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

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EDITORIAL NOTICE.

The next MPCs will be published on or about 1993 Aug. 2. No MPCs will be issued in July.

The "Dictionary of Minor Planet Names", published by Springer-Verlag in May 1992, is now out of print. Author L. D. Schmadel, chairman of the IAU Commission 20 Study Group on the Origin of Minor Planet Names, is therefore planning a second edition, in which the opportunity will be taken to correct errors in the first edition: notification of errors should be sent to him, as soon as possible, at Astronomishes Rechen-Institut, Monchhofstrasse 12-14, W-6900 Heidelberg 1, Federal Republic of Germany. Discoverers of unnamed minor planets through (5610) are invited to submit proposed names and citations to the Minor Planet Center (by e-mail, the CBAT/MPC Computer Service or MS-DOS diskette only) by July 16, so that the names can be considered by the Minor Planet Names Committee in time for publication in the Sept. 1 MPCs. This particularly applies to minor planets up to (2892), for which, under the "ten-year rule", discoverers will lose their naming privileges.

By popular request, a new edition--the eighth--of the 'Catalogue of Cometary Orbits' is now available, little more than a year after its predecessor. The 102 pages contain orbital elements (in the J2000.0 system) for 1392 cometary apparitions through Apr. 1993. Greater efficiency in printing now allows the names of the comets to appear together with the orbits. The new catalogue sells at the same price as the seventh edition: $20.00, although subscribers to these Circulars can purchase it for $10.00 and have their accounts debited by this amount. The main part of the catalogue and the table of 'original' and 'future' 1/a values for the 289 long-period comets with orbits of the highest quality can be supplied by e-mail for $50.00; they are also available on an MS-DOS diskette (5.25-inch or 3.5-inch) for $100.00, this including a facility for extracting individual orbits and computing ephemerides. Checks accompanying orders (or in cases where there is insufficient credit in the accounts for these Circulars) should be made out to "Minor Planet Center".

The Minor Planet Center is also issuing a new 'Catalogue of High-Precision Orbits of Unnumbered Minor Planets'. A supplement to the low-precision 'Catalogue of Orbits of Unnumbered Minor Planets', the new publication contains J2000.0 orbital elements for 3595 multiple-opposition orbits and 170 long-arc single-opposition orbits for the standard epoch 1993 Aug. 1.0. Opposition dates, positions, motions and magnitudes are also given for objects that reach opposition between 1993 May 23 and 1994 June 7; more extensive ephemerides are given for

105 unusual minor planets, including several earth-approaching objects. A companion to the 'Efemeridy Malykh Planet', the corresponding volume for the numbered minor planets (published by the Institute of Theoretical Astronomy, St. Petersburg), the new 174-page Catalogue costs $20.00 and will be revised on approximately an annual basis in the future if there is sufficient demand. The orbits are also being issued on an MS-DOS diskette for $100.00; the ephemerides are not included, but there is a computer program for generating them.

Beginning with the current batch of MPCs, the standard ephemerides are being reduced to a single line. This line lists the objects in order of opposition date (UT, truncated to 0.1 day), giving then the J2000.0 R.A. (in hours and minutes) and Decl. (in degrees and minutes), visual magnitude V, daily motion (in R.A. in minutes of time, in Decl. in minutes of arc), the minimum phase angle (in degrees) and the date of the (nearest) month that phase angle is attained, and the MPC reference to the orbital elements. This reduction does not mean that observations are unimportant. There is most decidedly a need for observations of unnumbered minor planets, and the large number of entries in the 'Catalogue of High-Precision Orbits of Unnumbered Minor Planets' is indicative of this need; with enough observations at more oppositions, the number of entries in this Catalogue would decrease as minor planets qualify for numbering. The one-line ephemerides show the objects that should be observable at a particular time, and the conciseness now allows the inclusion of fainter objects for which space did not previously allow ephemerides. It is anticipated that most observers will nowadays be computing their own detailed ephemerides from the elements referenced.

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ERRATA.

MPC	Line	
19257	28	For 1991 read 1990
22019	12	The observers should read T. J. Balonek, C. A. Tremonti, M. Stockmaster

* * * * *

CORRECTED OBSERVATIONS.

The following observations correct those previously published.

Object		Date	UT	R. A. (2000)	Decl.	Reference	Mag.	N	Obs.
1951 CB		1951 02	10.27434	09 24 22.51	+15 12 11.4	MPC 1160		1	760
1951 CB		1951 02	10.31949	09 24 20.09	+15 12 37.8	MPC 1160		1	760
1951 CE		1951 02	10.27434	09 11 40.09	+12 58 17.0	MPC 1160		2	760
1951 CE		1951 02	10.31949	09 11 37.39	+12 58 38.3	MPC 1160		2	760
1953 ED1		1953 03	14.10350	09 46 58.61	+08 47 24.8	MPC 6511		3	760
1984 QY1	*	1984 08	27.34792	00 27 31.48	-14 11 16.3	MPC 20093	15.0	4	675
1984 QY1		1984 08	27.38750	00 27 31.36	-14 13 17.8	MPC 20093		4	675
1984 QY1		1984 08	29.36250	00 27 26.21	-16 04 08.8	MPC 20093		4	675
1984 QY1		1984 08	29.40347	00 27 25.59	-16 06 41.1	MPC 20093		4	675
1984 QY1		1984 08	30.41215	00 27 17.45	-17 11 18.3	MPC 20093		4	675
1984 QY1		1984 08	30.43229	00 27 17.22	-17 12 40.3	MPC 20093		4	675
1991 RF41	*	1991 09	10.01111	00 36 27.71	+01 35 41.6	MPC 21842	18.8		033
1992 UX4		1992 11	25.32691	03 43 10.88	+19 10 06.8	MPC 21358			675
1992 UX4		1992 11	25.35885	03 43 09.48	+19 09 33.6	MPC 21358			675
1992 UX4		1992 11	28.28993	03 41 14.94	+18 19 05.7	MPC 21358			675

1992 WS		1992 11 25.32691	03 33 03.05	+18 33 40.0	MPC 21358		675
1992 WS		1992 11 25.35885	03 33 01.03	+18 33 27.4	MPC 21358		675
1992 WS		1992 11 28.28993	03 30 09.45	+18 14 32.5	MPC 21358		675

Note 1: 1951 CB = (3383). 2: 1951 CE = (1733). 3: 1953 ED1 = (3421). 4: date corrected by +1 day.

* * * * *

DELETED OBSERVATION.

The following observations is to be deleted.

Object		Date	UT	R. A. (2000)	Decl.	Reference	Obs.
1956 RE	*	1956 09 04.18		21 54.4	-03 35	MPC 1582	760

* * * * *

IDENTIFICATION CHANGES.

Continuation to MPC 21979.

Object		Date	UT	R. A. (2000)	Decl.	Old desig.	Mag.	Obs.
A916 UR	*	1916 10 31.917		01 46.8	+11 04	720	13.0	008
1940 GH1	*	1940 04 11.89751	13 25 50.07	+08 44 50.9	1940 GP			062
1949 CR	*	1949 02 03.94193	08 55 38.03	+13 19 09.4	1949 CK			012
1964 UT	*	1964 10 30.67917	00 58 22.68	+06 17 11.5	1964 TG1			330
1980 UZ1	*	1980 10 17.89933	02 36 51.29	+16 17 38.5	1980 TY12	18.0		095
1982 YK5	*	1982 12 21.88838	04 29 25.33	+05 18 44.2	1982 VX12	16.5		095
1986 EX5	*	1986 03 12.14649	11 35 26.22	+08 39 10.7	1986 EF1	18.0		809
1986 VN9	*	1986 11 05.15381	00 54 36.18	-04 08 44.2	1986 TC2	17.0		688
1986 VN9		1986 11 05.22667	00 54 33.62	-04 08 46.9	1986 TC2			688
1987 SG30	*	1987 09 26.89957	23 51 06.97	+11 56 23.2	1987 SC20	16.5V		095
1987 SH30	*	1987 09 25.82245	22 39 32.73	-07 02 32.5	1987 SA6	16.5		095
1990 UY13	*	1990 10 22.14306	23 21 30.86	-02 17 08.5	1990 RC2	17.8		675
1990 UY13		1990 10 22.17517	23 21 30.15	-02 17 17.7	1990 RC2			675
1993 DN2	*	1993 02 20.96806	09 09 54.83	+18 36 40.2	1993 BQ5	19.0		010
1993 DN2		1993 02 20.97986	09 09 54.14	+18 36 42.1	1993 BQ5			010
1993 DN2		1993 02 20.99167	09 09 53.44	+18 36 41.7	1993 BQ5			010
1993 DO2	*	1993 02 20.96806	09 09 56.33	+18 39 13.8	1981 ER23	18.5		010
1993 DO2		1993 02 20.97986	09 09 55.70	+18 39 17.1	1981 ER23			010
1993 DO2		1993 02 20.99167	09 09 55.04	+18 39 20.4	1981 ER23			010

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IDENTIFICATION.

The following identification with a numbered minor planet, by G. V. Williams, continues the list on MPC 21628:

A916 UR = (1029)

* * * * *

INDEX TO ORBITAL ELEMENTS.

The following index to orbital elements continues that on MPC 20062-20070 and refers to orbits of both comets and minor planets published since then. Only the latest orbit for each object is indexed, and multiple-designation minor planets are listed only under the principal designation.

The index does not include the additional one-opposition T-1 orbits given on MPC 20605-20606, 21540 and 21904-21905.

Comet	MPC	Comet	MPC	Comet	MPC
/1987 XXXVII	21757	/1989 XVI	20773	/1990 VI	20308
/1990 XIX	20308	/1990 XX	20602	/1990 XXII	20908
/1991 IX	21757	/1991 XI	21758	/1991 XIII	20774
/1991 XVIII	20774	/1991 XIX	20774	/1991 XXII	20774
/1991 XXIV	21758	/1991i	20775	/1991v	20309
/1991a1	20602	/1991g1	20774	/1992d	21758
/1992g	20775	/1992h	22029	/1992i	20481
/1992n	20602	/1992p	21532	/1992q	21235
/1992r	20775	/1992s	20908	/1992t	21235
/1992x	21236	/1992y	22029	/1992a1	21533
/1993a	22030	/1993d	22029	/1993e	22031

Comet	MPC	Comet	MPC
P/Churyumov-Gerasimenko	22030	P/Clark	20122
P/Comas Sola	22031	P/d'Arrest	20122
P/de Vico-Swift	20122	P/Denning-Fujikawa	22031
P/du Toit-Neujmin-Delporte	22030	P/Finlay	20122
P/Gunn	22032	P/Helin-Roman-Crockett	22033
P/Honda-Mrkos-Pajdusakova	20124	P/IRAS	22033
P/Jackson-Neujmin	20123	P/Kopff	22032
P/Longmore	20123	P/Machholz	22033
P/Mrkos	22033	P/Mueller 1	22030
P/Parker-Hartley	22031	P/Perrine-Mrkos	20123
P/Pons-Winnecke	22030	P/Reinmuth 1	20123
P/Schwassmann-Wachmann 3	20123	P/Shoemaker-Holt 2	22032
P/Spacewatch	22032	P/Tritton	22033
P/Tuttle-Giacobini-Kresak	20122	P/West-Hartley	22031
P/Wild 4	22032		

Planet	MPC	Planet	MPC	Planet	MPC	Planet	MPC	Planet	MPC
(32)	20607	(70)	20607	(77)	21760	(91)	20779	(107)	20913
(120)	20779	(141)	20779	(142)	20913	(144)	20913	(149)	21540
(155)	20914	(160)	20780	(166)	20780	(197)	20914	(243)	20780
(251)	20780	(255)	20780	(262)	22035	(274)	20607	(312)	20780
(335)	21905	(346)	20780	(347)	20780	(354)	20914	(382)	20485
(407)	21905	(431)	21760	(454)	20125	(486)	20914	(492)	20485
(545)	20914	(571)	20780	(598)	20914	(630)	20780	(656)	20485
(668)	20607	(741)	20125	(804)	20780	(816)	20607	(820)	20780
(843)	21905	(860)	20781	(889)	20126	(910)	20914	(959)	20914
(962)	21540	(1002)	20781	(1026)	20607	(1033)	20313	(1051)	22035
(1054)	20485	(1063)	20485	(1087)	20607	(1119)	20607	(1134)	21760
(1190)	20126	(1234)	20607	(1290)	21239	(1335)	20126	(1356)	20607
(1362)	20607	(1364)	20485	(1375)	20313	(1433)	20485	(1438)	20126
(1453)	20126	(1459)	20781	(1487)	20781	(1495)	20126	(1530)	21761
(1563)	20608	(1622)	20914	(1642)	20485	(1649)	21905	(1699)	20781
(1709)	20126	(1715)	20781	(1738)	20781	(1752)	21239	(1762)	21761
(1771)	21541	(1796)	20781	(1799)	20781	(1802)	21761	(1808)	21541
(1818)	21905	(1821)	21905	(1832)	21761	(1863)	20313	(1864)	21541
(1873)	20126	(1886)	21239	(1928)	20485	(1945)	21761	(1954)	20781
(1960)	20485	(2028)	20608	(2049)	21761	(2050)	20486	(2060)	20608
(2061)	21761	(2062)	20781	(2070)	20313	(2071)	20486	(2076)	20313
(2078)	21239	(2142)	20126	(2151)	20608	(2162)	21541	(2194)	21761
(2206)	20608	(2213)	20914	(2215)	21905	(2226)	20608	(2235)	21905
(2237)	21761	(2238)	21541	(2240)	20608	(2247)	20126	(2253)	20608
(2258)	20608	(2259)	21906	(2272)	20486	(2277)	21239	(2283)	20126

(2284) 20608 (2299) 22035 (2308) 20609 (2309) 20781 (2311) 20609
(2335) 21761 (2342) 21906 (2352) 20609 (2355) 20126 (2369) 21239
(2382) 20609 (2387) 20609 (2389) 20609 (2399) 20609 (2403) 21906
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(5472) 21773 (5473) 21773 (5474) 21774 (5475) 21774 (5476) 21774

(5477) 21775	(5478) 21775	(5479) 21776	(5480) 21776	(5481) 21776
(5482) 21777	(5483) 21777	(5484) 21778	(5485) 21778	(5486) 21779
(5487) 21779	(5488) 21779	(5489) 21780	(5490) 21780	(5491) 21781
(5492) 21781	(5493) 21781	(5494) 21909	(5495) 21909	(5496) 21910
(5497) 21910	(5498) 21911	(5499) 21911	(5500) 21911	(5501) 21912
(5502) 21912	(5503) 21913	(5504) 21913	(5505) 21913	(5506) 21914
(5507) 21914	(5508) 21915	(5509) 21915	(5510) 21916	(5511) 21916
(5512) 21916	(5513) 21917	(5514) 21917	(5515) 21918	(5516) 21918
(5517) 21918	(5518) 21919	(5519) 21919	(5520) 21920	(5521) 21920
(5522) 21921	(5523) 21921	(5524) 21921	(5525) 21922	(5526) 21922
(5527) 21922	(5528) 21923	(5529) 21923	(5530) 21924	(5531) 21924
(5532) 22035	(5533) 22036	(5534) 22036	(5535) 22036	(5536) 22037
(5537) 22037	(5538) 22038	(5539) 22038	(5540) 22038	(5541) 22039
(5542) 22039	(5543) 22039	(5544) 22040	(5545) 22040	(5546) 22041
(5547) 22041	(5548) 22041	(5549) 22042	(5550) 22042	(5551) 22042
(5552) 22043	(5553) 22043	(5554) 22044	(5555) 22044	(5556) 22044
(5557) 22045	(5558) 22045	(5559) 22046	(5560) 22046	(5561) 22046
(5562) 22047	(5563) 22047	(5564) 22048	(5565) 22048	(5566) 22048

Planet	MPC	Planet	MPC	Planet	MPC	Planet	MPC
A920 TA	21963	1929 PB	22072	1929 TD1	21924	1929 VS	21963
1931 FC	21963	1931 VS	22072	1933 FE1	22072	1934 GA	22072
1934 RB	21559	1936 NB	22072	1936 QE1	22072	1938 DM1	21963
1939 UB	21963	1940 ED	22049	1942 CG	21963	1942 RJ	21963
1943 DF	21963	1943 DL	21963	1948 AA	22072	1948 AF	22072
1948 AG	21963	1949 PN	22072	1949 QL	21559	1949 QC1	22072
1950 DE	20803	1950 DO	21963	1951 SY	20803	1951 WH	22072
1952 QW	22072	1952 SW1	21963	1953 FK1	22072	1953 GH	20138
1953 GN	20803	1953 TA1	21963	1953 TS2	22072	1955 EH	21963
1955 SF	22072	1955 UN1	22072	1964 BF	21963	1964 UP	21925
1965 UA	21963	1966 BB	21963	1967 HA	21963	1967 JN	20327
1967 JP	22072	1967 KB	21963	1967 UT	22072	1968 OH	22072
1968 OL	20627	1968 OA1	21963	1968 QE	22072	1969 QR	21963
1969 TA	22072	1969 TM1	21096	1969 TR1	21925	1969 TX5	21963
1969 UP1	21963	1970 OB	21963	1970 OF	22072	1970 WD	22072
1971 BD3	21963	1971 FD	20481	1971 QN	22072	1971 RA	22072
1971 SB	22049	1971 SN2	21963	1971 TF	22072	1971 TY2	21963
1971 UK	22072	1971 UM	22072	1971 UN	21963	1971 UT1	22072
1972 HL	22072	1972 RU1	22072	1972 RX1	21963	1972 RF2	21250
1972 RU3	21963	1972 TE	22072	1972 TF	21963	1973 AW3	21963
1973 EK	21963	1973 QO1	21925	1973 RF	21963	1973 SY	21963
1973 SE1	20804	1973 SH1	21963	1973 SJ1	22072	1973 SK1	21963
1973 SM1	21963	1973 SA2	22072	1973 SQ3	21963	1973 ST3	21963
1973 SS4	20327	1973 SB6	22072	1973 SR6	22072	1973 UC	22072
1973 UR5	21963	1974 FJ	21963	1974 OE	21963	1974 QM2	22072
1974 RY1	21097	1974 SF	22072	1974 SK1	22072	1974 XT	21963
1974 XW	22072	1975 AN	21963	1975 LQ	22072	1975 LR	21963
1975 NC	21782	1975 QC	22072	1975 RP	21963	1975 SK	21963
1975 SA1	22072	1975 SJ1	21097	1975 SE2	22072	1975 TM2	21963
1975 TR2	21963	1975 TX2	21963	1975 TQ3	21963	1975 TC6	21963
1975 TK6	21963	1975 UE	22072	1975 UF	22072	1975 VB1	21250
1975 VK2	21963	1975 VV2	21963	1975 VW2	22072	1975 VN5	20138
1975 VR5	21964	1975 XF	21964	1975 XH	22072	1975 XP3	21964
1975 YD	22072	1976 AH	21964	1976 DJ1	20495	1976 GD2	21964
1976 GK3	21964	1976 GO3	22072	1976 GY3	21964	1976 GM7	21964
1976 QN	22072	1976 QP	21964	1976 QC1	22072	1976 QE1	21964
1976 QZ1	22072	1976 SJ	21964	1976 SG2	22072	1976 SK3	21964
1976 SW3	21964	1976 SA6	22072	1976 SZ9	22072	1976 UD4	21964
1976 UG15	22072	1976 UR15	22072	1976 UP18	21964	1976 WC	21964

1976 YA	21964	1976 YG1	22049	1976 YP1	21964	1976 YA6	21964
1977 AL1	21964	1977 DB1	21964	1977 DD1	22072	1977 DS4	22073
1977 EL	21964	1977 EF1	21964	1977 EK1	21559	1977 EL5	21964
1977 EM5	22073	1977 EG7	21964	1977 FT	21964	1977 NK	22073
1977 QY	21964	1977 QF1	22073	1977 QK1	22073	1977 QL1	21964
1977 QD2	22073	1977 QT2	20921	1977 QD3	21925	1977 QH3	21097
1977 QY3	22073	1977 RD	20139	1977 RK	22073	1977 RD2	22073
1977 RF2	21964	1977 RD3	22073	1977 RR6	22073	1977 RY6	21964
1977 RL7	22073	1977 RC9	21964	1977 RQ19	21782	1977 TC1	21964
1977 TD1	22073	1977 TS3	21964	1977 TO6	21964	1977 TQ6	21926
1977 UP	21964	1977 UO5	22049	1977 VA	22073	1977 VL1	21098
1977 XZ2	21783	1978 EU9	22050	1978 EN10	21964	1978 GA	21098
1978 LG	21964	1978 NK	21098	1978 NN1	21926	1978 NQ1	22073
1978 NU3	21964	1978 NY7	22073	1978 ON	21964	1978 PE	21964
1978 PJ2	22073	1978 PU2	21964	1978 PO3	21964	1978 QA2	21964
1978 QG2	22073	1978 RK	20140	1978 RR	21964	1978 RU	21964
1978 RZ	20140	1978 RK1	22073	1978 RL1	21964	1978 RX1	22073
1978 RN5	21964	1978 RV7	21251	1978 RR8	22073	1978 RC9	22073
1978 RQ9	21251	1978 RZ9	22073	1978 RA10	22073	1978 RB10	21099
1978 RD10	22073	1978 SE1	21964	1978 SH1	21964	1978 SS2	22073
1978 SB3	20495	1978 SH3	21964	1978 SO4	21964	1978 SP4	21964
1978 SQ4	22050	1978 SR4	21964	1978 SU4	20776	1978 SA5	21099
1978 SE5	21964	1978 SF5	20776	1978 SM5	22073	1978 SS5	22073
1978 SU5	21964	1978 SA7	22073	1978 SC7	22073	1978 SH7	20776
1978 SN7	21964	1978 SO7	20776	1978 SS7	22073	1978 ST7	21965
1978 SV7	21965	1978 SW7	20776	1978 SX7	20776	1978 SA8	20776
1978 SB8	21965	1978 SD8	20776	1978 TD2	20776	1978 TP6	20806
1978 TO8	22073	1978 TU8	20806	1978 UV	22073	1978 UJ4	20921
1978 UK4	20776	1978 UL4	20806	1978 UM4	20776	1978 UN4	20776
1978 UO4	20776	1978 UP4	20776	1978 UQ4	20776	1978 UR4	20776
1978 US4	20776	1978 UT4	20776	1978 UU4	20776	1978 UV4	20776
1978 UW4	20776	1978 UX4	20776	1978 UY4	20776	1978 UZ4	20776
1978 UA5	20776	1978 UC5	20776	1978 UD5	20776	1978 UE5	20776
1978 UF5	20776	1978 UG5	20776	1978 UJ5	20806	1978 UK5	20776
1978 UM5	20776	1978 UN5	20807	1978 UO5	20776	1978 UP5	20776
1978 UQ5	20776	1978 UR5	20776	1978 US5	21965	1978 UT5	20776
1978 UU5	20776	1978 UV5	20776	1978 UW5	20776	1978 UX5	20776
1978 UY5	20776	1978 UZ5	20776	1978 UA6	20776	1978 UB6	20776
1978 UC6	20776	1978 UD6	20776	1978 UE6	20776	1978 UF6	20807
1978 UH6	20776	1978 UJ6	20776	1978 UK6	20776	1978 UL6	21560
1978 UM6	20776	1978 UN6	20776	1978 UO6	20776	1978 UP6	20776
1978 UQ6	20777	1978 UR6	20777	1978 US6	20777	1978 UT6	20777
1978 UU6	20777	1978 UV6	20777	1978 UX6	20777	1978 UY6	20777
1978 UZ6	20777	1978 UA7	20807	1978 UB7	20777	1978 UC7	20777
1978 UD7	20777	1978 UE7	20777	1978 UF7	20777	1978 UG7	20777
1978 UH7	20777	1978 UJ7	20777	1978 UK7	20808	1978 UL7	20808
1978 UM7	20777	1978 UO7	20777	1978 UP7	20777	1978 UR7	20777
1978 US7	20777	1978 UT7	20777	1978 UV7	20777	1978 UW7	20921
1978 UX7	20777	1978 UY7	20777	1978 UZ7	20777	1978 UA8	20777
1978 UB8	20777	1978 UC8	20777	1978 UD8	20777	1978 UE8	20777
1978 UF8	20777	1978 UH8	20777	1978 UK8	20777	1978 UL8	20777
1978 VK3	21965	1978 VX3	22073	1978 VR4	22073	1978 VG5	21965
1978 VL5	21965	1978 VC6	22073	1978 VT6	21965	1978 VW6	21965
1978 VU7	21965	1978 VG8	22073	1978 VJ8	21965	1978 VK8	22073
1978 VR8	21965	1978 VV9	21965	1978 VP10	22073	1978 VE11	20628
1978 VG11	21965	1978 VL11	21926	1978 VP11	21927	1978 VE15	22073
1978 WC	22073	1978 WZ	21236	1978 XW	20140	1979 EL	22073
1979 FD2	21965	1979 FQ2	21965	1979 FA3	21965	1979 FD3	21927
1979 HE3	21560	1979 KD	21965	1979 KG	22073	1979 KO	22073

1979 KQ	20141	1979 MF	21965	1979 ML1	21965	1979 MB2	22073
1979 MC2	21965	1979 MD2	20922	1979 MW2	21965	1979 MY2	21965
1979 MK3	22073	1979 MP3	21965	1979 MR3	21965	1979 MA4	21927
1979 MA5	22073	1979 MJ5	21965	1979 MR5	21965	1979 MA6	21965
1979 MR6	22073	1979 MX6	21965	1979 ME7	21100	1979 MK7	21560
1979 MO7	21561	1979 ME8	20808	1979 MM8	22073	1979 MU8	21965
1979 OQ5	21965	1979 OB9	21928	1979 PA	21965	1979 QP	21928
1979 QC1	21965	1979 QW3	20328	1979 QX3	21965	1979 QK6	22073
1979 QT8	22073	1979 QX9	21965	1979 QB10	21965	1979 SC	20603
1979 SD	20603	1979 SK	21965	1979 SR	21965	1979 SS	21965
1979 SR2	22073	1979 SU2	21965	1979 SW2	21965	1979 SN4	22073
1979 SD9	21965	1979 SU11	22073	1979 SP13	21965	1979 SP14	21965
1979 TA	22073	1979 TY1	22073	1979 TS2	22073	1979 VN	22073
1979 VS2	21965	1979 WX3	21965	1979 XJ	21252	1979 YQ	22073
1980 AA	22073	1980 BJ4	21784	1980 CR	22074	1980 DO	20481
1980 DX	21965	1980 DD1	21929	1980 FU	21965	1980 FY	22074
1980 FH1	21965	1980 FJ1	22074	1980 FN1	22074	1980 FO1	22074
1980 FR1	21965	1980 FH2	22074	1980 FV2	21965	1980 FF3	21965
1980 FZ3	21965	1980 FY4	22074	1980 FH5	21965	1980 FF12	21929
1980 KD	21965	1980 KM	21966	1980 PF	21966	1980 PX	22074
1980 PZ	21561	1980 PV1	21966	1980 PB2	22074	1980 PB3	21966
1980 RJ	22074	1980 RP	21966	1980 RU	22074	1980 RL2	21966
1980 RL7	21966	1980 RB8	21966	1980 SD	21966	1980 SQ	21966
1980 TM	21966	1980 TV2	22074	1980 TS4	22074	1980 TO5	22074
1980 TK6	21966	1980 TE7	22074	1980 TQ14	21966	1980 UC	21966
1980 UF1	20603	1980 UG1	20603	1980 UK1	20603	1980 UL1	21966
1980 UM1	21784	1980 UN1	20603	1980 UO1	20603	1980 UQ1	20603
1980 UR1	20603	1980 US1	20603	1980 UU1	20628	1980 UW1	21966
1980 VA	21966	1980 VO	21966	1980 VX1	22074	1980 VW2	20603
1980 VX2	20603	1980 VZ2	20603	1980 XX	22074	1981 CB1	21966
1981 DE	22074	1981 DZ	21966	1981 DU1	20809	1981 DZ1	21966
1981 DT2	21966	1981 DG3	21966	1981 EQ	21966	1981 ET	21966
1981 EB1	21966	1981 EE1	22074	1981 EG1	22074	1981 EH1	22074
1981 EF2	22074	1981 EH3	21966	1981 EK4	21966	1981 EL4	21966
1981 ES4	21785	1981 EX4	21966	1981 EA5	20497	1981 EF5	21966
1981 EJ5	22074	1981 ER5	21966	1981 ER6	21966	1981 EA7	21966
1981 EJ7	21966	1981 EO7	21966	1981 EZ7	21966	1981 EC8	22074
1981 EO8	21966	1981 ES8	22074	1981 EU8	22074	1981 EV8	21966
1981 EW8	21966	1981 EA9	21966	1981 EB9	21966	1981 EH9	21930
1981 EO9	21966	1981 EQ9	21966	1981 EV9	21966	1981 EY9	21966
1981 EK10	21966	1981 ER10	21966	1981 EX10	21966	1981 EY10	22074
1981 EZ10	20810	1981 EC11	21966	1981 EG11	22074	1981 EH11	21966
1981 EA12	21966	1981 EF12	21966	1981 EY12	21966	1981 EC13	21966
1981 EF13	21100	1981 EP13	21966	1981 ET13	21966	1981 EU13	21966
1981 EX13	20497	1981 EY13	20328	1981 EE14	21966	1981 EY14	21967
1981 EN15	21967	1981 EO15	22074	1981 EU15	21967	1981 EX15	21930
1981 EZ15	21967	1981 EC16	21967	1981 EN16	21967	1981 EB17	21967
1981 EN17	21967	1981 ER17	21967	1981 ET17	21561	1981 EY17	21967
1981 EE18	21967	1981 EV18	21930	1981 EY18	21561	1981 EA19	20329
1981 ED19	21967	1981 EM19	22074	1981 EP19	22074	1981 ET19	21967
1981 EV19	21967	1981 EH20	21967	1981 EB21	21967	1981 EC21	21967
1981 ED21	21967	1981 EL21	20810	1981 EO21	22074	1981 ER21	21967
1981 EW21	21967	1981 EX21	22074	1981 EU22	21252	1981 EB23	21967
1981 EH23	21967	1981 EK23	21931	1981 ER23	22074	1981 ES23	21931
1981 EX23	21967	1981 EZ23	21967	1981 EB24	21967	1981 ED24	21967
1981 EG24	21967	1981 EH24	21967	1981 ET24	21931	1981 EV24	21967
1981 EW24	22074	1981 EC25	21967	1981 ER25	21932	1981 ET25	21967
1981 EA26	21967	1981 EC26	21967	1981 EF26	22074	1981 EN26	21967
1981 EO26	21967	1981 EY26	21967	1981 EC27	22074	1981 EG27	21967

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1981	EC29	21967	1981	ES29	22074	1981	EF30	21967	1981	EM30	20810
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1981	EW31	22074	1981	EL33	21967	1981	EZ33	21967	1981	EH34	21967
1981	ED35	21967	1981	EH35	21967	1981	EK35	21967	1981	EY35	21967
1981	EB36	21967	1981	ED37	21967	1981	EF37	20810	1981	EP37	21562
1981	EE38	21967	1981	EP38	21967	1981	EX38	21967	1981	EG39	21967
1981	EW39	21967	1981	EY39	20629	1981	EA40	21968	1981	EO40	21968
1981	EP40	21968	1981	EK41	21968	1981	EX41	22074	1981	EF42	21968
1981	EP42	21933	1981	ER42	21968	1981	ES42	21968	1981	ET42	22074
1981	EY42	21968	1981	ED43	21968	1981	ER43	21968	1981	EX43	21785
1981	EG44	21968	1981	EF45	21968	1981	EV45	20811	1981	EV46	21968
1981	EZ46	21968	1981	EZ47	21968	1981	EF48	21968	1981	FL	22074
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1981	JM2	20811	1981	JS2	21968	1981	JB3	21968	1981	JE3	21968
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1981	QF	22074	1981	QK	21968	1981	QX	22074	1981	QE1	21563
1981	QV2	22074	1981	QW2	20329	1981	QJ3	21101	1981	QT3	22074
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1981	RQ	22074	1981	RO1	20330	1981	RQ1	22074	1981	RA2	21968
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1981	SN	21968	1981	SO	22074	1981	SN1	21968	1981	SY1	22074
1981	SQ2	21968	1981	SA5	22074	1981	SA7	22074	1981	SC7	21968
1981	SE7	20922	1981	TJ	20497	1981	TP	20811	1981	TW1	22074
1981	TJ3	22074	1981	TM3	22075	1981	TJ4	22075	1981	US	20603
1981	UT	22075	1981	UU	20603	1981	UM11	21968	1981	UQ11	22075
1981	UU11	22075	1981	UW11	20481	1981	US14	22075	1981	UK21	20481
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1981	UW21	20481	1981	UY21	20481	1981	UZ21	20481	1981	UA22	20481
1981	UB22	20603	1981	UC22	20481	1981	UD22	20481	1981	UE22	20481
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1981	UZ22	20482	1981	UA23	20482	1981	UB23	20498	1981	UC23	20603
1981	UD23	20603	1981	UE23	20603	1981	UJ23	20603	1981	UV23	20603
1981	UW23	20482	1981	UZ24	20630	1981	UA25	20482	1981	UE25	20603
1981	UP25	20482	1981	US25	20482	1981	UU25	20603	1981	UC26	22075
1981	UE26	22075	1981	UU26	20630	1981	UY26	20482	1981	UC27	20482
1981	UE27	20482	1981	UF27	20482	1981	UH27	20603	1981	UK27	20603
1981	UL27	20603	1981	UM27	20603	1981	UN27	20603	1981	UO27	20603
1981	UP27	20603	1981	UQ27	20603	1981	UR27	20603	1981	US27	20603
1981	UT27	20603	1981	UU27	20603	1981	UV27	20603	1981	UW27	20603
1981	UY27	20603	1981	UZ27	20603	1981	UA28	20603	1981	UB28	20603
1981	UC28	20603	1981	UD28	20603	1981	UE28	20603	1981	UF28	20603
1981	UH28	20603	1981	UJ28	20603	1981	UK28	20603	1981	UO28	20603
1981	UP28	20603	1981	UQ28	20603	1981	UR28	20603	1981	US28	20604
1981	UT28	20604	1981	UU28	20604	1981	UV28	20604	1981	UW28	20604
1981	UX28	20604	1981	UY28	20604	1981	UZ28	20604	1981	UA29	20604
1981	UB29	20604	1981	UC29	20604	1981	UD29	20604	1981	UE29	20604
1981	UF29	20604	1981	UG29	20604	1981	UH29	20604	1981	UJ29	20604
1981	UK29	20604	1981	UL29	20604	1981	UN29	20604	1981	UO29	20604
1981	UP29	20604	1981	UQ29	20777	1981	UR29	20604	1981	US29	20604
1981	UT29	20604	1981	UU29	20604	1981	VF	22075	1981	VK	21102
1981	VN	21564	1981	VS	21968	1981	VU	21564	1981	WH	21968
1981	WM	22075	1981	WA1	21968	1981	WE1	21968	1981	WE9	20482

1981 WJ9	20482	1981 YS1	22075	1982 BA	21968	1982 BS	20812
1982 BE1	21968	1982 BS1	21968	1982 BQ2	22075	1982 BQ4	22075
1982 BD13	22075	1982 BB14	20124	1982 DK	22075	1982 DU	22075
1982 EF	21968	1982 FA	22075	1982 FC	22075	1982 FN	21968
1982 FF3	20498	1982 FP3	21968	1982 JE1	22075	1982 MA	22075
1982 OF	22075	1982 PC	22075	1982 PR	21968	1982 QG	21968
1982 QM	21968	1982 QK3	22075	1982 RK	22075	1982 RW	22075
1982 RM1	22075	1982 RO1	20630	1982 RW1	21968	1982 ST	21968
1982 SE1	22075	1982 SL1	21103	1982 SA4	22075	1982 SO4	21968
1982 SX5	22075	1982 SL6	21968	1982 SM7	22075	1982 TP1	22075
1982 TB2	21968	1982 TF2	22075	1982 TQ2	21968	1982 TT2	22075
1982 TK3	22075	1982 UE	22075	1982 UH	22075	1982 UP	22075
1982 UV1	22075	1982 UD2	21968	1982 UF2	22075	1982 UM2	21968
1982 UD4	20812	1982 UT5	22075	1982 UU5	22075	1982 UM6	21969
1982 UQ6	21969	1982 US6	21969	1982 UY6	21969	1982 UD7	22075
1982 UE7	22075	1982 UF7	21564	1982 UJ7	21969	1982 UK7	20812
1982 UU8	21103	1982 UQ10	22075	1982 UR10	22075	1982 UC11	21969
1982 UE12	20330	1982 VA1	21969	1982 VB1	22075	1982 VY2	22075
1982 VC3	22075	1982 VB4	21103	1982 VD5	22075	1982 WE	22075
1982 XQ1	22075	1982 YQ	21969	1983 AA	21969	1983 AB	21969
1983 AD	21969	1983 AC1	22075	1983 AN2	22075	1983 AA3	22075
1983 BH	22075	1983 CA1	22051	1983 CY2	22075	1983 EU	22075
1983 EV	22075	1983 EM1	22075	1983 JQ	22075	1983 LB	21969
1983 NR	22076	1983 OD	21933	1983 PB	21969	1983 PX	21969
1983 PY	21969	1983 PZ	21969	1983 QE	21969	1983 QG	21969
1983 QH1	21969	1983 RL	21969	1983 RX	22076	1983 RT1	21255
1983 RM2	21969	1983 RP2	22076	1983 RM3	21969	1983 RT3	22076
1983 RV3	20331	1983 RW3	21969	1983 RC4	22076	1983 RQ4	21255
1983 RR4	22076	1983 RT4	21969	1983 RY4	22076	1983 TE1	21969
1983 TR2	21969	1983 UC	21969	1983 VQ1	21969	1983 VS1	22051
1983 VN7	21969	1983 WJ	22076	1983 XE	22076	1983 XG	22076
1983 XH1	21969	1983 XN1	21969	1984 AR	22076	1984 BK	22076
1984 CP	22076	1984 DA	22076	1984 DB	21969	1984 DE	21969
1984 DN	22076	1984 DQ	22076	1984 DX	22076	1984 DE1	22076
1984 EG	21969	1984 EX	22076	1984 EY	21969	1984 ER1	22076
1984 FN	22076	1984 FS	22076	1984 FU	22076	1984 HO1	21104
1984 HP1	21969	1984 HS1	22076	1984 JA2	22076	1984 OA	21969
1984 QJ	21969	1984 QQ	21969	1984 QS	22076	1984 QU	21256
1984 QY1	20142	1984 SR	22076	1984 SC1	22076	1984 SG1	22076
1984 SZ1	20923	1984 SR2	22076	1984 SQ4	21969	1984 SO5	22076
1984 SR5	22076	1984 SV5	20331	1984 SY5	22051	1984 SZ5	21969
1984 SD6	21934	1984 SF6	22076	1984 SH6	21969	1984 UW	21969
1984 UX	21104	1984 UC1	22076	1984 UK1	22076	1984 UX1	22076
1984 UB3	21969	1984 UD3	21969	1984 WQ	20482	1984 WR	20482
1984 WA1	22076	1984 WM1	22076	1984 WC2	20482	1984 WA4	21786
1985 CT	21969	1985 CH1	22076	1985 CJ1	21969	1985 CM1	21969
1985 CN1	21969	1985 CS1	22076	1985 CZ1	21969	1985 CA2	22076
1985 CC2	21969	1985 CR2	22076	1985 DC1	22076	1985 FD	21969
1985 FH	21969	1985 FE3	21969	1985 GK	21104	1985 GO	21969
1985 GS	21565	1985 GA1	22076	1985 HL	22076	1985 HS1	21969
1985 JK	22076	1985 JL	20632	1985 JN1	22076	1985 JU1	21934
1985 JX1	21969	1985 KE	21566	1985 PE	20143	1985 PO	22076
1985 PE1	22076	1985 PC2	21970	1985 PG2	22076	1985 QN	22076
1985 QR	22076	1985 QA1	20813	1985 QL4	21970	1985 QH5	22076
1985 RG	22076	1985 RH	22076	1985 RP	21970	1985 RU	22076
1985 RW	22076	1985 RL1	21970	1985 RS1	22076	1985 RP2	21970
1985 RU2	21970	1985 RL3	22076	1985 RC4	22076	1985 RJ4	22077
1985 RR4	22077	1985 RV4	22077	1985 RM6	22077	1985 SR	22077
1985 SJ3	22077	1985 SM3	22077	1985 TL	21970	1985 TN	22077

1985 TR	21566	1985 TM1	22077	1985 TQ1	22077	1985 TA2	21970
1985 TD3	22077	1985 TP3	22077	1985 UQ	21970	1985 UG2	21970
1985 UH3	20632	1985 UJ3	22077	1985 UO3	20813	1985 UQ4	22077
1985 UW4	21970	1985 UF5	22077	1985 UG5	22077	1985 VD1	21970
1985 VF1	22077	1985 VF2	22077	1985 WA	21970	1985 XR	21970
1985 XS	21970	1985 YH	21970	1986 AE	22077	1986 AH	22077
1986 AJ	21970	1986 AG1	22077	1986 AA2	21970	1986 CB	22077
1986 CG	22077	1986 CS1	21256	1986 CV1	22077	1986 CB2	22052
1986 CC2	22077	1986 CD2	21970	1986 CE2	22077	1986 EN	22077
1986 EZ	22077	1986 EJ1	22077	1986 EK1	21934	1986 EE2	21970
1986 EZ4	22077	1986 EQ5	22077	1986 GC	22077	1986 GD	22077
1986 GU	21970	1986 GY	21970	1986 JA	22077	1986 JD	22077
1986 JS	22077	1986 JT	21970	1986 PF	21935	1986 PD1	22077
1986 PS4	22077	1986 PW4	22077	1986 PX4	21970	1986 QN	22077
1986 QQ	22077	1986 QS	22077	1986 QT	22077	1986 QY	22077
1986 QG1	22077	1986 QT1	22077	1986 QO2	21105	1986 QP2	22077
1986 QZ2	22077	1986 QA3	22077	1986 QB3	21935	1986 QN3	22077
1986 QS3	21970	1986 QX3	22077	1986 QA4	22077	1986 RW	21970
1986 RC1	20144	1986 RK1	22077	1986 RR2	22077	1986 RS2	22077
1986 RT2	21970	1986 RV2	22077	1986 RW2	22077	1986 RB5	21970
1986 RD5	22077	1986 RT5	20332	1986 RY5	20632	1986 RF7	20332
1986 RH12	21935	1986 SF	22077	1986 SZ1	20814	1986 SC2	21936
1986 SD2	21970	1986 TL	21970	1986 TQ	21970	1986 TG1	21970
1986 TK1	22077	1986 TN1	21970	1986 TZ1	22078	1986 TB3	22078
1986 TR3	22078	1986 TR4	22078	1986 TB5	21970	1986 TR6	22078
1986 TU6	22078	1986 TB7	21970	1986 TW9	21970	1986 TZ11	21970
1986 TB12	22078	1986 UG	22078	1986 UO	21970	1986 UQ	22078
1986 UV	21970	1986 UM1	22078	1986 UH3	22078	1986 VY	21970
1986 WE	22078	1986 WZ	20924	1986 WB1	22078	1986 WC1	20500
1986 WO1	22078	1986 WQ2	22078	1986 WM5	21970	1986 WN7	21970
1986 WO7	21970	1986 WO9	21970	1986 XH	22078	1986 XT	21970
1986 XF1	22078	1987 BC	21970	1987 BC2	22078	1987 BS2	21970
1987 DF	22078	1987 DG6	21970	1987 DH6	21970	1987 DK6	22078
1987 DM6	22078	1987 DN6	22078	1987 DP6	22078	1987 DW6	22078
1987 EQ	21786	1987 EV	21970	1987 HA	22078	1987 HK	21970
1987 HS	22078	1987 HE1	21970	1987 JA	22078	1987 KB	22078
1987 KD1	21970	1987 MK	22078	1987 ML1	21970	1987 MM1	21970
1987 OC	21970	1987 OR	22078	1987 PL	22078	1987 QM	21971
1987 QR	22078	1987 QX	21971	1987 QS1	21971	1987 QT1	20500
1987 QW1	22078	1987 QW2	21936	1987 QF3	21971	1987 QH3	22078
1987 QF7	22078	1987 QS7	22078	1987 QW7	22078	1987 QV10	20814
1987 QY10	21971	1987 RG	22078	1987 RJ	22078	1987 RY	22078
1987 RD1	22078	1987 RA3	22078	1987 RO3	22078	1987 RT3	22078
1987 RU3	21971	1987 RT5	20500	1987 RB6	21971	1987 RG6	22078
1987 SO	22078	1987 SC1	21971	1987 SG1	22078	1987 SQ1	21971
1987 SR1	21971	1987 ST1	22078	1987 SW1	21971	1987 SG2	22078
1987 SJ3	22078	1987 SN3	22078	1987 SV3	22078	1987 SZ3	21567
1987 SC4	22078	1987 SD4	22078	1987 SM4	21971	1987 SC6	22078
1987 SE7	22078	1987 SF7	21787	1987 SL10	21971	1987 ST10	21936
1987 ST11	22078	1987 SM12	22078	1987 SN12	21971	1987 SR12	21971
1987 SV12	22078	1987 SE13	21567	1987 SG13	22078	1987 SS17	22079
1987 ST17	22079	1987 UG	22079	1987 UN	21971	1987 UW	22079
1987 UW1	22079	1987 UQ3	21971	1987 US4	21971	1987 UU4	22079
1987 UF5	21257	1987 VB	21971	1987 VQ	22079	1987 VR	21787
1987 VT	21971	1987 VU	21971	1987 VB1	20501	1987 VC1	22079
1987 WF	21971	1987 WQ	21758	1987 WY	21971	1987 WO1	21937
1987 WV1	22079	1987 WS3	21568	1987 WU4	21758	1987 XC	21971
1987 YA	20909	1987 YD	21971	1987 YH	22079	1987 YK	21971
1987 YL1	21971	1987 YF2	20310	1988 AF1	22079	1988 AV1	21971

1988 AW1	21971	1988 AX1	21971	1988 AA5	22079	1988 AE5	21971
1988 BC	22079	1988 BJ	22079	1988 BV	20333	1988 BX	22079
1988 BK2	22079	1988 BN2	21971	1988 BP3	22079	1988 BS3	21971
1988 BT3	22079	1988 BY3	21971	1988 BB4	22079	1988 BJ4	22079
1988 BO4	22079	1988 BH5	22079	1988 CA	21971	1988 CH	22079
1988 CL	22079	1988 CA1	21971	1988 CX1	21568	1988 CC2	21971
1988 CH2	22079	1988 CL2	22079	1988 CP2	22079	1988 CT2	22079
1988 CW2	22079	1988 CF3	21971	1988 CV3	21971	1988 CN4	21971
1988 CW4	21971	1988 CF5	21971	1988 CT5	21971	1988 CF6	21568
1988 CF7	21971	1988 DJ1	21971	1988 DO1	21971	1988 DJ2	22079
1988 DD3	21971	1988 DD5	21971	1988 EC	22079	1988 EL	21971
1988 EN	22079	1988 EB1	21568	1988 EA2	21971	1988 FB	22079
1988 FE	21569	1988 FK	21971	1988 FS2	21569	1988 GD	20501
1988 GL	22079	1988 JL	22079	1988 JN	22079	1988 JP	22079
1988 JW	22079	1988 KA	22079	1988 KC	22079	1988 LB	22079
1988 MF	22079	1988 MG	22079	1988 PK	21971	1988 PL	21971
1988 PV	21971	1988 PJ1	22079	1988 PM1	20501	1988 PV1	22079
1988 PZ1	21971	1988 PG2	20502	1988 PM2	21971	1988 PX2	21972
1988 QC	22079	1988 QY	20814	1988 QD1	21972	1988 RD	22079
1988 RE	20502	1988 RK	20502	1988 RO	21972	1988 RF1	21972
1988 RG1	21972	1988 RP1	22079	1988 RA2	22079	1988 RQ2	21570
1988 RR2	22079	1988 RU3	21972	1988 RW3	21972	1988 RN4	22079
1988 RX4	22079	1988 RD5	21972	1988 RN5	20482	1988 RO5	20482
1988 RQ5	21972	1988 RE6	21258	1988 RU6	22079	1988 RK8	21972
1988 RF9	22079	1988 RE10	22079	1988 RG10	21972	1988 RY10	21972
1988 RA11	20815	1988 RB11	22079	1988 RD11	20815	1988 RM11	21972
1988 RN11	20146	1988 RB12	22079	1988 RH12	21972	1988 RT12	21972
1988 RW12	21972	1988 RH13	21972	1988 RJ13	21972	1988 RL13	21972
1988 SD	21259	1988 SP	22079	1988 SW1	21972	1988 SY1	20502
1988 SK2	21972	1988 SW2	21972	1988 SZ2	20503	1988 SJ3	21972
1988 SL3	21972	1988 TD	22079	1988 TL	21972	1988 TN	22079
1988 TQ	22080	1988 TA1	22080	1988 TB1	21260	1988 TC1	21972
1988 TO1	22080	1988 TP1	22080	1988 TC2	22080	1988 TJ2	21972
1988 TN2	22080	1988 TA3	22080	1988 TQ4	22080	1988 UA	22080
1988 UC	22080	1988 UH	21972	1988 UP	22080	1988 US	22080
1988 VB	22080	1988 VF	21758	1988 VH	22080	1988 VK	21972
1988 VL	22080	1988 VP	22080	1988 VB1	21972	1988 VD1	22080
1988 VH1	22080	1988 VO1	22080	1988 VJ2	22080	1988 VK2	22080
1988 VM2	22080	1988 VQ2	21972	1988 VS2	21260	1988 VM3	21972
1988 VN3	22080	1988 VO3	21107	1988 VP3	21972	1988 VR3	21788
1988 VZ3	22080	1988 VP4	21972	1988 VC5	21758	1988 VG5	21758
1988 VH5	21758	1988 VO5	22080	1988 VR5	22080	1988 VE7	21972
1988 VN7	20503	1988 VM9	21972	1988 WC	20147	1988 XB	22052
1988 XO	21972	1988 XP	22080	1988 XQ	21972	1988 XR	22080
1988 XT	22080	1988 XZ	22080	1988 XD1	21972	1988 XH1	22080
1988 XJ1	20816	1988 XK1	22080	1988 XU1	21972	1988 XW1	22080
1988 XX1	21972	1988 XY1	22080	1988 XG2	21788	1988 XV2	22080
1988 YB	20816	1989 AD	22080	1989 AG	21261	1989 AH	22080
1989 AK	22080	1989 AM	22080	1989 AQ	22080	1989 AF1	22080
1989 AL1	22080	1989 AN1	22080	1989 AC2	20634	1989 AV2	21972
1989 AL5	22080	1989 AO6	22080	1989 AW6	21937	1989 AE7	21972
1989 AF7	21972	1989 BC	21571	1989 BD	21972	1989 BG	21972
1989 BK	21789	1989 BA1	21972	1989 BE1	21789	1989 BR1	21972
1989 BS1	22080	1989 BW1	20634	1989 CA	22080	1989 CD	22080
1989 CF	22080	1989 CP	20635	1989 CV	22080	1989 CC1	21972
1989 CJ1	21972	1989 CL1	22080	1989 CV1	22080	1989 CY1	21972
1989 CE2	21972	1989 CW2	21972	1989 CX2	21972	1989 CY2	21972
1989 CL3	21972	1989 CH4	21758	1989 CE8	21571	1989 CJ8	21938
1989 CU8	22080	1989 DJ	21973	1989 DK	22080	1989 EE	21107

1989 EL	21973	1989 EQ	21973	1989 EW1	21973	1989 EY1	21973
1989 EC2	21973	1989 EL2	21973	1989 EY2	22080	1989 EC3	21973
1989 EN5	20777	1989 EH6	22080	1989 FG	22052	1989 FH	21973
1989 FL	22080	1989 GH	22080	1989 GM	21973	1989 GB1	21973
1989 GC1	22080	1989 GA3	20635	1989 GB3	22080	1989 GT3	22081
1989 GB4	22081	1989 GC4	20635	1989 GF4	20636	1989 GH4	21973
1989 GP4	22081	1989 GR4	20334	1989 GT4	22081	1989 GP6	21973
1989 GF8	22081	1989 HD	22053	1989 JA	21973	1989 JF	21973
1989 KA	22081	1989 KB	22081	1989 KK	22081	1989 LA	22081
1989 LM	22081	1989 ML	21572	1989 NA	22081	1989 NM	22081
1989 NO	21973	1989 NR	21973	1989 NB1	22081	1989 NH1	22081
1989 OA	22081	1989 OB	22081	1989 PA	21973	1989 PE	22081
1989 PT	20503	1989 RB	22081	1989 RZ	21973	1989 RB2	22081
1989 RD2	21973	1989 RO2	21973	1989 SA	22081	1989 SB	22081
1989 SD	22081	1989 SE	22081	1989 SF	22081	1989 SK	22081
1989 SL	22081	1989 SP	20504	1989 SB1	21902	1989 SC1	22081
1989 SG1	21973	1989 SJ1	20504	1989 SL1	22081	1989 SR1	21572
1989 SS1	20504	1989 SV1	21938	1989 SS2	20817	1989 SA3	22081
1989 SB3	20818	1989 SL5	22081	1989 SN5	21973	1989 SV5	20505
1989 SM8	20505	1989 SO8	20505	1989 SL12	21973	1989 TD	21973
1989 TE	21973	1989 TS	22081	1989 TB1	22081	1989 TH1	22081
1989 TT2	22081	1989 TC3	21973	1989 TF4	22081	1989 TY4	20818
1989 TU5	21262	1989 TB11	21973	1989 TR11	22081	1989 TT11	22081
1989 TZ15	20636	1989 UA	22081	1989 UF	22081	1989 UL	21973
1989 UM	22081	1989 UP	21973	1989 US	21973	1989 UT	21973
1989 UO1	22081	1989 UU1	21973	1989 UT2	22081	1989 UA3	20818
1989 UR3	22081	1989 UZ4	22081	1989 UA6	22081	1989 UF7	21973
1989 VQ	22081	1989 VR	22081	1989 VV	22081	1989 VW	22081
1989 VX	22081	1989 VQ1	21572	1989 VC2	22081	1989 WD	22081
1989 WL	22081	1989 WK2	22081	1989 WU2	21973	1989 WM3	22081
1989 WH4	21973	1989 WK4	22081	1989 WG7	21973	1989 WL7	21973
1989 WO7	21262	1989 XB	22081	1989 XC	21939	1989 XF	21973
1989 XM	20506	1989 XO	21973	1989 XD2	21973	1989 YG	21262
1989 YH	21973	1989 YK	22081	1989 YM	21973	1989 YR	22081
1989 YH1	21939	1989 YZ1	21973	1989 YG3	21758	1989 YY3	20777
1989 YV4	21973	1989 YF5	21973	1989 YP5	21973	1989 YU5	22081
1989 YS6	21973	1990 BA	21790	1990 BF	22082	1990 BJ	21973
1990 BK	22082	1990 BU	22082	1990 BV	21973	1990 BW	22082
1990 BX	21573	1990 BZ	21108	1990 BC1	21973	1990 BG1	21973
1990 BH1	21973	1990 BR1	21973	1990 BZ1	21973	1990 BE2	21973
1990 BF2	21973	1990 DJ	21973	1990 DL	22082	1990 DA1	21939
1990 DD1	21236	1990 DM1	22082	1990 DM2	22082	1990 DK3	22082
1990 DM3	21573	1990 EA	21974	1990 EO	21974	1990 ES1	21974
1990 EJ2	22082	1990 EQ2	21790	1990 EX2	21974	1990 ES3	22082
1990 EO4	22082	1990 EU4	20637	1990 EZ5	21940	1990 EF7	20925
1990 EL7	21974	1990 FP	21791	1990 FR	21974	1990 FD1	21974
1990 FQ1	21974	1990 FS1	22082	1990 FT1	21974	1990 HG	20506
1990 HK	21574	1990 HR	22082	1990 HC1	22082	1990 HF1	22082
1990 KA	21940	1990 KG	22082	1990 KK	21974	1990 KL	21791
1990 KO	21974	1990 KX	22053	1990 KB1	22082	1990 MG	21974
1990 MJ	22082	1990 MR	21974	1990 OA	21974	1990 OB	22082
1990 OE	22082	1990 OL	22082	1990 OT	21974	1990 OS1	22053
1990 OE2	22082	1990 OJ2	22082	1990 OO2	21974	1990 OW2	20909
1990 OO3	21974	1990 OQ3	20926	1990 OT3	21941	1990 OB4	22082
1990 OE4	21974	1990 OH4	22082	1990 OJ4	22082	1990 OT4	21791
1990 OE5	21574	1990 QF	21791	1990 QG	21974	1990 QL	21974
1990 QM	22053	1990 QQ	21974	1990 QC1	22082	1990 QH1	21974
1990 QP1	21974	1990 QQ1	21974	1990 QT1	20909	1990 QW1	22082
1990 QA2	22082	1990 QB2	20909	1990 QC2	21974	1990 QD2	22082

1990 QG2	22082	1990 QM2	20147	1990 QP2	21974	1990 QR2	20909
1990 QS2	22082	1990 QT2	21974	1990 QY2	22082	1990 QK3	20335
1990 QL3	22082	1990 QU3	20909	1990 QW3	22082	1990 QY3	22082
1990 QM4	22082	1990 QN4	21974	1990 QZ4	20926	1990 QJ5	20909
1990 QP5	22082	1990 QU5	21974	1990 QV5	22082	1990 QB6	20909
1990 QR7	20909	1990 QS7	20909	1990 QU7	20909	1990 QA8	21974
1990 QB8	20909	1990 QC8	21974	1990 QF8	20909	1990 QH8	20909
1990 QK8	20909	1990 QN8	20909	1990 QO8	20909	1990 QP8	20909
1990 QQ8	20909	1990 QR8	20909	1990 QU8	20909	1990 QY8	20909
1990 QZ8	21974	1990 QB9	20909	1990 QF9	20909	1990 QG9	20909
1990 QH9	20909	1990 QJ9	20909	1990 QK9	20909	1990 QL9	20909
1990 QM9	20909	1990 QN9	20909	1990 QO9	20909	1990 QT9	20335
1990 QE10	20909	1990 QH10	20909	1990 QW10	20909	1990 QR11	20909
1990 QX17	20909	1990 QZ17	20909	1990 QB19	20909	1990 QC19	20148
1990 RV	21941	1990 RP1	20909	1990 RF2	20909	1990 RH2	20335
1990 RQ2	21974	1990 RY2	20909	1990 RV3	20909	1990 RW3	21974
1990 RW4	20909	1990 RD5	20909	1990 RE5	21942	1990 RL5	20909
1990 RN5	20910	1990 RP5	20910	1990 RS5	20910	1990 RE6	22082
1990 RO6	20910	1990 RA7	20910	1990 RH7	20910	1990 RK7	20507
1990 RX8	20910	1990 RU9	20910	1990 RM10	20910	1990 RF17	20910
1990 RM17	20926	1990 RP17	20910	1990 RR17	20910	1990 RS17	21974
1990 SB	22082	1990 SL	21974	1990 SP	21974	1990 SS	21974
1990 SH1	22082	1990 SP1	20910	1990 SQ1	20910	1990 SR1	20910
1990 SR2	20910	1990 ST2	20910	1990 SX2	20910	1990 SY2	20910
1990 SZ2	20910	1990 SG3	20910	1990 SK3	20927	1990 SM3	20910
1990 SN3	20927	1990 SW3	22082	1990 SG4	21974	1990 SK4	21974
1990 SN4	22082	1990 SW4	22082	1990 SM6	21974	1990 SP7	22082
1990 ST8	21974	1990 SF9	20910	1990 SU10	22082	1990 SF11	21108
1990 SK11	20927	1990 SL11	20910	1990 SP15	20910	1990 SQ16	21974
1990 SV16	20604	1990 SX16	21974	1990 SX20	20910	1990 SH28	22082
1990 SM28	21974	1990 SO28	20928	1990 TB	21974	1990 TF	21974
1990 TJ	20148	1990 TN	22082	1990 TS	20819	1990 TU	22082
1990 TX	22082	1990 TZ	21974	1990 TB1	20336	1990 TE1	21974
1990 TL1	21974	1990 TJ2	20819	1990 TN3	21974	1990 TF4	22082
1990 TL4	21974	1990 TN4	22082	1990 TO4	21974	1990 TS4	20910
1990 TT4	20910	1990 TM5	22082	1990 TW7	20336	1990 TD8	20910
1990 TN8	20910	1990 TU10	21974	1990 TR12	20336	1990 TA13	20507
1990 TG15	20910	1990 TX15	20910	1990 UD	22082	1990 UF	22082
1990 UR	20910	1990 UW	22082	1990 UY	21975	1990 UH1	21975
1990 UJ1	20149	1990 UL1	20604	1990 UR1	21975	1990 UB2	21975
1990 UF2	22082	1990 UJ2	22082	1990 UD3	22082	1990 UE3	22083
1990 UJ3	20910	1990 UO3	20910	1990 UP3	21975	1990 UW3	20928
1990 UY3	22054	1990 UT5	20604	1990 UJ8	20910	1990 UT10	22054
1990 UL11	20604	1990 UP11	20910	1990 VA	22083	1990 VZ	22054
1990 VC1	22083	1990 VE1	22083	1990 VK1	21975	1990 VU1	21975
1990 VF2	22083	1990 VL2	20150	1990 VN2	20150	1990 VP2	22083
1990 VS2	22083	1990 VX2	21975	1990 VD3	21575	1990 VR3	21975
1990 VB4	22083	1990 VD4	21975	1990 VF4	20910	1990 VU4	20910
1990 VS6	22083	1990 VX6	20604	1990 VY6	22083	1990 VA7	22083
1990 VD7	20928	1990 VF8	20910	1990 VR8	20336	1990 VT8	20910
1990 VY8	20910	1990 VV11	20910	1990 VH12	20777	1990 VY13	20310
1990 VR14	20910	1990 VY14	20604	1990 VB15	21975	1990 VC15	21975
1990 VQ15	20604	1990 VR15	20604	1990 WC	21975	1990 WK	22083
1990 WL	21975	1990 WB2	22083	1990 WJ3	22083	1990 WY3	21975
1990 WN5	20910	1990 WG6	20910	1990 WC9	20910	1990 WE9	20604
1990 WJ14	20604	1990 XA	22083	1990 XB	20150	1990 XF	21975
1990 XK	22083	1990 YA	21975	1990 YC	20482	1990 YE	22083
1990 YH	20151	1990 YQ	21975	1990 YX	22083	1991 AF	21975
1991 AM	22083	1991 AN	22083	1991 AF1	21975	1991 AR1	22083

1991 AX1	21975	1991 AY1	20820	1991 AB2	20777	1991 AD2	21975
1991 BB	21975	1991 BD	20777	1991 BJ	22083	1991 BR	21975
1991 BV	20638	1991 BY	22083	1991 BZ	21975	1991 BC1	21082
1991 BE1	21082	1991 BF1	21082	1991 BG1	21082	1991 BH1	21082
1991 BJ1	21082	1991 BL1	21082	1991 BM1	21082	1991 BN1	21082
1991 BO1	21082	1991 BP1	21082	1991 BQ1	21082	1991 BS1	21082
1991 BG2	21575	1991 BY2	20507	1991 CK	21975	1991 CN	21575
1991 CO	22083	1991 CX	22083	1991 CY	21975	1991 CZ	21109
1991 CB1	22083	1991 CC1	20928	1991 CD1	22083	1991 CN1	22083
1991 CO1	21902	1991 CR1	20507	1991 CS1	22083	1991 CT1	22083
1991 CU1	21975	1991 CX2	22083	1991 CA3	21975	1991 CO3	21975
1991 CM5	21975	1991 CX5	21942	1991 DB	20820	1991 DG	21975
1991 DS	21975	1991 DT	21975	1991 DX	22083	1991 DY	21902
1991 DB1	21902	1991 DG1	20482	1991 DM1	22083	1991 EA	21975
1991 EE	20638	1991 EG	21975	1991 EU	22083	1991 EJ1	22083
1991 EY1	20604	1991 ED2	20604	1991 EK4	21533	1991 EL4	21576
1991 FC	21975	1991 FE	22083	1991 FF	21975	1991 FL	22083
1991 FN	21576	1991 FO	21109	1991 FT	21975	1991 FV	22083
1991 FS1	21110	1991 GA	22083	1991 GN	21975	1991 GZ	22083
1991 GA1	21975	1991 GB1	21975	1991 GG1	21975	1991 GK1	20310
1991 GP1	21110	1991 GQ1	21110	1991 GV1	21975	1991 GX1	21975
1991 GZ1	21793	1991 GB2	21975	1991 GE2	21793	1991 GQ2	21975
1991 GR2	21793	1991 GG5	21263	1991 GA6	21942	1991 GP7	22083
1991 GA9	20482	1991 GM9	20310	1991 GN9	20310	1991 GZ9	21975
1991 GC10	20482	1991 GW10	20124	1991 GF11	20604	1991 GH11	20638
1991 GK11	20482	1991 HA	21577	1991 HH	21975	1991 HM	20508
1991 HO	21975	1991 JP	20482	1991 JU	22083	1991 JX	21975
1991 JB1	22083	1991 JD1	22083	1991 JH1	22083	1991 JN1	21975
1991 JS1	21975	1991 JY1	20639	1991 LW	21975	1991 LC1	21975
1991 LE1	21975	1991 LF1	21577	1991 LJ1	20604	1991 LZ1	20604
1991 LE2	21793	1991 MA	22083	1991 NF	22055	1991 NG	22083
1991 NP	22083	1991 NU	22083	1991 NY	21975	1991 NE1	20777
1991 NG1	21976	1991 NK1	21976	1991 NL1	21976	1991 NS1	20821
1991 NV1	20777	1991 NA2	21976	1991 NP2	21976	1991 NT2	21976
1991 NF3	21794	1991 NV3	21264	1991 NB4	21578	1991 NZ6	22083
1991 OA	21976	1991 OO	20777	1991 OZ	21976	1991 OG1	20910
1991 OH1	21265	1991 OJ1	20910	1991 OK1	20930	1991 OL1	22083
1991 OM1	20910	1991 ON1	20910	1991 PA	20777	1991 PB	20910
1991 PE	22083	1991 PJ	21976	1991 PQ	21976	1991 PS	21976
1991 PV	20777	1991 PW	20777	1991 PY	21533	1991 PC1	21533
1991 PE1	22083	1991 PG1	20604	1991 PQ1	21976	1991 PT1	20821
1991 PY1	20777	1991 PB2	21533	1991 PL2	21533	1991 PO2	21976
1991 PQ2	21533	1991 PE3	22083	1991 PJ3	21794	1991 PK3	22083
1991 PA4	21082	1991 PK4	21082	1991 PM4	20910	1991 PO4	20910
1991 PT4	20910	1991 PW4	21082	1991 PX4	20910	1991 PA5	21533
1991 PE5	22083	1991 PF5	20910	1991 PG5	21533	1991 PL5	20911
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1991 PX5	20911	1991 PY5	22083	1991 PZ5	21533	1991 PA6	21533
1991 PC6	22083	1991 PD6	21533	1991 PS6	22083	1991 PA7	20911
1991 PC7	20911	1991 PE7	20911	1991 PG7	20911	1991 PJ7	20930
1991 PM7	21533	1991 PN7	20911	1991 PT7	20911	1991 PY7	20911
1991 PJ8	21082	1991 PN8	20911	1991 PO8	22083	1991 PU8	20777
1991 PX8	20777	1991 PG9	20777	1991 PH9	20911	1991 PP9	20911
1991 PT9	20604	1991 PW9	20911	1991 PD10	20482	1991 PE10	22084
1991 PF10	21976	1991 PL10	20911	1991 PN10	22055	1991 PO10	21976
1991 PP10	20777	1991 PQ10	22084	1991 PR10	22084	1991 PX10	20124
1991 PA11	21976	1991 PE11	20482	1991 PF11	20777	1991 PK11	22084
1991 PM11	22084	1991 PP11	20124	1991 PQ11	21976	1991 PY11	21795
1991 PB12	20822	1991 PE12	20777	1991 PF12	20777	1991 PH12	22084

1991 PJ12	20778	1991 PK12	20778	1991 PO12	20911	1991 PP12	20124
1991 PQ12	20124	1991 PR12	22084	1991 PS12	20124	1991 PT12	20124
1991 PV12	20124	1991 PW12	21976	1991 PY12	21795	1991 PZ12	20338
1991 PA13	20124	1991 PC13	21976	1991 PD13	20124	1991 PE13	20124
1991 PM13	20124	1991 PN13	22084	1991 PO13	20508	1991 PS14	21533
1991 PT14	20911	1991 PW14	20778	1991 PX14	20822	1991 PY14	21976
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1991 PM15	20482	1991 PC16	20124	1991 PE16	20911	1991 PH16	20482
1991 PW16	22084	1991 PG17	20778	1991 PL17	21578	1991 PW17	21976
1991 PC18	21795	1991 PN18	21976	1991 PO18	20124	1991 PY18	20911
1991 PB20	21533	1991 QC	21976	1991 QE	22084	1991 QG	22084
1991 RC	20152	1991 RG	21976	1991 RJ	21976	1991 RN	22084
1991 RV	20482	1991 RB1	20482	1991 RH1	20310	1991 RS1	22084
1991 RC2	21533	1991 RD2	20482	1991 RL2	20124	1991 RX2	21976
1991 RT3	21976	1991 RC4	22084	1991 RD4	20338	1991 RL4	20310
1991 RN4	20482	1991 RR4	20482	1991 RS4	20482	1991 RU4	20482
1991 RV4	20482	1991 RW4	22084	1991 RX4	20508	1991 RY4	22084
1991 RA5	20509	1991 RB5	22084	1991 RD5	22084	1991 RK5	20482
1991 RN5	20482	1991 RO5	20482	1991 RP5	20482	1991 RT5	20509
1991 RA6	20482	1991 RC6	20124	1991 RD6	20124	1991 RE6	20482
1991 RF6	20482	1991 RM6	21976	1991 RO6	21533	1991 RD7	20822
1991 RH7	22084	1991 RK7	20640	1991 RP7	22084	1991 RB8	21533
1991 RK8	20124	1991 RL8	20482	1991 RP8	20310	1991 RU8	20482
1991 RY8	20483	1991 RB9	20483	1991 RC9	20483	1991 RG9	22055
1991 RL9	20483	1991 RV9	21902	1991 RA10	20152	1991 RN10	20509
1991 RP10	20310	1991 RR10	20483	1991 RT10	20310	1991 RV10	20483
1991 RX10	22084	1991 RY10	20310	1991 RZ10	20310	1991 RA11	20310
1991 RB11	20310	1991 RE11	20152	1991 RF11	21533	1991 RJ11	20640
1991 RK11	21533	1991 RN11	21976	1991 RO11	20778	1991 RP11	21976
1991 RQ11	22084	1991 RS11	20778	1991 RT11	21533	1991 RU11	20778
1991 RV11	20911	1991 RW11	20911	1991 RX11	20911	1991 RY11	21533
1991 RZ11	21533	1991 RA12	20911	1991 RB12	20778	1991 RD12	21976
1991 RJ12	20911	1991 RP12	21533	1991 RR12	21533	1991 RU12	20911
1991 RD13	20483	1991 RL13	20483	1991 RN13	20483	1991 RV13	20483
1991 RA14	20483	1991 RE14	21533	1991 RF14	21976	1991 RG14	20483
1991 RQ14	21578	1991 RZ14	20124	1991 RA15	20124	1991 RC15	20124
1991 RJ15	20124	1991 RK15	20124	1991 RM15	22084	1991 RP15	22084
1991 RA16	22084	1991 RB16	20483	1991 RD16	20483	1991 RH16	20483
1991 RO16	20483	1991 RQ16	20483	1991 RU16	20483	1991 RY16	20641
1991 RA17	20483	1991 RO17	20124	1991 RP17	20124	1991 RQ17	20483
1991 RS17	21533	1991 RT17	20483	1991 RW17	20483	1991 RX17	20483
1991 RC19	20483	1991 RD19	20483	1991 RE19	20483	1991 RK19	20483
1991 RO19	20483	1991 RQ19	20483	1991 RS19	20483	1991 RU19	20483
1991 RW19	20483	1991 RZ19	20483	1991 RA20	21533	1991 RC20	20483
1991 RE20	20483	1991 RJ20	20483	1991 RK23	20483	1991 RP23	20483
1991 RX23	20641	1991 RB24	20483	1991 RD24	20152	1991 RB25	22084
1991 RC25	20310	1991 RD25	20124	1991 RE25	20310	1991 RG25	20483
1991 RH25	20641	1991 RP25	21976	1991 RQ25	20310	1991 RR25	20310
1991 RS25	20310	1991 RT25	20310	1991 RU25	20310	1991 RX25	20310
1991 RK26	20310	1991 RR26	20483	1991 RZ26	20483	1991 RC27	20604
1991 RH27	20483	1991 RL27	20604	1991 RN27	20310	1991 RQ27	20483
1991 RY27	20604	1991 RC28	20483	1991 RJ28	20483	1991 RK28	20483
1991 RL28	20483	1991 RC29	20604	1991 RD29	20604	1991 RE29	20604
1991 RF29	20604	1991 RG29	20604	1991 RH29	20604	1991 RJ29	20604
1991 RM29	20605	1991 RY29	21533	1991 RZ29	20778	1991 RR30	21082
1991 RR40	21902	1991 RS40	21902	1991 RT40	21943	1991 RV40	21902
1991 RX40	21902	1991 RB41	21903	1991 SK	21266	1991 SV	21579
1991 SF1	22084	1991 SG1	22084	1991 SJ1	22084	1991 SL1	22084
1991 SN1	20822	1991 ST1	21082	1991 SU1	20483	1991 SV1	20605

1991 SX1	20483	1991 SC2	21976	1991 SE2	20483	1991 SJ2	20778
1991 SK2	20483	1991 SL2	21796	1991 SM2	20605	1991 SP2	20310
1991 SQ2	20310	1991 TB	20778	1991 TM	21976	1991 TN	20124
1991 TO	20124	1991 TQ	20509	1991 TS	20124	1991 TZ	20310
1991 TB1	20510	1991 TD1	21976	1991 TH1	20310	1991 TL1	22084
1991 TW1	22084	1991 TY1	20310	1991 TE2	22084	1991 TG2	20483
1991 TQ2	20483	1991 TW2	20484	1991 TY2	20484	1991 TZ2	20484
1991 TC3	20484	1991 TC4	20124	1991 TD4	21533	1991 TF4	20605
1991 TG4	20605	1991 TM4	21534	1991 TX4	20484	1991 TU5	20484
1991 TB6	20124	1991 TE6	21534	1991 TH6	21534	1991 TL6	21534
1991 TR6	20778	1991 TQ7	21534	1991 TO13	22033	1991 TQ13	22033
1991 TR13	22033	1991 TS13	22033	1991 UA	20484	1991 UF	20510
1991 UK	21976	1991 UL	20484	1991 UP	20484	1991 UY	22084
1991 UC1	22084	1991 UM1	21976	1991 UQ1	20605	1991 UV1	20484
1991 UA2	21976	1991 UB2	22084	1991 UK2	22084	1991 UL2	21976
1991 UO2	22084	1991 UQ2	22033	1991 UZ2	21976	1991 UA3	20484
1991 UC3	22084	1991 UD3	21976	1991 UF3	22034	1991 UK3	22056
1991 UM3	22034	1991 UP3	20484	1991 UH4	20642	1991 UJ4	21976
1991 UO4	22084	1991 VB	21797	1991 VG	20823	1991 VK	21976
1991 VN	21976	1991 VP	22084	1991 VR	22084	1991 VT	21534
1991 VU	20605	1991 VX	22034	1991 VY	22034	1991 VA1	20642
1991 VB1	20605	1991 VE1	21976	1991 VG1	22034	1991 VM1	21976
1991 VN1	22084	1991 VT1	20484	1991 VD2	21976	1991 VK2	21236
1991 VP2	20310	1991 VR2	20484	1991 VV2	20510	1991 VX2	21944
1991 VB3	22084	1991 VE3	20310	1991 VJ3	20643	1991 VR3	21977
1991 VV3	21977	1991 VX3	21977	1991 VA4	20605	1991 VC4	22056
1991 VF4	22084	1991 VG4	20605	1991 VM4	21977	1991 VP4	20339
1991 VX4	20605	1991 VD5	20310	1991 VE5	20605	1991 VF5	22084
1991 VM5	20823	1991 VH6	21236	1991 VJ6	21236	1991 VL6	21236
1991 VM6	21236	1991 VV6	21534	1991 VW6	21534	1991 VG7	21534
1991 VN7	20310	1991 VO7	20310	1991 VP7	20605	1991 VM8	20310
1991 VN8	20310	1991 VO8	20310	1991 VP8	20310	1991 VU8	20310
1991 VV8	20310	1991 VW8	20310	1991 VX8	20311	1991 VY8	20311
1991 VZ8	20311	1991 VA9	20311	1991 VB9	20311	1991 VC9	20311
1991 VD9	20311	1991 VF9	20311	1991 VG9	20311	1991 VH9	20484
1991 VJ9	20311	1991 VK9	20311	1991 VL9	20311	1991 VM9	20311
1991 VN9	20311	1991 VO9	20311	1991 VQ9	20311	1991 VR9	20311
1991 VS9	20778	1991 VU9	20311	1991 VV9	20311	1991 VY9	20311
1991 VD10	20311	1991 VL10	20511	1991 VO10	20311	1991 VP10	20311
1991 VS10	20311	1991 VX10	20311	1991 VY10	20311	1991 VA11	20311
1991 VM12	20605	1991 VP12	20484	1991 VY12	20605	1991 VZ12	21236
1991 WB	21579	1991 WC	22084	1991 XB	21797	1991 XK	20511
1991 XC1	22084	1991 XR1	20932	1991 XE2	21534	1991 XO2	22056
1991 YC	22084	1991 YE	21236	1991 YF	21977	1991 YG	20511
1991 YH	22084	1991 YM	20484	1991 YV	20484	1991 YW	20484
1991 YZ	21977	1991 YB1	20484	1991 YC1	20484	1992 AA	20511
1992 AB	21977	1992 AC	22084	1992 AE	21944	1992 AF	22084
1992 AL	22084	1992 AM	20311	1992 AO	21945	1992 AQ	20311
1992 AB1	22084	1992 AD1	22084	1992 AF1	22084	1992 AH1	22084
1992 AJ1	20311	1992 AK1	22084	1992 AM1	20778	1992 AS1	22084
1992 AT1	21977	1992 AU1	20605	1992 AO2	21082	1992 AR2	20311
1992 AS2	20311	1992 AT2	20311	1992 AU2	20311	1992 AV2	20311
1992 AW2	20484	1992 AM3	21082	1992 AN3	21082	1992 AP3	21082
1992 AT3	21082	1992 BB	21977	1992 BH	20778	1992 BJ	21082
1992 BK	22084	1992 BM	21977	1992 BO	20778	1992 BZ	22085
1992 BC1	20311	1992 BX1	22085	1992 BY1	20311	1992 BZ1	20311
1992 BC2	20311	1992 BD2	20311	1992 BE2	20311	1992 BF2	20311
1992 BH2	20311	1992 BJ2	20311	1992 BK2	20311	1992 BL2	20340
1992 BM2	20311	1992 BP2	20311	1992 BR2	20311	1992 BS2	20311

1992 BT2	20311	1992 BC3	20311	1992 BH3	20312	1992 BN3	20312
1992 BW3	21580	1992 BF4	20340	1992 BH4	20312	1992 BK4	20312
1992 BL4	20312	1992 BM4	20312	1992 BU4	20312	1992 BB5	21266
1992 CE	22085	1992 CJ	20511	1992 CC1	21977	1992 CE1	21977
1992 CF1	20312	1992 CG1	22056	1992 CH1	20153	1992 CK1	20312
1992 CA2	20312	1992 CE2	20312	1992 CL2	20312	1992 CM2	20312
1992 CN2	20312	1992 CP2	20312	1992 CQ2	22085	1992 CR2	20312
1992 CT2	20341	1992 CU2	20312	1992 CY2	20312	1992 CZ2	20312
1992 CA3	20312	1992 CB3	20312	1992 CD3	20312	1992 CE3	20312
1992 CF3	20312	1992 CG3	20312	1992 CJ3	20312	1992 CK3	20312
1992 CM3	20312	1992 CN3	20312	1992 CO3	20312	1992 DC	20153
1992 DG	20312	1992 DK	22085	1992 DC1	20778	1992 DG1	22085
1992 DV1	20312	1992 DM2	20312	1992 DP2	20312	1992 DT2	20312
1992 DW2	20312	1992 DZ2	20341	1992 DE3	20312	1992 DF3	20312
1992 DH3	20312	1992 DN3	20312	1992 DL4	20342	1992 EE	20125
1992 ER	21977	1992 EU	21580	1992 EA1	20605	1992 EB1	20823
1992 EC1	20342	1992 ED1	21977	1992 EE1	21977	1992 EM1	20312
1992 ES1	20154	1992 EU1	20643	1992 EL2	20312	1992 ET2	20312
1992 FB	22085	1992 FD	21977	1992 FE	22085	1992 FF	21977
1992 FG	20312	1992 FH	20125	1992 FJ	20154	1992 FN	21977
1992 FO	20125	1992 FP	20155	1992 FQ	20125	1992 FR	22085
1992 FS	20155	1992 FT	21977	1992 FV	21977	1992 FZ	20125
1992 FA1	21977	1992 FB1	20343	1992 FD1	20312	1992 FH1	20125
1992 FJ1	21977	1992 FK1	21580	1992 FL1	20823	1992 FM1	21580
1992 FO1	20125	1992 FP1	20156	1992 FS1	21977	1992 FT1	20312
1992 FU1	22034	1992 FV1	20125	1992 FW1	21581	1992 FX1	22034
1992 FY1	20343	1992 FZ1	20156	1992 FA2	20125	1992 FB2	20125
1992 FC2	20125	1992 FR2	22057	1992 GA	21111	1992 GC	20125
1992 GG	20312	1992 GH	21977	1992 GJ	20125	1992 GK	20125
1992 GO	20778	1992 GP	20125	1992 GQ	22034	1992 GR	22034
1992 GZ	22085	1992 GA1	20344	1992 GB1	20312	1992 GC1	20312
1992 GE1	20312	1992 GS1	20312	1992 GE2	20824	1992 GF2	20911
1992 GM2	20778	1992 GN2	20778	1992 GU2	20911	1992 GD3	20778
1992 GE3	20778	1992 GF3	20778	1992 GG3	20778	1992 GH3	20778
1992 GJ3	20778	1992 GM3	20778	1992 GN3	20778	1992 GO3	20778
1992 GP3	20778	1992 GV3	20778	1992 GY3	20778	1992 GA4	20778
1992 GD4	20778	1992 GF4	20778	1992 GH4	20778	1992 GJ4	20778
1992 GM4	20778	1992 GO4	20778	1992 GW4	20778	1992 GX4	20778
1992 GZ4	21581	1992 GA5	21534	1992 GC5	21534	1992 GE5	20911
1992 HA	21534	1992 HD	22085	1992 HE	21977	1992 HF	20344
1992 HG	20778	1992 HH	22085	1992 HJ	20824	1992 HK	20345
1992 HL	20644	1992 HM	20484	1992 HN	20312	1992 HX	20825
1992 HY	20825	1992 HD1	21534	1992 HG1	20778	1992 HH1	21534
1992 HK1	20933	1992 HC2	20312	1992 HF2	20312	1992 HH3	20313
1992 HS3	20513	1992 HT3	20313	1992 HZ3	22085	1992 HA4	20778
1992 HC4	20778	1992 HD4	20778	1992 HF4	20778	1992 HG4	22085
1992 HL4	21758	1992 HP4	21534	1992 HR4	21582	1992 HS4	21534
1992 HY4	21534	1992 HA5	21534	1992 HD5	21534	1992 HG5	21534
1992 HH5	21534	1992 HJ5	21534	1992 HK5	21534	1992 JA	20644
1992 JB	21582	1992 JD	20345	1992 JE	22085	1992 JF	20346
1992 JG	20826	1992 JH	20313	1992 JL	20125	1992 JP	20645
1992 JQ	20313	1992 JR	20313	1992 JV	20313	1992 JZ	20313
1992 JC1	20313	1992 JJ1	21534	1992 JK1	21534	1992 JL1	21534
1992 JN1	21977	1992 JT1	21534	1992 JU1	21534	1992 JV1	21534
1992 JW1	21534	1992 JA2	21534	1992 JS2	21534	1992 JT2	21534
1992 JU2	21534	1992 JW2	21534	1992 JD3	21534	1992 JE3	21534
1992 JF3	21534	1992 JH3	21534	1992 JK3	21534	1992 JO3	21534
1992 JP3	21534	1992 JQ3	22057	1992 JR3	21534	1992 JS3	21534
1992 KA	20313	1992 KC	20605	1992 KD	20826	1992 KE	20645

1992 KF	21977	1992 KJ	21236	1992 KQ	20605	1992 KS	20484
1992 KU	21534	1992 LC	20826	1992 LE	20826	1992 LF	20605
1992 LG	21977	1992 LJ	20605	1992 LK	21977	1992 LL	20484
1992 LM	20827	1992 LN	20827	1992 LO	20484	1992 LP	22085
1992 LQ	20827	1992 LR	21977	1992 LS	20605	1992 LU	20827
1992 MA	21977	1992 MB	21977	1992 MC	20484	1992 MD	21534
1992 ME	21112	1992 MF	20605	1992 MG	20605	1992 MH	20605
1992 MJ	20605	1992 MK	20605	1992 ML	20778	1992 MM	20828
1992 NA	21582	1992 NF	20778	1992 NJ	21113	1992 NM	22085
1992 NP	20605	1992 NR	21582	1992 NS	20778	1992 OB	21082
1992 OC	21082	1992 OE	21266	1992 OF	21977	1992 OG	20828
1992 OJ	21977	1992 OK	21267	1992 OM	21977	1992 ON	21267
1992 OO	21082	1992 OT	20934	1992 OV	20779	1992 OW	21082
1992 OY	20911	1992 OF1	21534	1992 OJ1	21534	1992 ON1	21534
1992 OO1	21582	1992 OQ1	21534	1992 OV1	21534	1992 OX1	21534
1992 OB2	21534	1992 OF2	21534	1992 OG2	22057	1992 OH2	21535
1992 OK2	21535	1992 OM2	21535	1992 OV2	21535	1992 OW2	21535
1992 OY2	21977	1992 OZ2	21535	1992 OB3	21535	1992 OE3	21535
1992 OF3	21535	1992 OG3	21535	1992 OH3	21535	1992 OM3	21535
1992 ON3	21535	1992 OA5	21535	1992 OC5	21535	1992 OD5	21535
1992 OE7	21535	1992 OF7	21535	1992 OM7	21535	1992 OP7	21583
1992 OY7	21535	1992 OE8	21535	1992 OJ8	21535	1992 OK8	21535
1992 OL8	21535	1992 OM8	21535	1992 ON8	21535	1992 OT8	21535
1992 OB9	21583	1992 OE9	21535	1992 OF9	21535	1992 OJ9	21535
1992 OT9	21535	1992 OZ9	21535	1992 OA10	21535	1992 OB10	21535
1992 OC10	21535	1992 OF10	21535	1992 OG10	21535	1992 OH10	21535
1992 PC	21082	1992 PF	20911	1992 PJ	21584	1992 PK	21535
1992 PL	21535	1992 PO	21535	1992 PT	21535	1992 PU	20779
1992 PV	21535	1992 PX	21535	1992 PY	21535	1992 PZ	21535
1992 PB1	21535	1992 PD1	21535	1992 PH1	22085	1992 PK1	21535
1992 PL1	21535	1992 PN1	21535	1992 PO1	21535	1992 PP1	21535
1992 PQ1	21535	1992 PR1	21535	1992 PS1	21535	1992 PT1	21535
1992 PU1	21535	1992 PV1	21536	1992 PW1	22085	1992 PY1	21536
1992 PZ1	20779	1992 PA2	21536	1992 PB2	20779	1992 PC2	20779
1992 PD2	20934	1992 PE2	20779	1992 PF2	20934	1992 PG2	21536
1992 PH2	21536	1992 PJ2	22085	1992 PK2	20779	1992 PL2	21536
1992 PM2	21536	1992 PN2	21536	1992 PO2	21536	1992 PQ2	21536
1992 PR2	21236	1992 PT2	21977	1992 PU2	21536	1992 PV2	21536
1992 PW2	21536	1992 PX2	21584	1992 PY2	21536	1992 PC3	21536
1992 PE3	21536	1992 PH3	21536	1992 PT3	21536	1992 PU3	20779
1992 PY3	21536	1992 PZ3	21536	1992 PA4	21536	1992 PH4	21536
1992 PL4	21236	1992 PM4	21236	1992 PZ4	21082	1992 PB6	21536
1992 PD6	21536	1992 PE6	21536	1992 PL6	21536	1992 PP6	21536
1992 PQ6	21536	1992 PR6	21536	1992 PS6	21585	1992 QA	21082
1992 QB	21082	1992 QC	21236	1992 QE	20779	1992 QF	20779
1992 QG	22085	1992 QK	21082	1992 QM	21267	1992 QN	21113
1992 QP	21082	1992 QR	20829	1992 QS	21082	1992 QT	21082
1992 QW	21082	1992 QX	21082	1992 QB1	21585	1992 QD1	21758
1992 QS1	21236	1992 QE2	21536	1992 RB	20911	1992 RD	20911
1992 RE	20911	1992 RF	20912	1992 RG	20912	1992 RH	20912
1992 RJ	21114	1992 RM	21114	1992 RN	21082	1992 RQ	21114
1992 RS	21082	1992 RT	21267	1992 RU	21082	1992 RV	21236
1992 RW	21083	1992 RX	21083	1992 RY	21236	1992 RZ	21977
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1992 RO1	21536	1992 RP1	21536	1992 RT1	21536	1992 RU1	21536
1992 RV1	21585	1992 RW1	21536	1992 RA2	21536	1992 RD2	21536
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1992 RW2	21536	1992 RZ2	21536	1992 RA3	21536	1992 RB3	21536

1992 RD3	21536	1992 RG3	21536	1992 RH3	21536	1992 RJ3	21536
1992 RK3	21536	1992 RL3	21536	1992 RO3	21536	1992 RP3	21536
1992 RR3	21536	1992 RS3	21536	1992 RT3	21536	1992 RU3	21537
1992 RV3	21537	1992 RW3	21537	1992 RY3	21537	1992 RZ3	21537
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1992 RO4	21537	1992 RR4	21537	1992 RS4	21537	1992 RT4	21083
1992 RX4	21083	1992 RY4	21083	1992 RF5	21083	1992 RG5	21537
1992 RH5	21537	1992 RJ5	21537	1992 RL5	21537	1992 RM5	21537
1992 RN5	21537	1992 RP5	21537	1992 RR5	21537	1992 RS5	21537
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1992 RW6	21537	1992 RX6	21537	1992 RY6	21537	1992 RZ6	21537
1992 RA7	21537	1992 RC7	21537	1992 RD7	21537	1992 RE7	21537
1992 RF7	21586	1992 RG7	21537	1992 RH7	21537	1992 RJ7	21537
1992 RK7	21586	1992 RL7	21537	1992 RM7	21537	1992 RN7	21537
1992 RO7	21537	1992 RQ7	21537	1992 RR7	21537	1992 SE	21236
1992 SF	21236	1992 SG	22085	1992 SH	21268	1992 SJ	21083
1992 SK	21797	1992 SL	21587	1992 SN	21115	1992 SO	21083
1992 SQ	21587	1992 ST	21977	1992 SU	21537	1992 SW	21083
1992 SX	21083	1992 SY	21269	1992 SZ	21269	1992 SB1	22085
1992 SC1	21236	1992 SD1	22085	1992 SE1	21236	1992 SF1	21269
1992 SG1	21116	1992 SH1	21236	1992 SJ1	21083	1992 SL1	21537
1992 SN1	21977	1992 SP1	20912	1992 SQ1	21083	1992 SR1	21270
1992 ST1	21117	1992 SV1	21537	1992 SW1	21083	1992 SX1	21083
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1992 SD2	21083	1992 SE2	21083	1992 SF2	21083	1992 SG2	21083
1992 SH2	21083	1992 SJ2	21083	1992 SK2	21083	1992 SM2	21083
1992 SN2	21083	1992 SO2	21083	1992 SQ2	21236	1992 SR2	21977
1992 ST2	21758	1992 SE3	21083	1992 SH3	21083	1992 SK3	21083
1992 SM3	21083	1992 SN3	21083	1992 SV3	21083	1992 SW3	21083
1992 SA4	21083	1992 SC4	21083	1992 SN5	21083	1992 SA6	21083
1992 SB6	21084	1992 SH6	21084	1992 SA7	21084	1992 SE7	21084
1992 SJ7	21084	1992 SQ9	21084	1992 SR9	21084	1992 SV9	21084
1992 SW9	21084	1992 SY9	21084	1992 SA10	21084	1992 SB10	21084
1992 SC10	21084	1992 SW10	21117	1992 SY10	21084	1992 SZ10	21084
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1992 SH11	21084	1992 SV11	21084	1992 SY11	21084	1992 SM12	21236
1992 SN12	21084	1992 SR12	22085	1992 SV12	21118	1992 SW12	21236
1992 SX12	22085	1992 SY12	21236	1992 SA13	21084	1992 SB13	21084
1992 SC13	21236	1992 SD13	21758	1992 SE13	21084	1992 SF13	21084
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1992 SV13	21084	1992 SW13	21084	1992 SX13	21084	1992 SY13	21084
1992 SZ13	21084	1992 SA14	21084	1992 SB14	21084	1992 SC14	21084
1992 SD14	21084	1992 SE14	21084	1992 SF14	21537	1992 SG14	21084
1992 ST14	21084	1992 SU14	21084	1992 SW14	21084	1992 SY14	21118
1992 SZ14	21118	1992 SM16	21236	1992 SN16	21236	1992 SO16	21236
1992 SP16	21236	1992 SQ16	21236	1992 SR16	21237	1992 SS16	21237
1992 ST16	21237	1992 SU16	21237	1992 SV16	21237	1992 SW16	21237
1992 SX16	21237	1992 SY16	21237	1992 SZ16	21237	1992 SA17	21237
1992 SB17	21237	1992 SC17	21237	1992 SD17	21237	1992 SF17	21237
1992 SG17	21237	1992 SH17	21237	1992 SJ17	21237	1992 SK17	21237
1992 SL17	21237	1992 SM17	21237	1992 SN17	21237	1992 SO17	21237
1992 SP17	21237	1992 SQ17	21237	1992 SR17	21237	1992 SS17	21237
1992 ST17	21237	1992 SU17	21237	1992 SV17	21237	1992 SW17	21798
1992 SX17	21270	1992 SY17	21903	1992 SZ17	21237	1992 SO23	21537
1992 SQ23	21798	1992 SR23	21759	1992 SS23	21759	1992 ST23	21759
1992 SU23	21759	1992 SV23	21903	1992 TA	21588	1992 TB	21588
1992 TC	21588	1992 TH	21084	1992 TJ	21084	1992 TV	21084
1992 TW	21084	1992 TX	21084	1992 TY	22085	1992 TB1	21084

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1992 TH1	21271	1992 TJ1	21085	1992 TM1	21237	1992 TN1	21537
1992 UA	21119	1992 UB	21588	1992 UG	22085	1992 UH	21237
1992 UJ	21537	1992 UL	21237	1992 UM	21237	1992 UN	21237
1992 UO	21237	1992 UP	22085	1992 UQ	22085	1992 UR	21588
1992 US	21085	1992 UU	22085	1992 UV	22085	1992 UW	21537
1992 UX	21759	1992 UY	21537	1992 UZ	21759	1992 UA1	21237
1992 UB1	22085	1992 UF1	21537	1992 UH1	21237	1992 UJ1	21237
1992 UK1	21945	1992 UQ1	21537	1992 US1	21589	1992 UT1	21085
1992 UW1	21085	1992 UY1	21085	1992 UZ1	21538	1992 UB2	22085
1992 UC2	21085	1992 UD2	21538	1992 UE2	21237	1992 UG2	21589
1992 UH2	21273	1992 UJ2	21538	1992 UK2	21538	1992 UL2	21273
1992 UM2	21085	1992 UN2	21538	1992 UO2	22085	1992 UQ2	21237
1992 UT2	21238	1992 UU2	22085	1992 UW2	21538	1992 UX2	21538
1992 UY2	21538	1992 UZ2	21538	1992 UA3	21238	1992 UB3	21538
1992 UD3	22085	1992 UE3	21273	1992 UF3	21085	1992 UG3	21085
1992 UH3	21274	1992 UM3	21759	1992 UN3	21759	1992 UO3	21274
1992 UP3	21238	1992 UR3	22085	1992 UT3	21798	1992 UY3	21275
1992 UZ3	21275	1992 UB4	21589	1992 UC4	21590	1992 UE4	21590
1992 UG4	21590	1992 UH4	21590	1992 UJ4	21538	1992 UL4	21538
1992 UN4	21977	1992 UO4	21591	1992 UP4	21538	1992 UQ4	21591
1992 US4	22085	1992 UT4	22085	1992 UU4	21238	1992 UW4	21538
1992 UX4	22085	1992 UY4	21591	1992 UE5	21238	1992 UF5	21759
1992 UJ5	21238	1992 UK5	21592	1992 UN5	21538	1992 UO5	21538
1992 UT5	22085	1992 UU5	21238	1992 UX5	21538	1992 UY5	21276
1992 UZ5	21538	1992 UA6	21538	1992 UC6	21538	1992 UE6	21538
1992 UF6	21592	1992 UG6	21238	1992 UH6	21538	1992 UJ6	21592
1992 UK6	21276	1992 UL6	21538	1992 UM6	21276	1992 UO6	21238
1992 UP6	22085	1992 UQ6	21538	1992 UU6	21538	1992 UV6	21538
1992 UZ6	21538	1992 UG7	21238	1992 UR7	21238	1992 UK8	21538
1992 UL8	21538	1992 UP8	21759	1992 UR8	21759	1992 US8	21759
1992 UK9	21759	1992 VC	21538	1992 VD	21593	1992 VF	21538
1992 VL	21538	1992 VM	22085	1992 WB	21538	1992 WG	21759
1992 WH	21538	1992 WJ	21759	1992 WL	21538	1992 WP	21538
1992 WQ	21238	1992 WR	21538	1992 WS	21593	1992 WT	22085
1992 WU	21538	1992 WV	21538	1992 WX	21238	1992 WY	21538
1992 WZ	21538	1992 WB1	21238	1992 WC1	21538	1992 WD1	21594
1992 WE1	21538	1992 WF1	21538	1992 WH1	21538	1992 WJ1	21538
1992 WK1	21538	1992 WN1	21594	1992 WP1	21538	1992 WQ1	21538
1992 WR1	21238	1992 WS1	21538	1992 WT1	21903	1992 WV1	21538
1992 WX1	21238	1992 WY1	21277	1992 WZ1	21238	1992 WB2	21538
1992 WC2	21538	1992 WD2	21538	1992 WE2	21538	1992 WF2	21538
1992 WG2	21539	1992 WH2	21539	1992 WJ2	21539	1992 WK2	21539
1992 WL2	21759	1992 WR2	21539	1992 WS2	21539	1992 WT2	21539
1992 WX2	22085	1992 WZ2	21539	1992 WA3	21539	1992 WC3	21595
1992 WG3	22085	1992 WJ3	21539	1992 WK3	21238	1992 WL3	21238
1992 WM3	21799	1992 WN3	21799	1992 WO3	22085	1992 WP3	21945
1992 WR3	21946	1992 WS3	21539	1992 WT3	21539	1992 WU3	22085
1992 WV3	22085	1992 WY3	21539	1992 WA4	21596	1992 WE4	21539
1992 WG4	21759	1992 WO4	22085	1992 WP4	22085	1992 WQ4	21539
1992 WR4	21596	1992 WS4	21539	1992 WY4	21800	1992 WD5	22057
1992 WG5	21539	1992 WM5	22085	1992 WN5	21903	1992 WO5	21539
1992 WP5	21597	1992 WR5	21539	1992 WS5	21539	1992 WW5	21597
1992 WZ5	21800	1992 WW6	21539	1992 WC8	21597	1992 WD8	22058
1992 WH8	21539	1992 WJ8	21539	1992 XA	21598	1992 XB	22085
1992 XD	21598	1992 XE	21903	1992 XF	21598	1992 XK	21759
1992 XL	21800	1992 XM	21539	1992 YB	21903	1992 YC	21759
1992 YD	21539	1992 YE	21946	1992 YH	21759	1992 YJ	21539
1992 YK	21539	1992 YL	21599	1992 YM	22058	1992 YN	21800

1992 YP	21539	1992 YS	21539	1992 YW	21539	1992 YY	21539
1992 YA1	21539	1992 YB1	21801	1992 YC1	21759	1992 YE1	21759
1992 YM1	21759	1992 YP1	21759	1992 YW1	21759	1992 YY1	21759
1992 YC2	21759	1992 YE2	21759	1992 YG2	21759	1992 YH2	21946
1992 YJ2	21759	1992 YL2	21759	1992 YM2	21759	1992 YN2	21759
1992 YP2	21759	1992 YR2	21759	1992 YS2	21977	1992 YT2	21539
1992 YU2	21801	1992 YV2	21599	1992 YW2	21539	1992 YY2	21539
1992 YZ2	21539	1992 YA3	22085	1992 YB3	21759	1992 YC3	21802
1992 YD3	21599	1992 YE3	21539	1992 YG3	21759	1992 YT3	21759
1992 YW3	22058	1992 YB4	21759	1992 YE4	21759	1993 AA	22085
1993 AB	22085	1993 AD	21802	1993 AG	21759	1993 AJ	22085
1993 AK	21903	1993 AN	22086	1993 AT	21903	1993 BA	21759
1993 BB	21759	1993 BC	21759	1993 BD	21759	1993 BF	22034
1993 BG	21759	1993 BH	21759	1993 BJ	21759	1993 BM	21903
1993 BN	22086	1993 BO	21803	1993 BD2	21903	1993 BE2	21759
1993 BG2	21760	1993 BH2	21947	1993 BJ2	21760	1993 BK2	21760
1993 BL2	21760	1993 BR2	21803	1993 BT2	22034	1993 BV2	22086
1993 BW2	22058	1993 BX2	21760	1993 BY2	21760	1993 BZ2	21760
1993 BA3	21760	1993 BB3	21760	1993 BC3	21760	1993 BD3	21804
1993 BF3	21947	1993 BG3	21903	1993 BH3	21760	1993 BJ3	21760
1993 BL3	22086	1993 BM3	21903	1993 BN3	21947	1993 BP3	21903
1993 BR3	21903	1993 BS3	21903	1993 BT3	21760	1993 BU3	21903
1993 BW3	22059	1993 BX3	22034	1993 BY3	21760	1993 BD4	21903
1993 BF4	21903	1993 BH4	21903	1993 BN4	21760	1993 BQ4	21903
1993 BR4	21903	1993 BS4	21903	1993 BV4	21903	1993 BY4	21903
1993 BC5	21903	1993 BE5	21903	1993 BG5	21903	1993 BJ5	21903
1993 BL5	21903	1993 BM5	21903	1993 BN5	21760	1993 BQ5	21903
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1993 BD6	21903	1993 BH6	21903	1993 BN6	21903	1993 BS6	21903
1993 BU6	21760	1993 BH8	21760	1993 BV8	21760	1993 BB9	21760
1993 BC9	22034	1993 BG9	21760	1993 BW9	21760	1993 BB10	21760
1993 BG10	21760	1993 BH10	21760	1993 BK10	21760	1993 BR11	21760
1993 BL12	22086	1993 BM12	22086	1993 BH13	21903	1993 BO13	21760
1993 BP13	22059	1993 BM14	21903	1993 BT14	21903	1993 BA15	21903
1993 CA	21903	1993 CB	21903	1993 CC	21760	1993 CM	21903
1993 CN	22086	1993 CO	21948	1993 CP	21903	1993 CQ	21948
1993 CS	21903	1993 CY	21903	1993 CZ	21903	1993 CA1	21903
1993 CD1	21904	1993 CG1	21904	1993 CJ1	21904	1993 CK1	21904
1993 CL1	21904	1993 CN1	22086	1993 CO1	22034	1993 CP1	22059
1993 CR1	21904	1993 CS1	21904	1993 CT1	21904	1993 DA	21904
1993 DB	21949	1993 DC	22034	1993 DJ	21904	1993 DM	22034
1993 DN	21904	1993 DO	22059	1993 DR	21904	1993 DV	22034
1993 DW	21904	1993 DZ	21904	1993 DA1	22086	1993 DB1	22059
1993 DC1	22034	1993 DD1	22034	1993 DH1	21904	1993 DJ1	21904
1993 DQ1	22034	1993 DT1	22060	1993 DF2	22034	1993 DG2	21904
1993 DK2	22034	1993 DL2	22034	1993 EA	22060	1993 EE	22034
1993 EF	21949	1993 EG	22086	1993 EH	22086	1993 EK	22034
1993 EL	22034	1993 EM	22034	1993 EO	22034	1993 EP	22034
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1993 FD	22034	1993 FP	22034	1993 FQ	22061	1993 FS	22034
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1993 FQ2	22034	1993 FR2	22034	1993 FV3	22034	2023 P-L	22086
2037 P-L	22086	2093 P-L	21977	2098 P-L	21977	2103 P-L	21977
2140 P-L	21977	2164 P-L	22086	2196 P-L	20514	2197 P-L	21977
2506 P-L	22086	2508 P-L	21120	2527 P-L	22086	2530 P-L	22086

2532 P-L	21977	2536 P-L	21977	2541 P-L	21977	2548 P-L	22086
2550 P-L	22086	2558 P-L	22061	2559 P-L	21977	2561 P-L	20829
2574 P-L	22086	2577 P-L	21977	2592 P-L	21805	2604 P-L	22086
2630 P-L	22086	2636 P-L	22086	2642 P-L	22086	2651 P-L	21977
2678 P-L	22086	2763 P-L	20514	2777 P-L	22086	2808 P-L	21977
3016 P-L	22086	3027 P-L	21806	3034 P-L	22086	3040 P-L	21977
3045 P-L	22086	3063 P-L	20648	3074 P-L	22086	3083 P-L	22086
3523 P-L	22086	3535 P-L	22086	3538 P-L	22086	3553 P-L	21977
4004 P-L	22086	4015 P-L	21977	4018 P-L	22086	4028 P-L	22086
4047 P-L	21978	4050 P-L	21978	4060 P-L	22086	4063 P-L	22086
4068 P-L	22086	4072 P-L	20829	4077 P-L	22086	4087 P-L	22086
4095 P-L	20829	4113 P-L	22086	4116 P-L	21978	4119 P-L	22086
4127 P-L	22086	4186 P-L	22086	4276 P-L	22086	4537 P-L	22086
4577 P-L	21978	4580 P-L	22086	4581 P-L	22086	4582 P-L	21978
4592 P-L	21600	4600 P-L	22086	4601 P-L	21978	4607 P-L	20830
4611 P-L	22086	4631 P-L	21120	4722 P-L	22086	4801 P-L	21978
4805 P-L	22086	4820 P-L	21121	4821 P-L	22086	4822 P-L	20515
4874 P-L	22086	4882 P-L	21978	5004 P-L	21600	5011 P-L	20830
5565 P-L	22086	5568 P-L	22086	6034 P-L	22086	6035 P-L	22086
6045 P-L	22087	6048 P-L	22087	6063 P-L	21806	6073 P-L	22087
6074 P-L	21121	6097 P-L	22087	6114 P-L	21978	6242 P-L	22087
6299 P-L	22087	6328 P-L	22087	6516 P-L	21978	6530 P-L	21807
6543 P-L	21978	6547 P-L	22087	6555 P-L	22087	6564 P-L	21978
6568 P-L	21978	6571 P-L	21978	6573 P-L	22061	6581 P-L	20515
6583 P-L	20515	6607 P-L	22087	6624 P-L	21978	6626 P-L	22087
6647 P-L	22087	6742 P-L	20347	6761 P-L	22087	6766 P-L	21950
6783 P-L	21600	6792 P-L	21978	7063 P-L	22087	7072 P-L	22087
7075 P-L	20516	7082 P-L	22087	7604 P-L	22087	7610 P-L	21950
7633 P-L	22087	9057 P-L	20830	9094 P-L	22087	9508 P-L	21951
9511 P-L	22087	9512 P-L	21978	9521 P-L	22087	9535 P-L	22087
9540 P-L	22087	9544 P-L	20516	1105 T-1	21121	1114 T-1	21978
1188 T-1	22087	1213 T-1	21600	1240 T-1	21122	2066 T-1	21807
2127 T-1	21122	2146 T-1	22087	2151 T-1	22087	2168 T-1	21951
2190 T-1	22087	2213 T-1	21122	2218 T-1	21278	2245 T-1	21978
2246 T-1	21978	2251 T-1	22087	2258 T-1	22087	2259 T-1	22087
2289 T-1	22087	2291 T-1	20830	2312 T-1	21978	3036 T-1	21601
3057 T-1	21601	3099 T-1	22087	3100 T-1	22087	3105 T-1	21978
3138 T-1	21951	3174 T-1	22087	3196 T-1	22087	3212 T-1	22087
3219 T-1	21601	3233 T-1	22087	3266 T-1	22087	3286 T-1	21602
3297 T-1	21124	4023 T-1	21952	4050 T-1	21978	4098 T-1	22087
4114 T-1	20517	4121 T-1	22087	4150 T-1	22062	4193 T-1	22087
4232 T-1	22087	4260 T-1	21602	4262 T-1	21808	4321 T-1	21602
4349 T-1	22087	4393 T-1	22087	4835 T-1	22087	4843 T-1	21124
4862 T-1	21602	1010 T-2	20831	1053 T-2	21978	1107 T-2	21978
1125 T-2	22087	1136 T-2	20648	1152 T-2	21808	1157 T-2	22087
1158 T-2	20831	1159 T-2	22087	1167 T-2	21603	1188 T-2	22087
1210 T-2	22087	1212 T-2	21978	1218 T-2	22087	1266 T-2	21978
1269 T-2	22087	1274 T-2	21952	1281 T-2	22087	1282 T-2	22087
1304 T-2	22087	1306 T-2	21978	1310 T-2	20832	1324 T-2	21978
1325 T-2	21953	1344 T-2	22087	1360 T-2	22087	1493 T-2	22087
1607 T-2	21978	2040 T-2	21978	2045 T-2	22087	2086 T-2	22087
2087 T-2	21978	2108 T-2	21603	2114 T-2	22088	2127 T-2	22088
2168 T-2	22088	2170 T-2	22088	2216 T-2	22088	2222 T-2	21978
2224 T-2	22088	2232 T-2	22088	2277 T-2	22088	2280 T-2	21978
2281 T-2	21953	2287 T-2	21978	2319 T-2	21125	2908 T-2	21978
3060 T-2	21978	3070 T-2	21978	3137 T-2	22088	3181 T-2	21978
3201 T-2	22088	3212 T-2	22088	3236 T-2	22088	3262 T-2	22088
3276 T-2	22088	3290 T-2	22088	3295 T-2	21126	3297 T-2	22088
3327 T-2	21126	3336 T-2	22088	3365 T-2	21978	4053 T-2	22088

4180 T-2	22088	4216 T-2	21978	4234 T-2	21978	4240 T-2	22088
4253 T-2	21978	4262 T-2	22088	4311 T-2	21126	5069 T-2	21953
5137 T-2	20833	5140 T-2	21978	5141 T-2	20517	5148 T-2	21603
5200 T-2	21978	5332 T-2	20517	5469 T-2	20517	5485 T-2	21604
5490 T-2	21604	5493 T-2	21953	1076 T-3	22088	1081 T-3	22088
1120 T-3	22088	1128 T-3	20648	1142 T-3	22088	1144 T-3	22088
1148 T-3	21127	1189 T-3	21604	1194 T-3	21978	2035 T-3	22088
2041 T-3	21978	2078 T-3	22088	2141 T-3	22088	2157 T-3	21978
2158 T-3	22088	2192 T-3	22088	2272 T-3	21978	2318 T-3	22088
2327 T-3	22088	2390 T-3	22088	2400 T-3	21954	2610 T-3	22088
3006 T-3	21978	3019 T-3	22088	3045 T-3	22088	3100 T-3	22088
3101 T-3	20347	3104 T-3	22088	3107 T-3	22088	3108 T-3	22088
3109 T-3	22088	3134 T-3	22088	3164 T-3	21978	3175 T-3	21127
3186 T-3	21978	3196 T-3	22088	3197 T-3	22088	3220 T-3	22088
3226 T-3	22088	3241 T-3	21978	3268 T-3	20518	3355 T-3	20518
3395 T-3	21978	3398 T-3	20649	3422 T-3	21809	3453 T-3	21978
3474 T-3	20519	4019 T-3	21279	4035 T-3	22088	4045 T-3	22088
4046 T-3	22088	4071 T-3	22088	4074 T-3	22088	4086 T-3	21978
4092 T-3	21978	4094 T-3	22088	4171 T-3	22088	4179 T-3	22088
4181 T-3	21978	4310 T-3	20347	4314 T-3	20519	4317 T-3	22088
4369 T-3	22088	4379 T-3	22088	5016 T-3	21978	5119 T-3	22088
5174 T-3	22088	5192 T-3	21978				

* * * * *

OBSERVATIONS OF COMETS.

Observations are published here for the following observatory codes:

046 Klet. 0.57-m f/5 reflector. Observer Z. Moravec.
104 San Marcello Pistoiese. 0.40-m reflector. Observers L. Tesi and P. Gigli. Measured by L. Tesi. Reductions by G. Cattani.
105 Sternberg Astronomical Institute, Moscow. 0.2-m f/15 refractor. Observer S. V. Zhuiko. Measured by N. M. Evstigneeva.
361 Sumoto. 0.20-m f/6.3 reflector + CCD. Observer S. Nakano.
376 Uenohara. 0.30-m reflector + CCD. Observer N. Kawasato.
385 Oohira. 0.25-m f/3.4 hyperboloid astrocamera + CCD. Observer T. Urata.
400 Kitami. 0.25-m f/2.6 Schmidt camera. Observer K. Endate. Measured by K. Watanabe.
402 Dynic Astronomical Observatory. 0.25-m f/3.4 Schmidt. Observer A. Sugie.
410 Sengamine. 0.20-m f/6.0 reflector + CCD. Observer K. Ito.
411 Oizumi. 0.16-m f/6.3 reflector + CCD. Observer T. Kobayashi.
413 Siding Spring. 1.0-m reflector + CCD. Observers R. H. McNaught and D. I. Steel. Measured by R. H. McNaught.
474 Mt. John Observatory. 0.6-m reflector. Observer A. C. Gilmore. Measured by P. M. Kilmartin.
503 Cambridge. Observer J. D. Shanklin.
540 Linz. 0.3-m f/5.2 Schmidt-Cassegrain + CCD. Observers E. Meyer and H. Raab.
670 Camarillo. 0.25-m Schmidt-Cassegrain + CCD. Observer J. E. Rogers.
675 Palomar. 0.46-m Schmidt telescope. Observers E. M. Shoemaker, C. S. Shoemaker and D. H. Levy.
691 Kitt Peak. 0.91-m Spacewatch telescope. Observer J. V. Scotti.
801 Oak Ridge. 1.5-m reflector + CCD. Observers R. E. McCrosky and C.-Y. Shao.
809 European Southern Observatory. 1.0-m Schmidt. Observers M. Lindgren

and G. Tancredi. Measured by M. Lindgren.
871 Akou. 0.20-m f/4.0 reflector + CCD. Observer K. Kawanishi.
897 YGCO Chiyoda Observatory. 0.25-m f/3.4 Wright-Schmidt. Observer T. Kojima.
900 Kiryuu Observatory, Ohtsu. 0.26-m f/2.9 reflector + CCD. Observer Y. Ikari.

Object	Date	UT	R. A. (2000)	Decl.	Mag.	N	Obs.
		Periodic Comet Smirnova-Chernykh					
/1984 V	1993	04 10.51736	13 47 22.14	-03 19 09.4	16.0 T		400
/1984 V	1993	04 10.53819	13 47 21.24	-03 19 09.1			400
/1984 V	1993	04 16.52708	13 43 34.16	-03 02 13.2	16.0 T		400
/1984 V	1993	04 16.54514	13 43 33.10	-03 02 09.9			400
/1984 V	1993	04 17.56628	13 42 54.33	-02 59 26.1			361
/1984 V	1993	04 17.68699	13 42 49.47	-02 59 07.4	15.5 T		871
/1984 V	1993	04 17.70218	13 42 48.92	-02 59 04.4			871
/1984 V	1993	04 18.73712	13 42 09.30	-02 56 19.7			361
/1984 V	1993	04 20.50347	13 41 02.29	-02 51 54.3	16 T		400
/1984 V	1993	04 20.52083	13 41 01.77	-02 51 51.3			400
/1984 V	1993	04 24.53251	13 38 31.00	-02 42 20.3			411
/1984 V	1993	04 24.53896	13 38 30.69	-02 42 19.0			411
/1984 V	1993	04 24.54218	13 38 30.69	-02 42 18.5			411
/1984 V	1993	04 25.57707	13 37 52.34	-02 40 03.0			411
/1984 V	1993	04 25.58352	13 37 52.01	-02 40 02.3			411
/1984 V	1993	04 25.58675	13 37 51.96	-02 40 02.5			411
/1984 V	1993	04 25.68358	13 37 48.16	-02 39 46.5			361
/1984 V	1993	05 11.48925	13 29 07.33	-02 16 17.5			411
/1984 V	1993	05 11.49571	13 29 07.20	-02 16 17.8			411
/1984 V	1993	05 11.49894	13 29 07.15	-02 16 17.4			411
/1984 V	1993	05 13.63178	13 28 08.94	-02 14 55.8			361
/1984 V	1993	05 14.65336	13 27 42.24	-02 14 23.2	16.3 T		361
		Periodic Comet Schwassmann-Wachmann 1					
/1989 XV	1993	01 29.52789	05 13 37.96	+30 37 45.7	14 T		897
/1989 XV	1993	01 29.57355	05 13 37.46	+30 37 40.1			897
/1989 XV	1993	02 10.50828	05 12 03.86	+30 16 36.4	13.7 T		897
/1989 XV	1993	02 10.54363	05 12 03.68	+30 16 34.2			897
/1989 XV	1993	02 11.58733	05 12 00.90	+30 14 47.4	12.8 T		897
/1989 XV	1993	02 11.60012	05 12 00.95	+30 14 45.6			897
/1989 XV	1993	02 12.52888	05 11 59.15	+30 13 11.8	12.5 T		897
/1989 XV	1993	02 12.54514	05 11 59.17	+30 13 09.9			897
/1989 XV	1993	02 13.47135	05 11 58.10	+30 11 37.8	12.2 T		897
/1989 XV	1993	02 13.49144	05 11 58.10	+30 11 34.8			897
/1989 XV	1993	02 14.61343	05 11 57.74	+30 09 43.4			897
/1989 XV	1993	02 15.45602	05 11 58.17	+30 08 21.6			897
/1989 XV	1993	02 15.54207	05 11 58.17	+30 08 12.6			897
/1989 XV	1993	02 17.56273	05 12 01.51	+30 04 56.0			897
/1989 XV	1993	02 17.56985	05 12 01.46	+30 04 56.0			897
/1989 XV	1993	02 19.50804	05 12 07.72	+30 01 48.7			897
/1989 XV	1993	02 19.54323	05 12 07.85	+30 01 45.4			897
/1989 XV	1993	04 25.43317	05 39 42.24	+28 51 43.1			411
/1989 XV	1993	04 25.43822	05 39 42.45	+28 51 42.3			411
/1989 XV	1993	04 25.44075	05 39 42.59	+28 51 42.4			411
		Periodic Comet Chernykh					
/1991o	1993	04 20.14057	08 06 16.39	+20 32 37.6	22.4 N		691
/1991o	1993	04 20.14917	08 06 16.74	+20 32 37.4	20.9 T		691
/1991o	1993	04 20.16132	08 06 17.09	+20 32 36.7	20.5 T	1	691

Comet McNaught-Russell (1991v)

/1991v	1993	05	11.37691	07	02	47.97	-08	32	40.8	19 T	2	413
/1991v	1993	05	11.37933	07	02	48.08	-08	32	39.3		2	413

Comet Helin-Alu (1992a)

/1992a	1993	02	18.60492	15	26	35.24	-56	57	13.4	19.0 N		474
/1992a	1993	02	18.64421	15	26	37.38	-56	57	30.2			474
/1992a	1993	03	22.65305	15	41	18.82	-60	10	31.6	18.7 N		474
/1992a	1993	03	22.68913	15	41	18.83	-60	10	41.5			474
/1992a	1993	03	23.64911	15	41	16.59	-60	14	43.7	18.8 N		474
/1992a	1993	03	23.68913	15	41	16.64	-60	14	55.5			474

Comet Spacewatch (1992h)

/1992h	1993	02	17.64572	13	51	36.32	+28	01	09.9	16 T		897
/1992h	1993	02	17.65926	13	51	35.64	+28	01	28.1			897
/1992h	1993	02	17.67176	13	51	35.13	+28	01	52.2			897
/1992h	1993	04	17.55030	12	02	03.39	+52	35	43.6			361
/1992h	1993	04	17.55309	12	02	03.22	+52	35	47.1			361
/1992h	1993	04	17.55586	12	02	02.76	+52	35	47.2			361
/1992h	1993	04	17.63971	12	01	49.20	+52	36	50.6	14 T		871
/1992h	1993	04	17.64370	12	01	48.87	+52	36	52.3			871
/1992h	1993	04	17.64747	12	01	48.25	+52	36	55.5			871
/1992h	1993	04	17.65157	12	01	47.37	+52	37	01.0			871
/1992h	1993	04	18.62138	11	59	16.13	+52	48	37.8	14 T		871
/1992h	1993	04	18.62473	11	59	15.57	+52	48	41.0	16 T		900
/1992h	1993	04	18.62580	11	59	15.44	+52	48	43.1			871
/1992h	1993	04	18.63237	11	59	14.50	+52	48	45.5			900
/1992h	1993	04	18.63428	11	59	14.17	+52	48	48.7			871
/1992h	1993	04	21.33008	11	52	16.71	+53	18	23.1		3	691
/1992h	1993	04	21.35076	11	52	13.48	+53	18	35.2			691
/1992h	1993	04	24.50183	11	44	15.51	+53	48	03.2			411
/1992h	1993	04	24.50829	11	44	14.61	+53	48	05.6			411
/1992h	1993	04	24.51152	11	44	14.03	+53	48	07.4			411
/1992h	1993	04	25.48350	11	41	49.34	+53	56	08.1			411
/1992h	1993	04	25.48995	11	41	48.30	+53	56	12.1			411
/1992h	1993	04	25.49318	11	41	47.90	+53	56	13.0			411
/1992h	1993	04	25.56447	11	41	37.22	+53	56	46.2			361
/1992h	1993	04	25.56719	11	41	36.92	+53	56	46.4			361
/1992h	1993	04	25.56979	11	41	36.61	+53	56	49.3			361
/1992h	1993	04	26.47812	11	39	22.68	+54	03	50.7			411
/1992h	1993	04	26.48329	11	39	21.89	+54	03	52.4			411
/1992h	1993	04	26.48587	11	39	21.56	+54	03	53.5			411
/1992h	1993	04	26.49358	11	39	20.38	+54	03	57.9			376
/1992h	1993	04	26.49745	11	39	19.82	+54	03	58.4			376
/1992h	1993	05	04.62834	11	20	32.02	+54	49	37.1	15.5 T		900
/1992h	1993	05	04.63722	11	20	30.85	+54	49	38.5			900
/1992h	1993	05	11.46013	11	06	42.05	+55	07	56.0			411
/1992h	1993	05	11.46659	11	06	41.38	+55	07	56.1			411
/1992h	1993	05	11.46982	11	06	40.92	+55	07	56.4			411
/1992h	1993	05	14.55878	11	01	05.17	+55	11	25.7	15.5 T		900
/1992h	1993	05	14.56478	11	01	04.62	+55	11	24.8	15.5 T		361
/1992h	1993	05	14.56676	11	01	04.35	+55	11	27.0			900
/1992h	1993	05	14.56741	11	01	04.45	+55	11	24.7	15.4 T		361
/1992h	1993	05	14.56972	11	01	04.13	+55	11	25.0	15.3 T		361
/1992h	1993	05	15.59712	10	59	18.02	+55	12	01.2	15.6 T		361
/1992h	1993	05	15.59914	10	59	17.71	+55	12	02.0	15.6 T		361
/1992h	1993	05	16.89800	10	57	08.02	+55	12	24.1	15.1 T		540
/1992h	1993	05	16.91377	10	57	06.44	+55	12	23.6	15.3 T		540
/1992h	1993	05	16.91850	10	57	05.92	+55	12	23.9	15.4 T		540

/1992h	1993 05 16.92293	10 57 05.50	+55 12 24.1	15.3 T		540
/1992h	1993 05 16.92683	10 57 05.14	+55 12 24.0	15.4 T		540
	Periodic Comet Ashbrook-Jackson					
/1992j	1993 05 10.81485	23 41 13.56	-08 16 03.3			413
/1992j	1993 05 10.81705	23 41 13.77	-08 16 01.7			413
/1992j	1993 05 11.77902	23 42 47.75	-08 03 57.0			413
/1992j	1993 05 11.78095	23 42 47.94	-08 03 55.7			413
	Periodic Comet Daniel					
/1992o	1993 04 22.26613	11 12 26.02	+33 30 52.9			691
/1992o	1993 04 22.28245	11 12 25.83	+33 30 41.2	19.7 T		691
/1992o	1993 04 22.29523	11 12 25.74	+33 30 33.0	22.3 N		691
	Comet Helin-Lawrence (1992q)					
/1992q	1993 02 16.40804	23 40 56.04	-55 41 34.8	16.3 N		474
/1992q	1993 02 16.42454	23 40 57.46	-55 41 40.7			474
/1992q	1993 02 17.43935	23 42 26.66	-55 48 24.0			474
/1992q	1993 03 15.39595	00 34 38.29	-59 52 15.0			474
/1992q	1993 03 15.40370	00 34 39.31	-59 52 20.1			474
/1992q	1993 03 22.43531	00 55 24.84	-61 23 31.6	16.5 N		474
/1992q	1993 03 22.44856	00 55 27.30	-61 23 41.3			474
/1992q	1993 04 24.33699	03 57 45.52	-68 23 00.6	16.0 N		474
/1992q	1993 04 24.34828	03 57 51.39	-68 23 02.8			474
/1992q	1993 05 11.38207	06 30 29.16	-66 10 03.8			413
/1992q	1993 05 11.38438	06 30 30.29	-66 10 01.0			413
	Periodic Comet Swift-Tuttle					
/1992t	1992 11 11.67361	17 43 48.14	+29 08 23.4			105
/1992t	1993 03 22.72316	22 58 43.29	-54 36 33.2	16.3 N		474
/1992t	1993 03 22.72698	22 58 44.16	-54 36 37.0			474
/1992t	1993 03 22.73155	22 58 44.91	-54 36 42.8			474
/1992t	1993 03 23.71998	23 01 54.03	-55 01 18.6			474
/1992t	1993 03 23.72380	23 01 54.75	-55 01 23.8			474
/1992t	1993 03 23.72819	23 01 55.60	-55 01 32.1			474
/1992t	1993 05 11.37160	03 34 25.33	-70 46 07.7			413
/1992t	1993 05 11.37323	03 34 26.09	-70 46 08.0			413
	Periodic Comet Vaisala 1					
/1992u	1993 01 29.55058	09 58 18.15	+13 50 12.1	15.5 T		897
/1992u	1993 02 10.53762	09 55 28.61	+16 23 04.0	14.5 T		897
/1992u	1993 02 10.54977	09 55 28.34	+16 23 12.7			897
/1992u	1993 02 11.59410	09 55 08.35	+16 37 32.5			897
/1992u	1993 02 11.60885	09 55 08.00	+16 37 43.9			897
/1992u	1993 02 19.53414	09 52 26.22	+18 27 56.5	14.5 T		897
/1992u	1993 02 19.54931	09 52 25.83	+18 28 09.2			897
/1992u	1993 04 17.53225	10 10 29.61	+24 44 16.1			361
/1992u	1993 04 17.60904	10 10 34.88	+24 44 01.7	14 T		871
/1992u	1993 04 17.62167	10 10 35.89	+24 43 58.7			871
/1992u	1993 04 17.62681	10 10 36.14	+24 43 57.7			871
/1992u	1993 04 18.07821	10 11 09.78	+24 42 35.3			801
/1992u	1993 04 18.08932	10 11 10.63	+24 42 33.6			801
/1992u	1993 04 18.64772	10 11 51.89	+24 40 44.0	14 T		871
/1992u	1993 04 18.65756	10 11 52.58	+24 40 46.6			871
/1992u	1993 04 21.07028	10 14 59.11	+24 31 50.5			801
/1992u	1993 04 21.08249	10 15 00.07	+24 31 47.6			801
/1992u	1993 04 24.48939	10 19 38.73	+24 16 11.8			411
/1992u	1993 04 24.49443	10 19 39.18	+24 16 10.3			411
/1992u	1993 04 24.49696	10 19 39.33	+24 16 09.7			411

/1992u	1993	04	25.49794	10	21	04.61	+24	10	53.9	411
/1992u	1993	04	25.50299	10	21	05.04	+24	10	52.1	411
/1992u	1993	04	25.50551	10	21	05.26	+24	10	51.4	411
/1992u	1993	04	25.53640	10	21	07.94	+24	10	41.3	361
/1992u	1993	04	25.54860	10	21	08.88	+24	10	37.7	361
/1992u	1993	04	25.55069	10	21	09.06	+24	10	37.7	361
/1992u	1993	04	25.67259	10	21	19.13	+24	09	56.1 14 T	871
/1992u	1993	04	25.67707	10	21	19.90	+24	09	54.8	871
/1992u	1993	04	25.68023	10	21	19.99	+24	09	52.0	871
/1992u	1993	04	26.46656	10	22	28.57	+24	05	32.0	411
/1992u	1993	04	26.47173	10	22	29.03	+24	05	30.6	411
/1992u	1993	04	26.47432	10	22	29.23	+24	05	29.3	411
/1992u	1993	05	11.44692	10	46	34.39	+22	10	50.2	411
/1992u	1993	05	11.45197	10	46	34.86	+22	10	47.1	411
/1992u	1993	05	14.57253	10	52	04.24	+21	40	04.2 14 T	871
/1992u	1993	05	14.57473	10	52	04.56	+21	40	02.7	871
/1992u	1993	05	14.57693	10	52	04.74	+21	40	02.1	871
/1992u	1993	05	14.57913	10	52	04.87	+21	39	59.4	871
/1992u	1993	05	15.60233	10	53	54.82	+21	29	29.1 15.0 T	361
/1992u	1993	05	15.60638	10	53	55.26	+21	29	25.1 14.5 T	361
/1992u	1993	05	16.53512	10	55	35.62	+21	19	41.3 14.6 T	410
/1992u	1993	05	16.54206	10	55	36.28	+21	19	37.2	410
/1992u	1993	05	16.54670	10	55	36.88	+21	19	34.6	410

Periodic Comet Schaumasse

/1992x	1993	03	19.94384	06	45	00.93	+47	32	36.2	503
/1992x	1993	03	23.01773	07	03	27.99	+47	26	16.6	503
/1992x	1993	04	17.49760	09	24	36.20	+39	31	26.4 10 T	871
/1992x	1993	04	17.50709	09	24	38.69	+39	31	08.5	871
/1992x	1993	04	17.51497	09	24	40.99	+39	30	54.2	871
/1992x	1993	04	17.52287	09	24	43.00	+39	30	40.1	361
/1992x	1993	04	18.01569	09	26	59.68	+39	16	01.6	801
/1992x	1993	04	18.01851	09	27	00.43	+39	15	56.2	801
/1992x	1993	04	18.47227	09	29	04.40	+39	02	22.7	411
/1992x	1993	04	18.47521	09	29	05.25	+39	02	17.9	411
/1992x	1993	04	18.47668	09	29	05.51	+39	02	15.1	411
/1992x	1993	04	18.60507	09	29	39.93	+38	58	20.1 10 T	871
/1992x	1993	04	18.60924	09	29	41.32	+38	58	14.6	871
/1992x	1993	04	18.61329	09	29	42.24	+38	58	05.1	871
/1992x	1993	04	19.63000	09	34	16.41	+38	27	09.1 10 T	871
/1992x	1993	04	19.63752	09	34	18.07	+38	26	54.9	871
/1992x	1993	04	19.64134	09	34	19.07	+38	26	51.4	871
/1992x	1993	04	21.07287	09	40	36.64	+37	42	41.7	801
/1992x	1993	04	21.07607	09	40	37.59	+37	42	35.7	801
/1992x	1993	04	24.46356	09	54	50.40	+35	55	19.6	411
/1992x	1993	04	24.46650	09	54	51.11	+35	55	13.1	411
/1992x	1993	04	24.46797	09	54	51.55	+35	55	10.0	411
/1992x	1993	04	25.45756	09	58	50.60	+35	23	14.1	411
/1992x	1993	04	25.46050	09	58	51.22	+35	23	10.3	411
/1992x	1993	04	25.46197	09	58	51.64	+35	23	07.2	411
/1992x	1993	04	25.52995	09	59	07.59	+35	20	54.0	361
/1992x	1993	04	25.53215	09	59	08.02	+35	20	49.2	361
/1992x	1993	04	25.66150	09	59	38.75	+35	16	33.7 10 T	871
/1992x	1993	04	25.66519	09	59	39.65	+35	16	27.4	871
/1992x	1993	04	25.66854	09	59	40.15	+35	16	18.9	871
/1992x	1993	05	04.59286	10	32	21.84	+30	22	55.0	900
/1992x	1993	05	04.59818	10	32	23.12	+30	22	46.3	900
/1992x	1993	05	11.47561	10	54	16.11	+26	37	53.4	411
/1992x	1993	05	11.48066	10	54	16.94	+26	37	44.2	411

/1992x	1993	05	11.48318	10 54 17.48	+26 37 38.9			411
/1992x	1993	05	12.56240	10 57 30.11	+26 02 56.7	14	T	871
/1992x	1993	05	12.56529	10 57 30.37	+26 02 52.3			871
/1992x	1993	05	12.56830	10 57 30.88	+26 02 42.8			871
/1992x	1993	05	12.57302	10 57 31.88	+26 02 34.2			871
/1992x	1993	05	14.55477	11 03 17.11	+24 59 19.5	14	T	871
/1992x	1993	05	14.55637	11 03 17.49	+24 59 19.5	15.0	T	361
/1992x	1993	05	14.55745	11 03 17.69	+24 59 15.1			871
/1992x	1993	05	14.55938	11 03 17.92	+24 59 10.9	15.0	T	361
/1992x	1993	05	14.56146	11 03 18.50	+24 59 09.0	15.0	T	361
/1992x	1993	05	14.56497	11 03 18.91	+24 59 01.4			871
/1992x	1993	05	14.56701	11 03 19.18	+24 58 56.5			871
/1992x	1993	05	15.58300	11 06 12.32	+24 26 49.6	14.6	T	361
/1992x	1993	05	15.58697	11 06 12.96	+24 26 40.4	14.7	T	361
/1992x	1993	05	15.58900	11 06 13.44	+24 26 36.5	14.7	T	361

Comet Shoemaker (1992y)

/1992y	1993	02	10.47980	01 39 35.97	+49 09 00.0	16	T	897
/1992y	1993	02	10.50035	01 39 37.05	+49 09 11.2			897
/1992y	1993	04	25.44444	03 41 24.67	+66 38 31.8	16.5	T	385
/1992y	1993	04	25.45000	03 41 25.82	+66 38 37.0			385
/1992y	1993	04	25.46198	03 41 28.63	+66 38 48.2			385

Comet Mueller (1993a)

/1993a	1993	01	29.54236	09 01 50.92	+53 52 31.6	13.5	T	897
/1993a	1993	01	29.58102	09 01 45.69	+53 53 06.1			897
/1993a	1993	02	12.56875	08 29 17.92	+56 20 23.9	14	T	897
/1993a	1993	02	12.58507	08 29 15.55	+56 20 30.8			897
/1993a	1993	02	13.48449	08 27 04.32	+56 27 39.2	14	T	897
/1993a	1993	02	13.49780	08 27 02.51	+56 27 45.3			897
/1993a	1993	03	20.51551	07 12 20.13	+57 42 22.5			376
/1993a	1993	03	20.53003	07 12 18.61	+57 42 21.0			376
/1993a	1993	03	21.51476	07 10 48.35	+57 40 16.1			376
/1993a	1993	03	21.52002	07 10 48.06	+57 40 14.9			376
/1993a	1993	04	07.20455	06 51 28.90	+56 52 15.0			670
/1993a	1993	04	07.21972	06 51 28.30	+56 52 10.0			670
/1993a	1993	04	07.22690	06 51 27.89	+56 52 09.1			670
/1993a	1993	04	14.86029	06 46 14.27	+56 27 17.4	13.6	T	540
/1993a	1993	04	14.86190	06 46 14.08	+56 27 16.2	14.2	T	540
/1993a	1993	04	14.86329	06 46 14.02	+56 27 15.9	13.9	T	540
/1993a	1993	04	14.86466	06 46 14.06	+56 27 16.2	13.9	T	540
/1993a	1993	04	15.49288	06 45 53.96	+56 25 16.2			376
/1993a	1993	04	15.51088	06 45 53.38	+56 25 12.3			376
/1993a	1993	04	17.49306	06 44 54.62	+56 18 57.5			361
/1993a	1993	04	17.49756	06 44 54.32	+56 18 55.9			361
/1993a	1993	04	17.50010	06 44 54.22	+56 18 56.4			361
/1993a	1993	04	18.46061	06 44 28.52	+56 15 55.0			411
/1993a	1993	04	18.46566	06 44 28.29	+56 15 53.9			411
/1993a	1993	04	18.46818	06 44 28.42	+56 15 53.5			411
/1993a	1993	04	21.92742	06 43 10.28	+56 05 19.5			046
/1993a	1993	04	21.94264	06 43 10.09	+56 05 15.7			046
/1993a	1993	04	22.91816	06 42 52.04	+56 02 23.3			046
/1993a	1993	04	22.93344	06 42 51.91	+56 02 20.0			046
/1993a	1993	04	24.06358	06 42 33.21	+55 59 03.7			801
/1993a	1993	04	24.07814	06 42 32.96	+55 59 00.9			801
/1993a	1993	04	24.45132	06 42 27.21	+55 57 56.9			411
/1993a	1993	04	24.45638	06 42 27.16	+55 57 55.8			411
/1993a	1993	04	24.45890	06 42 27.14	+55 57 54.9			411
/1993a	1993	04	25.44462	06 42 13.53	+55 55 08.2			411

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/1993a          1993 04 25.44966  06 42 13.39  +55 55 07.6                411
/1993a          1993 04 25.45219  06 42 13.32  +55 55 07.7                411
/1993a          1993 04 26.44307  06 42 01.12  +55 52 22.2                411
/1993a          1993 04 26.44824  06 42 01.17  +55 52 21.3                411
/1993a          1993 04 26.45083  06 42 01.13  +55 52 21.0                411
/1993a          1993 04 28.86873  06 41 38.22  +55 45 50.7   13.9 T       540
/1993a          1993 04 28.86985  06 41 38.22  +55 45 48.7   13.8 T       540
/1993a          1993 04 28.87085  06 41 38.26  +55 45 49.5   13.8 T       540
/1993a          1993 04 28.87182  06 41 38.17  +55 45 49.7   13.8 T       540

                     Comet Mueller (1993d)
/1993d          1993 04 09.83589  12 46 18.45  +63 58 18.6   17.4 T       540
/1993d          1993 04 09.84750  12 46 18.04  +63 58 13.7   18.0 T       540
/1993d          1993 04 09.85233  12 46 17.15  +63 58 12.4   17.8 T       540
/1993d          1993 04 14.88765  12 42 56.42  +63 41 27.1   17.0 T       540
/1993d          1993 04 14.89362  12 42 55.77  +63 41 26.4   16.9 T       540
/1993d          1993 04 14.92784  12 42 55.02  +63 41 19.5   17.5 T       540
/1993d          1993 04 17.60278  12 41 13.64  +63 30 41.5                385
/1993d          1993 04 17.60990  12 41 13.44  +63 30 40.0                385
/1993d          1993 04 17.62106  12 41 12.95  +63 30 36.1                385
/1993d          1993 04 17.63021  12 41 12.58  +63 30 33.5                385
/1993d          1993 04 20.46147  12 39 31.29  +63 18 02.6           4    691
/1993d          1993 04 20.47312  12 39 30.81  +63 17 59.2                691
/1993d          1993 04 20.47896  12 39 30.63  +63 17 57.7                691
/1993d          1993 04 25.48576  12 36 46.56  +62 52 55.6                385
/1993d          1993 04 25.49144  12 36 46.17  +62 52 55.0                385
/1993d          1993 04 25.50000  12 36 46.02  +62 52 51.8                385
/1993d          1993 04 25.56438  12 36 44.27  +62 52 29.7                411
/1993d          1993 04 25.59299  12 36 43.30  +62 52 21.6                411
/1993d          1993 04 25.60690  12 36 42.56  +62 52 14.8                411
/1993d          1993 04 26.50382  12 36 15.56  +62 47 23.1                376
/1993d          1993 04 26.51771  12 36 14.96  +62 47 19.3                376
/1993d          1993 04 28.83219  12 35 08.95  +62 34 12.2   17.6 T       540
/1993d          1993 04 28.83913  12 35 08.55  +62 34 07.8   17.6 T       540
/1993d          1993 04 28.87878  12 35 07.46  +62 33 53.7   17.4 T       540
/1993d          1993 04 28.88462  12 35 07.46  +62 33 51.6   16.9 T       540
/1993d          1993 05 10.89815  12 30 45.32  +61 14 40.2   17.4 T       540
/1993d          1993 05 10.90461  12 30 45.24  +61 14 37.0   17.5 T       540
/1993d          1993 05 10.92754  12 30 44.96  +61 14 26.5   17.6 T       540
/1993d          1993 05 10.93531  12 30 44.63  +61 14 23.7   17.7 T       540
/1993d          1993 05 13.88200  12 30 02.58  +60 52 28.2   17.5 T       540
/1993d          1993 05 13.88879  12 30 02.66  +60 52 25.3                540
/1993d          1993 05 13.89497  12 30 02.81  +60 52 21.0                540
/1993d          1993 05 16.65741  12 29 30.81  +60 31 02.1                385
/1993d          1993 05 16.66435  12 29 30.92  +60 30 58.7                385
/1993d          1993 05 16.66979  12 29 30.92  +60 30 54.6                385
/1993d          1993 05 18.88637  12 29 11.15  +60 13 16.5   17.8 T       540
/1993d          1993 05 18.89267  12 29 11.12  +60 13 14.0   17.6 T       540
/1993d          1993 05 18.93587  12 29 10.79  +60 12 52.5   17.3 T       540
/1993d          1993 05 18.94194  12 29 10.71  +60 12 49.1   17.5 T       540

                     Periodic Comet Shoemaker-Levy 9
/1993e          1993 03 19.15104  12 29 10.6   -04 18 21           5    809
/1993e          1993 03 20.15382  12 28 41.8   -04 15 35           5    809
/1993e          1993 03 24.11771  12 26 46.3   -04 04 15           5    809
/1993e          1993 04 01.57183  12 22 37.29  -03 39 32.0         6    474
/1993e          1993 04 01.65207  12 22 35.12  -03 39 16.8         6    474
/1993e          1993 04 01.67890  12 22 34.98  -03 39 09.3         6    474
/1993e          1993 04 11.69541  12 17 51.98  -03 10 26.6   14    T      871
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/1993e	1993	04	12.57095	12 17 29.00	-03 07 59.2				402
/1993e	1993	04	14.27326	12 16 43.34	-03 03 20.8	13.5	T		675
/1993e	1993	04	14.61528	12 16 34.66	-03 02 22.2				402
/1993e	1993	04	14.64167	12 16 33.54	-03 02 20.1				402
/1993e	1993	04	14.64828	12 16 33.49	-03 02 19.8				871
/1993e	1993	04	14.84069	12 16 28.31	-03 01 48.0	14.1	T		540
/1993e	1993	04	14.84363	12 16 28.15	-03 01 46.8	14.2	T		540
/1993e	1993	04	14.84535	12 16 28.57	-03 01 45.8	14.2	T		540
/1993e	1993	04	14.84627	12 16 28.31	-03 01 47.7	14.4	T		540
/1993e	1993	04	14.84800	12 16 28.32	-03 01 44.4	14.5	T		540
/1993e	1993	04	14.84994	12 16 28.18	-03 01 45.8	14.2	T		540
/1993e	1993	04	15.25173	12 16 17.87	-03 00 41.5				675
/1993e	1993	04	15.61678	12 16 07.89	-02 59 46.7				376
/1993e	1993	04	16.22083	12 15 53.06	-02 58 07.7				675
/1993e	1993	04	17.66147	12 15 16.41	-02 54 18.5	14		T	871
/1993e	1993	04	17.66957	12 15 15.93	-02 54 16.8				871
/1993e	1993	04	17.90313	12 15 10.68	-02 53 40.2				104
/1993e	1993	04	17.91424	12 15 10.50	-02 53 38.2				104
/1993e	1993	04	18.24635	12 15 02.16	-02 52 47.1				675
/1993e	1993	04	18.66713	12 14 51.74	-02 51 39.7	14		T	871
/1993e	1993	04	18.66945	12 14 51.34	-02 51 41.7				900
/1993e	1993	04	18.67580	12 14 51.38	-02 51 38.1				871
/1993e	1993	04	18.67805	12 14 51.26	-02 51 40.6	14		T	900
/1993e	1993	04	18.90313	12 14 46.17	-02 51 04.8				104
/1993e	1993	04	18.91424	12 14 46.00	-02 51 03.1				104
/1993e	1993	04	19.09789	12 14 40.59	-02 50 39.6				801
/1993e	1993	04	19.13096	12 14 40.49	-02 50 33.6				801
/1993e	1993	04	19.29583	12 14 36.47	-02 50 06.2				675
/1993e	1993	04	19.54514	12 14 29.54	-02 49 30.1				402
/1993e	1993	04	19.55764	12 14 29.34	-02 49 30.2				402
/1993e	1993	04	20.23013	12 14 13.99	-02 47 46.4				691
/1993e	1993	04	20.29618	12 14 12.29	-02 47 36.5				675
/1993e	1993	04	20.84228	12 13 59.30	-02 46 13.6	14.3	T		540
/1993e	1993	04	20.84536	12 13 59.18	-02 46 11.9	14.3	T		540
/1993e	1993	04	20.85027	12 13 58.99	-02 46 11.5	14.3	T		540
/1993e	1993	04	20.85304	12 13 58.90	-02 46 12.3	14.4	T		540
/1993e	1993	04	20.85832	12 13 59.01	-02 46 10.9	14.4	T		540
/1993e	1993	04	20.86138	12 13 58.86	-02 46 10.8	14.4	T		540
/1993e	1993	04	21.84201	12 13 35.82	-02 43 45.7				104
/1993e	1993	04	21.85208	12 13 35.58	-02 43 44.0				104
/1993e	1993	04	23.82453	12 12 50.92	-02 39 01.0	13.9	T		540
/1993e	1993	04	23.82706	12 12 50.79	-02 39 00.2	13.9	T		540
/1993e	1993	04	23.82870	12 12 51.04	-02 39 00.1	13.9	T		540
/1993e	1993	04	23.83160	12 12 50.86	-02 38 58.3	14.0	T		540
/1993e	1993	04	24.51821	12 12 34.86	-02 37 27.1				411
/1993e	1993	04	24.52467	12 12 34.68	-02 37 22.8				411
/1993e	1993	04	24.56266	12 12 33.87	-02 37 19.2				411
/1993e	1993	04	25.51073	12 12 13.75	-02 35 09.2				411
/1993e	1993	04	25.51718	12 12 14.08	-02 35 06.1				411
/1993e	1993	04	25.52041	12 12 13.82	-02 35 07.5				411
/1993e	1993	04	25.55363	12 12 12.38	-02 35 03.6				361
/1993e	1993	04	25.57426	12 12 12.19	-02 35 01.0				361
/1993e	1993	04	25.63719	12 12 10.60	-02 34 52.4				361
/1993e	1993	04	30.98013	12 10 24.99	-02 23 28.7	14.6	T		540
/1993e	1993	04	30.98181	12 10 25.06	-02 23 29.5	14.4	T		540
/1993e	1993	04	30.98329	12 10 24.79	-02 23 30.5	14.2	T		540
/1993e	1993	04	30.98482	12 10 24.89	-02 23 29.8	14.4	T		540
/1993e	1993	05	10.85005	12 07 52.15	-02 06 49.1	14.6	T		540
/1993e	1993	05	10.85247	12 07 52.09	-02 06 48.6	14.5	T		540

/1993e	1993 05 10.91699	12 07 51.18	-02 06 43.4	14.5 T			540
/1993e	1993 05 10.91913	12 07 51.19	-02 06 43.1	14.5 T			540
/1993e	1993 05 11.51223	12 07 43.31	-02 05 57.0				411
/1993e	1993 05 11.52009	12 07 42.92	-02 06 00.7				411
/1993e	1993 05 11.52402	12 07 43.10	-02 05 57.9				411
/1993e	1993 05 13.60765	12 07 20.27	-02 03 14.0				361
/1993e	1993 05 13.61014	12 07 19.97	-02 03 12.0				361
/1993e	1993 05 14.53402	12 07 10.57	-02 02 09.2				361
/1993e	1993 05 14.53633	12 07 10.76	-02 02 07.5				361
/1993e	1993 05 14.57253	12 07 10.07	-02 02 03.6				361
/1993e	1993 05 14.57522	12 07 10.14	-02 02 06.1				361
/1993e	1993 05 15.56946	12 07 00.34	-02 01 01.6				361
/1993e	1993 05 15.57351	12 07 00.48	-02 00 59.7				361
/1993e	1993 05 15.61347	12 06 59.88	-02 00 58.3				361
/1993e	1993 05 16.95722	12 06 48.00	-01 59 34.9	14.6 T			540
/1993e	1993 05 16.95862	12 06 48.11	-01 59 35.1	14.8 T			540
/1993e	1993 05 16.95980	12 06 48.16	-01 59 34.7	14.5 T			540
/1993e	1993 05 16.96103	12 06 48.12	-01 59 34.8	14.5 T			540
/1993e	1993 05 17.21560	12 06 46.24	-01 59 19.7				691
/1993e	1993 05 18.87198	12 06 33.21	-01 57 51.0	14.5 T			540
/1993e	1993 05 18.87351	12 06 33.22	-01 57 49.0	15.2 T			540
/1993e	1993 05 18.87481	12 06 33.17	-01 57 49.6	14.5 T			540
/1993e	1993 05 18.87634	12 06 32.96	-01 57 49.7	15.2 T			540
	Periodic Comet Forbes						
/1993f	1993 05 10.81964	23 44 18.82	-02 55 45.9				413
/1993f	1993 05 10.82123	23 44 19.04	-02 55 44.2				413
/1993f	1993 05 11.78407	23 46 31.68	-02 37 50.6				413
/1993f	1993 05 11.78600	23 46 31.94	-02 37 48.3				413
/1993f	1993 05 15.76596	23 55 30.74	-01 24 44.8				411
/1993f	1993 05 15.76848	23 55 31.10	-01 24 41.8				411
	Periodic Comet Reinmuth 2						
/1993g	1993 02 26.45957	15 07 59.67	-25 33 44.7	21.9 T	7		691
/1993g	1993 02 26.48942	15 08 00.14	-25 33 50.1	22.0 T	7		691
/1993g	1993 02 26.51786	15 08 00.26	-25 33 56.0	21.7 T	8		691
/1993g	1993 04 21.39013	14 52 12.02	-26 03 41.1		8		691
/1993g	1993 04 21.39985	14 52 11.63	-26 03 39.5	21.7 T	8		691
/1993g	1993 04 21.41247	14 52 10.94	-26 03 37.7	21.7 T			691
/1993g	1993 04 22.36974	14 51 26.83	-26 01 21.4	20.8 T			691
/1993g	1993 04 22.37880	14 51 26.49	-26 01 20.8	21.5 T			691
/1993g	1993 04 22.39174	14 51 25.73	-26 01 18.7	21.3 T			691
/1993g	1993 04 22.40375	14 51 25.24	-26 01 16.2	22.1 T			691

Note 1: 12" coma, 0′.12 tail in p.a. 63 . 2: nearly stellar. 3: 16" coma, 1′ fanshaped tail from p.a. 122 to 228 . 4: 11" coma, 1′.24 tail in p.a. 297 . 5: independent discovery. 6: trailed image. 7: at telescope limit in good seeing. 8: no convincing diffuseness in poor seeing.

* * * * *

OBSERVATIONS OF MINOR PLANETS.

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

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

Object	Date UT	R. A. (2000)	Decl.	Mag.	N Obs.
010 Caussols					
E. W. Elst, Royal Observatory, B-1180 Brussels, Belgium					
C. Pollas, Observatoire de la Cote d'Azur, Avenue Copernic, F-06130 Grasse, France					
Observers E. W. Elst, J. B. Emond					
Measurer E. W. Elst					
0.9-m Schmidt telescope					
1966 BB	1993 02 22.99792	09 02 52.61	+20 04 22.5		010
1966 BB	1993 02 23.00984	09 02 52.02	+20 04 27.5		010
1985 RP2	1993 02 22.99792	09 11 19.03	+16 13 05.6		010
1985 RP2	1993 02 23.00984	09 11 18.62	+16 13 06.4		010
1985 RM6	1993 02 22.99792	09 08 31.62	+16 11 48.5		010
1985 RM6	1993 02 23.00984	09 08 31.12	+16 11 51.7		010
1990 DA1	1993 02 22.99792	09 10 52.64	+20 01 30.5		010
1990 DA1	1993 02 23.00984	09 10 51.89	+20 01 31.6		010
1993 BD4	1993 02 22.99792	09 09 53.15	+16 07 07.6		010
1993 BD4	1993 02 23.00984	09 09 52.89	+16 07 10.1		010
1993 BF4	1993 02 22.99792	09 00 43.32	+18 49 09.0		010
1993 BF4	1993 02 23.00984	09 00 42.88	+18 49 14.3		010
1993 BQ4	1993 02 22.99792	09 00 32.48	+18 20 00.5		010
1993 BQ4	1993 02 23.00984	09 00 31.82	+18 20 04.2		010
1993 BR4	1993 02 22.99792	09 04 15.22	+17 13 13.7		010
1993 BR4	1993 02 23.00984	09 04 14.72	+17 13 16.7		010
1993 BS4	1993 02 22.99792	09 07 22.03	+17 43 40.8		010

1993	BS4		1993	02	23.00984	09	07	21.49	+17 43 40.7	010
1993	BV4		1993	02	22.99792	09	05	16.89	+19 08 25.8	010
1993	BV4		1993	02	23.00984	09	05	16.28	+19 08 31.3	010
1993	BC5		1993	02	22.99792	09	09	02.33	+16 13 24.1	010
1993	BC5		1993	02	23.00984	09	09	01.81	+16 13 25.2	010
1993	BE5		1993	02	22.99792	09	11	40.51	+15 47 11.5	010
1993	BE5		1993	02	23.00984	09	11	40.11	+15 47 12.3	010
1993	BG5		1993	02	22.99792	09	02	23.88	+16 10 58.6	010
1993	BG5		1993	02	23.00984	09	02	23.41	+16 11 01.2	010
1993	BJ5		1993	02	22.99792	09	12	47.38	+15 44 11.6	010
1993	BJ5		1993	02	23.00984	09	12	46.93	+15 44 10.9	010
1993	BM5		1993	02	22.99792	09	08	58.26	+18 23 24.4	010
1993	BM5		1993	02	23.00984	09	08	57.68	+18 23 26.9	010
1993	BQ5		1993	02	22.99792	09	08	12.63	+18 48 35.6	010
1993	BQ5		1993	02	23.00984	09	08	12.14	+18 48 37.3	010
1993	BR5		1993	02	22.99792	09	05	46.38	+16 52 45.4	010
1993	BR5		1993	02	23.00984	09	05	45.72	+16 52 47.4	010
1993	BU5		1993	02	20.96806	09	13	21.10	+15 45 43.0 18.3	010
1993	BU5		1993	02	20.97986	09	13	20.45	+15 45 43.4	010
1993	BU5		1993	02	20.99167	09	13	19.94	+15 45 42.3	010
1993	BU5		1993	02	22.99792	09	11	41.51	+15 45 18.1	010
1993	BU5		1993	02	23.00984	09	11	40.94	+15 45 18.1	010
1993	BV5		1993	02	22.99792	09	07	52.08	+17 38 42.8	010
1993	BV5		1993	02	23.00984	09	07	51.48	+17 38 43.4	010
1993	BX5		1993	02	22.99792	09	12	48.03	+19 25 00.0	010
1993	BX5		1993	02	23.00984	09	12	47.41	+19 25 03.4	010
1993	BB6		1993	02	22.99792	09	14	07.41	+17 32 15.2	010
1993	BB6		1993	02	23.00984	09	14	06.87	+17 32 17.0	010
1993	BD6		1993	02	22.99792	09	13	17.12	+16 52 35.8	010
1993	BD6		1993	02	23.00984	09	13	16.46	+16 52 38.8	010
1993	BE6		1993	02	22.99792	09	10	41.89	+16 43 24.0	010
1993	BE6		1993	02	23.00984	09	10	41.13	+16 43 25.8	010
1993	BH6		1993	02	22.99792	09	14	59.66	+18 56 33.5	010
1993	BH6		1993	02	23.00984	09	14	59.13	+18 56 36.8	010
1993	BN6		1993	02	22.99792	09	15	53.17	+18 54 37.3	010
1993	BN6		1993	02	23.00984	09	15	52.61	+18 54 40.6	010
1993	BQ6		1993	02	22.99792	09	16	50.10	+19 32 28.6	010
1993	BQ6		1993	02	23.00984	09	16	49.42	+19 32 30.6	010
1993	CA1		1993	02	22.99792	09	14	30.78	+15 04 41.2	010
1993	CA1		1993	02	23.00984	09	14	29.97	+15 04 39.2	010
1993	CS1		1993	02	22.99792	09	12	50.90	+19 59 15.8	010
1993	CS1		1993	02	23.00984	09	12	50.26	+19 59 16.6	010
1993	DJ1		1993	02	22.99792	09	09	57.30	+16 45 08.6	010
1993	DJ1		1993	02	23.00984	09	09	56.75	+16 45 15.8	010
1993	DP2	*	1993	02	20.96806	08	59	54.96	+17 09 12.8 19.2	010
1993	DP2		1993	02	20.97986	08	59	54.39	+17 09 12.2	010
1993	DP2		1993	02	20.99167	08	59	53.80	+17 09 11.2	010
1993	DP2		1993	02	22.99792	08	58	18.09	+17 09 13.7	010
1993	DP2		1993	02	23.00984	08	58	17.42	+17 09 14.1	010
1993	DQ2	*	1993	02	20.96806	09	00	03.27	+18 38 52.2 18.4	010
1993	DQ2		1993	02	20.97986	09	00	02.71	+18 38 54.0	010
1993	DQ2		1993	02	20.99167	09	00	02.18	+18 38 57.0	010
1993	DQ2		1993	02	22.99792	08	58	34.43	+18 46 16.7	010
1993	DQ2		1993	02	23.00984	08	58	33.95	+18 46 20.0	010
1993	DR2	*	1993	02	20.96806	09	03	19.37	+18 47 25.6 18.5	010
1993	DR2		1993	02	20.97986	09	03	18.85	+18 47 25.1	010
1993	DR2		1993	02	20.99167	09	03	18.31	+18 47 25.6	010
1993	DR2		1993	02	22.99792	09	01	44.44	+18 49 03.0	010
1993	DR2		1993	02	23.00984	09	01	43.79	+18 49 03.2	010

1993	DS2	*	1993	02	20.96806	09	05	19.82	+17	48	32.1	18.5	010
1993	DS2		1993	02	20.97986	09	05	19.57	+17	48	35.4		010
1993	DS2		1993	02	20.99167	09	05	19.21	+17	48	38.4		010
1993	DS2		1993	02	22.99792	09	04	22.61	+17	58	11.4		010
1993	DS2		1993	02	23.00984	09	04	22.38	+17	58	12.9		010
1993	DT2	*	1993	02	20.96806	09	06	50.50	+15	43	51.7	18.5	010
1993	DT2		1993	02	20.97986	09	06	49.67	+15	43	47.1		010
1993	DT2		1993	02	20.99167	09	06	48.91	+15	43	43.7		010
1993	DT2		1993	02	22.99792	09	04	29.44	+15	31	11.7		010
1993	DT2		1993	02	23.00984	09	04	28.70	+15	31	06.3		010
1993	DU2		1993	01	27.01944	09	29	48.11	+18	08	14.2	18.5	010
1993	DU2		1993	01	27.02986	09	29	47.53	+18	08	15.5		010
1993	DU2		1993	01	27.04039	09	29	46.98	+18	08	18.3		010
1993	DU2	*	1993	02	20.96806	09	08	19.40	+19	01	41.5	18.6	010
1993	DU2		1993	02	20.97986	09	08	18.77	+19	01	42.7		010
1993	DU2		1993	02	20.99167	09	08	18.17	+19	01	43.6		010
1993	DU2		1993	02	22.99792	09	06	44.98	+19	04	12.1		010
1993	DU2		1993	02	23.00984	09	06	44.44	+19	04	12.1		010
1993	DV2		1993	01	28.01528	09	29	39.85	+14	01	20.0		010
1993	DV2		1993	01	28.02569	09	29	39.22	+14	01	25.1		010
1993	DV2		1993	01	28.03611	09	29	38.70	+14	01	30.1		010
1993	DV2	*	1993	02	20.96806	09	08	22.07	+17	16	40.1	18.6	010
1993	DV2		1993	02	20.97986	09	08	21.47	+17	16	45.9		010
1993	DV2		1993	02	20.99167	09	08	20.95	+17	16	50.2		010
1993	DV2		1993	02	22.99792	09	06	48.75	+17	31	07.1		010
1993	DV2		1993	02	23.00984	09	06	48.40	+17	31	11.0		010
1993	DW2	*	1993	02	20.96806	09	09	14.31	+18	30	47.2	18.6	010
1993	DW2		1993	02	20.97986	09	09	13.75	+18	30	49.3		010
1993	DW2		1993	02	20.99167	09	09	13.21	+18	30	52.0		010
1993	DW2		1993	02	22.99792	09	07	45.24	+18	37	17.5		010
1993	DW2		1993	02	23.00984	09	07	44.67	+18	37	20.5		010
1993	DX2	*	1993	02	20.96806	09	10	30.15	+18	27	54.1	19.4	010
1993	DX2		1993	02	20.97986	09	10	29.58	+18	27	58.5		010
1993	DX2		1993	02	20.99167	09	10	28.99	+18	28	01.7		010
1993	DX2		1993	02	22.99792	09	08	43.27	+18	40	18.7		010
1993	DX2		1993	02	23.00984	09	08	42.65	+18	40	22.4		010
1993	DY2	*	1993	02	20.96806	09	11	45.69	+19	31	45.8	18.5	010
1993	DY2		1993	02	20.97986	09	11	44.97	+19	31	45.7		010
1993	DY2		1993	02	20.99167	09	11	44.26	+19	31	45.5		010
1993	DY2		1993	02	22.99792	09	09	53.77	+19	32	48.2		010
1993	DY2		1993	02	23.00984	09	09	53.15	+19	32	47.9		010
1993	DZ2	*	1993	02	20.96806	09	13	30.38	+15	03	45.0	19.0	010
1993	DZ2		1993	02	20.97986	09	13	29.70	+15	03	46.3		010
1993	DZ2		1993	02	20.99167	09	13	29.11	+15	03	45.4		010
1993	DZ2		1993	02	22.99792	09	11	48.05	+15	04	01.4		010
1993	DZ2		1993	02	23.00984	09	11	47.47	+15	04	03.2		010
1993	DA3	*	1993	02	20.96806	09	15	11.88	+17	54	20.1	18.8	010
1993	DA3		1993	02	20.97986	09	15	11.17	+17	54	22.6		010
1993	DA3		1993	02	20.99167	09	15	10.59	+17	54	24.7		010
1993	DA3		1993	02	22.99792	09	13	15.53	+18	00	46.3		010
1993	DA3		1993	02	23.00984	09	13	14.91	+18	00	47.7		010
1993	DB3	*	1993	02	20.96806	09	15	20.53	+16	29	44.3	19.5	010
1993	DB3		1993	02	20.97986	09	15	19.85	+16	29	46.5		010
1993	DB3		1993	02	20.99167	09	15	19.30	+16	29	48.3		010
1993	DB3		1993	02	22.99792	09	13	31.14	+16	37	26.4		010
1993	DB3		1993	02	23.00984	09	13	30.50	+16	37	27.3		010
1993	DC3	*	1993	02	20.96806	09	17	02.46	+15	35	40.6	18.5	010
1993	DC3		1993	02	20.97986	09	17	01.81	+15	35	44.0		010
1993	DC3		1993	02	20.99167	09	17	01.23	+15	35	49.0		010

1993 DC3		1993	02	22.99792	09	15	24.46	+15	46	53.1	010
1993 DC3		1993	02	23.00984	09	15	23.92	+15	46	57.1	010
1993 DD3	*	1993	02	20.96806	09	17	56.90	+16	49	32.3	18.6 010
1993 DD3		1993	02	20.97986	09	17	56.29	+16	49	36.6	010
1993 DD3		1993	02	20.99167	09	17	55.70	+16	49	38.6	010
1993 DD3		1993	02	22.99792	09	16	23.64	+16	57	57.2	010
1993 DD3		1993	02	23.00984	09	16	23.09	+16	57	59.0	010
1993 DE3	*	1993	02	20.96806	09	19	44.57	+17	41	24.4	18.5 010
1993 DE3		1993	02	20.97986	09	19	43.89	+17	41	29.0	010
1993 DE3		1993	02	20.99167	09	19	43.17	+17	41	35.2	010
1993 DE3		1993	02	22.99792	09	17	54.10	+17	56	42.6	010
1993 DE3		1993	02	23.00984	09	17	53.40	+17	56	47.5	010
3266 T-1		1993	02	22.99792	09	13	52.32	+16	55	17.9	010
3266 T-1		1993	02	23.00984	09	13	51.81	+16	55	19.3	010
4193 T-1		1993	02	22.99792	09	10	12.50	+18	50	13.4	010
4193 T-1		1993	02	23.00984	09	10	11.86	+18	50	16.7	010
(1118)		1993	02	22.99792	09	14	46.22	+15	08	56.7	010
(1118)		1993	02	23.00984	09	14	45.62	+15	08	56.7	010
(1162)		1993	02	22.99792	09	11	35.71	+18	45	51.3	010
(1162)		1993	02	23.00984	09	11	35.20	+18	45	52.6	010
(1697)		1993	02	22.99792	09	07	00.16	+18	11	58.3	010
(1697)		1993	02	23.00984	09	06	59.47	+18	11	58.0	010
(1748)		1993	02	22.99792	09	18	18.43	+16	45	26.6	010
(1748)		1993	02	23.00984	09	18	17.95	+16	45	28.3	010
(2545)		1993	02	22.99792	09	13	18.12	+15	47	14.1	010
(2545)		1993	02	23.00984	09	13	17.35	+15	47	14.3	010
(2887)		1993	02	22.99792	09	12	35.97	+19	09	27.8	010
(2887)		1993	02	23.00984	09	12	35.24	+19	09	32.1	010
(3323)		1993	02	22.99792	09	17	02.24	+16	50	17.5	010
(3323)		1993	02	23.00984	09	17	01.59	+16	50	20.5	010
(3778)		1993	02	22.99792	09	02	43.51	+17	35	03.3	010
(3778)		1993	02	23.00984	09	02	42.87	+17	35	04.9	010
(4707)		1993	02	22.99792	09	04	50.47	+15	32	17.8	010
(4707)		1993	02	23.00984	09	04	50.07	+15	32	18.3	010
(4858)		1993	02	22.99792	09	13	58.02	+16	38	55.6	010
(4858)		1993	02	23.00984	09	13	57.31	+16	38	56.5	010
(5002)		1993	02	22.99792	08	58	47.30	+18	29	33.2	010
(5002)		1993	02	23.00984	08	58	46.81	+18	29	35.3	010
(5499)		1993	02	22.99792	09	07	06.55	+15	54	32.7	010
(5499)		1993	02	23.00984	09	07	05.95	+15	54	34.8	010
(5507)		1993	02	22.99792	08	58	28.30	+18	28	32.1	010
(5507)		1993	02	23.00984	08	58	27.70	+18	28	33.8	010

033 Tautenburg
F. Borngen, Thuringer Landessternwarte, Dorfstrasse 73,
O-6901 Tautenburg, Federal Republic of Germany
1.3-m Schmidt telescope
PPM

1987 ST10		1993	04	16.88160	08	24	01.85	+22	54	17.1	V 033
1987 ST10		1993	04	20.84271	08	29	03.41	+22	34	10.9	033
1987 ST10		1993	04	20.88160	08	29	06.41	+22	33	57.6	V 033
1987 ST10		1993	04	21.84826	08	30	22.31	+22	28	51.3	033
1988 RU3		1992	07	28.97569	21	23	43.51	-13	40	59.0	033
1988 RU3		1992	07	29.96667	21	22	56.26	-13	45	46.6	033
1992 OO1		1992	07	25.98958	21	26	52.96	-12	51	18.5	033
1992 OO1		1992	07	26.03750	21	26	50.74	-12	51	46.5	033
1992 OO1		1992	07	26.99097	21	26	08.91	-13	00	50.9	033
1992 OO1		1992	07	27.98958	21	25	24.13	-13	10	27.0	17.3 033
1992 OO1		1992	07	28.97569	21	24	39.16	-13	20	01.8	033

1992 OO1		1992 07 29.96667	21 23 53.21	-13 29 43.1				033
1992 OO1		1992 07 30.96319	21 23 06.37	-13 39 33.0				033
1992 OV1		1992 07 25.98958	21 22 42.72	-14 49 44.0				033
1992 OV1		1992 07 26.03750	21 22 39.75	-14 49 30.2				033
1992 OV1		1992 07 26.99097	21 21 43.22	-14 45 37.7				033
1992 OV1		1992 07 27.98958	21 20 42.85	-14 41 34.6	17.0			033
1992 OV1		1992 07 28.97569	21 19 42.54	-14 37 34.8				033
1992 OV1		1992 07 29.96667	21 18 41.03	-14 33 35.3				033
1992 OV1		1992 07 30.96319	21 17 38.48	-14 29 36.7				033
(1516)		1993 04 16.83854	08 29 37.22	+23 03 51.5	17.5			033
(1516)		1993 04 16.88160	08 29 39.45	+23 03 47.4				033
(1516)		1993 04 20.84271	08 33 17.45	+22 56 26.5				033
(1516)		1993 04 20.88160	08 33 19.68	+22 56 21.4				033
(1516)		1993 04 21.84826	08 34 16.07	+22 54 17.6				033
(3379)		1992 07 25.98958	21 27 32.44	-13 49 48.3				033
(3379)		1992 07 26.03750	21 27 29.97	-13 50 04.0				033
(3379)		1992 07 26.99097	21 26 41.64	-13 54 51.5				033
(3379)		1992 07 27.98958	21 25 49.92	-13 59 57.6	17.8			033
(3379)		1992 07 28.97569	21 24 58.13	-14 05 04.3				033
(3379)		1992 07 29.96667	21 24 05.26	-14 10 15.9				033
(3379)		1992 07 30.96319	21 23 11.23	-14 15 33.1				033
(4202)		1992 07 25.98958	21 26 19.17	-11 58 03.6				033
(4202)		1992 07 26.03750	21 26 17.16	-11 58 21.0				033
(4202)		1992 07 26.99097	21 25 39.63	-12 04 38.7				033
(4202)		1992 07 27.98958	21 24 59.51	-12 11 18.1	16.3			033
(4202)		1992 07 28.97569	21 24 19.21	-12 17 57.2				033
(4202)		1992 07 29.96667	21 23 38.12	-12 24 42.4				033
(4202)		1992 07 30.96319	21 22 56.38	-12 31 34.6				033

046 Klet
J. Ticha, Hvezdarna Klet, CS-37001 Ceske Budejovice, Czech Republic
Observers J. Ticha, Z. Vavrova, Z. Moravec, M. Tichy, A. Mrkos
0.63-m Maksutov reflector, 0.57-m reflector
PPM

1986 VO9	*	1986 11 03.91962	02 05 34.66	+13 33 10.4	16.0			046
1986 VO9		1986 11 03.93374	02 05 34.13	+13 33 12.1				046
1986 VP9	*	1986 11 07.83900	02 01 19.42	+13 06 03.7				046
1986 VP9		1986 11 07.85174	02 01 18.90	+13 05 58.0				046
1986 VP9		1986 11 09.97847	01 59 39.55	+12 53 57.9				046
1986 VP9		1986 11 09.99271	01 59 39.01	+12 53 51.8				046
1993 HO5	*	1993 04 21.90126	12 31 06.48	-01 52 13.8	16.3			046
1993 HO5		1993 04 21.91556	12 31 06.03	-01 52 09.5				046
1993 HO5		1993 04 22.91307	12 30 10.13	-01 44 11.9				046
1993 HO5		1993 04 22.92632	12 30 09.40	-01 44 05.3				046
1993 HP5	*	1993 04 21.90126	12 36 03.97	-02 24 10.1	16.4			046
1993 HP5		1993 04 22.91307	12 35 38.12	-02 19 48.5				046
1993 HP5		1993 04 22.92632	12 35 37.41	-02 19 44.5			U	046
1993 HQ5	*	1993 04 21.90126	12 37 04.70	-01 18 06.5	16.2			046
1993 HQ5		1993 04 21.91556	12 37 04.08	-01 18 05.9			I	046
1993 HQ5		1993 04 22.91307	12 36 28.94	-01 17 45.1				046
1993 HQ5		1993 04 22.92632	12 36 28.28	-01 17 45.1				046
1993 HR5	*	1993 04 21.90126	12 39 30.97	-00 41 03.6	16.3			046
1993 HR5		1993 04 21.91556	12 39 30.29	-00 41 15.4			U	046
1993 HR5		1993 04 22.91307	12 38 39.50	-00 57 32.2				046
1993 HR5		1993 04 22.92632	12 38 39.02	-00 57 45.9				046
1993 HS5	*	1993 04 21.93830	14 41 24.43	+00 26 15.0	16.1			046
1993 HS5		1993 04 23.93627	14 39 47.24	+00 40 24.4			E	046
1993 HS5		1993 04 23.95034	14 39 46.47	+00 40 29.4			E	046
1993 HT5	*	1993 04 21.95253	14 50 12.88	-01 09 33.3	16.1			046

1993 HT5		1993 04 23.93627	14 48 20.28	-01 08 30.2				046
1993 HT5		1993 04 23.95034	14 48 19.36	-01 08 29.3				046
1993 HU5	*	1993 04 21.97146	14 43 59.17	-04 59 24.8	16.3		M	046
1993 HU5		1993 04 21.98581	14 43 58.53	-04 59 30.3				046
1993 HU5		1993 04 23.97036	14 42 21.20	-05 11 50.4				046
1993 HV5	*	1993 04 21.97146	14 45 45.80	-06 26 29.8	16.4		I	046
1993 HV5		1993 04 21.98581	14 45 45.03	-06 26 30.1				046
1993 HV5		1993 04 23.97036	14 44 11.24	-06 28 58.6			M	046
1993 HW5	*	1993 04 21.97146	14 46 49.95	-05 54 50.5	15.8			046
1993 HW5		1993 04 21.98581	14 46 49.42	-05 54 45.3			I	046
1993 HW5		1993 04 23.97036	14 45 06.82	-05 44 58.7				046
1993 HW5		1993 04 23.98483	14 45 06.00	-05 44 54.3				046
1993 HX5	*	1993 04 21.97146	14 47 42.16	-04 54 20.6	15.8			046
1993 HX5		1993 04 21.98581	14 47 41.54	-04 54 30.1				046
1993 HX5		1993 04 23.97036	14 45 51.84	-05 07 55.6				046
1993 HX5		1993 04 23.98483	14 45 50.95	-05 08 00.0				046
(7)		1993 04 22.82753	11 09 58.22	-02 55 10.4				046
(7)		1993 04 22.83622	11 09 58.07	-02 55 08.1				046
(7)		1993 04 23.81486	11 09 42.93	-02 50 40.6				046
(7)		1993 04 23.81903	11 09 42.87	-02 50 39.0				046
(148)		1993 04 22.85427	11 58 09.65	+23 33 22.4				046
(148)		1993 04 22.86712	11 58 09.29	+23 33 24.1				046
(148)		1993 04 23.83587	11 57 43.64	+23 35 13.1				046
(148)		1993 04 23.84316	11 57 43.44	+23 35 13.6				046
(346)		1993 04 21.97146	14 49 09.35	-05 17 55.4				046
(346)		1993 04 21.98581	14 49 08.63	-05 17 52.7				046
(346)		1993 04 23.97036	14 47 31.63	-05 11 39.2				046
(346)		1993 04 23.98483	14 47 30.90	-05 11 36.7				046
(551)		1993 04 23.86231	12 15 36.88	-01 45 54.2			E	046
(551)		1993 04 23.87649	12 15 36.27	-01 45 52.5			E	046
(904)		1993 04 23.86231	12 11 03.25	-03 17 56.5			E	046
(904)		1993 04 23.87649	12 11 03.12	-03 17 52.1			E	046
(924)		1993 04 21.97146	14 48 35.51	-03 50 12.6			E	046
(924)		1993 04 21.98581	14 48 34.88	-03 50 08.2			E	046
(1027)		1993 04 21.90126	12 37 02.89	-03 33 50.7			E	046
(1027)		1993 04 21.91556	12 37 02.43	-03 33 46.8			E	046
(1027)		1993 04 22.91307	12 36 26.74	-03 30 33.1			E	046
(1027)		1993 04 22.92632	12 36 26.13	-03 30 28.7			E	046
(1294)		1993 04 21.97146	14 40 09.00	-06 27 48.7				046
(1294)		1993 04 21.98581	14 40 08.12	-06 27 47.6				046
(1294)		1993 04 23.97036	14 38 27.99	-06 21 29.8			E	046
(1294)		1993 04 23.98483	14 38 27.02	-06 21 28.0			E	046
(2463)		1993 03 20.89175	12 44 07.37	-01 35 48.1				046
(2463)		1993 03 20.90616	12 44 06.71	-01 35 38.0				046

049 Kvistaberg
C.-I. Lagerkvist, Astronomiska Observatoriet, Box 515,
S-75120 Uppsala, Sweden
Observer T. Oja
Measurer A. Erikson
AGK3

1992 WD5		1993 01 19.70271	05 51 13.60	+49 04 01.0				049
1992 WD5		1993 01 19.71906	05 51 13.83	+49 03 53.3				049
1992 WD5		1993 01 19.73149	05 51 14.03	+49 03 47.9				049
1992 WD5		1993 01 19.78193	05 51 14.68	+49 03 23.7				049
1992 WD5		1993 01 19.84926	05 51 15.47	+49 02 49.8				049
1992 WD5		1993 01 20.01262	05 51 17.56	+49 01 20.5				049
1992 WD5		1993 01 21.73005	05 52 02.64	+48 45 26.4				049
1992 WD5		1993 01 21.79742	05 52 04.20	+48 44 49.7				049

1992 WD5	1993 01 22.81925	05 52 37.13	+48 34 34.2		049
1992 WD5	1993 01 23.03921	05 52 43.52	+48 32 11.5		049
1992 WD5	1993 01 23.12934	05 52 46.69	+48 31 09.7		049

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
GSC

1989 CY1	1993 04 19.87569	13 45 48.75	-07 19 35.3		104
1989 CY1	1993 04 19.88750	13 45 48.27	-07 19 32.0		104
1989 CY1	1993 04 20.88194	13 44 57.89	-07 13 21.3		104
1989 CY1	1993 04 20.89444	13 44 57.27	-07 13 17.4		104
1989 CY1	1993 04 21.87292	13 44 08.18	-07 07 18.1		104
1989 CY1	1993 04 21.88472	13 44 07.60	-07 07 14.1		104
1990 RE6	1993 04 19.91181	15 33 10.84	-12 43 41.4		104
1990 RE6	1993 04 19.92361	15 33 10.56	-12 43 37.3		104
1990 RE6	1993 04 20.91319	15 32 35.61	-12 38 38.5		104
1990 RE6	1993 04 20.92500	15 32 35.22	-12 38 35.6		104
1990 RE6	1993 04 21.90556	15 31 58.97	-12 33 36.5		104
1990 RE6	1993 04 21.91736	15 31 58.50	-12 33 33.4		104
1991 PQ10	1993 03 18.86944	11 07 43.66	-03 14 45.6		104
1991 PQ10	1993 03 18.88125	11 07 42.97	-03 14 40.3		104
1991 SJ1	1993 03 28.87222	10 47 59.83	+09 11 50.3		104
1991 SJ1	1993 03 28.88681	10 47 59.37	+09 11 58.6		104
1991 SJ1	1993 03 28.90278	10 47 58.91	+09 12 08.8		104
1991 SJ1	1993 03 28.91875	10 47 58.53	+09 12 19.0		104
1991 SJ1	1993 03 29.86736	10 47 35.39	+09 21 09.0		104
1991 SJ1	1993 03 29.87917	10 47 35.08	+09 21 17.1		104
1991 SJ1	1993 03 29.89097	10 47 34.81	+09 21 22.6		104
1991 SJ1	1993 04 17.84444	10 44 35.59	+11 32 04.5		104
1991 SJ1	1993 04 17.86458	10 44 35.81	+11 32 11.0		104
1991 SJ1	1993 04 18.84167	10 44 41.70	+11 36 27.5		104
1991 SJ1	1993 04 19.83333	10 44 49.21	+11 40 37.0		104
1991 SJ1	1993 04 19.85069	10 44 49.38	+11 40 41.3		104
1991 SJ1	1993 04 20.84167	10 44 58.42	+11 44 32.4		104
1991 SJ1	1993 04 20.85903	10 44 58.65	+11 44 36.9		104
(5452)	1993 04 23.83264	12 12 26.85	-15 08 08.4		104
(5452)	1993 04 23.84444	12 12 26.31	-15 08 04.0		104

108 Montelupo
M. Tombelli, Via Bozzeto 26, I-50056 Montelupo, Florence, Italy
Observers M. Tombelli, S. Bartolini, A. Boattini
Measurer M. Tombelli
0.20-m f/10 reflector + CCD

1993 FU	1993 03 30.93841	12 03 08.02	-00 16 24.7		108
1993 FU	1993 03 30.96755	12 03 06.71	-00 16 11.0		108
1993 FU	1993 03 30.98618	12 03 05.94	-00 16 08.7		108
1993 FU	1993 03 30.99458	12 03 05.67	-00 16 06.6		108
(653)	1993 03 29.95457	11 50 13.35	+14 10 03.6		108
(653)	1993 03 29.95672	11 50 13.26	+14 10 03.8		108
(653)	1993 03 29.95825	11 50 13.20	+14 10 04.5		108
(653)	1993 03 29.98051	11 50 12.24	+14 10 12.5		108
(653)	1993 03 29.98642	11 50 12.03	+14 10 14.2		108

293 Burlington remote site
T. Handley, 13 Linden Avenue, Burlington, NJ 08016, U.S.A.
0.26-m f/3.9 Wright-Schmidt camera

1990 RE6	1993 04 19.33125	15 33 30.08	-12 46 36.0				293
1990 RE6	1993 04 19.34861	15 33 29.37	-12 46 30.1				293

361 Sumoto
S. Nakano, 3-19, 1 chome, Takenokuchi, Sumoto, Hyogo-ken 656, Japan
Observer S. Nakano
0.20-m f/6.3 reflector + CCD
GSC

1993 GB	1993 04 18.72682	13 40 08.82	-11 22 12.8				361
1993 GB	1993 04 18.73052	13 40 08.66	-11 22 15.7				361
1993 GB	1993 04 19.74338	13 39 02.30	-11 24 33.5				361
1993 GB	1993 04 25.58740	13 32 49.84	-11 37 49.8				361
1993 GB	1993 04 25.59208	13 32 49.54	-11 37 49.4				361
1993 GB	1993 04 25.64917	13 32 45.81	-11 37 56.0				361
1993 GB	1993 04 25.65164	13 32 45.65	-11 37 56.6				361
1993 GC	1993 04 18.70449	13 08 01.67	-06 24 30.4				361
1993 GC	1993 04 18.71456	13 08 01.37	-06 24 25.8				361
1993 GC	1993 04 19.71262	13 07 20.59	-06 13 47.9				361
1993 GC	1993 04 19.73992	13 07 19.56	-06 13 29.8				361
1993 GC	1993 04 25.58185	13 03 34.95	-05 13 27.4				361
1993 GC	1993 04 25.58447	13 03 34.78	-05 13 26.0				361
1993 GC	1993 04 25.64351	13 03 32.64	-05 12 50.7				361
1993 GC	1993 04 25.64603	13 03 32.55	-05 12 49.1				361
1993 GC	1993 05 14.59749	12 55 48.04	-02 37 41.2		18		361
1993 GC	1993 05 14.60897	12 55 47.86	-02 37 37.5				361
1993 GC	1993 05 14.61519	12 55 47.77	-02 37 33.4				361
1993 GC	1993 05 15.62492	12 55 36.77	-02 31 28.7				361
1993 GC	1993 05 15.63140	12 55 36.84	-02 31 27.0				361
1993 GH	1993 04 25.59573	13 32 01.97	-06 13 39.2				361
1993 GH	1993 04 25.59792	13 32 01.87	-06 13 37.7				361
1993 GH	1993 04 25.65634	13 31 58.95	-06 13 35.5				361
1993 GH	1993 04 25.65990	13 31 58.71	-06 13 34.7				361
1993 GH	1993 05 15.63623	13 17 33.51	-06 03 53.1		17.5		361
1993 GH	1993 05 15.63862	13 17 33.45	-06 03 53.1				361
1993 GH	1993 05 15.65159	13 17 32.96	-06 03 54.2				361
1993 GL	1993 04 25.60172	13 43 23.20	-09 14 17.4				361
1993 GL	1993 04 25.60421	13 43 23.09	-09 14 17.4				361
1993 GL	1993 04 25.66579	13 43 19.97	-09 14 02.4				361
1993 GM	1993 04 25.60896	13 34 06.00	-04 43 04.7				361
1993 GM	1993 04 25.61148	13 34 05.95	-04 43 03.7				361
1993 GN	1993 04 25.61469	13 32 28.32	-05 18 49.8				361
1993 GN	1993 04 25.61928	13 32 28.16	-05 18 48.6				361
1993 GN	1993 04 25.67422	13 32 24.76	-05 18 52.5				361
1993 GN	1993 05 15.64179	13 17 33.55	-05 55 11.2		17.5		361
1993 GN	1993 05 15.64429	13 17 33.43	-05 55 12.7				361
1993 GN	1993 05 15.65494	13 17 33.03	-05 55 14.8				361
1993 GO	1993 05 15.67215	14 45 38.74	-11 26 16.5		16.5		361
1993 GO	1993 05 15.67457	14 45 38.61	-11 26 17.9				361
1993 GO	1993 05 15.68918	14 45 37.74	-11 26 21.5				361
1993 GR	1993 04 19.73074	13 46 18.97	-09 28 43.6				361
1993 GR	1993 04 25.62243	13 41 13.89	-09 12 55.4				361
1993 GR	1993 04 25.62486	13 41 13.60	-09 12 54.1				361
1993 GR	1993 04 25.67791	13 41 10.84	-09 12 44.1				361
1993 HF	1993 05 14.58844	12 25 48.12	-12 00 35.2		18		361
1993 HF	1993 05 14.59063	12 25 48.11	-12 00 35.0				361
1993 HF	1993 05 15.61690	12 25 53.51	-11 52 47.4		18		361
1993 HF	1993 05 15.62148	12 25 53.43	-11 52 44.1				361
1993 HQ	1993 05 13.64755	13 23 51.49	-13 01 28.9		17		361

1993 HQ		1993 05 14.63368	13 23 12.46	-13 01 48.3	16.5	361
1993 HQ		1993 05 14.67517	13 23 10.67	-13 01 48.9	16.0	361
1993 HQ		1993 05 14.68057	13 23 10.42	-13 01 48.6		361
1993 HQ		1993 05 15.66096	13 22 33.48	-13 02 13.2		361
1993 HQ		1993 05 15.66499	13 22 33.35	-13 02 15.1		361
1993 HR		1993 05 13.64140	13 36 03.09	-13 38 44.1		361
1993 HR		1993 05 13.64407	13 36 03.12	-13 38 41.8		361
1993 HR		1993 05 14.63795	13 35 20.64	-13 36 37.4	16.5	361
1993 HR		1993 05 14.68348	13 35 18.55	-13 36 33.0		361
1993 HS		1993 05 14.64155	13 33 37.02	-11 37 19.5	16.7	361
1993 HE1		1993 05 13.65640	13 40 03.83	-14 18 24.4		361
1993 HE1		1993 05 14.65009	13 39 22.74	-14 21 32.0	17.6	361
1993 HE1		1993 05 14.68671	13 39 21.14	-14 21 40.0		361
1993 HH1		1993 05 13.66459	13 58 04.35	-13 37 04.1		361
(2066)		1993 05 14.65336	13 28 30.66	-02 08 55.7		361
(2066)		1993 05 14.65949	13 28 30.46	-02 08 57.9		361

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

1978 UV		1993 03 17.68090	12 18 18.21	+05 27 21.4	17.5	372
1978 UV		1993 03 17.69132	12 18 17.87	+05 27 25.6		372
1986 UM1		1993 03 29.68229	11 10 00.63	+11 09 25.6	17	372
1986 UM1		1993 03 29.69166	11 10 00.56	+11 09 30.9		372
1991 VV2		1993 04 14.63194	13 35 23.70	-13 55 48.9	16.5	372
1991 VV2		1993 04 14.64306	13 35 23.09	-13 55 47.3		372
1991 VV2		1993 04 17.64618	13 32 12.86	-13 52 24.4	16	372
1991 VV2		1993 04 17.65799	13 32 11.98	-13 52 22.4		372
1993 FW3	*	1993 03 17.72535	12 58 36.39	-08 16 17.0	17.5	372
1993 FW3		1993 03 17.73576	12 58 35.96	-08 16 13.4		372
1993 FW3		1993 03 18.74583	12 57 44.97	-08 09 41.0	17.5	372
1993 FX3	*	1993 03 17.72535	13 00 09.37	-08 15 29.6	17	372
1993 FX3		1993 03 17.73576	13 00 09.19	-08 15 25.5		372
1993 FX3		1993 03 18.74583	12 59 39.48	-08 07 32.2	17	372
1993 FY3	*	1993 03 17.72535	13 03 12.54	-08 22 57.0	18	372
1993 FY3		1993 03 17.73576	13 03 12.13	-08 22 55.8		372
1993 FY3		1993 03 18.74583	13 02 28.68	-08 16 48.8	18	372
1993 GJ	*	1993 04 14.63194	13 34 30.84	-14 01 51.6	16.5	372
1993 GJ		1993 04 14.64306	13 34 30.14	-14 01 52.3		372
1993 GJ		1993 04 17.64618	13 31 18.27	-14 04 04.6	16	372
1993 GJ		1993 04 17.65799	13 31 17.62	-14 04 06.7		372
1993 GW	*	1993 04 14.71771	14 26 56.95	-01 45 33.9	17	372
1993 GW		1993 04 14.72813	14 26 56.53	-01 45 29.8		372
1993 GW		1993 04 17.67014	14 24 54.90	-01 31 21.2	17	372
1993 GW		1993 04 17.68125	14 24 54.19	-01 31 19.2		372
1993 GX	*	1993 04 14.71771	14 28 33.28	-01 51 02.1	17	372
1993 GX		1993 04 14.72813	14 28 32.82	-01 50 55.3		372
1993 GX		1993 04 17.67014	14 26 27.14	-01 24 06.0	17	372
1993 GX		1993 04 17.68125	14 26 26.54	-01 24 00.0		372
(394)		1993 03 29.62951	11 18 40.09	+13 30 41.4	16	372
(394)		1993 03 29.63854	11 18 39.53	+13 30 46.0		372
(1385)		1993 03 29.62951	11 17 48.99	+13 44 48.3	16.5	372
(1385)		1993 03 29.63854	11 17 48.70	+13 44 52.8		372
(4636)		1993 04 14.71771	14 25 50.25	-02 04 59.4	17.5	372
(4636)		1993 04 14.72813	14 25 49.92	-02 04 53.3		372
(4636)		1993 04 17.67014	14 23 34.78	-01 41 08.5	17.5	372
(4636)		1993 04 17.68125	14 23 34.14	-01 41 03.1		372

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

1989 VC2		1993 04 26.57789	14 36 56.56	-18 52 53.0			376
1989 VC2		1993 04 26.60648	14 36 55.29	-18 52 48.9			376
1989 VC2		1993 04 26.62552	14 36 54.32	-18 52 46.5			376
1989 VC2		1993 05 12.56979	14 24 53.08	-18 13 56.1			376
1989 VC2		1993 05 12.58762	14 24 52.21	-18 13 54.1			376
(4225)		1993 05 12.48796	14 11 52.03	-11 01 41.2			376
(4225)		1993 05 12.50579	14 11 51.04	-11 01 38.1			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 + CCD
GSC

1987 BC		1993 05 13.56991	13 20 54.78	-06 58 29.4			385
1987 BC		1993 05 13.58044	13 20 54.50	-06 58 27.3			385
1990 VF2		1993 04 18.67975	14 52 03.65	-13 06 46.9			385
1990 VF2		1993 04 18.68484	14 52 03.48	-13 06 48.1			385
1990 VF2		1993 04 18.68993	14 52 03.26	-13 06 45.7			385
1990 VF2		1993 05 13.59595	14 32 05.48	-11 05 46.2			385
1990 VF2		1993 05 16.60799	14 29 48.40	-10 52 41.0			385
1990 VF2		1993 05 16.61887	14 29 47.93	-10 52 36.7			385
1990 VF2		1993 05 16.62465	14 29 47.61	-10 52 34.9			385
1990 VB4		1993 04 18.64045	13 10 38.15	-13 55 47.0			385
1990 VB4		1993 04 18.64583	13 10 37.90	-13 55 45.5			385
1990 VB4		1993 04 18.65087	13 10 37.68	-13 55 43.4			385
1990 VY6		1993 04 25.50851	11 47 52.99	+21 05 07.6			385
1990 VY6		1993 04 25.52188	11 47 52.68	+21 05 06.4			385
1990 VY6		1993 04 25.53171	11 47 52.36	+21 05 05.4			385
1991 VB3		1993 05 16.63611	15 48 51.84	-22 05 34.1			385
1991 VB3		1993 05 16.64132	15 48 51.42	-22 05 32.4			385
1991 VB3		1993 05 16.64653	15 48 51.01	-22 05 31.3			385
1992 BH		1993 04 14.69306	16 01 03.09	+06 12 58.8			385
1992 BH		1993 04 14.70104	16 01 02.89	+06 13 02.4			385
1992 BH		1993 04 14.71505	16 01 02.53	+06 13 08.2			385
1992 BH		1993 04 18.69861	15 59 16.60	+06 40 53.1			385
1992 BH		1993 04 18.70388	15 59 16.44	+06 40 55.1			385
1992 BH		1993 04 18.71042	15 59 16.24	+06 40 57.5			385
1992 BH		1993 05 13.60903	15 42 42.56	+08 39 31.8			385
1992 BH		1993 05 13.61424	15 42 42.29	+08 39 32.5			385
1992 BH		1993 05 13.61944	15 42 42.03	+08 39 32.9			385
1993 EF		1993 04 18.61528	11 31 27.52	+07 47 40.8			385
1993 EF		1993 04 18.62778	11 31 27.18	+07 47 41.2			385
1993 EF		1993 04 18.63281	11 31 27.06	+07 47 40.1			385
1993 EG		1993 04 27.57124	11 28 23.86	+02 49 44.3			385
1993 EG		1993 04 27.57639	11 28 23.75	+02 49 45.1			385
1993 EG		1993 04 27.60451	11 28 23.50	+02 49 51.0			385
1993 EP		1993 04 27.55729	11 25 02.94	-06 15 28.2			385
1993 EP		1993 04 27.56273	11 25 02.75	-06 15 27.5			385
1993 EP		1993 04 27.59097	11 25 02.28	-06 15 29.4			385
1993 HL1	*	1993 04 25.54375	13 14 45.29	+12 22 50.4	16.5 V		385
1993 HL1		1993 04 25.56319	13 14 44.30	+12 22 47.8			385
1993 HL1		1993 04 25.57720	13 14 43.64	+12 22 46.3			385
1993 HL1		1993 04 27.61319	13 13 10.92	+12 17 17.7			385
1993 HL1		1993 04 27.61794	13 13 10.70	+12 17 16.8			385
1993 HL1		1993 04 27.62882	13 13 10.21	+12 17 15.6			385
1993 JF		1993 05 20.49184	12 52 31.08	-10 12 13.0			385

1993 JF		1993 05 20.50139	12 52 30.88	-10 12 10.7				385
1993 JG		1993 05 20.58194	14 24 37.62	-10 56 09.9				385
1993 JG		1993 05 20.58715	14 24 37.38	-10 56 10.4				385

399 Kushiro
H. Kaneda, Taiyo MS 2-H, 2 chome 2-15, Kawazoe 8 jo, Minami-ku,
Sapporo 005, Japan
Observer S. Ueda
Measurer H. Kaneda
0.25-m f/3.4 hyperboloid astrocamera
GSC

1977 EO1		1993 04 15.65556	13 41 17.53	-08 18 11.1		17		399
1977 EO1		1993 04 15.67222	13 41 16.83	-08 18 06.9				399
1977 EO1		1993 04 16.54792	13 40 34.72	-08 15 04.2		16.5		399
1977 EO1		1993 04 16.56252	13 40 33.92	-08 15 02.2				399
1978 UV		1993 04 16.47917	11 53 43.98	+07 05 22.4		17		399
1978 UV		1993 04 16.49375	11 53 43.49	+07 05 25.8				399
1981 EG36		1993 05 16.59068	15 03 58.70	-10 41 00.7		17		399
1981 EG36		1993 05 16.60590	15 03 57.89	-10 40 56.9				399
1987 BC		1993 04 16.54792	13 39 33.46	-08 57 07.9		16.8		399
1987 BC		1993 04 16.56252	13 39 32.75	-08 57 04.1				399
1990 VD6		1993 05 14.65382	15 13 16.59	-03 45 28.1		16.8		399
1990 VD6		1993 05 14.66846	15 13 15.82	-03 45 24.4				399
1990 VD6		1993 05 16.62778	15 11 41.14	-03 36 28.6		16.8		399
1990 VD6		1993 05 16.64236	15 11 40.37	-03 36 24.1				399
1991 SG1		1993 04 16.58542	12 40 57.54	-15 16 23.1		16.2		399
1991 SG1		1993 04 16.60000	12 40 56.83	-15 16 17.0				399
1991 UY		1993 03 26.60556	13 01 18.90	+04 43 18.9		17		399
1991 UY		1993 03 26.61725	13 01 18.23	+04 43 23.6				399
1991 UY		1993 04 16.51181	12 40 56.06	+06 13 00.6		16.8		399
1991 UY		1993 04 16.52639	12 40 55.21	+06 13 03.6				399
1991 UY		1993 04 20.47639	12 37 29.56	+06 22 03.1		17		399
1991 UK3		1993 04 16.58542	12 42 46.96	-13 58 53.7		16.5		399
1991 UK3		1993 04 16.60000	12 42 46.49	-13 58 44.3				399
1991 VR		1993 04 15.57083	12 44 03.39	-05 01 27.1		17.3		399
1991 VR		1993 04 15.58542	12 44 02.39	-05 01 24.8				399
1991 VM1		1993 04 16.51181	12 35 55.58	+05 43 45.0		16.3		399
1991 VM1		1993 04 16.52639	12 35 54.82	+05 43 49.5				399
1991 VM1		1993 04 20.47639	12 32 53.06	+05 59 45.2		16.5		399
1992 SG24	*	1992 09 28.66683	01 15 32.41	+00 15 48.8		16.5		399
1992 SG24		1992 09 28.68270	01 15 31.55	+00 15 43.9				399
1992 SH24	*	1992 09 28.66683	01 17 41.51	+01 36 44.2		17		399
1992 SH24		1992 09 28.68270	01 17 40.75	+01 36 38.0				399
1992 SJ24	*	1992 09 28.66683	01 19 21.55	+00 57 26.8		16.5		399
1992 SJ24		1992 09 28.68270	01 19 21.01	+00 57 16.5				399
1992 SK24	*	1992 09 28.66683	01 19 32.90	+00 43 55.1		16.5		399
1992 SK24		1992 09 28.68270	01 19 32.17	+00 43 45.7				399
1992 SL24	*	1992 09 28.66683	01 20 47.29	+00 45 20.7		17		399
1992 SL24		1992 09 28.68270	01 20 46.42	+00 45 17.8				399
1992 UO9	*	1992 10 22.62164	02 26 57.09	+11 16 13.1		17		399
1992 UO9		1992 10 22.63611	02 26 56.44	+11 16 04.9				399
1992 VQ	*	1992 11 02.59931	03 12 58.74	+15 10 53.8		16.8		399
1992 VQ		1992 11 02.61389	03 12 58.12	+15 10 51.1				399
1992 VR	*	1992 11 02.59931	03 19 00.18	+15 48 42.0		17		399
1992 VR		1992 11 02.61389	03 18 59.33	+15 48 40.2				399
1992 WM		1992 11 27.47083	03 13 57.75	+19 39 17.5		17.2		399
1992 WM		1992 11 27.48542	03 13 56.59	+19 39 19.9				399
1992 WB9		1992 11 21.52986	03 50 52.59	+22 55 56.7		17		399
1992 WB9		1992 11 21.54444	03 50 51.78	+22 55 55.1				399

1992	WC9	*	1992	11	18.56944	03 37 29.21	+19 26 45.5	16.8		399
1992	WC9		1992	11	18.58403	03 37 28.42	+19 26 45.7			399
1992	WD9	*	1992	11	21.59375	04 06 16.80	+14 45 17.9	17.2		399
1992	WD9		1992	11	21.60833	04 06 15.85	+14 45 14.5			399
1992	WE9	*	1992	11	21.59375	04 06 19.98	+15 36 52.9	17.2		399
1992	WE9		1992	11	21.60833	04 06 18.98	+15 36 50.5			399
1992	WF9	*	1992	11	21.59375	04 15 13.50	+14 27 40.2	17		399
1992	WF9		1992	11	21.60833	04 15 12.69	+14 27 29.7			399
1993	BP13		1993	03	22.46667	08 47 22.46	+00 15 59.5	15.8		399
1993	BE15	*	1993	01	22.61047	08 41 30.13	+26 32 01.5	16.8		399
1993	BE15		1993	01	22.62494	08 41 29.16	+26 32 07.2			399
1993	BF15	*	1993	01	22.68588	09 08 29.13	+20 24 44.8	17		399
1993	BF15		1993	01	22.70035	09 08 28.33	+20 24 49.2			399
1993	DT		1993	02	15.62014	10 27 35.05	+03 34 39.4	17		399
1993	DT		1993	02	15.63484	10 27 34.22	+03 34 42.5			399
1993	DT		1993	03	12.47500	10 03 52.82	+04 43 13.5	17.3		399
1993	DT		1993	03	12.48981	10 03 52.01	+04 43 16.3			399
1993	EN		1993	04	15.46806	11 59 09.60	+06 40 11.2	17.3		399
1993	EN		1993	04	15.48264	11 59 09.12	+06 40 15.1			399
1993	EN		1993	04	16.47917	11 58 33.54	+06 44 51.6	17.2		399
1993	EN		1993	04	16.49375	11 58 33.03	+06 44 55.0			399
1993	EO		1993	04	15.50069	11 59 10.49	+02 44 19.6	17.2		399
1993	EO		1993	04	15.51528	11 59 09.77	+02 44 20.7			399
1993	EO		1993	04	19.55072	11 56 37.93	+02 54 22.6	16.7		399
1993	EO		1993	04	19.56528	11 56 37.34	+02 54 25.1			399
1993	EQ		1993	04	15.50069	11 54 13.24	+01 40 14.8	17.2		399
1993	EQ		1993	04	15.51528	11 54 12.75	+01 40 13.4			399
1993	ER		1993	04	15.50069	11 55 37.17	+01 31 53.8	16.7		399
1993	ER		1993	04	15.51528	11 55 36.67	+01 31 56.2			399
1993	FD1		1993	04	15.50069	11 57 15.82	+01 11 30.9	17		399
1993	FD1		1993	04	15.51528	11 57 15.25	+01 11 33.5			399
1993	FE1		1993	04	15.50069	11 56 49.50	+00 13 57.5	17		399
1993	FE1		1993	04	15.51528	11 56 48.83	+00 14 00.1			399
1993	FF1		1993	04	15.50069	11 58 05.59	+01 41 42.6	17		399
1993	FF1		1993	04	15.51528	11 58 05.01	+01 41 44.5			399
1993	FL1		1993	04	15.46806	11 49 37.45	+08 06 54.1	17		399
1993	FL1		1993	04	15.48264	11 49 36.84	+08 06 52.7			399
1993	FL1		1993	04	16.47917	11 48 56.15	+08 05 46.1	17.2		399
1993	FL1		1993	04	16.49375	11 48 55.50	+08 05 44.8			399
1993	FN1		1993	04	15.46806	11 56 33.44	+09 45 47.2	17.2		399
1993	FN1		1993	04	15.48264	11 56 32.85	+09 45 51.0			399
1993	FO1		1993	04	15.46806	11 54 20.12	+09 34 43.0	17.2		399
1993	FO1		1993	04	15.48264	11 54 19.40	+09 34 42.9			399
1993	FO1		1993	04	16.47917	11 53 36.27	+09 35 24.8	17		399
1993	FO1		1993	04	16.49375	11 53 35.59	+09 35 25.2			399
1993	FN2		1993	04	15.53437	12 02 47.29	-01 56 27.7	17.2		399
1993	FN2		1993	04	15.54965	12 02 46.77	-01 56 23.5			399
1993	FN2		1993	04	19.58542	12 00 25.02	-01 37 02.7	17.3		399
1993	FN2		1993	04	19.60000	12 00 24.43	-01 37 00.8			399
1993	FO2		1993	04	15.53437	12 03 15.88	-02 34 50.8	17.2		399
1993	FO2		1993	04	15.54965	12 03 15.35	-02 34 47.4			399
1993	FO2		1993	04	19.58542	12 00 56.23	-02 21 41.8	17.5		399
1993	FO2		1993	04	19.60000	12 00 55.78	-02 21 38.8			399
1993	FP2		1993	04	15.53437	12 05 28.26	-02 59 44.3	17.3		399
1993	FP2		1993	04	15.54965	12 05 27.63	-02 59 39.5			399
1993	FP2		1993	04	19.58542	12 02 21.35	-02 43 01.0	17.3		399
1993	FP2		1993	04	19.60000	12 02 20.70	-02 42 56.8			399
1993	GB		1993	04	15.65556	13 43 29.92	-11 15 04.5	16.3		399
1993	GB		1993	04	15.67222	13 43 28.88	-11 15 05.9			399

1993 GB		1993	04	16.54792	13	42	32.13	-11	17	12.1	16.5	399
1993 GB		1993	04	16.56252	13	42	31.04	-11	17	11.9		399
1993 GK		1993	04	15.65556	13	48	52.16	-09	33	21.4	16.5	399
1993 GK		1993	04	15.67222	13	48	51.42	-09	33	13.1		399
1993 GK		1993	04	16.54792	13	48	06.39	-09	25	04.3	16	399
1993 GK		1993	04	16.56252	13	48	05.56	-09	24	55.1		399
1993 GL		1993	04	15.65556	13	51	40.04	-09	51	13.3	16.8	399
1993 GL		1993	04	15.67222	13	51	39.15	-09	51	09.1		399
1993 GL		1993	04	16.54792	13	50	55.55	-09	47	54.0	16.8	399
1993 GL		1993	04	16.56252	13	50	54.66	-09	47	49.8		399
1993 GP	*	1993	04	15.65556	13	42	43.71	-09	33	13.7	17	399
1993 GP		1993	04	15.67222	13	42	42.66	-09	33	11.9		399
1993 GP		1993	04	16.54792	13	41	43.95	-09	31	17.1	16.7	399
1993 GP		1993	04	16.56252	13	41	42.99	-09	31	15.5		399
1993 GQ	*	1993	04	15.65556	13	47	42.80	-09	45	45.4	16.8	399
1993 GQ		1993	04	15.67222	13	47	42.04	-09	45	40.2		399
1993 GQ		1993	04	16.54792	13	46	57.56	-09	39	31.2	16.5	399
1993 GQ		1993	04	16.56252	13	46	56.83	-09	39	26.3		399
1993 GR	*	1993	04	15.65556	13	49	52.39	-09	39	56.8	16	399
1993 GR		1993	04	15.67222	13	49	51.35	-09	39	54.6		399
1993 GR		1993	04	16.54792	13	49	05.90	-09	37	27.2	16	399
1993 GR		1993	04	16.56252	13	49	05.08	-09	37	26.4		399
1993 GS	*	1993	04	15.65556	13	51	05.27	-08	41	00.4	17	399
1993 GS		1993	04	15.67222	13	51	04.26	-08	40	57.4		399
1993 GS		1993	04	16.54792	13	50	10.43	-08	38	14.7	16.8	399
1993 GS		1993	04	16.56252	13	50	09.62	-08	38	13.0		399
1993 GT	*	1993	04	15.65556	13	51	07.85	-08	05	30.8	16.8	399
1993 GT		1993	04	15.67222	13	51	07.03	-08	05	24.6		399
1993 GT		1993	04	16.54792	13	50	26.52	-08	01	57.7	16.7	399
1993 GT		1993	04	16.56252	13	50	25.71	-08	01	52.3		399
1993 HF		1993	03	22.59861	12	53	50.14	-20	09	29.5	17	399
1993 HF		1993	03	25.62500	12	51	37.21	-19	50	43.5	16.8	399
1993 HF		1993	03	25.63958	12	51	36.49	-19	50	35.5		399
1993 HF	*	1993	04	16.58542	12	34	54.37	-16	32	52.0	16.3	399
1993 HF		1993	04	16.60000	12	34	53.77	-16	32	44.5		399
1993 HT	*	1993	04	16.64444	13	58	38.38	+03	44	20.7	16.5	399
1993 HT		1993	04	16.65903	13	58	37.67	+03	44	23.2		399
1993 HT		1993	04	19.61840	13	56	17.46	+03	58	28.3	16.5	399
1993 HT		1993	04	19.63275	13	56	16.72	+03	58	32.6		399
1993 HU	*	1993	04	16.64444	14	05	42.98	+04	31	04.7	16.5	399
1993 HU		1993	04	16.65903	14	05	42.17	+04	31	09.1		399
1993 HU		1993	04	19.61840	14	03	29.34	+04	44	32.8	16.5	399
1993 HU		1993	04	19.63275	14	03	28.56	+04	44	38.3		399
1993 HV	*	1993	04	16.67986	15	30	48.29	-05	45	04.4	16.7	399
1993 HV		1993	04	16.69444	15	30	47.78	-05	44	59.4		399
1993 HV		1993	04	19.65778	15	29	17.10	-05	25	54.8	16.8	399
1993 HV		1993	04	19.67135	15	29	16.68	-05	25	50.6		399
1993 HV		1993	05	14.65382	15	13	05.21	-02	57	37.7	16.5	399
1993 HV		1993	05	14.66846	15	13	04.49	-02	57	34.5		399
1993 HV		1993	05	16.62778	15	11	42.53	-02	47	59.3	16.2	399
1993 HV		1993	05	16.64236	15	11	41.84	-02	47	55.4		399
1993 HF1	*	1993	04	16.64444	14	04	54.03	+05	26	58.4	17.2	399
1993 HF1		1993	04	16.65903	14	04	53.38	+05	27	00.2		399
1993 HF1		1993	04	19.61840	14	01	50.11	+05	28	42.6	17	399
1993 HF1		1993	04	19.63275	14	01	49.21	+05	28	43.1		399
1993 JJ	*	1993	05	14.61815	15	06	17.89	-11	18	08.4	16.7	399
1993 JJ		1993	05	14.63235	15	06	16.99	-11	18	07.5		399
1993 JJ		1993	05	16.59068	15	04	15.12	-11	14	22.7	16.5	399
1993 JJ		1993	05	16.60590	15	04	14.14	-11	14	20.5		399

1993 JK	*	1993 05 14.61815	15 12 17.85	-12 53 37.4	16	399
1993 JK		1993 05 14.63235	15 12 17.06	-12 53 33.1		399
1993 JK		1993 05 16.59068	15 10 32.85	-12 40 06.1	16	399
1993 JK		1993 05 16.60590	15 10 31.98	-12 40 00.0		399
1993 JL	*	1993 05 14.65382	15 10 01.36	-04 02 53.9	15	399
1993 JL		1993 05 14.66846	15 10 00.43	-04 02 57.5		399
1993 JL		1993 05 16.62778	15 07 59.53	-04 11 13.7	15	399
1993 JL		1993 05 16.64236	15 07 58.55	-04 11 17.3		399
1993 JM	*	1993 05 14.65382	15 12 05.17	-02 03 52.4	17	399
1993 JM		1993 05 14.66846	15 12 04.34	-02 03 49.3		399
1993 JM		1993 05 16.62778	15 10 34.88	-01 56 59.2	17	399
1993 JM		1993 05 16.64236	15 10 34.10	-01 56 53.6		399

400 Kitami
K. Watanabe, 3-8 Mason Hashimoto B-203, atsubetsu cyuo 3 jo 4 chome, Atsubetsu-ku, Sapporo 004, Japan
Observers K. Endate, T. Fujii, A. Takahashi
Measurers K. Watanabe, H. Kaneda
0.25-m f/2.6 Schmidt camera, 0.20 f/4.0 hyperboloid astrocamera, 0.25-m f/3.4 hyperboloid astrocamera
GSC

1976 SK3	1992 11 15.39861	02 22 28.85	+22 16 54.1	16.7	400
1976 SK3	1992 11 15.41389	02 22 28.09	+22 16 51.8		400
1987 BC	1990 10 15.50486	02 27 07.70	+12 48 42.4	16.5	400
1987 BC	1990 10 15.52292	02 27 06.75	+12 48 38.8		400
1987 BC	1990 10 19.48750	02 24 05.26	+12 30 26.0	16.7	400
1987 BC	1990 10 19.50486	02 24 04.26	+12 30 20.5		400
1988 RP1	1993 01 23.55625	09 25 40.12	+25 25 45.5	17	400
1988 RP1	1993 01 23.57153	09 25 39.06	+25 25 50.0		400
1989 AN1	1992 11 17.46386	03 00 50.63	+17 21 35.8	16.8	400
1989 AN1	1992 11 17.47778	03 00 49.95	+17 21 32.7		400
1992 CE	1993 04 16.60069	14 04 51.49	-11 06 16.1	16.5	400
1992 CE	1993 04 16.62014	14 04 50.87	-11 06 10.7		400
1992 CE	1993 04 20.57500	14 02 24.26	-10 49 18.5	16.2	400
1992 CE	1993 04 20.59236	14 02 23.38	-10 49 12.8		400
1992 CE	1993 04 29.59722	13 56 49.78	-10 10 59.8	16.2	400
1992 CE	1993 04 29.61181	13 56 49.41	-10 10 58.7		400
1992 SD13	1992 09 23.58299	00 55 57.84	+10 52 10.5	16.8	400
1992 SD13	1992 09 23.59688	00 55 57.36	+10 52 03.2		400
1992 SF13	1992 09 21.52257	00 32 55.34	+04 38 40.4	17	400
1992 SF13	1992 09 21.53646	00 32 54.67	+04 38 35.2		400
1992 SF13	1992 09 23.48333	00 31 20.79	+04 25 34.5	17	400
1992 SF13	1992 09 23.50069	00 31 19.96	+04 25 25.2		400
1992 SG24	1992 10 01.52500	01 13 00.17	-00 00 42.0	16.7	400
1992 SG24	1992 10 01.54097	01 12 59.17	-00 00 50.3		400
1992 SH24	1992 10 01.52500	01 15 02.45	+01 20 38.7	17	400
1992 SH24	1992 10 01.54097	01 15 01.31	+01 20 32.1		400
1992 SJ24	1992 10 01.52500	01 17 38.15	+00 28 53.0	16.7	400
1992 SJ24	1992 10 01.54097	01 17 37.44	+00 28 42.4		400
1992 SJ24	1992 10 19.55729	01 05 52.84	-02 13 59.3	16.5	400
1992 SJ24	1992 10 19.57292	01 05 52.31	-02 14 07.8		400
1992 SK24	1992 09 23.58472	01 23 08.52	+01 29 43.4	16.7	400
1992 SK24	1992 09 23.60278	01 23 07.71	+01 29 34.4		400
1992 SK24	1992 10 01.52500	01 17 19.81	+00 17 48.1	16.5	400
1992 SK24	1992 10 01.54097	01 17 19.00	+00 17 38.0		400
1992 SK24	1992 10 19.55729	01 02 02.19	-02 14 22.6	17	400
1992 SK24	1992 10 19.57292	01 02 01.54	-02 14 28.5		400
1992 SL24	1992 10 01.52500	01 17 47.93	+00 36 07.6	16.7	400
1992 SL24	1992 10 01.54097	01 17 46.73	+00 36 02.8		400

1992 TW	1992 09	21.59688	00 49	20.15	+05 31	41.7	16.8	400
1992 TW	1992 09	21.60972	00 49	19.70	+05 31	34.9		400
1992 UF3	1992 10	19.62083	02 29	54.66	+09 59	14.6	16.8	400
1992 UF3	1992 10	19.63542	02 29	53.95	+09 59	06.6		400
1992 UO3	1992 11	21.53194	02 32	40.37	+22 15	20.0	16.7	400
1992 UO3	1992 11	21.54653	02 32	39.55	+22 15	17.6		400
1992 UU4	1992 12	15.49097	03 15	29.43	+14 50	42.4	16.8	400
1992 UU4	1992 12	15.50556	03 15	29.04	+14 50	33.7		400
1992 UX5	1992 11	17.49444	03 01	00.87	+07 44	34.9	16.8	400
1992 UX5	1992 11	17.50833	03 01	00.13	+07 44	33.4		400
1992 UM6	1992 11	21.53194	02 32	11.35	+22 24	34.6	16.5	400
1992 UM6	1992 11	21.54653	02 32	10.65	+22 24	29.2		400
1992 UO9	1992 10	26.55486	02 23	56.91	+10 45	18.3	16.8	400
1992 UO9	1992 10	26.56875	02 23	56.21	+10 45	10.9		400
1992 VN	1992 11	15.43993	02 37	56.42	+23 34	27.9	16.8	400
1992 VN	1992 11	15.45694	02 37	55.47	+23 34	17.8		400
1992 VN	1992 11	21.53194	02 32	54.88	+22 31	21.5	17	400
1992 VN	1992 11	21.54653	02 32	54.28	+22 31	13.3		400
1992 VQ	1992 10	28.55486	03 16	52.55	+15 26	47.3	16.8	400
1992 VQ	1992 10	28.56944	03 16	51.81	+15 26	44.2		400
1992 VQ	1992 11	17.46386	03 00	45.67	+14 23	38.1	16.7	400
1992 VQ	1992 11	17.47778	03 00	44.86	+14 23	36.3		400
1992 VR	1992 10	28.55486	03 23	16.31	+16 10	56.4	17	400
1992 VR	1992 10	28.56944	03 23	15.50	+16 10	52.9		400
1992 VR	1992 11	17.46386	03 05	15.91	+14 41	26.8	16.8	400
1992 VR	1992 11	17.47778	03 05	15.21	+14 41	22.1		400
1992 WG	1992 11	17.46386	03 16	33.28	+17 46	55.8	17	400
1992 WG	1992 11	17.47778	03 16	32.39	+17 46	55.7		400
1992 WH	1992 10	28.65868	03 38	39.94	+20 26	32.8	17	400
1992 WH	1992 10	28.67326	03 38	39.16	+20 26	27.0		400
1992 WL	1992 10	28.65868	03 39	46.63	+20 33	08.2	16.8	400
1992 WL	1992 10	28.67326	03 39	45.96	+20 33	10.2		400
1992 WL	1992 12	15.45833	02 59	22.70	+20 30	14.3	17	400
1992 WL	1992 12	15.47361	02 59	22.17	+20 30	13.5		400
1992 WM	1992 10	28.65868	03 47	09.03	+19 22	22.1	16.8	400
1992 WM	1992 10	28.67326	03 47	08.34	+19 22	25.2		400
1992 WV1	1992 11	17.52500	03 25	20.11	+18 11	35.2	17	400
1992 WV1	1992 11	17.53889	03 25	19.29	+18 11	35.1		400
1992 WC2	1992 11	16.53264	03 40	53.50	+19 23	30.5	16.8	400
1992 WC2	1992 11	16.54653	03 40	52.75	+19 23	28.2		400
1992 WP2	1992 11	16.53021	04 01	01.81	+20 16	53.0	17	400
1992 WP2	1992 11	16.54410	04 01	01.03	+20 16	56.2		400
1992 WZ3	1992 11	17.59826	03 55	58.78	+15 22	03.4	17	400
1992 WZ3	1992 11	17.61146	03 55	58.02	+15 21	54.3		400
1992 WZ3	1992 11	18.52083	03 55	07.73	+15 13	29.6	16.8	400
1992 WZ3	1992 11	18.53472	03 55	06.88	+15 13	22.0		400
1992 WK4	1992 11	18.52083	04 21	31.07	+14 38	39.8	17	400
1992 WK4	1992 11	18.53472	04 21	30.17	+14 38	42.3		400
1992 WC9	1992 11	16.53264	03 39	50.56	+19 25	11.2	17	400
1992 WC9	1992 11	16.54653	03 39	49.71	+19 25	11.5		400
1992 WC9	1992 11	27.52500	03 27	17.40	+19 32	32.3	17	400
1992 WC9	1992 11	27.53889	03 27	16.42	+19 32	34.2		400
1992 WD9	1992 11	18.52083	04 09	47.75	+14 50	02.6	17	400
1992 WD9	1992 11	18.53472	04 09	46.87	+14 50	01.0		400
1992 WE9	1992 11	27.58611	04 00	21.09	+15 11	28.2	17	400
1992 WE9	1992 11	27.60000	04 00	20.18	+15 11	25.7		400
1992 WF9	1992 11	18.52083	04 18	26.24	+14 51	41.6	17	400
1992 WF9	1992 11	18.53472	04 18	25.30	+14 51	34.2		400
1992 WF9	1992 11	27.58611	04 08	55.79	+13 43	22.4	16.8	400

1992	WF9		1992	11	27.60000	04	08	54.91	+13 43 16.2	400
1993	AQ		1993	01	18.50556	08	27	52.76	+13 33 14.8	17 400
1993	AQ		1993	01	18.51667	08	27	51.89	+13 33 12.3	400
1993	BE15		1993	01	18.47361	08	45	28.11	+25 56 59.6	17 400
1993	BE15		1993	01	18.48819	08	45	27.17	+25 57 07.1	400
1993	BF15		1993	01	23.49236	09	07	41.01	+20 27 14.9	17.2 400
1993	BF15		1993	01	23.50764	09	07	39.99	+20 27 18.5	400
1993	BG15	*	1993	01	23.55625	09	24	29.66	+23 47 34.9	16.8 400
1993	BG15		1993	01	23.57153	09	24	28.68	+23 47 41.5	400
1993	BG15		1993	01	24.56111	09	23	29.62	+23 54 24.3	16.5 400
1993	BG15		1993	01	24.57569	09	23	28.69	+23 54 29.2	400
1993	EO		1993	03	20.61319	12	20	22.43	+00 59 00.6	16.5 400
1993	EO		1993	03	20.62917	12	20	21.49	+00 59 01.9	400
1993	EQ		1993	04	10.47222	11	58	18.53	+01 37 45.7	16.8 400
1993	EQ		1993	04	10.49167	11	58	17.59	+01 37 47.3	400
1993	ER		1991	09	30.50243	00	30	51.57	+02 14 27.6	16.7 400
1993	ER		1991	09	30.51840	00	30	50.62	+02 14 22.2	400
1993	ER		1993	04	10.47222	11	58	57.87	+01 13 21.9	16.4 400
1993	ER		1993	04	10.49167	11	58	56.88	+01 13 29.3	400
1993	ES		1993	03	29.57882	12	25	44.53	-05 09 33.1	15.8 400
1993	ES		1993	03	29.59201	12	25	43.67	-05 09 34.2	400
1993	ET		1993	04	16.47708	12	15	59.61	+02 48 18.5	16.5 400
1993	ET		1993	04	16.49722	12	15	58.79	+02 48 34.5	400
1993	EU		1993	04	16.47708	12	09	27.60	+05 04 50.7	16.5 400
1993	EU		1993	04	16.49722	12	09	26.81	+05 04 51.7	400
1993	FE1		1993	04	10.47222	12	00	42.94	-00 08 07.4	16.6 400
1993	FE1		1993	04	10.49167	12	00	42.13	-00 08 02.0	400
1993	FQ2		1993	04	16.47708	12	05	12.67	+04 06 20.7	16.5 400
1993	FQ2		1993	04	16.49722	12	05	11.48	+04 06 20.7	400
1993	GH	*	1993	04	10.51736	13	45	04.45	-06 37 14.6	16.5 400
1993	GH		1993	04	10.53819	13	45	03.36	-06 37 10.8	400
1993	GH		1993	04	16.52708	13	39	52.59	-06 27 02.6	16.3 400
1993	GH		1993	04	16.54514	13	39	51.60	-06 27 02.2	400
1993	GH		1993	04	20.50347	13	36	24.45	-06 20 45.7	16.5 400
1993	GH		1993	04	20.52083	13	36	23.46	-06 20 44.9	400
1993	GR		1993	04	20.57500	13	45	34.79	-09 26 24.0	16.5 400
1993	GR		1993	04	20.59236	13	45	34.16	-09 26 20.5	400
1993	HH	*	1993	04	16.52708	13	26	48.66	-01 49 50.1	16.5 400
1993	HH		1993	04	16.54514	13	26	47.44	-01 49 49.0	400
1993	HH		1993	04	20.50347	13	23	15.80	-01 51 27.0	16.5 400
1993	HH		1993	04	20.52083	13	23	14.70	-01 51 25.1	400
1993	HH		1993	05	08.47014	13	09	11.11	-02 16 12.6	16.5 400
1993	HH		1993	05	08.49097	13	09	10.23	-02 16 16.8	400
1993	HJ	*	1993	04	16.52708	13	29	58.08	-06 31 51.9	16.5 400
1993	HJ		1993	04	16.54514	13	29	57.13	-06 31 43.9	400
1993	HJ		1993	04	20.50347	13	26	08.62	-05 58 53.2	17 400
1993	HJ		1993	04	20.52083	13	26	07.35	-05 58 42.6	400
1993	HK	*	1993	04	16.52708	13	36	38.10	-03 21 07.9	16.8 400
1993	HK		1993	04	16.54514	13	36	37.17	-03 21 02.4	400
1993	HK		1993	04	20.50347	13	33	08.81	-02 59 56.3	17 400
1993	HK		1993	04	20.52083	13	33	07.94	-02 59 51.5	400
1993	HL	*	1993	04	16.52708	13	39	44.20	-03 07 42.8	17 400
1993	HL		1993	04	16.54514	13	39	42.41	-03 07 41.7	400
1993	HL		1993	04	20.50347	13	35	31.07	-02 54 53.5	17 400
1993	HL		1993	04	20.52083	13	35	29.95	-02 54 50.8	400
1993	HM	*	1993	04	16.56319	13	56	15.81	-06 40 56.3	16.7 400
1993	HM		1993	04	16.58194	13	56	14.91	-06 40 47.3	400
1993	HM		1993	04	20.54028	13	52	50.77	-06 06 40.3	16.2 400
1993	HM		1993	04	20.55764	13	52	49.62	-06 06 29.7	400

1993 HN	*	1993 04 16.56319	13 56 55.16	-07 28 30.4	16.8	400
1993 HN		1993 04 16.58194	13 56 54.29	-07 28 30.1		400
1993 HN		1993 04 20.54028	13 53 24.24	-07 24 13.8	16.6	400
1993 HN		1993 04 20.55764	13 53 23.39	-07 24 12.9		400
1993 HN		1993 05 16.47917	13 33 04.59	-07 18 23.1	16.5	400
1993 HN		1993 05 16.50000	13 33 03.57	-07 18 24.8		400
1993 HO	*	1993 04 16.56319	13 57 44.07	-02 44 53.2	16.3	400
1993 HO		1993 04 16.58194	13 57 43.20	-02 44 51.5		400
1993 HO		1993 04 20.54028	13 54 18.26	-02 38 51.8	16.4	400
1993 HO		1993 04 20.55764	13 54 17.43	-02 38 50.3		400
1993 HO		1993 05 14.53611	13 35 37.57	-02 35 12.3	16.5	400
1993 HO		1993 05 14.55347	13 35 37.04	-02 35 13.2		400
1993 HP	*	1993 04 16.56319	13 59 03.87	-02 20 32.3	16.5	400
1993 HP		1993 04 16.58194	13 59 02.81	-02 20 29.4		400
1993 HP		1993 04 20.54028	13 55 21.11	-01 55 48.0	16.5	400
1993 HP		1993 04 20.55764	13 55 19.88	-01 55 40.5		400
1993 HP		1993 05 14.53611	13 36 30.84	-00 29 09.4	16.5	400
1993 HP		1993 05 14.55347	13 36 30.22	-00 29 14.3		400
1993 HQ	*	1993 04 16.60069	13 50 23.23	-13 09 27.9	16.0	400
1993 HQ		1993 04 16.62014	13 50 21.81	-13 09 28.5		400
1993 HQ		1993 04 20.57500	13 45 56.39	-13 08 24.3	16.0	400
1993 HQ		1993 04 20.59236	13 45 55.30	-13 08 23.4		400
1993 HQ		1993 04 29.62847	13 36 05.24	-13 04 09.8	16.0	400
1993 HQ		1993 04 29.64375	13 36 04.35	-13 04 08.0		400
1993 HR	*	1993 04 16.60069	13 59 35.69	-14 42 59.1	16.8	400
1993 HR		1993 04 16.62014	13 59 34.54	-14 42 58.1		400
1993 HR		1993 04 20.57500	13 55 56.79	-14 34 22.0	16.3	400
1993 HR		1993 04 20.59236	13 55 55.87	-14 34 19.8		400
1993 HR		1993 04 29.62847	13 47 36.52	-14 12 20.8	16.6	400
1993 HR		1993 04 29.64375	13 47 35.66	-14 12 21.7		400
1993 HS	*	1993 04 16.60069	14 00 14.81	-13 09 11.8	16.2	400
1993 HS		1993 04 16.62014	14 00 13.81	-13 09 11.5		400
1993 HS		1993 04 20.57500	13 56 06.80	-12 55 50.1	16.0	400
1993 HS		1993 04 20.59236	13 56 05.68	-12 55 45.8		400
1993 HS		1993 04 29.62847	13 46 39.15	-12 23 25.1	16.2	400
1993 HS		1993 04 29.64375	13 46 38.20	-12 23 21.6		400
1993 HS		1993 05 16.52222	13 32 23.76	-11 33 15.3	16.5	400
1993 HS		1993 05 16.54375	13 32 23.17	-11 33 10.2		400
1993 HW	*	1993 04 16.56319	13 53 30.57	-06 30 30.5	16.2	400
1993 HW		1993 04 16.58194	13 53 29.64	-06 30 28.9		400
1993 HW		1993 04 20.54028	13 49 45.02	-06 13 30.0	16.2	400
1993 HW		1993 04 20.55764	13 49 43.92	-06 13 26.0		400
1993 HW		1993 05 14.53611	13 29 52.07	-05 07 47.8	16.2	400
1993 HW		1993 05 14.55347	13 29 51.46	-05 07 46.1		400
1993 HX	*	1993 04 16.56319	13 57 27.84	-06 34 06.2	16.8	400
1993 HX		1993 04 16.58194	13 57 26.73	-06 34 00.6		400
1993 HX		1993 04 20.54028	13 53 49.72	-06 11 40.6	16.8	400
1993 HX		1993 04 20.55764	13 53 48.71	-06 11 36.4		400
1993 HX		1993 05 14.53611	13 34 27.72	-04 29 56.0	17	400
1993 HX		1993 05 14.55347	13 34 27.07	-04 29 51.3		400
1993 HY	*	1993 04 16.56319	14 10 06.72	-04 29 57.6	16.7	400
1993 HY		1993 04 16.58194	14 10 05.65	-04 29 54.6		400
1993 HY		1993 04 20.54028	14 06 36.15	-04 12 32.3	16.5	400
1993 HY		1993 04 20.55764	14 06 35.32	-04 12 28.5		400
1993 HY		1993 05 14.53611	13 46 27.20	-03 05 10.3	16.0	400
1993 HY		1993 05 14.55347	13 46 26.54	-03 05 06.1		400
1993 HZ	*	1993 04 16.60069	13 49 16.90	-15 12 57.0	16.5	400
1993 HZ		1993 04 16.62014	13 49 16.04	-15 12 52.2		400
1993 HZ		1993 04 20.57500	13 45 49.68	-14 53 35.0	16.3	400

1993 HZ		1993 04 20.59236	13 45 48.63	-14 53 27.9			400
1993 HZ		1993 04 29.62847	13 38 07.15	-14 07 08.3		16.8	400
1993 HZ		1993 04 29.64375	13 38 06.33	-14 07 06.1			400
1993 HZ		1993 05 16.52222	13 26 21.89	-12 45 15.0		16.5	400
1993 HZ		1993 05 16.54375	13 26 20.74	-12 45 09.5			400
1993 HA1	*	1993 04 16.60069	13 53 41.84	-16 36 39.7		16.2	400
1993 HA1		1993 04 16.62014	13 53 40.80	-16 36 27.5			400
1993 HA1		1993 04 20.57500	13 50 30.60	-15 57 45.3		16.2	400
1993 HA1		1993 04 20.59236	13 50 29.80	-15 57 35.9			400
1993 HE1	*	1993 04 16.60069	14 06 12.08	-13 03 24.2		16.5	400
1993 HE1		1993 04 16.62014	14 06 10.95	-13 03 28.8			400
1993 HE1		1993 04 20.57500	14 02 06.26	-13 14 47.3		16.2	400
1993 HE1		1993 04 20.59236	14 02 05.07	-13 14 50.6			400
1993 HE1		1993 04 29.62847	13 52 33.36	-13 39 07.9		16.6	400
1993 HE1		1993 04 29.64375	13 52 32.89	-13 39 08.6			400
1993 HG1		1993 04 16.56319	14 01 54.37	-07 42 09.5		16.8	400
1993 HG1		1993 04 16.58194	14 01 53.53	-07 41 58.8			400
1993 HG1	*	1993 04 20.54028	13 58 10.59	-07 13 31.9		16.5	400
1993 HG1		1993 04 20.55764	13 58 09.49	-07 13 23.9			400
1993 HG1		1993 05 14.53611	13 38 29.07	-04 59 45.4		16.5	400
1993 HG1		1993 05 14.55347	13 38 28.37	-04 59 40.1			400
1993 HH1	*	1993 04 20.61250	14 17 24.36	-15 24 14.3		16.5	400
1993 HH1		1993 04 20.63194	14 17 23.10	-15 24 06.6			400
1993 HH1		1993 04 21.59722	14 16 31.75	-15 19 52.5		16.8	400
1993 HH1		1993 04 21.61806	14 16 30.82	-15 19 42.7			400
1993 HH1		1993 04 29.59722	14 09 18.91	-14 42 09.6		16.7	400
1993 HH1		1993 04 29.61181	14 09 18.09	-14 42 02.7			400
1993 HH1		1993 05 14.57014	13 57 29.40	-13 33 26.0		16.5	400
1993 HH1		1993 05 14.58750	13 57 28.64	-13 33 19.9			400
1993 HR1	*	1993 04 16.56319	14 05 01.22	-06 19 00.2		17	400
1993 HR1		1993 04 16.58194	14 05 00.23	-06 18 53.9			400
1993 HR1		1993 04 20.54028	14 01 35.25	-06 00 25.4		16.8	400
1993 HR1		1993 04 20.55764	14 01 34.43	-06 00 22.3			400
1993 HR1		1993 05 14.53611	13 43 08.15	-04 49 48.5		16.2	400
1993 HR1		1993 05 14.55347	13 43 07.65	-04 49 47.9			400
1993 HS1	*	1993 04 20.57500	14 06 48.57	-13 38 26.9		16.2	400
1993 HS1		1993 04 20.59236	14 06 47.28	-13 38 29.1			400
1993 HS1		1993 04 29.59722	13 56 36.89	-13 45 00.8		16.5	400
1993 HS1		1993 04 29.61181	13 56 35.65	-13 45 00.6			400
1993 HS1		1993 05 16.52222	13 40 29.53	-13 59 25.0		17	400
1993 HS1		1993 05 16.54375	13 40 28.80	-13 59 27.0			400
1993 HT1	*	1993 04 21.55521	14 18 00.09	-11 15 58.5		16.5	400
1993 HT1		1993 04 21.57986	14 17 58.65	-11 15 47.9			400
1993 HT1		1993 04 29.59722	14 10 53.02	-10 04 41.6		16.0	400
1993 HT1		1993 04 29.61181	14 10 52.28	-10 04 34.1			400
1993 JD		1993 05 14.60486	15 21 20.19	-14 48 36.2		16.3	400
1993 JD		1993 05 14.62292	15 21 19.28	-14 48 26.7			400
1993 JD		1993 05 16.56181	15 19 42.84	-14 29 03.4		16.0	400
1993 JD		1993 05 16.57986	15 19 42.09	-14 28 54.6			400
1993 JE	*	1993 05 14.60486	15 39 36.50	-14 29 02.8		16.5	400
1993 JE		1993 05 14.62292	15 39 35.31	-14 28 59.9			400
1993 JE		1993 05 16.56181	15 37 33.66	-14 27 52.8		16.2	400
1993 JE		1993 05 16.57986	15 37 32.60	-14 27 50.4			400
(1120)		1993 04 16.56319	13 57 07.77	-06 33 56.0		15.5	400
(1120)		1993 04 16.58194	13 57 06.81	-06 33 50.2			400
(1120)		1993 04 20.54028	13 53 14.10	-06 07 35.0		15.8	400
(1120)		1993 04 20.55764	13 53 13.01	-06 07 28.7			400
(2319)		1993 04 16.56319	14 02 09.61	-07 50 21.7		16.5	400
(2319)		1993 04 16.58194	14 02 08.72	-07 50 15.1			400

(4696)		1993 04 20.57500	13 45 21.04	-09 20 46.0	16.8		400
(4696)		1993 04 20.59236	13 45 20.72	-09 20 40.6			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
GSC

1993 GO	*	1993 04 14.69444	15 17 15.06	-09 06 26.9	16.0		402
1993 GO		1993 04 14.70694	15 17 14.36	-09 06 31.9			402
1993 GO		1993 04 17.66250	15 14 51.76	-09 17 31.8			402
1993 GO		1993 04 17.67500	15 14 51.20	-09 17 35.3			402
1993 GU	*	1993 04 14.67153	14 47 07.52	+00 33 04.7	16.5		402
1993 GU		1993 04 14.68472	14 47 06.93	+00 33 05.2			402
1993 GU		1993 04 17.63958	14 44 30.69	+00 34 56.9			402
1993 GU		1993 04 17.65347	14 44 29.97	+00 34 56.7			402

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

1993 CC		1993 02 14.52023	10 45 34.06	+16 27 50.3			411
1993 CC		1993 02 14.52667	10 45 33.84	+16 27 54.3			411
1993 CC		1993 02 14.52990	10 45 33.63	+16 27 56.6			411
1993 CC		1993 02 17.54449	10 43 20.03	+17 01 50.6			411
1993 CC		1993 02 17.55322	10 43 19.60	+17 01 56.6			411
1993 CC		1993 02 17.55606	10 43 19.47	+17 01 58.4			411
1993 CC		1993 02 23.50198	10 38 38.57	+18 07 56.0			411
1993 CC		1993 02 23.50984	10 38 38.19	+18 08 00.9			411
1993 CC		1993 02 23.51377	10 38 38.01	+18 08 03.6			411
1993 CC		1993 02 28.53062	10 34 31.78	+19 01 22.1			411
1993 CC		1993 02 28.53568	10 34 31.48	+19 01 26.3			411
1993 CC		1993 02 28.53821	10 34 31.41	+19 01 27.8			411
1993 CC		1993 03 13.46073	10 24 25.14	+21 00 02.1			411
1993 CC		1993 03 13.46859	10 24 24.77	+21 00 06.9			411
1993 CC		1993 03 13.47252	10 24 24.66	+21 00 08.7			411
1993 CC		1993 03 14.47604	10 23 42.16	+21 07 53.7			411
1993 CC		1993 03 14.48390	10 23 41.84	+21 07 57.4			411
1993 CC		1993 03 14.48783	10 23 41.66	+21 07 59.4			411
1993 CC		1993 03 29.46139	10 15 32.32	+22 34 03.1			411
1993 CC		1993 03 29.46925	10 15 32.14	+22 34 05.2			411
1993 CC		1993 03 29.47318	10 15 32.03	+22 34 06.5			411
1993 CC		1993 04 09.51940	10 13 10.89	+23 01 22.2			411
1993 CC		1993 04 09.52726	10 13 10.83	+23 01 23.1			411
1993 CC		1993 04 09.53120	10 13 10.74	+23 01 23.8			411
1993 CC		1993 04 10.47915	10 13 08.36	+23 02 22.6			411
1993 CC		1993 04 10.48701	10 13 08.34	+23 02 23.0			411
1993 CC		1993 04 10.49093	10 13 08.31	+23 02 22.6			411
1993 CK		1993 02 12.62473	10 46 42.15	+16 27 47.5			411
1993 CK		1993 02 12.63530	10 46 41.58	+16 27 52.0			411
1993 CK		1993 02 17.55989	10 42 07.51	+16 54 24.7			411
1993 CK		1993 02 17.56633	10 42 07.08	+16 54 27.0			411
1993 CK		1993 02 17.56953	10 42 06.87	+16 54 29.0			411
1993 CK		1993 02 23.51909	10 36 11.82	+17 24 22.4			411
1993 CK		1993 02 23.52695	10 36 11.37	+17 24 24.8			411
1993 CK		1993 02 23.53088	10 36 11.08	+17 24 26.0			411
1993 CK		1993 02 28.54440	10 31 05.12	+17 46 24.5			411
1993 CK		1993 02 28.55227	10 31 04.65	+17 46 26.0			411

1993 CK		1993 02 28.55620	10 31 04.47	+17 46 27.0					411
1993 CK		1993 03 13.48183	10 18 53.10	+18 23 13.3					411
1993 CK		1993 03 13.48969	10 18 52.83	+18 23 13.3					411
1993 CK		1993 03 13.49362	10 18 52.58	+18 23 14.9					411
1993 CK		1993 03 14.49609	10 18 02.85	+18 24 42.9					411
1993 CK		1993 03 14.50395	10 18 02.51	+18 24 42.9					411
1993 CK		1993 03 14.50788	10 18 02.27	+18 24 43.0					411
1993 CK		1993 03 29.47914	10 08 52.70	+18 21 20.0					411
1993 CK		1993 03 29.48700	10 08 52.52	+18 21 17.9					411
1993 CK		1993 03 29.49094	10 08 52.36	+18 21 17.0					411
1993 CK		1993 04 10.49556	10 06 37.46	+17 46 24.6					411
1993 CK		1993 04 10.50341	10 06 37.27	+17 46 24.0					411
1993 CK		1993 04 10.50734	10 06 37.27	+17 46 23.4					411
1993 DE1		1993 03 02.60157	09 54 15.62	+02 19 51.2					411
1993 DE1		1993 03 02.60945	09 54 15.30	+02 19 51.5					411
1993 DE1		1993 03 02.61336	09 54 15.02	+02 19 53.1					411
1993 FB1		1993 04 10.57609	13 22 26.62	+03 39 56.3					411
1993 FB1		1993 04 10.58395	13 22 26.19	+03 39 56.9					411
1993 FB1		1993 04 10.58788	13 22 25.93	+03 39 57.9					411
1993 FB1		1993 04 24.58365	13 09 37.22	+03 51 02.1					411
1993 FB1		1993 04 24.59151	13 09 36.82	+03 51 01.1					411
1993 FB1		1993 04 24.59545	13 09 36.57	+03 51 01.6					411

413 Siding Spring
R. H. McNaught, Siding Spring Observatory, Coonabarabran, N.S.W. 2357, Australia
Observers R. D. Cannon, C. P. Cass, M. J. Drinkwater, A. Graham, M. Hartley, R. H. McNaught, C. Pollas, K. S. Russell, R. J. Smyth, P. R. Standen, D. I. Steel
Measurers R. H. McNaught, M. R. Read
Uppsala Southern Schmidt, U.K. Schmidt, 1.0-m reflector + CCD

1985 OW	*	1985 07 20.54493	18 13 58.85	-07 20 35.6					413
1985 OX	*	1985 07 20.54493	18 15 28.75	-08 01 54.3					413
1985 OY	*	1985 07 20.54493	18 16 56.28	-08 24 32.8					413
1985 OZ	*	1985 07 20.54493	18 18 26.07	-08 41 13.7					413
1985 OA1	*	1985 07 20.54493	18 20 13.92	-09 19 06.5					413
1985 OB1	*	1985 07 20.54493	18 20 47.34	-09 04 38.7					413
1985 OC1	*	1985 07 20.54493	18 21 20.32	-09 18 09.6					413
1985 OD1	*	1985 07 20.54493	18 21 23.34	-09 59 03.5					413
1985 OE1	*	1985 07 20.54493	18 23 42.80	-10 50 18.2					413
1985 OF1	*	1985 07 20.54493	18 25 23.84	-10 53 44.6					413
1985 OG1	*	1985 07 20.54493	18 25 29.89	-10 58 23.0					413
1985 OH1	*	1985 07 20.54493	18 27 20.36	-11 20 30.6					413
1985 OJ1	*	1985 07 20.54493	18 29 44.44	-11 29 16.8					413
1985 OK1	*	1985 07 20.54493	18 33 18.81	-12 09 24.0					413
1989 KE		1990 11 12.44899	00 27 39.99	-11 59 58.3	18	V			413
1990 MJ		1993 03 03.57110	10 19 29.15	-30 25 06.7	20	V			413
1990 MJ		1993 03 03.57366	10 19 29.00	-30 25 05.7					413
1990 MJ		1993 03 03.57788	10 19 28.78	-30 25 05.0					413
1990 MJ		1993 05 10.46318	09 53 05.32	-22 04 06.2					413
1990 MJ		1993 05 10.46663	09 53 05.37	-22 04 04.7					413
1990 OA		1993 03 03.67218	12 50 58.05	+06 23 25.8					413
1990 OA		1993 03 03.67583	12 50 57.93	+06 23 28.2					413
1990 OA		1993 03 03.68366	12 50 57.74	+06 23 33.7					413
1990 OA		1993 05 11.42655	11 54 30.48	+16 20 56.0					413
1990 OA		1993 05 11.42883	11 54 30.45	+16 20 55.8					413
1990 SB		1993 05 11.41212	08 13 19.39	+07 08 59.5					413
1990 TB		1993 05 10.72991	15 18 10.80	-14 02 36.7					413
1990 TB		1993 05 10.73229	15 18 10.65	-14 02 35.7					413

1990	VA	1992	12	10.59968	03	59	08.43	-14	14	24.7			413
1990	VA	1992	12	10.60181	03	59	08.08	-14	14	27.4			413
1990	VA	1992	12	11.52887	03	56	46.74	-14	28	34.0			413
1990	VA	1992	12	11.53116	03	56	46.38	-14	28	36.0			413
1991	QG	1993	03	01.53538	08	31	39.13	+09	48	09.5			413
1991	QG	1993	03	01.53815	08	31	39.03	+09	48	09.9			413
1991	QG	1993	03	02.48823	08	31	10.42	+09	52	17.4			413
1991	QG	1993	03	02.49223	08	31	10.33	+09	52	18.6			413
1992	AC	1993	05	10.80493	22	14	26.80	-13	36	21.4			413
1992	AC	1993	05	10.80753	22	14	26.99	-13	36	20.7			413
1992	AC	1993	05	10.81101	22	14	27.12	-13	36	21.2			413
1992	AC	1993	05	11.77332	22	15	14.25	-13	35	18.3			413
1992	AC	1993	05	11.77558	22	15	14.34	-13	35	18.8			413
1992	EU	1993	05	10.73772	15	19	51.16	-53	14	42.8		I	413
1992	EU	1993	05	10.74098	15	19	50.87	-53	14	43.2			413
1992	FE	1993	03	01.73204	15	47	01.55	-28	55	32.5			413
1992	FE	1993	03	01.73453	15	47	01.62	-28	55	36.0			413
1992	FE	1993	05	01.57043	13	34	39.67	-32	02	11.2			413
1992	FE	1993	05	10.47979	12	59	38.10	-27	59	25.9			413
1992	FE	1993	05	10.48190	12	59	37.66	-27	59	22.2			413
1992	FE	1993	05	10.70926	12	58	49.43	-27	52	33.5			413
1992	FE	1993	05	11.45920	12	56	21.44	-27	30	38.5			413
1992	FE	1993	05	11.46126	12	56	21.03	-27	30	34.8			413
1992	QA	1977	09	15.64258	01	44	32.53	-31	30	38.2	18	V p	413
1992	QA	1977	09	15.69466	01	44	28.41	-31	30	54.8		p	413
1992	QA	1977	09	18.59699	01	40	34.53	-31	43	35.6			413
1992	QA	1977	09	18.64907	01	40	29.90	-31	43	48.6			413
1992	QA	1992	12	11.42561	22	05	39.06	-34	39	43.4			413
1992	QA	1992	12	11.43307	22	05	39.91	-34	39	34.9			413
1992	QB	1974	08	22.74838	01	45	02.17	-31	50	41.0			413
1992	QB	1974	08	26.68582	01	43	46.60	-32	14	42.4			413
1992	QB	1974	08	26.71707	01	43	45.76	-32	14	55.0			413
1992	QB	1993	01	04.46027	23	15	08.68	-22	23	01.2			413
1992	QB	1993	01	04.46253	23	15	08.93	-22	22	57.9			413
1992	QC	1992	12	10.51196	23	50	56.03	-00	05	08.6			413
1992	QC	1992	12	11.45507	23	52	05.68	+00	16	15.4			413
1992	QC	1992	12	11.45711	23	52	05.81	+00	16	17.5			413
1992	TC	1992	11	13.62118	02	09	32.74	-14	07	34.6	15.5	V	413
1992	TC	1992	12	10.57336	02	32	08.09	+05	32	15.1			413
1992	TC	1992	12	10.57549	02	32	08.21	+05	32	19.2			413
1992	UB	1992	11	13.62535	02	20	39.68	-12	44	55.2	15.7	V	413
1992	UB	1992	12	10.56799	02	26	10.25	+05	53	07.2			413
1992	UB	1992	12	10.57134	02	26	10.38	+05	53	14.4			413
1992	UB	1992	12	12.47723	02	27	26.58	+06	54	56.9			413
1992	UB	1993	01	06.44089	02	52	30.46	+17	20	28.5			413
1992	VM	1993	01	05.52433	03	30	52.30	-03	50	06.7			413
1992	VM	1993	01	05.52623	03	30	52.49	-03	50	03.5			413
1992	VM	1993	01	06.48627	03	32	29.79	-03	25	16.1			413
1992	VM	1993	01	06.49323	03	32	30.41	-03	25	06.4			413
1992	VM	1993	01	06.50038	03	32	31.16	-03	24	54.1			413
1992	VM	1993	05	11.38774	07	48	10.53	+19	23	49.2			413
1992	VM	1993	05	11.39066	07	48	10.80	+19	23	48.6			413
1992	XA	1992	12	11.57513	04	19	11.82	+05	55	07.6			413
1992	XA	1992	12	11.58031	04	19	11.64	+05	54	59.7			413
1993	BW3	1993	05	10.45223	09	41	08.00	-00	36	42.2			413
1993	BW3	1993	05	10.45613	09	41	08.15	-00	36	42.8			413
1993	BW3	1993	05	11.41828	09	41	44.55	-00	38	48.5			413
1993	BW3	1993	05	11.42190	09	41	44.69	-00	38	48.8			413
1993	BX3	1993	01	19.64072	09	51	18.14	-36	27	23.4			413

1993	BX3		1993	02	03.75675	11	02	22.54	-21	14	35.6		413
1993	BX3		1993	03	03.49624	11	27	27.20	-01	36	38.2		413
1993	BX3		1993	03	03.49882	11	27	27.15	-01	36	33.6		413
1993	EA		1986	04	08.62716	13	39	01.48	+01	37	09.3	F	413
1993	EA		1989	04	14.69472	16	17	18.62	-09	39	32.3		413
1993	EA		1989	04	14.76417	16	17	18.20	-09	38	48.9		413
1993	EM		1993	05	10.63878	12	51	49.57	-34	46	48.9		413
1993	EM		1993	05	10.66630	12	51	49.08	-34	46	15.4		413
1993	EM		1993	05	10.66917	12	51	49.03	-34	46	12.0		413
1993	HB1		1993	04	17.42500	11	52	53.91	-03	55	47.3		413
1993	HB1		1993	04	17.45278	11	52	53.43	-03	55	06.7		413
1993	HB1		1993	04	18.52310	11	52	42.26	-03	28	08.9	V	413
1993	HB1		1993	04	18.56824	11	52	41.66	-03	26	57.8	F	413
1993	HB1	*	1993	04	21.50452	11	52	23.79	-02	15	46.9	18.5 V	413
1993	HB1		1993	04	21.52883	11	52	23.56	-02	15	13.8		413
1993	HB1		1993	04	21.56478	11	52	23.44	-02	14	21.8		413
1993	HB1		1993	04	21.58909	11	52	23.18	-02	13	48.3		413
1993	HC1		1976	08	19.37664	17	04	32.87	-58	30	04.9	19 V	V 413
1993	HC1		1976	08	19.41831	17	04	35.32	-58	29	40.0		V 413
1993	HC1		1980	07	19.76429	00	04	44.36	-32	41	12.6	19 V	F 413
1993	HC1		1993	04	18.42500	12	38	41.93	-03	52	37.6		413
1993	HC1		1993	04	18.45278	12	38	39.15	-03	53	02.5		413
1993	HC1	*	1993	04	21.59662	12	33	45.28	-04	40	23.0	17 V	413
1993	HC1		1993	04	21.62440	12	33	42.79	-04	40	47.7		b 413
1993	HC1		1993	04	26.64688	12	26	39.95	-05	55	34.2		413
1993	HD1		1993	04	20.45670	10	52	25.10	+01	38	00.6		413
1993	HD1		1993	04	20.50184	10	52	24.94	+01	38	40.1		413
1993	HD1	*	1993	04	21.44983	10	52	24.82	+01	52	29.2	18 V	413
1993	HD1		1993	04	21.49497	10	52	24.72	+01	53	07.4		413
1993	HJ1		1993	04	29.62883	11	34	14.70	-05	35	10.5		413
1993	HJ1		1993	05	15.45833	11	43	38.27	-01	31	18.7	16 V	413
1993	HJ1		1993	05	15.50000	11	43	40.06	-01	30	48.8		b 413
1993	HJ1		1993	05	17.57951	11	45	22.15	-01	06	37.9		413
1993	HO1	*	1993	04	20.67001	14	55	17.44	-20	34	17.6	17.5 V	413
1993	HO1		1993	04	20.70473	14	55	13.93	-20	34	18.8		413
1993	HO1		1993	04	26.65900	14	45	30.41	-20	32	59.2	17 V	413
1993	HO1		1993	04	26.71528	14	45	24.67	-20	32	55.6		413
1993	HO1		1993	04	29.72234	14	40	35.62	-20	29	39.0		413
1993	HO1		1993	04	30.64549	14	39	09.05	-20	28	22.4		413
1993	HO1		1993	05	10.47021	14	25	09.27	-20	08	56.6		413
1993	HO1		1993	05	10.47326	14	25	09.03	-20	08	56.1		413
1993	HO1		1993	05	10.72317	14	24	49.20	-20	08	20.1		413
1993	HO1		1993	05	10.72551	14	24	49.00	-20	08	19.9		413
1993	HO1		1993	05	11.43267	14	23	57.54	-20	06	42.0		413
1993	HO1		1993	05	11.43436	14	23	57.39	-20	06	41.8		413
1993	HO1		1993	05	11.73316	14	23	34.39	-20	05	58.6		413
1993	HO1		1993	05	11.73569	14	23	34.21	-20	05	58.2		413
1993	HQ1		1993	04	17.47083	11	52	29.56	-05	46	05.7		413
1993	HQ1		1993	04	17.49861	11	52	27.49	-05	46	18.1		413
1993	HQ1	*	1993	04	18.52310	11	51	13.94	-05	54	32.3	17.5 V	413
1993	HQ1		1993	04	18.56824	11	51	10.62	-05	54	54.1		413
1993	HQ1		1993	04	29.62883	11	40	57.58	-07	24	10.0		413
1993	HA2		1993	05	11.61686	14	05	21.24	-14	02	11.1		413
1993	HA2		1993	05	11.62031	14	05	21.19	-14	02	10.9		413
1993	HA2		1993	05	11.65243	14	05	20.74	-14	02	09.3		413
1993	HA2		1993	05	11.65671	14	05	20.68	-14	02	09.2		413
5166	T-3		1990	11	20.61205	04	40	35.73	+02	47	10.3		413
5166	T-3		1990	11	20.66413	04	40	33.00	+02	46	59.8	F	413

(697)		1990 08 19.48785	17 46 33.69	-43 41 13.1					413
(1048)		1990 08 19.48785	17 54 01.10	-42 23 25.1					413
(1136)		1993 04 18.52310	11 48 51.14	-03 53 24.5					413
(1136)		1993 04 18.56824	11 48 49.63	-03 53 07.7					413
(1136)		1993 05 17.57951	11 40 27.29	-01 33 21.6					413
(1812)		1985 07 20.54493	18 18 41.30	-09 11 47.8					413
(2062)		1992 12 10.54640	01 01 49.54	-35 47 08.3					413
(2062)		1992 12 10.55012	01 01 49.82	-35 46 55.8					413
(2062)		1992 12 11.46279	01 03 06.07	-34 54 29.8					413
(2062)		1992 12 11.46498	01 03 06.25	-34 54 21.8					413
(5178)		1993 04 29.71540	14 39 23.78	-22 23 43.3				b	413
(5178)		1993 04 30.64549	14 38 23.20	-22 19 42.9					413
(5289)		1985 07 20.54493	18 17 05.75	-07 35 30.1					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

1982 MA		1993 04 01.59637	12 25 36.72	-02 36 45.3	18.2				474
1982 MA		1993 04 01.62571	12 25 35.01	-02 36 34.1					474
1982 MA		1993 04 23.48912	12 07 51.76	-00 39 57.6					474
1982 MA		1993 04 24.38659	12 07 18.89	-00 36 19.5	18.8				474
1982 MA		1993 04 24.43404	12 07 17.09	-00 36 08.2					474
1988 LH		1993 04 24.47449	15 30 36.53	-20 55 52.9	17.7				474
1988 LH		1993 04 24.49587	15 30 35.49	-20 55 44.9					474
1993 BW3		1993 03 15.43872	09 45 34.54	-00 55 07.7	18.7				474
1993 BW3		1993 03 15.48108	09 45 31.87	-00 55 01.9					474
1993 BW3		1993 03 23.38144	09 38 39.47	-00 39 10.0	18.7				474
1993 BW3		1993 03 23.42299	09 38 37.66	-00 39 04.7					474
1993 BX3		1993 02 18.48241	11 24 16.86	-09 19 43.9					474
1993 BX3		1993 02 18.50035	11 24 17.09	-09 18 58.9	17.3				474
1993 BX3		1993 02 23.54684	11 26 28.33	-06 00 15.9	18.0				474
1993 BX3		1993 02 23.56495	11 26 28.11	-05 59 35.2					474
1993 BX3		1993 03 22.50994	11 26 58.48	+04 55 45.9				t	474
1993 BX3		1993 03 22.56616	11 26 58.05	+04 56 27.9	18.7			t	474
1993 BX3		1993 03 23.47102	11 27 03.84	+05 07 31.1	18.4				474
1993 BX3		1993 03 23.50343	11 27 03.64	+05 07 53.9					474
1993 ET		1993 03 25.45684	12 32 40.89	-02 55 31.1	16.1				474
1993 ET		1993 03 25.46454	12 32 40.43	-02 55 23.3					474
1993 FM		1993 04 01.59637	12 25 28.37	-02 50 06.3	18.5				474
1993 FM		1993 04 01.62571	12 25 27.05	-02 49 58.8					474
1993 FN		1993 04 01.65207	12 22 23.19	-03 19 52.6	18.0				474
1993 FN		1993 04 01.67860	12 22 21.45	-03 19 51.6					474
1993 FP		1993 04 01.59637	12 25 50.01	-02 37 56.9	15.6				474
1993 FP		1993 04 01.62571	12 25 48.42	-02 37 43.1					474
1993 FP		1993 04 23.42037	12 10 28.62	-00 18 28.0					474
1993 FP		1993 04 23.44392	12 10 27.91	-00 18 21.1	17.2				474
1993 FP		1993 04 27.37236	12 08 46.81	-00 01 04.6	16.1				474
1993 FP		1993 04 27.39062	12 08 46.39	-00 01 00.7					474
1993 FP		1993 04 27.41655	12 08 45.73	-00 00 54.3					474
1993 HL5	*	1993 04 23.42037	12 09 46.07	-00 13 15.0					474
1993 HL5		1993 04 23.44392	12 09 45.25	-00 13 11.2	18.6				474
1993 HL5		1993 04 27.37236	12 07 46.17	-00 01 38.4	18.5				474
1993 HL5		1993 04 27.41655	12 07 44.89	-00 01 32.3					474
1993 HM5	*	1993 04 23.48912	12 08 44.32	-00 46 04.1					474
1993 HM5		1993 04 24.38659	12 08 19.73	-00 43 00.4	19.1				474
1993 HM5		1993 04 24.43404	12 08 18.27	-00 42 50.2					474

(243)	1993 02 18.55243	12 25 30.60	-03 39 04.8				474
(243)	1993 02 18.55613	12 25 30.50	-03 39 05.2				474
(243)	1993 02 23.65176	12 23 05.32	-03 26 13.9				474
(243)	1993 02 23.65593	12 23 05.19	-03 26 13.2				474
(243)	1993 02 23.65847	12 23 05.11	-03 26 13.1				474
(243)	1993 03 15.56661	12 09 31.12	-02 07 45.4				474
(243)	1993 03 15.56939	12 09 30.99	-02 07 44.6				474
(243)	1993 03 15.57228	12 09 30.84	-02 07 43.7				474
(243)	1993 03 22.61766	12 03 51.30	-01 33 27.5				474
(243)	1993 03 22.62102	12 03 51.15	-01 33 26.6				474
(243)	1993 03 22.62414	12 03 50.99	-01 33 25.7				474
(243)	1993 03 23.53826	12 03 06.82	-01 28 54.9				474
(243)	1993 03 23.54104	12 03 06.67	-01 28 54.0				474
(2325)	1993 03 22.50994	11 27 52.77	+05 04 50.1	17		t	474
(2325)	1993 03 23.47102	11 27 12.87	+05 09 20.0	17		t	474
(2325)	1993 03 23.50343	11 27 11.42	+05 09 28.5			t	474

568 Mauna Kea Observatory
D. J. Tholen, Institute for Astronomy, 2680 Woodlawn Drive,
Honolulu, HI 96822, U.S.A.
Observers J. F. Bell, W. F. Golisch, D. M. Griep, C. D. Kaminski,
G. J. Veeder
IRTF encoders
Ida93 catalogue

(243)	1993 02 18.59722	12 25 29.25	-03 39 04.2				568
(243)	1993 02 18.59931	12 25 29.17	-03 39 04.2				568
(243)	1993 02 18.61424	12 25 28.79	-03 39 02.1				568
(243)	1993 02 18.61563	12 25 28.75	-03 39 02.1				568
(243)	1993 04 22.36944	11 43 24.23	+00 35 03.6			b	568
(243)	1993 04 22.37101	11 43 24.17	+00 35 04.5			b	568

571 Cavriana
L. Lai, via Mantovana 130, I-37062 Dossobuono (Verona), Italy
Observers L. Lai, I. Rocchetti, G. Vesentini
0.40-m f/5 reflector + CCD
GSC

(1582)	1993 01 19.86133	05 52 32.84	+24 13 24.3				571
(1582)	1993 01 19.87006	05 52 32.61	+24 13 24.9				571
(1582)	1993 01 19.88433	05 52 31.97	+24 13 26.4				571
(1582)	1993 01 27.85174	05 48 01.46	+24 30 24.0				571
(1582)	1993 01 27.86193	05 48 01.19	+24 30 25.1				571
(1582)	1993 01 27.86781	05 48 00.98	+24 30 26.1				571
(3032)	1993 01 19.86133	05 52 34.62	+24 13 24.2				571
(3032)	1993 01 19.87006	05 52 34.34	+24 13 24.9				571
(3032)	1993 01 19.88433	05 52 33.73	+24 13 25.7				571
(3032)	1993 01 27.87330	05 48 28.41	+24 18 18.1				571
(3032)	1993 01 27.88187	05 48 28.19	+24 18 18.3				571
(3032)	1993 01 27.88776	05 48 28.06	+24 18 18.5				571

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

1992 WD5	1993 04 18.83508	09 17 34.04	+18 04 52.3	17.3	V		587
1992 WD5	1993 04 18.84392	09 17 35.37	+18 04 38.9				587
1992 WD5	1993 04 18.85938	09 17 37.77	+18 04 17.2				587
1992 WD5	1993 04 18.87258	09 17 39.80	+18 03 58.5				587

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

1993 FT		1993 04 09.80497	11 53 41.88	+00 27 00.7			589
1993 FT		1993 04 09.83715	11 53 40.50	+00 27 08.0			589
1993 FT		1993 04 18.86502	11 47 37.22	+00 55 50.8			589
1993 FT		1993 04 18.89296	11 47 36.18	+00 55 54.8			589
1993 FT		1993 04 19.92546	11 47 01.29	+00 58 30.9			589
1993 FT		1993 04 19.95114	11 47 00.41	+00 58 34.4			589
1993 FT		1993 04 23.89922	11 45 01.99	+01 07 04.8			589
1993 FT		1993 04 23.97178	11 45 00.05	+01 07 14.6			589
1993 FU		1993 04 08.88037	11 56 42.11	+00 21 53.3			589
1993 FU		1993 04 08.89817	11 56 41.39	+00 21 57.2			589
1993 FU		1993 04 08.91610	11 56 40.62	+00 22 01.3			589
1993 FU		1993 04 16.82530	11 51 43.51	+00 51 03.2			589
1993 FU		1993 04 16.83896	11 51 42.97	+00 51 05.7			589
1993 FU		1993 04 20.79919	11 49 35.45	+01 03 22.5			589
1993 FU		1993 04 20.81626	11 49 34.90	+01 03 25.4			589
1993 FU		1993 04 23.81635	11 48 09.28	+01 11 33.9			589
1993 FU		1993 04 23.83663	11 48 08.72	+01 11 36.4			589
1993 FU		1993 05 08.83076	11 43 40.04	+01 35 24.2			589
1993 FU		1993 05 08.85712	11 43 39.82	+01 35 25.0			589
1993 FU		1993 05 08.89196	11 43 39.46	+01 35 26.8			589
1993 FU		1993 05 08.90728	11 43 39.30	+01 35 27.4			589
1993 FU		1993 05 09.82809	11 43 32.02	+01 35 56.8			589
1993 FU		1993 05 09.85750	11 43 31.77	+01 35 57.8			589
1993 HB	*	1993 04 17.81642	11 48 07.76	+00 59 26.1		17.5	589
1993 HB		1993 04 17.86226	11 48 06.32	+00 59 37.3			589
1993 HB		1993 04 17.89476	11 48 05.22	+00 59 44.2			589
1993 HB		1993 04 17.90912	11 48 04.67	+00 59 48.7			589
1993 HB		1993 04 17.93331	11 48 03.88	+00 59 53.9			589
1993 HB		1993 04 18.86502	11 47 35.08	+01 03 27.0			589
1993 HB		1993 04 18.87906	11 47 34.64	+01 03 30.3			589
1993 HB		1993 04 18.89296	11 47 34.26	+01 03 33.7			589
1993 HB		1993 04 18.90176	11 47 33.88	+01 03 35.3			589
1993 HB		1993 04 19.83342	11 47 06.36	+01 07 00.3			589
1993 HB		1993 04 19.86124	11 47 05.47	+01 07 07.2			589
1993 HB		1993 04 19.89626	11 47 04.48	+01 07 13.0			589
1993 HB		1993 04 20.85194	11 46 37.70	+01 10 34.2			589
1993 HB		1993 04 20.89648	11 46 36.42	+01 10 42.0			589
1993 HB		1993 04 20.91136	11 46 36.04	+01 10 45.3			589
1993 HB		1993 04 20.92546	11 46 35.57	+01 10 48.7			589
1993 HB		1993 04 21.87950	11 46 10.42	+01 13 56.7			589
1993 HB		1993 04 21.89367	11 46 09.95	+01 13 59.7			589
1993 HB		1993 04 21.90914	11 46 09.59	+01 14 03.0			589
1993 HB		1993 04 21.92194	11 46 09.16	+01 14 05.9			589
1993 HB		1993 04 21.93619	11 46 08.81	+01 14 08.7			589
1993 HB		1993 04 23.85239	11 45 22.59	+01 20 00.8			589
1993 HB		1993 04 23.86631	11 45 22.27	+01 20 02.9			589
1993 HB		1993 04 23.88097	11 45 21.99	+01 20 05.5			589
1993 HU1	*	1993 04 17.94924	11 50 57.61	+01 02 18.0			589
1993 HU1		1993 04 17.95934	11 50 57.31	+01 02 21.0			589
1993 HU1		1993 04 17.96558	11 50 57.11	+01 02 23.1			589
1993 HU1		1993 04 21.83160	11 48 56.19	+01 15 22.1			589
1993 HU1		1993 04 21.84478	11 48 55.88	+01 15 24.1			589
1993 HU1		1993 04 21.85792	11 48 55.55	+01 15 27.2			589
1993 KE	*	1993 05 22.01865	13 50 03.90	+05 54 56.6		17	589

1993 KE		1993 05 22.02721	13 50 03.66	+05 54 56.9				589
1993 KE		1993 05 22.91330	13 49 41.02	+05 56 40.2				589
1993 KE		1993 05 22.92422	13 49 40.73	+05 56 41.3				589
1993 KE		1993 05 22.93548	13 49 40.45	+05 56 43.4				589
1993 KE		1993 05 22.95825	13 49 39.90	+05 56 45.0				589

595 Farra d'Isonzo
L. Bittesini, Via dei Conventi 10, I-34070 Farra D'Isonzo (GO), Italy
Observers W. Boschin, F, Damonte, G. Lombardi, E. Pettarin, A. Toso
Measurers E. Pettarin, A. Toso
0.4-m f/4.5 reflector
PPM

1991 AO2		1993 05 21.84822	16 45 59.68	-05 17 43.2	17.9			595
1991 AO2		1993 05 21.86253	16 45 58.99	-05 17 39.8				595
1991 AO2		1993 05 21.87741	16 45 58.26	-05 17 36.5				595
1991 AO2		1993 05 21.90373	16 45 56.95	-05 17 30.0				595
1991 AO2		1993 05 21.94360	16 45 54.95	-05 17 20.6				595
1991 AO2		1993 05 21.97596	16 45 53.34	-05 17 13.0				595
1991 AO2		1993 05 22.86889	16 45 09.42	-05 13 39.9				595
1991 AO2		1993 05 22.88328	16 45 08.69	-05 13 36.4				595
1991 AO2		1993 05 22.89728	16 45 08.00	-05 13 33.5				595
1993 KD	*	1993 05 21.84822	16 45 59.84	-05 18 51.1	17.6			595
1993 KD		1993 05 21.86253	16 45 59.08	-05 18 44.5				595
1993 KD		1993 05 21.87741	16 45 58.25	-05 18 36.3				595
1993 KD		1993 05 21.90373	16 45 56.90	-05 18 23.2				595
1993 KD		1993 05 21.94360	16 45 54.79	-05 18 03.0				595
1993 KD		1993 05 21.97596	16 45 53.24	-05 17 46.9			I	595
1993 KD		1993 05 22.86889	16 45 07.75	-05 10 21.3				595
1993 KD		1993 05 22.88328	16 45 07.00	-05 10 14.1				595
1993 KD		1993 05 22.89728	16 45 06.26	-05 10 07.7				595

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

(22)		1993 04 23.85249	11 50 02.13	+19 13 58.3				597
(22)		1993 04 23.85861	11 50 01.97	+19 13 57.2				597
(42)		1993 04 28.92024	13 33 58.70	+02 39 13.0				597
(42)		1993 04 28.92645	13 33 58.36	+02 39 13.8				597
(128)		1993 04 28.90108	12 55 58.28	+02 03 40.6				597
(128)		1993 04 28.91315	12 55 57.80	+02 03 42.0				597
(411)		1993 04 28.95367	15 24 28.59	+03 21 18.2				597
(411)		1993 04 28.96843	15 24 27.91	+03 21 19.8				597
(471)		1993 04 23.87241	12 43 56.64	+16 12 59.4				597
(471)		1993 04 23.88391	12 43 56.21	+16 12 59.2				597
(511)		1993 04 28.93500	14 43 43.67	+06 16 46.9				597
(511)		1993 04 28.94699	14 43 43.17	+06 16 48.7				597
(772)		1993 04 20.90822	14 04 21.54	+19 01 20.5				597
(772)		1993 04 20.91669	14 04 21.05	+19 01 18.4				597

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

1978 GA		1993 04 14.39791	14 20 12.78	-02 40 20.6				657
1978 GA		1993 04 14.40117	14 20 12.54	-02 40 19.7				657
1978 GA		1993 04 14.40373	14 20 12.49	-02 40 17.7				657
1984 FS		1993 05 14.35256	14 59 06.40	+05 56 08.3	16.1			657
1984 FS		1993 05 14.35509	14 59 06.30	+05 56 08.6				657
1984 FS		1993 05 14.35808	14 59 06.14	+05 56 09.0				657

1984 FS	1993 05 18.33976	14 55 55.26	+06 03 11.5	16.2		657
1984 FS	1993 05 18.34506	14 55 55.02	+06 03 12.1			657
1984 FS	1993 05 18.34719	14 55 54.90	+06 03 12.0			657
1985 CT	1993 05 14.42597	16 11 41.56	+14 10 28.8	17.4		657
1985 CT	1993 05 14.43153	16 11 41.24	+14 10 30.5			657
1985 CT	1993 05 14.43529	16 11 41.02	+14 10 31.8			657
1985 CT	1993 05 18.38942	16 07 58.56	+14 26 13.9	17.2		657
1985 CT	1993 05 18.39549	16 07 58.22	+14 26 15.0			657
1985 CT	1993 05 18.39778	16 07 58.06	+14 26 15.5			657
1986 WQ2	1993 04 14.44580	16 09 03.28	+16 19 14.5			657
1986 WQ2	1993 04 14.44803	16 09 03.20	+16 19 15.2			657
1986 WQ2	1993 04 14.45122	16 09 03.08	+16 19 16.2			657
1991 VF5	1993 04 14.40852	14 28 59.10	-02 49 05.1			657
1991 VF5	1993 04 14.41550	14 28 58.70	-02 49 01.8			657
1991 VF5	1993 04 14.41856	14 28 58.51	-02 49 01.0			657
1993 EL	1993 05 14.29485	12 06 00.60	+27 33 17.5	17.8		657
1993 EL	1993 05 14.30142	12 06 00.82	+27 33 11.5			657
1993 EL	1993 05 14.30439	12 06 01.04	+27 33 08.8			657
(4490)	1993 05 14.44179	16 43 50.65	+23 24 53.1	16.1		657
(4490)	1993 05 14.44516	16 43 50.44	+23 24 54.1			657
(4490)	1993 05 14.44756	16 43 50.29	+23 24 54.7			657
(5517)	1993 04 14.38502	14 19 22.55	+10 03 09.2			657
(5517)	1993 04 14.38764	14 19 22.40	+10 03 09.7			657
(5517)	1993 04 14.39140	14 19 22.17	+10 03 10.1			657
(5551)	1993 04 14.45744	16 33 20.17	+17 12 13.5			657
(5551)	1993 04 14.46583	16 33 19.98	+17 12 17.3			657
(5551)	1993 04 14.47015	16 33 19.88	+17 12 19.2			657

658 Dominion Astrophysical Observatory, Victoria
J. B. Tatum, Dept. of Physics, University of Victoria, P.O. Box 1700, Victoria, BC V8W 2Y2, Canada
Observers J. B. Tatum, D. D. Balam, G. C. L. Aikman
1.85-m reflector + CCD
GSC

1992 WD5	1993 04 18.30747	09 16 10.81	+18 17 12.7	17.7		658
1992 WD5	1993 04 18.31144	09 16 11.52	+18 17 06.4			658

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

(2463)	1993 03 31.21728	12 36 07.19	+00 12 04.1	15.3 V		670
(2463)	1993 03 31.23792	12 36 06.19	+00 12 17.4			670
(2463)	1993 03 31.25877	12 36 05.24	+00 12 29.9			670
(2463)	1993 04 03.27541	12 33 44.84	+00 43 02.5	15.8 V		670
(2463)	1993 04 03.29136	12 33 44.09	+00 43 13.1			670
(3329)	1993 04 27.18800	11 44 43.32	+02 47 59.7	16.8 V		670
(3329)	1993 04 27.20381	11 44 42.78	+02 47 58.9			670
(3329)	1993 04 27.22459	11 44 42.28	+02 47 59.8			670
(3329)	1993 04 27.24542	11 44 41.76	+02 47 57.5			670

674 Ford Observatory, Wrightwood
J. B. Child, World Space Foundation, P.O. Box Y, South Pasadena, CA 91031, U.S.A.
Observers J. B. Child, J. E. Rogers

1993 FZ	1993 05 22.29537	11 47 03.66	+03 00 48.4	16.9 V		674
1993 FZ	1993 05 22.31140	11 47 04.19	+03 00 45.8			674
1993 FZ	1993 05 22.33223	11 47 04.90	+03 00 42.6			674

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)
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The Netherlands (4)
E. Bowell, Lowell Observatory, 1400 West Mars Hill Road,
Flagstaff, AZ 86001, U.S.A. (6)
9 = 3 + 6
Observers R. Bambery (2, S), T. Gehrels (4, L), E. Helin (2, S), H. E. Holt (3, S), C. T. Kowal (6, L), K. Lawrence (2, S), D. H. Levy (3, S), M. Nassir (2, S), C. S. Shoemaker (3, S), E. M. Shoemaker (3, S), N. Thomas (3, S)
Measurers J. Alu (2), B. M. Cudnik (3), K. Lawrence (2), C. S. Shoemaker (3), B. A. Skiff (9), C. J. van Houten (4), I. van Houten-Groeneveld (4), A. Wisse (4)
1.2-m (L) and 0.46-m (S) Schmidt telescopes

1953 PH1	*	1953 08 15.31979	20 59 38.68	-10 35 19.4	17.5	6	675
1953 PH1		1953 08 15.34306	20 59 37.62	-10 35 31.8		6	675
1953 PJ1	*	1953 08 15.31979	21 01 45.31	-11 24 02.6	17.5	6	675
1953 PJ1		1953 08 15.34306	21 01 43.99	-11 24 01.6		6	675
1953 PK1	*	1953 08 15.31979	21 02 41.48	-11 34 01.8	16.5	6	675
1953 PK1		1953 08 15.34306	21 02 40.30	-11 34 08.8		6	675
1953 PL1	*	1953 08 15.31979	21 04 25.11	-14 24 19.1	16.5	6	675
1953 PL1		1953 08 15.34306	21 04 23.95	-14 24 33.3		6	675
1953 PM1	*	1953 08 15.31979	21 05 18.37	-14 27 14.5	17.5	6	675
1953 PM1		1953 08 15.34306	21 05 17.16	-14 27 13.6		6	675
1953 XV1	*	1953 12 07.42396	06 46 17.72	+32 18 49.0		6	675
1953 XV1		1953 12 07.44792	06 46 16.35	+32 18 51.8		6	675
1955 OL	*	1955 07 24.40347	22 00 48.42	-16 23 48.7		6	675
1955 OL		1955 07 24.43056	22 00 47.39	-16 23 52.2		6	675
1955 OM	*	1955 07 24.40347	22 03 45.28	-19 59 25.3	17.5	6	675
1955 OM		1955 07 24.43056	22 03 44.41	-19 59 33.4		6	675
1955 XK1	*	1955 12 11.36076	06 15 27.28	+10 56 46.3	18.2	6	675
1955 XK1		1955 12 11.38264	06 15 25.86	+10 56 48.6		6	675
1956 GX	*	1956 04 09.41146	14 38 25.06	-16 50 57.4		6	675
1956 GX		1956 04 09.43264	14 38 24.26	-16 50 59.5		6	675
1976 GD2		1993 04 23.46493	15 44 00.26	-13 22 46.8	15.0	2	675
1976 GD2		1993 04 23.49349	15 43 59.24	-13 22 29.9		2	675
1976 GD2		1993 04 25.48229	15 42 51.96	-13 02 34.5		2	675
1976 GD2		1993 04 25.49948	15 42 51.34	-13 02 24.9		2	675
1976 QN		1991 02 13.40191	11 10 52.43	+05 25 33.9		9	675
1976 QN		1991 02 13.44063	11 10 50.53	+05 25 44.1		9	675
1977 DU		1955 07 24.40347	22 09 25.94	-15 28 36.8		6	675
1977 DU		1955 07 24.43056	22 09 24.58	-15 28 42.1		6	675
1978 TP2		1953 08 15.31979	21 05 38.39	-13 34 28.0		6	675
1978 TP2		1953 08 15.34306	21 05 37.05	-13 34 35.9		6	675
1979 HE3		1992 11 25.32691	03 40 40.30	+19 44 12.9	18.5	9	675
1979 HE3		1992 11 25.35885	03 40 38.11	+19 44 09.5		9	675
1979 HE3		1992 11 28.28993	03 37 30.83	+19 37 19.2		9	675
1979 HE3		1992 11 28.32344	03 37 28.68	+19 37 17.2		9	675
1979 MY2		1992 11 25.32691	03 50 03.77	+19 49 50.4		9	675
1979 MY2		1992 11 25.35885	03 50 01.87	+19 49 42.9	18.5	9	675
1979 MY2		1992 11 28.28993	03 47 04.91	+19 36 00.7		9	675
1980 FR1		1991 02 13.40191	10 57 05.72	+05 37 57.9		9	675
1980 FR1		1991 02 13.44063	10 57 04.19	+05 38 07.3		9	675
1980 FF12		1955 07 24.40347	22 14 13.84	-14 04 58.3		6	675
1980 FF12		1955 07 24.43056	22 14 12.49	-14 05 03.7		6	675
1981 DZ		1992 11 25.32691	03 34 01.85	+19 58 14.7		9	675

1981	DZ	1992	11	25.35885	03	33	59.81	+19	58	02.2		9	675
1981	DZ	1992	11	28.28993	03	31	21.82	+19	40	20.6		9	675
1981	DZ	1992	11	28.32344	03	31	19.92	+19	40	07.6		9	675
1981	EL4	1955	04	18.21389	10	47	45.33	-01	56	12.4		6	675
1981	EL4	1955	04	18.23889	10	47	44.89	-01	56	08.8		6	675
1981	EC8	1992	11	25.32691	03	47	13.47	+19	29	08.6		9	675
1981	EC8	1992	11	25.35885	03	47	11.26	+19	28	57.0		9	675
1981	EC8	1992	11	28.28993	03	44	00.67	+19	10	26.4		9	675
1981	EC8	1992	11	28.32344	03	43	58.50	+19	10	13.7		9	675
1981	EZ47	1992	11	25.32691	03	47	56.24	+23	38	30.6		9	675
1981	EZ47	1992	11	25.35885	03	47	54.33	+23	38	25.4		9	675
1981	EZ47	1992	11	28.28993	03	45	12.50	+23	31	44.8		9	675
1981	EZ47	1992	11	28.32344	03	45	10.49	+23	31	40.1		9	675
1981	JB3	1992	11	25.34097	04	18	10.22	+23	03	17.3		9	675
1981	JB3	1992	11	25.37274	04	18	07.83	+23	03	15.8		9	675
1981	JB3	1992	11	28.34583	04	14	29.82	+23	00	54.0		9	675
1981	JB3	1992	11	28.38090	04	14	27.19	+23	00	51.6		9	675
1982	BA	1953	08	15.31979	20	43	57.61	-14	31	07.1		6	675
1982	BA	1953	08	15.34306	20	43	56.45	-14	31	17.4		6	675
1982	UQ6	1992	11	25.34097	04	32	16.56	+20	53	37.6		9	675
1982	UQ6	1992	11	25.37274	04	32	14.80	+20	53	33.6		9	675
1982	UQ6	1992	11	28.34583	04	29	29.03	+20	46	20.1		9	675
1982	UQ6	1992	11	28.38090	04	29	27.02	+20	46	14.3		9	675
1983	AN2	1992	11	25.34097	04	22	59.21	+17	45	49.5		9	675
1983	AN2	1992	11	25.37274	04	22	57.34	+17	45	53.5		9	675
1983	AN2	1992	11	28.34583	04	20	04.72	+17	50	50.4		9	675
1983	AN2	1992	11	28.38090	04	20	02.61	+17	50	53.5		9	675
1983	LL	1993	04	14.26545	12	09	45.61	-10	27	57.9	17.5	3	675
1983	LL	1993	04	16.21250	12	08	11.02	-10	14	18.9		3	675
1983	LL	1993	04	16.24461	12	08	09.37	-10	14	06.6		3	675
1983	LL	1993	04	18.20902	12	06	38.99	-10	00	29.0		3	675
1983	RM2	1992	11	25.34097	04	27	15.51	+18	25	43.2		9	675
1983	RM2	1992	11	25.37274	04	27	13.45	+18	25	41.8		9	675
1983	RM2	1992	11	28.34583	04	24	04.10	+18	22	56.9		9	675
1983	RM2	1992	11	28.38090	04	24	01.78	+18	22	54.8		9	675
1984	DB	1991	02	13.40191	11	03	12.05	+05	50	30.0		9	675
1984	DB	1991	02	13.44063	11	03	10.65	+05	51	17.8		9	675
1984	DZ	1991	02	13.40191	11	19	41.62	+06	26	30.5		9	675
1984	DZ	1991	02	13.44063	11	19	39.82	+06	26	31.2		9	675
1986	EM	1986	03	03.30954	09	58	15.86	+10	53	25.9	17.5	3	675
1986	EM	1986	03	05.23438	09	55	20.30	+10	40	57.6		3	675
1986	EM	1986	03	06.25503	09	53	49.66	+10	34	19.6		3	675
1986	EM	1986	03	07.37864	09	52	11.80	+10	26	57.2		3	675
1986	EN	1986	03	05.23438	10	05	16.59	+12	21	55.6	17.5	3	675
1986	EN	1986	03	06.25503	10	04	34.04	+12	43	56.2		3	675
1986	EN	1986	03	07.37864	10	03	47.81	+13	07	55.4		3	675
1986	GD	1992	11	25.32691	03	28	27.61	+21	48	03.2		9	675
1986	GD	1992	11	25.35885	03	28	25.30	+21	47	58.9		9	675
1986	PK6	1955	04	18.21389	11	06	41.65	-02	01	26.9		6	675
1986	PK6	1955	04	18.23889	11	06	41.24	-02	01	19.1		6	675
1986	RX2	1992	11	28.28993	03	54	22.90	+22	48	49.6		9	675
1986	RX2	1992	11	28.32344	03	54	20.92	+22	48	45.4		9	675
1986	UY	1991	02	13.40191	11	21	36.20	+06	12	25.0		9	675
1986	UY	1991	02	13.44063	11	21	34.08	+06	12	31.1		9	675
1986	WM5	1953	08	15.31889	20	54	01.14	-09	45	44.9		6	675
1986	WM5	1953	08	15.34306	20	53	59.87	-09	45	44.5		6	675
1987	HS	1990	01	29.42396	10	17	50.12	+14	28	46.2	18.0	3	675
1987	HS	1990	01	29.45816	10	17	48.59	+14	29	13.0		3	675
1987	HS	1990	01	30.38993	10	17	07.77	+14	41	32.6		3	675

1987	HS	1990	01	30.43047	10	17	05.96	+14	42	03.1		3	675
1987	HS	1990	02	20.27813	09	58	34.07	+19	28	12.7	17.8	3	675
1987	HS	1990	02	20.33524	09	58	30.58	+19	28	59.0		3	675
1987	HS	1990	02	22.32899	09	56	35.57	+19	55	15.8		3	675
1987	HS	1990	02	22.36580	09	56	33.47	+19	55	45.3		3	675
1987	QS1	1992	11	28.26181	03	03	20.07	+27	32	56.8	18.2	9	675
1987	QS1	1992	11	28.29618	03	03	18.02	+27	32	47.9		9	675
1987	QF7	1992	11	25.34097	04	09	57.78	+18	28	43.8		9	675
1987	QF7	1992	11	25.37274	04	09	55.88	+18	28	32.4		9	675
1987	QF7	1992	11	28.34583	04	07	07.07	+18	10	56.7		9	675
1987	QF7	1992	11	28.38090	04	07	04.97	+18	10	44.2		9	675
1987	QR11	1992	11	28.26181	03	06	57.00	+28	54	59.1	17.5	9	675
1987	QR11	1992	11	28.29618	03	06	55.03	+28	54	45.7		9	675
1987	SC4	1953	08	15.31979	20	49	04.74	-11	49	11.4		6	675
1987	SC4	1953	08	15.34306	20	49	03.25	-11	49	09.9		6	675
1988	AA5	1951	01	04.37986	09	31	07.97	+05	20	36.0		6	675
1988	AA5	1951	01	04.40903	09	31	06.87	+05	20	35.9		6	675
1988	BK2	1993	04	14.28072	12	48	14.04	+22	39	51.1	17.5	3	675
1988	BK2	1993	04	16.27604	12	46	12.38	+22	30	10.2		3	675
1988	BK2	1993	04	16.30520	12	46	10.56	+22	30	01.3		3	675
1988	PL1	1993	04	14.37118	15	30	44.69	-35	22	22.8	17.5	3	675
1988	PL1	1993	04	14.40225	15	30	43.35	-35	22	07.8		3	675
1988	RD5	1991	02	13.40191	11	20	35.15	+06	57	41.9		9	675
1988	SP	1992	11	25.34097	04	05	30.76	+19	48	19.7		9	675
1988	SP	1992	11	25.37274	04	05	28.80	+19	48	17.9		9	675
1988	SP	1992	11	28.34583	04	02	32.11	+19	44	55.3		9	675
1988	SP	1992	11	28.38090	04	02	29.81	+19	44	53.0		9	675
1988	TL	1992	11	25.34097	04	16	10.77	+23	41	53.9		9	675
1988	TL	1992	11	25.37274	04	16	08.46	+23	41	46.5		9	675
1988	TL	1992	11	28.34583	04	13	04.71	+23	32	10.4		9	675
1988	TL	1992	11	28.38090	04	13	02.51	+23	32	03.0		9	675
1988	VZ3	1955	04	18.21389	10	51	18.96	-02	51	53.7		6	675
1988	VZ3	1955	04	18.23889	10	51	18.56	-02	51	45.6		6	675
1988	XK	1955	04	18.21389	11	06	38.83	-03	38	09.9		6	675
1988	XK	1955	04	18.23889	11	06	38.56	-03	38	02.8		6	675
1989	CU8	1992	11	25.34097	04	23	30.58	+24	00	15.9		9	675
1989	CU8	1992	11	25.37274	04	23	28.75	+24	00	13.7		9	675
1989	CU8	1992	11	28.34583	04	20	38.26	+23	55	13.9		9	675
1989	CU8	1992	11	28.38090	04	20	36.21	+23	55	10.5		9	675
1989	EL	1955	04	18.21389	11	06	26.67	-02	38	42.5		6	675
1989	EL	1955	04	18.23889	11	06	26.42	-02	38	34.6		6	675
1989	EY1	1992	11	25.34097	04	05	33.27	+21	03	59.9		9	675
1989	EY1	1992	11	25.37274	04	05	31.44	+21	03	56.6		9	675
1989	EY1	1992	11	28.34583	04	02	42.92	+20	59	08.9		9	675
1989	EY1	1992	11	28.38090	04	02	40.88	+20	59	04.7		9	675
1989	KE	1993	04	16.29774	13	38	09.81	+10	06	06.7	17.6	3	675
1989	KE	1993	04	16.32587	13	38	08.38	+10	06	23.3		3	675
1989	KE	1993	04	17.33472	13	37	22.44	+10	15	02.5		3	675
1989	NR	1953	08	15.31979	21	03	57.50	-14	33	37.1		6	675
1989	NR	1953	08	15.34306	21	03	55.95	-14	33	33.5		6	675
1990	BW	1993	04	22.30330	12	44	53.74	+38	08	38.7	16.5	2	675
1990	BW	1993	04	22.32743	12	44	52.48	+38	08	35.6		2	675
1990	BW	1993	04	25.31667	12	42	44.32	+38	00	20.2		2	675
1990	BW	1993	04	25.34774	12	42	42.94	+38	00	13.8		2	675
1990	BZ1	1953	08	15.31979	21	07	28.75	-12	07	26.3		6	675
1990	BZ1	1953	08	15.34306	21	07	27.58	-12	07	31.6		6	675
1990	BZ1	1988	09	11.28485	23	28	56.95	+00	28	38.5	17.5	9	675
1990	BZ1	1988	09	11.31940	23	28	55.19	+00	28	26.0		9	675
1990	BZ1	1988	09	11.33697	23	28	54.26	+00	28	17.8	17.0	9	675

1990	BZ1		1988	09	11.37100	23	28	52.48	+00	28	06.1		9	675
1990	BZ1		1988	09	16.34097	23	24	42.88	-00	01	44.5	17.0	9	675
1990	BZ1		1988	09	16.35597	23	24	42.07	-00	01	50.1		9	675
1990	BZ1		1988	09	16.37413	23	24	41.11	-00	01	56.6		9	675
1990	BZ1		1988	09	16.38872	23	24	40.41	-00	02	03.3		9	675
1990	BZ1		1988	10	07.25938	23	08	55.86	-02	05	54.9	17.5	9	675
1990	BZ1		1988	10	07.28715	23	08	54.91	-02	06	04.4		9	675
1990	BZ1		1988	10	09.23435	23	07	46.51	-02	16	08.6		9	675
1990	BZ1		1988	10	09.26317	23	07	45.44	-02	16	18.1		9	675
1990	OS1		1993	04	17.20816	12	23	18.06	-07	42	43.7	16.6	3	675
1990	OS1		1993	04	17.24757	12	23	15.57	-07	42	46.6		3	675
1990	OS1		1993	04	18.14774	12	22	24.55	-07	43	49.2		3	675
1990	OS1		1993	04	18.17760	12	22	22.79	-07	43	51.5		3	675
1990	OO2		1993	04	14.16094	10	55	13.21	-04	30	56.3	17.8	3	675
1990	OO2		1993	04	14.19740	10	55	12.07	-04	30	51.1		3	675
1990	QS1		1993	04	15.22743	13	03	05.21	-08	37	10.0	17.6	3	675
1990	QS1		1993	04	15.26059	13	03	03.44	-08	37	01.5		3	675
1990	QS1		1993	04	17.27691	13	01	19.44	-08	28	50.9		3	675
1990	QS1		1993	04	17.30382	13	01	17.86	-08	28	44.1		3	675
1990	QB2		1993	04	14.29705	14	00	02.61	-10	01	11.0	18.0	3	675
1990	QB2		1993	04	14.32986	14	00	00.49	-10	01	01.1		3	675
1990	QB2		1993	04	16.34375	13	58	07.33	-09	48	45.8		3	675
1990	QB2		1993	04	16.37344	13	58	05.64	-09	48	34.7		3	675
1990	QD2		1993	04	15.31337	14	16	51.75	-10	31	30.5	17.7	3	675
1990	QD2		1993	04	16.35851	14	15	53.80	-10	26	06.7		3	675
1990	QD2		1993	04	16.38802	14	15	52.06	-10	25	57.9		3	675
1990	QG2		1993	04	14.17240	11	28	13.64	+08	26	40.9	17.6	3	675
1990	QG2		1993	04	14.20729	11	28	12.71	+08	26	49.6		3	675
1990	QG2		1993	04	16.15399	11	27	28.24	+08	36	31.4		3	675
1990	QG2		1993	04	16.18559	11	27	27.43	+08	36	40.8		3	675
1990	QS2		1993	04	14.18090	11	45	54.15	+04	19	26.7	18.0	3	675
1990	QS2		1993	04	14.21250	11	45	53.05	+04	19	33.4		3	675
1990	QL3		1993	04	16.33611	13	58	31.26	-18	52	53.4	17.8	3	675
1990	QL3		1993	04	16.36615	13	58	29.35	-18	52	49.7		3	675
1990	RC3		1993	04	18.24635	12	28	01.98	-04	43	11.6	17.4	3	675
1990	RC3		1993	04	20.24149	12	26	31.20	-04	30	30.1		3	675
1990	RC3		1993	04	20.27275	12	26	29.77	-04	30	18.8		3	675
1990	RW3		1993	04	14.35503	14	46	20.42	-15	51	35.3	18.2	3	675
1990	RW3		1993	04	14.38802	14	46	18.73	-15	51	29.2		3	675
1990	SU10		1993	04	15.28872	13	33	15.30	-15	02	42.8	17.8	3	675
1990	SU10		1993	04	15.32153	13	33	13.70	-15	02	34.3		3	675
1990	SV15		1993	04	18.24635	12	25	25.76	-05	30	08.4	17.6	3	675
1990	SV15		1993	04	20.24149	12	24	08.09	-05	18	56.0		3	675
1990	SV15		1993	04	20.27257	12	24	06.95	-05	18	46.2		3	675
1990	TL4		1993	04	22.23646	11	27	14.34	-08	35	33.2	16.5	2	675
1990	TL4		1993	04	22.26858	11	27	13.53	-08	35	20.1		2	675
1990	TL4		1993	04	25.22934	11	26	02.43	-08	20	07.7		2	675
1990	TL4		1993	04	25.26319	11	26	01.78	-08	19	58.3		2	675
1990	UK1		1951	01	04.37986	09	54	12.50	+07	09	17.8		6	675
1990	UK1		1951	01	04.40903	09	54	11.66	+07	09	17.2		6	675
1991	AY1		1993	04	21.42292	15	36	58.87	-04	33	11.7		2	675
1991	AY1		1993	04	21.45677	15	36	57.48	-04	32	59.3	16.5	2	675
1991	AY1		1993	04	25.42656	15	34	28.86	-04	12	18.4		2	675
1991	AY1		1993	04	25.45486	15	34	27.70	-04	12	09.8		2	675
1991	CS1		1991	02	13.40191	11	00	56.30	+07	22	28.2		9	675
1991	CS1		1991	02	13.44063	11	00	54.83	+07	22	40.7		9	675
1991	CT1		1991	02	13.40191	11	00	31.45	+09	22	20.6		9	675
1991	CT1		1991	02	13.44063	11	00	29.28	+09	22	25.9		9	675
1991	CB6	*	1991	02	13.40191	10	51	00.74	+07	00	14.5	17.2	9	675

1991 CB6		1991	02	13.44063	10	50	58.90	+07	00	35.6			9	675
1991 CC6	*	1991	02	13.40191	11	06	56.02	+08	17	59.2	17.8		9	675
1991 CC6		1991	02	13.44063	11	06	53.85	+08	18	03.8			9	675
1991 DM		1991	02	13.40191	10	55	50.26	+07	47	10.7			9	675
1991 DM		1991	02	13.44063	10	55	48.51	+07	47	25.4			9	675
1991 DH1		1991	02	13.40191	10	50	40.22	+06	33	46.0			9	675
1991 DH1		1991	02	13.44063	10	50	38.74	+06	34	15.1			9	675
1991 EN2		1991	02	13.40191	10	50	22.36	+05	39	44.4			9	675
1991 EN2		1991	02	13.44063	10	50	20.74	+05	39	58.4			9	675
1991 JN1		1955	12	11.36076	06	05	32.56	+13	51	28.0			6	675
1991 JN1		1955	12	11.38264	06	05	31.14	+13	51	27.0			6	675
1991 NE1		1953	12	07.42396	06	31	17.93	+30	33	56.4			6	675
1991 NE1		1953	12	07.44792	06	31	16.61	+30	33	55.4			6	675
1991 NE1		1955	04	18.21389	10	44	04.20	-01	09	10.3			6	675
1991 NE1		1955	04	18.23889	10	44	03.94	-01	09	04.6			6	675
1991 NE1		1992	11	28.21337	02	31	06.68	+27	21	51.7			9	675
1991 NE1		1992	11	28.24879	02	31	05.26	+27	21	39.4			9	675
1991 NG1		1992	11	27.34774	04	35	20.88	+33	43	43.4	17.5		9	675
1991 NG1		1992	11	27.37257	04	35	19.37	+33	43	39.8			9	675
1991 NK1		1992	11	25.21962	02	24	00.96	-00	32	03.4	17.5		9	675
1991 NK1		1992	11	25.25226	02	23	59.79	-00	32	03.8			9	675
1991 NK1		1992	11	26.21632	02	23	26.74	-00	32	09.7			9	675
1991 NK1		1992	11	26.25122	02	23	25.45	-00	32	10.4			9	675
1991 NL1		1992	11	26.19497	02	07	45.17	+11	19	06.7	18.0		9	675
1991 NL1		1992	11	26.23073	02	07	43.93	+11	19	02.7			9	675
1991 NS2		1992	11	28.44097	05	27	01.32	+12	24	32.0			9	675
1991 NT2		1992	11	25.46458	05	45	27.53	+32	54	48.7	17.5		9	675
1991 NT2		1992	11	25.50764	05	45	24.91	+32	54	43.5			9	675
1991 NT2		1992	11	27.44705	05	43	30.31	+32	51	09.5			9	675
1991 OZ		1992	11	25.34097	04	24	38.80	+22	38	18.2			9	675
1991 OZ		1992	11	25.37274	04	24	36.72	+22	38	11.1			9	675
1991 OZ		1992	11	28.34583	04	21	22.38	+22	26	33.0			9	675
1991 OZ		1992	11	28.38090	04	21	20.10	+22	26	25.2			9	675
1991 OL1		1992	11	25.34097	04	12	43.56	+17	51	20.0			9	675
1991 OL1		1992	11	25.37274	04	12	41.84	+17	51	16.3			9	675
1991 OL1		1992	11	28.34583	04	10	05.45	+17	46	35.8			9	675
1991 OL1		1992	11	28.38090	04	10	03.47	+17	46	32.3			9	675
1991 PJ		1955	07	24.40347	21	58	34.35	-14	11	55.4			6	675
1991 PJ		1955	07	24.43056	21	58	33.55	-14	12	07.6			6	675
1991 PQ10		1993	04	14.14566	10	52	10.94	-00	33	40.1	17.0		3	675
1991 PQ10		1993	04	14.18854	10	52	10.30	-00	33	28.4			3	675
1991 PZ11		1992	11	26.33750	04	14	58.00	+36	12	16.4	18.0		9	675
1991 PZ11		1992	11	26.36875	04	14	55.93	+36	12	09.1			9	675
1991 PZ11		1992	11	28.33854	04	12	44.87	+36	04	19.8			9	675
1991 PB12		1992	11	28.28993	03	45	28.83	+22	44	33.3			9	675
1991 PB12		1992	11	28.32344	03	45	27.12	+22	44	24.5			9	675
1991 PH12		1992	11	28.48368	06	33	16.84	+30	44	49.8	17.0		9	675
1991 PH12		1992	11	28.52378	06	33	15.19	+30	44	46.6			9	675
1991 PH12		1992	12	01.47899	06	31	10.61	+30	39	29.8			9	675
1991 PR12		1992	11	25.34097	04	14	14.70	+21	09	51.6	18.8		9	675
1991 PR12		1992	11	25.37274	04	14	12.98	+21	09	45.4			9	675
1991 PR12		1992	11	28.34583	04	11	39.51	+21	02	58.1			9	675
1991 PR12		1992	11	28.38090	04	11	37.66	+21	02	53.3			9	675
1991 PS12		1992	11	26.40747	05	37	09.29	+01	46	11.5	16.2		9	675
1991 PS12		1992	11	26.44045	05	37	07.63	+01	46	05.5			9	675
1991 PS12		1992	11	28.40052	05	35	35.51	+01	41	15.8			9	675
1991 PS12		1992	11	28.43472	05	35	33.83	+01	41	10.4			9	675
1991 PT12		1992	11	28.46927	06	08	44.78	+23	58	59.2	17.8		9	675
1991 PT12		1992	11	28.50330	06	08	43.23	+23	58	59.7			9	675

1991	PT12		1992	12	01.45000	06	06	19.82	+24	00	32.4			9	675
1991	PW12		1992	11	26.19497	01	47	03.38	+11	32	32.7		17.8	9	675
1991	PW12		1992	11	26.23073	01	47	02.38	+11	32	28.2			9	675
1991	PW12		1992	11	28.20625	01	46	10.04	+11	27	36.9			9	675
1991	PW12		1992	11	28.24184	01	46	08.97	+11	27	31.6			9	675
1991	PC13		1992	11	30.48524	06	56	23.77	+28	21	08.1		18.4	9	675
1991	PC13		1992	11	30.52240	06	56	22.08	+28	21	10.7			9	675
1991	PC13		1992	12	01.49844	06	55	37.61	+28	22	41.2			9	675
1991	PC13		1992	12	01.53368	06	55	35.84	+28	22	41.0			9	675
1991	PS16		1992	11	28.50938	07	21	38.55	+15	32	56.0		17.8	9	675
1991	PS16		1992	11	28.54586	07	21	37.66	+15	32	57.8			9	675
1991	PS16		1992	12	01.49149	07	20	23.14	+15	34	05.5			9	675
1991	PS16		1992	12	01.53368	07	20	22.17	+15	34	07.0			9	675
1991	PC18		1992	11	28.48368	06	44	45.67	+27	30	14.5		17.7	9	675
1991	PC18		1992	11	28.52378	06	44	44.21	+27	30	12.5			9	675
1991	RE11		1953	08	15.31979	20	55	47.84	-14	08	05.9			6	675
1991	RE11		1953	08	15.34306	20	55	46.31	-14	08	08.3			6	675
1991	RY16		1992	11	25.45660	05	42	13.66	+26	16	36.0		17.6	9	675
1991	RY16		1992	11	25.50069	05	42	11.40	+26	16	42.1			9	675
1991	RY16		1992	11	27.43889	05	40	33.50	+26	20	36.6			9	675
1991	RX23		1992	11	27.39427	05	05	14.77	+36	48	31.3		18.0	9	675
1991	RX23		1992	11	27.46528	05	05	10.48	+36	48	34.1			9	675
1991	TA1		1993	04	14.31319	15	13	18.94	-07	07	09.6		17	3	675
1991	TA1		1993	04	14.34704	15	13	17.36	-07	06	26.4			3	675
1991	TA1		1993	04	16.41979	15	11	42.68	-06	21	27.4			3	675
1991	TA1		1993	04	16.46406	15	11	40.52	-06	20	30.7			3	675
1991	YF		1953	08	15.31979	21	00	36.79	-11	11	47.3			6	675
1991	YF		1953	08	15.34306	21	00	35.33	-11	11	50.0			6	675
1992	FA1		1951	01	04.37986	09	37	10.47	+08	04	02.3			6	675
1992	FA1		1951	01	04.40903	09	37	09.65	+08	04	01.4			6	675
1992	HJ		1955	07	24.40347	21	55	53.93	-15	14	38.6			6	675
1992	HJ		1955	07	24.43056	21	55	52.77	-15	14	49.7			6	675
1992	SU14		1992	11	25.20017	01	44	23.35	+31	09	12.9			9	675
1992	SU14		1992	11	25.23333	01	44	21.94	+31	09	06.4			9	675
1992	SU14		1992	11	28.19253	01	42	31.36	+30	58	11.5			9	675
1992	SU14		1992	11	28.22726	01	42	30.02	+30	58	03.5			9	675
1992	UU4		1992	11	25.32691	03	27	28.46	+18	21	31.2			9	675
1992	UU4		1992	11	25.35885	03	27	26.79	+18	21	08.0			9	675
1992	UX4		1992	11	28.32344	03	41	13.57	+18	18	31.8			9	675
1992	UE6		1992	11	25.32691	03	43	10.64	+18	41	24.5			9	675
1992	UE6		1992	11	25.35885	03	43	08.33	+18	41	31.0			9	675
1992	UE6		1992	11	28.28993	03	39	46.38	+18	50	35.7			9	675
1992	UE6		1992	11	28.32344	03	39	44.01	+18	50	41.8			9	675
1992	UP9	*	1992	10	20.32552	01	33	32.41	+34	43	28.7		17.0	9	675
1992	UP9		1992	10	20.35903	01	33	30.29	+34	43	20.6			9	675
1992	UP9		1992	10	22.28785	01	31	26.42	+34	36	13.9			9	675
1992	UP9		1992	10	22.32141	01	31	24.34	+34	36	05.5			9	675
1992	WS		1992	11	28.32344	03	30	07.24	+18	14	15.9			9	675
1992	WT		1992	11	25.32691	03	32	39.84	+19	06	30.5			9	675
1992	WT		1992	11	25.35885	03	32	37.55	+19	06	28.5			9	675
1992	WT		1992	11	28.28993	03	29	18.45	+19	03	19.8			9	675
1992	WT		1992	11	28.32344	03	29	16.08	+19	03	15.5			9	675
1992	WU		1992	11	25.32691	03	37	57.51	+18	03	48.8			9	675
1992	WU		1992	11	25.35885	03	37	55.60	+18	03	34.3			9	675
1992	WU		1992	11	28.28993	03	35	17.65	+17	41	49.6			9	675
1992	WU		1992	11	28.32344	03	35	15.75	+17	41	34.3			9	675
1992	WV		1992	11	25.32691	03	39	09.98	+17	27	39.3			9	675
1992	WV		1992	11	25.35885	03	39	08.12	+17	27	26.1			9	675
1992	WV		1992	11	28.28993	03	36	31.46	+17	07	02.2			9	675

1992 WV	1992 11 28.32344	03 36 29.62	+17 06 48.3			9	675
1992 WY	1992 11 25.32691	03 50 34.22	+18 47 19.4			9	675
1992 WY	1992 11 25.35885	03 50 32.07	+18 47 06.2			9	675
1992 WY	1992 11 28.28993	03 47 29.24	+18 27 27.0			9	675
1992 WY	1992 11 28.32344	03 47 27.21	+18 27 13.7			9	675
1992 WZ	1992 11 25.32691	03 50 56.18	+20 48 30.0			9	675
1992 WZ	1992 11 25.35885	03 50 53.91	+20 48 32.3			9	675
1992 WZ	1992 11 28.28993	03 47 34.60	+20 51 48.1			9	675
1992 WZ	1992 11 28.32344	03 47 32.24	+20 51 50.0			9	675
1992 WB1	1992 11 25.34097	04 00 40.89	+22 26 46.0			9	675
1992 WB1	1992 11 25.37274	04 00 38.83	+22 26 51.5			9	675
1992 WC1	1992 11 25.32691	03 49 00.23	+23 46 56.1			9	675
1992 WC1	1992 11 25.35885	03 48 57.99	+23 46 44.2			9	675
1992 WC1	1992 11 28.28993	03 45 46.74	+23 26 43.8			9	675
1992 WC1	1992 11 28.32344	03 45 44.44	+23 26 30.1			9	675
1992 WJ1	1992 11 28.28993	03 51 48.94	+15 52 08.9			9	675
1992 WJ1	1992 11 28.32344	03 51 46.71	+15 52 19.0			9	675
1992 WQ1	1992 11 25.34097	04 20 10.24	+21 02 34.7			9	675
1992 WQ1	1992 11 25.37274	04 20 08.21	+21 02 11.0			9	675
1992 WQ1	1992 11 28.34583	04 17 03.69	+20 24 43.8			9	675
1992 WQ1	1992 11 28.38090	04 17 01.46	+20 24 17.4			9	675
1992 WS1	1992 11 25.34097	04 20 29.88	+19 29 13.6			9	675
1992 WS1	1992 11 25.37274	04 20 28.10	+19 29 14.3			9	675
1992 WS1	1992 11 28.34583	04 17 44.09	+19 29 58.4			9	675
1992 WS1	1992 11 28.38090	04 17 42.11	+19 29 59.4			9	675
1992 WT1	1992 11 25.34097	04 19 48.13	+16 48 18.0			9	675
1992 WT1	1992 11 25.37274	04 19 46.14	+16 48 22.8			9	675
1992 WT1	1992 11 28.34583	04 16 42.85	+16 54 45.7			9	675
1992 WT1	1992 11 28.38090	04 16 40.58	+16 54 49.4			9	675
1992 WU1	1992 11 25.34097	04 27 35.40	+18 47 57.3		16.0	9	675
1992 WU1	1992 11 25.37274	04 27 33.78	+18 47 43.2			9	675
1992 WU1	1992 11 28.34583	04 25 13.40	+18 25 23.1			9	675
1992 WU1	1992 11 28.38090	04 25 11.61	+18 25 06.7			9	675
1992 WB2	1992 11 25.32691	03 30 58.35	+21 52 53.1			9	675
1992 WB2	1992 11 25.35885	03 30 56.40	+21 52 46.2			9	675
1992 WB2	1992 11 28.28993	03 28 06.87	+21 42 05.8			9	675
1992 WB2	1992 11 28.32344	03 28 04.92	+21 41 57.4			9	675
1992 WC2	1992 11 25.32691	03 33 22.33	+18 59 32.2			9	675
1992 WC2	1992 11 25.35885	03 33 20.64	+18 59 26.8			9	675
1992 WC2	1992 11 28.28993	03 30 57.01	+18 51 36.3			9	675
1992 WC2	1992 11 28.32344	03 30 55.28	+18 51 30.0			9	675
1992 WD2	1992 11 25.32691	03 29 51.36	+22 23 22.4			9	675
1992 WD2	1992 11 25.35885	03 29 50.01	+22 23 30.3			9	675
1992 WE2	1992 11 25.32691	03 35 27.21	+21 59 07.6		17.0	9	675
1992 WE2	1992 11 25.35885	03 35 25.08	+21 59 08.4			9	675
1992 WE2	1992 11 28.28993	03 32 25.25	+22 00 39.2			9	675
1992 WE2	1992 11 28.32344	03 32 23.14	+22 00 39.3			9	675
1992 WF2	1992 11 25.32691	03 37 53.52	+21 48 40.4			9	675
1992 WF2	1992 11 25.35885	03 37 51.71	+21 48 35.3			9	675
1992 WF2	1992 11 28.28993	03 35 12.11	+21 40 48.6			9	675
1992 WF2	1992 11 28.32344	03 35 10.22	+21 40 44.2			9	675
1992 WG2	1992 11 25.32691	03 39 01.21	+20 36 58.6			9	675
1992 WG2	1992 11 25.35885	03 38 59.19	+20 36 50.9			9	675
1992 WG2	1992 11 28.28993	03 36 07.50	+20 25 16.7			9	675
1992 WG2	1992 11 28.32344	03 36 05.47	+20 25 08.9			9	675
1992 WH2	1992 11 25.32691	03 42 23.06	+20 00 47.5			9	675
1992 WH2	1992 11 25.35885	03 42 21.43	+20 00 36.2			9	675
1992 WH2	1992 11 28.28993	03 39 54.69	+19 43 27.0			9	675
1992 WH2	1992 11 28.32344	03 39 52.95	+19 43 15.9			9	675

1992	WJ2	1992	11	25.32691	03	40	25.58	+21	30	34.5	9 675
1992	WJ2	1992	11	25.35885	03	40	23.24	+21	30	33.8	9 675
1992	WJ2	1992	11	28.28993	03	37	02.10	+21	29	32.7	9 675
1992	WJ2	1992	11	28.32344	03	36	59.75	+21	29	31.0	9 675
1992	WK2	1992	11	25.32691	03	42	06.65	+20	34	36.5	18.5 9 675
1992	WK2	1992	11	25.35885	03	42	04.64	+20	34	24.7	19.5 9 675
1992	WK2	1992	11	28.28993	03	39	01.51	+20	19	41.4	9 675
1992	WK2	1992	11	28.32344	03	38	59.27	+20	19	30.7	9 675
1992	WL2	1992	11	25.32691	03	43	38.37	+21	07	59.1	9 675
1992	WL2	1992	11	25.35885	03	43	36.27	+21	08	01.4	9 675
1992	WL2	1992	11	28.28993	03	40	27.25	+21	10	54.0	9 675
1992	WL2	1992	11	28.32344	03	40	25.04	+21	10	56.7	9 675
1992	WR2	1992	11	25.32691	03	58	45.50	+20	06	10.6	9 675
1992	WR2	1992	11	25.34097	03	58	44.79	+20	06	11.1	9 675
1992	WR2	1992	11	25.35885	03	58	43.68	+20	06	07.5	9 675
1992	WR2	1992	11	25.37274	03	58	42.99	+20	06	07.1	9 675
1992	WR2	1992	11	28.28993	03	55	59.32	+20	01	02.5	9 675
1992	WR2	1992	11	28.32344	03	55	57.36	+20	00	58.1	9 675
1992	WS2	1992	11	28.28993	03	58	52.75	+21	33	52.4	9 675
1992	WS2	1992	11	28.32344	03	58	50.84	+21	33	48.7	9 675
1992	WS2	1992	11	28.34583	03	58	49.74	+21	33	45.1	9 675
1992	WS2	1992	11	28.38090	03	58	47.88	+21	33	40.9	9 675
1992	WZ2	1992	11	25.32691	03	41	30.43	+21	53	23.3	9 675
1992	WZ2	1992	11	25.35885	03	41	28.04	+21	53	30.0	9 675
1992	WZ2	1992	11	28.28993	03	38	06.50	+22	03	38.1	9 675
1992	WZ2	1992	11	28.32344	03	38	04.24	+22	03	44.8	9 675
1992	WA3	1992	11	25.32691	03	50	35.15	+23	10	24.0	9 675
1992	WA3	1992	11	25.35885	03	50	33.01	+23	10	20.4	9 675
1992	WA3	1992	11	28.28993	03	47	33.70	+23	05	27.5	9 675
1992	WA3	1992	11	28.32344	03	47	31.61	+23	05	23.3	9 675
1992	WC3	1992	11	25.34097	04	25	01.19	+18	40	28.0	9 675
1992	WC3	1992	11	25.37274	04	24	58.75	+18	40	30.2	9 675
1992	WC3	1992	11	28.34583	04	21	25.32	+18	43	35.7	9 675
1992	WC3	1992	11	28.38090	04	21	22.71	+18	43	37.9	9 675
1992	WG3	1992	11	25.32691	03	59	20.41	+18	49	14.2	9 675
1992	WG3	1992	11	25.35885	03	59	18.12	+18	49	06.1	9 675
1992	WG3	1992	11	28.28993	03	56	24.19	+18	37	59.6	9 675
1992	WG3	1992	11	28.32344	03	56	22.08	+18	37	51.7	9 675
1992	WK3	1992	11	25.34097	04	04	59.44	+18	26	31.6	9 675
1992	WK3	1992	11	25.37274	04	04	57.49	+18	26	35.0	9 675
1992	WK3	1992	11	28.34583	04	02	02.29	+18	32	43.3	9 675
1992	WK3	1992	11	28.38090	04	02	00.14	+18	32	47.6	9 675
1992	WA4	1992	11	25.32691	03	49	55.10	+17	50	59.7	9 675
1992	WA4	1992	11	25.35885	03	49	53.38	+17	50	59.1	9 675
1992	WA4	1992	11	28.28993	03	47	18.81	+17	50	14.7	9 675
1992	WA4	1992	11	28.32344	03	47	17.07	+17	50	14.1	9 675
1992	WE4	1992	11	25.32691	03	57	26.57	+16	57	29.1	9 675
1992	WE4	1992	11	25.35885	03	57	24.11	+16	57	41.8	9 675
1992	WE4	1992	11	28.28993	03	53	48.57	+17	18	10.1	9 675
1992	WE4	1992	11	28.32344	03	53	46.07	+17	18	25.1	9 675
1992	WG4	1992	11	25.34097	04	05	43.52	+17	48	08.0	9 675
1992	WG4	1992	11	25.37274	04	05	41.30	+17	48	06.1	9 675
1992	WG4	1992	11	28.34583	04	02	26.46	+17	44	28.0	9 675
1992	WG4	1992	11	28.38090	04	02	23.98	+17	44	25.0	9 675
1992	WN5	1992	11	25.34097	04	15	28.93	+17	17	11.4	9 675
1992	WN5	1992	11	25.37274	04	15	27.10	+17	17	07.7	9 675
1992	WN5	1992	11	28.34583	04	12	43.60	+17	10	29.7	9 675
1992	WN5	1992	11	28.38090	04	12	41.61	+17	10	25.0	9 675
1992	WO5	1992	11	25.34097	04	17	15.33	+17	13	55.6	9 675

1992	WO5		1992	11	25.37274	04	17	13.17	+17	13	54.6		9	675
1992	WO5		1992	11	28.34583	04	13	55.79	+17	11	15.5		9	675
1992	WO5		1992	11	28.38090	04	13	53.37	+17	11	13.2		9	675
1992	WP5		1992	11	25.34097	04	19	49.03	+17	38	12.9		9	675
1992	WP5		1992	11	25.37274	04	19	46.79	+17	38	10.5		9	675
1992	WP5		1992	11	28.34583	04	16	20.21	+17	33	22.6		9	675
1992	WP5		1992	11	28.38090	04	16	17.71	+17	33	19.4		9	675
1992	WS5		1992	11	25.34097	04	22	39.23	+22	15	57.6		9	675
1992	WS5		1992	11	25.37274	04	22	37.11	+22	16	09.0		9	675
1992	WS5		1992	11	28.34583	04	19	20.01	+22	33	04.0		9	675
1992	WS5		1992	11	28.38090	04	19	17.63	+22	33	15.5		9	675
1992	WC8		1992	11	25.32691	03	54	03.38	+16	55	03.0		9	675
1992	WC8		1992	11	25.35885	03	54	01.67	+16	54	58.7		9	675
1992	WC8		1992	11	28.28993	03	51	21.70	+16	49	30.4		9	675
1992	WC8		1992	11	28.32344	03	51	19.80	+16	49	27.3		9	675
1992	WO8	*	1992	11	25.34097	04	11	24.46	+18	11	14.6	17.8	9	675
1992	WO8		1992	11	25.37274	04	11	22.08	+18	11	14.7		9	675
1992	WO8		1992	11	28.34583	04	07	57.13	+18	12	14.6		9	675
1992	WO8		1992	11	28.38090	04	07	54.55	+18	12	15.9		9	675
1992	WP8	*	1992	11	25.34097	04	13	14.46	+20	09	44.8	17.0	9	675
1992	WP8		1992	11	25.37274	04	13	12.65	+20	09	41.5		9	675
1992	WP8		1992	11	28.34583	04	10	29.93	+20	02	50.3		9	675
1992	WP8		1992	11	28.38090	04	10	27.93	+20	02	46.6		9	675
1992	WQ8	*	1992	11	25.34097	04	15	12.06	+18	57	19.7	18.2	9	675
1992	WQ8		1992	11	25.37274	04	15	09.96	+18	57	07.0		9	675
1992	WQ8		1992	11	28.34583	04	11	53.23	+18	44	57.0		9	675
1992	WQ8		1992	11	28.38090	04	11	50.90	+18	44	45.5		9	675
1992	WR8	*	1992	11	25.34097	04	18	18.42	+18	37	06.5	16.8	9	675
1992	WR8		1992	11	25.37274	04	18	16.35	+18	37	15.4		9	675
1992	WR8		1992	11	28.34583	04	15	06.61	+18	51	10.1		9	675
1992	WR8		1992	11	28.38090	04	15	04.31	+18	51	20.8		9	675
1992	WS8	*	1992	11	25.34097	04	25	51.80	+22	40	09.2	17.5	9	675
1992	WS8		1992	11	25.37274	04	25	49.90	+22	40	05.0		9	675
1992	WS8		1992	11	28.34583	04	22	52.92	+22	33	42.5		9	675
1992	WS8		1992	11	28.38090	04	22	50.75	+22	33	38.0		9	675
1992	WT8	*	1992	11	25.20608	02	30	33.07	+27	50	45.5		9	675
1992	WT8		1992	11	25.23941	02	30	31.41	+27	50	31.5	17.5	9	675
1992	WT8		1992	11	28.21337	02	28	20.97	+27	28	39.4		9	675
1992	WT8		1992	11	28.24879	02	28	19.52	+27	28	23.1		9	675
1992	WU8	*	1992	11	26.27760	03	21	23.24	+00	24	32.8	17.0	9	675
1992	WU8		1992	11	26.31024	03	21	21.87	+00	24	31.9		9	675
1992	WU8		1992	11	28.28281	03	20	09.03	+00	23	43.0		9	675
1992	WU8		1992	11	28.31667	03	20	07.67	+00	23	42.8		9	675
1992	WV8	*	1992	11	26.27760	03	27	16.47	+00	07	05.3	17.8	9	675
1992	WV8		1992	11	26.31024	03	27	14.94	+00	07	01.9		9	675
1992	WV8		1992	11	28.28281	03	25	45.31	+00	04	06.1		9	675
1992	WV8		1992	11	28.31667	03	25	43.61	+00	04	06.2		9	675
1992	WW8	*	1992	11	26.33750	04	07	33.22	+36	00	47.1	17.5	9	675
1992	WW8		1992	11	26.36875	04	07	31.02	+36	00	31.5		9	675
1992	WW8		1992	11	28.33854	04	05	23.72	+35	45	20.6		9	675
1992	WW8		1992	11	28.37413	04	05	21.39	+35	45	03.3		9	675
1992	WX8	*	1992	11	26.41406	06	06	37.60	+17	43	27.5	17.0	9	675
1992	WX8		1992	11	26.44688	06	06	36.27	+17	43	21.0		9	675
1992	WX8		1992	11	28.41458	06	05	13.30	+17	38	17.8		9	675
1992	WX8		1992	11	28.44826	06	05	11.65	+17	38	12.7		9	675
1992	WY8	*	1992	11	28.47552	06	26	22.22	+17	25	23.7		9	675
1992	WY8		1992	11	30.44497	06	24	42.00	+17	36	48.2		9	675
1992	WY8		1992	11	30.47326	06	24	40.44	+17	36	59.0		9	675
1992	WZ8	*	1992	11	28.47552	06	38	05.15	+15	30	30.9		9	675

1992	WZ8		1992	11	28.51632	06	38	03.67	+15	30	43.7		9	675
1992	WZ8		1992	11	30.44497	06	36	52.74	+15	40	54.2		9	675
1992	WZ8		1992	11	30.47326	06	36	51.58	+15	41	02.8		9	675
1992	WA9	*	1992	11	28.50938	07	21	44.82	+15	20	30.4	18.2	9	675
1992	WA9		1992	11	28.54586	07	21	44.06	+15	20	24.2		9	675
1992	WA9		1992	12	01.49149	07	20	43.82	+15	11	55.9		9	675
1992	WA9		1992	12	01.53368	07	20	42.94	+15	11	50.9		9	675
1992	WB9	*	1992	11	25.32691	03	47	26.45	+22	46	02.2	18.5	9	675
1992	WB9		1992	11	25.35885	03	47	24.57	+22	45	57.4		9	675
1992	WB9		1992	11	28.28993	03	44	48.20	+22	37	58.1		9	675
1992	WB9		1992	11	28.32344	03	44	46.39	+22	37	52.3		9	675
1993	DO		1951	01	04.37986	09	42	10.05	+07	34	20.0		6	675
1993	DO		1951	01	04.40903	09	42	09.44	+07	34	25.4		6	675
1993	ES		1977	10	07.25868	01	01	48.84	+11	14	40.3		4	675
1993	ES		1977	10	11.27743	00	58	00.67	+11	03	34.4		4	675
1993	ES		1977	10	11.34375	00	57	56.89	+11	03	24.1		4	675
1993	FR		1993	04	15.22743	13	05	33.46	-09	00	07.6	16.6	3	675
1993	FR		1993	04	15.26059	13	05	31.67	-08	59	34.8		3	675
1993	FR		1993	04	17.27691	13	03	48.90	-08	26	35.6		3	675
1993	FR		1993	04	17.30382	13	03	47.37	-08	26	06.4		3	675
1993	GE		1993	04	20.16197	12	09	31.72	+33	38	56.6	15.8	3	675
1993	GE		1993	04	20.20156	12	09	29.89	+33	38	30.1		3	675
1993	GG	*	1993	04	15.36319	14	48	47.48	+07	14	14.8	15.5	3	675
1993	GG		1993	04	15.39305	14	48	45.94	+07	14	18.1		3	675
1993	GG		1993	04	16.39444	14	47	55.03	+07	16	25.6		3	675
1993	GG		1993	04	19.42899	14	45	15.30	+07	21	48.9		3	675
1993	GG		1993	04	20.36500	14	44	24.64	+07	23	08.3		3	675
1993	GV	*	1993	04	15.29652	13	48	32.33	-04	02	57.4	17	3	675
1993	GV		1993	04	15.33125	13	48	30.78	-04	02	30.7		3	675
1993	GV		1993	04	16.38072	13	47	44.23	-03	49	12.7		3	675
1993	GV		1993	04	19.34600	13	45	33.05	-03	12	12.8		3	675
1993	GY	*	1993	04	14.24826	12	30	03.82	+18	50	15.6	16.5	3	675
1993	GY		1993	04	14.28072	12	30	02.04	+18	50	08.9		3	675
1993	GY		1993	04	16.27604	12	28	19.75	+18	42	08.6		3	675
1993	GY		1993	04	16.30520	12	28	18.21	+18	42	01.7		3	675
1993	HE	*	1993	04	18.36510	14	19	54.75	+11	35	55.1	16	3	675
1993	HE		1993	04	18.39809	14	19	52.88	+11	35	58.0		3	675
1993	HE		1993	04	20.35208	14	18	05.70	+11	38	45.6		3	675
1993	HJ1		1993	04	20.23350	11	32	03.79	-08	48	59.7	17	3	675
1993	HJ1		1993	04	20.26493	11	32	03.76	-08	48	18.6		3	675
1993	HJ1	*	1993	04	22.24288	11	32	18.15	-08	04	47.2	16.0	2	675
1993	HJ1		1993	04	22.27587	11	32	18.35	-08	04	04.1		2	675
1993	HJ1		1993	04	25.22326	11	32	53.37	-07	01	56.4		2	675
1993	HJ1		1993	04	25.34149	11	32	54.76	-06	59	31.4		2	675
1993	HJ1		1993	04	26.35660	11	33	10.69	-06	38	52.7		2	675
1993	HK1	*	1993	04	17.35104	14	09	15.97	-20	41	14.9	17.2	3	675
1993	HK1		1993	04	17.38159	14	09	14.22	-20	40	50.9		3	675
1993	HK1		1993	04	18.38975	14	08	17.67	-20	28	11.4		3	675
1993	HM1		1993	04	15.36319	14	54	40.17	+11	27	57.1	17.5	3	675
1993	HM1		1993	04	19.42899	14	51	51.20	+11	58	29.6		3	675
1993	HM1		1993	04	20.36493	14	51	10.18	+12	04	56.0		3	675
1993	HN1	*	1993	04	16.29774	13	28	44.85	+07	44	08.9	17	3	675
1993	HN1		1993	04	16.32865	13	28	43.52	+07	44	26.5		3	675
1993	HN1		1993	04	17.33472	13	28	02.93	+07	53	40.8		3	675
1993	HO1		1993	04	19.36788	14	57	24.18	-20	33	46.5	18	3	675
1993	HO1		1993	04	19.39565	14	57	21.12	-20	33	48.1		3	675
1993	HO1		1993	04	26.37639	14	45	58.25	-20	33	25.4	17.0	2	675
1993	HO1		1993	04	26.40208	14	45	55.52	-20	33	24.9		2	675
1993	HW1	*	1993	04	23.36441	14	18	12.82	+05	36	24.9	15.5	2	675

1993 HW1		1993	04	23.40521	14	18	09.91	+05	36	21.6			2	675
1993 HW1		1993	04	26.38385	14	14	56.34	+05	30	33.0			2	675
1993 HW1		1993	04	26.40885	14	14	54.61	+05	30	30.4			2	675
1993 HX1	*	1993	04	23.36441	14	27	19.06	+04	03	07.1		16.5	2	675
1993 HX1		1993	04	23.40521	14	27	17.34	+04	03	25.0			2	675
1993 HX1		1993	04	26.38385	14	25	04.97	+04	25	44.9			2	675
1993 HX1		1993	04	26.40885	14	25	03.85	+04	25	56.6			2	675
1993 HY1	*	1993	04	23.36441	14	30	23.85	+07	56	02.3		16.0	2	675
1993 HY1		1993	04	23.40521	14	30	21.91	+07	56	20.0			2	675
1993 HY1		1993	04	26.38385	14	27	59.80	+08	17	56.5			2	675
1993 HY1		1993	04	26.40885	14	27	58.49	+08	18	06.0			2	675
1993 HZ1	*	1993	04	25.18628	10	46	47.16	+12	45	38.0		16.5	2	675
1993 HZ1		1993	04	26.18333	10	47	10.16	+12	17	05.7			2	675
1993 HZ1		1993	04	26.20799	10	47	10.63	+12	16	22.8			2	675
1993 HN5	*	1993	04	18.27795	13	31	21.67	-20	46	40.9		18.0	3	675
1993 HN5		1993	04	18.30868	13	31	19.47	-20	46	38.7			3	675
2099 P-L	*	1960	09	24.45000	00	53	19.06	+07	27	28.1		18.4	4	675
2099 P-L		1960	09	26.37010	00	51	38.45	+07	12	31.3			4	675
2099 P-L		1960	09	28.45140	00	49	46.96	+06	56	00.8			4	675
2099 P-L		1960	09	29.44510	00	48	53.17	+06	47	59.2			4	675
2099 P-L		1960	10	17.30420	00	32	50.74	+04	20	30.2			4	675
2099 P-L		1960	10	22.26809	00	28	54.83	+03	42	18.0			4	675
2099 P-L		1960	10	25.30351	00	26	43.75	+03	20	26.2			4	675
2099 P-L		1960	10	26.35766	00	26	00.74	+03	13	07.6			4	675
3083 P-L		1951	01	04.37986	09	54	33.42	+06	08	40.5			6	675
3083 P-L		1951	01	04.40903	09	54	32.73	+06	08	35.4			6	675
7643 P-L		1991	02	13.40191	11	01	23.68	+06	53	07.7			9	675
7643 P-L		1991	02	13.44063	11	01	21.73	+06	53	27.0			9	675
1181 T-1		1988	09	10.32687	23	52	31.65	+02	01	00.4			9	675
1181 T-1		1988	09	10.36298	23	52	29.99	+02	00	51.8			9	675
1181 T-1		1988	09	15.39097	23	48	37.54	+01	40	33.6		18.5	9	675
1181 T-1		1988	09	15.42500	23	48	35.84	+01	40	22.8			9	675
1181 T-1		1988	09	16.43194	23	47	48.67	+01	36	13.4			9	675
1181 T-1		1991	02	13.40191	11	09	28.50	+04	03	33.2			9	675
1181 T-1		1991	02	13.44063	11	09	26.83	+04	03	38.8			9	675
1220 T-1		1992	11	25.34097	04	01	45.59	+22	31	28.8		17.5	9	675
1220 T-1		1992	11	25.37274	04	01	43.65	+22	31	21.4		17.8	9	675
4861 T-1	*	1971	05	13.20278	12	21	08.87	+01	23	38.5		18.5	4	675
4861 T-1		1971	05	14.23246	12	21	02.51	+01	24	31.8		18.5	4	675
4861 T-1		1971	05	16.29774	12	20	54.28	+01	25	45.9		18.0	4	675
1010 T-2		1955	04	18.21389	10	44	14.48	+01	20	02.6			6	675
1010 T-2		1955	04	18.23889	10	44	14.35	+01	20	11.1			6	675
4101 T-2		1973	09	19.22500	00	35	23.54	+00	54	05.7			4	675
4101 T-2		1973	09	19.27865	00	35	21.29	+00	53	51.2			4	675
4101 T-2		1973	09	20.30278	00	34	37.25	+00	49	00.9			4	675
4101 T-2		1973	09	24.38750	00	31	38.34	+00	29	43.7			4	675
4101 T-2		1973	09	24.45434	00	31	35.29	+00	29	24.9			4	675
4101 T-2		1973	09	25.28125	00	30	58.88	+00	25	28.0			4	675
4101 T-2		1973	09	25.34601	00	30	55.97	+00	25	10.6			4	675
4101 T-2	*	1973	09	29.29219	00	27	59.81	+00	06	32.2		18.4	4	675
4101 T-2		1973	09	29.35694	00	27	56.90	+00	06	14.2			4	675
4101 T-2		1973	09	30.24826	00	27	17.16	+00	02	06.7			4	675
4101 T-2		1973	09	30.31476	00	27	14.11	+00	01	48.2			4	675
4101 T-2		1973	10	04.32708	00	24	16.11	-00	16	28.7			4	675
4101 T-2		1973	10	04.38889	00	24	13.29	-00	16	44.7			4	675
4101 T-2		1973	10	05.35382	00	23	31.18	-00	21	03.5			4	675
4101 T-2		1973	10	05.41597	00	23	28.27	-00	21	20.2			4	675
5490 T-2		1992	11	25.32691	03	55	13.02	+20	41	24.1			9	675
5490 T-2		1992	11	25.35885	03	55	10.82	+20	41	13.7			9	675

5490	T-2		1992	11	28.28993	03	52	09.14	+20	22	44.6			9	675
5490	T-2		1992	11	28.32344	03	52	07.02	+20	22	33.1			9	675
5182	T-3		1977	10	12.30885	01	47	37.67	-03	32	36.2			4	675
5182	T-3		1977	10	12.37500	01	47	35.02	-03	33	10.3			4	675
5182	T-3	*	1977	10	16.29444	01	45	01.53	-04	06	51.3		16.9	4	675
5182	T-3		1977	10	16.36024	01	44	58.84	-04	07	24.1			4	675
5182	T-3		1977	10	17.29688	01	44	21.69	-04	15	09.1			4	675
5182	T-3		1977	10	17.36372	01	44	18.90	-04	15	41.9			4	675
5182	T-3		1977	10	21.37622	01	41	39.84	-04	47	40.3			4	675
5182	T-3		1977	10	21.43611	01	41	37.28	-04	48	06.5			4	675
5182	T-3		1977	10	22.37274	01	41	00.30	-04	55	13.8			4	675
5182	T-3		1977	10	22.43872	01	40	57.73	-04	55	44.6			4	675
(32)			1953	08	15.31979	20	53	44.73	-08	24	12.4			6	675
(32)			1953	08	15.34306	20	53	43.68	-08	24	20.0			6	675
(34)			1953	08	15.31889	20	55	47.43	-10	51	47.0			6	675
(34)			1953	08	15.34306	20	55	46.21	-10	51	54.3			6	675
(87)			1992	11	25.32691	03	42	41.97	+15	37	22.0			9	675
(87)			1992	11	25.35885	03	42	40.37	+15	37	21.9			9	675
(87)			1992	11	28.28993	03	40	19.08	+15	37	37.4			9	675
(87)			1992	11	28.32344	03	40	17.45	+15	37	37.4			9	675
(90)			1955	07	24.40347	22	01	34.93	-15	32	17.7			6	675
(90)			1955	07	24.43056	22	01	34.02	-15	32	24.4			6	675
(101)			1991	02	13.40191	11	05	05.11	+07	32	15.6			9	675
(101)			1991	02	13.44063	11	05	03.14	+07	32	21.1			9	675
(122)			1991	02	13.40191	11	04	39.74	+05	02	11.3			9	675
(122)			1991	02	13.44063	11	04	38.27	+05	02	20.9			9	675
(131)			1992	11	25.34097	04	19	27.89	+21	22	20.5			9	675
(131)			1992	11	25.37274	04	19	25.72	+21	22	18.8			9	675
(131)			1992	11	28.34583	04	16	08.95	+21	20	08.9			9	675
(131)			1992	11	28.38090	04	16	06.59	+21	20	07.2			9	675
(150)			1991	02	13.40191	11	10	29.10	+02	56	52.7			9	675
(150)			1991	02	13.44063	11	10	27.60	+02	57	01.7			9	675
(168)			1991	02	13.40191	10	59	19.60	+01	27	27.3			9	675
(168)			1991	02	13.44063	10	59	18.19	+01	27	36.1			9	675
(171)			1992	11	25.32691	03	36	57.14	+16	49	31.1			9	675
(171)			1992	11	25.35885	03	36	55.49	+16	49	26.8			9	675
(171)			1992	11	28.28993	03	34	29.79	+16	42	58.6			9	675
(171)			1992	11	28.32344	03	34	28.04	+16	42	53.8			9	675
(217)			1951	01	04.37986	09	52	15.00	+06	38	13.3			6	675
(217)			1951	01	04.40903	09	52	14.27	+06	38	17.1			6	675
(315)			1992	11	25.32691	03	44	41.70	+15	19	15.6			9	675
(315)			1992	11	25.35885	03	44	39.53	+15	19	09.1			9	675
(315)			1992	11	28.28993	03	41	32.89	+15	09	45.5			9	675
(315)			1992	11	28.32344	03	41	30.73	+15	09	41.0			9	675
(352)			1953	08	15.31979	20	48	14.78	-11	29	54.5			6	675
(352)			1953	08	15.34306	20	48	13.13	-11	29	59.3			6	675
(399)			1991	02	13.40191	11	06	48.98	+09	20	16.3			9	675
(399)			1991	02	13.44063	11	06	47.10	+09	20	18.0			9	675
(420)			1992	11	25.34097	04	28	22.20	+21	19	56.0			9	675
(420)			1992	11	25.37274	04	28	20.67	+21	19	49.8			9	675
(420)			1992	11	28.34583	04	25	56.80	+21	09	20.9			9	675
(420)			1992	11	28.38090	04	25	55.07	+21	09	13.2			9	675
(438)			1992	11	25.32691	03	29	54.97	+20	48	55.4			9	675
(438)			1992	11	25.35885	03	29	52.94	+20	48	53.0			9	675
(438)			1992	11	28.28993	03	26	54.44	+20	45	29.4			9	675
(438)			1992	11	28.32344	03	26	52.39	+20	45	26.7			9	675
(441)			1992	11	25.34097	04	26	22.73	+23	24	41.9			9	675
(441)			1992	11	25.37274	04	26	20.90	+23	24	32.0			9	675
(441)			1992	11	28.34583	04	23	31.54	+23	08	28.6			9	675

(441)		1992	11	28.38090	04	23	29.46	+23	08	16.6			9	675
(516)		1955	07	24.40347	22	00	32.76	-17	45	29.8			6	675
(516)		1955	07	24.43056	22	00	31.20	-17	45	28.6			6	675
(535)		1989	01	09.18611	02	46	51.34	+12	46	20.3		16.0	3	675
(535)		1989	01	09.21007	02	46	51.69	+12	46	25.8			3	675
(535)		1989	01	10.15678	02	47	06.17	+12	50	40.5			3	675
(535)		1989	01	10.18837	02	47	06.66	+12	50	48.9			3	675
(723)		1991	02	13.40191	11	01	02.73	+05	29	38.1			9	675
(723)		1991	02	13.44063	11	01	01.19	+05	29	50.6			9	675
(748)		1991	02	13.40191	10	56	03.77	+03	38	38.7			9	675
(748)		1991	02	13.44063	10	56	02.38	+03	38	45.9			9	675
(819)		1991	02	13.40191	10	56	33.27	+06	29	27.8			9	675
(819)		1991	02	13.44063	10	56	31.06	+06	29	35.5			9	675
(910)		1992	11	25.34097	04	05	34.07	+23	57	54.7			9	675
(910)		1992	11	25.37274	04	05	32.25	+23	57	52.5			9	675
(919)		1992	11	25.32691	03	52	35.70	+17	39	08.1			9	675
(919)		1992	11	25.35885	03	52	33.94	+17	38	56.3			9	675
(919)		1992	11	28.28993	03	49	57.37	+17	21	21.3			9	675
(919)		1992	11	28.32344	03	49	55.57	+17	21	10.1			9	675
(922)		1955	12	11.36076	06	00	58.33	+13	50	24.1			6	675
(922)		1955	12	11.38264	06	00	57.10	+13	50	22.3			6	675
(923)		1955	04	18.21389	11	03	17.93	-00	54	38.8			6	675
(923)		1955	04	18.23889	11	03	17.45	-00	54	27.6			6	675
(960)		1992	11	25.32691	03	54	17.56	+21	02	46.7			9	675
(960)		1992	11	25.35885	03	54	15.41	+21	02	36.6			9	675
(960)		1992	11	28.28993	03	51	01.28	+20	47	15.0			9	675
(960)		1992	11	28.32344	03	50	58.98	+20	47	06.3			9	675
(981)		1991	02	13.40191	11	12	01.35	+07	53	24.6			9	675
(981)		1991	02	13.44063	11	11	59.88	+07	53	33.3			9	675
(1043)		1955	12	11.36076	06	08	11.95	+11	14	17.3			6	675
(1043)		1955	12	11.38264	06	08	10.86	+11	14	16.2			6	675
(1065)		1955	07	24.40347	21	54	53.91	-20	26	21.9			6	675
(1065)		1955	07	24.43056	21	54	53.00	-20	26	11.2			6	675
(1121)		1991	02	13.40191	11	21	40.21	+07	28	12.6			9	675
(1121)		1991	02	13.44063	11	21	38.41	+07	28	18.7			9	675
(1171)		1992	11	25.34097	04	29	33.88	+17	36	10.0			9	675
(1171)		1992	11	25.37274	04	29	32.25	+17	36	08.5			9	675
(1171)		1992	11	28.34583	04	26	56.98	+17	32	31.4			9	675
(1171)		1992	11	28.38090	04	26	55.07	+17	32	27.8			9	675
(1277)		1992	11	25.32691	03	53	55.81	+21	24	21.7			9	675
(1277)		1992	11	25.35885	03	53	54.03	+21	24	12.7			9	675
(1277)		1992	11	28.28993	03	51	05.86	+21	09	52.3			9	675
(1277)		1992	11	28.32344	03	51	03.91	+21	09	43.0			9	675
(1282)		1955	07	24.40347	21	55	56.42	-16	38	07.3			6	675
(1282)		1955	07	24.43056	21	55	55.15	-16	38	06.0			6	675
(1283)		1991	02	13.40191	11	03	21.04	+06	15	45.8			9	675
(1283)		1991	02	13.44063	11	03	19.60	+06	15	59.3			9	675
(1287)		1955	12	11.36076	06	17	55.81	+09	55	22.4			6	675
(1287)		1955	12	11.38264	06	17	54.69	+09	55	19.0			6	675
(1311)		1953	08	15.33542	20	47	24.76	-13	22	51.7			6	675
(1311)		1953	08	15.34306	20	47	24.16	-13	22	53.1			6	675
(1311)		1956	04	09.41146	14	38	10.40	-18	03	25.4			6	675
(1311)		1956	04	09.43264	14	38	09.43	-18	03	21.4			6	675
(1355)		1993	04	23.42500	14	29	37.82	-22	57	01.3		15.0	2	675
(1355)		1993	04	23.44913	14	29	36.34	-22	56	23.7			2	675
(1355)		1993	04	26.37014	14	26	48.63	-21	36	19.5			2	675
(1355)		1993	04	26.39601	14	26	47.04	-21	35	36.4			2	675
(1438)		1991	02	13.40191	11	14	07.67	+02	05	36.8			9	675
(1438)		1991	02	13.44063	11	14	06.18	+02	05	45.3			9	675

(1462)	1992	11	25.32691	03	35	13.67	+20	02	59.6	9 675
(1462)	1992	11	25.35885	03	35	12.07	+20	02	55.0	9 675
(1462)	1992	11	28.28993	03	32	49.86	+19	55	10.9	9 675
(1462)	1992	11	28.32344	03	32	48.17	+19	55	05.1	9 675
(1549)	1992	11	25.34097	04	28	52.84	+18	11	25.0	9 675
(1549)	1992	11	25.37274	04	28	50.60	+18	11	27.0	9 675
(1549)	1992	11	28.34583	04	25	24.52	+18	14	14.5	9 675
(1549)	1992	11	28.38090	04	25	22.01	+18	14	16.4	9 675
(1602)	1992	11	25.32691	03	57	55.95	+18	43	53.1	9 675
(1602)	1992	11	25.35885	03	57	53.66	+18	43	51.1	9 675
(1602)	1992	11	28.28993	03	54	28.90	+18	40	47.4	9 675
(1602)	1992	11	28.32344	03	54	26.50	+18	40	46.2	9 675
(1621)	1991	02	13.40191	11	04	24.77	+03	21	30.9	9 675
(1621)	1991	02	13.44063	11	04	22.79	+03	21	44.9	9 675
(1647)	1956	04	09.41146	14	37	09.38	-18	06	43.7	6 675
(1647)	1956	04	09.43264	14	37	08.70	-18	06	40.2	6 675
(1677)	1991	02	13.40191	10	56	27.59	+07	45	18.1	9 675
(1677)	1991	02	13.44063	10	56	25.32	+07	45	19.8	9 675
(1686)	1992	11	25.34097	04	27	27.74	+22	30	50.4	9 675
(1686)	1992	11	25.37274	04	27	26.09	+22	30	47.2	9 675
(1686)	1992	11	28.34583	04	24	50.36	+22	25	14.3	9 675
(1686)	1992	11	28.38090	04	24	48.48	+22	25	10.3	9 675
(1704)	1992	11	25.34097	04	32	02.56	+22	17	20.1	9 675
(1704)	1992	11	25.37274	04	32	00.39	+22	17	14.7	9 675
(1704)	1992	11	28.34583	04	28	33.40	+22	08	28.8	9 675
(1704)	1992	11	28.38090	04	28	30.89	+22	08	22.2	9 675
(1708)	1953	08	15.31889	20	46	29.79	-10	02	28.9	6 675
(1708)	1953	08	15.34306	20	46	28.60	-10	02	35.4	6 675
(1769)	1992	11	25.32691	03	52	42.20	+23	15	07.7	9 675
(1769)	1992	11	25.35885	03	52	39.83	+23	15	01.1	9 675
(1769)	1992	11	28.28993	03	49	16.73	+23	03	15.4	9 675
(1769)	1992	11	28.32344	03	49	14.44	+23	03	06.6	9 675
(1810)	1953	08	15.31979	20	56	18.08	-10	51	18.2	6 675
(1810)	1953	08	15.34306	20	56	16.64	-10	51	24.0	6 675
(1851)	1991	02	13.40191	11	01	05.91	+08	05	14.0	9 675
(1851)	1991	02	13.44063	11	01	04.43	+08	05	22.5	9 675
(1923)	1953	12	07.42396	06	45	20.02	+31	26	48.5	6 675
(1923)	1953	12	07.44792	06	45	18.67	+31	26	52.6	6 675
(1929)	1992	11	25.32691	03	38	59.08	+17	59	45.2	9 675
(1929)	1992	11	25.35885	03	38	56.80	+17	59	46.2	9 675
(1929)	1992	11	28.28993	03	35	40.03	+18	00	55.4	9 675
(1929)	1992	11	28.32344	03	35	37.69	+18	00	55.8	9 675
(1939)	1956	04	09.41146	14	41	57.57	-15	34	03.3	6 675
(1939)	1956	04	09.43264	14	41	56.75	-15	34	02.4	6 675
(1962)	1955	07	24.40347	21	55	16.43	-15	05	59.5	6 675
(1962)	1955	07	24.43056	21	55	15.53	-15	06	04.5	6 675
(1994)	1992	11	25.34097	04	09	59.55	+21	25	08.6	9 675
(1994)	1992	11	25.37274	04	09	57.59	+21	24	55.1	9 675
(1994)	1992	11	28.34583	04	07	00.34	+21	04	35.0	9 675
(1994)	1992	11	28.38090	04	06	58.22	+21	04	20.4	9 675
(1999)	1953	08	15.31979	20	57	59.55	-12	55	10.1	6 675
(1999)	1953	08	15.34306	20	57	58.64	-12	55	16.9	6 675
(2010)	1956	04	09.41150	14	26	43.45	-15	56	52.1	6 675
(2010)	1956	04	09.43264	14	26	42.44	-15	56	47.8	6 675
(2011)	1955	07	24.40347	22	04	03.93	-17	02	52.5	6 675
(2011)	1955	07	24.43056	22	04	02.82	-17	02	53.3	6 675
(2085)	1955	07	24.40347	21	59	08.49	-14	19	57.4	6 675
(2085)	1955	07	24.43056	21	59	07.55	-14	20	05.9	6 675
(2093)	1991	02	13.40191	10	50	20.23	+07	14	30.9	9 675

(2093)		1991	02	13.44063	10	50	18.28	+07	14	51.5	9	675
(2142)		1992	11	25.34097	04	12	01.74	+20	10	25.3	9	675
(2142)		1992	11	25.37274	04	12	00.15	+20	10	21.1	9	675
(2142)		1992	11	28.34583	04	09	29.12	+20	03	45.6	9	675
(2142)		1992	11	28.38090	04	09	27.25	+20	03	41.0	9	675
(2199)		1991	02	13.40191	11	08	51.00	+07	56	59.3	9	675
(2199)		1991	02	13.44063	11	08	49.30	+07	57	18.2	9	675
(2240)		1991	02	13.40191	11	16	11.09	+06	02	48.7	9	675
(2274)		1991	02	13.40191	11	14	41.71	+06	00	44.5	9	675
(2274)		1991	02	13.44063	11	14	40.33	+06	00	47.6	9	675
(2338)		1992	11	28.34583	04	32	10.68	+18	27	13.3	9	675
(2338)		1992	11	28.38090	04	32	08.66	+18	27	09.6	9	675
(2345)		1953	08	15.31979	20	57	56.98	-14	32	23.7	6	675
(2345)		1953	08	15.34306	20	57	55.79	-14	32	24.2	6	675
(2369)		1992	11	25.32691	03	27	44.04	+19	31	01.6	9	675
(2369)		1992	11	25.35885	03	27	42.14	+19	30	58.0	9	675
(2369)		1992	11	28.28993	03	25	04.38	+19	23	48.9	9	675
(2369)		1992	11	28.32344	03	25	02.57	+19	23	42.1	9	675
(2454)		1992	11	25.34097	04	19	06.98	+21	49	08.3	9	675
(2454)		1992	11	25.37274	04	19	04.67	+21	48	58.5	9	675
(2454)		1992	11	28.34583	04	15	35.49	+21	32	50.4	9	675
(2454)		1992	11	28.38090	04	15	32.86	+21	32	39.7	9	675
(2484)		1991	02	13.40191	10	54	17.21	+05	33	29.9	9	675
(2484)		1991	02	13.44063	10	54	15.17	+05	33	43.0	9	675
(2508)		1951	01	04.37986	09	45	01.34	+05	31	48.6	6	675
(2508)		1951	01	04.40903	09	45	00.54	+05	31	50.2	6	675
(2590)		1992	11	25.34097	04	23	30.23	+17	20	16.0	9	675
(2590)		1992	11	25.37274	04	23	28.26	+17	20	05.1	9	675
(2590)		1992	11	28.34583	04	20	23.93	+17	01	35.0	9	675
(2590)		1992	11	28.38090	04	20	21.66	+17	01	21.4	9	675
(2650)		1991	02	13.40191	11	04	06.35	+03	29	01.7	9	675
(2650)		1991	02	13.44063	11	04	04.31	+03	29	04.5	9	675
(2702)		1992	11	25.34097	04	29	05.03	+21	46	39.2	9	675
(2702)		1992	11	25.37274	04	29	03.55	+21	46	35.8	9	675
(2702)		1992	11	28.34583	04	26	41.50	+21	40	25.3	9	675
(2702)		1992	11	28.38090	04	26	39.80	+21	40	21.1	9	675
(2727)		1953	08	15.31979	20	49	28.19	-12	36	57.4	6	675
(2727)		1953	08	15.34306	20	49	26.94	-12	37	02.6	6	675
(2727)		1992	11	25.32691	03	57	18.04	+16	40	48.0	9	675
(2727)		1992	11	25.35885	03	57	16.13	+16	40	40.1	9	675
(2727)		1992	11	28.28993	03	54	26.98	+16	28	51.0	9	675
(2727)		1992	11	28.32344	03	54	25.00	+16	28	42.8	9	675
(2766)		1955	07	24.40347	21	58	55.76	-14	40	42.2	6	675
(2766)		1955	07	24.43056	21	58	54.44	-14	40	47.7	6	675
(2808)		1953	12	07.42396	06	38	23.16	+32	53	31.0	6	675
(2808)		1953	12	07.44792	06	38	21.97	+32	53	29.6	6	675
(2843)		1953	08	15.33542	20	43	18.11	-10	18	57.3	6	675
(2843)		1953	08	15.34306	20	43	17.44	-10	18	59.7	6	675
(2911)		1953	08	15.31889	21	01	41.75	-13	23	10.1	6	675
(2911)		1953	08	15.34306	21	01	40.70	-13	23	19.1	6	675
(2930)		1955	07	24.40347	22	09	37.87	-15	39	46.7	6	675
(2930)		1955	07	24.43056	22	09	36.76	-15	39	51.9	6	675
(2945)		1992	11	25.32691	03	47	40.10	+17	25	16.9	9	675
(2945)		1992	11	25.35885	03	47	38.18	+17	25	13.2	9	675
(2945)		1992	11	28.32344	03	44	46.88	+17	19	20.0	9	675
(3029)		1991	02	13.40191	11	17	01.57	+01	54	21.9	9	675
(3029)		1991	02	13.44063	11	16	59.74	+01	54	25.8	9	675
(3038)		1955	07	24.40347	22	02	11.05	-17	53	13.9	6	675
(3038)		1955	07	24.43056	22	02	09.98	-17	53	15.1	6	675

(3054)	1991	02	13.40191	10	54	36.00	+07	32	10.3	9	675
(3054)	1991	02	13.44063	10	54	34.37	+07	32	22.4	9	675
(3070)	1953	08	15.31979	21	08	36.29	-14	04	32.6	6	675
(3070)	1953	08	15.34306	21	08	34.81	-14	04	40.5	6	675
(3105)	1991	02	13.40191	11	20	08.96	+07	45	19.1	9	675
(3105)	1991	02	13.44063	11	20	07.39	+07	45	35.3	9	675
(3114)	1991	02	13.40191	11	17	38.22	+03	26	53.1	9	675
(3114)	1991	02	13.44063	11	17	36.42	+03	27	03.8	9	675
(3124)	1953	08	15.31979	20	47	11.98	-13	25	49.5	6	675
(3124)	1953	08	15.34306	20	47	10.78	-13	25	57.1	6	675
(3134)	1955	04	18.21389	10	57	41.92	-03	32	00.3	6	675
(3134)	1955	04	18.23889	10	57	41.48	-03	31	54.2	6	675
(3134)	1992	11	25.34097	04	21	29.60	+23	42	25.9	9	675
(3134)	1992	11	25.37274	04	21	28.11	+23	42	18.7	9	675
(3134)	1992	11	28.34583	04	19	12.92	+23	30	09.6	9	675
(3134)	1992	11	28.38090	04	19	11.27	+23	30	00.9	9	675
(3194)	1953	12	07.42396	06	46	50.33	+30	10	31.9	6	675
(3194)	1953	12	07.44792	06	46	49.17	+30	10	37.6	6	675
(3195)	1991	02	13.40191	11	06	09.02	+04	33	40.3	9	675
(3195)	1991	02	13.44063	11	06	07.41	+04	33	48.4	9	675
(3285)	1955	12	11.36076	06	11	44.73	+10	03	46.9	6	675
(3285)	1955	12	11.38264	06	11	43.29	+10	03	27.0	6	675
(3420)	1951	01	04.37986	09	44	11.36	+08	06	46.3	6	675
(3420)	1951	01	04.40903	09	44	10.89	+08	06	54.4	6	675
(3420)	1953	08	15.31979	20	43	33.99	-13	06	33.7	6	675
(3420)	1953	08	15.34306	20	43	32.95	-13	06	42.0	6	675
(3456)	1992	11	25.34097	04	27	56.06	+21	03	53.0	9	675
(3456)	1992	11	25.37274	04	27	53.76	+21	03	50.0	9	675
(3456)	1992	11	28.34583	04	24	20.81	+20	58	47.7	9	675
(3456)	1992	11	28.38090	04	24	18.20	+20	58	43.9	9	675
(3501)	1992	11	25.34097	04	18	19.61	+21	32	46.0	9	675
(3501)	1992	11	25.37274	04	18	17.82	+21	32	39.2	9	675
(3501)	1992	11	28.34583	04	15	35.17	+21	21	36.1	9	675
(3501)	1992	11	28.38090	04	15	33.16	+21	21	29.7	9	675
(3510)	1953	08	15.31979	20	58	46.87	-10	32	40.0	6	675
(3510)	1953	08	15.34306	20	58	45.57	-10	32	42.4	6	675
(3511)	1955	12	11.36076	06	16	47.49	+14	11	06.0	6	675
(3511)	1955	12	11.38264	06	16	46.31	+14	10	58.9	6	675
(3515)	1956	04	09.41150	14	29	59.43	-16	31	53.1	6	675
(3515)	1956	04	09.43264	14	29	58.40	-16	31	50.3	6	675
(3544)	1991	02	13.40191	11	22	12.64	+07	08	03.5	9	675
(3544)	1991	02	13.44063	11	22	11.19	+07	08	20.1	9	675
(3556)	1992	11	25.32691	03	30	46.80	+19	53	16.6	9	675
(3556)	1992	11	25.35885	03	30	45.25	+19	53	02.7	9	675
(3556)	1992	11	28.28993	03	28	32.43	+19	31	59.9	9	675
(3556)	1992	11	28.32344	03	28	30.76	+19	31	43.4	9	675
(3564)	1956	04	09.41150	14	23	09.67	-18	25	07.4	6	675
(3564)	1956	04	09.43264	14	23	08.80	-18	25	08.0	6	675
(3594)	1955	04	18.21389	10	48	53.07	+00	06	27.1	6	675
(3594)	1955	04	18.23889	10	48	52.48	+00	06	25.3	6	675
(3659)	1991	02	13.40191	11	15	34.26	+01	38	12.0	9	675
(3659)	1991	02	13.44063	11	15	32.57	+01	38	22.0	9	675
(3703)	1953	08	15.31845	20	46	59.75	-09	42	14.0	6	675
(3703)	1953	08	15.34306	20	46	58.56	-09	42	26.0	6	675
(3727)	1991	02	13.40191	10	53	18.56	+06	18	42.2	9	675
(3727)	1991	02	13.44063	10	53	17.16	+06	18	55.0	9	675
(3733)	1953	08	15.31979	20	58	41.10	-12	28	51.6	6	675
(3733)	1953	08	15.34306	20	58	39.87	-12	28	54.6	6	675
(3755)	1956	04	09.41146	14	32	13.68	-18	03	10.5	6	675

(3755)		1956	04	09.43264	14	32	12.74	-18	03	04.7		6 675
(3765)		1992	11	25.34097	04	16	28.09	+21	27	16.6		9 675
(3765)		1992	11	25.37274	04	16	26.19	+21	27	11.1		9 675
(3765)		1992	11	28.34583	04	13	37.95	+21	19	04.6		9 675
(3765)		1992	11	28.38090	04	13	35.91	+21	18	58.9		9 675
(3860)		1953	08	15.31979	21	08	32.84	-09	19	27.9		6 675
(3860)		1953	08	15.34306	21	08	31.58	-09	19	27.1		6 675
(3887)		1955	12	11.36076	06	13	12.56	+09	34	01.3		6 675
(3887)		1955	12	11.38264	06	13	11.40	+09	33	59.4		6 675
(3925)		1991	02	13.40191	11	13	16.24	+04	01	20.1		9 675
(3925)		1991	02	13.44063	11	13	14.90	+04	01	33.5		9 675
(4051)		1992	11	25.32691	03	29	42.28	+22	19	53.0		9 675
(4051)		1992	11	25.35885	03	29	40.52	+22	19	44.0		9 675
(4195)		1992	11	25.34097	04	07	53.72	+17	56	58.1		9 675
(4195)		1992	11	25.37274	04	07	51.91	+17	56	53.4		9 675
(4195)		1992	11	28.34583	04	05	07.43	+17	48	33.7		9 675
(4195)		1992	11	28.38090	04	05	05.30	+17	48	28.0		9 675
(4200)		1992	11	25.34097	04	18	31.36	+20	44	53.7		9 675
(4200)		1992	11	28.34583	04	15	38.48	+20	24	57.9		9 675
(4200)		1992	11	28.38090	04	15	36.38	+20	24	44.1		9 675
(4206)		1992	11	25.34097	04	27	18.87	+21	50	55.5		9 675
(4206)		1992	11	25.37274	04	27	17.12	+21	50	50.7		9 675
(4206)		1992	11	28.34583	04	24	30.07	+21	43	31.4		9 675
(4210)		1953	08	15.31979	21	04	55.91	-10	22	38.5		6 675
(4210)		1953	08	15.34306	21	04	54.87	-10	22	46.8		6 675
(4235)		1991	02	13.40191	11	12	00.48	+04	53	47.2		9 675
(4235)		1991	02	13.44063	11	11	58.96	+04	53	54.9		9 675
(4265)		1991	02	13.40191	11	10	29.19	+08	55	29.3		9 675
(4265)		1991	02	13.44063	11	10	27.39	+08	55	44.6		9 675
(4271)		1991	02	13.40191	10	52	21.52	+06	05	21.3		9 675
(4271)		1991	02	13.44063	10	52	20.05	+06	05	39.0		9 675
(4273)		1991	02	13.40191	11	16	38.26	+07	15	35.6	18.5	9 675
(4273)		1991	02	13.44063	11	16	36.45	+07	15	49.7		9 675
(4370)		1992	11	25.34097	04	30	44.33	+19	22	29.8		9 675
(4370)		1992	11	25.37274	04	30	42.15	+19	22	21.3		9 675
(4370)		1992	11	28.34583	04	27	23.09	+19	09	24.6		9 675
(4370)		1992	11	28.38090	04	27	20.66	+19	09	15.4		9 675
(4428)		1955	07	24.40347	22	03	43.55	-20	00	02.9		6 675
(4428)		1955	07	24.43056	22	03	42.80	-20	00	15.2		6 675
(4428)		1992	11	25.32691	03	55	04.93	+17	09	05.7		9 675
(4428)		1992	11	25.35885	03	55	02.71	+17	09	03.3		9 675
(4428)		1992	11	28.28993	03	51	48.10	+17	04	50.9		9 675
(4428)		1992	11	28.32344	03	51	45.95	+17	04	48.3		9 675
(4445)		1992	11	25.34097	04	31	22.69	+18	57	24.6		9 675
(4445)		1992	11	25.37274	04	31	20.60	+18	57	16.3		9 675
(4445)		1992	11	28.34583	04	28	05.61	+18	44	33.9		9 675
(4445)		1992	11	28.38090	04	28	03.19	+18	44	24.5		9 675
(4478)		1992	11	25.34097	04	02	40.80	+22	57	26.8		9 675
(4478)		1992	11	25.37274	04	02	38.61	+22	57	20.0		9 675
(4501)		1955	04	18.21389	10	48	00.26	-02	25	50.5		6 675
(4501)		1955	04	18.23889	10	47	59.96	-02	25	45.8		6 675
(4512)		1955	07	24.40347	21	59	41.24	-17	08	39.5		6 675
(4512)		1955	07	24.43056	21	59	40.26	-17	08	49.2		6 675
(4554)		1992	11	25.32691	03	38	13.08	+23	14	01.8		9 675
(4554)		1992	11	25.35885	03	38	11.40	+23	13	51.2		9 675
(4554)		1992	11	28.28993	03	35	51.65	+23	00	06.9		9 675
(4554)		1992	11	28.32344	03	35	49.77	+22	59	57.1		9 675
(4575)		1991	02	13.40191	10	56	47.53	+08	50	49.3		9 675
(4575)		1991	02	13.44063	10	56	46.06	+08	51	09.2		9 675

(4744)		1955	07	24.40347	22	07	01.64	-19	24	52.2		6	675
(4744)		1955	07	24.43056	22	07	00.49	-19	24	56.0		6	675
(4926)		1992	11	25.32691	03	45	39.93	+21	53	00.5		9	675
(4926)		1992	11	25.35885	03	45	38.24	+21	52	55.0		9	675
(4926)		1992	11	28.28993	03	42	56.60	+21	44	05.0		9	675
(4926)		1992	11	28.32344	03	42	54.63	+21	43	59.4		9	675
(4927)		1992	11	25.34097	04	07	33.18	+22	47	16.9		9	675
(4927)		1992	11	25.37274	04	07	31.38	+22	47	10.1		9	675
(4927)		1992	11	28.34583	04	04	42.88	+22	39	27.7		9	675
(4927)		1992	11	28.38090	04	04	40.89	+22	39	20.6		9	675
(4940)		1992	11	25.32691	03	58	37.77	+17	22	42.7		9	675
(4940)		1992	11	25.35885	03	58	36.03	+17	22	37.5		9	675
(4940)		1992	11	28.28993	03	56	03.09	+17	17	08.8		9	675
(4940)		1992	11	28.32344	03	56	01.30	+17	17	05.2		9	675
(4960)		1992	11	25.32691	03	46	31.52	+18	36	42.1		9	675
(4960)		1992	11	25.35885	03	46	29.72	+18	36	38.0		9	675
(4960)		1992	11	28.28993	03	43	57.42	+18	29	12.7		9	675
(4960)		1992	11	28.32344	03	43	55.64	+18	29	07.2		9	675
(4991)		1991	02	13.40191	11	02	27.54	+07	48	10.4		9	675
(4991)		1991	02	13.44063	11	02	25.81	+07	48	18.2		9	675
(5009)		1992	11	25.32691	03	26	22.36	+19	21	30.1		9	675
(5009)		1992	11	25.35885	03	26	20.16	+19	21	23.7		9	675
(5130)		1955	12	11.36076	06	21	13.35	+13	43	12.8		6	675
(5130)		1955	12	11.38264	06	21	12.62	+13	43	09.9		6	675
(5150)		1953	12	07.42396	06	37	14.92	+32	09	23.7		6	675
(5150)		1953	12	07.44792	06	37	13.65	+32	09	29.7		6	675
(5204)		1992	11	25.32691	03	40	57.60	+18	24	27.2		9	675
(5204)		1992	11	25.35885	03	40	55.92	+18	24	21.9		9	675
(5204)		1992	11	28.28993	03	38	28.45	+18	15	58.4		9	675
(5204)		1992	11	28.32344	03	38	26.76	+18	15	52.6		9	675
(5364)		1953	08	15.31979	20	54	30.23	-13	47	28.6		6	675
(5364)		1953	08	15.34306	20	54	28.94	-13	47	30.5		6	675
(5392)		1992	11	25.32691	03	47	46.20	+23	51	47.2		9	675
(5392)		1992	11	25.35885	03	47	42.83	+23	52	05.0		9	675
(5402)		1992	11	25.34097	04	06	08.47	+17	01	33.3		9	675
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(5429)		1992	11	25.32691	03	54	56.67	+19	20	55.4		9	675
(5429)		1992	11	25.35885	03	54	55.04	+19	20	48.7		9	675
(5429)		1992	11	28.28993	03	52	25.59	+19	12	59.9		9	675
(5429)		1992	11	28.32344	03	52	23.97	+19	12	54.4		9	675
(5439)		1956	04	09.41146	14	34	48.46	-16	21	09.1		6	675
(5439)		1956	04	09.43264	14	34	47.66	-16	21	03.2		6	675
(5442)		1992	11	25.35278	04	30	29.04	+24	01	23.1	17.5	9	675
(5442)		1992	11	25.38455	04	30	27.16	+24	01	18.8		9	675
(5442)		1992	11	28.34583	04	27	36.95	+23	55	50.7		9	675
(5442)		1992	11	28.35260	04	27	36.57	+23	55	51.6		9	675
(5442)		1992	11	28.38090	04	27	34.83	+23	55	47.2		9	675
(5442)		1992	11	28.38733	04	27	34.41	+23	55	48.6		9	675
(5443)		1992	11	26.13802	01	06	29.33	+23	23	09.0	18.0	9	675
(5443)		1992	11	26.17379	01	06	28.75	+23	22	56.4		9	675
(5443)		1992	11	27.12795	01	06	08.92	+23	17	24.5		9	675
(5443)		1992	11	27.16424	01	06	08.07	+23	17	11.8		9	675
(5443)		1992	11	28.15226	01	05	49.20	+23	11	32.6		9	675
(5443)		1992	11	28.18646	01	05	48.51	+23	11	21.7		9	675
(5444)		1992	11	28.46927	06	18	49.49	+22	09	56.8	16.9	9	675
(5444)		1992	11	28.50330	06	18	48.10	+22	09	56.9		9	675
(5444)		1992	12	01.42031	06	16	49.41	+22	10	30.4		9	675
(5444)		1992	12	01.45000	06	16	48.18	+22	10	32.6		9	675
(5445)		1992	11	25.32691	03	42	46.83	+22	49	38.9	17.2	9	675

(5445)	1992 11 25.35885	03 42 44.86	+22 49 29.9		9	675
(5445)	1992 11 28.28993	03 39 54.10	+22 35 43.0		9	675
(5445)	1992 11 28.32344	03 39 52.14	+22 35 34.1		9	675
(5446)	1992 11 25.35278	04 53 48.61	+20 42 27.6	16.0	9	675
(5446)	1992 11 25.38455	04 53 46.93	+20 42 26.3		9	675
(5447)	1992 11 25.20608	02 28 38.39	+28 59 21.2		9	675
(5447)	1992 11 25.23941	02 28 36.80	+28 59 12.4	17.0	9	675
(5447)	1992 11 28.21337	02 26 22.00	+28 46 29.1		9	675
(5447)	1992 11 28.24879	02 26 20.52	+28 46 20.5		9	675
(5485)	1992 11 28.49080	06 53 13.31	+25 58 55.1	17.6	9	675
(5485)	1992 11 28.53177	06 53 12.24	+25 59 01.7		9	675
(5485)	1992 12 01.48524	06 51 40.67	+26 06 49.8		9	675
(5485)	1992 12 01.51927	06 51 39.45	+26 06 53.8		9	675
(5520)	1951 01 04.37986	09 56 05.60	+07 52 56.9		6	675
(5520)	1951 01 04.40903	09 56 04.92	+07 52 56.1		6	675
(5551)	1993 04 20.44722	16 30 34.34	+17 53 05.8	17.5	3	675
(5551)	1993 04 20.48350	16 30 33.08	+17 53 18.4		3	675

689 U.S. Naval Observatory, Flagstaff Station
D. K. Yeomans, Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, CA 91109
Observers C. Dahn, H. Harris, S. Leggett, A. Monet, D. Monet, J. Pier, R. Stone, R. Walker, F. Vrba
0.2-m transit + CCD

(243)	1993 04 14.239285	11 47 28.437	+00 08 47.58		689
(243)	1993 04 15.236162	11 46 54.441	+00 12 25.22		689
(243)	1993 04 17.229955	11 45 49.715	+00 19 21.07		689
(243)	1993 04 18.226869	11 45 19.047	+00 22 38.71		689
(243)	1993 04 19.223797	11 44 49.534	+00 25 49.37		689
(243)	1993 04 20.220742	11 44 21.211	+00 28 52.88		689
(243)	1993 04 21.217698	11 43 54.098	+00 31 48.94		689
(243)	1993 04 22.214668	11 43 28.202	+00 34 37.76		689
(243)	1993 04 22.214668	11 43 28.210	+00 34 37.51		689

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

1953 TS2	1993 04 14.26254	13 15 49.26	-02 04 00.1	16.6 V		691
1953 TS2	1993 04 14.29446	13 15 47.25	-02 03 50.1			691
1953 TS2	1993 04 14.32667	13 15 45.23	-02 03 40.1			691
1979 MM5	1993 04 17.19836	11 50 23.66	-01 12 15.7			691
1979 MM5	1993 04 17.21974	11 50 22.81	-01 12 09.9	18.7 V		691
1979 MM5	1993 04 17.24106	11 50 21.97	-01 12 04.0			691
1979 SR2	1993 04 17.19449	11 44 17.57	-01 14 53.0			691
1979 SR2	1993 04 17.21588	11 44 16.83	-01 14 49.2	20.0 V		691
1979 SR2	1993 04 17.23721	11 44 16.15	-01 14 44.6			691
1980 TT3	1993 04 18.14153	11 48 53.70	-00 21 47.7	18.1 V		691
1980 TT3	1993 04 18.16312	11 48 52.80	-00 21 45.2			691
1980 TT3	1993 04 18.18442	11 48 51.90	-00 21 42.7			691
1981 EC14	1992 01 01.44086	08 28 31.11	+21 41 32.5			691
1981 EC14	1992 01 01.46466	08 28 29.84	+21 41 35.1	19.9 V		691
1981 EC14	1992 01 01.48686	08 28 28.69	+21 41 38.1			691
1981 EL34	1993 04 26.28525	14 13 56.67	-14 05 13.9	18.0 V		691
1981 EL34	1993 04 26.31831	14 13 55.12	-14 05 06.0			691
1981 EL34	1993 04 26.35179	14 13 53.61	-14 04 57.7			691
1981 EG36	1993 04 20.39500	15 22 44.12	-12 24 50.0	17.3 V		691

1981	EG36		1993	04	20.40985	15	22	43.61	-12 24 49.6	691
1982	UQ10		1993	04	29.26820	14	11	50.05	-14 20 59.4	691
1982	UQ10		1993	04	29.29026	14	11	48.92	-14 20 54.2	691
1982	UQ10		1993	04	29.31497	14	11	47.45	-14 20 48.0 18.7 V	691
1984	YE4		1993	04	15.31174	13	42	02.56	-01 53 06.8 17.7 V	691
1984	YE4		1993	04	15.34333	13	42	00.62	-01 52 59.1	691
1984	YE4		1993	04	15.37654	13	41	58.59	-01 52 51.4	691
1986	PX4		1993	04	26.28901	14	19	22.32	-14 11 27.1	691
1986	PX4		1993	04	26.32207	14	19	20.30	-14 11 18.5 17.2 V	691
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1986	QX3		1993	04	20.29718	12	54	34.71	+00 44 31.1 17.0 V	691
1986	QX3		1993	04	20.32879	12	54	33.10	+00 44 39.9	691
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1987	SL1		1993	04	17.27679	12	17	31.19	-02 53 44.9 18.0 V	691
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1987	SH2		1993	04	19.23583	13	19	13.05	+00 10 00.2 16.8 V	691
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1987	SH2		1993	04	19.32353	13	19	08.38	+00 10 44.1	691
1987	SH2		1993	04	22.15616	13	16	46.88	+00 33 39.7 17.3 V	691
1987	SH2		1993	04	22.17492	13	16	45.90	+00 33 48.4	691
1987	SH2		1993	04	22.19523	13	16	44.86	+00 33 57.6	691
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1987	ST11		1993	04	21.25537	14	01	54.13	-10 00 54.3	691
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1987	UQ3		1993	04	19.35894	13	33	13.50	-00 16 04.0 17.3 V	691
1987	UQ3		1993	04	19.39177	13	33	11.49	-00 15 56.2	691
1988	CH		1993	04	26.39974	16	00	53.65	-13 54 06.4 18.0 V	691
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1989	AF1		1993	04	18.35713	14	06	17.29	-04 13 52.5 17.5 V	691
1989	BS1		1993	04	15.21013	11	59	26.37	-02 29 01.5 17.2 V	691
1989	BS1		1993	04	15.24068	11	59	24.98	-02 28 53.4	691
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1990	RE7		1993	04	15.20858	11	57	12.07	-02 20 49.3	691
1990	RE7		1993	04	15.23913	11	57	10.81	-02 20 45.3	691
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1990	SP7		1993	04	29.20502	12	25	41.86	+00 56 37.3 17.1 V	691
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1991	RX23		1993	02	26.14769	04	38	26.90	+32 36 12.6 19.1 V	691
1991	TH2		1993	04	14.12968	11	23	30.10	+05 26 42.8	691
1991	TH2		1993	04	14.19392	11	23	27.88	+05 26 57.1	691
1991	UB3		1991	11	05.36619	02	35	42.76	+11 37 10.4	691
1991	UB3		1991	11	05.37691	02	35	42.08	+11 37 10.4 16.7 V	691
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1991	UD3		1993	04	21.23381	13	30	46.47	-10 00 57.5	691
1991	UD3		1993	04	21.26611	13	30	44.78	-10 00 43.2 18.5 V	691
1991	UD3		1993	04	21.29804	13	30	43.13	-10 00 29.2	691
1991	VM4		1993	04	25.24715	14	00	18.00	-12 46 55.3 18.2 V	691
1991	VM4		1993	04	25.27974	14	00	16.05	-12 46 46.8	691
1991	VM4		1993	04	25.31236	14	00	14.06	-12 46 38.9	691
1991	XY5	*	1991	12	04.22567	04	31	16.38	+17 48 28.9 18.6 V	691
1991	XY5		1991	12	04.24709	04	31	15.04	+17 48 26.0	691

1991 XY5		1991	12	04.26842	04	31	13.70	+17	48	22.8	691
1992 AG4	*	1992	01	01.36409	08	18	19.85	+21	28	29.5	691
1992 AG4		1992	01	01.38586	08	18	18.88	+21	28	33.1	18.8 V 691
1992 AG4		1992	01	01.40785	08	18	17.91	+21	28	36.1	691
1993 BV5		1993	01	29.32199	09	33	16.30	+16	50	35.0	18.4 V 691
1993 BV5		1993	01	29.33397	09	33	15.53	+16	50	36.3	691
1993 BV5		1993	01	29.34599	09	33	14.78	+16	50	38.3	691
1993 DC		1993	04	15.16741	07	09	40.01	+32	58	18.9	20.1 V 691
1993 DC		1993	04	15.17667	07	09	41.76	+32	58	15.2	19.6 V 691
1993 DC		1993	04	15.18551	07	09	43.27	+32	58	12.0	19.7 V 691
1993 DB1		1991	11	05.23917	02	38	42.14	+15	10	03.6	691
1993 DB1		1991	11	05.26341	02	38	40.60	+15	09	56.3	17.1 V 691
1993 DB1		1991	11	05.28420	02	38	39.29	+15	09	50.5	691
1993 DX2		1993	01	29.44737	09	32	11.10	+15	48	18.0	18.1 V 691
1993 DX2		1993	01	29.45948	09	32	10.40	+15	48	23.2	691
1993 DX2		1993	01	29.47118	09	32	09.74	+15	48	28.2	691
1993 EA		1993	04	27.15156	11	15	48.55	+13	55	11.5	19.7 V 691
1993 EA		1993	04	27.15955	11	15	48.09	+13	55	12.1	19.7 V 691
1993 EA		1993	05	14.16415	11	07	08.27	+13	33	57.8	20.1 V 691
1993 EA		1993	05	14.19612	11	07	07.92	+13	33	51.2	20.2 V 691
1993 EA		1993	05	14.21877	11	07	07.72	+13	33	47.2	20.6 V 691
1993 FS		1993	05	13.35286	14	11	11.04	+15	54	18.3	20.1 V 691
1993 FS		1993	05	13.36299	14	11	11.79	+15	54	17.4	691
1993 GD	*	1993	04	15.20769	11	55	54.66	-02	37	21.3	19.7 V 691
1993 GD		1993	04	15.23823	11	55	52.86	-02	35	58.1	19.7 V 691
1993 GD		1993	04	15.26519	11	55	51.22	-02	34	44.5	19.5 V 691
1993 GD		1993	04	17.20110	11	54	21.62	-01	09	27.8	19.7 V 691
1993 GD		1993	04	17.22248	11	54	20.48	-01	08	33.1	19.9 V 691
1993 GD		1993	04	17.24380	11	54	19.38	-01	07	38.9	19.7 V 691
1993 GD		1993	04	18.14488	11	53	43.44	-00	29	46.8	20.1 V 691
1993 GD		1993	04	18.16646	11	53	42.45	-00	28	53.1	20.2 V 691
1993 GD		1993	04	18.18776	11	53	41.42	-00	28	00.2	20.2 V 691
1993 GD		1993	04	24.16652	11	50	58.87	+03	14	06.6	20.8 V 691
1993 GD		1993	04	24.17664	11	50	58.60	+03	14	26.9	20.9 V 691
1993 GD		1993	04	24.18660	11	50	58.29	+03	14	47.4	20.1 V 691
1993 GD		1993	04	27.16861	11	50	27.77	+04	47	10.2	20.8 V 691
1993 GD		1993	04	27.17425	11	50	27.68	+04	47	20.0	20.9 V 691
1993 GD		1993	04	27.18043	11	50	27.66	+04	47	31.4	20.8 V 691
1993 GD		1993	05	14.17149	11	56	23.61	+10	19	19.3	21.7 V 691
1993 GD		1993	05	14.20197	11	56	24.62	+10	19	41.7	22.4 V 691
1993 GD		1993	05	14.22847	11	56	25.92	+10	19	59.8	691
1993 GA1	*	1993	04	15.22138	12	15	40.46	-02	46	00.5	18.2 V 691
1993 GA1		1993	04	15.25192	12	15	38.81	-02	45	54.8	691
1993 GA1		1993	04	15.27889	12	15	37.32	-02	45	49.5	691
1993 GA1		1993	04	17.27429	12	13	54.80	-02	40	05.6	18.5 V 691
1993 GA1		1993	04	17.28732	12	13	54.13	-02	40	03.6	691
1993 GA1		1993	04	17.30031	12	13	53.45	-02	40	01.2	691
1993 HA	*	1993	04	17.44147	15	25	33.44	-04	37	39.5	19.3 V 691
1993 HA		1993	04	17.46188	15	25	31.74	-04	37	11.0	19.4 V 691
1993 HA		1993	04	17.48190	15	25	30.07	-04	36	42.8	19.5 V 691
1993 HA		1993	04	18.31278	15	24	26.98	-04	17	35.5	19.0 V 691
1993 HA		1993	04	18.32046	15	24	26.31	-04	17	24.9	19.0 V 691
1993 HA		1993	04	18.32833	15	24	25.62	-04	17	14.2	18.9 V 691
1993 HA		1993	04	19.43173	15	22	56.27	-03	51	56.3	19.7 V 691
1993 HA		1993	04	19.43960	15	22	55.55	-03	51	45.8	19.8 V 691
1993 HA		1993	04	19.44702	15	22	54.87	-03	51	35.1	19.9 V 691
1993 HA		1993	04	28.29631	15	09	31.95	-00	38	51.2	20.8 V 691
1993 HA		1993	04	28.30199	15	09	31.37	-00	38	44.2	19.9 V 691
1993 HA		1993	04	28.30805	15	09	30.75	-00	38	36.7	19.6 V 691

1993 HA		1993	05	13.27621	14	45	47.47	+03	19	31.1	20.4 V	691
1993 HA		1993	05	13.30798	14	45	44.51	+03	19	52.1	20.0 V	691
1993 HA		1993	05	13.33854	14	45	41.67	+03	20	12.1	21.2 V	691
1993 HC	*	1993	04	20.30313	13	03	09.97	+00	38	55.5	18.1 V	691
1993 HC		1993	04	20.33483	13	03	15.87	+00	39	44.4		691
1993 HC		1993	04	20.36661	13	03	21.64	+00	40	28.9	18.3 V	691
1993 HC		1993	04	21.17457	13	06	01.05	+00	59	36.8	18.3 V	691
1993 HC		1993	04	21.18459	13	06	02.80	+00	59	51.0	18.2 V	691
1993 HC		1993	04	21.19661	13	06	04.90	+01	00	07.2	18.4 V	691
1993 HC		1993	04	21.20488	13	06	06.32	+01	00	18.3	18.2 V E	691
1993 HC		1993	04	21.21226	13	06	07.56	+01	00	28.5	18.0 V E	691
1993 HC		1993	04	21.21966	13	06	08.87	+01	00	39.1	18.2 V E	691
1993 HC		1993	04	21.36193	13	06	33.28	+01	03	51.3	18.5 V	691
1993 HC		1993	04	21.36924	13	06	34.53	+01	04	01.0	18.5 V	691
1993 HC		1993	04	21.37665	13	06	35.82	+01	04	10.9	18.5 V	691
1993 HC		1993	04	22.31610	13	09	26.77	+01	24	17.6	17.8 V	691
1993 HC		1993	04	22.32358	13	09	27.97	+01	24	26.9	17.8 V	691
1993 HC		1993	04	22.33128	13	09	29.21	+01	24	36.1	17.7 V	691
1993 HC		1993	04	28.15001	13	24	03.72	+02	54	38.0	18.8 V	691
1993 HC		1993	04	28.15602	13	24	04.54	+02	54	43.0	18.3 V	691
1993 HC		1993	04	28.17430	13	24	06.62	+02	54	54.3	18.1 V	691
1993 HC		1993	05	13.26369	13	48	26.82	+03	54	26.8	19.9 V	691
1993 HC		1993	05	13.30097	13	48	29.41	+03	54	24.7	20.6 V	691
1993 HC		1993	05	13.33192	13	48	31.52	+03	54	21.8	20.7 V	691
1993 HD	*	1993	04	20.30701	13	08	45.96	+00	40	21.3	21.5 V	691
1993 HD		1993	04	20.33861	13	08	43.95	+00	40	30.4	20.8 V	691
1993 HD		1993	04	20.37030	13	08	41.45	+00	40	36.0	19.2 V	691
1993 HD		1993	04	21.20623	13	08	15.46	+00	42	23.6	20.9 V	691
1993 HD		1993	04	21.21358	13	08	14.96	+00	42	26.5	21.2 V	691
1993 HD		1993	04	21.22098	13	08	14.55	+00	42	28.7	21.4 V	691
1993 HC1		1991	10	03.45274	01	48	36.63	+13	07	39.5		691
1993 HC1		1991	10	03.47384	01	48	35.06	+13	07	42.9	19.8 V	691
1993 HC1		1991	10	03.49191	01	48	33.78	+13	07	45.9		691
1993 HC1		1993	03	19.46756	13	30	05.51	+03	14	25.1		691
1993 HC1		1993	03	19.48570	13	30	03.87	+03	14	11.5	17.2 V	691
1993 HC1		1993	03	19.50413	13	30	02.20	+03	13	57.9		691
1993 HP1	*	1993	04	27.26345	14	17	24.13	-14	34	36.5	16.5 V	691
1993 HP1		1993	04	27.26973	14	17	48.73	-14	46	00.7		691
1993 HP1		1993	04	27.27607	14	18	13.39	-14	57	26.8		691
1993 HP1		1993	04	27.28257	14	18	38.46	-15	09	01.5		691
1993 HP1		1993	04	27.29005	14	19	07.43	-15	22	20.5		691
1993 HP1		1993	04	27.29640	14	19	31.66	-15	33	30.0		691
1993 HP1		1993	04	27.30064	14	19	47.89	-15	40	55.1		691
1993 HP1		1993	04	27.30473	14	20	03.47	-15	48	03.6		691
1993 HP1		1993	04	27.30977	14	20	22.81	-15	56	50.1		691
1993 HP1		1993	04	27.31389	14	20	38.47	-16	03	59.4		691
1993 HP1		1993	04	27.31837	14	20	55.27	-16	11	38.2		691
1993 HP1		1993	04	27.32716	14	21	28.31	-16	26	37.7		691
1993 HP1		1993	04	27.33127	14	21	43.81	-16	33	38.8		691
1993 HP1		1993	04	27.33616	14	22	02.18	-16	41	53.6		691
1993 HP1		1993	04	27.34078	14	22	19.50	-16	49	39.5		691
1993 HP1		1993	04	27.34597	14	22	38.74	-16	58	18.7		691
1993 HP1		1993	04	27.35074	14	22	56.56	-17	06	14.1		691
1993 HP1		1993	04	27.36411	14	23	46.16	-17	28	16.0		691
1993 HP1		1993	04	27.37003	14	24	07.86	-17	37	50.4		691
1993 HP1		1993	04	27.37418	14	24	23.19	-17	44	32.0		691
1993 HP1		1993	04	27.37913	14	24	41.36	-17	52	33.1		691
1993 HP1		1993	04	27.38342	14	24	57.09	-17	59	23.5		691
1993 HP1		1993	04	27.38792	14	25	13.53	-18	06	32.9		691

1993 HP1		1993	04	27.39373	14	25	34.81	-18 15 46.6	691
1993 HP1		1993	04	27.39821	14	25	51.22	-18 22 51.3	691
1993 HP1		1993	04	27.40315	14	26	09.22	-18 30 34.5	691
1993 HP1		1993	04	27.40894	14	26	30.32	-18 39 35.3	691
1993 HP1		1993	04	27.41314	14	26	45.58	-18 46 07.0	691
1993 HP1		1993	04	27.42073	14	27	13.10	-18 57 47.3	691
1993 HP1		1993	04	27.42495	14	27	28.48	-19 04 14.5	691
1993 HA2	*	1993	04	26.28179	14	08	56.38	-14 12 46.1	20.0 V 691
1993 HA2		1993	04	26.31486	14	08	55.90	-14 12 44.3	20.2 V 691
1993 HA2		1993	04	26.34835	14	08	55.45	-14 12 43.0	20.0 V 691
1993 HA2		1993	04	27.21471	14	08	42.96	-14 12 07.4	20.0 V 691
1993 HA2		1993	04	27.22301	14	08	42.82	-14 12 06.6	20.0 V 691
1993 HA2		1993	04	27.23102	14	08	42.72	-14 12 06.5	20.0 V 691
1993 HA2		1993	04	28.19026	14	08	28.97	-14 11 26.4	20.5 V 691
1993 HA2		1993	04	28.20179	14	08	28.76	-14 11 25.5	20.1 V 691
1993 HA2		1993	04	28.22525	14	08	28.43	-14 11 24.4	20.3 V 691
1993 HA2		1993	04	29.26570	14	08	13.36	-14 10 41.3	20.5 V 691
1993 HA2		1993	04	29.28777	14	08	13.07	-14 10 39.9	20.0 V 691
1993 HA2		1993	04	29.31249	14	08	12.72	-14 10 39.1	20.2 V 691
1993 HA2		1993	04	30.22551	14	07	59.67	-14 10 01.0	20.5 V 691
1993 HA2		1993	04	30.24824	14	07	59.37	-14 09 58.6	20.0 V 691
1993 HA2		1993	05	13.25397	14	04	59.43	-14 01 07.4	20.1 V 691
1993 HA2		1993	05	13.29370	14	04	58.91	-14 01 06.1	20.3 V 691
1993 HA2		1993	05	13.32135	14	04	58.48	-14 01 05.4	20.2 V 691
1993 HB2	*	1993	04	17.43941	15	22	34.57	-04 23 25.2	18.7 V 691
1993 HB2		1993	04	17.45982	15	22	33.61	-04 23 19.7	691
1993 HB2		1993	04	17.47985	15	22	32.70	-04 23 14.7	691
1993 HB2		1993	04	18.31104	15	21	56.48	-04 19 54.5	18.3 V 691
1993 HB2		1993	04	18.31872	15	21	56.11	-04 19 52.9	691
1993 HB2		1993	04	18.32660	15	21	55.70	-04 19 51.6	691
1993 HC2	*	1993	04	18.31343	15	25	23.12	-04 11 21.4	19.5 V 691
1993 HC2		1993	04	18.32111	15	25	22.81	-04 11 16.6	691
1993 HC2		1993	04	19.43296	15	24	42.84	-04 00 20.6	691
1993 HC2		1993	04	19.44084	15	24	42.57	-04 00 15.1	20.5 V 691
1993 HC2		1993	04	19.44826	15	24	42.28	-04 00 10.6	691
1993 HD2	*	1993	04	18.34267	13	45	24.20	-04 15 46.2	19.2 V 691
1993 HD2		1993	04	22.21459	13	41	50.69	-03 50 16.1	691
1993 HD2		1993	04	22.23258	13	41	49.67	-03 50 09.9	18.4 V 691
1993 HD2		1993	04	22.25084	13	41	48.65	-03 50 02.8	691
1993 HE2	*	1993	04	18.34358	13	46	43.06	-04 15 25.6	19.5 V 691
1993 HE2		1993	04	22.21569	13	43	25.79	-04 02 18.8	20.0 V 691
1993 HE2		1993	04	22.23368	13	43	24.87	-04 02 15.5	691
1993 HE2		1993	04	22.25194	13	43	23.95	-04 02 11.7	691
1993 HF2	*	1993	04	18.34679	13	51	21.20	-04 05 06.0	20.3 V 691
1993 HF2		1993	04	22.21856	13	47	34.57	-03 51 29.5	691
1993 HF2		1993	04	22.23655	13	47	33.50	-03 51 25.7	20.2 V 691
1993 HF2		1993	04	22.25481	13	47	32.37	-03 51 22.6	691
1993 HG2	*	1993	04	19.21269	12	45	37.81	+00 06 03.9	691
1993 HG2		1993	04	19.24551	12	45	36.37	+00 06 12.5	18.0 V 691
1993 HG2		1993	04	19.30043	12	45	33.98	+00 06 25.4	691
1993 HG2		1993	04	24.26388	12	42	15.86	+00 24 08.3	17.6 V 691
1993 HG2		1993	04	24.29247	12	42	14.71	+00 24 14.2	691
1993 HG2		1993	04	24.32059	12	42	13.64	+00 24 19.6	691
1993 HH2	*	1993	04	19.21298	12	46	14.42	+00 20 31.9	691
1993 HH2		1993	04	19.24579	12	46	13.01	+00 20 47.7	19.9 V 691
1993 HH2		1993	04	19.30070	12	46	10.72	+00 21 12.0	691
1993 HH2		1993	04	20.29090	12	45	30.71	+00 28 27.2	19.9 V 691
1993 HH2		1993	04	20.32251	12	45	29.38	+00 28 40.9	691
1993 HH2		1993	04	20.35421	12	45	28.05	+00 28 55.0	691

1993 HJ2	*	1993	04	19.21450	12 48 26.20	+00 07 08.9			691
1993 HJ2		1993	04	19.24731	12 48 24.91	+00 07 23.2	19.3	V	691
1993 HJ2		1993	04	19.30222	12 48 22.78	+00 07 45.3			691
1993 HJ2		1993	04	24.26605	12 45 23.82	+00 41 08.0	19.6	V	691
1993 HJ2		1993	04	24.29464	12 45 22.79	+00 41 18.9			691
1993 HJ2		1993	04	24.32276	12 45 21.80	+00 41 29.6			691
1993 HK2	*	1993	04	19.21458	12 48 33.06	+00 22 09.8			691
1993 HK2		1993	04	19.24739	12 48 31.56	+00 22 17.4	20.3	V	691
1993 HK2		1993	04	19.30229	12 48 28.91	+00 22 29.3			691
1993 HK2		1993	04	20.29245	12 47 44.42	+00 26 03.3	20.4	V	691
1993 HK2		1993	04	20.32406	12 47 42.95	+00 26 09.5			691
1993 HK2		1993	04	20.35575	12 47 41.46	+00 26 17.2			691
1993 HL2	*	1993	04	19.21649	12 51 17.96	+00 14 44.3			691
1993 HL2		1993	04	19.24929	12 51 16.27	+00 14 54.3	20.7	V	691
1993 HL2		1993	04	19.30419	12 51 13.38	+00 15 09.6			691
1993 HL2		1993	04	24.26735	12 47 16.63	+00 36 21.9			691
1993 HL2		1993	04	24.29594	12 47 15.30	+00 36 28.6	20.4	V	691
1993 HL2		1993	04	24.32406	12 47 14.01	+00 36 35.1			691
1993 HM2	*	1993	04	19.21721	12 52 20.74	+00 16 08.6			691
1993 HM2		1993	04	19.25002	12 52 19.32	+00 16 25.7	19.5	V	691
1993 HM2		1993	04	19.30492	12 52 16.96	+00 16 54.2			691
1993 HM2		1993	04	20.29513	12 51 36.41	+00 25 22.5			691
1993 HM2		1993	04	20.32674	12 51 35.20	+00 25 37.9	19.6	V	691
1993 HM2		1993	04	20.35844	12 51 33.84	+00 25 53.8			691
1993 HN2	*	1993	04	19.21868	12 54 28.01	+00 19 30.5	20.0	V	691
1993 HN2		1993	04	19.25148	12 54 26.21	+00 19 40.7			691
1993 HN2		1993	04	19.30638	12 54 23.22	+00 19 55.8			691
1993 HN2		1993	04	24.26940	12 50 14.11	+00 41 39.3	19.9	V	691
1993 HN2		1993	04	24.29799	12 50 12.62	+00 41 45.9			691
1993 HN2		1993	04	24.32611	12 50 11.23	+00 41 52.5			691
1993 HO2	*	1993	04	19.21967	12 55 53.81	+00 20 14.1			691
1993 HO2		1993	04	19.25248	12 55 52.16	+00 20 19.0	18.7	V	691
1993 HO2		1993	04	19.30738	12 55 49.41	+00 20 26.0			691
1993 HO2		1993	04	24.27067	12 52 04.20	+00 29 14.1	18.7	V	691
1993 HO2		1993	04	24.29927	12 52 02.94	+00 29 15.9			691
1993 HO2		1993	04	24.32738	12 52 01.68	+00 29 18.4			691
1993 HP2	*	1993	04	19.22042	12 56 58.87	+00 10 50.6	20.1	V	691
1993 HP2		1993	04	19.25323	12 56 57.14	+00 11 00.6			691
1993 HP2		1993	04	19.30813	12 56 54.28	+00 11 15.9			691
1993 HP2		1993	04	24.27124	12 52 53.85	+00 32 48.6			691
1993 HP2		1993	04	24.29984	12 52 52.44	+00 32 54.8			691
1993 HP2		1993	04	24.32795	12 52 51.10	+00 33 01.5	20.5	V	691
1993 HQ2	*	1993	04	19.22044	12 57 00.52	+00 02 44.7			691
1993 HQ2		1993	04	19.25324	12 56 58.68	+00 02 57.8	18.5	V	691
1993 HQ2		1993	04	19.30814	12 56 55.60	+00 03 18.8			691
1993 HQ2		1993	04	24.27107	12 52 38.53	+00 33 31.7	18.5	V	691
1993 HQ2		1993	04	24.29966	12 52 37.04	+00 33 40.9			691
1993 HQ2		1993	04	24.32777	12 52 35.61	+00 33 50.5			691
1993 HR2	*	1993	04	19.22660	13 05 53.74	-00 07 23.0	20.2	V	691
1993 HR2		1993	04	19.25941	13 05 52.43	-00 07 08.2			691
1993 HR2		1993	04	19.31431	13 05 50.31	-00 06 43.9			691
1993 HR2		1993	04	24.27821	13 02 56.86	+00 28 25.2			691
1993 HR2		1993	04	24.30681	13 02 55.84	+00 28 37.1	20.5	V	691
1993 HR2		1993	04	24.33492	13 02 54.86	+00 28 47.6			691
1993 HS2	*	1993	04	19.22688	13 06 17.96	+00 20 34.9			691
1993 HS2		1993	04	19.25968	13 06 16.46	+00 20 46.1	19.8	V	691
1993 HS2		1993	04	19.31459	13 06 13.93	+00 21 04.9			691
1993 HS2		1993	04	22.14742	13 04 09.53	+00 36 43.5			691
1993 HS2		1993	04	22.16618	13 04 08.74	+00 36 49.2	20.1	V	691

1993	HS2		1993	04	22.18649	13	04	07.80	+00 36 55.6	691
1993	HT2	*	1993	04	19.22845	13	08	33.90	+00 16 57.9	691
1993	HT2		1993	04	19.26125	13	08	32.21	+00 17 09.4 20.3 V	691
1993	HT2		1993	04	19.31615	13	08	29.38	+00 17 29.5	691
1993	HT2		1993	04	21.20532	13	06	56.81	+00 29 00.1	691
1993	HT2		1993	04	21.21268	13	06	56.42	+00 29 01.5 20.6 V	691
1993	HT2		1993	04	21.22007	13	06	56.07	+00 29 04.5	691
1993	HT2		1993	04	22.14883	13	06	11.63	+00 34 28.6 20.9 V	691
1993	HT2		1993	04	22.16759	13	06	10.75	+00 34 35.1	691
1993	HT2		1993	04	22.18790	13	06	09.70	+00 34 42.4	691
1993	HU2	*	1993	04	19.22907	13	09	28.25	+00 10 24.5 17.9 V	691
1993	HU2		1993	04	19.26188	13	09	26.65	+00 10 37.7	691
1993	HU2		1993	04	19.31678	13	09	24.03	+00 10 59.8	691
1993	HU2		1993	04	22.14963	13	07	20.58	+00 29 14.3	691
1993	HU2		1993	04	22.16839	13	07	19.79	+00 29 20.8	691
1993	HU2		1993	04	22.18870	13	07	18.85	+00 29 28.6 17.9 V	691
1993	HU2		1993	04	22.33856	13	07	12.03	+00 30 23.6 17.2 V	691
1993	HU2		1993	04	22.34725	13	07	11.61	+00 30 27.0	691
1993	HU2		1993	04	22.35502	13	07	11.26	+00 30 29.5	691
1993	HU2		1993	04	24.28024	13	05	52.53	+00 41 41.8	691
1993	HU2		1993	04	24.30883	13	05	51.34	+00 41 51.3 17.8 V	691
1993	HU2		1993	04	24.33695	13	05	50.12	+00 42 00.3	691
1993	HV2	*	1993	04	19.22913	13	09	32.78	+00 11 54.0 19.9 V	691
1993	HV2		1993	04	19.26193	13	09	30.83	+00 12 00.9	691
1993	HV2		1993	04	19.31682	13	09	27.63	+00 12 12.3	691
1993	HV2		1993	04	24.27956	13	04	54.16	+00 28 00.2 20.1 V	691
1993	HV2		1993	04	24.30815	13	04	52.62	+00 28 04.8	691
1993	HV2		1993	04	24.33627	13	04	51.04	+00 28 09.6	691
1993	HW2		1993	03	26.36708	13	28	32.44	-02 40 59.8	691
1993	HW2		1993	03	26.38512	13	28	31.66	-02 40 52.3	691
1993	HW2		1993	03	26.40325	13	28	30.87	-02 40 43.6 19.5 V	691
1993	HW2	*	1993	04	19.22974	13	10	25.74	+00 15 00.7 19.4 V	691
1993	HW2		1993	04	19.26254	13	10	24.24	+00 15 13.0	691
1993	HW2		1993	04	22.15031	13	08	19.72	+00 33 01.4	691
1993	HW2		1993	04	22.16907	13	08	18.88	+00 33 08.4	691
1993	HW2		1993	04	22.18938	13	08	17.98	+00 33 15.4 19.7 V	691
1993	HW2		1993	04	22.33924	13	08	11.34	+00 34 09.3 19.1 V	691
1993	HW2		1993	04	22.34793	13	08	10.96	+00 34 12.4	691
1993	HW2		1993	04	22.35571	13	08	10.65	+00 34 14.8	691
1993	HW2		1993	04	24.28091	13	06	50.91	+00 45 22.5 19.6 V	691
1993	HW2		1993	04	24.30951	13	06	49.77	+00 45 31.9	691
1993	HW2		1993	04	24.33762	13	06	48.58	+00 45 41.0	691
1993	HX2	*	1993	04	19.23030	13	11	14.09	+00 21 06.4 20.3 V	691
1993	HX2		1993	04	19.26310	13	11	12.10	+00 21 11.4	691
1993	HX2		1993	04	19.31799	13	11	08.87	+00 21 19.4	691
1993	HX2		1993	04	24.28068	13	06	30.72	+00 31 46.4	691
1993	HX2		1993	04	24.30927	13	06	29.18	+00 31 49.1 20.5 V	691
1993	HX2		1993	04	24.33738	13	06	27.50	+00 31 51.8	691
1993	HY2	*	1993	04	19.23068	13	11	47.10	+00 06 44.0	691
1993	HY2		1993	04	19.26348	13	11	45.14	+00 06 52.2	691
1993	HY2		1993	04	19.31837	13	11	41.90	+00 07 06.0 20.1 V	691
1993	HY2		1993	04	24.28107	13	07	04.96	+00 26 09.5 20.0 V	691
1993	HY2		1993	04	24.30966	13	07	03.43	+00 26 15.5	691
1993	HY2		1993	04	24.33778	13	07	01.85	+00 26 21.3	691
1993	HZ2	*	1993	04	19.23151	13	12	58.93	+00 18 10.9 19.7 V	691
1993	HZ2		1993	04	19.26431	13	12	57.18	+00 18 17.3	691
1993	HZ2		1993	04	19.31921	13	12	54.32	+00 18 29.9	691
1993	HZ2		1993	04	24.28232	13	08	52.84	+00 34 58.4	691
1993	HZ2		1993	04	24.31091	13	08	51.48	+00 35 03.4 19.9 V	691

1993 HZ2		1993	04	24.33903	13	08	50.06	+00	35 08.1	691
1993 HA3	*	1993	04	19.23269	13	14	41.79	+00	21 27.1 20.0 V	691
1993 HA3		1993	04	19.26550	13	14	39.92	+00	21 36.2	691
1993 HA3		1993	04	19.32039	13	14	36.78	+00	21 53.4	691
1993 HA3		1993	04	20.31044	13	13	43.08	+00	26 40.8	691
1993 HA3		1993	04	22.34181	13	11	53.93	+00	36 10.7 19.5 V	691
1993 HA3		1993	04	22.35050	13	11	53.46	+00	36 12.7	691
1993 HA3		1993	04	22.35828	13	11	53.04	+00	36 14.9	691
1993 HA3		1993	04	24.28323	13	10	11.91	+00	44 43.8 20.1 V	691
1993 HA3		1993	04	24.31182	13	10	10.45	+00	44 50.8	691
1993 HA3		1993	04	24.33994	13	10	08.96	+00	44 58.0	691
1993 HB3	*	1993	04	19.23343	13	15	45.76	+00	15 36.9 19.2 V	691
1993 HB3		1993	04	19.26623	13	15	43.94	+00	15 41.1	691
1993 HB3		1993	04	19.32113	13	15	40.91	+00	15 48.8	691
1993 HB3		1993	04	24.28410	13	11	26.74	+00	24 17.8	691
1993 HB3		1993	04	24.31269	13	11	25.30	+00	24 19.4	691
1993 HB3		1993	04	24.34080	13	11	23.90	+00	24 22.3 19.5 V	691
1993 HC3	*	1993	04	19.23475	13	17	39.95	+00	17 35.8	691
1993 HC3		1993	04	19.26755	13	17	38.13	+00	17 43.0	691
1993 HC3		1993	04	19.32245	13	17	35.17	+00	17 56.0 20.1 V	691
1993 HC3		1993	04	24.28542	13	13	21.33	+00	35 25.3 20.0 V	691
1993 HC3		1993	04	24.31401	13	13	19.90	+00	35 30.6	691
1993 HC3		1993	04	24.34213	13	13	18.44	+00	35 35.8	691
1993 HD3	*	1993	04	19.23568	13	19	00.04	+00	09 29.1 19.9 V	691
1993 HD3		1993	04	19.26848	13	18	58.25	+00	09 42.0	691
1993 HD3		1993	04	19.32338	13	18	55.34	+00	10 04.2	691
1993 HD3		1993	04	24.28642	13	14	47.84	+00	41 13.2	691
1993 HD3		1993	04	24.31501	13	14	46.41	+00	41 23.0 20.1 V	691
1993 HD3		1993	04	24.34313	13	14	45.05	+00	41 32.3	691
1993 HE3	*	1993	04	19.23583	13	19	13.31	+00	04 51.0	691
1993 HE3		1993	04	19.26863	13	19	11.39	+00	05 01.8 20.1 V	691
1993 HE3		1993	04	19.32353	13	19	08.23	+00	05 20.1	691
1993 HE3		1993	04	24.28638	13	14	44.04	+00	30 35.4 19.8 V	691
1993 HE3		1993	04	24.31497	13	14	42.58	+00	30 43.4	691
1993 HE3		1993	04	24.34308	13	14	41.08	+00	30 50.8	691
1993 HF3	*	1993	04	19.23644	13	20	06.13	+00	21 37.7	691
1993 HF3		1993	04	19.26924	13	20	04.36	+00	21 52.6	691
1993 HF3		1993	04	19.32414	13	20	01.44	+00	22 18.3 20.1 V	691
1993 HF3		1993	04	22.15680	13	17	41.86	+00	43 14.2	691
1993 HF3		1993	04	22.17556	13	17	40.93	+00	43 23.0 20.0 V	691
1993 HF3		1993	04	22.19587	13	17	39.89	+00	43 30.9	691
1993 HG3	*	1993	04	19.33542	12	59	16.78	-00	26 15.0 19.4 V	691
1993 HG3		1993	04	19.36826	12	59	15.14	-00	25 32.3	691
1993 HG3		1993	04	22.14259	12	57	10.72	+00	32 55.9	691
1993 HG3		1993	04	22.16134	12	57	09.81	+00	33 19.6 20.2 V	691
1993 HG3		1993	04	22.18166	12	57	08.89	+00	33 45.0	691
1993 HH3	*	1993	04	20.28381	12	35	16.15	+00	36 23.1	691
1993 HH3		1993	04	20.31542	12	35	14.92	+00	36 29.6 17.6 V	691
1993 HH3		1993	04	20.34712	12	35	13.70	+00	36 36.8	691
1993 HH3		1993	04	29.20827	12	30	23.77	+01	03 21.8	691
1993 HH3		1993	04	29.23068	12	30	23.09	+01	03 25.2 18.1 V	691
1993 HH3		1993	04	29.25233	12	30	22.47	+01	03 28.2	691
1993 HJ3	*	1993	04	20.29001	12	44	13.38	+00	27 01.1	691
1993 HJ3		1993	04	20.32162	12	44	12.02	+00	27 07.8 18.3 V	691
1993 HJ3		1993	04	20.35332	12	44	10.68	+00	27 14.8	691
1993 HJ3		1993	04	24.26357	12	41	37.58	+00	40 13.0	691
1993 HJ3		1993	04	24.29216	12	41	36.44	+00	40 18.8 18.3 V	691
1993 HJ3		1993	04	24.32028	12	41	35.39	+00	40 23.7	691
1993 HJ3		1993	04	29.21405	12	38	44.21	+00	53 40.1 18.7 V	691

1993 HJ3		1993	04	29.23645	12	38	43.44	+00 53 44.0		691
1993 HJ3		1993	04	29.25810	12	38	42.69	+00 53 47.0		691
1993 HK3	*	1993	04	20.29084	12	45	25.18	+00 35 31.8	20.0 V	691
1993 HK3		1993	04	20.32245	12	45	24.01	+00 35 39.9		691
1993 HK3		1993	04	20.35415	12	45	22.75	+00 35 47.8		691
1993 HK3		1993	04	24.26446	12	43	06.20	+00 52 08.1	19.8 V	691
1993 HK3		1993	04	24.29306	12	43	05.19	+00 52 14.5		691
1993 HK3		1993	04	24.32117	12	43	04.21	+00 52 21.3		691
1993 HL3	*	1993	04	20.29151	12	46	22.92	+00 30 59.7	19.4 V	691
1993 HL3		1993	04	20.32311	12	46	21.37	+00 31 07.9		691
1993 HL3		1993	04	20.35481	12	46	19.82	+00 31 16.8		691
1993 HL3		1993	04	24.26466	12	43	23.58	+00 47 25.6		691
1993 HL3		1993	04	24.29325	12	43	22.31	+00 47 32.8		691
1993 HL3		1993	04	24.32137	12	43	21.02	+00 47 38.7	19.4 V	691
1993 HM3	*	1993	04	20.29155	12	46	27.01	+00 38 43.1	19.1 V	691
1993 HM3		1993	04	20.32316	12	46	25.30	+00 38 49.7		691
1993 HM3		1993	04	20.35485	12	46	23.59	+00 38 56.2		691
1993 HM3		1993	04	24.26447	12	43	07.31	+00 51 04.2	19.0 V	691
1993 HM3		1993	04	24.29306	12	43	05.87	+00 51 09.3		691
1993 HM3		1993	04	24.32118	12	43	04.44	+00 51 14.0		691
1993 HN3	*	1993	04	20.29169	12	46	39.02	+00 30 06.0		691
1993 HN3		1993	04	20.32330	12	46	37.53	+00 30 13.4		691
1993 HN3		1993	04	20.35500	12	46	36.10	+00 30 21.7	20.4 V	691
1993 HN3		1993	04	24.26504	12	43	56.90	+00 44 57.3	20.7 V	691
1993 HN3		1993	04	24.29364	12	43	55.71	+00 45 03.5		691
1993 HO3	*	1993	04	20.29259	12	47	56.31	+00 37 10.0		691
1993 HO3		1993	04	20.32419	12	47	55.03	+00 37 17.0		691
1993 HO3		1993	04	20.35589	12	47	53.70	+00 37 23.6	19.7 V	691
1993 HO3		1993	04	24.26602	12	45	21.86	+00 50 02.3	19.7 V	691
1993 HO3		1993	04	24.29462	12	45	20.76	+00 50 07.2		691
1993 HO3		1993	04	24.32274	12	45	19.67	+00 50 11.7		691
1993 HP3	*	1993	04	20.29339	12	49	05.83	+00 35 15.1	20.0 V	691
1993 HP3		1993	04	20.32500	12	49	04.36	+00 35 19.1		691
1993 HP3		1993	04	20.35669	12	49	02.91	+00 35 23.1		691
1993 HP3		1993	04	24.26664	12	46	15.22	+00 42 21.5	20.1 V	691
1993 HP3		1993	04	24.29524	12	46	14.01	+00 42 23.5		691
1993 HP3		1993	04	24.32335	12	46	12.82	+00 42 26.4		691
1993 HQ3	*	1993	04	20.29347	12	49	13.03	+00 50 31.8	18.2 V	691
1993 HQ3		1993	04	20.32508	12	49	11.29	+00 50 33.3		691
1993 HQ3		1993	04	20.35677	12	49	09.51	+00 50 35.0		691
1993 HQ3		1993	04	24.26634	12	45	49.60	+00 52 38.0	18.1 V	691
1993 HQ3		1993	04	24.29494	12	45	48.14	+00 52 38.0		691
1993 HQ3		1993	04	24.32305	12	45	46.71	+00 52 38.5		691
1993 HR3	*	1993	04	20.29362	12	49	25.65	+00 47 49.2	20.3 V	691
1993 HR3		1993	04	20.32522	12	49	24.15	+00 47 49.6		691
1993 HR3		1993	04	20.35692	12	49	22.63	+00 47 50.6		691
1993 HR3		1993	04	24.26679	12	46	28.22	+00 48 13.8		691
1993 HR3		1993	04	24.29539	12	46	26.96	+00 48 12.8		691
1993 HR3		1993	04	24.32350	12	46	25.65	+00 48 13.2	20.4 V	691
1993 HS3	*	1993	04	20.29400	12	49	58.94	+00 44 42.8		691
1993 HS3		1993	04	20.32560	12	49	57.15	+00 44 47.3		691
1993 HS3		1993	04	20.35730	12	49	55.36	+00 44 52.1	20.3 V	691
1993 HS3		1993	04	24.26683	12	46	31.24	+00 53 08.1		691
1993 HS3		1993	04	24.29542	12	46	29.71	+00 53 11.7	20.3 V	691
1993 HS3		1993	04	24.32353	12	46	28.25	+00 53 15.6		691
1993 HT3	*	1993	04	20.29491	12	51	17.74	+00 25 11.0	20.5 V	691
1993 HT3		1993	04	20.32652	12	51	16.38	+00 25 15.8		691
1993 HT3		1993	04	20.35822	12	51	14.99	+00 25 19.3		691
1993 HT3		1993	04	24.26827	12	48	36.03	+00 33 01.8		691

1993 HT3		1993	04	24.29686	12	48	34.82	+00 33 04.6	20.6 V	691
1993 HT3		1993	04	24.32498	12	48	33.69	+00 33 08.3		691
1993 HU3	*	1993	04	20.29581	12	52	35.71	+00 39 03.6	18.6 V	691
1993 HU3		1993	04	20.32741	12	52	33.88	+00 39 07.6		691
1993 HU3		1993	04	20.35911	12	52	32.02	+00 39 11.2		691
1993 HU3		1993	04	24.26855	12	49	00.28	+00 45 44.0		691
1993 HU3		1993	04	24.29714	12	48	58.71	+00 45 46.1	18.6 V	691
1993 HU3		1993	04	24.32525	12	48	57.20	+00 45 48.2		691
1993 HV3	*	1993	04	20.29751	12	55	03.34	+00 34 15.6		691
1993 HV3		1993	04	20.32912	12	55	01.65	+00 34 16.9	20.7 V	691
1993 HV3		1993	04	20.36081	12	54	59.93	+00 34 17.2		691
1993 HV3		1993	04	24.27044	12	51	43.86	+00 35 19.8	21.2 V	691
1993 HV3		1993	04	24.29903	12	51	42.43	+00 35 19.5		691
1993 HV3		1993	04	24.32714	12	51	41.00	+00 35 19.9		691
1993 HW3	*	1993	04	20.29805	12	55	49.64	+00 44 55.7	19.0 V	691
1993 HW3		1993	04	20.32965	12	55	47.81	+00 44 57.3		691
1993 HW3		1993	04	20.36135	12	55	45.95	+00 44 58.6		691
1993 HW3		1993	04	24.27079	12	52	14.89	+00 46 47.9		691
1993 HW3		1993	04	24.29939	12	52	13.37	+00 46 47.5	19.0 V	691
1993 HW3		1993	04	24.32750	12	52	11.85	+00 46 47.8		691
1993 HX3	*	1993	04	20.29886	12	57	00.09	+00 36 06.8		691
1993 HX3		1993	04	20.33047	12	56	58.31	+00 36 15.9	20.9 V	691
1993 HX3		1993	04	20.36216	12	56	56.58	+00 36 24.5		691
1993 HX3		1993	04	24.27169	12	53	32.74	+00 54 05.9	20.9 V	691
1993 HX3		1993	04	24.32840	12	53	29.84	+00 54 20.1		691
1993 HY3	*	1993	04	20.29894	12	57	06.66	+00 34 37.9		691
1993 HY3		1993	04	20.33055	12	57	05.13	+00 34 39.9		691
1993 HY3		1993	04	20.36224	12	57	03.63	+00 34 41.9	20.6 V	691
1993 HY3		1993	04	24.27209	12	54	07.15	+00 38 00.8		691
1993 HY3		1993	04	24.30068	12	54	05.86	+00 38 01.8	21.1 V	691
1993 HY3		1993	04	24.32880	12	54	04.59	+00 38 02.5		691
1993 HZ3	*	1993	04	20.30034	12	59	08.27	+00 43 26.8	19.7 V	691
1993 HZ3		1993	04	20.33195	12	59	06.97	+00 43 40.6		691
1993 HZ3		1993	04	20.36365	12	59	05.70	+00 43 54.1		691
1993 HZ3		1993	04	22.14312	12	57	56.71	+00 56 45.8		691
1993 HZ3		1993	04	22.16188	12	57	55.92	+00 56 55.0		691
1993 HZ3		1993	04	22.18219	12	57	55.14	+00 57 03.8	19.4 V	691
1993 HA4	*	1993	04	20.30320	13	03	15.41	+00 52 36.9	18.0 V	691
1993 HA4		1993	04	20.33480	13	03	13.90	+00 52 39.2		691
1993 HA4		1993	04	20.36650	13	03	12.40	+00 52 40.8		691
1993 HA4		1993	04	22.14581	13	01	50.17	+00 54 33.2	18.1 V	691
1993 HA4		1993	04	22.16457	13	01	49.30	+00 54 34.3		691
1993 HA4		1993	04	22.18488	13	01	48.35	+00 54 35.4		691
1993 HB4	*	1993	04	20.30379	13	04	07.21	+00 50 21.4	20.0 V	691
1993 HB4		1993	04	20.33540	13	04	05.44	+00 50 27.4		691
1993 HB4		1993	04	20.36709	13	04	03.62	+00 50 32.9		691
1993 HB4		1993	04	22.14624	13	02	27.20	+00 55 51.2		691
1993 HB4		1993	04	22.16500	13	02	26.19	+00 55 54.4	19.8 V	691
1993 HB4		1993	04	22.18531	13	02	25.11	+00 55 59.7		691
1993 HC4	*	1993	04	20.30383	13	04	10.47	+00 24 43.0		691
1993 HC4		1993	04	20.33544	13	04	08.96	+00 24 45.2	20.1 V	691
1993 HC4		1993	04	20.36714	13	04	07.47	+00 24 47.3		691
1993 HC4		1993	04	24.27696	13	01	08.81	+00 28 30.0	20.1 V	691
1993 HC4		1993	04	24.30555	13	01	07.55	+00 28 31.6		691
1993 HC4		1993	04	24.33367	13	01	06.21	+00 28 31.8		691
1993 HD4	*	1993	04	20.30535	13	06	21.93	+00 40 19.7		691
1993 HD4		1993	04	20.33696	13	06	20.59	+00 40 32.5	20.5 V	691
1993 HD4		1993	04	20.36865	13	06	19.02	+00 40 44.6		691
1993 HD4		1993	04	21.17439	13	05	45.63	+00 46 09.1		691

1993 HD4		1993	04	21.18438	13	05	45.20	+00	46	13.6	20.8 V	691
1993 HD4		1993	04	21.19637	13	05	44.71	+00	46	18.0		691
1993 HE4	*	1993	04	20.31203	13	16	00.50	+00	37	46.6	19.9 V	691
1993 HE4		1993	04	20.34363	13	15	58.89	+00	37	55.5		691
1993 HE4		1993	04	22.15456	13	14	28.03	+00	46	00.9		691
1993 HE4		1993	04	22.17332	13	14	27.07	+00	46	05.6	19.9 V	691
1993 HE4		1993	04	22.19363	13	14	26.02	+00	46	10.7		691
1993 HE4		1993	04	24.28498	13	12	42.79	+00	54	56.8	19.9 V	691
1993 HE4		1993	04	24.31357	13	12	41.39	+00	55	03.0		691
1993 HE4		1993	04	24.34168	13	12	40.01	+00	55	09.8		691
1993 HF4	*	1993	04	20.33027	12	56	41.00	+00	44	52.8	20.3 V	691
1993 HF4		1993	04	20.36196	12	56	39.08	+00	44	55.6		691
1993 HF4		1993	04	24.27129	12	52	57.69	+00	49	45.8	20.3 V	691
1993 HF4		1993	04	24.29988	12	52	56.08	+00	49	46.3		691
1993 HF4		1993	04	24.32799	12	52	54.46	+00	49	48.1		691
1993 HG4	*	1993	04	21.17574	13	07	41.98	+00	52	43.9	20.2 V	691
1993 HG4		1993	04	21.18572	13	07	41.37	+00	52	46.6		691
1993 HG4		1993	04	21.19771	13	07	40.65	+00	52	49.4		691
1993 HG4		1993	04	21.20582	13	07	40.16	+00	52	51.1		691
1993 HG4		1993	04	21.21318	13	07	39.70	+00	52	53.2	20.3 V	691
1993 HG4		1993	04	21.22057	13	07	39.25	+00	52	54.7		691
1993 HG4		1993	04	21.36259	13	07	30.73	+00	53	30.2	20.1 V	691
1993 HG4		1993	04	21.36988	13	07	30.30	+00	53	32.0		691
1993 HG4		1993	04	21.37728	13	07	29.85	+00	53	34.3		691
1993 HG4		1993	04	22.14922	13	06	45.74	+00	56	39.7		691
1993 HG4		1993	04	22.16798	13	06	44.69	+00	56	43.8	20.7 V	691
1993 HG4		1993	04	22.18829	13	06	43.44	+00	56	48.2		691
1993 HG4		1993	04	22.33812	13	06	34.64	+00	57	25.3	19.8 V	691
1993 HG4		1993	04	22.34681	13	06	34.05	+00	57	26.9		691
1993 HG4		1993	04	22.35459	13	06	33.60	+00	57	28.8		691
1993 HH4		1993	04	20.30724	13	09	05.47	+00	50	59.0	19.3 V	691
1993 HH4		1993	04	20.33884	13	09	03.21	+00	50	51.3		691
1993 HH4	*	1993	04	21.17599	13	08	03.97	+00	47	24.6	19.2 V	691
1993 HH4		1993	04	21.18598	13	08	03.31	+00	47	23.0		691
1993 HH4		1993	04	21.19796	13	08	02.43	+00	47	18.7		691
1993 HH4		1993	04	21.20607	13	08	01.80	+00	47	16.3		691
1993 HH4		1993	04	21.21343	13	08	01.27	+00	47	15.0	19.4 V	691
1993 HH4		1993	04	21.22082	13	08	00.73	+00	47	13.2		691
1993 HH4		1993	04	22.14934	13	06	55.44	+00	43	16.9		691
1993 HH4		1993	04	22.16809	13	06	54.09	+00	43	11.6		691
1993 HH4		1993	04	22.18840	13	06	52.66	+00	43	06.7	19.3 V	691
1993 HH4		1993	04	22.33821	13	06	41.93	+00	42	28.5	18.7 V	691
1993 HH4		1993	04	22.34690	13	06	41.28	+00	42	26.1		691
1993 HH4		1993	04	22.35467	13	06	40.67	+00	42	24.0		691
1993 HH4		1993	04	24.27926	13	04	27.65	+00	33	53.0	19.3 V	691
1993 HH4		1993	04	24.30784	13	04	25.63	+00	33	45.4		691
1993 HH4		1993	04	24.33595	13	04	23.66	+00	33	37.2		691
1993 HJ4		1993	04	20.30583	13	07	03.30	+00	38	49.3	19.3 V	691
1993 HJ4		1993	04	20.33743	13	07	01.86	+00	38	52.2		691
1993 HJ4	*	1993	04	21.20498	13	06	22.60	+00	40	03.7		691
1993 HJ4		1993	04	21.21234	13	06	22.26	+00	40	04.2	19.4 V	691
1993 HJ4		1993	04	21.21974	13	06	21.92	+00	40	05.0		691
1993 HJ4		1993	04	22.14847	13	05	40.28	+00	41	16.2		691
1993 HJ4		1993	04	22.16723	13	05	39.41	+00	41	17.9	19.4 V	691
1993 HJ4		1993	04	22.18754	13	05	38.46	+00	41	19.1		691
1993 HJ4		1993	04	22.33774	13	05	31.64	+00	41	30.9	19.7 V	691
1993 HJ4		1993	04	22.34643	13	05	31.28	+00	41	31.6		691
1993 HJ4		1993	04	22.35421	13	05	30.80	+00	41	32.2		691
1993 HJ4		1993	04	24.27901	13	04	06.04	+00	43	42.2		691

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1993 HJ4		1993 04 24.33572	13 04 03.55	+00 43 44.9		19.3	V		691
1993 HK4		1993 04 20.30672	13 08 20.33	+00 35 53.7					691
1993 HK4		1993 04 20.33832	13 08 18.81	+00 36 03.3		19.4	V		691
1993 HK4	*	1993 04 21.20580	13 07 38.35	+00 40 09.7		19.3	V		691
1993 HK4		1993 04 21.21316	13 07 37.99	+00 40 11.6					691
1993 HK4		1993 04 21.22055	13 07 37.63	+00 40 13.8					691
1993 HK4		1993 04 22.14933	13 06 54.72	+00 44 29.4					691
1993 HK4		1993 04 22.16809	13 06 53.85	+00 44 34.1		19.7	V		691
1993 HK4		1993 04 22.18840	13 06 52.87	+00 44 39.7					691
1993 HK4		1993 04 22.33825	13 06 45.70	+00 45 20.0					691
1993 HK4		1993 04 22.34694	13 06 45.26	+00 45 22.8		19.0	V		691
1993 HK4		1993 04 22.35472	13 06 44.83	+00 45 24.5					691
1993 HK4		1993 04 24.27984	13 05 18.25	+00 53 43.0		19.6	V		691
1993 HK4		1993 04 24.30843	13 05 16.95	+00 53 50.3					691
1993 HK4		1993 04 24.33655	13 05 15.69	+00 53 56.3					691
1993 HL4	*	1993 04 21.20593	13 07 49.86	+00 44 38.2					691
1993 HL4		1993 04 21.21329	13 07 49.42	+00 44 40.5					691
1993 HL4		1993 04 21.22069	13 07 48.93	+00 44 42.5		21.1	V		691
1993 HL4		1993 04 22.33818	13 06 39.39	+00 49 50.1					691
1993 HL4		1993 04 22.34687	13 06 38.83	+00 49 52.5		20.5	V		691
1993 HL4		1993 04 22.35464	13 06 38.28	+00 49 54.9					691
1993 HM4	*	1993 04 21.20710	13 09 30.64	+00 55 31.0					691
1993 HM4		1993 04 21.21445	13 09 30.21	+00 55 31.5		20.7	V		691
1993 HM4		1993 04 21.22185	13 09 29.82	+00 55 32.0					691
1993 HM4		1993 04 22.15053	13 08 39.08	+00 56 40.1					691
1993 HM4		1993 04 22.16929	13 08 38.09	+00 56 41.8		20.8	V		691
1993 HM4		1993 04 22.18960	13 08 36.91	+00 56 43.0					691
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1993 HN4		1993 04 21.21492	13 10 11.08	+00 31 33.1					691
1993 HN4		1993 04 21.22232	13 10 10.64	+00 31 33.5		20.5	V		691
1993 HN4		1993 04 22.33989	13 09 07.58	+00 33 13.7					691
1993 HN4		1993 04 22.34858	13 09 07.13	+00 33 14.3		20.0	V		691
1993 HN4		1993 04 22.35636	13 09 06.69	+00 33 15.5					691
1993 HO4		1993 04 20.30787	13 10 00.46	+00 35 52.2					691
1993 HO4		1993 04 20.33948	13 09 58.92	+00 35 54.6		20.8	V		691
1993 HO4	*	1993 04 21.21429	13 09 16.55	+00 36 58.3		20.5	V		691
1993 HO4		1993 04 21.22169	13 09 16.18	+00 36 59.1					691
1993 HO4		1993 04 22.33937	13 08 22.19	+00 38 12.4		20.1	V		691
1993 HO4		1993 04 22.34806	13 08 21.80	+00 38 13.3					691
1993 HO4		1993 04 22.35583	13 08 21.45	+00 38 13.6					691
1993 HO4		1993 04 24.28091	13 06 50.80	+00 39 59.8					691
1993 HO4		1993 04 24.30950	13 06 49.48	+00 40 01.2		20.5	V		691
1993 HO4		1993 04 24.33762	13 06 48.11	+00 40 02.1					691
1993 HP4	*	1993 04 21.36171	13 06 14.76	+01 19 19.0		17.9	V		691
1993 HP4		1993 04 21.36900	13 06 14.36	+01 19 19.0					691
1993 HP4		1993 04 21.37640	13 06 13.97	+01 19 19.1					691
1993 HP4		1993 04 22.31370	13 05 27.42	+01 19 12.6					691
1993 HP4		1993 04 22.32116	13 05 27.01	+01 19 13.1		18.5	V		691
1993 HP4		1993 04 22.32884	13 05 26.62	+01 19 12.9					691
1993 HQ4	*	1993 04 21.36177	13 06 19.22	+01 20 26.3		18.2	V		691
1993 HQ4		1993 04 21.36906	13 06 18.88	+01 20 28.8					691
1993 HQ4		1993 04 21.37646	13 06 18.54	+01 20 31.6					691
1993 HQ4		1993 04 22.31375	13 05 36.79	+01 26 05.7		18.5	V		691
1993 HQ4		1993 04 22.32122	13 05 36.43	+01 26 08.2					691
1993 HQ4		1993 04 22.32890	13 05 36.09	+01 26 10.7					691
1993 HR4	*	1993 04 21.36345	13 08 44.76	+01 13 24.2		20.6	V		691
1993 HR4		1993 04 21.37074	13 08 44.41	+01 13 26.8					691
1993 HR4		1993 04 21.37814	13 08 44.07	+01 13 29.8					691

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1993	HR4		1993	04	22.32266	13	08	08.36	+01 17 52.9		691
1993	HR4		1993	04	22.33034	13	08	08.08	+01 17 55.1		691
1993	HS4	*	1993	04	21.36499	13	10	58.26	+01 09 52.3	20.9 V	691
1993	HS4		1993	04	21.37228	13	10	57.82	+01 09 52.4		691
1993	HS4		1993	04	21.37967	13	10	57.38	+01 09 51.5		691
1993	HS4		1993	04	22.31653	13	10	03.54	+01 08 57.6		691
1993	HS4		1993	04	22.32399	13	10	03.16	+01 08 57.2		691
1993	HS4		1993	04	22.33167	13	10	02.72	+01 08 55.7	20.7 V	691
1993	HT4	*	1993	04	22.14495	13	00	35.48	+00 44 12.1		691
1993	HT4		1993	04	22.16371	13	00	34.54	+00 44 18.1	20.1 V	691
1993	HT4		1993	04	22.18402	13	00	33.48	+00 44 25.3		691
1993	HT4		1993	04	24.27541	12	58	54.88	+00 54 11.2		691
1993	HT4		1993	04	24.30401	12	58	53.53	+00 54 18.9	19.6 V	691
1993	HT4		1993	04	24.33212	12	58	52.26	+00 54 24.4		691
1993	HU4	*	1993	04	22.14653	13	02	52.81	+00 35 03.9	21.0 V	691
1993	HU4		1993	04	22.16530	13	02	52.09	+00 35 08.1		691
1993	HU4		1993	04	22.18561	13	02	51.30	+00 35 13.6		691
1993	HU4		1993	04	24.27722	13	01	31.26	+00 44 04.4	20.3 V	691
1993	HU4		1993	04	24.30582	13	01	30.19	+00 44 09.5		691
1993	HU4		1993	04	24.33393	13	01	29.09	+00 44 17.4		691
1993	HV4	*	1993	04	22.15144	13	09	58.00	+00 28 48.1		691
1993	HV4		1993	04	22.17021	13	09	57.30	+00 28 47.2		691
1993	HV4		1993	04	22.19052	13	09	56.20	+00 28 50.1	20.3 V	691
1993	HV4		1993	04	22.34037	13	09	49.20	+00 29 01.3	19.8 V	691
1993	HV4		1993	04	22.34906	13	09	48.80	+00 29 02.4		691
1993	HV4		1993	04	22.35684	13	09	48.42	+00 29 02.9		691
1993	HV4		1993	04	24.28198	13	08	22.97	+00 31 16.9		691
1993	HV4		1993	04	24.31057	13	08	21.71	+00 31 19.1	20.4 V	691
1993	HV4		1993	04	24.33868	13	08	20.46	+00 31 20.8		691
1993	HW4	*	1993	04	22.15607	13	16	38.70	+00 39 21.3		691
1993	HW4		1993	04	22.17483	13	16	37.67	+00 39 26.7		691
1993	HW4		1993	04	22.19514	13	16	36.59	+00 39 32.1	19.4 V	691
1993	HW4		1993	04	24.28647	13	14	51.76	+00 49 15.0	19.7 V	691
1993	HW4		1993	04	24.31506	13	14	50.37	+00 49 22.1		691
1993	HW4		1993	04	24.34317	13	14	48.90	+00 49 29.2		691
1993	HX4	*	1993	04	24.26389	12	42	16.79	+00 49 38.3		691
1993	HX4		1993	04	24.29248	12	42	15.33	+00 49 43.5	18.8 V	691
1993	HX4		1993	04	24.32059	12	42	13.93	+00 49 48.1		691
1993	HX4		1993	04	29.21394	12	38	35.17	+01 00 52.6		691
1993	HX4		1993	04	29.23635	12	38	34.19	+01 00 55.5	19.1 V	691
1993	HX4		1993	04	29.25799	12	38	33.25	+01 00 57.6		691
1993	HY4	*	1993	04	26.28259	14	10	05.88	-13 52 35.7		691
1993	HY4		1993	04	26.31564	14	10	03.73	-13 52 36.5		691
1993	HY4		1993	04	26.34912	14	10	01.59	-13 52 37.1	19.2 V	691
1993	HY4		1993	04	28.18999	14	08	05.35	-13 52 49.2		691
1993	HY4		1993	04	28.20151	14	08	04.65	-13 52 49.6	19.7 V	691
1993	HY4		1993	04	28.22496	14	08	03.12	-13 52 50.1		691
1993	HZ4	*	1993	04	26.28392	14	12	01.19	-14 05 56.3	19.8 V	691
1993	HZ4		1993	04	26.31698	14	11	59.11	-14 05 45.6		691
1993	HZ4		1993	04	26.35045	14	11	57.07	-14 05 33.5		691
1993	HZ4		1993	04	27.21635	14	11	05.31	-14 00 37.1		691
1993	HZ4		1993	04	27.22465	14	11	04.79	-14 00 33.9	20.5 V	691
1993	HZ4		1993	04	27.23266	14	11	04.29	-14 00 31.2		691
1993	HZ4		1993	04	28.19139	14	10	06.79	-13 55 00.0		691
1993	HZ4		1993	04	28.20291	14	10	06.05	-13 54 57.1		691
1993	HZ4		1993	04	28.22636	14	10	04.63	-13 54 47.9	20.9 V	691
1993	HA5	*	1993	04	26.29174	14	23	18.11	-14 10 58.4		691
1993	HA5		1993	04	26.32479	14	23	16.26	-14 10 47.9	19.2 V	691

1993	HA5		1993	04	26.35826	14	23	14.29	-14 10 38.3	691
1993	HA5		1993	04	29.27423	14	20	32.50	-13 55 32.1	691
1993	HA5		1993	04	29.29629	14	20	31.30	-13 55 25.0	20.1 V 691
1993	HA5		1993	04	29.32100	14	20	29.84	-13 55 17.0	691
1993	HB5	*	1993	04	26.29210	14	23	49.87	-14 01 06.0	691
1993	HB5		1993	04	26.32516	14	23	47.98	-14 01 06.2	17.8 V 691
1993	HB5		1993	04	26.35863	14	23	45.94	-14 01 06.6	691
1993	HB5		1993	04	29.27454	14	20	59.56	-14 01 11.2	18.2 V 691
1993	HB5		1993	04	29.29661	14	20	58.25	-14 01 11.0	691
1993	HB5		1993	04	29.32131	14	20	56.77	-14 01 11.3	691
1993	HC5	*	1993	04	26.29549	14	28	43.61	-14 04 35.3	19.3 V 691
1993	HC5		1993	04	26.32855	14	28	41.48	-14 04 36.0	691
1993	HC5		1993	04	26.36202	14	28	39.31	-14 04 36.5	691
1993	HC5		1993	04	29.27775	14	25	37.51	-14 05 15.0	691
1993	HC5		1993	04	29.29981	14	25	36.07	-14 05 15.1	19.7 V 691
1993	HC5		1993	04	29.32451	14	25	34.48	-14 05 16.0	691
1993	HD5	*	1993	04	26.32358	14	21	31.14	-13 58 41.7	18.0 V 691
1993	HD5		1993	04	26.35705	14	21	28.77	-13 58 40.0	691
1993	HD5		1993	04	29.27255	14	18	07.38	-13 54 55.0	691
1993	HD5		1993	04	29.29461	14	18	05.78	-13 54 53.0	18.8 V 691
1993	HD5		1993	04	29.31931	14	18	04.05	-13 54 51.4	691
1993	HE5	*	1993	04	26.32422	14	22	26.92	-13 57 26.8	18.8 V 691
1993	HE5		1993	04	26.35769	14	22	24.74	-13 57 25.6	691
1993	HE5		1993	04	29.27343	14	19	23.71	-13 55 13.1	19.3 V 691
1993	HE5		1993	04	29.29550	14	19	22.28	-13 55 12.0	691
1993	HE5		1993	04	29.32020	14	19	20.68	-13 55 10.7	691
1993	HF5	*	1993	04	26.40417	16	07	17.42	-14 09 27.4	20.0 V 691
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1993	HF5		1993	04	26.45987	16	07	15.25	-14 09 37.6	691
1993	HF5		1993	04	28.35443	16	06	06.06	-14 15 42.3	20.0 V 691
1993	HF5		1993	04	28.38825	16	06	04.66	-14 15 49.1	691
1993	HF5		1993	04	28.42153	16	06	03.29	-14 15 55.8	691
1993	HG5	*	1993	04	27.21507	14	09	14.18	-14 17 29.0	20.3 V 691
1993	HG5		1993	04	27.22336	14	09	13.65	-14 17 26.5	691
1993	HG5		1993	04	27.23137	14	09	13.17	-14 17 24.7	691
1993	HG5		1993	04	28.19011	14	08	15.93	-14 13 30.2	691
1993	HG5		1993	04	28.20163	14	08	15.26	-14 13 26.5	691
1993	HG5		1993	04	28.22508	14	08	13.80	-14 13 20.8	20.2 V 691
1993	HH5	*	1993	04	27.21591	14	10	27.06	-14 03 17.0	691
1993	HH5		1993	04	27.22420	14	10	26.57	-14 03 14.0	18.4 V 691
1993	HH5		1993	04	27.23222	14	10	26.12	-14 03 12.4	691
1993	HH5		1993	04	28.19101	14	09	34.13	-13 58 41.0	691
1993	HH5		1993	04	28.20254	14	09	33.47	-13 58 37.4	19.6 V 691
1993	HH5		1993	04	28.22598	14	09	32.13	-13 58 30.9	691
1993	HJ5	*	1993	04	27.21638	14	11	07.31	-14 18 12.2	20.0 V 691
1993	HJ5		1993	04	27.22467	14	11	06.85	-14 18 10.3	691
1993	HJ5		1993	04	27.23268	14	11	06.40	-14 18 08.9	691
1993	HJ5		1993	04	29.26639	14	09	13.70	-14 11 44.2	691
1993	HJ5		1993	04	29.28846	14	09	12.46	-14 11 39.5	691
1993	HJ5		1993	04	29.31316	14	09	11.06	-14 11 35.0	20.1 V 691
1993	HK5	*	1993	04	27.22429	14	10	34.39	-14 13 32.1	691
1993	HK5		1993	04	27.23231	14	10	33.87	-14 13 28.4	20.3 V 691
1993	HK5		1993	04	29.26581	14	08	23.53	-14 05 14.9	20.5 V 691
1993	HK5		1993	04	29.28788	14	08	22.07	-14 05 09.1	691
1993	HK5		1993	04	29.31258	14	08	20.42	-14 05 02.9	691
1993	HL5		1993	04	18.15809	12	12	47.59	-00 31 12.7	691
1993	HL5		1993	04	18.17967	12	12	46.77	-00 31 08.3	18.2 V 691
1993	HL5		1993	04	18.20098	12	12	45.98	-00 31 03.6	691
1993	JA	*	1993	05	13.25339	14	04	08.95	-13 51 56.5	18.3 V 691

1993 JA		1993	05	13.29306	14	04	03.40	-13 52 57.4	18.4 V	691
1993 JA		1993	05	13.32066	14	03	59.49	-13 53 39.6	18.4 V	691
1993 JA		1993	05	14.24329	14	01	54.19	-14 17 21.8	19.1 V	691
1993 JA		1993	05	14.24832	14	01	53.51	-14 17 29.6	18.5 V	691
1993 JA		1993	05	18.18916	13	53	15.53	-15 57 30.8	18.5 V	691
1993 JA		1993	05	18.23388	13	53	09.64	-15 58 37.1	18.4 V	691
1993 KA	*	1993	05	17.16297	12	02	34.45	-01 45 09.2	17.7 V	691
1993 KA		1993	05	17.16914	12	02	57.75	-01 41 45.4		691
1993 KA		1993	05	17.17582	12	03	23.30	-01 37 59.4		691
1993 KA		1993	05	17.19061	12	04	19.91	-01 29 41.0		691
1993 KA		1993	05	17.24466	12	07	49.16	-00 59 02.8		691
1993 KA		1993	05	17.25053	12	08	12.40	-00 55 44.8		691
1993 KA		1993	05	17.27700	12	09	57.45	-00 40 37.1		691
1993 KA		1993	05	17.28292	12	10	20.70	-00 37 15.5		691
1993 KA		1993	05	17.30400	12	11	45.92	-00 25 05.8		691
1993 KA		1993	05	17.31011	12	12	10.72	-00 21 37.3		691
1993 KA		1993	05	17.31762	12	12	41.51	-00 17 17.0		691
1993 KA		1993	05	18.15494	13	17	11.10	+07 57 24.4	17.1 V	691
1993 KA		1993	05	18.16212	13	17	41.41	+08 01 35.1	17.1 V	691
1993 KA		1993	05	18.18188	13	19	04.36	+08 13 05.1	17.1 V	691
1993 KA		1993	05	18.35970	13	31	34.29	+09 52 47.5	17.1 V	691
1993 KA		1993	05	19.19753	14	33	46.74	+16 40 31.2	17.0 V	691
1993 KA		1993	05	19.38936	14	45	17.82	+17 53 33.5	17.4 V	691
1993 KA		1993	05	20.14768	15	31	11.44	+21 38 14.6	17.8 V	691
1993 KA		1993	05	20.15630	15	31	36.52	+21 40 28.8	17.8 V	691
1993 KA		1993	05	20.16458	15	32	00.31	+21 42 35.2	17.6 V	691
1993 KA		1993	05	20.43935	15	44	15.87	+22 40 43.0	18.0 V	691
1993 KA		1993	05	20.44876	15	44	40.51	+22 42 17.1	17.8 V	691
1993 KA		1993	05	20.45742	15	45	03.90	+22 43 46.5	17.8 V	691
1993 KA		1993	05	21.14588	16	15	42.59	+24 28 48.3	17.6 V	691
1993 KA		1993	05	21.15258	16	15	56.60	+24 29 48.3	17.6 V	691
1993 KA		1993	05	21.15931	16	16	11.03	+24 30 50.9	17.6 V	691
1993 KA		1993	05	21.44727	16	25	13.93	+25 03 11.5	17.3 V	691
1993 KA		1993	05	21.45577	16	25	29.79	+25 03 54.5		691
1993 KC	*	1993	05	20.17575	14	31	02.56	-09 04 14.2	16.4 V	691
1993 KC		1993	05	20.20765	14	31	02.20	-09 02 37.2	16.5 V	691
1993 KC		1993	05	20.23971	14	31	01.82	-09 01 00.2	16.4 V	691
1993 KC		1993	05	22.33141	14	30	53.45	-07 16 43.6	16.6 V	691
1993 KC		1993	05	22.33932	14	30	53.37	-07 16 19.8	16.5 V	691
1993 KC		1993	05	22.34730	14	30	53.32	-07 15 56.6	16.6 V	691
2563 P-L		1992	03	06.37034	10	38	42.61	+09 01 21.4	18.3 V	691
2563 P-L		1992	03	06.39060	10	38	41.70	+09 01 27.5		691
2563 P-L		1992	03	06.41102	10	38	40.77	+09 01 33.6		691
4580 P-L		1993	04	14.25734	13	08	19.11	-02 16 10.4	18.6 V	691
4580 P-L		1993	04	14.28927	13	08	17.51	-02 15 54.9		691
4580 P-L		1993	04	14.32148	13	08	15.93	-02 15 39.3		691
4665 P-L		1993	04	21.24883	13	52	27.60	-10 14 07.7		691
4665 P-L		1993	04	21.28113	13	52	25.66	-10 14 00.4	17.2 V	691
4665 P-L		1993	04	21.31306	13	52	23.73	-10 13 53.2		691
2151 T-1		1993	04	19.34106	13	07	24.88	-00 11 24.8	18.2 V	691
2151 T-1		1993	04	19.37389	13	07	23.18	-00 11 13.2		691
3266 T-1		1991	11	12.45487	03	46	14.21	+20 51 00.5	19.7 V	691
3266 T-1		1991	11	12.47487	03	46	13.21	+20 50 57.4		691
3266 T-1		1991	11	12.49493	03	46	12.21	+20 50 54.9		691
4150 T-1		1993	04	14.14592	11	46	56.38	+05 35 31.8		691
4150 T-1		1993	04	14.17817	11	46	55.41	+05 35 48.2	17.5 V	691
4150 T-1		1993	04	14.21016	11	46	54.43	+05 36 05.0		691
2145 T-2		1993	04	22.21949	13	48	55.48	-03 45 14.5		691
2145 T-2		1993	04	22.23748	13	48	54.59	-03 45 06.5	19.0 V	691

2145 T-2	1993 04 22.25575	13 48 53.64	-03 44 58.0				691
4019 T-3	1993 04 29.20401	12 24 14.32	+01 10 59.0	19.1	V		691
4019 T-3	1993 04 29.22641	12 24 13.62	+01 11 03.7				691
4019 T-3	1993 04 29.24806	12 24 12.91	+01 11 09.2				691
4071 T-3	1993 04 25.36129	14 53 27.19	-13 23 20.1				691
4071 T-3	1993 04 25.38356	14 53 25.84	-13 23 16.9				691
4071 T-3	1993 04 25.40616	14 53 24.39	-13 23 13.9	18.4	V		691
(121)	1993 04 19.23618	13 19 43.80	+00 15 48.3	12.6	V		691
(121)	1993 04 19.26899	13 19 42.43	+00 15 53.7				691
(121)	1993 04 19.32389	13 19 40.17	+00 16 03.3				691
(551)	1993 04 15.22492	12 20 47.16	-02 18 29.3	13.6	V		691
(551)	1993 04 15.25546	12 20 45.92	-02 18 21.7				691
(551)	1993 04 15.28244	12 20 44.81	-02 18 15.1				691
(732)	1993 04 17.44162	15 25 46.04	-04 42 58.3				691
(732)	1993 04 17.46203	15 25 45.26	-04 42 46.9	13.3	V		691
(732)	1993 04 17.48206	15 25 44.52	-04 42 36.0				691
(743)	1993 04 26.27325	13 56 36.41	-14 04 49.4				691
(743)	1993 04 26.30631	13 56 34.75	-14 04 37.1	13.7	V		691
(743)	1993 04 26.33978	13 56 33.07	-14 04 25.2				691
(964)	1993 04 14.15665	12 02 25.48	+05 36 16.7	16.0	V		691
(964)	1993 04 14.18889	12 02 24.16	+05 36 19.6				691
(964)	1993 04 14.22088	12 02 22.88	+05 36 22.3				691
(1080)	1993 04 17.20618	12 01 41.13	-01 15 37.5	16.1	V		691
(1080)	1993 04 17.22756	12 01 40.16	-01 15 32.8				691
(1080)	1993 04 17.24888	12 01 39.21	-01 15 28.7				691
(1361)	1993 04 13.29391	13 30 19.59	+09 31 34.7				691
(1361)	1993 04 13.30156	13 30 19.29	+09 31 38.5	15.8	V		691
(1361)	1993 04 13.31013	13 30 18.92	+09 31 43.0				691
(1518)	1993 04 18.23002	12 58 06.14	-04 36 14.7	15.6	V		691
(1518)	1993 04 18.26288	12 58 04.06	-04 36 08.9				691
(1518)	1993 04 18.29456	12 58 02.09	-04 36 03.6				691
(1961)	1993 04 29.19790	12 15 25.56	+01 07 30.0	15.8	V		691
(1961)	1993 04 29.22031	12 15 24.91	+01 07 30.4				691
(1961)	1993 04 29.24196	12 15 24.29	+01 07 31.2				691
(2162)	1993 04 14.25821	13 09 34.42	-02 07 11.2	16.0	V		691
(2162)	1993 04 14.29014	13 09 32.50	-02 06 59.6				691
(2162)	1993 04 14.32234	13 09 30.57	-02 06 47.9				691
(2397)	1993 04 14.40923	15 12 29.27	-03 41 04.3				691
(2397)	1993 04 14.44098	15 12 28.10	-03 40 54.9	16.4	V		691
(2397)	1993 04 14.47271	15 12 26.91	-03 40 45.5				691
(2417)	1993 04 14.15081	11 54 00.09	+05 29 11.4				691
(2417)	1993 04 14.18306	11 53 59.00	+05 29 16.4				691
(2417)	1993 04 14.21505	11 53 57.94	+05 29 21.0	17.0	V		691
(2468)	1993 04 29.28053	14 29 38.84	-14 15 04.8	15.8	V		691
(2468)	1993 04 29.30260	14 29 37.53	-14 14 55.1				691
(2468)	1993 04 29.32730	14 29 36.07	-14 14 43.2				691
(2585)	1993 04 19.35439	13 26 39.44	-00 14 50.4				691
(2585)	1993 04 19.38722	13 26 37.68	-00 14 39.7	16.9	V		691
(2610)	1993 04 17.21118	12 08 54.58	-01 14 07.0				691
(2610)	1993 04 17.23256	12 08 53.56	-01 14 00.6	15.3	V		691
(2610)	1993 04 17.25388	12 08 52.62	-01 13 51.0				691
(2628)	1993 04 29.28061	14 29 45.70	-14 19 10.7	17.2	V		691
(2628)	1993 04 29.30268	14 29 44.58	-14 19 05.7				691
(2628)	1993 04 29.32738	14 29 43.34	-14 18 59.1				691
(2734)	1993 04 25.25900	14 17 24.97	-13 04 32.5	16.1	V		691
(2734)	1993 04 25.29159	14 17 23.09	-13 04 33.9				691
(2734)	1993 04 25.32422	14 17 21.26	-13 04 34.2				691
(2994)	1993 04 17.20582	12 01 09.99	-00 58 38.1	17.9	V		691
(2994)	1993 04 17.22720	12 01 08.95	-00 58 32.2				691

(2994)	1993 04 17.24852	12 01 07.93	-00 58 26.7				691
(3047)	1993 04 26.26809	13 49 09.47	-13 52 49.0	16.4	V		691
(3047)	1993 04 26.30114	13 49 07.68	-13 52 39.1				691
(3047)	1993 04 26.33462	13 49 05.82	-13 52 29.4				691
(3117)	1993 04 14.15142	11 54 53.04	+05 42 01.3				691
(3117)	1993 04 14.18367	11 54 51.81	+05 42 07.4	17.2	V		691
(3117)	1993 04 14.21566	11 54 50.59	+05 42 13.4				691
(3148)	1993 04 21.23325	13 29 57.82	-09 52 34.4				691
(3148)	1993 04 21.26556	13 29 56.39	-09 52 26.0	17.5	V		691
(3148)	1993 04 21.29749	13 29 54.97	-09 52 18.2				691
(3186)	1993 04 21.24104	13 41 12.79	-09 46 38.9	18.1	V		691
(3186)	1993 04 21.27335	13 41 11.35	-09 46 30.8				691
(3186)	1993 04 21.30528	13 41 09.92	-09 46 22.4				691
(3213)	1993 04 25.25131	14 06 18.24	-12 47 21.3	17.5	V		691
(3213)	1993 04 25.28390	14 06 16.74	-12 47 14.2				691
(3213)	1993 04 25.31653	14 06 15.25	-12 47 07.1				691
(3265)	1993 04 28.33092	15 32 09.68	-14 19 27.2	16.3	V		691
(3265)	1993 04 28.36473	15 32 07.79	-14 19 23.6				691
(3265)	1993 04 28.39801	15 32 05.92	-14 19 20.3				691
(3748)	1993 04 26.28744	14 17 06.35	-14 13 15.5				691
(3748)	1993 04 26.32050	14 17 04.28	-14 13 12.0	14.9	V		691
(3748)	1993 04 26.35397	14 17 02.24	-14 13 08.1				691
(3748)	1993 04 29.26977	14 14 06.62	-14 07 33.2	15.4	V		691
(3748)	1993 04 29.29184	14 14 05.25	-14 07 30.5				691
(3748)	1993 04 29.31654	14 14 03.71	-14 07 27.7				691
(3809)	1993 04 17.35585	14 12 53.33	-02 46 57.4	16.1	V		691
(3809)	1993 04 17.38760	14 12 51.71	-02 46 48.1				691
(3809)	1993 04 17.41949	14 12 50.01	-02 46 36.4				691
(3852)	1993 04 17.27252	12 10 57.57	-02 50 45.3				691
(3852)	1993 04 17.28553	12 10 57.12	-02 50 42.3	17.9	V		691
(3852)	1993 04 17.29852	12 10 56.64	-02 50 38.9				691
(3889)	1993 04 28.33447	15 37 16.57	-14 24 09.7	16.6	V		691
(3889)	1993 04 28.36828	15 37 14.92	-14 24 03.4				691
(3889)	1993 04 28.40156	15 37 13.32	-14 23 56.9				691
(4103)	1993 04 19.21353	12 47 01.49	+00 04 02.7	15.3	V		691
(4103)	1993 04 19.24632	12 46 59.12	+00 03 59.5				691
(4103)	1993 04 19.30121	12 46 55.17	+00 03 53.1				691
(4135)	1993 04 26.39757	15 57 45.88	-14 15 44.4	17.5	V		691
(4135)	1993 04 26.42519	15 57 45.02	-14 15 37.0				691
(4135)	1993 04 26.45327	15 57 43.64	-14 15 28.9				691
(4176)	1993 04 14.24970	12 57 16.93	-01 56 53.4				691
(4176)	1993 04 14.28163	12 57 15.50	-01 56 45.1	16.4	V		691
(4176)	1993 04 14.31384	12 57 14.05	-01 56 36.6				691
(4192)	1993 04 17.21114	12 08 51.29	-01 15 50.8	17.3	V		691
(4192)	1993 04 17.23252	12 08 50.52	-01 15 45.6				691
(4192)	1993 04 17.25385	12 08 49.73	-01 15 40.6				691
(4563)	1993 04 26.41478	16 22 37.05	-13 56 36.1				691
(4563)	1993 04 26.44240	16 22 35.96	-13 56 30.6	16.7	V		691
(4563)	1993 04 26.47048	16 22 34.84	-13 56 25.1				691
(4612)	1993 04 17.44595	15 32 01.12	-04 26 44.1	16.1	V		691
(4612)	1993 04 17.46636	15 32 00.23	-04 26 39.6				691
(4612)	1993 04 17.48639	15 31 59.35	-04 26 35.4				691
(4978)	1993 04 24.42562	15 24 46.08	-10 13 25.0	18.6	V		691
(4978)	1993 04 24.44577	15 24 45.16	-10 13 19.6				691
(5049)	1993 04 18.23635	13 07 14.53	-04 37 57.9				691
(5049)	1993 04 18.26921	13 07 12.49	-04 37 48.3				691
(5049)	1993 04 18.30089	13 07 10.52	-04 37 39.2	17.0	V		691
(5109)	1993 04 28.35503	16 06 57.88	-14 13 56.4				691

(5109)	1993 04 28.38884	16 06 56.43	-14 13 46.8	15.7 V	691
(5109)	1993 04 28.42213	16 06 55.01	-14 13 39.1		691

693 University of Arizona, Catalina Station
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Observers T. Spahr, C. Hergenrother
Measurer C. Hergenrother
0.4-m f/3 Schmidt

1992 WX		1992 11 26.27674	04 15 31.10	+11 33 40.2		693
1992 WX		1992 11 28.17604	04 13 26.47	+11 32 00.9	16.0	693
1992 WX		1992 11 28.20174	04 13 24.76	+11 31 59.9		693
1992 WR1		1992 11 28.17604	04 22 10.10	+14 03 11.1	16.5	693
1992 WR1		1992 11 28.20174	04 22 08.09	+14 03 12.4		693
1993 EL		1993 04 14.13698	11 57 21.47	+34 11 02.4	17.5	693
1993 EL		1993 04 14.16972	11 57 20.95	+34 10 47.8		693
1993 EL		1993 04 15.16149	11 57 10.83	+34 03 27.1		693
1993 EL		1993 04 15.19167	11 57 10.42	+34 03 12.8		693
1993 EL		1993 04 17.17429	11 56 55.72	+33 47 02.9		693
1993 EL		1993 04 18.19971	11 56 50.70	+33 37 57.7		693
1993 GE	*	1993 04 14.14976	12 14 30.36	+34 42 01.4	15.0	693
1993 GE		1993 04 14.17975	12 14 28.81	+34 41 42.4		693
1993 GE		1993 04 15.17154	12 13 35.85	+34 32 09.2	15.5	693
1993 GE		1993 04 15.20314	12 13 34.24	+34 31 50.7		693
1993 GE		1993 04 17.17429	12 11 53.50	+34 11 48.6		693
1993 GE		1993 04 17.20575	12 11 51.66	+34 11 28.6	15.5	693
1993 GE		1993 04 18.19971	12 11 03.20	+34 00 51.3		693
1993 GE		1993 05 18.15399	11 59 57.41	+26 45 59.2	15.5	693
1993 GE		1993 05 18.18720	11 59 57.48	+26 45 24.8	15.5	693
1993 GF		1993 03 16.34678	13 30 31.82	+39 22 40.6	17.5	693
1993 GF		1993 03 16.38476	13 30 29.51	+39 22 49.3		693
1993 GF		1993 03 17.33567	13 29 30.17	+39 26 25.9		693
1993 GF	*	1993 04 14.26141	12 55 06.91	+37 59 48.7	17.0	693
1993 GF		1993 04 14.29480	12 55 04.42	+37 59 27.4		693
1993 GF		1993 04 15.25367	12 53 57.69	+37 49 35.8	17.0	693
1993 GF		1993 04 15.28325	12 53 55.44	+37 49 16.3		693
1993 GF		1993 04 17.23611	12 51 43.16	+37 27 53.3		693
1993 GF		1993 04 17.25937	12 51 41.59	+37 27 35.4		693
1993 HM1	*	1993 04 17.34157	14 53 20.00	+11 43 21.5	17.0	693
1993 HM1		1993 04 17.35763	14 53 19.38	+11 43 28.0		693
1993 HM1		1993 04 18.28472	14 52 40.53	+11 50 22.1		693

695 Kitt Peak
T. J. Balonek, Dept. of Physics and Astronomy, Colgate University,
Hamilton, NY 13346, U.S.A.
Observers T. J. Balonek, N. Silvestri
Burrell Schmidt + CCD
GSC

1991 RX10	1993 04 09.15934	09 29 17.18	+22 13 50.7	19.0 V	695
1991 RX10	1993 04 09.16500	09 29 17.15	+22 13 48.6		695
1991 RX10	1993 04 09.19434	09 29 17.05	+22 13 37.8		695
1991 RX10	1993 04 09.19979	09 29 17.03	+22 13 36.0		695
1991 VR	1993 05 09.15682	12 26 09.43	-03 53 18.9		695
1991 VR	1993 05 09.16243	12 26 09.25	-03 53 18.3	17.5 R	695
1991 VR	1993 05 09.19133	12 26 08.41	-03 53 16.1		695
1991 VR	1993 05 09.19640	12 26 08.25	-03 53 15.7		695
1991 VR	1993 05 09.33175	12 26 04.30	-03 53 05.0		695

697 Kitt Peak, McGraw-Hill Observatory
E. Schulman, Astronomy Dept., University of Michigan, Ann Arbor, MI 48109-1090, U.S.A.
J. Tonry, Room 6-204, Massachusetts Institute of Technology, Cambridge, MA 02139, U.S.A.
Observers E. Schulman, C. Cox, J. Tonry
Measurers G. V. Williams, E. Schulman, J. Tonry
1.3-m f/7.5 reflector + CCD, 2.4-m reflector + CCD

1993 GZ	*	1993 04 14.34630	14 33 44.94	+04 24 58.3	20	V		697
1993 GZ		1993 04 14.36153	14 33 44.26	+04 25 02.8				697
1993 GZ		1993 04 14.38196	14 33 43.38	+04 25 08.8				697
1993 GZ		1993 04 17.34694	14 31 37.67	+04 39 21.1				697
1993 GZ		1993 04 17.35884	14 31 37.14	+04 39 24.4				697
1993 GZ		1993 04 18.25146	14 30 58.35	+04 43 24.0				697
1993 GZ		1993 04 18.25898	14 30 58.01	+04 43 26.2				697
1993 GZ		1993 04 18.45263	14 30 49.29	+04 44 17.2				697
1993 GZ		1993 04 18.46023	14 30 48.93	+04 44 19.1				697
1993 GZ		1993 04 23.47829	14 27 01.72	+05 03 57.8				697
1993 GZ		1993 04 23.48201	14 27 01.52	+05 03 58.5				697
1993 HV1	*	1993 04 19.23623	12 26 57.86	+15 04 14.2	20	V		697
1993 HV1		1993 04 20.31451	12 26 04.25	+15 00 34.0				697
1993 HV1		1993 04 20.34226	12 26 02.86	+15 00 28.1				697
1993 HV1		1993 04 21.23778	12 25 19.28	+14 57 16.0				697
1993 HV1		1993 04 22.24117	12 24 31.10	+14 53 30.5				697

711 McDonald Observatory
D. K. Yeomans, Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, CA 91109
Observers P. D. Hemenway, P. J. Shelus, A. L. Whipple, M. E. Cornell
Measurers L. Eakins, R. Whited, M. E. Cornell
2.1-m Struve reflector
Ida 93 Catalogue

(243)		1993 03 26.14248	12 01 01.48	-01 16 09.4				711
(243)		1993 03 26.15532	12 01 00.87	-01 16 05.6				711
(243)		1993 03 26.39194	12 00 49.17	-01 14 56.1				711
(243)		1993 03 27.16635	12 00 12.51	-01 11 07.8				711
(243)		1993 03 28.14965	11 59 25.85	-01 06 19.1				711
(243)		1993 03 29.18144	11 58 37.18	-01 01 18.1				711
(243)		1993 04 16.09688	11 46 26.13	+00 15 28.4				711
(243)		1993 04 17.20417	11 45 50.52	+00 19 16.1				711
(243)		1993 04 18.16007	11 45 21.14	+00 22 26.0				711
(243)		1993 04 18.16209	11 45 21.07	+00 22 26.3				711
(243)		1993 04 19.10412	11 44 53.17	+00 25 27.4				711
(243)		1993 04 19.10635	11 44 53.09	+00 25 27.6				711
(353)		1993 04 20.26642	12 20 20.33	+06 40 09.4	15.7	V		711
(353)		1993 04 20.27495	12 20 19.95	+06 40 10.0				711
(353)		1993 04 20.28302	12 20 19.68	+06 40 11.9				711
(353)		1993 04 20.29058	12 20 19.35	+06 40 13.3				711
(353)		1993 04 20.29786	12 20 19.05	+06 40 14.1				711
(353)		1993 04 20.30527	12 20 18.80	+06 40 14.9				711
(353)		1993 04 20.31185	12 20 18.49	+06 40 16.2				711
(353)		1993 04 20.31839	12 20 18.27	+06 40 17.0				711

760 Goethe Link
E. Bowell, Lowell Observatory, 1400 West Mars Hill Road, Flagstaff, AZ 86001, U.S.A.
Observers R. T. Grenchik, C. L. Perry, A. R. Klemola, R. C. Nichols
Measurers C. M. Olmstead, B. A. Skiff
0.25-m refractor

PDS scanning microdensitometer
PPM, global solutions

1978 VU7	1951 02 10.27434	09 25 03.00	+15 42 41.0			V	760
1990 BR1	1951 02 10.27434	09 00 21.26	+13 19 02.8			c	760
1990 SM28	1951 02 10.27434	09 02 30.88	+12 22 57.3				760
1990 SM28	1951 02 10.31949	09 02 27.97	+12 23 08.4				760
1990 UK1	1951 02 10.27434	09 22 14.09	+08 42 11.7			V	760
1991 JH1	1951 02 10.27434	09 09 27.15	+15 28 08.7			V	760
1992 FA1	1951 02 10.27434	09 04 52.01	+09 32 45.6				760
1992 FA1	1951 02 10.31949	09 04 49.16	+09 32 56.1				760
1993 DO	1951 02 10.27434	09 18 38.22	+11 05 51.0				760
1993 DO	1951 02 10.31949	09 18 36.18	+11 06 12.2				760
(71)	1951 02 10.27434	09 17 24.82	+14 24 32.3				760
(71)	1951 02 10.31949	09 17 21.43	+14 24 22.3	12.5			760
(1076)	1951 02 10.27434	09 19 15.47	+15 02 57.2				760
(1076)	1951 02 10.31949	09 19 12.86	+15 03 15.0	15.7			760
(1731)	1951 02 10.27434	09 00 37.99	+14 19 30.8				760
(1731)	1951 02 10.31949	09 00 36.10	+14 19 44.0				760
(3420)	1951 02 10.27434	09 22 35.91	+12 22 38.2				760
(3420)	1951 02 10.31949	09 22 33.69	+12 23 00.7				760
(3421)	1953 03 14.18960	09 46 55.17	+08 47 48.1				760
(3517)	1951 02 10.27434	09 08 54.31	+12 07 28.8				760
(3732)	1951 02 10.27434	09 20 33.91	+13 40 12.2			V	760
(4226)	1953 03 14.10350	09 46 10.35	+06 52 17.0			I	760
(4226)	1953 03 14.18960	09 46 06.96	+06 52 37.7			I	760
(5091)	1951 02 10.27434	09 07 07.75	+12 48 58.8				760
(5091)	1951 02 10.31949	09 07 05.32	+12 49 06.6				760

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

1993 HG	*	1993 04 19.15457	12 27 01.83	-01 52 16.2	18	I		786
1993 HG		1993 04 19.15627	12 27 01.75	-01 52 16.0				786
1993 HG		1993 04 19.15797	12 27 01.68	-01 52 15.4				786
1993 HG		1993 04 19.15968	12 27 01.62	-01 52 15.1				786
1993 HG		1993 04 19.16138	12 27 01.55	-01 52 14.7				786
1993 HG		1993 04 19.16308	12 27 01.49	-01 52 14.3				786
1993 HG		1993 04 19.16479	12 27 01.42	-01 52 14.3				786
1993 HG		1993 04 19.16649	12 27 01.37	-01 52 13.9				786
1993 HG		1993 04 19.16819	12 27 01.31	-01 52 13.4				786
1993 HG		1993 04 19.16990	12 27 01.22	-01 52 13.0				786
1993 HG		1993 04 19.17169	12 27 01.14	-01 52 12.4				786
1993 HG		1993 04 19.17340	12 27 01.07	-01 52 12.3				786
1993 HG		1993 04 19.17510	12 27 01.01	-01 52 11.9				786
1993 HG		1993 04 19.17682	12 27 00.95	-01 52 11.8				786
1993 HG		1993 04 19.17852	12 27 00.87	-01 52 11.2				786
1993 HG		1993 04 19.18022	12 27 00.81	-01 52 11.0				786
1993 HG		1993 04 19.18192	12 27 00.75	-01 52 10.7				786
1993 HG		1993 04 19.18362	12 27 00.67	-01 52 10.3				786
1993 HG		1993 04 19.18534	12 27 00.61	-01 52 10.0				786
1993 HG		1993 04 19.18704	12 27 00.54	-01 52 09.5				786
1993 HG		1993 04 24.05269	12 24 10.36	-01 37 04.4	18.5	I		786
1993 HG		1993 04 24.05440	12 24 10.30	-01 37 04.0				786
1993 HG		1993 04 24.05610	12 24 10.24	-01 37 04.1				786
1993 HG		1993 04 24.05781	12 24 10.19	-01 37 03.8				786

1993 HG	1993 04 24.05951	12 24 10.11	-01 37 03.2					786
1993 HG	1993 04 24.06122	12 24 10.06	-01 37 02.9					786
1993 HG	1993 04 24.06294	12 24 10.00	-01 37 02.6					786
1993 HG	1993 04 24.06469	12 24 09.97	-01 37 02.5					786
1993 HG	1993 04 24.06847	12 24 09.84	-01 37 02.3					786
1993 HG	1993 04 24.09492	12 24 08.97	-01 36 57.8	18.4	R			786
1993 HG	1993 04 24.09641	12 24 08.92	-01 36 57.3					786
1993 HG	1993 04 24.09789	12 24 08.88	-01 36 57.1					786
1993 HG	1993 04 24.09937	12 24 08.81	-01 36 56.9					786
1993 HG	1993 04 24.10211	12 24 08.77	-01 36 56.6	18.0	V			786
1993 HG	1993 04 24.10564	12 24 08.64	-01 36 56.1					786
1993 HG	1993 04 24.11161	12 24 08.44	-01 36 55.0					786
1993 HG	1993 04 28.04186	12 22 09.60	-01 26 51.8					786
1993 HG	1993 04 29.08220	12 21 41.11	-01 24 32.6	19	I			786
1993 HG	1993 04 29.08438	12 21 41.01	-01 24 32.8					786
1993 HG	1993 04 29.08655	12 21 40.95	-01 24 32.1					786
1993 HG	1993 04 29.08873	12 21 40.90	-01 24 31.7					786
1993 HG	1993 04 29.09135	12 21 40.81	-01 24 31.8					786
1993 HG	1993 04 29.09353	12 21 40.77	-01 24 31.6					786
1993 HG	1993 04 29.09571	12 21 40.69	-01 24 31.2					786
1993 HG	1993 04 29.09788	12 21 40.64	-01 24 30.8					786
1993 HG	1993 04 29.09971	12 21 40.59	-01 24 30.5					786
1993 HG	1993 04 29.11615	12 21 40.13	-01 24 28.1					786
1993 HG	1993 04 29.11833	12 21 40.05	-01 24 27.9					786
1993 HG	1993 04 29.12052	12 21 40.00	-01 24 27.9					786
1993 HG	1993 04 29.12270	12 21 39.94	-01 24 27.5					786
1993 HG	1993 05 15.06041	12 17 23.44	-01 08 05.0	18.9				786
1993 HG	1993 05 15.06333	12 17 23.42	-01 08 05.3					786
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1993 HG	1993 05 16.04839	12 17 19.05	-01 08 18.9					786
1993 HG	1993 05 16.05414	12 17 18.99	-01 08 18.9					786
1993 HG	1993 05 16.05701	12 17 18.97	-01 08 18.3					786
1993 HG	1993 05 16.05988	12 17 18.96	-01 08 19.5					786
1993 HG	1993 05 16.06566	12 17 18.89	-01 08 18.7					786
1993 HG	1993 05 16.06853	12 17 18.88	-01 08 19.3					786

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1936 QE1	1993 04 19.22109	13 18 53.10	+04 28 56.6					801
1936 QE1	1993 04 19.23501	13 18 52.47	+04 29 03.1					801
1953 FK1	1993 04 18.09943	10 49 06.28	+14 46 02.2					801
1953 FK1	1993 04 18.12394	10 49 05.64	+14 45 58.5					801
1953 TS2	1993 04 19.21520	13 10 52.64	-01 39 31.3					801
1953 TS2	1993 04 19.22732	13 10 51.91	-01 39 27.4					801
1974 FO	1993 04 18.16819	12 10 17.30	-04 30 35.4					801
1974 FO	1993 04 18.19335	12 10 16.00	-04 30 30.9					801
1974 FO	1993 04 24.12830	12 05 54.48	-04 13 41.5					801
1974 FO	1993 04 24.14819	12 05 53.72	-04 13 38.9					801
1975 TX2	1993 04 24.25741	14 07 41.74	-08 17 18.5					801
1975 TX2	1993 04 24.26899	14 07 41.02	-08 17 16.3					801
1976 GO3	1993 04 19.10236	12 25 16.09	+01 09 59.9					801
1976 GO3	1993 04 19.12477	12 25 15.21	+01 10 04.4					801
1976 GM7	1993 04 18.09666	10 53 20.41	+07 25 46.7					801
1976 GM7	1993 04 18.13526	10 53 20.01	+07 25 53.7					801

1976	YE1	1993	04	18.09262	10	57	20.73	-00	58	18.8	I 801
1976	YE1	1993	04	18.12130	10	57	20.15	-00	58	13.3	I 801
1977	RL	1993	04	18.21652	13	15	19.15	+17	00	38.7	801
1977	RL	1993	04	18.22788	13	15	18.13	+17	00	32.3	801
1978	LG	1993	04	18.08100	10	15	10.01	-02	22	56.2	801
1978	SS2	1993	04	18.17106	12	12	58.53	-03	10	09.7	801
1978	SS2	1993	04	18.19629	12	12	57.64	-03	09	58.8	801
1981	EF26	1993	04	19.27472	14	51	02.53	-09	06	03.2	801
1981	EF26	1993	04	19.29357	14	51	01.80	-09	05	56.3	U 801
1981	EF26	1993	04	24.28252	14	47	34.37	-08	40	28.2	801
1981	EF26	1993	04	24.30007	14	47	33.68	-08	40	22.5	801
1981	QX	1993	04	19.23232	13	42	45.96	-00	22	39.3	801
1981	QX	1993	04	19.24927	13	42	45.12	-00	22	27.9	801
1981	QX	1993	04	24.23262	13	38	45.06	+00	31	30.9	801
1981	QX	1993	04	24.24491	13	38	44.41	+00	31	39.2	801
1982	UU5	1993	04	24.11163	11	34	16.59	-03	51	49.7	801
1982	UU5	1993	04	24.13733	11	34	15.94	-03	51	43.9	801
1984	SQ3	1993	04	19.13815	12	29	11.66	-02	17	32.8	801
1984	SQ3	1993	04	19.15276	12	29	10.89	-02	17	30.4	801
1984	SQ3	1993	04	24.16561	12	24	50.61	-02	02	24.7	801
1984	SQ3	1993	04	24.18340	12	24	49.72	-02	02	22.1	801
1985	FH	1993	04	19.23002	13	34	32.61	+02	50	11.2	801
1985	FH	1993	04	19.24731	13	34	31.81	+02	50	19.9	801
1985	FH	1993	04	24.22848	13	30	52.16	+03	29	26.6	801
1985	FH	1993	04	24.24291	13	30	51.53	+03	29	33.1	801
1986	JD	1993	04	18.19937	12	43	50.20	+12	49	49.1	801
1986	JD	1993	04	18.21388	12	43	49.45	+12	49	51.1	801
1986	JD	1993	04	24.19517	12	39	08.15	+12	56	54.8	801
1986	JD	1993	04	24.20705	12	39	07.61	+12	56	54.9	801
1986	QX3	1993	04	19.18938	12	55	30.38	+00	39	15.8	801
1986	QX3	1993	04	19.20594	12	55	29.50	+00	39	20.4	801
1986	UM1	1993	04	19.08060	11	00	05.12	+11	08	48.0	r 801
1986	UM1	1993	04	19.13436	11	00	04.22	+11	08	42.4	r 801
1988	BC	1993	04	19.26925	14	50	16.44	+00	26	30.4	801
1988	BC	1993	04	19.28836	14	50	15.33	+00	26	32.1	801
1988	BC	1993	04	24.27927	14	45	28.25	+00	32	09.7	801
1988	BC	1993	04	24.29711	14	45	27.18	+00	32	11.5	801
1988	CA	1993	04	18.23083	13	04	59.29	+06	30	39.1	801
1988	CA	1993	04	24.21904	13	01	16.27	+07	05	05.2	801
1988	CA	1993	04	24.23046	13	01	15.86	+07	05	09.0	801
1988	CJ	1993	04	18.11312	11	56	13.38	-04	42	15.5	801
1988	CJ	1993	04	18.12936	11	56	12.73	-04	42	11.9	W 801
1988	CJ	1993	04	24.11659	11	53	15.52	-04	14	32.2	801
1988	CJ	1993	04	24.14118	11	53	15.00	-04	14	26.2	P 801
1988	XT	1993	04	19.18076	12	49	37.68	-06	37	17.8	801
1988	XT	1993	04	19.19811	12	49	36.79	-06	37	11.9	801
1989	EL	1993	04	24.27223	14	11	36.70	-18	05	25.6	r 801
1989	EL	1993	04	24.29115	14	11	35.59	-18	05	18.4	r 801
1989	HD	1993	04	19.24092	13	42	41.66	+11	31	11.7	801
1989	HD	1993	04	19.25784	13	42	40.82	+11	31	19.4	801
1989	HD	1993	04	24.23839	13	38	47.66	+12	04	14.0	r 801
1989	KK	1993	04	19.15969	12	44	58.12	-05	13	40.3	801
1989	KK	1993	04	19.17273	12	44	57.61	-05	13	31.7	801
1989	LA	1993	04	19.21075	13	16	58.58	-00	45	26.2	801
1989	LA	1993	04	19.22383	13	16	57.91	-00	45	21.4	801
1990	KB1	1993	04	19.07570	10	45	20.26	+20	37	10.8	801
1990	KB1	1993	04	19.11168	10	45	19.64	+20	37	09.7	801
1990	OE2	1993	04	18.20398	12	58	40.76	+16	40	03.6	801
1990	OE2	1993	04	18.22263	12	58	39.80	+16	40	06.9	801

1990	OE2	1993	04	24.21160	12	54	02.12	+16	54	22.4	801
1990	OE2	1993	04	24.22163	12	54	01.66	+16	54	23.1	801
1990	QC1	1993	04	18.08468	10	39	12.13	-03	58	46.7	801
1990	QC1	1993	04	18.11820	10	39	11.55	-03	58	42.1	801
1990	QP2	1993	04	19.17718	12	47	44.63	-05	58	10.5	801
1990	QP2	1993	04	19.19367	12	47	43.85	-05	58	08.6	801
1990	QY3	1993	04	18.16474	12	04	06.99	-03	29	33.7	801
1990	QP5	1993	04	19.25208	14	18	27.80	-06	30	49.3	801
1990	QP5	1993	04	19.26337	14	18	27.21	-06	30	44.7	801
1990	RC3	1993	04	19.10792	12	27	22.27	-04	37	42.3	801
1990	RC3	1993	04	19.12818	12	27	21.29	-04	37	32.7	801
1990	RC3	1993	04	24.16293	12	23	46.02	-04	06	47.4	801
1990	RC3	1993	04	24.17956	12	23	45.34	-04	06	41.6	801
1990	RE5	1993	04	24.09536	09	32	32.30	+12	13	38.3 W	801
1990	RE5	1993	04	24.12119	09	32	32.90	+12	13	30.6 W	801
1990	SW3	1993	04	18.21950	13	31	08.85	+09	06	46.7	801
1990	SW3	1993	04	18.23577	13	31	07.99	+09	06	50.2	801
1990	SP7	1993	04	19.14336	12	31	39.65	+00	36	58.8 I	801
1990	SP7	1993	04	19.16358	12	31	38.63	+00	37	01.8 I	801
1990	SP7	1993	04	24.16911	12	28	25.64	+00	48	41.9	801
1990	SP7	1993	04	24.18802	12	28	24.96	+00	48	43.8	801
1990	TN4	1993	04	19.24425	13	43	10.76	+08	44	20.1	801
1990	TN4	1993	04	19.26072	13	43	09.93	+08	44	20.9	801
1990	UY	1993	04	19.21796	13	09	35.96	+01	26	13.2	801
1990	UY	1993	04	19.23819	13	09	35.15	+01	26	20.7	801
1991	PQ10	1993	04	18.08704	10	51	41.64	-00	17	20.0	801
1991	PQ10	1993	04	18.12738	10	51	41.43	-00	17	10.7	801
1991	PN18	1993	04	18.11582	11	27	47.81	-05	56	30.1	801
1991	PN18	1993	04	18.14139	11	27	47.11	-05	56	21.8	801
1991	UY	1993	04	19.14937	12	38	36.96	+06	19	21.0	801
1991	UY	1993	04	19.16646	12	38	36.06	+06	19	23.2	801
1991	UY	1993	04	24.17581	12	34	32.05	+06	27	42.0	801
1991	UC1	1993	04	24.07243	10	01	09.29	+09	06	31.7	801
1991	UC1	1993	04	24.10875	10	01	10.06	+09	06	35.0	801
1991	VR	1993	04	19.15557	12	40	34.20	-04	47	03.3	801
1991	VR	1993	04	19.16947	12	40	33.41	-04	46	59.6	801
1991	VC4	1993	04	19.09538	11	46	49.56	-08	14	53.7	801
1991	VC4	1993	04	19.11775	11	46	48.90	-08	14	42.4	801
1991	VF5	1993	04	19.25496	14	24	35.78	-02	12	04.6	801
1991	VF5	1993	04	19.26614	14	24	35.12	-02	11	59.6	801
1991	VF5	1993	04	24.27519	14	19	49.85	-01	36	17.2	801
1991	VF5	1993	04	24.29411	14	19	48.72	-01	36	09.4	801
1992	AS1	1993	04	19.31372	15	49	54.35	-03	18	45.4	801
1992	AS1	1993	04	19.33734	15	49	53.47	-03	18	37.2	801
1992	BH	1993	03	26.37837	16	04	27.94	+03	46	18.6	801
1992	BH	1993	03	26.39606	16	04	27.99	+03	46	26.6	801
1992	BH	1993	04	19.31803	15	58	58.31	+06	45	03.0	801
1992	BH	1993	04	19.34130	15	58	57.61	+06	45	12.3	801
1992	BH	1993	04	24.31478	15	56	15.56	+07	16	54.0	801
1992	BH	1993	04	24.33441	15	56	14.83	+07	17	00.9	801
1992	CE1	1993	04	19.31093	15	46	17.06	+05	53	02.7	801
1992	CE1	1993	04	19.33457	15	46	16.36	+05	53	14.5	801
1992	CE1	1993	04	24.31142	15	43	37.27	+06	33	00.2	801
1992	CE1	1993	04	24.33176	15	43	36.55	+06	33	09.7	801
1992	YW3	1993	04	18.05594	08	07	37.76	+31	33	49.7	801
1992	YW3	1993	04	26.02627	08	19	28.61	+30	48	04.2	801
1992	YW3	1993	04	26.03808	08	19	29.72	+30	48	00.1	801
1993	BV2	1993	04	18.05094	08	51	10.52	+12	57	35.4	801
1993	BV2	1993	04	18.06186	08	51	11.24	+12	57	33.9	801

1993 BL3	1993 04 18.05908	09 11 03.49	+26 28 15.8						801
1993 BL3	1993 04 18.07389	09 11 04.09	+26 28 09.2						801
1993 BL3	1993 04 24.08969	09 15 50.26	+25 42 45.7						801
1993 BL3	1993 04 24.10313	09 15 50.91	+25 42 39.6						801
1993 BP13	1993 04 18.02848	08 56 40.68	+01 22 07.5						801
1993 BP13	1993 04 18.04307	08 56 41.28	+01 22 08.9						801
1993 BP13	1993 04 24.08404	09 01 19.09	+01 27 05.0						801
1993 BP13	1993 04 24.09887	09 01 19.82	+01 27 05.2						801
1993 EL	1993 04 18.15312	11 56 50.67	+33 38 20.0						801
1993 EL	1993 04 18.17803	11 56 50.50	+33 38 06.5						801
1993 EL	1993 04 21.09125	11 56 47.69	+33 09 39.6					F	801
1993 EL	1993 04 21.10270	11 56 47.74	+33 09 31.4					F	801
1993 ET	1993 04 18.15948	12 15 00.85	+03 10 00.6						801
1993 ET	1993 04 18.17399	12 15 00.36	+03 10 11.2						801
1993 ET	1993 04 24.13367	12 12 01.56	+04 20 37.3						801
1993 ET	1993 04 24.15118	12 12 01.08	+04 20 48.6						801
4121 T-1	1993 04 19.18558	12 50 00.72	-03 11 39.1						801
4121 T-1	1993 04 19.20217	12 50 00.02	-03 11 35.2						801
3137 T-2	1993 04 18.20946	13 02 19.56	-00 55 08.6						801
3137 T-2	1993 04 18.22550	13 02 18.86	-00 55 03.4						801
4092 T-3	1993 04 19.35238	16 18 20.42	-05 29 46.6						801
4092 T-3	1993 04 24.32262	16 16 08.35	-04 47 16.4						801
4092 T-3	1993 04 24.34174	16 16 07.74	-04 47 06.2						801
(243)	1993 04 18.11066	11 45 22.56	+00 22 15.5						801
(243)	1993 04 18.13182	11 45 21.89	+00 22 19.9						801
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(243)	1993 04 19.10527	11 44 52.99	+00 25 26.4						801
(243)	1993 04 21.07968	11 43 57.83	+00 31 24.8						801
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(243)	1993 04 24.14328	11 42 41.62	+00 39 41.7						801
(2463)	1993 04 18.16214	12 23 22.51	+02 57 08.7						801
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(2463)	1993 04 21.08785	12 21 42.56	+03 19 03.8						801
(2463)	1993 04 21.09943	12 21 42.21	+03 19 08.1						801

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Measurers E. W. Elst, R. M. West
1.0-m Schmidt, 1.5-m Danish reflector

1981 ES14	1993 01 22.22336	09 03 12.21	+15 38 29.4		18.5		4		809
1981 ES14	1993 01 22.23652	09 03 11.45	+15 38 31.9				4		809
1981 ES14	1993 01 22.24968	09 03 10.60	+15 38 33.7				4		809
1981 VU	1992 07 26.30000	21 54 23.94	-09 31 46.1				4		809
1981 VU	1992 07 26.31597	21 54 23.15	-09 31 49.1				4		809
1988 RE10	1992 07 26.30000	21 49 36.72	-10 19 25.6				4		809
1988 RE10	1992 07 26.31597	21 49 36.08	-10 19 28.5				4		809
1991 CX	1992 07 26.30000	21 53 52.63	-07 43 32.1				4		809
1991 CX	1992 07 26.31597	21 53 51.77	-07 43 34.3				4		809
1992 OA5	1992 07 26.30000	21 51 34.11	-10 17 30.7				4		809
1992 OA5	1992 07 26.31597	21 51 33.41	-10 17 29.6				4		809
1992 OD5	1992 07 26.30000	21 51 59.37	-09 59 49.3				4		809
1992 OD5	1992 07 26.31597	21 51 58.63	-09 59 48.4				4		809
1992 OF5	1992 07 26.30000	21 52 40.16	-10 40 11.3				4		809
1992 OF5	1992 07 26.31597	21 52 39.27	-10 40 11.0				4		809

1992 OP5	1992	07	26.30000	21	52	54.46	-07	59	08.7	4	809
1992 OP5	1992	07	26.31597	21	52	53.70	-07	59	12.0	4	809
1992 OQ5	1992	07	26.30000	21	52	42.33	-08	09	52.5	4	809
1992 OQ5	1992	07	26.31597	21	52	41.74	-08	09	59.2	4	809
1992 OS5	1992	07	26.30000	21	54	05.14	-09	16	05.8	4	809
1992 OS5	1992	07	26.31597	21	54	04.25	-09	16	07.6	4	809
1992 OT5	1992	07	26.30000	21	53	17.51	-11	56	36.1	4	809
1992 OT5	1992	07	26.31597	21	53	16.89	-11	56	38.9	4	809
1992 OU5	1992	07	26.30000	21	54	30.22	-10	49	27.3	4	809
1992 OU5	1992	07	26.31597	21	54	29.61	-10	49	30.3	4	809
1992 OV5	1992	07	26.30000	21	53	22.75	-08	00	13.3	4	809
1992 OV5	1992	07	26.31597	21	53	22.30	-08	00	19.7	4	809
1992 OX5	1992	07	26.30000	21	55	00.91	-09	02	58.3	4	809
1992 OX5	1992	07	26.31597	21	55	00.21	-09	03	01.8	4	809
1992 OY5	1992	07	26.30000	21	55	42.91	-09	48	43.5	4	809
1992 OY5	1992	07	26.31597	21	55	42.31	-09	48	48.3	4	809
1992 OZ5	1992	07	26.30000	21	56	17.17	-09	53	08.6	4	809
1992 OZ5	1992	07	26.31597	21	56	16.52	-09	53	08.8	4	809
1992 OB6	1992	07	26.30000	21	56	13.79	-07	41	02.8	4	809
1992 OB6	1992	07	26.31597	21	56	13.29	-07	41	07.1	4	809
1992 OM6	1992	07	26.30000	22	00	17.21	-08	57	08.2	4	809
1992 OM6	1992	07	26.31597	22	00	16.53	-08	57	11.8	4	809
1992 OQ6	1992	07	26.30000	22	01	03.73	-10	47	06.5	4	809
1992 OQ6	1992	07	26.31597	22	01	03.07	-10	47	08.1	4	809
1992 OR6	1992	07	26.30000	22	01	21.15	-10	02	08.0	4	809
1992 OR6	1992	07	26.31597	22	01	20.55	-10	02	10.6	4	809
1992 OS6	1992	07	26.30000	22	02	33.80	-07	57	17.5	4	809
1992 OS6	1992	07	26.31597	22	02	33.33	-07	57	21.5	4	809
1992 OT6	1992	07	26.30000	22	04	01.75	-10	35	31.8	4	809
1992 OT6	1992	07	26.31597	22	04	00.91	-10	35	23.9	4	809
1992 OB7	1992	07	26.30000	22	07	46.18	-10	04	06.4	4	809
1992 OB7	1992	07	26.31597	22	07	45.51	-10	04	06.5	4	809
1992 PY1	1992	07	26.30000	21	50	06.37	-10	54	27.0	4	809
1992 PY1	1992	07	26.31597	21	50	05.50	-10	54	25.4	4	809
1992 PA4	1992	07	26.30000	22	07	58.48	-11	02	06.6	4	809
1992 PA4	1992	07	26.31597	22	07	57.88	-11	02	08.7	4	809
1992 RO1	1992	07	26.30000	21	54	10.93	-11	33	44.5	4	809
1992 RO1	1992	07	26.31597	21	54	10.63	-11	33	58.5	4	809
1993 FW	1993	05	17.03238	12	23	59.43	-02	38	27.7	23 V	5 809
1993 FW	1993	05	17.05998	12	23	59.36	-02	38	27.3	5	809
1993 FW	1993	05	17.09281	12	23	59.27	-02	38	26.7	5	809
1993 FW	1993	05	18.01676	12	23	56.96	-02	38	09.8	5	809
2280 T-2	1992	07	26.30000	21	50	08.84	-09	21	27.2	4	809
2280 T-2	1992	07	26.31597	21	50	07.96	-09	21	31.3	4	809
(1014)	1992	07	26.30000	22	08	23.59	-08	16	57.2	4	809
(1014)	1992	07	26.31597	22	08	22.90	-08	16	59.0	4	809
(1491)	1992	07	26.30000	21	55	55.49	-12	02	12.9	4	809
(1491)	1992	07	26.31597	21	55	54.75	-12	02	14.7	4	809
(2969)	1992	07	26.30000	22	01	36.71	-10	03	41.4	4	809
(2969)	1992	07	26.31597	22	01	36.06	-10	03	43.1	4	809
(4485)	1992	07	26.30000	21	58	36.91	-11	26	59.5	4	809
(4485)	1992	07	26.31597	21	58	36.17	-11	26	59.2	4	809
(4841)	1992	07	26.30000	22	01	15.48	-11	12	58.9	4	809
(4841)	1992	07	26.31597	22	01	14.69	-11	13	03.6	4	809
(4850)	1992	07	26.30000	22	01	45.52	-09	46	57.5	4	809
(4850)	1992	07	26.31597	22	01	44.91	-09	46	59.0	4	809

868 Hidaka Observatory
S. Shirai, 13-2, Nishi-Kagaya 2 Chome, Suminoe-Ku, Osaka, 559 Japan

Observer S. Shirai
Measurer S. Hayakawa
0.25-m f/3.4 hyperboloid astrocamera
GSC

1993 FB1		1993 03 19.61109	13 40 26.78	+02 30 35.0			868
1993 FB1		1993 03 19.63908	13 40 25.74	+02 30 39.0			868
1993 FB1		1993 04 17.69862	13 15 44.48	+03 50 13.4		16.0	868
1993 FB1		1993 04 17.72301	13 15 42.98	+03 50 13.0			868
1993 FC1		1993 04 17.65719	13 21 44.02	-11 11 42.0		16.0	868
1993 FC1		1993 04 17.68252	13 21 42.88	-11 11 25.9			868

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

1991 VV2		1993 03 29.79609	13 51 27.73	-14 02 59.7		17.0	894
1991 VV2		1993 04 14.63715	13 35 23.50	-13 55 50.2		17.0	894
1991 VV2		1993 04 14.65035	13 35 22.66	-13 55 46.9			894
1992 CE		1993 04 16.68368	14 04 48.23	-11 05 55.7		16.5	894
1992 CE		1993 04 17.64688	14 04 12.87	-11 01 48.5		16.5	894
1992 CE		1993 04 17.66076	14 04 12.35	-11 01 44.6			894
1992 CO		1993 05 15.71007	16 18 59.82	-08 05 30.0		16.6	894
1992 CO		1993 05 18.68229	16 16 36.28	-08 03 28.7		16.7	894
1992 CO		1993 05 18.69549	16 16 35.65	-08 03 27.1			894
1993 DB		1993 03 13.53889	10 27 26.53	+13 44 08.0		16.5	894
1993 DB		1993 03 13.55284	10 27 25.66	+13 44 06.7			894
1993 DB		1993 03 16.57257	10 24 45.95	+13 48 24.7		16.5	894
1993 DB		1993 03 16.58576	10 24 45.29	+13 48 26.0			894
1993 DB		1993 04 09.47477	10 13 30.45	+13 22 06.5		17.0	894
1993 DB		1993 04 10.45608	10 13 27.91	+13 18 47.6		17.0	894
1993 DB		1993 04 10.46701	10 13 28.02	+13 18 45.4			894
1993 EH		1993 04 09.48715	11 08 40.58	+06 31 48.5		16.6	894
1993 EH		1993 04 09.50000	11 08 40.29	+06 31 52.9			894
1993 EH		1993 04 10.47986	11 08 24.64	+06 38 54.2			894
1993 FR2		1993 04 26.53611	12 58 05.48	-01 27 06.0		17.0	894
1993 FR2		1993 04 26.55000	12 58 04.72	-01 27 00.4			894
1993 FV3		1993 04 10.51758	13 11 58.61	-06 34 46.8		17.0	894
1993 FV3		1993 04 10.52951	13 11 57.69	-06 34 39.3			894
1993 FV3		1993 04 16.56354	13 06 51.35	-05 56 05.2		17.0	894
1993 FV3		1993 04 16.57604	13 06 50.72	-05 55 59.8			894
1993 GB		1993 04 17.62083	13 41 21.72	-11 19 43.2		16.8	894
1993 GB		1993 04 17.63333	13 41 20.80	-11 19 43.7			894
1993 GC		1993 04 10.51758	13 13 52.70	-07 53 34.9		17.0	894
1993 GC		1993 04 10.52951	13 13 52.21	-07 53 24.7			894
1993 GC		1993 04 16.56354	13 09 31.58	-06 47 34.5		17.2	894
1993 GC		1993 04 16.57604	13 09 30.84	-06 47 26.1			894
1993 GH		1993 04 14.69063	13 41 28.33	-06 30 07.8		16.8	894
1993 GH		1993 04 14.70382	13 41 27.71	-06 30 06.0			894
1993 GH		1993 04 16.58935	13 39 49.13	-06 26 58.1		16.7	894
1993 GH		1993 04 16.60243	13 39 48.42	-06 26 58.3			894
1993 GH		1993 04 17.57697	13 38 57.46	-06 25 22.6			894
1993 GH		1993 04 17.58906	13 38 56.79	-06 25 20.7			894
1993 GH		1993 04 26.61111	13 31 10.63	-06 12 24.2		17.0	894
1993 GH		1993 04 26.62361	13 31 10.14	-06 12 25.9			894
1993 GH		1993 04 27.59410	13 30 21.75	-06 11 15.8		17.0	894
1993 GH		1993 04 27.60729	13 30 21.09	-06 11 14.6			894
1993 GK	*	1993 04 14.66435	13 49 43.18	-09 42 33.8		17.0	894
1993 GK		1993 04 14.67743	13 49 42.71	-09 42 24.9			894

1993 GK		1993	04	17.62083	13 47 10.76	-09 15 08.4	17.0		894
1993 GK		1993	04	17.63333	13 47 10.13	-09 15 00.5			894
1993 GL	*	1993	04	14.66435	13 52 29.36	-09 54 55.3	17.0		894
1993 GL		1993	04	14.67743	13 52 28.77	-09 54 52.1			894
1993 GL		1993	04	17.62083	13 50 01.77	-09 43 52.6	17.0		894
1993 GL		1993	04	17.63333	13 50 01.07	-09 43 51.0			894
1993 GM	*	1993	04	14.69063	13 42 33.60	-05 31 59.8	17.5		894
1993 GM		1993	04	14.70382	13 42 32.83	-05 31 55.9			894
1993 GM		1993	04	17.57697	13 40 17.46	-05 18 25.0			894
1993 GM		1993	04	17.58906	13 40 16.96	-05 18 22.2			894
1993 GM		1993	04	27.59410	13 32 37.82	-04 35 02.8	17.5		894
1993 GM		1993	04	27.60729	13 32 37.14	-04 35 00.9			894
1993 GN	*	1993	04	14.69063	13 43 35.04	-05 20 03.9	17.0		894
1993 GN		1993	04	14.70382	13 43 34.16	-05 20 02.5			894
1993 GN		1993	04	16.58935	13 41 37.71	-05 19 08.1	17.0		894
1993 GN		1993	04	16.60243	13 41 36.83	-05 19 08.9			894
1993 GN		1993	04	17.57697	13 40 36.46	-05 18 44.9	16.8		894
1993 GN		1993	04	17.58906	13 40 35.62	-05 18 44.1			894
1993 GN		1993	04	26.61111	13 31 30.64	-05 19 19.2	17.0		894
1993 GN		1993	04	26.62361	13 31 29.90	-05 19 16.8			894
1993 GN		1993	04	27.59410	13 30 34.80	-05 19 54.6	17.0		894
1993 GN		1993	04	27.60729	13 30 34.00	-05 19 54.1			894
1993 GR		1993	04	14.66435	13 50 43.66	-09 42 40.4	17.0		894
1993 GR		1993	04	14.67743	13 50 43.03	-09 42 36.7			894
1993 GR		1993	04	17.62083	13 48 09.68	-09 34 30.3	17.0		894
1993 GR		1993	04	17.63333	13 48 08.95	-09 34 28.1			894
1993 JB	*	1993	05	14.57957	14 37 09.82	-12 08 51.7	17.0		894
1993 JB		1993	05	14.59271	14 37 09.36	-12 08 47.3			894
1993 JB		1993	05	15.60602	14 36 25.98	-12 01 19.6			894
1993 JB		1993	05	15.61910	14 36 25.41	-12 01 12.6			894
1993 JB		1993	05	16.53576	14 35 47.05	-11 54 33.0	17.2		894
1993 JB		1993	05	16.54896	14 35 46.47	-11 54 27.2			894
1993 JC	*	1993	05	14.57957	14 42 48.62	-11 56 11.4	16.5		894
1993 JC		1993	05	14.59271	14 42 48.08	-11 56 01.2			894
1993 JC		1993	05	15.60602	14 42 03.10	-11 46 05.8			894
1993 JC		1993	05	15.61910	14 42 02.47	-11 45 59.0			894
1993 JC		1993	05	16.53576	14 41 22.88	-11 37 07.5	16.6		894
1993 JC		1993	05	16.54896	14 41 22.23	-11 36 59.6			894
1993 JD	*	1993	05	14.66227	15 21 16.95	-14 48 00.2	16.2		894
1993 JD		1993	05	14.67538	15 21 16.36	-14 47 53.0			894
1993 JD		1993	05	16.56319	15 19 43.07	-14 29 02.3			894
1993 JD		1993	05	16.57604	15 19 42.49	-14 28 54.7			894
1993 KB	*	1993	05	16.61532	15 42 09.46	-12 10 24.6	16.3		894
1993 KB		1993	05	16.62779	15 42 08.73	-12 10 26.2			894
1993 KB		1993	05	18.65521	15 40 15.22	-12 13 12.9			894
1993 KB		1993	05	18.66844	15 40 14.42	-12 13 12.2			894
1993 KF	*	1993	05	16.61532	15 32 50.46	-11 11 33.4	17.0		894
1993 KF		1993	05	16.62779	15 32 49.77	-11 11 33.0			894
1993 KF		1993	05	20.58137	15 29 29.25	-11 09 52.7	17.2		894
1993 KF		1993	05	20.59375	15 29 28.47	-11 09 51.2			894
4114 T-1		1993	05	16.53576	14 37 34.00	-12 05 33.5	17.5		894
4114 T-1		1993	05	16.54896	14 37 33.49	-12 05 32.4			894
(59)		1993	05	18.68229	16 15 18.01	-08 38 47.4			894
(59)		1993	05	18.69549	16 15 17.37	-08 38 44.6			894
(377)		1993	05	14.57957	14 41 25.25	-12 46 46.4			894
(377)		1993	05	14.59271	14 41 24.65	-12 46 41.8			894
(401)		1993	04	14.66435	13 48 46.71	-09 49 02.8			894
(401)		1993	04	14.67743	13 48 46.08	-09 49 01.5			894
(401)		1993	04	17.62083	13 46 33.68	-09 40 50.7			894

(401)	1993 04 17.63333	13 46 33.06	-09 40 48.2				894
(572)	1993 04 26.61111	13 28 54.36	-05 23 10.4				894
(572)	1993 04 26.62361	13 28 53.70	-05 23 03.8				894
(572)	1993 04 27.59410	13 28 06.88	-05 15 25.2				894
(572)	1993 04 27.60729	13 28 06.29	-05 15 19.9				894
(771)	1993 05 18.65521	15 37 09.90	-12 27 53.5				894
(771)	1993 05 18.66844	15 37 09.06	-12 27 47.0				894
(868)	1993 05 16.61532	15 29 55.21	-11 05 16.6				894
(868)	1993 05 16.62779	15 29 54.50	-11 05 14.7				894
(868)	1993 05 20.58137	15 26 27.31	-10 56 04.8				894
(868)	1993 05 20.59375	15 26 26.62	-10 56 03.7				894
(1190)	1993 04 17.62083	13 44 21.80	-10 55 14.8				894
(1190)	1993 04 17.63333	13 44 21.05	-10 55 11.2				894
(1669)	1993 04 09.48715	11 07 31.03	+06 11 06.9				894
(1669)	1993 04 09.50000	11 07 30.67	+06 11 08.9	15.8			894
(1669)	1993 04 10.47986	11 07 05.48	+06 13 19.6				894
(2162)	1993 04 26.53611	12 58 37.05	-01 02 40.3				894
(2162)	1993 04 26.55000	12 58 36.29	-01 02 35.7				894
(2239)	1993 04 10.52951	13 12 40.42	-07 28 04.0				894
(2239)	1993 04 16.56354	13 07 56.13	-07 14 01.1				894
(2239)	1993 04 16.57604	13 07 55.49	-07 13 59.5				894
(2641)	1993 04 16.56354	13 09 44.58	-05 31 19.5				894
(2641)	1993 04 16.57604	13 09 43.74	-05 31 19.4				894
(3660)	1993 03 16.57257	10 22 18.56	+13 21 12.1				894
(3660)	1993 03 16.58576	10 22 18.03	+13 21 11.4				894
(4134)	1993 05 16.61532	15 31 39.80	-10 52 12.5				894
(4134)	1993 05 16.62779	15 31 39.00	-10 52 11.5				894
(4134)	1993 05 20.58137	15 27 51.79	-10 41 47.1				894
(4134)	1993 05 20.59375	15 27 51.06	-10 41 46.9				894
(4563)	1993 05 20.64444	16 01 14.60	-12 39 11.3				894
(4696)	1993 04 14.66435	13 50 05.49	-09 50 53.9				894
(4696)	1993 04 14.67743	13 50 04.77	-09 50 50.6				894
(4696)	1993 04 17.62083	13 47 43.74	-09 35 50.8				894
(4696)	1993 04 17.63333	13 47 43.00	-09 35 45.8				894
(4737)	1993 05 20.63194	15 58 14.00	-12 54 57.2				894
(4737)	1993 05 20.64444	15 58 13.44	-12 54 56.8				894

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

1977 EO1	1993 04 14.58924	13 42 09.13	-08 21 54.5	16.5			896
1977 EO1	1993 04 14.62269	13 42 07.69	-08 21 48.0				896
1993 GH	1993 04 14.58924	13 41 33.9	-06 30 15	16.8		W	896
1993 GH	1993 04 14.62269	13 41 32.3	-06 30 14			W	896

897 YGCO Chiyoda Station
T. Kojima, 45 Shimonakamori, Chiyoda-cyo, Ora-Gun,
Gunma-ken, 370-07 Japan
0.25-m f/3.4 Wright-Schmidt camera
AGK3

(4179)	1992 12 08.79890	12 44 45.49	-20 07 29.6	12			897
(4179)	1992 12 08.81291	12 43 56.13	-20 01 56.2				897
(4179)	1992 12 08.81458	12 43 49.78	-20 01 14.0				897
(4179)	1992 12 08.81597	12 43 44.96	-20 00 41.0				897
(4179)	1992 12 13.78866	09 59 13.30	+04 29 19.6	10			897
(4179)	1992 12 13.79028	09 59 11.67	+04 29 34.7				897

(4179)		1992 12 13.79149	09 59 10.29	+04 29 46.6			897
(4179)		1992 12 13.80567	09 58 55.56	+04 31 58.8			897

900 Kiryuu Observatory, Ohtsu
Y. Ikari, Katsube 626, Moriyama, Shiga-Ken, 524 Japan
0.26-m f/2.9 reflector + CCD
GSC

1993 GO		1993 04 25.61411	15 07 22.67	-09 49 14.8	16	V	900
1993 GO		1993 04 25.61812	15 07 22.36	-09 49 20.4			900
1993 GO		1993 04 25.63603	15 07 21.32	-09 49 23.8			900
1993 GO		1993 05 14.60906	14 46 45.71	-11 20 28.5	16	V	900
1993 GO		1993 05 14.61883	14 46 45.04	-11 20 31.4			900

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

1987 BC		1993 04 18.58264	13 37 58.13	-08 46 57.0	16.5		905
1987 BC		1993 04 18.59745	13 37 57.34	-08 46 51.3			905
1987 BC		1993 04 22.55966	13 34 53.38	-08 27 18.0	16.5		905
1987 BC		1993 04 22.56684	13 34 53.00	-08 27 16.1			905
1990 VF2		1993 04 22.57541	14 49 05.59	-12 47 53.9	17		905
1990 VF2		1993 04 22.58976	14 49 04.77	-12 47 49.4			905
1990 VB4		1993 05 15.49774	12 56 03.05	-11 12 44.1	17		905
1990 VB4		1993 05 15.50810	12 56 02.97	-11 12 40.5			905
1993 CN		1993 04 25.49560	10 36 17.71	+23 02 51.4	17.3		905
1993 CN		1993 04 25.53738	10 36 17.81	+23 02 41.5			905
1993 DQ2		1993 02 25.57419	08 56 47.49	+18 55 12.2	17.3		905
1993 DQ2		1993 02 25.58137	08 56 47.08	+18 55 14.8			905
1993 JF	*	1993 05 15.49774	12 54 12.08	-10 40 33.7	16.5		905
1993 JF		1993 05 15.50810	12 54 11.75	-10 40 29.2			905
1993 JG	*	1993 05 11.55486	14 34 23.94	-10 48 16.0	16		905
1993 JG		1993 05 11.56991	14 34 22.77	-10 48 16.9			905
1993 JG		1993 05 20.51933	14 24 41.58	-10 56 05.6	16.5		905
1993 JG		1993 05 20.53391	14 24 40.78	-10 56 07.2			905
1993 JH	*	1993 05 11.57789	15 56 01.86	-21 54 02.4	15.5		905
1993 JH		1993 05 11.59086	15 56 01.15	-21 54 03.6			905
1993 JH		1993 05 20.58044	15 47 35.42	-22 04 32.3	15.5		905
1993 JH		1993 05 20.58762	15 47 34.92	-22 04 32.8			905

* * * * *

ORBITAL ELEMENTS.

Orbital elements have been computed by the following contributors:

C. M. Bardwell, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, U.S.A. (B)
E. Bowell, Lowell Observatory, 1400 West Mars Hill Road, Flagstaff, AZ 86001, U.S.A. (E)
E. Goffin, Agfa-Gevaert N.V., Mortsel, Belgium
D. W. E. Green, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, U.S.A. (G)
K. Ichikawa, 45 Shiromae Kamiwada-cho, Okazaki-shi, Aichi, 444-02 Japan
T. Kobayashi, 1717-2 Shimo-Koizumi, Oizumi-machi, Ora-gun, Gunma-ken, 370-05 Japan

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S. Nakano, 3-19, 1 chome, Takenokuchi, Sumoto, Hyogo-ken 656, Japan (N)
H. Oishi, 5-3-14 Ikeda, Niiza, Saitama 352, Japan (O)
G. V. Williams, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, U.S.A. (W)
D. K. Yeomans and P. Chodas, Jet Propulsion Laboratory, MS 301-150G, Pasadena, CA 91109, U.S.A.

The name of the orbit computer is shown on the line giving T for a comet and Epoch for a displayed minor-planet orbit; for many of the minor planets (O-C) residuals are shown in full (in R.A. and Decl.); observations are identified by date and observatory code, X referring to an approximate and Y to a semiaccurate position. For displayed minor planets "Id." shows those involved in establishing the identifications (generally with the principal contributors first), "k" indicating key identifications and "d" (only) double (or multiple) designations; no identifier is shown if only the orbit computer is involved and the results were not previously published. 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. In some batches of MPCs the opportunity is taken to print improved results for previously-discussed multiple-opposition and long-arc single-opposition orbits sideways on pages at the end, following the ephemerides. These high-precision results make reference to earlier orbit computations for identifications and residuals, and the orbit computers are again indicated by the codes listed above.

Comet McNaught-Russell (1991v)
Epoch 1992 May 18.0 TT = JDT 2448760.5
T 1992 May 3.44663 TT Marsden

q	3.1939543	(2000.0)	P	Q
z	+0.0016967	Peri.	257.23103	+0.10462922	-0.49613927
	+/-0.0000069	Node	120.46384	+0.20912880	+0.85827040
e	0.9945808	Incl.	90.50621	-0.97227459	+0.13121642

From 28 observations 1991 Aug. 3-1993 May 11, mean residual 0".73.

Comet Helin-Alu (1992a)
Epoch 1992 June 27.0 TT = JDT 2448800.5
T 1992 July 8.68771 TT Marsden

q	3.0165780	(2000.0)	P	Q
z	-0.0013753	Peri.	239.84308	-0.79609718	-0.08785570
	+/-0.0000209	Node	288.90322	+0.45474770	-0.73965881
e	1.0041487	Incl.	39.26376	-0.39929163	-0.66722277

From 42 observations 1992 Jan. 9-1993 Mar. 23, mean residual 0".95.

Comet Mueller (1993d)
Epoch 1992 Aug. 6.0 TT = JDT 2448840.5
T 1992 July 30.69350 TT Nakano

q	5.8833771	(2000.0)	P	Q
z	-0.0010435	Peri.	61.40894	-0.40219688	-0.46344362
	+/-0.0000572	Node	77.61633	+0.24819421	-0.88531868
e	1.0061393	Incl.	53.94011	+0.88127028	+0.03782652

From 64 observations 1993 Mar. 19-1993 May 18, mean residual 0".99.

Comet Helin-Lawrence (1992q)
Epoch 1993 Apr. 3.0 TT = JDT 2449080.5
T 1993 Mar. 15.11148 TT Marsden

q	2.0384593	(2000.0)	P	Q
z	+0.0169905	Peri.	268.85354	+0.09272862	-0.96575104
	+/-0.0000037	Node	194.66716	+0.12807420	-0.22979312
e	0.9653656	Incl.	106.84805	-0.98742007	-0.12049920

From 51 observations 1992 Aug. 30-1993 May 11, mean residual 0".70.

Periodic Comet Shoemaker-Levy 9 (1993e)
Epoch 1994 May 8.0 TT = JDT 2449480.5
T 1994 Apr. 20.49172 TT Yeomans/Chodas

q	5.3903279	(2000.0)	P	Q
n	0.05640583	Peri.	356.36219	-0.79154138	+0.60781714
a	6.7336945	Node	221.28985	-0.55823445	-0.76136519
e	0.1994992	Incl.	5.51416	-0.24866954	-0.22556900
P	17.47				

From 103 observations 1993 Mar. 17-May 18, mean residual 1".1.

One-opposition minor planets

Planet	H	Epoch	M	Peri.	Node	Incl.	e	a	Arc	O	N	C
1984 QY1	14.0	840828	348.09	335.37	144.11	15.50	0.9173	2.9719	3	6		W
1990 RC2	13.0	900906	213.99	310.53	194.45	5.76	0.0900	2.7207	6	8		W
1991 DM	14.1	910305	1.47	25.48	133.32	1.33	0.1487	2.3656	28	0		E
1991 DH1	12.6	910305	333.09	40.62	155.99	13.09	0.1545	2.6042	33	7		E
1991 EN2	11.6	910305	119.83	183.97	207.45	1.41	0.0903	2.9323	33	0		E
1992 OV1	13.5	920717	353.59	7.24	310.26	13.04	0.1605	2.5938	12	0		W
1992 OP5	15.0	920717	28.19	82.36	186.25	2.91	0.2110	2.3012	5	8	E	W
1992 OQ5	14.5	920717	290.25	264.17	150.17	12.95	0.2512	2.6174	5	8	E	W
1992 OS5	15.0	920717	109.66	265.54	292.68	4.63	0.0694	2.3089	5	8	E	W
1992 OT5	14.5	920717	357.02	169.64	148.97	2.51	0.1156	2.8132	5	6	E	W
1992 OU5	14.5	920717	270.93	271.07	153.38	4.13	0.1748	2.4885	5	8	E	W
1992 OV5	14.5	920717	337.06	207.02	147.99	12.05	0.2932	2.8390	5	8	E	W
1992 OX5	14.5	920717	34.44	92.72	167.22	4.19	0.2468	2.9208	5	8	E	W
1992 OY5	15.5	920717	311.00	230.33	151.91	4.70	0.2085	2.2223	5	8	E	W
1992 OZ5	16.0	920717	338.72	113.07	226.97	1.29	0.1325	2.2683	5	8	E	W
1992 OB6	14.0	920717	357.39	161.58	157.71	8.53	0.1280	2.8430	5	8	E	W
1992 OM6	15.5	920717	355.59	158.34	160.02	3.90	0.1080	2.2249	5	8	E	W
1992 OQ6	14.0	920717	357.26	85.79	234.44	0.78	0.1962	3.0858	5	8	E	W
1992 OS6	15.5	920717	356.21	164.79	154.01	6.56	0.1944	2.4592	5	8	E	W
1992 OT6	15.5	920717	356.70	4.95	313.78	12.71	0.2621	2.6879	5	8	E	W
1992 OB7	14.0	920717	357.69	17.88	302.43	2.11	0.1270	2.8330	5	8	E	W
1992 PA4	12.5	920717	336.76	94.19	256.01	0.31	0.1633	3.0954	11	0		W
1992 SD13	12.4	921005	33.41	123.00	205.50	11.69	0.1558	3.1570	28	0		N
1992 SU14	12.5	921025	334.27	79.13	354.42	14.53	0.1483	2.7247	59	0		E
1992 SJ24	13.3	921005	12.93	185.38	167.55	8.63	0.2539	2.8222	21	6		N
1992 SK24	13.5	921005	325.70	261.59	155.04	6.18	0.1033	2.2910	26	8		N
1992 TW	12.9	921005	15.08	161.48	188.47	9.16	0.1681	2.9566	11	9		N
1992 UF3	12.6	921025	97.02	72.17	200.68	12.22	0.2402	2.4209	9	8		N
1992 UU4	12.7	921204	3.82	178.33	237.30	13.71	0.1840	2.6579	46	0		N
1992 UX5	13.2	921114	298.12	318.09	160.43	5.36	0.0748	2.2808	24	8		N
1992 VN	13.9	921114	357.32	152.07	259.57	7.64	0.1248	2.2557	20	8		N
1992 WG	14.0	921114	13.02	335.59	54.78	7.50	0.2410	2.7540	22	8		N
1992 WL	11.7	921114	295.98	74.91	46.80	10.81	0.0393	3.0238	48	0		N
1992 WM	13.6	921114	305.54	64.81	50.96	7.49	0.0780	2.2771	30	8		N
1992 WV	14.2	921114	355.51	193.50	228.62	4.92	0.1747	2.3458	12	0		E
1992 WX	13.0	921114	56.65	209.76	131.35	5.72	0.2073	2.3503	11	0		W
1992 WY	14.1	921114	51.92	100.30	234.68	6.10	0.2824	2.4008	11	0		E
1992 WZ	13.6	921114	7.16	349.66	58.52	5.97	0.1292	2.2833	11	0		E

1992	WB1	15.0	921114	5.73	352.64	53.77	4.67	0.2951	2.3951	8	9	E
1992	WC1	13.6	921114	49.83	82.49	266.00	4.59	0.1914	2.2278	12	0	E
1992	WJ1	12.8	921204	39.50	293.29	72.00	14.05	0.2110	2.6896	30	0	E
1992	WR1	13.5	921114	68.95	230.26	99.29	7.46	0.2029	2.2518	11	0	W
1992	WV1	15.0	921114	343.89	19.18	58.82	3.09	0.2089	2.2829	11	8	N
1992	WB2	13.4	921114	60.44	358.29	335.86	1.67	0.1929	2.5941	10	0	E
1992	WE2	14.5	921114	5.31	2.07	45.60	5.03	0.1924	2.3615	10	0	E
1992	WF2	13.6	921114	352.65	54.92	11.12	1.90	0.1100	2.8813	10	0	E
1992	WG2	13.1	921114	337.34	173.19	273.26	1.08	0.1414	2.4768	10	0	E
1992	WH2	11.5	921114	227.25	317.14	240.67	12.06	0.0945	2.9908	10	0	E
1992	WJ2	13.5	921114	72.99	276.29	51.40	6.96	0.1436	2.3204	10	0	E
1992	WK2	14.9	921114	300.38	234.89	250.67	2.79	0.0858	2.3461	10	0	E
1992	WL2	13.1	921204	260.95	117.68	56.54	13.32	0.1190	2.6867	11	0	E
1992	WP2	13.8	921114	313.36	55.45	60.30	7.14	0.1204	2.3837	5	6	E N
1992	WR2	12.2	921204	43.90	312.67	67.47	2.96	0.0003	2.8622	11	0	E
1992	WS2	12.1	921114	88.49	291.71	21.90	1.08	0.1674	3.1740	10	9	E
1992	WZ2	13.3	921114	55.96	291.38	55.95	17.81	0.1377	2.7224	10	0	E
1992	WA3	14.3	921204	2.97	35.38	25.54	2.54	0.1805	2.4301	11	0	E
1992	WZ3	13.4	921114	318.27	241.94	225.58	12.99	0.0980	2.5823	10	0	N
1992	WE4	13.3	921204	35.98	304.65	68.28	16.50	0.1902	2.5288	30	0	E
1992	WK4	15.1	921114	12.99	299.45	90.77	5.79	0.3472	2.5490	9	8	N
1992	WS5	15.0	921114	353.04	8.58	63.01	7.90	0.2283	2.3384	4	0	E W
1992	WB9	13.1	921204	16.84	56.03	348.22	1.90	0.0472	3.0247	7	6	N
1992	WC9	13.8	921114	331.69	31.61	56.49	7.54	0.0773	2.3478	11	6	N
1992	WF9	14.2	921114	40.22	149.63	214.66	7.29	0.1713	2.2304	9	6	N
1992	XA	17.0	921204	3.01	184.31	236.45	24.76	0.4768	3.4682	31	0	W
1993	AQ	13.5	930113	27.63	165.06	279.70	7.69	0.1395	2.5116	7	6	N
1993	BD4	10.0	930202	185.49	173.81	138.93	14.58	0.1424	5.1670	27	0	W
1993	BF4	14.0	930202	94.72	243.13	134.74	13.43	0.2134	2.6748	27	0	W
1993	BQ4	15.0	930202	303.27	79.81	122.63	2.13	0.0984	2.2896	27	0	W
1993	BR4	13.5	930202	181.56	336.37	338.70	0.99	0.0723	2.8060	27	0	W
1993	BS4	12.5	930202	205.35	269.45	29.69	0.92	0.1926	3.1631	27	0	W
1993	BV4	16.5	930202	2.52	359.86	132.52	6.47	0.1416	2.3254	27	0	W
1993	BC5	13.0	930202	50.22	277.46	154.11	0.50	0.1543	3.2271	27	0	W
1993	BE5	12.0	930202	94.57	85.59	312.94	2.22	0.0402	3.6649	27	0	W
1993	BG5	15.5	930202	36.48	132.89	317.77	3.63	0.1154	2.2228	27	0	W
1993	BJ5	12.0	930202	292.33	258.43	318.36	7.43	0.1022	4.0520	27	0	W
1993	BM5	13.5	930202	208.90	194.85	97.41	1.89	0.0829	2.7912	27	0	W
1993	BQ5	15.0	930202	317.94	78.74	111.89	2.45	0.1386	2.4375	27	0	D W
1993	BU5	13.0	930202	12.68	163.24	320.34	13.09	0.0524	3.2227	27	0	W
1993	BV5	14.5	930202	168.46	359.59	327.96	6.59	0.0401	2.4561	25	0	W
1993	BX5	16.0	930202	359.18	24.16	113.49	3.17	0.1712	2.3995	27	8	W
1993	BB6	13.5	930202	153.33	343.59	357.78	1.70	0.0659	2.9097	27	0	W
1993	BD6	14.0	930202	197.33	327.40	334.69	2.31	0.0482	2.6406	27	0	W
1993	BE6	14.0	930202	252.31	290.63	325.72	4.84	0.1066	2.4445	27	8	W
1993	BH6	15.0	930202	25.75	347.16	117.40	3.57	0.1201	2.4131	27	0	W
1993	BN6	15.5	930202	51.41	313.10	112.95	3.21	0.1937	2.4190	27	0	W
1993	BQ6	15.5	930202	8.61	12.54	112.33	3.58	0.1664	2.4644	27	8	W
1993	CC	11.8	930314	307.58	93.77	132.12	13.82	0.1347	2.6669	57	0	N
1993	CK	12.0	930314	341.67	141.23	40.28	4.85	0.0760	2.3795	57	0	N
1993	CA1	12.5	930202	350.49	187.99	321.73	14.02	0.1024	2.6594	32	0	W
1993	CS1	14.0	930202	8.14	93.91	30.87	2.21	0.1723	2.5479	13	8	W
1993	DC	16.0	930314	19.60	4.63	70.09	10.08	0.4246	2.3960	56	0	M
1993	DE1	12.9	930222	322.37	269.09	298.62	9.41	0.1996	2.6883	5	8	N
1993	DJ1	13.5	930202	269.13	103.85	140.90	15.54	0.1457	2.7085	4	8	W
1993	DQ2	12.7	930314	302.82	98.06	117.38	2.84	0.1430	3.0679	5	7	E N
1993	DU2	14.0	930202	337.27	185.28	339.81	4.85	0.1223	3.0976	27	8	W
1993	DV2	15.0	930202	31.70	319.49	138.45	6.90	0.1014	2.4351	26	8	W
1993	DX2	15.5	930202	290.05	90.11	128.23	4.99	0.1036	2.3678	25	8	W

1993	EL	14.5	930403	355.05	88.15	104.07	15.93	0.3452	2.7027	60	0		W
1993	EM	15.0	930403	10.82	285.98	264.64	18.26	0.0578	1.9694	69	8		W
1993	EP	13.2	930403	15.92	179.28	345.28	12.83	0.1263	2.5895	45	0		N
1993	EQ	13.7	930403	13.05	157.36	14.66	7.17	0.0472	2.2853	31	0		N
1993	ET	12.0	930403	58.67	255.33	186.60	29.30	0.4152	2.7582	40	0		B
1993	EU	13.3	930403	338.24	135.31	83.06	3.15	0.1649	2.3768	32	0		N
1993	FM	13.5	930314	71.64	267.41	191.32	1.08	0.1311	3.1922	9	6	E	W
1993	FN	16.0	930314	23.82	138.78	6.16	6.47	0.2100	2.1926	9	5	E	W
1993	FR	13.0	930403	66.77	248.41	204.30	20.80	0.3315	2.3032	27	7		W
1993	FS	20.0	930403	357.77	20.77	179.44	10.13	0.4250	2.2264	49	0		M
1993	FT	14.5	930403	281.96	267.05	4.07	2.78	0.0699	2.5566	32	0		W
1993	FW	7.0	930423	0.00	359.60	187.90	7.93	0.0000	42.3399	51	8	E	M
1993	FB1	12.3	930403	337.76	160.21	65.98	8.63	0.1462	2.5709	37	0		N
1993	FL1	13.2	930403	331.53	176.73	38.68	7.34	0.0522	2.3392	25	0		N
1993	FN1	12.3	930403	280.57	139.38	146.97	8.73	0.1992	2.6217	24	9		N
1993	FP2	12.8	930423	181.12	22.78	349.35	3.71	0.1416	2.2549	24	8		N
1993	FQ2	12.6	930403	13.39	141.73	25.69	9.91	0.1745	2.7621	32	8		N
1993	FV3	13.8	930403	21.10	345.67	183.88	1.86	0.1367	2.4103	27	0		N
1993	GB	14.9	930423	4.24	178.70	25.08	7.34	0.1890	2.1945	11	0		N
1993	GC	13.4	930423	347.24	19.24	200.50	12.31	0.1096	2.6921	35	0		N
1993	GD	20.5	930423	148.45	201.89	201.58	15.45	0.2380	1.1023	29	0		M
1993	GE	11.0	930423	346.90	146.67	57.64	25.84	0.2367	3.1535	34	0		W
1993	GG	11.0	930403	302.55	194.54	82.36	18.16	0.1079	2.7481	5	5		W
1993	GH	11.8	930423	277.40	259.27	38.40	11.09	0.0716	3.0112	35	0		N
1993	GL	11.9	930423	191.98	334.08	45.44	3.47	0.0945	2.8273	11	0		N
1993	GM	12.4	930423	114.00	316.17	126.58	3.26	0.1033	2.9257	13	8		N
1993	GN	14.3	930423	5.65	154.31	46.42	6.89	0.1453	2.3162	31	0		N
1993	GZ	16.5	930403	5.25	81.99	117.05	11.03	0.1978	3.0109	9	0		W
1993	HA	20.0	930423	116.81	263.39	183.50	7.74	0.1444	1.2787	26	0		M
1993	HB	13.0	930403	78.87	239.35	199.91	0.89	0.2360	2.4412	6	0		W
1993	HC	20.0	930423	20.21	306.32	201.57	9.39	0.5075	1.9897	23	0		M
1993	HD	23.0	930403	23.53	253.06	202.52	5.73	0.6641	1.4451	1	6	E	M
1993	HG	13.5	930423	333.22	192.39	42.22	1.37	0.1853	3.2165	27	0		M
1993	HH	11.4	930423	14.78	148.50	37.72	16.91	0.0741	3.2099	22	6		N
1993	HR	11.9	930423	278.57	292.29	19.04	7.51	0.1547	2.8144	28	0		N
1993	HS	13.5	930423	316.43	245.72	20.74	2.74	0.1240	2.1809	30	9		N
1993	HW	13.2	930423	322.24	180.69	82.78	3.03	0.1864	2.3702	28	6		N
1993	HX	13.1	930423	295.54	145.80	133.68	3.05	0.0459	2.4106	28	6		N
1993	HB1	16.5	930403	32.66	308.40	200.01	22.13	0.1059	1.9345	4	8		W
1993	HE1	14.6	930423	348.13	202.64	29.05	7.55	0.2203	2.3031	28	9		N
1993	HG1	13.8	930423	338.26	71.74	164.89	3.18	0.0785	2.1588	28	6		N
1993	HH1	14.1	930423	352.09	293.30	292.57	0.77	0.1635	2.3000	24	9		N
1993	HO1	16.5	930423	44.03	105.06	22.90	5.91	0.4162	1.9864	22	0		W
1993	HP1	27.0	930423	6.63	151.75	37.07	7.97	0.5094	1.9831	0	0		W
1993	HQ1	15.5	930423	356.00	195.79	6.51	19.03	0.0664	1.9637	12	5		W
1993	HR1	13.8	930423	348.58	117.39	110.24	3.05	0.1694	2.4065	28	6		N
1993	HS1	13.8	930423	347.90	198.75	29.80	8.28	0.1127	2.2496	26	6		N
1993	HV1	15.0	930403	276.68	250.04	35.23	25.40	0.1576	3.2258	3	5	E	W
1993	HA2	9.5	930423	16.42	123.55	31.94	18.68	0.5521	23.1832	17	0	E	M
1993	HU2	15.5	930403	354.19	47.19	157.34	4.68	0.1553	2.2510	5	0		W
1993	HW2	15.0	930403	90.12	282.22	169.32	8.87	0.1426	2.7517	29	0		W
1993	HA3	15.5	930403	248.33	223.10	107.17	4.87	0.2141	2.4534	5	0		W
1993	HJ3	14.0	930423	336.94	117.26	104.25	3.19	0.0199	2.9248	9	9		W
1993	HE4	16.0	930403	274.98	187.65	113.26	5.01	0.1535	2.6215	4	8		W
1993	HH4	15.0	930403	283.64	251.94	30.62	26.84	0.0891	2.6888	4	0		W
1993	HJ4	14.5	930403	216.80	298.57	45.01	11.76	0.0596	3.1941	4	0		W
1993	HK4	15.5	930403	319.10	119.81	129.16	4.45	0.1306	2.6250	4	0		W
1993	HO4	16.0	930403	327.00	182.30	50.20	9.92	0.0386	2.9795	4	0		W
1993	HZ4	16.0	930423	254.65	120.41	230.95	1.86	0.3245	2.3905	2	9		W

1993 HL5 12.5 930423 265.64 259.98 45.38 1.00 0.1795 3.1791 9 7 E W
1993 JA 17.5 930513 329.24 224.55 44.19 29.69 0.1801 1.9441 5 7 M
1993 JC 12.8 930513 48.53 290.39 218.08 13.12 0.2812 2.6637 2 6 E N
1993 BQ5 = 1993 DO2 (G. V. Williams)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(34) Circe Obs. 122 M 185.71234 Peri. 328.06733
H 8.51 G 0.15 Opp. 34 n 0.22376033 Node 184.76290
rms res. 0".84 (M-C) 1914-1992 e 0.1068023 Incl. 5.48313

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Goffin
(132) Aethra Obs. 160 M 234.91455 Peri. 254.25639
H 9.38 G 0.15 Opp. 25 n 0.23333946 Node 259.10169
rms res. 0".93 (M-C) 1873-1983 e 0.3847685 Incl. 25.06689

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Goffin
(192) Nausikaa Obs. 742 M 31.49075 Peri. 29.74294
H 7.13 G 0.03 Opp. 64 n 0.26472997 Node 343.63931
rms res. 0".81 (M-C) 1847-1991 e 0.2482420 Incl. 6.82640

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Goffin
(230) Athamantis Obs. 676 M 24.79187 Peri. 139.06862
H 7.35 G 0.27 Opp. 60 n 0.26801610 Node 240.04840
rms res. 0".75 (M-C) 1882-1991 e 0.0618374 Incl. 9.43943

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Goffin
(261) Prymno Obs. 174 M 230.60263 Peri. 65.62531
H 9.44 G 0.19 Opp. 46 n 0.27681470 Node 96.82124
rms res. 0".94 (M-C) 1886-1991 e 0.0898589 Incl. 3.63394

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Goffin
(324) Bamberga Obs. 947 M 143.72921 Peri. 43.46859
H 6.82 G 0.09 Opp. 59 n 0.22417509 Node 328.53660
rms res. 0".84 (M-C) 1892-1993 e 0.3396461 Incl. 11.13149

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Goffin
(346) Hermentaria Obs. 246 M 218.64972 Peri. 291.49045
H 7.13 G 0.15 Opp. 54 n 0.21074699 Node 92.26114
rms res. 0".94 (M-V) 1892-1992 e 0.1008269 Incl. 8.75199

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Goffin
(349) Dembowska Obs. 1177 M 94.93891 Peri. 343.34816
H 5.93 G 0.37 Opp. 69 n 0.19717751 Node 32.80779
rms res. 0".84 (M-C) 1892-1993 e 0.0894909 Incl. 8.26434

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(1501) Baade Obs. 34 M 170.19468 Peri. 12.49692
H 12.1 G 0.15 Opp. 9 n 0.24232427 Node 17.19361
rms res. 0".96 (M-C) 1930-1993 e 0.2396709 Incl. 7.34607

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(1677) Tycho Brahe Obs. 45 M 89.58102 Peri. 316.94029
H 11.9 G 0.15 Opp. 12 n 0.24467801 Node 338.17603
rms res. 0".87 (M-C) 1916-1991 e 0.1093466 Incl. 14.81894

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(1829) Dawson Obs. 56 M 75.58532 Peri. 141.84859
H 12.5 G 0.15 Opp. 15 n 0.29179298 Node 293.73265
rms res. 0".76 (M-C) 1929-1993 e 0.1201544 Incl. 6.33287

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Bowell	
(1939) Loretta	Obs. 57	M	247.56279	Peri.	194.00484
H 10.8 G 0.15	Opp. 18	n	0.17883397	Node	40.51345
rms res. 0".96 (M-C)	1939-1991	e	0.1281618	Incl.	0.91319
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Bowell	
(1994) Shane	Obs. 30	M	122.81530	Peri.	88.14739
H 11.6 G 0.15	Opp. 8	n	0.22486381	Node	245.40306
rms res. 1".05 (M-C)	1939-1992	e	0.2075161	Incl.	10.22781
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Bowell	
(2239) Paracelsus	Obs. 43	M	202.56038	Peri.	356.47256
H 11.5 G 0.15	Opp. 8	n	0.17165777	Node	20.72098
rms res. 1".00 (M-C)	1938-1993	e	0.0912956	Incl.	10.88549
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Bowell	
(2454) Olaus Magnus	Obs. 32	M	150.68530	Peri.	75.77696
H 13.5 G 0.15	Opp. 5	n	0.29179321	Node	247.96530
rms res. 0".85 (M-C)	1941-1992	e	0.2033156	Incl.	4.72615
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Williams	
(2463) Sterpin	Obs. 21	M	116.53328	Peri.	265.14129
H 11.8 G 0.15	Opp. 5	n	0.23481156	Node	179.21991
rms res. 0".80 (M-C)	1934-1993	e	0.1524964	Incl.	13.40509
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Bowell	
(2508) Alupka	Obs. 31	M	66.61322	Peri.	118.99947
H 13.5 G 0.15	Opp. 7	n	0.27039373	Node	191.76767
rms res. 0".90 (M-C)	1951-1989	e	0.1265832	Incl.	6.08359
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Bowell	
(2610) Tuva	Obs. 19	M	350.58783	Peri.	39.39854
H 13.3 G 0.15	Opp. 7	n	0.31062346	Node	205.81639
rms res. 0".88 (M-C)	1939-1993	e	0.0987635	Incl.	0.66778
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Bowell	
(2739) 1952 UZ1	Obs. 39	M	293.86985	Peri.	35.58742
H 13.2 G 0.15	Opp. 10	n	0.25592728	Node	268.19635
rms res. 1".04 (M-C)	1951-1993	e	0.1303853	Incl.	1.16961
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Bowell	
(2808) Belgrano	Obs. 48	M	233.86827	Peri.	114.34359
H 11.0 G 0.15	Opp. 9	n	0.18928134	Node	315.05527
rms res. 0".87 (M-C)	1934-1991	e	0.0872507	Incl.	8.96490
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Bowell	
(2843) Yeti	Obs. 29	M	327.50317	Peri.	254.95235
H 13.0 G 0.15	Opp. 6	n	0.28291273	Node	256.44735
rms res. 0".86 (M-C)	1953-1990	e	0.1293737	Incl.	5.45952
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Bowell	
(2954) Delsemme	Obs. 45	M	60.52951	Peri.	50.37606
H 13.5 G 0.15	Opp. 7	n	0.28499887	Node	164.65317
rms res. 0".86 (M-C)	1944-1991	e	0.1951280	Incl.	3.93175
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Bowell	
(3070) Aitken	Obs. 35	M	221.03243	Peri.	52.00824
H 13.8 G 0.15	Opp. 7	n	0.28145180	Node	170.62000
rms res. 0".91 (M-C)	1942-1992	e	0.1968169	Incl.	2.34090

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(3194) Dorsey Obs. 20 M 328.89296 Peri. 260.63048
H 12.0 G 0.15 Opp. 7 n 0.18848586 Node 64.63097
rms res. 0".92 (M-C) 1953-1989 e 0.0972096 Incl. 10.95039

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(3221) 1981 XF2 Obs. 26 M 307.12531 Peri. 232.87865
H 13.3 G 0.15 Opp. 9 n 0.30120832 Node 78.78250
rms res. 0".94 (M-C) 1953-1993 e 0.1532883 Incl. 3.65537

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(3420) Standish Obs. 18 M 252.27569 Peri. 16.57528
H 11.7 G 0.15 Opp. 5 n 0.17954678 Node 146.44238
rms res. 0".91 (M-C) 1951-1985 e 0.0678024 Incl. 14.25110

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(3456) 1985 RS2 Obs. 50 M 258.63204 Peri. 166.25837
H 13.7 G 0.15 Opp. 8 n 0.30963953 Node 78.42617
rms res. 0".77 (M-C) 1931-1992 e 0.0152529 Incl. 1.78065

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(3510) Veeder Obs. 21 M 318.62174 Peri. 16.08685
H 12.5 G 0.15 Opp. 6 n 0.24258833 Node 280.23420
rms res. 0".85 (M-C) 1953-1990 e 0.1281988 Incl. 5.68990

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(3556) 1964 UO Obs. 20 M 65.57326 Peri. 141.92207
H 12.4 G 0.15 Opp. 5 n 0.17660097 Node 241.58036
rms res. 0".74 (M-C) 1964-1992 e 0.2323878 Incl. 9.26555

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(3564) Talthybius Obs. 33 M 35.71121 Peri. 195.98188
H 9.0 G 0.15 Opp. 7 n 0.08207162 Node 23.94142
rms res. 1".00 (M-C) 1956-1992 e 0.0398082 Incl. 15.48067

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(3703) Volkonskaya Obs. 19 M 73.50595 Peri. 152.16658
H 14.4 G 0.15 Opp. 7 n 0.27681757 Node 173.16219
rms res. 1".06 (M-C) 1953-1991 e 0.1341295 Incl. 6.74111

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(3755) 1950 SJ Obs. 13 M 275.04360 Peri. 120.98626
H 13.9 G 0.15 Opp. 5 n 0.29269758 Node 226.12619
rms res. 0".99 (M-C) 1950-1987 e 0.2182242 Incl. 7.79490

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(3887) 1985 QX Obs. 27 M 200.49888 Peri. 137.86382
H 12.2 G 0.15 Opp. 8 n 0.18999218 Node 191.77136
rms res. 0".92 (M-C) 1953-1990 e 0.1066847 Incl. 9.91333

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(4315) 1979 SL11 Obs. 24 M 306.27041 Peri. 264.27071
H 12.4 G 0.15 Opp. 6 n 0.19119734 Node 29.49059
rms res. 0".82 (M-C) 1978-1993 e 0.2880917 Incl. 16.74946

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(4428) 1977 SN Obs. 19 M 165.96272 Peri. 212.70300
H 13.0 G 0.15 Opp. 5 n 0.27065506 Node 85.03804
rms res. 0".75 (M-C) 1955-1992 e 0.2380061 Incl. 4.80284

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(4501) Eurypylos Obs. 34 M 207.90691 Peri. 179.81581
H 10.5 G 0.15 Opp. 5 n 0.08435254 Node 244.30641
rms res. 0".79 (M-C) 1955-1990 e 0.0529681 Incl. 8.32489

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano
(4696) Arpigny Obs. 20 M 285.97442 Peri. 130.90116
H 12.5 G 0.15 Opp. 5 n 0.20413975 Node 178.96637
rms res. 1".03 (M-C) 1980-1993 e 0.0542349 Incl. 1.88774

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(4940) 1986 QY4 Obs. 37 M 69.68472 Peri. 267.45799
H 11.8 G 0.15 Opp. 9 n 0.18091399 Node 118.98850
rms res. 0".85 (M-C) 1954-1992 e 0.1812838 Incl. 2.27754

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(5130) 1989 SC7 Obs. 27 M 138.15529 Peri. 102.40590
H 9.8 G 0.15 Opp. 5 n 0.08122767 Node 242.54627
rms res. 0".58 (M-C) 1955-1992 e 0.0096935 Incl. 15.68828

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
(5178) 1989 CD4 Obs. 28 M 177.28253 Peri. 102.74549
H 13.9 G 0.15 Opp. 6 n 0.29621101 Node 323.11852
rms res. 0".80 (M-C) 1971-1993 e 0.1379912 Incl. 3.98856

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
(5364) 1980 RC1 Obs. 47 M 105.06565 Peri. 76.87899
H 12.9 G 0.15 Opp. 6 n 0.25593253 Node 281.83996
rms res. 0".59 (M-C) 1953-1992 e 0.2031985 Incl. 3.10181

(5567)* 1953 FK1 = 1958 FH = 1968 DV

Discovered 1953 Mar. 21 at the Goethe Link Observatory, Indiana University.

Id. G. V. Williams (MPC 17953)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M 250.00051	(2000.0)	P	Q
n 0.19478255	Peri. 306.93877	+0.72170921	+0.69061001
a 2.9473793	Node 9.69820	-0.51306563	+0.57913522
e 0.2159140	Incl. 16.14257	-0.46464985	+0.43319767
P 5.06	H 10.8	G 0.15	

Residuals in seconds of arc

530321 760	0.8+	0.2-	900927 095	0.6-	0.6+	920102 801	0.2-	0.1+
530321 760	0.5-	0.2-	900927 095	0.4+	0.0	920108 801	0.2+	0.3+
530405 760	1.6-	0.2+	901017 095	(4.5+	0.9+)	920108 801	0.2-	0.0
530405 760	0.3-	0.3-	901017 095	(3.0+	0.2-)	930323 801	0.3-	0.1+
530411 760	2.2+	0.5+	901026 675	0.2+	0.1+	930323 801	0.3-	0.0
530411 760	1.7-	0.4-	901026 675	0.7-	0.1+	930327 801	0.1+	0.1-
580324 024	1.4-	1.7-	901113 675	0.2+	0.6-	930327 801	0.0	0.4+
680227 095	1.1+	0.1-	901114 095	(4.6+	0.2+)	930418 801	0.3+	0.2-
790804 413	0.5-	0.7-	901114 095	(2.5+	2.6-)	930418 801	0.1-	0.4-
900916 675	1.1+	0.6-	901115 675	0.1-	0.5-			
900919 675	1.6+	1.5-	920102 801	0.1-	0.0			

(5568)* 1953 TS2 = 1982 BK10 = 1984 XD = 1987 WJ3

Discovered 1953 Oct. 14 at the Goethe Link Observatory, Indiana University.

Id. C. M. Bardwell (MPC 12784)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bardwell

M	285.93483	(2000.0)	P	Q
n	0.28912368	Peri. 241.21523	+0.79168227	+0.60758089
a	2.2650629	Node 81.29811	-0.53556320	+0.74054123
e	0.1567326	Incl. 3.70707	-0.29395789	+0.28713089
P	3.41	H 13.6	G 0.15	

Residuals in seconds of arc

531014	760	(5.0-	2.4-)	870831	095	1.5-	1.1+	930326	801	1.2+	0.4-
531014	760	(4.3-	2.4-)	870904	095	1.7+	2.2-	930327	801	1.0+	0.6-
531031	760	0.2-	0.4-	870924	095	1.1+	1.2-	930327	801	0.8+	0.6-
531031	760	1.1-	1.5-	870927	095	1.1-	0.6+	930414	691	1.5-	0.2-
531105	760	1.2+	1.0-	871117	010	0.5+	0.6+	930414	691	1.6-	0.1-
531105	760	0.5+	2.2+	871117	010	0.3-	0.8-	930414	691	1.6-	0.1-
820119	095	(4.9+	1.8+)	871117	010	0.1+	0.5+	930419	801	0.2-	0.5-
841201	046	(4.2-	2.2-)	871120	010	(5.1+	2.6+)	930419	801	0.1-	0.1-
841201	046	0.0	1.1-	871120	010	(4.8+	2.1+)				
870829	095	0.4+	0.1+	930326	801	0.9+	0.4-				

(5569)* 1974 FO = 1974 HL1 = 1975 TM = 1990 QV3

Discovered 1974 Mar. 22 by C. Torres at Cerro El Roble.

Id. C. M. Bardwell (d, MPC 5347), R. Nagata (MPC 17424)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	322.30460	(2000.0)	P	Q
n	0.25942252	Peri. 283.24448	+0.12529665	+0.99207181
a	2.4348054	Node 353.92830	-0.87100857	+0.10531020
e	0.1604547	Incl. 5.26702	-0.47502086	+0.06858053
P	3.80	H 13.5	G 0.15	

Residuals in seconds of arc

740322	805	0.6+	0.9+	900826	809	1.7-	1.5-	900916	809	0.3+	2.0+
740323	805	(1.0-	5.9+)	900826	809	1.3-	0.4-	900916	675	1.8+	1.6-
740424	805	(40.1+	10.4-)	900826	809	1.8-	0.6-	900916	675	0.9+	2.0-
740425	805	0.3+	0.5+	900827	675	(0.3+	2.8-)	900918	809	0.7+	0.2+
751003	095	0.3-	0.0	900827	675	0.7+	1.8-	900918	809	0.9+	0.1+
900816	809	0.8+	0.5-	900828	095	0.1+	0.3+	900918	809	1.2+	0.0
900816	809	0.1-	0.4-	900828	095	0.2-	1.7-	930221	801	0.1-	0.5+
900816	809	0.1+	1.0-	900829	675	0.5+	0.3+	930320	801	0.3-	0.6-
900818	809	0.3+	0.8+	900829	675	0.0	0.4+	930323	801	0.0	0.1-
900818	809	0.5-	0.6+	900913	675	0.8+	1.1+	930323	801	0.5-	0.2+
900818	809	0.5-	1.4+	900913	675	0.8+	0.9+	930418	801	0.2+	0.5+
900822	675	0.1+	1.1+	900915	809	(3.0-	0.4+)	930418	801	0.4-	0.3+
900822	675	0.3-	1.0+	900915	809	2.4-	0.7+	930424	801	0.2-	0.4-
900824	809	0.9+	1.0-	900915	809	1.7-	0.8+	930424	801	0.9+	0.8-
900824	809	0.4-	1.4-	900916	809	0.3-	2.2+				
900824	809	0.3+	1.1-	900916	809	0.1+	2.1+				

(5570)* 1976 GM7 = 1978 RX16

Discovered 1976 Apr. 4 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. S. J. Bus (MPC 10613)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	41.21288	(2000.0)	P	Q
n	0.16895371	Peri. 334.66877	-0.85780789	-0.51363683
a	3.2405910	Node 174.31933	+0.49764158	-0.83902452
e	0.0630989	Incl. 10.78100	+0.12852422	-0.17948555
P	5.83	H 11.5	G 0.15	

Residuals in seconds of arc

760404	095	0.4-	1.6-	780901	675	0.5+	0.2-	870110	413	1.2+	0.6+
760423	095	0.5+	0.8+	780902	675	0.1-	0.4+	870227	801	1.4-	0.5+
760503	095	0.2+	1.1+	870110	413	0.5-	1.0+	870402	801	0.2-	0.2-

900824 675 0.1+ 0.4+ 930220 801 0.4- 0.9- 930418 801 0.7+ 1.4+
900824 675 1.0- 1.4- 930220 801 0.6- 0.5- 930418 801 0.5+ 0.6-
920109 801 0.6+ 0.0 930226 801 0.4+ 0.6-
920109 801 0.4+ 0.1+ 930226 801 0.5- 1.1-

(5571)* 1978 LG = 1982 BR11 = 1990 SK15

Discovered 1978 June 1 by K. W. Kamper at the European Southern Observatory.

Id. A. Lowe (k, MPC 18281), G. V. Williams (ibid.)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	54.17298	(2000.0)	P	Q
n	0.18754295	Peri. 212.54734	-0.68559587	-0.70904795
a	3.0227499	Node 281.32979	+0.69873050	-0.57734570
e	0.0663815	Incl. 9.68497	+0.20428900	-0.40487399
P	5.26	H 12.0	G 0.15	

Residuals in seconds of arc

530906 675 1.2- 1.3- 900920 675 (1.0+ 2.2-) 920206 801 0.3- 0.0
530906 675 1.0+ 0.0 900920 675 0.2- 0.6- 920207 801 0.1- 0.0
780601 809 0.9+ 0.4- 920102 801 0.4+ 0.0 920207 801 0.4- 0.2+
780602 809 0.0 0.6- 920102 801 0.3+ 0.1- 930220 596 0.7- 1.5-
820120 095 0.4+ 0.8- 920106 801 0.5+ 0.3- 930220 596 0.6- 0.3+
900918 675 0.3- 0.7- 920106 801 0.0 0.1+ 930220 596 0.7- 0.8-
900918 675 1.3+ 0.8- 920206 801 0.2+ 0.1- 930418 801 0.5- 0.6+

(5572)* 1978 SS2 = 1982 HA1 = 1988 KH

Discovered 1978 Sept. 26 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.

Id. C. M. Bardwell (MPC 13463)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bardwell

M	321.18721	(2000.0)	P	Q
n	0.17874288	Peri. 68.17446	-0.04871935	+0.99749259
a	3.1211661	Node 199.24714	-0.96424571	-0.06037451
e	0.1651297	Incl. 8.95850	-0.26049307	+0.03692487
P	5.51	H 11.9	G 0.15	

Residuals in seconds of arc

710324 675 0.9+ 0.4- 780901 675 0.4+ 0.6- 890928 801 1.3+ 0.3-
710325 675 1.3+ 1.2- 780902 675 0.0 0.8- 890928 801 0.1+ 0.6-
710326 675 0.0 0.8- 780926 095 (4.1- 1.2+) 920208 033 0.1- 0.6-
710326 675 0.6- 1.3- 781002 095 (0.6- 3.7-) 920208 033 1.0- 0.4-
710327 675 0.3- 0.9- 781008 095 0.4+ 1.6- 920209 033 1.0- 0.1+
710327 675 1.8- 0.5+ 820425 688 0.4- 0.1+ 930320 801 0.6+ 0.6+
710402 675 1.7- 0.4+ 820425 688 (3.3+ 3.9-) 930320 801 0.8+ 0.6+
710416 675 0.2+ 1.5- 880519 675 0.9- 0.4+ 930323 801 0.7+ 0.8+
710416 675 0.5+ 1.6- 880521 675 (8.6- 73.1+) 930323 801 0.8+ 0.9+
710513 675 0.5+ 0.2- 880615 675 0.9- 0.4+ 930418 801 0.4+ 0.0
710514 675 0.3- 1.1- 880617 675 0.2- 0.6- 930418 801 0.1+ 0.5+

(5573)* 1981 QX = A913 CG = 1989 KL

Discovered 1981 Aug. 24 by A. Mrkos at Klet.

Id. B. G. Marsden (MPC 15065)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Marsden

M	338.60594	(2000.0)	P	Q
n	0.23571593	Peri. 103.97161	+0.21745934	+0.97605718
a	2.5954346	Node 178.56097	-0.95367040	+0.21353149
e	0.2868807	Incl. 11.20673	-0.20790433	+0.04143296
P	4.18	H 13.2	G 0.15	

Residuals in seconds of arc

130211 662 1.9+ 2.2+ Y 130212 662 0.3+ 0.3- Y 810824 046 0.2- 0.6+
130212 662 2.3- 0.9- Y 130213 662 0.4+ 2.3+ Y 810824 046 0.4+ 1.8+

810828	046	0.5-	0.4-		890531	675	0.3-	0.9+		901020	675	0.6-	0.2-
810828	046	1.0-	1.2-		890601	675	0.6+	0.4+		901022	675	0.7+	1.5-
810904	046	1.7-	0.0		890601	675	2.1-	0.9+		901022	675	2.3-	0.4-
810904	046	0.9+	0.4-		890602	675	0.1+	0.3+		930327	801	1.0+	0.0
810905	046	1.5+	0.9+		890706	675	0.3+	0.2-		930327	801	1.0+	0.0
810905	046	1.4+	0.8+		890706	675	0.2-	2.3-		930419	801	0.0	0.4-
810906	046	0.2-	0.5-		890710	675	0.7+	0.2-		930419	801	0.2+	0.3-
810906	046	0.4+	1.9+		890710	675	0.4+	0.5-		930424	801	0.7+	0.6-
890530	675	2.0-	0.1+		901020	675	0.5+	0.6-		930424	801	0.2+	0.0

(5574)* 1984 FS = 1928 DH = 1965 WM

Discovered 1984 Mar. 20 by Z. Vavrova at Klet.

Id. B. G. Marsden (MPC 12965), T. Kobayashi (ibid.)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Marsden

M	98.64996		(2000.0)	P	Q
n	0.22963718	Peri.	346.92831	-0.67635576	-0.72361852
a	2.6410375	Node	145.33491	+0.69568494	-0.68892490
e	0.1138733	Incl.	13.99448	+0.24200278	-0.04193700
P	4.29	H	12.2	G 0.15	

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

280224	024	(0.05- | 0.00+)X		880215	046	1.8-	0.6+		911228	589	(2.1+ | 2.8+)
651128	760	0.2+	1.1-		880215	046	1.5-	0.9-		911230	366	0.5-	0.7+
651128	760	0.8-	1.2-		880216	046	0.3-	1.5-		911230	366	0.0	0.7+
840226	095	(2.0+ | 5.3-)		880216	046	1.5-	0.9-		920101	293	(6.2+ | 2.3-)
840320	046	(1.4+	5.1-)		900816	809	0.8-	1.8+		920109	801	0.2+	0.5+
840320	046	(0.2+	5.2-)		900816	809	0.9-	1.7+		920109	801	0.2+	0.6+
840321	046	(3.4+	0.1+)		900816	809	1.3-	0.9+		920203	801	0.5+	1.0+
840321	046	2.0+	1.8-		900818	809	0.2+	2.1+		920203	801	1.3+	1.2-
840322	046	(3.1- | 3.2-)		900818	809	(1.2- | 2.4+)		930218	801	0.1-	0.1+
840322	046	(3.0- | 3.6-)		900818	809	(1.2- | 2.3+)		930218	801	0.1-	0.1+
840324	046	(3.2- | 3.2-)		900826	675	(1.7+ | 2.6-)		930323	801	0.6-	0.1-
840324	046	(0.4-	3.8-)		900916	675	1.7+	0.9-		930323	801	0.5-	0.4-
840329	095	0.8+	0.9+		900916	675	0.9+	0.8-		930326	801	0.5-	0.3-
840403	095	1.6+	1.8+		911214	366	1.3+	0.2-		930326	801	0.6-	0.3-
840405	095	1.0+	1.3+		911214	366	(2.6+	0.7+)		930514	657	0.6-	0.2+
880210	675	(3.7-	1.3+)		911228	366	1.3-	0.8+		930514	657	0.2-	0.1+
880210	897	1.5-	1.2+		911228	366	0.5+	2.0-		930514	657	0.4-	0.1+
880210	897	0.0	0.9+		911228	596	0.4+	1.2+		930518	657	0.2+	0.4+
880214	675	1.9+	0.1-		911228	596	0.6-	1.5+		930518	657	0.4+	0.6+
880215	897	0.2+	0.6+		911228	596	0.1+	1.0+		930518	657	0.2+	0.3+
880215	897	(3.4- | 0.4+)		911228	589	(2.6- | 0.6+)					

(5575)* 1985 RP2 = 1979 MY

Discovered 1985 Sept. 4 by H. Debehogne at the European Southern Observatory.

Id. E. Goffin (MPC 11420)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	142.65043		(2000.0)	P	Q
n	0.18176710	Peri.	228.13164	+0.98595358	-0.16690229
a	3.0864497	Node	141.47490	+0.15606002	+0.90725963
e	0.1851580	Incl.	0.57572	+0.05950474	+0.38603575
P	5.42	H	13.0	G 0.15	

Residuals in seconds of arc

790622	805	2.0-	1.0+		850904	809	0.2-	1.0+		850908	809	1.6+	1.0-
790622	805	0.1+	0.9-		850904	809	0.1+	1.1+		850908	809	1.6+	1.0-
790625	805	0.1-	0.4-		850906	809	1.6+	0.1+		850910	809	0.2-	1.0-
820130	675	0.2+	1.1+		850906	809	1.9+	0.2+		850910	809	0.2+	1.1-
820131	675	0.7+	0.4+		850906	809	2.1+	0.0		850910	809	0.6+	1.1-
850904	809	0.4-	1.0+		850908	809	1.6+	1.0-		850911	809	0.7+	1.0-

850911	809	0.9+	1.0-	850918	809	1.0-	0.3-	930127	010	1.0-	1.4-
850911	809	0.9+	1.0-	850920	809	0.9-	0.5-	930127	010	0.9-	2.2-
850914	809	0.1-	0.1-	850920	809	0.8-	0.4-	930128	010	0.2+	0.6-
850914	809	0.2-	0.1-	850920	809	0.8-	0.4-	930128	010	0.1+	0.6-
850914	809	0.4-	0.5-	850922	809	0.4+	0.6+	930128	010	0.4+	0.9-
850916	809	0.7-	0.3-	850922	809	0.3+	0.5+	930220	010	1.0-	0.7-
850916	809	0.6-	0.3-	920126	691	1.4-	1.2+	930220	010	0.8-	1.0-
850916	809	0.5-	0.4-	920126	691	1.5-	1.1+	930220	010	0.2+	1.3-
850918	809	1.4-	0.2-	920126	691	1.2-	1.0+	930222	010	0.8-	1.0-
850918	809	1.0-	0.3-	930127	010	0.3-	1.4-	930223	010	0.8+	2.5-

(5576)* 1986 UM1 = 1954 UC2 = 1970 EN = 1977 TM8 = 1982 VT11 = 1987 YT5

Discovered 1986 Oct. 26 at Caussols.

Id. S. Nakano (MPC 14790)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	91.08164		(2000.0)	P	Q
n	0.21478061	Peri.	69.81187	-0.19009610	-0.98044419
a	2.7614636	Node	31.28362	+0.86017745	-0.19132933
e	0.0706933	Incl.	5.62727	+0.47324225	-0.04606824
P	4.59	H	12.3	G 0.15	

Residuals in seconds of arc

541025	760	0.1+	0.6+	861026	010	(12.3+	0.9-)	911111	691	0.5-	0.7+
541025	760	1.3+	0.6-	871224	010	0.9-	0.5-	911111	691	1.6-	0.0
700307	095	(3.2-	4.7-)	871224	010	1.0+	0.3-	911111	691	1.4-	0.1+
771013	095	0.1-	0.9-	871224	010	0.1+	0.7+	930224	801	0.6+	0.2+
771017	095	2.7-	1.3-	911010	801	0.7+	0.3-	930224	801	0.4+	0.2+
821113	095	(0.3+	4.7-)	911010	801	0.7+	0.3-	930322	801	0.2+	0.2+
860910	095	0.5-	0.6+	911103	801	0.7+	0.0	930329	372	1.8-	0.2+
860914	095	(2.7-	3.8-)	911103	801	0.8+	0.1-	930329	372	(3.2+	4.6+)
861006	095	0.1+	0.3+	911104	403	1.1+	0.0	930419	801	0.6+	0.0
861010	095	0.6+	1.3+	911108	801	0.4+	0.1+	930419	801	0.1+	0.4-
861026	010	(5.3+	1.2-)	911108	801	0.5+	0.2+				

(5577)* 1986 WQ2

Discovered 1986 Nov. 21 by D. Waldron at Siding Spring Observatory.

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	299.47414		(2000.0)	P	Q
n	0.39351190	Peri.	227.87762	+0.76448756	+0.52357884
a	1.8442968	Node	97.14661	-0.42042317	+0.84718582
e	0.0443465	Incl.	22.27227	-0.48867487	+0.09022965
P	2.50	H	13.7	G 0.15	

Residuals in seconds of arc

761116	413	0.1-	0.3+	861205	413	1.0-	2.7-	930124	801	0.3-	0.5+
860727	413	0.9+	0.7-	891227	801	0.7-	1.4-	930323	801	0.0	0.2-
860727	413	2.2-	0.5-	891227	801	0.5+	0.1-	930323	801	0.2-	0.2+
861121	413	1.4+	0.9+	900322	801	0.2+	0.1+	930326	801	0.3-	0.2+
861121	413	(0.4+	2.8-)	900322	801	0.2+	0.8+	930326	801	0.3-	0.1+
861123	413	0.5+	2.1+	900327	801	0.1-	0.5+	930414	657	0.2+	0.2-
861123	413	0.5-	1.2+	900329	801	0.6-	0.1-	930414	657	0.3+	0.3-
861203	413	0.2+	0.4+	900329	801	0.5+	0.0	930414	657	0.3+	0.4-
861205	413	0.8+	0.7+	911014	413	0.2+	0.1-				
861205	413	0.3-	0.8-	930124	801	0.3+	1.4+				

(5578)* 1987 BC = 1978 GP1 = 1982 BS15

Discovered 1987 Jan. 28 by T. Niijima and T. Urata at Ojima.

Id. G. W. Williams (MPC 20145), T. Urata

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano
M 223.29494 (2000.0) P Q
n 0.19785444 Peri. 187.19872 +0.99205823 -0.12577948
a 2.9167924 Node 180.02707 +0.11705182 +0.92326809
e 0.0756521 Incl. 1.97698 +0.04603640 +0.36298149
P 4.98 H 11.9 G 0.15
Residuals in seconds of arc

780407 095	0.7-	0.8+	870220 887	0.4-	0.7+	930416 399	0.9+	0.9-
820130 675	1.2+	0.3+	870220 887	0.3+	0.4-	930416 399	0.8+	1.4-
820131 675	1.6+	0.6-	901015 400	1.5+	0.7-	930418 905	0.3+	0.6+
870128 887	0.3-	1.0-	901015 400	0.4-	0.5+	930418 905	0.8-	1.9+
870128 887	1.1+	0.4+	901019 400	0.1+	2.3+	930422 905	0.5+	0.5+
870128 887	1.6-	0.7-	901019 400	2.3-	1.6+	930422 905	0.1-	0.3+
870204 887	(3.3+	1.4-)	920430 801	0.3+	0.6-	930513 385	0.3-	1.1+
870204 887	2.4-	1.2+	920430 801	0.3+	0.4+	930513 385	0.6+	1.1+

(5579)* 1988 JL = 1986 XA
Discovered 1988 May 11 by C. S. Shoemaker at Palomar.
Id. C. M. Bardwell (MPC 13469)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bardwell
M 238.27402 (2000.0) P Q
n 0.36213326 Peri. 247.62291 +0.77800085 +0.48891897
a 1.9493528 Node 81.03001 -0.31935926 +0.84858064
e 0.0974649 Incl. 23.54312 -0.54104005 +0.20216117
P 2.72 H 14.2 G 0.15
Residuals in seconds of arc

861202 010	1.9-	0.4+	880612 675	1.0-	0.0	920929 691	0.3-	0.9+
861202 010	1.5+	2.5-	891128 675	1.0-	0.1-	921221 801	0.2-	0.3+
861203 010	1.8+	0.8+	891128 675	(0.7+	2.8-)	921221 801	0.3-	0.2+
861203 010	(13.4+	6.0-)	910606 675	(1.1-	3.8-)	930121 801	0.5+	0.5+
880511 675	0.7+	0.4+	910606 675	0.2+	1.7-	930121 801	0.2+	0.2+
880513 675	0.8-	0.1-	910608 675	1.7+	0.4+	930125 801	(0.4-	2.9+)
880514 675	0.1+	0.5-	910608 675	2.0-	1.1+	930125 801	0.2-	0.3+
880608 675	0.7+	0.0	920929 691	0.4-	0.4+	930128 675	0.3+	0.9-
880611 675	0.5-	0.6-	920929 691	0.4-	0.3+	930128 675	0.2+	1.7-

(5580)* 1988 RP1 = 1978 SK6
Discovered 1988 Sept.10 by K. Endate and K. Watanabe at Kitami.
Id. T. Kobayashi (MPC 13693)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano
M 116.37939 (2000.0) P Q
n 0.29093340 Peri. 34.68231 +0.61410472 -0.78864176
a 2.2556601 Node 17.49411 +0.69934867 +0.52596220
e 0.1526251 Incl. 5.78965 +0.36576881 +0.31844613
P 3.39 H 13.1 G 0.15
Residuals in seconds of arc

780928 095	0.1+	0.8+	881004 807	2.2-	0.0	900327 400	(4.3+	0.6+)
781004 095	1.3-	1.9+	881004 400	(2.8-	0.6+)	900327 400	2.0+	1.1+
880910 400	(1.7-	2.9+)	881004 400	2.3-	0.4-	900329 801	0.5-	1.3-
880910 400	0.9+	1.7-	881005 807	0.5-	0.2-	900329 801	0.0	1.6-
880910 400	(0.2+	3.2+)	881008 807	1.1-	0.7-	921129 801	0.1-	0.2+
880916 807	1.1+	0.6+	881103 807	0.6+	0.6-	921129 801	0.3+	0.0
880918 807	0.6+	0.2+	881106 807	0.2+	0.7+	930115 596	0.5+	0.4-
880922 400	0.7+	0.5+	881108 807	1.1+	0.2-	930115 596	0.3+	0.1+
880922 400	1.2+	0.1-	900227 801	1.0-	0.6+	930115 596	1.3-	0.4-
880922 400	0.9+	0.1+	900227 801	0.1-	0.2+	930123 400	0.1-	0.7-
881002 400	0.1-	0.0	900317 400	0.2+	2.1+	930123 400	0.2-	0.5-
881002 400	0.6+	0.5-	900317 400	(3.2-	2.6+)			

(5581)* 1989 CY1 = 1976 UC10

Discovered 1989 Feb. 10 by M. Iwamoto and T. Furuta at Tokushima.

Id. S. Nakano (MPC 14478)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M 33.28856	(2000.0)	P	Q	
n 0.26820234	Peri. 35.10144	-0.93500512	+0.35447245	
a 2.3813744	Node 165.64807	-0.33445414	-0.87135493	
e 0.1572715	Incl. 2.47642	-0.11792310	-0.33924897	
P 3.67	H 13.9	G 0.15		

Residuals in seconds of arc

761022	381	0.0	0.7+	890214	809	2.0+	1.5-	900727	675	1.3+	1.5-
761022	381	0.5-	0.0	890214	872	1.4-	0.0	900730	675	1.0-	1.1-
761024	381	0.0	0.0	890214	872	2.0-	1.4-	900730	675	0.0	0.7-
890209	809	0.9-	0.2-	890227	809	0.3-	1.0-	900822	801	1.5+	0.5-
890209	809	0.9-	0.1-	890227	809	0.6-	0.7-	900914	675	(4.0+	1.7-)
890209	809	0.9-	0.1-	890227	809	0.6-	0.6-	900914	675	(5.2+	2.9-)
890210	809	1.0-	0.6-	890301	809	0.8-	0.6-	900915	675	0.3+	2.4-
890210	809	0.4-	0.3-	890301	809	0.7-	0.6-	900915	675	1.1-	0.9-
890210	809	0.0	0.5-	890301	809	0.8-	0.5-	930124	801	0.5-	0.5-
890210	872	0.0	0.7+	890302	809	1.2-	0.6+	930124	801	1.1-	0.7+
890210	872	2.0+	1.0+	890302	809	0.7-	0.6+	930221	801	0.2-	0.8+
890211	809	0.9+	0.4-	890302	809	0.6-	0.6+	930419	104	0.2-	0.4+
890211	809	0.9+	0.4-	890303	809	0.4-	0.2+	930419	104	1.9+	0.7-
890211	809	0.9+	0.4-	890303	809	0.2-	0.4+	930420	104	0.9-	0.6+
890212	809	0.8+	0.6-	890303	809	0.1-	0.1+	930420	104	0.3-	0.0
890212	809	0.7+	0.4-	890306	391	1.3+	1.7+	930421	104	0.0	0.1+
890212	809	0.5+	0.5-	890306	391	0.9+	0.5+	930421	104	0.5+	0.2-
890214	809	2.1+	1.9-	900727	675	1.1+	0.5-				

(5582)* 1989 CU8 = 1984 DB2 = 1986 RM5

Discovered 1989 Feb. 13 by H. Debehogne at the European Southern Observatory.

Id. C. M. Bardwell (MPC 15563)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bardwell

M 33.23644	(2000.0)	P	Q	
n 0.20019461	Peri. 64.89338	+0.11196666	-0.99364214	
a 2.8940173	Node 18.68923	+0.89795925	+0.09609333	
e 0.0169327	Incl. 2.10685	+0.42559681	+0.05866326	
P 4.92	H 12.3	G 0.15		

Residuals in seconds of arc

840226	095	1.4+	1.0-	890213	809	0.3-	0.2-	910909	801	0.5+	0.2-
860906	809	0.1-	0.0	890213	809	0.2-	0.2-	910912	675	0.5-	0.3-
860906	809	0.3+	0.1+	890213	809	0.1-	0.2-	910912	675	0.9+	0.3-
860906	809	0.5+	0.1+	890217	809	0.7-	0.9+	911008	801	0.3+	0.5-
860908	809	1.1-	0.6+	890217	809	0.6-	0.9+	911008	801	0.5+	0.1-
860908	809	1.0-	0.7+	890217	809	0.4-	0.9+	911008	801	0.2+	1.0+
860908	809	0.9-	0.6+	890218	809	0.7+	1.1-	911009	801	0.3+	0.4+
860908	809	1.0-	0.0	890218	809	1.3+	1.4-	911011	801	0.5+	0.3+
860908	809	0.9-	0.0	910805	675	0.0	0.1+	911011	801	0.3+	0.3+
860908	809	1.0-	0.1+	910806	801	0.1+	0.5-	921125	675	0.7-	1.3-
860910	809	0.3+	0.2-	910806	801	0.1-	0.4-	921125	675	0.2-	0.3-
860910	809	0.4+	0.3-	910808	801	0.1-	0.2+	921128	675	0.2-	0.7-
860910	809	0.4+	0.3-	910808	801	0.1+	0.2+	921128	675	0.2+	0.3-
860910	809	0.3+	0.3-	910808	675	0.2-	0.8-	921223	801	0.1+	1.3+
860910	809	0.5+	0.0	910808	675	0.1-	0.6-	921228	801	0.3+	0.5+
860910	809	0.5+	0.0	910907	801	0.1+	0.1+	921228	801	0.0	1.0+
890205	071	1.1-	0.9+	910907	801	0.1+	0.1-				
890205	071	(2.7-	2.3+)	910909	801	0.4+	0.1+				

(5583)* 1989 EY1 = 1970 GW1 = 1975 GD1 = 1977 UT3 = 1982 VH = 1987 UR9
Discovered 1989 Mar. 5 by A. Mrkos at Klet.
Id. A. Lowe (k, MPC 18431), G. V. Williams (ibid.)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 12.91678 (2000.0) P Q
n 0.20197424 Peri. 41.59320 -0.20959302 -0.97678878
a 2.8769925 Node 60.54899 +0.88316433 -0.20852025
e 0.0195389 Incl. 2.91014 +0.41963261 -0.04902018
P 4.88 H 12.4 G 0.15
Residuals in seconds of arc

700412 805	0.2-	0.9-	871028 095	1.0-	0.6-	921125 675	0.1+	0.2-
700412 805	1.1-	1.2-	890305 046	1.7+	1.2+	921125 675	0.5+	0.4-
700412 805	1.4-	0.9-	890305 046	1.7+	0.0	921128 675	0.4-	1.0-
750415 805	0.4-	0.7+	890306 046	0.6-	1.1-	921128 675	0.4-	1.7-
750420 805	(3.1-	1.0+)	890306 046	0.4+	0.8-	921221 801	0.7-	0.3+
771018 675	0.8+	0.6+	890307 046	0.1+	0.5-	921221 801	0.5-	0.6+
771019 675	1.1+	0.7+	890307 046	0.7-	0.2-	921227 801	0.2-	0.2-
821111 046	(4.0+	1.6+)	910915 675	0.9+	1.7-	921227 801	0.0	0.2-
821111 046	(0.2-	3.2-)	910915 675	0.3+	1.1-			

(5584)* 1989 KK = 1986 WW2
Discovered 1989 May 31 by H. E. Holt at Palomar.
Id. B. G. Marsden (MPC 15070)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bardwell
M 355.80525 (2000.0) P Q
n 0.22566584 Peri. 34.28448 -0.58424294 +0.80789964
a 2.6719326 Node 200.31090 -0.78551388 -0.58682655
e 0.1241759 Incl. 12.84873 -0.20402972 -0.05415515
P 4.37 H 12.7 G 0.15
Residuals in seconds of arc

861127 033	0.0	0.3+	890706 675	1.5+	1.1-	900918 675	0.1+	2.4-
861128 033	0.3-	0.3+	890711 675	0.0	0.1+	900918 675	0.2+	1.3-
861129 033	0.3+	0.0	890711 675	0.1-	2.3+	900920 675	0.3-	0.6-
890531 675	1.5-	0.5-	890729 675	1.4-	0.5-	900920 675	0.6-	0.1+
890531 675	2.2-	0.8+	890729 675	1.4-	1.1-	930321 675	0.2+	0.1+
890601 675	0.5-	0.9+	900916 675	0.4+	0.2+	930322 675	(5.3-	0.9-)
890601 675	1.4+	0.3-	900916 675	0.3+	0.7+	930322 675	0.7-	1.0-
890602 675	1.8+	1.2-	900917 675	0.5+	0.3+	930419 801	0.1-	1.2-
890602 675	1.8+	1.5+	900917 675	0.1-	0.2-	930419 801	0.0	1.1-

(5585)* 1990 MJ
Discovered 1990 June 28 by E. F. Helin at Palomar.
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 229.66184 (2000.0) P Q
n 0.22023431 Peri. 75.84928 +0.82834109 +0.29346769
a 2.7156850 Node 265.29329 -0.47231640 +0.82392032
e 0.3960077 Incl. 28.60856 +0.30127770 +0.48480102
P 4.48 H 13.7 G 0.15
Residuals in seconds of arc

810629 675	0.7+	0.7-	900721 675	1.3+	0.9+	900916 801	0.9+	0.4+
810629 675	1.3+	2.2-	900816 801	0.1-	0.9-	900919 801	1.1+	0.7+
830114 413	0.4+	1.2+	900816 801	0.1+	0.5+	900919 801	0.9-	0.9+
830114 413	0.1-	0.5-	900817 801	0.7+	0.1-	900921 801	0.1+	0.2+
900628 675	(1.3-	5.4+)	900817 801	1.9-	0.3-	900921 801	0.1+	0.4+
900628 675	(1.3-	3.3+)	900818 801	0.1+	0.6+	901015 801	0.2+	0.2+
900629 675	(1.4-	5.3+)	900818 801	0.4-	0.4+	901016 801	0.5+	0.5-
900718 675	1.0-	0.4+	900820 801	0.0	0.6+	901016 801	0.1-	0.8-
900718 675	2.0-	1.4+	900820 801	0.2-	0.3+	901017 801	0.3-	1.5-
900721 675	0.3+	0.7+	900916 801	0.1+	0.2+	901017 801	0.4-	1.4-

901019	801	1.3-	0.6-	901115	801	0.1-	0.2-	930303	413	0.1-	0.6-
901019	801	0.5-	0.7-	901115	801	0.0	0.1-	930303	413	0.2-	0.1-
901021	801	0.6+	0.7-	901207	688	0.6+	0.1+	930303	413	0.1-	0.4-
901021	801	0.9+	0.5-	901207	688	0.3+	0.3+	930510	413	0.3+	0.2+
901114	801	0.3-	0.2+	901214	801	0.5+	0.1+	930510	413	0.2+	0.3+
901114	801	0.2-	0.1+	901214	801	0.3+	0.2+				

(5586)* 1990 RE6 = 1949 JA = 1968 QS1 = 1971 KA1 = 1979 OG13 = 1979 QE8 = 1980 XK3 = 1986 NE

Discovered 1990 Sept. 9 by H. Debehogne at the European Southern Observatory.

Id. H. Kaneda (MPC 19505)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	34.08405		(2000.0)	P	Q
n	0.26925969	Peri.	53.12667	-0.82937113	+0.55828063
a	2.3751360	Node	160.78093	-0.53120293	-0.77599090
e	0.1449720	Incl.	3.76114	-0.17310975	-0.29353170
P	3.66	H	12.9	G 0.15	

Residuals in seconds of arc

490503	024	0.7+	1.1-	900910	809	1.6+	0.3-	930218	801	0.3+	0.7-
680828	095	0.1-	2.3-	900910	809	0.3+	0.4-	930218	801	0.6-	0.8-
710525	095	(4.3+	0.1-)	900911	809	0.3+	0.3-	930225	801	0.3-	0.3-
790731	095	2.7-	0.2-	900911	809	0.6+	0.4-	930225	801	0.2+	1.6-
790826	095	2.6-	1.1-	900914	675	1.3-	1.2-	930403	670	0.6+	0.1+
801210	095	0.1-	1.7-	900914	675	0.9-	1.9-	930403	670	0.5-	0.1+
860707	010	(6.1+	1.2-)	900917	809	0.1-	0.8+	930403	670	0.6+	0.5+
860708	010	(13.6+	0.9+)	900918	809	0.4-	0.6+	930419	293	1.9-	0.5-
900828	095	1.7+	1.8+	900918	809	0.8-	0.7+	930419	293	(3.2-	0.1+)
900828	095	1.5-	2.1-	911130	808	0.4-	0.7-	930419	104	1.5-	0.0
900909	809	1.4+	1.4+	911130	808	0.1+	0.7-	930419	104	0.7+	0.6+
900909	809	1.8+	1.3+	930119	801	0.1-	0.4-	930420	104	0.1-	0.5+
900909	809	2.2+	1.4+	930119	801	0.0	0.2-	930420	104	0.7+	0.1-
900910	809	1.0+	0.4-	930124	801	1.8+	0.9-	930421	104	0.7-	0.3+
900910	809	1.3+	0.3-	930124	801	0.9+	1.3-	930421	104	0.8-	0.1-

(5587)* 1990 SB = 1990 UV12

Discovered 1990 Sept. 16 by H. E. Holt and J. A. Brown at Palomar.

Id. G. V. Williams (d, MPC 20148)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	311.11489		(2000.0)	P	Q
n	0.26642542	Peri.	86.18039	+0.10884033	+0.99241865
a	2.3919510	Node	190.59114	-0.98985097	+0.10292194
e	0.5483464	Incl.	18.09526	-0.09137203	+0.06717363
P	3.70	H	13.6	G 0.15	

Residuals in seconds of arc

531207	675	0.2-	0.8+	900923	657	0.9+	1.1+	901016	801	0.1-	0.5+
531207	675	0.1-	0.9+	900923	568	(0.3+	3.1+)	901016	675	0.9-	0.1-
820413	413	0.1+	1.5+	900923	568	(0.4+	3.1+)	901016	675	1.3-	0.0
831227	413	0.2+	0.2-	900924	568	0.4-	0.4+	901021	801	0.4-	0.4+
900916	675	1.5+	0.8-	900925	657	0.9+	0.2+	901021	801	0.4-	0.3+
900916	675	0.2+	1.0-	900925	657	1.5+	0.2-	901023	095	2.1+	1.4-
900918	675	0.7-	0.7-	900928	696	(1.7+	6.9+)Y	901114	801	0.3-	0.1-
900918	675	(0.2-	2.6-)	901010	413	0.5+	0.5+	901114	801	0.7-	0.3-
900920	657	0.2-	0.1-	901015	568	0.6-	2.2+	901119	413	1.0+	0.4-
900920	657	0.8-	0.7-	901016	808	0.8-	0.8+	901207	688	0.5-	0.0
900920	675	0.1-	0.3-	901016	801	0.1+	0.5+	901207	688	0.5-	0.1-
900920	675	0.6-	0.2-	901016	808	0.3+	1.2-	901214	801	0.5-	0.5-

901214 801 0.7- 0.7- 930301 413 0.4- 0.4- 930302 413 0.4- 0.5-
920102 688 1.2+ 0.5+ 930301 413 0.1- 0.4- 930511 413 0.0 0.5-
920102 688 0.5+ 0.4- 930302 413 0.1- 0.4-

(5588)* 1990 SW3 = 1981 WU7 = 1983 EE3
Discovered 1990 Sept. 23 by B. Roman at Palomar.
Id. G. V. Williams (MPC 17450)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 245.00076 (2000.0) P Q
n 0.21161302 Peri. 253.35145 +0.95356471 +0.21249573
a 2.7889526 Node 93.99151 -0.12090764 +0.91914702
e 0.1372256 Incl. 12.35491 -0.27585448 +0.33168405
P 4.66 H 11.8 G 0.15
Residuals in seconds of arc
811125 095 0.9+ 0.5- 901112 413 0.4- 0.8- 920130 675 0.3- 0.7+
830314 095 1.1- 0.1+ 901112 413 1.7+ 0.8- 920202 675 (1.1+ 2.7-)
900923 675 1.3- 1.1+ 901113 413 0.3- 0.7- 920202 675 1.8+ 0.5-
900923 675 0.8- 1.2+ 920101 801 0.7+ 0.1- 930320 801 0.0 0.1+
900925 675 0.3+ 0.7+ 920101 801 0.5+ 0.3+ 930320 801 0.0 0.0
900925 675 1.1- 0.9+ 920106 801 0.4+ 0.2+ 930326 801 0.6+ 0.2-
901015 675 0.3+ 0.1+ 920106 801 0.4+ 0.1+ 930326 801 0.3+ 0.2-
901015 675 0.2+ 1.3- 920110 675 1.0- 0.6- 930418 801 0.1- 0.2-
901017 675 1.0+ 0.2- 920110 675 1.5- 0.3+ 930418 801 0.5- 0.3+
901017 675 0.6- 0.2+ 920130 675 0.2- 1.3+

(5589)* 1990 SD14 = 1990 UY13 = 1970 ED3 = 1975 GY = 1993 FN2
Discovered 1990 Sept. 23 by H. Debehogne at the European Southern Observatory.
Id. A. Lowe (k), G. V. Williams; 1990 SD14 = 1978 WH18 (MPC 19867) is invalid
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 320.87572 (2000.0) P Q
n 0.21619006 Peri. 37.61762 -0.22833808 +0.97332873
a 2.7494483 Node 219.19715 -0.90155663 -0.21999858
e 0.0412130 Incl. 2.01318 -0.36750151 -0.06505233
P 4.56 H 13.0 G 0.15
Residuals in seconds of arc
700310 805 0.0 1.3- 900924 809 0.2+ 0.6+ 901022 675 (0.3- 2.9-)
700310 805 0.2- 0.8- 900924 809 0.1+ 0.5+ 930326 399 0.4+ 1.1-
700310 805 0.9- 1.0- 900925 809 0.9- 0.2- 930326 399 0.5+ 2.1-
750415 805 0.9- 0.2+ 900925 809 0.6- 0.1+ 930329 399 0.4- 0.3+
750420 805 0.8+ 0.1+ 900925 809 0.0 0.0 930329 399 0.7- 0.6+
900923 809 1.3+ 1.1- 900927 809 0.5- 1.5- 930415 399 0.3- 0.6+
900923 809 1.4+ 1.2- 900927 809 0.2- 1.6- 930415 399 0.8+ 0.2+
900923 809 1.7+ 1.2- 900927 809 0.1+ 1.7- 930419 399 0.3- 0.2-
900924 809 0.1+ 0.5+ 901022 675 0.0 0.1+ 930419 399 1.7- 2.3-

(5590)* 1990 VA
Discovered 1990 Nov. 9 by Spacewatch at Kitt Peak.
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 61.13843 (2000.0) P Q
n 1.00775702 Peri. 34.36203 -0.33882066 +0.92951138
a 0.9852932 Node 216.45467 -0.90885955 -0.36337615
e 0.2792103 Incl. 14.18759 -0.24325886 +0.06297908
P 0.98 H 19.7 G 0.15
Residuals in seconds of arc
901109 691 0.6+ 0.1- 901110 691 0.1- 0.1+ 901110 691 0.8- 1.4-
901109 691 0.8+ 0.3- 901110 691 0.3+ 0.1+ 901110 691 0.8- 0.8-
901109 691 0.6+ 0.5- 901110 691 0.3- 0.0 901110 691 0.9- 1.1-

901111	691	0.6+	0.7+	911016	691	0.1+	0.4-	920109	691	0.7-	0.3+
901111	691	0.6+	0.9+	911016	691	0.6-	0.3+	920109	691	1.2-	0.5+
901113	691	0.1-	0.4+	911016	691	0.7+	0.1-	921123	691	1.6-	0.4+
901113	691	0.0	0.5+	911030	691	0.1-	0.8+	921123	691	1.5-	0.9+
901113	691	0.1-	0.2+	911030	691	1.9-	0.4+	921201	691	0.1-	0.0
901122	691	0.0	0.2-	911030	691	0.1-	0.8+	921201	691	0.2+	0.2+
901122	691	0.3-	0.1+	911103	801	0.5+	0.9+	921201	691	0.1+	0.4+
901122	691	0.2-	0.6-	911106	801	1.4+	0.1+	921210	413	1.2+	0.1+
901207	688	0.6+	0.4+	911106	801	(3.0+	0.3+)	921210	413	1.2+	0.6-
901207	688	1.0+	0.1+	911107	675	(0.1+	3.6-)	921211	413	0.7+	0.7-
911015	691	0.5+	0.4+	911107	675	0.4-	2.1-	921211	413	0.8+	0.7-
911015	691	0.7+	0.0	920109	691	2.0-	0.2+				

(5591)* 1990 VF2 = 1981 WG8 = 1985 PW1 = 1987 BG3

Discovered 1990 Nov. 10 by T. Urata at the Oohira Station of the Nihondaira Observatory.

Id. T. Urata (MPC 18298)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	225.15146	(2000.0)	P	Q	
n	0.21262017	Peri.	191.36390	+0.94067989	-0.33912079
a	2.7801384	Node	188.48341	+0.31679338	+0.88932821
e	0.0851933	Incl.	4.23042	+0.12150429	+0.30674488
P	4.64	H	12.2	G 0.15	

Residuals in seconds of arc

811125	095	1.3+	0.6-	901111	385	(1.2-	3.4+)	930418	385	0.8+	1.4-
850814	010	0.2-	0.4-	901111	385	1.6+	1.4-	930418	385	1.0+	0.5-
850816	010	1.2-	1.9+	901122	385	0.6+	0.2+	930422	905	0.7-	0.7-
870130	010	0.2-	0.8-	901122	385	0.2-	0.4+	930422	905	2.5-	0.4-
870130	010	0.4+	0.9-	920202	385	0.9+	1.6+	930513	385	1.6-	1.1+
870130	010	2.1-	0.6+	920202	385	1.3+	0.9+	930516	385	0.8+	1.7-
901014	808	1.0-	1.2-	920209	385	1.2-	0.2+	930516	385	1.3+	0.2-
901014	808	0.2+	0.5+	930414	385	0.0	0.3+	930516	385	0.5+	0.1+
901110	385	0.5-	0.3+	930414	385	0.5+	0.4-				
901110	385	0.2+	0.3-	930418	385	0.2-	1.2+				

(5592)* 1990 VB4 = 1955 RA

Discovered 1990 Nov. 14 by K. Suzuki and T. Urata at Toyota.

Id. T. Urata (MPC 17645)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	270.85471	(2000.0)	P	Q	
n	0.17434508	Peri.	85.00498	+0.73018213	+0.67307329
a	3.1734348	Node	232.63137	-0.67072059	+0.67332419
e	0.0635594	Incl.	8.50216	-0.13026106	+0.30595241
P	5.65	H	11.4	G 0.15	

Residuals in seconds of arc

550913	760	0.3-	0.5+	901114	675	0.2-	0.0	930410	905	1.5+	1.7+
550913	760	2.6-	0.7+	901114	881	0.9+	0.6-	930410	905	1.7-	0.4-
550919	760	0.9+	0.6-	901114	881	2.4+	0.9-	930418	385	0.2+	0.1-
550919	760	2.0+	0.4-	901121	881	1.6-	0.1+	930418	385	0.1-	0.7-
880608	675	0.8+	0.7-	901121	881	1.7-	0.1+	930418	385	0.2-	0.5-
880608	675	0.7-	1.4-	901208	881	0.2+	0.9+	930515	905	1.0-	0.3-
901113	675	0.3+	0.5-	901208	881	1.8-	0.0	930515	905	1.1+	0.1+
901113	675	0.6+	0.8-	901218	881	0.7+	0.3-				
901114	675	0.3+	0.5-	901218	881	(3.4-	0.9-)				

(5593)* 1991 JN1 = 1953 EC = 1971 OM = 1977 EM8 = 1979 XV = 1989 WQ5

Discovered 1991 May 9 by E. F. Helin at Palomar.

Id. G. V. Williams (MPC 18639)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	305.87306	(2000.0)	P	Q
n	0.28800239	Peri. 340.08726	-0.84679389	-0.53155735
a	2.2709382	Node 167.74390	+0.49972169	-0.80766021
e	0.0983181	Incl. 5.31658	+0.18225900	-0.25520926
P	3.42	H 13.4	G 0.15	

Residuals in seconds of arc

530309	012	1.3+	0.1-	770312	381	0.2-	0.1-	891121	095	(4.8+	1.0-)
530316	012	(71.5+	48.5+)	770312	381	0.7-	0.8+	891121	095	1.2+	2.0-
540703	675	0.4-	0.7-	770314	381	0.0	0.5-	910509	675	0.2-	1.0+
540703	675	0.0	0.1-	770314	381	0.4-	1.2-	910509	675	0.0	1.5+
551211	675	0.5+	1.5+	770315	381	0.3-	1.2-	910511	675	0.4+	0.8+
551211	675	0.1-	1.5+	770315	381	1.7-	0.3-	910616	675	1.2+	0.2+
710726	095	0.9-	0.6-	791214	095	0.6-	0.5+	910616	675	1.4+	1.2-

(5594)* 1991 NK1 = 1981 WJ1 = 1983 CO1

Discovered 1991 July 12 by H. E. Holt at Palomar.

Id. H. Kaneda (MPC 19028)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	186.37780	(2000.0)	P	Q
n	0.17491600	Peri. 127.31364	-0.22831996	+0.96366082
a	3.1665258	Node 128.90456	-0.94010599	-0.18119144
e	0.0468923	Incl. 10.26421	-0.25312195	-0.19628419
P	5.63	H 11.6	G 0.15	

Residuals in seconds of arc

811124	688	0.4-	2.4-	910806	675	0.2+	1.2-	921001	801	0.1+	0.9+
811124	688	1.9+	2.6-	910810	675	0.4+	0.2-	921028	801	0.2-	1.0+
830204	046	0.6+	0.5+	910810	675	0.6-	0.8-	921028	801	0.2-	0.9+
830204	046	0.8-	1.2-	910904	809	0.6+	0.4+	921125	675	0.4-	0.1-
910712	675	0.6+	0.0	910904	809	0.1+	0.3+	921125	675	0.3-	0.1-
910712	675	0.2-	0.3-	910904	809	0.3+	0.9+	921126	675	0.1+	0.4-
910714	675	0.3-	0.0	910906	809	0.2-	0.2+	921126	675	0.9-	1.0-
910714	675	(0.1-	3.1-)	910906	809	1.0-	0.3+	921227	801	0.7+	0.7+
910717	675	0.1+	1.2-	910906	809	1.2-	0.7+	921227	801	0.1-	0.8+
910717	675	0.6-	0.3-	910907	809	1.4+	0.0	921227	801	0.0	1.1+
910805	675	0.9+	0.9+	910907	809	0.5-	0.5-	921228	801	0.3-	0.7+
910805	675	0.7+	0.7+	910907	809	0.5-	0.9-				
910806	675	0.1+	1.2-	921001	801	0.1-	0.9+				

(5595)* 1991 PJ = 1978 TZ7 = 1982 QE3 = 1984 BB = 1987 UU

Discovered 1991 Aug. 5 by H. E. Holt at Palomar.

Id. H. Kaneda (MPC 19029), K. Ichikawa (ibid.)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	105.89211	(2000.0)	P	Q
n	0.21916556	Peri. 261.23548	+0.84319214	-0.52152525
a	2.7245064	Node 130.08443	+0.53543303	+0.79280583
e	0.1627900	Incl. 9.82316	+0.04835790	+0.31538916
P	4.50	H 12.6	G 0.15	

Residuals in seconds of arc

550724	675	0.3-	0.7+	840201	567	0.9-	0.2+	910808	675	0.1+	0.4+
550724	675	0.7+	0.5+	871020	688	1.0-	2.3+	910808	675	0.0	0.6+
781002	095	2.5+	1.3-	871020	688	(0.9-	3.8+)	910814	809	2.0+	1.8-
820817	095	2.4-	2.5+	871119	688	1.4-	0.8+	910814	809	1.0+	1.7-
840125	567	2.4-	1.8-	871119	688	0.6-	0.3-	910814	809	1.0+	1.1-
840125	567	(0.4+	3.6-)	910805	675	0.0	0.4+	910904	809	0.7-	1.8+
840125	567	(1.9-	4.7-)	910805	675	0.1+	0.1+	910904	809	0.9-	1.5+
840201	552	(4.4+	0.4-)	910806	809	0.1-	1.3-	910904	809	1.1-	1.5+
840201	552	(4.3+	1.6-)	910806	809	0.2-	1.2-	910907	809	1.4+	0.6-
840201	567	1.0+	0.0	910806	809	0.8-	0.9-	910907	809	0.5+	1.7-

910907 809 0.5+ 1.8- 921225 801 0.9+ 0.4- 921227 801 0.2+ 0.3-
921029 801 0.0 0.3- 921225 801 0.8+ 0.4-
921029 801 0.2+ 0.3- 921227 801 0.5+ 0.1+

(5596)* 1991 PQ10 = 1938 AB = 1981 NF = 1982 YP4 = 1985 UO1 = 1988 VV7
Discovered 1991 Aug. 7 by H. E. Holt at Palomar.
Id. G. V. Williams (MPC 19506)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	85.92781	(2000.0)	P	Q
n	0.30717672	Peri. 219.86795	-0.52755292	-0.84636836
a	2.1754237	Node 262.08927	+0.79703771	-0.46333253
e	0.0842964	Incl. 4.23435	+0.29397076	-0.26264722
P	3.21	H 12.7	G 0.15	

Residuals in seconds of arc
371222 053(16.6- 38.2+)X 910915 675 0.5+ 1.4- 930318 104 0.3+ 1.4-
371223 053(75.1- 57.2+)X 910915 675 0.6+ 1.7- 930322 801 0.5- 0.5-
380104 053(16.1+ 32.9+)X 910917 675 0.2- 1.2- 930322 801 0.2- 0.0
380105 053(24.2+ 5.2-)X 910917 675 0.1- 1.2- 930327 801 0.6- 0.3-
810702 805 (0.3- 15.8-) 921221 801 0.4- 0.7- 930327 801 0.6- 0.3-
810702 805 0.2- 0.0 921221 801 1.1+ 1.0- 930414 675 0.3+ 0.5-
821223 095 0.1+ 0.0 930121 801 0.0 0.0 930414 675 0.5- 0.4-
851022 033 0.1+ 0.9- 930121 801 0.2+ 0.4- 930418 801 0.1- 0.0
881107 801 0.2- 0.6+ 930220 596 1.2- 0.2- 930418 801 0.2+ 0.2+
910807 675 1.7+ 1.3- 930220 596 1.1- 0.0
910808 675 0.8+ 0.2- 930318 104 0.5+ 1.8-

(5597)* 1991 PC13 = 1953 UX = 1968 QN1 = 1982 BU13 = 1990 EW7
Discovered 1991 Aug. 5 by H. E. Holt at Palomar.
Id. S. J. Bus (k, MPC 20024), G. V. Williams (ibid.)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	207.42817	(2000.0)	P	Q
n	0.25770981	Peri. 326.50323	+0.43016639	+0.90181135
a	2.4455812	Node 328.91737	-0.80977578	+0.36531542
e	0.2080436	Incl. 4.57146	-0.39902388	+0.23082664
P	3.82	H 13.2	G 0.15	

Residuals in seconds of arc
531018 760 0.0 1.0+ 900307 809 0.7- 0.4- 921201 675 (0.6- 3.6-)
531018 760 0.1+ 0.0 900307 809 0.7- 0.4- 930116 010 0.2- 0.9+
680828 095 (3.0+ 2.9-) 910805 675 0.4+ 0.3- 930116 010 0.5- 0.3-
820130 675 2.3- 0.4- 910808 675 1.5+ 0.6+ 930116 010 0.6- 0.4+
820131 675 1.7- 0.0 910808 675 0.2- 0.5- 930117 010 0.2- 0.3-
900303 809 0.5+ 0.6- 910907 399 0.9- 1.7- 930117 010 0.9- 0.2+
900303 809 0.9+ 0.7- 910907 399 1.3- 0.6- 930117 010 0.2- 0.1+
900303 809 1.3+ 0.7- 910912 675 0.4+ 0.6+ 930121 589 0.3+ 0.9+
900306 809 0.3+ 0.6+ 910912 675 0.4+ 0.7+ 930121 589 1.0+ 0.4-
900306 809 0.6+ 1.0+ 921130 675 0.8+ 0.6- 930121 589 0.1- 0.3+
900306 809 0.8+ 1.0+ 921130 675 1.2+ 1.2-
900307 809 0.9- 0.4- 921201 675 0.6+ 0.4-

(5598)* 1991 PN18 = 1962 TM = 1972 XY = 1978 SY1 = 1988 RH14
Discovered 1991 Aug. 8 by H. E. Holt at Palomar.
Id. G. V. Williams (MPC 20026)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	111.22232	(2000.0)	P	Q
n	0.30399417	Peri. 173.59531	-0.12841741	-0.98803483
a	2.1905805	Node 283.75859	+0.90593886	-0.08183290
e	0.1135656	Incl. 5.04515	+0.40346468	-0.13073083
P	3.24	H 13.0	G 0.15	

Residuals in seconds of arc

621004	760	0.6-	0.2+		910808	675	1.0-	1.1-		910916	675	0.7+	0.8-
621004	760	1.0+	1.7+		910808	675	0.9+	1.6-		910917	675	1.1+	1.0-
721202	095	(5.1-	3.8-)		910910	675	0.2+	0.3-		910917	675	1.0+	0.3-
721206	095	0.3-	2.1-		910910	675	0.2+	0.0		930126	801	1.4+	0.4-
780926	095	0.8-	1.5+		910915	691	0.1+	0.3+		930126	801	0.8+	0.8+
781002	095	2.0-	0.5+		910915	691	0.1-	0.5+		930418	801	1.3-	1.2-
880915	095	(5.6-	2.9-)		910915	691	0.2-	0.1+		930418	801	1.4-	1.3-
880915	095	0.3+	0.4-		910916	675	0.2+	1.0-					

(5599)* 1991 SG1 = 1951 AK1 = 1972 RE1 = 1987 SY20 = 1989 CE1
Discovered 1991 Sept. 29 by S. Ueda and H. Kaneda at Kushiro.
Id. H. Kaneda (MPC 19681)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5			Oishi
M 109.77632	(2000.0)	P	Q
n 0.26182826	Peri. 196.39316	-0.21611564	-0.96989952
a 2.4198681	Node 266.19266	+0.90795045	-0.15738046
e 0.1347974	Incl. 6.45649	+0.35905433	-0.18581255
P 3.76	H 12.3	G 0.15	

Residuals in seconds of arc

510106	711	0.3+	0.7+	Y	910915	675	0.1+	1.2-		911103	675	0.8+	0.0
720910	095	(12.4-	1.3-)		910915	675	0.2+	0.8-		911103	675	1.2+	0.5+
870918	095	1.0-	2.3-		910929	399	0.3-	0.6-		911111	399	0.3-	0.4-
870923	095	1.1+	1.8-		910930	399	0.8-	0.7+		911111	399	0.0	0.6-
890206	675	0.4-	0.3-		910930	399	0.2-	0.6+		930322	399	0.2+	1.2-
890206	675	0.5-	0.7-		911028	399	1.0-	0.3-		930325	399	1.5-	0.4-
890212	675	1.4-	2.1-		911028	399	0.8+	0.8+		930325	399	0.8-	1.0+
910913	675	0.5+	0.2-		911029	399	0.2-	0.6+		930416	399	0.7+	0.7-
910913	675	0.6+	1.0-		911029	399	0.1-	1.2-		930416	399	1.2+	1.3-
910914	675	0.5+	1.1-		911101	675	0.1+	2.2+					

(5600)* 1991 UY = 1981 YC1 = 1984 UR1
Discovered 1991 Oct. 18 by S. Ueda and H. Kaneda at Kushiro.
Id. S. Nakano (MPC 19511)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5			Nakano
M 190.15789	(2000.0)	P	Q
n 0.28661038	Peri. 315.74638	+0.85888766	-0.49840195
a 2.2782853	Node 74.49143	+0.49729430	+0.75646180
e 0.1303513	Incl. 7.02983	+0.12251683	+0.42351037
P 3.44	H 13.1	G 0.15	

Residuals in seconds of arc

811229	704	(2.7-	4.4-)		911104	894	1.1+	1.0-		911204	399	0.9+	0.7-
811230	704	(5.3-	1.3-)		911104	894	0.9+	1.8-		911204	399	1.0-	0.6+
811231	704	0.1-	0.4-		911105	399	0.9+	0.0		911207	399	0.8-	0.1-
820101	704	0.0	0.3+		911105	399	0.5-	0.3+		911207	399	0.1+	0.6+
841029	688	0.7-	1.6-		911105	894	1.4+	0.6-		930326	399	0.5+	0.4+
841029	688	0.9+	1.3+		911105	894	1.3+	1.2-		930326	399	0.9+	1.2+
911018	399	0.3+	0.5+		911110	894	1.1+	0.4-		930416	399	1.1-	0.7-
911018	399	0.5-	0.9-		911110	894	0.7+	0.4-		930416	399	1.7-	0.0
911019	399	0.4+	0.9+		911111	399	0.5-	0.8-		930419	801	0.5+	0.9-
911019	399	0.2-	2.3+		911111	399	0.5-	0.3+		930419	801	0.6+	0.9-
911104	399	1.5-	0.4-		911203	894	1.1-	2.4+		930420	399	1.3-	0.2+
911104	399	2.6-	0.2-		911203	894	0.2+	0.1+		930424	801	1.1+	0.4-

(5601)* 1991 VR = 1933 UV1 = 1978 RO5 = 1978 TA4 = 1978 VQ13 = 1980 FX10
Discovered 1991 Nov. 4 by S. Ueda and H. Kaneda at Kushiro.
Id. H. Kaneda (MPC 19517)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	216.04987	(2000.0)	P	Q
n	0.30627612	Peri. 359.41589	+0.96521280	-0.26046347
a	2.1796861	Node 15.73900	+0.24023057	+0.84889514
e	0.1244767	Incl. 4.83641	+0.10321589	+0.45993023
P	3.22	H 13.4	G 0.15	

Residuals in seconds of arc

331023	012	0.0	1.2-	911204	399	0.5+	0.9+	930409	695	0.8+	0.8-
780906	095	0.3+	0.2+	911207	399	0.2+	0.4-	930409	695	0.2-	0.4-
781004	095	1.9+	1.3-	911207	399	2.4+	0.3-	930415	399	0.4+	0.3+
781101	095	0.8+	2.2-	930329	399	0.6+	0.8+	930415	399	1.1-	1.1-
800316	095	1.2+	2.4-	930329	399	0.1+	0.9+	930419	801	1.1-	0.2-
911104	399	0.0	1.0-	930404	695	0.1-	0.1-	930419	801	0.7-	0.2+
911104	399	0.4-	0.2-	930404	695	0.4-	0.3+	930509	695	0.1-	0.6-
911105	399	1.1-	0.2+	930404	695	0.1-	0.2+	930509	695	0.3-	0.4-
911105	399	0.3+	0.6+	930404	695	0.5-	0.1+	930509	695	0.1-	0.4-
911111	399	1.8-	0.4-	930404	695	0.6-	0.1-	930509	695	0.2-	0.4-
911111	399	0.7-	0.4+	930409	695	0.6+	0.3-	930509	695	0.2-	0.1-
911204	399	0.1-	1.0+	930409	695	0.6-	0.6-				

(5602)* 1991 VM1 = 1975 TN6 = 1981 RC6 = 1981 SS2

Discovered 1991 Nov. 4 by S. Ueda and H. Kaneda at Kushiro.

Id. H. Kaneda (MPC 19518)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Oishi

M	0.88069	(2000.0)	P	Q
n	0.30980270	Peri. 109.89681	-0.58920486	+0.80496120
a	2.1631132	Node 123.80639	-0.76918713	-0.53235920
e	0.0816147	Incl. 4.82021	-0.24736366	-0.26197546
P	3.18	H 13.6	G 0.15	

Residuals in seconds of arc

751011	033	0.1+	1.3-	911019	399	1.7+	0.4+	930125	801	0.4+	0.2-
810901	675	0.5-	0.1-	911019	399	0.2+	1.9-	930125	801	0.1-	0.5-
810902	675	0.4+	0.3-	911104	399	0.6-	0.2-	930220	801	0.7+	0.5-
810922	809	1.0+	1.6-	911104	399	0.8+	1.2-	930220	801	0.6-	1.6-
810922	809	0.6+	0.7-	911105	399	(3.2-	0.2+)	930225	801	0.2+	1.0-
810922	809	0.1-	0.4-	911105	399	1.3-	0.2-	930416	399	0.9-	0.5-
911018	399	0.5-	0.9+	911111	399	1.0+	0.4-	930416	399	1.2-	0.0
911018	399	1.6-	2.2+	911111	399	0.6+	0.7-	930420	399	0.0	0.7-

(5603)* 1992 CE = 1973 US1 = 1977 EW1 = 1979 OO15 = 1981 WF3 = 1987 QF11

Discovered 1992 Feb. 5 by K. Endate and K. Watanabe at Kitami.

Id. H. Kaneda (MPC 19872)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	7.97351	(2000.0)	P	Q
n	0.12483934	Peri. 20.42240	-0.79499437	+0.60621740
a	3.9649258	Node 196.95028	-0.56651339	-0.75492149
e	0.0683499	Incl. 4.32953	-0.21690212	-0.25018795
P	7.90	H 10.4	G 0.15	

Residuals in seconds of arc

731026	095	0.4+	0.9-	920209	400	0.2-	0.6+	930323	801	0.9-	0.3-
770313	095	1.1+	0.0	920209	400	1.4+	0.8+	930416	400	0.3+	0.4-
770322	095	0.6-	0.4-	920225	399	0.8-	0.4+	930416	400	2.0+	0.1+
770325	095	0.4-	0.3+	920225	399	1.2-	2.3-	930416	894	1.7-	1.4-
790730	095	0.6-	1.5+	920226	399	0.8-	0.5+	930417	894	0.1-	0.1-
811124	033	0.0	0.0	920307	399	0.9+	0.9-	930417	894	0.0	0.3+
811124	033	0.3-	0.3-	920307	399	0.4-	0.2+	930420	400	1.5+	0.7-
870828	095	0.8+	1.3-	930320	801	0.7-	0.1+	930420	400	1.7-	0.6+
920205	400	0.1+	1.0+	930320	801	0.4-	0.5-	930429	400	(0.4-	3.5+)
920205	400	1.4+	0.1+	930323	801	1.3-	0.1+	930429	400	2.2+	0.9+

(5604)* 1992 FE
Discovered 1992 Mar. 26 by R. H. McNaught at Siding Spring.

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5			Williams
M 292.14708	(2000.0)	P	Q
n 1.10401208	Peri. 82.25926	+0.82184436	-0.56634189
a 0.9271575	Node 312.21203	+0.48422493	+0.75161516
e 0.4054447	Incl. 4.79220	+0.30016340	+0.33812945
P 0.89	H 17.0	G 0.15	

Residuals in seconds of arc

850417	413	1.9-	0.6+	920409	413	0.2+	0.1-	920703	413	0.1+	0.4-
850417	413	1.8+	1.6+	920409	474	0.2+	0.4-	920823	413	0.6+	0.4-
850417	413	0.9+	0.6+	920409	474	0.3-	0.7+	920823	413	0.2+	0.4-
850417	413	0.8-	0.2+	920410	413	0.2+	0.1-	930301	413	0.4-	0.6+
920326	413	(2.4+	0.8+)	920422	413	1.3+	0.5-	930301	413	0.5-	1.0-
920326	413	0.5-	0.0	920422	413	1.2+	0.4-	930303	413	0.9-	1.0+
920329	413	0.7-	0.7-	920504	801	(1.7+	2.9-)	930303	413	0.9-	1.2+
920331	413	0.0	0.2+	920524	413	0.1-	0.5-	930501	413	0.9+	0.9-
920401	413	0.3-	0.1-	920524	413	0.5-	0.4-	930510	413	0.3-	0.3+
920401	413	1.1-	0.9-	920618	413	0.9-	0.7-	930510	413	0.1-	0.3+
920404	474	0.6+	1.0+	920618	413	0.3-	1.1-	930510	413	0.0	0.1-
920404	474	0.3+	1.0+	920619	413	1.0-	0.8-	930511	413	0.4-	0.4-
920404	413	0.4+	1.0-	920619	413	0.1-	0.6-	930511	413	0.2-	0.3-
920406	413	0.1+	0.4+	920703	413	0.3+	1.8+				

(5605)* 1993 DB = 1942 EX = 1983 EF2 = 1991 RQ10
Discovered 1993 Feb. 17 by S. Otomo at Kiyosato.
Id. S. Nakano (MPC 21949)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5			Nakano
M 18.33884	(2000.0)	P	Q
n 0.28944060	Peri. 179.73148	-0.98390998	+0.17813390
a 2.2634092	Node 10.55975	-0.16406157	-0.87029730
e 0.1046511	Incl. 4.30757	-0.07074573	-0.45918505
P 3.41	H 13.2	G 0.15	

Residuals in seconds of arc

420312	062	2.0+	1.1-	930215	896	0.4+	2.4-	930224	894	0.8+	1.6+
420312	062	0.3+	1.0+	930215	399	0.1+	1.2+	930301	894	0.7+	0.3+
420312	062	1.1-	0.2+	930215	896	(2.7+	2.8-)	930301	894	0.1+	0.8+
420312	062	2.1-	1.2-	930217	896	1.4+	2.3-	930313	894	0.3-	1.9+
420314	062	0.1+	0.1-	930217	896	1.1+	2.2-	930313	894	1.3-	0.9-
830311	381	0.2+	0.3+	930217	894	0.6-	0.9+	930316	894	0.9-	0.5-
830311	381	0.4+	0.7+	930217	894	0.8+	1.4+	930316	894	0.2-	0.1-
910910	675	0.0	0.4+	930218	894	0.2-	0.3-	930409	894	0.4-	0.5-
910910	675	0.2+	0.3+	930218	894	0.2-	0.9-	930410	894	(3.3-	1.2-)
910916	675	0.1-	0.8-	930221	399	0.4-	1.4+	930410	894	1.1-	1.1-
910916	675	0.1+	0.3-	930221	399	0.3-	1.0+				
930215	399	(1.8-	2.6+)	930224	894	0.4+	0.5+				

(5606)* 1993 EH = 1940 GD = 1978 WE = 1980 JJ
Discovered 1993 Mar. 1 by S. Otomo at Kiyosato.
Id. S. Nakano (MPC 21950)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5			Nakano
M 25.88386	(2000.0)	P	Q
n 0.29688635	Peri. 14.28512	-0.97567564	+0.21919099
a 2.2254059	Node 178.36404	-0.21127270	-0.93590996
e 0.1279485	Incl. 7.07171	-0.05848835	-0.27573150
P 3.32	H 13.5	G 0.15	

Residuals in seconds of arc

400403	062	0.3+	1.6-	400412	062	(4.9+	1.9-)	781124	046	1.1-	2.2+	
400404	062	0.2-	1.9+	781124	046	0.7+	0.6-	800511	046	0.1+	2.1+	Y

800511 046 0.2+ 0.7+ Y 930301 894 0.6+ 0.3- 930314 894 0.2+ 0.2-
800512 046 0.6- 1.0- 930302 894 0.4+ 0.7+ 930320 894 0.0 0.5-
800512 046 0.2+ 0.3+ 930302 894 1.1+ 0.1+ 930320 894 0.4- 1.2-
800513 046 0.1+ 0.4- 930313 894 0.2- 0.3+ 930409 894 1.1- 0.6+
800513 046 0.2+ 0.2- 930313 894 0.8+ 0.6- 930409 894 1.6- 0.7-
930301 894 0.2+ 0.3+ 930314 894 0.7- 0.2+ 930410 894 0.3+ 1.1+

(5607)* 1993 EN = 1972 LR = 1975 EW5 = 1977 RN8 = 1982 VX12 = 1982 YB2
= 1986 TC2 = 1990 RS9 = 1991 XQ2
Discovered 1993 Mar. 12 by S. Ueda and H. Kaneda at Kushiro.

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5			Nakano
M 211.52220	(2000.0)	P	Q
n 0.22457029	Peri. 205.41859	+0.99811035	-0.01729209
a 2.6806155	Node 155.35537	+0.03293946	+0.96063254
e 0.1269939	Incl. 8.12907	-0.05187221	+0.27728345
P 4.39	H 12.5	G 0.15	

Residuals in seconds of arc
720606 095 1.5+ 0.4- 900914 675 0.1- 1.4- 930312 399 0.2+ 0.4+
750308 095 0.2+ 0.1+ 900918 675 0.4- 1.3- 930312 399 0.9- 0.4+
770908 675 0.1+ 0.9+ 900918 675 (0.1- 4.1-) 930319 399 0.6- 1.0-
770909 675 0.3- 0.6+ 911207 809 2.1+ 0.3- 930319 399 0.9- 1.0-
821114 095 1.9- 1.2+ 911207 809 0.0 0.5- 930415 399 0.4- 0.3+
821221 095 1.5- 0.8- 911207 809 1.0- 0.7- 930415 399 0.5+ 0.1+
861007 688 0.9+ 0.8- 911209 809 1.8+ 0.3- 930416 399 0.9- 0.3-
861007 688 1.1- 0.2- 911209 809 1.0+ 0.7- 930416 399 0.6- 0.9-
900914 675 1.1+ 1.8- 911209 809 0.9+ 0.4-

(5608)* 1993 EO = 1976 JM = 1978 VC11 = 1980 DV4 = 1984 CD = 1986 TK7
= 1988 AZ2 = 1990 QX10
Discovered 1993 Mar. 12 by S. Ueda and H. Kaneda at Kushiro.
Id. S. Nakano; 1984 SH = 1980 DV4 (JAM 1903) is invalid

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5			Nakano
M 286.38526	(2000.0)	P	Q
n 0.22936561	Peri. 252.50874	+0.36904126	+0.92878685
a 2.6431219	Node 39.20193	-0.83093656	+0.34615833
e 0.0439666	Incl. 3.09362	-0.41635679	+0.13239861
P 4.30	H 12.7	G 0.15	

Residuals in seconds of arc
760502 095 0.8+ 1.1- 861002 049 (1.9- 4.5+) 930320 400 1.5+ 0.6-
781105 675 0.4+ 0.5- 880111 033 0.4+ 0.5- 930320 400 (0.2+ 3.9-)
781106 675 0.3- 0.3- 880111 033 0.6+ 0.8- 930323 691 1.0- 1.0-
781107 675 1.0- 0.3- 900827 675 0.3- 1.6- 930323 691 0.9- 1.0-
781108 675 0.3+ 0.7- 900827 675 0.7+ 1.3- 930323 691 0.9- 0.9-
800221 095 0.8- 1.7+ 900916 675 0.4+ 0.0 930415 399 0.6+ 1.5+
840204 046 (5.2+ 5.4-) 900916 675 0.4+ 0.6- 930415 399 1.1- 0.2+
840204 046 (7.0+ 4.9-) 930312 399 0.0 0.2+ 930419 399 0.7+ 0.5-
861002 049 0.4- 0.9+ 930312 399 0.4- 0.5+ 930419 399 0.1- 0.1+
861002 049 0.6+ 1.2- 930319 399 0.7+ 0.3-
861002 049 0.7- 2.4+ 930319 399 0.3- 0.0

(5609)* 1993 FU = 1973 SW5 = 1978 PF1 = 1978 QB = 1989 RT4 = 1992 AG4
Discovered 1993 Mar. 22 by A. Vagnozzi at Santa Lucia Stroncone.

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5			Williams
M 294.65960	(2000.0)	P	Q
n 0.18137184	Peri. 282.95963	+0.31787656	+0.94812913
a 3.0909322	Node 5.57664	-0.86014620	+0.28943072
e 0.1498889	Incl. 1.40037	-0.39887719	+0.13145723
P 5.43	H 12.0	G 0.15	

Residuals in seconds of arc

730928	095	0.2+	1.5-	930327	595	0.5-	0.5+	930331	595	0.2+	0.0
780808	095	0.7-	0.4-	930327	595	0.8-	0.1-	930331	595	0.7-	0.1+
780823	688	1.5+	2.4-	930327	589	0.5+	0.3+	930408	589	0.1-	1.6+
780823	688	0.8+	0.6-	930327	589	0.8-	0.9-	930408	589	0.3+	1.2+
890902	071	0.6-	0.5-	930327	595	0.3-	0.6-	930408	589	0.0	1.0+
890902	071	1.1+	0.9-	930327	595	0.9-	1.1+	930416	589	0.9+	0.5-
890903	071	1.0+	1.9-	930327	595	0.0	0.4-	930416	589	0.0	0.8-
890903	071	0.5+	2.0-	930327	589	0.4-	0.0	930420	589	0.2-	0.5-
920101	691	0.4-	2.3-	930328	587	0.3-	0.2-	930420	589	0.5-	0.6-
920101	691	0.4-	2.0-	930328	587	0.9+	0.5+	930423	589	0.3-	0.2+
920101	691	0.3-	2.2-	930328	589	0.4-	0.1-	930423	589	0.2-	0.4-
930322	589	0.3+	1.3-	930328	589	0.6-	0.1+	930508	589	0.0	0.1-
930322	589	0.4+	0.8-	930328	589	0.8-	0.3+	930508	589	0.5+	0.2-
930322	589	0.2+	1.3-	930330	589	0.0	0.6-	930508	589	0.2+	0.3+
930322	589	0.2+	1.2-	930330	589	0.0	0.7-	930508	589	0.0	0.4+
930322	589	0.3+	1.4-	930330	108	(2.8-	3.9-)	930509	589	0.2+	0.2-
930323	589	0.1+	1.4-	930330	108	2.2-	1.9+	930509	589	0.2+	0.0
930323	589	0.2+	1.1-	930330	108	0.8-	0.8-				
930327	595	0.8+	0.9+	930330	108	1.0+	0.9-				

(5610)* 2041 T-3 = 1982 UL6

Discovered 1977 Oct. 16 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken ty T. Gehrels.

Id. C. M. Bardwell (MPC 12572)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bardwell

M	292.93341	(2000.0)	P	Q
n	0.21000774	Peri. 332.60660	-0.79856799	+0.59960075
a	2.8031469	Node 244.33246	-0.54100348	-0.75333469
e	0.0437692	Incl. 3.34642	-0.26382645	-0.27012180
P	4.69	H 12.8	G 0.15	

Residuals in seconds of arc

771007	675	1.0+	0.1+	821109	095	1.3-	0.1-	911004	033	0.4-	0.1+
771011	675	0.7-	1.5+	821114	095	0.1+	1.4-	911010	691	0.7-	0.3+
771011	675	1.2-	0.9+	900429	413	0.9-	0.0	911010	691	0.6-	0.6+
771012	675	0.5-	0.5+	910905	033	0.4+	0.6-	911010	691	0.6-	0.1+
771012	675	1.4-	0.9+	910905	033	0.4+	0.7-	911109	675	2.4-	0.7-
771016	675	1.6+	1.6-	910912	033	1.4+	0.2+	911109	675	0.4+	2.4-
771016	675	0.7+	0.7-	910912	033	1.5+	0.1+	911110	675	0.7+	1.0-
771017	675	0.4-	1.7+	910913	675	0.0	0.3-	921221	801	0.2+	0.1+
771017	675	1.2-	1.8+	910913	675	0.5+	0.2-	921221	801	0.1+	0.1-
771021	675	0.9+	0.0	910914	033	0.2-	0.9-	921228	801	0.2+	0.9-
771021	675	1.0+	0.5+	910915	033	0.7-	0.1+	921228	801	0.8+	0.6-
771022	675	1.4+	1.1+	910915	033	0.8+	1.6-	930119	801	0.7+	0.7+
771022	675	0.2+	0.7+	910915	675	1.3+	1.2-	930119	801	0.2+	0.1+
821020	095	1.5-	0.3+	911002	033	1.1+	0.9+	930121	801	0.0	0.5-
821025	095	2.9-	0.8+	911002	033	0.1+	0.2+	930121	801	0.4-	0.4-

1932 CP = 1993 HQ

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	24.79463	(2000.0)	P	Q
n	0.29244888	Peri. 194.17983	-0.80721633	+0.58817629
a	2.2478607	Node 22.07313	-0.52790330	-0.68188520
e	0.0940219	Incl. 7.56947	-0.26404528	-0.43483471
P	3.37	H 12.9	G 0.15	

Residuals in seconds of arc

320205	024	(12.0-	0.8+)	320310	024	0.5+	1.1-	930416	400	1.1+	0.7+
320211	024	4.4-	0.8-	320325	024	4.2+	1.9+	930420	400	0.3-	0.5-
320301	024	(7.9+	2.8-)	930416	400	2.2+	1.5+	930420	400	1.4+	0.1+

930429 400 1.2- 0.7- 930514 361 0.6+ 0.3- 930515 361 0.5- 0.0
930429 400 0.1+ 0.6+ 930514 361 0.8- 0.2- 930515 361 0.1- 1.9-
930513 361 1.7- 0.3+ 930514 361 1.3- 0.2+

1968 OZ = 1993 GF
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 37.91273 (2000.0) P Q
n 0.23260794 Peri. 100.16943 -0.87637369 -0.22373222
a 2.6185027 Node 67.97880 -0.02966530 -0.85880146
e 0.1693796 Incl. 27.39211 +0.48071730 -0.46087303
P 4.24 H 13.0 G 0.15
Residuals in seconds of arc
680724 805 0.2- 1.2+ 680727 805 0.1+ 0.8- 930317 693 1.4- 0.2+
680724 805 1.2+ 0.0 680727 805 0.2+ 1.7- 930414 693 0.1+ 0.7+
680724 805 0.1- 1.2+ 680727 805 0.0 0.1- 930414 693 0.4- 0.5-
680725 805 1.0+ 1.2- 680727 805 0.3+ 0.6- 930415 693 0.4+ 0.2-
680725 805 (1.5+ 3.3-) 680728 805 1.5- 0.3+ 930415 693 1.1- 1.0-
680725 805 0.8- 0.9+ 930316 693 0.0 0.2+ 930417 693 0.2+ 1.4+
680726 805 0.1- 0.7+ 930316 693 1.6+ 0.3- 930417 693 0.7+ 0.6-

1973 QR1 = 1973 SK2 = 1992 HK5
Id. C. M. Bardwell (d, MPC 4576), T. Kobayashi
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi
M 71.99001 (2000.0) P Q
n 0.30354736 Peri. 104.84329 +0.61494337 +0.78833190
a 2.1927296 Node 203.13827 -0.74118066 +0.56939959
e 0.1926873 Incl. 2.83397 -0.26925058 +0.23305990
P 3.25 H 13.6 G 0.15
Residuals in seconds of arc
730829 095 0.3- 3.3- 920425 809 1.4+ 0.6- 920508 809 0.5- 0.2-
730902 095 (1.0- 7.3-) 920503 809 0.2- 0.4+ 920508 809 0.2- 0.0
730922 095 1.5+ 0.6+ 920503 809 0.4+ 0.4+ 920510 809 0.2- 0.4+
730923 095 1.3- 3.1+ 920503 809 0.9+ 0.5+ 920510 809 0.3+ 0.7+
920424 691 0.7- 0.6- 920504 809 0.7- 0.2+ 920510 809 0.4+ 0.6+
920424 691 1.0- 0.6- 920504 809 0.6- 0.0 920511 809 0.1- 0.2-
920424 691 1.1- 0.6- 920504 809 0.2- 0.1- 920511 809 0.8+ 0.2-
920425 809 0.6+ 0.0 920508 809 0.4- 0.2+ 920511 809 1.0+ 0.2+

1974 RV1 = 1981 TC2 = 1990 FC4 = 1991 RJ31 = 1993 BK4
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi
M 263.75489 (2000.0) P Q
n 0.29240809 Peri. 351.69740 +0.37659714 +0.92527357
a 2.2480698 Node 300.41508 -0.84689518 +0.32410010
e 0.1393232 Incl. 3.00470 -0.37542396 +0.19704807
P 3.37 H 13.4 G 0.15
Residuals in seconds of arc
740914 095 (1.6+ 6.8+) 900318 399 1.6- 0.0 930127 010 0.2+ 0.5-
740919 095 1.3+ 0.4- 900318 399 0.5+ 0.8- 930127 010 1.0+ 0.8-
740921 095 0.6- 2.2- 910911 402 1.9+ 0.9- 930127 010 0.5+ 0.7-
740923 095 0.0 0.0 910911 402 0.7- 0.6- 930128 010 0.8- 0.4+
811003 095 0.1- 3.2+ 910914 675 0.4- 0.6- 930128 010 1.3- 0.1+
900318 399 0.7+ 1.0- 910914 675 0.1+ 0.7- 930128 010 0.8- 0.0

1975 EA3 = 1982 BQ6 = 1986 GV2 = 1993 CM
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Ichikawa

M 5.20440		(2000.0)	P	Q
n 0.27192833	Peri.	175.63117	-0.90766381	+0.41861205
a 2.3595712	Node	29.17463	-0.38691658	-0.80675018
e 0.1452963	Incl.	3.54860	-0.16260985	-0.41703489
P 3.62	H 12.3	G 0.15		

Residuals in seconds of arc

750308 095	0.3-	2.1+	930213 885	2.2+	1.5-	930219 372	(3.5-	0.4+)
750314 095	1.9+	1.0+	930214 885	0.1-	1.2-	930219 372	1.6-	0.6+
750316 095	(6.4+	0.8-)	930214 885	0.5+	1.2-	930221 399	0.9-	0.7+
820126 381	0.0	1.4+	930215 399	1.4-	1.2+	930221 399	0.6-	0.3-
820126 381	0.6+	0.4+	930215 399	1.5-	0.4+	930225 399	0.6-	0.0
860404 095	0.4-	0.8-	930217 372	0.3+	0.5-	930225 399	0.4-	1.0-
930213 885	0.9+	0.0	930217 372	1.6+	1.3-			

1976 YL3 = 1977 BH = 1953 VJ2 = 1981 SF6 = 1992 OR6
Id. H. Oishi, B. G. Marsden (d), T. Kobayashi
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi

M 6.69346		(2000.0)	P	Q
n 0.17336449	Peri.	228.30784	+0.74930424	-0.66220656
a 3.1853900	Node	173.15507	+0.61949892	+0.69823725
e 0.2143571	Incl.	2.43423	+0.23401762	+0.27193238
P 5.69	H 13.1	G 0.15		

Residuals in seconds of arc

531114 760	0.1+	2.5-	810928 095	1.3-	3.2+	920730 809	0.2-	0.4+
531114 760	1.4+	3.6-	920726 809	0.1-	0.9-	920731 809	0.3+	0.7+
761216 095	0.3+	1.7+	920726 809	1.0-	0.4-	920731 809	0.4+	0.4+
761220 095	0.9-	1.6+	920730 809	0.3+	0.1+	920731 809	0.3-	0.7+
770120 095	0.7+	2.5+	920730 809	0.2+	0.0			

1977 EO1 = 1972 HF = 1982 DG4
Id. K. Hurukawa (JAM 1234, MPC 9476)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M 359.49697		(2000.0)	P	Q
n 0.18634505	Peri.	182.19997	-0.58393295	+0.81082236
a 3.0356904	Node	52.07512	-0.74403981	-0.51490319
e 0.1552718	Incl.	2.89701	-0.32469535	-0.27828367
P 5.29	H 12.8	G 0.15		

Residuals in seconds of arc

720418 095	0.1-	0.3-	770410 381	1.2-	0.2+	930414 896	1.3-	0.8-
720509 095	(0.6-	5.0-)	770410 381	0.5-	0.8+	930414 896	2.2+	1.2-
770313 095	0.7+	0.2-	820220 033	0.3-	0.2-	930415 399	1.7-	0.3+
770315 381	0.5-	0.3+	820220 033	0.0	0.3-	930415 399	0.3+	1.0+
770315 381	0.1+	0.3+	820220 033	0.1+	0.0	930416 399	0.8+	1.0+
770322 095	0.0	1.6-	820221 033	0.1+	0.3+	930416 399	0.3-	0.1-
770325 095	1.6+	0.5+	820221 033	0.0	0.0			

1978 VE9 = 1987 RN4 = 1987 SH30 = 1992 SK18
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi

M 111.48374		(2000.0)	P	Q
n 0.19643673	Peri.	350.06019	+0.26454096	+0.96420688
a 2.9308095	Node	295.27765	-0.88342563	+0.23481769
e 0.0987240	Incl.	1.13915	-0.38675217	+0.12314927
P 5.02	H 12.5	G 0.15		

Residuals in seconds of arc

781105 675	0.1+	0.1-	781107 675	0.2-	0.4+	781129 675	1.0+	0.0
781106 675	0.1-	0.3-	781108 675	0.5-	0.5+	781130 675	0.3-	0.4-

870902 095 0.7+ 1.1- 920922 809 0.8- 0.1- 920923 809 0.1+ 0.4+
870925 095 0.1+ 0.7- 920922 809 1.4- 0.1+ 920923 809 0.2+ 0.4+
920922 809 0.2+ 0.3+ 920923 809 1.0+ 0.7+

1980 GL = 1980 ES1 = 1993 GJ
Id. G. V. Williams (d, MPC 18084; unpublished), W. Landgraf (d, ibid.)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	4.81085	(2000.0)	P	Q
n	0.22859942	Peri. 216.96555	-0.61362895	+0.78770971
a	2.6490244	Node 15.42811	-0.66653413	-0.47973626
e	0.1331981	Incl. 11.82698	-0.42331048	-0.38647967
P	4.31	H 13.0	G 0.15	

Residuals in seconds of arc
800315 095 1.3- 0.2- 800414 046 1.2+ 0.7- 800416 046 0.5- 0.5-
800408 675 0.2- 0.8+ 800414 046 0.3+ 0.8+ 930414 372 0.3- 0.3-
800409 675 0.1+ 0.8+ 800415 046 (5.2+ 1.3-)Y 930414 372 0.2+ 0.4-
800413 046 (5.8- 1.5-)Y 800415 046 (6.4+ 0.9+)Y 930417 372 1.1- 0.9+
800413 046 (3.1- 1.7+)Y 800416 046 0.7+ 0.5- 930417 372 0.8+ 0.7-

1981 SJ = 1936 QH1 = 1992 OS8
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi

M	71.41595	(2000.0)	P	Q
n	0.26345481	Peri. 22.42985	+0.94667867	+0.32184804
a	2.4098978	Node 318.78637	-0.29885632	+0.86030980
e	0.2186325	Incl. 1.27023	-0.12035111	+0.39532379
P	3.74	H 14.3	G 0.15	

Residuals in seconds of arc
360828 024 0.7+ 1.7- 810925 095 0.2+ 0.9+ 920724 809 0.6+ 0.2-
810922 046 (6.1+ 2.8-) 811005 046 1.3- 0.9+ 920726 809 0.6- 0.5+
810922 046 2.7- 0.4+ 811005 046 2.2- 0.3- 920726 809 0.4- 0.4+
810925 046 3.1+ 2.1- 920724 809 0.2- 0.1+ 920726 809 0.1+ 0.2+
810925 046 2.2+ 1.3+ 920724 809 0.3+ 0.1+

1982 BU = 1993 BN2
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi

M	52.90843	(2000.0)	P	Q
n	0.26524170	Peri. 351.48152	-0.07670606	-0.89149702
a	2.3990622	Node 102.00024	+0.93956867	-0.21448565
e	0.2010451	Incl. 27.15895	+0.33365685	+0.39903505
P	3.72	H 13.2	G 0.15	

Residuals in seconds of arc
820118 688 1.0+ 1.0+ 820131 688 0.2- 1.9+ 930122 675 0.6- 0.4-
820118 688 0.8- 0.7- 820131 688 0.4+ 1.8- 930122 675 0.9+ 0.3+
820120 095 0.5- 0.4- 930121 675 0.3- 0.1+

1984 SH = 1949 OA1 = 1978 XB1 = 1981 SD9 = 1987 QX11
Id. T. Furuta (JAM 1903), S. Nakano; also see MPC 22219.
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	339.11762	(2000.0)	P	Q
n	0.31141836	Peri. 176.36450	+0.35952590	+0.93206072
a	2.1556252	Node 114.70229	-0.85737276	+0.34889039
e	0.1719671	Incl. 2.82437	-0.36831113	+0.09766429
P	3.16	H 13.9	G 0.15	

Residuals in seconds of arc
490728 024 0.8- 1.5- 781206 675 0.1+ 0.1- 840923 071 0.0 0.5-
490730 024 1.9+ 2.4- 781206 675 0.8+ 0.1- 840923 071 1.6+ 1.1-
781203 675 0.6- 1.1- 810925 095 0.5+ 1.2+ 840924 071 1.4- 1.0-
781203 675 0.4- 0.5- 840923 071 (6.7- 0.7-) 840924 071 0.5+ 1.8-
781205 675 0.7+ 1.3- 840923 071 1.9+ 0.9+ 840925 071 2.5+ 0.8+

840925 071 (5.3+ 0.1+) 840928 809 0.5+ 0.8+ 840930 809 1.6- 0.5-
840928 809 0.7- 1.4+ 840928 809 0.6+ 1.0+ 840930 809 1.5- 0.7-
840928 809 0.7- 1.3+ 840928 809 0.8+ 1.2+ 840930 809 1.3- 0.7-
840928 809 0.3- 1.7+ 840929 809 1.5- 0.2+ 870827 095 0.6- 2.6+
840928 688 0.2+ 0.5- 840929 809 0.8- 0.2+
840928 688 0.5+ 1.9- 840929 809 0.2- 0.2+

1985 CN2 = 1983 RC3 = 1991 TQ13
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Ichikawa
M 145.96024 (2000.0) P Q
n 0.26606739 Peri. 303.73702 -0.14513247 -0.98923670
a 2.3940963 Node 154.58843 +0.92152899 -0.14200761
e 0.1760261 Incl. 2.48910 +0.36016786 -0.03527865
P 3.70 H 14.0 G 0.15
Residuals in seconds of arc
830903 071 1.3- 2.0- 850219 809 0.6- 0.6+ 850224 809 0.1- 0.1-
830903 071 2.3+ 0.7- 850219 809 0.2- 0.2+ 850224 809 0.0 0.5-
850214 809 0.9+ 0.5- 850220 809 1.2- 0.4- 850226 809 0.4+ 0.3-
850214 809 0.9+ 0.5- 850220 809 1.0- 0.4- 850226 809 0.6+ 0.4-
850214 809 1.1+ 0.4- 850220 809 0.5- 0.6- 850226 809 0.8+ 0.2-
850216 809 0.3+ 0.6+ 850221 809 0.3- 0.3- 850227 809 1.5+ 1.3-
850216 809 0.5+ 0.5+ 850221 809 0.2- 0.1- 850227 809 1.8+ 1.4-
850216 809 0.8+ 0.4+ 850221 809 0.0 0.1- 850227 809 1.8+ 1.2-
850217 809 1.0- 0.8+ 850222 809 0.3- 0.6+ 850228 809 0.4- 0.5-
850217 809 0.9- 0.7+ 850222 809 0.2- 0.6+ 850228 809 0.3- 0.5-
850217 809 0.6- 0.9+ 850222 809 0.2- 0.6+ 911006 033 0.3+ 0.1-
850218 809 1.0- 0.7+ 850223 809 0.3- 0.6- 911006 033 0.4+ 0.1-
850218 809 1.0- 0.9+ 850223 809 0.1- 0.7- 911008 033 0.1+ 0.1-
850218 809 0.8- 1.0+ 850223 809 0.1- 0.7- 911009 033 0.3- 0.1-
850219 809 0.7- 0.4+ 850224 809 0.2- 0.2- 911010 033 0.5- 0.0

1986 GF = 1979 HE4 = 1993 HJ1
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 49.79891 (2000.0) P Q
n 0.27891494 Peri. 315.01647 -0.92420168 -0.33625856
a 2.3200011 Node 206.95037 +0.34821813 -0.93664558
e 0.1803255 Incl. 23.54633 -0.15682918 -0.09810830
P 3.53 H 13.5 G 0.15
Residuals in seconds of arc
790430 095 (9.2+ 8.9+) 860430 675 0.2- 0.4- 930425 675 0.5+ 0.9-
790501 095 (6.8+ 7.6-) 860503 675 1.7+ 1.4+ 930426 675 0.9+ 1.9+
860408 675 1.4+ 0.9+ 930420 675 0.2- 1.1- 930429 413 0.1- 0.1+
860408 675 0.7+ 0.2- 930420 675 1.7- 2.1- 930515 413 0.1+ 0.4-
860409 675 0.9- 0.7- 930422 675 0.2+ 1.0+ 930515 413 1.3- 0.6-
860409 675 2.4- 0.8+ 930422 675 0.1+ 1.3+ 930517 413 0.4+ 0.4+
860430 675 0.2- 1.5- 930425 675 1.0+ 0.1-

1987 QR11 = 1952 DP1 = 1973 FA1 = 1991 PR21
Id. G. V. Williams, E. Bowell
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 267.82431 (2000.0) P Q
n 0.23518502 Peri. 271.07687 -0.82783221 +0.54828338
a 2.5993391 Node 302.18322 -0.44260143 -0.76832774
e 0.1269508 Incl. 8.05925 -0.34467058 -0.33023904
P 4.19 H 12.0 G 0.15

Residuals in seconds of arc

520219	711	1.0-	2.1- Y	870902	095	(4.5+ 4.1+)	910810	675	0.8+ 1.4-
520219	711	(1.4+ | 7.0-)Y	870916	095	1.2+ 0.7-	910810	675	1.5+ 2.4-
730327	095	0.8+	1.6+	870917	095	1.3- 2.6+	921128	675	0.2+ 0.1+
870827	095	(5.1+ | 0.1+)	870923	095	2.0- 1.4+	921128	675	0.1+ 1.4-

1988 CP1 = 1992 YQ3

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi

M	89.87703		(2000.0)	P	Q
n	0.19894936	Peri.	287.47797	+0.45200818	-0.89126965
a	2.9060808	Node	135.59128	+0.83688897	+0.40958744
e	0.0786305	Incl.	2.98402	+0.30871583	+0.19461897
P	4.95	H	13.1	G 0.15	

Residuals in seconds of arc

880211	809	1.5-	0.3-	880217	809	0.1- 0.6-	921224	691	0.2+ 0.2+
880215	809	0.7+	2.2-	880221	809	1.2+ 0.1+	921224	691	0.1+ 0.2+
880216	809	0.3+	0.5+	880221	809	0.4+ 0.2+	921224	691	0.1- 0.2+
880216	809	0.6-	0.4-	880221	809	1.0- 0.4+	921225	691	0.0 0.1+
880216	809	0.7-	0.7+	880223	809	1.1+ 0.8+	921225	691	0.0 0.1-
880217	809	1.5+	0.5-	880223	809	0.3- 0.8+	921225	691	0.0 0.0
880217	809	0.3+	0.8-	880223	809	1.3- 0.8+			

1988 FF = 1979 HB6 = 1993 KB

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	5.35422		(2000.0)	P	Q
n	0.21392680	Peri.	168.56636	-0.31901010	+0.93461403
a	2.7688064	Node	82.68016	-0.88156842	-0.23170363
e	0.1668789	Incl.	9.12258	-0.34795068	-0.26983338
P	4.61	H	11.9	G 0.15	

Residuals in seconds of arc

790428	095	0.1-	0.2-	880317	399	0.7+ 0.0	880408	399	1.3+ 0.4+
880316	399	1.5-	0.8+	880407	399	2.1+ 0.1+	930516	894	0.3- 0.3+
880316	399	0.6-	1.2-	880407	399	1.2+ 0.2+	930516	894	0.4- 0.4-
880316	399	0.3+	0.8-	880407	399	0.4- 0.1+	930518	894	0.6+ 0.9-
880317	399	0.1-	1.2-	880408	399	2.6- 1.3+	930518	894	0.1+ 0.9+
880317	399	0.1-	0.8+	880408	399	0.3- 0.3-			

1988 QW = 1978 UA2 = 1983 CD5 = 1990 EF3 = 1993 AP

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi

M	121.04075		(2000.0)	P	Q
n	0.29104654	Peri.	86.58343	+0.84243707	-0.53731328
a	2.2550755	Node	305.91351	+0.47269292	+0.77261517
e	0.2091125	Incl.	2.82579	+0.25857530	+0.33817191
P	3.39	H	13.9	G 0.15	

Residuals in seconds of arc

781024	095	0.2+	0.2-	900228	809	0.1- 0.1-	900302	809	0.7+ 1.3-
830214	381	0.1+	0.9+	900228	809	0.1+ 0.1+	900304	809	0.6- 0.7+
880817	046	2.1-	1.5-	900228	809	0.3+ 0.2-	900304	809	0.4- 0.9+
880817	046	1.2-	1.0+	900301	809	0.8- 0.3-	900304	809	0.1- 1.1+
880818	046	0.2+	1.1-	900301	809	0.4- 0.3-	930113	399	0.9- 0.6-
880818	046	0.6+	1.6-	900301	809	0.0 0.5-	930113	399	2.1+ 1.5-
880823	046	1.9+	0.6+	900302	809	0.6+ 1.2-	930120	399	1.5- 0.1-
880824	046	1.2+	1.1+	900302	809	0.2+ 1.1-	930120	399	0.0 1.2+

1988 VH5 = 1993 FF1
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Oishi
M 72.29938 (2000.0) P Q
n 0.30328057 Peri. 84.01943 -0.81584565 -0.57808000
a 2.1940153 Node 60.66403 +0.52360374 -0.74934952
e 0.0904645 Incl. 0.97355 +0.24542821 -0.32295326
P 3.25 H 13.5 G 0.15
Residuals in seconds of arc

881103	327	0.8+	0.9+	881111	046	0.5-	0.8-	930325	400	2.6-	0.2+
881103	327	0.5+	1.2+	881111	046	0.3-	0.8+	930325	400	(3.4-	1.4-)
881104	046	(3.0-	4.0-)	930320	400	1.6+	0.4+	930415	399	0.0	0.2+
881104	046	0.5-	2.3-	930320	400	0.9+	0.2-	930415	399	0.1+	0.7-

1988 XB5 = 1981 VX1 = 1991 RG38 = 1993 FP1
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Ichikawa
M 52.16735 (2000.0) P Q
n 0.29296623 Peri. 101.01324 -0.96028806 -0.26879598
a 2.2452137 Node 63.42973 +0.21199882 -0.87723897
e 0.1037211 Incl. 4.79763 +0.18139281 -0.39774427
P 3.36 H 13.5 G 0.15
Residuals in seconds of arc

811103	033	0.7-	1.0+	881208	381	0.5-	0.4-	930325	399	0.4+	0.4+
811103	033	0.3-	1.1+	910915	675	0.4+	0.3-	930326	399	0.2+	0.2-
881205	381	0.3-	0.5+	910915	675	0.1+	1.0-	930326	399	0.0	0.9+
881206	381	0.8-	0.6-	930322	399	1.3-	0.3-	930329	399	0.0	0.8-
881207	381	1.9+	0.5-	930325	399	1.0+	0.0	930329	399	0.1-	0.3+

1989 AW5 = 1993 BY1
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi
M 56.53571 (2000.0) P Q
n 0.23395083 Peri. 354.15399 +0.00248584 -0.99853701
a 2.6084729 Node 95.69502 +0.91966453 -0.01892903
e 0.1055611 Incl. 3.11174 +0.39269705 +0.05065116
P 4.21 H 14.2 G 0.15
Residuals in seconds of arc

890104	413	0.6-	0.2+	890111	033	1.2+	0.2-	930117	010	2.0+	0.5-
890104	413	0.5+	1.1+	890114	033	0.7-	0.2+	930117	010	0.1+	0.1+
890110	413	2.2-	0.2+	930116	010	0.8+	0.2+	930117	010	0.6+	0.6+
890110	413	1.6+	1.2-	930116	010	1.2-	0.2-				
890111	033	0.3+	0.2-	930116	010	2.3-	0.3-				

1989 AL7 = 1972 TS7 = 1992 WN5
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi
M 114.89169 (2000.0) P Q
n 0.20061227 Peri. 198.98562 +0.98310363 +0.18174114
a 2.8899992 Node 150.51646 -0.16167640 +0.91807845
e 0.0918942 Incl. 2.54442 -0.08583696 +0.35228130
P 4.91 H 12.7 G 0.15
Residuals in seconds of arc

721006	095	0.0	0.0	921125	675	1.3+	0.9-	921201	372	0.9-	1.0+
890110	033	0.2-	1.1+	921125	675	0.9+	0.3-	921201	372	2.5-	1.5+
890111	033	0.3-	0.5+	921127	372	0.0	0.7-	921203	372	(13.5+	0.4+)
890112	033	0.4-	0.7+	921127	372	0.1+	0.7-	921203	372	(13.6+	0.1-)
890202	033	2.2+	2.1-	921128	675	0.6+	0.1-				
890204	033	1.3-	0.0	921128	675	0.5+	0.1-				

1989 BV1 = 1993 FO2
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano
M 54.28847 (2000.0) P Q
n 0.26302880 Peri. 181.69893 -0.93136209 -0.36385858
a 2.4124992 Node 336.95024 +0.33444331 -0.84073908
e 0.1376304 Incl. 1.91729 +0.14391780 -0.40095478
P 3.75 H 13.7 G 0.15
Residuals in seconds of arc

890129	046	0.3+	0.7-	890211	399	1.0-	1.2-	930329 399	0.9+	0.9-
890129	046	0.8+	1.2-	890211	399	0.2-	1.3+	930415 399	0.1-	0.6+
890131	046	0.3-	1.5+	890211	399	2.1+	0.5+	930415 399	1.1+	0.8+
890131	046	2.0+	0.8-	930326	399	1.2-	0.8-	930419 399	0.3-	0.3-
890202	046	1.9-	0.1+	930326	399	0.8-	0.0	930419 399	0.2+	0.1+
890202	046	1.7-	0.9+	930329	399	0.2+	0.3+			

1989 EH1 = 4861 T-1 = 1980 FW10 = 1991 RK33 = 1991 RZ40
Id. T. Kobayashi (k), S. Nakano, G. V. Williams (d, MPC 21832)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano
M 1.04345 (2000.0) P Q
n 0.21682746 Peri. 346.71539 -0.89559829 -0.44454361
a 2.7440574 Node 166.85145 +0.41463456 -0.84788294
e 0.0681934 Incl. 4.25372 +0.16118901 -0.28892127
P 4.55 H 13.2 G 0.15
Residuals in seconds of arc

710513	675	0.6-	0.4+	890311	881	1.5+	1.0+ Y	910910 033	0.1-	0.0
710514	675	0.1-	0.3-	890311	881	1.0-	0.0	910910 033	0.2+	0.3-
710516	675	0.4+	0.4-	890315	881	0.2-	0.9- Y	910910 675	1.7+	0.6-
800316	095	0.2-	1.9-	890315	881	(3.7-	0.3-)	910910 675	0.7-	1.3-
890310	881	0.0	1.0-	890329	881	1.6+	0.3+	910913 033	0.3-	0.1-
890310	881	1.8-	0.3+	890329	881	0.3-	0.3+			

1989 GD5 = 1982 UA10 = 1982 UP10 = 1986 TD1 = 1993 FD
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Ichikawa
M 287.37429 (2000.0) P Q
n 0.23668331 Peri. 272.03644 +0.57595195 +0.80451000
a 2.5883577 Node 34.46537 -0.61034914 +0.54124107
e 0.1257203 Incl. 14.85271 -0.54383203 +0.24458486
P 4.16 H 12.6 G 0.15
Residuals in seconds of arc

821022	095	1.0+	1.8-	890404	809	1.5+	0.8-	890410 809	0.2+	0.1+
821024	095	(5.9-	4.2+)	890405	809	1.3-	1.1-	930317 372	0.2-	0.4+
861004	688	1.0+	0.6-	890405	809	1.4-	0.7-	930317 372	1.6+	0.6+
861004	688	0.5-	0.2+	890405	809	1.1-	0.6+	930318 372	1.0+	0.3-
890404	809	0.8-	1.1-	890410	809	0.2-	0.4+	930329 372	1.6-	0.1-
890404	809	0.9+	0.9-	890410	809	0.3+	0.3+	930329 372	0.3-	0.2+

1989 HG = 1993 GV
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 48.90605 (2000.0) P Q
n 0.24009826 Peri. 345.53228 -0.99715829 -0.05497850
a 2.5637561 Node 191.68596 +0.06241908 -0.98574536
e 0.1214993 Incl. 14.73116 -0.04218069 -0.15900770
P 4.11 H 13.0 G 0.15
Residuals in seconds of arc

890430	675	0.3+	0.3-	890603	675	0.4+	0.3+	930415 675	0.6+	0.4+
890430	675	1.1+	0.2+	890605	675	0.1-	0.4+	930416 675	0.0	0.2+
890504	675	0.7-	0.4+	890605	675	0.0	0.7-	930419 675	0.3-	0.8-
890504	675	0.9-	0.2-	930415	675	0.3-	0.2+			

1989 KE
Id. H. E. Holt (1993 observations), R. H. McNaught (1990 observation)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	352.20354		(2000.0)		P		Q				
n	0.23379500	Peri.	93.85736		-0.40219734		+0.90825986				
a	2.6096318	Node	151.53944		-0.90631185		-0.37711364				
e	0.1346337	Incl.	14.00528		-0.12975410		-0.18124384				
P	4.22	H	13.5	G	0.15						

Residuals in seconds of arc

890529	675	1.0+	2.3+	890602	675	0.4+	0.7-	901112	413	0.0	0.5-
890529	675	(2.7-	0.9-)	890705	675	1.2-	0.7-	930416	675	0.0	0.2-
890601	675	0.3-	0.7+	890705	675	1.4-	0.2-	930416	675	1.2-	1.5+
890601	675	0.0	0.3+	890710	675	0.6+	0.6-	930417	675	0.9+	2.4-
890602	675	0.1+	0.3-	890710	675	1.0+	0.5-				

1989 RW = 1980 TY12 = 1987 BT3 = 1993 JB
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	347.97632		(2000.0)		P		Q				
n	0.20232540	Peri.	47.00362		-0.14721530		+0.98442282				
a	2.8736626	Node	214.87540		-0.94935448		-0.16790328				
e	0.1278590	Incl.	9.67768		-0.27758554		+0.05215556				
P	4.87	H	12.6	G	0.15						

Residuals in seconds of arc

801010	095	0.1+	1.0+	890905	511	0.6+	0.3-	930514	894	0.9-	1.8+
870130	010	2.2+	1.1+	890905	511	1.6+	0.8+	930514	894	1.0+	0.3+
870131	010	1.7-	2.7+	890906	511	(0.5-	3.7+)	930515	894	0.1-	0.2-
890901	511	0.3+	2.5+	890906	511	(4.4-	0.1-)	930515	894	0.0	1.0+
890901	511	0.8-	1.0+	890906	511	0.3-	0.4-	930516	894	0.3+	0.1-
890903	511	0.2+	0.0	890929	071	2.9-	0.0	930516	894	0.3+	0.0
890903	511	0.2+	0.8-	890929	071	0.4-	0.3+				

1990 OA
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	350.89176		(2000.0)		P		Q				
n	0.31068186	Peri.	152.96917		+0.21059066		+0.97181611				
a	2.1590305	Node	128.99461		-0.91974751		+0.23368870				
e	0.4220611	Incl.	7.83493		-0.33123419		-0.03103304				
P	3.17	H	17.0	G	0.15						

Residuals in seconds of arc

900719	675	0.1+	0.3+	900722	474	0.5-	0.5+	900914	675	0.1+	1.8-
900719	675	0.5+	0.8-	900723	675	(2.9-	1.8+)	900918	474	(2.7+	0.2-)
900720	675	0.5+	0.3-	900723	675	(1.8-	9.0-)	900918	474	(4.4+	0.2+)
900720	675	1.9+	0.1-	900729	871	(2.4+	4.7-)	900919	474	2.2+	0.9+
900721	675	0.2-	1.6+	900729	871	(3.0-	4.3-)	900919	474	2.2+	0.4+
900721	675	0.1+	0.4-	900816	801	0.2-	0.4+	900922	688	0.4-	0.0
900721	568	0.3+	0.7-	900816	801	0.1-	0.7+	900922	688	0.2-	0.2+
900721	568	0.0	2.0-	900816	675	(3.4-	0.9+)	900925	688	0.1-	0.0
900721	413	0.7-	1.0-	900816	675	(2.9-	0.8+)	900925	688	0.1+	0.1+
900721	413	0.2-	0.1+	900817	801	0.1-	0.6+	930303	413	0.1-	0.2+
900721	413	0.5-	0.2+	900817	801	0.1+	1.0+	930303	413	0.4-	0.1+
900722	675	1.2-	0.5+	900818	413	0.1+	1.1-	930303	413	0.0	0.2+
900722	675	(1.5-	2.4+)	900819	675	(3.0-	0.3-)	930511	413	0.4+	0.6+
900722	474	(4.2-	4.2+)	900819	675	2.4-	1.2+	930511	413	0.3+	0.8+
900722	474	0.4+	0.0	900826	413	0.8-	0.2+				

1990 QS1 = 1977 RB18 = 1986 TU10
Id. C. M. Olmstead (k, MPC 17963), G. V. Williams (ibid.)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
M 17.41535 (2000.0) P Q
n 0.22583434 Peri. 205.44244 -0.88521187 +0.46518184
a 2.6706034 Node 2.28381 -0.41581204 -0.78892255
e 0.0067880 Incl. 3.46385 -0.20856722 -0.40150601
P 4.36 H 13.4 G 0.15
Residuals in seconds of arc

770909	675	0.2+	0.8-	900914	809	1.4-	0.4+	900924	809	0.1+	1.2-
770910	675	0.5+	0.6-	900914	809	1.0-	0.6+	900924	809	0.0	1.3-
861003	095	0.3-	1.1+	900914	809	0.5-	0.4+	900924	809	0.0	1.4-
900820	809	0.9+	0.1+	900914	675	0.0	0.7-	900925	809	0.3+	0.2+
900820	809	0.6+	1.1+	900915	809	0.5-	0.2+	900925	809	0.6+	0.4+
900820	809	0.5-	0.3+	900915	809	0.0	0.1+	900925	809	1.1+	0.6+
900822	675	1.5-	1.0+	900915	809	0.5+	0.0	900926	809	0.1+	0.7-
900822	675	0.8-	0.2+	900916	809	0.5+	0.8+	900926	809	0.4+	0.6-
900826	809	0.1+	1.5+	900916	809	0.5+	0.8+	900926	809	0.6+	0.4-
900826	809	1.0-	1.1+	900916	809	0.6+	0.7+	930415	675	0.5+	1.1-
900826	809	0.2+	1.4+	900919	675	1.2+	1.6-	930415	675	0.7+	0.7-
900827	675	1.0-	0.1-	900919	675	0.1-	1.8-	930417	675	0.3+	0.3+
900827	675	(2.5-	1.5-)	900923	809	0.4-	0.6-	930417	675	2.0-	0.7+
900828	675	0.3-	0.1+	900923	809	0.1+	0.7-				
900828	675	0.4-	0.5-	900923	809	0.6+	0.6-				

1990 QB2 = 1990 SQ26 = 1979 SJ6
Id. S. Nakano (d, MPC 20912), H. E. Holt (1993 observations), G. V. Williams
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 299.23759 (2000.0) P Q
n 0.26772147 Peri. 150.61735 +0.79348921 +0.60856272
a 2.3842251 Node 171.89113 -0.56521995 +0.74004684
e 0.2156125 Incl. 2.08326 -0.22561311 +0.28632516
P 3.68 H 14.0 G 0.15
Residuals in seconds of arc

790923	095	0.1-	0.4+	900914	675	0.6+	0.6+	930414	675	2.4+	0.0
900822	675	0.3+	0.3+	900919	675	0.6-	0.7-	930414	675	1.0-	1.9-
900822	675	0.2-	0.1-	900919	675	0.4-	0.8-	930416	675	1.1-	0.9+
900828	675	0.2-	0.2-	900920	675	0.4+	0.3+	930416	675	0.3-	1.1+
900828	675	0.1-	0.1-	900920	675	0.0	0.0				
900914	675	0.3+	0.4+	900921	095	(2.2+	4.3+)				

1990 QB6 = 1990 SX27 = 1979 VE1 = 1993 HN5
Id. S. Nakano (d, MPC 20912; unpublished), H. E. Holt
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 305.63013 (2000.0) P Q
n 0.26448400 Peri. 318.64638 +0.73984445 +0.67276857
a 2.4036420 Node 359.05008 -0.54703388 +0.59847995
e 0.2317363 Incl. 12.38678 -0.39164286 +0.43497609
P 3.73 H 13.5 G 0.15
Residuals in seconds of arc

791114	095	0.0	0.1-	900921	809	0.8+	1.0-	901010	400	(1.4+	4.0-)
900824	675	0.5-	0.2-	900921	809	1.1+	1.1-	901010	400	(1.7+	3.3-)
900824	675	0.3-	0.4-	900921	809	1.5+	1.1-	901010	400	(4.0+	0.7-)
900918	675	0.9-	0.8+	900922	809	1.0-	0.5+	901011	400	(3.1-	1.4-)
900918	675	0.3-	0.7+	900922	809	0.4-	0.7+	901011	400	0.1-	0.9-
900920	675	(2.9-	4.1-)	900922	809	0.3+	0.8+	930418	675	0.5-	0.3-
900920	675	0.8-	1.0-	900923	095	0.7+	1.8+	930418	675	0.3+	0.0

1990 RN3 = 1993 HM

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5			Nakano
M 342.19101	(2000.0)	P	Q
n 0.26875997	Peri. 94.15078	+0.07639960	+0.99707720
a 2.3780792	Node 180.23192	-0.94849393	+0.07255746
e 0.2012344	Incl. 5.47805	-0.30744491	+0.02392619
P 3.67	H 13.4	G 0.15	

Residuals in seconds of arc

900829 095	0.1+	1.4+	900918 675	0.5+	1.0-	930416 400	0.6-	0.2+
900829 095	2.3-	1.2+	900918 675	0.5+	1.5-	930416 400	0.9+	0.5-
900914 675	0.5+	0.9-	901022 675	1.6-	0.5+	930420 400	1.4+	0.7-
900914 675	1.7+	0.4-	901022 675	0.4+	0.9+	930420 400	1.7-	1.0+

1990 SM9 = 1985 RS5 = 1988 GY1 = 1993 HG2

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5			Williams
M 171.49012	(2000.0)	P	Q
n 0.20013107	Peri. 293.51772	+0.74297048	-0.66727032
a 2.8946299	Node 108.38346	+0.63247166	+0.67429235
e 0.0746252	Incl. 3.16503	+0.21903074	+0.31635445
P 4.92	H 13.0	G 0.15	

Residuals in seconds of arc

850915 095	0.2+	0.4-	900922 809	0.3-	0.1-	930419 691	0.3-	0.1-
880409 054	0.1+	0.2+	900922 809	1.1-	1.1-	930419 691	0.5-	0.1+
900914 809	0.7+	0.7+	900925 809	0.4+	0.2+	930424 691	0.3+	0.2+
900914 809	0.1+	0.7+	900925 809	0.9+	0.3+	930424 691	0.0	0.5+
900914 809	0.4-	0.2+	900925 809	0.4-	0.7-	930424 691	0.5+	0.4+
900922 809	0.1-	0.2+	930419 691	0.0	1.2-			

1990 SV15 = 1954 TE = 1986 TG13 = 1986 VP9

Id. H. E. Holt (1993 observations), G. V. Williams

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5			Williams
M 158.36234	(2000.0)	P	Q
n 0.21756692	Peri. 190.67966	+0.56415835	-0.82463466
a 2.7378363	Node 224.99197	+0.76177203	+0.53912910
e 0.0492951	Incl. 3.34624	+0.31847876	+0.17122352
P 4.53	H 12.5	G 0.15	

Residuals in seconds of arc

541001 839	0.4-	1.0+	900826 095	1.1+	0.5-	900920 675	1.5-	0.0
861005 095	0.6+	0.6-	900826 095	2.2+	1.9+	900920 675	1.8-	0.2+
861107 046	0.8-	0.3+	900916 675	0.4-	0.1-	930418 675	0.4-	1.2-
861107 046	0.7+	1.1-	900916 675	0.3+	0.7-	930420 675	0.7-	0.2+
861109 046 (5.5-	0.5-)		900919 675	0.8+	0.7-	930420 675	0.6+	0.3-
861109 046 (3.7-	1.8-)		900919 675	0.4-	1.3-			

1990 TK8 = 1993 HN

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5			Nakano
M 14.35282	(2000.0)	P	Q
n 0.18743103	Peri. 171.88631	-0.81860298	+0.55986891
a 3.0239532	Node 42.99695	-0.53695634	-0.66675329
e 0.0684835	Incl. 10.83561	-0.20387997	-0.49192159
P 5.26	H 12.4	G 0.15	

Residuals in seconds of arc

901013 033	1.4+	0.8-	930416 400	1.8-	0.2+	930516 400	1.9+	0.0
901013 033	0.2-	0.7-	930416 400	0.3+	0.8-	930516 400	1.8-	0.7-
901014 033	0.3-	0.1+	930420 400	0.1-	0.6+			
901018 033	0.7-	1.0+	930420 400	1.3+	0.4+			

1990 VQ1 = 1971 BJ3 = 1972 LE1 = 1993 HA1
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	328.97215	(2000.0)	P		Q
n	0.22983259	Peri.	56.36383	+0.14976176	+0.97829629
a	2.6395403	Node	222.98382	-0.96239459	+0.11103529
e	0.1367058	Incl.	12.12486	-0.22664524	+0.17495011
P	4.29	H	12.1	G 0.15	

Residuals in seconds of arc

710128	805	0.3+	0.9+	901110	877	0.3-	1.5-	901123	877	0.0	1.4+
720613	095	0.1-	0.5+	901110	877	1.0+	0.9-	901123	877	0.0	1.4-
901024	046	0.2+	0.9-	901112	877	0.7-	0.2-	930416	400	0.6+	0.6-
901024	046	1.4+	0.6+	901112	877	2.8+	2.1+	930416	400	0.5-	0.4+
901024	046	2.6-	0.9-	901122	877	1.4-	0.2-	930420	400	0.8-	1.1-
901024	046	0.1-	0.2+	901122	877	0.4+	1.4-	930420	400	0.2+	2.1-

1990 VD6 = 1988 GR2 = 1989 RG2
Id. H. Kaneda (MPC 18434)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	328.13566	(2000.0)	P		Q
n	0.21204176	Peri.	126.58195	+0.37077152	+0.92779883
a	2.7851919	Node	165.01571	-0.89506637	+0.36888382
e	0.1368470	Incl.	9.22435	-0.24775930	+0.05580369
P	4.65	H	12.9	G 0.15	

Residuals in seconds of arc

880415	054	0.3-	1.5-	901115	809	0.9+	1.3-	901123	809	1.2+	1.0-
880415	054	0.7-	1.3-	901115	809	1.0+	0.4-	901123	809	2.0-	0.7-
890902	511	0.0	1.3-	901115	809	1.9-	1.7-	930514	399	0.8-	2.0-
890902	511	0.0	0.1+	901117	809	0.9+	0.8-	930514	399	1.3-	2.5-
890905	511	0.3+	0.7-	901117	809	0.6+	1.9-	930516	399	0.8+	1.1-
890905	511	0.2+	1.7-	901117	809	0.2+	1.6-	930516	399	0.1+	0.4-
890905	511	0.4+	0.2+	901123	809	0.1+	0.3+				

1990 WN5 = 1990 UJ7 = 1972 FF = 1993 HO
Id. S. Nakano (d, MPC 20913; unpublished)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	7.97056	(2000.0)	P		Q
n	0.18843086	Peri.	162.48987	-0.75561076	+0.63406640
a	3.0132468	Node	58.00641	-0.62177713	-0.61539646
e	0.0444046	Incl.	11.17399	-0.20602324	-0.46823819
P	5.23	H	11.6	G 0.15	

Residuals in seconds of arc

720316	095	2.1-	3.5-	901117	372	(2.2-	6.7+)	930416	400	2.0+	2.1+
720321	095	(0.3+	8.6-)	901117	372	(3.4-	6.8+)	930420	400	1.6-	1.3+
901016	809	1.1+	0.3+	901123	372	3.2-	0.7+	930420	400	0.2-	1.4+
901016	809	1.3+	0.2+	901123	372	1.7-	0.7+	930514	400	0.6+	0.9-
901016	809	0.9+	0.7+	930416	400	0.2+	2.2+	930514	400	2.7+	0.5-

1991 NE1
Id. H. E. Holt (1992 observations)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell

M	71.06340	(2000.0)	P		Q
n	0.17438830	Peri.	74.28562	+0.93370293	-0.33703123
a	3.1729104	Node	305.26229	+0.24468656	+0.84707215
e	0.0593205	Incl.	8.51261	+0.26139496	+0.41094856
P	5.65	H	12.2	G 0.15	

Residuals in seconds of arc

531207	675	0.8+	1.0+	550418	675	0.6+	0.3+	910714	675	0.4-	0.5+
531207	675	0.5-	0.7+	910712	675	0.5-	0.0	910714	675	0.4+	0.1-
550418	675	1.5-	1.8-	910712	675	0.1-	1.2-	910717	675	0.8+	0.3+

910717 675 0.2+ 0.6- 910808 675 0.5+ 0.9+ 910914 675 0.1- 0.8+
910803 894 0.8- 0.4+ 910808 675 0.6+ 0.6+ 921128 675 0.5+ 0.9-
910803 894 0.5- 0.2- 910913 675 0.1- 1.1- 921128 675 0.3+ 1.4-
910805 675 0.9+ 0.1+ 910913 675 0.6- 0.7+
910805 675 0.2+ 0.6- 910914 675 0.4- 0.9-

1991 PZ11
Id. H. E. Holt (1992 observations)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
M 257.96277 (2000.0) P Q
n 0.22862967 Peri. 284.61286 -0.62866038 +0.76016672
a 2.6487908 Node 305.23804 -0.61350827 -0.61446083
e 0.1296634 Incl. 11.59133 -0.47790556 -0.21115029
P 4.31 H 12.8 G 0.15
Residuals in seconds of arc
910807 675 0.4+ 0.2+ 910808 675 1.0+ 0.4- 921126 675 0.2- 0.4+
910807 675 0.0 0.2- 910912 675 0.8+ 0.3+ 921126 675 0.6+ 0.4+
910808 675 1.4- 0.4+ 910912 675 0.8- 0.2- 921128 675 0.4- 0.8-

1991 PS12 = 1974 UF = 1987 SU2 = 1987 SJ29 = 1990 KM3
Id. H. E. Holt (1992 observations), G. V. Williams, S. Nakano (d)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 20.49909 (2000.0) P Q
n 0.22463123 Peri. 323.03119 -0.45547768 -0.88383521
a 2.6801306 Node 153.56382 +0.86332730 -0.46776216
e 0.0791325 Incl. 13.86100 +0.21726956 +0.00582053
P 4.39 H 12.0 G 0.15
Residuals in seconds of arc
741024 095 0.2- 1.5- 910805 675 1.1+ 0.0 910912 675 0.5+ 0.5+
870919 071 0.2- 2.5+ 910807 809 0.8- 0.9- 910912 675 0.0 0.0
870920 071 (0.5- 3.0-) 910807 809 1.2- 1.3- 921126 675 0.5+ 0.4+
870924 095 1.0+ 2.5+ 910807 809 1.6- 2.0- 921126 675 0.7- 0.4-
900524 095 0.2+ 1.1- 910808 675 0.7+ 0.5+ 921128 675 0.1- 0.8-
900524 095 0.2- 0.6+ 910808 675 0.8+ 0.6- 921128 675 0.3+ 1.6-

1991 PT12
Id. H. E. Holt (1992 observations)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
M 131.27949 (2000.0) P Q
n 0.21181225 Peri. 295.87102 +0.99455805 +0.10335887
a 2.7872034 Node 58.19889 -0.08922719 +0.90987486
e 0.0861464 Incl. 0.88223 -0.05378477 +0.40180179
P 4.65 H 13.0 G 0.15
Residuals in seconds of arc
910805 675 1.3+ 0.8+ 910808 675 0.3- 0.7+ 921128 675 1.1- 0.5-
910807 809 0.3+ 1.0- 910808 675 0.1+ 1.1+ 921128 675 0.3+ 1.0-
910807 809 0.4- 1.2- 910912 675 0.2+ 1.6+ 921201 675 0.8+ 1.2+
910807 809 0.4- 2.0- 910912 675 0.7- 0.0

1991 PS16
Id. H. E. Holt (1992 observations)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell
M 303.69858 (2000.0) P Q
n 0.28773334 Peri. 92.29960 -0.62304879 +0.77900615
a 2.2723537 Node 138.88394 -0.75345714 -0.57355336
e 0.1270692 Incl. 6.14792 -0.21002987 -0.25334949
P 3.43 H 13.2 G 0.15

Residuals in seconds of arc

910807	675	0.1-	0.3-		910917	675	0.2-	0.1-		921201	675	0.6-	0.2+
910808	675	0.2+	0.2+		910917	675	0.5+	0.1+		921201	675	(3.5+	0.5+)
910915	675	0.1-	0.1-		921128	675	0.4+	0.8-					
910915	675	0.2-	0.1+		921128	675	0.3+	0.6+					

1991 QG = 1986 VT8

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M 122.28535		(2000.0)	P	Q
n 0.18900643	Peri.	162.20740	+0.99835940	-0.03643040
a 3.0071263	Node	200.03649	+0.02244928	+0.95876098
e 0.4014264	Incl.	7.40778	+0.05267387	+0.28186915
P 5.21	H	14.5	G 0.15	

Residuals in seconds of arc

861104	675	0.1+	0.8-		910907	894	0.1+	0.5-		911008	801	0.3+	0.0
861104	675	0.1+	0.6-		910909	894	1.6-	0.7+		911008	801	0.3+	0.3+
910806	675	0.2-	0.7-		910909	894	0.1-	0.6+		911105	801	0.2+	0.8+
910806	675	0.4+	2.2-		910912	675	1.3+	2.1+		911106	801	0.7-	0.5+
910831	894	0.1+	0.3+		910912	675	0.2+	1.8+		911106	801	0.7-	0.3+
910831	894	0.3+	0.2+		910914	675	1.2+	1.8-		930301	413	0.3-	0.4-
910902	046	1.8-	1.7-		910914	675	0.7+	1.9-		930301	413	0.5-	0.7-
910902	046	(3.6-	4.8-)		911002	894	1.2+	1.8+		930302	413	0.0	0.3-
910903	046	(2.6-	0.9-)		911002	894	1.7+	0.1+		930302	413	0.5+	0.2-
910903	046	1.7-	1.1-		911005	801	0.0	0.2+					
910907	894	1.0-	0.3+		911005	801	0.0	0.3+					

1991 RE11 = 1989 BD1

Id. K. Ichikawa (MPC 20152)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Bowell

M 158.29389		(2000.0)	P	Q
n 0.28769293	Peri.	123.52547	+0.52397982	-0.84854544
a 2.2725664	Node	294.70736	+0.75212501	+0.50151883
e 0.1723111	Incl.	4.64650	+0.39969128	+0.16866976
P 3.43	H	14.2	G 0.15	

Residuals in seconds of arc

530815	675	0.0	0.2-		890127	046	0.5+	0.1+		910915	675	0.2+	0.1+
530815	675	0.1-	0.5+		890128	046	1.3-	0.1+		910915	675	0.7+	0.1+
890126	046	0.6-	0.2-		890128	046	0.9+	0.3+		910917	675	0.9-	1.3+
890126	046	0.1-	0.2+		910913	675	0.2+	0.9-		910917	675	1.0-	0.6-
890127	046	0.6+	0.3-		910913	675	0.8+	0.0					

1991 RY16 = 1982 XP1 = 1990 LF

Id. K. Ichikawa (MPC 20339), G. V. Williams

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M 268.01193		(2000.0)	P	Q
n 0.20508384	Peri.	163.51158	-0.68739351	+0.71752267
a 2.8478367	Node	62.90434	-0.67980498	-0.58112739
e 0.0701260	Incl.	7.25844	-0.25564690	-0.38399502
P 4.81	H	12.5	G 0.15	

Residuals in seconds of arc

550322	675	0.7+	0.0		821214	381	0.1+	0.5+		910917	675	0.4-	1.1-
550322	675	1.0-	1.0-		900614	413	0.2+	0.4+		910917	675	0.1-	0.3-
821213	381	0.7-	0.9+		910912	675	0.4+	1.2+		921125	675	0.0	1.6-
821213	381	0.3+	2.0+		910915	675	1.2+	1.0-		921125	675	0.2-	0.7-
821214	381	1.0-	0.7+		910915	675	0.3-	0.8-		921127	675	0.3+	0.2-

1991 RX23 = 1981 UL28

Id. E. Bowell (MPC 20641)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	86.32278	(2000.0)	P	Q	
n	0.18811335	Peri.	35.88608	+0.84951318	-0.52743363
a	3.0166364	Node	355.89196	+0.43708046	+0.71623876
e	0.0357087	Incl.	9.54544	+0.29544548	+0.45696368
P	5.24	H	13.0	G 0.15	

Residuals in seconds of arc

811024	675	0.4+ 0.1-	910908	691	0.8- 0.2+	910916	675	1.2- 0.7+
811025	675	0.6+ 0.4+	910911	675	1.6+ 0.1-	910916	675	(1.1+ 3.0-)
811026	675	1.0- 0.2-	910911	675	0.5+ 0.1-	921127	675	0.7- 0.4-
910908	691	1.2- 0.4+	910912	675	0.9+ 0.7-	921127	675	0.6+ 0.1+
910908	691	1.0- 0.2+	910912	675	1.3+ 0.6-	930226	691	0.0 0.3+

1991 SX1 = 1983 CQ1 = 1983 CB2 = 1993 BR5

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	66.16720	(2000.0)	P	Q	
n	0.29626746	Peri.	155.69048	-0.54347836	-0.83923964
a	2.2285040	Node	327.22226	+0.76474908	-0.48640102
e	0.0301632	Incl.	1.85801	+0.34610709	-0.24308615
P	3.33	H	14.0	G 0.15	

Residuals in seconds of arc

830204	046	0.1- 0.2-	910916	675	1.0+ 0.0	930219	511	(2.8+ 0.8-)
830204	046	(4.3+ 1.4-)	930127	010	1.2+ 0.0	930219	511	1.7- 2.0-
830215	046	1.2- 2.6-	930127	010	0.9+ 1.3+	930220	010	1.0- 0.6-
830215	046	0.6+ 0.6+	930127	010	1.5+ 0.7+	930220	010	1.2- 0.9-
910907	691	1.6- 0.9-	930128	010	2.1+ 1.4+	930220	010	1.3- 1.0-
910907	691	(2.0+ 2.8-)	930128	010	2.4+ 0.7+	930222	010	1.4- 0.8-
910910	675	0.0 0.6-	930128	010	1.9+ 1.8+	930223	010	1.2- 0.7-
910910	675	0.4+ 0.3-	930218	511	0.4- 0.1+			
910916	675	1.3+ 0.8-	930219	511	1.8- 0.6-			

1991 TA1

Id. C. S. Shoemaker (1993 observations)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	243.28098	(2000.0)	P	Q	
n	0.37363741	Peri.	173.89378	+0.94244723	-0.28057950
a	1.9091314	Node	204.87136	+0.28555401	+0.95836183
e	0.0873349	Incl.	25.61804	+0.17393136	-0.05308240
P	2.64	H	13.0	G 0.15	

Residuals in seconds of arc

911005	675	0.0 0.9-	911102	675	0.6+ 0.8+	911110	675	0.2+ 0.1+
911005	675	1.2+ 1.3-	911102	675	0.1+ 0.1-	911207	675	0.8+ 0.6+
911007	675	0.3- 0.2+	911104	675	0.0 0.2-	911207	675	0.9- 0.9+
911007	675	0.7- 0.9-	911104	675	0.3+ 0.4+	930414	675	0.1- 1.1+
911008	675	0.7- 0.6+	911106	675	0.9+ 0.5-	930414	675	0.2- 0.6+
911013	675	0.6- 0.5-	911106	675	0.8- 1.9-	930416	675	0.3- 0.2+
911013	675	1.0- 0.7+	911108	675	0.5+ 0.2+	930416	675	0.5+ 1.2-
911014	675	1.1+ 2.0+	911108	675	0.3- 1.3-			
911014	675	0.2- 1.6+	911109	675	0.2- 0.2+			

1991 TO13 = 1987 QG7

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Ichikawa

M	264.86741	(2000.0)	P	Q	
n	0.28510349	Peri.	105.67046	+0.83102934	+0.55066701
a	2.2863060	Node	221.00400	-0.54507634	+0.77811994
e	0.1284750	Incl.	6.86812	-0.11082429	+0.30215097
P	3.46	H	13.9	G 0.15	

Residuals in seconds of arc

870830	026	0.1+	0.7+		911006	033	0.3-	0.1-		911010	033	0.2-	0.7-
870903	026	0.1-	0.7-		911008	033	0.7+	0.7+					
911006	033	0.0	0.1+		911009	033	0.2-	0.0					

1991 UB3 = 1993 HM3

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Williams	
M 184.23845		(2000.0)	P	Q	
n 0.28357664	Peri.	334.49181	+0.82040183	-0.56689001	
a 2.2945054	Node	60.24406	+0.53823744	+0.72157132	
e 0.1963513	Incl.	4.93457	+0.19298005	+0.39745509	
P 3.48	H	14.5	G 0.15		

Residuals in seconds of arc

911018	399	1.2+	0.7+		911105	691	0.6-	0.6+		911112	894	2.7+	0.5-
911018	399	0.2-	0.3-		911105	691	0.1+	0.7+		930420	691	0.4+	0.2-
911019	399	0.2+	0.2-		911109	399	0.1-	0.4+		930420	691	0.3+	0.0
911019	399	0.8-	0.3-		911109	399	0.5+	0.6-		930420	691	0.2+	0.1+
911031	399	0.7+	0.4-		911110	894	0.6-	1.5+		930424	691	0.0	0.1-
911031	399	0.5+	0.3-		911110	894	1.5-	0.1-		930424	691	0.2-	0.2+
911104	399	0.8-	0.0		911111	894	0.1+	1.3-		930424	691	0.6-	0.1+
911104	399	1.4-	0.1-		911111	894	0.3-	0.5-					
911105	691	0.8-	0.6+		911112	894	1.2+	0.1+					

1992 BH

Id. T. Urata (1993 observations)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Nakano	
M 68.06655		(2000.0)	P	Q	
n 0.17886088	Peri.	21.20151	-0.93811265	-0.28334179	
a 3.1197932	Node	140.54695	+0.25516803	-0.95427660	
e 0.1557752	Incl.	18.26470	+0.23416647	-0.09525549	
P 5.51	H	12.1	G 0.15		

Residuals in seconds of arc

911212	033	0.1-	0.1+		920202	385	0.9+	0.7+		930326	801	0.1-	0.1-
911212	033	0.2+	0.3+		920206	809	1.1-	1.5-		930414	385	0.3-	0.0
911213	033	0.6+	0.3-		920206	809	1.3-	1.3-		930414	385	0.3-	0.2+
920124	385	0.8-	0.5-		920206	809	2.2-	1.6-		930414	385	0.3-	0.0
920124	385	(2.8+	1.1-)		920209	385	0.2-	2.1+		930418	385	0.1-	0.0
920125	385	0.8-	0.9-		920209	385	0.4-	0.9+		930418	385	0.1-	0.1-
920125	385	0.6-	0.2+		920212	809	1.2-	2.0-		930418	385	0.1-	0.4-
920130	809	2.5+	0.5-		920212	809	2.1-	1.9-		930419	801	0.4-	0.5+
920130	809	1.5+	0.1-		920212	809	(2.8-	1.9-)		930419	801	0.0	0.4+
920130	809	0.5+	0.7+		920221	385	0.3+	1.5+		930424	801	0.3+	0.4+
920202	809	1.1+	0.6+		920221	385	1.2+	0.7+		930424	801	0.1+	0.2+
920202	809	1.0+	0.4+		920222	885	0.1-	0.3-		930513	385	0.8+	0.3-
920202	809	0.6+	0.8+		920222	885	1.0+	0.1+		930513	385	0.4+	0.3-
920202	385	0.4-	1.9+		930326	801	0.2-	0.1+		930513	385	0.3+	0.6-

1992 BN = 1979 RB = 1993 HU

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Nakano	
M 229.39525		(2000.0)	P	Q	
n 0.18973140	Peri.	242.08844	+0.98305854	-0.07402974	
a 2.9994611	Node	121.70835	+0.12167517	+0.94774029	
e 0.1117080	Incl.	11.36722	-0.13708049	+0.31033519	
P 5.19	H	11.4	G 0.15		

Residuals in seconds of arc

790901	095	0.5-	1.5+		920128	399	0.9-	1.0+		920205	399	0.4-	0.9+
920114	372	0.5-	0.5+		920129	399	0.5+	0.6+		920208	399	1.2-	0.7+
920114	372	(3.6-	1.5+)		920129	399	0.0	0.0		920208	399	0.5-	1.0-
920128	399	0.3-	0.1+		920205	399	1.1+	0.5-		920209	691	0.3-	0.3-

920209 691 0.2- 0.4- 920221 399 (4.8+ 0.4-) 930416 399 1.4+ 0.4+
920209 691 0.2- 0.4- 920221 399 1.0+ 1.2- 930416 399 0.7- 0.7+
920213 877 0.6- 0.2- 920222 399 2.3+ 0.7+ 930419 399 0.6+ 1.0-
920213 877 (2.7+ 4.2-) 920222 399 0.6+ 1.0+ 930419 399 1.1- 0.8+

1992 CO = 1940 GP = 1982 JK
Id. S. Otomo (1993 observations), S. Nakano
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M 351.02598		(2000.0)	P	Q
n 0.18770780	Peri.	154.56689	-0.05533437	+0.98254479
a 3.0209799	Node	111.83834	-0.94565461	+0.00551333
e 0.0504515	Incl.	11.03080	-0.32043012	-0.18594445
P 5.25	H	11.9	G 0.15	

Residuals in seconds of arc
400410 062 0.4+ 1.0+ 920214 894 1.8+ 1.6+ 920307 894 0.4- 0.1-
820513 033 0.1+ 0.3- 920301 894 1.1+ 2.0- 930515 894 1.7- 0.2-
820513 033 0.1- 0.3+ 920301 894 1.5- 1.2+ 930518 894 0.5+ 0.8-
920212 894 0.3- 0.3- 920303 894 2.7- 0.0 930518 894 1.0+ 0.4+
920212 894 0.4+ 0.1+ 920303 894 0.5+ 0.8-
920214 894 0.9+ 0.2- 920307 894 0.2+ 0.5-

1992 QA
Id. R. H. McNaught (1977 observations)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M 224.93023		(2000.0)	P	Q
n 0.38551068	Peri.	148.91485	-0.87800409	+0.31814266
a 1.8697280	Node	54.00867	-0.47680577	-0.64690276
e 0.1118616	Incl.	26.23140	+0.04201271	-0.69303829
P 2.56	H	15.0	G 0.15	

Residuals in seconds of arc
770915 413 0.1- 0.1+ 920821 413 0.4+ 2.0- 920906 413 0.8+ 0.5+
770915 413 0.8+ 1.2- 920822 413 0.2- 1.1+ 920906 413 0.3+ 0.8+
770918 413 0.4+ 0.8+ 920822 413 0.2+ 2.2- 921006 413 0.1- 0.8-
770918 413 0.9- 0.1+ 920822 413 0.4- 0.4- 921006 413 0.2+ 0.6-
920819 413 0.0 0.2+ 920822 413 0.5- 0.1- 921006 413 0.1+ 0.8-
920819 413 0.7- 0.9- 920906 413 0.4+ 1.3+ 921211 413 0.3- 0.4+
920821 413 0.3- 1.8+ 920906 413 0.5+ 1.6+ 921211 413 0.4- 0.3+

1992 QB
Id. R. H. McNaught (1974 observations)
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M 98.89220		(2000.0)	P	Q
n 0.26996765	Peri.	243.53429	+0.42498300	+0.83975082
a 2.3709818	Node	55.78173	-0.61411750	+0.54175323
e 0.2242655	Incl.	24.12261	-0.66501815	+0.03635943
P 3.65	H	14.0	G 0.15	

Residuals in seconds of arc
740822 413 0.7+ 0.3- 920822 413 0.6- 0.2+ 920906 413 0.8+ 0.4+
740826 413 0.3- 0.7+ 920822 413 0.6- 0.1+ 920906 413 0.8+ 0.8+
740826 413 0.1+ 0.7- 920823 413 0.8- 0.1+ 921006 413 0.0 1.0-
920819 413 0.3+ 0.4+ 920825 413 0.7- 1.0- 921006 413 0.1+ 0.9-
920819 413 0.1+ 1.0- 920905 413 1.1+ 0.8+ 930104 413 0.6- 0.2+
920822 413 0.6- 0.1+ 920905 413 0.9+ 0.8+ 930104 413 0.6- 0.7+

1992 QC
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 91.70428 (2000.0) P Q
n 0.26974337 Peri. 305.09798 +0.87312552 +0.44876952
a 2.3722959 Node 29.63462 -0.21597456 +0.70626523
e 0.3362853 Incl. 22.64937 -0.43704327 +0.54753570
P 3.65 H 14.5 G 0.15
From 16 observations 1992 Aug. 21-Dec. 11, mean residual 0".73.

1992 SF13 = 1974 HQ1 = 1982 FY3
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Ichikawa
M 354.50817 (2000.0) P Q
n 0.24059039 Peri. 259.96830 -0.08558815 -0.99619627
a 2.5602588 Node 194.97092 +0.93712947 -0.07491583
e 0.0767653 Incl. 3.63102 +0.33832384 -0.04450398
P 4.10 H 13.2 G 0.15
Residuals in seconds of arc

740424	805	1.4-	0.8-	820401	809	0.1-	0.1+	920930 400	2.5+	1.8+
740425	805	1.4+	0.9+	820401	809	0.5+	0.3-	920930 400	1.4+	1.1+
820329	809	(1.1-	9.2-)	920921	400	0.2+	0.1-	921001 400	2.1-	0.2-
820329	809	(0.9-	9.5-)	920921	400	0.4+	0.2+	921001 400	1.7+	0.9-
820329	809	(1.2-	9.7-)	920923	400	0.7-	1.2+	921002 400	0.9-	0.2-
820401	809	0.4-	0.4+	920923	400	0.2-	1.1-	921002 400	2.3-	1.4-

1992 VQ = 1976 YH7 = 1981 UF16
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano
M 46.86711 (2000.0) P Q
n 0.18113003 Peri. 285.65115 +0.64708709 -0.76204335
a 3.0936825 Node 124.00170 +0.71005527 +0.59096521
e 0.1862601 Incl. 1.64771 +0.27766852 +0.26466970
P 5.44 H 12.6 G 0.15
Residuals in seconds of arc

761220	095	0.0	0.1+	921028	400	0.7-	0.0	921117 400	1.6+	0.7-
811024	095	0.0	0.0	921102	399	1.3-	0.1+	921117 400	0.2-	0.1-
921028	400	0.3+	0.5+	921102	399	0.2+	0.2+			

1992 VR = 1988 RC3 = 1988 VY6
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano
M 75.36842 (2000.0) P Q
n 0.25452950 Peri. 217.79942 +0.79343514 -0.60865479
a 2.4659105 Node 179.69273 +0.56559773 +0.73720720
e 0.1609909 Incl. 1.74665 +0.22485526 +0.29336818
P 3.87 H 14.5 G 0.15
Residuals in seconds of arc

880908	033	0.0	0.1-	881103	033	0.1+	0.2+	921102 399	1.0+	0.1+
880908	033	0.4+	0.0	881103	033	0.1+	0.9-	921102 399	0.5+	2.3+
880909	033	0.7-	0.2-	881104	033	0.1+	0.2-	921117 400	0.8-	0.4-
880910	033	0.6+	0.5+	921028	400	0.1-	0.1+	921117 400	0.4+	1.6-
880911	033	0.3-	0.2-	921028	400	1.2-	0.3+			

1992 WH = 1981 UP29
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano
M 158.59734 (2000.0) P Q
n 0.27296490 Peri. 76.01521 +0.64523372 +0.76041569
a 2.3535938 Node 234.41240 -0.73128726 +0.58678736
e 0.1276187 Incl. 5.20433 -0.22111624 +0.27829583
P 3.61 H 13.6 G 0.15

Residuals in seconds of arc

811024	675	0.4-	0.8+		921028	400	0.3+	0.8-		921118	399	0.9-	0.2+
811025	675	0.5+	0.2-		921116	399	0.5+	1.3+		921127	691	0.4+	0.3-
811026	675	0.2-	0.6-		921116	399	0.0	0.1-		921127	691	0.1+	0.0
921028	400	0.2-	0.3+		921118	399	0.5-	0.6-		921127	691	0.3+	0.1-

1992 WU1 = 1946 SN = 1971 SD4 = 1971 TK3

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams

M	72.72846		(2000.0)	P	Q
n	0.23692894	Peri.	164.39846	+0.80937349	-0.58295600
a	2.5865684	Node	231.48138	+0.52862069	+0.77599117
e	0.3467671	Incl.	5.22505	+0.25588029	+0.24083190
P	4.16	H	14.5	G 0.15	

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

460930	012	0.6+	1.5-		921118	402	2.5+	0.5-		921125	675	0.9-	0.3-
461001	012	(0.03-	0.02+)		921118	402	0.2+	0.9+		921125	675	0.8-	0.3+
710927	095	1.1+	4.7+		921121	402	1.0+	0.4-		921128	675	1.2-	0.4+
711011	095	1.8-	3.6-		921121	402	0.4+	0.5+		921128	675	1.1-	0.3-

1992 WC2 = 1964 TG1 = 1975 TZ1 = 1988 CL7

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi

M	55.42842		(2000.0)	P	Q
n	0.17737153	Peri.	326.39421	+0.74063832	-0.67187375
a	3.1372329	Node	75.81899	+0.61789653	+0.67735339
e	0.1765470	Incl.	0.37626	+0.26392944	+0.29962985
P	5.56	H	13.2	G 0.15	

Residuals in seconds of arc

641008	330	0.6+	1.6-		880221	809	1.2+	1.1-		921118	399	0.3-	2.1+
751003	095	0.9+	2.1-		880221	809	0.3+	1.0-		921121	399	1.4-	1.5+
880215	809	0.1-	0.7+		880221	809	0.6-	0.0		921121	399	2.8-	2.7+
880216	809	0.6+	0.2+		880223	809	0.9+	0.2-		921125	675	1.6+	0.9-
880216	809	0.4-	0.7-		880223	809	0.1+	0.2-		921125	675	1.1+	1.1-
880216	809	1.2-	0.5+		880223	809	0.6-	0.4+		921127	399	2.3-	0.0
880217	809	0.2-	0.9-		921116	400	0.9+	0.2-		921127	399	2.1-	1.4+
880217	809	0.3-	0.4-		921116	400	0.7+	0.3-		921128	675	1.9+	0.1-
880217	809	0.4-	0.8-		921118	399	0.4+	0.2-		921128	675	1.1+	1.0-

1993 BM = 1979 BC1 = 1982 VU1

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi

M	22.06092		(2000.0)	P	Q
n	0.21453759	Peri.	188.28510	-0.90325891	-0.42123241
a	2.7635487	Node	326.42191	+0.40167692	-0.76301699
e	0.0878941	Incl.	8.50233	+0.15092714	-0.49027372
P	4.59	H	12.8	G 0.15	

Residuals in seconds of arc

790124	095	0.0	0.2-		930128	385	(4.4+	3.7+)		930220	010	0.6+	0.0
821114	033	0.0	0.1+		930128	385	(4.1+	0.8+)		930224	411	0.7-	0.0
930120	385	0.0	0.7-		930214	385	0.5+	0.1-		930224	411	0.4-	0.2+
930120	385	1.0-	0.9+		930214	385	0.3+	0.3-		930224	411	0.3+	0.9-
930121	385	0.1-	0.2+		930220	010	0.6+	0.2+					
930121	385	(3.4+	1.1+)		930220	010	0.2+	0.5+					

1993 BX3
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 124.19753 (2000.0) P Q
n 0.59802619 Peri. 289.76525 -0.26673703 -0.96376245
a 1.3952625 Node 175.69998 +0.90145424 -0.25082748
e 0.2809260 Incl. 2.78849 +0.34092758 -0.09081586
P 1.65 H 20.5 G 0.15
From 35 observations 1993 Jan. 19-Mar. 23, mean residual 0".78.

1993 DT = 1971 TV2 = 1987 SC20 = 1989 EK5
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano
M 121.32046 (2000.0) P Q
n 0.24240314 Peri. 104.51758 +0.58544793 -0.80265517
a 2.5474787 Node 309.06995 +0.67574788 +0.56082428
e 0.1653700 Incl. 8.44341 +0.44790124 +0.20302909
P 4.07 H 13.4 G 0.15
Residuals in seconds of arc

711014 095	0.6+	1.9-	890304 413	1.2+	0.4+	930225 399	1.6+	1.4-
711020 095	0.3-	0.5-	930215 399	1.9-	1.0-	930225 399	1.3+	0.4+
870917 095	3.1-	6.0+	930215 399	0.8-	0.2+	930312 399	1.9+	2.1+
890302 413	0.8+	0.7+	930221 399	1.5-	0.6+	930312 399	0.7+	2.4+
890302 413	1.3+	0.9+	930221 399	1.5-	0.4-			

1993 FP = 1947 LJ = 1970 GJ = 1981 DC4 = 1991 XY5
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 358.35179 (2000.0) P Q
n 0.25540592 Peri. 43.87807 -0.62165662 +0.78325998
a 2.4602661 Node 187.69359 -0.73201405 -0.58404895
e 0.1349882 Incl. 2.93047 -0.27874445 -0.21305076
P 3.86 H 13.0 G 0.15
Residuals in seconds of arc

470614 690	1.4-	0.7-	911204 691	0.1-	0.1+	930401 474	0.6-	1.6+
470615 690	2.9+	0.0	930320 400	1.8+	0.5+	930423 474	0.3-	0.4-
700406 805	0.9-	0.9+	930320 400	1.7+	2.4-	930423 474	0.0	0.3-
700406 805	0.3-	0.9+	930323 474	0.4-	1.1-	930427 474	0.1+	0.2+
700406 805	1.5-	1.6+	930323 474	1.2-	0.4-	930427 474	0.5+	0.3-
810223 095	0.7+	0.6+	930325 474	0.7+	1.0-	930427 474	0.1+	0.1-
911204 691	0.7-	0.3-	930325 474	1.4-	0.4-			
911204 691	0.4-	0.1+	930401 474	0.2+	0.8+			

1993 FZ = 1949 CK = 1973 GR = 1983 EV1
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Williams
M 347.28631 (2000.0) P Q
n 0.29329275 Peri. 64.03912 -0.38909453 +0.92119387
a 2.2435470 Node 183.06652 -0.86221285 -0.36521126
e 0.1404268 Incl. 2.89410 -0.32433693 -0.13424820
P 3.36 H 13.5 G 0.15
Residuals in seconds of arc

490201 012	0.3+	0.9+	930321 675	1.1-	1.7-	930414 411	0.9+	0.4-
730401 095	0.4+	3.5+	930322 675	2.4-	1.0-	930415 411	0.2+	0.9+
730401 095	(8.0-	8.8-)	930322 675	2.6-	1.0-	930415 411	0.3+	0.1+
730404 095	0.7+	2.5-	930403 670	1.1+	1.8+	930415 411	0.6+	0.0
830311 381	0.2-	0.9+	930403 670	0.6+	0.3+	930522 674	0.1-	0.8-
830311 381	0.2+	0.2+	930403 670	1.1+	1.3+	930522 674	0.2-	0.8-
830316 095	1.0-	2.1+	930414 411	1.5+	0.5-	930522 674	0.1-	0.5-
930321 675	1.2-	1.9-	930414 411	1.1+	0.8-			

1993 FC1 = 1986 TP12 = 1990 SD15
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Kobayashi

M 15.40705		(2000.0)	P	Q
n 0.23601170	Peri.	5.86962	-0.80141746	+0.58679864
a 2.5932658	Node	210.99360	-0.55748917	-0.80297160
e 0.1127787	Incl.	12.98976	-0.21664688	-0.10442202
P 4.18	H	12.4	G 0.15	

Residuals in seconds of arc

861005 095	0.2+	0.9-	900919 675	0.1-	0.1+	930320 868	0.2-	0.1-
900917 675	0.3-	0.4-	930319 868	0.3-	0.6+	930417 868	0.5+	0.5+
900917 675	0.4-	0.2+	930319 868	0.7-	0.2-	930417 868	0.9+	1.7-
900919 675	0.6+	0.7+	930320 868	0.5-	0.7+			

1993 FD1 = 1975 EJ4 = 1982 BO13 = 1988 YU = 1991 RU31
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M 97.54637		(2000.0)	P	Q
n 0.27550236	Peri.	5.13527	-0.24987556	-0.96824288
a 2.3391200	Node	99.33506	+0.88808002	-0.23256297
e 0.1598958	Incl.	0.47855	+0.38584463	-0.09176156
P 3.58	H	14.1	G 0.15	

Residuals in seconds of arc

750315 095	0.5-	0.3+	910914 033	1.3+	0.3-	930325 400	0.9+	0.4-
820130 675	0.6+	0.2-	910914 033	0.7-	0.7-	930415 399	1.3-	1.1+
820131 675	0.6+	0.7+	930320 400	0.0	0.6+	930415 399	1.4-	0.4+
881229 046	1.4-	0.1-	930320 400	(5.1+	3.4-)			
881229 046	0.7+	0.7-	930325 400	0.9+	3.0-			

1993 FE1 = 1954 JQ = 1975 EE4 = 1980 TX11 = 1983 NP = 1987 UR7 = 1991 YY1
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M 306.72450		(2000.0)	P	Q
n 0.27624364	Peri.	276.56813	+0.24161135	+0.97036912
a 2.3349335	Node	7.41529	-0.88157152	+0.22069717
e 0.0938682	Incl.	1.23425	-0.40553127	+0.09836938
P 3.57	H	13.3	G 0.15	

Residuals in seconds of arc

540501 839	0.0	1.3-	911228 033	0.5+	0.9-	930329 400	1.5-	0.7-
540501 839	0.8+	0.9-	930315 400	0.6+	1.4-	930329 400	2.8+	1.2-
750315 095	2.8-	0.1+	930315 400	0.9-	0.7+	930410 400	1.8-	1.9+
801010 095	1.8-	0.9-	930320 400	0.1+	0.7+	930410 400	0.9+	1.9+
830710 688	1.3-	0.7-	930320 400	1.4+	2.5-	930415 399	0.7-	1.7+
830710 688	0.5-	0.4-	930325 400	0.3-	0.9-	930415 399	0.9-	0.8+
871023 095	3.3+	0.6+	930325 400	2.0+	0.4-			

1993 FO1 = 1986 JU = 1987 SE22 = 1991 UE4
Id. S. Nakano, K. Ichikawa
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M 219.00195		(2000.0)	P	Q
n 0.26475117	Peri.	307.77803	+0.99327329	+0.05019302
a 2.4020246	Node	49.59734	+0.00550217	+0.87969164
e 0.1321015	Incl.	7.87603	-0.11566287	+0.47288822
P 3.72	H	12.5	G 0.15	

Residuals in seconds of arc

860504 688	0.3-	0.4+	911101 033	0.1-	0.0	930329 399	0.1+	0.9-
860504 688	0.8-	0.8-	930322 399	0.1-	0.6+	930329 399	0.0	0.0
870918 095	1.8+	1.9-	930325 399	0.2-	0.1+	930415 399	0.9+	0.6+
870921 095	0.7+	1.0-	930325 399	0.1-	1.0-	930415 399	0.0	0.2-
911030 033	0.9-	0.1+	930326 399	1.2-	0.4-	930416 399	1.1+	0.9-
911031 033	0.2-	0.2-	930326 399	1.6-	0.5-	930416 399	0.6+	1.1-

1993 FR2 = 1983 EM2 = 1986 AX2
Id. K. Ichikawa
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	44.76477	(2000.0)	P	Q
n	0.29883631	Peri. 18.83606	-0.99421449	+0.10641502
a	2.2157146	Node 167.24625	-0.10507855	-0.93537243
e	0.0811528	Incl. 3.79403	-0.02227198	-0.33727476
P	3.30	H 14.0	G 0.15	

Residuals in seconds of arc

830314	095	(5.3+ 3.5-)	860111	386	(4.1- 1.2-)	930409	894	0.3+ 0.7+
830315	095	0.4- 0.8+	860111	386	(1.8+ 5.0-)	930413	894	0.2- 1.0+
830318	095	0.2+ 1.7+	930329	894	0.4- 0.5-	930413	894	0.0 1.6-
830318	095	1.0+ 0.1-	930329	894	1.3- 2.2-	930426	894	1.5+ 0.3+
860111	386	0.6- 2.0+	930401	894	0.5+ 1.0-	930426	894	0.9- 1.3+
860111	386	0.5+ 2.6-	930401	894	0.3- 0.0			

1993 GO = 1985 JJ2 = 1989 JD
Id. K. Ichikawa
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	37.22128	(2000.0)	P	Q
n	0.24376061	Peri. 143.29703	-0.91764614	+0.34418555
a	2.5380121	Node 57.99389	-0.39692054	-0.76930530
e	0.1852188	Incl. 13.54798	-0.01948462	-0.53824313
P	4.04	H 13.4	G 0.15	

Residuals in seconds of arc

850514	675	0.1+ 1.1-	930414	402	1.0- 0.6-	930514	900	0.3+ 1.0+
850515	675	0.1+ 0.1+	930417	402	0.5- 0.5-	930514	900	0.1- 1.3+
890502	323	0.2+ 1.9+	930417	402	1.1+ 1.1-	930515	361	0.1+ 0.3-
890505	323	0.3+ 0.8-	930425	900	1.1- 1.5+	930515	361	0.5+ 0.9-
890508	323	1.5- 0.5-	930425	900	(1.9- 3.1-)	930515	361	1.6+ 0.3+
930414	402	0.4+ 1.7+	930425	900	0.3- 2.0-			

1993 GR = 1976 UY11 = 1981 UW3 = 1983 CV = 1986 XW3
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Ichikawa

M	19.74817	(2000.0)	P	Q
n	0.20935013	Peri. 171.29250	-0.85540366	+0.51573406
a	2.8090140	Node 39.87301	-0.47961482	-0.75368188
e	0.1262820	Incl. 4.29293	-0.19558681	-0.40740890
P	4.71	H 12.9	G 0.15	

Residuals in seconds of arc

761022	381	0.1+ 0.1+	861204	046	0.2- 0.2+	930416	399	0.9- 0.1-
761022	381	0.5+ 0.2+	861204	010	(7.1- 4.4-)	930417	894	0.3- 0.2+
761024	381	0.6- 0.2-	861205	010	(6.0+ 6.9-)	930417	894	1.0- 0.4+
811030	381	0.5+ 0.5+	861207	046	1.8- 0.5+	930419	361	1.1+ 2.3-
811030	381	0.5- 0.5-	861207	046	(1.0+ 7.6+)	930420	400	2.0- 0.6-
830215	688	0.7- 1.1+	930414	894	1.0- 1.1-	930420	400	2.6+ 0.1+
830215	688	0.0 0.7+	930414	894	0.0 0.4+	930425	361	1.3+ 1.0+
830219	688	1.8+ 0.4+	930415	399	1.9+ 0.4-	930425	361	1.0- 1.9+
830219	688	1.0- 2.1-	930415	399	0.2- 1.0-	930425	361	(0.4- 3.7+)
861204	046	2.0+ 0.7-	930416	399	0.4- 1.5+			

1993 HF = 1985 GW1 = 1991 XJ
Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	24.76061	(2000.0)	P	Q
n	0.24468577	Peri. 320.75511	-0.92278923	+0.35514765
a	2.5316106	Node 240.66113	-0.29608215	-0.90178607
e	0.1355356	Incl. 9.87037	-0.24656722	-0.24627634
P	4.03	H 13.2	G 0.15	

Residuals in seconds of arc

850415	675	0.2+	0.2-	911205	399	1.2+	0.4+	930416	399	1.0- 2.3-
850423	675	0.3-	0.3-	930322	399	0.5+	0.4+	930514	361	0.9- 2.0+
911204	399	0.5+	1.1+	930325	399	1.5+	1.3-	930514	361	1.1- 1.2+
911204	399	0.7-	1.6-	930325	399	1.1+	0.9+	930515	361	1.4+ 0.0
911205	399	1.0-	0.7+	930416	399	1.3-	0.6-	930515	361	0.1- 1.2+

1993 HP = 1969 ED = 1986 EF1 = 1986 EW3 = 1988 YW

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	79.41097		(2000.0)	P	Q
n	0.28967320	Peri.	12.21125	-0.86065576	-0.50551218
a	2.2621974	Node	137.24461	+0.45927559	-0.82247272
e	0.1035478	Incl.	5.16090	+0.21985813	-0.26076056
P	3.40	H	13.7	G 0.15	

Residuals in seconds of arc

690312	095	0.0	0.4-	881230	046	0.2+	0.8-	930420	400	2.7- 1.2-
690314	095	(13.2-	1.5+)	881230	046	0.0	1.7-	930514	400	0.8+ 1.3+
860305	688	1.3-	2.3+	930416	400	0.0	1.6+	930514	400	(0.4+ 4.5-)
860305	688	1.7+	0.6+	930416	400	0.4+	2.8-			
860312	809	0.5+	1.2+	930420	400	0.5+	2.5-			

1993 HV = 1949 MJ = 1950 SG = 1968 KQ = 1988 SL

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	298.24783		(2000.0)	P	Q
n	0.15715683	Peri.	144.99932	+0.85205762	+0.52322941
a	3.4007957	Node	183.55467	-0.51843795	+0.83956140
e	0.2146209	Incl.	14.12075	-0.07224893	+0.14617672
P	6.27	H	11.2	G 0.15	

Residuals in seconds of arc

490622	024	1.0+	0.8-	880915	675	0.9+	0.2-	930416	399	0.4+ 0.1-
500917	012	0.5-	0.8+	880917	511	2.5-	0.3-	930419	399	0.9+ 0.0
680522	095	0.4-	0.5-	880917	511	0.3-	0.7-	930419	399	1.3+ 1.0-
680528	095	0.8-	2.5+	880917	511	0.1-	0.8+	930514	399	0.6- 0.3+
880915	511	2.8-	2.6-	880918	511	1.8-	0.6-	930514	399	1.9- 0.9-
880915	511	0.4+	0.2-	880918	511	2.0+	0.2+	930516	399	0.2- 0.1-
880915	511	1.6+	0.5+	880918	511	2.6+	1.7+	930516	399	1.1- 0.4-
880915	675	0.6+	0.1+	930416	399	1.4+	0.6+			

1993 HY = 1968 HV = 1978 WK12 = 1980 DX2 = 1982 XX3

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	335.08700		(2000.0)	P	Q
n	0.23724217	Peri.	178.17021	+0.11829134	+0.98921849
a	2.5842912	Node	98.61633	-0.91214586	+0.14261165
e	0.1699573	Incl.	5.00955	-0.39242464	-0.03329721
P	4.15	H	13.0	G 0.15	

Residuals in seconds of arc

680422	095	1.0+	2.4+	821214	381	1.3+	0.4-	930420	400	1.3+ 0.7-
781129	675	1.7-	0.8-	821214	381	0.8+	0.4+	930514	400	0.2- 2.9-
781130	675	1.1-	0.2-	930416	400	1.0-	1.1+	930514	400	0.9+ 0.3+
800220	095	0.8+	0.2-	930416	400	1.9-	1.0-			
821213	381	0.7+	0.1-	930420	400	0.7-	0.1-			

1993 HZ = 1976 OR = 1988 FB3 = 1990 UE6

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5 Nakano

M	294.56512		(2000.0)	P	Q
n	0.22138622	Peri.	23.31848	+0.62581330	+0.77891614
a	2.7062567	Node	285.44829	-0.72207806	+0.55890206
e	0.0920326	Incl.	2.41338	-0.29489148	+0.28446114
P	4.45	H	12.3	G 0.15	

Residuals in seconds of arc

760727	095	2.0+	2.0-		901024	046	0.7-	1.2+		930429	400	0.6+	0.8+
760801	095	1.6-	0.8+		930416	400	2.1+	0.1+		930429	400	0.1-	1.8-
880319	809	0.7-	0.9-		930416	400	(4.7+	0.7-)		930516	400	0.0	2.3+
880319	809	0.1-	0.8-		930420	400	0.2+	0.0		930516	400	(6.2-	2.3+)
901024	046	0.1-	1.2+		930420	400	1.5-	2.0+					

1993 HC1
Id. G. V. Williams (1991 observations), R. H. McNaught (1976, 1980 observations)

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Williams
M 44.34723		(2000.0)	P	Q
n 0.28366835	Peri.	157.93905	-0.98576044	-0.06632256
a 2.2940108	Node	20.19916	-0.07124723	-0.66764190
e 0.1895530	Incl.	26.58511	+0.15231606	-0.74152249
P 3.47	H	15.0	G 0.15	

Residuals in seconds of arc

760819	413	0.2-	0.6+		911003	691	0.3+	0.3-		930418	413	0.8+	0.4+
760819	413	0.7-	1.8-		930319	691	0.9-	0.0		930421	413	0.6-	0.2-
800719	413	0.3-	0.9+		930319	691	0.9-	0.1-		930421	413	0.8+	0.1+
911003	691	0.0	0.0		930319	691	0.9-	0.1+		930426	413	0.5+	0.5-
911003	691	0.3-	0.2-		930418	413	1.1+	0.1+					

1993 HM1 = 1989 NC1

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Williams
M 27.19170		(2000.0)	P	Q
n 0.22839829	Peri.	77.06394	-0.84927336	+0.48791526
a 2.6505794	Node	131.73249	-0.52457284	-0.82300109
e 0.1441674	Incl.	15.67911	+0.05964974	-0.29087437
P 4.32	H	13.0	G 0.15	

Residuals in seconds of arc

890702	675	0.0	0.2+		930415	675	0.9+	1.9-		930419	675	1.0+	1.0-
890702	675	0.6-	0.1-		930417	693	0.8-	1.1+		930420	675	0.5-	1.0-
890704	675	0.1-	0.7+		930417	693	0.4+	0.4+					
890704	675	0.7+	0.7-		930418	693	0.9-	2.3+					

1993 KA

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5		(M-N)		Marsden
M 65.19505		(2000.0)	P	Q
n 0.70059306	Peri.	341.82150	-0.78914492	+0.60796152
a 1.2555254	Node	235.93818	-0.54962735	-0.76248232
e 0.1975874	Incl.	6.05373	-0.27415338	-0.22136735
P 1.41	H	26.0	G 0.15	

From 19 observations 1993 May 17-21, mean residual 1".15.

2099 P-L = 1986 EH2 = 1993 GK

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Nakano
M 59.03343		(2000.0)	P	Q
n 0.28811467	Peri.	332.66006	-0.98961931	-0.13978268
a 2.2703482	Node	199.39114	+0.14323111	-0.94029863
e 0.1158380	Incl.	5.77064	+0.01176724	-0.31032127
P 3.42	H	14.0	G 0.15	

Residuals in seconds of arc

600924	675	0.8-	0.8+		601025	675	1.6+	0.5+		930415	399	1.4-	0.1-
600926	675	1.4-	1.8-		601026	675	0.9+	0.0		930415	399	1.0+	1.1-
600928	675	0.1+	0.4+		860314	071	0.4-	0.1+		930416	399	0.3-	0.5+
600929	675	1.1+	0.1-		860314	071	0.2+	0.9-		930416	399	0.9-	1.6+
601017	675	0.3-	1.2-		930414	894	2.1-	1.9-		930417	894	0.5+	0.7-
601022	675	0.1-	1.3-		930414	894	1.4+	0.3-		930417	894	1.3+	0.3+

4101 T-2 = 1993 DW2

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Williams
M 279.62670		(2000.0)	P	Q
n 0.17546977	Peri.	175.29959	-0.12497892	+0.99163301
a 3.1598601	Node	87.51839	-0.91133953	-0.10186158
e 0.1445116	Incl.	1.85357	-0.39222511	-0.07929817
P 5.62	H 13.0		G 0.15	

Residuals in seconds of arc

730919	675	0.9-	0.9+	730929	675	0.4+	2.4-	731005	675	1.3-	0.3-
730919	675	0.6+	1.4+	730929	675	1.6+	2.3-	930220	010	0.1-	0.0
730920	675	0.6-	0.6-	730930	675	0.5+	0.8-	930220	010	0.4-	0.2-
730924	675	0.9-	1.2+	730930	675	0.7+	0.8-	930220	010	0.4-	0.2+
730924	675	1.0-	1.4+	731004	675	0.2-	0.8+	930222	010	0.8+	0.3-
730925	675	0.1+	0.4-	731004	675	0.6-	1.4+	930223	010	0.2+	0.5+
730925	675	1.0+	0.6+	731005	675	0.6+	0.1-				

5182 T-3 = 1980 FY9 = 1993 KE

Epoch 1993 Aug. 1.0 TT = JDT 2449200.5				Williams
M 243.69325		(2000.0)	P	Q
n 0.16290774	Peri.	180.28866	+0.98901702	+0.14019161
a 3.3202815	Node	171.22618	-0.13498288	+0.98575980
e 0.1031384	Incl.	17.87338	-0.06020758	+0.09286517
P 6.05	H 11.0		G 0.15	

Residuals in seconds of arc

771012	675	0.1+	1.6-	771021	675	1.2+	0.4+	930522	589	0.2+	0.1-
771012	675	0.3+	0.8-	771021	675	0.6-	1.7+	930522	589	0.4-	0.3-
771016	675	1.2+	1.7-	771022	675	1.7-	1.6+	930522	589	0.5-	0.4-
771016	675	1.4+	1.4-	771022	675	0.1-	0.5+	930522	589	0.2-	0.4+
771017	675	0.6-	0.3+	800316	095	0.0	0.3-	930522	589	0.4+	0.5-
771017	675	1.2-	0.6+	930522	589	0.4+	0.6+				

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NEW NAMES OF MINOR PLANETS.

(2281) Biela = 1971 UQ1

Discovered 1971 Oct. 26 by L. Kohoutek at Bergedorf.

Named in memory of Wilhelm von Biela (1782-1850), Austrian military officer and astronomer, who discovered comet 1826 I in Josefov, Bohemia. The comet is famous for having split and disappeared and for helping establish the connection between comets and meteors. In 1971 the discoverer of this minor planet tried unsuccessfully to recover the comet.

(2375) Radek = 1975 AA

Discovered 1975 Jan. 8 by L. Kohoutek at Bergedorf.

Named by the discoverer in honor of his brother, Ctirad Kohoutek (1929-), Czech composer, who has been professor for music at the academies in Brno and Prague as well as director of the Czech Philharmonic Orchestra.

(2407) Haug = 1973 DH

Discovered 1973 Feb. 27 by L. Kohoutek at Bergedorf.

Named in memory of Ulrich Haug (1929-1992), German astronomer, who investigated interplanetary dust particles in his early years in Tubingen and who is known from later work at the Hamburg Observatory, mainly for his contributions on interstellar extinction and for observations of OB stars. He took much effort in observing with the Schmidt telescope, moved from Hamburg-Bergedorf to the German-Spanish Astronomical Center

at Calar Alto, where he made tests for quasars being the basis for the Hamburg Quasar Survey.

(2620) Santana = 1980 TN
Discovered 1980 Oct. 3 by Z. Vavrova at Klet.
Named in honor of the contemporary composer and singer Carlos Santana, author of magic music.

(2647) Sova = 1980 SP
Discovered 1980 Sept. 29 by Z. Vavrova at Klet.
Named in memory of Antonin Sova (1864-1928), Czech poet, who sang of southern Bohemia.

(2781) Kleczek = 1982 QH
Discovered 1982 Aug. 19 by Z. Vavrova at Klet.
Named in honor of Josip Kleczek (1923-), distinguished astronomer and solar physicist, known in particular for his outstanding organization of the IAU/UNESCO International School for Young Astronomers. He is the author of many books, including "The Six Languages Astronomical Dictionary".

(2821) Slavka = 1978 SQ
Discovered 1978 Sept. 24 by Z. Vavrova at Klet.
Named in memory of Slava Vavrova (1910-1985), the discoverer's mother.

(3044) Saltykov = 1983 RE3
Discovered 1983 Sept. 2 by N. Metlova and N. E. Kurochkin at the Crimean Station of the Sternberg State Astronomical Institute.
Named by the first discoverer in memory of her grandfather, Nikita Saltykov (1893-1946), well known as a grower of vegetables in the region of Yaroslavl and the Urals.

(3586) Vasnetsov = 1978 SW6
Discovered 1978 Sept. 26 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.
Named in memory of Viktor Mikhailovich Vasnetsov (1848-1926) and Appolinarij Mikhailovich Vasnetsov (1856-1933), famous Russian painters.

(3587) Descartes = 1981 RK5
Discovered 1981 Sept. 8 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.
Named in honor of Rene Descartes (1596-1650), outstanding French mathematician and philosopher.

(3600) Archimedes = 1978 SL7
Discovered 1978 Sept. 26 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.
Named for Archimedes (c. 287-212 B.C.), great ancient Greek scientist.

(3616) Glazunov = 1984 JJ2
Discovered 1984 May 3 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.
Named in honor of Il'ya Sergeevich Glazunov (1930-), well-known Russian painter.

(3628) Boznemcova = 1979 WD
Discovered 1979 Nov. 25 by Z. Vavrova at Klet.
Named in memory of Bozena Nemcova (1820-1862), outstanding Czech writer, author of the well-known book "Granny".

(3657) Ermolova = 1978 ST6
Discovered 1978 Sept. 26 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.
Named in memory of Maria Nikolaevna Ermolova (1853-1928), outstanding Russian actress.

(3662) Dezhnev = 1980 RU2
Discovered 1980 Sept. 8 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.
Named in honor of Semen Ivanovich Dezhnev (c. 1605-1673), Russian seafarer.

(3724) Annenskij = 1979 YN8
Discovered 1979 Dec. 23 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.
Named for Innokentij Fedorovich Annenskij (1855-1899), well-known Russian poet and writer.

(3731) Hancock = 1984 DH1
Discovered 1984 Feb. 20 by V. M. and M. P. Candy at Perth.
Named in memory of Langley George ("Lang") Hancock (1909-1992), who started life as manager of the family sheep station and became a leading Australian mining prospector, entrepreneur and visionary. He prospected for and developed many minerals, but he will be forever famous for his discovery of the massive iron ore deposits in the Pilbara region of Western Australia. Hancock had a profound influence on the development of Western Australia, establishing several newspapers and writing many books and other publications on mining and free enterprise. The family corporation is now chaired by daughter Georgina Rinehart, who prepared the citation.

(3732) Vavra = 1984 SR1
Discovered 1984 Sept. 27 by Z. Vavrova at Klet.
Named in honor of Anton Alfred Vavra (1896-), the discoverer's father.

(3889) Menshikov = 1972 RT3
Discovered 1972 Sept. 6 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.
Named in honor of Aleksandr Danilovich Menshikov (1673-1729), Russian statesman and military leader during the reign of Peter the Great.

(3978) Klepesta = 1983 VP1
Discovered 1983 Nov. 7 by Z. Vavrova at Klet.
Named in memory of Josef Klepesta (1895-1976), outstanding Czech expert in astronomical photography and one of the founders of the Czech Astronomical Association.

(4015) Wilson-Harrington = 1979 VA
Discovered 1979 Nov. 15 by E. F. Helin at Palomar.
This Apollo object, which is identical with the single-apparition periodic comet 1949 III = 1949g (which appeared cometary only on its discovery night of 1949 Nov. 19), is being given the name of that comet, which was discovered by A. G. Wilson and R. G. Harrington early in the first Palomar Sky Survey. Named by the Minor Planet Names Committee, in the knowledge that the name violates the normal 16-character maximum.

(4086) Podalirius = 1985 VK2
Discovered 1985 Nov. 9 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.

Named for the Greek physician, son of Aesculapius and Epione and brother of Hygiea, Machaon and Panacea, who stopped a pestilence during the Trojan War.

(4114) Jasnorzewska = 1982 QB1
Discovered 1982 Aug. 19 by Z. Vavrova at Klet.
Named in memory of Maria Jasnorzewska-Pawlikowska (1910-1945), important Polish poet.

(4475) Voitkevich = 1982 UQ5
Discovered 1982 Oct. 20 by L. G. Karachkina at the Crimean Astrophysical Observatory.
Named in honor of George Vitol'dovich Voitkevich (1920-), the 1967 Karpinski prizewinner for his outstanding geological research. He is the author of more then 190 publications on geochemistry, geophysics and cosmochemistry, including 32 books on different problems in geology.

(4483) Petofi = 1986 RC2
Discovered 1986 Sept. 9 by L. G. Karachkina at Crimean Astrophysical Observatory.
Named in memory of Shandor Petofi (1823-1849), outstanding Hungarian poet and public figure. The name for this Hungaria-type planet is proposed by V. A. Shor.

(4625) Shchedrin = 1982 UG6
Discovered 1982 Oct. 20 by L. G. Karachkina at the Crimean Astrophysical Observatory.
Named for the outstanding Russian composer Rodion Konstantinovich Shchedrin.

(4626) Plisetskaya = 1984 YU1
Discovered 1984 Dec. 23 by L. G. Karachkina at the Crimean Astrophysical Observatory.
Named for the brilliant ballet-dancer Majya Mikhailovna Plisetskaya.

(4741) Leskov = 1985 VP3
Discovered 1985 Nov. 10 by L. G. Karachkina at the Crimean Astrophysical Observatory.
Named in memory of Nikolaj Semenovich Leskov (1831-1895), well-known Russian writer.

(4785) Petrov = 1984 YH1
Discovered 1984 Dec. 17 by L. G. Karachkina at the Crimean Astrophysical Observatory.
Named for the contemporary Russian composer Andrej Pavlovich Petrov (1930-).

(4860) Gubbio = 1987 EP
Discovered 1987 Mar. 3 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.
Named for the city of Gubbio, Umbria, Italy. Dating from the Umbrian civilization in the 7th century B.C., Gubbio flourished in the Middle Ages and is one of the best-preserved Italian medieval cities. It was on a hill above the city that geologist Walter Alvarez found an iridium-rich layer originating at the transition between the Cretaceous and Tertiary periods. His father, Luis Alvarez, physicist and Nobel laureate, interpreted the layer's presence as the result of a catastrophic impact of an asteroid with the earth. Gubbio is also famous for the story of St. Francis and the wolf,

and for St. Francis' "Ceri Marathon". Name suggested and citation prepared by M. A. Barucci.

(4867) Polites = 1989 SZ

Discovered 1989 Sept. 27 by C. S. Shoemaker and E. M. Shoemaker at Palomar.

Polites was a son of Priam, as was Deiphobus. They were both killed during the last moments of Troy: Deiphobus was butchered and mutilated by Menelaus, and Polites was transfixed with a spear handled by Pyrrhus. Pyrrhus, the most ruthless of the Greeks, broke open and invaded Priam's great house of fifty chambers, and he chased Polites along empty colonnades until he cornered and slaughtered him in front of his father and mother, Priam and Hecuba. Name and citation provided by Richard Preston at the request of the discoverers.

(4902) Thessandrus = 1989 AN2

Discovered 1989 Jan. 9 by C. S. Shoemaker and E. M. Shoemaker at Palomar.

Thessandrus was one of the seven Greek captains who hid inside the Trojan horse, which was devised by Epeios, who himself hid inside the horse. This minor planet is paired dynamically with (2148) Epeios. Virgil, in the "Aeneid", seems to imply that Thessandrus was the first warrior to slide down the lowered rope from the belly of the horse, thus beginning the sack of Troy. Name and citation provided by Richard Preston at the request of the discoverers.

(5027) Androgeos = 1988 BX1

Discovered 1988 Jan. 21 by C. S. Shoemaker and E. M. Shoemaker at Palomar.

Androgeos was a Greek warrior who led a detachment of Greeks into the burning city of Troy. There he encountered Aeneas in the company of other Trojan defenders. Androgeos and his detachment were set upon and killed, after which they were stripped of their armor by the Trojans, who then disguised themselves with it. It can be said that Androgeos supplied Aeneas and his men with tickets to safety. Name and citation provided by Richard Preston at the request of the discoverers.

(5028) Halaesus = 1988 BY1

Discovered 1988 Jan. 23 by C. S. Shoemaker and E. M. Shoemaker at Palomar.

Halaesus was a son of Agamemnon. This minor planet is dynamically paired with (2759) Idomeneus, and like the Greek warrior Idomeneus, Halaesus found a home in Italy, settling on Mount Massicus in Campania. Unlike Idomeneus, Halaesus missed joining the Trojan War and the sack of Troy. He made up for this later, for he fought against Aeneas in the war for Italy, where he killed a large number of Trojans on Italian soil. Name and citation provided by Richard Preston at the request of the discoverers.

(5110) Belgirate = 1987 SV

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

Named for the pleasant Italian village on the western shore of Lake Maggiore, close to the town of Novara, on the occasion of the first IAU Symposium dedicated to the small bodies of the solar system (June 1993). Name suggested and citation written by V. Zappala and M. Di Martino.

(5120) Bitias = 1988 TZ1

Discovered 1988 Oct. 13 by C. S. Shoemaker and E. M. Shoemaker at Palomar.

Bitias was a great Trojan warrior and a companion of Aeneas. He was the first Trojan to drink a toast to the ill-fated Queen Dido, at the feast when Aeneas narrated his adventures to Dido, and she began to fall in love with him. Later, in Italy, during the Latin war, Bitias made a mistake that cost him and many other Trojans their lives, when he opened the gates of the Trojans' fortress in an effort to coax Latin warriors inside, where they could be trapped. Instead, the Latin warrior Turnus rushed inside the Trojan fortress and made slaughter, killing Bitias with a whirling pike. Name and citation provided by Richard Preston at the request of the discoverers.

(5126) Achaemenides = 1989 CH2

Discovered 1989 Feb. 1 by C. S. Shoemaker and E. M. Shoemaker at Palomar.

Born in Ithaca, Achaemenides was a Greek warrior who eventually became an ally of Aeneas' Trojans. Originally he was a companion of Odysseus and fought on the Greek side at Troy. Later, he was left behind in the land of the Cyclops when Odysseus blinded the Cyclops and escaped. There Aeneas found him--squalid, dressed in rags held together with thorns--and rescued him. Name and citation provided by Richard Preston at the request of the discoverers.

(5130) Ilioneus = 1989 SC7

Discovered 1989 Sept. 30 by C. S. Shoemaker and E. M. Shoemaker at Palomar.

Ilioneus, a ship commander of Aeneas, was the official spokesman for Aeneas' band of wandering Trojans. He was the first to speak to strangers on behalf of Aeneas, and his soft words often preceded conflict. First he advised Dido, the queen of Carthage, that the Trojans and Aeneas posed no threat to her realm (when, in fact, Aeneas would break her heart and drive her to suicide). Later he spoke to King Latinus, seeking permission for the Trojans to stay in Italy, and that request ultimately led to devastating war, when the Latins tried to drive Aeneas away. Name and citation provided by Richard Preston at the request of the discoverers.

(5144) Achates = 1991 XX

Discovered 1991 Dec. 2 by C. S. Shoemaker and E. M. Shoemaker at Palomar.

Achates was the best friend and companion-at-arms of Aeneas in Virgil's "Aeneid". Known as "fidus Achates"--faithful Achates--he commanded his own ship in the wandering fleet of Trojans as they sought to establish a new city after the fall of Troy. Achates wandered far from known paths with Aeneas, traveling at Aeneas' side during their passage through the underworld, as the two friends threaded their way through "broad, silent tracts of night" in a journey to meet Aeneas' father, as described in the great Book VI of Virgil's poem. Name and citation provided by Richard Preston at the request of the discoverers.

(5162) Piemonte = 1982 BW

Discovered 1982 Jan. 18 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Named for the northwestern region of Italy. Its capital, Torino, houses a historic university famous worldwide for its scientific research. Piemonte is also well known for its natural beauty, for its manufacturing industries, and for the production of a number of wines prized by connoisseurs. Name suggested and citation written by V. Zappala and M. Di Martino.

(5283) Pyrrhus = 1989 BW
Discovered 1989 Jan. 31 by C. S. Shoemaker and E. M. Shoemaker at Palomar.
Pyrrhus received his name from the yellow color of his hair. Also known as Neoptolemus, he was the king of Epirus and a son of Achilles. After Achilles was killed, a Greek delegation led by Odysseus went to Epirus and brought Pyrrhus to the Trojan War. Enraged at the death of his father, he became the most ruthless of all the Greeks. Using a battle-axe, he broke the doors leading into King Priam's house, which he sacked and burned, showing no mercy to women and children. After killing Priam's son Polites, he also slew Priam on an altar--a sacrilege. He took away Hector's wife, Andromache, as his prize. Name and citation provided by Richard Preston at the request of the discoverers.

(5399) Awa = 1989 BT
Discovered 1989 Jan. 29 by M. Iwamoto and T. Furuta at Tokushima.
Named by the first discoverer for the town in which he lives in the northern part of Shikoku island. The "Awa-odori" dancing festival, held every August, is as famous as it is unique.

(5403) Takachiho = 1990 DM
Discovered 1990 Feb. 20 by Y. Kushida and M. Inoue at Yatsugatake South Base Observatory.
Named for the home town of the wife of the second discoverer, Takachiho is located at the center of Miyazaki prefecture in Kyusyu, some 900 km southwest of Tokyo, and surrounded by mountains. Takachiho is famous for its legends and myths on the root of gods. The most famous is the legend of Amano-Iwato of Amaterasu-Ohmikami (the god of the sun). This story has been handed down by Yokagura (sacred music and dance) as performed by farmers.

(5409) Saale = 1962 SR
Discovered 1962 Sept. 30 by F. Borngen at Tautenburg.
Named for the river that originates in the Fichtelgebirge of Bavaria, runs not far from Tautenburg, crosses the cities of Jena and Halle (the latter the birthplace of the discoverer) and flows into the Elbe.

(5471) Tunguska = 1988 PK1
Discovered 1988 Aug. 13 by E. W. Elst at Haute Provence.
Named for the site, in Siberia, of the presumed impact of a 60-meter minor planet on the 85th anniversary of the great explosion that occurred there on 1908 June 30.

(5478) Wartburg = 1989 UE4
Discovered 1989 Oct. 23 by F. Borngen at Tautenburg.
Named for a castle on a hill near the town of Eisenach, a jewel of the German territories, earlier the dwelling-place of the Thuringian landgraves and of Saint Elisabeth (1211-1227). In a special way, Wartburg was the scene of historical events in the past. In 1521-1522 Martin Luther there translated the New Testament into German, defended from his pursuers. In 1817 German students came together to express their striving for unity and liberty. In 1845 Wagner digested in the opera "Tannhauser" the contest of the minnesingers in the late Romanic palace of Wartburg.

(5488) Kiyosato = 1991 VK5
Discovered 1991 Nov. 13 by S. Otomo at Kiyosato.
Named for the town where the discoverer lives and his observatory is located. Kiyosato is famous for its natural beauty and is located on the southern slope of the Yatsugatake mountains, about 150 km west of Tokyo.

Millions of visitors enjoy their vacations in Kiyosato, play sports and go picnicking and camping.

(5522) De Rop = 1991 PJ5

Discovered 1991 Aug. 3 by E. W. Elst at the European Southern Observatory.

Named in honor of Willy De Rop (1933-), astronomer at the Royal Observatory, Uccle, on the occasion of his retirement. Besides his professional work in positional astronomy, timekeeping and rotation of the earth, De Rop has been involved in the popularization of astronomy and several other cultural societies in Belgium. For several years he was most helpful in taking care of the communication of telexes between the discoverer and observation sites, and also the Minor Planet Center. Citation prepared by J. Denoyelle at the request of the discoverer.

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EPHEMERIDES.

Periodic Comet Shoemaker-Levy 9 (1993e) Elements MPC 22197

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1993	06 02	12 05.98	-01 52.8	5.020	5.459	110.5	10.0	13.9
1993	06 12	12 06.92	-01 57.7	5.168	5.457	101.2	10.5	13.9
1993	06 22	12 08.92	-02 09.4	5.320	5.455	92.2	10.7	14.0
1993	07 02	12 11.91	-02 27.5	5.473	5.453	83.5	10.7	14.1
1993	07 12	12 15.81	-02 51.3	5.624	5.450	75.0	10.4	14.1
1993	07 22	12 20.52	-03 20.4	5.768	5.448	66.7	9.9	14.2
1993	08 01	12 25.95	-03 54.1	5.904	5.445	58.6	9.2	14.2
1993	08 11	12 32.01	-04 31.8	6.027	5.442	50.7	8.3	14.3
1993	08 21	12 38.62	-05 12.8	6.137	5.440	42.9	7.3	14.3
1993	08 31	12 45.69	-05 56.6	6.232	5.437	35.1	6.1	14.3

1993 ET a,e,i = 2.76, 0.42, 29 Elements MPC 22199

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1993	06 02	12 11.80	+07 58.7	2.386	2.863	107.7	19.7	17.2
1993	06 12	12 16.48	+08 00.9	2.561	2.904	99.3	20.2	17.4
1993	06 22	12 22.62	+07 48.1	2.739	2.944	91.4	20.2	17.5
1993	07 02	12 29.99	+07 23.4	2.917	2.984	83.8	19.8	17.7
1993	07 12	12 38.38	+06 49.4	3.092	3.022	76.6	19.1	17.8
1993	07 22	12 47.63	+06 08.3	3.263	3.060	69.6	18.1	17.9
1993	08 01	12 57.59	+05 22.0	3.426	3.097	62.8	16.9	18.0

1993 HO1 a,e,i = 1.99, 0.42, 6 Elements MPC 22199

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1993	06 02	14 07.60	-19 26.3	0.947	1.867	144.3	18.5	18.7
1993	06 12	14 06.79	-19 23.4	1.065	1.920	134.7	22.1	19.1
1993	06 22	14 09.56	-19 32.8	1.196	1.972	125.9	24.7	19.5
1993	07 02	14 15.31	-19 53.6	1.337	2.022	117.9	26.4	19.9
1993	07 12	14 23.43	-20 23.5	1.486	2.072	110.3	27.4	20.2
1993	07 22	14 33.48	-21 00.5	1.641	2.119	103.3	27.8	20.4
1993	08 01	14 45.10	-21 42.4	1.800	2.166	96.6	27.7	20.7

(5164) 1984 WE1 a,e,i = 3.66, 0.50, 20 Elements MPC 19994

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1993	06 02	15 42.93	-23 00.9	2.713	3.707	166.8	3.6	18.4
1993	06 12	15 34.94	-23 03.2	2.804	3.752	155.5	6.4	18.6
1993	06 22	15 28.50	-23 05.5	2.921	3.795	144.6	8.9	18.8
1993	07 02	15 23.91	-23 09.6	3.061	3.838	134.1	11.0	19.0
1993	07 12	15 21.28	-23 16.9	3.219	3.881	124.1	12.5	19.2

1993 07 22	15 20.56	-23 28.0	3.392	3.923	114.4	13.6	19.4
1993 08 01	15 21.68	-23 43.5	3.574	3.964	105.2	14.3	19.6
1993 08 11	15 24.44	-24 03.0	3.763	4.005	96.4	14.6	19.7
1993 08 21	15 28.69	-24 26.2	3.954	4.045	87.9	14.5	19.8
1993 08 31	15 34.26	-24 52.6	4.144	4.084	79.6	14.1	19.9

(5066) 1990 MA a,e,i = 1.94, 0.15, 41 Elements MPC 19669

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1993 06 02	23 39.46	-40 29.1	1.277	1.681	93.7	37.0	17.3
1993 06 12	00 12.52	-43 25.1	1.236	1.693	97.0	36.5	17.2
1993 06 22	00 45.49	-46 22.0	1.208	1.706	99.9	35.9	17.1
1993 07 02	01 17.55	-49 16.1	1.191	1.721	102.1	35.3	17.1
1993 07 12	01 47.75	-52 05.1	1.184	1.736	103.9	34.6	17.1
1993 07 22	02 14.98	-54 48.6	1.186	1.752	105.2	34.0	17.1
1993 08 01	02 38.04	-57 25.9	1.195	1.769	106.1	33.4	17.1
1993 08 11	02 55.71	-59 56.8	1.209	1.787	106.7	32.9	17.2
1993 08 21	03 06.59	-62 19.9	1.228	1.805	107.0	32.4	17.2
1993 08 31	03 09.18	-64 29.6	1.249	1.824	107.2	31.9	17.2
1993 09 10	03 02.26	-66 16.4	1.273	1.843	107.3	31.5	17.3
1993 09 20	02 45.39	-67 25.7	1.299	1.862	107.1	31.0	17.3
1993 09 30	02 20.49	-67 39.5	1.329	1.881	106.8	30.6	17.4
1993 10 10	01 52.32	-66 44.3	1.363	1.900	106.1	30.3	17.5
1993 10 20	01 26.53	-64 36.7	1.403	1.920	105.1	30.1	17.6
1993 10 30	01 07.00	-61 25.1	1.449	1.939	103.6	29.9	17.6
1993 11 09	00 54.64	-57 24.7	1.502	1.958	101.5	29.7	17.7
1993 11 19	00 48.66	-52 50.3	1.564	1.976	99.0	29.6	17.8
1993 11 29	00 47.77	-47 55.6	1.635	1.995	95.9	29.5	18.0
1993 12 09	00 50.70	-42 51.6	1.715	2.013	92.3	29.3	18.1
1993 12 19	00 56.51	-37 46.2	1.804	2.030	88.3	29.0	18.2
1993 12 29	01 04.48	-32 45.8	1.901	2.047	84.0	28.5	18.3
1994 01 08	01 14.08	-27 54.5	2.005	2.064	79.4	27.9	18.4

1988 RE a,e,i = 1.82, 0.25, 35 Elements MPC 20502

Date TT	R. A. (2000)	Decl.	Delta	r	Variation		V
1993 06 02	23 54.70	+30 36.4	1.476	1.367	-2.13	+12.2	17.6
1993 06 12	00 24.11	+32 16.0	1.448	1.376	-2.12	+14.4	17.6
1993 06 22	00 52.85	+33 26.2	1.413	1.388	-2.11	+16.5	17.6
1993 07 02	01 20.65	+34 05.7	1.372	1.403	-2.09	+18.4	17.6
1993 07 12	01 47.24	+34 13.4	1.323	1.422	-2.07	+20.2	17.5
1993 07 22	02 12.26	+33 47.7	1.268	1.444	-2.06	+21.7	17.5
1993 08 01	02 35.30	+32 46.4	1.205	1.469	-2.07	+23.1	17.4
1993 08 11	02 55.94	+31 06.6	1.138	1.495	-2.10	+24.1	17.3
1993 08 21	03 13.64	+28 44.1	1.067	1.524	-2.16	+24.8	17.2
1993 08 31	03 27.85	+25 33.6	0.995	1.554	-2.26	+24.8	17.0
1993 09 10	03 38.03	+21 29.1	0.926	1.585	-2.41	+24.1	16.8
1993 09 20	03 43.58	+16 26.0	0.864	1.617	-2.62	+22.3	16.6
1993 09 30	03 44.12	+10 26.0	0.816	1.650	-2.85	+19.4	16.4
1993 10 10	03 39.65	+03 43.4	0.787	1.683	-3.09	+15.7	16.2
1993 10 20	03 30.71	-03 09.4	0.783	1.716	-3.29	+12.1	16.1
1993 10 30	03 18.74	-09 27.6	0.808	1.749	-3.38	+9.8	16.1
1993 11 09	03 05.78	-14 32.4	0.860	1.782	-3.32	+8.9	16.3
1993 11 19	02 53.92	-18 05.2	0.937	1.814	-3.14	+9.1	16.7
1993 11 29	02 44.84	-20 09.5	1.032	1.846	-2.86	+9.4	17.0
1993 12 09	02 39.32	-21 01.4	1.142	1.878	-2.56	+9.6	17.3
1993 12 19	02 37.51	-20 58.7	1.261	1.908	-2.26	+9.5	17.6
1993 12 29	02 39.19	-20 17.9	1.387	1.938	-2.00	+9.2	17.9
1994 01 08	02 43.88	-19 11.4	1.516	1.967	-1.77	+8.6	18.2

1991 FE a,e,i = 2.19, 0.46, 4 Elements MPC 22083

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1993	06 02	00 08.85	+02 47.4	1.651	1.589	68.4	36.4	18.6
1993	06 12	00 37.18	+05 32.7	1.536	1.531	70.4	38.7	18.4
1993	06 22	01 07.36	+08 20.1	1.430	1.476	72.0	40.9	18.2
1993	07 02	01 39.65	+11 05.3	1.333	1.423	73.1	43.1	18.1
1993	07 12	02 14.25	+13 42.8	1.248	1.373	73.8	45.3	17.9
1993	07 22	02 51.23	+16 05.2	1.175	1.327	74.1	47.4	17.8
1993	08 01	03 30.39	+18 04.2	1.115	1.286	74.1	49.4	17.6
1993	08 11	04 11.28	+19 31.7	1.067	1.252	73.9	51.1	17.5
1993	08 21	04 53.10	+20 21.6	1.031	1.225	73.7	52.4	17.4
1993	08 31	05 34.83	+20 30.9	1.005	1.207	73.6	53.4	17.4
1993	09 10	06 15.46	+20 01.1	0.987	1.197	73.8	53.9	17.3
1993	09 20	06 54.05	+18 57.2	0.975	1.197	74.4	53.9	17.3
1993	09 30	07 29.92	+17 26.9	0.967	1.206	75.5	53.5	17.3

Comet Spacewatch (1992h) Elements MPC 22029

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1993	08 01	10 30.43	+53 20.0	3.723	3.028	40.8	12.6	19.2
1993	08 11	10 35.70	+53 34.1	3.711	3.018	40.8	12.7	19.1
1993	08 21	10 42.02	+54 02.3	3.676	3.011	42.7	13.2	19.1
1993	08 31	10 49.23	+54 47.2	3.617	3.007	46.2	14.0	19.1
1993	09 10	10 57.22	+55 51.4	3.538	3.007	51.0	15.1	19.0
1993	09 20	11 05.96	+57 18.5	3.440	3.010	56.8	16.2	19.0
1993	09 30	11 15.41	+59 12.4	3.328	3.017	63.5	17.3	18.9
1993	10 10	11 25.66	+61 37.3	3.205	3.026	70.7	18.1	18.8
1993	10 20	11 36.90	+64 37.9	3.079	3.039	78.4	18.7	18.8
1993	10 30	11 49.54	+68 18.3	2.956	3.055	86.2	18.9	18.7
1993	11 09	12 04.7	+72 41.0	2.843	3.074	93.9	18.8	18.6
1993	11 19	12 25.6	+77 45.0	2.751	3.096	101.0	18.3	18.6
1993	11 29	13 07.5	+83 21.6	2.687	3.121	107.0	17.6	18.6
1993	12 09	17 53	+88 02.8	2.660	3.148	110.9	17.0	18.6
1993	12 19	23 11.2	+83 26.6	2.674	3.179	112.2	16.7	18.7
1993	12 29	23 55.7	+77 17.2	2.730	3.212	110.7	16.6	18.7
1994	01 08	00 17.6	+71 24.6	2.827	3.247	106.6	16.9	18.9
1994	01 18	00 33.58	+66 04.9	2.959	3.285	100.6	17.1	19.0
1994	01 28	00 47.23	+61 25.3	3.119	3.325	93.4	17.2	19.2
1994	02 07	00 59.64	+57 27.0	3.298	3.368	85.5	17.0	19.4
1994	02 17	01 11.32	+54 07.9	3.488	3.412	77.5	16.4	19.5
1994	02 27	01 22.45	+51 24.0	3.681	3.459	69.4	15.5	19.7
1994	03 09	01 33.16	+49 10.4	3.872	3.507	61.4	14.4	19.9
1994	03 19	01 43.49	+47 22.5	4.054	3.557	53.7	13.0	20.0
1994	03 29	01 53.43	+45 56.1	4.223	3.608	46.4	11.6	20.2
1994	04 08	02 02.98	+44 47.4	4.375	3.661	39.7	10.1	20.3

Periodic Comet Gunn Elements MPC 11502

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m2
1993	08 11	07 08.20	+26 58.7	5.487	4.675	33.5	6.9	20.4
1993	08 21	07 17.71	+26 54.0	5.385	4.668	40.9	8.2	20.3
1993	08 31	07 26.71	+26 49.5	5.267	4.661	48.6	9.3	20.3
1993	09 10	07 35.10	+26 46.0	5.134	4.652	56.4	10.4	20.2
1993	09 20	07 42.73	+26 44.1	4.989	4.644	64.4	11.2	20.2
1993	09 30	07 49.49	+26 44.7	4.834	4.635	72.7	11.9	20.1
1993	10 10	07 55.21	+26 48.7	4.672	4.626	81.2	12.3	20.0
1993	10 20	07 59.75	+26 56.8	4.505	4.616	90.1	12.5	19.9
1993	10 30	08 02.93	+27 09.7	4.339	4.606	99.4	12.3	19.8
1993	11 09	08 04.61	+27 28.0	4.177	4.596	109.0	11.8	19.7
1993	11 19	08 04.63	+27 51.7	4.023	4.585	119.0	10.9	19.6
1993	11 29	08 02.93	+28 20.3	3.883	4.573	129.4	9.6	19.5

1993 12 09	07 59.48	+28 52.7	3.761	4.561	140.2	7.9	19.5
1993 12 19	07 54.39	+29 27.0	3.663	4.549	151.1	6.0	19.4
1993 12 29	07 47.94	+30 00.9	3.592	4.537	161.8	3.9	19.3
1994 01 08	07 40.54	+30 31.7	3.552	4.524	170.1	2.1	19.3
1994 01 18	07 32.74	+30 57.2	3.543	4.510	168.1	2.6	19.3
1994 01 28	07 25.15	+31 15.8	3.566	4.497	158.4	4.6	19.3
1994 02 07	07 18.38	+31 26.8	3.618	4.482	147.6	6.8	19.3
1994 02 17	07 12.90	+31 30.6	3.697	4.468	136.7	8.7	19.3
1994 02 27	07 09.08	+31 28.2	3.797	4.453	126.1	10.4	19.4
1994 03 09	07 07.07	+31 20.8	3.914	4.437	115.8	11.6	19.4
1994 03 19	07 06.92	+31 09.5	4.042	4.421	106.0	12.5	19.5
1994 03 29	07 08.58	+30 55.1	4.177	4.405	96.6	13.0	19.5
1994 04 08	07 11.89	+30 38.4	4.315	4.388	87.6	13.2	19.6
1994 04 18	07 16.71	+30 19.5	4.452	4.371	78.9	13.0	19.6
1994 04 28	07 22.84	+29 58.6	4.583	4.354	70.6	12.6	19.7
1994 05 08	07 30.11	+29 35.8	4.706	4.336	62.6	11.9	19.7
1994 05 18	07 38.36	+29 10.9	4.819	4.318	54.9	11.1	19.8
1994 05 28	07 47.42	+28 43.8	4.919	4.299	47.5	10.0	19.8
1994 06 07	07 57.14	+28 14.4	5.005	4.280	40.2	8.8	19.8
1994 06 17	08 07.42	+27 42.7	5.075	4.261	33.2	7.5	19.8

Periodic Comet Schwassmann-Wachmann 1 Elements MPC 18255

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m2
1993 08 11	07 08.83	+27 01.5	6.874	6.054	33.4	5.3	(19.5)
1993 08 21	07 16.39	+26 47.8	6.781	6.057	41.2	6.3	(19.5)
1993 08 31	07 23.43	+26 34.4	6.671	6.060	49.2	7.2	(19.4)
1993 09 10	07 29.87	+26 21.7	6.545	6.063	57.4	8.0	(19.4)
1993 09 20	07 35.60	+26 10.2	6.407	6.066	65.8	8.7	(19.4)
1993 09 30	07 40.50	+26 00.2	6.259	6.069	74.5	9.1	(19.3)
1993 10 10	07 44.48	+25 52.3	6.105	6.072	83.4	9.4	(19.3)
1993 10 20	07 47.43	+25 46.7	5.947	6.074	92.6	9.4	(19.2)
1993 10 30	07 49.25	+25 43.8	5.791	6.077	102.1	9.2	(19.2)
1993 11 09	07 49.88	+25 43.6	5.640	6.080	112.0	8.7	(19.1)
1993 11 19	07 49.27	+25 46.0	5.500	6.083	122.1	7.9	(19.0)
1993 11 29	07 47.44	+25 50.7	5.375	6.086	132.6	6.8	(19.0)
1993 12 09	07 44.45	+25 56.9	5.270	6.089	143.4	5.5	(19.0)
1993 12 19	07 40.46	+26 03.9	5.190	6.092	154.3	4.0	(18.9)
1993 12 29	07 35.71	+26 10.6	5.139	6.095	165.3	2.4	(18.9)
1994 01 08	07 30.50	+26 16.0	5.117	6.098	174.8	0.8	(18.9)
1994 01 18	07 25.19	+26 19.3	5.128	6.100	170.3	1.6	(18.9)
1994 01 28	07 20.13	+26 19.9	5.170	6.103	159.6	3.2	(18.9)
1994 02 07	07 15.68	+26 17.7	5.242	6.106	148.7	4.8	(19.0)
1994 02 17	07 12.09	+26 12.7	5.340	6.109	137.8	6.2	(19.0)
1994 02 27	07 09.59	+26 05.2	5.461	6.112	127.3	7.4	(19.0)
1994 03 09	07 08.27	+25 55.5	5.599	6.114	117.0	8.3	(19.1)
1994 03 19	07 08.19	+25 43.9	5.750	6.117	107.1	9.0	(19.2)
1994 03 29	07 09.32	+25 30.7	5.910	6.120	97.5	9.3	(19.2)
1994 04 08	07 11.59	+25 16.1	6.073	6.123	88.1	9.4	(19.3)
1994 04 18	07 14.92	+25 00.0	6.235	6.125	79.1	9.3	(19.3)
1994 04 28	07 19.19	+24 42.6	6.392	6.128	70.4	8.9	(19.4)
1994 05 08	07 24.28	+24 23.7	6.541	6.131	61.9	8.3	(19.5)
1994 05 18	07 30.09	+24 03.3	6.679	6.133	53.6	7.6	(19.5)
1994 05 28	07 36.47	+23 41.4	6.804	6.136	45.5	6.8	(19.5)
1994 06 07	07 43.34	+23 17.9	6.912	6.139	37.5	5.8	(19.6)

Comet McNaught-Russell (1991v) Elements MPC 22196

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1993 08 21	08 11.13	-00 49.9	6.205	5.355	30.2	5.4	19.3
1993 08 31	08 16.63	-00 41.6	6.202	5.422	36.3	6.3	19.3

1993 09 10	08 21.55	-00 35.7	6.177	5.488	43.3	7.2	19.3
1993 09 20	08 25.79	-00 31.4	6.133	5.555	51.0	8.1	19.4
1993 09 30	08 29.24	-00 27.3	6.071	5.623	59.1	8.8	19.4
1993 10 10	08 31.82	-00 22.4	5.994	5.690	67.6	9.3	19.4
1993 10 20	08 33.43	-00 15.5	5.906	5.757	76.6	9.7	19.5
1993 10 30	08 33.96	-00 05.2	5.810	5.825	85.9	9.8	19.5
1993 11 09	08 33.36	+00 09.7	5.711	5.892	95.7	9.6	19.5
1993 11 19	08 31.57	+00 30.4	5.615	5.960	105.8	9.2	19.5
1993 11 29	08 28.59	+00 58.0	5.527	6.027	116.2	8.4	19.5
1993 12 09	08 24.48	+01 33.2	5.453	6.095	126.9	7.4	19.5
1993 12 19	08 19.36	+02 16.3	5.400	6.163	137.7	6.2	19.6
1993 12 29	08 13.42	+03 07.2	5.372	6.231	148.3	4.8	19.6
1994 01 08	08 06.94	+04 05.0	5.376	6.298	158.0	3.3	19.6
1994 01 18	08 00.22	+05 08.2	5.412	6.366	164.5	2.4	19.7
1994 01 28	07 53.62	+06 14.9	5.485	6.434	163.3	2.5	19.8
1994 02 07	07 47.44	+07 23.2	5.591	6.502	155.5	3.6	19.9
1994 02 17	07 41.96	+08 31.0	5.731	6.569	145.5	4.9	20.0
1994 02 27	07 37.41	+09 36.5	5.899	6.637	135.0	6.1	20.1
1994 03 09	07 33.91	+10 38.5	6.092	6.705	124.5	7.0	20.2
1994 03 19	07 31.53	+11 36.1	6.304	6.772	114.1	7.7	20.3
1994 03 29	07 30.26	+12 28.6	6.530	6.840	104.0	8.1	20.4
1994 04 08	07 30.06	+13 15.8	6.764	6.908	94.1	8.3	20.5

Planet	Opposition	R.A. (2000)	Decl.	V	Dly. Motion	Min. Phase	Ref.
1989 RW	93 05 04.0	14 45.15	-13 30.5	15.8	-0.77 + 7.9	0.9/03.4	22228
1990 SV13	93 05 04.1	14 45.42	-20 27.9	17.5	-0.98 + 2.9	1.6/05.2	18124
2196 P-L	93 05 04.2	14 45.93	-18 05.7	17.1	-1.05 + 5.0	0.8/04.8	20514
4874 P-L	93 05 04.3	14 46.20	-15 01.3	18.8	-0.92 + 3.1	0.3/04.1	22086
1981 VS	93 05 04.6	14 47.24	-12 23.2	17.5	-0.80 + 5.2	1.0/03.6	21968
1992 DK	93 05 04.6	14 47.25	-17 29.6	16.1	-0.86 + 0.8	0.4/04.9	22085
(5161)	93 05 04.7	14 47.86	-15 17.3	16.0	-0.84 + 4.2	0.3/04.6	19993
1992 AT1	93 05 04.8	14 48.06	-06 49.4	16.3	-0.99 + 4.0	3.5/02.6	21977
4114 T-1	93 05 04.8	14 48.14	-12 26.3	16.2	-0.94 + 2.2	1.8/04.0	20517
1988 AX1	93 05 04.9	14 48.34	-37 06.3	17.5	-1.08 + 4.3	7.2/10.6	21971
(5199)	93 05 05.0	14 48.84	-37 15.9	15.0	-1.01 + 4.5	8.7/10.7	20132
1260 T-2	93 05 05.0	14 49.01	-07 09.1	18.1	-0.84 + 5.9	3.3/02.6	15078
5162 T-2	93 05 05.1	14 49.30	-29 52.7	16.3	-0.88 + 3.1	4.3/08.6	15907
1981 EQ18	93 05 05.2	14 49.43	-13 39.9	19.1	-0.75 + 3.4	0.7/04.5	11042
(5060)	93 05 05.3	14 50.19	-18 43.7	17.1	-0.93 + 3.7	0.8/06.0	19667
1981 DZ1	93 05 05.5	14 50.94	-06 13.7	17.9	-0.70 + 9.0	3.0/02.4	21966
1977 RL7	93 05 05.7	14 51.42	-06 28.4	18.2	-0.81 + 6.3	2.9/03.0	22073
1989 GC1	93 05 05.7	14 51.53	-21 07.6	17.5	-0.99 + 4.5	1.8/06.9	22080
3076 T-2	93 05 05.7	14 51.61	-14 47.6	16.5	-0.81 + 3.0	0.5/05.4	14967
1986 XT	93 05 05.7	14 51.66	-20 25.3	18.3	-0.97 + 3.5	1.2/06.7	21970
1979 SS	93 05 05.7	14 51.75	-26 49.2	17.4	-1.09 + 3.1	3.9/08.1	21965
1990 TP7	93 05 05.8	14 51.92	-17 43.8	18.2	-0.82 + 3.3	0.4/06.2	17642
1981 EB23	93 05 05.8	14 51.95	-18 05.2	17.3	-1.02 + 3.4	0.6/06.2	21967
(5172)	93 05 05.8	14 52.11	-20 23.5	16.7	-1.01 + 5.8	1.4/06.9	19998
1982 CE	93 05 05.9	14 52.43	-10 23.1	16.2	-0.94 + 5.0	2.8/04.5	14615
1991 TA1	93 05 06.0	14 52.85	+00 43.3	15.3	-1.05 +20.2	7.4/29.9	22234
2541 P-L	93 05 06.2	14 53.53	-17 04.0	18.2	-1.01 + 4.0	0.2/06.4	21977
2249 T-2	93 05 06.3	14 53.83	-14 33.3	16.7	-0.78 + 3.8	0.7/05.8	16037
(5170)	93 05 06.3	14 53.87	-03 44.5	16.6	-0.75 + 4.9	4.0/02.9	19997
2547 P-L	93 05 06.4	14 54.38	-14 49.6	18.8	-0.79 + 2.9	0.5/06.0	16033
1980 FY	93 05 06.5	14 54.53	-20 29.5	16.2	-1.07 + 4.3	1.8/07.4	22074
3013 T-2	93 05 06.6	14 54.95	-10 17.8	17.8	-0.87 + 4.5	2.2/05.0	17836
1981 EA40	93 05 06.7	14 55.19	-12 19.2	19.1	-0.79 + 3.5	1.4/05.6	21968
1989 AL3	93 05 06.7	14 55.34	-07 34.6	17.9	-1.01 + 3.9	3.7/04.6	19677
1993 GO	93 05 06.7	14 55.39	-10 39.7	15.5	-1.11 - 4.9	2.9/05.9	22241

1990 OQ3	93 05 07.2	14 57.31	-24 46.3	15.6	-1.08	+ 4.9	3.6/09.0	20926
1981 EJ15	93 05 07.3	14 57.60	-19 23.5	18.8	-0.97	+ 4.5	0.8/07.9	10616
1990 TM5	93 05 07.7	14 59.12	-20 30.0	17.2	-0.98	+ 6.9	1.4/08.6	22082
1081 T-3	93 05 07.7	14 59.15	-19 19.7	16.1	-0.90	+ 8.9	0.9/08.4	22088
(5191)	93 05 07.8	14 59.69	-18 21.4	15.9	-0.78	+ 5.5	0.4/08.2	20005
1988 CL2	93 05 08.3	15 01.37	-08 15.1	17.8	-0.95	+ 3.8	3.1/06.2	22079
1981 EM12	93 05 08.4	15 01.79	-40 25.3	19.9	-1.01	+ 0.8	7.5/13.6	11045
1984 SH	93 05 08.4	15 02.12	-11 32.9	15.5	-1.03	+ 3.8	2.8/07.2	22223
1987 SE7	93 05 08.7	15 03.21	-25 20.5	17.9	-1.13	+ 4.8	3.3/10.6	22078
1981 EW20	93 05 08.8	15 03.50	-18 03.0	17.2	-0.81	+ 3.1	7.3/19.0	19858
(5185)	93 05 08.8	15 03.65	-14 39.6	16.2	-0.85	+ 6.2	0.9/08.2	20003
(5574)	93 05 08.8	15 03.73	+05 39.9	16.0	-0.84	+ 3.6	8.3/03.2	22206
(5056)	93 05 09.0	15 04.52	-13 59.6	17.0	-0.94	+ 1.9	1.1/08.4	19665
1986 UH3	93 05 09.2	15 05.18	-18 28.9	18.6	-0.93	+ 3.8	0.3/09.5	22078
1992 AL	93 05 09.3	15 05.50	+02 20.3	17.8	-0.86	+ 3.6	5.8/04.6	22084
1988 PL1	93 05 09.5	15 06.30	-29 47.4	15.9	-1.13	+18.0	5.7/13.7	19300
1991 VJ3	93 05 09.5	15 06.33	-16 51.6	16.9	-1.09	+ 2.6	0.2/09.4	20643
1981 EQ31	93 05 09.6	15 06.60	-09 34.4	19.5	-0.73	+ 3.7	2.2/07.7	21967
1990 TU8	93 05 10.0	15 08.24	-20 20.9	16.7	-1.08	+ 3.2	1.1/10.6	19307
1981 EG36	93 05 10.1	15 08.73	-11 04.7	17.6	-0.75	+ 3.9	1.9/08.6	10622
1991 VG2	93 05 10.2	15 09.21	-13 07.5	17.4	-0.99	+ 4.1	1.7/09.3	19519
(5139)	93 05 10.4	15 09.69	-17 05.8	14.9	-0.88	+ 2.5	0.2/10.3	19848
1981 EJ19	93 05 10.5	15 10.02	-16 41.5	17.5	-0.79	+ 3.2	0.3/10.3	10384
1304 T-2	93 05 10.5	15 10.20	-17 41.7	17.6	-0.80	+ 3.4	0.0/10.5	22087
1981 EE18	93 05 10.6	15 10.73	-23 29.3	19.8	-0.83	+ 2.5	1.6/12.0	21967
1981 EZ33	93 05 10.7	15 10.83	-20 50.6	19.4	-0.78	+ 3.7	0.8/11.5	21967
2151 T-2	93 05 10.7	15 11.12	-22 25.1	19.6	-0.80	+ 2.7	1.1/11.8	15082
1981 EY45	93 05 10.8	15 11.29	-23 43.7	18.7	-0.80	+ 3.0	1.5/12.2	10624
1991 YX	93 05 10.8	15 11.43	-08 07.3	17.7	-1.00	+ 3.9	3.6/08.7	19870
1978 PJ2	93 05 10.9	15 11.83	-13 07.4	17.7	-0.75	+ 3.8	1.3/09.8	22073
1989 GO4	93 05 11.0	15 11.97	-21 05.3	16.5	-0.99	+ 4.1	1.4/11.7	20016
1988 RV12	93 05 11.0	15 12.21	-02 48.0	18.3	-0.61	+ 4.5	3.7/07.1	15715
1981 EQ42	93 05 11.1	15 12.58	-17 33.0	16.4	-0.79	+ 3.3	0.1/11.1	16424
1990 QN2	93 05 11.3	15 13.11	-29 48.3	17.0	-1.14	+ 1.8	5.0/13.6	18121
1979 ML1	93 05 11.3	15 13.17	-25 51.0	16.8	-1.03	+ 5.9	3.3/13.2	21965
4192 T-1	93 05 11.3	15 13.20	-17 06.8	17.7	-1.05	+ 2.4	0.3/11.2	19326
1952 QW	93 05 11.7	15 14.79	-09 25.3	18.5	-1.03	+ 3.4	3.0/09.9	22072
1993 HV	93 05 11.8	15 15.09	-03 12.3	16.1	-0.70	+ 5.3	4.2/07.8	22242
3276 T-2	93 05 11.8	15 15.17	-09 16.0	18.5	-0.90	+ 2.9	3.3/09.9	22088
1990 VD6	93 05 11.9	15 15.52	-03 58.9	16.4	-0.81	+ 5.1	5.3/08.3	22231
1986 SZ1	93 05 11.9	15 15.55	-26 33.2	14.9	-0.95	+ 7.1	2.9/14.1	20814
1990 WE2	93 05 11.9	15 15.57	-06 41.5	15.7	-0.82	+10.5	4.7/08.5	18435
(5586)	93 05 11.9	15 15.87	-10 53.5	14.9	-0.89	+ 4.5	3.4/10.3	22211
1981 EJ7	93 05 12.0	15 16.07	-29 33.4	18.0	-0.85	+ 3.3	3.5/14.7	21966
1990 TB	93 05 12.2	15 16.66	-13 51.5	16.5	-1.04	+ 7.6	1.7/11.1	21974
1988 LH	93 05 12.3	15 17.43	-19 16.6	16.3	-0.79	+ 6.0	0.4/12.7	15889
1992 EU	93 05 12.4	15 17.55	-53 15.1	18.2	-1.39	0.0	8.7/20.2	21580
1981 SE7	93 05 12.6	15 18.51	-15 17.1	15.9	-0.95	+ 1.4	1.1/12.1	20922
1335 T-2	93 05 12.8	15 19.03	-17 31.7	18.1	-0.80	+ 3.1	0.2/12.6	20037
1981 ER17	93 05 12.9	15 19.45	-15 32.2	18.0	-0.76	+ 3.8	0.8/12.3	21967
1989 AV2	93 05 13.0	15 19.84	-36 53.3	17.6	-0.57	+ 2.6	3.1/17.7	21972
1973 QG2	93 05 13.1	15 20.36	-18 45.3	17.2	-0.82	+ 2.5	0.1/13.2	10829
1992 CT	93 05 13.2	15 20.71	-17 07.2	16.7	-0.88	+ 2.5	0.4/13.0	19873
6647 P-L	93 05 13.2	15 20.94	-20 04.3	16.9	-1.07	+ 2.6	0.7/13.6	22087
1991 AY1	93 05 13.4	15 21.43	-02 52.2	16.3	-0.76	+ 3.6	4.8/09.8	20820
6581 P-L	93 05 13.5	15 22.01	-24 01.9	17.1	-0.53	+ 1.7	1.0/14.8	20515
1990 ST8	93 05 13.7	15 22.78	-18 39.6	18.4	-1.08	+ 2.1	9.9/24.0	21974
1991 AR1	93 05 14.0	15 23.79	-19 08.5	17.1	-0.78	+ 2.7	0.1/14.1	22083
1981 EB36	93 05 14.2	15 24.47	-21 23.8	19.3	-1.03	+ 3.2	1.0/14.8	21967

4582	P-L	93 05 14.2	15	24.78	-21	35.0	16.9	-0.84	+ 2.0	1.0/14.9	21978
1980	TE4	93 05 14.2	15	24.83	-21	39.6	16.6	-0.97	+ 2.6	1.2/14.9	13056
1981	EZ46	93 05 14.3	15	25.13	-19	12.5	20.1	-0.78	+ 2.6	0.1/14.5	21968
6053	P-L	93 05 14.3	15	25.17	-16	25.1	17.0	-0.90	+ 5.2	1.0/13.8	12699
1981	ET29	93 05 14.5	15	25.64	-17	50.6	18.7	-0.78	+ 4.1	0.3/14.3	10621
1973	SS4	93 05 14.5	15	25.83	-37	01.4	15.3	-1.07	- 0.7	5.5/17.8	20327
3241	T-3	93 05 14.5	15	26.00	-19	53.0	17.6	-1.11	+ 3.1	0.4/14.8	21978
1986	QR1	93 05 14.6	15	26.17	-25	58.2	16.6	-1.05	+ 2.2	3.1/16.0	17819
1991	VX3	93 05 14.7	15	26.44	-18	48.1	16.4	-1.08	+ 2.9	0.0/14.7	21977
2566	P-L	93 05 14.7	15	26.73	-16	40.1	19.3	-0.97	+ 4.0	0.7/14.3	14626
1990	VE1	93 05 14.7	15	26.74	+03	55.9	17.2	-0.87	+ 3.0	7.6/09.5	22083
1981	ED35	93 05 14.7	15	26.77	-20	49.9	19.2	-1.02	+ 3.3	0.7/15.2	21967
1976	GD2	93 05 15.0	15	27.90	-09	46.7	15.7	-0.85	+ 9.3	4.5/12.6	21964
1978	VP11	93 05 15.0	15	27.90	-15	53.7	17.1	-0.80	+ 2.4	0.9/14.4	21927
1992	CE1	93 05 15.5	15	29.74	+08	44.5	16.1	-0.70	+ 4.4	7.8/08.3	21977
1992	AS1	93 05 15.6	15	30.18	-01	09.5	16.4	-0.83	+ 3.4	5.8/11.7	22084
1989	VW	93 05 16.0	15	31.90	-20	13.9	17.5	-0.66	+ 1.4	0.3/16.3	22081
4379	T-3	93 05 16.1	15	32.19	-09	07.4	17.3	-0.99	+ 3.9	4.2/14.1	22088
1978	UL7	93 05 16.3	15	32.93	-21	11.2	15.4	-1.01	+ 5.4	1.0/16.8	20808
(5577)		93 05 16.3	15	33.21	+16	02.9	15.8	-1.43	- 8.6	18.3/13.4	22207
1979	QC2	93 05 17.1	15	36.01	-15	54.7	17.1	-0.82	+ 3.0	1.0/16.4	17816
1990	VS4	93 05 17.1	15	36.06	-09	56.6	17.9	-0.90	+ 7.4	3.4/14.8	18434
1981	EM26	93 05 17.1	15	36.38	-27	37.8	18.1	-0.88	+ 1.4	2.6/18.7	15880
(5248)		93 05 17.3	15	36.87	-19	10.4	15.1	-1.02	+ 3.2	0.1/17.3	20488
2164	P-L	93 05 17.3	15	36.99	-22	29.1	17.4	-1.05	+ 3.9	1.2/18.0	22086
3045	T-3	93 05 17.6	15	38.05	-28	51.7	16.1	-0.94	- 0.7	2.9/19.0	22088
1989	EW1	93 05 17.7	15	38.71	-22	15.1	16.0	-1.13	+ 2.6	1.1/18.3	21973
1990	UJ	93 05 17.8	15	38.75	-07	40.3	16.0	-0.93	+ 4.5	4.9/15.2	17455
1983	RW3	93 05 17.9	15	39.26	-42	46.5	17.8	-1.39	- 1.5	10.4/20.9	21969
1992	BH	93 05 17.9	15	39.40	+08	47.1	16.5	-0.77	+ 1.3	9.3/12.3	22235
1990	YA	93 05 18.1	15	40.18	-22	22.4	17.8	-0.96	+ 4.0	0.9/18.7	21975
1053	T-2	93 05 18.1	15	40.23	-18	31.4	18.2	-0.92	+ 3.2	0.3/18.0	21978
1988	FF	93 05 18.2	15	40.68	-12	12.5	14.6	-0.93	- 1.4	3.2/17.2	22225
4157	T-3	93 05 18.3	15	41.17	-09	05.0	17.7	-0.99	+ 4.1	4.6/16.3	19884
1988	CH	93 05 18.5	15	41.95	-12	31.2	17.8	-0.91	+ 3.5	2.3/17.2	22079
2110	P-L	93 05 18.6	15	41.99	-22	32.4	18.1	-0.97	+ 3.4	1.1/19.0	12698
1990	VA7	93 05 18.6	15	42.25	-26	30.3	15.2	-1.02	- 2.7	2.2/19.5	22083
1990	WC	93 05 18.8	15	43.06	-16	51.0	17.3	-0.91	+ 1.0	0.8/18.4	21975
1990	VU14	93 05 18.8	15	43.07	-14	58.3	16.0	-0.84	+ 1.0	1.4/18.1	19867
1981	DG3	93 05 19.0	15	43.49	-43	13.4	15.4	-1.01	+ 2.1	7.7/23.8	21966
1990	RR2	93 05 19.1	15	44.16	-12	09.5	16.4	-0.94	+ 5.1	2.8/17.6	19504
(5023)		93 05 19.1	15	44.35	-33	27.5	17.2	-0.58	+ 1.9	2.4/22.1	19488
1978	EN10	93 05 19.2	15	44.31	-30	51.0	16.2	-1.12	+ 1.7	4.8/21.1	21964
1980	FF12	93 05 19.2	15	44.50	-25	23.6	16.2	-1.10	+ 2.4	2.8/20.2	21929
1990	QH1	93 05 19.3	15	44.75	-29	36.9	16.4	-1.12	+ 2.1	4.1/21.0	21974
4511	P-L	93 05 19.3	15	44.87	-10	47.2	20.8	-1.02	+ 4.1	3.4/17.6	15904
1989	TT2	93 05 19.4	15	45.28	-11	15.5	17.2	-0.79	+ 2.2	2.5/17.8	22081
4577	P-L	93 05 19.4	15	45.30	-02	26.4	17.3	-0.85	+ 4.3	5.7/15.8	21978
(5100)		93 05 19.4	15	45.43	-10	25.9	16.5	-1.00	+ 0.6	3.8/18.0	19833
1991	VB3	93 05 19.5	15	45.77	-21	47.8	16.0	-1.08	+ 6.2	0.8/20.0	22084
1983	CA1	93 05 19.6	15	46.20	-32	07.8	16.1	-1.02	+ 2.5	4.5/22.0	22051
1984	SS1	93 05 19.8	15	47.18	-18	11.6	17.9	-1.06	+ 5.0	0.7/19.6	14786
1988	DJ2	93 05 20.0	15	47.55	-22	02.6	18.4	-1.07	+ 3.3	0.8/20.4	22079
(5109)		93 05 20.0	15	47.70	-12	53.9	15.8	-1.00	+ 3.2	3.3/18.8	19837
(5357)		93 05 20.3	15	48.69	-31	46.3	15.8	-0.91	+ 3.4	3.5/22.6	20920
3398	T-3	93 05 20.4	15	49.21	-16	15.7	18.2	-1.05	+ 3.4	1.5/19.8	20649
4528	P-L	93 05 20.4	15	49.39	-17	18.8	18.5	-1.01	+ 3.8	1.0/19.9	18131
1979	QP	93 05 20.4	15	49.47	-21	40.8	17.1	-0.88	+ 2.8	0.6/20.8	21928
(5327)		93 05 20.4	15	49.58	-00	12.9	15.7	-0.89	+ 0.8	9.8/17.1	21909

1986 CE2	93 05 20.5	15 49.68	-29 14.8	16.5	-1.20	+ 1.7	4.1/22.0	22077
1992 AO	93 05 20.6	15 50.08	+14 38.7	16.2	-0.99	- 0.5	12.7/14.5	21945
1991 AG2	93 05 20.6	15 50.10	+00 57.2	19.1	-0.82	+ 2.9	5.9/16.3	17833
1985 CN2	93 05 20.6	15 50.12	-16 01.4	17.5	-1.01	+ 3.2	1.5/19.9	22224
1990 OT	93 05 20.7	15 50.42	-27 37.8	16.3	-1.11	+ 5.4	3.1/22.2	21974
1980 TC5	93 05 20.8	15 50.96	-17 45.6	17.1	-0.87	+ 5.0	0.8/20.4	17956
1973 SA2	93 05 21.4	15 53.30	-17 55.1	17.9	-0.53	+ 1.1	0.4/21.0	22072
(5206)	93 05 21.8	15 54.74	-40 59.8	16.8	-1.17	+ 2.0	7.3/25.5	20134
1982 US6	93 05 21.8	15 54.86	-23 37.2	17.1	-1.06	+ 0.3	1.2/22.3	21969
1981 UB23	93 05 22.0	15 55.80	-15 59.2	17.3	-0.89	+ 2.5	1.4/21.3	20498
4098 T-1	93 05 22.1	15 55.92	-27 21.7	17.3	-1.15	+ 0.3	2.7/23.1	22087
4092 T-3	93 05 22.1	15 55.99	-01 29.0	16.5	-0.83	+ 5.0	7.2/18.1	21978
1992 DL4	93 05 22.1	15 56.34	-29 32.0	18.2	-1.20	+ 1.2	3.6/23.5	20342
4063 P-L	93 05 22.2	15 56.44	-27 02.4	19.8	-1.06	+ 3.0	2.3/23.4	22086
1990 ST10	93 05 22.3	15 57.11	-40 47.5	17.1	-1.16	+ 1.6	6.5/25.7	20020
1980 TS4	93 05 22.4	15 57.25	-22 30.9	15.9	-1.08	+ 2.3	0.7/22.8	22074
1980 VG	93 05 22.5	15 57.80	-32 56.5	16.9	-1.03	+ 2.7	4.2/24.6	20010
1990 QY2	93 05 22.6	15 58.32	-23 49.4	17.5	-1.02	+ 2.5	1.2/23.2	22082
1981 EM8	93 05 22.9	15 59.41	-21 49.1	18.2	-0.84	+ 3.4	0.4/23.2	12714
(5551)	93 05 23.0	15 59.89	+17 55.3	17.0	-1.10	- 6.8	17.0/21.7	22042
6588 P-L	93 05 23.1	16 00.16	-20 09.3	18.5	-0.78	+ 2.1	0.1/23.1	19876
1991 VF2	93 05 23.2	16 00.61	-16 25.4	17.2	-1.05	+ 5.2	1.7/22.5	19519
1050 T-2	93 05 23.3	16 01.03	-07 06.6	18.4	-0.74	+ 3.0	3.6/20.9	14962
1981 EH3	93 05 23.5	16 01.69	-24 55.7	18.2	-1.03	+ 5.4	1.7/24.3	21966
(5105)	93 05 23.5	16 01.79	-15 59.3	16.6	-0.90	+ 5.7	1.5/22.6	19835
1990 TA13	93 05 23.5	16 01.81	-27 29.0	16.4	-0.95	- 0.3	2.2/24.5	20507
1991 TD1	93 05 23.5	16 01.88	+12 28.9	17.3	-1.08	+11.1	14.5/13.8	21976
(5339)	93 05 23.6	16 02.14	-24 13.7	16.2	-0.84	+ 2.2	1.1/24.2	20801
2630 P-L	93 05 23.7	16 02.50	-23 05.3	18.3	-1.04	+ 2.0	0.8/24.0	22086
1981 EY12	93 05 23.7	16 02.83	-13 35.1	18.1	-0.96	+ 5.1	2.6/22.5	21966
1985 CT	93 05 23.8	16 02.83	+14 40.5	17.4	-0.96	+ 1.8	11.7/16.8	21969
4801 P-L	93 05 23.9	16 03.53	-18 44.1	18.7	-0.82	+ 1.7	0.7/23.7	21978
1987 DP6	93 05 24.1	16 04.32	-11 41.5	18.0	-0.82	+ 2.0	2.8/22.7	22078
1990 OO3	93 05 24.2	16 04.46	-10 48.7	17.2	-0.96	+ 2.6	3.6/22.6	21974
1985 TB1	93 05 24.3	16 05.18	-20 40.5	15.8	-0.89	+ 2.8	0.0/24.4	20012
1990 SK	93 05 24.4	16 05.37	-35 11.9	17.4	-1.58	- 6.5	5.7/25.0	17448
(5180)	93 05 24.6	16 06.18	-17 46.5	15.9	-1.06	+ 0.1	1.3/24.2	20001
1992 AF	93 05 24.6	16 06.38	-17 50.9	16.7	-0.85	+ 4.3	1.0/24.1	22084
(5186)	93 05 24.7	16 06.57	-44 26.0	15.3	-1.22	+ 1.9	8.2/28.6	20003
1981 ES9	93 05 24.7	16 06.73	-11 39.3	18.3	-0.76	+ 4.2	3.0/23.0	15879
1991 XC	93 05 24.9	16 07.56	-50 27.5	18.2	-1.48	+ 0.2	9.3/29.5	20030
1990 VC1	93 05 25.0	16 07.62	-08 08.9	17.8	-0.89	+ 0.7	3.8/23.2	22083
1987 YU1	93 05 25.2	16 08.45	-13 45.5	17.9	-0.50	+ 3.1	1.2/23.8	16428
1982 DU	93 05 25.4	16 09.66	-47 15.4	17.4	-1.17	+ 1.6	7.9/30.1	22075
1989 GA3	93 05 25.5	16 09.66	-20 10.1	16.8	-1.03	+ 3.4	0.4/25.4	20635
1973 SH1	93 05 25.5	16 09.80	-17 31.6	17.1	-0.52	+ 1.2	0.6/25.0	21963
1989 SV1	93 05 25.5	16 09.94	-17 43.0	18.3	-0.78	+ 1.9	0.9/25.0	21938
1990 UG4	93 05 25.6	16 10.02	-01 57.2	16.1	-0.82	+ 7.9	8.3/21.0	17965
1992 BK	93 05 25.6	16 10.19	-27 02.7	17.3	-1.00	+ 2.2	1.9/26.6	22084
1992 CO	93 05 25.7	16 10.77	-08 02.1	16.0	-0.84	- 0.2	4.5/24.0	22236
1981 DB1	93 05 25.9	16 11.69	-08 57.0	16.7	-0.80	+ 6.1	4.0/23.4	15703
(5190)	93 05 26.2	16 12.81	-39 05.8	16.9	-0.95	+ 3.0	4.8/29.5	20005
(5138)	93 05 26.3	16 13.16	-20 16.9	16.5	-0.82	+ 2.2	0.3/26.2	19848
1982 WE	93 05 26.4	16 13.29	-24 55.4	17.1	-1.06	- 1.1	1.2/26.8	22075
1981 EO21	93 05 26.4	16 13.59	-23 36.7	19.2	-1.05	+ 2.7	0.8/26.8	22074
1986 PU1	93 05 26.7	16 14.85	-23 20.4	17.9	-1.09	+ 1.9	0.9/27.1	17437
1981 EY26	93 05 26.8	16 15.34	-29 26.2	15.9	-0.88	+ 1.8	2.8/28.1	21967
1981 EK7	93 05 26.9	16 15.41	-18 31.1	17.4	-0.81	+ 3.5	1.0/26.5	19858
1984 YY1	93 05 27.2	16 16.72	-24 42.4	18.5	-1.15	+ 2.1	1.3/27.7	17958

1978 PW3	93 05 27.3	16 17.39	-09 57.7	16.7	-0.93	+ 3.6	5.0/25.5	12948
(5124)	93 05 27.4	16 17.56	-23 02.9	15.6	-1.05	+ 2.7	0.8/27.7	19842
1982 UC11	93 05 27.4	16 17.73	-21 08.9	18.0	-1.00	+ 3.6	0.1/27.4	21969
(5025)	93 05 27.6	16 18.13	-34 48.6	17.2	-0.60	+ 1.0	2.4/29.7	19489
1990 TK3	93 05 27.6	16 18.50	-37 05.6	16.6	-1.22	- 2.0	5.4/29.0	20021
1992 EL1	93 05 27.7	16 18.64	-18 50.2	15.9	-0.89	- 0.5	0.8/27.4	20035
1990 UE3	93 05 27.8	16 19.11	-24 56.5	17.3	-0.82	+ 1.3	0.9/28.3	22083
1990 QB	93 05 27.8	16 19.47	-55 33.0	17.7	-1.66	+ 1.3	12.0/01.3	17638
1979 WX3	93 05 28.4	16 21.46	-18 53.4	17.1	-1.02	+ 2.1	0.9/28.1	21965
1991 AJ3	93 05 28.5	16 21.88	-35 55.3	15.9	-0.92	+ 4.8	4.6/31.1	18125
1981 EH23	93 05 28.6	16 22.37	-22 19.5	17.9	-1.03	+ 2.7	0.3/28.7	21967
1987 RJ	93 05 28.7	16 22.72	-20 57.7	16.4	-1.13	+ 1.2	0.3/28.7	22078
1990 SF11	93 05 28.7	16 22.89	-24 23.0	16.5	-1.03	+ 2.7	1.1/29.2	21108
4529 P-L	93 05 28.8	16 23.43	-28 18.2	18.7	-0.88	+ 1.3	2.2/29.8	17974
4247 P-L	93 05 28.9	16 23.80	-22 04.8	16.6	-1.00	+ 3.1	10.5/18.0	14960
1984 WM1	93 05 29.0	16 23.93	-31 22.4	17.2	-1.18	+ 2.7	3.9/30.4	22076
1981 EB11	93 05 29.1	16 24.47	-24 02.8	17.6	-1.01	+ 3.6	1.1/29.5	11042
1978 VR4	93 05 29.2	16 24.68	-19 09.9	16.5	-1.09	+ 4.3	1.0/28.8	22073
1975 SE2	93 05 29.3	16 25.13	-27 01.4	18.7	-1.12	- 0.1	2.1/29.9	22072
1981 EW31	93 05 29.4	16 25.88	-07 39.2	18.8	-0.77	+ 2.4	4.2/27.4	22074
1990 QW1	93 05 29.4	16 25.92	-30 50.6	17.2	-1.09	+ 1.9	3.3/30.7	22082
6030 P-L	93 05 29.8	16 27.24	-17 31.2	17.6	-0.71	+ 1.9	1.1/29.2	19318
(5045)	93 05 29.8	16 27.29	-18 31.1	17.8	-0.80	+ 1.6	0.9/29.4	19661
1990 QM4	93 05 29.8	16 27.54	-11 30.6	15.8	-0.95	+ 0.9	5.2/28.7	22082
1988 RA11	93 05 29.9	16 27.77	-18 05.7	18.1	-0.79	+ 1.3	1.1/29.5	20815
1981 EB1	93 05 30.1	16 28.69	-18 10.6	16.9	-0.82	+ 1.5	1.2/29.7	21966
1981 EZ37	93 05 30.3	16 29.19	-12 43.8	20.1	-0.78	+ 2.7	2.8/29.0	10386
1980 TV2	93 05 30.4	16 29.82	-30 45.5	18.5	-1.20	+ 1.2	3.3/31.4	22074
1982 FC	93 05 30.5	16 29.99	-36 51.1	15.8	-1.26	- 2.9	7.3/31.6	22075
1985 CU1	93 05 30.6	16 30.83	-56 49.4	18.5	-1.67	+ 3.2	11.5/05.7	19673
6591 P-L	93 05 30.7	16 30.85	-29 10.9	18.5	-0.58	+ 0.6	1.4/31.7	4831
1973 SR1	93 05 30.8	16 31.33	-27 30.9	17.5	-0.58	+ 0.4	1.0/31.6	16421
6742 P-L	93 05 31.1	16 32.50	-20 34.4	19.7	-1.10	+ 1.5	0.5/31.0	20347
1981 ET14	93 05 31.2	16 32.83	-22 59.8	19.3	-0.83	+ 2.2	0.3/31.3	10616
1987 UP2	93 05 31.2	16 32.91	-21 00.0	16.8	-1.11	+ 3.5	0.3/31.1	15416
2666 P-L	93 05 31.2	16 32.97	-14 36.9	20.9	-0.93	+ 2.3	2.3/30.3	16034
1979 VN	93 05 31.3	16 33.58	-15 17.9	15.9	-0.92	+ 4.9	2.7/30.3	22073
1983 AA3	93 06 01.0	16 36.32	-33 00.7	17.0	-1.08	0.0	3.8/02.2	22075
6564 P-L	93 06 01.1	16 36.79	-18 53.5	16.5	-0.83	+ 1.3	1.1/31.8	21978
1991 AO2	93 06 01.2	16 37.21	-04 42.1	16.9	-0.87	+ 2.8	5.6/29.8	17833
(5283)	93 06 01.3	16 37.74	-22 00.1	16.7	-0.54	- 0.3	0.0/01.4	20621
1977 VL1	93 06 01.4	16 37.84	-25 21.8	17.3	-1.04	+ 0.2	1.1/01.7	21098
1982 OF	93 06 01.5	16 38.20	-27 23.5	16.3	-1.11	+ 2.9	2.2/02.2	22075
(5244)	93 06 01.6	16 38.86	-17 24.8	16.7	-0.54	+ 1.6	0.9/01.0	21764
1992 HS3	93 06 01.6	16 38.90	-23 19.4	17.0	-0.54	+ 1.2	0.2/01.8	20513
1990 UJ1	93 06 01.8	16 39.36	-14 00.7	17.4	-0.89	+ 4.8	2.6/31.5	20149
2785 P-L	93 06 02.0	16 40.17	-20 50.9	18.6	-0.97	+ 1.1	0.5/01.9	16034
1987 VQ	93 06 02.0	16 40.48	-19 57.5	17.5	-1.03	+ 2.2	0.8/01.8	22079
4075 P-L	93 06 02.0	16 40.53	-23 18.9	19.1	-1.04	+ 2.0	0.4/02.2	12688
1991 EN	93 06 02.2	16 41.05	-37 09.4	17.3	-0.65	+ 2.7	2.9/04.4	18438
(5193)	93 06 02.2	16 41.38	-20 56.2	16.1	-0.82	+ 1.0	0.4/02.1	20006
1991 XK	93 06 02.3	16 41.52	-20 23.2	16.0	-1.06	+ 4.9	0.8/02.1	20511
1981 ER40	93 06 02.3	16 41.72	-24 18.6	19.3	-1.04	+ 2.3	0.9/02.6	14346
3424 T-3	93 06 02.3	16 41.74	-18 29.6	18.3	-0.94	+ 1.7	1.4/01.9	19331
1981 EY10	93 06 02.3	16 41.83	-18 48.5	17.7	-1.01	+ 2.9	1.3/02.0	22074
1990 VS5	93 06 02.4	16 41.92	-15 12.3	17.9	-0.91	- 0.5	2.2/01.8	18298
(5254)	93 06 02.5	16 42.48	-19 56.1	16.4	-0.56	- 0.9	0.4/02.3	20490
1990 VN2	93 06 02.5	16 42.64	-03 42.7	18.4	-0.79	+ 0.6	5.1/31.6	20150
6543 P-L	93 06 02.6	16 42.68	-21 41.1	16.4	-0.86	+ 1.0	0.2/02.6	21978

2563	P-L	93 06 02.7	16	43.32	-19	34.5	16.1	-0.82	+ 1.4	1.0/02.5	6207
1973	SE1	93 06 02.7	16	43.35	-26	30.9	17.6	-0.59	+ 0.7	0.9/03.3	20804
1990	MG	93 06 02.9	16	43.86	-20	04.5	15.8	-1.08	- 0.9	1.2/02.7	21974
(5258)		93 06 03.1	16	44.86	-21	47.5	17.1	-0.53	+ 1.5	0.1/03.1	20492
1988	MF	93 06 03.1	16	45.16	+12	10.1	15.8	-1.39	-12.1	17.4/05.3	22079
1981	EQ	93 06 03.3	16	45.62	-37	32.8	16.8	-0.99	- 0.7	5.6/04.6	21966
1990	WS4	93 06 03.3	16	45.72	-17	37.3	17.6	-0.91	+ 1.6	1.6/02.8	18435
1990	VC15	93 06 03.3	16	45.90	-16	48.9	16.5	-0.90	+ 2.0	1.9/02.8	21975
1977	TD1	93 06 03.4	16	45.94	-09	08.2	17.0	-0.88	+ 4.3	4.4/01.5	22073
1983	QH1	93 06 03.4	16	46.00	-14	28.5	15.7	-1.04	+ 2.0	3.7/02.5	21969
2796	P-L	93 06 03.4	16	46.02	-17	39.5	19.8	-0.96	+ 1.5	1.6/02.9	15902
1978	VW6	93 06 03.6	16	47.17	-18	57.5	18.4	-0.96	+ 5.4	1.2/03.2	21965
1981	QV2	93 06 03.7	16	47.47	-09	16.1	17.3	-0.92	+ 0.4	4.8/02.5	22074
4817	P-L	93 06 03.8	16	47.69	-11	16.2	19.4	-0.96	+ 2.7	4.2/02.5	15904
1988	CC2	93 06 03.8	16	47.98	-28	21.4	17.1	-1.11	+ 2.3	2.2/04.5	21971
1981	EF2	93 06 03.9	16	48.32	-30	45.5	16.4	-1.08	+ 3.9	3.5/05.0	22074
1971	TF	93 06 03.9	16	48.39	-25	49.5	16.6	-1.08	+ 1.6	1.3/04.3	22072
6612	P-L	93 06 03.9	16	48.45	-15	36.3	17.5	-0.93	+ 2.1	2.8/03.2	18303
3051	P-L	93 06 04.1	16	49.23	-12	59.4	16.3	-0.90	+ 7.9	4.1/02.5	15074
1990	XB	93 06 04.2	16	49.23	-23	36.7	16.0	-0.90	- 1.1	0.4/04.3	20150
3332	T-1	93 06 04.2	16	49.71	-23	46.5	18.7	-1.09	+ 2.2	0.5/04.4	19879
1982	UU8	93 06 04.3	16	50.11	-20	10.1	16.4	-1.04	+ 6.6	1.0/04.0	21103
1981	EE1	93 06 04.5	16	50.72	-17	39.3	17.4	-1.01	+ 1.2	2.0/04.1	22074
1983	PZ	93 06 05.0	16	52.78	-16	03.2	16.1	-1.03	+ 4.4	3.1/04.2	21969
1981	EH1	93 06 05.0	16	52.95	-12	31.4	16.5	-0.81	+ 0.9	3.2/04.2	22074
1988	BY3	93 06 05.0	16	52.97	-11	26.7	17.3	-0.94	+ 1.5	4.0/04.0	21971
1973	RF	93 06 05.2	16	53.80	-46	31.7	16.4	-1.33	- 1.3	8.9/06.6	21963
(5028)		93 06 05.3	16	53.81	-36	56.4	17.4	-0.64	- 0.7	2.5/06.5	19490
1989	GH4	93 06 05.7	16	55.40	-31	26.6	17.2	-1.15	+ 1.2	3.9/06.5	21973
1992	EF	93 06 05.7	16	55.69	-26	38.9	15.9	-0.89	+ 4.0	1.4/06.3	20034
1983	WF1	93 06 05.7	16	55.77	-10	47.1	16.8	-0.89	- 2.5	3.5/05.1	9687
1938	DM1	93 06 06.0	16	57.12	-33	54.9	15.4	-1.14	+ 0.7	5.3/07.1	21963
(5181)		93 06 06.1	16	57.07	-23	36.5	15.4	-1.07	- 0.1	0.4/06.2	20001
1986	TR6	93 06 06.1	16	57.30	-28	18.6	17.0	-0.58	+ 1.9	1.1/06.8	22078
1992	BM	93 06 06.4	16	58.36	-31	57.9	17.9	-1.21	+ 1.4	3.6/07.2	21977
1989	GQ1	93 06 06.4	16	58.55	-22	12.6	17.0	-1.03	+ 2.9	0.2/06.4	16235
1988	DJ1	93 06 06.7	16	59.78	-14	46.1	17.5	-0.97	+ 1.1	2.8/06.1	21971
1981	UD2	93 06 06.7	16	59.94	-14	25.3	17.1	-0.91	+ 4.7	2.8/05.7	17629
1987	RB6	93 06 06.8	16	59.98	-24	31.6	15.3	-1.07	- 1.3	1.0/06.9	21971
1989	SA3	93 06 06.8	17	00.11	-25	38.1	17.9	-0.85	- 0.4	0.8/07.0	22081
1990	TX	93 06 06.8	17	00.29	-22	45.3	16.9	-1.15	- 0.2	0.0/06.9	22082
1981	EB21	93 06 07.3	17	02.35	-24	51.4	19.9	-0.85	+ 1.5	0.6/07.6	21967
1989	EM	93 06 07.3	17	02.39	-24	26.4	15.1	-0.97	+ 2.2	0.8/07.5	18116
1981	EA41	93 06 07.5	17	03.21	-13	55.4	19.0	-0.80	+ 1.6	2.8/06.8	10386
2095	P-L	93 06 07.6	17	03.65	-26	30.9	19.5	-0.99	+ 1.5	1.3/08.0	17973
2291	T-1	93 06 07.8	17	04.52	-23	31.8	15.5	-1.00	- 1.0	9.9/19.0	20830
(5259)		93 06 08.0	17	04.96	-26	29.2	16.7	-0.63	- 1.2	0.8/08.2	20492
1990	TW12	93 06 08.0	17	05.32	-35	52.7	17.9	-1.11	- 1.7	4.2/08.6	17965
1973	SD1	93 06 08.3	17	06.51	-31	11.8	18.2	-0.59	+ 0.4	1.5/09.1	18412
1977	QT2	93 06 08.4	17	06.57	-25	47.8	16.7	-1.15	+ 2.0	1.2/08.6	20921
9094	P-L	93 06 08.6	17	07.82	-08	47.5	18.6	-1.02	+ 4.1	5.8/07.0	22087
1990	UG3	93 06 09.0	17	09.33	-26	09.8	18.2	-1.01	- 0.1	1.0/09.3	18634
1979	QM1	93 06 09.0	17	09.33	-21	28.1	16.5	-0.91	+ 1.3	0.5/09.0	11996
1990	TJ	93 06 09.0	17	09.40	-25	54.6	17.4	-1.05	- 0.5	1.1/09.2	20148
1988	CF3	93 06 09.2	17	09.94	-28	26.6	16.3	-1.15	+ 1.4	2.4/09.6	21971
(5129)		93 06 09.2	17	10.00	-05	06.3	15.3	-0.96	+ 0.9	7.4/08.0	19844
1979	EL	93 06 09.2	17	10.07	-17	47.0	16.1	-0.99	- 2.7	1.7/09.1	22073
9602	P-L	93 06 09.3	17	10.38	-14	48.0	19.6	-0.52	+ 0.4	1.5/08.7	10833
1973	SY	93 06 09.3	17	10.39	-07	32.7	17.7	-0.51	+ 1.3	2.8/07.9	21963

1981 EF25	93 06 09.3	17 10.71	-22 57.8	19.0	-1.05	+ 1.1	0.0/09.4	10823
1977 RD3	93 06 09.6	17 11.90	-25 10.8	16.3	-1.19	- 1.0	1.0/09.8	22073
1986 RS2	93 06 09.9	17 12.76	-16 03.7	17.1	-1.03	+ 1.8	2.8/09.4	22077
1981 DE	93 06 09.9	17 12.77	-20 41.6	16.6	-1.04	+ 3.3	0.9/09.7	22074
1985 CZ1	93 06 09.9	17 13.09	-30 28.5	16.2	-1.14	+ 2.9	3.0/10.6	21969
1990 WE	93 06 10.0	17 13.60	-20 13.3	17.0	-0.93	- 1.0	0.9/10.0	19868
1992 ED1	93 06 10.1	17 13.61	-16 46.0	16.6	-0.94	+ 4.7	2.1/09.4	21977
1991 CA2	93 06 10.4	17 15.12	-04 31.3	16.6	-0.79	- 0.6	5.6/09.4	18635
7581 P-L	93 06 10.4	17 15.23	-30 18.1	16.9	-1.20	- 1.5	3.4/10.7	18831
1983 WN	93 06 10.5	17 15.25	-20 45.6	16.9	-1.12	+ 6.0	1.0/10.2	17818
1981 EN2	93 06 10.5	17 15.31	-22 43.3	19.7	-0.84	+ 2.8	0.1/10.5	10537
1989 UB8	93 06 10.5	17 15.67	-17 58.2	17.5	-0.81	+ 1.7	1.5/10.2	16585
1990 SW	93 06 10.6	17 15.67	-09 53.7	15.8	-0.94	+ 4.7	6.3/09.1	19305
1981 EC14	93 06 10.6	17 16.06	-29 19.5	18.6	-1.06	+ 2.2	2.8/11.2	10383
(5142)	93 06 10.9	17 17.27	-15 19.4	16.1	-0.97	+ 2.2	2.6/10.4	19849
1988 CN4	93 06 11.3	17 18.86	-17 35.7	17.4	-0.96	+ 2.2	1.9/11.0	21971
(5436)	93 06 11.4	17 19.37	-22 04.1	17.2	-0.54	+ 1.2	0.2/11.4	21553
1212 T-2	93 06 11.5	17 19.52	-10 01.7	16.6	-0.82	+ 2.4	4.5/10.4	21978
(5137)	93 06 11.6	17 19.82	-10 34.2	16.3	-0.93	+ 7.0	5.2/10.0	19847
1992 CU	93 06 11.7	17 20.30	-22 14.4	15.7	-0.91	- 2.0	0.3/11.7	19873
1981 EZ27	93 06 11.7	17 20.59	-23 56.0	16.7	-1.02	+ 0.3	0.4/11.8	21932
1981 ER42	93 06 11.8	17 20.68	-25 14.2	19.5	-0.87	+ 0.6	0.6/11.9	21968
1980 TM	93 06 12.0	17 21.58	-28 55.9	15.6	-0.99	- 0.1	2.1/12.3	21966
6541 P-L	93 06 12.1	17 22.19	-13 37.7	18.8	-0.51	+ 0.3	1.7/11.6	10832
5030 T-2	93 06 12.2	17 22.44	-29 29.1	19.5	-0.56	+ 1.2	1.1/12.7	15258
(5239)	93 06 12.2	17 22.53	-23 03.2	16.6	-0.94	- 1.3	0.0/12.3	20325
1991 EL	93 06 12.4	17 23.10	-32 36.4	18.1	-0.65	+ 3.1	2.0/13.3	18437
1981 EW17	93 06 12.4	17 23.20	-21 08.8	18.6	-1.04	+ 1.4	0.7/12.3	15064
1105 T-2	93 06 12.6	17 24.05	-19 05.9	18.3	-0.96	+ 1.0	1.5/12.4	15075
1982 UE12	93 06 12.6	17 24.32	-37 59.8	16.5	-1.16	+ 2.2	5.8/13.7	20330
1985 XS	93 06 12.7	17 24.37	-19 14.4	16.5	-0.89	+ 0.7	1.5/12.5	21970
1978 SB3	93 06 12.7	17 24.43	-29 42.4	16.7	-1.12	+ 1.3	2.6/13.0	20495
(5188)	93 06 12.7	17 24.47	-04 45.3	16.9	-0.91	- 0.9	6.3/12.1	20004
2017 P-L	93 06 12.7	17 24.48	-23 15.5	16.1	-1.04	+ 2.9	11.7/24.0	18444
1988 BL5	93 06 12.8	17 24.78	-29 53.0	17.8	-1.08	+ 4.3	2.4/13.4	19501
1980 FJ1	93 06 12.9	17 25.38	-47 56.8	16.3	-1.13	+ 0.1	8.0/13.9	22074
1973 SO1	93 06 13.0	17 25.79	-13 00.4	18.1	-0.50	+ 0.5	1.7/12.5	18280
(5284)	93 06 13.0	17 25.82	-13 59.1	17.2	-0.53	- 1.2	1.7/12.8	20621
5119 T-3	93 06 13.1	17 26.34	+11 09.1	17.8	-0.98	+ 1.4	12.0/11.2	22088
(5198)	93 06 13.2	17 26.51	-20 28.7	16.8	-0.82	+ 0.5	0.8/13.1	20131
1989 VX	93 06 13.3	17 26.99	-22 36.7	17.0	-0.85	+ 0.1	0.2/13.3	22081
1982 WA	93 06 13.4	17 27.35	-20 57.4	18.1	-0.97	+ 3.6	0.8/13.2	7841
1983 VQ1	93 06 13.4	17 27.43	-43 52.0	18.4	-1.58	- 7.2	7.6/12.2	21969
1992 AB1	93 06 13.4	17 27.63	-21 29.0	16.4	-1.07	+ 3.4	0.7/13.3	22084
1986 QT1	93 06 13.5	17 27.93	-26 51.4	17.5	-1.10	+ 0.4	1.3/13.7	22077
1985 BH	93 06 13.6	17 28.16	-18 19.4	15.9	-1.11	- 1.4	2.1/13.5	19018
1981 EX4	93 06 13.8	17 28.94	+01 50.8	17.3	-0.78	+ 4.6	8.6/10.9	21966
1992 BZ	93 06 13.8	17 29.06	-23 58.0	17.0	-1.05	- 0.3	0.3/13.9	22085
1992 FB	93 06 13.8	17 29.12	-30 24.0	15.2	-0.97	- 2.4	2.4/13.9	22085
1989 NE1	93 06 14.3	17 31.47	-41 49.8	15.6	-1.16	- 7.6	9.3/13.0	15254
(5123)	93 06 14.4	17 31.75	-24 14.1	17.1	-0.55	- 0.4	0.2/14.5	19842
1990 OJ2	93 06 14.5	17 32.20	-25 02.2	16.9	-1.16	- 1.2	0.7/14.6	22082
1987 SL10	93 06 14.7	17 32.76	-11 34.3	18.4	-0.63	+ 0.2	2.6/14.2	21971
1045 T-2	93 06 14.8	17 33.15	-10 44.2	16.8	-1.04	+ 2.9	5.5/13.9	18446
1170 T-2	93 06 14.8	17 33.23	-06 29.8	19.3	-0.89	+ 1.4	5.6/14.0	19329
1986 RW	93 06 15.0	17 33.93	-30 59.4	16.7	-1.15	+ 2.3	2.8/15.4	21970
1991 BZ	93 06 15.0	17 33.97	-26 55.6	18.7	-0.94	+ 1.7	1.1/15.2	21975
1981 EW39	93 06 15.0	17 34.38	-39 19.2	19.5	-1.00	+ 0.1	5.7/15.6	21967
1251 T-2	93 06 15.2	17 34.97	-21 41.8	18.3	-0.83	+ 0.4	0.5/15.2	15077

1987 SG13	93 06 15.2	17 35.23	-30 29.6	17.5	-1.21	- 0.5	3.0/15.4	22078
4113 P-L	93 06 15.3	17 35.49	-20 38.5	17.8	-1.04	+ 0.9	1.0/15.3	22086
1989 DJ	93 06 15.6	17 36.81	-45 30.9	16.9	-0.70	+ 1.0	4.0/16.8	21973
1981 EK5	93 06 15.7	17 36.91	-28 47.4	17.6	-0.89	+ 2.7	2.0/16.1	12576
1981 EQ9	93 06 15.7	17 37.08	-17 21.4	18.2	-0.82	+ 1.2	2.0/15.5	21966
1971 UM	93 06 15.8	17 37.49	-27 06.3	16.2	-1.11	- 0.3	1.6/15.9	22072
1982 FG3	93 06 15.9	17 37.85	-25 06.2	16.6	-1.13	+ 1.1	0.7/16.0	15243
1992 AH1	93 06 15.9	17 37.86	-37 18.8	17.8	-1.12	+ 1.4	4.7/16.7	22084
1984 UB3	93 06 15.9	17 38.04	-23 08.5	16.7	-0.88	+ 0.7	0.1/16.0	21969
1992 CG1	93 06 16.0	17 38.40	-20 44.5	15.7	-0.86	- 0.7	1.0/16.0	22056
(5027)	93 06 16.1	17 38.60	-28 35.6	16.6	-0.63	- 2.5	1.0/16.1	19490
5493 T-2	93 06 16.1	17 38.62	-37 13.0	17.5	-0.65	+ 1.0	2.7/16.7	21953
1978 VZ2	93 06 16.1	17 38.71	-24 08.7	18.0	-1.01	0.0	0.3/16.2	16575
1981 ER31	93 06 16.5	17 40.30	-15 48.0	19.2	-1.00	- 0.2	3.0/16.4	10824
1990 VV1	93 06 16.9	17 42.05	-11 21.9	17.4	-0.98	+ 2.9	4.5/16.2	17460
1991 YC	93 06 17.3	17 43.67	-14 03.0	17.5	-1.00	- 3.9	3.3/17.6	22084
1976 YA	93 06 17.3	17 43.79	-13 59.1	17.2	-0.89	+ 3.5	2.9/16.8	21964
1974 FJ	93 06 17.6	17 45.13	-31 55.0	16.8	-1.15	+ 0.7	3.7/18.0	21963
5166 T-3	93 06 17.8	17 45.69	-00 16.8	16.7	-0.84	- 1.0	10.5/17.5	15910
(5202)	93 06 18.2	17 47.26	-21 55.1	16.8	-1.08	+ 4.5	0.5/18.1	20133
1981 DN	93 06 18.2	17 47.26	-30 59.0	19.2	-1.16	+ 2.8	3.0/18.6	11148
(5197)	93 06 18.2	17 47.59	-38 09.2	16.1	-1.04	- 1.8	5.2/18.1	20007
1973 SM1	93 06 18.3	17 47.78	-07 33.9	19.1	-0.52	+ 0.6	3.0/17.9	21963
1982 UM2	93 06 18.5	17 48.56	-20 01.9	17.6	-1.00	+ 0.1	1.2/18.5	21968
9086 P-L	93 06 18.5	17 48.84	-16 14.7	19.4	-1.17	+ 2.6	3.3/18.2	6106
1990 SN4	93 06 18.8	17 49.88	-42 49.3	16.4	-1.21	+ 0.2	6.5/19.1	22082
(5285)	93 06 18.9	17 50.54	+03 02.8	17.1	-0.52	- 1.2	4.9/19.0	20622
(5096)	93 06 19.0	17 50.93	-33 02.2	16.5	-1.18	+ 1.5	3.6/19.3	19831
1991 YH	93 06 19.2	17 51.37	-33 21.5	16.1	-1.21	- 1.5	4.1/19.1	22084
1983 RG2	93 06 19.4	17 52.71	-27 00.1	16.8	-1.18	- 3.2	1.6/19.4	17202
1977 RK	93 06 19.6	17 53.46	-53 05.0	16.2	-1.95	-10.7	14.8/16.1	22073
(5126)	93 06 19.7	17 53.70	-04 46.2	17.3	-0.55	- 2.4	3.5/20.2	21764
1990 QZ1	93 06 19.7	17 53.83	-34 54.3	17.0	-1.18	+ 0.7	4.5/20.0	19679
(5041)	93 06 19.8	17 54.11	-34 43.0	17.5	-0.63	- 0.5	2.2/19.9	19659
(5241)	93 06 19.9	17 54.33	-26 48.8	17.0	-0.85	- 0.4	0.9/19.9	20326
1979 MC2	93 06 20.0	17 54.74	-20 08.7	16.5	-0.90	+ 0.4	1.2/20.0	21965
1989 FA	93 06 20.0	17 54.94	-17 53.5	16.4	-1.08	- 0.8	2.4/20.1	19864
1990 YE	93 06 20.1	17 55.47	-23 13.2	17.4	-0.83	- 0.3	0.1/20.2	22083
7604 P-L	93 06 20.2	17 55.91	-24 00.8	16.4	-1.06	- 1.6	0.2/20.3	22087
1990 QL	93 06 20.5	17 57.21	+10 25.8	18.3	-1.00	- 1.5	11.8/20.3	21974
1979 MR5	93 06 20.5	17 57.23	-23 19.1	17.7	-1.09	+ 1.2	0.1/20.6	21965
6608 P-L	93 06 20.6	17 57.19	-32 02.7	20.5	-1.07	- 0.4	2.7/20.6	12572
1983 TR2	93 06 20.6	17 57.20	-45 32.7	15.7	-1.14	- 2.9	8.5/19.5	21969
5141 T-2	93 06 20.6	17 57.29	-31 21.3	16.9	-0.96	+ 2.7	2.8/20.9	20517
1989 RD1	93 06 20.7	17 57.72	-24 24.6	16.4	-1.05	- 6.0	0.4/20.7	16030
1987 VB	93 06 20.7	17 57.92	-24 39.8	15.9	-1.15	+ 1.2	0.5/20.8	21971
(5264)	93 06 20.7	17 58.02	+00 21.1	17.0	-0.53	- 2.3	4.2/21.6	20494
3252 T-1	93 06 20.7	17 58.05	-22 27.3	17.4	-1.02	+ 1.7	0.5/20.8	19324
4081 P-L	93 06 20.8	17 58.23	-11 11.5	17.1	-1.05	+ 2.0	5.6/20.4	18445
(5173)	93 06 20.8	17 58.40	-05 23.2	17.0	-0.90	- 0.5	6.3/21.1	19998
1990 RH2	93 06 21.0	17 59.12	-34 25.8	18.1	-1.21	+ 0.6	4.6/21.1	20335
1973 AW3	93 06 21.0	17 59.34	-28 19.2	15.8	-0.99	- 2.2	1.7/21.0	21963
1972 HL1	93 06 21.1	17 59.49	-29 04.8	16.2	-1.08	- 0.5	2.9/21.1	17953
1978 VZ7	93 06 21.2	17 59.74	-25 00.7	17.8	-0.90	- 0.2	0.6/21.2	10613
5187 T-2	93 06 21.2	17 59.86	-18 06.9	18.2	-0.54	+ 0.8	1.0/21.2	16883
1990 SW4	93 06 21.3	18 00.53	-16 37.1	16.8	-1.03	- 0.9	2.9/21.4	22082
1964 YJ	93 06 21.4	18 00.62	-15 33.4	15.8	-0.85	- 3.0	2.6/21.7	13480
1990 QK3	93 06 21.5	18 01.35	-14 02.9	17.5	-1.04	- 1.2	3.9/21.7	20335
1992 FF	93 06 21.6	18 01.42	-25 00.4	16.6	-0.86	- 0.4	0.5/21.6	21977

1988 CH3	93 06 21.6	18 01.63	-31 55.6	16.3	-1.09	+ 6.7	3.7/22.3	13468
1991 GX1	93 06 21.6	18 01.66	-29 06.4	17.5	-0.59	+ 0.8	1.1/21.7	21975
1979 QC1	93 06 21.7	18 01.91	-39 50.2	17.3	-1.31	+ 2.2	6.7/22.0	21965
1992 AF1	93 06 21.8	18 02.18	-30 24.8	16.7	-1.18	- 0.9	2.8/21.7	22084
1981 EM5	93 06 21.8	18 02.59	-23 50.0	18.4	-0.87	+ 2.0	0.1/21.9	11837
1980 RD1	93 06 22.1	18 03.59	-25 55.7	16.0	-0.98	+ 1.1	0.9/22.2	17956
1990 TL1	93 06 22.4	18 04.76	-14 11.3	16.4	-1.03	+ 0.8	3.9/22.3	21974
1990 UO2	93 06 22.5	18 05.31	-00 47.4	16.7	-1.07	+ 7.6	8.6/20.3	17965
1981 EW13	93 06 22.6	18 06.01	-23 26.5	18.4	-1.05	+ 0.6	0.0/22.7	13041
(5235)	93 06 22.8	18 06.49	-21 05.0	14.3	-1.01	+ 3.7	1.2/22.7	20323
1990 SQ16	93 06 23.0	18 07.67	-22 45.2	15.7	-1.13	- 2.6	0.3/23.1	21974
2799 P-L	93 06 23.3	18 08.56	+20 38.4	19.7	-0.79	+ 1.6	14.5/20.4	16034
1991 XZ	93 06 23.4	18 08.93	-29 27.9	17.0	-1.18	+ 0.7	2.4/23.4	19684
(5209)	93 06 23.4	18 09.14	-32 08.4	17.1	-0.61	+ 0.4	1.6/23.4	20486
1977 AW2	93 06 23.5	18 09.50	-28 40.3	16.6	-0.98	0.0	2.0/23.5	18413
1989 GP4	93 06 23.5	18 09.51	-12 06.9	16.9	-0.98	+ 1.2	5.3/23.5	22081
(5182)	93 06 23.6	18 09.72	-01 40.8	15.2	-0.88	- 6.2	9.8/25.6	20002
1981 FP	93 06 23.6	18 09.79	-19 07.1	17.6	-1.01	- 0.4	1.9/23.7	10825
1981 EJ22	93 06 23.8	18 10.50	-11 06.3	16.7	-0.83	+ 0.7	6.5/23.8	10619
2777 P-L	93 06 23.9	18 10.97	-17 58.9	15.8	-0.93	- 1.2	2.7/24.1	22086
1981 ET43	93 06 24.1	18 12.01	+15 52.5	20.0	-0.77	+ 0.5	11.8/25.1	10387
(5113)	93 06 24.1	18 12.13	-62 45.0	16.5	-2.08	+ 8.7	14.6/30.2	19838
1978 TO8	93 06 24.8	18 14.86	-22 16.8	16.7	-0.88	- 0.2	0.4/24.9	22073
1979 OB9	93 06 24.8	18 14.93	-15 50.2	17.0	-1.06	+ 1.0	3.2/24.9	21928
1992 AD1	93 06 24.9	18 15.57	-22 25.4	15.1	-1.03	+ 4.8	0.4/25.0	22084
1986 XH	93 06 25.0	18 15.59	-21 22.5	17.4	-1.00	+ 3.0	0.7/25.0	22078
1988 CT2	93 06 25.2	18 16.43	-20 44.5	16.3	-0.98	- 2.0	1.2/25.3	22079
1978 VK3	93 06 25.2	18 16.78	-20 47.5	16.9	-0.98	+ 1.6	1.1/25.3	21965
1493 T-2	93 06 25.3	18 17.09	-24 22.7	19.3	-0.85	- 0.6	0.3/25.3	22087
1988 PZ1	93 06 25.3	18 17.11	-24 05.3	16.8	-0.87	- 0.4	0.2/25.4	21971
1989 WN1	93 06 25.4	18 17.22	-31 45.9	16.4	-0.97	- 3.4	3.0/24.9	18294
1981 EP18	93 06 25.4	18 17.32	-10 13.2	18.0	-0.80	- 0.4	4.6/25.8	15703
4321 T-1	93 06 25.6	18 17.99	-25 35.8	17.8	-1.00	- 1.0	0.8/25.5	21602
1992 FW1	93 06 25.6	18 18.06	+10 00.7	19.6	-0.95	+ 0.4	10.9/26.3	21581
3006 T-3	93 06 25.8	18 19.04	-33 59.6	16.2	-1.25	- 2.5	4.7/25.3	21978
4408 T-1	93 06 26.5	18 21.71	-28 08.3	16.5	-1.16	- 2.8	2.1/26.2	19328
1987 UU4	93 06 26.8	18 23.25	-31 07.6	17.1	-1.17	- 2.1	2.9/26.5	22079
1989 SU3	93 06 26.8	18 23.40	-08 38.8	16.8	-0.80	- 0.5	4.9/27.4	20017
1990 QZ8	93 06 27.1	18 24.29	-20 31.1	18.3	-1.06	- 1.7	1.1/27.2	21974
1988 CF	93 06 27.1	18 24.70	-31 35.7	17.6	-1.10	- 0.2	2.9/27.0	19677
1981 EY13	93 06 27.2	18 25.10	-11 46.0	19.3	-0.82	+ 0.6	3.9/27.5	20328
1990 UE1	93 06 27.3	18 25.06	-21 31.5	17.0	-1.06	- 0.2	0.7/27.4	17456
1989 TS	93 06 27.4	18 25.87	-67 45.1	16.5	-2.36	-12.8	17.5/13.7	22081
1981 EK25	93 06 27.5	18 25.93	-25 28.7	16.2	-0.98	+ 0.6	1.1/27.5	14345
(5212)	93 06 27.6	18 26.30	-11 24.1	16.3	-0.82	+ 1.4	3.7/27.8	20137
1984 DN	93 06 27.6	18 26.53	-13 25.1	16.7	-0.97	- 2.3	3.6/28.3	22076
1991 AD	93 06 28.1	18 28.39	-20 13.9	15.9	-0.98	+ 1.9	1.1/28.1	17831
(5053)	93 06 28.2	18 29.08	-07 49.6	16.6	-0.98	- 3.9	6.2/29.6	19664
1979 MR3	93 06 28.2	18 29.10	-16 32.3	15.8	-0.97	- 5.9	3.4/29.0	21965
(5192)	93 06 28.4	18 29.64	-25 19.4	14.7	-0.87	- 4.2	0.6/28.2	20005
1977 DB1	93 06 28.4	18 30.08	-20 08.3	18.7	-1.03	- 1.4	1.1/28.7	21964
1984 UW	93 06 28.5	18 30.40	-26 18.3	17.0	-1.02	+ 0.8	1.1/28.5	21969
1977 EM5	93 06 28.5	18 30.41	-07 47.8	17.8	-0.99	- 0.8	6.0/29.1	22073
1990 SO4	93 06 28.6	18 30.63	-29 19.1	14.9	-1.19	+ 3.6	2.9/28.7	17641
1989 WU2	93 06 28.8	18 31.64	-24 13.4	17.6	-0.86	- 1.3	0.3/28.8	21973
1979 SU2	93 06 29.1	18 32.74	-17 21.6	16.5	-1.05	+ 1.1	2.4/29.3	21965
2768 P-L	93 06 29.2	18 33.03	-20 50.3	17.4	-0.95	- 2.1	1.0/29.4	15902
6670 P-L	93 06 29.2	18 33.05	-29 18.4	18.8	-1.03	- 0.8	2.1/28.9	17976
1990 UH1	93 06 29.5	18 34.59	-25 02.3	17.0	-1.14	- 4.8	0.7/29.4	21975

1990	WN2	93 06 29.6	18	34.72	-30	22.1	16.9	-1.04	-	4.7	2.4/28.9	20022
6297	P-L	93 06 29.7	18	35.48	-47	00.4	19.8	-1.29	-	0.1	8.9/28.5	16035
1990	SU8	93 06 29.8	18	35.79	-10	43.7	15.5	-0.83	-	4.2	7.1/01.1	18298
1986	AE	93 06 29.9	18	35.95	-34	11.2	17.7	-1.31	+	5.8	3.7/30.1	22077
1981	EE46	93 06 30.1	18	37.06	-27	36.0	18.5	-0.91	+	0.7	1.7/30.0	11842
1971	BD3	93 06 30.3	18	37.48	-20	16.7	16.7	-0.99	+	0.2	1.0/30.4	21963
6104	P-L	93 06 30.4	18	37.98	-17	59.0	19.0	-0.80	-	0.6	1.6/30.7	17975
1989	TT11	93 06 30.4	18	38.32	-20	50.3	16.4	-0.89	-	0.7	0.8/30.6	22081
1980	UL1	93 06 30.5	18	38.75	-13	41.2	15.6	-0.91	+	2.4	3.9/30.7	21966
1990	QL2	93 06 30.7	18	39.31	-15	07.0	16.1	-1.05	-	2.0	3.5/01.3	20019
3036	T-1	93 06 30.9	18	40.38	-00	45.8	16.0	-0.80	+	0.9	10.7/01.8	21601
1985	QH5	93 07 01.4	18	42.24	-20	19.7	17.8	-0.94	-	1.0	0.9/01.6	22076
1981	EL5	93 07 01.5	18	42.63	-15	15.7	18.7	-0.83	+	1.0	2.4/01.9	17817
4581	P-L	93 07 01.5	18	42.87	-26	39.6	17.1	-1.15	-	2.3	1.6/01.3	22086
1979	MB4	93 07 01.7	18	43.26	-14	05.1	18.1	-0.97	-	2.9	4.3/02.5	18803
1992	DZ2	93 07 02.0	18	44.75	-24	33.6	17.8	-1.04	-	1.4	0.6/01.9	20341
1978	TP6	93 07 02.1	18	45.08	-27	59.8	17.7	-0.85	-	0.4	1.3/01.8	20806
1981	ET22	93 07 02.2	18	45.53	-26	58.1	18.1	-1.08	-	1.4	1.4/02.0	17430
1981	EN4	93 07 02.3	18	45.93	-16	02.6	18.1	-0.84	+	1.3	2.2/02.6	17816
1980	VA	93 07 02.4	18	46.39	-17	51.7	17.9	-1.13	-	1.5	2.1/02.8	21966
1990	YH	93 07 02.4	18	46.43	-13	28.7	15.8	-0.81	-	3.2	3.0/03.4	20151
1989	RB2	93 07 02.5	18	46.67	-25	46.3	14.4	-0.98	+	2.0	1.1/02.4	22081
1990	TB4	93 07 02.6	18	47.45	-23	00.9	17.5	-0.98	-	0.7	0.0/02.7	17642
1991	BM2	93 07 02.7	18	47.59	-23	42.9	17.9	-0.83	-	0.9	0.2/02.7	18436
1984	DE1	93 07 02.8	18	47.98	-24	47.6	17.5	-0.75	-	0.6	0.5/02.7	22076
1988	RD5	93 07 03.0	18	48.93	-25	05.5	16.8	-0.87	-	1.4	0.7/02.9	21972
1981	EG44	93 07 03.1	18	49.29	-36	58.9	18.2	-0.97	-	1.0	4.4/02.1	21968
2808	P-L	93 07 03.2	18	49.91	-19	45.2	18.5	-1.02	-	1.4	1.2/03.5	21977
1990	QC8	93 07 03.2	18	49.92	-16	57.9	17.5	-1.05	-	3.3	2.5/03.9	21974
1988	BH5	93 07 03.3	18	50.23	-17	28.0	16.9	-1.01	+	2.9	2.1/03.5	22079
1982	DC2	93 07 03.3	18	50.28	-15	41.6	18.1	-1.06	-	2.4	3.0/04.0	17432
1990	QT9	93 07 03.4	18	50.30	-22	02.1	16.8	-1.01	-	2.5	0.5/03.5	20335
(5079)		93 07 03.4	18	50.42	-19	23.6	16.4	-1.00	+	1.9	1.2/03.6	19824
1989	GF1	93 07 03.4	18	50.60	-28	15.8	17.1	-1.16	-	0.4	2.2/03.1	19864
1989	NM	93 07 03.5	18	51.16	-23	35.5	14.7	-0.95	-	6.4	0.3/03.5	22081
1989	GR4	93 07 03.6	18	51.35	-16	00.8	17.8	-1.06	-	1.5	2.8/04.2	20334
2121	P-L	93 07 03.7	18	51.70	-44	38.0	20.5	-1.23	-	0.9	7.1/01.9	12570
1159	T-2	93 07 03.7	18	51.81	+00	53.7	16.6	-0.88	-	0.9	9.2/05.8	22087
(5230)		93 07 04.0	18	52.90	+06	37.3	18.1	-0.91	-	0.7	8.7/06.3	20321
2208	P-L	93 07 04.0	18	53.01	-17	18.4	20.4	-0.94	-	0.6	1.8/04.4	12571
1990	QJ1	93 07 04.0	18	53.01	-28	36.5	16.6	-1.20	+	0.3	2.6/03.7	17639
1976	SA	93 07 04.1	18	53.48	-14	37.4	16.8	-0.90	-	2.3	3.1/04.9	15402
1975	NC	93 07 04.1	18	53.50	-20	43.3	15.7	-0.93	+	1.9	0.9/04.3	21782
1981	EJ35	93 07 04.2	18	53.65	-15	36.6	21.7	-1.00	-	2.0	2.6/04.9	13044
1978	VP1	93 07 04.2	18	54.03	-17	49.3	18.2	-0.82		0.0	1.5/04.6	19856
1991	YG	93 07 04.3	18	54.15	-17	38.4	16.8	-1.09	-	0.4	2.1/04.7	20511
1990	SN7	93 07 04.3	18	54.36	-30	32.7	16.6	-1.05	-	4.3	4.2/03.4	18123
1990	TO4	93 07 04.3	18	54.41	-28	04.7	18.5	-1.03	-	4.1	1.8/03.8	21974
1980	FR1	93 07 04.4	18	54.46	-26	36.2	16.5	-0.87	-	0.5	1.2/04.1	21965
1981	EA43	93 07 04.4	18	54.73	-24	41.2	19.6	-1.11	-	1.1	0.7/04.3	10825
1990	OT3	93 07 04.4	18	54.76	-25	41.5	15.3	-1.16	+	0.6	1.3/04.3	21941
1988	SW2	93 07 04.8	18	56.15	-25	17.2	16.2	-0.87	-	1.7	0.9/04.6	21972
(5464)		93 07 04.9	18	56.46	-43	00.6	17.4	-1.20	-	3.5	7.3/02.3	21770
1991	CR1	93 07 04.9	18	56.68	-21	11.8	17.1	-0.82	-	2.9	0.5/05.1	20507
1985	PL	93 07 04.9	18	56.73	-37	15.8	16.3	-1.23	+	3.5	6.4/04.4	15709
1983	RP2	93 07 04.9	18	56.74	-17	06.0	16.4	-1.06	-	2.8	2.6/05.5	22076
1981	ET31	93 07 04.9	18	56.84	-09	56.1	17.7	-0.78	-	1.4	3.5/06.1	16577
1985	RW	93 07 05.0	18	57.04	+02	34.7	18.1	-1.22	+	6.7	12.0/04.8	22076
(5274)		93 07 05.0	18	57.04	-41	58.0	15.5	-1.18	+	0.4	7.7/03.9	20617

1281	T-2	93 07 05.0	18 57.35	-03 40.8	18.4	-0.88	-	1.0	6.3/06.7	22087
3100	T-1	93 07 05.3	18 58.29	-12 07.8	17.7	-0.92	-	0.6	3.6/06.1	22087
1991	YF	93 07 05.4	18 58.58	-26 06.4	15.9	-1.15	+	2.6	1.4/05.3	21977
1975	TC6	93 07 05.4	18 58.94	-37 34.1	16.1	-1.20	-	1.7	5.7/04.2	21963
2304	T-2	93 07 05.6	18 59.35	-26 09.2	19.4	-0.88	-	1.6	1.1/05.3	15083
2527	P-L	93 07 05.9	19 00.98	-01 09.5	17.9	-0.78	-	1.1	6.5/07.8	22086
4214	T-1	93 07 06.0	19 01.11	-17 33.2	18.9	-0.93	-	2.3	1.8/06.5	19880
4523	P-L	93 07 06.1	19 01.50	-21 31.7	17.8	-0.56	-	0.8	0.2/06.2	18130
(5114)		93 07 06.3	19 02.49	-29 41.2	15.6	-1.07	-	1.8	2.9/05.7	19838
1983	XG	93 07 06.5	19 03.10	-15 35.2	16.3	-0.81	-	0.8	2.3/07.1	22076
4837	P-L	93 07 06.7	19 03.86	-23 11.6	17.6	-0.84	-	1.3	0.2/06.6	17975
1990	TQ1	93 07 06.8	19 04.72	-18 56.4	17.2	-1.06	-	5.1	1.7/07.4	18823
1982	FA	93 07 07.4	19 06.95	-23 49.4	16.6	-1.12	-	2.4	0.5/07.3	22075
1988	ST2	93 07 07.5	19 07.23	-24 00.9	16.4	-0.84	-	2.1	0.5/07.4	19864
1955	EH	93 07 07.6	19 07.99	-14 18.1	16.5	-1.00	-	3.3	3.1/08.6	21963
1981	EL41	93 07 07.8	19 08.76	-37 41.7	20.0	-0.99	-	0.7	4.9/06.4	10632
9073	P-L	93 07 08.1	19 09.90	-28 54.0	17.0	-0.90	-	0.7	2.1/07.5	15571
1981	ES39	93 07 08.3	19 10.67	-22 13.1	20.7	-0.85	-	1.2	0.1/08.4	10543
4127	P-L	93 07 08.5	19 11.45	-22 02.2	18.2	-0.86	-	1.4	0.1/08.6	22086
1973	SR6	93 07 08.5	19 11.71	-42 54.0	17.7	-1.22	-	2.4	7.2/05.9	22072
1990	VD4	93 07 08.8	19 12.69	-19 37.3	16.9	-1.05	-	2.1	1.1/09.1	21975
1981	EP38	93 07 08.8	19 12.84	-06 30.6	19.3	-0.79	-	1.5	5.3/10.6	21967
1971	SN2	93 07 08.9	19 13.25	-23 52.5	15.6	-0.85	-	2.3	0.5/08.8	21963
5140	T-2	93 07 09.1	19 14.07	-20 27.0	15.0	-0.90	+	1.8	0.7/09.3	21978
1981	ES8	93 07 09.1	19 14.13	-07 41.8	16.7	-0.81	-	0.7	5.0/10.6	22074
1988	CX3	93 07 09.4	19 14.92	-16 10.8	17.2	-1.00	-	0.4	2.3/10.0	17635
1988	RW3	93 07 09.5	19 15.43	-25 00.2	17.6	-0.85	-	1.6	1.0/09.2	21972
1990	WP4	93 07 09.6	19 15.96	-27 34.8	16.5	-0.95	-	5.3	2.0/08.8	18435
1972	TE	93 07 09.7	19 16.50	-15 10.8	16.8	-0.98	-	0.7	2.9/10.4	22072
1988	RB11	93 07 09.8	19 16.67	-21 09.5	18.6	-0.82	-	1.6	0.3/10.0	22079
1979	KQ	93 07 10.0	19 17.38	-13 52.9	17.0	-0.88	-	2.5	3.5/11.0	20141
6837	P-L	93 07 10.0	19 17.65	-24 00.1	18.9	-0.91	-	2.8	0.6/09.8	15905
1990	QC2	93 07 10.0	19 17.69	-12 51.5	15.8	-0.88	-	4.7	5.1/11.5	21974
1990	RQ2	93 07 10.0	19 17.83	-29 36.1	16.7	-1.20	-	1.2	3.0/09.3	21974
(5175)		93 07 10.1	19 17.95	+05 48.5	16.1	-1.16	+	4.8	13.9/11.3	19999
1983	EV	93 07 10.2	19 18.22	-27 49.8	16.9	-0.98	-	1.6	1.9/09.6	22075
1981	SA7	93 07 10.2	19 18.32	-30 30.9	16.3	-1.04	-	3.2	3.0/09.1	22074
1990	SK11	93 07 10.2	19 18.53	-20 54.9	16.2	-1.10	-	0.7	0.6/10.4	20927
1990	SK6	93 07 10.3	19 19.10	-35 35.4	16.8	-1.17	-	2.5	5.8/08.8	19866
1939	UB	93 07 10.8	19 20.99	-03 56.6	16.3	-0.88	-	0.9	6.1/13.0	21963
1987	RT5	93 07 10.9	19 21.50	-20 47.4	15.7	-0.93	-	5.1	0.7/11.2	20500
1989	OL	93 07 11.1	19 22.30	-43 11.5	16.8	-1.14	-	5.3	9.4/07.4	16029
1981	EE22	93 07 11.2	19 22.45	-29 30.2	18.9	-0.90	-	1.4	2.4/10.4	10384
1981	EX30	93 07 11.4	19 23.14	-18 27.5	18.3	-1.04	-	3.2	1.6/11.9	21967
1981	JB2	93 07 12.0	19 25.69	-39 32.8	16.1	-0.97	-	3.0	5.7/09.4	20142
4086	T-3	93 07 12.2	19 26.49	-21 39.5	17.4	-0.93	-	5.8	0.2/12.3	21978
1989	SL12	93 07 12.4	19 27.32	-22 21.3	17.9	-0.88	-	1.6	0.1/12.4	21973
1128	T-3	93 07 12.5	19 28.03	-40 46.6	17.5	-1.05	+	0.7	6.7/10.5	20648
1992	FB1	93 07 12.6	19 28.05	-05 34.8	16.3	-0.85	-	4.6	5.5/15.4	20343
1978	PO3	93 07 12.6	19 28.12	-23 42.6	15.5	-0.98	-	2.1	0.9/12.4	21964
1976	YB2	93 07 12.9	19 29.38	-27 32.0	15.8	-1.06	-	3.7	2.6/12.1	19289
1981	ET25	93 07 13.0	19 29.82	-10 48.5	17.0	-0.91	-	3.2	5.0/14.7	21967
1981	RQ	93 07 13.0	19 30.09	-38 40.4	16.1	-1.24	+	1.9	7.0/11.5	22074
(5236)		93 07 13.4	19 31.37	-08 52.9	16.0	-0.99	-	1.6	5.4/15.0	20324
1976	YR1	93 07 13.5	19 31.95	-26 00.0	17.2	-1.07	-	4.1	1.6/12.9	20009
1981	ER35	93 07 13.6	19 32.40	-21 33.8	19.5	-0.90	+	0.3	0.1/13.7	12577
1976	WC	93 07 13.6	19 32.44	+03 32.0	18.7	-0.93	-	4.5	7.9/17.9	21964
1988	CH2	93 07 13.9	19 33.64	-16 52.4	15.9	-1.00	-	6.0	2.2/14.8	22079
1991	BG2	93 07 14.1	19 34.11	-24 35.8	17.2	-0.81	-	2.1	0.8/13.7	21575

(5225)	93 07 14.1	19 34.12	-22 23.3	16.4	-0.86	-	2.6	0.2/14.0	20319
3236 T-2	93 07 14.2	19 34.75	-33 10.6	16.3	-1.19	-	3.0	5.0/12.7	22088
1979 DF	93 07 14.3	19 35.28	-43 31.4	16.9	-1.18	-	2.6	7.4/11.2	18105
1987 WV1	93 07 14.6	19 36.16	-20 52.3	17.5	-1.10	-	2.9	0.3/14.7	22079
1985 TY1	93 07 15.0	19 38.03	-12 01.6	16.8	-0.93	+	0.4	3.7/16.1	15245
1989 GZ1	93 07 15.1	19 38.55	-19 01.2	17.3	-1.03	-	1.4	1.2/15.5	17636
1981 ES10	93 07 15.2	19 38.76	-19 35.1	19.7	-1.05	-	1.2	0.7/15.5	10382
1078 T-3	93 07 15.5	19 39.87	-02 32.0	18.5	-0.92	+	0.4	6.8/17.8	12701
1980 RJ	93 07 15.5	19 40.05	-32 00.0	16.3	-1.24	-	1.3	4.6/14.2	22074
1992 GZ4	93 07 15.5	19 40.16	-23 44.4	17.3	-0.83	-	2.5	0.7/15.2	21581
1979 MA6	93 07 15.6	19 40.28	-17 23.8	17.9	-1.01	-	4.9	1.6/16.3	21965
4668 P-L	93 07 15.7	19 40.68	-33 59.9	18.3	-1.14	-	2.8	4.9/13.8	17651
1985 RU	93 07 16.1	19 42.33	-37 05.1	15.9	-1.38	+	8.5	8.2/15.6	22076
1990 VL2	93 07 16.1	19 42.48	-19 44.9	17.0	-0.97	-	3.5	0.6/16.4	20150
1991 BH2	93 07 16.2	19 42.93	-33 31.8	16.5	-0.96	-	0.3	3.7/14.7	17969
(5112)	93 07 16.2	19 43.03	-29 32.9	16.1	-1.18	-	4.9	3.6/14.9	19838
1977 DS4	93 07 16.4	19 43.77	-27 14.7	16.5	-0.91	-	2.6	2.3/15.6	22073
5111 T-3	93 07 16.7	19 44.93	-45 19.5	17.7	-1.16	-	5.5	10.2/11.5	16040
1991 AF1	93 07 16.8	19 45.14	-22 30.4	15.8	-0.90	+	0.2	0.4/16.7	21975
(5224)	93 07 17.0	19 45.99	-34 33.9	17.0	-1.23	-	0.8	5.9/15.3	20318
1991 CL3	93 07 17.1	19 46.59	-45 55.6	16.9	-1.03	-	1.7	6.6/13.0	18127
1989 TC3	93 07 17.2	19 46.60	-12 21.6	18.7	-0.77	-	2.9	2.4/18.7	21973
1990 SN3	93 07 17.2	19 46.84	-33 24.5	15.0	-0.97	-	3.6	6.9/15.0	20927
1991 BY	93 07 17.2	19 46.88	-37 05.3	15.4	-0.98	+	0.6	4.7/15.2	22083
1985 RB3	93 07 17.3	19 47.02	-30 16.0	18.0	-1.14	-	2.6	3.7/15.9	10836
1978 RE3	93 07 17.3	19 47.29	-21 31.2	17.9	-1.05	-	1.9	0.2/17.3	12452
1981 EC26	93 07 17.4	19 47.48	-23 17.7	19.3	-1.04	-	2.4	0.9/17.1	21967
1991 AA1	93 07 17.4	19 47.72	-24 53.0	16.6	-0.93	-	3.9	1.4/16.8	17832
(5081)	93 07 17.4	19 47.86	-34 10.8	14.6	-1.09	-	9.3	6.0/14.5	19825
(5311)	93 07 17.5	19 47.79	-16 28.8	18.2	-0.81	-	1.8	1.4/18.2	20789
1992 EC1	93 07 17.7	19 48.79	+15 20.0	19.9	-0.86	-	3.6	11.0/26.0	20342
1971 TY2	93 07 17.8	19 49.05	-17 40.8	16.7	-0.90	-	0.5	1.0/18.3	21963
1988 BV	93 07 17.8	19 49.14	-23 27.1	16.8	-1.07	-	3.7	0.9/17.4	20333
6245 P-L	93 07 18.0	19 50.12	-00 07.8	18.2	-0.86	-	3.5	7.9/22.0	12700
1966 CM	93 07 18.1	19 50.30	-08 58.9	16.9	-0.86	-	6.0	4.1/20.6	16227
1990 QF	93 07 18.1	19 50.54	-27 22.1	15.6	-1.22	-	0.4	3.0/17.4	21791
1981 GQ	93 07 18.2	19 50.66	-40 32.0	17.6	-1.03	-	1.1	5.6/15.4	21968
1987 WF	93 07 18.4	19 51.45	-32 56.3	16.2	-1.18	-	3.6	4.8/16.4	21971
2702 P-L	93 07 18.7	19 52.61	-22 33.9	18.5	-0.83	-	2.2	0.5/18.4	19035
1989 GT3	93 07 18.7	19 52.92	-19 48.9	15.7	-1.04	-	2.2	0.5/18.9	22081
(5146)	93 07 18.7	19 53.01	-38 06.9	14.9	-1.17	+	3.0	7.1/17.2	19851
1990 TW7	93 07 18.8	19 53.04	-30 53.3	18.9	-1.16	-	3.5	3.8/17.1	20336
1991 CX5	93 07 18.8	19 53.15	-23 39.0	16.7	-0.82	-	4.1	0.8/18.3	21942
(5547)	93 07 18.8	19 53.26	-02 52.4	15.8	-0.93	+	0.2	7.0/21.4	22041
1990 SA2	93 07 18.8	19 53.47	-23 21.7	16.6	-1.08	-	2.5	1.2/18.5	17216
1981 ED11	93 07 19.0	19 53.86	-28 27.8	18.8	-1.07	+	3.2	3.9/18.3	10615
(5234)	93 07 19.2	19 54.64	+33 02.9	16.1	-0.93	+	3.0	17.5/25.9	20323
1990 TZ	93 07 19.4	19 55.76	+08 18.5	15.6	-0.96	+	0.8	9.3/23.3	21974
9511 P-L	93 07 19.8	19 57.12	-19 46.9	16.6	-0.81	-	2.5	0.3/20.0	22087
(5141)	93 07 20.0	19 58.06	-19 05.0	16.0	-0.86	-	3.5	0.6/20.3	19849
(5294)	93 07 20.5	19 59.92	-15 53.3	15.8	-0.83	-	6.9	1.5/21.6	20625
1983 VN7	93 07 20.8	20 01.18	-19 18.8	16.8	-0.84	-	2.9	0.4/21.0	21969
1981 EN16	93 07 21.0	20 02.10	-26 36.5	19.6	-1.13	+	0.1	2.5/20.3	21967
1981 EQ43	93 07 21.1	20 02.58	-18 17.6	20.0	-0.99	-	3.2	0.9/21.5	10825
1986 GY	93 07 21.2	20 02.79	-27 07.0	15.5	-1.07	-	2.5	3.5/20.1	21970
1990 TB1	93 07 21.4	20 03.84	-35 02.0	15.4	-1.14	+	0.4	7.4/19.4	20336
1977 EA6	93 07 21.5	20 04.20	-21 28.1	17.4	-1.06	-	1.3	0.4/21.4	19012
1985 CH1	93 07 21.6	20 04.34	-26 34.7	15.8	-1.11	-	2.7	2.4/20.6	22076
1981 QF	93 07 21.6	20 04.35	-25 13.1	16.7	-1.02	-	1.4	2.2/20.9	22074

1987	YD	93 07 21.7	20	05.05	-31	52.4	16.7	-1.12	-	4.6	4.2/19.6	21971
1992	FP	93 07 21.8	20	05.04	-23	04.6	16.4	-0.84	-	2.6	0.9/21.3	20155
1990	UK1	93 07 21.8	20	05.32	-14	18.3	16.3	-1.05	-	0.7	2.9/22.7	17457
5170	T-3	93 07 21.9	20	05.46	-10	45.1	17.2	-0.88	-	5.9	3.3/24.0	20039
1989	TH1	93 07 22.1	20	06.51	-30	23.7	15.8	-1.11	-	0.9	4.0/20.5	22081
1010	T-2	93 07 22.3	20	07.01	-06	11.2	16.6	-0.78	-	2.7	4.3/25.0	20831
1990	WU5	93 07 22.3	20	07.15	-18	37.2	18.5	-0.92	-	4.2	0.6/22.6	19307
1978	VT6	93 07 22.8	20	09.09	-15	39.4	16.6	-1.05	-	1.2	2.3/23.5	21965
1992	FJ1	93 07 23.0	20	09.80	-32	38.5	15.8	-1.07	+	3.2	4.2/21.7	21977
3226	T-3	93 07 23.0	20	10.09	-37	19.2	18.2	-1.09	-	2.9	5.8/19.7	22088
4311	T-2	93 07 23.2	20	10.94	-17	50.2	17.5	-0.98	-	5.4	1.0/23.7	21126
2314	T-2	93 07 23.2	20	11.00	-15	39.3	16.9	-0.99	-	4.9	2.0/24.2	15906
7622	P-L	93 07 23.3	20	11.00	-33	40.1	16.6	-1.15	-	4.8	6.6/20.4	17463
1986	RJ4	93 07 23.3	20	11.43	-47	37.2	17.7	-1.78	+	5.1	11.3/20.3	16024
1976	UP18	93 07 23.6	20	12.34	-09	28.3	18.7	-0.99	-	4.3	4.6/25.6	21964
1988	DE2	93 07 23.9	20	13.57	-22	13.8	17.0	-1.01	-	4.1	0.8/23.5	20015
3109	T-3	93 07 24.2	20	14.94	-20	12.1	17.8	-0.80	-	2.5	0.1/24.2	22088
4171	T-3	93 07 24.4	20	15.58	-29	10.4	16.9	-1.13	-	4.6	3.9/22.6	22088
1991	AC	93 07 24.4	20	15.67	-23	49.6	16.5	-0.88	-	3.1	1.4/23.7	17830
1990	QT2	93 07 24.5	20	16.05	-21	14.5	17.2	-1.10	-	3.5	0.6/24.3	21974
9508	P-L	93 07 24.7	20	16.98	-21	13.2	17.4	-0.81	-	3.1	0.5/24.5	21951
1990	UW3	93 07 25.0	20	18.09	-18	44.6	19.3	-1.00	-	4.5	0.3/25.3	20928
1979	MD2	93 07 25.3	20	19.22	-14	24.9	17.1	-1.02	-	3.9	2.0/26.4	20922
(5231)		93 07 25.5	20	19.83	-31	47.1	14.8	-1.00	-	7.7	4.4/22.4	20321
1990	QV5	93 07 25.6	20	20.38	-16	15.3	16.2	-1.02	-	4.2	1.6/26.3	22082
1981	EM31	93 07 25.7	20	20.86	-17	52.4	18.0	-0.94	-	3.8	0.8/26.1	22074
1989	TZ15	93 07 25.8	20	21.08	-31	04.5	16.1	-1.02	-	0.4	4.5/23.9	20636
1978	VW2	93 07 25.9	20	21.48	-18	58.4	19.0	-0.77	-	2.9	0.1/26.0	19291
1990	RS17	93 07 26.0	20	21.70	-23	42.0	14.6	-1.05	+	1.6	2.3/25.4	21974
1981	ET8	93 07 26.0	20	22.04	-12	33.5	17.4	-0.96	-	3.4	2.8/27.4	10769
1992	HK1	93 07 26.2	20	22.47	-23	47.5	17.0	-0.88	-	3.0	1.6/25.3	20933
1980	SQ	93 07 26.3	20	22.90	-10	10.6	16.3	-1.02	-	2.6	4.3/28.0	21966
1981	EL20	93 07 26.3	20	22.91	-29	23.9	17.9	-0.95	-	0.1	3.6/24.6	15407
4806	P-L	93 07 26.3	20	23.32	-16	52.6	18.8	-0.91	-	3.8	0.9/26.9	12699
2678	P-L	93 07 26.4	20	23.68	-19	44.0	19.3	-0.99	-	4.1	0.1/26.4	22086
1990	VQ5	93 07 26.6	20	24.16	-16	53.8	17.2	-0.89	-	6.6	0.9/27.2	20022
1990	UD	93 07 26.6	20	24.18	-28	09.2	15.1	-1.04	-	6.1	4.5/24.6	22082
1978	QY1	93 07 26.9	20	25.37	-13	30.3	16.8	-0.93	-	4.8	2.3/28.0	17815
1982	BD13	93 07 27.0	20	25.65	-21	09.9	15.8	-1.12	-	0.8	0.9/26.7	22075
1981	EH35	93 07 27.0	20	26.10	-21	12.6	20.3	-1.09	-	2.6	0.8/26.7	21967
1979	SJ	93 07 27.2	20	26.80	-29	20.5	16.6	-1.04	-	0.8	5.3/25.4	12143
1981	EO19	93 07 27.5	20	27.72	-08	06.8	18.4	-0.77	-	4.0	3.4/30.0	10618
1981	EC10	93 07 27.6	20	28.12	-08	03.7	19.0	-0.78	-	3.1	3.8/30.0	12715
1990	WZ2	93 07 27.6	20	28.51	-51	56.6	16.8	-1.75	-	0.5	12.1/20.4	18825
1991	DS	93 07 27.7	20	28.54	-19	31.8	16.8	-0.78	-	3.2	0.1/27.6	21975
4600	P-L	93 07 27.8	20	29.03	-18	28.9	18.0	-0.76	-	3.0	6.1/08.0	22086
(5362)		93 07 27.8	20	29.18	-17	16.6	16.0	-0.73	-	4.0	0.5/28.3	21086
1988	FM	93 07 27.8	20	29.22	-41	00.9	16.8	-1.20	-	0.7	8.2/24.0	19863
1988	QP	93 07 28.1	20	30.00	-16	55.9	17.1	-0.83	-	1.0	0.6/28.5	13859
1942	CG	93 07 28.1	20	30.25	-25	20.8	16.0	-0.95	-	5.7	2.1/26.7	21963
1976	GL8	93 07 28.2	20	30.61	-12	04.6	14.5	-0.95	-	0.2	3.1/29.4	17624
1975	QC	93 07 28.2	20	30.61	-10	01.6	16.0	-0.87	-	6.8	4.2/30.4	22072
1979	YN	93 07 28.3	20	30.88	-20	20.8	17.1	-0.80	-	5.8	0.4/28.0	17955
1992	EB	93 07 28.4	20	31.18	-19	28.5	16.0	-1.08	-	3.3	0.3/28.3	20033
1990	HP	93 07 28.5	20	31.65	-62	34.5	16.9	-2.05	+	0.6	21.0/18.6	18120
1990	SK3	93 07 28.5	20	31.86	-26	11.8	15.0	-0.93	-	5.2	3.9/26.9	20927
1983	UC	93 07 28.5	20	31.98	-30	16.0	17.6	-1.12	-	3.9	5.0/26.1	21969
1982	UK7	93 07 28.7	20	32.49	-23	52.8	15.6	-0.97	-	6.4	2.3/27.5	20812
1985	RH	93 07 28.9	20	33.36	-37	34.2	16.1	-1.21	+	2.4	7.9/26.3	22076

(5174)	93 07 28.9	20 33.39	-10 26.5	16.5	-0.88	-	5.3	2.9/30.9	19998
2244 T-2	93 07 29.5	20 35.64	-17 18.0	18.0	-0.90	-	3.7	0.6/29.8	17977
1981 EK35	93 07 29.6	20 36.24	-18 02.3	18.1	-0.84	-	2.8	0.2/29.8	21967
3289 T-2	93 07 29.7	20 36.42	-08 38.4	17.8	-0.76	-	5.0	3.2/01.2	14969
1978 SN7	93 07 29.7	20 36.60	-03 36.6	17.1	-0.77	-	2.6	4.6/02.0	21964
9099 P-L	93 07 29.9	20 37.01	-01 35.2	17.8	-0.72	-	5.1	5.8/03.3	16036
1990 RC8	93 07 29.9	20 37.40	-17 12.7	17.5	-1.02	-	6.5	0.6/30.3	19305
1990 TN	93 07 30.0	20 37.41	-34 29.2	16.6	-1.13	-	3.5	6.0/26.5	22082
1982 VB4	93 07 30.1	20 38.00	-24 14.2	18.0	-0.97	-	3.8	1.9/28.9	21103
1986 RW2	93 07 30.2	20 38.61	-21 56.8	15.4	-0.98	-	3.7	1.7/29.5	22077
1990 TQ12	93 07 30.6	20 39.96	-11 59.5	17.2	-1.02	-	2.6	2.5/31.9	17965
1985 SX2	93 07 31.1	20 42.08	-19 57.7	17.2	-0.97	-	2.2	0.7/30.8	14194
6573 P-L	93 07 31.3	20 42.71	-18 19.6	17.0	-0.90	-	4.7	0.0/31.3	22061
(5153)	93 07 31.3	20 42.84	-29 32.6	15.9	-0.94	-	5.8	3.5/28.5	19990
1987 BS1	93 07 31.3	20 42.84	-13 20.3	16.7	-1.01	+	0.1	1.7/01.2	17959
1981 EO22	93 07 31.4	20 42.82	-17 26.0	19.6	-0.99	-	3.5	0.3/31.6	10823
4066 P-L	93 07 31.4	20 43.03	-24 42.8	18.4	-1.15	-	2.8	2.9/30.1	17462
1990 QW3	93 07 31.7	20 44.10	-18 48.4	16.4	-0.98	-	1.9	0.4/31.6	22082
2064 P-L	93 07 31.7	20 44.37	-17 15.4	18.3	-0.78	-	2.3	0.2/01.0	16033
1992 FK1	93 07 31.9	20 45.10	+04 48.8	18.6	-1.10	+	1.1	7.9/05.0	21580
1980 VX1	93 08 01.2	20 46.27	-26 50.5	17.6	-0.95	-	2.3	2.8/30.4	22074
1990 VV2	93 08 01.3	20 46.34	-10 45.4	17.9	-1.02	-	3.6	2.8/02.8	17460
(5255)	93 08 01.3	20 46.49	-27 02.9	15.8	-0.91	-	7.1	3.3/29.9	20491
1990 SM6	93 08 01.5	20 47.18	-25 43.0	16.5	-1.09	-	3.7	3.2/30.8	21974
1991 AD2	93 08 01.6	20 47.54	-16 23.5	15.9	-0.89	-	5.4	0.6/02.0	21975
1978 VT4	93 08 01.6	20 47.59	-20 07.6	18.7	-0.79	-	3.0	0.6/01.1	15404
1992 BW	93 08 01.6	20 47.85	-23 43.9	15.6	-1.76	+10	.8	3.1/01.4	20032
1990 VS2	93 08 01.9	20 48.96	-17 38.3	16.3	-0.91	-	6.5	9.4/22.0	22083
1986 QQ2	93 08 02.0	20 49.17	-16 35.8	16.3	-0.95	-	7.5	0.5/02.3	18286
1981 EX43	93 08 02.1	20 49.66	-06 44.3	16.8	-0.90	-	4.4	5.0/04.7	21785
1991 GE9	93 08 02.2	20 49.98	-18 17.8	17.8	-0.78	-	3.6	0.2/02.1	19308
(5471)	93 08 02.3	20 50.41	-04 28.7	15.8	-0.81	-	1.7	4.6/05.3	21772
1990 XA	93 08 02.4	20 50.75	-10 52.1	15.0	-0.88	-	1.6	2.3/03.9	22083
1991 AS1	93 08 02.4	20 50.92	-26 14.6	17.0	-1.32	+	3.7	2.9/01.3	18436
1992 JP	93 08 02.5	20 51.08	-18 25.9	15.4	-0.74	-	7.3	0.2/02.3	20645
1987 SO9	93 08 02.8	20 52.12	-17 09.8	16.9	-1.06	-	5.4	0.2/02.9	20014
5200 T-2	93 08 02.8	20 52.53	-15 39.6	17.1	-0.86	-	1.2	0.6/03.3	21978
1981 GP	93 08 02.9	20 52.58	-49 27.8	18.3	-1.45	-	0.8	9.7/26.8	21968
1981 EB31	93 08 03.0	20 53.07	-12 05.5	19.1	-0.76	-	4.5	1.6/04.4	15704
2086 T-2	93 08 03.1	20 53.40	-23 11.1	18.0	-0.84	-	2.3	1.6/01.9	22087
1988 RO11	93 08 03.1	20 53.40	-19 30.5	18.0	-0.84	-	3.3	0.7/02.7	19022
1985 PO	93 08 03.1	20 53.51	-15 52.0	15.8	-0.87	-	5.6	0.7/03.6	22076
(5323)	93 08 03.1	20 53.56	-23 05.3	16.9	-1.04	-	4.8	2.3/01.8	20794
1990 YQ	93 08 03.2	20 53.94	-14 49.6	16.5	-1.00	-	4.2	1.1/03.9	21975
4831 P-L	93 08 03.3	20 54.30	-36 24.9	19.4	-1.10	-	1.7	6.1/30.2	12572
2647 P-L	93 08 03.4	20 54.47	-19 57.1	17.2	-1.02	-	3.9	1.0/02.8	16438
1978 VJ8	93 08 03.5	20 54.86	-16 17.1	17.3	-0.79	-	3.4	0.4/03.8	21965
(5302)	93 08 03.5	20 55.07	-19 10.9	16.5	-1.03	-	3.1	0.8/03.2	20786
4203 T-3	93 08 03.5	20 55.21	-00 33.2	18.4	-0.83	-	6.3	5.9/08.3	12703
1981 EQ12	93 08 03.7	20 55.77	-02 33.0	15.8	-0.76	+	0.1	8.1/06.8	18417
A920 TA	93 08 03.8	20 56.41	-08 58.1	14.3	-0.79	-	1.0	4.4/05.7	21963
(5297)	93 08 03.8	20 56.44	-13 45.9	17.1	-0.98	-	6.8	1.4/04.8	20626
1989 SE2	93 08 03.9	20 56.76	-24 16.9	16.6	-0.88	-	4.5	2.5/02.2	17962
6516 P-L	93 08 03.9	20 56.83	-30 04.9	17.7	-1.15	-	2.4	6.6/01.1	21978
1990 WS2	93 08 04.0	20 57.01	-15 49.4	16.8	-0.98	-	5.1	0.5/04.4	17647
4077 P-L	93 08 04.2	20 57.62	-17 27.3	17.7	-1.00	-	3.6	0.1/04.2	22086
1984 DQ	93 08 04.2	20 58.00	-24 03.7	16.9	-1.14	+	1.0	2.8/03.1	22076
7633 P-L	93 08 04.4	20 58.45	-19 18.0	16.9	-0.84	-	4.7	0.8/03.9	22087
2572 P-L	93 08 04.4	20 58.56	-21 11.9	18.2	-1.08	-	3.7	1.6/03.6	14627

1989 RB	93	08	04.5	20	58.88	-54	21.7	15.9	-1.52	+10.2	20.3/29.9	22081
1982 SV	93	08	04.7	20	59.58	+12	53.3	18.2	-0.95	- 6.0	11.1/12.4	8393
1990 TF4	93	08	05.2	21	01.46	-15	43.8	17.4	-0.98	- 3.7	0.4/05.5	22082
6615 P-L	93	08	05.2	21	01.53	-25	03.3	16.7	-1.12	- 3.1	3.5/03.5	19876
6034 P-L	93	08	05.2	21	01.64	-02	56.2	16.1	-0.75	- 5.2	6.6/09.1	22086
4882 P-L	93	08	05.2	21	01.68	-32	55.8	18.6	-1.06	- 2.0	5.9/01.7	21978
(5184)	93	08	05.3	21	02.17	-19	29.0	16.0	-1.13	- 2.4	1.1/04.8	20003
3070 T-2	93	08	05.4	21	02.14	-16	52.4	16.2	-1.00	- 6.1	0.0/05.4	21978
1981 EJ25	93	08	05.4	21	02.58	-13	36.0	19.6	-0.95	- 5.1	1.4/06.3	11149
(5265)	93	08	05.5	21	02.66	-10	47.0	17.4	-0.74	- 4.6	1.9/07.1	20494
4226 P-L	93	08	05.5	21	02.85	-14	41.4	18.9	-0.97	- 3.8	0.8/06.1	16439
2642 P-L	93	08	05.9	21	04.19	-07	03.2	16.8	-0.94	- 7.4	4.3/08.6	22086
1980 UM1	93	08	06.0	21	04.51	-10	29.1	17.0	-1.04	- 2.8	2.6/07.4	21784
1989 UL	93	08	06.2	21	05.40	-07	44.4	16.7	-0.84	- 3.7	3.2/08.4	21973
1173 T-2	93	08	06.3	21	05.75	-27	55.4	19.2	-0.93	- 1.7	3.7/03.7	15077
1992 FY1	93	08	06.6	21	06.95	-31	42.5	16.5	-1.09	- 4.2	5.8/02.9	20343
1986 RY5	93	08	06.7	21	07.42	-04	42.1	15.4	-0.88	- 3.7	5.6/09.7	20632
4611 P-L	93	08	07.2	21	09.23	-34	20.5	17.9	-1.17	- 1.4	6.4/03.3	22086
4854 T-1	93	08	07.2	21	09.32	-33	37.9	17.5	-0.94	- 2.3	5.9/03.0	19881
1981 VN	93	08	07.2	21	09.39	-42	42.2	17.0	-1.15	- 2.9	9.3/31.1	21564
1982 RK1	93	08	07.2	21	09.44	-13	36.3	15.9	-0.90	- 0.7	1.4/07.9	11154
2203 T-3	93	08	07.5	21	10.32	+00	44.6	18.6	-0.71	- 3.5	4.7/12.2	12701
1992 FD	93	08	07.7	21	11.27	+12	14.4	16.4	-0.86	-12.6	10.6/18.5	21977
1991 AX1	93	08	07.9	21	11.89	-16	57.5	15.8	-0.82	- 4.6	0.3/07.7	21975
1985 CN1	93	08	08.0	21	12.11	-20	55.6	17.1	-1.05	- 3.7	1.8/06.9	21969
1984 HR1	93	08	08.2	21	13.03	-25	49.8	15.9	-0.96	- 2.9	4.1/05.9	15709
1990 DJ	93	08	08.3	21	13.48	-03	21.2	14.5	-1.03	-24.0	5.9/13.2	21973
1982 FF3	93	08	08.4	21	13.72	-14	05.0	15.8	-1.05	- 4.0	0.8/08.9	20498
6766 P-L	93	08	08.5	21	14.16	-04	07.8	16.3	-0.70	- 6.8	3.7/12.2	21950
1989 SW2	93	08	08.6	21	14.47	-23	09.2	17.2	-0.86	- 4.7	2.4/06.7	20017
1990 YX	93	08	08.6	21	14.57	-22	58.8	18.2	-0.99	- 3.2	2.5/07.0	22083
2030 T-2	93	08	08.8	21	15.19	-19	33.5	19.0	-0.95	- 3.5	1.5/07.9	17977
1979 FD3	93	08	08.9	21	15.90	-16	49.5	16.7	-1.00	- 6.3	0.4/08.7	21927
1990 VX2	93	08	09.1	21	16.29	-52	45.5	17.7	-1.40	- 4.1	11.3/28.1	21975
1981 EZ32	93	08	09.1	21	16.55	-03	21.3	19.4	-0.75	- 5.1	3.9/12.7	10621
1992 ER	93	08	09.1	21	16.71	-26	33.5	17.1	-1.13	- 2.3	4.3/06.8	21977
1982 TP1	93	08	09.4	21	17.66	-10	19.0	16.7	-0.92	- 4.0	1.9/10.8	22075
1981 EP15	93	08	09.4	21	17.67	-11	25.1	18.0	-1.03	- 2.2	1.9/10.4	14345
1981 EH13	93	08	09.6	21	18.22	-09	46.6	16.9	-0.83	- 2.4	3.1/11.1	10770
1981 EY42	93	08	09.7	21	18.77	-14	33.5	19.7	-0.96	- 4.6	0.4/10.0	21968
(5317)	93	08	09.9	21	19.62	-21	10.7	16.0	-0.86	- 8.3	1.9/08.3	20791
(5295)	93	08	10.0	21	20.00	-23	04.6	16.4	-0.78	- 4.2	2.1/08.0	20625
1988 PX2	93	08	10.0	21	20.07	-04	09.3	16.6	-0.73	- 5.9	3.7/13.4	21972
6555 P-L	93	08	10.3	21	20.95	-16	35.0	16.2	-0.82	- 4.8	0.4/10.0	22087
1986 QS1	93	08	10.4	21	21.32	-16	14.8	15.2	-0.88	- 8.4	0.4/10.2	18285
(5166)	93	08	10.5	21	21.69	-15	54.9	15.6	-0.96	- 6.4	0.2/10.4	19995
1989 FH	93	08	10.8	21	22.80	-19	35.7	17.0	-1.03	- 5.4	1.8/09.7	21973
1989 TR11	93	08	10.9	21	23.43	-36	57.2	16.7	-1.11	+ 0.8	9.6/05.9	22081
1981 EP10	93	08	11.0	21	23.56	-13	52.5	19.0	-1.03	- 1.6	0.6/11.3	10820
1987 DN6	93	08	11.1	21	24.03	-13	16.8	18.5	-0.90	- 3.6	0.6/11.6	22078
(5242)	93	08	11.2	21	24.30	-10	20.7	15.8	-0.83	- 4.0	1.8/12.5	20326
1981 ET19	93	08	11.2	21	24.38	-15	24.8	18.7	-0.93	- 5.5	0.1/11.2	21967
5174 T-3	93	08	11.2	21	24.54	-31	46.1	16.6	-0.83	- 5.4	5.5/06.4	22088
1986 JS	93	08	11.5	21	25.54	-17	30.3	14.5	-0.89	- 9.4	1.1/10.8	22077
4537 P-L	93	08	11.7	21	26.23	-23	39.0	19.0	-1.15	- 2.5	3.7/09.7	22086
1992 DB	93	08	11.8	21	26.71	-16	40.9	16.3	-0.97	- 6.5	0.6/11.4	20032
1980 RV2	93	08	11.8	21	26.92	-17	15.0	15.8	-0.97	- 2.0	1.2/11.4	17816
1981 ET9	93	08	12.0	21	27.57	-12	21.7	19.8	-1.00	- 3.3	1.0/12.7	10382
1989 VR	93	08	12.1	21	27.89	-12	39.2	16.1	-0.80	- 4.5	0.8/12.8	22081