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

ERRATUM.

MPC	Line		
19912	14	For Comet Lovas (1983 XII)	read Comet Cernis (1983 XII)

* * * * *

CORRECTED OBSERVATIONS.

The following observations correct those previously published.

Object		Date	UT	R. A. (2000)	Decl.	Reference	Mag.	N	Obs.
1930 UT		1930 10	15.21875	00 18 01.72	+17 04 04.6	MPC 12425			690
1930 UT		1930 10	17.29722	00 16 35.53	+16 53 39.7	MPC 12425			690
1982 HX1	*	1982 04	16.08181	09 41 07.21	+14 50 20.8	MPC 6931	17		801
1985 XB	*	1985 12	15.44896	06 45 43.92	+46 15 35.2	MPC 10489	15.5		675
1985 XB		1985 12	15.47014	06 45 42.16	+46 16 26.4	MPC 10489			675
1985 XB		1985 12	18.32257	06 41 13.47	+48 10 27.4	MPC 10489			675
1985 XB		1985 12	18.34757	06 41 10.66	+48 11 26.6	MPC 10489			675
1991 PQ18		1991 09	14.28889	22 22 14.90	-05 31 05.1	MPC 19951	17.2	1	675
1992 BP1		1992 02	01.20660	07 10 51.44	+33 21 12.9	MPC 19770		2	675
(3365)		1982 09	16.92013	00 18 27.41	+04 14 49.5	MPC 13530		3	095

Note 1: originally given as 1991 PC18. 2: time originally in error.
3: originally given as (3565).

* * * * *

IDENTIFICATION CHANGES.

Continuation to MPC 19910.

Object		Date	UT	R. A. (2000)	Decl.	Old desig.	Mag.	Obs.
1971 BF4	*	1971 01	28.04388	10 55 14.10	+07 32 33.9	1971 BP	16.0	095
1986 TL18	*	1986 10	10.90642	00 13 42.37	+00 44 26.8	1986 TA15	16.0V	095
1988 AW5	*	1988 01	10.46192	07 29 46.48	+13 17 07.0	1987 YL2	16.5	399
1988 AW5		1988 01	10.47743	07 29 45.70	+13 17 09.1	1987 YL2		399
1988 AW5		1988 01	10.49531	07 29 44.61	+13 17 12.9	1987 YL2		399
1991 GY10	*	1991 04	10.24722	13 46 56.65	-14 26 04.3	1991 GG8	19.5	809
1991 GY10		1991 04	10.26042	13 46 55.94	-14 26 00.0	1991 GG8		809
1991 GY10		1991 04	10.27361	13 46 55.15	-14 25 58.2	1991 GG8		809

IDENTIFICATION.

The following identification with a numbered minor planet, by G. V. Williams, continues the list on MPC 19911:

1982 HX1 = (3473)

* * * * *

DOUBLE DESIGNATIONS.

Continuation to MPC 19057.

	Note		Note		Note
1982 BM13= 1982 BP1	1	1982 BM13= 1982 BP1	2	1982 BX13= 1982 BR1	1
1982 BX13= 1982 BR1	2	1986 CK2 = 1986 CM2	1	1990 EE10= 1990 EF10	1
1990 EE10= 1990 EF10	3	1990 WE13= 1990 WC15	2		

Note 1: by G. V. Williams. 2: by S. Nakano. 3: by H. Debehogne.

* * * * *

INDEX TO ORBITAL ELEMENTS.

The following index to orbital elements continues that on MPC 19057-19065 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 set of one-opposition T-1 orbits given on MPC 19263-19274.

Comet	MPC	Comet	MPC	Comet	MPC	Comet	MPC
/1990 IX	19257	/1990 XIII	19257	/1990 XV	19257	/1990 XVIII	19257
/1990 XXII	19654	/1990 XXIV	19258	/1990 XXIX	19258	/1991d	19467
/1991l	19654	/1991q	19258	/1991r	19468	/1991v	19468
/1991y	19258	/1991z	19258	/1991a1	19655	/1991b1	19467
/1991d1	19467	/1991f1	19467	/1991g1	19818	/1991h1	19818
/1992a	19818	/1992b	19818	/1992d	19980	/1992f	19980

Planet	MPC	Planet	MPC	Planet	MPC	Planet	MPC	Planet	MPC
(33)	19471	(60)	19471	(86)	19471	(142)	19472	(155)	19472
(156)	19472	(177)	19472	(178)	19472	(180)	19472	(182)	19472
(203)	19983	(209)	19983	(210)	19472	(221)	19472	(226)	19472
(229)	19472	(236)	19472	(248)	19473	(251)	19473	(255)	19473
(258)	19473	(264)	19983	(266)	19473	(268)	19473	(284)	19473
(285)	19473	(292)	19473	(293)	19473	(301)	19473	(306)	19473
(332)	19474	(348)	19274	(357)	19474	(358)	19474	(368)	19474
(392)	19474	(393)	19474	(395)	19983	(396)	19474	(421)	19474
(445)	19474	(450)	19474	(457)	19474	(463)	19475	(464)	19475
(468)	19475	(469)	19475	(508)	19475	(523)	19475	(528)	19475
(542)	19475	(547)	19475	(553)	19475	(564)	19475	(576)	19475
(577)	19476	(602)	19476	(603)	19476	(609)	19983	(613)	19476
(629)	19476	(630)	19476	(641)	19476	(642)	19476	(643)	19476
(648)	19476	(660)	19476	(670)	19476	(676)	19477	(682)	19477
(684)	19477	(686)	19477	(691)	19477	(694)	19477	(699)	19477
(706)	19477	(744)	19983	(747)	19477	(764)	19477	(766)	19477

(768) 19477	(773) 19478	(774) 19478	(776) 19478	(783) 19478
(786) 19478	(788) 19478	(791) 19478	(796) 19478	(802) 19478
(804) 19478	(808) 19478	(816) 19478	(829) 19479	(832) 19479
(842) 19274	(845) 19479	(854) 19479	(855) 19983	(859) 19479
(861) 19479	(862) 19479	(877) 19479	(881) 19479	(882) 19479
(913) 19479	(916) 19479	(919) 19480	(925) 19480	(938) 19480
(944) 19480	(951) 19983	(960) 19480	(967) 19480	(983) 19480
(984) 19480	(985) 19480	(1002) 19480	(1007) 19480	(1011) 19480
(1013) 19481	(1014) 19481	(1019) 19481	(1020) 19481	(1022) 19481
(1036) 19481	(1037) 19481	(1050) 19481	(1051) 19481	(1058) 19481
(1059) 19481	(1062) 19481	(1065) 19482	(1070) 19482	(1077) 19482
(1082) 19482	(1086) 19482	(1090) 19482	(1091) 19482	(1092) 19482
(1094) 19482	(1096) 19482	(1097) 19482	(1100) 19482	(1101) 19483
(1104) 19483	(1107) 19483	(1113) 19483	(1115) 19483	(1120) 19483
(1123) 19483	(1126) 19483	(1129) 19483	(1132) 19483	(1133) 19483
(1135) 19483	(1137) 19484	(1139) 19484	(1141) 19484	(1145) 19484
(1146) 19983	(1149) 19983	(1150) 19984	(1153) 19984	(1154) 19984
(1162) 19984	(1166) 19484	(1174) 19984	(1180) 19984	(1182) 19984
(1184) 19984	(1185) 19984	(1191) 19984	(1193) 19984	(1194) 19984
(1196) 19985	(1199) 19985	(1203) 19985	(1204) 19985	(1207) 19985
(1210) 19985	(1212) 19985	(1217) 19985	(1218) 19985	(1220) 19985
(1224) 19985	(1231) 19985	(1243) 19986	(1252) 19986	(1261) 19986
(1266) 19986	(1268) 19986	(1269) 19658	(1270) 19986	(1288) 19986
(1292) 19986	(1296) 19986	(1297) 19986	(1301) 19986	(1305) 19986
(1308) 19822	(1310) 19822	(1311) 19987	(1312) 19822	(1313) 19987
(1335) 19987	(1399) 19987	(1405) 19987	(1414) 19987	(1418) 19987
(1426) 19987	(1427) 19987	(1439) 19987	(1440) 19987	(1498) 19987
(1627) 19988	(1653) 19658	(2210) 19988	(2327) 19822	(2346) 19484
(2368) 19988	(2464) 19658	(2529) 19988	(2572) 19988	(2596) 19988
(2629) 19988	(3025) 19988	(3073) 19988	(3119) 19988	(3200) 19988
(3245) 19988	(3266) 19484	(3289) 19989	(3294) 19989	(3307) 19989
(3353) 19989	(3361) 19989	(3362) 19989	(3411) 19989	(3473) 19989
(3476) 19989	(3489) 19989	(3532) 19989	(3577) 19484	(3629) 19989
(3712) 19990	(3753) 19990	(3903) 19274	(3913) 19990	(3966) 19275
(4005) 19990	(4189) 19990	(4413) 19275	(4658) 19990	(4778) 19822
(4846) 19822	(4979) 19275	(4980) 19275	(4981) 19275	(4982) 19276
(4983) 19276	(4984) 19277	(4985) 19277	(4986) 19277	(4987) 19278
(4988) 19278	(4989) 19278	(4990) 19279	(4991) 19279	(4992) 19280
(4993) 19280	(4994) 19281	(4995) 19281	(4996) 19282	(4997) 19282
(4998) 19282	(4999) 19283	(5000) 19283	(5001) 19284	(5002) 19284
(5003) 19285	(5004) 19285	(5005) 19285	(5006) 19286	(5007) 19286
(5008) 19286	(5009) 19287	(5010) 19287	(5011) 19287	(5012) 19288
(5013) 19484	(5014) 19485	(5015) 19485	(5016) 19485	(5017) 19486
(5018) 19486	(5019) 19487	(5020) 19487	(5021) 19487	(5022) 19488
(5023) 19488	(5024) 19489	(5025) 19489	(5026) 19489	(5027) 19490
(5028) 19490	(5029) 19490	(5030) 19491	(5031) 19491	(5032) 19491
(5033) 19492	(5034) 19492	(5035) 19493	(5036) 19493	(5037) 19493
(5038) 19658	(5039) 19658	(5040) 19659	(5041) 19659	(5042) 19660
(5043) 19660	(5044) 19661	(5045) 19661	(5046) 19661	(5047) 19662
(5048) 19662	(5049) 19663	(5050) 19663	(5051) 19663	(5052) 19664
(5053) 19664	(5054) 19664	(5055) 19665	(5056) 19665	(5057) 19665
(5058) 19666	(5059) 19666	(5060) 19667	(5061) 19667	(5062) 19668
(5063) 19668	(5064) 19668	(5065) 19669	(5066) 19669	(5067) 19669
(5068) 19670	(5069) 19670	(5070) 19671	(5071) 19671	(5072) 19822
(5073) 19823	(5074) 19823	(5075) 19823	(5076) 19823	(5077) 19824
(5078) 19824	(5079) 19824	(5080) 19825	(5081) 19825	(5082) 19826
(5083) 19826	(5084) 19826	(5085) 19827	(5086) 19827	(5087) 19827
(5088) 19828	(5089) 19829	(5090) 19829	(5091) 19829	(5092) 19830
(5093) 19830	(5094) 19830	(5095) 19831	(5096) 19831	(5097) 19832

(5098) 19832	(5099) 19833	(5100) 19833	(5101) 19833	(5102) 19834
(5103) 19834	(5104) 19834	(5105) 19835	(5106) 19835	(5107) 19836
(5108) 19836	(5109) 19837	(5110) 19837	(5111) 19837	(5112) 19838
(5113) 19838	(5114) 19838	(5115) 19839	(5116) 19839	(5117) 19840
(5118) 19840	(5119) 19840	(5120) 19841	(5121) 19841	(5122) 19841
(5123) 19842	(5124) 19842	(5125) 19843	(5126) 19843	(5127) 19844
(5128) 19844	(5129) 19844	(5130) 19845	(5131) 19845	(5132) 19846
(5133) 19846	(5134) 19846	(5135) 19847	(5136) 19847	(5137) 19847
(5138) 19848	(5139) 19848	(5140) 19849	(5141) 19849	(5142) 19849
(5143) 19850	(5144) 19850	(5145) 19850	(5146) 19851	(5147) 19851
(5148) 19852	(5149) 19852	(5150) 19852	(5151) 19853	(5152) 19990
(5153) 19990	(5154) 19991	(5155) 19991	(5156) 19991	(5157) 19992
(5158) 19992	(5159) 19993	(5160) 19993	(5161) 19993	(5162) 19994
(5163) 19994	(5164) 19994	(5165) 19995	(5166) 19995	(5167) 19996
(5168) 19996	(5169) 19996	(5170) 19997	(5171) 19997	(5172) 19998
(5173) 19998	(5174) 19998	(5175) 19999	(5176) 19999	(5177) 20000
(5178) 20000	(5179) 20001	(5180) 20001	(5181) 20001	(5182) 20002
(5183) 20002	(5184) 20003	(5185) 20003	(5186) 20003	(5187) 20004
(5188) 20004	(5189) 20004	(5190) 20005	(5191) 20005	(5192) 20005
(5193) 20006	(5194) 20006	(5195) 20006	(5196) 20007	(5197) 20007

Planet	MPC	Planet	MPC	Planet	MPC	Planet	MPC
A920 TA	19853	1931 FC	19854	1931 TZ2	19818	1936 QE1	19854
1936 UG	19671	1943 DL	20008	1952 SW1	19288	1953 TD1	19494
1955 UN1	19494	1969 TQ1	19854	1971 FD	19259	1972 RU1	19854
1973 SQ3	19288	1973 SS4	19289	1974 OE	19855	1974 SK1	19494
1974 SD3	19672	1974 XW	19494	1975 SK	19855	1975 XP3	19672
1976 GO3	19855	1976 GY3	20008	1976 QP	19289	1976 UG2	20008
1976 YE1	19495	1976 YR1	20009	1976 YB2	19289	1977 DU	19495
1977 DY3	20009	1977 EX	19856	1977 EW5	19290	1977 QL1	19290
1977 RW6	19856	1977 RZ8	19495	1977 UO5	19290	1978 PT4	19495
1978 RX7	19290	1978 SD3	20009	1978 SC7	19291	1978 TH6	20009
1978 VP1	19856	1978 VN2	19818	1978 VO2	19818	1978 VP2	19818
1978 VQ2	19818	1978 VW2	19291	1978 VN3	19856	1978 WO19	19980
1978 XW	19818	1978 XX	19818	1978 XH1	19818	1978 XJ1	19818
1978 YM	20010	1979 MF	20010	1979 MZ2	20010	1979 MS4	19291
1979 QX3	19291	1980 FR1	19291	1980 TT3	19857	1980 TA4	20010
1980 TE7	19292	1980 VG	20010	1981 DF	19857	1981 EH1	19857
1981 ES5	19857	1981 EK7	19858	1981 ET10	20011	1981 EZ18	19858
1981 EW20	19858	1981 EZ25	19859	1981 ES27	19859	1981 EF28	19672
1981 JO	19819	1981 JP2	19819	1981 JT2	19819	1981 QK	20011
1981 QY2	19496	1981 UO11	19673	1981 WA1	19859	1981 WS1	19496
1982 FF2	19292	1982 QG	19292	1982 QY1	19497	1982 SJ1	19293
1982 TT2	19497	1982 UC6	20011	1982 UR6	19860	1982 UQ10	19497
1983 CY2	19497	1983 CQ3	19673	1983 EU	19293	1983 GQ	19293
1983 RB2	19294	1984 DZ	19294	1984 SA	19294	1984 SU	20012
1984 SQ2	20012	1984 SZ5	19673	1984 WA1	19497	1984 YE4	19498
1985 CT	19860	1985 CJ1	19860	1985 CM1	19860	1985 CU1	19673
1985 CV1	19295	1985 CZ1	19498	1985 FD	19295	1985 HS1	20012
1985 JY	19295	1985 PC2	19499	1985 QP	19295	1985 RD	20012
1985 TB1	20012	1985 TD3	19674	1985 TW3	19296	1985 UQ4	19499
1985 VF2	19674	1986 CD2	19296	1986 CE2	19499	1986 EF5	20013
1986 PX4	19296	1986 QS	19297	1986 QO1	19674	1986 QR3	20013
1986 RA	20013	1986 RD	19297	1986 RQ	20013	1986 RE2	19499
1986 RX2	19861	1986 RH12	19675	1986 SZ1	19675	1986 TR3	19500
1986 TR4	19861	1986 TB7	19298	1986 WM5	19861	1986 WN7	19298
1986 WO7	19298	1986 XR5	19861	1987 DY4	20014	1987 DK6	19862
1987 HK	20014	1987 QZ1	19862	1987 RC1	19298	1987 RE1	19675
1987 RQ2	20014	1987 RA3	19500	1987 SL	19676	1987 SL1	19299

1987 SR1	19862	1987 SO9	20014	1987 SV11	19299	1987 UN	19299
1987 UQ3	19863	1987 VQ	19676	1987 WY	19500	1987 WO1	19863
1987 XC	19501	1987 YD	20015	1988 AO1	19676	1988 BC	19676
1988 BK2	19501	1988 BG4	19501	1988 BL5	19501	1988 CF	19677
1988 CL2	19300	1988 CP2	19677	1988 DE2	20015	1988 DD5	20015
1988 EA2	19300	1988 FM	19863	1988 PL	19300	1988 PL1	19300
1988 RW3	19863	1988 RS4	19301	1988 ST2	19864	1988 TM1	20016
1988 VD	19980	1988 XT	19301	1988 XZ	20016	1988 XD1	19301
1988 XY1	19302	1988 XV2	19502	1989 AF1	19502	1989 AL3	19677
1989 CD	19302	1989 CH1	19678	1989 CV1	19302	1989 CY2	19302
1989 EW1	19678	1989 EC2	19502	1989 EL2	19864	1989 EN2	20016
1989 FA	19864	1989 GF1	19864	1989 GO4	20016	1989 JF	20017
1989 SW2	20017	1989 SU3	20017	1989 SX4	19468	1989 TC3	19502
1989 UL1	19303	1989 UX5	19503	1989 XD2	20017	1990 BZ	20018
1990 BF2	19865	1990 DA1	19503	1990 DM2	19865	1990 DL3	19678
1990 DV3	19468	1990 ES3	19303	1990 EA5	20018	1990 EL7	19303
1990 FQ1	19503	1990 FR1	19303	1990 HC1	19304	1990 HM3	19819
1990 HN3	19819	1990 HO3	19819	1990 HG5	19819	1990 HH5	19819
1990 HK5	19819	1990 HL5	19819	1990 HM5	19819	1990 HN5	19819
1990 HO5	19819	1990 HP5	19819	1990 HQ5	19819	1990 HR5	19819
1990 HS5	19819	1990 HT5	19819	1990 HU5	19980	1990 HV5	19819
1990 HW5	19819	1990 HX5	19819	1990 HY5	19819	1990 HZ5	19819
1990 HA6	19819	1990 HB6	19819	1990 HC6	19819	1990 HD6	19819
1990 HE6	19819	1990 HF6	19819	1990 HG6	19819	1990 HH6	19819
1990 HJ6	19819	1990 HK6	19819	1990 HL6	19819	1990 HM6	19819
1990 KE	19504	1990 KX	19259	1990 KZ	19259	1990 OF2	20018
1990 OO3	19679	1990 OT3	19679	1990 QW1	19865	1990 QZ1	19679
1990 QL2	20019	1990 QO3	19866	1990 QP3	20019	1990 QF5	19304
1990 QW17	19259	1990 RB	19504	1990 RG2	19259	1990 RR2	19504
1990 RS2	19259	1990 RT2	19304	1990 RC3	19305	1990 RN3	19259
1990 RF5	19259	1990 RK5	19259	1990 RM5	19259	1990 RR5	19259
1990 RV5	19259	1990 RE6	19505	1990 RS6	19259	1990 RE7	19305
1990 RC8	19305	1990 RD9	19505	1990 RM9	19259	1990 RN9	19259
1990 RQ9	19259	1990 RN17	19259	1990 RS17	19305	1990 SW	19305
1990 SK6	19866	1990 SZ7	19866	1990 ST8	19306	1990 SL9	20019
1990 ST10	20020	1990 SX10	19259	1990 SD14	19867	1990 SM14	19259
1990 SA15	19259	1990 SV15	19259	1990 SJ16	19306	1990 SK28	19259
1990 SL28	19259	1990 SM28	19306	1990 SN28	19259	1990 TR	20020
1990 TZ	20020	1990 TK3	20021	1990 TL6	19259	1990 TU8	19307
1990 TX8	19259	1990 TK10	19259	1990 TL10	19259	1990 TR12	19468
1990 TV12	19867	1990 TJ15	19259	1990 TK15	19259	1990 UZ	19259
1990 UB1	19259	1990 UF1	19259	1990 UL2	19259	1990 UQ2	19259
1990 UP3	20021	1990 UQ11	19680	1990 UN13	19259	1990 VA	19307
1990 VM	19259	1990 VS2	20021	1990 VW2	19259	1990 VU3	19259
1990 VQ5	20022	1990 VU8	19468	1990 VE12	19259	1990 VB14	19819
1990 VN14	19980	1990 VU14	19867	1990 VB15	19505	1990 VC15	19505
1990 WE	19868	1990 WQ	19468	1990 WN2	20022	1990 WY3	20022
1990 WU5	19307	1991 AB	19259	1991 BA3	19819	1991 CF	19308
1991 CN	19259	1991 CG1	19259	1991 CU2	19259	1991 CX2	19259
1991 CC3	19259	1991 DM	19259	1991 DT	19308	1991 EQ1	19259
1991 ES1	19259	1991 ED2	19259	1991 EE2	19260	1991 EF2	19260
1991 EH2	19260	1991 EJ2	19260	1991 EN2	19260	1991 EO2	19260
1991 ED3	19260	1991 EM3	19260	1991 EN3	19260	1991 EX3	19260
1991 EY3	19260	1991 EA4	19260	1991 EE4	19260	1991 EJ4	19260
1991 EK4	19260	1991 EL4	19260	1991 EN4	19260	1991 EO4	19260
1991 ES4	19260	1991 ET4	19260	1991 EW4	19260	1991 EO5	19260
1991 FO1	19260	1991 FP1	19260	1991 FQ1	19260	1991 FS1	19260
1991 FV1	19260	1991 FC2	19260	1991 FD2	19260	1991 FH2	19260
1991 FJ2	19260	1991 FL2	19260	1991 FM2	19260	1991 FN2	19260

1991 FO2	19260	1991 FQ2	19260	1991 FT2	19260	1991 FU2	19260
1991 FX2	19819	1991 FZ2	19260	1991 FA3	19260	1991 FM3	19260
1991 FQ3	19260	1991 FW3	19260	1991 FY3	19260	1991 FA4	19260
1991 FB4	19260	1991 FC4	19260	1991 FL4	19260	1991 GL	19260
1991 GC1	19260	1991 GR2	19819	1991 GW2	19260	1991 GA3	19819
1991 GB3	19260	1991 GE9	19308	1991 GF9	19260	1991 HA	19260
1991 JW	20023	1991 JY	19680	1991 LE1	20023	1991 MB	19819
1991 NJ	19819	1991 NL	19309	1991 NP	19309	1991 NR2	19506
1991 NU2	19819	1991 NE3	20023	1991 NF3	19819	1991 NG3	19819
1991 NR3	19819	1991 NS3	19819	1991 NT3	19868	1991 NU3	19819
1991 NV3	19980	1991 NX3	19819	1991 NY3	19819	1991 NZ3	19819
1991 NA4	19819	1991 NB4	19819	1991 NE4	19819	1991 NF4	19819
1991 NJ4	19819	1991 NK4	19819	1991 NM4	19820	1991 NG5	19820
1991 NU5	19820	1991 NX5	19820	1991 NZ5	19820	1991 NA6	19820
1991 NB6	19820	1991 NC6	19820	1991 ND6	19820	1991 NE6	19820
1991 NH6	19820	1991 NJ6	19820	1991 NK6	19820	1991 NM6	20023
1991 NP6	19820	1991 NQ6	19820	1991 NU6	19820	1991 NV6	19820
1991 NY6	19820	1991 NZ6	19820	1991 NA7	19820	1991 NC7	19820
1991 ND7	19820	1991 NE7	19820	1991 NF7	19820	1991 NJ7	19820
1991 NL7	19820	1991 NM7	19820	1991 OM1	19820	1991 PE1	19309
1991 PM1	19309	1991 PH2	19260	1991 PO2	19310	1991 PU2	19260
1991 PE3	19310	1991 PF3	19260	1991 PK3	19261	1991 PM4	19261
1991 PO4	19261	1991 PT4	19261	1991 PX4	19261	1991 PE5	19310
1991 PF5	19261	1991 PJ5	19310	1991 PL5	19261	1991 PO5	19261
1991 PQ5	19261	1991 PU5	19820	1991 PV5	19261	1991 PX5	19820
1991 PY5	19868	1991 PC6	20024	1991 PE6	19261	1991 PS6	19311
1991 PX6	19261	1991 PA7	19261	1991 PC7	19261	1991 PE7	19261
1991 PG7	19261	1991 PH7	19261	1991 PJ7	19261	1991 PN7	19468
1991 PT7	19261	1991 PX7	19261	1991 PY7	19261	1991 PE8	19261
1991 PH8	19506	1991 PN8	19820	1991 PO8	19868	1991 PQ8	19261
1991 PH9	19261	1991 PP9	19261	1991 PW9	19261	1991 PD10	19980
1991 PE10	19980	1991 PF10	19869	1991 PH10	19980	1991 PL10	19261
1991 PO10	19506	1991 PQ10	19506	1991 PR10	19311	1991 PT10	19869
1991 PY10	19468	1991 PZ10	19468	1991 PC11	19980	1991 PD11	19980
1991 PE11	19980	1991 PG11	19507	1991 PH11	19311	1991 PJ11	19468
1991 PK11	19468	1991 PO11	19468	1991 PP11	19468	1991 PQ11	19507
1991 PT11	20024	1991 PU11	19820	1991 PV11	19980	1991 PW11	19980
1991 PY11	19980	1991 PZ11	19980	1991 PA12	19980	1991 PC12	19980
1991 PD12	19980	1991 PO12	19261	1991 PW12	19311	1991 PC13	20024
1991 PK13	19980	1991 PL13	19980	1991 PP13	19980	1991 PO14	19869
1991 PT14	19820	1991 PA15	19980	1991 PF15	19312	1991 PG15	19980
1991 PH15	20024	1991 PJ15	19981	1991 PK15	20025	1991 PM15	19981
1991 PG16	20025	1991 PH16	19655	1991 PL16	19468	1991 PO16	19820
1991 PP16	19820	1991 PQ16	19468	1991 PR16	19468	1991 PS16	19820
1991 PT16	19468	1991 PU16	19820	1991 PV16	19820	1991 PW16	19312
1991 PJ17	19261	1991 PL17	19261	1991 PM17	19261	1991 PN17	19261
1991 PV17	20025	1991 PW17	20025	1991 PX17	19981	1991 PY17	19981
1991 PZ17	19981	1991 PC18	19981	1991 PF18	20026	1991 PG18	19981
1991 PH18	19981	1991 PL18	19981	1991 PM18	19981	1991 PN18	20026
1991 QF	19507	1991 QG	19507	1991 RA	19261	1991 RC	19680
1991 RE	19981	1991 RG	19312	1991 RL	19981	1991 RM	19981
1991 RP	19261	1991 RQ	19261	1991 RS	19981	1991 RT	19981
1991 RV	19655	1991 RW	19261	1991 RE1	19981	1991 RF1	19820
1991 RG1	19820	1991 RH1	19820	1991 RJ1	19820	1991 RL1	19981
1991 RM1	19261	1991 RO1	19261	1991 RP1	19261	1991 RR1	19261
1991 RV1	19507	1991 RX1	19655	1991 RZ1	19655	1991 RC2	19981
1991 RE2	19820	1991 RF2	19655	1991 RG2	19655	1991 RH2	19820
1991 RJ2	19313	1991 RK2	20026	1991 RM2	19261	1991 RO2	19508
1991 RP2	19655	1991 RQ2	19820	1991 RS2	19261	1991 RS2	19655

1991 RT2	19655	1991 RU2	19655	1991 RV2	19655	1991 RX2	19313
1991 RY2	19655	1991 RZ2	19313	1991 RA3	19261	1991 RB3	19261
1991 RC3	19261	1991 RD3	19261	1991 RE3	19655	1991 RJ3	19261
1991 RK3	19261	1991 RL3	19655	1991 RM3	19261	1991 RO3	19655
1991 RP3	19655	1991 RQ3	19261	1991 RR3	19261	1991 RT3	19313
1991 RV3	19262	1991 RZ3	19262	1991 RA4	19469	1991 RB4	19469
1991 RC4	19313	1991 RD4	19469	1991 RE4	19469	1991 RF4	19469
1991 RG4	19655	1991 RH4	19262	1991 RJ4	19469	1991 RN4	19981
1991 RP4	19262	1991 RQ4	19262	1991 RR4	19262	1991 RS4	19262
1991 RT4	19262	1991 RU4	19469	1991 RV4	19262	1991 RW4	19314
1991 RX4	19469	1991 RY4	19262	1991 RY4	19869	1991 RA5	19262
1991 RB5	19314	1991 RC5	19469	1991 RD5	19262	1991 RH5	19262
1991 RK5	19262	1991 RN5	19262	1991 RO5	19469	1991 RP5	19262
1991 RZ5	19981	1991 RA6	19981	1991 RL6	19981	1991 RM6	20026
1991 RN6	19981	1991 RB7	19262	1991 RD7	19820	1991 RE7	19469
1991 RG7	19469	1991 RH7	19508	1991 RJ7	19469	1991 RK7	19469
1991 RL7	19262	1991 RM7	19262	1991 RP7	19262	1991 RQ7	19314
1991 RS7	19469	1991 RU7	19469	1991 RS8	19262	1991 RU8	19262
1991 RY8	19820	1991 RO9	19262	1991 RP9	19262	1991 RQ9	19469
1991 RR9	19820	1991 RT9	19820	1991 RU9	19820	1991 RY9	19981
1991 RA10	19981	1991 RB10	19655	1991 RC10	19262	1991 RE10	19981
1991 RF10	19981	1991 RN10	19820	1991 RX10	19315	1991 RC11	19981
1991 RD11	19981	1991 RE11	19981	1991 RB12	19981	1991 RW12	19655
1991 RX12	19655	1991 RZ12	19655	1991 RA13	19820	1991 RB13	19655
1991 RN13	19821	1991 RS13	19821	1991 RV13	19821	1991 RA14	19821
1991 RE14	19821	1991 RF14	19870	1991 RG14	19655	1991 RH14	19655
1991 RQ14	19655	1991 RR14	19655	1991 RT14	19655	1991 RZ14	19655
1991 RA15	19655	1991 RE15	19680	1991 RK15	19655	1991 RL15	19655
1991 RM15	20027	1991 RN15	19655	1991 RP15	20027	1991 RY15	19655
1991 RZ15	19655	1991 RA16	20027	1991 RB16	19655	1991 RD16	19655
1991 RE16	19655	1991 RF16	19655	1991 RG16	19655	1991 RH16	19655
1991 RK16	19655	1991 RY16	19981	1991 RA17	19981	1991 RE17	19981
1991 RF17	19981	1991 RH17	19655	1991 RK17	19656	1991 RL17	19656
1991 RN17	19656	1991 RO17	19656	1991 RP17	19656	1991 RQ17	19656
1991 RR17	19656	1991 RS17	19656	1991 RT17	19656	1991 RU17	19821
1991 RV17	19656	1991 RW17	19656	1991 RX17	19821	1991 RA18	19656
1991 RD18	19821	1991 RE18	19821	1991 RL18	19656	1991 RM18	19656
1991 RV18	19656	1991 RB19	19656	1991 RC19	19656	1991 RE19	19656
1991 RS20	19821	1991 RQ21	19870	1991 RR21	19981	1991 RW21	19981
1991 RX21	19821	1991 RY21	19981	1991 RZ21	19981	1991 RA22	19821
1991 RC22	19981	1991 RD22	19981	1991 RV23	19981	1991 RW23	19981
1991 RX23	19981	1991 RZ23	19981	1991 RA24	19981	1991 RD24	19981
1991 SA	19262	1991 SB	19262	1991 SG	19981	1991 SJ	19981
1991 SK	19981	1991 SL	19262	1991 SM	19262	1991 SN	19262
1991 SO	19262	1991 SP	19262	1991 SQ	19262	1991 SR	19262
1991 ST	19262	1991 SU	19262	1991 SV	19262	1991 SW	19262
1991 SX	19469	1991 SX	19262	1991 SY	19315	1991 SZ	19262
1991 SA1	19262	1991 SB1	19469	1991 SC1	19262	1991 SD1	19262
1991 SE1	19469	1991 SF1	19315	1991 SG1	19681	1991 SH1	19262
1991 SJ1	19262	1991 SL1	19315	1991 SM1	19316	1991 SN1	19469
1991 SR1	19262	1991 SS1	20027	1991 ST1	19656	1991 TB	19262
1991 TC	19469	1991 TD	19263	1991 TE	19263	1991 TF	19263
1991 TG	19263	1991 TH	19263	1991 TJ	19263	1991 TK	19263
1991 TL	19263	1991 TN	19263	1991 TO	19263	1991 TP	19263
1991 TQ	19263	1991 TS	19263	1991 TT	19316	1991 TU	19316
1991 TX	19263	1991 TX	19469	1991 TY	19263	1991 TY	19681
1991 TA1	19469	1991 TB1	20028	1991 TD1	19263	1991 TD1	19508
1991 TE1	19263	1991 TE1	19469	1991 TF1	19469	1991 TF1	19263
1991 TH1	19469	1991 TK1	19469	1991 TL1	19509	1991 TP1	19469

1991 TQ1	19469	1991 TR1	19469	1991 TV1	19509	1991 TW1	19509
1991 TY1	19469	1991 TB2	19316	1991 TC2	19469	1991 TD2	19263
1991 TE2	19316	1991 TH2	19509	1991 TJ2	19510	1991 TK2	19510
1991 TL2	19469	1991 TM2	19263	1991 TN2	19263	1991 TO2	19263
1991 TP2	19263	1991 TQ2	19263	1991 TR2	19263	1991 TS2	19469
1991 TS2	19263	1991 TT2	19263	1991 TU2	19263	1991 TV2	19469
1991 TV2	19263	1991 TW2	19263	1991 TX2	19469	1991 TX2	19263
1991 TY2	19469	1991 TY2	19263	1991 TZ2	19263	1991 TA3	19263
1991 TB3	19263	1991 TC3	19263	1991 TD3	19263	1991 TE3	19263
1991 TF3	19317	1991 TG3	19656	1991 TH3	19656	1991 TK3	19656
1991 TL3	19656	1991 TC4	19469	1991 TE4	19469	1991 TF4	19981
1991 TG4	19469	1991 TS4	19510	1991 TV4	19469	1991 TW4	19469
1991 TX4	19469	1991 TY4	19469	1991 TZ4	19469	1991 TB5	19469
1991 TC5	19469	1991 TD5	19469	1991 TE5	19469	1991 TF5	19469
1991 TG5	19469	1991 TC6	19656	1991 TD6	19656	1991 TE6	19656
1991 TF6	19656	1991 TG6	19656	1991 TH6	19656	1991 TJ6	19656
1991 TK6	19656	1991 TL6	19656	1991 TM6	19656	1991 TN6	19656
1991 TO6	19656	1991 TP6	19656	1991 TQ6	19656	1991 TR6	19681
1991 TS6	19656	1991 TT6	19656	1991 TU6	19656	1991 TV6	19656
1991 TW6	19656	1991 TY6	19656	1991 TZ6	19656	1991 TA7	19656
1991 TB7	19656	1991 TC7	19656	1991 TD7	19656	1991 TE7	19656
1991 TF7	19656	1991 TG7	19656	1991 TH7	19656	1991 TJ7	19656
1991 UA	19470	1991 UB	19470	1991 UC	19470	1991 UE	19470
1991 UF	19470	1991 UG	19470	1991 UJ	19470	1991 UK	19510
1991 UM	19511	1991 UN	19470	1991 UP	19470	1991 UQ	19470
1991 UR	19470	1991 UU	19511	1991 UV	19511	1991 UY	19511
1991 UZ	19470	1991 UZ	19263	1991 UC1	19470	1991 UD1	19470
1991 UE1	19470	1991 UF1	19470	1991 UG1	19681	1991 UH1	19263
1991 UJ1	19263	1991 UK1	19470	1991 UM1	19681	1991 UN1	19470
1991 UO1	19263	1991 UP1	19512	1991 UQ1	19470	1991 UR1	19470
1991 UU1	19470	1991 UV1	19470	1991 UZ1	19470	1991 UA2	19470
1991 UB2	19512	1991 UC2	19512	1991 UD2	19470	1991 UE2	19470
1991 UF2	19470	1991 UH2	19470	1991 UJ2	19470	1991 UK2	19512
1991 UL2	19513	1991 UM2	19470	1991 UN2	19470	1991 UO2	19513
1991 UP2	19470	1991 UT2	19513	1991 UV2	19513	1991 UW2	19470
1991 UY2	19470	1991 UZ2	19514	1991 UA3	19470	1991 UB3	19470
1991 UC3	19514	1991 UD3	19514	1991 UE3	19514	1991 UG3	20028
1991 UH3	19470	1991 UJ3	19470	1991 UK3	19470	1991 UL3	19470
1991 UM3	19470	1991 UN3	19470	1991 UP3	19470	1991 UQ3	19470
1991 US3	19470	1991 UT3	19656	1991 UU3	19515	1991 UV3	19470
1991 UW3	19515	1991 UY3	19515	1991 UZ3	19470	1991 UA4	19470
1991 UB4	19656	1991 UC4	19656	1991 UD4	19656	1991 UJ4	20028
1991 UL4	20028	1991 VA	19516	1991 VB	19870	1991 VC	19470
1991 VD	19470	1991 VE	19516	1991 VG	19516	1991 VH	19682
1991 VJ	19470	1991 VK	20028	1991 VM	19470	1991 VN	19517
1991 VO	19517	1991 VP	19517	1991 VR	19517	1991 VS	19518
1991 VT	19470	1991 VU	19470	1991 VV	19470	1991 VY	19470
1991 VA1	19471	1991 VC1	19471	1991 VD1	19471	1991 VE1	19518
1991 VF1	19471	1991 VG1	19657	1991 VJ1	19471	1991 VK1	19471
1991 VL1	19471	1991 VM1	19518	1991 VN1	19471	1991 VO1	19471
1991 VP1	19471	1991 VQ1	19981	1991 VR1	19518	1991 VT1	19471
1991 VV1	19471	1991 VX1	19471	1991 VY1	19657	1991 VZ1	19519
1991 VA2	19471	1991 VB2	19471	1991 VC2	19471	1991 VD2	19519
1991 VE2	19471	1991 VF2	19519	1991 VG2	19519	1991 VH2	19520
1991 VJ2	19471	1991 VK2	19471	1991 VN2	19520	1991 VQ2	19471
1991 VU2	19471	1991 VV2	19657	1991 VX2	19981	1991 VY2	19981
1991 VZ2	19471	1991 VA3	19471	1991 VB3	19520	1991 VC3	19657
1991 VE3	19471	1991 VG3	19471	1991 VJ3	19981	1991 VL3	19471
1991 VN3	19657	1991 VO3	19471	1991 VP3	19471	1991 VR3	19520

1991 VT3	19471	1991 VV3	19521	1991 VW3	19981	1991 VX3	19471
1991 VY3	19521	1991 VA4	19471	1991 VC4	19471	1991 VD4	19471
1991 VE4	19657	1991 VF4	19682	1991 VG4	19657	1991 VH4	19657
1991 VJ4	19657	1991 VK4	20029	1991 VM4	20029	1991 VN4	19657
1991 VO4	19657	1991 VU4	19657	1991 VW4	19657	1991 VY4	19657
1991 VA5	19657	1991 VB5	19657	1991 VC5	19657	1991 VD5	19657
1991 VE5	19981	1991 VF5	19682	1991 VK5	19683	1991 VM5	19657
1991 VP5	19657	1991 VT5	19657	1991 VU5	19657	1991 VV5	19657
1991 VW5	19657	1991 VX5	19657	1991 VY5	19657	1991 VZ5	19657
1991 VA6	19657	1991 VB6	19657	1991 VC6	19657	1991 VD6	19657
1991 VF6	19657	1991 VG6	19657	1991 VH6	19657	1991 VJ6	19657
1991 VL6	19657	1991 VM6	19657	1991 VF7	19981	1991 WA	19683
1991 WB	20030	1991 WC	19683	1991 WD	19657	1991 XA	19521
1991 XB	19683	1991 XC	20030	1991 XD	19657	1991 XE	19657
1991 XF	19981	1991 XH	19657	1991 XM	19657	1991 XN	19657
1991 XP	19657	1991 XQ	19657	1991 XR	19657	1991 XS	19657
1991 XU	19821	1991 XW	19657	1991 XZ	19684	1991 XB1	19657
1991 XC1	19684	1991 XD1	19657	1991 XO1	20030	1991 XR1	19982
1991 YA	19870	1991 YC	19684	1991 YD	19821	1991 YE	19657
1991 YF	19684	1991 YG	19685	1991 YH	19685	1991 YJ	19657
1991 YK	19658	1991 YX	19870	1991 YZ	19685	1991 YE1	19982
1991 YF1	19982	1991 YG1	19982	1991 YJ1	19982	1991 YK1	19982
1991 YL1	19982	1991 YM1	19982	1991 YN1	19982	1992 AA	20030
1992 AB	20030	1992 AC	19522	1992 AE	20030	1992 AF	19686
1992 AG	19982	1992 AJ	20031	1992 AL	19686	1992 AM	19821
1992 AN	19821	1992 AO	19821	1992 AQ	19821	1992 AR	19821
1992 AX	20031	1992 AY	19982	1992 AB1	19821	1992 AC1	19821
1992 AD1	19687	1992 AE1	19982	1992 AF1	19687	1992 AH1	19687
1992 AJ1	19658	1992 AK1	19687	1992 AL1	19821	1992 AO1	19982
1992 AP1	19821	1992 AQ1	19658	1992 AR1	19821	1992 AS1	20031
1992 AT1	19871	1992 AU1	19821	1992 AV1	19821	1992 AX1	19821
1992 BA	19872	1992 BB	19872	1992 BC	19872	1992 BD	19982
1992 BF	20031	1992 BG	19821	1992 BH	19821	1992 BK	20031
1992 BM	19872	1992 BN	19821	1992 BO	19821	1992 BU	19821
1992 BW	20032	1992 BX	19821	1992 BZ	19688	1992 BB1	19658
1992 BC1	19658	1992 BE1	19821	1992 BF1	19821	1992 BJ1	19821
1992 BK1	19821	1992 BL1	19982	1992 CA	19982	1992 CE	19872
1992 CF	19982	1992 CJ	19982	1992 CO	19982	1992 CS	19821
1992 CT	19873	1992 CU	19873	1992 CB1	19821	1992 CC1	20032
1992 CD1	19982	1992 CE1	19982	1992 CF1	19821	1992 CG1	19873
1992 CH1	19874	1992 CQ1	19982	1992 CZ1	19982	1992 CE2	19982
1992 DA	19874	1992 DB	20032	1992 DC	20033	1992 DK	20033
1992 DN	19821	1992 DR	19982	1992 DU	19874	1992 DV	19982
1992 DD1	19982	1992 DE1	19982	1992 DF1	19982	1992 DG1	20033
1992 EA	19982	1992 EB	20033	1992 EE	19982	1992 EF	20034
1992 EH	19982	1992 EL	20034	1992 EM	20034	1992 EO	19982
1992 EP	20034	1992 ER	20035	1992 EU	19982	1992 EX	19982
1992 EB1	20035	1992 EC1	19982	1992 EE1	19982	1992 EK1	19982
1992 EL1	20035	1992 EM1	19982	1992 ER1	19982	1992 ES1	19982
1992 ET1	19982	1992 EU1	19982	1992 FB	20035	1992 FE	20036
1992 FF	20036	1992 FG	19982	1992 FH	19982	1992 FN	19982
1992 FO	19982	1992 FP	19982	1992 FR	19982	1992 FS	19982
1992 FT	20036	1992 FV	20036	1992 FX	19982	1992 FC1	19982
1992 FD1	19982	1992 FE1	19982	1992 FL1	20036	1992 FM1	19982
1992 FT1	19982	1992 FV1	19982	2530 P-L	19874	2536 P-L	19689
2557 P-L	19317	3086 P-L	20037	4100 P-L	19317	4319 P-L	19875
4556 P-L	19875	4559 P-L	19875	4577 P-L	19689	4614 P-L	19318
4882 P-L	19318	6030 P-L	19318	6058 P-L	19875	6207 P-L	19318
6328 P-L	19875	6588 P-L	19876	6615 P-L	19876	7068 P-L	19876

7075	P-L	19689	7643	P-L	19319	9508	P-L	19876	9575	P-L	19877
1081	T-1	19877	1089	T-1	19319	1104	T-1	19319	1114	T-1	19319
1171	T-1	19522	1181	T-1	19877	1198	T-1	19878	1217	T-1	19320
1220	T-1	19320	1232	T-1	19320	1280	T-1	19321	1287	T-1	19321
1293	T-1	19878	1295	T-1	19878	2146	T-1	19321	2151	T-1	19878
2246	T-1	19322	2259	T-1	19322	2312	T-1	19322	3058	T-1	19322
3100	T-1	19879	3105	T-1	20037	3128	T-1	19323	3163	T-1	19879
3174	T-1	19323	3196	T-1	19523	3227	T-1	19324	3233	T-1	19324
3252	T-1	19324	3271	T-1	19324	3300	T-1	19325	3332	T-1	19879
4050	T-1	19325	4098	T-1	19325	4121	T-1	19326	4192	T-1	19326
4195	T-1	19879	4206	T-1	19326	4214	T-1	19880	4232	T-1	19880
4255	T-1	19327	4272	T-1	19523	4277	T-1	19880	4283	T-1	19327
4298	T-1	19327	4321	T-1	19327	4349	T-1	19881	4408	T-1	19328
4854	T-1	19881	1053	T-2	19328	1079	T-2	19881	1170	T-2	19329
1210	T-2	19881	1274	T-2	19882	1335	T-2	20037	1617	T-2	19882
2087	T-2	19689	2124	T-2	19690	2252	T-2	19329	2287	T-2	19690
2908	T-2	19329	3178	T-2	19329	3181	T-2	19330	4135	T-2	19690
4234	T-2	20037	4253	T-2	20038	4293	T-2	20038	1017	T-3	19882
1054	T-3	19330	1194	T-3	19883	2157	T-3	19691	2247	T-3	19883
2272	T-3	19330	2288	T-3	19331	2327	T-3	19883	2370	T-3	19691
3019	T-3	19331	3220	T-3	19883	3395	T-3	19331	3398	T-3	19691
3424	T-3	19331	3854	T-3	19332	4032	T-3	19691	4045	T-3	19884
4050	T-3	19332	4157	T-3	19884	4391	T-3	20038	5170	T-3	20039
5191	T-3	19523									

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OBSERVATIONS OF COMETS.

Observations are published here for the following observatory codes:

095 Sternberg Astronomical Institute, Crimean Station. 0.40-m f/4 astrograph. Observer V. V. Vishnevskij. Measured by N. M. Evstigneeva.
372 Geisei. 0.60-m reflector. Observer T. Seki. In part from Orient. Astron. Assoc. Comet Bull.
376 Uenohara. 0.30-m reflector + CCD. Observer N. Kawasato.
402 Dynic. 0.25-m f/3.4 reflector. Observer A. Sugie.
410 Sengamine. 0.20-m f/6.0 reflector. Observer K. Ito. Measured by T. Nomura.
411 Oizumi. 0.16-m f/4.8 reflector + CCD. Observer T. Kobayashi.
413 Siding Spring. Uppsala Southern Schmidt. Observer R. H. McNaught.
474 Mt. John. 0.6-m reflector. Observer A. C. Gilmore. Measured by P. M. Kilmartin.
596 Colleverde di Guidonia. 0.31-m f/2.8 Baker-Schmidt CCD camera. Observer S. V. Casulli.
675 Palomar. 1.2-m and 0.46-m Schmidts. Observers C. Kowal, D. H. Levy, C. S. Shoemaker and E. M. Shoemaker. Measured by B. A. Skiff and C. S. Shoemaker.
691 Kitt Peak. 0.91-m Spacewatch telescope and 2.3-m Steward reflector. Observers J. D. Scotti and S. M. Larson.
809 European Southern Observatory. New Technology Telescope. Observers O. Hainaut, B. G. Marsden, A. Smette and R. M. West.
894 Otomo. 0.25-m f/3.4 reflector. Observer S. Otomo.
897 YGCO Chiyoda Station. 0.25-m f/3.4 Wright-Schmidt. Observer T. Kojima.

Object	Date UT	R. A. (2000)	Decl.	Mag.	N Obs.
	Periodic Comet Smirnova-Chernykh				
/1984 V	1992 04 20.49271	09 13 26.91	+23 25 13.6		376
/1984 V	1992 04 20.54444	09 13 28.00	+23 25 04.2		376
/1984 V	1992 04 22.53333	09 14 10.98	+23 18 57.1	16.8 T	372
/1984 V	1992 04 22.54688	09 14 11.38	+23 18 54.6		372
	Comet Shoemaker (1984 XV)				
/1984 XV	1982 01 30.38854	08 47 52.66	+18 44 20.5	19.0 T	675
/1984 XV	1982 01 31.36285	08 47 09.73	+18 47 06.6		675
/1984 XV	1991 11 02.0576	20 13 31.70	-20 38 04.3	23.3 N	809
	Comet Shoemaker-Levy (1991d)				
/1991d	1992 04 12.76372	20 59 31.61	+41 54 01.0		411
/1991d	1992 04 12.76487	20 59 31.68	+41 54 00.8		411
/1991d	1992 04 12.76586	20 59 31.64	+41 54 00.0		411
/1991d	1992 04 12.76677	20 59 31.75	+41 54 00.7		411
/1991d	1992 04 14.76467	21 01 33.24	+41 59 02.4		411
/1991d	1992 04 14.76566	21 01 33.27	+41 59 03.3		411
/1991d	1992 04 14.76681	21 01 33.35	+41 59 03.0		411
/1991d	1992 04 14.76855	21 01 33.48	+41 59 02.7		411
/1991d	1992 04 16.76039	21 03 28.15	+42 04 06.0		411
/1991d	1992 04 16.76229	21 03 28.36	+42 04 06.0		411
/1991d	1992 04 16.76344	21 03 28.33	+42 04 05.9		411
/1991d	1992 04 16.76475	21 03 28.55	+42 04 06.0		411
/1991d	1992 04 22.76393	21 08 34.92	+42 19 20.7		411
/1991d	1992 04 22.76527	21 08 35.00	+42 19 20.1		411
/1991d	1992 04 22.76805	21 08 35.16	+42 19 21.0		411
/1991d	1992 04 22.76938	21 08 35.28	+42 19 21.8		411
/1991d	1992 04 25.76010	21 10 45.93	+42 26 51.8		411
/1991d	1992 04 25.76116	21 10 46.03	+42 26 51.9		411
/1991d	1992 04 25.76389	21 10 46.03	+42 26 52.8		411
/1991d	1992 04 25.76487	21 10 46.09	+42 26 52.7		411
/1991d	1992 04 30.75936	21 13 51.00	+42 39 04.0		411
/1991d	1992 04 30.76046	21 13 51.04	+42 39 03.3		411
	Periodic Comet Faye				
/1991n	1992 02 25.46753	04 26 47.76	+11 01 45.7	13 T	897
/1991n	1992 02 25.52645	04 26 54.88	+11 02 08.4		897
	Periodic Comet Levy				
/1991q	1992 05 02.18229	08 18 29.88	+24 22 05.7	1	691
/1991q	1992 05 03.13952	08 19 05.71	+24 17 36.6	20.5 T	691
/1991q	1992 05 03.15576	08 19 06.23	+24 17 32.4	20.7 T	691
/1991q	1992 05 03.16963	08 19 06.75	+24 17 28.7	20.8 T	691
	Comet Helin-Alu (1991r)				
/1991r	1992 04 02.77847	19 20 13.17	+04 35 37.7	18 T	372
/1991r	1992 05 03.74722	19 27 49.40	+10 31 37.5	17 T	372
	Periodic Comet Hartley 2				
/1991t	1991 10 15.11181	09 20 47.38	+09 37 51.3		095
/1991t	1991 10 19.10694	09 31 22.67	+08 10 28.5		095
	Comet McNaught-Russell (1991v)				
/1991v	1992 04 04.65414	01 23 44.21	-62 16 40.2		474
/1991v	1992 04 04.70218	01 23 56.24	-62 16 31.6	17.7 N	474

Comet Shoemaker-Levy (1991a1)

/1991a 1	1992	04	22.78423	00 48 30.86	+37 49 54.4	12.5	T		411
/1991a 1	1992	04	25.77642	00 50 52.78	+38 36 46.8				411
/1991a 1	1992	04	25.77821	00 50 52.70	+38 36 48.5				411

Comet Zanotta-Brewington (1991g1)

/1991g 1	1992	03	27.35535	04 29 30.08	-66 58 15.3	16.2	N		474
/1991g 1	1992	03	27.36547	04 29 34.98	-66 58 24.8				474
/1991g 1	1992	03	31.40559	05 04 17.21	-67 51 09.1				474
/1991g 1	1992	03	31.41201	05 04 20.74	-67 51 10.9				474

Comet Mueller (1991h1)

/1991h 1	1992	01	03.93375	08 41 07.51	+48 52 33.9				596
/1991h 1	1992	01	03.93882	08 41 06.29	+48 52 39.0				596

Comet Helin-Alu (1992a)

/1992a	1992	02	10.50920	07 56 04.65	+00 40 59.7				376
/1992a	1992	02	10.52072	07 56 03.98	+00 40 57.6				376
/1992a	1992	02	10.53692	07 56 03.26	+00 40 52.3				376

Comet Tanaka-Machholz (1992d)

/1992d	1992	04	11.79888	22 38 05.30	+29 14 35.1				410
/1992d	1992	04	12.77297	22 40 54.92	+30 12 16.8				411
/1992d	1992	04	12.77391	22 40 55.09	+30 12 20.7				411
/1992d	1992	04	12.77821	22 40 55.83	+30 12 36.2				411
/1992d	1992	04	12.77920	22 40 56.03	+30 12 39.7				411
/1992d	1992	04	13.80708	22 43 59.75	+31 13 53.2	9	T		372
/1992d	1992	04	13.81181	22 44 00.65	+31 14 10.7				372
/1992d	1992	04	13.81646	22 44 01.41	+31 14 27.2				372
/1992d	1992	04	14.77343	22 46 56.50	+32 11 44.2				411
/1992d	1992	04	14.77702	22 46 57.19	+32 11 57.6				411
/1992d	1992	04	14.78258	22 46 58.19	+32 12 17.0				411
/1992d	1992	04	14.78363	22 46 58.34	+32 12 20.9				411
/1992d	1992	04	14.80712	22 47 02.81	+32 13 45.7				894
/1992d	1992	04	14.80833	22 47 03.00	+32 13 49.4				894
/1992d	1992	04	14.80955	22 47 03.33	+32 13 54.3				894
/1992d	1992	04	16.77303	22 53 16.67	+34 12 14.0				897
/1992d	1992	04	16.77413	22 53 16.96	+34 12 15.3				897
/1992d	1992	04	16.77859	22 53 17.70	+34 12 33.4				897
/1992d	1992	04	16.78318	22 53 18.50	+34 12 49.1				411
/1992d	1992	04	16.78381	22 53 18.61	+34 12 52.1				411
/1992d	1992	04	16.78653	22 53 19.13	+34 13 01.4				411
/1992d	1992	04	16.78730	22 53 19.27	+34 13 04.4				411
/1992d	1992	04	16.80451	22 53 22.77	+34 14 09.3				897
/1992d	1992	04	16.80729	22 53 23.07	+34 14 16.4				897
/1992d	1992	04	20.78050	23 07 02.62	+38 15 30.5				897
/1992d	1992	04	20.78628	23 07 03.77	+38 15 50.5				897
/1992d	1992	04	20.78762	23 07 04.05	+38 15 56.1				897
/1992d	1992	04	22.77470	23 14 29.72	+40 16 39.7				411
/1992d	1992	04	22.77749	23 14 30.35	+40 16 49.8				411
/1992d	1992	04	22.77946	23 14 30.90	+40 16 56.6				411
/1992d	1992	04	22.78009	23 14 31.04	+40 16 59.0				411
/1992d	1992	04	25.76950	23 26 34.00	+43 17 23.4				411
/1992d	1992	04	25.77028	23 26 34.08	+43 17 26.2				411
/1992d	1992	04	25.77193	23 26 34.54	+43 17 32.4				411
/1992d	1992	04	25.77271	23 26 34.79	+43 17 34.8				411
/1992d	1992	04	26.71389	23 30 36.79	+44 13 50.0				402
/1992d	1992	04	26.71736	23 30 37.52	+44 14 01.0				402
/1992d	1992	04	26.72083	23 30 38.47	+44 14 15.1				402

/1992d	1992	04	27.77014	23 35 16.83	+45 16 35.7	10.3	T		372
/1992d	1992	04	30.76771	23 49 26.30	+48 11 22.7				411
/1992d	1992	04	30.76837	23 49 26.50	+48 11 24.8				411
/1992d	1992	04	30.76985	23 49 26.94	+48 11 30.3				411
/1992d	1992	04	30.77041	23 49 27.08	+48 11 32.6				411
				Periodic Comet Shoemaker-Levy 8					
/1992f	1992	04	13.77257	15 10 18.03	-16 32 31.8	16.5	T		372
/1992f	1992	04	22.59479	15 05 55.64	-15 50 44.4	16	T		372
/1992f	1992	04	22.60552	15 05 55.27	-15 50 41.4				372
/1992f	1992	04	23.62685	15 05 20.54	-15 45 28.1				376
/1992f	1992	04	23.64323	15 05 19.82	-15 45 24.4				376
/1992f	1992	04	28.65000	15 02 19.87	-15 19 19.7				376
/1992f	1992	04	28.67101	15 02 18.95	-15 19 13.2				376
/1992f	1992	04	28.68021	15 02 18.67	-15 19 10.7				376
/1992f	1992	04	30.71499	15 01 01.65	-15 08 16.5				411
/1992f	1992	04	30.75032	15 01 00.15	-15 08 05.5				411
/1992f	1992	05	01.63355	15 00 26.53	-15 03 18.8				411
/1992f	1992	05	02.67778	14 59 46.23	-14 57 42.9	15.5	T		372
				Comet Mueller (1992g)					
/1992g	1992	04	09.37708	14 13 05.80	+27 51 19.8				675
/1992g	1992	04	11.40556	14 12 05.10	+28 11 20.0				675
/1992g	1992	04	12.66736	14 11 26.19	+28 23 04.6				413
/1992g	1992	04	14.77882	14 10 19.52	+28 41 24.5	17	T		372
/1992g	1992	04	14.79063	14 10 19.15	+28 41 28.6				372
/1992g	1992	04	20.52257	14 07 11.99	+29 23 21.6	17.5	T		372
/1992g	1992	04	20.54167	14 07 11.45	+29 23 26.5				372
/1992g	1992	04	22.56076	14 06 04.23	+29 35 20.0	18	T		372
/1992g	1992	05	03.55903	14 00 13.15	+30 12 29.5	18.5	T		372
				Comet Spacewatch (1992h)					
/1992h	1992	05	01.14956	13 12 21.51	-08 31 25.7	18.7	T		691
/1992h	1992	05	01.16986	13 12 20.39	-08 31 12.3				691
/1992h	1992	05	01.19041	13 12 19.32	-08 30 59.7				691
/1992h	1992	05	02.26561	13 11 23.65	-08 19 39.3				691
/1992h	1992	05	02.27739	13 11 23.02	-08 19 31.5	18.5	T		691
/1992h	1992	05	02.28614	13 11 22.55	-08 19 26.0				691
/1992h	1992	05	03.24018	13 10 33.63	-08 09 23.5	18.3	T	2	691
/1992h	1992	05	03.24886	13 10 33.17	-08 09 18.3	18.2	T		691
/1992h	1992	05	03.25718	13 10 32.75	-08 09 12.4	18.5	T		691
/1992h	1992	05	03.53437	13 10 18.63	-08 06 18.6	19	T		372
/1992h	1992	05	03.58194	13 10 16.34	-08 05 48.5				372
/1992h	1992	05	04.34389	13 09 37.35	-07 57 47.3	18.3	T		691
/1992h	1992	05	04.35227	13 09 36.93	-07 57 42.4	18.5	T		691
/1992h	1992	05	04.36174	13 09 36.42	-07 57 37.0	18.9	T		691

Note 1: tail extending 2’.4 in p.a. 306 . 2: coma 16"; faint tail extending 17" in p.a. 146 .

* * * * *

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.	
033 Tautenburg							
F. Borngen, Thuringer Landessternwarte, Dorfstrasse 73, O-6901 Tautenburg, Federal Republic of Germany							
1.3-m Schmidt telescope							
PPM							
1981 EQ	1992 02	27.94028	10 28 28.49	+20 17 37.9	18.4		033
1981 EQ	1992 02	27.98854	10 28 25.89	+20 17 44.2			033
1981 EQ	1992 02	28.90278	10 27 37.46	+20 19 38.3		I	033
1982 US6	1992 02	29.93472	10 52 25.43	+19 34 58.9	18.7		033
1982 US6	1992 02	29.99792	10 52 21.63	+19 35 15.8			033
1982 US6	1992 03	01.92083	10 51 27.91	+19 39 17.3			033
1986 VT	1991 09	04.99583	23 52 52.75	+00 07 07.2	17.0		033
1986 VT	1991 09	05.06528	23 52 49.87	+00 06 48.4			033
1986 VT	1991 09	14.92292	23 45 54.63	-00 42 51.4	17.1		033
1986 VT	1991 09	14.97500	23 45 52.14	-00 43 08.0			033
1986 VT	1991 10	09.85347	23 29 16.45	-02 45 19.3	17.4		033
1986 VT	1991 10	09.90069	23 29 14.98	-02 45 29.8			033
1986 VT	1991 10	30.84618	23 23 08.31	-03 37 42.9	18.5		033
1986 VT	1991 10	31.85417	23 23 05.95	-03 38 32.8			033
1989 EL6	1991 08	07.03611	00 10 25.13	+00 07 00.4	19.2		033
1989 EL6	1991 08	12.02465	00 09 46.40	+00 05 51.0			033
1989 EL6	1991 08	16.02361	00 08 45.61	+00 02 01.4			033
1989 EL6	1991 08	19.00556	00 07 43.00	-00 02 35.6			033
1989 EL6	1991 09	04.99583	23 57 30.10	-00 53 37.6	18.3		033

1989	EL6		1991	09	05.06528	23	57	26.69	-00	53	54.4			033
1989	EL6		1991	09	14.92292	23	48	56.11	-01	38	17.0	18.1		033
1989	EL6		1991	09	14.97500	23	48	53.01	-01	38	32.0			033
1989	EL6		1991	10	09.85347	23	27	01.67	-03	29	19.7	18.5		033
1989	EL6		1991	10	09.90069	23	26	59.59	-03	29	28.6			033
1989	EL6		1991	10	30.84618	23	17	53.53	-04	04	55.0	19.0		033
1989	EL6		1991	10	31.85417	23	17	46.68	-04	04	41.3			033
1990	OJ2		1992	02	27.94028	10	24	53.80	+18	08	01.5	18.0		033
1990	OJ2		1992	02	27.98854	10	24	50.70	+18	08	16.9			033
1990	OJ2		1992	02	28.90278	10	23	53.68	+18	13	08.6			033
1990	TJ		1992	02	27.94028	10	33	55.86	+17	27	58.3	18.4	I	033
1990	TJ		1992	02	27.98854	10	33	53.05	+17	28	13.1			033
1990	TJ		1992	02	28.90278	10	33	00.84	+17	32	32.5			033
1991	PX10		1991	10	09.85347	23	30	56.28	-03	12	03.0	18.1		033
1991	PX10		1991	10	09.90069	23	30	55.51	-03	12	33.9			033
1991	PA11		1991	10	09.85347	23	29	55.20	-02	10	07.3	15.5		033
1991	PA11		1991	10	09.90069	23	29	54.18	-02	10	30.6			033
1991	PP11		1991	10	09.85347	23	29	24.06	-02	18	41.7	17.8		033
1991	PP11		1991	10	09.90069	23	29	23.06	-02	19	05.2			033
1991	RZ14		1991	09	14.92292	23	43	39.35	-00	49	51.3	18.3		033
1991	RZ14		1991	09	14.97500	23	43	36.77	-00	50	08.4			033
1991	RA15		1991	09	04.99583	23	52	51.23	-00	50	15.7	18.9		033
1991	RA15		1991	09	05.06528	23	52	48.25	-00	50	34.3			033
1991	RA15		1991	09	14.92292	23	45	43.05	-01	36	53.0	18.6		033
1991	RA15		1991	09	14.97500	23	45	40.45	-01	37	08.9			033
1991	RC15		1991	09	04.99583	23	57	53.24	-00	13	02.9	18.2		033
1991	RC15		1991	09	05.06528	23	57	50.55	-00	13	21.7			033
1991	RC15		1991	09	14.92292	23	51	00.44	-01	01	40.8	18.4		033
1991	RC15		1991	09	14.97500	23	50	57.83	-01	01	57.7			033
1991	RJ15		1991	09	14.92292	23	54	50.33	+00	01	25.4	18.8		033
1991	RJ15		1991	09	14.97500	23	54	47.35	+00	01	16.7			033
1991	RK15		1991	10	09.85347	23	33	14.25	-02	48	45.8	17.7		033
1991	RK15		1991	10	09.90069	23	33	12.23	-02	48	44.6			033
1991	RO17		1991	09	14.92292	23	43	34.21	-03	00	25.0	18.5		033
1991	RO17		1991	09	14.97500	23	43	31.57	-03	00	39.5			033
1991	RP17		1991	09	04.99583	23	53	30.84	-00	23	42.2	17.8		033
1991	RP17		1991	09	05.06528	23	53	26.23	-00	23	33.4			033
1992	DL1	*	1992	02	27.94028	10	23	56.99	+19	25	13.2	19.3		033
1992	DL1		1992	02	27.98854	10	23	54.34	+19	25	18.8			033
1992	DL1		1992	02	28.90278	10	23	05.02	+19	27	04.6			033
1992	DM1	*	1992	02	27.94028	10	25	47.83	+20	11	37.5	17.7		033
1992	DM1		1992	02	27.98854	10	25	45.12	+20	12	10.3			033
1992	DM1		1992	02	28.90278	10	24	55.18	+20	22	20.1			033
1992	DN1	*	1992	02	27.94028	10	25	49.62	+19	07	41.2	19.0		033
1992	DN1		1992	02	27.98854	10	25	46.79	+19	07	50.0			033
1992	DN1		1992	02	28.90278	10	24	54.44	+19	10	40.4			033
1992	DO1	*	1992	02	27.94028	10	26	18.70	+18	43	22.5	18.5		033
1992	DO1		1992	02	27.98854	10	26	15.65	+18	43	40.5			033
1992	DO1		1992	02	28.90278	10	25	20.50	+18	49	07.6			033
1992	DP1	*	1992	02	27.94028	10	28	59.50	+19	55	09.9	19.1		033
1992	DP1		1992	02	27.98854	10	28	56.64	+19	55	33.4			033
1992	DP1		1992	02	28.90278	10	28	06.54	+20	02	30.1			033
1992	DQ1	*	1992	02	27.94028	10	31	45.51	+18	40	47.2	19.7		033
1992	DQ1		1992	02	27.98854	10	31	43.16	+18	41	02.7			033
1992	DQ1		1992	02	28.90278	10	30	59.63	+18	45	38.5			033
1992	DR1	*	1992	02	27.94028	10	31	47.79	+17	31	42.1	19.4		033
1992	DR1		1992	02	27.98854	10	31	45.35	+17	32	00.6			033
1992	DR1		1992	02	28.90278	10	30	59.42	+17	38	06.7			033

1992 DS1	*	1992	02	27.94028	10	32	44.19	+18 29 27.4	18.1	033
1992 DS1		1992	02	27.98854	10	32	41.78	+18 29 51.9		033
1992 DS1		1992	02	28.90278	10	31	56.10	+18 37 50.4		033
1992 DT1	*	1992	02	27.94028	10	33	05.75	+17 50 10.7	19.3	033
1992 DT1		1992	02	27.98854	10	33	03.36	+17 50 27.5		033
1992 DT1		1992	02	28.90278	10	32	17.99	+17 55 51.7		033
1992 DU1	*	1992	02	27.94028	10	33	48.52	+17 28 49.2	19.2	033
1992 DU1		1992	02	27.98854	10	33	45.94	+17 28 57.7		033
1992 DU1		1992	02	28.90278	10	32	58.30	+17 31 31.6		033
1992 DV1	*	1992	02	28.06736	11	03	06.23	+19 10 55.4	18.6	033
1992 DV1		1992	02	28.95903	11	02	11.89	+19 14 51.4		033
1992 DV1		1992	02	29.04097	11	02	06.72	+19 15 11.8		033
1992 DW1	*	1992	02	28.06736	11	04	17.67	+19 20 41.2	19.5	033
1992 DW1		1992	02	28.95903	11	03	32.19	+19 23 20.3		033
1992 DW1		1992	02	29.04097	11	03	27.97	+19 23 35.0		033
1992 DX1	*	1992	02	28.06736	11	06	22.07	+20 10 44.4	19.7	033
1992 DX1		1992	02	28.95903	11	05	42.64	+20 15 21.3		033
1992 DX1		1992	02	29.04097	11	05	38.97	+20 15 46.3		033
1992 DY1	*	1992	02	28.06736	11	08	04.67	+18 48 29.0	19.6	033
1992 DY1		1992	02	28.95903	11	07	20.94	+18 51 46.2		033
1992 DY1		1992	02	29.04097	11	07	16.94	+18 52 03.6		033
1992 DZ1	*	1992	02	28.93125	10	34	51.64	+19 35 31.2	17.8	033
1992 DZ1		1992	02	29.01250	10	34	48.01	+19 36 15.2		033
1992 DZ1		1992	02	29.97014	10	34	05.61	+19 44 59.6		033
1992 DA2	*	1992	02	28.93125	10	38	16.81	+18 53 47.1	19.1	033
1992 DA2		1992	02	29.01250	10	38	13.05	+18 54 13.4		033
1992 DA2		1992	02	29.97014	10	37	30.62	+18 59 18.4		033
1992 DB2	*	1992	02	28.93125	10	44	26.90	+20 22 32.1	19.6	033
1992 DB2		1992	02	29.01250	10	44	23.04	+20 23 07.7		033
1992 DB2		1992	02	29.97014	10	43	40.56	+20 29 48.3		033
1992 DC2	*	1992	02	29.93472	10	50	11.36	+20 35 48.1	19.2	033
1992 DC2		1992	02	29.99792	10	50	07.93	+20 36 05.5		033
1992 DC2		1992	03	01.92083	10	49	19.84	+20 40 17.8		033
1992 DD2	*	1992	02	29.93472	10	53	19.30	+18 07 58.2	17.8	033
1992 DD2		1992	02	29.99792	10	53	16.09	+18 08 12.1		033
1992 DD2		1992	03	01.92083	10	52	30.56	+18 11 35.0		033
1992 DE2	*	1992	02	29.93472	10	53	20.51	+18 12 59.1	18.3	033
1992 DE2		1992	02	29.99792	10	53	17.04	+18 13 04.2		033
1992 DE2		1992	03	01.92083	10	52	27.37	+18 14 23.0		033
1992 DF2	*	1992	02	29.93472	10	54	54.00	+19 26 17.0	18.6	033
1992 DF2		1992	02	29.99792	10	54	50.41	+19 26 25.9		033
1992 DF2		1992	03	01.92083	10	53	59.65	+19 28 38.8		033
1992 DG2	*	1992	02	29.93472	10	56	40.76	+17 30 28.7	19.3	033
1992 DG2		1992	02	29.99792	10	56	37.12	+17 30 49.8		033
1992 DG2		1992	03	01.92083	10	55	43.99	+17 36 01.0		033
1992 DH2	*	1992	02	29.93472	10	56	55.20	+18 14 47.7	18.8	033
1992 DH2		1992	02	29.99792	10	56	51.77	+18 15 05.9		033
1992 DH2		1992	03	01.92083	10	56	03.03	+18 19 18.2		033
1992 DJ2	*	1992	02	29.93472	10	57	10.38	+19 48 25.2	18.4	033
1992 DJ2		1992	02	29.99792	10	57	06.84	+19 49 22.5		033
1992 DJ2		1992	03	01.92083	10	56	16.44	+20 03 05.7		033
1992 DK2	*	1992	02	29.93472	10	57	18.55	+17 54 03.7	16.6	033
1992 DK2		1992	02	29.99792	10	57	13.89	+17 53 48.8		033
1992 DK2		1992	03	01.92083	10	56	07.88	+17 50 11.0		033
1992 DL2	*	1992	02	29.93472	10	57	30.15	+18 47 52.0	17.6	033
1992 DL2		1992	02	29.99792	10	57	27.01	+18 48 10.9		033
1992 DL2		1992	03	01.92083	10	56	41.79	+18 52 49.7		033
1992 DM2	*	1992	02	29.93472	10	57	36.61	+18 00 04.0	18.7	033

1992 DM2		1992 02 29.99792	10 57 32.32	+18 00 19.9			033
1992 DM2		1992 03 01.92083	10 56 31.64	+18 04 07.3			033
1992 DN2	*	1992 02 29.93472	10 58 42.66	+18 28 36.3	19.4		033
1992 DN2		1992 02 29.99792	10 58 39.27	+18 28 53.0			033
1992 DN2		1992 03 01.92083	10 57 51.89	+18 32 56.5			033
1992 DO2	*	1992 02 29.93472	10 59 45.77	+18 33 55.8	18.5		033
1992 DO2		1992 02 29.99792	10 59 42.08	+18 34 23.2			033
1992 DO2		1992 03 01.92083	10 58 50.11	+18 41 03.8			033
1992 DP2	*	1992 02 29.93472	11 00 18.84	+17 55 29.1	17.7		033
1992 DP2		1992 02 29.99792	11 00 15.58	+17 55 54.3			033
1992 DP2		1992 03 01.92083	10 59 28.75	+18 02 07.3			033
1992 DQ2	*	1992 02 29.93472	11 00 39.01	+20 24 16.8	19.2		033
1992 DQ2		1992 02 29.99792	11 00 35.12	+20 24 39.9			033
1992 DQ2		1992 03 01.92083	10 59 40.22	+20 26 33.8			033
1992 DR2	*	1992 02 29.93472	11 01 12.09	+19 18 59.8	17.6		033
1992 DR2		1992 02 29.99792	11 01 08.04	+19 19 14.5			033
1992 DR2		1992 03 01.92083	11 00 11.42	+19 22 56.2			033
2287 T-2		1991 09 14.92292	23 52 30.51	-00 57 38.0	19.1		033
2287 T-2		1991 09 14.97500	23 52 27.97	-00 58 01.7			033
3006 T-3		1992 02 27.94028	10 25 31.09	+20 23 36.3	18.3		033
3006 T-3		1992 02 27.98854	10 25 27.77	+20 23 46.7			033
3006 T-3		1992 02 28.90278	10 24 26.93	+20 27 00.9			033
(271)		1991 09 04.99583	23 51 35.60	+00 46 17.7	14.6		033
(271)		1991 09 05.06528	23 51 32.52	+00 46 05.4			033
(615)		1991 10 30.84618	23 15 29.06	-05 30 56.5	16		033
(615)		1991 10 31.85417	23 15 22.67	-05 30 23.9			033
(855)		1992 02 28.06736	11 09 55.26	+18 02 51.5	15.5		033
(855)		1992 02 28.95903	11 08 54.93	+18 05 30.9			033
(855)		1992 02 29.04097	11 08 49.20	+18 05 45.2			033
(1462)		1991 09 04.99583	23 51 54.00	-01 40 45.7	17.1		033
(1462)		1991 09 05.06528	23 51 51.10	-01 41 02.7			033
(1462)		1991 09 14.92292	23 44 54.88	-02 24 25.3	16.9		033
(1462)		1991 09 14.97500	23 44 52.38	-02 24 39.5			033
(1462)		1991 10 09.85347	23 28 00.97	-04 06 51.9	17.0		033
(1462)		1991 10 09.90069	23 27 59.37	-04 07 00.8			033
(1909)		1991 10 09.85347	23 21 17.44	-01 57 22.7	17.2		033
(1909)		1991 10 09.90069	23 21 15.59	-01 57 36.8			033
(2328)		1991 10 09.85347	23 32 46.03	-02 36 48.5	17.8		033
(2328)		1991 10 09.90069	23 32 44.11	-02 37 10.7			033
(2453)		1992 02 28.93125	10 39 07.46	+17 54 16.8	16.8		033
(2453)		1992 02 29.01250	10 39 03.17	+17 54 30.3			033
(2453)		1992 02 29.97014	10 38 13.76	+17 57 02.3			033
(2849)		1992 02 29.93472	10 49 07.22	+18 22 15.5	17.1		033
(2849)		1992 02 29.99792	10 49 03.42	+18 22 31.0			033
(2849)		1992 03 01.92083	10 48 10.05	+18 26 24.1			033
(3007)		1992 02 28.06736	11 11 33.64	+19 34 36.3	17.2		033
(3007)		1992 02 28.95903	11 10 41.39	+19 40 18.1			033
(3007)		1992 02 29.04097	11 10 36.42	+19 40 48.9			033
(3825)		1992 02 28.93125	10 41 12.20	+18 32 33.8	15.9		033
(3825)		1992 02 29.01250	10 41 07.02	+18 33 04.4			033
(3825)		1992 02 29.97014	10 40 07.83	+18 39 05.2			033

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

1988 DE2		1992 03 01.00630	11 13 10.47	+11 20 58.3	16.6		046
1988 DE2		1992 03 01.02053	11 13 09.61	+11 21 07.1			046

095 Crimean Astrophysical Observatory
N. S. Chernykh, Crimean Astrophysical Observatory, P.O. Nauchnyj,
Crimea 334413, Ukraine
Yu. V. Batrakov, Institute for Theoretical Astronomy,
Naberezhnaya Kutuzova 10, St. Petersburg 191187, Russia
Observers N. S. Chernykh, L. I. Chernykh, L. G. Karachkina,
L. V. Zhuravleva

1981 CB1		1990 10 23.97255	02 43 08.53	+16 00 35.0		E	095

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

(5186)		1992 03 01.27708	09 56 16.16	+13 30 34.3			293

303 Merida
O. A. Naranjo, Dept. de Fisica, Universidad de los Andes,
Merida 5101, Venezuela
Observers O. A. Naranjo, J. D. Stock

1984 UB3		1992 04 03.17014	12 51 32.32	-06 39 39.2	18		303
1984 UB3		1992 04 03.18542	12 51 31.67	-06 39 33.6			303
1984 UB3		1992 04 03.20139	12 51 30.92	-06 39 27.6			303
1984 UB3		1992 04 04.16736	12 50 46.61	-06 34 46.3			303
1984 UB3		1992 04 04.18299	12 50 45.98	-06 34 41.7			303
1984 UB3		1992 04 04.19861	12 50 45.28	-06 34 35.4			303
1985 CR2		1992 04 03.17014	12 38 52.69	-05 18 01.3	17		303
1985 CR2		1992 04 03.18542	12 38 51.75	-05 17 54.6			303
1985 CR2		1992 04 03.20139	12 38 50.80	-05 17 48.7			303
1985 CR2		1992 04 04.16736	12 37 55.11	-05 11 51.7			303
1985 CR2		1992 04 04.18299	12 37 54.23	-05 11 45.7			303
1985 CR2		1992 04 04.19861	12 37 53.26	-05 11 39.8			303
1990 QT2		1992 04 03.17014	12 38 42.39	-03 44 55.7	17		303
1990 QT2		1992 04 03.18542	12 38 41.56	-03 44 50.7			303
1990 QT2		1992 04 03.20139	12 38 40.34	-03 44 43.8			303
1990 UE1		1992 04 03.17014	12 37 39.37	-05 33 42.7	19		303
1990 UE1		1992 04 03.18542	12 37 38.33	-05 33 35.4			303
1990 UE1		1992 04 03.20139	12 37 37.50	-05 33 30.0			303
1990 UE1		1992 04 04.16736	12 36 44.72	-05 27 26.0			303
1990 UE1		1992 04 04.18299	12 36 44.03	-05 27 21.4			303
1990 UE1		1992 04 04.19861	12 36 43.15	-05 27 15.7			303
1992 FO1		1992 04 03.17014	12 52 33.39	-05 22 46.4	18		303
1992 FO1		1992 04 03.18542	12 52 32.56	-05 22 39.8			303
1992 FO1		1992 04 03.20139	12 52 31.70	-05 22 32.1			303
1992 FO1		1992 04 04.16736	12 51 39.72	-05 15 45.0			303
1992 FO1		1992 04 04.18299	12 51 38.96	-05 15 38.8			303
1992 FO1		1992 04 04.19861	12 51 37.89	-05 15 29.5			303
1992 GD1	*	1992 04 03.17014	12 40 57.86	-06 39 20.0	16		303
1992 GD1		1992 04 03.18542	12 40 56.78	-06 39 22.3			303
1992 GD1		1992 04 03.20139	12 40 55.68	-06 39 25.2			303
1992 GD1		1992 04 04.16736	12 39 47.49	-06 42 24.6			303
1992 GD1		1992 04 04.18299	12 39 46.39	-06 42 28.0			303
1992 GD1		1992 04 04.19861	12 39 45.29	-06 42 30.6			303
1992 GE1	*	1992 04 03.17014	12 41 25.27	-04 01 20.4	17		303
1992 GE1		1992 04 03.18542	12 41 24.37	-04 01 16.1			303
1992 GE1		1992 04 03.20139	12 41 23.48	-04 01 11.2			303
1992 GE1		1992 04 04.16736	12 40 28.75	-03 57 12.9			303
1992 GE1		1992 04 04.18299	12 40 27.83	-03 57 09.0			303
1992 GE1		1992 04 04.19861	12 40 26.86	-03 57 05.2			303
1992 GF1	*	1992 04 03.17014	12 43 34.90	-03 10 48.2	19		303

1992 GF1		1992 04 03.18542	12 43 34.28	-03 10 45.3				303
1992 GF1		1992 04 03.20139	12 43 33.50	-03 10 40.3				303
1992 GF1		1992 04 04.16736	12 42 49.53	-03 06 29.2				303
1992 GF1		1992 04 04.18299	12 42 48.72	-03 06 24.7				303
1992 GF1		1992 04 04.19861	12 42 47.99	-03 06 18.7				303
1992 GG1	*	1992 04 03.17014	12 43 47.34	-06 16 25.2		17		303
1992 GG1		1992 04 03.18542	12 43 46.46	-06 16 20.3				303
1992 GG1		1992 04 03.20139	12 43 45.70	-06 16 14.6				303
1992 GG1		1992 04 04.16736	12 42 46.17	-06 10 21.8				303
1992 GG1		1992 04 04.18299	12 42 45.17	-06 10 15.9				303
1992 GG1		1992 04 04.19861	12 42 44.11	-06 10 10.0				303
1992 GH1	*	1992 04 03.17014	12 45 30.38	-04 30 41.0		19		303
1992 GH1		1992 04 03.18542	12 45 29.50	-04 30 33.0				303
1992 GH1		1992 04 03.20139	12 45 28.55	-04 30 23.6				303
1992 GH1		1992 04 04.16736	12 44 36.57	-04 22 22.2				303
1992 GH1		1992 04 04.18299	12 44 35.75	-04 22 15.5				303
1992 GH1		1992 04 04.19861	12 44 34.94	-04 22 07.5				303
1992 GJ1	*	1992 04 03.17014	12 47 22.72	-02 59 17.3		18		303
1992 GJ1		1992 04 03.18542	12 47 22.00	-02 59 14.1				303
1992 GJ1		1992 04 03.20139	12 47 21.08	-02 59 09.2				303
1992 GJ1		1992 04 04.16736	12 46 29.44	-02 55 25.1				303
1992 GJ1		1992 04 04.18299	12 46 28.59	-02 55 21.9				303
1992 GJ1		1992 04 04.19861	12 46 27.92	-02 55 18.0				303
1992 GK1	*	1992 04 03.17014	12 47 29.14	-06 18 53.5		18		303
1992 GK1		1992 04 03.18542	12 47 28.24	-06 18 49.0				303
1992 GK1		1992 04 03.20139	12 47 27.27	-06 18 44.8				303
1992 GK1		1992 04 04.16736	12 46 32.14	-06 14 34.9				303
1992 GK1		1992 04 04.18299	12 46 31.24	-06 14 31.1				303
1992 GK1		1992 04 04.19861	12 46 30.36	-06 14 26.2				303
1992 GL1	*	1992 04 03.17014	12 47 48.52	-03 42 03.0		17		303
1992 GL1		1992 04 03.18542	12 47 47.75	-03 41 56.3				303
1992 GL1		1992 04 03.20139	12 47 46.92	-03 41 49.0				303
1992 GL1		1992 04 04.16736	12 46 58.18	-03 35 02.1				303
1992 GL1		1992 04 04.18299	12 46 57.26	-03 34 54.1				303
1992 GL1		1992 04 04.19861	12 46 56.40	-03 34 47.5				303
1992 GM1	*	1992 04 03.17014	12 47 57.28	-05 58 01.4		19		303
1992 GM1		1992 04 03.18542	12 47 56.63	-05 57 58.1				303
1992 GM1		1992 04 03.20139	12 47 55.78	-05 57 51.8				303
1992 GM1		1992 04 04.16736	12 47 09.72	-05 53 25.0				303
1992 GM1		1992 04 04.18299	12 47 09.02	-05 53 20.4				303
1992 GM1		1992 04 04.19861	12 47 08.46	-05 53 16.1				303
1992 GN1	*	1992 04 03.17014	12 49 49.14	-03 56 19.8		19		303
1992 GN1		1992 04 03.18542	12 49 48.24	-03 56 11.5				303
1992 GN1		1992 04 03.20139	12 49 47.18	-03 56 01.8				303
1992 GN1		1992 04 04.16736	12 48 56.29	-03 48 13.7				303
1992 GN1		1992 04 04.18299	12 48 55.44	-03 48 05.8				303
1992 GN1		1992 04 04.19861	12 48 54.55	-03 47 57.5				303
(1494)		1992 04 03.17014	12 42 11.37	-04 45 21.1		15		303
(1494)		1992 04 03.18542	12 42 10.42	-04 45 14.1				303
(1494)		1992 04 03.20139	12 42 09.47	-04 45 07.1				303
(1494)		1992 04 04.16736	12 41 12.82	-04 38 03.4				303
(1494)		1992 04 04.18299	12 41 11.87	-04 37 55.7				303
(1494)		1992 04 04.19861	12 41 10.92	-04 37 48.8				303
(1984)		1992 04 03.17014	12 52 12.37	-04 34 09.2		15		303
(1984)		1992 04 03.18542	12 52 11.67	-04 34 02.6				303
(1984)		1992 04 03.20139	12 52 10.96	-04 33 55.9				303
(1984)		1992 04 04.16736	12 51 28.32	-04 28 08.2				303
(1984)		1992 04 04.18299	12 51 27.62	-04 28 02.2				303
(1984)		1992 04 04.19861	12 51 26.90	-04 27 55.9				303

(4815)		1992	04	03.17014	12	49	58.53	-06 51 08.8	19	303
(4815)		1992	04	03.18542	12	49	57.68	-06 51 06.3		303
(4815)		1992	04	03.20139	12	49	56.70	-06 51 01.4		303
(4815)		1992	04	04.16736	12	48	57.34	-06 47 37.7		303
(4815)		1992	04	04.18299	12	48	56.39	-06 47 33.5		303
(4815)		1992	04	04.19861	12	48	55.44	-06 47 29.7		303

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

1990 UF2		1992	04	05.69861	14	33	11.92	-14 20 09.8	17	372
1990 UF2		1992	04	05.71008	14	33	11.64	-14 20 04.1		372
1990 UF2		1992	04	11.68473	14	29	21.48	-13 26 53.4	16.5	372
1990 UF2		1992	04	11.69306	14	29	21.09	-13 26 47.3		372
1990 VS2		1992	04	22.48368	11	57	03.93	+09 15 37.5	17	372
1990 VS2		1992	04	22.49514	11	57	03.26	+09 15 38.0		372
1992 GB		1992	04	20.44757	11	45	21.94	+16 08 14.7	17.5	372
1992 GB		1992	04	20.46528	11	45	21.51	+16 08 12.7		372
1992 GB		1992	04	21.50739	11	44	53.80	+16 06 12.5	17.5	372
1992 GC		1992	04	10.66875	13	15	43.54	-04 49 14.8	17	372
1992 GC		1992	04	10.67986	13	15	42.88	-04 49 15.4		372
1992 GS	*	1992	04	05.58402	13	20	32.70	-04 59 41.4	18	372
1992 GS		1992	04	05.59549	13	20	32.39	-04 59 36.1		372
1992 GS		1992	04	10.66876	13	19	19.70	-04 22 56.4	18	372
1992 GS		1992	04	10.67986	13	19	19.45	-04 22 53.9		372
1992 GT	*	1992	04	05.63021	13	21	18.47	-04 05 02.3	18	372
1992 GT		1992	04	05.64097	13	21	17.88	-04 04 57.9		372
1992 GT		1992	04	10.69479	13	16	32.36	-03 33 01.2	18	372
1992 GT		1992	04	10.70274	13	16	31.77	-03 32 56.0		372
1992 GU	*	1992	04	05.63021	13	22	33.08	-03 16 59.1	18	372
1992 GU		1992	04	05.64097	13	22	32.59	-03 16 56.5		372
1992 GU		1992	04	10.71458	13	18	03.06	-02 47 07.0	18	372
1992 GU		1992	04	10.72569	13	18	02.36	-02 47 03.8		372
1992 GV	*	1992	04	05.65243	12	54	17.13	+00 28 10.3	17.5	372
1992 GV		1992	04	05.66425	12	54	16.55	+00 28 06.8		372
1992 GV		1992	04	10.60278	12	48	36.54	+00 22 17.8	17	372
1992 GV		1992	04	10.61528	12	48	35.64	+00 22 17.7		372
1992 GW	*	1992	04	05.65243	12	55	18.69	+00 34 41.0	18	372
1992 GW		1992	04	05.66425	12	55	18.12	+00 34 45.3		372
1992 GW		1992	04	10.64688	12	48	51.84	+00 54 01.4	18	372
1992 GW		1992	04	10.65799	12	48	51.53	+00 54 07.1		372
1992 GX	*	1992	04	05.74758	13	55	04.23	+02 02 53.5	18	372
1992 GX		1992	04	05.75868	13	55	03.71	+02 02 59.7		372
1992 GX		1992	04	10.73785	13	50	17.16	+02 31 30.3	18	372
1992 GX		1992	04	10.74931	13	50	16.25	+02 31 38.2		372
1992 GY	*	1992	04	10.69479	13	16	33.42	-03 32 41.4	18.5	372
1992 GY		1992	04	10.70274	13	16	32.63	-03 32 37.0		372
1992 GY		1992	04	11.74531	13	15	44.51	-03 25 40.7	18	372
1992 HB	*	1992	04	22.57292	12	58	51.04	-06 39 46.9	17	372
1992 HB		1992	04	22.58334	12	58	50.55	-06 39 40.5		372
1992 HB		1992	04	23.57396	12	58	09.16	-06 34 10.8	17	372
1992 HB		1992	04	23.58299	12	58	08.91	-06 34 09.3		372
1992 JE	*	1992	05	02.64583	14	54	18.10	-08 34 56.8	17.5	372
1992 JE		1992	05	02.65625	14	54	17.49	-08 34 48.6		372
1992 JE		1992	05	03.59826	14	53	27.25	-08 20 35.6	17	372
1992 JE		1992	05	03.60868	14	53	26.67	-08 20 25.4		372
1992 JE		1992	05	04.65382	14	52	29.03	-08 04 28.7	17	372
1992 JF	*	1992	05	02.66738	15	01	54.35	-15 14 51.1	16.5	372

1992 JF		1992 05 02.67778	15 01 53.59	-15 14 49.1			372
1992 JF		1992 05 03.66146	15 00 51.86	-15 13 48.7	16.5		372
1992 JF		1992 05 03.67049	15 00 51.34	-15 13 47.1			372
1992 JF		1992 05 04.64028	14 59 50.00	-15 12 44.8	17		372
1992 JH	*	1992 05 03.68090	15 16 12.98	-11 39 31.6	17		372
1992 JH		1992 05 03.69132	15 16 12.45	-11 39 28.0			372
1992 JH		1992 05 04.66528	15 15 22.01	-11 34 26.4	17		372
1992 JH		1992 05 04.67569	15 15 21.47	-11 34 19.8			372
(1513)		1992 04 22.63472	12 55 00.26	+01 41 24.2	16		372
(1513)		1992 04 22.64375	12 54 59.90	+01 41 28.0			372
(2777)		1992 05 02.54618	13 01 28.07	-05 00 19.1	16		372
(2777)		1992 05 02.55451	13 01 27.80	-05 00 17.5			372
(4393)		1992 04 10.66876	13 17 19.51	-04 34 53.6	17.5		372
(4393)		1992 04 10.67986	13 17 19.04	-04 34 50.6			372

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

1990 VH1		1992 04 12.66667	13 09 54.25	+05 41 54.5	16		385
1990 VH1		1992 04 12.67361	13 09 53.86	+05 41 52.8			385
1990 VH1		1992 05 01.57604	12 52 15.10	+04 25 09.1	16.5		385
1990 VH1		1992 05 01.59132	12 52 14.56	+04 25 03.2			385
1990 VH1		1992 05 03.62049	12 50 50.94	+04 12 44.1	16.5		385
1990 VH1		1992 05 03.63438	12 50 50.41	+04 12 39.6			385
1990 XE		1992 05 01.64010	14 49 55.69	-19 17 28.1	16.5		385
1990 XE		1992 05 01.65174	14 49 54.92	-19 17 23.2			385
1990 YH		1992 04 12.70833	13 55 00.43	+04 38 04.9	16		385
1990 YH		1992 04 12.71528	13 55 00.29	+04 38 08.7	16.5		385
1990 YH		1992 05 01.60660	13 41 21.76	+06 01 11.9	16.5		385
1990 YH		1992 05 01.62188	13 41 21.19	+06 01 15.7			385
1991 BO		1992 05 01.58368	13 30 14.06	-10 47 08.7	17		385
1991 BO		1992 05 01.59896	13 30 13.31	-10 47 04.5			385
1992 JC	*	1992 05 01.64028	14 47 06.62	-18 14 58.3	16.5		385
1992 JC		1992 05 01.65174	14 47 05.73	-18 14 59.0			385
1992 JC		1992 05 03.65278	14 45 03.99	-18 18 03.5	16		385
1992 JC		1992 05 03.67083	14 45 02.80	-18 18 07.2			385
1992 JJ	*	1992 05 04.55833	13 50 25.71	+06 45 55.0	16.5		385
1992 JJ		1992 05 04.57361	13 50 24.77	+06 45 49.2			385
1992 JJ		1992 05 05.50087	13 49 31.39	+06 38 05.9	16.5		385
1992 JJ		1992 05 05.51806	13 49 30.24	+06 37 57.9			385

399 Kushiro
H. Kaneda, Taiyo MS 2-H, 2 chome 2-15, Kawazoe 8 jo, Minami-ku,
Sapporo 005, Japan
Observer S. Ueda
Measurer H. Kaneda
0.25-m f/3.5 reflector (Hyperboloid Astro-Camera)
GSC

1988 CU7		1992 04 19.46667	12 37 46.44	-08 18 30.6	17		399
1988 CU7		1992 04 19.48160	12 37 45.68	-08 18 28.4			399
1988 CU7		1992 04 23.49462	12 34 17.66	-08 06 07.1	17		399
1988 CU7		1992 04 23.50972	12 34 17.01	-08 06 03.3			399
1989 SS		1990 12 13.68131	07 34 26.23	+08 16 37.3	17		399
1989 SS		1990 12 13.70174	07 34 25.47	+08 16 32.1			399
1989 SS		1990 12 13.71719	07 34 24.81	+08 16 30.3			399
1989 SS		1990 12 15.56701	07 33 19.38	+08 09 18.5	17		399
1989 SS		1990 12 15.58333	07 33 18.79	+08 09 14.6			399
1989 SS		1990 12 15.60486	07 33 18.00	+08 09 08.9			399

1989 SS		1992 03 26.64931	13 31 00.09	-18 22 13.9	17			399
1989 SS		1992 03 26.66424	13 30 59.48	-18 22 08.0				399
1989 SS		1992 03 28.61875	13 29 41.90	-18 11 23.5	17			399
1989 SS		1992 03 28.63368	13 29 41.23	-18 11 20.0				399
1989 SS		1992 04 23.52917	13 11 07.10	-15 09 55.5	17			399
1989 SS		1992 04 27.53403	13 08 31.65	-14 39 08.4	17			399
1989 SS		1992 04 27.54896	13 08 30.85	-14 39 00.8				399
1989 SS		1992 05 02.49861	13 05 36.15	-14 01 30.1	17			399
1989 SS		1992 05 02.51354	13 05 35.44	-14 01 24.9				399
1990 VN3		1992 04 19.46667	12 36 52.57	-06 34 04.6	17			399
1990 VN3		1992 04 19.48160	12 36 51.66	-06 34 03.8				399
1990 VN3		1992 04 23.49462	12 33 10.02	-06 25 22.7	16.5			399
1990 VN3		1992 04 23.50972	12 33 09.31	-06 25 20.0				399
1991 AX1		1992 05 02.57083	14 52 57.11	-11 42 43.6	16.5			399
1991 AX1		1992 05 02.58646	14 52 56.26	-11 42 38.8				399
1991 PM13		1991 09 07.52934	22 19 59.11	-13 16 16.8	16			399
1991 PM13		1991 09 07.54479	22 19 58.19	-13 16 14.6				399
1992 CN3		1992 01 24.51389	08 34 17.27	+12 22 54.0	17			399
1992 CN3		1992 01 24.52917	08 34 16.38	+12 22 59.9				399
1992 EE		1992 04 07.57222	11 03 10.68	+04 06 37.0	17			399
1992 EE		1992 04 07.58715	11 03 10.06	+04 06 35.1				399
1992 ES1		1992 04 07.60729	11 49 36.26	+10 29 32.1	17			399
1992 ES1		1992 04 07.62292	11 49 35.42	+10 29 30.3				399
1992 FJ		1992 04 19.46667	12 46 32.57	-07 23 33.4	17			399
1992 FJ		1992 04 19.48160	12 46 31.85	-07 23 26.0				399
1992 FJ		1992 04 23.49462	12 43 43.10	-06 52 39.2	17			399
1992 FJ		1992 04 23.50972	12 43 42.42	-06 52 31.9				399
1992 FZ		1992 04 23.52917	13 12 45.19	-15 32 44.5	17			399
1992 FZ		1992 04 27.53403	13 09 38.73	-15 21 47.2	17			399
1992 FZ		1992 04 27.54896	13 09 37.91	-15 21 46.1				399
1992 FZ		1992 05 02.49861	13 06 06.12	-15 08 09.8	17			399
1992 FZ		1992 05 02.51354	13 06 05.59	-15 08 08.7				399
1992 FA1		1992 04 23.52917	13 14 37.77	-12 56 36.6	16.5			399
1992 FA1		1992 04 27.53403	13 11 15.66	-12 24 22.3	16.5			399
1992 FA1		1992 04 27.54896	13 11 14.81	-12 24 15.0				399
1992 FA1		1992 05 02.49861	13 07 31.01	-11 45 28.1	16.5			399
1992 FA1		1992 05 02.51354	13 07 30.35	-11 45 21.9				399
1992 FX1		1992 04 07.57222	11 09 35.14	+06 06 04.8	16			399
1992 FX1		1992 04 07.58715	11 09 34.64	+06 06 11.5				399
1992 FY1		1992 04 07.60729	11 55 51.75	+12 20 55.0	16.5			399
1992 FY1		1992 04 07.62292	11 55 50.89	+12 20 54.7				399
1992 FZ1		1992 04 07.64479	12 32 30.41	+08 25 09.9	17			399
1992 FZ1		1992 04 07.66146	12 32 29.58	+08 25 16.7				399
1992 FA2		1992 04 07.64479	12 39 57.62	+05 08 34.6	17			399
1992 FA2		1992 04 07.66146	12 39 56.79	+05 08 37.9				399
1992 FB2		1992 04 07.64479	12 39 09.00	+07 05 00.1	16.5			399
1992 FB2		1992 04 07.66146	12 39 08.09	+07 05 03.4				399
1992 GO	*	1992 04 03.54028	11 51 06.81	+11 43 30.9	17			399
1992 GO		1992 04 03.55524	11 51 06.07	+11 43 35.3				399
1992 GO		1992 04 07.60729	11 48 19.69	+12 13 09.5	17			399
1992 GO		1992 04 07.62292	11 48 19.03	+12 13 17.3				399
1992 GQ	*	1992 04 03.64826	13 40 45.36	+05 17 01.7	17			399
1992 GQ		1992 04 03.66528	13 40 44.47	+05 17 07.9				399
1992 GQ		1992 04 07.53090	13 37 51.59	+05 34 19.4	17			399
1992 GQ		1992 04 07.54618	13 37 50.77	+05 34 22.5				399
1992 GQ		1992 05 02.53194	13 19 42.26	+06 27 55.4	17			399
1992 GQ		1992 05 02.55000	13 19 41.52	+06 27 54.7				399
1992 GR	*	1992 04 03.64826	13 48 34.23	+05 37 12.6	16.5			399
1992 GR		1992 04 03.66528	13 48 33.19	+05 37 14.8				399

1992 GR		1992 04 07.53090	13 44 49.29	+05 43 40.1	17		399
1992 GR		1992 04 07.54618	13 44 48.39	+05 43 41.1			399
1992 HK	*	1992 04 27.59549	15 05 02.77	-12 04 44.0	16.5		399
1992 HK		1992 04 27.61134	15 05 01.97	-12 04 40.6			399
1992 HK		1992 05 02.57083	15 00 57.78	-11 43 33.2	16.5		399
1992 HK		1992 05 02.58646	15 00 56.79	-11 43 29.2			399
1992 JH		1992 05 02.60764	15 17 08.64	-11 45 13.0	16.5		399
1992 JH		1992 05 02.62407	15 17 07.69	-11 45 07.9			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
Measurer K. Watanabe
0.20-m f/4.0 hyperboloid astrocamera, 0.25-m f/2.5 Schmidt
GSC

1989 JF		1992 03 28.52569	12 18 51.53	-02 59 27.6	16.5		400
1989 JF		1992 03 28.54514	12 18 50.05	-02 59 21.3			400
1991 AE		1992 05 02.59583	15 36 34.02	+04 46 46.6	15.5		400
1991 AE		1992 05 02.61528	15 36 33.05	+04 46 51.1			400
1991 CB		1992 05 02.59583	15 35 07.30	+06 58 39.7	16.0		400
1991 CB		1992 05 02.61528	15 35 06.29	+06 58 43.2			400
1992 DG1		1992 03 22.52951	12 03 38.61	-03 13 17.0	16.5		400
1992 DG1		1992 03 22.54687	12 03 37.50	-03 13 15.2			400
1992 EL		1992 03 24.57361	10 50 11.19	-03 25 31.4	17		400
1992 EL		1992 03 24.59375	10 50 10.48	-03 25 26.6			400
1992 FH		1992 04 23.51319	12 05 19.92	+02 09 18.7	16.5		400
1992 FH		1992 04 23.53576	12 05 18.97	+02 09 19.8			400
1992 FN		1992 04 23.51319	12 06 36.16	-00 17 11.6	16.0		400
1992 FN		1992 04 23.53576	12 06 35.67	-00 17 09.6			400
1992 FO		1992 03 28.52569	12 26 16.53	+01 38 29.1	16.5		400
1992 FO		1992 03 28.54514	12 26 15.66	+01 38 32.3			400
1992 FQ		1992 03 28.52569	12 25 08.51	-01 25 06.3	16.0		400
1992 FQ		1992 03 28.54514	12 25 07.20	-01 25 05.1			400
1992 FR		1992 03 28.52569	12 27 50.74	-00 50 45.5	15.5		400
1992 FR		1992 03 28.54514	12 27 49.79	-00 50 31.3			400
1992 FS		1992 03 28.52569	12 28 37.74	+01 47 44.8	16.5		400
1992 FS		1992 03 28.54514	12 28 36.37	+01 47 46.9			400
1992 FS		1992 04 23.51319	12 07 50.79	+02 57 43.8	17		400
1992 FS		1992 04 23.53576	12 07 49.97	+02 57 45.0			400
1992 FT		1992 04 03.49514	12 29 20.94	-00 24 41.9	16.0		400
1992 FT		1992 04 03.51319	12 29 20.10	-00 24 34.9			400
1992 FV		1992 04 07.51632	12 08 25.77	+07 18 54.4	16.0		400
1992 FV		1992 04 07.53299	12 08 24.99	+07 18 58.2			400
1992 FB1		1992 04 07.51632	12 19 37.70	+09 14 15.0	16.0		400
1992 FB1		1992 04 07.53299	12 19 37.05	+09 14 23.4			400
1992 FH1		1992 04 25.54583	12 43 12.03	+01 28 39.4	16.0		400
1992 FH1		1992 04 25.56736	12 43 11.16	+01 28 42.7			400
1992 FP1		1992 05 02.47014	13 08 39.63	+03 57 22.7	16.0		400
1992 FP1		1992 05 02.48958	13 08 39.05	+03 57 30.9			400
1992 FS1		1992 04 07.54896	13 49 50.84	+03 02 37.5	16.0		400
1992 FS1		1992 04 07.56632	13 49 49.74	+03 02 44.7			400
1992 FV1		1992 04 25.58542	13 23 59.09	-03 10 38.4	15.5		400
1992 FV1		1992 04 25.60417	13 23 58.11	-03 10 40.5			400
1992 FC2		1992 04 23.47083	12 01 36.25	-01 36 12.2	16.0		400
1992 FC2		1992 04 23.49444	12 01 35.48	-01 36 14.7			400
1992 FF2		1992 04 25.58542	13 26 17.19	-02 20 22.0	16.0		400
1992 FF2		1992 04 25.60417	13 26 16.19	-02 20 22.9			400
1992 GP	*	1992 04 03.61667	14 20 57.02	-05 23 11.2	16.0		400

1992 GP	1992 04 03.63958	14 20 56.21	-05 22 59.3			400
1992 GP	1992 04 07.62222	14 18 36.24	-04 34 55.8	16.0		400
1992 GP	1992 04 07.64167	14 18 35.32	-04 34 40.8			400
1992 GP	1992 04 27.51667	14 03 46.54	-00 39 27.7	16.0		400
1992 GP	1992 04 27.53611	14 03 45.79	-00 39 17.8			400

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

1987 YD	1992 04 05.57361	12 53 00.89	+07 41 10.3	17.0		402
1987 YD	1992 04 05.58762	12 52 59.85	+07 41 14.5			402
1987 YD	1992 04 07.62222	12 50 54.03	+07 45 05.5			402
1991 VM4	1991 11 30.63542	04 29 23.87	+25 50 14.6	17.0		402
1991 VM4	1991 11 30.64931	04 29 22.83	+25 50 14.1			402
1992 DK	1992 03 31.50486	11 49 29.59	+18 36 01.5	17.5		402
1992 DK	1992 03 31.51675	11 49 28.81	+18 35 59.1			402
1992 DK	1992 04 02.50217	11 47 57.10	+18 36 40.6			402
1992 DK	1992 04 02.51704	11 47 56.32	+18 36 40.4			402
1992 EE1	1992 04 21.50903	12 28 13.48	+08 33 37.9	16.0		402
1992 EE1	1992 04 22.52986	12 26 52.79	+08 15 59.3			402
1992 EE1	1992 04 22.54375	12 26 51.87	+08 15 47.3			402
1992 EM1	1992 04 08.59201	13 15 01.54	+14 27 21.0	17.0		402
1992 EM1	1992 04 08.60382	13 15 01.01	+14 27 25.2			402
1992 JB	1992 05 04.66493	15 25 25.52	-02 59 51.3			402
1992 JB	1992 05 04.66913	15 25 25.53	-02 59 27.1			402
1992 JB	1992 05 04.67326	15 25 25.60	-02 59 07.4			402
1992 JE	1992 05 06.61042	14 50 38.94	-07 34 17.1	17		402
1992 JE	1992 05 06.62361	14 50 38.00	-07 34 01.7			402

411 Oizumi
T. Kobayashi, 1717-2 Shimo-Koizumi, Oizumi-machi, Ora-gun, Gunma-ken, 370-05 Japan
0.16-m f/4.8 reflector + CCD
GSC

1992 AC	1992 05 01.56572	12 40 57.62	+38 45 09.3	15.5		411
1992 AC	1992 05 01.56815	12 40 57.74	+38 45 05.3			411
1992 AC	1992 05 01.57979	12 40 58.49	+38 44 45.0			411
1992 AC	1992 05 01.58339	12 40 58.64	+38 44 38.9			411

413 Siding Spring
R. H. McNaught, Siding Spring Observatory, Coonabarabran, N.S.W. 2357, Australia
Observers R. H. McNaught, M. J. Drinkwater, T. G. Hawarden, M. R. S. Hawkins, S. M. Hughes, Q. A. Parker, K. S. Russell, A. Savage, D. I. Steel
Measurers R. H. McNaught, A. N. Zytkow, M. J. Irwin, D. I. Steel
1.2-m U.K. Schmidt, Uppsala Southern Schmidt, 1.0-m reflector + CCD

1978 VG11	1990 04 29.76870	18 46 17.25	-25 37 30.2			413
1983 XX	1992 03 13.58981	10 55 28.06	-15 50 13.4			413
1983 XX	1992 03 14.52060	10 54 36.44	-15 43 51.2			413
1983 XX	1992 03 15.71852	10 53 30.25	-15 35 26.6			413
1983 XX	1992 03 31.51750	10 41 27.44	-13 27 36.1			413
1986 PE	1992 04 10.53939	11 52 48.88	-13 07 17.5			413
1986 PE	1992 04 10.60189	11 52 45.95	-13 06 46.1			413
1986 PE	1992 04 12.68623	11 51 11.37	-12 48 35.3			413
1987 SL	1992 05 03.73759	13 59 04.04	-48 30 38.6			413
1987 UQ3	1990 04 29.76870	18 55 08.68	-22 21 00.8			413
1988 DO	1992 03 31.72950	16 16 39.68	-33 13 10.2			413

1988	DO		1992	04	21.81207	16	09	39.14	-33	55	46.0	413
1988	DO		1992	04	21.81543	16	09	39.02	-33	55	46.6	413
1988	DO		1992	04	22.66278	16	09	02.85	-33	55	58.0	413
1988	DO		1992	04	22.66553	16	09	02.72	-33	55	58.0	413
1988	DD5		1992	04	22.57120	13	43	07.25	-30	43	19.2	413
1988	DD5		1992	04	22.57399	13	43	07.08	-30	43	18.2	413
1988	DD5		1992	04	23.72774	13	42	04.24	-30	36	02.8	413
1988	DD5		1992	04	23.73056	13	42	04.04	-30	36	01.0	413
1988	HE		1992	04	09.53935	13	02	52.67	-27	01	06.7	413
1988	HE		1992	04	09.58449	13	02	49.78	-27	01	01.8	413
1988	HE		1992	04	10.61597	13	01	42.71	-26	58	33.6	413
1988	HE		1992	04	11.62390	13	00	37.57	-26	55	55.9	413
1988	HE		1992	04	11.63507	13	00	36.78	-26	55	54.3	413
1988	RA		1985	03	03.69731	13	33	09.80	-18	09	45.8	413
1988	RA		1985	03	03.76676	13	33	05.94	-18	10	12.6	413
1990	HW6	*	1990	04	29.76870	18	51	20.69	-23	07	05.1	413
1990	HX6	*	1990	04	29.76870	18	55	43.98	-21	33	48.0	413
1990	HY6	*	1990	04	29.76870	18	57	18.20	-25	19	16.3	413
1990	HZ6	*	1990	04	29.76870	18	57	22.23	-25	18	38.9	413
1990	HA7	*	1990	04	29.76870	18	57	28.92	-21	30	50.6	413
1990	HB7	*	1990	04	29.76870	18	58	28.39	-21	45	25.1	413
1990	HC7	*	1990	04	29.76870	18	59	06.61	-24	40	27.8	413
1990	HD7	*	1990	04	29.76870	18	59	07.39	-24	39	39.5	413
1991	JY		1992	05	03.79091	20	38	55.76	-36	07	21.6	V 413
1991	TB1		1992	04	22.51807	10	47	26.92	-17	16	39.9	413
1991	TB1		1992	04	22.52134	10	47	26.91	-17	16	45.3	413
1991	VK		1992	04	11.62390	12	58	13.05	-25	41	58.9	413
1991	VK		1992	04	11.73197	12	58	03.75	-25	39	45.5	413
1991	VK		1992	04	22.54751	12	47	11.76	-22	16	05.7	413
1991	VK		1992	04	22.55087	12	47	11.60	-22	16	02.0	413
1991	YA		1992	01	11.58299	04	56	18.98	+16	52	49.3	413
1991	YA		1992	01	12.48843	04	55	44.48	+15	58	08.3	413
1992	AA		1992	01	11.57755	04	44	17.02	+22	11	52.5	413
1992	AA		1992	01	12.48472	04	45	52.22	+22	45	01.6	413
1992	AB		1992	01	11.57211	04	13	15.84	+21	28	17.6	413
1992	AB		1992	01	12.47987	04	11	51.79	+21	59	05.1	413
1992	AC		1992	01	11.58669	09	06	09.22	+10	13	10.4	413
1992	AC		1992	01	12.50625	09	07	54.07	+10	54	04.8	413
1992	BB		1992	04	22.43211	08	20	58.48	-07	49	52.0	413
1992	BB		1992	04	22.43968	08	20	59.90	-07	49	30.7	413
1992	BB		1992	04	22.44875	08	21	01.58	-07	49	05.1	413
1992	BB		1992	04	23.39571	08	24	01.64	-07	04	44.1	413
1992	BB		1992	04	23.39939	08	24	02.36	-07	04	33.6	413
1992	CC1		1976	04	01.61970	13	54	26.30	-63	10	59.4	17.5 V 413
1992	CC1		1976	04	01.65095	13	54	19.70	-63	11	45.6	p 413
1992	DC		1992	04	22.48987	10	33	06.62	+00	09	18.1	413
1992	DC		1992	04	22.49343	10	33	06.92	+00	09	14.1	413
1992	EA1		1992	03	13.58981	10	58	56.88	-15	41	18.0	413
1992	EA1		1992	03	14.52060	10	58	10.65	-15	35	23.0	413
1992	EA1		1992	03	15.71852	10	57	11.66	-15	27	31.0	413
1992	EA1		1992	03	31.51750	10	46	35.67	-13	24	51.3	413
1992	EB1		1992	04	22.51190	10	16	57.57	-35	10	51.7	413
1992	EB1		1992	04	22.51461	10	16	57.59	-35	10	53.9	413
1992	EB1		1992	04	30.42606	10	20	31.35	-36	52	23.8	413
1992	EC1		1992	04	06.49933	10	56	11.70	-02	36	51.1	V 413
1992	ED1		1992	03	13.58981	11	00	45.49	-15	19	49.5	413
1992	ED1		1992	03	14.52060	10	59	59.61	-15	12	32.5	413
1992	ED1		1992	03	15.71852	10	59	00.51	-15	02	57.0	413
1992	ED1		1992	03	31.51750	10	48	06.09	-12	41	31.9	413

1992 EW1	*	1992	03	10.58317	11	07	40.24	-12	28	51.0	17	V		413
1992 EW1		1992	03	10.63525	11	07	37.74	-12	28	27.4				413
1992 EW1		1992	03	11.55066	11	06	53.31	-12	21	08.6				413
1992 EW1		1992	03	11.60274	11	06	50.71	-12	20	44.6				413
1992 EX1	*	1992	03	10.58317	11	09	11.17	-12	08	55.0	18	V	V	413
1992 EX1		1992	03	10.63525	11	09	08.30	-12	08	24.9			V	413
1992 EX1		1992	03	11.55066	11	08	27.07	-12	00	38.0			F	413
1992 EX1		1992	03	11.60274	11	08	24.56	-12	00	11.2			F	413
1992 EY1	*	1992	03	10.58317	11	12	09.84	-13	19	43.4	18	V	F	413
1992 EY1		1992	03	10.63525	11	12	07.34	-13	19	37.6			F	413
1992 EY1		1992	03	11.55066	11	11	21.71	-13	17	25.0			F	413
1992 EY1		1992	03	11.60274	11	11	19.14	-13	17	18.9			F	413
1992 EZ1	*	1992	03	10.58317	11	15	20.76	-12	24	19.3	18	V	F	413
1992 EZ1		1992	03	10.63525	11	15	18.26	-12	24	56.6			F	413
1992 EZ1		1992	03	11.55066	11	14	33.11	-12	16	59.3			F	413
1992 EZ1		1992	03	11.60274	11	14	30.53	-12	16	36.6			F	413
1992 FD		1992	03	29.45116	09	02	15.38	+03	26	40.7				413
1992 FD		1992	04	04.57154	09	04	15.11	+05	06	56.5				413
1992 FD		1992	04	30.39983	09	24	26.80	+10	12	46.8				413
1992 FE		1992	04	22.47376	09	42	37.58	+00	50	19.4				413
1992 FE		1992	04	22.47690	09	42	37.84	+00	50	19.7				413
1992 FJ1		1992	04	01.66319	11	35	05.97	-23	13	14.3				413
1992 FJ1		1992	04	12.64323	11	25	53.10	-22	46	40.8				413
1992 FJ1		1992	04	30.45231	11	16	50.90	-21	42	47.5				413
1992 FK1		1992	04	30.41343	09	34	02.41	-22	47	47.5				413
1992 FL1		1992	04	12.69977	13	43	05.01	-26	41	47.1				413
1992 FL1		1992	04	22.55454	13	40	21.75	-27	01	31.8				413
1992 FL1		1992	04	22.55865	13	40	21.67	-27	01	31.8				413
1992 FL1		1992	04	22.59378	13	40	20.86	-27	01	31.9				413
1992 FL1		1992	04	22.59830	13	40	20.76	-27	01	32.1				413
1992 FL1		1992	04	23.71817	13	40	03.27	-27	01	22.2				413
1992 FL1		1992	04	23.72093	13	40	03.18	-27	01	22.2				413
1992 FL1		1992	05	03.72772	13	38	31.90	-26	43	32.5				413
1992 FM1		1992	04	06.52153	13	22	27.77	-42	52	52.6				413
1992 FM1		1992	04	12.65500	13	11	34.40	-43	46	39.0				413
1992 FM1		1992	05	03.70315	12	36	59.43	-44	22	53.2				413
1992 FW1		1992	03	11.55066	10	54	42.28	-11	36	46.2				413
1992 FW1		1992	03	11.60274	10	54	40.07	-11	35	38.5				413
1992 FW1		1992	04	06.50942	10	44	47.01	-02	07	26.8				413
1992 FW1		1992	04	10.60509	10	44	54.99	-00	53	04.9				413
1992 FW1		1992	04	30.43531	10	52	11.28	+03	35	51.3				413
1992 GA		1992	04	09.53935	13	06	25.54	-28	07	38.8	17.5	V		413
1992 GA		1992	04	09.58449	13	06	22.73	-28	07	32.5				413
1992 GA		1992	04	10.61597	13	05	21.30	-28	04	46.5				413
1992 GA		1992	04	11.63507	13	04	20.93	-28	01	47.6				413
1992 GH	*	1992	04	09.53935	13	00	49.94	-28	06	49.4	16.5	V		413
1992 GH		1992	04	09.58449	13	00	45.13	-28	06	59.9				413
1992 GH		1992	04	10.61597	12	58	57.38	-28	10	39.0				413
1992 GH		1992	04	11.63507	12	57	11.20	-28	13	53.1				413
1992 GH		1992	04	12.64903	12	55	25.87	-28	16	44.1				413
1992 GH		1992	04	22.53363	12	39	03.18	-28	26	12.7				413
1992 GH		1992	04	22.53645	12	39	02.90	-28	26	12.6				413
1992 GH		1992	04	30.45678	12	27	48.99	-28	14	10.3				413
1992 GJ	*	1992	04	09.53935	13	06	30.74	-25	58	32.7	18	V		413
1992 GJ		1992	04	09.58449	13	06	27.94	-25	58	30.0				413
1992 GJ		1992	04	10.61597	13	05	24.78	-25	57	03.1				413
1992 GJ		1992	04	11.62390	13	04	23.38	-25	55	21.5				413
1992 GK	*	1992	04	10.62042	13	43	28.15	-42	16	34.4	18	V		413
1992 GK		1992	04	10.66208	13	43	25.19	-42	16	41.7			b	413

1992 GK		1992 04 11.72020	13 42 07.45	-42 19 29.2								413
1992 GK		1992 04 12.7070	13 40 54.03	-42 21 45.2							F	413
1992 GL	*	1992 04 10.62042	13 15 06.56	-38 36 01.2		18.5	V		V			413
1992 GL		1992 04 10.66208	13 15 16.64	-38 35 29.2					V			413
1992 GL		1992 04 12.57500	13 23 03.52	-38 14 49.4					I			413
1992 GL		1992 04 12.58056	13 23 04.67	-38 14 43.1					V			413
1992 GM	*	1992 04 10.53939	11 58 24.46	-14 00 11.4		18		V	F			413
1992 GM		1992 04 10.60189	11 58 23.75	-14 00 16.4					F			413
1992 GM		1992 04 12.68623	11 57 57.00	-14 02 46.3					F			413
1992 GN	*	1992 04 10.60189	11 53 58.49	-13 40 10.8		17.5	V		F			413
1992 GN		1992 04 12.68623	11 52 40.72	-13 26 43.7					F			413
1992 HE	*	1992 04 25.60442	16 16 33.81	-70 06 21.4		15		V				413
1992 HE		1992 04 25.63400	16 16 34.74	-70 10 56.8								413
1992 HE		1992 04 27.42003	16 18 56.96	-74 46 33.7								413
1992 HE		1992 04 28.60275	16 20 59.27	-77 47 49.6								413
1992 HE		1992 04 29.58889	16 23 28.65	-80 16 37.2								413
1992 HE		1992 04 29.59896	16 23 30.31	-80 18 10.1								413
1992 HE		1992 04 30.38727	16 26 30.14	-82 14 57.6		14.0	V					413
1992 HE		1992 04 30.39045	16 26 30.83	-82 15 26.1		14.0	V					413
1992 HE		1992 05 03.69775	23 20 21.09	-89 33 09.4		13.8	V					413
1992 HE		1992 05 03.75521	00 18 25.14	-89 30 06.9		13.8	V					413
1992 HE		1992 05 03.80590	00 58 35.65	-89 26 10.9		13.7	V					413
1992 HE		1992 05 04.77781	03 36 54.89	-87 25 27.9								413
1992 HE		1992 05 05.79816	03 54 49.61	-85 14 06.0		13.7	V					413
1992 JB		1992 05 03.74865	15 24 50.71	-04 22 56.3								413
1992 JB		1992 05 04.78420	15 25 26.93	-02 48 12.2		14.5	V					413
2196 P-L		1990 04 29.76870	18 38 13.29	-23 54 40.4								413
4071 T-3		1990 04 29.76870	18 36 01.59	-25 02 46.7								413
(997)		1992 04 12.68623	11 50 05.76	-13 41 20.1								413
(1036)		1992 04 10.45766	10 37 46.51	-15 50 43.7								413
(1036)		1992 04 10.52016	10 37 44.73	-15 50 11.3								413
(1206)		1992 04 10.53939	11 51 40.56	-14 45 48.0								413
(1206)		1992 04 10.60189	11 51 37.58	-14 45 34.7								413
(1206)		1992 04 12.68623	11 50 01.22	-14 38 12.5								413
(3926)		1992 04 12.68623	11 57 02.78	-11 58 54.6								413

474 Mount John
A. C. Gilmore, P.O. Box 57, Lake Tekapo, New Zealand
Observer A. C. Gilmore
Measurer P. M. Kilmartin
0.25-m astrograph (1) and 0.6-m f/14 Cassegrain reflector
AGK3, SAOC, CPZ, field plates from Carter Observatory

1985 KA		1992 04 04.53644	13 04 21.47	-34 57 51.1		18.5			E			474
1985 KA		1992 04 04.56583	13 04 19.63	-34 57 38.6					E			474
1985 KA		1992 04 05.53493	13 03 19.46	-34 50 43.1		18.3						474
1985 KA		1992 04 05.56363	13 03 17.66	-34 50 30.5								474
1987 SL		1992 04 30.53038	14 06 29.98	-47 46 37.8		18.1						474
1987 SL		1992 04 30.55214	14 06 26.93	-47 46 56.2								474
1988 HE		1992 04 05.62046	13 07 04.25	-27 08 04.4		18.1						474
1988 HE		1992 04 05.63875	13 07 03.03	-27 08 03.3								474
1991 JY		1992 04 30.66973	20 31 42.17	-31 19 09.5		17.7						474
1991 JY		1992 04 30.68438	20 31 43.99	-31 20 28.9								474
1991 JY		1992 05 02.71002	20 36 20.41	-34 25 02.4		18.2						474
1991 JY		1992 05 02.72484	20 36 22.46	-34 26 25.7								474
1991 VK		1992 04 04.59957	13 09 07.00	-28 04 57.0		17.1						474
1991 VK		1992 04 04.60924	13 09 05.90	-28 04 45.5								474
1992 BB		1992 03 31.43071	07 13 37.40	-26 09 53.5		18.1						474
1992 BB		1992 03 31.44801	07 13 40.42	-26 09 00.9								474
1992 FE		1992 04 04.45715	09 15 41.49	-00 25 57.1		16.0						474

1992 FE	1992 04 04.48551	09 15 43.76	-00 25 42.9				474
1992 FE	1992 04 09.49061	09 23 06.00	+00 09 08.3	17.5			474
1992 FE	1992 04 09.51353	09 23 07.88	+00 09 17.2				474
1992 GA	1992 04 09.60757	13 06 21.28	-28 07 26.9	17.6			474
1992 GA	1992 04 09.62053	13 06 20.48	-28 07 23.9				474
1992 HE	1992 04 29.68819	16 23 38.71	-80 31 22.1	14.5		1	474
1992 HE	1992 04 29.70995	16 23 41.65	-80 34 38.7			1	474

493 Calar Alto
K. Birkle, Max-Planck-Institut fur Astronomie, Konigstuhl, W-6900 Heidelberg 1, Federal Republic of Germany
Observers K. Birkle, U. Hopp
0.8-m f/3 Schmidt

1992 CH1	1992 03 13.12535	12 22 47.64	+49 23 45.2				493
1992 CH1	1992 03 13.13194	12 22 48.25	+49 23 59.1				493
1992 CH1	1992 04 11.09236	12 55 38.20	+53 45 49.6				493
1992 CH1	1992 04 11.11676	12 55 39.15	+53 45 35.3				493
1992 ED1	1991 02 15.80098	02 18 12.49	+13 50 06.8	18.2			493
1992 ED1	1991 02 15.82182	02 18 14.55	+13 50 11.3				493

573 Eldagsen
W. Bonk, Nordstrasse 33, W-3257 Springe 3, Federal Republic of Germany
AGK3

(126)	1992 02 29.82834	09 56 19.34	+16 25 39.5				573
(126)	1992 02 29.83545	09 56 18.94	+16 25 42.1				573
(145)	1992 02 29.85177	10 13 27.29	+32 57 35.0				573
(145)	1992 02 29.85582	10 13 27.06	+32 57 36.8				573

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

(924)	1992 04 06.81962	10 10 02.72	+13 50 57.8				595
(924)	1992 04 06.88924	10 10 01.55	+13 51 09.3				595
(1841)	1992 02 20.75903	05 39 48.35	+25 57 07.4				595
(1841)	1992 02 20.78611	05 39 48.27	+25 57 04.5				595
(1841)	1992 02 24.82917	05 40 39.76	+25 55 44.9				595
(1841)	1992 02 24.86840	05 40 40.18	+25 55 44.3				595

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

1979 SP13	1991 12 28.88819	07 03 00.31	+23 15 43.1				596
1979 SP13	1991 12 28.90701	07 02 59.07	+23 15 47.7				596
1979 SP13	1991 12 28.91490	07 02 58.53	+23 15 50.1				596
1981 DG3	1992 02 07.91590	10 21 31.23	+10 07 31.7				596
1981 DG3	1992 02 07.93951	10 21 30.12	+10 07 32.4				596
1981 DG3	1992 02 07.94792	10 21 29.56	+10 07 32.8				596
1984 FS	1991 12 28.82368	05 41 46.69	+04 07 35.1				596
1984 FS	1991 12 28.84660	05 41 45.33	+04 07 42.2				596
1984 FS	1991 12 28.86382	05 41 44.40	+04 07 46.8				596
1985 CH1	1992 03 03.82132	10 14 51.10	+15 51 20.2				596
1985 CH1	1992 03 03.85031	10 14 49.52	+15 51 24.1				596
1985 CH1	1992 03 09.82438	10 09 26.81	+16 02 32.8				596
1985 CH1	1992 03 09.83587	10 09 26.23	+16 02 34.3				596
1985 CH1	1992 03 09.84465	10 09 25.87	+16 02 35.5				596

1987 VB	1992 02 21.84708	10 21 34.65	+05 58 11.5			596
1987 VB	1992 02 21.86979	10 21 33.14	+05 58 20.1			596
1987 VB	1992 02 21.89111	10 21 31.79	+05 58 26.8			596
1988 CL	1992 01 03.73035	04 43 49.64	+39 02 37.7			596
1988 CL	1992 01 03.78344	04 43 47.86	+39 02 11.0			596
1990 KK	1991 12 26.81972	06 20 17.11	+35 55 30.9			596
1990 KK	1991 12 26.84215	06 20 15.15	+35 55 56.0			596
1990 KK	1991 12 26.85986	06 20 12.58	+35 56 17.7			596
1990 KK	1991 12 27.84333	06 18 28.40	+36 15 45.9			596
1990 VA7	1992 02 24.80687	10 27 54.15	+41 19 25.4			596
1990 VA7	1992 02 24.83979	10 27 52.08	+41 19 29.0			596
1990 VA7	1992 02 24.85642	10 27 51.04	+41 19 30.7			596
1990 VA7	1992 02 24.87229	10 27 50.04	+41 19 32.4			596
1991 XU	1992 01 26.81174	06 56 44.33	+21 36 24.2			596
1991 XU	1992 01 26.82525	06 56 43.57	+21 36 20.2			596
1991 XU	1992 01 27.80653	06 55 50.25	+21 32 39.2			596
1991 XU	1992 01 27.82087	06 55 49.56	+21 32 36.3			596
1991 XU	1992 01 28.76118	06 54 59.78	+21 29 01.4			596
1991 XU	1992 01 28.78337	06 54 58.64	+21 28 56.8			596
1991 XU	1992 01 28.80282	06 54 57.62	+21 28 52.9			596
1991 XU	1992 01 28.81757	06 54 56.78	+21 28 49.7			596
1991 XU	1992 01 30.76333	06 53 18.29	+21 21 30.0			596
1991 XU	1992 01 30.78583	06 53 17.15	+21 21 25.2			596
1991 XU	1992 01 30.80854	06 53 15.98	+21 21 20.5			596
1991 XU	1992 01 31.75340	06 52 30.69	+21 17 38.7			596
1991 XU	1992 01 31.79972	06 52 28.23	+21 17 29.2			596
1991 XU	1992 02 01.75212	06 51 43.93	+21 13 52.4			596
1991 XU	1992 02 01.77833	06 51 42.92	+21 13 47.2			596
1991 XU	1992 02 01.79767	06 51 41.86	+21 13 42.1			596
1991 YE	1992 01 03.83757	07 21 23.38	+22 03 09.3			596
1991 YE	1992 01 03.85840	07 21 22.19	+22 03 15.0			596
1991 YE	1992 01 03.87160	07 21 21.35	+22 03 16.2			596
1991 YE	1992 01 03.88743	07 21 20.43	+22 03 21.9			596
1992 AC	1992 03 29.79799	12 04 57.25	+51 47 35.9			596
1992 AC	1992 03 29.81007	12 04 58.11	+51 47 25.0			596
1992 AC	1992 03 29.82000	12 04 58.95	+51 47 15.2			596
1992 BF	1992 02 09.80889	08 59 29.56	+12 13 46.5			596
1992 BF	1992 02 09.82472	08 59 21.86	+12 13 23.5			596
1992 BF	1992 02 09.85403	08 59 08.00	+12 12 37.9			596
1992 BF	1992 02 09.86618	08 59 02.30	+12 12 25.6			596
1992 BF	1992 02 09.87375	08 58 58.52	+12 12 15.6			596
1992 BF	1992 02 09.88236	08 58 54.74	+12 12 03.0			596
1992 BF	1992 02 09.88632	08 58 52.51	+12 11 57.0			596
(3406)	1992 02 06.75903	07 14 31.81	+16 37 37.3			596
(3406)	1992 02 06.80326	07 14 29.90	+16 37 36.6			596
(3406)	1992 02 06.81333	07 14 29.26	+16 37 36.4			596
(3431)	1992 02 03.77264	07 41 49.83	+25 35 09.9			596
(3431)	1992 02 03.80750	07 41 48.13	+25 35 08.1			596
(3431)	1992 02 03.83410	07 41 46.67	+25 35 06.6			596
(3616)	1992 02 08.93163	11 40 55.75	+16 04 09.3			596
(3616)	1992 02 08.97750	11 40 54.65	+16 04 38.8			596
(3616)	1992 02 08.99028	11 40 54.38	+16 04 46.2			596
(3763)	1992 03 04.78635	09 09 14.65	+27 14 00.7			596
(3763)	1992 03 04.80885	09 09 13.67	+27 13 57.0			596
(4039)	1991 11 12.80424	01 49 55.71	+19 05 22.2			596
(4039)	1991 11 12.81882	01 49 55.02	+19 05 14.5			596
(4148)	1992 02 07.76816	08 01 39.14	+23 37 46.7			596
(4148)	1992 02 07.80361	08 01 36.99	+23 37 46.8			596
(4148)	1992 02 07.82750	08 01 35.56	+23 37 46.9			596

(4611)	1991 12 28.93362	08 30 03.73	+18 00 33.2		596
(4611)	1991 12 28.96021	08 30 02.47	+18 00 46.2		596
(4611)	1991 12 28.97472	08 30 01.84	+18 00 53.3		596
(5059)	1992 01 01.82349	06 33 40.61	+29 50 51.4		596
(5059)	1992 01 01.84500	06 33 39.11	+29 50 44.9		596
(5059)	1992 01 01.85815	06 33 38.15	+29 50 38.7		596
(5059)	1992 01 01.86743	06 33 37.49	+29 50 35.6		596
(5059)	1992 01 01.87576	06 33 36.72	+29 50 31.5		596
(5079)	1992 02 23.76962	08 38 54.26	+02 21 10.8		596
(5079)	1992 02 23.80370	08 38 52.97	+02 21 14.4		596
(5079)	1992 02 23.82844	08 38 51.70	+02 21 18.6		596
(5096)	1992 02 23.86597	10 44 03.42	+04 35 16.1		596
(5096)	1992 02 23.88521	10 44 02.17	+04 35 18.6		596
(5096)	1992 02 23.90542	10 44 00.81	+04 35 20.9		596
(5153)	1992 04 11.95500	15 19 00.12	-01 22 22.0		596
(5153)	1992 04 11.96799	15 18 59.77	-01 22 20.3		596
(5153)	1992 04 11.98042	15 18 59.10	-01 22 17.8		596
(5153)	1992 04 11.98531	15 18 58.82	-01 22 16.8		596
(5153)	1992 04 12.91503	15 18 19.23	-01 19 35.2		596
(5153)	1992 04 12.92806	15 18 18.63	-01 19 34.6		596
(5173)	1992 02 26.77278	08 03 10.44	+07 28 51.0		596
(5173)	1992 02 26.80184	08 03 09.99	+07 29 10.5		596
(5180)	1991 12 30.82875	06 12 48.81	+26 12 47.4		596
(5180)	1991 12 30.84236	06 12 47.89	+26 12 50.2		596
(5180)	1991 12 30.85965	06 12 46.60	+26 12 53.9		596

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

(33)	1992 02 23.87352	09 06 30.25	+18 36 54.9		597
(33)	1992 02 23.88641	09 06 29.56	+18 36 57.1		597
(126)	1992 02 23.90388	10 01 58.73	+16 01 49.5		597
(126)	1992 02 23.90778	10 01 58.47	+16 01 50.3		597
(335)	1992 03 06.91644	11 26 48.31	+06 37 42.4		597
(335)	1992 03 06.92556	11 26 47.79	+06 37 46.3		597
(359)	1992 03 06.86115	10 51 01.47	+11 47 26.5		597
(359)	1992 03 06.86991	10 51 01.04	+11 47 28.5		597
(720)	1992 02 23.94329	10 19 02.12	+13 57 27.0		597
(720)	1992 02 23.95214	10 19 01.66	+13 57 29.8		597
(863)	1992 02 29.84451	11 56 18.21	+30 45 43.8		597
(863)	1992 02 29.85368	11 56 17.80	+30 45 50.1		597
(868)	1992 03 06.88264	10 22 37.60	+16 20 47.1		597
(868)	1992 03 06.89149	10 22 37.14	+16 20 49.8		597
(1098)	1992 02 23.91935	10 12 07.39	+09 51 18.7		597
(1098)	1992 02 23.92368	10 12 07.09	+09 51 18.8		597
(1622)	1992 02 29.89546	10 47 28.49	+13 02 07.2		597
(1622)	1992 02 29.90609	10 47 27.70	+13 02 09.5		597
(1884)	1992 02 29.87108	11 30 27.93	+11 03 19.2		597
(1884)	1992 02 29.88030	11 30 27.10	+11 03 15.2		597

599 Astronomical Observatory, Campo Imperatore
S. Marco, Osservatorio Astronomico di Brera, Via E. Bianchi 46, I-22055 Merate, Italy
0.6-m Schmidt
Observer D. Ghiringhelli
Long. and Parallax 13.561, 0.7392, +0.6713 (see MPC 19348)

(485)	1990 08 21.96219	21 09 25.68	+00 18 21.0		599
(689)	1990 08 22.03343	23 04 27.84	-03 04 59.9		599
(702)	1990 08 21.96219	21 21 09.23	+03 20 00.4		599
(2250)	1990 08 22.03343	23 17 12.22	-04 43 12.8		599

(2666)		1990 08 21.96219	21 19 23.92	+02 12 35.9			599
(3051)		1990 08 21.96219	21 10 48.75	+02 38 40.7			599
(3086)		1990 08 21.96219	21 19 59.42	+02 24 33.4			599

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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E. Bowell, Lowell Observatory, 1400 West Mars Hill Road, Flagstaff, AZ 86001, U.S.A. (6)
J. Mueller, Palomar Observatory, Palomar Mountain, CA 92060, U.S.A. (7)
9 = 3 + 6
Observers C. Brewer (4, L), T. Gehrels (4, L), H. E. Holt (9, S), C. Kowal (6, L), K. Lawrence (2, S), D. H. Levy (3, S), J. Mueller (7, L), P. Rose (2, S), C. S. Shoemaker (3, S), E. M. Shoemaker (3, S), J. Stiffler (9, S)
Measurers J. Alu (2), B. M. Cudnik (3), K. Lawrence (2), J. Mueller (7), C. M. Olmstead (9), P. Rose (2), C. S. Shoemaker (2), B. A. Skiff (9), C. J. van Houten, (4), I. van Houten-Groeneveld (4), A. Wisse (4)
1.2-m (L) and 0.46-m (S) Schmidt telescopes

1950 DO		1992 04 05.48923	15 14 40.48	-21 48 37.2			9	675
1950 DO		1992 04 07.43263	15 13 40.30	-21 45 53.5			9	675
1950 DO		1992 04 07.46979	15 13 39.04	-21 45 47.4			9	675
1950 DO		1992 04 08.35277	15 13 10.20	-21 44 26.4	18.5		9	675
1950 DO		1992 04 08.43107	15 13 07.39	-21 44 18.7			9	675
1971 UK		1992 04 07.43263	15 11 50.43	-18 31 12.5			9	675
1971 UK		1992 04 07.46979	15 11 49.03	-18 31 04.7			9	675
1971 UK		1992 04 08.35277	15 11 20.66	-18 27 28.9	18.5		9	675
1973 ST3		1991 09 15.26962	21 52 08.16	-17 13 19.3			9	675
1973 ST3		1991 09 15.32083	21 52 05.46	-17 13 16.5	17.8		9	675
1977 EC2		1982 01 30.38854	08 28 42.78	+19 44 00.3	16.0	V	6	675
1977 EC2		1982 01 31.36285	08 27 52.77	+19 46 54.5			6	675
1979 FD3		1982 01 30.38854	08 33 17.16	+18 52 10.6	16.8	V	6	675
1979 FD3		1982 01 31.36285	08 32 12.39	+18 57 41.0			6	675
1980 FB		1992 04 05.48923	15 10 55.25	-18 10 47.0			9	675
1980 FB		1992 04 07.43263	15 10 02.94	-18 08 31.8			9	675
1980 FB		1992 04 07.46979	15 10 01.82	-18 08 29.5			9	675
1980 FB		1992 04 08.43107	15 09 34.15	-18 07 14.4			9	675
1980 RP		1991 09 12.27431	22 11 05.83	-09 57 16.9	16.5		9	675
1980 RP		1991 09 12.31458	22 11 03.61	-09 57 08.5			9	675
1980 RC1		1982 01 30.38854	08 40 14.45	+16 03 53.7	16.5	V	6	675
1980 RC1		1982 01 31.36285	08 39 13.63	+16 06 54.9			6	675
1980 TL13		1992 05 01.45833	16 59 18.06	-01 55 13.0	15.0		2	675
1980 TL13		1992 05 01.48316	16 59 17.22	-01 54 45.1			2	675
1980 TL13		1992 05 03.43889	16 58 09.61	-01 18 16.1			2	675
1980 TL13		1992 05 03.46267	16 58 08.61	-01 17 49.9			2	675
1980 TQ14		1991 09 12.27431	22 21 32.80	-12 39 39.3	17.0		9	675
1980 TQ14		1991 09 12.31458	22 21 30.98	-12 39 55.2			9	675
1981 ED37		1992 04 05.48923	15 13 44.23	-18 54 22.3			9	675
1981 ED37		1992 04 08.35277	15 12 14.82	-18 55 06.9	18.5		9	675
1981 ED37		1992 04 08.43107	15 12 11.89	-18 55 07.2			9	675
1981 GD1		1992 04 05.48923	14 56 17.10	-17 47 48.4			9	675
1982 BR12		1982 01 30.38854	08 53 46.08	+17 43 49.6	18.0	V	6	675
1982 BR12		1982 01 31.36285	08 52 46.37	+17 47 17.2			6	675
1982 BN14	*	1982 01 30.38854	08 29 19.26	+16 48 52.0	16.5	V	6	675
1982 BN14		1982 01 31.36285	08 28 25.80	+16 58 36.0			6	675
1982 BO14	*	1982 01 30.38854	08 30 50.87	+20 30 36.4	15.8	V	6	675

1982	BO14		1982	01	31.36285	08	30	02.01	+20	34	03.9	6 675
1982	BP14	*	1982	01	30.38854	08	31	07.65	+18	24	13.9	16.5 V 6 675
1982	BP14		1982	01	31.36285	08	30	07.75	+18	26	51.2	6 675
1982	BQ14	*	1982	01	30.38854	08	34	45.79	+19	46	45.7	17.8 V 6 675
1982	BQ14		1982	01	31.36285	08	33	47.63	+19	46	36.2	6 675
1982	BR14	*	1982	01	30.38854	08	35	13.56	+15	14	16.5	16.8 V 6 675
1982	BR14		1982	01	31.36285	08	34	14.87	+15	23	27.5	6 675
1982	BS14	*	1982	01	30.38854	08	35	24.90	+15	34	11.9	17.2 V 6 675
1982	BS14		1982	01	31.36285	08	34	32.91	+15	37	45.9	6 675
1982	BT14	*	1982	01	30.38854	08	35	26.72	+18	53	45.1	17.5 V 6 675
1982	BT14		1982	01	31.36285	08	34	31.56	+19	01	00.5	6 675
1982	BU14	*	1982	01	30.38854	08	35	33.25	+19	13	28.8	18.0 V 6 675
1982	BU14		1982	01	31.36285	08	34	38.47	+19	17	54.8	6 675
1982	BV14	*	1982	01	30.38854	08	37	33.21	+16	36	50.8	17.2 V 6 675
1982	BV14		1982	01	31.36285	08	36	28.03	+16	39	32.2	6 675
1982	BW14	*	1982	01	30.38854	08	38	25.12	+20	48	34.8	17.0 V 6 675
1982	BW14		1982	01	31.36285	08	37	22.39	+20	48	27.6	6 675
1982	BX14	*	1982	01	30.38854	08	38	42.00	+18	48	45.5	17.5 V 6 675
1982	BX14		1982	01	31.36285	08	38	06.78	+18	49	06.4	6 675
1982	BY14	*	1982	01	30.38854	08	39	03.01	+17	18	08.7	17.0 V 6 675
1982	BY14		1982	01	31.36285	08	38	11.13	+17	21	15.5	6 675
1982	BZ14	*	1982	01	30.38854	08	40	14.55	+20	43	47.7	17.2 V 6 675
1982	BZ14		1982	01	31.36285	08	39	21.43	+20	44	13.8	6 675
1982	BA15	*	1982	01	30.38854	08	41	22.84	+18	21	56.6	17.8 V 6 675
1982	BA15		1982	01	31.36285	08	40	25.54	+18	29	22.8	6 675
1982	BB15	*	1982	01	30.38854	08	41	39.20	+18	32	54.9	17.5 V 6 675
1982	BB15		1982	01	31.36285	08	40	39.28	+18	38	39.6	6 675
1982	BC15	*	1982	01	30.38854	08	42	31.19	+19	59	16.9	18.0 V 6 675
1982	BC15		1982	01	31.36285	08	41	42.44	+20	02	52.7	6 675
1982	BD15	*	1982	01	30.38854	08	42	37.08	+15	11	57.7	17.5 V 6 675
1982	BD15		1982	01	31.36285	08	42	04.84	+15	12	42.5	6 675
1982	BE15	*	1982	01	30.38854	08	42	42.39	+16	37	56.4	17.5 V 6 675
1982	BE15		1982	01	31.36285	08	41	40.75	+16	41	15.1	6 675
1982	BF15	*	1982	01	30.38854	08	44	07.15	+16	59	49.5	16.5 V 6 675
1982	BF15		1982	01	31.36285	08	43	18.18	+17	03	10.6	6 675
1982	BG15	*	1982	01	30.38854	08	44	31.74	+19	54	15.4	18.8 V 6 675
1982	BG15		1982	01	31.36285	08	43	37.03	+19	54	29.9	6 675
1982	BH15	*	1982	01	30.38854	08	44	46.96	+18	00	17.8	17.8 V 6 675
1982	BH15		1982	01	31.36285	08	43	50.08	+18	06	37.6	6 675
1982	BJ15	*	1982	01	30.38854	08	45	32.81	+16	19	49.7	17.5 V 6 675
1982	BJ15		1982	01	31.36285	08	44	34.86	+16	23	09.0	6 675
1982	BK15	*	1982	01	30.38854	08	46	18.85	+17	10	04.3	16.8 V 6 675
1982	BK15		1982	01	31.36285	08	45	26.87	+17	20	03.0	6 675
1982	BL15	*	1982	01	30.38854	08	47	30.91	+17	36	34.7	16.5 V 6 675
1982	BL15		1982	01	31.36285	08	46	41.87	+17	40	31.9	6 675
1982	BM15	*	1982	01	30.38854	08	47	47.27	+17	05	58.3	18.2 V 6 675
1982	BM15		1982	01	31.36285	08	47	00.68	+17	11	25.6	6 675
1982	BN15	*	1982	01	30.38854	08	48	50.30	+19	51	36.8	18.5 V 6 675
1982	BN15		1982	01	31.36285	08	48	08.19	+19	56	31.9	6 675
1982	BO15	*	1982	01	30.38854	08	48	55.65	+15	54	51.5	18.5 V 6 675
1982	BO15		1982	01	31.36285	08	48	08.18	+15	58	29.6	6 675
1982	BP15	*	1982	01	30.38854	08	49	53.26	+18	47	11.8	17.8 V 6 675
1982	BP15		1982	01	31.36285	08	48	47.40	+18	45	49.2	6 675
1982	BQ15	*	1982	01	30.38854	08	51	14.82	+16	08	13.9	17.8 V 6 675
1982	BQ15		1982	01	31.36285	08	50	24.18	+16	12	18.4	6 675
1982	BR15	*	1982	01	30.38854	08	51	24.85	+20	06	30.2	17.5 V 6 675
1982	BR15		1982	01	31.36285	08	50	35.40	+20	10	32.9	6 675
1982	BS15	*	1982	01	30.38854	08	29	49.13	+16	35	14.5	16.8 V 6 675
1982	BS15		1982	01	31.36285	08	28	58.45	+16	38	41.4	6 675

1982	SJ1		1991	09	12.27431	22	07	21.17	-07	24	55.8	16.8	9 675
1982	SJ1		1991	09	12.31458	22	07	19.35	-07	25	14.0		9 675
1983	TS1		1992	04	05.48923	15	16	33.01	-15	25	50.9		9 675
1983	TS1		1992	04	07.43263	15	15	35.45	-15	21	34.3		9 675
1983	TS1		1992	04	08.35277	15	15	07.07	-15	19	25.3	19.2	9 675
1983	TS1		1992	04	08.43107	15	15	04.49	-15	19	16.0		9 675
1984	JA2		1991	09	11.42639	02	11	27.82	+03	47	59.4	17.5	9 675
1984	JA2		1991	09	11.47940	02	11	26.71	+03	47	54.4		9 675
1984	JA2		1991	09	13.49769	02	10	45.16	+03	44	25.0	17.8	9 675
1984	QW1	*	1984	08	27.44167	01	02	25.89	-12	52	16.6	16.0	2 675
1984	QW1		1984	08	27.47986	01	02	25.55	-12	52	41.5		2 675
1984	QX1	*	1984	08	29.38021	01	02	14.50	-13	15	07.5		2 675
1984	QX1		1984	08	29.44201	01	02	14.28	-13	15	21.8		2 675
1984	QY1	*	1984	08	26.34792	00	27	31.48	-14	11	16.3	15.0	2 675
1984	QY1		1984	08	26.38750	00	27	31.36	-14	13	17.8		2 675
1984	QY1		1984	08	28.36250	00	27	26.21	-16	04	08.8		2 675
1984	QY1		1984	08	28.40347	00	27	25.59	-16	06	41.1		2 675
1984	QY1		1984	08	29.41215	00	27	17.45	-17	11	18.3		2 675
1984	QY1		1984	08	29.43229	00	27	17.22	-17	12	40.3		2 675
1985	CT		1992	02	04.39358	09	32	44.90	+08	01	06.3		3 675
1985	CT		1992	02	08.42014	09	28	51.86	+09	12	49.7		3 675
1985	CT		1992	02	08.45590	09	28	49.73	+09	13	29.2		3 675
1985	HS1		1992	02	04.45503	10	47	42.54	-14	20	13.8		3 675
1985	HS1		1992	02	08.47656	10	46	03.18	-13	44	48.7		3 675
1985	HS1		1992	02	08.50191	10	46	02.39	-13	44	32.8		3 675
1985	HS1		1992	02	25.25590	10	35	38.58	-09	46	46.0	16.9	3 675
1985	HS1		1992	02	25.28716	10	35	37.16	-09	46	11.0		3 675
1985	HS1		1992	02	27.37170	10	34	04.79	-09	06	58.7	16.9	3 675
1985	HS1		1992	02	27.40608	10	34	03.21	-09	06	18.5		3 675
1985	JL		1991	09	12.38744	01	27	29.30	-03	46	39.6	19.0	9 675
1985	JL		1991	09	12.44227	01	27	27.52	-03	46	46.4		9 675
1985	JL		1991	09	12.46921	01	27	26.31	-03	47	02.2	18.8	9 675
1985	JL		1991	09	12.49387	01	27	25.55	-03	47	09.8		9 675
1985	JL		1991	09	15.43576	01	25	40.18	-04	01	25.4	18.8	9 675
1985	JL		1991	09	15.48368	01	25	38.36	-04	01	40.6		9 675
1985	JL		1991	09	16.44878	01	25	01.91	-04	06	22.5		9 675
1985	JL		1991	09	16.48472	01	25	00.44	-04	06	31.4	19.2	9 675
1985	QL4		1991	09	12.46921	01	01	30.00	-03	13	46.7	17.5	9 675
1985	QL4		1991	09	12.49387	01	01	29.10	-03	13	55.4		9 675
1985	QL4		1991	09	15.43576	00	59	47.01	-03	30	16.0	17.5	9 675
1985	QL4		1991	09	15.48368	00	59	45.28	-03	30	31.0		9 675
1985	RP2		1982	01	30.38854	08	39	18.75	+18	13	17.7	17.0 V	6 675
1985	RP2		1982	01	31.36285	08	38	29.13	+18	16	31.6		6 675
1987	HK		1991	04	17.41389	15	00	16.67	-18	51	18.0	18.3	3 675
1987	HK		1991	04	17.46337	15	00	14.32	-18	51	12.4		3 675
1987	OR		1991	09	11.42639	02	13	45.67	-02	05	47.1	18.8	9 675
1987	OR		1991	09	11.47940	02	13	44.78	-02	06	32.4		9 675
1987	OR		1991	09	13.49769	02	13	10.23	-02	35	27.0	18.5	9 675
1987	SO		1987	08	24.38785	00	09	53.59	+11	05	26.2	16	2 675
1987	SO		1987	08	24.41389	00	09	53.00	+11	05	32.0		2 675
1987	SO		1987	08	27.31267	00	08	42.95	+11	15	56.5		2 675
1987	SO		1987	08	27.34080	00	08	41.96	+11	16	03.4		2 675
1987	SC1		1991	09	12.27431	22	11	20.22	-14	31	02.6	17.2	9 675
1987	SC1		1991	09	12.31458	22	11	18.39	-14	31	18.7		9 675
1987	SC1		1991	09	15.26962	22	09	15.02	-14	50	52.5		9 675
1987	SC1		1991	09	15.32083	22	09	12.87	-14	51	11.1	17.8	9 675
1988	AV1		1991	09	12.38744	01	44	14.54	-03	38	33.9		9 675
1988	AV1		1991	09	12.44227	01	44	13.59	-03	38	55.0	18.2	9 675
1988	AV1		1991	09	16.44878	01	42	59.07	-04	06	10.7	17.5	9 675

1988	AV1	1991	09	16.48472	01	42	58.19	-04	06	26.5		9 675
1988	AE5	1991	09	11.42639	01	53	24.23	+00	13	37.6	18.2	9 675
1988	AE5	1991	09	11.47940	01	53	23.17	+00	13	18.0		9 675
1988	AE5	1991	09	12.38744	01	53	06.28	+00	07	39.5	17.8	9 675
1988	AE5	1991	09	12.44227	01	53	05.12	+00	07	19.9		9 675
1988	AE5	1991	09	13.49769	01	52	43.91	+00	00	42.6	18.0	9 675
1988	AE5	1991	09	16.44878	01	51	37.90	-00	18	11.6	17.8	9 675
1988	AE5	1991	09	16.48472	01	51	37.03	-00	18	25.6		9 675
1988	BN2	1992	04	03.25035	13	29	08.88	+34	54	22.5	17.2	3 675
1988	BN2	1992	04	05.36233	13	26	20.29	+34	50	27.8	17.2	3 675
1988	BN2	1992	04	05.39340	13	26	17.79	+34	50	23.7		3 675
1988	EL	1991	09	15.26962	22	14	25.15	-17	59	13.0	16.8	9 675
1988	EL	1991	09	15.32083	22	14	20.65	-17	58	44.9		9 675
1988	MB	1981	08	07.32778	21	43	46.62	+16	07	31.0	16.5	2 675
1988	MB	1981	08	07.34722	21	43	45.10	+16	07	50.2		2 675
1988	MB	1986	01	06.31337	06	57	44.42	+25	48	43.6	15.5	2 675
1988	MB	1986	01	06.33854	06	57	41.94	+25	48	21.3		2 675
1988	MB	1986	01	07.28889	06	56	14.54	+25	34	59.3		2 675
1988	MB	1986	01	07.30833	06	56	12.72	+25	34	41.8		2 675
1988	RN11	1982	01	30.41458	08	34	42.30	+17	27	18.2	19.0 V	6 675
1988	RN11	1982	01	31.36285	08	34	11.91	+17	29	16.7		6 675
1988	WC	1955	12	15.43646	07	39	29.80	-13	31	43.7		6 675
1988	WC	1955	12	15.45903	07	39	29.89	-13	32	52.7		6 675
1988	XZ	1991	09	14.28889	22	23	57.95	-01	41	22.7	17.8	9 675
1988	XZ	1991	09	14.33438	22	23	55.58	-01	41	38.2		9 675
1989	AL1	1991	09	11.42639	02	19	14.54	+01	52	01.3	18.2	9 675
1989	AL1	1991	09	11.47940	02	19	13.99	+01	51	48.1		9 675
1989	AL1	1991	09	13.49769	02	18	55.31	+01	42	51.6	18.5	9 675
1989	CH1	1986	08	05.26424	20	13	18.50	-20	04	01.0	15.5	2 675
1989	CH1	1986	08	05.29236	20	13	16.94	-20	04	14.7		2 675
1989	CH1	1990	06	27.39219	19	01	24.23	-12	22	00.1	15.5	2 675
1989	CH1	1990	06	27.41198	19	01	23.04	-12	22	09.6		2 675
1989	CH1	1990	06	29.35642	18	59	37.41	-12	33	55.2		2 675
1989	CH1	1990	06	29.37847	18	59	36.07	-12	34	03.1		2 675
1989	CH1	1990	07	18.25000	18	42	24.08	-14	44	08.8	16	2 675
1989	CH1	1990	07	18.27413	18	42	22.87	-14	44	19.4		2 675
1989	CV1	1991	09	12.38744	01	31	57.89	-00	10	44.4		9 675
1989	CV1	1991	09	12.44227	01	31	56.37	-00	11	02.1	18.0	9 675
1989	CV1	1991	09	16.44878	01	30	02.15	-00	33	54.3	18.5	9 675
1989	CV1	1991	09	16.48472	01	30	00.93	-00	34	05.7	18.0	9 675
1989	CU8	1991	09	12.27431	22	14	42.38	-13	08	01.5	17.2	9 675
1989	CU8	1991	09	12.31458	22	14	40.67	-13	08	09.1		9 675
1989	EY1	1991	09	15.26962	21	59	15.04	-16	51	23.5		9 675
1989	EY1	1991	09	15.32083	21	59	12.98	-16	51	30.2	17.8	9 675
1989	GP4	1990	09	19.40087	23	59	11.61	+04	51	50.9	17.8	9 675
1989	GP4	1990	09	19.42205	23	59	10.43	+04	51	41.0		9 675
1989	NX	1992	04	09.37708	14	19	02.54	+29	12	06.3	16	7 675
1989	NX	1992	04	11.40556	14	17	17.12	+29	35	33.7		7 675
1989	RZ	1974	09	20.28056	23	29	48.28	+11	04	38.9	15.5	2 675
1989	RZ	1974	09	20.30278	23	29	46.04	+11	04	53.3		2 675
1989	VP	1992	04	05.48923	15	26	12.08	-19	11	02.1		9 675
1989	VP	1992	04	07.43263	15	25	10.76	-18	52	24.4		9 675
1989	VP	1992	04	07.46979	15	25	09.56	-18	52	03.0		9 675
1989	VP	1992	04	08.35277	15	24	40.30	-18	43	23.1	17.8	9 675
1989	VP	1992	04	08.43107	15	24	37.46	-18	42	38.5		9 675
1989	XD2	1982	01	31.36285	08	53	32.98	+18	45	12.5	18.0 V	6 675
1990	DJ	1973	04	27.24444	13	29	44.17	+35	53	56.0	15.5	2 675
1990	DJ	1973	04	28.32431	13	29	12.28	+35	58	44.9		2 675
1990	FQ1	1987	08	26.36840	23	22	29.74	+26	29	16.3	16.0	2 675

1990	FQ1		1987	08	26.38958	23	22	28.92	+26	29	06.7		2	675
1990	FQ1		1987	09	19.28177	23	05	23.09	+21	44	34.1	15.5	2	675
1990	FQ1		1987	09	19.30660	23	05	22.12	+21	44	11.4		2	675
1990	HF1		1990	05	18.27396	15	33	13.51	+13	28	11.9	15.5	2	675
1990	HF1		1990	05	18.29809	15	33	12.37	+13	28	13.2		2	675
1990	HF1		1990	05	20.35382	15	31	38.70	+13	28	34.6		2	675
1990	MJ		1981	06	29.39931	19	06	26.05	-03	20	17.4	15.5	2	675
1990	MJ		1981	06	29.41181	19	06	25.11	-03	19	58.8		2	675
1990	QC19	*	1990	08	17.39444	22	19	01.91	+11	48	34.7	17	2	675
1990	QC19		1990	08	17.42031	22	18	59.42	+11	48	51.0		2	675
1990	QC19		1990	08	18.34115	22	17	33.59	+11	59	39.9		2	675
1990	QC19		1990	08	18.36493	22	17	31.44	+11	59	52.7		2	675
1990	QC19		1990	08	21.27535	22	12	53.60	+12	31	58.4		2	675
1990	QC19		1990	08	21.30295	22	12	50.85	+12	32	14.5		2	675
1990	QC19		1990	08	21.44010	22	12	37.22	+12	33	41.6		2	675
1990	QC19		1990	09	22.14878	21	27	29.61	+14	55	59.7	17	2	675
1990	QC19		1990	09	22.17309	21	27	28.24	+14	55	57.6		2	675
1990	SB		1953	12	07.20729	01	43	23.65	-02	57	34.0		6	675
1990	SB		1953	12	07.23125	01	43	23.49	-02	57	33.6		6	675
1990	VE2		1992	04	05.48923	15	03	36.19	-20	39	12.8		9	675
1990	VE2		1992	04	07.43263	15	02	48.17	-20	30	03.3	16.8	9	675
1990	VE2		1992	04	07.46979	15	02	47.06	-20	29	51.6		9	675
1990	VE2		1992	04	08.35277	15	02	22.92	-20	25	26.1	16.5	9	675
1990	VE2		1992	04	08.43107	15	02	20.47	-20	25	02.0		9	675
1990	XE		1992	04	05.48923	15	11	10.66	-21	23	44.5		9	675
1990	XE		1992	04	07.43263	15	10	03.21	-21	17	26.4	17.8	9	675
1990	XE		1992	04	07.46979	15	10	01.79	-21	17	19.2		9	675
1990	XE		1992	04	08.35277	15	09	29.35	-21	14	16.0	17.2	9	675
1990	XE		1992	04	08.43107	15	09	26.20	-21	13	59.3		9	675
1991	PC1		1991	09	12.27431	22	26	02.27	-12	49	40.3	17.0	9	675
1991	PC1		1991	09	12.31458	22	25	58.54	-12	49	14.6		9	675
1991	PP12		1991	09	12.27431	21	57	21.10	-10	27	58.2	18.0	9	675
1991	PP12		1991	09	12.31458	21	57	19.15	-10	28	06.5		9	675
1991	PQ12		1991	09	12.27431	22	05	00.74	-11	15	29.1	17.2	9	675
1991	PQ12		1991	09	12.31458	22	04	59.17	-11	15	39.5	17.5	9	675
1991	PR12		1991	09	12.27431	22	05	49.33	-11	02	25.1	17.5	9	675
1991	PR12		1991	09	12.31458	22	05	47.77	-11	02	35.9		9	675
1991	PS12		1991	09	12.27431	22	07	07.95	-12	38	46.4	16.8	9	675
1991	PS12		1991	09	12.31458	22	07	06.24	-12	39	06.5		9	675
1991	PT12		1991	09	12.27431	22	05	52.12	-13	11	58.0	17.2	9	675
1991	PT12		1991	09	12.31458	22	05	50.32	-13	12	07.8	17.5	9	675
1991	PV12		1991	09	12.27431	22	03	06.58	-08	14	38.2	17.2	9	675
1991	PW12		1991	09	12.27431	22	12	53.58	-11	33	29.0	17.2	9	675
1991	PW12		1991	09	12.31458	22	12	51.98	-11	33	37.6		9	675
1991	PY12		1991	09	12.27431	22	04	45.85	-08	36	00.6	17.8	9	675
1991	PY12		1991	09	12.31458	22	04	43.68	-08	36	04.5		9	675
1991	PZ12		1991	09	12.27431	22	08	58.69	-08	24	16.9	18.0	9	675
1991	PZ12		1991	09	12.31458	22	08	56.47	-08	24	21.5		9	675
1991	PA13		1991	09	12.27431	22	12	36.84	-08	34	54.2	17.8	9	675
1991	PA13		1991	09	12.31458	22	12	34.84	-08	34	56.6		9	675
1991	PB13		1991	09	12.27431	22	19	04.79	-13	32	15.8	17.2	9	675
1991	PB13		1991	09	12.31458	22	19	03.05	-13	32	24.8		9	675
1991	PC13		1991	09	12.27431	22	13	49.74	-09	04	49.8	16.2	9	675
1991	PC13		1991	09	12.31458	22	13	47.82	-09	04	52.4		9	675
1991	PD13		1991	09	12.27431	22	18	23.24	-10	57	21.2	18.2	9	675
1991	PD13		1991	09	12.31458	22	18	21.46	-10	57	23.9		9	675
1991	PE13		1991	09	12.27431	22	13	54.69	-08	25	48.7	17.5	9	675
1991	PE13		1991	09	12.31458	22	13	52.85	-08	25	52.2		9	675
1991	PM13		1991	09	12.27431	22	15	56.28	-13	21	20.8	17.0	9	675

1991	PM13		1991	09	12.31458	22	15	54.28	-13	21	22.7		9	675
1991	PN13		1991	09	12.27431	22	14	43.16	-09	19	40.3	16.8	9	675
1991	PN13		1991	09	12.31458	22	14	40.76	-09	19	35.3		9	675
1991	PO13		1991	09	12.27431	22	22	54.02	-11	27	13.8	16.5	9	675
1991	PO13		1991	09	12.31458	22	22	51.98	-11	27	13.2		9	675
1991	PH15		1991	09	10.30260	22	34	59.46	-08	35	25.3	16.8	9	675
1991	PH15		1991	09	10.35573	22	34	56.64	-08	35	42.4		9	675
1991	PC16		1991	09	12.27431	21	57	40.26	-13	14	22.9	17.2	9	675
1991	PC16		1991	09	12.31458	21	57	38.81	-13	14	30.1	17.5	9	675
1991	PW17		1991	09	17.23872	22	55	06.13	-03	43	57.8		9	675
1991	PW17		1991	09	17.28123	22	55	03.85	-03	44	18.1		9	675
1991	PO18		1991	09	12.27431	22	28	15.17	-10	17	21.5	17.0	9	675
1991	PO18		1991	09	12.31458	22	28	12.86	-10	17	23.5		9	675
1991	PU18	*	1991	08	08.37188	22	48	23.85	-12	18	31.2	17.5	9	675
1991	PU18		1991	08	08.40868	22	48	21.32	-12	18	22.9		9	675
1991	PU18		1991	09	12.27431	22	05	35.17	-10	03	31.1	17.5	9	675
1991	PU18		1991	09	12.31458	22	05	32.53	-10	03	20.0		9	675
1991	PV18	*	1991	08	08.38038	22	36	32.42	-02	39	20.8	17.8	9	675
1991	PV18		1991	08	08.41649	22	36	31.37	-02	39	38.6		9	675
1991	PV18		1991	09	12.27431	22	15	23.97	-08	42	22.3	17.5	9	675
1991	PV18		1991	09	12.31458	22	15	22.59	-08	42	47.9		9	675
1991	PW18	*	1991	08	08.38038	22	48	33.61	-05	24	39.7	17.5	9	675
1991	PW18		1991	08	08.41649	22	48	32.31	-05	24	47.0		9	675
1991	PW18		1991	09	12.27431	22	23	15.48	-08	06	53.8	17.5	9	675
1991	PW18		1991	09	12.31458	22	23	13.69	-08	07	07.8		9	675
1991	PX18	*	1991	08	09.33872	22	32	29.62	-05	27	51.4	18.2	9	675
1991	PX18		1991	08	09.37257	22	32	28.24	-05	28	01.1		9	675
1991	PX18		1991	09	12.27431	22	06	23.10	-08	51	11.6	18.0	9	675
1991	PX18		1991	09	12.31458	22	06	21.56	-08	51	23.6		9	675
1991	PY18	*	1991	08	10.35599	22	23	25.91	-09	48	25.9	17.8	9	675
1991	PY18		1991	08	10.39149	22	23	24.24	-09	48	27.1		9	675
1991	PY18		1991	09	12.27431	21	56	10.53	-10	29	42.7	18.0	9	675
1991	PY18		1991	09	12.31458	21	56	08.77	-10	29	44.0	17.5	9	675
1991	RC		1991	09	12.27431	22	02	50.78	-10	29	51.2		9	675
1991	RL2		1991	09	12.27431	22	09	56.01	-12	58	29.0	16.5	9	675
1991	RL2		1991	09	12.31458	22	09	53.56	-12	58	11.1		9	675
1991	RC6		1991	09	12.46921	01	08	47.19	-01	19	54.9	17.5	9	675
1991	RC6		1991	09	12.49387	01	08	46.00	-01	19	49.4		9	675
1991	RC6		1991	09	15.43576	01	06	22.38	-01	10	58.2	17.0	9	675
1991	RC6		1991	09	15.48368	01	06	19.91	-01	10	50.5		9	675
1991	RD6		1991	09	15.43576	01	05	40.05	-01	19	28.1	17.5	9	675
1991	RD6		1991	09	15.48368	01	05	38.37	-01	19	51.6		9	675
1991	RK8		1991	09	15.43576	01	20	03.25	-01	03	23.4	17.8	9	675
1991	RK8		1991	09	15.48368	01	20	01.16	-01	03	31.1		9	675
1991	RB25	*	1991	09	11.42639	01	52	32.90	-01	20	39.8	17.8	9	675
1991	RB25		1991	09	11.47940	01	52	31.55	-01	20	48.8		9	675
1991	RB25		1991	09	12.38744	01	52	09.55	-01	23	24.4	17.0	9	675
1991	RB25		1991	09	12.44227	01	52	08.00	-01	23	33.3		9	675
1991	RB25		1991	09	13.49769	01	51	40.22	-01	26	35.5	17.8	9	675
1991	RB25		1991	09	16.44878	01	50	12.94	-01	35	24.7	17.2	9	675
1991	RB25		1991	09	16.48472	01	50	11.73	-01	35	31.4		9	675
1991	RC25	*	1991	09	11.42639	01	53	48.28	-00	02	44.1	17.8	9	675
1991	RC25		1991	09	11.47940	01	53	47.35	-00	02	58.7		9	675
1991	RC25		1991	09	12.38744	01	53	32.75	-00	07	01.1		9	675
1991	RC25		1991	09	12.44227	01	53	31.67	-00	07	15.3	17.5	9	675
1991	RC25		1991	09	13.49769	01	53	12.79	-00	12	00.7	18.0	9	675
1991	RC25		1991	09	16.44878	01	52	12.13	-00	25	42.6	17.2	9	675
1991	RC25		1991	09	16.48472	01	52	11.29	-00	25	53.2		9	675
1991	RD25	*	1991	09	11.42639	01	55	09.56	-01	16	59.1	17.8	9	675

1991 RD25		1991	09	11.47940	01	55	08.97	-01	17	20.7			9	675
1991 RD25		1991	09	12.38744	01	55	01.46	-01	23	38.1	17.0		9	675
1991 RD25		1991	09	12.44227	01	55	00.70	-01	24	00.2			9	675
1991 RD25		1991	09	13.49769	01	54	49.10	-01	31	22.3	17.8		9	675
1991 RD25		1991	09	16.44878	01	54	04.43	-01	52	36.7	17.2		9	675
1991 RD25		1991	09	16.48472	01	54	03.69	-01	52	52.5			9	675
1991 RE25	*	1991	09	11.42639	01	58	21.14	+01	18	08.5	17.5		9	675
1991 RE25		1991	09	11.47940	01	58	21.24	+01	17	47.3			9	675
1991 RE25		1991	09	13.49769	01	58	28.16	+01	03	54.4	17.5		9	675
1991 RF25	*	1991	09	11.42639	02	00	04.44	-00	03	12.4	18.0		9	675
1991 RF25		1991	09	11.47940	02	00	03.21	-00	03	29.9			9	675
1991 RF25		1991	09	13.49769	01	59	16.30	-00	14	17.6	18.0		9	675
1991 RG25	*	1991	09	11.42639	02	06	55.20	-02	00	42.5	17.8		9	675
1991 RG25		1991	09	11.47940	02	06	54.25	-02	00	57.8			9	675
1991 RG25		1991	09	13.49769	02	06	18.62	-02	10	33.2	18.0		9	675
1991 RH25	*	1991	09	11.42639	02	08	03.60	+01	11	28.3	16.5		9	675
1991 RH25		1991	09	11.47940	02	08	03.18	+01	11	21.9			9	675
1991 RH25		1991	09	13.49769	02	07	47.38	+01	07	33.9	16.5		9	675
1991 RJ25	*	1991	09	11.42639	02	17	39.77	-00	14	21.8	17.8		9	675
1991 RJ25		1991	09	11.47940	02	17	38.65	-00	14	29.3			9	675
1991 RJ25		1991	09	13.49769	02	16	55.87	-00	19	35.8	18.2		9	675
1991 RK25	*	1991	09	11.42639	02	18	27.87	+01	10	51.0	18.2		9	675
1991 RK25		1991	09	11.47940	02	18	27.47	+01	10	36.4			9	675
1991 RK25		1991	09	13.49769	02	18	12.64	+01	01	02.1	17.8		9	675
1991 RL25	*	1991	09	12.27431	22	09	47.27	-14	33	08.2	16.8		9	675
1991 RL25		1991	09	12.31458	22	09	45.36	-14	33	12.5			9	675
1991 RL25		1991	09	15.26962	22	07	39.61	-14	36	39.0			9	675
1991 RL25		1991	09	15.32083	22	07	37.38	-14	36	41.0			9	675
1991 RM25	*	1991	09	12.38744	01	26	48.63	-00	55	12.9	17.8		9	675
1991 RM25		1991	09	12.44227	01	26	46.66	-00	55	35.8			9	675
1991 RM25		1991	09	16.44878	01	24	24.60	-01	23	46.1	17.5		9	675
1991 RM25		1991	09	16.48472	01	24	23.13	-01	24	00.9			9	675
1991 RN25	*	1991	09	12.38744	01	26	49.32	-01	30	32.7	17.0		9	675
1991 RN25		1991	09	12.44227	01	26	48.39	-01	31	01.6			9	675
1991 RN25		1991	09	16.44878	01	25	34.95	-02	07	48.5	17.0		9	675
1991 RN25		1991	09	16.48472	01	25	34.03	-02	08	09.6			9	675
1991 RO25	*	1991	09	12.38744	01	34	22.36	-03	59	48.9			9	675
1991 RO25		1991	09	12.44227	01	34	21.14	-04	00	12.9	17.0		9	675
1991 RO25		1991	09	16.44878	01	32	48.11	-04	28	12.2	17.2		9	675
1991 RO25		1991	09	16.48472	01	32	47.05	-04	28	27.5	17.5		9	675
1991 RP25	*	1991	09	12.38744	01	37	53.90	+01	14	06.9	18.0		9	675
1991 RP25		1991	09	12.44227	01	37	52.18	+01	14	03.3			9	675
1991 RP25		1991	09	16.44878	01	35	48.90	+01	08	58.7	18.2		9	675
1991 RP25		1991	09	16.48472	01	35	47.71	+01	08	55.8			9	675
1991 RQ25	*	1991	09	12.38744	01	40	16.35	+01	35	16.4			9	675
1991 RQ25		1991	09	12.44227	01	40	15.07	+01	35	08.3	18.2		9	675
1991 RQ25		1991	09	16.44878	01	38	32.36	+01	24	05.4	18.0		9	675
1991 RQ25		1991	09	16.48472	01	38	31.27	+01	23	59.2	17.5		9	675
1991 RR25	*	1991	09	12.38744	01	41	53.93	+00	03	06.7	17.2		9	675
1991 RR25		1991	09	12.44227	01	41	52.37	+00	02	48.5			9	675
1991 RR25		1991	09	16.44878	01	39	55.71	-00	19	20.8	17.0		9	675
1991 RR25		1991	09	16.48472	01	39	54.53	-00	19	32.9			9	675
1991 RS25	*	1991	09	12.38744	01	42	00.78	+00	15	18.0			9	675
1991 RS25		1991	09	12.44227	01	41	59.78	+00	14	55.5	17.5		9	675
1991 RS25		1991	09	16.44878	01	40	45.20	-00	14	23.6	17.8		9	675
1991 RS25		1991	09	16.48472	01	40	44.33	-00	14	39.3	17.2		9	675
1991 RT25	*	1991	09	12.38744	01	44	01.17	+01	03	25.0	18.2		9	675
1991 RT25		1991	09	12.44227	01	44	00.16	+01	02	54.8			9	675
1991 RT25		1991	09	16.44878	01	42	40.63	+00	24	45.3	18.0		9	675

1991	RT25		1991	09	16.48472	01	42	39.76	+00	24	23.9		9	675
1991	RU25	*	1991	09	12.38744	01	44	04.98	+00	43	50.6	17.8	9	675
1991	RU25		1991	09	12.44227	01	44	03.55	+00	43	40.9		9	675
1991	RU25		1991	09	16.44878	01	42	08.75	+00	32	56.7	18.0	9	675
1991	RU25		1991	09	16.48472	01	42	07.44	+00	32	51.4		9	675
1991	RV25	*	1991	09	12.38744	01	44	26.40	-03	22	08.0		9	675
1991	RV25		1991	09	12.44227	01	44	25.21	-03	22	23.6	17.5	9	675
1991	RV25		1991	09	16.44878	01	42	52.77	-03	42	01.1	17.0	9	675
1991	RV25		1991	09	16.48472	01	42	51.66	-03	42	11.6		9	675
1991	RW25	*	1991	09	12.38744	01	44	52.33	-06	01	49.7	16.5	9	675
1991	RW25		1991	09	12.44227	01	44	50.74	-06	02	07.4		9	675
1991	RW25		1991	09	16.44878	01	42	52.90	-06	23	19.6	16.5	9	675
1991	RW25		1991	09	16.48472	01	42	51.55	-06	23	31.1		9	675
1991	RX25	*	1991	09	12.38744	01	47	42.02	-00	16	51.7		9	675
1991	RX25		1991	09	12.44227	01	47	41.25	-00	17	06.1	17.0	9	675
1991	RX25		1991	09	16.44878	01	46	38.42	-00	35	11.9	17.0	9	675
1991	RX25		1991	09	16.48472	01	46	37.59	-00	35	22.2		9	675
1991	RY25	*	1991	09	12.38744	01	50	04.70	-04	47	58.4		9	675
1991	RY25		1991	09	12.44227	01	50	03.60	-04	48	20.3	17.5	9	675
1991	RY25		1991	09	16.44878	01	48	35.17	-05	15	31.2	17.2	9	675
1991	RY25		1991	09	16.48472	01	48	34.25	-05	15	45.6	17.5	9	675
1991	RZ25	*	1991	09	12.46921	01	04	33.81	-08	08	16.1	17.2	9	675
1991	RZ25		1991	09	15.43576	01	01	58.56	-08	08	52.9	17.0	9	675
1991	RZ25		1991	09	15.48368	01	01	55.87	-08	08	54.1		9	675
1991	RA26	*	1991	09	12.46921	01	11	32.32	-05	58	20.0	17.0	9	675
1991	RA26		1991	09	12.49387	01	11	31.42	-05	58	26.4		9	675
1991	RA26		1991	09	15.43576	01	09	41.84	-06	10	59.7	16.8	9	675
1991	RA26		1991	09	15.48368	01	09	39.84	-06	11	12.3		9	675
1991	RB26	*	1991	09	12.46921	01	14	21.98	-03	55	05.6	17.0	9	675
1991	RB26		1991	09	12.49387	01	14	21.23	-03	55	10.2		9	675
1991	RB26		1991	09	15.43576	01	12	50.42	-04	04	53.1	16.8	9	675
1991	RB26		1991	09	15.48368	01	12	48.76	-04	05	02.7		9	675
1991	RC26	*	1991	09	12.46921	01	19	54.92	-01	26	02.6	18.0	9	675
1991	RC26		1991	09	12.49387	01	19	54.21	-01	26	01.1		9	675
1991	RC26		1991	09	15.43576	01	18	14.59	-01	30	34.9	18.0	9	675
1991	RC26		1991	09	15.48368	01	18	12.69	-01	30	43.2		9	675
1991	RD26	*	1991	09	12.46921	01	20	02.46	-01	23	01.1	18.2	9	675
1991	RD26		1991	09	12.49387	01	20	01.69	-01	23	06.3		9	675
1991	RD26		1991	09	15.43576	01	18	10.00	-01	27	44.8	18.2	9	675
1991	RD26		1991	09	15.48368	01	18	08.06	-01	27	47.5	17.8	9	675
1991	RE26	*	1991	09	12.46921	01	26	50.52	-07	29	16.9		9	675
1991	RE26		1991	09	12.49387	01	26	49.42	-07	29	19.2	17.0	9	675
1991	RE26		1991	09	15.43576	01	24	34.16	-07	35	08.5	17.0	9	675
1991	RE26		1991	09	15.48368	01	24	31.81	-07	35	14.7		9	675
1991	RF26		1991	09	12.38744	01	26	58.24	-03	37	53.1		9	675
1991	RF26		1991	09	12.44227	01	26	57.50	-03	38	19.3	17.0	9	675
1991	RF26	*	1991	09	12.46921	01	26	57.11	-03	38	33.3	16.5	9	675
1991	RF26		1991	09	12.49387	01	26	56.86	-03	38	45.2		9	675
1991	RF26		1991	09	15.43576	01	26	20.10	-04	02	49.1	16.2	9	675
1991	RF26		1991	09	15.48368	01	26	19.26	-04	03	12.9	17.0	9	675
1991	RF26		1991	09	16.44878	01	26	03.72	-04	11	13.8	16.2	9	675
1991	RF26		1991	09	16.48472	01	26	03.00	-04	11	32.1	16.5	9	675
1991	RG26	*	1991	09	12.46921	01	28	44.96	-07	18	19.8	16.8	9	675
1991	RG26		1991	09	12.49387	01	28	43.91	-07	18	20.9		9	675
1991	RG26		1991	09	15.43576	01	26	34.13	-07	21	08.9	16.5	9	675
1991	RG26		1991	09	15.48368	01	26	31.82	-07	21	11.5		9	675
1991	RH26	*	1991	09	12.46921	01	29	16.44	-06	59	27.8	17.0	9	675
1991	RH26		1991	09	12.49387	01	29	16.11	-06	59	43.1		9	675
1991	RH26		1991	09	15.43576	01	28	12.49	-07	29	50.5	17.2	9	675

1991	RH26		1991	09	15.48368	01	28	11.35	-07	30	20.4			9	675
1991	SL2		1991	09	12.46921	01	08	00.46	-08	06	15.4	16.5		9	675
1991	SL2		1991	09	12.49387	01	07	59.64	-08	06	21.4			9	675
1991	SL2		1991	09	15.43576	01	06	17.43	-08	19	00.4	16.5		9	675
1991	SL2		1991	09	15.48368	01	06	15.64	-08	19	12.9			9	675
1991	SL2	*	1991	09	17.41823	01	05	03.21	-08	27	26.6	16.5		9	675
1991	SL2		1991	09	17.46997	01	05	01.16	-08	27	39.3			9	675
1991	TJ		1991	09	12.46921	01	22	54.58	-01	34	33.7	17.2		9	675
1991	TJ		1991	09	12.49387	01	22	54.13	-01	34	39.8			9	675
1991	TJ		1991	09	15.43576	01	21	51.97	-01	45	39.5	17.2		9	675
1991	TJ		1991	09	15.48368	01	21	50.64	-01	45	50.6			9	675
1991	TM		1991	09	12.38744	01	27	27.93	+00	17	06.5	17.0		9	675
1991	TM		1991	09	12.44227	01	27	26.09	+00	16	41.4			9	675
1991	TN		1991	09	12.38744	01	29	06.01	+00	02	19.2	18.2		9	675
1991	TN		1991	09	12.44227	01	29	04.09	+00	02	01.8			9	675
1991	TO		1991	09	12.38744	01	27	56.61	-00	00	02.2	18.8		9	675
1991	TO		1991	09	12.44227	01	27	55.28	-00	00	22.6			9	675
1991	TQ		1991	09	12.38744	01	29	59.28	+00	10	26.3			9	675
1991	TQ		1991	09	12.44227	01	29	57.49	+00	10	14.8	18.0		9	675
1991	TQ		1991	09	16.48472	01	27	47.32	-00	04	37.1	18.2		9	675
1991	TS		1991	09	12.38744	01	32	40.15	-00	01	58.5	18.5		9	675
1991	TS		1991	09	12.44227	01	32	38.58	-00	02	22.6			9	675
1991	TS		1991	09	16.44878	01	30	45.05	-00	31	24.3	18.5		9	675
1991	TS		1991	09	16.48472	01	30	43.79	-00	31	38.7	18.0		9	675
1991	TB1		1991	09	12.46921	01	13	25.66	-03	36	23.6	18.2		9	675
1991	TB1		1991	09	15.43576	01	07	49.57	-02	39	59.1	17.8		9	675
1991	TB1		1991	09	15.48368	01	07	43.43	-02	39	00.7			9	675
1991	TH1		1991	09	11.42639	01	53	01.99	+00	34	51.8	18.0		9	675
1991	TH1		1991	09	11.47940	01	52	59.61	+00	35	35.2	17.5		9	675
1991	TH1		1991	09	13.49769	01	51	29.86	+01	03	04.6	17.8		9	675
1991	TY1		1991	09	11.42639	01	51	05.94	+00	44	37.9	17.8		9	675
1991	TY1		1991	09	11.47940	01	51	06.62	+00	43	56.0			9	675
1991	TY1		1991	09	12.38744	01	51	21.31	+00	31	49.2	17.8		9	675
1991	TY1		1991	09	12.44227	01	51	21.87	+00	31	06.3			9	675
1991	TY1		1991	09	13.49769	01	51	36.38	+00	16	49.9	17.8		9	675
1991	TY1		1991	09	16.44878	01	52	06.14	-00	24	24.6	17.2		9	675
1991	TY1		1991	09	16.48472	01	52	06.28	-00	24	55.5			9	675
1991	TC4		1991	09	11.42639	02	13	03.80	+01	34	36.9	17.2		9	675
1991	TC4		1991	09	11.47940	02	13	03.81	+01	34	02.5			9	675
1991	TC4		1991	09	13.49769	02	13	03.90	+01	11	56.9	16.8		9	675
1991	TB6		1991	09	11.42639	02	02	50.97	-00	13	23.9	17.5		9	675
1991	TB6		1991	09	11.47940	02	02	49.42	-00	13	19.3			9	675
1991	TB6		1991	09	13.49769	02	01	52.05	-00	09	44.3	17.2		9	675
1992	BK		1971	05	14.19427	12	27	19.49	-06	12	30.2			4	675
1992	BK		1971	05	14.24549	12	27	18.72	-06	12	26.8			4	675
1992	BK		1971	05	16.27535	12	26	54.74	-06	10	23.7			4	675
1992	GZ	*	1992	04	03.44774	14	50	35.66	-18	50	06.4	16.5		3	675
1992	GZ		1992	04	03.47847	14	50	35.02	-18	50	09.1			3	675
1992	GZ		1992	04	05.44080	14	49	53.59	-18	51	30.0			3	675
1992	GZ		1992	04	05.47535	14	49	52.89	-18	51	31.3			3	675
1992	GA1	*	1992	04	02.33819	12	58	42.82	-09	29	41.3	17.3		3	675
1992	GA1		1992	04	03.24357	12	58	10.62	-09	06	20.2			3	675
1992	GA1		1992	04	03.27829	12	58	09.26	-09	05	27.4			3	675
1992	GB1	*	1992	04	05.30347	12	22	20.65	+27	52	14.8	16.8		3	675
1992	GB1		1992	04	05.33211	12	22	18.10	+27	51	50.1			3	675
1992	GB1		1992	04	07.34878	12	19	27.87	+27	21	44.7			3	675
1992	GC1	*	1992	04	03.29913	12	49	01.38	+19	31	30.0	17.2		3	675
1992	GC1		1992	04	03.34358	12	48	56.44	+19	30	45.0			3	675
1992	GC1		1992	04	07.30851	12	42	03.06	+18	19	30.2			3	675

1992 GC1		1992	04	07.34322	12	41	59.43	+18	18	53.2			3	675
1992 JA	*	1992	05	01.37865	15	13	50.36	-25	47	40.7	15		2	675
1992 JA		1992	05	01.40122	15	13	48.80	-25	47	09.6			2	675
1992 JA		1992	05	02.28472	15	13	06.13	-25	26	10.7			2	675
1992 JB	*	1992	05	01.38438	15	23	11.07	-08	30	15.2	14.5		2	675
1992 JB		1992	05	01.40677	15	23	11.58	-08	27	42.0			2	675
1992 JB		1992	05	02.40990	15	23	58.02	-06	38	08.8			2	675
1992 JB		1992	05	02.43333	15	23	58.63	-06	35	38.9			2	675
1992 JE		1992	05	02.36858	14	54	32.72	-08	39	10.5	17		2	675
1992 JE		1992	05	02.39236	14	54	31.37	-08	38	48.2			2	675
1992 JK	*	1992	05	02.42187	15	29	49.02	-07	58	19.3	16.5		2	675
1992 JK		1992	05	03.37587	15	28	33.71	-08	04	50.5			2	675
1992 JK		1992	05	03.39809	15	28	31.92	-08	05	00.1			2	675
1992 JL	*	1992	05	01.33281	15	20	18.22	+06	53	31.6	16.5		2	675
1992 JL		1992	05	01.35521	15	20	16.86	+06	53	35.6			2	675
1992 JL		1992	05	03.25799	15	18	37.21	+06	57	32.8			2	675
1992 JL		1992	05	03.30868	15	18	34.43	+06	57	39.5			2	675
1992 JL		1992	05	03.33351	15	18	33.02	+06	57	43.1			2	675
1992 JM	*	1992	05	01.37865	15	27	32.06	-22	49	35.5	16.5		2	675
1992 JM		1992	05	01.40122	15	27	30.56	-22	49	16.2			2	675
1992 JM		1992	05	02.28472	15	26	31.51	-22	36	13.0			2	675
4722 P-L	*	1960	09	24.41183	00	20	26.91	+03	22	20.8	19.0		4	675
4722 P-L		1960	09	26.31530	00	18	43.51	+03	10	17.6			4	675
4722 P-L		1960	09	27.40836	00	17	43.79	+03	03	23.0			4	675
4722 P-L		1960	09	28.32780	00	16	53.96	+02	57	32.4			4	675
4722 P-L		1960	09	28.39725	00	16	50.03	+02	57	04.7			4	675
4722 P-L		1960	10	17.27085	00	01	07.33	+01	03	54.4			4	675
9540 P-L		1992	04	07.43263	15	08	12.87	-19	00	31.0			9	675
9540 P-L		1992	04	08.35277	15	07	40.07	-18	59	18.0	19.0		9	675
9540 P-L		1992	04	08.43107	15	07	37.07	-18	59	11.3			9	675
2312 T-1		1971	03	26.31007	12	20	54.28	-00	02	41.4			4	675
2312 T-1		1971	03	26.34896	12	20	52.36	-00	02	29.3			4	675
4349 T-1		1991	09	13.49769	01	52	09.94	+02	27	23.1	16.5		9	675
(6)		1991	09	15.26962	22	20	48.75	-21	40	49.0			9	675
(6)		1991	09	15.32083	22	20	46.90	-21	41	24.8			9	675
(99)		1991	09	12.38744	01	44	11.73	+00	26	03.5			9	675
(99)		1991	09	12.44227	01	44	09.69	+00	25	56.0			9	675
(99)		1991	09	16.44878	01	41	35.50	+00	16	26.9			9	675
(99)		1991	09	16.48472	01	41	33.98	+00	16	21.6			9	675
(112)		1982	01	30.38854	08	38	24.07	+19	39	06.7			6	675
(112)		1982	01	31.36285	08	37	22.50	+19	41	58.6			6	675
(150)		1992	04	08.35277	15	32	36.02	-18	10	48.1			9	675
(150)		1992	04	08.43107	15	32	33.85	-18	10	38.2			9	675
(168)		1992	04	05.48923	15	01	27.58	-15	49	37.4			9	675
(168)		1992	04	07.43263	15	00	31.11	-15	43	22.0			9	675
(168)		1992	04	07.46979	15	00	29.93	-15	43	13.7			9	675
(168)		1992	04	08.35277	15	00	03.18	-15	40	17.3			9	675
(168)		1992	04	08.43107	15	00	00.67	-15	40	01.8			9	675
(213)		1991	09	15.26962	21	55	21.50	-19	01	36.1			9	675
(213)		1991	09	15.32083	21	55	19.81	-19	01	47.1			9	675
(282)		1991	09	12.46921	01	21	57.06	-02	08	39.4			9	675
(282)		1991	09	12.49387	01	21	56.40	-02	08	53.2			9	675
(282)		1991	09	15.43576	01	20	33.44	-02	36	28.1			9	675
(282)		1991	09	15.48368	01	20	31.90	-02	36	55.9			9	675
(337)		1991	09	15.26962	21	54	41.43	-17	20	42.9			9	675
(337)		1991	09	15.32083	21	54	38.78	-17	20	43.1			9	675
(339)		1991	09	12.27431	22	06	50.03	-06	55	23.1			9	675
(339)		1991	09	12.31458	22	06	48.44	-06	55	42.6			9	675
(402)		1991	09	12.38744	01	49	35.23	-05	10	19.2			9	675

(402)	1991	09	12.44227	01	49	33.93	-05	10	45.3	9 675
(402)	1991	09	16.44878	01	47	54.11	-05	43	17.6	9 675
(402)	1991	09	16.48472	01	47	53.06	-05	43	35.0	9 675
(481)	1991	09	11.42639	02	04	28.25	-00	36	46.9	9 675
(481)	1991	09	11.47940	02	04	27.48	-00	36	54.8	9 675
(481)	1991	09	13.49769	02	03	58.71	-00	42	05.8	9 675
(495)	1982	01	30.38854	08	39	38.04	+15	05	10.9	6 675
(495)	1982	01	31.36285	08	38	39.78	+15	09	33.2	6 675
(496)	1992	04	05.48923	15	22	37.02	-17	28	28.4	9 675
(496)	1992	04	07.43263	15	21	39.20	-17	20	29.7	9 675
(496)	1992	04	07.46979	15	21	37.99	-17	20	19.7	9 675
(496)	1992	04	08.35277	15	21	09.48	-17	16	31.4	9 675
(496)	1992	04	08.43107	15	21	06.69	-17	16	11.2	9 675
(499)	1992	04	05.48923	15	15	41.53	-19	30	20.5	9 675
(499)	1992	04	07.43263	15	14	51.79	-19	27	09.0	9 675
(499)	1992	04	07.46979	15	14	50.84	-19	27	04.2	9 675
(499)	1992	04	08.35277	15	14	27.37	-19	25	32.6	9 675
(499)	1992	04	08.43107	15	14	25.19	-19	25	25.9	9 675
(514)	1992	04	05.48923	15	12	14.13	-22	00	15.0	9 675
(514)	1992	04	07.43263	15	11	16.88	-21	56	59.2	9 675
(514)	1992	04	07.46979	15	11	15.68	-21	56	55.8	9 675
(514)	1992	04	08.35277	15	10	48.25	-21	55	19.2	9 675
(514)	1992	04	08.43107	15	10	45.67	-21	55	10.6	9 675
(641)	1992	04	05.48923	14	57	04.62	-16	31	19.1	9 675
(653)	1982	01	30.38854	08	29	23.22	+17	02	18.3	6 675
(653)	1982	01	31.36285	08	28	34.96	+17	08	39.2	6 675
(735)	1992	04	05.48923	15	07	59.16	-15	40	48.6	9 675
(735)	1992	04	07.43263	15	06	40.98	-15	42	17.1	9 675
(735)	1992	04	07.46979	15	06	39.35	-15	42	18.1	9 675
(735)	1992	04	08.35277	15	06	02.19	-15	42	53.3	9 675
(735)	1992	04	08.43107	15	05	58.76	-15	42	56.8	9 675
(741)	1991	09	15.26962	22	19	07.20	-21	34	05.1	9 675
(741)	1991	09	15.32083	22	19	04.90	-21	34	15.5	9 675
(931)	1991	09	12.38744	01	46	33.00	-06	45	30.0	9 675
(931)	1991	09	12.44227	01	46	32.07	-06	45	52.9	9 675
(938)	1992	04	05.48923	15	17	49.76	-14	37	20.4	9 675
(938)	1992	04	07.43263	15	16	56.34	-14	32	36.3	9 675
(938)	1992	04	07.46979	15	16	55.27	-14	32	32.9	9 675
(938)	1992	04	08.35277	15	16	29.63	-14	30	20.6	9 675
(938)	1992	04	08.43107	15	16	27.25	-14	30	10.5	9 675
(993)	1992	04	05.48923	15	08	44.31	-16	10	38.5	9 675
(993)	1992	04	07.43263	15	07	43.53	-16	05	05.3	9 675
(993)	1992	04	07.46979	15	07	42.19	-16	04	57.7	9 675
(993)	1992	04	08.35277	15	07	13.30	-16	02	20.8	9 675
(993)	1992	04	08.43107	15	07	10.38	-16	02	04.8	9 675
(1025)	1992	04	04.48076	15	33	25.88	+18	45	41.5	16.0 3 675
(1025)	1992	04	04.51041	15	33	25.54	+18	46	22.6	3 675
(1025)	1992	04	07.46406	15	32	41.41	+19	55	17.3	3 675
(1025)	1992	04	08.47690	15	32	21.81	+20	18	31.9	3 675
(1047)	1991	09	12.38744	01	30	32.46	-02	39	12.9	9 675
(1047)	1991	09	12.44227	01	30	31.37	-02	39	26.2	9 675
(1047)	1991	09	16.44878	01	29	08.37	-02	56	26.4	9 675
(1047)	1991	09	16.48472	01	29	07.36	-02	56	35.9	9 675
(1048)	1991	09	11.42639	02	07	51.20	-00	57	54.9	9 675
(1048)	1991	09	11.47940	02	07	49.71	-00	58	03.1	9 675
(1048)	1991	09	13.49769	02	06	52.08	-01	03	08.0	9 675
(1055)	1982	01	30.38854	08	42	25.87	+15	31	27.2	6 675
(1055)	1982	01	31.36285	08	41	22.60	+15	37	18.9	6 675
(1097)	1992	04	05.48923	15	26	03.50	-16	17	30.5	9 675

(1097)	1992	04	07.43263	15	25	26.62	-16	13	28.9	9 675
(1097)	1992	04	07.46979	15	25	25.76	-16	13	24.0	9 675
(1097)	1992	04	08.35277	15	25	06.90	-16	11	26.5	9 675
(1097)	1992	04	08.43107	15	25	04.97	-16	11	16.0	9 675
(1122)	1991	09	15.26962	22	21	49.15	-19	35	40.4	9 675
(1122)	1991	09	15.32083	22	21	46.66	-19	35	47.0	9 675
(1128)	1991	09	12.27431	22	05	11.15	-13	27	02.5	9 675
(1128)	1991	09	12.31458	22	05	09.42	-13	27	10.7	9 675
(1209)	1991	09	12.46921	01	01	25.50	-04	09	52.9	9 675
(1209)	1991	09	12.49387	01	01	24.63	-04	10	00.1	9 675
(1209)	1991	09	15.43576	00	59	37.50	-04	24	37.1	9 675
(1209)	1991	09	15.48368	00	59	35.66	-04	24	51.9	9 675
(1225)	1991	09	15.26962	21	53	12.37	-16	04	34.2	9 675
(1225)	1991	09	15.32083	21	53	10.06	-16	04	41.0	9 675
(1238)	1991	09	12.38744	01	37	45.37	-02	24	23.8	9 675
(1238)	1991	09	12.44227	01	37	43.50	-02	24	34.7	9 675
(1238)	1991	09	16.44878	01	35	22.74	-02	37	50.3	9 675
(1238)	1991	09	16.48472	01	35	21.35	-02	37	57.8	9 675
(1289)	1991	09	12.27431	21	56	34.12	-10	53	50.4	9 675
(1289)	1991	09	12.31458	21	56	32.53	-10	54	00.3	9 675
(1295)	1992	04	05.48923	15	22	12.77	-16	08	27.0	9 675
(1295)	1992	04	07.43263	15	21	21.83	-16	03	27.4	9 675
(1295)	1992	04	07.46979	15	21	20.78	-16	03	20.9	9 675
(1295)	1992	04	08.35277	15	20	56.45	-16	01	00.2	9 675
(1295)	1992	04	08.43107	15	20	54.19	-16	00	47.9	9 675
(1334)	1982	01	30.38854	08	28	57.85	+16	57	49.2	6 675
(1334)	1982	01	31.36285	08	28	08.47	+17	03	49.1	6 675
(1384)	1991	09	12.46921	01	11	26.49	-03	27	12.3	9 675
(1384)	1991	09	12.49387	01	11	25.85	-03	27	27.6	9 675
(1384)	1991	09	15.43576	01	10	10.66	-03	57	56.5	9 675
(1384)	1991	09	15.48368	01	10	09.27	-03	58	26.9	9 675
(1438)	1988	10	11.16319	22	32	46.15	-06	07	02.3	9 675
(1438)	1988	10	11.19861	22	32	45.75	-06	07	07.5	9 675
(1445)	1982	01	30.38854	08	47	59.55	+19	59	04.0	6 675
(1445)	1982	01	31.36285	08	47	10.67	+20	02	34.4	6 675
(1537)	1992	04	05.48923	15	16	36.03	-18	49	06.0	9 675
(1537)	1992	04	07.43263	15	15	38.03	-18	44	34.8	9 675
(1537)	1992	04	07.46979	15	15	36.78	-18	44	28.8	9 675
(1537)	1992	04	08.35277	15	15	09.18	-18	42	15.5	9 675
(1537)	1992	04	08.43107	15	15	06.64	-18	42	05.4	9 675
(1709)	1982	01	30.38854	08	32	52.40	+17	18	35.9	6 675
(1709)	1982	01	31.36285	08	31	48.39	+17	20	09.0	6 675
(1723)	1991	09	12.38744	01	33	55.52	-01	06	10.1	9 675
(1723)	1991	09	12.44227	01	33	54.11	-01	06	32.2	9 675
(1723)	1991	09	16.44878	01	32	09.19	-01	34	12.1	9 675
(1723)	1991	09	16.48472	01	32	08.12	-01	34	27.1	9 675
(1777)	1992	04	05.15903	09	14	05.66	+15	59	27.9	17 3 675
(1777)	1992	04	07.18976	09	14	24.32	+15	55	51.7	3 675
(1777)	1992	04	07.23472	09	14	24.75	+15	55	45.3	3 675
(1815)	1991	09	12.27431	22	03	00.49	-14	39	14.8	17.2 9 675
(1815)	1991	09	12.31458	22	02	58.70	-14	39	23.7	9 675
(1815)	1991	09	15.26962	22	01	07.97	-14	49	35.8	9 675
(1815)	1991	09	15.32083	22	01	06.06	-14	49	43.9	17.0 9 675
(2020)	1991	09	12.46921	01	11	58.32	-03	01	19.7	9 675
(2020)	1991	09	12.49387	01	11	57.59	-03	01	30.7	9 675
(2020)	1991	09	15.43576	01	10	29.04	-03	23	07.1	9 675
(2020)	1991	09	15.48368	01	10	27.50	-03	23	28.8	9 675
(2033)	1991	09	12.27431	22	07	32.41	-06	55	59.9	9 675
(2033)	1991	09	12.31458	22	07	29.95	-06	56	05.1	9 675

(2194)	1991	09	12.46921	01	05	57.04	-03	32	38.5	9 675
(2194)	1991	09	12.49387	01	05	55.87	-03	32	44.3	9 675
(2194)	1991	09	15.43576	01	03	39.35	-03	44	11.9	9 675
(2194)	1991	09	15.48368	01	03	36.94	-03	44	23.2	9 675
(2196)	1992	04	05.48923	15	25	58.05	-16	12	05.9	9 675
(2196)	1992	04	07.43263	15	25	14.93	-16	03	38.6	9 675
(2196)	1992	04	07.46979	15	25	13.98	-16	03	28.1	9 675
(2196)	1992	04	08.35277	15	24	53.01	-15	59	31.7	9 675
(2196)	1992	04	08.43107	15	24	51.01	-15	59	10.5	9 675
(2270)	1992	04	05.48923	15	09	52.47	-15	43	48.2	9 675
(2270)	1992	04	07.43263	15	09	00.75	-15	40	32.1	9 675
(2270)	1992	04	07.46979	15	08	59.67	-15	40	28.2	9 675
(2270)	1992	04	08.35277	15	08	34.58	-15	38	51.5	9 675
(2270)	1992	04	08.43107	15	08	32.19	-15	38	43.8	9 675
(2293)	1982	01	30.38854	08	31	16.59	+19	50	05.0	6 675
(2293)	1982	01	31.36285	08	30	26.40	+19	52	58.3	6 675
(2319)	1982	01	30.38854	08	35	57.21	+19	46	55.3	6 675
(2319)	1982	01	31.36285	08	35	05.58	+19	50	52.8	6 675
(2324)	1992	04	05.48923	15	15	01.76	-18	40	00.2	9 675
(2324)	1992	04	07.43263	15	14	17.04	-18	37	30.1	9 675
(2324)	1992	04	07.46979	15	14	16.09	-18	37	26.3	9 675
(2324)	1992	04	08.35277	15	13	54.00	-18	36	10.0	9 675
(2324)	1992	04	08.43107	15	13	51.87	-18	36	03.7	9 675
(2334)	1982	01	30.38854	08	52	01.17	+18	45	31.5	6 675
(2334)	1982	01	31.36285	08	50	58.72	+18	51	48.7	6 675
(2355)	1992	04	05.48923	15	29	41.93	-16	07	54.0	9 675
(2355)	1992	04	07.43263	15	28	48.81	-16	08	19.8	9 675
(2355)	1992	04	07.46979	15	28	47.69	-16	08	19.7	9 675
(2355)	1992	04	08.35277	15	28	21.98	-16	08	26.7	9 675
(2355)	1992	04	08.43107	15	28	19.53	-16	08	28.1	9 675
(2381)	1991	09	12.27431	22	10	53.64	-13	58	45.9	16.0 9 675
(2381)	1991	09	12.31458	22	10	51.87	-13	59	08.7	9 675
(2381)	1991	09	15.26962	22	08	51.60	-14	26	14.2	9 675
(2381)	1991	09	15.32083	22	08	49.48	-14	26	41.1	16.8 9 675
(2581)	1992	04	05.48923	15	11	42.79	-20	44	29.2	9 675
(2581)	1992	04	07.43263	15	10	32.31	-20	39	50.4	9 675
(2581)	1992	04	07.46979	15	10	30.84	-20	39	44.1	9 675
(2581)	1992	04	08.35277	15	09	56.68	-20	37	26.8	17.0 9 675
(2581)	1992	04	08.43107	15	09	53.39	-20	37	13.8	9 675
(2593)	1992	04	05.48923	14	58	34.23	-16	44	36.4	9 675
(2593)	1992	04	07.43263	14	57	18.79	-16	39	25.7	9 675
(2593)	1992	04	07.46979	14	57	17.03	-16	39	15.5	9 675
(2593)	1992	04	08.35277	14	56	40.75	-16	36	43.5	9 675
(2817)	1992	04	05.48923	15	12	07.03	-19	59	59.4	9 675
(2817)	1992	04	08.35277	15	10	29.87	-19	53	27.3	18.0 9 675
(2817)	1992	04	08.43107	15	10	26.88	-19	53	14.7	9 675
(2821)	1992	04	05.48923	15	11	19.11	-14	15	58.9	9 675
(2821)	1992	04	07.46979	15	10	01.29	-14	12	34.3	9 675
(2821)	1992	04	08.35277	15	09	25.12	-14	11	04.5	18.2 9 675
(2821)	1992	04	08.43107	15	09	21.91	-14	10	54.6	9 675
(2826)	1991	09	12.38744	01	31	26.66	+00	54	30.8	17.0 9 675
(2826)	1991	09	12.44227	01	31	24.77	+00	54	27.2	17.5 9 675
(2851)	1992	04	05.48923	15	07	18.18	-14	23	44.6	9 675
(2851)	1992	04	08.35277	15	05	20.29	-14	21	29.9	17.2 9 675
(2851)	1992	04	08.43107	15	05	16.85	-14	21	26.0	9 675
(2894)	1992	04	05.48923	15	24	14.94	-16	02	54.4	9 675
(2894)	1992	04	07.43263	15	23	20.01	-15	59	20.1	9 675
(2894)	1992	04	07.46979	15	23	18.92	-15	59	17.0	9 675
(2894)	1992	04	08.35277	15	22	52.39	-15	57	35.1	18.5 9 675

(2894)		1992	04	08.43107	15	22	49.69	-15	57	26.5		9	675
(3069)		1992	04	05.48923	15	02	16.49	-17	16	36.3		9	675
(3069)		1992	04	07.43263	15	01	06.81	-17	10	35.3		9	675
(3069)		1992	04	07.46979	15	01	05.61	-17	10	28.5		9	675
(3069)		1992	04	08.35277	15	00	31.77	-17	07	33.2	18.5	9	675
(3069)		1992	04	08.43107	15	00	28.43	-17	07	16.6		9	675
(3185)		1992	04	05.48923	15	11	53.98	-14	22	58.2		9	675
(3185)		1992	04	07.43263	15	10	45.61	-14	18	49.0		9	675
(3185)		1992	04	07.46979	15	10	44.19	-14	18	45.7		9	675
(3185)		1992	04	08.35277	15	10	11.46	-14	16	42.2	18.0	9	675
(3185)		1992	04	08.43107	15	10	08.31	-14	16	32.6		9	675
(3208)		1992	04	05.48923	15	22	18.27	-15	05	28.3		9	675
(3208)		1992	04	07.43263	15	21	28.11	-15	00	36.3		9	675
(3208)		1992	04	07.46979	15	21	26.94	-15	00	29.8		9	675
(3208)		1992	04	08.35277	15	21	02.75	-14	58	11.9	17.2	9	675
(3208)		1992	04	08.43107	15	21	00.37	-14	58	00.0		9	675
(3279)		1992	04	05.48923	15	13	50.93	-15	48	50.2		9	675
(3279)		1992	04	07.43263	15	12	46.09	-15	41	03.2		9	675
(3279)		1992	04	07.46979	15	12	44.67	-15	40	56.4		9	675
(3279)		1992	04	08.35277	15	12	13.13	-15	37	11.0	17.2	9	675
(3279)		1992	04	08.43107	15	12	10.06	-15	36	52.4		9	675
(3320)		1992	04	05.48923	14	58	12.75	-17	25	41.0		9	675
(3320)		1992	04	07.43263	14	57	10.18	-17	17	32.3		9	675
(3320)		1992	04	07.46979	14	57	08.86	-17	17	21.5		9	675
(3320)		1992	04	08.35277	14	56	38.63	-17	13	27.2	17.2	9	675
(3320)		1992	04	08.43107	14	56	35.67	-17	13	05.7		9	675
(3323)		1991	09	12.27431	21	57	06.06	-13	26	20.3	17.0	9	675
(3323)		1991	09	12.31458	21	57	04.23	-13	26	28.8		9	675
(3417)		1991	09	12.38744	01	25	13.93	-03	16	01.2	19.0	9	675
(3417)		1991	09	12.44227	01	25	11.82	-03	16	19.1		9	675
(3417)		1991	09	12.46921	01	25	10.59	-03	16	29.8	19.0	9	675
(3417)		1991	09	12.49387	01	25	09.83	-03	16	37.7		9	675
(3435)		1991	09	12.27431	22	21	15.23	-07	40	16.9		9	675
(3435)		1991	09	12.31458	22	21	13.24	-07	40	38.0	16.8	9	675
(3465)		1991	09	12.46921	00	59	45.18	-04	02	48.1		9	675
(3465)		1991	09	12.49387	00	59	44.27	-04	02	58.8		9	675
(3465)		1991	09	15.43576	00	57	38.11	-04	24	40.9	17.2	9	675
(3465)		1991	09	15.48368	00	57	35.92	-04	25	02.8		9	675
(3516)		1991	09	12.27431	22	01	23.91	-11	41	46.4	17.0	9	675
(3516)		1991	09	12.31458	22	01	22.30	-11	41	58.2		9	675
(3517)		1992	04	05.48923	15	27	40.54	-16	10	57.4		9	675
(3517)		1992	04	07.43263	15	26	47.45	-16	03	53.3		9	675
(3517)		1992	04	07.46979	15	26	46.31	-16	03	44.2		9	675
(3517)		1992	04	08.35277	15	26	20.12	-16	00	23.2	18.2	9	675
(3517)		1992	04	08.43107	15	26	17.60	-16	00	05.5		9	675
(3532)		1991	09	11.42639	02	06	38.20	+02	32	57.4		9	675
(3532)		1991	09	11.47940	02	06	37.15	+02	32	52.0		9	675
(3532)		1991	09	13.49769	02	05	58.19	+02	29	22.5	16.8	9	675
(3565)		1991	09	12.46921	01	11	46.71	-03	47	49.8	17.0	9	675
(3565)		1991	09	12.49387	01	11	45.95	-03	47	57.8		9	675
(3565)		1991	09	15.43576	01	10	13.76	-04	02	31.8	16.5	9	675
(3565)		1991	09	15.48368	01	10	12.14	-04	02	46.7		9	675
(3634)		1991	09	12.27431	22	00	08.29	-12	49	38.5	16.8	9	675
(3634)		1991	09	12.31458	22	00	06.33	-12	49	40.9		9	675
(3716)		1991	09	12.27431	22	22	40.91	-12	06	14.3	17.0	9	675
(3716)		1991	09	12.31458	22	22	39.19	-12	06	26.9		9	675
(3779)		1991	09	11.42639	02	16	58.39	-00	37	23.7		9	675
(3779)		1991	09	11.47940	02	16	57.36	-00	37	31.4		9	675
(3779)		1991	09	13.49769	02	16	18.62	-00	42	16.3	16.8	9	675

(3788)		1991	09	12.46921	01	16	36.10	-03	56	54.0			9	675
(3788)		1991	09	12.49387	01	16	35.27	-03	57	04.7			9	675
(3788)		1991	09	15.43576	01	14	56.69	-04	18	25.1		16.8	9	675
(3788)		1991	09	15.48368	01	14	54.96	-04	18	46.8			9	675
(3984)		1982	01	30.38854	08	52	54.96	+19	56	59.8			6	675
(3984)		1982	01	31.36285	08	51	54.20	+20	01	53.8			6	675
(4000)		1991	09	12.27431	22	19	24.60	-08	55	46.4		17.2	9	675
(4005)		1991	09	12.46921	00	58	42.73	-06	53	36.2			9	675
(4005)		1991	09	12.49387	00	58	41.74	-06	53	44.3			9	675
(4014)		1991	09	12.27431	22	12	10.40	-09	37	39.8		17.8	9	675
(4014)		1991	09	12.31458	22	12	08.86	-09	37	47.8			9	675
(4175)		1991	09	12.27431	22	06	38.03	-08	52	44.9		17.0	9	675
(4175)		1991	09	12.31458	22	06	36.24	-08	53	03.7		17.8	9	675
(4199)		1991	09	11.42639	01	56	03.72	+02	08	28.0			9	675
(4199)		1991	09	11.47940	01	56	02.78	+02	08	19.4			9	675
(4199)		1991	09	13.49769	01	55	28.20	+02	02	41.2		16.8	9	675
(4206)		1991	09	12.27431	22	11	49.39	-09	15	39.3		17.0	9	675
(4206)		1991	09	12.31458	22	11	47.60	-09	15	49.5			9	675
(4228)		1992	04	05.48923	15	17	24.20	-19	02	09.2			9	675
(4228)		1992	04	07.43263	15	16	30.18	-18	54	46.2			9	675
(4228)		1992	04	07.46979	15	16	28.98	-18	54	35.6			9	675
(4228)		1992	04	08.35277	15	16	02.47	-18	51	04.7		18.5	9	675
(4228)		1992	04	08.43107	15	15	59.90	-18	50	47.8			9	675
(4239)		1982	01	31.36285	08	53	22.10	+16	54	56.2			6	675
(4309)		1992	04	07.43263	15	04	03.63	-16	18	31.5			9	675
(4309)		1992	04	07.46979	15	04	02.63	-16	18	24.2			9	675
(4309)		1992	04	08.43107	15	03	29.28	-16	15	48.7		19.2	9	675
(4316)		1992	04	05.48923	15	22	23.31	-20	07	48.5			9	675
(4316)		1992	04	07.43263	15	21	30.69	-20	05	43.9			9	675
(4316)		1992	04	07.46979	15	21	29.50	-20	05	41.2			9	675
(4316)		1992	04	08.35277	15	21	03.92	-20	04	36.6		18.0	9	675
(4316)		1992	04	08.43107	15	21	01.52	-20	04	30.9			9	675
(4382)		1982	01	30.38854	08	35	08.19	+19	48	55.1			6	675
(4382)		1982	01	31.36285	08	34	10.55	+19	54	34.2			6	675
(4412)		1992	04	05.48923	15	19	23.68	-15	20	19.2			9	675
(4412)		1992	04	07.43263	15	18	30.73	-15	15	36.6			9	675
(4412)		1992	04	07.46979	15	18	29.80	-15	15	29.6			9	675
(4412)		1992	04	08.35277	15	18	04.27	-15	13	20.5		18.8	9	675
(4412)		1992	04	08.43107	15	18	01.91	-15	13	09.9			9	675
(4514)		1991	09	12.46921	01	13	55.98	-04	57	10.7		18.5	9	675
(4514)		1991	09	12.49387	01	13	55.05	-04	57	21.9			9	675
(4514)		1991	09	15.43576	01	11	54.68	-05	18	35.9		18.2	9	675
(4514)		1991	09	15.48368	01	11	52.57	-05	18	58.3			9	675
(4522)		1991	09	15.26962	22	02	56.43	-22	09	32.3			9	675
(4522)		1991	09	15.32083	22	02	54.86	-22	09	54.9		16.0	9	675
(4545)		1992	04	05.48923	15	09	55.42	-17	51	42.0			9	675
(4545)		1992	04	07.43263	15	08	53.16	-17	48	30.7			9	675
(4545)		1992	04	07.46979	15	08	51.84	-17	48	26.9			9	675
(4545)		1992	04	08.35277	15	08	22.31	-17	46	53.3		17.5	9	675
(4642)		1982	01	30.38854	08	43	05.30	+17	39	55.3			6	675
(4642)		1982	01	31.36285	08	42	18.54	+17	43	06.1			6	675
(4781)		1992	04	05.48923	15	26	08.15	-16	23	29.8			9	675
(4781)		1992	04	07.43263	15	25	13.55	-16	17	51.7			9	675
(4781)		1992	04	07.46979	15	25	12.51	-16	17	48.3			9	675
(4781)		1992	04	08.35277	15	24	45.62	-16	15	03.7		18.5	9	675
(4781)		1992	04	08.43107	15	24	42.87	-16	14	51.8			9	675
(4977)		1991	09	12.27431	22	19	59.75	-12	24	24.4		17.2	9	675
(4977)		1991	09	12.31458	22	19	57.51	-12	24	26.5			9	675
(5012)		1992	04	05.48923	15	05	11.45	-18	19	37.3			9	675

(5012)	1992 04 07.43263	15 04 27.79	-18 17 46.3			9	675
(5012)	1992 04 07.46979	15 04 26.76	-18 17 43.3			9	675
(5012)	1992 04 08.35277	15 04 06.13	-18 16 47.8	18.8		9	675
(5012)	1992 04 08.43107	15 04 04.41	-18 16 43.9			9	675
(5029)	1991 09 12.38744	01 35 53.18	-00 34 41.8	17.0		9	675
(5029)	1991 09 12.44227	01 35 50.99	-00 34 38.6			9	675
(5029)	1991 09 16.44878	01 33 05.49	-00 31 02.9			9	675
(5029)	1991 09 16.48472	01 33 03.86	-00 31 00.7	17.0		9	675
(5144)	1982 01 30.38854	08 49 59.15	+20 17 48.9	17.0	V	6	675
(5144)	1982 01 31.36285	08 49 29.63	+20 19 12.5			6	675
(5164)	1992 04 03.16267	06 30 11.56	+44 24 30.9	17.8		3	675
(5164)	1992 04 03.22500	06 30 22.20	+44 24 10.5			3	675
(5164)	1992 04 05.14652	06 35 53.67	+44 14 06.0			3	675
(5164)	1992 04 05.18871	06 36 00.93	+44 13 51.1			3	675

690 Lowell Observatory
E. Bowell, Lowell Observatory, 1400 West Mars Hill Road,
Flagstaff, AZ 86001, U.S.A.
Observers R. Burnham, C. Slaughter, C. W. Tombaugh
Measurer C. M. Olmstead
0.33-m photographic telescope

1959 EN	1959 03 06.30903	10 16 11.67	+12 49 52.4				690
1959 EN	1959 03 09.28472	10 13 12.93	+12 55 04.4				690
1983 XF	1939 12 05.19792	05 08 38.90	+23 05 18.8				690
1983 XF	1939 12 07.32894	05 06 58.93	+23 14 41.0				690
1983 XF	1939 12 09.20833	05 05 27.70	+23 22 58.5				690
1983 XF	1939 12 11.30556	05 03 41.82	+23 32 21.5				690
(123)	1930 10 17.29722	00 55 04.64	+16 58 31.2				690
(123)	1930 10 19.29861	00 53 19.24	+16 48 35.2				690
(642)	1930 10 15.21875	00 55 05.73	+07 57 24.4				690
(642)	1930 10 17.29722	00 53 25.72	+07 51 28.6				690
(642)	1930 10 19.29861	00 51 50.78	+07 45 49.4				690
(1062)	1930 10 15.21875	00 54 26.00	+11 11 42.5				690
(1062)	1930 10 17.29722	00 52 44.71	+11 03 59.6				690
(1062)	1930 10 19.29861	00 51 08.75	+10 56 28.1				690
(1400)	1930 10 15.21875	00 58 08.48	+12 36 46.6				690
(1400)	1930 10 19.29861	00 55 30.83	+11 51 15.2				690
(1959)	1930 10 15.21875	00 39 42.68	+16 46 50.6				690
(1959)	1930 10 17.29722	00 37 52.68	+16 31 39.4				690
(1959)	1930 10 19.29861	00 36 11.46	+16 16 49.4				690
(2184)	1930 10 15.21875	00 55 06.36	+13 19 28.2			I	690
(5022)	1930 10 17.29722	00 50 18.19	+13 11 12.4				690
(5022)	1930 10 19.29861	00 48 58.80	+12 55 58.3			P	690

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

1976 YF5	1992 03 26.19828	11 41 35.99	+00 30 03.3	17.4	V		691
1976 YF5	1992 03 26.21838	11 41 34.84	+00 30 09.2	17.3	V		691
1976 YF5	1992 03 26.23927	11 41 33.62	+00 30 15.6	17.3	V		691
1976 YF5	1992 04 07.15691	11 31 31.71	+01 26 24.1	18.1	V		691
1976 YF5	1992 04 07.18171	11 31 30.54	+01 26 29.5	18.1	V		691
1976 YF5	1992 04 07.20939	11 31 29.32	+01 26 36.4	18.1	V		691
1980 TC5	1992 03 25.12751	11 04 11.93	-04 36 10.2	18.7	V		691
1980 TC5	1992 03 25.14788	11 04 11.03	-04 36 02.9	18.4	V		691
1980 VA	1992 03 25.38192	13 03 40.49	-04 40 05.9	20.6	V		691

1980	VA		1992	03	25.40223	13	03	39.31	-04	39	57.7	20.0 V	691
1981	EX30		1992	03	30.32178	12	37	41.70	-00	59	28.6	19.9 V	691
1981	EX30		1992	03	30.34198	12	37	40.57	-00	59	21.6	19.7 V	691
1981	EX30		1992	03	30.36920	12	37	39.01	-00	59	10.2	19.5 V	691
1981	EP38		1992	04	07.38784	14	01	41.33	-08	32	30.1	19.9 V	691
1981	EP38		1992	04	07.41238	14	01	40.32	-08	32	19.9	19.8 V	691
1981	EP38		1992	04	07.43697	14	01	39.36	-08	32	09.8	19.9 V	691
1981	EW39		1992	04	09.11521	11	11	43.29	+05	55	30.0	20.9 V	691
1981	EW39		1992	04	09.13956	11	11	42.41	+05	55	30.2	20.2 V	691
1981	EW39		1992	04	09.16597	11	11	41.49	+05	55	30.7	20.4 V	691
1982	UM6		1992	04	09.26392	12	58	19.79	-07	41	43.0	18.5 V	691
1982	UM6		1992	04	09.28826	12	58	18.32	-07	41	35.2	18.6 V	691
1982	UM6		1992	04	09.31292	12	58	16.84	-07	41	27.6	18.5 V	691
1983	UC		1992	03	26.33022	12	38	40.45	+00	50	22.6	18.6 V	691
1983	UC		1992	03	26.35038	12	38	39.20	+00	50	27.9	18.8 V	691
1983	UC		1992	03	26.37397	12	38	37.72	+00	50	34.4	18.7 V	691
1985	VC1		1992	04	04.36603	13	47	54.66	-05	58	18.4	18.7 V	691
1985	VC1		1992	04	04.39550	13	47	53.05	-05	58	15.1	18.8 V	691
1985	VC1		1992	04	04.44129	13	47	50.59	-05	58	10.6	19.2 V	691
1989	SA3		1992	03	26.40383	13	17	50.98	+00	37	30.2	17.7 V	691
1989	SA3		1992	03	26.42531	13	17	50.05	+00	37	35.2	17.8 V	691
1989	SA3		1992	03	26.44541	13	17	49.19	+00	37	39.0	18.3 V	691
1990	QT2		1992	03	25.37073	12	47	31.42	-04	37	38.4	18.3 V	691
1990	QT2		1992	03	25.39104	12	47	30.19	-04	37	31.0	18.2 V	691
1990	TG3		1992	03	25.18405	11	52	40.72	-04	45	58.6	16.7 V	691
1990	TG3		1992	03	25.20530	11	52	39.63	-04	45	48.0	16.8 V	691
1992	HF	*	1992	04	24.33453	14	34	45.96	-12	57	47.4	19.1 V	691
1992	HF		1992	04	24.35526	14	34	43.19	-12	57	01.9	19.4 V	691
1992	HF		1992	04	24.37710	14	34	40.24	-12	56	13.3	19.1 V	691
1992	HF		1992	04	25.22992	14	32	50.39	-12	24	12.6	19.7 V	691
1992	HF		1992	04	25.25039	14	32	47.59	-12	23	25.1	19.7 V	691
1992	HF		1992	04	25.27074	14	32	44.71	-12	22	38.5	19.8 V	691
1992	HF		1992	04	25.36016	14	32	32.06	-12	19	13.1	19.2 V	691
1992	HF		1992	04	25.36903	14	32	30.83	-12	18	51.6	19.2 V	691
1992	HF		1992	04	25.37738	14	32	29.65	-12	18	32.5	19.3 V	691
1992	HF		1992	04	27.27940	14	28	05.64	-11	01	59.6	19.7 V	691
1992	HF		1992	04	27.32830	14	27	58.13	-10	59	56.1	19.1 V	691
1992	HF		1992	05	01.34576	14	17	25.29	-07	55	20.5	19.4 V	691
1992	HF		1992	05	01.35252	14	17	24.05	-07	54	59.9	19.6 V	691
1992	HF		1992	05	04.37256	14	08	22.92	-05	15	02.0	19.4 V	691
1992	HF		1992	05	04.38105	14	08	21.28	-05	14	33.4	19.5 V	691
1992	HF		1992	05	04.38997	14	08	19.51	-05	14	03.0	19.5 V	691
1992	JD	*	1992	05	03.18660	14	25	11.34	-09	32	07.8		691
1992	JD		1992	05	03.19577	14	25	16.61	-09	24	39.9	16.9 V	691
1992	JD		1992	05	03.20441	14	25	21.51	-09	17	36.9		691
1992	JD		1992	05	03.21465	14	25	27.39	-09	09	14.3		691
1992	JD		1992	05	03.22322	14	25	32.12	-09	02	16.7		691
1992	JD		1992	05	03.23191	14	25	36.92	-08	55	12.1		691
1992	JD		1992	05	03.26800	14	25	56.45	-08	25	48.0		691
1992	JD		1992	05	03.28842	14	26	07.19	-08	09	12.2		691
1992	JD		1992	05	03.34139	14	26	35.17	-07	26	09.5		691
1992	JD		1992	05	03.35793	14	26	43.96	-07	12	47.1		691
1992	JD		1992	05	03.42938	14	27	23.64	-06	15	01.6		691
1992	JD		1992	05	04.28404	14	37	11.90	+04	31	09.4		691
1992	JD		1992	05	04.31762	14	37	26.62	+04	54	43.3	17.2 V	691
1992	JD		1992	05	04.33005	14	37	32.07	+05	03	24.7		691
1992	JD		1992	05	04.43226	14	38	18.68	+06	13	50.3		691
1992	JD		1992	05	04.44072	14	38	22.85	+06	19	32.6		691
1992	JD		1992	05	04.44906	14	38	27.01	+06	25	11.9		691

1992 JD		1992	05	06.22236	14	54	38.73	+22 59 23.9	691
1992 JD		1992	05	06.22950	14	54	41.12	+23 02 40.4	691
1992 JD		1992	05	06.23693	14	54	43.49	+23 05 59.4 18.3 V	691
1992 JG	*	1992	05	02.30301	14	22	31.71	-09 29 34.5 18.4 V	691
1992 JG		1992	05	02.32757	14	22	29.72	-09 29 32.9 18.5 V	691
1992 JG		1992	05	02.35452	14	22	27.56	-09 29 31.1 18.5 V	691
1992 JG		1992	05	03.18399	14	21	25.03	-09 28 47.2 18.2 V	691
1992 JG		1992	05	03.19309	14	21	24.31	-09 28 46.6 18.1 V	691
1992 JG		1992	05	03.20166	14	21	23.62	-09 28 46.1 18.1 V	691
1992 JG		1992	05	03.39607	14	21	07.90	-09 28 37.1	691
1992 JG		1992	05	03.41192	14	21	06.66	-09 28 35.7	691
1992 JG		1992	05	04.39944	14	19	50.80	-09 27 50.2 18.4 V	691
1992 JG		1992	05	04.41011	14	19	49.97	-09 27 49.8 18.2 V	691
1992 JG		1992	05	04.42064	14	19	49.10	-09 27 49.1 18.5 V	691
3134 T-3		1992	04	07.34949	13	07	37.38	-06 03 07.0 18.4 V	691
3134 T-3		1992	04	07.37390	13	07	35.82	-06 02 54.8 18.4 V	691
(296)		1992	04	09.12732	11	29	12.31	+05 52 57.6 16.8 V	691
(296)		1992	04	09.15167	11	29	11.25	+05 53 03.8 16.9 V	691
(296)		1992	04	09.17808	11	29	10.10	+05 53 10.5 16.7 V	691
(548)		1992	03	30.39547	13	14	50.30	-00 57 36.2 15.3 V	691
(548)		1992	03	30.41572	13	14	49.08	-00 57 28.3 15.4 V	691
(548)		1992	03	30.43655	13	14	47.84	-00 57 20.4 15.5 V	691
(620)		1992	04	07.23673	12	30	00.75	-06 03 05.3 16.3 V	691
(620)		1992	04	07.26114	12	29	59.27	-06 03 00.4 15.8 V	691
(620)		1992	04	07.28550	12	29	57.80	-06 02 55.1 15.8 V	691
(688)		1992	03	26.33153	12	40	33.94	+00 37 19.3 15.5 V	691
(688)		1992	03	26.35170	12	40	32.98	+00 37 29.7 15.5 V	691
(688)		1992	03	26.37529	12	40	31.87	+00 37 41.9 15.5 V	691
(1086)		1992	04	04.27716	10	07	09.62	+05 12 47.8 15.5 V	691
(1086)		1992	04	04.29805	10	07	09.25	+05 12 49.2 15.2 V	691
(1086)		1992	04	04.31819	10	07	08.85	+05 12 50.6 15.3 V	691
(1170)		1992	03	26.20644	11	53	22.32	+00 41 43.1 15.6 V	691
(1170)		1992	03	26.22653	11	53	20.71	+00 41 41.9 15.6 V	691
(1170)		1992	03	26.24742	11	53	19.03	+00 41 40.9 15.6 V	691
(1619)		1992	03	26.40095	13	13	40.99	+00 20 16.2 16.2 V	691
(1619)		1992	03	26.42242	13	13	39.70	+00 20 22.9 16.2 V	691
(1619)		1992	03	26.44251	13	13	38.50	+00 20 28.9 16.6 V	691
(1759)		1992	04	09.12562	11	26	44.95	+05 48 04.9 19.4 V	691
(1759)		1992	04	09.14997	11	26	44.02	+05 48 11.6 19.3 V	691
(1759)		1992	04	09.17638	11	26	43.07	+05 48 18.2 19.2 V	691
(2312)		1992	04	04.36042	13	39	48.80	-05 51 36.2 17.2 V	691
(2312)		1992	04	04.38990	13	39	47.74	-05 51 31.3 17.5 V	691
(2777)		1992	04	04.35182	13	27	23.77	-06 15 21.8 16.8 V	691
(2777)		1992	04	04.38129	13	27	21.96	-06 15 16.1 17.0 V	691
(2823)		1992	04	01.34724	10	14	13.26	+04 52 53.9 18.1 V	691
(2823)		1992	04	01.36822	10	14	12.74	+04 52 59.4 18.4 V	691
(2886)		1992	03	30.31691	12	30	39.39	-00 55 39.4 16.5 V	691
(2886)		1992	03	30.33710	12	30	38.21	-00 55 32.0 16.5 V	691
(2886)		1992	03	30.36433	12	30	36.59	-00 55 21.8 16.5 V	691
(2949)		1992	04	09.13229	11	36	22.32	+05 45 19.6 16.6 V	691
(2949)		1992	04	09.15663	11	36	21.20	+05 45 29.0 16.6 V	691
(2949)		1992	04	09.18304	11	36	20.00	+05 45 39.1 16.5 V	691
(3304)		1992	04	07.23920	12	33	34.32	-06 08 09.8 20.4 V	691
(3304)		1992	04	07.26361	12	33	33.32	-06 08 02.8 21.0 V	691
(3646)		1992	04	09.11361	11	09	02.74	+05 41 16.7 18.9 V	691
(3646)		1992	04	09.13796	11	09	01.95	+05 41 22.1 18.4 V	691
(3646)		1992	04	09.16438	11	09	01.10	+05 41 25.4 18.6 V	691
(3654)		1992	03	30.26135	11	58	35.18	-00 56 06.0 18.7 V	691
(3654)		1992	03	30.27864	11	58	34.19	-00 55 59.3 18.6 V	691

(4133)	1992 03 25.12235	10 56 45.09	-04 30 41.4	16.5	V		691
(4133)	1992 03 25.14271	10 56 43.97	-04 30 40.2	16.5	V		691
(4272)	1992 04 04.36508	13 46 32.19	-06 17 18.8	19.0	V		691
(4272)	1992 04 04.39455	13 46 30.68	-06 17 05.3	18.2	V		691
(4272)	1992 04 04.44034	13 46 28.35	-06 16 43.8	19.0	V		691
(4372)	1992 04 09.27158	13 09 22.95	-07 31 45.4	18.2	V		691
(4372)	1992 04 09.29592	13 09 21.76	-07 31 39.0	18.1	V		691
(4372)	1992 04 09.32058	13 09 20.55	-07 31 32.3	18.2	V		691
(4432)	1992 04 09.11514	11 11 36.99	+05 49 56.6	19.9	V		691
(4432)	1992 04 09.13948	11 11 36.10	+05 50 02.2	19.8	V		691
(4432)	1992 04 09.16590	11 11 35.08	+05 50 07.8	19.9	V		691
(4686)	1992 04 04.27486	10 03 50.32	+05 27 36.8	19.4	V		691
(4686)	1992 04 04.29575	10 03 49.90	+05 27 41.7	19.1	V		691
(4686)	1992 04 04.31589	10 03 49.49	+05 27 47.0	18.9	V		691

760 Goethe Link
E. Bowell, Lowell Observatory, 1400 West Mars Hill Road,
Flagstaff, AZ 86001, U.S.A.
Observers P. E. Barnhart, S. F. Strother
Measurers B. A. Skiff, C. M. Olmstead
0.25-m refractor
PDS scanning microdensitometer
PPM, global solutions

1953 AR	*	1953 01 12.36458	08 40 04.73	+27 14 34.4	14.5	G	760
1953 AR		1953 01 12.40625	08 40 02.57	+27 15 12.0		G	760
(33)		1953 01 12.36458	08 44 24.24	+20 36 24.2		G	760
(33)		1953 01 12.40625	08 44 21.81	+20 36 33.4		G	760
(830)		1953 01 12.36458	08 51 38.61	+21 13 09.3	14.8	G	760
(830)		1953 01 12.40625	08 51 36.51	+21 13 16.3		G	760
(860)		1962 11 30.07633	03 13 34.94	+37 52 34.1	14.4		760
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(1180)		1953 01 12.36458	09 02 20.01	+22 45 46.2		G	760
(1180)		1953 01 12.40625	09 02 18.47	+22 45 56.7		G	760
(1358)		1953 01 12.36458	08 44 13.61	+21 25 29.8		G	760
(1358)		1953 01 12.40625	08 44 11.00	+21 25 38.3		G	760
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(1602)		1953 01 12.40625	08 55 41.55	+23 14 57.6		G	760
(1713)		1953 01 12.36458	08 59 25.04	+22 31 16.4		V	760
(1713)		1953 01 12.40625	08 59 22.64	+22 31 33.6		P	760
(1840)		1953 01 12.36458	08 49 17.30	+21 30 18.2		G	760
(1840)		1953 01 12.40625	08 49 15.14	+21 30 28.2		D	760
(2512)		1953 01 12.36458	08 55 10.61	+27 13 18.3		G	760
(2512)		1953 01 12.40625	08 55 08.04	+27 13 41.5		G	760
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(2855)		1962 11 30.12320	03 32 46.18	+34 55 14.8			760
(3060)		1953 01 12.36458	08 41 05.82	+23 34 44.1		G	760
(3060)		1953 01 12.40625	08 41 02.83	+23 34 49.3		G	760
(3221)		1953 01 12.36458	08 41 58.77	+22 21 48.8		G	760
(3221)		1953 01 12.40625	08 41 56.05	+22 22 04.1		G	760
(3243)		1953 01 12.36458	09 05 34.59	+26 20 56.5		G	760
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(4485)		1953 01 12.36458	08 55 05.12	+21 07 56.3		G	760
(4784)		1953 01 12.36458	08 53 05.72	+22 01 24.8		G	760
(4784)		1953 01 12.40625	08 53 03.50	+22 01 34.4		G	760

776 Foggy Bottom Observatory
T. J. Balonek, Dept. of Physics and Astronomy, Colgate University,
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1992 FO1	1992 04 07.14021	12 48 58.6	-04 54 39			776
1992 FO1	1992 04 07.14910	12 48 58.0	-04 54 36			776
1992 FO1	1992 04 07.20466	12 48 54.9	-04 54 13			776
1992 FO1	1992 04 07.22801	12 48 53.6	-04 54 03			776

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

1992 JB	1992 05 07.12933	15 26 39.99	+00 19 12.0			801
1992 JB	1992 05 07.13205	15 26 40.02	+00 19 24.3			801
1992 JL	1992 05 07.12595	15 15 08.13	+07 02 43.3			801
1992 JL	1992 05 07.13830	15 15 07.45	+07 02 44.0			801

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

1987 RU3	1992 02 02.17222	08 03 12.42	+14 57 54.0	18.5		809
1987 RU3	1992 02 02.18542	08 03 11.59	+14 57 56.5			809
1987 RU3	1992 02 02.19861	08 03 10.73	+14 57 59.6			809
1987 RU3	1992 02 06.17708	07 59 16.11	+15 12 23.8			809
1987 RU3	1992 02 06.19028	07 59 15.36	+15 12 26.4			809
1987 RU3	1992 02 06.20347	07 59 14.55	+15 12 29.6			809
1988 CH	1992 02 02.17222	08 04 11.83	+14 11 07.9	18.4		809
1988 CH	1992 02 02.18542	08 04 11.10	+14 11 12.8			809
1988 CH	1992 02 02.19861	08 04 10.43	+14 11 17.8			809
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1988 CH	1992 02 07.19997	08 00 24.36	+14 41 59.7			809
1988 CH	1992 02 07.21316	08 00 23.70	+14 42 03.8			809
1989 GP4	1992 01 30.18542	07 39 51.23	+10 52 17.8	19.2		809
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1989 GP4	1992 01 30.21181	07 39 49.44	+10 52 24.7			809
1989 GP4	1992 02 02.13056	07 37 05.32	+11 04 30.2			809
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1990 OO3	1992 02 02.24097	08 19 16.36	+15 26 31.9			809
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1990 SA1	1992 02 07.18677	08 08 25.85	+14 10 46.0			809
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1992 AB1	1992 01 30.18542	07 46 27.03	+12 58 58.4	18.3		809
1992 AB1	1992 01 30.19861	07 46 26.18	+12 59 00.0			809
1992 AB1	1992 01 30.21181	07 46 25.34	+12 59 01.2			809

1992 AB1		1992 02 02.13056	07 43 38.87	+13 03 29.6				809
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1992 BG		1992 01 30.21181	07 44 15.39	+13 37 17.8				809
1992 BG		1992 02 02.13056	07 41 27.95	+14 01 28.4				809
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1992 BH		1992 02 06.17708	07 45 57.08	+12 35 09.2				809
1992 BH		1992 02 06.19028	07 45 56.50	+12 35 17.0				809
1992 BH		1992 02 06.20347	07 45 55.87	+12 35 24.2				809
1992 BC1		1992 02 02.21458	08 10 00.09	+12 50 56.3		17.7		809
1992 BC1		1992 02 02.22778	08 09 59.33	+12 51 13.2				809
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1992 BB2	*	1992 01 30.18542	07 36 46.35	+11 54 14.0		18.8		809
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1992	BE2	*	1992	01	30.18542	07	40	05.35	+12 06 43.4	18.6 809
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1992	BE2		1992	02	02.13056	07	37	27.22	+12 21 31.1	809
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1992	BF2	*	1992	01	30.18542	07	40	08.92	+13 28 37.4	18.3 809
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1992	BG2	*	1992	01	30.18542	07	40	16.58	+15 38 37.7	19.5 809
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1992	BH2	*	1992	01	30.18542	07	41	20.22	+14 24 09.8	18.6 809
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1992	BH2		1992	01	30.21181	07	41	18.68	+14 24 11.0	809
1992	BH2		1992	02	02.13056	07	38	44.46	+14 25 37.2	19.0 809
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1992	BK2	*	1992	01	30.18542	07	41	32.99	+11 50 45.2	18.7 809
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1992	BL2	*	1992	01	30.18542	07	42	29.08	+15 33 07.2	18.0 809
1992	BL2		1992	01	30.19861	07	42	27.34	+15 32 55.9	809
1992	BL2		1992	01	30.21181	07	42	25.68	+15 32 45.0	809
1992	BL2		1992	02	02.13056	07	36	36.09	+14 51 27.3	809
1992	BL2		1992	02	02.14375	07	36	34.44	+14 51 16.7	809
1992	BL2		1992	02	02.15694	07	36	32.91	+14 51 05.5	809
1992	BM2	*	1992	01	30.18542	07	44	34.04	+13 57 59.7	18.1 809
1992	BM2		1992	01	30.19861	07	44	33.24	+13 58 02.4	809
1992	BM2		1992	01	30.21181	07	44	32.45	+13 58 05.3	809
1992	BM2		1992	02	02.13056	07	41	50.47	+14 08 47.4	809
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1992	BN2	*	1992	01	30.18542	07	47	32.58	+12 16 10.4	19.2 809

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1992 BO2	*	1992 01 30.18542	07 47 42.05	+12 42 53.3		18.6		809
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1992 BP2	*	1992 01 30.18542	07 48 28.40	+11 20 21.0		18.7		809
1992 BP2		1992 01 30.19861	07 48 27.54	+11 20 23.9				809
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1992 CM2		1992 02 06.20347	07 43 58.60	+14 05 20.2				809
1992 CN2	*	1992 02 02.17222	07 48 51.37	+12 44 48.6		19.3		809
1992 CN2		1992 02 02.18542	07 48 50.56	+12 44 46.1				809
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1992 CN2		1992 02 06.17708	07 45 14.50	+12 38 21.1				809
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1992 CO2	*	1992 02 02.17222	07 51 36.84	+13 01 27.6		19.4		809
1992 CO2		1992 02 02.18542	07 51 36.20	+13 01 29.5				809
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1992 CP2	*	1992 02 02.17222	07 53 29.80	+12 07 23.9		18.8		809
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1992 CQ2		1992 02 06.17708	07 50 43.99	+12 36 16.8			809
1992 CQ2		1992 02 06.19028	07 50 43.46	+12 36 20.6			809
1992 CQ2		1992 02 06.20347	07 50 42.84	+12 36 24.4			809
1992 CR2	*	1992 02 02.17222	07 53 48.44	+13 57 01.3	19.2		809
1992 CR2		1992 02 02.18542	07 53 47.58	+13 57 03.9			809
1992 CR2		1992 02 02.19861	07 53 46.79	+13 57 07.3			809
1992 CR2		1992 02 06.17708	07 49 48.01	+14 13 49.9			809
1992 CR2		1992 02 06.19028	07 49 47.19	+14 13 53.7			809
1992 CR2		1992 02 06.20347	07 49 46.35	+14 13 57.1			809
1992 CS2	*	1992 02 02.17222	07 54 02.85	+15 54 45.7	18.8		809
1992 CS2		1992 02 02.18542	07 54 02.08	+15 54 47.0			809
1992 CS2		1992 02 02.19861	07 54 01.24	+15 54 49.0			809
1992 CS2		1992 02 06.17708	07 50 23.53	+16 02 06.8			809
1992 CS2		1992 02 06.19028	07 50 22.79	+16 02 08.7			809
1992 CS2		1992 02 06.20347	07 50 22.08	+16 02 10.2			809
1992 CT2	*	1992 02 02.17222	07 56 02.74	+15 42 08.3	18.7		809
1992 CT2		1992 02 02.18542	07 56 02.00	+15 42 10.3			809
1992 CT2		1992 02 02.19861	07 56 01.34	+15 42 12.8			809
1992 CT2		1992 02 06.17708	07 53 00.17	+15 52 05.6			809
1992 CT2		1992 02 06.19028	07 52 59.55	+15 52 08.6			809
1992 CT2		1992 02 06.20347	07 52 58.93	+15 52 09.5			809
1992 CU2	*	1992 02 02.17222	07 56 53.74	+15 45 22.1	19.0		809
1992 CU2		1992 02 02.18542	07 56 53.10	+15 45 23.5			809
1992 CU2		1992 02 02.19861	07 56 52.50	+15 45 23.1			809
1992 CU2		1992 02 06.17708	07 53 48.83	+15 49 01.5			809
1992 CU2		1992 02 06.19028	07 53 48.29	+15 49 02.9			809
1992 CU2		1992 02 06.20347	07 53 47.59	+15 49 03.2			809
1992 CV2	*	1992 02 02.17222	07 58 55.86	+13 34 28.6	18.4		809
1992 CV2		1992 02 02.18542	07 58 55.08	+13 34 32.4			809
1992 CV2		1992 02 02.19861	07 58 54.27	+13 34 36.8			809
1992 CV2		1992 02 06.17708	07 55 24.71	+13 55 24.6			809
1992 CV2		1992 02 06.19028	07 55 24.04	+13 55 29.6			809
1992 CV2		1992 02 06.20347	07 55 23.28	+13 55 33.6			809
1992 CW2	*	1992 02 02.17222	07 59 10.36	+12 16 52.6	19.0		809
1992 CW2		1992 02 02.18542	07 59 09.41	+12 16 54.4			809
1992 CW2		1992 02 02.19861	07 59 08.41	+12 16 55.5			809
1992 CW2		1992 02 06.17708	07 55 23.48	+12 27 54.2			809
1992 CW2		1992 02 06.19028	07 55 22.70	+12 27 57.7			809
1992 CW2		1992 02 06.20347	07 55 22.00	+12 27 58.5			809
1992 CX2	*	1992 02 02.17222	07 59 11.20	+13 40 09.4	18.6		809
1992 CX2		1992 02 02.18542	07 59 10.45	+13 40 13.9			809
1992 CX2		1992 02 02.19861	07 59 09.68	+13 40 17.7			809
1992 CX2		1992 02 06.17708	07 55 41.59	+14 00 59.5			809
1992 CX2		1992 02 06.19028	07 55 40.90	+14 01 03.5			809
1992 CX2		1992 02 06.20347	07 55 40.14	+14 01 07.6			809
1992 CY2	*	1992 02 02.17222	07 59 40.12	+13 03 17.3	18.6		809
1992 CY2		1992 02 02.18542	07 59 39.41	+13 03 18.0			809
1992 CY2		1992 02 02.19861	07 59 38.74	+13 03 18.8			809
1992 CY2		1992 02 06.17708	07 56 31.19	+13 09 13.3			809
1992 CY2		1992 02 06.19028	07 56 30.48	+13 09 15.5			809
1992 CY2		1992 02 06.20347	07 56 29.88	+13 09 15.6			809
1992 CZ2	*	1992 02 02.17222	08 00 34.03	+13 05 53.3	19.1		809
1992 CZ2		1992 02 02.18542	08 00 33.02	+13 05 56.5			809
1992 CZ2		1992 02 02.19861	08 00 32.08	+13 05 59.1			809
1992 CZ2		1992 02 06.17708	07 56 30.38	+13 18 47.8			809
1992 CZ2		1992 02 06.19028	07 56 29.58	+13 18 50.1			809

1992 CZ2		1992 02 06.20347	07 56 28.73	+13 18 52.3				809
1992 CA3	*	1992 02 02.17222	08 01 08.83	+14 48 29.5		18.5		809
1992 CA3		1992 02 02.18542	08 01 07.95	+14 48 29.7				809
1992 CA3		1992 02 02.19861	08 01 07.14	+14 48 30.1				809
1992 CA3		1992 02 06.17708	07 57 13.64	+14 50 15.2				809
1992 CA3		1992 02 06.19028	07 57 12.81	+14 50 15.5				809
1992 CA3		1992 02 06.20347	07 57 12.02	+14 50 15.8				809
1992 CB3	*	1992 02 02.17222	08 02 35.52	+13 39 40.4		18.8		809
1992 CB3		1992 02 02.18542	08 02 34.69	+13 39 42.9				809
1992 CB3		1992 02 02.19861	08 02 33.92	+13 39 45.5				809
1992 CB3		1992 02 06.17708	07 58 59.42	+13 49 01.0				809
1992 CB3		1992 02 06.19028	07 58 58.70	+13 49 03.6				809
1992 CB3		1992 02 06.20347	07 58 57.93	+13 49 05.6				809
1992 CC3	*	1992 02 02.17222	08 02 52.68	+13 18 15.5		19.3		809
1992 CC3		1992 02 02.18542	08 02 52.09	+13 18 16.7				809
1992 CC3		1992 02 02.19861	08 02 51.26	+13 18 17.9				809
1992 CC3		1992 02 06.17708	07 59 27.76	+13 32 18.8				809
1992 CC3		1992 02 06.19028	07 59 26.94	+13 32 23.5				809
1992 CC3		1992 02 06.20347	07 59 26.21	+13 32 27.0				809
1992 CD3	*	1992 02 02.17222	08 03 41.75	+12 25 07.6		19.0		809
1992 CD3		1992 02 02.18542	08 03 41.06	+12 25 13.0				809
1992 CD3		1992 02 02.19861	08 03 40.32	+12 25 18.3				809
1992 CD3		1992 02 06.17708	08 00 17.31	+12 51 06.8				809
1992 CD3		1992 02 06.19028	08 00 16.61	+12 51 12.7				809
1992 CD3		1992 02 06.20347	08 00 15.83	+12 51 17.6				809
1992 CE3	*	1992 02 02.17222	08 06 15.32	+12 52 37.0		18.7		809
1992 CE3		1992 02 02.18542	08 06 14.54	+12 52 41.8				809
1992 CE3		1992 02 02.19861	08 06 13.79	+12 52 46.6				809
1992 CE3		1992 02 02.21458	08 06 12.95	+12 52 52.2		18.7		809
1992 CE3		1992 02 02.22778	08 06 12.12	+12 52 56.9				809
1992 CE3		1992 02 02.24097	08 06 11.22	+12 53 01.9				809
1992 CE3		1992 02 06.17708	08 02 50.10	+13 17 04.2				809
1992 CE3		1992 02 06.19028	08 02 49.35	+13 17 09.7				809
1992 CE3		1992 02 06.20347	08 02 48.64	+13 17 14.6				809
1992 CE3		1992 02 07.18677	08 02 01.54	+13 23 17.7				809
1992 CE3		1992 02 07.19997	08 02 00.85	+13 23 22.0				809
1992 CE3		1992 02 07.21316	08 02 00.12	+13 23 26.2				809
1992 CF3	*	1992 02 02.17222	08 06 29.21	+12 25 53.1		18.7		809
1992 CF3		1992 02 02.18542	08 06 28.29	+12 25 57.7				809
1992 CF3		1992 02 02.19861	08 06 27.47	+12 26 01.8				809
1992 CF3		1992 02 02.21458	08 06 26.64	+12 26 05.8		18.8		809
1992 CF3		1992 02 02.22778	08 06 25.69	+12 26 10.8				809
1992 CF3		1992 02 02.24097	08 06 24.78	+12 26 14.3				809
1992 CF3		1992 02 06.17708	08 02 24.57	+12 47 38.2				809
1992 CF3		1992 02 06.19028	08 02 23.73	+12 47 43.4				809
1992 CF3		1992 02 06.20347	08 02 22.89	+12 47 47.5				809
1992 CF3		1992 02 07.18677	08 01 25.33	+12 53 12.6				809
1992 CF3		1992 02 07.19997	08 01 24.42	+12 53 16.8				809
1992 CF3		1992 02 07.21316	08 01 23.69	+12 53 19.6				809
1992 CG3	*	1992 02 02.21458	08 06 19.10	+11 39 30.9		18.5		809
1992 CG3		1992 02 02.22778	08 06 18.34	+11 39 35.2				809
1992 CG3		1992 02 02.24097	08 06 17.56	+11 39 39.4				809
1992 CG3		1992 02 07.18677	08 02 02.86	+12 10 29.6				809
1992 CG3		1992 02 07.19997	08 02 02.16	+12 10 34.2				809
1992 CG3		1992 02 07.21316	08 02 01.49	+12 10 38.4				809
1992 CH3	*	1992 02 02.21458	08 10 33.70	+15 26 52.5		19.4		809
1992 CH3		1992 02 02.22778	08 10 33.06	+15 26 56.7				809
1992 CH3		1992 02 02.24097	08 10 32.33	+15 27 00.1				809
1992 CH3		1992 02 07.18677	08 06 03.96	+15 50 36.9				809

1992 CH3		1992	02	07.19997	08	06	03.00	+15	50	42.4		809
1992 CH3		1992	02	07.21316	08	06	02.07	+15	50	48.2		809
1992 CJ3	*	1992	02	02.21458	08	10	41.11	+13	59	21.8	18.6	809
1992 CJ3		1992	02	02.22778	08	10	40.41	+13	59	25.9		809
1992 CJ3		1992	02	02.24097	08	10	39.56	+13	59	30.5		809
1992 CJ3		1992	02	07.18677	08	06	16.85	+14	29	44.8		809
1992 CJ3		1992	02	07.19997	08	06	16.00	+14	29	50.4		809
1992 CJ3		1992	02	07.21316	08	06	15.45	+14	29	54.9		809
1992 CK3	*	1992	02	02.21458	08	15	28.96	+14	50	39.7	18.7	809
1992 CK3		1992	02	02.22778	08	15	27.99	+14	50	42.1		809
1992 CK3		1992	02	02.24097	08	15	27.21	+14	50	45.2		809
1992 CK3		1992	02	07.18677	08	10	41.71	+15	08	33.5		809
1992 CK3		1992	02	07.19997	08	10	40.90	+15	08	35.2		809
1992 CK3		1992	02	07.21316	08	10	40.20	+15	08	36.9		809
1992 CL3	*	1992	02	02.21458	08	24	05.06	+14	58	20.0	18.7	809
1992 CL3		1992	02	02.22778	08	24	04.03	+14	58	23.0		809
1992 CL3		1992	02	02.24097	08	24	03.17	+14	58	25.8		809
1992 CL3		1992	02	07.18677	08	18	34.97	+15	13	48.4		809
1992 CL3		1992	02	07.19997	08	18	33.94	+15	13	48.8		809
1992 CL3		1992	02	07.21316	08	18	33.04	+15	13	52.3		809
1992 CM3	*	1992	02	02.21458	08	24	40.42	+13	22	25.3	18.7	809
1992 CM3		1992	02	02.22778	08	24	39.50	+13	22	37.1		809
1992 CM3		1992	02	02.24097	08	24	38.54	+13	22	48.5		809
1992 CM3		1992	02	07.18677	08	19	34.85	+14	30	28.8		809
1992 CM3		1992	02	07.19997	08	19	33.95	+14	30	39.1		809
1992 CM3		1992	02	07.21316	08	19	33.01	+14	30	51.2		809
1992 CN3	*	1992	02	02.21458	08	24	54.34	+12	58	02.2	18.4	809
1992 CN3		1992	02	02.22778	08	24	53.42	+12	58	05.5		809
1992 CN3		1992	02	02.24097	08	24	52.52	+12	58	08.8		809
1992 CN3		1992	02	07.18677	08	19	46.13	+13	19	44.7		809
1992 CN3		1992	02	07.19997	08	19	45.29	+13	19	48.4		809
1992 CN3		1992	02	07.21316	08	19	44.38	+13	19	52.1		809
2642 P-L		1992	02	02.17222	07	48	17.42	+11	08	33.4	18.7	809
2642 P-L		1992	02	02.18542	07	48	16.62	+11	08	38.9		809
2642 P-L		1992	02	02.19861	07	48	15.77	+11	08	41.9		809
(163)		1992	02	02.21458	08	18	03.80	+14	22	34.1	16.0	809
(163)		1992	02	02.22778	08	18	02.98	+14	22	39.6		809
(163)		1992	02	02.24097	08	18	02.12	+14	22	46.0		809
(163)		1992	02	07.18677	08	13	57.50	+14	57	16.4		809
(163)		1992	02	07.19997	08	13	56.72	+14	57	21.9		809
(163)		1992	02	07.21316	08	13	55.93	+14	57	28.0		809
(211)		1992	02	02.21458	08	23	13.74	+15	04	29.9	15.0	809
(211)		1992	02	02.22778	08	23	13.00	+15	04	31.1		809
(211)		1992	02	02.24097	08	23	12.15	+15	04	33.6		809
(211)		1992	02	07.18677	08	19	06.92	+15	15	19.3		809
(211)		1992	02	07.19997	08	19	06.13	+15	15	21.1		809
(211)		1992	02	07.21316	08	19	05.38	+15	15	23.9		809
(226)		1992	02	07.18677	08	02	40.79	+16	09	00.0		809
(226)		1992	02	07.19997	08	02	40.11	+16	09	05.2		809
(226)		1992	02	07.21316	08	02	39.43	+16	09	09.6		809
(445)		1992	02	02.21458	08	09	23.18	+13	44	28.7	17.5	809
(445)		1992	02	02.22778	08	09	22.42	+13	44	28.0		809
(445)		1992	02	02.24097	08	09	21.68	+13	44	26.1		809
(445)		1992	02	07.18677	08	05	03.72	+13	38	04.0		809
(445)		1992	02	07.19997	08	05	02.95	+13	38	03.2		809
(445)		1992	02	07.21316	08	05	02.18	+13	38	01.8		809
(743)		1992	02	02.13056	07	46	23.61	+13	59	14.3	16.6	809
(743)		1992	02	02.14375	07	46	22.87	+13	59	16.7		809
(743)		1992	02	02.15694	07	46	22.15	+13	59	18.9		809

(743)	1992 02 02.17222	07 46 21.52	+13 59 20.6	16.8	809
(743)	1992 02 02.18542	07 46 20.78	+13 59 22.2		809
(743)	1992 02 02.19861	07 46 20.07	+13 59 24.4		809
(743)	1992 02 06.17708	07 43 14.10	+14 09 49.1		809
(743)	1992 02 06.19028	07 43 13.47	+14 09 51.1		809
(743)	1992 02 06.20347	07 43 12.76	+14 09 53.0		809
(1084)	1992 02 02.21458	08 23 12.89	+14 15 31.7	17.9	809
(1084)	1992 02 02.22778	08 23 12.11	+14 15 35.0		809
(1084)	1992 02 02.24097	08 23 11.32	+14 15 38.7		809
(1084)	1992 02 07.18677	08 18 51.78	+14 35 05.7		809
(1084)	1992 02 07.19997	08 18 50.97	+14 35 08.7		809
(1084)	1992 02 07.21316	08 18 50.26	+14 35 12.5		809
(1254)	1992 02 07.18677	08 18 02.70	+16 08 47.6	18.2	809
(1254)	1992 02 07.19997	08 18 02.03	+16 08 48.2		809
(1254)	1992 02 07.21316	08 18 01.21	+16 08 49.0		809
(1394)	1992 02 07.18677	08 14 52.20	+16 28 27.7	18.0	809
(1394)	1992 02 07.19997	08 14 51.47	+16 28 30.9		809
(1394)	1992 02 07.21316	08 14 50.69	+16 28 32.7		809
(1535)	1992 02 02.21458	08 25 45.00	+13 38 56.0	18.5	809
(1535)	1992 02 02.22778	08 25 44.30	+13 38 58.4		809
(1535)	1992 02 02.24097	08 25 43.60	+13 39 00.3		809
(1535)	1992 02 07.18677	08 21 55.12	+13 49 53.3		809
(1535)	1992 02 07.19997	08 21 54.42	+13 49 55.0		809
(1535)	1992 02 07.21316	08 21 53.74	+13 49 56.6		809
(1590)	1992 02 02.21458	08 14 34.21	+12 41 58.7	18.0	809
(1590)	1992 02 02.22778	08 14 33.28	+12 42 01.2		809
(1590)	1992 02 02.24097	08 14 32.38	+12 42 03.6		809
(1590)	1992 02 07.18677	08 09 24.05	+13 00 57.0		809
(1590)	1992 02 07.19997	08 09 23.16	+13 00 59.9		809
(1590)	1992 02 07.21316	08 09 22.28	+13 01 03.1		809
(2373)	1992 01 30.18542	07 47 20.25	+14 21 25.1	18.3	809
(2373)	1992 01 30.19861	07 47 19.53	+14 21 29.7		809
(2373)	1992 01 30.21181	07 47 18.84	+14 21 34.3		809
(2373)	1992 02 02.13056	07 44 57.32	+14 37 52.3		809
(2373)	1992 02 02.14375	07 44 56.66	+14 37 57.2		809
(2373)	1992 02 02.15694	07 44 55.96	+14 38 01.3		809
(2373)	1992 02 06.17708	07 41 53.31	+15 00 15.9	18.6	809
(2373)	1992 02 06.19028	07 41 52.74	+15 00 19.6		809
(2373)	1992 02 06.20347	07 41 52.18	+15 00 23.5		809
(2473)	1992 02 02.21458	08 16 35.29	+11 20 24.7	18.2	809
(2473)	1992 02 02.22778	08 16 34.41	+11 20 28.9		809
(2473)	1992 02 02.24097	08 16 33.57	+11 20 33.9		809
(2473)	1992 02 07.18677	08 11 55.39	+11 51 30.9		809
(2473)	1992 02 07.19997	08 11 54.63	+11 51 36.1		809
(2473)	1992 02 07.21316	08 11 53.84	+11 51 40.7		809
(2613)	1992 01 30.18542	07 50 01.37	+13 05 59.9	17.9	809
(2613)	1992 01 30.19861	07 50 00.60	+13 05 59.3		809
(2613)	1992 01 30.21181	07 49 59.90	+13 05 59.4		809
(2613)	1992 02 02.17222	07 47 27.58	+13 03 57.7	17.9	809
(2613)	1992 02 02.18542	07 47 26.83	+13 03 56.3		809
(2613)	1992 02 02.19861	07 47 26.12	+13 03 55.9		809
(2613)	1992 02 06.17708	07 44 13.41	+13 01 39.0		809
(2613)	1992 02 06.19028	07 44 12.72	+13 01 38.7		809
(2613)	1992 02 06.20347	07 44 12.05	+13 01 38.2		809
(3124)	1992 02 02.21458	08 08 47.78	+14 47 26.5	19.0	809
(3124)	1992 02 02.22778	08 08 47.08	+14 47 30.4		809
(3124)	1992 02 02.24097	08 08 46.40	+14 47 34.6		809
(3124)	1992 02 07.18677	08 04 41.26	+15 10 13.8		809
(3124)	1992 02 07.19997	08 04 40.52	+15 10 16.2		809

(3124)	1992 02 07.21316	08 04 39.94	+15 10 19.4			809
(3299)	1992 01 30.18542	07 49 12.72	+13 04 26.1	17.8		809
(3299)	1992 01 30.19861	07 49 11.86	+13 04 27.4			809
(3299)	1992 01 30.21181	07 49 10.98	+13 04 28.8			809
(3299)	1992 02 02.13056	07 46 20.01	+13 09 03.2			809
(3299)	1992 02 02.14375	07 46 19.22	+13 09 04.4			809
(3299)	1992 02 02.15694	07 46 18.38	+13 09 05.7			809
(3299)	1992 02 02.17222	07 46 17.54	+13 09 06.6	18.0		809
(3299)	1992 02 02.18542	07 46 16.67	+13 09 07.4			809
(3299)	1992 02 02.19861	07 46 15.86	+13 09 08.7			809
(3299)	1992 02 06.17708	07 42 41.48	+13 15 55.8			809
(3299)	1992 02 06.19028	07 42 40.67	+13 15 57.1			809
(3299)	1992 02 06.20347	07 42 39.93	+13 15 58.2			809
(3363)	1992 02 02.21458	08 19 48.02	+14 53 39.7	18.0		809
(3363)	1992 02 02.22778	08 19 47.24	+14 53 43.1			809
(3363)	1992 02 02.24097	08 19 46.47	+14 53 46.0			809
(3363)	1992 02 07.18677	08 15 34.96	+15 14 22.2			809
(3363)	1992 02 07.19997	08 15 34.22	+15 14 25.7			809
(3363)	1992 02 07.21316	08 15 33.51	+15 14 29.4			809
(3440)	1992 02 02.21458	08 20 28.71	+11 27 01.6	18.5		809
(3440)	1992 02 02.22778	08 20 28.03	+11 27 05.9			809
(3440)	1992 02 02.24097	08 20 27.32	+11 27 09.7			809
(3440)	1992 02 07.18677	08 16 23.50	+11 52 19.8			809
(3440)	1992 02 07.19997	08 16 22.77	+11 52 23.1			809
(3440)	1992 02 07.21316	08 16 22.19	+11 52 26.5			809
(4146)	1992 02 02.13056	07 26 34.43	+15 13 58.3			809
(4146)	1992 02 02.14375	07 26 33.75	+15 14 02.0			809
(4146)	1992 02 02.15694	07 26 33.06	+15 14 06.3			809
(4160)	1992 02 02.21458	08 16 20.36	+12 13 06.3	18.3		809
(4160)	1992 02 02.22778	08 16 19.54	+12 13 10.0			809
(4160)	1992 02 02.24097	08 16 18.72	+12 13 13.5			809
(4160)	1992 02 07.18677	08 11 41.12	+12 37 53.6			809
(4160)	1992 02 07.19997	08 11 40.33	+12 37 57.0			809
(4160)	1992 02 07.21316	08 11 39.52	+12 38 00.8			809
(4182)	1992 02 02.17222	07 52 38.39	+13 19 28.8	18.6		809
(4182)	1992 02 02.18542	07 52 37.65	+13 19 29.2			809
(4182)	1992 02 02.19861	07 52 36.95	+13 19 30.1			809
(4182)	1992 02 06.17708	07 49 20.64	+13 25 58.4			809
(4182)	1992 02 06.19028	07 49 20.10	+13 25 59.1			809
(4182)	1992 02 06.20347	07 49 19.34	+13 25 59.8			809
(4614)	1992 02 02.21458	08 26 35.31	+13 05 49.8	18.6		809
(4614)	1992 02 02.22778	08 26 34.48	+13 05 54.0			809
(4614)	1992 02 02.24097	08 26 33.60	+13 05 58.0			809
(4614)	1992 02 07.18677	08 21 32.36	+13 31 16.6			809
(4614)	1992 02 07.19997	08 21 31.49	+13 31 19.6			809
(4614)	1992 02 07.21316	08 21 30.61	+13 31 23.9			809
(4832)	1992 01 30.18542	07 47 59.67	+14 11 48.0	18.6		809
(4832)	1992 01 30.19861	07 47 59.22	+14 11 50.7			809
(4832)	1992 01 30.21181	07 47 58.78	+14 11 53.1			809
(4832)	1992 02 02.13056	07 46 33.71	+14 21 22.4			809
(4832)	1992 02 02.14375	07 46 33.30	+14 21 24.9			809
(4832)	1992 02 02.15694	07 46 32.92	+14 21 27.5			809
(5172)	1992 02 02.21458	08 13 27.35	+13 21 30.6	18.6		809
(5172)	1992 02 02.22778	08 13 26.57	+13 21 32.1			809
(5172)	1992 02 02.24097	08 13 25.72	+13 21 33.8			809
(5172)	1992 02 07.18677	08 08 31.13	+13 35 36.5			809
(5172)	1992 02 07.19997	08 08 30.25	+13 35 38.7			809
(5172)	1992 02 07.21316	08 08 29.35	+13 35 41.8			809

885 JCPM Yakiimo Station
T. Urata, 6-1, Muramatsuhara 1 Chome, Shimizu, Shizuoka-Ken 424, Japan
Observers A. Natori, T. Urata
Measurer T. Urata
0.20-m f/4.0 hyperboloid astrocamera
GSC

1990 YH		1992 04 30.47813	13 42 07.58	+05 57 52.7	16.5		885
1990 YH		1992 04 30.48576	13 42 07.27	+05 57 56.5			885
1990 YH		1992 05 01.54444	13 41 24.24	+06 01 03.2	16.5		885

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

1933 FE1		1992 04 23.57014	13 44 09.29	-14 55 54.0	16.0	E	886
1979 SA8		1992 04 12.58681	14 00 31.75	-13 06 42.3	16.5		886
1979 SA8		1992 04 12.59444	14 00 31.32	-13 06 41.8			886

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

1992 FT1		1992 04 11.70069	12 12 52.41	-05 03 19.5	16.5		894
1992 FT1		1992 04 11.71285	12 12 51.87	-05 03 17.1			894
1992 HA	*	1992 04 21.56563	14 05 37.53	-10 23 49.0	16.5		894
1992 HA		1992 04 21.57639	14 05 36.78	-10 23 49.4			894
1992 HA		1992 04 22.57986	14 04 32.26	-10 22 36.2			894
1992 HA		1992 04 27.62674	13 59 07.61	-10 16 36.7	16.5		894
1992 HA		1992 04 27.63993	13 59 06.60	-10 16 35.3			894
1992 HA		1992 05 05.57413	13 50 58.02	-10 09 33.5	16.8		894
1992 HA		1992 05 05.58681	13 50 57.36	-10 09 31.0			894
1992 HA		1992 05 05.60000	13 50 56.58	-10 09 31.8			894
1992 HG	*	1992 04 27.65382	14 16 02.07	-13 32 25.8	16.7		894
1992 HG		1992 04 27.66701	14 16 01.40	-13 32 21.4			894
1992 HG		1992 05 03.66354	14 11 35.20	-12 55 16.5	16.5		894
1992 HG		1992 05 03.67656	14 11 34.58	-12 55 07.5			894
1992 HG		1992 05 05.61406	14 10 10.66	-12 43 15.4	16.7		894
1992 HG		1992 05 05.62743	14 10 10.00	-12 43 09.1			894
1992 JB		1992 05 05.67847	15 25 57.37	-01 33 22.6			894
(3048)		1992 03 30.67882	12 57 59.99	-07 33 08.5			894
(3048)		1992 03 30.69201	12 57 59.16	-07 33 01.8			894

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

1992 HC	*	1992 04 22.54583	14 45 06.48	-06 25 17.9	16.5		896
1992 HC		1992 04 22.57708	14 45 04.68	-06 25 14.9			896
1992 HC		1992 04 25.62708	14 42 11.41	-06 19 31.4			896
1992 HC		1992 04 25.65764	14 42 09.61	-06 19 29.2			896
1992 HD	*	1992 04 22.58715	14 44 02.95	-09 37 46.1	16.5		896
1992 HD		1992 04 22.61285	14 44 01.64	-09 37 40.1			896
1992 HD		1992 04 25.63715	14 41 31.55	-09 25 22.2			896
1992 HD		1992 04 25.66771	14 41 29.86	-09 25 15.5			896

1992 HD		1992 04 27.65694	14 39 49.23	-09 17 20.1				896
1992 HH	*	1992 04 30.56667	15 08 49.35	+00 35 41.6	17.0		r	896
1992 HH		1992 04 30.59792	15 08 47.63	+00 35 43.5			r	896
1992 HH		1992 05 03.66667	15 05 57.97	+00 37 50.7				896
1992 HH		1992 05 03.69375	15 05 56.06	+00 37 52.9				896
1992 HH		1992 05 05.65347	15 04 06.78	+00 38 10.9				896
1992 HH		1992 05 05.67569	15 04 05.51	+00 38 12.8				896
1992 HJ	*	1992 04 30.69931	15 10 20.45	-08 16 44.9	16.0		W	896
1992 HJ		1992 04 30.72361	15 10 19.04	-08 16 40.3			W	896
1992 HJ		1992 05 03.65625	15 07 36.00	-08 05 59.4				896
1992 HJ		1992 05 03.68333	15 07 34.28	-08 05 54.8				896
1992 HL	*	1992 04 30.56667	15 10 34.85	+01 35 53.9	16.5		W	896
1992 HL		1992 04 30.59792	15 10 33.62	+01 36 21.1			W	896
1992 HL		1992 05 05.65347	15 07 04.9	+02 43 49				896
1992 HL		1992 05 05.67569	15 07 03.6	+02 44 09				896
(1107)		1992 04 30.69931	15 10 42.20	-08 13 03.2	14.5			896
(1107)		1992 04 30.72361	15 10 41.04	-08 12 59.5				896

* * * * *

ORBITAL ELEMENTS.

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

is used, and the columns headed Arc and O show the time span in days covered by the observations and the number of observations utilized in the computation (0 = 10 or more). In the note column N, D means that there are double (or multiple) designations, E means that the value of the eccentricity was assumed, F means both; the double designations are listed at the end; the codes for the orbit computers (column C) are as listed above.

Comet Shoemaker (1984 XV)
Epoch 1984 Sept. 17.0 TT = JDT 2445960.5

T 1984 Sept. 3.56105 TT				Marsden
q 5.4891590		(2000.0)	P	Q
z +0.0008728	Peri.	182.83081	+0.56683236	+0.82375013
+/-0.0000018	Node	238.30090	+0.75612195	-0.51455515
e 0.9952091	Incl.	179.21234	+0.32707901	-0.23805192

From 51 observations 1982 Jan. 30-1991 Nov. 2, mean residual 0".91.

Periodic Comet Mueller 4 (1992g)

T 1992 Feb. 15.83121 TT				Nakano
q 2.6405757		(2000.0)	P	Q
n 0.10967170	Peri.	43.47077	-0.93620487	+0.20954629
a 4.3225465	Node	145.44602	-0.20945819	-0.97733128
e 0.3891157	Incl.	29.83248	+0.28221927	-0.03023105
P 8.99				

From 9 observations 1992 Apr. 9-May 3.

Comet Helin-Alu (1991r)
Epoch 1992 Feb. 28.0 TT = JDT 2448680.5

T 1992 Feb. 19.89305 TT				Nakano
q 4.8499121		(2000.0)	P	Q
z 0.0000028	Peri.	30.78631	+0.07852209	+0.68165944
+/-0.0000166	Node	253.65371	-0.99686918	+0.04689621
e 0.9999863	Incl.	49.29586	-0.00928001	+0.73016516

From 36 observations 1991 June 13-1992 May 3, mean residual 0".90.

Comet Tanaka-Machholz (1992d)

T 1992 Apr. 22.68789 TT				Marsden
q 1.2621316		(2000.0)	P	Q
	Peri.	65.47313	+0.35665524	-0.39541422
	Node	300.51669	-0.60478834	+0.59282661
e 1.0	Incl.	79.27425	+0.71205906	+0.70157267

From 83 observations 1992 Apr. 1-30.

Periodic Comet Shoemaker-Levy 8 (1992f)

T 1992 June 19.17652 TT				Nakano
q 2.7104569		(2000.0)	P	Q
n 0.13196625	Peri.	23.78171	-0.54277185	+0.83785406
a 3.8208571	Node	213.43083	-0.78655484	-0.53142548
e 0.2906155	Incl.	6.07483	-0.29449991	-0.12485000
P 7.47				

From 19 observations 1992 Mar. 30-May 2.

Comet Spacewatch (1992h)

T 1993 Sept. 7.64845 TT				Marsden
q 3.1551061		(2000.0)	P	Q
	Peri.	80.63894	-0.37366015	+0.86949241
	Node	203.26451	+0.09855696	+0.38352216
e 1.0	Incl.	125.12532	+0.92231481	+0.31127754

From 13 observations 1992 May 1-4.

Periodic Comet de Vico-Swift
Epoch 1995 Mar. 24.0 TT = JDT 2449800.5
T 1995 Apr. 9.46602 TT Nakano

q	2.1454496	(2000.0)	P	Q
n	0.13472879	Peri. 1.92895	+0.99986030	-0.01661530
a	3.7684474	Node 359.01752	+0.01355884	+0.86995420
e	0.4306808	Incl. 6.09606	+0.00977454	+0.49285253
P	7.32			

From 18 observations 1894-1965, mean residual 2".03.

Periodic Comet Finlay
Epoch 1995 May 3.0 TT = JDT 2449840.5
T 1995 May 5.04180 TT Nakano

q	1.0355636	(2000.0)	P	Q
n	0.14583049	Peri. 323.54016	+0.99442959	-0.09627032
a	3.5746799	Node 42.04801	+0.10532095	+0.89149570
e	0.7103059	Incl. 3.67392	+0.00415846	+0.44268210
P	6.76			

From 18 observations 1967-1988, mean residual 0".98. Nongravitational parameters A1 = +0.10 +/- 0.05, A2 = +0.0177 +/- 0.0002.

Periodic Comet Clark
Epoch 1995 June 12.0 TT = JDT 2449880.5
T 1995 May 31.24486 TT Nakano

q	1.5525026	(2000.0)	P	Q
n	0.17902338	Peri. 208.84473	-0.03074273	+0.98930518
a	3.1179050	Node 59.72130	-0.88244726	+0.04012888
e	0.5020687	Incl. 9.50346	-0.46940570	-0.14023170
P	5.51			

From 77 observations 1973-1989, mean residual 0".79. Nongravitational parameters A1 = +0.99 +/- 0.04, A2 = +0.0017 +/- 0.0012, A3 = +0.34 +/- 0.01.

Periodic Comet d’Arrest
Epoch 1995 July 22.0 TT = JDT 2449920.5
T 1995 July 27.36197 TT Yeomans

q	1.3458686	(2000.0)	P	Q
n	0.15136061	Peri. 178.05038	+0.73308719	+0.64380853
a	3.4870711	Node 138.98743	-0.62844662	+0.76449244
e	0.6140404	Incl. 19.52321	-0.26007309	-0.03258662
P	6.51			

From 250 observations 1963-1988, mean residual 1".5. Nongravitational parameters A1 = +0.25 +/- 0.01, A2 = +0.1146 +/- 0.0004.

Periodic Comet Tuttle-Giacobini-Kresak
Epoch 1995 July 22.0 TT = JDT 2449920.5
T 1995 July 28.64687 TT Nakano

q	1.0652223	(2000.0)	P	Q
n	0.18055409	Peri. 61.70144	-0.91206057	+0.39772496
a	3.1002579	Node 141.49644	-0.40937345	-0.86913110
e	0.6564085	Incl. 9.22475	-0.02364104	-0.29398295
P	5.46			

From 46 observations 1973-1989, mean residual 1".81. Nongravitational parameters A1 = -0.21 +/- 0.10, A2 = -0.0056 +/- 0.0005.

Periodic Comet Reinmuth 1
Epoch 1995 Aug. 31.0 TT = JDT 2449960.5
T 1995 Sept. 3.31665 TT Marsden

q	1.8736009	(2000.0)	P	Q
n	0.13486210	Peri. 13.28787	-0.68036428	-0.72251639
a	3.7659634	Node 119.74122	+0.65880915	-0.67635263
e	0.5024910	Incl. 8.12915	+0.32105287	-0.14323821
P	7.31			

From 107 observations 1934-1988, mean residual 1".1. Nongravitational parameters A1 = +0.20 +/- 0.01, A2 = -0.0146 +/- 0.0003.

Periodic Comet Schwassmann-Wachmann 3
Epoch 1995 Oct. 10.0 TT = JDT 2450000.5
T 1995 Sept. 22.75715 TT Marsden

q	0.9327753	(2000.0)	P	Q
n	0.18443165	Peri. 198.77446	-0.02831136	+0.98213346
a	3.0566503	Node 69.94644	-0.88989285	+0.06000812
e	0.6948374	Incl. 11.42302	-0.45529021	-0.17836168
P	5.34			

From 55 observations 1979-1990, mean residual 1".2.

Periodic Comet Jackson-Neujmin
Epoch 1995 Oct. 10.0 TT = JDT 2450000.5
T 1995 Oct. 6.61876 TT Forti

q	1.3811252	(2000.0)	P	Q
n	0.11962724	Peri. 200.34697	+0.99666523	-0.02710747
a	4.0792719	Node 160.71768	+0.04099022	+0.98188686
e	0.6614285	Incl. 13.47785	-0.07055646	+0.18751903
P	8.24			

From 27 observations 1970-1987, mean residual 0".5. Nongravitational parameters A1 = +0.83 +/- 0.05, A2 = -0.0042 +/- 0.0016.

Periodic Comet Longmore
Epoch 1995 Oct. 10.0 TT = JDT 2450000.5
T 1995 Oct. 9.32015 TT Muraoka

q	2.3989695	(2000.0)	P	Q
n	0.14123944	Peri. 195.79735	-0.85963329	+0.49859137
a	3.6517305	Node 15.65588	-0.41249440	-0.54850950
e	0.3430595	Incl. 24.40989	-0.30146139	-0.67122573
P	6.98			

From 37 observations 1975-1988, mean residual 0".64. Nongravitational parameters A1 = -0.08 +/- 0.51, A2 = -0.0661 +/- 0.0062.

Periodic Comet Perrine-Mrkos
Epoch 1995 Nov. 19.0 TT = JDT 2450040.5
T 1995 Dec. 6.04814 TT Nakano

q	1.2929296	(2000.0)	P	Q
n	0.14566434	Peri. 166.54182	+0.67006655	-0.69266960
a	3.5773977	Node 240.62933	+0.64955149	+0.72115605
e	0.6385838	Incl. 17.83227	+0.35929610	-0.01194907
P	6.77			

From 17 observations 1961-1968, mean residual 1".87.

Periodic Comet Honda-Mrkos-Pajdusakova
Epoch 1995 Dec. 29.0 TT = JDT 2450080.5
T 1995 Dec. 25.92969 TT Marsden

q	0.5319294	(2000.0)	P	Q
n	0.18709987	Peri.	326.06051	+0.56878571	-0.81914017
a	3.0275203	Node	89.16686	+0.77012062	+0.49876982
e	0.8243020	Incl.	4.25050	+0.28878548	+0.28326321
P	5.27				

From 31 observations 1974-1990, mean residual 1".1. Nongravitational parameters A1 = -0.40 +/- 0.12, A2 = -0.0495 +/- 0.0002.

One-opposition minor planets

Planet	H	Epoch	M	Peri.	Node	Incl.	e	a	Arc	O	N	C
1982 BB14	11.5	820131	10.98	162.67	319.01	18.98	0.0113	3.2086	21	4	D	N
1991 GW10	15.2	910414	4.06	187.07	15.17	10.77	0.1077	2.9878	11	9	D	N
1991 PC1	14.6	910901	21.02	327.30	345.91	18.59	0.0670	1.9407	28	9		E
1991 PX10	15.0	910901	357.68	165.91	185.17	8.49	0.2005	2.2101	63	0		W
1991 PP11	14.0	910901	22.14	122.00	185.73	9.55	0.3043	2.8861	61	6		W
1991 PP12	15.5	910901	331.17	70.91	310.55	1.90	0.2461	2.3605	38	7		E
1991 PQ12	12.3	910901	55.47	90.87	173.88	1.07	0.1307	3.1526	38	5		E
1991 PR12	12.7	910901	8.68	82.77	239.58	0.41	0.1414	3.2071	38	5		E
1991 PS12	11.8	910901	223.69	322.77	153.56	13.92	0.0811	2.6819	38	5		E
1991 PT12	12.9	910901	336.42	303.77	57.86	0.89	0.0833	2.7973	38	5		E
1991 PV12	13.8	910901	5.33	357.49	329.64	14.02	0.1782	2.8912	38	4		E
1991 PY12	13.5	910901	284.04	102.32	328.51	12.17	0.1734	2.6848	38	5		E
1991 PZ12	14.5	910901	306.76	79.74	322.47	5.56	0.1303	2.4315	38	5		E
1991 PA13	13.6	910901	16.48	350.10	324.97	5.75	0.1172	2.7369	38	5		E
1991 PD13	15.1	910901	5.93	341.94	344.93	2.72	0.2228	2.5739	38	5		E
1991 PE13	14.1	910901	32.43	318.08	328.81	7.03	0.2171	2.6870	38	5		E
1991 PM13	13.7	910901	40.55	278.88	357.73	4.06	0.2058	2.3027	38	7		N
1991 PO13	14.0	910901	7.09	338.17	348.42	5.08	0.1821	2.2928	38	5		E
1991 PC16	13.2	910901	3.58	243.31	83.71	0.49	0.2072	3.1552	37	6		E
1991 PO18	14.0	910901	42.14	290.49	345.33	5.75	0.2130	2.2597	36	6		E
1991 RL2	14.0	910901	343.72	23.18	343.33	12.56	0.3056	2.6423	8	6		W
1991 RC6	14.0	910921	4.24	338.15	20.91	13.54	0.1965	2.5452	4	0		E
1991 RD6	14.3	910921	352.50	245.94	129.64	4.96	0.1288	2.3150	4	9		E
1991 RK8	13.4	910921	61.79	252.75	42.43	9.91	0.1138	2.7089	3	6		E
1991 RZ14	14.0	910901	355.88	155.35	200.60	1.16	0.1299	2.8787	5	0	E	W
1991 RA15	13.5	910901	41.21	147.58	143.38	0.08	0.2098	3.2355	11	0		W
1991 RC15	14.5	910901	11.26	159.57	172.52	0.63	0.2348	2.9719	10	8		W
1991 RJ15	15.0	910901	357.34	3.02	351.88	4.51	0.1407	2.6208	4	6	E	W
1991 RK15	14.5	910921	13.01	335.16	3.98	5.10	0.1571	2.2979	29	0		W
1991 RO17	13.5	910901	351.37	321.85	39.51	1.00	0.1042	3.0756	5	7	E	W
1991 RP17	14.0	910901	34.33	301.82	349.84	11.70	0.2685	2.5616	11	8		W
1991 RB25	13.1	910921	38.60	258.22	63.10	9.52	0.1550	2.6645	5	7		E
1991 RC25	12.6	910921	16.84	248.20	103.23	7.43	0.1668	3.1703	5	7		E
1991 RD25	14.3	910921	21.95	221.82	116.87	6.92	0.1931	2.3205	5	7		E
1991 SL2	11.6	910921	325.20	347.38	66.86	10.44	0.1747	3.1650	5	6		E
1991 TN	14.0	910921	157.34	112.16	96.99	5.60	0.1099	2.3506	33	5		E
1991 TO	15.7	910921	0.24	246.01	122.16	5.14	0.1147	2.2584	33	6		E
1991 TQ	13.2	910921	48.97	242.28	68.58	6.77	0.1231	2.9997	33	7		E
1991 TS	14.5	910921	38.61	192.48	130.65	6.34	0.1064	2.4155	33	9		E
1991 TH1	14.5	911011	358.60	2.39	18.42	22.96	0.2228	2.2970	54	0		E
1991 TY1	14.3	911011	358.48	219.21	164.05	13.30	0.2945	2.6686	53	0		E
1991 TC4	12.7	911011	29.63	176.97	163.55	13.67	0.1864	2.5892	53	9		E
1991 TB6	13.5	910921	21.64	306.97	37.57	16.27	0.1449	2.5764	27	7		W
1992 AJ1	12.5	920119	278.42	305.01	273.07	5.06	0.1032	2.5222	27	0		M
1992 BC1	14.0	920119	39.79	274.11	136.03	22.22	0.3153	2.3271	8	0		M
1992 CM2	14.5	920119	23.60	151.42	290.16	18.72	0.2313	3.1508	7	9		M

1992 CE3	16.0	920119	346.86	321.78	177.91	4.67	0.1628	2.3271	5	0		M
1992 CF3	15.0	920119	276.79	39.06	184.10	5.12	0.1566	2.2586	5	0		M
1992 CN3	14.7	920208	314.91	330.37	213.86	3.26	0.0946	2.2172	14	8		N
1992 EE	14.0	920319	334.64	216.76	352.55	6.48	0.1671	2.3453	36	8		N
1992 EA1	14.0	920319	36.71	225.00	259.48	11.94	0.1617	2.6693	21	8		W
1992 EC1	15.0	920228	8.07	319.17	191.02	26.00	0.2683	2.5763	55	6		W
1992 EE1	13.0	920408	1.49	160.18	28.53	26.79	0.1835	2.3621	43	0		N
1992 EM1	13.2	920408	52.33	25.71	100.81	11.43	0.1568	2.3682	31	8		N
1992 FH	13.0	920408	276.41	255.00	37.12	3.88	0.1583	2.1832	31	0		N
1992 FO	11.0	920319	167.37	297.80	76.07	3.13	0.1752	2.9672	5	8	E	N
1992 FQ	11.7	920319	169.23	1.33	10.33	13.07	0.2708	2.2501	5	6	E	N
1992 FR	13.5	920319	349.13	19.50	180.27	7.26	0.1907	2.2885	5	8		N
1992 FZ	11.9	920428	46.45	158.16	355.01	9.14	0.0900	3.1082	37	9		N
1992 FB1	11.8	920319	34.70	340.26	161.86	14.60	0.0912	2.7223	15	6		N
1992 FH1	12.5	920408	58.45	19.57	92.98	3.42	0.2221	2.3689	32	6		N
1992 FK1	14.5	920408	15.34	237.71	274.30	22.15	0.2467	2.2769	35	4		W
1992 FM1	14.0	920408	18.68	200.95	345.32	24.72	0.1154	2.2634	35	9		W
1992 FO1	13.0	920319	301.10	79.68	190.79	2.27	0.2009	2.4417	8	0		M
1992 FT1	13.5	920408	8.70	185.78	354.10	5.28	0.1616	2.4184	12	8		N
1992 FV1	12.1	920408	350.15	168.90	46.58	8.71	0.1676	2.5976	25	7		N
1992 FW1	15.0	920319	44.81	267.82	191.82	22.61	0.2678	2.3339	50	8		W
1992 FX1	12.8	920408	328.98	45.15	178.55	7.44	0.1594	2.3237	15	6		N
1992 FY1	12.7	920408	45.06	83.38	49.71	8.84	0.0729	2.3466	12	6		N
1992 FA2	12.1	920408	141.07	331.55	72.40	6.54	0.0877	2.7286	10	6		N
1992 FB2	13.4	920408	38.96	62.00	80.94	5.86	0.1234	2.2900	10	6		N
1992 FC2	13.7	920408	346.42	221.36	352.87	1.59	0.2479	2.4924	31	6		N
1992 GA	14.0	920408	0.80	252.87	309.55	11.62	0.1176	2.6272	7	0		W
1992 GC	13.0	920408	287.00	269.23	25.64	18.37	0.1980	2.8133	8	6		N
1992 GH	14.0	920408	206.54	8.43	352.12	19.31	0.0763	1.8628	21	8		W
1992 GJ	15.5	920408	5.69	233.85	320.69	10.44	0.1722	2.5396	2	4		W
1992 GK	13.5	920408	45.95	186.16	331.19	20.76	0.1097	2.6905	2	4	E	W
1992 GP	12.6	920408	327.98	63.71	183.39	11.98	0.1137	2.3809	24	6		N
1992 GQ	12.4	920408	21.82	68.98	100.17	9.31	0.1647	3.1189	29	6		N
1992 HA	13.5	920428	324.64	214.04	42.13	6.85	0.0884	2.3010	14	8		N
1992 HD	12.7	920428	20.06	71.79	121.19	3.48	0.1363	2.7117	5	5		N
1992 HG	14.4	920428	338.71	50.67	216.06	2.31	0.3935	2.8038	8	5		N
1992 HH	13.4	920428	24.44	85.78	101.73	11.26	0.1636	2.5859	5	6		N
1992 JF	14.4	920428	325.98	210.52	57.30	4.11	0.1437	2.1751	2	5	E	N
1992 JH	15.3	920428	25.56	359.06	171.17	3.09	0.3539	2.3102	2	6	E	N
1992 JL	12.5	920428	320.10	167.17	109.26	15.52	0.1684	2.6565	6	7		W

1982 BB14 = 1982 DW (S. Nakano)
1991 GW10 = 1991 GG8 (S. Nakano)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(160) Una Obs. 173 M 22.25261 Peri. 49.83054
H 9.08 G 0.15 Opp. 29 n 0.21881641 Node 9.09043
rms res. 0".76 (M-C) 1926-1991 e 0.0644227 Incl. 3.83395

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(454) Mathesis Obs. 83 M 221.22858 Peri. 177.35925
H 9.20 G 0.15 Opp. 28 n 0.23166085 Node 32.62251
rms res. 0".86 (M-C) 1902-1991 e 0.1140778 Incl. 6.31813

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(741) Botolphia Obs. 45 M 235.22442 Peri. 62.60582
H 10.4 G 0.15 Opp. 19 n 0.21966260 Node 101.00461
rms res. 0".81 (M-C) 1909-1990 e 0.0672314 Incl. 8.42044

Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell	
(889) Erynia	Obs. 22	M	237.61889	Peri.	276.91907
H 11.1 G 0.15	Opp. 12	n	0.25765376	Node	133.03859
rms res. 0".70 (M-C)	1926-1991	e	0.2061464	Incl.	8.07719
Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell	
(1190) Pelagia	Obs. 54	M	52.58285	Peri.	41.58272
H 12.4 G 0.15	Opp. 11	n	0.26000660	Node	26.66434
rms res. 0".72 (M-C)	1909-1992	e	0.1318840	Incl.	3.17023
Epoch 1992 June 27.0 TT = JDT 2448800.5				Williams	
(1335) Demoulina	Obs. 28	M	72.79298	Peri.	198.05667
H 13.8 G 0.15	Opp. 9	n	0.29395855	Node	172.79545
rms res. 0".95 (M-C)	1934-1991	e	0.1540764	Incl.	2.54138
Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell	
(1438) Wendeline	Obs. 78	M	225.77328	Peri.	131.16440
H 11.4 G 0.15	Opp. 13	n	0.17484197	Node	238.59031
rms res. 0".98 (M-C)	1937-1990	e	0.2309754	Incl.	2.03228
Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell	
(1453) Fennia	Obs. 46	M	202.58647	Peri.	254.57841
H 12.69 G 0.15	Opp. 14	n	0.37726263	Node	7.22769
rms res. 0".91 (M-C)	1938-1991	e	0.0283806	Incl.	23.67879
Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell	
(1495) Helsinki	Obs. 40	M	261.09725	Peri.	268.24932
H 11.6 G 0.15	Opp. 11	n	0.22953582	Node	13.38614
rms res. 1".05 (M-C)	1938-1988	e	0.1520438	Incl.	12.75251
Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell	
(1709) Ukraina	Obs. 39	M	71.34052	Peri.	41.36439
H 12.75 G 0.15	Opp. 8	n	0.26889144	Node	300.54476
rms res. 0".77 (M-C)	1925-1991	e	0.2150940	Incl.	7.58397
Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell	
(1873) Agenor	Obs. 39	M	271.24286	Peri.	355.22981
H 10.5 G 0.15	Opp. 9	n	0.08168215	Node	197.95591
rms res. 0".81 (M-C)	1971-1990	e	0.0918457	Incl.	21.85058
Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell	
(2142) Landau	Obs. 43	M	214.86058	Peri.	37.92283
H 12.1 G 0.15	Opp. 14	n	0.17456556	Node	155.37088
rms res. 0".89 (M-C)	1960-1991	e	0.1085851	Incl.	0.65887
Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell	
(2247) Hiroshima	Obs. 22	M	74.04482	Peri.	29.06481
H 13.9 G 0.15	Opp. 7	n	0.25718674	Node	7.54011
rms res. 0".77 (M-C)	1960-1991	e	0.1089311	Incl.	5.94692
Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell	
(2283) Bunke	Obs. 33	M	301.08619	Peri.	346.68594
H 12.7 G 0.15	Opp. 9	n	0.29227059	Node	197.08279
rms res. 0".88 (M-C)	1951-1991	e	0.0869514	Incl.	6.72433
Epoch 1992 June 27.0 TT = JDT 2448800.5				Bowell	
(2355) Nei Monggol	Obs. 16	M	274.93519	Peri.	281.45868
H 11.4 G 0.15	Opp. 6	n	0.18780581	Node	54.11099
rms res. 0".88 (M-C)	1973-1992	e	0.1146876	Incl.	10.00083

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2404) Antarctica Obs. 59 M 144.54984 Peri. 149.71326
H 11.4 G 0.15 Opp. 10 n 0.17877807 Node 111.06158
rms res. 0".88 (M-C) 1933-1991 e 0.1392667 Incl. 2.68974

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2450) Ioannisiani Obs. 72 M 325.08292 Peri. 93.54862
H 11.3 G 0.15 Opp. 10 n 0.17934323 Node 117.47118
rms res. 0".78 (M-C) 1959-1992 e 0.1181551 Incl. 2.51857

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2502) Nummela Obs. 23 M 294.51246 Peri. 131.14495
H 11.7 G 0.15 Opp. 6 n 0.19605703 Node 15.05968
rms res. 0".97 (M-C) 1933-1991 e 0.2233318 Incl. 17.81210

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2593) Buryatia Obs. 22 M 90.27425 Peri. 76.49264
H 14.3 G 0.15 Opp. 6 n 0.30843965 Node 63.04421
rms res. 0".84 (M-C) 1976-1992 e 0.0791955 Incl. 0.21649

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2620) 1980 TN Obs. 26 M 146.29968 Peri. 316.40736
H 12.7 G 0.15 Opp. 5 n 0.20362754 Node 73.23857
rms res. 0".86 (M-C) 1973-1990 e 0.0712537 Incl. 3.09038

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2788) Andenne Obs. 56 M 284.20860 Peri. 133.56228
H 13.3 G 0.15 Opp. 7 n 0.24067473 Node 14.85694
rms res. 0".59 (M-C) 1973-1991 e 0.1007267 Incl. 2.63308

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2826) Ahti Obs. 25 M 226.03546 Peri. 160.31308
H 10.8 G 0.15 Opp. 7 n 0.17029202 Node 34.03282
rms res. 0".90 (M-C) 1939-1991 e 0.0365029 Incl. 15.51613

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2846) Ylppo Obs. 60 M 176.06505 Peri. 82.22215
H 10.7 G 0.15 Opp. 13 n 0.17004495 Node 145.07332
rms res. 0".78 (M-C) 1942-1991 e 0.0639250 Incl. 11.38741

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2851) 1978 UQ2 Obs. 24 M 164.19118 Peri. 15.23378
H 12.3 G 0.15 Opp. 6 n 0.25263821 Node 50.81019
rms res. 0".72 (M-C) 1935-1992 e 0.1255234 Incl. 8.56365

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2911) Miahelena Obs. 43 M 205.00719 Peri. 65.25393
H 11.3 G 0.15 Opp. 6 n 0.21110946 Node 149.56139
rms res. 0".96 (M-C) 1938-1991 e 0.0962460 Incl. 9.61061

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(2960) Ohtaki Obs. 34 M 267.14620 Peri. 333.44158
H 14.2 G 0.15 Opp. 7 n 0.29776514 Node 130.97732
rms res. 0".94 (M-C) 1947-1989 e 0.1131441 Incl. 4.50472

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(2997) Cabrera Obs. 25 M 103.28200 Peri. 349.67732
H 13.5 G 0.15 Opp. 5 n 0.24135063 Node 355.45976
rms res. 0".65 (M-C) 1974-1991 e 0.1995197 Incl. 7.22094

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3088) Jinxiuzhonghua Obs. 26 M 282.53513 Peri. 320.60357
H 11.8 G 0.15 Opp. 7 n 0.18785577 Node 171.62058
rms res. 1".05 (M-C) 1978-1991 e 0.0470688 Incl. 10.24187

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3090) Tjossem Obs. 21 M 59.02904 Peri. 181.34377
H 12.1 G 0.15 Opp. 6 n 0.17491831 Node 171.16014
rms res. 0".95 (M-C) 1969-1991 e 0.0890646 Incl. 9.60161

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3111) Misuzu Obs. 23 M 337.49320 Peri. 291.25251
H 13.9 G 0.15 Opp. 7 n 0.29720893 Node 95.53763
rms res. 0".90 (M-C) 1972-1991 e 0.1612299 Incl. 2.01178

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3131) Mason-Dixon Obs. 37 M 350.82572 Peri. 143.04575
H 12.7 G 0.15 Opp. 5 n 0.19698696 Node 45.11959
rms res. 0".95 (M-C) 1977-1991 e 0.0438856 Incl. 2.41655

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3175) Netto Obs. 86 M 191.53760 Peri. 189.71143
H 14.1 G 0.15 Opp. 7 n 0.27131371 Node 208.62059
rms res. 0".72 (M-C) 1933-1988 e 0.2136653 Incl. 0.63839

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3176) Paolicchi Obs. 17 M 111.36911 Peri. 25.51104
H 10.9 G 0.15 Opp. 9 n 0.20203777 Node 53.54385
rms res. 1".13 (M-C) 1902-1985 e 0.0324406 Incl. 18.11468

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3223) Forsius Obs. 37 M 211.09705 Peri. 291.48898
H 11.2 G 0.15 Opp. 8 n 0.23411776 Node 168.62692
rms res. 0".87 (M-C) 1942-1988 e 0.1442302 Incl. 10.02181

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3226) Plinius Obs. 17 M 148.55129 Peri. 304.69913
H 13.4 G 0.15 Opp. 4 n 0.20222858 Node 99.11780
rms res. 0".84 (M-C) 1960-1984 e 0.0747848 Incl. 3.05969

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3227) Hasegawa Obs. 42 M 318.65991 Peri. 331.71668
H 12.4 G 0.15 Opp. 9 n 0.25777292 Node 154.57916
rms res. 0".81 (M-C) 1947-1991 e 0.1382724 Incl. 3.91166

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3228) Pire Obs. 33 M 326.48018 Peri. 189.24912
H 12.6 G 0.15 Opp. 13 n 0.25519689 Node 291.14830
rms res. 0".82 (M-C) 1935-1991 e 0.1353004 Incl. 1.92560

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3243) Skytel Obs. 19 M 11.14928 Peri. 292.22705
H 11.6 G 0.15 Opp. 6 n 0.18606687 Node 349.54355
rms res. 0".89 (M-C) 1953-1988 e 0.1015295 Incl. 9.34641

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3279) Solon Obs. 19 M 257.09022 Peri. 166.60858
H 13.6 G 0.15 Opp. 5 n 0.30157300 Node 192.15521
rms res. 0".87 (M-C) 1960-1992 e 0.1742852 Incl. 3.15962

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3292) Sather Obs. 29 M 192.68874 Peri. 22.01494
H 12.4 G 0.15 Opp. 6 n 0.17575542 Node 37.02193
rms res. 0".94 (M-C) 1954-1988 e 0.1770096 Incl. 1.58155

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3332) Raksha Obs. 14 M 55.26042 Peri. 277.30543
H 11.7 G 0.15 Opp. 6 n 0.24281342 Node 139.12634
rms res. 1".12 (M-C) 1936-1985 e 0.0834864 Incl. 14.87499

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3347) Konstantin Obs. 31 M 16.92272 Peri. 212.38039
H 11.8 G 0.15 Opp. 13 n 0.17822009 Node 194.07751
rms res. 0".87 (M-C) 1903-1991 e 0.0994088 Incl. 4.76998

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3348) Pokryshkin Obs. 16 M 144.57835 Peri. 65.25926
H 11.9 G 0.15 Opp. 4 n 0.17440641 Node 186.07254
rms res. 0".81 (M-C) 1951-1991 e 0.1621934 Incl. 10.39489

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3373) Koktebelia Obs. 19 M 331.59911 Peri. 250.56374
H 13.6 G 0.15 Opp. 6 n 0.29286796 Node 177.49049
rms res. 1".02 (M-C) 1931-1990 e 0.1302843 Incl. 3.19762

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3393) Stur Obs. 26 M 121.24263 Peri. 103.78679
H 12.7 G 0.15 Opp. 8 n 0.23712548 Node 156.91152
rms res. 0".98 (M-C) 1954-1990 e 0.0669698 Incl. 9.63136

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3414) Champollion Obs. 20 M 21.38189 Peri. 60.62743
H 13.7 G 0.15 Opp. 6 n 0.30410650 Node 25.24185
rms res. 0".83 (M-C) 1978-1991 e 0.1008704 Incl. 5.29943

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3461) Mandelshtam Obs. 18 M 344.78023 Peri. 343.22818
H 13.5 G 0.15 Opp. 5 n 0.26875438 Node 58.06677
rms res. 0".88 (M-C) 1968-1988 e 0.1350443 Incl. 3.24590

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3462) 1981 UA10 Obs. 20 M 305.13589 Peri. 254.86502
H 13.3 G 0.15 Opp. 5 n 0.25658108 Node 113.33023
rms res. 0".89 (M-C) 1950-1991 e 0.2152677 Incl. 5.78568

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3463) 1981 XJ2 Obs. 26 M 255.86421 Peri. 48.95582
H 13.2 G 0.15 Opp. 5 n 0.25742395 Node 50.96867
rms res. 0".99 (M-C) 1923-1990 e 0.1327038 Incl. 3.03309

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3465) 1984 SQ5 Obs. 54 M 186.21415 Peri. 138.86829
H 13.4 G 0.15 Opp. 5 n 0.28000375 Node 112.72458
rms res. 0".78 (M-C) 1966-1991 e 0.0521158 Incl. 6.07390

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3565) Ojima Obs. 35 M 359.97834 Peri. 334.12296
H 11.3 G 0.15 Opp. 7 n 0.17120685 Node 92.70752
rms res. 0".98 (M-C) 1968-1990 e 0.1134338 Incl. 7.28206

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3597) Kakkuri Obs. 28 M 41.36067 Peri. 294.46262
H 11.5 G 0.15 Opp. 7 n 0.17608600 Node 86.98391
rms res. 0".82 (M-C) 1941-1991 e 0.1988446 Incl. 2.51111

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3619) Nash Obs. 25 M 222.14638 Peri. 181.63928
H 13.9 G 0.15 Opp. 4 n 0.26681490 Node 161.54102
rms res. 1".03 (M-C) 1960-1986 e 0.2364741 Incl. 4.03627

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3624) Mironov Obs. 25 M 230.94929 Peri. 49.21396
H 13.7 G 0.15 Opp. 8 n 0.27221806 Node 6.26864
rms res. 1".22 (M-C) 1960-1991 e 0.1199581 Incl. 4.18533

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(3625) Fracastoro Obs. 29 M 93.10246 Peri. 103.29698
H 11.4 G 0.15 Opp. 7 n 0.18511773 Node 223.32121
rms res. 0".80 (M-C) 1951-1991 e 0.1220165 Incl. 5.01351

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3703) Volkonskaya Obs. 14 M 322.73180 Peri. 152.22337
H 14.4 G 0.15 Opp. 5 n 0.27686067 Node 173.16355
rms res. 0".92 (M-C) 1977-1989 e 0.1339775 Incl. 6.74108

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3795) 1986 GV1 Obs. 12 M 197.64251 Peri. 197.63803
H 13.2 G 0.15 Opp. 5 n 0.26678656 Node 66.32487
rms res. 0".89 (M-C) 1957-1991 e 0.1818116 Incl. 9.81550

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3820) 1984 DV Obs. 48 M 312.59844 Peri. 72.74520
H 12.1 G 0.15 Opp. 6 n 0.18919677 Node 321.08415
rms res. 0".65 (M-C) 1930-1989 e 0.1133275 Incl. 9.58978

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3848) 1982 FH3 Obs. 36 M 187.61776 Peri. 61.31752
H 13.3 G 0.15 Opp. 5 n 0.25639637 Node 185.74418
rms res. 0".78 (M-C) 1982-1991 e 0.0935535 Incl. 3.48018

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3963) 1969 TP2 Obs. 15 M 339.47474 Peri. 284.38823
H 13.6 G 0.15 Opp. 4 n 0.25866925 Node 110.09011
rms res. 0".67 (M-C) 1969-1988 e 0.1969716 Incl. 3.27098

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3984) 1984 SB6 Obs. 52 M 14.31361 Peri. 262.50419
H 13.9 G 0.15 Opp. 5 n 0.25928081 Node 100.28680
rms res. 0".69 (M-C) 1969-1988 e 0.1841689 Incl. 2.93479

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(3989) 1986 RM Obs. 19 M 232.65488 Peri. 51.97916
H 14.0 G 0.15 Opp. 7 n 0.29076279 Node 327.87018
rms res. 0".98 (M-C) 1952-1988 e 0.1872761 Incl. 3.47875

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4042) Okhotsk Obs. 14 M 351.44762 Peri. 19.97677
H 13.6 G 0.15 Opp. 5 n 0.26149982 Node 69.58323
rms res. 0".97 (M-C) 1974-1991 e 0.1366820 Incl. 3.52466

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
(4144) 1981 SW6 Obs. 21 M 316.25605 Peri. 220.03083
H 11.5 G 0.15 Opp. 5 n 0.17578686 Node 172.42423
rms res. 0".94 (M-C) 1979-1989 e 0.0496173 Incl. 9.23418

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4230) van den Bergh Obs. 39 M 320.05765 Peri. 26.86582
H 11.9 G 0.15 Opp. 6 n 0.12527598 Node 160.75827
rms res. 0".74 (M-C) 1973-1990 e 0.1317240 Incl. 3.09597

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4239) Goodman Obs. 28 M 263.11874 Peri. 19.41571
H 14.2 G 0.15 Opp. 7 n 0.30736889 Node 295.25144
rms res. 0".88 (M-C) 1977-1990 e 0.1856847 Incl. 1.27916

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4316) 1979 TZ1 Obs. 20 M 82.93875 Peri. 171.60966
H 12.1 G 0.15 Opp. 6 n 0.19984348 Node 340.91654
rms res. 0".68 (M-C) 1972-1992 e 0.0210825 Incl. 1.25518

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4432) McGraw-Hill Obs. 23 M 194.72943 Peri. 246.92566
H 14.8 G 0.15 Opp. 5 n 0.26720647 Node 114.77269
rms res. 1".11 (M-C) 1964-1990 e 0.2128785 Incl. 0.45990

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4507) 1990 FV Obs. 22 M 215.29477 Peri. 87.89133
H 11.6 G 0.15 Opp. 10 n 0.20275388 Node 47.83743
rms res. 0".92 (M-C) 1932-1990 e 0.0080805 Incl. 2.67506

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4514) 1972 HX Obs. 14 M 241.80879 Peri. 88.17230
H 13.4 G 0.15 Opp. 5 n 0.27446015 Node 110.63569
rms res. 0".83 (M-C) 1972-1991 e 0.1511098 Incl. 7.96843

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
(4781) 1980 TP Obs. 36 M 273.69691 Peri. 189.98083
H 14.6 G 0.15 Opp. 7 n 0.31125036 Node 158.78783
rms res. 0".76 (M-C) 1961-1992 e 0.1904396 Incl. 1.67030

(5198)* 1975 BP1 = 1975 EZ = 1978 QR2 = 1979 WL4 = 1989 RC5 = 1990 XG
Discovered 1975 Jan. 16 at the Purple Mountain Observatory.
Id. T. Urata (d, NOC 1395), T. Furuta (k, MPC 17624), K. Ichikawa (ibid.)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa
M 89.75205 (2000.0) P Q
n 0.17965187 Peri. 311.05495 -0.20843801 -0.97787364
a 3.1106290 Node 150.96146 +0.90796958 -0.20023711
e 0.1664131 Incl. 2.10127 +0.36351732 -0.06056609
P 5.49 H 11.8 G 0.15
Residuals in seconds of arc

750116	330	0.7-	1.2+	890909	095	0.7-	1.7-	901212 403 1.5- 1.4-
750122	330	(10.9-	1.5-)	890909	095	(5.1+	2.9+)	920305 801 0.7+ 0.4-
750212	330	0.1+	1.3-	901210	403	(0.8-	3.0-)Y	920305 801 0.8+ 0.3-
750306	095	0.2+	0.2-	901210	886	0.8+	1.2+	920401 801 0.4- 0.4-
750308	095	1.2-	0.4+	901210	403	0.7+	0.1- Y	920401 801 0.5- 0.1-
780831	095	0.7+	0.2+	901210	886	1.0+	0.4-	
791117	095	1.6+	1.4+	901212	403	1.6-	1.0-	

(5199)* 1981 RP2 = 1934 NO = 1951 OD = 1986 XA3 = 1988 DR1

Discovered 1981 Sept. 7 by L. G. Karachkina at the Crimean Astrophysical Observatory.

Id. T. Kobayashi (MPC 13152), S. Nakano (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M	251.17197	(2000.0)	P	Q
n	0.23219750	Peri. 342.42980	+0.15583936	+0.96922966
a	2.6215875	Node 296.17757	-0.87886711	+0.04799684
e	0.1770305	Incl. 12.25860	-0.45089544	+0.24143356
P	4.24	H 12.0	G 0.15	

Residuals in seconds of arc

340709	078	(56.9+	31.1+)X	880217	220	0.9+	0.2-	901022	801	0.4-	0.3+
510726	078	(10.1+	7.5-)Y	880217	220	2.2-	0.0	901116	801	0.2-	0.9+
810907	095	2.4-	1.4+	880218	220	0.2-	0.1-	901116	801	0.2-	0.6+
810927	095	1.9+	0.8-	890905	675	0.4-	0.1-	920207	801	1.0+	0.7+
811003	095	0.4+	1.0+	890905	675	0.3+	0.4-	920207	801	1.0+	0.6+
861202	010	(0.6+	3.4-)	890905	474	(0.3-	8.2-)	920305	801	1.6+	0.5+
861203	010	1.7-	1.8-	890905	474	(0.1-	8.0-)	920305	801	0.0	0.6+
861203	010	0.9+	2.5-	901022	801	0.2-	0.4+				

(5200)* 1983 CM = 1953 GA1 = 1970 JM = 1990 FB1

Discovered 1983 Feb. 11 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. S. Nakano (MPC 16425)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M	214.18175	(2000.0)	P	Q
n	0.29328824	Peri. 208.41495	-0.68046972	+0.73201552
a	2.2435699	Node 18.76925	-0.65114459	-0.58314282
e	0.1444372	Incl. 5.95479	-0.33611262	-0.35227507
P	3.36	H 13.8	G 0.15	

Residuals in seconds of arc

530405	760	0.4-	0.7-	830215	688	1.1-	1.1-	910910	675	0.5-	0.2+
530405	760	1.0-	2.3-	830219	688	0.5+	0.2-	910914	675	(1.4-	2.9-)
700503	805	0.5-	1.2-	830219	688	0.1+	0.1-	910914	675	0.7+	0.9-
700503	805	0.4-	0.9-	900322	391	1.1+	0.5+	910916	675	1.0+	0.3-
700503	805	0.3-	0.4-	900322	391	1.6+	0.1-	910916	675	0.6-	0.3-
830211	688	0.5+	0.3-	900326	391	0.3+	1.8+	911109	675	0.0	1.6-
830211	688	1.8-	0.1-	900326	391	0.2-	2.2+	911109	675	0.1+	0.2+
830215	688	0.5+	0.4-	910910	675	0.1-	0.2-	911110	675	0.7+	1.1+

(5201)* 1983 XF = 1979 FL4

Discovered 1983 Dec. 1 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. R. H. McNaught, G. V. Williams

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M	182.46093	(2000.0)	P	Q
n	0.17835915	Peri. 54.85950	-0.62177336	-0.78011205
a	3.1256412	Node 73.73689	+0.69298485	-0.58930384
e	0.5328450	Incl. 4.14858	+0.36492449	-0.21010991
P	5.53	H 14.8	G 0.15	

Residuals in seconds of arc

391205	690	(1.1+	2.7-)	831201	688	(2.0+	0.3-)	831206	688	1.2+	0.8-
391207	690	(2.8+	1.6+)	831204	046	(4.8-	0.7-)	831208	330	(24.3+	3.2-)
391209	690	0.6+	0.9+	831204	046	(4.3-	0.5-)	831208	046	(2.2-	0.7-)
391211	690	0.8-	1.3-	831205	688	0.3+	1.0-	831208	046	(0.9-	2.1-)
790326	413	0.0	0.9-	831205	688	(2.8-	1.1+)	831209	688	0.3-	0.3+
831128	688	0.9-	1.1-	831205	046	(2.4-	2.1+)	831209	688	0.4-	0.1-
831128	688	1.2+	0.1-	831205	046	(5.0-	2.3+)	831229	688	0.6-	1.1-
831201	688	0.1+	0.8-	831206	688	0.9+	0.4-	831229	688	0.1-	0.1+

840102 707 0.9- 1.5+ 840201 801 1.5- 0.9+ 840525 801 1.2+ 0.7+
840102 688 0.3- 0.4- 840209 801 (4.0+ 1.7+) 880822 675 0.5- 0.3+
840102 688 0.6+ 0.2- 840221 675 (2.4- 0.9-) 880822 675 0.9- 0.5+
840104 688 0.7+ 0.4- 840301 801 1.0- 1.3+ 880822 675 0.4- 0.4+
840104 688 0.9+ 1.0- 840307 801 0.1- 1.7+ 880920 675 0.0 1.9+
840104 688 (2.6- 0.7-) 840308 801 0.3- 1.5+ 880920 675 0.2- 1.7+
840104 688 0.3- 1.7- 840403 801 0.5- 1.3+ 880920 675 0.1- 1.8+
840105 046 0.2+ 1.1+ 840421 675 0.3- 0.5- 900421 688 0.4- 0.1-
840105 046 (1.8- 2.2+) 840430 801 0.6+ 0.2- 900421 688 0.5- 0.4-
840108 801 0.4- 0.5+ 840505 688 1.9+ 0.8+ 900422 688 0.6- 0.5-
840123 381 (2.0- 1.6+) 840505 688 0.0 0.7+ 900422 688 0.5- 0.7-
840123 381 (0.8- 3.1+) 840519 675 0.4- 0.1-

(5202)* 1983 XX = 1979 SF12 = 1990 QX
Discovered 1983 Dec. 5 by A. Mrkos at Klet.
Id. S. Nakano (MPC 17015)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
M 118.14254 (2000.0) P Q
n 0.26510017 Peri. 160.44617 +0.44087289 -0.87091494
a 2.3999160 Node 262.87941 +0.79162888 +0.49129392
e 0.1673065 Incl. 12.63862 +0.42303050 -0.01172415
P 3.72 H 13.3 G 0.15
Residuals in seconds of arc
790919 033 0.4- 0.9- 840101 046 0.5- 1.6- 920310 413 0.3- 0.3-
790919 033 0.1- 0.4- 840101 046 0.5- 0.2- 920310 413 0.1- 0.7-
831205 046 0.1- 0.2+ 900820 675 1.2+ 0.3+ 920311 413 0.0 0.9-
831205 046 1.3- 0.8- 900820 675 0.3+ 0.1+ 920311 413 0.5- 1.0-
831208 046 2.4- 1.2+ 900821 675 0.4+ 0.2+ 920313 413 1.2- 0.6-
831208 046 1.4- 1.2+ 900821 675 1.5- 0.5+ 920314 413 0.1+ 0.2+
831225 046 0.3- 0.7- 900922 675 0.5+ 1.1- 920315 413 0.2- 0.8-
831225 046 2.3+ 0.5+ 900922 675 0.3+ 1.7- 920331 413 0.8- 0.7-
831228 046 2.7+ 0.5- 900924 675 0.3+ 1.2-
831228 046 2.8+ 1.2+ 900924 675 0.7+ 0.9-

(5203)* 1984 SF1 = 1933 FC1 = 1950 HG = 1974 RH1
Discovered 1984 Sept. 27 by Z. Vavrova at Klet.
Id. C. M. Bardwell (MPC 9292)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bardwell
M 155.19042 (2000.0) P Q
n 0.29511755 Peri. 11.35233 +0.57409232 +0.81756542
a 2.2342890 Node 293.69885 -0.75500246 +0.50741458
e 0.1849931 Incl. 2.80279 -0.31684268 +0.27224480
P 3.34 H 13.7 G 0.15
Residuals in seconds of arc
330324 024 1.5- 2.6- 840927 046 (4.0+ 2.5-) 841026 688 2.1+ 1.2-
500421 760 0.7+ 0.7- 840927 046 (3.3+ 3.3-) 841026 688 1.5+ 2.1-
500421 760 1.1- 1.0- 840928 688 2.5- 0.3- 911106 801 0.2- 0.3-
740912 095 1.3- 1.8+ 840928 688 0.2+ 0.8- 911108 801 0.1- 0.0
811024 095 (6.4+ 3.9+) 840929 046 0.2+ 0.7+ 911108 801 0.1- 0.0
811028 095 1.2+ 1.0+ 840929 046 0.9- 0.3- 911205 801 0.5- 0.4-
840925 688 1.0- 0.4+ 840930 046 1.1+ 1.0- 911205 801 (2.6+ 0.9-)
840925 688 1.7+ 0.5- 840930 046 0.9+ 0.8-

(5204)* 1988 CN2 = 1975 VE4
Discovered 1988 Feb. 11 by E. W. Elst at the European Southern Observatory.
Id. S. Nakano (MPC 13053)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
M 289.20654 (2000.0) P Q
n 0.17632607 Peri. 299.24533 -0.41997805 -0.90753353
a 3.1496215 Node 175.58740 +0.83775313 -0.38817301
e 0.1272346 Incl. 0.85728 +0.34898155 -0.16032656
P 5.59 H 12.3 G 0.15
Residuals in seconds of arc

751102	095	0.5-	0.4-	880216	809	0.2-	0.7+	880223	809	0.0	1.8-
751107	095	1.5+	0.2+	880216	809	0.4-	0.6+	880223	809	0.8-	1.4-
861003	095	2.8-	1.1+	880216	809	0.1+	1.2+	890406	809	1.2-	0.5+
861008	095	2.1-	0.5+	880216	809	1.1+	0.7-	890406	809	0.2-	0.4+
880119	071	(3.3-	1.5-)	880216	809	0.3+	0.8-	890406	809	1.2+	0.0
880211	809	0.2+	2.6-	880216	809	1.0-	0.2-	890407	809	1.4-	0.1+
880213	809	0.1+	1.5+	880217	809	0.5+	1.0+	890407	809	0.1-	0.3+
880213	809	0.6-	1.8+	880217	809	0.8+	0.3-	890407	809	0.7+	0.3-
880213	809	0.7-	2.7+	880217	809	0.3+	0.4+	910807	675	1.5+	1.5-
880214	809	0.1-	0.3+	880217	809	1.3+	0.9-	910807	675	1.0+	0.6-
880214	809	0.4-	0.6+	880217	809	0.8+	1.3-	910810	675	0.5+	1.3-
880214	809	0.7-	0.8+	880217	809	0.1-	1.6-	910910	675	0.0	1.4+
880215	809	0.3-	1.2+	880221	809	0.9+	1.7-	910910	675	1.1+	0.5+
880215	809	0.8+	1.8+	880221	809	0.3-	1.3-	910916	675	0.7+	0.7-
880215	809	0.5-	1.5+	880221	809	1.3-	1.2-	910916	675	0.1-	0.9-
880215	809	0.1-	1.4-	880223	809	1.5+	2.2-				

(5205)* 1988 CU7 = 1988 EG2 = 1961 TO = 1986 SG
Discovered 1988 Feb. 11 by S. Ueda and H. Kaneda at Kushiro.
Id. H. Kaneda (d, MPC 14621), S. Nakano (d, ibid.), T. Kobayashi (ibid.)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 283.40939 (2000.0) P Q
n 0.27570775 Peri. 301.39298 +0.49985273 +0.86610609
a 2.3379582 Node 358.58866 -0.75212644 +0.43250065
e 0.0434168 Incl. 6.38041 -0.42947999 +0.25060611
P 3.57 H 12.9 G 0.15
Residuals in seconds of arc

611007	760	0.6+	1.2-	880219	399	1.3-	0.1+	901213	399	1.5+	1.6-
611007	760	0.6+	0.5+	880312	054	1.5-	1.4+	901215	399	0.1-	1.0-
860930	046	(5.3-	5.5-)	880312	054	(3.4-	1.6+)	901215	399	0.9-	0.1+
860930	046	1.5-	2.1-	901112	399	0.4-	0.6-	901218	801	0.6+	1.4+
880211	399	1.0-	1.7+	901112	399	2.0+	1.6-	901218	801	0.4+	1.3+
880211	399	1.4+	0.2-	901112	399	1.3-	0.4+	920323	399	0.2+	1.4-
880211	399	0.2+	1.2+	901119	801	0.2+	1.2+	920324	399	1.1-	1.3-
880215	399	(2.6-	0.5+)	901119	801	0.3+	1.1+	920324	399	0.8-	1.0-
880215	399	1.8-	0.1-	901121	399	0.8-	1.2-	920419	399	0.6+	0.1-
880215	399	1.4-	0.8+	901121	399	0.6+	0.6-	920419	399	1.7+	0.7-
880219	399	2.3+	0.8-	901213	399	0.6+	0.2-	920423	399	1.8-	1.2-
880219	399	1.3+	0.3-	901213	399	0.8+	0.6-	920423	399	0.0	0.1-

(5206)* 1988 ED = 1988 BA3 = 1988 CJ1
Discovered 1988 Mar. 7 by Y. Oshima at the Gekko Observatory.
Id. S. Nakano (MPC 13035)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
M 45.02276 (2000.0) P Q
n 0.23455117 Peri. 134.08850 -0.38608587 -0.91867195
a 2.6040200 Node 338.19867 +0.76898937 -0.27050657
e 0.1031408 Incl. 12.99988 +0.50950275 -0.28786810
P 4.20 H 12.8 G 0.15
Residuals in seconds of arc

880119	033	1.9+	0.7+	880120	033	0.7+	0.1-	880122	033	0.3+	0.2+
880120	033	0.3+	0.1+	880121	033	0.6+	0.5-	880213	054	0.5+	0.4+

880213 054 0.3+ 0.4- 880312 888 1.7- 0.3- 900920 675 0.3- 0.4-
880307 888 0.1+ 1.0+ 880322 888 1.0+ 0.8- 900921 801 0.7+ 0.6+
880307 888 1.6+ 1.6- 880322 888 0.3+ 0.8- 900921 801 0.2+ 1.0+
880307 888 0.2+ 0.7+ 900824 675 0.0 0.0 901027 413 1.5+ 0.2+
880307 888 (2.1+ 2.7-) 900824 675 0.3+ 0.1- 920102 801 0.1- 0.5+
880308 888 1.9- 0.5+ 900915 675 0.5+ 0.1+ 920102 801 0.1+ 0.3+
880308 888 1.8- 1.9+ 900915 675 0.2- 0.4+ 920108 801 0.4- 0.3-
880309 888 (2.9- 1.0-) 900916 675 1.0- 1.1- 920108 801 0.3- 0.2-
880309 888 (3.1- 2.4-) 900916 675 1.0- 1.0- 920206 801 0.4- 0.6-
880310 888 (2.6- 1.4-) 900918 801 0.0 0.7+ 920206 801 0.3- 0.8-
880310 888 (2.6- 1.4-) 900918 801 0.2+ 0.9+ 920207 801 0.2- 1.2-
880310 888 1.2+ 1.3+ 900919 675 0.1- 1.1- 920207 801 0.1- 1.3-
880310 888 (1.2+ 3.5+) 900919 675 1.1- 0.3+ 920210 376 0.9+ 1.9+
880312 888 1.5- 0.1- 900920 675 0.0 0.4+ 920210 376 (0.5+ 2.4+)

(5207)* 1988 HE = 1989 SD14

Discovered 1988 Apr. 15 by A. C. Gilmore and P. M. Kilmartin at Mount John University Observatory.

Id. B. G. Marsden (MPC 18113)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden

M	298.99696	(2000.0)	P	Q	
n	0.24213704	Peri.	346.19462	+0.58562624	+0.79765551
a	2.5493447	Node	319.38042	-0.72109051	+0.43142170
e	0.1908046	Incl.	12.79490	-0.37023017	+0.42145108
P	4.07	H	13.3	G 0.15	

Residuals in seconds of arc

840526 413 0.0 0.6+ 880421 474 0.7+ 0.5+ 891006 493 (0.2+ 3.5-)
840526 413 0.3- 0.0 880421 474 1.0+ 0.7+ 920303 474 0.2+ 0.5+
840605 413 0.8- 1.1- 880521 474 0.0 2.3+ 920303 474 0.3- 0.2-
840605 413 0.6- 0.2- 880521 474 0.2- 1.7+ 920304 474 0.0 0.1-
840605 413 0.4- 1.0- 880605 474 2.1- 1.1- 920304 474 0.7- 0.2-
840623 413 1.6+ 0.6+ 880605 474 1.4- 0.8- 920405 474 0.0 0.8-
840623 413 (1.7- 2.8-) 890926 493 1.6+ 0.1+ 920405 474 0.4- 1.2-
880415 474 2.1+ 0.0 890927 493 (3.5+ 1.3-) 920409 413 1.3+ 0.3+
880415 474 (2.7+ 0.3+) 891003 493 0.7+ 0.2+ 920409 413 (3.0+ 0.8-)
880416 474 (4.8+ 0.9+) 891003 493 1.3- 0.2+ 920410 413 0.9- 0.0
880416 474 (5.6+ 0.5+) 891004 493 0.4- 0.4- 920411 413 0.1- 0.5-
880418 474 0.5+ 0.1+ 891005 493 0.4- 0.5- 920411 413 0.7- 0.8-
880418 474 0.9+ 0.1+ 891005 493 (1.1- 3.3-)

(5208)* 1989 CH1

Discovered 1989 Feb. 6 by E. F. Helin at Palomar.

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M	298.65222	(2000.0)	P	Q	
n	0.23455633	Peri.	24.34909	-0.84665269	-0.48253604
a	2.6039818	Node	124.91748	+0.43226314	-0.86952530
e	0.0477276	Incl.	15.87976	+0.31036721	-0.10528399
P	4.20	H	11.4	G 0.15	

Residuals in seconds of arc

860805 675 0.5+ 0.4+ 890429 675 0.0 1.6- 900718 675 1.0+ 0.5-
860805 675 0.4- 0.9+ 890501 675 0.7+ 0.2- 911005 801 0.2+ 0.4-
890206 675 1.5- 1.5+ 890501 675 0.8+ 0.1- 911005 801 0.4+ 0.7-
890212 675 0.3+ 0.6+ 900627 675 0.1- 0.9- 911208 675 0.9+ 0.7-
890212 675 0.7- 0.9+ 900627 675 (1.3- 3.4-) 911208 675 1.4+ 0.3-
890301 675 0.0 1.9- 900629 675 0.1+ 0.3- 920101 801 0.9- 0.1-
890301 675 0.6- 1.1- 900629 675 1.3- 0.0 920108 801 0.8- 0.5-
890429 675 1.2+ 0.1+ 900718 675 0.0 0.6- 920108 801 0.7- 0.0

(5209)* 1989 CW1

Discovered 1989 Feb. 13 by T. Seki at Geisei.

Id. 1989 CW1 = 1950 TA1 (MPC 16432) is invalid

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M	174.82156	(2000.0)	P	Q
n	0.08522765	Peri. 105.61716	+0.36139098	-0.92749651
a	5.1138625	Node 322.74657	+0.78348058	+0.35767534
e	0.0507076	Incl. 9.09033	+0.50552423	+0.10871327
P	11.56	H 10.1	G 0.15	

Residuals in seconds of arc

890110	033	0.2-	0.8+	890212	809	0.6-	0.1+	900222	675	0.5+	1.5-
890111	033	0.4-	0.4+	890212	809	0.5-	0.1-	900325	372	1.9+	0.5+
890112	033	0.1+	0.3+	890213	809	0.3-	0.6-	900325	372	0.6+	1.4+
890208	809	0.4+	0.5+	890213	809	0.2-	0.5-	900401	675	2.0-	0.0
890208	809	0.4+	0.7+	890213	809	0.0	0.5-	900401	675	1.9-	1.4-
890208	809	0.7+	0.6+	890213	372	1.9-	2.3-	910415	675	0.2-	0.8-
890209	809	0.8+	0.3-	890213	372	(5.6-	1.0-)	910416	372	(3.3-	0.2+)
890209	809	0.8+	0.4-	890214	809	0.1+	0.3+	910416	372	1.3-	0.1-
890209	809	0.9+	0.2-	890214	809	0.2-	0.2+	910419	675	(0.7+	3.0-)
890210	809	0.3+	0.1-	890214	372	0.4+	1.5+	910510	372	0.2-	1.8+
890210	809	0.3+	0.2-	890214	372	(0.4+	3.6+)	910514	675	0.2-	0.1+
890210	809	0.2+	0.1-	900220	675	(2.0+	3.0-)	910517	675	1.5+	0.3+
890212	809	0.7-	0.1+	900220	675	0.7+	0.9+	910517	675	0.6+	1.2-

(5210)* 1989 EL6 = 1970 EY1 = 1976 UK3

Discovered 1989 Mar. 7 by F. Borngen at Tautenburg.

Id. S. Nakano (MPC 14956)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M	9.61395	(2000.0)	P	Q
n	0.25871708	Peri. 74.69916	+0.25190718	-0.96775129
a	2.4392294	Node 0.71094	+0.87286870	+0.22700118
e	0.1480669	Incl. 2.15151	+0.41790311	+0.10921496
P	3.81	H 14.4	G 0.15	

Residuals in seconds of arc

700303	805	1.0-	1.1-	910807	033	0.0	1.0-	910915	675	1.0+	0.7-
700303	805	0.5+	1.4-	910812	033	1.6+	0.4-	910916	675	1.3-	1.8-
700303	805	0.6-	0.7-	910816	033	(3.0+	2.4+)	910916	675	1.6-	1.2-
761024	381	1.3+	1.2+	910819	033	0.6+	0.7-	911009	033	0.5+	0.4+
761024	381	1.7-	0.6-	910904	033	0.3+	0.1-	911009	033	0.8+	1.1+
761026	095	(3.8+	6.5+)	910905	033	0.3+	0.2+	911011	801	0.3+	0.7+
890210	033	0.1-	0.3-	910911	675	1.4+	0.7-	911011	801	0.3+	1.0+
890210	033	0.2+	0.0	910911	675	0.1-	0.9-	911030	033	0.4+	1.2+
890307	033	0.0	0.0	910914	033	0.2+	0.5-	911031	033	0.8-	0.8+
890310	033	0.6-	0.4-	910914	033	1.9-	0.5-				
890310	033	0.2+	0.0	910915	675	0.4+	0.3-				

(5211)* 1989 NX

Discovered 1989 July 8 by C. S. Shoemaker at Palomar.

Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden

M	292.35525	(2000.0)	P	Q
n	0.28358171	Peri. 185.15942	+0.75060217	+0.57600577
a	2.2944780	Node 134.08800	-0.58896541	+0.80534667
e	0.2442599	Incl. 26.79078	-0.29952651	-0.14012167
P	3.48	H 13.1	G 0.15	

Residuals in seconds of arc

791220	413	0.5+	0.5-	890708	675	0.5-	2.0-	890801	675	0.6-	0.1+
791220	413	0.4-	0.5-	890729	675	0.3-	0.1-	890809	675	2.0+	0.2-
890707	675	1.8-	0.5-	890729	675	0.8-	0.6-	890809	675	1.9+	0.2+
890708	675	(0.2-	3.4-)	890801	675	0.2-	0.3-	890811	675	0.7+	0.3+

890811	675	1.0-	1.5-		910116	801	0.3+	0.1-		910213	801	0.2-	0.8-
890830	413	0.1-	0.7-		910118	801	0.9+	1.3-		920306	801	0.4+	0.6+
890830	413	0.6-	0.2+		910118	801	0.1-	1.2-		920306	801	0.6+	0.7+
890920	413	0.1+	0.1-		910209	801	0.9+	1.0-		920409	675	1.8-	2.8-
890920	413	0.0	0.2-		910209	801	0.1+	0.8-		920411	675	0.2+	0.3+
910116	801	0.1+	2.0-		910213	801	0.1+	0.3+					

(5212)* 1989 SS = 1979 VO2 = 1979 YH6

Discovered 1989 Sept. 29 by S. Ueda and H. Kaneda at Kushiro.

Id. H. Kaneda (MPC 15421)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M 108.14479		(2000.0)	P	Q
n 0.18733387	Peri.	229.33678	-0.15916877	-0.97544018
a 3.0249986	Node	230.49046	+0.95485812	-0.11292285
e 0.0856973	Incl.	11.38176	+0.25082120	-0.18911604
P 5.26	H 11.6		G 0.15	

Residuals in seconds of arc

791114	095	(1.1-	3.6+)		891029	399	0.5-	0.3-		901215	399	0.9+	0.7-
791223	095	0.0	0.4-		891029	399	0.8+	0.9+		901215	399	1.3+	0.9-
890929	399	0.6+	0.0		891029	399	0.0	0.2-		901215	399	1.7+	1.8-
890929	399	0.1+	1.9-		901114	801	1.3-	0.2-		920326	399	0.7-	1.2-
890929	399	0.7+	0.6-		901114	801	0.7-	1.0+		920326	399	0.8-	0.1-
891003	399	0.1-	0.2-		901116	801	0.5-	1.0+		920328	399	0.9+	0.1-
891003	399	1.4+	1.2-		901116	801	0.5-	0.9+		920328	399	0.3+	1.6-
891003	399	0.6-	0.7-		901213	801	0.5-	0.6+		920423	399	0.5-	0.9+
891021	399	(3.2-	1.7-)		901213	801	0.3-	0.2+		920427	399	1.4+	1.4-
891021	399	1.7-	0.4-		901213	399	0.9+	0.8-		920427	399	1.8-	0.7-
891021	399	0.2-	1.4+		901213	399	0.4+	1.1-		920502	399	1.5+	1.1+
891023	399	0.1-	0.9+		901213	399	1.2-	0.8+		920502	399	1.3-	0.4-
891023	399	0.1-	0.3-		901214	801	0.3-	0.3+					
891023	399	0.3+	0.8-		901214	801	0.3-	0.4+					

(5213)* 1990 FU = 1977 UM5 = 1980 JK = 1982 SR6 = 1987 SX3

Discovered 1990 Mar. 18 by K. Endate and K. Watanabe at Kitami.

Id. H. Kaneda (MPC 17637), G. V. Williams

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 244.75581		(2000.0)	P	Q
n 0.18964807	Peri.	251.04481	+0.00992390	-0.99857067
a 3.0003397	Node	198.62222	+0.96814197	+0.02273650
e 0.0489654	Incl.	9.46612	+0.25020521	-0.04837007
P 5.20	H 11.9		G 0.15	

Residuals in seconds of arc

771018	675	0.1-	0.5-		870926	688	0.1+	0.7+		910511	801	0.4-	0.0
771019	675	0.2-	0.3-		900318	400	(4.0+	3.2-)		910516	801	0.2-	1.2-
800512	046	(1.1- | 3.3+)		900318	400	(5.4+ | 1.2-)		910517	801	0.1+	0.3-
800512	046	0.4-	0.2-		900318	399	0.4+	0.6-		910517	801	0.2-	0.2-
820916	095	0.8+	2.0+		900318	399	0.2+	1.2+		910609	801	0.7-	0.4+
820919	095	(1.4+ | 5.0+)		900325	400	(2.3- | 1.4+)		910609	801	0.4+	0.1+
820921	095	(0.7+	5.6-)		900325	400	0.6-	0.9-		910613	801	1.6+	0.2-
820928	095	0.7+	0.8-		900329	400	(4.0+	1.8+)		910613	801	0.2-	1.2+
870926	688	1.3-	1.8-		910511	801	0.1-	0.2+					

(5214)* 1990 VN3 = 1982 DH = 1983 RX1 = 1987 WQ2 = 1989 OF

Discovered 1990 Nov. 13 by A. Takahashi and K. Watanabe at Kitami.

Id. H. Kaneda (MPC 17645)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M	321.65487	(2000.0)	P	Q
n	0.30452119	Peri. 262.15786	-0.00011190	+0.99989466
a	2.1880523	Node 7.87947	-0.87070166	+0.00704079
e	0.1034588	Incl. 6.07748	-0.49181156	-0.01269249
P	3.24	H 13.4	G 0.15	

Residuals in seconds of arc

820220	688	(7.3-	1.7-)	890725	413	0.3+	1.4-	901121	400	2.0+	0.0
820220	688	0.8-	0.8-	901111	400	0.8-	0.5+	901213	400	1.4+	1.5+
830902	688	1.9+	1.6-	901111	400	1.3-	1.7-	901213	400	2.0+	0.6+
830902	688	1.1+	1.5-	901113	400	0.8-	2.4-	920323	399	0.6-	0.2-
830906	688	0.0	0.4-	901113	400	2.4-	0.2-	920324	399	0.6+	1.1-
830906	688	0.3-	0.4+	901117	399	0.8-	0.0	920324	399	2.1-	0.2-
830906	095	1.4-	0.3+	901117	399	0.3-	0.6-	920419	399	1.0+	1.7+
871126	033	0.6-	0.3-	901119	399	1.9-	0.2-	920419	399	0.8+	0.4+
871126	033	2.2+	0.8-	901119	399	1.0+	0.1+	920423	399	1.7-	2.0-
890721	413	0.1+	0.2+	901121	400	1.4+	0.9+	920423	399	0.1+	1.1-

(5215)* 1991 AE = 1979 MK9 = 1987 EO = 1987 HF = 1987 KK5 = 1988 OA = 1989 UZ2

Discovered 1991 Jan. 9 by M. Matsuyama and K. Watanabe at Kushiro.

Id. H. Kaneda (MPC 17831)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M	334.66138	(2000.0)	P	Q
n	0.22409203	Peri. 150.99786	+0.12693547	+0.97187139
a	2.6844281	Node 125.60700	-0.95062203	+0.17629537
e	0.1488633	Incl. 14.12257	-0.28320511	-0.15615998
P	4.40	H 11.1	G 0.15	

Residuals in seconds of arc

790627	095	1.6+	0.8+	891102	402	1.9+	0.9-	910123	399	1.3+	1.4-
870303	688	0.6-	0.2+	910105	400	0.7+	0.6-	910123	399	(3.5+	2.0-)
870303	688	1.8-	0.8+	910105	400	0.4-	0.8-	910208	399	0.5-	1.2+
870428	675	(35.3+	12.6+)	910109	399	1.6+	0.2-	910208	399	0.5+	0.1-
870428	675	(15.1-	1.8-)	910109	399	0.7+	1.5+	910211	675	0.9-	0.7-
870430	675	(11.8-	1.9+)	910109	399	2.3-	0.5-	910211	675	1.1-	0.7-
870430	675	(12.2-	1.4+)	910114	399	1.9+	0.6-	920302	801	0.0	0.8-
870530	675	0.6-	1.5+	910114	399	0.7-	1.1-	920302	801	0.1+	0.8-
870530	675	1.6-	0.5+	910114	399	0.5-	0.3+	920305	801	0.2+	0.6-
880718	675	0.8-	1.2-	910114	399	(3.1+	0.0)	920305	801	0.1-	0.6-
880719	675	1.2-	1.4-	910114	399	1.3+	0.8-	920502	400	0.4+	0.5-
891030	402	1.0+	0.9-	910114	399	0.9+	0.3+	920502	400	0.1+	0.8-
891030	402	1.9-	0.3+	910123	399	1.1+	1.5+				
891102	402	0.0	0.4-	910123	399	1.1-	0.2-				

1953 GH = 1953 GN1 = 1991 PS18

Id. E. Rabe (d, MPC 1227), H. Kaneda

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M	107.77863	(2000.0)	P	Q
n	0.18854889	Peri. 95.76836	+0.16643024	+0.98598135
a	3.0119891	Node 183.87311	-0.96001998	+0.15926833
e	0.0843708	Incl. 10.15178	-0.22508356	+0.04974300
P	5.23	H 12.5	G 0.15	

Residuals in seconds of arc

530407	210	(43.3-	47.1-)X	530419	024	1.2+	0.1-	910914	675	0.1+	0.0
530407	024	1.9-	0.8-	910808	675	0.3-	0.3-	910914	675	0.4+	0.0
530412	024	0.7+	0.9+	910808	675	0.2-	0.1+				

1975 VN5 = 1975 XB4 = 1991 RF26

Id. H. Oishi (d, JAM 2004), G. V. Williams

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 62.13079 (2000.0) P Q
n 0.24332297 Peri. 252.55782 +0.94667884 -0.30583384
a 2.5410545 Node 125.13690 +0.32199846 +0.88762776
e 0.2464333 Incl. 7.11672 +0.01077846 +0.34435827
P 4.05 H 13.5 G 0.15
Residuals in seconds of arc

751102 095	0.9-	0.4+	910912 675	0.1-	0.6+	910915 675	0.1+	0.5-
751107 095	0.9+	0.0	910912 675	0.8-	0.5-	910916 675	0.4+	0.7+
751203 095	0.1-	0.3-	910912 675	0.1+	0.5-	910916 675	0.4+	0.3+
910912 675	0.5+	0.3+	910915 675	0.4-	0.5-			

1977 EC2 = 1971 BF4 = 1990 RX5
Id. H. Oishi (MPC 18618), G. V. Williams
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 262.44605 (2000.0) P Q
n 0.17519517 Peri. 139.22753 -0.99982609 +0.01795582
a 3.1631610 Node 41.80215 -0.01846330 -0.91504255
e 0.1406787 Incl. 0.43301 -0.00262557 -0.40295747
P 5.63 H 11.5 G 0.15
Residuals in seconds of arc

710128 095	0.1+	0.3+	900909 809	0.0	0.5+	900914 675	0.1-	1.6-
770313 095	2.0-	0.6+	900909 809	0.7+	0.1+	900914 809	0.5+	0.1+
770322 095	0.1+	0.1-	900910 809	1.1+	0.1+	900915 809	0.4+	0.1-
770325 095	1.8+	0.4-	900910 809	1.4+	0.3+	900915 809	0.5+	0.3-
820130 675	0.3-	0.1+	900912 809	0.4-	0.2+	900915 809	0.6-	0.6+
820131 675	0.3+	0.0	900912 809	0.3-	0.2+	900916 809	0.6-	0.7+
900908 809	0.5-	0.1+	900912 809	0.1+	0.1+	900916 809	0.9-	0.6+
900909 809	0.4-	0.2+	900914 675	0.9-	1.3-			

1977 RD = 1990 EQ9 = 1991 RL
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 97.92898 (2000.0) P Q
n 0.21337932 Peri. 301.92513 +0.30695156 +0.93922032
a 2.7735405 Node 343.63229 -0.57860068 +0.05587465
e 0.2812947 Incl. 33.07097 -0.75564674 +0.33873768
P 4.62 H 13.9 G 0.15
Residuals in seconds of arc

770818 413	0.9-	0.6-	900304 809	0.3-	0.8-	910908 675	1.2+	1.7-
770818 413	0.6+	1.7-	910904 675	0.4+	0.8+	910911 675	0.9+	0.8-
770904 809	0.2+	0.6+	910904 675	0.9+	0.4+	910911 675	0.0	0.4+
770904 809	(4.3-	4.1+)	910905 675	1.0-	1.0+	910916 675	0.7+	0.1-
770905 809	1.1+	0.2+	910907 675	0.4-	0.4-	910916 675	0.7-	0.4+
770905 809	1.3-	2.1+	910907 675	0.4+	0.6-	910917 675	0.1-	2.2-
900304 809	1.0-	0.3+	910907 675	1.0-	0.4+	910917 675	1.5+	0.3-
900304 809	1.5-	1.5-	910907 511	0.0	0.5+			

1977 TO6 = 1991 RV25
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 98.12717 (2000.0) P Q
n 0.28141704 Peri. 256.27036 +0.93664738 +0.32871566
a 2.3062291 Node 84.43249 -0.25558462 +0.87756851
e 0.1883473 Incl. 6.98213 -0.23951659 +0.34902655
P 3.50 H 14.3 G 0.15
Residuals in seconds of arc

771008 095	0.5+	1.9+	771012 675	0.5+	0.7-	771016 675	1.1+	1.1-
771011 675	0.6-	1.4-	771012 675	0.8+	0.4-	771017 675	(1.8+	1.8-)
771011 675	1.2-	0.8-	771016 675	0.8+	0.8-	771017 675	(2.3+	1.5-)

771021 675 0.3- 0.3+ 771022 675 0.7- 0.2+ 910916 675 0.2- 0.2-
771021 675 0.7+ 0.5+ 910912 675 0.3+ 0.3+ 910916 675 0.6- 0.0
771022 675 1.4- 1.8+ 910912 675 0.3+ 0.4+

1978 RK = 1978 SK1 = 1992 DE2
Id. S. Nakano (d, MPC 10610), B. G. Marsden (d), G. V. Williams
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 137.65409 (2000.0) P Q
n 0.17420720 Peri. 22.87163 +0.90881281 -0.41708074
a 3.1751090 Node 1.87263 +0.31841519 +0.67769850
e 0.1699968 Incl. 18.08801 +0.26957569 +0.60561407
P 5.66 H 13.0 G 0.15
Residuals in seconds of arc
780901 095 0.0 0.1+ 781004 095 0.0 0.3+ 920229 033 0.1+ 0.2-
780928 095 0.1- 0.3- 920229 033 0.1+ 0.3+ 920301 033 0.1- 0.2-

1978 RZ = 1977 LH1 = 1988 UG1
Id. E. Bowell (MPC 11050), G. V. Williams
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 272.01983 (2000.0) P Q
n 0.19906813 Peri. 249.72343 +0.97727670 -0.20726398
a 2.9049248 Node 122.21497 +0.20874181 +0.90463907
e 0.0801244 Incl. 3.00861 +0.03683904 +0.37238394
P 4.95 H 13.0 G 0.15
Residuals in seconds of arc
710324 675 (3.5- 4.2-) 730925 675 (2.1+ 2.3-) 781009 095 1.4- 0.2+
710325 675 (3.3- 1.4-) 730929 675 0.1- 0.1- 881017 071 (0.9- 12.6-)
710325 675 1.1- 1.3- 730929 675 0.6+ 0.0 881017 071 0.7- 0.3+
710326 675 0.3- 1.3- 730930 675 0.4- 1.2- 910320 809 0.2- 0.2-
710327 675 (2.5- 2.2-) 730930 675 0.1- 1.8- 910320 809 0.2+ 0.2-
710402 675 (0.1+ 2.7-) 731004 675 (0.4- 2.2+) 910320 809 0.2+ 0.3-
710416 675 (2.6+ 2.9-) 731004 675 0.7- 0.4+ 910321 809 0.2- 0.6+
710416 675 1.7+ 1.0- 731005 675 0.6+ 1.5- 910321 809 0.3+ 0.5+
710513 675 1.1- 0.4+ 731005 675 0.2+ 0.9- 910321 809 0.6+ 0.5+
710514 675 0.9- 1.3- 770613 675 (8.3+ 11.5+) 910327 809 (0.1+ 2.4+)
710516 675 0.4- 1.1+ 770613 675 (6.4+ 11.4+) 910327 809 0.1- 1.8+
730919 675 0.4- 1.2+ 770613 675(15.8+ 10.9+) 910327 809 0.2- 1.6+
730919 675 0.4- 0.3+ 770614 675(13.4+ 10.2+) 910419 809 (1.0+ 2.3-)
730920 675 0.9+ 0.4+ 780901 095 (2.9- 0.8+) 910419 809 0.9+ 1.4-
730924 675 1.4+ 0.4- 780905 095 (1.4- 2.6+) 910419 809 0.4- 1.4-
730924 675 0.4+ 1.3- 780907 095 0.1+ 1.0+
730925 675 (1.7+ 2.2-) 780912 095 0.7+ 1.8+

1978 VT6 = 1987 RX4 = 1992 CL3
Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden
M 245.13626 (2000.0) P Q
n 0.31335137 Peri. 30.08274 +0.36731865 +0.92828595
a 2.1467509 Node 261.52014 -0.86460868 +0.31781325
e 0.0832101 Incl. 3.36091 -0.34282479 +0.19308012
P 3.15 H 15.0 G 0.15
Residuals in seconds of arc
781105 675 1.6+ 0.9+ 781130 675 0.8- 1.0- 920207 809 1.6+ 1.9+
781106 675 1.2- 0.6- 870902 095 0.2+ 0.5- 920207 809 0.6- 0.1-
781107 675 1.1+ 1.3+ 920202 809 0.5+ 1.5- 920207 809 0.9- 1.0+
781108 675 0.2- 0.4+ 920202 809 0.9- 1.0-
781129 675 0.2- 0.5- 920202 809 0.1+ 0.6-

1978 XW = 1975 GC1 = 1985 DE3
Id. K. Ichikawa; 1975 GC1 = 1975 HM (MPC 7055) is invalid

Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa

M	168.30814		(2000.0)		P		Q				
n	0.18617774	Peri.	2.34517		-0.31448318		-0.94875130				
a	3.0375088	Node	105.98569		+0.87040328		-0.30130379				
e	0.1907777	Incl.	1.85781		+0.37881190		-0.09532573				
P	5.29	H	13.3	G	0.15						

Residuals in seconds of arc

750415	805	0.1+	0.3+	781203	675	0.0	0.2-	781206	675	1.6+	0.5+
781130	675	0.5-	0.1-	781205	675	0.4+	0.9+	850220	675	0.3-	0.1+
781203	675	1.3-	0.2-	781206	675	0.2-	0.6-	850222	675	0.2+	0.2-

1979 KQ = 1976 SQ3 = 1980 PK3
Id. T. Kobayashi (MPC 13151), G. V. Williams

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M	246.77841		(2000.0)		P		Q				
n	0.22466607	Peri.	147.85966		+0.80953233		+0.58704427				
a	2.6798536	Node	176.17639		-0.55597001		+0.76990213				
e	0.1178131	Incl.	5.19308		-0.18855967		+0.25025933				
P	4.39	H	14.0	G	0.15						

Residuals in seconds of arc

760924	095	1.5-	0.1-	790521	809	0.2-	0.2+	800803	675	0.3+	0.1+
760929	095	1.5+	0.1+	790523	809	0.1-	0.5+	800805	675	0.3-	0.1-
790519	809	0.2-	0.3+	790523	809	0.3+	0.1+				
790519	809	0.1+	1.0-	790524	809	(19.2+	9.1+)				

1979 MC2 = 1982 BS14

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M	258.63997		(2000.0)		P		Q				
n	0.20708592	Peri.	102.58486		+0.46728438		+0.88405135				
a	2.8294520	Node	195.28513		-0.82506834		+0.43201889				
e	0.0350124	Incl.	2.15776		-0.31765947		+0.17836167				
P	4.76	H	13.2	G	0.15						

Residuals in seconds of arc

790623	413	0.6+	0.0	790724	675	0.1-	0.4+	790823	675	0.7-	0.2+
790624	413	1.1-	0.5-	790724	413	0.7+	0.3-	820130	675	0.0	0.3-
790625	413	1.0-	1.1+	790725	675	0.2-	0.3+	820131	675	0.1+	0.6+
790629	413	1.7+	0.9-	790727	675	(3.4+	0.4-)				

1979 MA5 = 1992 BO2

Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden

M	104.35181		(2000.0)		P		Q				
n	0.19154245	Peri.	133.57377		+0.82149564		-0.55116237				
a	2.9805244	Node	260.39023		+0.47107489		+0.80042975				
e	0.1001426	Incl.	8.52540		+0.32129948		+0.23565283				
P	5.15	H	13.5	G	0.15						

Residuals in seconds of arc

790623	413	0.4+	0.8-	790726	675	0.7+	0.2-	920130	809	1.2+	0.9-
790624	413	0.7-	0.4-	790726	675	0.0	1.7+	920130	809	0.4+	0.3-
790625	413	1.0-	0.9+	790727	675	0.6+	0.2+	920202	809	0.6+	0.5+
790629	413	1.6+	0.5+	790728	413	2.1-	0.8-	920202	809	0.8-	0.3+
790724	413	0.5+	1.2-	920130	809	1.0+	0.7-	920202	809	2.4-	1.0+

1981 CB1 = 1983 VK1
Id. T. Furuta (JAM 1569)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 119.41841 (2000.0) P Q
n 0.28051007 Peri. 67.97908 -0.24394174 -0.96802857
a 2.3111976 Node 36.29855 +0.84940518 -0.24234206
e 0.1461370 Incl. 5.66356 +0.46797785 -0.06473805
P 3.51 H 13.5 G 0.15
Residuals in seconds of arc

810206	688	0.3+	0.1-	831107	046	0.2+	0.8-	901013 033	0.3+	0.6-
810206	688	0.7+	0.0	831107	046	1.5-	0.6+	901014 033	0.2+	0.2-
810325	688	1.1-	0.7-	831108	046	(2.7-	0.7-)	901017 801	0.4+	0.6-
810325	688	0.2+	0.4-	831108	046	1.1-	1.2+	901017 801	0.6+	0.1+
810330	688	(2.1+	5.1+)	831109	046	0.6-	0.3-	901018 033	0.3-	0.9-
810330	688	(3.8+	3.5+)	831109	046	1.1-	0.0	901023 095	2.4-	0.2+
831106	046	1.4+	0.1-	880219	801	0.3-	0.6+	901115 801	0.9+	0.8+
831106	046	2.0+	0.2-	901013	033	0.6+	0.7-	901115 801	0.8+	0.8+

1981 JB2 = 1992 FF2
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 332.91574 (2000.0) P Q
n 0.17578579 Peri. 201.65131 -0.41264565 +0.89717670
a 3.1560718 Node 44.39353 -0.79921035 -0.27365975
e 0.0377709 Incl. 13.00845 -0.43701990 -0.34667609
P 5.61 H 11.6 G 0.15
Residuals in seconds of arc

810411	675	0.5-	0.7+	810506	675	0.2+	0.5+	920403 400	0.6-	1.3+
810411	675	1.3+	0.3-	810510	675	0.5-	0.0	920425 400	1.7+	0.3+
810505	675	0.0	0.0	920331	400	0.9+	0.2+	920425 400	0.7+	1.1-
810505	675	0.6-	1.3-	920331	400	0.9-	0.8+			
810506	675	0.1+	0.5+	920403	400	1.9-	1.5-			

1982 BD13 = 1982 DL5 = 1990 RS4
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
M 321.85283 (2000.0) P Q
n 0.29345679 Peri. 260.26224 -0.81180658 +0.58047544
a 2.2427108 Node 315.18776 -0.49427077 -0.74090353
e 0.0928000 Incl. 5.16031 -0.31091235 -0.33780205
P 3.36 H 13.7 G 0.15
Residuals in seconds of arc

820130	675	0.3+	0.1+	900915	675	0.5+	0.1+	900920 675	1.2-	0.3+
820131	675	0.2-	0.1-	900915	675	0.7+	0.2-			
820224	010	0.1-	0.0	900920	675	0.1-	0.2-			

1984 QY1
Epoch 1984 Aug. 28.0 TT = JDT 2445940.5 Williams
M 351.38731 (2000.0) P Q
n 0.14429941 Peri. 335.53920 -0.52781624 -0.83171054
a 3.5999213 Node 145.57114 +0.82080678 -0.55161311
e 0.9391614 Incl. 17.73701 +0.21837183 +0.06309171
P 6.83 H 14.0 G 0.15
From 6 observations 1984 Aug. 26-29.

1985 FC2 = 1991 RJ25
Id. H. E. Holt
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 250.70591 (2000.0) P Q
n 0.23337183 Peri. 133.58583 -0.95240184 +0.22496959
a 2.6127856 Node 60.41796 -0.29948586 -0.81647898
e 0.0753056 Incl. 13.68309 +0.05691180 -0.53174313
P 4.22 H 12.7 G 0.15

Residuals in seconds of arc

850322	688	1.5-	0.7+	850414	688	1.6+	0.8-	910911	675	0.1+	0.5-
850322	688	0.3+	0.1+	850423	688	2.3-	0.9-	910911	675	0.1+	0.1-
850414	688	(3.8+	0.7-)	850423	688	1.9+	0.9+	910913	675	0.0	0.4+

1985 JN1 = 1992 HC

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M	352.55771	(2000.0)	P	Q	
n	0.27848842	Peri.	169.19043	-0.32882749	+0.93755643
a	2.3223693	Node	81.53771	-0.87478946	-0.25714439
e	0.1426555	Incl.	6.58356	-0.35583126	-0.23423216
P	3.54	H	14.3	G 0.15	

Residuals in seconds of arc

850511	675	0.1+	0.2+	850524	675	0.5-	0.1+	920425	896	1.0-	1.2-
850514	675	0.9+	0.3+	920422	896	0.4+	1.9+	920425	896	0.1-	2.3-
850524	675	0.4-	0.3-	920422	896	0.6+	1.2+				

1985 PE = 1991 RN25

Id. H. E. Holt

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M	49.15337	(2000.0)	P	Q	
n	0.17393260	Peri.	213.87156	+0.98077338	-0.17683091
a	3.1784501	Node	155.90630	+0.19100107	+0.95657316
e	0.2254050	Incl.	11.66640	-0.04002704	+0.23172963
P	5.67	H	12.8	G 0.15	

Residuals in seconds of arc

850814	688	(1.4+	3.1+)	850908	413	0.4+	0.7+	850915	809	0.7-	0.5-
850814	688	1.1+	0.3+	850910	809	0.5-	0.7-	850915	809	0.7-	0.5-
850820	688	0.3+	0.8-	850910	809	0.5-	0.5-	850916	809	0.2-	0.1+
850820	688	0.4+	0.3+	850910	809	0.6-	0.6-	850916	809	0.1-	0.0
850822	688	0.3-	1.7-	850911	809	0.0	0.5-	850917	809	0.2-	0.1-
850822	688	(2.4+	0.6-)	850911	809	0.2-	0.6-	850919	809	0.1-	0.5-
850904	809	0.2+	0.7+	850911	809	0.3-	0.6-	850919	809	0.1+	0.5-
850904	809	0.5+	0.8+	850912	809	0.8+	0.4+	850919	809	0.3+	0.5-
850904	809	0.7+	0.8+	850912	809	1.0+	0.3+	850921	809	0.7+	0.0
850906	809	1.2-	0.5+	850912	809	1.1+	0.6+	850921	809	0.6+	0.6+
850906	809	1.2-	0.5+	850912	688	1.0-	1.3-	850921	809	1.1+	1.2+
850906	809	1.2-	0.5+	850912	688	(1.0-	3.0-)	910912	675	0.4-	0.0
850907	809	0.6-	0.3+	850914	809	0.8+	0.5+	910912	675	0.1+	0.7+
850907	809	0.6-	0.4+	850914	809	0.7+	0.5+	910916	675	0.9+	0.1+
850907	809	0.6-	0.4+	850914	809	0.5+	0.5+	910916	675	0.5-	0.9-
850908	413	0.8+	0.1-	850915	809	0.8-	0.6-				

1985 RP2 = 1979 MY

Id. E. Goffin (MPC 11420)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M	69.99826	(2000.0)	P	Q	
n	0.18194974	Peri.	228.06089	+0.98619532	-0.16546805
a	3.0843839	Node	141.46232	+0.15473827	+0.90748268
e	0.1856760	Incl.	0.57521	+0.05894796	+0.38612888
P	5.42	H	12.7	G 0.15	

Residuals in seconds of arc

790622	805	1.4-	1.3+	850904	809	0.8-	1.2+	850910	809	0.7-	0.8-
790622	805	0.8+	0.6-	850906	809	0.8+	0.2+	850910	809	0.3-	0.9-
790625	805	0.6+	0.1-	850906	809	1.1+	0.3+	850910	809	0.1+	0.9-
820130	675	0.2-	0.8+	850906	809	1.3+	0.2+	850911	809	0.3+	0.7-
820131	675	0.4+	0.2+	850908	809	0.9+	0.8-	850911	809	0.5+	0.7-
850904	809	1.3-	1.1+	850908	809	0.9+	0.8-	850911	809	0.5+	0.8-
850904	809	1.1-	1.0+	850908	809	1.0+	0.8-	850914	809	0.2-	0.2+

850914 809 0.3- 0.2+ 850918 809 1.1- 0.2+ 850920 809 0.2- 0.2+
850914 809 0.5- 0.2- 850918 809 0.7- 0.2+ 850922 809 1.2+ 1.3+
850916 809 0.6- 0.1+ 850918 809 0.7- 0.2+ 850922 809 1.1+ 1.1+
850916 809 0.5- 0.1+ 850920 809 0.4- 0.0
850916 809 0.4- 0.0 850920 809 0.2- 0.1+

1986 EE2 = 1956 EW = 1980 RP4 = 1984 UW4 = 1991 PM18
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 255.64888 (2000.0) P Q
n 0.26343287 Peri. 352.42962 -0.96335670 -0.26706962
a 2.4100316 Node 171.94936 +0.25445348 -0.93927539
e 0.0521919 Incl. 10.22195 +0.08483686 -0.21548911
P 3.74 H 12.8 G 0.15
Residuals in seconds of arc
560309 760 1.1- 2.2+ 860306 688 1.5+ 0.1- 910910 675 0.2- 0.0
560309 760 0.4+ 1.8- 860306 688 0.3- 2.2- 910910 675 1.5- 2.6+
800907 095 4.4+ 2.5- 860310 413 (4.4- 2.5-) 910916 675 0.2- 0.9-
841020 095 1.7- 0.5+ 860310 413 (3.3- 3.5-) 910916 675 0.7+ 1.3+
860304 809 0.5- 0.8+ 910808 675 1.6- 1.9- 910916 675 0.1- 0.1-
860304 809 0.0 0.7+ 910808 675 0.0 0.7- 910916 675 0.1+ 1.2+

1986 RC1 = 1986 TE17 = 1982 UE11 = 1990 HZ3 = 1990 MW1 = 1991 XS1
Id. E. Bowell (k), G. V. Williams
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 158.39659 (2000.0) P Q
n 0.22505464 Peri. 295.22754 +0.50859441 +0.86100155
a 2.6767681 Node 5.34532 -0.77858678 +0.46131470
e 0.1914004 Incl. 1.74634 -0.36760624 +0.21416135
P 4.38 H 13.0 G 0.15
Residuals in seconds of arc
821025 095 0.3- 0.0 900430 413 1.3+ 0.3+ 911210 033 0.2+ 1.9+
860901 801 0.0 1.4- 900430 413 0.7- 0.2+ 911210 033 0.8+ 0.4+
861010 095 (1.2- 3.6-) 900628 808 0.8- 0.7+ 911211 033 1.3- 0.0
861010 095 0.8+ 0.2+ 900628 808 0.2- 0.9+

1986 TL = 1930 UT = 1969 PD
Id. T. Kobayashi (MPC 15886, unpublished), E. Bowell
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 34.27893 (2000.0) P Q
n 0.17722980 Peri. 36.00712 +0.92407245 +0.35830413
a 3.1389053 Node 302.47156 -0.37708631 +0.79777305
e 0.2223989 Incl. 9.07531 -0.06241817 +0.48494981
P 5.56 H 11.5 G 0.15
Residuals in seconds of arc
301015 690 0.2+ 1.1- 690821 095 1.4- 0.5- 910710 809 0.4+ 0.1+
301017 690 0.9+ 1.1- 861003 054 0.1- 1.4+ 910710 809 0.0 0.1+
301019 690 (7.4+ 14.2+) 861004 054 0.9- 0.1- 910710 809 0.4- 0.3-
690811 095 1.4+ 0.8+ 861008 054 0.5+ 0.7+
690813 095 (1.9+ 11.1+) 861031 054 0.5- 0.1+

1986 TQ = 1991 PY17
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 53.85361 (2000.0) P Q
n 0.18183132 Peri. 352.57216 +0.95492960 +0.29266227
a 3.0857229 Node 349.98126 -0.25557685 +0.72570718
e 0.0770716 Incl. 16.55859 -0.15096332 +0.62265391
P 5.42 H 12.6 G 0.15

Residuals in seconds of arc

861002	095	0.6+	0.9-	910807	675	0.5+	0.5+	910916	675	0.7-	0.5+
861003	054	1.5+	0.2-	910910	675	0.0	0.9+	910916	675	1.6+	1.7-
861004	054	0.8-	0.7+	910910	675	1.9-	0.4+	910916	675	0.0	0.9+
861011	054	1.3-	0.3+	910912	675	0.8-	0.7+	910916	675	1.0+	1.4-
910807	675	0.7+	0.1-	910912	675	0.5-	0.6-				

1987 BC = 1982 BS15
Id. G. V. Williams; 1987 BC = 1953 EK = 1975 TD6 (MPC 14791) is invalid
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M	149.70083		(2000.0)	P	Q
n	0.19768585	Peri.	182.78223	+0.99900558	-0.04458517
a	2.9184504	Node	179.77302	+0.04154480	+0.92975715
e	0.0712192	Incl.	1.98113	+0.01618290	+0.36546381
P	4.99	H	11.0	G 0.15	

Residuals in seconds of arc

820130	675	0.1+	0.8+	870128	887	1.1+	0.6+	870204	887	(5.7-	2.2+)
820131	675	0.1+	0.1+	870128	887	1.6-	0.5-	870220	887	0.1-	0.7+
870128	887	0.3-	0.8-	870204	887	0.0	0.4-	870220	887	0.6+	0.4-

1987 SL
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M	347.64723		(2000.0)	P	Q
n	0.19351223	Peri.	320.16529	+0.69043806	+0.72229827
a	2.9602639	Node	353.15421	-0.54910767	+0.48752427
e	0.6147431	Incl.	19.48292	-0.47093105	+0.49051533
P	5.09	H	14.0	G 0.15	

Residuals in seconds of arc

870919	688	(1.8-	3.3-)	871018	675	0.1-	0.0	880206	675	0.0	0.0
870922	095	1.4-	0.1-	871019	801	0.2-	0.1-	880206	675	0.6-	0.7-
870925	675	0.8-	0.2-	871020	675	0.2+	1.4-	880206	675	0.4-	0.2+
870925	675	0.5-	0.4-	871020	657	(1.6-	2.3-)	880207	675	0.1-	0.2-
870925	095	0.8+	0.7-	871022	657	(0.5+	2.6-)	880207	675	0.5-	0.1-
870926	095	(3.9+	1.7-)	871120	801	0.8-	1.1-	880207	675	0.7-	0.2+
870929	688	1.7+	1.1+	871122	675	0.8+	0.6-	880306	675	0.1-	0.3-
870929	688	1.7+	0.8+	871222	691	0.5+	0.6+	880306	675	0.1+	1.0-
871002	675	0.0	0.3-	871222	691	0.7+	1.0+	880306	675	0.2-	0.5+
871002	675	0.9-	0.4+	871222	691	0.4+	0.6+	880306	675	1.1+	0.3-
871015	095	0.2-	1.8+	880112	688	0.6-	0.6-	920430	474	0.0	0.3-
871015	095	(3.3-	0.5-)	880112	688	0.6-	0.8-	920430	474	0.3-	0.0
871016	691	0.3-	0.5-	880115	691	0.4+	1.1+	920503	413	0.3+	0.2+
871016	691	0.1-	0.2-	880115	691	0.3+	0.9+				
871016	691	0.1-	0.4-	880115	691	0.9+	1.1+				

1988 AV1 = 1951 YQ2 = 1979 BQ2
Id. R. Nagata (MPC 18429)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M	13.88149		(2000.0)	P	Q
n	0.21955069	Peri.	337.36784	+0.03721447	-0.98950821
a	2.7213194	Node	110.26895	+0.93811919	-0.01353924
e	0.2706556	Incl.	8.55836	+0.34430724	+0.14384084
P	4.49	H	13.5	G 0.15	

Residuals in seconds of arc

511228	711	0.1-	1.9- Y	880115	046	0.3+	0.5+	880120	046	1.2-	0.0
790127	675	0.3+	0.2+	880115	046	1.5-	0.3+	910912	675	0.5-	0.0
790129	675	0.8+	0.7-	880116	046	(2.9+	3.5+)	910912	675	0.5-	0.7+
880114	046	(5.4-	0.4+)	880116	046	1.1+	1.3+	910916	675	0.5+	0.5+
880114	046	(3.6-	1.0+)	880120	046	0.6+	0.6+	910916	675	0.1+	0.3-

1988 GL = 1992 JJ

Epoch 1992 June 27.0 TT = JDT 2448800.5 Urata

M 10.97247		(2000.0)	P	Q
n 0.25783232	Peri.	149.11532	-0.78037647	+0.57579883
a 2.4448064	Node	68.02782	-0.61387712	-0.63121598
e 0.1901766	Incl.	15.24584	-0.11902706	-0.51963650
P 3.82	H 13.5		G 0.15	

Residuals in seconds of arc

880412	675	0.8-	0.4-	880510	675	0.5+	0.1-	920504	385	1.4-	0.3+
880414	675	1.0+	0.6+	880513	675	0.5+	0.3+	920505	385	2.2+	0.2+
880509	675	1.3-	0.4-	920504	385	1.4-	1.4-	920505	385	0.5+	0.9+

1988 RA = 1974 QD2 = 1974 SH4

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 263.64023		(2000.0)	P	Q
n 0.21202937	Peri.	79.95810	+0.13628712	-0.99044771
a 2.7853004	Node	2.51248	+0.61251785	+0.06762004
e 0.4674598	Incl.	28.55792	+0.77861910	+0.12017016
P 4.65	H 12.5		G 0.15	

Residuals in seconds of arc

740826	095	(0.5-	4.8-)	880916	095	(2.5+	7.0-)	881205	801	0.9-	0.2-
740923	095	1.4-	1.1+	880916	095	1.9+	1.4-	881206	801	0.1+	0.0
850303	413	1.1-	0.4-	881013	675	0.0	1.0-	890105	801	0.3-	1.1+
850303	413	0.6-	0.5-	881013	675	0.8+	0.6-	890201	801	0.2-	0.6+
880907	675	0.4-	1.5+	881104	675	0.4+	1.3-	890304	801	0.4+	0.8+
880908	675	0.1+	1.8+	881106	675	0.4+	1.3-	890311	801	(10.0+	0.1-)

1988 RN11

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 219.28580		(2000.0)	P	Q
n 0.08111319	Peri.	55.03047	-0.68821872	+0.72549405
a 5.2853658	Node	171.47734	-0.67342046	-0.63692917
e 0.0959694	Incl.	1.41386	-0.26992567	-0.26072900
P 12.15	H 12.0		G 0.15	

Residuals in seconds of arc

820130	675	0.0	1.0-	881104	807	0.0	0.3+	891031	807	0.2+	0.2+
820131	675	0.5-	1.0-	881106	807	0.8+	0.0	891101	807	0.1+	0.3+
880914	807	0.4-	0.3-	891002	807	0.1-	0.9-	911113	688	0.2-	0.8+
880915	807	0.3+	0.1+	891004	807	0.1-	0.8-	911113	688	0.0	0.8+
881006	807	0.1+	0.1-	891028	807	0.2-	0.2+				
881007	807	0.3-	0.9-	891029	807	0.4+	0.2+				

1988 TL = 1982 BP14

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 311.02048		(2000.0)	P	Q
n 0.26193177	Peri.	140.87417	+0.20096118	-0.97931700
a 2.4192306	Node	297.52115	+0.89197884	+0.19285553
e 0.1714819	Incl.	1.51922	+0.40495475	+0.06119609
P 3.76	H 13.5		G 0.15	

Residuals in seconds of arc

820130	675	0.2-	0.1+	881005	399	0.3+	0.0	881016	399	0.2+	1.1+
820131	675	0.2+	0.1-	881008	399	1.4-	0.6+	881016	399	0.7+	1.1-
881003	399	(4.8+	0.1-)	881013	399	2.0+	2.1+	881018	399	2.5-	0.5+
881003	399	2.3+	1.4-	881013	399	0.6+	0.4-	881019	399	1.3+	0.1+
881003	399	0.7-	1.1+	881013	399	1.5-	0.6-	881019	399	(0.7+	3.6+)
881003	399	1.1-	0.3-	881015	399	1.3-	1.0-	881019	399	0.9+	0.6-

1988 WC
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 355.97865 (2000.0) P Q
n 0.29762923 Peri. 252.70687 -0.62875998 -0.70172073
a 2.2217013 Node 241.11226 +0.77511094 -0.60003165
e 0.4040731 Incl. 22.49790 -0.06216034 -0.38412244
P 3.31 H 13.7 G 0.15
Residuals in seconds of arc

551215 675	0.4-	0.2-	881207 897	0.2-	0.8-	890106 801	1.5-	0.5+
551215 675	0.3+	0.1-	881207 054	0.8-	0.1-	890112 875	0.4+	1.2+
881129 875	1.0+	1.1-	881207 054	0.3-	0.7-	890112 875	0.3-	0.5-
881129 875	0.7+	1.9+	881209 875	0.8+	0.4-	890112 875	0.1+	1.8-
881129 875	0.6+	0.5+	881210 894	1.4-	1.3-	890127 875	1.8+	1.0+
881130 875	0.9+	1.0+	881210 894	0.4+	1.1+	890201 801	0.9+	0.1-
881130 875	0.5+	1.9+	881210 894	0.5-	0.7-	890304 801	0.2+	0.2+
881201 875	0.2+	1.8+	881212 875	0.8-	0.1+	890310 801	1.7+	0.1-
881201 875	(0.3-	5.0+)	881212 054	(2.3-	3.9-)	900729 688	0.4+	0.3+
881201 054	0.3-	0.4-	881212 054	(2.0-	4.0-)	900729 688	0.2+	0.2+
881207 875	0.7-	1.6-	881216 875	(2.5-	0.1+)	900827 688	0.1+	0.0
881207 875	(1.8-	1.9+)	881216 875	(3.1-	2.9+)	900827 688	0.1+	0.2+
881207 897	0.5-	1.8-	890103 875	1.5-	1.0+			

1989 GP4 = 1976 UJ8
Id. T. Kobayashi (MPC 14956); 1989 GP4 = 1933 SP1 (ibid.) is invalid
Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden
M 275.24688 (2000.0) P Q
n 0.27733116 Peri. 50.57010 -0.27655111 +0.95997203
a 2.3288254 Node 203.48974 -0.91239618 -0.27679763
e 0.0834612 Incl. 6.39865 -0.30174939 -0.04285753
P 3.55 H 14.5 G 0.15
Residuals in seconds of arc

761022 381	0.4-	0.3+	890405 809	0.3-	0.7+	920130 809	1.0-	0.4-
761022 381	0.6+	0.4+	890410 809	2.0+	3.3-	920130 809	1.8-	0.1-
761024 381	0.3-	0.3-	890410 809	0.3-	0.2-	920202 809	1.0+	0.6+
890403 809	1.4-	0.8+	890410 809	0.0	0.6-	920202 809	0.4+	0.5+
890403 809	0.8-	0.8+	900919 675	0.6+	1.9-	920202 809	0.0	0.9-
890403 809	0.7-	0.5+	900919 675	0.2+	0.8-			
890405 809	0.8+	0.6-	920130 809	1.3+	0.7-			

1990 QM2
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bardwell
M 234.28888 (2000.0) P Q
n 0.36520026 Peri. 193.51761 +0.99102208 +0.05718056
a 1.9384235 Node 161.84247 -0.05410817 +0.99812669
e 0.0929424 Incl. 22.81834 -0.12226011 +0.02176005
P 2.70 H 13.5 G 0.15
Residuals in seconds of arc

900822 675	0.9-	1.3-	900919 675	0.4+	0.7-	920302 801	0.2-	0.4-
900822 675	1.1-	1.8-	900922 413	1.0+	0.3+	920305 801	0.5+	0.5-
900824 675	0.8-	1.3+	900922 413	0.5+	1.5+	920305 801	0.5+	0.2-
900824 675	0.9-	1.0+	900923 413	2.1+	1.0-	920401 801	0.4-	0.4+
900828 675	0.1-	0.2+	901213 801	0.8-	0.3-	920401 801	0.3-	0.5+
900828 675	0.2+	0.5+	901213 801	0.5-	0.1+			
900919 675	0.2+	0.5-	920302 801	0.1-	0.6-			

1990 QP5 = 1975 XO4 = 1988 AW5 = 1992 CX2
Epoch 1992 June 27.0 TT = JDT 2448800.5 Marsden

M 148.26133	(2000.0)	P	Q
n 0.25222692	Peri. 191.25229	+0.99964081	+0.01406689
a 2.4808952	Node 167.87191	-0.00663108	+0.95453287
e 0.1342519	Incl. 6.23327	-0.02596691	+0.29777362
P 3.91	H 13.0	G 0.15	

Residuals in seconds of arc

751203 095 0.4- 2.5+	900830 400 1.3- 2.2+	920202 809 0.2- 0.6+
880110 399 1.7- 0.3+	900915 675 1.3- 1.7-	920202 809 0.6- 0.2+
880110 399 1.0+ 1.1-	900915 675 1.2- 2.0-	920206 809 0.3+ 0.9-
880110 399 1.4+ 1.3-	900916 400 0.8+ 0.7+	920206 809 0.3+ 1.0-
900830 400 1.5+ 3.3-	900916 400 2.3+ 0.6+	920206 809 0.8- 1.0-
900830 400 0.2- 1.0+	920202 809 0.0 0.2+	

1990 QC19 = 1989 CN3
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 174.01976	(2000.0)	P	Q
n 0.37707343	Peri. 117.86191	+0.38515446	-0.87196491
a 1.8975159	Node 306.21982	+0.65856620	+0.48910740
e 0.0703321	Incl. 21.99983	+0.64648790	+0.02124026
P 2.61	H 14.5	G 0.15	

Residuals in seconds of arc

890204 809 0.5+ 1.1+	890207 809 0.3- 0.5-	900821 675 0.9- 0.4+
890204 809 0.4- 0.6+	900817 675 0.2- 0.5+	900821 675 0.7- 0.9-
890204 809 2.0+ 1.2+	900817 675 0.2- 1.6-	900821 675 0.5+ 0.7+
890207 809 0.8- 1.2-	900818 675 0.2+ 0.3+	900922 675 0.4+ 1.1+
890207 809 1.1- 1.1-	900818 675 (2.7+ 3.3-)	900922 675 1.1+ 0.5-

1990 SB = 1990 UV12
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 204.45174	(2000.0)	P	Q
n 0.26656619	Peri. 86.21663	+0.10952696	+0.99234214
a 2.3911088	Node 190.59468	-0.98977836	+0.10360427
e 0.5484774	Incl. 18.09461	-0.09133808	+0.06725503
P 3.70	H 13.5	G 0.15	

Residuals in seconds of arc

531207 675 0.1- 0.6+	900923 568 (0.2+ 3.4+)	901016 675 1.3- 0.1+
531207 675 0.1- 0.7+	900923 568 (0.4+ 3.3+)	901021 801 0.4- 0.4+
820413 413 0.2+ 1.0+	900924 568 0.4- 0.7+	901021 801 0.4- 0.4+
831227 413 0.3+ 0.6-	900925 657 0.8+ 0.5+	901023 095 2.1+ 1.4-
900916 675 1.5+ 0.5-	900925 657 1.5+ 0.0	901114 801 0.3- 0.2-
900916 675 0.2+ 0.7-	900928 696 (1.6+ 7.1+)Y	901114 801 0.7- 0.4-
900918 675 0.7- 0.4-	901010 413 0.5+ 0.6+	901119 413 1.0+ 0.5-
900918 675 (0.3- 2.3-)	901015 568 (0.6- 2.3+)	901207 688 0.5- 0.1-
900920 657 0.3- 0.2+	901016 808 0.8- 0.9+	901207 688 0.5- 0.2-
900920 657 0.8- 0.4-	901016 801 0.1+ 0.5+	901214 801 0.4- 0.7-
900920 675 0.1- 0.0	901016 808 0.3+ 1.1-	901214 801 0.7- 0.9-
900920 675 0.6- 0.1+	901016 801 0.1- 0.6+	
900923 657 0.9+ 1.4+	901016 675 0.9- 0.1-	

1990 TJ = 1978 UP = 1982 UR1 = 1986 UK2
Id. G. V. Williams (MPC 17451), R. Nagata (ibid.)
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 129.72530	(2000.0)	P	Q
n 0.24474534	Peri. 351.48368	+0.66958722	-0.73932646
a 2.5311998	Node 56.44642	+0.68636895	+0.57937698
e 0.0656261	Incl. 4.89137	+0.28381441	+0.34310159
P 4.03	H 14.0	G 0.15	

Residuals in seconds of arc

781028	688	(3.3- 2.6+)	821021	046	0.6- 0.2+	901016	413	0.1+ 0.4+
781028	688	(3.7+ 0.3+)	861027	010	(22.0- 0.8-)	901028	413	0.9- 1.3+
821016	046	0.9+ 2.3-	861027	010	(14.5- 1.5-)	920227	033	0.1- 0.6-
821016	046	0.3- 1.6-	861027	010	(14.0- 1.0-)	920227	033	0.3+ 0.3+
821020	046	(3.9- 0.6-)	901012	413	1.8- 0.2-	920228	033	0.1- 0.5+
821020	046	1.4+ 1.0+	901012	413	0.5+ 0.6+			
821021	046	(2.8- 1.0-)	901013	413	0.8+ 0.8+			

1990 TM5 = 1992 CW2

Epoch 1992 June 27.0 TT = JDT 2448800.5				Marsden	
M	193.53760	(2000.0)		P	Q
n	0.27008025	Peri.	78.27608	+0.80885855	+0.57982669
a	2.3703228	Node	246.21076	-0.57247700	+0.73861239
e	0.1334488	Incl.	6.13041	-0.13423087	+0.34387898
P	3.65	H	14.5	G 0.15	

Residuals in seconds of arc

900918	675	0.2- 0.2-	901009	413	1.6- 1.3+	920202	809	2.3- 1.3-
900918	675	1.5+ 1.1-	901011	413	1.7+ 0.5-	920206	809	0.3- 0.1+
900920	675	0.6+ 1.1-	920202	809	2.9+ 0.0	920206	809	0.8- 1.4+
900920	675	2.0- 1.6+	920202	809	0.7+ 0.3-	920206	809	0.2- 0.0

1990 UJ1 = 1992 EW1

Epoch 1992 June 27.0 TT = JDT 2448800.5				Williams	
M	113.51629	(2000.0)		P	Q
n	0.22464198	Peri.	197.54127	+0.44420340	-0.88082791
a	2.6800451	Node	226.44718	+0.84671059	+0.47248407
e	0.1608519	Incl.	13.06119	+0.29285580	-0.03001652
P	4.39	H	13.0	G 0.15	

Residuals in seconds of arc

901019	877	1.5- 0.0	901024	046	0.1+ 0.5-	901112	877	0.8- 1.0-
901019	877	(0.4+ 3.6+)	901026	877	1.0+ 1.8+	901112	877	0.3+ 0.4-
901021	877	(3.7+ 2.2+)	901026	877	1.8- 1.1-	920310	413	0.9- 0.4+
901021	877	1.6+ 1.6+	901110	877	1.9+ 1.0+	920310	413	1.1+ 0.7-
901024	046	1.3+ 2.1-	901110	877	0.4+ 0.7-	920311	413	0.2- 0.7+
901024	046	(0.1+ 2.6-)	901110	046	(3.3+ 1.8+)	920311	413	0.0 0.4-
901024	046	0.7- 0.0	901110	046	1.8- 1.4+			

1990 UR1 = 1992 JM

Epoch 1992 June 27.0 TT = JDT 2448800.5				Williams	
M	231.73599	(2000.0)		P	Q
n	0.37336837	Peri.	150.81269	+0.87946602	-0.38172250
a	1.9100484	Node	234.43352	+0.33992889	+0.92183853
e	0.1477259	Incl.	20.45704	+0.33314842	+0.06709447
P	2.64	H	13.5	G 0.15	

Residuals in seconds of arc

901025	675	0.1- 0.6+	901026	675	0.3+ 0.4-	920501	675	1.0- 0.1-
901025	675	0.8- 1.1+	901113	675	0.0 0.2+	920501	675	0.0 0.7-
901026	675	0.5+ 1.4-	901115	675	(0.9+ 14.5+)	920502	675	1.1+ 0.9+

1990 UF2 = 1980 WJ3

Id. E. Bowell (MPC 18823)

Epoch 1992 June 27.0 TT = JDT 2448800.5				Nakano	
M	42.92893	(2000.0)		P	Q
n	0.29091368	Peri.	337.90710	-0.99693112	+0.05859032
a	2.2557620	Node	205.61819	-0.04070186	-0.95445676
e	0.1353685	Incl.	6.89660	-0.06687074	-0.29253968
P	3.39	H	13.9	G 0.15	

Residuals in seconds of arc

801129	675	0.0	0.5-	901030	372	0.1-	0.1+	901123	372	1.2+	1.1+
801201	675	0.1+	1.3-	901114	372	1.2+	0.1+	920405	372	0.7-	0.0
901027	372	(4.6-	0.2+)	901114	372	1.2+	0.6+	920405	372	1.5+	0.1-
901027	372	1.6-	0.3+	901115	372	(6.6-	0.7-)	920411	372	0.1-	0.6+
901028	372	0.9-	1.5+	901123	372	1.8-	1.1+	920411	372	0.2-	2.0+

1990 VL2 = 1978 VE16 = 1992 GU

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M	129.16114		(2000.0)	P	Q
n	0.24759092	Peri.	306.98066	+0.20667881	-0.97740530
a	2.5117683	Node	131.03063	+0.91530182	+0.17715094
e	0.1166216	Incl.	3.36688	+0.34569704	+0.11531016
P	3.98	H	13.5	G 0.15	

Residuals in seconds of arc

781101	095	0.1-	0.2+	901118	809	0.1+	0.0	901121	364	0.2+	1.0-
901111	400	(3.0+	0.9-)	901119	809	1.0-	0.3-	901122	364	0.6-	0.9-
901111	400	1.2+	1.1+	901119	809	0.3-	0.3-	901122	364	1.8+	0.3-
901113	400	0.2-	1.2-	901119	809	0.1+	0.2+	920405	372	0.3+	1.8+
901113	400	0.2+	0.3+	901121	400	0.6+	2.2+	920405	372	1.8+	0.5+
901118	809	1.4-	0.0	901121	400	(3.5+	0.7+)	920410	372	0.4-	0.8-
901118	809	1.0-	0.3-	901121	364	0.5+	0.3+	920410	372	1.8-	1.5-

1990 VN2 = 1979 OF11

Id. S. Nakano (MPC 17644); 1990 VN2 = 1939 NC (ibid.) is invalid

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell

M	89.12708		(2000.0)	P	Q
n	0.19798181	Peri.	302.83698	+0.08045085	-0.98541028
a	2.9155413	Node	141.65910	+0.97611948	+0.04742654
e	0.2486471	Incl.	13.99116	+0.20178807	+0.16345427
P	4.98	H	13.1	G 0.15	

Residuals in seconds of arc

790724	413	0.0	1.0-	901113	372	0.2-	1.5+	920225	372	0.7-	1.6+
790727	675	0.0	0.5+	901113	372	0.1+	0.8+	920303	372	0.3-	0.5+
790728	413	0.0	0.7+	901117	372	(4.3-	2.2-)	920303	372	0.7-	0.7-
901110	372	(4.2+	1.6-)	901117	372	(5.4-	2.6-)	920322	372	1.2+	0.5-
901110	372	0.1+	2.2-	920225	372	0.6+	0.7-	920322	372	(3.9+	1.2-)

1990 VR3 = 1973 UP4 = 1979 YT9 = 1992 DD2

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M	102.01244		(2000.0)	P	Q
n	0.17412213	Peri.	13.21468	+0.55073076	-0.82946519
a	3.1761431	Node	43.46759	+0.75296260	+0.44552868
e	0.1768056	Incl.	7.78475	+0.36019848	+0.33688529
P	5.66	H	12.0	G 0.15	

Residuals in seconds of arc

731029	095	0.3+	0.8-	901115	374	0.5-	0.4-	920229	033	0.4+	0.3-
791225	095	0.1-	0.5+	901116	875	0.8-	0.9-	920229	033	0.1+	0.5-
901111	374	(0.3+	3.5-)	901116	875	0.0	0.4-	920301	033	0.7-	0.4+
901111	374	(4.3+	0.5-)	901121	875	0.9+	1.0+				
901115	374	(5.8+	0.8+)	901121	875	0.3+	1.0+				

1990 XB = 1963 VE = 1992 GB

Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano

M	86.55351		(2000.0)	P	Q
n	0.18494483	Peri.	30.56013	-0.16648869	-0.97115760
a	3.0509933	Node	69.48731	+0.86381566	-0.22712601
e	0.0747552	Incl.	10.50045	+0.47550396	+0.07257194
P	5.33	H	11.6	G 0.15	

Residuals in seconds of arc

631111	760	1.2-	0.6-	901210	875	0.1-	1.8+	920405	372	1.6-	0.5+
631111	760	1.5+	0.1-	901213	875	0.6+	0.3+	920405	372	0.1+	0.3+
901208	403	0.1+	1.1+	901213	875	0.9-	0.2+	920420	372	0.4+	2.0-
901208	403	0.3-	0.4-	901216	403	1.4-	0.3+	920420	372	1.5+	2.0-
901210	403	2.0+	2.6-	901216	403	1.8-	0.6-	920421	372	0.1+	0.7+
901210	403	1.2+	1.1-	920402	372	0.3-	0.1+				
901210	875	0.6+	1.3+	920402	372	0.2-	1.9+				

1990 YH = 1986 CE1
Id. T. Urata (MPC 17829)

Epoch 1992 June 27.0 TT = JDT 2448800.5				Urata
M 112.52341		(2000.0)	P	Q
n 0.18771749	Peri.	322.39975	-0.16195730	-0.97770183
a 3.0208760	Node	136.45721	+0.94592395	-0.19240132
e 0.0674140	Incl.	11.18877	+0.28106533	+0.08414792
P 5.25	H	11.2	G 0.15	

Residuals in seconds of arc

860207	054	1.1+	2.7-	910106	885	0.7-	3.4+	920412	385	2.1+	0.4+
860208	054	0.4-	1.1+	910111	675	0.1-	0.3+	920430	885	1.2-	0.3-
860211	054	0.8-	1.0+	910111	675	0.7+	0.1-	920430	885	1.1-	2.1+
901222	885	1.4+	4.5-	910113	885	0.1-	0.1-	920501	885	1.2-	0.6+
901222	885	3.9+	2.1-	910113	885	0.4-	0.1-	920501	385	0.5+	1.4-
901223	885	1.2-	1.0+	910115	675	0.1+	0.6-	920501	385	1.4+	0.2-
901223	885	0.3+	2.4+	910115	675	1.0-	1.7-				
910106	885	2.7-	2.6+	920412	385	0.5-	1.0-				

1991 JY

Epoch 1992 June 27.0 TT = JDT 2448800.5				Williams
M 188.37371		(2000.0)	P	Q
n 1.06872190	Peri.	37.43076	+0.07341147	-0.76163734
a 0.9474571	Node	58.58587	+0.63016481	-0.46494248
e 0.2959136	Incl.	48.97399	+0.77298323	+0.45137242
P 0.92	H	16.5	G 0.15	

Residuals in seconds of arc

910514	675	1.2+	1.2-	910517	568	0.3-	0.3-	910519	091	(4.2+	1.9+)
910514	675	0.8-	0.6-	910517	675	0.6+	0.7-	910519	091	(4.0-	3.7-)
910515	675	0.2+	0.7-	910517	413	0.5+	1.3+	910520	688	(2.9+	0.3+)
910515	675	0.9+	0.3+	910517	413	0.2+	1.0+	910520	688	(3.3+	0.1-)
910516	675	(0.9-	3.2-)	910517	413	0.3-	0.5+	910530	413	0.8+	1.1-
910516	675	0.7+	1.7-	910517	568	1.8+	0.9-	910530	413	0.9+	1.2-
910516	413	0.5+	0.3+	910518	675	0.4-	1.0-	910531	413	0.1+	1.6-
910516	413	0.2+	0.6+	910518	688	0.6+	0.1-	910531	413	0.5+	1.4-
910516	413	0.5+	0.2+	910518	688	1.1+	0.5+	910601	413	0.3+	0.8-
910516	413	0.3-	0.6+	910518	675	(4.8-	4.7-)	910603	413	1.0-	1.0-
910516	413	0.1-	0.9+	910518	568	0.4-	1.0+	910616	413	0.1+	0.6-
910516	413	0.5-	0.7+	910518	413	0.2+	0.7+	910711	474	0.0	1.6-
910516	413	1.3-	0.4+	910518	413	0.0	0.4+	910711	474	0.5+	1.7-
910516	413	1.4-	1.0+	910518	413	0.4-	0.4+	920430	474	2.2-	0.5-
910517	801	0.8-	0.2-	910519	674	(7.0-	3.3-)	920430	474	2.6-	1.5-
910517	801	1.0-	0.2-	910519	674	1.5-	0.3+	920502	474	1.1-	1.6-
910517	801	0.9-	0.3-	910519	675	(2.0-	0.6-)	920502	474	0.3-	1.6-
910517	801	0.8-	0.3-	910519	688	0.6+	1.0+	920503	413	(0.4+	3.9-)
910517	675	(3.1-	1.5+)	910519	091	(0.1-	4.0+)				

1991 PB13 = 1982 BO14
Id. S. J. Bus

Epoch 1992 June 27.0 TT = JDT 2448800.5 Bowell
M 339.82071 (2000.0) P Q
n 0.17123262 Peri. 321.59423 +0.45771353 -0.88817593
a 3.2117745 Node 101.13259 +0.82559823 +0.40766682
e 0.1400737 Incl. 2.36680 +0.32997862 +0.21201718
P 5.76 H 11.6 G 0.15
Residuals in seconds of arc

820130	675	0.2-	0.0	910808	675	0.6+	0.0	910907 399 1.6- 0.3+
820131	675	0.2+	0.1-	910808	675	0.3-	0.2+	910912 675 0.8+ 0.4-
910805	675	0.1+	0.4-	910907	399	0.3+	0.3+	910912 675 0.2+ 0.0

1991 RC
Epoch 1992 June 27.0 TT = JDT 2448800.5 Bardwell
M 17.30668 (2000.0) P Q
n 0.87718908 Peri. 8.24604 -0.98000171 -0.15446544
a 1.0807881 Node 161.39053 +0.15265994 -0.98798879
e 0.8259788 Incl. 23.14812 +0.12763856 -0.00430976
P 1.12 H 17.0 G 0.15
From 9 observations 1991 Sept. 3-Oct. 8, mean residual 0".60.

1991 RA10 = 1980 PW4
Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa
M 124.96874 (2000.0) P Q
n 0.27594175 Peri. 45.68633 +0.64142226 +0.76145801
a 2.3366362 Node 264.44769 -0.72793248 +0.56553360
e 0.0704411 Incl. 5.39559 -0.24226388 +0.31678612
P 3.57 H 14.2 G 0.15
Residuals in seconds of arc

800804	675	0.4-	0.3+	910910	675	0.1+	0.6-	910914 675 0.6- 2.4-
800805	675	0.4+	0.3-	910912	675	0.3+	1.5+	910914 675 0.5+ 1.6+
910910	675	0.2-	0.1+	910912	675	0.1-	0.1-	

1991 RE11 = 1989 BD1
Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa
M 43.36454 (2000.0) P Q
n 0.28778751 Peri. 123.37870 +0.52488164 -0.84798864
a 2.2720685 Node 294.79297 +0.75154165 +0.50229281
e 0.1717799 Incl. 4.64917 +0.39960531 +0.16916617
P 3.42 H 14.2 G 0.15
Residuals in seconds of arc

890126	046	0.5-	0.4-	890128	046	1.5-	0.2+	910915 675 0.2+ 0.1+
890126	046	0.1+	0.0	890128	046	0.7+	0.5+	910915 675 0.7+ 0.1+
890127	046	0.6+	0.4-	910913	675	0.0	1.0-	910917 675 0.7- 1.4+
890127	046	0.5+	0.0	910913	675	0.6+	0.1-	910917 675 0.7- 0.5-

1991 RD24 = 1979 HU4 = 1982 BW10 = 1987 OA1
Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa
M 147.65566 (2000.0) P Q
n 0.26202217 Peri. 138.46314 -0.17185623 +0.98158771
a 2.4186741 Node 121.48351 -0.92765967 -0.13276936
e 0.1061494 Incl. 5.61046 -0.33153125 -0.13732395
P 3.76 H 13.4 G 0.15
Residuals in seconds of arc

790425	095	0.5+	0.4+	870728	010	0.1+	0.5-	910914 675 0.9- 0.6-
790430	095	0.0	1.1+	870728	010	1.5-	0.5-	910914 675 0.7- 0.6+
820119	095	0.2+	0.6+	910912	675	0.0	0.7+	910916 675 1.7+ 0.4+
870728	010	1.6+	0.5-	910912	675	0.5-	0.4-	910916 675 0.3- 1.7+

1992 BB
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 29.01000 (2000.0) P Q
n 0.38180593 Peri. 330.31320 -0.92867311 -0.32428848
a 1.8818035 Node 194.67297 +0.24736236 -0.90315391
e 0.2671690 Incl. 45.28789 -0.27636592 +0.28133610
P 2.58 H 15.5 G 0.15
From 18 observations 1992 Jan. 25-Apr. 23, mean residual 0".46.

1992 CE1 = 1969 FG = 1977 SE = 1977 TF2 = 1983 RE4
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 81.30600 (2000.0) P Q
n 0.16791498 Peri. 283.30088 -0.07019163 -0.99547316
a 3.2539416 Node 170.03663 +0.99675916 -0.07252298
e 0.0369821 Incl. 21.73831 +0.03929782 +0.06142963
P 5.87 H 11.0 G 0.15
Residuals in seconds of arc
690323 095 0.9+ 0.7+ 831009 688 2.6+ 0.5+ 920224 400 (0.0 3.5-)
770918 095 3.4- 3.2+ 831009 688 0.4+ 1.3+ 920304 400 0.7- 1.8-
771007 095 (2.2- 4.7+) 920209 400 1.2+ 0.9+ 920304 400 0.6- 0.7+
830904 688 0.8+ 1.3- 920209 400 0.6+ 1.8+ 920308 400 1.0- 1.5+
830904 688 0.3- 1.5- 920224 400 0.1- 1.6-

1992 CH1
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 67.11367 (2000.0) P Q
n 0.47606438 Peri. 355.45371 -0.78496558 -0.58439367
a 1.6243973 Node 145.97745 +0.57937866 -0.81003448
e 0.2892791 Incl. 21.57012 +0.21942973 +0.04825131
P 2.07 H 18.5 G 0.15
From 10 observations 1992 Feb. 11-Apr. 11, mean residual 0".68.

1992 DC
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 33.83839 (2000.0) P Q
n 0.25256059 Peri. 151.98857 -0.80701949 -0.58996200
a 2.4787097 Node 351.71145 +0.50288733 -0.66371712
e 0.4617627 Incl. 10.29993 +0.30955432 -0.45980912
P 3.90 H 17.5 G 0.15
From 10 observations 1992 Feb. 26-Apr. 22, mean residual 0".51.

1992 EB1
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 10.37244 (2000.0) P Q
n 0.15888885 Peri. 231.11624 -0.89711493 +0.40553979
a 3.3760362 Node 331.50249 -0.19522274 -0.71978927
e 0.5714302 Incl. 21.55324 -0.39632422 -0.56341893
P 6.20 H 16.5 G 0.15
From 13 observations 1992 Mar. 10-Apr. 30, mean residual 0".76.

1992 ED1 = 1990 TE15 = 1990 VO13
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 108.81676 (2000.0) P Q
n 0.23417559 Peri. 190.19279 +0.31872527 -0.92573757
a 2.6068035 Node 241.47681 +0.88512486 +0.36750526
e 0.1447029 Incl. 13.39397 +0.33906959 -0.08916189
P 4.21 H 12.5 G 0.15

Residuals in seconds of arc

901013 095	(1.3-	10.7-)	910215 493	0.6-	0.0	920313 413	1.0-	0.6+
901013 095	0.8-	0.9+	910215 493	0.3-	0.4-	920314 413	1.0+	0.3+
901017 095	0.2-	1.5+	920310 413	0.8-	1.0+	920315 413	0.5-	0.1-
901017 095	(3.3+	1.4+)	920310 413	2.0+	0.6-	920331 413	0.1+	0.3-
901114 095	1.4+	1.7-	920311 413	0.2+	0.0			
901114 095	(4.5+	2.9-)	920311 413	0.9-	0.2-			

1992 ES1 = 1970 GX1 = 1981 FK1

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M	331.46083	(2000.0)	P	Q	
n	0.26743540	Peri.	215.99674	-0.31177781	+0.94548195
a	2.3859250	Node	36.10477	-0.83014318	-0.22286900
e	0.1768658	Incl.	9.19088	-0.46223035	-0.23747273
P	3.69	H	13.4	G 0.15	

Residuals in seconds of arc

700412 805	0.2+	0.2+	920308 399	1.5+	0.0	920403 399	0.3-	0.3-
700412 805	0.4-	0.3+	920308 399	1.4+	0.3+	920403 399	1.1-	1.1-
700412 805	0.1-	0.4+	920326 399	2.0-	0.5+	920407 399	0.8-	0.4+
810329 095	1.6+	0.3-	920326 399	(3.5-	0.2+)	920407 399	0.0	0.6-

1992 FD = 1953 FX

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M	341.55495	(2000.0)	P	Q	
n	0.27639320	Peri.	34.26961	-0.85938785	+0.51040901
a	2.3340912	Node	176.03021	-0.50882498	-0.85956244
e	0.1172429	Incl.	26.21359	+0.05049409	+0.02520014
P	3.57	H	13.0	G 0.15	

Residuals in seconds of arc

530316 024	1.3+	1.4-	920326 413	0.3+	0.2-	920404 413	0.1+	1.6-
530320 024	1.3-	1.4+	920329 413	0.5-	0.0	920430 413	0.3+	0.1+
920326 413	0.4+	1.0+	920330 413	0.5-	0.6+			

1992 FE

Epoch 1992 Apr. 8.0 TT = JDT 2448720.5 Williams

M	122.23459	(2000.0)	P	Q	
n	1.10407495	Peri.	82.24662	+0.82177198	-0.56645168
a	0.9271223	Node	312.23228	+0.48434014	+0.75154022
e	0.4051759	Incl.	4.79034	+0.30017567	+0.33811210
P	0.89	H	17.0	G 0.15	

From 16 observations 1992 Mar. 26-Apr. 22.

1992 FJ = 1982 JH3

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M	63.42592	(2000.0)	P	Q	
n	0.28912657	Peri.	292.15903	-0.86066571	-0.50720038
a	2.2650479	Node	217.40482	+0.49008019	-0.80135301
e	0.0923786	Incl.	4.22451	+0.13811570	-0.31714528
P	3.41	H	14.3	G 0.15	

Residuals in seconds of arc

820515 675	0.9+	0.4+	820518 675	0.5+	0.3-	920419 399	0.6-	0.6-
820516 675	2.4-	0.5+	920323 399	(4.4+	1.1+)	920419 399	1.0-	0.2-
820516 675	0.2+	1.0+	920324 399	0.6+	0.5+	920423 399	1.1+	0.1-
820517 675	0.8+	1.4-	920324 399	0.4-	0.1-	920423 399	0.3+	0.5+

1992 FN = 1982 DX4 = 1984 YR4
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 30.52704 (2000.0) P Q
n 0.29938243 Peri. 354.08570 -0.99849397 +0.05472415
a 2.2130192 Node 189.05406 -0.04926990 -0.92558614
e 0.1200157 Incl. 1.41281 -0.02413015 -0.37456049
P 3.29 H 13.4 G 0.15
Residuals in seconds of arc

820222 010	0.6+	1.5+	920323 400	0.2+	0.2+	920328 400	0.4+	1.0-
841228 095	0.1-	0.9-	920324 400	1.8+	0.8+	920423 400	0.6-	1.3+
920323 400	0.4-	0.8-	920324 400	2.7-	0.1-	920423 400	0.9+	1.5-

1992 FP = 1978 WG9 = 1990 XR1
Epoch 1992 June 27.0 TT = JDT 2448800.5 Ichikawa
M 346.50334 (2000.0) P Q
n 0.17247922 Peri. 174.61685 -0.67583306 +0.73656812
a 3.1962803 Node 52.86099 -0.67748187 -0.60648914
e 0.1689232 Incl. 1.92502 -0.29028949 -0.29939660
P 5.71 H 12.5 G 0.15
Residuals in seconds of arc

781129 675	1.0-	0.1-	901213 801	0.1-	0.1+	920326 399	0.4+	0.9-
781129 675	(3.6+	0.0)	920323 400	1.3+	1.1+	920326 399	1.6-	0.0
781130 675	0.1+	0.3-	920323 400	1.5+	1.9+	920328 400	0.7+	0.9+
781130 675	1.1+	0.1-	920324 400	1.3-	1.2-	920328 400	1.1-	2.1-
901213 801	0.2+	0.3+	920324 400	0.0	0.1+			

1992 FS = 1980 TN9 = 1989 TV12
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 300.72686 (2000.0) P Q
n 0.21924638 Peri. 245.40422 +0.20111022 +0.97778614
a 2.7238369 Node 36.35462 -0.85884415 +0.20500393
e 0.1397437 Incl. 5.71869 -0.47110658 +0.04367665
P 4.50 H 12.6 G 0.15
Residuals in seconds of arc

801013 095	0.6-	1.0+	920323 400	2.2-	0.1+	920328 400	(4.8+	3.0+)
891003 809	0.2-	0.3-	920324 400	0.5-	1.7-	920328 400	0.3+	0.6+
891003 809	0.3+	0.3-	920324 400	1.6+	0.3-	920423 400	1.8+	0.4-
891003 809	0.3+	0.0	920326 399	2.4-	2.2+	920423 400	2.3+	0.6-
920323 400	(1.8-	3.6+)	920326 399	0.5-	0.5+			

1992 FA1 = 1979 OM16 = 1982 KE = 1986 RC10 = 1990 WA13
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda
M 330.51356 (2000.0) P Q
n 0.29175354 Peri. 24.26450 -0.04492921 +0.99683990
a 2.2514309 Node 243.21711 -0.92813344 -0.06590929
e 0.1225198 Incl. 4.20829 -0.36952629 +0.04434158
P 3.38 H 13.3 G 0.15
Residuals in seconds of arc

790731 095	0.9-	0.9+	901124 400	0.8+	0.5-	920423 399	0.6-	0.6-
790819 095	0.8+	1.4+	901124 400	0.5-	0.6-	920427 399	0.6+	0.7-
820521 688	1.0-	0.3-	920326 399	1.4+	0.8+	920427 399	0.7-	0.6-
820521 688	0.5+	0.3-	920326 399	1.3-	1.1-	920502 399	0.7-	0.3+
860908 095	0.1+	2.8-	920328 399	1.6+	0.7-	920502 399	0.7-	0.3-
860911 095	1.1+	2.1-	920328 399	0.5-	0.3-			

1992 FJ1 = 1963 DP = 1980 DQ = 1982 PJ1
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M	353.22474	(2000.0)	P	Q
n	0.17214806	Peri. 258.25275	-0.73686450	+0.63811287
a	3.2003781	Node 320.78414	-0.39549695	-0.67472541
e	0.1608061	Incl. 20.67796	-0.54828174	-0.37088757
P	5.73	H 11.0	G 0.15	

Residuals in seconds of arc

630227 760	2.0-	2.6-	800220 046	0.4-	0.2-	920324 413	0.7+	0.3-
630227 760	1.9+	2.5+	800221 046	0.5+	0.8+	920328 413	0.1-	0.5+
800219 046	1.3+	0.6+	800222 046	0.2+	0.2+	920401 413	0.2-	0.6+
800219 046	1.5-	0.7-	820815 095	1.1-	1.2+	920412 413	0.2-	0.8-
800220 046	0.6+	0.4+	920324 413	0.8+	0.2+	920430 413	0.6-	0.1+

1992 FL1
Epoch 1992 Apr. 8.0 TT = JDT 2448720.5 Williams

M	3.02929	(2000.0)	P	Q
n	0.24466794	Peri. 237.67126	-0.96163873	+0.26721986
a	2.5317336	Node 317.73659	-0.21033249	-0.86334882
e	0.4187342	Incl. 5.28982	-0.17609994	-0.42804481
P	4.03	H 16.5	G 0.15	

From 12 observations 1992 Mar. 26-May 3.

1992 FP1 = 1976 SG6 = 1988 JH
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M	342.50279	(2000.0)	P	Q
n	0.23634384	Peri. 79.94199	-0.18945680	+0.98188400
a	2.5908356	Node 179.11817	-0.96188341	-0.18495092
e	0.2587490	Incl. 11.82008	-0.19719643	-0.04119437
P	4.17	H 12.8	G 0.15	

Residuals in seconds of arc

760925 095	0.0	0.1-	880516 897	1.0+	1.0-	920331 400	0.1+	0.9-
880513 897	1.2+	1.2+	920328 400	1.4-	0.1+	920502 400	0.1+	0.7+
880513 897	0.4-	0.7+	920328 400	0.2+	0.2+	920502 400	0.9+	0.9-
880516 897	1.7-	0.8-	920331 400	0.1+	0.7+			

1992 FS1 = 1989 NF
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M	325.83091	(2000.0)	P	Q
n	0.28979714	Peri. 172.64220	+0.12969564	+0.98422975
a	2.2615524	Node 104.75422	-0.91595238	+0.16538555
e	0.1732897	Incl. 7.14591	-0.37975028	-0.06276488
P	3.40	H 13.1	G 0.15	

Residuals in seconds of arc

890701 675	0.1+	0.1-	920328 400	0.5-	0.8+	920407 400	0.8+	0.4+
890701 675	0.5+	0.2-	920328 400	0.2+	0.1-	920407 400	1.2-	0.8+
890703 675	0.1+	0.2+	920331 400	0.6+	0.7-			
890703 675	0.7-	0.0	920331 400	0.1+	1.1-			

1992 FZ1 = 1979 WW3 = 1979 YE4
Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda

M	264.99344	(2000.0)	P	Q
n	0.27212245	Peri. 189.55219	+0.75673897	+0.64543430
a	2.3584489	Node 129.72768	-0.59051885	+0.74298799
e	0.1327514	Incl. 7.75159	-0.28041686	+0.17715364
P	3.62	H 12.8	G 0.15	

Residuals in seconds of arc

791116	095	0.4+	0.3+		920328	399	0.2+	0.6+		920407	399	0.8+	0.8-
791218	095	0.4-	0.3-		920403	399	1.1-	0.5-		920407	399	1.9+	0.3-
920328	399	0.4+	0.0		920403	399	2.1-	1.1+					

1992 HE

Epoch 1992 Apr. 28.0 TT = JDT 2448740.5					Williams
M	343.64320		(2000.0)	P	Q
n	0.30034060	Peri.	262.91607	+0.25242076	+0.92718637
a	2.2083099	Node	27.25472	-0.45806390	+0.36646577
e	0.5661567	Incl.	37.18575	-0.85232695	+0.07764198
P	3.28	H	14.0	G 0.15	

From 13 observations 1992 Apr. 25-May 5.

1992 HF

Epoch 1992 Apr. 28.0 TT = JDT 2448740.5					Marsden
M	302.55601		(2000.0)	P	Q
n	0.60427345	Peri.	128.01812	+0.93764188	+0.32380428
a	1.3856292	Node	213.63306	-0.34446151	+0.91433170
e	0.5591678	Incl.	13.19245	+0.04662593	+0.24320430
P	1.63	H	19.5	G 0.15	

From 16 observations 1992 Apr. 24-May 4.

1992 JB

Epoch 1992 Apr. 28.0 TT = JDT 2448740.5					Williams
M	25.96974		(2000.0)	P	Q
n	0.50998306	Peri.	306.64996	-0.94742508	-0.27005721
a	1.5515492	Node	218.53686	+0.30020659	-0.93582329
e	0.3581402	Incl.	15.99015	-0.11073267	-0.22650361
P	1.93	H	17.5	G 0.15	

From 12 observations 1992 May 1-May 7.

1992 JD

Epoch 1992 June 27.0 TT = JDT 2448800.5					Marsden
M	122.08946		(2000.0)	P	Q
n	0.93681315	Peri.	286.12279	-0.83717426	-0.52335118
a	1.0344291	Node	222.67185	+0.54687264	-0.80541049
e	0.0317617	Incl.	13.55659	-0.00834107	-0.27823997
P	1.05	H	25.0	G 0.15	

From 20 observations 1992 May 3-6, mean residual 0".76.

1992 JE

Epoch 1992 Apr. 28.0 TT = JDT 2448740.5					Williams
M	327.29663		(2000.0)	P	Q
n	0.28046214	Peri.	108.13451	+0.56185311	+0.82660845
a	2.3114609	Node	196.17288	-0.79599214	+0.52961040
e	0.4824080	Incl.	6.64718	-0.22520567	+0.19034518
P	3.51	H	15.9	G 0.15	

From 9 observations 1992 May 2-6.

1992 JG

Epoch 1992 Apr. 28.0 TT = JDT 2448740.5					Marsden
M	323.34768		(2000.0)	P	Q
n	0.29123081	Peri.	239.28815	+0.47017676	+0.87863435
a	2.2541242	Node	58.98423	-0.77287629	+0.45546162
e	0.4198701	Incl.	5.57640	-0.42614089	+0.14337502
P	3.38	H	17.0	G 0.15	

From 11 observations 1992 May 2-4.

4722 P-L = 1992 HB
Epoch 1992 June 27.0 TT = JDT 2448800.5 Nakano
M 24.18497 (2000.0) P Q
n 0.26730131 Peri. 343.89751 -0.96546348 +0.26018681
a 2.3867229 Node 211.19371 -0.23606462 -0.89556714
e 0.1528262 Incl. 1.49700 -0.11024406 -0.36091872
P 3.69 H 14.2 G 0.15
Residuals in seconds of arc

600924	675	0.4+	0.5-	600928	675	0.5-	0.1-	920423	372	1.5-	0.0
600926	675	0.1+	1.5-	601017	675	0.4+	0.5+	920423	372	0.7+	1.5-
600927	675	0.6-	0.7+	920422	372	0.6+	0.6-				
600928	675	0.1+	1.0+	920422	372	0.3+	2.3+				

3006 T-3 = 1987 VA = 1990 RL12
Id. T. Kobayashi (MPC 13476), G. V. Williams
Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams
M 155.98276 (2000.0) P Q
n 0.29721722 Peri. 350.19279 +0.91981911 -0.38718645
a 2.2237540 Node 32.81481 +0.36742935 +0.79342627
e 0.1148052 Incl. 6.71835 +0.13758079 +0.46963967
P 3.32 H 13.5 G 0.15
Residuals in seconds of arc

771016	675	0.9-	0.8-	870925	095	2.5+	2.5+	871115	400	(3.2-	3.0+)
771016	675	0.5+	0.8-	871113	399	0.2+	0.8- Y	900915	675	0.1-	1.1+
771017	675	0.5-	0.4+	871113	399	0.3+	1.2+ Y	900915	675	1.0-	1.2+
771017	675	0.7+	1.4+	871113	399	1.4+	1.2+ Y	920227	033	0.0	0.4+
771021	675	2.0+	2.1-	871114	399	2.3-	0.4- Y	920227	033	0.0	0.3+
771021	675	2.2+	1.3-	871114	399	2.3-	0.5- Y	920228	033	0.5+	0.3+
771022	675	0.8-	1.1-	871114	399	1.6-	1.4+ Y				
771022	675	0.6-	0.6-	871115	400	(4.1-	1.6+)				

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NEW NAMES OF MINOR PLANETS.

(2749) Walterhorn = 1937 TD
Discovered 1937 Oct. 11 by K. Reinmuth at Heidelberg.
Named in memory of Walter Horn (1881-1967), promoter of astronomical knowledge in Nordrhein-Westfalen, Germany's most industrialized area. Horn founded the public observatory in Solingen and, as early as 1924, a society for amateur astronomers. He was considered, not only as an amateur with remarkable didactic skills, but also as a philanthropist who helped many people in the economically unstable mid 1920s. Name proposed and citation prepared by L. D. Schmadel and W. Schlosser.

(2957) Tatsuo = 1934 CB1
Discovered 1934 Feb. 5 by K. Reinmuth at Heidelberg.
Named in honor of Tatsuo Yamada (1923-), who is a Japanese observer and researcher of variable stars. Yamada was the director of the variable star section of the Oriental Astronomical Association (O.A.A.), and he is devoted to the diffusion of astronomical knowledge. Yamada has continued to hold monthly meetings of the Nagoya branch of the O.A.A. since 1954. Name proposed by T. Furuta, who found the identifications involving this planet, and who was inspired by T. Yamada.

(3734) Waland = 9527 P-L
Discovered 1960 Oct. 17 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.

Named in honor of Scottish optician Robert L. Waland, who developed new techniques for making the optics of Schmidt telescopes. In the 1960s, when he was at the University of Arizona's Lunar and Planetary Laboratory, he made the superb mirrors for the 1.54-meter reflector at the Catalina Station. Waland authored the book 'Optics of the Cassegrain Telescope' in 1990.

(4014) Heizman = 1979 SG10

Discovered 1979 Sept. 28 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Leonie A. Heizman, docent of the historical museum at the San Juan Capistrano mission, and Charles L. Heizman, master of technical sciences working in the computer business. They served as hostess and host to the discoverer and K. I. Churyumov during the conference on Near Earth Asteroids in San Juan Capistrano during 1991 June 30-July 3.

(4182) Mount Locke = 1951 JQ

Discovered 1951 May 2 at the McDonald Observatory.

Named for the mountain on which the McDonald Observatory is situated. The Cook instrument was placed on Mount Locke to take all the plates for the McDonald Survey. Name proposed by I. van Houten-Groeneveld, one of the people who worked on the Survey.

(4343) Tetsuya = 1988 AC

Discovered 1988 Jan. 10 by S. Ueda and H. Kaneda at Kushiro.

Named in honor of Tetsuya Fujii (1960-), active observer and discoverer of minor planets and director of the astronomical club in Kitami, where he also works for the NHK broadcasting office.

(4351) Nobuhisa = 1989 UR1

Discovered 1989 Oct. 28 by Y. Mizuno and T. Furuta at Kani.

Named in honor of Nobuhisa Kojima (1933-), who has been interested in astronomy since childhood. Kojima was the first Japanese amateur to make a Schmidt camera, and he discovered two comets (1970r and 1972j) photographically with a 0.30-m reflector of his own making. Kojima was also the first Japanese amateur to discover a minor planet that was given a provisional designation (1973 MA). Kojima is an inspiration for other astronomical discoverers.

(4511) Rembrandt = 1935 SP1

Discovered 1935 Sept. 28 by H. van Gent at Johannesburg.

Named after Rembrandt Harmensz van Rijn, the greatest Dutch painter of the 17th century, born in 1606 in Leiden. He died in Amsterdam in 1669.

(4553) Doncampbell = 1982 RH

Discovered 1982 Sept. 15 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Named in honor of Donald B. Campbell, planetary scientist at Cornell University, on the occasion of his 50th birthday. Campbell is responsible for the development of the Arecibo Observatory's high-power radar system and the considerable success of the Arecibo radar astronomy program during the past quarter century. He has carried out radar observations of every class of solar system target during this period. He is the discoverer of a large number of Venus surface features whose geologic character is now being clarified by the Magellan radar. Campbell's contributions to small-body astronomy include the first radar ranging to an asteroid (433 Eros in 1975) and observations that revealed the existence of large-particle clouds around comets. Name suggested and citation written by S. J. Ostro.

(4557) Mika = 1987 XD
Discovered 1987 Dec. 14 by M. Yanai and K. Watanabe at Kitami.
Named in honor of Mika Watanabe (1963-), wife of the second discoverer.

(4646) Kwee = 4009 P-L
Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.
Named in honor of the Leiden astronomer Kiem King Kwee (1927-), who works intensively on variable stars, using their lightcurves to determine the characteristics of those systems by means of the Wilson-Devinney program. While observing at Palomar in 1963 he codiscovered a well-known short-period comet.

(4655) Marjoriika = 1978 RS
Discovered 1978 Sept. 1 by N. S. Chernykh at the Crimean Astrophysical Observatory.
Named in honor of Marjo Riika Kuusela (1964-), specialist in Russian literature, whose perfect knowledge of the Russian language, lively wit and amiable disposition won the respect and friendship of all Russian-speaking participants at the Asteroids, Comets, Meteors 1991 conference in Flagstaff, Arizona.

(4705) Secchi = 1988 CK
Discovered 1988 Feb. 13 at the Osservatorio San Vittore.
Named in memory of Angelo Secchi (1818-1878), Italian astronomer, director of the observatory of the Collegio Romano in Rome from 1848 to 1878. Famous for his work on stellar spectroscopy, he made the first spectroscopic survey of the heavens, and his classification scheme divided the spectra of the stars into four groups. Secchi also made an extensive study of solar phenomena and was a co-founder of the Societa degli Spettroscopisti Italiani, now the Societa Astronomica Italiana.

(4721) Atahualpa = 4239 T-2
Discovered 1973 Sept. 29 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.
On the 500th anniversary of the discovery of the Americas by Columbus, we want to remember the last king of the Incas in Peru: Atahualpa. He was born c. 1502 and was killed--even after he paid a room full of jewels and gold as a ransom--by the conquistador Pizarro in 1533.

(4752) Myron = 1309 T-2
Discovered 1973 Sept. 29 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.
Myron of Eleutherae (fl. 470 B.C.) in Attica, one of the most celebrated Greek artists, was a pupil of Ageladus and an older contemporary of Phidias and Polyclitus. His works, mostly in bronze, include his statue of the 'Argive runner Ladas' and the Discobolus (discus-thrower), several marble copies of which are known.

(4753) Phidias = 4059 T-3
Discovered 1977 Oct. 16 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.
Named for the famous Greek artist, born c. 500 B.C. in Athens, a pupil of Ageladus. Eminent as an architect, a sculptor in bronze and a painter, Phidias was a friend of Pericles and his work is said to have included sculptures for the Acropolis. Phidias died in prison in 432 B.C.

(4757) Liselotte = 1973 ST
Discovered 1973 Sept. 19 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.
Named after Elisabeth Charlotte von der Pfalz (1652-1722), known under her penname of Liselotte. A daughter of Kurfurst (Count Palatine) Karl Ludwig von der Pfalz, Liselotte married the brother of Louis XIV, Count Philipp I of Orleans. Her correspondence with her aunt, Kurfurstin Sophie von der Pfalz (wife of Herzog Ernst August of Hannover) and other famous contemporaries is preserved and gives a vivid insight into life at the time.

(4846) Tuthmosis = 6575 P-L
Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.
Tuthmosis (also written Thothmose) was the name of four Egyptian pharaohs of the 18th dynasty. The name means 'child of the god Thot'. Tuthmosis I was the first king to be buried in the Valley of the Tombs of the Kings near Thebes. Tuthmosis III was the successor of his stepmother and regent, Hatshepsut.

(4847) Amenhotep = 6787 P-L
Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.
Named after pharaohs of the 18th dynasty. Amenhotep (Greek name Amenophis) means 'Amun is merciful'. Amenhotep II was buried in the Valley of the Kings and his tomb records his military successes. Amenhotep III built one of the most famous temples at Luxor, and his mummy is now in the Cairo Museum.

(4848) Tutenchamun = 3233 T-2
Discovered 1973 Sept. 30 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.
Named after the 18th dynasty Pharaoh Tut-ench-Amun or Tutanchamun, 1355-1337 B.C., son-in-law and probably also son of Echnation and Nofretete (also named Nefertiti). He died unexpectedly, probably violently, at about 18 years of age. His fabulously decorated tomb was undisturbed when discovered in 1922 by Howard Carter.

(4876) Strabo = 1133 T-2
Discovered 1973 Sept. 29 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.
Named after the Greek geographer Strabo (Greek Strabon: 63 B.C.-c. A.D. 23), who devoted himself to historical and geographical studies and who took long journeys through Asia Minor, Egypt, Greece and Italy. His 47-volume 'Historical Sketches' exists today only as fragments, but his 17-volume 'Geographica' survives almost intact.

(4877) Humboldt = 5066 T-2
Discovered 1973 Sept. 25 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.
Named after the scientist Friedrich Heinrich Alexander Freiherr von Humboldt (1769-1859), who made extended expeditions to Siberia and South America to study the flora and geology of each region. His main publication was 'Cosmos, Entwurf einer physikalischen Weltbeschreibung'.

(4900) Maymelou = 1988 ME
Discovered 1988 June 16 by E. F. Helin at Palomar.
Named in honor of Mayme Lou "Stevey" Stevens Bruce, a graduate of Pomona College, California. Mother of three daughters, she and her

husband, Stuart Bruce, have had a long fascination with travel to remote corners of the world. The recently published book 'Beyond the Ranges', authored by her husband, documents their research and travels. "Stevey" is an enthusiastic supporter and spokesperson for solar system research and discovery, contributing to the expansion of basic research in Helin's PCAS and DSSS programs.

(4906) Senerfu = 2533 P-L

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

Senerfu (also written Snefru) was the first king of the 4th dynasty and built two pyramids near Daschur.

(4907) Zoser = 7618 P-L

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

Named after the Egyptian pharaoh of the third dynasty. Zoser, also written Djoser, erected the first stone pyramid--the step-pyramid at Sakkara, near Memphis.

(4924) Hiltner = 1981 EQ40

Discovered 1981 Mar. 2 by S. J. Bus at Siding Spring in the course of the U.K. Schmidt-Caltech Asteroid Survey.

Named in memory of William Albert Hiltner (1914-1991), discoverer of the interstellar polarization of starlight, an early practitioner of precision stellar photometry, and pioneering observer of the optical counterparts of celestial x-ray sources. Director of the Yerkes Observatory for many years, while there he designed and built a rotatable telescope for polarization studies and developed photometric instrumentation. As director of the University of Michigan's observatory, he established the Michigan-Dartmouth-M.I.T. Observatory, led the construction of the 2.4-m telescope that is now named for him, and designed and constructed astronomical instrumentation. He also served as acting director of the Cerro Tololo Interamerican Observatory and as president of AURA. Name suggested by R. P. Binzel and citation prepared by R. G. Teske.

(4950) House = 1988 XO1

Discovered 1988 Dec. 7 by E. F. Helin at Palomar.

Named in honor of R. C. House, western novelist and journalist who has served, for the last 23 years, as editor of the Jet Propulsion Laboratory's internal publication 'Universe'. He has been responsible for this highly regarded chronicle of life at "the Lab" until his recent retirement. He captured for his readers the true spirit of the world's leading space exploration center. His natural warmth endeared him to all he had contact. Named endorsed by Phil Neuhauser, a good friend for many years.

(4960) Mayo = 4657 P-L

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

Named in honor of Mayo Greenberg on the occasion of his 70th birthday. Well known for his model of cometary and interstellar grains, he worked at the State University at Albany and later as head of the Astrophysical Laboratory in Leiden.

(5002) Marnix = 1987 SS3

Discovered 1987 Sept. 20 by E. W. Elst at Rozhen.

Named for Philips Marnix van Sint Aldegonde (1538-1598), mayor of Antwerp during 1583-1585 and player of a major role in defending the city against the Spanish troops. He was concerned with the religious struggle

between catholics and protestants and is considered to be the composer of the beautiful national hymn 'Wilhelmus'. Citation based on information supplied by R. Grignard.

(5011) Ptah = 6743 P-L

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

In Egyptian religion Ptah was the creator of the universe and a patron of craftsmen, especially sculptors. Ptah was originally the local deity of Memphis, capital of Eygpt from the 1st dynasty; the political importance of Memphis led to the expansion of Ptah's cult throughout Egypt. Ptah was always represented in purely human form, often swathed in a winding sheet.

(5012) Eurymedon = 9507 P-L

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

Eurymedon was servant to the Greek king Nestor during the siege of Troy.

(5033) Mistral = 1990 PF

Discovered 1990 Aug. 15 by E. W. Elst at Haute Provence.

Named in memory of the great poet from the Provence, Frederic Mistral (1830-1914), whose entire life was dedicated to the restoration of the original dialect of the Langue d'Oc, the language of the 'troubadours'. In 1859 he published the poem 'Mir entire Provence'. In 1886 he finished his 'Lou tresor dou felibrige', a Provencal-French dictionary. He was honored with the Nobel prize for literature in 1906. The Northern wind that blows through the Rhone valley and sweeps all the clouds from the sky bears the same name. Citation prepared by Kristina Leterme at the request of the discoverer.

(5039) Rosenkavalier = 1967 GM1

Discovered 1967 Apr. 11 by F. Borngen at Tautenburg.

Named in memory of Richard Strauss (1864-1949), one of the most important twentieth-century composers of opera, notably 'Der Rosenkavalier'. He also wrote numerous song compositions and symphonic poems. Name endorsed by Werner Tscharnuter.

(5041) Theotes = 1973 SW1

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

Theotes was a Greek herald during the siege of Troy.

(5063) Monteverdi = 1989 CJ5

Discovered 1989 Feb. 2 by F. Borngen at Tautenburg.

Named in memory of Claudio Monteverdi (1567-1643), with Schutz the greatest musician of the seventeenth century and reputed to be one of the first composers of opera. Name endorsed by Ingeborg Stein, director of the Heinrich-Schutz-Haus, Bad Kostritz, Thuringia.

(5068) Cragg = 1990 TC

Discovered 1990 Oct. 9 by R. H. McNaught at Siding Spring.

Named in honor of Thomas A. Cragg, a quintessential amateur astronomer. In 1945 at age 17 he joined the American Association of Variable Star Observers; by 1992 he had contributed 120 702 brightness estimates, many being of variables at their faintest, as well as sunspot counts made every clear day with a 0.15-m Newtonian reflector. After the Association of Lunar and Planetary Observers was formed in 1947, Cragg served for many years as its Saturn recorder. In 1949 he was one of the founders of the Western

Amateur Astronomers. After 24 years at Mount Wilson Observatory, he resigned his position as solar observer in 1976 and joined the Anglo-Australian Observatory as chief night assistant, retiring in 1992. Citation provided by Leif J. Robinson.

(5090) Wyeth = 1980 CG

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

Named in memory of Stuart Wyeth, who provided the means for the construction, sixty years ago, of the Wyeth 1.5-m reflector, with which this minor planet was discovered.

(5108) Lubeck = 1987 QG2

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

Named in memory of the famous organist and composer Vincent Lubeck (1654-1740), born in Paddingbuettel, near Dorum (Bremen area). In 1675 he became organist at St. Cosmae et Damiani in Stade, retaining this post for more than 27 years. There he had one of the most beautiful north German organs made by Arp Schnitger at his disposal. In 1702 he went to Hamburg and became organist at St. Nicolai, which housed Schnitger's largest organ (four manuals, pedal and 66 voices). In 1721 the composer and organist Johann Mattheson wrote: "This unusual organ has an unusual organist. I need only say the name Vincent Lubeck and the whole panegyric is complete".

(5115) Frimout = 1988 CD4

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

Named in honor of Dirk Frimout, the first Belgian astronaut. On 1992 Mar. 24 he went into orbit with his American colleagues on board of the space shuttle Atlantis. He is a member of BIRA, the Belgian Institute of Space Aeronomy at Uccle. The main purpose of this flight was the study of the ozone layer.

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EPHEMERIDES.

1987 SL a,e,i = 2.96, 0.61, 19 Elements MPC 20145

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992	04 28	14 12.00	-47 08.8	0.900	1.829	147.0	17.5	16.0
1992	05 08	13 48.58	-49 21.6	0.828	1.751	144.6	19.5	15.8
1992	05 18	13 22.65	-50 42.9	0.775	1.673	138.7	23.5	15.7
1992	05 28	12 58.32	-51 11.7	0.738	1.597	130.9	28.6	15.6
1992	06 07	12 39.56	-51 02.7	0.712	1.523	122.7	34.1	15.6
1992	06 17	12 28.69	-50 40.1	0.693	1.451	114.9	39.4	15.6
1992	06 27	12 26.31	-50 24.6	0.675	1.383	108.0	44.4	15.6
1992	07 07	12 32.53	-50 29.5	0.655	1.320	102.1	48.8	15.5
1992	07 17	12 47.45	-51 00.1	0.631	1.264	97.5	52.9	15.5
1992	07 27	13 11.82	-51 52.1	0.601	1.217	94.1	56.4	15.4
1992	08 06	13 47.43	-52 51.4	0.567	1.179	92.0	59.3	15.3
1992	08 16	14 36.43	-53 27.8	0.529	1.154	91.4	61.3	15.1
1992	08 26	15 39.57	-52 46.4	0.494	1.141	92.2	62.2	15.0
1992	09 05	16 52.52	-49 36.3	0.466	1.143	94.5	61.5	14.8
1992	09 15	18 04.95	-43 14.0	0.453	1.159	98.0	59.3	14.7
1992	09 25	19 07.87	-34 14.5	0.463	1.187	101.7	55.8	14.7
1992	10 05	19 59.05	-24 20.1	0.500	1.227	104.8	52.0	14.9
1992	10 15	20 40.45	-15 07.8	0.563	1.277	106.5	48.5	15.1
1992	10 25	21 14.85	-07 23.4	0.648	1.334	106.7	45.5	15.4

1992 11 04	21 44.60	-01 09.4	0.753	1.398	105.7	43.0	15.8
1992 11 14	22 11.25	+03 49.8	0.873	1.467	103.8	40.9	16.1
1992 11 24	22 35.80	+07 52.3	1.007	1.540	101.1	39.0	16.5
1992 12 04	22 58.97	+11 14.0	1.151	1.615	97.9	37.2	16.8
1992 12 14	23 21.16	+14 06.3	1.304	1.691	94.3	35.5	17.2
1992 12 24	23 42.66	+16 37.2	1.465	1.769	90.3	33.8	17.5
1993 01 03	00 03.69	+18 52.5	1.633	1.847	86.0	32.1	17.8
1993 01 13	00 24.36	+20 55.9	1.805	1.925	81.6	30.4	18.0
1993 01 23	00 44.78	+22 49.7	1.981	2.002	76.9	28.6	18.3
1993 02 02	01 05.02	+24 35.7	2.158	2.079	72.1	26.8	18.5
1993 02 12	01 25.13	+26 14.5	2.336	2.155	67.2	25.0	18.7

1992 HF a,e,i = 1.39, 0.56, 13 Elements MPC 20157

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 04 28	14 26.32	-10 31.0	0.372	1.379	176.2	2.8	18.3
1992 05 03	14 12.61	-06 29.8	0.334	1.337	168.3	8.8	18.3
1992 05 08	13 56.37	-01 38.3	0.302	1.294	157.8	17.2	18.4
1992 05 13	13 37.73	+04 01.0	0.277	1.250	146.1	26.8	18.4
1992 05 18	13 16.90	+10 18.4	0.259	1.205	133.7	37.4	18.5
1992 05 23	12 54.08	+16 57.1	0.247	1.159	120.8	48.6	18.6
1992 05 28	12 29.44	+23 36.4	0.241	1.112	107.9	60.2	18.8
1992 06 02	12 02.97	+29 57.4	0.240	1.064	95.2	71.8	19.0
1992 06 07	11 34.31	+35 46.9	0.243	1.015	83.1	83.2	19.4
1992 06 12	11 02.64	+40 55.8	0.250	0.966	71.5	94.3	19.8
1992 06 17	10 26.95	+45 14.2	0.259	0.916	60.5	105.3	20.3

1992 JG a,e,i = 2.25, 0.42, 6 Elements MPC 20157

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 04 28	14 27.85	-09 34.1	0.730	1.736	175.2	2.8	17.8
1992 05 08	14 15.21	-09 25.9	0.686	1.684	166.4	8.1	17.9
1992 05 18	14 02.81	-09 31.4	0.661	1.633	154.3	15.6	18.0
1992 05 28	13 52.81	-09 57.3	0.654	1.584	142.7	22.8	18.2
1992 06 07	13 46.92	-10 48.3	0.659	1.536	132.1	29.4	18.3
1992 06 17	13 46.11	-12 05.3	0.673	1.492	122.8	34.9	18.4
1992 06 27	13 50.55	-13 46.5	0.692	1.451	114.8	39.5	18.6

1992 JE a,e,i = 2.31, 0.48, 7 Elements MPC 20157

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 04 28	14 58.16	-09 42.8	0.678	1.680	170.3	5.8	16.6
1992 05 08	14 49.31	-07 12.4	0.615	1.618	169.7	6.4	16.4
1992 05 18	14 39.37	-04 35.8	0.571	1.558	158.9	13.5	16.4
1992 05 28	14 30.38	-02 12.6	0.544	1.499	146.9	21.6	16.5
1992 06 07	14 24.40	-00 21.4	0.530	1.443	135.7	29.4	16.6
1992 06 17	14 23.01	+00 47.0	0.525	1.390	125.7	36.4	16.7
1992 06 27	14 26.90	+01 10.2	0.525	1.341	117.3	42.4	16.8

1992 JB a,e,i = 1.55, 0.36, 16 Elements MPC 20157

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 04 28	15 19.75	-15 43.2	0.115	1.119	166.2	12.4	13.8
1992 05 03	15 24.40	-05 36.8	0.136	1.141	165.5	12.8	14.2
1992 05 08	15 27.00	+01 21.4	0.163	1.164	160.5	16.9	14.8
1992 05 13	15 28.56	+06 03.4	0.192	1.188	155.4	20.7	15.3
1992 05 18	15 29.65	+09 10.3	0.224	1.213	151.1	23.8	15.8
1992 05 23	15 30.59	+11 10.0	0.258	1.238	147.4	26.2	16.2
1992 05 28	15 31.60	+12 21.3	0.295	1.264	144.1	28.1	16.6
1992 06 02	15 32.87	+12 56.6	0.333	1.290	141.1	29.6	17.0
1992 06 07	15 34.52	+13 05.0	0.372	1.316	138.3	30.9	17.3
1992 06 12	15 36.63	+12 53.3	0.414	1.343	135.6	31.9	17.6
1992 06 17	15 39.20	+12 26.4	0.457	1.369	133.1	32.8	17.9

1992 HE a,e,i = 2.21, 0.57, 37 Elements MPC 20157

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992	04 28	16 19.8	-76 15.5	0.321	1.183	116.1	49.9	13.8
1992	05 03	17 19	-88 27.4	0.331	1.149	106.9	57.1	14.0
1992	05 08	04 05.3	-80 44.7	0.354	1.117	98.2	63.5	14.2
1992	05 13	04 11.6	-71 50.3	0.386	1.086	90.7	68.5	14.5
1992	05 18	04 13.87	-64 34.7	0.424	1.058	84.4	72.1	14.8
1992	05 23	04 15.15	-58 38.7	0.464	1.033	79.3	74.5	15.0
1992	05 28	04 15.97	-53 43.0	0.505	1.010	75.2	75.9	15.2
1992	06 02	04 16.56	-49 31.5	0.546	0.992	71.9	76.5	15.3
1992	06 07	04 17.01	-45 52.0	0.585	0.977	69.4	76.5	15.5
1992	06 12	04 17.43	-42 35.1	0.622	0.966	67.4	76.1	15.6
1992	06 17	04 17.88	-39 34.1	0.657	0.960	66.0	75.3	15.6
1992	06 22	04 18.46	-36 44.6	0.688	0.958	65.1	74.2	15.7
1992	06 27	04 19.18	-34 03.7	0.715	0.961	64.7	73.0	15.7

1990 MB a,e,i = 1.52, 0.06, 20 Elements MPC 17445

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992	04 28	20 05.28	-12 34.4	0.995	1.502	97.2	41.7	18.5
1992	05 08	20 21.68	-07 57.9	0.913	1.493	101.7	41.5	18.3
1992	05 18	20 35.52	-02 50.0	0.839	1.484	106.3	40.9	18.1
1992	05 28	20 46.47	+02 46.9	0.772	1.476	110.7	40.0	17.9
1992	06 07	20 54.05	+08 46.2	0.715	1.468	115.0	38.8	17.7
1992	06 17	20 57.81	+14 56.6	0.667	1.460	118.9	37.5	17.5
1992	06 27	20 57.24	+21 01.0	0.630	1.453	122.2	36.3	17.3
1992	07 07	20 52.00	+26 35.7	0.603	1.447	124.6	35.4	17.2
1992	07 17	20 42.40	+31 15.1	0.587	1.441	125.9	34.8	17.1
1992	07 27	20 29.53	+34 36.6	0.580	1.436	126.2	34.8	17.0
1992	08 06	20 15.57	+36 25.8	0.580	1.432	125.6	35.1	17.0
1992	08 16	20 03.33	+36 43.3	0.588	1.429	124.4	35.8	17.1
1992	08 26	19 55.15	+35 41.0	0.600	1.427	122.6	36.6	17.2
1992	09 05	19 52.49	+33 37.0	0.617	1.425	120.6	37.5	17.2
1992	09 15	19 55.75	+30 52.3	0.639	1.425	118.4	38.4	17.3
1992	09 25	20 04.53	+27 44.3	0.665	1.425	115.9	39.3	17.4
1992	10 05	20 18.20	+24 28.1	0.696	1.427	113.3	40.1	17.6
1992	10 15	20 35.92	+21 16.5	0.733	1.429	110.4	40.8	17.7
1992	10 25	20 56.87	+18 18.5	0.776	1.432	107.3	41.5	17.9
1992	11 04	21 20.33	+15 41.5	0.826	1.436	104.0	42.1	18.0
1992	11 14	21 45.59	+13 30.3	0.882	1.441	100.6	42.4	18.2
1992	11 24	22 12.05	+11 46.8	0.945	1.447	96.9	42.6	18.3
1992	12 04	22 39.27	+10 31.4	1.015	1.453	93.2	42.6	18.5
1992	12 14	23 06.84	+09 42.6	1.090	1.460	89.3	42.4	18.7
1992	12 24	23 34.50	+09 17.4	1.170	1.467	85.4	41.9	18.8
1993	01 03	00 02.11	+09 12.4	1.254	1.475	81.5	41.2	19.0
1993	01 13	00 29.53	+09 23.6	1.341	1.484	77.6	40.4	19.1
1993	01 23	00 56.75	+09 47.2	1.430	1.492	73.8	39.3	19.2
1993	02 02	01 23.79	+10 19.5	1.519	1.501	70.0	38.1	19.3
1993	02 12	01 50.66	+10 56.8	1.608	1.510	66.2	36.7	19.4

1991 JY a,e,i = 0.95, 0.30, 49 Elements MPC 20151

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992	04 28	20 26.04	-27 30.5	0.461	1.149	95.8	60.7	17.3
1992	05 03	20 37.02	-34 52.2	0.433	1.163	99.9	58.6	17.1
1992	05 08	20 50.08	-43 07.6	0.412	1.176	103.6	56.5	17.0
1992	05 13	21 06.59	-52 01.8	0.399	1.188	106.6	54.6	16.9
1992	05 18	21 29.34	-61 07.0	0.397	1.198	108.4	53.3	16.8
1992	05 23	22 04.93	-69 45.6	0.405	1.206	108.9	52.6	16.9
1992	05 28	23 11.5	-77 08.2	0.423	1.214	108.2	52.5	17.0
1992	06 02	01 32.7	-81 41.7	0.448	1.219	106.4	52.9	17.1

1992 06 07	04 36.8	-81 17.2	0.479	1.224	104.1	53.6	17.3
1992 06 12	06 18.5	-77 56.3	0.515	1.226	101.4	54.3	17.5
1992 06 17	07 07.6	-74 16.9	0.553	1.228	98.6	54.9	17.7
1992 06 22	07 36.0	-71 01.0	0.593	1.228	95.8	55.5	17.8
1992 06 27	07 55.29	-68 15.1	0.633	1.226	93.1	55.9	18.0
1992 07 02	08 09.79	-65 57.6	0.672	1.223	90.4	56.2	18.1
1992 07 07	08 21.50	-64 05.3	0.710	1.219	87.9	56.5	18.2
1992 07 12	08 31.41	-62 34.5	0.746	1.213	85.5	56.7	18.3
1992 07 17	08 40.09	-61 21.9	0.779	1.205	83.2	56.9	18.4
1992 07 22	08 47.92	-60 24.8	0.809	1.197	81.1	57.0	18.5
1992 07 27	08 55.13	-59 41.2	0.835	1.186	79.1	57.2	18.5
1992 08 01	09 01.84	-59 09.2	0.858	1.175	77.2	57.4	18.6
1992 08 06	09 08.16	-58 47.4	0.876	1.162	75.5	57.7	18.6
1992 08 11	09 14.15	-58 34.3	0.889	1.147	73.8	58.0	18.6
1992 08 16	09 19.88	-58 28.5	0.898	1.131	72.3	58.5	18.6
1992 08 21	09 25.42	-58 29.3	0.902	1.114	70.9	59.1	18.6
1992 08 26	09 30.85	-58 35.6	0.901	1.096	69.7	59.9	18.6
1992 08 31	09 36.23	-58 46.7	0.894	1.076	68.5	60.8	18.6
1992 09 05	09 41.61	-59 01.8	0.881	1.055	67.5	62.0	18.5
1992 09 10	09 47.11	-59 19.5	0.863	1.032	66.5	63.4	18.5
1992 09 15	09 52.88	-59 38.9	0.839	1.009	65.6	65.2	18.4
1992 09 20	09 59.17	-59 58.7	0.809	0.985	64.7	67.3	18.4
1992 09 25	10 06.28	-60 17.5	0.773	0.959	63.9	69.8	18.3
1992 09 30	10 14.63	-60 32.9	0.731	0.933	62.9	72.9	18.2
1992 10 05	10 24.81	-60 41.7	0.684	0.906	61.8	76.5	18.1
1992 10 10	10 37.70	-60 38.4	0.631	0.879	60.4	81.0	18.1
1992 10 15	10 54.49	-60 14.3	0.574	0.852	58.5	86.4	18.0
1992 10 20	11 16.63	-59 14.3	0.514	0.824	55.8	93.2	17.9
1992 10 25	11 45.52	-57 11.4	0.452	0.798	51.7	101.8	18.0
1992 10 30	12 21.70	-53 18.6	0.392	0.772	45.7	113.0	18.3
1992 11 04	13 03.58	-46 25.0	0.339	0.748	36.7	127.6	19.0

1988 RA a,e,i = 2.79, 0.47, 29 Elements MPC 20146

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 04 28	21 49.08	-41 40.1	3.579	3.617	84.1	16.1	18.9
1992 05 08	21 57.52	-41 58.3	3.419	3.588	91.4	16.3	18.8
1992 05 18	22 04.40	-42 27.4	3.259	3.558	98.9	16.3	18.7
1992 05 28	22 09.45	-43 08.0	3.103	3.527	106.5	16.0	18.6
1992 06 07	22 12.35	-44 00.0	2.954	3.495	114.3	15.4	18.4
1992 06 17	22 12.75	-45 01.9	2.815	3.463	122.0	14.4	18.3
1992 06 27	22 10.31	-46 10.8	2.690	3.429	129.6	13.2	18.1
1992 07 07	22 04.73	-47 22.0	2.583	3.395	136.7	11.9	17.9
1992 07 17	21 55.96	-48 28.3	2.496	3.359	142.5	10.6	17.8
1992 07 27	21 44.27	-49 21.4	2.432	3.323	146.0	9.8	17.7
1992 08 06	21 30.41	-49 53.0	2.393	3.286	146.4	9.8	17.6
1992 08 16	21 15.65	-49 56.6	2.379	3.248	143.3	10.7	17.6
1992 08 26	21 01.45	-49 30.0	2.389	3.209	137.6	12.3	17.7
1992 09 05	20 49.22	-48 34.8	2.422	3.169	130.3	14.0	17.7
1992 09 15	20 39.94	-47 16.0	2.474	3.128	122.2	15.8	17.8
1992 09 25	20 34.04	-45 40.1	2.541	3.086	113.8	17.3	17.9
1992 10 05	20 31.57	-43 52.6	2.621	3.043	105.4	18.5	18.0
1992 10 15	20 32.28	-41 58.3	2.707	2.999	97.1	19.3	18.0
1992 10 25	20 35.78	-40 00.0	2.798	2.955	89.1	19.7	18.1
1992 11 04	20 41.67	-37 59.4	2.889	2.909	81.3	19.7	18.1
1992 11 14	20 49.55	-35 57.3	2.978	2.863	73.7	19.4	18.1
1992 11 24	20 59.06	-33 53.8	3.061	2.816	66.4	18.7	18.1
1992 12 04	21 09.92	-31 48.5	3.137	2.768	59.4	17.8	18.1
1992 12 14	21 21.87	-29 41.0	3.203	2.719	52.5	16.7	18.1
1992 12 24	21 34.69	-27 30.8	3.259	2.669	45.8	15.3	18.0

Comet Spacewatch (1992h) Elements MPC 20121

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1992 05 08	13 06.58	-07 19.7	4.546	5.446	150.4	5.3	18.6
1992 05 18	12 58.86	-05 38.9	4.581	5.379	138.3	7.2	18.6
1992 05 28	12 52.20	-04 05.6	4.645	5.311	126.6	8.8	18.6
1992 06 07	12 46.80	-02 41.8	4.731	5.244	115.2	10.1	18.6
1992 06 17	12 42.74	-01 28.6	4.833	5.177	104.2	11.0	18.6
1992 06 27	12 40.02	-00 26.2	4.944	5.111	93.7	11.4	18.6
1992 07 07	12 38.61	+00 25.7	5.058	5.044	83.5	11.6	18.5
1992 07 17	12 38.40	+01 08.3	5.168	4.978	73.7	11.3	18.5
1992 07 27	12 39.30	+01 42.5	5.269	4.912	64.2	10.7	18.5
1992 08 06	12 41.20	+02 09.7	5.358	4.847	55.0	9.9	18.5
1992 08 16	12 43.97	+02 31.4	5.429	4.782	46.0	8.8	18.5
1992 08 26	12 47.50	+02 48.8	5.481	4.717	37.3	7.5	18.4

Periodic Comet Mueller 4 (1992g) Elements MPC 20121

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1992 05 08	13 58.14	+30 14.7	1.931	2.695	130.3	16.6	17.2
1992 05 18	13 54.48	+29 54.5	2.007	2.709	124.3	18.0	17.3
1992 05 28	13 52.58	+29 04.0	2.096	2.724	118.1	19.2	17.5
1992 06 07	13 52.67	+27 48.6	2.196	2.741	111.9	20.1	17.6
1992 06 17	13 54.82	+26 14.2	2.304	2.759	105.8	20.8	17.7
1992 06 27	13 58.87	+24 26.0	2.418	2.778	99.8	21.1	17.9
1992 07 07	14 04.69	+22 28.2	2.538	2.798	94.0	21.3	18.0
1992 07 17	14 12.06	+20 24.7	2.661	2.820	88.3	21.1	18.1
1992 07 27	14 20.78	+18 18.3	2.786	2.843	82.8	20.8	18.3
1992 08 06	14 30.67	+16 11.2	2.912	2.867	77.4	20.2	18.4
1992 08 16	14 41.57	+14 05.6	3.038	2.891	72.1	19.5	18.5
1992 08 26	14 53.34	+12 03.1	3.163	2.917	66.8	18.6	18.6
1992 09 05	15 05.86	+10 04.9	3.285	2.944	61.7	17.5	18.8
1992 09 15	15 19.02	+08 12.4	3.404	2.971	56.6	16.4	18.9
1992 09 25	15 32.73	+06 26.5	3.519	2.999	51.5	15.2	19.0
1992 10 05	15 46.90	+04 48.0	3.628	3.028	46.5	13.9	19.1
1992 10 15	16 01.46	+03 17.7	3.731	3.058	41.6	12.5	19.2
1992 10 25	16 16.31	+01 56.3	3.826	3.088	36.9	11.1	19.3
1992 11 04	16 31.39	+00 44.2	3.912	3.119	32.3	9.8	19.4

Periodic Comet Shoemaker-Levy 8 (1992f) Elements MPC 20121

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1992 05 08	14 56.31	-14 28.9	1.712	2.721	177.1	1.1	16.5
1992 05 18	14 50.00	-13 36.9	1.723	2.717	166.5	5.0	16.5
1992 05 28	14 44.65	-12 51.5	1.758	2.713	155.5	8.9	16.6
1992 06 07	14 40.93	-12 16.9	1.817	2.711	144.9	12.4	16.6
1992 06 17	14 39.29	-11 55.4	1.896	2.710	134.9	15.4	16.7
1992 06 27	14 39.88	-11 47.7	1.991	2.711	125.5	17.8	16.8
1992 07 07	14 42.73	-11 53.3	2.099	2.712	116.7	19.6	16.9
1992 07 17	14 47.71	-12 10.7	2.217	2.715	108.4	20.8	17.1
1992 07 27	14 54.61	-12 37.7	2.342	2.719	100.6	21.5	17.2
1992 08 06	15 03.27	-13 12.3	2.471	2.724	93.3	21.8	17.3
1992 08 16	15 13.47	-13 52.2	2.602	2.730	86.2	21.7	17.4
1992 08 26	15 25.01	-14 35.6	2.734	2.737	79.5	21.3	17.6
1992 09 05	15 37.76	-15 20.4	2.864	2.745	73.0	20.6	17.7
1992 09 15	15 51.54	-16 04.9	2.992	2.755	66.8	19.6	17.8
1992 09 25	16 06.24	-16 47.5	3.116	2.765	60.6	18.4	17.9
1992 10 05	16 21.73	-17 26.9	3.234	2.777	54.6	17.1	18.0
1992 10 15	16 37.88	-18 01.8	3.346	2.789	48.6	15.6	18.1
1992 10 25	16 54.60	-18 31.1	3.451	2.803	42.7	13.9	18.2
1992 11 04	17 11.78	-18 54.0	3.547	2.817	36.8	12.2	18.2
1992 11 14	17 29.30	-19 09.5	3.634	2.832	31.0	10.4	18.3

Comet Tanaka-Machholz (1992d) Elements MPC 20121

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1992	05 08	00 30.06	+54 42.6	1.730	1.284	47.4	35.4	8.8
1992	05 18	01 44.56	+61 42.9	1.789	1.320	46.7	33.9	9.0
1992	05 28	03 17.75	+65 16.6	1.886	1.371	45.0	31.5	9.2
1992	06 07	04 50.30	+65 13.4	2.010	1.436	42.5	28.5	9.6
1992	06 17	06 03.53	+62 46.2	2.150	1.512	39.5	25.3	10.0
1992	06 27	06 56.05	+59 18.4	2.296	1.597	36.4	22.2	10.3
1992	07 07	07 33.89	+55 38.6	2.440	1.688	33.5	19.4	10.7
1992	07 17	08 02.23	+52 07.9	2.575	1.784	31.1	17.1	11.1
1992	07 27	08 24.40	+48 53.5	2.698	1.884	29.7	15.5	11.4
1992	08 06	08 42.35	+45 57.3	2.804	1.987	29.7	14.6	11.7
1992	08 16	08 57.21	+43 18.9	2.891	2.093	31.2	14.5	12.0
1992	08 26	09 09.67	+40 57.1	2.959	2.199	34.3	15.0	12.3
1992	09 05	09 20.11	+38 50.8	3.005	2.307	38.8	15.9	12.5
1992	09 15	09 28.71	+36 59.0	3.030	2.415	44.3	16.9	12.7
1992	09 25	09 35.57	+35 20.9	3.034	2.523	50.8	17.9	12.9
1992	10 05	09 40.64	+33 56.0	3.018	2.631	58.1	18.8	13.1
1992	10 15	09 43.80	+32 43.8	2.986	2.739	66.2	19.4	13.3
1992	10 25	09 44.89	+31 43.9	2.939	2.847	74.9	19.7	13.4
1992	11 04	09 43.68	+30 55.8	2.881	2.954	84.4	19.5	13.5
1992	11 14	09 39.91	+30 18.3	2.818	3.061	94.6	18.8	13.6
1992	11 24	09 33.39	+29 49.7	2.756	3.167	105.6	17.5	13.7
1992	12 04	09 23.97	+29 27.5	2.702	3.273	117.3	15.5	13.8
1992	12 14	09 11.77	+29 07.7	2.664	3.378	129.6	13.0	13.9
1992	12 24	08 57.16	+28 46.3	2.650	3.483	142.5	9.9	14.0
1993	01 03	08 40.91	+28 18.9	2.668	3.586	155.6	6.5	14.2
1993	01 13	08 24.08	+27 43.0	2.722	3.689	168.0	3.2	14.3
1993	01 23	08 07.82	+26 58.1	2.815	3.792	171.9	2.1	14.5

(5143) 1991 VL a,e,i = 1.83, 0.77, 9 Elements MPC 19850

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992	05 18	23 19.22	-06 27.3	1.196	1.265	69.3	48.5	16.6
1992	05 28	23 24.04	-05 10.9	1.201	1.391	77.3	45.3	16.7
1992	06 07	23 25.82	-04 13.7	1.189	1.510	86.1	42.1	16.8
1992	06 17	23 24.05	-03 37.9	1.166	1.623	95.8	38.5	16.8
1992	06 27	23 18.25	-03 25.7	1.138	1.729	106.6	34.3	16.8
1992	07 07	23 08.01	-03 39.5	1.111	1.830	118.6	29.2	16.7
1992	07 17	22 53.35	-04 19.3	1.094	1.926	131.7	23.2	16.6
1992	07 27	22 34.95	-05 22.3	1.094	2.017	145.8	16.4	16.5
1992	08 06	22 14.30	-06 40.9	1.119	2.103	160.4	9.3	16.4
1992	08 16	21 53.56	-08 04.2	1.175	2.185	173.8	2.9	16.2
1992	08 26	21 34.83	-09 21.6	1.262	2.262	168.8	5.0	16.6
1992	09 05	21 19.64	-10 26.2	1.380	2.336	155.8	10.2	17.1
1992	09 15	21 08.66	-11 14.9	1.523	2.406	143.4	14.4	17.5
1992	09 25	21 01.83	-11 48.0	1.687	2.473	132.0	17.5	17.9
1992	10 05	20 58.74	-12 06.8	1.867	2.536	121.4	19.7	18.3
1992	10 15	20 58.84	-12 13.0	2.058	2.596	111.6	20.9	18.6
1992	10 25	21 01.53	-12 08.2	2.256	2.653	102.3	21.5	18.8
1992	11 04	21 06.32	-11 53.7	2.458	2.706	93.5	21.5	19.1
1992	11 14	21 12.78	-11 30.4	2.659	2.757	85.2	20.9	19.3
1992	11 24	21 20.55	-10 59.4	2.856	2.805	77.1	20.1	19.4
1992	12 04	21 29.36	-10 21.1	3.047	2.850	69.2	18.9	19.6

Periodic Comet Daniel Elements MPC 14594

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m2
1992	06 17	03 42.93	+12 32.0	2.613	1.813	30.5	16.5	18.8
1992	06 27	04 08.38	+14 50.7	2.536	1.775	33.2	18.3	18.7
1992	07 07	04 34.81	+17 00.6	2.460	1.742	35.9	20.0	18.7

1992 07 17	05 02.21	+19 00.0	2.385	1.713	38.6	21.7	18.6
1992 07 27	05 30.53	+20 47.0	2.314	1.689	41.3	23.4	18.6
1992 08 06	05 59.68	+22 19.9	2.245	1.671	44.0	24.9	18.5
1992 08 16	06 29.47	+23 37.6	2.179	1.658	46.7	26.4	18.5
1992 08 26	06 59.73	+24 39.1	2.116	1.651	49.6	27.8	18.5
1992 09 05	07 30.19	+25 24.6	2.055	1.650	52.6	29.0	18.4
1992 09 15	08 00.53	+25 54.7	1.998	1.655	55.7	30.1	18.4
1992 09 25	08 30.48	+26 11.1	1.942	1.666	59.0	31.1	18.4
1992 10 05	08 59.71	+26 16.4	1.889	1.682	62.6	31.9	18.4
1992 10 15	09 27.93	+26 14.0	1.837	1.704	66.4	32.4	18.3
1992 10 25	09 54.89	+26 07.5	1.786	1.731	70.6	32.8	18.3
1992 11 04	10 20.30	+26 01.6	1.736	1.763	75.1	32.9	18.3
1992 11 14	10 43.94	+26 00.5	1.686	1.800	80.0	32.8	18.3
1992 11 24	11 05.57	+26 08.4	1.636	1.840	85.3	32.3	18.3
1992 12 04	11 24.91	+26 29.7	1.587	1.883	91.0	31.6	18.2
1992 12 14	11 41.68	+27 07.4	1.540	1.930	97.3	30.4	18.2
1992 12 24	11 55.52	+28 03.9	1.495	1.979	104.0	28.8	18.1
1993 01 03	12 06.03	+29 19.7	1.456	2.030	111.2	26.8	18.1
1993 01 13	12 12.82	+30 52.9	1.423	2.083	118.8	24.5	18.0
1993 01 23	12 15.54	+32 38.3	1.401	2.138	126.5	21.7	17.9
1993 02 02	12 14.01	+34 26.9	1.392	2.194	134.0	18.9	17.9
1993 02 12	12 08.46	+36 06.5	1.400	2.251	140.5	16.2	17.9
1993 02 22	11 59.60	+37 24.2	1.427	2.309	145.0	14.2	17.9
1993 03 04	11 48.73	+38 08.6	1.477	2.367	146.4	13.4	18.0
1993 03 14	11 37.50	+38 14.3	1.548	2.426	144.3	13.8	18.2
1993 03 24	11 27.40	+37 42.1	1.641	2.485	139.5	15.1	18.4
1993 04 03	11 19.57	+36 37.4	1.754	2.544	133.2	16.7	18.6
1993 04 13	11 14.54	+35 08.5	1.884	2.604	126.1	18.1	18.9
1993 04 23	11 12.36	+33 22.8	2.030	2.663	118.7	19.3	19.1
1993 05 03	11 12.81	+31 26.6	2.187	2.722	111.4	20.2	19.4
1993 05 13	11 15.52	+29 24.8	2.355	2.781	104.2	20.6	19.6
1993 05 23	11 20.09	+27 20.3	2.529	2.840	97.2	20.7	19.8

Periodic Comet Schwassmann-Wachmann 2 Elements MPC 18256

Date TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m2
1992 06 27	00 35.80	+00 47.6	3.835	3.919	87.2	15.0	20.2
1992 07 07	00 40.36	+01 06.0	3.656	3.888	95.5	15.1	20.1
1992 07 17	00 43.70	+01 15.6	3.480	3.857	104.2	14.8	20.0
1992 07 27	00 45.65	+01 15.5	3.308	3.825	113.3	14.1	19.8
1992 08 06	00 46.05	+01 05.0	3.147	3.793	122.8	13.0	19.6
1992 08 16	00 44.80	+00 43.8	2.999	3.760	132.8	11.4	19.5
1992 08 26	00 41.87	+00 12.3	2.868	3.727	143.2	9.3	19.3
1992 09 05	00 37.34	-00 28.4	2.760	3.694	154.1	6.9	19.1
1992 09 15	00 31.47	-01 16.0	2.678	3.660	165.2	4.0	18.8
1992 09 25	00 24.66	-02 07.1	2.625	3.625	174.9	1.4	18.6
1992 10 05	00 17.45	-02 57.6	2.602	3.590	169.7	2.9	18.6
1992 10 15	00 10.49	-03 43.1	2.608	3.554	158.5	5.9	18.8
1992 10 25	00 04.38	-04 19.9	2.642	3.519	147.1	8.8	18.9
1992 11 04	23 59.64	-04 45.0	2.701	3.482	135.9	11.4	19.1
1992 11 14	23 56.62	-04 57.0	2.779	3.445	125.2	13.6	19.2
1992 11 24	23 55.51	-04 55.4	2.873	3.408	114.9	15.2	19.3
1992 12 04	23 56.34	-04 40.6	2.977	3.371	105.1	16.4	19.4
1992 12 14	23 59.05	-04 13.6	3.087	3.333	95.7	17.1	19.5
1992 12 24	00 03.51	-03 35.6	3.199	3.295	86.8	17.3	19.5
1993 01 03	00 09.55	-02 47.8	3.309	3.256	78.4	17.2	19.6
1993 01 13	00 17.01	-01 51.5	3.413	3.217	70.3	16.7	19.6
1993 01 23	00 25.72	-00 48.0	3.510	3.178	62.5	16.0	19.6
1993 02 02	00 35.53	+00 21.6	3.596	3.139	55.1	14.9	19.6
1993 02 12	00 46.33	+01 36.1	3.672	3.099	48.0	13.7	19.6

Periodic Comet Gehrels 3 Elements MPC 16381

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m2
1992	06 27	03 57.40	+20 37.6	4.482	3.686	34.2	8.9	17.7
1992	07 07	04 09.78	+21 10.6	4.383	3.674	40.8	10.4	17.7
1992	07 17	04 21.81	+21 39.2	4.272	3.663	47.5	11.8	17.7
1992	07 27	04 33.39	+22 03.4	4.150	3.652	54.3	13.1	17.7
1992	08 06	04 44.37	+22 23.3	4.017	3.641	61.3	14.1	17.6
1992	08 16	04 54.62	+22 39.1	3.876	3.630	68.5	15.0	17.6
1992	08 26	05 03.96	+22 51.1	3.728	3.619	76.0	15.7	17.5
1992	09 05	05 12.20	+22 59.6	3.576	3.609	83.8	16.1	17.4
1992	09 15	05 19.14	+23 05.2	3.422	3.599	91.9	16.2	17.3
1992	09 25	05 24.58	+23 08.1	3.269	3.589	100.4	16.0	17.2
1992	10 05	05 28.29	+23 08.9	3.120	3.579	109.4	15.3	17.1
1992	10 15	05 30.09	+23 07.9	2.980	3.569	118.9	14.2	16.9
1992	10 25	05 29.84	+23 05.2	2.851	3.560	128.9	12.6	16.8
1992	11 04	05 27.50	+23 00.7	2.739	3.551	139.4	10.5	16.6
1992	11 14	05 23.19	+22 54.4	2.648	3.542	150.4	7.9	16.4
1992	11 24	05 17.23	+22 45.9	2.582	3.534	161.9	5.0	16.2
1992	12 04	05 10.14	+22 35.4	2.544	3.526	173.7	1.8	16.0
1992	12 14	05 02.64	+22 23.3	2.537	3.518	174.4	1.6	16.0
1992	12 24	04 55.47	+22 10.7	2.559	3.510	162.6	4.8	16.2
1993	01 03	04 49.36	+21 59.0	2.611	3.503	150.9	7.8	16.4
1993	01 13	04 44.89	+21 49.7	2.687	3.496	139.7	10.5	16.5
1993	01 23	04 42.38	+21 44.1	2.785	3.489	128.9	12.7	16.7
1993	02 02	04 42.02	+21 42.6	2.901	3.483	118.7	14.4	16.8
1993	02 12	04 43.79	+21 45.2	3.028	3.477	109.0	15.6	17.0
1993	02 22	04 47.58	+21 51.5	3.163	3.471	99.8	16.3	17.1
1993	03 04	04 53.22	+22 00.6	3.303	3.465	91.0	16.6	17.2
1993	03 14	05 00.50	+22 11.3	3.443	3.460	82.7	16.6	17.3
1993	03 24	05 09.23	+22 22.5	3.580	3.456	74.8	16.2	17.3
1993	04 03	05 19.21	+22 33.2	3.712	3.451	67.2	15.5	17.4
1993	04 13	05 30.26	+22 42.3	3.838	3.447	60.0	14.6	17.4
1993	04 23	05 42.21	+22 48.8	3.954	3.443	53.0	13.5	17.4
1993	05 03	05 54.92	+22 51.9	4.061	3.440	46.2	12.2	17.5

1991 RC a,e,i = 1.08, 0.83, 23 Elements MPC 20152

Date	TT	R. A. (2000)	Decl.	Delta	r	Variation		V
1992	07 07	03 43.22	+46 35.4	0.439	0.787	+16.02	+44.5	18.8
1992	07 12	03 03.34	+47 38.2	0.400	0.872	+15.11	+73.0	18.3
1992	07 17	02 17.58	+47 46.6	0.365	0.952	+12.92	+101.3	17.9
1992	07 22	01 25.49	+46 33.5	0.335	1.026	+9.22	+124.6	17.4
1992	07 27	00 29.02	+43 22.2	0.313	1.095	+4.42	+134.8	17.0
1992	08 01	23 33.01	+37 49.0	0.301	1.161	-0.21	+125.0	16.7
1992	08 06	22 43.04	+30 14.9	0.302	1.222	-3.41	+97.8	16.5
1992	08 11	22 02.25	+21 48.8	0.320	1.280	-4.95	+65.5	16.3
1992	08 16	21 30.81	+13 47.0	0.352	1.335	-5.34	+39.2	16.4
1992	08 21	21 07.35	+06 54.3	0.398	1.386	-5.13	+22.1	16.6
1992	08 26	20 50.19	+01 21.0	0.455	1.435	-4.67	+12.2	17.0
1992	08 31	20 37.91	-03 00.9	0.520	1.481	-4.16	+7.0	17.4
1992	09 05	20 29.38	-06 25.0	0.591	1.524	-3.66	+4.2	17.9
1992	09 10	20 23.74	-09 04.3	0.667	1.565	-3.21	+2.7	18.3
1992	09 15	20 20.35	-11 09.1	0.748	1.604	-2.82	+2.0	18.6
1992	09 20	20 18.74	-12 47.5	0.832	1.640	-2.48	+1.5	19.0
1992	09 25	20 18.57	-14 05.2	0.918	1.674	-2.19	+1.3	19.3
1992	09 30	20 19.58	-15 06.6	1.006	1.706	-1.94	+1.2	19.5
1992	10 05	20 21.57	-15 54.7	1.095	1.736	-1.73	+1.1	19.8
1992	10 10	20 24.36	-16 32.2	1.186	1.764	-1.55	+1.0	20.0
1992	10 15	20 27.83	-17 00.7	1.277	1.790	-1.39	+1.0	20.2

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1992 04 28    14 39.88   -06 15.5    1.029    2.030   171.0     4.4    16.3
- 9.59 -0.35  + 14.2 - 5.3   1985 JN1    20143   - 5.32 +1.52  - 33.8 - 9.1
1992 05 28    14 14.07   -06 37.9    1.086    2.008   146.0    16.4    16.9

1992 04 28    14 50.45   -17 25.6    1.427    2.429   172.6     3.1    16.5
-10.61 -0.28  + 19.9 + 2.9   1981 CB1    20141   - 6.93 +1.29  + 16.0 - 4.0
1992 05 28    14 21.24   -16 18.9    1.534    2.472   151.3    11.4    17.1

1992 04 28    15 31.20   -23 37.6    1.186    2.164   161.3     8.6    16.1
-10.28 -1.03  +137.1 +12.4   1990 UR1    20149   - 9.37 +1.23  +155.1 - 7.8
1992 05 28    14 57.55   -15 41.8    1.161    2.139   159.5     9.6    16.1

1992 06 27    18 57.54   -17 35.5    1.844    2.851   170.4     3.4    17.9
- 8.49 -0.38  - 21.0 - 2.2   1988 PM2    16027   - 6.56 +0.95  - 26.7 + 0.1
1992 07 27    18 32.54   -18 51.4    1.884    2.827   153.1     9.4    18.3

1992 06 27    18 59.28   -21 05.8    1.711    2.721   171.7     3.1    15.7
- 7.82 -0.40  - 12.0 - 0.7   1987 SC6    18428   - 5.85 +0.99  - 10.5 + 0.8
1992 07 27    18 36.20   -21 42.3    1.747    2.697   154.1     9.5    16.0

1992 06 27    19 02.47   -28 02.9    1.851    2.858   170.3     3.4    17.0
-10.37 -0.44  + 18.8 + 3.7   1982 BS     10529   - 8.14 +1.09  + 38.2 + 1.8
1992 07 27    18 31.87   -26 33.8    1.876    2.817   152.6     9.5    17.2

1992 06 27    19 00.64   +02 32.2    1.113    2.070   152.7    13.0    16.1
- 7.86 -0.55  + 67.0 -15.5   1988 NN     13471   - 5.40 +1.26  - 28.7 -13.6
1992 07 27    18 37.41   +03 26.1    1.131    2.047   144.9    16.6    16.2

1992 06 27    19 02.52   -11 38.6    1.084    2.083   165.3     7.1    17.8
- 8.86 -0.58  + 20.4 - 7.2   5023 P-L    15905   - 6.04 +1.37  - 18.8 - 4.9
1992 07 27    18 36.56   -11 40.5    1.121    2.075   152.5    13.1    18.1

1992 06 27    19 07.69   -32 10.7    1.060    2.064   167.0     6.3    18.2
-11.14 -0.66  - 25.3 + 7.6   5016 P-L    14960   - 7.18 +1.71  + 22.5 + 5.9
1992 07 27    18 35.83   -32 11.5    1.146    2.098   152.0    13.1    18.7

1992 06 27    19 07.11   -37 07.3    1.877    2.866   163.5     5.8    15.0
-10.51 -0.38    -8.6 + 7.4    (4744)     17810   - 7.62 +1.19  + 33.6 + 5.2
1992 07 27    18 37.03   -36 25.4    1.993    2.919   150.4     9.9    15.4

1992 06 27    19 06.71   -26 04.8    1.804    2.811   170.1     3.6    15.9
- 8.57 -0.49  - 20.1 + 1.7   1988 UC     18430   - 6.94 +0.97    -3.7 + 2.9
1992 07 27    18 40.74   -26 42.8    1.833    2.784   154.5     9.0    16.1

1992 06 27    19 08.13   -20 01.8    1.328    2.335   169.4     4.6    16.0
-10.21 -0.60  - 34.2 - 1.5   1942 EM     17952   - 7.77 +1.28  - 30.1 + 2.1
1992 07 27    18 37.69   -21 44.9    1.386    2.344   154.4    10.8    16.3

1992 06 27    19 08.87   -17 35.6    1.277    2.281   168.2     5.2    17.8
- 9.75 -0.71  - 17.1 - 3.2   1981 EP19   15242   - 7.90 +1.25  - 25.9   0.0
1992 07 27    18 38.78   -18 46.0    1.284    2.244   154.5    11.2    18.0

1992 06 27    19 07.33   -20 35.9    2.205    3.210   169.8     3.2    18.1
- 7.91 -0.33  - 16.6 - 0.6   3854 T-3    19332   - 6.38 +0.78  - 14.4 + 1.0
1992 07 27    18 43.84   -21 25.3    2.283    3.237   155.8     7.4    18.4

1992 06 27    19 09.93   +00 42.5    1.964    2.910   153.6     8.9    17.7
- 9.72 -0.35  + 42.8 - 9.5    (4742)     17809   - 7.84 +0.89  - 12.4 - 7.7
1992 07 27    18 41.32   +01 24.6    2.048    2.952   147.0    10.8    17.9
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1992 06 27	19 11.77	-13 27.5	1.534	2.530	165.1	5.9	16.9
- 9.08 -0.62	+5.2 - 4.5	1989 WJ1	15724	- 7.79 +1.01	- 17.0 - 2.6		
1992 07 27	18 43.45	-13 48.7	1.527	2.483	154.7	10.1	17.0
1992 06 27	19 10.65	-19 31.4	2.205	3.208	168.7	3.6	17.7
- 7.93 -0.35	- 12.9 - 1.0	1991 GQ2	18636	- 6.53 +0.76	- 13.4 + 0.6		
1992 07 27	18 46.91	-20 13.8	2.280	3.237	156.5	7.2	18.0
1992 06 27	19 13.39	-20 17.1	1.304	2.308	168.3	5.1	16.8
-10.01 -0.81	- 25.2 - 1.8	1986 UG	12709	- 8.62 +1.22	- 23.3 + 1.7		
1992 07 27	18 41.69	-21 36.2	1.297	2.260	155.3	10.8	17.0
1992 06 27	19 10.62	-21 41.8	2.271	3.275	169.3	3.3	17.2
- 7.85 -0.33	- 13.8 - 0.1	1985 DC1	18425	- 6.40 +0.76	-9.4 + 1.2		
1992 07 27	18 47.24	-22 18.9	2.358	3.314	156.6	7.0	17.5
1992 06 27	19 14.97	-21 11.7	1.362	2.367	168.2	5.0	15.3
- 9.87 -0.67	+ 54.7 + 1.0	1989 YF5	16586	- 7.99 +1.20	+ 52.0 - 2.2		
1992 07 27	18 44.72	-18 25.5	1.370	2.334	155.9	10.2	15.5
1992 06 27	19 14.43	-33 48.0	2.154	3.147	164.9	4.8	15.6
- 9.21 -0.46	-6.1 + 4.9	1991 GG1	18439	- 7.64 +0.91	+ 25.5 + 4.4		
1992 07 27	18 46.63	-33 17.8	2.207	3.149	153.6	8.2	15.8
1992 06 27	19 18.44	-44 56.6	1.590	2.552	155.8	9.4	16.6
-11.91 -0.89	- 13.1 +12.1	1980 RU	15878	- 9.76 +1.48	+ 63.1 +10.2		
1992 07 27	18 41.54	-43 37.9	1.591	2.505	147.1	12.7	16.7
1992 06 27	19 15.86	-11 35.7	1.496	2.486	163.1	6.8	17.9
- 9.21 -0.66	-8.5 - 6.0	1982 SG12	13686	- 8.05 +1.01	- 35.6 - 2.6		
1992 07 27	18 46.89	-12 48.1	1.498	2.457	155.2	10.0	18.0
1992 06 27	19 17.81	-25 52.7	1.178	2.182	167.7	5.7	16.2
- 8.96 -0.79	- 30.1 + 1.7	1989 UF7	16434	- 7.09 +1.31	-7.2 + 4.4		
1992 07 27	18 49.85	-26 53.6	1.219	2.188	156.5	10.7	16.5
1992 06 27	19 18.89	-18 41.4	1.681	2.681	166.6	5.1	16.2
- 8.12 -0.64	- 26.5 - 2.4	1991 GQ10	18826	- 7.36 +0.87	- 29.9 + 1.0		
1992 07 27	18 52.89	-20 12.3	1.677	2.646	157.9	8.3	16.3
1992 06 27	19 19.25	-21 28.1	1.930	2.930	167.3	4.4	16.5
- 7.69 -0.59	- 23.0 - 0.9	1982 UV1	18422	- 7.15 +0.76	- 19.4 + 1.7		
1992 07 27	18 54.52	-22 36.6	1.910	2.878	158.2	7.5	16.6
1992 06 27	19 30.64	-56 36.0	0.895	1.821	144.6	18.9	16.0
-13.87 -2.80	-194.0 +23.4	1979 VS2	12785	-14.19 +3.02	- 10.0 +28.4		
1992 07 27	18 37.57	-61 50.9	0.933	1.789	133.3	24.4	16.2
1992 06 27	19 21.47	-25 37.0	2.006	3.005	166.9	4.4	16.8
- 7.93 -0.54	- 19.3 + 1.1	1982 SM7	16577	- 7.09 +0.78	-5.0 + 2.9		
1992 07 27	18 56.50	-26 16.7	2.033	2.999	158.1	7.3	17.0
1992 06 27	19 26.91	-20 48.6	1.353	2.351	165.4	6.3	16.8
- 9.70 -0.96	+0.2 - 0.8	1987 BC2	15414	- 9.44 +1.06	+2.7 + 1.0		
1992 07 27	18 54.47	-20 47.5	1.310	2.284	158.3	9.5	16.8
1992 06 27	19 27.11	-16 40.5	1.287	2.281	163.9	7.1	16.4
- 9.28 -0.79	- 24.9 - 4.0	1988 EA2	19300	- 8.11 +1.12	- 34.2 + 0.6		
1992 07 27	18 57.50	-18 17.8	1.325	2.302	158.9	9.1	16.5

1992 06 27	19 28.18	-18 22.1	1.541	2.534	164.4	6.2	17.4
- 9.79 -0.70	- 20.2 - 2.3	1990 YK	17829	- 8.71 +1.00	- 22.6 + 1.0		
1992 07 27	18 57.27	-19 32.4	1.585	2.559	158.9	8.2	17.6
1992 06 27	19 27.25	-17 59.1	1.040	2.038	164.5	7.7	16.7
- 8.56 -0.96	- 32.3 - 4.4	1985 JX1	18110	- 7.48 +1.26	- 38.9 + 1.7		
1992 07 27	18 59.08	-19 57.1	1.064	2.046	159.4	10.1	16.8
1992 06 27	19 30.07	-27 23.3	1.314	2.310	164.7	6.7	16.9
- 9.44 -1.12	- 31.9 + 1.6	1985 RZ1	18426	- 9.75 +1.07	-4.5 + 5.9		
1992 07 27	18 57.25	-28 25.8	1.254	2.227	157.6	10.0	16.9
1992 06 27	19 29.64	-29 10.7	1.190	2.186	164.4	7.2	16.1
- 8.53 -1.15	-1.6 + 4.0	1970 OF	11146	- 8.73 +1.14	+ 33.5 + 5.8		
1992 07 27	18 59.48	-28 25.9	1.117	2.093	158.1	10.4	16.0
1992 06 27	19 29.21	-19 18.2	1.808	2.800	164.5	5.6	17.1
- 8.31 -0.61	- 14.9 - 1.7	1973 EK	13696	- 7.65 +0.80	- 15.9 + 0.9		
1992 07 27	19 02.67	-20 09.2	1.840	2.816	160.2	7.0	17.2
1992 06 27	19 30.74	-18 21.9	1.070	2.066	163.8	7.9	14.8
- 8.62 -0.95	- 54.7 - 4.3	1988 DO1	17822	- 7.63 +1.22	- 54.5 + 3.6		
1992 07 27	19 02.32	-21 20.2	1.111	2.095	160.1	9.5	15.0
1992 06 27	19 30.68	-19 57.5	1.982	2.974	164.3	5.3	17.5
- 7.76 -0.60	- 13.5 - 1.3	(4876)	18410	- 7.43 +0.70	- 13.4 + 1.0		
1992 07 27	19 05.49	-20 42.3	1.991	2.970	160.9	6.4	17.6
1992 06 27	19 31.91	-12 09.5	1.717	2.697	160.5	7.2	16.9
- 7.97 -0.64	- 53.0 - 5.9	1979 MH7	17955	- 7.52 +0.77	- 69.8 + 0.4		
1992 07 27	19 06.05	-15 25.3	1.754	2.732	160.4	7.2	16.9
1992 06 27	19 34.87	-30 27.4	1.822	2.810	162.9	6.1	15.5
-10.06 -0.70	+6.3 + 4.2	1991 FU	18438	- 9.12 +0.95	+ 34.5 + 3.9		
1992 07 27	19 03.06	-29 25.7	1.859	2.828	158.4	7.6	15.6
1992 06 27	19 31.41	-20 27.4	2.598	3.587	164.3	4.4	16.7
- 7.27 -0.50	- 49.8 - 1.4	1990 BS1	18632	- 7.24 +0.51	- 46.1 + 2.3		
1992 07 27	19 07.78	-22 57.8	2.609	3.586	161.2	5.2	16.8
1992 06 27	19 34.66	-16 10.0	1.557	2.544	162.1	7.1	18.2
- 9.15 -0.91	-8.5 - 3.6	1989 SN5	18631	- 9.57 +0.81	- 21.0 - 0.6		
1992 07 27	19 03.39	-16 59.7	1.500	2.479	160.1	8.0	18.1
1992 06 27	19 32.87	-16 55.7	2.176	3.162	162.8	5.5	16.6
- 7.68 -0.57	- 22.5 - 2.6	2780 P-L	18444	- 7.55 +0.61	- 28.6 + 0.4		
1992 07 27	19 07.87	-18 17.7	2.179	3.158	161.3	5.9	16.7
1992 06 27	19 35.82	-14 10.6	1.609	2.591	160.9	7.4	17.1
- 8.58 -0.80	-0.1 - 4.3	1989 TT1	19026	- 8.60 +0.80	- 18.6 - 1.7		
1992 07 27	19 07.10	-14 43.3	1.589	2.568	160.5	7.6	17.1
1992 06 27	19 37.71	-01 34.1	1.320	2.268	152.0	12.2	16.1
- 7.25 -0.81	+ 16.1 -12.1	1979 KR	14014	- 7.03 +0.86	- 50.2 - 8.2		
1992 07 27	19 13.22	-02 32.5	1.334	2.297	155.5	10.6	16.1
1992 06 27	19 38.77	-24 56.2	2.586	3.571	163.1	4.8	17.2
- 7.40 -0.55	- 21.6 + 0.4	3107 T-3	13863	- 7.58 +0.50	- 10.7 + 2.7		
1992 07 27	19 14.34	-25 48.8	2.573	3.553	162.1	5.0	17.2

1992 06 27	19 39.23	-07 33.8	1.861	2.821	156.2	8.4	16.3
- 6.83 -0.67	+ 11.4 - 6.5	(4866)	18406	- 7.13 +0.59	- 23.9 - 4.6		
1992 07 27	19 15.96	-07 56.1	1.829	2.803	159.5	7.3	16.2
1992 06 27	19 40.69	-19 02.3	1.884	2.868	161.8	6.3	14.7
- 7.39 -0.73	+ 15.1 - 1.3	1987 SZ6	15415	- 7.80 +0.62	+ 11.1 - 0.3		
1992 07 27	19 15.40	-18 24.9	1.835	2.823	163.1	6.0	14.5
1992 06 27	19 42.79	-18 36.1	1.134	2.122	161.2	8.9	16.0
- 8.01 -1.01	-8.5 - 3.3	1978 VS5	12579	- 7.77 +1.05	- 15.2 + 0.7		
1992 07 27	19 15.31	-19 19.1	1.167	2.159	163.2	7.8	16.1
1992 06 27	19 46.70	-33 12.3	1.087	2.070	159.5	9.9	17.7
- 8.91 -1.53	- 42.1 + 4.6	1981 ET23	15703	-10.51 +1.15	+ 13.9 +11.1		
1992 07 27	19 12.60	-34 06.5	1.026	2.003	157.8	11.0	17.6
1992 06 27	19 48.15	-15 07.2	1.583	2.557	158.7	8.3	18.1
- 8.65 -1.02	-9.1 - 4.3	1989 RJ	18432	-10.00 +0.65	- 25.4 - 0.9		
1992 07 27	19 17.08	-16 05.2	1.503	2.492	163.2	6.8	17.9
1992 06 27	19 44.32	-08 34.8	1.804	2.763	155.9	8.6	16.7
- 6.42 -0.71	- 29.3 - 7.3	5041 T-3	16039	- 6.90 +0.57	- 60.5 - 2.5		
1992 07 27	19 21.99	-10 58.5	1.789	2.774	162.4	6.4	16.6
1992 06 27	19 50.27	-22 30.9	0.947	1.934	160.3	10.2	16.5
- 6.67 -1.62	- 70.6 - 6.4	1989 WW	16878	-10.18 +0.78	- 71.6 + 6.1		
1992 07 27	19 20.57	-26 27.4	0.831	1.827	163.2	9.3	16.0
1992 06 27	19 52.70	-24 10.3	1.856	2.832	+1.16	-3.8	16.6
- 9.29 -0.91	- 98.5 - 0.9	1990 YM	18436	-10.13 +0.67	- 75.7 + 7.3		
1992 07 27	19 20.66	-28 46.8	1.892	2.875	+1.20	-4.6	16.7
1992 06 27	19 52.39	-14 29.9	1.319	2.291	157.5	9.8	17.0
- 8.70 -1.03	-2.7 - 5.2	1988 EJ1	17822	- 9.27 +0.86	- 22.8 - 1.3		
1992 07 27	19 21.92	-15 15.5	1.323	2.317	164.1	6.9	16.9
1992 06 27	19 52.55	-33 55.2	1.640	2.611	158.1	8.4	16.2
- 7.83 -1.16	- 57.6 + 2.9	1988 VB	13862	- 9.69 +0.67	- 15.7 + 9.4		
1992 07 27	19 22.88	-35 57.2	1.567	2.538	158.1	8.6	16.1
1992 06 27	19 49.48	-02 42.0	2.300	3.227	150.9	8.8	17.0
- 6.15 -0.64	+5.1 - 7.1	1976 UH16	12784	- 7.06 +0.37	- 35.4 - 5.6		
1992 07 27	19 27.81	-03 30.2	2.214	3.182	158.7	6.6	16.7
1992 06 27	19 51.52	-11 17.4	2.293	3.248	156.1	7.3	17.1
- 6.51 -0.64	- 26.0 - 4.9	1990 BC1	16032	- 7.32 +0.41	- 46.0 - 1.4		
1992 07 27	19 28.84	-13 11.8	2.251	3.242	164.9	4.7	16.9
1992 06 27	19 56.32	-15 45.1	1.413	2.382	157.2	9.5	18.3
- 8.19 -1.12	- 27.6 - 5.3	7643 P-L	19319	- 9.77 +0.68	- 42.7 + 0.4		
1992 07 27	19 26.04	-17 41.2	1.365	2.362	165.6	6.2	18.0
1992 06 27	19 57.43	-23 09.6	1.197	2.175	158.8	9.8	17.8
- 8.59 -1.25	- 36.5 - 1.3	6600 P-L	14961	- 9.69 +0.93	- 22.0 + 4.9		
1992 07 27	19 25.98	-24 49.0	1.201	2.197	164.9	6.9	17.7
1992 06 27	19 53.10	-22 23.6	2.519	3.490	159.7	5.8	17.6
- 6.85 -0.67	- 22.4 - 0.8	1971 SS1	15401	- 7.84 +0.38	- 17.6 + 2.1		
1992 07 27	19 29.15	-23 29.2	2.453	3.447	166.0	4.1	17.4

1992 06 27	19 54.93	-12 45.7	1.580	2.543	156.2	9.3	15.4
- 7.01 -0.91	- 55.4 - 6.8	(4790)	18097	- 8.06 +0.60	- 75.3 + 0.6		
1992 07 27	19 29.53	-16 15.4	1.571	2.569	166.1	5.4	15.3
1992 06 27	19 57.08	-26 28.8	1.937	2.909	158.9	7.2	16.8
- 8.00 -0.88	- 39.4 + 0.5	(4773)	17951	- 9.07 +0.57	- 20.4 + 4.9		
1992 07 27	19 28.79	-28 06.7	1.924	2.914	164.1	5.5	16.7
1992 06 27	20 00.53	+10 40.2	1.109	1.989	138.7	19.7	16.1
- 9.18 -1.35	+116.9 -17.2	(4674)	17421	-11.08 +0.84	- 11.7 -21.8		
1992 07 27	19 26.08	+13 26.5	1.073	1.987	144.1	17.4	16.0
1992 06 27	19 59.10	-32 03.0	1.340	2.312	157.4	9.7	16.1
- 6.66 -1.35	-103.3 + 0.4	1975 TK6	15402	- 9.28 +0.66	- 60.6 +12.0		
1992 07 27	19 31.48	-36 30.4	1.294	2.271	158.9	9.3	16.0
1992 06 27	19 56.98	-19 56.6	2.578	3.543	158.3	6.1	17.8
- 6.49 -0.66	- 20.5 - 1.6	1982 VZ	9360	- 7.60 +0.33	- 21.3 + 1.2		
1992 07 27	19 34.03	-21 04.6	2.505	3.503	167.5	3.6	17.6
1992 06 27	20 02.93	-30 42.3	1.435	2.403	157.0	9.5	16.9
- 8.60 -1.29	- 53.4 + 2.1	(4824)	18270	-10.52 +0.76	- 14.8 + 8.9		
1992 07 27	19 30.46	-32 37.3	1.408	2.394	161.6	7.7	16.8
1992 06 27	20 01.38	-19 26.6	1.552	2.520	157.2	9.0	17.6
- 7.64 -1.14	- 14.0 - 2.8	1981 QE1	11740	- 9.89 +0.52	- 17.5 + 1.5		
1992 07 27	19 32.04	-20 21.7	1.455	2.456	167.1	5.3	17.2
1992 06 27	20 02.67	-04 26.2	1.634	2.564	149.8	11.5	17.2
- 6.96 -0.88	- 20.0 - 9.6	1987 GK	15557	- 8.09 +0.54	- 65.6 - 4.4		
1992 07 27	19 37.47	-06 44.1	1.630	2.617	162.8	6.6	17.1
1992 06 27	20 04.09	-18 53.2	2.177	3.135	156.5	7.4	18.2
- 7.79 -0.74	-2.4 - 1.7	1991 GZ9	18637	- 8.67 +0.47	-4.8 + 0.7		
1992 07 27	19 37.18	-19 08.3	2.178	3.179	168.3	3.7	18.1
1992 06 27	20 07.77	-32 23.9	1.303	2.268	155.6	10.7	16.5
- 8.21 -1.38	- 53.8 + 3.3	1984 EY	15708	-10.15 +0.83	-6.6 +10.1		
1992 07 27	19 36.14	-34 07.2	1.305	2.290	161.3	8.2	16.4
1992 06 27	20 06.81	-10 49.9	1.415	2.365	152.7	11.4	17.3
- 7.34 -1.19	-7.2 - 7.4	1976 SG2	11434	- 9.85 +0.49	- 42.1 - 3.3		
1992 07 27	19 37.92	-12 11.4	1.330	2.329	166.4	5.9	16.9
1992 06 27	20 13.80	-19 54.8	1.372	2.331	154.5	10.8	16.7
- 9.85 -1.51	+ 73.8 + 2.5	1990 BJ	16238	-13.43 +0.54	+ 84.1 - 0.3		
1992 07 27	19 35.08	-15 52.7	1.231	2.233	167.3	5.7	16.2
1992 06 27	20 11.94	-33 09.8	1.083	2.048	154.5	12.3	16.5
- 6.70 -1.74	- 61.3 + 2.0	1989 WR	15723	-10.79 +0.68	-9.2 +13.1		
1992 07 27	19 41.22	-35 16.2	1.004	1.992	161.0	9.5	16.1
1992 06 27	20 12.69	-19 19.3	1.493	2.450	154.6	10.3	18.5
- 7.91 -1.20	- 34.3 - 3.7	4272 T-2	17978	-10.25 +0.54	- 36.3 + 2.7		
1992 07 27	19 42.23	-21 17.0	1.450	2.455	169.4	4.4	18.1
1992 06 27	20 09.96	-17 17.1	1.415	2.374	154.7	10.6	16.8
- 5.94 -1.19	- 38.7 - 5.6	1989 YP5	16878	- 8.73 +0.42	- 52.7 + 1.3		
1992 07 27	19 44.98	-19 47.1	1.331	2.339	170.2	4.2	16.3

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1992 06 27    20 14.10   -24 21.0    1.679    2.636   155.0     9.4    16.6
- 7.25 -1.16  - 55.5 - 2.0    (4735)     17807   - 9.96 +0.40  - 43.3 + 5.5
1992 07 27    19 45.39   -27 03.2    1.612    2.613   167.7     4.8    16.2

1992 06 27    20 15.46   -26 53.7    1.390    2.350   154.8    10.6    17.7
- 7.33 -1.46  - 31.1 - 0.5   1978 SQ4    11995   -11.14 +0.42    -9.1 + 6.8
1992 07 27    19 44.28   -28 07.7    1.274    2.274   166.8     5.8    17.3

1992 06 27    20 15.87   -28 36.2    1.660    2.615   154.6     9.6    17.1
- 8.03 -1.17  - 28.3 + 1.2   1991 EA     18128   -10.22 +0.54    -1.8 + 6.4
1992 07 27    19 45.33   -29 30.7    1.629    2.626   166.0     5.3    16.9

1992 06 27    20 13.25   -12 55.1    1.309    2.259   152.3    12.1    16.9
- 6.67 -1.18  - 28.8 - 7.4   1989 SG5    16235   - 8.76 +0.57  - 54.2 - 0.5
1992 07 27    19 46.86   -15 12.3    1.299    2.306   169.7     4.5    16.6

1992 06 27    20 11.49   -13 43.6    2.048    2.990   153.0     8.9    17.5
- 6.15 -0.83    -2.3 - 4.1   1978 VT8    18619   - 7.85 +0.32  - 19.7 - 1.4
1992 07 27    19 48.37   -14 21.6    1.989    2.994   169.7     3.5    17.2

1992 06 27    20 18.74   -21 21.3    1.353    2.308   153.6    11.3    16.5
- 7.86 -1.34    -0.4 - 1.8   1991 CO     17970   -10.57 +0.57    +3.0 + 2.3
1992 07 27    19 47.56   -21 25.1    1.306    2.314   170.6     4.1    16.1

1992 06 27    20 17.55   -26 09.3    1.181    2.143   154.3    11.9    16.7
- 6.48 -1.57  - 43.8 - 1.7   1979 XQ     18415   -10.46 +0.49  - 23.4 + 7.5
1992 07 27    19 48.34   -28 07.2    1.098    2.101   167.5     6.0    16.3

1992 06 27    20 15.73   -21 20.0    2.487    3.431   154.3     7.4    16.8
- 5.92 -0.79  - 24.8 - 1.8   1989 AQ     15418   - 7.91 +0.20  - 23.8 + 1.9
1992 07 27    19 53.18   -22 39.7    2.382    3.389   171.5     2.6    16.4

1992 06 27    20 20.37   -12 27.3    1.352    2.292   150.5    12.6    16.7
- 7.30 -1.23    -7.4 - 6.9   1232 T-1    19320   - 9.74 +0.53  - 35.3 - 1.8
1992 07 27    19 51.55   -13 40.8    1.331    2.338   170.0     4.3    16.4

1992 06 27    20 19.75   -13 31.2    1.971    2.903   151.1     9.7    16.4
- 7.12 -0.96  + 20.8 - 3.6   1989 XD     15726   - 9.40 +0.29    +2.9 - 2.1
1992 07 27    19 52.65   -12 58.3    1.881    2.886   169.8     3.6    16.0

1992 06 27    20 20.63   -16 22.5    1.248    2.198   152.0    12.6    17.8
- 6.79 -1.38  - 41.0 - 6.6   1988 CA1    18813   - 9.93 +0.49  - 56.1 + 1.8
1992 07 27    19 52.09   -19 03.8    1.208    2.218   171.8     3.7    17.4

1992 06 27    20 18.94   -17 33.1    2.083    3.023   152.7     8.9    18.4
- 6.74 -0.92  - 16.1 - 3.1   1989 WG7    17209   - 8.99 +0.26  - 23.6 + 0.7
1992 07 27    19 53.14   -18 39.7    1.998    3.007   172.1     2.7    18.0

1992 06 27    20 22.85   -15 51.5    1.658    2.596   151.3    10.8    17.8
- 6.93 -1.10  - 18.3 - 4.7   1991 CN1    18126   - 9.48 +0.36  - 32.1 + 0.3
1992 07 27    19 55.53   -17 16.3    1.611    2.621   172.4     2.9    17.3

1992 06 27    20 23.37   -15 42.1    1.220    2.166   151.1    13.1    16.4
- 5.91 -1.49    +2.1 - 5.5   1979 UQ     15552   -10.36 +0.26  - 20.1 - 1.3
1992 07 27    19 55.73   -16 16.9    1.094    2.105   172.1     3.8    15.7

1992 06 27    20 24.47   -29 48.2    1.989    2.929   152.6     9.2    17.9
- 6.99 -1.14  - 59.3 - 0.1   1989 WC2    15725   -10.10 +0.24  - 35.3 + 7.3
1992 07 27    19 56.30   -32 23.6    1.905    2.899   165.1     5.2    17.6
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1992 06 27	20 22.80	-33 05.3	2.304	3.239	152.4	8.4	16.9
- 6.52 -0.97	- 49.3 + 1.6	(4865)	18406	- 8.94 +0.26	- 20.6 + 7.1		
1992 07 27	19 57.35	-35 00.4	2.250	3.235	162.9	5.3	16.7
1992 06 27	20 19.88	-08 23.5	2.212	3.126	148.7	9.7	17.0
- 5.18 -0.81	+ 13.7 - 5.3	1990 EJ2	16879	- 7.33 +0.17	- 15.7 - 3.9		
1992 07 27	19 59.31	-08 28.9	2.101	3.100	167.4	4.1	16.6
1992 06 27	20 19.36	+04 10.9	0.998	1.897	140.8	19.8	15.9
- 3.26 -1.36	- 14.1 -19.4	3129 T-2	15084	- 6.68 +0.39	-124.1 -13.3		
1992 07 27	20 01.22	+00 32.3	0.946	1.930	159.3	10.7	15.5
1992 06 27	20 22.84	-17 07.0	2.347	3.278	151.7	8.5	16.7
- 5.51 -0.80	- 26.4 - 3.3	1990 BJ2	16240	- 7.55 +0.19	- 34.7 + 0.7		
1992 07 27	20 01.45	-18 46.0	2.280	3.292	174.0	1.8	16.3
1992 06 27	20 25.58	-20 39.1	2.120	3.055	151.9	9.0	18.2
- 5.94 -0.89	- 20.6 - 2.1	(5148)	19852	- 8.08 +0.25	- 20.4 + 2.0		
1992 07 27	20 02.43	-21 48.1	2.083	3.094	173.8	2.0	17.8
1992 06 27	20 23.50	-26 44.3	2.840	3.774	153.0	7.0	17.2
- 5.25 -0.71	- 26.8 - 0.1	1989 CV	16432	- 7.04 +0.16	- 15.9 + 3.4		
1992 07 27	20 03.46	-27 54.9	2.784	3.788	169.8	2.7	16.9
1992 06 27	20 29.02	-17 07.0	1.674	2.607	150.3	11.2	17.9
- 6.34 -1.15	- 22.2 - 4.5	1981 SE	18621	- 9.44 +0.25	- 33.5 + 0.9		
1992 07 27	20 02.75	-18 40.5	1.603	2.615	174.3	2.2	17.4
1992 06 27	20 33.13	-38 49.1	1.694	2.616	148.7	11.6	14.9
- 6.78 -1.43	- 37.9 + 4.3	1988 VD1	14026	-10.59 +0.35	+ 14.9 +11.5		
1992 07 27	20 03.78	-39 37.0	1.623	2.597	159.0	8.1	14.7
1992 06 27	20 30.21	-20 10.7	1.923	2.853	150.8	10.0	18.2
- 5.72 -1.04	- 19.3 - 2.8	1981 EM19	18418	- 8.64 +0.18	- 21.8 + 1.9		
1992 07 27	20 06.43	-21 21.0	1.836	2.849	174.8	1.9	17.7
1992 06 27	20 28.15	-17 20.7	2.745	3.664	150.5	7.8	18.6
- 5.40 -0.74	- 19.8 - 2.8	1984 ER1	13606	- 7.58 +0.09	- 27.3 + 0.4		
1992 07 27	20 07.15	-18 37.2	2.623	3.636	175.4	1.3	18.1
1992 06 27	20 33.87	-14 45.4	2.230	3.141	148.4	9.8	16.4
- 5.25 -0.86	- 34.4 - 4.5	1980 KD	18106	- 7.62 +0.14	- 48.0 + 0.3		
1992 07 27	20 12.73	-16 57.9	2.186	3.200	176.0	1.3	15.9
1992 06 27	20 37.73	-22 09.8	1.171	2.110	149.4	14.2	16.3
- 4.15 -1.66	- 51.4 - 6.2	1982 UE	15554	-10.43 -0.08	- 58.1 + 4.9		
1992 07 27	20 12.96	-25 14.7	1.020	2.032	173.2	3.4	15.4
1992 06 27	20 37.29	-15 54.7	1.192	2.124	148.0	14.7	18.3
- 4.29 -1.51	-1.5 - 6.1	1978 VT10	15876	- 9.26 +0.11	- 25.2 - 1.0		
1992 07 27	20 13.98	-16 44.2	1.086	2.100	176.1	1.9	17.5
1992 06 27	20 36.05	-20 09.1	2.654	3.566	149.4	8.3	18.0
- 5.40 -0.80	- 22.0 - 2.2	1984 AR	8535	- 7.85 +0.06	- 24.2 + 1.5		
1992 07 27	20 14.58	-21 25.3	2.548	3.562	176.4	1.0	17.4
1992 06 27	20 38.63	-13 52.4	1.609	2.523	147.0	12.7	16.7
- 5.31 -1.17	- 23.8 - 6.3	(4793)	18098	- 8.69 +0.18	- 45.8 - 0.5		
1992 07 27	20 15.14	-15 47.4	1.558	2.571	175.6	1.7	16.1

1992 06 27	20 37.10	-13 23.5	2.168	3.073	147.2	10.3	16.3
- 4.94 -0.96	- 39.8 - 5.9	1978 QC3	16575	- 8.22 -0.01	- 62.4 - 1.0		
1992 07 27	20 15.60	-16 06.1	2.019	3.033	176.0	1.4	15.6
1992 06 27	20 40.58	-14 17.3	1.334	2.254	146.7	14.3	17.4
- 4.94 -1.48	+1.9 - 6.2	1982 RO1	17014	-10.21 -0.02	- 25.8 - 2.2		
1992 07 27	20 15.17	-15 00.7	1.188	2.201	175.0	2.3	16.5
1992 06 27	20 39.89	-23 13.0	1.916	2.837	149.1	10.6	18.3
- 5.16 -1.12	- 29.9 - 2.4	3178 T-2	19329	- 8.82 +0.05	- 26.2 + 3.5		
1992 07 27	20 16.75	-24 48.1	1.804	2.816	173.9	2.2	17.8
1992 06 27	20 37.45	-01 21.8	2.792	3.640	141.1	10.1	16.7
- 4.78 -0.73	+1.5 - 6.4	(4889)	18610	- 7.19 0.00	- 36.2 - 5.4		
1992 07 27	20 18.15	-02 15.5	2.631	3.614	163.0	4.7	16.3
1992 06 27	20 42.90	-18 37.9	1.697	2.613	147.5	12.1	17.3
- 4.03 -1.18	- 14.1 - 4.1	2023 P-L	18642	- 8.05 0.00	- 24.5 + 0.9		
1992 07 27	20 22.62	-19 44.9	1.579	2.594	178.9	0.4	16.5
1992 06 27	20 44.23	+00 35.9	1.583	2.439	138.5	16.0	16.8
- 3.92 -1.20	+ 53.3 - 9.1	1988 VT	14954	- 8.18 -0.05	- 12.1 -11.4		
1992 07 27	20 23.98	+01 42.1	1.444	2.420	159.1	8.6	16.3
1992 06 27	20 50.75	-16 45.0	2.311	3.199	145.2	10.4	18.3
- 5.67 -1.00	-9.4 - 3.5	1989 WB2	15725	- 9.22 -0.06	- 20.2 + 0.1		
1992 07 27	20 26.67	-17 36.1	2.161	3.176	178.4	0.5	17.6
1992 07 27	20 27.15	+00 40.6	1.058	2.043	160.1	9.7	13.9
- 8.59 -0.07	+ 30.4 -13.6	(5118)	19840	- 3.45 +1.55	- 32.1 - 5.7		
1992 08 26	20 06.10	+00 23.2	1.130	2.041	145.0	16.5	14.3
1992 07 27	20 27.59	-08 21.8	1.151	2.157	169.2	5.1	15.5
-10.04 -0.14	-7.7 - 6.8	1955 QN	16867	- 5.04 +1.58	- 29.3 - 0.2		
1992 08 26	20 01.81	-09 29.4	1.214	2.127	145.9	15.4	16.0
1992 07 27	20 28.40	-15 22.2	1.885	2.899	176.2	1.3	16.4
- 8.64 -0.13	-3.6 - 1.1	1987 ST1	14476	- 5.51 +1.07	-1.7 + 1.4		
1992 08 26	20 04.96	-15 34.7	1.930	2.829	146.7	11.3	16.9
1992 07 27	20 29.25	-15 53.7	1.552	2.567	176.7	1.3	17.2
-10.32 -0.03	- 23.5 - 0.7	1991 CU1	17971	- 5.83 +1.33	- 15.3 + 2.8		
1992 08 26	20 02.52	-16 58.4	1.679	2.579	146.0	12.7	17.9
1992 07 27	20 29.58	-22 44.1	1.690	2.705	176.4	1.4	17.0
- 8.52 -0.08	- 37.1 + 2.5	3033 T-2	16243	- 4.70 +1.20	- 11.0 + 5.2		
1992 08 26	20 07.41	-24 01.0	1.800	2.695	145.6	12.2	17.7
1992 07 27	20 29.35	-12 52.0	1.988	2.999	173.7	2.1	16.6
- 7.68 -0.12	- 37.1 - 2.6	1976 SW3	13584	- 4.86 +0.97	- 37.8 + 2.1		
1992 08 26	20 08.53	-14 53.0	2.045	2.948	147.6	10.6	17.1
1992 07 27	20 31.39	-02 54.3	1.695	2.685	163.7	6.1	15.2
- 7.22 -0.08	- 44.2 - 7.8	(4897)	18613	- 3.97 +1.05	- 68.2	0.0	
1992 08 26	20 12.51	-05 57.4	1.780	2.692	148.1	11.4	15.5
1992 07 27	20 32.74	-17 44.1	1.772	2.788	177.9	0.7	17.1
- 9.07 -0.20	- 54.1 - 0.5	1982 BE1	10529	- 5.92 +1.14	- 39.3 + 4.6		
1992 08 26	20 07.79	-20 13.5	1.835	2.736	146.7	11.7	17.7

1992 07 27	20 33.30	-16 41.1	1.591	2.606	177.0	1.2	17.3
- 9.64 -0.26	- 60.9 - 1.4	1989 XB	15898	- 6.30 +1.25	- 47.5 + 4.9		
1992 08 26	20 06.61	-19 35.3	1.637	2.542	146.5	12.7	17.8
1992 07 27	20 33.49	-19 35.4	2.132	3.147	178.3	0.5	17.7
- 7.90 -0.16	- 35.7 + 0.4	1987 SS9	14620	- 5.31 +0.94	- 21.2 + 3.8		
1992 08 26	20 11.66	-21 06.9	2.191	3.090	147.3	10.2	18.3
1992 07 27	20 34.00	-22 21.0	1.215	2.229	176.4	1.6	16.4
- 9.39 -0.24	- 45.5 + 2.5	1981 US14	15881	- 4.88 +1.54	- 12.8 + 6.8		
1992 08 26	20 09.31	-23 56.4	1.279	2.192	146.0	14.9	17.1
1992 07 27	20 34.64	-07 50.5	1.291	2.296	168.5	5.1	16.8
- 9.81 -0.31	- 34.9 - 7.2	1989 UF	18432	- 6.06 +1.41	- 54.0 + 0.9		
1992 08 26	20 07.65	-10 18.9	1.317	2.235	147.4	14.1	17.1
1992 07 27	20 34.24	-06 29.1	1.905	2.904	167.2	4.5	17.1
- 8.85 -0.11	- 23.8 - 5.3	1989 UE4	15568	- 5.78 +1.03	- 39.6 + 0.1		
1992 08 26	20 10.19	-08 14.0	1.993	2.899	147.9	10.7	17.5
1992 07 27	20 35.35	-16 33.6	1.189	2.203	176.7	1.5	17.3
- 8.99 -0.32	- 52.9 - 2.0	4250 T-3	16884	- 4.97 +1.50	- 39.8 + 5.4		
1992 08 26	20 11.07	-19 06.3	1.224	2.147	147.6	14.6	17.9
1992 07 27	20 35.83	-16 04.9	1.356	2.370	176.2	1.6	16.7
-10.27 -0.10	- 32.2 - 0.8	(5003)	19285	- 5.64 +1.42	- 20.7 + 3.8		
1992 08 26	20 09.16	-17 32.7	1.479	2.393	147.5	13.1	17.5
1992 07 27	20 36.91	-29 42.4	1.070	2.076	169.2	5.3	15.7
- 9.61 -0.31	- 58.0 + 8.1	1989 WV1	15725	- 4.48 +1.75	+6.3 +10.6		
1992 08 26	20 11.96	-31 04.1	1.142	2.046	143.8	17.0	16.2
1992 07 27	20 37.83	-26 56.3	1.721	2.730	171.8	3.0	17.8
-10.75 -0.15	- 42.0 + 5.2	1991 EG	18129	- 6.77 +1.31	-2.1 + 6.6		
1992 08 26	20 08.86	-28 04.9	1.846	2.732	144.5	12.4	18.4
1992 07 27	20 37.93	-13 10.4	2.326	3.337	173.4	2.0	16.7
- 7.60 -0.09	- 30.3 - 1.8	1988 UH	18291	- 5.12 +0.84	- 28.8 + 2.0		
1992 08 26	20 17.16	-14 45.9	2.447	3.358	149.7	8.7	17.2
1992 07 27	20 38.46	-08 27.2	1.424	2.428	168.9	4.6	16.6
- 8.75 -0.06	- 57.2 - 5.1	1991 BR	17834	- 4.64 +1.25	- 61.1 + 3.2		
1992 08 26	20 15.98	-11 40.1	1.572	2.496	149.5	11.9	17.2
1992 07 27	20 39.35	-06 29.2	1.092	2.094	166.9	6.3	15.8
- 9.66 -0.36	-8.4 - 8.6	1989 SL	16877	- 5.55 +1.54	- 38.6 - 0.9		
1992 08 26	20 13.02	-07 54.0	1.123	2.054	148.5	14.9	16.1
1992 07 27	20 39.04	-22 07.4	2.576	3.590	175.9	1.2	17.5
- 7.95 -0.18	- 36.7 + 1.3	1989 AK	14205	- 5.93 +0.79	- 18.8 + 4.0		
1992 08 26	20 16.45	-23 35.5	2.636	3.531	147.7	8.8	17.9
1992 07 27	20 40.69	-19 23.9	1.083	2.097	176.7	1.6	15.7
-10.49 -0.37	- 33.3 + 0.7	(4823)	18270	- 5.93 +1.67	-9.9 + 5.6		
1992 08 26	20 12.29	-20 37.6	1.135	2.061	147.6	15.2	16.4
1992 07 27	20 40.90	+25 40.4	1.238	2.084	135.0	20.1	16.1
- 8.77 -0.21	-2.1 -25.7	1982 UP6	13167	- 4.47 +1.44	-126.7 -12.9		
1992 08 26	20 17.99	+22 03.4	1.288	2.132	135.9	19.3	16.2

1992 07 27	20 42.79	-32 05.0	1.918	2.915	166.6	4.6	16.6
- 8.64 -0.26	- 51.8 + 6.3	1988 XW1	14204	- 5.72 +1.12		-3.7 + 8.2	
1992 08 26	20 18.72	-33 31.6	2.006	2.884	143.8	11.9	17.0
1992 07 27	20 42.95	-17 11.0	1.922	2.936	175.6	1.5	17.0
- 8.09 -0.19	- 39.6 - 0.5	4053 T-2	15906	- 5.43 +0.98		- 27.8 + 3.8	
1992 08 26	20 20.51	-19 00.0	2.012	2.930	149.8	10.0	17.5
1992 07 27	20 43.38	-09 12.0	1.046	2.052	169.2	5.3	16.1
- 8.87 -0.50	- 56.5 - 8.5	1982 SV5	13605	- 5.39 +1.53		- 73.3 + 3.0	
1992 08 26	20 18.23	-12 47.9	1.048	1.989	150.0	14.7	16.4
1992 07 27	20 44.50	-23 27.8	1.282	2.294	174.0	2.6	16.1
-11.22 -0.18	+ 38.6 + 4.2	1988 PJ1	14355	- 6.34 +1.54		+ 59.3 + 1.9	
1992 08 26	20 14.99	-20 56.3	1.381	2.302	148.1	13.4	16.8
1992 07 27	20 46.50	-07 36.7	1.178	2.181	167.5	5.8	16.9
- 9.07 -0.34	- 46.3 - 7.7	1981 EK41	15881	- 5.39 +1.40		- 62.6 + 2.2	
1992 08 26	20 21.60	-10 38.6	1.241	2.180	150.9	13.0	17.3
1992 07 27	20 48.67	-22 26.4	1.870	2.882	173.9	2.1	17.9
- 8.41 -0.28	- 67.0 + 1.9	(4872)	18409	- 5.91 +1.02		- 37.7 + 6.7	
1992 08 26	20 24.79	-25 12.3	1.965	2.878	148.9	10.5	18.4
1992 07 27	20 48.28	-08 39.2	0.946	1.951	168.2	6.1	16.8
- 8.00 -0.59	- 40.7 - 9.4	1974 SF	12447	- 4.78 +1.55		- 64.7 + 1.9	
1992 08 26	20 25.13	-11 38.1	0.934	1.886	151.7	14.7	17.1
1992 07 27	20 48.83	-12 00.4	1.888	2.895	171.1	3.1	16.7
- 8.17 -0.32	- 65.4 - 3.7	1990 BR1	16239	- 6.15 +0.93		- 65.2 + 3.4	
1992 08 26	20 25.04	-15 29.6	1.922	2.851	151.5	9.7	17.0
1992 07 27	20 50.38	-04 19.3	1.517	2.509	164.0	6.4	15.5
- 8.74 -0.37	-7.4 - 7.7	1980 RL7	18416	- 6.21 +1.12		- 37.3 - 1.6	
1992 08 26	20 25.22	-05 37.6	1.544	2.478	151.2	11.3	15.7
1992 07 27	20 51.23	-21 09.5	1.436	2.448	173.9	2.5	16.7
- 9.94 -0.40	- 60.5 + 1.5	1991 EU	18129	- 6.82 +1.31		- 29.7 + 7.2	
1992 08 26	20 22.93	-23 35.1	1.508	2.431	149.1	12.3	17.3
1992 07 27	20 51.38	-44 12.2	0.966	1.932	154.4	13.1	14.4
- 8.95 -0.86	-211.1 +21.6	(4826)	18271	- 4.56 +2.11		- 51.4 +25.1	
1992 08 26	20 25.59	-50 51.7	1.086	1.924	133.2	22.5	15.0
1992 07 27	20 52.65	+03 28.5	1.365	2.332	156.5	10.0	16.2
- 8.05 -0.25	- 51.6 -12.9	1988 PT	13678	- 4.86 +1.16		- 95.4 - 1.0	
1992 08 26	20 30.69	-00 34.2	1.464	2.399	151.1	11.8	16.4
1992 07 27	20 53.88	-18 57.4	2.341	3.352	173.5	2.0	16.8
- 7.51 -0.28	- 36.1 0.0	(5021)	19487	- 5.92 +0.76		- 23.2 + 3.7	
1992 08 26	20 31.82	-20 33.1	2.384	3.311	152.0	8.2	17.2
1992 07 27	20 55.00	-18 11.5	1.546	2.557	173.2	2.7	15.8
- 7.32 -0.37	- 46.6 - 0.6	1987 RG	12448	- 4.98 +1.06		- 30.0 + 5.2	
1992 08 26	20 33.91	-20 17.2	1.604	2.544	152.6	10.5	16.2
1992 07 27	20 56.46	-18 41.0	1.511	2.522	172.9	2.8	17.6
- 8.38 -0.40	- 51.4 - 0.2	1991 GP10	18826	- 5.87 +1.13		- 31.3 + 5.8	
1992 08 26	20 32.29	-20 56.1	1.579	2.517	152.0	10.9	18.1

1992 07 27	20 58.96	-18 41.3	1.544	2.554	172.3	3.0	17.6
- 9.63 -0.48	- 56.8 - 0.3	1991 GG10	18826	- 7.32 +1.16	- 35.7 + 6.1		
1992 08 26	20 30.53	-21 11.7	1.595	2.530	151.5	11.0	18.0
1992 07 27	20 58.92	-16 16.7	1.446	2.455	171.8	3.4	16.6
- 9.46 -0.51	- 23.5 - 1.4	1981 SM	17013	- 7.18 +1.19	- 14.5 + 3.7		
1992 08 26	20 30.82	-17 23.2	1.469	2.411	152.6	11.1	16.9
1992 07 27	21 00.59	-22 36.1	1.580	2.588	171.4	3.4	17.4
-10.22 -0.55	- 32.6 + 2.2	1978 SS7	15701	- 8.08 +1.18	-3.3 + 6.2		
1992 08 26	20 29.96	-23 37.2	1.602	2.532	150.6	11.3	17.7
1992 07 27	20 59.85	-13 48.8	1.637	2.643	170.4	3.7	18.0
- 9.58 -0.47	- 36.3 - 2.7	1987 BB2	12207	- 7.57 +1.07	- 33.1 + 3.2		
1992 08 26	20 31.29	-15 43.8	1.668	2.608	153.0	10.1	18.3
1992 07 27	21 04.02	-30 47.2	1.149	2.147	165.6	6.7	16.5
-10.66 -0.85	- 53.0 + 7.6	1989 UT	18293	- 8.08 +1.59	+ 15.9 +12.2		
1992 08 26	20 31.39	-31 51.1	1.158	2.079	146.9	15.4	16.8
1992 07 27	21 02.41	-13 14.5	1.027	2.034	169.6	5.2	17.1
- 8.33 -0.74	- 65.1 - 6.1	1989 XD1	16031	- 6.11 +1.40	- 63.8 + 5.9		
1992 08 26	20 36.78	-16 50.0	1.028	1.987	154.1	12.8	17.4
1992 07 27	21 02.98	-11 13.7	1.191	2.195	168.2	5.4	17.3
- 9.03 -0.70	- 41.6 - 6.1	1989 UU3	18632	- 7.16 +1.27	- 50.5 + 3.0		
1992 08 26	20 35.04	-13 48.8	1.179	2.134	154.1	11.9	17.5
1992 07 27	21 03.44	-19 53.1	1.155	2.165	171.3	4.1	15.3
- 9.10 -0.44	- 84.3 + 1.6	(4786)	18095	- 5.69 +1.38	- 43.9 + 9.5		
1992 08 26	20 37.90	-23 19.8	1.285	2.230	152.4	12.1	15.9
1992 07 27	21 05.85	-23 10.6	0.904	1.912	170.0	5.3	15.1
-10.09 -0.90	-1.7 + 4.1	1949 QL	11856	- 7.20 +1.71	+ 38.4 + 7.0		
1992 08 26	20 35.09	-22 20.9	0.906	1.861	152.2	14.7	15.5
1992 07 27	21 05.08	-18 24.2	1.725	2.733	170.9	3.4	18.2
- 8.36 -0.42	- 30.0 - 0.1	4047 P-L	18444	- 6.46 +0.97	- 14.9 + 4.4		
1992 08 26	20 40.28	-19 39.7	1.789	2.734	154.2	9.3	18.6
1992 07 27	21 08.57	-25 34.8	1.639	2.641	168.4	4.4	16.1
- 8.16 -0.49	- 20.9 + 3.5	1987 SS17	15249	- 6.31 +1.03	+ 13.0 + 6.5		
1992 08 26	20 44.07	-25 52.0	1.690	2.628	152.5	10.2	16.4
1992 07 27	21 10.69	-23 33.2	1.665	2.669	168.8	4.2	17.1
- 9.25 -0.62	- 59.9 + 1.8	1989 WL	15722	- 7.91 +1.02	- 26.4 + 7.9		
1992 08 26	20 41.93	-25 53.7	1.690	2.626	152.1	10.4	17.4
1992 07 27	21 13.67	-22 33.4	1.408	2.412	168.5	4.8	17.0
-10.55 -0.63	- 29.9 + 2.5	1991 CT1	17971	- 8.36 +1.25	+2.7 + 6.7		
1992 08 26	20 41.82	-23 21.7	1.467	2.412	153.2	10.9	17.3
1992 07 27	21 11.90	-27 27.5	0.861	1.864	166.7	7.2	15.5
- 8.42 -0.93	- 44.9 + 6.2	1982 SA4	9067	- 5.84 +1.64	+ 20.0 +12.1		
1992 08 26	20 45.73	-28 15.5	0.889	1.841	151.5	15.2	15.8
1992 07 27	21 11.41	-19 44.9	2.550	3.553	169.4	3.0	17.9
- 7.13 -0.32	- 62.6 + 0.4	1989 YB6	18817	- 6.06 +0.64	- 44.3 + 5.0		
1992 08 26	20 49.86	-22 33.9	2.655	3.597	155.2	6.8	18.2

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1992 07 27    21 19.42   -40 41.7    1.798    2.755   155.7     8.7    17.0
-10.66 -0.67  - 42.0 +10.6    (4851)     18401   - 8.74 +1.21  + 32.6 +11.7
1992 08 26    20 46.83   -40 57.5    1.874    2.750   143.1    12.7    17.2

1992 07 27    21 17.21   -06 20.7    2.103    3.086   162.2     5.8    15.9
- 6.74 -0.43  - 49.4 - 5.7   1985 DX2    18425   - 6.02 +0.65  - 64.0 + 1.0
1992 08 26    20 56.07   -09 23.3    2.125    3.091   159.3     6.6    16.0

1992 07 27    21 19.43   -14 25.4    1.224    2.224   166.5     6.1    16.7
- 8.79 -0.67  - 50.0 - 3.1    (4933)     18789   - 6.93 +1.18  - 39.8 + 5.5
1992 08 26    20 52.44   -16 56.1    1.296    2.264   157.7     9.7    17.0

1992 07 27    21 19.47   -14 03.2    1.690    2.688   166.3     5.1    16.7
- 7.14 -0.57  - 38.4 - 3.0   1987 QW1    12950   - 6.37 +0.81  - 35.8 + 3.5
1992 08 26    20 56.65   -16 06.6    1.706    2.673   158.9     7.8    16.9

1992 07 27    21 20.83   -12 40.7    0.902    1.902   165.4     7.7    16.5
- 7.70 -1.16  - 14.5 - 5.9   1989 YU5    16435   - 7.57 +1.28  - 24.2 + 2.9
1992 08 26    20 53.39   -13 55.1    0.838    1.816   158.5    11.8    16.4

1992 07 27    21 20.97   -22 25.4    2.047    3.045   166.9     4.3    16.4
- 7.75 -0.47  - 27.3 + 1.5   1981 QT3    13589   - 6.75 +0.76   - 4.6 + 5.2
1992 08 26    20 56.95   -23 20.1    2.113    3.065   156.3     7.6    16.6

1992 07 27    21 21.87   -12 35.8    1.581    2.576   165.2     5.8    17.0
- 8.16 -0.55  - 39.0 - 3.4   1988 RU6    14953   - 6.88 +0.92  - 37.5 + 3.5
1992 08 26    20 56.60   -14 43.4    1.652    2.621   159.2     7.9    17.2

1992 07 27    21 24.28   -15 06.8    1.761    2.757   165.6     5.2    18.4
- 8.80 -0.61  - 42.5 - 2.2   1987 BB     18626   - 8.02 +0.84  - 34.6 + 4.2
1992 08 26    20 56.36   -17 14.2    1.794    2.760   158.5     7.7    18.5

1992 07 27    21 25.63   +39 47.4    2.010    2.661   119.4    19.4    17.6
- 8.58 -0.91  + 84.8 -18.1   1989 BA1    16699   - 9.27 +0.77  - 36.6 -20.0
1992 08 26    20 55.75   +41 03.3    1.896    2.610   125.0    18.5    17.4

1992 07 27    21 25.41   -13 31.0    1.606    2.599   164.8     5.9    18.0
- 7.51 -0.64  - 45.8 - 3.5   1988 RU3    16028   - 6.86 +0.83  - 43.0 + 4.0
1992 08 26    21 01.14   -15 58.0    1.635    2.607   160.0     7.6    18.1

1992 07 27    21 23.72   +06 39.3    2.306    3.230   150.6     8.9    16.5
- 6.56 -0.46    -5.2 - 9.2   1982 UB7    18623   - 6.29 +0.55  - 50.9 - 5.0
1992 08 26    21 02.59   +05 07.4    2.277    3.223   155.2     7.5    16.4

1992 07 27    21 25.98   -18 26.6    1.862    2.857   165.9     5.0    18.0
- 7.38 -0.60  - 46.8 - 0.9   3181 T-2    19330   - 6.94 +0.73  - 31.6 + 5.3
1992 08 26    21 02.05   -20 35.5    1.882    2.847   158.6     7.4    18.2

1992 07 27    21 30.34   -20 57.7    1.145    2.141   164.9     7.1    16.8
- 9.84 -0.95  - 22.2 + 1.3    (4819)     18269   - 8.67 +1.26   +7.7 + 6.9
1992 08 26    20 58.47   -21 29.9    1.178    2.147   157.5    10.4    17.0

1992 07 27    21 33.33   -20 20.0    1.177    2.172   164.3     7.3    17.1
- 9.53 -0.86  - 35.5 + 0.8   1981 EY35   10542   - 8.17 +1.21   - 5.9 + 7.3
1992 08 26    21 02.94   -21 33.8    1.250    2.221   158.4     9.7    17.4

1992 07 27    21 30.08   -13 28.2    1.907    2.896   163.7     5.6    16.9
- 6.79 -0.65  - 34.6 - 3.3   1982 UE7    15882   - 6.96 +0.61  - 35.8 + 2.8
1992 08 26    21 07.13   -15 25.2    1.865    2.841   161.5     6.5    16.8
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1992 07 27	21 28.69	-09 55.6	2.491	3.472	162.4	5.1	16.4
- 6.30 -0.43	- 51.2 - 3.7	1950 DE	17423	- 6.10 +0.50	- 56.1 + 2.0		
1992 08 26	21 08.37	-12 47.2	2.517	3.493	162.2	5.1	16.4
1992 07 27	21 32.58	-33 03.7	2.743	3.712	159.8	5.4	16.5
- 8.25 -0.48	- 19.2 + 4.7	(4973)	19006	- 7.79 +0.61	+ 18.5 + 6.8		
1992 08 26	21 06.50	-33 08.6	2.792	3.712	151.6	7.4	16.6
1992 07 27	21 36.91	-23 51.1	1.107	2.100	163.0	8.1	15.4
-10.41 -0.83	+ 15.6 + 3.8	1988 RN4	14952	- 8.34 +1.35	+ 47.9 + 5.1		
1992 08 26	21 04.73	-22 17.9	1.202	2.174	158.4	9.9	15.7
1992 07 27	21 34.59	-14 00.7	0.838	1.833	162.9	9.4	15.8
- 6.92 -1.30	- 20.8 - 5.6	6040 P-L	15570	- 7.53 +1.20	- 22.9 + 4.8		
1992 08 26	21 08.27	-15 25.6	0.796	1.784	161.8	10.2	15.6
1992 07 27	21 37.40	-13 47.6	1.096	2.086	162.2	8.6	16.9
- 8.16 -0.93	- 54.6 - 4.4	1981 EB28	8288	- 7.45 +1.10	- 45.8 + 6.3		
1992 08 26	21 10.22	-16 38.1	1.156	2.139	161.9	8.4	17.0
1992 07 27	21 37.26	-18 02.7	1.270	2.261	163.2	7.4	16.4
- 7.68 -0.94	- 59.1 - 2.1	1967 UT	9031	- 7.72 +0.94	- 38.9 + 7.7		
1992 08 26	21 10.67	-20 47.8	1.283	2.261	160.3	8.7	16.5
1992 07 27	21 37.67	-12 06.3	1.368	2.354	161.5	7.9	16.6
- 7.45 -0.97	+1.2 - 4.0	1981 EY8	9424	- 8.22 +0.78	-6.6 + 1.4		
1992 08 26	21 10.94	-12 24.4	1.303	2.288	162.9	7.5	16.4
1992 07 27	21 35.63	-13 43.4	2.243	3.226	162.6	5.4	17.2
- 6.63 -0.52	- 36.6 - 2.4	1982 XQ1	12000	- 6.55 +0.54	- 34.5 + 2.9		
1992 08 26	21 13.91	-15 39.7	2.275	3.255	163.0	5.2	17.3
1992 07 27	21 37.09	-17 14.4	1.371	2.361	163.2	7.2	16.6
- 6.80 -0.95	- 52.7 - 3.1	1988 TQ	13860	- 7.52 +0.78	- 41.1 + 6.4		
1992 08 26	21 12.40	-19 52.8	1.326	2.305	161.1	8.2	16.5
1992 07 27	21 49.97	-00 09.3	1.384	2.330	152.1	11.8	14.8
-12.28 -1.14	+134.7 - 6.0	1990 BQ1	17209	-12.93 +0.98	+ 77.0 -11.3		
1992 08 26	21 08.22	+05 18.3	1.366	2.327	156.2	10.1	14.7
1992 07 27	21 39.49	-18 38.2	2.255	3.239	162.8	5.3	17.3
- 6.70 -0.55	- 39.0 - 0.6	1985 JY	19295	- 6.77 +0.53	- 25.6 + 4.5		
1992 08 26	21 17.29	-20 24.4	2.291	3.266	161.8	5.5	17.3
1992 07 27	21 44.55	-29 49.0	1.872	2.845	159.4	7.2	16.4
- 8.68 -0.73	- 51.8 + 4.7	1991 EA1	18636	- 8.42 +0.79	-4.2 + 9.4		
1992 08 26	21 16.07	-31 21.5	1.959	2.902	154.3	8.7	16.6
1992 07 27	21 42.54	-09 22.2	1.938	2.910	159.2	7.1	17.4
- 7.18 -0.73	- 30.8 - 5.0	1990 BZ1	16033	- 7.93 +0.53	- 43.0 + 1.2		
1992 08 26	21 17.54	-11 24.3	1.883	2.870	164.6	5.4	17.2
1992 07 27	21 44.29	-07 33.2	1.732	2.700	157.8	8.2	16.4
- 7.12 -0.75	+5.3 - 5.3	1987 PL	15246	- 7.62 +0.61	- 14.0 - 0.8		
1992 08 26	21 19.66	-07 54.6	1.712	2.700	164.9	5.6	16.3
1992 07 27	21 44.40	-12 15.8	2.346	3.319	160.1	6.0	18.4
- 6.31 -0.62	- 34.7 - 3.3	1987 SN11	13607	- 7.06 +0.40	- 38.6 + 2.0		
1992 08 26	21 22.48	-14 15.6	2.289	3.276	165.4	4.5	18.3

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1992 07 27    21 47.13   -06 46.6    1.539    2.505   156.8     9.2    17.5
- 7.18 -0.97  - 30.8 - 7.7   1985 UF5    15885   - 8.69 +0.57  - 56.9 - 0.1
1992 08 26    21 20.47   -09 12.3    1.450    2.441   165.2     6.1    17.2

1992 07 27    21 46.31   -09 33.3    2.028    2.996   158.5     7.1    16.4
- 6.68 -0.63  - 22.2 - 4.3   4027 P-L    15903   - 7.05 +0.52  - 31.8 + 1.2
1992 08 26    21 23.59   -11 04.2    2.041    3.032   166.1     4.6    16.4

1992 07 27    21 47.63   -02 44.2    1.163    2.124   154.3    12.0    17.2
- 6.66 -1.15  - 10.2 -11.2   1982 UF2    15707   - 8.27 +0.73  - 58.9 - 3.3
1992 08 26    21 21.77   -04 42.5    1.093    2.084   164.5     7.5    16.8

1992 07 27    21 46.97   -17 26.7    1.880    2.859   160.9     6.7    18.2
- 6.91 -0.76  - 38.9 - 1.7   2312 T-1    19322   - 7.67 +0.55  - 28.2 + 4.8
1992 08 26    21 22.67   -19 19.3    1.859    2.842   163.5     5.8    18.1

1992 07 27    21 48.99   +00 04.4    1.918    2.856   152.1     9.6    16.8
- 7.68 -0.73    +7.1 - 7.9   1985 YH     18285   - 8.36 +0.54  - 30.6 - 3.7
1992 08 26    21 22.58   -00 38.5    1.891    2.871   162.7     6.0    16.6

1992 07 27    21 47.61   -19 48.1    2.162    3.139   160.9     6.1    17.1
- 6.56 -0.63  - 47.6 - 0.4   1991 JB1    18443   - 6.98 +0.51  - 30.5 + 5.4
1992 08 26    21 25.21   -21 55.9    2.196    3.174   162.5     5.5    17.2

1992 07 27    21 52.32   -09 12.4    1.317    2.287   157.0    10.0    18.0
- 7.67 -1.06  - 46.1 - 7.4   2280 T-2    17977   - 8.85 +0.74  - 60.8 + 2.9
1992 08 26    21 24.22   -12 11.9    1.297    2.291   166.2     6.1    17.8

1992 07 27    21 56.48   -21 23.1    1.456    2.431   158.8     8.7    16.8
- 8.67 -1.07  - 45.2 + 0.1   1989 TX15   17962   - 9.71 +0.77  - 16.2 + 8.2
1992 08 26    21 25.50   -23 10.0    1.463    2.443   161.7     7.5    16.8

1992 07 27    21 54.27   -09 32.3    1.375    2.342   156.7     9.9    17.7
- 6.59 -1.11  - 32.3 - 7.2   1981 VU     18108   - 8.74 +0.54  - 51.6 + 1.5
1992 08 26    21 28.21   -11 54.2    1.281    2.278   167.2     5.7    17.3

1992 07 27    21 59.04   -12 39.8    1.284    2.254   156.9    10.2    18.0
- 7.62 -1.14  - 53.5 - 5.7   3067 T-2    14967   - 9.11 +0.72  - 54.3 + 5.2
1992 08 26    21 30.51   -15 41.9    1.277    2.272   166.8     5.8    17.8

1992 07 27    21 57.59   -14 30.3    1.925    2.890   157.8     7.6    16.8
- 6.93 -0.83    -9.5 - 2.4   1214 T-3    16440   - 8.28 +0.45    -8.2 + 2.6
1992 08 26    21 32.41   -15 06.0    1.868    2.863   167.4     4.4    16.5

1992 07 27    22 00.79   -11 16.7    1.425    2.389   156.0    10.0    17.0
- 6.66 -1.11  - 52.6 - 6.8    (4841)     18276   - 8.87 +0.51  - 63.3 + 3.6
1992 08 26    21 34.50   -14 29.8    1.358    2.356   168.1     5.1    16.6

1992 07 27    22 01.35   -09 49.2    1.811    2.766   155.3     8.8    16.5
- 5.85 -0.87  - 32.2 - 5.4    (4850)     18400   - 7.56 +0.38  - 45.1 + 1.5
1992 08 26    21 38.93   -11 58.0    1.745    2.746   169.8     3.8    16.2

1992 07 27    22 06.69   -24 57.0    1.360    2.326   156.1    10.2    15.6
- 7.81 -1.21  - 50.0 + 1.6    (4845)     18278   - 9.56 +0.72    -8.1 +10.5
1992 08 26    21 37.05   -26 40.7    1.369    2.347   160.8     8.2    15.5

1992 07 27    22 08.83   -24 16.6    1.042    2.012   155.8    12.0    16.8
- 6.54 -1.63  - 60.6 - 0.7   5565 P-L    15905   -10.39 +0.63  - 17.2 +13.6
1992 08 26    21 39.25   -26 39.9    0.968    1.952   161.1     9.7    16.5
```

1992 07 27	22 05.07	-11 57.4	2.077	3.030	155.2	8.1	18.1
- 5.94 -0.81	- 39.5 - 4.2	1344 T-2	17220	- 7.67 +0.30	- 45.4 + 2.4		
1992 08 26	21 42.61	-14 17.0	2.008	3.009	170.0	3.3	17.7
1992 07 27	22 03.02	-01 35.7	2.065	2.992	150.6	9.6	16.2
- 5.31 -0.72	- 40.9 - 7.9	1991 JE1	18443	- 6.62 +0.33	- 70.8 - 1.2		
1992 08 26	21 43.19	-04 35.6	2.032	3.030	169.2	3.6	15.9
1992 07 27	22 18.35	-33 32.0	0.977	1.931	151.3	14.6	15.9
- 6.60 -1.95	-259.6 + 4.7	1948 AF	17623	-11.48 +0.71	-131.3 +31.3		
1992 08 26	21 46.30	-44 07.8	1.038	1.956	145.4	17.0	16.1
1992 07 27	22 12.16	-11 36.7	1.718	2.666	153.5	9.8	16.4
- 5.52 -0.99	- 36.9 - 5.3	1988 TQ4	17823	- 7.95 +0.29	- 46.0 + 2.6		
1992 08 26	21 49.60	-13 55.5	1.639	2.643	171.7	3.2	16.0
1992 07 27	22 11.44	+01 11.9	1.981	2.888	147.2	11.0	17.5
- 5.13 -0.84	- 11.7 - 8.6	2496 T-3	16038	- 7.19 +0.23	- 53.2 - 4.1		
1992 08 26	21 50.99	-00 33.9	1.886	2.882	167.8	4.2	17.1
1992 07 27	22 11.75	+01 17.3	1.411	2.330	147.1	13.7	15.4
- 4.25 -1.06	- 23.3 -12.0	1987 MM1	18287	- 6.87 +0.32	- 78.8 - 4.6		
1992 08 26	21 52.52	-01 29.6	1.337	2.336	168.8	4.8	14.9
1992 07 27	22 17.85	-11 33.8	1.368	2.315	152.2	11.8	16.7
- 5.46 -1.28	- 59.1 - 7.9	1989 WH4	18294	- 9.18 +0.25	- 73.9 + 3.8		
1992 08 26	21 53.07	-15 15.1	1.263	2.268	171.8	3.7	16.1
1992 07 27	22 16.54	-11 09.8	2.113	3.049	152.3	8.9	16.6
- 5.58 -0.85	- 17.6 - 4.0	1969 LB	15239	- 7.80 +0.20	- 26.1 + 1.4		
1992 08 26	21 54.53	-12 25.3	2.021	3.027	173.4	2.2	16.2
1992 07 27	22 33.27	-49 06.6	1.858	2.721	140.8	13.7	17.5
-11.18 -1.61	- 73.8 +11.4	(4857)	18403	-13.95 +0.83	+ 25.1 +18.1		
1992 08 26	21 51.03	-50 32.0	1.921	2.767	139.4	13.8	17.6
1992 07 27	22 14.26	-17 35.6	0.779	1.751	154.4	14.5	17.0
- 2.19 -1.64	- 65.2 - 6.2	1985 RK5	14350	- 6.46 +0.48	- 48.9 +11.3		
1992 08 26	21 57.36	-20 59.2	0.744	1.745	168.0	6.9	16.6
1992 07 27	22 18.75	-10 43.3	1.298	2.244	151.7	12.4	17.1
- 3.71 -1.25	- 37.6 - 7.8	1981 EM30	11150	- 7.60 +0.17	- 57.9 + 2.2		
1992 08 26	21 59.17	-13 24.9	1.177	2.184	174.0	2.8	16.3
1992 07 27	22 24.81	-03 52.1	1.584	2.500	147.3	12.7	17.7
- 6.25 -1.17	- 17.7 - 8.6	1986 WB1	12001	- 9.61 +0.21	- 52.9 - 2.0		
1992 08 26	21 58.48	-05 50.0	1.485	2.491	173.0	2.8	17.1
1992 07 27	22 19.74	-12 59.8	2.699	3.628	152.2	7.5	17.8
- 5.19 -0.70	- 34.2 - 3.1	1988 YB	18115	- 7.14 +0.12	- 37.8 + 2.0		
1992 08 26	21 59.75	-14 57.2	2.600	3.606	173.2	1.9	17.4
1992 07 27	22 23.34	+04 04.7	1.314	2.212	143.0	16.0	15.7
- 3.86 -1.27	+ 45.6 -10.5	1983 RY4	14190	- 8.01 +0.10	- 22.2 -10.2		
1992 08 26	22 03.03	+04 39.5	1.176	2.166	164.4	7.2	15.1
1992 07 27	22 22.66	-11 07.2	0.790	1.748	150.9	16.4	16.2
- 2.76 -1.70	- 25.8 - 9.4	(4802)	18101	- 7.52 +0.39	- 45.3 + 4.0		
1992 08 26	22 03.37	-13 18.8	0.749	1.758	174.9	2.9	15.5

1992 07 27	22 44.51	-21 02.2	1.098	2.030	147.6	15.5	16.6
- 9.24 -2.04	+ 15.3 + 0.8	1991 CA3	18127	-15.55 +0.35		+ 50.5 + 9.3	
1992 08 26	22 02.91	-19 39.3	0.996	1.998	169.8	5.1	15.9
1992 07 27	22 28.00	-15 51.8	0.969	1.921	150.9	14.9	17.2
- 3.65 -1.63	+2.2 - 3.8	1988 RB12	15418	- 8.57 +0.27		+6.1 + 5.1	
1992 08 26	22 06.17	-15 55.9	0.897	1.904	173.5	3.5	16.5
1992 07 27	22 27.59	-13 50.5	1.716	2.648	150.6	10.9	17.0
- 4.61 -1.08	- 44.1 - 4.9	4293 T-2	20038	- 7.90 +0.12		- 48.2 + 3.8	
1992 08 26	22 06.61	-16 25.0	1.624	2.630	173.1	2.6	16.4
1992 07 27	22 26.76	+06 32.5	1.960	2.821	140.8	13.2	16.5
- 4.49 -0.96	+ 20.5 - 9.2	1982 TT	12445	- 7.59 +0.05		- 34.9 - 7.9	
1992 08 26	22 06.80	+06 08.6	1.807	2.789	163.2	6.0	16.0
1992 07 27	22 27.90	-13 31.8	1.641	2.573	150.4	11.2	16.3
- 4.06 -1.09	- 35.5 - 4.9	1981 QE3	15243	- 7.37 +0.12		- 40.6 + 3.5	
1992 08 26	22 08.52	-15 41.4	1.557	2.565	174.0	2.4	15.8
1992 07 27	22 29.54	+01 10.8	2.387	3.260	143.6	10.7	17.5
- 5.18 -0.79	- 20.4 - 7.5	1981 ES29	18419	- 7.46 +0.10		- 55.0 - 3.2	
1992 08 26	22 08.95	-00 50.2	2.299	3.299	170.1	3.0	17.1
1992 07 27	22 27.82	+01 24.2	2.286	3.163	143.8	10.9	18.6
- 4.49 -0.81	- 18.8 - 7.9	4069 P-L	9299	- 6.95 +0.07		- 56.5 - 3.7	
1992 08 26	22 09.04	-00 36.4	2.170	3.170	169.9	3.2	18.1
1992 07 27	22 29.59	+06 54.2	1.805	2.664	140.0	14.2	16.2
- 4.31 -1.03	- 24.2 -12.1	(4856)	18402	- 7.69 +0.04		- 89.6 - 7.7	
1992 08 26	22 09.62	+03 55.6	1.656	2.647	165.5	5.5	15.7
1992 07 27	22 29.17	-13 19.2	1.961	2.886	150.0	10.1	16.4
- 4.27 -0.94	- 68.1 - 5.1	1991 JZ1	18827	- 7.10 +0.10		- 71.7 + 4.1	
1992 08 26	22 10.20	-17 05.9	1.899	2.904	172.8	2.5	16.0
1992 07 27	22 32.73	-25 52.3	2.145	3.068	150.2	9.5	17.3
- 5.11 -1.00	- 65.6 - 0.3	5192 T-3	18836	- 8.23 +0.09		- 39.1 + 8.5	
1992 08 26	22 10.72	-28 45.6	2.078	3.053	161.5	6.0	17.1
1992 07 27	22 34.36	-26 51.7	1.991	2.913	149.7	10.1	17.5
- 5.30 -1.12	- 88.6 - 0.8	1990 BN2	16240	- 8.96 +0.06		- 58.0 +10.3	
1992 08 26	22 10.80	-30 52.0	1.919	2.887	159.4	7.1	17.2
1992 07 27	22 31.66	-14 55.0	2.270	3.189	149.8	9.2	16.4
- 4.58 -0.86	- 61.8 - 3.9	1990 DM	16241	- 7.29 +0.06		- 62.1 + 3.9	
1992 08 26	22 12.15	-18 15.3	2.190	3.194	171.9	2.6	16.0
1992 07 27	22 30.40	-04 54.0	1.882	2.787	146.6	11.6	17.3
- 3.55 -0.95	- 22.7 - 7.2	1979 MA4	11629	- 6.59 +0.05		- 51.3 - 1.4	
1992 08 26	22 13.37	-06 55.8	1.773	2.782	176.2	1.4	16.7
1992 07 27	22 34.46	-17 25.6	2.461	3.377	149.6	8.7	18.0
- 5.29 -0.85	- 49.1 - 2.5	1990 BG1	17209	- 7.92 +0.06		- 43.4 + 4.3	
1992 08 26	22 13.00	-19 57.0	2.382	3.382	170.3	2.9	17.6
1992 07 27	22 32.75	-10 08.4	1.823	2.739	148.2	11.3	17.1
- 3.74 -1.05	- 31.7 - 6.1	1981 RJ5	18108	- 7.48 -0.04		- 49.7 + 0.9	
1992 08 26	22 14.07	-12 23.5	1.661	2.671	177.5	1.0	16.3

1992 07 27	22 39.57	-04 30.8	1.519	2.418	144.4	14.1	16.3
- 5.62 -1.29	- 10.5 - 8.3	(4774)	17952	- 9.87 +0.07	- 45.1 - 2.0		
1992 08 26	22 13.83	-06 05.9	1.417	2.425	175.5	1.9	15.6
1992 07 27	22 37.19	-17 38.9	1.021	1.963	149.0	15.4	15.9
- 3.62 -1.72	- 46.7 - 5.8	1989 US	15567	- 9.78 +0.02	- 39.1 + 8.8		
1992 08 26	22 13.90	-20 14.6	0.918	1.922	170.0	5.2	15.2
1992 07 27	22 36.09	-13 10.7	1.987	2.901	148.4	10.6	17.0
- 4.86 -1.00	- 36.6 - 4.3	1978 TT2	13051	- 8.05 +0.05	- 41.6 + 2.9		
1992 08 26	22 14.80	-15 21.5	1.897	2.905	174.8	1.8	16.4
1992 07 27	22 39.45	-01 40.8	1.476	2.368	143.1	14.9	16.5
- 4.26 -1.31	+3.2 - 9.2	1989 YN	15899	- 9.25 -0.12	- 44.4 - 5.1		
1992 08 26	22 16.99	-02 49.9	1.308	2.313	172.4	3.3	15.7
1992 07 27	22 39.89	-11 53.0	1.792	2.702	147.1	11.8	16.6
- 4.90 -1.13	- 12.3 - 4.5	1978 SV7	17198	- 8.73 +0.01	- 21.6 + 1.8		
1992 08 26	22 17.36	-12 55.4	1.674	2.684	177.3	1.0	15.9
1992 07 27	22 46.36	-25 31.9	1.190	2.116	147.2	15.1	16.8
- 5.50 -1.75	-8.9 + 1.3	1984 SC1	14019	-11.27 +0.14	+ 34.0 +11.6		
1992 08 26	22 17.72	-25 13.4	1.104	2.097	165.1	7.1	16.3
1992 07 27	22 41.02	-28 07.6	1.112	2.045	148.1	15.2	16.6
- 2.95 -1.77	- 68.7 - 1.5	1980 VO	9292	-10.10 -0.20	- 22.9 +16.5		
1992 08 26	22 18.57	-30 58.4	0.968	1.947	159.4	10.5	16.0
1992 07 27	22 38.61	+00 41.2	2.040	2.908	142.0	12.4	17.6
- 4.15 -0.99	- 14.5 - 8.5	6045 P-L	14360	- 7.85 -0.10	- 58.2 - 4.8		
1992 08 26	22 18.98	-01 14.7	1.848	2.850	170.9	3.2	16.9
1992 07 27	22 46.08	-00 32.4	1.626	2.499	141.1	14.8	17.2
- 5.47 -1.30	+ 46.2 - 6.7	1990 BZ	20018	-10.31 -0.10	+5.2 - 6.0		
1992 08 26	22 20.22	+00 43.7	1.471	2.471	168.9	4.5	16.5
1992 08 26	22 20.70	-09 04.9	1.628	2.638	178.7	0.5	16.3
- 7.96 -0.04	- 42.5 - 0.4	1978 TR2	17954	- 4.20 +1.15	- 23.5 + 5.9		
1992 09 25	22 00.26	-10 55.4	1.733	2.625	146.0	12.3	17.0
1992 08 26	22 23.01	-21 42.8	1.220	2.220	168.6	5.1	16.8
-10.93 -0.12	- 34.1 + 8.4	1991 GC6	18637	- 5.55 +1.64	+ 28.9 +10.3		
1992 09 25	21 55.05	-21 53.7	1.314	2.181	140.3	17.1	17.4
1992 08 26	22 22.96	-07 52.7	1.654	2.664	177.4	1.0	16.5
- 9.18 -0.01	- 51.7 - 0.6	1991 FL	18130	- 5.14 +1.19	- 32.5 + 6.0		
1992 09 25	21 59.28	-10 11.3	1.796	2.687	146.0	12.0	17.2
1992 08 26	22 23.61	-00 11.0	2.227	3.227	169.8	3.2	16.1
- 7.02 -0.03	- 42.1 - 3.8	1991 LD	18640	- 4.29 +0.85	- 45.1 + 2.7		
1992 09 25	22 05.03	-02 33.8	2.347	3.248	149.0	9.2	16.5
1992 08 26	22 24.10	-12 20.6	0.706	1.717	177.8	1.3	15.8
- 7.32 -0.01	- 58.7 + 2.9	(4906)	18616	- 0.86 +1.77	-5.7 +11.8		
1992 09 25	22 08.57	-14 13.3	0.817	1.745	146.7	18.4	16.9
1992 08 26	22 24.71	+00 00.8	1.359	2.360	169.6	4.4	17.4
- 7.36 -0.20	- 73.1 - 7.6	1981 EA29	10772	- 3.83 +1.25	- 79.8 + 5.2		
1992 09 25	22 05.26	-04 12.1	1.387	2.304	148.8	13.0	17.8

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1992 08 26    22 24.60   -19 00.2    0.908    1.913   171.3     4.6    17.0
- 7.93 -0.07  - 60.6 + 7.9   1985 UQ     19018   - 2.18 +1.66  + 10.3 +12.8
1992 09 25    22 06.26   -20 24.2    1.018    1.918   143.3    18.2    17.8

1992 08 26    22 24.97   -06 09.1    1.018    2.027   175.6     2.2    17.3
- 7.15 -0.28  - 93.0 - 5.5   1988 RK11   15417   - 2.90 +1.53  - 75.4 +10.2
1992 09 25    22 06.56   -10 50.7    1.035    1.957   147.5    16.0    17.9

1992 08 26    22 26.42   -13 23.0    1.526    2.535   176.6     1.3    16.6
- 9.08 -0.19  - 64.4 + 1.6   1989 YR     15900   - 5.46 +1.25  - 29.3 + 8.7
1992 09 25    22 01.96   -15 56.4    1.598    2.484   144.5    13.5    17.3

1992 08 26    22 27.24   -13 29.4    1.055    2.064   176.4     1.7    15.9
- 9.36 -0.19  - 20.8 + 2.7   1977 RR6    12123   - 4.35 +1.61  + 16.0 + 8.0
1992 09 25    22 03.34   -13 46.2    1.127    2.036   145.7    16.1    16.7

1992 08 26    22 28.18   -05 47.4    1.319    2.328   175.0     2.2    16.2
- 8.81 -0.05  - 90.0 - 2.0   1991 CF     19308   - 4.38 +1.32  - 64.2 + 8.9
1992 09 25    22 05.87   -09 58.6    1.459    2.367   147.6    13.1    17.0

1992 08 26    22 29.91   -08 32.2    1.699    2.708   177.0     1.1    17.0
- 8.73 -0.15  - 60.7 - 0.8   1983 EB1    18108   - 5.46 +1.11  - 40.3 + 6.6
1992 09 25    22 06.30   -11 17.4    1.794    2.693   147.3    11.6    17.6

1992 08 26    22 29.43   -01 51.4    1.284    2.288   171.2     3.9    15.7
- 7.03 -0.11  -125.0 - 5.3   1988 RT6    15417   - 3.14 +1.23  -105.6 +10.1
1992 09 25    22 11.69   -08 05.7    1.397    2.318   149.6    12.7    16.3

1992 08 26    22 30.57   +00 37.2    0.865    1.867   168.7     6.1    15.7
- 7.77 -0.13  - 46.5 - 9.1   7063 P-L    15424   - 2.49 +1.60  - 54.2 + 5.8
1992 09 25    22 12.01   -02 21.4    0.964    1.903   150.7    14.9    16.3

1992 08 26    22 30.33   -12 07.2    2.141    3.150   177.0     1.0    16.8
- 7.39 -0.15  - 48.7 + 0.7   1982 UJ7    14348   - 4.97 +0.88  - 26.5 + 6.0
1992 09 25    22 09.91   -14 09.7    2.217    3.106   147.0    10.1    17.3

1992 08 26    22 30.25   -27 34.6    2.123    3.102   162.6     5.6    17.0
- 7.31 -0.11  - 70.6 + 7.8   1990 FR1    19303   - 4.45 +0.96  - 11.7 +10.3
1992 09 25    22 10.65   -29 42.5    2.275    3.098   138.5    12.4    17.5

1992 08 26    22 31.64   -11 18.2    1.320    2.330   177.0     1.3    15.6
- 9.18 -0.15  - 81.0 + 1.1    (5008)     19286   - 5.00 +1.35  - 42.2 + 9.9
1992 09 25    22 07.58   -14 39.0    1.437    2.339   146.3    13.8    16.4

1992 08 26    22 32.73   +07 11.0    1.689    2.669   162.2     6.7    16.4
- 8.62 -0.21  - 53.7 - 9.4    (4904)     18615   - 5.66 +1.09  - 79.6 + 1.3
1992 09 25    22 08.92   +03 31.0    1.733    2.650   150.1    10.9    16.6

1992 08 26    22 34.20   -13 47.1    1.335    2.344   175.2     2.1    16.3
- 9.34 -0.20  - 75.6 + 2.6   1989 SL1    18117   - 5.32 +1.35  - 30.9 +10.2
1992 09 25    22 09.35   -16 40.8    1.446    2.344   145.8    13.9    17.0

1992 08 26    22 34.16   -06 52.9    1.223    2.232   175.1     2.2    16.9
- 9.27 -0.40  - 49.9 - 3.2   1985 VF1    15885   - 5.86 +1.40  - 35.9 + 7.0
1992 09 25    22 08.11   -09 20.4    1.240    2.159   148.4    14.1    17.4

1992 08 26    22 34.32   -03 29.8    1.339    2.344   172.3     3.3    17.3
-10.12 -0.04  - 45.1 - 3.4   1981 ET13   18418   - 5.49 +1.36  - 36.1 + 5.4
1992 09 25    22 08.32   -05 47.9    1.497    2.414   149.3    12.2    18.0
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1992 08 26	22 36.09	-03 34.0	1.121	2.126	172.1	3.7	13.9
-10.18 -0.31	+ 28.1 - 4.1	1990 BU	18632	- 5.87 +1.53	+ 19.0 + 1.2		
1992 09 25	22 08.63	-02 33.2	1.185	2.114	149.9	13.8	14.5
1992 08 26	22 36.29	-06 07.2	1.300	2.307	174.2	2.5	15.9
- 8.72 -0.35	- 33.6 - 3.0	1984 SZ1	16870	- 5.46 +1.30	- 24.0 + 5.6		
1992 09 25	22 11.98	-07 49.4	1.333	2.256	149.7	13.0	16.4
1992 08 26	22 37.96	-12 48.9	0.977	1.985	175.0	2.5	15.7
- 8.33 -0.28	- 36.9 + 2.2	1973 SR3	14943	- 3.79 +1.53	+3.4 + 9.2		
1992 09 25	22 16.44	-13 51.9	1.069	1.994	148.6	15.2	16.5
1992 08 26	22 38.60	-15 37.4	0.856	1.863	173.1	3.7	14.7
- 8.17 -0.26	- 65.8 + 5.4	(4869)	18407	- 3.10 +1.63	-2.3 +12.7		
1992 09 25	22 18.21	-17 32.9	0.968	1.890	147.2	16.7	15.5
1992 08 26	22 38.61	-13 38.4	1.703	2.710	174.4	2.1	14.8
- 6.84 -0.24	- 85.6 + 1.3	1987 QY10	16428	- 4.34 +0.99	- 49.4 + 9.4		
1992 09 25	22 19.58	-17 15.7	1.785	2.686	147.6	11.5	15.3
1992 08 26	22 39.29	+07 14.2	2.134	3.110	161.8	5.8	16.1
- 6.71 -0.21	- 33.7 - 7.4	1974 SD3	19672	- 4.77 +0.80	- 57.7 0.0		
1992 09 25	22 20.22	+04 43.5	2.165	3.091	152.7	8.5	16.2
1992 08 26	22 41.44	-07 30.2	1.518	2.526	174.0	2.4	16.1
- 9.37 -0.19	- 58.7 - 1.0	1991 CA	17834	- 5.90 +1.19	- 37.5 + 6.9		
1992 09 25	22 16.00	-10 09.2	1.649	2.567	149.9	11.3	16.7
1992 08 26	22 40.65	-12 25.1	1.395	2.403	174.6	2.3	15.9
- 7.39 -0.32	- 46.6 + 0.9	1966 PK	13583	- 4.51 +1.16	- 15.4 + 8.2		
1992 09 25	22 20.08	-14 11.6	1.453	2.371	149.2	12.5	16.4
1992 08 26	22 43.38	+37 33.6	0.893	1.738	131.8	25.7	16.1
-10.22 -1.23	+163.5 -26.9	1975 AN	10527	- 8.00 +2.06	- 19.8 -28.1		
1992 09 25	22 09.93	+41 11.4	0.824	1.668	131.7	26.7	15.9
1992 08 26	22 43.87	-31 01.9	1.268	2.240	158.6	9.5	15.4
- 8.88 -0.24	-148.8 +18.1	1988 JA1	17635	- 4.54 +1.43	- 26.8 +18.6		
1992 09 25	22 20.66	-35 25.8	1.489	2.316	135.8	17.6	16.1
1992 08 26	22 45.80	+01 32.4	1.397	2.391	166.5	5.7	16.1
- 9.17 -0.40	- 27.6 - 7.3	1989 XO	15898	- 6.41 +1.20	- 43.5 + 2.3		
1992 09 25	22 19.46	-00 32.0	1.438	2.375	152.7	11.2	16.4
1992 08 26	22 46.96	-31 46.0	1.493	2.458	157.7	9.0	17.9
-10.47 -0.25	- 22.3 +12.9	1988 RJ13	18630	- 6.35 +1.39	+ 57.6 +11.4		
1992 09 25	22 18.70	-30 50.0	1.632	2.477	138.9	15.4	18.4
1992 08 26	22 46.94	-07 24.3	1.055	2.061	172.8	3.5	16.5
- 8.92 -0.30	- 84.9 - 1.3	1989 SZ1	16030	- 4.79 +1.43	- 50.7 +10.5		
1992 09 25	22 23.19	-11 09.6	1.182	2.116	151.2	13.2	17.3
1992 08 26	22 48.43	-03 40.1	1.845	2.846	170.3	3.4	16.6
- 7.39 -0.28	- 85.4 - 3.6	1991 JR2	18640	- 5.36 +0.89	- 75.6 + 6.3		
1992 09 25	22 27.15	-08 00.0	1.924	2.855	153.2	9.1	17.0
1992 08 26	22 49.31	-09 21.2	1.365	2.371	172.8	3.1	16.4
- 8.79 -0.29	- 45.9 - 0.2	4598 P-L	13687	- 5.55 +1.20	- 20.8 + 7.3		
1992 09 25	22 25.05	-11 14.8	1.487	2.417	151.6	11.4	17.0