			-0.16898467	
e	0.0826081	Incl.	9.80409		+0.51948588			-0.16258151	
P	5.13	H	12.0	G	0.15				

Residuals in seconds of arc

810830	688	3.1-	1.3-	890301	875	0.4-	1.4-	910904	809	0.8+	1.5-
810830	688	0.6-	1.9-	890301	875	0.5+	2.3-	910904	809	0.0	1.1-
860828	809	1.8+	2.3+	890308	875	0.2-	1.1-	910904	809	0.5-	1.8-
860828	809	2.5+	2.6+	890308	875	0.2+	0.1+	910906	809	0.2+	1.5-
860828	809	2.7+	2.9+	910806	675	1.0-	1.8+	910906	809	1.3-	0.9-
890209	809	0.8+	1.8+	910806	675	0.5-	0.4+	910906	809	1.4-	1.4-
890209	809	0.4-	3.5+	910810	675	0.4-	1.7+				
890209	809	(1.6-	5.0+)	910810	675	(4.3-	5.8+)				

1991 RY4 = 1978 WP1 = 1978 WY16

Id. K. Ichikawa; 6372 P-L = 1978 WP1 (MPC 16242) is invalid

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	67.20361		(2000.0)		P		Nakano	Q	
n	0.22201219	Peri.	146.49750		+0.99909830			-0.03610970	
a	2.7011674	Node	215.59237		+0.02533686			+0.92914014	
e	0.1707319	Incl.	2.19888		+0.03406793			+0.36796017	
P	4.44	H	15.0	G	0.15				

Residuals in seconds of arc

781129	675	1.1-	0.5+	910913	033	0.4+	0.1+	910916	675	0.4-	0.3+
781130	675	0.8+	0.0	910913	033	0.7-	0.4-	910916	675	0.0	0.9-
781130	675	0.1+	0.6+	910913	033	0.3-	0.1+	910918	033	0.1-	0.2+
781201	675	0.2+	1.1-	910914	033	0.1-	0.3+	911003	033	0.5-	0.0
910910	675	0.5+	0.6+	910915	033	0.6+	0.3-	911004	033	0.6+	0.1+
910910	675	0.2+	0.2+	910915	033	0.5-	0.1-	911004	033	0.3+	0.1-

1991 RF14 = 1984 SS2 = 1990 GR

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	132.45191		(2000.0)		P		Williams		Q
n	0.28271904	Peri.	93.04857		+0.40236481			+0.91447264	
a	2.2991431	Node	200.84004		-0.88055474			+0.37376271	
e	0.1467353	Incl.	6.92965		-0.25045143			+0.15505236	
P	3.49	H	14.0		G	0.15			

Residuals in seconds of arc

840925	688	1.9+	2.7-	900416	809	1.3-	1.0-	910915	675	1.3-	0.7-
840925	688	(7.4+	0.6-)	900416	809	0.4+	1.0-	910915	675	0.3-	0.2+
840928	688	0.4-	2.4-	900417	809	0.4-	1.2-	911007	033	1.2+	0.3-
840928	688	(4.2+	2.1-)	900417	809	1.2-	0.8-	911007	033	1.0+	0.0
900415	809	0.1+	1.1-	910913	675	0.0	0.1-	911008	033	1.3+	0.1-
900416	809	0.5+	1.0-	910913	675	1.7-	0.9+				

1991 RQ21 = 1976 JM6 = 1980 DG5 = 1989 EA2 = 2081 T-1

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	304.46790		(2000.0)		P		Williams		Q
n	0.21771822	Peri.	64.57227		-0.43607424			-0.89878401	
a	2.7365677	Node	51.35608		+0.80356355			-0.41141934	
e	0.1113510	Incl.	3.30422		+0.40512329			-0.15139829	
P	4.53	H	13.0		G	0.15			

Residuals in seconds of arc

710324	675	1.7-	1.6-	890305	046	0.5+	0.8-	910911	675	0.3-	0.7-
710325	675	0.5+	0.4-	890305	046	1.2-	0.3+	910915	675	0.5+	0.2-
710325	675	0.3-	0.7-	890306	046	0.4+	0.4-	910915	675	0.4+	0.3+
710326	675	0.4+	0.6+	890306	046	1.2-	1.4-	910917	675	0.6-	0.9-
710327	675	0.0	0.4+	890307	046	0.5+	0.6-	910917	675	1.3+	1.0-
760503	809	0.3+	0.4+	890307	046	0.6-	0.0	910917	675	0.3+	0.2-
800221	095	1.5+	2.0+	910911	675	0.1+	0.4+	910917	675	0.5-	0.3-

1991 VB

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	72.82053		(2000.0)		P		Williams		Q
n	0.29436955	Peri.	134.14773		+0.85341186			-0.50984015	
a	2.2380724	Node	256.78671		+0.44079168			+0.81691786	
e	0.4098354	Incl.	6.39320		+0.27819217			+0.26964464	
P	3.35	H	17.0		G	0.15			

From 16 observations 1991 Nov. 1-1992 Jan. 13, mean residual 0".95.

1991 YA

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	39.55624		(2000.0)		P		Bardwell		Q
n	0.21704966	Peri.	174.12976		-0.00331865			-0.71800953	
a	2.7421843	Node	274.40099		+0.88673544			+0.31963899	
e	0.4414965	Incl.	44.27346		+0.46226534			-0.61829866	
P	4.54	H	14.5		G	0.15			

From 13 observations 1991 Dec. 2-1992 Feb. 7, mean residual 0".96.

1991 YX = 1984 YT2 = 1987 QP9

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	99.68067		(2000.0)		P		Nakano		Q
n	0.28719894	Peri.	265.73855		+0.75552217			-0.65120833	
a	2.2751716	Node	134.87393		+0.63395939			+0.69922497	
e	0.1594166	Incl.	5.79165		+0.16517185			+0.29497821	
P	3.43	H	14.2		G	0.15			

Residuals in seconds of arc

841223	095	0.3+	1.9-	911203	675	1.0-	0.5-	920102	511	0.2-	1.1+
841227	095	(17.0-	5.0+)	911203	675	1.8+	2.1-	920102	511	1.1-	1.4+
870821	809	0.3-	0.7+	911231	511	1.5+	0.2+	920111	889	0.3-	0.9+
870821	809	0.1-	0.8+	911231	511	0.7-	0.1+	920111	889	0.2+	1.3+

1992 AA

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	61.36138		(2000.0)			P			Q
n	0.35335905	Peri.	354.39670			-0.12670351			-0.98192629
a	1.9814901	Node	102.82498			+0.91559635			-0.17029962
e	0.3898655	Incl.	8.29051			+0.38161438			+0.08257604
P	2.79	H	16.0			G	0.15		

From 25 observations 1991 Dec. 8-1992 Feb. 7, mean residual 0".82.

1992 AB

Epoch 1992 Jan. 19.0 TT = JDT 2448640.5

Bardwell

M	346.31360		(2000.0)			P			Q
n	0.16542517	Peri.	55.66436			-0.61449891			-0.44245687
a	3.2865102	Node	88.92531			+0.31358546			-0.89669772
e	0.5533854	Incl.	40.78927			+0.72391661			+0.01284969
P	5.96	H	14.0			G	0.15		

From 20 observations 1992 Jan. 1-Feb. 7.

1992 AE

Epoch 1992 Jan. 19.0 TT = JDT 2448640.5

Williams

M	28.67689		(2000.0)			P			Q
n	0.30466880	Peri.	283.70479			+0.97002247			-0.21609060
a	2.1873455	Node	88.86096			+0.24269179			+0.88499890
e	0.4336791	Incl.	6.38468			-0.01253423			+0.41240974
P	3.24	H	14.5			G	0.15		

From 27 observations 1992 Jan. 10-Feb. 7.

1992 AX

Epoch 1992 Jan. 19.0 TT = JDT 2448640.5

Williams

M	285.07533		(2000.0)			P			Q
n	0.39590438	Peri.	108.35631			-0.67447099			+0.71755564
a	1.8368591	Node	117.94578			-0.72963034			-0.61184980
e	0.2769363	Incl.	11.34579			-0.11282045			-0.33279680
P	2.49	H	14.0			G	0.15		

From 13 observations 1992 Jan. 4-Feb. 5.

1992 AT1 = 1969 TG3 = 1983 NY

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kaneda

M	147.64767		(2000.0)			P			Q
n	0.27656408	Peri.	242.98853			+0.99613700			-0.01355133
a	2.3331296	Node	117.67706			+0.04355082			+0.93418824
e	0.1422980	Incl.	5.62232			-0.07625224			+0.35652306
P	3.56	H	13.0			G	0.15		

Residuals in seconds of arc

691009	095	0.0	0.0	830713	688	0.4-	0.6+	920124	400	1.1+	1.3-
830711	688	1.9+	1.3-	920106	400	0.7+	0.7+	920205	400	0.9+	0.8+
830711	688	2.3-	0.8+	920106	400	1.0-	0.2+	920205	400	1.0+	0.1-
830713	688	0.8+	0.2-	920124	400	2.5-	0.2-				

1992 BA

Epoch 1992 Jan. 19.0 TT = JDT 2448640.5 Marsden
 M 239.09954 (2000.0) P Q
 n 0.63449477 Peri. 107.18555 -0.37224750 +0.92084535
 a 1.3412735 Node 140.33103 -0.90560115 -0.33296623
 e 0.0676389 Incl. 10.47758 -0.20326917 -0.20292197
 P 1.55 H 20.5 G 0.15
 From 18 observations 1992 Jan. 27-Feb. 10.

1992 BB

Epoch 1992 Jan. 19.0 TT = JDT 2448640.5 Williams
 M 327.96890 (2000.0) P Q
 n 0.38097893 Peri. 330.31577 -0.92859941 -0.32455125
 a 1.8845258 Node 194.65620 +0.24746584 -0.90289304
 e 0.2678013 Incl. 45.32261 -0.27652088 +0.28186991
 P 2.59 H 15.5 G 0.15
 From 11 observations 1992 Jan. 25-Feb. 12.

1992 BC

Epoch 1992 Jan. 19.0 TT = JDT 2448640.5 Williams
 M 317.08421 (2000.0) P Q
 n 0.58636854 Peri. 77.03336 -0.91137401 +0.35707158
 a 1.4136946 Node 123.53622 -0.40241735 -0.87742445
 e 0.3485319 Incl. 14.21529 +0.08635798 -0.32035329
 P 1.68 H 19.0 G 0.15
 From 19 observations 1992 Jan. 29-Feb. 7.

1992 BF

Epoch 1992 Jan. 19.0 TT = JDT 2448640.5 Bardwell
 M 200.27748 (2000.0) P Q
 n 1.13903778 Peri. 336.30367 +0.37697049 +0.92206213
 a 0.9080518 Node 315.70504 -0.82845187 +0.29330985
 e 0.2695288 Incl. 7.21592 -0.41419892 +0.25252872
 P 0.87 H 18.5 G 0.15
 From 13 observations 1992 Jan. 30-Feb. 6.

1992 BM = 1982 DN2 = 1984 WP1 = 1984 YC1

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
 M 92.77141 (2000.0) P Q
 n 0.29209277 Peri. 77.18655 +0.39539751 -0.91833316
 a 2.2496874 Node 349.46846 +0.79982641 +0.35389066
 e 0.1626598 Incl. 5.66054 +0.45159552 +0.17727267
 P 3.37 H 14.2 G 0.15

Residuals in seconds of arc

820221	046	0.9-	1.5+	920128	399	0.2-	0.5-	920205	399	1.9-	1.9-
820221	046	1.7+	0.1-	920128	399	0.6+	2.4+	920208	399	1.2+	0.7+
841120	688	1.2+	0.1-	920129	399	1.7-	0.3-	920208	399	1.9+	1.3+
841120	688	(7.5+	0.9+)	920129	399	0.1-	1.4-				
841217	095	1.3-	0.7+	920205	399	0.5-	2.1-				

1992 CE = 1973 US1 = 1977 EW1 = 1979 OO15 = 1981 WF3 = 1987 QF11

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
 M 317.62639 (2000.0) P Q
 n 0.12421303 Peri. 21.15435 -0.78673080 +0.61690528
 a 3.9782427 Node 196.99229 -0.57660105 -0.74710670
 e 0.0721457 Incl. 4.31067 -0.22042203 -0.24750646
 P 7.93 H 10.3 G 0.15

Residuals in seconds of arc

731026	095	0.4+	0.7-	811124	033	0.0	0.2+	920209	400	0.2-	0.5+
770313	095	1.0+	0.2-	811124	033	0.3-	0.0	920209	400	1.4+	0.7+
770322	095	0.7-	0.6-	870828	095	0.7+	1.3-	920225	399	0.8-	0.3+
770325	095	0.4-	0.1+	920205	400	0.2+	0.9+	920225	399	1.2-	2.4-
790730	095	0.7-	1.4+	920205	400	1.5+	0.0	920226	399	0.7-	0.4+

1992 CT = 1976 YQ1 = 1985 UA6 = 1990 UK13 = 1990 WA12

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	134.11912		(2000.0)			P		Q	
n	0.20625056	Peri.	326.56605			+0.82070047		-0.56920430	
a	2.8370868	Node	68.20575			+0.53521656		+0.73552027	
e	0.0707057	Incl.	3.06025			+0.19998491		+0.36744577	
P	4.78	H	12.7			G	0.15		

Residuals in seconds of arc

761216	095	0.6+	2.5-	901121	364	0.2+	2.8+	920213	372	0.8-	0.7+
761218	095	0.6-	1.1-	901121	364	0.2-	0.8+	920213	372	0.8-	2.1+
761220	095	0.6+	1.0-	920205	372	0.3-	1.3+	920224	372	0.5-	0.3-
851018	095	0.8-	1.4+	920205	372	1.0+	0.9+	920224	372	0.2-	1.2-
901028	095	1.1-	0.6-	920208	372	1.7+	0.2-	920225	372	0.0	1.1-
901029	095	0.3+	0.3-	920208	372	1.0+	0.6+	920225	372	0.2+	0.4+

1992 CU = 1969 VC2 = 1990 WG3

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	19.30601		(2000.0)			P		Q	
n	0.18881081	Peri.	78.32164			-0.93926076		-0.29731427	
a	3.0092029	Node	84.20112			+0.20705776		-0.88928368	
e	0.1129224	Incl.	9.92314			+0.27370843		-0.34753238	
P	5.22	H	11.7			G	0.15		

Residuals in seconds of arc

691115	095	1.0+	2.5-	901119	809	0.6+	0.5+	920214	886	1.0-	1.1-
901118	809	1.6-	0.3-	901119	809	0.8+	1.4+	920225	886	0.1-	0.3+
901118	809	0.5-	0.1-	920213	886	1.0+	1.1-	920225	886	1.0-	0.5+
901118	809	0.0	0.4+	920213	886	1.1+	2.2-	920226	886	0.2+	1.4+
901119	809	0.2-	0.7+	920214	886	0.5-	0.3+	920226	886	0.2+	1.6+

1992 CC1

Epoch 1992 Feb. 8.0 TT = JDT 2448660.5

Williams

M	105.91809		(2000.0)			P		Q	
n	0.60364985	Peri.	21.97208			+0.96692105		-0.23099387	
a	1.3865834	Node	349.45687			+0.02848185		+0.51927719	
e	0.3741584	Incl.	36.24871			+0.25348069		+0.82279587	
P	1.63	H	15.0			G	0.15		

From 18 observations 1992 Feb. 9-28.

1992 CG1 = 1981 CC1 = 1981 EX48 = 1985 XJ2 = 1987 FR1 = 1989 TG9

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kaneda

M	331.54084		(2000.0)			P		Q	
n	0.18162895	Peri.	105.05820			-0.77538795		+0.62914846	
a	3.0880146	Node	113.96003			-0.59979560		-0.70686687	
e	0.1309659	Incl.	3.40495			-0.19753168		-0.32328229	
P	5.43	H	12.2			G	0.15		

Residuals in seconds of arc

810201	801	3.9+	0.4-	870323	033	2.2-	0.1-	920208	399	0.2+	1.5-
810308	095	1.8+	1.9+	891007	809	0.9+	1.3-	920225	399	0.1+	0.8-
851214	675	4.0-	0.8+	891007	809	2.0+	0.3-	920225	399	1.9+	0.9-
851214	675	3.8-	1.5+	891007	809	0.7+	1.3-	920226	399	1.0-	1.1-
870322	033	1.7-	0.0	920208	399	0.9+	1.4-	920226	399	0.3-	0.7-

1992 CH1

Epoch 1992 Feb. 8.0 TT = JDT 2448660.5

M	0.50351	(2000.0)		P		Marsden		Q	
n	0.48248033	Peri.	355.38679		-0.78390320			-0.58648132	
a	1.6099645	Node	145.94839		+0.58066001			-0.80872293	
e	0.2840960	Incl.	21.34435		+0.21984024			+0.04479835	
P	2.04	H	19.0	G	0.15				

From 11 observations 1992 Feb. 8-15.

1992 DA = 1974 DW = 1979 SM13

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	4.76280	(2000.0)		P		Nakano		Q	
n	0.27501187	Peri.	164.39699		-0.97711743			+0.21054376	
a	2.3419004	Node	27.81252		-0.20142171			-0.87028021	
e	0.1677623	Incl.	3.71278		-0.06834337			-0.44529057	
P	3.58	H	13.5	G	0.15				

Residuals in seconds of arc

740216	095	0.2-	0.8-	920225	372	0.8+	0.2-	920227	372	1.2+	1.5+
790920	675	0.5+	0.1+	920225	372	0.2-	0.6-	920305	372	0.5-	0.2+
790921	675	0.7-	0.3+	920226	372	1.4+	0.6-	920305	372	1.2-	0.0
920224	372	1.0-	0.1+	920226	372	0.1+	0.4-				
920224	372	0.8+	0.9-	920227	372	1.0-	1.8+				

1992 DC

Epoch 1992 Feb. 8.0 TT = JDT 2448660.5

M	357.94828	(2000.0)		P		Marsden		Q	
n	0.23906875	Peri.	154.20379		-0.82661370			-0.56210536	
a	2.5711111	Node	351.43667		+0.47932077			-0.67775554	
e	0.4773085	Incl.	10.57924		+0.29489216			-0.47400949	
P	4.12	H	17.5	G	0.15				

From 6 observations 1992 Feb. 26-28.

1992 DU

Epoch 1992 Feb. 28.0 TT = JDT 2448680.5

M	43.58677	(2000.0)		P		Marsden		Q	
n	0.78887444	Peri.	121.64053		-0.19750397			-0.96736786	
a	1.1600164	Node	337.99983		+0.69282547			-0.02319923	
e	0.1750459	Incl.	25.06784		+0.69353086			-0.25231174	
P	1.25	H	25.0	G	0.15				

From 15 observations 1992 Feb. 26-29.

2530 P-L = 1991 RS21

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	25.79715	(2000.0)		P		Bowell		Q	
n	0.28501920	Peri.	35.49096		+0.52345702			-0.85145354	
a	2.2867568	Node	22.99563		+0.76165281			+0.45079273	
e	0.1305347	Incl.	4.68842		+0.38193944			+0.26797909	
P	3.46	H	14.4	G	0.15				

Residuals in seconds of arc

600924	675	0.8+	0.7-	601022	675	0.0	0.1-	910917	675	1.2-	0.1-
600926	675	0.5-	0.1+	601025	675	0.2+	0.3-	910917	675	0.3+	0.4-
600928	675	0.3-	0.7-	601026	675	0.1-	0.6+	910917	675	0.5+	0.2+
600929	675	0.4+	1.1+	910915	675	0.2+	0.0				
601017	675	0.4-	0.2-	910915	675	0.1+	0.4+				

4319 P-L = 1991 NL6

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 107.65466

(2000.0)

P

Williams

Q

n	0.31493361	Peri.	43.59648	+0.46266118	+0.88490840
a	2.1395546	Node	254.02934	-0.82792856	+0.40963219
e	0.1309995	Incl.	3.20089	-0.31698410	+0.22167225
P	3.13	H	15.5	G	0.15

Residuals in seconds of arc

600924	675	0.3+	0.2-	910711	809	0.0	0.3-	910712	809	0.5-	0.5+
600925	675	1.3-	0.5-	910711	809	0.5+	0.2-	910716	809	0.4-	0.3-
600926	675	0.3+	0.4-	910711	809	1.0+	0.3-	910716	809	0.3+	0.2-
600928	675	0.8+	0.3+	910712	809	1.2-	0.3+	910716	809	1.1+	0.1+
601026	675	0.1-	0.9+	910712	809	0.8-	0.5+				

4556 P-L = 1991 RT21

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 36.91101

(2000.0)

P

Bowell

Q

n	0.18990041	Peri.	328.85556	+0.97544628	-0.21691564
a	2.9976812	Node	43.72519	+0.21170548	+0.87582095
e	0.1371783	Incl.	3.16042	+0.06070700	+0.43114414
P	5.19	H	13.7	G	0.15

Residuals in seconds of arc

600924	675	0.7-	0.5-	601022	675	1.1+	0.2+	910915	675	0.3-	0.2-
600926	675	0.1-	0.3-	601025	675	0.7-	0.7+	910915	675	0.0	0.2+
600927	675	0.1-	0.5+	601025	675	1.1+	1.3-	910917	675	0.1+	0.8-
600928	675	0.2+	0.4+	601026	675	1.4-	0.5+	910917	675	0.3+	0.6+
601017	675	0.4+	1.3+	601026	675	0.2+	1.3-				

4559 P-L = 1978 WN17

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 160.72345

(2000.0)

P

Bowell

Q

n	0.16770555	Peri.	181.11712	+0.99752346	+0.07032905
a	3.2566500	Node	174.84975	-0.06445477	+0.91904532
e	0.1548565	Incl.	0.55882	-0.02815181	+0.38782667
P	5.88	H	14.5	G	0.15

Residuals in seconds of arc

600926	675	0.3-	0.8-	601017	675	0.4-	0.8+	601026	675	0.4-	0.6+
600927	675	0.0	0.5+	601022	675	0.1-	0.5-	781130	675	0.1+	0.4-
600928	675	0.7+	0.4-	601025	675	0.5+	0.2-	781201	675	0.1-	0.3+

6058 P-L = 3090 T-1

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 15.28893

(2000.0)

P

Nakano

Q

n	0.24620622	Peri.	319.14363	+0.54781634	+0.83597119
a	2.5211772	Node	343.98822	-0.73376091	+0.46151629
e	0.1904448	Incl.	6.74453	-0.40186091	+0.29690888
P	4.00	H	15.3	G	0.15

Residuals in seconds of arc

600924	675	0.0	0.2+	601022	675	0.1-	0.2+	710326	675	0.0	0.6+
600925	675	0.3+	0.9+	601024	675	0.8+	0.4+	710327	675	3.1-	1.3+
600926	675	0.8-	0.1-	601026	675	0.0	0.2+	710416	675	1.9+	1.9-
600928	675	0.9-	0.9-	710325	675	3.0+	0.3+	710416	675	1.5-	0.3+
601017	675	1.0+	0.9-	710326	675	0.3-	0.7-				

6328 P-L = 3048 T-1

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Epoch 1992 June 27.0 TT = JDT 2448800.5

M	30.14994		(2000.0)			P				Nakano			
n	0.23611019	Peri.	179.15832							Q			
a	2.5925446	Node	9.38616										
e	0.0891590	Incl.	3.04152										
P	4.17	H	14.4			G	0.15						

Residuals in seconds of arc

600924	675	0.1-	0.5+	601026	675	0.5+	1.0-	710327	675	0.5+	2.9-
600925	675	0.4+	0.2+	710324	675	0.7-	1.3+	710402	675	0.2-	0.3-
600926	675	0.4+	0.2-	710325	675	1.0-	0.1+	710416	675	0.0	0.9-
600928	675	0.5+	1.2-	710326	675	0.0	1.1+	710416	675	0.1+	0.1+
601017	675	1.0+	0.7-	710326	675	0.9+	1.4-	710416	675	0.5-	0.4+
601022	675	0.3+	1.7-	710326	675	0.7-	0.4+	710416	675	2.0+	1.0+
601025	675	0.8-	0.1-	710326	675	0.2+	1.7-	710513	675	0.9-	1.1-
601026	675	0.3-	0.4+	710327	675	1.4-	0.0	710514	675	0.0	0.4+

6588 P-L = 1978 WE19

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	125.94612		(2000.0)			P				Williams			
n	0.17081133	Peri.	330.71185							Q			
a	3.2170533	Node	89.57467										
e	0.1395745	Incl.	0.66192										
P	5.77	H	13.5			G	0.15						

Residuals in seconds of arc

600924	675	0.5-	0.7+	601017	675	0.8-	0.5+	781130	675	0.3-	0.2+
600926	675	0.5-	0.4+	601022	675	0.4+	0.4-	781201	675	0.2+	0.0
600927	675	0.3+	0.5+	601024	675	0.1+	1.1-				
600928	675	0.0	0.3+	601026	675	1.1+	1.3-				

6615 P-L = 1992 BU1

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	342.65372		(2000.0)			P				Williams			
n	0.29538307	Peri.	180.12267							Q			
a	2.2329499	Node	19.18931										
e	0.0935723	Incl.	4.70722										
P	3.34	H	14.0			G	0.15						

Residuals in seconds of arc

600924	675	0.5-	0.6+	601017	675	1.1+	0.7+	920130	675	0.2+	0.6-
600926	675	0.1+	0.3+	601022	675	1.4-	0.6-	920130	675	0.1-	0.2+
600927	675	0.2+	0.4-	601024	675	0.4+	0.1+	920202	675	0.4-	0.7+
600928	675	0.2+	0.8-	601026	675	0.1-	0.2+	920202	675	0.2+	0.3-

7068 P-L = 1982 SO8

Id. T. Kobayashi (MPC 13693)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	82.96904		(2000.0)			P				Kobayashi			
n	0.22457277	Peri.	154.34745							Q			
a	2.6805957	Node	210.02785										
e	0.2517635	Incl.	8.26586										
P	4.39	H	13.7			G	0.15						

Residuals in seconds of arc

601017	675	0.2+	0.2-	820921	095	(1.4-	5.4+)	911109	399	2.1-	2.1-
601022	675	0.6+	0.3-	911009	801	0.4+	0.0	911109	399	0.5+	0.9-
601024	675	0.3-	0.3+	911009	801	0.5+	0.1+	911111	399	2.1+	1.1+
601026	675	0.8+	0.2+	911107	801	0.6+	0.7+	911111	399	1.8+	0.8+
820919	095	0.5+	0.4+	911107	801	0.6+	0.7+				

9508 P-L = 1986 ED1

Id. T. Kobayashi (MPC 14630)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	28.48721		(2000.0)		P		Q
n	0.17466391	Peri.	93.26516	-0.98468040			+0.16945543
a	3.1695719	Node	96.49381	-0.17185639			-0.90327349
e	0.1348527	Incl.	2.37086	-0.02949406			-0.39418506
P	5.64	H	12.8	G	0.15		

Residuals in seconds of arc

601017	675	0.1-	0.2+	601026	675	0.3+	1.1+	860305	688	0.3-	1.0+
601022	675	1.2-	0.8-	781130	675	0.2-	0.0	860305	688	1.1+	1.4-
601024	675	0.9+	0.4-	781201	675	0.2+	0.1-	860312	809	0.8-	0.6+

9575 P-L = 1991 RV21

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	85.74629		(2000.0)		P		Q
n	0.31781736	Peri.	280.94745	+0.99874533			+0.00632609
a	2.1265926	Node	78.70378	+0.01442561			+0.91359450
e	0.1876777	Incl.	2.90371	-0.04795476			+0.40657727
P	3.10	H	15.5	G	0.15		

Residuals in seconds of arc

601017	675	0.1+	0.1-	601026	675	0.3+	0.5+	910917	675	0.0	0.6-
601022	675	0.2-	0.5+	910915	675	0.1-	0.3+	910917	675	0.2+	0.4-
601024	675	0.1-	0.8-	910915	675	0.1-	0.6+				

1081 T-1 = 1221 T-2

Id. S. Nakano, T. Kobayashi

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	275.52410		(2000.0)		P		Q
n	0.18199707	Peri.	341.45366	-0.33225782			+0.94274155
a	3.0838491	Node	269.13232	-0.86164297			-0.31590956
e	0.0648005	Incl.	1.66409	-0.38363542			-0.10695572
P	5.42	H	13.6	G	0.15		

Residuals in seconds of arc

710324	675	1.0+	0.8-	730919	675	1.8+	0.4+	730929	675	0.4+	0.2-
710325	675	0.2-	1.0+	730920	675	1.9-	0.0	730930	675	0.4+	0.5+
710325	675	0.7-	0.5+	730924	675	2.0-	0.4+	730930	675	0.1-	1.5+
710326	675	0.6+	0.1-	730924	675	0.1-	0.9-	731004	675	0.1+	0.0
710327	675	0.7+	1.7-	730925	675	(1.6-	3.5-)	731004	675	0.8+	1.0-
710402	675	1.4-	1.2+	730925	675	1.3-	0.4-	731005	675	0.1+	0.4-
730919	675	0.9+	0.4-	730929	675	1.5+	0.1+	731005	675	0.5-	0.5+

1181 T-1 = 1991 EF4 = 2067 T-2

Id. S. Nakano, T. Kobayashi

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	67.59292		(2000.0)		P		Q
n	0.19502243	Peri.	228.65208	-0.96791002			+0.24879257
a	2.9449619	Node	325.71052	-0.20770599			-0.87130991
e	0.0897345	Incl.	3.60157	-0.14145110			-0.42299090
P	5.05	H	12.8	G	0.15		

Residuals in seconds of arc

710324	675	0.6+	0.2-	710514	675	1.1-	0.2-	730929	675	1.1+	0.9+
710325	675	0.9-	0.4-	730919	675	1.3-	0.9+	730930	675	0.4+	1.4-
710325	675	0.5+	0.7-	730919	675	1.1-	2.1+	730930	675	1.4+	1.2-
710326	675	0.1-	0.1-	730920	675	1.1-	0.4+	731004	675	1.1+	1.1-
710327	675	0.1+	0.3+	730924	675	0.5-	1.3+	731004	675	1.6+	1.1-
710402	675	1.0+	0.2+	730924	675	0.6-	1.6+	731005	675	0.3-	1.0-
710416	675	1.0-	0.3-	730925	675	0.0	1.2-	731005	675	0.4+	0.2+
710416	675	0.4+	1.2-	730925	675	1.0-	1.5-	910312	809	0.6-	0.4+
710513	675	0.7-	0.7+	730929	675	0.7+	0.3-	910312	809	0.4-	0.3+

910312 809	0.3-	0.1+	910314 809	0.7+	0.7-	910317 809	0.1+	0.8+
910314 809	0.2+	0.9-	910317 809	0.1-	0.5+			
910314 809	0.5+	0.7-	910317 809	0.1+	0.7+			

1198 T-1 = 1990 TM9

Id. S. Nakano, T. Kobayashi

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M 351.78074		(2000.0)		P	Q
n 0.18128035	Peri.	199.27631	-0.89636934		-0.44041425
a 3.0919720	Node	314.48522	+0.41546814		-0.79480515
e 0.1140176	Incl.	4.06467	+0.15462288		-0.41751655
P 5.44	H 13.7		G 0.15		

Residuals in seconds of arc

710324 675	0.5+	0.5-	710416 675	0.3+	1.6-	901011 033	0.7+	0.9+
710325 675	0.0	0.8+	710416 675	1.0+	1.3-	901012 033	0.3+	0.3-
710325 675	0.1+	1.2+	710513 675	0.1+	0.4+	901013 033	1.2+	1.3-
710326 675	0.6-	0.6-	710514 675	0.3+	0.7+	901014 033	0.3-	0.2-
710327 675	0.1-	0.3+	901010 033	1.3-	1.4+			
710402 675	1.4-	0.8+	901011 033	0.6-	0.4-			

1293 T-1 = 1991 PW15

Id. S. Nakano, T. Kobayashi

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M 54.15571		(2000.0)		P	Q
n 0.31029103	Peri.	32.55279	+0.95162078		-0.30678383
a 2.1608431	Node	345.28258	+0.26526206		+0.84872057
e 0.0943902	Incl.	3.91950	+0.15509328		+0.43076336
P 3.18	H 15.0		G 0.15		

Residuals in seconds of arc

710325 675	1.1+	0.5+	710327 675	1.8+	0.4-	910806 675	0.6-	0.2+
710325 675	0.7+	0.9-	710402 675	1.3-	0.8+	910806 675	0.4-	0.9-
710325 675	0.1-	0.5+	710416 675	0.6+	2.6-	910810 675	0.6+	0.5+
710326 675	0.4-	1.5+	710416 675	1.3-	0.1+	910810 675	0.4+	0.3+
710326 675	1.0-	0.2-	710513 675	0.8+	0.6+			
710326 675	0.5-	0.4-	710514 675	0.2-	0.4+			

1295 T-1 = 1990 BV3 = 1991 GF3

Id. S. Nakano, T. Kobayashi

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M 231.64059		(2000.0)		P	Q
n 0.19877370	Peri.	218.51998	+0.61172367		-0.79074986
a 2.9077926	Node	193.81394	+0.74718717		+0.58691880
e 0.0489439	Incl.	5.42088	+0.25981820		+0.17389932
P 4.96	H 13.9		G 0.15		

Residuals in seconds of arc

710324 675	1.3+	0.7-	710327 675	1.4-	0.6+	910408 809	1.5-	0.1-
710325 675	0.1-	0.3-	710402 675	2.3-	0.5-	910408 809	0.2+	1.0+
710325 675	0.5+	0.6+	710416 675	0.1-	0.3+	910408 809	0.9+	0.6+
710325 675	0.2-	0.4+	710416 675	0.3+	0.8-	910408 809	0.4+	1.4+
710326 675	2.4+	0.5-	900124 033	0.1-	0.0	910410 809	1.3+	0.3-
710326 675	0.0	0.5+	900124 033	0.1+	0.1+	910410 809	1.4+	0.9-
710326 675	0.4-	0.2-	910408 809	2.4-	0.1+	910410 809	0.9+	1.1-
710327 675	(6.5+	4.3-)	910408 809	1.1-	0.0			

2151 T-1 = 1987 S012

Id. S. Nakano, T. Kobayashi

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	86.70284		(2000.0)			P		Nakano		Q
n	0.27113969	Peri.	232.73319			+0.86655957		-0.49736945		
a	2.3641443	Node	157.00580			+0.48476041		+0.81919972		
e	0.1854272	Incl.	6.05542			+0.11866698		+0.28554414		
P	3.64	H	14.8		G	0.15				

Residuals in seconds of arc

710324	675	1.1-	0.7+	870916	809	0.4+	0.4+	870923	809	0.3-	1.1-
710325	675	0.2-	0.8+	870916	809	0.5+	0.5+	870927	809	0.3+	0.0
710325	675	0.1+	0.5+	870918	809	0.4-	0.2+	870927	809	0.2+	0.2-
710326	675	0.1-	0.6-	870918	809	0.2-	0.2+	870927	809	0.5+	0.1-
710327	675	0.1+	0.6-	870918	809	0.1+	0.0	871001	809	0.3-	0.6+
710402	675	1.3+	0.8-	870923	809	0.4-	0.8-	871001	809	0.0	0.4+
870916	809	0.2+	0.6+	870923	809	0.3-	1.0-	871001	809	0.2-	0.2+

3100 T-1 = 1969 VS = 1990 VG4

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	119.86282		(2000.0)			P		Nakano		Q
n	0.23653829	Peri.	232.52039			+0.11227403		-0.99148077		
a	2.5894155	Node	211.22637			+0.94715944		+0.12687603		
e	0.1688205	Incl.	7.31790			+0.30047221		-0.02946792		
P	4.17	H	13.3		G	0.15				

Residuals in seconds of arc

691111	095	0.3+	1.4-	710402	675	1.4-	0.9+	901112	364	1.3-	1.9-
710325	675	2.5+	0.2-	710402	675	0.8-	0.6-	901121	364	0.9-	0.0
710326	675	0.0	0.5-	710416	675	0.3+	1.4-	901121	364	0.7+	0.7+
710326	675	1.7-	0.1-	710416	675	2.0+	1.7-	901122	364	0.5+	3.2+
710327	675	1.1-	2.2+	901112	364	1.1-	2.6-	901122	364	2.0+	1.1+

3163 T-1 = 1992 BE

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	119.68814		(2000.0)			P		Williams		Q
n	0.08202464	Peri.	346.22176			+0.99964363		+0.02382200		
a	5.2461395	Node	12.43199			-0.01591984		+0.89424618		
e	0.1254116	Incl.	3.20794			-0.02142846		+0.44694102		
P	12.02	H	12.5		G	0.15				

Residuals in seconds of arc

710324	675	(16.8+ 24.2-)		710402	675	0.0	0.7+	920130	691	0.1+	0.5-
710325	675	0.6-	0.2-	920129	691	0.1+	0.1-	920130	691	0.3+	0.2+
710326	675	0.0	0.3-	920129	691	0.3-	0.5+	920209	691	0.3+	0.3-
710326	675	0.4-	0.7-	920129	691	0.2+	0.1-	920209	691	0.1-	0.2+
710327	675	1.0+	0.6+	920130	691	0.3-	0.0	920209	691	0.2-	0.2+

3332 T-1 = 1987 YE1

Id. S. Nakano, T. Kobayashi

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	128.30238		(2000.0)			P		Nakano		Q
n	0.27804306	Peri.	118.71519			+0.71149303		-0.70220800		
a	2.3248486	Node	285.90294			+0.63486803		+0.65829984		
e	0.2183477	Incl.	1.55556			+0.30119805		+0.27119226		
P	3.54	H	15.2		G	0.15				

Residuals in seconds of arc

710325	675	2.5+	0.1-	710402	675	0.7+	1.0-	880111	033	0.2+	0.4+
710326	675	1.2-	0.3+	871222	033	0.3-	0.3-	880111	033	0.0	0.2+
710326	675	0.9-	0.0	871225	033	0.2+	0.3-				
710327	675	1.1-	0.7+	871225	033	0.1-	0.0				

4195 T-1 = 1991 LD2

Id. S. Nakano, T. Kobayashi

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	92.99934		(2000.0)			P		Nakano		Q
n	0.20369954	Peri.	140.43703				-0.55384176			+0.83078269
a	2.8607244	Node	95.86452				-0.77731164			-0.49209998
e	0.0146094	Incl.	3.18746				-0.29840563			-0.26007254
P	4.84	H	14.0			G	0.15			

Residuals in seconds of arc

710324	675	0.6+	2.0-	710513	675	0.2+	0.4-	910606	809	0.0	2.0+
710326	675	1.0+	1.7+	710514	675	0.8-	0.5+	910606	809	0.2+	1.9+
710326	675	0.9+	0.2+	710514	675	0.5+	0.8-	910606	809	1.0-	1.1+
710327	675	1.0-	1.5-	710516	675	0.4+	1.7-	910608	809	0.6+	1.5-
710402	675	1.2-	0.1+	710516	675	1.3+	2.0+	910608	809	0.5-	1.2-
710416	675	0.5+	0.4-	910518	809	0.9+	0.0	910608	809	0.2+	1.5-
710416	675	1.6-	0.7+	910518	809	0.4-	0.3-				
710513	675	0.7-	2.0+	910518	809	0.2+	0.8-				

4214 T-1 = 1977 RE19

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	65.45221		(2000.0)			P		Nakano		Q
n	0.23410977	Peri.	331.64146				-0.58326619			-0.81159554
a	2.6072921	Node	153.99655				+0.75889373			-0.55911676
e	0.1246661	Incl.	4.36456				+0.28962192			-0.16941408
P	4.21	H	15.0			G	0.15			

Residuals in seconds of arc

710324	675	0.6+	0.2+	710327	675	0.1+	0.1+	710416	675	1.4-	0.2-
710326	675	1.0-	0.0	710402	675	0.3+	0.1-	770909	675	0.0	1.4-
710326	675	0.1+	0.2-	710416	675	1.2+	0.2+	770910	675	0.0	1.4+

4232 T-1 = 1980 BA1 = 1980 DY1

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	235.93382		(2000.0)			P		Nakano		Q
n	0.21111376	Peri.	123.77383				-0.75655541			-0.65288018
a	2.7933478	Node	15.57487				+0.54507189			-0.66088833
e	0.1658445	Incl.	7.92771				+0.36127627			-0.37010009
P	4.67	H	13.9			G	0.15			

Residuals in seconds of arc

710324	675	0.2+	1.0+	710402	675	1.8+	1.0+	710514	675	0.7+	0.9+
710326	675	2.0-	1.1-	710416	675	1.5+	0.5-	710514	675	0.8-	0.2-
710326	675	1.7-	0.8-	710416	675	0.5-	0.5+	800123	095	0.6-	0.2+
710327	675	1.0+	0.1+	710513	675	0.3-	0.9-	800220	095	0.6+	0.2-

4277 T-1 = 1950 TX1 = 1985 QO5 = 1991 RH5

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	55.34057		(2000.0)			P		Nakano		Q
n	0.16821473	Peri.	183.74100				+0.99949985			+0.02864512
a	3.2500749	Node	174.56308				-0.02408187			+0.96404985
e	0.0227585	Incl.	8.12912				-0.02049668			+0.26417293
P	5.86	H	12.1			G	0.15			

Residuals in seconds of arc

501015	024	0.6+	2.2-	710416	675	1.4+	0.3-	910913	675	0.2-	2.2-
710324	675	1.3-	1.1-	710513	675	0.3+	0.2-	910913	675	0.0	0.5-
710326	675	2.6-	1.9-	710514	675	0.2+	0.5-	910914	675	0.3-	1.9+
710326	675	1.9-	0.5-	710516	675	1.2+	0.2+	910914	675	0.8+	1.6+
710327	675	0.1+	1.3-	850823	095	0.3+	0.1-	910916	675	0.1+	2.0-
710402	675	0.6+	0.9-	910911	675	0.2+	0.5-	910916	675	0.6+	1.5-
710416	675	0.7+	0.6+	910911	675	0.4-	0.5-				

4349 T-1 = 1977 RJ8

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	71.35182		(2000.0)		P		Q
n	0.21392486	Peri.	190.89244	+0.98277005		+0.17592973	
a	2.7688231	Node	158.72023	-0.15566776		+0.95314296	
e	0.3105800	Incl.	8.98383	-0.09965228		+0.24610410	
P	4.61	H	13.4	G	0.15		

Residuals in seconds of arc

710324	675	(8.4+	4.7-)	710327	675	1.2+	2.4-	710416	675	1.0+	0.1+
710326	675	1.0-	0.8+	710402	675	0.2-	0.6+	770908	675	0.2+	0.1+
710326	675	0.3-	1.0+	710416	675	0.7-	0.2-	770909	675	0.2-	0.1-

4854 T-1 = 1973 UC5

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	290.15314		(2000.0)		P		Q
n	0.19008732	Peri.	271.48246	+0.53412849		+0.83980013	
a	2.9957158	Node	31.42345	-0.68245612		+0.49615937	
e	0.0690635	Incl.	10.74178	-0.49895931		+0.22036701	
P	5.19	H	13.5	G	0.15		

Residuals in seconds of arc

710416	675	0.8+	0.6-	710514	675	0.0	0.2-	731027	033	0.3+	0.7-
710416	675	0.9-	0.5+	710516	675	0.5+	0.9-	731028	033	0.1-	0.4+
710513	675	0.3-	1.3+	731027	033	0.2-	0.3+				

1079 T-2 = 1991 RQ8 = 1991 RX8

Id. E. Bowell (MPC 19328), G. V. Williams (d, ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	98.57857		(2000.0)		P		Q
n	0.21982525	Peri.	310.95051	+0.74454480		+0.66755995	
a	2.7190530	Node	7.17386	-0.60221801		+0.67428790	
e	0.1325774	Incl.	1.87819	-0.28807379		+0.31575234	
P	4.48	H	13.5	G	0.15		

Residuals in seconds of arc

730919	675	0.7+	1.0-	730930	675	0.5-	0.1-	910911	675	1.1-	0.4-
730919	675	0.7-	0.7+	730930	675	0.0	0.7+	910913	400	0.7+	0.7+
730920	675	0.8+	0.8-	731004	675	1.0+	0.0	910913	400	0.3+	1.7+
730924	675	1.0-	1.1-	731004	675	0.6+	0.7+	910914	675	0.4-	0.1+
730924	675	0.5-	1.1-	731005	675	0.8-	0.7+	910914	675	0.4-	0.4+
730925	675	0.2-	1.0-	731005	675	0.7+	1.1+	911107	675	0.9+	0.4-
730925	675	0.7-	0.3+	810508	675	1.8-	1.5-	911107	675	0.8+	0.2+
730929	675	1.2+	0.1-	810509	675	1.7+	1.3+	911109	675	1.7-	0.8-
730929	675	0.0	0.4-	910911	675	0.2-	0.4-	911109	675	0.5+	0.1-

1210 T-2 = 1992 ED

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	347.20879		(2000.0)		P		Q
n	0.29345204	Peri.	232.81599	-0.75244442		+0.65853697	
a	2.2427350	Node	348.35455	-0.58296703		-0.67469678	
e	0.0774716	Incl.	3.55272	-0.30655641		-0.33333665	
P	3.36	H	13.7	G	0.15		

Residuals in seconds of arc

730919	675	1.3+	0.9-	730929	675	0.4-	0.6+	731005	675	0.2+	0.9-
730919	675	0.7+	0.4-	730929	675	0.3+	0.3+	920302	399	0.4+	0.2+
730920	675	0.4+	0.3+	730930	675	0.8-	1.4+	920302	399	0.3-	0.1+
730924	675	1.1-	0.2-	730930	675	0.2-	1.0+	920303	399	0.7+	0.5+
730924	675	0.8-	0.4+	731004	675	1.6+	1.0-	920303	399	0.8-	0.7-
730925	675	2.0-	1.4-	731004	675	0.7+	0.4+				
730925	675	0.8-	1.2+	731005	675	0.9+	0.8-				

1274 T-2 = 1978 WE18

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	349.38245		(2000.0)		P		Q	
n	0.21884519	Peri.	66.82688	+0.21807427			-0.97591306	
a	2.7271648	Node	10.58265	+0.88279909			+0.19459147	
e	0.0345706	Incl.	1.90585	+0.41606417			+0.09862987	
P	4.50	H	14.3	G	0.15			

Residuals in seconds of arc

730919	675	0.7-	0.7-	730924	675	0.1-	1.2+	730930	675	1.4-	0.1+
730919	675	0.4+	0.3+	730924	675	0.7-	0.4-	731004	675	0.3+	0.1-
730919	675	0.5-	1.9+	730924	675	0.5-	1.3+	731004	675	0.4+	1.1-
730919	675	1.2-	0.2-	730925	675	0.5-	1.3-	731005	675	1.1+	0.3+
730919	675	1.2+	0.3-	730925	675	0.8+	0.0	731005	675	1.3+	1.2+
730920	675	0.5-	0.4+	730929	675	0.2+	1.2-	781130	675	0.6-	0.1-
730920	675	(0.3+	3.2+)	730929	675	0.1+	0.3-	781201	675	0.6+	0.2+
730924	675	0.4+	1.1-	730930	675	(2.6-	0.1+)				

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

Id. E. Bowell (k), G. V. Williams

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	179.28298		(2000.0)		P		Q	
n	0.27179824	Peri.	233.79094	-0.64063365			+0.76783482	
a	2.3603240	Node	356.36132	-0.68113739			-0.57084731	
e	0.1420625	Incl.	3.85648	-0.35445787			-0.29079725	
P	3.63	H	13.0	G	0.15			

Residuals in seconds of arc

540501	839	0.7+	0.6-	881214	888	0.3+	1.1+	900309	809	1.3-	0.6+
730919	675	0.1-	0.7-	881214	888	0.4+	0.3+	900309	809	0.9-	0.6+
730919	675	0.3+	0.4+	900304	809	0.5-	0.8-	900309	809	0.4-	0.5+
730920	675	1.7-	1.5-	900304	809	0.7-	0.8-	910808	675	0.1+	0.6+
730924	675	0.1-	1.9-	900304	809	0.3-	0.7-	910808	675	0.3-	0.1+
730924	675	1.4+	1.1-	900306	809	0.4+	0.6-	910911	675	0.5+	0.5-
730925	675	0.5-	2.0-	900306	809	0.7+	0.5-	910911	675	0.1+	0.4-
730925	675	0.6-	0.2-	900306	809	0.8+	0.5-	910917	675	0.1+	1.3+
830410	095	(0.1-	7.0-)	900308	809	0.5-	0.0	910917	675	0.1+	0.3+
840927	033	1.0+	0.7+	900308	809	0.0	0.1+				
840927	033	0.8+	1.4+	900308	809	0.5+	0.2+				

1017 T-3 = 1986 RZ2

Id. S. Nakano (MPC 12700), K. Hurukawa

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	114.96425		(2000.0)		P		Q	
n	0.21277849	Peri.	26.87814	+0.66019131			+0.73971386	
a	2.7787591	Node	284.74102	-0.71107410			+0.55967750	
e	0.1406964	Incl.	7.74161	-0.24191126			+0.37361010	
P	4.63	H	13.0	G	0.15			

Residuals in seconds of arc

771007	675	0.7+	0.2-	771017	675	0.9+	0.7+	860929	095	2.2-	0.5+
771011	675	2.2+	0.1-	771017	675	0.9+	0.5+	861004	688	0.7+	0.6-
771011	675	2.2+	0.4-	771022	675	1.8-	2.0-	861004	688	0.2+	0.6+
771012	675	0.1+	0.6+	771022	675	2.3-	0.5-	911103	801	0.2-	0.5+
771012	675	0.4-	1.6+	860906	095	(8.9-	2.4+)	911103	801	0.2-	0.4+
771016	675	1.1-	1.9-	860911	688	0.9+	0.1-	920105	801	0.2+	0.1-
771016	675	0.5-	0.5-	860911	688	0.1+	0.2+	920106	801	0.0	0.0

1194 T-3 = 1991 OE1

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	78.78053		(2000.0)			P		Q	
n	0.27383493	Peri.	8.66088	+0.77562946				+0.62612964	
a	2.3486059	Node	312.26020	-0.58536754				+0.66629373	
e	0.1292210	Incl.	6.18624	-0.23610120				+0.40498683	
P	3.60	H	14.0	G	0.15				

Residuals in seconds of arc

771016	675	0.2+	0.0	771022	675	0.1+	0.3-	910718	809	0.3-	0.3+
771016	675	0.2-	0.2-	771022	675	0.6-	0.3+	910719	809	0.8+	0.5-
771017	675	0.3-	0.0	910718	809	1.2-	0.4+	910719	809	1.3+	0.5-
771017	675	0.7+	0.3+	910718	809	0.7-	0.4+				

2247 T-3 = 1991 NV2

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	109.51964		(2000.0)			P		Q	
n	0.27159620	Peri.	319.81771	-0.06449980				+0.99624972	
a	2.3614944	Node	306.40750	-0.89619624				-0.08324961	
e	0.2113453	Incl.	4.10939	-0.43894428				+0.02357949	
P	3.63	H	14.0	G	0.15				

Residuals in seconds of arc

771007	675	0.5+	0.8+	771017	675	0.1+	0.1+	910704	809	0.6+	0.6-
771011	675	1.0-	1.1+	771021	675	1.4+	0.5-	910704	809	1.1+	0.3-
771011	675	1.3-	1.3+	771021	675	0.1-	0.1-	910704	809	1.6+	0.3-
771012	675	1.2-	0.2+	771022	675	0.6+	0.4+	910705	809	0.2-	0.5-
771012	675	1.0-	0.4-	771022	675	1.4+	0.8-	910705	809	0.2+	0.2-
771016	675	0.1+	1.8-	910703	809	2.0-	0.2+	910705	809	0.6+	0.0
771016	675	0.5+	1.4-	910703	809	1.2-	0.6+				
771017	675	0.0	1.1+	910703	809	0.6-	0.8+				

2327 T-3 = 1990 HJ5

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	40.07464		(2000.0)			P		Q	
n	0.21084323	Peri.	138.61348	+0.80443715				-0.59235597	
a	2.7957367	Node	257.76541	+0.53229324				+0.75216438	
e	0.0999460	Incl.	2.61971	+0.26371346				+0.28872678	
P	4.67	H	14.0	G	0.15				

Residuals in seconds of arc

771007	675	1.2+	0.5-	771016	675	0.1+	1.1-	771022	675	1.3-	0.3-
771011	675	0.6+	1.1+	771017	675	2.0-	0.8+	900429	413	0.6+	0.2-
771011	675	0.1+	1.9+	771017	675	1.0-	0.7+	900501	413	0.4-	0.3+
771012	675	0.5+	0.1-	771021	675	1.2+	0.6+	900502	413	0.1-	0.1-
771012	675	0.2+	0.5+	771021	675	0.9+	0.8-				
771016	675	0.7-	2.6-	771022	675	0.3+	0.1-				

3220 T-3 = 1981 JN5

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	320.91091		(2000.0)			P		Q	
n	0.17702648	Peri.	98.19436	+0.11859417				+0.99294272	
a	3.1413082	Node	178.61640	-0.91774525				+0.10977491	
e	0.1227444	Incl.	1.00070	-0.37905024				+0.04488011	
P	5.57	H	13.6	G	0.15				

Residuals in seconds of arc

771007	675	0.2+	0.2-	771016	675	0.2+	0.4+	771021	675	0.8-	0.2-
771011	675	1.1-	0.1-	771016	675	0.2-	1.0-	771022	675	2.0+	0.3-
771011	675	0.8-	0.2+	771017	675	0.3+	1.9+	771022	675	0.2-	0.2-
771012	675	0.8+	0.6+	771017	675	0.7-	0.3+	810508	675	0.2+	0.4-
771012	675	1.2+	1.0-	771021	675	1.1-	0.3-	810509	675	0.2-	0.4+

4045 T-3 = 1990 BP

Id. S. Nakano (MPC 15908)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	146.02976		(2000.0)		P		Q				
n	0.26814132	Peri.	110.77979		-0.68327290		+0.72465209				
a	2.3817357	Node	115.79194		-0.70144262		-0.61738713				
e	0.1101641	Incl.	5.70735		-0.20277175		-0.30612495				
P	3.68	H	13.5	G	0.15						

Residuals in seconds of arc

771007	675	1.1+	1.0+	771017	675	0.5-	0.6+	900124	887	2.2+	0.9-
771011	675	0.7-	1.9-	771021	675	1.7+	0.7+	910706	809	0.0	0.7-
771011	675	0.2-	1.1-	771021	675	1.8+	0.8+	910706	809	0.1-	0.6-
771012	675	1.0-	0.6-	771022	675	0.2+	0.4-	910706	809	0.2-	0.5-
771012	675	0.7-	1.7-	771022	675	1.4+	1.0-	910707	809	0.1+	1.6+
771016	675	1.9-	1.5+	900121	887	0.2-	0.5+	910707	809	0.2+	1.5+
771016	675	1.3-	1.1+	900121	887	1.8-	1.1+				
771017	675	0.1+	1.4+	900124	887	0.0	0.7+				

4157 T-3 = 1989 BH1

Id. S. Nakano (MPC 14480)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	341.93376		(2000.0)		P		Q				
n	0.28692472	Peri.	345.40642		-0.86058392		-0.50850589				
a	2.2766210	Node	163.93386		+0.47702305		-0.82442470				
e	0.1027752	Incl.	5.92851		+0.17844977		-0.24848677				
P	3.44	H	15.1	G	0.15						

Residuals in seconds of arc

771007	675	0.2+	1.3-	771021	675	0.1-	1.2+	890203	046	3.6-	0.6-
771011	675	0.7+	0.2+	771022	675	0.2+	1.3-	911102	809	0.7+	1.6+
771011	675	1.1+	0.6-	771022	675	0.6+	0.8-	911102	809	0.3-	0.2+
771012	675	0.2+	0.8-	890126	046	1.2+	1.0-	911102	809	1.5-	0.4+
771012	675	0.4+	0.8-	890126	046	0.4+	0.6+	911106	809	0.1+	1.3+
771016	675	0.7-	1.5+	890127	046	2.0-	1.2+	911106	809	0.0	0.8+
771016	675	0.4-	1.5+	890127	046	0.1-	0.9-	911106	809	0.8+	0.7-
771017	675	0.4-	1.6-	890128	046	3.4+	0.8+	911109	809	0.1+	0.6-
771017	675	0.4-	1.4-	890128	046	3.3+	0.7+	911109	809	0.3-	0.1-
771021	675	0.8-	1.8+	890203	046	2.8-	2.0-	911109	809	0.1-	0.7-

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EPHEMERIDES.

1992 AB		a,e,i = 3.29, 0.55, 41					Elements MPC 19871				
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V			
1992 02 28		04 03.13	+43 38.5	1.192	1.535	88.9	40.2	16.9			
1992 03 09		04 17.89	+47 17.3	1.261	1.508	83.1	40.8	17.0			
1992 03 19		04 38.69	+50 37.9	1.324	1.487	78.4	41.0	17.1			
1992 03 29		05 05.92	+53 36.5	1.381	1.474	74.6	40.8	17.1			
1992 04 08		05 40.07	+56 05.7	1.432	1.468	71.8	40.4	17.2			
1992 04 18		06 21.22	+57 54.6	1.477	1.470	69.7	39.8	17.3			
1992 04 28		07 08.46	+58 49.6	1.518	1.479	68.3	39.2	17.3			
1992 05 08		07 59.50	+58 38.5	1.557	1.496	67.4	38.6	17.4			
1992 05 18		08 50.90	+57 15.5	1.596	1.519	67.0	37.8	17.4			
1992 05 28		09 39.39	+54 43.0	1.639	1.549	66.7	36.9	17.5			
1992 06 07		10 23.08	+51 11.5	1.687	1.585	66.5	36.0	17.6			
1992 06 17		11 01.48	+46 55.6	1.744	1.626	66.2	34.9	17.7			
1992 06 27		11 35.05	+42 10.4	1.810	1.671	65.6	33.7	17.8			

1992 07 07	12 04.64	+37 09.4	1.888	1.720	64.7	32.3	17.9
1992 07 17	12 31.08	+32 04.4	1.978	1.773	63.4	30.8	18.0
1992 07 27	12 55.08	+27 04.0	2.079	1.828	61.5	29.2	18.2
1992 08 06	13 17.27	+22 14.8	2.191	1.885	59.2	27.5	18.3
1992 08 16	13 38.07	+17 41.2	2.312	1.945	56.4	25.7	18.4
1992 08 26	13 57.81	+13 25.6	2.439	2.005	53.2	23.8	18.6

1991 YA		a,e,i = 2.74, 0.44, 44				Elements MPC 19870		
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 02 28	05 18.28	-07 27.7	1.169	1.633	97.9	36.9	17.4	
1992 03 09	05 31.21	-09 10.0	1.298	1.666	92.4	36.5	17.7	
1992 03 19	05 45.77	-10 27.5	1.424	1.702	87.5	35.8	17.9	
1992 03 29	06 01.65	-11 29.9	1.548	1.742	83.3	34.7	18.1	
1992 04 08	06 18.65	-12 24.0	1.668	1.783	79.6	33.5	18.3	
1992 04 18	06 36.60	-13 15.1	1.785	1.828	76.2	32.2	18.4	
1992 04 28	06 55.32	-14 06.3	1.899	1.874	73.1	30.9	18.6	
1992 05 08	07 14.70	-15 00.1	2.010	1.921	70.3	29.6	18.7	
1992 05 18	07 34.62	-15 58.4	2.119	1.970	67.6	28.4	18.9	
1992 05 28	07 54.94	-17 01.9	2.225	2.019	65.1	27.1	19.0	
1992 06 07	08 15.61	-18 11.3	2.330	2.069	62.6	25.8	19.1	
1992 06 17	08 36.50	-19 26.8	2.434	2.120	60.2	24.6	19.2	
1992 06 27	08 57.55	-20 47.9	2.537	2.171	57.7	23.3	19.3	

1992 BB		a,e,i = 1.88, 0.27, 45				Elements MPC 19872		
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 02 28	05 58.03	-48 12.2	0.914	1.419	96.2	43.9	17.8	
1992 03 09	06 16.70	-42 35.5	0.870	1.404	97.5	44.5	17.6	
1992 03 19	06 39.91	-35 52.9	0.834	1.392	98.7	45.0	17.5	
1992 03 29	07 06.65	-28 10.4	0.811	1.384	99.3	45.4	17.5	
1992 04 08	07 35.98	-19 48.9	0.807	1.380	98.9	45.8	17.5	
1992 04 18	08 06.91	-11 25.2	0.827	1.381	97.4	46.2	17.5	
1992 04 28	08 38.53	-03 39.1	0.872	1.385	94.7	46.4	17.7	
1992 05 08	09 10.13	+02 59.3	0.939	1.394	91.2	46.4	17.8	
1992 05 18	09 41.16	+08 17.2	1.024	1.406	87.4	45.9	18.0	
1992 05 28	10 11.27	+12 17.0	1.122	1.422	83.4	45.1	18.2	
1992 06 07	10 40.32	+15 07.9	1.228	1.442	79.4	43.8	18.4	
1992 06 17	11 08.29	+17 02.2	1.338	1.464	75.5	42.2	18.6	
1992 06 27	11 35.23	+18 11.0	1.449	1.489	71.9	40.4	18.8	
1992 07 07	12 01.29	+18 43.8	1.560	1.517	68.4	38.6	18.9	
1992 07 17	12 26.61	+18 48.6	1.667	1.546	65.2	36.6	19.0	
1992 07 27	12 51.33	+18 31.6	1.770	1.577	62.2	34.7	19.2	
1992 08 06	13 15.64	+17 57.8	1.868	1.610	59.4	32.9	19.3	

1992 AX		a,e,i = 1.84, 0.28, 11				Elements MPC 19871		
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 02 28	07 26.88	+28 40.9	0.885	1.700	130.0	26.5	16.1	
1992 03 09	07 26.02	+29 45.7	0.931	1.663	119.6	31.3	16.3	
1992 03 19	07 30.64	+30 27.6	0.983	1.627	110.6	34.9	16.5	
1992 03 29	07 40.22	+30 48.8	1.037	1.591	102.8	37.7	16.6	
1992 04 08	07 54.08	+30 49.7	1.091	1.556	96.0	39.8	16.7	
1992 04 18	08 11.52	+30 30.0	1.143	1.522	90.1	41.3	16.8	
1992 04 28	08 31.85	+29 48.9	1.190	1.489	84.9	42.3	16.9	
1992 05 08	08 54.50	+28 45.0	1.234	1.459	80.4	43.0	16.9	
1992 05 18	09 18.93	+27 17.7	1.274	1.430	76.6	43.5	17.0	
1992 05 28	09 44.67	+25 26.5	1.309	1.405	73.2	43.7	17.0	
1992 06 07	10 11.40	+23 11.2	1.341	1.382	70.3	43.7	17.0	
1992 06 17	10 38.82	+20 33.1	1.370	1.363	67.8	43.6	17.0	
1992 06 27	11 06.70	+17 33.8	1.398	1.348	65.7	43.4	17.1	
1992 07 07	11 34.96	+14 15.5	1.426	1.337	63.8	43.0	17.1	

1992 07 17	12 03.50	+10 41.9	1.454	1.330	62.2	42.5	17.1
1992 07 27	12 32.32	+06 56.9	1.485	1.328	60.8	41.9	17.1
1992 08 06	13 01.46	+03 05.3	1.519	1.331	59.5	41.0	17.1
1992 08 16	13 30.98	-00 47.4	1.558	1.338	58.2	40.0	17.2
1992 08 26	14 00.92	-04 35.9	1.602	1.350	56.9	38.9	17.2

1992 DC		a,e,i = 2.57, 0.48, 11				Elements MPC 19874		
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 02 28	09 59.57	+24 13.5	0.373	1.349	161.2	13.7	16.8	
1992 03 09	09 57.72	+18 48.7	0.394	1.362	155.5	17.6	17.1	
1992 03 19	09 59.74	+13 33.7	0.431	1.382	148.5	22.1	17.4	
1992 03 29	10 05.63	+08 49.8	0.482	1.408	141.6	26.2	17.8	
1992 04 08	10 14.92	+04 43.6	0.547	1.441	135.1	29.4	18.3	
1992 04 18	10 26.96	+01 12.3	0.623	1.479	129.3	31.7	18.7	
1992 04 28	10 41.02	-01 49.9	0.711	1.522	123.9	33.3	19.1	
1992 05 08	10 56.59	-04 29.8	0.809	1.569	118.9	34.3	19.4	
1992 05 18	11 13.25	-06 53.3	0.917	1.619	114.1	34.8	19.8	

1992 CC1		a,e,i = 1.39, 0.37, 36				Elements MPC 19873		
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 02 28	11 24.21	+19 03.1	0.768	1.744	165.1	8.4	16.2	
1992 03 09	10 51.76	+17 04.3	0.795	1.774	165.7	7.9	16.3	
1992 03 19	10 24.11	+14 40.1	0.855	1.801	153.4	14.4	16.7	
1992 03 29	10 03.73	+12 10.0	0.943	1.825	140.0	20.6	17.2	
1992 04 08	09 50.78	+09 46.3	1.052	1.845	127.9	25.3	17.6	
1992 04 18	09 44.21	+07 33.0	1.175	1.863	117.3	28.6	18.0	
1992 04 28	09 42.66	+05 29.3	1.306	1.878	107.8	30.7	18.3	
1992 05 08	09 44.99	+03 32.1	1.441	1.889	99.4	31.8	18.5	
1992 05 18	09 50.28	+01 38.5	1.575	1.898	91.7	32.2	18.7	
1992 05 28	09 57.81	-00 14.0	1.706	1.903	84.7	32.0	18.9	
1992 06 07	10 07.13	-02 07.6	1.832	1.905	78.3	31.4	19.1	

1992 CH1		a,e,i = 1.61, 0.28, 21				Elements MPC 19874		
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 02 28	11 49.96	+35 35.1	0.201	1.166	148.5	26.3	17.0	
1992 03 09	12 14.48	+46 33.5	0.245	1.182	136.2	35.6	17.8	
1992 03 19	12 32.62	+52 07.2	0.300	1.203	127.8	40.8	18.4	
1992 03 29	12 44.92	+54 13.3	0.360	1.229	122.3	43.4	18.9	
1992 04 08	12 53.30	+54 05.7	0.422	1.259	118.6	44.3	19.3	
1992 04 18	13 00.09	+52 27.4	0.485	1.292	115.9	44.3	19.7	
1992 04 28	13 06.76	+49 45.7	0.549	1.328	113.9	43.9	20.0	

(4769) Castalia		a,e,i = 1.06, 0.48, 9				Elements MPC 17949		
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 02 28	18 10.96	-34 15.1	0.539	0.923	66.9	80.6	18.2	
1992 03 09	18 17.31	-36 39.3	0.556	1.010	75.6	72.2	18.2	
1992 03 19	18 23.13	-38 58.1	0.558	1.092	84.3	65.2	18.1	
1992 03 29	18 25.60	-41 21.4	0.547	1.167	93.4	58.7	18.0	
1992 04 08	18 21.81	-43 54.4	0.528	1.236	103.4	52.0	17.9	
1992 04 18	18 08.55	-46 32.2	0.506	1.298	114.4	44.8	17.7	
1992 04 28	17 42.72	-48 52.2	0.485	1.353	126.5	36.7	17.5	
1992 05 08	17 03.46	-50 06.9	0.475	1.402	138.9	28.2	17.3	
1992 05 18	16 16.76	-49 23.5	0.480	1.445	149.3	20.9	17.1	
1992 05 28	15 33.98	-46 36.4	0.505	1.482	153.1	18.0	17.2	
1992 06 07	15 03.18	-42 39.4	0.551	1.512	148.4	20.6	17.5	
1992 06 17	14 45.39	-38 39.1	0.616	1.537	139.4	25.5	17.9	
1992 06 27	14 37.94	-35 13.6	0.694	1.555	129.8	30.2	18.4	
1992 07 07	14 38.01	-32 34.4	0.783	1.568	120.7	33.9	18.8	
1992 07 17	14 43.44	-30 38.6	0.877	1.575	112.4	36.6	19.1	

1992 07 27	14 52.72	-29 18.3	0.975	1.577	104.7	38.5	19.4
1992 08 06	15 04.94	-28 25.2	1.072	1.572	97.7	39.7	19.6
1992 08 16	15 19.49	-27 51.9	1.167	1.562	91.3	40.4	19.8
1992 08 26	15 35.92	-27 32.1	1.258	1.546	85.2	40.6	19.9
1992 09 05	15 54.03	-27 20.5	1.343	1.524	79.4	40.6	20.1
1992 09 15	16 13.61	-27 12.6	1.419	1.496	74.0	40.2	20.1

Comet Zanotta-Brewington (1991g1)

Elements MPC 19818

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1992 04 08	06	13.48	-68 16.4	1.011	1.445	91.7	43.9	10.6
1992 04 18	07	39.61	-66 29.1	1.085	1.594	99.4	38.4	11.2
1992 04 28	08	48.30	-62 48.9	1.178	1.742	105.5	33.8	11.8
1992 05 08	09	39.55	-58 19.0	1.292	1.887	109.5	30.3	12.3
1992 05 18	10	18.33	-53 46.2	1.431	2.029	111.2	27.7	12.9
1992 05 28	10	48.98	-49 35.9	1.593	2.169	110.7	25.9	13.4
1992 06 07	11	14.41	-45 59.5	1.777	2.306	108.3	24.7	13.9
1992 06 17	11	36.36	-42 59.9	1.980	2.441	104.5	23.8	14.4
1992 06 27	11	55.92	-40 35.0	2.198	2.574	99.8	22.9	14.8
1992 07 07	12	13.82	-38 40.9	2.429	2.704	94.4	22.0	15.2
1992 07 17	12	30.52	-37 13.3	2.668	2.832	88.6	21.0	15.7
1992 07 27	12	46.30	-36 07.8	2.913	2.958	82.6	19.9	16.0
1992 08 06	13	01.41	-35 20.7	3.160	3.082	76.3	18.6	16.4
1992 08 16	13	15.97	-34 48.7	3.407	3.205	69.9	17.3	16.7
1992 08 26	13	30.10	-34 29.0	3.651	3.325	63.5	15.8	17.0
1992 09 05	13	43.87	-34 19.1	3.888	3.444	57.0	14.2	17.3
1992 09 15	13	57.31	-34 17.3	4.116	3.562	50.5	12.6	17.6
1992 09 25	14	10.45	-34 21.7	4.333	3.677	44.0	10.9	17.8
1992 10 05	14	23.31	-34 31.2	4.536	3.792	37.5	9.2	18.1
1992 10 15	14	35.87	-34 44.5	4.723	3.905	31.3	7.6	18.3

Periodic Comet Holmes

Elements MPC 16379

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m2
1992 04 08	18	09.14	-44 45.0	2.851	3.266	105.6	17.2	19.8
1992 04 18	18	13.85	-45 36.4	2.689	3.226	113.7	16.6	19.6
1992 04 28	18	15.96	-46 28.2	2.537	3.186	121.9	15.6	19.4
1992 05 08	18	15.11	-47 18.2	2.398	3.146	130.2	14.2	19.2
1992 05 18	18	11.11	-48 02.3	2.275	3.105	138.4	12.5	19.0
1992 05 28	18	04.04	-48 35.4	2.172	3.065	146.0	10.7	18.8
1992 06 07	17	54.33	-48 51.5	2.091	3.025	151.9	9.1	18.6
1992 06 17	17	42.96	-48 45.1	2.035	2.984	154.6	8.4	18.5
1992 06 27	17	31.23	-48 14.0	2.003	2.944	152.9	9.0	18.5
1992 07 07	17	20.58	-47 19.0	1.995	2.904	147.5	10.9	18.5
1992 07 17	17	12.25	-46 05.0	2.011	2.865	139.9	13.2	18.6
1992 07 27	17	07.00	-44 38.8	2.047	2.825	131.6	15.6	18.7
1992 08 06	17	05.18	-43 07.1	2.100	2.786	123.0	17.8	18.8
1992 08 16	17	06.76	-41 35.3	2.167	2.747	114.6	19.6	18.9
1992 08 26	17	11.48	-40 06.7	2.243	2.709	106.4	21.0	18.9
1992 09 05	17	19.01	-38 42.9	2.327	2.671	98.6	21.9	19.0
1992 09 15	17	29.00	-37 23.7	2.415	2.634	91.1	22.4	19.1
1992 09 25	17	41.08	-36 08.3	2.503	2.597	84.0	22.6	19.1
1992 10 05	17	54.97	-34 55.0	2.592	2.561	77.1	22.4	19.2
1992 10 15	18	10.34	-33 42.0	2.678	2.527	70.5	21.8	19.2
1992 10 25	18	26.96	-32 27.4	2.760	2.493	64.2	21.0	19.2
1992 11 04	18	44.60	-31 09.4	2.836	2.460	58.1	20.0	19.2
1992 11 14	19	03.03	-29 46.5	2.907	2.429	52.1	18.8	19.2
1992 11 24	19	22.08	-28 17.4	2.971	2.398	46.3	17.3	19.2
1992 12 04	19	41.58	-26 40.9	3.028	2.370	40.7	15.7	19.1
1992 12 14	20	01.37	-24 56.5	3.077	2.343	35.2	14.0	19.1

Periodic Comet Slaughter-Burnham

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	Elements MPC 16380 m2
1992 04 08		20 59.00	-23 11.2	4.223	3.959	68.1	13.6	18.9
1992 04 18		21 07.72	-22 40.5	4.040	3.915	75.7	14.4	18.8
1992 04 28		21 15.50	-22 13.0	3.852	3.871	83.6	15.0	18.7
1992 05 08		21 22.22	-21 49.8	3.663	3.827	91.6	15.3	18.6
1992 05 18		21 27.71	-21 31.7	3.475	3.782	99.9	15.3	18.4
1992 05 28		21 31.81	-21 19.7	3.291	3.738	108.5	14.9	18.3
1992 06 07		21 34.34	-21 14.4	3.115	3.694	117.4	14.1	18.1
1992 06 17		21 35.17	-21 16.1	2.950	3.650	126.7	12.9	17.9
1992 06 27		21 34.18	-21 24.7	2.801	3.605	136.4	11.2	17.7
1992 07 07		21 31.33	-21 39.1	2.670	3.562	146.4	9.1	17.5
1992 07 17		21 26.74	-21 57.6	2.561	3.518	156.8	6.5	17.3
1992 07 27		21 20.68	-22 17.6	2.477	3.474	167.0	3.8	17.0
1992 08 06		21 13.59	-22 36.0	2.421	3.431	173.8	1.8	16.8
1992 08 16		21 06.13	-22 49.6	2.393	3.388	167.3	3.8	16.9
1992 08 26		20 59.02	-22 56.0	2.392	3.345	156.9	6.8	17.0
1992 09 05		20 52.97	-22 53.5	2.418	3.303	146.2	9.8	17.1
1992 09 15		20 48.56	-22 41.7	2.465	3.261	135.7	12.4	17.3
1992 09 25		20 46.17	-22 20.8	2.532	3.220	125.6	14.7	17.4
1992 10 05		20 46.01	-21 51.4	2.613	3.179	115.9	16.4	17.5
1992 10 15		20 48.11	-21 14.1	2.704	3.139	106.7	17.7	17.6
1992 10 25		20 52.34	-20 29.6	2.802	3.099	97.9	18.5	17.6
1992 11 04		20 58.55	-19 38.1	2.903	3.060	89.6	18.9	17.7
1992 11 14		21 06.52	-18 39.8	3.004	3.022	81.6	18.9	17.8
1992 11 24		21 16.02	-17 34.7	3.103	2.985	74.0	18.5	17.8
1992 12 04		21 26.85	-16 22.7	3.197	2.949	66.7	17.9	17.8
1992 12 14		21 38.80	-15 04.0	3.284	2.914	59.7	17.0	17.8
1992 12 24		21 51.69	-13 38.5	3.364	2.879	52.9	15.8	17.8
1993 01 03		22 05.38	-12 06.5	3.434	2.846	46.4	14.5	17.8
1993 01 13		22 19.72	-10 28.2	3.495	2.815	40.1	13.0	17.7
1993 01 23		22 34.61	-08 44.0	3.546	2.784	33.9	11.4	17.7

Periodic Comet Ciffreo (1985 XVI)

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	Elements MPC 16378 Variation m2
1992 04 08		22 04.26	-23 30.5	3.460	2.992	-0.71	-3.8	19.9
1992 04 18		22 18.86	-22 40.1	3.294	2.935	-0.75	-4.4	19.8
1992 04 28		22 33.14	-21 51.9	3.121	2.878	-0.79	-5.0	19.7
1992 05 08		22 47.04	-21 06.9	2.945	2.821	-0.85	-5.6	19.6
1992 05 18		23 00.48	-20 26.4	2.766	2.764	-0.91	-6.4	19.5
1992 05 28		23 13.37	-19 51.9	2.587	2.707	-0.98	-7.2	19.3
1992 06 07		23 25.59	-19 25.0	2.408	2.649	-1.06	-8.1	19.1
1992 06 17		23 36.97	-19 07.2	2.233	2.592	-1.15	-9.1	18.9
1992 06 27		23 47.34	-19 00.2	2.063	2.534	-1.26	-10.2	18.7
1992 07 07		23 56.43	-19 05.6	1.899	2.477	-1.39	-11.4	18.4
1992 07 17		00 03.93	-19 24.7	1.745	2.420	-1.54	-12.8	18.2
1992 07 27		00 09.51	-19 58.1	1.601	2.364	-1.70	-14.2	17.9
1992 08 06		00 12.73	-20 45.1	1.471	2.308	-1.89	-15.5	17.6
1992 08 16		00 13.26	-21 42.7	1.357	2.253	-2.09	-16.7	17.3
1992 08 26		00 10.83	-22 45.3	1.260	2.199	-2.30	-17.7	17.0
1992 09 05		00 05.47	-23 43.7	1.184	2.146	-2.48	-18.1	16.7
1992 09 15		23 57.72	-24 25.9	1.129	2.094	-2.61	-18.0	16.5
1992 09 25		23 48.61	-24 40.3	1.096	2.045	-2.67	-17.4	16.5
1992 10 05		23 39.64	-24 17.8	1.083	1.997	-2.64	-16.7	16.5
1992 10 15		23 32.39	-23 15.3	1.090	1.952	-2.53	-16.0	16.6
1992 10 25		23 28.03	-21 35.2	1.113	1.909	-2.37	-15.7	16.7
1992 11 04		23 27.25	-19 23.1	1.149	1.870	-2.20	-15.6	16.9
1992 11 14		23 30.20	-16 45.8	1.195	1.834	-2.03	-15.9	17.0
1992 11 24		23 36.64	-13 49.3	1.249	1.802	-1.89	-16.3	17.1

1992 12 04	23 46.23	-10 38.5	1.310	1.774	-1.77	-16.8	17.2
1992 12 14	23 58.53	-07 17.3	1.375	1.751	-1.68	-17.2	17.3
1992 12 24	00 13.13	-03 49.2	1.444	1.732	-1.60	-17.5	17.4

Comet Mueller (1991h1)

Elements MPC 19818

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1992 04 08		23 12.26	+24 25.6	1.132	0.612	32.6	61.9	11.1
1992 04 13		23 14.65	+33 00.4	1.170	0.737	38.7	58.3	12.0
1992 04 18		23 18.87	+40 47.6	1.219	0.855	43.9	54.6	12.7
1992 04 23		23 24.44	+47 49.9	1.277	0.968	48.4	51.0	13.4
1992 04 28		23 31.17	+54 10.5	1.344	1.076	52.1	47.6	14.0
1992 05 03		23 39.01	+59 53.4	1.417	1.180	55.1	44.5	14.5
1992 05 08		23 48.11	+65 02.4	1.495	1.280	57.6	41.8	14.9
1992 05 13		23 58.81	+69 41.1	1.578	1.377	59.6	39.3	15.4
1992 05 18		00 11.8	+73 52.9	1.663	1.472	61.2	37.0	15.8
1992 05 23		00 28.7	+77 40.5	1.751	1.564	62.3	35.0	16.2
1992 05 28		00 53.0	+81 05.7	1.841	1.654	63.2	33.2	16.5
1992 06 02		01 34.3	+84 07.4	1.932	1.742	63.8	31.5	16.8
1992 06 07		03 06	+86 34.5	2.023	1.827	64.2	30.0	17.1
1992 06 12		06 41	+87 29.8	2.115	1.912	64.5	28.6	17.4
1992 06 17		09 32	+86 11.4	2.206	1.994	64.6	27.4	17.7
1992 06 22		10 39.0	+84 12.1	2.297	2.075	64.6	26.3	18.0
1992 06 27		11 12.9	+82 10.4	2.388	2.155	64.5	25.2	18.2
1992 07 02		11 34.7	+80 13.4	2.477	2.233	64.3	24.2	18.5
1992 07 07		11 50.9	+78 22.7	2.564	2.310	64.2	23.3	18.7
1992 07 12		12 04.2	+76 38.5	2.651	2.386	64.0	22.5	18.9
1992 07 17		12 15.7	+75 00.6	2.736	2.461	63.8	21.7	19.1
1992 07 22		12 26.1	+73 28.6	2.818	2.535	63.6	21.0	19.3
1992 07 27		12 35.8	+72 02.4	2.899	2.608	63.4	20.4	19.5

Comet Shoemaker-Levy (1991a1)

Elements MPC 19655

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1992 04 28		00 52.65	+39 13.5	2.492	1.722	31.9	18.0	11.8
1992 05 03		00 56.86	+40 42.7	2.396	1.656	33.8	19.8	11.6
1992 05 08		01 01.33	+42 22.1	2.293	1.589	35.9	21.9	11.3
1992 05 13		01 06.13	+44 13.4	2.184	1.523	38.2	24.2	11.0
1992 05 18		01 11.39	+46 18.5	2.069	1.457	40.5	26.8	10.7
1992 05 23		01 17.30	+48 40.1	1.950	1.391	42.9	29.7	10.4
1992 05 28		01 24.17	+51 21.8	1.826	1.327	45.3	32.9	10.0
1992 06 02		01 32.53	+54 27.7	1.700	1.263	47.7	36.4	9.7
1992 06 07		01 43.34	+58 03.1	1.571	1.201	49.9	40.2	9.3
1992 06 12		01 58.55	+62 13.7	1.442	1.141	51.9	44.4	8.9
1992 06 17		02 22.55	+67 03.9	1.316	1.084	53.5	48.9	8.4
1992 06 22		03 06.9	+72 27.5	1.196	1.030	54.7	53.7	8.0
1992 06 27		04 45.4	+77 25.8	1.088	0.980	55.4	58.6	7.6
1992 07 02		07 50.1	+77 55.0	0.996	0.936	55.4	63.4	7.2
1992 07 07		10 05.9	+70 51.6	0.930	0.899	54.8	67.5	6.9
1992 07 12		11 04.63	+59 50.9	0.897	0.869	53.6	70.2	6.7
1992 07 17		11 32.62	+47 35.6	0.902	0.849	52.1	70.9	6.6
1992 07 22		11 47.87	+35 39.8	0.943	0.838	50.5	69.3	6.6
1992 07 27		11 56.89	+24 59.4	1.014	0.838	48.8	65.7	6.8
1992 08 01		12 02.50	+15 54.8	1.107	0.848	46.9	60.8	7.0
1992 08 06		12 06.09	+08 22.2	1.214	0.869	44.8	55.3	7.3
1992 08 11		12 08.47	+02 07.1	1.328	0.898	42.5	49.7	7.6
1992 08 16		12 10.13	-03 06.3	1.444	0.935	40.1	44.2	8.0
1992 08 21		12 11.38	-07 32.0	1.559	0.979	37.7	39.2	8.4
1992 08 26		12 12.44	-11 21.2	1.671	1.029	35.3	34.6	8.7
1992 08 31		12 13.41	-14 42.7	1.777	1.082	33.1	30.6	9.1
1992 09 05		12 14.37	-17 43.0	1.877	1.140	31.1	27.2	9.4

1992 03 09	11 22.60	+03	54.1	1.134	2.127	178.9	0.5	15.7
-10.13 -0.15	+ 40.3 + 0.5	1210	T-2	19881	- 5.06	+1.58	+ 12.4	- 8.3
1992 04 08	10 56.59	+05	29.5	1.209	2.108	144.7	15.9	16.6
1992 03 09	11 43.16	+12	37.2	1.045	2.030	169.8	5.0	15.9
-10.21 -0.34	+ 36.0 - 6.8	1990	SZ7	19866	- 5.67	+1.58	- 25.9	-11.2
1992 04 08	11 15.78	+13	00.3	1.146	2.051	145.5	16.1	16.5
1992 03 09	11 45.33	-04	40.4	2.032	3.012	168.7	3.7	17.8
- 8.57 -0.33	+ 53.2 + 5.0	A920	TA	19853	- 6.76	+0.87	+ 57.2	- 3.7
1992 04 08	11 20.11	-01	38.7	2.049	2.973	152.5	9.0	18.0
1992 03 09	11 57.87	+07	32.9	1.913	2.896	169.8	3.5	17.9
- 9.12 -0.36	+ 61.5 - 1.4	1990	TX	17451	- 7.17	+0.92	+ 29.2	- 8.1
1992 04 08	11 31.07	+10	01.3	2.013	2.925	150.2	9.8	18.3
1992 03 09	12 05.89	+02	20.8	1.396	2.376	168.1	5.0	18.0
- 7.46 -0.55	+ 73.2 + 2.0	4214	T-1	19880	- 5.83	+1.01	+ 48.5	- 9.1
1992 04 08	11 43.09	+05	44.1	1.463	2.409	155.1	10.1	18.4
1992 03 09	12 11.88	+14	41.1	1.572	2.540	163.4	6.4	16.1
- 8.07 -0.51	+ 65.6 - 5.8	1990	WE	19868	- 6.43	+0.96	+6.9	-11.6
1992 04 08	11 47.40	+16	40.6	1.693	2.601	148.8	11.5	16.5
1992 03 09	12 26.65	-32	11.8	1.935	2.770	140.0	13.3	17.4
- 8.21 -0.75	+ 39.1 +16.6	1990	UO2	17965	- 8.00	+0.80	+121.5	+ 8.1
1992 04 08	11 59.45	-27	55.3	1.876	2.809	153.7	9.1	17.2
1992 03 09	12 33.86	+00	11.0	1.988	2.944	160.8	6.4	17.5
- 6.76 -0.72	+ 40.1 + 3.0	1977	DS4	15699	- 7.48	+0.52	+ 34.9	- 4.7
1992 04 08	12 10.21	+02	17.6	1.942	2.913	162.6	5.9	17.4
1992 03 09	13 26.75	-06	03.8	2.451	3.323	146.4	9.5	18.0
- 4.28 -0.88	+ 29.7 + 4.6	1988	ST2	19864	- 7.30	-0.02	+ 42.6	- 0.9
1992 04 08	13 07.81	-04	05.3	2.288	3.288	176.8	1.0	17.3
1992 04 08	13 29.37	-10	35.8	1.369	2.367	173.8	2.6	17.2
- 8.79 -0.27	+ 34.4 + 2.7	6328	P-L	19875	- 7.53	+0.86	+ 32.6	- 3.6
1992 04 28	13 11.91	-09	22.5	1.394	2.372	162.0	7.5	17.5
1992 04 08	13 30.59	-11	19.0	1.742	2.739	173.2	2.5	17.0
- 8.25 -0.15	+ 73.5 + 2.4	3100	T-1	19879	- 7.01	+0.73	+ 69.3	- 4.4
1992 04 28	13 14.44	-08	49.4	1.794	2.771	162.4	6.3	17.3
1992 04 08	13 37.11	-10	58.9	1.480	2.475	172.0	3.2	17.5
- 9.01 -0.45	+ 71.3 + 4.3	1972	RU1	19854	- 8.51	+0.69	+ 72.5	- 3.8
1992 04 28	13 18.45	-08	27.0	1.460	2.441	163.2	6.8	17.7
1992 04 08	13 36.97	-12	43.4	1.311	2.306	171.1	3.9	16.6
- 9.13 -0.30	+ 51.9 + 4.1	1990	TF4	17642	- 7.85	+0.89	+ 52.9	- 3.6
1992 04 28	13 18.80	-10	51.0	1.352	2.336	164.0	6.8	16.8
1992 04 08	13 38.35	-05	30.4	1.539	2.535	172.3	3.0	16.8
- 9.62 -0.24	+ 52.2 - 0.8	1988	BV	12945	- 8.39	+0.81	+ 37.3	- 6.4
1992 04 28	13 19.29	-03	55.3	1.597	2.571	161.3	7.2	17.1
1992 04 08	13 38.31	-05	01.4	0.996	1.992	172.2	3.9	17.8
- 8.10 -0.54	+ 79.6 + 0.2	1979	MR6	12696	- 7.31	+0.90	+ 59.0	-10.0
1992 04 28	13 21.46	-02	32.6	0.997	1.976	160.9	9.6	18.1

1992 04 08	13 40.49	+31 07.0	2.432	3.271	140.9	11.1	17.7
-10.10 -0.30	+ 30.2 -13.8	1988 JP	15712	- 9.51 +0.58	- 27.9	-14.6	
1992 04 28	13 20.00	+31 10.0	2.460	3.224	132.2	13.4	17.8
1992 04 08	13 40.45	-13 14.4	1.605	2.597	170.1	3.8	18.1
- 9.96 -0.28	+ 37.1 + 3.8	(4812)	18266	- 8.88 +0.79	+ 40.8	- 2.0	
1992 04 28	13 20.54	-11 50.6	1.649	2.634	164.7	5.8	18.3
1992 04 08	13 40.54	-06 17.2	1.535	2.531	171.9	3.2	16.8
- 9.76 -0.40	+ 59.9 + 0.6	1990 XM	18299	- 9.09 +0.71	+ 48.8	- 6.0	
1992 04 28	13 20.58	-04 21.9	1.546	2.522	161.8	7.2	17.0
1992 04 08	13 40.23	-25 31.0	4.559	5.512	160.2	3.5	17.3
- 5.09 -0.14	+ 17.8 + 3.9	(5023)	19488	- 4.93 +0.22	+ 29.9	+ 2.1	
1992 04 28	13 29.86	-24 41.5	4.538	5.512	163.7	2.9	17.3
1992 04 08	13 44.67	-05 51.6	2.141	3.134	170.9	2.9	17.4
- 9.07 -0.31	+ 19.1 - 0.2	1985 VC1	14196	- 8.65 +0.51	+ 11.7	- 3.5	
1992 04 28	13 26.13	-05 17.5	2.160	3.138	163.5	5.2	17.6
1992 04 08	13 43.72	-07 12.8	2.602	3.595	171.2	2.4	18.1
- 7.07 -0.24	+ 40.2 + 0.5	1989 VX	15721	- 6.77 +0.38	+ 34.9	- 3.1	
1992 04 28	13 29.26	-05 54.1	2.618	3.599	164.4	4.3	18.3
1992 04 08	13 45.64	-11 23.9	1.991	2.982	169.9	3.4	18.2
- 9.56 -0.34	+ 14.9 + 2.4	1973 SR6	13600	- 9.08 +0.56	+ 17.2	- 1.4	
1992 04 28	13 26.10	-10 48.1	2.013	2.999	165.8	4.7	18.3
1992 04 08	13 45.56	+14 02.3	1.416	2.369	156.8	9.6	15.8
- 7.71 -0.39	+ 66.9 -12.4	1983 CE	14189	- 7.03 +0.69	+8.2	-15.9	
1992 04 28	13 29.74	+15 20.9	1.465	2.377	147.7	13.1	16.0
1992 04 08	13 46.80	-11 34.0	1.889	2.880	169.6	3.6	18.0
- 8.91 -0.38	+ 46.5 + 3.0	(4734)	17806	- 8.56 +0.54	+ 47.9	- 2.3	
1992 04 28	13 28.41	-09 54.3	1.894	2.882	166.0	4.8	18.1
1992 04 08	13 45.37	-08 05.2	2.136	3.129	170.8	2.9	17.2
- 7.43 -0.25	+ 41.7 + 0.7	1990 YE	17829	- 6.93 +0.49	+ 35.8	- 3.5	
1992 04 28	13 30.26	-06 43.4	2.178	3.162	165.1	4.7	17.4
1992 04 08	13 45.49	-06 10.8	2.152	3.145	170.7	2.9	17.0
- 7.43 -0.32	+ 48.4 + 0.3	(4727)	17804	- 7.18 +0.43	+ 40.5	- 4.2	
1992 04 28	13 30.14	-04 37.4	2.157	3.137	163.9	5.1	17.1
1992 04 08	13 49.34	-16 04.8	1.033	2.021	166.6	6.6	15.6
- 9.41 -0.87	+ 10.1 + 7.5	1989 NO	15071	- 9.68 +0.75	+ 28.8	+ 1.2	
1992 04 28	13 28.63	-15 19.6	1.000	1.993	166.9	6.6	15.5
1992 04 08	13 48.69	-16 20.8	1.271	2.257	166.6	5.9	16.2
- 8.56 -0.68	+ 58.1 + 8.1	1989 OA	15072	- 8.65 +0.64	+ 75.2	- 0.2	
1992 04 28	13 30.16	-13 59.2	1.234	2.227	167.2	5.7	16.1
1992 04 08	13 48.89	-12 56.9	1.794	2.783	168.5	4.1	16.0
- 7.58 -0.44	+ 49.9 + 3.9	1991 BO	17968	- 7.49 +0.48	+ 54.6	- 1.8	
1992 04 28	13 32.90	-11 06.7	1.778	2.769	167.4	4.5	16.0
1992 04 08	13 48.24	-09 32.3	2.536	3.526	169.9	2.9	17.6
- 7.04 -0.32	+ 36.7 + 1.5	1988 SW2	18115	- 7.01 +0.33	+ 35.6	- 2.1	
1992 04 28	13 33.54	-08 16.4	2.516	3.503	166.6	3.8	17.6

1992 04 08	13 51.43	-08 28.6	1.646	2.637	169.3	4.1	18.1
- 8.74 -0.59	+ 61.0 + 2.7	1989 RD2	15255	- 9.01 +0.46	+ 58.5 - 4.0		
1992 04 28	13 32.63	-06 22.5	1.605	2.592	165.4	5.6	18.0
1992 04 08	13 52.85	-05 02.7	1.478	2.468	168.7	4.6	16.7
- 9.50 -0.53	+ 57.2 - 0.2	1990 VB15	19505	- 9.28 +0.63	+ 43.1 - 6.7		
1992 04 28	13 32.90	-03 15.9	1.487	2.469	163.5	6.6	16.8
1992 04 08	13 53.38	-14 47.5	1.581	2.566	166.6	5.2	17.3
-10.00 -0.51	+ 33.8 + 5.0	1990 TS	17217	- 9.70 +0.64	+ 43.0 - 0.7		
1992 04 28	13 32.53	-13 24.9	1.591	2.584	167.8	4.7	17.3
1992 04 08	13 53.18	-05 25.6	1.740	2.729	168.7	4.1	17.8
- 8.83 -0.53	+ 70.1 + 0.8	1986 RR2	11349	- 8.96 +0.47	+ 60.1 - 5.7		
1992 04 28	13 34.40	-03 08.8	1.719	2.701	163.7	6.0	17.8
1992 04 08	13 54.95	-16 41.4	1.088	2.072	165.2	7.1	15.9
-10.15 -0.77	+1.2 + 7.4	2272 T-2	18133	-10.01 +0.83	+ 20.4 + 1.6		
1992 04 28	13 33.21	-16 14.0	1.091	2.087	167.9	5.8	15.8
1992 04 08	13 54.12	-03 43.1	1.500	2.488	168.1	4.8	17.5
- 9.43 -0.55	+ 62.2 - 0.8	1990 VG3	17460	- 9.32 +0.60	+ 45.3 - 7.4		
1992 04 28	13 34.21	-01 49.0	1.504	2.484	162.8	6.9	17.6
1992 04 08	13 53.63	-13 01.6	1.347	2.334	167.5	5.3	18.4
- 8.08 -0.66	+ 75.5 + 6.0	1981 EE14	15241	- 8.30 +0.55	+ 82.8 - 2.7		
1992 04 28	13 36.05	-10 14.6	1.316	2.310	167.9	5.2	18.3
1992 04 08	13 55.50	-09 18.4	1.922	2.910	168.2	4.1	17.8
- 9.33 -0.49	+ 33.7 + 1.8	(4895)	18612	- 9.39 +0.46	+ 32.1 - 2.7		
1992 04 28	13 35.83	-08 08.2	1.912	2.902	167.0	4.5	17.8
1992 04 08	13 55.77	-02 38.6	1.377	2.364	167.3	5.3	16.6
- 9.15 -0.55	+ 64.6 - 1.9	1985 CA2	17203	- 8.90 +0.65	+ 42.5 - 8.7		
1992 04 28	13 36.52	-00 44.8	1.399	2.378	162.3	7.4	16.7
1992 04 08	13 55.62	-10 52.5	1.902	2.889	167.8	4.2	17.5
- 8.68 -0.59	+ 37.2 + 3.0	1989 YT	16435	- 9.18 +0.35	+ 40.2 - 1.7		
1992 04 28	13 36.83	-09 30.4	1.845	2.837	167.8	4.3	17.4
1992 04 08	13 55.02	-14 11.0	2.312	3.294	166.6	4.0	17.3
- 6.30 -0.37	+ 29.6 + 3.2	1984 DE1	12942	- 6.38 +0.32	+ 35.1 - 0.5		
1992 04 28	13 41.65	-13 02.6	2.302	3.298	169.9	3.1	17.2
1992 04 08	14 05.58	-41 31.7	1.236	2.126	143.5	16.3	17.0
-14.85 -1.60	- 77.6 +20.6	1982 ST	17432	-16.70 +0.77	+ 11.7 +21.7		
1992 04 28	13 31.67	-42 38.8	1.193	2.123	149.5	13.9	16.8
1992 04 08	13 56.03	-16 17.7	0.801	1.788	165.3	8.2	16.0
- 6.56 -0.93	+ 39.8 + 9.5	1933 FE1	13477	- 6.94 +0.75	+ 59.4 - 0.4		
1992 04 28	13 40.84	-14 28.7	0.785	1.785	169.8	5.7	15.8
1992 04 08	13 58.43	-08 46.8	1.397	2.385	167.5	5.2	17.0
- 8.80 -0.79	+ 41.7 + 2.6	1981 JE2	16230	- 9.56 +0.43	+ 39.8 - 3.7		
1992 04 28	13 38.84	-07 18.9	1.346	2.338	167.2	5.5	16.9
1992 04 08	13 59.55	-19 58.9	1.663	2.634	162.2	6.7	17.9
- 9.43 -0.57	+ 38.1 + 7.6	(4680)	17606	- 9.46 +0.55	+ 58.1 + 1.9		
1992 04 28	13 39.54	-18 17.0	1.657	2.652	168.8	4.2	17.8

1992 04 08	13 57.78	-13 12.7	1.986	2.968	166.5	4.5	17.3
- 7.61 -0.50	+ 78.7 + 4.8	1985 VN	17203	- 7.93 +0.35	+ 85.4 - 1.6		
1992 04 28	13 41.39	-10 22.2	1.942	2.937	169.2	3.7	17.2
1992 04 08	13 59.63	-00 45.6	1.592	2.574	165.7	5.5	16.9
- 8.75 -0.61	+ 48.5 - 2.4	1991 AO3	18125	- 9.07 +0.46	+ 27.4 - 7.9		
1992 04 28	13 40.74	+00 35.7	1.579	2.555	161.9	7.0	16.9
1992 04 08	13 58.26	-05 28.0	2.030	3.015	167.5	4.1	17.3
- 7.78 -0.44	+ 41.6 - 0.1	1991 AA1	17832	- 7.89 +0.38	+ 32.5 - 4.4		
1992 04 28	13 41.77	-04 09.6	2.029	3.015	165.8	4.7	17.3
1992 04 08	13 59.83	-22 45.7	1.222	2.190	160.2	8.9	15.7
- 8.50 -0.76	+ 44.4 +11.5	1988 BB4	14792	- 8.71 +0.65	+ 76.6 + 3.7		
1992 04 28	13 41.21	-20 37.0	1.207	2.202	168.2	5.4	15.6
1992 04 08	14 00.55	-25 00.2	1.759	2.715	158.3	7.8	16.5
- 8.93 -0.65	+ 10.4 + 9.2	3523 P-L	15256	- 9.35 +0.45	+ 41.0 + 5.4		
1992 04 28	13 41.18	-24 04.9	1.725	2.713	166.1	5.1	16.3
1992 04 08	13 57.74	+04 12.6	2.091	3.064	163.2	5.4	16.0
- 6.90 -0.38	+ 61.0 - 4.4	1990 YH	17829	- 6.89 +0.38	+ 34.4 - 8.6		
1992 04 28	13 43.19	+05 52.2	2.121	3.076	157.7	7.1	16.1
1992 04 08	14 00.95	-10 38.7	1.866	2.849	166.6	4.7	17.9
- 8.78 -0.59	+ 40.6 + 2.8	1982 UR6	19860	- 9.23 +0.37	+ 42.2 - 2.1		
1992 04 28	13 41.99	-09 10.9	1.831	2.825	168.8	4.0	17.8
1992 04 08	14 01.36	-04 31.2	1.478	2.463	166.5	5.4	17.7
- 8.65 -0.56	+ 70.4 - 0.6	1988 BT3	17821	- 8.65 +0.55	+ 53.5 - 7.5		
1992 04 28	13 42.95	-02 20.4	1.497	2.483	164.6	6.2	17.8
1992 04 08	14 01.14	-07 01.7	1.902	2.886	166.9	4.5	17.6
- 7.41 -0.51	+ 44.6 + 0.9	7633 P-L	7374	- 7.74 +0.35	+ 38.3 - 4.0		
1992 04 28	13 45.13	-05 33.9	1.884	2.875	167.3	4.4	17.6
1992 04 08	14 04.46	-11 52.3	1.334	2.317	165.4	6.2	17.9
- 9.53 -0.72	+ 32.2 + 3.7	3151 T-2	17653	- 9.80 +0.59	+ 35.5 - 2.3		
1992 04 28	13 43.82	-10 38.5	1.336	2.333	169.8	4.4	17.9
1992 04 08	14 05.29	-13 15.7	1.182	2.164	164.8	7.0	15.6
- 9.26 -1.06	+ 13.9 + 5.0	1979 SA8	11430	-10.74 +0.38	+ 24.3 - 0.3		
1992 04 28	13 43.84	-12 32.2	1.117	2.117	170.4	4.6	15.3
1992 04 08	14 02.43	-13 28.9	1.067	2.052	165.3	7.1	15.1
- 7.10 -0.70	+118.1 + 6.4	1990 UH	17455	- 7.14 +0.66	+117.5 - 6.7		
1992 04 28	13 46.83	-09 20.2	1.083	2.082	169.9	4.8	15.1
1992 04 08	14 01.78	-09 31.6	2.543	3.525	166.6	3.8	17.1
- 6.82 -0.41	+ 36.6 + 1.6	1971 SN2	15401	- 7.18 +0.23	+ 36.0 - 1.9		
1992 04 28	13 47.14	-08 15.4	2.507	3.502	169.4	3.0	17.0
1992 04 08	14 06.27	-17 16.6	1.381	2.356	162.7	7.3	16.0
- 9.47 -0.74	+ 33.6 + 7.0	1990 UW	17456	- 9.84 +0.56	+ 50.3 + 0.8		
1992 04 28	13 45.65	-15 46.6	1.375	2.374	170.9	3.8	15.8
1992 04 08	14 05.09	-11 00.5	1.264	2.248	165.5	6.4	18.3
- 8.62 -0.67	+ 69.8 + 3.5	1979 ME8	5847	- 8.71 +0.61	+ 67.1 - 4.9		
1992 04 28	13 46.47	-08 35.2	1.282	2.279	169.5	4.6	18.2

1992 04 08	14 04.62	-10 17.8	1.902	2.883	165.8	4.9	16.7
- 7.50 -0.53	+ 34.3 + 2.1	1991 AC	17830	- 7.88 +0.34	+ 34.0 - 2.3		
1992 04 28	13 48.37	-09 05.0	1.889	2.886	170.1	3.4	16.6
1992 04 08	14 04.43	-00 08.6	2.373	3.348	164.3	4.6	16.2
- 6.99 -0.40	+ 34.7 - 2.2	(4870)	18408	- 7.21 +0.29	+ 18.8 - 5.5		
1992 04 28	13 49.55	+00 48.1	2.384	3.359	162.9	5.1	16.2
1992 04 08	14 04.81	-00 08.7	2.136	3.112	164.2	5.0	15.6
- 7.45 -0.49	+ 31.8 - 2.3	(4717)	17620	- 7.88 +0.28	+ 14.9 - 6.0		
1992 04 28	13 48.70	+00 41.6	2.118	3.095	162.9	5.5	15.6
1992 04 08	14 06.01	-07 59.4	2.047	3.028	165.7	4.7	17.3
- 8.32 -0.50	+ 33.0 + 0.9	1981 SA7	14188	- 8.60 +0.35	+ 28.7 - 3.1		
1992 04 28	13 48.24	-06 53.7	2.046	3.041	168.8	3.7	17.2
1992 04 08	14 04.88	-05 02.8	1.047	2.033	165.8	7.0	15.7
- 6.62 -0.95	+ 78.3 + 1.8	1988 EN	13153	- 7.80 +0.40	+ 64.5 - 8.6		
1992 04 28	13 49.10	-02 29.6	1.001	1.992	165.6	7.2	15.5
1992 04 08	14 04.76	-12 08.0	1.929	2.908	165.3	5.0	17.2
- 6.77 -0.55	+ 39.3 + 3.2	1978 VJ8	17954	- 7.30 +0.29	+ 43.0 - 1.5		
1992 04 28	13 49.86	-10 41.1	1.895	2.894	171.2	3.0	17.0
1992 04 08	14 07.90	-14 46.8	1.299	2.277	163.6	7.1	17.4
- 8.34 -0.97	+ 29.1 + 6.2	1981 JS2	16230	- 9.75 +0.32	+ 43.5 + 0.5		
1992 04 28	13 48.52	-13 28.6	1.231	2.232	171.7	3.8	17.0
1992 04 08	14 05.05	-12 47.6	2.670	3.646	165.0	4.1	18.3
- 6.84 -0.40	+ 37.8 + 2.6	1978 TO8	12949	- 7.20 +0.22	+ 41.6 - 0.8		
1992 04 28	13 50.40	-11 24.8	2.639	3.638	171.6	2.3	18.2
1992 04 08	14 09.99	-00 17.8	1.436	2.412	163.1	6.9	16.5
- 9.51 -0.70	+ 28.6 - 3.6	1983 WL	17434	- 9.88 +0.51	+ 4.5 - 8.1		
1992 04 28	13 49.39	+00 19.8	1.448	2.430	163.3	6.8	16.5
1992 04 08	14 09.01	-20 06.5	1.451	2.418	160.5	8.0	16.9
- 8.55 -0.75	+ 51.4 + 8.8	1983 WM	17434	- 9.10 +0.47	+ 74.0 + 1.9		
1992 04 28	13 50.14	-17 54.2	1.432	2.432	171.3	3.6	16.7
1992 04 08	14 10.63	-26 25.7	1.514	2.462	155.8	9.6	16.9
- 9.78 -0.82	+ 8.0 +11.1	(4705)	17615	-10.43 +0.50	+ 45.5 + 6.8		
1992 04 28	13 49.10	-25 28.0	1.496	2.485	166.2	5.5	16.7
1992 04 08	14 10.48	-05 19.0	1.577	2.556	164.4	6.0	17.9
- 9.11 -0.69	+ 48.4 0.0	1980 XX	17429	- 9.69 +0.41	+ 36.8 - 5.7		
1992 04 28	13 50.58	-03 48.1	1.569	2.560	166.9	5.1	17.8
1992 04 08	14 07.55	-22 22.1	1.965	2.923	159.2	7.0	15.3
- 6.86 -0.59	+ 44.2 + 7.8	1988 PK1	17823	- 7.50 +0.28	+ 67.2 + 3.2		
1992 04 28	13 52.31	-20 26.1	1.913	2.911	170.4	3.3	15.1
1992 04 08	14 11.37	-03 32.2	1.237	2.217	163.9	7.2	16.3
- 8.54 -0.80	+ 52.9 - 1.4	(4689)	17609	- 9.13 +0.51	+ 32.8 - 8.3		
1992 04 28	13 52.40	-01 59.6	1.243	2.232	165.7	6.4	16.3
1992 04 08	14 09.73	-12 29.4	2.341	3.315	164.0	4.8	17.4
- 6.56 -0.48	+ 58.2 + 3.2	1981 ES8	14187	- 7.08 +0.22	+ 61.9 - 1.4		
1992 04 28	13 55.41	-10 24.7	2.307	3.307	172.3	2.3	17.2

1992 04 08	14 10.05	-09 11.1	1.828	2.806	164.6	5.4	16.0
- 6.48 -0.62	+ 42.8 + 2.1	(4751)	17813	- 7.29 +0.23	+ 41.3 - 2.9		
1992 04 28	13 55.43	-07 42.0	1.784	2.782	170.7	3.4	15.8
1992 04 08	14 13.81	-05 05.2	2.061	3.035	163.6	5.4	17.6
- 8.55 -0.63	+ 33.6 0.0	1939 VD	16227	- 9.40 +0.23	+ 25.4 - 4.1		
1992 04 28	13 55.00	-04 02.1	2.020	3.011	167.7	4.1	17.5
1992 04 08	14 11.73	-19 03.1	1.421	2.389	160.6	8.0	16.2
- 6.69 -0.85	+ 81.1 +10.1	1989 UT2	15719	- 7.90 +0.28	+107.2 + 2.1		
1992 04 28	13 56.01	-15 46.8	1.351	2.354	173.3	2.8	15.8
1992 04 08	14 13.75	-12 59.9	2.020	2.992	162.9	5.6	17.9
- 7.79 -0.64	+7.5 + 2.8	4854 T-1	19881	- 8.68 +0.21	+ 13.1 - 0.2		
1992 04 28	13 56.43	-12 36.3	1.976	2.978	173.4	2.2	17.6
1992 04 08	14 12.90	-11 43.2	2.370	3.342	163.5	4.9	16.8
- 7.15 -0.46	+ 30.3 + 2.1	1990 YL	17830	- 7.56 +0.25	+ 32.0 - 1.3		
1992 04 28	13 57.49	-10 37.5	2.371	3.373	172.9	2.1	16.7
1992 04 08	14 17.01	-09 48.4	1.365	2.340	162.8	7.3	16.6
- 9.32 -0.95	- 20.1 + 1.1	1952 SW1	19288	-10.63 +0.34	- 20.4 - 1.4		
1992 04 28	13 55.77	-10 26.4	1.335	2.337	172.4	3.3	16.3
1992 04 08	14 14.38	-09 53.8	1.786	2.760	163.5	5.9	16.7
- 6.63 -0.62	+ 35.5 + 2.0	9508 P-L	19876	- 7.38 +0.26	+ 34.2 - 2.7		
1992 04 28	13 59.48	-08 39.5	1.769	2.770	172.0	2.9	16.5
1992 04 08	14 18.32	-17 33.1	1.673	2.637	160.1	7.4	17.8
- 8.47 -0.87	+ 31.3 + 6.5	1982 QK3	13593	- 9.89 +0.20	+ 49.3 + 2.0		
1992 04 28	13 58.90	-16 08.1	1.604	2.607	173.9	2.3	17.4
1992 04 08	14 18.01	-05 29.4	1.327	2.302	162.6	7.5	17.5
- 8.37 -0.89	+ 10.6 - 0.8	4327 T-3	13304	- 9.49 +0.35	-1.4 - 5.1		
1992 04 28	13 58.91	-05 15.8	1.312	2.309	169.3	4.6	17.3
1992 04 08	14 27.00	-29 40.6	1.295	2.225	150.9	12.6	16.5
-14.04 -1.21	- 75.4 +14.4	1981 GP	13167	-15.13 +0.69	- 15.9 +13.8		
1992 04 28	13 55.92	-31 11.2	1.320	2.298	161.9	7.8	16.5
1992 04 08	14 18.72	-07 52.9	1.500	2.474	162.5	7.0	16.4
- 8.20 -0.82	+ 62.8 + 2.1	1988 BJ4	17634	- 9.31 +0.29	+ 57.4 - 4.8		
1992 04 28	14 00.10	-05 45.9	1.472	2.470	169.9	4.1	16.2
1992 04 08	14 19.77	-31 34.9	1.911	2.826	150.5	10.0	14.8
- 8.47 -0.93	-9.5 +10.4	1949 PN	17953	-10.15 +0.13	+ 31.7 + 9.5		
1992 04 28	14 00.10	-31 11.7	1.817	2.793	162.2	6.3	14.5
1992 04 08	14 20.20	-07 49.2	1.648	2.619	162.2	6.7	18.2
- 8.75 -0.84	+ 41.0 + 1.6	1982 JE1	10938	-10.04 +0.22	+ 37.0 - 3.7		
1992 04 28	14 00.35	-06 25.9	1.602	2.600	170.5	3.7	17.9
1992 04 08	14 19.39	-03 51.7	1.508	2.480	162.0	7.2	17.9
- 7.79 -0.91	+ 67.7 + 0.8	1978 NU3	11835	- 9.39 +0.15	+ 56.0 - 6.6		
1992 04 28	14 01.14	-01 40.7	1.443	2.433	166.4	5.6	17.7
1992 04 08	14 20.11	+28 55.7	1.576	2.430	139.9	15.4	16.8
- 8.07 -0.97	+121.4 -15.9	1989 NX	17824	- 9.66 +0.22	+ 41.6 -22.8		
1992 04 28	14 01.20	+31 45.6	1.567	2.378	133.8	17.8	16.8

1992 04 08	14 19.33	-17 08.7	1.419	2.385	160.1	8.2	16.3
- 7.79 -0.82	+ 47.9 + 6.7	1982 TP1	17200	- 8.73 +0.36	+ 62.9 + 0.3		
1992 04 28	14 01.62	-15 11.5	1.407	2.412	174.8	2.2	16.0
1992 04 08	14 17.25	-13 07.5	1.929	2.898	162.1	6.1	16.1
- 6.63 -0.60	+ 37.4 + 3.2	(4779)	18092	- 7.37 +0.24	+ 41.9 - 1.2		
1992 04 28	14 02.42	-11 43.7	1.916	2.919	174.5	1.9	15.9
1992 04 08	14 19.43	-19 13.8	2.603	3.556	159.0	5.8	18.1
- 6.81 -0.54	+ 20.1 + 4.5	9073 P-L	15571	- 7.69 +0.12	+ 33.6 + 2.0		
1992 04 28	14 04.27	-18 17.5	2.540	3.543	174.0	1.7	17.8
1992 04 08	14 19.63	+13 46.8	3.213	4.127	152.5	6.4	18.1
- 6.59 -0.40	+ 42.3 - 5.3	1983 WF1	9687	- 7.17 +0.12	+ 15.2 - 7.9		
1992 04 28	14 05.35	+14 46.9	3.205	4.112	150.7	6.9	18.1
1992 04 08	14 23.14	-16 50.6	1.797	2.757	159.4	7.4	18.5
- 8.21 -0.85	+ 30.7 + 5.7	1978 PX2	8797	- 9.70 +0.14	+ 46.2 + 1.6		
1992 04 28	14 04.24	-15 29.6	1.726	2.730	175.3	1.7	18.1
1992 04 08	14 24.10	-10 40.1	1.623	2.591	161.0	7.2	17.2
- 8.67 -0.86	+ 38.1 + 2.9	(4692)	17610	- 9.99 +0.22	+ 39.9 - 2.2		
1992 04 28	14 04.36	-09 17.0	1.586	2.588	173.3	2.6	16.9
1992 04 08	14 23.79	+08 45.1	1.956	2.896	155.3	8.3	15.8
- 7.92 -0.70	+ 49.9 - 6.0	1991 AJ1	17832	- 9.02 +0.17	+ 15.8 -10.6		
1992 04 28	14 05.98	+09 55.5	1.932	2.879	155.5	8.3	15.8
1992 04 08	14 21.92	-14 00.2	2.531	3.491	160.7	5.4	17.8
- 6.74 -0.50	+ 30.4 + 2.8	(4778)	18092	- 7.44 +0.16	+ 35.6 - 0.3		
1992 04 28	14 07.09	-12 51.0	2.511	3.516	176.0	1.2	17.5
1992 04 08	14 24.18	-08 05.4	0.912	1.888	161.2	9.8	15.0
- 7.02 -1.33	-3.4 + 0.3	7637 P-L	18642	- 9.43 +0.21	- 11.7 - 4.5		
1992 04 28	14 06.18	-08 15.6	0.868	1.872	172.8	3.9	14.6
1992 04 08	14 24.97	-18 18.0	1.869	2.824	158.3	7.5	17.7
- 8.18 -0.80	+ 35.0 + 6.2	1986 XF1	17959	- 9.53 +0.16	+ 52.3 + 2.0		
1992 04 28	14 06.29	-16 46.6	1.810	2.815	175.3	1.7	17.2
1992 04 08	14 25.86	-22 11.9	1.431	2.382	156.1	9.8	16.9
- 8.15 -1.14	+ 28.8 + 9.9	1986 TK1	15886	-10.42 +0.07	+ 62.3 + 6.0		
1992 04 28	14 06.08	-20 36.9	1.337	2.339	172.4	3.2	16.4
1992 04 08	14 38.34	-31 01.8	1.185	2.104	148.3	14.5	16.6
-13.57 -2.10	-126.3 +10.0	1987 SJ3	15888	-18.56 -0.18	- 67.1 +18.3		
1992 04 28	14 04.29	-34 23.5	1.112	2.085	159.4	9.8	16.3
1992 04 08	14 22.21	-13 18.0	1.980	2.944	160.9	6.4	17.9
- 6.33 -0.69	+ 35.7 + 3.6	3220 T-3	19883	- 7.54 +0.11	+ 42.3 - 0.5		
1992 04 28	14 07.53	-11 55.8	1.918	2.923	175.6	1.5	17.5
1992 04 08	14 25.33	-14 14.5	1.911	2.872	159.9	6.9	18.0
- 8.11 -0.73	+ 44.6 + 4.3	1990 YQ	17650	- 9.23 +0.19	+ 52.8 - 0.4		
1992 04 28	14 07.07	-12 32.4	1.874	2.879	175.8	1.5	17.7
1992 04 08	14 27.10	-33 44.1	1.982	2.880	147.9	10.7	16.3
- 8.78 -1.00	- 22.8 +10.4	(4860)	18404	-10.76 +0.06	+ 20.4 +10.4		
1992 04 28	14 06.49	-33 46.5	1.890	2.858	160.1	6.9	16.0

1992 04 08	14 34.59	-34 17.1	2.004	2.892	146.5	11.0	17.5
-11.37 -1.04	- 34.3 +11.2	1990 WZ2	18825	-13.17 +0.19	+ 12.1 +11.1		
1992 04 28	14 08.82	-34 39.2	1.963	2.927	159.3	7.0	17.3
1992 04 08	14 27.32	-11 22.2	1.465	2.431	160.1	8.1	17.3
- 7.05 -0.88	+ 52.5 + 3.6	1136 T-2	17976	- 8.47 +0.20	+ 54.6 - 2.7		
1992 04 28	14 10.71	-09 28.7	1.439	2.443	174.4	2.3	17.0
1992 04 08	14 21.65	-09 25.7	4.558	5.518	161.7	3.3	17.3
- 4.34 -0.27	+ 24.5 + 0.7	1973 SH1	17197	- 4.79 +0.05	+ 23.9 - 1.0		
1992 04 28	14 12.21	-08 35.6	4.521	5.523	173.8	1.1	17.2
1992 04 08	14 28.76	-28 48.9	2.166	3.082	151.3	9.0	16.7
- 7.14 -0.74	+ 12.1 + 8.6	1991 AF1	17832	- 8.44 +0.12	+ 43.2 + 6.4		
1992 04 28	14 12.31	-27 51.3	2.108	3.095	166.1	4.5	16.5
1992 04 08	14 33.03	-12 26.8	1.893	2.849	158.5	7.4	18.2
- 8.09 -0.80	+ 34.4 + 3.2	1986 TL4	11436	- 9.50 +0.12	+ 39.3 - 1.0		
1992 04 28	14 14.52	-11 08.8	1.854	2.860	176.3	1.3	17.8
1992 04 08	14 31.98	-06 50.1	1.327	2.291	159.2	8.9	17.5
- 7.16 -0.99	+ 72.4 + 1.5	1981 EF30	17431	- 8.83 +0.19	+ 62.6 - 6.4		
1992 04 28	14 14.81	-04 27.2	1.307	2.306	170.1	4.3	17.3
1992 04 08	14 34.38	-15 40.3	1.441	2.396	157.3	9.3	18.3
- 7.91 -1.19	+ 41.3 + 6.8	4116 P-L	14628	-10.60 -0.07	+ 59.7 + 1.8		
1992 04 28	14 14.75	-13 54.3	1.340	2.346	178.0	0.8	17.6
1992 04 08	14 30.88	-13 57.5	1.007	1.974	158.7	10.6	16.1
- 6.11 -1.20	+ 87.0 + 7.6	1990 UF2	18823	- 8.16 +0.22	+ 96.4 - 3.3		
1992 04 28	14 15.18	-10 43.2	0.984	1.989	176.1	2.0	15.6
1992 04 08	14 26.85	-25 19.5	4.667	5.584	154.0	4.5	17.4
- 4.74 -0.32	+6.2 + 3.4	(5025)	19489	- 5.35 +0.03	+ 18.2 + 2.4		
1992 04 28	14 16.41	-24 54.1	4.596	5.588	169.2	1.9	17.2
1992 04 08	14 30.56	-12 40.8	1.850	2.808	159.1	7.3	15.2
- 5.97 -0.73	+ 66.0 + 3.9	1010 T-2	15906	- 7.24 +0.11	+ 70.4 - 1.9		
1992 04 28	14 16.52	-10 18.7	1.817	2.822	175.8	1.5	14.8
1992 04 08	14 33.05	-18 47.7	2.167	3.110	156.4	7.4	16.4
- 7.26 -0.71	+0.8 + 4.5	(4716)	17619	- 8.53 +0.10	+ 15.1 + 2.3		
1992 04 28	14 16.45	-18 29.6	2.133	3.138	175.4	1.5	16.0
1992 04 08	14 33.73	-21 31.8	1.069	2.021	154.9	12.1	17.9
- 6.60 -1.37	+1.5 + 9.7	1981 ED14	10539	- 9.40 +0.05	+ 35.1 + 6.2		
1992 04 28	14 16.31	-20 51.7	1.011	2.014	173.2	3.4	17.4
1992 04 08	14 33.90	-28 39.4	2.249	3.160	150.6	9.0	16.6
- 7.37 -0.78	-6.1 + 7.8	1991 BH2	17969	- 8.87 +0.06	+ 23.5 + 6.5		
1992 04 28	14 16.81	-28 20.7	2.189	3.175	165.8	4.5	16.3
1992 04 08	14 37.04	-15 32.8	1.622	2.573	156.8	8.8	17.9
- 8.74 -1.00	+ 22.5 + 4.9	6643 P-L	17651	-10.60 +0.11	+ 35.1 + 1.0		
1992 04 28	14 16.60	-14 31.3	1.577	2.583	178.5	0.6	17.4
1992 04 08	14 33.73	-13 21.9	2.216	3.168	158.1	6.8	18.2
- 7.27 -0.66	+ 41.0 + 3.1	1985 QH5	14350	- 8.40 +0.11	+ 46.2 - 0.7		
1992 04 28	14 17.29	-11 50.8	2.187	3.194	177.3	0.9	17.9

1992 04 08	14 36.64	-05 56.6	1.407	2.366	158.0	9.1	16.7
- 8.46 -0.80	+144.4 -	0.5 1988 EF	13054	- 9.29 +0.38	+119.9	-11.3	
1992 04 28	14 17.71	-01 21.6	1.457	2.449	167.1	5.3	16.7
1992 04 08	14 35.49	-20 33.9	2.049	2.987	155.1	8.1	18.5
- 7.43 -0.81	+ 21.7 +	6.0 1985 SX2	14194	- 9.01 +0.05	+ 40.9 +	3.1	
1992 04 28	14 18.19	-19 28.4	1.986	2.990	174.6	1.8	18.1
1992 04 08	14 36.73	-04 47.7	1.181	2.143	157.9	10.1	18.2
- 7.52 -1.16	+183.5 +	4.2 7082 P-L	17652	- 9.65 +0.15	+167.2	-12.4	
1992 04 28	14 18.25	+01 19.5	1.156	2.143	164.4	7.2	18.0
1992 04 08	14 29.27	-19 37.4	4.867	5.800	156.8	3.9	18.1
- 4.16 -0.29	+ 33.5 +	2.6 1987 YU1	16428	- 4.71 +0.02	+ 40.9 +	1.0	
1992 04 28	14 20.09	-18 21.4	4.798	5.803	175.8	0.7	17.8
1992 04 08	14 34.52	+04 03.6	2.500	3.437	155.7	6.9	15.5
- 6.45 -0.59	+ 36.9 -	3.3 1991 CC	17969	- 7.54 +0.05	+ 16.5 -	6.7	
1992 04 28	14 19.89	+05 00.4	2.473	3.439	160.8	5.5	15.4
1992 04 08	14 33.68	-09 45.3	1.868	2.824	158.8	7.4	17.1
- 5.60 -0.77	+ 52.9 +	2.5 2570 P-L	12698	- 7.13 +0.03	+ 52.9 -	2.6	
1992 04 28	14 20.15	-07 54.3	1.814	2.817	173.7	2.3	16.8
1992 04 08	14 36.46	-11 47.3	1.133	2.094	157.8	10.4	17.5
- 5.94 -1.33	+ 52.7 +	5.9 1981 EO20	16228	- 9.07 -0.14	+ 62.7 -	1.5	
1992 04 28	14 20.26	-09 44.6	1.042	2.047	175.5	2.2	16.9
1992 04 08	14 37.03	-09 29.5	2.081	3.033	158.0	7.1	17.3
- 6.94 -0.75	+ 46.1 +	2.1 1991 AD2	18125	- 8.46 +0.03	+ 46.0 -	2.3	
1992 04 28	14 20.85	-07 53.0	2.026	3.028	173.7	2.1	17.0
1992 04 08	14 30.49	-14 27.9	4.279	5.224	158.6	4.0	17.1
- 4.25 -0.33	+ 27.6 +	1.8 1973 SQ1	14343	- 4.90 +0.01	+ 31.4 +	0.1	
1992 04 28	14 21.00	-13 27.1	4.214	5.221	179.1	0.2	16.8
1992 04 08	14 38.39	-18 50.6	1.042	1.996	155.2	12.1	18.3
- 6.47 -1.33	+ 25.9 +	8.7 1981 EO11	10761	- 9.03 +0.12	+ 50.6 +	2.9	
1992 04 28	14 21.45	-17 28.2	1.011	2.017	176.7	1.6	17.8
1992 04 08	14 38.83	-35 05.3	2.498	3.369	145.3	9.7	16.3
- 7.31 -0.83	- 19.1 +	8.6 1991 BY	17968	- 9.08 -0.02	+ 16.3 +	8.6	
1992 04 28	14 21.64	-35 08.0	2.416	3.376	159.1	6.1	16.0
1992 04 08	14 39.54	-20 49.5	2.048	2.981	154.1	8.4	17.4
- 7.14 -0.87	+ 16.6 +	6.0 1989 TB11	16236	- 9.02 -0.03	+ 36.5 +	3.5	
1992 04 28	14 22.55	-19 53.9	1.965	2.968	174.3	1.9	17.0
1992 04 28	14 23.83	-11 18.5	1.393	2.399	177.1	1.2	15.7
- 9.27 -0.04	+ 26.2 -	1.0 (4753)	17813	- 4.79 +1.31	+0.6 -	6.6	
1992 05 28	14 00.26	-10 28.0	1.490	2.389	144.6	14.2	16.5
1992 04 28	14 24.62	-14 39.5	2.163	3.169	179.4	0.2	17.2
- 7.84 +0.05	+ 37.3 +	0.5 1991 BM2	18436	- 4.55 +0.92	+ 23.6 -	4.5	
1992 05 28	14 04.44	-12 58.9	2.324	3.217	146.4	10.0	18.0
1992 04 28	14 25.19	-13 15.2	2.601	3.608	178.9	0.3	16.9
- 7.15 -0.02	+ 45.2 +	0.3 1983 XG	13675	- 4.69 +0.76	+ 31.5 -	4.4	
1992 05 28	14 06.00	-11 11.5	2.699	3.586	146.2	9.1	17.5

1992 04 28	14 26.78	-33 39.5	1.835	2.804	160.5	6.9	17.1
- 9.94 -0.01	+ 46.6 +10.4	1987 BS1	17959	- 5.52 +1.26	+ 78.0 - 0.6		
1992 05 28	14 01.25	-30 12.3	1.923	2.831	147.6	11.1	17.4
1992 04 28	14 26.97	-13 49.8	2.654	3.661	178.9	0.3	17.2
- 7.46 -0.03	+ 33.0 + 0.4	1988 RD5	18290	- 5.05 +0.75	+ 22.1 - 3.8		
1992 05 28	14 06.76	-12 19.5	2.755	3.645	146.7	8.8	17.8
1992 04 28	14 27.72	-19 46.6	2.582	3.585	174.3	1.6	17.0
- 7.65 -0.04	+ 33.0 + 2.6	1980 FR1	19291	- 5.09 +0.80	+ 32.8 - 2.6		
1992 05 28	14 07.08	-17 58.3	2.679	3.582	148.4	8.5	17.5
1992 04 28	14 28.44	-14 27.3	4.282	5.288	178.6	0.3	17.3
- 5.25 -0.02	+ 15.8 + 0.3	1973 SR1	16421	- 3.86 +0.45	+ 10.5 - 1.9		
1992 05 28	14 13.91	-13 43.8	4.404	5.297	148.9	5.7	17.8
1992 04 28	14 30.61	-24 58.2	2.386	3.380	169.1	3.2	16.5
- 7.50 -0.02	+ 63.1 + 4.8	(4840)	18276	- 4.63 +0.86	+ 68.8 - 2.8		
1992 05 28	14 10.79	-21 26.3	2.486	3.401	149.8	8.6	16.8
1992 04 28	14 31.20	-20 04.0	1.253	2.257	173.8	2.8	16.0
-10.49 -0.20	-0.7 + 4.9	1988 GS	13598	- 5.83 +1.50	+6.2 - 2.8		
1992 05 28	14 03.58	-19 41.5	1.327	2.251	147.9	13.8	16.7
1992 04 28	14 32.95	-13 19.2	1.137	2.144	177.4	1.2	15.6
- 9.41 -0.09	+ 25.2 0.0	1988 EB1	13161	- 4.46 +1.46	+2.3 - 6.7		
1992 05 28	14 09.30	-12 25.5	1.250	2.173	147.4	14.6	16.5
1992 04 28	14 33.23	-05 32.7	1.456	2.456	171.0	3.7	16.2
- 9.70 -0.05	+ 51.4 - 4.7	(4703)	17615	- 5.47 +1.24	+5.3 - 9.2		
1992 05 28	14 08.08	-03 59.4	1.588	2.476	143.4	14.1	16.9
1992 04 28	14 33.81	-25 25.1	2.482	3.474	168.5	3.3	17.0
- 9.05 -0.13	+ 27.4 + 5.1	1989 TH1	15422	- 6.48 +0.88	+ 41.2 - 0.9		
1992 05 28	14 08.66	-23 31.0	2.538	3.450	149.5	8.6	17.3
1992 04 28	14 34.09	-05 13.5	1.734	2.732	170.6	3.4	17.9
- 8.10 -0.15	+ 71.4 - 3.4	1980 RE1	16576	- 5.10 +1.02	+ 28.9 - 9.4		
1992 05 28	14 12.15	-02 32.0	1.805	2.688	143.4	13.0	18.4
1992 04 28	14 34.28	-01 58.4	1.860	2.851	167.5	4.4	16.1
- 7.97 -0.03	+ 69.7 - 5.8	(4695)	17611	- 4.72 +0.96	+ 19.3 - 9.5		
1992 05 28	14 13.44	+00 21.7	2.019	2.886	142.0	12.5	16.7
1992 04 28	14 34.18	-02 19.0	1.720	2.713	167.8	4.5	17.7
- 8.26 -0.23	+ 54.5 - 4.6	1978 NN1	8148	- 5.58 +1.02	+7.7 - 9.7		
1992 05 28	14 11.12	-00 36.4	1.746	2.621	142.1	13.7	18.1
1992 04 28	14 35.56	-27 15.8	1.938	2.926	166.6	4.6	17.0
- 8.44 -0.14	+ 35.4 + 6.8	5200 T-2	17978	- 5.27 +1.04	+ 53.3 - 1.3		
1992 05 28	14 12.82	-24 47.6	2.007	2.932	150.5	9.8	17.3
1992 04 28	14 36.67	-17 08.7	1.328	2.333	175.5	1.9	15.7
- 9.81 -0.19	+ 60.7 + 3.2	1983 TN1	13170	- 5.60 +1.36	+ 47.2 - 7.0		
1992 05 28	14 10.71	-14 08.0	1.405	2.329	148.2	13.2	16.3
1992 04 28	14 37.65	-13 24.3	1.890	2.896	176.3	1.3	16.4
- 7.96 -0.15	+ 43.7 + 0.5	1989 VR	15720	- 5.17 +0.96	+ 27.0 - 5.5		
1992 05 28	14 15.93	-11 27.4	1.970	2.883	148.5	10.6	16.9

1992 04 28	14 38.55	-11 20.4	1.741	2.745	175.2	1.8	17.4
- 9.39 -0.10	+ 48.4 - 0.8	1990 WS2	17647	- 5.92 +1.08	+ 23.5 - 6.6		
1992 05 28	14 13.41	-09 21.8	1.867	2.773	147.1	11.5	18.1
1992 04 28	14 38.30	-17 44.5	1.521	2.525	174.9	2.0	16.7
- 8.93 -0.35	+ 82.4 + 5.2	1988 KC	13452	- 6.06 +1.17	+ 77.9 - 6.5		
1992 05 28	14 13.00	-13 22.4	1.501	2.424	148.5	12.6	17.1
1992 04 28	14 37.93	-15 14.3	1.736	2.741	176.2	1.4	16.0
- 7.78 -0.14	+ 35.4 + 1.2	(4831)	18273	- 4.72 +1.02	+ 22.6 - 4.9		
1992 05 28	14 17.05	-13 36.1	1.832	2.754	149.5	10.8	16.6
1992 04 28	14 38.98	-19 38.0	1.396	2.399	173.3	2.8	17.4
-10.37 -0.35	+ 38.0 + 5.1	1979 QT8	15877	- 6.83 +1.35	+ 40.2 - 4.4		
1992 05 28	14 10.05	-17 23.1	1.421	2.349	149.0	12.9	17.9
1992 04 28	14 40.27	-22 43.0	1.431	2.429	170.5	3.9	16.7
-10.71 -0.33	+ 27.5 + 6.6	(4787)	18096	- 7.02 +1.36	+ 40.3 - 2.8		
1992 05 28	14 10.54	-20 43.9	1.471	2.401	149.7	12.3	17.1
1992 04 28	14 40.38	-12 36.9	2.675	3.680	175.4	1.2	17.9
- 7.46 -0.11	+ 31.6 0.0	1989 WU2	16878	- 5.46 +0.70	+ 19.2 - 3.8		
1992 05 28	14 19.51	-11 13.7	2.774	3.682	149.2	8.1	18.4
1992 04 28	14 40.93	-01 15.7	1.198	2.190	166.3	6.2	17.4
- 8.67 -0.20	+ 41.8 - 8.3	1984 CP	12800	- 4.67 +1.30	- 22.4 -11.0		
1992 05 28	14 18.14	-00 41.6	1.301	2.201	143.6	15.9	17.9
1992 04 28	14 40.72	-16 18.0	2.019	3.024	175.2	1.6	18.1
- 7.74 -0.12	+ 45.8 + 1.5	1981 GD1	12126	- 5.01 +0.90	+ 35.3 - 4.6		
1992 05 28	14 19.70	-14 05.1	2.131	3.053	150.3	9.5	18.7
1992 04 28	14 42.36	-21 10.6	1.425	2.425	171.6	3.5	18.0
-10.18 -0.16	+ 43.5 + 5.1	1981 EK10	17627	- 6.00 +1.32	+ 44.7 - 4.5		
1992 05 28	14 15.36	-18 40.6	1.536	2.469	150.5	11.7	18.6
1992 04 28	14 40.69	-18 56.6	4.366	5.367	173.6	1.2	17.0
- 4.96 -0.06	+ 27.3 + 1.3	1989 AU1	18816	- 3.81 +0.41	+ 26.7 - 1.4		
1992 05 28	14 26.65	-17 30.7	4.463	5.385	152.8	4.9	17.3
1992 04 28	14 41.12	-28 06.7	4.363	5.344	165.4	2.7	17.1
- 5.33 -0.08	+ 26.2 + 3.3	1986 TR6	15067	- 4.11 +0.45	+ 36.9 + 0.1		
1992 05 28	14 26.00	-26 26.3	4.423	5.348	153.4	4.9	17.3
1992 04 28	14 45.20	-06 09.1	3.909	4.905	170.2	2.0	17.2
- 5.49 -0.10	+9.8 - 1.6	1989 BB1	18631	- 4.40 +0.43	-5.6 - 3.2		
1992 05 28	14 29.38	-05 59.8	3.997	4.893	148.9	6.1	17.4
1992 04 28	14 47.13	-11 15.3	1.825	2.828	173.4	2.4	16.8
- 8.10 -0.23	+ 38.1 - 0.7	6555 P-L	15727	- 5.59 +0.94	+ 16.6 - 5.9		
1992 05 28	14 24.45	-09 43.6	1.908	2.830	149.7	10.4	17.3
1992 04 28	14 48.26	-18 10.0	1.017	2.020	172.7	3.6	14.3
- 8.57 -0.36	+ 81.4 + 4.5	1990 VE2	17644	- 4.44 +1.46	+ 63.7 - 9.2		
1992 05 28	14 25.38	-14 06.7	1.088	2.037	151.6	13.7	14.9
1992 04 28	14 49.89	-17 22.2	1.426	2.428	172.8	3.0	17.0
-10.61 -0.27	+ 20.0 + 2.8	1981 CB1	8683	- 6.90 +1.29	+ 15.8 - 4.1		
1992 05 28	14 20.74	-16 15.6	1.534	2.471	151.2	11.4	17.6

1992 04 28	14 49.36	+02 28.0	2.028	3.002	162.1	5.9	15.9
- 8.94 -0.20	+ 20.5 - 6.8	1988 JV	15251	- 6.51 +0.89	- 27.3 - 8.0		
1992 05 28	14 24.17	+02 19.7	2.140	3.011	142.9	11.7	16.3
1992 04 28	14 51.15	-22 43.3	2.394	3.388	169.1	3.2	17.6
- 8.07 -0.18	+ 27.8 + 3.8	1978 TP6	12325	- 5.93 +0.80	+ 35.1 - 1.6		
1992 05 28	14 28.35	-20 59.0	2.496	3.435	153.8	7.5	17.9
1992 04 28	14 52.08	-18 14.1	1.719	2.720	171.9	3.0	17.2
- 9.12 -0.39	+ 30.6 + 3.3	9540 P-L	18831	- 6.86 +1.03	+ 30.0 - 3.5		
1992 05 28	14 25.50	-16 30.5	1.745	2.684	152.3	10.1	17.5
1992 04 28	14 53.42	-19 39.5	1.599	2.598	170.9	3.5	15.6
- 9.30 -0.32	+ 58.5 + 4.3	1990 XE	17648	- 6.44 +1.11	+ 56.0 - 4.9		
1992 05 28	14 27.16	-16 30.7	1.668	2.610	152.7	10.3	16.1
1992 04 28	14 55.85	-18 35.8	1.272	2.272	170.9	4.0	17.2
-10.21 -0.70	+ 19.1 + 4.4	1981 ED37	16229	- 8.06 +1.30	+ 22.8 - 3.7		
1992 05 28	14 24.72	-17 18.0	1.248	2.197	152.4	12.4	17.4
1992 04 28	14 57.37	-28 38.8	1.468	2.450	163.5	6.7	17.3
-10.95 -0.43	+ 31.3 + 9.7	1983 RM3	12964	- 7.59 +1.34	+ 61.6 - 0.7		
1992 05 28	14 26.28	-26 00.0	1.532	2.481	153.5	10.5	17.6
1992 04 28	14 55.33	-17 58.3	2.219	3.218	171.3	2.7	18.1
- 8.14 -0.24	+ 34.3 + 2.2	1989 SL12	18118	- 6.14 +0.81	+ 31.4 - 3.1		
1992 05 28	14 31.99	-16 10.0	2.308	3.248	153.7	7.9	18.4
1992 04 28	14 56.22	-16 42.5	1.491	2.491	171.6	3.4	17.2
- 9.12 -0.50	+ 62.6 + 3.6	1971 UK	10938	- 6.92 +1.11	+ 54.8 - 6.1		
1992 05 28	14 29.20	-13 28.4	1.495	2.438	152.3	11.2	17.5
1992 04 28	14 55.97	-04 00.6	2.318	3.307	166.9	3.9	16.2
- 7.75 -0.26	+ 24.7 - 3.4	(4749)	17812	- 6.15 +0.72	-5.8 - 6.1		
1992 05 28	14 33.31	-03 27.4	2.390	3.295	148.3	9.3	16.5
1992 04 28	14 56.72	-11 59.6	1.853	2.852	171.4	3.0	15.9
- 7.98 -0.31	+ 36.7 - 0.3	1991 AX1	18635	- 5.94 +0.89	+ 17.9 - 5.5		
1992 05 28	14 33.63	-10 28.1	1.924	2.859	152.1	9.6	16.3
1992 04 28	14 56.80	-17 26.6	1.898	2.897	171.2	3.0	16.5
- 7.57 -0.34	+ 26.4 + 2.3	1980 FB	10830	- 5.73 +0.86	+ 23.2 - 3.3		
1992 05 28	14 34.64	-16 02.0	1.942	2.889	154.3	8.7	16.8
1992 04 28	14 58.07	-04 18.7	1.763	2.753	166.8	4.8	16.3
- 9.07 -0.27	+ 27.9 - 4.4	1942 CG	17622	- 6.58 +0.97	- 10.2 - 7.2		
1992 05 28	14 32.30	-03 46.9	1.881	2.794	148.3	11.0	16.8
1992 04 28	14 55.10	-17 49.7	4.589	5.586	171.4	1.5	17.8
- 4.99 -0.13	+ 16.3 + 1.0	(5012)	19288	- 4.26 +0.35	+ 15.9 - 1.1		
1992 05 28	14 40.34	-16 57.4	4.634	5.575	155.9	4.3	18.0
1992 04 28	14 55.23	-07 29.2	4.394	5.387	169.6	1.9	16.6
- 4.69 -0.12	+ 29.1 - 1.1	(4902)	18615	- 3.93 +0.35	+ 15.6 - 3.2		
1992 05 28	14 41.44	-06 18.5	4.480	5.393	151.6	5.1	16.8
1992 04 28	14 58.93	-21 35.0	1.111	2.107	168.7	5.4	18.3
- 8.70 -0.59	+ 53.5 + 7.1	1981 ER15	10539	- 5.78 +1.37	+ 60.0 - 5.2		
1992 05 28	14 33.58	-18 21.9	1.139	2.100	154.6	11.9	18.6

1992 04 28	14 58.99	-20 52.4	1.912	2.907	169.1	3.8	17.2
- 8.41 -0.36	+ 35.9 + 4.1	1950 DO	18279	- 6.48 +0.91	+ 41.1	- 2.6	
1992 05 28	14 34.31	-18 44.6	1.953	2.903	154.9	8.5	17.5
1992 04 28	14 59.05	-24 33.9	2.134	3.122	166.6	4.3	16.7
- 8.67 -0.41	-2.0 + 4.9	(4813)	18266	- 7.17 +0.84	+ 15.8	+ 0.4	
1992 05 28	14 32.98	-24 04.9	2.147	3.095	155.1	7.9	16.9
1992 04 28	15 00.59	-00 59.6	1.282	2.267	163.8	7.1	15.3
- 9.19 -0.41	+ 34.3 - 7.9	1966 CF	13055	- 6.29 +1.19	- 26.2	-10.4	
1992 05 28	14 34.42	-00 43.1	1.377	2.294	146.8	14.0	15.8
1992 04 28	15 00.28	-31 19.0	2.184	3.153	160.8	6.0	17.2
- 8.84 -0.44	+7.2 + 7.6	(4991)	19279	- 7.29 +0.88	+ 40.0	+ 2.2	
1992 05 28	14 33.67	-29 58.1	2.180	3.126	154.5	8.0	17.2
1992 04 28	15 02.82	-19 31.8	1.858	2.853	169.0	3.8	18.2
- 9.62 -0.39	+ 36.2 + 3.7	1991 AP1	17967	- 7.55 +0.97	+ 38.4	- 3.1	
1992 05 28	14 34.54	-17 27.4	1.915	2.865	154.7	8.7	18.5
1992 04 28	15 03.21	-04 23.5	2.028	3.015	166.0	4.6	17.8
- 9.06 -0.39	+ 17.3 - 3.6	1989 SA	15420	- 7.57 +0.82	- 14.9	- 6.4	
1992 05 28	14 36.04	-04 14.8	2.071	2.988	149.3	10.0	18.1
1992 04 28	15 02.28	-14 25.1	2.619	3.615	170.4	2.7	17.7
- 7.38 -0.29	+ 30.3 + 0.8	1983 TS1	14191	- 6.23 +0.62	+ 22.8	- 3.2	
1992 05 28	14 40.18	-12 58.0	2.654	3.595	154.6	7.0	17.9
1992 04 28	15 09.78	-62 00.1	2.338	3.098	+1.76	-2.1	18.1
-15.58 -0.93	- 11.8 +18.1	1991 AS1	18436	-11.83 +1.87	+ 87.1	+11.8	
1992 05 28	14 23.46	-59 55.5	2.316	3.129	+1.60	-4.6	18.1
1992 04 28	15 04.42	-22 28.7	1.809	2.800	167.1	4.6	18.2
- 9.49 -0.42	+ 19.6 + 4.9	1990 YX	17966	- 7.41 +0.99	+ 31.3	- 1.4	
1992 05 28	14 36.46	-21 00.5	1.873	2.828	155.7	8.5	18.5
1992 04 28	15 04.36	-10 34.5	0.943	1.941	169.2	5.6	15.8
- 8.77 -0.71	+ 52.2 - 1.4	1976 GR2	11341	- 6.00 +1.42	+ 12.0	-10.4	
1992 05 28	14 38.26	-08 41.6	0.982	1.937	152.2	14.1	16.2
1992 04 28	15 04.87	-10 20.6	1.497	2.492	169.0	4.4	16.8
- 9.24 -0.53	+ 58.1 - 0.6	(4964)	19002	- 7.33 +1.05	+ 29.6	- 8.1	
1992 05 28	14 37.09	-07 55.1	1.529	2.468	151.6	11.3	17.2
1992 04 28	15 05.30	-00 45.0	1.597	2.577	162.9	6.6	15.1
- 9.24 -0.34	+ 12.6 - 6.8	1940 GO	17423	- 6.79 +1.02	- 34.9	- 7.8	
1992 05 28	14 38.76	-01 16.7	1.719	2.634	148.0	11.8	15.5
1992 04 28	15 06.00	-17 24.4	1.349	2.346	169.1	4.6	15.9
- 9.75 -0.48	+ 26.4 + 2.8	1988 FB	13858	- 6.99 +1.21	+ 21.3	- 4.4	
1992 05 28	14 37.76	-15 59.5	1.439	2.397	155.0	10.3	16.3
1992 04 28	15 05.55	-04 39.5	1.277	2.267	165.8	6.3	16.4
- 8.26 -0.61	+ 89.2 - 3.6	(4760)	17946	- 6.46 +1.10	+ 33.7	-12.9	
1992 05 28	14 40.32	-01 18.0	1.297	2.224	148.3	13.9	16.7
1992 04 28	15 05.29	+04 00.2	1.907	2.870	159.0	7.2	16.7
- 8.02 -0.44	+ 52.1 - 7.1	1984 QF	13465	- 6.76 +0.79	-6.0	-10.7	
1992 05 28	14 40.86	+05 16.0	1.934	2.816	143.7	12.3	16.9

1992 04 28	15 07.97	-27 00.8		1.597	2.578	+1.57	+2.8	14.6
-10.00 -0.32	+110.4 + 8.2	1990 TZ	17965		- 6.87	+1.16	+117.9	- 5.7
1992 05 28	14 39.95	-20 52.2		1.696	2.657	+1.44	+1.1	14.9
1992 04 28	15 15.65	-57 21.1		1.124	1.974	135.7	20.9	16.3
-16.55 -2.03	- 49.4 +27.8	1989 CE2	17020		-13.03	+2.85	+116.2	+19.8
1992 05 28	14 22.10	-55 25.9		1.074	1.959	139.5	19.6	16.1
1992 04 28	15 06.14	-05 09.9		2.017	3.004	166.0	4.6	17.8
- 7.17 -0.35	+ 55.8 - 3.1	3289 T-2	14969		- 5.76	+0.74	+ 20.2	- 7.8
1992 05 28	14 44.75	-03 07.3		2.088	3.010	150.3	9.6	18.1
1992 04 28	15 08.56	-09 03.2		1.508	2.501	167.7	4.9	17.3
- 9.49 -0.47	+7.1 - 2.3	1983 AD	11619		- 7.29	+1.06	- 18.4	- 5.5
1992 05 28	14 40.57	-09 14.3		1.597	2.542	153.0	10.4	17.7
1992 04 28	15 09.23	-14 55.0		1.333	2.329	168.7	4.8	17.5
- 9.87 -0.76	+ 47.8 + 2.7	(4781)	18093		- 8.45	+1.15	+ 36.6	- 6.3
1992 05 28	14 38.23	-12 31.8		1.316	2.270	153.9	11.3	17.7
1992 04 28	15 15.51	-52 02.3		1.050	1.937	140.7	19.2	16.0
-13.91 -1.50	- 26.0 +26.6	1990 TN1	17453		-10.04	+2.38	+117.1	+14.7
1992 05 28	14 32.34	-49 23.2		1.043	1.960	144.8	17.3	16.0
1992 04 28	15 11.80	-37 14.2		1.308	2.259	154.5	11.1	18.0
-10.45 -0.93	- 36.2 +14.0	4100 P-L	19317		- 8.54	+1.43	+ 37.2	+ 7.4
1992 05 28	14 38.92	-37 00.3		1.319	2.269	153.0	11.7	18.1
1992 04 28	15 11.97	-27 12.4		1.242	2.223	162.7	7.8	16.2
-10.21 -0.71	+ 26.5 + 9.7	(4670)	17419		- 7.69	+1.35	+ 57.3	- 0.7
1992 05 28	14 41.31	-24 47.3		1.287	2.255	156.9	10.1	16.4
1992 04 28	15 10.47	-15 07.2		2.214	3.207	168.4	3.6	16.1
- 8.22 -0.35	+117.8 + 2.5	1989 VP	17208		- 6.83	+0.74	+102.6	- 7.1
1992 05 28	14 45.89	-09 18.8		2.256	3.199	154.1	7.9	16.4
1992 04 28	15 08.56	-42 49.0		4.693	5.585	149.7	5.2	17.0
- 6.14 -0.25	+2.8 + 5.6	1989 DJ	16432		- 5.54	+0.42	+ 31.5	+ 3.5
1992 05 28	14 49.81	-41 53.5		4.667	5.583	152.1	4.9	17.0
1992 04 28	15 12.66	-22 54.8		1.476	2.463	165.3	5.9	18.3
- 9.79 -0.78	+ 33.5 + 6.8	1979 SK	11504		- 8.71	+1.08	+ 52.5	- 1.6
1992 05 28	14 41.45	-20 30.2		1.439	2.404	156.8	9.6	18.3
1992 04 28	15 13.19	-12 50.5		1.387	2.381	167.7	5.2	17.9
- 8.92 -0.77	+ 33.7 + 0.8	1989 TN	19025		- 8.04	+1.02	+ 16.5	- 6.2
1992 05 28	14 44.43	-11 22.1		1.359	2.316	154.8	10.7	18.1
1992 04 28	15 13.88	-26 21.9		1.578	2.558	162.9	6.6	16.5
- 8.65 -0.53	+9.4 + 7.0	2086 T-2	15257		- 6.72	+1.04	+ 33.4	+ 0.2
1992 05 28	14 47.91	-25 05.1		1.658	2.627	158.4	8.2	16.8
1992 04 28	15 12.52	-15 28.4		2.043	3.035	167.9	4.0	17.8
- 7.56 -0.48	+ 36.5 + 1.6	1041 T-2	15424		- 6.69	+0.72	+ 29.8	- 3.8
1992 05 28	14 48.94	-13 39.0		2.043	3.001	156.8	7.7	18.0
1992 04 28	15 10.93	-34 28.9		4.373	5.315	157.0	4.2	17.7
- 5.65 -0.24	+9.2 + 4.4	5493 T-2	16884		- 5.16	+0.38	+ 29.9	+ 2.1
1992 05 28	14 53.57	-33 25.9		4.360	5.309	157.3	4.2	17.7

1992 04 28	15 15.85	-29 32.9	1.162	2.137	160.4	9.1	17.3
- 8.97 -0.93	+ 24.5 +11.6	1981 EX28	15242	- 7.45 +1.31	+ 69.7	+ 1.2	
1992 05 28	14 47.07	-26 52.2	1.148	2.122	158.0	10.3	17.3
1992 04 28	15 17.04	-06 36.4	1.051	2.039	164.7	7.5	17.2
- 8.80 -1.01	+ 48.6 - 3.2	1989 NH1	15254	- 8.17 +1.18	-0.9	-11.8	
1992 05 28	14 47.53	-05 09.0	1.016	1.969	152.1	13.9	17.3
1992 04 28	15 16.93	-14 12.7	1.192	2.184	166.9	6.0	17.0
- 9.10 -0.92	+ 46.3 + 2.2	1986 RF7	15413	- 8.26 +1.14	+ 31.5	- 7.0	
1992 05 28	14 47.10	-11 59.0	1.163	2.128	155.7	11.3	17.2
1992 04 28	15 15.95	-15 47.2	2.590	3.578	167.1	3.6	18.2
- 7.21 -0.39	+ 30.7 + 1.3	1983 VN7	15411	- 6.60 +0.56	+ 26.5	- 2.7	
1992 05 28	14 53.48	-14 13.9	2.594	3.554	158.0	6.1	18.3
1992 04 28	15 19.92	-24 48.6	1.716	2.694	162.9	6.3	16.7
- 9.81 -0.77	+ 15.1 + 6.4	1991 CK	17969	- 9.23 +0.92	+ 39.2	+ 0.4	
1992 05 28	14 48.21	-23 16.1	1.678	2.647	158.5	8.0	16.7
1992 04 28	15 19.24	-30 05.7	2.481	3.442	159.5	5.9	16.5
- 8.85 -0.50	- 14.9 + 6.0	1991 CL3	18127	- 8.09 +0.70	+ 14.4	+ 2.8	
1992 05 28	14 51.61	-30 00.5	2.512	3.474	158.2	6.2	16.6
1992 04 28	15 14.51	-08 40.5	4.496	5.479	166.2	2.5	17.7
- 4.54 -0.19	+ 34.2 - 0.8	1973 SY	16693	- 4.20 +0.29	+ 22.5	- 3.0	
1992 05 28	15 00.52	-07 11.4	4.537	5.478	155.9	4.3	17.9
1992 04 28	15 19.49	+08 05.4	1.872	2.810	153.6	9.2	17.7
- 7.91 -0.59	+ 57.2 - 8.7	1984 OA	14192	- 7.42 +0.72	- 12.0	-12.6	
1992 05 28	14 54.09	+09 20.3	1.871	2.746	142.5	13.0	17.8
1992 04 28	15 15.50	-08 56.7	4.937	5.919	166.1	2.3	17.1
- 4.85 -0.18	+ 10.3 - 0.8	1989 BW	18431	- 4.55 +0.26	+1.0	- 2.2	
1992 05 28	15 00.60	-08 37.1	4.986	5.931	156.8	3.9	17.2
1992 04 28	15 20.55	-22 44.6	2.009	2.989	163.9	5.4	17.0
- 8.04 -0.56	+ 29.3 + 4.7	1984 SG1	18109	- 7.35 +0.75	+ 41.8	- 1.0	
1992 05 28	14 55.04	-20 47.4	2.004	2.977	160.0	6.7	17.1
1992 04 28	15 19.12	-09 34.7	2.412	3.396	165.5	4.3	16.9
- 6.97 -0.39	+ 34.4 - 1.1	(4907)	18616	- 6.26 +0.58	+ 15.5	- 4.8	
1992 05 28	14 57.48	-08 13.0	2.462	3.413	155.9	7.0	17.1
1992 04 28	15 21.08	-19 42.7	1.429	2.416	165.0	6.2	18.2
- 8.03 -0.74	+ 40.2 + 4.5	6207 P-L	19318	- 7.11 +0.97	+ 44.0	- 3.6	
1992 05 28	14 55.23	-17 21.4	1.434	2.410	159.4	8.5	18.3
1992 04 28	15 16.80	-22 02.6	4.369	5.348	165.0	2.8	17.6
- 4.91 -0.21	+ 23.3 + 1.9	1990 DK	18433	- 4.55 +0.32	+ 28.0	- 0.5	
1992 05 28	15 01.64	-20 41.3	4.393	5.364	161.5	3.4	17.7
1992 04 28	15 21.46	-19 55.8	1.442	2.428	164.9	6.2	16.3
- 7.76 -0.74	+ 32.2 + 4.3	1987 DH6	17959	- 6.97 +0.94	+ 37.5	- 3.0	
1992 05 28	14 56.24	-17 57.6	1.442	2.419	159.8	8.3	16.4
1992 04 28	15 23.43	-22 24.1	1.072	2.058	163.5	8.0	15.7
- 8.81 -0.98	+ 31.6 + 7.1	(4698)	17613	- 7.61 +1.26	+ 47.6	- 2.8	
1992 05 28	14 54.63	-20 06.7	1.083	2.065	159.8	9.7	15.8

1992 04 28	15 25.12	-22 48.9	1.439	2.420	162.9	7.0	17.7
- 9.17 -0.99	+ 36.5 + 7.0	1989 TE	15422	- 9.35 +0.94	+ 58.8	- 1.0	
1992 05 28	14 53.77	-20 11.0	1.356	2.333	159.6	8.7	17.6
1992 04 28	15 23.69	-16 17.0	2.273	3.256	165.2	4.5	16.2
- 7.18 -0.53	+ 24.9 + 1.6	1988 UP	13862	- 7.01 +0.57	+ 22.3	- 2.6	
1992 05 28	15 00.36	-14 58.5	2.238	3.209	159.8	6.2	16.3
1992 04 28	15 23.42	-00 40.9	1.510	2.479	159.8	8.1	15.9
- 6.59 -0.66	+ 76.8 - 5.5	1988 PR1	13681	- 6.11 +0.78	+ 17.9	-12.3	
1992 05 28	15 01.71	+01 53.7	1.523	2.452	149.7	12.1	16.1
1992 04 28	15 28.30	-22 01.9	1.067	2.050	162.6	8.5	15.9
- 8.49 -1.24	+ 36.8 + 7.8	(4894)	18612	- 8.88 +1.13	+ 58.6	- 2.2	
1992 05 28	14 57.86	-19 20.1	0.997	1.982	160.5	9.8	15.7
1992 04 28	15 24.46	-01 33.3	2.070	3.037	160.2	6.4	17.0
- 6.46 -0.50	+ 64.4 - 4.1	6766 P-L	12700	- 6.06 +0.59	+ 21.8	- 9.0	
1992 05 28	15 03.67	+00 45.1	2.098	3.024	150.9	9.4	17.1
1992 04 28	15 28.38	-05 22.3	0.994	1.975	161.6	9.3	15.2
- 8.46 -1.19	+ 19.3 - 5.7	(4724)	17803	- 8.75 +1.11	- 36.8	-11.3	
1992 05 28	14 58.29	-05 38.2	0.953	1.918	154.5	13.1	15.2
1992 04 28	15 23.59	-22 12.5	4.939	5.911	163.5	2.8	17.5
- 5.23 -0.24	-0.4 + 1.6	(5028)	19490	- 5.14 +0.26	+5.4	+ 0.2	
1992 05 28	15 07.13	-22 02.3	4.936	5.912	162.9	2.9	17.5
1992 04 28	15 24.46	-03 40.5	4.892	5.856	161.5	3.1	17.1
- 4.89 -0.21	+8.3 - 1.8	1986 VG1	18111	- 4.76 +0.24	-6.5	- 3.0	
1992 05 28	15 09.15	-03 35.6	4.927	5.861	155.0	4.2	17.2
1992 04 28	15 29.79	-29 04.2	1.141	2.110	158.5	10.1	18.1
- 7.48 -1.21	+ 53.6 +13.1	1985 RV	13170	- 8.04 +1.06	+108.4	+ 2.1	
1992 05 28	15 02.27	-24 40.6	1.040	2.028	161.7	9.0	17.7
1992 04 28	15 25.64	-00 32.6	4.932	5.885	159.3	3.5	16.8
- 4.98 -0.21	+7.3 - 2.3	(4834)	18274	- 4.85 +0.24	- 10.6	- 3.4	
1992 05 28	15 10.07	-00 35.6	4.976	5.896	152.9	4.5	16.9
1992 04 28	15 31.18	-14 59.8	2.373	3.351	163.4	4.9	16.4
- 7.74 -0.54	+6.1 + 0.7	(4747)	17811	- 7.64 +0.55	+1.8	- 2.2	
1992 05 28	15 06.08	-14 42.8	2.377	3.352	161.0	5.6	16.5
1992 04 28	15 26.40	+19 33.9	4.882	5.716	142.8	6.1	17.1
- 5.04 -0.22	+ 15.9 - 5.7	(4833)	18273	- 4.88 +0.26	- 22.0	- 6.4	
1992 05 28	15 10.64	+19 25.8	4.941	5.710	135.6	7.1	17.2
1992 04 28	15 33.52	-21 25.1	2.080	3.052	161.7	5.9	18.0
- 8.88 -0.73	+5.5 + 3.6	1981 SC7	10836	- 9.14 +0.64	+ 18.0	- 0.1	
1992 05 28	15 03.94	-20 43.2	2.034	3.015	162.1	5.9	17.9
1992 04 28	15 36.46	-13 50.8	1.149	2.130	162.1	8.3	16.5
- 8.73 -0.97	+ 28.6 + 0.4	1985 HG1	13039	- 8.12 +1.07	+ 10.7	- 6.0	
1992 05 28	15 07.40	-12 40.0	1.191	2.173	160.4	9.0	16.7
1992 04 28	15 35.95	-29 24.1	2.140	3.094	157.3	7.2	16.6
- 8.42 -0.62	+ 29.4 + 6.8	1971 TY2	17623	- 7.95 +0.72	+ 56.6	+ 1.2	
1992 05 28	15 08.93	-27 04.8	2.166	3.148	162.7	5.5	16.6

1992 04 28	15 34.40	-08 43.6	2.496	3.466	161.6	5.3	17.5
- 6.99 -0.45	+ 47.4 - 1.3	1981 ET31	16577	- 6.73 +0.51	+ 26.4 - 5.3		
1992 05 28	15 12.05	-06 45.4	2.548	3.508	157.8	6.3	17.6
1992 04 28	15 39.95	-23 17.5	2.005	2.970	159.6	6.8	17.9
- 7.82 -0.83	-1.6 + 3.9	4136 T-2	14969	- 8.78 +0.55	+ 15.8 + 1.0		
1992 05 28	15 12.49	-22 50.8	1.917	2.905	164.1	5.5	17.7
1992 04 28	15 38.60	+06 40.4	2.212	3.136	151.9	8.7	16.6
- 7.23 -0.55	+ 42.6 - 7.4	1991 CB	18126	- 7.16 +0.54	- 13.6 -10.0		
1992 05 28	15 15.01	+07 28.5	2.262	3.160	146.8	10.1	16.7
1992 04 28	15 40.02	+04 26.0	1.458	2.401	153.3	10.9	14.7
- 6.99 -0.89	+ 48.5 - 8.7	1991 AE	17831	- 7.58 +0.70	- 25.1 -13.7		
1992 05 28	15 15.24	+05 10.2	1.440	2.366	148.9	12.8	14.7
1992 04 28	15 41.76	-21 53.8	1.369	2.339	159.7	8.6	16.1
- 7.96 -0.93	+ 81.3 + 6.7	1986 TN1	18286	- 7.90 +0.90	+ 89.0 - 4.8		
1992 05 28	15 14.58	-17 17.1	1.373	2.363	163.8	6.9	16.1
1992 04 28	15 43.17	-21 06.7	1.078	2.052	159.7	9.8	16.5
- 7.91 -1.32	+4.9 + 5.0	1976 SA6	15875	- 9.07 +0.98	+ 20.8 - 0.9		
1992 05 28	15 13.40	-20 17.3	1.036	2.031	164.2	7.8	16.3
1992 04 28	15 45.00	-16 55.4	1.489	2.460	160.0	8.0	17.9
- 8.76 -1.05	+ 23.4 + 2.5	1986 QN3	12127	- 9.77 +0.75	+ 23.0 - 3.1		
1992 05 28	15 13.86	-15 35.5	1.438	2.426	163.1	7.0	17.7
1992 04 28	15 42.98	-30 48.6	2.218	3.160	155.2	7.7	17.3
- 7.42 -0.70	+ 17.1 + 6.7	1988 QP	13859	- 7.69 +0.59	+ 48.2 + 2.6		
1992 05 28	15 17.92	-29 02.9	2.199	3.185	163.9	5.1	17.2
1992 04 28	15 38.76	-25 05.8	4.197	5.150	159.1	4.0	17.5
- 5.19 -0.34	+1.7 + 2.3	(5041)	19659	- 5.44 +0.26	+ 11.9 + 0.8		
1992 05 28	15 21.73	-24 42.5	4.169	5.158	166.0	2.7	17.5
1992 04 28	15 43.18	-17 51.7	2.195	3.162	160.4	6.1	17.9
- 7.25 -0.66	+ 39.6 + 2.4	1989 UL	18293	- 7.64 +0.52	+ 40.0 - 2.5		
1992 05 28	15 18.67	-15 43.1	2.170	3.158	164.2	5.0	17.8
1992 04 28	15 42.81	-03 37.9	2.177	3.132	157.6	7.0	17.5
- 6.89 -0.60	+ 32.3 - 3.5	1979 YN	17955	- 7.16 +0.50	-1.1 - 6.9		
1992 05 28	15 19.70	-02 45.0	2.193	3.146	156.1	7.5	17.5
1992 04 28	15 42.49	-22 11.9	1.835	2.800	159.5	7.2	16.6
- 6.68 -0.77	+ 24.8 + 4.2	1978 VV9	17815	- 7.16 +0.61	+ 36.7 - 0.8		
1992 05 28	15 19.19	-20 30.4	1.812	2.805	165.6	5.2	16.5
1992 04 28	15 45.68	-20 04.5	1.477	2.445	159.4	8.3	16.5
- 7.62 -1.06	+ 26.7 + 4.2	(4799)	18100	- 8.84 +0.70	+ 36.7 - 1.8		
1992 05 28	15 17.73	-18 18.3	1.410	2.403	164.8	6.3	16.2
1992 04 28	15 45.05	-09 07.2	1.976	2.940	159.2	7.0	15.9
- 7.50 -0.75	+ 25.8 - 1.4	(4804)	18102	- 8.20 +0.53	+4.2 - 5.4		
1992 05 28	15 19.16	-08 14.7	1.944	2.917	160.1	6.8	15.9
1992 04 28	15 48.75	-24 31.2	1.607	2.565	157.3	8.7	17.4
- 9.04 -1.06	-1.4 + 5.4	(4728)	17804	-10.08 +0.74	+ 23.6 + 1.6		
1992 05 28	15 16.72	-23 51.0	1.566	2.559	165.0	5.9	17.2

1992 04 28	15 46.87	-15 44.6	2.015	2.979	159.6	6.8	16.9
- 6.96 -0.73	+ 25.6 + 1.3	1989 VT1	15721	- 7.64 +0.51	+ 20.9	- 3.0	
1992 05 28	15 22.67	-14 27.2	1.988	2.977	164.5	5.2	16.8
1992 04 28	15 47.29	-17 02.4	2.452	3.413	159.5	5.9	18.1
- 6.54 -0.66	+ 27.6 + 1.8	1971 UT1	13593	- 7.45 +0.38	+ 27.8	- 1.9	
1992 05 28	15 24.41	-15 32.4	2.368	3.359	165.4	4.4	17.9
1992 04 28	15 50.00	-23 07.5	1.719	2.677	157.5	8.3	16.7
- 7.65 -0.91	+ 16.7 + 4.7	1991 AK	17967	- 8.48 +0.65	+ 33.4	0.0	
1992 05 28	15 22.92	-21 43.9	1.695	2.691	166.6	5.0	16.5
1992 04 28	15 50.90	-08 06.2	1.180	2.146	157.6	10.3	16.4
- 7.95 -1.10	+ 24.9 - 3.5	1990 WB2	18435	- 8.53 +0.88	- 13.3	- 8.1	
1992 05 28	15 22.54	-07 40.4	1.208	2.189	160.3	9.0	16.4
1992 04 28	15 53.62	-25 56.3	1.603	2.555	155.7	9.3	17.1
- 9.11 -1.06	+6.0 + 6.2	1986 QQ	17632	-10.05 +0.76	+ 34.5	+ 1.8	
1992 05 28	15 21.49	-24 47.4	1.584	2.579	166.0	5.5	16.9
1992 04 28	15 54.03	-14 55.3	1.570	2.531	157.9	8.6	17.1
- 8.21 -1.01	+ 49.6 + 1.9	1990 XP	17828	- 9.34 +0.65	+ 40.8	- 5.0	
1992 05 28	15 24.64	-12 26.8	1.537	2.526	163.8	6.4	16.9
1992 04 28	15 54.99	-14 01.3	1.347	2.311	157.7	9.5	17.1
- 7.95 -1.09	+ 47.7 + 1.1	1979 MJ5	13455	- 9.00 +0.75	+ 32.3	- 6.1	
1992 05 28	15 26.14	-11 47.8	1.341	2.331	163.7	7.0	17.0
1992 04 28	15 47.68	-15 41.4	4.558	5.513	159.4	3.7	17.2
- 4.59 -0.31	+ 10.5 + 0.4	(5123)	19842	- 4.96 +0.19	+8.4	- 1.1	
1992 05 28	15 32.43	-15 10.4	4.540	5.532	166.9	2.4	17.2
1992 04 28	15 55.94	-09 29.3	1.512	2.469	156.7	9.3	16.9
- 8.19 -0.94	+ 64.8 - 1.2	(4706)	17616	- 8.85 +0.70	+ 33.6	- 8.4	
1992 05 28	15 27.34	-06 48.6	1.536	2.514	160.5	7.8	16.9
1992 04 28	15 49.52	-30 29.9	4.376	5.301	154.2	4.7	17.7
- 4.89 -0.38	+9.7 + 3.3	1991 GX1	18440	- 5.38 +0.22	+ 25.8	+ 1.8	
1992 05 28	15 33.02	-29 33.9	4.316	5.307	166.5	2.5	17.6
1992 04 28	15 50.03	-11 16.9	4.795	5.744	158.5	3.7	18.1
- 4.22 -0.29	+ 23.7 - 0.3	1973 SO1	18280	- 4.61 +0.16	+ 16.4	- 2.0	
1992 05 28	15 35.95	-10 13.6	4.778	5.760	164.4	2.7	18.1
1992 04 28	16 03.28	-22 55.3	1.133	2.088	154.7	11.9	15.6
- 7.99 -1.47	- 16.0 + 4.7	1990 UF3	17458	-10.20 +0.82	+8.0	+ 1.8	
1992 05 28	15 31.74	-23 02.0	1.111	2.114	168.6	5.5	15.3
1992 04 28	16 04.73	-33 53.8	1.432	2.357	149.7	12.5	17.9
- 8.71 -1.32	+ 10.2 +10.6	1988 DO	14355	-10.30 +0.83	+ 66.6	+ 5.6	
1992 05 28	15 32.22	-31 49.4	1.408	2.402	165.0	6.3	17.6
1992 04 28	15 59.06	-20 10.3	2.003	2.952	156.3	7.9	17.0
- 6.74 -0.87	+ 11.4 + 2.6	1989 XM	15898	- 8.21 +0.42	+ 19.1	- 0.6	
1992 05 28	15 34.26	-19 18.8	1.942	2.942	168.9	3.8	16.7
1992 04 28	16 02.48	-27 06.3	2.108	3.042	153.4	8.5	17.6
- 7.68 -0.98	+ 20.4 + 5.8	1989 YB	15899	- 9.70 +0.39	+ 49.2	+ 2.6	
1992 05 28	15 33.88	-25 16.1	1.976	2.976	168.6	3.9	17.2

1992 04 28	15 53.47	-00 50.2	4.631	5.553	153.9	4.6	17.4
- 4.45 -0.31	+ 15.8 - 2.3	1989 CK2	19025	- 4.92 +0.16		-3.3	- 3.8
1992 05 28	15 38.55	-00 28.9	4.619	5.563	156.6	4.1	17.4
1992 04 28	16 02.13	-10 34.0	1.574	2.525	155.5	9.5	16.4
- 6.80 -1.04	+ 58.7 0.0	(4839)	18275	- 8.65 +0.49		+ 36.0	- 7.3
1992 05 28	15 36.12	-07 58.6	1.519	2.505	162.7	6.9	16.2
1992 04 28	15 59.77	-11 57.3	2.467	3.413	156.3	6.8	16.4
- 5.83 -0.66	+ 27.5 - 0.3	1978 CH	18104	- 6.95 +0.31		+ 15.5	- 3.6
1992 05 28	15 38.83	-10 46.8	2.423	3.413	165.3	4.3	16.3
1992 04 28	16 06.19	-29 59.9	1.932	2.857	151.4	9.7	16.3
- 8.04 -1.01	-9.3 + 6.2	(4719)	17620	- 9.60 +0.54		+ 25.9	+ 4.1
1992 05 28	15 36.86	-29 31.2	1.908	2.906	167.3	4.4	16.1
1992 04 28	15 58.51	-31 38.2	4.453	5.363	152.0	5.1	17.3
- 4.85 -0.42	+3.6 + 3.3	1989 CW1	16432	- 5.60 +0.18		+ 20.9	+ 2.2
1992 05 28	15 41.74	-30 59.3	4.372	5.364	167.1	2.4	17.1
1992 04 28	16 06.27	-18 04.1	1.590	2.538	154.9	9.7	17.7
- 7.32 -1.17	+ 43.2 + 3.5	1981 EN17	15879	- 9.78 +0.45		+ 47.9	- 2.7
1992 05 28	15 37.61	-15 36.0	1.492	2.493	168.2	4.8	17.3
1992 04 28	16 04.74	-11 30.5	2.247	3.188	155.0	7.7	17.8
- 6.84 -0.74	+ 44.9 - 0.2	(4740)	17808	- 7.99 +0.37		+ 30.0	- 4.6
1992 05 28	15 40.43	-09 29.9	2.230	3.218	164.6	4.8	17.7
1992 04 28	16 06.66	-17 14.1	2.351	3.291	154.8	7.5	17.0
- 6.11 -0.74	+ 44.9 + 2.0	1978 SN7	15700	- 7.50 +0.31		+ 44.2	- 2.5
1992 05 28	15 44.29	-14 52.4	2.296	3.296	169.1	3.3	16.7
1992 04 28	16 16.80	-23 46.0	1.988	2.913	151.5	9.5	17.4
- 9.78 -1.11	- 44.5 + 2.9	1990 VX2	18823	-11.92 +0.47		- 21.4	+ 3.7
1992 05 28	15 41.33	-25 26.3	1.967	2.971	170.1	3.4	17.2
1992 04 28	16 01.06	+10 33.3	4.497	5.356	145.3	6.1	17.4
- 4.17 -0.35	+ 34.9 - 4.2	1989 EO11	16433	- 4.83 +0.14		+2.5	- 6.1
1992 05 28	15 46.66	+11 33.0	4.484	5.354	145.9	6.1	17.4
1992 04 28	16 09.57	-03 14.2	1.563	2.494	151.5	11.1	18.0
- 6.36 -1.01	+ 83.4 - 3.8	3111 T-2	17978	- 8.08 +0.47		+ 33.4	-11.5
1992 05 28	15 45.17	-00 04.8	1.565	2.529	156.9	9.0	18.0
1992 04 28	16 12.87	-23 12.6	1.542	2.479	152.5	10.8	16.9
- 7.40 -1.23	+ 36.4 + 5.5	1991 AF	18125	- 9.84 +0.50		+ 55.9	- 0.2
1992 05 28	15 43.78	-20 43.7	1.478	2.485	171.3	3.5	16.5
1992 04 28	16 07.80	-08 47.0	2.273	3.207	153.7	8.0	17.9
- 5.84 -0.76	+ 51.5 - 0.8	1988 PX2	15890	- 7.39 +0.28		+ 31.2	- 5.7
1992 05 28	15 46.03	-06 33.9	2.214	3.197	162.9	5.4	17.7
1992 04 28	16 08.54	-10 48.4	2.352	3.286	154.0	7.7	18.4
- 6.27 -0.71	+ 39.5 - 0.6	1989 TC3	19502	- 7.47 +0.32		+ 23.4	- 4.5
1992 05 28	15 46.02	-09 06.9	2.345	3.334	165.1	4.5	18.3
1992 04 28	16 10.79	-21 44.7	2.545	3.474	153.3	7.5	17.3
- 6.11 -0.79	+ 12.8 + 2.6	1982 PR	13856	- 8.02 +0.21		+ 23.2	+ 0.4
1992 05 28	15 47.74	-20 46.6	2.422	3.429	172.3	2.3	16.9