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Brian G. Marsden, Director Conrad M. Bardwell, Associate Director

ERRATA.

MPC	Line	
14680	4	For T. M. Smirnova, L. V. Zhuravleva, B. Burnasheva read L. V. Zhuravleva
14726	15	For A. Mejia (3, S) read A. Mejia (2, S)
14770	18	For B. Burnasheva read B. A. Burnasheva
14791	-27	For Id. G. R. Kastel' read Id. L. G. Karachkina
14792	- 7	For Id. G. R. Kastel' read Id. L. I. Chernykh
14848	10	For A. Mejia (3, S) read A. Mejia (2, S)
14879	-29	Add J. Dumoulin as a measurer
14955	-14	For 60.3- 52.0+ read (60.3- 52.0+)

* * * * *

CORRECTED OBSERVATION.

The following observation corrects that previously published.

Object		Date	UT	R. A. (1950)	Decl.	Reference	Mag.	Obs.
1989 OB	*	1989 07	29.37829	21 25 08.41	-04 28 32.5	MPC14864	16.5	675

* * * * *

IDENTIFICATION CHANGES.

Continuation to MPC 14820.

Object		Date	UT	R. A. (1950)	Decl.	Old desig.	Mag.	Obs.
1925 VL	*	1925 11	15.96626	23 20.1	+06 21	1925 VB	15.0	024
1941 DR	*	1941 02	20.82699	08 50 16.83	+04 38 17.9	1941 CA		012
1957 WJ2	*	1957 11	26.26860	03 20 34	+21 12.6	1957 WE2		690
1980 CV	*	1980 02	12.91458	07 19 32.95	+28 36 04.0	1891	15.5	026

* * * * *

IDENTIFICATIONS.

The following list, by S. Nakano, of identifications with numbered minor planets continues that on MPC 14820.

A906 FH = (2179)	1925 VL = (2191)	1933 BV = (2267)
1936 RB = (2374)	1956 VQ = (2179)	1957 WJ2 = (2191)
1975 TA6 = (1956)	1980 FD12= (2095)	1984 FD2 = (2095)
1984 GV = (2095)	1985 DM2 = (1891)	1987 SL2 = (2179)

OBSERVATIONS OF COMETS.

Observations are published here for the following observatory codes:

010 Caussols. Observer A. Maury. Measured by A. Maury and C. Mallet.
136 Engelhardt Observatory. Observer S. S. Tokhtas'ev. Measured by S. K. Fomin.
372 Geisei. 0.60-m reflector. Observer T. Seki. Communicated by H. Kosai.
376 Uenohara. 0.2-m f/4 hyperboloid astrocamera. Observer N. Kawasato.
386 Yatsugatake-Kobuchizawa. Observers M. Inoue and Y. Inoue. Measured by O. Muramatsu.
392 JCPM Sapporo Station. 0.30-m Schmidt camera. Observer K. Watanabe.
399 Kushiro. Observer S. Ueda. Measured by H. Kaneda.
403 Kani. Observer Y. Mizuno. Measured by T. Furuta.
404 Yamamoto. Observer S. Otomo. Measured by M. Koishikawa.
407 Kahoku, Yamagata. Observer K. Okazaki. Measured by H. Kosai. Long. and Parallax 140.31, -334, -264 (see MPC 11200).
413 Siding Spring. 1.2-m U.K. Schmidt. Observer K. S. Russell. Measured by R. H. McNaught.
494 Stakenbridge. Observer B. Manning. Communicated by G. M. Hurst.
503 Cambridge. Observer J. D. Shanklin.
657 Victoria. Observers J. Tatum and D. Balam.
801 Oak Ridge. 1.55-m reflector. Observer R. E. McCrosky. Measured by C.-Y. Shao.
892 YGCO Hoshikawa and Nagano stations. 0.25-m f/4.0 reflector. Observer S. Hayakawa. Communicated by T. Kobayashi.
896 Astro Village Observatory. Observers Y. Kushida and R. Kushida. Measured by O. Muramatsu.
978 Conder Brow. 0.55-m reflector. Observer D. Buczynski.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N Obs.
		Periodic Comet Brorsen-Metcalf				
/1989o	1989	07 27.74780	02 28 21.85	+31 30 08.8	7.8T	896
/1989o	1989	08 02.64039	03 27 34.48	+37 15 52.4	7 T	399
/1989o	1989	08 02.73687	03 28 40.48	+37 20 56.8		399
/1989o	1989	08 03.59659	03 38 39.87	+38 04 04.0	7 T	399
/1989o	1989	08 03.72899	03 40 13.82	+38 10 33.0		399
/1989o	1989	08 03.73675	03 40 19.23	+38 10 56.1		399
/1989o	1989	08 03.75590	03 40 33.33	+38 11 53.6		896
/1989o	1989	08 04.39479	03 48 13.22	+38 41 41.2		657
/1989o	1989	08 04.74809	03 52 31.74	+38 57 40.6	6.3T	386
/1989o	1989	08 13.86634	05 53 02.79	+41 51 34.0		136
/1989o	1989	08 14.72465	06 04 17.45	+41 42 42.8	6.0T	392
/1989o	1989	08 14.74647	06 04 34.52	+41 42 22.1		392
/1989o	1989	08 15.93094	06 19 44.44	+41 23 15.1		136
/1989o	1989	08 16.91277	06 31 57.72	+41 01 59.4		136
/1989o	1989	08 17.08683	06 34 05.62	+40 57 45.1		503
/1989o	1989	08 17.91576	06 44 04 54	+40 35 36.3		136
/1989o	1989	08 19.94097	07 07 17.70	+39 29 44.6		136
/1989o	1989	08 22.79253	07 37 01.35	+37 34 09.4		376
/1989o	1989	08 29.75995	08 36 13.88	+31 43 58.8	5.0T	392
/1989o	1989	08 29.76528	08 36 16.11	+31 43 42.1		392
		Comet Okazaki-Levy-Rudenko (1989r)				
/1989r	1989	08 24.50243	15 28 41.52	+34 19 22.7	13 T	407
/1989r	1989	08 24.50799	15 28 40.90	+34 19 15.8		407
/1989r	1989	08 26.88056	15 24 22.07	+34 06 31.7		010

/1989r	1989	08	26.90833	15	24	19.97	+34	06	25.7				010
/1989r	1989	08	27.06841	15	24	02.67	+34	05	31.5				801
/1989r	1989	08	27.21215	15	23	47.54	+34	04	47.2				657
/1989r	1989	08	27.90483	15	22	35.44	+34	00	53.4				503
/1989r	1989	08	27.91199	15	22	34.55	+34	00	51.3			1	494
/1989r	1989	08	27.91771	15	22	33.93	+34	00	49.2				978
/1989r	1989	08	27.93499	15	22	32.22	+34	00	41.8			1	494
/1989r	1989	08	27.96007	15	22	29.69	+34	00	34.5				978
/1989r	1989	08	28.21910	15	22	02.89	+33	59	08.3				657
/1989r	1989	08	28.47049	15	21	37.12	+33	57	41.1				892
/1989r	1989	08	28.47569	15	21	36.73	+33	57	35.8				892
/1989r	1989	08	28.47569	15	21	36.69	+33	57	40.8				403
/1989r	1989	08	28.48056	15	21	35.92	+33	57	39.1				403
/1989r	1989	08	28.53194	15	21	30.91	+33	57	23.5	14	T	2	372
/1989r	1989	08	28.88735	15	20	55.07	+33	55	18.4			1	503
/1989r	1989	08	29.26292	15	20	17.40	+33	53	06.3			3	657
/1989r	1989	08	29.40278	15	20	03.24	+33	52	33.9				413
/1989r	1989	08	29.47049	15	19	56.55	+33	52	04.0				404
/1989r	1989	08	29.47708	15	19	56.03	+33	52	02.0				404
/1989r	1989	08	29.48542	15	19	55.25	+33	51	56.5				404
/1989r	1989	08	29.50914	15	19	52.96	+33	51	50.2				404
/1989r	1989	08	30.20493	15	18	44.06	+33	47	48.3				657
/1989r	1989	08	30.21292	15	18	43.13	+33	47	44.9				657
/1989r	1989	09	02.39362	15	13	43.98	+33	29	18.9				413
/1989r	1989	09	03.40667	15	12	13.25	+33	23	18.7				413
/1989r	1989	09	04.40605	15	10	45.88	+33	17	24.7				413

Note 1: very weak and diffuse. 2: 30" tail in p.a. 90 . 3: diffuse image, measurement difficult.

* * * * *

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
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. (1950)	Decl.	Mag.	N	Obs.

006 Barcelona
J. M. Codina, Fabra Observatory, E-08022 Barcelona, Spain
Observers J. M. Codina, J. Nunez, N. Torras, M. Hernandez, M. Moreno
0.38-m f/11 Mailhat astrograph
AGK3, SAOC

2	1984 10	18.85833	22 22 05.66	-06 41 34.5			006
2	1984 10	18.86563	22 22 05.58	-06 41 38.6			006
2	1984 10	18.87326	22 22 05.50	-06 41 43.2			006
2	1984 10	23.90799	22 21 30.71	-07 28 29.0			006
2	1984 10	23.91493	22 21 30.70	-07 28 32.6			006
3	1984 01	10.77431	02 17 14.28	-03 08 42.6			006
3	1984 01	10.78611	02 17 15.02	-03 08 35.4			006
3	1984 01	24.81944	02 34 09.56	-00 38 07.4			006
3	1984 01	24.82847	02 34 10.28	-00 38 01.4			006
3	1984 02	06.84549	02 52 56.70	+01 49 22.8			006
3	1984 02	06.85313	02 52 57.40	+01 49 27.9			006
3	1984 02	16.84861	03 09 02.28	+03 42 52.7			006
3	1984 02	16.85764	03 09 03.20	+03 42 58.8			006
3	1984 02	21.83403	03 17 31.08	+04 38 28.6			006
3	1984 02	21.84167	03 17 31.86	+04 38 33.6			006
3	1984 02	24.80833	03 22 42.66	+05 11 10.3			006
3	1984 02	24.81875	03 22 43.73	+05 11 17.0			006
3	1984 04	02.83194	04 36 02.75	+11 13 09.6			006
3	1984 04	02.83819	04 36 03.53	+11 13 12.5			006
4	1984 01	02.80799	04 58 19.40	+19 07 46.1			006
4	1984 01	02.81528	04 58 19.01	+19 07 47.0			006
4	1984 01	02.82292	04 58 18.61	+19 07 47.9			006
4	1984 01	31.86007	04 45 18.39	+20 20 18.0			006
4	1984 01	31.87188	04 45 18.38	+20 20 20.1			006
4	1984 02	07.77604	04 46 03.57	+20 41 44.9			006
4	1984 02	07.78368	04 46 03.66	+20 41 46.5			006
4	1984 02	20.83021	04 51 14.21	+21 25 00.0			006
4	1984 02	20.83889	04 51 14.50	+21 25 01.8			006
4	1984 02	24.93987	04 53 47.39	+21 38 59.0			006
4	1984 02	24.95660	04 53 47.99	+21 39 02.0			006
4	1984 02	24.96209	04 53 48.30	+21 39 03.5			006
4	1984 03	05.86979	05 01 35.80	+22 12 41.1			006
4	1984 03	05.87674	05 01 36.17	+22 12 42.4			006
4	1984 03	27.80729	05 25 41.43	+23 20 24.8			006
4	1984 03	27.81424	05 25 41.94	+23 20 25.9			006
4	1984 04	03.81771	05 35 00.17	+23 38 19.8			006
4	1984 04	03.82431	05 35 00.72	+23 38 20.6			006
4	1984 04	03.82986	05 35 01.19	+23 38 21.4			006
4	1984 04	13.81458	05 49 22.09	+23 59 23.5			006
4	1984 04	13.82222	05 49 22.77	+23 59 24.3			006

8		1984	10	22.96319	01	25	49.43	-04	21	50.5	006
8		1984	10	22.97014	01	25	49.07	-04	21	52.0	006
9		1984	04	17.82222	11	43	20.30	+10	15	42.0	006
9		1984	04	17.83056	11	43	20.02	+10	15	42.0	006
10		1984	07	31.98264	20	47	27.22	-15	11	57.4	006
10		1984	07	31.99514	20	47	26.59	-15	11	59.2	006
10		1984	08	01.00486	20	47	26.10	-15	12	00.4	006
11		1984	04	17.86111	11	57	41.83	+07	10	21.0	006
11		1984	04	17.86944	11	57	41.50	+07	10	22.8	006
11		1984	06	15.88333	12	01	43.35	+05	19	20.6	006
11		1984	06	15.89236	12	01	43.73	+05	19	17.2	006
13		1984	03	05.83542	08	02	36.85	+44	59	16.4	006
13		1984	03	05.84444	08	02	36.74	+44	59	12.1	006
14		1984	05	17.83715	13	23	45.64	+04	00	23.3	006
14		1984	05	17.84410	13	23	45.47	+04	00	21.2	006
14		1984	06	12.87361	13	23	14.00	+00	51	03.0	006
14		1984	06	12.88125	13	23	14.14	+00	50	58.8	006
14		1984	06	15.91563	13	24	21.59	+00	23	13.4	006
14		1984	06	15.92188	13	24	21.73	+00	23	09.9	006
14		1984	07	09.90000	13	40	25.41	-03	39	14.4	006
14		1984	07	09.90764	13	40	25.82	-03	39	19.3	006
14		1984	07	12.87014	13	43	10.95	-04	11	06.7	006
14		1984	07	12.87847	13	43	11.42	-04	11	12.1	006
16		1984	10	23.82222	20	42	41.40	-18	13	48.1	006
16		1984	10	23.83125	20	42	41.82	-18	13	46.9	006
18		1984	06	21.92708	16	28	06.46	-05	40	49.6	006
18		1984	06	21.93542	16	28	06.01	-05	40	50.3	006
18		1984	06	28.86181	16	22	25.46	-05	56	13.8	006
18		1984	06	28.87083	16	22	25.04	-05	56	15.2	006
18		1984	07	12.90347	16	14	29.35	-06	50	50.7	006
18		1984	07	12.91111	16	14	29.15	-06	50	52.9	006
21		1984	05	23.93056	14	30	35.20	-12	01	26.1	006
21		1984	05	23.94340	14	30	34.54	-12	01	24.4	006
21		1984	05	25.89306	14	29	00.15	-11	56	59.2	006
21		1984	05	25.90278	14	28	59.68	-11	56	57.8	006
22		1984	06	21.89931	15	52	36.33	-21	29	42.4	006
22		1984	06	21.90903	15	52	35.90	-21	29	43.1	006
27		1984	03	26.85000	11	01	31.76	+09	11	14.1	006
27		1984	03	26.85833	11	01	31.38	+09	11	16.1	006
28		1984	05	22.86250	14	21	16.00	+00	34	11.4	006
28		1984	05	22.87222	14	21	15.64	+00	34	11.8	006
28		1984	05	22.87917	14	21	15.38	+00	34	12.1	006
29		1984	01	02.95139	08	49	31.48	+26	26	58.5	006
29		1984	01	02.96458	08	49	30.85	+26	27	01.1	006
29		1984	01	02.97674	08	49	30.28	+26	27	03.7	006
29		1984	03	02.87847	07	57	32.78	+26	58	07.8	006
29		1984	03	02.88611	07	57	32.64	+26	58	06.3	006
29		1984	03	02.89236	07	57	32.51	+26	58	05.2	006
37		1984	10	22.82083	01	24	42.02	+10	48	00.0	006
37		1984	10	22.82847	01	24	41.58	+10	47	58.3	006
39		1984	01	11.82847	04	33	06.08	+07	28	05.7	006
39		1984	01	11.83819	04	33	05.88	+07	28	08.4	006
39		1984	02	21.79583	04	41	12.76	+11	23	07.4	006
39		1984	02	21.80694	04	41	13.20	+11	23	11.5	006
52		1984	07	05.87500	13	50	18.83	-02	20	43.1	006
52		1984	07	05.88247	13	50	18.97	-02	20	45.2	006
79		1984	05	23.93056	14	29	33.24	-12	12	53.5	V 006
79		1984	05	23.94340	14	29	32.65	-12	12	50.1	V 006
79		1984	05	25.89306	14	28	07.63	-12	04	16.8	V 006

79		1984	05	25.90278	14	28	07.20	-12	04	14.2	V 006
105		1984	05	04.85625	11	25	01.84	+06	59	07.8	006
105		1984	05	04.86389	11	25	01.97	+06	59	12.4	006
196		1984	05	25.86042	15	04	33.93	-13	40	32.0	006
196		1984	05	25.86875	15	04	33.55	-13	40	31.6	006
409		1984	05	05.00590	12	35	29.67	-15	28	35.2	T 006
409		1984	05	05.02014	12	35	29.30	-15	28	26.9	T 006

033 Tautenburg
S. Marx, Karl Schwarzschild Observatorium, DDR-6901 Tautenburg,
Democratic Republic of Germany
Observer F. Borngen
1.3-m Schmidt telescope
SAOC

1970	WD		1989	01	09.89931	06	49	57.67	+16	45	00.4	17.2	033
1970	WD		1989	01	09.94514	06	49	54.60	+16	44	56.1		033
1987	QH3		1989	03	05.89306	10	51	14.63	+09	58	16.9	18.3	033
1987	QH3		1989	03	05.94167	10	51	11.40	+09	58	27.2		033
1989	AR9	*	1989	01	09.89931	06	54	41.66	+15	43	47.8	17.3	033
1989	AR9		1989	01	09.94514	06	54	39.31	+15	44	02.4		033
1989	AS9	*	1989	01	09.89931	06	55	35.69	+16	05	57.5	17.9	033
1989	AS9		1989	01	09.94514	06	55	32.62	+16	06	03.4		033
1989	AT9	*	1989	01	09.89931	06	55	51.75	+16	41	38.0	17.5	033
1989	AT9		1989	01	09.94514	06	55	48.80	+16	41	53.1		033
1989	AU9	*	1989	01	09.89931	06	57	25.19	+15	42	28.2	18.5	033
1989	AU9		1989	01	09.94514	06	57	22.21	+15	42	37.2		033
1989	AV9	*	1989	01	09.89931	07	02	02.25	+15	53	16.0	18.3	033
1989	AV9		1989	01	09.94514	07	01	59.42	+15	53	41.2		033
1989	CW7	*	1989	02	01.85208	06	36	32.57	+17	03	04.4	18.4	033
1989	CW7		1989	02	02.90972	06	36	03.33	+17	05	59.5		033
1989	CX7	*	1989	02	01.85208	06	37	42.26	+17	47	26.3	17.9	033
1989	CX7		1989	02	02.90972	06	37	06.52	+17	53	05.4		033
1989	EG9	*	1989	03	05.89306	10	38	52.68	+11	34	58.9	17.7	033
1989	EG9		1989	03	05.94167	10	38	49.97	+11	35	18.0		033
1989	EH9	*	1989	03	05.89306	10	38	55.16	+08	51	45.4	19.1	033
1989	EH9		1989	03	05.94167	10	38	52.19	+08	51	53.7		033
1989	EJ9	*	1989	03	05.89306	10	38	56.95	+11	23	46.2	18.1	033
1989	EJ9		1989	03	05.94167	10	38	54.75	+11	23	58.6		033
1989	EK9	*	1989	03	05.89306	10	39	04.34	+08	42	14.2	19.4	033
1989	EK9		1989	03	05.94167	10	39	01.79	+08	42	33.3		033
1989	EL9	*	1989	03	05.89306	10	39	10.79	+09	28	35.4	18.2	033
1989	EL9		1989	03	05.94167	10	39	08.43	+09	29	00.7		033
1989	EM9	*	1989	03	05.89306	10	39	15.16	+08	32	32.8	19.7	033
1989	EM9		1989	03	05.94167	10	39	12.86	+08	32	46.6		033
1989	EN9	*	1989	03	05.89306	10	39	16.09	+10	58	48.1	18.0	033
1989	EN9		1989	03	05.94167	10	39	13.18	+10	59	05.6		033
1989	EO9	*	1989	03	05.89306	10	39	32.33	+08	35	01.5	18.9	033
1989	EO9		1989	03	05.94167	10	39	29.71	+08	35	22.3		033
1989	EP9	*	1989	03	05.89306	10	39	34.69	+11	40	48.9	19.5	033
1989	EP9		1989	03	05.94167	10	39	31.96	+11	41	08.3		033
1989	EQ9	*	1989	03	05.89306	10	39	47.78	+08	59	34.2	20.0	033
1989	EQ9		1989	03	05.94167	10	39	45.54	+08	59	44.1		033
1989	ER9	*	1989	03	05.89306	10	40	32.40	+11	31	50.6	19.0	033
1989	ER9		1989	03	05.94167	10	40	30.13	+11	32	03.4		033
1989	ES9	*	1989	03	05.89306	10	40	44.08	+09	48	35.6	19.9	033
1989	ES9		1989	03	05.94167	10	40	41.73	+09	48	51.7		033
1989	ET9	*	1989	03	05.89306	10	40	47.62	+09	13	24.1	18.6	033
1989	ET9		1989	03	05.94167	10	40	44.57	+09	13	35.1		033
1989	EU9	*	1989	03	05.89306	10	40	48.28	+11	02	48.7	19.6	033

1989	EU9		1989	03	05.94167	10	40	45.73	+11	03	17.8	033
1989	EV9	*	1989	03	05.89306	10	40	59.39	+08	48	43.7	17.9 033
1989	EV9		1989	03	05.94167	10	40	56.90	+08	49	02.0	033
1989	EW9	*	1989	03	05.89306	10	41	59.37	+11	30	03.3	18.8 033
1989	EW9		1989	03	05.94167	10	41	56.68	+11	30	21.9	033
1989	EX9	*	1989	03	05.89306	10	42	06.17	+11	34	19.8	19.3 033
1989	EX9		1989	03	05.94167	10	42	03.88	+11	34	41.3	033
1989	EY9	*	1989	03	05.89306	10	42	45.29	+11	10	34.6	18.9 033
1989	EY9		1989	03	05.94167	10	42	42.87	+11	10	50.6	033
1989	EZ9	*	1989	03	05.89306	10	43	02.30	+11	01	00.5	18.7 033
1989	EZ9		1989	03	05.94167	10	42	59.35	+11	01	21.4	033
1989	EA10	*	1989	03	05.89306	10	43	08.77	+11	23	38.2	18.8 033
1989	EA10		1989	03	05.94167	10	43	06.06	+11	23	57.9	033
1989	EB10	*	1989	03	05.89306	10	43	23.67	+11	39	18.3	20.3 033
1989	EB10		1989	03	05.94167	10	43	21.39	+11	39	30.7	033
1989	EC10	*	1989	03	05.89306	10	43	35.91	+11	17	19.3	18.5 033
1989	EC10		1989	03	05.94167	10	43	32.98	+11	17	29.3	033
1989	ED10	*	1989	03	05.89306	10	43	49.02	+11	18	05.7	19.0 033
1989	ED10		1989	03	05.94167	10	43	46.40	+11	18	24.5	033
1989	EE10	*	1989	03	05.89306	10	44	18.29	+10	23	47.3	18.3 033
1989	EE10		1989	03	05.94167	10	44	15.83	+10	23	56.2	033
1989	EF10	*	1989	03	05.89306	10	44	27.20	+08	38	33.3	19.1 033
1989	EF10		1989	03	05.94167	10	44	24.55	+08	39	00.9	033
1989	EG10	*	1989	03	05.89306	10	44	28.99	+10	29	18.9	18.8 033
1989	EG10		1989	03	05.94167	10	44	26.47	+10	29	28.7	033
1989	EH10	*	1989	03	05.89306	10	44	33.41	+11	40	27.0	19.3 033
1989	EH10		1989	03	05.94167	10	44	30.62	+11	40	46.5	033
1989	EJ10	*	1989	03	05.89306	10	45	14.54	+10	21	44.1	19.7 033
1989	EJ10		1989	03	05.94167	10	45	11.42	+10	22	05.1	033
1989	EK10	*	1989	03	05.89306	10	45	24.10	+11	05	05.5	17.7 033
1989	EK10		1989	03	05.94167	10	45	21.32	+11	05	30.1	033
1989	EL10	*	1989	03	05.89306	10	45	33.51	+10	54	59.3	19.4 033
1989	EL10		1989	03	05.94167	10	45	30.58	+10	55	23.3	033
1989	EM10	*	1989	03	05.89306	10	45	34.02	+10	20	32.3	19.2 033
1989	EM10		1989	03	05.94167	10	45	31.61	+10	20	44.6	033
1989	EN10	*	1989	03	05.89306	10	45	42.28	+08	31	26.4	19.2 033
1989	EN10		1989	03	05.94167	10	45	39.59	+08	31	42.9	033
1989	EO10	*	1989	03	05.89306	10	45	44.36	+10	49	00.6	18.2 033
1989	EO10		1989	03	05.94167	10	45	41.52	+10	49	06.8	033
1989	EP10	*	1989	03	05.89306	10	46	04.19	+10	40	16.8	18.9 033
1989	EP10		1989	03	05.94167	10	46	01.76	+10	40	32.5	033
1989	EQ10	*	1989	03	05.89306	10	46	33.98	+10	30	49.7	19.2 033
1989	EQ10		1989	03	05.94167	10	46	31.29	+10	31	04.7	033
1989	ER10	*	1989	03	05.89306	10	47	32.49	+09	21	59.5	19.8 033
1989	ER10		1989	03	05.94167	10	47	30.35	+09	22	31.4	033
1989	ES10	*	1989	03	05.89306	10	48	10.70	+10	45	18.5	17.8 033
1989	ES10		1989	03	05.94167	10	48	08.19	+10	45	39.1	033
1989	ET10	*	1989	03	05.89306	10	49	08.16	+11	38	25.9	19.0 033
1989	ET10		1989	03	05.94167	10	49	05.75	+11	38	41.9	033
1989	EU10	*	1989	03	05.89306	10	49	14.67	+09	52	23.8	19.3 033
1989	EU10		1989	03	05.94167	10	49	12.51	+09	52	44.4	033
1989	EV10	*	1989	03	05.89306	10	49	32.37	+10	27	08.5	19.9 033
1989	EV10		1989	03	05.94167	10	49	29.77	+10	27	25.5	033
1989	EW10	*	1989	03	05.89306	10	49	52.39	+09	27	39.7	17.5 033
1989	EW10		1989	03	05.94167	10	49	49.37	+09	27	41.4	033
1989	EX10	*	1989	03	05.89306	10	50	04.75	+10	16	34.4	17.1 033
1989	EX10		1989	03	05.94167	10	50	02.40	+10	16	47.1	033
1989	EY10	*	1989	03	05.89306	10	50	22.38	+10	25	56.2	19.8 033
1989	EY10		1989	03	05.94167	10	50	19.17	+10	26	07.1	033

1989	EZ10*	1989	03	05.89306	10	50	45.82	+10	31	47.3	19.6	033
1989	EZ10	1989	03	05.94167	10	50	43.48	+10	32	09.3		033
1989	EA11*	1989	03	05.89306	10	50	53.51	+09	16	53.4	19.4	033
1989	EA11	1989	03	05.94167	10	50	50.84	+09	17	14.8		033
1989	EB11*	1989	03	05.89306	10	51	10.62	+10	34	25.1	19.7	033
1989	EB11	1989	03	05.94167	10	51	08.11	+10	34	43.0		033
1989	EC11*	1989	03	05.89306	10	51	27.04	+08	54	40.9	19.5	033
1989	EC11	1989	03	05.94167	10	51	24.21	+08	54	55.0		033
1989	ED11*	1989	03	05.89306	10	51	42.57	+11	42	23.6	19.1	033
1989	ED11	1989	03	05.94167	10	51	39.43	+11	42	36.5		033
1989	GA8 *	1989	04	06.89514	12	27	10.45	+06	06	38.7		033
1989	GA8	1989	04	07.92292	12	26	13.32	+06	11	10.5	18.7	033
1989	GB8 *	1989	04	06.89514	12	28	31.49	+04	16	17.5		033
1989	GB8	1989	04	07.92292	12	27	43.00	+04	21	12.8	18.6	033
1989	GB8	1989	04	09.95347	12	26	08.28	+04	30	37.4		033
1989	GB8	1989	04	09.99444	12	26	06.38	+04	30	48.2		033
1989	GC8 *	1989	04	06.89514	12	28	57.68	+04	48	37.4		033
1989	GC8	1989	04	07.92292	12	27	58.36	+04	54	25.1	18.8	033
1989	GC8	1989	04	09.95347	12	26	02.80	+05	05	21.2		033
1989	GC8	1989	04	09.99444	12	26	00.42	+05	05	33.4		033
1989	GD8 *	1989	04	06.89514	12	30	43.78	+04	10	42.1		033
1989	GD8	1989	04	07.92292	12	30	00.44	+04	17	11.2	18.9	033
1989	GD8	1989	04	09.95347	12	28	36.99	+04	29	22.9		033
1989	GD8	1989	04	09.99444	12	28	35.25	+04	29	36.2		033
1989	GE8 *	1989	04	06.89514	12	31	46.41	+04	55	04.9		033
1989	GE8	1989	04	07.92292	12	30	51.91	+05	01	25.1	18.3	033
1989	GE8	1989	04	09.95347	12	29	06.57	+05	13	16.6		033
1989	GE8	1989	04	09.99444	12	29	04.45	+05	13	29.8		033
1989	GF8 *	1989	04	06.89514	12	33	49.43	+04	23	30.6		033
1989	GF8	1989	04	07.92292	12	32	57.10	+04	26	39.8	17.5	033
1989	GF8	1989	04	09.95347	12	31	15.69	+04	32	23.0		033
1989	GF8	1989	04	09.99444	12	31	13.66	+04	32	29.3		033
1989	GG8 *	1989	04	06.89514	12	34	08.10	+05	49	01.0		033
1989	GG8	1989	04	07.92292	12	33	09.76	+05	52	11.0	18.1	033
1989	GG8	1989	04	09.95347	12	31	16.44	+05	57	55.4		033
1989	GG8	1989	04	09.99444	12	31	14.19	+05	58	01.4		033
1989	GH8 *	1989	04	06.89514	12	34	15.65	+03	25	36.3		033
1989	GH8	1989	04	07.92292	12	33	20.43	+03	30	18.5	18.7	033
1989	GH8	1989	04	09.95347	12	31	33.31	+03	39	06.8		033
1989	GH8	1989	04	09.99444	12	31	31.16	+03	39	17.5		033
1989	GJ8 *	1989	04	06.89514	12	35	10.38	+04	32	46.1		033
1989	GJ8	1989	04	07.92292	12	34	14.66	+04	35	43.8	18.8	033
1989	GJ8	1989	04	09.95347	12	32	25.79	+04	41	13.2		033
1989	GJ8	1989	04	09.99444	12	32	23.64	+04	41	19.1		033
1989	GK8 *	1989	04	06.89514	12	35	12.28	+03	38	23.0		033
1989	GK8	1989	04	07.92292	12	34	21.74	+03	43	41.5	17.9	033
1989	GK8	1989	04	09.95347	12	32	43.12	+03	53	48.0		033
1989	GK8	1989	04	09.99444	12	32	41.17	+03	53	59.3		033
1989	GL8 *	1989	04	06.89514	12	35	48.71	+05	45	45.3		033
1989	GL8	1989	04	07.92292	12	34	46.23	+05	48	48.3	18.5	033
1989	GL8	1989	04	09.95347	12	32	44.87	+05	54	16.0		033
1989	GL8	1989	04	09.99444	12	32	42.50	+05	54	22.1		033
1989	GM8 *	1989	04	06.89514	12	36	39.01	+03	57	20.7		033
1989	GM8	1989	04	07.92292	12	35	46.18	+04	00	44.8	18.6	033
1989	GM8	1989	04	09.95347	12	34	02.70	+04	07	11.8		033
1989	GM8	1989	04	09.99444	12	34	00.69	+04	07	19.1		033
1989	GN8 *	1989	04	06.89514	12	39	06.61	+05	19	10.1		033
1989	GN8	1989	04	07.92292	12	38	14.79	+05	30	02.2	19.4	033
1989	GO8 *	1989	04	06.89514	12	39	11.38	+04	53	10.9		033

1989	GO8	1989	04	07.92292	12	38	20.18	+04	58	02.9	19.1	033
133		1989	01	10.02639	09	58	14.93	+12	49	37.2	14.4	033
133		1989	01	11.11910	09	57	44.38	+12	50	26.2		033
133		1989	01	12.01528	09	57	18.40	+12	51	11.7		033
133		1989	02	02.95694	09	42	14.75	+13	27	43.9	13.5	033
133		1989	02	04.01875	09	41	21.30	+13	30	06.8		033
202		1989	01	09.89931	06	53	03.88	+15	43	19.6	12.7	033
202		1989	01	09.94514	06	53	01.47	+15	43	30.7		033
202		1989	02	01.85208	06	36	31.35	+17	23	35.8	13.1	033
202		1989	02	02.90972	06	35	59.83	+17	28	16.3		033
325		1989	03	05.89306	10	40	29.00	+09	28	39.5	14.6	033
325		1989	03	05.94167	10	40	26.56	+09	28	46.8		033
588		1989	02	10.94167	09	23	18.28	+14	29	30.9	15.9	033
588		1989	02	10.97431	09	23	17.09	+14	29	33.8		033
736		1989	03	05.89306	10	46	22.55	+11	07	54.7	16.0	033
736		1989	03	05.94167	10	46	19.55	+11	08	16.3		033
1036		1989	06	04.93125	15	17	24.74	+01	31	31.1	13.4	033
1080		1989	03	05.89306	10	42	30.06	+11	11	55.5	15.9	033
1080		1989	03	05.94167	10	42	26.95	+11	12	06.4		033
1104		1989	01	10.02639	09	52	08.02	+13	17	13.8	16.1	033
1104		1989	01	11.11910	09	51	30.51	+13	24	20.8		033
1104		1989	01	12.01528	09	50	58.43	+13	30	20.0		033
1104		1989	02	02.95694	09	32	15.01	+16	21	17.8	16.5	033
1104		1989	03	10.84722	09	03	39.27	+19	56	21.4	17.0	033
1104		1989	03	10.87222	09	03	38.64	+19	56	26.3		033
1185		1989	04	06.89514	12	31	10.43	+06	08	23.2		033
1185		1989	04	07.92292	12	30	10.16	+06	12	10.2	16.0	033
1185		1989	04	09.95347	12	28	13.37	+06	19	03.0		033
1185		1989	04	09.99444	12	28	11.01	+06	19	10.3		033
1700		1989	03	07.01250	09	12	39.05	+19	47	16.8		033
1700		1989	03	10.84722	09	10	04.93	+19	49	44.9	17.6	033
1700		1989	03	10.87222	09	10	03.95	+19	49	45.7		033
2006		1989	03	05.89306	10	47	27.81	+10	30	36.5	17.4	033
2006		1989	03	05.94167	10	47	24.72	+10	30	49.1		033
2085		1989	04	06.89514	12	27	07.62	+03	05	32.9	E	033
2085		1989	04	07.92292	12	26	18.91	+03	10	40.3	16.9 E	033
2085		1989	04	09.95347	12	24	44.06	+03	20	27.1	E	033
2085		1989	04	09.99444	12	24	42.15	+03	20	38.3	E	033
2097		1989	01	10.02639	09	54	06.47	+12	57	17.1	18.4	033
2097		1989	01	11.11910	09	53	32.58	+12	59	28.0		033
2097		1989	01	12.01528	09	53	04.01	+13	01	19.6		033
2097		1989	02	02.95694	09	38	08.69	+14	01	05.0	17.9	033
2097		1989	02	04.01875	09	37	18.86	+14	04	22.7		033
2097		1989	02	10.94167	09	31	49.87	+14	25	59.8	18.0	033
2097		1989	02	10.97431	09	31	48.30	+14	26	06.3		033
2136		1989	03	05.89306	10	46	34.44	+11	26	07.3	16.4	033
2136		1989	03	05.94167	10	46	32.24	+11	26	29.5		033
2519		1989	03	07.01250	09	05	28.84	+19	28	50.0		033
2519		1989	03	10.84722	09	03	27.26	+19	36	23.5	18.2	033
2519		1989	03	10.87222	09	03	26.48	+19	36	26.2		033
2525		1989	03	05.89306	10	46	26.74	+11	45	09.7	17.2	033
2525		1989	03	05.94167	10	46	24.50	+11	45	22.6		033
2534		1989	01	10.02639	09	50	14.28	+12	29	25.0	17.3	033
2534		1989	01	11.11910	09	49	41.48	+12	32	17.4		033
2534		1989	01	12.01528	09	49	13.80	+12	34	43.9		033
2534		1989	02	02.95694	09	34	22.24	+13	51	49.1	16.9	033
2534		1989	02	04.01875	09	33	32.17	+13	56	03.1		033
2534		1989	02	10.94167	09	28	02.22	+14	23	48.6	16.8	033
2534		1989	02	10.97431	09	28	00.63	+14	23	56.6		033

2535	1989 02 01.85208	06 46 59.72	+17 52 20.6		16.2		033
2535	1989 02 02.90972	06 46 22.68	+17 55 59.5				033
2811	1989 01 10.02639	09 50 23.10	+13 35 32.4		17.2		033
2811	1989 01 11.11910	09 49 51.58	+13 38 01.7				033
2811	1989 01 12.01528	09 49 24.68	+13 40 10.6				033
2811	1989 02 02.95694	09 33 41.52	+14 53 13.7		16.6		033
2811	1989 02 04.01875	09 32 46.33	+14 57 21.0				033
2811	1989 02 10.94167	09 26 40.82	+15 24 12.6		16.7		033
2811	1989 02 10.97431	09 26 39.03	+15 24 20.2				033
3506	1989 03 05.89306	10 39 03.24	+09 13 28.5		17.4		033
3506	1989 03 05.94167	10 39 00.69	+09 13 35.5				033
3655	1989 02 02.95694	09 33 34.21	+16 13 26.3		18.0		033
3655	1989 02 04.01875	09 32 51.63	+16 16 19.5				033
3655	1989 02 10.94167	09 28 11.61	+16 34 53.6		17.7		033
3655	1989 02 10.97431	09 28 10.25	+16 34 59.0				033
3655	1989 03 07.01250	09 13 34.15	+17 26 04.4				033
3655	1989 03 10.84722	09 11 45.87	+17 31 16.8		18.2		033
3655	1989 03 10.87222	09 11 45.24	+17 31 18.5				033
3808	1989 03 05.89306	10 45 21.60	+10 05 51.2		17.3		033
3808	1989 03 05.94167	10 45 19.11	+10 06 20.8				033
4003	1989 01 09.89931	06 55 56.23	+15 57 53.2		17.4		033
4003	1989 01 09.94514	06 55 54.13	+15 57 56.7				033
4003	1989 02 01.85208	06 40 34.32	+16 34 39.2		17.6		033
4003	1989 02 02.90972	06 40 01.71	+16 36 30.9				033
4056	1989 02 10.94167	09 30 29.04	+14 16 10.2		16.5		033
4056	1989 02 10.97431	09 30 27.38	+14 16 31.6				033
4056	1989 03 07.01250	09 13 23.79	+18 14 59.2				033
4056	1989 03 10.84722	09 11 43.04	+18 44 41.0		17.3		033
4056	1989 03 10.87222	09 11 42.40	+18 44 52.4				033
4079	1989 03 05.89306	10 47 32.95	+11 36 59.9		17.6		033
4079	1989 03 05.94167	10 47 30.62	+11 37 13.2				033

095 Crimean Astrophysical Observatory
N. S. Chernykh, Crimean Astrophysical Observatory, P.O. Nauchnyj,
Crimea 334413, U.S.S.R.

3514	1986 09 07.87911	23 12 59.18	-08 33 00.3	095

293 Burlington remote site
T. Handley, 13 Linden Avenue, Burlington, NJ 08016, U.S.A.
0.20-m f/4.0 astrograph
SAOC

1982 FZ1	1989 05 29.19028	14 56 10.01	-10 38 44.1	293
4135	1989 07 01.28993	19 55 09.35	-07 52 36.0	293
4135	1989 07 01.30799	19 55 08.52	-07 52 38.0	293

376 Uenohara
N. Kawasato, 3-51, Hana-Koganei, Kodaira, Tokyo 187, Japan
Observer N. Kawasato
0.2-m f/4 hyperboloid astrocamera

1989 PB	1989 08 22.59236	00 20 09.91	+28 15 20.2	376
1989 PB	1989 08 22.59375	00 20 10.94	+28 16 09.3	376

381 Kiso
T. Nakamura, National Astronomical Observatory, Mitaka, Tokyo 181, Japan
Observer T. Nakamura
1.05-m Schmidt

156	1988 12 05.63434	03 54 28.03	+19 37 35.8	381
156	1988 12 06.49400	03 53 43.33	+19 33 30.0	381
156	1988 12 07.54667	03 52 48.86	+19 28 30.9	381

156		1988 12 08.41666	03 52 04.64	+19 24 24.3					381
1712		1988 12 05.63434	03 44 42.39	+17 41 23.3					381
1712		1988 12 06.49400	03 44 05.15	+17 36 22.7					381
1712		1988 12 07.54667	03 43 19.87	+17 30 17.3					381
1712		1988 12 08.41666	03 42 43.25	+17 25 18.0					381
2158		1988 12 05.63434	03 45 29.87	+18 00 01.3					381
2158		1988 12 06.49400	03 44 50.53	+17 57 54.2					381
2158		1988 12 07.54667	03 44 02.64	+17 55 19.8					381
2158		1988 12 08.41666	03 43 23.99	+17 53 14.4					381
2256		1988 12 05.63434	03 55 27.80	+19 50 17.3					381
2256		1988 12 06.49400	03 54 46.22	+19 48 20.2					381
2256		1988 12 07.54667	03 53 55.71	+19 45 58.2					381
2256		1988 12 08.41666	03 53 14.83	+19 44 01.1					381
3507		1988 12 05.63434	03 47 33.74	+17 59 55.2					381
3507		1988 12 06.49400	03 46 54.41	+17 58 30.9					381
3507		1988 12 07.54667	03 46 06.62	+17 56 48.6					381
3507		1988 12 08.41666	03 45 27.90	+17 55 25.8					381
4018		1988 12 05.63434	03 52 05.38	+20 49 44.0					381
4018		1988 12 06.49400	03 51 21.97	+20 45 32.0					381
4018		1988 12 07.54667	03 50 29.29	+20 40 26.3					381
4018		1988 12 08.41666	03 49 47.25	+20 36 15.3					381

386 Yatsugatake-Kobuchizawa
O. Muramatsu, 119-1, 2-8 Sakurazutsumi, Musashino, Tokyo 180, Japan
Observers M. Inoue, Y. Inoue
Measurer O. Muramatsu
0.31-m reflector

1988	DB	1989 08 04.69861	21 14 06.55	-15 29 39.5			16.5	W	386
1988	DB	1989 08 04.72292	21 14 05.09	-15 29 44.7				W	386

392 JCPM Sapporo Station
K. Watanabe, 3-8-B203, Ashibetsu Chuo 3 Jo 4 Chome, Shiroishi-Ku,
Sapporo 005, Japan

1989	PB	1989 08 24.54988	01 18 26.54	+55 22 01.2			13		392
1989	PB	1989 08 24.55363	01 18 39.14	+55 25 38.6					392

399 Kushiro
H. Kaneda, 2-15-2H, Kawazoe 8 Jo 2 Chome, Minami-Ku, Sapporo 005, Japan
Observer S. Ueda
Measurer H. Kaneda
0.16-m f/3.8 Wright-Schmidt camera
AGK3, SAOC

766		1989 03 26.50729	11 08 34.28	+10 10 57.3			14		399
766		1989 03 26.52326	11 08 33.56	+10 10 59.0					399
766		1989 04 04.61690	11 02 20.52	+10 15 51.6			14		399
766		1989 04 06.51944	11 01 13.66	+10 15 38.3			14		399
766		1989 04 06.53403	11 01 13.10	+10 15 38.9					399
766		1989 04 06.54965	11 01 12.59	+10 15 39.1					399
1674		1989 03 12.64861	11 22 15.75	+08 11 35.0			15		399
1674		1989 03 12.66319	11 22 15.08	+08 11 38.5					399
1674		1989 03 12.68183	11 22 14.21	+08 11 44.5					399
3032		1989 03 08.69462	11 23 12.83	+09 01 21.5			15.5		399
3032		1989 03 08.70974	11 23 12.00	+09 01 26.3					399
3032		1989 03 08.72604	11 23 11.26	+09 01 31.1					399
3032		1989 03 12.64861	11 20 04.02	+09 21 45.3			15.5		399
3032		1989 03 12.66319	11 20 03.32	+09 21 49.4					399
3032		1989 03 12.68183	11 20 02.42	+09 21 55.8					399
3032		1989 03 26.50729	11 09 34.56	+10 23 51.8			15.5		399
3032		1989 03 26.52326	11 09 33.94	+10 23 55.6					399

400 Kitami
K. Watanabe, 3-8-B203, Ashibetsu Chuo 3 Jo 4 Chome, Shiroishi-Ku, Sapporo 005, Japan
Observers K. Endate, T. Fujii, A. Takahashi, M. Yanai
Measurer K. Watanabe
0.16-m f/3.3 reflector, 0.20-m f/4.8 reflector and 0.20-m f/4.0 reflector
AGK3, SAOC

1989 QB	*	1989 08 25.50764	23	10	39.10	-01	59	44.1	16.5	400
1989 QB		1989 08 25.51979	23	10	38.61	-01	59	45.1		400
1989 QB		1989 08 25.53646	23	10	37.72	-01	59	46.0		400
1989 QB		1989 08 26.51111	23	09	46.18	-02	00	44.7	16.5	400
1989 QB		1989 08 26.52917	23	09	45.00	-02	00	42.9		400
1989 QE	*	1989 08 25.50764	23	12	14.61	-02	14	27.8	15.5	400
1989 QE		1989 08 25.51979	23	12	13.88	-02	14	27.4		400
1989 QE		1989 08 25.53646	23	12	13.09	-02	14	28.2		400
1989 QE		1989 08 26.51111	23	11	25.56	-02	14	33.7	16.0	400
1989 QE		1989 08 26.52917	23	11	24.32	-02	14	31.3		400

403 Kani
T. Furuta, Mitsuike 17-2, Kakiya-Cho, Tokai, Aichi-Ken 477, Japan
Observers Y. Mizuno, T. Furuta
Measurer T. Furuta

1989 OA		1989 08 11.57708	20	46	33.05	-09	28	01.6		403
1989 OA		1989 08 11.59236	20	46	32.24	-09	28	04.2		403
1989 OA		1989 08 22.53299	20	37	53.18	-10	07	59.3		403
1989 OA		1989 08 22.55833	20	37	51.87	-10	08	07.0		403
1989 PD		1989 08 10.57917	21	42	55.68	-11	57	34.0		403
1989 PD		1989 08 10.62396	21	42	52.17	-11	56	57.8		403
1989 QA	*	1989 08 22.57431	22	57	34.06	-04	45	01.9	16.0	403
1989 QA		1989 08 22.58854	22	57	33.45	-04	45	03.1		403
1989 QC	*	1989 08 28.62153	22	46	52.90	-07	01	39.7	15.5	403
1989 QC		1989 08 28.63715	22	46	52.10	-07	01	46.3		403
1989 QC		1989 08 29.59688	22	46	10.75	-07	06	03.3		403
1989 QC		1989 08 29.61111	22	46	09.95	-07	06	07.0		403
1989 QD	*	1989 08 28.62153	22	52	46.06	-04	58	27.9	16.0	403
1989 QD		1989 08 28.63715	22	52	45.44	-04	58	33.9		403
1989 QD		1989 08 29.61111	22	52	04.03	-05	04	46.6		403
2497		1989 07 26.61806	20	28	38.60	-19	40	28.5		403
2497		1989 07 26.62986	20	28	38.02	-19	40	26.2		403

413 Siding Spring
R. H. McNaught, Siding Spring Observatory, Coonabarabran, N.S.W. 2357, Australia
Observers M. Hartley, S. M. Hughes, R. H. McNaught, Q. A. Parker, K. S. Russell, S. B. Tritton
Measurer R. H. McNaught
1.2-m U. K. Schmidt Telescope and (1) Uppsala Southern Schmidt

1981 ES35		1989 08 09.64812	23	11	13.55	-12	04	30.4	18	413
1981 ES35		1989 08 09.70021	23	11	11.74	-12	04	38.1		413
1985 HG1		1989 08 02.57097	19	40	27.84	-22	38	54.1		413
1985 HG1		1989 08 02.60917	19	40	25.59	-22	39	00.9		413
1985 HG1		1989 08 03.50525	19	39	35.96	-22	42	01.0		413
1988 DN		1981 09 20.46650	22	06	54.65	-01	58	31.0	18	413
1988 DN		1981 09 20.51859	22	06	52.62	-01	58	49.7		413
1988 DN		1981 09 20.53230	22	06	52.13	-01	58	54.4		413
1988 DN		1984 04 25.59836	14	50	48.80	-16	18	35.9		413
1988 DN		1984 04 25.64002	14	50	46.71	-16	18	22.6		413
1988 DS4		1989 08 02.49539	15	20	05.70	-12	41	49.1	1	413
1989 NA		1989 08 11.55457	20	27	50.79	-45	16	48.0	1	413

1989	NA		1989	08	11.55942	20	27	50.84	-45	16	52.8		1 413
1989	NA		1989	08	12.76203	20	28	44.39	-45	31	15.1		1 413
1989	NA		1989	08	12.76758	20	28	44.65	-45	31	18.3		1 413
1989	NA		1989	08	25.61772	20	40	43.80	-46	52	58.7		1 413
1989	NA		1989	08	25.62362	20	40	44.15	-46	52	58.9		1 413
1989	NA		1989	08	29.54282	20	45	12.96	-46	53	25.5		F 413
1989	NA		1989	08	29.54734	20	45	13.18	-46	53	25.5		1 413
1989	NA		1989	09	05.64803	20	54	15.04	-46	29	09.4		1 413
1989	NA		1989	09	05.65579	20	54	15.70	-46	29	06.6		1 413
1989	NE1		1989	08	11.54774	19	48	14.77	-46	20	35.4		1 413
1989	NE1		1989	09	04.57772	19	46	52.22	-42	55	49.7		1 413
1989	OB		1989	08	11.58528	21	26	42.65	+02	51	17.3		1 413
1989	OB		1989	08	11.58942	21	26	42.63	+02	51	26.7		1 413
1989	OD		1989	08	02.54365	15	25	11.78	-30	03	43.1		1 413
1989	OD		1989	08	02.55833	15	25	12.43	-30	03	42.4		1 413
1989	OE		1989	08	02.54365	15	26	30.23	-28	09	18.7		1 413
1989	OE		1989	08	02.55833	15	26	30.78	-28	09	20.2		1 413
1989	OG	*	1989	07	27.61299	21	24	49.06	-42	54	32.0	15	413
1989	OG		1989	07	27.67549	21	24	44.44	-42	54	27.1		413
1989	OG		1989	08	03.55926	21	16	01.84	-42	34	57.7		413
1989	OG		1989	08	03.68426	21	15	51.34	-42	34	24.6		413
1989	OG		1989	08	11.57382	21	05	15.97	-41	42	56.8		1 413
1989	OG		1989	08	12.78190	21	03	39.61	-41	32	12.5		1 413
1989	OG		1989	09	03.51100	20	42	23.58	-36	31	57.9		1 413
1989	OG		1989	09	03.52505	20	42	23.08	-36	31	42.8		1 413
1989	OG		1989	09	04.41620	20	41	56.88	-36	16	00.5	15.8V	1 413
1989	OH	*	1989	07	27.61299	21	33	02.70	-42	02	50.0	16.5	413
1989	OH		1989	07	27.67549	21	32	59.93	-42	03	12.2		413
1989	OH		1989	08	03.55926	21	27	16.77	-42	42	19.3		V 413
1989	OH		1989	08	03.68426	21	27	09.58	-42	42	51.4		V 413
1989	OJ	*	1989	07	27.61299	21	39	36.74	-47	13	16.4	16.5	413
1989	OJ		1989	07	27.67549	21	39	32.85	-47	13	37.9		413
1989	OJ		1989	08	03.55926	21	32	19.64	-47	43	54.2		V 413
1989	OJ		1989	08	03.68426	21	32	10.93	-47	44	15.7		V 413
1989	OJ		1989	08	09.56295	21	25	24.65	-47	53	51.9		F 413
1989	OJ		1989	08	09.62545	21	25	19.87	-47	53	51.6		V 413
1989	PB		1989	08	12.79370	23	38	37.84	-06	12	33.3	13.7V	1 413
1989	PB		1989	08	12.79579	23	38	38.00	-06	12	25.1	13.7V	1 413
1989	PB		1989	08	12.79822	23	38	38.11	-06	12	16.9		1 413
1989	PB		1989	08	13.82447	23	40	08.20	-05	02	51.1	13.8V	1 413
1989	PB		1989	08	14.57928	23	41	29.16	-04	03	58.3		1 413
1989	PB		1989	08	14.59803	23	41	30.62	-04	02	24.6	13.9V	1 413
1989	PB		1989	08	14.60637	23	41	31.24	-04	01	43.7	14.0V	1 413
1989	PB		1989	08	14.63612	23	41	33.39	-03	59	13.7	13.7V	1 413
1989	PB		1989	08	14.67720	23	41	36.39	-03	55	46.0	13.7V	1 413
1989	PB		1989	08	14.71227	23	41	38.98	-03	52	47.4	13.7V	1 413
1989	PB		1989	08	14.79553	23	41	45.46	-03	45	38.2	13.8V	1 413
1989	PB		1989	08	14.80574	23	41	46.30	-03	44	45.1	13.8V	1 413
1989	PB		1989	08	14.81567	23	41	47.10	-03	43	53.1	13.8V	1 413
1989	PB		1989	08	14.82314	23	41	47.80	-03	43	14.1	13.7V	1 413
1989	PB		1989	08	15.57931	23	43	20.19	-02	32	57.5		1 413
1989	PB		1989	08	15.64421	23	43	25.88	-02	26	27.4		1 413
1989	PB		1989	08	15.65984	23	43	27.30	-02	24	53.6		1 413
1989	PB		1989	08	15.67756	23	43	28.80	-02	23	05.0		1 413
1989	PB		1989	08	15.78643	23	43	38.57	-02	11	54.2		1 413
1989	PB		1989	08	15.81534	23	43	41.38	-02	08	53.6		1 413
1989	PB		1989	08	17.60310	23	48	08.34	+01	35	37.1		1 413
1989	PB		1989	08	17.82509	23	48	38.82	+02	10	00.9		1 413
1989	PB		1989	08	18.73200	23	51	42.55	+04	51	12.2		1 413

1989	PB	1989	08	20.63687	00	01	03.70	+13	05	31.3		413
1989	PB	1989	08	20.63826	00	01	04.06	+13	06	01.0		413
1989	PB	1989	08	22.71000	00	21	43.75	+29	35	26.8		413
1989	PB	1989	08	22.71500	00	21	47.99	+29	38	43.5		413
1989	PB	1989	08	22.79000	00	22	52.70	+30	28	11.4	1	413
1989	PB	1989	08	22.81000	00	23	10.72	+30	41	31.0	1	413
305		1989	03	02.53721	10	37	16.48	+03	03	39.9		413
305		1989	03	02.58929	10	37	14.11	+03	03	57.5		413
305		1989	03	04.69412	10	35	38.73	+03	16	29.5		413
549		1989	03	02.53721	10	42	31.64	+02	31	05.3		413
549		1989	03	02.58929	10	42	28.80	+02	31	18.1		413
639		1989	03	02.53721	10	39	21.47	-03	07	54.9		413
639		1989	03	02.58929	10	39	18.87	-03	07	42.9		413
639		1989	03	07.55749	10	35	25.70	-02	48	13.8		413
639		1989	03	07.60957	10	35	23.38	-02	48	01.9		413
657		1989	07	21.39811	15	15	36.16	-27	33	36.3		413
657		1989	07	25.40551	15	18	04.51	-27	18	08.0		413
705		1989	07	27.61299	21	34	25.30	-46	52	35.5		413
705		1989	07	27.67549	21	34	20.74	-46	52	42.8		413
705		1989	08	03.55926	21	25	48.76	-47	01	08.6		413
705		1989	08	03.68426	21	25	39.11	-47	01	11.6		413
705		1989	08	09.56295	21	18	06.97	-46	58	10.1		413
705		1989	08	09.62545	21	18	02.06	-46	58	04.5		413
855		1989	08	02.50311	19	32	34.35	-42	13	38.6		413
855		1989	08	03.53851	19	31	38.60	-42	08	15.7		413
859		1989	07	21.39811	15	27	27.72	-28	52	46.0		413
859		1989	07	25.40551	15	27	41.34	-28	51	03.8		413
1182		1989	07	21.39811	15	19	35.55	-31	14	21.7		413
1474		1989	08	02.50311	19	24	34.11	-43	04	41.5		413
1474		1989	08	03.52809	19	23	00.64	-42	56	40.4		413
1474		1989	08	03.54892	19	22	58.48	-42	56	29.2		413
1477		1981	09	20.46650	22	05	03.73	-02	42	45.5	16	413
1477		1981	09	20.51859	22	05	01.35	-02	42	46.8		413
1477		1981	09	20.53230	22	05	00.61	-02	42	47.7		413
1477		1981	09	20.60175	22	04	57.28	-02	42	49.7		413
1477		1989	03	02.53721	10	41	54.27	-01	13	25.6		413
1477		1989	03	02.58929	10	41	51.37	-01	13	21.6		413
1477		1989	03	04.69412	10	39	54.47	-01	10	09.3		413
1590		1989	03	02.53721	10	49	42.88	+00	09	13.4		413
1590		1989	03	02.58929	10	49	39.78	+00	09	34.0		413
1613		1989	07	21.39811	15	14	13.78	-27	22	26.9		413
1613		1989	07	25.40551	15	14	55.13	-27	12	48.9		413
1694		1989	07	21.39811	15	05	06.28	-30	44	13.9	17	413
1694		1989	07	25.40551	15	06	24.29	-30	37	31.4		413
1797		1989	08	09.64812	23	15	37.34	-09	43	48.9		413
1797		1989	08	09.70021	23	15	35.46	-09	44	00.0		413
1927		1989	08	02.50311	19	26	34.94	-41	34	16.9		413
1927		1989	08	03.53851	19	25	35.08	-41	32	59.1		413
2008		1989	07	27.61299	21	38	19.27	-43	20	06.0		413
2008		1989	07	27.67549	21	38	15.46	-43	20	16.4		413
2008		1989	08	03.55926	21	31	08.78	-43	36	32.2		413
2008		1989	08	03.68426	21	31	00.64	-43	36	43.6		413
2244		1989	08	02.57097	19	42	16.96	-24	03	52.5		413
2244		1989	08	02.60917	19	42	15.02	-24	04	00.9		413
2244		1989	08	03.50525	19	41	29.88	-24	07	47.4		413
2331		1989	03	02.53721	10	31	22.36	+01	18	49.1		413
2331		1989	03	02.58929	10	31	19.55	+01	19	05.7		413
2331		1989	03	04.69412	10	29	29.37	+01	30	51.6		413
2765		1977	08	10.45287	18	42	53.78	-39	13	27.8		413

2765		1977	08	10.51537	18	42	51.83	-39	13	11.3	413
2765		1983	06	12.75612	21	47	09.18	-26	05	00.5	413
2765		1989	08	09.64812	23	14	17.20	-08	49	39.7	413
2765		1989	08	09.70021	23	14	15.33	-08	49	42.5	413
2791		1989	07	25.44185	18	17	04.21	-60	45	34.1	I 413
2791		1989	07	25.50435	18	16	58.91	-60	44	44.3	413
2791		1989	07	26.52569	18	15	37.92	-60	31	21.1	413
2791		1989	07	26.54306	18	15	36.24	-60	31	07.2	413
2993		1989	03	02.53721	10	32	05.23	-00	01	45.1	413
2993		1989	03	02.58929	10	32	02.08	-00	01	36.9	413
2993		1989	03	04.69412	10	29	58.30	+00	04	07.3	413
3168		1989	08	02.50311	19	28	44.31	-38	22	02.1	413
3168		1989	08	03.53851	19	27	52.76	-38	20	34.1	413
3351		1988	03	10.54069	10	11	11.50	+02	11	55.1	r 413
3351		1988	03	13.50167	10	09	20.83	+02	31	23.7	413
3351		1988	03	13.58500	10	09	17.96	+02	31	52.4	413
3512		1979	08	14.55076	21	12	25.48	-22	16	17.4	413
3512		1979	08	14.59590	21	12	22.69	-22	16	40.5	413
3512		1986	08	01.74557	01	02	10.53	-03	11	29.9	413
3512		1986	08	01.78723	01	02	12.78	-03	11	31.6	413
3512		1989	08	02.57097	19	49	56.77	-23	08	55.3	413
3512		1989	08	02.60917	19	49	54.19	-23	09	08.5	413
3512		1989	08	03.50525	19	48	57.52	-23	14	39.0	413
3512		1989	08	03.51567	19	48	56.16	-23	14	46.3	413
3532		1981	10	04.57176	01	31	10.29	-01	31	18.1	413
3532		1981	10	04.63426	01	31	07.01	-01	31	27.7	413
3532		1981	10	04.64448	01	31	06.51	-01	31	30.0	413
3532		1981	10	04.69656	01	31	03.86	-01	31	38.3	413
3532		1985	06	11.64036	19	27	11.06	-32	19	46.8	413
3532		1985	06	11.70286	19	27	08.70	-32	20	05.0	413
3532		1985	06	11.71863	19	27	07.58	-32	20	14.3	413
3532		1989	06	25.40326	13	16	58.28	-04	00	54.7	413
3532		1989	06	25.43550	13	16	58.75	-04	01	04.9	413
3537		1989	06	26.36243	13	27	08.93	-09	50	35.1	413
3670		1989	08	02.57097	19	55	30.80	-23	24	54.9	413
3670		1989	08	02.60917	19	55	28.79	-23	25	03.4	413
3670		1989	08	03.50525	19	54	44.22	-23	28	51.9	413
3722		1989	03	07.55749	10	48	56.51	-02	43	49.8	413
3722		1989	03	07.60957	10	48	53.49	-02	43	28.3	413
3811		1989	07	21.39811	15	12	04.03	-31	48	19.1	413
3811		1989	07	25.40551	15	21	06.91	-31	33	58.2	413
3860		1989	03	02.53721	10	33	11.67	-00	44	49.7	413
3860		1989	03	02.58929	10	33	08.95	-00	44	37.7	413
3860		1989	03	04.69412	10	31	22.94	-00	36	27.7	413

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

1989	PB		1989	08	17.61493	23	48	07.42	+01	37	46.3 13 474
1989	PB		1989	08	17.63403	23	48	10.02	+01	40	40.8 474
1989	PB		1989	08	20.47744	00	00	07.95	+12	13	21.1 474
1989	PB		1989	08	20.49203	00	00	12.78	+12	18	04.1 474
1989	RA	*	1989	09	01.53392	22	42	34.85	-02	09	50.4 t 474
1989	RA		1989	09	01.57640	22	42	33.18	-02	10	23.9 t 474
1989	RA		1989	09	02.56807	22	41	57.37	-02	23	20.3 474
1989	RA		1989	09	02.57886	22	41	56.92	-02	23	29.5 474

1989 RA	1989 09 03.60013	22 41 19.80	-02 36 53.8			474
1989 RA	1989 09 03.61350	22 41 19.32	-02 37 04.8		17.4	474
4031	1988 04 15.54296	12 26 23.48	-19 26 12.5			474
4031	1988 04 15.56102	12 26 21.83	-19 26 13.2			474

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

1989 PB	1989 08 17.10357	23 46 43.67	+00 21 40.9			494
1989 PB	1989 08 17.11331	23 46 44.86	+00 22 59.0			494

503 Cambridge
J. D. Shanklin, 11 City Road, Cambridge, CB1 1DP, England
Observer J. D. Shanklin
0.44-m Schmidt

1989 PB	1989 08 17.09597	23 46 42.55	+00 20 39.3		12.5	503

511 Haute Provence
E. W. Elst, Royal Observatory, B-1180 Brussels, Belgium
Observers E. W. Elst, G. Sause
Measurer E. W. Elst
0.6-m Schmidt

2356	1989 07 09.98889	19 58 22.06	+01 01 10.5		17.0	511
2356	1989 07 10.00972	19 58 21.38	+01 01 06.7			511
2356	1989 07 10.02847	19 58 20.74	+01 01 02.5			511
2356	1989 07 11.00069	19 57 40.27	+00 59 27.2			511
2356	1989 07 11.02153	19 57 39.47	+00 59 24.7			511
2477	1989 07 08.05347	19 22 56.80	-10 45 26.7		16.5	511
2477	1989 07 08.07604	19 22 55.54	-10 45 26.8			511
2477	1989 07 08.09340	19 22 54.73	-10 45 25.0			511
2477	1989 07 09.00000	19 22 07.51	-10 46 01.4			511
2477	1989 07 09.02083	19 22 06.52	-10 46 01.0			511
3870	1989 07 09.98889	19 59 17.50	+01 45 19.3		16.5	511
3870	1989 07 10.00972	19 59 16.56	+01 45 16.8			511
3870	1989 07 10.02847	19 59 15.85	+01 45 15.5			511
3870	1989 07 11.00069	19 58 30.48	+01 44 45.2			511
3870	1989 07 11.02153	19 58 29.58	+01 44 44.2			511

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

1989 QE	1989 08 30.92118	23 07 42.25	-02 15 31.3		15.5	552
1989 QE	1989 08 30.94757	23 07 40.87	-02 15 31.9			552
1989 QE	1989 08 31.92639	23 06 50.10	-02 15 56.4		15.5	552
1989 QE	1989 08 31.94306	23 06 49.16	-02 15 56.9			552

568 Mauna Kea Observatory
D. J. Tholen, Institute for Astronomy, 2680 Woodlawn Drive, Honolulu, HI 96822, U.S.A.
Observer D. J. Tholen
2.24-m telescope encoders
SAOC

1580	1989 06 05.35650	12 31 18.76	-20 56 37.4		13.9V	568
1917	1989 06 04.54475	20 13 39.02	+21 28 30.6		17.1V	568
1917	1989 06 05.57840	20 14 16.31	+21 52 03.7		16.9V	568
1917	1989 07 25.57436	20 11 24.00	+38 59 16.7		15.6V	568

587 Sormano
P. Sicoli, Via Valli 9, I-22040 Garnagnate Monastero (Como), Italy
Observers M. Cavagna, P. Sicoli, G. Vospini
0.5-m f/8 reflector
SAOC

194		1989 04 30.89480	11 38 42.20	+14 17 52.0			587
194		1989 05 03.86587	11 37 57.27	+14 25 32.0			587
194		1989 05 05.87582	11 37 33.45	+14 29 33.1			587

657 Victoria, Climenhaga Observatory
J. B. Tatum, Dept. of Physics, University of Victoria, P.O. Box 1700, Victoria, BC V8W 2Y2, Canada
Observers J. B. Tatum, D. D. Balam

1980	FO3	1989 08 07.36719	23 30 13.34	-08 20 43.7			657
1980	FO3	1989 08 08.35458	23 29 48.82	-08 21 16.6			657
1980	FO3	1989 08 08.39764	23 29 47.65	-08 21 17.1			657
1980	JH	1989 08 04.31562	21 45 24.00	+07 13 08.2			657
1980	JH	1989 08 05.33299	21 44 44.66	+07 08 14.1			657
1980	JH	1989 08 08.30458	21 42 45.77	+06 51 57.4			657
1980	JH	1989 08 08.34069	21 42 44.19	+06 51 45.2			657
1980	JH	1989 08 26.32396	21 30 08.23	+04 19 49.3			657
1985	KA	1989 07 25.25771	21 35 20.91	+31 13 34.0			657
1985	KA	1989 07 25.27299	21 35 20.51	+31 13 50.0			657
1985	KA	1989 08 04.30521	21 29 12.63	+34 06 53.5			657
1985	KA	1989 08 05.28993	21 28 29.58	+34 20 33.8			657
1985	KA	1989 08 05.34201	21 28 27.22	+34 21 13.9			657
1985	KA	1989 08 09.31361	21 25 24.72	+35 09 14.6			657
1985	KA	1989 08 26.30729	21 12 11.50	+36 28 57.5			657
1989	OB	1989 08 09.30458	21 26 31.83	+01 28 34.9			657
1989	OB	1989 08 09.33306	21 26 31.82	+01 29 36.8			657
1989	PB	1989 08 08.35458	23 33 29.38	-09 41 18.1			657
1989	PB	1989 08 08.39764	23 33 31.36	-09 39 48.4			657
1989	PB	1989 08 12.44028	23 38 11.48	-06 35 37.0			657
102		1989 07 23.26597	17 04 48.01	-15 47 33.6			657
114		1989 07 22.28889	20 14 45.99	-14 37 58.6			657
370		1989 07 12.42993	00 04 01.27	+08 34 11.6			657
377		1989 06 25.27500	17 07 27.38	-14 40 37.3			657
421		1989 07 09.38021	23 01 23.24	+02 17 51.9			657
484		1989 05 05.27368	13 27 23.93	+10 52 46.5			657
484		1989 05 05.30840	13 27 22.38	+10 52 49.4			657
505		1989 05 13.37118	15 19 53.48	-08 56 04.8			657
581		1989 06 12.35417	17 37 35.17	-12 33 51.7			657
581		1989 06 12.39514	17 37 33.00	-12 34 02.4			657
597		1989 04 29.32326	14 33 04.15	-16 30 23.3			657
597		1989 04 29.35087	14 33 02.45	-16 30 22.3			657
1022		1989 04 30.24722	10 57 31.36	+33 26 14.5			657
1059		1989 05 13.37118	15 13 26.14	-08 40 41.7			657
1580		1989 04 28.42229	18 14 37.23	+63 03 25.5			657
1580		1989 05 04.29972	17 37 09.23	+62 19 21.0			657
1580		1989 05 04.35597	17 36 42.94	+62 18 36.4			657

673 Table Mountain Observatory
J. D. Mulholland, CERGA, Avenue Copernic, F-06130 Grasse, France

2153		1968 02 03.40608	10 24 36.54	+11 50 45.7		16	673
2153		1968 02 03.49010	10 24 32.97	+11 51 05.1			673

675 Palomar
J. Gibson, OAO Corporation and Jet Propulsion Laboratory, MS 238-332, Pasadena, CA 91109, U.S.A. (1)

E. Helin, MS 183-501, Jet Propulsion Laboratory, Pasadena, CA 91109, U.S.A. (2)
C. Shoemaker, P.O. Box 984, Flagstaff, AZ 86002, U.S.A. (3)
C. J. van Houten, Sterrewacht Leiden, Postbus 9513, NL-2300 RA Leiden, The Netherlands (4)
E. Bowell, Lowell Observatory, 1400 West Mars Hill Road, Flagstaff, AZ 86001, U.S.A. (6)
9 = 3 + 6
Observers T. Gehrels (4, L), J. Gibson (1, C), E. Helin (2, S), H. E. Holt (3, S), H. R. Holt (3, S), C. Kowal (6, L), A. Mejia (2, S), C. Mikolajczak (2, S), B. Roman (2, S), E. M. Shoemaker (3, S), C. S. Shoemaker (3, S), N. G. Thomas (6, S), K. W. Zeigler (6, S)
Measurers J. Alu (2), J. Gibson (1), A. Mejia (2), C. Mikolajczak (2), B. Roman (2), C. S. Shoemaker (3), C. J. van Houten (4), I. van Houten-Groeneveld (4), A. Wisse (4)
1.5-m reflector + CCD (C), 1.2-m (L) and 0.46-m (S) Schmidt telescopes

1964 UP	1989 08 01.30677	19 58 15.66	-20 06 36.3		16.2	9	675
1964 UP	1989 08 01.33646	19 58 13.94	-20 06 38.5			9	675
1968 OC1	1989 07 07.39167	21 02 56.86	-06 53 06.5		17.2	9	675
1968 OC1	1989 07 07.42708	21 02 55.74	-06 53 02.2			9	675
1975 ED	1989 07 29.33960	20 30 24.60	-16 09 03.6		16.8	9	675
1975 ED	1989 07 29.37066	20 30 22.55	-16 09 09.7			9	675
1975 ED	1989 08 01.30677	20 27 17.19	-16 17 25.6		16.0	9	675
1975 ED	1989 08 01.31406	20 27 17.14	-16 17 24.6		16.8	9	675
1975 ED	1989 08 01.33646	20 27 15.26	-16 17 28.9			9	675
1975 ED	1989 08 01.34478	20 27 15.22	-16 17 28.3			9	675
1979 SK	1989 07 10.33190	19 56 08.73	-21 21 23.3		17.5	9	675
1979 SK	1989 07 10.36806	19 56 06.48	-21 21 23.4			9	675
1979 SK	1989 08 02.26042	19 32 44.16	-21 21 23.6		17.6	9	675
1979 SK	1989 08 02.29066	19 32 42.25	-21 21 25.8			9	675
1980 TX3	1989 08 01.30677	19 59 37.20	-18 11 39.1		17.8	9	675
1980 TX3	1989 08 01.33646	19 59 35.67	-18 11 44.5			9	675
1981 EW17	1978 06 10.30764	16 24 08.13	-19 57 55.3			6	675
1981 EW17	1978 06 10.35972	16 24 04.82	-19 57 47.4			6	675
1981 ER27	1979 10 18.36667	01 46 59.59	+17 44 16.8			6	675
1981 ER27	1979 10 18.41875	01 46 56.19	+17 44 15.0			6	675
1981 EG28	1989 07 07.29896	19 36 32.53	-12 28 33.8		17.8	9	675
1981 EG28	1989 07 07.33299	19 36 30.52	-12 28 37.8			9	675
1981 ES35	1978 10 04.35799	00 55 52.23	+09 43 04.9			6	675
1981 ET42	1989 07 29.33960	20 44 29.56	-19 51 21.1		17.2	9	675
1981 ET42	1989 07 29.37066	20 44 27.72	-19 51 24.7			9	675
1981 EX46	1979 12 20.36250	06 41 13.39	+22 25 58.8			6	675
1981 EX46	1979 12 20.41458	06 41 10.76	+22 26 01.6			6	675
1983 CE	1989 08 01.44844	23 35 25.41	-14 45 52.8		17.4	3	675
1983 CE	1989 08 02.44670	23 35 09.31	-14 54 04.6			3	675
1985 JK1	1989 07 06.35399	19 55 35.59	-20 16 44.8		17.0	9	675
1985 JK1	1989 07 06.38056	19 55 34.12	-20 16 53.0			9	675
1985 JK1	1989 07 10.36806	19 51 58.84	-20 36 18.2		17.0	9	675
1985 JK1	1989 08 02.26042	19 31 27.64	-22 20 05.3		17.0	9	675
1985 JK1	1989 08 02.29066	19 31 26.25	-22 20 16.6			9	675
1985 QO6	1989 07 06.35399	19 48 43.69	-17 31 12.0		17.0	9	675
1985 QO6	1989 07 06.38056	19 48 42.39	-17 31 16.9			9	675
1985 QO6	1989 08 02.26042	19 25 54.75	-19 20 00.1		17.0	9	675
1985 QO6	1989 08 02.29066	19 25 53.63	-19 20 02.5			9	675
1985 RG4	1989 07 29.27569	20 00 16.02	-05 29 10.1		17.2	9	675
1985 RG4	1989 07 29.30781	20 00 14.21	-05 29 25.7			9	675
1985 RG4	1989 08 01.32882	19 57 48.77	-05 53 37.0			9	675
1985 VE1	1989 07 07.29896	19 27 42.80	-19 10 53.2		17.2	9	675
1985 VE1	1989 07 07.33299	19 27 40.85	-19 10 56.2			9	675

1986	RO1		1989	07	06.35399	19	31	13.79	-22	01	04.9	17.2	9 675
1986	RO1		1989	07	06.38056	19	31	11.29	-22	01	07.7		9 675
1986	TC1		1989	08	01.30677	20	07	34.14	-18	01	00.5	17.5	9 675
1986	TC1		1989	08	01.33646	20	07	32.21	-18	01	09.9		9 675
1987	DS		1989	07	06.35399	19	55	01.15	-20	45	40.5	17.5	9 675
1987	DS		1989	07	06.38056	19	54	59.73	-20	45	44.2		9 675
1987	DS		1989	07	10.33190	19	51	57.43	-20	56	02.1	17.5	9 675
1987	DS		1989	07	10.36806	19	51	56.09	-20	56	06.9		9 675
1987	DY5		1989	07	08.41024	20	28	54.17	-09	15	13.1	17.5	9 675
1987	DY5		1989	07	08.45087	20	28	52.25	-09	15	21.3		9 675
1987	DY5		1989	08	01.29931	20	11	12.11	-10	57	02.2	17.5	9 675
1987	DY5		1989	08	01.32882	20	11	10.75	-10	57	11.1		9 675
1987	DS6		1989	08	01.29931	20	20	33.48	-08	59	16.3	18.0	9 675
1987	DS6		1989	08	01.32882	20	20	32.15	-08	59	23.0		9 675
1987	SS1		1988	10	22.46394	07	58	03.56	+03	18	58.3		1 675
1987	SS1		1988	10	22.47000	07	58	03.78	+03	18	55.5		1 675
1987	SS1		1988	10	22.47648	07	58	03.96	+03	18	52.9		1 675
1987	SS1		1988	12	07.43534	08	03	30.97	-01	52	56.7		1 675
1987	SS1		1988	12	07.44192	08	03	30.83	-01	52	58.8		1 675
1987	SS1		1988	12	07.44995	08	03	30.65	-01	53	01.1		1 675
1987	SS1		1988	12	20.38067	07	57	06.99	-02	42	02.6		1 675
1987	SS1		1988	12	20.38542	07	57	06.81	-02	42	03.5		1 675
1987	SS1		1988	12	20.39725	07	57	06.37	-02	42	05.1		1 675
1987	SS1		1989	02	16.31716	07	17	15.43	-00	38	33.2		1 675
1987	SS1		1989	02	16.32314	07	17	15.32	-00	38	31.7		1 675
1987	SS1		1989	02	16.33166	07	17	15.06	-00	38	27.9		1 675
1987	SS1		1989	02	16.37366	07	17	14.09	-00	38	14.0		1 675
1987	SS1		1989	02	17.27155	07	16	53.38	-00	33	10.6		1 675
1987	SS1		1989	02	17.27760	07	16	53.23	-00	33	08.7		1 675
1987	SS1		1989	02	17.28481	07	16	53.07	-00	33	06.1		1 675
1988	AF5		1989	07	29.27569	20	05	26.23	-11	33	53.0	17.2	9 675
1988	AF5		1989	07	29.30781	20	05	24.55	-11	34	00.7		9 675
1988	AF5		1989	08	01.29931	20	02	45.95	-11	47	11.1	17.2	9 675
1988	AF5		1989	08	01.32882	20	02	44.47	-11	47	19.6		9 675
1988	BB4		1989	07	10.33190	19	38	05.18	-17	34	20.9	17.0	9 675
1988	BB4		1989	07	10.36806	19	38	02.69	-17	34	22.5		9 675
1988	EC		1989	08	10.38316	23	35	22.13	-08	22	52.5	16.2	2 675
1988	EC		1989	08	10.42552	23	35	19.70	-08	22	24.1		2 675
1988	EC		1989	08	11.36528	23	34	26.39	-08	11	56.6		2 675
1988	EC		1989	08	11.47396	23	34	19.63	-08	10	42.4		2 675
1989	AZ		1989	02	15.27716	08	10	35.29	+01	19	27.0		1 675
1989	AZ		1989	02	15.28307	08	10	35.11	+01	19	26.3		1 675
1989	AZ		1989	02	15.28998	08	10	34.90	+01	19	25.2		1 675
1989	AZ		1989	02	16.28834	08	10	13.55	+01	17	22.2		1 675
1989	AZ		1989	02	16.29911	08	10	13.27	+01	17	21.0		1 675
1989	EY4		1989	01	09.36145	08	27	00.53	+12	33	44.4	17.8	3 675
1989	EY4		1989	01	09.39531	08	26	59.46	+12	33	45.8		3 675
1989	EY4		1989	02	02.21336	08	13	23.29	+12	47	26.9	17.5	3 675
1989	EY4		1989	02	02.24791	08	13	22.18	+12	47	28.4		3 675
1989	FB		1989	05	01.19531	11	27	00.32	-03	48	49.2		2 675
1989	FW		1989	03	29.27483	11	39	29.94	+22	54	10.1	16.8	9 675
1989	FW		1989	03	29.30781	11	39	28.33	+22	54	17.6		9 675
1989	FA1		1989	03	30.29219	12	49	18.82	+06	41	51.0	17.2	9 675
1989	FA1		1989	03	30.32483	12	49	16.68	+06	41	59.3		9 675
1989	FD1	*	1989	03	29.27483	11	50	47.78	+17	08	26.3	17.2	9 675
1989	FD1		1989	03	29.30781	11	50	45.91	+17	08	28.3		9 675
1989	FE1	*	1989	03	30.29219	12	36	35.10	+08	03	38.7	16.8	9 675
1989	FE1		1989	03	30.32483	12	36	33.65	+08	03	50.4		9 675
1989	FE1		1989	04	03.35313	12	33	42.33	+08	26	05.4	16.8	9 675

1989	FE1		1989	04	03.38056	12	33	41.12	+08	26	13.4	9 675
1989	GZ7	*	1989	04	03.35313	12	55	57.53	+08	10	34.3	17.5 9 675
1989	GZ7		1989	04	03.38056	12	55	56.10	+08	10	44.9	9 675
1989	GF8		1989	03	30.29219	12	40	29.68	+03	55	24.3	17.8 9 675
1989	GF8		1989	03	30.32483	12	40	27.85	+03	55	30.2	9 675
1989	KA		1989	07	29.20469	16	12	12.17	-15	44	49.6	16.8 9 675
1989	KA		1989	07	29.24583	16	12	13.98	-15	44	54.7	9 675
1989	KB		1989	07	05.28298	15	32	46.86	-17	21	58.8	3 675
1989	KB		1989	07	08.22986	15	31	22.44	-18	03	28.0	15.8 3 675
1989	KB		1989	07	29.18993	15	31	35.97	-22	54	07.8	17.0 9 675
1989	KB		1989	07	29.23038	15	31	36.88	-22	54	40.7	9 675
1989	KD		1989	07	29.20469	15	51	42.93	-12	55	12.6	17.2 9 675
1989	KD		1989	07	29.24583	15	51	43.42	-12	55	30.0	9 675
1989	KG		1989	07	29.18177	15	02	19.41	-01	41	26.7	17.5 9 675
1989	KG		1989	07	29.22292	15	02	20.95	-01	41	44.6	9 675
1989	KK		1989	07	06.20955	16	14	21.90	-03	34	36.5	18.0 9 675
1989	KK		1989	07	11.29861	16	13	30.29	-03	45	47.5	17.5 9 675
1989	KK		1989	07	11.36997	16	13	29.77	-03	45	56.5	9 675
1989	KK		1989	07	29.19722	16	16	00.58	-04	54	56.3	17.5 9 675
1989	KK		1989	07	29.23853	16	16	01.44	-04	55	08.9	9 675
1989	KL		1989	07	06.19965	15	47	04.10	+00	14	16.5	17.0 9 675
1989	KL		1989	07	06.23576	15	47	04.32	+00	14	00.5	9 675
1989	KL		1989	07	10.23438	15	48	01.27	-00	13	28.5	17.2 9 675
1989	KL		1989	07	10.30469	15	48	02.37	-00	13	59.7	9 675
1989	LS		1989	06	29.23837	16	01	50.95	-20	17	33.6	2 675
1989	LS		1989	07	01.23542	16	01	29.76	-20	09	43.7	2 675
1989	LS		1989	07	01.25799	16	01	29.43	-20	09	39.4	2 675
1989	MA		1989	08	08.21250	17	47	40.46	-05	19	02.8	15.7 2 675
1989	MA		1989	08	09.22743	17	47	38.85	-05	43	54.5	2 675
1989	MA		1989	08	09.24740	17	47	38.79	-05	44	23.7	2 675
1989	NE		1989	07	29.27569	20	02	35.54	-11	37	44.6	17.2 9 675
1989	NE		1989	07	29.30781	20	02	33.91	-11	38	11.8	9 675
1989	NJ		1989	08	09.27865	18	56	31.58	-06	53	48.0	16.5 2 675
1989	NJ		1989	08	09.30139	18	56	31.03	-06	53	54.3	2 675
1989	NJ		1989	08	11.31076	18	55	51.10	-07	03	41.3	2 675
1989	NJ		1989	08	11.32847	18	55	50.80	-07	03	47.3	2 675
1989	NM		1989	08	09.31354	19	58	24.57	-27	45	55.5	16.5 2 675
1989	NM		1989	08	09.33646	19	58	23.57	-27	46	02.4	2 675
1989	NM		1989	08	11.37465	19	56	57.85	-27	56	44.2	2 675
1989	NM		1989	08	11.39618	19	56	57.02	-27	56	52.7	2 675
1989	NO		1989	08	09.31354	19	58	41.42	-27	54	18.6	16.5 2 675
1989	NO		1989	08	09.33646	19	58	40.51	-27	54	13.2	2 675
1989	NO		1989	08	11.37465	19	57	02.58	-27	49	43.7	2 675
1989	NO		1989	08	11.39618	19	57	01.52	-27	49	41.9	2 675
1989	NR		1989	08	09.32517	20	07	54.97	-21	16	24.6	16.5 3 675
1989	NR		1989	08	09.34774	20	07	53.35	-21	16	19.4	3 675
1989	NR		1989	08	11.26441	20	05	56.43	-21	08	48.0	3 675
1989	NR		1989	08	11.28299	20	05	55.26	-21	08	44.7	3 675
1989	NX		1989	07	29.27569	20	12	15.05	-09	10	55.4	15.0 9 675
1989	NX		1989	07	29.30781	20	12	13.39	-09	12	00.1	9 675
1989	NX		1989	08	01.29931	20	09	55.56	-10	52	43.1	16.0 9 675
1989	NX		1989	08	01.32882	20	09	54.06	-10	53	42.9	9 675
1989	NX		1989	08	09.31944	20	04	13.12	-15	26	06.8	14.7 2 675
1989	NX		1989	08	09.34219	20	04	12.14	-15	26	52.4	2 675
1989	NX		1989	08	11.27708	20	03	00.30	-16	31	56.7	2 675
1989	NX		1989	08	11.29462	20	02	59.48	-16	32	33.5	2 675
1989	NB1		1989	08	09.31944	19	58	18.86	-15	26	29.8	16.0 2 675
1989	NB1		1989	08	09.34219	19	58	17.98	-15	26	41.1	2 675
1989	NB1		1989	08	11.27708	19	57	04.39	-15	43	25.5	2 675

1989	NB1		1989	08	11.29462	19	57	03.75	-15	43	34.2	2 675
1989	NF1	*	1989	07	07.30729	20	07	29.30	-08	32	24.5	16.2 9 675
1989	NF1		1989	07	07.34167	20	07	27.76	-08	32	15.3	9 675
1989	NF1		1989	07	09.28333	20	06	04.78	-08	23	11.0	16.2 9 675
1989	NF1		1989	07	09.32760	20	06	02.57	-08	22	59.1	9 675
1989	NG1		1989	07	07.30729	20	11	38.11	-08	31	28.1	16.5 9 675
1989	NG1		1989	07	07.34167	20	11	36.54	-08	31	25.9	9 675
1989	NG1	*	1989	07	09.28333	20	10	10.78	-08	30	21.5	16.8 9 675
1989	NG1		1989	07	09.32760	20	10	08.73	-08	30	21.1	9 675
1989	NG1		1989	07	29.27569	19	54	11.70	-08	43	03.3	17.2 9 675
1989	NG1		1989	07	29.30781	19	54	10.15	-08	43	06.3	9 675
1989	NG1		1989	08	01.29931	19	51	49.73	-08	48	15.3	17.5 9 675
1989	NG1		1989	08	01.32882	19	51	48.33	-08	48	18.5	9 675
1989	NH1		1989	07	06.35399	19	36	25.46	-18	36	08.1	16.8 9 675
1989	NH1		1989	07	06.38056	19	36	24.09	-18	36	19.0	9 675
1989	NH1		1989	07	07.29896	19	35	42.23	-18	43	38.5	16.8 9 675
1989	NH1		1989	07	07.33299	19	35	40.57	-18	43	55.6	9 675
1989	NH1	*	1989	07	10.33190	19	33	17.50	-19	08	38.7	16.5 9 675
1989	NH1		1989	07	10.36806	19	33	15.59	-19	08	57.6	9 675
1989	NH1		1989	08	02.26042	19	16	03.28	-22	20	23.9	16.8 9 675
1989	NH1		1989	08	02.29066	19	16	02.13	-22	20	37.2	9 675
1989	NJ1		1989	07	07.29896	19	37	57.78	-18	41	53.3	17.0 9 675
1989	NJ1		1989	07	07.33299	19	37	55.78	-18	41	58.1	9 675
1989	NJ1	*	1989	07	10.33190	19	35	21.75	-18	48	23.4	17.5 9 675
1989	NJ1		1989	07	10.36806	19	35	19.85	-18	48	24.1	9 675
1989	NK1		1989	07	06.35399	19	45	23.59	-18	21	37.5	16.2 9 675
1989	NK1		1989	07	06.38056	19	45	21.82	-18	21	47.0	9 675
1989	NK1	*	1989	07	10.33190	19	41	22.26	-18	50	53.7	16.2 9 675
1989	NK1		1989	07	10.36806	19	41	19.90	-18	51	09.5	9 675
1989	NK1		1989	08	02.26042	19	16	12.68	-21	53	46.1	16.5 9 675
1989	NK1		1989	08	02.29066	19	16	10.68	-21	54	00.2	9 675
1989	NL1	*	1989	07	10.35053	20	30	34.51	-10	16	25.7	17.2 9 675
1989	NL1		1989	07	10.38698	20	30	33.54	-10	16	46.5	9 675
1989	NL1		1989	08	01.31406	20	17	18.20	-14	49	46.3	17.2 9 675
1989	NL1		1989	08	01.34478	20	17	16.62	-14	49	52.4	9 675
1989	OB		1989	07	07.40052	21	15	53.07	-13	16	39.8	18.5 3 675
1989	OB		1989	07	07.43438	21	15	54.20	-13	16	01.7	3 675
1989	OB		1989	07	31.39844	21	25	30.20	-03	27	19.9	3 675
1989	OB		1989	08	01.41302	21	25	39.46	-02	55	43.1	3 675
1989	OB		1989	08	02.37204	21	25	48.14	-02	25	19.7	3 675
1989	OB		1989	08	28.16389	21	29	38.62	+13	33	08.9	15.5 2 675
1989	OB		1989	08	28.18351	21	29	38.89	+13	33	56.1	2 675
1989	OK	*	1989	07	29.27569	20	11	35.52	-10	35	28.4	17.8 9 675
1989	OK		1989	07	29.30781	20	11	33.74	-10	35	30.9	9 675
1989	PA		1989	07	07.42708	20	53	15.27	-05	10	58.9	3 675
1989	PA		1989	07	09.36927	20	51	03.23	-04	42	09.2	16.7 3 675
1989	PA		1989	07	09.40590	20	51	00.57	-04	41	35.1	3 675
1989	PA	*	1989	08	02.32170	20	16	43.61	+00	27	25.5	16.5 3 675
1989	PA		1989	08	02.35121	20	16	40.80	+00	27	43.4	3 675
1989	PB		1989	08	01.44844	23	27	02.24	-12	36	43.3	16 3 675
1989	PB		1989	08	02.44670	23	27	55.57	-12	17	26.1	3 675
1989	PB		1989	08	02.47395	23	27	56.59	-12	16	56.2	3 675
1989	PB	*	1989	08	09.41771	23	34	35.06	-09	01	32.5	15.0 2 675
1989	PB		1989	08	10.38316	23	35	39.94	-08	20	52.1	2 675
1989	PB		1989	08	11.36528	23	36	49.88	-07	34	12.2	15.0 2 675
1989	PB		1989	08	11.47396	23	36	55.39	-07	28	39.7	2 675
1989	PC		1989	07	08.41024	20	45	03.51	-08	43	57.8	15.8 9 675
1989	PC		1989	07	08.41858	20	45	03.44	-08	44	07.1	9 675
1989	PC		1989	07	08.45799	20	45	02.52	-08	44	48.2	9 675

1989	PC		1989	07	10.35053	20	44	19.36	-09	17	19.4	16.0	9 675
1989	PC		1989	07	10.38698	20	44	18.36	-09	17	57.9		9 675
1989	PC		1989	07	29.31580	20	33	14.91	-15	48	00.0	16.8	9 675
1989	PC		1989	07	29.33960	20	33	13.72	-15	48	35.2	15.2	9 675
1989	PC		1989	07	29.34774	20	33	13.41	-15	48	42.4		9 675
1989	PC		1989	07	29.37066	20	33	12.33	-15	49	16.1		9 675
1989	PC		1989	08	01.30677	20	31	06.93	-16	56	23.2	15.5	9 675
1989	PC		1989	08	01.31406	20	31	06.98	-16	56	29.2	15.8	9 675
1989	PC		1989	08	01.33646	20	31	05.47	-16	57	01.7		9 675
1989	PC		1989	08	01.34478	20	31	05.59	-16	57	08.9		9 675
1989	PC	*	1989	08	09.33073	20	25	27.91	-20	00	12.1	14.0	2 675
1989	PC		1989	08	09.35347	20	25	26.97	-20	00	43.1		2 675
1989	PC		1989	08	11.27083	20	24	10.78	-20	43	51.2		2 675
1989	PC		1989	08	11.28889	20	24	10.04	-20	44	16.0		2 675
1989	PE	*	1989	08	09.38750	23	39	02.12	-07	08	47.1	16.8	2 675
1989	PE		1989	08	09.41771	23	39	01.79	-07	09	32.8		2 675
1989	PE		1989	08	10.39774	23	38	54.09	-07	34	21.1		2 675
1989	PF	*	1989	08	09.38750	23	43	19.39	-07	44	51.2	16.0	2 675
1989	PF		1989	08	09.41771	23	43	19.50	-07	45	17.6		2 675
1989	PF		1989	08	10.39774	23	43	23.68	-07	59	39.7		2 675
1989	PG	*	1989	08	09.31354	20	12	23.13	-23	47	04.5	15.0	2 675
1989	PG		1989	08	09.33646	20	12	22.45	-23	47	22.4		2 675
1989	PG		1989	08	11.37465	20	11	32.12	-24	13	52.2		2 675
1989	PG		1989	08	11.39618	20	11	31.50	-24	14	08.7		2 675
1989	PH	*	1989	08	09.33073	20	14	34.25	-17	22	19.6	16.5	2 675
1989	PH		1989	08	09.35347	20	14	33.57	-17	22	37.6		2 675
1989	PH		1989	08	11.27083	20	13	41.76	-17	51	05.2		2 675
1989	PH		1989	08	11.28889	20	13	41.23	-17	51	21.1		2 675
1989	PJ	*	1989	08	09.38056	23	20	45.90	-04	20	28.9	16.7	2 675
1989	PJ		1989	08	09.40903	23	20	45.68	-04	20	43.5		2 675
1989	PJ		1989	08	10.39115	23	20	41.35	-04	30	35.3		2 675
1989	PK	*	1989	08	09.43194	00	45	49.11	+18	01	38.9	16.5	2 675
1989	PK		1989	08	09.45035	00	45	49.23	+18	02	04.2		2 675
1989	PK		1989	08	10.41123	00	45	57.53	+18	24	00.9		2 675
1989	PL		1989	07	29.27569	20	03	14.40	-08	11	42.2	17.8	9 675
1989	PL		1989	07	29.30781	20	03	12.95	-08	11	51.5		9 675
1989	PL	*	1989	08	01.29931	20	01	27.13	-07	55	58.9	17.8	9 675
1989	PL		1989	08	01.32882	20	01	24.42	-07	55	47.8		9 675
1989	PM		1989	07	29.27569	20	20	19.54	-06	30	48.1	17.5	9 675
1989	PM		1989	07	29.30781	20	20	17.77	-06	30	47.9		9 675
1989	PM	*	1989	08	01.29931	20	17	33.19	-06	32	04.2	17.5	9 675
1989	PM		1989	08	01.32882	20	17	31.58	-06	32	06.8		9 675
1989	PN		1989	07	29.33960	20	32	26.36	-21	11	44.3	17.5	9 675
1989	PN		1989	07	29.37066	20	32	24.94	-21	11	40.2		9 675
1989	PN	*	1989	08	01.30677	20	29	38.22	-21	10	47.9	17.8	9 675
1989	PN		1989	08	01.33646	20	29	35.43	-21	10	46.8		9 675
1989	PO		1989	07	29.33960	20	32	20.27	-18	39	12.4	17.2	9 675
1989	PO		1989	07	29.37066	20	32	18.83	-18	39	26.7		9 675
1989	PO	*	1989	08	01.30677	20	30	00.27	-19	02	16.9	17.2	9 675
1989	PO		1989	08	01.33646	20	29	58.88	-19	02	32.4		9 675
1989	PP		1989	07	29.31580	20	29	15.46	-12	34	46.2	16.8	9 675
1989	PP		1989	07	29.34774	20	29	13.52	-12	34	43.7		9 675
1989	PP	*	1989	08	01.31406	20	26	17.60	-12	33	30.8	16.8	9 675
1989	PP		1989	08	01.34478	20	26	15.80	-12	33	30.3		9 675
1989	PQ		1989	07	29.31580	20	31	08.95	-10	03	35.0	17.2	9 675
1989	PQ		1989	07	29.34774	20	31	07.21	-10	03	24.2		9 675
1989	PQ	*	1989	08	01.31406	20	28	29.91	-09	53	57.0	16.8	9 675
1989	PQ		1989	08	01.34478	20	28	28.18	-09	53	52.0		9 675
1989	PR		1989	07	29.31580	20	33	49.16	-16	08	51.8	18.0	9 675

1989	PR		1989	07	29.34774	20	33	47.76	-16	08	57.8	9 675
1989	PR	*	1989	08	01.31406	20	31	13.87	-16	21	26.9	17.0 9 675
1989	PR		1989	08	01.34478	20	31	12.21	-16	21	32.5	9 675
1989	PS	*	1989	08	09.36424	22	04	43.47	-06	13	04.7	16.7 2 675
1989	PS		1989	08	09.39601	22	04	41.87	-06	13	07.9	2 675
1989	PS		1989	08	11.42292	22	03	07.80	-06	14	59.0	2 675
1989	PS		1989	08	11.44045	22	03	06.97	-06	15	00.1	2 675
1989	PT	*	1989	08	09.38056	23	19	37.03	-06	08	19.8	16.7 2 675
1989	PT		1989	08	09.40903	23	19	36.52	-06	08	33.1	2 675
1989	PT		1989	08	10.39115	23	19	14.56	-06	15	59.6	2 675
1989	QF	*	1989	08	31.40503	00	14	29.17	+00	16	29.5	17 3 675
1989	QF		1989	09	01.36631	00	09	06.47	+00	00	50.5	3 675
1989	QF		1989	09	04.40920	23	53	10.98	-00	46	12.9	3 675
1989	QF		1989	09	05.30347	23	48	51.85	-00	59	14.1	16.0 2 675
1989	QF		1989	09	05.42483	23	48	15.39	-01	00	54.0	2 675
2040	P-L	*	1960	09	24.45000	00	48	59.76	+06	31	11.4	18.3 4 675
2040	P-L		1960	09	26.37010	00	47	12.48	+06	32	41.1	4 675
2040	P-L		1960	09	28.45140	00	45	12.59	+06	33	51.0	4 675
2040	P-L		1960	09	29.44510	00	44	14.84	+06	34	16.0	4 675
2040	P-L		1960	10	17.30420	00	27	56.90	+06	34	00.5	4 675
2040	P-L		1960	10	22.27920	00	24	33.74	+06	34	52.8	4 675
2040	P-L		1960	10	25.37570	00	22	51.67	+06	36	25.0	4 675
2040	P-L		1960	10	26.36840	00	22	23.39	+06	37	06.3	4 675
2113	P-L	*	1960	09	24.42500	00	44	57.79	+08	24	55.2	19.7 4 675
2113	P-L		1960	09	24.45000	00	44	56.55	+08	24	47.0	4 675
2113	P-L		1960	09	26.34653	00	43	28.85	+08	13	17.8	4 675
2113	P-L		1960	09	26.37010	00	43	27.60	+08	13	09.5	4 675
2113	P-L		1960	09	28.42778	00	41	50.03	+08	00	17.0	4 675
2113	P-L		1960	09	28.45140	00	41	48.77	+08	00	07.6	4 675
2113	P-L		1960	09	29.44510	00	41	01.28	+07	53	46.8	4 675
2113	P-L		1960	10	17.30420	00	27	03.48	+05	53	52.7	4 675
2514	P-L	*	1960	09	24.46184	00	46	24.28	+04	23	07.4	19.5 4 675
2514	P-L		1960	09	26.37988	00	44	25.14	+04	24	51.6	4 675
2514	P-L		1960	09	28.43822	00	42	15.29	+04	26	31.6	4 675
2514	P-L		1960	09	29.39514	00	41	14.67	+04	27	15.4	4 675
2514	P-L		1960	10	17.30420	00	23	06.17	+04	39	48.3	4 675
2514	P-L		1960	10	22.27920	00	18	54.57	+04	44	56.0	4 675
2514	P-L		1960	10	26.36840	00	15	55.04	+04	50	20.2	4 675
2841	P-L	*	1960	09	24.43750	00	42	05.19	+04	28	47.7	20.0 4 675
2841	P-L		1960	09	24.46184	00	42	03.56	+04	28	41.5	4 675
2841	P-L		1960	09	26.35694	00	40	02.91	+04	20	35.8	4 675
2841	P-L		1960	09	26.37988	00	40	01.41	+04	20	29.9	4 675
2841	P-L		1960	09	28.41742	00	37	50.10	+04	11	38.1	4 675
2841	P-L		1960	09	28.43822	00	37	48.46	+04	11	32.9	4 675
2841	P-L		1960	09	29.39514	00	36	46.91	+04	07	21.6	4 675
3051	P-L	*	1960	09	24.27708	00	23	06.13	+17	33	24.2	17.4 4 675
3051	P-L		1960	09	24.36250	00	23	01.97	+17	32	36.3	4 675
3051	P-L		1960	09	25.36042	00	22	15.13	+17	23	16.7	4 675
3051	P-L		1960	09	25.46250	00	22	10.09	+17	22	18.5	4 675
3051	P-L		1960	09	26.24514	00	21	33.74	+17	14	50.0	4 675
3051	P-L		1960	09	26.40208	00	21	26.08	+17	13	18.3	4 675
3051	P-L		1960	09	27.44444	00	20	36.79	+17	03	06.8	4 675
3051	P-L		1960	09	28.40764	00	19	51.64	+16	53	31.9	4 675
3051	P-L		1960	09	28.46181	00	19	48.91	+16	52	59.4	4 675
3051	P-L		1960	09	29.34722	00	19	07.63	+16	43	59.6	4 675
3051	P-L		1960	10	17.17917	00	06	43.29	+13	25	46.1	4 675
3051	P-L		1960	10	17.33750	00	06	37.63	+13	24	00.6	4 675
3051	P-L		1960	10	22.12083	00	04	13.49	+12	30	10.6	4 675
3051	P-L		1960	10	24.21256	00	03	20.27	+12	07	14.7	4 675

3051	P-L		1960	10	26.28264	00	02	33.86	+11	45	01.9	4 675
6035	P-L	*	1960	09	24.33613	00	02	26.70	+00	50	03.2	17.4 4 675
6035	P-L		1960	09	25.32502	00	01	25.05	+00	49	38.9	4 675
6035	P-L		1960	09	26.27573	00	00	26.07	+00	49	14.5	4 675
6035	P-L		1960	09	28.32780	23	58	19.85	+00	48	24.4	4 675
6035	P-L		1960	10	24.18787	23	38	02.99	+00	55	33.6	4 675
6035	P-L		1960	10	26.26113	23	37	08.42	+00	58	32.0	4 675
6193	P-L	*	1960	09	24.33613	23	54	14.91	+03	51	33.5	19.3 4 675
6193	P-L		1960	09	25.32502	23	53	33.24	+03	40	11.2	4 675
6193	P-L		1960	09	26.27573	23	52	53.41	+03	29	13.0	4 675
6193	P-L		1960	09	28.32780	23	51	28.41	+03	05	36.1	4 675
6193	P-L		1960	10	22.15559	23	39	27.94	-00	59	11.0	4 675
6385	P-L	*	1960	09	24.31111	00	00	22.61	+00	10	40.3	19.5 4 675
6385	P-L		1960	09	24.33613	00	00	21.24	+00	10	29.1	4 675
6385	P-L		1960	09	26.26528	23	58	49.08	-00	02	52.8	4 675
6385	P-L		1960	09	26.28543	23	58	48.06	-00	03	01.6	4 675
6385	P-L		1960	09	27.30972	23	57	59.31	-00	10	08.1	4 675
6385	P-L		1960	09	27.34237	23	57	57.80	-00	10	20.6	4 675
6385	P-L		1960	09	28.31736	23	57	11.43	-00	17	06.6	4 675
6385	P-L		1960	09	28.33822	23	57	10.41	-00	17	15.6	4 675
6387	P-L	*	1960	09	24.31111	00	05	26.70	+00	11	45.6	19.0 4 675
6387	P-L		1960	09	24.33613	00	05	25.42	+00	11	33.0	4 675
6387	P-L		1960	09	26.26528	00	03	54.48	-00	03	45.9	4 675
6387	P-L		1960	09	26.28543	00	03	53.46	-00	03	57.9	4 675
6387	P-L		1960	09	27.30972	00	03	05.13	-00	12	06.2	4 675
6387	P-L		1960	09	27.34237	00	03	03.61	-00	12	21.3	4 675
6387	P-L		1960	09	28.31736	00	02	17.67	-00	20	06.0	4 675
6387	P-L		1960	09	28.33822	00	02	16.68	-00	20	17.0	4 675
9570	P-L	*	1960	10	17.22501	23	45	51.04	-07	57	08.6	19.7 4 675
9570	P-L		1960	10	22.16324	23	43	22.79	-08	04	27.3	4 675
9570	P-L		1960	10	24.23753	23	42	30.71	-08	06	09.0	4 675
9570	P-L		1960	10	26.27157	23	41	45.66	-08	07	01.8	4 675
1051	T-2		1973	09	19.18611	00	06	45.72	+00	28	12.6	4 675
1051	T-2		1973	09	19.23785	00	06	43.35	+00	27	43.7	4 675
1051	T-2		1973	09	20.22847	00	05	59.95	+00	18	32.1	4 675
1051	T-2		1973	09	24.34688	00	02	57.22	-00	20	01.7	4 675
1051	T-2		1973	09	24.41597	00	02	53.95	-00	20	39.9	4 675
1051	T-2		1973	09	25.24375	00	02	17.27	-00	28	27.3	4 675
1051	T-2		1973	09	25.26875	00	02	16.10	-00	28	36.7	4 675
1051	T-2		1973	09	25.30729	00	02	14.36	-00	29	00.8	4 675
1051	T-2		1973	09	25.33299	00	02	13.10	-00	29	12.9	4 675
1051	T-2	*	1973	09	29.25330	23	59	19.39	-01	05	50.5	18.0 4 675
1051	T-2		1973	09	29.27986	23	59	18.17	-01	06	07.1	4 675
1051	T-2		1973	09	29.31806	23	59	16.35	-01	06	27.4	4 675
1051	T-2		1973	09	30.23524	23	58	36.32	-01	14	57.2	4 675
1051	T-2		1973	09	30.30174	23	58	33.22	-01	15	34.0	4 675
1051	T-2		1973	10	04.31493	23	55	40.64	-01	52	08.6	4 675
1051	T-2		1973	10	04.37674	23	55	37.90	-01	52	40.7	4 675
1051	T-2		1973	10	05.34167	23	54	57.53	-02	01	18.2	4 675
1051	T-2		1973	10	05.40347	23	54	54.96	-02	01	50.2	4 675
1063	T-2		1973	09	19.18611	00	09	11.65	+02	02	57.2	4 675
1063	T-2		1973	09	19.23785	00	09	08.78	+02	02	38.4	4 675
1063	T-2		1973	09	20.22847	00	08	15.74	+01	56	01.8	4 675
1063	T-2		1973	09	24.34688	00	04	30.56	+01	27	55.8	4 675
1063	T-2		1973	09	24.41597	00	04	26.48	+01	27	27.6	4 675
1063	T-2		1973	09	25.24375	00	03	41.08	+01	21	40.7	4 675
1063	T-2		1973	09	25.30729	00	03	37.45	+01	21	16.5	4 675
1063	T-2	*	1973	09	29.25330	23	59	59.17	+00	53	43.2	18.8 4 675
1063	T-2		1973	09	29.31806	23	59	55.45	+00	53	14.3	4 675

1063	T-2		1973	09	30.21007	23	59	06.59	+00	47	02.5		4 675
1063	T-2		1973	09	30.27431	23	59	02.87	+00	46	35.1		4 675
1063	T-2		1973	10	04.28958	23	55	25.74	+00	18	48.1		4 675
1063	T-2		1973	10	04.35208	23	55	22.43	+00	18	25.3		4 675
1063	T-2		1973	10	05.31684	23	54	31.62	+00	11	53.4		4 675
1063	T-2		1973	10	05.37917	23	54	28.17	+00	11	28.6		4 675
1105	T-2		1973	09	19.18611	00	11	16.94	+01	29	23.3		4 675
1105	T-2		1973	09	19.23785	00	11	14.34	+01	29	03.8		4 675
1105	T-2		1973	09	20.22847	00	10	25.87	+01	22	54.4		4 675
1105	T-2		1973	09	24.34688	00	07	01.50	+00	56	52.7		4 675
1105	T-2		1973	09	24.41597	00	06	58.14	+00	56	27.2		4 675
1105	T-2		1973	09	25.24375	00	06	16.86	+00	51	09.8		4 675
1105	T-2		1973	09	25.30729	00	06	13.54	+00	50	47.0		4 675
1105	T-2	*	1973	09	29.25330	00	02	56.55	+00	25	34.1	18.8	4 675
1105	T-2		1973	09	29.31806	00	02	53.23	+00	25	08.7		4 675
1105	T-2		1973	09	30.21007	00	02	09.03	+00	19	31.5		4 675
1105	T-2		1973	09	30.27431	00	02	05.80	+00	19	06.7		4 675
1105	T-2		1973	10	04.28958	23	58	49.44	-00	06	04.8		4 675
1105	T-2		1973	10	04.35208	23	58	46.35	-00	06	28.3		4 675
1105	T-2		1973	10	05.31684	23	58	00.26	-00	12	21.9		4 675
1105	T-2		1973	10	05.37917	23	57	57.17	-00	12	44.7		4 675
1133	T-2		1973	09	19.18611	00	13	16.81	+02	38	18.6		4 675
1133	T-2		1973	09	19.23785	00	13	14.39	+02	38	04.5		4 675
1133	T-2		1973	09	20.22847	00	12	29.44	+02	32	53.9		4 675
1133	T-2		1973	09	24.34688	00	09	19.79	+02	10	59.1		4 675
1133	T-2		1973	09	24.41597	00	09	16.51	+02	10	36.3		4 675
1133	T-2		1973	09	25.24375	00	08	38.29	+02	06	07.7		4 675
1133	T-2		1973	09	25.30729	00	08	35.22	+02	05	49.6		4 675
1133	T-2	*	1973	09	29.25330	00	05	32.73	+01	44	26.2	17.6	4 675
1133	T-2		1973	09	29.31806	00	05	29.64	+01	44	04.8		4 675
1133	T-2		1973	09	30.21007	00	04	48.74	+01	39	17.4		4 675
1133	T-2		1973	09	30.27431	00	04	45.73	+01	38	56.0		4 675
1133	T-2		1973	10	04.28958	00	01	44.27	+01	17	26.1		4 675
1133	T-2		1973	10	04.35208	00	01	41.31	+01	17	06.7		4 675
1133	T-2		1973	10	05.31684	00	00	58.72	+01	12	03.2		4 675
1133	T-2		1973	10	05.37917	00	00	55.90	+01	11	42.4		4 675
1139	T-2		1973	09	19.18611	00	13	33.59	+02	05	41.3		4 675
1139	T-2		1973	09	19.23785	00	13	31.17	+02	05	17.9		4 675
1139	T-2		1973	09	20.22847	00	12	46.15	+01	57	36.9		4 675
1139	T-2		1973	09	24.34688	00	09	36.86	+01	25	25.5		4 675
1139	T-2		1973	09	24.41597	00	09	33.59	+01	24	54.7		4 675
1139	T-2		1973	09	25.24375	00	08	55.77	+01	18	23.4		4 675
1139	T-2		1973	09	25.30729	00	08	52.68	+01	17	55.3		4 675
1139	T-2	*	1973	09	29.25330	00	05	52.71	+00	47	11.5	18.3	4 675
1139	T-2		1973	09	29.31806	00	05	49.70	+00	46	42.0		4 675
1139	T-2		1973	09	30.21007	00	05	09.68	+00	39	51.3		4 675
1139	T-2		1973	09	30.27431	00	05	06.77	+00	39	23.9		4 675
1139	T-2		1973	10	04.28958	00	02	10.36	+00	09	00.2		4 675
1139	T-2		1973	10	04.35208	00	02	07.54	+00	08	32.7		4 675
1139	T-2		1973	10	05.31684	00	01	26.65	+00	01	29.4		4 675
1139	T-2		1973	10	05.37917	00	01	23.74	+00	01	03.9		4 675
1159	T-2	*	1973	09	29.25330	00	07	09.61	+04	45	46.3	17.5	4 675
1159	T-2		1973	09	29.31806	00	07	06.60	+04	45	06.1		4 675
1159	T-2		1973	09	30.21007	00	06	26.33	+04	35	28.1		4 675
1159	T-2		1973	09	30.27431	00	06	23.32	+04	34	45.9		4 675
1159	T-2		1973	10	04.28958	00	03	24.87	+03	51	18.2		4 675
1159	T-2		1973	10	04.35208	00	03	22.00	+03	50	38.0		4 675
1159	T-2		1973	10	05.31684	00	02	40.23	+03	40	16.0		4 675
1159	T-2		1973	10	05.37917	00	02	37.49	+03	39	35.1		4 675

1173	T-2		1973	09	19.18611	00	16	28.63	+01	57	16.6	4 675
1173	T-2		1973	09	19.23785	00	16	25.89	+01	57	10.6	4 675
1173	T-2		1973	09	20.22847	00	15	35.46	+01	55	09.0	4 675
1173	T-2		1973	09	24.34688	00	12	02.44	+01	46	24.4	4 675
1173	T-2		1973	09	24.41597	00	11	58.63	+01	46	15.7	4 675
1173	T-2		1973	09	25.24375	00	11	15.75	+01	44	28.8	4 675
1173	T-2		1973	09	25.30729	00	11	12.35	+01	44	20.8	4 675
1173	T-2	*	1973	09	29.25330	00	07	46.41	+01	35	40.6	19.0 4 675
1173	T-2		1973	09	29.31806	00	07	42.96	+01	35	32.0	4 675
1173	T-2		1973	09	30.21007	00	06	56.80	+01	33	35.2	4 675
1173	T-2		1973	09	30.27431	00	06	53.35	+01	33	28.6	4 675
1173	T-2		1973	10	04.28958	00	03	27.48	+01	24	46.3	4 675
1173	T-2		1973	10	04.35208	00	03	24.25	+01	24	40.3	4 675
1173	T-2		1973	10	05.31684	00	02	35.85	+01	22	41.1	4 675
1173	T-2		1973	10	05.37917	00	02	32.67	+01	22	33.7	4 675
1188	T-2		1973	09	20.22847	00	16	54.54	+05	18	32.5	4 675
1188	T-2		1973	09	24.34688	00	13	15.49	+04	53	23.0	4 675
1188	T-2		1973	09	24.41597	00	13	11.66	+04	52	57.0	4 675
1188	T-2		1973	09	25.24375	00	12	27.66	+04	47	43.7	4 675
1188	T-2		1973	09	25.30729	00	12	24.20	+04	47	22.3	4 675
1188	T-2	*	1973	09	29.25330	00	08	53.39	+04	22	19.5	17.8 4 675
1188	T-2		1973	09	29.31806	00	08	49.89	+04	21	53.4	4 675
1188	T-2		1973	09	30.21007	00	08	02.71	+04	16	11.5	4 675
1188	T-2		1973	09	30.27431	00	07	59.25	+04	15	44.8	4 675
1188	T-2		1973	10	04.28958	00	04	29.91	+03	50	02.9	4 675
1188	T-2		1973	10	04.35208	00	04	26.59	+03	49	39.4	4 675
1188	T-2		1973	10	05.31684	00	03	37.43	+03	43	30.9	4 675
1188	T-2		1973	10	05.37917	00	03	34.25	+03	43	07.4	4 675
1243	T-2		1973	09	24.34688	00	16	19.50	+03	15	45.8	4 675
1243	T-2		1973	09	24.41597	00	16	16.18	+03	15	23.8	4 675
1243	T-2		1973	09	25.24375	00	15	38.18	+03	11	08.7	4 675
1243	T-2		1973	09	25.30729	00	15	35.12	+03	10	50.7	4 675
1243	T-2	*	1973	09	29.25330	00	12	32.25	+02	50	19.7	19.3 4 675
1243	T-2		1973	09	29.31806	00	12	29.10	+02	50	01.0	4 675
1243	T-2		1973	09	30.21007	00	11	48.16	+02	45	23.0	4 675
1243	T-2		1973	09	30.27431	00	11	44.88	+02	45	01.0	4 675
1243	T-2		1973	10	04.28958	00	08	41.81	+02	24	07.4	4 675
1243	T-2		1973	10	04.35208	00	08	38.90	+02	23	50.6	4 675
1243	T-2		1973	10	05.31684	00	07	55.98	+02	18	53.2	4 675
1243	T-2		1973	10	05.37917	00	07	53.11	+02	18	33.1	4 675
1251	T-2		1973	09	19.18611	00	20	36.40	+01	13	21.4	4 675
1251	T-2		1973	09	19.23785	00	20	34.07	+01	13	06.1	4 675
1251	T-2		1973	09	20.22847	00	19	51.38	+01	08	07.3	4 675
1251	T-2		1973	09	24.34688	00	16	49.98	+00	47	01.7	4 675
1251	T-2		1973	09	24.41597	00	16	46.75	+00	46	41.0	4 675
1251	T-2		1973	09	25.24375	00	16	09.96	+00	42	24.2	4 675
1251	T-2		1973	09	25.30729	00	16	07.18	+00	42	04.2	4 675
1251	T-2	*	1973	09	29.25330	00	13	09.97	+00	21	38.3	18.4 4 675
1251	T-2		1973	09	29.31806	00	13	06.97	+00	21	18.3	4 675
1251	T-2		1973	09	30.21007	00	12	26.83	+00	16	42.6	4 675
1251	T-2		1973	09	30.27431	00	12	23.87	+00	16	21.9	4 675
1251	T-2		1973	10	04.28958	00	09	24.77	-00	04	04.8	4 675
1251	T-2		1973	10	04.35208	00	09	21.86	-00	04	24.2	4 675
1251	T-2		1973	10	05.31684	00	08	39.62	-00	09	16.3	4 675
1251	T-2		1973	10	05.37917	00	08	36.84	-00	09	35.7	4 675
1260	T-2		1973	09	19.18611	00	21	56.99	+01	41	56.7	4 675
1260	T-2		1973	09	19.22500	00	21	55.23	+01	41	41.6	4 675
1260	T-2		1973	09	19.23785	00	21	54.61	+01	41	31.9	4 675
1260	T-2		1973	09	19.27865	00	21	52.62	+01	41	17.7	4 675

1260	T-2		1973	09	20.22847	00	21	09.85	+01	33	51.0		4 675
1260	T-2		1973	09	24.34688	00	17	59.28	+01	01	16.9		4 675
1260	T-2		1973	09	24.38750	00	17	57.25	+01	00	59.3		4 675
1260	T-2		1973	09	24.41597	00	17	55.87	+01	00	44.1		4 675
1260	T-2		1973	09	24.45434	00	17	54.03	+01	00	27.2		4 675
1260	T-2		1973	09	25.24375	00	17	17.27	+00	54	06.1		4 675
1260	T-2		1973	09	25.30729	00	17	14.13	+00	53	38.0		4 675
1260	T-2	*	1973	09	29.25330	00	14	07.68	+00	22	03.6	18.9	4 675
1260	T-2		1973	09	29.31806	00	14	04.54	+00	21	32.1		4 675
1260	T-2		1973	09	30.21007	00	13	22.31	+00	14	25.4		4 675
1260	T-2		1973	09	30.27431	00	13	19.31	+00	13	54.6		4 675
1260	T-2		1973	10	04.28958	00	10	11.12	-00	17	48.4		4 675
1260	T-2		1973	10	04.35208	00	10	08.03	-00	18	17.2		4 675
1260	T-2		1973	10	05.31684	00	09	23.77	-00	25	48.5		4 675
1260	T-2		1973	10	05.37917	00	09	20.86	-00	26	17.3		4 675
1262	T-2		1973	09	19.22500	00	24	53.27	+01	47	22.7		4 675
1262	T-2		1973	09	19.27865	00	24	50.04	+01	47	07.6		4 675
1262	T-2		1973	09	24.34688	00	19	25.67	+01	25	05.2		4 675
1262	T-2		1973	09	24.38750	00	19	22.86	+01	24	53.9		4 675
1262	T-2		1973	09	24.45434	00	19	18.43	+01	24	38.6		4 675
1262	T-2		1973	09	25.28125	00	18	25.22	+01	20	57.9		4 675
1262	T-2		1973	09	25.34601	00	18	20.92	+01	20	43.2		4 675
1262	T-2	*	1973	09	29.25330	00	14	08.72	+01	03	29.1	19.7	4 675
1262	T-2		1973	09	29.31806	00	14	04.60	+01	03	13.8		4 675
1262	T-2		1973	09	30.21007	00	13	07.68	+00	59	22.8		4 675
1262	T-2		1973	09	30.27431	00	13	03.42	+00	59	05.6		4 675
1262	T-2		1973	10	04.28958	00	08	50.62	+00	42	04.3		4 675
1262	T-2		1973	10	04.35208	00	08	46.68	+00	41	48.3		4 675
1262	T-2		1973	10	05.31684	00	07	47.65	+00	37	51.1		4 675
1269	T-2		1973	09	19.18611	00	22	14.91	+03	51	05.2		4 675
1269	T-2		1973	09	19.23785	00	22	12.52	+03	50	49.8		4 675
1269	T-2		1973	09	20.22847	00	21	27.65	+03	46	15.9		4 675
1269	T-2		1973	09	24.34688	00	18	18.22	+03	26	38.8		4 675
1269	T-2		1973	09	24.41597	00	18	14.99	+03	26	18.1		4 675
1269	T-2		1973	09	25.24375	00	17	36.80	+03	22	16.1		4 675
1269	T-2		1973	09	25.30729	00	17	33.61	+03	21	58.1		4 675
1269	T-2	*	1973	09	29.25330	00	14	29.50	+03	02	33.8	18.7	4 675
1269	T-2		1973	09	29.31806	00	14	26.41	+03	02	13.1		4 675
1269	T-2		1973	09	30.21007	00	13	44.91	+02	57	49.3		4 675
1269	T-2		1973	09	30.27431	00	13	41.86	+02	57	30.0		4 675
1269	T-2		1973	10	04.28958	00	10	36.77	+02	37	39.1		4 675
1269	T-2		1973	10	04.35208	00	10	33.77	+02	37	22.4		4 675
1269	T-2		1973	10	05.31684	00	09	50.13	+02	32	37.3		4 675
1269	T-2		1973	10	05.37917	00	09	47.13	+02	32	18.5		4 675
1276	T-2		1973	09	19.18611	00	23	41.91	-00	13	56.7		4 675
1276	T-2		1973	09	19.22500	00	23	39.96	-00	14	09.9		4 675
1276	T-2		1973	09	19.23785	00	23	39.04	-00	14	10.7		4 675
1276	T-2		1973	09	19.26354	00	23	37.83	-00	14	15.6		4 675
1276	T-2		1973	09	19.27865	00	23	37.00	-00	14	25.0		4 675
1276	T-2		1973	09	20.22847	00	22	46.01	-00	18	52.0		4 675
1276	T-2		1973	09	20.27795	00	22	43.57	-00	19	04.9		4 675
1276	T-2		1973	09	20.30278	00	22	42.00	-00	19	13.9		4 675
1276	T-2		1973	09	24.34688	00	18	58.82	-00	38	36.0		4 675
1276	T-2		1973	09	24.37431	00	18	57.35	-00	38	41.4		4 675
1276	T-2		1973	09	24.38750	00	18	56.56	-00	38	47.3		4 675
1276	T-2		1973	09	24.41597	00	18	54.75	-00	38	55.3		4 675
1276	T-2		1973	09	24.44167	00	18	53.41	-00	39	00.3		4 675
1276	T-2		1973	09	24.45434	00	18	52.66	-00	39	05.9		4 675
1276	T-2		1973	09	25.26875	00	18	07.16	-00	43	00.5		4 675

1276	T-2		1973	09	25.28125	00	18	06.32	-00	43	06.3	4 675
1276	T-2		1973	09	25.30729	00	18	04.78	-00	43	11.6	4 675
1276	T-2		1973	09	25.33299	00	18	03.40	-00	43	19.3	4 675
1276	T-2		1973	09	25.34601	00	18	02.55	-00	43	24.3	4 675
1276	T-2	*	1973	09	29.25330	00	14	20.60	-01	02	07.2	18.0 4 675
1276	T-2		1973	09	29.27986	00	14	18.98	-01	02	12.3	4 675
1276	T-2		1973	09	29.31806	00	14	16.75	-01	02	23.9	4 675
1276	T-2		1973	09	29.34375	00	14	15.17	-01	02	29.8	4 675
1276	T-2		1973	09	30.21007	00	13	26.08	-01	06	36.0	4 675
1276	T-2		1973	09	30.23524	00	13	24.70	-01	06	42.3	4 675
1276	T-2		1973	09	30.27431	00	13	22.27	-01	06	55.3	4 675
1276	T-2		1973	09	30.30174	00	13	20.63	-01	07	01.7	4 675
1276	T-2		1973	10	04.28958	00	09	35.04	-01	25	16.8	4 675
1276	T-2		1973	10	04.31493	00	09	33.61	-01	25	25.9	4 675
1276	T-2		1973	10	04.35208	00	09	31.32	-01	25	34.9	4 675
1276	T-2		1973	10	04.37674	00	09	30.03	-01	25	41.4	4 675
1276	T-2		1973	10	05.31684	00	08	37.67	-01	29	49.7	4 675
1276	T-2		1973	10	05.34167	00	08	36.41	-01	29	56.1	4 675
1276	T-2		1973	10	05.37917	00	08	34.13	-01	30	07.1	4 675
1276	T-2		1973	10	05.40347	00	08	32.83	-01	30	12.1	4 675
1304	T-2		1973	09	19.18611	00	23	56.64	+03	55	55.4	4 675
1304	T-2		1973	09	19.19948	00	23	56.21	+03	55	52.4	4 675
1304	T-2		1973	09	19.23785	00	23	54.35	+03	55	40.7	4 675
1304	T-2		1973	09	19.25006	00	23	53.93	+03	55	37.5	4 675
1304	T-2		1973	09	20.22847	00	23	12.04	+03	50	55.3	4 675
1304	T-2		1973	09	24.34688	00	20	11.66	+03	30	22.9	4 675
1304	T-2		1973	09	24.36181	00	20	10.98	+03	30	19.1	4 675
1304	T-2		1973	09	24.41597	00	20	08.51	+03	30	01.6	4 675
1304	T-2		1973	09	24.42847	00	20	07.98	+03	29	58.9	4 675
1304	T-2		1973	09	25.24375	00	19	31.88	+03	25	47.6	4 675
1304	T-2		1973	09	25.25642	00	19	31.46	+03	25	43.1	4 675
1304	T-2		1973	09	25.30729	00	19	28.92	+03	25	30.3	4 675
1304	T-2		1973	09	25.32031	00	19	28.50	+03	25	24.8	4 675
1304	T-2	*	1973	09	29.25330	00	16	32.39	+03	05	06.7	17.4 4 675
1304	T-2		1973	09	29.31806	00	16	29.33	+03	04	44.7	4 675
1304	T-2		1973	09	30.21007	00	15	49.51	+03	00	08.0	4 675
1304	T-2		1973	09	30.27431	00	15	46.63	+02	59	48.0	4 675
1304	T-2		1973	10	04.28958	00	12	48.95	+02	38	53.8	4 675
1304	T-2		1973	10	04.35208	00	12	46.08	+02	38	35.0	4 675
1304	T-2		1973	10	05.31684	00	12	04.19	+02	33	37.3	4 675
1304	T-2		1973	10	05.37917	00	12	01.36	+02	33	17.2	4 675
1324	T-2		1973	09	19.22500	00	28	16.78	+00	13	34.4	4 675
1324	T-2		1973	09	19.27865	00	28	13.51	+00	13	22.7	4 675
1324	T-2		1973	09	20.30278	00	27	13.29	+00	09	19.6	4 675
1324	T-2		1973	09	24.38750	00	23	08.58	-00	06	59.8	4 675
1324	T-2		1973	09	24.45434	00	23	04.41	-00	07	15.7	4 675
1324	T-2		1973	09	25.28125	00	22	14.73	-00	10	33.6	4 675
1324	T-2		1973	09	25.34601	00	22	10.61	-00	10	48.9	4 675
1324	T-2	*	1973	09	29.25330	00	18	14.09	-00	26	09.9	17.4 4 675
1324	T-2		1973	09	29.27986	00	18	12.53	-00	26	13.1	4 675
1324	T-2		1973	09	29.29219	00	18	11.77	-00	26	21.2	4 675
1324	T-2		1973	09	29.31806	00	18	10.01	-00	26	24.5	4 675
1324	T-2		1973	09	29.34375	00	18	08.54	-00	26	28.0	4 675
1324	T-2		1973	09	29.35694	00	18	07.65	-00	26	35.8	4 675
1324	T-2		1973	09	30.21007	00	17	16.60	-00	29	50.7	4 675
1324	T-2		1973	09	30.23524	00	17	15.09	-00	29	53.8	4 675
1324	T-2		1973	09	30.27431	00	17	12.66	-00	30	04.6	4 675
1324	T-2		1973	09	30.30174	00	17	10.93	-00	30	08.6	4 675
1324	T-2		1973	10	04.28958	00	13	14.32	-00	44	51.3	4 675

1324	T-2		1973	10	04.31493	00	13	12.96	-00	44	55.5		4 675
1324	T-2		1973	10	04.35208	00	13	10.64	-00	45	05.3		4 675
1324	T-2		1973	10	04.37674	00	13	09.25	-00	45	10.4		4 675
1324	T-2		1973	10	05.31684	00	12	14.82	-00	48	27.3		4 675
1324	T-2		1973	10	05.34167	00	12	13.40	-00	48	32.0		4 675
1324	T-2		1973	10	05.37917	00	12	11.15	-00	48	40.6		4 675
1324	T-2		1973	10	05.40347	00	12	09.73	-00	48	44.7		4 675
1331	T-2		1973	09	19.19948	00	26	58.49	+05	49	40.7		4 675
1331	T-2		1973	09	19.25006	00	26	56.02	+05	49	27.2		4 675
1331	T-2		1973	09	20.26458	00	26	08.14	+05	44	25.8		4 675
1331	T-2		1973	09	24.36181	00	22	49.42	+05	23	28.2		4 675
1331	T-2		1973	09	24.42847	00	22	46.05	+05	23	06.6		4 675
1331	T-2		1973	09	25.25642	00	22	05.49	+05	18	44.0		4 675
1331	T-2		1973	09	25.32031	00	22	02.12	+05	18	23.1		4 675
1331	T-2	*	1973	09	29.25330	00	18	47.31	+04	57	03.0	18.7	4 675
1331	T-2		1973	09	29.31806	00	18	43.93	+04	56	41.7		4 675
1331	T-2		1973	09	30.21007	00	17	59.89	+04	51	46.5		4 675
1331	T-2		1973	09	30.27431	00	17	56.61	+04	51	25.9		4 675
1331	T-2		1973	10	04.28958	00	14	39.85	+04	29	05.4		4 675
1331	T-2		1973	10	04.35208	00	14	36.66	+04	28	46.7		4 675
1331	T-2		1973	10	05.31684	00	13	50.23	+04	23	25.6		4 675
1331	T-2		1973	10	05.37917	00	13	47.21	+04	23	04.3		4 675
1352	T-2		1973	09	19.19948	00	29	17.65	+03	39	09.6		4 675
1352	T-2		1973	09	19.25006	00	29	15.05	+03	38	53.4		4 675
1352	T-2		1973	09	20.26458	00	28	23.10	+03	33	12.5		4 675
1352	T-2		1973	09	24.36181	00	24	48.23	+03	09	36.9		4 675
1352	T-2		1973	09	24.42847	00	24	44.51	+03	09	12.0		4 675
1352	T-2		1973	09	25.25642	00	24	00.79	+03	04	18.2		4 675
1352	T-2		1973	09	25.32031	00	23	57.38	+03	03	55.3		4 675
1352	T-2	*	1973	09	29.25330	00	20	26.14	+02	40	34.7	18.6	4 675
1352	T-2		1973	09	29.26632	00	20	25.45	+02	40	31.3		4 675
1352	T-2		1973	09	29.31806	00	20	22.51	+02	40	12.8		4 675
1352	T-2		1973	09	29.33073	00	20	21.86	+02	40	08.5		4 675
1352	T-2		1973	09	30.21007	00	19	34.84	+02	34	50.9		4 675
1352	T-2		1973	09	30.22257	00	19	34.00	+02	34	46.6		4 675
1352	T-2		1973	09	30.27431	00	19	31.24	+02	34	27.7		4 675
1352	T-2		1973	09	30.28785	00	19	30.55	+02	34	22.9		4 675
1352	T-2		1973	10	04.28958	00	15	56.54	+02	10	32.0		4 675
1352	T-2		1973	10	04.30208	00	15	55.88	+02	10	28.2		4 675
1352	T-2		1973	10	04.35208	00	15	52.99	+02	10	11.3		4 675
1352	T-2		1973	10	04.36476	00	15	52.47	+02	10	06.8		4 675
1352	T-2		1973	10	05.31684	00	15	02.24	+02	04	29.6		4 675
1352	T-2		1973	10	05.37917	00	14	58.83	+02	04	06.9		4 675
1363	T-2		1973	09	19.18611	00	21	06.46	+01	05	35.8		4 675
1363	T-2		1973	09	19.23785	00	21	03.55	+01	05	13.0		4 675
1363	T-2		1973	09	20.22847	00	20	11.49	+00	57	56.9		4 675
1363	T-2		1973	09	24.34688	00	16	31.38	+00	27	29.8		4 675
1363	T-2		1973	09	24.41597	00	16	27.57	+00	26	59.7		4 675
1363	T-2		1973	09	25.30729	00	15	39.99	+00	20	24.3		4 675
1363	T-2	*	1973	09	29.25330	00	12	09.06	-00	08	25.3	18.2	4 675
1363	T-2		1973	09	29.31806	00	12	05.48	-00	08	53.4		4 675
1363	T-2		1973	09	30.21007	00	11	18.70	-00	15	17.7		4 675
1363	T-2		1973	09	30.27431	00	11	15.11	-00	15	45.0		4 675
1363	T-2		1973	10	04.28958	00	07	47.58	-00	43	48.6		4 675
1363	T-2		1973	10	04.31493	00	07	46.50	-00	43	56.9		4 675
1363	T-2		1973	10	04.35208	00	07	44.31	-00	44	13.4		4 675
1363	T-2		1973	10	04.37674	00	07	43.15	-00	44	21.8		4 675
1363	T-2		1973	10	05.31684	00	06	56.20	-00	50	45.2		4 675
1363	T-2		1973	10	05.34167	00	06	54.90	-00	50	53.2		4 675

1363	T-2		1973	10	05.37917	00	06	52.88	-00	51	10.7		4 675
1363	T-2		1973	10	05.40347	00	06	51.76	-00	51	18.6		4 675
1493	T-2		1973	09	24.34688	00	20	45.90	+00	02	47.3		4 675
1493	T-2		1973	09	24.41597	00	20	42.63	+00	02	28.7		4 675
1493	T-2		1973	09	24.45434	00	20	41.05	+00	02	17.7		4 675
1493	T-2		1973	09	25.28125	00	20	04.04	-00	01	35.7		4 675
1493	T-2		1973	09	25.30729	00	20	02.78	-00	01	42.3		4 675
1493	T-2		1973	09	25.34601	00	20	01.13	-00	01	53.1		4 675
1493	T-2	*	1973	09	29.25330	00	17	04.59	-00	20	20.3	19.6	4 675
1493	T-2		1973	09	29.31806	00	17	01.68	-00	20	37.0		4 675
1493	T-2		1973	09	30.21007	00	16	21.42	-00	24	48.2		4 675
1493	T-2		1973	09	30.27431	00	16	18.47	-00	25	04.8		4 675
1493	T-2		1973	10	04.28958	00	13	17.32	-00	43	38.8		4 675
1493	T-2		1973	10	04.31493	00	13	16.40	-00	43	41.4		4 675
1493	T-2		1973	10	04.35208	00	13	14.50	-00	43	54.9		4 675
1493	T-2		1973	10	04.37674	00	13	13.58	-00	44	00.3		4 675
1493	T-2		1973	10	05.31684	00	12	31.52	-00	48	15.5		4 675
1493	T-2		1973	10	05.34167	00	12	30.41	-00	48	20.3		4 675
1493	T-2		1973	10	05.37917	00	12	28.70	-00	48	32.3		4 675
1493	T-2		1973	10	05.40347	00	12	27.72	-00	48	39.1		4 675
2001	T-2		1973	09	19.19948	00	27	32.01	+06	58	37.1		4 675
2001	T-2		1973	09	19.25006	00	27	29.44	+06	58	17.5		4 675
2001	T-2		1973	09	20.26458	00	26	43.47	+06	52	21.9		4 675
2001	T-2		1973	09	24.36181	00	23	31.60	+06	27	15.8		4 675
2001	T-2		1973	09	24.42847	00	23	28.27	+06	26	49.5		4 675
2001	T-2		1973	09	25.25642	00	22	49.11	+06	21	33.1		4 675
2001	T-2		1973	09	25.32031	00	22	45.87	+06	21	08.8		4 675
2001	T-2		1973	09	29.26632	00	19	35.56	+05	55	22.4		4 675
2001	T-2	*	1973	09	29.33073	00	19	32.37	+05	54	54.8	19.4	4 675
2040	T-2		1973	09	19.19948	00	29	12.26	+03	58	57.1		4 675
2040	T-2		1973	09	19.25006	00	29	10.16	+03	58	38.3		4 675
2040	T-2		1973	09	20.26458	00	28	28.15	+03	51	39.7		4 675
2040	T-2		1973	09	24.36181	00	25	34.73	+03	22	56.4		4 675
2040	T-2		1973	09	24.42847	00	25	31.72	+03	22	26.8		4 675
2040	T-2		1973	09	25.25642	00	24	56.37	+03	16	30.7		4 675
2040	T-2		1973	09	25.32031	00	24	53.63	+03	16	03.2		4 675
2040	T-2		1973	09	29.26632	00	22	02.22	+02	47	41.8		4 675
2040	T-2	*	1973	09	29.33073	00	21	59.30	+02	47	14.3	19.1	4 675
2040	T-2		1973	09	30.22257	00	21	20.64	+02	40	46.5		4 675
2040	T-2		1973	09	30.28785	00	21	17.68	+02	40	18.2		4 675
2040	T-2		1973	10	04.30208	00	18	23.90	+02	11	23.5		4 675
2040	T-2		1973	10	04.36476	00	18	21.21	+02	10	57.4		4 675
2040	T-2		1973	10	05.32917	00	17	39.99	+02	04	01.6		4 675
2040	T-2		1973	10	05.39132	00	17	37.35	+02	03	35.4		4 675
2045	T-2		1973	09	19.19948	00	32	23.76	+03	47	37.2		4 675
2045	T-2		1973	09	19.25006	00	32	20.75	+03	47	33.8		4 675
2045	T-2		1973	09	20.26458	00	31	21.61	+03	46	19.9		4 675
2045	T-2		1973	09	24.36181	00	27	18.71	+03	40	47.9		4 675
2045	T-2		1973	09	24.42847	00	27	14.63	+03	40	42.5		4 675
2045	T-2		1973	09	25.25642	00	26	25.34	+03	39	27.3		4 675
2045	T-2		1973	09	25.32031	00	26	21.39	+03	39	22.6		4 675
2045	T-2		1973	09	29.26632	00	22	23.82	+03	33	23.4		4 675
2045	T-2	*	1973	09	29.33073	00	22	19.78	+03	33	17.4	17.4	4 675
2045	T-2		1973	09	30.22257	00	21	26.44	+03	31	51.8		4 675
2045	T-2		1973	09	30.28785	00	21	22.40	+03	31	44.9		4 675
2045	T-2		1973	10	04.30208	00	17	23.54	+03	25	24.3		4 675
2045	T-2		1973	10	04.36476	00	17	19.73	+03	25	19.7		4 675
2045	T-2		1973	10	05.31684	00	16	24.24	+03	23	47.5		4 675
2045	T-2		1973	10	05.32917	00	16	23.42	+03	23	46.7		4 675

2045	T-2		1973	10	05.37917	00	16	20.48	+03	23	41.0		4 675
2045	T-2		1973	10	05.39132	00	16	19.65	+03	23	41.3		4 675
2092	T-2		1973	09	19.19948	00	33	27.70	+03	06	28.3		4 675
2092	T-2		1973	09	19.25006	00	33	25.45	+03	06	08.8		4 675
2092	T-2		1973	09	20.26458	00	32	39.51	+02	59	26.8		4 675
2092	T-2		1973	09	24.36181	00	29	28.99	+02	31	35.9		4 675
2092	T-2		1973	09	24.42847	00	29	25.76	+02	31	09.1		4 675
2092	T-2		1973	09	25.25642	00	28	46.77	+02	25	25.4		4 675
2092	T-2		1973	09	25.32031	00	28	43.63	+02	24	57.9		4 675
2092	T-2		1973	09	29.26632	00	25	34.35	+01	57	35.5		4 675
2092	T-2		1973	09	29.29219	00	25	33.13	+01	57	23.5		4 675
2092	T-2	*	1973	09	29.33073	00	25	31.12	+01	57	09.4	19.5	4 675
2092	T-2		1973	09	29.35694	00	25	29.90	+01	56	56.7		4 675
2092	T-2		1973	09	30.22257	00	24	48.32	+01	50	53.6		4 675
2092	T-2		1973	09	30.24826	00	24	46.96	+01	50	47.5		4 675
2092	T-2		1973	09	30.28785	00	24	45.05	+01	50	27.4		4 675
2092	T-2		1973	09	30.31476	00	24	43.78	+01	50	18.7		4 675
2092	T-2		1973	10	04.30208	00	21	31.90	+01	22	35.7		4 675
2092	T-2		1973	10	04.32708	00	21	30.37	+01	22	29.8		4 675
2092	T-2		1973	10	04.36476	00	21	28.89	+01	22	09.0		4 675
2092	T-2		1973	10	04.38889	00	21	27.46	+01	22	03.7		4 675
2092	T-2		1973	10	05.32917	00	20	42.97	+01	15	32.8		4 675
2092	T-2		1973	10	05.35382	00	20	41.55	+01	15	23.9		4 675
2092	T-2		1973	10	05.39132	00	20	39.79	+01	15	08.0		4 675
2092	T-2		1973	10	05.41597	00	20	38.41	+01	14	57.8		4 675
2125	T-2		1973	09	19.19948	00	38	56.44	+06	19	58.9		4 675
2125	T-2		1973	09	19.25006	00	38	53.33	+06	19	59.0		4 675
2125	T-2		1973	09	20.26458	00	37	52.46	+06	19	56.8		4 675
2125	T-2		1973	09	24.36181	00	33	40.60	+06	18	55.3		4 675
2125	T-2		1973	09	24.42847	00	33	36.32	+06	18	52.8		4 675
2125	T-2		1973	09	25.25642	00	32	45.08	+06	18	27.7		4 675
2125	T-2		1973	09	25.32031	00	32	40.89	+06	18	25.8		4 675
2125	T-2		1973	09	29.26632	00	28	32.60	+06	15	58.9		4 675
2125	T-2	*	1973	09	29.33073	00	28	28.41	+06	15	55.0	17.6	4 675
2125	T-2		1973	09	30.22257	00	27	32.52	+06	15	11.4		4 675
2125	T-2		1973	09	30.28785	00	27	28.24	+06	15	08.0		4 675
2125	T-2		1973	10	04.30208	00	23	17.55	+06	11	35.7		4 675
2125	T-2		1973	10	04.36476	00	23	13.45	+06	11	31.8		4 675
2125	T-2		1973	10	05.32917	00	22	14.24	+06	10	36.9		4 675
2125	T-2		1973	10	05.39132	00	22	10.36	+06	10	33.6		4 675
2137	T-2		1973	09	19.19948	00	38	42.15	+05	50	48.6		4 675
2137	T-2		1973	09	19.25006	00	38	39.40	+05	50	27.2		4 675
2137	T-2		1973	09	20.26458	00	37	47.73	+05	44	02.4		4 675
2137	T-2		1973	09	24.36181	00	34	09.79	+05	16	49.5		4 675
2137	T-2		1973	09	24.42847	00	34	05.92	+05	16	22.1		4 675
2137	T-2		1973	09	25.25642	00	33	21.27	+05	10	37.2		4 675
2137	T-2		1973	09	25.32031	00	33	17.53	+05	10	10.4		4 675
2137	T-2		1973	09	29.26632	00	29	37.86	+04	42	12.9		4 675
2137	T-2	*	1973	09	29.33073	00	29	34.04	+04	41	44.2	18.2	4 675
2137	T-2		1973	09	30.22257	00	28	44.35	+04	35	17.0		4 675
2137	T-2		1973	09	30.28785	00	28	40.54	+04	34	49.5		4 675
2137	T-2		1973	10	04.30208	00	24	56.75	+04	05	44.1		4 675
2137	T-2		1973	10	04.36476	00	24	53.11	+04	05	17.4		4 675
2137	T-2		1973	10	05.32917	00	24	00.26	+03	58	20.2		4 675
2137	T-2		1973	10	05.39132	00	23	56.76	+03	57	53.4		4 675
2151	T-2		1973	09	19.19948	00	37	57.30	+05	31	20.9		4 675
2151	T-2		1973	09	19.25006	00	37	55.28	+05	31	18.9		4 675
2151	T-2		1973	09	20.26458	00	37	14.43	+05	30	18.9		4 675
2151	T-2		1973	09	24.36181	00	34	20.39	+05	25	21.6		4 675

2151	T-2		1973	09	24.42847	00	34	17.20	+05	25	15.7		4 675
2151	T-2		1973	09	25.25642	00	33	41.16	+05	24	03.2		4 675
2151	T-2		1973	09	25.32031	00	33	38.15	+05	23	58.6		4 675
2151	T-2		1973	09	29.26632	00	30	38.51	+05	17	39.4		4 675
2151	T-2	*	1973	09	29.33073	00	30	35.36	+05	17	34.1	17.1	4 675
2151	T-2		1973	09	30.22257	00	29	54.27	+05	15	56.7		4 675
2151	T-2		1973	09	30.28785	00	29	50.99	+05	15	50.0		4 675
2151	T-2		1973	10	04.30208	00	26	43.60	+05	08	25.0		4 675
2151	T-2		1973	10	04.36476	00	26	40.45	+05	08	18.5		4 675
2151	T-2		1973	10	05.32917	00	25	55.69	+05	06	27.3		4 675
2151	T-2		1973	10	05.39132	00	25	52.73	+05	06	20.6		4 675
2168	T-2		1973	09	19.19948	00	39	02.71	+04	50	02.2		4 675
2168	T-2		1973	09	19.25006	00	39	00.64	+04	49	47.5		4 675
2168	T-2		1973	09	20.26458	00	38	18.19	+04	44	36.6		4 675
2168	T-2		1973	09	24.36181	00	35	20.58	+04	23	02.9		4 675
2168	T-2		1973	09	24.42847	00	35	17.48	+04	22	42.2		4 675
2168	T-2		1973	09	25.25642	00	34	41.18	+04	18	09.6		4 675
2168	T-2		1973	09	25.32031	00	34	38.22	+04	17	48.3		4 675
2168	T-2		1973	09	29.26632	00	31	39.34	+03	55	57.7		4 675
2168	T-2	*	1973	09	29.33073	00	31	36.29	+03	55	36.3	18.0	4 675
2168	T-2		1973	09	30.22257	00	30	55.55	+03	50	33.9		4 675
2168	T-2		1973	09	30.28785	00	30	52.46	+03	50	11.8		4 675
2168	T-2		1973	10	04.30208	00	27	48.27	+03	27	31.8		4 675
2168	T-2		1973	10	04.36476	00	27	45.35	+03	27	09.2		4 675
2168	T-2		1973	10	05.32917	00	27	01.40	+03	21	42.7		4 675
2168	T-2		1973	10	05.39132	00	26	58.57	+03	21	23.3		4 675
2177	T-2		1973	09	19.19948	00	42	42.17	+06	45	48.7		4 675
2177	T-2		1973	09	19.25006	00	42	39.15	+06	45	38.8		4 675
2177	T-2		1973	09	20.26458	00	41	40.44	+06	42	01.8		4 675
2177	T-2		1973	09	24.36181	00	37	35.77	+06	26	26.2		4 675
2177	T-2		1973	09	24.42847	00	37	31.57	+06	26	11.0		4 675
2177	T-2		1973	09	25.25642	00	36	41.55	+06	22	46.8		4 675
2177	T-2		1973	09	25.32031	00	36	37.49	+06	22	32.9		4 675
2177	T-2		1973	09	29.26632	00	32	33.53	+06	06	02.2		4 675
2177	T-2	*	1973	09	29.33073	00	32	29.43	+06	05	45.6	17.3	4 675
2177	T-2		1973	09	30.22257	00	31	34.04	+06	01	50.9		4 675
2177	T-2		1973	09	30.28785	00	31	29.85	+06	01	32.8		4 675
2177	T-2		1973	10	04.30208	00	27	20.20	+05	43	47.8		4 675
2177	T-2		1973	10	04.36476	00	27	16.19	+05	43	30.6		4 675
2177	T-2		1973	10	05.32917	00	26	16.81	+05	39	11.0		4 675
2177	T-2		1973	10	05.39132	00	26	12.89	+05	38	55.6		4 675
2220	T-2		1973	09	19.19948	00	45	35.37	+05	20	31.3		4 675
2220	T-2		1973	09	19.25006	00	45	32.67	+05	20	36.2		4 675
2220	T-2		1973	09	20.26458	00	44	41.30	+05	22	00.6		4 675
2220	T-2		1973	09	25.25642	00	40	10.80	+05	27	03.0		4 675
2220	T-2		1973	09	25.32031	00	40	06.89	+05	27	06.6		4 675
2220	T-2		1973	09	29.26632	00	36	19.93	+05	29	17.9		4 675
2220	T-2	*	1973	09	29.33073	00	36	15.83	+05	29	20.9	18.2	4 675
2220	T-2		1973	09	30.22257	00	35	24.22	+05	29	35.0		4 675
2220	T-2		1973	09	30.28785	00	35	20.22	+05	29	37.1		4 675
2220	T-2		1973	10	04.30208	00	31	27.02	+05	30	28.4		4 675
2220	T-2		1973	10	04.36476	00	31	23.24	+05	30	28.8		4 675
2220	T-2		1973	10	05.32917	00	30	28.28	+05	30	35.3		4 675
2220	T-2		1973	10	05.39132	00	30	24.37	+05	30	36.1		4 675
2267	T-2		1973	09	25.25642	00	44	25.34	+04	15	15.6		4 675
2267	T-2		1973	09	25.32031	00	44	21.30	+04	15	20.0		4 675
2267	T-2		1973	09	29.26632	00	40	12.35	+04	18	51.4		4 675
2267	T-2	*	1973	09	29.33073	00	40	08.09	+04	18	54.4	19.6	4 675
2267	T-2		1973	09	30.22257	00	39	11.48	+04	19	34.0		4 675

2267	T-2		1973	09	30.28785	00	39	07.08	+04	19	36.9		4 675
2267	T-2		1973	10	04.30208	00	34	50.75	+04	22	34.7		4 675
2267	T-2		1973	10	04.36476	00	34	46.61	+04	22	36.4		4 675
2267	T-2		1973	10	05.32917	00	33	45.63	+04	23	16.9		4 675
2267	T-2		1973	10	05.39132	00	33	41.41	+04	23	20.5		4 675
2271	T-2		1973	09	19.19948	00	47	13.05	+07	05	50.5		4 675
2271	T-2		1973	09	19.25006	00	47	11.05	+07	05	19.1		4 675
2271	T-2		1973	09	20.26458	00	46	32.15	+06	54	45.8		4 675
2271	T-2		1973	09	24.36181	00	43	46.70	+06	10	47.0		4 675
2271	T-2		1973	09	24.42847	00	43	43.66	+06	10	02.3		4 675
2271	T-2		1973	09	25.32031	00	43	06.74	+06	00	11.6		4 675
2271	T-2		1973	09	29.26632	00	40	17.78	+05	16	09.5		4 675
2271	T-2	*	1973	09	29.33073	00	40	14.98	+05	15	26.7	19.2	4 675
2271	T-2		1973	09	30.22257	00	39	36.41	+05	05	17.7		4 675
2271	T-2		1973	09	30.28785	00	39	33.34	+05	04	34.2		4 675
2271	T-2		1973	10	04.30208	00	36	37.87	+04	19	04.7		4 675
2271	T-2		1973	10	04.36476	00	36	35.06	+04	18	21.3		4 675
2271	T-2		1973	10	05.32917	00	35	53.12	+04	07	25.6		4 675
2271	T-2		1973	10	05.39132	00	35	50.28	+04	06	44.8		4 675
2304	T-2		1973	09	29.26632	00	43	11.36	+02	07	11.4		4 675
2304	T-2	*	1973	09	29.33073	00	43	08.22	+02	06	54.9	19.6	4 675
2304	T-2		1973	09	30.22257	00	42	26.84	+02	03	06.6		4 675
2304	T-2		1973	09	30.28785	00	42	23.65	+02	02	49.3		4 675
2304	T-2		1973	10	04.30208	00	39	14.50	+01	45	50.6		4 675
2304	T-2		1973	10	04.36476	00	39	11.40	+01	45	34.9		4 675
2304	T-2		1973	10	05.32917	00	38	25.92	+01	41	32.9		4 675
2304	T-2		1973	10	05.35382	00	38	24.56	+01	41	29.2		4 675
2304	T-2		1973	10	05.39132	00	38	22.83	+01	41	17.0		4 675
2304	T-2		1973	10	05.41597	00	38	21.47	+01	41	13.1		4 675
3020	T-2		1973	09	19.21250	00	09	06.01	-02	07	43.3		4 675
3020	T-2		1973	09	19.26354	00	09	02.56	-02	07	37.1		4 675
3020	T-2		1973	09	20.27795	00	07	59.30	-02	05	23.5		4 675
3020	T-2		1973	09	24.37431	00	03	41.28	-01	56	13.7		4 675
3020	T-2		1973	09	24.44167	00	03	37.03	-01	56	04.1		4 675
3020	T-2		1973	09	25.26875	00	02	45.43	-01	54	10.9		4 675
3020	T-2		1973	09	25.33299	00	02	41.22	-01	54	02.0		4 675
3020	T-2		1973	09	29.27986	23	58	35.93	-01	44	37.0		4 675
3020	T-2		1973	09	29.34375	23	58	31.90	-01	44	28.8		4 675
3020	T-2		1973	09	30.23524	23	57	37.65	-01	42	14.5		4 675
3020	T-2	*	1973	09	30.30174	23	57	33.40	-01	42	05.5	17.5	4 675
3020	T-2		1973	10	04.28958	23	53	37.07	-01	31	42.7		4 675
3020	T-2		1973	10	04.31493	23	53	35.54	-01	31	37.6		4 675
3020	T-2		1973	10	04.35208	23	53	33.36	-01	31	31.9		4 675
3020	T-2		1973	10	04.37674	23	53	31.87	-01	31	27.4		4 675
3020	T-2		1973	10	05.31684	23	52	38.22	-01	28	52.1		4 675
3020	T-2		1973	10	05.34167	23	52	36.71	-01	28	48.0		4 675
3020	T-2		1973	10	05.37917	23	52	34.60	-01	28	40.7		4 675
3020	T-2		1973	10	05.40347	23	52	33.18	-01	28	37.5		4 675
3088	T-2		1973	09	19.21250	00	11	16.78	-04	17	02.9		4 675
3088	T-2		1973	09	19.26354	00	11	14.13	-04	17	19.5		4 675
3088	T-2		1973	09	20.27795	00	10	24.17	-04	22	11.9		4 675
3088	T-2		1973	09	24.37431	00	06	59.53	-04	41	22.3		4 675
3088	T-2		1973	09	24.44167	00	06	55.93	-04	41	41.0		4 675
3088	T-2		1973	09	25.26875	00	06	14.94	-04	45	26.6		4 675
3088	T-2		1973	09	25.33299	00	06	11.61	-04	45	44.7		4 675
3088	T-2		1973	09	29.27986	00	02	54.86	-05	02	50.5		4 675
3088	T-2		1973	09	29.34375	00	02	51.62	-05	03	04.4		4 675
3088	T-2		1973	09	30.23524	00	02	08.00	-05	06	46.2		4 675
3088	T-2	*	1973	09	30.30174	00	02	04.45	-05	07	03.5	19.7	4 675

3088	T-2		1973	10	05.34167	23	58	04.01	-05	25	59.6		4 675
3088	T-2		1973	10	05.40347	23	58	01.12	-05	26	12.1		4 675
3129	T-2		1973	09	19.21250	00	14	34.71	-04	29	20.6		4 675
3129	T-2		1973	09	19.26354	00	14	32.06	-04	30	02.2		4 675
3129	T-2		1973	09	20.27795	00	13	43.12	-04	43	14.6		4 675
3129	T-2		1973	09	24.37431	00	10	23.69	-05	35	35.9		4 675
3129	T-2		1973	09	24.44167	00	10	20.31	-05	36	27.5		4 675
3129	T-2		1973	09	25.26875	00	09	40.74	-05	46	45.7		4 675
3129	T-2		1973	09	25.33299	00	09	37.50	-05	47	34.0		4 675
3129	T-2		1973	09	29.27986	00	06	28.31	-06	35	08.4		4 675
3129	T-2		1973	09	29.34375	00	06	25.15	-06	35	53.3		4 675
3129	T-2		1973	09	30.23524	00	05	43.61	-06	46	14.0		4 675
3129	T-2	*	1973	09	30.30174	00	05	40.41	-06	46	59.5	17.3	4 675
3212	T-2		1973	09	19.18611	00	21	13.46	-00	44	59.3		4 675
3212	T-2		1973	09	19.21250	00	21	12.39	-00	45	14.6		4 675
3212	T-2		1973	09	19.23785	00	21	11.17	-00	45	29.5		4 675
3212	T-2		1973	09	19.26354	00	21	10.11	-00	45	43.4		4 675
3212	T-2		1973	09	20.22847	00	20	28.48	-00	54	53.6		4 675
3212	T-2		1973	09	20.27795	00	20	26.37	-00	55	23.5		4 675
3212	T-2		1973	09	24.37431	00	17	23.59	-01	34	34.7		4 675
3212	T-2		1973	09	24.44167	00	17	20.36	-01	35	13.0		4 675
3212	T-2		1973	09	25.26875	00	16	43.24	-01	43	09.1		4 675
3212	T-2		1973	09	25.33299	00	16	40.20	-01	43	47.5		4 675
3212	T-2		1973	09	29.27986	00	13	39.54	-02	21	11.7		4 675
3212	T-2		1973	09	29.34375	00	13	36.40	-02	21	48.1		4 675
3212	T-2		1973	09	30.23524	00	12	55.99	-02	30	06.5		4 675
3212	T-2	*	1973	09	30.30174	00	12	52.76	-02	30	44.1	18.4	4 675
3212	T-2		1973	10	04.31493	00	09	52.43	-03	07	12.3		4 675
3212	T-2		1973	10	04.37674	00	09	49.54	-03	07	45.6		4 675
3212	T-2		1973	10	05.34167	00	09	07.28	-03	16	13.8		4 675
3212	T-2		1973	10	05.40347	00	09	04.45	-03	16	46.0		4 675
3233	T-2		1973	09	19.21250	00	22	27.08	-05	13	57.9		4 675
3233	T-2		1973	09	19.26354	00	22	24.87	-05	14	16.7		4 675
3233	T-2		1973	09	20.27795	00	21	43.33	-05	20	34.1		4 675
3233	T-2		1973	09	24.37431	00	18	50.89	-05	45	28.7		4 675
3233	T-2		1973	09	24.44167	00	18	47.88	-05	45	53.0		4 675
3233	T-2		1973	09	25.26875	00	18	13.05	-05	50	52.2		4 675
3233	T-2		1973	09	25.33299	00	18	10.22	-05	51	15.8		4 675
3233	T-2		1973	09	29.27986	00	15	20.99	-06	14	16.0		4 675
3233	T-2		1973	09	29.34375	00	15	18.16	-06	14	38.9		4 675
3233	T-2		1973	09	30.23524	00	14	40.23	-06	19	42.1		4 675
3233	T-2	*	1973	09	30.30174	00	14	37.22	-06	20	05.7	16.8	4 675
3233	T-2		1973	10	04.31493	00	11	46.90	-06	41	55.1		4 675
3233	T-2		1973	10	04.37674	00	11	44.25	-06	42	15.3		4 675
3233	T-2		1973	10	05.34167	00	11	03.80	-06	47	15.3		4 675
3233	T-2		1973	10	05.40347	00	11	01.23	-06	47	34.7		4 675
3262	T-2		1973	09	19.22500	00	27	32.43	-02	11	42.5		4 675
3262	T-2		1973	09	19.27865	00	27	29.01	-02	11	56.9		4 675
3262	T-2		1973	09	20.30278	00	26	27.36	-02	16	14.2		4 675
3262	T-2		1973	09	24.38750	00	22	18.02	-02	32	56.6		4 675
3262	T-2		1973	09	24.45434	00	22	13.63	-02	33	11.9		4 675
3262	T-2		1973	09	25.26875	00	21	24.26	-02	36	26.7		4 675
3262	T-2		1973	09	25.28125	00	21	23.44	-02	36	29.2		4 675
3262	T-2		1973	09	25.33299	00	21	20.09	-02	36	41.6		4 675
3262	T-2		1973	09	25.34601	00	21	19.31	-02	36	43.8		4 675
3262	T-2		1973	09	29.27986	00	17	20.40	-02	51	26.9		4 675
3262	T-2		1973	09	29.34375	00	17	16.32	-02	51	39.1		4 675
3262	T-2		1973	09	30.23524	00	16	23.37	-02	54	47.4		4 675
3262	T-2	*	1973	09	30.30174	00	16	19.25	-02	55	00.2	16.6	4 675

3262	T-2		1973	10	04.31493	00	12	26.66	-03	07	37.5		4 675
3262	T-2		1973	10	04.37674	00	12	22.98	-03	07	48.4		4 675
3262	T-2		1973	10	05.34167	00	11	29.28	-03	10	29.5		4 675
3262	T-2		1973	10	05.40347	00	11	25.73	-03	10	39.5		4 675
3282	T-2		1973	09	19.22500	00	28	56.28	-02	29	14.8		4 675
3282	T-2		1973	09	19.27865	00	28	53.18	-02	29	29.9		4 675
3282	T-2		1973	09	20.30278	00	27	56.15	-02	33	24.9		4 675
3282	T-2		1973	09	24.38750	00	24	03.48	-02	48	57.6		4 675
3282	T-2		1973	09	24.45434	00	23	59.53	-02	49	12.2		4 675
3282	T-2		1973	09	25.28125	00	23	12.10	-02	52	18.1		4 675
3282	T-2		1973	09	25.34601	00	23	08.28	-02	52	31.4		4 675
3282	T-2		1973	09	29.27986	00	19	20.32	-03	06	39.9		4 675
3282	T-2		1973	09	29.29219	00	19	19.73	-03	06	43.5		4 675
3282	T-2		1973	09	29.34375	00	19	16.47	-03	06	54.1		4 675
3282	T-2		1973	09	29.35694	00	19	15.82	-03	06	58.0		4 675
3282	T-2		1973	09	30.23524	00	18	25.26	-03	09	57.0		4 675
3282	T-2		1973	09	30.24826	00	18	24.49	-03	09	58.1		4 675
3282	T-2	*	1973	09	30.30174	00	18	21.36	-03	10	11.8	19.0	4 675
3282	T-2		1973	09	30.31476	00	18	20.49	-03	10	11.9		4 675
3282	T-2		1973	10	04.31493	00	14	32.51	-03	22	59.2		4 675
3282	T-2		1973	10	04.32708	00	14	31.67	-03	22	59.1		4 675
3282	T-2		1973	10	04.37674	00	14	28.84	-03	23	10.8		4 675
3282	T-2		1973	10	04.38889	00	14	28.17	-03	23	09.6		4 675
3282	T-2		1973	10	05.34167	00	13	35.08	-03	26	01.0		4 675
3282	T-2		1973	10	05.40347	00	13	31.49	-03	26	12.4		4 675
4068	T-2		1973	09	19.22500	00	31	20.74	-01	24	42.4		4 675
4068	T-2		1973	09	19.27865	00	31	18.14	-01	24	56.3		4 675
4068	T-2		1973	09	20.30278	00	30	28.48	-01	29	37.9		4 675
4068	T-2		1973	09	24.38750	00	27	05.49	-01	48	24.5		4 675
4068	T-2		1973	09	24.45434	00	27	01.95	-01	48	41.2		4 675
4068	T-2		1973	09	25.28125	00	26	20.56	-01	52	31.5		4 675
4068	T-2		1973	09	25.34601	00	26	17.06	-01	52	47.5		4 675
4068	T-2	*	1973	09	29.29219	00	22	54.67	-02	10	33.8	19.6	4 675
4068	T-2		1973	09	29.35694	00	22	51.17	-02	10	53.2		4 675
4068	T-2		1973	09	30.24826	00	22	05.63	-02	14	48.3		4 675
4068	T-2		1973	09	30.31476	00	22	01.95	-02	15	05.5		4 675
4068	T-2		1973	10	04.32708	00	18	36.40	-02	32	09.3		4 675
4068	T-2		1973	10	04.38889	00	18	33.17	-02	32	23.9		4 675
4068	T-2		1973	10	05.35382	00	17	44.47	-02	36	20.2		4 675
4068	T-2		1973	10	05.41597	00	17	41.15	-02	36	35.6		4 675
4129	T-2		1973	09	19.22500	00	37	36.97	-00	01	41.2		4 675
4129	T-2		1973	09	19.27865	00	37	33.74	-00	01	55.0		4 675
4129	T-2		1973	09	20.30278	00	36	34.01	-00	06	30.2		4 675
4129	T-2		1973	09	24.38750	00	32	30.52	-00	24	56.6		4 675
4129	T-2		1973	09	24.45434	00	32	26.44	-00	25	15.3		4 675
4129	T-2		1973	09	25.28125	00	31	36.66	-00	28	59.8		4 675
4129	T-2		1973	09	25.34601	00	31	32.67	-00	29	16.5		4 675
4129	T-2	*	1973	09	29.29219	00	27	32.06	-00	46	55.1	18.5	4 675
4129	T-2		1973	09	29.35694	00	27	27.94	-00	47	13.1		4 675
4129	T-2		1973	09	30.24826	00	26	33.67	-00	51	04.8		4 675
4129	T-2		1973	09	30.31476	00	26	29.50	-00	51	22.1		4 675
4129	T-2		1973	10	04.32708	00	22	25.92	-01	08	19.6		4 675
4129	T-2		1973	10	04.38889	00	22	22.15	-01	08	34.2		4 675
4129	T-2		1973	10	05.35382	00	21	24.51	-01	12	30.7		4 675
4129	T-2		1973	10	05.41597	00	21	20.66	-01	12	45.4		4 675
4239	T-2		1973	09	19.22500	00	46	04.68	+00	13	36.9		4 675
4239	T-2		1973	09	19.27865	00	46	01.50	+00	13	22.4		4 675
4239	T-2		1973	09	20.30278	00	45	02.28	+00	08	37.5		4 675
4239	T-2		1973	09	24.38750	00	40	59.07	-00	10	32.1		4 675

4239	T-2		1973	09	24.45434	00	40	54.86	-00	10	51.5		4 675
4239	T-2		1973	09	25.28125	00	40	04.81	-00	14	45.5		4 675
4239	T-2		1973	09	25.34601	00	40	00.78	-00	15	04.3		4 675
4239	T-2	*	1973	09	29.29219	00	35	57.26	-00	33	30.8	17.5	4 675
4239	T-2		1973	09	29.35694	00	35	53.09	-00	33	48.9		4 675
4239	T-2		1973	09	30.24826	00	34	57.95	-00	37	50.0		4 675
4239	T-2		1973	09	30.31476	00	34	53.69	-00	38	09.3		4 675
4239	T-2		1973	10	04.32708	00	30	44.94	-00	55	53.6		4 675
4239	T-2		1973	10	04.38889	00	30	41.04	-00	56	09.0		4 675
4239	T-2		1973	10	05.35382	00	29	41.95	-01	00	15.1		4 675
4239	T-2		1973	10	05.41597	00	29	38.01	-01	00	30.5		4 675
4240	T-2		1973	09	19.22500	00	44	07.71	-02	37	21.4		4 675
4240	T-2		1973	09	19.27865	00	44	05.15	-02	37	40.7		4 675
4240	T-2		1973	09	20.30278	00	43	18.85	-02	43	23.3		4 675
4240	T-2		1973	09	24.38750	00	40	03.64	-03	06	18.7		4 675
4240	T-2		1973	09	24.45434	00	40	00.05	-03	06	42.2		4 675
4240	T-2		1973	09	25.28125	00	39	19.29	-03	11	20.4		4 675
4240	T-2		1973	09	25.34601	00	39	15.79	-03	11	41.9		4 675
4240	T-2	*	1973	09	29.29219	00	35	52.41	-03	33	16.1	17.7	4 675
4240	T-2		1973	09	29.35694	00	35	48.78	-03	33	36.9		4 675
4240	T-2		1973	09	30.24826	00	35	01.96	-03	38	18.2		4 675
4240	T-2		1973	09	30.31476	00	34	58.19	-03	38	39.0		4 675
4240	T-2		1973	10	04.32708	00	31	24.96	-03	58	49.5		4 675
4240	T-2		1973	10	04.38889	00	31	21.46	-03	59	06.8		4 675
4240	T-2		1973	10	05.35382	00	30	30.40	-04	03	40.1		4 675
4240	T-2		1973	10	05.41597	00	30	26.81	-04	03	56.2		4 675
4254	T-2		1973	09	19.22500	00	45	52.98	-02	02	44.2		4 675
4254	T-2		1973	09	19.27865	00	45	50.33	-02	02	56.7		4 675
4254	T-2		1973	09	20.30278	00	45	01.05	-02	07	21.9		4 675
4254	T-2		1973	09	24.38750	00	41	35.56	-02	24	45.3		4 675
4254	T-2		1973	09	24.45434	00	41	31.97	-02	25	01.4		4 675
4254	T-2		1973	09	25.28125	00	40	49.53	-02	28	27.8		4 675
4254	T-2		1973	09	25.34601	00	40	45.90	-02	28	42.6		4 675
4254	T-2	*	1973	09	29.29219	00	37	16.76	-02	44	26.0	16.5	4 675
4254	T-2		1973	09	29.35694	00	37	13.17	-02	44	41.4		4 675
4254	T-2		1973	09	30.24826	00	36	25.84	-02	48	00.9		4 675
4254	T-2		1973	09	30.31476	00	36	22.03	-02	48	15.6		4 675
4254	T-2		1973	10	04.32708	00	32	48.64	-03	02	09.3		4 675
4254	T-2		1973	10	04.38889	00	32	45.23	-03	02	21.3		4 675
4254	T-2		1973	10	05.35382	00	31	54.68	-03	05	21.0		4 675
4254	T-2		1973	10	05.41597	00	31	51.27	-03	05	32.4		4 675
4289	T-2		1973	09	20.30278	00	46	59.32	-01	39	52.4		4 675
4289	T-2		1973	09	25.28125	00	42	58.76	-02	07	29.6		4 675
4289	T-2		1973	09	25.34601	00	42	55.40	-02	07	51.8		4 675
4289	T-2	*	1973	09	29.29219	00	39	36.21	-02	29	21.8	19.0	4 675
4289	T-2		1973	09	29.35694	00	39	32.94	-02	29	41.3		4 675
4289	T-2		1973	09	30.24826	00	38	47.62	-02	34	25.6		4 675
4289	T-2		1973	09	30.31476	00	38	44.12	-02	34	45.6		4 675
4289	T-2		1973	10	04.32708	00	35	18.85	-02	55	27.0		4 675
4289	T-2		1973	10	04.38889	00	35	15.53	-02	55	46.4		4 675
4289	T-2		1973	10	05.35382	00	34	26.41	-03	00	29.8		4 675
4289	T-2		1973	10	05.41597	00	34	23.18	-03	00	48.0		4 675
5027	T-2		1973	09	19.29705	00	08	03.65	+13	19	23.4		4 675
5027	T-2		1973	09	20.21458	00	07	20.33	+13	12	42.1		4 675
5027	T-2		1973	09	20.29253	00	07	16.57	+13	12	08.9		4 675
5027	T-2		1973	09	24.40035	00	04	00.82	+12	40	42.6		4 675
5027	T-2		1973	09	24.47986	00	03	56.84	+12	40	03.9		4 675
5027	T-2	*	1973	09	25.29375	00	03	18.09	+12	33	32.0	18.5	4 675
5027	T-2		1973	09	25.35903	00	03	14.85	+12	32	59.3		4 675

5069	T-2		1973	09	19.29705	00	14	21.04	+13	08	37.8	4 675
5069	T-2		1973	09	20.21458	00	13	41.90	+13	03	22.7	4 675
5069	T-2		1973	09	20.29253	00	13	38.54	+13	02	55.9	4 675
5069	T-2		1973	09	24.40035	00	10	38.26	+12	37	23.1	4 675
5069	T-2		1973	09	24.47986	00	10	34.63	+12	36	51.5	4 675
5069	T-2	*	1973	09	25.29375	00	09	58.77	+12	31	21.8	17.3 4 675
5069	T-2		1973	09	25.35903	00	09	55.70	+12	30	55.5	4 675
5069	T-2		1973	09	29.24062	00	07	01.89	+12	03	10.1	4 675
5069	T-2		1973	09	29.30486	00	06	58.92	+12	02	41.1	4 675
5069	T-2		1973	09	30.19722	00	06	19.16	+11	55	57.1	4 675
5069	T-2		1973	09	30.35295	00	06	11.90	+11	54	46.1	4 675
5069	T-2		1973	10	04.27708	00	03	19.69	+11	23	54.5	4 675
5069	T-2		1973	10	04.33906	00	03	16.87	+11	23	22.5	4 675
5069	T-2		1973	10	05.36632	00	02	32.96	+11	15	04.0	4 675
5069	T-2		1973	10	05.42847	00	02	30.14	+11	14	32.1	4 675
5104	T-2		1973	09	20.21458	00	19	04.54	+13	38	43.9	4 675
5104	T-2		1973	09	20.29253	00	19	01.02	+13	38	22.1	4 675
5104	T-2		1973	09	24.40035	00	15	55.27	+13	17	42.8	4 675
5104	T-2		1973	09	24.47986	00	15	51.71	+13	17	16.9	4 675
5104	T-2	*	1973	09	25.29375	00	15	14.94	+13	12	52.3	19.8 4 675
5104	T-2		1973	09	25.35903	00	15	11.71	+13	12	31.0	4 675
5104	T-2		1973	09	29.24062	00	12	14.19	+12	50	31.3	4 675
5104	T-2		1973	09	29.30486	00	12	10.98	+12	50	07.9	4 675
5104	T-2		1973	09	30.19722	00	11	30.43	+12	44	48.8	4 675
5104	T-2		1973	09	30.35295	00	11	22.94	+12	43	53.8	4 675
5104	T-2		1973	10	04.27708	00	08	25.77	+12	19	41.3	4 675
5104	T-2		1973	10	04.33906	00	08	22.94	+12	19	19.0	4 675
5104	T-2		1973	10	05.36632	00	07	37.25	+12	12	46.3	4 675
5104	T-2		1973	10	05.42847	00	07	34.36	+12	12	22.7	4 675
5141	T-2		1973	09	19.29705	00	24	50.03	+17	09	55.1	4 675
5141	T-2		1973	09	20.21458	00	24	05.79	+17	07	58.9	4 675
5141	T-2		1973	09	20.29253	00	24	01.99	+17	07	48.2	4 675
5141	T-2		1973	09	24.40035	00	20	40.46	+16	57	12.4	4 675
5141	T-2		1973	09	24.47986	00	20	36.47	+16	56	58.9	4 675
5141	T-2	*	1973	09	25.29375	00	19	56.19	+16	54	32.5	17.5 4 675
5141	T-2		1973	09	25.35903	00	19	52.91	+16	54	18.8	4 675
5141	T-2		1973	09	29.24062	00	16	38.97	+16	41	10.8	4 675
5141	T-2		1973	09	29.30486	00	16	35.65	+16	40	55.6	4 675
5141	T-2		1973	09	30.19722	00	15	51.49	+16	37	33.8	4 675
5141	T-2		1973	09	30.35295	00	15	43.44	+16	36	59.0	4 675
5141	T-2		1973	10	04.27708	00	12	29.66	+16	20	52.3	4 675
5141	T-2		1973	10	04.33906	00	12	26.49	+16	20	36.3	4 675
5141	T-2		1973	10	05.36632	00	11	36.49	+16	16	03.0	4 675
5141	T-2		1973	10	05.42847	00	11	33.45	+16	15	46.3	4 675
5332	T-2		1973	09	29.24062	00	06	17.25	+13	42	08.8	4 675
5332	T-2		1973	09	29.30486	00	06	14.27	+13	41	42.4	4 675
5332	T-2	*	1973	09	30.19722	00	05	34.89	+13	35	41.5	19.4 4 675
5332	T-2		1973	09	30.35295	00	05	27.78	+13	34	37.2	4 675
5332	T-2		1973	10	05.36632	00	01	49.67	+12	59	15.9	4 675
5332	T-2		1973	10	05.42847	00	01	46.97	+12	58	48.6	4 675
5489	T-2	*	1973	09	30.19722	00	26	24.11	+13	03	46.4	16.6 4 675
5489	T-2		1973	09	30.35295	00	26	15.33	+13	02	32.1	4 675
5489	T-2		1973	10	04.27708	00	22	46.02	+12	29	38.4	4 675
5489	T-2		1973	10	04.33906	00	22	42.51	+12	29	06.7	4 675
5489	T-2		1973	10	05.36632	00	21	48.52	+12	20	11.8	4 675
5489	T-2		1973	10	05.42847	00	21	45.15	+12	19	38.1	4 675
1076	T-3		1977	10	07.24652	00	57	43.54	+20	39	33.5	4 675
1076	T-3		1977	10	11.26632	00	53	47.91	+20	27	21.7	4 675
1076	T-3		1977	10	11.33351	00	53	43.80	+20	27	07.1	4 675

1076	T-3		1977	10	12.26510	00	52	49.62	+20	23	40.2		4 675
1076	T-3		1977	10	12.33125	00	52	45.51	+20	23	25.4		4 675
1076	T-3		1977	10	16.25156	00	49	02.27	+20	06	32.8		4 675
1076	T-3		1977	10	16.31684	00	48	58.32	+20	06	14.4		4 675
1076	T-3	*	1977	10	17.25365	00	48	06.99	+20	01	46.1	16.3	4 675
1076	T-3		1977	10	17.32083	00	48	02.99	+20	01	26.3		4 675
1076	T-3		1977	10	22.42812	00	43	38.28	+19	34	11.1		4 675
1076	T-3		1977	10	22.48003	00	43	35.58	+19	33	53.4		4 675
2424	T-3	*	1977	10	16.26233	01	14	54.26	+10	27	25.4	17.7	4 675
2424	T-3		1977	10	16.32795	01	14	50.60	+10	27	02.5		4 675
2424	T-3		1977	10	17.26458	01	13	59.40	+10	21	12.1		4 675
2424	T-3		1977	10	17.33177	01	13	55.60	+10	20	47.1		4 675
2424	T-3		1977	10	21.40868	01	10	16.03	+09	55	13.2		4 675
2424	T-3		1977	10	21.46910	01	10	12.80	+09	54	48.7		4 675
2424	T-3		1977	10	22.41528	01	09	22.80	+09	48	57.6		4 675
2424	T-3		1977	10	22.46962	01	09	19.92	+09	48	37.7		4 675
3082	T-3	*	1977	10	16.27309	01	24	06.33	+06	44	25.8	19.0	4 675
3082	T-3		1977	10	16.33872	01	24	02.27	+06	44	12.5		4 675
3082	T-3		1977	10	17.27552	01	23	06.45	+06	41	15.1		4 675
3082	T-3		1977	10	17.34236	01	23	02.34	+06	41	02.7		4 675
3082	T-3		1977	10	21.39792	01	19	03.23	+06	28	26.4		4 675
3082	T-3		1977	10	21.45799	01	18	59.61	+06	28	15.9		4 675
3082	T-3		1977	10	22.39844	01	18	05.27	+06	25	26.7		4 675
3082	T-3		1977	10	22.45920	01	18	01.75	+06	25	16.1		4 675
3088	T-3		1977	10	12.28681	01	27	01.31	+09	21	22.2		4 675
3088	T-3		1977	10	12.35347	01	26	57.49	+09	21	00.5		4 675
3088	T-3	*	1977	10	16.27309	01	23	20.09	+08	58	46.3	18.5	4 675
3088	T-3		1977	10	16.33872	01	23	16.32	+08	58	25.0		4 675
3088	T-3		1977	10	17.27552	01	22	24.17	+08	53	05.9		4 675
3088	T-3		1977	10	17.34236	01	22	20.35	+08	52	42.1		4 675
3088	T-3		1977	10	21.39792	01	18	35.98	+08	29	34.3		4 675
3088	T-3		1977	10	22.39844	01	17	41.43	+08	23	51.0		4 675
3088	T-3		1977	10	22.45920	01	17	38.03	+08	23	30.4		4 675
4385	T-3	*	1977	10	16.28368	01	36	32.96	+02	17	19.0	18.4	4 675
4385	T-3		1977	10	16.34931	01	36	29.63	+02	16	46.3		4 675
4385	T-3		1977	10	17.28628	01	35	45.03	+02	08	44.4		4 675
4385	T-3		1977	10	17.35313	01	35	41.58	+02	08	10.9		4 675
4385	T-3		1977	10	21.38698	01	32	28.43	+01	34	57.8		4 675
4385	T-3		1977	10	21.44705	01	32	25.44	+01	34	30.2		4 675
4385	T-3		1977	10	22.38542	01	31	41.09	+01	27	09.2		4 675
4385	T-3		1977	10	22.44878	01	31	38.05	+01	26	39.4		4 675
5028	T-3		1977	10	11.31111	01	26	36.73	-04	24	35.0		4 675
5028	T-3		1977	10	11.37865	01	26	33.13	-04	25	15.7		4 675
5028	T-3		1977	10	12.30885	01	25	44.62	-04	34	37.9		4 675
5028	T-3		1977	10	12.37500	01	25	41.01	-04	35	17.1		4 675
5028	T-3	*	1977	10	16.29444	01	22	16.58	-05	12	48.1	17.8	4 675
5028	T-3		1977	10	16.36024	01	22	13.01	-05	13	25.4		4 675
5028	T-3		1977	10	17.29688	01	21	24.73	-05	21	55.2		4 675
5028	T-3		1977	10	17.36372	01	21	21.20	-05	22	31.7		4 675
5028	T-3		1977	10	21.37622	01	17	58.33	-05	56	40.6		4 675
5028	T-3		1977	10	21.43611	01	17	55.30	-05	57	09.1		4 675
5028	T-3		1977	10	22.43872	01	17	05.98	-06	05	06.4		4 675
16			1989	07	29.33960	20	58	02.33	-15	26	52.3		9 675
16			1989	07	29.37066	20	58	00.74	-15	27	00.4		9 675
42			1989	03	30.29219	12	35	42.15	+10	23	33.0		9 675
42			1989	03	30.32483	12	35	40.27	+10	23	43.6		9 675
42			1989	04	03.35313	12	31	50.39	+10	44	29.3		9 675
42			1989	04	03.38056	12	31	48.73	+10	44	37.2		9 675
60			1989	07	07.29896	19	34	18.59	-16	04	01.6		9 675

60	1989	07	07.33299	19	34	16.59	-16	04	04.2		9	675
113	1989	08	01.30677	20	16	56.58	-19	59	22.2		9	675
113	1989	08	01.33646	20	16	54.71	-19	59	31.2		9	675
119	1973	10	04.30208	00	40	07.01	+06	37	15.6		4	675
119	1973	10	04.36476	00	40	03.84	+06	36	44.5		4	675
119	1973	10	05.32917	00	39	17.77	+06	28	51.3		4	675
119	1973	10	05.39132	00	39	14.65	+06	28	22.1		4	675
119	1989	07	07.29896	19	34	35.92	-12	01	34.3		9	675
119	1989	07	07.33299	19	34	34.03	-12	01	38.1		9	675
130	1989	03	29.27483	11	43	14.83	+18	33	28.8		9	675
130	1989	03	29.30781	11	43	13.50	+18	33	40.3		9	675
157	1989	07	29.18993	15	12	26.95	-20	15	15.0		9	675
157	1989	07	29.23038	15	12	27.82	-20	15	24.9		9	675
159	1973	09	29.29219	00	41	45.67	-03	20	36.3	13.3	4	675
159	1973	09	29.35694	00	41	42.80	-03	20	58.5		4	675
159	1973	09	30.24826	00	41	04.56	-03	26	06.6		4	675
159	1973	09	30.31476	00	41	01.65	-03	26	29.4		4	675
159	1973	10	04.32708	00	38	07.57	-03	49	07.9		4	675
159	1973	10	04.38889	00	38	04.74	-03	49	28.7		4	675
159	1973	10	05.35382	00	37	23.15	-03	54	46.0		4	675
159	1973	10	05.41597	00	37	20.33	-03	55	06.2		4	675
173	1989	03	30.29219	12	59	10.19	+08	32	05.1		9	675
173	1989	03	30.32483	12	59	08.68	+08	32	19.7		9	675
173	1989	04	03.35313	12	56	05.96	+09	01	36.6		9	675
173	1989	04	03.38056	12	56	04.66	+09	01	47.6		9	675
196	1989	04	03.35313	12	50	45.19	+04	42	37.3		9	675
196	1989	04	03.38056	12	50	43.89	+04	42	43.2		9	675
211	1989	07	06.35399	19	35	18.25	-19	09	48.3		9	675
211	1989	07	06.38056	19	35	16.76	-19	09	50.1		9	675
211	1989	07	07.29896	19	34	32.46	-19	10	39.0		9	675
211	1989	07	07.33299	19	34	30.72	-19	10	41.4		9	675
211	1989	07	10.33190	19	32	03.11	-19	13	43.6		9	675
211	1989	07	10.36806	19	32	01.22	-19	13	46.3		9	675
211	1989	08	02.26042	19	13	45.49	-19	36	44.6		9	675
211	1989	08	02.29066	19	13	44.15	-19	36	45.2		9	675
216	1989	07	09.31042	20	25	46.50	+01	41	11.3		9	675
216	1989	07	09.34387	20	25	45.00	+01	41	15.3		9	675
222	1973	09	19.22500	00	30	09.99	-00	04	55.1		4	675
222	1973	09	19.27865	00	30	07.57	-00	05	11.7		4	675
222	1973	09	20.30278	00	29	22.87	-00	10	00.6		4	675
222	1973	09	24.38750	00	26	21.72	-00	29	16.2		4	675
222	1973	09	24.45434	00	26	18.63	-00	29	36.3		4	675
222	1973	09	25.28125	00	25	41.82	-00	33	31.2		4	675
222	1973	09	25.34601	00	25	38.82	-00	33	50.0		4	675
222	1973	09	29.29219	00	22	41.08	-00	52	17.6	14.6	4	675
222	1973	09	29.35694	00	22	38.07	-00	52	36.3		4	675
222	1973	09	30.24826	00	21	57.95	-00	56	40.3		4	675
222	1973	09	30.31476	00	21	54.90	-00	56	58.2		4	675
222	1973	10	04.32708	00	18	55.74	-01	14	55.3		4	675
222	1973	10	04.38889	00	18	53.01	-01	15	12.0		4	675
222	1973	10	05.35382	00	18	10.54	-01	19	25.6		4	675
222	1973	10	05.41597	00	18	07.76	-01	19	41.0		4	675
229	1989	07	29.33960	20	53	41.21	-20	47	18.9		9	675
229	1989	07	29.37066	20	53	39.71	-20	47	24.9		9	675
275	1973	09	29.29219	00	41	23.18	-01	38	54.0	13.7	4	675
275	1973	09	29.35694	00	41	20.00	-01	39	16.1		4	675
275	1973	09	30.24826	00	40	38.57	-01	44	27.0		4	675
275	1973	09	30.31476	00	40	35.26	-01	44	49.1		4	675
275	1973	10	04.32708	00	37	26.38	-02	07	50.3		4	675

275		1973	10	04.38889	00	37	23.42	-02	08	11.1		4 675
275		1973	10	05.35382	00	36	38.05	-02	13	34.5		4 675
275		1973	10	05.41597	00	36	34.96	-02	13	55.4		4 675
279		1983	07	10.31424	18	01	53.44	-24	32	14.7	16.5	2 675
279		1983	07	10.35243	18	01	52.29	-24	32	16.2		2 675
289		1989	07	29.20469	15	52	05.34	-12	07	08.5		9 675
289		1989	07	29.24583	15	52	05.70	-12	07	14.8		9 675
412		1989	07	29.18177	14	57	54.61	-06	12	44.0		9 675
412		1989	07	29.22292	14	57	56.06	-06	13	06.9		9 675
443		1989	07	08.41858	21	02	59.36	-10	51	40.2		9 675
443		1989	07	08.45799	21	02	57.68	-10	51	47.3		9 675
443		1989	07	29.31580	20	45	00.15	-12	19	14.5		9 675
443		1989	08	01.31406	20	42	00.42	-12	35	36.9		9 675
443		1989	08	01.34478	20	41	58.51	-12	35	46.7		9 675
452		1989	07	29.33960	20	54	03.28	-20	32	03.9		9 675
452		1989	07	29.37066	20	54	01.59	-20	32	12.2		9 675
460		1989	07	08.41858	20	38	09.54	-10	53	44.7		9 675
460		1989	07	08.45799	20	38	07.95	-10	53	47.5		9 675
460		1989	07	29.31580	20	21	31.17	-11	44	00.3		9 675
460		1989	07	29.34774	20	21	29.48	-11	44	06.4		9 675
460		1989	08	01.31406	20	18	55.81	-11	54	23.6		9 675
460		1989	08	01.32882	20	18	54.94	-11	54	28.5		9 675
460		1989	08	01.34478	20	18	54.21	-11	54	29.7		9 675
485		1989	07	29.19722	16	22	01.12	-05	23	46.8		9 675
485		1989	07	29.23853	16	22	01.01	-05	23	53.9		9 675
502		1989	07	29.33960	20	53	01.97	-15	07	09.8		9 675
502		1989	07	29.37066	20	53	00.09	-15	07	30.4		9 675
537		1989	03	30.29219	12	39	24.91	+09	58	57.1		9 675
537		1989	03	30.32483	12	39	23.39	+09	59	09.0		9 675
537		1989	04	03.35313	12	36	21.05	+10	22	00.8		9 675
537		1989	04	03.38056	12	36	19.76	+10	22	10.0		9 675
543		1989	08	01.30677	20	10	27.66	-18	09	27.9		9 675
543		1989	08	01.33646	20	10	26.03	-18	09	28.0		9 675
612		1973	09	20.21458	00	23	23.01	+15	03	12.8		4 675
612		1973	09	20.29253	00	23	20.13	+15	02	12.3		4 675
612		1973	09	24.40035	00	20	52.44	+14	05	18.6		4 675
612		1973	09	24.47986	00	20	49.48	+14	04	11.2		4 675
612		1973	09	25.29375	00	20	20.14	+13	52	31.9	15.0	4 675
612		1973	09	25.35903	00	20	17.61	+13	51	35.8		4 675
612		1973	09	29.24062	00	17	56.24	+12	54	44.5		4 675
612		1973	09	29.30486	00	17	53.77	+12	53	46.3		4 675
612		1973	09	30.19722	00	17	21.67	+12	40	26.8		4 675
612		1973	09	30.35295	00	17	15.77	+12	38	07.0		4 675
612		1973	10	04.27708	00	14	56.70	+11	38	44.2		4 675
612		1973	10	04.33906	00	14	54.32	+11	37	47.2		4 675
612		1973	10	05.36632	00	14	19.06	+11	22	05.8		4 675
612		1973	10	05.42847	00	14	16.89	+11	21	10.2		4 675
630		1989	07	10.33190	19	57	01.73	-23	53	06.2		9 675
630		1989	07	10.36806	19	56	59.57	-23	53	18.6		9 675
653		1989	07	07.29896	19	21	50.42	-14	54	12.6		9 675
653		1989	07	07.33299	19	21	48.78	-14	54	21.3		9 675
656		1973	09	19.18611	00	22	22.39	+02	25	34.1		4 675
656		1973	09	19.23785	00	22	20.23	+02	25	20.1		4 675
656		1973	09	20.22847	00	21	39.12	+02	20	50.8		4 675
656		1973	09	24.34688	00	18	45.54	+02	01	38.4		4 675
656		1973	09	24.38750	00	18	43.73	+02	01	29.1		4 675
656		1973	09	24.41597	00	18	42.54	+02	01	19.7		4 675
656		1973	09	24.45434	00	18	40.86	+02	01	10.4		4 675
656		1973	09	25.24375	00	18	07.38	+01	57	24.7		4 675

656	1973	09	25.28125	00	18	05.90	+01	57	16.7		4 675
656	1973	09	25.30729	00	18	04.64	+01	57	08.7		4 675
656	1973	09	25.34601	00	18	02.89	+01	56	58.7		4 675
656	1973	09	29.25330	00	15	15.82	+01	38	26.1	15.6	4 675
656	1973	09	29.31806	00	15	13.00	+01	38	07.4		4 675
656	1973	09	30.21007	00	14	34.84	+01	33	53.9		4 675
656	1973	09	30.27431	00	14	32.01	+01	33	36.0		4 675
656	1973	10	04.28958	00	11	41.61	+01	14	42.1		4 675
656	1973	10	04.35208	00	11	38.88	+01	14	26.0		4 675
656	1973	10	05.31684	00	10	58.51	+01	09	55.9		4 675
656	1973	10	05.37917	00	10	55.78	+01	09	38.5		4 675
657	1989	07	29.18993	15	20	44.88	-27	05	24.0		9 675
657	1989	07	29.23038	15	20	46.83	-27	05	14.4		9 675
796	1989	03	29.27483	11	41	09.59	+20	40	14.0		9 675
796	1989	03	29.30781	11	41	07.75	+20	40	15.5		9 675
799	1989	07	07.33299	19	21	44.12	-14	46	24.4		9 675
817	1989	07	29.33960	20	45	34.62	-18	49	48.4		9 675
817	1989	07	29.37066	20	45	32.88	-18	50	04.3		9 675
828	1973	09	19.19948	00	26	16.34	+02	53	02.3		4 675
828	1973	09	19.25006	00	26	14.23	+02	52	50.1		4 675
828	1973	09	24.36181	00	22	32.22	+02	30	46.3		4 675
828	1973	09	24.42847	00	22	29.31	+02	30	28.7		4 675
828	1973	09	25.25642	00	21	53.10	+02	26	49.5		4 675
828	1973	09	25.32031	00	21	50.10	+02	26	32.6		4 675
828	1973	09	29.25330	00	18	55.81	+02	09	08.1	15.0	4 675
828	1973	09	29.31806	00	18	52.85	+02	08	50.8		4 675
828	1973	09	30.21007	00	18	13.30	+02	04	55.8		4 675
828	1973	09	30.27431	00	18	10.33	+02	04	39.3		4 675
828	1973	10	04.28958	00	15	14.27	+01	46	54.2		4 675
828	1973	10	04.32708	00	15	12.25	+01	46	49.1		4 675
828	1973	10	04.35208	00	15	11.40	+01	46	38.2		4 675
828	1973	10	04.38889	00	15	09.52	+01	46	33.7		4 675
828	1973	10	05.31684	00	14	29.54	+01	42	30.0		4 675
828	1973	10	05.35382	00	14	27.74	+01	42	21.3		4 675
828	1973	10	05.37917	00	14	26.81	+01	42	15.3		4 675
828	1973	10	05.41597	00	14	25.01	+01	42	07.3		4 675
847	1989	08	01.30677	20	18	16.52	-17	25	05.1		9 675
847	1989	08	01.33646	20	18	14.91	-17	25	09.1		9 675
856	1989	07	29.33960	20	50	49.79	-19	04	45.6		9 675
856	1989	07	29.37066	20	50	48.10	-19	05	03.1		9 675
865	1989	07	06.19965	15	31	53.58	-01	05	47.4		9 675
865	1989	07	06.23576	15	31	53.28	-01	05	54.4		9 675
876	1989	03	30.29219	12	40	46.64	+06	11	36.7		9 675
876	1989	03	30.32483	12	40	45.19	+06	11	50.4		9 675
876	1989	04	03.35313	12	37	54.02	+06	38	19.0		9 675
876	1989	04	03.38056	12	37	52.79	+06	38	29.1		9 675
882	1989	07	08.41858	20	54	59.65	-10	30	17.6		9 675
882	1989	07	08.45799	20	54	58.28	-10	30	16.1		9 675
882	1989	07	29.31580	20	39	58.25	-10	39	11.5		9 675
882	1989	07	29.34774	20	39	56.62	-10	39	15.2		9 675
882	1989	08	01.31406	20	37	28.90	-10	43	31.7		9 675
882	1989	08	01.34478	20	37	27.35	-10	43	34.6		9 675
924	1989	07	08.41858	20	44	45.87	-11	08	29.1		9 675
924	1989	07	08.45799	20	44	44.40	-11	08	37.3		9 675
924	1989	07	29.31580	20	29	58.58	-12	54	58.7		9 675
924	1989	07	29.34774	20	29	57.03	-12	55	09.5		9 675
924	1989	08	01.31406	20	27	35.60	-13	13	24.3		9 675
924	1989	08	01.34478	20	27	34.14	-13	13	35.5		9 675
943	1989	07	29.18177	14	50	08.17	-05	11	37.2		9 675

943	1989	07	29.22292	14	50	09.24	-05	11	53.0		9	675
998	1989	07	29.33960	20	35	33.57	-16	18	01.5		9	675
1025	1989	03	29.27483	11	38	16.65	+18	57	30.3		9	675
1025	1989	03	29.30781	11	38	15.12	+18	58	13.9		9	675
1027	1973	09	19.19948	00	35	30.70	+03	04	05.6		4	675
1027	1973	09	19.25006	00	35	28.54	+03	03	52.9		4	675
1027	1973	09	20.26458	00	34	47.00	+02	59	38.6		4	675
1027	1973	09	24.36181	00	31	55.28	+02	42	09.4		4	675
1027	1973	09	24.42847	00	31	52.32	+02	41	52.7		4	675
1027	1973	09	25.25642	00	31	17.27	+02	38	16.1		4	675
1027	1973	09	25.32031	00	31	14.40	+02	38	00.1		4	675
1027	1973	09	29.26632	00	28	24.26	+02	20	43.0		4	675
1027	1973	09	29.33073	00	28	21.44	+02	20	25.6	16.2	4	675
1027	1973	09	30.22257	00	27	42.82	+02	16	29.9		4	675
1027	1973	09	30.28785	00	27	39.86	+02	16	11.8		4	675
1027	1973	10	04.30208	00	24	45.88	+01	58	36.2		4	675
1027	1973	10	04.36476	00	24	43.10	+01	58	19.6		4	675
1027	1973	10	05.32917	00	24	01.56	+01	54	06.4		4	675
1027	1973	10	05.39132	00	23	58.83	+01	53	51.0		4	675
1059	1989	07	29.18177	15	07	38.72	-07	03	01.1		9	675
1059	1989	07	29.22292	15	07	40.87	-07	03	08.8		9	675
1124	1973	09	19.21250	00	14	39.52	-03	23	34.6		4	675
1124	1973	09	19.26354	00	14	36.91	-03	23	44.6		4	675
1124	1973	09	20.27795	00	13	45.90	-03	26	53.2		4	675
1124	1973	09	24.37431	00	10	17.68	-03	39	11.1		4	675
1124	1973	09	24.44167	00	10	14.05	-03	39	23.8		4	675
1124	1973	09	25.26875	00	09	32.13	-03	41	48.9		4	675
1124	1973	09	25.33299	00	09	28.72	-03	41	58.9		4	675
1124	1973	09	29.27986	00	06	07.96	-03	53	00.2		4	675
1124	1973	09	29.34375	00	06	04.64	-03	53	10.2		4	675
1124	1973	09	30.23524	00	05	19.81	-03	55	33.4		4	675
1124	1973	09	30.30174	00	05	16.35	-03	55	44.0	15.5	4	675
1124	1973	10	04.31493	00	01	57.63	-04	05	36.4		4	675
1124	1973	10	04.37674	00	01	54.49	-04	05	45.2		4	675
1124	1973	10	05.34167	00	01	07.75	-04	07	54.8		4	675
1124	1973	10	05.40347	00	01	04.69	-04	08	04.0		4	675
1125	1989	07	10.33190	19	39	07.47	-22	33	12.8		9	675
1127	1989	07	06.20955	16	09	23.72	-04	25	30.9		9	675
1127	1989	07	11.29861	16	07	05.40	-04	48	09.1		9	675
1127	1989	07	11.36997	16	07	03.60	-04	48	28.5		9	675
1127	1989	07	29.19722	16	03	22.45	-06	24	32.2		9	675
1127	1989	07	29.23853	16	03	22.42	-06	24	46.4		9	675
1163	1989	07	29.18177	14	52	37.70	-07	00	59.5		9	675
1163	1989	07	29.22292	14	52	38.83	-07	01	12.6		9	675
1178	1989	07	07.29896	19	26	18.19	-12	28	18.9		9	675
1178	1989	07	07.33299	19	26	16.02	-12	28	25.2		9	675
1185	1989	03	30.29219	12	38	51.23	+05	35	03.8		9	675
1185	1989	03	30.32483	12	38	49.11	+05	35	14.2		9	675
1185	1989	04	03.35313	12	34	42.56	+05	53	59.3		9	675
1185	1989	04	03.38056	12	34	40.79	+05	54	06.6		9	675
1189	1989	07	29.18993	15	00	23.15	-22	32	21.0		9	675
1189	1989	07	29.23038	15	00	24.28	-22	32	12.3		9	675
1219	1973	09	19.21250	00	09	07.73	-05	30	34.1		4	675
1219	1973	09	19.26354	00	09	04.44	-05	30	48.7		4	675
1219	1973	09	20.27795	00	08	03.37	-05	35	25.3		4	675
1219	1973	09	24.37431	00	03	51.94	-05	53	29.9		4	675
1219	1973	09	24.44167	00	03	47.61	-05	53	47.1		4	675
1219	1973	09	25.26875	00	02	57.04	-05	57	16.7		4	675
1219	1973	09	25.33299	00	02	52.90	-05	57	33.3		4	675

1219		1973	09	29.27986	23	58	49.69	-06	13	00.7		4 675
1219		1973	09	29.34375	23	58	45.50	-06	13	13.8		4 675
1219		1973	09	30.23524	23	57	51.48	-06	16	27.8		4 675
1219		1973	09	30.30174	23	57	47.29	-06	16	42.3	14.8	4 675
1219		1973	10	04.31493	23	53	48.61	-06	29	39.9		4 675
1219		1973	10	04.37674	23	53	44.77	-06	29	50.4		4 675
1219		1973	10	05.34167	23	52	49.46	-06	32	34.3		4 675
1219		1973	10	05.40347	23	52	45.76	-06	32	43.9		4 675
1238		1989	04	03.35313	12	58	28.77	+08	27	54.1		9 675
1238		1989	04	03.38056	12	58	27.06	+08	27	55.5		9 675
1251		1989	08	01.30677	20	04	18.12	-17	15	58.4		9 675
1251		1989	08	01.33646	20	04	16.52	-17	16	06.9		9 675
1265		1989	08	01.30677	20	21	23.05	-21	56	24.9		9 675
1265		1989	08	01.33646	20	21	21.43	-21	56	26.1		9 675
1313		1989	08	01.30677	20	08	29.31	-18	08	20.5		9 675
1313		1989	08	01.33646	20	08	27.33	-18	08	16.6		9 675
1353		1989	07	07.39167	21	03	26.69	-02	31	24.0		9 675
1353		1989	07	07.42708	21	03	25.57	-02	31	23.3		9 675
1375		1973	09	19.22500	00	47	28.07	-02	56	55.2		4 675
1375		1973	09	19.27865	00	47	25.33	-02	57	11.2		4 675
1375		1973	09	20.30278	00	46	32.48	-03	01	42.0		4 675
1375		1973	09	24.38750	00	42	54.55	-03	19	50.1		4 675
1375		1973	09	24.45434	00	42	50.70	-03	20	06.3		4 675
1375		1973	09	25.28125	00	42	05.29	-03	23	42.4		4 675
1375		1973	09	25.34601	00	42	01.52	-03	23	59.9		4 675
1375		1973	09	29.29219	00	38	19.31	-03	40	51.8	15.2	4 675
1375		1973	09	29.35694	00	38	15.46	-03	41	07.9		4 675
1375		1973	09	30.24826	00	37	24.55	-03	44	46.3		4 675
1375		1973	09	30.31476	00	37	20.65	-03	45	01.7		4 675
1375		1973	10	04.32708	00	33	29.63	-04	00	43.3		4 675
1375		1973	10	04.38889	00	33	25.93	-04	00	56.4		4 675
1375		1973	10	05.35382	00	32	30.57	-04	04	27.6		4 675
1375		1973	10	05.41597	00	32	26.93	-04	04	41.7		4 675
1417		1989	07	06.35399	19	39	19.26	-24	32	42.9		9 675
1417		1989	07	06.38056	19	39	17.59	-24	32	48.6		9 675
1417		1989	07	10.33190	19	35	56.56	-24	52	39.7		9 675
1417		1989	07	10.36806	19	35	54.57	-24	52	49.3		9 675
1434		1989	07	10.23438	15	30	36.78	-04	24	25.6		9 675
1434		1989	07	10.30469	15	30	36.37	-04	24	44.3		9 675
1442		1989	07	29.33960	20	30	28.54	-16	54	19.9		9 675
1442		1989	07	29.37066	20	30	26.92	-16	54	25.5		9 675
1442		1989	08	01.30677	20	27	56.85	-17	03	16.7		9 675
1442		1989	08	01.33646	20	27	55.27	-17	03	21.4		9 675
1511		1973	09	19.22500	00	35	35.14	-03	09	52.5		4 675
1511		1973	09	19.27865	00	35	32.22	-03	10	11.0		4 675
1511		1973	09	20.30278	00	34	37.67	-03	16	16.2		4 675
1511		1973	09	24.38750	00	30	54.47	-03	40	27.8		4 675
1511		1973	09	24.45434	00	30	50.70	-03	40	50.5		4 675
1511		1973	09	25.28125	00	30	04.91	-03	45	42.7		4 675
1511		1973	09	25.34601	00	30	01.23	-03	46	05.5		4 675
1511		1973	09	29.29219	00	26	19.20	-04	08	39.5	16.5	4 675
1511		1973	09	29.35694	00	26	15.38	-04	09	01.5		4 675
1511		1973	09	30.24826	00	25	25.14	-04	13	55.9		4 675
1511		1973	09	30.31476	00	25	21.19	-04	14	17.8		4 675
1511		1973	10	04.32708	00	21	35.30	-04	35	42.5		4 675
1511		1973	10	04.38889	00	21	31.84	-04	36	01.2		4 675
1533		1973	09	19.22500	00	43	28.81	-03	20	06.7		4 675
1533		1973	09	19.27865	00	43	26.74	-03	20	30.7		4 675
1533		1973	09	20.30278	00	42	46.65	-03	28	10.4		4 675

1533	1973	09	24.38750	00	40	02.97	-03	58	47.5		4 675
1533	1973	09	24.45434	00	40	00.14	-03	59	18.4		4 675
1533	1973	09	25.28125	00	39	26.41	-04	05	29.2		4 675
1533	1973	09	25.34601	00	39	23.63	-04	05	58.1	15.9	4 675
1618	1973	09	19.21250	00	05	25.73	-04	39	39.4		4 675
1618	1973	09	19.26354	00	05	23.26	-04	39	56.7		4 675
1618	1973	09	20.27795	00	04	35.92	-04	45	24.7		4 675
1618	1973	09	24.37431	00	01	23.04	-05	07	13.0		4 675
1618	1973	09	24.44167	00	01	19.71	-05	07	33.6		4 675
1618	1973	09	25.26875	00	00	41.13	-05	11	52.8		4 675
1618	1973	09	25.33299	00	00	38.02	-05	12	12.1		4 675
1618	1973	09	29.27986	23	57	33.78	-05	31	54.1		4 675
1618	1973	09	29.34375	23	57	30.71	-05	32	12.0		4 675
1618	1973	09	30.23524	23	56	49.91	-05	36	29.7		4 675
1618	1973	09	30.30174	23	56	46.80	-05	36	49.6	15.9	4 675
1618	1973	10	04.31493	23	53	46.72	-05	55	03.1		4 675
1618	1973	10	04.37674	23	53	43.88	-05	55	19.1		4 675
1618	1973	10	05.34167	23	53	02.11	-05	59	27.0		4 675
1618	1973	10	05.40347	23	52	59.31	-05	59	43.4		4 675
1669	1973	09	19.18611	00	04	26.35	-00	00	01.1		4 675
1669	1973	09	19.23785	00	04	24.07	-00	00	15.2		4 675
1669	1973	09	20.22847	00	03	41.22	-00	04	41.0		4 675
1669	1973	09	24.34688	00	00	42.20	-00	23	13.3		4 675
1669	1973	09	24.41597	00	00	39.11	-00	23	31.4		4 675
1669	1973	09	25.24375	00	00	03.21	-00	27	13.7		4 675
1669	1973	09	25.26875	00	00	02.08	-00	27	20.6		4 675
1669	1973	09	25.30729	00	00	00.53	-00	27	31.8		4 675
1669	1973	09	25.33299	23	59	59.21	-00	27	36.6		4 675
1669	1973	09	29.25330	23	57	10.31	-00	45	03.8	16.2	4 675
1669	1973	09	29.27986	23	57	09.06	-00	45	10.2		4 675
1669	1973	09	29.31806	23	57	07.54	-00	45	21.2		4 675
1669	1973	09	29.34375	23	57	06.42	-00	45	26.9		4 675
1669	1973	09	30.21007	23	56	29.66	-00	49	16.3		4 675
1669	1973	09	30.23524	23	56	28.48	-00	49	22.3		4 675
1669	1973	09	30.27431	23	56	26.79	-00	49	34.4		4 675
1669	1973	09	30.30174	23	56	25.56	-00	49	38.9		4 675
1669	1973	10	04.28958	23	53	39.13	-01	06	46.8		4 675
1669	1973	10	04.31493	23	53	37.93	-01	06	51.6		4 675
1669	1973	10	04.35208	23	53	36.40	-01	07	02.9		4 675
1669	1973	10	04.37674	23	53	35.38	-01	07	06.9		4 675
1669	1973	10	05.31684	23	52	57.12	-01	11	02.0		4 675
1669	1973	10	05.34167	23	52	56.07	-01	11	06.9		4 675
1669	1973	10	05.37917	23	52	54.57	-01	11	16.0		4 675
1669	1973	10	05.40347	23	52	53.47	-01	11	23.5		4 675
1691	1973	09	19.18611	00	13	36.17	+01	15	29.6		4 675
1691	1973	09	19.23785	00	13	33.93	+01	15	14.9		4 675
1691	1973	09	20.22847	00	12	51.78	+01	10	16.0		4 675
1691	1973	09	24.34688	00	09	53.31	+00	49	07.5		4 675
1691	1973	09	24.41597	00	09	50.18	+00	48	46.8		4 675
1691	1973	09	25.24375	00	09	14.26	+00	44	27.7		4 675
1691	1973	09	25.30729	00	09	11.30	+00	44	11.0		4 675
1691	1973	09	29.25330	00	06	18.71	+00	23	45.0	15.2	4 675
1691	1973	09	29.31806	00	06	15.79	+00	23	25.6		4 675
1691	1973	09	30.21007	00	05	37.13	+00	18	51.5		4 675
1691	1973	09	30.27431	00	05	34.22	+00	18	32.8		4 675
1691	1973	10	04.28958	00	02	42.33	-00	01	46.3		4 675
1691	1973	10	04.35208	00	02	39.55	-00	02	06.4		4 675
1691	1973	10	05.31684	00	01	59.26	-00	06	50.7		4 675
1691	1973	10	05.37917	00	01	56.57	-00	07	08.8		4 675

1729		1973	09	19.18611	00	15	58.58	+01	00	11.3		4 675
1729		1973	09	19.23785	00	15	55.40	+00	59	55.3		4 675
1729		1973	09	20.22847	00	14	56.01	+00	54	59.6		4 675
1729		1973	09	24.34688	00	10	45.57	+00	34	07.7		4 675
1729		1973	09	24.41597	00	10	41.13	+00	33	45.6		4 675
1729		1973	09	25.24375	00	09	51.09	+00	29	32.7		4 675
1729		1973	09	25.30729	00	09	47.06	+00	29	15.4		4 675
1729		1973	09	29.25330	00	05	48.28	+00	09	25.4	15.8	4 675
1729		1973	09	29.31806	00	05	44.20	+00	09	06.7		4 675
1729		1973	09	30.21007	00	04	51.13	+00	04	43.6		4 675
1729		1973	09	30.27431	00	04	47.19	+00	04	25.6		4 675
1729		1973	10	04.28958	00	00	53.63	-00	14	43.6		4 675
1729		1973	10	04.35208	00	00	49.87	-00	15	01.1		4 675
1729		1973	10	05.31684	23	59	55.73	-00	19	23.9		4 675
1729		1973	10	05.37917	23	59	52.11	-00	19	40.6		4 675
1729		1989	07	29.18993	15	17	32.98	-21	33	23.6		9 675
1729		1989	07	29.23038	15	17	35.43	-21	33	30.1		9 675
1755		1989	07	07.30729	20	07	06.62	-09	58	30.7		9 675
1755		1989	07	07.34167	20	07	05.28	-09	58	38.2		9 675
1755		1989	07	09.28333	20	05	43.75	-10	04	59.1		9 675
1755		1989	07	09.32760	20	05	41.77	-10	05	07.6		9 675
1798		1973	09	19.22500	00	47	24.88	-03	44	47.9		4 675
1798		1973	09	20.30278	00	46	25.36	-03	48	27.4		4 675
1798		1973	09	24.38750	00	42	29.19	-04	02	00.9		4 675
1798		1973	09	24.45434	00	42	25.06	-04	02	13.7		4 675
1798		1973	09	25.28125	00	41	35.75	-04	04	53.0		4 675
1798		1973	09	25.34601	00	41	31.67	-04	05	05.8		4 675
1798		1973	09	29.29219	00	37	27.78	-04	17	05.5	15.4	4 675
1798		1973	09	29.35694	00	37	23.56	-04	17	16.2		4 675
1798		1973	09	30.24826	00	36	27.52	-04	19	42.9		4 675
1798		1973	09	30.31476	00	36	23.16	-04	19	54.2		4 675
1798		1973	10	04.32708	00	32	08.26	-04	29	54.3		4 675
1798		1973	10	04.38889	00	32	04.13	-04	30	02.3		4 675
1798		1973	10	05.35382	00	31	03.08	-04	32	05.3		4 675
1798		1973	10	05.41597	00	30	59.00	-04	32	13.4		4 675
1835		1989	08	01.30677	20	22	23.39	-19	11	12.1		9 675
1835		1989	08	01.33646	20	22	21.83	-19	11	15.9		9 675
1912		1989	08	02.26042	19	04	27.27	-25	27	12.6		9 675
1912		1989	08	02.29066	19	04	25.83	-25	27	15.6		9 675
1936		1989	07	07.39167	20	53	25.96	-07	41	20.5		9 675
1936		1989	07	07.42708	20	53	24.43	-07	41	19.4		9 675
1936		1989	07	08.41024	20	52	42.42	-07	40	19.0		9 675
1936		1989	07	08.41858	20	52	42.19	-07	40	19.8		9 675
1936		1989	07	08.45087	20	52	40.54	-07	40	17.2		9 675
1936		1989	07	08.45799	20	52	40.37	-07	40	15.9		9 675
1936		1989	07	10.35053	20	51	17.29	-07	38	34.0		9 675
1936		1989	07	10.38698	20	51	15.43	-07	38	34.6		9 675
1962		1989	08	02.26042	19	10	17.88	-24	47	16.1		9 675
1962		1989	08	02.29066	19	10	16.55	-24	47	19.5		9 675
1976		1989	07	29.33960	20	38	31.90	-20	58	11.3		9 675
1976		1989	07	29.37066	20	38	29.98	-20	58	19.5		9 675
2009		1973	09	19.21250	00	25	03.05	-01	37	33.3		4 675
2009		1973	09	19.22500	00	25	02.47	-01	37	40.6		4 675
2009		1973	09	19.26354	00	25	00.90	-01	37	49.5		4 675
2009		1973	09	19.27865	00	25	00.13	-01	37	57.8		4 675
2009		1973	09	20.27795	00	24	18.01	-01	42	56.3		4 675
2009		1973	09	20.30278	00	24	16.73	-01	43	04.4		4 675
2009		1973	09	24.37431	00	21	21.03	-02	03	33.5		4 675
2009		1973	09	24.38750	00	21	20.42	-02	03	37.6		4 675

2009	1973	09	24.44167	00	21	17.99	-02	03	53.1		4	675
2009	1973	09	24.45434	00	21	17.41	-02	03	57.0		4	675
2009	1973	09	25.26875	00	20	42.11	-02	08	06.2		4	675
2009	1973	09	25.28125	00	20	41.34	-02	08	06.9		4	675
2009	1973	09	25.33299	00	20	39.20	-02	08	24.5		4	675
2009	1973	09	25.34601	00	20	38.37	-02	08	27.0		4	675
2009	1973	09	29.27986	00	17	44.85	-02	27	59.1		4	675
2009	1973	09	29.29219	00	17	44.23	-02	28	01.7		4	675
2009	1973	09	29.34375	00	17	41.93	-02	28	17.3		4	675
2009	1973	09	29.35694	00	17	41.31	-02	28	19.7		4	675
2009	1973	09	30.23524	00	17	02.73	-02	32	40.3		4	675
2009	1973	09	30.30174	00	16	59.64	-02	33	00.5	16.4	4	675
2009	1973	10	04.31493	00	14	03.30	-02	52	04.6		4	675
2009	1973	10	04.37674	00	14	00.48	-02	52	22.8		4	675
2009	1973	10	05.34167	00	13	18.52	-02	56	50.6		4	675
2009	1973	10	05.40347	00	13	15.83	-02	57	06.7		4	675
2091	1989	07	06.35399	19	45	38.29	-20	16	39.3		9	675
2091	1989	07	06.38056	19	45	37.03	-20	16	47.9		9	675
2091	1989	08	02.26042	19	24	00.00	-22	26	28.2		9	675
2091	1989	08	02.29066	19	23	58.85	-22	26	34.0		9	675
2165	1989	08	01.30677	20	09	10.29	-21	31	38.5		9	675
2244	1989	07	10.33190	20	02	51.71	-22	12	16.3		9	675
2244	1989	07	10.36806	20	02	49.90	-22	12	27.5		9	675
2248	1989	08	01.30677	20	29	34.62	-21	27	30.4		9	675
2248	1989	08	01.33646	20	29	33.04	-21	27	36.6		9	675
2273	1973	09	19.19948	00	35	20.07	+03	10	24.7		4	675
2273	1973	09	19.25006	00	35	17.47	+03	10	08.6		4	675
2273	1973	09	20.26458	00	34	26.39	+03	04	41.7		4	675
2273	1973	09	24.36181	00	30	52.58	+02	41	56.0		4	675
2273	1973	09	24.42847	00	30	48.90	+02	41	33.9		4	675
2273	1973	09	25.25642	00	30	04.79	+02	36	48.1		4	675
2273	1973	09	25.32031	00	30	01.16	+02	36	27.4		4	675
2273	1973	09	29.26632	00	26	25.52	+02	13	34.2		4	675
2273	1973	09	29.33073	00	26	21.85	+02	13	11.4	17.2	4	675
2273	1973	09	30.22257	00	25	32.83	+02	07	57.3		4	675
2273	1973	09	30.28785	00	25	29.11	+02	07	35.0		4	675
2273	1973	10	04.30208	00	21	46.77	+01	44	04.2		4	675
2273	1973	10	04.32708	00	21	45.12	+01	43	56.5		4	675
2273	1973	10	04.36476	00	21	43.14	+01	43	40.8		4	675
2273	1973	10	04.38889	00	21	41.62	+01	43	35.1		4	675
2273	1973	10	05.32917	00	20	50.08	+01	38	04.4		4	675
2273	1973	10	05.35382	00	20	48.47	+01	37	57.4		4	675
2273	1973	10	05.39132	00	20	46.54	+01	37	41.6		4	675
2273	1973	10	05.41597	00	20	44.88	+01	37	35.3		4	675
2361	1973	09	19.19948	00	35	18.87	+02	16	31.8		4	675
2361	1973	09	19.25006	00	35	16.71	+02	16	19.1		4	675
2361	1973	09	20.26458	00	34	34.45	+02	12	03.4		4	675
2361	1973	09	24.36181	00	31	39.74	+01	54	16.0		4	675
2361	1973	09	24.38750	00	31	38.60	+01	54	12.0		4	675
2361	1973	09	24.42847	00	31	36.74	+01	53	58.6		4	675
2361	1973	09	24.45434	00	31	35.60	+01	53	53.9		4	675
2361	1973	09	25.25642	00	31	01.06	+01	50	17.2		4	675
2361	1973	09	25.28125	00	30	59.84	+01	50	15.7		4	675
2361	1973	09	25.32031	00	30	58.24	+01	50	00.5		4	675
2361	1973	09	25.34601	00	30	56.88	+01	49	57.6		4	675
2361	1973	09	29.26632	00	28	04.22	+01	32	32.6		4	675
2361	1973	09	29.29219	00	28	03.25	+01	32	24.6		4	675
2361	1973	09	29.33073	00	28	01.34	+01	32	15.8	17.1	4	675
2361	1973	09	29.35694	00	28	00.29	+01	32	07.2		4	675

2361	1973	09	30.22257	00	27	21.95	+01	28	16.1		4 675
2361	1973	09	30.24826	00	27	20.82	+01	28	13.3		4 675
2361	1973	09	30.28785	00	27	19.00	+01	27	59.3		4 675
2361	1973	09	30.31476	00	27	17.77	+01	27	54.6		4 675
2361	1973	10	04.30208	00	24	20.75	+01	10	14.8		4 675
2361	1973	10	04.32708	00	24	19.46	+01	10	11.4		4 675
2361	1973	10	04.36476	00	24	17.92	+01	09	57.5		4 675
2361	1973	10	04.38889	00	24	16.59	+01	09	54.7		4 675
2361	1973	10	05.32917	00	23	35.35	+01	05	43.8		4 675
2361	1973	10	05.35382	00	23	34.12	+01	05	40.8		4 675
2361	1973	10	05.39132	00	23	32.57	+01	05	27.1		4 675
2361	1973	10	05.41597	00	23	31.25	+01	05	23.4		4 675
2388	1989	08	02.26042	19	20	33.08	-23	53	45.9		9 675
2388	1989	08	02.29066	19	20	31.60	-23	53	45.4		9 675
2397	1989	08	01.31406	20	19	04.35	-14	22	34.7		9 675
2397	1989	08	01.34478	20	19	03.07	-14	22	42.6		9 675
2400	1973	09	29.29219	00	42	32.13	-00	23	30.8	16.2	4 675
2400	1973	09	29.35694	00	42	29.31	-00	24	02.9		4 675
2400	1973	09	30.24826	00	41	52.03	-00	31	22.1		4 675
2400	1973	09	30.31476	00	41	49.11	-00	31	53.6		4 675
2400	1973	10	04.32708	00	38	59.49	-01	04	29.2		4 675
2400	1973	10	04.38889	00	38	56.75	-01	04	58.7		4 675
2400	1973	10	05.35382	00	38	16.25	-01	12	40.0		4 675
2400	1973	10	05.41597	00	38	13.52	-01	13	08.9		4 675
2447	1989	07	08.41024	20	37	55.48	-10	19	56.8		9 675
2447	1989	07	08.41858	20	37	55.10	-10	20	00.0		9 675
2447	1989	07	08.45799	20	37	53.88	-10	20	11.5		9 675
2447	1989	07	10.35053	20	36	55.36	-10	30	06.7		9 675
2447	1989	07	10.38698	20	36	54.05	-10	30	18.9		9 675
2447	1989	07	29.31580	20	23	27.32	-12	50	24.8		9 675
2447	1989	07	29.34774	20	23	25.71	-12	50	41.6		9 675
2447	1989	08	01.31406	20	21	00.67	-13	17	48.9		9 675
2469	1977	10	07.28125	01	34	52.92	-01	11	49.3		4 675
2469	1977	10	11.30000	01	32	01.09	-01	37	38.8		4 675
2469	1977	10	11.36771	01	31	58.03	-01	38	03.3		4 675
2469	1977	10	11.37865	01	31	57.61	-01	38	05.9		4 675
2469	1977	10	12.29826	01	31	17.81	-01	43	53.8		4 675
2469	1977	10	12.30885	01	31	17.48	-01	43	57.8		4 675
2469	1977	10	12.36441	01	31	14.89	-01	44	17.7		4 675
2469	1977	10	12.37500	01	31	14.52	-01	44	21.7		4 675
2469	1977	10	16.28368	01	28	24.17	-02	07	57.9	17.7	4 675
2469	1977	10	16.29444	01	28	23.92	-02	08	03.3		4 675
2469	1977	10	16.34931	01	28	21.26	-02	08	21.3		4 675
2469	1977	10	16.36024	01	28	20.96	-02	08	25.9		4 675
2469	1977	10	17.28628	01	27	40.44	-02	13	49.1		4 675
2469	1977	10	17.29688	01	27	40.16	-02	13	51.4		4 675
2469	1977	10	17.35313	01	27	37.44	-02	14	11.3		4 675
2469	1977	10	17.36372	01	27	37.20	-02	14	14.7		4 675
2469	1977	10	21.37622	01	24	43.95	-02	36	19.5		4 675
2469	1977	10	21.38698	01	24	43.41	-02	36	26.3		4 675
2469	1977	10	21.43611	01	24	41.21	-02	36	38.7		4 675
2469	1977	10	21.44705	01	24	40.71	-02	36	43.3		4 675
2469	1977	10	22.37274	01	24	01.34	-02	41	30.1		4 675
2469	1977	10	22.38542	01	24	00.94	-02	41	37.9		4 675
2469	1977	10	22.43872	01	23	58.54	-02	41	52.6		4 675
2469	1977	10	22.44878	01	23	58.09	-02	41	56.0		4 675
2497	1989	08	01.30677	20	23	20.84	-19	29	03.5		9 675
2497	1989	08	01.33646	20	23	19.17	-19	29	00.2		9 675
2501	1973	09	19.18611	00	04	33.28	-00	46	31.9		4 675

2501		1973	09	19.21250	00	04	31.69	-00	46	39.1	4 675
2501		1973	09	19.23785	00	04	30.14	-00	46	48.7	4 675
2501		1973	09	19.26354	00	04	28.68	-00	46	53.7	4 675
2501		1973	09	20.22847	00	03	32.45	-00	51	39.4	4 675
2501		1973	09	20.27795	00	03	29.81	-00	51	56.6	4 675
2501		1973	09	24.34688	23	59	33.05	-01	11	53.5	4 675
2501		1973	09	24.37431	23	59	31.38	-01	12	01.1	4 675
2501		1973	09	24.41597	23	59	29.10	-01	12	13.6	4 675
2501		1973	09	24.44167	23	59	27.39	-01	12	19.7	4 675
2501		1973	09	25.26875	23	58	39.95	-01	16	21.3	17.0 4 675
2501		1973	09	25.33299	23	58	36.19	-01	16	39.9	4 675
2504		1973	09	29.26632	00	44	31.09	+04	47	21.4	4 675
2504		1973	09	29.33073	00	44	27.76	+04	47	07.0	16.6 4 675
2504		1973	09	30.22257	00	43	43.16	+04	43	24.2	4 675
2504		1973	09	30.28785	00	43	39.83	+04	43	09.0	4 675
2504		1973	10	04.30208	00	40	15.36	+04	26	42.6	4 675
2504		1973	10	04.36476	00	40	11.98	+04	26	27.6	4 675
2504		1973	10	05.32917	00	39	22.93	+04	22	27.2	4 675
2504		1973	10	05.39132	00	39	19.61	+04	22	13.4	4 675
2507		1989	08	01.30677	20	06	51.45	-18	17	35.1	9 675
2507		1989	08	01.33646	20	06	49.88	-18	17	46.8	9 675
2531		1989	03	29.27483	11	58	08.09	+17	34	30.0	9 675
2531		1989	03	29.30781	11	58	06.56	+17	34	38.0	9 675
2591		1989	08	01.30677	20	07	17.00	-22	12	23.7	9 675
2591		1989	08	01.33646	20	07	15.47	-22	12	26.5	9 675
2598		1989	07	08.41024	20	49	37.25	-06	13	40.4	9 675
2598		1989	07	08.45087	20	49	35.76	-06	13	39.5	9 675
2598		1989	07	10.35053	20	48	24.51	-06	15	29.7	9 675
2598		1989	07	10.38698	20	48	22.97	-06	15	32.5	9 675
2613		1989	07	07.39167	20	58	23.07	-08	05	14.8	9 675
2613		1989	07	07.42708	20	58	21.69	-08	05	10.8	9 675
2613		1989	07	08.41858	20	57	44.06	-08	03	23.5	9 675
2613		1989	07	08.45799	20	57	42.44	-08	03	18.3	9 675
2628		1989	07	29.33960	20	54	43.25	-15	12	07.6	9 675
2628		1989	07	29.37066	20	54	41.68	-15	12	13.1	9 675
2643		1973	09	20.21458	00	14	44.05	+15	30	41.7	4 675
2643		1973	09	24.47986	00	07	46.43	+16	30	58.0	4 675
2643		1973	09	25.35903	00	06	18.39	+16	42	50.6	4 675
2675		1989	07	29.18993	15	23	51.40	-22	12	52.1	9 675
2675		1989	07	29.23038	15	23	52.83	-22	12	53.6	9 675
2689		1973	09	19.19948	00	33	33.52	+04	42	39.8	4 675
2689		1973	09	19.25006	00	33	30.87	+04	42	15.7	4 675
2689		1973	09	20.26458	00	32	37.49	+04	34	11.1	4 675
2689		1973	09	24.36181	00	28	56.13	+04	00	45.7	4 675
2689		1973	09	24.42847	00	28	52.31	+04	00	13.5	4 675
2689		1973	09	25.25642	00	28	07.25	+03	53	16.6	4 675
2689		1973	09	25.32031	00	28	03.53	+03	52	44.4	4 675
2689		1973	09	29.26632	00	24	24.29	+03	19	31.4	4 675
2689		1973	09	29.33073	00	24	20.62	+03	18	57.9	17.2 4 675
2689		1973	09	30.22257	00	23	31.09	+03	11	25.8	4 675
2689		1973	09	30.28785	00	23	27.32	+03	10	51.5	4 675
2689		1973	10	04.30208	00	19	45.07	+02	36	55.3	4 675
2689		1973	10	04.36476	00	19	41.52	+02	36	23.2	4 675
2689		1973	10	05.32917	00	18	48.95	+02	28	18.0	4 675
2689		1973	10	05.39132	00	18	45.46	+02	27	47.1	4 675
2700		1989	07	01.33976	18	47	14.58	-19	35	20.0	16.5 2 675
2700		1989	07	01.36146	18	47	13.39	-19	35	21.3	2 675
2700		1989	07	04.26788	18	44	41.50	-19	38	48.4	2 675
2700		1989	07	04.29410	18	44	40.20	-19	38	50.8	2 675

2753	1973	09	19.19948	00	30	26.40	+07	18	57.5		4 675
2753	1973	09	19.25006	00	30	23.78	+07	18	50.8		4 675
2753	1973	09	20.26458	00	29	33.16	+07	16	11.1		4 675
2753	1973	09	24.36181	00	26	03.64	+07	04	41.5		4 675
2753	1973	09	24.42847	00	26	00.13	+07	04	30.0		4 675
2753	1973	09	25.25642	00	25	17.27	+07	01	58.3		4 675
2753	1973	09	25.32031	00	25	13.80	+07	01	46.9		4 675
2753	1973	09	29.26632	00	21	46.54	+06	49	18.0		4 675
2753	1973	09	29.33073	00	21	42.98	+06	49	04.5	16.6	4 675
2753	1973	09	30.22257	00	20	56.19	+06	46	06.3		4 675
2753	1973	09	30.28785	00	20	52.59	+06	45	53.3		4 675
2753	1973	10	04.30208	00	17	21.58	+06	32	13.5		4 675
2753	1973	10	04.36476	00	17	18.20	+06	32	00.1		4 675
2753	1973	10	05.32917	00	16	28.06	+06	28	41.0		4 675
2753	1973	10	05.39132	00	16	24.77	+06	28	28.2		4 675
2763	1989	07	29.18993	15	20	07.71	-22	02	13.1		9 675
2763	1989	07	29.23038	15	20	09.18	-22	02	11.2		9 675
2788	1989	03	07.27487	08	23	52.39	+22	45	16.9	17.7	3 675
2788	1989	03	09.18706	08	23	24.92	+22	43	12.7		3 675
2804	1989	07	06.35399	19	59	39.97	-21	41	42.8		9 675
2804	1989	07	06.38056	19	59	38.71	-21	41	53.0		9 675
2808	1973	09	19.29705	00	07	08.03	+11	52	40.6		4 675
2808	1973	09	20.21458	00	06	22.56	+11	50	27.7		4 675
2808	1973	09	20.29253	00	06	18.72	+11	50	15.3		4 675
2808	1973	09	24.40035	00	02	53.70	+11	39	02.8		4 675
2808	1973	09	24.47986	00	02	49.59	+11	38	48.2		4 675
2808	1973	09	25.29375	00	02	08.87	+11	36	19.1	17.3	4 675
2808	1973	09	25.35903	00	02	05.54	+11	36	07.9		4 675
2928	1973	09	19.29705	00	21	15.59	+14	58	14.1		4 675
2928	1973	09	20.21458	00	20	31.45	+14	56	14.5		4 675
2928	1973	09	20.29253	00	20	27.74	+14	56	04.3		4 675
2928	1973	09	24.40035	00	17	07.30	+14	45	40.0		4 675
2928	1973	09	24.47986	00	17	03.27	+14	45	26.3		4 675
2928	1973	09	25.29375	00	16	23.26	+14	43	06.5	16.7	4 675
2928	1973	09	25.35903	00	16	19.92	+14	42	54.6		4 675
2928	1973	09	29.24062	00	13	07.11	+14	30	29.5		4 675
2928	1973	09	29.30486	00	13	03.78	+14	30	16.9		4 675
2928	1973	09	30.19722	00	12	19.62	+14	27	08.8		4 675
2928	1973	09	30.35295	00	12	11.70	+14	26	35.5		4 675
2928	1973	10	04.27708	00	08	58.14	+14	11	48.9		4 675
2928	1973	10	04.33906	00	08	55.05	+14	11	32.7		4 675
2928	1973	10	05.36632	00	08	05.04	+14	07	25.8		4 675
2928	1973	10	05.42847	00	08	01.94	+14	07	10.9		4 675
2932	1973	09	19.18611	00	17	10.46	+01	06	33.3		4 675
2932	1973	09	19.23785	00	17	08.44	+01	06	16.5		4 675
2932	1973	09	20.22847	00	16	30.54	+01	01	32.1		4 675
2932	1973	09	24.34688	00	13	50.62	+00	41	31.2		4 675
2932	1973	09	24.41597	00	13	47.84	+00	41	11.2		4 675
2932	1973	09	25.24375	00	13	15.53	+00	37	07.8		4 675
2932	1973	09	25.30729	00	13	12.97	+00	36	51.0		4 675
2932	1973	09	29.25330	00	10	38.30	+00	17	37.5	16.8	4 675
2932	1973	09	29.31806	00	10	35.79	+00	17	18.1		4 675
2932	1973	09	30.21007	00	10	01.14	+00	12	59.4		4 675
2932	1973	09	30.27431	00	09	58.54	+00	12	41.4		4 675
2932	1973	10	04.28958	00	07	23.84	-00	06	26.3		4 675
2932	1973	10	04.35208	00	07	21.47	-00	06	43.7		4 675
2932	1973	10	05.31684	00	06	45.04	-00	11	13.9		4 675
2932	1973	10	05.37917	00	06	42.67	-00	11	30.6		4 675
3030	1989	07	10.33190	19	31	55.69	-22	04	52.8		9 675

3030	1989	07	10.36806	19	31	53.06	-22	04	56.0		9 675
3037	1989	07	06.20955	16	03	00.90	-05	36	45.0		9 675
3037	1989	07	11.29861	16	00	55.72	-06	06	58.0		9 675
3037	1989	07	11.36997	16	00	54.04	-06	07	23.5		9 675
3047	1973	09	29.26632	00	44	42.52	+07	04	51.3		4 675
3047	1973	09	29.33073	00	44	39.03	+07	04	33.6	16.9	4 675
3047	1973	09	30.22257	00	43	53.50	+07	00	09.8		4 675
3047	1973	09	30.28785	00	43	50.02	+06	59	51.2		4 675
3047	1973	10	04.30208	00	40	22.21	+06	39	52.0		4 675
3047	1973	10	04.36476	00	40	18.82	+06	39	34.4		4 675
3047	1973	10	05.32917	00	39	28.81	+06	34	40.2		4 675
3047	1973	10	05.39132	00	39	25.46	+06	34	21.7		4 675
3059	1989	07	29.33960	20	47	42.26	-14	28	01.0		9 675
3059	1989	07	29.37066	20	47	40.36	-14	28	08.9		9 675
3059	1989	08	01.31406	20	44	41.50	-14	41	36.3		9 675
3059	1989	08	01.34478	20	44	39.58	-14	41	44.4		9 675
3113	1989	08	01.31406	20	40	21.43	-10	51	38.4		9 675
3113	1989	08	01.34478	20	40	19.69	-10	51	47.6		9 675
3126	1989	07	07.34167	19	55	23.78	-05	49	45.0		9 675
3132	1989	07	06.35399	19	57	53.55	-20	39	25.3		9 675
3132	1989	07	06.38056	19	57	52.33	-20	39	31.8		9 675
3132	1989	07	10.33190	19	54	52.51	-20	53	04.8		9 675
3132	1989	07	10.36806	19	54	50.75	-20	53	12.4		9 675
3140	1989	03	29.27483	11	35	02.07	+18	56	44.0		9 675
3140	1989	03	29.30781	11	35	00.60	+18	56	51.0		9 675
3148	1989	07	10.33190	19	38	02.44	-22	34	11.5		9 675
3148	1989	07	10.36806	19	38	00.85	-22	34	17.7		9 675
3207	1973	09	19.19948	00	41	40.99	+03	21	14.2		4 675
3207	1973	09	19.25006	00	41	38.70	+03	20	59.5		4 675
3207	1973	09	20.26458	00	40	55.53	+03	15	27.0		4 675
3207	1973	09	24.36181	00	37	55.21	+02	52	40.9		4 675
3207	1973	09	24.42847	00	37	52.06	+02	52	18.2		4 675
3207	1973	09	25.25642	00	37	15.25	+02	47	34.3		4 675
3207	1973	09	25.32031	00	37	12.24	+02	47	13.0		4 675
3207	1973	09	29.26632	00	34	11.49	+02	24	38.3		4 675
3207	1973	09	29.33073	00	34	08.44	+02	24	15.0	16.8	4 675
3207	1973	09	30.22257	00	33	27.37	+02	19	07.7		4 675
3207	1973	09	30.28785	00	33	24.28	+02	18	45.6		4 675
3207	1973	10	04.30208	00	30	18.76	+01	55	48.4		4 675
3207	1973	10	04.36476	00	30	15.75	+01	55	27.8		4 675
3207	1973	10	05.32917	00	29	31.55	+01	49	59.7		4 675
3207	1973	10	05.35382	00	29	30.30	+01	49	55.4		4 675
3207	1973	10	05.39132	00	29	28.63	+01	49	37.7		4 675
3207	1973	10	05.41597	00	29	27.34	+01	49	33.3		4 675
3282	1973	09	19.18611	00	20	44.59	+00	15	36.5		4 675
3282	1973	09	19.23785	00	20	41.73	+00	15	13.0		4 675
3282	1973	09	20.22847	00	19	47.02	+00	07	29.1		4 675
3282	1973	09	24.34688	00	15	55.34	-00	24	52.1		4 675
3282	1973	09	24.37431	00	15	53.90	-00	25	02.3		4 675
3282	1973	09	24.41597	00	15	51.22	-00	25	24.2		4 675
3282	1973	09	24.44167	00	15	49.87	-00	25	33.8		4 675
3282	1973	09	25.24375	00	15	04.26	-00	31	56.2		4 675
3282	1973	09	25.26875	00	15	03.00	-00	32	04.8		4 675
3282	1973	09	25.30729	00	15	00.63	-00	32	24.3		4 675
3282	1973	09	25.33299	00	14	59.24	-00	32	35.0		4 675
3282	1973	09	29.25330	00	11	15.74	-01	03	13.1	16.9	4 675
3282	1973	09	29.27986	00	11	14.20	-01	03	24.3		4 675
3282	1973	09	29.31806	00	11	11.89	-01	03	42.5		4 675
3282	1973	09	29.34375	00	11	10.44	-01	03	52.5		4 675

3282	1973	09	30.21007	00	10	21.60	-01	10	35.0		4 675
3282	1973	09	30.23524	00	10	20.04	-01	10	45.7		4 675
3282	1973	09	30.27431	00	10	17.84	-01	11	05.0		4 675
3282	1973	09	30.30174	00	10	16.14	-01	11	15.9		4 675
3282	1973	10	04.31493	00	06	32.33	-01	41	21.9		4 675
3282	1973	10	04.37674	00	06	28.89	-01	41	48.1		4 675
3282	1973	10	05.34167	00	05	36.40	-01	48	48.8		4 675
3282	1973	10	05.40347	00	05	32.99	-01	49	14.8		4 675
3290	1973	09	19.19948	00	48	07.43	+01	37	45.7		4 675
3290	1973	09	24.42847	00	45	13.73	+01	19	10.5		4 675
3290	1973	09	25.25642	00	44	45.88	+01	16	06.2		4 675
3290	1973	09	29.26632	00	42	26.70	+01	01	41.8		4 675
3290	1973	09	29.29219	00	42	25.79	+01	01	35.7		4 675
3290	1973	09	30.22257	00	41	53.29	+00	58	13.0		4 675
3290	1973	09	30.24826	00	41	52.26	+00	58	10.3		4 675
3290	1973	10	04.30208	00	39	29.69	+00	43	41.5		4 675
3290	1973	10	04.32708	00	39	28.60	+00	43	36.1		4 675
3290	1973	10	05.32917	00	38	53.52	+00	39	59.8		4 675
3290	1973	10	05.35382	00	38	52.36	+00	39	57.4		4 675
3300	1989	03	29.27483	11	36	46.44	+18	36	33.0		9 675
3300	1989	03	29.30781	11	36	44.67	+18	36	33.2		9 675
3334	1989	07	10.33190	20	00	01.40	-23	00	21.5		9 675
3334	1989	07	10.36806	19	59	59.54	-23	00	29.3		9 675
3377	1989	07	10.33190	19	29	59.84	-19	56	33.3		9 675
3377	1989	07	10.36806	19	29	57.96	-19	56	34.2		9 675
3431	1989	07	29.33960	20	36	43.72	-20	40	46.1		9 675
3497	1973	09	19.21250	00	03	38.31	-04	49	43.0		4 675
3497	1973	09	19.26354	00	03	35.92	-04	50	09.7		4 675
3497	1973	09	20.27795	00	02	49.16	-04	58	42.3		4 675
3497	1973	09	24.37431	23	59	39.88	-05	32	45.8		4 675
3497	1973	09	24.44167	23	59	36.63	-05	33	19.8		4 675
3497	1973	09	25.26875	23	58	58.95	-05	40	04.9	16.9	4 675
3497	1973	09	25.33299	23	58	55.93	-05	40	37.0		4 675
3497	1973	09	29.27986	23	55	56.22	-06	11	51.6		4 675
3497	1973	09	29.34375	23	55	53.24	-06	12	21.5		4 675
3497	1973	10	04.31493	23	52	15.68	-06	49	21.6		4 675
3497	1973	10	04.37674	23	52	12.92	-06	49	47.6		4 675
3497	1973	10	05.34167	23	51	32.37	-06	56	36.0		4 675
3497	1973	10	05.40347	23	51	29.64	-06	57	01.8		4 675
3527	1989	07	07.39167	21	17	39.74	-06	09	06.1		9 675
3527	1989	07	07.42708	21	17	38.41	-06	09	05.5		9 675
3548	1973	09	19.27865	00	29	18.33	-03	54	15.1		4 675
3548	1973	09	24.38750	00	26	41.50	-04	07	50.3		4 675
3548	1973	09	25.28125	00	26	13.70	-04	10	11.8		4 675
3548	1973	09	29.29219	00	24	07.75	-04	20	28.6	16.9	4 675
3548	1973	09	30.31476	00	23	35.35	-04	22	58.1		4 675
3548	1973	10	04.32708	00	21	29.42	-04	32	36.3		4 675
3548	1973	10	05.35382	00	20	57.36	-04	34	54.2		4 675
3598	1989	07	29.33960	20	46	15.34	-17	19	18.8		9 675
3598	1989	07	29.37066	20	46	13.78	-17	19	25.1		9 675
3601	1973	09	19.18611	00	24	14.18	-00	44	56.7		4 675
3601	1973	09	19.21250	00	24	13.03	-00	45	00.0		4 675
3601	1973	09	19.22500	00	24	12.51	-00	45	07.2		4 675
3601	1973	09	19.23785	00	24	11.98	-00	45	10.1		4 675
3601	1973	09	19.26354	00	24	10.79	-00	45	12.8		4 675
3601	1973	09	19.27865	00	24	10.08	-00	45	21.7		4 675
3601	1973	09	20.22847	00	23	29.90	-00	49	28.9		4 675
3601	1973	09	20.27795	00	23	27.87	-00	49	40.5		4 675
3601	1973	09	20.30278	00	23	26.58	-00	49	48.5		4 675

3601	1973	09	24.34688	00	20	30.87	-01	07	34.3		4 675
3601	1973	09	24.37431	00	20	29.58	-01	07	38.5		4 675
3601	1973	09	24.38750	00	20	28.95	-01	07	44.6		4 675
3601	1973	09	24.41597	00	20	27.64	-01	07	53.0		4 675
3601	1973	09	24.44167	00	20	26.45	-01	07	56.0		4 675
3601	1973	09	24.45434	00	20	25.95	-01	08	01.3		4 675
3601	1973	09	25.24375	00	19	51.16	-01	11	31.9		4 675
3601	1973	09	25.26875	00	19	50.20	-01	11	36.0		4 675
3601	1973	09	25.28125	00	19	49.58	-01	11	39.0		4 675
3601	1973	09	25.30729	00	19	48.47	-01	11	45.3		4 675
3601	1973	09	25.33299	00	19	47.16	-01	11	52.2		4 675
3601	1973	09	25.34601	00	19	46.62	-01	11	56.3		4 675
3601	1973	09	29.27986	00	16	51.56	-01	29	00.8		4 675
3601	1973	09	29.34375	00	16	48.70	-01	29	16.9		4 675
3601	1973	09	30.23524	00	16	09.08	-01	33	06.6		4 675
3601	1973	09	30.30174	00	16	05.99	-01	33	22.8	17.3	4 675
3601	1973	10	04.31493	00	13	08.53	-01	50	02.7		4 675
3601	1973	10	04.37674	00	13	05.80	-01	50	17.6		4 675
3601	1973	10	05.34167	00	12	23.74	-01	54	08.8		4 675
3601	1973	10	05.40347	00	12	21.05	-01	54	22.8		4 675
3631	1989	07	07.30729	19	58	56.67	-07	13	46.2		9 675
3631	1989	07	07.34167	19	58	55.16	-07	13	54.8		9 675
3631	1989	07	09.28333	19	57	33.70	-07	23	06.5		9 675
3631	1989	07	09.32760	19	57	31.64	-07	23	20.3		9 675
3754	1989	07	06.35399	19	56	24.86	-21	20	53.8		9 675
3754	1989	07	06.38056	19	56	23.60	-21	21	01.1		9 675
3754	1989	07	10.33190	19	53	21.77	-21	37	29.6		9 675
3754	1989	07	10.36806	19	53	20.05	-21	37	38.8		9 675
3754	1989	08	02.26042	19	35	25.13	-23	06	54.9		9 675
3754	1989	08	02.29066	19	35	23.63	-23	06	59.5		9 675
3812	1989	07	06.20955	16	26	17.88	-03	12	58.7		9 675
3859	1989	07	29.33960	20	42	46.00	-18	19	58.7		9 675
3859	1989	07	29.37066	20	42	44.52	-18	20	06.8		9 675
3864	1973	09	19.18611	00	20	20.62	-00	14	14.0		4 675
3864	1973	09	19.21250	00	20	19.45	-00	14	16.4		4 675
3864	1973	09	19.23785	00	20	17.89	-00	14	24.6		4 675
3864	1973	09	19.26354	00	20	16.72	-00	14	29.8		4 675
3864	1973	09	20.22847	00	19	27.69	-00	18	20.2		4 675
3864	1973	09	20.27795	00	19	25.33	-00	18	30.8		4 675
3864	1973	09	24.34688	00	15	53.40	-00	34	54.4		4 675
3864	1973	09	24.37431	00	15	52.05	-00	34	58.4		4 675
3864	1973	09	24.41597	00	15	49.60	-00	35	09.1		4 675
3864	1973	09	24.44167	00	15	48.29	-00	35	13.2		4 675
3864	1973	09	25.24375	00	15	06.01	-00	38	30.4		4 675
3864	1973	09	25.26875	00	15	04.83	-00	38	33.2		4 675
3864	1973	09	25.30729	00	15	02.69	-00	38	44.4		4 675
3864	1973	09	25.33299	00	15	01.34	-00	38	50.1		4 675
3864	1973	09	29.25330	00	11	32.78	-00	54	28.5	16.6	4 675
3864	1973	09	29.27986	00	11	31.40	-00	54	32.7		4 675
3864	1973	09	29.31806	00	11	29.20	-00	54	43.8		4 675
3864	1973	09	29.34375	00	11	27.82	-00	54	47.5		4 675
3864	1973	09	30.21007	00	10	42.07	-00	58	11.7		4 675
3864	1973	09	30.23524	00	10	40.73	-00	58	16.6		4 675
3864	1973	09	30.27431	00	10	38.53	-00	58	26.4		4 675
3864	1973	09	30.30174	00	10	37.01	-00	58	32.0		4 675
3864	1973	10	04.28958	00	07	07.98	-01	13	30.6		4 675
3864	1973	10	04.31493	00	07	06.72	-01	13	34.3		4 675
3864	1973	10	04.35208	00	07	04.58	-01	13	43.3		4 675
3864	1973	10	04.37674	00	07	03.32	-01	13	47.8		4 675

3864	1973	10	05.31684	00	06	15.22	-01	17	09.1		4	675
3864	1973	10	05.34167	00	06	14.00	-01	17	14.1		4	675
3864	1973	10	05.37917	00	06	11.77	-01	17	23.9		4	675
3864	1973	10	05.40347	00	06	10.73	-01	17	27.4		4	675
3873	1989	08	09.43819	01	49	49.28	+38	20	41.7	16.7	2	675
3873	1989	08	09.45677	01	49	50.28	+38	20	51.9		2	675
3873	1989	08	10.41875	01	50	44.91	+38	30	55.9		2	675
3880	1989	07	07.29896	19	11	25.00	-15	27	37.4		9	675
3880	1989	07	07.33299	19	11	21.90	-15	27	08.4		9	675
3915	1973	09	19.22500	00	36	18.81	-00	38	20.0		4	675
3915	1973	09	19.27865	00	36	16.42	-00	39	00.8		4	675
3915	1973	09	20.30278	00	35	32.58	-00	51	48.5		4	675
3915	1973	09	24.38750	00	32	31.80	-01	43	12.1		4	675
3915	1973	09	24.45434	00	32	28.66	-01	44	03.8		4	675
3915	1973	09	25.28125	00	31	51.42	-01	54	26.3		4	675
3915	1973	09	25.34601	00	31	48.24	-01	55	15.2		4	675
3915	1973	09	29.29219	00	28	46.54	-02	44	31.4	15.9	4	675
3915	1973	09	29.35694	00	28	43.44	-02	45	21.7		4	675
3915	1973	09	30.24826	00	28	02.34	-02	56	19.4		4	675
3915	1973	09	30.31476	00	27	59.15	-02	57	08.9		4	675
3915	1973	10	04.32708	00	24	53.90	-03	45	35.8		4	675
3915	1973	10	04.38889	00	24	50.89	-03	46	19.3		4	675
3915	1973	10	05.35382	00	24	07.00	-03	57	38.1		4	675
3915	1973	10	05.41597	00	24	04.03	-03	58	22.4		4	675
3950	1973	09	19.29705	00	07	27.88	+14	54	36.1		4	675
3950	1973	09	20.21458	00	06	45.82	+14	50	44.3		4	675
3950	1973	09	20.29253	00	06	42.35	+14	50	25.2		4	675
3950	1973	09	24.40035	00	03	33.12	+14	31	49.4		4	675
3950	1973	09	24.47986	00	03	29.43	+14	31	25.4		4	675
3950	1973	09	25.29375	00	02	51.99	+14	27	29.1	17.3	4	675
3950	1973	09	25.35903	00	02	48.95	+14	27	09.2		4	675
3952	1973	09	19.18611	00	13	32.37	+04	55	16.2		4	675
3952	1973	09	19.23785	00	13	29.36	+04	55	00.1		4	675
3952	1973	09	20.22847	00	12	35.25	+04	49	47.1		4	675
3952	1973	09	24.34688	00	08	45.19	+04	27	05.1		4	675
3952	1973	09	24.41597	00	08	41.15	+04	26	41.0		4	675
3952	1973	09	25.24375	00	07	54.61	+04	21	56.1		4	675
3952	1973	09	25.30729	00	07	50.93	+04	21	36.0		4	675
3952	1973	09	29.25330	00	04	07.06	+03	58	30.2	17.9	4	675
3952	1973	09	29.31806	00	04	03.29	+03	58	08.1		4	675
3952	1973	09	30.21007	00	03	12.96	+03	52	50.9		4	675
3952	1973	09	30.27431	00	03	09.14	+03	52	27.5		4	675
3952	1973	10	04.28958	23	59	25.33	+03	28	27.5		4	675
3952	1973	10	04.35208	23	59	21.78	+03	28	04.0		4	675
3952	1973	10	05.31684	23	58	29.06	+03	22	22.4		4	675
3952	1973	10	05.37917	23	58	25.56	+03	22	00.3		4	675
3953	1989	07	10.33190	19	54	39.52	-18	05	19.2		9	675
3953	1989	07	10.36806	19	54	37.53	-18	05	32.0		9	675
4007	1973	09	19.18611	00	09	01.17	-00	27	39.5		4	675
4007	1973	09	19.21250	00	09	00.27	-00	27	38.8		4	675
4007	1973	09	19.23785	00	08	59.51	-00	27	44.2		4	675
4007	1973	09	19.26354	00	08	58.57	-00	27	45.5		4	675
4007	1973	09	20.22847	00	08	28.45	-00	29	48.4		4	675
4007	1973	09	20.27795	00	08	26.98	-00	29	54.6		4	675
4007	1973	09	24.34688	00	06	18.83	-00	38	27.7		4	675
4007	1973	09	24.37431	00	06	17.82	-00	38	26.2		4	675
4007	1973	09	24.41597	00	06	16.59	-00	38	37.7		4	675
4007	1973	09	24.44167	00	06	15.62	-00	38	36.2		4	675
4007	1973	09	25.24375	00	05	50.30	-00	40	20.1		4	675

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4007       1973 09 25.26875  00 05 49.62  -00 40 21.2                4 675
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4007       1973 09 29.25330  00 03 44.02  -00 48 39.1          18.0  4 675
4007       1973 09 29.27986  00 03 43.16  -00 48 39.7                4 675
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4007       1973 09 30.21007  00 03 13.96  -00 50 34.7                4 675
4007       1973 09 30.23524  00 03 13.18  -00 50 36.5                4 675
4007       1973 09 30.27431  00 03 11.95  -00 50 43.3                4 675
4007       1973 09 30.30174  00 03 11.03  -00 50 45.2                4 675
4007       1973 10 04.28958  00 01 07.37  -00 58 44.7                4 675
4007       1973 10 04.31493  00 01 06.64  -00 58 44.8                4 675
4007       1973 10 04.35208  00 01 05.45  -00 58 52.7                4 675
4007       1973 10 04.37674  00 01 04.71  -00 58 52.1                4 675
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4007       1973 10 05.34167  00 00 35.34  -01 00 43.6                4 675
4007       1973 10 05.37917  00 00 34.02  -01 00 50.1                4 675
4007       1973 10 05.40347  00 00 33.33  -01 00 52.2                4 675
4009       1989 07 10.33190  19 41 03.12  -23 44 34.5                9 675
4009       1989 07 10.36806  19 41 01.13  -23 44 40.1                9 675
4051       1989 03 07.19063  08 00 03.49  +18 51 43.5          18    3 675
4051       1989 03 08.15729  07 59 50.45  +18 52 10.0                3 675
4068       1973 09 19.27865  00 32 32.05  +00 10 52.5                4 675
4068       1973 09 24.38750  00 30 20.75  -00 12 48.2                4 675
4068       1973 09 25.28125  00 29 57.67  -00 16 58.5                4 675
4068       1973 09 29.29219  00 28 12.01  -00 35 38.6          17.4  4 675
4068       1973 09 30.24826  00 27 46.74  -00 40 02.8                4 675
4068       1973 10 04.32708  00 25 58.75  -00 58 42.6                4 675
4068       1973 10 05.35382  00 25 31.70  -01 03 23.3                4 675
4108       1989 08 01.30677  20 25 14.24  -17 06 02.2                9 675
4110       1989 06 30.25017  16 26 02.76  -18 45 49.0          16.5  2 675
4110       1989 06 30.27934  16 26 01.60  -18 45 47.2                2 675
4110       1989 07 03.23594  16 24 37.32  -18 43 28.3                2 675
4110       1989 07 03.26476  16 24 36.56  -18 43 26.6                2 675
4132       1989 07 01.24132  16 37 48.82  +10 30 00.3          17.2  2 675
4132       1989 07 01.26389  16 37 48.05  +10 29 54.1                2 675
4138       1973 09 19.19948  00 27 10.30  +04 00 04.2                4 675
4138       1973 09 24.36181  00 24 42.58  +03 43 08.2                4 675
4138       1973 09 25.25642  00 24 16.80  +03 40 06.1                4 675
4138       1973 09 29.26632  00 22 19.55  +03 26 33.8                4 675
4138       1973 09 30.22257  00 21 51.63  +03 23 18.4                4 675
4138       1973 10 04.30208  00 19 52.51  +03 09 22.9                4 675
4138       1973 10 05.32917  00 19 22.78  +03 05 53.5                4 675
4160       1989 07 03.26476  16 29 41.76  -13 39 01.1                2 675

688 Lowell Observatory, Anderson Mesa Station
E. Bowell, Lowell Observatory, 1400 West Mars Hill Road,
   Flagstaff, AZ 86001, U.S.A.
Observer K. W. Zeigler
0.33-m photographic telescope
1981 RV4   1988 08 10.34722  23 32 45.63  +01 58 00.4          17.0    688
1981 RV4   1988 08 10.41178  23 32 44.69  +01 57 41.6                  688
1988 PK4 * 1988 08 10.34722  23 30 13.61  +05 04 22.2          17.0    688
1988 PK4   1988 08 10.41178  23 30 12.43  +05 04 16.9                  688
 200       1988 08 10.34722  23 45 45.42  +02 03 11.4                  688
 200       1988 08 10.41178  23 45 43.97  +02 03 17.5                  688
 611       1988 08 10.34722  23 46 08.20  +06 36 24.9                  688
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611		1988	08	10.41178	23	46	07.12	+06	36	11.9	688
929		1988	08	10.34722	23	28	55.62	+03	31	52.1	688
929		1988	08	10.41178	23	28	53.60	+03	31	45.0	688
1469		1988	08	10.34722	23	43	44.04	+06	13	41.3	688
1469		1988	08	10.41178	23	43	43.05	+06	13	28.7	688
1503		1988	08	10.34722	23	35	11.28	+06	10	29.3	688
1503		1988	08	10.41178	23	35	09.11	+06	10	39.2	688
2276		1988	08	10.34722	23	37	27.53	+01	20	03.5	688
2276		1988	08	10.41178	23	37	25.93	+01	19	54.6	688
2474		1988	08	10.34722	23	28	50.45	+08	38	39.6	688
2474		1988	08	10.41178	23	28	48.45	+08	38	35.7	688
2934		1988	08	10.34722	23	28	42.38	+05	04	24.2	688
3427		1988	08	10.34722	23	49	18.66	+01	16	59.7	688
3427		1988	08	10.41178	23	49	17.92	+01	17	03.6	688
3453		1988	08	10.34722	23	42	10.73	+03	08	52.4	688
3453		1988	08	10.41178	23	42	09.01	+03	08	53.6	688
3932		1988	08	10.34722	23	52	13.11	+07	27	20.8	688
3932		1988	08	10.41178	23	52	11.12	+07	27	47.3	688
3949		1988	08	10.34722	23	29	02.27	+03	26	04.4	688
3949		1988	08	10.41178	23	29	00.16	+03	25	58.8	688

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, D. Wang
1.5-m reflector
AC

1964	UP	1989	07	31.19426	19	59	19.01	-20	07	10.8		801
1978	SY6	1985	06	22.17511	17	11	09.98	-16	42	48.9		801
1978	SY6	1989	07	10.17839	19	18	42.16	-12	55	55.7		801
1978	SY6	1989	08	01.14373	18	59	08.80	-13	21	05.8		801
1979	YO	1989	07	10.21880	20	00	51.82	-16	33	04.1		801
1979	YO	1989	07	31.17033	19	41	49.19	-19	05	30.5		801
1980	JH	1989	07	30.31500	21	48	23.80	+07	32	18.5		801
1980	JH	1989	07	31.23563	21	47	52.58	+07	29	24.3		801
1980	KH	1989	06	30.30311	20	39	43.45	+00	27	05.4		801
1980	KH	1989	07	29.19429	20	17	56.27	+01	22	44.7		801
1982	SA13	1989	07	29.21341	21	15	11.96	-14	45	09.8		801
1982	SA13	1989	07	30.26191	21	14	32.76	-14	48	19.1		801
1985	KA	1989	07	03.30636	21	38	15.16	+22	11	42.6		801
1985	KA	1989	07	31.25798	21	31	57.98	+33	04	30.3		801
1985	RG4	1989	07	10.24196	20	15	51.87	-03	26	30.1		801
1985	RG4	1989	08	01.21338	19	57	54.25	-05	52	42.7		801
1986	AE	1989	07	31.29073	21	52	47.04	+18	18	08.6		801
1986	AE	1989	08	06.17089	21	45	59.47	+20	05	10.4		801
1988	AF5	1989	07	31.21150	20	03	42.81	-11	42	20.0		801
1988	AF5	1989	08	01.08440	20	02	57.55	-11	46	14.2		801
1989	LW	1989	08	06.10498	17	18	31.09	+11	43	31.7		801
4016	P-L	1986	02	06.37282	10	49	19.15	+08	28	24.7		801
6092	P-L	1989	07	03.27545	20	08	28.48	-01	39	24.6		801
6092	P-L	1989	07	30.18315	19	45	59.24	-03	05	20.8		801
6092	P-L	1989	08	01.19036	19	44	24.67	-03	17	04.3		801
243		1989	06	29.12112	16	30	44.19	-23	23	17.6		801
243		1989	07	31.09532	16	21	34.34	-22	47	00.7		801
243		1989	08	02.07353	16	21	49.08	-22	46	31.8		801
4129		1989	07	01.16152	16	46	36.90	-17	48	29.3	r	801
4130		1989	07	09.09638	14	56	53.90	-04	59	42.7		801
4133		1989	08	06.23948	22	20	33.60	-09	43	51.2		801

807 Cerro Tololo
R. Coker, California Institute of Technology, Pasadena, CA 91125, U.S.A.

1989 AQ9	*	1989	01	04.28576	08	47	35.84	+23	37	08.3	16.0	807
1989 AQ9		1989	01	04.31354	08	47	34.69	+23	37	18.4		807
1989 AQ9		1989	01	05.25984	08	46	52.85	+23	45	37.5		807
1989 AQ9		1989	01	05.29109	08	46	51.58	+23	45	49.8		807

808 El Leoncito
J. G. Sanguin, Felix Aguilar Observatory, Benavidez 8175 (Oeste),
AR-5413 Chimbas, San Juan, Argentina
Observers M. R. Cesco, C. E. Lopez, H. S. Lopez, H. Mira, J. G. Sanguin, J. E. Torres, J. A. Vicentela

9		1988	05	17.10437	13	54	05.04	-07	07	12.3	808
9		1988	05	17.12791	13	54	03.97	-07	07	10.4	808
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15		1988	06	14.09059	14	43	57.25	-29	59	13.4	808
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19		1988	06	14.02030	12	04	25.92	-00	46	44.9	808
27		1988	05	18.14942	14	16	40.95	-11	37	13.1	808
27		1988	05	18.17020	14	16	39.89	-11	36	41.3	808
31		1986	05	11.19903	15	07	13.80	-32	26	51.0	808
31		1986	05	11.22881	15	07	11.95	-32	26	53.7	808
41		1987	10	22.27477	03	30	03.57	+02	44	47.7	808
41		1987	10	22.29590	03	30	02.67	+02	44	10.9	808
46		1988	03	14.16207	10	32	11.59	+08	01	40.1	808
46		1988	03	14.20016	10	32	09.63	+08	01	52.4	808
46		1988	04	08.02733	10	17	40.68	+09	46	44.5	808
46		1988	04	08.06473	10	17	39.95	+09	46	50.0	808
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46		1988	04	10.03191	10	17	04.65	+09	51	49.0	808
46		1988	04	14.02757	10	16	09.60	+10	00	20.0	808
46		1988	04	14.04834	10	16	09.31	+10	00	22.4	808
61		1987	04	02.08699	10	58	23.08	-03	09	53.0	808
61		1987	04	02.12508	10	58	21.51	-03	09	48.2	808
70		1984	07	29.07619	18	49	29.40	-41	50	36.3	808
70		1984	07	29.11082	18	49	27.78	-41	50	36.4	808
70		1988	05	21.23265	16	11	03.17	-26	46	39.2	808
70		1988	05	21.25065	16	11	01.89	-26	46	43.6	808
71		1988	05	17.00602	11	10	30.30	-29	46	55.8	808
71		1988	05	17.04342	11	10	30.91	-29	46	45.3	808
184		1988	08	14.24849	22	31	47.20	-09	15	38.5	808
184		1988	08	14.27691	22	31	46.03	-09	15	42.7	808
186		1987	03	27.26577	13	45	32.86	-13	13	31.3	808
186		1987	03	27.30802	13	45	30.34	-13	13	33.7	808
242		1981	11	19.12921	02	37	55.28	+09	30	11.2	808
242		1981	11	19.16730	02	37	53.50	+09	29	58.2	808
329		1982	06	19.04830	15	39	01.97	+04	24	22.3	808
329		1982	06	19.08536	15	39	00.76	+04	24	18.2	808
329		1982	06	22.07059	15	37	37.99	+04	17	49.3	808
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378		1984	06	06.17035	16	25	49.94	-18	25	35.5	808
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405		1988	12	09.20813	04	21	20.42	+22	51	23.9	808
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409		1988	04	14.10686	11	23	30.90	-12	09	53.7	808
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550	1986	05	31.03361	13	25	51.73	-21	08	24.9	808
552	1988	12	11.16804	04	50	13.97	+24	41	20.0	808
552	1988	12	11.20440	04	50	11.98	+24	41	15.3	808
583	1984	10	18.10365	23	26	35.46	+07	56	27.9	808
583	1984	10	18.15420	23	26	34.02	+07	56	10.7	808
704	1988	04	14.13768	11	42	55.73	-24	03	31.9	808
704	1988	04	14.15984	11	42	54.91	-24	03	20.9	808
704	1988	05	11.09755	11	32	40.58	-20	59	29.4	808
704	1988	05	11.13287	11	32	40.30	-20	59	15.8	808
704	1988	05	13.05417	11	32	29.36	-20	47	09.8	808
704	1988	05	13.09694	11	32	29.15	-20	46	53.4	808
710	1984	06	06.14403	16	30	18.70	-19	13	19.9	808
710	1984	06	06.17035	16	30	17.28	-19	13	16.6	808
723	1988	08	17.14334	22	21	24.58	-08	29	20.4	808
723	1988	08	17.16412	22	21	23.60	-08	29	26.7	808
763	1986	05	10.19483	15	13	26.14	-23	57	53.5	808
763	1986	05	10.22461	15	13	24.04	-23	57	44.7	808
772	1988	05	13.13606	14	50	55.88	+00	10	20.6	808
772	1988	05	13.17069	14	50	53.69	+00	10	08.6	808
804	1987	03	30.16270	12	23	20.69	-11	58	32.3	808
804	1987	03	30.16270	12	23	20.65	-11	58	44.0	808
804	1987	03	30.20495	12	23	18.46	-11	58	29.2	808
804	1987	03	30.20495	12	23	18.44	-11	58	41.1	808
813	1988	11	13.19601	03	06	41.05	+17	07	42.7	808
813	1988	11	13.22441	03	06	39.07	+17	07	41.9	808
830	1988	03	14.16207	10	36	33.45	+08	41	40.9	808
830	1988	03	14.20016	10	36	31.74	+08	41	48.5	808
830	1988	04	08.02733	10	23	22.85	+09	36	04.8	808
830	1988	04	08.06473	10	23	22.12	+09	36	06.8	808
830	1988	04	10.00074	10	22	48.34	+09	37	50.0	808
830	1988	04	10.03191	10	22	47.82	+09	37	51.3	808
836	1981	11	19.12921	02	41	34.63	+10	20	27.6	808
836	1981	11	19.16730	02	41	32.86	+10	20	15.1	808
879	1988	03	23.09525	10	02	42.09	-08	43	42.0	808
879	1988	03	23.13057	10	02	40.74	-08	43	28.3	808
882	1987	03	30.16270	12	29	09.94	-11	19	27.5	808
882	1987	03	30.16270	12	29	09.86	-11	19	44.6	808
882	1987	03	30.20495	12	29	08.09	-11	19	15.3	808
882	1987	03	30.20495	12	29	08.09	-11	19	31.6	808
893	1982	06	22.07059	15	38	51.94	+03	47	42.2	808
893	1982	06	22.10660	15	38	50.88	+03	47	33.5	808
911	1984	10	18.10365	23	30	15.85	+09	37	46.6	808
911	1984	10	18.15420	23	30	14.46	+09	37	42.0	808
926	1983	07	14.10813	18	32	45.77	-44	06	50.7	808
926	1983	07	14.14345	18	32	43.48	-44	06	55.4	808
937	1982	01	22.21184	08	48	18.52	+12	27	20.1	808
1006	1984	08	26.15037	21	26	48.31	-04	57	11.6	808
1006	1984	08	26.18846	21	26	46.20	-04	57	09.5	808
1007	1988	04	16.12391	12	39	37.21	-08	07	29.0	808
1007	1988	04	16.15161	12	39	35.85	-08	07	20.4	808
1047	1984	07	23.20511	20	23	27.74	-27	10	59.8	808
1047	1984	07	23.23628	20	23	25.67	-27	11	14.7	808
1050	1987	04	01.15066	12	33	27.53	-14	03	10.5	808
1050	1987	04	01.18321	12	33	25.56	-14	03	05.5	808
1065	1984	08	26.06241	20	53	33.41	-19	52	20.0	808
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1167	1988	11	05.24210	03	12	12.60	+17	24	42.5	808

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1167	1988	11	13.22441	03	06	19.02	+16	51	14.1	808
1184	1986	05	11.19903	15	04	32.65	-33	18	59.5	808
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1250	1982	01	22.21184	08	32	35.23	+11	32	19.1	808
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1254	1987	04	02.12508	10	58	30.52	-03	44	07.5	808
1266	1983	03	20.06058	08	58	06.96	+15	46	44.9	808
1266	1983	03	20.09660	08	58	05.94	+15	46	41.4	808
1315	1982	01	22.21184	08	39	00.64	+08	43	49.1	808
1321	1984	04	05.11940	12	19	33.78	-14	41	16.2	808
1321	1984	04	05.14988	12	19	32.16	-14	41	09.7	808
1372	1988	04	10.99632	10	38	49.32	-03	16	45.7	808
1372	1988	04	11.04061	10	38	48.11	-03	16	41.4	808
1384	1982	09	09.16584	22	40	33.68	-11	17	49.5	808
1404	1984	10	18.10365	23	28	34.13	+09	00	55.9	808
1404	1984	10	18.15420	23	28	32.74	+09	00	50.6	808
1436	1983	03	13.18219	12	03	36.44	-21	18	40.3	808
1436	1983	03	13.22444	12	03	34.46	-21	18	33.6	808
1467	1988	08	17.14334	22	20	09.87	-07	38	10.8	808
1467	1988	08	17.16412	22	20	08.56	-07	38	07.4	808
1470	1988	08	12.19162	21	04	24.39	-20	15	11.6	808
1470	1988	08	12.21933	21	04	22.97	-20	15	15.5	808
1470	1988	08	14.18963	21	02	48.70	-20	20	00.3	808
1470	1988	08	14.21906	21	02	47.23	-20	20	04.4	808
1556	1982	06	17.10848	15	38	51.20	-08	54	44.8	808
1556	1982	06	17.14622	15	38	49.65	-08	54	50.7	808
1556	1982	06	19.14872	15	37	39.82	-08	59	42.1	808
1556	1982	06	19.19789	15	37	38.06	-08	59	49.5	808
1607	1982	06	17.10848	15	40	40.93	-08	11	22.2	808
1607	1982	06	17.14622	15	40	38.93	-08	11	24.4	808
1607	1982	06	19.14872	15	39	06.36	-08	13	57.6	808
1607	1982	06	19.19789	15	39	04.06	-08	14	01.4	808
1642	1986	05	30.99345	13	15	40.75	-22	46	39.0	808
1642	1986	05	31.03361	13	15	40.03	-22	46	30.8	808
1685	1986	05	01.09960	13	58	04.36	-28	47	33.3	808
1685	1986	05	01.13492	13	58	00.14	-28	47	05.5	808
1685	1986	05	08.11096	13	45	27.94	-27	09	07.6	808
1685	1986	05	08.14212	13	45	24.67	-27	08	41.3	808
1701	1988	11	10.16889	02	40	40.75	+07	16	29.0	808
1701	1988	11	10.19659	02	40	39.20	+07	16	30.7	808
1704	1988	10	10.03953	22	16	47.95	-09	06	48.3	808
1704	1988	10	10.07139	22	16	47.34	-09	06	52.1	808
1727	1984	12	16.05613	02	41	06.15	-25	39	57.6	808
1727	1984	12	16.09491	02	41	05.79	-25	39	09.1	808
1817	1983	07	15.22037	20	04	00.06	-42	10	24.2	808
1817	1983	07	15.25707	20	03	57.25	-42	11	02.6	808
1817	1983	07	17.23222	20	01	30.21	-42	43	54.1	808
1817	1983	07	17.26408	20	01	27.70	-42	44	24.8	808
1817	1983	08	11.10786	19	32	45.04	-47	09	12.5	808
1817	1983	08	11.13764	19	32	43.42	-47	09	22.0	808
1867	1983	03	13.08801	09	51	32.52	-16	42	36.0	808
1867	1983	03	13.13025	09	51	31.34	-16	42	29.0	808
1892	1985	03	21.17487	12	22	11.03	-21	56	00.5	808
1949	1988	11	10.09461	01	46	49.10	+17	44	19.9	808
1949	1988	11	13.11776	01	44	47.29	+17	21	00.1	808
1949	1988	11	13.14961	01	44	45.96	+17	20	45.4	808

1977	1987	04	01.15066	12	39	43.61	-12	55	19.6	808
1977	1987	04	01.18321	12	39	41.73	-12	55	13.5	808
1978	1988	12	11.16804	04	47	49.32	+25	16	50.0	808
1978	1988	12	11.20440	04	47	46.47	+25	16	50.3	808
2035	1981	10	26.23734	03	42	33.96	-13	40	11.1	808
2035	1981	10	26.26919	03	42	31.07	-13	40	06.0	808
2104	1983	03	13.08801	09	58	39.59	-16	56	10.6	808
2104	1983	03	13.13025	09	58	37.84	-16	55	55.2	808
2106	1984	07	29.14475	19	22	26.12	-14	38	44.0	808
2106	1984	07	29.18769	19	22	23.85	-14	38	54.8	808
2120	1982	06	17.10848	15	39	14.08	-08	47	59.7	808
2120	1982	06	17.14622	15	39	12.65	-08	47	47.5	808
2120	1982	06	19.14872	15	38	12.79	-08	37	32.3	808
2120	1982	06	19.19789	15	38	11.28	-08	37	19.3	808
2138	1983	11	07.13006	02	47	48.69	+07	37	09.2	808
2138	1983	11	07.17161	02	47	46.40	+07	37	01.6	808
2189	1983	12	02.22178	04	51	13.21	+01	23	02.4	808
2189	1983	12	02.25225	04	51	11.12	+01	23	08.2	808
2203	1984	08	26.23243	22	30	45.16	-12	07	38.3	808
2203	1984	08	26.26568	22	30	43.57	-12	07	44.9	808
2203	1984	09	01.17865	22	26	10.69	-12	32	56.5	808
2203	1984	09	01.22021	22	26	08.70	-12	33	06.0	808
2248	1984	08	26.23243	22	32	44.16	-11	17	58.3	808
2248	1984	08	26.26568	22	32	42.61	-11	18	06.6	808
2284	1987	05	21.19143	14	52	19.42	-06	34	54.3	808
2284	1987	05	21.22952	14	52	17.45	-06	34	48.9	808
2284	1988	10	17.16239	00	33	31.35	-03	27	29.4	808
2284	1988	10	17.19771	00	33	33.24	-03	27	16.8	808
2309	1988	11	08.28411	05	51	10.93	+07	55	38.8	808
2309	1988	11	08.30143	05	51	10.55	+07	55	35.9	808
2309	1988	11	14.27708	05	48	56.45	+07	33	56.0	808
2309	1988	11	14.30478	05	48	55.66	+07	33	51.1	808
2311	1988	11	10.16889	02	40	52.66	+07	03	50.2	808
2311	1988	11	10.19659	02	40	51.51	+07	03	44.6	808
2363	1983	03	13.18219	12	04	41.35	-20	41	14.7	808
2363	1983	03	13.22444	12	04	39.95	-20	41	03.3	808
2399	1988	08	14.24849	22	28	43.58	-09	55	42.6	808
2399	1988	08	14.27619	22	28	42.33	-09	56	00.8	808
2424	1986	05	10.19483	15	18	07.61	-24	07	21.7	808
2424	1986	05	10.22461	15	18	05.47	-24	07	20.5	808
2430	1984	09	01.26384	00	37	42.73	-43	09	24.2	808
2430	1984	09	01.30539	00	37	39.82	-43	09	30.2	808
2548	1988	04	13.13833	11	47	41.26	-30	58	14.9	808
2567	1984	08	26.23243	22	30	15.87	-12	43	45.3	808
2567	1984	08	26.26568	22	30	14.31	-12	44	03.9	808
2567	1984	09	01.17865	22	25	55.80	-13	37	40.3	808
2567	1984	09	01.22021	22	25	53.92	-13	38	02.3	808
2567	1984	09	27.18730	22	11	17.64	-16	36	58.7	808
2567	1984	09	27.21570	22	11	17.05	-16	37	06.7	808
2609	1987	04	02.08699	11	04	23.52	-03	48	55.9	808
2609	1987	04	02.12508	11	04	21.57	-03	48	45.9	808
2645	1986	05	01.17508	14	45	01.74	-35	24	45.9	808
2645	1986	05	01.21318	14	44	58.81	-35	24	45.7	808
2645	1986	05	08.20237	14	36	29.57	-35	15	48.1	808
2645	1986	05	08.20237	14	36	29.53	-35	15	47.0	808
2645	1986	05	08.23700	14	36	26.94	-35	15	43.5	808
2645	1986	05	08.23700	14	36	27.05	-35	15	44.2	808
2679	1988	04	16.12391	12	36	51.03	-07	21	24.6	808
2679	1988	04	16.15161	12	36	49.83	-07	21	09.0	808

2691	1988	10	06.04283	22	01	13.90	-09	25	15.4	808
2691	1988	10	06.06638	22	01	13.62	-09	25	15.5	808
2765	1987	04	01.15066	12	36	14.22	-13	31	53.2	808
2765	1987	04	01.18321	12	36	12.36	-13	31	50.9	808
2928	1988	09	11.08339	20	51	24.85	-14	49	33.0	808
2928	1988	09	11.10278	20	51	24.32	-14	49	32.2	808
2986	1988	08	12.19162	21	03	26.64	-20	55	22.9	808
2986	1988	08	12.21933	21	03	25.34	-20	55	29.7	808
2986	1988	08	14.18963	21	01	52.33	-21	01	43.3	808
2986	1988	08	14.21906	21	01	50.86	-21	01	48.3	808
3036	1987	03	30.26312	14	42	46.64	-22	08	18.0	808
3036	1987	03	30.30606	14	42	45.21	-22	08	28.7	808
3042	1988	04	16.12391	12	37	11.15	-08	33	40.1	808
3042	1988	04	16.15161	12	37	09.57	-08	33	25.8	808
3046	1988	10	17.24203	02	38	12.59	+02	50	19.5	808
3046	1988	10	17.28012	02	38	14.00	+02	50	44.1	808
3116	1988	11	10.16889	02	33	09.05	+07	54	31.9	808
3116	1988	11	10.19659	02	33	07.22	+07	54	32.5	808
3161	1987	04	01.07760	11	49	18.59	-05	21	57.6	808
3161	1987	04	01.11222	11	49	16.24	-05	21	59.2	808
3233	1986	05	10.19483	15	14	17.92	-23	41	29.8	808
3233	1986	05	10.22461	15	14	15.84	-23	41	23.5	808
3266	1986	11	03.13712	01	54	45.84	-44	04	35.2	808
3266	1986	11	03.16482	01	54	43.87	-44	04	14.8	808
3311	1988	03	14.16207	10	34	22.31	+09	09	30.4	808
3311	1988	03	14.20016	10	34	20.44	+09	09	41.9	808
3401	1988	08	08.13052	20	10	57.01	-31	10	46.9	808
3401	1988	08	08.16515	20	10	54.12	-31	10	35.6	808
3453	1987	03	30.16270	12	24	29.77	-10	43	11.4	808
3453	1987	03	30.16270	12	24	29.92	-10	43	18.0	808
3453	1987	03	30.20495	12	24	27.40	-10	42	59.1	808
3453	1987	03	30.20495	12	24	27.42	-10	43	05.3	808
3477	1986	05	13.24205	15	51	01.10	-10	30	11.7	808
3477	1986	05	13.26975	15	50	59.53	-10	30	01.2	808
3477	1986	05	31.14581	15	34	56.04	-08	48	54.0	808
3477	1986	05	31.18390	15	34	53.96	-08	48	44.1	808
3551	1983	11	07.27619	04	55	18.45	-18	13	48.8	808
3551	1983	11	07.32328	04	55	17.33	-18	13	33.7	808
3551	1983	12	02.13763	04	42	14.86	-12	59	01.6	808
3551	1983	12	02.17572	04	42	13.19	-12	58	19.8	808
3648	1987	03	27.26577	13	39	21.24	-13	06	11.4	808
3648	1987	03	27.30802	13	39	19.41	-13	05	50.3	808
3751	1987	02	05.26794	10	59	11.35	-11	40	45.0	808
3751	1987	02	05.32057	10	59	09.61	-11	40	49.0	808
3998	1984	09	27.18730	22	11	33.92	-15	23	21.5	808
3998	1984	09	27.21570	22	11	32.53	-15	23	20.0	808
4039	1986	05	10.19483	15	09	42.78	-23	48	45.2	808
4039	1986	05	10.22461	15	09	40.87	-23	48	38.7	808
4113	1986	05	31.14581	15	40	14.23	-08	25	01.7	808
4113	1986	05	31.18390	15	40	11.93	-08	25	02.4	808

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Measurers H. Debehogne, J. Dumoulin, R. Galas, M. Geffert, H.-J. Tucholke
GPO 0.4-m astrograph and 1-m Schmidt

1989	PB	1989	08	17.15486	23	46	56.62	+00	30	59.6	8 809
1989	PB	1989	08	17.16250	23	46	57.66	+00	32	06.3	8 809
18		1988	09	07.33368	22	47	30.01	-12	32	49.0	3 809
18		1988	09	07.33993	22	47	29.78	-12	32	54.1	3 809
18		1988	09	07.34618	22	47	29.54	-12	32	59.1	3 809
18		1988	09	10.10833	22	45	40.57	-13	11	34.8	3 809
18		1988	09	10.11632	22	45	40.27	-13	11	41.3	3 809
18		1988	09	10.12430	22	45	39.97	-13	11	47.7	3 809
37		1988	09	20.22118	22	49	13.83	-09	24	42.7	3 809
37		1988	09	20.22604	22	49	13.60	-09	24	43.9	3 809
37		1988	09	20.23090	22	49	13.36	-09	24	44.8	3 809
45		1988	09	19.31805	23	06	16.17	-09	41	21.8	3 809
45		1988	09	19.32361	23	06	15.91	-09	41	23.9	3 809
45		1988	09	19.32917	23	06	15.67	-09	41	25.9	3 809
78		1988	09	08.31493	23	09	43.34	-01	59	48.2	3 809
78		1988	09	08.32118	23	09	43.02	-01	59	49.3	3 809
78		1988	09	08.32743	23	09	42.66	-01	59	50.9	3 809
78		1988	09	14.29965	23	04	11.22	-02	19	17.8	3 809
78		1988	09	14.30590	23	04	10.87	-02	19	19.0	3 809
78		1988	09	14.31215	23	04	10.52	-02	19	20.2	3 809
78		1988	09	20.27048	22	58	46.95	-02	39	00.4	3 809
78		1988	09	20.27535	22	58	46.70	-02	39	01.3	3 809
78		1988	09	20.28021	22	58	46.45	-02	39	02.4	3 809
97		1988	09	06.33993	22	42	00.50	-08	39	55.7	3 809
97		1988	09	06.34618	22	42	00.20	-08	39	59.6	3 809
97		1988	09	08.19132	22	40	32.55	-08	59	25.9	3 809
97		1988	09	08.19757	22	40	32.27	-08	59	29.8	3 809
97		1988	09	08.20382	22	40	31.97	-08	59	33.6	3 809
97		1988	09	12.25035	22	37	21.63	-09	41	48.1	3 809
97		1988	09	12.25660	22	37	21.35	-09	41	52.1	3 809
97		1988	09	12.26284	22	37	21.03	-09	41	56.2	3 809
144		1988	09	04.18924	22	18	46.01	-20	05	28.8	3 809
144		1988	09	04.19549	22	18	45.70	-20	05	30.5	3 809
144		1988	09	04.20173	22	18	45.37	-20	05	32.3	3 809
144		1988	09	07.25174	22	16	21.04	-20	17	18.2	3 809
144		1988	09	07.25799	22	16	20.77	-20	17	19.2	3 809
150		1988	09	11.32326	22	32	25.27	-06	30	55.2	3 809
150		1988	09	11.32951	22	32	25.00	-06	30	57.2	3 809
150		1988	09	11.33576	22	32	24.72	-06	30	59.1	3 809
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150		1988	09	12.29652	22	31	44.11	-06	35	55.4	3 809
150		1988	09	12.30208	22	31	43.87	-06	35	57.0	3 809
150		1988	09	13.28576	22	31	02.76	-06	40	58.1	3 809
150		1988	09	13.29201	22	31	02.49	-06	41	00.1	3 809
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180		1988	09	08.20382	22	43	24.47	-07	24	50.4	3 809
180		1988	09	11.05174	22	41	04.88	-07	38	20.7	3 809

180	1988	09	11.05798	22	41	04.58	-07	38	22.5	3 809
180	1988	09	11.06424	22	41	04.29	-07	38	24.3	3 809
180	1988	09	12.25035	22	40	06.57	-07	43	57.1	3 809
180	1988	09	12.25660	22	40	06.26	-07	43	58.8	3 809
180	1988	09	12.26284	22	40	05.96	-07	44	00.7	3 809
180	1988	09	14.24340	22	38	31.39	-07	53	07.9	3 809
180	1988	09	14.24965	22	38	31.09	-07	53	09.3	3 809
180	1988	09	14.25590	22	38	30.79	-07	53	10.7	3 809
180	1988	09	18.21180	22	35	27.92	-08	10	46.3	3 809
180	1988	09	18.21736	22	35	27.68	-08	10	47.7	3 809
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184	1988	09	07.20799	22	14	32.24	-10	48	11.4	3 809
184	1988	09	07.21424	22	14	31.99	-10	48	12.7	3 809
184	1988	09	07.22049	22	14	31.74	-10	48	14.0	3 809
184	1988	09	08.12257	22	13	54.57	-10	51	29.1	3 809
184	1988	09	08.12882	22	13	54.32	-10	51	30.5	3 809
184	1988	09	08.13507	22	13	54.08	-10	51	31.9	3 809
184	1988	09	11.21632	22	11	49.13	-11	02	23.0	3 809
184	1988	09	11.22257	22	11	48.87	-11	02	24.3	3 809
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184	1988	09	14.16354	22	09	55.11	-11	12	11.8	3 809
184	1988	09	14.16979	22	09	54.86	-11	12	13.1	3 809
184	1988	09	14.17604	22	09	54.59	-11	12	14.3	3 809
184	1988	09	17.25868	22	08	01.77	-11	21	51.8	3 809
184	1988	09	17.26493	22	08	01.57	-11	21	52.7	3 809
184	1988	09	17.27118	22	08	01.37	-11	21	53.7	3 809
295	1988	09	04.99896	20	53	42.41	-14	27	39.9	3 809
295	1988	09	05.00521	20	53	42.16	-14	27	41.0	3 809
295	1988	09	05.01146	20	53	41.91	-14	27	42.0	3 809
295	1988	09	06.99687	20	52	32.55	-14	32	30.1	3 809
295	1988	09	07.00312	20	52	32.31	-14	32	31.3	3 809
295	1988	09	07.00938	20	52	32.12	-14	32	32.1	3 809
295	1988	09	09.17743	20	51	21.89	-14	37	28.2	3 809
295	1988	09	09.18368	20	51	21.67	-14	37	28.9	3 809
295	1988	09	09.18993	20	51	21.49	-14	37	29.7	3 809
295	1988	09	10.99791	20	50	28.30	-14	41	20.0	3 809
295	1988	09	11.00625	20	50	28.06	-14	41	21.1	3 809
295	1988	09	11.01458	20	50	27.83	-14	41	22.1	3 809
295	1988	09	13.99861	20	49	09.81	-14	47	07.2	3 809
295	1988	09	14.00694	20	49	09.58	-14	47	08.2	3 809
295	1988	09	14.01527	20	49	09.34	-14	47	09.1	3 809
295	1988	09	16.07812	20	48	22.89	-14	50	42.3	3 809
295	1988	09	16.08437	20	48	22.75	-14	50	42.9	3 809
295	1988	09	16.09062	20	48	22.58	-14	50	43.2	3 809
295	1988	09	18.99062	20	47	28.43	-14	55	05.4	3 809
295	1988	09	19.00798	20	47	28.16	-14	55	06.9	3 809
295	1988	09	19.02534	20	47	27.84	-14	55	08.4	3 809
355	1988	09	07.22951	22	03	35.16	-14	06	13.6	3 809
355	1988	09	07.23576	22	03	34.78	-14	06	14.8	3 809
355	1988	09	07.24201	22	03	34.48	-14	06	15.5	3 809
355	1988	09	09.10521	22	01	59.01	-14	11	20.0	3 809
355	1988	09	09.11146	22	01	58.71	-14	11	20.8	3 809
355	1988	09	09.11771	22	01	58.40	-14	11	21.5	3 809
355	1988	09	12.20034	21	59	26.46	-14	18	57.9	3 809
355	1988	09	12.20660	21	59	26.16	-14	18	58.5	3 809
355	1988	09	12.21284	21	59	25.86	-14	18	59.3	3 809
355	1988	09	15.06007	21	57	14.73	-14	25	03.4	3 809
355	1988	09	15.06632	21	57	14.45	-14	25	04.2	3 809
355	1988	09	15.07257	21	57	14.14	-14	25	05.1	3 809

355	1988	09	16.28646	21	56	20.61	-14	27	22.3	3 809
355	1988	09	16.29271	21	56	20.30	-14	27	23.2	3 809
355	1988	09	16.29896	21	56	20.00	-14	27	24.1	3 809
514	1988	09	10.30729	22	03	47.62	-06	10	42.3	3 809
514	1988	09	10.31354	22	03	47.35	-06	10	44.1	3 809
514	1988	09	10.31979	22	03	47.10	-06	10	45.4	3 809
514	1988	09	13.18403	22	01	53.94	-06	22	01.8	3 809
514	1988	09	13.19514	22	01	53.50	-06	22	04.4	3 809
514	1988	09	13.20625	22	01	53.05	-06	22	07.0	3 809
514	1988	09	17.20451	21	59	26.63	-06	37	19.0	3 809
514	1988	09	17.21111	21	59	26.43	-06	37	20.4	3 809
514	1988	09	17.21771	21	59	26.22	-06	37	21.7	3 809
627	1988	08	31.08715	21	16	31.02	-16	11	10.5	3 809
627	1988	08	31.09201	21	16	30.81	-16	11	12.1	3 809
627	1988	08	31.09687	21	16	30.61	-16	11	13.8	3 809
723	1988	09	06.22118	22	06	44.13	-10	24	41.0	3 809
723	1988	09	06.22743	22	06	43.86	-10	24	43.0	3 809
723	1988	09	06.23368	22	06	43.59	-10	24	45.3	3 809
723	1988	09	08.06632	22	05	28.25	-10	34	52.0	3 809
723	1988	09	08.07257	22	05	27.99	-10	34	53.9	3 809
723	1988	09	08.07882	22	05	27.73	-10	34	55.8	3 809
723	1988	09	10.32812	22	03	57.42	-10	47	05.2	3 809
723	1988	09	10.33437	22	03	57.18	-10	47	07.2	3 809
723	1988	09	10.34062	22	03	56.94	-10	47	09.1	3 809
723	1988	09	13.21944	22	02	07.38	-11	02	10.6	3 809
723	1988	09	13.22604	22	02	07.13	-11	02	12.7	3 809
723	1988	09	13.23229	22	02	06.89	-11	02	14.8	3 809
723	1988	09	16.26632	22	00	18.80	-11	17	19.4	3 809
723	1988	09	16.27257	22	00	18.63	-11	17	21.0	3 809
723	1988	09	16.27882	22	00	18.45	-11	17	22.6	3 809
728	1988	11	03.16944	00	03	56.70	-06	12	33.2	7 809
728	1988	11	03.17500	00	03	56.55	-06	12	32.9	7 809
728	1988	11	04.14792	00	03	33.19	-06	12	09.7	7 809
728	1988	11	04.15486	00	03	33.01	-06	12	09.7	7 809
728	1988	11	05.16539	00	03	10.46	-06	11	33.4	7 809
728	1988	11	05.17153	00	03	10.28	-06	11	33.9	7 809
728	1988	11	06.08750	00	02	51.52	-06	10	49.4	7 809
728	1988	11	06.09352	00	02	51.44	-06	10	49.2	7 809
728	1988	11	07.09010	00	02	32.58	-06	09	49.8	7 809
728	1988	11	07.09653	00	02	32.43	-06	09	49.6	7 809
728	1988	11	08.03304	00	02	16.42	-06	08	41.0	7 809
728	1988	11	08.03889	00	02	16.35	-06	08	40.4	7 809
728	1988	11	09.02801	00	02	01.03	-06	07	17.1	7 809
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827	1988	09	12.31771	22	56	27.77	-05	56	09.2	3 809
827	1988	09	12.32396	22	56	27.47	-05	56	12.3	3 809
827	1988	09	15.32396	22	54	06.53	-06	20	16.5	3 809
827	1988	09	15.33854	22	54	05.83	-06	20	23.6	3 809
827	1988	09	15.34687	22	54	05.41	-06	20	27.6	3 809
827	1988	09	18.23680	22	51	56.07	-06	42	57.0	3 809
827	1988	09	18.24236	22	51	55.85	-06	42	59.3	3 809
827	1988	09	18.24791	22	51	55.63	-06	43	01.6	3 809
827	1988	09	20.20521	22	50	32.51	-06	57	43.7	3 809
827	1988	09	20.21007	22	50	32.32	-06	57	45.8	3 809
827	1988	09	20.21493	22	50	32.12	-06	57	47.9	3 809
890	1988	09	06.01215	20	52	26.73	-12	21	29.0	3 809
890	1988	09	06.01840	20	52	26.61	-12	21	31.2	3 809
890	1988	09	06.02465	20	52	26.46	-12	21	33.3	3 809

890	1988	09	07.01701	20	52	01.23	-12	27	28.8	3 809
890	1988	09	07.02326	20	52	01.04	-12	27	30.9	3 809
890	1988	09	07.02951	20	52	00.91	-12	27	33.2	3 809
890	1988	09	09.19757	20	51	09.56	-12	40	12.2	3 809
890	1988	09	09.20382	20	51	09.44	-12	40	14.4	3 809
890	1988	09	09.21007	20	51	09.32	-12	40	16.5	3 809
890	1988	09	11.13715	20	50	28.65	-12	51	10.0	3 809
890	1988	09	11.14340	20	50	28.53	-12	51	12.1	3 809
890	1988	09	11.14965	20	50	28.39	-12	51	14.0	3 809
890	1988	09	12.00000	20	50	12.12	-12	55	56.3	3 809
890	1988	09	12.00833	20	50	11.94	-12	55	59.1	3 809
890	1988	09	12.01667	20	50	11.76	-12	56	02.0	3 809
903	1988	09	06.33993	22	43	37.66	-08	25	31.9	3 809
903	1988	09	06.34618	22	43	37.42	-08	25	34.9	3 809
903	1988	09	08.19132	22	42	24.72	-08	38	55.6	3 809
903	1988	09	08.19757	22	42	24.48	-08	38	58.3	3 809
903	1988	09	08.20382	22	42	24.24	-08	39	01.0	3 809
903	1988	09	12.25035	22	39	47.26	-09	07	51.7	3 809
903	1988	09	12.25660	22	39	47.02	-09	07	54.5	3 809
903	1988	09	12.26284	22	39	46.80	-09	07	56.8	3 809
903	1988	09	15.19548	22	37	56.93	-09	28	15.4	3 809
903	1988	09	15.20173	22	37	56.68	-09	28	18.1	3 809
903	1988	09	15.20799	22	37	56.46	-09	28	20.7	3 809
903	1988	09	20.15243	22	35	01.65	-10	01	05.3	3 809
903	1988	09	20.15729	22	35	01.49	-10	01	07.1	3 809
903	1988	09	20.16215	22	35	01.34	-10	01	09.2	3 809
1053	1988	09	04.18924	22	16	47.87	-20	47	19.3	3 809
1053	1988	09	04.19549	22	16	47.49	-20	47	20.1	3 809
1053	1988	09	04.20173	22	16	47.11	-20	47	20.9	3 809
1076	1988	09	10.06354	22	41	10.50	-10	10	08.6	3 809
1076	1988	09	10.06979	22	41	10.15	-10	10	11.0	3 809
1076	1988	09	10.07604	22	41	09.84	-10	10	13.5	3 809
1076	1988	09	11.34618	22	40	03.38	-10	18	23.2	3 809
1076	1988	09	11.35243	22	40	03.06	-10	18	25.3	3 809
1076	1988	09	11.35868	22	40	02.74	-10	18	27.6	3 809
1079	1988	09	06.33993	22	43	52.60	-07	39	26.4	3 809
1079	1988	09	06.34618	22	43	52.31	-07	39	28.1	3 809
1079	1988	09	08.19132	22	42	24.18	-07	47	37.1	3 809
1079	1988	09	08.19757	22	42	23.90	-07	47	38.7	3 809
1079	1988	09	08.20382	22	42	23.59	-07	47	40.3	3 809
1079	1988	09	11.32326	22	39	56.12	-08	01	13.3	3 809
1079	1988	09	11.32951	22	39	55.82	-08	01	15.0	3 809
1079	1988	09	11.33576	22	39	55.52	-08	01	16.4	3 809
1079	1988	09	12.25035	22	39	13.20	-08	05	10.5	3 809
1079	1988	09	12.25660	22	39	12.88	-08	05	12.1	3 809
1079	1988	09	12.26284	22	39	12.60	-08	05	13.9	3 809
1079	1988	09	13.28576	22	38	25.48	-08	09	32.8	3 809
1079	1988	09	13.29201	22	38	25.20	-08	09	34.5	3 809
1079	1988	09	13.29826	22	38	24.89	-08	09	36.1	3 809
1079	1988	09	15.19548	22	36	59.34	-08	17	26.4	3 809
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1079	1988	09	15.20799	22	36	58.78	-08	17	29.5	3 809
1079	1988	09	15.21910	22	36	58.25	-08	17	31.7	3 809
1079	1988	09	15.22535	22	36	57.97	-08	17	33.2	3 809
1079	1988	09	15.23159	22	36	57.68	-08	17	34.4	3 809
1079	1988	09	18.19028	22	34	48.73	-08	29	19.1	3 809
1079	1988	09	18.19618	22	34	48.47	-08	29	20.4	3 809
1079	1988	09	18.20208	22	34	48.20	-08	29	21.8	3 809
1079	1988	09	18.21180	22	34	47.78	-08	29	24.3	3 809

1079	1988	09	18.21736	22	34	47.56	-08	29	25.5	3 809
1079	1988	09	18.22292	22	34	47.34	-08	29	26.7	3 809
1109	1988	09	10.30729	22	07	33.98	-05	28	33.4	3 809
1109	1988	09	10.31354	22	07	33.74	-05	28	34.9	3 809
1109	1988	09	10.31979	22	07	33.51	-05	28	36.3	3 809
1109	1988	09	13.18403	22	05	44.39	-05	39	47.6	3 809
1109	1988	09	13.19514	22	05	43.97	-05	39	50.2	3 809
1109	1988	09	13.20625	22	05	43.54	-05	39	52.8	3 809
1304	1988	11	03.31424	05	21	57.56	+15	49	57.8	7 809
1304	1988	11	03.33171	05	21	57.03	+15	49	59.5	7 809
1304	1988	11	04.28576	05	21	29.80	+15	51	23.1	7 809
1304	1988	11	04.34965	05	21	27.85	+15	51	29.0	7 809
1304	1988	11	05.20503	05	21	02.52	+15	52	44.9	7 809
1304	1988	11	05.33543	05	20	58.36	+15	52	56.8	7 809
1304	1988	11	06.28108	05	20	29.09	+15	54	23.0	7 809
1304	1988	11	07.26817	05	19	57.28	+15	55	54.0	7 809
1304	1988	11	07.35069	05	19	54.47	+15	56	01.7	7 809
1304	1988	11	08.24693	05	19	24.64	+15	57	25.9	7 809
1304	1988	11	08.35256	05	19	20.91	+15	57	36.0	7 809
1304	1988	11	09.21505	05	18	51.24	+15	58	57.8	7 809
1304	1988	11	09.34919	05	18	46.42	+15	59	11.9	7 809
1338	1988	09	01.08646	22	48	58.76	-05	06	15.6	3 809
1338	1988	09	01.09271	22	48	58.38	-05	06	16.6	3 809
1338	1988	09	01.09896	22	48	58.00	-05	06	17.5	3 809
1338	1988	09	06.32674	22	43	32.46	-05	24	43.3	3 809
1338	1988	09	06.33298	22	43	32.08	-05	24	44.5	3 809
1338	1988	09	08.16910	22	41	38.56	-05	31	20.0	3 809
1338	1988	09	08.17535	22	41	38.18	-05	31	21.3	3 809
1338	1988	09	08.18160	22	41	37.80	-05	31	22.7	3 809
1338	1988	09	11.05174	22	38	42.25	-05	41	40.2	3 809
1338	1988	09	11.05798	22	38	41.86	-05	41	41.5	3 809
1338	1988	09	11.06424	22	38	41.48	-05	41	42.8	3 809
1338	1988	09	14.24340	22	35	31.66	-05	52	51.9	3 809
1338	1988	09	14.24965	22	35	31.29	-05	52	53.3	3 809
1338	1988	09	14.25590	22	35	30.91	-05	52	54.6	3 809
1338	1988	09	18.17152	22	31	49.31	-06	06	01.0	3 809
1338	1988	09	18.17708	22	31	49.03	-06	06	02.2	3 809
1338	1988	09	18.18333	22	31	48.69	-06	06	03.3	3 809
1338	1988	09	19.20208	22	30	53.57	-06	09	17.6	3 809
1338	1988	09	19.20903	22	30	53.20	-06	09	18.9	3 809
1338	1988	09	19.21597	22	30	52.83	-06	09	20.2	3 809
1338	1988	09	19.22361	22	30	52.30	-06	09	22.3	3 809
1338	1988	09	19.22916	22	30	52.02	-06	09	23.3	3 809
1338	1988	09	19.23472	22	30	51.73	-06	09	24.4	3 809
1338	1988	09	20.16979	22	30	02.42	-06	12	19.8	3 809
1338	1988	09	20.17465	22	30	02.17	-06	12	20.7	3 809
1338	1988	09	20.17951	22	30	01.93	-06	12	21.6	3 809
1383	1988	09	07.20799	22	14	51.30	-10	49	18.4	3 809
1383	1988	09	07.21424	22	14	51.06	-10	49	19.9	3 809
1383	1988	09	07.22049	22	14	50.82	-10	49	21.4	3 809
1383	1988	09	08.12257	22	14	12.83	-10	52	57.1	3 809
1383	1988	09	08.12882	22	14	12.55	-10	52	58.6	3 809
1383	1988	09	08.13507	22	14	12.28	-10	52	59.7	3 809
1383	1988	09	11.21632	22	12	05.92	-11	04	51.9	3 809
1383	1988	09	11.22257	22	12	05.69	-11	04	53.3	3 809
1383	1988	09	11.22882	22	12	05.44	-11	04	54.7	3 809
1383	1988	09	14.16354	22	10	12.63	-11	15	28.5	3 809
1383	1988	09	14.16979	22	10	12.38	-11	15	30.0	3 809
1383	1988	09	14.17604	22	10	12.11	-11	15	31.5	3 809

1383	1988	09	17.25868	22	08	22.49	-11	25	43.0	3 809
1383	1988	09	17.26493	22	08	22.30	-11	25	44.1	3 809
1383	1988	09	17.27118	22	08	22.04	-11	25	45.2	3 809
1389	1988	09	15.32396	22	50	31.22	-06	50	04.5	3 809
1389	1988	09	15.33854	22	50	30.54	-06	50	09.2	3 809
1389	1988	09	15.34687	22	50	30.17	-06	50	11.8	3 809
1389	1988	09	18.23680	22	48	24.51	-07	05	09.1	3 809
1389	1988	09	18.24236	22	48	24.28	-07	05	10.7	3 809
1389	1988	09	18.24791	22	48	24.05	-07	05	12.3	3 809
1389	1988	09	20.20521	22	47	01.66	-07	15	00.2	3 809
1389	1988	09	20.21007	22	47	01.47	-07	15	02.0	3 809
1389	1988	09	20.21493	22	47	01.27	-07	15	03.5	3 809
1438	1988	09	09.23368	22	45	58.52	-04	17	45.8	3 809
1438	1988	09	09.23993	22	45	58.26	-04	17	47.6	3 809
1438	1988	09	09.24618	22	45	57.97	-04	17	49.2	3 809
1438	1988	09	09.25590	22	45	57.51	-04	17	52.3	3 809
1438	1988	09	09.26215	22	45	57.25	-04	17	54.0	3 809
1438	1988	09	09.26840	22	45	56.98	-04	17	56.3	3 809
1438	1988	09	15.26910	22	41	45.87	-04	46	30.3	3 809
1438	1988	09	15.27535	22	41	45.59	-04	46	32.3	3 809
1438	1988	09	15.28160	22	41	45.33	-04	46	34.1	3 809
1461	1989	04	05.29140	15	19	33.60	+01	46	30.5	7 809
1461	1989	04	07.28109	15	18	37.92	+01	55	04.7	7 809
1461	1989	04	11.26325	15	16	33.59	+02	11	43.9	7 809
1461	1989	04	13.29449	15	15	23.90	+02	19	54.8	7 809
1536	1988	09	05.35521	23	18	08.11	-02	37	26.7	3 809
1536	1988	09	05.36146	23	18	07.84	-02	37	28.9	3 809
1536	1988	09	05.36771	23	18	07.58	-02	37	31.0	3 809
1536	1988	09	07.38576	23	16	33.72	-02	50	16.7	3 809
1536	1988	09	07.39201	23	16	33.41	-02	50	19.2	3 809
1536	1988	09	09.37049	23	14	59.74	-03	03	10.5	3 809
1536	1988	09	09.37674	23	14	59.44	-03	03	13.3	3 809
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1536	1988	09	11.38437	23	13	23.49	-03	16	27.2	3 809
1536	1988	09	19.28160	23	07	15.45	-04	08	40.4	3 809
1536	1988	09	19.28646	23	07	15.24	-04	08	42.3	3 809
1536	1988	09	19.29132	23	07	15.02	-04	08	44.1	3 809
1704	1988	09	06.32674	22	40	04.84	-06	39	06.4	3 809
1704	1988	09	06.33298	22	40	04.47	-06	39	08.5	3 809
1704	1988	09	11.05174	22	35	33.87	-07	06	34.2	3 809
1704	1988	09	11.05798	22	35	33.52	-07	06	36.4	3 809
1704	1988	09	11.06424	22	35	33.17	-07	06	38.2	3 809
1704	1988	09	11.32326	22	35	18.10	-07	08	06.2	3 809
1704	1988	09	11.32951	22	35	17.75	-07	08	08.6	3 809
1704	1988	09	11.33576	22	35	17.36	-07	08	10.7	3 809
1704	1988	09	13.28576	22	33	29.65	-07	19	10.2	3 809
1704	1988	09	13.29201	22	33	29.30	-07	19	12.3	3 809
1704	1988	09	13.29826	22	33	28.96	-07	19	14.4	3 809
1704	1988	09	15.21910	22	31	46.05	-07	29	47.4	3 809
1704	1988	09	15.22535	22	31	45.70	-07	29	49.6	3 809
1704	1988	09	15.23159	22	31	45.35	-07	29	51.8	3 809
1704	1988	09	18.21180	22	29	12.71	-07	45	35.4	3 809
1704	1988	09	18.21736	22	29	12.46	-07	45	37.1	3 809
1704	1988	09	18.22292	22	29	12.20	-07	45	38.7	3 809
1704	1988	09	20.18715	22	27	37.12	-07	55	32.2	3 809
1704	1988	09	20.19201	22	27	36.89	-07	55	33.5	3 809
1704	1988	09	20.19687	22	27	36.66	-07	55	35.0	3 809

1851	1988	09	12.20034	21	57	38.22	-14	34	58.3	3 809
1851	1988	09	12.20660	21	57	37.99	-14	34	59.3	3 809
1851	1988	09	12.21284	21	57	37.75	-14	35	00.3	3 809
1907	1988	09	08.35104	23	16	11.22	-06	10	06.5	3 809
1907	1988	09	08.35729	23	16	10.91	-06	10	08.9	3 809
1907	1988	09	08.36354	23	16	10.59	-06	10	11.2	3 809
1907	1988	09	10.37187	23	14	28.96	-06	23	29.5	3 809
1907	1988	09	10.37812	23	14	28.65	-06	23	31.9	3 809
1907	1988	09	10.38437	23	14	28.34	-06	23	34.2	3 809
1907	1988	09	19.30069	23	07	05.21	-07	20	33.5	3 809
1907	1988	09	19.30625	23	07	04.95	-07	20	35.7	3 809
1907	1988	09	19.31180	23	07	04.69	-07	20	37.7	3 809
1907	1988	09	20.03472	23	06	30.59	-07	24	59.9	3 809
1907	1988	09	20.04028	23	06	30.32	-07	25	01.8	3 809
1907	1988	09	20.04583	23	06	30.06	-07	25	03.8	3 809
1930	1988	09	04.99896	20	53	38.28	-15	25	45.0	3 809
1930	1988	09	05.00521	20	53	38.02	-15	25	43.7	3 809
1930	1988	09	05.01146	20	53	37.76	-15	25	42.3	3 809
1930	1988	09	06.99687	20	52	28.67	-15	19	08.5	3 809
1930	1988	09	07.00312	20	52	28.51	-15	19	07.3	3 809
1930	1988	09	07.00938	20	52	28.28	-15	19	06.0	3 809
1930	1988	09	09.17743	20	51	19.86	-15	11	44.1	3 809
1930	1988	09	09.18368	20	51	19.67	-15	11	42.9	3 809
1930	1988	09	09.18993	20	51	19.47	-15	11	41.6	3 809
1930	1988	09	10.99791	20	50	29.08	-15	05	25.6	3 809
1930	1988	09	11.00625	20	50	28.79	-15	05	23.8	3 809
1930	1988	09	11.01458	20	50	28.59	-15	05	22.1	3 809
1930	1988	09	13.99861	20	49	17.16	-14	54	42.8	3 809
1930	1988	09	14.00694	20	49	16.95	-14	54	40.9	3 809
1930	1988	09	14.01527	20	49	16.73	-14	54	39.2	3 809
1930	1988	09	16.07812	20	48	36.26	-14	47	04.8	3 809
1930	1988	09	16.08437	20	48	36.13	-14	47	03.4	3 809
1930	1988	09	16.09062	20	48	36.01	-14	47	02.0	3 809
1930	1988	09	18.99062	20	47	52.07	-14	36	06.0	3 809
1930	1988	09	19.00798	20	47	51.83	-14	36	02.1	3 809
1930	1988	09	19.02534	20	47	51.60	-14	35	58.1	3 809
2002	1988	09	09.23368	22	45	52.26	-03	49	19.5	3 809
2002	1988	09	09.23993	22	45	51.95	-03	49	23.0	3 809
2002	1988	09	09.24618	22	45	51.65	-03	49	26.4	3 809
2002	1988	09	09.25590	22	45	51.12	-03	49	31.9	3 809
2002	1988	09	09.26215	22	45	50.82	-03	49	35.2	3 809
2002	1988	09	09.26840	22	45	50.51	-03	49	38.8	3 809
2002	1988	09	15.26910	22	41	05.95	-04	43	55.3	3 809
2002	1988	09	15.27535	22	41	05.65	-04	43	58.7	3 809
2002	1988	09	15.28160	22	41	05.34	-04	44	02.1	3 809
2016	1988	09	20.22118	22	47	28.74	-08	30	10.3	3 809
2016	1988	09	20.22604	22	47	28.54	-08	30	11.2	3 809
2016	1988	09	20.23090	22	47	28.35	-08	30	12.2	3 809
2017	1988	11	05.20503	05	23	24.08	+15	51	48.0	7 809
2017	1988	11	05.33543	05	23	19.03	+15	51	23.5	7 809
2017	1988	11	06.28108	05	22	44.29	+15	48	26.4	7 809
2017	1988	11	06.33576	05	22	42.04	+15	48	15.4	7 809
2017	1988	11	07.26817	05	22	05.94	+15	45	20.6	7 809
2017	1988	11	07.35069	05	22	02.48	+15	45	05.1	7 809
2017	1988	11	08.24693	05	21	26.26	+15	42	17.9	7 809
2017	1988	11	08.35256	05	21	21.62	+15	41	57.8	7 809
2017	1988	11	09.21505	05	20	45.19	+15	39	16.2	7 809
2017	1988	11	09.34919	05	20	39.18	+15	38	52.4	7 809
2039	1988	09	06.28368	22	43	46.98	-11	27	46.2	3 809

2039	1988	09	06.28993	22	43	46.72	-11	27	47.7	3 809
2039	1988	09	06.29618	22	43	46.47	-11	27	49.1	3 809
2039	1988	09	10.06354	22	41	06.12	-11	43	58.8	3 809
2039	1988	09	10.06979	22	41	05.87	-11	44	00.4	3 809
2039	1988	09	10.07604	22	41	05.62	-11	44	01.9	3 809
2057	1988	09	08.35104	23	17	40.83	-05	46	57.8	3 809
2057	1988	09	08.35729	23	17	40.53	-05	46	59.4	3 809
2057	1988	09	08.36354	23	17	40.22	-05	47	01.2	3 809
2057	1988	09	10.37187	23	16	06.81	-05	55	39.5	3 809
2057	1988	09	10.37812	23	16	06.52	-05	55	41.0	3 809
2057	1988	09	10.38437	23	16	06.23	-05	55	42.4	3 809
2057	1988	09	17.33437	23	10	42.21	-06	25	02.4	3 809
2057	1988	09	17.34062	23	10	41.94	-06	25	03.8	3 809
2057	1988	09	17.34687	23	10	41.64	-06	25	05.2	3 809
2057	1988	09	18.07847	23	10	08.58	-06	28	04.2	3 809
2057	1988	09	18.08403	23	10	08.31	-06	28	05.4	3 809
2057	1988	09	18.08958	23	10	08.07	-06	28	06.9	3 809
2057	1988	09	20.05486	23	08	38.95	-06	35	57.4	3 809
2057	1988	09	20.06041	23	08	38.71	-06	35	58.7	3 809
2057	1988	09	20.06597	23	08	38.46	-06	35	59.9	3 809
2207	1988	09	02.12674	22	37	31.60	-08	36	23.2	3 809
2207	1988	09	02.13299	22	37	31.43	-08	36	24.3	3 809
2207	1988	09	02.13923	22	37	31.25	-08	36	25.7	3 809
2207	1988	09	05.26562	22	36	02.21	-08	47	43.2	3 809
2207	1988	09	05.27187	22	36	02.04	-08	47	44.4	3 809
2207	1988	09	05.27812	22	36	01.87	-08	47	45.8	3 809
2207	1988	09	06.24479	22	35	34.56	-08	51	13.8	3 809
2207	1988	09	06.25104	22	35	34.38	-08	51	15.1	3 809
2207	1988	09	06.25729	22	35	34.20	-08	51	16.4	3 809
2207	1988	09	07.35521	22	35	03.23	-08	55	13.0	3 809
2207	1988	09	07.36146	22	35	03.05	-08	55	14.1	3 809
2207	1988	09	07.36771	22	35	02.88	-08	55	15.2	3 809
2207	1988	09	10.28229	22	33	41.61	-09	05	33.9	3 809
2207	1988	09	10.28889	22	33	41.42	-09	05	35.5	3 809
2207	1988	09	10.29549	22	33	41.22	-09	05	36.9	3 809
2207	1988	09	14.22326	22	31	54.59	-09	19	10.7	3 809
2207	1988	09	14.22951	22	31	54.42	-09	19	12.1	3 809
2207	1988	09	14.23576	22	31	54.26	-09	19	13.4	3 809
2207	1988	09	15.19548	22	31	28.85	-09	22	27.6	3 809
2207	1988	09	15.20173	22	31	28.69	-09	22	29.0	3 809
2207	1988	09	15.20799	22	31	28.51	-09	22	30.3	3 809
2207	1988	09	16.31910	22	30	59.24	-09	26	12.9	3 809
2207	1988	09	16.32569	22	30	59.08	-09	26	14.2	3 809
2207	1988	09	16.33229	22	30	58.93	-09	26	15.4	3 809
2207	1988	09	18.19028	22	30	11.14	-09	32	22.0	3 809
2207	1988	09	18.19618	22	30	10.98	-09	32	23.4	3 809
2207	1988	09	18.20208	22	30	10.84	-09	32	24.5	3 809
2207	1988	09	19.16354	22	29	46.55	-09	35	30.4	3 809
2207	1988	09	19.17048	22	29	46.39	-09	35	32.0	3 809
2207	1988	09	19.17743	22	29	46.21	-09	35	33.3	3 809
2207	1988	09	20.01284	22	29	25.50	-09	38	13.3	3 809
2207	1988	09	20.01771	22	29	25.39	-09	38	13.9	3 809
2207	1988	09	20.02257	22	29	25.27	-09	38	14.8	3 809
2207	1988	09	20.15243	22	29	21.98	-09	38	39.8	3 809
2207	1988	09	20.15729	22	29	21.86	-09	38	40.7	3 809
2207	1988	09	20.16215	22	29	21.75	-09	38	41.6	3 809
2339	1988	09	14.35451	23	03	05.80	-10	25	00.9	3 809
2339	1988	09	14.36076	23	03	05.46	-10	25	01.6	3 809
2339	1988	09	14.36701	23	03	05.13	-10	25	02.2	3 809

2428	1988	09	16.34271	23	16	37.49	-09	57	39.9	3 809
2428	1988	09	16.34896	23	16	37.20	-09	57	40.0	3 809
2428	1988	09	16.35521	23	16	36.91	-09	57	40.2	3 809
2428	1988	09	17.31076	23	15	49.93	-09	59	21.6	3 809
2428	1988	09	17.31701	23	15	49.65	-09	59	22.1	3 809
2428	1988	09	17.32326	23	15	49.36	-09	59	22.7	3 809
2428	1988	09	18.05521	23	15	14.03	-10	00	37.1	3 809
2428	1988	09	18.06111	23	15	13.77	-10	00	37.5	3 809
2428	1988	09	18.06701	23	15	13.47	-10	00	38.3	3 809
2659	1988	09	07.20799	22	18	37.31	-10	29	15.3	3 809
2659	1988	09	07.21424	22	18	37.05	-10	29	16.8	3 809
2659	1988	09	07.22049	22	18	36.80	-10	29	18.5	3 809
2659	1988	09	08.12257	22	17	59.04	-10	33	11.3	3 809
2659	1988	09	08.12882	22	17	58.77	-10	33	12.7	3 809
2659	1988	09	08.13507	22	17	58.52	-10	33	14.2	3 809
2659	1988	09	11.21632	22	15	52.12	-10	46	07.3	3 809
2659	1988	09	11.22257	22	15	51.90	-10	46	09.0	3 809
2659	1988	09	11.22882	22	15	51.66	-10	46	10.4	3 809
2713	1988	08	31.08715	21	12	18.67	-16	46	05.4	3 809
2713	1988	08	31.09201	21	12	18.48	-16	46	06.2	3 809
2713	1988	08	31.09687	21	12	18.29	-16	46	06.9	3 809
2713	1988	09	01.99618	21	11	02.48	-16	50	31.4	3 809
2713	1988	09	02.00243	21	11	02.21	-16	50	32.6	3 809
2713	1988	09	02.00868	21	11	01.97	-16	50	33.1	3 809
2713	1988	09	05.19062	21	09	02.22	-16	57	37.2	3 809
2713	1988	09	05.19688	21	09	01.95	-16	57	38.2	3 809
2713	1988	09	05.20312	21	09	01.71	-16	57	39.0	3 809
2713	1988	09	07.99896	21	07	27.00	-17	03	00.8	3 809
2713	1988	09	08.00521	21	07	26.81	-17	03	01.3	3 809
2713	1988	09	08.01146	21	07	26.63	-17	03	02.0	3 809
2713	1988	09	09.99826	21	06	25.25	-17	06	21.7	3 809
2713	1988	09	10.00451	21	06	25.08	-17	06	22.3	3 809
2713	1988	09	10.01076	21	06	24.91	-17	06	23.0	3 809
2715	1988	11	03.31424	05	19	11.16	+15	59	22.0	7 809
2715	1988	11	03.33171	05	19	10.60	+15	59	17.8	7 809
2715	1988	11	04.28576	05	18	44.14	+15	55	26.7	7 809
2715	1988	11	04.34965	05	18	42.17	+15	55	11.5	7 809
2715	1988	11	05.20503	05	18	17.29	+15	51	43.8	7 809
2715	1988	11	05.33543	05	18	13.13	+15	51	12.3	7 809
2715	1988	11	06.28108	05	17	43.80	+15	47	22.8	7 809
2715	1988	11	06.33576	05	17	41.95	+15	47	09.5	7 809
2715	1988	11	07.26817	05	17	11.63	+15	43	23.3	7 809
2715	1988	11	07.35069	05	17	08.71	+15	43	03.5	7 809
2715	1988	11	08.24693	05	16	38.16	+15	39	25.3	7 809
2715	1988	11	08.35256	05	16	34.30	+15	39	00.5	7 809
2715	1988	11	09.21505	05	16	03.69	+15	35	30.6	7 809
2715	1988	11	09.34919	05	15	58.62	+15	34	58.9	7 809
2751	1988	09	12.31146	22	55	30.32	-04	10	10.1	3 809
2751	1988	09	12.31771	22	55	29.98	-04	10	12.5	3 809
2751	1988	09	12.32396	22	55	29.63	-04	10	14.7	3 809
2751	1988	09	14.26562	22	53	42.28	-04	21	47.5	3 809
2751	1988	09	14.27187	22	53	41.96	-04	21	49.9	3 809
2751	1988	09	14.27812	22	53	41.61	-04	21	51.9	3 809
2845	1988	09	16.34271	23	14	37.59	-10	12	40.2	3 809
2845	1988	09	16.34896	23	14	37.29	-10	12	43.0	3 809
2845	1988	09	16.35521	23	14	37.00	-10	12	45.5	3 809
2845	1988	09	17.31076	23	13	48.97	-10	20	47.9	3 809
2845	1988	09	17.31701	23	13	48.67	-10	20	50.7	3 809
2845	1988	09	17.32326	23	13	48.38	-10	20	53.5	3 809

2845	1988	09	18.05521	23	13	12.73	-10	26	56.3	3 809
2845	1988	09	18.06111	23	13	12.48	-10	26	58.9	3 809
2845	1988	09	18.06701	23	13	12.20	-10	27	01.4	3 809
2845	1988	09	19.31805	23	12	10.05	-10	37	04.4	3 809
2845	1988	09	19.32361	23	12	09.79	-10	37	06.9	3 809
2845	1988	09	19.32917	23	12	09.53	-10	37	09.4	3 809
2928	1988	09	04.99896	20	54	41.59	-14	47	12.4	3 809
2928	1988	09	05.00521	20	54	41.34	-14	47	12.6	3 809
2928	1988	09	05.01146	20	54	41.10	-14	47	12.9	3 809
2928	1988	09	06.99687	20	53	32.29	-14	48	11.8	3 809
2928	1988	09	07.00312	20	53	32.11	-14	48	12.2	3 809
2928	1988	09	07.00938	20	53	31.93	-14	48	12.5	3 809
2928	1988	09	09.17743	20	52	21.74	-14	49	01.4	3 809
2928	1988	09	09.18368	20	52	21.55	-14	49	01.7	3 809
2928	1988	09	09.18993	20	52	21.34	-14	49	01.8	3 809
2928	1988	09	10.99791	20	51	27.56	-14	49	30.7	3 809
2928	1988	09	11.00625	20	51	27.31	-14	49	30.8	3 809
2928	1988	09	11.01458	20	51	27.09	-14	49	30.8	3 809
2928	1988	09	13.99861	20	50	06.93	-14	49	54.1	3 809
2928	1988	09	14.00694	20	50	06.72	-14	49	53.8	3 809
2928	1988	09	14.01527	20	50	06.48	-14	49	54.1	3 809
2928	1988	09	16.07812	20	49	17.68	-14	49	50.4	3 809
2928	1988	09	16.08437	20	49	17.53	-14	49	50.6	3 809
2928	1988	09	16.09062	20	49	17.40	-14	49	50.9	3 809
2928	1988	09	18.99062	20	48	18.48	-14	49	19.6	3 809
2928	1988	09	19.00798	20	48	18.15	-14	49	19.8	3 809
2928	1988	09	19.02534	20	48	17.84	-14	49	20.0	3 809
2953	1988	09	12.31146	22	55	07.21	-05	06	43.7	3 809
2953	1988	09	12.31771	22	55	06.92	-05	06	45.6	3 809
2953	1988	09	12.32396	22	55	06.63	-05	06	47.5	3 809
2953	1988	09	14.26562	22	53	36.16	-05	16	22.6	3 809
2953	1988	09	14.27187	22	53	35.87	-05	16	24.5	3 809
2953	1988	09	14.27812	22	53	35.57	-05	16	26.4	3 809
2953	1988	09	15.32396	22	52	47.46	-05	21	33.6	3 809
2953	1988	09	15.33854	22	52	46.81	-05	21	38.0	3 809
2953	1988	09	15.34687	22	52	46.34	-05	21	41.0	3 809
2953	1988	09	18.23680	22	50	36.57	-05	35	34.6	3 809
2953	1988	09	18.24236	22	50	36.34	-05	35	35.9	3 809
2953	1988	09	18.24791	22	50	36.11	-05	35	37.7	3 809
2953	1988	09	20.20521	22	49	11.05	-05	44	47.0	3 809
2953	1988	09	20.21007	22	49	10.87	-05	44	48.3	3 809
2953	1988	09	20.21493	22	49	10.68	-05	44	49.6	3 809
2973	1988	09	09.07257	21	55	50.89	-12	41	50.2	3 809
2973	1988	09	09.07882	21	55	50.51	-12	41	51.3	3 809
2973	1988	09	09.08507	21	55	50.21	-12	41	52.6	3 809
2973	1988	09	12.22292	21	53	18.62	-12	52	46.5	3 809
2973	1988	09	12.23125	21	53	18.21	-12	52	48.4	3 809
2973	1988	09	12.23958	21	53	17.80	-12	52	49.9	3 809
2973	1988	09	15.14757	21	51	08.04	-13	01	56.8	3 809
2973	1988	09	15.15451	21	51	07.74	-13	01	58.2	3 809
2973	1988	09	15.16215	21	51	07.38	-13	01	59.9	3 809
2973	1988	09	16.19965	21	50	23.68	-13	04	59.6	3 809
2973	1988	09	16.20590	21	50	23.38	-13	05	00.9	3 809
2973	1988	09	16.21215	21	50	23.09	-13	05	02.2	3 809
2977	1988	11	03.16944	00	02	36.49	-06	28	23.2	7 809
2977	1988	11	03.17500	00	02	36.41	-06	28	23.8	7 809
2977	1988	11	04.14792	00	02	32.01	-06	31	01.2	7 809
2977	1988	11	04.15486	00	02	31.97	-06	31	02.2	7 809
2977	1988	11	05.16539	00	02	28.97	-06	33	31.7	7 809

2977	1988	11	05.17153	00	02	28.92	-06	33	32.6	7 809
2977	1988	11	06.08750	00	02	27.68	-06	35	33.8	7 809
2977	1988	11	06.09352	00	02	27.67	-06	35	34.4	7 809
2977	1988	11	07.09010	00	02	27.75	-06	37	33.6	7 809
2977	1988	11	07.09653	00	02	27.74	-06	37	34.8	7 809
2977	1988	11	08.03304	00	02	29.27	-06	39	11.1	7 809
2977	1988	11	08.03889	00	02	29.26	-06	39	11.8	7 809
2977	1988	11	09.02801	00	02	32.37	-06	40	41.4	7 809
2977	1988	11	09.03588	00	02	32.39	-06	40	41.8	7 809
2984	1988	09	16.34271	23	16	56.27	-09	53	34.3	3 809
2984	1988	09	16.34896	23	16	55.95	-09	53	36.1	3 809
2984	1988	09	16.35521	23	16	55.61	-09	53	38.0	3 809
2984	1988	09	18.05521	23	15	25.04	-10	02	42.6	3 809
2984	1988	09	18.06111	23	15	24.75	-10	02	44.5	3 809
2984	1988	09	18.06701	23	15	24.44	-10	02	46.2	3 809
3053	1988	09	03.14201	22	08	40.49	-16	56	47.6	3 809
3053	1988	09	03.14826	22	08	40.16	-16	56	47.7	3 809
3053	1988	09	03.15451	22	08	39.85	-16	56	47.8	3 809
3125	1988	09	05.16493	22	02	48.42	-18	07	41.1	3 809
3125	1988	09	05.17118	22	02	48.14	-18	07	43.8	3 809
3125	1988	09	05.17743	22	02	47.82	-18	07	46.4	3 809
3125	1988	09	07.06146	22	01	20.15	-18	20	19.5	3 809
3125	1988	09	07.06771	22	01	19.84	-18	20	21.8	3 809
3125	1988	09	10.01979	21	59	06.78	-18	39	05.9	3 809
3125	1988	09	10.02604	21	59	06.51	-18	39	07.9	3 809
3125	1988	09	10.03229	21	59	06.23	-18	39	10.2	3 809
3125	1988	09	17.15660	21	54	13.81	-19	19	15.0	3 809
3125	1988	09	17.16458	21	54	13.53	-19	19	17.2	3 809
3125	1988	09	17.17257	21	54	13.24	-19	19	19.4	3 809
3125	1988	09	19.03507	21	53	05.13	-19	28	31.8	3 809
3125	1988	09	19.04896	21	53	04.64	-19	28	35.6	3 809
3125	1988	09	19.06285	21	53	04.15	-19	28	39.4	3 809
3147	1988	09	08.25035	22	50	27.73	-02	35	41.7	3 809
3147	1988	09	08.25660	22	50	27.42	-02	35	44.0	3 809
3147	1988	09	08.26285	22	50	27.11	-02	35	46.3	3 809
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3161	1988	09	10.37812	23	18	53.55	-06	03	37.9	3 809
3161	1988	09	10.38437	23	18	53.12	-06	03	38.4	3 809
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3161	1988	09	18.08403	23	10	38.01	-06	06	07.9	3 809
3161	1988	09	18.08958	23	10	37.68	-06	06	08.0	3 809
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3161	1988	09	20.06041	23	08	35.77	-06	06	22.0	3 809
3161	1988	09	20.06597	23	08	35.46	-06	06	21.9	3 809
3166	1988	11	03.16944	00	05	56.98	-06	33	44.4	7 809
3166	1988	11	03.17500	00	05	56.79	-06	33	44.2	7 809
3166	1988	11	04.14792	00	05	30.85	-06	33	11.0	7 809
3166	1988	11	04.15486	00	05	30.66	-06	33	10.6	7 809
3166	1988	11	05.16539	00	05	05.33	-06	32	25.9	7 809
3166	1988	11	05.17153	00	05	05.16	-06	32	25.5	7 809
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3166	1988	11	09.02801	00	03	44.28	-06	27	43.7	7 809
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3190	1988	09	07.04062	21	56	29.31	-19	59	54.5	3 809
3190	1988	09	07.04687	21	56	29.03	-19	59	53.9	3 809
3190	1988	09	07.05312	21	56	28.74	-19	59	53.5	3 809
3190	1988	09	09.05174	21	54	53.79	-19	58	28.4	3 809
3190	1988	09	09.05798	21	54	53.54	-19	58	27.6	3 809
3190	1988	09	09.06424	21	54	53.28	-19	58	27.9	3 809
3190	1988	09	10.03993	21	54	08.33	-19	57	34.3	3 809
3190	1988	09	10.04618	21	54	08.05	-19	57	33.9	3 809
3190	1988	09	10.05243	21	54	07.79	-19	57	33.4	3 809
3190	1988	09	11.19271	21	53	16.26	-19	56	21.1	3 809
3190	1988	09	11.19896	21	53	15.99	-19	56	20.8	3 809
3190	1988	09	11.20521	21	53	15.69	-19	56	20.5	3 809
3190	1988	09	13.10173	21	51	53.84	-19	53	56.4	3 809
3190	1988	09	13.10798	21	51	53.56	-19	53	55.9	3 809
3190	1988	09	13.11423	21	51	53.27	-19	53	55.5	3 809
3190	1988	09	14.12187	21	51	11.37	-19	52	27.1	3 809
3190	1988	09	14.12812	21	51	11.09	-19	52	26.4	3 809
3190	1988	09	14.13437	21	51	10.82	-19	52	26.0	3 809
3190	1988	09	16.22187	21	49	47.95	-19	48	54.6	3 809
3190	1988	09	16.22847	21	49	47.66	-19	48	53.6	3 809
3190	1988	09	16.23507	21	49	47.44	-19	48	53.0	3 809
3190	1988	09	17.15660	21	49	12.79	-19	47	08.8	3 809
3190	1988	09	17.16493	21	49	12.52	-19	47	07.6	3 809
3190	1988	09	17.17257	21	49	12.26	-19	47	06.7	3 809
3190	1988	09	18.03229	21	48	41.03	-19	45	23.4	3 809
3190	1988	09	18.03750	21	48	40.88	-19	45	22.7	3 809
3190	1988	09	18.04271	21	48	40.73	-19	45	21.9	3 809
3190	1988	09	19.03507	21	48	05.67	-19	43	14.9	3 809
3190	1988	09	19.04896	21	48	05.23	-19	43	12.9	3 809
3190	1988	09	19.06285	21	48	04.78	-19	43	10.9	3 809
3195	1988	09	12.31146	22	56	25.23	-05	22	50.0	3 809
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3195	1988	09	14.26562	22	54	55.58	-05	32	02.2	3 809
3195	1988	09	14.27187	22	54	55.28	-05	32	04.0	3 809
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3195	1988	09	15.32396	22	54	07.57	-05	36	58.3	3 809
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3195	1988	09	18.23680	22	51	58.61	-05	50	15.8	3 809
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3364	1988	09	16.34896	23	13	02.42	-09	26	27.4	3 809
3364	1988	09	16.35521	23	13	02.12	-09	26	30.3	3 809
3364	1988	09	17.31076	23	12	11.15	-09	34	20.6	3 809
3364	1988	09	17.31701	23	12	10.83	-09	34	23.3	3 809
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3364	1988	09	18.05521	23	11	32.35	-09	40	21.4	3 809
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3364	1988	09	18.06701	23	11	31.75	-09	40	26.7	3 809
3364	1988	09	19.31805	23	10	25.69	-09	50	22.7	3 809
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3412	1988	09	05.28993	22	49	55.60	-03	59	10.4		3 809
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3444	1988	09	07.22049	22	21	24.83	-11	19	30.9		3 809
3444	1988	09	08.12257	22	20	30.45	-11	21	27.7		3 809
3444	1988	09	08.12882	22	20	30.08	-11	21	28.3		3 809
3444	1988	09	08.13507	22	20	29.69	-11	21	28.8		3 809
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3444	1988	09	17.27118	22	11	49.96	-11	37	18.3		3 809
3463	1988	09	12.33160	22	58	11.75	-11	31	31.2		3 809
3463	1988	09	12.33646	22	58	11.48	-11	31	32.7		3 809
3463	1988	09	12.34132	22	58	11.21	-11	31	34.0		3 809
3463	1988	09	13.35798	22	57	14.91	-11	36	23.8		3 809
3463	1988	09	13.36423	22	57	14.50	-11	36	25.5		3 809
3463	1988	09	13.37048	22	57	14.12	-11	36	27.4		3 809
3640	1988	09	04.11840	21	53	31.35	-07	03	10.5	16.0	3 809
3640	1988	09	04.12465	21	53	31.00	-07	03	12.3		3 809
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3640	1988	09	08.14549	21	49	49.36	-07	19	35.9		3 809
3640	1988	09	08.15174	21	49	49.02	-07	19	37.4		3 809
3640	1988	09	08.15799	21	49	48.67	-07	19	38.7		3 809
3640	1988	09	11.02604	21	47	22.04	-07	30	59.1		3 809
3640	1988	09	11.03229	21	47	21.73	-07	31	00.6		3 809
3640	1988	09	11.03854	21	47	21.41	-07	31	01.9		3 809
3640	1988	09	14.06979	21	44	58.05	-07	42	30.2		3 809
3640	1988	09	14.07604	21	44	57.75	-07	42	31.6		3 809
3640	1988	09	14.08229	21	44	57.46	-07	42	33.2		3 809
3640	1988	09	16.11840	21	43	28.88	-07	49	53.8		3 809
3640	1988	09	16.12465	21	43	28.61	-07	49	55.2		3 809
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3814	1988	09	08.35104	23	19	16.45	-05	25	22.7		3 809
3814	1988	09	08.35729	23	19	16.18	-05	25	24.5		3 809
3814	1988	09	08.36354	23	19	15.91	-05	25	26.3		3 809
3814	1988	09	10.37187	23	17	49.34	-05	35	17.3		3 809
3814	1988	09	10.37812	23	17	49.08	-05	35	19.1		3 809
3814	1988	09	10.38437	23	17	48.81	-05	35	20.9		3 809
3814	1988	09	18.07847	23	12	19.98	-06	12	18.5		3 809
3814	1988	09	18.08403	23	12	19.74	-06	12	20.1		3 809
3814	1988	09	18.08958	23	12	19.50	-06	12	21.8		3 809
3814	1988	09	20.05486	23	10	57.70	-06	21	26.6		3 809
3814	1988	09	20.06041	23	10	57.47	-06	21	28.1		3 809

3814	1988	09	20.06597	23	10	57.24	-06	21	29.5		3	809
3905	1988	09	07.26632	22	15	20.42	-14	03	33.8		3	809
3905	1988	09	07.27257	22	15	20.01	-14	03	33.6		3	809
3905	1988	09	10.21562	22	12	06.32	-14	01	14.5		3	809
3905	1988	09	10.22187	22	12	05.90	-14	01	14.3		3	809
3905	1988	09	10.22813	22	12	05.49	-14	01	13.9		3	809
3905	1988	09	11.23646	22	11	00.61	-14	00	12.6		3	809
3905	1988	09	11.24271	22	11	00.18	-14	00	12.2		3	809
3905	1988	09	11.24896	22	10	59.79	-14	00	11.6		3	809
3925	1988	09	20.22118	22	48	47.19	-09	01	11.0	14.6	3	809
3925	1988	09	20.22604	22	48	47.00	-09	01	14.2		3	809
3925	1988	09	20.23090	22	48	46.84	-09	01	17.2		3	809
3929	1988	09	07.20799	22	17	49.92	-11	07	45.7		3	809
3929	1988	09	07.21424	22	17	49.64	-11	07	48.4		3	809
3929	1988	09	07.22049	22	17	49.34	-11	07	50.8		3	809
3929	1988	09	08.12257	22	17	06.30	-11	13	45.0		3	809
3929	1988	09	08.12882	22	17	06.01	-11	13	47.4		3	809
3929	1988	09	08.13507	22	17	05.71	-11	13	49.8		3	809
3929	1988	09	11.21632	22	14	42.95	-11	33	18.4		3	809
3929	1988	09	11.22257	22	14	42.67	-11	33	20.7		3	809
3929	1988	09	11.22882	22	14	42.41	-11	33	23.1		3	809
3929	1988	09	14.16354	22	12	36.00	-11	50	49.8		3	809
3929	1988	09	14.16979	22	12	35.73	-11	50	52.0		3	809
3929	1988	09	14.17604	22	12	35.46	-11	50	54.3		3	809
3937	1988	09	12.33160	22	54	19.05	-10	26	50.1		3	809
3937	1988	09	12.33646	22	54	18.80	-10	26	50.8		3	809
3937	1988	09	12.34132	22	54	18.56	-10	26	51.4		3	809
3937	1988	09	13.35798	22	53	29.12	-10	29	04.3		3	809
3937	1988	09	13.36423	22	53	28.82	-10	29	05.1		3	809
3937	1988	09	13.37048	22	53	28.52	-10	29	06.0		3	809
3937	1988	09	15.29340	22	51	56.19	-10	33	07.9		3	809
3937	1988	09	15.29965	22	51	55.89	-10	33	08.6		3	809
3937	1988	09	15.30590	22	51	55.59	-10	33	09.4		3	809
3968	1988	09	04.99896	20	57	12.44	-14	33	11.1		3	809
3968	1988	09	05.00521	20	57	12.20	-14	33	11.1		3	809
3968	1988	09	05.01146	20	57	11.95	-14	33	11.1		3	809
3968	1988	09	06.99687	20	56	04.29	-14	32	42.6		3	809
3968	1988	09	07.00312	20	56	04.07	-14	32	42.3		3	809
3968	1988	09	07.00938	20	56	03.88	-14	32	42.2		3	809
3968	1988	09	09.17743	20	54	58.06	-14	31	51.4		3	809
3968	1988	09	09.18368	20	54	57.88	-14	31	51.4		3	809
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3968	1988	09	10.99791	20	54	10.48	-14	30	50.2		3	809
3968	1988	09	11.00625	20	54	10.26	-14	30	50.1		3	809
3968	1988	09	11.01458	20	54	10.04	-14	30	49.9		3	809
3968	1988	09	13.99861	20	53	05.55	-14	28	37.2		3	809
3968	1988	09	14.00694	20	53	05.37	-14	28	36.8		3	809
3968	1988	09	14.01527	20	53	05.20	-14	28	36.4		3	809
3968	1988	09	16.07812	20	52	30.90	-14	26	38.0		3	809
3968	1988	09	16.08437	20	52	30.79	-14	26	37.6		3	809
3968	1988	09	16.09062	20	52	30.69	-14	26	37.3		3	809
3968	1988	09	18.99062	20	51	57.17	-14	23	15.0		3	809
3968	1988	09	19.00798	20	51	56.97	-14	23	13.8		3	809
3968	1988	09	19.02534	20	51	56.76	-14	23	12.5		3	809
4054	1988	09	09.15035	23	00	48.59	-10	20	51.0		3	809
4054	1988	09	09.15660	23	00	48.27	-10	20	52.2		3	809
4054	1988	09	09.16285	23	00	47.94	-10	20	53.4		3	809
4054	1988	09	12.33160	22	58	10.92	-10	30	40.1		3	809
4054	1988	09	12.33646	22	58	10.68	-10	30	40.9		3	809

```
4054       1988 09 12.34132  22 58 10.45  -10 30 41.8                  3 809
4054       1988 09 13.35798  22 57 20.53  -10 33 41.1                  3 809
4054       1988 09 13.36423  22 57 20.22  -10 33 42.2                  3 809
4054       1988 09 13.37048  22 57 19.93  -10 33 43.1                  3 809
4054       1988 09 15.29340  22 55 46.59  -10 39 08.6                  3 809
4054       1988 09 15.29965  22 55 46.30  -10 39 10.0                  3 809
4054       1988 09 15.30590  22 55 46.01  -10 39 11.5                  3 809
4116       1989 04 05.29140  15 24 03.86  +03 57 55.3                  7 809
4116       1989 04 07.28109  15 23 32.42  +04 52 39.7                  7 809

886 Susono
T. Furuta, 17-2 Mitsuike, Kagiya, Tokai 477, Japan
Observers M. Akiyama, T. Furuta
Measurer T. Furuta
1989 PD  * 1989 08 04.56354  21 49 56.71  -13 21 16.7           15.5    886
1989 PD    1989 08 04.58021  21 49 55.49  -13 21 02.1                   886

975 Valencia
A. Lopez, Observatorio Astronomico de Valencia, Avda. Blasco Ibanez 13,
   E-46010 Valencia, Spain
Observers A. Lopez G., J. A. Lopez O., R. Lopez M.
0.25-m f/15 refractor
SAOC
   2       1987 07 01.90322  15 30 09.92  +24 36 15.4                  975
   2       1987 07 01.90594  15 30 09.83  +24 36 13.8                  975
   2       1987 07 01.90929  15 30 09.75  +24 36 12.6                  975
   2       1987 07 01.91297  15 30 09.70  +24 36 11.3                  975
   2       1987 07 01.91578  15 30 09.59  +24 36 08.1                  975
   2       1987 07 01.91838  15 30 09.59  +24 36 05.8                  975
   3       1987 11 10.79939  21 51 14.51  -13 24 38.4                  975
   3       1987 11 10.80286  21 51 14.70  -13 24 38.7                  975
   3       1987 11 10.80668  21 51 14.96  -13 24 39.1                  975
   3       1987 11 10.81466  21 51 15.33  -13 24 39.4                  975
   3       1987 11 10.81802  21 51 15.46  -13 24 38.8                  975
   3       1987 11 10.82300  21 51 15.72  -13 24 38.7                  975
   3       1987 11 10.82740  21 51 16.05  -13 24 38.3                  975
   3       1987 11 14.79672  21 55 15.33  -13 23 30.9                  975
   3       1987 11 14.79991  21 55 15.51  -13 23 30.4                  975
   3       1987 11 14.80315  21 55 15.74  -13 23 30.5                  975
   3       1987 11 16.79716  21 57 24.65  -13 21 52.2                  975
   3       1987 11 16.80098  21 57 24.81  -13 21 51.9                  975
   3       1987 11 16.80495  21 57 25.11  -13 21 51.0                  975
   3       1987 11 16.80995  21 57 25.44  -13 21 50.6                  975
   3       1987 11 16.81346  21 57 25.60  -13 21 50.7                  975
   3       1987 11 16.81716  21 57 25.85  -13 21 50.8                  975
   6       1987 09 08.84508  19 08 20.59  -19 07 46.7                  975
   6       1987 09 08.84797  19 08 20.63  -19 07 48.3                  975
   6       1987 09 08.85061  19 08 20.74  -19 07 50.1                  975
   6       1987 09 08.85417  19 08 20.75  -19 07 51.1                  975
   6       1987 09 08.85668  19 08 20.80  -19 07 53.3                  975
   6       1987 09 08.86076  19 08 20.83  -19 07 53.4                  975
   6       1987 09 08.86354  19 08 20.92  -19 07 54.7                  975
   6       1987 09 15.84862  19 11 16.77  -20 01 02.0                  975
   6       1987 09 15.85108  19 11 16.76  -20 01 03.3                  975
   6       1987 09 15.85377  19 11 17.00  -20 01 04.7                  975
   6       1987 09 15.86153  19 11 17.14  -20 01 07.3                  975
   6       1987 09 15.86434  19 11 17.23  -20 01 09.5                  975
   6       1987 09 15.86691  19 11 17.22  -20 01 10.6                  975
   6       1987 09 15.87220  19 11 17.47  -20 01 11.4                  975
```

6	1987 09 15.87495	19 11 17.51	-20 01 13.7		975
6	1987 09 15.87808	19 11 17.60	-20 01 14.6		975
7	1987 09 08.87156	19 08 53.34	-16 30 37.3		975
7	1987 09 08.87407	19 08 53.28	-16 30 36.1		975
7	1987 09 08.87761	19 08 53.38	-16 30 36.7		975
7	1987 09 08.88053	19 08 53.38	-16 30 35.9		975
7	1987 09 15.88826	19 10 24.79	-16 33 21.2		975
7	1987 09 15.89113	19 10 24.89	-16 33 21.5		975
7	1987 09 15.89362	19 10 24.93	-16 33 22.0		975
7	1987 09 15.89718	19 10 25.05	-16 33 22.0		975
7	1987 09 15.89969	19 10 25.15	-16 33 22.6		975
7	1987 09 15.90209	19 10 25.08	-16 33 21.4		975
7	1987 09 17.86146	19 11 07.36	-16 33 46.0		975
7	1987 09 17.86499	19 11 07.49	-16 33 47.4		975
7	1987 09 17.86788	19 11 07.44	-16 33 47.8		975
39	1987 11 10.83800	23 34 27.75	-11 17 35.5		975
39	1987 11 10.84192	23 34 27.77	-11 17 35.8		975
39	1987 11 10.84707	23 34 27.87	-11 17 36.5		975
39	1987 11 10.85167	23 34 27.93	-11 17 35.3		975
39	1987 11 14.81582	23 35 30.13	-11 12 45.0		975
39	1987 11 14.82048	23 35 30.24	-11 12 45.2		975
39	1987 11 14.82601	23 35 30.25	-11 12 45.4		975
39	1987 11 14.83075	23 35 30.41	-11 12 44.0		975
40	1987 11 14.84441	01 50 33.05	+04 45 26.0		975
40	1987 11 14.84869	01 50 32.79	+04 45 25.2		975
532	1987 07 01.88325	13 05 14.87	+11 54 39.4		975
532	1987 07 01.88672	13 05 15.10	+11 54 37.5		975
532	1987 07 01.89063	13 05 15.26	+11 54 32.5		975
532	1987 07 01.89413	13 05 15.52	+11 54 29.4		975

* * * * *

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 1950.0 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 Okazaki-Levy-Rudenko (1989r)

T 1989 Nov. 11.82554 ET				Marsden
q 0.6405967		(1950.0)	P	Q
	Peri.	150.66302	-0.07234184	-0.03976998
	Node	274.73512	+0.60208021	+0.79486509
e 1.0	Incl.	90.04449	+0.79515161	-0.60548149

From 23 observations 1989 Aug. 24-Sept. 4.

One-opposition minor planets

Planet	H	Epoch	M	Peri.	Node	Incl.	e	a	Arc	O	N	C
1986 TB5	11.0	861017	234.04	140.41	34.25	2.95	0.3555	2.9049	10	6	D	a
1988 PP1	16.1	880807	13.23	344.01	314.93	6.73	0.3107	2.2279	4	7	D	b
1989 FW	12.5	890315	315.95	117.32	109.07	12.68	0.1201	2.6541	5	6		M
1989 GB8	13.5	890404	268.73	199.62	104.33	4.60	0.2220	2.9111	3	4		G
1989 GC8	15.5	890404	299.38	175.30	97.64	3.97	0.2076	2.3222	3	4		G
1989 GD8	16.5	890404	348.99	69.96	138.52	4.22	0.2412	2.5223	3	4		G
1989 GE8	15.5	890404	2.67	61.29	125.46	4.29	0.0801	2.1894	3	4		G
1989 GF8	14.0	890404	24.04	84.95	71.82	4.67	0.1579	2.5683	11	6		N
1989 GH8	15.5	890404	53.95	40.08	88.74	3.81	0.0740	2.3929	3	4		G
1989 GJ8	14.0	890404	216.53	293.59	45.28	8.59	0.1037	2.6179	3	4		G
1989 GK8	13.5	890404	286.84	160.37	111.79	4.35	0.0822	2.6843	3	4		G
1989 GL8	15.0	890404	100.74	19.60	58.95	6.72	0.0935	2.2369	3	4		G
1989 GM8	13.0	890404	194.67	319.29	41.14	9.81	0.2878	2.6520	3	4	E	G
1989 KB	13.0	890623	315.97	240.89	79.59	23.11	0.2425	2.3485	59	0		B
1989 LW	13.5	890623	334.62	90.38	223.54	21.62	0.2748	2.3766	61	7		B
1989 NE	13.0	890713	5.83	149.22	139.40	15.84	0.1608	2.5851	28	0		B
1989 NX	13.0	890713	346.79	184.66	133.42	26.79	0.2442	2.2938	35	0		M
1989 NE1	13.5	890802	2.79	258.41	37.84	12.73	0.2547	2.5665	58	5		M
1989 NH1	15.0	890713	351.39	183.86	119.93	5.81	0.2023	2.1786	27	8		E
1989 NK1	13.2	890713	299.17	267.00	119.60	8.62	0.2980	2.2619	27	6		E
1989 OD	12.0	890713	352.25	264.34	359.66	8.88	0.0790	2.6473	12	4		M
1989 OE	12.0	890713	29.23	174.06	41.54	11.68	0.1496	2.7954	12	4		M
1989 OG	12.5	890802	340.06	345.51	357.86	15.00	0.2761	2.3767	39	3		M
1989 OJ	13.0	890802	351.83	287.74	34.12	16.30	0.2127	2.5715	13	6		M
1989 PA	13.5	890713	265.86	124.62	284.76	23.12	0.1114	1.9418	26	5		M
1989 PC	11.5	890802	348.18	201.12	129.23	25.24	0.3066	2.8678	34	0		N
1989 QE	15.0	890822	295.27	82.72	336.10	15.22	0.1081	3.1399	6	9		M
1989 RA	13.5	890822	337.09	203.64	169.11	21.21	0.2192	3.2529	2	6	E	B

1986 TB5 = 1986 TP10 (A. Lowe)
1988 PP1 = 1988 QF1 (F. N. Bowman)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano
(1891) Gondola Obs. 32 M 202.23017 Peri. 9.16690
H 11.7 G 0.25 Opp. 9 n 0.22154621 Node 321.53884
rms res. 1".10 (M-P) 1931-1987 e 0.0706061 Incl. 11.50302

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano
(1956) Artek Obs. 30 M 77.36103 Peri. 333.75125
H 11.7 G 0.25 Opp. 11 n 0.17102297 Node 153.57872
rms res. 1".31 (M-P) 1969-1988 e 0.0909208 Incl. 1.46837

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano
(2095) Parsifal Obs. 38 M 295.84548 Peri. 6.68139
H 12.8 G 0.25 Opp. 8 n 0.22953273 Node 332.19624
rms res. 0".93 (M-P) 1960-1988 e 0.0089611 Incl. 3.59187

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano
(2179) Platzeck Obs. 47 M 86.92593 Peri. 52.57361
H 11.7 G 0.25 Opp. 10 n 0.18879517 Node 14.91443
rms res. 1".23 (M-P) 1906-1987 e 0.0990279 Incl. 10.48000

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano
(2267) Agassiz Obs. 29 M 295.32966 Peri. 299.85844
H 13.7 G 0.25 Opp. 8 n 0.29858106 Node 328.13101
rms res. 1".17 (M-P) 1933-1989 e 0.1391602 Incl. 1.95171

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano
(2374) Vladvysotskij Obs. 43 M 274.79192 Peri. 12.01197
H 11.21 G 0.15 Opp. 9 n 0.18155392 Node 347.44275
rms res. 1".09 (M-P) 1936-1986 e 0.2104916 Incl. 15.11679

(4162)* 1940 WA = 1951 AS1 = 1987 OP
Discovered 1940 Nov. 24 by A. Patry at Nice.
Id. E. Goffin (MPC 12437)
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Marsden
M 90.87851 (1950.0) P Q
n 0.20654354 Peri. 156.39160 +0.62742813 -0.74186271
a 2.8344033 Node 253.87038 +0.66938684 +0.66909351
e 0.1370025 Incl. 14.25762 +0.39781302 +0.04419952
P 4.77 H 11.7 G 0.25
Residuals in seconds of arc

401124	020	(15.4-	18.0-)	X	510113	711	5.0+	5.6+	Y	870820	809	1.4-	0.1+
401126	020	(17.0-	4.3+)	X	820812	095	0.8-	1.3-		870820	809	0.7-	1.8+
401129	062	0.2-	0.1-		820813	095	0.4+	1.7-		870822	809	1.7+	0.6+
401129	062	1.5-	0.5-		870727	511	0.3-	3.0+		870822	809	1.9+	0.6+
401203	062	1.2+	0.4+		870727	511	0.8+	0.9-		871116	801	0.5-	2.3-
401227	062	0.1+	1.7-		870728	511	2.5-	0.0		871218	801	0.5+	1.4+
401228	062	0.0	0.7+		870731	511	0.5-	0.4-		890104	801	0.1-	0.1+
510113	711	4.0-	5.7-	Y	870801	511	1.3+	0.5-		890208	801	0.3-	1.1+

(4163)* 1941 HC = 1978 GZ4 = 1979 OA15 = 1982 BB9 = 1988 FC
Discovered 1941 Apr. 19 by L. Oterma at Turku.
Id. T. Kobayashi (MPC 13049), S. Nakano (ibid.)
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano
M 135.94529 (1950.0) P Q
n 0.18750832 Peri. 13.01155 -0.78240584 -0.60441555
a 3.0231221 Node 128.77287 +0.55272181 -0.78497474
e 0.0485920 Incl. 11.09848 +0.28694896 -0.13600188
P 5.26 H 11.1 G 0.25

Residuals in seconds of arc

410403	062	2.3-	3.3+	880316	399	0.7-	0.3-	880408 399	0.2+ 0.2-
410419	062	0.4-	2.0+	880316	399	0.6-	0.4-	880408 399	0.7+ 0.2-
410421	062	2.7+	1.5-	880317	399	0.8+	0.0	880413 399	1.4+ 0.7+
410428	062	1.5+	0.1-	880317	399	0.9+	0.6-	880413 399	1.3+ 0.1-
780412	095	1.4-	1.5-	880317	399	0.3-	0.7+	880413 399	0.8- 1.1+
780505	095	0.9-	1.7-	880321	399	0.5+	0.1+	890603 801	2.0- 2.7-
790721	095	0.1+	1.1+	880321	399	0.3-	0.2+	890604 801	0.3- 1.1-
820119	095	0.0	2.1-	880321	399	0.3-	0.0	890629 801	2.8+ 0.4+
880316	399	1.2-	0.6-	880408	399	1.2-	0.2+	890630 801	0.4- 0.8+

(4164)* 1969 UR = 1982 VA13 = 1984 FQ

Discovered 1969 Oct. 16 by L. I. Chernykh at the Crimean Astrophysical Observatory.

Id. S. Nakano (MPC 13602)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano

M	210.49064	(1950.0)	P	Q
n	0.23017140	Peri. 220.62262	+0.21242702	-0.96772718
a	2.6369495	Node 217.69311	+0.94409905	+0.23904277
e	0.1487904	Incl. 12.81027	+0.25209472	-0.07976626
P	4.28	H 12.3	G 0.25	

Residuals in seconds of arc

691016	095	1.3+	3.1+	730925	675	0.4-	0.4+	821114 095	1.0+ 2.3+
691111	095	0.7-	1.2-	730929	675	0.8-	0.9+	821221 095	0.2+ 0.3-
691113	095	1.2-	2.2-	730929	675	0.5-	1.0+	840331 688	0.8+ 1.2-
730919	675	(6.6+	1.8+)	730930	675	0.1-	0.9+	840331 688	1.4- 1.2-
730920	675	0.1+	1.2-	730930	675	0.8-	0.1+	861003 095	0.5- 4.7-
730920	675	1.6+	0.4-	731004	675	0.2+	1.8-	861005 095	0.5- 3.7+
730924	675	0.0	2.1+	731004	675	0.3+	1.2-	861007 095	0.6+ 4.3-
730924	675	0.7-	1.2+	731005	675	0.9+	0.2-		
730925	675	0.2-	0.5-	731005	675	1.0+	0.6+		

(4165)* 1976 GS3 = 1980 KD1 = 1988 NP

Discovered 1976 Apr. 1 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. B. G. Marsden (MOC 13454)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Marsden

M	121.09760	(1950.0)	P	Q
n	0.25644406	Peri. 106.33107	+0.28061930	+0.95981915
a	2.4536218	Node 179.96536	-0.94033552	+0.27494893
e	0.1763983	Incl. 11.88368	-0.19241083	+0.05612748
P	3.84	H 13.4	G 0.25	

Residuals in seconds of arc

730919	675	0.9-	0.4-	730925	675	1.1-	0.8+	760402 095	0.6- 3.8-
730919	675	0.5-	1.4+	730929	675	2.3+	2.1-	760404 095	0.9+ 0.8+
730920	675	0.8-	0.6-	730929	675	2.3+	2.0-	760405 095	(1.1- 79.1+)
730924	675	0.8-	0.4+	730930	675	1.8+	0.3+	760423 095	0.5+ 2.0+
730924	675	0.4+	1.9+	730930	675	1.7+	0.1+	800517 095	0.3- 1.5+
730924	675	1.2-	0.2+	731004	675	1.5-	1.3+	880711 675	0.3+ 0.9-
730924	675	0.6+	1.2+	731004	675	2.2-	0.2-	880713 675	0.2+ 1.2-
730925	675	0.2+	2.4-	731005	675	0.2-	0.4-	880809 675	0.1+ 1.7+
730925	675	0.5-	1.6+	731005	675	0.4-	0.1-	880809 675	0.5- 0.4-
730925	675	0.7+	1.8-	760401	095	0.7-	1.0-		

(4166)* 1978 SZ6 = 1972 GD1 = 1986 RX4

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

Id. L. D. Schmadel (MPC 11836), C. M. Bardwell (ibid.)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Bardwell

M	159.23796	(1950.0)	P	Q
n	0.23396880	Peri. 125.55632	+0.22701913	-0.97304159
a	2.6083393	Node 311.26938	+0.87506444	+0.22212481
e	0.0288536	Incl. 3.10022	+0.42746291	+0.06205340
P	4.21	H 12.6	G 0.25	

Residuals in seconds of arc

720412 095	0.5-	1.0-	860902 809	0.4-	0.1+	860908 071	(5.5+	0.5-)
780926 095	1.4+	1.0-	860902 809	0.8-	0.3+	860908 071	2.7+	0.3-
781002 095	0.3+	0.1+	860905 809	1.1-	0.2-	890402 809	0.6+	0.1-
781008 095	1.3-	0.9-	860905 809	1.0-	0.2-	890402 809	0.2-	0.0
781101 095	0.5+	0.0	860905 809	1.0-	0.3-	890402 809	0.1+	0.6-
860828 809	0.0	0.6+	860906 809	0.5+	0.4-	890404 809	0.7-	0.4+
860828 809	0.3+	0.5+	860906 809	0.4+	0.3-	890404 809	0.2-	0.7-
860828 809	0.3+	0.8+	860906 809	0.7+	0.5-			
860902 809	0.4-	0.0	860908 071	(5.0+	1.8-)			

(4167)* 1978 TQ7 = 1968 DR = 1986 TO1

Discovered 1978 Oct. 2 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.

Id. E. Bowell (k, MPC 11344), C. M. Bardwell (ibid.)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Bardwell

M	338.64623	(1950.0)	P	Q
n	0.23737362	Peri. 113.74911	+0.08005345	+0.99292340
a	2.5833371	Node 160.23381	-0.98263789	+0.09338723
e	0.0902911	Incl. 15.03344	-0.16737449	-0.07336178
P	4.15	H 12.2	G 0.25	

Residuals in seconds of arc

680227 095	0.1+	4.9-	890409 801	0.9-	0.6+	890509 046	0.3+	2.1-
781002 095	0.9-	3.8-	890504 801	0.5-	0.7-	890509 046	0.1-	0.2-
781008 095	0.9-	0.2+	890505 046	1.3+	0.9-	890509 046	0.6+	0.6-
781101 095	0.0	2.2-	890505 046	1.6+	0.4+	890509 046	0.1-	0.5-
861006 688	0.1-	2.4-	890507 046	1.5-	0.1+	890603 801	0.6-	0.3-
861007 688	3.0+	1.3-	890507 046	1.7-	1.7-	890604 801	0.4-	0.3+
861007 688	1.8+	3.2-	890508 046	0.3-	1.3-			
861130 801	1.1-	1.1+	890508 046	1.1+	1.2-			

(4168)* 1979 EE = 1983 AG1

Discovered 1979 Mar. 6 at the El Leoncito Station of the Felix Aguilar Observatory.

Id. E. Bowell (MPC 7662)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Marsden

M	236.90094	(1950.0)	P	Q
n	0.24005353	Peri. 151.75481	-0.49759589	-0.85986453
a	2.5640745	Node 327.70136	+0.75014125	-0.36050234
e	0.2413941	Incl. 12.33576	+0.43553006	-0.36148452
P	4.11	H 14.0	G 0.25	

Residuals in seconds of arc

730919 675	(6.1+	0.5-)	730930 675	0.6-	1.4+	790329 808	1.0-	0.3+
730920 675	0.7-	0.6-	731004 675	0.2+	0.2-	830112 688	0.3-	0.8-
730920 675	0.8+	0.5-	731004 675	1.1-	0.1-	830112 688	0.6+	0.3-
730924 675	0.2+	0.8-	731005 675	2.4+	1.5-	830122 688	(0.5+	3.8+)
730924 675	0.6-	1.4-	731005 675	1.2+	1.2-	830122 688	0.6-	0.0
730925 675	(2.9-	0.1-)	790306 808	0.4-	0.5+	830215 688	0.4-	0.7-
730925 675	(3.9-	1.5+)	790306 808	2.4-	0.3-	830215 688	0.8+	2.2-
730929 675	0.3-	1.3+	790308 808	1.0-	0.9-	870127 801	0.2+	2.4+
730929 675	0.2+	0.8+	790308 808	0.1+	0.1+	870225 801	0.2+	1.1+
730930 675	0.1-	0.7+	790329 808	2.6+	0.3-			

(4169)* 1980 FO3 = 1964 TM = 1974 FK = 1977 TL7 = 1984 BE = 1986 EQ
Discovered 1980 Mar. 16 by C.-I. Lagerkvist at the European Southern Observatory.
Id. S. Nakano (MPC 12000)
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Green

M	341.12402	(1950.0)	P	Q	
n	0.15800118	Peri. 19.68143	+0.95934265	-0.28205363	
a	3.3886691	Node 356.64930	+0.22931494	+0.80032086	
e	0.1697191	Incl. 10.21430	+0.16454888	+0.52908626	
P	6.24	H 11.0	G 0.25		

Residuals in seconds of arc

641012	760	0.1+	0.3-	800316	809	0.0	0.2-	860305	688	0.0	0.4-
641012	760	0.4+	0.6-	800316	809	0.2+	0.1-	860305	688	1.4-	0.1-
740322	805	0.1-	1.7+	800317	809	0.1+	0.0	880524	474	0.5+	0.6-
740323	805	(1.0-	5.0+)	800317	809	0.4-	0.4+	880524	474	0.5-	0.7-
771010	095	0.7+	0.6-	800317	809	0.0	0.4-	890807	657	0.1+	3.0+
800221	095	1.4+	1.8-	800317	809	0.1+	0.0	890808	657	0.0	1.8-
800316	809	0.3-	0.4+	800323	809	0.8-	1.0-	890808	657	0.3-	0.9-
800316	809	0.5+	0.3+	840124	675	0.4-	0.0				

(4170)* 1980 PT = 1937 JC = 1978 EJ4 = 1986 TQ2
Discovered 1980 Aug. 6 by Z. Vavrova at Klet.
Id. E. Bowell (k, MPC 11431), B. G. Marsden (ibid.)
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Marsden

M	290.15652	(1950.0)	P	Q	
n	0.18786758	Peri. 116.87650	+0.31808147	+0.94769515	
a	3.0192668	Node 171.54152	-0.92102641	+0.31549838	
e	0.0921188	Incl. 10.34778	-0.22479888	+0.04831841	
P	5.25	H 11.5	G 0.25		

Residuals in seconds of arc

370501	024	0.3+	0.6+	800815	046	1.9-	0.3-	861202	688	0.8+	0.6+
780306	095	0.9-	0.6-	800815	046	0.8-	1.6-	861202	688	0.4+	0.1-
800805	808	0.8+	1.0+	800817	046	0.2+	1.0-	890306	046	0.4-	2.3-
800805	808	0.1+	2.9+	800817	046	2.3-	2.7-	890306	046	0.8+	2.2-
800806	046	0.3+	0.1-	800818	046	1.4+	1.2-	890307	046	0.8-	2.7-
800806	046	0.6+	0.1-	800818	046	2.0+	1.1-	890307	046	0.7+	2.4-
800807	046	0.2+	0.7-	861007	688	0.1+	1.5-	890308	894	0.4+	0.6-
800807	046	0.2-	0.3-	861007	688	0.3+	1.4-	890308	894	1.0-	1.1+
800814	046	0.6+	0.4+	861105	688	0.7+	0.1+	890308	894	2.1-	0.7+
800814	046	0.6-	0.6-	861105	688	0.8-	1.3-	890311	801	1.0+	0.3+

(4171)* 1982 FZ1 = 1983 RR
Discovered 1982 Mar. 23 by C. S. Shoemaker at Palomar.
Id. S. Nakano (MPC 12131)
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano

M	54.89056	(1950.0)	P	Q	
n	0.29333084	Peri. 29.43900	-0.82751508	+0.56141360	
a	2.2433527	Node 184.72691	-0.52786244	-0.78149396	
e	0.0797345	Incl. 4.03194	-0.19125909	-0.27218002	
P	3.36	H 13.6	G 0.25		

Residuals in seconds of arc

820323	675	0.7+	0.6-	830907	046	(2.4+	3.4+)	890524	046	0.2-	1.5-
820323	675	0.6+	1.0-	830907	046	2.7+	0.5-	890525	046	0.1+	0.7-
820324	675	0.8-	0.1-	830908	046	0.5-	0.2+	890525	046	0.6+	0.3+
820331	675	0.2+	1.2+	830908	046	0.0	0.5+	890529	293	(6.2-	2.2+)
820331	675	0.3-	1.7+	871122	675	0.3+	0.1+	890701	801	1.6+	1.6+
830905	046	(0.2-	4.0-)	871123	675	0.2-	1.2-				
830905	046	2.3-	0.3+	890524	046	2.1-	1.0-				

(4172)* 1982 FC3 = 1970 WO1 = 1984 YD6 = 1989 GD2

Discovered 1982 Mar. 20 by H. Debehogne at the European Southern Observatory.

Id. S. Nakano (MPC 14783)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano

M 67.32166	(1950.0)	P	Q	
n 0.28749234	Peri. 210.68790	-0.99877824	+0.04606062	
a 2.2736234	Node 331.93531	-0.03396333	-0.90295243	
e 0.0933198	Incl. 2.18059	-0.03589592	-0.42726493	
P 3.43	H 14.0	G 0.25		

Residuals in seconds of arc

701123 033	2.7-	0.9+	820322 809	1.6-	0.3-	820331 809	0.2+	0.4+
730919 675	0.1+	1.1+	820322 809	1.3-	0.7-	820331 809	0.8+	0.5+
730919 675	1.2-	0.2+	820322 809	0.7-	0.6-	820331 809	0.3-	0.3-
730920 675	0.7-	0.4+	820323 809	0.4-	0.1-	820331 809	0.4-	0.8-
730924 675	2.4-	1.7+	820323 809	0.2-	0.1-	820331 809	0.1-	0.2-
730924 675	2.4-	0.9+	820323 809	0.0	0.5-	820401 809	0.0	0.4+
730925 675	1.0-	1.1-	820324 809	1.4+	0.6-	820401 809	0.2+	0.5-
730925 675	(0.3-	3.3-)	820324 809	1.0+	0.1-	820401 809	0.3+	0.4-
730929 675	0.5+	1.0+	820324 809	0.9+	0.1+	841223 010	1.3+	2.1+
730929 675	0.9+	2.1+	820326 809	0.5+	0.3-	841223 010	(3.4-	7.2-)
730930 675	0.3+	0.7-	820326 809	0.8+	0.3-	890403 809	1.3+	0.7+
730930 675	1.4+	1.5-	820326 809	1.2+	0.1-	890403 809	0.7+	0.4+
731004 675	1.7+	1.8-	820327 809	(3.4-	0.2-)	890403 809	0.1+	0.1+
731004 675	2.2+	1.3-	820327 809	(3.4-	0.1-)	890405 809	0.2+	0.7+
731005 675	1.5+	2.1-	820327 809	(3.5-	0.1-)	890405 809	0.5-	0.3+
731005 675	1.9+	1.3-	820328 809	0.3-	1.3-	890405 809	0.6-	0.2+
820320 809	2.1-	0.5-	820328 809	0.1-	1.2-	890408 809	1.7+	1.5+
820320 809	0.9-	0.5-	820328 809	0.5-	1.1-	890408 809	0.9+	1.5+
820320 809	0.4+	0.7-	820330 809	0.9+	1.0+	890408 809	1.0+	1.5+
820321 809	1.2-	0.6-	820330 809	0.4+	1.3+	890410 809	1.4-	0.2-
820321 809	1.6-	0.2-	820330 809	1.5+	1.3+	890410 809	0.9-	0.2-
820321 809	0.8-	0.6-	820331 809	0.0	0.1-	890410 809	2.0-	0.5-

(4173)* 1982 KG1 = 1951 WG1 = 1969 TS6 = 1969 VG3 = 1985 CB

Discovered 1982 May 27 by C. S. Shoemaker at Palomar.

Id. C. M. Bardwell (MPC 9466), T. Urata (ibid.)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Bardwell

M 108.88923	(1950.0)	P	Q	
n 0.27197426	Peri. 17.14548	-0.55812573	-0.82686065	
a 2.3593055	Node 106.83189	+0.75250994	-0.53957007	
e 0.1205591	Incl. 4.14963	+0.34960615	-0.15863668	
P 3.62	H 13.1	G 0.25		

Residuals in seconds of arc

511129 711	1.3+	0.2- Y	850210 372	0.9+	0.3+	890406 399	1.0+	0.7-
691015 095	1.5+	0.6+	850211 372	2.5-	2.6+	890406 399	(3.6+	0.7-)
691115 095	0.2-	2.7+	850211 054	0.3+	0.7+	890428 399	1.8+	0.1+
820515 675	1.2-	0.4-	850212 372	0.9-	0.8-	890428 399	0.4+	0.8-
820516 675	2.2-	0.0	850212 372	1.3-	1.0-	890428 399	0.7+	1.1+
820516 675	(4.2-	1.1+)	850213 372	2.0-	0.6-	890505 399	2.0+	0.1-
820517 675	2.7-	0.6+	850213 054	0.0	2.6+	890505 399	0.8+	0.3+
820518 675	2.5-	1.3+	850217 372	0.2-	0.9-	890505 399	1.0+	0.5-
820527 675	0.2+	1.9+	890307 675	0.2+	2.1-	890505 399	1.0+	0.9-
820527 675	(2.9+	1.5+)	890309 675	1.2+	0.0			
850210 372	0.8-	1.5-	890406 399	2.7+	0.4-			

(4174)* 1982 SB6 = 1952 HT2 = 1952 HD4 = 1953 RV = 1971 VF = 1976 QA1
= 1980 DP5 = 1980 FN10 = 1986 GS

Discovered 1982 Sept. 16 by L. I. Chernykh at the Crimean Astrophysical Observatory.

Id. T. A. Vinogradova (MPC 13583), O. Kippes (d, MPC 6840), N. S. Chernykh (d, MPC 13583)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Marsden

M 138.05993	(1950.0)	P	Q	
n 0.17165937	Peri. 165.58648	+0.38913067	+0.92063517	
a 3.2064492	Node 127.30412	-0.84903125	+0.37181162	
e 0.1150058	Incl. 2.28775	-0.35738390	+0.11910918	
P 5.74	H 11.6	G 0.25		

Residuals in seconds of arc

520426	711	0.9-	1.1+	Y	820916	095	0.2+	1.4+	881104	046	1.7-	2.1-
520426	760	(81.4- | 75.8+)	X	820920	095	3.4+	0.4-	881104	046	0.4-	1.0-
530901	024	1.5-	0.2-		820926	095	3.3+	0.1-	881105	046	0.0	2.5-
530906	024	2.1+	1.3-		821015	095	0.5-	1.1+	881105	046	1.1-	2.2-
711110	029	0.5+	0.5+		821022	095	0.3-	0.3-	881110	046	1.1-	0.9-
711110	029	0.0	0.1+		860409	688	0.9-	0.4-	881110	046	4.0-	1.7+
760826	095	1.6-	0.1-		860409	688	0.4-	1.0-	881207	801	2.2-	0.3-
800221	095	0.2+	0.4-		881018	046	3.5+	1.0+	881212	801	1.1-	0.6+
800316	095	0.6+	2.9-		881018	046	2.8+	1.1+				

(4175)* 1985 GX = 1974 UE = 1978 QF2 = 1978 RL4

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

Id. C. M. Bardwell (MPC 10042; unpublished), K. Hurukawa (ibid.), W. Landgraf (ibid.), L. D. Schmadel (ibid.)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Marsden

M 71.71096	(1950.0)	P	Q	
n 0.22379717	Peri. 315.63797	-0.48805339	-0.87017688	
a 2.6867854	Node 163.20521	+0.85175252	-0.49179790	
e 0.1823149	Incl. 13.56967	+0.19058208	-0.03044714	
P 4.40	H 12.4	G 0.25		

Residuals in seconds of arc

741024	095	(7.1+	12.6+)		870901	809	1.1+	0.9+	870929	688	(0.5-	4.5-)
780831	095	0.3-	2.2-		870901	809	1.3+	1.2+	890203	894	1.0+	0.2-
780905	095	0.5+	0.8+		870902	809	0.9+	2.4+	890203	894	(1.0- | 3.5-)
850415	688	0.9-	0.4-		870902	809	0.7+	0.7+	890207	657	0.5-	2.0+
850415	688	0.1-	0.5-		870902	809	0.7+	1.1-	890207	657	1.6-	1.1-
850424	688	0.3+	0.1+		870903	809	1.8+	1.1-	890211	675	1.0-	0.2+
850424	688	0.4-	1.1-		870903	809	0.7+	1.5-	890211	675	0.9-	0.2-
850515	688	0.2+	0.2-		870922	071	3.3-	0.5-	890212	675	0.3+	1.6-
850515	688	0.4+	0.4-		870923	071	(2.6- | 4.7-)	890301	391	1.8+	0.3+
870826	809	1.1+	1.5-		870923	071	(4.7- | 1.0-)	890301	391	1.4+	0.1+
870826	809	(3.0+	2.0-)		870923	071	(5.0-	2.2+)	890308	894	1.8-	1.3-
870826	809	(3.9+	0.0)		870924	071	(6.2-	4.1-)	890308	894	0.5+	0.5-
870901	809	1.0+	0.5+		870925	071	1.8-	2.4-	890308	894	0.4+	0.3-
870901	809	0.4+	0.7+		870929	688	3.2-	1.5-				

(4176)* 1987 DS = 1949 FF1 = 1952 VC = 1974 TC1 = 1979 SX5 = 1982 FO

Discovered 1987 Feb. 24 by A. Mrkos at Klet.

Id. E. Goffin (MPC 11830)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Marsden

M 195.38932	(1950.0)	P	Q	
n 0.18010414	Peri. 359.24666	-0.39359299	-0.91834896	
a 3.1054194	Node 113.93082	+0.84362302	-0.37875252	
e 0.1371543	Incl. 2.60040	+0.36521877	-0.11481166	
P 5.47	H 11.8	G 0.25		

Residuals in seconds of arc

490326	094(38.3-	69.9+)X	820321	688	1.5+	0.2+	870303	046	1.5-	0.9+
521112	760	3.0-	1.2+	851021	095	0.9-	1.1-	880509	046	1.7+	0.4+
521112	760	2.0-	2.4+	851111	095	2.9+	2.6+	880509	046	1.0+	0.6+
521114	760	0.4+	0.8+	870224	046	1.9-	2.1-	890706	675	0.5+	2.0-
521114	760	1.2+	0.5+	870224	046	0.8-	2.6-	890706	675	2.1-	1.6-
741010	808	1.7+	1.5-	870225	046	0.2-	1.2-	890710	675	3.8-	1.6-
741010	808	1.7+	2.1-	870225	046	0.3-	2.4-	890710	675	1.9+	0.7-
790923	095	1.3+	3.6-	870303	220	2.3-	0.8+				
820321	688	2.1+	0.0	870303	046	0.7+	0.3+				

(4177)* 1987 SS1

Discovered 1987 Sept. 21 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Bardwell

M	116.79593		(1950.0)	P	Q
n	0.16360016	Peri.	159.43798	+0.97816600	-0.14570865
a	3.3109064	Node	210.15455	+0.12405635	+0.98145263
e	0.2803565	Incl.	17.15771	+0.16673724	+0.12457815
P	6.02	H	12.9	G 0.25	

Residuals in seconds of arc

870921	688	2.2+	0.6+	880112	688	1.1+	2.9-	881220	675	0.7-	0.0
870921	688	1.9+	2.5+	880115	691	1.1-	0.8+	881220	675	0.8-	0.1-
870929	688	0.7-	0.2-	880115	691	0.3-	1.0+	881220	675	0.7-	0.3+
870929	688	1.1-	0.1-	880115	691	0.2-	0.8+	890216	675	0.0	0.3+
871016	688	0.4-	2.2-	881022	675	0.0	0.4-	890216	675	0.6+	0.2-
871016	688	1.0+	1.8+	881022	675	0.2+	0.3-	890216	675	0.2-	0.8+
871117	801	2.5-	0.5-	881022	675	0.4-	0.1+	890216	675	0.8+	0.5+
871125	801	1.5-	0.0	881207	675	0.4-	0.0	890217	675	0.7+	0.3+
871218	801	1.5-	1.1+	881207	675	0.2-	0.3-	890217	675	0.6+	0.2+
880112	688	2.4+	3.0-	881207	675	0.1-	0.3-	890217	675	0.8+	0.3+

(4178)* 1988 EO1 = 1957 WB = 1977 KY1 = 1979 UO3

Discovered 1988 Mar. 13 by E. F. Helin at Palomar.

Id. S. Nakano (MPC 13161)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano

M	90.71436		(1950.0)	P	Q
n	0.17340257	Peri.	167.36610	-0.93402744	+0.35706088
a	3.1849236	Node	33.55913	-0.32926578	-0.84977465
e	0.1746847	Incl.	1.03787	-0.13848026	-0.38780222
P	5.68	H	12.5	G 0.25	

Residuals in seconds of arc

571118	330	0.2+	1.2-	730925	675	2.3+	1.7-	880313	675	1.3+	1.7-
730919	675	1.2-	0.9-	730925	675	1.1-	0.1-	880315	675	1.3+	1.4-
730919	675	0.2-	0.9+	730925	675	(2.9+	1.7-)	880319	809	2.5-	1.2-
730919	675	0.0	1.8+	730925	675	1.6+	1.7-	880319	809	(3.5-	0.6+)
730919	675	(3.0-	0.4+)	730925	675	0.2+	0.2+	880320	809	2.7-	1.2-
730919	675	2.0+	0.3-	730929	675	1.3+	0.4-	880320	809	2.4-	0.6+
730919	675	0.9+	2.4+	730929	675	0.1-	1.4-	880325	809	0.4-	0.4-
730920	675	0.8-	1.6-	730930	675	0.5-	1.2-	880325	809	0.1+	0.6+
730920	675	1.1-	1.8+	730930	675	1.2-	1.0-	880410	675	0.1-	1.0-
730924	675	0.4+	2.0-	731004	675	0.4+	1.6-	880410	675	0.3+	0.1-
730924	675	0.9+	0.6-	731004	675	0.1+	0.4+	880414	046	0.6+	0.4+
730924	675	0.7-	0.3+	731005	675	0.5+	1.1-	880414	046	2.1+	0.0
730924	675	0.2+	0.5-	731005	675	1.2+	0.1+	880415	046	0.2+	1.0-
730924	675	1.3+	0.1+	770518	675	0.5+	0.3+	880415	046	0.2-	0.2+
730924	675	1.0-	0.7-	770519	675	0.7-	0.7+	880417	046	1.0-	1.0-
730925	675	(0.5+	3.1-)	791016	095	1.9-	0.8+	880417	046	0.2+	1.1-

(4179)* 1989 AC = 1934 CT
Discovered 1989 Jan. 4 by C. Pollas at Caussols.
Id. C. M. Bardwell (MPC 14356)
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano

M	77.47538	(1950.0)	P	Q	
n	0.24800934	Peri.	275.02049	+0.74098886	-0.67148605
a	2.5089424	Node	127.16155	+0.61925328	+0.67955308
e	0.6411414	Incl.	0.46596	+0.25973235	+0.29548959
P	3.97	H	14.2	G 0.25	

Residuals in seconds of arc

340210	012	0.6-	2.9+		890112	503	0.4+	0.7-	890128	413	0.3-	0.6-
340214	012	1.4+	0.0		890112	406	1.0-	0.2+	890128	413	0.1+	0.5-
880712	675	1.2+	1.3-		890112	405	(1.5+	2.6-)	890128	046	0.3-	1.1+
880713	675	1.3-	0.8-		890112	413	1.4+	0.8-	890128	046	0.5-	0.8+
880717	675	0.0	1.7-		890112	403	0.7-	0.3-	890129	888	0.4-	0.4-
880717	675	0.9+	1.0-		890113	406	1.9-	0.3+	890129	888	0.4-	0.3-
890103	675	1.1+	0.2+		890113	399	0.2-	0.7-	890129	571	1.7+	0.4-
890103	675	(15.6-	3.8-)		890113	399	1.1+	1.1-	890129	571	1.0+	0.3-
890104	010	(6.9+	0.2-)		890116	385	1.4+	0.1+	890130	571	0.4+	2.0-
890104	010	0.7-	0.1-		890116	413	0.8-	0.1-	890130	413	0.0	0.1-
890104	010	0.4+	1.8-		890116	385	(2.9-	1.3+)	890130	571	(3.5+	1.3-)
890104	010	(6.4+	1.7-)		890116	385	0.5-	2.0-	890130	413	0.0	0.1+
890106	010	(8.1+	2.0+)		890116	413	0.3-	0.1+	890130	413	0.2+	0.3-
890106	010	(7.7+	0.4+)		890116	888	0.2-	0.1-	890131	413	0.2+	0.4-
890106	801	0.8+	0.3+		890116	413	1.0-	0.4+	890131	413	0.5-	0.2-
890106	801	(3.1+	2.6+)		890116	888	1.2-	0.1-	890131	587	0.4+	1.7+
890107	675	1.1-	0.3+		890117	413	0.3+	0.1+	890131	587	0.6+	0.9+
890107	675	(6.5-	0.5+)		890117	413	0.5+	0.4-	890131	413	0.2-	0.1-
890107	675	(0.4+	4.0+)		890117	413	0.1-	0.2+	890201	413	0.3-	0.5+
890107	675	0.1-	1.3+		890123	046	0.1+	0.1-	890201	571	1.9+	0.7-
890108	588	(5.1-	4.1+)		890123	046	1.4+	0.1+	890201	413	0.3-	0.5+
890108	010	2.0-	0.5+		890124	587	(6.0-	8.3-)	890201	571	1.0+	2.0-
890108	372	(2.4-	1.8-)		890124	046	0.1+	0.2-	890201	413	0.2-	1.0+
890108	010	(2.5+	2.7+)		890124	587	(0.2+	7.8-)	890202	046	0.0	0.4-
890108	372	(2.6-	0.6-)		890124	385	(2.7+	1.8-)	890202	801	0.4+	0.3-
890109	978	(2.7+	2.4+)		890124	385	0.0	1.0-	890202	046	0.4+	0.1-
890109	978	0.0	0.3-		890124	385	1.5-	0.6-	890203	046	0.5+	0.4-
890109	588	(5.3+	2.9+)		890124	046	1.2-	0.4+	890203	888	1.2-	0.2+
890109	372	1.6+	0.0		890125	046	1.9+	0.3-	890203	568	0.9+	0.3-
890109	552	0.3-	0.4-		890125	046	0.8+	0.1-	890203	568	0.7-	1.7-
890109	978	0.6-	0.8-		890125	091	(2.9-	1.8-)	890203	888	0.7-	0.1+
890110	978	(2.9+	2.8+)		890126	010	1.6+	0.3+	890203	046	0.9+	0.7-
890110	978	(5.4+	1.7-)		890126	046	1.5+	0.3+	890204	071	(4.7+	0.3-)
890110	494	0.5+	0.1+		890126	091	(1.7-	2.8+)	890204	071	(5.5+	0.4-)
890110	978	(5.7+	2.3+)		890126	503	0.1-	0.0	890205	071	1.0+	0.1+
890110	494	0.3-	0.1-		890126	010	0.6+	0.1+	890205	071	0.4-	0.8-
890110	801	0.1+	1.0+		890126	010	0.7-	0.6+	890205	071	(4.8+	0.2+)
890111	978	0.3+	1.0+		890126	010	0.3+	0.1+	890206	071	0.6-	1.4-
890111	494	0.7-	0.1-		890126	046	1.1+	0.4-	890206	071	0.1-	0.4-
890111	657	0.6+	0.8+		890127	413	0.2-	0.5+	890208	801	0.2+	0.6+
890111	494	0.4-	0.4+		890127	046	0.1-	0.4+	890208	474	1.4-	2.2+
890112	406	1.4+	1.0+		890127	888	0.4-	0.2+	890208	474	0.1-	1.5+
890112	403	1.9-	1.5+		890127	091	(2.7+	0.6-)	890211	888	0.7-	0.8-
890112	405	2.2+	1.3+		890127	413	0.7-	0.4-	890211	888	0.8-	0.2-
890112	881	1.1-	2.2-	Y	890127	888	0.7-	0.5+	890213	474	0.1+	0.5-
890112	405	(7.0-	2.2-)		890127	568	1.3-	1.8-	890213	474	(3.0-	4.3+)
890112	881	0.5-	0.4+	Y	890127	413	0.2-	0.0	890226	888	0.1+	0.2+
890112	413	0.9+	0.5+		890127	046	0.5-	0.9+	890226	888	0.3+	0.1-

890303 801 (3.0+ 0.1+) 890308 888 0.8- 0.9-
890308 888 0.5- 0.3- 890310 801 0.7- 0.4+

(4180)* 6092 P-L = 1980 GH1 = 1985 QJ2 = 1985 QX3
Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.
Id. K. Hurukawa (k, MPC 9301), H. Oishi (d, JAM 2074), C. M. Bardwell (MPC 12144)
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Bardwell

M	71.82353		(1950.0)		P		Q				
n	0.23339059	Peri.	27.87562		-0.72424532		+0.68759329				
a	2.6126455	Node	195.90987		-0.66255490		-0.71474720				
e	0.1882697	Incl.	10.89432		-0.19102279		-0.12787457				
P	4.22	H	13.2	G	0.25						

Residuals in seconds of arc

600924	675	0.0	0.1+	800414	805	0.0	0.9+	850817	675	1.6+	1.5+
600925	675	0.7+	0.1+	800415	805	0.5-	0.5-	850823	675	1.2-	1.6-
600926	675	0.7-	0.5-	800416	805	0.6+	0.2-	850823	675	0.0	0.8-
601017	675	0.4+	0.3+	850813	801	2.5+	1.6+	850917	801	0.1+	0.1+
601022	675	0.2+	0.5-	850816	675	2.8-	0.4+	890703	801	0.5+	1.0-
601024	675	0.4-	0.4+	850816	675	0.8-	2.1+	890730	801	0.5-	0.6+
601026	675	0.9+	1.0-	850817	675	0.0	0.9-	890801	801	0.4+	1.1-

1931 FC = 1983 RE8 = 2177 T-2
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano

M	38.09447		(1950.0)		P		Q				
n	0.28978964	Peri.	224.18977		-0.80145610		+0.59793087				
a	2.2615959	Node	352.50319		-0.51969970		-0.70633516				
e	0.1255927	Incl.	5.32820		-0.29593975		-0.37890542				
P	3.40	H	13.5	G	0.25						

Residuals in seconds of arc

310316	024	1.9-	4.1+	730924	675	3.4-	1.9+	731004	675	1.8+	1.0-
310318	024	2.9+	1.9+	730925	675	0.6-	2.2-	731004	675	1.7+	1.3-
310326	024	2.8+	1.0+	730925	675	0.9-	0.6-	731005	675	2.3+	2.0-
730919	675	0.9-	1.2+	730929	675	0.2+	2.4+	731005	675	2.7+	0.6-
730919	675	1.6-	1.8+	730929	675	0.8+	2.5+	830911	095	2.9-	5.3+
730920	675	1.4-	1.0+	730930	675	0.6+	0.2-				
730924	675	3.2-	1.1+	730930	675	0.6+	1.3-				

1975 DB = 1979 BN = 1989 OK
Id. H. Oishi (JAM 1625), L. D. Schmadel, C. M. Bardwell
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Bardwell

M	150.85612		(1950.0)		P		Q				
n	0.22983326	Peri.	245.20898		-0.88417021		-0.42821243				
a	2.6395405	Node	268.96813		+0.46683218		-0.79478578				
e	0.2084709	Incl.	10.76519		+0.01762809		-0.43005776				
P	4.29	H	12.5	G	0.25						

Residuals in seconds of arc

750216	808	0.3-	0.1+	750306	808	0.4+	0.3+	750308	808	0.3-	0.4-
750216	808	0.3-	0.5+	750306	808	1.0-	0.5-	750308	808	0.5-	1.2-
750217	808	0.0	0.0	750306	808	0.1+	0.0	750309	808	0.5+	0.2-
750217	808	0.1+	0.3-	750307	808	0.8+	0.3-	750309	808	1.0+	1.0-
750218	808	0.5+	0.3-	750307	808	0.3+	0.3+	750309	808	0.3-	0.6-
750218	808	0.2-	0.4+	750307	808	0.2-	0.4-	750309	808	0.0	0.5-
750219	808	0.1+	0.2+	750307	808	0.3+	0.6-	790126	330	0.1-	0.1-
750219	808	0.0	0.1+	750308	808	0.7+	0.2+	890729	675	0.3-	0.1+
750306	808	0.2+	1.2+	750308	808	0.7+	0.2+	890729	675	0.4+	0.4-

1978 RC9 = 1978 RD12 = 1988 RW6
Id. B. G. Marsden (d, MPC 9203), T. Kobayashi
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi

M	142.68178		(1950.0)	P	Q
n	0.29618239	Peri.	328.37137	+0.59260783	+0.80506194
a	2.2289307	Node	337.93656	-0.72361569	+0.51774972
e	0.1652516	Incl.	4.01351	-0.35383088	+0.28950043
P	3.33	H	14.5	G 0.25	

Residuals in seconds of arc

780902	809	0.6-	0.1+	880908	809	0.3-	0.6+	880914	809	0.1+	0.0
780902	809	0.6-	0.0	880908	809	0.1-	0.7+	880914	809	0.4+	0.0
780902	809	0.0	0.2+	880908	809	0.1+	0.8+	880914	809	0.5+	0.3-
780902	809	0.3-	0.9-	880909	809	0.4-	0.3+	880915	809	0.2-	0.3-
780906	809	0.3+	0.4-	880909	809	0.2-	0.2+	880915	809	0.0	0.3-
780910	809	0.6-	2.0+	880909	809	0.2-	0.2+	880915	809	0.1+	0.4-
780910	809	0.3+	1.8-	880912	809	0.2+	0.4-	880918	809	0.5-	0.0
780910	809	1.0+	0.8+	880912	809	0.3+	0.2-	880918	809	0.4-	0.0
780910	809	0.8+	0.8-	880912	809	0.4+	0.3-	880918	809	0.2-	0.0

1980 LU = 1980 KP = 1988 RL4 = 1363 T-2
Id. C. Shoemaker (d, MPC 14946), S. Nakano (k, MPC 14946), T. Kobayashi
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi

M	156.05793		(1950.0)	P	Q
n	0.25981255	Peri.	99.25705	-0.02167634	+0.99971406
a	2.4323681	Node	169.48508	-0.93757889	-0.01682087
e	0.1694309	Incl.	3.17159	-0.34709647	-0.01699598
P	3.79	H	14.5	G 0.25	

Residuals in seconds of arc

730919	675	0.1+	0.4-	800516	675	3.3-	2.2+	880908	809	1.0-	1.5-
730919	675	1.6-	0.5-	800610	675	0.1-	0.5-	880908	809	0.6-	1.4-
730920	675	0.3-	0.5+	800611	675	1.9+	0.7-	880912	809	1.2+	0.4+
730924	675	0.8-	0.2-	800612	675	(7.8+	0.5-)	880912	809	1.5+	0.5+
730924	675	0.2-	0.3+	800618	675	1.1+	1.1-	880912	809	1.2+	0.4+
730925	675	0.7+	0.4-	800709	675	(71.6-	68.7-)	880912	809	1.3+	0.3+
730929	675	0.9-	0.8-	880901	809	1.4-	1.1-	880912	809	1.2+	0.2+
730929	675	1.0-	0.9-	880901	809	1.1-	1.3-	880912	809	1.5+	0.6+
730930	675	0.9+	1.0-	880901	809	1.2-	1.1-	880913	809	1.2+	1.2+
730930	675	0.3-	0.7-	880903	809	1.4-	1.5-	880913	809	1.5+	1.1+
731004	675	1.4-	0.7-	880903	809	1.3-	1.3-	880913	809	2.0+	1.0+
731004	675	2.4+	1.4+	880903	809	1.1-	1.5-	880915	809	0.0	2.1+
731004	675	1.2-	0.1+	880903	809	1.0-	0.5-	880915	809	0.1+	2.1+
731004	675	0.8+	1.7+	880903	809	0.9-	0.4-	880915	809	0.2+	1.9+
731005	675	1.2+	0.8-	880903	809	0.6-	0.4-	880915	809	0.0	2.3+
731005	675	1.0+	1.2+	880906	809	1.5-	1.7-	880915	809	0.4+	2.3+
731005	675	0.2-	1.2-	880906	809	1.5-	1.8-	880915	809	0.3+	2.3+
731005	675	1.8+	0.6+	880908	809	1.1-	1.3-				

1980 YC = 1989 GG8
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Green

M	155.53506		(1950.0)	P	Q
n	0.26268313	Peri.	9.31349	+0.37333158	-0.92171816
a	2.4146200	Node	58.83011	+0.84299467	+0.28973518
e	0.1218122	Incl.	7.05982	+0.38727705	+0.25785491
P	3.75	H	13.5	G 0.25	

Residuals in seconds of arc

801230	688	0.8-	0.8+	810130	046	0.0	1.6-	890406	033	0.5+	0.3+
801230	688	0.4+	1.5-	810130	046	0.1+	0.5+	890407	033	0.1+	0.6+
810129	046	0.8-	0.1+	810131	046	(3.4+	3.0+)	890409	033	0.6-	0.3-
810129	046	1.7+	1.3-	810131	046	0.6-	0.4+	890409	033	0.4+	0.9-

1981 EW17 = 1988 AU

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5			(J-P)		Marsden
M 183.49627		(1950.0)		P	Q
n 0.26489935	Peri.	222.31496		+0.17648592	-0.98410230
a 2.4011336	Node	217.53262		+0.91155376	+0.17103065
e 0.1529606	Incl.	1.87044		+0.37137914	+0.04786637
P 3.72	H 15.0		G 0.25		

Residuals in seconds of arc

780610 675	1.3+	0.5+	810307 413	2.6+	1.5-	810411 413	0.6-	1.3+
780610 675	1.3-	0.2+	810311 413	0.0	0.8+	810411 413	1.8+	1.4-
810209 413	0.0	1.5+	810311 413	0.3+	0.8-	810430 413	0.2+	0.1-
810213 413	0.1-	0.4+	810316 413	1.0-	0.3+	810502 413	0.2+	0.3-
810302 413	0.5-	0.7+	810329 413	1.1-	0.1-	880111 033	0.1-	0.1+
810303 413	1.6-	1.0+	810329 413	0.8+	2.1-	880111 033	0.1+	0.2+
810303 413	0.4+	1.7-	810408 413	1.1-	1.1+			
810307 413	0.2-	0.8+	810408 413	0.2-	0.2-			

1981 ER27 = 1986 WA8

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5			(J-P)		Marsden
M 283.61549		(1950.0)		P	Q
n 0.27750117	Peri.	33.29894		+0.82451099	-0.56584000
a 2.3278788	Node	1.17129		+0.48746734	+0.70796848
e 0.1094316	Incl.	7.28859		+0.28732773	+0.42261771
P 3.55	H 15.5		G 0.25		

Residuals in seconds of arc

791018 675	1.2-	0.2-	810311 413	0.5-	1.2-	810503 413	0.3+	0.8+
791018 675	1.1+	0.4+	810315 413	0.4-	0.9-	861125 010	1.2-	0.6-
810209 413	0.0	0.7+	810315 413	3.3+	0.9-	861125 010	0.1+	0.2-
810212 413	0.3+	0.0	810405 413	1.5-	1.7+	861125 010	1.1+	0.8+
810213 413	1.3-	0.8+	810406 413	0.2+	1.0-			
810302 413	0.6-	0.2+	810501 413	0.1+	0.3+			

1981 ES35

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5			(J-P)		Marsden
M 217.57177		(1950.0)		P	Q
n 0.17149274	Peri.	128.08352		-0.63675863	-0.77104866
a 3.2085324	Node	1.49240		+0.63820583	-0.53047738
e 0.0491913	Incl.	10.47095		+0.43270286	-0.35224665
P 5.75	H 12.5		G 0.25		

Residuals in seconds of arc

781004 675	0.5+	0.8-	810311 413	0.8-	0.5-	810408 413	1.0-	0.9+
810209 413	0.2-	0.1+	810311 413	1.8+	0.7-	810411 413	1.0-	0.8-
810213 413	1.0+	0.5+	810316 413	0.6-	0.3-	810411 413	0.4+	0.1+
810302 413	2.4-	0.1+	810316 413	0.1+	0.5+	810426 413	1.2+	0.6-
810302 413	0.8+	0.7-	810329 413	0.6-	0.3-	810502 413	0.6-	0.2-
810303 413	1.0+	0.1+	810329 413	1.1+	0.2+	890809 413	0.3-	0.1-
810307 413	1.5-	0.1-	810407 413	2.4-	0.0	890809 413	0.6+	0.4-
810307 413	0.5+	0.5-	810407 413	2.3+	0.8+			

1981 GF1 = 1983 SV = 1988 RQ9

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5					Kobayashi
M 75.98734		(1950.0)		P	Q
n 0.18658460	Peri.	358.56483		+0.95905651	+0.28030397
a 3.0330915	Node	344.96689		-0.25825091	+0.80682818
e 0.1137487	Incl.	8.98324		-0.11626299	+0.52005573
P 5.28	H 12.5		G 0.25		

Residuals in seconds of arc

810404	474	(1.3+	13.9+)	880905	809	0.3-	0.6-	880911	809	0.6+	0.1-
810404	474	(0.9+	14.1+)	880905	809	0.2-	0.4-	880914	809	0.1+	0.9+
810405	474	(2.2+	7.9+)	880905	809	0.3-	0.5-	880914	809	0.2+	0.8+
810405	474	(1.6+	8.1+)	880908	809	1.1+	0.4-	880914	809	0.2+	0.7+
810412	474	1.5-	0.8-	880908	809	1.2+	0.0	880918	809	1.4-	0.1-
810412	474	0.3-	0.5+	880908	809	1.3+	0.2+	880918	809	1.3-	0.1-
810430	474	0.2+	0.2-	880909	809	0.9+	0.3+	880918	809	1.2-	0.2-
810430	474	0.7+	0.2-	880909	809	1.0+	0.2+	880919	809	1.4-	0.4-
810503	474	0.2+	0.1+	880909	809	1.0+	0.1+	880919	809	1.4-	0.4-
810503	474	0.1+	0.5-	880911	809	0.4+	0.2+	880919	809	1.2-	0.3-
830917	095	0.8+	1.4-	880911	809	0.4+	0.3+				

1981 QX = A913 CG = 1989 KL

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)		Marsden	
M 8.34916		(1950.0)		P	Q
n 0.23589612	Peri.	104.05195		+0.20780147	+0.97814514
a 2.5941179	Node	177.90192		-0.95560419	+0.20455573
e 0.2890532	Incl.	11.20857		-0.20889992	+0.03726996
P 4.18	H	13.5	G	0.25	

Residuals in seconds of arc

130211	662	1.3+	1.1-	Y	810904	046	1.4-	1.1-	890601	675	2.0+	0.0
130212	662	2.9-	3.9-	Y	810904	046	1.1+	1.5-	890601	675	0.7-	0.4+
130212	662	0.1-	3.0-	Y	810905	046	1.9+	0.2-	890602	675	1.5+	0.1-
130213	662	0.0	0.9-	Y	810905	046	1.8+	0.4-	890706	675	0.9-	0.2-
810824	046	0.7-	0.2+		810906	046	0.2+	1.7-	890706	675	1.6-	2.3-
810824	046	0.3-	1.4+		810906	046	0.9+	0.7+	890710	675	1.0-	0.2-
810828	046	0.7-	1.1-		890530	675	0.5-	0.3-	890710	675	1.3-	0.6-
810828	046	1.2-	1.9-		890531	675	1.3+	0.5+				

1983 BM = 1972 TS5 = 1989 QA

Id. T. Furuta (k), K. Ichikawa

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)		Ichikawa	
M 157.89608		(1950.0)		P	Q
n 0.22753615	Peri.	211.52284		-0.99230467	+0.08470433
a 2.6572759	Node	332.89320		-0.02093664	-0.83367571
e 0.1016965	Incl.	11.43224		-0.12203727	-0.54571969
P 4.33	H	12.2	G	0.25	

Residuals in seconds of arc

721006	095	0.4+	0.6-		830211	688	0.3+	2.0-	830305	095	0.2-	1.8+
830115	095	1.2+	3.4+		830211	688	0.2+	1.2-	830315	095	1.0-	1.4+
830122	688	0.6+	1.8-		830218	330	0.7+	1.3-	890822	403	1.8-	0.7+
830122	688	0.5+	1.0-		830219	688	1.3+	1.7-	890822	403	0.7+	0.9+
830208	330	3.1-	1.7+		830219	688	0.3+	0.7-				
830210	095	1.7+	1.5+		830305	330	1.9-	1.1+				

1983 CC = 1989 MA

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)		Marsden	
M 1.23786		(1950.0)		P	Q
n 0.36710230	Peri.	175.96994		+0.64341822	+0.70276877
a 1.9317259	Node	133.72658		-0.71353435	+0.69418707
e 0.0471935	Incl.	24.83599		-0.27727553	-0.15562893
P 2.68	H	13.5	G	0.25	

Residuals in seconds of arc

830211	688	0.5-	0.3-		830219	688	1.9-	1.0-	890703	675	0.0	0.4-
830211	688	0.1+	2.7+		830220	675	0.6-	2.2+	890703	675	0.9-	0.6-
830215	688	1.0-	0.4-		830221	675	1.4-	2.0+	890808	675	0.3-	0.5+
830215	688	4.9+	2.9-		890630	675	0.5+	0.2+	890809	675	0.1+	0.2-
830219	688	0.2+	2.2-		890630	675	0.3+	0.7+	890809	675	0.2+	0.1-

1985 CG = 1980 WU = 1989 CP6
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi
M 126.11005 (1950.0) P Q
n 0.26674728 Peri. 351.08130 +0.02878004 -0.99787126
a 2.3900265 Node 97.25415 +0.92065749 +0.00366060
e 0.1711356 Incl. 3.38200 +0.38930901 +0.06511181
P 3.69 H 13.5 G 0.25
Residuals in seconds of arc

801130 095	0.0	0.1+	850218 054	0.3+	0.6+	890204 033	0.5-	0.2-
850211 054	1.4-	0.5-	850220 675	0.9-	0.3+	890306 033	0.0	0.4+
850212 054	2.1+	0.6-	850223 675	0.1+	0.4-	890306 033	0.3+	0.1+
850213 054	0.1-	0.6+	890204 033	0.2+	0.3-			

1985 KA
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Balam
M 12.19498 (1950.0) P Q
n 0.27170130 Peri. 79.94226 +0.79431680 +0.49339291
a 2.3608901 Node 249.69053 -0.58860765 +0.76943105
e 0.2926496 Incl. 22.20555 +0.15033912 +0.40563445
P 3.63 H 14.5 G 0.25
Residuals in seconds of arc

850518 474	0.4-	0.8-	850525 474	1.1-	1.4+	890703 801	0.2-	0.6+
850518 474	2.7-	1.3+	850530 474	1.2+	0.4-	890725 657	1.1-	2.3+
850521 474	0.5+	3.0+	850530 474	1.4+	0.9-	890725 657	0.2-	0.5-
850521 474	1.6+	2.0+	850616 474	0.4+	1.2-	890731 801	0.3-	0.4+
850523 474	0.4+	1.0-	850616 474	0.9-	1.9+	890804 657	0.5-	3.8-
850523 474	0.5+	1.6-	850618 474	0.1-	1.0-	890805 657	0.2-	1.4+
850524 474	0.6+	1.9-	850618 474	0.8-	0.9-	890805 657	1.2+	1.0-
850524 474	1.8+	1.8-	850814 474	0.4+	0.7-	890809 657	0.6-	0.2+
850525 474	1.5-	1.2+	850814 474	0.3+	1.0+	890826 657	1.1+	0.4+

1985 RU = 1989 PD
Id. S. Nakano, T. Furuta
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 358.64282 (1950.0) P Q
n 0.23990299 Peri. 30.75883 +0.96580533 +0.17470921
a 2.5651522 Node 317.78191 -0.25469907 +0.77744641
e 0.3302747 Incl. 16.56391 +0.04846068 +0.60419679
P 4.11 H 14.0 G 0.25
Residuals in seconds of arc

850915 675	0.3+	0.1-	851012 675	0.4+	1.0-	890804 886	0.3-	0.1+
850915 675	0.6+	0.5-	851013 675	0.3-	0.3+	890810 403	0.3+	1.2+
850921 675	0.5-	0.3+	851014 675	0.2-	0.3+	890810 403	0.6-	0.3-
851012 675	0.3-	0.5+	890804 886	0.5+	0.9-			

1985 TP = 1980 RR2 = 1989 NJ1
Id. H. E. Holt (k), D. W. E. Green
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Marsden
M 1.33895 (1950.0) P Q
n 0.20423156 Peri. 129.74236 +0.61623554 +0.78756130
a 2.8557599 Node 178.29849 -0.73225181 +0.57341482
e 0.0568196 Incl. 1.88958 -0.28993284 +0.22570476
P 4.83 H 12.5 G 0.25
Residuals in seconds of arc

800908 095	0.3+	0.8-	851015 688	0.8+	0.7+	890707 675	2.9+	0.7+
850915 095	1.3+	2.2+	851020 688	2.0-	0.3+	890707 675	0.1-	0.3+
850920 095	0.6-	2.5+	851020 688	3.6-	1.6-	890710 675	1.7-	2.7-
850922 095	0.6+	0.9+	851107 688	0.6+	1.9-	890710 675	1.1-	1.2+
851015 688	0.7+	0.6+	851107 688	2.3+	2.9-			

1986 TR6 = 1989 EY4

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)		Bardwell	
M 73.69209		(1950.0)		P	Q
n 0.08543669	Peri.	149.80438		+0.37784676	-0.90256296
a 5.1055276	Node	277.31762		+0.80233115	+0.43045555
e 0.0522581	Incl.	12.01230		+0.46205687	-0.00938717
P 11.54	H	10.0	G	0.25	

Residuals in seconds of arc

861005 092	0.6+	0.4-	861010 092	0.3-	0.6+	890109 675	0.0	0.8+
861005 092	0.2+	1.2-	861010 092	0.4+	0.1-	890202 675	0.1+	0.4-
861009 092	0.6-	0.8-	861011 092	0.1+	0.0	890202 675	1.2+	0.7-
861009 092	0.4-	0.5+	861012 092	0.8-	0.4-	890307 675	0.3-	2.1-
861009 092	0.4+	0.4+	890109 675	0.8-	0.2-	890308 675	0.2-	2.3+

1986 UU = 1986 XC1 = 1989 NF1

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

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)		Marsden	
M 354.69702		(1950.0)		P	Q
n 0.30216419	Peri.	107.86298		+0.95525960	+0.28262243
a 2.1994204	Node	235.80467		-0.29518042	+0.89240060
e 0.2538007	Incl.	6.05159		-0.01864433	+0.35177512
P 3.26	H	14.0	G	0.25	

Residuals in seconds of arc

861007 095	1.4+	2.0+	861103 046	0.2-	2.4+	861204 688	0.1-	0.8-
861012 095	1.1-	0.5-	861108 046	1.8+	0.3-	890707 675	0.4-	0.7+
861028 046	0.1-	1.0-	861108 046	0.2-	0.9-	890707 675	0.1-	0.0
861028 046	0.2-	2.2-	861127 095	0.6-	0.5-	890709 675	0.9+	0.6-
861103 046	0.4-	1.7+	861204 688	0.2-	0.2-	890709 675	0.3-	0.5-

1987 GD = 1976 GC6 = 1988 SF1

Id. T. Kobayashi, L. D. Schmadel

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5				Kobayashi	
M 240.49539		(1950.0)		P	Q
n 0.26893346	Peri.	332.65737		-0.93940255	+0.34119344
a 2.3770564	Node	227.33312		-0.30565209	-0.87760663
e 0.0749032	Incl.	2.59683		-0.15524064	-0.33673972
P 3.66	H	13.5	G	0.25	

Residuals in seconds of arc

760402 095	1.4-	3.6-	870424 887	0.5-	0.8-	880919 809	0.0	0.3-
870327 688	0.7+	0.3+	870424 887	0.1+	0.8-	880919 809	0.2+	0.1-
870327 688	1.2+	0.5+	880918 809	0.6-	0.2+	880919 809	0.0	0.2-
870331 887	0.1+	0.8+	880918 809	0.5-	0.5+	880920 809	0.5-	0.3-
870331 887	0.3+	1.4+	880918 809	0.3-	0.6+	880920 809	0.4-	0.4-
870404 887	0.6-	2.4+	880919 809	0.5+	0.3+	880920 809	0.2-	0.4-
870404 887	1.7-	1.3+	880919 809	0.6+	0.2+			
870424 887	1.9+	1.3-	880919 809	1.0+	0.3+			

1987 QZ1 = 1989 CG5

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5				Kobayashi	
M 145.02954		(1950.0)		P	Q
n 0.26022231	Peri.	78.81827		+0.79182382	-0.60749397
a 2.4298140	Node	318.54826		+0.51661057	+0.72120562
e 0.1531685	Incl.	5.45899		+0.32577379	+0.33288665
P 3.79	H	14.0	G	0.25	

Residuals in seconds of arc

870821	809	0.8+	0.9+	870828	809	0.6-	0.6-	870831	809	1.5-	0.0
870821	809	0.1-	1.0+	870828	809	0.7+	0.5-	870831	809	1.3-	0.8+
870821	809	0.6+	1.3+	870828	809	0.7-	0.3-	870831	809	1.2-	0.4-
870825	809	2.8-	2.0-	870829	809	2.1+	1.1+	870903	809	0.7+	1.3-
870825	809	0.3-	0.8-	870829	809	1.3+	1.6+	870903	809	0.7+	1.6-
870825	809	1.5-	1.0+	870829	809	1.0+	1.6+	890202	033	0.1-	0.2-
870826	809	0.0	1.1-	870831	809	2.0+	1.1+	890204	033	0.6+	0.6-
870826	809	0.3+	1.1-	870831	809	0.1+	0.2+	890210	033	0.0	0.7+
870826	809	0.5-	0.5-	870831	809	0.3-	0.4+	890210	033	0.1-	0.9+

1988 EC

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)		Marsden	
M 345.32220		(1950.0)		P	Q
n 0.36662085	Peri.	33.04647		+0.96485426	-0.23638044
a 1.9334168	Node	339.66407		+0.10384380	+0.74429093
e 0.0994910	Incl.	19.29039		+0.24139745	+0.62462413
P 2.69	H	14.0	G	0.25	

Residuals in seconds of arc

880307	888	1.0+	0.1-	880309	888	0.8-	1.1-	880711	413	0.1-	0.4+
880307	888	0.6-	0.3-	880310	888	2.0-	0.8-	890810	675	0.1+	0.3-
880307	888	0.2-	0.1+	880310	888	1.8-	0.9-	890810	675	1.2+	0.1-
880307	888	1.1+	1.1+	880312	888	1.3-	2.4+	890811	675	0.4-	0.5-
880308	888	2.2+	1.9+	880312	888	0.8-	0.2+	890811	675	0.9-	1.0+
880308	888	1.9+	0.4+	880322	888	2.3+	1.2-				
880309	888	1.3-	0.6-	880322	888	0.7+	1.3-				

1988 RR2 = 1980 JD

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5				Kobayashi	
M 146.24664		(1950.0)		P	Q
n 0.26443517	Peri.	131.12486		+0.19638870	+0.98024137
a 2.4039378	Node	150.17628		-0.91321150	+0.19162817
e 0.2015531	Incl.	2.72326		-0.35703815	+0.04904595
P 3.73	H	13.5	G	0.25	

Residuals in seconds of arc

800511	046	2.9+	1.4-	800513	046	0.9-	0.3+	880910	046	0.0	1.0-
800511	046	0.6+	1.4+	800514	046	1.1-	0.3+	880910	046	1.3-	0.1-
800512	046	2.7-	0.2-	800514	046	0.3-	1.2+	880920	809	0.0	0.4+
800512	046	1.1-	0.4-	880909	046	1.4+	0.1+	880920	809	0.1-	0.4+
800513	046	2.3+	0.9-	880909	046	0.0	0.1-	880920	809	0.3-	0.4+

1988 RF9 = 1977 DL

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5				Kobayashi	
M 186.50488		(1950.0)		P	Q
n 0.29188481	Peri.	147.88763		-0.42034434	+0.90631545
a 2.2507559	Node	97.22383		-0.84147389	-0.37138310
e 0.1657819	Incl.	2.52020		-0.33945887	-0.20166034
P 3.38	H	14.5	G	0.25	

Residuals in seconds of arc

770218	381	0.3+	0.5+	880902	809	1.7-	1.0+	880910	809	2.2+	0.4+
770218	381	1.1+	1.4-	880905	809	2.2-	1.1-	880910	809	2.1+	0.4+
770219	381	1.0+	0.6+	880905	809	0.8-	0.7-	880910	809	2.0+	0.4+
770219	381	2.1-	1.2+	880905	809	0.8+	0.2-	880911	809	0.1+	0.4-
880902	809	1.7-	0.9+	880907	809	(4.6+	2.1+)	880911	809	0.3+	0.4-
880902	809	1.7-	1.1+	880907	809	(4.6+	2.2+)	880911	809	0.6+	0.6-

1989 AZ
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Bardwell
M 147.70020 (1950.0) P Q
n 0.46680814 Peri. 111.50840 +0.66852407 -0.72045289
a 1.6458002 Node 295.16188 +0.58430488 +0.66227136
e 0.4680224 Incl. 11.75877 +0.46006888 +0.20577724
P 2.11 H 19.5 G 0.25
From 14 observations 1989 Jan. 8-Feb. 16, mean residual 0".9.

1989 EY2 = 1980 TY4 = 5489 T-2
Id. S. Nakano (MPC 14624; unpublished)
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 250.24001 (1950.0) P Q
n 0.28185233 Peri. 68.02312 +0.67718821 +0.72980412
a 2.3038587 Node 244.95392 -0.70749454 +0.61078335
e 0.1355706 Incl. 5.94404 -0.20215738 +0.30713132
P 3.50 H 13.5 G 0.25
Residuals in seconds of arc

730930	675	0.3+	0.7-	801008	675	0.4-	0.6+	890302	809	0.0	1.1+
730930	675	0.6+	0.3+	801009	675	0.7-	0.9-	890302	809	1.4-	0.8+
731004	675	0.9+	0.0	801010	675	0.5+	1.7+	890302	809	0.4-	0.4+
731004	675	0.1-	0.4+	890204	809	0.9+	0.9-	890303	809	0.2-	0.7+
731005	675	0.8-	0.2-	890204	809	0.7+	1.1-	890303	809	0.2-	0.1+
731005	675	0.5-	1.1-	890204	809	1.2+	0.6-	890303	809	1.1-	0.3-

1989 FB
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Marsden
M 13.29649 (1950.0) P Q
n 0.92621593 Peri. 333.58060 +0.99330522 +0.06206639
a 1.0423044 Node 23.48257 +0.00764537 +0.80623369
e 0.2504829 Incl. 14.15281 -0.11526617 +0.58833238
P 1.06 H 17.0 G 0.25
From 15 observations 1989 Apr. 1-June 5, mean residual 1".1.

1989 FC
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Marsden
M 248.61330 (1950.0) P Q
n 0.95317128 Peri. 254.96638 +0.26158529 -0.96518034
a 1.0225599 Node 179.86899 +0.91514124 +0.24795910
e 0.3571255 Incl. 4.91245 +0.30674037 +0.08332580
P 1.03 H 20.5 G 0.25
From 24 observations 1989 Mar. 31-June 5, mean residual 0".5.

1989 KD = 1969 AO = 1975 YB
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Marsden
M 312.86441 (1950.0) P Q
n 0.26791429 Peri. 242.62446 +0.98468302 +0.06180525
a 2.3830857 Node 113.44658 -0.00523453 +0.94512101
e 0.2550123 Incl. 10.23611 -0.17427551 +0.32082143
P 3.68 H 12.5 G 0.25
Residuals in seconds of arc

690115	095	0.3+	2.3-	890531	675	0.6-	1.5+	890602	675	0.0	0.3-
751230	805	0.4+	0.6-	890601	675	0.8+	0.1+	890729	675	0.4-	3.8-
751231	805	0.3+	1.9-	890601	675	0.4+	0.0	890729	675	1.5-	3.5-
890531	675	1.1-	0.9+	890602	675	0.5+	0.4-				

1989 KG = 1941 CA = 1963 FE = 1965 UW1 = 1967 GU = 1969 UA2
= 1976 GO6 = 1980 DQ5 = 1980 FP10
Id. B. G. Marsden, N. S. Chernykh (d)

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)	Marsden
M 106.55454	(1950.0)	P	Q
n 0.22926338	Peri. 334.53111	-0.81024881	-0.58454424
a 2.6439127	Node 169.38098	+0.56939407	-0.80227842
e 0.0952569	Incl. 13.32911	+0.13887859	-0.12106758
P 4.30	H 12.0	G 0.25	

Residuals in seconds of arc

410201 062	0.4+	0.6-	760403 095	2.8-	0.1+	890530 675	1.2-	0.2-
410201 062	0.6-	1.8-	760407 095	0.5-	0.3+	890601 675	0.9+	1.1+
630322 760(88.2-	36.6-)X		800221 095	0.8+	1.1+	890602 675	0.4-	0.1-
651020 330	0.5-	1.0-	800316 095	2.6-	0.9-	890602 675	0.3+	0.8-
670411 026	3.0+	0.4- Y	890529 675	1.3+	1.4+	890729 675	0.8+	3.8-
691017 095	0.7+	1.5-	890529 675	0.3+	1.9+	890729 675	1.0+	4.2-

1989 KK = 1986 WW2

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)	Marsden
M 39.18473	(1950.0)	P	Q
n 0.22562651	Peri. 34.90211	-0.58507356	+0.80753273
a 2.6722484	Node 199.62897	-0.78543273	-0.58717076
e 0.1243795	Incl. 12.84791	-0.20195134	-0.05586948
P 4.37	H 13.0	G 0.25	

Residuals in seconds of arc

861127 033	0.0	0.1+	890601 675	0.7-	0.7+	890711 675	0.1-	0.4+
861128 033	0.3-	0.2+	890601 675	1.2+	0.5-	890711 675	0.2-	2.6+
861129 033	0.3+	0.2-	890602 675	1.5+	1.5-	890729 675	0.4-	0.7-
890531 675	1.6-	0.8-	890602 675	1.7+	1.3+	890729 675	0.3-	1.3-
890531 675	2.3-	0.5+	890706 675	1.2+	0.7-			

1989 ME = 1978 QM

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5			Kobayashi
M 312.70131	(1950.0)	P	Q
n 0.17268429	Peri. 38.11210	+0.95564878	-0.14024123
a 3.1937494	Node 326.97850	-0.09233410	+0.69233694
e 0.1305860	Incl. 28.37387	+0.27966021	+0.70781492
P 5.71	H 12.0	G 0.25	

Residuals in seconds of arc

780831 095	0.5+	0.4+	890701 474	0.4-	0.6-	890708 474	0.5-	0.1-
780905 095	0.5-	0.4-	890701 474	0.2+	0.4-	890708 474	0.4-	0.2+
890630 474	0.2-	0.2+	890702 474	0.5+	0.0			
890630 474	0.2+	0.7+	890702 474	1.0+	0.3+			

1989 NA

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5			Marsden
M 16.43263	(1950.0)	P	Q
n 0.22947925	Peri. 201.87222	+0.46590994	+0.85062435
a 2.6422491	Node 96.63146	-0.77107830	+0.52538307
e 0.4545009	Incl. 14.19914	-0.43401173	-0.02026937
P 4.29	H 15.0	G 0.25	

From 27 observations 1989 July 2-Sept. 5, mean residual 1".0.

1989 NJ = 1967 JA = 1970 CC = 1986 TH2

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)	Bardwell
M 46.66492		(1950.0)	P	Q
n 0.27324256	Peri. 39.55383	-0.22958262	+0.96874132
a 2.3520038	Node 217.44743	-0.92751566	-0.24702642
e 0.1444958	Incl. 8.89143	-0.29496867	+0.02276414
P 3.61	H 13.0	G 0.25	

Residuals in seconds of arc

670502 095	1.2-	0.1-	700209 805	1.8+	1.3-	890704 675	0.4+	0.6-
670504 095	(0.7+	6.4-)	700209 805	0.6+	0.5-	890704 675	0.7+	1.0-
670505 095	1.5+	1.1+	861003 095	(3.9-	3.1-)	890809 675	0.3+	0.6-
700207 805	2.1-	1.6-	861007 688	1.1+	1.0-	890809 675	0.3+	0.4-
700207 805	1.6-	0.5-	861007 688	(5.3+	0.8-)	890811 675	1.3-	0.5+
700207 805	0.7-	0.1-	890702 675	0.4+	0.9-	890811 675	0.5-	0.3-
700209 805	0.0	2.0-	890702 675	0.1+	2.1-			

1989 NM = 1972 JP = 1976 HH = 1977 TW6

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)	Bardwell
M 6.99301		(1950.0)	P	Q
n 0.24049813	Peri. 214.96089	+0.68412509	+0.71499949
a 2.5609186	Node 98.68275	-0.63152533	+0.67949128
e 0.1613306	Incl. 8.37861	-0.36489535	+0.16452152
P 4.10	H 13.0	G 0.25	

Residuals in seconds of arc

720512 095	0.6-	2.1-	890702 675	0.4-	0.2-	890809 675	0.1-	0.8+
760423 095	0.3+	0.8+	890702 675	0.8-	1.4+	890809 675	0.7+	1.3+
760503 095	0.1+	0.9+	890704 675	0.8-	1.0-	890811 675	0.5+	1.9+
771009 095	0.5+	1.3-	890704 675	0.7-	2.6-	890811 675	1.7+	0.4-

1989 NO = 1985 FJ

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)	Bardwell
M 50.63761		(1950.0)	P	Q
n 0.29155787	Peri. 263.45183	-0.19326429	+0.98112406
a 2.2524426	Node 355.38874	-0.86416445	-0.17343656
e 0.1540654	Incl. 4.75890	-0.46461675	-0.08552971
P 3.38	H 13.5	G 0.25	

Residuals in seconds of arc

850315 046	(12.8-	1.5-)	890702 675	0.3+	0.5-	890809 675	3.2-	2.1-
850315 046	(7.4-	1.3-)	890702 675	0.0	0.4-	890809 675	0.9+	0.3+
850320 046	0.3-	0.4-	890704 675	1.7+	0.3-	890811 675	0.0	0.6-
850320 046	0.5-	1.2+	890704 675	0.4+	1.6-	890811 675	0.2-	2.1-

1989 NR = 1986 RD10

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)	Bardwell
M 350.42858		(1950.0)	P	Q
n 0.30064191	Peri. 26.63761	+0.91992326	+0.37201093
a 2.2068386	Node 310.95705	-0.38260470	+0.78255276
e 0.0833129	Incl. 9.44210	-0.08576034	+0.49921844
P 3.28	H 13.5	G 0.25	

Residuals in seconds of arc

860908 095	0.5-	0.6-	890704 675	0.5+	0.8-	890811 675	0.1+	0.5-
860911 095	0.8+	0.9+	890704 675	1.1+	0.5-	890811 675	0.1+	1.7-
890702 675	0.1+	0.7-	890809 675	0.3+	0.5+			
890702 675	0.4-	1.4+	890809 675	1.6-	0.4+			

1989 NB1 = 1949 MG
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano

M 26.21025		(1950.0)	P	Q
n 0.17376232	Peri.	147.67870	+0.24090241	+0.94600566
a 3.1805325	Node	135.18412	-0.94299209	+0.28101607
e 0.1110696	Incl.	17.92145	-0.22963438	-0.16156501
P 5.67	H	11.5	G 0.25	

Residuals in seconds of arc

490616 024	0.8+	1.1-	890702 675	0.2+	0.9+	890809 675	0.5+	0.0
490622 024	0.8-	0.9+	890704 675	0.9+	1.3-	890811 675	1.9-	0.1-
890702 675	1.6+	1.1+	890809 675	0.1-	0.5-	890811 675	1.2-	0.2+

1989 NG1 = 1974 SY3 = 1979 RF1 = 1980 WY1
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Marsden

M 14.84068		(1950.0)	P	Q
n 0.18815265	Peri.	59.62502	+0.46643099	+0.87511821
a 3.0162224	Node	238.72537	-0.85446303	+0.40807206
e 0.0567335	Incl.	8.67286	-0.22876857	+0.26008712
P 5.24	H	12.5	G 0.25	

Residuals in seconds of arc

740922 095	0.7-	0.9+	890707 675	0.5+	0.2+	890729 675	0.8-	1.1-
790914 095	0.4+	0.4+	890707 675	0.2+	1.1+	890729 675	0.3-	1.0-
801130 095	0.2-	1.6-	890709 675	1.5+	0.9+	890801 675	1.4-	0.8-
801210 095	0.2+	0.2+	890709 675	1.6+	0.1+	890801 675	1.2-	0.7-

1989 OA = 1978 LR = 1985 NH1 = 1986 VO
Id. T. Furuta
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Ichikawa

M 33.00288		(1950.0)	P	Q
n 0.27910266	Peri.	46.78353	+0.34218645	+0.93718027
a 2.3189654	Node	243.34122	-0.88256750	+0.29579129
e 0.1336501	Incl.	4.35316	-0.32246401	+0.18493419
P 3.53	H	13.4	G 0.25	

Residuals in seconds of arc

780606 119	0.6-	1.7-	861107 046	0.7-	2.6-	890728 403	1.5-	0.1+
780606 119	0.4-	2.1-	861107 046	0.2-	3.4-	890728 403	1.9-	1.0-
850424 688	1.1-	1.7-	861109 046	0.8+	1.6-	890811 403	1.2+	0.2+
850424 688	0.2+	2.0-	861109 046	2.2+	0.6-	890811 403	1.9+	0.7+
861103 046(12.4+	5.2-)		890727 403	1.3+	0.2-	890822 403	1.0+	2.0+
861103 046(13.1+	4.6-)		890727 403	0.1-	1.4-	890822 403	2.1-	0.1+

1989 OB
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Bardwell

M 0.86104		(1950.0)	P	Q
n 0.22135072	Peri.	71.29092	+0.99136872	-0.01620731
a 2.7065461	Node	289.47195	-0.04255850	+0.89880616
e 0.5548294	Incl.	7.93155	+0.12400339	+0.43804659
P 4.45	H	16.5	G 0.25	

From 17 observations 1989 July 7-Aug. 28, mean residual 0".8.

1989 PB
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Nakano

M 336.35669		(1950.0)	P	Q
n 0.89920347	Peri.	121.18132	+0.05893780	-0.99434160
a 1.0630754	Node	325.10253	+0.85519441	+0.09596256
e 0.4832119	Incl.	8.88674	+0.51494549	-0.04556275
P 1.10	H	17.2	G 0.25	

From 47 observations 1989 Aug. 1-Aug. 24, mean residual 0".8.

1989 QF
Epoch 1989 Aug. 22.0 ET = JDE 2447760.5 Green
M 62.38633 (1950.0) P Q
n 0.79559560 Peri. 239.25111 -0.72527457 +0.68819827
a 1.1534740 Node 344.20982 -0.60538117 -0.65063445
e 0.4174382 Incl. 3.99792 -0.32785733 -0.32102641
P 1.24 H 18.0 G 0.25
From 4 observations 1989 Aug. 31-Sept. 5.

2040 P-L = 2220 T-2
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 346.76835 (1950.0) P Q
n 0.30314845 Peri. 342.63557 +0.95681182 +0.29070721
a 2.1946571 Node 0.46576 -0.25575763 +0.84289158
e 0.2432646 Incl. 4.81058 -0.13819978 +0.45279477
P 3.25 H 16.5 G 0.25
Residuals in seconds of arc

600924	675	0.4+	0.1-	601026	675	0.4-	0.2-	730929	675	(1.1-	3.7+)
600926	675	0.5+	0.8-	730919	675	0.5-	0.6+	730930	675	1.9-	0.7-
600928	675	0.0	1.1-	730919	675	0.9-	0.8+	730930	675	0.8-	0.1-
600929	675	0.4+	0.8-	730920	675	1.2+	0.4+	731004	675	0.7-	0.1+
601017	675	0.0	0.6-	730925	675	0.9+	1.0-	731004	675	0.8+	0.0
601022	675	0.1+	0.8+	730925	675	0.5+	0.3-	731005	675	1.1+	0.2-
601025	675	0.3+	0.5+	730929	675	0.2-	2.2+	731005	675	0.6-	0.4+

2113 P-L = 2001 T-2
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 228.60222 (1950.0) P Q
n 0.22674827 Peri. 165.07823 +0.89127875 -0.45160105
a 2.6634278 Node 221.84639 +0.40947191 +0.84035453
e 0.0877851 Incl. 3.52099 +0.19482027 +0.29976782
P 4.35 H 15.5 G 0.25
Residuals in seconds of arc

600924	675	0.3+	0.3-	600929	675	0.1+	0.1+	730924	675	0.5-	1.6-
600924	675	0.4-	0.4+	601017	675	0.2-	0.1-	730925	675	0.4+	1.6-
600926	675	1.5+	0.2-	730919	675	1.3+	2.2+	730925	675	0.3-	1.4-
600926	675	0.1+	0.2+	730919	675	1.9-	0.0	730929	675	0.2+	2.6+
600928	675	0.1-	0.1+	730920	675	0.0	0.1-	730929	675	1.1+	0.7+
600928	675	1.4-	0.2-	730924	675	0.2-	0.7-				

2514 P-L = 2267 T-2
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 275.69746 (1950.0) P Q
n 0.22743300 Peri. 321.73199 +0.86526073 +0.50041643
a 2.6580792 Node 8.40336 -0.39398161 +0.71592061
e 0.1839048 Incl. 11.89437 -0.31000381 +0.48686865
P 4.33 H 16.0 G 0.25
Residuals in seconds of arc

600924	675	0.5+	0.2+	601026	675	0.4+	0.1-	730930	675	1.0-	0.8-
600926	675	0.8-	0.5+	730925	675	0.2+	0.8-	731004	675	0.1-	0.4-
600928	675	0.7-	0.0	730925	675	1.4+	0.2-	731004	675	0.1-	1.3-
600929	675	0.3-	0.1+	730929	675	0.5-	2.3+	731005	675	1.8+	1.6-
601017	675	0.3+	0.1-	730929	675	0.5-	2.2+	731005	675	0.3-	0.5-
601022	675	0.6-	1.1+	730930	675	0.3+	0.6-				

3051 P-L = 1976 JT6 = 1989 NG

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5					Kobayashi
M 6.81739		(1950.0)		P	Q
n 0.23417672	Peri.	79.19721		+0.57804967	+0.80105232
a 2.6067951	Node	227.27246		-0.80664481	+0.53218120
e 0.1706446	Incl.	12.21934		-0.12321825	+0.27404079
P 4.21	H 13.5		G 0.25		

Residuals in seconds of arc

600924 675	0.4+	0.2+	600928 675	0.1+	0.3+	601026 675	0.1-	0.7-
600924 675	0.9+	0.4-	600928 675	1.2-	0.8+	760503 809	0.0	0.7+
600925 675	0.7+	0.1-	600929 675	0.8-	0.9-	890702 675	0.7-	1.0+
600925 675	0.1+	0.2+	601017 675	0.1-	0.7-	890702 675	0.1+	2.1-
600926 675	0.0	0.3+	601017 675	0.5-	2.0+	890704 675	0.8+	0.8+
600926 675	1.2+	0.5-	601022 675	0.9-	0.4+	890704 675	0.1-	0.0
600927 675	0.9-	0.4-	601024 675	0.9+	0.1-			

6035 P-L = 2125 T-2

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5				(J-P)	Nakano
M 304.11727		(1950.0)		P	Q
n 0.22837648	Peri.	299.88261		+0.48227505	+0.87601220
a 2.6507534	Node	358.93094		-0.72074423	+0.39441341
e 0.1922002	Incl.	11.31065		-0.49793426	+0.27756203
P 4.32	H 14.0		G 0.25		

Residuals in seconds of arc

600924 675	0.1+	1.0-	730919 675	0.6+	1.4+	730929 675	0.0	0.9+
600925 675	0.5+	0.3-	730920 675	0.8-	0.3+	730930 675	1.2+	1.0-
600926 675	0.5-	0.7-	730924 675	2.2-	1.4+	730930 675	0.7+	1.3-
600928 675	0.5-	0.7-	730924 675	1.9-	0.7+	731004 675	1.3+	0.7-
601024 675	0.9+	0.5+	730925 675	0.1+	1.3-	731004 675	0.1-	1.0-
601026 675	0.6+	1.0+	730925 675	0.7-	1.3-	731005 675	0.2-	0.2-
730919 675	0.9+	1.5+	730929 675	0.2-	1.9+	731005 675	0.6+	0.2+

6193 P-L = 2271 T-2

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5				(J-P)	Nakano
M 288.80501		(1950.0)		P	Q
n 0.22866891	Peri.	137.09706		+0.84596765	+0.53165764
a 2.6484930	Node	191.00561		-0.52862038	+0.82608176
e 0.1226337	Incl.	12.39394		-0.06999454	+0.18689323
P 4.31	H 15.5		G 0.25		

Residuals in seconds of arc

600924 675	0.1-	0.8-	730920 675	0.8+	1.2+	730930 675	0.5+	1.5-
600925 675	0.6+	0.0	730924 675	1.5-	0.7+	731004 675	0.3-	0.2+
600926 675	0.5-	0.8-	730924 675	(3.4-	0.1-)	731004 675	0.6+	0.5-
600928 675	0.3-	0.4+	730925 675	0.7-	2.3-	731005 675	0.4-	1.1-
601022 675	0.3+	1.9+	730929 675	0.6-	1.3+	731005 675	0.6-	0.3+
730919 675	0.5-	0.8+	730929 675	1.5+	2.1+			
730919 675	0.6-	0.6+	730930 675	1.9+	2.2-			

9570 P-L = 4289 T-2

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5				(J-P)	Green
M 315.40135		(1950.0)		P	Q
n 0.22877677	Peri.	209.93614		+0.54467068	+0.83603744
a 2.6476605	Node	93.14083		-0.75565710	+0.52345064
e 0.0592094	Incl.	3.79835		-0.36375293	+0.16444096
P 4.31	H 15.1		G 0.25		

Residuals in seconds of arc

601017	675	0.6+	1.8+	730925	675	2.0+	0.4+	730930	675	0.5+	1.6+
601022	675	1.7-	0.3-	730925	675	1.8+	0.4-	731004	675	1.3+	0.1-
601024	675	0.3+	0.2-	730929	675	1.9-	1.3-	731004	675	0.6+	1.1-
601026	675	0.4-	0.3-	730929	675	0.5+	0.0	731005	675	0.2+	1.4+
730920	675	1.8+	0.0	730930	675	0.2+	0.4+	731005	675	0.7+	1.4+

1051 T-2 = 1980 FD

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)		Nakano	
M 87.44749		(1950.0)		P	Q
n 0.21900903	Peri.	305.87393		-0.57010556	-0.82155885
a 2.7258099	Node	178.85401		+0.80787445	-0.56159956
e 0.0951994	Incl.	13.15236		+0.14939385	-0.09821911
P 4.50	H	13.0	G	0.25	

Residuals in seconds of arc

730919	675	1.1+	1.0-	730925	675	1.6-	2.7+	731005	675	0.2-	0.9-
730919	675	0.4+	1.1-	730929	675	0.1+	1.4+	731005	675	1.1+	0.0
730920	675	0.5+	0.1-	730929	675	0.0	0.4-	800316	046	0.6+	0.2-
730924	675	1.4+	1.1-	730929	675	1.1-	0.6+	800316	046	0.3+	0.6-
730924	675	0.1+	0.4-	730930	675	0.5+	0.0	800317	046	1.0-	0.9+
730925	675	0.8-	1.9-	730930	675	0.7-	0.1+	800317	046	(1.5-	4.0+)
730925	675	1.1-	2.7+	731004	675	0.8+	1.2-	800323	809	0.0	0.3-
730925	675	0.5-	0.3+	731004	675	0.2+	0.0				

1063 T-2 = 1988 XF1

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5				Kobayashi	
M 67.23610		(1950.0)		P	Q
n 0.27003139	Peri.	255.69325		-0.05534422	-0.99842242
a 2.3706088	Node	197.48766		+0.92775287	-0.04791627
e 0.1781924	Incl.	1.80601		+0.36906860	-0.02926949
P 3.65	H	14.5	G	0.25	

Residuals in seconds of arc

730919	675	0.4+	1.1-	730929	675	0.8+	0.7-	881202	399	1.7-	0.1+
730919	675	0.1-	0.6+	730930	675	0.4+	1.1+	881202	399	0.6+	0.7-
730920	675	0.1-	0.1-	730930	675	0.4-	0.6+	881202	399	0.7+	0.9+
730924	675	1.2+	0.1+	731004	675	1.0-	2.7-	881203	400	1.7+	1.1+
730924	675	0.5-	0.7+	731004	675	1.2+	0.0	881203	400	0.8-	0.3+
730925	675	0.6-	1.5-	731005	675	0.3+	0.7+	881203	400	1.0-	1.7-
730925	675	0.1-	0.8+	731005	675	0.5-	1.1+				
730929	675	0.8+	1.1+	881202	399	0.1-	0.1-				

1105 T-2 = 1982 XA4

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5				Kobayashi	
M 166.10507		(1950.0)		P	Q
n 0.23232134	Peri.	304.71238		-0.61960536	-0.78490804
a 2.6206558	Node	183.57906		+0.73457283	-0.57854903
e 0.1389132	Incl.	2.68695		+0.27657178	-0.22181162
P 4.24	H	14.5	G	0.25	

Residuals in seconds of arc

730919	675	1.5+	0.0	730925	675	1.7-	1.3+	731004	675	0.4+	1.2-
730919	675	1.2+	0.3-	730929	675	0.2+	1.0-	731005	675	0.4+	1.1+
730920	675	0.5-	0.2+	730929	675	0.4+	1.7-	731005	675	0.0	1.2+
730924	675	1.5-	0.4-	730930	675	0.8-	1.0+	821213	381	0.8-	0.3-
730924	675	1.5+	0.5+	730930	675	0.1+	0.6+	821214	381	0.4+	0.6-
730925	675	1.1-	0.2-	731004	675	0.1+	0.9-	821214	381	0.4+	0.9+

1133 T-2 = 1976 GS5 = 1984 YL5 = 1986 GY1 = 1988 TF4

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)	Nakano
M 9.02467		(1950.0)	P	Q
n 0.19854553	Peri.	224.05224	+0.19041339	-0.98161827
a 2.9100258	Node	214.97681	+0.90679685	+0.18093192
e 0.0278885	Incl.	1.29680	+0.37611463	+0.06073885
P 4.96	H 12.5	G 0.25		

Residuals in seconds of arc

730919	675	0.6-	2.5-	731004	675	1.7+	0.3-	860312	809	0.6+	0.7+
730919	675	0.9-	0.5-	731004	675	0.5+	0.1+	860316	809	0.5+	0.7-
730920	675	0.8-	0.8-	731005	675	0.1+	1.4+	860316	809	0.8+	0.3+
730924	675	0.3+	0.5-	731005	675	0.2+	0.2+	860408	071	2.5-	0.1-
730924	675	0.7+	1.0-	760402	095	0.8+	0.9-	860408	071	0.6-	0.2+
730925	675	0.8-	1.7-	841228	095	0.4-	1.1-	860408	071	1.8-	0.3-
730925	675	1.1-	0.7+	860308	809	0.0	1.8-	860408	071	(3.5-	1.2+)
730929	675	1.0+	0.7-	860308	809	0.9-	0.2-	860409	071	0.6-	0.2-
730929	675	0.9+	1.0-	860309	809	0.3+	1.1-	860409	071	0.8+	0.4-
730930	675	0.1-	0.9+	860309	809	0.5-	0.4-	881014	046	1.7+	0.2-
730930	675	0.4+	0.3+	860312	809	1.0+	1.8-	881014	046	0.5-	0.7-

1139 T-2 = 1981 EZ34

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)	Nakano
M 208.52282		(1950.0)	P	Q
n 0.20970878	Peri.	96.27597	+0.16945709	+0.98551125
a 2.8058159	Node	183.50489	-0.94435856	+0.16028179
e 0.1757878	Incl.	6.76615	-0.28190638	+0.05547371
P 4.70	H 14.5	G 0.25		

Residuals in seconds of arc

730919	675	0.6-	1.4-	731004	675	0.8+	2.1-	810311	413	1.9+	0.5-
730919	675	0.7-	0.8-	731004	675	0.3+	1.9-	810316	413	0.5-	0.0
730920	675	0.3-	0.7-	731005	675	1.4+	1.0+	810329	413	0.6-	0.2-
730924	675	0.5-	0.9-	731005	675	1.3-	2.9+	810329	413	(3.7+	2.6-)
730924	675	0.1-	0.8+	810209	413	1.8+	0.5-	810408	413	1.6-	0.4+
730925	675	0.5-	1.6-	810213	413	0.6+	0.4-	810408	413	0.1-	0.9+
730925	675	1.4-	0.1+	810302	413	1.2-	0.8+	810411	413	1.9-	1.7+
730929	675	0.7+	1.0-	810302	413	0.3-	0.7-	810430	413	1.0-	1.3-
730929	675	1.2+	0.5-	810303	413	1.1-	0.3-	810502	413	1.2+	0.8-
730930	675	0.3+	0.7+	810307	413	0.2-	0.2+	810503	413	0.4+	1.2-
730930	675	1.5+	2.9+	810307	413	2.0+	1.1-				

1159 T-2 = 1988 EN1

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)	Nakano
M 100.41701		(1950.0)	P	Q
n 0.23787877	Peri.	18.71225	-0.85293171	+0.51898330
a 2.5796837	Node	193.00636	-0.50514184	-0.84772482
e 0.0368065	Incl.	14.47306	-0.13167847	-0.10963101
P 4.14	H 13.0	G 0.25		

Residuals in seconds of arc

730929	675	0.8-	1.3-	731005	675	0.2-	0.1+	880314	675	0.4+	2.8-
730929	675	0.0	0.5+	731005	675	0.5+	0.6-	880314	675	0.3+	0.6+
730930	675	0.6-	2.0+	880311	675	0.6+	2.0-	880410	675	0.3+	0.5+
730930	675	0.6-	1.5+	880311	675	0.7-	0.8+	880410	675	0.4-	0.9+
731004	675	1.0+	0.6-	880313	675	1.1+	1.2+				
731004	675	0.5+	0.4-	880313	675	1.3-	2.0+				

1173 T-2 = 1981 EF40
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 357.56365 (1950.0) P Q
n 0.19185062 Peri. 50.64024 +0.62480122 -0.78078131
a 2.9773378 Node 0.70144 +0.65680795 +0.52420975
e 0.0652006 Incl. 9.37760 +0.42216910 +0.33997747
P 5.14 H 15.0 G 0.25
Residuals in seconds of arc

730919	675	0.5+	0.7-	730930	675	0.4+	2.4+	810307	413	0.7-	0.2+
730919	675	0.4-	0.5-	731004	675	0.2-	2.2-	810307	413	1.6-	1.0+
730920	675	0.6-	0.8-	731004	675	0.2+	0.4-	810311	413	2.5-	0.5+
730924	675	0.2+	1.3-	731005	675	0.6+	1.0+	810311	413	2.7-	0.6+
730924	675	1.3-	1.0-	731005	675	1.0+	1.3+	810408	413	0.2+	0.6+
730925	675	0.7-	0.2+	810209	413	0.4+	0.6-	810411	413	2.0-	0.3-
730925	675	0.4-	0.5+	810213	413	1.0+	0.4+	810426	413	2.2+	0.4-
730929	675	0.0	0.2+	810302	413	1.8+	2.2-	810502	413	1.4-	0.6+
730929	675	0.4+	0.1+	810302	413	2.1+	0.6-				
730930	675	0.7+	0.5+	810303	413	3.0+	0.4-				

1188 T-2 = 2424 T-3
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi
M 200.74945 (1950.0) P Q
n 0.25713394 Peri. 339.75868 -0.76108041 +0.64769458
a 2.4492312 Node 240.65989 -0.58938397 -0.71325466
e 0.0943201 Incl. 2.32289 -0.27089324 -0.26787968
P 3.83 H 13.5 G 0.25
Residuals in seconds of arc

730920	675	0.7+	0.9+	730930	675	0.1+	1.0+	771016	675	0.9+	1.0-
730924	675	1.1-	0.4+	730930	675	0.9+	1.1-	771017	675	0.5-	0.2+
730924	675	1.3-	0.3+	731004	675	1.1+	0.5-	771017	675	0.6-	0.5+
730925	675	1.2-	2.1-	731004	675	1.0+	0.1-	771021	675	1.1+	0.3+
730925	675	0.3-	0.4+	731005	675	1.0-	0.4-	771021	675	1.7+	1.3-
730929	675	0.1+	1.3+	731005	675	0.2+	0.1-	771022	675	1.5-	1.7+
730929	675	1.0+	0.0	771016	675	0.0	2.7-	771022	675	1.1-	2.4+

1243 T-2 = 1981 EX46
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 53.09802 (1950.0) P Q
n 0.19459954 Peri. 122.67060 +0.98572270 -0.16765120
a 2.9492327 Node 246.98484 +0.14823607 +0.90805679
e 0.0733988 Incl. 0.97212 +0.07985509 +0.38383061
P 5.06 H 15.0 G 0.25
Residuals in seconds of arc

730924	675	1.3-	0.2-	731004	675	0.3+	2.9-	810307	413	1.4+	1.2-
730924	675	1.4-	0.9-	731004	675	0.4+	0.4-	810311	413	0.9+	0.9-
730925	675	1.2-	0.8-	731005	675	2.4+	0.8-	810316	413	0.0	0.1-
730925	675	1.3-	0.8+	731005	675	2.5+	1.7-	810316	413	1.8-	0.1+
730929	675	0.8+	0.7-	791220	675	1.9-	0.2-	810426	413	0.6+	1.9-
730929	675	0.2+	0.9+	791220	675	2.0+	0.9+	810502	413	0.7-	1.3-
730930	675	1.9+	2.1+	810209	413	1.2-	0.8-				
730930	675	1.2-	0.2+	810302	413	1.4-	0.8+				

1251 T-2 = 1981 EU
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 262.44384 (1950.0) P Q
n 0.18280303 Peri. 314.08808 -0.27302913 -0.96195085
a 3.0747843 Node 151.75174 +0.88866998 -0.25629274
e 0.1646246 Incl. 1.24438 +0.36840298 -0.09468149
P 5.39 H 13.5 G 0.25

Residuals in seconds of arc

730919	675	0.6-	0.2-	810303	809	0.3+	0.3-	810310	809	1.0+	0.9+
730919	675	1.5-	0.1+	810303	809	0.1+	0.5-	810311	809	1.0-	1.9+
730920	675	1.0-	0.6+	810303	413	0.8+	0.1-	810311	809	0.8-	2.1+
730924	675	0.3+	0.6-	810304	809	1.1+	0.1+	810311	809	0.5-	2.4+
730924	675	0.5-	0.1+	810304	809	1.1+	0.4+	810311	413	0.5-	0.4+
730925	675	1.2-	0.0	810304	809	0.9+	0.6+	810311	413	0.3+	0.6-
730925	675	1.0+	0.3-	810305	809	0.1+	0.3+	810312	809	0.6+	0.7-
730929	675	1.6+	0.2-	810305	809	0.5-	0.1+	810312	809	0.6+	0.4-
730929	675	1.7+	0.2-	810305	809	0.2-	0.3+	810312	809	0.9+	0.3-
730930	675	1.1-	0.3+	810305	809	0.2+	0.1+	810315	809	0.8-	0.3+
730930	675	0.9-	0.5-	810306	809	0.2-	0.0	810315	809	0.6-	0.3+
731004	675	0.1-	1.6+	810306	809	0.3-	0.1+	810315	809	0.6-	0.4+
731004	675	1.0-	1.1+	810306	809	0.1-	0.1+	810316	413	0.3-	0.4-
731005	675	1.5+	0.9-	810307	809	0.1+	0.0	810316	413	2.2+	1.5-
731005	675	2.1+	1.6-	810307	809	0.0	0.1-	810329	413	1.1-	0.5+
810202	413	0.7-	0.9-	810307	809	0.2+	0.2-	810407	801	(5.5+ | 0.5+)
810213	413	0.4+	0.8-	810307	413	1.3-	0.1+	810407	413	1.9-	0.0
810302	809	0.2+	0.4-	810307	413	1.1+	0.6-	810407	413	1.5+	0.5-
810302	809	0.1-	0.0	810309	809	0.2-	0.7-	810408	413	1.3-	0.0
810302	809	0.2+	0.0	810309	809	0.4-	0.7-	810408	413	0.3+	0.2-
810302	413	1.7-	1.0+	810309	809	1.0-	1.8-	810411	413	1.2-	0.5+
810302	413	0.6+	1.3-	810310	809	0.7+	0.2+	810411	413	0.6+	0.7-
810303	809	0.6+	0.3-	810310	809	0.9+	0.5+	810502	413	0.4-	1.0-

1260 T-2 = 6387 P-L

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi

M	145.98469		(1950.0)	P	Q
n	0.22798240	Peri.	304.79047	-0.55680727	-0.83063852
a	2.6538019	Node	179.03583	+0.79980562	-0.53688394
e	0.1177319	Incl.	7.87466	+0.22422452	-0.14763225
P	4.32	H	14.5	G 0.25	

Residuals in seconds of arc

600924	675	1.1+	1.9-	730919	675	0.4+	2.1+	730925	675	0.3-	0.0
600924	675	0.2+	2.5-	730919	675	0.0	1.7-	730929	675	0.4+	0.1-
600926	675	0.4+	1.8+	730919	675	1.4-	3.1+	730929	675	0.9+	0.6-
600926	675	0.1-	0.5-	730920	675	0.1+	0.2+	730930	675	2.4-	0.2-
600927	675	0.2-	0.6+	730924	675	1.0+	1.0-	730930	675	0.4-	0.2-
600927	675	0.9+	1.1+	730924	675	0.2+	0.8+	731004	675	0.4-	0.2+
600928	675	1.4-	1.2+	730924	675	0.2+	0.8-	731004	675	1.8-	0.7+
600928	675	1.0-	0.2+	730924	675	0.3+	0.7+	731005	675	1.0+	0.2-
730919	675	0.1-	0.9-	730925	675	0.4+	2.3-	731005	675	1.8+	0.0

1262 T-2 = 2841 P-L

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi

M	79.15853		(1950.0)	P	Q
n	0.30238111	Peri.	229.63674	-0.54810482	+0.83633742
a	2.1983640	Node	7.15155	-0.73809814	-0.47745685
e	0.1596170	Incl.	5.06561	-0.39343646	-0.26939687
P	3.26	H	16.0	G 0.25	

Residuals in seconds of arc

600924	675	0.9+	0.2-	730919	675	2.9-	1.3+	730929	675	1.1-	2.1-
600924	675	0.3+	0.2-	730919	675	0.8+	0.2-	730929	675	1.6+	0.4-
600926	675	0.0	0.4-	730924	675	1.7+	0.8-	730930	675	1.4+	1.2+
600926	675	0.3+	0.3-	730924	675	0.3+	1.3-	730930	675	1.0+	0.6+
600928	675	0.5-	0.1-	730924	675	0.5+	1.1+	731004	675	1.8-	0.5+
600928	675	(4.4- | 0.2+)	730925	675	0.6-	0.9-	731004	675	1.0-	0.1-
600929	675	1.0-	1.1+	730925	675	0.0	1.5+	731005	675	0.0	0.3-

1269 T-2 = 1981 EP24
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano

M	324.90607		(1950.0)	P	Q
n	0.19530423	Peri.	167.69082	-0.22481455	-0.97428533
a	2.9421342	Node	295.29958	+0.89253401	-0.19970427
e	0.0079265	Incl.	0.95386	+0.39094942	-0.10433745
P	5.05	H	14.0	G 0.25	

Residuals in seconds of arc

730919 675	1.0+	0.0	731004 675	1.6+	1.1-	810311 413	1.1-	0.0
730919 675	0.8+	1.2-	731004 675	0.7+	0.6+	810315 413	1.6-	1.6+
730920 675	2.2-	0.2+	731005 675	1.4+	1.4-	810315 413	1.5+	0.4-
730924 675	1.9-	0.2+	731005 675	0.0	1.9-	810405 413	0.4+	0.2+
730924 675	0.6-	0.3-	810209 413	1.3+	1.3-	810405 413	2.3+	1.4-
730925 675	0.5+	0.6-	810213 413	2.1+	0.3+	810406 413	1.5+	0.2-
730925 675	1.5-	0.1-	810302 413	1.9-	0.3+	810406 413	1.1+	0.2-
730929 675	0.5+	1.1+	810302 413	0.6+	1.2-	810410 413	0.5-	0.8+
730929 675	1.0+	0.3-	810306 413	1.6-	0.4+	810501 413	0.5+	1.2-
730930 675	0.2-	0.9+	810306 413	1.0-	0.1+	810502 413	3.2-	0.8-
730930 675	0.3+	0.6+	810311 413	1.4-	0.5+	810503 413	0.4-	1.3-

1276 T-2 = 1977 VG = 1986 AS1
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi

M	10.25053		(1950.0)	P	Q
n	0.25894476	Peri.	51.70025	+0.10758240	-0.99384703
a	2.4377994	Node	32.15329	+0.89595774	+0.08543221
e	0.1519690	Incl.	2.83759	+0.43091271	+0.07049410
P	3.81	H	14.0	G 0.25	

Residuals in seconds of arc

730919 675	2.9-	0.9+	730924 675	0.7+	0.2+	730930 675	0.1-	0.1-
730919 675	0.3-	1.4-	730925 675	0.4+	1.0+	731004 675	0.4+	0.1+
730919 675	3.5-	1.4+	730925 675	1.2-	1.2-	731004 675	1.1+	2.3-
730919 675	0.5-	3.8+	730925 675	1.3-	1.0+	731004 675	0.8-	1.4-
730919 675	0.4-	1.4-	730925 675	0.7+	0.7+	731004 675	1.3+	1.3-
730920 675	3.2-	0.4+	730925 675	0.6-	0.5-	731005 675	0.5-	1.3-
730920 675	1.6+	1.6+	730929 675	0.8+	1.9-	731005 675	2.1+	1.2-
730920 675	1.0-	0.4-	730929 675	0.1+	0.5+	731005 675	0.3+	2.4-
730924 675	0.7-	0.9-	730929 675	0.7+	0.2-	731005 675	1.7+	1.1-
730924 675	1.2+	1.6+	730929 675	0.1-	1.2+	771111 805	0.9+	2.2+
730924 675	0.9+	0.5-	730930 675	0.3+	0.2-	771112 805	2.5-	0.7+
730924 675	1.3-	0.2-	730930 675	1.9+	0.6+	860112 688	2.1+	0.6-
730924 675	1.0+	2.2+	730930 675	0.1+	1.4-	860112 688	2.4-	0.4-

1304 T-2 = 1968 UG3 = 1979 YY4 = 1984 UT1
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi

M	347.59272		(1950.0)	P	Q
n	0.18364381	Peri.	142.56894	+0.98169448	-0.18994423
a	3.0653861	Node	228.38670	+0.16988159	+0.90656453
e	0.1403391	Incl.	1.07607	+0.08611733	+0.37691106
P	5.37	H	13.0	G 0.25	

Residuals in seconds of arc

681026 095	0.6-	2.4+	730924 675	1.1+	0.5+	731004 675	1.0+	0.9-
730919 675	1.6-	0.0	730925 675	0.9-	1.1-	731004 675	0.6+	0.3-
730919 675	0.6+	0.9+	730925 675	1.6+	1.7-	731005 675	0.2-	0.5-
730919 675	2.1-	0.1+	730925 675	1.0-	1.1+	731005 675	0.6-	1.4-
730919 675	0.3-	0.4+	730925 675	1.7+	0.4-	791218 095	0.3-	3.5+
730920 675	2.1-	1.4+	730929 675	0.8+	2.1+	841029 688	0.9+	3.1-
730924 675	0.3-	0.4-	730929 675	0.3+	0.3+	841029 688	0.2+	2.5-
730924 675	0.1-	0.3+	730930 675	1.1-	2.4+	841031 688	2.0+	1.6-
730924 675	0.4+	0.6-	730930 675	0.5+	2.5+	841031 688	0.2-	1.4-

1324 T-2 = 1972 GQ1
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano

M 229.04496		(1950.0)	P	Q
n 0.27151917	Peri.	248.43789	-0.04000674	+0.99879537
a 2.3619458	Node	19.33441	-0.88201785	-0.02193919
e 0.1287977	Incl.	4.92302	-0.46951461	-0.04389169
P 3.63	H 14.0	G 0.25		

Residuals in seconds of arc

720409	805	1.4- 0.4+	730925	675	0.8- 0.4-	730930	675	1.0+ 1.8+
720409	805	0.1+ 0.5-	730929	675	0.5- 0.6-	731004	675	2.3- 0.1+
720410	805	0.1- 0.9+	730929	675	1.0+ 2.4+	731004	675	0.3+ 1.3+
720410	805	1.3+ 0.9-	730929	675	1.2+ 2.9-	731004	675	0.9- 0.6-
730919	675	0.2- 0.2-	730929	675	0.9- 0.2-	731004	675	0.6+ 0.5-
730919	675	0.7- 0.8+	730929	675	1.1+ 2.2+	731005	675	1.0- 0.1-
730920	675	0.4- 0.8+	730929	675	0.2+ 2.5-	731005	675	0.1- 0.4+
730924	675	0.2- 0.5-	730930	675	0.6+ 1.3-	731005	675	0.3- 0.5-
730924	675	0.2- 0.4-	730930	675	1.3+ 1.4+	731005	675	0.1+ 0.5+
730925	675	0.0 0.5-	730930	675	1.3+ 0.5-			

1331 T-2 = 1978 WS8
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi

M 234.64056		(1950.0)	P	Q
n 0.22078235	Peri.	70.28186	+0.91770176	+0.39625854
a 2.7111891	Node	266.36518	-0.37427744	+0.83847791
e 0.0857462	Incl.	1.62673	-0.13319111	+0.37407750
P 4.46	H 15.0	G 0.25		

Residuals in seconds of arc

730919	675	0.5- 0.4+	730925	675	1.3- 0.5-	731004	675	0.2+ 0.3+
730919	675	0.8- 1.5+	730929	675	0.4+ 0.5+	731005	675	0.9- 0.1+
730920	675	0.7+ 1.6-	730929	675	0.1- 0.5+	731005	675	0.3+ 0.4-
730924	675	0.8+ 0.4-	730930	675	0.7- 0.7+	781129	675	0.2+ 0.2-
730924	675	1.3+ 0.8-	730930	675	0.4- 1.4+	781130	675	0.2- 0.2+
730925	675	0.0 0.1+	731004	675	0.9+ 1.9-			

1352 T-2 = 3088 T-3
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi

M 261.85489		(1950.0)	P	Q
n 0.25764360	Peri.	317.74137	-0.99317656	-0.11649116
a 2.4460002	Node	215.57009	+0.10935787	-0.91394668
e 0.1191547	Incl.	0.54059	+0.04051135	-0.38875607
P 3.83	H 14.0	G 0.25		

Residuals in seconds of arc

730919	675	0.1+ 0.9-	730929	675	0.1- 1.9+	731005	675	0.6- 0.3-
730919	675	0.6+ 0.3-	730930	675	1.4+ 0.2-	771012	675	0.7- 0.5+
730920	675	0.2+ 0.2+	730930	675	0.8- 0.1-	771012	675	0.9- 1.1+
730924	675	1.0- 1.1+	730930	675	0.8+ 0.4-	771016	675	1.0+ 1.7-
730924	675	2.0- 0.3-	730930	675	1.7+ 0.4-	771016	675	1.1+ 0.6-
730925	675	0.3- 2.0-	731004	675	0.3+ 0.9-	771017	675	0.5- 1.3+
730925	675	1.3+ 2.3-	731004	675	0.7+ 0.3-	771017	675	0.2- 0.4+
730929	675	0.5- 0.4+	731004	675	1.6- 0.6+	771021	675	0.5- 1.5+
730929	675	0.0 1.6+	731004	675	1.0+ 0.6+	771022	675	0.6+ 1.4-
730929	675	0.9- 1.7+	731005	675	0.2- 0.4+	771022	675	0.3+ 1.2-

1493 T-2 = 1981 EM21
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 246.83194 (1950.0) P Q
n 0.18307503 Peri. 57.85125 -0.56636756 -0.82376743
a 3.0717380 Node 66.66642 +0.74656249 -0.52575844
e 0.1848399 Incl. 1.57262 +0.34910204 -0.21209735
P 5.38 H 14.5 G 0.25
Residuals in seconds of arc

730924	675	1.0-	2.0-	731004	675	3.1+	0.4+	810311	413	2.1+	0.6-
730924	675	2.3-	1.0-	731005	675	0.0	0.2+	810316	413	1.3-	1.3+
730924	675	0.4+	1.2-	731005	675	0.4+	2.1+	810316	413	1.0+	0.2+
730925	675	1.5-	0.5-	731005	675	0.5+	0.2+	810329	413	0.9-	0.8+
730925	675	2.4-	0.3+	731005	675	2.4+	0.0	810329	413	2.3+	1.0-
730925	675	0.2-	0.5+	810202	413	0.0	0.1+	810407	413	1.7-	0.1-
730929	675	1.3-	1.9-	810213	413	0.5-	0.3-	810407	413	0.4+	1.1-
730929	675	0.3+	0.4-	810302	413	0.7-	0.7+	810408	413	1.7-	0.4+
730930	675	0.6+	1.0-	810302	413	1.0-	0.5-	810408	413	0.8+	0.0
730930	675	1.2+	0.5+	810303	413	1.0+	0.7-	810411	413	2.6-	0.0
731004	675	1.0-	1.8-	810303	413	0.5+	0.0	810411	413	0.1+	0.6-
731004	675	2.7+	2.5+	810307	413	0.0	0.4+	810426	413	0.7+	1.9-
731004	675	0.1-	0.9-	810311	413	0.4-	0.1+	810502	413	0.2-	1.2-

2040 T-2 = 1981 EM42
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 20.83022 (1950.0) P Q
n 0.19555136 Peri. 222.31625 +0.64208956 -0.76643709
a 2.9396549 Node 187.79092 +0.73291399 +0.62027004
e 0.0171915 Incl. 7.28139 +0.22485123 +0.16685104
P 5.04 H 15.0 G 0.25
Residuals in seconds of arc

730919	675	0.1+	1.2-	730930	675	0.3+	0.0	810306	413	0.2-	0.2+
730919	675	0.6+	0.6+	731004	675	0.1-	0.3+	810311	413	0.7+	0.3-
730920	675	1.6-	0.1-	731004	675	1.4+	1.1+	810311	413	3.2+	2.4-
730924	675	1.1-	1.3+	731005	675	0.3+	1.2-	810315	413	1.1+	1.3-
730924	675	1.8-	0.2+	731005	675	1.7+	0.8-	810405	413	2.2-	0.2-
730925	675	1.0-	1.5-	810212	413	0.4+	0.8-	810405	413	(4.5+	4.9-)
730925	675	0.7+	1.6-	810212	413	0.5+	0.4-	810501	413	0.6+	0.1+
730929	675	0.3+	0.7+	810302	413	0.7-	1.0+	810501	413	1.2-	0.2-
730929	675	0.1+	1.1+	810302	413	3.0-	3.0+				
730930	675	0.5+	0.0	810306	413	0.5+	0.1+				

2045 T-2 = 1976 GN1 = 1980 BF2 = 1986 RJ5
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 312.68310 (1950.0) P Q
n 0.22394031 Peri. 260.71559 -0.10808140 +0.99406892
a 2.6856458 Node 3.15571 -0.80423321 -0.08029855
e 0.1533806 Incl. 12.65227 -0.58440342 -0.07334250
P 4.40 H 13.0 G 0.25
Residuals in seconds of arc

730919	675	0.9+	0.7-	730929	675	0.1-	2.0+	731005	675	0.5-	0.8-
730919	675	0.6+	0.5-	730929	675	0.9-	2.0+	731005	675	1.4+	1.6-
730920	675	1.1-	0.0	730930	675	0.1+	0.2-	731005	675	1.1+	2.2-
730924	675	0.8-	0.8+	730930	675	0.3+	0.6+	760401	095	2.0+	3.5+
730924	675	0.4-	1.3+	731004	675	0.6-	0.1-	800123	095	2.0+	2.8+
730925	675	0.8+	1.4-	731004	675	0.8-	1.3+	860904	809	0.5-	1.1+
730925	675	0.8+	0.5-	731005	675	0.2+	1.2-	860904	809	0.4-	1.1+

860904 809 0.2- 1.1+ 860908 809 1.1- 0.4+ 860909 809 0.9+ 0.5+
860907 809 0.6- 0.4- 860908 809 1.3- 0.5+ 860909 809 1.0+ 0.6+
860907 809 0.9- 0.1- 860908 809 1.3- 0.5+
860907 809 1.0- 0.3+ 860909 809 0.9+ 0.6+

2092 T-2 = 6385 P-L
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi
M 111.08084 (1950.0) P Q
n 0.22885663 Peri. 337.86723 -0.93188743 -0.36274489
a 2.6470393 Node 180.86760 +0.34512179 -0.88541205
e 0.1018439 Incl. 5.30600 +0.11169945 -0.29062286
P 4.31 H 14.0 G 0.25
Residuals in seconds of arc
600924 675 0.3+ 1.2- 730924 675 0.6- 0.6- 730930 675 1.5+ 1.9+
600924 675 1.6- 1.9- 730924 675 0.2- 0.2+ 731004 675 0.9+ 1.6-
600926 675 0.5- 1.3+ 730925 675 0.0 1.1- 731004 675 3.5- 2.8+
600926 675 0.9- 0.9+ 730925 675 0.0 2.2- 731004 675 2.2+ 2.4-
600927 675 0.8+ 0.5+ 730929 675 0.2- 0.3+ 731004 675 1.4- 2.3+
600927 675 2.2+ 1.5+ 730929 675 0.9+ 0.9- 731005 675 2.4+ 1.1-
600928 675 0.1- 0.4- 730929 675 0.4- 1.1+ 731005 675 0.7- 0.1+
600928 675 0.1- 0.7- 730929 675 0.9+ 0.6- 731005 675 0.5+ 0.3-
730919 675 0.6- 0.4- 730930 675 0.7+ 1.8- 731005 675 2.2- 0.4-
730919 675 0.5+ 0.1+ 730930 675 0.6- 2.9+
730920 675 0.4- 2.4+ 730930 675 0.4+ 0.7-

2137 T-2 = 1979 MO1 = 1979 OX
Id. S. Nakano (d, MPC 11142; unpublished)
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 56.34611 (1950.0) P Q
n 0.31285841 Peri. 118.70824 +0.88697309 +0.46159670
a 2.1490096 Node 213.80735 -0.43220845 +0.81871381
e 0.1135048 Incl. 1.48250 -0.16271013 +0.34152040
P 3.15 H 16.5 G 0.25
Residuals in seconds of arc
730919 675 1.7+ 1.8+ 730929 675 0.2+ 1.8+ 731005 675 0.1+ 0.9-
730919 675 0.2+ 0.8- 730929 675 0.2+ 0.9+ 790623 413 0.2+ 0.0
730920 675 0.3- 0.9- 730930 675 0.5+ 0.3- 790624 413 1.5+ 0.3+
730924 675 2.0- 0.7+ 730930 675 1.2+ 0.4+ 790625 413 1.7- 0.4-
730924 675 2.4- 0.9+ 731004 675 0.5+ 1.2- 790724 675 1.3- 0.3-
730925 675 0.4+ 0.3- 731004 675 0.7+ 0.7- 790724 413 0.2+ 0.1-
730925 675 0.0 0.5- 731005 675 1.0- 1.0- 790725 675 1.2+ 0.2+

2151 T-2 = 1978 NH6
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi
M 332.60701 (1950.0) P Q
n 0.18318890 Peri. 40.34951 +0.84395279 -0.53633569
a 3.0704589 Node 352.06856 +0.47299037 +0.75228445
e 0.3327061 Incl. 3.89184 +0.25302923 +0.38263839
P 5.38 H 14.0 G 0.25
Residuals in seconds of arc
730919 675 1.0+ 0.2+ 730925 675 0.5+ 0.3- 731004 675 0.1- 0.4+
730919 675 2.1+ 0.8+ 730929 675 0.8+ 1.7+ 731005 675 0.6- 0.5-
730920 675 0.1+ 0.8- 730929 675 1.0+ 3.1+ 731005 675 0.7+ 0.1+
730924 675 1.1- 0.1+ 730930 675 1.6+ 0.4- 780710 675 (6.9- 0.1+)Y
730924 675 2.4- 0.1- 730930 675 0.5+ 0.2- 780711 675 0.2+ 1.4- Y
730925 675 0.4+ 1.2- 731004 675 0.8+ 0.3- 780713 675 0.1+ 1.5+ Y

2168 T-2 = 1978 SS
Id. T. Kobayashi, D. W. E. Green
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi

M	49.77348	(1950.0)		P	Q
n	0.19566964	Peri.	187.35425	+0.90583247	-0.42354676
a	2.9384643	Node	197.71227	+0.39010122	+0.84195870
e	0.1189756	Incl.	1.63856	+0.16519255	+0.33423598
P	5.04	H	14.0	G 0.25	

Residuals in seconds of arc

730919	675	0.0	0.2-	730929	675	0.4+	1.1+	731005	675	1.5+	0.7+
730919	675	1.3+	0.2+	730929	675	0.7+	1.3+	780926	801	0.2+	0.3-
730920	675	0.7-	1.9-	730930	675	0.1-	0.0	780927	801	0.5-	0.9-
730924	675	2.8-	0.2+	730930	675	0.2+	0.1-	780928	801	0.3-	0.4+
730924	675	3.1-	1.2+	731004	675	0.2-	0.7+	781003	801	0.1-	2.0+
730925	675	0.9+	1.3-	731004	675	0.8+	0.7-				
730925	675	1.1+	1.7-	731005	675	0.1-	0.9-				

2304 T-2 = 1981 EE24
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano

M	319.97552	(1950.0)		P	Q
n	0.18756745	Peri.	27.87601	+0.32436207	-0.94538570
a	3.0224927	Node	43.21848	+0.85885941	+0.28008016
e	0.0839038	Incl.	2.69293	+0.39642120	+0.16673624
P	5.25	H	15.0	G 0.25	

Residuals in seconds of arc

730929	675	0.1-	0.9-	731005	675	0.2+	0.1+	810316	413	0.7+	0.5+
730929	675	0.6-	1.0-	731005	675	2.2-	2.4+	810329	413	1.1-	0.5-
730930	675	1.2+	1.9-	810202	413	1.5-	0.2+	810329	413	2.9+	1.0-
730930	675	0.6+	2.5-	810213	413	0.2+	0.6-	810408	413	1.3-	0.4+
731004	675	1.1+	0.6-	810307	413	2.1+	0.6-	810408	413	0.2-	0.7-
731004	675	0.6+	0.5-	810307	413	0.2-	0.8+	810426	413	0.3-	1.1-
731005	675	1.1+	0.4+	810311	413	0.9-	1.0+	810502	413	0.1-	0.8-
731005	675	1.3-	2.9+	810311	413	1.2-	0.7+				

3020 T-2 = 1978 SG7
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano

M	107.08582	(1950.0)		P	Q
n	0.20072344	Peri.	334.78613	+0.93658908	+0.34981122
a	2.8889378	Node	4.88100	-0.26550816	+0.74712293
e	0.2187620	Incl.	14.15587	-0.22870574	+0.56518973
P	4.91	H	13.5	G 0.25	

Residuals in seconds of arc

730919	675	0.5+	1.2+	730929	675	0.5+	0.9-	731005	675	1.0-	0.4+
730919	675	2.0-	0.7+	730930	675	0.7-	0.7+	731005	675	0.4+	1.4+
730920	675	0.5+	0.2+	730930	675	1.5-	0.3-	731005	675	0.4+	0.5+
730924	675	1.1-	0.8-	731004	675	0.5+	1.0-	780926	095	0.4-	0.5+
730924	675	0.7+	0.4-	731004	675	0.4+	0.0	781002	095	1.3+	0.2-
730925	675	0.8+	1.2-	731004	675	1.0+	0.4-	781008	095	1.0-	0.1-
730925	675	0.4+	1.2-	731004	675	0.8+	0.1+				
730929	675	0.1-	0.3+	731005	675	0.3-	0.4+				

3088 T-2 = 1978 WY2
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi

M	200.15461	(1950.0)		P	Q
n	0.21892854	Peri.	295.07148	+0.99868368	+0.00603247
a	2.7264726	Node	64.61777	+0.01590929	+0.90765286
e	0.1170458	Incl.	3.23198	-0.04876269	+0.41967831
P	4.50	H	16.0	G 0.25	

Residuals in seconds of arc

730919	675	0.8+	2.7+		730925	675	0.0	1.2-		730930	675	1.5-	1.1-
730919	675	0.1-	0.9+		730925	675	0.4+	1.9-		731005	675	0.5+	0.1-
730920	675	0.4+	0.2-		730929	675	0.5-	0.0		731005	675	1.6+	0.0
730924	675	0.6-	0.4-		730929	675	0.3+	2.1+		781129	675	0.2+	0.2-
730924	675	2.1-	0.8-		730930	675	0.7+	0.0		781130	675	0.2-	0.3+

3129 T-2 = 1988 NB = 5028 T-3

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)		Nakano	
M	116.16446	(1950.0)		P	Q
n	0.25526388	Peri.	105.13559	+0.03382451	+0.99774196
a	2.4611835	Node	166.40040	-0.98526632	+0.04302792
e	0.2377797	Incl.	14.28657	-0.16764899	-0.05157102
P	3.86	H	13.5	G 0.25	

Residuals in seconds of arc

730919	675	0.5+	0.0		730929	675	1.0-	1.1+		771016	675	1.0-	0.5-
730919	675	0.9-	1.5-		730930	675	0.5-	1.1+		771017	675	1.5-	0.0
730920	675	0.2+	0.2-		730930	675	0.3+	1.6+		771017	675	0.9-	0.5-
730924	675	1.3-	0.1+		771011	675	1.0-	0.1+		771021	675	1.0+	0.9+
730924	675	0.8-	1.0-		771011	675	0.1+	0.4+		771021	675	1.4+	1.2+
730925	675	2.0+	0.6-		771012	675	0.8+	1.6-		771022	675	1.3+	0.1+
730925	675	2.4+	1.1-		771012	675	0.7+	1.3-		880712	675	0.1+	0.3+
730929	675	1.0-	1.2+		771016	675	0.6-	0.6+		880714	675	0.2-	0.3-

3212 T-2 = 4385 T-3

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5				Kobayashi	
M	21.57137	(1950.0)		P	Q
n	0.25321676	Peri.	221.91592	+0.87300491	-0.48704740
a	2.4744257	Node	167.15948	+0.47233757	+0.83134033
e	0.1481377	Incl.	6.57349	+0.12148926	+0.26769030
P	3.89	H	15.5	G 0.25	

Residuals in seconds of arc

730919	675	0.6-	2.0+		730925	675	1.5+	1.9-		771016	675	0.3-	0.4+
730919	675	0.9+	1.7+		730929	675	0.2-	0.8-		771016	675	0.5-	1.4+
730919	675	0.4-	1.2+		730929	675	0.8-	1.2-		771017	675	1.0+	1.2-
730919	675	1.1+	1.9+		730930	675	0.5-	0.6-		771017	675	0.1+	0.8-
730920	675	0.2-	1.7+		730930	675	0.8-	1.1-		771021	675	0.2-	1.8-
730920	675	2.1+	0.1+		731004	675	0.3+	1.1-		771021	675	0.3-	0.7-
730924	675	0.1+	0.4+		731004	675	0.2+	1.6-		771022	675	0.7-	2.1+
730924	675	0.2-	0.7+		731005	675	1.3-	1.2-		771022	675	0.6+	2.0+
730925	675	0.6+	0.4-		731005	675	1.2-	1.2-					

3233 T-2 = A923 VD = 1929 XU = 1978 PP1 = 1981 ET48 = 1987 EY

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5				Kobayashi	
M	239.39370	(1950.0)		P	Q
n	0.17631283	Peri.	312.22897	+0.09170715	-0.99238722
a	3.1497792	Node	132.31390	+0.94319559	+0.06009464
e	0.1168626	Incl.	6.38252	+0.31933037	+0.10749996
P	5.59	H	11.0	G 0.25	

Residuals in seconds of arc

231109	754	3.9-	2.7- Y		730925	675	0.9+	0.8-		731005	675	0.9-	2.2+
231111	754	4.0-	2.2- Y		730925	675	1.0+	1.4-		731005	675	0.4+	1.8+
291204	690	9.7+	2.0- Y		730929	675	2.0-	2.5+		780808	095	4.8+	0.4-
730919	675	2.1+	0.0		730929	675	1.9-	1.4+		810308	095	2.6-	5.2+
730919	675	1.2+	0.2+		730930	675	0.3-	1.4+		870304	688	0.7+	0.5+
730920	675	3.9+	2.0-		730930	675	1.3-	0.3+		870304	688	0.7+	1.7+
730924	675	0.7-	1.1+		731004	675	0.6+	2.2+					
730924	675	1.5-	1.0+		731004	675	1.1+	1.4+					

3262 T-2 = 1934 NG = 1979 FA
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 238.87073 (1950.0) P Q
n 0.28019002 Peri. 252.48194 +0.42478657 +0.90439556
a 2.3129619 Node 42.72758 -0.80637905 +0.39823731
e 0.2652526 Incl. 3.40606 -0.41147199 +0.15321788
P 3.52 H 14.0 G 0.25
Residuals in seconds of arc (or two decimals in units of degrees)

340704	078(0.03+	0.00-)X	730925	675	0.5-	0.1-	730930 675	0.4- 1.5-
340712	078(47.7+	2.9-)X	730925	675	0.7-	0.4+	731004 675	1.2+ 0.3+
730919	675	0.9+ 0.1-	730925	675	1.0-	0.1+	731004 675	0.9+ 0.0
730919	675	0.1- 0.9-	730925	675	0.1-	1.0+	731005 675	0.0 0.6+
730920	675	0.3+ 0.3-	730929	675	0.2-	1.1-	731005 675	0.4+ 0.6+
730924	675	1.4+ 1.2+	730929	675	0.9-	0.2+	790322 801	0.0 0.1+
730924	675	0.3- 1.8+	730930	675	1.0-	2.3-		

3282 T-2 = 3082 T-3
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi
M 114.80812 (1950.0) P Q
n 0.25528322 Peri. 260.31456 +0.40804602 +0.91136380
a 2.4610543 Node 33.92958 -0.79507084 +0.38379774
e 0.0709858 Incl. 5.55024 -0.44873243 +0.14871220
P 3.86 H 15.5 G 0.25
Residuals in seconds of arc

730919	675	0.5- 1.0+	730929	675	0.7+	2.2-	731005 675	0.5+ 1.0-
730919	675	1.0- 1.6-	730930	675	0.4-	1.0-	771016 675	0.7+ 0.4+
730920	675	0.1- 0.2+	730930	675	0.3-	0.5+	771016 675	0.7+ 0.3-
730924	675	0.0 0.8+	730930	675	0.8+	2.3-	771017 675	0.7- 1.4+
730924	675	0.5+ 1.1+	730930	675	0.6-	0.2+	771017 675	0.5- 1.7+
730925	675	0.2- 0.1+	731004	675	1.0+	0.2+	771021 675	0.2+ 0.6-
730925	675	0.8+ 1.2+	731004	675	1.0-	2.4+	771021 675	0.4- 0.1-
730929	675	1.2- 0.1-	731004	675	0.1-	0.4-	771022 675	0.5- 1.3-
730929	675	1.0+ 1.1-	731004	675	0.5+	3.0+	771022 675	0.5+ 1.0-
730929	675	1.4- 1.0-	731005	675	1.0+	0.2-		

4068 T-2 = 1978 WR6
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Green
M 150.20397 (1950.0) P Q
n 0.22030701 Peri. 17.96393 +0.35202555 -0.93467768
a 2.7150929 Node 51.45448 +0.85074988 +0.29744320
e 0.0660054 Incl. 3.63268 +0.39025972 +0.19469253
P 4.47 H 15.5 G 0.25
Residuals in seconds of arc

730919	675	0.1- 1.2-	730925	675	2.8+	0.2+	731004 675	1.0- 0.7+
730919	675	0.7+ 0.3-	730929	675	0.3-	1.4+	731005 675	0.2+ 0.2-
730920	675	1.1- 0.3-	730929	675	0.9-	0.8-	731005 675	1.1- 0.6-
730924	675	1.1+ 0.1-	730930	675	1.3+	0.3-	781129 675	0.1+ 0.4+
730924	675	0.3+ 1.5+	730930	675	0.7-	0.0	781130 675	0.0 0.5-
730925	675 (4.1+	1.6-)	731004	675	1.2-	0.1+		

4129 T-2 = 1986 GR = 1989 CL4
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 335.88199 (1950.0) P Q
n 0.28248048 Peri. 199.41707 -0.66175427 +0.74841581
a 2.3004420 Node 29.20012 -0.67527774 -0.56938709
e 0.1442913 Incl. 5.19998 -0.32570118 -0.34010603
P 3.49 H 15.0 G 0.25

Residuals in seconds of arc

730919 675	2.2+	0.4+	730929 675	1.5+	1.8-	731005 675	0.4-	0.6-
730919 675	1.5+	1.0+	730929 675	1.1+	2.7-	860409 688	0.3+	0.3-
730920 675	0.9-	1.1+	730930 675	1.1+	0.6-	860409 688	0.7-	0.5-
730924 675	2.6-	1.1+	730930 675	1.4+	0.6-	890201 033	1.2+	0.4-
730924 675	1.4-	0.5+	731004 675	0.9-	0.3+	890202 033	2.4-	0.4-
730925 675	1.7-	0.0	731004 675	0.0	0.9+	890202 033	1.2+	0.7+
730925 675	0.6-	0.8+	731005 675	0.2+	0.9-			

4239 T-2 = 1983 RO8 = 1989 GH5

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano

M	1.47665		(1950.0)	P	Q
n	0.29126082	Peri.	215.39195	-0.27049081	+0.96152941
a	2.2539738	Node	38.97756	-0.86475541	-0.22078968
e	0.1228489	Incl.	4.36878	-0.42312268	-0.16344148
P	3.38	H	13.5	G 0.25	

Residuals in seconds of arc

730919 675	3.6+	1.4-	730930 675	1.2+	0.1-	890330 400	1.0+	1.2-
730919 675	3.3+	1.0-	730930 675	1.5+	1.2-	890406 675	1.8-	2.4-
730920 675	0.6+	0.4-	731004 675	1.3-	0.8-	890406 675	0.6-	1.0-
730924 675	0.3-	1.4+	731004 675	0.7-	0.3-	890408 675(35.3+		57.3-)
730924 675	0.5-	0.9+	731005 675	1.0-	1.2-	890429 675	0.6+	1.2-
730925 675	1.0-	0.5+	731005 675	1.3-	1.0-	890429 675	0.1-	1.9-
730925 675	0.1+	0.0	830911 095	1.8-	3.9+	890501 675	1.2+	0.7-
730929 675	0.8+	3.2-	890330 400	2.4-	1.7+	890501 675	0.9+	2.5-
730929 675	0.9+	3.4-	890330 400	2.1-	1.8+			

4240 T-2 = 1988 WD

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Green

M	99.50054		(1950.0)	P	Q
n	0.26794474	Peri.	318.79323	+0.72154453	-0.68972748
a	2.3829051	Node	84.92457	+0.65004251	+0.64481276
e	0.1887098	Incl.	3.47706	+0.23836573	+0.32938201
P	3.68	H	15.5	G 0.25	

Residuals in seconds of arc

730919 675	1.7+	0.9-	730929 675	0.9+	1.4-	881130 399(15.1+		0.1-)
730919 675	0.8+	2.1-	730930 675	1.1-	0.1-	881202 399	0.3-	1.6-
730920 675	1.2-	0.1-	730930 675	1.9-	0.1+	881202 399	1.0+	0.6+
730924 675	0.3-	2.3+	731004 675	0.0	0.3-	881207 399	0.6+	0.6+
730924 675	1.6-	1.2+	731004 675	0.4-	0.1+	881207 399	1.9-	0.1+
730925 675	0.1+	0.1-	731005 675	0.6+	0.2-	881207 399	0.5+	1.5+
730925 675	0.5-	0.1+	731005 675	1.3-	0.9+	881207 399	1.3-	1.4+
730929 675	1.3+	1.3-	881130 399(14.6+		0.7-)			

4254 T-2 = 1988 VJ5

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 Kobayashi

M	134.66931		(1950.0)	P	Q
n	0.26564342	Peri.	262.34441	+0.86547516	+0.49800568
a	2.3966430	Node	67.77345	-0.43338220	+0.79865136
e	0.2356596	Incl.	3.35973	-0.25126204	+0.33785550
P	3.71	H	14.0	G 0.25	

Residuals in seconds of arc

730919 675	0.7+	0.7-	730925 675	0.1-	1.0+	731004 675	1.6+	0.7-
730919 675	1.1+	0.7+	730929 675	1.2-	0.1+	731005 675	0.3-	0.3-
730920 675	1.0-	0.1-	730929 675	0.1+	0.5-	731005 675	0.5-	0.1-
730924 675	1.3-	0.7-	730930 675	0.4-	0.9+	881104 046	0.9+	0.9+
730924 675	0.2-	0.1-	730930 675	0.2+	0.8+	881104 046	2.4+	2.3+
730925 675	0.3+	0.3-	731004 675	1.0+	0.4-	881105 046	2.8-	0.1-

881105 046 1.9- 1.6+ 881110 046 0.2- 2.0+ 881110 046 1.2- 1.4+
881105 046 0.7- 1.9- 881110 046 1.6+ 2.7- 881111 046 0.5- 1.3+
881105 046 0.4+ 1.9- 881110 046 1.9+ 2.7- 881111 046 (0.3+ 5.2+)

5027 T-2 = 1988 BE5
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 148.86747 (1950.0) P Q
n 0.23176598 Peri. 281.06852 -0.76848945 -0.62513038
a 2.6248458 Node 220.44416 +0.63778742 -0.73119301
e 0.1335904 Incl. 12.14812 +0.05148955 -0.27307288
P 4.25 H 13.5 G 0.25
Residuals in seconds of arc
730919 675 (4.5+ 2.0+) 730925 675 0.2- 0.3- 880223 413 0.6- 0.7+
730920 675 0.3- 0.2- 730925 675 0.2- 1.3- 880312 413 0.5+ 0.4-
730920 675 0.2+ 0.7+ 880128 413 0.5- 0.3- 880312 413 0.2+ 0.3-
730924 675 0.8+ 0.8+ 880128 413 0.5+ 0.1+
730924 675 0.3- 0.3+ 880223 413 0.1- 0.2+

5069 T-2 = 1978 VQ10
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 142.15165 (1950.0) P Q
n 0.21305127 Peri. 162.73176 +0.75491397 -0.64696626
a 2.7763923 Node 238.07305 +0.58573983 +0.73880847
e 0.2219783 Incl. 7.27140 +0.29498095 +0.18867088
P 4.63 H 14.0 G 0.25
Residuals in seconds of arc
730919 675 2.8+ 2.9+ 730929 675 0.4- 0.3+ 731005 675 0.2+ 1.9-
730920 675 1.1- 0.5+ 730929 675 0.5+ 0.1- 781105 675 0.0 0.3+
730920 675 1.0+ 0.4+ 730930 675 1.4- 0.5- 781106 675 0.3+ 0.3-
730924 675 1.1- 1.6+ 730930 675 0.6- 0.6- 781107 675 0.3- 1.2+
730924 675 0.3- 2.1+ 731004 675 0.6- 1.6- 781108 675 0.2+ 0.0
730925 675 0.4+ 0.4+ 731004 675 0.5- 3.5- 781129 675 0.5- 0.7-
730925 675 0.5+ 0.7+ 731005 675 1.1+ 0.8- 781130 675 0.3+ 0.1+

5104 T-2 = 1981 EN32
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 337.76228 (1950.0) P Q
n 0.19414368 Peri. 193.40946 +0.07439628 -0.98905975
a 2.9538476 Node 252.43789 +0.92678114 +0.11573205
e 0.0159812 Incl. 7.67818 +0.36816018 -0.09147082
P 5.08 H 15.0 G 0.25
Residuals in seconds of arc
730920 675 0.3+ 1.0- 730930 675 1.2+ 0.9- 810307 413 0.6- 0.2+
730920 675 1.0+ 0.8- 730930 675 0.9- 0.1- 810310 413 0.8- 3.0+
730924 675 3.0- 2.2+ 731004 675 0.1- 1.3- 810310 413 1.3+ 1.8+
730924 675 0.6- 2.0+ 731004 675 0.4+ 0.1- 810312 413 1.3+ 0.4-
730925 675 1.5+ 0.1- 731005 675 0.2- 1.0- 810409 413 0.1+ 1.0-
730925 675 0.5- 0.1- 731005 675 1.2- 0.5- 810409 413 0.5+ 0.2-
730929 675 2.3+ 1.0+ 810202 413 2.9- 0.6- 810429 413 0.0 1.1-
730929 675 0.2- 0.2+ 810214 413 1.3+ 1.8- 810503 413 0.7- 0.7-

5141 T-2 = 1978 QK3
Epoch 1989 Oct. 1.0 ET = JDE 2447800.5 (J-P) Nakano
M 62.34469 (1950.0) P Q
n 0.18835473 Peri. 18.19410 +0.75197214 +0.64372329
a 3.0140646 Node 300.88939 -0.62346384 +0.62457147
e 0.0924171 Incl. 9.52318 -0.21408114 +0.44218865
P 5.23 H 12.5 G 0.25

Residuals in seconds of arc

730919	675	(5.2+	0.6+)	730929	675	2.3-	1.3+	731005 675 0.9+ 0.6-
730920	675	0.0	0.9+	730929	675	2.3-	0.2+	780824 414 0.3- 0.2-
730920	675	1.0+	0.2+	730930	675	0.8+	0.1+	780824 414 0.5- 0.1-
730924	675	0.2-	1.1-	730930	675	0.4+	0.9+	780826 414 0.1+ 0.0
730924	675	0.7+	0.3-	731004	675	0.9+	0.4+	780826 414 0.7+ 0.3+
730925	675	0.8-	0.0	731004	675	0.3+	0.6+	
730925	675	0.4+	1.7-	731005	675	0.1+	0.8-	

5332 T-2 = 1981 ES6

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5		(J-P)		Nakano	
M 313.45529		(1950.0)		P	Q
n 0.19229592	Peri.	223.90087		-0.20663383	-0.96704376
a 2.9727396	Node	238.55550		+0.93886341	-0.15318199
e 0.0600949	Incl.	10.04163		+0.27538693	-0.20337561
P 5.13	H	14.5	G	0.25	

Residuals in seconds of arc

730929	675	0.3-	1.0+	810209	413	0.0	1.4+	810409 413 0.6- 1.6+
730929	675	0.7-	0.4+	810306	413	0.4-	1.1-	810409 413 1.9+ 0.2-
730930	675	0.2-	1.3+	810308	413	0.7-	0.3+	810501 413 0.5+ 1.5-
730930	675	0.0	0.5+	810308	413	0.6+	0.6-	810503 413 0.5- 0.7+
731005	675	0.5+	1.6-	810312	413	0.8-	0.5-	
731005	675	0.8+	1.7-	810312	413	(5.6+	2.8-)	

1076 T-3 = 1989 EB5

Epoch 1989 Oct. 1.0 ET = JDE 2447800.5				Kobayashi	
M 199.50413		(1950.0)		P	Q
n 0.29138159	Peri.	62.54318		+0.97789764	-0.18816122
a 2.2533465	Node	308.15970		+0.12605386	+0.87844301
e 0.1812840	Incl.	6.65822		+0.16681314	+0.43924165
P 3.38	H	14.0	G	0.25	

Residuals in seconds of arc

771007	675	0.7-	1.2-	771016	675	0.5+	1.3-	771022 675 1.4- 0.1-
771011	675	0.2+	0.3+	771016	675	0.5-	1.2-	890302 413 0.9- 0.5-
771011	675	1.2+	0.1+	771017	675	1.5+	1.2+	890302 413 0.2- 0.0
771012	675	0.7-	0.8+	771017	675	0.4+	1.2+	890304 413 1.1+ 0.6+
771012	675	0.9-	1.1+	771022	675	0.1+	0.9-	

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NEW NAMES OF MINOR PLANETS.

(2789) Foshan = 1956 XA

Discovered 1956 Dec. 6 at the Purple Mountain Observatory.

Named for a famous city in the Guangdong province in southern China with a long history and flourishing industry. With its favorable geographical conditions, fertile land and developed commodity economy, and well known for its industry of textiles, electronics, pottery and porcelain, casting, etc., Foshan is a bright pearl of the Pearl River delta.

(3024) Hainan = 1981 UW9

Discovered 1981 Oct. 23 at the Purple Mountain Observatory.

Named for a newly established province in southern China. Hainan Island, under its jurisdiction, has rich developing resources of tropical plants and animals, sea aquatic products, petrochemical and metallurgical industry, rare-earth metals, etc. With its bright and colorful scene, Hainan Island, acclaimed as "Eastern Hawaii", is a tourist resort and a bright pearl in the vast South China Sea.

(3048) Guangzhou = 1964 TH1

Discovered 1964 Oct. 8 at the Purple Mountain Observatory.

Named for the largest open city in southern China and the capital of Guangdong province. The provincial center of culture, finance and technology, and located in the inner part of the Pearl River delta, Guangzhou is celebrated as the city of Flowers, Rams and the Ear of Grain, and it has a sound foundation in industry and commerce and a long history of trade relations with foreign countries.

(3145) Walter Adams = 1955 RY

Discovered 1955 Sept. 14 at the Goethe Link Observatory, Indiana University.

Named in memory of Walter S. Adams (1876-1956), whose spectroscopic studies of sunspots and stars led to the discovery, with A. Kohlschutter, of a spectroscopic method for determining stellar distances, the relative intensities of spectral lines being used to determine absolute magnitudes of both giant and main-sequence stars. Adams identified Sirius B as the first white-dwarf star known, and his measurement of its gravitational redshift was taken as confirming evidence for the general theory of relativity. He served as director of the Mount Wilson Observatory from 1923 to 1946. Name proposed by F. K. Edmondson. Citation prepared by J. Tenn.

(3167) Babcock = 1955 RS

Discovered 1955 Sept. 13 at the Goethe Link Observatory, Indiana University.

Named in memory of Harold D. Babcock (1882-1968) and in honor of his son Horace W. Babcock, astronomers at Mount Wilson Observatory, the latter also serving as director of Palomar Observatory. The elder Babcock's precise laboratory studies of atomic spectra allowed others to identify the first "forbidden" lines in the laboratory and to discover the rare isotopes of oxygen. With C. E. St. John and others, he extended Rowland's tables of the solar spectrum into the ultraviolet and infrared. The Babcocks ruled excellent large gratings, including those used in the coude spectrographs of the 2.5-m and 5-m telescopes, and they measured the distribution of magnetic fields over the solar surface to unprecedented precision. The younger Babcock invented and built many astronomical instruments, including the solar magnetograph, microphotometers and automatic guiders. By combining his polarizing analyzer with the spectrograph he discovered magnetic fields in other stars, and he developed important models of sunspots and their magnetism. Name proposed by F. K. Edmondson. Citation prepared by J. Tenn.

(3180) Morgan = 1962 RO

Discovered 1962 Sept. 7 at the Goethe Link Observatory, Indiana University.

Named in honor of William W. Morgan, whose career at the Yerkes Observatory since 1926 has been devoted to morphology, the classification of objects by their form and structure. He and P. Keenan introduced stellar-luminosity classes and the two-dimensional classification of stellar spectra strictly on the basis of the spectra themselves. With D. Osterbrock and S. Sharpless he discovered spiral arms in the Galaxy from spectral studies of O and B stars. Morgan invented the UBV system of magnitudes and colors, and with N. Mayall he developed a spectral classification system for giant galaxies. Name proposed by F. K. Edmondson. Citation prepared by J. Tenn.

(3796) Lene = 1986 XJ

Discovered 1986 Dec. 6 by K. Augustesen and P. Jensen at Brorfelde.

Named in honor of Lene Augustesen, daughter of the first discoverer.

(3864) Soren = 1986 XF
Discovered 1986 Dec. 6 by K. Augustesen and P. Jensen at Brorfelde.
Named in honor of Soren Augustesen, son of the first discoverer.

(3869) Norton = 1981 JE
Discovered 1981 May 3 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.
Named in memory of Arthur P. Norton (1876-1955), author of Norton's Star Atlas, the most widely used publication of its type. Born in Cardiff, Wales, Norton was a geography teacher with a lifelong interest in astronomy. The first edition of his atlas, published in 1910, achieved immediate success, largely due to the use of a low-distortion projection of Norton's devising. For the 1933 edition, Norton redrew the maps to incorporate new IAU constellation boundaries, and he extended the magnitude limit to 6.2. Many of today's astronomers, amateur and professional, use the version first published in 1943, which has maps of epoch 1950.0 and limiting magnitude 6.35. The naming of this planet also celebrates the publication of the epoch 2000.0 edition of the atlas, the first edition not drawn by Norton. Name suggested and citation provided by I. Ridpath, editor of the new atlas.

(3914) Kotogahama = 1987 SE
Discovered 1987 Sept. 16 by T. Seki at Geisei.
Named for the beautiful coast situated 2 km south of the Geisei station on the Pacific shore of Shikoku island. There are many pine trees on this coast, and there is a famous place where their leaves play the sound of the Japanese harp Koto in the breeze.

(3946) Shor = 1983 EL2
Discovered 1983 Mar. 5 by L. G. Karachkina at the Crimean Astrophysical Observatory.
Named in honor of Viktor Abramovich Shor, member of the staff of the Institute for Theoretical Astronomy in Leningrad, on the occasion of his sixtieth birthday, 1989 Sept. 29. Best known for his extensive work in connection with editing and compiling the annual volume of "Ephemerides of Minor Planets", he has also carried out significant research on a theory of the motion of the satellites of Mars.

(3994) Ayashi = 1988 XF
Discovered 1988 Dec. 2 by M. Koishikawa at the Ayashi Station of the Sendai Astronomical Observatory.
Named for the western part of the city of Sendai. The observing station at which this discovery was made was set up there in 1975 in the graveyard of the Buddhist temple An-yo-ji.

(4038) Kristina = 1987 QH2
Discovered 1987 Aug. 21 by E. W. Elst at the European Southern Observatory.
Named in honor of Kristina Leterme, professor of French and Russian literature, life partner to the discoverer, for her encouragement and love.

(4060) Deipylos = 1987 YT1
Discovered 1987 Dec. 17 by E. W. Elst at the European Southern Observatory.
Named for the Greek hero ordered by Sthenelos to bring the horses captured from Aeneas to the Greek vessels.

(4062) Schiaparelli = 1989 BF
Discovered 1989 Jan. 28 at the Osservatorio San Vittore.

Named in Giovanni Virgilio Schiaparelli (1835-1910), discoverer of the connection between comets and meteor streams. A great observer of Mars, he discovered the famous 'canali' and drew some fine maps. He made measurements of doubles stars and of the rotational periods of Mercury and Venus, and he discovered (69) Hesperia. From 1862 to 1900 he was director of the Brera Observatory in Milan.

(4063) Euforbo = 1989 CG2

Discovered 1989 Feb. 1 at the Osservatorio San Vittore.

Named for the Greek hero who wounded Patroclus in the breast before being killed by Hektor.

(4098) Thraen = 1987 WQ1

Discovered 1987 Nov. 26 by F. Borngen at Tautenburg.

Named in memory of Anton Karl Thraen (1843-1902), an astronomer and Catholic priest in the German district of Eichsfeld. In his time Thraen was one of the most versatile and successful computers of orbits and ephemerides, for both comets and minor planets. Many of his articles are published in the A.N., and he also participated in the publication of the B.A.J. He was the first to show that the hyperbolic orbits of some comets are due to planetary perturbations. Name proposed by the discoverer, following a suggestion by J. Dorschner.

(4106) Nada = 1989 EW

Discovered 1989 Mar. 6 by T. Nomura and K. Kawanishi at Minami-Oda Observatory.

Named in honor of the Nada Junior and Senior High School in Kobe, which is known as one of the most excellent high schools in Japan. The first discoverer teaches science, especially astronomy and geology, there. Established in 1927, the school has the mottoes "make good use of your energies" and "live and let live prosperously". These are the same as the mottoes of Kodokan Judo Institute. "Nada" means "the sea that is difficult to cross".

(4131) Stasik = 1988 DR4

Discovered 1988 Feb. 23 by A. J. Noymer at Siding Spring.

Named in honor of John S. Stasik, science teacher at Weston Middle School, Massachusetts, responsible for introducing the discoverer to astronomy.

(4132) Bartok = 1988 EH

Discovered 1988 Mar. 12 by J. Alu at Palomar.

Named for the great composer Bela Bartok (1881-1945). Bartok was influenced by the melodic lines and rhythms found in the folk songs of his native Hungary. He transformed these songs into great works of music without altering the basic musical elements of the folk songs.

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EPHEMERIDES.

Comet Okazaki-Levy-Rudenko (1989r) Elements MPC 15053

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	m1
1989	09 11	15 01.94	+32 38.3	1.564	1.367	59.7	39.5	9.3
1989	09 16	14 55.98	+32 09.4					
1989	09 21	14 50.49	+31 41.4	1.533	1.215	52.3	40.9	8.8
1989	09 26	14 45.30	+31 14.2					
1989	10 01	14 40.21	+30 47.4	1.471	1.064	46.3	42.9	8.1
1989	10 06	14 35.02	+30 19.7					

1989 10 11	14 29.50	+29 48.8	1.373	0.919	42.0	46.6	7.3
1989 10 16	14 23.39	+29 11.0					
1989 10 21	14 16.43	+28 20.0	1.232	0.789	39.7	53.8	6.4
1989 10 26	14 08.38	+27 05.8					
1989 10 31	13 59.09	+25 13.2	1.047	0.689	39.4	66.1	5.5
1989 11 05	13 48.54	+22 19.2					
1989 11 10	13 36.97	+17 50.6	0.829	0.642	40.1	83.6	4.7
1989 11 15	13 24.88	+11 03.6					
1989 11 20	13 12.81	+01 07.2	0.623	0.664	41.4	100.3	4.2
1989 11 25	13 01.09	-12 33.4					
1989 11 30	12 49.51	-29 20.1	0.519	0.747	48.1	100.8	4.3
1989 12 05	12 37.01	-46 42.5					
1989 12 10	12 20.88	-61 51.3	0.587	0.869	61.1	82.6	5.2
1989 12 15	11 53.4	-73 37.2					
1989 12 20	10 43.7	-82 03.1	0.772	1.010	69.0	65.4	6.5
1989 12 25	06 42	-85 43.8					
1989 12 30	03 24.4	-82 54.6	0.996	1.159	71.7	53.6	7.6
1990 01 04	02 31.8	-79 07.2					
1990 01 09	02 13.0	-75 46.3	1.227	1.311	71.8	45.4	8.6

1989 OB a,e,i = 2.71, 0.55, 8 Elements MPC 15072

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 09 11	21 39.09	+22 08.1	0.251	1.219	144.3	28.8	15.0
1989 09 16	21 45.28	+24 49.4					
1989 09 21	21 53.18	+27 11.8	0.251	1.207	140.1	32.3	15.1
1989 09 26	22 02.82	+29 12.3					
1989 10 01	22 14.20	+30 49.3	0.258	1.206	138.1	33.7	15.2
1989 10 06	22 27.18	+32 02.0					
1989 10 11	22 41.54	+32 50.6	0.274	1.216	138.1	33.3	15.3
1989 10 16	22 56.93	+33 16.1					
1989 10 21	23 12.97	+33 20.1	0.298	1.236	139.2	31.7	15.5
1989 10 26	23 29.29	+33 05.0					
1989 10 31	23 45.61	+32 34.2	0.333	1.267	140.5	29.9	15.8
1989 11 05	00 01.67	+31 51.7					
1989 11 10	00 17.28	+31 01.5	0.379	1.307	140.9	28.6	16.1
1989 11 15	00 32.32	+30 07.1					
1989 11 20	00 46.72	+29 11.5	0.439	1.354	139.8	28.1	16.5
1989 11 25	01 00.48	+28 17.0					
1989 11 30	01 13.65	+27 25.6	0.514	1.407	137.1	28.5	16.9
1989 12 05	01 26.29	+26 38.8					
1989 12 10	01 38.46	+25 57.2	0.603	1.465	133.2	29.4	17.4
1989 12 15	01 50.21	+25 21.2					
1989 12 20	02 01.58	+24 50.6	0.707	1.527	128.4	30.3	17.8
1989 12 25	02 12.65	+24 25.2					
1989 12 30	02 23.47	+24 04.8	0.824	1.592	123.2	31.1	18.3
1990 01 04	02 34.08	+23 49.0					
1990 01 09	02 44.53	+23 37.1	0.955	1.659	117.8	31.6	18.7
1990 01 14	02 54.83	+23 28.6					
1990 01 19	03 05.00	+23 23.0	1.097	1.728	112.2	31.8	19.1
1990 01 24	03 15.08	+23 19.8					
1990 01 29	03 25.08	+23 18.6	1.249	1.797	106.5	31.7	19.4

1989 QF a,e,i = 1.15, 0.42, 4 Elements MPC 15073

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 09 11	23 24.69	-02 12.5	0.245	1.251	176.4	2.9	15.7
1989 09 21	22 55.50	-03 43.0					
1989 10 01	22 39.55	-04 31.5	0.394	1.363	152.3	20.0	17.5
1989 10 11	22 33.14	-04 46.7					
1989 10 21	22 33.37	-04 36.4	0.592	1.455	131.1	31.0	18.9

1959 LM a,e,i = 1.98, 0.64, 7 Elements MPC 12139

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 09 11	06 55.75	+27 52.3	1.548	1.454	65.4	39.0	17.6
1989 09 16	07 15.20	+27 16.3					
1989 09 21	07 35.61	+26 27.3	1.404	1.357	66.2	42.6	17.4
1989 09 26	07 57.02	+25 23.3					
1989 10 01	08 19.42	+24 02.3	1.275	1.257	65.8	46.6	17.1
1989 10 06	08 42.79	+22 22.6					
1989 10 11	09 07.08	+20 22.5	1.167	1.156	64.0	50.9	16.8
1989 10 16	09 32.21	+18 01.0					
1989 10 21	09 58.08	+15 18.0	1.087	1.056	60.7	55.3	16.6
1989 10 26	10 24.56	+12 14.6					
1989 10 31	10 51.52	+08 53.5	1.041	0.959	56.2	59.4	16.4

1987 SB a,e,i = 2.20, 0.66, 3 Elements MPC 12791

Date ET	R. A. (1950)	Decl.	Delta	r	Variation		V
1989 11 30	07 41.26	+22 39.2	2.166	2.938	-0.94	+1.5	20.2
1989 12 05	07 38.25	+22 51.1					
1989 12 10	07 34.44	+23 04.7	2.020	2.887	-1.00	+1.5	19.9
1989 12 15	07 29.84	+23 19.6					
1989 12 20	07 24.46	+23 35.6	1.898	2.835	-1.04	+1.3	19.6
1989 12 25	07 18.37	+23 52.1					
1989 12 30	07 11.67	+24 08.6	1.804	2.780	-1.05	+0.9	19.3
1990 01 04	07 04.49	+24 24.4					
1990 01 09	06 56.99	+24 39.0	1.742	2.723	-1.02	+0.5	19.1
1990 01 14	06 49.35	+24 52.0					
1990 01 19	06 41.77	+25 03.0	1.713	2.664	-0.95	+0.0	19.2
1990 01 24	06 34.45	+25 11.9					
1990 01 29	06 27.58	+25 18.7	1.715	2.603	-0.86	-0.4	19.4
1990 02 03	06 21.31	+25 23.5					
1990 02 08	06 15.80	+25 26.7	1.743	2.539	-0.76	-0.7	19.5

1251 T-2 a,e,i = 3.07, 0.16, 1 Elements MPC 15077

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 09 11	23 12.33	-05 38.2	2.242	3.249	179.0	0.3	17.9
1989 09 21	23 05.01	-06 27.1					
1989 10 01	22 58.34	-07 11.0	2.280	3.219	155.8	7.3	18.3
1989 10 11	22 52.99	-07 45.8					
1989 10 21	22 49.40	-08 09.1	2.420	3.189	133.6	13.1	18.6

1304 T-2 a,e,i = 3.07, 0.14, 1 Elements MPC 15079

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 09 11	23 23.35	-02 20.4	1.652	2.658	176.7	1.3	16.4
1989 09 21	23 15.99	-03 10.3					
1989 10 01	23 09.32	-03 57.0	1.688	2.649	159.5	7.6	16.7
1989 10 11	23 04.20	-04 34.9					
1989 10 21	23 01.19	-05 00.1	1.821	2.642	137.5	14.7	17.1

5141 T-2 a,e,i = 3.01, 0.09, 10 Elements MPC 15087

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 09 11	02 31.00	+27 56.8	2.221	2.889	122.5	17.1	17.3
1989 09 21	02 28.78	+28 25.7					
1989 10 01	02 24.09	+28 38.5	2.051	2.906	142.0	12.2	17.0
1989 10 11	02 17.26	+28 33.1					
1989 10 21	02 08.99	+28 08.6	1.965	2.924	161.0	6.4	16.7
1989 10 31	02 00.18	+27 26.5					
1989 11 10	01 51.88	+26 31.2	1.985	2.942	161.9	6.0	16.7
1989 11 20	01 45.02	+25 29.3					
1989 11 30	01 40.24	+24 27.7	2.113	2.960	142.9	11.6	17.1

3129 T-2 a,e,i = 2.46, 0.24, 14 Elements MPC 15084

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 23.58	+02 48.5	2.023	2.849	138.8	13.3	18.0
1989	10 31	04 17.25	+01 38.0					
1989	11 10	04 09.05	+00 35.6	1.948	2.881	156.1	8.0	17.7
1989	11 20	03 59.78	-00 13.2					
1989	11 30	03 50.37	-00 44.3	1.980	2.911	156.5	7.8	17.8
1989	12 10	03 41.78	-00 55.2					
1989	12 20	03 34.80	-00 46.4	2.120	2.938	139.4	12.6	18.1
1989	12 30	03 29.93	-00 19.7					
1990	01 09	03 27.43	+00 21.5	2.345	2.962	119.9	16.7	18.5

(3900) Knezevic a,e,i = 2.37, 0.14, 7 Elements MPC 13593

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 32.75	+32 51.6	1.234	2.058	134.5	20.2	16.5
1989	10 31	04 28.53	+33 31.3					
1989	11 10	04 20.47	+33 52.9	1.130	2.070	154.9	11.7	16.1
1989	11 20	04 09.69	+33 51.5					
1989	11 30	03 57.95	+33 25.9	1.112	2.085	167.0	6.1	15.8
1989	12 10	03 47.31	+32 40.6					
1989	12 20	03 39.47	+31 44.7	1.192	2.103	150.2	13.4	16.3
1989	12 30	03 35.36	+30 48.1					
1990	01 09	03 35.29	+29 58.3	1.355	2.124	130.0	20.8	16.8

1988 PK2 a,e,i = 3.05, 0.06, 1 Elements MPC 14199

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 29.43	+21 26.0	2.411	3.221	138.0	11.9	17.1
1989	10 31	04 24.45	+21 15.3					
1989	11 10	04 17.56	+20 59.7	2.262	3.214	160.8	5.8	16.7
1989	11 20	04 09.36	+20 39.8					
1989	11 30	04 00.65	+20 17.2	2.223	3.207	175.0	1.5	16.4
1989	12 10	03 52.34	+19 54.4					
1989	12 20	03 45.25	+19 34.0	2.302	3.199	151.0	8.6	16.9
1989	12 30	03 40.00	+19 18.8					
1990	01 09	03 36.98	+19 10.5	2.483	3.190	128.6	13.9	17.2

1988 PR1 a,e,i = 2.85, 0.16, 12 Elements MPC 13681

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 30.06	+06 18.8	2.436	3.243	137.8	11.9	17.6
1989	10 31	04 24.90	+05 26.9					
1989	11 10	04 18.04	+04 39.1	2.323	3.257	156.9	6.8	17.3
1989	11 20	04 10.07	+03 59.3					
1989	11 30	04 01.72	+03 30.7	2.320	3.269	161.4	5.5	17.3
1989	12 10	03 53.80	+03 15.8					
1989	12 20	03 47.04	+03 15.6	2.430	3.280	144.3	10.1	17.6
1989	12 30	03 41.97	+03 29.4					
1990	01 09	03 38.91	+03 55.8	2.635	3.289	124.1	14.3	17.9

1979 VN a,e,i = 2.87, 0.33, 7 Elements MPC 10516

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 35.75	+18 38.9	1.650	2.472	136.9	16.0	16.9
1989	10 31	04 30.15	+17 53.0					
1989	11 10	04 22.15	+17 03.1	1.589	2.542	159.9	7.7	16.6
1989	11 20	04 12.73	+16 12.4					
1989	11 30	04 03.03	+15 25.0	1.631	2.612	172.5	2.8	16.5
1989	12 10	03 54.28	+14 45.3					
1989	12 20	03 47.40	+14 16.5	1.785	2.682	149.8	10.6	17.1
1989	12 30	03 42.95	+14 00.2					
1990	01 09	03 41.16	+13 56.6	2.032	2.751	128.2	16.3	17.6

1984 EM a,e,i = 2.26, 0.13, 3 Elements MPC 10041

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 41.44	+18 45.9	1.739	2.546	135.5	15.9	17.5
1989	10 31	04 35.98	+18 21.6					
1989	11 10	04 27.78	+17 52.7	1.605	2.553	158.6	8.1	17.1
1989	11 20	04 17.62	+17 20.9					
1989	11 30	04 06.62	+16 48.9	1.574	2.557	174.1	2.3	16.7
1989	12 10	03 56.13	+16 20.5					
1989	12 20	03 47.34	+15 59.3	1.657	2.559	150.4	10.9	17.2
1989	12 30	03 41.07	+15 48.2					
1990	01 09	03 37.78	+15 48.3	1.834	2.559	127.9	17.6	17.7

2534 P-L a,e,i = 3.18, 0.17, 1 Elements MPC 12689

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 37.37	+22 01.4	1.953	2.758	136.1	14.5	16.9
1989	10 31	04 33.16	+21 54.8					
1989	11 10	04 26.62	+21 42.9	1.836	2.782	158.6	7.5	16.5
1989	11 20	04 18.46	+21 26.1					
1989	11 30	04 09.63	+21 05.9	1.821	2.807	177.2	1.0	16.2
1989	12 10	04 01.23	+20 45.1					
1989	12 20	03 54.24	+20 26.6	1.920	2.833	153.2	9.0	16.7
1989	12 30	03 49.36	+20 13.3					
1990	01 09	03 46.99	+20 07.2	2.117	2.861	131.1	15.0	17.1

9522 P-L a,e,i = 2.80, 0.19, 7 Elements MPC 11857

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 44.18	+30 39.5	2.518	3.277	132.9	12.9	18.2
1989	10 31	04 38.61	+30 56.9					
1989	11 10	04 30.83	+31 05.4	2.370	3.293	154.6	7.4	17.9
1989	11 20	04 21.47	+31 03.3					
1989	11 30	04 11.38	+30 50.0	2.330	3.306	170.4	2.8	17.7
1989	12 10	04 01.58	+30 27.0					
1989	12 20	03 53.00	+29 57.6	2.409	3.318	153.3	7.7	18.0
1989	12 30	03 46.37	+29 25.8					
1990	01 09	03 42.12	+28 55.8	2.594	3.327	131.4	12.8	18.3

(3913) 1986 XO2 a,e,i = 2.36, 0.22, 24 Elements MPC 13688

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 43.74	-11 03.3	1.998	2.742	129.6	16.2	16.5
1989	10 31	04 39.03	-12 46.7					
1989	11 10	04 31.90	-14 15.3	1.867	2.711	141.2	13.2	16.2
1989	11 20	04 22.95	-15 20.3					
1989	11 30	04 13.05	-15 54.7	1.826	2.677	142.5	13.0	16.1
1989	12 10	04 03.28	-15 54.4					
1989	12 20	03 54.70	-15 20.3	1.877	2.640	132.2	16.0	16.2
1989	12 30	03 48.14	-14 16.1					
1990	01 09	03 44.13	-12 47.9	2.002	2.601	117.0	19.7	16.5

1982 RM1 a,e,i = 2.19, 0.10, 5 Elements MPC 13448

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 49.55	+29 59.3	1.613	2.396	131.9	18.0	16.8
1989	10 31	04 44.67	+30 10.8					
1989	11 10	04 36.37	+30 10.0	1.463	2.392	154.0	10.5	16.3
1989	11 20	04 25.41	+29 53.9					
1989	11 30	04 13.10	+29 21.5	1.407	2.387	171.9	3.3	15.9
1989	12 10	04 01.12	+28 35.6					
1989	12 20	03 51.04	+27 42.6	1.461	2.380	153.1	10.8	16.3
1989	12 30	03 43.96	+26 50.1					
1990	01 09	03 40.42	+26 04.4	1.610	2.371	130.7	18.3	16.7

1988 RU6 a,e,i = 2.63, 0.14, 2 Elements MPC 14953

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 45.42	+20 43.2	2.213	2.995	134.4	13.7	18.3
1989	10 31	04 40.68	+20 26.6					
1989	11 10	04 33.64	+20 05.5	2.048	2.986	157.2	7.4	17.9
1989	11 20	04 24.88	+19 40.4					
1989	11 30	04 15.23	+19 13.0	1.989	2.975	177.3	0.9	17.5
1989	12 10	04 05.73	+18 45.7					
1989	12 20	03 57.38	+18 21.6	2.049	2.962	153.4	8.5	17.9
1989	12 30	03 50.94	+18 03.6					
1990	01 09	03 46.92	+17 53.7	2.212	2.948	130.6	14.7	18.3

1984 QF a,e,i = 2.68, 0.19, 14 Elements MPC 13465

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 46.93	+02 19.2	1.651	2.440	133.0	17.4	16.3
1989	10 31	04 42.52	+01 29.8					
1989	11 10	04 35.54	+00 51.2	1.565	2.479	151.2	11.1	16.1
1989	11 20	04 26.75	+00 28.8					
1989	11 30	04 17.20	+00 26.7	1.574	2.519	158.9	8.1	16.0
1989	12 10	04 08.07	+00 46.4					
1989	12 20	04 00.44	+01 26.7	1.686	2.559	145.7	12.5	16.3
1989	12 30	03 55.04	+02 24.3					
1990	01 09	03 52.27	+03 34.8	1.887	2.600	126.9	17.6	16.8

1987 BJ a,e,i = 2.22, 0.17, 5 Elements MPC 11744

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 44.97	+14 21.7	1.264	2.089	134.8	19.8	15.5
1989	10 31	04 42.67	+13 41.5					
1989	11 10	04 36.82	+12 59.2	1.106	2.050	155.9	11.4	14.9
1989	11 20	04 28.02	+12 18.9					
1989	11 30	04 17.41	+11 46.0	1.034	2.013	170.2	4.8	14.5
1989	12 10	04 06.72	+11 26.0					
1989	12 20	03 57.67	+11 22.9	1.059	1.978	150.9	14.0	14.8
1989	12 30	03 51.60	+11 38.3					
1990	01 09	03 49.29	+12 11.4	1.166	1.945	129.5	23.0	15.2

1982 UQ5 a,e,i = 2.25, 0.07, 2 Elements MPC 12007

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 53.20	+25 57.7	1.401	2.195	131.9	19.7	16.9
1989	10 31	04 50.33	+26 07.7					
1989	11 10	04 43.78	+26 09.2	1.248	2.181	153.8	11.6	16.4
1989	11 20	04 34.18	+25 59.9					
1989	11 30	04 22.75	+25 39.1	1.182	2.167	175.9	1.9	15.8
1989	12 10	04 11.24	+25 08.9					
1989	12 20	04 01.42	+24 34.6	1.220	2.154	155.4	11.0	16.3
1989	12 30	03 54.59	+24 02.4					
1990	01 09	03 51.48	+23 37.8	1.348	2.142	132.8	19.7	16.8

1981 ET26 a,e,i = 2.23, 0.18, 4 Elements MPC 10541

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 59.68	+27 49.0	1.791	2.549	130.2	17.4	18.1
1989	10 31	04 54.58	+28 02.7					
1989	11 10	04 46.29	+28 07.9	1.649	2.569	152.7	10.2	17.7
1989	11 20	04 35.54	+28 02.1					
1989	11 30	04 23.46	+27 44.2	1.604	2.587	173.8	2.4	17.3
1989	12 10	04 11.52	+27 16.1					
1989	12 20	04 01.14	+26 42.0	1.674	2.601	155.4	9.1	17.7
1989	12 30	03 53.33	+26 07.5					
1990	01 09	03 48.68	+25 37.6	1.846	2.613	132.4	16.1	18.2

2672 T-3 a,e,i = 3.20, 0.27, 13 Elements MPC 12574

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 51.03	+11 50.2	2.349	3.117	133.2	13.5	18.0
1989	10 31	04 46.68	+10 53.7					
1989	11 10	04 40.40	+09 58.2	2.249	3.170	154.2	7.8	17.8
1989	11 20	04 32.78	+09 07.1					
1989	11 30	04 24.55	+08 23.6	2.255	3.223	166.9	4.0	17.6
1989	12 10	04 16.54	+07 50.8					
1989	12 20	04 09.52	+07 30.4	2.378	3.275	151.3	8.3	18.0
1989	12 30	04 04.07	+07 22.9					
1990	01 09	04 00.57	+07 27.5	2.603	3.326	130.4	13.0	18.4

(3715) 1980 DS a,e,i = 2.32, 0.10, 6 Elements MPC 12566

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 53.91	+12 54.5	1.311	2.116	132.6	20.3	16.8
1989	10 31	04 51.12	+12 16.6					
1989	11 10	04 44.92	+11 40.3	1.196	2.129	153.6	11.9	16.4
1989	11 20	04 36.04	+11 09.8					
1989	11 30	04 25.69	+10 49.5	1.167	2.144	169.3	4.9	16.1
1989	12 10	04 15.46	+10 43.0					
1989	12 20	04 06.87	+10 52.1	1.240	2.161	152.6	12.1	16.5
1989	12 30	04 00.97	+11 16.7					
1990	01 09	03 58.38	+11 55.0	1.400	2.179	131.5	19.7	17.0

1988 LA a,e,i = 2.48, 0.29, 14 Elements MPC 13470

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 00.57	+10 06.2	1.989	2.745	130.8	15.9	17.4
1989	10 31	04 55.05	+09 54.1					
1989	11 10	04 47.04	+09 46.4	1.879	2.796	152.6	9.4	17.1
1989	11 20	04 37.21	+09 45.1					
1989	11 30	04 26.47	+09 51.8	1.872	2.844	168.3	4.0	17.0
1989	12 10	04 15.95	+10 07.8					
1989	12 20	04 06.66	+10 33.0	1.982	2.890	152.4	9.1	17.3
1989	12 30	03 59.39	+11 07.1					
1990	01 09	03 54.60	+11 48.9	2.196	2.933	130.6	14.7	17.8

6543 P-L a,e,i = 3.18, 0.17, 2 Elements MPC 9302

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	04 53.53	+21 33.0	2.344	3.104	132.4	13.7	17.9
1989	10 31	04 49.39	+21 28.9					
1989	11 10	04 43.09	+21 21.3	2.212	3.137	154.9	7.7	17.6
1989	11 20	04 35.19	+21 10.3					
1989	11 30	04 26.44	+20 56.8	2.183	3.170	178.7	0.4	17.2
1989	12 10	04 17.79	+20 42.3					
1989	12 20	04 10.10	+20 28.9	2.274	3.202	156.9	6.9	17.7
1989	12 30	04 04.09	+20 18.8					
1990	01 09	04 00.20	+20 13.8	2.471	3.234	134.2	12.6	18.1

1985 PB1 a,e,i = 2.25, 0.18, 6 Elements MPC 10292

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 03.69	+17 17.4	1.762	2.523	130.3	17.5	18.0
1989	10 31	04 59.30	+16 38.3					
1989	11 10	04 51.99	+15 56.3	1.627	2.548	152.7	10.3	17.7
1989	11 20	04 42.41	+15 13.7					
1989	11 30	04 31.57	+14 33.4	1.590	2.571	172.6	2.8	17.3
1989	12 10	04 20.76	+13 59.3					
1989	12 20	04 11.22	+13 34.5	1.667	2.592	154.8	9.3	17.7
1989	12 30	04 03.88	+13 21.3					
1990	01 09	03 59.33	+13 20.5	1.845	2.609	132.2	16.2	18.2

1981 EB19 a,e,i = 2.25, 0.23, 2 Elements MPC 9751

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 10 21	05 12.26	+20 38.4	1.568	2.319	128.1	19.7	18.8
1989 10 31	05 08.10	+20 23.3					
1989 11 10	05 00.60	+20 04.6	1.454	2.369	150.9	11.7	18.4
1989 11 20	04 50.45	+19 42.6					
1989 11 30	04 38.80	+19 18.5	1.432	2.416	175.4	1.9	18.0
1989 12 10	04 27.16	+18 54.9					
1989 12 20	04 16.94	+18 35.0	1.522	2.462	158.0	8.6	18.5
1989 12 30	04 09.19	+18 21.9					
1990 01 09	04 04.51	+18 17.6	1.713	2.504	134.7	16.2	19.0

1983 CZ2 a,e,i = 2.41, 0.18, 6 Elements MPC 8138

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 10 21	05 06.26	+32 16.4	1.605	2.351	127.9	19.5	17.7
1989 10 31	05 04.57	+32 43.8					
1989 11 10	04 59.17	+33 01.6	1.410	2.312	148.4	13.0	17.2
1989 11 20	04 50.41	+33 05.3					
1989 11 30	04 39.22	+32 50.6	1.298	2.272	168.0	5.2	16.7
1989 12 10	04 27.19	+32 16.5					
1989 12 20	04 16.17	+31 26.7	1.291	2.234	157.9	9.5	16.9
1989 12 30	04 07.72	+30 28.4					
1990 01 09	04 02.89	+29 30.2	1.380	2.196	135.9	18.1	17.2

1981 ED25 a,e,i = 2.25, 0.23, 4 Elements MPC 8793

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 10 21	05 13.22	+19 21.2	1.378	2.139	128.0	21.5	18.3
1989 10 31	05 09.76	+18 47.1					
1989 11 10	05 02.69	+18 09.6	1.278	2.194	150.3	12.9	17.9
1989 11 20	04 52.78	+17 30.5					
1989 11 30	04 41.27	+16 52.4	1.266	2.249	173.4	2.9	17.5
1989 12 10	04 29.79	+16 19.2					
1989 12 20	04 19.86	+15 54.6	1.361	2.302	157.7	9.3	18.0
1989 12 30	04 12.56	+15 41.3					
1990 01 09	04 08.48	+15 40.1	1.553	2.353	135.0	17.2	18.6

1983 TR2 a,e,i = 3.06, 0.21, 15 Elements MPC 10529

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 10 21	05 13.85	+36 09.0	2.403	3.089	125.5	15.2	17.6
1989 10 31	05 09.69	+37 04.0					
1989 11 10	05 02.72	+37 50.9	2.262	3.130	145.6	10.3	17.3
1989 11 20	04 53.42	+38 25.4					
1989 11 30	04 42.64	+38 44.0	2.217	3.170	162.2	5.5	17.1
1989 12 10	04 31.54	+38 45.4					
1989 12 20	04 21.31	+38 31.3	2.286	3.209	156.0	7.2	17.3
1989 12 30	04 12.96	+38 05.8					
1990 01 09	04 07.17	+37 34.2	2.463	3.247	136.5	12.0	17.7

1986 RC2 a,e,i = 1.92, 0.08, 27 Elements MPC 13039

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 10 21	05 09.30	-12 32.9	1.049	1.799	123.3	27.6	15.5
1989 10 31	05 08.64	-16 46.2					
1989 11 10	05 03.90	-20 34.0	1.000	1.814	131.5	24.1	15.3
1989 11 20	04 55.73	-23 36.3					
1989 11 30	04 45.39	-25 37.0	1.014	1.831	132.5	23.4	15.3
1989 12 10	04 34.66	-26 27.8					
1989 12 20	04 25.35	-26 11.4	1.088	1.850	126.4	25.3	15.5
1989 12 30	04 18.82	-24 57.6					
1990 01 09	04 15.83	-23 00.0	1.208	1.869	116.7	28.0	15.9

1981 YA1 a,e,i = 2.54, 0.20, 8 Elements MPC 13691

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 08.24	+33 17.2	1.283	2.046	127.3	22.8	15.1
1989	10 31	05 08.13	+33 26.4					
1989	11 10	05 03.88	+33 20.9	1.155	2.060	147.4	15.0	14.6
1989	11 20	04 56.06	+32 56.8					
1989	11 30	04 45.91	+32 11.9	1.104	2.079	168.0	5.7	14.2
1989	12 10	04 35.29	+31 08.5					
1989	12 20	04 26.10	+29 53.4	1.150	2.103	160.4	9.0	14.5
1989	12 30	04 19.74	+28 36.0					
1990	01 09	04 17.00	+27 24.9	1.290	2.131	138.9	17.6	15.0

1188 T-2 a,e,i = 2.45, 0.09, 2 Elements MPC 15077

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 13.25	+22 56.1	1.932	2.661	127.8	17.2	17.9
1989	10 31	05 10.40	+22 44.9					
1989	11 10	05 04.59	+22 29.0	1.749	2.652	149.8	10.8	17.4
1989	11 20	04 56.25	+22 08.1					
1989	11 30	04 46.17	+21 42.5	1.659	2.643	174.3	2.1	16.9
1989	12 10	04 35.53	+21 13.9					
1989	12 20	04 25.61	+20 45.2	1.683	2.631	160.5	7.2	17.2
1989	12 30	04 17.51	+20 20.0					
1990	01 09	04 12.05	+20 01.4	1.814	2.619	136.8	14.9	17.6

1984 OA a,e,i = 2.64, 0.22, 17 Elements MPC 14192

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 14.27	-00 22.9	1.684	2.405	125.7	19.6	17.4
1989	10 31	05 11.24	-01 15.2					
1989	11 10	05 05.34	-01 55.3	1.584	2.451	143.4	13.9	17.1
1989	11 20	04 57.13	-02 17.1					
1989	11 30	04 47.51	-02 16.2	1.567	2.498	155.4	9.5	17.0
1989	12 10	04 37.68	-01 50.2					
1989	12 20	04 28.79	-01 00.6	1.652	2.544	148.7	11.6	17.2
1989	12 30	04 21.79	+00 08.8					
1990	01 09	04 17.29	+01 32.6	1.832	2.591	131.6	16.5	17.7

1981 RD5 a,e,i = 2.44, 0.13, 6 Elements MPC 12313

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 11.63	+14 36.4	1.424	2.185	128.4	20.9	16.4
1989	10 31	05 10.08	+13 56.2					
1989	11 10	05 05.13	+13 16.2	1.297	2.207	149.2	13.3	16.0
1989	11 20	04 57.32	+12 40.0					
1989	11 30	04 47.63	+12 11.3	1.254	2.230	168.8	4.9	15.6
1989	12 10	04 37.50	+11 53.8					
1989	12 20	04 28.40	+11 49.7	1.314	2.255	157.6	9.6	15.9
1989	12 30	04 21.50	+12 00.0					
1990	01 09	04 17.58	+12 23.6	1.469	2.282	136.1	17.4	16.4

1982 HL a,e,i = 2.75, 0.10, 6 Elements MPC 7363

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 12.49	+23 23.8	2.072	2.796	127.9	16.3	17.6
1989	10 31	05 09.92	+23 39.9					
1989	11 10	05 04.55	+23 53.9	1.876	2.776	149.7	10.4	17.2
1989	11 20	04 56.72	+24 04.3					
1989	11 30	04 47.14	+24 10.3	1.774	2.756	173.5	2.3	16.7
1989	12 10	04 36.87	+24 11.4					
1989	12 20	04 27.14	+24 09.0	1.786	2.736	161.2	6.6	16.9
1989	12 30	04 19.05	+24 05.4					
1990	01 09	04 13.44	+24 03.3	1.906	2.716	137.8	14.1	17.3

1988 PT1 a,e,i = 3.17, 0.12, 22 Elements MPC 14198

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 10.40	+07 35.1	2.136	2.860	128.1	15.9	16.7
1989	10 31	05 08.06	+05 54.5					
1989	11 10	05 03.40	+04 14.7	1.994	2.874	146.8	10.9	16.4
1989	11 20	04 56.86	+02 41.4					
1989	11 30	04 49.10	+01 20.7	1.948	2.889	158.7	7.1	16.2
1989	12 10	04 41.01	+00 18.0					
1989	12 20	04 33.51	-00 23.7	2.012	2.905	149.9	9.8	16.4
1989	12 30	04 27.37	-00 43.6					
1990	01 09	04 23.19	-00 43.1	2.175	2.923	131.7	14.5	16.7

1978 QC a,e,i = 3.00, 0.27, 2 Elements MPC 9754

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 08.99	+21 12.1	1.460	2.225	128.9	20.4	16.9
1989	10 31	05 08.60	+20 59.9					
1989	11 10	05 04.88	+20 44.1	1.332	2.244	149.8	12.8	16.5
1989	11 20	04 58.33	+20 25.5					
1989	11 30	04 49.89	+20 05.2	1.288	2.270	173.2	2.9	16.1
1989	12 10	04 40.93	+19 45.4					
1989	12 20	04 32.88	+19 28.9	1.345	2.301	161.8	7.7	16.4
1989	12 30	04 26.91	+19 18.5					
1990	01 09	04 23.77	+19 16.2	1.500	2.336	139.4	15.9	17.0

1978 SQ4 a,e,i = 2.35, 0.22, 5 Elements MPC 11995

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 16.23	+29 49.7	1.082	1.854	126.3	25.7	17.0
1989	10 31	05 17.53	+30 35.0					
1989	11 10	05 14.20	+31 12.2	0.972	1.877	146.0	17.2	16.6
1989	11 20	05 06.66	+31 36.4					
1989	11 30	04 56.09	+31 42.5	0.932	1.907	167.2	6.6	16.2
1989	12 10	04 44.56	+31 28.7					
1989	12 20	04 34.30	+30 58.6	0.983	1.942	161.7	9.1	16.4
1989	12 30	04 27.08	+30 19.8					
1990	01 09	04 23.87	+29 40.5	1.122	1.982	140.5	18.4	17.1

2257 T-2 a,e,i = 2.47, 0.13, 3 Elements MPC 14966

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 17.61	+26 13.0	1.586	2.320	126.5	20.2	18.7
1989	10 31	05 17.02	+26 36.8					
1989	11 10	05 12.87	+26 57.0	1.397	2.293	147.3	13.5	18.2
1989	11 20	05 05.41	+27 11.3					
1989	11 30	04 55.37	+27 16.9	1.290	2.268	170.4	4.2	17.7
1989	12 10	04 44.11	+27 12.5					
1989	12 20	04 33.34	+26 59.4	1.287	2.245	162.5	7.6	17.8
1989	12 30	04 24.61	+26 41.3					
1990	01 09	04 19.07	+26 23.4	1.383	2.223	139.3	16.8	18.2

1978 TO8 a,e,i = 3.07, 0.19, 1 Elements MPC 12949

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 17.79	+22 30.8	1.874	2.595	126.8	17.9	17.3
1989	10 31	05 16.14	+22 24.5					
1989	11 10	05 11.60	+22 14.9	1.729	2.623	148.2	11.5	16.9
1989	11 20	05 04.61	+22 01.9					
1989	11 30	04 55.94	+21 46.0	1.673	2.653	172.0	3.0	16.5
1989	12 10	04 46.72	+21 28.2					
1989	12 20	04 38.14	+21 10.6	1.727	2.685	163.4	6.0	16.7
1989	12 30	04 31.21	+20 55.9					
1990	01 09	04 26.66	+20 46.2	1.888	2.719	140.3	13.3	17.2

1980 FB a,e,i = 3.20, 0.11, 2 Elements MPC 10830

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 18.62	+24 20.4	2.863	3.546	126.4	13.1	18.2
1989	10 31	05 15.70	+24 22.8					
1989	11 10	05 10.69	+24 22.4	2.662	3.542	148.2	8.5	17.9
1989	11 20	05 03.89	+24 18.4					
1989	11 30	04 55.83	+24 10.7	2.559	3.538	171.7	2.3	17.5
1989	12 10	04 47.25	+23 59.4					
1989	12 20	04 38.97	+23 45.7	2.576	3.532	163.9	4.4	17.6
1989	12 30	04 31.74	+23 31.4					
1990	01 09	04 26.17	+23 18.6	2.710	3.526	140.6	10.2	18.0

1981 QP a,e,i = 2.43, 0.13, 9 Elements MPC 10308

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 25.73	+19 26.9	1.698	2.411	125.0	19.8	16.9
1989	10 31	05 23.33	+19 48.8					
1989	11 10	05 17.59	+20 12.2	1.551	2.441	146.9	12.8	16.6
1989	11 20	05 08.94	+20 36.3					
1989	11 30	04 58.20	+20 59.7	1.490	2.470	171.4	3.4	16.1
1989	12 10	04 46.67	+21 21.3					
1989	12 20	04 35.82	+21 41.2	1.541	2.498	163.0	6.6	16.4
1989	12 30	04 26.90	+22 00.5					
1990	01 09	04 20.80	+22 21.0	1.698	2.526	139.3	14.7	16.9

1968 HP a,e,i = 2.46, 0.13, 6 Elements MPC 12450

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 23.69	+15 34.0	2.083	2.782	125.5	16.9	17.6
1989	10 31	05 21.02	+15 09.0					
1989	11 10	05 15.64	+14 44.0	1.902	2.784	146.9	11.2	17.2
1989	11 20	05 07.88	+14 20.7					
1989	11 30	04 58.42	+14 00.9	1.811	2.785	168.5	4.1	16.8
1989	12 10	04 48.24	+13 46.7					
1989	12 20	04 38.47	+13 39.7	1.836	2.783	160.6	6.7	17.0
1989	12 30	04 30.13	+13 41.3					
1990	01 09	04 24.00	+13 52.0	1.970	2.780	138.0	13.7	17.4

1980 SD a,e,i = 2.59, 0.18, 13 Elements MPC 7779

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 30.49	+35 33.1	2.162	2.823	122.3	17.3	18.7
1989	10 31	05 27.35	+36 30.9					
1989	11 10	05 20.92	+37 22.8	2.001	2.852	142.6	12.2	18.4
1989	11 20	05 11.57	+38 03.5					
1989	11 30	05 00.08	+38 28.2	1.928	2.879	161.1	6.4	18.1
1989	12 10	04 47.71	+38 33.9					
1989	12 20	04 35.91	+38 21.2	1.967	2.904	158.4	7.2	18.2
1989	12 30	04 25.98	+37 53.9					
1990	01 09	04 18.82	+37 18.3	2.115	2.928	138.8	12.8	18.6

1975 TH6 a,e,i = 2.24, 0.14, 9 Elements MPC 13463

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 29.81	+17 04.5	1.733	2.434	124.0	19.8	17.0
1989	10 31	05 27.24	+17 13.1					
1989	11 10	05 21.35	+17 24.2	1.573	2.456	145.9	13.1	16.6
1989	11 20	05 12.52	+17 38.0					
1989	11 30	05 01.52	+17 54.2	1.499	2.476	169.9	4.0	16.2
1989	12 10	04 49.60	+18 12.5					
1989	12 20	04 38.22	+18 32.9	1.537	2.494	162.8	6.7	16.4
1989	12 30	04 28.67	+18 56.1					
1990	01 09	04 21.89	+19 22.9	1.683	2.510	139.0	14.9	16.9

1974 OE a,e,i = 2.31, 0.12, 7 Elements MPC 10612

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 10 21	05 31.09	+30 42.8	1.783	2.470	123.0	19.8	18.1
1989 10 31	05 28.88	+31 24.4					
1989 11 10	05 23.06	+32 01.4	1.620	2.490	144.0	13.5	17.7
1989 11 20	05 13.94	+32 29.5					
1989 11 30	05 02.37	+32 44.3	1.541	2.508	165.6	5.6	17.3
1989 12 10	04 49.74	+32 43.1					
1989 12 20	04 37.70	+32 26.7	1.571	2.524	161.9	7.0	17.4
1989 12 30	04 27.72	+31 59.6					
1990 01 09	04 20.82	+31 28.0	1.707	2.539	139.8	14.5	17.9

1980 FJ1 a,e,i = 3.24, 0.14, 17 Elements MPC 14614

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 10 21	05 31.19	+43 27.5	2.587	3.207	120.4	15.5	17.3
1989 10 31	05 28.52	+44 25.7					
1989 11 10	05 22.78	+45 15.3	2.424	3.234	138.6	11.7	17.1
1989 11 20	05 14.32	+45 51.2					
1989 11 30	05 03.85	+46 08.6	2.346	3.261	153.9	7.6	16.9
1989 12 10	04 52.52	+46 04.7					
1989 12 20	04 41.63	+45 40.1	2.376	3.288	153.9	7.6	16.9
1989 12 30	04 32.37	+44 58.3					
1990 01 09	04 25.61	+44 05.2	2.512	3.314	138.6	11.3	17.2

(3888) 1984 FO a,e,i = 2.39, 0.25, 22 Elements MPC 13478

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 10 21	05 28.77	-03 57.6	2.251	2.897	121.3	17.1	18.0
1989 10 31	05 25.70	-05 32.4					
1989 11 10	05 20.18	-06 59.1	2.112	2.920	137.5	13.2	17.7
1989 11 20	05 12.58	-08 11.1					
1989 11 30	05 03.52	-09 02.5	2.059	2.941	147.8	10.3	17.6
1989 12 10	04 53.86	-09 28.3					
1989 12 20	04 44.57	-09 27.2	2.109	2.958	143.5	11.4	17.7
1989 12 30	04 36.50	-09 00.4					
1990 01 09	04 30.35	-08 11.7	2.254	2.973	129.0	14.9	18.0

1980 FR1 a,e,i = 3.16, 0.13, 4 Elements MPC 10757

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 10 21	05 24.31	+28 02.6	2.083	2.774	124.8	17.1	17.1
1989 10 31	05 22.98	+28 13.9					
1989 11 10	05 18.80	+28 20.5	1.911	2.786	145.8	11.5	16.8
1989 11 20	05 12.10	+28 20.5					
1989 11 30	05 03.57	+28 12.6	1.828	2.801	168.4	4.1	16.4
1989 12 10	04 54.24	+27 56.3					
1989 12 20	04 45.28	+27 33.3	1.855	2.817	165.0	5.2	16.5
1989 12 30	04 37.76	+27 06.5					
1990 01 09	04 32.50	+26 39.7	1.991	2.834	142.3	12.2	16.9

(3910) 1988 SF a,e,i = 2.80, 0.13, 9 Elements MPC 13679

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 10 21	05 31.44	+33 18.1	2.473	3.123	122.5	15.6	17.4
1989 10 31	05 28.75	+33 52.2					
1989 11 10	05 23.28	+34 21.2	2.284	3.133	143.2	10.9	17.1
1989 11 20	05 15.33	+34 41.9					
1989 11 30	05 05.51	+34 51.2	2.184	3.143	163.5	5.1	16.8
1989 12 10	04 54.82	+34 47.1					
1989 12 20	04 44.42	+34 30.1	2.200	3.150	162.1	5.5	16.8
1989 12 30	04 35.36	+34 03.0					
1990 01 09	04 28.50	+33 30.3	2.329	3.157	141.3	11.2	17.1

1988 JO a,e,i = 2.38, 0.19, 25 Elements MPC 13469

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 38.95	+03 45.7	1.728	2.392	120.5	21.0	16.5
1989	10 31	05 35.73	+03 59.3					
1989	11 10	05 29.22	+04 25.9	1.584	2.434	141.0	14.9	16.2
1989	11 20	05 19.80	+05 08.6					
1989	11 30	05 08.24	+06 08.6	1.521	2.474	160.9	7.5	15.9
1989	12 10	04 55.77	+07 25.0					
1989	12 20	04 43.78	+08 54.4	1.572	2.514	158.7	8.2	16.0
1989	12 30	04 33.53	+10 32.0					
1990	01 09	04 25.94	+12 13.4	1.734	2.551	138.0	15.0	16.5

1949 QC1 a,e,i = 2.21, 0.20, 7 Elements MPC 9583

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 38.80	+33 15.0	1.452	2.142	121.0	23.5	17.4
1989	10 31	05 37.60	+33 50.6					
1989	11 10	05 32.06	+34 18.7	1.324	2.188	141.5	16.4	17.1
1989	11 20	05 22.56	+34 33.6					
1989	11 30	05 10.15	+34 30.0	1.271	2.233	163.2	7.3	16.7
1989	12 10	04 56.61	+34 05.4					
1989	12 20	04 43.94	+33 22.5	1.320	2.278	162.6	7.4	16.9
1989	12 30	04 33.82	+32 28.3					
1990	01 09	04 27.31	+31 31.5	1.471	2.321	141.2	15.4	17.4

1988 ME a,e,i = 2.38, 0.13, 6 Elements MPC 13471

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 32.38	+18 36.6	1.834	2.523	123.5	19.2	17.7
1989	10 31	05 30.47	+18 02.1					
1989	11 10	05 25.47	+17 25.6	1.672	2.546	144.9	12.9	17.3
1989	11 20	05 17.73	+16 48.4					
1989	11 30	05 07.99	+16 12.3	1.595	2.568	167.8	4.7	16.9
1989	12 10	04 57.36	+15 40.0					
1989	12 20	04 47.16	+15 14.1	1.630	2.587	163.3	6.3	17.1
1989	12 30	04 38.51	+14 57.0					
1990	01 09	04 32.29	+14 50.1	1.772	2.605	140.3	14.0	17.5

1984 HX a,e,i = 2.30, 0.10, 6 Elements MPC 10161

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	10 21	05 29.80	+31 26.2	1.347	2.066	123.1	23.8	17.2
1989	10 31	05 31.16	+31 45.4					
1989	11 10	05 28.31	+31 56.4	1.188	2.066	142.9	16.8	16.7
1989	11 20	05 21.45	+31 55.2					
1989	11 30	05 11.37	+31 37.8	1.101	2.069	165.0	7.1	16.2
1989	12 10	04 59.67	+31 02.1					
1989	12 20	04 48.39	+30 10.9	1.109	2.074	164.9	7.1	16.3
1989	12 30	04 39.35	+29 11.2					
1990	01 09	04 33.84	+28 11.3	1.213	2.083	142.7	16.6	16.8

1984 UW a,e,i = 2.88, 0.31, 5 Elements MPC 9418

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 31.31	+29 49.3	1.306	2.179	142.8	16.0	16.7
1989	11 20	05 24.52	+29 39.2					
1989	11 30	05 15.12	+29 17.2	1.264	2.233	165.6	6.3	16.4
1989	12 10	05 04.63	+28 43.4					
1989	12 20	04 54.74	+28 00.8	1.322	2.291	166.9	5.6	16.5
1989	12 30	04 46.86	+27 14.8					
1990	01 09	04 41.95	+26 31.0	1.481	2.352	144.4	14.1	17.1
1990	01 19	04 40.35	+25 53.6					
1990	01 29	04 41.98	+25 24.3	1.721	2.415	124.1	19.7	17.7

4153 P-L a,e,i = 2.33, 0.12, 8 Elements MPC 12585

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 33.70	+36 10.1	1.255	2.116	140.6	17.3	16.9
1989	11 20	05 27.26	+36 55.0					
1989	11 30	05 17.15	+37 22.7	1.145	2.099	160.1	9.2	16.4
1989	12 10	05 04.81	+37 26.5					
1989	12 20	04 52.36	+37 04.6	1.128	2.085	161.7	8.5	16.4
1989	12 30	04 41.92	+36 21.3					
1990	01 09	04 35.11	+35 25.8	1.206	2.074	142.4	16.8	16.8
1990	01 19	04 32.66	+34 27.4					
1990	01 29	04 34.58	+33 32.9	1.357	2.065	123.0	23.6	17.2

(4165) 1976 GS3 a,e,i = 2.45, 0.18, 12 Elements MPC 15055

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 31.38	+07 02.7	1.933	2.776	141.3	12.9	17.7
1989	11 20	05 24.28	+06 12.6					
1989	11 30	05 15.39	+05 32.7	1.853	2.798	159.4	7.1	17.4
1989	12 10	05 05.62	+05 06.7					
1989	12 20	04 56.01	+04 56.7	1.883	2.817	157.5	7.7	17.5
1989	12 30	04 47.54	+05 03.2					
1990	01 09	04 41.02	+05 24.9	2.021	2.834	138.6	13.3	17.9
1990	01 19	04 36.91	+05 59.2					
1990	01 29	04 35.38	+06 42.9	2.240	2.849	118.8	17.6	18.2

(3777) McCauley a,e,i = 2.28, 0.16, 4 Elements MPC 12937

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 37.90	+26 02.1	1.307	2.173	141.9	16.3	16.6
1989	11 20	05 30.07	+26 25.9					
1989	11 30	05 19.27	+26 43.0	1.241	2.211	165.9	6.3	16.2
1989	12 10	05 06.96	+26 50.9					
1989	12 20	04 54.97	+26 49.6	1.278	2.248	167.3	5.5	16.3
1989	12 30	04 44.93	+26 41.8					
1990	01 09	04 38.05	+26 31.9	1.418	2.285	143.6	14.8	16.9
1990	01 19	04 34.82	+26 23.9					
1990	01 29	04 35.24	+26 20.1	1.636	2.321	122.7	20.9	17.4

2203 T-3 a,e,i = 3.17, 0.10, 12 Elements MPC 12701

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 28.52	+13 10.2	2.113	2.969	143.6	11.4	18.1
1989	11 20	05 23.00	+12 16.5					
1989	11 30	05 15.78	+11 26.3	1.993	2.952	163.6	5.4	17.7
1989	12 10	05 07.60	+10 42.8					
1989	12 20	04 59.39	+10 09.0	1.984	2.936	162.2	5.9	17.7
1989	12 30	04 52.05	+09 46.9					
1990	01 09	04 46.39	+09 37.5	2.086	2.921	141.7	12.1	18.1
1990	01 19	04 42.89	+09 40.1					
1990	01 29	04 41.81	+09 53.2	2.272	2.908	121.2	16.8	18.4

1981 RF a,e,i = 2.43, 0.19, 3 Elements MPC 8908

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 37.18	+19 07.7	1.351	2.218	142.2	15.9	17.1
1989	11 20	05 30.12	+19 05.3					
1989	11 30	05 20.43	+19 04.4	1.289	2.259	166.0	6.1	16.7
1989	12 10	05 09.41	+19 05.2					
1989	12 20	04 58.66	+19 08.3	1.330	2.301	167.5	5.3	16.8
1989	12 30	04 49.59	+19 15.0					
1990	01 09	04 43.29	+19 26.4	1.475	2.343	143.9	14.3	17.4
1990	01 19	04 40.23	+19 43.2					
1990	01 29	04 40.48	+20 04.9	1.700	2.385	123.1	20.2	17.9

1977 EO a,e,i = 2.24, 0.10, 7 Elements MPC 11999

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 40.62	+34 14.9	1.547	2.390	139.8	15.5	17.1
1989	11 20	05 33.10	+34 43.6					
1989	11 30	05 22.34	+34 58.7	1.420	2.375	161.1	7.7	16.6
1989	12 10	05 09.58	+34 55.3					
1989	12 20	04 56.58	+34 32.2	1.396	2.358	164.0	6.6	16.5
1989	12 30	04 45.14	+33 52.8					
1990	01 09	04 36.72	+33 04.2	1.478	2.340	143.0	14.6	16.9
1990	01 19	04 32.08	+32 14.0					
1990	01 29	04 31.38	+31 27.9	1.640	2.320	122.2	21.0	17.3

1987 DQ a,e,i = 2.29, 0.10, 6 Elements MPC 11744

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 37.95	+15 03.0	1.599	2.453	141.6	14.5	16.7
1989	11 20	05 31.35	+14 46.1					
1989	11 30	05 22.17	+14 33.9	1.473	2.436	164.0	6.4	16.2
1989	12 10	05 11.40	+14 28.2					
1989	12 20	05 00.37	+14 30.3	1.453	2.417	165.4	5.9	16.1
1989	12 30	04 50.46	+14 41.1					
1990	01 09	04 42.86	+15 01.1	1.540	2.398	142.7	14.4	16.5
1990	01 19	04 38.27	+15 29.5					
1990	01 29	04 36.96	+16 05.3	1.708	2.377	121.5	20.7	16.9

1935 TG a,e,i = 2.15, 0.17, 1 Elements MPC 14341

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 42.78	+21 25.0	1.110	1.980	141.0	18.4	16.0
1989	11 20	05 35.76	+21 13.9					
1989	11 30	05 25.48	+21 01.5	1.048	2.018	165.1	7.2	15.6
1989	12 10	05 13.48	+20 48.1					
1989	12 20	05 01.69	+20 35.2	1.083	2.056	168.6	5.4	15.6
1989	12 30	04 51.89	+20 25.4					
1990	01 09	04 45.36	+20 21.4	1.215	2.095	144.6	15.8	16.3
1990	01 19	04 42.60	+20 24.8					
1990	01 29	04 43.59	+20 35.3	1.423	2.135	123.9	22.5	16.9

1941 WA a,e,i = 3.04, 0.29, 3 Elements MPC 9464

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 36.20	+21 33.1	1.337	2.206	142.5	15.9	15.1
1989	11 20	05 31.19	+21 44.5					
1989	11 30	05 23.50	+21 55.7	1.269	2.238	165.6	6.3	14.7
1989	12 10	05 14.34	+22 05.8					
1989	12 20	05 05.20	+22 14.8	1.301	2.276	169.8	4.4	14.7
1989	12 30	04 57.47	+22 23.5					
1990	01 09	04 52.29	+22 33.5	1.434	2.318	146.5	13.5	15.3
1990	01 19	04 50.19	+22 46.1					
1990	01 29	04 51.31	+23 01.6	1.648	2.365	126.0	19.7	15.8

1986 EQ2 a,e,i = 2.90, 0.08, 2 Elements MPC 11143

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 38.20	+20 54.2	1.906	2.755	142.0	12.8	17.6
1989	11 20	05 32.28	+20 43.3					
1989	11 30	05 24.27	+20 31.7	1.804	2.769	165.3	5.2	17.2
1989	12 10	05 15.07	+20 19.8					
1989	12 20	05 05.78	+20 08.6	1.811	2.784	169.4	3.7	17.1
1989	12 30	04 57.48	+19 59.5					
1990	01 09	04 51.10	+19 54.2	1.930	2.799	145.8	11.4	17.6
1990	01 19	04 47.18	+19 53.9					
1990	01 29	04 45.97	+19 59.1	2.139	2.814	124.3	16.8	18.0

1980 TG4 a,e,i = 2.62, 0.17, 12 Elements MPC 14345

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 48.88	+39 17.3	1.712	2.527	136.8	15.6	17.9
1989	11 20	05 41.27	+40 17.2					
1989	11 30	05 30.52	+41 01.1	1.632	2.563	155.7	9.1	17.6
1989	12 10	05 17.90	+41 22.8					
1989	12 20	05 05.13	+41 20.1	1.654	2.600	159.9	7.5	17.6
1989	12 30	04 53.89	+40 55.7					
1990	01 09	04 45.53	+40 16.1	1.782	2.636	143.2	12.9	18.0
1990	01 19	04 40.70	+39 29.2					
1990	01 29	04 39.54	+38 41.4	1.995	2.672	123.9	17.8	18.4

1352 T-2 a,e,i = 2.45, 0.12, 1 Elements MPC 15080

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 45.74	+22 55.3	1.625	2.470	140.3	14.8	17.7
1989	11 20	05 40.01	+22 49.7					
1989	11 30	05 31.47	+22 41.8	1.481	2.444	163.8	6.5	17.2
1989	12 10	05 21.03	+22 30.9					
1989	12 20	05 10.03	+22 17.5	1.441	2.417	170.9	3.7	17.0
1989	12 30	04 59.91	+22 03.3					
1990	01 09	04 52.00	+21 51.0	1.509	2.391	146.3	13.2	17.5
1990	01 19	04 47.12	+21 43.4					
1990	01 29	04 45.63	+21 41.7	1.663	2.365	124.5	20.1	17.9

4598 P-L a,e,i = 2.53, 0.15, 2 Elements MPC 13687

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 49.67	+25 38.1	2.069	2.893	139.3	12.9	18.1
1989	11 20	05 43.10	+25 43.4					
1989	11 30	05 34.23	+25 44.9	1.940	2.897	162.8	5.8	17.7
1989	12 10	05 23.89	+25 41.1					
1989	12 20	05 13.18	+25 32.0	1.922	2.899	171.5	2.9	17.5
1989	12 30	05 03.27	+25 18.7					
1990	01 09	04 55.19	+25 03.8	2.022	2.899	147.4	10.5	17.9
1990	01 19	04 49.61	+24 50.0					
1990	01 29	04 46.83	+24 39.3	2.215	2.896	125.1	16.1	18.3

1982 VD5 a,e,i = 2.28, 0.15, 3 Elements MPC 10943

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 46.10	+21 23.3	1.071	1.938	140.2	19.1	16.9
1989	11 20	05 42.09	+20 51.5					
1989	11 30	05 34.49	+20 17.7	0.971	1.935	162.9	8.6	16.4
1989	12 10	05 24.54	+19 43.9					
1989	12 20	05 14.02	+19 12.6	0.959	1.937	170.8	4.7	16.2
1989	12 30	05 04.84	+18 47.6					
1990	01 09	04 58.57	+18 32.1	1.042	1.943	147.3	15.9	16.8
1990	01 19	04 56.05	+18 27.5					
1990	01 29	04 57.47	+18 33.2	1.198	1.954	126.8	23.8	17.3

6766 P-L a,e,i = 3.14, 0.06, 14 Elements MPC 12700

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	05 43.21	+05 18.0	2.511	3.314	138.0	11.5	17.7
1989	11 20	05 38.03	+04 38.8					
1989	11 30	05 31.28	+04 08.7	2.394	3.318	155.8	7.0	17.5
1989	12 10	05 23.55	+03 50.4					
1989	12 20	05 15.60	+03 45.7	2.385	3.321	158.7	6.2	17.4
1989	12 30	05 08.17	+03 55.0					
1990	01 09	05 01.97	+04 17.6	2.488	3.323	142.6	10.4	17.7
1990	01 19	04 57.50	+04 51.3					
1990	01 29	04 55.05	+05 33.7	2.683	3.325	123.1	14.4	18.0

1981 EH41 a,e,i = 2.99, 0.08, 10 Elements MPC 13680

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 11 10	05 46.42	+11 04.2	2.372	3.185	138.9	11.8	17.5
1989 11 20	05 41.04	+10 27.5					
1989 11 30	05 33.94	+09 56.4	2.254	3.194	159.1	6.3	17.2
1989 12 10	05 25.77	+09 33.2					
1989 12 20	05 17.34	+09 19.6	2.246	3.203	164.0	4.9	17.1
1989 12 30	05 09.47	+09 16.5					
1990 01 09	05 02.93	+09 23.9	2.353	3.210	145.3	10.0	17.5
1990 01 19	04 58.26	+09 40.8					
1990 01 29	04 55.74	+10 05.6	2.554	3.217	124.6	14.6	17.8

1978 SL5 a,e,i = 2.99, 0.03, 1 Elements MPC 11638

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 11 10	05 50.25	+25 03.0	2.253	3.072	139.2	12.2	17.3
1989 11 20	05 44.71	+25 04.1					
1989 11 30	05 37.11	+25 02.3	2.119	3.074	162.3	5.6	17.0
1989 12 10	05 28.15	+24 56.8					
1989 12 20	05 18.79	+24 47.4	2.096	3.075	172.9	2.3	16.8
1989 12 30	05 10.03	+24 35.1					
1990 01 09	05 02.79	+24 21.9	2.191	3.076	149.1	9.5	17.2
1990 01 19	04 57.72	+24 09.9					
1990 01 29	04 55.14	+24 00.6	2.382	3.077	126.9	14.8	17.6

1269 T-2 a,e,i = 2.94, 0.01, 1 Elements MPC 15079

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 11 10	05 52.03	+24 17.2	2.102	2.921	138.8	12.9	18.6
1989 11 20	05 46.73	+24 15.7					
1989 11 30	05 39.22	+24 11.8	1.967	2.921	161.9	6.0	18.2
1989 12 10	05 30.23	+24 04.7					
1989 12 20	05 20.76	+23 54.4	1.941	2.920	173.5	2.2	18.0
1989 12 30	05 11.88	+23 41.9					
1990 01 09	05 04.59	+23 29.2	2.030	2.920	149.4	9.9	18.4
1990 01 19	04 59.56	+23 18.3					
1990 01 29	04 57.16	+23 10.7	2.215	2.919	127.3	15.6	18.8

4636 P-L a,e,i = 3.15, 0.08, 14 Elements MPC 12699

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 11 10	05 58.16	+40 37.9	2.266	3.045	134.7	13.4	18.4
1989 11 20	05 52.57	+41 33.1					
1989 11 30	05 44.21	+42 17.5	2.120	3.031	153.0	8.5	18.1
1989 12 10	05 33.85	+42 45.9					
1989 12 20	05 22.66	+42 54.7	2.076	3.018	159.7	6.5	17.9
1989 12 30	05 12.00	+42 43.7					
1990 01 09	05 03.14	+42 15.9	2.142	3.005	145.6	10.7	18.1
1990 01 19	04 56.99	+41 37.0					
1990 01 29	04 53.99	+40 52.5	2.302	2.993	126.4	15.4	18.4

3212 T-2 a,e,i = 2.47, 0.15, 7 Elements MPC 15084

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 11 10	05 56.27	+12 50.9	1.350	2.181	136.9	18.1	18.7
1989 11 20	05 51.67	+12 15.9					
1989 11 30	05 44.09	+11 49.7	1.258	2.204	158.0	9.6	18.3
1989 12 10	05 34.55	+11 35.3					
1989 12 20	05 24.44	+11 34.6	1.261	2.230	166.8	5.8	18.1
1989 12 30	05 15.22	+11 47.8					
1990 01 09	05 08.18	+12 14.0	1.365	2.258	147.6	13.5	18.6
1990 01 19	05 04.08	+12 50.6					
1990 01 29	05 03.22	+13 34.6	1.553	2.287	127.2	20.1	19.1

1988 NN a,e,i = 2.55, 0.20, 15 Elements MPC 13471

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 00.93	+10 46.6	2.030	2.821	135.3	14.3	18.0
1989	11 20	05 55.00	+09 41.7					
1989	11 30	05 46.94	+08 42.9	1.925	2.853	155.8	8.1	17.7
1989	12 10	05 37.50	+07 53.9					
1989	12 20	05 27.66	+07 17.5	1.928	2.883	163.1	5.7	17.6
1989	12 30	05 18.43	+06 55.7					
1990	01 09	05 10.73	+06 48.8	2.045	2.911	145.8	11.0	18.0
1990	01 19	05 05.17	+06 55.3					
1990	01 29	05 02.07	+07 13.1	2.256	2.937	125.3	15.9	18.4

1988 RG4 a,e,i = 2.39, 0.07, 6 Elements MPC 14951

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 02.26	+16 44.1	1.675	2.485	136.1	16.1	16.9
1989	11 20	05 57.33	+16 42.3					
1989	11 30	05 49.55	+16 45.8	1.527	2.472	158.7	8.3	16.4
1989	12 10	05 39.64	+16 54.8					
1989	12 20	05 28.76	+17 09.1	1.480	2.459	172.1	3.1	16.1
1989	12 30	05 18.28	+17 28.4					
1990	01 09	05 09.53	+17 52.5	1.545	2.445	149.7	11.7	16.5
1990	01 19	05 03.45	+18 21.1					
1990	01 29	05 00.54	+18 53.7	1.700	2.430	127.6	18.7	16.9

1977 JD a,e,i = 2.30, 0.10, 7 Elements MPC 10940

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 08.11	+28 51.4	1.727	2.526	135.0	16.1	18.0
1989	11 20	06 02.28	+29 29.1					
1989	11 30	05 53.25	+30 03.2	1.592	2.532	157.7	8.5	17.5
1989	12 10	05 41.87	+30 29.0					
1989	12 20	05 29.45	+30 43.3	1.559	2.536	171.5	3.3	17.3
1989	12 30	05 17.56	+30 45.3					
1990	01 09	05 07.68	+30 37.6	1.640	2.539	149.9	11.2	17.7
1990	01 19	05 00.80	+30 24.3					
1990	01 29	04 57.38	+30 09.7	1.814	2.540	127.8	17.9	18.1

(3868) 4575 P-L a,e,i = 2.33, 0.10, 8 Elements MPC 13446

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 03.95	+10 53.0	1.451	2.260	134.6	18.2	16.5
1989	11 20	05 59.13	+10 10.4					
1989	11 30	05 51.37	+09 37.7	1.348	2.282	155.4	10.4	16.1
1989	12 10	05 41.54	+09 18.3					
1989	12 20	05 30.97	+09 14.7	1.339	2.304	165.2	6.3	16.0
1989	12 30	05 21.06	+09 27.3					
1990	01 09	05 13.11	+09 55.0	1.434	2.326	147.8	13.0	16.4
1990	01 19	05 07.95	+10 34.6					
1990	01 29	05 05.96	+11 22.8	1.616	2.348	127.3	19.5	16.9

1981 SE2 a,e,i = 2.43, 0.21, 3 Elements MPC 12325

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 07.99	+20 40.0	1.383	2.198	135.1	18.5	17.7
1989	11 20	06 02.83	+20 47.3					
1989	11 30	05 54.42	+20 57.1	1.298	2.244	158.4	9.3	17.3
1989	12 10	05 43.79	+21 07.8					
1989	12 20	05 32.42	+21 18.4	1.309	2.291	175.6	1.9	17.0
1989	12 30	05 21.91	+21 28.5					
1990	01 09	05 13.63	+21 39.1	1.428	2.339	151.3	11.6	17.6
1990	01 19	05 08.42	+21 51.3					
1990	01 29	05 06.59	+22 05.8	1.636	2.386	129.4	18.6	18.2

1979 KD a,e,i = 2.59, 0.15, 8 Elements MPC 11836

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 07.85	+13 22.8	2.212	2.988	134.2	13.7	18.3
1989	11 20	06 02.85	+13 05.0					
1989	11 30	05 55.63	+12 52.6	2.055	2.983	156.0	7.7	17.9
1989	12 10	05 46.77	+12 46.9					
1989	12 20	05 37.11	+12 48.9	2.004	2.976	169.0	3.6	17.7
1989	12 30	05 27.65	+12 58.7					
1990	01 09	05 19.35	+13 16.2	2.071	2.966	150.5	9.4	18.0
1990	01 19	05 12.97	+13 40.6					
1990	01 29	05 08.98	+14 10.8	2.237	2.955	128.7	15.1	18.3

1988 KC a,e,i = 2.60, 0.30, 10 Elements MPC 13452

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 12.39	+16 09.6	1.941	2.720	133.6	15.3	17.9
1989	11 20	06 06.38	+15 25.3					
1989	11 30	05 58.03	+14 44.5	1.849	2.780	156.1	8.3	17.6
1989	12 10	05 48.11	+14 08.9					
1989	12 20	05 37.70	+13 40.2	1.864	2.837	169.9	3.5	17.4
1989	12 30	05 27.87	+13 20.1					
1990	01 09	05 19.62	+13 09.2	1.996	2.893	150.5	9.6	17.9
1990	01 19	05 13.60	+13 07.4					
1990	01 29	05 10.13	+13 13.9	2.226	2.945	128.8	15.1	18.3

1981 QE1 a,e,i = 2.43, 0.20, 2 Elements MPC 11740

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 08.06	+23 59.5	1.154	1.983	135.2	20.6	16.7
1989	11 20	06 04.93	+23 51.1					
1989	11 30	05 58.01	+23 41.2	1.061	2.009	157.7	10.8	16.2
1989	12 10	05 48.33	+23 28.5					
1989	12 20	05 37.55	+23 12.9	1.055	2.038	177.3	1.3	15.8
1989	12 30	05 27.50	+22 55.7					
1990	01 09	05 19.87	+22 39.7	1.148	2.072	152.8	12.5	16.5
1990	01 19	05 15.62	+22 27.7					
1990	01 29	05 15.08	+22 21.0	1.325	2.110	131.4	20.5	17.1

1980 GO a,e,i = 3.17, 0.11, 2 Elements MPC 14186

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 05.32	+21 16.3	2.534	3.316	135.7	12.0	18.3
1989	11 20	06 00.89	+21 13.4					
1989	11 30	05 54.45	+21 10.9	2.360	3.297	158.4	6.3	17.9
1989	12 10	05 46.52	+21 08.6					
1989	12 20	05 37.85	+21 06.3	2.295	3.278	176.5	1.0	17.5
1989	12 30	05 29.31	+21 04.1					
1990	01 09	05 21.76	+21 02.8	2.350	3.258	153.1	7.8	17.9
1990	01 19	05 15.91	+21 03.1					
1990	01 29	05 12.22	+21 06.0	2.510	3.238	130.6	13.4	18.2

1978 OK a,e,i = 2.30, 0.22, 4 Elements MPC 11995

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 11.30	+20 17.9	1.087	1.915	134.3	21.7	16.0
1989	11 20	06 07.56	+20 40.2					
1989	11 30	05 59.86	+21 07.6	1.009	1.956	157.1	11.3	15.6
1989	12 10	05 49.30	+21 37.6					
1989	12 20	05 37.61	+22 07.1	1.017	2.000	177.0	1.5	15.2
1989	12 30	05 26.77	+22 34.1					
1990	01 09	05 18.49	+22 58.7	1.124	2.048	152.6	12.8	16.0
1990	01 19	05 13.78	+23 21.9					
1990	01 29	05 12.95	+23 44.7	1.315	2.097	131.0	20.8	16.6

1988 MG a,e,i = 2.28, 0.15, 3 Elements MPC 13458

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 15.22	+24 19.5	1.687	2.475	133.5	16.9	17.9
1989	11 20	06 09.67	+24 14.1					
1989	11 30	06 01.07	+24 06.8	1.563	2.500	156.9	8.9	17.5
1989	12 10	05 50.24	+23 56.1					
1989	12 20	05 38.46	+23 41.4	1.540	2.523	177.5	1.0	17.1
1989	12 30	05 27.16	+23 23.6					
1990	01 09	05 17.71	+23 05.0	1.632	2.544	152.4	10.3	17.7
1990	01 19	05 11.03	+22 48.4					
1990	01 29	05 07.51	+22 36.0	1.820	2.563	129.6	17.2	18.1

1983 AY a,e,i = 2.36, 0.08, 6 Elements MPC 14937

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 16.64	+27 42.1	1.745	2.527	133.2	16.6	16.9
1989	11 20	06 11.95	+27 38.6					
1989	11 30	06 04.09	+27 30.6	1.585	2.518	156.0	9.2	16.4
1989	12 10	05 53.76	+27 15.7					
1989	12 20	05 42.16	+26 52.6	1.526	2.508	176.2	1.5	16.0
1989	12 30	05 30.75	+26 22.1					
1990	01 09	05 20.99	+25 47.3	1.579	2.497	153.2	10.2	16.5
1990	01 19	05 13.94	+25 12.3					
1990	01 29	05 10.15	+24 40.8	1.730	2.484	130.4	17.6	16.9

1983 DE a,e,i = 2.39, 0.19, 3 Elements MPC 11151

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 08.94	+21 04.7	1.107	1.938	134.9	21.2	16.1
1989	11 20	06 07.40	+21 20.3					
1989	11 30	06 01.94	+21 40.8	0.989	1.934	156.7	11.6	15.5
1989	12 10	05 53.32	+22 04.6					
1989	12 20	05 43.02	+22 29.2	0.953	1.937	178.3	0.9	15.0
1989	12 30	05 32.93	+22 52.7					
1990	01 09	05 24.97	+23 14.6	1.013	1.946	154.1	12.8	15.6
1990	01 19	05 20.44	+23 35.6					
1990	01 29	05 19.90	+23 56.6	1.154	1.960	132.6	21.7	16.2

1988 RF9 a,e,i = 2.25, 0.17, 3 Elements MPC 15068

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 20.06	+22 12.6	1.838	2.610	132.4	16.3	18.7
1989	11 20	06 15.25	+22 19.1					
1989	11 30	06 07.42	+22 27.0	1.670	2.600	155.5	9.1	18.2
1989	12 10	05 57.16	+22 34.9					
1989	12 20	05 45.54	+22 41.0	1.603	2.587	178.9	0.4	17.7
1989	12 30	05 33.90	+22 44.9					
1990	01 09	05 23.62	+22 47.1	1.652	2.571	153.7	9.7	18.2
1990	01 19	05 15.81	+22 49.2					
1990	01 29	05 11.07	+22 53.0	1.801	2.553	130.5	17.1	18.6

9546 P-L a,e,i = 3.13, 0.11, 3 Elements MPC 14631

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 13.49	+22 11.3	2.620	3.383	133.9	12.2	16.9
1989	11 20	06 09.23	+22 15.4					
1989	11 30	06 02.94	+22 20.2	2.442	3.369	156.5	6.7	16.5
1989	12 10	05 55.08	+22 24.9					
1989	12 20	05 46.36	+22 28.8	2.372	3.355	178.9	0.3	16.1
1989	12 30	05 37.63	+22 31.7					
1990	01 09	05 29.77	+22 33.9	2.423	3.341	155.1	7.1	16.5
1990	01 19	05 23.48	+22 36.1					
1990	01 29	05 19.27	+22 39.5	2.581	3.325	132.4	12.6	16.8

(3875) Staehle a,e,i = 2.23, 0.19, 6 Elements MPC 13461

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 22.16	+15 49.7	1.584	2.357	131.2	18.4	16.8
1989	11 20	06 17.08	+15 44.2					
1989	11 30	06 08.87	+15 45.5	1.471	2.396	154.0	10.4	16.4
1989	12 10	05 58.32	+15 53.9					
1989	12 20	05 46.64	+16 08.8	1.454	2.433	172.7	2.9	16.1
1989	12 30	05 35.28	+16 29.3					
1990	01 09	05 25.60	+16 54.6	1.550	2.467	153.1	10.4	16.6
1990	01 19	05 18.58	+17 23.8					
1990	01 29	05 14.70	+17 56.2	1.742	2.499	130.7	17.4	17.1

(3968) 1978 TU5 a,e,i = 2.32, 0.09, 6 Elements MPC 14169

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 22.84	+30 32.7	1.764	2.532	131.7	17.0	16.8
1989	11 20	06 18.09	+30 43.6					
1989	11 30	06 10.02	+30 49.3	1.610	2.534	154.0	9.8	16.4
1989	12 10	05 59.33	+30 45.9					
1989	12 20	05 47.23	+30 30.7	1.554	2.533	172.9	2.8	16.0
1989	12 30	05 35.26	+30 03.5					
1990	01 09	05 24.92	+29 27.4	1.611	2.531	153.7	9.9	16.4
1990	01 19	05 17.35	+28 47.3					
1990	01 29	05 13.10	+28 07.9	1.767	2.527	131.2	17.1	16.8

1982 BS a,e,i = 2.59, 0.17, 13 Elements MPC 10529

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 20.60	+36 46.0	1.382	2.168	131.4	20.1	16.3
1989	11 20	06 17.23	+36 36.7					
1989	11 30	06 09.84	+36 13.2	1.260	2.182	152.3	12.2	15.8
1989	12 10	05 59.40	+35 30.5					
1989	12 20	05 47.55	+34 26.9	1.226	2.199	169.0	4.9	15.5
1989	12 30	05 36.22	+33 05.4					
1990	01 09	05 27.18	+31 33.8	1.295	2.220	153.8	11.3	15.9
1990	01 19	05 21.51	+30 01.1					
1990	01 29	05 19.59	+28 34.6	1.458	2.245	132.6	18.8	16.4

1981 GF1 a,e,i = 3.03, 0.11, 9 Elements MPC 15064

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 19.67	+35 18.5	2.282	3.033	131.8	14.1	17.4
1989	11 20	06 14.93	+35 46.7					
1989	11 30	06 07.55	+36 08.1	2.145	3.055	152.7	8.5	17.1
1989	12 10	05 58.16	+36 18.9					
1989	12 20	05 47.76	+36 16.3	2.110	3.077	167.1	4.1	16.9
1989	12 30	05 37.54	+35 59.9					
1990	01 09	05 28.63	+35 31.7	2.192	3.099	152.8	8.3	17.2
1990	01 19	05 21.91	+34 55.8					
1990	01 29	05 17.86	+34 16.4	2.376	3.121	131.9	13.6	17.5

1985 SJ3 a,e,i = 2.24, 0.15, 6 Elements MPC 14194

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 25.40	+31 27.7	1.811	2.572	131.0	16.9	18.1
1989	11 20	06 20.41	+31 49.8					
1989	11 30	06 12.05	+32 07.0	1.652	2.571	153.3	9.9	17.7
1989	12 10	06 00.96	+32 14.8					
1989	12 20	05 48.37	+32 09.3	1.591	2.567	171.3	3.3	17.3
1989	12 30	05 35.81	+31 49.8					
1990	01 09	05 24.85	+31 18.8	1.644	2.561	153.3	9.9	17.7
1990	01 19	05 16.66	+30 41.3					
1990	01 29	05 11.86	+30 02.6	1.797	2.553	130.9	17.0	18.1

1985 RK6 a,e,i = 2.26, 0.15, 6 Elements MPC 14193

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 22.06	+15 46.4	1.806	2.569	131.2	16.9	17.6
1989	11 20	06 17.29	+15 14.6					
1989	11 30	06 09.68	+14 47.0	1.661	2.581	153.5	9.8	17.2
1989	12 10	05 59.86	+14 25.1					
1989	12 20	05 48.88	+14 10.3	1.615	2.591	170.8	3.5	16.9
1989	12 30	05 37.98	+14 03.4					
1990	01 09	05 28.44	+14 05.0	1.683	2.598	152.9	9.9	17.3
1990	01 19	05 21.20	+14 14.8					
1990	01 29	05 16.81	+14 32.0	1.851	2.602	130.6	16.7	17.7

1981 EH34 a,e,i = 2.91, 0.02, 2 Elements MPC 11044

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 18.01	+25 46.6	2.075	2.843	132.9	14.8	18.1
1989	11 20	06 14.13	+25 54.6					
1989	11 30	06 07.64	+26 01.5	1.917	2.844	155.4	8.3	17.7
1989	12 10	05 59.12	+26 05.3					
1989	12 20	05 49.48	+26 04.6	1.861	2.845	177.3	0.9	17.2
1989	12 30	05 39.85	+25 59.1					
1990	01 09	05 31.37	+25 49.6	1.921	2.846	155.5	8.2	17.7
1990	01 19	05 24.95	+25 38.4					
1990	01 29	05 21.13	+25 27.3	2.083	2.847	132.9	14.7	18.1

1988 PJ1 a,e,i = 2.60, 0.12, 15 Elements MPC 14355

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 27.29	+39 59.7	2.092	2.827	129.5	15.7	18.1
1989	11 20	06 21.85	+40 23.7					
1989	11 30	06 13.18	+40 37.3	1.947	2.842	149.6	10.1	17.8
1989	12 10	06 02.03	+40 34.7					
1989	12 20	05 49.63	+40 12.4	1.898	2.855	163.2	5.7	17.6
1989	12 30	05 37.45	+39 30.2					
1990	01 09	05 26.94	+38 31.8	1.964	2.866	151.3	9.5	17.8
1990	01 19	05 19.13	+37 23.7					
1990	01 29	05 14.50	+36 12.5	2.132	2.876	131.0	15.0	18.2

6582 P-L a,e,i = 3.15, 0.16, 1 Elements MPC 11844

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 17.58	+24 21.1	1.956	2.729	133.0	15.4	16.9
1989	11 20	06 14.74	+24 26.0					
1989	11 30	06 09.21	+24 30.9	1.785	2.712	155.1	8.8	16.4
1989	12 10	06 01.51	+24 34.4					
1989	12 20	05 52.53	+24 35.2	1.713	2.697	178.6	0.5	15.9
1989	12 30	05 43.40	+24 32.7					
1990	01 09	05 35.34	+24 27.8	1.754	2.684	156.5	8.4	16.4
1990	01 19	05 29.31	+24 21.8					
1990	01 29	05 25.93	+24 16.4	1.895	2.674	134.0	15.4	16.8

(3936) 2321 T-3 a,e,i = 2.43, 0.13, 6 Elements MPC 13851

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 24.41	+20 41.9	1.962	2.719	131.3	15.9	17.5
1989	11 20	06 19.91	+20 20.1					
1989	11 30	06 12.66	+19 59.0	1.806	2.727	154.0	9.1	17.1
1989	12 10	06 03.27	+19 38.7					
1989	12 20	05 52.70	+19 19.3	1.750	2.732	175.8	1.5	16.7
1989	12 30	05 42.11	+19 01.7					
1990	01 09	05 32.72	+18 47.2	1.811	2.735	155.2	8.7	17.1
1990	01 19	05 25.46	+18 37.1					
1990	01 29	05 20.89	+18 32.2	1.975	2.737	132.3	15.4	17.5

1988 PH1 a,e,i = 3.20, 0.22, 20 Elements MPC 13858

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		V
1989	11 10	06 32.29	+45 48.9	2.391	3.093	-1.72	+4.8	16.6
1989	11 20	06 26.76	+46 18.5					
1989	11 30	06 18.13	+46 35.6	2.272	3.135	-1.81	+4.4	16.3
1989	12 10	06 07.19	+46 34.8					
1989	12 20	05 55.15	+46 12.6	2.248	3.177	-1.72	+3.3	16.2
1989	12 30	05 43.39	+45 28.8					
1990	01 09	05 33.24	+44 26.9	2.335	3.219	-1.50	+2.1	16.4
1990	01 19	05 25.62	+43 13.1					
1990	01 29	05 20.97	+41 53.7	2.526	3.261	-1.26	+1.4	16.8

1980 NB a,e,i = 2.44, 0.17, 2 Elements MPC 14186

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 27.79	+22 27.4	2.109	2.854	130.6	15.3	18.1
1989	11 20	06 23.31	+22 23.7					
1989	11 30	06 16.14	+22 20.8	1.941	2.857	153.4	8.9	17.7
1989	12 10	06 06.82	+22 17.6					
1989	12 20	05 56.25	+22 13.1	1.874	2.858	178.0	0.7	17.3
1989	12 30	05 45.53	+22 07.2					
1990	01 09	05 35.84	+22 00.4	1.928	2.856	156.5	7.9	17.7
1990	01 19	05 28.15	+21 54.3					
1990	01 29	05 23.04	+21 50.1	2.086	2.852	133.2	14.6	18.1

(3919) 1984 DS a,e,i = 2.22, 0.19, 4 Elements MPC 13695

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 31.19	+17 44.4	1.780	2.526	129.3	17.6	18.4
1989	11 20	06 26.64	+17 33.3					
1989	11 30	06 19.07	+17 26.7	1.637	2.551	152.0	10.4	18.0
1989	12 10	06 09.08	+17 24.9					
1989	12 20	05 57.72	+17 27.3	1.592	2.572	173.7	2.4	17.6
1989	12 30	05 46.28	+17 33.7					
1990	01 09	05 36.10	+17 43.9	1.663	2.591	155.8	9.0	18.0
1990	01 19	05 28.22	+17 57.8					
1990	01 29	05 23.24	+18 15.5	1.835	2.607	132.8	16.1	18.5

1982 VM5 a,e,i = 2.23, 0.18, 5 Elements MPC 14188

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 31.09	+19 46.4	1.863	2.609	129.6	17.0	18.2
1989	11 20	06 26.52	+19 25.5					
1989	11 30	06 19.00	+19 06.6	1.708	2.622	152.4	10.0	17.8
1989	12 10	06 09.09	+18 49.7					
1989	12 20	05 57.81	+18 34.8	1.651	2.632	174.8	2.0	17.4
1989	12 30	05 46.41	+18 22.4					
1990	01 09	05 36.21	+18 13.5	1.710	2.639	155.9	8.7	17.8
1990	01 19	05 28.23	+18 09.0					
1990	01 29	05 23.09	+18 09.6	1.873	2.643	132.7	15.9	18.2

1976 GQ6 a,e,i = 3.02, 0.09, 11 Elements MPC 12143

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 22.48	+09 34.6	2.519	3.244	129.9	13.5	17.2
1989	11 20	06 18.71	+09 09.5					
1989	11 30	06 12.94	+08 51.6	2.358	3.252	150.4	8.6	16.9
1989	12 10	06 05.60	+08 42.8					
1989	12 20	05 57.36	+08 44.2	2.298	3.259	165.2	4.4	16.7
1989	12 30	05 49.01	+08 56.0					
1990	01 09	05 41.37	+09 17.7	2.355	3.265	153.5	7.7	16.9
1990	01 19	05 35.14	+09 47.9					
1990	01 29	05 30.82	+10 24.7	2.518	3.270	133.0	12.7	17.2

2548 P-L a,e,i = 3.13, 0.13, 2 Elements MPC 12689

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 23.56	+22 19.1	2.797	3.533	131.6	12.1	18.1
1989	11 20	06 19.58	+22 22.7					
1989	11 30	06 13.61	+22 27.3	2.614	3.527	154.0	7.0	17.8
1989	12 10	06 06.05	+22 32.1					
1989	12 20	05 57.56	+22 36.3	2.537	3.520	177.9	0.6	17.4
1989	12 30	05 48.91	+22 39.3					
1990	01 09	05 40.92	+22 41.3	2.583	3.512	157.7	6.1	17.7
1990	01 19	05 34.30	+22 43.0					
1990	01 29	05 29.56	+22 45.0	2.739	3.503	134.7	11.5	18.0

1977 EG7 a,e,i = 2.28, 0.15, 6 Elements MPC 12581

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 33.89	+14 41.3	1.508	2.259	128.2	20.1	18.0
1989	11 20	06 30.49	+14 09.8					
1989	11 30	06 23.77	+13 45.8	1.387	2.294	149.9	12.4	17.7
1989	12 10	06 14.36	+13 31.0					
1989	12 20	06 03.42	+13 26.5	1.354	2.328	169.5	4.4	17.3
1989	12 30	05 52.35	+13 32.5					
1990	01 09	05 42.62	+13 48.3	1.429	2.362	155.9	9.8	17.7
1990	01 19	05 35.34	+14 12.4					
1990	01 29	05 31.14	+14 42.8	1.602	2.394	134.1	17.2	18.2

(3907) Kilmartin a,e,i = 2.80, 0.12, 11 Elements MPC 13678

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 34.37	+29 10.6	1.912	2.651	129.2	16.8	16.1
1989	11 20	06 30.72	+28 55.1					
1989	11 30	06 24.07	+28 35.1	1.767	2.675	151.4	10.1	15.7
1989	12 10	06 15.02	+28 08.8					
1989	12 20	06 04.61	+27 34.8	1.718	2.699	174.6	2.0	15.3
1989	12 30	05 54.09	+26 54.0					
1990	01 09	05 44.74	+26 08.9	1.785	2.724	158.5	7.6	15.7
1990	01 19	05 37.58	+25 23.2					
1990	01 29	05 33.17	+24 40.1	1.956	2.748	135.6	14.5	16.2

1987 EA a,e,i = 2.24, 0.09, 3 Elements MPC 11862

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 33.51	+26 28.7	1.488	2.251	129.4	19.9	17.4
1989	11 20	06 31.49	+26 53.5					
1989	11 30	06 25.67	+27 20.0	1.313	2.229	151.2	12.3	16.9
1989	12 10	06 16.43	+27 44.7					
1989	12 20	06 04.83	+28 03.0	1.226	2.207	174.2	2.6	16.3
1989	12 30	05 52.45	+28 11.7					
1990	01 09	05 41.21	+28 10.3	1.245	2.186	157.5	9.9	16.6
1990	01 19	05 32.69	+28 01.6					
1990	01 29	05 27.87	+27 49.5	1.357	2.164	134.4	19.0	17.1

(3948) 1985 RF a,e,i = 2.26, 0.19, 3 Elements MPC 14008

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 37.58	+19 30.8	1.753	2.488	128.1	18.3	17.7
1989	11 20	06 33.43	+19 19.4					
1989	11 30	06 26.16	+19 11.6	1.615	2.522	150.7	11.0	17.4
1989	12 10	06 16.34	+19 07.2					
1989	12 20	06 05.03	+19 05.2	1.572	2.553	174.3	2.2	16.9
1989	12 30	05 53.53	+19 05.4					
1990	01 09	05 43.21	+19 07.8	1.644	2.581	157.7	8.3	17.3
1990	01 19	05 35.16	+19 13.0					
1990	01 29	05 30.01	+19 21.4	1.819	2.606	134.5	15.6	17.8

2224 T-2 a,e,i = 2.95, 0.08, 2 Elements MPC 14965

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 31.89	+25 20.1	2.139	2.875	129.8	15.4	18.7
1989	11 20	06 28.62	+25 33.6					
1989	11 30	06 22.70	+25 47.7	1.983	2.891	152.0	9.2	18.3
1989	12 10	06 14.62	+26 00.2					
1989	12 20	06 05.22	+26 09.2	1.925	2.906	175.4	1.5	17.9
1989	12 30	05 55.53	+26 13.3					
1990	01 09	05 46.71	+26 12.8	1.983	2.922	158.9	6.9	18.3
1990	01 19	05 39.69	+26 08.9					
1990	01 29	05 35.09	+26 03.4	2.148	2.938	136.1	13.4	18.7

1935 SC a,e,i = 2.24, 0.19, 5 Elements MPC 14181

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 40.27	+31 18.6	1.261	2.026	127.9	22.7	17.0
1989	11 20	06 37.74	+31 51.4					
1989	11 30	06 30.76	+32 20.9	1.157	2.068	149.4	14.1	16.6
1989	12 10	06 20.08	+32 40.5					
1989	12 20	06 07.21	+32 44.4	1.135	2.111	169.9	4.7	16.3
1989	12 30	05 54.20	+32 30.2					
1990	01 09	05 43.12	+32 00.8	1.215	2.154	156.9	10.3	16.7
1990	01 19	05 35.40	+31 22.5					
1990	01 29	05 31.66	+30 41.5	1.387	2.198	135.1	18.4	17.3

(4174) 1982 SB6 a,e,i = 3.21, 0.12, 2 Elements MPC 15059

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 30.26	+21 18.7	2.802	3.520	129.9	12.5	17.2
1989	11 20	06 26.59	+21 20.1					
1989	11 30	06 20.92	+21 23.2	2.628	3.531	152.3	7.5	16.9
1989	12 10	06 13.66	+21 27.4					
1989	12 20	06 05.42	+21 31.9	2.558	3.540	175.8	1.2	16.5
1989	12 30	05 56.94	+21 36.2					
1990	01 09	05 49.05	+21 40.2	2.610	3.548	159.5	5.6	16.8
1990	01 19	05 42.43	+21 44.3					
1990	01 29	05 37.61	+21 48.8	2.775	3.555	136.5	11.0	17.2

1980 FH2 a,e,i = 2.34, 0.07, 4 Elements MPC 13301

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 38.04	+27 56.2	1.678	2.421	128.4	18.7	17.9
1989	11 20	06 34.80	+28 09.4					
1989	11 30	06 28.07	+28 21.5	1.526	2.434	150.6	11.5	17.5
1989	12 10	06 18.39	+28 29.0					
1989	12 20	06 06.85	+28 28.6	1.467	2.447	173.6	2.6	17.0
1989	12 30	05 54.92	+28 18.7					
1990	01 09	05 44.21	+28 00.3	1.518	2.458	158.1	8.6	17.4
1990	01 19	05 35.98	+27 36.7					
1990	01 29	05 30.99	+27 11.8	1.671	2.469	135.1	16.3	17.8

1977 RR7 a,e,i = 3.13, 0.09, 12 Elements MPC 12569

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 37.49	+36 44.8	2.576	3.280	128.0	13.8	17.3
1989	11 20	06 33.75	+37 32.0					
1989	11 30	06 27.35	+38 15.2	2.413	3.293	148.2	9.1	17.0
1989	12 10	06 18.73	+38 50.0					
1989	12 20	06 08.68	+39 12.2	2.349	3.305	163.7	4.8	16.8
1989	12 30	05 58.24	+39 19.4					
1990	01 09	05 48.55	+39 11.7	2.402	3.317	154.6	7.3	17.0
1990	01 19	05 40.58	+38 51.7					
1990	01 29	05 35.02	+38 23.2	2.561	3.328	134.6	12.2	17.3

4016 P-L a,e,i = 2.80, 0.02, 5 Elements MPC 9299

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 11 10	06 36.93	+29 37.9	2.052	2.780	128.7	16.2	17.3
1989 11 20	06 33.94	+29 55.6					
1989 11 30	06 28.01	+30 11.7	1.884	2.784	150.4	10.1	17.0
1989 12 10	06 19.60	+30 22.8					
1989 12 20	06 09.59	+30 26.0	1.812	2.789	171.6	2.9	16.6
1989 12 30	05 59.13	+30 19.7					
1990 01 09	05 49.53	+30 04.2	1.854	2.793	158.8	7.3	16.8
1990 01 19	05 41.87	+29 42.0					
1990 01 29	05 36.86	+29 16.6	2.001	2.798	136.3	14.1	17.2

1975 SZ1 a,e,i = 2.27, 0.17, 3 Elements MPC 13300

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 11 10	06 33.81	+18 14.1	1.105	1.890	128.8	24.1	18.6
1989 11 20	06 33.95	+17 50.9					
1989 11 30	06 29.97	+17 34.4	0.985	1.902	149.5	15.2	18.1
1989 12 10	06 22.38	+17 26.4					
1989 12 20	06 12.41	+17 27.0	0.940	1.919	171.9	4.1	17.6
1989 12 30	06 01.79	+17 35.6					
1990 01 09	05 52.50	+17 51.3	0.989	1.941	159.6	10.2	18.0
1990 01 19	05 46.09	+18 12.8					
1990 01 29	05 43.38	+18 38.5	1.124	1.967	137.6	19.7	18.6

(3893) 1980 FG12 a,e,i = 2.42, 0.26, 23 Elements MPC 13587

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 11 10	06 41.79	-05 07.9	2.209	2.843	120.5	17.5	18.0
1989 11 20	06 37.87	-06 41.2					
1989 11 30	06 31.55	-08 00.4	2.081	2.878	136.5	13.6	17.8
1989 12 10	06 23.26	-08 59.3					
1989 12 20	06 13.75	-09 33.2	2.039	2.911	146.5	10.8	17.7
1989 12 30	06 03.93	-09 39.2					
1990 01 09	05 54.77	-09 18.0	2.098	2.940	142.5	11.8	17.8
1990 01 19	05 47.14	-08 33.3					
1990 01 29	05 41.60	-07 30.4	2.251	2.966	128.5	15.1	18.1

1985 RR a,e,i = 2.34, 0.24, 1 Elements MPC 10944

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 11 10	06 46.57	+22 42.5	1.443	2.180	126.3	21.5	17.9
1989 11 20	06 43.62	+22 52.2					
1989 11 30	06 36.92	+23 05.9	1.334	2.237	148.7	13.2	17.6
1989 12 10	06 27.09	+23 21.1					
1989 12 20	06 15.36	+23 34.7	1.312	2.293	174.0	2.6	17.1
1989 12 30	06 03.30	+23 44.7					
1990 01 09	05 52.58	+23 50.6	1.398	2.348	160.4	8.1	17.6
1990 01 19	05 44.47	+23 53.7					
1990 01 29	05 39.64	+23 55.9	1.585	2.402	137.1	16.2	18.2

1985 RE2 a,e,i = 2.26, 0.24, 3 Elements MPC 14193

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989 11 10	06 50.94	+26 21.0	1.729	2.441	125.5	19.3	17.0
1989 11 20	06 47.16	+26 34.0					
1989 11 30	06 39.90	+26 47.9	1.596	2.488	148.1	12.1	16.6
1989 12 10	06 29.71	+26 59.4					
1989 12 20	06 17.65	+27 05.1	1.553	2.532	172.6	2.9	16.2
1989 12 30	06 05.14	+27 02.9					
1990 01 09	05 53.73	+26 53.3	1.626	2.573	160.4	7.4	16.6
1990 01 19	05 44.67	+26 38.6					
1990 01 29	05 38.67	+26 22.1	1.804	2.612	136.9	14.9	17.1

1987 DF a,e,i = 2.36, 0.22, 23 Elements MPC 13590

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		V
1989	11 10	06 42.49	-06 08.8	2.230	2.857	-0.93	-2.2	17.8
1989	11 20	06 39.25	-07 14.0					
1989	11 30	06 33.52	-08 04.7	2.047	2.842	-1.05	-2.2	17.5
1989	12 10	06 25.61	-08 34.7					
1989	12 20	06 16.19	-08 39.3	1.945	2.824	-1.11	-1.9	17.3
1989	12 30	06 06.13	-08 15.5					
1990	01 09	05 56.48	-07 23.8	1.944	2.802	-1.08	-1.5	17.3
1990	01 19	05 48.21	-06 08.1					
1990	01 29	05 42.04	-04 34.4	2.040	2.778	-0.98	-1.4	17.5

3279 T-3 a,e,i = 3.14, 0.21, 11 Elements MPC 12803

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 43.77	+36 12.1	2.051	2.760	126.8	16.7	17.3
1989	11 20	06 42.58	+37 13.8					
1989	11 30	06 38.13	+38 15.0	1.847	2.722	146.3	11.6	16.9
1989	12 10	06 30.62	+39 10.0					
1989	12 20	06 20.77	+39 52.3	1.732	2.686	162.2	6.4	16.6
1989	12 30	06 09.75	+40 16.4					
1990	01 09	05 59.09	+40 19.9	1.725	2.652	155.5	8.9	16.6
1990	01 19	05 50.28	+40 04.8					
1990	01 29	05 44.38	+39 35.6	1.819	2.619	136.1	15.1	16.9

1978 WU14 a,e,i = 3.06, 0.11, 11 Elements MPC 13680

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 41.45	+13 31.7	2.019	2.724	126.2	17.1	16.0
1989	11 20	06 39.64	+12 36.5					
1989	11 30	06 35.23	+11 45.6	1.847	2.725	146.6	11.5	15.6
1989	12 10	06 28.60	+11 01.8					
1989	12 20	06 20.45	+10 27.5	1.766	2.728	165.0	5.3	15.3
1989	12 30	06 11.70	+10 04.6					
1990	01 09	06 03.45	+09 54.0	1.795	2.733	158.4	7.6	15.4
1990	01 19	05 56.65	+09 55.1					
1990	01 29	05 52.00	+10 06.7	1.927	2.739	137.9	13.9	15.8

1981 EX13 a,e,i = 2.97, 0.09, 10 Elements MPC 10771

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 44.03	+12 53.9	2.463	3.143	125.5	14.9	18.2
1989	11 20	06 41.20	+12 17.4					
1989	11 30	06 36.14	+11 46.1	2.287	3.156	146.4	10.0	17.9
1989	12 10	06 29.21	+11 21.7					
1989	12 20	06 21.01	+11 05.2	2.206	3.168	165.5	4.5	17.6
1989	12 30	06 12.34	+10 57.6					
1990	01 09	06 04.06	+10 58.9	2.241	3.180	159.1	6.3	17.7
1990	01 19	05 57.00	+11 08.5					
1990	01 29	05 51.75	+11 25.1	2.387	3.190	138.2	11.9	18.0

1988 RR2 a,e,i = 2.40, 0.20, 3 Elements MPC 15068

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 50.85	+19 41.0	2.176	2.861	125.0	16.5	18.2
1989	11 20	06 47.64	+19 38.1					
1989	11 30	06 41.67	+19 39.5	1.993	2.872	147.2	10.7	17.9
1989	12 10	06 33.31	+19 44.5					
1989	12 20	06 23.26	+19 51.9	1.904	2.880	171.3	3.0	17.5
1989	12 30	06 12.51	+20 00.6					
1990	01 09	06 02.22	+20 09.9	1.933	2.886	162.3	5.9	17.6
1990	01 19	05 53.44	+20 19.6					
1990	01 29	05 46.94	+20 29.9	2.075	2.888	138.6	13.0	18.1

1988 JJ a,e,i = 2.60, 0.38, 28 Elements MPC 13451

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 53.97	-04 28.2	2.161	2.767	118.0	18.4	17.2
1989	11 20	06 49.78	-06 26.1					
1989	11 30	06 43.09	-08 10.1	2.064	2.842	134.3	14.4	17.1
1989	12 10	06 34.37	-09 33.2					
1989	12 20	06 24.40	-10 30.4	2.052	2.913	145.0	11.2	17.0
1989	12 30	06 14.09	-10 58.4					
1990	01 09	06 04.45	-10 57.4	2.142	2.981	142.3	11.6	17.1
1990	01 19	05 56.34	-10 31.2					
1990	01 29	05 50.31	-09 45.1	2.327	3.046	129.1	14.5	17.5

2574 P-L a,e,i = 3.15, 0.09, 22 Elements MPC 12571

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 55.62	+50 40.3	2.250	2.902	122.3	16.8	18.4
1989	11 20	06 53.98	+52 15.8					
1989	11 30	06 48.28	+53 44.3	2.092	2.896	137.5	13.3	18.1
1989	12 10	06 38.68	+54 57.1					
1989	12 20	06 26.06	+55 45.4	2.016	2.891	147.0	10.7	17.9
1989	12 30	06 12.01	+56 02.6					
1990	01 09	05 58.62	+55 47.1	2.038	2.887	143.4	11.7	18.0
1990	01 19	05 47.76	+55 03.3					
1990	01 29	05 40.62	+53 58.6	2.150	2.885	130.1	15.1	18.2

1983 WR a,e,i = 3.19, 0.23, 13 Elements MPC 14019

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 53.28	+31 22.9	2.435	3.112	125.1	15.1	16.6
1989	11 20	06 50.34	+32 16.6					
1989	11 30	06 44.69	+33 10.6	2.289	3.157	146.3	10.0	16.4
1989	12 10	06 36.70	+34 00.9					
1989	12 20	06 27.07	+34 42.9	2.239	3.203	166.0	4.3	16.1
1989	12 30	06 16.77	+35 13.2					
1990	01 09	06 06.92	+35 30.5	2.307	3.247	159.7	6.0	16.3
1990	01 19	05 58.54	+35 35.5					
1990	01 29	05 52.36	+35 31.1	2.487	3.291	138.7	11.4	16.7

1932 HD a,e,i = 3.06, 0.22, 0 Elements MPC 14341

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 46.95	+22 47.5	2.095	2.796	126.2	16.6	17.1
1989	11 20	06 45.83	+22 47.0					
1989	11 30	06 41.95	+22 49.3	1.871	2.754	147.5	11.1	16.7
1989	12 10	06 35.51	+22 53.5					
1989	12 20	06 27.10	+22 58.2	1.737	2.713	171.3	3.2	16.1
1989	12 30	06 17.64	+23 01.9					
1990	01 09	06 08.32	+23 03.9	1.714	2.673	164.0	5.8	16.2
1990	01 19	06 00.33	+23 04.1					
1990	01 29	05 54.58	+23 03.6	1.799	2.635	140.5	13.8	16.6

1981 EL24 a,e,i = 2.91, 0.06, 1 Elements MPC 11043

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 50.95	+24 05.1	2.082	2.776	125.4	16.9	18.1
1989	11 20	06 49.19	+24 08.3					
1989	11 30	06 44.62	+24 13.8	1.905	2.784	147.0	11.1	17.7
1989	12 10	06 37.55	+24 20.1					
1989	12 20	06 28.69	+24 25.4	1.818	2.794	170.9	3.2	17.3
1989	12 30	06 19.01	+24 28.0					
1990	01 09	06 09.70	+24 27.2	1.844	2.803	164.3	5.5	17.5
1990	01 19	06 01.86	+24 23.5					
1990	01 29	05 56.28	+24 18.1	1.980	2.814	140.9	12.8	17.9

(3735) 1983 XS a,e,i = 3.11, 0.15, 5 Elements MPC 12705

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 52.36	+26 32.4	2.468	3.145	125.2	14.9	16.8
1989	11 20	06 50.37	+26 34.2					
1989	11 30	06 45.85	+26 36.5	2.244	3.116	146.8	10.0	16.4
1989	12 10	06 39.03	+26 37.7					
1989	12 20	06 30.50	+26 35.9	2.114	3.088	170.1	3.1	15.9
1989	12 30	06 21.06	+26 29.4					
1990	01 09	06 11.78	+26 17.9	2.100	3.059	164.5	4.9	16.0
1990	01 19	06 03.65	+26 02.2					
1990	01 29	05 57.48	+25 43.8	2.200	3.030	141.1	11.8	16.3

1175 T-3 a,e,i = 3.13, 0.08, 7 Elements MPC 14340

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 55.15	+27 38.5	2.609	3.275	124.6	14.4	17.8
1989	11 20	06 52.59	+27 42.3					
1989	11 30	06 47.60	+27 46.1	2.421	3.287	146.4	9.6	17.5
1989	12 10	06 40.50	+27 48.1					
1989	12 20	06 31.90	+27 46.2	2.327	3.299	169.4	3.1	17.1
1989	12 30	06 22.60	+27 39.2					
1990	01 09	06 13.57	+27 26.6	2.352	3.310	164.6	4.5	17.2
1990	01 19	06 05.72	+27 09.5					
1990	01 29	05 59.72	+26 49.5	2.492	3.321	141.6	10.6	17.6

(3939) 1953 GO a,e,i = 3.12, 0.09, 25 Elements MPC 14004

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	07 04.47	+48 21.8	2.764	3.386	121.3	14.5	16.9
1989	11 20	07 01.86	+49 53.5					
1989	11 30	06 55.84	+51 21.2	2.594	3.390	137.8	11.3	16.6
1989	12 10	06 46.57	+52 37.8					
1989	12 20	06 34.73	+53 35.8	2.514	3.393	148.6	8.7	16.5
1989	12 30	06 21.45	+54 09.7					
1990	01 09	06 08.32	+54 17.1	2.539	3.395	145.4	9.5	16.5
1990	01 19	05 56.87	+54 00.1					
1990	01 29	05 48.24	+53 23.7	2.664	3.396	131.4	12.6	16.7

1987 GD a,e,i = 2.38, 0.07, 3 Elements MPC 15067

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 55.41	+20 41.5	1.750	2.446	124.0	19.6	17.5
1989	11 20	06 54.41	+20 26.8					
1989	11 30	06 50.13	+20 15.9	1.554	2.430	145.4	13.3	17.1
1989	12 10	06 42.78	+20 08.9					
1989	12 20	06 33.04	+20 04.8	1.441	2.415	169.3	4.3	16.5
1989	12 30	06 22.04	+20 02.6					
1990	01 09	06 11.24	+20 01.7	1.437	2.398	164.4	6.3	16.6
1990	01 19	06 02.05	+20 02.1					
1990	01 29	05 55.54	+20 04.5	1.537	2.382	140.6	15.2	17.1

1981 EV26 a,e,i = 2.92, 0.02, 1 Elements MPC 11043

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 54.90	+23 21.5	2.203	2.882	124.4	16.5	17.8
1989	11 20	06 53.19	+23 22.5					
1989	11 30	06 48.77	+23 26.3	2.015	2.886	146.0	11.0	17.4
1989	12 10	06 41.93	+23 31.6					
1989	12 20	06 33.29	+23 36.8	1.917	2.890	169.9	3.4	17.0
1989	12 30	06 23.77	+23 40.3					
1990	01 09	06 14.48	+23 41.2	1.933	2.895	165.4	4.9	17.1
1990	01 19	06 06.47	+23 39.7					
1990	01 29	06 00.54	+23 36.8	2.060	2.900	141.9	12.1	17.5

1983 TS1 a,e,i = 3.08, 0.19, 2 Elements MPC 14191

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 54.82	+22 03.2	2.032	2.716	124.3	17.5	17.0
1989	11 20	06 53.34	+22 10.4					
1989	11 30	06 49.04	+22 21.9	1.876	2.749	145.9	11.6	16.7
1989	12 10	06 42.26	+22 36.5					
1989	12 20	06 33.70	+22 52.1	1.810	2.783	169.8	3.6	16.3
1989	12 30	06 24.33	+23 06.8					
1990	01 09	06 15.31	+23 19.3	1.855	2.818	165.6	5.0	16.5
1990	01 19	06 07.70	+23 29.2					
1990	01 29	06 02.26	+23 37.0	2.011	2.854	142.3	12.2	16.9

1978 QA2 a,e,i = 2.30, 0.22, 4 Elements MPC 10291

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	07 03.38	+17 32.0	1.606	2.288	121.7	21.6	18.7
1989	11 20	07 01.54	+17 12.7					
1989	11 30	06 56.21	+17 00.5	1.471	2.337	143.3	14.6	18.4
1989	12 10	06 47.79	+16 55.9					
1989	12 20	06 37.16	+16 58.3	1.417	2.386	167.0	5.3	18.0
1989	12 30	06 25.57	+17 06.4					
1990	01 09	06 14.55	+17 19.1	1.471	2.432	164.4	6.2	18.2
1990	01 19	06 05.41	+17 35.1					
1990	01 29	05 59.03	+17 53.7	1.631	2.477	141.2	14.4	18.7

1979 KG a,e,i = 2.68, 0.18, 14 Elements MPC 13447

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 57.96	+10 41.7	1.846	2.512	121.7	19.6	16.7
1989	11 20	06 56.37	+10 44.7					
1989	11 30	06 51.82	+11 00.0	1.696	2.551	142.5	13.6	16.4
1989	12 10	06 44.66	+11 29.1					
1989	12 20	06 35.57	+12 11.4	1.629	2.590	164.3	5.9	16.0
1989	12 30	06 25.57	+13 04.9					
1990	01 09	06 15.88	+14 06.1	1.672	2.629	163.3	6.2	16.1
1990	01 19	06 07.65	+15 11.2					
1990	01 29	06 01.70	+16 16.6	1.825	2.668	141.6	13.3	16.6

1983 XG a,e,i = 3.19, 0.15, 5 Elements MPC 13675

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 55.19	+17 30.0	2.341	3.005	123.6	15.9	17.0
1989	11 20	06 53.25	+17 11.0					
1989	11 30	06 48.88	+16 56.6	2.173	3.034	145.0	10.7	16.7
1989	12 10	06 42.42	+16 47.1					
1989	12 20	06 34.45	+16 42.5	2.096	3.063	167.4	4.0	16.4
1989	12 30	06 25.80	+16 42.5					
1990	01 09	06 17.40	+16 46.6	2.133	3.093	164.8	4.8	16.5
1990	01 19	06 10.13	+16 54.3					
1990	01 29	06 04.68	+17 04.9	2.283	3.122	142.4	11.1	16.9

1971 SN2 a,e,i = 3.18, 0.17, 2 Elements MPC 9472

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	V
1989	11 10	06 57.75	+23 05.2	2.558	3.215	123.8	14.8	17.3
1989	11 20	06 55.45	+23 14.5					
1989	11 30	06 50.78	+23 26.9	2.385	3.247	145.6	9.9	17.0
1989	12 10	06 44.05	+23 41.0					
1989	12 20	06 35.83	+23 55.0	2.306	3.277	169.3	3.2	16.7
1989	12 30	06 26.89	+24 07.4					
1990	01 09	06 18.16	+24 16.9	2.344	3.308	166.2	4.1	16.8
1990	01 19	06 10.52	+24 23.5					
1990	01 29	06 04.62	+24 27.6	2.499	3.337	142.8	10.3	17.2