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The MINOR PLANET CIRCULARS/MINOR PLANETS AND COMETS are published, on behalf
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ERRATA.

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MPC      Line
19982    3 & 4    The orbits for 1991 YF1 and 1991 YG1 are to be deleted.
                *      *      *      *      *
    
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CORRECTED OBSERVATIONS.

The following observations correct those previously published.

Object	Date	UT	R. A. (2000)	Decl.	Reference	Mag.	N	Obs.
1947 XC	* 1947 12	12.17634	02 54 19.96 +15	23 20.2	MPC 242		6	690
1947 XC	1947 12	14.17634	02 42 30.57 +14	45 39.0	MPC 242		6	690
1991 VE	1991 11	27.54020	02 01 24.79 +09	22 17.7	MPC 19402			413
1991 VE	1991 11	27.55530	02 01 22.40 +09	22 18.4	MPC 19402			413
1991 VE	1991 11	27.55875	02 01 21.83 +09	22 18.8	MPC 19402			413
1991 VE	1991 11	27.56567	02 01 20.72 +09	22 19.2	MPC 19402			413
1992 LU	1992 06	29.21979	15 37 59.74 +01	49 02.2	MPC 20575		7	675
1992 LU	1992 06	29.24497	15 37 59.44 +01	48 54.8	MPC 20575		7	675
(4015)	1949 11	19.12778	00 14 55.23 +13	48 56.9	MPC 16653		1	675
(4015)	1949 11	19.13194	00 14 57.01 +13	49 02.2	IAUC 1250		3	675
(4015)	1949 11	19.13611	00 14 58.72 +13	49 08.4	MPC 16653		1	675
(4015)	1949 11	19.15799	00 15 08.31 +13	49 40.4	MPC 16653		5	675

Note 1: designated as comet 1949 III (Wilson-Harrington); see IAUC 5585 for a discussion on the identity. 2: mean of preceding and following trail-end positions. 3 = 2 + 1. 4: mean of previously published trail-end positions. 5 = 4 + 1. 6: 1947 XC = (2201). 7: observations originally interchanged.

\* \* \* \* \*

DELETED OBSERVATIONS.

The following observations are to be deleted.

Object	Date	UT	R. A. (2000)	Decl.	Reference	Obs.
1938 WT	* 1938 11	28.00031	05 37 12.62 +21	10 27.2	RI 1945	028
1939 FA	* 1939 03	16.81910	12 28 17.08 +17	52 35.8	RI 1944	028
1939 PG	* 1939 08	09.87789	19 58 35.00 -11	20 27.6	RI 2014	028
1939 PH	* 1939 08	15.84028	20 44 48.16 -05	34 04.6	RI 2014	028
1939 RO	* 1939 09	09.89235	22 31 24.72 +28	05 00.3	RI 2031	028
1941 AA	* 1941 01	09.11632	09 04 43.57 +12	35 29.7	RI 2267	028

1941	BV	*	1941	01	29.84063	07	40	50.71	+43	00	33.5	RI	2267	028
1941	WX	*	1941	11	29.18004	06	08	28.21	+22	26	19.6	RI	2324	028
1942	AF	*	1942	01	07.86476	06	28	14.54	+23	31	07.4	RI	2390	028
1942	GAL	*	1942	04	11.96603	15	48	47.42	-06	30	59.1	RI	2398	028
1942	LA	*	1942	06	08.94705	15	52	22.12	-09	29	03.0	RI	2390	028
1942	LB	*	1942	06	08.94705	16	09	02.70	-05	18	17.1	RI	2390	028
1942	PA	*	1942	08	10.97708	21	11	37.38	-07	12	16.1	RI	2408	028
1942	VY	*	1942	11	08.84653	00	41	42.98	+28	41	37.4	RI	2419	028
1942	XL	*	1942	12	02.86042	03	27	50.76	+22	59	07.2	RI	2438	028
1942	XN	*	1942	12	02.86044	03	40	07.54	+27	29	46.3	RI	2438	028
1942	XO	*	1942	12	11.76594	03	45	41.80	+44	23	18.0	RI	2525	028
1943	AE	*	1943	01	15.80836	06	51	23.09	+50	36	55.2	RI	2524	028
1943	LC	*	1943	06	04.91620	15	33	24.48	+04	53	37.9	RI	2523	028
1943	TN	*	1943	10	11.11111	03	17	53.48	+21	50	09.0	RI	2525	028
1943	UG	*	1943	10	31.91123	03	32	19.50	+11	32	39.5	RI	2525	028
1944	QC	*	1944	08	26.01181	23	27	04.22	-11	42	46.6	RI	2561	028
1944	QM	*	1944	08	18.89433	22	15	08.80	+11	02	25.4	RI	2560	028

\* \* \* \* \*

## IDENTIFICATION CHANGES.

Continuation to MPC 20543.

Object	Date	UT	R. A. (2000)			Decl.	Old desig.	Mag.	Obs.
1950 DP1	*	1950 02	16.97892	10 00	05.27	+10 01 22.0	1950 DK		012
1976 YB8	*	1976 12	20.95308	05 57	17.90	+15 29 58.9	1976 YB3	17.0	095
1978 JW3	*	1978 05	05.94458	14 58	14.19	-01 57 40.1	1978 GY4	16.7	095
1989 PY1	*	1989 08	02.26771	19 15	56.45	-15 17 01.6	1989 OK1	17.8	675
1989 PY1		1989 08	02.29809	19 15	55.25	-15 17 17.0	1989 OK1		675
1991 FJ6	*	1991 03	23.28021	12 56	09.17	-02 55 22.7	1991 FX3		809
1991 FJ6		1991 03	23.29063	12 56	08.71	-02 55 18.1	1991 FX3		809
1991 FJ6		1991 03	23.30104	12 56	08.25	-02 55 13.4	1991 FX3		809
1991 JH7	*	1991 05	05.48576	13 58	00.94	+00 09 59.2	1991 JH	16.5	399
1991 JH7		1991 05	05.50104	13 58	00.19	+00 10 03.1	1991 JH		399

\* \* \* \* \*

## OBSERVATIONS OF COMETS.

Observations are published here for the following observatory codes:

- 104 Pian dei Termini. 0.4-m f/5 reflector. Observers L. Tesi and P. Gigli. Measured by L. Tesi, reduction by L. Melani.
- 372 Geisei. 0.60-m f/3.5 reflector. Observer T. Seki.
- 402 Dynic Astronomical Observatory. 0.25-m f/3.4 Schmidt. Observer A. Sugie.
- 413 Siding Spring. 1.0-m reflector + CCD. Observers R. H. McNaught and D. I. Steel.
- 474 Mt. John. 0.6-m reflector. Observer A. C. Gilmore. Measured by P. M. Kilmartin.
- 557 Ondrejov. 0.18-m f/5.6 Maksutov + CCD. Observer P. Pravec.
- 657 Climenhaga Observatory, Victoria. 0.25-m Schmidt telescope and 0.5-m reflector + CCD. Observers J. B. Tatum and D. D. Balam.
- 658 Dominion Astrophysical Observatory, Victoria. 1.85-m reflector. Observer D. D. Balam.
- 675 Palomar. 0.46-m Schmidt. Observers E. F. Helin, K. J. Lawrence, J. Alu and P. Rose.

- 801 Oak Ridge. 1.5-m reflector + CCD. Observers R. E. McCrosky and C.-Y. Shao.  
 894 Otomo. 0.25-m f/3.4 reflector. Observer S. Otomo.  
 897 YGCO Chiyoda Station. 0.25-m f/3.4 Wright-Schmidt. Observer T. Kojima.  
 900 Kiryuu Observatory, Ohtsu. 0.10-m f/5.9 astrocamera. Observer Y. Ikari.  
 950 La Palma. Nordic Optical Telescope. Observers G. Tancredi and M. Lindgren.

Object	Date	UT	R. A. (2000)	Decl.	Mag.	N Obs.
Periodic Comet Grigg-Skjellerup						
/1987 X	1992 07 06.27403	09 57 29.50	+06 58 29.1			474
/1987 X	1992 07 06.28294	09 57 31.55	+06 58 26.6		16.4 N	474
/1987 X	1992 07 06.29234	09 57 34.10	+06 58 22.1		16.6 N	474
/1987 X	1992 08 23.37722	13 35 27.99	+00 58 47.6			413
/1987 X	1992 08 23.37951	13 35 28.63	+00 58 46.3			413
Comet McNaught-Russell (1990 XXII)						
/1990 XXII	1992 08 21.63013	22 16 37.56	-26 28 13.8			413
/1990 XXII	1992 08 21.63338	22 16 37.46	-26 28 15.3			413
/1990 XXII	1992 08 22.57233	22 16 07.35	-26 34 27.9			413
/1990 XXII	1992 08 22.57613	22 16 07.21	-26 34 29.3			413
Comet Shoemaker-Levy (1991d)						
/1991d	1992 07 26.37806	20 24 42.07	+35 18 39.5			658
/1991d	1992 07 26.38085	20 24 41.91	+35 18 36.6			658
/1991d	1992 07 26.38431	20 24 41.64	+35 18 32.8			658
/1991d	1992 07 26.90243	20 24 06.82	+35 09 03.2			104
/1991d	1992 07 26.91493	20 24 06.03	+35 08 50.7			104
/1991d	1992 07 27.35831	20 23 35.85	+35 00 38.7			658
/1991d	1992 07 27.36108	20 23 35.59	+35 00 36.1			658
/1991d	1992 07 27.36386	20 23 35.41	+35 00 32.3			658
/1991d	1992 07 29.88993	20 20 47.73	+34 12 43.3			104
/1991d	1992 07 29.90104	20 20 46.87	+34 12 29.5			104
/1991d	1992 08 02.87639	20 16 32.64	+32 53 23.0			104
/1991d	1992 08 02.88785	20 16 31.73	+32 53 07.5			104
/1991d	1992 08 05.66735	20 13 42.62	+31 55 15.3			900
/1991d	1992 08 05.70292	20 13 40.32	+31 54 26.1			900
/1991d	1992 08 05.72558	20 13 38.93	+31 54 01.0			900
/1991d	1992 08 24.09970	19 58 48.16	+24 57 02.7			801
/1991d	1992 08 24.10785	19 58 47.84	+24 56 51.2			801
/1991d	1992 08 26.06384	19 57 38.94	+24 10 43.2			801
/1991d	1992 08 26.07690	19 57 38.49	+24 10 24.7			801
/1991d	1992 08 26.34721	19 57 29.30	+24 04 02.5			657
/1991d	1992 08 26.34860	19 57 29.25	+24 03 59.0			657
/1991d	1992 08 26.34992	19 57 29.18	+24 03 57.7			657
/1991d	1992 08 28.24245	19 56 28.34	+23 19 20.1			657
/1991d	1992 08 28.24388	19 56 28.30	+23 19 17.9			657
/1991d	1992 08 28.24552	19 56 28.21	+23 19 14.4			657
/1991d	1992 08 30.58801	19 55 19.74	+22 24 07.3			900
/1991d	1992 08 30.59622	19 55 19.57	+22 23 58.7			900
/1991d	1992 08 31.08117	19 55 06.17	+22 12 33.3			801
/1991d	1992 08 31.09856	19 55 05.63	+22 12 07.5			801
/1991d	1992 09 03.21473	19 53 48.51	+20 59 17.3			657
/1991d	1992 09 03.21624	19 53 48.49	+20 59 16.1			657
/1991d	1992 09 03.21791	19 53 48.42	+20 59 14.6			657

## Comet Helin-Lawrence (1991l)

/1991l	1992 08 24.31245	01 33 06.82	+14 19 05.7	801
/1991l	1992 08 24.32608	01 33 05.61	+14 19 13.8	801
/1991l	1992 08 31.32841	01 21 41.73	+15 02 16.3	801
/1991l	1992 08 31.34656	01 21 39.91	+15 02 22.5	801

## Comet Helin-Alu (1991r)

/1991r	1992 06 23.68819	19 14 30.86	+18 59 45.6	17 T	372
/1991r	1992 06 23.69792	19 14 30.66	+18 59 48.4		372
/1991r	1992 07 26.36420	18 57 22.59	+21 24 59.7		658
/1991r	1992 07 26.36765	18 57 22.43	+21 24 59.4		658
/1991r	1992 07 26.37148	18 57 22.35	+21 24 59.6		658
/1991r	1992 07 27.34477	18 56 54.72	+21 26 38.3		658
/1991r	1992 07 27.34790	18 56 54.63	+21 26 38.7		658
/1991r	1992 07 28.30417	18 56 27.88	+21 28 07.0		658
/1991r	1992 07 28.30698	18 56 27.78	+21 28 07.3		658
/1991r	1992 07 28.30973	18 56 27.72	+21 28 07.6		658
/1991r	1992 08 24.09767	18 47 33.77	+21 20 38.2		801
/1991r	1992 08 24.13741	18 47 33.26	+21 20 33.7		801
/1991r	1992 08 26.08228	18 47 14.20	+21 17 04.6	1	801
/1991r	1992 08 26.18692	18 47 13.11	+21 16 52.5	1	801

## Comet McNaught-Russell (1991v)

/1991v	1992 08 09.81098	07 37 06.87	-43 50 58.8	413
/1991v	1992 08 09.81389	07 37 07.10	-43 50 58.3	413
/1991v	1992 08 21.79941	07 53 29.71	-43 15 45.3	413
/1991v	1992 08 21.80238	07 53 29.94	-43 15 45.0	413
/1991v	1992 08 21.80677	07 53 30.33	-43 15 44.4	413

## Periodic Comet Shoemaker-Levy 8

/1992f	1992 08 20.48233	15 18 32.95	-14 12 22.2	413
/1992f	1992 08 20.48463	15 18 33.14	-14 12 23.1	413
/1992f	1992 08 21.45744	15 19 40.37	-14 16 35.8	413
/1992f	1992 08 21.45942	15 19 40.52	-14 16 36.3	413

## Periodic Comet Giclas

/1992l	1992 08 24.34340	03 29 48.84	+09 02 59.2	801
/1992l	1992 08 24.35938	03 29 50.46	+09 03 01.5	801

## Periodic Comet Wolf

/1992m	1992 07 27.45311	01 06 08.68	+22 59 03.8	658
/1992m	1992 07 27.45762	01 06 08.94	+22 59 04.4	658
/1992m	1992 07 27.46182	01 06 09.18	+22 59 04.3	658

## Periodic Comet Schuster

/1992n	1992 08 25.34321	05 10 53.66	+18 36 26.0	801
/1992n	1992 08 25.34758	05 10 54.12	+18 36 30.2	801
/1992n	1992 08 27.47095	05 16 47.97	+19 10 26.0	657
/1992n	1992 08 27.47307	05 16 48.37	+19 10 28.0	657
/1992n	1992 08 28.48801	05 19 37.61	+19 26 36.6	657
/1992n	1992 08 28.49032	05 19 37.87	+19 26 37.6	657
/1992n	1992 08 28.49251	05 19 38.28	+19 26 40.5	657

## Periodic Comet Daniel

/1992o	1992 07 29.78576	05 38 34.79	+21 14 15.5	19 T 2	372
/1992o	1992 08 08.78646	06 07 55.29	+22 43 06.9	18 T 2	372
/1992o	1992 08 09.78765	06 10 53.81	+22 51 08.0	18 T 2	372

## Comet Brewington (1992p)

/1992p	1992 08 28.73646	07 14 20.74	+36 52 54.7	13	T	3	402
/1992p	1992 08 28.74688	07 14 22.32	+36 52 52.3			3	402
/1992p	1992 08 28.76059	07 14 24.03	+36 52 54.1	13.5	T	4	897
/1992p	1992 08 28.76389	07 14 25.28	+36 52 50.8			3	402
/1992p	1992 08 29.77941	07 17 14.72	+36 50 48.5	14	T	5	372
/1992p	1992 08 29.80555	07 17 19.10	+36 50 45.1			5	372
/1992p	1992 08 29.81042	07 17 19.89	+36 50 44.9			5	372
/1992p	1992 08 31.08770	07 20 50.8	+36 47 58			6	557
/1992p	1992 08 31.09063	07 20 51.2	+36 47 56			6	557
/1992p	1992 08 31.09964	07 20 52.6	+36 47 54			6	557
/1992p	1992 08 31.36906	07 21 36.98	+36 47 20.4				801
/1992p	1992 08 31.37354	07 21 37.74	+36 47 19.9				801
/1992p	1992 08 31.76088	07 22 41.21	+36 46 26.9	14	T		897
/1992p	1992 08 31.77309	07 22 43.48	+36 46 24.4	13.5	T		372
/1992p	1992 08 31.77691	07 22 44.26	+36 46 23.0				372
/1992p	1992 08 31.78698	07 22 45.77	+36 46 21.1	13.5	T		372
/1992p	1992 08 31.79120	07 22 46.23	+36 46 19.5	14	T		894
/1992p	1992 08 31.79167	07 22 46.13	+36 46 21.7				897
/1992p	1992 09 01.50469	07 24 42.63	+36 44 37.3				657
/1992p	1992 09 01.79861	07 25 30.41	+36 43 54.8	14	T		894
/1992p	1992 09 02.47274	07 27 19.22	+36 42 08.1				657
/1992p	1992 09 04.79601	07 33 30.24	+36 35 51.6	14	T		372
/1992p	1992 09 04.81181	07 33 32.70	+36 35 49.5				372

## Comet Helin-Lawrence (1992q)

/1992q	1992 08 29.43102	02 03 53.36	-12 23 45.1	15	T	7	675
/1992q	1992 08 29.44826	02 03 52.60	-12 24 12.8			7	675
/1992q	1992 08 30.36181	02 03 23.16	-12 51 49.2	15.0	T	8	675
/1992q	1992 08 30.46285	02 03 19.66	-12 54 53.0			8	675
/1992q	1992 08 31.34948	02 02 49.48	-13 22 07.8			9	675
/1992q	1992 08 31.44045	02 02 46.13	-13 24 56.5			9	675
/1992q	1992 08 31.69462	02 02 37.19	-13 32 49.2	15	T		897
/1992q	1992 08 31.70978	02 02 36.60	-13 33 17.3				897
/1992q	1992 08 31.72118	02 02 36.05	-13 33 37.9	15	T		372
/1992q	1992 08 31.73652	02 02 35.55	-13 34 07.3				897
/1992q	1992 09 01.32642	02 02 13.96	-13 52 33.3				801
/1992q	1992 09 01.43073	02 02 10.07	-13 55 50.6				675
/1992q	1992 09 01.77535	02 01 56.99	-14 06 42.7	14.5	T		894
/1992q	1992 09 02.45920	02 01 30.52	-14 28 25.1				657
/1992q	1992 09 04.73625	01 59 55.00	-15 42 13.3	15	T		372
/1992q	1992 09 05.68264	01 59 12.00	-16 13 33.4			A	413
/1992q	1992 09 05.68499	01 59 11.89	-16 13 38.1			A	413
/1992q	1992 09 05.80512	01 59 06.11	-16 17 38.7			A	413
/1992q	1992 09 05.80767	01 59 05.98	-16 17 43.8			A	413

## Periodic Comet Tuttle

/1992r	1992 07 29.06250	20 05 39.19	+31 35 56.8	21.2	N	B	950
/1992r	1992 07 29.14236	20 05 36.12	+31 35 59.6	21.3	N	B	950
/1992r	1992 07 29.97188	20 05 01.70	+31 35 49.9	21.4	N	B	950
/1992r	1992 07 30.89896	20 04 23.08	+31 35 30.9	21.2	N	B	950
/1992r	1992 07 31.19896	20 04 10.51	+31 35 23.5	21.4	N	B	950

Note 1: poor, diffuse image. 2: comet diffuse and condensed. 3: very faint and diffuse. 4: weak image. 5: 5' tail in p.a. 300 . 6: image prolonged in p.a. 300 10 . 7: strong condensation, no tail. 8: correction to IAUC 5597. 9: correction to IAUC 5600. A: narrow tail 2' long in p.a. 330 . B: stellar appearance.

## OBSERVATIONS OF MINOR PLANETS.

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

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

Object	Date	UT	R. A. (2000)	Decl.	Mag.	N Obs.
010 Caussols						
E. W. Elst, Royal Observatory, B-1180 Brussels, Belgium						
Observers E. W. Elst, J. B. Emond						
Measurer E. W. Elst						
0.9-m Schmidt telescope						
1950 DE	1992 08	08.01528	21 21 20.24	-11 01 18.9		010
1950 DE	1992 08	08.02569	21 21 19.81	-11 01 22.8		010
1950 DE	1992 08	08.03611	21 21 19.32	-11 01 26.6		010
1950 DE	1992 08	09.07662	21 20 35.56	-11 07 29.0	18.5	010
1950 DE	1992 08	09.08704	21 20 35.09	-11 07 32.3		010
1950 DE	1992 08	09.09745	21 20 34.67	-11 07 35.9		010
1981 EY8	1992 08	08.01528	21 27 51.97	-12 07 04.8		010
1981 EY8	1992 08	08.02569	21 27 51.30	-12 07 05.1		010
1981 EY8	1992 08	08.03611	21 27 50.71	-12 07 05.5		010
1981 EY8	1992 08	09.07662	21 26 52.83	-12 07 47.5	18.6	010
1981 EY8	1992 08	09.08704	21 26 52.21	-12 07 47.5		010
1981 EY8	1992 08	09.09745	21 26 51.58	-12 07 47.5		010

1985 GA1		1992 07 26.00266	20 25 08.33	-17 11 20.0		010
1985 GA1		1992 07 26.01308	20 25 07.73	-17 11 26.5		010
1985 GA1		1992 07 26.97603	20 24 17.52	-17 19 47.1	18.0	010
1985 GA1		1992 07 26.99409	20 24 16.52	-17 19 56.6		010
1985 GA1		1992 07 27.00450	20 24 15.82	-17 20 03.0		010
1990 BZ1		1992 08 08.01528	21 32 50.45	-10 06 28.3		010
1990 BZ1		1992 08 08.02569	21 32 49.90	-10 06 31.3		010
1990 BZ1		1992 08 08.03611	21 32 49.27	-10 06 34.2		010
1990 BZ1		1992 08 09.07662	21 31 55.86	-10 10 50.1	18.6	010
1990 BZ1		1992 08 09.08704	21 31 55.22	-10 10 53.8		010
1990 BZ1		1992 08 09.09745	21 31 54.65	-10 10 57.0		010
1992 OD1	*	1992 07 26.00266	20 20 47.26	-17 07 47.8		010
1992 OD1		1992 07 26.01308	20 20 46.65	-17 08 00.7		010
1992 OD1		1992 07 26.97603	20 20 01.58	-17 19 10.1	18.5	010
1992 OD1		1992 07 26.99409	20 20 00.77	-17 19 22.0		010
1992 OD1		1992 07 27.00450	20 20 00.12	-17 19 29.0		010
1992 OE1	*	1992 07 26.00266	20 20 50.09	-17 36 55.4		010
1992 OE1		1992 07 26.01308	20 20 49.44	-17 37 02.7		010
1992 OE1		1992 07 26.97603	20 19 58.90	-17 44 26.8	18.6	010
1992 OE1		1992 07 26.99409	20 19 57.79	-17 44 35.7		010
1992 OE1		1992 07 27.00450	20 19 57.22	-17 44 40.6		010
1992 OF1	*	1992 07 26.00266	20 22 00.70	-18 54 52.5		010
1992 OF1		1992 07 26.01308	20 22 00.26	-18 54 56.2		010
1992 OF1		1992 07 26.97603	20 21 14.76	-19 01 36.6	18.5	010
1992 OF1		1992 07 26.99409	20 21 13.82	-19 01 44.7		010
1992 OF1		1992 07 27.00450	20 21 13.32	-19 01 49.7		010
1992 PE	*	1992 08 08.01528	21 19 24.11	-11 01 55.4		010
1992 PE		1992 08 08.02569	21 19 23.36	-11 02 01.3		010
1992 PE		1992 08 08.03611	21 19 22.86	-11 02 04.9		010
1992 PE		1992 08 09.07662	21 18 34.18	-11 08 45.1	19.5	010
1992 PE		1992 08 09.08704	21 18 33.68	-11 08 49.8		010
1992 PE		1992 08 09.09745	21 18 33.15	-11 08 54.6		010
1992 PF	*	1992 08 08.01528	21 20 01.81	-11 33 22.4		010
1992 PF		1992 08 08.02569	21 20 01.26	-11 33 25.5		010
1992 PF		1992 08 08.03611	21 20 00.70	-11 33 28.5		010
1992 PF		1992 08 09.07662	21 19 12.03	-11 39 17.7	18.0	010
1992 PF		1992 08 09.08704	21 19 11.52	-11 39 20.1		010
1992 PF		1992 08 09.09745	21 19 11.01	-11 39 23.2		010
1992 PG	*	1992 08 08.01528	21 20 27.17	-12 13 24.2		010
1992 PG		1992 08 08.02569	21 20 26.66	-12 13 29.9		010
1992 PG		1992 08 08.03611	21 20 26.15	-12 13 34.9		010
1992 PG		1992 08 09.07662	21 19 40.16	-12 22 59.0	17.9	010
1992 PG		1992 08 09.08704	21 19 39.70	-12 23 03.7		010
1992 PG		1992 08 09.09745	21 19 39.27	-12 23 07.8		010
1992 PH	*	1992 08 08.01528	21 21 11.57	-10 04 30.5		010
1992 PH		1992 08 08.02569	21 21 10.83	-10 04 34.3		010
1992 PH		1992 08 08.03611	21 21 10.21	-10 04 37.0		010
1992 PH		1992 08 09.07662	21 20 11.06	-10 09 15.0	18.5	010
1992 PH		1992 08 09.08704	21 20 10.41	-10 09 18.0		010
1992 PH		1992 08 09.09745	21 20 09.81	-10 09 20.3		010
1992 PJ	*	1992 08 08.01528	21 22 07.01	-11 06 18.5		010
1992 PJ		1992 08 08.02569	21 22 06.28	-11 06 21.2		010
1992 PJ		1992 08 08.03611	21 22 05.59	-11 06 22.7		010
1992 PJ		1992 08 09.07662	21 21 00.66	-11 10 07.5	18.3	010
1992 PJ		1992 08 09.08704	21 20 59.95	-11 10 08.8		010
1992 PJ		1992 08 09.09745	21 20 59.22	-11 10 10.9		010
1992 PK	*	1992 08 08.01528	21 23 30.56	-11 37 15.9		010
1992 PK		1992 08 08.02569	21 23 29.83	-11 37 15.5		010
1992 PK		1992 08 08.03611	21 23 29.12	-11 37 15.1		010

1992 PK		1992 08 09.07662	21 22 25.90	-11 36 02.7	18.3	010
1992 PK		1992 08 09.08704	21 22 25.22	-11 36 01.8		010
1992 PK		1992 08 09.09745	21 22 24.55	-11 36 00.1		010
1992 PL	*	1992 08 08.01528	21 23 45.65	-11 40 28.5		010
1992 PL		1992 08 08.02569	21 23 45.04	-11 40 29.1		010
1992 PL		1992 08 08.03611	21 23 44.33	-11 40 29.8		010
1992 PL		1992 08 09.07662	21 22 45.91	-11 41 45.2	19.2	010
1992 PL		1992 08 09.08704	21 22 45.33	-11 41 44.3		010
1992 PL		1992 08 09.09745	21 22 44.84	-11 41 45.6		010
1992 PM	*	1992 08 08.01528	21 23 53.41	-11 03 40.2		010
1992 PM		1992 08 08.02569	21 23 52.72	-11 03 43.1		010
1992 PM		1992 08 08.03611	21 23 52.15	-11 03 46.0		010
1992 PM		1992 08 09.07662	21 22 53.53	-11 08 22.9	18.9	010
1992 PM		1992 08 09.08704	21 22 52.93	-11 08 25.6		010
1992 PM		1992 08 09.09745	21 22 52.30	-11 08 28.3		010
1992 PN	*	1992 08 08.01528	21 24 01.24	-11 08 59.4		010
1992 PN		1992 08 08.02569	21 24 00.58	-11 09 04.1		010
1992 PN		1992 08 08.03611	21 23 59.90	-11 09 06.5		010
1992 PN		1992 08 09.07662	21 23 00.88	-11 14 39.4	18.6	010
1992 PN		1992 08 09.08704	21 23 00.30	-11 14 42.1		010
1992 PN		1992 08 09.09745	21 22 59.77	-11 14 44.9		010
1992 PO	*	1992 08 08.01528	21 25 05.34	-12 28 23.3		010
1992 PO		1992 08 08.02569	21 25 04.75	-12 28 22.7		010
1992 PO		1992 08 08.03611	21 25 04.06	-12 28 23.1		010
1992 PO		1992 08 09.07662	21 24 07.89	-12 27 46.4	19.6	010
1992 PO		1992 08 09.08704	21 24 07.37	-12 27 45.0		010
1992 PO		1992 08 09.09745	21 24 06.85	-12 27 45.0		010
1992 PP	*	1992 08 08.01528	21 25 45.82	-09 44 17.4		010
1992 PP		1992 08 08.02569	21 25 45.28	-09 44 21.8		010
1992 PP		1992 08 08.03611	21 25 44.86	-09 44 27.3		010
1992 PP		1992 08 09.07662	21 24 59.61	-09 52 49.3	19.0	010
1992 PP		1992 08 09.08704	21 24 59.13	-09 52 54.5		010
1992 PP		1992 08 09.09745	21 24 58.69	-09 52 58.9		010
1992 PQ	*	1992 08 08.01528	21 25 46.10	-10 12 46.5		010
1992 PQ		1992 08 08.02569	21 25 45.40	-10 12 46.3		010
1992 PQ		1992 08 08.03611	21 25 44.53	-10 12 43.3		010
1992 PQ		1992 08 09.07662	21 24 37.87	-10 09 46.2	19.5	010
1992 PQ		1992 08 09.08704	21 24 37.22	-10 09 44.9		010
1992 PQ		1992 08 09.09745	21 24 36.61	-10 09 45.2		010
1992 PR	*	1992 08 08.01528	21 26 07.69	-10 20 21.8		010
1992 PR		1992 08 08.02569	21 26 07.17	-10 20 28.2		010
1992 PR		1992 08 08.03611	21 26 06.58	-10 20 33.8		010
1992 PR		1992 08 09.07662	21 25 18.89	-10 28 23.6	19.2	010
1992 PR		1992 08 09.08704	21 25 18.22	-10 28 29.1		010
1992 PR		1992 08 09.09745	21 25 17.80	-10 28 33.9		010
1992 PS	*	1992 08 08.01528	21 26 19.15	-10 23 54.2		010
1992 PS		1992 08 08.02569	21 26 18.54	-10 23 57.7		010
1992 PS		1992 08 08.03611	21 26 17.96	-10 24 01.8		010
1992 PS		1992 08 09.07662	21 25 27.22	-10 30 41.0	19.0	010
1992 PS		1992 08 09.08704	21 25 26.59	-10 30 45.4		010
1992 PS		1992 08 09.09745	21 25 26.07	-10 30 49.2		010
1992 PT	*	1992 08 08.01528	21 26 21.93	-13 22 36.9		010
1992 PT		1992 08 08.02569	21 26 21.22	-13 22 38.5		010
1992 PT		1992 08 08.03611	21 26 20.76	-13 22 41.9		010
1992 PT		1992 08 09.07662	21 25 29.03	-13 26 56.5	18.7	010
1992 PT		1992 08 09.08704	21 25 28.47	-13 26 58.5		010
1992 PT		1992 08 09.09745	21 25 27.95	-13 26 59.9		010
1992 PU	*	1992 08 08.01528	21 26 25.11	-09 49 46.0		010
1992 PU		1992 08 08.02569	21 26 24.51	-09 49 49.0		010



1992 PU		1992 08 08.03611	21 26 23.90	-09 49 51.4		010
1992 PU		1992 08 09.07662	21 25 27.46	-09 54 27.0	18.5	010
1992 PU		1992 08 09.08704	21 25 26.78	-09 54 31.0		010
1992 PU		1992 08 09.09745	21 25 26.11	-09 54 33.2		010
1992 PV	*	1992 08 08.01528	21 27 40.39	-10 36 20.3		010
1992 PV		1992 08 08.02569	21 27 39.64	-10 36 24.5		010
1992 PV		1992 08 08.03611	21 27 39.00	-10 36 29.2		010
1992 PV		1992 08 09.07662	21 26 40.90	-10 41 38.2	18.8	010
1992 PV		1992 08 09.08704	21 26 40.22	-10 41 42.6		010
1992 PV		1992 08 09.09745	21 26 39.62	-10 41 44.8		010
1992 PW	*	1992 08 08.01528	21 28 04.08	-09 01 40.6		010
1992 PW		1992 08 08.02569	21 28 03.38	-09 01 38.5		010
1992 PW		1992 08 08.03611	21 28 02.68	-09 01 39.2		010
1992 PW		1992 08 09.07662	21 26 58.92	-09 02 45.9	19.2	010
1992 PW		1992 08 09.08704	21 26 58.31	-09 02 47.7		010
1992 PW		1992 08 09.09745	21 26 57.67	-09 02 48.3		010
1992 PX	*	1992 08 08.01528	21 28 10.76	-11 21 28.8		010
1992 PX		1992 08 08.02569	21 28 10.07	-11 21 32.9		010
1992 PX		1992 08 08.03611	21 28 09.51	-11 21 37.8		010
1992 PX		1992 08 09.07662	21 27 14.84	-11 28 46.2	18.5	010
1992 PX		1992 08 09.08704	21 27 14.20	-11 28 50.6		010
1992 PX		1992 08 09.09745	21 27 13.65	-11 28 54.7		010
1992 PY	*	1992 08 08.01528	21 28 47.76	-09 16 03.6		010
1992 PY		1992 08 08.02569	21 28 46.82	-09 15 58.5		010
1992 PY		1992 08 08.03611	21 28 45.80	-09 15 51.2		010
1992 PY		1992 08 09.07662	21 27 13.46	-09 04 59.6	18.0	010
1992 PY		1992 08 09.08704	21 27 12.54	-09 04 53.5		010
1992 PY		1992 08 09.09745	21 27 11.55	-09 04 47.3		010
1992 PZ	*	1992 08 08.01528	21 29 01.87	-11 57 24.1		010
1992 PZ		1992 08 08.02569	21 29 01.33	-11 57 27.0		010
1992 PZ		1992 08 08.03611	21 29 00.85	-11 57 30.2		010
1992 PZ		1992 08 09.07662	21 28 06.70	-12 01 16.8	19.0	010
1992 PZ		1992 08 09.08704	21 28 06.10	-12 01 19.8		010
1992 PZ		1992 08 09.09745	21 28 05.57	-12 01 21.6		010
1992 PA1	*	1992 08 08.01528	21 29 11.44	-09 12 07.8		010
1992 PA1		1992 08 08.02569	21 29 10.68	-09 12 11.4		010
1992 PA1		1992 08 08.03611	21 29 10.01	-09 12 13.5		010
1992 PA1		1992 08 09.07662	21 28 09.90	-09 15 49.7	18.5	010
1992 PA1		1992 08 09.08704	21 28 09.16	-09 15 51.9		010
1992 PA1		1992 08 09.09745	21 28 08.51	-09 15 55.5		010
1992 PB1	*	1992 08 08.01528	21 29 22.14	-12 26 27.9		010
1992 PB1		1992 08 08.02569	21 29 21.74	-12 26 31.5		010
1992 PB1		1992 08 08.03611	21 29 21.24	-12 26 35.5		010
1992 PB1		1992 08 09.07662	21 28 36.20	-12 33 00.5	18.5	010
1992 PB1		1992 08 09.08704	21 28 35.73	-12 33 03.9		010
1992 PB1		1992 08 09.09745	21 28 35.26	-12 33 07.3		010
1992 PC1	*	1992 08 08.01528	21 29 39.42	-13 11 41.3		010
1992 PC1		1992 08 08.02569	21 29 38.61	-13 11 44.0		010
1992 PC1		1992 08 08.03611	21 29 37.96	-13 11 49.5		010
1992 PC1		1992 08 09.07662	21 28 41.47	-13 16 43.8	19.2	010
1992 PC1		1992 08 09.08704	21 28 40.86	-13 16 45.2		010
1992 PC1		1992 08 09.09745	21 28 40.39	-13 16 48.0		010
1992 PD1	*	1992 08 08.01528	21 29 42.88	-11 41 29.1		010
1992 PD1		1992 08 08.02569	21 29 42.31	-11 41 33.6		010
1992 PD1		1992 08 08.03611	21 29 41.81	-11 41 37.8		010
1992 PD1		1992 08 09.07662	21 28 49.85	-11 48 03.7	19.0	010
1992 PD1		1992 08 09.08704	21 28 49.30	-11 48 08.1		010
1992 PD1		1992 08 09.09745	21 28 48.83	-11 48 11.6		010
1992 PE1	*	1992 08 08.01528	21 30 05.82	-12 28 22.5		010

1992 PE1		1992 08 08.02569	21 30 05.25	-12 28 25.7		010
1992 PE1		1992 08 08.03611	21 30 04.76	-12 28 31.9		010
1992 PE1		1992 08 09.07662	21 29 19.87	-12 35 46.2	18.8	010
1992 PE1		1992 08 09.08704	21 29 19.45	-12 35 50.1		010
1992 PE1		1992 08 09.09745	21 29 18.99	-12 35 55.2		010
1992 PF1	*	1992 08 08.01528	21 30 32.58	-13 30 43.5		010
1992 PF1		1992 08 08.02569	21 30 32.04	-13 30 44.2		010
1992 PF1		1992 08 08.03611	21 30 31.51	-13 30 45.5		010
1992 PF1		1992 08 09.07662	21 29 38.15	-13 32 21.0	18.4	010
1992 PF1		1992 08 09.08704	21 29 37.68	-13 32 20.8		010
1992 PF1		1992 08 09.09745	21 29 37.19	-13 32 22.4		010
1992 PG1	*	1992 08 08.01528	21 30 36.98	-09 08 13.8		010
1992 PG1		1992 08 08.02569	21 30 36.45	-09 08 18.5		010
1992 PG1		1992 08 08.03611	21 30 35.82	-09 08 24.9		010
1992 PG1		1992 08 09.07662	21 29 43.46	-09 17 35.8	18.5	010
1992 PG1		1992 08 09.08704	21 29 42.82	-09 17 41.9		010
1992 PG1		1992 08 09.09745	21 29 42.17	-09 17 48.4		010
1992 PH1	*	1992 08 08.01528	21 31 10.22	-12 45 04.1		010
1992 PH1		1992 08 08.02569	21 31 09.41	-12 45 05.9		010
1992 PH1		1992 08 08.03611	21 31 08.69	-12 45 07.6		010
1992 PH1		1992 08 09.07662	21 30 02.12	-12 47 12.1	18.7	010
1992 PH1		1992 08 09.08704	21 30 01.42	-12 47 12.1		010
1992 PH1		1992 08 09.09745	21 30 00.71	-12 47 13.5		010
1992 PJ1	*	1992 08 08.01528	21 31 29.19	-09 00 20.3		010
1992 PJ1		1992 08 08.02569	21 31 28.65	-09 00 19.2		010
1992 PJ1		1992 08 08.03611	21 31 27.96	-09 00 22.0		010
1992 PJ1		1992 08 09.07662	21 30 31.67	-09 00 50.0	19.5	010
1992 PJ1		1992 08 09.08704	21 30 31.08	-09 00 51.3		010
1992 PJ1		1992 08 09.09745	21 30 30.30	-09 00 52.7		010
1992 PK1	*	1992 08 08.01528	21 31 48.54	-13 40 27.5		010
1992 PK1		1992 08 08.02569	21 31 47.86	-13 40 28.2		010
1992 PK1		1992 08 08.03611	21 31 47.16	-13 40 29.0		010
1992 PK1		1992 08 09.07662	21 30 40.30	-13 40 44.8	19.3	010
1992 PK1		1992 08 09.08704	21 30 39.67	-13 40 43.9		010
1992 PK1		1992 08 09.09745	21 30 39.08	-13 40 44.9		010
1992 PL1	*	1992 08 08.01528	21 32 19.02	-12 39 07.7		010
1992 PL1		1992 08 08.02569	21 32 18.46	-12 39 10.6		010
1992 PL1		1992 08 08.03611	21 32 17.85	-12 39 13.6		010
1992 PL1		1992 08 09.07662	21 31 23.93	-12 44 08.4	19.0	010
1992 PL1		1992 08 09.08704	21 31 23.35	-12 44 10.7		010
1992 PL1		1992 08 09.09745	21 31 22.79	-12 44 14.7		010
1992 PM1	*	1992 08 08.01528	21 34 01.30	-12 31 28.2		010
1992 PM1		1992 08 08.02569	21 34 00.78	-12 31 31.6		010
1992 PM1		1992 08 08.03611	21 34 00.17	-12 31 34.2		010
1992 PM1		1992 08 09.07662	21 33 07.86	-12 34 38.4	20.0	010
1992 PM1		1992 08 09.08704	21 33 07.31	-12 34 39.8		010
1992 PM1		1992 08 09.09745	21 33 06.80	-12 34 42.5		010
1992 PN1	*	1992 08 08.01528	21 34 14.70	-12 01 44.6		010
1992 PN1		1992 08 08.02569	21 34 14.05	-12 01 45.1		010
1992 PN1		1992 08 08.03611	21 34 13.37	-12 01 44.7		010
1992 PN1		1992 08 09.07662	21 33 09.88	-12 00 23.2	18.6	010
1992 PN1		1992 08 09.08704	21 33 09.20	-12 00 22.9		010
1992 PN1		1992 08 09.09745	21 33 08.55	-12 00 22.4		010
1992 PO1	*	1992 08 08.01528	21 34 22.88	-12 00 09.5		010
1992 PO1		1992 08 08.02569	21 34 22.27	-12 00 10.6		010
1992 PO1		1992 08 08.03611	21 34 21.73	-12 00 10.6		010
1992 PO1		1992 08 09.07662	21 33 31.17	-12 00 41.5	18.2	010
1992 PO1		1992 08 09.08704	21 33 30.60	-12 00 42.1		010
1992 PO1		1992 08 09.09745	21 33 30.04	-12 00 42.3		010

1992 PP1	*	1992 08 08.01528	21 34 43.68	-11 09 33.3		010
1992 PP1		1992 08 08.02569	21 34 42.76	-11 09 37.0		010
1992 PP1		1992 08 08.03611	21 34 42.17	-11 09 40.4		010
1992 PP1		1992 08 09.07662	21 33 38.12	-11 13 13.5	19.4	010
1992 PP1		1992 08 09.08704	21 33 37.40	-11 13 15.7		010
1992 PP1		1992 08 09.09745	21 33 36.77	-11 13 18.3		010
1992 PQ1	*	1992 08 08.01528	21 34 56.05	-12 23 53.8		010
1992 PQ1		1992 08 08.02569	21 34 55.36	-12 23 54.1		010
1992 PQ1		1992 08 08.03611	21 34 54.66	-12 23 55.7		010
1992 PQ1		1992 08 09.07662	21 33 51.86	-12 24 57.3	19.2	010
1992 PQ1		1992 08 09.08704	21 33 51.23	-12 24 57.4		010
1992 PQ1		1992 08 09.09745	21 33 50.61	-12 24 58.8		010
1992 PR1	*	1992 08 08.01528	21 35 12.04	-12 55 00.6		010
1992 PR1		1992 08 08.02569	21 35 11.51	-12 55 09.6		010
1992 PR1		1992 08 08.03611	21 35 11.03	-12 55 17.0		010
1992 PR1		1992 08 09.07662	21 34 26.16	-13 08 20.4	18.4	010
1992 PR1		1992 08 09.08704	21 34 25.68	-13 08 29.0		010
1992 PR1		1992 08 09.09745	21 34 25.23	-13 08 35.8		010
1992 PS1	*	1992 08 08.01528	21 35 29.41	-13 28 23.2		010
1992 PS1		1992 08 08.02569	21 35 28.68	-13 28 25.2		010
1992 PS1		1992 08 08.03611	21 35 28.13	-13 28 27.0		010
1992 PS1		1992 08 09.07662	21 34 27.21	-13 29 45.4	19.5	010
1992 PS1		1992 08 09.08704	21 34 26.55	-13 29 46.7		010
1992 PS1		1992 08 09.09745	21 34 25.99	-13 29 47.8		010
1992 PT1	*	1992 08 08.01528	21 36 12.75	-12 01 50.8		010
1992 PT1		1992 08 08.02569	21 36 12.08	-12 01 58.6		010
1992 PT1		1992 08 08.03611	21 36 11.60	-12 02 07.3		010
1992 PT1		1992 08 09.07662	21 35 21.92	-12 13 51.1	18.8	010
1992 PT1		1992 08 09.08704	21 35 21.45	-12 13 58.5		010
1992 PT1		1992 08 09.09745	21 35 20.85	-12 14 06.5		010
1992 PU1	*	1992 08 08.01528	21 36 46.05	-11 01 29.4		010
1992 PU1		1992 08 08.02569	21 36 45.51	-11 01 32.3		010
1992 PU1		1992 08 08.03611	21 36 45.01	-11 01 35.9		010
1992 PU1		1992 08 09.07662	21 35 59.09	-11 06 27.8	18.7	010
1992 PU1		1992 08 09.08704	21 35 58.64	-11 06 31.1		010
1992 PU1		1992 08 09.09745	21 35 58.10	-11 06 35.3		010
1992 PV1	*	1992 08 08.01528	21 38 00.39	-11 51 42.1		010
1992 PV1		1992 08 08.02569	21 37 59.83	-11 51 47.8		010
1992 PV1		1992 08 08.03611	21 37 59.29	-11 51 53.3		010
1992 PV1		1992 08 09.07662	21 37 11.48	-12 00 08.7	18.2	010
1992 PV1		1992 08 09.08704	21 37 10.96	-12 00 14.1		010
1992 PV1		1992 08 09.09745	21 37 10.43	-12 00 19.0		010
1992 PW1	*	1992 08 08.01528	21 38 18.62	-12 37 07.1		010
1992 PW1		1992 08 08.02569	21 38 17.97	-12 37 11.2		010
1992 PW1		1992 08 08.03611	21 38 17.42	-12 37 15.6		010
1992 PW1		1992 08 09.07662	21 37 18.18	-12 42 45.8	18.8	010
1992 PW1		1992 08 09.08704	21 37 17.55	-12 42 49.7		010
1992 PW1		1992 08 09.09745	21 37 16.90	-12 42 52.3		010
1992 PX1	*	1992 08 08.01528	21 38 39.56	-12 38 50.0		010
1992 PX1		1992 08 08.02569	21 38 39.00	-12 38 53.5		010
1992 PX1		1992 08 08.03611	21 38 38.46	-12 38 58.8		010
1992 PX1		1992 08 09.07662	21 37 48.59	-12 44 57.5	19.0	010
1992 PX1		1992 08 09.08704	21 37 47.90	-12 45 01.3		010
1992 PX1		1992 08 09.09745	21 37 47.34	-12 45 05.1		010
1992 PY1	*	1992 08 08.01528	21 38 52.08	-10 46 18.0		010
1992 PY1		1992 08 08.02569	21 38 51.45	-10 46 17.3		010
1992 PY1		1992 08 08.03611	21 38 50.74	-10 46 18.6		010
1992 PY1		1992 08 09.07662	21 37 49.47	-10 46 10.6	19.0	010
1992 PY1		1992 08 09.08704	21 37 48.87	-10 46 12.2		010

1992 PY1	1992 08 09.09745	21 37 48.12	-10 46 12.8		010
1992 PA2	1992 08 08.01528	21 19 50.75	-13 20 47.2		010
1992 PA2	1992 08 08.02569	21 19 50.07	-13 20 46.0		010
1992 PA2	1992 08 08.03611	21 19 49.45	-13 20 45.2		010
4027 P-L	1992 08 08.01528	21 37 28.80	-10 05 35.9		010
4027 P-L	1992 08 08.02569	21 37 28.28	-10 05 39.2		010
4027 P-L	1992 08 08.03611	21 37 27.70	-10 05 40.9		010
4027 P-L	1992 08 09.07662	21 36 39.12	-10 08 51.7	18.5	010
4027 P-L	1992 08 09.08704	21 36 38.60	-10 08 54.2		010
4027 P-L	1992 08 09.09745	21 36 38.03	-10 08 56.7		010
2280 T-2	1992 08 08.01528	21 38 48.71	-10 30 41.1		010
2280 T-2	1992 08 08.02569	21 38 48.15	-10 30 43.3		010
2280 T-2	1992 08 08.03611	21 38 47.52	-10 30 49.1		010
2280 T-2	1992 08 09.07662	21 37 46.99	-10 37 07.2	18.8	010
2280 T-2	1992 08 09.08704	21 37 46.16	-10 37 12.5		010
2280 T-2	1992 08 09.09745	21 37 45.54	-10 37 17.1		010
(277)	1992 07 26.00266	20 18 06.36	-17 52 53.9		010
(277)	1992 07 26.01308	20 18 05.80	-17 52 55.5		010
(277)	1992 07 26.97603	20 17 16.13	-17 55 32.5	17.8	010
(277)	1992 07 26.99409	20 17 15.02	-17 55 35.4		010
(277)	1992 07 27.00450	20 17 14.49	-17 55 36.7		010
(1349)	1992 08 08.01528	21 26 25.02	-11 49 46.7		010
(1349)	1992 08 08.02569	21 26 24.32	-11 49 47.1		010
(1349)	1992 08 08.03611	21 26 23.77	-11 49 47.5		010
(1349)	1992 08 09.07662	21 25 27.91	-11 50 19.2	16.7	010
(1349)	1992 08 09.08704	21 25 27.29	-11 50 19.4		010
(1349)	1992 08 09.09745	21 25 26.75	-11 50 19.1		010
(1624)	1992 07 26.00266	20 18 02.72	-19 06 07.9		010
(1624)	1992 07 26.01308	20 18 02.31	-19 06 09.5		010
(1624)	1992 07 26.97603	20 17 17.47	-19 09 00.8	19.0	010
(1624)	1992 07 26.99409	20 17 16.56	-19 09 03.4		010
(1624)	1992 07 27.00450	20 17 16.05	-19 09 06.3		010
(1793)	1992 08 08.01528	21 27 24.93	-12 12 44.7		010
(1793)	1992 08 08.02569	21 27 24.26	-12 12 48.1		010
(1793)	1992 08 08.03611	21 27 23.59	-12 12 49.9		010
(1793)	1992 08 09.07662	21 26 19.96	-12 17 56.2	17.8	010
(1793)	1992 08 09.08704	21 26 19.34	-12 17 58.4		010
(1793)	1992 08 09.09745	21 26 18.72	-12 18 01.1		010
(2309)	1992 08 08.01528	21 33 10.85	-09 17 35.3		010
(2309)	1992 08 08.02569	21 33 10.23	-09 17 40.2		010
(2309)	1992 08 08.03611	21 33 09.76	-09 17 44.1		010
(2309)	1992 08 09.07662	21 32 24.58	-09 24 27.1	18.2	010
(2309)	1992 08 09.08704	21 32 24.08	-09 24 32.1		010
(2309)	1992 08 09.09745	21 32 23.54	-09 24 36.7		010
(4028)	1992 08 08.01528	21 36 40.56	-11 21 19.2		010
(4028)	1992 08 08.02569	21 36 39.93	-11 21 22.6		010
(4028)	1992 08 08.03611	21 36 39.30	-11 21 26.1		010
(4028)	1992 08 09.07662	21 35 44.89	-11 26 39.0	18.3	010
(4028)	1992 08 09.08704	21 35 44.32	-11 26 42.0		010
(4028)	1992 08 09.09745	21 35 43.69	-11 26 45.6		010
(4179)	1992 07 26.97603	20 10 15.37	-19 58 51.5		010
(4179)	1992 07 26.99409	20 10 13.64	-19 58 57.3		010
(4179)	1992 07 27.00450	20 10 12.50	-19 58 59.2		010
(4263)	1992 07 26.00266	20 13 40.58	-19 04 12.3		010
(4263)	1992 07 26.01308	20 13 39.86	-19 04 12.3		010
(4263)	1992 07 26.97603	20 12 36.69	-19 03 25.4	18.4	010
(4263)	1992 07 26.99409	20 12 35.36	-19 03 25.5		010
(4263)	1992 07 27.00450	20 12 34.70	-19 03 24.0		010
(4527)	1992 08 08.01528	21 37 14.34	-12 48 07.2		010

(4527)	1992 08 08.02569	21 37 13.88	-12 48 12.4		010
(4527)	1992 08 08.03611	21 37 13.35	-12 48 18.0		010
(4527)	1992 08 09.07662	21 36 29.95	-12 57 02.7	17.9	010
(4527)	1992 08 09.08704	21 36 29.44	-12 57 07.8		010
(4527)	1992 08 09.09745	21 36 28.99	-12 57 12.8		010

## 033 Tautenburg

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

1.3-m Schmidt telescope

PPM

1978 SS2	1992 02 08.92569	07 34 46.61	+09 40 45.4	18.4	033
1978 SS2	1992 02 08.97222	07 34 44.75	+09 40 55.5		033
1978 SS2	1992 02 09.94167	07 34 08.53	+09 44 24.1		033
1988 CF5	1992 01 03.04653	07 59 05.72	+06 52 55.1	17.8	033
1988 CF5	1992 01 03.09306	07 59 03.08	+06 52 59.9		033
1990 TJ2	1991 12 12.05660	08 16 34.58	+07 39 14.4	18.0	033
1990 TJ2	1991 12 12.13819	08 16 32.92	+07 38 59.0		033
1990 TJ2	1991 12 13.01840	08 16 15.96	+07 36 14.5		033
1990 TJ2	1992 01 03.04653	08 04 26.05	+07 00 56.9	17.6	033
1990 TJ2	1992 01 03.09306	08 04 23.80	+07 00 55.9		033
1990 TJ2	1992 02 08.92569	07 35 23.23	+08 15 08.7	17.7	033
1990 TJ2	1992 02 08.97222	07 35 21.45	+08 15 19.4		033
1990 TJ2	1992 02 09.94167	07 34 46.51	+08 18 49.6		033
1991 TJ12	1991 10 09.92361	00 35 13.29	+06 29 01.2	18.9	033
1991 TJ12	1991 10 09.97153	00 35 10.00	+06 28 56.4		033
1992 AF	1991 12 12.05660	08 18 08.61	+09 08 24.8	17.1	033
1992 AF	1991 12 12.13819	08 18 07.82	+09 07 59.2		033
1992 AF	1991 12 13.01840	08 18 00.47	+09 03 27.2		033
1992 AF	1992 01 03.04653	08 08 40.09	+07 47 36.7	16.7	033
1992 AF	1992 01 03.09306	08 08 38.01	+07 47 30.9		033
1992 AF	1992 02 08.92569	07 39 54.27	+08 22 33.1	17.1	033
1992 AF	1992 02 08.97222	07 39 52.53	+08 22 41.4		033
1992 AF	1992 02 09.94167	07 39 19.61	+08 25 47.5		033
1992 BH	1991 12 12.05660	08 21 57.31	+06 21 49.7	17.7	033
1992 BH	1991 12 12.13819	08 21 56.31	+06 21 59.2		033
1992 BH	1991 12 13.01840	08 21 45.87	+06 23 43.5		033
(4252)	1992 02 08.92569	07 33 17.29	+07 45 56.7	17.8	033
(4252)	1992 02 08.97222	07 33 15.21	+07 46 18.4		033
(4252)	1992 02 09.94167	07 32 35.53	+07 53 54.8		033

## 046 Klet

J. Ticha, Hvezdarna Klet, CS-37001 Ceske Budejovice, Czechoslovakia  
Observers Z. Moravec, A. Mrkos, J. Ticha, M. Tichy, Z. Vavrova

Measurers Z. Moravec, A. Mrkos, M. Tichy, Z. Vavrova

0.63-m Maksutov reflector, 0.57-m f/5 reflector

1983 EV	1992 03 09.93819	11 49 47.82	+03 11 29.5		046
1983 EV	1992 03 09.95249	11 49 47.25	+03 11 30.2		046
1990 QL2	1992 03 04.98976	11 03 19.41	+06 45 10.2		046
1990 QL2	1992 03 05.00417	11 03 18.63	+06 45 18.8		046
1991 PW	1991 08 07.98137	21 27 46.39	-09 09 17.3	16.6	046
1991 PW	1991 08 07.99554	21 27 45.73	-09 09 18.5		046
1992 DU4	* 1992 02 29.86671	11 03 05.01	+05 58 23.8	16.4	046
1992 DU4	1992 03 04.98976	11 00 36.45	+06 24 33.4		046
1992 DU4	1992 03 05.00417	11 00 35.70	+06 24 34.4		U 046
1992 DV4	* 1992 02 29.86671	11 10 28.97	+05 36 49.8	16.7	046
1992 DV4	1992 03 01.97157	11 09 55.49	+05 41 42.3		046
1992 DV4	1992 03 01.98587	11 09 54.82	+05 41 45.3		U 046
1992 DW4	* 1992 02 29.86671	11 10 50.32	+05 06 20.7	16.3	046

1992 DW4	1992 03 04.98976	11 07 58.90	+05 14 53.8		046
1992 DW4	1992 03 05.00417	11 07 58.24	+05 14 55.1		046
1992 EY2	* 1992 03 01.05641	11 21 24.10	+05 55 43.9	16.7	046
1992 EY2	1992 03 01.97157	11 20 45.09	+05 55 47.4		U 046
1992 EY2	1992 03 01.98587	11 20 44.50	+05 55 47.4		046
1992 EZ2	* 1992 03 02.00427	11 16 47.52	+02 56 42.9	16.5	046
1992 EZ2	1992 03 02.01851	11 16 46.76	+02 56 56.1		046
1992 EZ2	1992 03 05.02998	11 14 20.36	+03 14 35.0		046
1992 EZ2	1992 03 05.04525	11 14 19.71	+03 14 46.8		046
(318)	1992 03 01.97157	11 18 58.31	+05 44 13.0		046
(318)	1992 03 01.98585	11 18 57.72	+05 44 19.5		046
(494)	1992 02 10.96532	08 27 12.10	+29 40 35.5		046
(494)	1992 02 10.97991	08 27 11.27	+29 40 37.0		046
(494)	1992 02 24.78546	08 17 01.33	+29 47 41.9		046
(494)	1992 02 24.80039	08 17 00.89	+29 47 41.3		046
(494)	1992 02 26.79796	08 15 51.66	+29 46 36.7		046
(494)	1992 02 26.81220	08 15 51.16	+29 46 36.4		046
(494)	1992 02 28.78060	08 14 48.87	+29 45 02.8		046
(494)	1992 02 28.79553	08 14 48.41	+29 45 02.5		046
(679)	1992 02 10.96532	08 27 58.35	+30 42 55.2		046
(679)	1992 02 10.97991	08 27 57.44	+30 43 03.0		046
(703)	1992 03 04.98976	11 03 30.97	+02 36 47.1		E 046
(703)	1992 03 05.00417	11 03 30.20	+02 36 52.1		E 046
(703)	1992 03 05.02998	11 03 28.62	+02 37 05.4		E 046
(703)	1992 03 05.04525	11 03 27.61	+02 37 12.0		E 046
(847)	1992 03 05.02998	11 06 18.44	+01 49 32.2		E 046
(847)	1992 03 05.04525	11 06 17.67	+01 49 37.4		E 046
(1422)	1992 03 05.02998	11 14 08.23	+02 14 07.8		046
(1422)	1992 03 05.04525	11 14 07.68	+02 14 17.1		046
(1726)	1992 03 05.02998	11 04 49.36	+00 40 28.6		E 046
(1726)	1992 03 05.04525	11 04 48.42	+00 40 29.4		E 046
(2264)	1992 03 09.93819	11 46 35.19	+01 14 50.9		046
(2264)	1992 03 09.95249	11 46 34.60	+01 14 54.8		046
(2277)	1992 03 04.92014	11 09 37.55	+23 43 15.9		046
(2277)	1992 03 04.93553	11 09 36.73	+23 43 22.7		046
(2277)	1992 03 09.98073	11 05 22.28	+24 21 49.5		046
(2277)	1992 03 09.99537	11 05 21.60	+24 21 56.2		046
(3395)	1992 03 09.93819	11 46 08.11	+02 55 43.1		046
(3395)	1992 03 09.95249	11 46 07.35	+02 55 45.8		046
(3423)	1992 03 09.93819	11 44 45.91	+01 26 51.8		046
(3423)	1992 03 09.95249	11 44 45.19	+01 26 55.4		046
(4402)	1992 03 09.93819	11 46 57.51	+00 32 43.2		046
(4402)	1992 03 09.95249	11 46 56.87	+00 32 48.4		046

104 San Marcello Pistoiese

L. Tesi, Osservatorio di Pian dei Termini, Viale Panoramico 45, I-51028

San Marcello Pistoiese (PT), Italy

Observers L. Tesi, P. Gigli

Measurers L. Tesi, G. Cattani

AGK3, SAOC

1990 BQ1	1992 07 22.92326	21 54 50.01	-01 05 51.4		104
1990 BQ1	1992 07 22.93507	21 54 49.15	-01 05 42.9		104
1990 BQ1	1992 07 29.92431	21 46 13.37	+00 29 34.6		104
1990 BQ1	1992 07 29.93611	21 46 12.41	+00 29 44.1		104
1990 BQ1	1992 07 30.91597	21 44 54.96	+00 42 35.3		104
1990 BQ1	1992 07 30.92778	21 44 53.96	+00 42 44.5		104
1992 LR	1992 07 19.89826	17 38 14.10	-00 13 37.8		104
1992 LR	1992 07 21.90104	17 51 37.07	+00 40 08.9		104
1992 LR	1992 07 21.91215	17 51 41.03	+00 40 25.6		104

1992 LR	1992 07	24.89688	18 13	07.49	+01 58	22.8		104
1992 LR	1992 07	24.90799	18 13	11.79	+01 58	38.0		104
1992 LR	1992 07	29.85243	18 51	37.54	+03 54	36.0		104
1992 LR	1992 07	29.86389	18 51	42.73	+03 54	50.9		104
1992 LR	1992 08	01.95278	19 16	29.21	+04 53	46.9		104
1992 LR	1992 08	01.96458	19 16	34.94	+04 54	00.6		104
1992 LR	1992 08	02.91597	19 24	14.45	+05 09	35.3		104
1992 LR	1992 08	02.92778	19 24	19.41	+05 09	45.7		104

## 293 Burlington remote site

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

0.26-m f/3.9 Wright-Schmidt camera

1989 YF5	1992 07	03.24688	19 08	32.00	-20 36	49.2		293
1989 YF5	1992 07	03.25729	19 08	31.35	-20 36	46.6		293
(1954)	1992 07	03.24688	19 13	14.45	-19 34	51.1		293
(1954)	1992 07	03.25729	19 13	14.07	-19 34	47.9		293

## 298 Van Vleck Observatory

J. Sudol, Macalester College, 1600 Grand Avenue, St. Paul, MN 55105, U.S.A.

Observers J. Sudol, G. Garber

0.51-m f/16.6 refractor

From Minor Planet Bulletin

(704)	1990 08	15.17635	22 43	19.93	+16 21	20.4		298
(704)	1990 08	16.18958	22 42	34.77	+16 25	00.1		298
(704)	1990 08	17.17778	22 41	50.08	+16 28	21.4		298

## 372 Geisei

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

0.60-m f/3.5 reflector

ACRS

1931 VS	1989 11	24.64757	02 46	40.26	+24 05	52.8	16.5	372
1931 VS	1989 11	24.65937	02 46	39.31	+24 05	54.0		372
1974 QX1	1990 02	01.65486	08 25	35.55	+21 41	35.2	18	372
1974 QX1	1990 02	01.66319	08 25	34.94	+21 41	39.7		372
1979 KO	1992 08	09.75460	04 16	32.24	+03 56	08.4	17	372
1979 KO	1992 08	09.77014	04 16	32.64	+03 56	08.8		372
1982 US6	1990 12	06.48472	01 48	43.40	+11 23	43.7	16.5	372
1982 US6	1990 12	06.50556	01 48	43.21	+11 23	48.1		372
1988 UH	1992 07	23.63715	20 40	30.43	-13 00	21.6	18.5	372
1988 UH	1992 07	23.64826	20 40	30.01	-13 00	22.9		372
1989 CV	1992 07	23.59514	20 05	55.58	-27 49	02.3	18	372
1989 CV	1992 07	23.60521	20 05	55.18	-27 49	04.7		372
1989 EN5	1989 03	10.58750	10 37	07.90	+02 07	07.2	18	372
1989 EN5	1989 03	10.59792	10 37	07.54	+02 07	08.8		372
1989 QM1	* 1989 08	27.56736	20 06	58.09	-29 54	22.1	17	372
1989 QM1	1989 08	27.58611	20 06	57.35	-29 54	20.5		372
1989 VM6	* 1989 11	09.81910	10 51	58.93	+05 16	26.0	18.5	372
1989 YH	1989 12	31.72014	08 51	40.27	+19 46	56.8	18	372
1989 YH	1989 12	31.74132	08 51	39.59	+19 46	59.1		372
1989 YZ1	1990 01	03.75590	08 49	12.26	+20 12	20.9	17	372
1989 YZ1	1990 01	03.76632	08 49	11.59	+20 12	20.9		372
1989 YZ1	1990 02	01.65486	08 25	34.62	+21 46	03.4	17	372
1989 YZ1	1990 02	01.66319	08 25	34.11	+21 46	06.4		372
1989 YY3	1990 01	25.58611	08 43	26.48	+21 26	10.8	17	372
1989 YY3	1990 01	25.59583	08 43	25.73	+21 26	14.5		372
1989 YV9	* 1989 12	31.80313	08 49	38.74	+12 26	20.0	18	372
1989 YV9	1989 12	31.81354	08 49	38.21	+12 26	22.0		372
1990 CY	* 1990 02	01.69583	08 11	31.10	+24 35	06.9	17.5	372

1990 CY		1990 02	01.70625	08 11	30.31	+24 35	11.7		372
1990 HE7	*	1990 04	28.64757	21 20	49.52	-17 27	12.2	17	372
1990 HE7		1990 04	28.66007	21 20	48.73	-17 27	08.6		372
1990 UQ13	*	1990 10	20.62454	01 22	22.50	-06 04	35.0	18	372
1990 UQ13		1990 10	20.63542	01 22	21.57	-06 04	35.3		372
1990 UR13	*	1990 10	20.62454	01 24	05.21	-06 32	01.8	17	372
1990 UR13		1990 10	20.63542	01 24	04.76	-06 32	04.7		372
1990 US13	*	1990 10	27.71042	03 14	08.42	+15 08	51.2	18	372
1990 US13		1990 10	27.72240	03 14	07.72	+15 08	47.2		372
1990 UT13	*	1990 10	19.70382	01 47	05.71	+10 18	20.8	18	372
1990 UT13		1990 10	19.71406	01 47	04.98	+10 18	16.2		372
1990 VH12		1990 11	11.72986	04 14	10.64	+12 12	10.4	17	372
1990 VH12		1990 11	11.74028	04 14	10.16	+12 12	05.7		372
1990 VV15	*	1990 11	14.67188	02 48	32.52	+26 07	37.6	17.5	372
1990 VV15		1990 11	14.68160	02 48	31.63	+26 07	39.5		372
1990 WQ15	*	1990 11	21.66354	04 09	40.76	+16 50	33.0	17	372
1990 WQ15		1990 11	21.67535	04 09	39.88	+16 50	29.9		372
1990 WR15	*	1990 11	21.66354	04 10	47.66	+16 53	42.5	16.5	372
1990 WR15		1990 11	21.67535	04 10	47.00	+16 53	40.1		372
1990 XC2		1990 12	19.60799	03 24	47.65	+15 11	11.8	18	372
1990 XC2		1990 12	19.61944	03 24	47.32	+15 11	09.8		372
1990 YU		1990 12	19.60799	03 26	55.15	+14 51	26.8	17.5	372
1990 YU		1990 12	19.61944	03 26	54.87	+14 51	24.6		372
1990 YO1	*	1990 12	24.64306	09 15	39.82	+18 58	03.2	17.5	372
1990 YO1		1990 12	24.66528	09 15	39.69	+18 58	15.5		372
1991 AB2		1990 12	21.65833	07 55	05.27	+13 46	49.6	17.5	372
1991 AB2		1990 12	21.67153	07 55	04.68	+13 46	51.2		372
1991 BD		1990 12	19.71320	08 27	06.21	+18 04	03.8	17.5	372
1991 BD		1990 12	19.72535	08 27	05.70	+18 04	03.2		372
1991 CO5	*	1991 02	07.63125	10 22	42.42	+07 16	21.6	18.5	372
1991 CO5		1991 02	07.64583	10 22	41.55	+07 16	30.5		372
1991 EU		1992 07	23.61666	20 54	37.03	-20 48	35.7	18.5	372
1991 EU		1992 07	23.62673	20 54	35.82	-20 48	43.1		372
1992 GO4		1992 04	05.69861	14 31	25.42	-14 03	55.8	18	372
1992 GO4		1992 04	05.71008	14 31	25.00	-14 03	57.8		372
1992 NR		1992 07	10.71007	21 19	50.43	-08 45	04.5	17	372
1992 NR		1992 07	10.73160	21 19	49.72	-08 45	12.3		372
1992 OK		1992 08	09.70382	21 18	23.10	+00 26	40.0	17	372
1992 OK		1992 08	09.71319	21 18	22.73	+00 26	42.0		372
1992 OK		1992 08	21.61007	21 10	07.66	+00 20	14.8	17	372
1992 OK		1992 08	21.62257	21 10	07.00	+00 20	14.2		372
1992 OK		1992 08	23.64479	21 08	50.63	+00 15	53.3	16.5	372
1992 OK		1992 08	31.60000	21 04	38.61	-00 08	07.7	17	372
1992 OK		1992 08	31.61007	21 04	38.23	-00 08	10.2		372
1992 QD	*	1992 08	26.60486	22 49	19.48	-00 01	08.7	15.5	372
1992 QD		1992 08	26.61528	22 49	19.09	-00 01	15.5		372
1992 QD		1992 08	27.57777	22 48	42.67	-00 12	08.1	15	372
1992 QD		1992 08	27.60903	22 48	41.25	-00 12	32.8		372
1992 QD		1992 08	27.69583	22 48	37.80	-00 13	29.5		372
1992 QE	*	1992 08	26.60486	22 50	25.77	-00 18	59.9	17	372
1992 QE		1992 08	26.61528	22 50	25.17	-00 19	01.5		372
1992 QE		1992 08	27.57778	22 49	31.81	-00 20	21.5	17	372
1992 QE		1992 08	27.60903	22 49	30.00	-00 20	22.1		372
1992 QE		1992 08	27.69583	22 49	25.06	-00 20	32.1		372
1992 QE		1992 08	29.63837	22 47	35.85	-00 23	32.1	17	372
1992 QE		1992 08	29.67465	22 47	33.79	-00 23	36.1		372
1992 QF	*	1992 08	26.63403	00 08	57.86	-23 00	08.1	18	372
1992 QF		1992 08	26.68681	00 08	54.55	-23 00	09.4		372
1992 QF		1992 08	26.70278	00 08	53.59	-23 00	09.7		372



1992 QF	1992 08	27.66528	00 07	52.01	-23 00	53.2	18	372
1992 QF	1992 08	27.68194	00 07	51.16	-23 00	53.1		372
1992 QF	1992 08	29.69392	00 05	37.55	-23 01	49.9	17	372
1992 QF	1992 08	29.70868	00 05	36.58	-23 01	50.0		372
(178)	1992 07	23.61666	20 55	00.80	-20 42	30.8	15	372
(178)	1992 07	23.62673	20 54	59.97	-20 42	33.6		372
(449)	1992 07	23.61666	20 55	13.68	-20 34	21.9	16	372
(449)	1992 07	23.62673	20 55	12.80	-20 34	24.6		372
(546)	1989 11	26.78947	12 03	49.77	+11 12	03.9	15.5	372
(546)	1989 11	26.80069	12 03	50.57	+11 11	58.7		372
(546)	1989 11	28.80417	12 06	41.81	+10 53	53.7	16	372
(546)	1989 11	28.81181	12 06	42.52	+10 53	49.5		372
(801)	1992 08	09.70382	21 20	55.33	+01 06	34.7	16.5	372
(801)	1992 08	09.71319	21 20	54.95	+01 06	37.7		372
(1082)	1990 02	01.63785	07 50	15.65	+19 49	42.2	16.5	372
(1082)	1990 02	01.64549	07 50	15.25	+19 49	43.6		372
(1680)	1989 10	31.70590	02 43	09.79	+11 23	18.6	17	372
(1680)	1989 11	02.66952	02 41	24.96	+11 16	37.2	17	372
(1680)	1989 11	02.68924	02 41	24.52	+11 16	37.2		372
(1841)	1990 10	19.70382	01 48	04.80	+09 57	44.8	17	372
(1841)	1990 10	19.71406	01 48	04.37	+09 57	45.8		372
(2057)	1990 01	03.75590	08 45	45.71	+20 08	50.4	17	372
(2057)	1990 01	03.76632	08 45	45.29	+20 08	52.8		372
(2057)	1990 01	29.68125	08 23	10.66	+21 28	58.6	17	372
(2057)	1990 01	29.69479	08 23	09.92	+21 29	03.7		372
(3166)	1989 12	09.76388	10 08	16.21	+17 15	00.1	17	372
(3166)	1989 12	09.77430	10 08	16.73	+17 15	00.4		372
(3191)	1990 12	27.81076	09 44	02.47	+17 28	18.6	17.5	372
(3191)	1990 12	27.82257	09 44	02.19	+17 28	20.4		372
(3804)	1991 01	09.68542	09 33	23.78	+17 33	02.4	17	372
(3804)	1991 01	09.69792	09 33	23.31	+17 33	07.6		372
(3836)	1990 12	24.64306	09 16	52.38	+17 55	20.5	18	372
(3836)	1990 12	24.66528	09 16	51.87	+17 55	31.4		372
(3899)	1991 04	16.67813	14 06	44.41	-09 38	06.5	17	372
(3899)	1991 04	16.68924	14 06	43.76	-09 38	00.7		372
(4015)	1992 08	29.77118	05 38	10.59	+27 50	01.2	18.5	372
(4191)	1990 12	19.60799	03 26	29.90	+15 06	38.8	18	372
(4191)	1990 12	19.61944	03 26	29.38	+15 06	37.7		372
(4480)	1989 11	02.64514	01 46	53.98	+09 00	51.4	17.5	372
(4638)	1989 03	10.58750	10 38	06.80	+01 43	46.0	17	372
(4638)	1989 03	10.59792	10 38	06.30	+01 43	49.7		372
(4779)	1989 10	30.52326	01 48	36.29	+10 35	44.4	17.5	372
(4779)	1989 10	30.53611	01 48	35.81	+10 35	42.1		372
(4869)	1989 11	02.70104	03 11	08.48	+12 32	17.6	17	372
(4869)	1989 11	02.71146	03 11	07.61	+12 32	16.5		372
(4882)	1989 11	02.64514	01 45	16.58	+08 55	28.0	17	372

## 376 Uenohara

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

0.30-m reflector + CCD

GSC

1988 YB	1992 08	06.63553	22 13	02.44	-13 42	02.6	18	376
1988 YB	1992 08	06.65058	22 13	01.61	-13 42	11.4		376
1988 YB	1992 08	22.64271	22 01	46.77	-14 46	31.9		376
1988 YB	1992 08	22.65174	22 01	46.28	-14 46	36.6		376
1989 XB	1992 08	06.55463	20 22	53.03	-17 46	51.1		376
1989 XB	1992 08	06.57963	20 22	51.53	-17 47	00.0		376
1989 XB	1992 08	22.59549	20 08	57.02	-19 18	29.0		376
1989 XB	1992 08	22.60833	20 08	56.46	-19 18	33.9		376

1990 BG1	1992 08 06.68681	22 27 51.55	-18 20 50.9	18	376
1990 BG1	1992 08 06.70220	22 27 50.79	-18 20 58.4		376
1991 CA	1992 09 01.50168	22 35 11.86	-08 09 20.7		376
1991 CA	1992 09 01.51366	22 35 11.10	-08 09 24.4		376
1991 JE1	1992 08 22.62355	21 45 29.84	-04 11 37.7		376
1991 JE1	1992 08 22.63299	21 45 29.43	-04 11 42.4		376
1992 RA	* 1992 09 01.50168	22 35 15.9	-07 57 53	17.5	376
1992 RA	1992 09 01.51366	22 35 15.3	-07 57 56		376
1992 RA	1992 09 03.52211	22 33 15.57	-08 14 44.9		376
1992 RA	1992 09 03.53322	22 33 15.13	-08 14 48.4		376

## 399 Kushiro

H. Kaneda, Taiyo MS 2-H, 2 chome 2-15, Kawazoe 8 jo, Minami-ku,  
Sapporo 005, Japan

Observer S. Ueda

Measurer H. Kaneda

0.25-m f/3.5 reflector

GSC

1955 EH	1992 04 03.57500	12 34 59.35	+03 55 21.2	17	399
1955 EH	1992 04 03.59001	12 34 58.45	+03 55 29.4		399
1976 YF5	1992 03 08.60278	11 58 27.96	-01 01 23.8	17.5	399
1976 YF5	1992 03 08.61771	11 58 27.24	-01 01 20.8		399
1980 RJ	1992 03 08.60278	11 56 14.02	+00 24 59.8	17	399
1980 RJ	1992 03 08.61771	11 56 13.09	+00 25 03.7		399
1980 TM	1992 03 24.51389	11 42 49.12	+04 57 25.4	17	399
1980 TM	1992 03 24.52882	11 42 48.43	+04 57 28.6		399
1980 TM	1992 03 26.58056	11 41 08.82	+05 05 31.0	17.5	399
1980 TM	1992 03 26.59618	11 41 07.92	+05 05 33.8		399
1980 UL1	1989 10 21.40278	00 15 33.77	+11 37 43.5	16.5	399
1980 UL1	1989 10 21.41910	00 15 33.08	+11 37 34.2		399
1980 UL1	1989 10 21.43715	00 15 32.44	+11 37 24.9		399
1981 EP26	1992 03 02.55579	11 13 55.17	+03 35 09.9	17	399
1981 EP26	1992 03 02.57049	11 13 54.46	+03 35 18.9		399
1981 EP26	1992 03 03.53681	11 13 05.50	+03 43 56.4	17	399
1981 EP26	1992 03 03.55174	11 13 04.87	+03 44 04.1		399
1981 EP26	1992 03 22.48264	10 57 30.54	+06 32 48.0	17	399
1981 EP26	1992 03 22.49757	10 57 30.05	+06 32 54.6		399
1985 CC2	1992 03 07.58194	12 07 06.12	+05 11 01.1	17	399
1985 CC2	1992 03 07.59687	12 07 05.33	+05 11 09.1		399
1985 CC2	1992 03 08.56806	12 06 16.24	+05 18 35.7	16.5	399
1985 CC2	1992 03 08.58299	12 06 15.40	+05 18 42.4		399
1987 VG1	1992 08 28.48287	23 02 29.70	+09 39 10.4	16.5	399
1987 VG1	1992 08 28.55842	23 02 26.31	+09 38 57.4		399
1988 CH2	1992 03 24.54792	11 44 49.67	+10 22 29.6	17	399
1988 CH2	1992 03 24.56296	11 44 48.77	+10 22 35.9		399
1988 CN4	1992 02 08.67431	09 07 12.60	+06 11 08.1	16.5	399
1988 CN4	1992 02 08.68929	09 07 11.79	+06 11 12.7		399
1989 GL1	1992 03 07.47292	10 07 58.47	+09 15 31.0	16.5	399
1989 GL1	1992 03 07.48785	10 07 57.53	+09 15 36.7		399
1989 RB2	1992 02 21.42361	09 14 01.78	+11 00 20.3	16.5	399
1989 RB2	1992 02 21.43854	09 14 00.94	+11 00 24.1		399
1989 UB10	1989 10 21.43715	00 14 57.36	+11 33 13.4		399
1990 TN	1992 04 03.57500	12 43 04.32	+03 44 16.1	16.5	399
1990 TN	1992 04 03.59001	12 43 03.32	+03 44 16.5		399
1991 AR1	1992 03 08.60278	11 58 31.10	+00 45 09.0	17.5	399
1991 AR1	1992 03 08.61771	11 58 30.40	+00 45 13.6		399
1992 AM1	1992 02 08.63264	09 44 15.34	+18 45 13.7	17	399
1992 AM1	1992 02 08.64757	09 44 14.62	+18 45 16.8		399
1992 BO	1992 02 22.46042	09 26 14.50	+22 25 36.9	17	399

1992 BO	1992 02	22.48333	09 26	13.28	+22 25	40.5		399
1992 CE	1992 03	07.47292	10 04	45.97	+07 40	32.5	16.5	399
1992 CE	1992 03	07.48785	10 04	45.36	+07 40	37.3		399
1992 DC1	1992 03	26.51458	11 19	22.29	+15 55	39.9	17	399
1992 DC1	1992 03	26.52951	11 19	21.63	+15 55	40.8		399
1992 GO	1992 03	08.63611	12 10	39.62	+07 39	39.0	17	399
1992 GO	1992 03	08.65104	12 10	38.95	+07 39	48.1		399
1992 GO	1992 03	26.54792	11 57	05.08	+10 36	12.6	17	399
1992 GO	1992 03	26.56285	11 57	04.14	+10 36	21.9		399
1992 MB	1992 06	27.59236	17 35	45.16	-14 11	29.3	16	399
1992 MB	1992 06	27.60694	17 35	44.10	-14 11	29.1		399
1992 MB	1992 06	29.59664	17 33	48.85	-14 11	18.0	16	399
1992 MB	1992 06	29.61123	17 33	47.97	-14 11	16.4		399
1992 QG	* 1992 08	26.54410	23 04	32.39	-05 03	01.3	16.5	399
1992 QG	1992 08	26.56181	23 04	31.64	-05 03	11.1		399
1992 QG	1992 08	26.57639	23 04	30.95	-05 03	17.0		399
1992 QG	1992 08	28.51435	23 02	59.29	-05 20	35.2	16	399
1992 QG	1992 08	28.52917	23 02	58.48	-05 20	43.8		399
1992 QH	* 1992 08	26.54410	23 04	50.84	-04 11	48.1	15.5	399
1992 QH	1992 08	26.56181	23 04	49.82	-04 11	50.2		399
1992 QH	1992 08	26.57639	23 04	48.99	-04 11	50.6		399
1992 QH	1992 08	28.51435	23 03	04.81	-04 13	18.8	15.5	399
1992 QH	1992 08	28.52917	23 03	04.00	-04 13	19.2		399
1992 QJ	* 1992 08	26.54410	23 09	21.29	-03 27	55.9	17	399
1992 QJ	1992 08	26.56181	23 09	20.19	-03 27	59.6		399
1992 QJ	1992 08	26.57639	23 09	19.46	-03 28	02.3		399
1992 QJ	1992 08	28.51435	23 07	26.84	-03 34	23.8	17	399
1992 QJ	1992 08	28.52917	23 07	26.07	-03 34	25.6		399
1159 T-2	1992 03	02.51736	10 25	08.52	-04 12	34.6	17	399
1159 T-2	1992 03	02.53229	10 25	07.94	-04 12	28.1		399
1159 T-2	1992 03	03.50139	10 24	22.36	-04 02	20.6	17	399
1159 T-2	1992 03	03.51632	10 24	21.54	-04 02	11.1		399
1159 T-2	1992 03	22.44763	10 11	55.67	-00 34	44.5	17	399
1159 T-2	1992 03	22.46395	10 11	55.21	-00 34	33.7		399
1159 T-2	1992 03	23.49375	10 11	25.95	-00 23	28.2	17.5	399
1159 T-2	1992 03	23.50868	10 11	25.58	-00 23	18.2		399
3070 T-2	1992 02	25.58472	11 26	33.71	+07 44	23.2	16.5	399
3070 T-2	1992 02	25.59931	11 26	32.89	+07 44	31.0		399
3070 T-2	1992 02	26.51806	11 25	47.74	+07 52	12.4	16	399
3070 T-2	1992 02	26.53299	11 25	46.88	+07 52	17.9		399
3070 T-2	1992 03	22.51667	11 03	54.11	+11 04	43.5	16.5	399
3070 T-2	1992 03	22.53194	11 03	53.32	+11 04	49.1		399
(4687)	1992 02	21.42361	09 13	59.69	+11 00	57.6	17	399
(4687)	1992 02	21.43854	09 13	58.86	+11 00	59.0		399

## 402 Dynic Astronomical Observatory

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

0.25-m f/3.4 Schmidt

PPM

1992 QD	1992 08	27.61751	22 48	40.94	-00 12	37.6	16.0	D 402
1992 QD	1992 08	27.63186	22 48	40.35	-00 12	47.0		D 402

## 408 Nyukasa

K. Watanabe, 3-8 Mason Hashimoto B-203, Atsubetsu Chuo 3 Jo 4 Chome,  
Atsubetsu-Ku, Sapporo 004, Japan

Observers M. Hirasawa, S. Suzuki

Measurer K. Watanabe

0.16-m f/3.8 Wright-Schmidt camera

1990 TS	1990 11 17.51765	01 50 08.53	+17 55 48.8	16.0	408
1990 TS	1990 11 17.53857	01 50 07.63	+17 55 44.7		408
1990 TS	1990 11 17.55619	01 50 06.71	+17 55 40.0		408

## 413 Siding Spring

R. H. McNaught, Siding Spring Observatory, Coonabarabran, N.S.W. 2357,  
Australia

Observers M. J. Drinkwater, M. Hartley, R. H. McNaught, Q. A. Parker,  
A. Savage, D. I. Steel

Measurer R. H. McNaught

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

1951 SY	1992 08 21.53200	17 07 33.69	+01 39 07.8		413
1951 SY	1992 08 21.53507	17 07 33.76	+01 39 05.4		413
1973 NA	1992 08 21.39616	14 50 21.09	-72 36 01.9	I	413
1973 NA	1992 08 21.39817	14 50 21.30	-72 36 01.4		413
1973 NA	1992 08 22.43115	14 51 58.56	-72 34 34.6		413
1973 NA	1992 08 22.43336	14 51 58.76	-72 34 34.5		413
1986 RA	1992 08 20.49670	16 23 59.20	+06 25 28.2		413
1986 RA	1992 08 20.49866	16 23 59.36	+06 25 26.1		413
1987 SL	1992 08 20.47436	15 03 00.66	-53 23 09.0	I	413
1987 SL	1992 08 20.47646	15 03 01.42	-53 23 08.1		413
1987 SL	1992 08 21.45157	15 09 11.68	-53 19 28.2		413
1987 SL	1992 08 21.45341	15 09 12.36	-53 19 27.7		413
1988 RA	1992 08 20.55708	21 09 01.17	-49 48 11.3		413
1988 RA	1992 08 21.58106	21 07 33.58	-49 45 25.9		413
1988 RA	1992 08 21.58318	21 07 33.40	-49 45 25.4		413
1988 VQ2	1992 07 26.62539	21 37 36.75	-47 46 39.7		413
1988 VQ2	1992 07 26.68789	21 37 33.94	-47 47 20.0		413
1988 VQ2	1992 08 05.45988	21 29 16.71	-49 16 20.2		413
1988 VQ2	1992 08 05.46214	21 29 16.58	-49 16 21.2		413
1988 VQ2	1992 08 20.56064	21 14 40.61	-50 09 06.0		413
1988 VQ2	1992 08 20.56262	21 14 40.50	-50 09 05.9		413
1988 VQ2	1992 08 21.58604	21 13 45.53	-50 08 36.3		413
1988 VQ2	1992 08 21.58811	21 13 45.41	-50 08 36.2		413
1989 WK2	1992 08 21.48127	17 43 39.22	-02 12 00.9		413
1989 WK2	1992 08 21.48500	17 43 39.20	-02 12 02.6		413
1989 WK2	1992 08 22.48524	17 43 35.74	-02 19 56.0		413
1989 WK2	1992 08 22.48878	17 43 35.72	-02 19 57.6		413
1989 YP	1992 08 22.49331	16 26 47.24	-09 10 41.7		413
1989 YP	1992 08 22.49611	16 26 47.31	-09 10 42.8		413
1990 DA	1992 08 21.70256	23 23 22.56	-17 26 27.8		413
1990 DA	1992 08 21.70505	23 23 22.46	-17 26 31.4		413
1990 DA	1992 08 22.59126	23 22 47.75	-17 48 29.5		413
1990 DA	1992 08 22.59316	23 22 47.67	-17 48 32.3		413
1991 DA	1992 07 03.64623	20 36 31.08	-65 01 05.0		413
1991 DA	1992 07 03.65147	20 36 30.60	-65 01 05.7		413
1991 DA	1992 07 03.65953	20 36 29.86	-65 01 06.4		413
1991 DA	1992 07 03.66677	20 36 29.16	-65 01 06.9		413
1991 DA	1992 07 03.74897	20 36 21.75	-65 01 14.3		413
1991 DA	1992 08 21.41763	19 29 29.92	-62 45 37.1		413
1991 DA	1992 08 21.42247	19 29 29.51	-62 45 35.2		413
1991 DA	1992 08 21.42631	19 29 29.42	-62 45 33.7		413
1991 DA	1992 08 21.42846	19 29 29.30	-62 45 32.9		413
1991 DA	1992 08 22.51344	19 28 31.18	-62 38 40.1		413
1991 DA	1992 08 22.51840	19 28 30.95	-62 38 38.4		413
1991 DA	1992 08 22.52439	19 28 30.57	-62 38 36.3		413
1991 DA	1992 08 22.52984	19 28 30.20	-62 38 34.5		413
1991 DA	1992 08 22.53494	19 28 29.95	-62 38 31.7		413
1991 DA	1992 08 22.53998	19 28 29.75	-62 38 30.2		413

1991 DA	1992 08	22.54729	19 28	29.38	-62	38	26.8	413
1991 FF	1992 08	21.54576	17 37	23.31	-41	37	03.5	413
1991 FF	1992 08	21.54833	17 37	23.33	-41	37	02.2	413
1991 GD	1992 08	20.66502	00 43	06.70	+36	30	47.9	413
1991 GD	1992 08	20.66712	00 43	06.74	+36	30	49.9	413
1991 GD	1992 08	21.69748	00 43	07.87	+36	40	48.0	413
1991 GD	1992 08	21.70032	00 43	07.86	+36	40	49.2	413
1991 GZ9	1992 08	22.55855	19 19	13.16	-19	14	38.1	413
1991 GZ9	1992 08	22.56126	19 19	13.10	-19	14	38.0	413
1991 JT	1992 08	20.63182	23 51	39.60	+13	39	59.2	413
1991 JT	1992 08	20.63380	23 51	39.54	+13	39	59.1	413
1991 JT	1992 08	21.64837	23 51	02.04	+13	38	07.5	413
1991 JT	1992 08	21.65058	23 51	02.00	+13	38	07.1	413
1991 JR2	1992 08	20.60782	22 52	22.13	-02	54	43.3	413
1991 JR2	1992 08	20.60984	22 52	22.04	-02	54	44.3	413
1991 JR2	1992 08	21.62495	22 51	38.48	-03	03	04.5	413
1991 JR2	1992 08	21.62741	22 51	38.37	-03	03	06.0	413
1991 PN10	1991 09	06.57581	23 13	13.63	-03	29	12.1	16.5 V 413
1991 PN10	1991 09	06.61748	23 13	11.45	-03	30	11.4	413
1992 EB1	1992 08	21.40186	15 30	48.72	-41	57	31.4	413
1992 EB1	1992 08	21.40439	15 30	49.15	-41	57	30.7	413
1992 EB1	1992 08	22.44019	15 33	56.41	-41	52	04.1	413
1992 FE	1992 08	23.37031	13 43	34.69	-14	15	22.6	413
1992 FE	1992 08	23.37252	13 43	34.99	-14	15	23.9	413
1992 FL1	1992 08	22.45502	16 04	59.26	-25	16	19.8	413
1992 FL1	1992 08	22.45861	16 04	59.72	-25	16	20.1	413
1992 FM1	1992 08	21.38968	14 16	29.08	-40	29	15.4	413
1992 FM1	1992 08	21.39218	14 16	29.40	-40	29	15.6	413
1992 FM1	1992 08	22.42584	14 18	47.09	-40	31	19.3	413
1992 HE	1992 08	09.80501	04 25	03.23	-13	49	42.3	413
1992 HE	1992 08	09.80669	04 25	03.22	-13	49	39.8	413
1992 HE	1992 08	20.75860	04 21	59.04	-09	04	36.0	413
1992 HE	1992 08	20.76060	04 21	58.97	-09	04	32.9	413
1992 HE	1992 08	21.79189	04 21	28.24	-08	37	23.3	413
1992 HE	1992 08	21.79372	04 21	28.17	-08	37	20.6	413
1992 HE	1992 08	22.69810	04 20	59.42	-08	13	26.7	413
1992 HE	1992 08	22.69994	04 20	59.35	-08	13	23.8	413
1992 JB	1992 08	21.51850	16 51	26.07	-00	07	51.0	I 413
1992 JB	1992 08	21.52115	16 51	26.37	-00	07	53.2	413
1992 JE	1992 08	21.51207	16 35	41.94	-07	52	47.1	413
1992 JE	1992 08	21.51478	16 35	42.55	-07	52	49.5	413
1992 JE	1992 08	22.49834	16 39	28.38	-08	07	37.0	413
1992 JE	1992 08	22.50002	16 39	28.76	-08	07	38.6	413
1992 JG	1992 08	21.40809	15 42	18.10	-26	52	20.5	413
1992 JG	1992 08	21.41065	15 42	18.58	-26	52	22.5	413
1992 JG	1992 08	22.44397	15 45	39.36	-27	05	46.1	413
1992 JG	1992 08	22.44664	15 45	39.86	-27	05	47.7	413
1992 KD	1992 08	21.52525	17 04	50.76	+15	49	41.1	413
1992 LC	1992 08	21.44502	15 45	42.42	-30	57	43.1	413
1992 LC	1992 08	21.44767	15 45	42.70	-30	57	44.0	413
1992 LC	1992 08	22.44928	15 47	32.83	-31	03	33.3	413
1992 LC	1992 08	22.45196	15 47	33.10	-31	03	34.2	413
1992 LC	1992 08	23.39334	15 49	16.64	-31	08	56.5	413
1992 LC	1992 08	23.39973	15 49	17.34	-31	08	58.4	413
1992 LC	1992 08	23.40242	15 49	17.58	-31	08	59.2	413
1992 LE	1992 08	21.53918	17 18	35.10	-08	11	18.2	413
1992 LE	1992 08	21.54141	17 18	35.22	-08	11	19.9	413
1992 LG	1992 08	21.47618	15 50	24.31	-18	46	53.1	413
1992 LG	1992 08	21.47824	15 50	24.48	-18	46	53.8	413

1992 LG	1992 08	22.47351	15 51	44.10	-18 52	33.7			413
1992 LG	1992 08	22.47618	15 51	44.32	-18 52	34.5			413
1992 LK	1992 08	21.49758	16 03	53.37	-23 57	37.2			413
1992 LK	1992 08	21.49981	16 03	53.58	-23 57	38.2			413
1992 LM	1992 08	21.47194	15 43	50.30	-20 27	34.0			413
1992 LM	1992 08	21.47411	15 43	50.42	-20 27	34.3			413
1992 LM	1992 08	22.46304	15 44	45.07	-20 31	52.2			413
1992 LM	1992 08	22.46565	15 44	45.21	-20 31	52.8			413
1992 LN	1992 08	22.47882	15 55	24.25	-20 07	01.3			413
1992 LN	1992 08	22.48142	15 55	24.44	-20 07	02.3			413
1992 LQ	1992 08	22.46836	15 47	27.10	-20 59	48.6			413
1992 LQ	1992 08	22.47087	15 47	27.23	-20 59	49.5			413
1992 LR	1992 08	05.49293	19 44	38.38	+05 47	17.5			413
1992 LR	1992 08	05.49483	19 44	39.17	+05 47	18.9			413
1992 LR	1992 08	20.65725	21 21	53.01	+06 19	28.6			413
1992 LR	1992 08	20.65925	21 21	53.53	+06 19	27.9			413
1992 LR	1992 08	22.56644	21 30	47.65	+06 08	04.2			413
1992 LR	1992 08	22.56816	21 30	48.07	+06 08	03.5			413
1992 LU	1992 08	21.49304	16 01	59.72	-04 36	43.0			413
1992 LU	1992 08	21.49516	16 01	59.84	-04 36	44.0			413
1992 ME	1992 08	21.50642	16 28	57.87	-10 47	17.1			413
1992 ME	1992 08	21.50846	16 28	58.06	-10 47	19.9			413
1992 ME	1992 08	22.37230	16 30	17.56	-11 07	17.8	18	V	413
1992 ME	1992 08	22.41744	16 30	21.52	-11 08	18.7			413
1992 ME	1992 08	25.49578	16 35	12.15	-12 17	51.4			413
1992 NA	1992 08	09.79670	23 36	20.84	-45 08	30.0			413
1992 NA	1992 08	09.79880	23 36	21.53	-45 08	25.2			413
1992 NA	1992 08	20.63772	00 49	10.17	-33 06	28.8			413
1992 NA	1992 08	20.63944	00 49	10.87	-33 06	17.8			413
1992 NA	1992 08	21.65444	00 56	47.56	-31 12	42.3			413
1992 NA	1992 08	21.65622	00 56	48.31	-31 12	30.0			413
1992 NA	1992 08	21.82341	00 57	58.70	-30 52	42.4			413
1992 NA	1992 08	21.82501	00 57	59.38	-30 52	30.9			413
1992 NA	1992 08	22.55289	01 03	39.36	-29 23	36.7			413
1992 NA	1992 08	22.55447	01 03	40.05	-29 23	25.1			413
1992 NA	1992 08	22.70459	01 04	44.33	-29 04	43.2			413
1992 NA	1992 08	22.70639	01 04	45.09	-29 04	29.3			413
1992 NA	1992 08	28.62552	01 50	31.74	-13 42	16.3			413
1992 NA	1992 08	28.62622	01 50	32.04	-13 42	09.6			413
1992 NA	1992 08	28.62691	01 50	32.42	-13 42	01.9	13.2	V	413
1992 NJ	1992 08	20.54941	20 55	33.10	-49 36	47.3			413
1992 NJ	1992 08	20.55183	20 55	32.94	-49 36	46.7			413
1992 NJ	1992 08	21.57584	20 54	31.43	-49 33	53.2			413
1992 NJ	1992 08	21.57821	20 54	31.29	-49 33	52.7			413
1992 NR	1992 07	11.79412	21 19	16.69	-08 52	48.9			413
1992 OB	1992 08	20.57626	21 19	32.18	-45 06	29.2			413
1992 OB	1992 08	20.57889	21 19	32.02	-45 06	29.1			413
1992 OB	1992 08	21.59611	21 18	36.30	-45 05	20.8			413
1992 OB	1992 08	21.59822	21 18	36.17	-45 05	20.7			413
1992 OC	1992 08	20.56619	21 17	19.68	-40 20	54.2			413
1992 OC	1992 08	20.56823	21 17	19.53	-40 20	52.6			413
1992 OC	1992 08	21.59126	21 16	14.46	-40 07	11.0			413
1992 OC	1992 08	21.59336	21 16	14.32	-40 07	09.3			413
1992 OE	1992 07	30.71980	23 31	40.36	+00 07	14.9		F	413
1992 OE	1992 08	02.77170	23 29	41.93	+00 48	12.7			413
1992 OE	1992 08	09.77456	23 23	57.45	+02 20	03.2			413
1992 OE	1992 08	09.77654	23 23	57.33	+02 20	04.6			413
1992 OE	1992 08	20.62513	23 12	02.00	+04 33	21.4			413
1992 OE	1992 08	20.62709	23 12	01.85	+04 33	22.8			413

1992 OE	1992 08	21.64429	23 10	45.10	+04 45	06.7			413
1992 OE	1992 08	21.64618	23 10	44.96	+04 45	08.0			413
1992 OF	1992 08	09.78896	00 47	07.87	-02 53	49.8			413
1992 OF	1992 08	09.79061	00 47	07.96	-02 53	49.5			413
1992 OF	1992 08	20.64932	00 54	43.86	-02 38	41.3			413
1992 OF	1992 08	20.65140	00 54	43.91	-02 38	41.2			413
1992 OF	1992 08	21.66089	00 55	13.09	-02 38	21.1			413
1992 OF	1992 08	21.66269	00 55	13.13	-02 38	21.1			413
1992 OF	1992 08	21.66712	00 55	13.23	-02 38	21.0			413
1992 OF	1992 08	21.69269	00 55	13.84	-02 38	20.5			413
1992 OF	1992 08	22.59704	00 55	38.30	-02 38	10.7			413
1992 OF	1992 08	22.59933	00 55	38.34	-02 38	10.8			413
1992 OG	1992 08	21.75431	01 03	25.92	-13 09	19.2			413
1992 OG	1992 08	21.75694	01 03	26.00	-13 09	23.4			413
1992 OG	1992 08	25.60880	01 05	16.05	-14 57	04.3			413
1992 OJ	1992 08	20.53463	19 07	27.56	-28 50	02.6			413
1992 OJ	1992 08	20.53645	19 07	27.54	-28 50	01.4			413
1992 OK	1992 08	20.58485	21 10	47.74	+00 22	18.1			413
1992 OK	1992 08	20.58707	21 10	47.64	+00 22	17.9			413
1992 OK	1992 08	21.60175	21 10	07.88	+00 20	27.4			413
1992 OK	1992 08	21.60389	21 10	07.79	+00 20	27.2			413
1992 OM	1992 08	09.75852	22 28	43.92	-04 17	02.0			413
1992 OM	1992 08	09.76002	22 28	43.86	-04 16	59.6			413
1992 OM	1992 08	20.60233	22 22	42.32	-00 16	26.0			413
1992 OM	1992 08	20.60434	22 22	42.23	-00 16	23.6			413
1992 OM	1992 08	21.61931	22 22	04.19	+00 02	39.3			413
1992 OM	1992 08	21.62152	22 22	04.09	+00 02	41.8			413
1992 ON	1992 08	09.78376	23 16	22.85	-23 51	19.2			413
1992 ON	1992 08	09.78613	23 16	22.57	-23 51	16.9			413
1992 ON	1992 08	20.61359	22 52	19.83	-20 47	44.6			413
1992 ON	1992 08	20.61557	22 52	19.54	-20 47	42.2			413
1992 ON	1992 08	21.63604	22 49	56.67	-20 28	40.4			413
1992 ON	1992 08	21.63791	22 49	56.41	-20 28	37.5			413
1992 ON	1992 08	22.58632	22 47	43.74	-20 10	42.9			413
1992 ON	1992 08	22.58846	22 47	43.42	-20 10	40.5			413
1992 OO	1992 08	09.76377	22 35	26.94	-29 45	57.3			413
1992 OO	1992 08	09.76530	22 35	26.89	-29 45	59.6			413
1992 OO	1992 08	20.61917	22 29	10.97	-34 15	47.2			413
1992 OO	1992 08	20.62122	22 29	10.88	-34 15	50.0			413
1992 OO	1992 08	21.64000	22 28	29.30	-34 38	58.2			413
1992 OO	1992 08	21.64179	22 28	29.22	-34 39	00.6			413
1992 OO	1992 08	22.58068	22 27	50.72	-34 59	54.2			413
1992 OO	1992 08	22.58274	22 27	50.63	-34 59	57.0			413
1992 OV	1992 07	26.62539	21 22	24.71	-43 08	25.2		V	413
1992 OV	1992 07	26.68789	21 22	20.87	-43 08	38.4		V	413
1992 OV	* 1992 07	28.55549	21 20	26.98	-43 15	05.2	18	V	F 413
1992 OV	1992 07	28.61799	21 20	23.16	-43 15	17.6		F	413
1992 OV	1992 08	01.48086	21 16	20.00	-43 25	50.7			413
1992 OV	1992 08	01.53641	21 16	16.25	-43 25	58.0			413
1992 OW	1992 07	26.62539	21 35	10.70	-41 38	13.8		V	413
1992 OW	1992 07	26.68789	21 35	07.62	-41 38	43.8		F	413
1992 OW	* 1992 07	28.55549	21 33	36.13	-41 54	16.0	17.5	V	413
1992 OW	1992 07	28.61799	21 33	32.88	-41 54	45.3			413
1992 OW	1992 08	01.48086	21 30	06.47	-42 23	41.0			413
1992 OW	1992 08	01.53641	21 30	03.25	-42 24	04.4			413
1992 OX	* 1992 07	28.55549	21 37	21.34	-41 35	54.3	17	V	413
1992 OX	1992 07	28.61799	21 37	17.78	-41 36	16.1			413
1992 OX	1992 08	01.48086	21 33	37.70	-41 55	39.3			413
1992 OX	1992 08	01.53641	21 33	34.43	-41 55	54.0			413

1992 PA		1992 07	28.55549	21 31	04.11	-43 10	19.9			V	413
1992 PA		1992 07	28.61799	21 31	00.88	-43 10	51.2			F	413
1992 PA	*	1992 08	01.48086	21 27	32.59	-43 45	38.0	18		V	413
1992 PA		1992 08	01.53641	21 27	29.55	-43 46	05.0				413
1992 PB		1992 07	28.55549	21 37	36.41	-44 14	43.7			V	413
1992 PB		1992 07	28.61799	21 37	32.38	-44 15	08.3			V	413
1992 PB	*	1992 08	01.48086	21 33	42.79	-44 32	55.8	18.5		V	F 413
1992 PB		1992 08	01.53641	21 33	39.58	-44 33	09.5			F	413
1992 QA	*	1992 08	19.45391	19 08	19.41	-65 42	17.9	17.5		V	413
1992 QA		1992 08	19.50252	19 08	17.94	-65 41	48.0				413
1992 QA		1992 08	21.41450	19 07	46.86	-65 20	59.0				413
1992 QA		1992 08	21.46311	19 07	46.09	-65 20	30.7				413
1992 QA		1992 08	22.42771	19 07	37.26	-65 09	36.3			F	413
1992 QA		1992 08	22.48674	19 07	36.55	-65 08	59.4			F	413
1992 QA		1992 08	22.62182	19 07	34.92	-65 07	22.6				413
1992 QA		1992 08	22.62620	19 07	34.86	-65 07	19.2			I	413
1992 QB	*	1992 08	19.45391	19 16	41.41	-63 33	46.3	17		V	413
1992 QB		1992 08	19.50252	19 16	41.35	-63 33	24.1				413
1992 QB		1992 08	22.64086	19 17	19.09	-63 06	13.6				413
1992 QB		1992 08	22.64414	19 17	19.14	-63 06	11.6				413
1992 QB		1992 08	22.64788	19 17	19.20	-63 06	09.5				413
1992 QB		1992 08	23.75194	19 17	42.03	-62 55	47.9				413
1992 QB		1992 08	25.54317	19 18	29.78	-62 38	25.8				413
1992 QC	*	1992 08	21.68391	00 42	51.72	-46 52	23.5	16		V	413
1992 QC		1992 08	21.74641	00 42	47.39	-46 52	08.8				413
1992 QC		1992 08	25.59115	00 38	22.66	-46 35	00.8				413
1992 QC		1992 08	28.58715	00 34	16.56	-46 15	49.9				413
1992 QN		1992 09	05.57947	22 18	57.75	-20 23	57.7				413
1992 QN		1992 09	05.58167	22 18	57.38	-20 23	56.5				413
1992 QN		1992 09	05.74212	22 18	31.68	-20 22	29.8				413
1992 QN		1992 09	05.74476	22 18	31.27	-20 22	28.4				413
1992 RB	*	1992 09	02.58329	00 37	08.67	-30 59	36.3	17.5		V	413
1992 RB		1992 09	02.64579	00 37	06.69	-31 01	04.1				413
1992 RB		1992 09	04.67201	00 36	07.18	-31 49	28.4				413
1992 RB		1992 09	04.73451	00 36	05.24	-31 50	53.2				413
1992 RB		1992 09	05.70970	00 35	33.63	-32 13	47.3				413
1992 RB		1992 09	05.71309	00 35	33.51	-32 13	51.9				413
1992 RC	*	1992 09	02.58329	00 37	36.89	-30 53	25.4	16		V	413
1992 RC		1992 09	02.64579	00 37	34.48	-30 54	42.8				413
1992 RC		1992 09	04.67201	00 36	18.17	-31 36	56.8				413
1992 RC		1992 09	04.73451	00 36	15.66	-31 38	12.0				413
1992 RC		1992 09	05.70105	00 35	36.50	-31 57	53.9				413
1992 RC		1992 09	05.70377	00 35	36.37	-31 57	57.2				413
1992 RD	*	1992 09	02.58329	00 50	00.34	-29 54	48.4	18		V	V 413
1992 RD		1992 09	02.64579	00 49	58.22	-29 56	10.5			F	413
1992 RD		1992 09	04.67201	00 48	56.10	-30 37	59.9				413
1992 RD		1992 09	04.73451	00 48	54.06	-30 39	12.1				413
1992 RD		1992 09	05.71615	00 48	21.12	-30 59	05.7				413
1992 RD		1992 09	05.71910	00 48	21.00	-30 59	09.2				413
(686)		1992 08	22.37230	16 27	05.60	-11 06	09.9				413
(686)		1992 08	22.41744	16 27	08.16	-11 06	11.0				413
(1459)		1992 08	20.51485	17 41	20.44	-42 38	28.8			I	413
(1459)		1992 08	20.51682	17 41	20.49	-42 38	27.8			I	413
(1459)		1992 08	21.55154	17 41	28.57	-42 34	43.5				413
(1459)		1992 08	21.55363	17 41	28.58	-42 34	43.0				413
(1591)		1992 07	28.55549	21 45	58.90	-45 05	41.3				413
(1591)		1992 07	28.61799	21 45	55.40	-45 06	43.9				413
(1796)		1992 08	20.59626	21 54	30.56	+07 42	51.5				413
(1796)		1992 08	20.59823	21 54	30.47	+07 42	50.6				413



(1796)	1992 08	21.61331	21 53	51.42	+07 35	24.4	413
(1796)	1992 08	21.61542	21 53	51.33	+07 35	23.5	413
(1954)	1992 08	20.52663	18 37	49.55	-14 39	12.0	413
(1954)	1992 08	20.52846	18 37	49.54	-14 39	11.5	413
(1954)	1992 08	21.56270	18 37	45.00	-14 34	24.2	413
(1954)	1992 08	21.56479	18 37	44.99	-14 34	23.7	413
(2055)	1992 08	02.51661	21 25	52.08	-38 05	17.6	413
(2062)	1992 08	20.38729	12 40	10.36	-22 22	39.2	413
(2062)	1992 08	20.39042	12 40	10.67	-22 22	55.9	413
(2062)	1992 08	21.38387	12 41	47.85	-23 52	02.7	413
(2062)	1992 08	21.38605	12 41	48.07	-23 52	14.4	413
(2830)	1992 09	02.58329	00 47	55.57	-30 55	28.4	413
(2830)	1992 09	02.64579	00 47	51.93	-30 55	51.0	413
(2830)	1992 09	04.67201	00 45	53.80	-31 07	34.8	413
(2830)	1992 09	04.73451	00 45	50.16	-31 07	55.6	413
(4953)	1992 08	20.52032	18 17	04.76	-49 25	53.5	413
(4953)	1992 08	20.52260	18 17	04.74	-49 25	52.5	413
(4953)	1992 08	21.55685	18 17	01.48	-49 17	35.5	413
(4953)	1992 08	21.55892	18 17	01.47	-49 17	34.7	413
(5244)	1992 08	21.43375	14 19	07.37	-12 25	24.3	413
(5244)	1992 08	21.43601	14 19	07.44	-12 25	24.8	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 SN5	1992 06	27.55550	19 34	01.24	-16 10	46.1	19	474
1989 SN5	1992 06	27.59803	19 33	58.81	-16 10	48.6		474
1989 SN5	1992 06	28.54912	19 33	04.66	-16 11	43.1		474
1989 SN5	1992 06	28.59171	19 33	02.29	-16 11	44.7		474
1992 GA	1992 06	22.47147	12 53	15.88	-22 07	46.8		474
1992 GA	1992 06	22.50382	12 53	17.39	-22 07	44.4		474
1992 GH	1992 06	28.43604	12 28	57.59	-26 55	52.2		474
1992 GH	1992 06	28.45595	12 28	58.95	-26 55	55.6		474
1992 LC	1992 06	23.44473	13 44	47.21	-16 59	37.6		474
1992 LC	1992 06	23.47373	13 44	51.81	-17 00	36.7		474
1992 LR	1992 06	23.36036	16 01	15.53	-10 38	36.9		474
1992 LR	1992 06	23.37054	16 01	16.29	-10 38	25.4		474
1992 LR	1992 06	24.37656	16 02	45.49	-10 18	26.3		474
1992 LR	1992 06	24.38252	16 02	45.97	-10 18	19.3		474
1992 MN	* 1992 06	27.55550	19 34	12.70	-16 11	16.5	19	474
1992 MN	1992 06	27.59803	19 34	11.00	-16 11	18.6		474
1992 MN	1992 06	28.54912	19 33	29.04	-16 12	48.4		474
1992 MN	1992 06	28.59171	19 33	27.13	-16 12	54.2		474

## 500 Geocentric

R. S. Harrington, U.S. Naval Observatory, Washington, DC 20392, U.S.A.

Observers K. Johnston, C. Wade, G. Kaplan, P. K. Seidelmann

VLA

(1)	1981 05	19.49940	08 23	54.66	+27 58	40.8	500
(1)	1981 12	26.49940	14 29	52.33	-06 07	00.7	500
(1)	1982 05	09.49939	15 19	46.10	-09 13	04.5	500
(1)	1983 12	17.49938	22 11	29.54	-21 20	36.8	500
(2)	1981 12	29.49940	12 51	34.81	-08 35	33.5	500
(2)	1982 03	24.49939	13 23	27.67	+11 35	09.5	500
(2)	1985 07	22.49937	04 16	21.12	-02 14	16.2	500
(2)	1985 09	01.49937	05 22	24.64	-08 11	03.4	500

(4)	1984 01 08.49938	04 56 44.04	+19 24 17.6	500
(10)	1983 04 13.49939	13 35 05.14	-16 09 10.5	500
(10)	1985 08 19.49937	01 52 50.76	+16 28 37.2	500

## 573 Eldagsen

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

(480)	1992 07 20.88405	21 39 30.36	+18 54 56.0	573
(480)	1992 07 20.89117	21 39 30.04	+18 54 59.5	573
(712)	1992 07 27.87560	21 29 35.40	+06 57 04.3	573
(712)	1992 07 27.88677	21 29 34.86	+06 57 04.4	573
(1264)	1992 07 27.90060	22 04 44.16	+27 30 29.8	573
(1264)	1992 07 27.90448	22 04 44.02	+27 30 30.0	573

## 589 Santa Lucia Stroncone

A. Vagnozzi, Via Santa Lucia 68, I-05039 Stroncone (Terni), Italy

Observers A. Vagnozzi, V. Risoldi, G. Bernabei

0.50-m f/2.8 Ritchey-Chretien + CCD

GSC

(5270)	1992 07 22.88480	19 16 18.97	-02 13 00.5	589
(5270)	1992 07 22.89257	19 16 18.62	-02 13 02.6	589
(5270)	1992 07 22.89660	19 16 18.37	-02 13 03.6	589
(5270)	1992 07 23.90078	19 15 31.64	-02 17 32.5	589
(5270)	1992 07 23.90644	19 15 31.44	-02 17 34.7	589
(5270)	1992 07 23.91269	19 15 31.15	-02 17 36.8	589
(5270)	1992 07 25.84798	19 14 03.71	-02 26 49.5	589
(5270)	1992 07 25.85771	19 14 03.27	-02 26 52.2	589
(5270)	1992 07 25.86276	19 14 03.04	-02 26 53.8	589
(5270)	1992 07 25.87060	19 14 02.67	-02 26 55.6	589
(5270)	1992 07 25.88187	19 14 02.16	-02 26 59.3	589

## 657 Victoria, Climenhaga Observatory

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

Observers J. B. Tatum, D. D. Balam, P. M. Krol

0.25-m Schmidt, 0.5-m reflector + CCD

1991 DB	1991 04 18.32272	17 57 46.98	+59 14 28.3	657
1991 DB	1991 04 18.32557	17 57 48.52	+59 14 23.8	657
1991 DB	1991 04 19.37243	18 04 05.04	+58 37 21.8	657
1991 DB	1991 04 19.37836	18 04 06.97	+58 37 11.3	657
(348)	1992 05 22.30111	15 05 21.09	-07 56 53.2	657
(380)	1992 05 24.29722	16 35 31.34	-17 15 33.2	657
(380)	1992 05 24.35052	16 35 28.36	-17 15 33.1	657
(380)	1992 06 05.35052	16 24 02.27	-17 15 36.0	657
(521)	1992 05 22.25875	15 14 25.65	-08 34 39.4	657
(521)	1992 05 22.28514	15 14 24.28	-08 34 36.6	657
(521)	1992 06 03.27611	15 05 05.46	-08 27 04.5	657
(521)	1992 06 03.32125	15 05 03.47	-08 27 03.8	657
(584)	1992 06 27.36840	21 15 05.85	-10 29 12.8	657
(584)	1992 06 27.41979	21 15 05.12	-10 28 48.0	657
(2714)	1992 05 22.32819	16 16 24.81	-08 22 21.3	657
(2714)	1992 05 22.34417	16 16 23.92	-08 22 20.8	657

## 658 Dominion Astrophysical Observatory, Victoria

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

Observers J. B. Tatum, D. D. Balam, G. C. L. Aikman

1.85-m reflector + CCD

GSC

1982 UB7	1992 07 27.42013	21 23 26.67	+06 39 01.8	658
1982 UB7	1992 07 27.42221	21 23 26.58	+06 39 01.6	658
1982 UB7	1992 07 27.42464	21 23 26.49	+06 39 01.5	658
1982 UB7	1992 07 28.41528	21 22 46.36	+06 38 20.2	658
1982 UB7	1992 07 28.41841	21 22 46.24	+06 38 20.2	658
1982 UB7	1992 07 28.42118	21 22 46.12	+06 38 20.0	658
1986 RA	1992 07 26.26758	16 03 12.67	+12 55 23.1	658
1986 RA	1992 07 26.27113	16 03 12.80	+12 55 20.2	658
1986 RA	1992 07 26.27460	16 03 12.77	+12 55 18.9	658
1986 RA	1992 07 27.23975	16 03 28.49	+12 43 39.1	658
1986 RA	1992 07 27.24373	16 03 28.56	+12 43 36.2	658
1986 RA	1992 07 27.24650	16 03 28.60	+12 43 34.1	658
1989 BA1	1992 07 27.40902	21 25 22.32	+39 51 28.5	658
1989 BA1	1992 07 27.41178	21 25 22.19	+39 51 29.6	658
1989 BA1	1992 07 27.41456	21 25 22.02	+39 51 31.4	658
1989 BA1	1992 07 28.40591	21 24 29.29	+39 59 44.1	658
1989 BA1	1992 07 28.40903	21 24 29.15	+39 59 45.8	658
1989 BA1	1992 07 28.41182	21 24 29.01	+39 59 46.3	658
1990 DA	1992 07 27.46700	23 29 32.04	-09 09 36.8	658
1990 DA	1992 07 27.46941	23 29 32.05	-09 09 39.0	658
1990 DA	1992 07 27.47219	23 29 32.08	-09 09 41.0	658
1992 AB	1992 07 28.22432	12 57 57.42	+26 26 14.1	658
1992 AB	1992 07 28.22744	12 57 57.81	+26 26 08.4	658
1992 AB	1992 07 28.23126	12 57 58.35	+26 26 01.0	658
1992 AC	1992 07 28.23750	14 35 24.58	+00 57 55.3	658
1992 AC	1992 07 28.24028	14 35 24.83	+00 57 52.1	658
1992 JE	1992 07 26.27947	15 13 46.62	-01 54 05.3	658
1992 JE	1992 07 26.28258	15 13 47.01	-01 54 07.4	658
1992 JE	1992 07 26.28537	15 13 47.45	-01 54 09.7	658
1992 JE	1992 07 28.26147	15 18 39.35	-02 16 32.2	658
1992 JE	1992 07 28.26459	15 18 39.85	-02 16 34.3	658
1992 JE	1992 07 28.26737	15 18 40.25	-02 16 36.3	658
1992 KD	1992 07 26.31418	16 17 31.74	+17 08 42.8	658
1992 KD	1992 07 26.31695	16 17 32.00	+17 08 42.8	658
1992 KD	1992 07 26.32044	16 17 32.38	+17 08 43.3	658
1992 KD	1992 07 27.26352	16 19 09.78	+17 09 47.4	658
1992 KD	1992 07 27.26630	16 19 10.06	+17 09 47.5	658
1992 KD	1992 07 27.26903	16 19 10.32	+17 09 47.7	658
1992 KD	1992 07 28.29307	16 20 56.23	+17 10 28.6	658
1992 KD	1992 07 28.29654	16 20 56.58	+17 10 28.6	658
1992 KD	1992 07 28.29966	16 20 56.92	+17 10 28.5	658
1992 LR	1992 07 26.34161	18 24 00.27	+02 34 17.2	658
1992 LR	1992 07 26.34335	18 24 01.03	+02 34 19.8	658
1992 LR	1992 07 26.34529	18 24 01.88	+02 34 22.7	658
(1865)	1992 07 26.38952	19 00 40.01	+51 18 50.7	658
(1865)	1992 07 26.39509	19 00 39.61	+51 18 27.8	658
(1865)	1992 07 27.37116	18 59 41.59	+50 10 25.9	658
(1865)	1992 07 27.37463	18 59 41.35	+50 10 11.5	658
(1865)	1992 07 27.37706	18 59 41.19	+50 10 01.2	658
(1917)	1992 07 27.28053	16 55 26.83	+18 47 04.2	658
(1917)	1992 07 27.28331	16 55 26.74	+18 47 02.5	658
(1917)	1992 07 27.28608	16 55 26.68	+18 47 00.9	658
(3270)	1992 07 27.28956	16 56 36.49	+09 31 23.9	658
(3270)	1992 07 27.29234	16 56 36.45	+09 31 21.9	658
(3270)	1992 07 27.29512	16 56 36.40	+09 31 19.7	658
(3551)	1992 07 27.30622	17 26 34.33	-00 03 10.2	658
(3551)	1992 07 27.31144	17 26 34.03	-00 03 13.0	658
(3551)	1992 07 27.31456	17 26 33.52	-00 03 13.8	658
(5143)	1992 07 26.44997	22 36 02.28	-05 18 25.8	658

(5143)	1992 07 26.45308	22 36 01.90	-05 18 27.0	658
(5143)	1992 07 26.45620	22 36 01.53	-05 18 28.4	658
(5143)	1992 07 27.38191	22 34 11.69	-05 25 10.7	658
(5143)	1992 07 27.38470	22 34 11.35	-05 25 11.9	658
(5143)	1992 07 27.38748	22 34 11.00	-05 25 13.2	658
(5280)	1992 07 27.39930	20 52 21.26	+03 26 24.7	658
(5280)	1992 07 27.40172	20 52 21.19	+03 26 24.0	658
(5280)	1992 07 27.40445	20 52 21.05	+03 26 23.2	658

## 667 Wanapum Dam

J. Pryal, 9515 N.E. 120th Street, E4, Kirkland, WA 98034, U.S.A.

0.14-m f/3.5 Schmidt-Newtonian reflector

From Minor Planet Bulletin

(20)	1990 08 27.28262	21 46 42.28	-12 22 01.4	667
(28)	1990 08 26.31874	21 44 26.95	-14 05 06.7	667
(28)	1990 08 27.30067	21 43 41.85	-14 11 15.5	667
(29)	1990 08 26.31388	21 59 46.32	-17 17 43.9	667
(29)	1990 08 27.29165	21 58 49.51	-17 20 02.0	667
(44)	1990 08 26.32430	22 10 58.80	-13 20 20.2	667
(44)	1990 08 27.30831	22 10 05.16	-13 26 33.6	667
(64)	1990 08 26.32916	22 08 39.47	-10 40 31.9	667
(704)	1990 08 26.33610	22 34 22.09	+16 47 14.0	667

## 675 Palomar

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

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

9 = 3 + 6

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Measurers S. J. Bus (9), B. M. Cudnik (9), M. A. Dahm (9), K. Lawrence (2), L. Lee (2), G. J. Leonard (9), D. Moraru (2), C. M. Olmstead (6), P. Rose (2), C. S. Shoemaker (3), B. A. Skiff (9), C. J. van Houten (4), I. van Houten-Groeneveld (4), A. Wisse (4)

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

1953 EC2	* 1953 03 09.31250	10 18 43.78	-04 47 52.6	16.8	6	675
1953 EC2	1953 03 09.33576	10 18 42.92	-04 47 39.4		6	675
1953 ED2	* 1953 03 09.31250	10 26 26.57	-09 34 38.9	17.0	6	675
1953 ED2	1953 03 09.33576	10 26 25.54	-09 34 28.3		6	675
1953 EE2	* 1953 03 09.31250	10 31 09.26	-08 47 04.3	16.2	6	675
1953 EE2	1953 03 09.33576	10 31 08.30	-08 46 51.6		6	675
1953 EF2	* 1953 03 09.31250	10 32 28.45	-04 15 33.0	17.5	6	675
1953 EF2	1953 03 09.33576	10 32 27.53	-04 15 25.6		6	675
1953 EG2	* 1953 03 09.31250	10 32 48.12	-06 52 17.7	17.5	6	675
1953 EG2	1953 03 09.33576	10 32 46.99	-06 52 17.6		6	675
1953 EH2	* 1953 03 09.31250	10 36 05.53	-03 43 37.2	16.5	6	675
1953 EH2	1953 03 09.33576	10 36 04.47	-03 43 23.6		6	675
1953 EJ2	* 1953 03 09.31250	10 44 00.50	-04 38 29.2	16.5	6	675
1953 EJ2	1953 03 09.33576	10 44 01.14	-04 38 58.5		6	675
1953 GN	1991 09 13.23385	21 05 01.58	-13 54 22.6		9	675
1953 GN	1991 09 13.29080	21 05 00.20	-13 54 39.3		9	675

1954 RW	*	1954 09 03.38056	00 00 12.65	-09 07 20.9	16.8	6	675
1954 RW		1954 09 03.40486	00 00 11.03	-09 07 15.1		6	675
1954 TE1	*	1954 10 06.33021	01 09 39.64	+16 49 59.2	16.5	6	675
1954 TE1		1954 10 06.35139	01 09 38.19	+16 49 50.1		6	675
1954 TF1	*	1954 10 06.33021	01 10 35.50	+16 40 55.6	18.2	6	675
1954 TF1		1954 10 06.35139	01 10 34.11	+16 40 53.3		6	675
1954 TG1	*	1954 10 06.33021	01 15 40.81	+16 58 46.2	15.8	6	675
1954 TG1		1954 10 06.35139	01 15 39.73	+16 58 25.2		6	675
1954 TH1	*	1954 10 06.33021	01 24 39.12	+17 16 48.7	17.8	6	675
1954 TH1		1954 10 06.35139	01 24 37.84	+17 16 39.4		6	675
1954 TJ1	*	1954 10 06.33021	01 27 05.23	+19 44 19.0	17.8	6	675
1954 TJ1		1954 10 06.35139	01 27 03.70	+19 44 16.3		6	675
1954 TK1	*	1954 10 06.33021	01 27 36.47	+19 31 40.1	17.5	6	675
1954 TK1		1954 10 06.35139	01 27 34.97	+19 31 38.2		6	675
1954 TL1	*	1954 10 06.33021	01 32 53.96	+20 37 49.2	18.2	6	675
1954 TL1		1954 10 06.35139	01 32 52.56	+20 37 43.9		6	675
1962 SR		1949 11 19.13194	00 14 24.68	+15 46 59.1		6	675
1962 SR		1949 11 19.15799	00 14 24.85	+15 46 51.2		6	675
1962 SR		1991 09 13.20573	20 36 49.80	-08 48 58.5	16.8	9	675
1962 SR		1991 09 13.26619	20 36 48.88	-08 49 00.8		9	675
1969 LB		1992 08 02.32882	22 12 38.27	-11 22 48.9		9	675
1969 LB		1992 08 02.37118	22 12 36.44	-11 22 54.9		9	675
1969 LB		1992 08 06.36493	22 09 50.72	-11 32 23.6		9	675
1969 LB		1992 08 06.40416	22 09 48.99	-11 32 29.7		9	675
1974 OE		1978 10 27.30539	00 53 48.46	+07 23 23.4		6	675
1974 OE		1978 10 28.29411	00 52 56.52	+07 21 32.4		6	675
1974 OE		1978 10 29.30729	00 52 04.52	+07 19 43.9		6	675
1974 OE		1978 11 28.16875	00 39 52.22	+07 22 51.0	19.0	6	675
1974 OE		1978 11 29.16308	00 39 56.00	+07 25 06.7		6	675
1975 SA1		1954 09 03.38056	00 09 04.71	-08 32 07.9		6	675
1975 SA1		1954 09 03.40486	00 09 03.56	-08 32 10.1		6	675
1975 TM2		1981 05 08.43507	15 50 05.32	-16 40 38.7	17.2 V	6	675
1975 TM2		1981 05 09.38021	15 49 09.48	-16 36 52.3		6	675
1976 SA6		1992 06 04.26024	15 07 13.27	-20 02 15.3	17.0	9	675
1976 SA6		1992 06 04.29271	15 07 11.71	-20 02 11.5		9	675
1977 TC1		1951 07 30.29028	19 49 50.06	-13 39 47.1		6	675
1977 TC1		1951 07 30.31528	19 49 48.63	-13 39 49.5		6	675
1977 TS3		1981 05 08.43507	15 51 26.36	-15 06 09.3	17.0 V	6	675
1977 TS3		1981 05 09.38021	15 50 43.12	-15 03 55.5		6	675
1977 XM	*	1977 12 07.26979	04 29 13.92	+23 57 11.6	16.2 V	6	675
1977 XM		1977 12 08.22292	04 28 24.26	+23 49 41.2		6	675
1977 XN	*	1977 12 07.26979	04 29 22.55	+20 54 26.5	17.8 V	6	675
1977 XN		1977 12 08.22292	04 28 28.34	+20 53 40.8		6	675
1977 XO	*	1977 12 07.26979	04 29 25.87	+23 54 28.6	17.8 V	6	675
1977 XO		1977 12 08.22292	04 28 21.11	+23 51 01.0		6	675
1977 XP	*	1977 12 07.26979	04 29 41.46	+21 03 43.7	17.8 V	6	675
1977 XP		1977 12 08.22292	04 28 55.57	+20 58 11.4		6	675
1977 XQ	*	1977 12 07.26979	04 29 47.34	+21 54 46.5	16.5 V	6	675
1977 XQ		1977 12 08.22292	04 28 49.01	+21 47 33.1		6	675
1977 XR	*	1977 12 07.26979	04 30 41.51	+22 34 07.2	18.0 V	6	675
1977 XR		1977 12 08.22292	04 29 49.75	+22 28 50.6		6	675
1977 XS	*	1977 12 07.26979	04 32 03.25	+21 33 31.7	17.2 V	6	675
1977 XS		1977 12 08.22292	04 31 08.54	+21 32 44.8		6	675
1977 XT	*	1977 12 07.26979	04 32 37.96	+20 02 39.4	16.5 V	6	675
1977 XT		1977 12 08.22292	04 31 46.61	+19 59 50.1		6	675
1977 XU	*	1977 12 07.26979	04 32 43.64	+21 58 45.9	18.2 V	6	675
1977 XU		1977 12 08.22292	04 31 34.11	+21 58 40.2		6	675
1977 XV	*	1977 12 07.26979	04 33 10.84	+21 28 51.1	18.0 V	6	675
1977 XV		1977 12 08.22292	04 31 58.77	+21 08 43.0		6	675

1977 XW	*	1977 12 07.26979	04 33 14.85	+18 57 59.6	17.5 V	6 675
1977 XW		1977 12 08.22292	04 32 16.57	+18 53 10.8		6 675
1977 XX	*	1977 12 07.26979	04 33 16.63	+23 55 01.2	17.2 V	6 675
1977 XX		1977 12 08.22292	04 32 06.55	+23 54 22.7		6 675
1977 XY	*	1977 12 07.26979	04 33 31.21	+20 32 55.0	17.8 V	6 675
1977 XY		1977 12 08.22292	04 32 23.18	+20 36 15.8		6 675
1977 XZ	*	1977 12 07.26979	04 34 05.50	+21 09 23.2	17.2 V	6 675
1977 XZ		1977 12 08.22292	04 33 03.84	+21 08 28.8		6 675
1977 XA1	*	1977 12 07.26979	04 34 06.96	+18 56 30.3	17.8 V	6 675
1977 XA1		1977 12 08.22292	04 33 17.48	+18 55 00.1		6 675
1977 XB1	*	1977 12 07.26979	04 34 33.48	+18 40 47.2	17.5 V	6 675
1977 XB1		1977 12 08.22292	04 33 41.80	+18 39 42.2		6 675
1977 XC1	*	1977 12 07.26979	04 34 58.24	+21 34 32.5	18.2 V	6 675
1977 XC1		1977 12 08.22292	04 34 03.23	+21 32 27.0		6 675
1977 XD1	*	1977 12 07.26979	04 35 08.34	+21 11 12.7	16.8 V	6 675
1977 XD1		1977 12 08.22292	04 34 08.32	+21 12 16.1		6 675
1977 XE1	*	1977 12 07.26979	04 35 19.92	+20 38 42.7	18.0 V	6 675
1977 XE1		1977 12 08.22292	04 34 23.11	+20 38 48.3		6 675
1977 XF1	*	1977 12 07.26979	04 35 32.87	+21 25 19.4	16.8 V	6 675
1977 XF1		1977 12 08.22292	04 34 34.06	+21 20 07.2		6 675
1977 XG1	*	1977 12 07.26979	04 35 33.60	+18 38 51.6	18.2 V	6 675
1977 XG1		1977 12 08.22292	04 34 47.49	+18 37 50.5		6 675
1977 XH1	*	1977 12 07.26979	04 36 12.66	+22 16 36.3	17.8 V	6 675
1977 XH1		1977 12 08.22292	04 34 46.36	+22 25 42.5		6 675
1977 XJ1	*	1977 12 07.26979	04 36 25.61	+21 17 17.9	17.2 V	6 675
1977 XJ1		1977 12 08.22292	04 35 27.51	+21 19 14.4		6 675
1977 XK1	*	1977 12 07.26979	04 36 27.67	+19 55 24.1	17.2 V	6 675
1977 XK1		1977 12 08.22292	04 35 18.31	+19 54 43.0		6 675
1977 XL1	*	1977 12 07.26979	04 36 49.69	+23 24 46.0	17.5 V	6 675
1977 XL1		1977 12 08.22292	04 35 46.55	+23 20 09.2		6 675
1977 XM1	*	1977 12 07.26979	04 37 10.09	+23 20 18.8	17.0 V	6 675
1977 XM1		1977 12 08.22292	04 36 08.72	+23 17 14.4		6 675
1977 XN1	*	1977 12 07.26979	04 37 18.66	+22 51 04.2	17.0 V	6 675
1977 XN1		1977 12 08.22292	04 36 24.70	+22 50 19.4		6 675
1977 XO1	*	1977 12 07.26979	04 37 23.45	+20 14 00.6	17.2 V	6 675
1977 XO1		1977 12 08.22292	04 36 23.90	+20 11 13.2		6 675
1977 XP1	*	1977 12 07.26979	04 37 38.49	+21 12 36.4	17.0 V	6 675
1977 XP1		1977 12 08.22292	04 36 49.62	+21 11 29.1		6 675
1977 XQ1	*	1977 12 07.26979	04 37 46.43	+21 15 28.6	17.5 V	6 675
1977 XQ1		1977 12 08.22292	04 36 42.99	+21 12 50.0		6 675
1977 XR1	*	1977 12 07.26979	04 38 04.22	+22 44 47.5	17.8 V	6 675
1977 XR1		1977 12 08.22292	04 37 11.27	+22 42 45.0		6 675
1977 XS1	*	1977 12 07.26979	04 38 10.15	+23 41 05.1	17.2 V	6 675
1977 XS1		1977 12 08.22292	04 37 10.46	+23 43 19.5		6 675
1977 XT1	*	1977 12 07.26979	04 38 22.28	+22 45 01.3	16.8 V	6 675
1977 XT1		1977 12 08.22292	04 37 27.27	+22 47 44.4		6 675
1977 XU1	*	1977 12 07.26979	04 38 33.09	+22 39 56.0	16.5 V	6 675
1977 XU1		1977 12 08.22292	04 37 24.72	+22 40 51.9		6 675
1977 XV1	*	1977 12 07.26979	04 39 03.38	+23 01 18.7	17.5 V	6 675
1977 XV1		1977 12 08.22292	04 37 56.12	+23 00 36.7		6 675
1977 XW1	*	1977 12 07.26979	04 39 27.94	+23 02 56.7	17.2 V	6 675
1977 XW1		1977 12 08.22292	04 38 37.14	+23 01 23.3		6 675
1977 XX1	*	1977 12 07.26979	04 39 39.30	+22 31 05.8	17.2 V	6 675
1977 XX1		1977 12 08.22292	04 38 44.30	+22 32 35.8		6 675
1977 XY1	*	1977 12 07.26979	04 39 57.90	+20 31 31.2	17.5 V	6 675
1977 XY1		1977 12 08.22292	04 39 09.31	+20 29 12.0		6 675
1977 XZ1	*	1977 12 07.26979	04 39 59.78	+20 29 09.3	17.5 V	6 675
1977 XZ1		1977 12 08.22292	04 39 03.86	+20 26 16.4		6 675
1977 XA2	*	1977 12 07.26979	04 40 22.51	+19 03 48.8	16.5 V	6 675

1977	XA2		1977	12	08.22292	04	39	20.19	+19	03	05.5		6	675	
1977	XB2	*	1977	12	07.26979	04	40	32.26	+22	43	04.1	17.0	V	6	675
1977	XB2		1977	12	08.22292	04	39	34.59	+22	43	42.3			6	675
1977	XC2	*	1977	12	07.26979	04	40	45.02	+24	05	53.1	18.0	V	6	675
1977	XC2		1977	12	08.22292	04	39	55.82	+24	07	06.2			6	675
1977	XD2	*	1977	12	07.26979	04	40	55.54	+22	30	24.4	17.2	V	6	675
1977	XD2		1977	12	08.22292	04	39	58.23	+22	33	29.6			6	675
1977	XE2	*	1977	12	07.26979	04	41	33.19	+21	01	34.8	17.8	V	6	675
1977	XE2		1977	12	08.22292	04	40	38.52	+20	55	02.7			6	675
1977	XF2	*	1977	12	07.26979	04	41	35.12	+20	02	42.4	16.8	V	6	675
1977	XF2		1977	12	08.22292	04	40	42.63	+20	04	07.9			6	675
1977	XG2	*	1977	12	07.26979	04	41	39.11	+23	52	01.7	16.5	V	6	675
1977	XG2		1977	12	08.22292	04	40	39.29	+23	53	08.8			6	675
1977	XH2	*	1977	12	07.26979	04	42	20.64	+24	15	30.4	16.5	V	6	675
1977	XH2		1977	12	08.22292	04	41	26.57	+24	15	58.3			6	675
1977	XJ2	*	1977	12	07.26979	04	42	43.47	+22	35	13.0	17.0	V	6	675
1977	XJ2		1977	12	08.22292	04	41	46.77	+22	35	35.4			6	675
1977	XK2	*	1977	12	07.26979	04	43	18.76	+20	02	40.2	17.2	V	6	675
1977	XK2		1977	12	08.22292	04	41	52.54	+19	34	17.2			6	675
1977	XL2	*	1977	12	07.26979	04	43	39.63	+20	18	02.1	17.5	V	6	675
1977	XL2		1977	12	08.22292	04	42	36.48	+20	16	18.2			6	675
1977	XM2	*	1977	12	07.26979	04	43	49.77	+23	47	16.9	16.8	V	6	675
1977	XM2		1977	12	08.22292	04	42	47.28	+23	43	23.7			6	675
1977	XN2	*	1977	12	07.26979	04	44	26.43	+24	15	44.4	17.5	V	6	675
1977	XN2		1977	12	08.22292	04	43	31.80	+24	14	00.2			6	675
1977	XO2	*	1977	12	07.26979	04	44	30.19	+23	16	31.1	17.8	V	6	675
1977	XO2		1977	12	08.22292	04	43	29.31	+23	16	33.5			6	675
1977	XP2	*	1977	12	07.26979	04	44	47.32	+18	37	14.3	17.5	V	6	675
1977	XP2		1977	12	08.22292	04	43	55.94	+18	35	59.0			6	675
1977	XQ2	*	1977	12	07.26979	04	45	01.93	+21	37	08.2	17.8	V	6	675
1977	XQ2		1977	12	08.22292	04	44	04.22	+21	31	14.2			6	675
1977	XR2	*	1977	12	07.26979	04	45	02.62	+23	57	26.2	17.0	V	6	675
1977	XR2		1977	12	08.22292	04	44	01.34	+24	00	25.7			6	675
1977	XS2	*	1977	12	07.26979	04	45	05.30	+19	47	06.5	16.8	V	6	675
1977	XS2		1977	12	08.22292	04	44	03.72	+19	44	34.1			6	675
1977	XT2	*	1977	12	07.26979	04	45	05.79	+24	12	36.9	17.8	V	6	675
1977	XT2		1977	12	08.22292	04	44	10.75	+24	11	56.1			6	675
1977	XU2	*	1977	12	07.26979	04	45	15.10	+19	29	08.3	17.2	V	6	675
1977	XU2		1977	12	08.22292	04	44	10.01	+19	30	13.9			6	675
1977	XV2	*	1977	12	07.26979	04	45	38.46	+19	45	54.3	16.5	V	6	675
1977	XV2		1977	12	08.22292	04	44	32.14	+19	46	36.3			6	675
1977	XW2	*	1977	12	07.26979	04	45	40.66	+22	54	36.7	18.0	V	6	675
1977	XW2		1977	12	08.22292	04	44	45.44	+22	52	37.0			6	675
1977	XX2	*	1977	12	07.26979	04	45	57.08	+23	51	06.6	17.8	V	6	675
1977	XX2		1977	12	08.22292	04	44	55.14	+23	52	33.0			6	675
1977	XY2	*	1977	12	07.26979	04	46	23.30	+24	17	39.8	17.0	V	6	675
1977	XY2		1977	12	08.22292	04	45	20.73	+24	16	58.5			6	675
1977	XZ2	*	1977	12	07.26979	04	46	29.27	+24	13	28.4	17.2	V	6	675
1977	XZ2		1977	12	08.22292	04	45	36.01	+24	11	52.3			6	675
1977	XA3	*	1977	12	07.26979	04	46	51.76	+20	51	27.7	18.5	V	6	675
1977	XA3		1977	12	08.22292	04	45	52.75	+20	48	56.7			6	675
1977	XB3	*	1977	12	07.26979	04	46	57.03	+19	51	42.9	17.8	V	6	675
1977	XB3		1977	12	08.22292	04	46	01.92	+19	46	38.0			6	675
1977	XC3	*	1977	12	07.26979	04	47	15.92	+22	29	03.0	17.0	V	6	675
1977	XC3		1977	12	08.22292	04	46	18.54	+22	38	53.9			6	675
1977	XD3	*	1977	12	07.26979	04	47	19.73	+19	28	45.2	17.0	V	6	675
1977	XD3		1977	12	08.22292	04	46	10.20	+19	29	10.2			6	675
1977	XE3	*	1977	12	07.26979	04	47	23.54	+22	25	31.4	17.5	V	6	675
1977	XE3		1977	12	08.22292	04	46	14.10	+22	26	49.1			6	675

1977 XF3	*	1977 12 07.26979	04 48 16.94	+22 53 55.3	17.5 V	6	675
1977 XF3		1977 12 08.22292	04 47 11.21	+23 01 51.7		6	675
1977 XG3	*	1977 12 07.26979	04 48 21.97	+22 25 12.6	16.8 V	6	675
1977 XG3		1977 12 08.22292	04 47 27.17	+22 27 30.5		6	675
1977 XH3	*	1977 12 07.26979	04 49 33.29	+22 53 21.5	17.2 V	6	675
1977 XH3		1977 12 08.22292	04 48 27.26	+22 54 10.8		6	675
1977 XJ3	*	1977 12 07.26979	04 50 39.53	+19 56 53.7	17.2 V	6	675
1977 XJ3		1977 12 08.22292	04 49 48.75	+19 54 20.4		6	675
1977 XK3	*	1977 12 07.26979	04 51 08.40	+20 57 33.9	18.2 V	6	675
1977 XK3		1977 12 08.22292	04 50 08.72	+21 00 51.2		6	675
1977 XL3	*	1977 12 07.26979	04 52 29.55	+18 55 51.0	17.0 V	6	675
1977 XL3		1977 12 08.22292	04 51 39.92	+18 55 01.4		6	675
1977 XM3	*	1977 12 07.26979	04 52 46.46	+23 59 01.5	17.8 V	6	675
1977 XM3		1977 12 08.22292	04 51 45.76	+23 58 02.8		6	675
1977 XN3	*	1977 12 07.26979	04 54 09.12	+18 57 08.1	17.5 V	6	675
1977 XN3		1977 12 08.22292	04 53 20.08	+18 54 01.6		6	675
1977 XO3	*	1977 12 07.26979	04 54 14.24	+22 44 43.8	17.5 V	6	675
1977 XO3		1977 12 08.22292	04 53 11.20	+22 43 11.1		6	675
1977 XP3	*	1977 12 07.26979	04 54 22.43	+18 20 38.0	17.0 V	6	675
1977 XP3		1977 12 08.22292	04 53 18.33	+18 21 34.3		6	675
1977 XQ3	*	1977 12 07.26979	04 55 20.17	+22 04 51.4	17.2 V	6	675
1977 XQ3		1977 12 08.22292	04 54 30.46	+22 03 29.9		6	675
1977 XR3	*	1977 12 07.26979	04 55 28.10	+19 10 48.1	16.8 V	6	675
1977 XR3		1977 12 08.22292	04 54 39.28	+19 09 36.1		6	675
1978 RN		1991 09 13.20573	20 50 23.19	-12 21 01.1	17.5	9	675
1978 RN		1991 09 13.23385	20 50 22.57	-12 21 11.9		9	675
1978 RN		1991 09 13.26619	20 50 21.85	-12 21 21.8		9	675
1978 RN		1991 09 13.29080	20 50 21.38	-12 21 29.9		9	675
1978 RN		1991 09 14.22390	20 50 03.43	-12 26 28.5		9	675
1978 RN		1991 09 14.26053	20 50 02.67	-12 26 40.3		9	675
1978 RV5		1978 10 27.30539	01 01 16.19	+09 17 45.3		6	675
1978 RV5		1978 10 28.29411	01 00 26.67	+09 14 33.1		6	675
1978 RV5		1978 10 29.30729	00 59 37.23	+09 11 22.4		6	675
1978 RV5		1978 11 28.16875	00 49 52.69	+08 41 52.0	17.5	6	675
1978 RV5		1978 11 29.16308	00 50 04.62	+08 43 28.5		6	675
1978 SO4		1978 10 27.30539	01 07 47.12	+08 27 42.8		6	675
1978 SO4		1978 10 28.29411	01 07 10.36	+08 25 16.8		6	675
1978 SO4		1978 10 29.30729	01 06 33.16	+08 22 50.5		6	675
1978 SO4		1978 11 28.16875	00 54 46.29	+07 42 05.1	17.5	6	675
1978 SO4		1978 11 29.16308	00 54 38.22	+07 42 04.1		6	675
1978 SP4		1978 10 27.30539	01 03 00.13	+08 01 46.7		6	675
1978 SP4		1978 10 28.29411	01 02 12.12	+08 00 16.0		6	675
1978 SP4		1978 10 29.30729	01 01 23.59	+07 58 46.5		6	675
1978 SP4		1978 11 28.16875	00 46 20.99	+07 52 10.2	18.5	6	675
1978 SP4		1978 11 29.16308	00 46 11.82	+07 53 33.5		6	675
1978 SQ4		1978 10 27.30539	01 04 54.71	+12 32 38.3		6	675
1978 SQ4		1978 10 28.29411	01 04 07.80	+12 30 51.1		6	675
1978 SQ4		1978 10 29.30729	01 03 20.92	+12 29 01.9		6	675
1978 SR4		1978 11 28.16875	00 59 16.62	+06 09 12.7	18.8	6	675
1978 SR4		1978 11 29.16308	00 59 35.37	+06 10 26.6		6	675
1978 SU4		1978 10 27.30539	01 12 15.51	+09 16 11.8		6	675
1978 SU4		1978 10 28.29411	01 11 32.75	+09 07 31.1		6	675
1978 SU4		1978 10 29.30729	01 10 49.88	+08 58 45.6		6	675
1978 SF5		1978 11 28.16875	01 00 03.92	+07 40 55.4	19.0	6	675
1978 SF5		1978 11 29.16308	01 00 12.66	+07 45 40.3		6	675
1978 SH7		1978 11 28.16875	00 36 07.41	+11 12 33.3	18.5	6	675
1978 SH7		1978 11 29.16308	00 36 32.14	+11 14 37.4		6	675
1978 SN7		1978 10 27.30539	00 49 22.64	+10 38 10.9		6	675
1978 SN7		1978 10 28.29411	00 48 47.52	+10 30 28.7		6	675



1978 SN7		1978 10 29.30729	00 48 12.44	+10 22 38.0		6	675
1978 SN7		1978 11 28.16875	00 40 08.80	+07 25 08.8	18.5	6	675
1978 SN7		1978 11 29.16308	00 40 13.33	+07 21 35.8		6	675
1978 SO7		1978 11 28.16875	00 41 01.53	+08 32 13.3	17.8	6	675
1978 SO7		1978 11 29.16308	00 41 25.26	+08 33 46.7		6	675
1978 SV7		1978 10 27.30539	00 47 31.03	+12 21 56.0		6	675
1978 SV7		1978 10 28.29411	00 46 47.81	+12 18 29.0		6	675
1978 SW7		1978 10 27.30539	00 47 30.42	+12 10 06.3		6	675
1978 SW7		1978 10 28.29411	00 46 46.97	+12 06 09.6		6	675
1978 SW7		1978 11 28.16875	00 38 57.28	+10 56 09.6	17.2	6	675
1978 SW7		1978 11 29.16308	00 39 12.95	+10 56 19.1		6	675
1978 SX7		1978 10 27.30539	00 49 47.04	+11 57 51.1		6	675
1978 SX7		1978 10 28.29411	00 49 01.84	+11 55 03.8		6	675
1978 SX7		1978 10 29.30729	00 48 16.88	+11 52 13.9		6	675
1978 SX7		1978 11 28.16875	00 41 07.63	+11 17 57.7	18.0	6	675
1978 SX7		1978 11 29.16308	00 41 26.78	+11 19 12.5		6	675
1978 SA8		1978 10 27.30539	00 59 08.54	+07 01 39.0		6	675
1978 SA8		1978 10 28.29411	00 58 32.14	+06 55 31.2		6	675
1978 SA8		1978 10 29.30729	00 57 56.09	+06 49 22.4		6	675
1978 SA8		1978 11 28.16875	00 53 54.92	+05 22 40.9	18.2	6	675
1978 SA8		1978 11 29.16308	00 54 16.12	+05 23 15.2		6	675
1978 SB8		1978 10 27.30539	00 54 41.79	+07 57 50.8		6	675
1978 SB8		1978 10 28.29411	00 53 55.09	+07 57 30.8		6	675
1978 SB8		1978 10 29.30729	00 53 08.81	+07 57 16.0		6	675
1978 SB8		1978 11 28.16875	00 46 24.12	+08 50 34.9	18.2	6	675
1978 SB8		1978 11 29.16308	00 46 43.91	+08 54 38.4		6	675
1978 SD8		1978 10 27.30539	00 57 36.93	+06 57 53.6		6	675
1978 SD8		1978 10 28.29411	00 56 53.18	+06 57 33.6		6	675
1978 SD8		1978 10 29.30729	00 56 09.90	+06 57 19.6		6	675
1978 SD8		1978 11 28.16875	00 51 14.47	+07 58 22.7	18.5	6	675
1978 SD8		1978 11 29.16308	00 51 37.61	+08 02 46.8		6	675
1978 TD2		1978 10 27.30539	01 09 06.09	+08 22 09.6	17.5	6	675
1978 TD2		1978 10 28.29411	01 08 21.76	+08 18 09.4		6	675
1978 TD2		1978 10 29.30729	01 07 37.01	+08 14 08.3		6	675
1978 TP6		1978 10 27.30539	00 52 48.64	+11 11 33.8		6	675
1978 TP6		1978 10 28.29411	00 52 06.24	+11 07 32.2		6	675
1978 TP6		1978 10 29.30729	00 51 23.59	+11 03 26.2		6	675
1978 UJ4	*	1978 10 27.30539	00 47 48.06	+10 54 01.8	18.0	6	675
1978 UJ4		1978 10 28.29411	00 47 23.58	+10 45 34.3		6	675
1978 UJ4		1978 10 29.30729	00 47 00.27	+10 37 04.5		6	675
1978 UJ4		1978 11 28.16875	00 50 37.86	+08 07 48.6	19.5	6	675
1978 UJ4		1978 11 29.16308	00 51 14.97	+08 06 41.6		6	675
1978 UK4	*	1978 10 27.30539	00 47 59.02	+06 59 48.2	17.5	6	675
1978 UK4		1978 10 28.29411	00 47 17.00	+06 53 46.2		6	675
1978 UK4		1978 10 29.30729	00 46 34.96	+06 47 41.3		6	675
1978 UL4	*	1978 10 27.30539	00 49 30.58	+11 06 02.7	17.0	6	675
1978 UL4		1978 10 28.29411	00 49 02.84	+10 53 04.4		6	675
1978 UL4		1978 10 29.30729	00 48 35.71	+10 39 54.2		6	675
1978 UL4		1978 11 28.16875	00 47 48.42	+05 52 38.6	18.5	6	675
1978 UL4		1978 11 29.16308	00 48 13.34	+05 47 13.5		6	675
1978 UM4	*	1978 10 27.30539	00 49 50.74	+12 08 55.1	19.0	6	675
1978 UM4		1978 10 28.29411	00 49 04.05	+12 01 58.1		6	675
1978 UM4		1978 10 29.30729	00 48 17.12	+11 54 51.6		6	675
1978 UN4	*	1978 10 27.30539	00 49 56.83	+10 11 21.8	18.5	6	675
1978 UN4		1978 10 28.29411	00 49 22.66	+10 03 50.5		6	675
1978 UN4		1978 10 29.30729	00 48 48.30	+09 56 09.5		6	675
1978 UN4		1978 11 28.16875	00 39 42.49	+06 58 51.6	19.5	6	675
1978 UN4		1978 11 29.16308	00 39 41.69	+06 55 01.1		6	675
1978 UO4	*	1978 10 27.30539	00 50 05.76	+12 17 27.8	19.5	6	675

1978 UO4		1978 10 28.29411	00 49 23.14	+12 10 18.3		6 675
1978 UO4		1978 10 29.30729	00 48 40.55	+12 03 00.5		6 675
1978 UP4	*	1978 10 27.30539	00 50 17.82	+11 35 31.7	18.0	6 675
1978 UP4		1978 10 28.29411	00 49 36.24	+11 28 03.1		6 675
1978 UP4		1978 10 29.30729	00 48 54.59	+11 20 25.2		6 675
1978 UP4		1978 11 28.16875	00 38 59.46	+08 27 26.6	19.2	6 675
1978 UP4		1978 11 29.16308	00 39 03.73	+08 24 07.2		6 675
1978 UQ4	*	1978 10 27.30539	00 50 27.37	+09 11 58.9	19.0	6 675
1978 UQ4		1978 10 28.29411	00 49 49.87	+09 03 05.4		6 675
1978 UQ4		1978 10 29.30729	00 49 12.50	+08 54 07.3		6 675
1978 UR4	*	1978 10 27.30539	00 50 28.66	+10 07 18.1	18.5	6 675
1978 UR4		1978 10 28.29411	00 49 39.87	+10 02 00.7		6 675
1978 UR4		1978 10 29.30729	00 48 51.16	+09 56 38.9		6 675
1978 UR4		1978 11 28.16875	00 38 58.44	+08 23 24.1	19.8	6 675
1978 UR4		1978 11 29.16308	00 39 10.19	+08 23 08.9		6 675
1978 US4	*	1978 10 27.30539	00 50 29.35	+10 10 20.7	18.5	6 675
1978 US4		1978 10 28.29411	00 49 49.51	+10 03 49.7		6 675
1978 US4		1978 10 29.30729	00 49 10.41	+09 57 17.1		6 675
1978 UT4	*	1978 10 27.30539	00 50 35.76	+11 41 18.6	19.5	6 675
1978 UT4		1978 10 28.29411	00 49 51.03	+11 33 26.4		6 675
1978 UT4		1978 10 29.30729	00 49 06.71	+11 25 28.6		6 675
1978 UU4	*	1978 10 27.30539	00 51 34.41	+12 27 42.3	18.5	6 675
1978 UU4		1978 10 28.29411	00 50 55.30	+12 23 05.8		6 675
1978 UU4		1978 10 29.30729	00 50 16.69	+12 18 24.5		6 675
1978 UV4	*	1978 10 27.30539	00 51 36.89	+07 12 56.7	18.0	6 675
1978 UV4		1978 10 28.29411	00 51 02.89	+07 07 47.5		6 675
1978 UV4		1978 10 29.30729	00 50 29.56	+07 02 40.0		6 675
1978 UV4		1978 11 28.16875	00 48 34.32	+06 03 45.3	20.0	6 675
1978 UV4		1978 11 29.16308	00 48 59.79	+06 05 02.8		6 675
1978 UW4	*	1978 10 27.30539	00 51 39.82	+10 27 18.9	18.0	6 675
1978 UW4		1978 10 28.29411	00 50 54.61	+10 19 13.7		6 675
1978 UW4		1978 10 29.30729	00 50 09.48	+10 11 01.2		6 675
1978 UW4		1978 11 28.16875	00 39 57.70	+07 17 36.8	19.0	6 675
1978 UW4		1978 11 29.16308	00 40 03.63	+07 14 45.7		6 675
1978 UX4	*	1978 10 27.30539	00 52 39.28	+11 11 33.9	18.5	6 675
1978 UX4		1978 10 28.29411	00 51 48.58	+11 08 12.4		6 675
1978 UX4		1978 10 29.30729	00 50 57.93	+11 04 48.6		6 675
1978 UY4	*	1978 10 27.30539	00 52 42.12	+07 48 47.0	18.0	6 675
1978 UY4		1978 10 28.29411	00 52 09.94	+07 41 37.8		6 675
1978 UY4		1978 10 29.30729	00 51 38.39	+07 34 26.0		6 675
1978 UY4		1978 11 28.16875	00 51 42.60	+05 49 27.4	19.5	6 675
1978 UY4		1978 11 29.16308	00 52 15.10	+05 49 54.7		6 675
1978 UZ4	*	1978 10 27.30539	00 53 25.02	+12 26 05.0	18.5	6 675
1978 UZ4		1978 10 28.29411	00 52 21.07	+12 25 21.9		6 675
1978 UZ4		1978 10 29.30729	00 51 16.74	+12 24 37.3		6 675
1978 UA5	*	1978 10 27.30539	00 53 33.20	+08 35 24.0	18.5	6 675
1978 UA5		1978 10 28.29411	00 52 50.82	+08 32 18.1		6 675
1978 UA5		1978 10 29.30729	00 52 08.85	+08 29 13.4		6 675
1978 UA5		1978 11 28.16875	00 46 47.45	+08 10 49.3	19.8	6 675
1978 UA5		1978 11 29.16308	00 47 08.89	+08 13 01.3		6 675
1978 UB5	*	1978 10 27.30539	00 53 39.93	+07 08 58.6	17.5	6 675
1978 UB5		1978 10 28.29411	00 52 56.79	+07 01 07.5		6 675
1978 UB5		1978 10 29.30729	00 52 13.53	+06 53 10.8		6 675
1978 UC5	*	1978 10 27.30539	00 53 55.95	+11 34 31.3	19.0	6 675
1978 UC5		1978 10 28.29411	00 53 09.20	+11 32 35.5		6 675
1978 UC5		1978 10 29.30729	00 52 22.15	+11 30 38.1		6 675
1978 UD5	*	1978 10 27.30539	00 53 58.07	+11 25 31.2	18.5	6 675
1978 UD5		1978 10 28.29411	00 53 13.03	+11 17 30.1		6 675
1978 UD5		1978 10 29.30729	00 52 28.23	+11 09 21.4		6 675

1978 UD5		1978 11	28.16875	00 43	55.44	+08 16	42.4	20.2	6	675
1978 UD5		1978 11	29.16308	00 44	08.81	+08 14	06.8		6	675
1978 UE5	*	1978 10	27.30539	00 53	59.77	+09 42	39.4	19.0	6	675
1978 UE5		1978 10	28.29411	00 53	19.28	+09 37	38.1		6	675
1978 UE5		1978 10	29.30729	00 52	39.23	+09 32	33.7		6	675
1978 UE5		1978 11	28.16875	00 47	11.23	+08 15	52.4	20.0	6	675
1978 UE5		1978 11	29.16308	00 47	30.72	+08 16	16.3		6	675
1978 UF5	*	1978 10	27.30539	00 54	22.17	+08 00	16.0	18.5	6	675
1978 UF5		1978 10	28.29411	00 53	36.52	+07 54	59.8		6	675
1978 UF5		1978 10	29.30729	00 52	50.86	+07 49	41.2		6	675
1978 UG5	*	1978 10	27.30539	00 54	43.78	+10 08	23.1	17.5	6	675
1978 UG5		1978 10	28.29411	00 53	52.60	+10 06	29.5		6	675
1978 UG5		1978 10	29.30729	00 53	01.41	+10 04	36.3		6	675
1978 UH5	*	1978 10	27.30539	00 54	46.19	+11 32	52.9	18.5	6	675
1978 UH5		1978 10	28.29411	00 54	05.57	+11 26	15.6		6	675
1978 UH5		1978 10	29.30729	00 53	24.91	+11 19	31.4		6	675
1978 UJ5	*	1978 10	27.30539	00 55	03.43	+09 21	02.8	18.0	6	675
1978 UJ5		1978 10	28.29411	00 54	18.15	+09 15	54.7		6	675
1978 UJ5		1978 10	29.30729	00 53	32.84	+09 10	42.4		6	675
1978 UJ5		1978 11	28.16875	00 45	35.45	+07 50	27.8	19.2	6	675
1978 UJ5		1978 11	29.16308	00 45	50.53	+07 50	45.7		6	675
1978 UK5	*	1978 10	27.30539	00 55	54.37	+12 02	52.6	19.5	6	675
1978 UK5		1978 10	28.29411	00 54	56.27	+12 04	40.4		6	675
1978 UK5		1978 10	29.30729	00 53	58.12	+12 06	29.5		6	675
1978 UL5	*	1978 10	27.30539	00 56	10.70	+06 39	34.4	18.0	6	675
1978 UL5		1978 10	28.29411	00 55	26.52	+06 34	05.3		6	675
1978 UL5		1978 10	29.30729	00 54	42.49	+06 28	36.1		6	675
1978 UM5	*	1978 10	27.30539	00 56	27.70	+08 13	04.1	19.0	6	675
1978 UM5		1978 10	28.29411	00 55	39.38	+08 12	54.2		6	675
1978 UM5		1978 10	29.30729	00 54	50.83	+08 12	46.9		6	675
1978 UN5	*	1978 10	27.30539	00 56	54.53	+08 21	18.7	18.0	6	675
1978 UN5		1978 10	28.29411	00 56	08.59	+08 19	11.4		6	675
1978 UN5		1978 10	29.30729	00 55	22.87	+08 17	05.7		6	675
1978 UN5		1978 11	28.16875	00 46	24.71	+08 12	32.0	19.5	6	675
1978 UN5		1978 11	29.16308	00 46	34.46	+08 14	33.0		6	675
1978 UO5	*	1978 10	27.30539	00 57	03.31	+12 22	30.4	19.0	6	675
1978 UO5		1978 10	28.29411	00 56	09.65	+12 21	40.4		6	675
1978 UO5		1978 10	29.30729	00 55	15.35	+12 20	50.2		6	675
1978 UP5	*	1978 10	27.30539	00 57	33.76	+11 41	11.3	17.5	6	675
1978 UP5		1978 10	28.29411	00 56	39.85	+11 42	29.8		6	675
1978 UP5		1978 10	29.30729	00 55	46.14	+11 43	51.2		6	675
1978 UQ5	*	1978 10	27.30539	00 57	43.12	+10 58	31.9	19.5	6	675
1978 UQ5		1978 10	28.29411	00 57	08.92	+10 50	10.4		6	675
1978 UQ5		1978 10	29.30729	00 56	34.77	+10 41	41.0		6	675
1978 UR5	*	1978 10	27.30539	00 57	55.61	+07 20	13.8	18.5	6	675
1978 UR5		1978 10	28.29411	00 57	15.24	+07 15	52.5		6	675
1978 UR5		1978 10	29.30729	00 56	34.65	+07 11	28.0		6	675
1978 US5	*	1978 10	27.30539	00 58	03.28	+09 01	14.4	17.5	6	675
1978 US5		1978 10	28.29411	00 57	06.52	+09 03	01.6		6	675
1978 US5		1978 10	29.30729	00 56	09.74	+09 04	52.2		6	675
1978 US5		1978 11	28.16875	00 41	13.89	+10 24	18.4	19.0	6	675
1978 US5		1978 11	29.16308	00 41	11.32	+10 28	05.6		6	675
1978 UT5	*	1978 10	27.30539	00 58	10.90	+10 08	54.4	18.0	6	675
1978 UT5		1978 10	28.29411	00 57	27.04	+10 05	39.1		6	675
1978 UT5		1978 10	29.30729	00 56	43.13	+10 02	22.6		6	675
1978 UU5	*	1978 10	27.30539	00 58	20.01	+07 26	30.2	18.5	6	675
1978 UU5		1978 10	28.29411	00 57	42.02	+07 23	46.0		6	675
1978 UU5		1978 10	29.30729	00 57	04.07	+07 21	02.4		6	675
1978 UV5	*	1978 10	27.30539	00 58	29.51	+10 54	28.8	18.5	6	675

1978 UV5		1978 10 28.29411	00 57 36.43	+10 50 22.0		6 675
1978 UV5		1978 10 29.30729	00 56 43.16	+10 46 13.4		6 675
1978 UW5	*	1978 10 27.30539	00 58 50.73	+07 45 09.1	18.5	6 675
1978 UW5		1978 10 28.29411	00 58 01.10	+07 42 12.5		6 675
1978 UW5		1978 10 29.30729	00 57 11.36	+07 39 16.4		6 675
1978 UX5	*	1978 10 27.30539	00 58 59.11	+09 19 50.1	19.0	6 675
1978 UX5		1978 10 28.29411	00 58 15.48	+09 11 27.4		6 675
1978 UX5		1978 10 29.30729	00 57 32.09	+09 02 58.6		6 675
1978 UX5		1978 11 28.16875	00 50 20.30	+06 25 22.3	20.0	6 675
1978 UX5		1978 11 29.16308	00 50 36.11	+06 23 45.7		6 675
1978 UY5	*	1978 10 27.30539	00 59 37.53	+06 58 28.2	18.0	6 675
1978 UY5		1978 10 28.29411	00 58 51.80	+06 50 52.2		6 675
1978 UY5		1978 10 29.30729	00 58 05.77	+06 43 10.4		6 675
1978 UZ5	*	1978 10 27.30539	00 59 41.79	+11 04 37.7	19.0	6 675
1978 UZ5		1978 10 28.29411	00 59 08.08	+10 55 03.8		6 675
1978 UZ5		1978 10 29.30729	00 58 34.23	+10 45 18.2		6 675
1978 UZ5		1978 11 28.16875	00 50 36.13	+06 58 56.3	20.0	6 675
1978 UZ5		1978 11 29.16308	00 50 39.67	+06 53 59.0		6 675
1978 UA6	*	1978 10 27.30539	00 59 44.94	+07 14 17.7	19.0	6 675
1978 UA6		1978 10 28.29411	00 58 57.15	+07 11 25.1		6 675
1978 UA6		1978 10 29.30729	00 58 08.96	+07 08 31.6		6 675
1978 UB6	*	1978 10 27.30539	01 00 16.05	+08 10 49.5	18.5	6 675
1978 UB6		1978 10 28.29411	00 59 27.76	+08 04 09.3		6 675
1978 UB6		1978 10 29.30729	00 58 39.35	+07 57 24.8		6 675
1978 UC6	*	1978 10 27.30539	01 00 16.93	+09 26 59.8	18.5	6 675
1978 UC6		1978 10 28.29411	00 59 30.07	+09 19 57.0		6 675
1978 UC6		1978 10 29.30729	00 58 43.36	+09 12 48.4		6 675
1978 UD6	*	1978 10 27.30539	01 00 28.82	+12 13 21.2	19.5	6 675
1978 UD6		1978 10 28.29411	00 59 33.00	+12 09 25.8		6 675
1978 UD6		1978 10 29.30729	00 58 37.03	+12 05 27.6		6 675
1978 UE6	*	1978 10 27.30539	01 00 39.06	+07 48 20.2	18.5	6 675
1978 UE6		1978 10 28.29411	00 59 42.00	+07 47 54.3		6 675
1978 UE6		1978 10 29.30729	00 58 44.35	+07 47 31.2		6 675
1978 UE6		1978 11 28.16875	00 41 18.01	+08 16 59.7	19.2	6 675
1978 UE6		1978 11 29.16308	00 41 08.64	+08 19 40.8		6 675
1978 UF6	*	1978 10 27.30539	01 01 07.12	+10 57 52.4	17.5	6 675
1978 UF6		1978 10 28.29411	01 00 12.10	+10 54 40.0		6 675
1978 UF6		1978 10 29.30729	00 59 17.06	+10 51 26.3		6 675
1978 UF6		1978 11 28.16875	00 45 23.56	+10 03 56.5	18.5	6 675
1978 UF6		1978 11 29.16308	00 45 24.21	+10 04 27.3		6 675
1978 UG6	*	1978 10 27.30539	01 01 10.41	+11 56 18.0	18.5	6 675
1978 UG6		1978 10 28.29411	01 00 19.41	+11 50 42.8		6 675
1978 UG6		1978 10 29.30729	00 59 28.03	+11 44 59.4		6 675
1978 UH6	*	1978 10 27.30539	01 01 14.12	+12 04 44.3	19.5	6 675
1978 UH6		1978 10 28.29411	01 00 29.71	+12 02 05.8		6 675
1978 UH6		1978 10 29.30729	00 59 44.63	+11 59 21.9		6 675
1978 UJ6	*	1978 10 27.30539	01 01 26.24	+06 24 53.2	18.0	6 675
1978 UJ6		1978 10 28.29411	01 00 41.87	+06 16 55.6		6 675
1978 UJ6		1978 10 29.30729	00 59 57.45	+06 08 54.7		6 675
1978 UK6	*	1978 10 27.30539	01 01 33.04	+07 15 26.2	18.0	6 675
1978 UK6		1978 10 28.29411	01 00 48.84	+07 08 43.2		6 675
1978 UK6		1978 10 29.30729	01 00 04.42	+07 01 56.7		6 675
1978 UL6	*	1978 10 27.30539	01 01 35.61	+08 41 08.6	18.5	6 675
1978 UL6		1978 10 28.29411	01 00 54.88	+08 35 14.7		6 675
1978 UL6		1978 10 29.30729	01 00 14.34	+08 29 19.8		6 675
1978 UL6		1978 11 28.16875	00 54 31.72	+06 59 36.3	20.0	6 675
1978 UL6		1978 11 29.16308	00 54 51.07	+06 59 55.8		6 675
1978 UM6	*	1978 10 27.30539	01 02 05.43	+10 51 40.9	18.5	6 675
1978 UM6		1978 10 28.29411	01 01 22.20	+10 46 15.6		6 675

1978 UM6		1978 10 29.30729	01 00 38.81	+10 40 46.3		6	675
1978 UN6	*	1978 10 27.30539	01 02 07.69	+10 44 22.9	18.5	6	675
1978 UN6		1978 10 28.29411	01 01 22.84	+10 41 09.3		6	675
1978 UN6		1978 10 29.30729	01 00 37.59	+10 37 52.7		6	675
1978 UO6	*	1978 10 27.30539	01 02 13.54	+10 57 45.9	19.0	6	675
1978 UO6		1978 10 28.29411	01 01 07.13	+10 59 55.8		6	675
1978 UO6		1978 10 29.30729	01 00 00.22	+11 02 08.4		6	675
1978 UP6	*	1978 10 27.30539	01 02 43.50	+10 33 38.7	19.0	6	675
1978 UP6		1978 10 28.29411	01 02 04.58	+10 25 51.4		6	675
1978 UP6		1978 10 29.30729	01 01 25.81	+10 17 57.5		6	675
1978 UQ6	*	1978 10 27.30539	01 02 48.64	+10 31 57.5	19.0	6	675
1978 UQ6		1978 10 28.29411	01 01 53.58	+10 31 02.6		6	675
1978 UQ6		1978 10 29.30729	01 00 58.50	+10 30 09.8		6	675
1978 UR6	*	1978 10 27.30539	01 02 58.88	+10 11 00.6	18.5	6	675
1978 UR6		1978 10 28.29411	01 02 15.84	+10 05 43.8		6	675
1978 UR6		1978 10 29.30729	01 01 33.01	+10 00 24.6		6	675
1978 US6	*	1978 10 27.30539	01 03 01.81	+08 22 46.0	18.5	6	675
1978 US6		1978 10 28.29411	01 02 23.38	+08 15 45.9		6	675
1978 US6		1978 10 29.30729	01 01 44.59	+08 08 40.5		6	675
1978 UT6	*	1978 10 27.30539	01 03 07.20	+09 34 27.3	19.0	6	675
1978 UT6		1978 10 28.29411	01 02 28.36	+09 28 15.8		6	675
1978 UT6		1978 10 29.30729	01 01 49.98	+09 22 01.8		6	675
1978 UU6	*	1978 10 27.30539	01 03 10.31	+09 37 32.4	19.0	6	675
1978 UU6		1978 10 28.29411	01 02 31.72	+09 31 50.4		6	675
1978 UU6		1978 10 29.30729	01 01 53.77	+09 26 08.1		6	675
1978 UV6	*	1978 10 27.30539	01 03 10.79	+07 46 14.6	18.5	6	675
1978 UV6		1978 10 28.29411	01 02 24.54	+07 41 11.9		6	675
1978 UV6		1978 10 29.30729	01 01 38.38	+07 36 09.8		6	675
1978 UW6	*	1978 10 27.30539	01 03 11.67	+08 35 45.3	18.0	6	675
1978 UW6		1978 10 28.29411	01 02 30.20	+08 31 59.0		6	675
1978 UW6		1978 10 29.30729	01 01 48.28	+08 28 11.3		6	675
1978 UW6		1978 11 28.16875	00 48 12.95	+07 11 33.1		6	675
1978 UW6		1978 11 29.16308	00 48 02.50	+07 10 33.3		6	675
1978 UX6	*	1978 10 27.30539	01 03 20.62	+11 06 09.3	18.5	6	675
1978 UX6		1978 10 28.29411	01 02 37.08	+11 01 20.9		6	675
1978 UX6		1978 10 29.30729	01 01 53.41	+10 56 26.7		6	675
1978 UY6	*	1978 10 27.30539	01 03 34.06	+07 37 30.5	17.5	6	675
1978 UY6		1978 10 28.29411	01 02 49.50	+07 31 47.4		6	675
1978 UY6		1978 10 29.30729	01 02 04.93	+07 26 03.9		6	675
1978 UZ6	*	1978 10 27.30539	01 03 35.17	+12 06 22.0	19.0	6	675
1978 UZ6		1978 10 28.29411	01 03 03.46	+11 53 36.2		6	675
1978 UZ6		1978 10 29.30729	01 02 32.39	+11 40 42.2		6	675
1978 UA7	*	1978 10 27.30539	01 04 35.91	+07 01 26.3	16.5	6	675
1978 UA7		1978 10 28.29411	01 03 41.95	+06 58 52.4		6	675
1978 UA7		1978 10 29.30729	01 02 47.53	+06 56 19.8		6	675
1978 UA7		1978 11 28.16875	00 46 41.21	+06 32 18.3	17.5	6	675
1978 UA7		1978 11 29.16308	00 46 33.34	+06 33 32.2		6	675
1978 UB7	*	1978 10 27.30539	01 04 59.53	+12 21 36.1	19.5	6	675
1978 UB7		1978 10 28.29411	01 03 59.41	+12 21 14.4		6	675
1978 UB7		1978 10 29.30729	01 02 58.48	+12 20 52.1		6	675
1978 UC7	*	1978 10 27.30539	01 05 02.21	+09 17 52.5	18.5	6	675
1978 UC7		1978 10 28.29411	01 04 17.99	+09 14 48.2		6	675
1978 UC7		1978 10 29.30729	01 03 33.75	+09 11 44.8		6	675
1978 UD7	*	1978 10 27.30539	01 05 06.14	+11 43 15.0	17.5	6	675
1978 UD7		1978 10 28.29411	01 04 07.00	+11 41 04.6		6	675
1978 UD7		1978 10 29.30729	01 03 07.67	+11 38 51.8		6	675
1978 UD7		1978 11 28.16875	00 48 15.47	+11 15 20.4	18.5	6	675
1978 UD7		1978 11 29.16308	00 48 15.84	+11 16 26.4		6	675
1978 UE7	*	1978 10 27.30539	01 05 07.01	+09 31 34.1	19.0	6	675

1978 UE7		1978 10	28.29411	01 04	33.12	+09	27	25.7		6	675
1978 UE7		1978 10	29.30729	01 03	59.21	+09	23	15.2		6	675
1978 UF7	*	1978 10	27.30539	01 05	15.01	+12	25	49.7	18.0	6	675
1978 UF7		1978 10	28.29411	01 04	39.36	+12	16	26.2		6	675
1978 UF7		1978 10	29.30729	01 04	03.58	+12	06	53.2		6	675
1978 UF7		1978 11	28.16875	00 55	33.59	+08	26	50.0	19.5	6	675
1978 UF7		1978 11	29.16308	00 55	36.71	+08	22	06.5		6	675
1978 UG7	*	1978 10	27.30539	01 05	28.49	+11	58	33.6	19.5	6	675
1978 UG7		1978 10	28.29411	01 04	40.90	+11	54	08.4		6	675
1978 UG7		1978 10	29.30729	01 03	53.11	+11	49	39.2		6	675
1978 UH7	*	1978 10	27.30539	01 05	37.21	+07	54	51.7	18.0	6	675
1978 UH7		1978 10	28.29411	01 04	51.04	+07	50	13.3		6	675
1978 UH7		1978 10	29.30729	01 04	04.59	+07	45	33.9		6	675
1978 UJ7	*	1978 10	27.30539	01 06	01.83	+09	02	37.9	19.0	6	675
1978 UJ7		1978 10	28.29411	01 05	16.38	+08	57	31.0		6	675
1978 UJ7		1978 10	29.30729	01 04	30.63	+08	52	21.0		6	675
1978 UK7	*	1978 10	27.30539	01 06	25.05	+06	51	34.5	17.0	6	675
1978 UK7		1978 10	28.29411	01 05	42.76	+06	45	58.0		6	675
1978 UK7		1978 10	29.30729	01 05	00.51	+06	40	21.6		6	675
1978 UK7		1978 11	28.16875	00 57	17.99	+05	21	32.2	19.0	6	675
1978 UK7		1978 11	29.16308	00 57	32.02	+05	22	14.0		6	675
1978 UL7	*	1978 10	27.30539	01 06	41.14	+10	43	30.4	17.0	6	675
1978 UL7		1978 10	28.29411	01 05	47.87	+10	36	42.3		6	675
1978 UL7		1978 10	29.30729	01 04	54.46	+10	29	47.8		6	675
1978 UL7		1978 11	28.16875	00 51	03.31	+08	11	33.2	18.0	6	675
1978 UL7		1978 11	29.16308	00 51	03.14	+08	09	42.7		6	675
1978 UM7	*	1978 10	27.30539	01 07	07.70	+06	46	13.5	18.0	6	675
1978 UM7		1978 10	28.29411	01 06	32.23	+06	41	01.1		6	675
1978 UM7		1978 10	29.30729	01 05	57.28	+06	35	51.7		6	675
1978 UN7	*	1978 10	27.30539	01 07	16.46	+06	35	33.2	18.5	6	675
1978 UN7		1978 10	28.29411	01 06	58.63	+06	22	44.7		6	675
1978 UO7	*	1978 10	27.30539	01 07	24.87	+08	39	19.4	19.0	6	675
1978 UO7		1978 10	28.29411	01 06	41.42	+08	35	03.6		6	675
1978 UO7		1978 10	29.30729	01 05	57.47	+08	30	44.8		6	675
1978 UP7	*	1978 10	27.30539	01 07	27.53	+07	37	47.3	18.0	6	675
1978 UP7		1978 10	28.29411	01 06	37.85	+07	35	08.8		6	675
1978 UP7		1978 10	29.30729	01 05	47.36	+07	32	30.3		6	675
1978 UQ7	*	1978 10	27.30539	01 07	32.60	+07	50	04.5	18.0	6	675
1978 UQ7		1978 10	28.29411	01 06	44.99	+07	46	41.4		6	675
1978 UQ7		1978 10	29.30729	01 05	56.73	+07	43	18.2		6	675
1978 UQ7		1978 11	28.16875	00 50	39.13	+06	45	53.7	19.5	6	675
1978 UQ7		1978 11	29.16308	00 50	28.42	+06	45	46.8		6	675
1978 UR7	*	1978 10	27.30539	01 07	41.37	+06	16	37.0	18.5	6	675
1978 UR7		1978 10	28.29411	01 06	59.65	+06	12	41.6		6	675
1978 UR7		1978 10	29.30729	01 06	17.33	+06	08	45.0		6	675
1978 US7	*	1978 10	27.30539	01 08	20.21	+06	23	43.6	18.5	6	675
1978 US7		1978 10	28.29411	01 07	36.10	+06	18	12.3		6	675
1978 US7		1978 10	29.30729	01 06	51.72	+06	12	39.7		6	675
1978 UT7	*	1978 10	27.30539	01 08	22.89	+09	13	13.3	17.5	6	675
1978 UT7		1978 10	28.29411	01 07	46.06	+09	05	52.4		6	675
1978 UT7		1978 10	29.30729	01 07	09.00	+08	58	27.2		6	675
1978 UT7		1978 11	28.16875	00 58	37.32	+06	28	38.0	18.5	6	675
1978 UT7		1978 11	29.16308	00 58	41.47	+06	26	19.6		6	675
1978 UU7	*	1978 10	27.30539	01 08	24.19	+06	20	25.4	18.5	6	675
1978 UU7		1978 10	28.27848	01 07	42.60	+06	13	44.8		6	675
1978 UV7	*	1978 10	27.30539	01 08	33.02	+06	44	03.7	17.5	6	675
1978 UV7		1978 10	28.29411	01 07	52.56	+06	38	00.0		6	675
1978 UV7		1978 10	29.30729	01 07	11.91	+06	31	54.7		6	675
1978 UW7	*	1978 10	27.30539	01 08	43.45	+12	14	51.2	17.0	6	675

1978 UW7		1978 10 28.29411	01 08 00.63	+12 03 49.3		6	675
1978 UW7		1978 10 29.30729	01 07 17.71	+11 52 38.3		6	675
1978 UW7		1978 11 28.16875	00 57 34.69	+07 45 37.6	18.8	6	675
1978 UW7		1978 11 29.16308	00 57 39.75	+07 40 47.1		6	675
1978 UX7	*	1978 10 27.30539	01 09 02.23	+09 13 52.0	18.0	6	675
1978 UX7		1978 10 28.29411	01 08 15.52	+09 07 58.3		6	675
1978 UX7		1978 10 29.30729	01 07 28.63	+09 02 01.8		6	675
1978 UX7		1978 11 28.16875	00 55 57.63	+07 11 29.6	19.5	6	675
1978 UX7		1978 11 29.16308	00 56 01.85	+07 10 36.9		6	675
1978 UY7	*	1978 10 27.30539	01 09 07.57	+07 14 56.6	18.0	6	675
1978 UY7		1978 10 28.29411	01 08 23.09	+07 09 44.7		6	675
1978 UY7		1978 10 29.30729	01 07 38.29	+07 04 31.7		6	675
1978 UZ7	*	1978 10 27.30539	01 09 19.53	+09 54 07.3	18.5	6	675
1978 UZ7		1978 10 28.29411	01 08 34.94	+09 49 19.8		6	675
1978 UZ7		1978 10 29.30729	01 07 50.08	+09 44 27.2		6	675
1978 UA8	*	1978 10 27.30539	01 09 38.80	+11 26 47.6	19.0	6	675
1978 UA8		1978 10 28.29411	01 08 55.82	+11 21 55.8		6	675
1978 UA8		1978 10 29.30729	01 08 12.55	+11 16 58.7		6	675
1978 UB8	*	1978 10 27.30539	01 09 39.86	+11 28 00.4	19.5	6	675
1978 UB8		1978 10 28.29411	01 08 55.61	+11 21 39.6		6	675
1978 UB8		1978 10 29.30729	01 08 11.06	+11 15 12.9		6	675
1978 UC8	*	1978 10 27.30539	01 09 47.54	+06 49 01.7	18.0	6	675
1978 UC8		1978 10 28.29411	01 09 08.00	+06 44 59.9		6	675
1978 UC8		1978 10 29.30729	01 08 28.31	+06 40 58.4		6	675
1978 UD8	*	1978 10 27.30539	01 10 50.48	+08 22 19.6	18.5	6	675
1978 UD8		1978 10 28.29411	01 09 51.63	+08 20 58.7		6	675
1978 UD8		1978 10 29.30729	01 08 52.38	+08 19 42.4		6	675
1978 UE8	*	1978 10 27.30539	01 10 59.43	+10 59 28.3	19.5	6	675
1978 UE8		1978 10 28.29411	01 10 05.33	+10 58 40.1		6	675
1978 UE8		1978 10 29.30729	01 09 10.82	+10 57 52.1		6	675
1978 UE8		1978 11 28.16875	00 52 12.34	+11 04 05.0	20.0	6	675
1978 UE8		1978 11 29.16308	00 52 03.17	+11 05 48.2		6	675
1978 UF8	*	1978 10 27.30539	01 11 13.82	+08 09 20.3	18.0	6	675
1978 UF8		1978 10 28.29411	01 10 16.26	+08 05 46.1		6	675
1978 UF8		1978 10 29.30729	01 09 18.18	+08 02 13.1		6	675
1978 UG8	*	1978 10 27.30539	01 11 22.43	+07 28 35.0	18.0	6	675
1978 UG8		1978 10 28.29411	01 10 39.79	+07 23 47.0		6	675
1978 UG8		1978 10 29.30729	01 09 56.82	+07 18 58.9		6	675
1978 UG8		1978 11 28.16875	00 57 43.02	+05 51 59.4	19.5	6	675
1978 UG8		1978 11 29.16308	00 57 39.36	+05 51 18.4		6	675
1978 UH8	*	1978 10 27.30539	01 11 44.07	+07 10 16.0	18.0	6	675
1978 UH8		1978 10 28.29411	01 11 00.41	+07 07 47.1		6	675
1978 UH8		1978 10 29.30729	01 10 16.39	+07 05 19.9		6	675
1978 UJ8	*	1978 10 27.30539	01 11 54.07	+11 02 16.2	19.0	6	675
1978 UJ8		1978 10 28.29411	01 11 09.51	+10 55 27.4		6	675
1978 UJ8		1978 10 29.30729	01 10 24.78	+10 48 33.0		6	675
1978 UJ8		1978 11 28.16875	00 58 21.31	+08 16 53.5	20.2	6	675
1978 UJ8		1978 11 29.16308	00 58 21.39	+08 14 20.2		6	675
1978 UK8	*	1978 10 27.30539	01 12 01.57	+11 56 46.6	19.5	6	675
1978 UK8		1978 10 28.29411	01 11 12.04	+11 51 43.6		6	675
1978 UK8		1978 10 29.30729	01 10 22.45	+11 46 38.7		6	675
1978 UL8	*	1978 10 27.30539	01 12 01.99	+06 25 18.6	18.0	6	675
1978 UL8		1978 10 28.29411	01 11 07.54	+06 22 23.8		6	675
1978 UL8		1978 10 29.30729	01 10 12.85	+06 19 31.8		6	675
1978 UM8	*	1978 10 28.29411	01 11 42.37	+06 20 44.0	19.0	6	675
1978 UM8		1978 10 29.30729	01 11 00.21	+06 10 39.8		6	675
1978 VV9		1992 06 04.26024	15 13 47.34	-20 02 23.1	17.2	9	675
1978 VV9		1992 06 04.29271	15 13 46.07	-20 02 15.2		9	675
1978 WR19	*	1978 11 28.16875	00 34 45.17	+07 26 05.1	19.2	6	675

1978	WR19		1978	11	29.16308	00	35	23.63	+07	27	01.6		6	675
1978	WT19	*	1978	11	28.16875	00	35	39.44	+05	31	43.8	19.2	6	675
1978	WT19		1978	11	29.16308	00	36	09.16	+05	35	20.3		6	675
1978	WU19	*	1978	11	28.16875	00	36	10.02	+07	21	03.9	19.5	6	675
1978	WU19		1978	11	29.16308	00	36	17.69	+07	17	18.0		6	675
1978	WV19	*	1978	11	28.16875	00	36	23.74	+08	40	29.0	19.0	6	675
1978	WV19		1978	11	29.16308	00	36	56.80	+08	43	06.9		6	675
1978	WW19	*	1978	11	28.16875	00	37	03.81	+11	03	42.3	19.2	6	675
1978	WW19		1978	11	29.16308	00	37	35.23	+11	01	57.1		6	675
1978	WX19	*	1978	11	28.16875	00	37	35.99	+10	29	50.3	19.0	6	675
1978	WX19		1978	11	29.16308	00	38	05.92	+10	29	54.4		6	675
1978	WY19	*	1978	11	28.16875	00	38	42.50	+10	54	06.1	19.5	6	675
1978	WY19		1978	11	29.16308	00	38	49.45	+10	50	33.6		6	675
1978	WZ19	*	1978	11	28.16875	00	38	58.76	+05	58	15.1	17.8	6	675
1978	WZ19		1978	11	29.16308	00	39	36.58	+06	03	17.9		6	675
1978	WA20	*	1978	11	28.16875	00	39	34.96	+06	31	00.3	19.5	6	675
1978	WA20		1978	11	29.16308	00	40	03.53	+06	30	37.6		6	675
1978	WB20	*	1978	11	28.16875	00	39	48.38	+05	50	47.0	19.2	6	675
1978	WB20		1978	11	29.16308	00	39	49.94	+05	41	41.6		6	675
1978	WD20	*	1978	11	28.16875	00	40	24.60	+08	57	13.3	19.5	6	675
1978	WD20		1978	11	29.16308	00	40	54.25	+08	57	00.2		6	675
1978	WE20	*	1978	11	28.16875	00	42	26.78	+09	38	15.7	19.0	6	675
1978	WE20		1978	11	29.16308	00	42	28.95	+09	32	43.7		6	675
1978	WF20	*	1978	11	28.16875	00	42	36.63	+11	26	52.5	18.0	6	675
1978	WF20		1978	11	29.16308	00	42	34.31	+11	24	42.8		6	675
1978	WG20	*	1978	11	28.16875	00	42	37.97	+05	15	59.9	19.5	6	675
1978	WG20		1978	11	29.16308	00	42	59.86	+05	11	56.3		6	675
1978	WH20	*	1978	11	28.16875	00	42	44.45	+05	30	59.5	19.2	6	675
1978	WH20		1978	11	29.16308	00	43	16.17	+05	31	28.1		6	675
1978	WJ20	*	1978	11	28.16875	00	44	10.26	+07	28	42.2	19.8	6	675
1978	WJ20		1978	11	29.16308	00	44	25.23	+07	31	28.2		6	675
1978	WK20	*	1978	11	28.16875	00	44	11.58	+07	13	15.0	19.5	6	675
1978	WK20		1978	11	29.16308	00	44	39.38	+07	11	06.4		6	675
1978	WL20	*	1978	11	28.16875	00	44	45.50	+09	57	02.0	18.2	6	675
1978	WL20		1978	11	29.16308	00	45	37.39	+09	49	47.5		6	675
1978	WM20	*	1978	11	28.16875	00	45	26.60	+05	44	13.8	19.5	6	675
1978	WM20		1978	11	29.16308	00	45	39.98	+05	50	08.0		6	675
1978	WN20	*	1978	11	28.16875	00	45	53.08	+07	53	07.5	19.2	6	675
1978	WN20		1978	11	29.16308	00	45	53.07	+07	53	08.0		6	675
1978	WO20	*	1978	11	28.16875	00	45	58.79	+05	32	18.0	18.8	6	675
1978	WO20		1978	11	29.16308	00	46	21.42	+05	36	34.1		6	675
1978	WP20	*	1978	11	28.16875	00	46	08.93	+11	03	29.7	18.2	6	675
1978	WP20		1978	11	29.16308	00	46	52.61	+10	56	52.6		6	675
1978	WQ20	*	1978	11	28.16875	00	46	17.59	+10	26	08.1	18.8	6	675
1978	WQ20		1978	11	29.16308	00	46	25.98	+10	22	28.3		6	675
1978	WR20	*	1978	11	28.16875	00	47	22.43	+07	42	27.3	19.5	6	675
1978	WR20		1978	11	29.16308	00	47	41.59	+07	44	08.3		6	675
1978	WS20	*	1978	11	28.16875	00	47	46.89	+06	41	24.0	19.0	6	675
1978	WS20		1978	11	29.16308	00	47	36.02	+06	49	27.5		6	675
1978	WT20	*	1978	11	28.16875	00	48	13.04	+09	27	04.9	19.2	6	675
1978	WT20		1978	11	29.16308	00	48	06.38	+09	17	26.6		6	675
1978	WU20	*	1978	11	28.16875	00	48	59.96	+11	34	13.3	19.0	6	675
1978	WU20		1978	11	29.16308	00	49	07.22	+11	25	24.2		6	675
1978	WV20	*	1978	11	28.16875	00	50	33.62	+07	27	24.0	20.0	6	675
1978	WV20		1978	11	29.16308	00	50	37.44	+07	24	45.3		6	675
1978	WW20	*	1978	11	28.16875	00	50	34.75	+07	01	21.0	20.0	6	675
1978	WW20		1978	11	29.16308	00	50	47.84	+07	04	18.8		6	675
1978	WX20	*	1978	11	28.16875	00	50	47.39	+09	45	21.4	19.5	6	675
1978	WX20		1978	11	29.16308	00	51	27.61	+09	41	20.3		6	675



1978 WY20	*	1978 11	28.16875	00 51	26.29	+10	41	23.6	18.0	6	675
1978 WY20		1978 11	29.16308	00 51	28.08	+10	39	06.9		6	675
1978 WZ20	*	1978 11	28.16875	00 52	13.67	+09	41	01.0	18.8	6	675
1978 WZ20		1978 11	29.16308	00 52	34.79	+09	28	53.3		6	675
1978 WA21	*	1978 11	28.16875	00 52	42.95	+10	00	26.1	19.0	6	675
1978 WA21		1978 11	29.16308	00 53	01.81	+09	57	21.3		6	675
1978 WB21	*	1978 11	28.16875	00 53	51.61	+08	00	41.2	19.0	6	675
1978 WB21		1978 11	29.16308	00 53	36.79	+08	02	19.1		6	675
1978 WC21	*	1978 11	28.16875	00 54	01.62	+11	28	45.9	19.5	6	675
1978 WC21		1978 11	29.16308	00 54	32.45	+11	27	52.7		6	675
1978 WD21	*	1978 11	28.16875	00 54	22.42	+08	52	28.4	19.5	6	675
1978 WD21		1978 11	29.16308	00 54	43.17	+08	53	12.3		6	675
1978 WE21	*	1978 11	28.16875	00 54	29.28	+06	52	15.5	19.8	6	675
1978 WE21		1978 11	29.16308	00 54	49.11	+06	54	09.7		6	675
1978 WF21	*	1978 11	28.16875	00 54	42.06	+09	42	55.5	19.2	6	675
1978 WF21		1978 11	29.16308	00 54	43.65	+09	38	09.1		6	675
1978 WG21	*	1978 11	28.16875	00 54	45.87	+10	27	54.9	19.0	6	675
1978 WG21		1978 11	29.16308	00 54	42.96	+10	25	08.1		6	675
1978 WH21	*	1978 11	28.16875	00 54	50.79	+08	30	17.5	20.5	6	675
1978 WH21		1978 11	29.16308	00 55	04.31	+08	27	20.3		6	675
1978 WJ21	*	1978 11	28.16875	00 55	14.91	+07	18	05.0	20.2	6	675
1978 WJ21		1978 11	29.16308	00 55	15.80	+07	14	18.3		6	675
1978 WK21	*	1978 11	28.16875	00 55	26.70	+09	37	03.0		6	675
1978 WK21		1978 11	29.16308	00 55	26.23	+09	45	27.1		6	675
1978 WL21	*	1978 11	28.16875	00 55	56.10	+09	35	52.4	19.8	6	675
1978 WL21		1978 11	29.16308	00 55	48.41	+09	33	39.6		6	675
1978 WM21	*	1978 11	28.16875	00 57	57.20	+08	26	35.8	19.5	6	675
1978 WM21		1978 11	29.16308	00 57	49.95	+08	21	53.7		6	675
1978 WN21	*	1978 11	28.16875	00 58	10.04	+08	19	34.5	19.0	6	675
1978 WN21		1978 11	29.16308	00 58	13.60	+08	20	47.0		6	675
1978 WO21	*	1978 11	28.16875	00 58	18.55	+10	52	29.0	19.2	6	675
1978 WO21		1978 11	29.16308	00 58	44.13	+10	49	28.5		6	675
1978 WP21	*	1978 11	28.16875	00 58	53.97	+05	26	46.0	19.8	6	675
1978 WP21		1978 11	29.16308	00 58	48.07	+05	24	44.7		6	675
1978 WQ21	*	1978 11	28.16875	00 59	34.55	+10	23	44.4	18.8	6	675
1978 WQ21		1978 11	29.16308	00 59	29.65	+10	23	09.1		6	675
1978 WR21	*	1978 11	28.16875	00 59	46.60	+06	11	42.1	19.5	6	675
1978 WR21		1978 11	29.16308	00 59	47.25	+06	15	30.8		6	675
1980 FY		1978 10	27.30539	00 56	31.16	+09	16	50.6		6	675
1980 FY		1978 10	28.29411	00 55	39.70	+09	11	24.2		6	675
1980 FY		1978 10	29.30729	00 54	48.13	+09	05	53.8		6	675
1980 FY		1978 11	28.16875	00 42	45.60	+07	31	30.8	19.0	6	675
1980 FY		1978 11	29.16308	00 42	50.35	+07	31	07.6		6	675
1980 FN1		1978 11	28.16875	00 57	49.84	+05	33	02.6	19.2	6	675
1980 FN1		1978 11	29.16308	00 57	50.06	+05	33	30.6		6	675
1980 FZ3		1992 08	03.44792	03 11	32.03	+22	03	35.5		9	675
1980 TK6		1991 09	13.20573	20 34	55.99	-08	02	29.8	17.5	9	675
1980 TK6		1991 09	13.26619	20 34	55.27	-08	02	48.1		9	675
1981 DZ		1991 09	12.20822	21 33	17.87	-00	20	09.4		9	675
1981 DZ		1991 09	12.26152	21 33	15.84	-00	20	28.0		9	675
1981 DU1		1949 11	19.13194	00 05	12.61	+10	25	47.2		6	675
1981 DU1		1949 11	19.15799	00 05	12.72	+10	25	38.0		6	675
1981 DU1		1954 10	06.33021	01 06	49.59	+19	48	29.8		6	675
1981 DU1		1954 10	06.35139	01 06	48.27	+19	48	17.0		6	675
1981 DC2		1978 11	28.16875	00 35	08.66	+08	23	47.5	18.8	6	675
1981 DC2		1978 11	29.16308	00 35	31.11	+08	19	08.1		6	675
1981 EF5		1954 10	06.33021	01 26	02.92	+17	19	26.1	17.5	6	675
1981 EF5		1954 10	06.35139	01 26	01.82	+17	19	13.1		6	675
1981 EO9		1949 11	19.13194	00 15	20.92	+15	43	25.0		6	675

1981 EO9	1949 11 19.15799	00 15 20.72	+15 43 21.4	6	675
1981 EQ9	1978 10 27.30539	01 08 03.01	+08 03 09.7	6	675
1981 EQ9	1978 10 28.29411	01 07 24.41	+07 58 05.9	6	675
1981 EQ9	1978 10 29.30729	01 06 45.35	+07 52 58.5	6	675
1981 EG24	1978 10 27.30539	00 48 35.02	+07 48 55.5	6	675
1981 EG24	1978 10 28.29411	00 47 54.39	+07 44 27.7	6	675
1981 EG24	1978 10 29.30729	00 47 13.40	+07 39 55.4	6	675
1981 EG27	1978 10 27.30539	00 54 45.51	+09 08 27.9	6	675
1981 EG27	1978 10 28.29411	00 54 05.46	+09 04 08.3	6	675
1981 EG27	1978 10 29.30729	00 53 25.00	+08 59 44.7	6	675
1981 EM30	1992 08 02.32882	22 17 31.05	-11 02 32.6	17.5	9 675
1981 EM30	1992 08 02.37118	22 17 29.63	-11 02 44.7	9	675
1981 EM30	1992 08 06.36493	22 15 15.02	-11 22 32.8	9	675
1981 EM30	1992 08 06.40416	22 15 13.46	-11 22 46.4	9	675
1981 EF37	1954 10 06.33021	01 32 03.41	+19 02 00.1	6	675
1981 EF37	1954 10 06.35139	01 32 01.84	+19 02 03.1	6	675
1981 JS2	1978 10 27.30539	01 00 11.40	+08 03 21.3	6	675
1981 JS2	1978 10 28.29411	00 59 23.76	+07 59 09.2	6	675
1981 JS2	1978 10 29.30729	00 58 36.17	+07 54 58.0	6	675
1981 JS2	1978 11 28.16875	00 47 54.98	+06 58 21.3	19.2	6 675
1981 JS2	1978 11 29.16308	00 48 00.31	+06 58 58.8	6	675
1981 JH6	* 1981 05 08.43507	15 36 28.44	-14 24 24.3	16.8 V	6 675
1981 JH6	1981 05 09.38021	15 35 33.52	-14 23 44.6	6	675
1981 JJ6	* 1981 05 08.43507	15 37 06.41	-13 32 16.0	16.5 V	6 675
1981 JJ6	1981 05 09.38021	15 36 14.47	-13 25 15.2	6	675
1981 JK6	* 1981 05 08.43507	15 38 10.31	-13 24 24.1	16.8 V	6 675
1981 JK6	1981 05 09.38021	15 37 28.12	-13 13 17.9	6	675
1981 JL6	* 1981 05 08.43507	15 39 54.68	-16 59 14.4	17.0 V	6 675
1981 JL6	1981 05 09.38021	15 39 02.19	-16 56 40.9	6	675
1981 JM6	* 1981 05 08.43507	15 40 55.74	-11 34 58.7	16.2 V	6 675
1981 JM6	1981 05 09.38021	15 40 02.03	-11 42 12.6	6	675
1981 JN6	* 1981 05 08.43507	15 41 02.65	-11 22 34.0	16.8 V	6 675
1981 JN6	1981 05 09.38021	15 40 05.82	-11 22 19.2	6	675
1981 JO6	* 1981 05 08.43507	15 42 36.67	-13 17 56.2	17.2 V	6 675
1981 JO6	1981 05 09.38021	15 41 41.41	-13 16 33.1	6	675
1981 JP6	* 1981 05 08.43507	15 47 02.43	-16 25 03.9	16.8 V	6 675
1981 JP6	1981 05 09.38021	15 46 10.95	-16 16 33.7	6	675
1981 JQ6	* 1981 05 08.43507	15 47 48.82	-15 40 03.3	15.5 V	6 675
1981 JQ6	1981 05 09.38021	15 46 48.95	-15 40 55.5	6	675
1981 JR6	* 1981 05 08.43507	15 48 15.89	-14 33 41.6	16.8 V	6 675
1981 JR6	1981 05 09.38021	15 47 16.02	-14 38 53.6	6	675
1981 JS6	* 1981 05 08.43507	15 50 30.71	-15 37 37.0	17.0 V	6 675
1981 JS6	1981 05 09.38021	15 49 36.56	-15 35 23.6	6	675
1981 PF	1992 07 26.20417	18 08 48.69	-07 00 16.6	16.0	2 675
1981 PF	1992 07 26.22691	18 08 47.96	-07 00 34.4	2	675
1981 PF	1992 07 28.24948	18 08 01.73	-07 28 47.0	2	675
1981 PF	1992 07 28.27101	18 08 01.22	-07 29 04.8	2	675
1981 QE3	1992 08 02.32882	22 24 51.81	-13 56 31.6	17.0	9 675
1981 QE3	1992 08 02.37118	22 24 50.28	-13 56 42.3	9	675
1981 QE3	1992 08 06.36493	22 22 31.61	-14 13 48.0	9	675
1981 QE3	1992 08 06.40416	22 22 30.11	-14 13 58.2	9	675
1982 BS	1953 03 09.31250	10 29 14.79	-06 25 32.1	17.2	6 675
1982 BS	1953 03 09.33576	10 29 13.32	-06 25 23.0	6	675
1982 UF2	1992 08 02.32188	21 43 11.26	-02 54 04.8	17.0	9 675
1982 UF2	1992 08 02.36510	21 43 09.06	-02 54 11.0	9	675
1982 UF2	1992 08 06.34373	21 39 48.74	-03 05 33.4	9	675
1982 UF2	1992 08 06.38524	21 39 46.51	-03 05 40.9	9	675
1982 UE7	1992 08 05.31667	21 23 09.75	-14 03 36.3	18.8	9 675
1982 UE7	1992 08 05.39844	21 23 05.84	-14 03 55.0	9	675

1985 DX2	1992 07	27.43212	21 16	57.62	-06 22	44.8	16.0	2	675
1985 DX2	1992 07	28.43837	21 16	15.72	-06 27	55.2		2	675
1985 DX2	1992 07	28.46285	21 16	14.53	-06 28	06.0		2	675
1985 DX2	1992 08	04.34549	21 11	17.95	-07 06	02.2	17.5	9	675
1985 YH	1992 07	31.34236	21 45	29.97	+00 06	09.9	17.5	9	675
1985 YH	1992 07	31.37830	21 45	28.11	+00 06	09.5		9	675
1985 YH	1992 08	02.32188	21 43	49.29	+00 05	53.3		9	675
1985 YH	1992 08	02.36510	21 43	46.96	+00 05	52.6		9	675
1985 YH	1992 08	06.34373	21 40	17.68	+00 03	30.5		9	675
1985 YH	1992 08	06.38524	21 40	15.36	+00 03	29.1		9	675
1986 QQ	1992 06	06.26441	15 12	48.13	-24 13	45.5	18.0	9	675
1986 SZ1	1949 11	19.13194	23 58	39.80	+15 52	20.4		6	675
1986 SZ1	1949 11	19.15799	23 58	40.06	+15 52	07.1		6	675
1986 TN1	1992 06	04.26024	15 09	16.13	-16 14	41.8	17.0	9	675
1986 TN1	1992 06	04.29271	15 09	14.77	-16 14	25.6		9	675
1986 XH	1951 07	30.29028	19 34	40.14	-12 25	58.4		6	675
1986 XH	1951 07	30.31528	19 34	38.81	-12 25	58.7		6	675
1987 EV	1978 11	28.16875	00 39	59.85	+10 27	45.0	18.5	6	675
1987 EV	1978 11	29.16308	00 39	58.59	+10 25	35.8		6	675
1987 MM1	1992 08	07.35972	22 06	26.70	+00 38	53.0	16.5	9	675
1987 MM1	1992 08	07.42309	22 06	24.16	+00 38	34.4		9	675
1987 PL	1992 08	04.34549	21 37	47.84	-07 32	34.4	16.8	9	675
1987 PL	1992 08	05.31667	21 36	59.71	-07 32	55.7		9	675
1987 PL	1992 08	05.39844	21 36	55.50	-07 32	57.9		9	675
1987 PL	1992 08	07.29740	21 35	20.31	-07 33	52.0		9	675
1987 PL	1992 08	07.32986	21 35	18.53	-07 33	52.8		9	675
1987 QW1	1981 05	08.43507	15 38	51.34	-16 37	31.8	17.2 V	6	675
1987 QW1	1981 05	09.38021	15 38	05.57	-16 34	35.2		6	675
1987 SW1	1951 08	26.24028	19 32	36.50	-03 50	25.4		6	675
1987 SW1	1951 08	26.26528	19 32	35.94	-03 50	35.6		6	675
1987 SE7	1954 10	06.33021	01 19	37.49	+19 33	02.0		6	675
1987 SE7	1954 10	06.35139	01 19	35.91	+19 32	56.9		6	675
1988 AA5	1991 09	13.20573	20 34	27.95	-10 49	19.7	17.5	9	675
1988 AA5	1991 09	13.26619	20 34	26.82	-10 49	39.7		9	675
1988 BB	1949 11	19.13194	00 11	45.12	+11 49	24.9		6	675
1988 BB	1949 11	19.15799	00 11	44.85	+11 49	20.0		6	675
1988 QY	1954 10	06.33021	01 28	03.73	+21 52	09.5		6	675
1988 QY	1954 10	06.35139	01 28	03.08	+21 52	02.2		6	675
1988 RF1	1954 10	06.33021	01 27	04.78	+21 23	24.8		6	675
1988 RF1	1954 10	06.35139	01 27	03.58	+21 23	23.5		6	675
1988 RT6	1992 08	06.43490	22 41	46.93	+01 43	21.0	16.8	9	675
1988 RT6	1992 08	06.48056	22 41	45.47	+01 42	57.1		9	675
1988 RU6	1992 08	04.34549	21 14	18.42	-13 12	27.4	17.8	9	675
1988 RB12	1992 08	06.35833	22 22	26.90	-15 54	02.0		9	675
1988 RB12	1992 08	06.39757	22 22	25.15	-15 54	02.7		9	675
1988 TH1	1951 07	30.31528	19 40	52.76	-09 28	23.2		6	675
1988 TQ4	1992 08	02.37118	22 08	13.24	-12 02	50.0	17.5	9	675
1988 TQ4	1992 08	06.36493	22 05	23.12	-12 20	38.2		9	675
1988 TQ4	1992 08	06.40416	22 05	21.31	-12 20	49.2		9	675
1988 VK	1991 09	14.29740	22 31	51.70	-19 18	39.6		9	675
1988 VK	1991 09	14.34705	22 31	49.26	-19 18	56.4		9	675
1988 XK1	1977 12	07.26979	04 54	24.95	+22 47	13.2	16.5 V	6	675
1988 XK1	1977 12	08.22292	04 53	17.34	+22 46	34.9		6	675
1989 AK	1977 12	07.26979	04 49	47.80	+20 20	04.4	15.0 V	6	675
1989 AK	1977 12	08.22292	04 48	56.64	+20 21	09.5		6	675
1989 AV2	1987 11	22.48194	05 47	57.03	+33 17	26.0	17.5	3	675
1989 AV2	1987 11	22.52569	05 47	55.54	+33 17	22.7		3	675
1989 AV2	1987 11	23.51961	05 47	22.59	+33 16	09.2		3	675
1989 AV2	1988 01	19.20642	05 13	41.96	+30 39	07.8	17.5	3	675

1989 AV2	1988 01	20.25434	05 13	18.98	+30	35	16.3		3	675
1989 AV2	1988 01	20.29583	05 13	18.11	+30	35	07.8		3	675
1989 AV2	1992 04	04.31649	13 20	44.33	-32	47	05.5	18.3	3	675
1989 AV2	1992 04	04.35503	13 20	42.93	-32	47	00.9		3	675
1989 EV	1991 09	16.27778	22 21	12.61	-25	54	50.5	16.8	9	675
1989 EV	1991 09	16.32500	22 21	10.27	-25	54	49.8		9	675
1989 GB1	1951 07	30.29028	19 55	54.94	-13	08	52.5		6	675
1989 GB1	1951 07	30.31528	19 55	53.69	-13	08	54.8		6	675
1989 PE	1951 08	26.22292	19 26	09.42	-06	14	35.5	17.8	6	675
1989 PE	1951 08	26.26528	19 26	08.95	-06	15	45.7		6	675
1989 WH4	1992 08	02.32882	22 13	51.39	-12	14	51.1	18.0	9	675
1989 WH4	1992 08	02.37118	22 13	49.43	-12	15	09.3		9	675
1989 WH4	1992 08	06.36493	22 10	49.66	-12	43	37.6		9	675
1989 WH4	1992 08	06.40416	22 10	47.76	-12	43	54.9		9	675
1989 YN	1992 08	02.34566	22 36	13.87	-01	42	18.0	17.0	9	675
1989 YN	1992 08	02.38559	22 36	12.31	-01	42	20.7		9	675
1989 YN	1992 08	06.43490	22 33	36.58	-01	47	17.6	17.0	9	675
1989 YN	1992 08	06.48056	22 33	34.67	-01	47	22.1		9	675
1990 BJ	1992 07	27.30920	19 34	30.12	-15	51	34.3	16.0	2	675
1990 BJ	1992 07	27.33316	19 34	28.00	-15	51	22.9		2	675
1990 BJ	1992 07	29.30573	19 31	47.65	-15	34	39.1		2	675
1990 BJ	1992 07	29.32969	19 31	45.69	-15	34	27.9		2	675
1990 BQ1	1992 07	31.34236	21 44	20.51	+00	48	07.3		9	675
1990 BQ1	1992 07	31.37830	21 44	17.54	+00	48	35.6	16.0	9	675
1990 BQ1	1992 08	02.32188	21 41	39.75	+01	13	32.8		9	675
1990 BQ1	1992 08	02.36510	21 41	36.15	+01	14	05.3		9	675
1990 BQ1	1992 08	06.34373	21 36	02.60	+02	03	11.6		9	675
1990 BQ1	1992 08	06.38524	21 35	58.98	+02	03	42.1		9	675
1990 BZ1	1992 08	04.34549	21 35	55.81	-09	51	53.9	17.8	9	675
1990 BZ1	1992 08	05.31667	21 35	07.41	-09	55	38.8		9	675
1990 BZ1	1992 08	05.39844	21 35	03.04	-09	55	59.9		9	675
1990 BZ1	1992 08	07.29740	21 33	27.29	-10	03	33.7		9	675
1990 BZ1	1992 08	07.32986	21 33	25.52	-10	03	42.2	18.5	9	675
1990 DK	1989 01	09.36145	08 23	35.59	+12	15	04.7	17	3	675
1990 DK	1989 01	09.39531	08 23	34.40	+12	15	06.1		3	675
1990 DK	1989 01	30.29253	08 11	50.63	+12	38	59.0	17.2	3	675
1990 DK	1989 01	30.34409	08 11	48.85	+12	39	04.5		3	675
1990 DK	1989 02	02.21336	08 10	14.12	+12	43	15.7	17.5	3	675
1990 DK	1989 03	07.19063	07 57	06.73	+13	32	01.2	17.5	3	675
1990 DK	1989 03	07.23107	07 57	06.31	+13	32	04.0		3	675
1990 DK	1989 03	08.15729	07 56	55.47	+13	33	15.2		3	675
1990 DK	1989 03	08.19704	07 56	54.95	+13	33	18.0		3	675
1990 DK	1992 04	26.39479	15 17	34.18	-22	06	17.6	18.4	3	675
1990 DK	1992 04	26.42344	15 17	33.19	-22	06	13.0		3	675
1990 DK	1992 04	29.37152	15 16	05.42	-21	59	20.0		3	675
1990 DK	1992 04	29.40659	15 16	04.29	-21	59	15.2		3	675
1990 DK	1992 06	06.25451	14 57	40.73	-20	15	47.9	18.6	3	675
1990 DK	1992 06	06.29184	14 57	39.88	-20	15	43.7		3	675
1990 EO	1991 09	10.31389	22 47	51.99	+03	48	52.6	16.8	9	675
1990 EO	1991 09	10.36476	22 47	49.13	+03	48	31.4		9	675
1990 UD	1977 12	07.26979	04 46	09.79	+23	43	54.4	15.2	V 6	675
1990 UD	1977 12	08.22292	04 44	59.56	+23	45	09.3		6	675
1990 VX2	1992 06	06.26441	15 30	39.99	-25	42	56.1	18.0	9	675
1990 XK	1992 06	08.29271	15 38	20.09	-22	49	55.6	16.0	9	675
1990 XK	1992 06	08.33524	15 38	18.15	-22	49	35.9		9	675
1991 AF	1992 06	08.29271	15 33	11.19	-19	40	44.2	18.0	9	675
1991 AF	1992 06	08.33524	15 33	08.95	-19	40	30.3		9	675
1991 CA3	1992 07	27.46476	22 44	09.14	-21	00	34.4	16.5	2	675
1991 CA3	1992 07	27.48125	22 44	08.00	-21	00	31.4		2	675

1991 FF1	1992 07	26.20417	18 13	40.09	-04 05	27.2	16.5	2	675
1991 FF1	1992 07	26.22691	18 13	39.21	-04 05	33.3		2	675
1991 FF1	1992 07	28.24948	18 12	26.69	-04 16	18.5		2	675
1991 FF1	1992 07	28.27101	18 12	25.88	-04 16	24.9		2	675
1991 JE1	1992 08	06.35174	21 56	45.42	-02 26	36.2	17.0	9	675
1991 JE1	1992 08	06.39149	21 56	43.75	-02 26	49.4		9	675
1991 JE1	1992 08	06.41024	21 56	42.95	-02 26	55.2	16.8	9	675
1991 JE1	1992 08	06.45399	21 56	41.22	-02 27	09.6		9	675
1991 JE1	1992 08	07.34688	21 56	05.84	-02 32	15.7		9	675
1991 JE1	1992 08	07.35972	21 56	05.23	-02 32	20.5	16.8	9	675
1991 JE1	1992 08	07.38194	21 56	04.41	-02 32	28.0		9	675
1991 JE1	1992 08	07.42309	21 56	02.64	-02 32	42.1		9	675
1991 LD	1951 07	30.29028	19 33	48.45	-13 55	43.1		6	675
1991 LD	1951 07	30.31528	19 33	47.35	-13 55	45.4		6	675
1991 LD	1992 08	02.34566	22 38	51.27	+01 00	47.5	17.0	9	675
1991 LD	1992 08	02.38559	22 38	49.95	+01 00	44.7		9	675
1991 LD	1992 08	06.43490	22 36	36.75	+00 53	16.9	17.0	9	675
1991 LD	1992 08	06.48056	22 36	35.11	+00 53	11.3		9	675
1991 NY	1991 09	13.29080	20 56	35.34	-09 49	07.9		9	675
1991 NY	1991 09	14.22390	20 56	53.98	-09 54	19.4		9	675
1991 NY	1991 09	14.26053	20 56	54.63	-09 54	32.7		9	675
1991 NE1	1991 09	13.23385	21 00	38.72	-12 45	53.0		9	675
1991 NE1	1991 09	13.29080	21 00	37.11	-12 45	53.1		9	675
1991 NE1	1991 09	14.22390	21 00	13.23	-12 46	25.0		9	675
1991 NE1	1991 09	14.26053	21 00	12.28	-12 46	24.5		9	675
1991 NS1	1991 09	13.20573	20 41	55.29	-13 10	02.0	17.5	9	675
1991 NS1	1991 09	13.23385	20 41	55.25	-13 10	11.5		9	675
1991 NS1	1991 09	13.26619	20 41	55.25	-13 10	23.9		9	675
1991 NS1	1991 09	13.29080	20 41	55.34	-13 10	31.7		9	675
1991 NS1	1991 09	14.22390	20 41	59.09	-13 15	56.8		9	675
1991 NS1	1991 09	14.26053	20 41	59.13	-13 16	08.6		9	675
1991 NV1	1991 09	13.20573	20 31	53.82	-09 02	53.4	17.8	9	675
1991 NV1	1991 09	13.26619	20 31	52.82	-09 03	05.6		9	675
1991 NP2	1991 09	13.20573	20 35	10.08	-16 36	09.6	17.2	9	675
1991 NP2	1991 09	13.26619	20 35	09.69	-16 35	55.8		9	675
1991 NT2	1991 09	12.20822	21 26	01.21	+00 36	37.5	16.5	9	675
1991 NT2	1991 09	12.26152	21 25	59.07	+00 36	31.0		9	675
1991 OO	1991 09	13.23385	21 09	35.83	-09 22	53.7		9	675
1991 OO	1991 09	13.29080	21 09	35.14	-09 23	05.8		9	675
1991 OO	1991 09	14.22390	21 09	26.39	-09 26	44.3		9	675
1991 PA	1991 09	13.23385	21 03	35.00	-14 08	19.3		9	675
1991 PA	1991 09	13.29080	21 03	34.34	-14 08	14.0		9	675
1991 PA	1991 09	14.22390	21 03	26.96	-14 06	46.4		9	675
1991 PA	1991 09	14.26053	21 03	26.57	-14 06	44.1		9	675
1991 PQ	1991 09	13.20573	20 47	24.03	-11 16	07.1	17.0	9	675
1991 PQ	1991 09	13.23385	20 47	23.38	-11 16	07.5		9	675
1991 PQ	1991 09	13.26619	20 47	22.41	-11 16	04.8		9	675
1991 PQ	1991 09	13.29080	20 47	21.76	-11 16	03.3		9	675
1991 PQ	1991 09	14.22390	20 46	57.56	-11 15	24.6		9	675
1991 PQ	1991 09	14.26053	20 46	56.57	-11 15	23.2		9	675
1991 PS	1991 09	13.20573	20 43	52.23	-12 47	32.0	17.5	9	675
1991 PS	1991 09	13.23385	20 43	51.60	-12 47	35.0		9	675
1991 PS	1991 09	13.26619	20 43	50.74	-12 47	39.3		9	675
1991 PS	1991 09	13.29080	20 43	50.18	-12 47	40.6		9	675
1991 PS	1991 09	14.22390	20 43	30.32	-12 49	18.9		9	675
1991 PS	1991 09	14.26053	20 43	29.51	-12 49	22.4		9	675
1991 PV	1991 09	13.23385	21 06	35.91	-12 55	50.0		9	675
1991 PV	1991 09	13.29080	21 06	35.23	-12 55	58.8		9	675
1991 PW	1991 09	13.23385	21 05	13.38	-10 29	46.9		9	675

1991 PW	1991 09	13.29080	21 05	12.68	-10	29	53.2		9	675
1991 PW	1991 09	14.22390	21 05	05.14	-10	31	21.1		9	675
1991 PW	1991 09	14.26053	21 05	04.77	-10	31	24.1		9	675
1991 PT1	1991 09	13.23385	21 02	16.16	-13	03	50.8	18.2	9	675
1991 PT1	1991 09	13.29080	21 02	14.62	-13	04	02.5	18.8	9	675
1991 PU8	1991 09	14.22390	20 49	02.19	-10	56	30.8		9	675
1991 PU8	1991 09	14.26053	20 49	01.42	-10	56	33.5		9	675
1991 PX8	1991 09	13.23385	20 55	57.70	-10	23	26.9		9	675
1991 PX8	1991 09	13.29080	20 55	56.14	-10	23	38.2		9	675
1991 PX8	1991 09	14.22390	20 55	33.71	-10	26	47.3		9	675
1991 PX8	1991 09	14.26053	20 55	32.84	-10	26	54.5		9	675
1991 PG9	1991 09	13.23385	20 50	07.14	-09	03	31.5		9	675
1991 PG9	1991 09	13.29080	20 50	06.47	-09	03	55.8		9	675
1991 PG9	1991 09	14.22390	20 49	58.68	-09	10	17.5		9	675
1991 PG9	1991 09	14.26053	20 49	58.36	-09	10	32.5		9	675
1991 PE10	1954 10	06.33021	01 31	35.69	+20	37	15.7		6	675
1991 PE10	1954 10	06.35139	01 31	34.36	+20	37	16.1		6	675
1991 PP10	1991 09	10.31389	23 05	47.05	+05	40	53.5	17.5	9	675
1991 PP10	1991 09	10.36476	23 05	43.67	+05	40	55.5		9	675
1991 PF11	1991 09	10.31389	22 45	12.08	+04	31	52.5	17.5	9	675
1991 PF11	1991 09	10.36476	22 45	09.41	+04	31	40.1		9	675
1991 PA12	1991 09	10.31389	22 40	03.70	+02	02	44.3	16.5	9	675
1991 PA12	1991 09	10.36476	22 40	00.95	+02	02	26.4		9	675
1991 PB12	1991 09	10.31389	22 45	18.38	+04	49	16.9	17.0	9	675
1991 PB12	1991 09	10.36476	22 45	16.10	+04	49	01.8		9	675
1991 PC12	1991 09	10.31389	22 51	00.31	+02	26	14.4	17.0	9	675
1991 PC12	1991 09	10.36476	22 50	58.38	+02	25	28.2		9	675
1991 PD12	1991 09	10.31389	22 52	38.54	+00	29	43.6	17.2	9	675
1991 PD12	1991 09	10.36476	22 52	36.46	+00	29	03.5		9	675
1991 PE12	1991 09	10.31389	22 50	17.01	+06	19	41.4	18.0	9	675
1991 PE12	1991 09	10.36476	22 50	14.52	+06	19	29.3		9	675
1991 PF12	1991 09	10.31389	22 47	58.84	+06	59	40.7	17.2	9	675
1991 PF12	1991 09	10.36476	22 47	56.11	+06	59	30.0		9	675
1991 PH12	1991 09	10.31389	22 54	08.96	+08	34	59.8	17.2	9	675
1991 PH12	1991 09	10.36476	22 54	06.42	+08	34	51.3		9	675
1991 PJ12	1991 09	10.31389	22 58	59.69	+07	40	26.2	17.5	9	675
1991 PJ12	1991 09	10.36476	22 58	57.29	+07	40	13.1		9	675
1991 PK12	1991 09	10.31389	23 01	25.10	+08	14	03.8	17.5	9	675
1991 PK12	1991 09	10.36476	23 01	22.76	+08	13	44.0		9	675
1991 PW14	1991 09	12.20822	21 42	29.72	+00	32	54.5	17.8	9	675
1991 PW14	1991 09	12.26152	21 42	26.94	+00	32	59.5		9	675
1991 PG17	1991 09	12.20822	21 29	11.30	-04	26	13.0	17.2	9	675
1991 PG17	1991 09	12.26152	21 29	08.91	-04	26	13.1		9	675
1991 PN18	1991 09	10.31389	22 52	41.22	+01	33	41.6	16.2	9	675
1991 PN18	1991 09	10.36476	22 52	37.97	+01	33	26.3		9	675
1991 PU19	* 1991 08	08.43003	23 19	11.87	+02	44	19.9	17.8	9	675
1991 PU19	1991 08	08.46441	23 19	11.21	+02	44	25.0		9	675
1991 PU19	1991 09	10.31389	22 57	33.50	+02	41	19.2	17.2	9	675
1991 PU19	1991 09	10.36476	22 57	30.87	+02	41	10.8		9	675
1991 RJ5	1977 12	07.26979	04 49	15.20	+20	59	08.9	16.5 V	6	675
1991 RJ5	1977 12	08.22292	04 48	20.40	+20	58	45.9		6	675
1991 RB12	1991 09	13.23385	20 57	26.71	-15	14	51.4		9	675
1991 RB12	1991 09	14.22390	20 56	55.57	-15	12	43.2		9	675
1991 RB12	1991 09	14.26053	20 56	54.37	-15	12	38.9		9	675
1991 RA25	1991 09	14.29740	22 37	12.31	-18	09	11.2	17.8	9	675
1991 RA25	1991 09	14.34705	22 37	09.70	-18	09	19.7		9	675
1991 RY29	1991 09	10.31389	22 37	03.26	+02	19	26.1	18.2	9	675
1991 RY29	1991 09	10.36476	22 37	00.26	+02	19	12.0		9	675
1991 RY29	* 1991 09	12.28472	22 35	10.12	+02	10	14.1	18.2	9	675

1991 RY29		1991 09 12.32465	22 35 07.62	+02 10 04.0	17.5	9 675
1991 RZ29		1991 09 14.29740	22 18 30.85	-22 18 01.1	17.2	9 675
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1991 RZ29		1991 09 15.31203	22 17 59.09	-22 23 35.4		9 675
1991 RZ29		1991 09 16.27778	22 17 29.98	-22 28 39.9	17.5	9 675
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1991 RA30		1991 09 15.31203	22 18 51.35	-20 47 20.3	16.8	9 675
1991 RA30		1991 09 15.32083	22 18 50.92	-20 47 22.4		9 675
1991 RA30		1991 09 16.27778	22 18 08.85	-20 51 19.2	17.2	9 675
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1992 PZ1	*	1992 08 04.34549	21 17 44.67	-08 24 34.7	16.8	9 675
1992 PZ1		1992 08 05.31667	21 17 04.83	-08 31 56.8		9 675
1992 PZ1		1992 08 05.39844	21 17 01.06	-08 32 33.7		9 675
1992 PZ1		1992 08 07.29740	21 15 42.41	-08 47 24.5		9 675
1992 PZ1		1992 08 07.32986	21 15 40.87	-08 47 39.5		9 675
1992 PA2	*	1992 08 04.34549	21 23 25.84	-13 26 51.7	17.5	9 675
1992 PA2		1992 08 05.31667	21 22 29.72	-13 25 13.7		9 675
1992 PA2		1992 08 07.29740	21 20 33.47	-13 21 58.1		9 675
1992 PA2		1992 08 07.32986	21 20 31.40	-13 21 54.4		9 675
1992 PB2	*	1992 08 04.34549	21 28 41.32	-06 12 55.6	18.0	9 675
1992 PB2		1992 08 05.31667	21 27 58.15	-06 15 08.4		9 675
1992 PB2		1992 08 05.39844	21 27 54.32	-06 15 19.5		9 675
1992 PB2		1992 08 07.29740	21 26 28.98	-06 19 56.3		9 675
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1992 PC2		1992 07 31.34236	21 26 23.99	-01 42 45.0	17.5	9 675
1992 PC2		1992 07 31.37830	21 26 22.19	-01 42 51.6		9 675
1992 PC2	*	1992 08 02.32188	21 24 48.35	-01 49 04.5		9 675
1992 PC2		1992 08 02.36510	21 24 46.09	-01 49 13.1		9 675
1992 PC2		1992 08 06.34373	21 21 28.00	-02 04 15.2		9 675
1992 PC2		1992 08 06.38524	21 21 25.82	-02 04 25.6		9 675
1992 PD2		1992 07 31.34236	21 26 25.32	-03 22 04.9	17.0	9 675
1992 PD2		1992 07 31.37830	21 26 23.74	-03 22 12.5		9 675
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1992 PD2		1992 08 06.34373	21 22 07.79	-03 46 18.9		9 675
1992 PD2		1992 08 06.38524	21 22 05.89	-03 46 29.2		9 675
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1992 PE2		1992 07 31.37830	21 33 18.29	-04 08 43.6		9 675
1992 PE2	*	1992 08 02.32188	21 31 29.01	-03 59 05.1		9 675
1992 PE2		1992 08 02.36510	21 31 26.46	-03 58 53.1		9 675
1992 PE2		1992 08 06.34373	21 27 32.49	-03 40 51.5		9 675
1992 PE2		1992 08 06.38524	21 27 29.90	-03 40 41.7		9 675
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1992 PF2	*	1992 08 02.32188	21 32 38.98	-04 33 52.6		9 675
1992 PF2		1992 08 02.36510	21 32 36.59	-04 34 04.8		9 675
1992 PF2		1992 08 06.34373	21 29 02.53	-04 54 02.1		9 675

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1992 PG2		1992 08 02.36510	21 32 44.25	-00 24 01.6		9	675
1992 PG2		1992 08 06.34373	21 30 22.86	-00 46 45.8		9	675
1992 PG2		1992 08 06.38524	21 30 21.20	-00 47 01.7		9	675
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1992 PH2		1992 08 06.34373	21 33 23.10	-02 19 02.6		9	675
1992 PH2		1992 08 06.38524	21 33 21.01	-02 19 03.6		9	675
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1992 PJ2		1992 08 02.36510	21 37 15.46	-00 07 15.7		9	675
1992 PJ2		1992 08 06.34373	21 35 07.02	-00 22 34.2		9	675
1992 PJ2		1992 08 06.38524	21 35 05.44	-00 22 44.6		9	675
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1992 PK2		1992 08 02.36510	21 40 02.26	-04 45 26.7		9	675
1992 PK2		1992 08 06.34373	21 37 06.33	-04 57 15.2		9	675
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1992 PK2		1992 08 06.39149	21 37 04.14	-04 57 24.4		9	675
1992 PK2		1992 08 07.34688	21 36 21.15	-05 00 29.8		9	675
1992 PK2		1992 08 07.38194	21 36 19.48	-05 00 35.2		9	675
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1992 PL2		1992 08 06.34373	21 36 50.29	+00 01 32.2		9	675
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1992 PM2		1992 08 02.36510	21 43 07.42	-03 24 20.3		9	675
1992 PM2		1992 08 06.34373	21 40 02.72	-03 29 28.7		9	675
1992 PM2		1992 08 06.35174	21 40 02.39	-03 29 30.1	17.8	9	675
1992 PM2		1992 08 06.38524	21 40 00.59	-03 29 32.9		9	675
1992 PM2		1992 08 06.39149	21 40 00.29	-03 29 34.9		9	675
1992 PM2		1992 08 07.34688	21 39 14.18	-03 31 20.3		9	675
1992 PM2		1992 08 07.38194	21 39 12.31	-03 31 25.6		9	675
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1992 PQ2		1992 08 06.48056	22 20 01.44	-00 33 24.8		9 675
1992 PR2	*	1992 08 02.34566	22 23 54.53	-00 37 25.9	17.8	9 675
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1992 PR2		1992 08 06.43490	22 21 52.62	-00 57 17.4	17.5	9 675
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1992 PS2	*	1992 08 02.34566	22 29 21.48	-02 12 14.2	17.5	9 675
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1992 PS2		1992 08 06.48056	22 26 23.52	-02 17 53.7		9 675
1992 PT2	*	1992 08 02.34566	22 33 33.37	-01 21 25.7	17.5	9 675
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1992 PV2		1992 08 02.36510	21 49 20.99	-01 39 45.6		9 675
1992 PV2		1992 08 06.34373	21 46 20.39	-01 40 23.0		9 675
1992 PV2		1992 08 06.35174	21 46 20.02	-01 40 22.8	17.8	9 675
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1992 PV2	*	1992 08 06.41024	21 46 17.15	-01 40 22.7	17.5	9 675
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1992 PV2		1992 08 07.34688	21 45 33.36	-01 40 54.0		9 675
1992 PV2		1992 08 07.35972	21 45 32.63	-01 40 53.8	17.2	9 675
1992 PV2		1992 08 07.38194	21 45 31.67	-01 40 57.3		9 675
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1992 PW2		1992 08 07.35972	21 53 14.37	+01 21 38.0	18.0	9 675
1992 PW2		1992 08 07.42309	21 53 11.96	+01 21 28.8		9 675
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1992 PX2		1992 08 07.35972	21 55 29.34	-00 29 14.4	17.2	9 675
1992 PX2		1992 08 07.42309	21 55 25.67	-00 29 16.4		9 675
1992 PY2	*	1992 08 06.41024	21 58 06.56	+02 46 12.6	17.0	9 675
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1992 PY2		1992 08 07.35972	21 57 15.59	+02 47 59.3	17.0	9 675
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1992 PZ2		1992 08 07.35972	21 58 46.23	+02 57 42.4	18.0	9 675
1992 PZ2		1992 08 07.42309	21 58 43.25	+02 57 40.0		9 675
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1992 PB3		1992 08 06.39149	22 00 04.20	-02 52 23.3		9 675
1992 PB3	*	1992 08 06.41024	22 00 03.52	-02 52 27.5	17.0	9 675
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1992 PB3		1992 08 07.35972	21 59 32.29	-02 56 06.9	17.0	9 675
1992 PB3		1992 08 07.38194	21 59 31.54	-02 56 12.1		9 675
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1992 PC3		1992 08 07.35972	22 03 37.38	+04 10 10.0	17.0	9 675

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1992 PJ3		1992 08 07.38194	21 49 17.00	-05 08 44.3				9	675
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1992 PK3		1992 08 07.34688	21 58 03.83	-06 27 08.6				9	675
1992 PK3		1992 08 07.38194	21 58 01.92	-06 27 08.3				9	675
1992 PL3	*	1992 08 06.35174	21 59 05.94	-04 18 00.4	17.5			9	675
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1992 PM3		1992 08 06.35833	21 53 17.18	-20 14 28.8	17.5			9	675
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1992 PQ3		1992 08 06.35833	21 59 15.73	-17 44 17.5	17.5			9	675
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1992 PT3		1992 08 05.45208	22 10 12.71	-16 44 32.4		9	675
1992 PT3		1992 08 06.35833	22 09 45.84	-16 49 26.5	16.8	9	675
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1992 PX3		1992 08 05.45208	22 19 26.99	-18 15 34.3		9	675
1992 PX3		1992 08 06.35833	22 18 35.80	-18 17 03.8	17.8	9	675
1992 PX3		1992 08 06.39757	22 18 33.45	-18 17 06.4		9	675
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1992 PY3		1992 08 02.37118	21 59 42.09	-09 00 27.6		9	675
1992 PY3		1992 08 06.36493	21 57 07.77	-08 50 58.5		9	675
1992 PY3		1992 08 06.40416	21 57 06.04	-08 50 53.8		9	675
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1992 PZ3		1992 08 02.37118	22 01 38.55	-13 10 04.5		9	675
1992 PZ3		1992 08 06.36493	21 57 58.37	-13 07 58.1		9	675
1992 PZ3		1992 08 06.40416	21 57 55.92	-13 07 57.2		9	675
1992 PA4	*	1992 08 02.32882	22 03 55.72	-11 23 24.2	17.0	9	675
1992 PA4		1992 08 02.37118	22 03 54.01	-11 23 32.7		9	675
1992 PA4		1992 08 06.36493	22 01 14.89	-11 37 28.4		9	675
1992 PA4		1992 08 06.40416	22 01 13.19	-11 37 36.9		9	675
1992 PB4	*	1992 08 02.32882	22 08 03.05	-09 26 38.3	17.8	9	675
1992 PB4		1992 08 02.37118	22 08 01.22	-09 26 46.6		9	675
1992 PB4		1992 08 06.36493	22 05 14.76	-09 41 18.6		9	675
1992 PB4		1992 08 06.40416	22 05 12.89	-09 41 28.6		9	675
1992 PC4	*	1992 08 02.32882	22 08 21.60	-10 10 50.8	18.5	9	675
1992 PC4		1992 08 02.37118	22 08 19.69	-10 10 55.8		9	675
1992 PC4		1992 08 06.36493	22 05 32.04	-10 20 19.2		9	675
1992 PC4		1992 08 06.40416	22 05 30.17	-10 20 26.9		9	675
1992 PD4	*	1992 08 02.32882	22 10 51.23	-10 01 46.4	18.2	9	675
1992 PD4		1992 08 02.37118	22 10 49.49	-10 01 50.6		9	675
1992 PD4		1992 08 06.36493	22 08 09.92	-10 09 12.0		9	675
1992 PD4		1992 08 06.40416	22 08 08.36	-10 09 13.6		9	675
1992 PE4	*	1992 08 02.32882	22 14 21.22	-09 03 04.3	17.8	9	675
1992 PE4		1992 08 02.37118	22 14 18.87	-09 02 55.8		9	675
1992 PE4		1992 08 06.36493	22 10 45.73	-08 49 54.1		9	675

1992 PE4		1992 08 06.40416	22 10 43.39	-08 49 45.3		9 675
1992 PF4	*	1992 08 02.32882	22 15 38.04	-08 21 28.4	17.8	9 675
1992 PF4		1992 08 02.37118	22 15 36.39	-08 21 37.6		9 675
1992 PF4		1992 08 06.36493	22 12 57.67	-08 35 56.6		9 675
1992 PF4		1992 08 06.40416	22 12 55.97	-08 36 06.2		9 675
1992 PG4	*	1992 08 02.32882	22 15 50.84	-12 50 51.7	17.8	9 675
1992 PG4		1992 08 02.37118	22 15 48.88	-12 51 01.2		9 675
1992 PG4		1992 08 06.36493	22 12 55.42	-13 00 30.3		9 675
1992 PG4		1992 08 06.40416	22 12 53.42	-13 00 36.2		9 675
1992 PH4	*	1992 08 02.32882	22 15 54.94	-11 06 39.4		9 675
1992 PH4		1992 08 02.37118	22 15 53.11	-11 06 43.6		9 675
1992 PH4		1992 08 06.36493	22 13 02.34	-11 14 16.4	17.0	9 675
1992 PH4		1992 08 06.40416	22 13 00.36	-11 14 21.7		9 675
1992 PJ4	*	1992 08 02.32882	22 16 05.23	-12 09 55.7	18.0	9 675
1992 PJ4		1992 08 02.37118	22 16 03.79	-12 10 15.2		9 675
1992 PJ4		1992 08 06.36493	22 13 44.01	-12 40 44.1		9 675
1992 PJ4		1992 08 06.40416	22 13 42.56	-12 41 02.9		9 675
1992 PK4	*	1992 08 02.32882	22 18 00.96	-10 23 17.0	17.8	9 675
1992 PK4		1992 08 02.37118	22 17 59.41	-10 23 24.8		9 675
1992 PK4		1992 08 06.36493	22 15 32.55	-10 36 42.3		9 675
1992 PK4		1992 08 06.40416	22 15 30.96	-10 36 51.2		9 675
1992 PL4	*	1992 08 02.32882	22 18 03.99	-08 13 53.4	17.5	9 675
1992 PL4		1992 08 02.37118	22 18 02.34	-08 14 00.4		9 675
1992 PL4		1992 08 06.36493	22 15 29.10	-08 24 32.7		9 675
1992 PL4		1992 08 06.40416	22 15 27.42	-08 24 39.6		9 675
1992 PM4	*	1992 08 02.32882	22 18 12.66	-07 17 09.9	18.5	9 675
1992 PM4		1992 08 02.37118	22 18 10.98	-07 17 15.3		9 675
1992 PM4		1992 08 06.36493	22 15 45.37	-07 25 40.2		9 675
1992 PM4		1992 08 06.40416	22 15 43.64	-07 25 46.5		9 675
1992 PN4	*	1992 08 02.32882	22 18 23.68	-10 38 02.9	16.8	9 675
1992 PN4		1992 08 02.37118	22 18 22.27	-10 38 21.9		9 675
1992 PN4		1992 08 06.36493	22 16 08.02	-11 08 52.6		9 675
1992 PO4	*	1992 08 02.32882	22 18 49.23	-07 35 27.6	17.8	9 675
1992 PO4		1992 08 02.37118	22 18 47.91	-07 35 38.7		9 675
1992 PO4		1992 08 06.36493	22 16 46.33	-07 53 00.2		9 675
1992 PO4		1992 08 06.40416	22 16 44.93	-07 53 11.4		9 675
1992 PP4	*	1992 08 02.32882	22 19 47.20	-11 36 02.1	17.5	9 675
1992 PP4		1992 08 02.37118	22 19 45.50	-11 36 16.2		9 675
1992 PP4		1992 08 06.36493	22 17 02.38	-11 58 22.9		9 675
1992 PP4		1992 08 06.40416	22 17 00.56	-11 58 36.8		9 675
1992 PQ4	*	1992 08 02.32882	22 20 28.83	-11 51 08.2	17.5	9 675
1992 PQ4		1992 08 02.37118	22 20 27.31	-11 51 16.9		9 675
1992 PQ4		1992 08 06.36493	22 18 04.93	-12 04 54.7		9 675
1992 PQ4		1992 08 06.40416	22 18 03.37	-12 05 02.3		9 675
1992 PR4	*	1992 08 02.32882	22 22 31.38	-09 30 24.6	18.2	9 675
1992 PR4		1992 08 02.37118	22 22 29.71	-09 30 44.0		9 675
1992 PR4		1992 08 06.36493	22 19 49.54	-10 04 09.6		9 675
1992 PR4		1992 08 06.40416	22 19 47.67	-10 04 30.8		9 675
1992 PS4	*	1992 08 02.32882	22 23 24.46	-09 26 38.3	18.2	9 675
1992 PS4		1992 08 02.37118	22 23 22.62	-09 26 38.9		9 675
1992 PS4		1992 08 06.36493	22 20 28.51	-09 27 43.6		9 675
1992 PS4		1992 08 06.40416	22 20 26.69	-09 27 43.8		9 675
1992 PT4	*	1992 08 02.32882	22 24 44.22	-12 20 09.8	17.2	9 675
1992 PT4		1992 08 02.37118	22 24 42.78	-12 20 38.4		9 675
1992 PT4		1992 08 06.36493	22 22 27.73	-13 04 26.5		9 675
1992 PT4		1992 08 06.40416	22 22 26.27	-13 04 52.5		9 675
1992 PU4	*	1992 08 02.32882	22 26 48.61	-11 13 35.3	16.8	9 675
1992 PU4		1992 08 02.37118	22 26 47.12	-11 13 43.0		9 675
1992 PU4		1992 08 06.36493	22 24 28.69	-11 27 21.7		9 675



1992 PU4		1992 08 06.40416	22 24 27.24	-11 27 30.6		9	675
1992 PV4	*	1992 08 02.32882	22 26 48.83	-10 07 46.3	17.8	9	675
1992 PV4		1992 08 02.37118	22 26 47.18	-10 07 50.5		9	675
1992 PV4		1992 08 06.36493	22 24 17.12	-10 15 22.4		9	675
1992 PV4		1992 08 06.40416	22 24 15.39	-10 15 26.2		9	675
1992 PW4	*	1992 08 02.32882	22 27 48.31	-10 47 05.2	17.5	9	675
1992 PW4		1992 08 02.37118	22 27 46.57	-10 47 06.6		9	675
1992 PW4		1992 08 06.36493	22 24 58.92	-10 49 51.2		9	675
1992 PW4		1992 08 06.40416	22 24 57.06	-10 49 53.2		9	675
1992 QN	*	1992 08 29.33611	22 39 57.86	-21 18 18.3	16.5	2	675
1992 QN		1992 08 29.36059	22 39 52.88	-21 18 10.9		2	675
1992 QN		1992 08 31.31563	22 33 47.86	-21 05 27.0		2	675
1992 QN		1992 08 31.33802	22 33 43.68	-21 05 16.8		2	675
1992 QN		1992 09 01.33576	22 30 44.06	-20 58 10.5		2	675
1992 QN		1992 09 02.21563	22 28 10.78	-20 51 37.7		2	675
1992 QN		1992 09 02.24028	22 28 06.33	-20 51 26.0		2	675
1992 QP	*	1992 08 29.32465	22 13 57.59	-09 49 20.4	15.5	2	675
1992 QP		1992 08 29.34809	22 13 56.76	-09 49 42.5		2	675
1992 QP		1992 08 31.30990	22 13 01.35	-10 20 47.9		2	675
1992 QP		1992 08 31.33194	22 13 00.69	-10 21 06.7		2	675
1992 QQ	*	1992 08 29.32465	22 29 57.82	-12 07 06.3	16.5	2	675
1992 QQ		1992 08 29.34809	22 29 56.32	-12 06 51.6		2	675
1992 QQ		1992 08 31.30990	22 28 17.47	-11 47 09.9		2	675
1992 QQ		1992 08 31.33194	22 28 16.07	-11 46 54.1		2	675
1992 QR	*	1992 08 23.40434	00 34 46.50	-10 32 36.8	17.0	3	675
1992 QR		1992 08 23.45174	00 34 46.86	-10 33 54.8		3	675
1992 QR		1992 08 27.42361	00 35 10.18	-12 23 57.0		3	675
1992 QR		1992 08 27.46250	00 35 10.04	-12 25 02.8		3	675
1992 QR		1992 08 28.42135	00 35 10.73	-12 52 24.0		3	675
2019 P-L		1991 09 13.20573	20 50 17.33	-12 49 24.4	18.5	9	675
2019 P-L		1991 09 13.23385	20 50 16.56	-12 49 31.8	18.5	9	675
2019 P-L		1991 09 13.26619	20 50 15.58	-12 49 39.1		9	675
2019 P-L		1991 09 13.29080	20 50 15.01	-12 49 45.6		9	675
2019 P-L		1991 09 14.22390	20 49 51.79	-12 52 56.7		9	675
2019 P-L		1991 09 14.26053	20 49 50.83	-12 53 02.7		9	675
2023 P-L		1977 12 07.26979	04 50 35.95	+23 19 28.0	18.0 V	6	675
2023 P-L		1977 12 08.22292	04 49 44.42	+23 17 57.7		6	675
2561 P-L	*	1960 09 24.46184	00 57 40.14	+00 24 40.3	18.3	4	675
2561 P-L		1960 09 26.37988	00 55 54.97	+00 20 56.1		4	675
2561 P-L		1960 09 28.43822	00 53 59.89	+00 16 56.5		4	675
2561 P-L		1960 09 29.39514	00 53 05.93	+00 15 07.6		4	675
2561 P-L		1960 10 17.31529	00 36 15.78	-00 11 45.2		4	675
2561 P-L		1960 10 22.26809	00 32 02.15	-00 15 00.4		4	675
2561 P-L		1960 10 25.30351	00 29 37.72	-00 15 46.0		4	675
2561 P-L		1960 10 26.35766	00 28 49.67	-00 15 46.3		4	675
4027 P-L		1992 08 04.34549	21 40 18.78	-09 54 40.5	17.8	9	675
4027 P-L		1992 08 05.31667	21 39 34.16	-09 57 29.6		9	675
4027 P-L		1992 08 05.39844	21 39 30.43	-09 57 45.5		9	675
4027 P-L		1992 08 07.29740	21 38 02.63	-10 03 24.0		9	675
4027 P-L		1992 08 07.32986	21 38 01.06	-10 03 29.7		9	675
4072 P-L	*	1960 09 24.37573	00 38 13.62	+07 40 29.1	18.8	4	675
4072 P-L		1960 09 24.45000	00 38 09.20	+07 39 59.2		4	675
4072 P-L		1960 09 25.42780	00 37 13.01	+07 33 20.8		4	675
4072 P-L		1960 09 26.30558	00 36 22.47	+07 27 19.1		4	675
4072 P-L		1960 09 28.36808	00 34 22.75	+07 13 00.0		4	675
4072 P-L		1960 10 17.27085	00 17 26.07	+05 01 36.2		4	675
4072 P-L		1960 10 17.30420	00 17 24.49	+05 01 23.5		4	675
4072 P-L		1960 10 22.22293	00 13 54.23	+04 31 09.7		4	675
4072 P-L		1960 10 24.35836	00 12 33.06	+04 19 03.9		4	675

4072	P-L		1960	10	26.32573	00	11	24.13	+04	08	24.8		4	675
4095	P-L	*	1960	09	24.37573	00	25	23.67	+08	21	23.9	19.6	4	675
4095	P-L		1960	09	25.42780	00	24	32.91	+08	14	53.4		4	675
4095	P-L		1960	09	26.30558	00	23	50.87	+08	09	24.7		4	675
4095	P-L		1960	09	28.36808	00	22	10.42	+07	56	10.5		4	675
4095	P-L		1960	10	17.27085	00	07	45.14	+05	48	02.2		4	675
4095	P-L		1960	10	22.22293	00	04	44.50	+05	16	20.5		4	675
4095	P-L		1960	10	26.32573	00	02	37.82	+04	51	55.5		4	675
4607	P-L	*	1960	09	24.41183	00	19	59.75	-00	16	56.2	18.5	4	675
4607	P-L		1960	09	26.31530	00	18	21.10	-00	24	33.4		4	675
4607	P-L		1960	09	27.40836	00	17	24.22	-00	28	53.9		4	675
4607	P-L		1960	09	28.39725	00	16	32.90	-00	32	48.2		4	675
4607	P-L		1960	10	17.28198	00	01	29.51	-01	36	34.7		4	675
4607	P-L		1960	10	22.23406	23	58	18.33	-01	47	56.6		4	675
4607	P-L		1960	10	25.25350	23	56	34.96	-01	53	28.5		4	675
4607	P-L		1960	10	26.31531	23	56	01.05	-01	55	07.9		4	675
5011	P-L		1960	09	29.44510	00	52	00.65	+12	30	06.5		4	675
5011	P-L	*	1960	10	22.27920	00	34	15.16	+09	59	35.7	19.2	4	675
5011	P-L		1960	10	25.37570	00	32	15.09	+09	39	02.7		4	675
5011	P-L		1960	10	26.36840	00	31	38.80	+09	32	35.8		4	675
6045	P-L		1992	08	02.34566	22	35	34.15	+00	28	28.5	18.5	9	675
6045	P-L		1992	08	02.38559	22	35	32.86	+00	28	25.6		9	675
9057	P-L		1960	09	24.33613	23	52	33.55	+03	33	51.5		4	675
9057	P-L	*	1960	10	17.21390	23	33	59.07	+01	38	08.5	19.1	4	675
9057	P-L		1960	10	22.15559	23	31	22.62	+01	19	12.0		4	675
9057	P-L		1960	10	24.18787	23	30	29.35	+01	12	22.1		4	675
9057	P-L		1960	10	26.26113	23	29	41.83	+01	06	03.0		4	675
1188	T-1		1971	03	24.38924	12	13	23.42	-04	26	49.8		4	675
1188	T-1		1971	03	25.27326	12	12	26.47	-04	25	00.6		4	675
1188	T-1	*	1971	03	25.31562	12	12	23.55	-04	24	55.5	16.8	4	675
1188	T-1		1971	03	26.26771	12	11	21.88	-04	22	56.2		4	675
1188	T-1		1971	03	27.32500	12	10	12.92	-04	20	39.4		4	675
1188	T-1		1971	04	02.40000	12	03	44.07	-04	07	06.5		4	675
1188	T-1		1971	04	16.18087	11	51	10.46	-03	40	34.6		4	675
1188	T-1		1971	04	16.26458	11	51	06.51	-03	40	27.1		4	675
1188	T-1		1971	05	13.18941	11	43	21.92	-03	52	50.5		4	675
1188	T-1		1971	05	14.21962	11	43	34.28	-03	55	33.1		4	675
2291	T-1		1977	12	07.26979	04	42	09.74	+22	21	13.8	17.2 V	6	675
2291	T-1		1977	12	08.22292	04	41	09.67	+22	20	36.7		6	675
3057	T-1		1971	03	24.42015	12	24	37.14	-05	48	10.8		4	675
3057	T-1		1971	03	25.33090	12	23	50.06	-05	42	29.6		4	675
3057	T-1		1971	03	26.29653	12	22	59.77	-05	36	26.7		4	675
3057	T-1	*	1971	03	26.33611	12	22	57.57	-05	36	11.8	19.4	4	675
3057	T-1		1971	03	27.33854	12	22	05.26	-05	29	49.4		4	675
3057	T-1		1971	04	02.40000	12	16	50.76	-04	50	49.1		4	675
3057	T-1		1971	04	16.18087	12	06	10.39	-03	25	16.0		4	675
3057	T-1		1971	04	16.26458	12	06	06.80	-03	24	45.2		4	675
4232	T-1		1978	10	27.30539	00	55	29.67	+07	15	58.9	18.5	6	675
4232	T-1		1978	10	28.29411	00	54	41.81	+07	13	17.3		6	675
4232	T-1		1978	10	29.30729	00	53	53.49	+07	10	34.9		6	675
4232	T-1		1978	11	28.16875	00	39	08.63	+06	34	31.9	19.5	6	675
4232	T-1		1978	11	29.16308	00	39	00.27	+06	35	09.1		6	675
1158	T-2		1973	09	19.18611	00	17	39.78	+04	21	41.9		4	675
1158	T-2		1973	09	19.23785	00	17	37.31	+04	21	23.2		4	675
1158	T-2		1973	09	20.22847	00	16	49.12	+04	15	32.6		4	675
1158	T-2		1973	09	24.34688	00	13	22.56	+03	50	01.7		4	675
1158	T-2		1973	09	24.41597	00	13	18.86	+03	49	35.6		4	675
1158	T-2		1973	09	25.24375	00	12	36.89	+03	44	12.7		4	675
1158	T-2		1973	09	25.30729	00	12	33.52	+03	43	50.7		4	675

1158	T-2	*	1973	09	29.25330	00	09	10.53	+03	17	57.1	18.5	4	675
1158	T-2		1973	09	29.31806	00	09	06.98	+03	17	32.3		4	675
1158	T-2		1973	09	30.21007	00	08	21.38	+03	11	35.5		4	675
1158	T-2		1973	09	30.27431	00	08	17.93	+03	11	10.1		4	675
1158	T-2		1973	10	04.28958	00	04	55.35	+02	44	24.1		4	675
1158	T-2		1973	10	04.35208	00	04	51.99	+02	43	59.3		4	675
1158	T-2		1973	10	05.31684	00	04	04.69	+02	37	38.3		4	675
1158	T-2		1973	10	05.37917	00	04	01.56	+02	37	14.8		4	675
1310	T-2		1973	09	19.22500	00	28	10.67	-00	08	20.8		4	675
1310	T-2		1973	09	19.27865	00	28	07.84	-00	08	34.0		4	675
1310	T-2		1973	09	20.22847	00	27	21.30	-00	12	44.3		4	675
1310	T-2		1973	09	20.27795	00	27	18.92	-00	12	53.6		4	675
1310	T-2		1973	09	20.30278	00	27	17.41	-00	13	03.6		4	675
1310	T-2		1973	09	24.37431	00	23	49.31	-00	31	04.5		4	675
1310	T-2		1973	09	24.38750	00	23	48.55	-00	31	10.1		4	675
1310	T-2		1973	09	24.44167	00	23	45.60	-00	31	22.6		4	675
1310	T-2		1973	09	24.45434	00	23	44.88	-00	31	29.5		4	675
1310	T-2		1973	09	25.26875	00	23	02.63	-00	35	05.0		4	675
1310	T-2		1973	09	25.28125	00	23	02.03	-00	35	10.5		4	675
1310	T-2		1973	09	25.30729	00	23	00.51	-00	35	17.3		4	675
1310	T-2		1973	09	25.33299	00	22	59.04	-00	35	21.9		4	675
1310	T-2		1973	09	25.34601	00	22	58.35	-00	35	26.5		4	675
1310	T-2	*	1973	09	29.25330	00	19	31.44	-00	52	39.5	18.0	4	675
1310	T-2		1973	09	29.27986	00	19	29.85	-00	52	43.9		4	675
1310	T-2		1973	09	29.31806	00	19	27.86	-00	52	54.8		4	675
1310	T-2		1973	09	29.34375	00	19	26.27	-00	53	00.7		4	675
1310	T-2		1973	09	30.23524	00	18	39.14	-00	56	49.6		4	675
1310	T-2		1973	09	30.30174	00	18	35.34	-00	57	06.4		4	675
1310	T-2		1973	10	04.28958	00	15	05.70	-01	13	29.0		4	675
1310	T-2		1973	10	04.31493	00	15	04.38	-01	13	34.0		4	675
1310	T-2		1973	10	04.35208	00	15	02.30	-01	13	42.4		4	675
1310	T-2		1973	10	04.37674	00	15	01.07	-01	13	48.2		4	675
1310	T-2		1973	10	05.31684	00	14	12.78	-01	17	27.5		4	675
1310	T-2		1973	10	05.34167	00	14	11.45	-01	17	31.2		4	675
1310	T-2		1973	10	05.37917	00	14	09.33	-01	17	41.5		4	675
1310	T-2		1973	10	05.40347	00	14	08.09	-01	17	45.2		4	675
1360	T-2		1973	09	19.19948	00	31	07.84	+04	01	08.3		4	675
1360	T-2		1973	09	19.25006	00	31	05.64	+04	00	52.8		4	675
1360	T-2		1973	09	20.26458	00	30	19.81	+03	55	31.7		4	675
1360	T-2		1973	09	24.36181	00	27	10.43	+03	33	21.7		4	675
1360	T-2		1973	09	24.42847	00	27	07.15	+03	32	58.8		4	675
1360	T-2		1973	09	25.25642	00	26	28.64	+03	28	22.2		4	675
1360	T-2		1973	09	25.32031	00	26	25.59	+03	28	02.7		4	675
1360	T-2	*	1973	09	29.25330	00	23	19.95	+03	06	09.3	18.5	4	675
1360	T-2		1973	09	29.26632	00	23	19.46	+03	06	04.7		4	675
1360	T-2		1973	09	29.31806	00	23	16.81	+03	05	48.1		4	675
1360	T-2		1973	09	29.33073	00	23	16.23	+03	05	44.0		4	675
1360	T-2		1973	09	30.21007	00	22	35.01	+03	00	48.1		4	675
1360	T-2		1973	09	30.22257	00	22	34.34	+03	00	43.4		4	675
1360	T-2		1973	09	30.27431	00	22	31.91	+03	00	26.9		4	675
1360	T-2		1973	09	30.28785	00	22	31.21	+03	00	21.2		4	675
1360	T-2		1973	10	04.28958	00	19	24.21	+02	38	07.4		4	675
1360	T-2		1973	10	04.30208	00	19	23.74	+02	38	02.9		4	675
1360	T-2		1973	10	04.35208	00	19	21.16	+02	37	46.9		4	675
1360	T-2		1973	10	04.36476	00	19	20.69	+02	37	42.3		4	675
1360	T-2		1973	10	05.31684	00	18	36.96	+02	32	28.1		4	675
1360	T-2		1973	10	05.32917	00	18	36.40	+02	32	24.6		4	675
1360	T-2		1973	10	05.37917	00	18	33.95	+02	32	08.1		4	675
1360	T-2		1973	10	05.39132	00	18	33.49	+02	32	03.1		4	675

2232	T-2	1991 09	13.23385	21 03	35.54	-13 52	09.0	18.5	9	675
2232	T-2	1991 09	13.29080	21 03	34.20	-13 52	24.5		9	675
2232	T-2	1991 09	14.22390	21 03	17.45	-13 56	29.8		9	675
2232	T-2	1991 09	14.26053	21 03	16.71	-13 56	38.0		9	675
4293	T-2	1992 08	02.32882	22 24	23.20	-14 19	42.7	17.5	9	675
4293	T-2	1992 08	02.37118	22 24	21.55	-14 19	53.8		9	675
4293	T-2	1992 08	06.36493	22 21	50.42	-14 40	24.5		9	675
4293	T-2	1992 08	06.40416	22 21	48.87	-14 40	38.6		9	675
5137	T-2	1973 09	20.21458	00 25	09.60	+13 52	30.8		4	675
5137	T-2	1973 09	20.29253	00 25	05.88	+13 51	51.1		4	675
5137	T-2	1973 09	24.40035	00 21	50.79	+13 16	07.6		4	675
5137	T-2	1973 09	24.47986	00 21	46.72	+13 15	22.5		4	675
5137	T-2	* 1973 09	25.29375	00 21	07.99	+13 07	55.4	19.6	4	675
5137	T-2	1973 09	25.35903	00 21	04.71	+13 07	20.1		4	675
5137	T-2	1973 09	29.24062	00 17	57.86	+12 30	49.6		4	675
5137	T-2	1973 09	29.30486	00 17	54.69	+12 30	12.9		4	675
5137	T-2	1973 09	30.19722	00 17	11.87	+12 21	33.2		4	675
5137	T-2	1973 09	30.35295	00 17	04.14	+12 20	01.7		4	675
5137	T-2	1973 10	04.27708	00 13	57.74	+11 41	10.5		4	675
5137	T-2	1973 10	04.33906	00 13	54.64	+11 40	30.1		4	675
5137	T-2	1973 10	05.36632	00 13	06.93	+11 30	10.9		4	675
5137	T-2	1973 10	05.42847	00 13	03.91	+11 29	31.3		4	675
3109	T-3	1977 10	07.27031	01 31	40.91	+09 46	59.9		4	675
3109	T-3	1977 10	11.28819	01 28	47.96	+09 30	27.9		4	675
3109	T-3	1977 10	11.35642	01 28	45.05	+09 30	13.6		4	675
3109	T-3	1977 10	12.28681	01 28	04.63	+09 26	17.7		4	675
3109	T-3	1977 10	12.35347	01 28	01.62	+09 26	00.6		4	675
3109	T-3	* 1977 10	16.27309	01 25	10.38	+09 09	23.3	19.4	4	675
3109	T-3	1977 10	16.33872	01 25	07.38	+09 09	06.7		4	675
3109	T-3	1977 10	17.27552	01 24	26.42	+09 05	09.6		4	675
3109	T-3	1977 10	17.34236	01 24	23.23	+09 04	53.2		4	675
3109	T-3	1977 10	21.39792	01 21	27.38	+08 47	38.4		4	675
3109	T-3	1977 10	21.45799	01 21	24.84	+08 47	23.8		4	675
3109	T-3	1977 10	22.39844	01 20	44.44	+08 43	25.8		4	675
3109	T-3	1977 10	22.45920	01 20	41.77	+08 43	08.6		4	675
3226	T-3	1977 10	07.27031	01 28	25.40	+04 15	39.9		4	675
3226	T-3	1977 10	07.28125	01 28	24.82	+04 15	40.1		4	675
3226	T-3	1977 10	11.28819	01 24	20.88	+04 11	54.3		4	675
3226	T-3	1977 10	11.30000	01 24	20.43	+04 11	54.2		4	675
3226	T-3	1977 10	11.35642	01 24	16.52	+04 11	51.3		4	675
3226	T-3	1977 10	11.36771	01 24	16.06	+04 11	49.4		4	675
3226	T-3	1977 10	12.28681	01 23	19.08	+04 10	59.7		4	675
3226	T-3	1977 10	12.29826	01 23	18.37	+04 10	59.3		4	675
3226	T-3	1977 10	12.35347	01 23	14.77	+04 10	55.4		4	675
3226	T-3	1977 10	12.36441	01 23	14.11	+04 10	55.7		4	675
3226	T-3	* 1977 10	16.27309	01 19	10.21	+04 07	47.2	17.2	4	675
3226	T-3	1977 10	16.28368	01 19	09.54	+04 07	47.5		4	675
3226	T-3	1977 10	16.33872	01 19	05.95	+04 07	45.1		4	675
3226	T-3	1977 10	16.34931	01 19	05.19	+04 07	45.7		4	675
3226	T-3	1977 10	17.27552	01 18	07.36	+04 07	05.7		4	675
3226	T-3	1977 10	17.28628	01 18	06.75	+04 07	07.1		4	675
3226	T-3	1977 10	17.34236	01 18	03.01	+04 07	03.9		4	675
3226	T-3	1977 10	17.35313	01 18	02.40	+04 07	03.8		4	675
3226	T-3	1977 10	21.39792	01 13	51.44	+04 04	56.1		4	675
3226	T-3	1977 10	21.45799	01 13	47.67	+04 04	55.6		4	675
3226	T-3	1977 10	22.39844	01 12	50.32	+04 04	35.1		4	675
3226	T-3	1977 10	22.45920	01 12	46.50	+04 04	33.2		4	675
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(6)		1991 09	14.34705	22 21	19.84	-21 30	00.7		9	675

(6)	1991 09	16.27778	22 20	15.76	-21 52	18.9	9	675
(6)	1991 09	16.32500	22 20	14.13	-21 52	49.9	9	675
(7)	1991 09	10.31389	22 49	50.09	+04 22	14.4	9	675
(7)	1991 09	10.36476	22 49	47.19	+04 21	59.3	9	675
(32)	1982 10	14.15764	19 56	46.11	-14 25	33.1	6	675
(34)	1992 06	28.30694	16 47	23.88	-14 09	51.5	9	675
(34)	1992 06	28.33732	16 47	22.67	-14 09	51.5	9	675
(34)	1992 06	29.26510	16 46	45.31	-14 09	49.3	9	675
(34)	1992 06	29.29497	16 46	44.09	-14 09	49.4	9	675
(34)	1992 06	30.27135	16 46	05.80	-14 09	51.4	9	675
(34)	1992 06	30.30122	16 46	04.59	-14 09	51.1	9	675
(36)	1992 08	03.44792	03 17	27.90	+26 28	12.3	9	675
(36)	1992 08	03.47448	03 17	30.93	+26 28	39.5	9	675
(40)	1977 12	07.26979	04 38	54.11	+19 17	14.5	6	675
(40)	1977 12	08.22292	04 37	49.02	+19 17	24.2	6	675
(56)	1991 09	10.31389	23 02	40.59	+01 19	14.5	9	675
(56)	1991 09	10.36476	23 02	38.27	+01 18	42.8	9	675
(69)	1992 08	02.34566	22 38	14.84	-01 26	15.9	9	675
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(69)	1992 08	06.43490	22 36	01.36	-01 41	34.7	9	675
(69)	1992 08	06.48056	22 35	59.70	-01 41	46.9	9	675
(78)	1992 08	02.32882	22 25	06.32	-11 40	43.1	9	675
(78)	1992 08	02.37118	22 25	04.36	-11 40	49.0	9	675
(78)	1992 08	06.36493	22 21	58.12	-11 50	30.7	9	675
(78)	1992 08	06.40416	22 21	56.17	-11 50	36.1	9	675
(98)	1954 10	06.33021	01 29	21.92	+21 35	58.9	6	675
(98)	1954 10	06.35139	01 29	20.49	+21 35	59.7	6	675
(108)	1992 08	02.32882	22 14	32.53	-13 43	54.2	9	675
(108)	1992 08	02.37118	22 14	30.84	-13 44	01.9	9	675
(108)	1992 08	06.36493	22 11	51.10	-13 56	15.9	9	675
(108)	1992 08	06.40416	22 11	49.41	-13 56	22.9	9	675
(122)	1992 06	08.29271	15 53	29.16	-18 03	07.9	9	675
(122)	1992 06	08.33524	15 53	27.28	-18 03	02.9	9	675
(133)	1992 08	03.47448	03 33	43.54	+26 16	21.1	9	675
(135)	1992 06	04.26024	15 15	33.02	-22 11	07.4	9	675
(135)	1992 06	04.29271	15 15	31.23	-22 11	00.8	9	675
(135)	1992 06	06.26441	15 13	50.63	-22 03	52.8	9	675
(135)	1992 06	06.29931	15 13	48.83	-22 03	45.6	9	675
(147)	1992 08	02.32882	22 07	32.81	-08 37	41.4	9	675
(147)	1992 08	02.37118	22 07	31.12	-08 37	49.5	9	675
(147)	1992 08	06.35174	22 04	52.96	-08 50	22.4	9	675
(147)	1992 08	06.36493	22 04	52.50	-08 50	26.6	9	675
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(153)	1992 07	31.34236	21 37	01.34	-02 49	09.9	9	675
(153)	1992 07	31.37830	21 37	00.04	-02 49	14.9	9	675
(153)	1992 08	02.32188	21 35	50.64	-02 53	36.7	9	675
(153)	1992 08	02.36510	21 35	49.04	-02 53	42.9	9	675
(153)	1992 08	06.34373	21 33	23.08	-03 03	48.4	9	675
(153)	1992 08	06.38524	21 33	21.50	-03 03	55.1	9	675
(155)	1992 06	06.26441	15 15	39.87	-23 19	36.9	9	675
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(191)	1991 09	13.23385	21 04	42.01	-12 45	58.3	9	675
(191)	1991 09	13.29080	21 04	40.69	-12 46	20.7	9	675

(191)	1991 09 14.22390	21 04 21.16	-12 52 24.1	9 675
(191)	1991 09 14.26053	21 04 20.38	-12 52 38.0	9 675
(206)	1992 08 02.32882	22 28 30.78	-09 40 35.3	9 675
(206)	1992 08 02.37118	22 28 29.24	-09 40 47.7	9 675
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(361)	1991 09 16.27778	22 21 48.54	-22 37 29.4	9 675
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(390)	1991 09 10.31389	23 00 47.07	+07 26 10.2	9 675
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(861)	1992 08 06.35833	22 08 42.16	-17 39 01.4	9 675
(861)	1992 08 06.39757	22 08 40.58	-17 39 17.0	9 675
(874)	1991 09 12.20822	21 47 06.84	-03 16 20.6	9 675
(874)	1991 09 12.26152	21 47 05.01	-03 16 42.3	9 675
(890)	1951 07 30.29028	19 51 52.55	-09 52 18.2	6 675
(890)	1951 07 30.31528	19 51 51.40	-09 52 27.0	6 675
(919)	1992 08 03.44792	03 31 01.08	+21 31 21.9	9 675
(919)	1992 08 03.47448	03 31 03.20	+21 31 28.1	9 675
(932)	1992 06 06.26441	15 07 48.05	-27 04 42.4	9 675
(932)	1992 06 06.29931	15 07 46.25	-27 04 35.6	9 675
(943)	1991 09 14.29740	22 41 37.76	-20 53 53.6	9 675

(943)	1991 09	14.34705	22 41	35.58	-20 54	07.3	9	675
(958)	1992 08	03.44792	03 11	35.45	+22 19	12.8	9	675
(958)	1992 08	03.47448	03 11	36.85	+22 19	20.9	9	675
(960)	1992 08	03.44792	03 20	12.22	+20 45	08.0	9	675
(960)	1992 08	03.47448	03 20	14.94	+20 45	19.2	9	675
(1001)	1951 07	30.29028	19 42	31.28	-12 48	32.2	6	675
(1001)	1951 07	30.31528	19 42	30.10	-12 48	34.1	6	675
(1014)	1992 08	02.32882	22 03	44.92	-08 38	13.6	9	675
(1014)	1992 08	02.37118	22 03	43.00	-08 38	22.4	9	675
(1014)	1992 08	06.35174	22 00	49.04	-08 52	09.4	9	675
(1014)	1992 08	06.36493	22 00	48.46	-08 52	12.7	9	675
(1014)	1992 08	06.39149	22 00	47.19	-08 52	18.1	9	675
(1014)	1992 08	06.40416	22 00	46.69	-08 52	22.5	9	675
(1014)	1992 08	07.34688	22 00	04.14	-08 55	46.2	9	675
(1014)	1992 08	07.38194	22 00	02.49	-08 55	54.1	9	675
(1023)	1992 07	31.34236	21 33	41.52	-01 32	24.9	9	675
(1023)	1992 07	31.37830	21 33	40.07	-01 32	32.4	9	675
(1023)	1992 08	02.32188	21 32	22.96	-01 39	50.0	9	675
(1023)	1992 08	02.36510	21 32	21.17	-01 40	00.1	9	675
(1023)	1992 08	06.34373	21 29	37.80	-01 56	37.1	9	675
(1023)	1992 08	06.38524	21 29	36.03	-01 56	48.0	9	675
(1028)	1991 09	14.29740	22 33	02.85	-23 13	01.5	9	675
(1028)	1991 09	14.34705	22 33	00.71	-23 13	08.0	9	675
(1062)	1992 08	02.32882	22 20	18.83	-12 54	36.2	9	675
(1062)	1992 08	02.37118	22 20	17.08	-12 54	42.9	9	675
(1062)	1992 08	06.36493	22 17	30.40	-13 05	20.5	9	675
(1062)	1992 08	06.40416	22 17	28.67	-13 05	27.0	9	675
(1072)	1992 06	06.26441	15 37	29.31	-24 06	59.0	9	675
(1072)	1992 06	06.29931	15 37	27.66	-24 06	55.5	9	675
(1082)	1992 06	04.26024	15 20	08.52	-15 37	01.8	9	675
(1082)	1992 06	04.29271	15 20	07.12	-15 36	56.8	9	675
(1116)	1991 09	16.27778	21 57	45.60	-22 58	59.0	9	675
(1116)	1991 09	16.32500	21 57	43.24	-22 58	51.1	9	675
(1122)	1991 09	14.29740	22 22	33.92	-19 33	28.9	9	675
(1122)	1991 09	14.34705	22 22	31.41	-19 33	35.7	9	675
(1129)	1953 03	09.31250	10 43	27.37	-04 57	32.3	6	675
(1129)	1953 03	09.33576	10 43	26.22	-04 57	26.1	6	675
(1129)	1992 08	02.34566	22 11	11.39	+00 10	35.2	9	675
(1129)	1992 08	02.38559	22 11	09.70	+00 10	34.3	9	675
(1129)	1992 08	06.41024	22 08	25.48	+00 08	10.4	9	675
(1129)	1992 08	06.43490	22 08	24.48	+00 08	10.4	9	675
(1129)	1992 08	06.45399	22 08	23.58	+00 08	08.3	9	675
(1129)	1992 08	06.48056	22 08	22.45	+00 08	07.6	9	675
(1129)	1992 08	07.35972	22 07	44.95	+00 07	14.9	9	675
(1129)	1992 08	07.42309	22 07	42.16	+00 07	12.4	9	675
(1143)	1992 06	04.26024	15 21	46.55	-17 28	17.3	9	675
(1143)	1992 06	04.29271	15 21	45.65	-17 28	13.5	9	675
(1152)	1992 08	02.32882	22 06	26.80	-13 20	40.5	9	675
(1152)	1992 08	02.37118	22 06	24.52	-13 20	47.6	9	675
(1152)	1992 08	06.36493	22 02	51.37	-13 31	47.3	9	675
(1152)	1992 08	06.40416	22 02	49.10	-13 31	54.0	9	675
(1167)	1992 06	04.26024	15 24	18.93	-16 30	52.7	9	675
(1167)	1992 06	04.29271	15 24	17.69	-16 30	45.8	9	675
(1176)	1982 10	14.15764	19 37	44.87	-16 39	34.2	6	675
(1176)	1991 09	13.20573	20 25	06.39	-12 04	12.0	9	675
(1176)	1991 09	13.26619	20 25	05.21	-12 04	16.0	9	675
(1198)	1992 08	03.44792	03 23	57.84	+21 26	09.5	9	675
(1198)	1992 08	03.47448	03 24	01.84	+21 26	24.2	9	675
(1215)	1992 08	05.41337	21 59	53.18	-20 28	10.9	9	675

17.0



(1215)	1992 08 05.45208	21 59 51.46	-20 28 39.4	9 675
(1215)	1992 08 06.35833	21 59 12.86	-20 39 52.4	9 675
(1215)	1992 08 06.39757	21 59 11.07	-20 40 21.5	9 675
(1225)	1978 10 27.30539	00 58 33.42	+07 24 50.9	6 675
(1225)	1978 10 28.29411	00 57 39.99	+07 20 54.2	6 675
(1225)	1978 10 29.30729	00 56 46.38	+07 16 57.6	6 675
(1225)	1978 11 28.16875	00 43 25.33	+06 28 09.8	6 675
(1225)	1978 11 29.16308	00 43 27.89	+06 29 12.9	6 675
(1243)	1992 06 04.26024	15 11 03.06	-20 33 09.6	9 675
(1243)	1992 06 04.29271	15 11 01.82	-20 32 56.5	9 675
(1245)	1981 05 08.43507	15 36 33.35	-14 58 50.0	6 675
(1245)	1981 05 09.38021	15 35 47.01	-14 55 45.4	6 675
(1249)	1991 09 13.23385	21 03 58.87	-09 03 36.3	9 675
(1249)	1991 09 13.29080	21 03 57.02	-09 03 48.9	9 675
(1249)	1991 09 14.22390	21 03 29.15	-09 07 17.8	9 675
(1249)	1991 09 14.26053	21 03 27.99	-09 07 25.8	9 675
(1256)	1992 06 04.26024	14 58 49.23	-17 26 06.8	9 675
(1256)	1992 06 04.29271	14 58 48.12	-17 26 01.7	9 675
(1262)	1992 08 05.41337	22 04 01.94	-18 16 41.1	9 675
(1262)	1992 08 05.45208	22 04 00.35	-18 17 00.1	9 675
(1262)	1992 08 06.35833	22 03 23.93	-18 24 23.4	9 675
(1262)	1992 08 06.39757	22 03 22.24	-18 24 42.5	9 675
(1298)	1954 10 06.33021	01 19 42.40	+17 34 14.1	6 675
(1298)	1954 10 06.35139	01 19 41.37	+17 34 07.1	6 675
(1314)	1992 08 02.34566	22 20 05.04	-01 45 51.8	9 675
(1314)	1992 08 02.38559	22 20 03.21	-01 45 53.9	9 675
(1314)	1992 08 06.43490	22 17 05.20	-01 47 26.2	9 675
(1314)	1992 08 06.48056	22 17 02.96	-01 47 27.6	9 675
(1316)	1992 06 04.26024	15 24 23.16	-17 25 23.8	9 675
(1316)	1992 06 04.29271	15 24 21.44	-17 25 03.3	9 675
(1317)	1992 08 03.44792	03 31 30.98	+28 19 03.2	9 675
(1317)	1992 08 03.47448	03 31 33.24	+28 19 23.9	9 675
(1320)	1977 12 07.26979	04 36 32.09	+21 37 05.5	6 675
(1320)	1977 12 08.22292	04 35 37.61	+21 38 47.8	6 675
(1348)	1991 09 14.29740	22 31 56.89	-19 08 36.0	9 675
(1348)	1991 09 14.34705	22 31 54.51	-19 08 46.6	9 675
(1349)	1992 08 04.34549	21 29 40.98	-11 48 09.9	9 675
(1349)	1992 08 05.31667	21 28 49.47	-11 48 32.1	9 675
(1349)	1992 08 05.39844	21 28 44.96	-11 48 34.2	9 675
(1349)	1992 08 07.29740	21 27 03.73	-11 49 23.8	9 675
(1349)	1992 08 07.32986	21 27 01.92	-11 49 24.9	9 675
(1381)	1992 06 06.26441	15 13 21.68	-24 50 43.2	9 675
(1381)	1992 06 06.29931	15 13 19.89	-24 50 36.5	9 675
(1410)	1992 08 06.35174	21 46 58.56	-05 16 17.1	9 675
(1410)	1992 08 06.39149	21 46 56.82	-05 16 31.1	9 675
(1410)	1992 08 07.34688	21 46 17.62	-05 22 09.7	9 675
(1410)	1992 08 07.38194	21 46 16.11	-05 22 22.4	9 675
(1416)	1992 08 05.41337	21 56 24.63	-21 20 07.6	9 675
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(1416)	1992 08 06.35833	21 55 37.08	-21 22 19.9	9 675
(1416)	1992 08 06.39757	21 55 35.04	-21 22 26.0	9 675
(1424)	1991 09 16.27778	22 17 14.52	-24 00 27.2	9 675
(1424)	1991 09 16.32500	22 17 12.58	-24 00 27.4	9 675
(1435)	1991 09 13.20573	20 44 05.24	-13 49 28.5	9 675
(1435)	1991 09 13.23385	20 44 04.48	-13 49 32.9	9 675
(1435)	1991 09 13.26619	20 44 03.52	-13 49 42.0	9 675
(1435)	1991 09 13.29080	20 44 02.87	-13 49 44.5	9 675
(1435)	1991 09 14.22390	20 43 39.10	-13 52 56.9	9 675
(1435)	1991 09 14.26053	20 43 37.82	-13 53 04.1	9 675

18.5

(1465)	1992 08 04.34549	21 19 10.92	-07 47 06.0	9	675
(1465)	1992 08 05.31667	21 18 27.56	-07 52 51.9	9	675
(1465)	1992 08 05.39844	21 18 23.77	-07 53 20.9	9	675
(1465)	1992 08 07.29740	21 16 58.68	-08 04 44.3	9	675
(1502)	1991 09 13.20573	20 42 26.32	-12 58 45.3	17.0	9 675
(1502)	1991 09 13.23385	20 42 25.74	-12 58 51.2	9	675
(1502)	1991 09 13.26619	20 42 25.00	-12 58 57.9	9	675
(1502)	1991 09 13.29080	20 42 24.48	-12 59 02.5	9	675
(1502)	1991 09 14.22390	20 42 05.77	-13 02 02.2	9	675
(1502)	1991 09 14.26053	20 42 04.99	-13 02 09.0	9	675
(1503)	1992 08 02.32882	22 14 40.47	-08 10 12.5	9	675
(1503)	1992 08 02.37118	22 14 38.33	-08 10 13.9	9	675
(1503)	1992 08 06.36493	22 11 15.34	-08 12 03.1	9	675
(1503)	1992 08 06.40416	22 11 13.22	-08 12 04.9	9	675
(1522)	1992 08 05.41337	22 23 31.14	-19 32 24.9	9	675
(1522)	1992 08 05.45208	22 23 29.15	-19 32 39.0	9	675
(1522)	1992 08 06.35833	22 22 45.31	-19 38 18.8	9	675
(1522)	1992 08 06.39757	22 22 43.29	-19 38 33.4	9	675
(1529)	1991 09 14.29740	22 41 58.14	-19 42 46.6	9	675
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(1534)	1991 09 14.29740	22 45 09.11	-23 32 14.9	17.2	9 675
(1534)	1991 09 14.34705	22 45 06.43	-23 32 24.0	9	675
(1541)	1978 10 27.30539	01 01 29.18	+09 24 01.4	6	675
(1541)	1978 10 28.29411	01 00 43.23	+09 20 22.7	6	675
(1541)	1978 10 29.30729	00 59 56.99	+09 16 40.5	6	675
(1541)	1978 11 28.16875	00 46 00.43	+08 08 02.8	6	675
(1541)	1978 11 29.16308	00 45 53.14	+08 07 32.4	6	675
(1546)	1991 09 12.20822	21 20 26.99	+00 01 03.3	9	675
(1546)	1991 09 12.26152	21 20 25.38	+00 00 38.3	9	675
(1563)	1992 06 08.29271	15 34 32.47	-21 44 56.2	9	675
(1563)	1992 06 08.33524	15 34 30.15	-21 44 56.3	9	675
(1680)	1992 06 04.26024	15 05 52.87	-14 16 51.2	9	675
(1680)	1992 06 04.29271	15 05 51.60	-14 16 52.8	9	675
(1709)	1991 09 13.23385	20 54 08.74	-09 25 26.4	9	675
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(1709)	1991 09 14.22390	20 53 57.60	-09 23 28.4	9	675
(1709)	1991 09 14.26053	20 53 57.08	-09 23 23.8	9	675
(1731)	1981 05 08.43507	15 47 28.63	-11 27 09.9	6	675
(1731)	1981 05 09.38021	15 46 47.18	-11 24 07.6	6	675
(1732)	1992 08 06.35174	21 42 55.79	-08 58 08.9	9	675
(1732)	1992 08 06.39149	21 42 54.05	-08 58 25.3	9	675
(1732)	1992 08 07.29740	21 42 16.80	-09 05 02.5	9	675
(1760)	1991 09 10.31389	22 58 53.86	+05 14 23.8	9	675
(1760)	1991 09 10.36476	22 58 51.65	+05 14 07.5	9	675
(1778)	1992 06 08.29271	15 57 35.28	-17 57 26.7	9	675
(1778)	1992 06 08.33524	15 57 33.43	-17 57 26.1	9	675
(1793)	1992 08 04.34549	21 31 06.43	-11 55 03.2	9	675
(1793)	1992 08 05.31667	21 30 08.35	-11 59 39.9	9	675
(1793)	1992 08 05.39844	21 30 03.25	-12 00 03.4	9	675
(1793)	1992 08 07.29740	21 28 08.76	-12 09 11.9	9	675
(1793)	1992 08 07.32986	21 28 06.69	-12 09 21.5	9	675
(1816)	1991 09 13.23385	21 08 10.89	-11 54 49.3	9	675
(1816)	1991 09 13.29080	21 08 08.93	-11 55 26.6	9	675
(1816)	1991 09 14.22390	21 07 39.47	-12 05 31.1	9	675
(1816)	1991 09 14.26053	21 07 38.22	-12 05 55.1	9	675
(1832)	1992 08 02.34566	22 31 59.67	+01 26 16.8	9	675
(1832)	1992 08 02.38559	22 31 58.12	+01 26 23.5	9	675
(1832)	1992 08 06.43490	22 29 15.88	+01 35 30.8	9	675
(1832)	1992 08 06.48056	22 29 13.98	+01 35 35.4	9	675

(1837)	1978	11	28.16875	00	47	45.66	+10	45	30.4	6	675	
(1837)	1978	11	29.16308	00	47	45.28	+10	42	42.8	6	675	
(1846)	1978	10	27.30539	01	02	53.82	+07	15	55.6	6	675	
(1846)	1978	10	28.29411	01	02	00.39	+07	12	20.6	6	675	
(1846)	1978	10	29.30729	01	01	06.64	+07	08	46.3	6	675	
(1846)	1978	11	28.16875	00	47	24.80	+06	30	20.2	6	675	
(1846)	1978	11	29.16308	00	47	26.96	+06	31	45.5	6	675	
(1855)	1992	08	04.34549	21	10	45.46	-11	35	29.7	9	675	
(1855)	1992	08	05.31667	21	09	47.66	-11	40	36.6	9	675	
(1855)	1992	08	05.39844	21	09	42.69	-11	41	03.9	9	675	
(1856)	1992	08	07.34688	22	11	20.61	-05	08	18.9	9	675	
(1856)	1992	08	07.38194	22	11	18.74	-05	08	33.5	9	675	
(1924)	1978	10	27.30539	00	59	15.13	+08	59	54.9	6	675	
(1924)	1978	10	28.29411	00	58	22.38	+08	55	09.4	6	675	
(1924)	1978	10	29.30729	00	57	29.33	+08	50	20.4	6	675	
(1924)	1978	11	28.16875	00	42	45.31	+07	23	37.4	6	675	
(1924)	1978	11	29.16308	00	42	42.11	+07	23	08.1	6	675	
(1958)	1954	10	06.33021	01	26	57.26	+19	06	17.8	6	675	
(1958)	1954	10	06.35139	01	26	56.08	+19	06	16.6	6	675	
(1982)	1992	06	06.26441	15	32	59.58	-24	38	35.4	9	675	
(1982)	1992	06	06.29931	15	32	57.22	-24	38	36.7	9	675	
(1985)	1992	08	02.34566	22	19	16.60	-00	14	26.3	9	675	
(1985)	1992	08	02.38559	22	19	14.76	-00	14	24.9	9	675	
(1985)	1992	08	06.41024	22	16	21.19	-00	12	36.7	9	675	
(1985)	1992	08	06.43490	22	16	20.11	-00	12	37.0	9	675	
(1985)	1992	08	06.45399	22	16	19.20	-00	12	36.7	9	675	
(1985)	1992	08	06.48056	22	16	18.07	-00	12	36.4	9	675	
(1985)	1992	08	07.35972	22	15	38.73	-00	12	27.1	9	675	
(1985)	1992	08	07.42309	22	15	35.84	-00	12	26.1	9	675	
(1994)	1992	08	03.44792	03	42	17.52	+24	55	31.2	18.0	9	675
(1994)	1992	08	03.47448	03	42	20.01	+24	55	42.9	9	675	
(2062)	1955	12	17.19653	03	37	03.93	-28	47	55.2	6	675	
(2062)	1955	12	17.20139	03	37	03.11	-28	47	38.4	6	675	
(2062)	1955	12	17.20417	03	37	02.37	-28	47	23.8	6	675	
(2114)	1978	10	27.30539	01	11	50.01	+07	55	26.0	6	675	
(2114)	1978	10	28.27848	01	11	10.97	+07	51	32.3	6	675	
(2114)	1978	10	29.30729	01	10	30.18	+07	47	30.0	6	675	
(2114)	1978	11	28.16875	00	57	01.49	+06	25	39.4	6	675	
(2114)	1978	11	29.16308	00	56	49.81	+06	24	27.6	6	675	
(2128)	1991	09	14.29740	22	20	54.94	-23	03	20.2	9	675	
(2128)	1991	09	14.34705	22	20	52.00	-23	02	19.8	9	675	
(2128)	1991	09	16.27778	22	19	08.66	-22	23	16.8	9	675	
(2128)	1991	09	16.32500	22	19	06.09	-22	22	19.9	9	675	
(2167)	1992	07	31.34236	21	31	44.27	-05	54	57.7	9	675	
(2167)	1992	07	31.37830	21	31	42.35	-05	55	03.0	9	675	
(2167)	1992	08	02.32188	21	30	01.64	-06	00	33.9	9	675	
(2167)	1992	08	02.36510	21	29	59.37	-06	00	41.3	9	675	
(2167)	1992	08	04.34549	21	28	14.93	-06	06	42.8	9	675	
(2167)	1992	08	05.31667	21	27	23.38	-06	09	47.4	9	675	
(2167)	1992	08	05.39844	21	27	18.90	-06	10	03.1	9	675	
(2167)	1992	08	07.29740	21	25	37.35	-06	16	18.6	9	675	
(2167)	1992	08	07.32986	21	25	35.49	-06	16	26.1	9	675	
(2180)	1992	07	31.34236	21	40	50.49	+01	11	18.2	9	675	
(2180)	1992	07	31.37830	21	40	48.96	+01	11	15.1	9	675	
(2180)	1992	08	02.32188	21	39	27.73	+01	08	11.3	9	675	
(2180)	1992	08	02.36510	21	39	25.85	+01	08	06.5	9	675	
(2180)	1992	08	06.34373	21	36	32.89	+00	59	44.4	9	675	
(2180)	1992	08	06.38524	21	36	30.98	+00	59	38.6	9	675	
(2230)	1981	05	08.43507	15	40	26.57	-15	43	31.5	6	675	

(2230)	1981 05 09.38021	15 39 39.88	-15 40 32.1		6 675
(2274)	1992 08 02.32882	22 03 55.76	-13 32 36.0	17.5	9 675
(2274)	1992 08 02.37118	22 03 53.45	-13 32 47.3		9 675
(2274)	1992 08 06.36493	22 00 17.78	-13 50 11.8		9 675
(2274)	1992 08 06.40416	22 00 15.49	-13 50 21.6		9 675
(2304)	1953 03 09.31250	10 35 27.19	-03 53 05.4		6 675
(2304)	1953 03 09.33576	10 35 26.11	-03 52 52.5		6 675
(2309)	1992 08 04.34549	21 35 47.65	-08 54 19.4		9 675
(2309)	1992 08 05.31667	21 35 06.64	-09 00 23.7		9 675
(2309)	1992 08 05.39844	21 35 03.07	-09 00 53.7		9 675
(2309)	1992 08 07.29740	21 33 42.00	-09 12 56.7		9 675
(2309)	1992 08 07.32986	21 33 40.52	-09 13 08.9		9 675
(2323)	1992 08 05.41337	21 56 21.12	-17 28 10.0		9 675
(2323)	1992 08 05.45208	21 56 19.41	-17 28 18.7		9 675
(2323)	1992 08 06.35833	21 55 39.37	-17 31 25.9		9 675
(2323)	1992 08 06.39757	21 55 37.61	-17 31 34.5		9 675
(2380)	1978 11 28.16875	00 58 54.46	+09 29 50.3		6 675
(2380)	1978 11 29.16308	00 58 55.55	+09 29 00.5		6 675
(2401)	1992 06 08.29271	15 49 53.30	-21 48 04.8		9 675
(2401)	1992 06 08.33524	15 49 51.11	-21 48 02.0		9 675
(2403)	1991 09 13.23385	21 09 31.99	-12 37 30.1		9 675
(2403)	1991 09 13.29080	21 09 30.59	-12 37 34.8		9 675
(2403)	1991 09 14.22390	21 09 10.62	-12 38 46.7		9 675
(2403)	1991 09 14.26053	21 09 09.75	-12 38 49.5		9 675
(2446)	1992 06 04.26024	15 05 49.43	-21 40 24.2		9 675
(2446)	1992 06 04.29271	15 05 47.94	-21 40 20.3		9 675
(2454)	1992 08 03.47448	03 39 09.54	+22 33 39.1		9 675
(2483)	1977 12 07.26979	04 38 50.86	+22 07 43.4		6 675
(2483)	1977 12 08.22292	04 38 07.65	+22 04 47.2		6 675
(2493)	1981 05 08.43507	15 48 00.55	-13 36 05.6		6 675
(2493)	1981 05 09.38021	15 47 15.05	-13 30 52.9		6 675
(2499)	1992 06 08.29271	15 50 02.16	-19 09 13.7		9 675
(2499)	1992 06 08.33524	15 50 00.33	-19 09 08.7		9 675
(2509)	1992 06 06.26441	15 24 06.43	-23 33 45.9		9 675
(2509)	1992 06 06.29931	15 24 04.51	-23 33 38.3		9 675
(2562)	1949 11 19.13194	00 14 59.54	+11 11 02.1		6 675
(2590)	1992 08 03.44792	03 27 09.25	+20 46 41.6		9 675
(2590)	1992 08 03.47448	03 27 12.10	+20 46 49.0		9 675
(2594)	1978 10 27.30539	00 58 32.81	+09 08 04.6		6 675
(2594)	1978 10 28.29411	00 58 05.70	+09 05 39.0		6 675
(2594)	1978 10 29.30729	00 57 38.16	+09 03 10.0		6 675
(2594)	1978 11 28.16875	00 48 13.20	+08 09 25.5		6 675
(2594)	1978 11 29.16308	00 48 04.34	+08 08 30.5		6 675
(2612)	1991 09 14.29740	22 49 40.91	-22 00 58.9		9 675
(2612)	1991 09 14.34705	22 49 38.69	-22 01 20.4		9 675
(2645)	1954 10 06.33021	01 18 38.24	+21 49 46.6		6 675
(2645)	1954 10 06.35139	01 18 36.43	+21 49 49.1		6 675
(2659)	1992 06 08.29271	15 30 34.24	-17 06 05.5		9 675
(2659)	1992 06 08.33524	15 30 32.79	-17 05 56.9		9 675
(2673)	1977 12 07.26979	04 55 43.18	+22 47 05.0		6 675
(2673)	1977 12 08.22292	04 54 54.55	+22 46 15.3		6 675
(2676)	1978 11 28.16875	00 39 39.07	+11 29 58.3		6 675
(2676)	1978 11 29.16308	00 39 54.02	+11 28 02.4		6 675
(2691)	1992 08 03.47448	03 23 06.23	+22 02 30.2		9 675
(2709)	1992 06 04.26024	15 04 40.96	-17 26 31.9		9 675
(2709)	1992 06 04.29271	15 04 39.55	-17 26 23.0		9 675
(2726)	1992 06 06.26441	15 19 42.74	-20 28 57.2		9 675
(2726)	1992 06 06.29931	15 19 41.25	-20 28 51.5		9 675
(2727)	1991 09 13.20573	20 51 13.17	-13 12 11.6	17.0	9 675

(2727)	1991 09	13.23385	20 51	12.49	-13 12	16.3	9	675
(2727)	1991 09	13.26619	20 51	11.56	-13 12	23.2	9	675
(2727)	1991 09	13.29080	20 51	11.01	-13 12	28.4	9	675
(2727)	1991 09	14.22390	20 50	49.17	-13 15	34.7	9	675
(2727)	1991 09	14.26053	20 50	48.29	-13 15	41.6	9	675
(2746)	1992 08	04.34549	21 19	52.14	-10 53	12.1	9	675
(2746)	1992 08	05.31667	21 18	55.96	-10 58	46.2	9	675
(2746)	1992 08	05.39844	21 18	51.08	-10 59	13.7	9	675
(2746)	1992 08	07.29740	21 17	00.28	-11 10	16.6	9	675
(2746)	1992 08	07.32986	21 16	58.32	-11 10	28.1	9	675
(2748)	1992 08	03.44792	03 19	48.20	+21 07	41.4	9	675
(2748)	1992 08	03.47448	03 19	50.19	+21 07	49.5	9	675
(2755)	1992 08	06.41024	22 11	12.07	-02 49	39.0	9	675
(2755)	1992 08	06.45399	22 11	10.35	-02 49	44.4	9	675
(2755)	1992 08	07.35972	22 10	35.44	-02 51	39.0	17.2	9 675
(2755)	1992 08	07.42309	22 10	32.79	-02 51	46.9	9	675
(2770)	1992 06	06.26441	15 18	22.03	-20 33	21.7	9	675
(2770)	1992 06	06.29931	15 18	20.27	-20 33	18.4	9	675
(2771)	1978 10	27.30539	00 51	08.03	+07 53	40.3	6	675
(2771)	1978 10	28.29411	00 50	38.82	+07 41	59.7	6	675
(2771)	1978 10	29.30729	00 50	10.10	+07 30	12.8	6	675
(2795)	1992 07	31.34236	21 36	48.02	-03 37	31.3	16.8	9 675
(2795)	1992 07	31.37830	21 36	46.09	-03 37	38.9	9	675
(2795)	1992 08	02.32188	21 35	05.11	-03 45	02.7	9	675
(2795)	1992 08	02.36510	21 35	02.76	-03 45	12.8	9	675
(2795)	1992 08	06.34373	21 31	28.14	-04 02	23.8	9	675
(2795)	1992 08	06.38524	21 31	25.64	-04 02	36.1	9	675
(2840)	1992 06	04.26024	15 10	24.01	-17 59	59.9	9	675
(2840)	1992 06	04.29271	15 10	22.17	-18 00	01.0	9	675
(2872)	1977 12	07.26979	04 36	49.73	+21 13	04.9	6	675
(2872)	1977 12	08.22292	04 35	54.44	+21 10	01.7	6	675
(2881)	1991 09	13.23385	21 02	17.56	-13 41	00.1	9	675
(2881)	1991 09	13.29080	21 02	15.66	-13 41	17.2	9	675
(2881)	1991 09	14.22390	21 01	48.15	-13 45	29.4	9	675
(2881)	1991 09	14.26053	21 01	47.01	-13 45	37.5	9	675
(2890)	1978 10	27.30539	00 49	33.79	+12 10	08.3	6	675
(2890)	1978 10	28.29411	00 48	42.13	+12 08	40.5	6	675
(2890)	1978 10	29.30729	00 47	50.82	+12 07	11.0	6	675
(2934)	1981 05	08.43507	15 35	52.17	-12 42	24.0	6	675
(2934)	1981 05	09.38021	15 35	10.54	-12 37	24.9	6	675
(2968)	1949 11	19.13194	00 01	46.39	+14 58	33.1	6	675
(2968)	1949 11	19.15799	00 01	47.22	+14 58	24.2	6	675
(2969)	1992 08	02.32882	21 56	58.28	-10 30	21.0	9	675
(2969)	1992 08	02.37118	21 56	56.50	-10 30	31.5	9	675
(2969)	1992 08	06.36493	21 54	00.58	-10 47	27.9	9	675
(2969)	1992 08	06.40416	21 53	58.75	-10 47	37.8	9	675
(2985)	1992 08	05.41337	22 04	34.14	-16 04	59.2	9	675
(2985)	1992 08	05.45208	22 04	32.33	-16 05	07.8	9	675
(2985)	1992 08	06.35833	22 03	50.98	-16 08	56.5	9	675
(2985)	1992 08	06.39757	22 03	49.12	-16 09	05.4	9	675
(3032)	1977 12	07.26979	04 31	14.82	+20 21	24.0	6	675
(3032)	1977 12	08.22292	04 30	21.73	+20 20	37.0	6	675
(3042)	1992 08	02.34566	22 10	47.92	+00 04	20.7	9	675
(3042)	1992 08	02.38559	22 10	46.28	+00 04	16.6	9	675
(3042)	1992 08	06.41024	22 08	10.44	-00 03	53.9	9	675
(3042)	1992 08	06.45399	22 08	08.50	-00 04	01.0	9	675
(3042)	1992 08	07.35972	22 07	30.89	-00 06	30.6	9	675
(3042)	1992 08	07.42309	22 07	28.00	-00 06	41.4	9	675
(3073)	1992 08	04.34549	21 28	03.64	-06 28	07.5	9	675

(3073)	1992 08 05.31667	21 27 08.67	-06 32 47.5		9 675
(3073)	1992 08 05.39844	21 27 03.88	-06 33 12.4		9 675
(3073)	1992 08 07.29740	21 25 15.08	-06 42 40.8		9 675
(3073)	1992 08 07.32986	21 25 13.09	-06 42 50.9		9 675
(3119)	1992 08 02.32882	22 21 48.65	-14 19 22.2	18.2	9 675
(3119)	1992 08 02.37118	22 21 47.17	-14 19 34.3		9 675
(3119)	1992 08 06.36493	22 19 16.96	-14 40 18.4	18.5	9 675
(3119)	1992 08 06.40416	22 19 15.42	-14 40 28.6		9 675
(3134)	1991 09 10.31389	22 51 11.46	+04 08 04.0		9 675
(3134)	1991 09 10.36476	22 51 09.48	+04 07 52.3		9 675
(3140)	1991 09 16.27778	22 02 05.28	-26 20 42.7		9 675
(3140)	1991 09 16.32500	22 02 03.59	-26 20 49.5		9 675
(3147)	1992 08 04.34549	21 40 15.66	-08 26 04.0		9 675
(3147)	1992 08 05.31667	21 39 27.71	-08 29 52.8		9 675
(3147)	1992 08 07.29740	21 37 48.12	-08 37 59.2		9 675
(3147)	1992 08 07.32986	21 37 46.49	-08 38 08.0		9 675
(3158)	1951 08 24.18194	19 14 33.56	-02 51 16.1		6 675
(3158)	1951 08 24.20764	19 14 33.01	-02 51 28.5		6 675
(3158)	1951 08 26.24028	19 14 00.43	-03 08 06.3		6 675
(3158)	1951 08 26.26528	19 14 00.04	-03 08 18.5		6 675
(3158)	1992 08 06.41024	21 59 55.13	+04 49 02.1		9 675
(3158)	1992 08 06.45399	21 59 53.25	+04 48 44.7		9 675
(3158)	1992 08 07.35972	21 59 15.09	+04 43 22.4		9 675
(3158)	1992 08 07.42309	21 59 12.25	+04 42 59.4		9 675
(3178)	1951 07 30.29028	19 31 12.89	-14 18 04.2		6 675
(3178)	1951 07 30.31528	19 31 11.71	-14 18 06.8		6 675
(3178)	1988 09 13.39340	00 09 14.55	+10 50 15.7		9 675
(3178)	1988 09 13.41736	00 09 13.35	+10 50 08.9		9 675
(3178)	1988 09 14.33507	00 08 28.45	+10 45 38.1	17.5	9 675
(3178)	1988 09 14.36910	00 08 26.69	+10 45 27.6		9 675
(3178)	1992 08 02.34566	22 23 54.07	-00 04 11.6		9 675
(3178)	1992 08 02.38559	22 23 52.51	-00 04 17.3		9 675
(3178)	1992 08 06.43490	22 21 07.27	-00 14 09.8		9 675
(3178)	1992 08 06.48056	22 21 05.39	-00 14 16.9		9 675
(3202)	1992 08 02.34566	22 08 21.07	+01 12 23.0		9 675
(3202)	1992 08 02.38559	22 08 19.77	+01 12 18.4		9 675
(3202)	1992 08 06.41024	22 06 15.99	+01 01 46.8	17.5	9 675
(3202)	1992 08 06.45399	22 06 14.60	+01 01 39.2		9 675
(3202)	1992 08 07.35972	22 05 45.75	+00 59 03.2	17.8	9 675
(3202)	1992 08 07.42309	22 05 43.74	+00 58 52.4		9 675
(3276)	1977 12 07.26979	04 36 01.96	+22 06 10.3		6 675
(3276)	1977 12 08.22292	04 35 10.54	+22 05 33.4		6 675
(3336)	1978 10 27.30539	00 47 43.82	+06 19 18.9		6 675
(3336)	1978 10 28.29411	00 47 09.54	+06 14 47.6		6 675
(3336)	1978 10 29.30729	00 46 35.95	+06 10 18.6		6 675
(3336)	1978 11 28.16875	00 45 02.50	+05 32 00.5		6 675
(3336)	1978 11 29.16308	00 45 29.75	+05 34 00.1		6 675
(3359)	1978 10 28.29411	01 11 25.53	+07 54 22.0		6 675
(3359)	1978 10 29.30729	01 10 26.76	+07 52 50.1		6 675
(3359)	1978 11 28.16875	00 55 06.66	+08 07 45.9		6 675
(3359)	1978 11 29.16308	00 55 07.94	+08 10 42.7		6 675
(3359)	1988 09 10.31667	23 41 14.90	-08 42 59.8	17.0	9 675
(3359)	1988 09 10.35330	23 41 12.51	-08 43 08.4		9 675
(3359)	1988 09 12.33993	23 39 09.76	-08 50 45.1	17.0	9 675
(3359)	1988 09 12.38177	23 39 07.10	-08 50 55.0		9 675
(3359)	1988 10 07.25938	23 15 04.83	-09 45 42.3		9 675
(3359)	1988 10 07.28715	23 15 03.52	-09 45 41.8		9 675
(3382)	1992 08 03.44792	03 24 28.68	+21 19 01.2		9 675
(3382)	1992 08 03.47448	03 24 31.52	+21 19 16.7		9 675

(3405)	1977	12	07.26979	04	46	50.92	+18	23	08.8	6	675
(3405)	1977	12	08.22292	04	45	54.12	+18	17	30.5	6	675
(3410)	1978	10	27.30539	00	50	30.32	+11	28	25.1	6	675
(3410)	1978	10	28.29411	00	49	37.23	+11	23	42.3	6	675
(3410)	1978	10	29.30729	00	48	44.04	+11	18	54.7	6	675
(3421)	1991	09	14.22390	21	10	56.55	-12	03	00.8	9	675
(3421)	1991	09	14.26053	21	10	55.44	-12	03	10.5	9	675
(3428)	1992	08	06.41024	21	57	36.65	+01	23	33.4	9	675
(3428)	1992	08	06.45399	21	57	34.59	+01	23	24.8	9	675
(3428)	1992	08	07.35972	21	56	52.24	+01	20	35.8	9	675
(3428)	1992	08	07.42309	21	56	49.13	+01	20	23.3	9	675
(3444)	1992	08	02.32882	22	11	02.02	-15	26	16.3	9	675
(3444)	1992	08	02.37118	22	10	59.88	-15	26	22.8	9	675
(3444)	1992	08	05.41337	22	08	25.44	-15	34	48.0	9	675
(3444)	1992	08	05.45208	22	08	23.27	-15	34	54.4	9	675
(3444)	1992	08	06.35833	22	07	35.47	-15	37	28.0	9	675
(3444)	1992	08	06.39757	22	07	33.28	-15	37	33.8	9	675
(3505)	1991	09	13.23385	21	05	53.43	-10	51	24.5	9	675
(3505)	1991	09	13.29080	21	05	51.73	-10	51	28.0	9	675
(3505)	1991	09	14.22390	21	05	25.18	-10	52	05.3	9	675
(3505)	1991	09	14.26053	21	05	24.09	-10	52	06.1	9	675
(3507)	1977	12	07.26979	04	43	51.22	+21	02	14.0	6	675
(3507)	1977	12	08.22292	04	43	02.74	+21	01	21.2	6	675
(3531)	1991	09	12.20822	21	37	20.47	-01	07	34.9	9	675
(3548)	1992	06	04.26024	15	23	31.68	-21	02	17.1	9	675
(3548)	1992	06	04.29271	15	23	30.58	-21	02	17.7	9	675
(3548)	1992	06	06.29931	15	22	33.92	-20	59	57.4	9	675
(3552)	1992	08	02.42830	03	19	03.05	+36	56	12.5	18	3 675
(3552)	1992	08	02.46406	03	19	05.81	+36	56	59.0	3	675
(3562)	1981	05	08.43507	15	33	08.42	-11	54	50.3	6	675
(3562)	1981	05	09.38021	15	32	09.78	-11	53	31.6	6	675
(3571)	1954	10	06.33021	01	16	27.13	+16	36	59.6	6	675
(3571)	1954	10	06.35139	01	16	26.24	+16	36	50.4	6	675
(3571)	1992	07	31.34236	21	26	58.40	-04	21	54.3	9	675
(3571)	1992	07	31.37830	21	26	57.06	-04	21	57.8	9	675
(3571)	1992	08	02.32188	21	25	43.87	-04	25	26.5	9	675
(3571)	1992	08	02.36510	21	25	42.21	-04	25	31.3	9	675
(3571)	1992	08	06.34373	21	23	09.46	-04	33	37.2	9	675
(3571)	1992	08	06.38524	21	23	07.74	-04	33	43.7	9	675
(3644)	1992	08	03.47448	03	28	01.79	+20	46	11.5	9	675
(3690)	1978	10	27.30539	01	09	57.79	+12	00	57.4	6	675
(3690)	1978	10	28.29411	01	09	07.36	+11	52	53.1	6	675
(3690)	1978	10	29.30729	01	08	16.73	+11	44	41.9	6	675
(3690)	1978	11	28.16875	00	55	18.29	+08	49	11.8	19.0	6 675
(3690)	1978	11	29.16308	00	55	18.55	+08	46	11.5	6	675
(3692)	1951	08	26.24028	19	32	18.62	-04	34	43.6	6	675
(3692)	1951	08	26.26528	19	32	18.21	-04	34	51.2	6	675
(3715)	1992	08	02.32882	22	25	09.66	-09	30	38.5	9	675
(3715)	1992	08	02.37118	22	25	08.05	-09	30	57.0	9	675
(3715)	1992	08	06.36493	22	22	40.11	-10	00	07.2	9	675
(3715)	1992	08	06.40416	22	22	38.53	-10	00	25.0	9	675
(3730)	1991	09	13.20573	20	37	18.77	-14	48	34.0	16.2	9 675
(3730)	1991	09	13.26619	20	37	17.80	-14	48	29.9	9	675
(3767)	1991	09	14.29740	22	19	19.74	-22	40	37.2	9	675
(3767)	1991	09	14.34705	22	19	17.53	-22	40	52.5	9	675
(3767)	1991	09	16.27778	22	17	56.40	-22	50	49.2	9	675
(3767)	1991	09	16.32500	22	17	54.42	-22	51	03.0	9	675
(3825)	1977	12	07.26979	04	44	59.44	+22	02	38.1	6	675
(3825)	1977	12	08.22292	04	43	50.93	+22	02	47.0	6	675

(3830)	1991 09 12.20822	21 15 22.26	-01 18 34.1	9 675
(3830)	1991 09 12.26152	21 15 20.64	-01 18 49.7	9 675
(3867)	1981 05 08.43507	15 42 26.33	-14 43 08.8	6 675
(3867)	1981 05 09.38021	15 41 28.00	-14 41 57.0	6 675
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(3905)	1992 08 05.41337	22 08 31.39	-20 52 59.6	9 675
(3905)	1992 08 05.45208	22 08 29.04	-20 53 02.9	9 675
(3905)	1992 08 06.35833	22 07 34.54	-20 54 29.7	9 675
(3905)	1992 08 06.39757	22 07 32.08	-20 54 33.3	9 675
(3935)	1991 09 13.20573	20 25 37.63	-13 59 24.8	17.0 9 675
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(3947)	1992 06 04.26024	15 12 04.58	-20 05 30.0	9 675
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(3959)	1991 09 13.29080	21 08 39.18	-11 12 28.6	9 675
(3959)	1991 09 14.22390	21 08 11.99	-11 16 51.2	9 675
(3959)	1991 09 14.26053	21 08 10.87	-11 17 02.1	9 675
(4012)	1991 09 13.20573	20 46 24.76	-09 24 14.8	16.8 9 675
(4012)	1991 09 13.23385	20 46 24.28	-09 24 20.5	9 675
(4012)	1991 09 13.26619	20 46 23.74	-09 24 28.3	9 675
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(4012)	1991 09 14.22390	20 46 10.79	-09 27 52.3	9 675
(4012)	1991 09 14.26053	20 46 10.19	-09 27 59.8	9 675
(4016)	1992 06 08.29271	15 57 31.56	-19 40 43.2	9 675
(4016)	1992 06 08.33524	15 57 29.36	-19 40 37.8	9 675
(4028)	1992 08 04.34549	21 39 48.55	-11 03 25.0	9 675
(4028)	1992 08 05.31667	21 38 59.47	-11 08 04.7	9 675
(4028)	1992 08 05.39844	21 38 55.18	-11 08 27.7	9 675
(4028)	1992 08 07.29740	21 37 17.80	-11 17 43.6	9 675
(4028)	1992 08 07.32986	21 37 16.16	-11 17 54.5	9 675
(4035)	1992 06 04.26024	15 31 22.25	-17 50 16.7	9 675
(4035)	1992 06 04.29271	15 31 21.44	-17 50 11.9	9 675
(4051)	1992 08 03.44792	03 18 42.26	+21 02 40.9	19.0 9 675
(4051)	1992 08 03.47448	03 18 44.16	+21 02 49.8	9 675
(4057)	1992 06 06.26441	15 22 21.55	-20 26 47.8	9 675
(4077)	1977 12 07.26979	04 38 35.57	+22 27 51.3	6 675
(4077)	1977 12 08.22292	04 37 41.28	+22 28 59.1	6 675
(4080)	1977 12 07.26979	04 35 50.03	+18 42 38.4	6 675
(4080)	1977 12 08.22292	04 34 43.86	+18 39 08.1	6 675
(4115)	1992 07 31.34236	21 39 58.78	-00 30 08.1	9 675
(4115)	1992 07 31.37830	21 39 57.20	-00 30 14.5	9 675
(4115)	1992 08 02.32188	21 38 37.48	-00 36 29.2	9 675
(4115)	1992 08 02.36510	21 38 35.64	-00 36 38.5	9 675
(4115)	1992 08 06.34373	21 35 46.80	-00 51 06.5	9 675
(4115)	1992 08 06.38524	21 35 44.97	-00 51 15.9	9 675
(4118)	1992 08 02.37118	22 04 36.55	-07 51 10.2	9 675
(4118)	1992 08 06.35174	22 01 36.24	-07 53 34.7	9 675
(4118)	1992 08 06.36493	22 01 35.67	-07 53 35.5	9 675
(4118)	1992 08 06.39149	22 01 34.32	-07 53 36.7	9 675
(4118)	1992 08 06.40416	22 01 33.81	-07 53 38.3	9 675
(4118)	1992 08 07.34688	22 00 49.41	-07 54 21.7	9 675
(4118)	1992 08 07.38194	22 00 47.66	-07 54 24.1	9 675
(4165)	1992 08 02.34566	22 22 59.63	+03 28 40.7	9 675
(4165)	1992 08 02.38559	22 22 58.29	+03 28 24.7	9 675
(4165)	1992 08 06.43490	22 20 48.04	+02 58 52.0	9 675
(4165)	1992 08 06.48056	22 20 46.37	+02 58 30.5	9 675
(4179)	1992 07 26.33681	20 11 20.93	-19 55 07.0	15.0 2 675
(4179)	1992 07 26.38177	20 11 16.09	-19 55 22.7	2 675
(4195)	1991 09 13.20573	20 37 39.72	-16 42 12.9	9 675



(4195)	1991 09	13.26619	20 37	38.57	-16 42	22.3		9	675
(4197)	1954 09	03.38056	23 59	23.44	-09 09	11.1		6	675
(4197)	1954 09	03.40486	23 59	21.31	-09 09	23.0		6	675
(4200)	1953 03	09.31250	10 34	05.76	-05 40	43.6	17.2	6	675
(4200)	1953 03	09.33576	10 34	04.69	-05 40	34.6		6	675
(4200)	1991 09	12.20822	21 40	50.55	-02 11	13.0		9	675
(4200)	1991 09	12.26152	21 40	48.45	-02 11	31.2		9	675
(4200)	1992 08	03.47448	03 36	53.81	+22 57	44.8		9	675
(4202)	1992 08	04.34549	21 19	47.23	-13 02	23.7		9	675
(4202)	1992 08	05.31667	21 19	04.53	-13 09	21.0		9	675
(4202)	1992 08	05.39844	21 19	00.76	-13 09	55.6		9	675
(4202)	1992 08	07.29740	21 17	36.85	-13 23	35.5		9	675
(4202)	1992 08	07.32986	21 17	35.36	-13 23	49.4		9	675
(4254)	1953 03	09.31250	10 18	46.71	-04 13	57.6		6	675
(4254)	1953 03	09.33576	10 18	45.70	-04 13	42.9		6	675
(4271)	1982 10	14.15764	19 44	38.29	-16 08	35.2		6	675
(4308)	1991 09	13.23385	20 57	14.41	-09 53	48.5		9	675
(4308)	1991 09	13.29080	20 57	12.51	-09 53	48.2		9	675
(4308)	1991 09	14.22390	20 56	44.40	-09 53	17.6		9	675
(4308)	1991 09	14.26053	20 56	43.28	-09 53	16.3		9	675
(4311)	1978 11	28.16875	00 34	35.98	+05 29	33.7	18.8	6	675
(4311)	1978 11	29.16308	00 35	00.21	+05 28	29.5		6	675
(4323)	1991 09	13.20573	20 18	21.23	-11 56	29.4		9	675
(4323)	1991 09	13.26619	20 18	21.39	-11 56	34.2		9	675
(4347)	1992 06	08.29271	15 31	13.29	-18 41	37.7		9	675
(4347)	1992 06	08.33524	15 31	11.73	-18 41	33.6		9	675
(4351)	1992 06	04.26024	15 09	03.94	-14 06	25.9	17.8	9	675
(4351)	1992 06	04.29271	15 09	02.58	-14 06	22.2		9	675
(4360)	1992 06	04.26024	15 17	49.44	-22 05	01.1		9	675
(4360)	1992 06	04.29271	15 17	47.69	-22 04	54.5		9	675
(4373)	1981 05	08.43507	15 52	07.91	-12 05	19.1		6	675
(4373)	1981 05	09.38021	15 51	12.33	-12 01	14.3		6	675
(4392)	1978 11	28.16875	00 49	11.12	+05 39	34.8		6	675
(4392)	1978 11	29.16308	00 49	16.74	+05 43	08.9		6	675
(4412)	1981 05	08.43507	15 45	49.94	-16 43	03.5		6	675
(4412)	1981 05	09.38021	15 45	06.43	-16 40	32.7		6	675
(4415)	1978 11	28.16875	00 55	15.12	+08 49	27.8	20.0	6	675
(4415)	1978 11	29.16308	00 55	09.89	+08 48	15.1		6	675
(4435)	1992 08	05.41337	22 13	47.04	-17 03	47.7		9	675
(4435)	1992 08	05.45208	22 13	44.12	-17 03	43.9		9	675
(4435)	1992 08	06.35833	22 12	37.90	-17 02	25.2		9	675
(4435)	1992 08	06.39757	22 12	34.93	-17 02	21.6		9	675
(4437)	1991 09	13.20573	20 17	15.16	-12 57	44.8	17.8	9	675
(4437)	1991 09	13.26619	20 17	14.73	-12 57	55.9		9	675
(4444)	1992 08	05.41337	21 56	43.07	-17 19	27.9		9	675
(4444)	1992 08	05.45208	21 56	41.29	-17 19	51.4		9	675
(4444)	1992 08	06.35833	21 56	00.99	-17 28	56.7		9	675
(4444)	1992 08	06.39757	21 55	59.02	-17 29	20.5		9	675
(4449)	1992 08	02.32882	22 11	51.91	-07 52	40.6		9	675
(4449)	1992 08	02.37118	22 11	50.11	-07 52	45.9		9	675
(4449)	1992 08	06.36493	22 09	04.98	-08 01	11.4		9	675
(4449)	1992 08	06.40416	22 09	03.26	-08 01	16.9		9	675
(4455)	1992 08	06.41024	21 54	51.69	+01 42	09.9		9	675
(4455)	1992 08	06.45399	21 54	49.79	+01 42	04.3		9	675
(4455)	1992 08	07.35972	21 54	10.89	+01 40	13.1		9	675
(4455)	1992 08	07.42309	21 54	08.09	+01 40	04.2		9	675
(4471)	1992 08	05.41337	22 27	13.07	-18 34	11.3		9	675
(4471)	1992 08	05.45208	22 27	10.94	-18 34	14.8		9	675
(4471)	1992 08	06.35833	22 26	25.09	-18 34	43.8		9	675

(4471)	1992 08 06.39757	22 26 23.02	-18 34 43.9	9	675
(4476)	1992 08 05.41337	22 01 20.35	-16 24 01.5	9	675
(4476)	1992 08 05.45208	22 01 18.39	-16 24 17.5	9	675
(4476)	1992 08 06.35833	22 00 31.74	-16 29 50.9	9	675
(4476)	1992 08 06.39757	22 00 29.49	-16 30 04.2	9	675
(4479)	1991 09 13.20573	20 31 41.73	-16 36 39.1	18.0	9 675
(4479)	1991 09 13.26619	20 31 40.95	-16 36 50.2	9	675
(4500)	1992 08 02.32882	22 14 51.09	-11 27 04.4	9	675
(4500)	1992 08 02.37118	22 14 49.72	-11 27 20.2	9	675
(4500)	1992 08 06.36493	22 12 18.65	-11 44 31.7	18.2	9 675
(4500)	1992 08 06.40416	22 12 17.06	-11 44 42.5	9	675
(4502)	1951 08 26.24028	19 29 08.86	-08 22 10.3	6	675
(4502)	1951 08 26.26528	19 29 08.33	-08 22 20.7	6	675
(4505)	1992 08 05.41337	22 11 53.10	-18 43 18.2	9	675
(4505)	1992 08 05.45208	22 11 51.53	-18 43 34.8	9	675
(4505)	1992 08 06.35833	22 11 15.62	-18 50 13.0	9	675
(4505)	1992 08 06.39757	22 11 13.99	-18 50 29.9	9	675
(4516)	1991 09 13.20573	20 35 11.94	-14 52 43.7	17.8	9 675
(4516)	1991 09 13.26619	20 35 10.87	-14 52 54.2	9	675
(4522)	1991 09 16.27778	22 02 28.81	-22 16 58.9	9	675
(4522)	1991 09 16.32500	22 02 27.46	-22 17 19.1	9	675
(4527)	1992 08 04.34549	21 39 41.71	-12 17 54.6	9	675
(4527)	1992 08 05.31667	21 39 03.85	-12 25 46.1	9	675
(4527)	1992 08 05.39844	21 39 00.34	-12 26 26.7	9	675
(4527)	1992 08 07.29740	21 37 44.13	-12 42 04.3	9	675
(4527)	1992 08 07.32986	21 37 42.66	-12 42 21.9	9	675
(4557)	1991 09 14.29740	22 28 26.99	-21 42 10.1	17.5	9 675
(4557)	1991 09 14.34705	22 28 24.84	-21 42 23.3	9	675
(4561)	1978 10 27.30539	01 05 05.17	+11 45 53.4	6	675
(4561)	1978 10 28.29411	01 04 08.85	+11 45 06.9	6	675
(4561)	1978 10 29.30729	01 03 12.10	+11 44 19.0	6	675
(4578)	1981 05 08.43507	15 46 48.89	-11 31 50.4	6	675
(4578)	1981 05 09.38021	15 45 57.08	-11 29 03.4	6	675
(4693)	1992 06 08.29271	15 53 04.69	-19 58 41.1	9	675
(4693)	1992 06 08.33524	15 53 02.48	-19 58 30.1	9	675
(4715)	1954 10 06.33021	01 25 07.95	+18 37 05.7	6	675
(4715)	1954 10 06.35139	01 25 07.18	+18 37 04.4	6	675
(4728)	1992 06 06.26441	15 07 59.28	-23 27 40.7	9	675
(4728)	1992 06 06.29931	15 07 57.42	-23 27 36.5	9	675
(4756)	1951 07 30.29028	19 36 40.17	-09 40 27.6	6	675
(4756)	1951 07 30.31528	19 36 39.10	-09 40 29.8	6	675
(4794)	1991 09 13.20573	20 23 15.34	-14 53 28.7	17.5	9 675
(4794)	1991 09 13.26619	20 23 14.45	-14 53 41.3	9	675
(4802)	1992 08 02.32882	22 20 09.73	-11 27 57.2	9	675
(4802)	1992 08 02.37118	22 20 08.33	-11 28 07.6	9	675
(4802)	1992 08 06.36493	22 17 57.25	-11 44 18.2	9	675
(4802)	1992 08 06.40416	22 17 55.57	-11 44 28.9	9	675
(4841)	1992 08 02.32882	21 56 05.05	-11 53 07.3	9	675
(4841)	1992 08 02.37118	21 56 02.89	-11 53 19.0	9	675
(4850)	1992 08 02.37118	21 57 13.50	-10 12 15.3	9	675
(4850)	1992 08 06.36493	21 54 21.31	-10 28 29.4	17.5	9 675
(4850)	1992 08 06.40416	21 54 19.54	-10 28 40.7	9	675
(4866)	1981 05 08.43507	15 54 28.52	-15 05 26.6	6	675
(4866)	1981 05 09.38021	15 53 46.09	-15 00 21.9	6	675
(4877)	1951 08 26.24028	19 16 38.88	-05 13 00.6	6	675
(4877)	1951 08 26.26528	19 16 38.44	-05 13 06.6	6	675
(4897)	1992 07 26.39722	20 31 49.91	-02 51 42.9	16.0	2 675
(4897)	1992 07 26.42101	20 31 48.85	-02 51 49.1	2	675
(4897)	1992 07 28.38628	20 30 21.79	-03 00 44.1	2	675

(4897)	1992 07	28.41076	20 30	20.59	-03 00	52.8		2	675
(4920)	1991 09	13.20573	20 38	12.21	-15 46	04.8	18.0	9	675
(4920)	1991 09	13.26619	20 38	11.10	-15 46	14.1		9	675
(4921)	1991 09	13.23385	20 45	18.78	-09 02	25.1		9	675
(4921)	1991 09	13.29080	20 45	17.77	-09 02	39.3		9	675
(4921)	1991 09	14.22390	20 45	04.25	-09 06	31.8		9	675
(4921)	1991 09	14.26053	20 45	03.62	-09 06	40.8		9	675
(4925)	1991 09	12.20822	21 22	59.41	-01 15	46.2		9	675
(4925)	1991 09	12.26152	21 22	57.70	-01 16	03.8		9	675
(4944)	1992 08	03.44792	03 17	04.88	+22 33	25.9		9	675
(4965)	1978 10	27.30539	00 50	25.37	+06 37	35.4		6	675
(4965)	1978 10	28.29411	00 49	46.92	+06 33	11.4		6	675
(4965)	1978 10	29.30729	00 49	08.41	+06 28	46.4		6	675
(4965)	1978 11	28.16875	00 39	40.62	+05 15	01.0		6	675
(4965)	1978 11	29.16308	00 39	42.62	+05 14	44.6		6	675
(4967)	1991 09	16.27778	21 52	53.73	-24 41	50.6		9	675
(4967)	1991 09	16.32500	21 52	52.23	-24 42	03.1		9	675
(4984)	1991 09	13.20573	20 33	43.10	-14 57	32.3	17.5	9	675
(4984)	1991 09	13.26619	20 33	43.72	-14 57	33.9		9	675
(4993)	1991 09	16.27778	21 53	03.40	-23 21	49.6		9	675
(4993)	1991 09	16.32500	21 53	01.73	-23 21	47.6		9	675
(5006)	1991 09	14.29740	22 46	02.34	-17 40	12.2		9	675
(5006)	1991 09	14.34705	22 46	00.19	-17 40	23.7		9	675
(5022)	1991 09	12.20822	21 30	37.19	+01 31	02.6		9	675
(5022)	1991 09	12.26152	21 30	35.50	+01 30	40.7		9	675
(5041)	1992 06	06.26441	15 16	54.30	-24 30	52.5		9	675
(5041)	1992 06	06.29931	15 16	53.30	-24 30	51.7		9	675
(5118)	1953 03	09.31250	10 31	53.38	-09 57	55.4		6	675
(5118)	1953 03	09.33576	10 31	52.25	-09 57	49.9		6	675
(5118)	1992 07	26.35104	20 27	43.46	+00 38	26.8	15.0	2	675
(5118)	1992 07	26.37587	20 27	42.01	+00 38	30.8		2	675
(5118)	1992 07	28.34497	20 25	57.71	+00 44	17.8		2	675
(5118)	1992 07	28.36788	20 25	56.40	+00 44	21.7		2	675
(5128)	1954 09	03.38056	23 59	14.30	-08 23	07.9		6	675
(5128)	1954 09	03.40486	23 59	13.17	-08 23	15.0		6	675
(5237)	1992 06	06.26441	15 22	56.01	-22 52	49.9		9	675
(5237)	1992 06	06.29931	15 22	54.12	-22 52	47.8		9	675
(5275)	1992 06	08.29271	15 34	58.54	-17 21	59.0	17.0	9	675
(5275)	1992 06	08.33524	15 34	55.95	-17 21	44.1		9	675
(5278)	1992 07	27.30920	19 21	38.05	-15 16	14.6	16.5	2	675
(5278)	1992 07	27.33316	19 21	36.66	-15 16	16.5		2	675
(5278)	1992 07	29.25156	19 19	50.46	-15 20	50.7		2	675
(5278)	1992 07	29.27431	19 19	49.26	-15 20	51.5		2	675
(5286)	1992 06	04.26024	15 17	20.90	-14 13	31.6	17.5	9	675
(5286)	1992 06	04.29271	15 17	19.53	-14 13	27.0		9	675

688 Lowell Observatory, Anderson Mesa Station

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

Observer H. Picken

Measurer S. J. Bus

1.1-m f/8 Hall reflector + CCD

(4015)	1992 08	08.39409	03 50	26.56	+25 33	20.9			688
(4015)	1992 08	08.46944	03 50	52.41	+25 34	34.8			688

690 Lowell Observatory

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

Observer C. W. Tombaugh

Measurer B. A. Skiff

0.33-m photographic telescope

(278)	1931 12 03.19514	02 53 39.08	+14 34 04.5	690
(278)	1931 12 04.16458	02 52 55.55	+14 33 16.0	690
(278)	1931 12 05.18056	02 52 11.02	+14 32 29.1	690
(962)	1931 12 04.16458	02 47 45.39	+12 05 37.5	690
(1347)	1931 12 04.16458	02 54 37.18	+14 36 21.0	690
(1347)	1931 12 05.18056	02 54 01.14	+14 28 29.1	690
(2201)	1931 12 03.22708	02 53 31.83	+14 14 37.0	690

691 Kitt Peak, Steward Observatory

T. Gehrels, Space Sciences Building, University of Arizona,  
Tucson, AZ 85721, U.S.A.

Observers T. Gehrels, D. L. Rabinowitz, J. V. Scotti

0.91-m SPACEWATCH telescope

GSC

1981 UE26	1991 11 04.47091	03 08 41.99	+13 26 58.2	17.2 V	691
1981 UE26	1991 11 04.48979	03 08 40.97	+13 26 54.4		691
1981 UE26	1991 11 04.50849	03 08 40.00	+13 26 51.1		691
1991 PN10	1991 09 09.31575	23 10 58.32	-04 36 45.2		691
1991 PN10	1991 09 09.33630	23 10 57.24	-04 37 15.4	16.6 V	691
1991 PN10	1991 09 09.35860	23 10 56.06	-04 37 48.4		691
1991 RU30	* 1991 09 05.26808	22 40 27.48	-09 19 37.2	17.6 V	691
1991 RU30	1991 09 05.28855	22 40 26.35	-09 19 46.7		691
1991 RU30	1991 09 05.31732	22 40 24.77	-09 19 59.1		691
1991 RV30	* 1991 09 08.19422	23 13 16.23	-06 38 33.5	17.9 V	691
1991 RV30	1991 09 08.21523	23 13 15.05	-06 38 44.1		691
1991 RV30	1991 09 08.23611	23 13 13.85	-06 38 54.8		691
1991 RW30	* 1991 09 08.19513	23 14 34.97	-06 20 54.4	17.4 V	691
1991 RW30	1991 09 08.21614	23 14 33.63	-06 20 58.6		691
1991 RW30	1991 09 08.23701	23 14 32.26	-06 21 02.4		691
1991 RX30	* 1991 09 08.19568	23 15 22.84	-06 46 40.6	17.6 V	691
1991 RX30	1991 09 08.21669	23 15 21.56	-06 46 43.1		691
1991 RX30	1991 09 08.23757	23 15 20.27	-06 46 45.7		691
1991 RY30	* 1991 09 08.25393	23 06 10.14	-08 38 09.3		691
1991 RY30	1991 09 08.27439	23 06 09.12	-08 38 12.5	18.7 V	691
1991 RY30	1991 09 08.29758	23 06 07.94	-08 38 16.0		691
1991 RZ30	* 1991 09 08.38419	23 14 04.26	-07 11 37.0	17.3 V	691
1991 RZ30	1991 09 08.40559	23 14 03.06	-07 11 46.2		691
1991 RZ30	1991 09 08.42608	23 14 01.89	-07 11 54.2		691
1991 RA31	* 1991 09 09.21294	22 49 23.51	-04 07 02.9		691
1991 RA31	1991 09 09.23442	22 49 22.76	-04 07 27.4	17.3 V	691
1991 RA31	1991 09 09.25503	22 49 22.07	-04 07 49.3		691
1991 RB31	* 1991 09 09.31538	23 10 25.84	-04 34 12.9		691
1991 RB31	1991 09 09.33593	23 10 24.58	-04 34 16.1		691
1991 RB31	1991 09 09.35822	23 10 23.25	-04 34 20.0	17.8 V	691
1991 RC31	* 1991 09 09.31982	23 16 50.65	-04 31 17.4		691
1991 RC31	1991 09 09.34037	23 16 49.51	-04 31 22.4	16.8 V	691
1991 RC31	1991 09 09.36267	23 16 48.28	-04 31 27.2		691
1991 RD31	* 1991 09 09.32000	23 17 05.72	-04 30 32.2	18.7 V	691
1991 RD31	1991 09 09.34055	23 17 04.86	-04 30 42.1		691
1991 RD31	1991 09 09.36285	23 17 03.95	-04 30 52.3		691
1991 RE31	* 1991 09 10.32647	23 12 40.86	-03 20 27.2		691
1991 RE31	1991 09 10.34695	23 12 39.92	-03 20 38.0	18.0 V	691
1991 RE31	1991 09 10.37098	23 12 38.82	-03 20 51.0		691
1991 RF31	1991 09 12.23621	23 11 50.64	-01 56 26.6	17.1 V	691
1991 RF31	1991 09 12.25835	23 11 49.43	-01 56 34.6		691
1991 RF31	1991 09 12.28068	23 11 48.22	-01 56 42.8		691
1991 RG31	* 1991 09 15.24357	23 47 04.53	+01 48 09.1	17.5 V	691

1991 RG31	1991 09 15.26379	23 47 03.49	+01 48 03.2		691
1991 RG31	1991 09 15.28388	23 47 02.47	+01 47 57.0		691
1991 RH31	1991 09 30.27954	00 06 22.28	-06 14 06.9	17.4 V	691
1991 RH31	1991 09 30.30010	00 06 21.30	-06 14 18.7		691
1991 RH31	1991 09 30.32082	00 06 20.31	-06 14 30.6		691
1991 TJ12	* 1991 10 08.17827	00 37 12.41	+06 31 45.5	19.1 V	691
1991 TJ12	1991 10 08.19722	00 37 11.10	+06 31 44.1		691
1991 TJ12	1991 10 08.21645	00 37 09.72	+06 31 42.2		691
1991 VG	1992 04 26.20485	14 35 02.75	+07 44 26.6		691
1991 VG	1992 04 26.20955	14 35 01.62	+07 44 19.9		691
1991 VG	1992 04 26.30565	14 34 37.12	+07 42 02.5		691
1991 VG	1992 04 26.31046	14 34 35.86	+07 41 55.8		691
1991 VG	1992 04 26.36815	14 34 20.86	+07 40 28.4		691
1991 VG	1992 04 26.37983	14 34 17.77	+07 40 10.8		691
1991 VG	1992 04 26.42319	14 34 06.86	+07 39 03.0		691
1991 VG	1992 04 27.19618	14 31 56.15	+07 19 39.1	21.9 V	691
1991 VG	1992 04 27.27133	14 31 37.46	+07 17 50.1		691
1991 VG	1992 04 27.32809	14 31 22.84	+07 16 24.7		691
1991 VG	1992 04 27.44847	14 30 52.85	+07 13 14.5		691
1991 VS9	1991 11 07.18519	02 57 46.97	+13 24 29.4	19.0 V	691
1991 VS9	1991 11 07.19574	02 57 46.20	+13 24 32.7		691
1991 VS9	1991 11 07.20714	02 57 45.35	+13 24 36.0		691

## 695 Kitt Peak

B. E. A. Mueller, Kitt Peak National Observatory, P.O. Box 26732,  
Tucson, AZ 85726, U.S.A.

2.1-m reflector

SAOC

1991 VG	1992 04 03.35059	15 43 58.74	+13 53 17.7		695
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## 801 Oak Ridge

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

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

1.5-m reflector + CCD

GSC

1935 SC	1992 08 24.29878	00 50 26.54	+05 53 34.6		801
1935 SC	1992 08 24.33963	00 50 26.30	+05 53 46.0		801
1935 SC	1992 08 30.30856	00 49 26.19	+06 18 22.3		801
1935 SC	1992 08 30.34356	00 49 25.50	+06 18 30.2		801
1966 PK	1992 08 24.22243	22 41 58.60	-12 16 41.3		801
1966 PK	1992 08 24.23683	22 41 57.93	-12 16 45.3		801
1966 PK	1992 09 01.20068	22 35 51.91	-12 54 15.9		801
1966 PK	1992 09 01.21865	22 35 51.15	-12 54 20.4		801
1969 LB	1992 08 25.21229	21 55 09.28	-12 23 14.3		801
1969 LB	1992 08 25.23009	21 55 08.40	-12 23 17.3		801
1969 LB	1992 08 30.17806	21 51 15.40	-12 36 15.1		801
1969 LB	1992 08 30.19521	21 51 14.60	-12 36 17.4		801
1971 QR1	1992 08 30.30486	00 34 53.39	+11 33 17.1		801
1971 QR1	1992 08 30.37361	00 34 52.89	+11 33 12.4		801
1974 QX1	1992 08 25.31867	01 18 03.67	+05 23 28.1		801
1974 QX1	1992 08 25.37130	01 18 04.34	+05 23 30.9		801
1974 SF	1992 07 31.22885	20 45 05.13	-08 55 47.9		801
1974 SF	1992 08 02.19847	20 43 23.19	-09 05 46.1		801
1974 SF	1992 08 02.21218	20 43 22.44	-09 05 50.4		801
1974 SD3	1992 08 24.21547	22 40 30.04	+07 20 00.8		801
1974 SD3	1992 08 24.23447	22 40 29.24	+07 19 57.4		801
1974 SD3	1992 08 26.24463	22 39 07.32	+07 13 18.4		801
1974 SD3	1992 08 26.26169	22 39 06.59	+07 13 14.9		801

1975 XP3	1987 01	30.19866	07 04	09.65	+27 30	50.0		801
1976 SW3	1992 08	24.12981	20 09	30.33	-14 45	56.4		801
1976 SW3	1992 08	24.15595	20 09	29.44	-14 46	02.6		801
1976 SW3	1992 09	01.07433	20 05	55.52	-15 15	25.9		801
1976 SW3	1992 09	01.10159	20 05	54.84	-15 15	32.7		801
1976 YP1	1987 12	23.29564	06 17	53.37	+26 00	12.2		801
1978 CH	1992 05	06.25650	15 54	29.27	-11 34	50.5		801
1978 CH	1992 05	06.27130	15 54	28.72	-11 34	49.9		801
1978 SV7	1992 07	26.31087	22 40	32.91	-11 49	18.1		801
1978 SV7	1992 07	26.33226	22 40	32.26	-11 49	20.0		801
1978 SV7	1992 08	02.24133	22 36	41.90	-11 59	46.6		801
1978 SV7	1992 08	02.26844	22 36	40.82	-11 59	49.6		801
1978 TT2	1983 11	08.09637	02 14	37.05	+12 32	52.2	18.5	801
1978 TT2	1992 08	25.23841	22 15	24.88	-15 18	25.8		801
1978 TT2	1992 08	30.19258	22 11	22.34	-15 38	53.7		801
1978 TT2	1992 08	30.20910	22 11	21.50	-15 38	57.6		801
1978 TA7	1992 06	30.13624	17 52	59.71	-18 12	26.0		801
1978 VS5	1992 07	28.22209	19 14	20.66	-19 21	06.7		801
1980 BB	1992 08	25.25339	22 57	58.85	-11 56	23.3		801
1980 BB	1992 08	25.27105	22 57	58.01	-11 56	28.5		801
1980 BB	1992 08	30.24521	22 54	04.64	-12 22	37.1		801
1980 BB	1992 08	30.26005	22 54	03.90	-12 22	41.7		801
1980 FO1	1992 08	02.28299	23 43	11.65	-00 58	25.3		801
1980 FO1	1992 08	02.33963	23 43	10.73	-00 58	28.8		801
1980 FO1	1992 08	24.26994	23 33	42.39	-01 46	20.9		801
1980 FO1	1992 08	24.28450	23 33	41.82	-01 46	24.0		801
1980 KD	1992 08	25.09558	19 54	16.29	-19 05	11.2		801
1980 KD	1992 08	25.12306	19 54	15.56	-19 05	16.7		801
1980 KD	1992 09	01.05177	19 51	55.22	-19 28	21.2		801
1980 KD	1992 09	01.09154	19 51	54.59	-19 28	30.5		801
1981 EU8	1992 08	25.24843	22 55	33.86	-02 15	05.8		801
1981 EU8	1992 08	25.26497	22 55	32.95	-02 15	06.5		801
1981 EU8	1992 09	01.20780	22 49	10.72	-02 22	27.5		801
1981 EU8	1992 09	01.22245	22 49	09.96	-02 22	28.8		801
1981 EZ10	1987 08	22.19266	21 27	13.12	-10 21	38.4		801
1981 EL21	1986 05	12.23024	14 34	42.63	-14 22	18.2		801
1981 EL21	1987 08	21.27784	22 46	05.58	-04 40	44.5		801
1981 ED25	1992 07	29.29255	23 14	21.92	+02 32	48.9		801
1981 ED25	1992 07	29.33122	23 14	22.35	+02 32	53.8		801
1981 ED25	1992 08	02.27406	23 15	02.71	+02 38	32.9		801
1981 ED25	1992 08	02.34466	23 15	02.90	+02 38	36.2		801
1981 ED25	1992 08	26.25017	23 08	30.12	+01 27	42.4		801
1981 ED25	1992 08	26.26734	23 08	29.47	+01 27	35.7		801
1981 EY30	1992 08	27.27144	23 59	22.58	-01 14	12.6		801
1981 EY30	1992 08	27.28876	23 59	22.10	-01 14	20.4		801
1981 EY30	1992 08	30.27892	23 58	01.24	-01 37	24.9		801
1981 EY30	1992 08	30.29535	23 58	00.70	-01 37	32.8		801
1981 EK41	1992 08	02.19242	20 40	45.36	-08 08	35.1		801
1981 EK41	1992 08	02.20696	20 40	44.49	-08 08	39.9		801
1981 EK41	1992 08	03.18405	20 39	49.06	-08 14	10.7		801
1981 EK41	1992 08	03.19771	20 39	48.47	-08 14	14.0		801
1981 PF	1992 08	25.05899	18 13	57.04	-14 10	32.1		801
1981 PF	1992 08	25.07306	18 13	57.64	-14 10	44.6		801
1981 PF	1992 09	01.04094	18 20	21.69	-15 42	50.9		801
1981 PF	1992 09	01.05425	18 20	22.45	-15 43	00.6		801
1981 QE3	1992 08	25.21903	22 09	06.58	-15 38	09.1		801
1981 QE3	1992 08	25.23630	22 09	05.77	-15 38	13.6		801
1981 QE3	1992 09	01.17214	22 03	57.06	-16 05	31.0		r 801
1981 QE3	1992 09	01.19293	22 03	56.07	-16 05	35.5		r 801

1981 VP2	1992 08	24.26706	23 32	04.38	-07 57	32.1	801
1981 VP2	1992 08	24.28212	23 32	03.90	-07 57	36.5	801
1981 VP2	1992 08	31.28485	23 28	08.93	-08 33	25.2	801
1981 VP2	1992 08	31.30413	23 28	08.18	-08 33	31.2	801
1982 PC	1992 08	25.28453	23 51	56.81	-01 33	37.4	r 801
1982 PC	1992 08	25.30220	23 51	56.21	-01 33	46.4	r 801
1982 PC	1992 08	27.27484	23 50	53.75	-01 49	04.4	801
1982 PC	1992 08	27.29257	23 50	53.15	-01 49	11.8	801
1982 RW	1992 08	31.29509	23 40	47.70	-00 26	54.4	801
1982 RW	1992 08	31.31648	23 40	46.64	-00 26	58.2	801
1982 SC2	1992 08	24.26417	23 22	26.38	-10 42	28.4	801
1982 SC2	1992 08	24.27867	23 22	25.59	-10 42	35.3	801
1982 SC2	1992 08	31.28003	23 16	08.99	-11 38	49.6	801
1982 SC2	1992 08	31.29744	23 16	08.01	-11 38	57.9	801
1982 SG4	1992 08	26.25792	23 11	06.22	+04 55	27.6	801
1982 SG4	1992 08	26.28687	23 11	05.05	+04 55	18.9	801
1982 SV5	1992 08	25.11086	20 18	33.60	-12 41	51.3	801
1982 SV5	1992 08	25.13200	20 18	32.80	-12 42	00.8	801
1982 SV5	1992 08	27.06877	20 17	29.04	-12 56	25.0	801
1982 SV5	1992 08	27.08199	20 17	28.64	-12 56	30.3	801
1982 TT	1992 08	24.17119	22 08	13.95	+06 14	55.2	801
1982 TT	1992 08	24.18569	22 08	13.26	+06 14	52.3	801
1982 TT	1992 08	26.21390	22 06	38.88	+06 07	54.7	801
1982 TT	1992 08	26.22894	22 06	38.18	+06 07	51.5	801
1982 TD2	1992 08	24.29633	00 43	07.49	+10 55	37.6	801
1982 TD2	1992 08	24.37359	00 43	06.87	+10 55	47.8	801
1982 UH	1987 01	30.11351	06 18	16.24	+21 17	15.3	801
1982 UB7	1992 08	25.15102	21 03	08.41	+05 11	43.0	801
1982 UB7	1992 08	25.17050	21 03	07.62	+05 11	36.9	801
1982 UB7	1992 08	31.09282	20 59	29.63	+04 39	48.8	801
1982 UB7	1992 08	31.13235	20 59	28.21	+04 39	35.1	801
1982 UE7	1992 08	25.15417	21 07	42.76	-15 22	17.3	801
1982 UE7	1992 08	25.17391	21 07	41.87	-15 22	21.4	801
1982 UE7	1992 09	01.12917	21 03	01.22	-15 46	30.9	801
1982 UE7	1992 09	01.14744	21 03	00.41	-15 46	33.4	801
1983 RY4	1992 08	25.21586	22 03	51.27	+04 42	26.3	801
1983 RY4	1992 08	25.23241	22 03	50.46	+04 42	23.3	801
1983 RY4	1992 08	27.20016	22 02	13.29	+04 37	46.9	801
1983 RY4	1992 08	27.21954	22 02	12.31	+04 37	43.9	801
1983 XH1	1992 08	24.30179	00 40	12.39	+03 49	24.4	801
1983 XH1	1992 08	24.33729	00 40	11.86	+03 49	14.8	801
1983 XH1	1992 08	26.30742	00 39	43.33	+03 39	51.2	801
1983 XH1	1992 08	26.33559	00 39	42.85	+03 39	42.4	801
1984 UX	1992 08	26.34330	01 58	03.17	+10 16	03.5	801
1984 UX	1992 08	26.35757	01 58	03.77	+10 16	11.5	801
1985 DX2	1992 08	25.14819	20 56	38.49	-09 17	43.1	801
1985 DX2	1992 08	25.16772	20 56	37.73	-09 17	50.9	801
1985 DX2	1992 09	01.12584	20 52	37.88	-10 02	23.2	801
1985 DX2	1992 09	01.14463	20 52	37.26	-10 02	30.0	801
1985 GO	1986 11	01.19961	00 20	52.55	-05 11	11.4	801
1985 SE1	1988 06	14.22829	17 40	47.11	-14 38	59.8	801
1985 YH	1992 08	26.20918	21 22	25.51	-00 38	55.6	801
1985 YH	1992 08	26.22203	21 22	24.85	-00 38	57.9	801
1986 EZ	1992 08	25.29433	23 56	42.59	-01 58	37.2	801
1986 EZ	1992 08	25.31542	23 56	41.63	-01 58	38.6	801
1986 EZ	1992 08	30.29021	23 52	44.63	-02 04	57.2	801
1986 EZ	1992 08	30.30679	23 52	43.78	-02 04	58.4	801
1986 RA	1992 08	31.02994	16 41	14.09	+03 00	38.6	801
1986 RA	1992 08	31.03903	16 41	14.97	+03 00	27.6	801

1986 TB3	1989 07 07.16951	18 00 08.06	-12 52 00.5	801
1986 UQ	1992 08 26.29413	00 13 14.49	+05 54 54.2	801
1986 UQ	1992 08 26.32600	00 13 13.50	+05 54 49.5	801
1987 PL	1992 08 25.18586	21 20 18.01	-07 53 23.7	801
1987 PL	1992 08 25.20277	21 20 17.19	-07 53 25.2	801
1987 PL	1992 09 01.13500	21 15 09.72	-08 03 43.5	801
1987 PL	1992 09 01.15584	21 15 08.82	-08 03 45.3	801
1987 ST1	1992 08 25.08514	20 05 26.46	-15 34 47.6	801
1987 ST1	1992 08 25.10402	20 05 25.76	-15 34 47.9	801
1987 ST1	1992 09 01.09834	20 01 55.73	-15 35 32.7	801
1987 SM12	1992 08 25.28698	23 55 42.04	-00 10 14.3	801
1987 SM12	1992 08 25.30510	23 55 41.41	-00 10 17.7	801
1987 SM12	1992 08 30.27483	23 52 40.35	-00 27 11.4	801
1987 SM12	1992 08 30.29315	23 52 39.61	-00 27 15.6	801
1987 VG1	1992 08 25.25637	23 04 45.64	+09 46 19.2	801
1987 VG1	1992 08 25.27567	23 04 44.86	+09 46 17.2	801
1987 WS	1992 08 26.37000	01 14 09.50	+02 45 39.2	801
1987 WS	1992 08 31.32407	01 12 17.81	+02 46 55.0	801
1987 WS	1992 08 31.35269	01 12 17.05	+02 46 55.0	801
1988 BK	1989 07 01.22387	17 54 08.90	-09 56 40.1	801
1988 BS3	1992 08 25.06309	18 34 45.70	-17 47 57.6	801
1988 BS3	1992 09 01.04433	18 39 38.71	-18 19 14.4	801
1988 BS3	1992 09 01.06488	18 39 39.73	-18 19 20.3	801
1988 JQ	1992 08 25.26240	23 06 36.09	-22 57 39.5	801
1988 JQ	1992 08 25.27354	23 06 35.55	-22 57 51.4	801
1988 RT6	1992 08 30.22464	22 26 22.16	-02 45 55.3	801
1988 RT6	1992 08 30.23995	22 26 21.49	-02 46 07.1	801
1988 VN	1992 08 25.31186	00 57 31.52	+00 48 12.6	801
1988 VN	1992 08 25.36861	00 57 30.83	+00 48 02.6	801
1988 VN	1992 08 30.31236	00 56 19.69	+00 31 23.3	801
1988 VN	1992 08 30.34563	00 56 19.02	+00 31 16.1	801
1988 VH1	1992 08 25.32519	01 29 11.54	+15 53 39.9	801
1988 VH1	1992 08 25.36230	01 29 12.50	+15 53 48.7	801
1988 VZ2	1992 08 26.34932	02 42 13.76	+26 02 56.6	801
1988 VZ2	1992 08 26.36102	02 42 14.41	+26 03 01.7	801
1989 AK1	1992 08 26.29976	00 27 08.91	+14 31 11.6	801
1989 AK1	1992 08 26.33000	00 27 07.98	+14 31 14.0	801
1989 AK1	1992 08 30.30208	00 25 02.91	+14 35 47.5	801
1989 AK1	1992 08 30.32105	00 25 02.22	+14 35 48.7	801
1989 AM1	1992 08 26.27344	23 48 12.73	+13 33 05.4	801
1989 AM1	1992 08 26.29116	23 48 12.05	+13 33 05.4	801
1989 AL5	1992 08 30.32854	01 23 55.17	+08 10 47.7	801
1989 AL5	1992 08 30.37076	01 23 54.49	+08 10 44.8	801
1989 AO6	1992 08 25.27825	23 48 46.07	+06 21 23.5	801
1989 AO6	1992 08 25.29641	23 48 45.36	+06 21 23.5	801
1989 AO6	1992 08 30.26725	23 45 26.96	+06 19 07.1	801
1989 AO6	1992 08 30.28171	23 45 26.31	+06 19 06.3	801
1989 UU1	1992 08 25.28995	23 52 37.25	+10 40 00.0	801
1989 UU1	1992 08 25.30799	23 52 36.46	+10 40 00.0	801
1989 UU1	1992 08 27.28000	23 51 11.70	+10 39 21.9	801
1989 UU1	1992 08 27.29992	23 51 10.79	+10 39 21.2	801
1989 UT5	1992 04 30.14297	12 57 45.75	-04 56 28.8	801
1989 UT5	1992 04 30.15742	12 57 45.01	-04 56 21.9	801
1989 UT5	1992 05 06.13811	12 54 07.06	-04 07 44.8	801
1989 WL7	1992 07 29.09241	17 02 13.54	-14 29 11.4	801
1989 WL7	1992 07 29.11887	17 02 13.14	-14 29 20.5	801
1989 XO	1992 08 24.22584	22 47 24.62	+01 36 48.7	801
1989 XO	1992 08 24.23957	22 47 23.83	+01 36 46.6	801
1989 XO	1992 08 30.24742	22 41 43.32	+01 18 38.2	801



1989 YN	1992 08	27.20601	22 15	52.86	-02 55	21.4	801
1989 YN	1992 08	27.22249	22 15	51.89	-02 55	26.0	801
1989 YN	1992 09	01.17483	22 11	11.03	-03 19	34.4	801
1989 YN	1992 09	01.18870	22 11	10.22	-03 19	38.7	801
1989 YP5	1992 07	29.15591	19 42	49.86	-19 58	52.3	801
1990 BJ	1992 06	28.28376	20 12	21.19	-19 46	48.9	801
1990 BJ	1992 06	28.29843	20 12	20.38	-19 46	41.7	801
1990 BJ	1992 08	25.06932	19 05	20.44	-12 05	41.8	801
1990 BJ	1992 08	25.08828	19 05	19.72	-12 05	34.0	801
1990 BJ	1992 08	27.07344	19 04	21.01	-11 52	10.8	801
1990 BJ	1992 08	27.08970	19 04	20.39	-11 52	03.2	801
1990 BU	1992 08	24.20786	22 37	56.59	-03 39	12.2	801
1990 BU	1992 08	24.22000	22 37	55.81	-03 39	10.2	801
1990 BU	1992 08	27.21667	22 34	48.70	-03 30	49.8	801
1990 BU	1992 08	27.23047	22 34	47.80	-03 30	47.6	801
1990 BQ1	1992 08	24.13981	21 10	41.04	+05 03	19.6	801
1990 BQ1	1992 08	24.15789	21 10	39.53	+05 03	28.4	801
1990 BQ1	1992 08	26.20631	21 07	55.92	+05 19	34.3	801
1990 BQ1	1992 08	26.21650	21 07	55.10	+05 19	38.9	801
1990 BQ1	1992 08	31.08605	21 01	48.37	+05 54	05.5	801
1990 BQ1	1992 08	31.10097	21 01	47.27	+05 54	11.3	801
1990 BT1	1992 06	03.20049	16 15	31.41	-09 10	10.6	801
1990 DD	1992 08	26.30373	00 37	06.31	+13 07	03.7	801
1990 DD	1992 08	26.32789	00 37	05.58	+13 07	13.5	801
1990 DM2	1992 08	26.29716	00 15	00.72	+05 28	34.1	r 801
1990 DM2	1992 08	26.32300	00 14	59.85	+05 28	30.1	r 801
1990 EJ2	1992 08	25.09192	19 42	21.10	-09 36	22.7	801
1990 EJ2	1992 08	25.11983	19 42	20.47	-09 36	28.4	801
1990 EJ2	1992 09	01.04762	19 40	19.42	-09 56	00.0	801
1990 EJ2	1992 09	01.09491	19 40	18.73	-09 56	07.7	801
1990 FT1	1992 08	25.33411	02 33	58.69	-05 48	46.0	801
1990 FT1	1992 08	25.35565	02 33	59.58	-05 48	51.4	801
1990 TN3	1991 01	18.03111	01 45	44.39	+33 46	48.1	801
1991 BR	1992 08	25.11561	20 16	24.27	-11 34	41.8	801
1991 BR	1992 08	25.13572	20 16	23.66	-11 34	49.2	801
1991 BR	1992 09	01.08065	20 13	35.64	-12 16	20.5	801
1991 BR	1992 09	01.10524	20 13	35.08	-12 16	29.1	801
1991 CF	1992 08	25.22730	22 28	53.12	-05 40	25.2	801
1991 CF	1992 08	25.24426	22 28	52.17	-05 40	35.1	801
1991 CF	1992 08	30.21458	22 24	23.47	-06 26	21.3	801
1991 CF	1992 08	30.22675	22 24	22.79	-06 26	27.9	801
1991 CZ	1992 08	25.33632	02 41	51.93	-05 27	38.2	801
1991 CZ	1992 08	25.35374	02 41	52.98	-05 27	56.3	801
1991 FM	1992 08	30.26433	23 31	45.83	-02 12	57.0	r 801
1991 FM	1992 08	30.27697	23 31	45.08	-02 13	00.3	r 801
1991 FM	1992 08	31.28810	23 30	47.77	-02 17	24.0	801
1991 FM	1992 08	31.30131	23 30	46.98	-02 17	27.4	801
1991 GD	1992 08	24.30490	00 43	00.74	+37 04	29.2	801
1991 GD	1992 08	24.33197	00 43	00.51	+37 04	43.4	801
1991 GD	1992 08	26.31089	00 42	45.03	+37 21	20.7	801
1991 GD	1992 08	26.33262	00 42	44.75	+37 21	31.2	801
1991 GN	1992 08	24.34693	03 55	19.73	+21 20	38.3	801
1991 GN	1992 08	24.36166	03 55	21.33	+21 20	32.4	801
1991 GZ	1992 08	30.31650	00 58	58.63	+11 29	38.4	801
1991 GZ	1992 08	30.35120	00 58	57.73	+11 29	34.1	801
1991 GZ	1992 08	31.32086	00 58	33.93	+11 27	27.9	801
1991 GZ	1992 08	31.35037	00 58	33.17	+11 27	23.5	801
1991 HG	1992 08	30.29878	00 14	47.46	-02 59	36.2	801
1991 HG	1992 08	30.31877	00 14	46.57	-02 59	41.3	801

1991 JT	1992 08	25.28179	23 48	38.22	+13 29	25.3	801
1991 JT	1992 08	25.29866	23 48	37.45	+13 29	22.7	801
1991 JT	1992 08	30.26943	23 44	58.94	+13 12	37.6	801
1991 JT	1992 08	30.28413	23 44	58.26	+13 12	34.5	801
1991 JE1	1992 08	25.19227	21 43	44.04	-04 29	55.0	801
1991 JE1	1992 08	25.20826	21 43	43.36	-04 30	01.8	801
1991 JE1	1992 08	30.17069	21 40	26.54	-05 05	48.3	801
1991 JR2	1992 08	24.22882	22 49	44.31	-03 25	02.7	801
1991 JR2	1992 08	24.24220	22 49	43.69	-03 25	09.8	801
1991 JR2	1992 08	30.23536	22 45	10.95	-04 17	31.3	801
1991 JR2	1992 08	30.24984	22 45	10.28	-04 17	39.0	801
1992 HE	1992 08	24.35001	04 20	00.53	-07 29	49.9	801
1992 HE	1992 08	24.36448	04 19	59.94	-07 29	26.9	801
1992 HE	1992 08	30.37661	04 15	17.92	-04 47	03.1	801
1992 HE	1992 08	30.38061	04 15	17.68	-04 46	56.6	801
1992 HJ	1992 07	29.05128	15 03	10.94	-13 04	50.5	801
1992 HJ	1992 07	29.05848	15 03	11.41	-13 04	54.0	801
1992 HJ	1992 07	31.04525	15 05	30.27	-13 21	41.4	801
1992 HJ	1992 07	31.05711	15 05	31.03	-13 21	45.6	801
1992 HL	1992 07	26.07876	15 09	11.41	+02 46	10.5	801
1992 HL	1992 07	26.08645	15 09	11.87	+02 46	06.4	801
1992 JA	1992 07	26.08207	15 15	39.62	-04 46	04.3	801
1992 JA	1992 07	26.09352	15 15	40.34	-04 46	03.5	801
1992 JE	1992 07	26.07681	15 13	17.59	-01 51	49.8	801
1992 JE	1992 07	26.08429	15 13	18.63	-01 51	54.9	801
1992 JE	1992 07	31.04909	15 25	53.65	-02 49	54.3	801
1992 JE	1992 07	31.05477	15 25	54.55	-02 49	58.2	801
1992 JE	1992 08	25.02912	16 49	22.27	-08 45	54.2	801
1992 JE	1992 08	25.03144	16 49	22.77	-08 45	56.0	801
1992 JE	1992 09	01.01318	17 18	06.01	-10 27	08.2	801
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1992 JP	1992 07	31.05284	15 13	50.91	-00 28	04.7	801
1992 JP	1992 07	31.07058	15 13	51.39	-00 28	14.4	801
1992 KD	1992 07	26.09697	16 17	09.68	+17 08	26.3	801
1992 KD	1992 07	26.10725	16 17	10.67	+17 08	27.4	801
1992 KD	1992 07	29.07071	16 22	17.29	+17 10	42.8	801
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1992 KD	1992 09	01.02213	17 25	02.27	+14 41	21.4	I 801
1992 LR	1992 08	24.14206	21 37	36.04	+05 55	41.7	801
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1992 ME	1992 08	02.06731	16 03	56.18	-02 29	23.5	801
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1992 NA	1992 08	24.31717	01 17	06.99	-25 28	20.3	801
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1992 NR	1992 08	25.16116	20 46	56.13	-15 52	48.3	801
1992 NR	1992 09	01.12178	20 43	17.23	-16 52	15.9	801
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1992 OM	1992 08	24.17919	22 20	29.26	+00 47	20.7	801
1992 OM	1992 08	24.19056	22 20	28.75	+00 47	32.1	801
1992 OM	1992 08	26.22572	22 19	14.11	+01 20	35.5	801
1992 OM	1992 08	26.23635	22 19	13.66	+01 20	45.5	801
1992 OB1	* 1992 07	31.22094	20 51	54.37	-18 25	36.3	801

1992 OB1	1992 07	31.23750	20 51	53.53	-18 25	44.8	801
1992 OB1	1992 08	02.20404	20 50	11.76	-18 42	42.7	801
1992 OB1	1992 08	02.21928	20 50	10.92	-18 42	50.5	801
1992 PC	1992 07	30.17572	20 43	21.25	-07 51	53.7	801
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1992 PC	1992 08	02.20696	20 40	42.61	-08 05	38.6	801
1992 PC	1992 08	03.11853	20 39	54.99	-08 10	05.1	801
1992 PC	1992 08	03.12497	20 39	54.64	-08 10	09.3	801
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1992 PC	1992 08	03.19771	20 39	50.58	-08 10	30.5	801
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1992 PD	1992 08	02.27047	22 46	26.85	-02 38	00.3	801
1992 PD	1992 08	03.25457	22 46	05.44	-02 51	10.1	801
1992 PD	1992 08	03.27182	22 46	05.02	-02 51	24.1	801
1992 PD	1992 08	24.20169	22 33	32.00	-08 47	34.6	801
1992 PD	1992 08	24.21027	22 33	31.58	-08 47	44.3	801
1992 PD	1992 08	27.21221	22 31	06.94	-09 48	20.5	801
4027 P-L	1992 08	25.18906	21 24	13.18	-11 01	21.2	801
4027 P-L	1992 08	25.20576	21 24	12.43	-11 01	24.6	801
4027 P-L	1992 09	01.16034	21 19	26.66	-11 23	20.2	801
4598 P-L	1992 08	24.23185	22 50	53.53	-09 12	53.0	r 801
4598 P-L	1992 08	24.24609	22 50	52.76	-09 12	57.2	r 801
4598 P-L	1992 08	30.24244	22 45	27.46	-09 41	10.2	801
4598 P-L	1992 08	30.25763	22 45	26.60	-09 41	14.3	801
6040 P-L	1992 08	25.17770	21 08	55.10	-15 23	41.6	801
6040 P-L	1992 08	25.19590	21 08	54.13	-15 23	44.5	801
6040 P-L	1992 08	27.12984	21 07	24.29	-15 28	19.3	801
6040 P-L	1992 08	27.14766	21 07	23.37	-15 28	21.4	801
7063 P-L	1992 08	30.22157	22 27	09.87	+00 15	17.1	801
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7063 P-L	1992 09	01.17965	22 25	36.52	+00 04	16.0	801
7063 P-L	1992 09	01.19550	22 25	35.71	+00 04	10.6	801
4293 T-2	1992 08	24.16766	22 08	17.05	-16 15	01.0	r 801
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4293 T-2	1992 09	01.16803	22 01	54.13	-16 52	51.0	801
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(99)	1991 12	31.96600	00 51	56.86	+02 32	26.3	801
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(1495)	1992 01	07.34079	10 17	32.68	+26 56	14.5	801
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(1796)	1992 08	02.23694	22 05	44.58	+09 28	40.1	801
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(1865)	1992 08	24.10546	18 59	35.70	+23 12	35.3	801
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(2230)	1992 08	27.27144	23 59	06.64	-01 17	16.1	801
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(3302)	1992 09 01.12178	20 43 14.04	-16 50 15.5		801
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(3430)	1983 04 18.23499	12 18 42.68	+01 47 04.8		801
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## 809 European Southern Observatory

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Observers H. Debehogne, E. W. Elst, G. Pizarro, O. Pizarro

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

1.0-m Schmidt, GPO 0.4-m astrograph

SAOC

1977 EL	1991 09 05.08403	20 32 15.17	-21 00 24.0		4 809
1977 EL	1991 09 05.09722	20 32 14.87	-21 00 26.8		4 809
1977 EL	1991 09 05.11042	20 32 14.57	-21 00 29.3		4 809
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1977 EL	1991 09 06.04306	20 32 03.38	-21 04 00.6		4 809
1978 TO8	1992 04 04.23125	14 07 39.77	-13 01 50.2	18.6	4 809
1978 TO8	1992 04 04.24444	14 07 39.24	-13 01 46.9		4 809
1978 TO8	1992 04 04.25764	14 07 38.72	-13 01 45.1		4 809
1978 TO8	1992 04 06.22500	14 06 19.74	-12 54 32.4		4 809
1978 TO8	1992 04 06.23819	14 06 18.96	-12 54 29.1		4 809
1978 TO8	1992 04 06.25139	14 06 18.16	-12 54 25.5		4 809
1979 ME8	1992 04 04.23125	14 07 45.91	-11 24 25.3	18.8	4 809
1979 ME8	1992 04 04.24444	14 07 45.16	-11 24 20.8		4 809
1979 ME8	1992 04 04.25764	14 07 44.51	-11 24 16.7		4 809
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1979 ME8	1992 04 25.08889	13 48 33.95	-08 52 59.5	19.3	4	809
1979 ME8	1992 04 25.10208	13 48 33.21	-08 52 55.2		4	809
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1981 EE14	1992 04 04.23125	13 56 39.69	-13 29 38.5	19.2	4	809
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1981 EE14	1992 04 06.25139	13 55 04.40	-13 14 55.0		4	809
1982 TP1	1992 04 25.13403	14 04 12.67	-15 29 48.3	18.3	4	809
1982 TP1	1992 04 25.14722	14 04 11.89	-15 29 43.5		4	809
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1983 RT3	1991 09 05.08403	20 36 19.81	-21 52 20.4		4	809
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1983 RT3	1991 09 05.11042	20 36 18.60	-21 52 12.7		4	809
1983 RT3	1991 09 06.01667	20 35 45.79	-21 48 06.8	18.3	4	809
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1983 RT3	1991 09 06.04306	20 35 44.63	-21 48 00.0		4	809
1984 DE1	1992 04 04.23125	13 56 43.34	-14 18 16.2	18.3	4	809
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1985 QH5	1992 04 04.27639	14 36 20.90	-13 36 45.1	18.8	4	809
1985 QH5	1992 04 04.28958	14 36 20.30	-13 36 41.4		4	809
1985 QH5	1992 04 04.30278	14 36 19.66	-13 36 39.0		4	809
1985 QH5	1992 04 06.26806	14 34 57.22	-13 28 51.5	20.0	4	809
1985 QH5	1992 04 06.28125	14 34 56.61	-13 28 51.3		4	809
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1985 VN	1992 04 04.23125	14 00 31.92	-13 41 47.6	18.4	4	809
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1985 VN	1992 04 06.22500	13 59 02.91	-13 26 30.5		4	809
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1989 YT	1992 04 04.23125	13 58 49.74	-11 06 07.0	18.7	4	809
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1989 YT	1992 04 04.25764	13 58 48.36	-11 06 01.4		4	809
1989 YT	1992 04 06.22500	13 57 08.67	-10 58 56.7		4	809
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1990 UF2	1992 04 04.28958	14 33 58.30	-14 31 42.3		4	809
1990 UF2	1992 04 04.30278	14 33 57.87	-14 31 36.2		4	809
1990 UF2	1992 04 06.26806	14 32 52.49	-14 15 09.7	18.0	4	809
1990 UF2	1992 04 06.28125	14 32 51.98	-14 15 02.5		4	809
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1990 UF2	1992 04 25.13403	14 18 35.27	-11 14 44.2	18.0	4	809
1990 UF2	1992 04 25.14722	14 18 34.50	-11 14 36.5		4	809
1990 UF2	1992 04 25.16042	14 18 33.80	-11 14 28.4		4	809
1990 WJ3	1992 04 04.23125	14 04 53.08	-11 25 14.2	18.5	4	809
1990 WJ3	1992 04 04.24444	14 04 52.43	-11 25 07.3		4	809
1990 WJ3	1992 04 04.25764	14 04 51.84	-11 25 02.8		4	809
1990 YQ	1992 04 04.27639	14 28 12.65	-14 30 20.6	19.4	4	809
1990 YQ	1992 04 04.28958	14 28 11.97	-14 30 16.4		4	809
1990 YQ	1992 04 04.30278	14 28 11.30	-14 30 12.7		4	809
1990 YQ	1992 04 06.26806	14 26 39.30	-14 21 50.9	19.2	4	809
1990 YQ	1992 04 06.28125	14 26 38.65	-14 21 47.3		4	809
1990 YQ	1992 04 06.29444	14 26 38.02	-14 21 43.5		4	809
1991 PE1	1991 09 05.08403	20 43 32.27	-20 38 50.6		4	809
1991 PE1	1991 09 05.09722	20 43 32.04	-20 38 59.0		4	809
1991 PE1	1991 09 05.11042	20 43 31.74	-20 39 06.2		4	809
1991 PE1	1991 09 06.01667	20 43 21.43	-20 48 20.8	18.2	4	809
1991 PE1	1991 09 06.02986	20 43 21.22	-20 48 29.4		4	809
1991 PE1	1991 09 06.04306	20 43 21.03	-20 48 37.1		4	809
1991 PY1	1991 09 04.02361	20 29 35.35	-23 44 29.8	18.8	4	809
1991 PY1	1991 09 04.03681	20 29 35.03	-23 44 32.0		4	809
1991 PY1	1991 09 04.05000	20 29 34.70	-23 44 34.8		4	809
1991 PY1	1991 09 05.08403	20 29 20.92	-23 48 02.0		4	809
1991 PY1	1991 09 05.09722	20 29 20.50	-23 48 05.0		4	809
1991 PY1	1991 09 05.11042	20 29 20.09	-23 48 08.5		4	809
1991 PY1	1991 09 06.01667	20 29 10.65	-23 50 50.3	18.6	4	809
1991 PY1	1991 09 06.02986	20 29 10.15	-23 50 54.6		4	809
1991 PY1	1991 09 06.04306	20 29 09.75	-23 50 59.1		4	809
1991 PE3	1991 09 05.08403	20 36 04.11	-21 26 34.1		4	809
1991 PE3	1991 09 05.09722	20 36 03.57	-21 26 35.6		4	809
1991 PE3	1991 09 05.11042	20 36 03.12	-21 26 36.7		4	809
1991 PE3	1991 09 06.01667	20 35 35.55	-21 28 55.0	18.5	4	809
1991 PE3	1991 09 06.02986	20 35 35.03	-21 28 56.5		4	809
1991 PE3	1991 09 06.04306	20 35 34.52	-21 28 59.0		4	809
1991 PK3	1991 09 05.08403	20 41 06.79	-22 21 11.6		4	809
1991 PK3	1991 09 05.09722	20 41 06.34	-22 21 13.4		4	809
1991 PK3	1991 09 05.11042	20 41 05.98	-22 21 11.6		4	809
1991 PK3	1991 09 06.01667	20 40 44.28	-22 21 36.9	18.5	4	809
1991 PK3	1991 09 06.02986	20 40 43.77	-22 21 37.1		4	809
1991 PK3	1991 09 06.04306	20 40 43.14	-22 21 38.7		4	809
1991 RN11	1991 09 05.08403	20 35 42.17	-21 32 46.8		4	809
1991 RN11	1991 09 05.09722	20 35 41.58	-21 32 48.3		4	809
1991 RN11	1991 09 05.11042	20 35 41.13	-21 32 49.5		4	809
1991 RN11	1991 09 06.01667	20 35 14.13	-21 34 53.8	18.5	4	809
1991 RN11	1991 09 06.02986	20 35 13.67	-21 34 55.5		4	809
1991 RN11	1991 09 06.04306	20 35 13.28	-21 34 57.1		4	809
1991 RO11	1991 09 05.08403	20 36 55.83	-21 05 59.3		4	809

1991 RO11		1991 09 05.09722	20 36 54.77	-21 05 51.9		4	809
1991 RO11		1991 09 05.11042	20 36 54.55	-21 05 49.4		4	809
1991 RO11		1991 09 06.01667	20 36 20.68	-21 00 40.6	18.6	4	809
1991 RO11		1991 09 06.02986	20 36 20.09	-21 00 35.2		4	809
1991 RO11		1991 09 06.04306	20 36 19.57	-21 00 30.8		4	809
1991 RP11		1991 09 05.08403	20 40 19.41	-19 27 45.9		4	809
1991 RP11		1991 09 05.09722	20 40 18.96	-19 27 46.8		4	809
1991 RP11		1991 09 05.11042	20 40 18.57	-19 27 49.2		4	809
1991 RP11		1991 09 06.01667	20 40 03.21	-19 29 13.7	18.4	4	809
1991 RP11		1991 09 06.02986	20 40 02.89	-19 29 16.1		4	809
1991 RP11		1991 09 06.04306	20 40 02.59	-19 29 17.2		4	809
1991 RQ11		1991 08 05.25833	21 02 57.07	-16 02 06.5		4	809
1991 RQ11		1991 08 05.27153	21 02 56.36	-16 02 13.8		4	809
1991 RQ11		1991 08 05.28472	21 02 55.68	-16 02 21.4		4	809
1991 RQ11		1991 09 05.08403	20 41 06.21	-20 28 27.5		4	809
1991 RQ11		1991 09 05.09722	20 41 05.74	-20 28 32.0		4	809
1991 RQ11		1991 09 05.11042	20 41 05.28	-20 28 36.4		4	809
1991 RQ11		1991 09 06.01667	20 40 42.00	-20 34 36.9	18.6	4	809
1991 RQ11		1991 09 06.02986	20 40 41.59	-20 34 42.2		4	809
1991 RQ11		1991 09 06.04306	20 40 41.25	-20 34 47.5		4	809
1991 RS11		1991 08 14.16181	20 49 04.74	-18 45 03.5	18.5	4	809
1991 RS11		1991 08 14.17500	20 49 04.24	-18 45 14.6		4	809
1991 RS11		1991 08 14.18819	20 49 03.79	-18 45 24.3		4	809
1991 RS11		1991 09 05.08403	20 42 20.13	-23 00 53.0		4	809
1991 RS11		1991 09 05.09722	20 42 19.98	-23 00 59.3		4	809
1991 RS11		1991 09 05.11042	20 42 19.75	-23 01 06.5		4	809
1991 RS11		1991 09 06.01667	20 42 22.18	-23 09 08.4	18.4	4	809
1991 RS11		1991 09 06.02986	20 42 22.17	-23 09 17.2		4	809
1991 RS11		1991 09 06.04306	20 42 22.10	-23 09 23.1		4	809
1991 RU11		1991 09 05.08403	20 46 40.02	-23 26 34.7		4	809
1991 RU11		1991 09 05.09722	20 46 39.45	-23 26 32.2		4	809
1991 RU11		1991 09 05.11042	20 46 38.93	-23 26 27.5		4	809
1991 RU11		1991 09 06.01667	20 46 10.39	-23 21 59.6	18.2	4	809
1991 RU11		1991 09 06.02986	20 46 09.92	-23 21 56.3		4	809
1991 RU11		1991 09 06.04306	20 46 09.41	-23 21 53.1		4	809
1991 RB12		1991 08 10.26528	21 26 34.57	-15 51 14.3	17.6	4	809
1991 RB12		1991 08 10.27708	21 26 33.68	-15 51 14.2		4	809
1991 RB12		1991 08 10.28750	21 26 33.08	-15 51 14.0		4	809
1992 GZ1	*	1992 04 04.23125	13 49 53.14	-11 24 32.6	18.7	4	809
1992 GZ1		1992 04 04.24444	13 49 52.58	-11 24 30.7		4	809
1992 GZ1		1992 04 04.25764	13 49 52.00	-11 24 28.7		4	809
1992 GZ1		1992 04 06.22500	13 48 30.52	-11 17 27.3		4	809
1992 GZ1		1992 04 06.23819	13 48 29.94	-11 17 24.1		4	809
1992 GZ1		1992 04 06.25139	13 48 29.38	-11 17 22.6		4	809
1992 GA2	*	1992 04 04.23125	13 50 13.61	-12 15 48.2	18.2	4	809
1992 GA2		1992 04 04.24444	13 50 12.64	-12 15 50.7		4	809
1992 GA2		1992 04 04.25764	13 50 11.81	-12 15 51.3		4	809
1992 GA2		1992 04 06.22500	13 48 02.44	-12 20 30.8		4	809
1992 GA2		1992 04 06.23819	13 48 01.54	-12 20 32.5		4	809
1992 GA2		1992 04 06.25139	13 48 00.57	-12 20 34.7		4	809
1992 GB2	*	1992 04 04.23125	13 51 23.39	-12 18 26.9	18.6	4	809
1992 GB2		1992 04 04.24444	13 51 22.64	-12 18 21.2		4	809
1992 GB2		1992 04 04.25764	13 51 21.96	-12 18 16.7		4	809
1992 GB2		1992 04 06.22500	13 49 43.71	-12 04 33.9		4	809
1992 GB2		1992 04 06.23819	13 49 42.99	-12 04 28.2		4	809
1992 GB2		1992 04 06.25139	13 49 42.34	-12 04 23.2		4	809
1992 GC2	*	1992 04 04.23125	13 52 06.81	-11 22 18.4	19.2	4	809
1992 GC2		1992 04 04.24444	13 52 06.02	-11 22 16.1		4	809
1992 GC2		1992 04 04.25764	13 52 05.33	-11 22 13.9		4	809

1992 GC2		1992 04 06.22500	13 50 23.26	-11 16 19.8		4 809
1992 GC2		1992 04 06.23819	13 50 22.48	-11 16 16.2		4 809
1992 GC2		1992 04 06.25139	13 50 21.70	-11 16 13.8		4 809
1992 GD2	*	1992 04 04.23125	13 52 31.39	-13 21 54.1	19.0	4 809
1992 GD2		1992 04 04.24444	13 52 30.67	-13 21 50.2		4 809
1992 GD2		1992 04 04.25764	13 52 29.95	-13 21 47.5		4 809
1992 GD2		1992 04 06.22500	13 50 41.29	-13 14 31.6		4 809
1992 GD2		1992 04 06.23819	13 50 40.44	-13 14 27.5		4 809
1992 GD2		1992 04 06.25139	13 50 39.69	-13 14 25.6		4 809
1992 GE2	*	1992 04 04.23125	13 53 00.06	-13 59 38.9	18.5	4 809
1992 GE2		1992 04 04.24444	13 52 59.24	-13 59 36.4		4 809
1992 GE2		1992 04 04.25764	13 52 58.40	-13 59 34.0		4 809
1992 GE2		1992 04 06.22500	13 51 00.09	-13 52 38.2		4 809
1992 GE2		1992 04 06.23819	13 50 59.36	-13 52 36.6		4 809
1992 GE2		1992 04 06.25139	13 50 58.47	-13 52 33.6		4 809
1992 GE2		1992 04 23.14514	13 33 04.35	-12 40 49.1		4 809
1992 GE2		1992 04 23.15833	13 33 03.53	-12 40 45.2		4 809
1992 GE2		1992 04 23.17153	13 33 02.66	-12 40 41.4		4 809
1992 GE2		1992 04 25.08889	13 31 03.76	-12 31 51.1	19.0	4 809
1992 GE2		1992 04 25.10208	13 31 02.96	-12 31 48.2		4 809
1992 GE2		1992 04 25.11528	13 31 02.11	-12 31 45.4		4 809
1992 GF2	*	1992 04 04.23125	13 53 06.76	-10 44 23.6	18.7	4 809
1992 GF2		1992 04 04.24444	13 53 06.00	-10 44 19.6		4 809
1992 GF2		1992 04 04.25764	13 53 05.30	-10 44 17.9		4 809
1992 GF2		1992 04 06.22500	13 51 14.01	-10 35 46.3		4 809
1992 GF2		1992 04 06.23819	13 51 13.14	-10 35 42.8		4 809
1992 GF2		1992 04 06.25139	13 51 12.36	-10 35 39.8		4 809
1992 GG2	*	1992 04 04.23125	13 53 49.02	-13 13 00.6	18.8	4 809
1992 GG2		1992 04 04.24444	13 53 48.40	-13 12 53.6		4 809
1992 GG2		1992 04 04.25764	13 53 47.87	-13 12 48.9		4 809
1992 GG2		1992 04 06.22500	13 52 16.83	-13 03 16.3		4 809
1992 GG2		1992 04 06.23819	13 52 16.27	-13 03 14.3		4 809
1992 GG2		1992 04 06.25139	13 52 15.69	-13 03 11.6		4 809
1992 GH2	*	1992 04 04.23125	13 54 19.44	-14 16 37.1	18.7	4 809
1992 GH2		1992 04 04.24444	13 54 18.67	-14 16 38.5		4 809
1992 GH2		1992 04 04.25764	13 54 17.98	-14 16 38.6		4 809
1992 GH2		1992 04 06.22500	13 52 37.34	-14 17 42.1		4 809
1992 GH2		1992 04 06.23819	13 52 36.59	-14 17 43.1		4 809
1992 GH2		1992 04 06.25139	13 52 35.85	-14 17 43.5		4 809
1992 GJ2	*	1992 04 04.23125	13 55 00.42	-13 59 35.9	19.0	4 809
1992 GJ2		1992 04 04.24444	13 54 59.72	-13 59 35.4		4 809
1992 GJ2		1992 04 04.25764	13 54 59.06	-13 59 35.2		4 809
1992 GJ2		1992 04 06.22500	13 53 22.74	-13 57 57.6		4 809
1992 GJ2		1992 04 06.23819	13 53 22.05	-13 57 57.6		4 809
1992 GJ2		1992 04 06.25139	13 53 21.38	-13 57 56.6		4 809
1992 GK2	*	1992 04 04.23125	13 55 55.07	-14 12 56.7	18.7	4 809
1992 GK2		1992 04 04.24444	13 55 54.50	-14 12 48.4		4 809
1992 GK2		1992 04 04.25764	13 55 53.99	-14 12 39.0		4 809
1992 GK2		1992 04 06.22500	13 54 34.92	-13 49 28.4		4 809
1992 GK2		1992 04 06.23819	13 54 34.38	-13 49 19.6		4 809
1992 GK2		1992 04 06.25139	13 54 33.74	-13 49 09.1		4 809
1992 GL2	*	1992 04 04.23125	13 55 55.76	-10 56 23.4	18.6	4 809
1992 GL2		1992 04 04.24444	13 55 54.98	-10 56 24.3		4 809
1992 GL2		1992 04 04.25764	13 55 54.24	-10 56 25.4		4 809
1992 GL2		1992 04 06.22500	13 54 05.53	-10 58 04.3		4 809
1992 GL2		1992 04 06.23819	13 54 04.70	-10 58 05.7		4 809
1992 GL2		1992 04 06.25139	13 54 03.89	-10 58 05.4		4 809
1992 GM2	*	1992 04 04.23125	13 57 36.15	-13 58 23.2	18.3	4 809
1992 GM2		1992 04 04.24444	13 57 35.45	-13 58 20.8		4 809



1992 GM2		1992 04 04.25764	13 57 34.68	-13 58 17.8		4	809
1992 GM2		1992 04 06.22500	13 55 49.47	-13 49 48.0		4	809
1992 GM2		1992 04 06.23819	13 55 48.72	-13 49 44.9		4	809
1992 GM2		1992 04 06.25139	13 55 47.89	-13 49 41.3		4	809
1992 GM2		1992 04 23.14514	13 38 47.36	-12 19 17.6		4	809
1992 GM2		1992 04 23.15833	13 38 46.63	-12 19 15.3		4	809
1992 GM2		1992 04 23.17153	13 38 45.76	-12 19 13.7		4	809
1992 GM2		1992 04 25.08889	13 36 48.50	-12 07 53.2	18.5	4	809
1992 GM2		1992 04 25.10208	13 36 47.68	-12 07 47.8		4	809
1992 GM2		1992 04 25.11528	13 36 46.78	-12 07 43.7		4	809
1992 GN2	*	1992 04 04.23125	13 57 59.13	-13 31 14.1	18.5	4	809
1992 GN2		1992 04 04.24444	13 57 58.46	-13 31 12.3		4	809
1992 GN2		1992 04 04.25764	13 57 57.83	-13 31 10.1		4	809
1992 GN2		1992 04 06.22500	13 56 28.83	-13 25 09.7		4	809
1992 GN2		1992 04 06.23819	13 56 28.12	-13 25 07.8		4	809
1992 GN2		1992 04 06.25139	13 56 27.44	-13 25 05.7		4	809
1992 GN2		1992 04 23.14514	13 42 11.02	-12 20 59.4		4	809
1992 GN2		1992 04 23.15833	13 42 10.28	-12 20 55.3		4	809
1992 GN2		1992 04 23.17153	13 42 09.43	-12 20 52.1		4	809
1992 GN2		1992 04 25.08889	13 40 31.38	-12 12 52.7	18.6	4	809
1992 GN2		1992 04 25.10208	13 40 30.74	-12 12 50.1		4	809
1992 GN2		1992 04 25.11528	13 40 30.08	-12 12 46.8		4	809
1992 GO2	*	1992 04 04.23125	13 58 53.28	-12 55 27.8	18.7	4	809
1992 GO2		1992 04 04.24444	13 58 52.53	-12 55 21.8		4	809
1992 GO2		1992 04 04.25764	13 58 51.90	-12 55 19.6		4	809
1992 GO2		1992 04 06.22500	13 57 17.16	-12 43 46.0		4	809
1992 GO2		1992 04 06.23819	13 57 16.42	-12 43 41.1		4	809
1992 GO2		1992 04 06.25139	13 57 15.62	-12 43 35.4		4	809
1992 GP2	*	1992 04 04.23125	13 59 04.58	-13 16 42.8	19.5	4	809
1992 GP2		1992 04 04.24444	13 59 03.76	-13 16 41.0		4	809
1992 GP2		1992 04 04.25764	13 59 03.34	-13 16 40.6		4	809
1992 GP2		1992 04 06.22500	13 57 14.80	-13 14 57.2		4	809
1992 GP2		1992 04 06.23819	13 57 13.96	-13 14 56.4		4	809
1992 GP2		1992 04 06.25139	13 57 13.17	-13 14 55.3		4	809
1992 GQ2	*	1992 04 04.23125	14 00 16.14	-10 21 28.6	19.0	4	809
1992 GQ2		1992 04 04.24444	14 00 15.47	-10 21 23.7		4	809
1992 GQ2		1992 04 04.25764	14 00 14.66	-10 21 17.6		4	809
1992 GQ2		1992 04 06.22500	13 59 27.22	-10 10 01.3		4	809
1992 GQ2		1992 04 06.23819	13 59 26.58	-10 09 54.8		4	809
1992 GQ2		1992 04 06.25139	13 59 26.07	-10 09 48.4		4	809
1992 GR2	*	1992 04 04.23125	14 00 23.40	-10 31 05.2	18.6	4	809
1992 GR2		1992 04 04.24444	14 00 22.68	-10 31 00.8		4	809
1992 GR2		1992 04 04.25764	14 00 22.10	-10 30 56.5		4	809
1992 GR2		1992 04 06.22500	13 58 47.89	-10 19 43.3		4	809
1992 GR2		1992 04 06.23819	13 58 47.17	-10 19 39.5		4	809
1992 GR2		1992 04 06.25139	13 58 46.37	-10 19 33.6		4	809
1992 GS2	*	1992 04 04.23125	14 00 49.77	-14 16 36.5	19.2	4	809
1992 GS2		1992 04 04.24444	14 00 49.00	-14 16 31.7		4	809
1992 GS2		1992 04 04.25764	14 00 48.23	-14 16 27.9		4	809
1992 GS2		1992 04 06.22500	13 59 01.24	-14 04 43.6		4	809
1992 GS2		1992 04 06.23819	13 59 00.51	-14 04 38.9		4	809
1992 GS2		1992 04 06.25139	13 58 59.65	-14 04 35.5		4	809
1992 GT2	*	1992 04 04.23125	14 00 50.10	-10 28 59.7	18.6	4	809
1992 GT2		1992 04 04.24444	14 00 49.64	-10 28 52.1		4	809
1992 GT2		1992 04 04.25764	14 00 48.96	-10 28 44.3		4	809
1992 GT2		1992 04 06.22500	14 00 00.60	-10 27 20.7		4	809
1992 GT2		1992 04 06.23819	14 00 00.05	-10 27 18.1		4	809
1992 GT2		1992 04 06.25139	13 59 59.43	-10 27 16.4		4	809
1992 GU2	*	1992 04 04.23125	14 01 16.14	-11 00 47.5	18.7	4	809

1992	GU2		1992	04	04.24444	14	01	15.41	-11	00	46.4		4	809
1992	GU2		1992	04	04.25764	14	01	14.63	-11	00	47.1		4	809
1992	GU2		1992	04	06.22500	13	59	39.03	-10	58	34.0		4	809
1992	GU2		1992	04	06.23819	13	59	38.30	-10	58	32.0		4	809
1992	GU2		1992	04	06.25139	13	59	37.69	-10	58	32.3		4	809
1992	GV2	*	1992	04	04.23125	14	01	54.32	-11	03	16.3	19.3	4	809
1992	GV2		1992	04	04.24444	14	01	53.76	-11	03	15.2		4	809
1992	GV2		1992	04	04.25764	14	01	53.31	-11	03	12.3		4	809
1992	GV2		1992	04	06.22500	14	00	32.18	-10	55	43.5	19.0	4	809
1992	GV2		1992	04	06.23819	14	00	31.66	-10	55	40.8		4	809
1992	GV2		1992	04	06.25139	14	00	31.17	-10	55	38.0		4	809
1992	GW2	*	1992	04	04.23125	14	03	29.62	-12	31	30.4	19.2	4	809
1992	GW2		1992	04	04.24444	14	03	29.03	-12	31	27.2		4	809
1992	GW2		1992	04	04.25764	14	03	28.44	-12	31	23.6		4	809
1992	GW2		1992	04	06.22500	14	02	09.52	-12	20	55.6		4	809
1992	GW2		1992	04	06.23819	14	02	08.86	-12	20	53.3		4	809
1992	GW2		1992	04	06.25139	14	02	08.10	-12	20	47.8		4	809
1992	GX2	*	1992	04	04.23125	14	03	51.48	-12	54	46.4	19.0	4	809
1992	GX2		1992	04	04.24444	14	03	50.76	-12	54	45.5		4	809
1992	GX2		1992	04	04.25764	14	03	50.14	-12	54	43.9		4	809
1992	GX2		1992	04	06.22500	14	02	29.57	-12	49	06.6		4	809
1992	GX2		1992	04	06.23819	14	02	29.02	-12	49	04.5		4	809
1992	GX2		1992	04	06.25139	14	02	28.39	-12	49	03.9		4	809
1992	GY2	*	1992	04	04.23125	14	04	49.30	-15	08	32.1	19.4	4	809
1992	GY2		1992	04	04.24444	14	04	48.50	-15	08	28.4		4	809
1992	GY2		1992	04	04.25764	14	04	47.80	-15	08	24.3		4	809
1992	GY2		1992	04	06.22500	14	03	43.99	-14	55	23.4		4	809
1992	GY2		1992	04	06.23819	14	03	43.22	-14	55	21.0		4	809
1992	GY2		1992	04	06.25139	14	03	42.49	-14	55	17.4		4	809
1992	GZ2	*	1992	04	04.23125	14	05	38.40	-13	26	08.3	19.0	4	809
1992	GZ2		1992	04	04.24444	14	05	37.82	-13	26	05.8		4	809
1992	GZ2		1992	04	04.25764	14	05	37.25	-13	26	02.7		4	809
1992	GZ2		1992	04	06.22500	14	04	14.16	-13	17	55.6		4	809
1992	GZ2		1992	04	06.23819	14	04	13.50	-13	17	52.0		4	809
1992	GZ2		1992	04	06.25139	14	04	12.94	-13	17	49.4		4	809
1992	GA3	*	1992	04	04.23125	14	06	04.49	-13	01	15.8	18.6	4	809
1992	GA3		1992	04	04.24444	14	06	03.88	-13	01	13.0		4	809
1992	GA3		1992	04	04.25764	14	06	03.38	-13	01	11.1		4	809
1992	GA3		1992	04	06.22500	14	04	45.39	-12	54	34.7		4	809
1992	GA3		1992	04	06.23819	14	04	44.81	-12	54	33.2		4	809
1992	GA3		1992	04	06.25139	14	04	44.25	-12	54	30.2		4	809
1992	GB3	*	1992	04	04.23125	14	06	07.24	-14	20	04.4	19.0	4	809
1992	GB3		1992	04	04.24444	14	06	06.58	-14	20	01.6		4	809
1992	GB3		1992	04	04.25764	14	06	05.92	-14	20	01.3		4	809
1992	GB3		1992	04	06.22500	14	04	32.91	-14	15	19.6		4	809
1992	GB3		1992	04	06.23819	14	04	32.24	-14	15	18.3		4	809
1992	GB3		1992	04	06.25139	14	04	31.51	-14	15	16.2		4	809
1992	GC3	*	1992	04	04.23125	14	10	12.91	-11	02	23.1	18.7	4	809
1992	GC3		1992	04	04.24444	14	10	12.29	-11	02	21.4		4	809
1992	GC3		1992	04	04.25764	14	10	11.68	-11	02	19.3		4	809
1992	GC3		1992	04	06.22500	14	08	48.11	-10	57	00.6		4	809
1992	GC3		1992	04	06.23819	14	08	47.49	-10	56	58.5		4	809
1992	GC3		1992	04	06.25139	14	08	46.86	-10	56	56.5		4	809
1992	GD3	*	1992	04	04.27639	14	19	55.15	-14	41	10.1	18.6	4	809
1992	GD3		1992	04	04.28958	14	19	54.58	-14	41	06.0		4	809
1992	GD3		1992	04	04.30278	14	19	54.01	-14	41	00.5		4	809
1992	GD3		1992	04	06.26806	14	18	34.12	-14	27	56.8	18.7	4	809
1992	GD3		1992	04	06.28125	14	18	33.50	-14	27	52.2		4	809
1992	GD3		1992	04	06.29444	14	18	32.91	-14	27	46.2		4	809

1992 GD3		1992 04 25.13403	14 03 27.14	-12 04 34.0	18.6	4	809
1992 GD3		1992 04 25.14722	14 03 26.42	-12 04 28.1		4	809
1992 GD3		1992 04 25.16042	14 03 25.84	-12 04 22.4		4	809
1992 GE3	*	1992 04 04.27639	14 21 16.71	-14 57 53.8		4	809
1992 GE3		1992 04 04.28958	14 21 16.15	-14 57 45.9		4	809
1992 GE3		1992 04 04.30278	14 21 15.67	-14 57 40.3		4	809
1992 GE3		1992 04 06.26806	14 20 04.62	-14 41 47.6	18.6	4	809
1992 GE3		1992 04 06.28125	14 20 04.00	-14 41 41.2		4	809
1992 GE3		1992 04 06.29444	14 20 03.43	-14 41 34.8		4	809
1992 GE3		1992 04 25.13403	14 05 54.83	-11 44 55.4	18.8	4	809
1992 GE3		1992 04 25.14722	14 05 54.19	-11 44 48.2		4	809
1992 GE3		1992 04 25.16042	14 05 53.55	-11 44 41.1		4	809
1992 GF3	*	1992 04 04.27639	14 21 18.20	-13 56 02.8		4	809
1992 GF3		1992 04 04.28958	14 21 17.77	-13 55 59.1		4	809
1992 GF3		1992 04 04.30278	14 21 17.55	-13 55 55.5		4	809
1992 GF3		1992 04 06.26806	14 20 28.69	-13 46 57.0	18.2	4	809
1992 GF3		1992 04 06.28125	14 20 28.37	-13 46 53.5		4	809
1992 GF3		1992 04 06.29444	14 20 28.02	-13 46 51.4		4	809
1992 GF3		1992 04 25.13403	14 11 50.87	-12 14 58.0	18.3	4	809
1992 GF3		1992 04 25.14722	14 11 50.44	-12 14 52.6		4	809
1992 GF3		1992 04 25.16042	14 11 50.08	-12 14 49.6		4	809
1992 GG3	*	1992 04 04.27639	14 22 40.24	-15 37 34.4		4	809
1992 GG3		1992 04 04.28958	14 22 39.59	-15 37 31.7		4	809
1992 GG3		1992 04 04.30278	14 22 38.99	-15 37 29.5		4	809
1992 GG3		1992 04 06.26806	14 21 09.83	-15 30 09.6	18.6	4	809
1992 GG3		1992 04 06.28125	14 21 09.16	-15 30 06.2		4	809
1992 GG3		1992 04 06.29444	14 21 08.51	-15 30 03.4		4	809
1992 GG3		1992 04 25.13403	14 03 37.95	-13 56 23.0	18.5	4	809
1992 GG3		1992 04 25.14722	14 03 37.14	-13 56 19.1		4	809
1992 GG3		1992 04 25.16042	14 03 36.31	-13 56 16.0		4	809
1992 GH3	*	1992 04 04.27639	14 22 57.24	-16 13 19.6		4	809
1992 GH3		1992 04 04.28958	14 22 56.64	-16 13 14.0		4	809
1992 GH3		1992 04 04.30278	14 22 56.11	-16 13 08.2		4	809
1992 GH3		1992 04 06.26806	14 21 39.75	-15 59 37.9	18.6	4	809
1992 GH3		1992 04 06.28125	14 21 39.18	-15 59 31.8		4	809
1992 GH3		1992 04 06.29444	14 21 38.70	-15 59 27.0		4	809
1992 GH3		1992 04 25.13403	14 06 55.54	-13 26 54.8	18.5	4	809
1992 GH3		1992 04 25.14722	14 06 54.82	-13 26 46.6		4	809
1992 GH3		1992 04 25.16042	14 06 54.10	-13 26 40.1		4	809
1992 GJ3	*	1992 04 04.27639	14 23 14.20	-16 04 53.4		4	809
1992 GJ3		1992 04 04.28958	14 23 13.56	-16 04 49.3		4	809
1992 GJ3		1992 04 04.30278	14 23 12.99	-16 04 46.0		4	809
1992 GJ3		1992 04 06.26806	14 21 49.22	-15 55 06.7	18.6	4	809
1992 GJ3		1992 04 06.28125	14 21 48.58	-15 55 03.4		4	809
1992 GJ3		1992 04 06.29444	14 21 47.93	-15 54 59.2		4	809
1992 GJ3		1992 04 25.13403	14 04 56.27	-13 55 31.4	18.4	4	809
1992 GJ3		1992 04 25.14722	14 04 55.43	-13 55 26.2		4	809
1992 GJ3		1992 04 25.16042	14 04 54.59	-13 55 20.6		4	809
1992 GK3	*	1992 04 04.27639	14 24 54.81	-14 35 01.7		4	809
1992 GK3		1992 04 04.28958	14 24 54.26	-14 35 00.2		4	809
1992 GK3		1992 04 04.30278	14 24 53.77	-14 34 57.4		4	809
1992 GK3		1992 04 06.26806	14 23 35.19	-14 28 50.4	18.8	4	809
1992 GK3		1992 04 06.28125	14 23 34.65	-14 28 47.7		4	809
1992 GK3		1992 04 06.29444	14 23 34.09	-14 28 44.4		4	809
1992 GL3	*	1992 04 04.27639	14 25 16.62	-12 44 07.9	18.7	4	809
1992 GL3		1992 04 04.28958	14 25 16.05	-12 44 02.2		4	809
1992 GL3		1992 04 04.30278	14 25 15.59	-12 43 55.9		4	809
1992 GL3		1992 04 06.26806	14 24 05.50	-12 29 54.9	19.0	4	809
1992 GL3		1992 04 06.28125	14 24 05.02	-12 29 49.1		4	809

1992	GL3		1992	04	06.29444	14	24	04.44	-12	29	43.5		4	809
1992	GM3	*	1992	04	04.27639	14	25	22.90	-16	37	57.6		4	809
1992	GM3		1992	04	04.28958	14	25	22.35	-16	37	52.6		4	809
1992	GM3		1992	04	04.30278	14	25	21.90	-16	37	48.9		4	809
1992	GM3		1992	04	06.26806	14	24	10.91	-16	26	52.7	18.5	4	809
1992	GM3		1992	04	06.28125	14	24	10.39	-16	26	48.8		4	809
1992	GM3		1992	04	06.29444	14	24	09.92	-16	26	46.7		4	809
1992	GM3		1992	04	25.13403	14	09	38.19	-14	15	57.9	18.6	4	809
1992	GM3		1992	04	25.14722	14	09	37.55	-14	15	52.7		4	809
1992	GM3		1992	04	25.16042	14	09	36.75	-14	15	46.2		4	809
1992	GN3	*	1992	04	04.27639	14	25	34.97	-15	57	38.3		4	809
1992	GN3		1992	04	04.28958	14	25	34.42	-15	57	35.7		4	809
1992	GN3		1992	04	04.30278	14	25	33.83	-15	57	34.6		4	809
1992	GN3		1992	04	06.26806	14	24	10.62	-15	54	07.1	19.8	4	809
1992	GN3		1992	04	06.28125	14	24	09.91	-15	54	05.9		4	809
1992	GN3		1992	04	06.29444	14	24	09.30	-15	54	04.9		4	809
1992	GN3		1992	04	25.13403	14	06	46.57	-14	56	43.5	18.6	4	809
1992	GN3		1992	04	25.14722	14	06	45.78	-14	56	40.7		4	809
1992	GN3		1992	04	25.16042	14	06	44.88	-14	56	38.0		4	809
1992	GO3	*	1992	04	04.27639	14	25	42.43	-14	38	49.8		4	809
1992	GO3		1992	04	04.28958	14	25	41.90	-14	38	47.4		4	809
1992	GO3		1992	04	04.30278	14	25	41.31	-14	38	44.6		4	809
1992	GO3		1992	04	06.26806	14	24	22.29	-14	31	03.8	18.5	4	809
1992	GO3		1992	04	06.28125	14	24	21.82	-14	31	00.8		4	809
1992	GO3		1992	04	06.29444	14	24	21.31	-14	30	57.6		4	809
1992	GO3		1992	04	25.13403	14	09	30.30	-13	03	13.5	18.5	4	809
1992	GO3		1992	04	25.14722	14	09	29.56	-13	03	09.4		4	809
1992	GO3		1992	04	25.16042	14	09	28.90	-13	03	06.6		4	809
1992	GP3	*	1992	04	04.27639	14	25	46.41	-13	30	03.8		4	809
1992	GP3		1992	04	04.28958	14	25	45.87	-13	30	01.8		4	809
1992	GP3		1992	04	04.30278	14	25	45.36	-13	29	59.4		4	809
1992	GP3		1992	04	06.26806	14	24	34.16	-13	23	46.1	18.5	4	809
1992	GP3		1992	04	06.28125	14	24	33.62	-13	23	43.2		4	809
1992	GP3		1992	04	06.29444	14	24	33.16	-13	23	41.4		4	809
1992	GP3		1992	04	25.13403	14	10	49.14	-12	12	03.5	18.2	4	809
1992	GP3		1992	04	25.14722	14	10	48.49	-12	12	00.5		4	809
1992	GP3		1992	04	25.16042	14	10	47.86	-12	11	57.5		4	809
1992	GQ3	*	1992	04	04.27639	14	26	06.24	-15	11	02.1	19.4	4	809
1992	GQ3		1992	04	04.28958	14	26	05.69	-15	11	01.1		4	809
1992	GQ3		1992	04	04.30278	14	26	05.14	-15	11	00.5		4	809
1992	GQ3		1992	04	06.26806	14	24	39.76	-15	08	31.2	19.6	4	809
1992	GQ3		1992	04	06.28125	14	24	39.17	-15	08	30.7		4	809
1992	GQ3		1992	04	06.29444	14	24	38.53	-15	08	29.7		4	809
1992	GR3	*	1992	04	04.27639	14	26	07.80	-13	41	49.2		4	809
1992	GR3		1992	04	04.28958	14	26	07.01	-13	41	48.8		4	809
1992	GR3		1992	04	04.30278	14	26	06.46	-13	41	49.8		4	809
1992	GR3		1992	04	06.26806	14	24	25.45	-13	40	58.7	18.7	4	809
1992	GR3		1992	04	06.28125	14	24	24.75	-13	40	57.3		4	809
1992	GR3		1992	04	06.29444	14	24	23.99	-13	40	56.5		4	809
1992	GR3		1992	04	25.13403	14	06	05.98	-13	21	34.6	18.6	4	809
1992	GR3		1992	04	25.14722	14	06	05.10	-13	21	33.6		4	809
1992	GR3		1992	04	25.16042	14	06	04.38	-13	21	32.4		4	809
1992	GS3	*	1992	04	04.27639	14	26	19.05	-16	25	58.3		4	809
1992	GS3		1992	04	04.28958	14	26	18.59	-16	25	50.9		4	809
1992	GS3		1992	04	04.30278	14	26	18.14	-16	25	43.7		4	809
1992	GS3		1992	04	06.26806	14	25	11.09	-16	05	33.7	19.0	4	809
1992	GS3		1992	04	06.28125	14	25	10.66	-16	05	25.5		4	809
1992	GS3		1992	04	06.29444	14	25	10.13	-16	05	17.4		4	809
1992	GS3		1992	04	25.13403	14	11	39.76	-12	25	30.0	19.0	4	809

1992 GS3		1992 04 25.14722	14 11 39.11	-12 25 20.7		4	809
1992 GS3		1992 04 25.16042	14 11 38.47	-12 25 11.5		4	809
1992 GT3	*	1992 04 04.27639	14 26 23.79	-16 02 22.4		4	809
1992 GT3		1992 04 04.28958	14 26 23.18	-16 02 20.4		4	809
1992 GT3		1992 04 04.30278	14 26 22.60	-16 02 19.7		4	809
1992 GT3		1992 04 06.26806	14 25 00.65	-15 58 28.3	18.7	4	809
1992 GT3		1992 04 06.28125	14 25 00.04	-15 58 26.8		4	809
1992 GT3		1992 04 06.29444	14 24 59.42	-15 58 24.4		4	809
1992 GU3	*	1992 04 04.27639	14 26 59.29	-15 43 32.2	18.7	4	809
1992 GU3		1992 04 04.28958	14 26 58.84	-15 43 31.9		4	809
1992 GU3		1992 04 04.30278	14 26 58.40	-15 43 31.1		4	809
1992 GU3		1992 04 06.26806	14 26 05.36	-15 40 26.1	19.4	4	809
1992 GU3		1992 04 06.28125	14 26 05.02	-15 40 23.7		4	809
1992 GU3		1992 04 06.29444	14 26 04.66	-15 40 22.7		4	809
1992 GV3	*	1992 04 04.27639	14 27 18.42	-13 20 15.5		4	809
1992 GV3		1992 04 04.28958	14 27 17.78	-13 20 16.4		4	809
1992 GV3		1992 04 04.30278	14 27 17.14	-13 20 16.1		4	809
1992 GV3		1992 04 06.26806	14 25 40.64	-13 20 47.9	18.7	4	809
1992 GV3		1992 04 06.28125	14 25 39.96	-13 20 48.3		4	809
1992 GV3		1992 04 06.29444	14 25 39.28	-13 20 48.0		4	809
1992 GV3		1992 04 25.13403	14 07 25.80	-13 14 19.7	18.5	4	809
1992 GV3		1992 04 25.14722	14 07 24.85	-13 14 18.9		4	809
1992 GV3		1992 04 25.16042	14 07 23.99	-13 14 18.7		4	809
1992 GW3	*	1992 04 04.27639	14 27 47.45	-13 40 36.2		4	809
1992 GW3		1992 04 04.28958	14 27 46.97	-13 40 34.1		4	809
1992 GW3		1992 04 04.30278	14 27 46.31	-13 40 32.8		4	809
1992 GW3		1992 04 06.26806	14 26 30.97	-13 32 56.6	19.0	4	809
1992 GW3		1992 04 06.28125	14 26 30.32	-13 32 53.0		4	809
1992 GW3		1992 04 06.29444	14 26 29.74	-13 32 51.3		4	809
1992 GX3	*	1992 04 04.27639	14 27 55.33	-13 34 54.9		4	809
1992 GX3		1992 04 04.28958	14 27 54.44	-13 34 59.7		4	809
1992 GX3		1992 04 04.30278	14 27 53.53	-13 35 04.6		4	809
1992 GX3		1992 04 06.26806	14 25 42.75	-13 46 24.1	18.6	4	809
1992 GX3		1992 04 06.28125	14 25 41.72	-13 46 28.5		4	809
1992 GX3		1992 04 06.29444	14 25 40.79	-13 46 32.8		4	809
1992 GY3	*	1992 04 04.27639	14 27 57.48	-15 30 12.4		4	809
1992 GY3		1992 04 04.28958	14 27 56.89	-15 30 07.0		4	809
1992 GY3		1992 04 04.30278	14 27 56.34	-15 30 02.8		4	809
1992 GY3		1992 04 06.26806	14 26 36.47	-15 17 59.0	18.5	4	809
1992 GY3		1992 04 06.28125	14 26 35.90	-15 17 53.6		4	809
1992 GY3		1992 04 06.29444	14 26 35.31	-15 17 49.7		4	809
1992 GY3		1992 04 25.13403	14 11 19.85	-13 04 13.1	18.1	4	809
1992 GY3		1992 04 25.14722	14 11 19.12	-13 04 07.4		4	809
1992 GY3		1992 04 25.16042	14 11 18.43	-13 04 01.4		4	809
1992 GZ3	*	1992 04 04.27639	14 28 27.39	-12 40 20.1	18.6	4	809
1992 GZ3		1992 04 04.28958	14 28 26.99	-12 40 17.2		4	809
1992 GZ3		1992 04 04.30278	14 28 26.66	-12 40 17.7		4	809
1992 GZ3		1992 04 06.26806	14 27 34.96	-12 37 34.9	18.7	4	809
1992 GZ3		1992 04 06.28125	14 27 34.66	-12 37 33.5		4	809
1992 GZ3		1992 04 06.29444	14 27 34.32	-12 37 32.7		4	809
1992 GA4	*	1992 04 04.27639	14 28 39.37	-12 55 10.9		4	809
1992 GA4		1992 04 04.28958	14 28 38.83	-12 55 07.7		4	809
1992 GA4		1992 04 04.30278	14 28 38.39	-12 55 05.5		4	809
1992 GA4		1992 04 06.26806	14 27 29.91	-12 48 19.6	18.6	4	809
1992 GA4		1992 04 06.28125	14 27 29.38	-12 48 17.7		4	809
1992 GA4		1992 04 06.29444	14 27 28.91	-12 48 15.5		4	809
1992 GA4		1992 04 25.13403	14 14 19.15	-11 33 28.9	18.4	4	809
1992 GA4		1992 04 25.14722	14 14 18.54	-11 33 26.0		4	809
1992 GA4		1992 04 25.16042	14 14 17.89	-11 33 23.1		4	809

1992 GB4	*	1992 04 04.27639	14 28 56.84	-12 43 34.8		4	809
1992 GB4		1992 04 04.28958	14 28 56.26	-12 43 32.2		4	809
1992 GB4		1992 04 04.30278	14 28 55.58	-12 43 27.6		4	809
1992 GB4		1992 04 06.26806	14 27 29.76	-12 34 19.9	19.2	4	809
1992 GB4		1992 04 06.28125	14 27 29.20	-12 34 16.4		4	809
1992 GB4		1992 04 06.29444	14 27 28.56	-12 34 13.1		4	809
1992 GC4	*	1992 04 04.27639	14 29 07.86	-15 48 58.5		4	809
1992 GC4		1992 04 04.28958	14 29 07.21	-15 48 59.4		4	809
1992 GC4		1992 04 04.30278	14 29 06.62	-15 48 59.6		4	809
1992 GC4		1992 04 06.26806	14 27 40.46	-15 50 43.4	18.7	4	809
1992 GC4		1992 04 06.28125	14 27 39.79	-15 50 44.2		4	809
1992 GC4		1992 04 06.29444	14 27 39.08	-15 50 45.2		4	809
1992 GD4	*	1992 04 04.27639	14 29 27.02	-15 53 11.2		4	809
1992 GD4		1992 04 04.28958	14 29 26.54	-15 53 06.3		4	809
1992 GD4		1992 04 04.30278	14 29 26.05	-15 53 01.0		4	809
1992 GD4		1992 04 06.26806	14 28 17.67	-15 40 13.1	18.5	4	809
1992 GD4		1992 04 06.28125	14 28 17.13	-15 40 07.8		4	809
1992 GD4		1992 04 06.29444	14 28 16.64	-15 40 03.0		4	809
1992 GD4		1992 04 25.13403	14 14 17.95	-13 14 50.2	18.7	4	809
1992 GD4		1992 04 25.14722	14 14 17.27	-13 14 43.5		4	809
1992 GD4		1992 04 25.16042	14 14 16.64	-13 14 36.6		4	809
1992 GE4	*	1992 04 04.27639	14 29 49.57	-12 34 59.3		4	809
1992 GE4		1992 04 04.28958	14 29 49.05	-12 34 54.1		4	809
1992 GE4		1992 04 04.30278	14 29 48.56	-12 34 48.0		4	809
1992 GE4		1992 04 06.26806	14 28 39.73	-12 20 57.7	18.6	4	809
1992 GE4		1992 04 06.28125	14 28 39.20	-12 20 51.3		4	809
1992 GE4		1992 04 06.29444	14 28 38.77	-12 20 46.7		4	809
1992 GF4	*	1992 04 04.27639	14 30 01.10	-13 19 54.8		4	809
1992 GF4		1992 04 04.28958	14 30 00.42	-13 19 52.9		4	809
1992 GF4		1992 04 04.30278	14 29 59.76	-13 19 52.3		4	809
1992 GF4		1992 04 06.26806	14 28 17.79	-13 15 41.5	19.5	4	809
1992 GF4		1992 04 06.28125	14 28 17.03	-13 15 41.2		4	809
1992 GF4		1992 04 06.29444	14 28 16.39	-13 15 40.7		4	809
1992 GF4		1992 04 25.13403	14 09 04.35	-12 22 48.4	19.0	4	809
1992 GF4		1992 04 25.14722	14 09 03.45	-12 22 44.6		4	809
1992 GF4		1992 04 25.16042	14 09 02.46	-12 22 43.2		4	809
1992 GG4	*	1992 04 04.27639	14 30 08.76	-12 55 42.4		4	809
1992 GG4		1992 04 04.28958	14 30 08.05	-12 55 38.7		4	809
1992 GG4		1992 04 04.30278	14 30 07.38	-12 55 34.8		4	809
1992 GG4		1992 04 06.26806	14 28 34.36	-12 46 32.4	19.6	4	809
1992 GG4		1992 04 06.28125	14 28 33.75	-12 46 29.3		4	809
1992 GG4		1992 04 06.29444	14 28 33.19	-12 46 27.7		4	809
1992 GH4	*	1992 04 04.27639	14 30 34.48	-15 17 55.9		4	809
1992 GH4		1992 04 04.28958	14 30 33.90	-15 17 54.0		4	809
1992 GH4		1992 04 04.30278	14 30 33.45	-15 17 53.5		4	809
1992 GH4		1992 04 06.26806	14 29 14.30	-15 14 14.4	19.0	4	809
1992 GH4		1992 04 06.28125	14 29 13.74	-15 14 13.2		4	809
1992 GH4		1992 04 06.29444	14 29 13.19	-15 14 12.3		4	809
1992 GH4		1992 04 25.13403	14 12 50.58	-14 18 57.0	19.0	4	809
1992 GH4		1992 04 25.14722	14 12 49.81	-14 18 54.0		4	809
1992 GH4		1992 04 25.16042	14 12 49.01	-14 18 52.2		4	809
1992 GJ4	*	1992 04 04.27639	14 30 49.66	-14 56 43.7		4	809
1992 GJ4		1992 04 04.28958	14 30 49.11	-14 56 40.6		4	809
1992 GJ4		1992 04 04.30278	14 30 48.58	-14 56 37.8		4	809
1992 GJ4		1992 04 06.26806	14 29 30.34	-14 47 55.1	19.0	4	809
1992 GJ4		1992 04 06.28125	14 29 29.82	-14 47 50.9		4	809
1992 GJ4		1992 04 06.29444	14 29 29.27	-14 47 48.0		4	809
1992 GJ4		1992 04 25.13403	14 14 34.04	-13 09 19.0	18.5	4	809
1992 GJ4		1992 04 25.14722	14 14 33.35	-13 09 15.4		4	809

1992 GJ4		1992 04 25.16042	14 14 32.70	-13 09 10.9		4	809
1992 GK4	*	1992 04 04.27639	14 31 06.10	-16 11 53.3		4	809
1992 GK4		1992 04 04.28958	14 31 05.37	-16 11 54.3		4	809
1992 GK4		1992 04 04.30278	14 31 04.79	-16 11 57.0		4	809
1992 GK4		1992 04 06.26806	14 29 27.10	-16 13 19.1	18.7	4	809
1992 GK4		1992 04 06.28125	14 29 26.35	-16 13 20.1		4	809
1992 GK4		1992 04 06.29444	14 29 25.69	-16 13 20.5		4	809
1992 GL4	*	1992 04 04.27639	14 31 33.94	-15 34 57.7		4	809
1992 GL4		1992 04 04.28958	14 31 33.38	-15 34 57.6		4	809
1992 GL4		1992 04 04.30278	14 31 32.78	-15 34 57.3		4	809
1992 GL4		1992 04 06.26806	14 30 13.69	-15 33 27.1	18.7	4	809
1992 GL4		1992 04 06.28125	14 30 13.09	-15 33 27.2		4	809
1992 GL4		1992 04 06.29444	14 30 12.49	-15 33 26.0		4	809
1992 GM4	*	1992 04 04.27639	14 31 52.97	-15 19 06.1		4	809
1992 GM4		1992 04 04.28958	14 31 52.39	-15 19 01.0		4	809
1992 GM4		1992 04 04.30278	14 31 51.87	-15 18 57.4		4	809
1992 GM4		1992 04 06.26806	14 30 30.98	-15 08 09.8	18.7	4	809
1992 GM4		1992 04 06.28125	14 30 30.31	-15 08 05.5		4	809
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1992 GM4		1992 04 25.13403	14 14 32.64	-13 03 55.4	18.6	4	809
1992 GM4		1992 04 25.14722	14 14 31.87	-13 03 49.3		4	809
1992 GM4		1992 04 25.16042	14 14 31.05	-13 03 44.1		4	809
1992 GN4	*	1992 04 04.27639	14 32 12.50	-17 05 21.0		4	809
1992 GN4		1992 04 04.28958	14 32 11.87	-17 05 19.9		4	809
1992 GN4		1992 04 04.30278	14 32 11.37	-17 05 18.8		4	809
1992 GN4		1992 04 06.26806	14 30 54.90	-17 00 18.7	19.5	4	809
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1992 GN4		1992 04 06.29444	14 30 53.66	-17 00 14.8		4	809
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1992 GO4		1992 04 04.30278	14 32 16.95	-14 11 07.8		4	809
1992 GO4		1992 04 06.26806	14 31 03.68	-14 00 47.5	18.5	4	809
1992 GO4		1992 04 06.28125	14 31 03.09	-14 00 44.1		4	809
1992 GO4		1992 04 06.29444	14 31 02.56	-14 00 39.7		4	809
1992 GO4		1992 04 25.13403	14 15 34.85	-12 01 55.0	18.5	4	809
1992 GO4		1992 04 25.14722	14 15 34.11	-12 01 49.2		4	809
1992 GO4		1992 04 25.16042	14 15 33.35	-12 01 44.0		4	809
1992 GP4	*	1992 04 04.27639	14 33 40.57	-14 11 40.6	19.5	4	809
1992 GP4		1992 04 04.28958	14 33 39.96	-14 11 39.7		4	809
1992 GP4		1992 04 04.30278	14 33 39.37	-14 11 38.6		4	809
1992 GP4		1992 04 06.26806	14 32 19.18	-14 07 04.4	19.0	4	809
1992 GP4		1992 04 06.28125	14 32 18.65	-14 07 01.9		4	809
1992 GP4		1992 04 06.29444	14 32 18.12	-14 07 00.7		4	809
1992 GQ4	*	1992 04 04.27639	14 34 22.32	-16 18 24.4		4	809
1992 GQ4		1992 04 04.28958	14 34 21.60	-16 18 24.2		4	809
1992 GQ4		1992 04 04.30278	14 34 20.78	-16 18 22.9		4	809
1992 GQ4		1992 04 06.26806	14 32 45.83	-16 16 25.9	18.7	4	809
1992 GQ4		1992 04 06.28125	14 32 45.00	-16 16 24.9		4	809
1992 GQ4		1992 04 06.29444	14 32 44.35	-16 16 24.2		4	809
1992 GR4	*	1992 04 04.27639	14 34 35.33	-16 36 47.1		4	809
1992 GR4		1992 04 04.28958	14 34 34.66	-16 36 45.8		4	809
1992 GR4		1992 04 04.30278	14 34 34.06	-16 36 44.9		4	809
1992 GR4		1992 04 06.26806	14 33 09.59	-16 33 44.4	18.7	4	809
1992 GR4		1992 04 06.28125	14 33 09.01	-16 33 43.5		4	809
1992 GR4		1992 04 06.29444	14 33 08.38	-16 33 43.0		4	809
1992 GS4	*	1992 04 04.27639	14 34 54.99	-15 48 40.8	19.0	4	809
1992 GS4		1992 04 04.28958	14 34 54.47	-15 48 37.4		4	809
1992 GS4		1992 04 04.30278	14 34 53.82	-15 48 35.1		4	809
1992 GS4		1992 04 06.26806	14 33 40.95	-15 43 12.3	20.0	4	809

1992 GS4		1992 04 06.28125	14 33 40.39	-15 43 09.1		4	809
1992 GS4		1992 04 06.29444	14 33 39.75	-15 43 06.9		4	809
1992 GT4	*	1992 04 04.27639	14 35 27.78	-14 51 24.8		4	809
1992 GT4		1992 04 04.28958	14 35 27.27	-14 51 22.9		4	809
1992 GT4		1992 04 04.30278	14 35 26.67	-14 51 20.7		4	809
1992 GT4		1992 04 06.26806	14 34 08.67	-14 45 57.7	19.4	4	809
1992 GT4		1992 04 06.28125	14 34 08.12	-14 45 55.2		4	809
1992 GT4		1992 04 06.29444	14 34 07.57	-14 45 54.4		4	809
1992 GU4	*	1992 04 04.27639	14 35 50.61	-13 21 11.1	19.0	4	809
1992 GU4		1992 04 04.28958	14 35 50.06	-13 21 08.3		4	809
1992 GU4		1992 04 04.30278	14 35 49.52	-13 21 06.1		4	809
1992 GU4		1992 04 06.26806	14 34 38.45	-13 13 37.3	19.6	4	809
1992 GU4		1992 04 06.28125	14 34 37.92	-13 13 34.8		4	809
1992 GU4		1992 04 06.29444	14 34 37.47	-13 13 32.7		4	809
1992 GV4	*	1992 04 04.27639	14 36 15.91	-14 08 13.9		4	809
1992 GV4		1992 04 04.28958	14 36 15.33	-14 08 10.4		4	809
1992 GV4		1992 04 04.30278	14 36 14.63	-14 08 09.2		4	809
1992 GV4		1992 04 06.26806	14 35 06.91	-14 02 47.4	19.5	4	809
1992 GV4		1992 04 06.28125	14 35 06.44	-14 02 44.7		4	809
1992 GV4		1992 04 06.29444	14 35 05.94	-14 02 41.6		4	809
1992 GW4	*	1992 04 04.27639	14 36 46.84	-12 49 20.8		4	809
1992 GW4		1992 04 04.28958	14 36 46.16	-12 49 21.5		4	809
1992 GW4		1992 04 04.30278	14 36 45.52	-12 49 22.9		4	809
1992 GW4		1992 04 06.26806	14 35 18.04	-12 50 54.7	18.5	4	809
1992 GW4		1992 04 06.28125	14 35 17.35	-12 50 54.7		4	809
1992 GW4		1992 04 06.29444	14 35 16.79	-12 50 56.1		4	809
1992 GW4		1992 04 25.13403	14 17 05.95	-12 54 10.2	18.5	4	809
1992 GW4		1992 04 25.14722	14 17 05.08	-12 54 09.3		4	809
1992 GW4		1992 04 25.16042	14 17 04.20	-12 54 09.8		4	809
1992 GX4	*	1992 04 04.27639	14 37 10.00	-13 55 35.2		4	809
1992 GX4		1992 04 04.28958	14 37 09.39	-13 55 34.3		4	809
1992 GX4		1992 04 04.30278	14 37 08.82	-13 55 34.0		4	809
1992 GX4		1992 04 06.26806	14 35 47.39	-13 54 08.4	18.5	4	809
1992 GX4		1992 04 06.28125	14 35 46.75	-13 54 07.7		4	809
1992 GX4		1992 04 06.29444	14 35 46.15	-13 54 06.7		4	809
1992 GX4		1992 04 25.13403	14 18 30.56	-13 24 22.1	18.3	4	809
1992 GX4		1992 04 25.14722	14 18 29.64	-13 24 20.3		4	809
1992 GX4		1992 04 25.16042	14 18 28.77	-13 24 18.8		4	809
1992 GY4	*	1992 04 04.27639	14 37 21.34	-15 34 37.2		4	809
1992 GY4		1992 04 04.28958	14 37 20.56	-15 34 40.0		4	809
1992 GY4		1992 04 04.30278	14 37 19.81	-15 34 43.2		4	809
1992 GY4		1992 04 06.26806	14 35 30.50	-15 42 04.5	18.6	4	809
1992 GY4		1992 04 06.28125	14 35 29.71	-15 42 07.2		4	809
1992 GY4		1992 04 06.29444	14 35 28.94	-15 42 09.3		4	809
1992 GZ4	*	1992 04 04.27639	14 37 43.57	-13 05 15.6		4	809
1992 GZ4		1992 04 04.28958	14 37 43.06	-13 05 13.4		4	809
1992 GZ4		1992 04 04.30278	14 37 42.60	-13 05 12.2		4	809
1992 GZ4		1992 04 06.26806	14 36 32.44	-12 59 50.4	19.0	4	809
1992 GZ4		1992 04 06.28125	14 36 31.94	-12 59 47.8		4	809
1992 GZ4		1992 04 06.29444	14 36 31.40	-12 59 44.4		4	809
1992 GA5	*	1992 04 04.27639	14 37 55.03	-12 57 10.2		4	809
1992 GA5		1992 04 04.28958	14 37 54.47	-12 57 08.6		4	809
1992 GA5		1992 04 04.30278	14 37 54.02	-12 57 07.7		4	809
1992 GA5		1992 04 06.26806	14 36 45.98	-12 54 29.2	18.7	4	809
1992 GA5		1992 04 06.28125	14 36 45.44	-12 54 28.6		4	809
1992 GA5		1992 04 06.29444	14 36 44.87	-12 54 28.5		4	809
1992 GB5	*	1992 04 04.27639	14 37 56.93	-12 52 42.9		4	809
1992 GB5		1992 04 04.28958	14 37 56.45	-12 52 39.2		4	809
1992 GB5		1992 04 04.30278	14 37 56.03	-12 52 36.5		4	809



1992 GB5		1992 04 06.26806	14 36 52.04	-12 43 39.5	18.5	4 809
1992 GB5		1992 04 06.28125	14 36 51.57	-12 43 36.5		4 809
1992 GB5		1992 04 06.29444	14 36 51.08	-12 43 32.4		4 809
1992 GC5	*	1992 04 04.27639	14 38 14.96	-13 13 08.1		4 809
1992 GC5		1992 04 04.28958	14 38 14.46	-13 13 06.8		4 809
1992 GC5		1992 04 04.30278	14 38 13.95	-13 13 04.6		4 809
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1992 GC5		1992 04 06.29444	14 37 02.66	-13 07 57.7		4 809
1992 GD5	*	1992 04 04.27639	14 39 39.07	-16 33 33.3		4 809
1992 GD5		1992 04 04.28958	14 39 38.57	-16 33 30.8		4 809
1992 GD5		1992 04 04.30278	14 39 38.13	-16 33 29.0		4 809
1992 GD5		1992 04 06.26806	14 38 34.18	-16 27 23.8	18.5	4 809
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1992 GD5		1992 04 06.29444	14 38 33.13	-16 27 18.9		4 809
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1992 HG		1992 04 06.28125	14 30 49.47	-15 34 33.9		4 809
1992 HG		1992 04 06.29444	14 30 48.94	-15 34 30.7		4 809
1992 HG		1992 04 25.13403	14 17 55.13	-13 47 57.0	18.4	4 809
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1992 HG		1992 04 25.16042	14 17 53.83	-13 47 46.8		4 809
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1992 HX		1992 04 04.28958	14 33 26.56	-14 22 50.1		4 809
1992 HX		1992 04 04.30278	14 33 26.14	-14 22 48.0		4 809
1992 HX		1992 04 06.26806	14 32 13.30	-14 17 30.9	19.4	4 809
1992 HX		1992 04 06.28125	14 32 12.88	-14 17 28.6		4 809
1992 HX		1992 04 06.29444	14 32 12.38	-14 17 26.0		4 809
1992 HY		1992 04 04.27639	14 35 47.25	-14 57 40.8		4 809
1992 HY		1992 04 04.28958	14 35 46.64	-14 57 38.2		4 809
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1992 HY		1992 04 06.26806	14 34 24.53	-14 50 33.7	18.6	4 809
1992 HY		1992 04 06.28125	14 34 23.93	-14 50 31.6		4 809
1992 HY		1992 04 06.29444	14 34 23.32	-14 50 28.6		4 809
1992 HY		1992 04 25.13403	14 18 12.24	-13 25 43.2	18.5	4 809
1992 HY		1992 04 25.14722	14 18 11.47	-13 25 38.7		4 809
1992 HY		1992 04 25.16042	14 18 10.70	-13 25 35.2		4 809
1992 HG1		1992 04 04.27639	14 38 35.15	-16 18 45.7	18.7	4 809
1992 HG1		1992 04 04.28958	14 38 34.72	-16 18 42.1		4 809
1992 HG1		1992 04 04.30278	14 38 34.28	-16 18 38.0		4 809
1992 HG1		1992 04 06.26806	14 37 33.63	-16 08 05.1	19.2	4 809
1992 HG1		1992 04 06.28125	14 37 33.17	-16 08 01.2		4 809
1992 HG1		1992 04 06.29444	14 37 32.76	-16 07 58.0		4 809
1992 HH1		1992 04 04.27639	14 39 28.51	-15 37 40.6		4 809
1992 HH1		1992 04 04.28958	14 39 27.92	-15 37 37.9		4 809
1992 HH1		1992 04 04.30278	14 39 27.46	-15 37 33.8		4 809
1992 HH1		1992 04 06.26806	14 38 14.27	-15 29 42.9	18.7	4 809
1992 HH1		1992 04 06.28125	14 38 13.77	-15 29 40.8		4 809
1992 HH1		1992 04 06.29444	14 38 13.27	-15 29 37.6		4 809
1992 HK1		1992 04 04.23125	13 59 46.93	-11 13 21.2	18.6	4 809
1992 HK1		1992 04 04.24444	13 59 46.32	-11 13 18.0		4 809
1992 HK1		1992 04 04.25764	13 59 45.73	-11 13 15.9		4 809
1992 HK1		1992 04 06.22500	13 58 18.28	-11 06 39.8		4 809
1992 HK1		1992 04 06.23819	13 58 17.66	-11 06 37.5		4 809
1992 HK1		1992 04 06.25139	13 58 17.00	-11 06 35.4		4 809
1992 HZ3		1992 04 04.23125	13 50 50.87	-12 16 06.8	18.5	4 809
1992 HZ3		1992 04 04.24444	13 50 50.25	-12 16 05.2		4 809

1992 HZ3	1992 04 04.25764	13 50 49.57	-12 16 03.0	4 809
1992 HZ3	1992 04 06.22500	13 49 16.28	-12 09 57.3	4 809
1992 HZ3	1992 04 06.23819	13 49 15.57	-12 09 55.0	4 809
1992 HZ3	1992 04 06.25139	13 49 14.88	-12 09 52.4	4 809
1992 HA4	1992 04 04.23125	13 50 50.11	-11 42 32.9	18.5 4 809
1992 HA4	1992 04 04.24444	13 50 49.46	-11 42 29.7	4 809
1992 HA4	1992 04 04.25764	13 50 48.82	-11 42 27.6	4 809
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1992 HC4	1992 04 04.24444	14 00 10.30	-11 03 49.0	4 809
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1992 HD4	1992 04 04.23125	13 58 03.39	-14 06 24.9	18.2 4 809
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1992 HF4	1992 04 06.22500	13 59 55.34	-12 51 32.4	4 809
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1992 JP1	* 1992 05 08.18507	15 15 30.92	-20 03 34.8	17.5 3 809
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1992 JP1	1992 05 12.32500	15 11 41.00	-19 54 04.6	3 809
1992 JP1	1992 05 12.33194	15 11 40.60	-19 54 03.7	3 809
1992 OH1	* 1992 07 26.38507	22 06 46.11	-15 00 48.2	17.2 3 809
1992 OH1	1992 07 26.39549	22 06 45.68	-15 00 52.3	3 809
1992 OH1	1992 07 26.40590	22 06 45.25	-15 00 56.3	3 809
1992 OH1	1992 07 28.35521	22 05 25.81	-15 12 32.6	3 809
1992 OH1	1992 07 28.36563	22 05 25.31	-15 12 36.4	3 809
1992 OH1	1992 07 28.37604	22 05 24.82	-15 12 40.2	3 809
1992 OJ1	* 1992 07 26.38507	22 07 06.40	-15 46 08.8	16.8 3 809
1992 OJ1	1992 07 26.39549	22 07 05.52	-15 46 02.0	3 809
1992 OJ1	1992 07 26.40590	22 07 04.64	-15 45 55.2	3 809
1992 OJ1	1992 07 28.35521	22 04 23.83	-15 25 14.9	3 809
1992 OJ1	1992 07 28.36563	22 04 22.98	-15 25 09.5	3 809
1992 OJ1	1992 07 28.37604	22 04 22.13	-15 25 04.2	3 809
1010 T-2	1992 04 04.27639	14 36 55.10	-13 14 51.9	4 809
1010 T-2	1992 04 04.28958	14 36 54.63	-13 14 47.1	4 809
1010 T-2	1992 04 04.30278	14 36 54.19	-13 14 41.6	4 809
1010 T-2	1992 04 06.26806	14 35 48.98	-13 02 13.6	18.4 4 809
1010 T-2	1992 04 06.28125	14 35 48.48	-13 02 08.3	4 809
1010 T-2	1992 04 06.29444	14 35 48.05	-13 02 03.5	4 809
3220 T-3	1992 04 04.27639	14 26 26.57	-13 40 05.2	4 809

3220 T-3	1992 04 04.28958	14 26 26.02	-13 40 02.5	4	809
3220 T-3	1992 04 04.30278	14 26 25.57	-13 40 01.0	4	809
3220 T-3	1992 04 06.26806	14 25 15.06	-13 33 23.9	18.8	4 809
3220 T-3	1992 04 06.28125	14 25 14.55	-13 33 20.2	4	809
3220 T-3	1992 04 06.29444	14 25 13.99	-13 33 18.3	4	809
(263)	1992 04 04.27639	14 19 13.62	-14 07 48.6	4	809
(263)	1992 04 04.28958	14 19 13.03	-14 07 45.6	4	809
(263)	1992 04 04.30278	14 19 12.51	-14 07 43.8	4	809
(263)	1992 04 06.26806	14 17 52.55	-14 00 22.8	17.8	4 809
(263)	1992 04 06.28125	14 17 51.96	-14 00 20.5	4	809
(263)	1992 04 06.29444	14 17 51.37	-14 00 16.5	4	809
(263)	1992 04 25.13403	14 03 21.05	-12 38 20.0	17.5	4 809
(263)	1992 04 25.14722	14 03 20.34	-12 38 16.4	4	809
(263)	1992 04 25.16042	14 03 19.69	-12 38 12.6	4	809
(331)	1992 04 04.27639	14 25 27.39	-15 55 32.3	4	809
(331)	1992 04 04.28958	14 25 26.71	-15 55 31.2	4	809
(331)	1992 04 04.30278	14 25 26.22	-15 55 30.1	4	809
(331)	1992 04 06.26806	14 24 06.17	-15 52 20.7	16.7	4 809
(331)	1992 04 06.28125	14 24 05.53	-15 52 19.0	4	809
(331)	1992 04 06.29444	14 24 04.95	-15 52 18.3	4	809
(331)	1992 04 25.13403	14 09 20.30	-15 09 10.1	17.8	4 809
(331)	1992 04 25.14722	14 09 19.53	-15 09 08.5	4	809
(331)	1992 04 25.16042	14 09 18.87	-15 09 05.9	4	809
(414)	1991 09 05.08403	20 42 38.00	-23 39 51.3	4	809
(414)	1991 09 05.09722	20 42 37.51	-23 39 53.2	4	809
(414)	1991 09 05.11042	20 42 37.04	-23 39 54.9	4	809
(440)	1992 04 04.23125	13 52 21.80	-14 36 36.8	16.8	4 809
(440)	1992 04 04.24444	13 52 20.95	-14 36 33.3	4	809
(440)	1992 04 04.25764	13 52 20.16	-14 36 29.5	4	809
(440)	1992 04 06.22500	13 50 27.89	-14 27 00.7	4	809
(440)	1992 04 06.23819	13 50 27.04	-14 26 56.9	4	809
(440)	1992 04 06.25139	13 50 26.19	-14 26 53.9	4	809
(440)	1992 04 25.08889	13 31 33.27	-12 39 34.4	16.0	4 809
(440)	1992 04 25.10208	13 31 32.43	-12 39 29.8	4	809
(440)	1992 04 25.11528	13 31 31.62	-12 39 25.4	4	809
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(832)	1992 04 04.24444	14 09 07.56	-14 09 12.4	4	809
(832)	1992 04 04.25764	14 09 06.98	-14 09 09.7	4	809
(832)	1992 04 06.22500	14 07 42.90	-14 01 47.0	4	809
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(832)	1992 04 06.25139	14 07 41.63	-14 01 41.7	4	809
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(981)	1992 04 04.28958	14 36 08.93	-14 38 04.8	4	809
(981)	1992 04 04.30278	14 36 08.47	-14 38 03.2	4	809
(981)	1992 04 06.26806	14 34 56.95	-14 33 04.0	18.0	4 809
(981)	1992 04 06.28125	14 34 56.34	-14 33 01.5	4	809
(981)	1992 04 06.29444	14 34 55.86	-14 33 00.1	4	809
(1171)	1991 09 05.08403	20 36 53.09	-19 41 15.7	4	809
(1171)	1991 09 05.09722	20 36 52.56	-19 41 17.8	4	809
(1171)	1991 09 05.11042	20 36 51.88	-19 41 18.1	4	809
(1171)	1991 09 06.01667	20 36 27.08	-19 43 22.9	16.5	4 809
(1171)	1991 09 06.02986	20 36 26.52	-19 43 25.5	4	809
(1171)	1991 09 06.04306	20 36 26.15	-19 43 26.2	4	809
(1218)	1991 09 05.08403	20 36 12.70	-23 28 38.5	4	809
(1218)	1991 09 05.09722	20 36 12.15	-23 28 39.3	4	809
(1218)	1991 09 05.11042	20 36 11.61	-23 28 39.8	4	809
(1218)	1991 09 06.01667	20 35 42.51	-23 29 24.3	18.5	4 809
(1218)	1991 09 06.02986	20 35 41.99	-23 29 26.3	4	809
(1218)	1991 09 06.04306	20 35 41.47	-23 29 26.4	4	809

(1247)	1992 04 25.13403	14 07 17.64	-10 40 23.1	17.8	4	809
(1247)	1992 04 25.14722	14 07 16.99	-10 40 19.9		4	809
(1247)	1992 04 25.16042	14 07 16.36	-10 40 15.8		4	809
(1267)	1992 04 04.27639	14 32 27.10	-15 43 03.6		4	809
(1267)	1992 04 04.28958	14 32 26.44	-15 43 03.3		4	809
(1267)	1992 04 04.30278	14 32 25.89	-15 43 03.2		4	809
(1267)	1992 04 06.26806	14 31 03.52	-15 41 49.8	17.5	4	809
(1267)	1992 04 06.28125	14 31 02.91	-15 41 50.2		4	809
(1267)	1992 04 06.29444	14 31 02.26	-15 41 49.3		4	809
(1267)	1992 04 25.13403	14 13 58.37	-15 10 50.4	17.5	4	809
(1267)	1992 04 25.14722	14 13 57.53	-15 10 48.6		4	809
(1267)	1992 04 25.16042	14 13 56.65	-15 10 47.2		4	809
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(1305)	1991 09 05.09722	20 38 54.44	-21 41 30.7		4	809
(1305)	1991 09 05.11042	20 38 53.97	-21 41 31.1		4	809
(1305)	1991 09 06.01667	20 38 30.43	-21 42 24.7	17.5	4	809
(1305)	1991 09 06.02986	20 38 29.96	-21 42 26.3		4	809
(1305)	1991 09 06.04306	20 38 29.62	-21 42 26.8		4	809
(1438)	1992 04 04.23125	14 09 58.98	-14 29 11.6	18.5	4	809
(1438)	1992 04 04.24444	14 09 58.37	-14 29 09.5		4	809
(1438)	1992 04 04.25764	14 09 57.91	-14 29 07.7		4	809
(1551)	1991 09 05.08403	20 31 36.31	-22 23 15.7		4	809
(1551)	1991 09 05.09722	20 31 35.85	-22 23 17.5		4	809
(1551)	1991 09 05.11042	20 31 35.47	-22 23 18.3		4	809
(1551)	1991 09 06.01667	20 31 17.08	-22 24 54.9	16.5	4	809
(1551)	1991 09 06.02986	20 31 16.68	-22 24 55.9		4	809
(1551)	1991 09 06.04306	20 31 16.34	-22 24 57.4		4	809
(1635)	1992 04 04.27639	14 41 10.77	-14 19 59.1	17.8	4	809
(1635)	1992 04 04.28958	14 41 10.16	-14 19 56.1		4	809
(1635)	1992 04 04.30278	14 41 09.71	-14 19 53.9		4	809
(1654)	1992 04 04.23125	13 54 48.77	-11 52 09.9	17.8	4	809
(1654)	1992 04 04.24444	13 54 48.07	-11 52 09.4		4	809
(1654)	1992 04 04.25764	13 54 47.40	-11 52 07.7		4	809
(1654)	1992 04 06.22500	13 53 14.53	-11 48 55.5		4	809
(1654)	1992 04 06.23819	13 53 13.91	-11 48 53.5		4	809
(1654)	1992 04 06.25139	13 53 13.20	-11 48 53.0		4	809
(1737)	1991 09 05.08403	20 30 58.81	-21 39 03.7		4	809
(1737)	1991 09 05.09722	20 30 58.28	-21 39 02.7		4	809
(1737)	1991 09 05.11042	20 30 57.74	-21 39 00.5		4	809
(1737)	1991 09 06.01667	20 30 32.74	-21 37 38.7	17.8	4	809
(1737)	1991 09 06.02986	20 30 32.24	-21 37 37.9		4	809
(1737)	1991 09 06.04306	20 30 31.83	-21 37 36.5		4	809
(2016)	1992 04 04.23125	14 04 34.63	-12 53 38.3	18.6	4	809
(2016)	1992 04 04.24444	14 04 34.07	-12 53 35.3		4	809
(2016)	1992 04 04.25764	14 04 33.54	-12 53 34.1		4	809
(2016)	1992 04 06.22500	14 03 14.34	-12 46 57.6		4	809
(2016)	1992 04 06.23819	14 03 13.74	-12 46 55.5		4	809
(2016)	1992 04 06.25139	14 03 13.25	-12 46 53.6		4	809
(2197)	1991 09 05.08403	20 44 15.86	-21 32 11.1		4	809
(2197)	1991 09 05.09722	20 44 15.32	-21 32 12.4		4	809
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(2197)	1991 09 06.01667	20 43 48.27	-21 33 23.4	18.1	4	809
(2197)	1991 09 06.02986	20 43 47.78	-21 33 24.5		4	809
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(2228)	1992 04 04.27639	14 32 49.84	-12 18 35.9		4	809
(2228)	1992 04 04.28958	14 32 49.28	-12 18 33.6		4	809
(2228)	1992 04 04.30278	14 32 48.78	-12 18 30.5		4	809
(2228)	1992 04 06.26806	14 31 36.04	-12 11 40.1	18.4	4	809
(2228)	1992 04 06.28125	14 31 35.52	-12 11 37.5		4	809

(2228)	1992 04 06.29444	14 31 34.96	-12 11 34.8		4	809
(2228)	1992 04 25.13403	14 18 17.17	-10 59 39.7	18.5	4	809
(2228)	1992 04 25.14722	14 18 16.54	-10 59 35.9		4	809
(2228)	1992 04 25.16042	14 18 15.95	-10 59 33.0		4	809
(2306)	1992 04 04.27639	14 22 46.14	-17 10 15.7		4	809
(2306)	1992 04 04.28958	14 22 45.52	-17 10 12.8		4	809
(2306)	1992 04 04.30278	14 22 45.00	-17 10 09.9		4	809
(2306)	1992 04 06.26806	14 21 25.20	-17 02 11.8	18.5	4	809
(2306)	1992 04 06.28125	14 21 24.60	-17 02 08.4		4	809
(2306)	1992 04 06.29444	14 21 23.99	-17 02 05.3		4	809
(2306)	1992 04 25.13403	14 06 27.96	-15 26 25.9	18.3	4	809
(2306)	1992 04 25.14722	14 06 27.25	-15 26 20.9		4	809
(2306)	1992 04 25.16042	14 06 26.55	-15 26 17.3		4	809
(2369)	1991 09 05.08403	20 48 36.98	-21 56 48.9		4	809
(2369)	1991 09 05.09722	20 48 36.48	-21 56 49.4		4	809
(2369)	1991 09 05.11042	20 48 36.00	-21 56 48.9		4	809
(2369)	1991 09 06.01667	20 48 10.07	-21 57 28.9	18.3	4	809
(2369)	1991 09 06.02986	20 48 09.56	-21 57 30.3		4	809
(2369)	1991 09 06.04306	20 48 09.20	-21 57 30.7		4	809
(2427)	1992 04 04.27639	14 35 48.18	-16 45 41.6		4	809
(2427)	1992 04 04.28958	14 35 47.58	-16 45 38.3		4	809
(2427)	1992 04 04.30278	14 35 47.05	-16 45 35.9		4	809
(2427)	1992 04 06.26806	14 34 29.65	-16 38 07.2	18.5	4	809
(2427)	1992 04 06.28125	14 34 29.06	-16 38 04.5		4	809
(2427)	1992 04 06.29444	14 34 28.49	-16 38 01.3		4	809
(2603)	1992 04 04.27639	14 20 28.44	-13 16 11.9		4	809
(2603)	1992 04 04.28958	14 20 27.79	-13 16 09.6		4	809
(2603)	1992 04 04.30278	14 20 27.16	-13 16 06.6		4	809
(2603)	1992 04 06.26806	14 19 02.99	-13 10 54.4	18.0	4	809
(2603)	1992 04 06.28125	14 19 02.32	-13 10 51.5		4	809
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(2603)	1992 04 25.16042	14 03 27.16	-12 09 28.1		4	809
(2683)	1992 04 04.27639	14 26 01.62	-16 10 23.4		4	809
(2683)	1992 04 04.28958	14 26 01.05	-16 10 22.1		4	809
(2683)	1992 04 04.30278	14 26 00.50	-16 10 19.9		4	809
(2683)	1992 04 06.26806	14 24 41.95	-16 05 03.3	18.5	4	809
(2683)	1992 04 06.28125	14 24 41.32	-16 05 01.5		4	809
(2683)	1992 04 06.29444	14 24 40.80	-16 04 59.1		4	809
(2683)	1992 04 25.13403	14 10 03.94	-14 59 40.8	18.4	4	809
(2683)	1992 04 25.14722	14 10 03.20	-14 59 38.1		4	809
(2683)	1992 04 25.16042	14 10 02.48	-14 59 35.0		4	809
(2934)	1992 04 04.23125	14 04 07.14	-11 35 34.7	18.1	4	809
(2934)	1992 04 04.24444	14 04 06.63	-11 35 30.1		4	809
(2934)	1992 04 04.25764	14 04 06.04	-11 35 24.9		4	809
(2934)	1992 04 06.22500	14 02 52.48	-11 23 31.7		4	809
(2934)	1992 04 06.23819	14 02 51.91	-11 23 27.5		4	809
(2934)	1992 04 06.25139	14 02 51.42	-11 23 22.8		4	809
(2935)	1991 09 05.08403	20 32 23.94	-20 26 26.1		4	809
(2935)	1991 09 05.09722	20 32 23.57	-20 26 32.2		4	809
(2935)	1991 09 05.11042	20 32 23.29	-20 26 36.0		4	809
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(3009)	1992 04 04.27639	14 23 57.69	-17 07 22.8		4	809
(3009)	1992 04 04.28958	14 23 57.00	-17 07 21.8		4	809
(3009)	1992 04 04.30278	14 23 56.40	-17 07 21.5		4	809
(3009)	1992 04 06.26806	14 22 16.49	-17 04 56.2	18.6	4	809

(3009)	1992 04 06.28125	14 22 15.72	-17 04 54.9	4	809
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(3013)	1992 04 04.24444	14 04 34.04	-14 43 57.1	4	809
(3013)	1992 04 04.25764	14 04 33.32	-14 43 55.2	4	809
(3013)	1992 04 06.22500	14 02 43.70	-14 38 12.3	4	809
(3013)	1992 04 06.23819	14 02 42.93	-14 38 10.3	4	809
(3013)	1992 04 06.25139	14 02 42.15	-14 38 08.6	4	809
(3013)	1992 04 25.08889	13 43 47.15	-13 27 49.8	18.3	4 809
(3013)	1992 04 25.10208	13 43 46.39	-13 27 47.3	4	809
(3013)	1992 04 25.11528	13 43 45.49	-13 27 43.9	4	809
(3054)	1992 04 25.13403	14 15 37.14	-10 39 00.8	18.4	4 809
(3054)	1992 04 25.14722	14 15 36.45	-10 38 57.2	4	809
(3054)	1992 04 25.16042	14 15 35.80	-10 38 54.1	4	809
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(3175)	1992 04 04.28958	14 27 12.20	-14 31 06.1	4	809
(3175)	1992 04 04.30278	14 27 11.55	-14 31 02.6	4	809
(3175)	1992 04 06.26806	14 25 38.17	-14 23 02.4	19.1	4 809
(3175)	1992 04 06.28125	14 25 37.49	-14 22 59.8	4	809
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(3583)	1992 04 04.27639	14 24 11.68	-14 01 50.6	4	809
(3583)	1992 04 04.28958	14 24 10.97	-14 01 48.6	4	809
(3583)	1992 04 04.30278	14 24 10.30	-14 01 45.9	4	809
(3583)	1992 04 06.26806	14 22 33.42	-13 55 31.4	18.5	4 809
(3583)	1992 04 06.28125	14 22 32.71	-13 55 28.8	4	809
(3583)	1992 04 06.29444	14 22 32.09	-13 55 26.6	4	809
(3583)	1992 04 25.13403	14 04 59.36	-12 43 00.0	18.5	4 809
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(3632)	1992 04 04.24444	13 54 00.89	-11 02 44.0	4	809
(3632)	1992 04 04.25764	13 54 00.24	-11 02 39.9	4	809
(3632)	1992 04 06.22500	13 52 25.88	-10 50 23.4	4	809
(3632)	1992 04 06.23819	13 52 25.25	-10 50 18.4	4	809
(3632)	1992 04 06.25139	13 52 24.55	-10 50 13.8	4	809
(3661)	1992 04 04.23125	14 08 52.61	-13 32 34.4	18.2	4 809
(3661)	1992 04 04.24444	14 08 51.97	-13 32 32.5	4	809
(3661)	1992 04 04.25764	14 08 51.40	-13 32 30.2	4	809
(3661)	1992 04 06.22500	14 07 26.03	-13 26 35.9	4	809
(3661)	1992 04 06.23819	14 07 25.35	-13 26 33.7	4	809
(3661)	1992 04 06.25139	14 07 24.77	-13 26 31.5	4	809
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(3815)	1992 04 04.24444	14 09 09.47	-10 47 19.8	4	809
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(3815)	1992 04 06.25139	14 07 51.23	-10 30 00.3	4	809
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(4067)	1991 09 06.01667	20 34 07.17	-20 25 32.6	18.4	4 809
(4067)	1991 09 06.02986	20 34 06.64	-20 25 33.2	4	809
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(4138)	1992 04 06.26806	14 21 27.23	-13 48 54.4	18.5	4	809
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(4138)	1992 04 06.29444	14 21 26.77	-13 48 52.1		4	809
(4318)	1992 04 25.13403	14 00 40.20	-12 13 24.4	18.0	4	809
(4318)	1992 04 25.14722	14 00 39.50	-12 13 23.3		4	809
(4318)	1992 04 25.16042	14 00 38.82	-12 13 22.2		4	809
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(4335)	1992 04 04.28958	14 36 35.65	-14 44 54.6		4	809
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(4379)	1992 04 06.26806	14 23 23.45	-13 50 04.0	18.5	4	809
(4379)	1992 04 06.28125	14 23 22.97	-13 49 58.6		4	809
(4379)	1992 04 06.29444	14 23 22.52	-13 49 53.8		4	809
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(4379)	1992 04 25.14722	14 10 53.27	-11 19 23.8		4	809
(4379)	1992 04 25.16042	14 10 52.73	-11 19 18.4		4	809
(4444)	1992 07 26.38507	22 03 05.38	-15 41 41.9		3	809
(4444)	1992 07 26.39549	22 03 05.05	-15 41 47.8		3	809
(4444)	1992 07 26.40590	22 03 04.71	-15 41 53.6		3	809
(4444)	1992 07 28.35521	22 02 01.40	-16 00 14.9		3	809
(4444)	1992 07 28.36563	22 02 01.00	-16 00 20.1		3	809
(4444)	1992 07 28.37604	22 02 00.60	-16 00 25.2		3	809
(4778)	1992 04 04.27639	14 24 23.03	-14 11 09.4	18.9	4	809
(4778)	1992 04 04.28958	14 24 22.39	-14 11 07.2		4	809
(4778)	1992 04 04.30278	14 24 21.85	-14 11 05.6		4	809
(4778)	1992 04 25.13403	14 09 15.12	-13 01 21.1	19.4	4	809
(4778)	1992 04 25.14722	14 09 14.42	-13 01 20.5		4	809
(4778)	1992 04 25.16042	14 09 13.81	-13 01 17.3		4	809
(4779)	1992 04 04.27639	14 19 40.73	-13 21 07.2		4	809
(4779)	1992 04 04.28958	14 19 40.22	-13 21 03.7		4	809
(4779)	1992 04 04.30278	14 19 39.68	-13 21 01.5		4	809
(4779)	1992 04 06.26806	14 18 24.11	-13 13 56.5	18.2	4	809
(4779)	1992 04 06.28125	14 18 23.54	-13 13 53.9		4	809
(4779)	1992 04 06.29444	14 18 22.95	-13 13 51.1		4	809
(4779)	1992 04 25.13403	14 04 35.08	-11 56 00.1	18.3	4	809
(4779)	1992 04 25.14722	14 04 34.46	-11 55 56.2		4	809
(4779)	1992 04 25.16042	14 04 33.80	-11 55 53.6		4	809
(4891)	1991 09 06.01667	20 39 24.86	-19 36 09.7	18.6	4	809
(4891)	1991 09 06.02986	20 39 24.46	-19 36 10.3		4	809
(4891)	1991 09 06.04306	20 39 24.06	-19 36 11.0		4	809
(5220)	1992 04 04.23125	14 08 28.88	-13 18 58.2	18.0	4	809
(5220)	1992 04 04.24444	14 08 28.12	-13 18 57.7		4	809
(5220)	1992 04 04.25764	14 08 27.36	-13 18 56.2		4	809
(5220)	1992 04 06.22500	14 06 43.31	-13 16 40.9		4	809
(5220)	1992 04 06.23819	14 06 42.48	-13 16 40.1		4	809
(5220)	1992 04 06.25139	14 06 41.76	-13 16 39.1		4	809
(5220)	1992 04 25.08889	13 46 51.63	-12 38 01.7	18.0	4	809
(5220)	1992 04 25.10208	13 46 50.73	-12 38 00.8		4	809
(5220)	1992 04 25.11528	13 46 49.80	-12 37 58.4		4	809
(5242)	1992 04 04.23125	13 51 43.99	-13 15 25.4	18.6	4	809
(5242)	1992 04 04.24444	13 51 43.32	-13 15 23.1		4	809

(5242)	1992 04 04.25764	13 51 42.66	-13 15 19.9	4	809
(5242)	1992 04 06.22500	13 50 14.87	-13 05 48.8	4	809
(5242)	1992 04 06.23819	13 50 14.23	-13 05 45.0	4	809
(5242)	1992 04 06.25139	13 50 13.59	-13 05 41.6	4	809
(5244)	1992 04 04.27639	14 32 13.28	-14 38 31.9	4	809
(5244)	1992 04 04.28958	14 32 12.89	-14 38 29.6	4	809
(5244)	1992 04 04.30278	14 32 12.57	-14 38 27.7	4	809
(5244)	1992 04 06.26806	14 31 24.22	-14 33 12.0	18.6	4 809
(5244)	1992 04 06.28125	14 31 23.87	-14 33 09.9	4	809
(5244)	1992 04 06.29444	14 31 23.55	-14 33 07.9	4	809

## 894 Otomo

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

1990 BU	1992 09 01.73961	22 28 59.20	-03 17 17.2		894
1990 BU	1992 09 03.59479	22 27 03.26	-03 13 11.0	15.5	894
1990 BU	1992 09 03.60868	22 27 02.37	-03 13 09.3		894
1991 LD	1992 08 25.58785	22 23 54.49	-00 09 19.8	17.0	894
1991 LD	1992 08 25.60104	22 23 53.88	-00 09 23.7		894
1991 LD	1992 08 31.58785	22 19 37.92	-00 36 07.0	17.0	894
1992 OM	1992 08 25.58785	22 19 37.68	+01 10 32.0	16.2	894
1992 OM	1992 08 25.60104	22 19 37.08	+01 10 42.7		894
1992 QK	* 1992 08 25.58785	22 27 17.98	+00 23 51.0	16.5	894
1992 QK	1992 08 25.60104	22 27 17.27	+00 23 50.1		894
1992 QK	1992 08 31.57396	22 21 45.55	+00 10 49.5	16.7	894
1992 QK	1992 08 31.58785	22 21 44.76	+00 10 46.4		894
1992 QL	* 1992 08 25.61568	22 24 42.39	-06 40 49.7	16.3	894
1992 QL	1992 08 25.62899	22 24 41.82	-06 40 55.5		894
1992 QL	1992 08 31.71406	22 20 18.35	-07 23 29.9	16.8	894
1992 QL	1992 08 31.72604	22 20 17.81	-07 23 32.9		894
1992 QL	1992 09 01.71858	22 19 36.09	-07 30 32.1	16.5	894
1992 QL	1992 09 01.72847	22 19 35.64	-07 30 36.4		894
1992 QM	* 1992 08 25.61568	22 31 23.89	-07 15 12.2	15.5	894
1992 QM	1992 08 25.62899	22 31 23.24	-07 15 13.2		894
1992 QM	1992 08 31.71406	22 26 12.60	-07 25 19.9	15.5	894
1992 QM	1992 08 31.72604	22 26 11.95	-07 25 22.0		894
1992 QM	1992 09 01.71858	22 25 22.34	-07 27 03.2	15.0	894
1992 QM	1992 09 01.72847	22 25 21.87	-07 27 04.2		894
1992 QO	* 1992 08 25.61568	22 23 02.92	-07 44 12.0	17.0	894
1992 QO	1992 08 25.62899	22 23 02.30	-07 44 13.2		894
1992 QO	1992 09 01.71858	22 18 50.05	-07 55 02.0	17.0	894
1992 QO	1992 09 01.72847	22 18 49.48	-07 55 04.5		894
(646)	1992 08 31.58785	22 21 20.70	-00 51 18.6		894

## 900 Kiryuu Observatory, Ohtsu

Y. Ikari, Katsube 626, Moriyama, Shiga-Ken, 524 Japan

Observer Y. Ikari

1992 OM	1992 08 27.71679	22 18 20.68	+01 43 15.9	15	900
1992 OM	1992 08 27.72778	22 18 20.28	+01 43 25.7		900

\* \* \* \* \*

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The name of the orbit computer is shown on the line giving T for a comet and Epoch for a displayed minor-planet orbit; for many of the minor planets (O-C) residuals are shown in full (in R.A. and Decl.); observations are identified by date and observatory code, X referring to an approximate and Y to a semiaccurate position. For displayed minor planets "Id." shows those involved in establishing the identifications (generally with the principal contributors first), "k" indicating key identifications and "d" (only) double (or multiple) designations; no identifier is shown if only the orbit computer is involved and the results were not previously published. J-P indicates that only the perturbations by the outer planets were considered, and a and n are then related by a gravitational constant augmented by the masses of the inner planets. For the one-opposition orbits, equinox 2000.0 is used, and the columns headed Arc and O show the time span in days covered by the observations and the number of observations utilized in the computation (0 = 10 or more). In the note column N, D means that there are double (or multiple) designations, E means that the value of the eccentricity was assumed, F means both; the double designations are listed at the end; the codes for the orbit computers (column C) are as listed above.

Periodic Comet West-Hartley (1988 XVI)

Epoch 1988 Oct. 6.0 TT = JDT 2447440.5

T 1988 Oct. 6.40842 TT

		(2000.0)	P	Marsden Q
q	2.1291263			
n	0.13012422	Peri. 102.67232	-0.83612040	-0.51346440
a	3.8568312	Node 46.81309	+0.34126426	-0.76239538
e	0.4479597	Incl. 15.35086	+0.42946639	-0.39383701
P	7.57			

From 12 observations 1989 Mar. 14-June 30, mean residual 0".78.

Periodic Comet Helin-Roman-Alu 2 (1989 XVI)

Epoch 1989 Nov. 10.0 TT = JDT 2447840.5

T 1989 Oct. 31.37598 TT

		(2000.0)	P	Marsden Q
q	1.9298825			
n	0.12020298	Peri. 200.37620	+0.72713758	-0.68462061
a	4.0662357	Node 203.07227	+0.64638988	+0.70764358
e	0.5253884	Incl. 7.42615	+0.23119485	+0.17474317
P	8.20			

From 10 observations 1989 Oct. 26-1990 Feb. 27, mean residual 1".11.

## Periodic Comet McNaught-Hughes (1991y)

Epoch 1991 July 3.0 TT = JDT 2448440.5

T 1991 June 16.08400 TT

		(2000.0)	P	Nakano Q
q	2.1251062			
n	0.14702494	Peri. 224.40154	+0.69390207	+0.70876974
a	3.5552928	Node 89.99125	-0.62023162	+0.67795770
e	0.4022697	Incl. 7.29999	-0.36580412	+0.19498412
P	6.70			

From 20 observations 1991 Sept. 30-1992 Jan. 15, mean residual 0".68.

## Periodic Comet Takamizawa (1991h)

Epoch 1991 Aug. 12.0 TT = JDT 2448480.5

T 1991 Aug. 17.91548 TT

		(2000.0)	P	Marsden Q
q	1.5897790			
n	0.13642904	Peri. 147.67885	+0.05131288	+0.98951021
a	3.7370723	Node 124.91905	-0.94773140	+0.09088715
e	0.5745924	Incl. 9.47946	-0.31491616	-0.11229014
P	7.22			

From 152 observations 1984-1991, mean residual 1".00.

## Periodic Comet Shoemaker-Levy 6 (1991b1)

Epoch 1991 Oct. 31.0 TT = JDT 2448560.5

T 1991 Oct. 13.85850 TT

		(2000.0)	P	Marsden Q
q	1.1323464			
n	0.13063167	Peri. 333.12738	+0.96948908	-0.16828719
a	3.8468365	Node 37.93299	+0.24219611	+0.76983110
e	0.7056422	Incl. 16.85484	-0.03784139	+0.61566184
P	7.54			

From 37 observations 1991 Nov. 3-1992 Jan. 8, mean residual 1".19.

## Periodic Comet Shoemaker-Levy 7 (1991d1)

Epoch 1991 Oct. 31.0 TT = JDT 2448560.5

T 1991 Oct. 27.52670 TT

		(2000.0)	P	Marsden Q
q	1.6300915			
n	0.14642369	Peri. 91.95342	+0.69647790	-0.70559201
a	3.5650187	Node 312.95636	+0.56676022	+0.65254035
e	0.5427537	Incl. 10.27991	+0.44011519	+0.27628069
P	6.73			

From 29 observations 1991 Nov. 13-1992 Jan. 6, mean residual 0".87.

## Periodic Comet Shoemaker-Levy 5 (1991z)

Epoch 1991 Dec. 10.0 TT = JDT 2448600.5

T 1991 Dec. 13.22175 TT

		(2000.0)	P	Marsden Q
q	1.9848985			
n	0.11363572	Peri. 6.04327	+0.81308744	-0.57332718
a	4.2214289	Node 29.66565	+0.52520216	+0.64767545
e	0.5298041	Incl. 11.76532	+0.25110059	+0.50180919
P	8.67			

From 34 observations 1991 Sept. 12-1992 Jan. 2, mean residual 0".94.

## Comet Zanotta-Brewington (1991g1)

Epoch 1992 Jan. 19.0 TT = JDT 2448640.5

T 1992 Jan. 31.99154 TT

		(2000.0)	P	Marsden Q
q	0.6439695			
z	-0.0000902	Peri. 197.87302	+0.05745516	-0.67022345
+/-	-0.0000059	Node 254.90741	+0.98374248	+0.16432060
e	1.0000581	Incl. 50.02875	+0.17014590	-0.72373978

From 178 observations 1991 Dec. 24-1992 May 2, mean residual 0".83.

## Periodic Comet Mueller 4 (1992g)

Epoch 1992 Feb. 28.0 TT = JDT 2448680.5

T 1992 Feb. 16.35657 TT

			Nakano		
q	(2000.0)		P	Q	
n	0.10984418	Peri.	43.59258	-0.93589206	+0.21109949
a	4.3180204	Node	145.42548	-0.21123899	-0.97696531
e	0.3893149	Incl.	29.80142	+0.28192934	-0.03123771
P	8.97				

From 31 observations 1992 Apr. 12-July 2, mean residual 0".87.

## Periodic Comet Kowal 1 (1991i)

Epoch 1992 Feb. 28.0 TT = JDT 2448680.5

T 1992 Mar. 13.09574 TT

			Marsden		
q	(2000.0)		P	Q	
n	0.06562352	Peri.	174.69980	-0.91712165	+0.39689954
a	6.0873703	Node	28.77257	-0.36847139	-0.80888021
e	0.2323874	Incl.	4.39191	-0.15204184	-0.43380128
P	15.02				

From 33 observations 1977-1992, mean residual 0".79.

## Periodic Comet Shoemaker-Levy 8 (1992f)

Epoch 1992 June 27.0 TT = JDT 2448800.5

T 1992 June 13.25651 TT

			Marsden		
q	(2000.0)		P	Q	
n	0.13192487	Peri.	22.33627	-0.56418197	+0.82360611
a	3.8216561	Node	213.39918	-0.77257240	-0.55141446
e	0.2906305	Incl.	6.05510	-0.29125691	-0.13272175
P	7.47				

From 54 observations 1992 Mar. 30-July 4, mean residual 0".96.

## Comet Brewington (1992p)

T 1992 June 24.87233 TT

			Marsden		
q	(2000.0)		P	Q	
		Peri.	57.43134	+0.69910639	-0.71192458
		Node	347.50322	+0.50863442	+0.56046724
e	1.0	Incl.	17.87998	+0.50253486	+0.42313103

From 17 observations 1992 Aug. 28-Sept. 4.

## Comet Helin-Lawrence (1992q)

T 1993 Mar. 11.13116 TT

			Marsden		
q	(2000.0)		P	Q	
		Peri.	266.29309	+0.13801018	-0.95954130
		Node	194.88207	+0.13379881	-0.22746267
e	1.0	Incl.	107.13875	-0.98135165	-0.16595550

From 18 observations 1992 Aug. 29-Sept. 5.

## Periodic Comet Tuttle (1992r)

Epoch 1994 June 17.0 TT = JDT 2449520.5

T 1994 June 25.29070 TT

			Marsden		
q	(2000.0)		P	Q	
n	0.07296613	Peri.	206.70304	-0.26825838	-0.51200045
a	5.6718123	Node	270.54845	+0.96318072	-0.12681168
e	0.8240894	Incl.	54.69231	+0.01789822	-0.84957303
P	13.51				

From 49 observations 1980-1992, mean residual 1".00.

## One-opposition minor planets

Planet	H	Epoch	M	Peri.	Node	Incl.	e	a	Arc	O	N	C
1978 SU4	14.5	781019	33.75	126.57	214.10	6.09	0.1269	2.3721	31	6		E
1978 SF5	15.3	781108	35.30	307.31	32.61	6.48	0.1970	2.2738	62	5		E
1978 SH7	14.2	781108	7.57	27.57	348.02	5.70	0.2376	2.6179	63	5		E
1978 SO7	13.7	781108	14.42	32.29	334.37	2.71	0.1941	2.4492	63	6		E
1978 SW7	13.6	781108	5.47	47.73	333.15	4.56	0.1386	2.4563	63	7		E
1978 SX7	14.1	781108	340.93	82.33	342.28	4.57	0.2865	2.6202	63	9		E
1978 SA8	14.3	781108	9.50	163.01	212.44	2.61	0.1881	2.4239	63	8		E
1978 SD8	15.0	781108	28.28	326.71	20.96	4.25	0.2117	2.2126	57	8		E
1978 TD2	13.5	780929	12.70	359.58	3.27	1.64	0.0803	2.8167	25	5		W
1978 UJ4	15.9	781108	16.95	125.12	237.27	4.65	0.2411	2.3392	33	5		E
1978 UK4	12.7	781019	166.67	352.69	217.41	3.90	0.1000	2.5111	2	3	E	E
1978 UM4	14.5	781019	283.16	232.07	254.38	5.05	0.2500	2.6242	2	3	E	E
1978 UN4	13.0	781108	130.64	29.71	213.72	13.99	0.1035	3.0955	33	5		E
1978 UO4	15.5	781019	308.71	195.64	252.68	5.00	0.1579	2.6015	2	3		E
1978 UP4	13.9	781108	301.02	228.09	236.39	6.45	0.1832	2.7337	33	5		E
1978 UQ4	15.1	781019	328.14	201.70	217.36	8.24	0.1000	2.5648	2	3	E	E
1978 UR4	15.5	781108	318.30	135.02	312.53	2.46	0.1934	2.3556	33	5		E
1978 US4	15.5	781019	48.68	36.02	267.45	2.54	0.2767	2.2500	2	3	E	W
1978 UT4	16.0	781019	74.81	31.71	253.17	4.24	0.1900	2.1854	2	3	E	W
1978 UU4	15.5	781019	1.45	66.96	312.80	3.47	0.2000	2.5058	2	3	E	E
1978 UV4	15.7	781108	24.66	116.00	235.54	1.50	0.2073	2.3699	33	5		E
1978 UW4	14.0	781108	233.60	286.57	230.89	5.82	0.0541	2.3001	33	5		W
1978 UX4	14.4	781019	289.15	102.50	355.33	6.53	0.0500	2.4720	2	3	E	E
1978 UY4	16.0	781108	359.85	168.42	222.44	3.13	0.2039	2.2500	33	5		E
1978 UZ4	14.3	781019	168.34	200.88	11.00	16.76	0.1000	2.2690	2	3	E	E
1978 UA5	16.0	781108	4.08	30.31	353.54	2.49	0.1744	2.3146	33	5		E
1978 UC5	14.0	781019	312.69	68.34	4.64	11.45	0.0500	3.0068	2	3	E	E
1978 UD5	15.7	781108	320.41	202.63	242.90	4.54	0.1949	2.3895	33	5		E
1978 UE5	16.0	781108	0.22	95.25	293.70	1.87	0.1703	2.4091	33	5		W
1978 UF5	14.6	781019	303.82	161.86	280.13	1.23	0.0500	2.4314	2	3	E	E
1978 UG5	13.8	781019	340.30	39.54	6.20	7.31	0.1000	2.4846	2	3	E	E
1978 UK5	15.8	781019	13.57	351.08	12.87	15.61	0.1500	2.6742	2	3	E	E
1978 UM5	14.4	781019	10.70	350.39	16.87	12.53	0.1157	3.0008	2	3		E
1978 UO5	13.6	781019	213.06	162.72	12.10	20.41	0.1000	2.8800	2	3	E	E
1978 UP5	14.7	781019	356.35	18.11	10.24	9.52	0.2000	2.4548	2	3	E	E
1978 UQ5	15.0	781019	351.68	172.70	220.01	9.84	0.1500	3.0772	2	3	E	E
1978 UR5	13.2	781019	241.25	220.92	283.01	0.74	0.0500	2.9904	2	3	E	E
1978 UT5	13.9	781019	346.29	47.55	352.87	4.23	0.1500	2.8493	2	3	E	E
1978 UU5	14.5	781019	4.46	4.49	9.17	2.81	0.2281	3.2008	2	3	E	W
1978 UV5	14.4	781019	179.03	208.84	354.25	5.17	0.0500	2.3170	2	3	E	E
1978 UW5	14.6	781019	331.80	38.57	13.94	4.71	0.0500	2.4733	2	3	E	E
1978 UX5	16.0	781108	14.92	147.88	224.25	4.45	0.0742	2.1672	33	5		W
1978 UY5	13.1	781019	177.21	357.99	204.76	9.02	0.2000	2.3729	2	3	E	E
1978 UZ5	14.0	781108	42.01	120.48	213.55	15.97	0.1106	3.1252	33	5		W
1978 UA6	13.9	781019	198.62	167.47	17.98	7.06	0.1000	2.6847	2	3	E	E
1978 UB6	14.3	781019	157.67	359.51	220.54	3.41	0.1000	2.2883	2	3	E	E
1978 UC6	15.3	781019	357.23	148.50	236.94	2.84	0.0500	2.2119	2	3	E	E
1978 UD6	16.5	781019	313.95	102.47	346.29	4.32	0.2000	2.3066	2	3	E	E
1978 UE6	14.1	781108	279.61	98.41	20.16	13.38	0.1037	2.5760	33	5		E
1978 UH6	14.4	781019	358.17	24.31	0.06	8.54	0.0500	3.1249	2	3	E	E
1978 UJ6	14.2	781019	288.10	255.78	203.24	6.32	0.0500	2.3579	2	3	E	E
1978 UK6	13.5	781019	197.73	337.49	207.80	5.13	0.0500	2.5055	2	3	E	E
1978 UL6	16.0	781108	2.98	146.12	240.03	1.73	0.1680	2.3314	33	5		W
1978 UM6	13.9	781019	64.18	40.17	272.55	2.69	0.0500	2.7335	2	3	E	E
1978 UN6	13.2	781019	276.83	122.03	0.32	6.65	0.1500	3.0879	2	3	E	E
1978 UO6	15.2	781019	0.18	4.94	17.87	18.14	0.0500	2.4513	2	3	E	E
1978 UP6	15.6	781019	354.32	162.12	228.46	5.03	0.1600	2.5654	2	3		E

1978	UQ6	15.4	781019	25.52	339.07	12.72	9.15	0.1000	2.4445	2 3	E E
1978	UR6	15.2	781019	15.90	75.56	285.52	1.77	0.1500	2.4789	2 3	E E
1978	US6	13.0	781019	190.49	344.46	208.08	11.19	0.1000	2.9397	2 3	E E
1978	UT6	16.5	781019	355.05	146.95	243.54	2.08	0.2000	2.3292	2 3	E E
1978	UU6	17.0	781019	27.11	79.23	261.84	1.49	0.2194	2.1740	2 3	E W
1978	UV6	15.0	781019	41.20	50.85	281.87	0.55	0.1000	2.3609	2 3	E E
1978	UX6	14.3	781019	349.47	89.64	305.85	2.52	0.1000	2.7918	2 3	E E
1978	UY6	14.0	781019	346.23	178.42	220.65	1.62	0.1000	2.4465	2 3	E E
1978	UZ6	16.3	781019	34.86	102.32	221.06	9.79	0.2818	2.3902	2 3	E
1978	UB7	14.0	781019	205.14	169.36	17.00	26.53	0.2000	2.7078	2 3	E E
1978	UC7	15.1	781019	351.57	34.29	1.28	2.96	0.2000	2.7144	2 3	E E
1978	UD7	14.0	781108	75.58	279.93	9.26	8.51	0.2153	2.2402	33 5	E
1978	UE7	13.0	781019	358.71	136.37	246.75	2.52	0.1000	3.9501	2 3	E E
1978	UF7	13.6	781108	53.66	88.89	218.43	13.70	0.2399	3.1044	33 5	E
1978	UG7	15.5	781019	43.98	356.03	336.21	3.69	0.0818	2.5931	2 3	E W
1978	UH7	13.6	781019	294.08	114.94	338.46	0.76	0.0500	2.6403	2 3	E E
1978	UJ7	14.3	781019	162.88	309.20	268.63	1.35	0.0500	2.6517	2 3	E E
1978	UM7	15.8	781019	352.93	194.30	200.76	1.46	0.2500	2.3810	2 3	E E
1978	UO7	14.7	781019	357.86	46.43	338.74	1.19	0.1000	2.8221	2 3	E E
1978	UP7	13.0	781019	177.66	182.41	21.60	8.13	0.1000	2.6696	2 3	E E
1978	UR7	12.6	781019	220.00	125.63	47.93	1.42	0.2000	3.0072	2 3	E E
1978	US7	14.1	781019	302.78	256.45	193.20	2.61	0.1000	2.7153	2 3	E E
1978	UT7	13.5	781108	45.17	98.57	213.32	7.59	0.2933	3.0989	33 5	W
1978	UV7	13.2	781019	353.76	189.65	200.25	4.34	0.1000	2.8225	2 3	E E
1978	UW7	13.6	781108	73.47	71.05	219.00	11.86	0.2198	2.4404	33 5	E
1978	UX7	14.8	781108	328.94	189.84	240.47	1.74	0.1423	2.5168	33 5	E
1978	UY7	13.7	781019	312.82	236.22	202.56	1.48	0.1000	2.7324	2 3	E E
1978	UZ7	14.1	781019	322.52	131.38	296.87	1.48	0.1000	2.8312	2 3	E E
1978	UA8	14.6	781019	342.04	113.76	292.78	2.35	0.1243	2.9544	2 3	E
1978	UB8	15.2	781019	310.79	200.41	241.66	3.97	0.1000	2.7511	2 3	E E
1978	UC8	13.3	781019	25.15	205.97	142.32	0.40	0.1500	3.1810	2 3	E E
1978	UD8	15.1	781019	334.69	28.64	22.67	7.66	0.0500	2.2945	2 3	E E
1978	UE8	15.2	781108	323.17	69.38	15.44	10.95	0.2211	2.9783	33 5	E
1978	UF8	13.9	781019	174.39	186.25	21.62	5.31	0.1000	2.2356	2 3	E E
1978	UH8	12.8	781019	65.36	279.67	26.44	6.26	0.1000	3.1477	2 3	E E
1978	UK8	17.0	781019	350.73	79.61	317.46	2.04	0.1500	2.2227	2 3	E E
1978	UL8	14.4	781019	67.08	276.50	34.06	4.27	0.0500	2.2936	2 3	E E
1981	QX4	15.2	811023	4.83	99.81	249.58	3.08	0.1789	2.6109	57 6	D N
1981	UQ29	13.3	811023	333.64	177.16	251.77	1.25	0.2016	2.4580	30 4	D N
1989	EN5	14.7	890315	4.32	230.89	290.28	3.99	0.0922	2.3093	8 5	N
1989	YY3	15.1	900109	27.26	356.20	82.67	2.19	0.2027	2.2360	26 6	N
1990	VH12	13.3	901125	50.09	166.36	199.94	9.39	0.0602	3.0365	10 8	D N
1991	AB2	13.5	910104	329.64	332.39	175.80	4.02	0.1251	2.2654	25 6	N
1991	BD	13.3	910124	64.07	122.62	283.00	5.78	0.0938	2.3583	51 0	N
1991	NE1	12.2	910812	305.43	74.44	305.27	8.51	0.0600	3.1745	64 0	E
1991	NV1	13.6	910812	300.90	134.74	253.39	6.17	0.1214	2.3831	62 9	E
1991	OO	14.5	910812	346.94	108.70	231.76	3.38	0.2023	2.2941	60 0	E
1991	PA	13.6	910812	355.05	17.07	311.61	4.42	0.3192	3.0608	64 0	E
1991	PQ	10.7	910901	257.17	121.07	307.33	19.17	0.0458	3.4928	40 0	E
1991	PV	15.3	910901	7.46	95.37	221.51	1.85	0.2041	2.2455	39 0	E
1991	PW	14.0	910812	358.62	52.97	268.96	3.46	0.2160	2.4501	40 0	W
1991	PY1	14.5	910812	12.65	177.26	119.20	7.36	0.1285	2.4312	35 0	M
1991	PU8	14.4	910901	49.11	329.96	288.95	6.71	0.1609	2.5651	40 9	E
1991	PX8	13.5	910812	270.44	166.30	251.70	4.18	0.0768	2.2966	58 0	D E
1991	PG9	13.0	910901	5.59	132.51	183.44	8.92	0.1530	2.7918	40 0	E
1991	PP10	13.6	910901	11.22	9.96	322.67	13.39	0.1040	2.5472	34 4	E
1991	PF11	13.1	910901	54.08	346.95	288.46	8.38	0.1380	2.7551	34 7	E
1991	PE12	14.1	910901	349.89	98.13	261.21	6.08	0.2239	2.4617	34 6	E
1991	PF12	14.6	910901	14.40	37.40	281.71	6.94	0.2378	2.4033	34 6	E

1991	PH12	12.0	910901	286.46	142.39	291.92	11.58	0.1238	3.0951	34 6	E
1991	PJ12	12.9	910901	316.67	138.69	263.53	8.38	0.1406	3.0500	34 6	E
1991	PK12	13.9	910901	359.91	107.30	238.43	8.01	0.1782	2.7861	34 6	E
1991	PW14	15.5	910901	339.52	62.75	305.55	12.30	0.2352	2.4925	37 6	E
1991	PG17	13.5	910812	47.72	312.20	307.98	12.04	0.1776	2.3252	34 6	W
1991	RO11	13.5	910901	324.85	39.89	322.97	21.00	0.1357	3.0786	3 0	M
1991	RQ11	13.5	910812	113.59	61.41	134.77	15.99	0.0466	2.6255	33 0	M
1991	RS11	15.5	910812	347.42	206.75	133.60	11.07	0.3218	2.6762	24 0	M
1991	RU11	15.0	910901	334.03	8.03	348.44	6.95	0.1251	2.1674	3 0	E M
1991	RB12	13.5	910812	294.74	82.25	320.40	12.83	0.1672	2.8067	40 0	W
1991	RZ29	13.2	910921	352.68	230.60	122.16	11.32	0.2500	3.1991	2 6	E E
1991	RA30	12.8	910921	104.04	112.78	110.98	7.96	0.1144	2.3686	2 8	E
1991	SJ2	15.6	910921	13.69	9.08	319.86	8.23	0.2264	2.3955	7 9	E
1991	TB	15.0	910921	319.72	9.01	28.09	7.90	0.1926	2.3247	19 6	E
1991	TR6	15.5	910921	90.54	314.96	300.11	2.31	0.1608	2.1674	7 9	M
1991	VS9	16.5	911031	8.78	340.02	50.99	18.62	0.1438	2.7220	3 0	W
1992	AM1	12.7	920119	104.39	271.76	111.60	6.42	0.0859	2.7377	29 0	N
1992	BH	12.5	911230	324.04	21.56	140.59	18.27	0.1556	3.1198	72 0	W
1992	BO	13.5	920208	279.66	213.22	19.59	4.77	0.1113	2.2436	25 0	N
1992	DC1	13.9	920228	18.84	26.33	114.89	6.53	0.1202	2.2842	29 6	N
1992	GO	12.3	920319	273.93	129.63	153.08	13.47	0.1619	2.6827	30 8	N
1992	GM2	15.0	920408	288.67	345.83	301.55	0.99	0.0963	2.1354	21 0	M
1992	GN2	15.0	920408	342.67	235.43	353.72	1.55	0.1447	2.6636	21 0	M
1992	GD3	14.0	920408	269.61	91.46	211.95	7.80	0.0292	2.5315	21 9	M
1992	GE3	14.5	920408	300.58	77.04	211.35	11.03	0.1774	2.5977	21 9	M
1992	GF3	10.0	920408	264.72	125.32	213.60	30.09	0.2799	5.2560	21 9	M
1992	GG3	16.0	920408	357.84	306.95	264.16	0.89	0.0464	2.2085	21 9	M
1992	GH3	14.0	920408	271.30	100.28	216.44	10.82	0.1528	2.6050	21 9	M
1992	GJ3	15.0	920408	320.02	27.05	226.76	2.87	0.0647	2.1820	21 9	M
1992	GM3	15.0	920408	6.18	338.82	222.32	4.72	0.1358	2.4481	21 9	M
1992	GN3	16.0	920408	301.34	287.58	6.50	2.21	0.2327	2.3537	21 9	M
1992	GO3	13.5	920408	245.75	126.77	214.61	2.23	0.1613	2.7616	21 9	M
1992	GP3	13.5	920408	303.10	166.13	121.94	0.60	0.1842	3.1361	21 9	M
1992	GV3	14.5	920408	41.16	131.02	33.51	9.69	0.0569	2.5662	21 9	M
1992	GY3	14.0	920408	65.79	278.75	214.38	6.51	0.1079	2.5519	21 9	M
1992	GA4	13.5	920408	318.87	103.49	158.41	1.43	0.1070	3.2086	21 9	M
1992	GD4	15.5	920408	13.30	338.44	214.53	6.69	0.1285	2.5626	21 9	M
1992	GF4	15.0	920408	156.37	11.21	38.42	5.60	0.1127	2.2294	21 9	M
1992	GH4	15.5	920408	326.11	230.44	21.75	2.03	0.1139	2.3951	21 9	M
1992	GJ4	14.0	920408	98.13	255.67	212.09	3.36	0.0536	2.6876	21 9	M
1992	GM4	14.5	920408	247.57	126.52	213.16	5.88	0.1597	2.3963	21 9	M
1992	GO4	15.5	920408	19.41	344.58	199.45	2.66	0.1294	2.2705	21 0	M
1992	GW4	15.0	920408	353.89	178.52	38.93	7.37	0.0983	2.3228	21 9	M
1992	GX4	15.0	920408	345.76	188.45	38.88	4.29	0.0916	2.2835	21 9	M
1992	HG	13.0	920408	276.13	99.90	216.37	8.34	0.1666	3.1205	21 9	M
1992	HG1	16.0	920408	349.10	9.65	214.85	4.18	0.1269	2.2779	34 0	M
1992	HH1	13.5	920408	152.49	204.14	214.29	3.76	0.0629	2.7899	34 0	M
1992	HK1	13.5	920408	241.20	291.66	39.86	2.66	0.0602	2.9114	28 0	D M
1992	HA4	14.0	920408	327.68	324.47	277.79	0.19	0.0740	2.7441	21 0	M
1992	HC4	13.5	920408	8.84	167.68	28.24	18.44	0.0965	3.2026	21 0	M
1992	HD4	14.5	920408	10.70	338.24	213.34	7.14	0.1361	2.5826	21 0	M
1992	HF4	13.0	920408	302.63	83.35	207.51	8.81	0.2483	2.3968	21 0	M
1992	ME	14.0	920717	5.23	134.09	120.60	24.20	0.2521	2.2992	65 0	W
1992	ML	14.0	920627	298.71	348.23	335.50	1.82	0.1040	2.1957	21 6	E
1992	NF	12.0	920627	346.77	165.27	129.86	11.44	0.0777	2.9974	26 8	W
1992	NJ	12.5	920717	259.42	24.81	27.03	22.81	0.0710	3.1952	51 0	W
1992	NR	12.5	920717	51.39	98.72	143.64	13.93	0.1466	2.6386	64 0	B
1992	NS	12.5	920627	357.55	63.31	218.53	10.89	0.1791	2.6578	26 7	W
1992	OB	14.0	920806	20.44	231.61	49.69	17.68	0.2029	3.1024	26 7	W

1992 OC	15.5	920806	8.77	291.72	3.07	15.86	0.3009	2.5835	26 7	W
1992 OE	13.5	920806	359.31	7.13	330.58	27.16	0.2045	2.7436	25 0	W
1992 OF	15.0	920806	354.50	281.67	68.44	3.68	0.3238	2.4452	25 0	W
1992 OK	14.0	920806	344.50	103.29	248.52	7.45	0.3547	2.7579	33 0	W
1992 ON	16.5	920806	35.79	288.57	341.88	25.85	0.2032	1.9358	25 0	W
1992 OO	13.5	920806	3.68	195.12	122.93	25.79	0.1798	2.3433	26 0	W
1992 OV	14.0	920717	353.44	286.69	25.58	17.24	0.0901	3.0231	6 6	W
1992 OW	15.0	920717	328.94	312.09	47.10	13.72	0.2842	2.6677	6 6	W
1992 PC		920717	326.07	157.84	196.94	4.80	0.2158	2.2077	4 8	B
1992 PF	15.0	920806	357.66	139.21	180.59	2.42	0.2051	2.2591	5 0	E W
1992 PK	15.5	920806	331.54	59.32	300.53	5.20	0.2109	2.1624	5 0	W
1992 PT	16.0	920806	352.34	114.80	213.49	0.73	0.1983	2.2507	5 0	E W
1992 PU	15.0	920806	343.11	119.33	219.92	2.51	0.1233	2.2814	5 0	W
1992 PV1	14.5	920806	351.13	179.14	151.88	4.51	0.1743	2.2809	5 0	W
1992 PZ1	15.0	920806	1.57	140.99	172.38	4.86	0.2175	2.2270	3 5	E
1992 PA2	14.5	920806	329.62	59.61	309.31	8.09	0.2769	2.6414	4 7	E W
1992 PB2	13.5	920806	348.30	86.73	248.39	5.49	0.1501	3.1554	3 5	E
1992 PC2	13.7	920806	15.63	81.72	217.88	7.31	0.0920	2.5222	6 6	E
1992 PD2	12.9	920806	16.29	87.52	206.20	7.04	0.1987	2.9996	6 6	E
1992 PE2	14.2	920806	329.95	74.03	292.21	12.48	0.2268	2.5890	6 6	E
1992 PF2	13.7	920806	44.87	49.43	210.12	5.10	0.1522	2.2692	6 6	E
1992 PG2	14.0	920806	5.24	116.50	192.71	8.18	0.2809	2.7532	6 6	E
1992 PH2	12.6	920806	340.39	75.63	271.58	9.46	0.1414	3.0405	6 6	E
1992 PJ2	14.3	920806	11.56	83.77	211.80	5.61	0.3146	2.4059	6 6	E
1992 PK2	12.7	920806	75.74	354.46	236.84	5.91	0.1250	3.0985	7 0	E
1992 PL2	12.1	920806	106.20	276.48	295.47	19.85	0.0548	3.1875	6 6	E
1992 PM2	15.2	920806	1.86	72.59	244.17	4.71	0.1873	2.2833	7 0	E
1992 PV2	13.1	920806	345.23	71.83	270.63	8.63	0.1357	2.9646	5 0	E
1992 PE3	14.6	920806	330.11	132.98	236.07	5.55	0.2149	2.2403	5 8	E
1992 PU3	15.2	920806	9.87	221.76	84.23	1.96	0.1867	2.1788	4 8	E
1992 QA	14.5	920806	84.96	148.97	53.96	26.41	0.1215	1.8838	3 8	W
1992 QB	14.0	920806	5.70	236.35	56.96	24.18	0.2117	2.3159	6 7	W
1992 QC	14.5	920806	354.36	305.68	29.52	22.64	0.3353	2.3666	7 4	W
1992 QE	13.2	920826	309.38	92.00	310.69	7.84	0.1274	2.5711	3 7	N
1992 QF	14.5	920826	35.16	258.52	28.19	15.60	0.2327	2.3784	3 7	N
1992 QL	14.7	920826	3.83	143.99	183.97	2.65	0.2194	2.2983	7 6	N
1992 QM	13.2	920826	10.93	356.19	320.11	3.50	0.2465	2.4774	7 6	N
1992 RB	15.0	920826	275.74	306.87	131.02	26.50	0.0532	1.9779	3 6	W
1992 RD	15.0	920826	66.23	140.09	130.52	26.94	0.1199	2.1612	3 6	W

1981 QX4 = 1981 UO1 (S. Nakano)

1981 UQ29 = 1981 SC5 (S. Nakano)

1990 VH12 = 1990 WV9 (S. Nakano)

1991 PX8 = 1991 OM (S. Nakano, MPC 18999)

1992 HK1 = 1992 HE4 (S. Nakano, MPC 20484; A. Lowe, *ibid.*)

Epoch 1992 June 27.0 TT = JDT 2448800.5 Goffin  
 (91) Aegina Obs. 379 M 10.75440 Peri. 73.22904  
 H 8.84 G 0.15 Opp. 65 n 0.23642541 Node 11.02517  
 rms res. 1".00 (M-C) 1866-1991 e 0.1037141 Incl. 2.12012

Epoch 1992 June 27.0 TT = JDT 2448800.5 Goffin  
 (120) Lachesis Obs. 277 M 275.44319 Peri. 236.74907  
 H 7.75 G 0.15 Opp. 64 n 0.17935664 Node 341.70052  
 rms res. 1".04 (M-C) 1872-1991 e 0.0650069 Incl. 6.96900

Epoch 1992 June 27.0 TT = JDT 2448800.5 Goffin  
 (141) Lumen Obs. 223 M 101.08608 Peri. 56.92626  
 H 8.2 G 0.15 Opp. 42 n 0.22631473 Node 319.12857  
 rms res. 1".02 (M-C) 1875-1988 e 0.2140004 Incl. 11.91158

Epoch 1992 June 27.0 TT = JDT 2448800.5	Goffin
(160) Una	Peri. 49.83108
H 9.08 G 0.15 Obs. 266 M 22.25253	Node 9.08991
rms res. 0".89 (M-C) 1876-1991 e 0.0644230	Incl. 3.83395
Epoch 1992 June 27.0 TT = JDT 2448800.5	Goffin
(166) Rhodope	Peri. 263.23485
H 9.89 G 0.15 Obs. 107 M 65.93674	Node 129.46707
rms res. 1".01 (M-C) 1876-1989 e 0.2107252	Incl. 12.01573
Epoch 1992 June 27.0 TT = JDT 2448800.5	Goffin
(243) Ida	Peri. 111.64574
H 9.94 G 0.15 Obs. 287 M 45.94932	Node 324.73057
rms res. 0".82 (M-C) 1884-1992 e 0.0420859	Incl. 1.14088
Epoch 1992 June 27.0 TT = JDT 2448800.5	Goffin
(251) Sophia	Peri. 289.79466
H 10.0 G 0.15 Obs. 81 M 141.42054	Node 156.50002
rms res. 1".08 (M-C) 1885-1991 e 0.1072981	Incl. 10.52867
Epoch 1992 June 27.0 TT = JDT 2448800.5	Goffin
(255) Oppavia	Peri. 153.39050
H 10.39 G 0.15 Obs. 92 M 157.60483	Node 14.01169
rms res. 0".92 (M-C) 1886-1988 e 0.0772149	Incl. 9.47984
Epoch 1992 June 27.0 TT = JDT 2448800.5	Goffin
(312) Pierretta	Peri. 261.23589
H 8.89 G 0.15 Obs. 99 M 334.35433	Node 6.84829
rms res. 1".08 (M-C) 1891-1991 e 0.1587262	Incl. 9.03650
Epoch 1992 June 27.0 TT = JDT 2448800.5	Goffin
(346) Hermentaria	Peri. 290.90074
H 7.13 G 0.15 Obs. 242 M 134.98772	Node 92.38785
rms res. 0".99 (M-C) 1892-1992 e 0.0995640	Incl. 8.74816
Epoch 1992 June 27.0 TT = JDT 2448800.5	Goffin
(347) Pariana	Peri. 84.83842
H 8.96 G 0.15 Obs. 160 M 115.81394	Node 85.98899
rms res. 1".06 (M-C) 1892-1991 e 0.1616007	Incl. 11.70603
Epoch 1992 June 27.0 TT = JDT 2448800.5	Goffin
(571) Dulcinea	Peri. 26.73816
H 11.59 G 0.15 Obs. 82 M 48.22628	Node 3.40278
rms res. 0".92 (M-C) 1905-1991 e 0.2406669	Incl. 5.24268
Epoch 1992 June 27.0 TT = JDT 2448800.5	Goffin
(630) Euphemia	Peri. 39.15893
H 11.0 G 0.15 Obs. 90 M 33.27344	Node 105.86337
rms res. 0".92 (M-C) 1907-1990 e 0.1156924	Incl. 13.86215
Epoch 1992 June 27.0 TT = JDT 2448800.5	Goffin
(804) Hispania	Peri. 343.76221
H 7.84 G 0.18 Obs. 117 M 264.77533	Node 347.95691
rms res. 1".02 (M-C) 1915-1987 e 0.1397141	Incl. 15.38580
Epoch 1992 June 27.0 TT = JDT 2448800.5	Goffin
(820) Adriana	Peri. 181.76340
H 10.3 G 0.15 Obs. 71 M 169.18779	Node 118.98634
rms res. 0".99 (M-C) 1916-1991 e 0.0606745	Incl. 5.94725



Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(860) Ursina		Obs.	30	M	194.69433	Peri.	19.69038
H 10.26	G 0.15	Opp.	16	n	0.21044650	Node	309.86637
rms res. 1".06	(M-C)	1903-1991		e	0.1057762	Incl.	13.31843
Epoch 1992 June 27.0 TT = JDT 2448800.5						Goffin	
(1002) Olbersia		Obs.	64	M	276.55570	Peri.	355.26427
H 11.1	G 0.15	Opp.	21	n	0.21189309	Node	344.16999
rms res. 0".97	(M-C)	1923-1991		e	0.1534372	Incl.	10.77654
Epoch 1992 June 27.0 TT = JDT 2448800.5						Williams	
(1459) Magnya		Obs.	13	M	290.60594	Peri.	330.27657
H 10.6	G 0.15	Opp.	6	n	0.17720088	Node	41.73312
rms res. 1".10	(M-C)	1937-1992		e	0.2366311	Incl.	16.94748
Epoch 1992 June 27.0 TT = JDT 2448800.5						Goffin	
(1487) Boda		Obs.	87	M	112.30741	Peri.	102.32055
H 10.6	G 0.15	Opp.	20	n	0.17614327	Node	97.70762
rms res. 0".97	(M-C)	1929-1991		e	0.1044787	Incl.	2.47141
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(1699) Honkasalo		Obs.	40	M	179.98056	Peri.	50.71404
H 12.5	G 0.15	Opp.	14	n	0.29964447	Node	274.04326
rms res. 0".77	(M-C)	1931-1991		e	0.1656299	Incl.	1.97284
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(1715) Salli		Obs.	46	M	178.75573	Peri.	209.35597
H 12.1	G 0.15	Opp.	11	n	0.26505894	Node	39.15606
rms res. 0".97	(M-C)	1938-1991		e	0.2383733	Incl.	11.45498
Epoch 1992 June 27.0 TT = JDT 2448800.5						Goffin	
(1738) Oosterhoff		Obs.	63	M	66.74096	Peri.	283.84610
H 12.3	G 0.15	Opp.	13	n	0.30555055	Node	44.34996
rms res. 0".95	(M-C)	1930-1990		e	0.2035810	Incl.	4.87863
Epoch 1992 June 27.0 TT = JDT 2448800.5						Williams	
(1796) Riga		Obs.	45	M	121.01765	Peri.	6.79272
H 9.84	G 0.15	Opp.	13	n	0.16141151	Node	187.51876
rms res. 0".95	(M-C)	1953-1992		e	0.0664139	Incl.	22.75854
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(1799) Koussevitzky		Obs.	45	M	323.07094	Peri.	192.57324
H 10.9	G 0.15	Opp.	9	n	0.18755075	Node	157.06283
rms res. 0".84	(M-C)	1950-1990		e	0.1267473	Incl.	11.51064
Epoch 1992 June 27.0 TT = JDT 2448800.5						Williams	
(1954) Kukarkin		Obs.	21	M	324.23067	Peri.	69.05207
H 11.3	G 0.15	Opp.	7	n	0.19610287	Node	278.91036
rms res. 1".09	(M-C)	1952-1992		e	0.3124583	Incl.	14.86909
Epoch 1992 June 27.0 TT = JDT 2448800.5						Williams	
(2062) Aten		Obs.	51	M	341.85561	Peri.	147.92973
H 16.80	G 0.15	Opp.	4	n	1.03731516	Node	108.70459
rms res. 0".96	(M-C)	1955-1992		e	0.1825436	Incl.	18.93276
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(2309) Mr. Spock		Obs.	64	M	257.94762	Peri.	266.98729
H 11.3	G 0.15	Opp.	11	n	0.18855899	Node	157.78983
rms res. 0".91	(M-C)	1956-1992		e	0.0941689	Incl.	10.96692

Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(2446) Lunacharsky	Obs.	23	M	343.71429		Peri.	250.50635
H 12.9 G 0.15	Opp.	9	n	0.27278361		Node	22.42323
rms res. 0".86 (M-C)	1960-1992		e	0.1599866		Incl.	3.32417
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(2509) Chukotka	Obs.	34	M	298.57139		Peri.	348.11587
H 12.6 G 0.15	Opp.	11	n	0.25607505		Node	344.02908
rms res. 0".90 (M-C)	1931-1992		e	0.1916686		Incl.	2.84719
Epoch 1992 June 27.0 TT = JDT 2448800.5						Goffin	
(2650) Elinor	Obs.	22	M	272.07632		Peri.	22.56626
H 11.5 G 0.15	Opp.	7	n	0.23055129		Node	332.66582
rms res. 1".14 (M-C)	1931-1983		e	0.1983327		Incl.	13.96950
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(2755) Avicenna	Obs.	20	M	317.72387		Peri.	148.04098
H 11.7 G 0.15	Opp.	7	n	0.20509431		Node	233.09567
rms res. 0".80 (M-C)	1971-1992		e	0.2573319		Incl.	4.53908
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(2968) Iliya	Obs.	20	M	297.95812		Peri.	34.00478
H 14.3 G 0.15	Opp.	5	n	0.27045939		Node	274.55937
rms res. 0".81 (M-C)	1949-1988		e	0.3082915		Incl.	9.14520
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(2969) Mikula	Obs.	31	M	25.91416		Peri.	104.39709
H 12.6 G 0.15	Opp.	7	n	0.20532506		Node	181.77971
rms res. 0".92 (M-C)	1978-1992		e	0.0291752		Incl.	1.87067
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(3042) Zelinsky	Obs.	32	M	5.53058		Peri.	70.17138
H 13.8 G 0.15	Opp.	5	n	0.28673055		Node	226.54154
rms res. 0".93 (M-C)	1975-1992		e	0.2097473		Incl.	4.99060
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(3158) Anga	Obs.	19	M	271.79675		Peri.	227.43392
H 12.5 G 0.15	Opp.	6	n	0.24214819		Node	187.88673
rms res. 0".73 (M-C)	1951-1992		e	0.1035564		Incl.	14.57329
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(3178) Yoshitsune	Obs.	40	M	224.25050		Peri.	240.96205
H 11.9 G 0.15	Opp.	6	n	0.22020352		Node	242.53233
rms res. 0".68 (M-C)	1951-1992		e	0.3774867		Incl.	6.81621
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(3359) Purcari	Obs.	26	M	338.46735		Peri.	42.81738
H 14.1 G 0.15	Opp.	6	n	0.29076723		Node	25.10445
rms res. 0".94 (M-C)	1978-1990		e	0.1214896		Incl.	5.74452
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(3405) 1964 UQ	Obs.	13	M	279.40034		Peri.	63.72470
H 12.3 G 0.15	Opp.	7	n	0.23369334		Node	242.26736
rms res. 0".95 (M-C)	1950-1986		e	0.1148690		Incl.	13.16291
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(3531) Cruikshank	Obs.	21	M	273.82052		Peri.	299.48108
H 12.9 G 0.15	Opp.	4	n	0.23183180		Node	193.20541
rms res. 0".88 (M-C)	1981-1991		e	0.1441989		Incl.	13.13798

Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(3562) Ignatius		Obs.	15	M	100.93018	Peri.	60.76236
H 13.1	G 0.15	Opp.	5	n	0.27561345	Node	93.07190
rms res.	0".64 (M-C)		1952-1986	e	0.1550552	Incl.	5.72276
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(3571) 1982 EJ		Obs.	27	M	31.33105	Peri.	24.75537
H 11.1	G 0.15	Opp.	6	n	0.12621476	Node	249.42316
rms res.	0".97 (M-C)		1954-1991	e	0.1189586	Incl.	7.83023
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(3644) 1931 TW		Obs.	20	M	306.94549	Peri.	81.21641
H 13.2	G 0.15	Opp.	6	n	0.29232997	Node	355.60079
rms res.	0".87 (M-C)		1931-1992	e	0.0936044	Incl.	3.54202
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(3692) Rickman		Obs.	11	M	91.67322	Peri.	9.30798
H 13.3	G 0.15	Opp.	5	n	0.21902985	Node	219.93708
rms res.	0".78 (M-C)		1951-1991	e	0.1464289	Incl.	11.37046
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(3825) 1967 UR		Obs.	20	M	341.19934	Peri.	144.85948
H 13.0	G 0.15	Opp.	8	n	0.29374705	Node	75.40397
rms res.	0".62 (M-C)		1952-1992	e	0.0946097	Incl.	5.14853
Epoch 1992 June 27.0 TT = JDT 2448800.5						Williams	
(3838) Epona		Obs.	40	M	45.53301	Peri.	49.43220
H 15.4	G 0.15	Opp.	3	n	0.53395527	Node	235.77489
rms res.	0".79 (M-C)		1986-1990	e	0.7016749	Incl.	29.28096
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(3897) Louhi		Obs.	31	M	101.31326	Peri.	147.49558
H 12.8	G 0.15	Opp.	5	n	0.22306079	Node	189.33944
rms res.	0".74 (M-C)		1942-1990	e	0.1575346	Incl.	7.08291
Epoch 1992 June 27.0 TT = JDT 2448800.5						Marsden	
(4015) 1979 VA		Obs.	66	M	347.20387	Peri.	90.86948
H 15.99	G 0.15	Opp.	5	n	0.22957023	Node	271.06524
rms res.	0".82 (M-C)		1949-1992	e	0.6228014	Incl.	2.78599
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(4057) 1985 TQ		Obs.	25	M	150.45507	Peri.	57.79149
H 9.5	G 0.15	Opp.	5	n	0.08166146	Node	24.45984
rms res.	0".96 (M-C)		1985-1992	e	0.1201488	Incl.	2.87561
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(4118) 1982 TH3		Obs.	25	M	298.94454	Peri.	81.57998
H 11.8	G 0.15	Opp.	6	n	0.18807112	Node	307.36397
rms res.	0".88 (M-C)		1950-1992	e	0.1109215	Incl.	8.78119
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(4165) 1976 GS3		Obs.	26	M	16.79192	Peri.	107.12744
H 13.3	G 0.15	Opp.	5	n	0.25653070	Node	180.48679
rms res.	0".91 (M-C)		1973-1992	e	0.1766014	Incl.	11.89153
Epoch 1992 June 27.0 TT = JDT 2448800.5						Bowell	
(4200) Shizukagozen		Obs.	33	M	288.50716	Peri.	240.80872
H 13.5	G 0.15	Opp.	6	n	0.21873850	Node	242.45788
rms res.	0".78 (M-C)		1953-1992	e	0.2220781	Incl.	7.79031

Epoch 1992 June 27.0 TT = JDT 2448800.5  
 (4360) 1964 TG2 Obs. 22 M 200.21172  
 H 12.8 G 0.15 Opp. 5 n 0.23545679  
 rms res. 0".73 (M-C) 1964-1992 e 0.1601199

Bowell  
 Peri. 77.48338  
 Node 331.46636  
 Incl. 2.51975

Epoch 1992 June 27.0 TT = JDT 2448800.5  
 (4373) Crespo Obs. 18 M 330.72753  
 H 13.8 G 0.15 Opp. 4 n 0.29566825  
 rms res. 0".73 (M-C) 1975-1989 e 0.1758743

Bowell  
 Peri. 239.59969  
 Node 154.65799  
 Incl. 4.95950

Epoch 1992 June 27.0 TT = JDT 2448800.5  
 (4527) Schoenberg Obs. 35 M 347.92462  
 H 14.0 G 0.15 Opp. 5 n 0.29457288  
 rms res. 0".79 (M-C) 1982-1992 e 0.2113382

Bowell  
 Peri. 171.87887  
 Node 146.24920  
 Incl. 4.23626

Epoch 1992 June 27.0 TT = JDT 2448800.5  
 (4715) 1989 TS1 Obs. 35 M 101.56982  
 H 9.3 G 0.15 Opp. 4 n 0.08440217  
 rms res. 0".79 (M-C) 1954-1990 e 0.0489388

Bowell  
 Peri. 344.51040  
 Node 1.64149  
 Incl. 18.61674

Epoch 1992 June 27.0 TT = JDT 2448800.5  
 (4802) Khatchaturian Obs. 14 M 351.32081  
 H 14.6 G 0.15 Opp. 4 n 0.29830947  
 rms res. 0".74 (M-C) 1949-1992 e 0.2119254

Bowell  
 Peri. 213.70096  
 Node 102.87382  
 Incl. 0.74398

Epoch 1992 June 27.0 TT = JDT 2448800.5  
 (5118) 1988 RB Obs. 25 M 348.68933  
 H 11.6 G 0.15 Opp. 6 n 0.23457755  
 rms res. 0".64 (M-C) 1953-1992 e 0.2163859

Bowell  
 Peri. 61.19664  
 Node 253.02591  
 Incl. 12.11318

(5298)\* 1966 PK = 1982 SB4 = 1987 WF3

Discovered 1966 Aug. 7 at the Boyden Observatory.

Id. T. Kobayashi (MPC 10938), S. Nakano (MPC 13583)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 327.33328	(2000.0)	P	Q
n 0.19109228	Peri. 298.30416	+0.98819946	-0.14890189
a 2.9852036	Node 70.27797	+0.15047429	+0.89990572
e 0.2185120	Incl. 2.18667	+0.02862354	+0.40987549
P 5.16	H 12.6	G 0.15	

Nakano  
 Peri. 298.30416  
 Node 70.27797  
 Incl. 2.18667  
 H 12.6  
 G 0.15

Residuals in seconds of arc

660807 074	0.8-	1.3+	870829 095	1.0-	1.8+	871002 809	0.9+	0.0
660807 074	1.5-	0.6+	870904 095	0.2-	1.3+	871002 809	1.0+	0.1-
660808 074	1.2+	0.1+	870921 688	0.4-	0.8-	871002 809	1.0+	0.2-
660808 074	1.6-	1.1-	870921 688	0.4+	0.1-	871024 801	0.9-	1.5+
660809 074	0.9+	0.1-	870924 095	1.5-	0.3-	871117 010	0.6+	0.7+
660810 074	0.6+	0.1+	870926 801	2.5-	1.4-	871117 010	2.3-	0.9+
660812 074	1.3+	0.3-	870927 809	0.8+	0.2-	871120 010	0.5+	0.1+
660812 074	0.2-	0.5-	870927 809	0.8+	0.1-	871120 010	2.1-	0.7-
660816 074	(8.0-	2.3-)	870927 809	0.7+	0.1-	920731 801	0.2-	0.2-
820917 095	1.7+	0.6+	870927 095	2.2-	0.4+	920731 801	0.3-	0.2-
820920 095	0.9+	0.6+	871001 809	0.6+	0.3-	920824 801	0.5-	0.2+
820926 095	2.0-	1.6-	871001 809	0.6+	0.2-	920824 801	0.4-	0.4+
870823 675	0.1+	0.1+	871001 809	1.0+	0.3-	920901 801	0.4-	0.1+
870823 675	1.2+	0.7+	871001 809	0.1+	0.4-	920901 801	1.3+	0.5+
870828 675	0.7+	0.8-	871001 809	0.2+	0.3-			
870828 675	1.2+	1.0-	871001 809	0.2+	0.1-			

(5299)\* 1969 LB = 1976 SP2 = 1984 DW1 = 1987 RW3

Discovered 1969 June 8 by C. U. Cesco at the Yale-Columbia Southern Station, El Leoncito.

Id. B. G. Marsden (MPC 15239)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Marsden			
M 284.00181 (2000.0)				P Q			
n	0.17963918	Peri.	75.63474	+0.73929950		-0.67173760	
a	3.1107755	Node	326.52816	+0.58035258		+0.67098223	
e	0.0762301	Incl.	4.88394	+0.34150714		+0.31392904	
P	5.49	H	11.9	G	0.15		

Residuals in seconds of arc

690608	808	1.3-	0.1-	871023	095	(3.2+	2.9+)	920802	675	1.5+	0.0
690609	808	1.2+	0.3+	900318	400	1.1-	0.0	920802	675	0.4+	0.3-
690617	808	0.9+	1.2+	900318	400	1.0-	0.2+	920806	675	0.3+	0.9-
760924	095	1.7-	0.9+	900329	400	(6.4+	3.1+)	920806	675	0.5+	1.2-
760929	095	(0.1-	4.0+)	900329	400	(6.1+	1.4+)	920825	801	0.1+	0.3-
840226	095	0.8+	2.0-	920729	801	0.6+	0.1+	920825	801	0.0	0.4-
870903	095	0.9-	0.3+	920729	801	0.4+	0.2+	920830	801	0.2-	0.1-
870917	095	0.2+	0.6+	920802	801	0.7-	0.1+	920830	801	0.0	0.2+
870923	095	0.6+	1.0-	920802	801	0.5-	0.2-				

(5300)\* 1974 SX1 = 1981 WP4

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

Id. H. Oishi (MPC 11057)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Nakano			
M 63.45916 (2000.0)				P Q			
n	0.28732154	Peri.	350.17317	+0.99966430		-0.01523114	
a	2.2745244	Node	10.76615	+0.02362943		+0.86777362	
e	0.1620448	Incl.	6.44233	-0.01062753		+0.49672624	
P	3.43	H	14.1	G	0.15		

Residuals in seconds of arc

740919	095	1.2+	0.4+	881103	033	0.4+	1.0+	900327	675	0.8-	1.4-
740921	095	0.8+	0.8-	881104	033	0.3+	0.7+	900327	675	1.4-	2.5-
740923	095	(4.4+	1.7-)	881104	033	0.2-	0.8+	910915	675	0.8+	2.3-
741009	095	0.2-	1.5-	881110	888	0.3-	0.7-	910915	675	0.2-	0.8-
811119	095	0.0	0.4+	881110	888	0.1+	0.1-	911008	801	0.0	0.5+
811124	095	1.1-	1.9-	881202	888	0.4+	0.0	911008	801	0.2-	0.6+
880909	033	0.2-	0.6+	881202	888	0.0	0.5-	911008	801	0.0	0.6+
880910	033	0.3+	0.8+	881210	888	0.2+	1.2-	911008	801	0.0	0.4+
880910	033	0.1+	0.3+	881210	888	0.3+	0.8-				

(5301)\* 1974 SD3 = 1986 RN

Discovered 1974 Sept. 20 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.

Id. S. Nakano (MPC 11423), C. M. Bardwell (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Bardwell			
M 313.16193 (2000.0)				P Q			
n	0.15966329	Peri.	141.10615	+0.89438663		-0.41900235	
a	3.3651105	Node	244.34015	+0.35462260		+0.87754750	
e	0.1006421	Incl.	10.00208	+0.27260844		+0.23312533	
P	6.17	H	11.4	G	0.15		

Residuals in seconds of arc

740920	095	1.1+	1.0+	860908	095	1.2-	0.1-	880219	801	0.1+	1.0+
740922	095	0.7-	1.7+	860909	054	1.3+	0.1+	910711	801	0.5+	1.0+
740925	095	0.6-	0.2+	860911	095	1.4-	1.1-	910711	801	0.4-	1.0+
800913	675	0.8+	0.0	860911	054	0.6-	1.6-	910716	801	0.4-	0.5+
800914	675	0.3+	0.1-	860929	054	0.4-	0.5-	910716	801	0.1-	0.6-

920728	801	0.1-	0.1+	920731	801	0.5+	0.1+	920826	801	0.4+	0.1+
920728	801	0.0	0.6+	920824	801	0.3+	0.2-	920826	801	0.3+	0.1+
920731	801	0.2+	0.1+	920824	801	0.2+	0.0				

(5302)\* 1976 YF5 = 1983 VO2 = 1988 CM7

Discovered 1976 Dec. 18 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. A. Lowe (k, MPC 13167), B. G. Marsden (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 178.58476		(2000.0)		P		Q	
n 0.27688371	Peri.	47.30696		+0.90560496		-0.42388507	
a 2.3313337	Node	337.76176		+0.37734795		+0.82054435	
e 0.0376692	Incl.	2.14745		+0.19361866		+0.38344286	
P 3.56	H 14.0		G 0.15				

Residuals in seconds of arc

761218	095	0.4-	0.0	880217	809	0.0	0.7+	901114	801	0.1+	0.4+
761220	095	0.7+	0.0	880221	809	0.1-	0.5+	920308	399	0.5-	1.0+
831108	381	0.2+	0.8-	880221	809	1.0-	0.0	920308	399	1.5+	0.3-
831108	381	0.5-	0.8-	880221	809	1.5-	0.8+	920326	691	0.1-	0.3-
880215	809	1.1+	0.7+	880223	809	0.3-	0.2-	920326	691	0.1+	0.7-
880216	809	1.2+	1.1-	880223	809	0.5-	0.8-	920326	691	0.1-	0.7-
880216	809	1.6+	0.2+	880223	809	1.9-	0.5-	920407	691	0.6-	0.1+
880216	809	1.0+	0.3-	901021	801	0.1+	0.5-	920407	691	1.1-	0.6-
880217	809	0.3+	0.7+	901021	801	0.2+	0.5-	920407	691	0.4-	0.5-
880217	809	0.3+	0.8+	901114	801	0.0	0.4+				

(5303)\* 1978 TT2 = 1976 GA8 = 1986 LL1

Discovered 1978 Oct. 3 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. T. Urata (NOC 1399), S. Nakano (MPC 13051)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 117.71324		(2000.0)		P		Q	
n 0.20217618	Peri.	148.56620		-0.93978868		+0.33965826	
a 2.8750764	Node	51.33747		-0.32274269		-0.84566978	
e 0.0159045	Incl.	2.77539		-0.11240283		-0.41167328	
P 4.87	H 12.4		G 0.15				

Residuals in seconds of arc

710326	675	0.6-	0.2+	760404	095	0.1-	0.1-	890109	033	0.1-	0.3+
710326	675	1.5-	1.0-	780927	095	2.0-	0.7-	890109	033	0.3+	0.1+
710327	675	0.2-	0.1-	781003	095	1.3+	0.8+	910513	801	0.9-	0.1-
710402	675	0.2+	0.3-	781007	095	2.4+	1.2+	910513	801	0.8-	0.2-
710416	675	1.2+	1.4-	831108	801	(0.4+	5.4+)	910514	801	0.5-	0.0
710416	675	1.7+	1.7-	860602	809	0.4+	1.1-	910514	801	0.7-	0.1+
710513	675	1.6-	1.0+	860602	809	0.0	1.0-	920730	801	0.7-	0.6-
710513	675	2.1-	0.2+	860603	809	0.3-	0.4-	920730	801	0.4-	0.5-
710514	675	1.6-	1.7+	860603	809	0.7+	0.2-	920825	801	0.1-	0.8-
710514	675	0.6-	0.3-	860604	809	0.9+	0.1-	920830	801	0.2-	0.8-
710516	675	0.1+	0.4+	860604	809	1.3+	0.2-	920830	801	0.4-	0.8-
710516	675	(4.1+	0.9-)	860607	809	2.5+	2.4+				
760401	095	(3.3+	0.0)	860607	809	2.5+	1.9+				

(5304)\* 1978 TA7 = 1976 JR2 = 1989 YW5

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

Id. D. W. E. Green (MPC 15876)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 201.19793		(2000.0)		P	Q
n 0.19175986	Peri.	317.61670	+0.29206340	-0.94587862	
a 2.9782712	Node	114.95280	+0.91399407	+0.23248762	
e 0.0769992	Incl.	8.97657	+0.28162708	+0.22641368	
P 5.14	H 12.1		G 0.15		

Residuals in seconds of arc

760502 095	0.6-	0.1-	900103 511	0.9+	0.5-	910419 801	0.3-	0.7+
781002 095	0.2+	1.8+	900104 511	0.3+	1.0-	910419 801	0.2-	0.6+
781008 095	0.4-	0.6+	900104 511	0.7+	0.4+	920529 801	0.6-	0.6+
781101 095	0.4-	1.0+	910312 675	0.3+	1.1-	920529 801	0.4-	0.3+
891229 511	0.9-	0.5+	910312 675	0.3+	0.5-	920604 801	0.1+	0.1+
891229 511	1.3-	1.1+	910313 801	0.5+	0.2+	920604 801	0.9+	0.2+
891230 511	0.7-	0.5-	910313 801	0.7+	0.3+	920630 801	0.5-	0.5+
891230 511	1.3+	0.6-	910317 801	0.4+	1.3+			
900103 511	0.8-	1.1+	910317 801	0.6+	1.0+			

(5305)\* 1978 VS5 = 1938 DQ1 = 1980 FL7 = 1984 JL1

Discovered 1978 Nov. 7 by E. F. Helin and S. J. Bus at Palomar.

Id. S. Nakano (MPC 12579)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M 29.15968		(2000.0)		P	Q
n 0.25897408	Peri.	13.94774	-0.40839550	+0.91247324	
a 2.4376154	Node	231.95400	-0.84045011	-0.38640698	
e 0.1564733	Incl.	1.79086	-0.35616952	-0.13447018	
P 3.81	H 13.4		G 0.15		

Residuals in seconds of arc

380220 024	0.7+	1.5+	840502 809	0.5-	0.6-	891103 675	0.5-	0.3+
781105 675	0.2+	0.5+	840502 095	1.0+	1.8+	891103 675	0.3-	0.1+
781106 675	0.0	1.0+	840505 095	1.0-	2.0-	891104 675	0.4+	0.2+
781107 675	0.9+	1.3+	840506 809	(5.8-	2.8+)	891104 675	0.5+	1.3-
781108 675	0.9-	0.1+	840506 809	(11.3-	5.2+)	920628 801	0.2-	0.1+
781129 675	1.0-	0.2-	840518 095	(3.6-	2.9-)	920628 801	0.6-	0.9+
781130 675	1.5-	0.3-	850922 095	0.8+	0.7-	920630 801	0.2-	0.2+
800323 809	0.1+	2.2-	890930 675	1.3+	1.4-	920630 801	0.0	0.5+
840502 809	0.3-	0.4-	890930 675	1.2+	0.4-	920728 801	0.0	0.0

(5306)\* 1980 BB = 1979 YZ8 = 1980 BU5 = 1953 PE1 = 1978 TF9 = 1978 UM  
= 1985 DR4

Discovered 1980 Jan. 25 at the Agassiz Station of the Harvard College Observatory.

Id. B. G. Marsden (d, MPC 9203), K. Ichikawa (MPC 14014), H. Oishi (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M 351.26632		(2000.0)		P	Q
n 0.20421411	Peri.	253.53388	+0.89685640	+0.43902071	
a 2.8559168	Node	80.39801	-0.38208970	+0.83038171	
e 0.0714243	Incl.	3.13596	-0.22283641	+0.34311374	
P 4.83	H 12.3		G 0.15		

Residuals in seconds of arc

530805 078	0.3-	0.1-	900215 400	1.1-	0.9-	920728 801	0.1+	0.1+
781004 095	1.6+	1.4+	900215 400	1.6-	1.1+	920728 801	0.1-	0.2-
781028 688	0.3-	1.0-	Y 910511 801	0.2-	0.6-	920802 801	0.1-	0.0
791224 095	2.3-	1.3-	910511 801	0.7-	0.4-	920802 801	0.2+	0.1-
800123 095	1.0-	0.4-	910513 801	0.6-	0.5-	920825 801	0.1+	0.1-
800125 801	0.1-	0.0	910513 801	0.8-	0.5-	920825 801	0.0	0.3+
800126 801	0.9+	0.5+	910513 033	0.2-	0.6+	920830 801	0.2-	0.8-
850220 675	1.5+	0.1+	910513 033	1.9+	0.3-	920830 801	0.3-	0.9-
850223 675	2.1+	0.5-	910514 033	1.5+	0.4+			

(5307)\* 1980 YC = 1989 GG8

Discovered 1980 Dec. 30 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Id. D. W. E. Green (MPC 15063)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Marsden			
M	(2000.0)			P	Q		
n	57.96075	Peri.	9.62256	+0.35812829	-0.92764918		
a	0.26265058	Node	59.45915	+0.84824585	+0.27587352		
e	2.4148147	Incl.	7.06170	+0.39015780	+0.25171570		
P	0.1215542	H	13.6	G	0.15		

Residuals in seconds of arc

801230	688	1.5-	0.5+	810131	046	(3.7+	3.3+)	890409	033	0.3-	0.4+
801230	688	0.3-	1.8-	810131	046	0.4-	0.8+	890409	033	0.6+	0.2-
810129	046	0.6-	0.4+	870927	095	1.2+	0.6-	911004	801	0.1-	0.1+
810129	046	1.9+	1.0-	871023	095	1.8-	1.7+	911004	801	0.3-	0.5+
810130	046	0.2+	1.2-	890406	033	0.7+	1.0+	911107	801	0.2+	0.4+
810130	046	0.2+	0.8+	890407	033	0.3+	1.4+	911107	801	0.0	0.6+

(5308)\* 1981 DC2 = 1978 VY13 = 1987 UX8

Discovered 1981 Feb. 28 by S. J. Bus at Siding Spring in the course of the U.K. Schmidt-Caltech Asteroid Survey.

Id. L. D. Schmadel (MPC 15406), S. Nakano (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Marsden			
M	(2000.0)			P	Q		
n	93.23673	Peri.	98.80317	+0.79527461	+0.58831859		
a	0.22734244	Node	225.32396	-0.60489049	+0.75386899		
e	2.6587798	Incl.	11.87724	-0.04056822	+0.29251115		
P	0.2046042	H	13.3	G	0.15		

Residuals in seconds of arc

781101	095	(7.9-	4.0+)	810312	413	1.2-	0.1-	910812	801	0.3+	0.3+
781128	675	0.1-	0.6+	810312	413	1.4+	1.0-	910812	801	0.5+	0.2+
781129	675	0.1+	0.3-	810407	413	1.0-	1.1+	910909	801	0.0	0.4+
810204	413	0.5+	0.5+	810408	413	0.8-	1.5+	910909	801	0.0	0.3+
810208	413	(3.5-	0.3-)	810408	413	0.4+	0.9+	910910	801	0.1+	0.3+
810209	413	0.6+	1.0+	810409	413	0.6-	0.3+	910910	801	0.2+	0.4+
810228	413	(2.4-	0.3-)	810409	413	0.9+	0.8-	910912	675	0.2-	0.1+
810228	413	0.4+	0.3-	810501	413	(2.0+	0.9-)	910912	675	1.0-	0.8+
810306	413	0.9+	0.2-	810503	413	0.1+	0.1+	910916	675	0.6-	0.7-
810306	413	(4.4+	2.6-)	871023	095	0.3-	0.1+	910916	675	0.9+	0.4+
810308	413	1.2-	0.6+	910811	801	0.2+	0.2+	910917	675	0.5-	0.2-
810308	413	0.6+	0.6-	910811	801	0.2+	0.1+	910917	675	0.3-	0.2-

(5309)\* 1981 ED25 = 1975 NO1 = 1982 SD5

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

Id. C. M. Bardwell (MPC 8793), W. Landgraf (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Bardwell			
M	(2000.0)			P	Q		
n	349.91540	Peri.	124.84313	+0.84123332	+0.54000035		
a	0.29163762	Node	202.51013	-0.51619571	+0.78732625		
e	2.2520275	Incl.	4.03608	-0.16083681	+0.29751805		
P	0.2348045	H	14.1	G	0.15		

Residuals in seconds of arc

750712	095	0.7-	1.1+	810302	413	2.4-	1.3+	810405	413	0.8-	0.1-
780509	675	1.3+	0.4+	810302	413	(4.2+	0.7-)	810406	413	0.7-	0.5+
780510	675	0.8+	1.1+	810306	413	1.2-	1.1+	810406	413	(3.8+	2.9-)
810212	413	0.1-	0.9+	810306	413	2.4+	0.4-	810410	413	0.2+	2.6-
810212	413	0.7-	0.6+	810311	413	0.5-	0.5+	810426	413	1.4+	3.0-
810213	413	0.5-	1.4+	810315	413	0.6+	0.5+	810502	413	0.5-	2.0-



820926	095	(1.6+	7.2+)	891201	688	0.2+	0.2+	920802	801	0.1+	0.4-
891130	688	0.4+	0.3+	920729	801	0.0	0.3-	920826	801	0.1-	0.2-
891130	688	0.2+	0.3+	920729	801	0.0	0.1-	920826	801	0.1+	0.2-
891201	688	0.1-	0.2+	920802	801	0.2+	0.3-				

(5310)\* 1981 EP26

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

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	346.67052		(2000.0)			P				Nakano	
n	0.26672740	Peri.	45.33424			-0.79429680				+0.60734615	Q
a	2.3901453	Node	172.02274			-0.58341131				-0.75567210	
e	0.0865242	Incl.	6.18060			-0.16948105				-0.24513332	
P	3.70	H	13.8			G	0.15				

Residuals in seconds of arc

750930	675	0.5+	0.4-	810315	413	0.9+	1.3-	901016	809	0.0	0.5+
751001	675	0.1+	1.1-	810405	413	1.1-	1.5+	901020	809	0.5-	0.1-
751002	675	0.3+	0.2-	810405	413	(4.5+	2.4-)	901020	809	0.7-	0.4+
751015	675	0.0	0.5+	810406	413	1.1-	1.4+	901020	809	0.6+	0.4+
751016	675	0.2-	0.7+	810406	413	0.5+	0.2-	901024	809	0.0	0.3+
810209	413	0.9+	0.3+	810407	413	0.4-	0.3-	901024	809	2.2-	0.3-
810212	413	0.6+	0.5-	810407	413	1.1+	0.6-	901024	809	0.2-	0.2-
810213	413	0.0	0.0	810426	413	1.1+	2.0-	920302	399	0.8+	0.4+
810302	413	0.9-	0.3+	810501	413	0.9-	1.0+	920302	399	1.7+	1.5+
810306	413	1.5-	0.6+	901016	809	(2.1-	3.3-)	920303	399	1.2-	0.1-
810306	413	1.0+	0.2-	901016	809	1.6-	2.4-	920303	399	1.1+	0.5-
810311	413	0.7-	0.7-	901016	809	(4.2-	3.8-)	920322	399	2.2-	0.2+
810311	413	0.7+	1.3-	901016	809	2.2+	0.3+	920322	399	0.6+	0.5-
810315	413	1.1-	0.0	901016	809	1.9+	0.3+				

(5311)\* 1981 GD1

Discovered 1981 Apr. 3 by A. C. Gilmore and P. M. Kilmartin at Mount John Observatory.

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	93.22540		(2000.0)			P				Marsden	
n	0.18632931	Peri.	259.60779			-0.61415013				-0.78790954	Q
a	3.0358614	Node	228.37894			+0.74554542				-0.56057765	
e	0.0976265	Incl.	3.44526			+0.25880813				-0.25485537	
P	5.29	H	13.6			G	0.15				

Residuals in seconds of arc

810212	413	0.2+	0.1-	810405	474	1.6+	2.3+	870502	474	1.3+	0.5+
810212	413	0.3+	0.3-	810406	413	1.5-	1.0+	870502	474	0.8+	0.7+
810301	413	0.4+	0.3+	810406	413	1.2+	0.4-	870605	474	0.7-	0.1-
810306	413	0.9-	0.1+	810408	413	1.4-	0.2-	870605	474	1.0-	0.5-
810306	413	0.3+	0.1-	810408	413	0.8+	1.5-	910111	474	0.3+	0.0
810308	413	0.1-	0.4+	810409	413	1.4-	0.3+	910111	474	0.5-	0.8+
810308	413	0.2-	0.7+	810409	413	0.7+	0.5-	920405	675	(12.5-	5.0+)
810312	413	0.8-	0.8+	810430	474	0.3-	1.0-	920502	474	0.9-	0.2+
810312	413	1.3+	0.6-	810430	474	0.4-	0.9-	920502	474	0.2+	0.2+
810403	474	1.8-	0.3+	810501	413	0.4+	1.5-	920504	474	0.9+	0.5+
810403	474	1.9-	0.1+	810503	474	2.1+	3.9-	920504	474	0.1+	0.5+
810404	474	0.5-	1.1+	810503	474	2.0+	1.4-	920529	474	0.0	0.2+
810404	474	0.5-	0.4+	860307	474	0.8+	0.0	920529	474	0.2-	0.1+
810405	474	0.2-	2.2+	860307	474	0.2+	0.4-				

(5312)\* 1981 VP2 = 1953 VJ1 = 1987 WU1

Discovered 1981 Nov. 3 by F. Borngen at Tautenburg.  
Id. D. W. E. Green (MPC 12707), L. D. Schmadel (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	330.73740		(2000.0)		P		Q
n	0.17550279	Peri.	282.67650	+0.94435764			-0.32519854
a	3.1594637	Node	96.31740	+0.31775451			+0.86322211
e	0.3101788	Incl.	2.84548	+0.08497482			+0.38612627
P	5.62	H	13.3	G	0.15		

Residuals in seconds of arc

531106	760	1.6+	0.0	871126	033	0.5-	0.5-	910608	809	(0.4-	3.1-)
531106	760	1.9-	0.4+	871222	033	0.2+	0.3-	910608	809	1.2-	1.9-
810925	095	0.4+	0.6-	871225	033	0.8+	0.5-	910608	809	1.2-	1.0-
811007	095	2.2+	0.0	871225	033	0.2+	0.1+	920802	801	0.2+	0.3-
811023	330	(1.4-	3.0+)	880111	033	0.6-	0.4-	920802	801	0.3-	0.7-
811028	330	(3.8-	5.0+)	880111	033	0.1-	0.6-	920824	801	0.1-	0.2-
811103	033	0.7-	0.1-	910606	809	(3.3+	0.9-)	920824	801	0.1-	0.2-
811103	033	0.8-	0.2+	910606	809	1.3+	0.5-	920831	801	0.1-	0.3+
871126	033	0.4-	0.6-	910606	809	0.8+	0.7+	920831	801	0.1-	0.4+

(5313)\* 1982 SC2 = 1958 DL = 1988 GJ

Discovered 1982 Sept. 18 by H. Debehogne at the European Southern Observatory.

Id. S. Nakano (MPC 13157)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	58.93790		(2000.0)		P		Q
n	0.29877932	Peri.	137.61312	-0.34366693			+0.93624866
a	2.2159963	Node	112.16781	-0.88136121			-0.29472256
e	0.1216049	Incl.	4.52218	-0.32418429			-0.19125130
P	3.30	H	13.0	G	0.15		

Residuals in seconds of arc

580218	760	0.2-	1.3+	880410	897	2.0-	0.4+	910114	801	0.4+	0.1-
580218	760	(5.8+	5.4+)	880415	897	0.5+	0.3-	910119	801	0.3+	0.1+
820918	809	1.1-	0.1+	880415	897	0.1+	0.8-	910119	801	0.3+	0.5-
820918	809	0.7-	0.1+	880419	897	(3.9-	2.0-)	910512	801	0.6+	0.6+
820918	809	0.0	0.2+	880419	897	(4.1-	0.2-)	910512	801	0.2-	0.4+
820921	809	1.4+	0.6+	890928	675	0.0	0.4-	920803	801	0.1-	0.8-
820921	809	1.4+	0.9+	890928	675	0.2-	0.2-	920803	801	0.1-	0.8-
820921	809	1.5+	0.6+	890929	801	0.9+	1.0-	920824	801	0.0	0.5+
820925	809	0.1-	0.0	890929	801	0.2-	0.3+	920824	801	0.3-	0.6+
820925	809	0.4-	0.1-	901220	801	0.0	0.1+	920831	801	0.9-	0.0
820925	809	0.5-	0.3-	901220	801	0.1-	0.1-	920831	801	0.3-	0.0
880410	897	0.3+	0.0	910114	801	0.3+	0.0				

(5314)\* 1982 SG4 = 1982 SP4 = 1987 RS3

Discovered 1982 Sept. 20 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. S. Nakano (d, MPC 13582), D. W. E. Green (d, MPC 15244), B. G. Marsden (MPC 15244)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	249.39416		(2000.0)		P		Q
n	0.18947596	Peri.	246.57196	-0.04479441			-0.99624862
a	3.0021563	Node	206.32307	+0.96666103			-0.02452110
e	0.0819836	Incl.	9.61191	+0.25211090			-0.08299037
P	5.20	H	11.8	G	0.15		

Residuals in seconds of arc

820920	095	(4.4-	1.3+)	870902	095	1.7-	0.5-	900330	400	0.4+	2.1+
820922	095	0.8+	0.6-	870917	095	(0.8-	3.1-)	910513	801	0.4-	0.1+
820926	095	(3.6-	0.7+)	870926	095	0.2+	0.3+	910513	801	0.4-	1.1-
820928	095	0.2-	1.3+	900330	400	0.4+	2.1+	910609	801	0.2+	0.2-

910609	801	0.9+	0.8-	920731	801	0.3-	0.5+	920826	801	0.0	1.2+
910611	801	0.1+	0.4+	920731	801	0.1+	1.1+				
910611	801	0.0	0.5-	920826	801	0.0	0.9+				

(5315)\* 1982 SV5 = 1931 TR3 = 1975 PK = 1991 FJ6

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

Id. S. Nakano (MPC 13605; unpublished)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	299.55022		(2000.0)			P				Nakano	Q
n	0.28951767	Peri.	206.73751			+0.94218067				-0.33483269	
a	2.2630075	Node	172.78525			+0.32348591				+0.89824339	
e	0.1964114	Incl.	6.17774			+0.08747828				+0.28468557	
P	3.40	H	13.8			G	0.15				

Residuals in seconds of arc

311012	690	0.4-	1.2-	820926	095	1.5+	0.3-	920726	801	0.6-	0.1+
311014	690	0.3+	0.2+	821022	095	(3.0-	1.9-)	920729	801	0.9-	0.1+
750814	805	1.1-	1.1-	891029	801	0.6-	0.4+	920729	801	0.8-	0.0
750815	805	1.9+	1.8+	891029	801	0.8-	0.4+	920825	801	0.4+	0.4+
750816	805	0.7-	0.4-	910323	809	1.3-	0.1-	920825	801	0.3+	0.4+
820916	095	(1.9+	3.4-)	910323	809	0.2+	0.4-	920827	801	0.0	0.7-
820918	095	(5.3+	6.1-)	910323	809	1.8+	0.6-	920827	801	0.7+	0.1-
820920	095	0.9+	0.3+	920726	801	0.9-	0.2-				

(5316)\* 1982 UB7 = 1982 XU3 = 1987 SF9 = 1991 LV3

Discovered 1982 Oct. 21 by L. G. Karachkina at the Crimean Astrophysical Observatory.

Id. C. M. Bardwell (d, MPC 9153), G. V. Williams (MPC 18623)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	223.48199		(2000.0)			P				Williams	Q
n	0.17543909	Peri.	221.85904			-0.03301087				-0.97977643	
a	3.1602285	Node	231.00748			+0.97110789				+0.01525167	
e	0.0324521	Incl.	14.70958			+0.23634667				-0.19951324	
P	5.62	H	11.6			G	0.15				

Residuals in seconds of arc

821021	095	(5.0+	4.2-)	910606	809	1.0+	1.6+	920728	658	0.4-	0.0
821023	095	0.6+	0.3-	910606	809	0.0	0.8+	920728	658	0.5-	0.0
821111	330	1.0-	1.6+	910606	809	0.5-	0.8+	920729	801	0.5+	0.2-
821112	095	0.1+	0.5+	910608	809	0.5+	0.3+	920729	801	0.1+	0.1-
821117	330	0.6-	1.0+	910608	809	0.4-	0.2+	920731	801	0.2+	0.3-
821213	381	0.5+	0.1+	910608	809	0.9-	0.5-	920731	801	0.0	0.4-
821214	381	0.7+	0.5-	920727	658	0.1+	0.0	920825	801	0.2+	0.3+
821214	381	0.1+	0.4+	920727	658	0.0	0.1-	920825	801	0.1+	0.2+
870921	010	0.4+	0.5-	920727	658	0.2+	0.1-	920831	801	0.3+	0.3+
870922	010	0.9-	0.4+	920728	658	0.6-	0.1-	920831	801	0.2+	0.1-

(5317)\* 1983 CE = 1983 CB1 = 1970 EH = 1987 BF3

Discovered 1983 Feb. 11 by C. S. Shoemaker at Palomar.

Id. F. N. Bowman (d, MPC 7830), D. W. E. Green (MPC 14189)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	32.82869		(2000.0)			P				Marsden	Q
n	0.22884262	Peri.	58.55881			-0.97844590				+0.03125724	
a	2.6471473	Node	122.48290			-0.08630882				-0.95990070	
e	0.1094256	Incl.	14.00353			+0.18760173				-0.27859223	
P	4.31	H	12.2			G	0.15				

Residuals in seconds of arc

700307	095	0.7+	1.7+	830211	688	0.4+	1.4-	830215	688	0.9+	1.5-
830211	688	0.0	0.3-	830211	675	0.1+	0.4+	830219	688	(0.4-	2.4-)
830211	675	1.5-	0.2+	830215	688	(0.1+	2.1-)	830219	688	(0.9+	2.4-)

830309	688	(1.3+	2.4-)	901220	801	0.1+	0.1+	920405	675	(2.5-	0.0 )
830309	688	0.5-	1.1-	920205	801	2.0+	0.2-	920422	596	0.5+	0.4+
830314	095	1.2-	0.7-	920205	801	0.7+	1.8-	920422	596	1.2+	1.0+
870130	010	(0.7-	2.5+)	920206	801	0.4+	0.4-	920422	596	(0.6+	2.1+)
870130	010	0.7-	1.3+	920206	801	0.5+	0.6-	920424	596	0.3+	0.4+
870130	010	(3.1-	2.6+)	920301	801	0.3-	0.3+	920424	596	0.2+	0.3-
890801	675	0.4+	2.8-	920301	801	0.2-	0.2+	920426	675	0.3+	1.3-
890802	675	(0.5-	3.7-)	920302	801	0.6-	0.0	920430	675	1.1-	1.0-
901116	801	0.2+	0.1+	920302	801	0.5-	0.2-	920504	589	0.1-	1.5+
901116	801	0.1+	0.1+	920403	675	0.3+	1.2-	920504	589	0.2-	1.7+
901220	801	0.2+	0.2+	920403	675	1.2-	0.3-	920504	589	0.9-	1.5+

(5318)\* 1985 HG1 = 1985 JZ = 1983 UL1 = 1988 CX2

Discovered 1985 Apr. 21 by A. Mrkos at Klet.

Id. F. N. Bowman (d, MPC 10151), C. M. Bardwell (MPC 13039)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bardwell

M	69.04409		(2000.0)			P			Q
n	0.28453229	Peri.	54.04384			-0.94900165			-0.31044496
a	2.2893649	Node	107.81393			+0.26747642			-0.88507721
e	0.1334710	Incl.	3.30896			+0.16688990			-0.34678849
P	3.46	H	13.6			G	0.15		

Residuals in seconds of arc

710513	675	0.5-	0.4+	880216	809	1.4+	0.5+	890802	413	0.4+	0.4-
710514	675	0.3-	1.4-	880216	809	0.2+	0.6+	890803	413	0.1+	1.6-
710516	675	0.3-	2.3-	880217	809	0.8+	1.0-	901110	046	1.1-	2.1-
831030	675	0.0	0.1+	880217	809	1.2+	1.1-	901110	046	1.2+	1.4-
831104	675	1.2+	1.4+	880217	809	0.7+	0.6-	901113	046	2.1-	2.5-
850421	046	(0.9-	4.3-)	880221	809	0.1-	0.8-	901113	046	1.4+	1.0-
850422	046	(0.4+	3.7-)	880221	809	0.7-	0.8-	920603	801	0.2+	0.1-
850513	675	1.5-	1.2+	880221	809	1.6-	0.4-	920603	801	0.8+	1.0-
850514	675	1.1-	1.2-	880223	809	0.9-	0.6+	920702	801	0.3+	0.3-
880211	809	1.6-	0.1-	880223	809	1.1-	1.5+	920702	801	0.0	0.1+
880215	809	2.3+	1.4-	880223	809	1.9-	1.1+				
880216	809	1.9+	0.1+	890802	413	0.8+	1.1-				

(5319)\* 1985 RK6 = 1964 JB = 1987 DV4 = 1988 NT

Discovered 1985 Sept. 15 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Id. D. W. E. Green (MPC 14193), S. Nakano (ibid.), C. M. Bardwell (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	68.95714		(2000.0)			P			Q
n	0.29066397	Peri.	81.21883			+0.20532195			+0.97793913
a	2.2570538	Node	200.75058			-0.93518399			+0.18446023
e	0.1535488	Incl.	6.22926			-0.28857200			+0.09802793
P	3.39	H	13.2			G	0.15		

Residuals in seconds of arc

511129	675	1.7+	0.7+	870228	010	0.1-	0.1+	910414	400	0.6+	0.3+
511129	675	1.2-	0.2-	880712	675	0.8-	0.0	910414	400	1.1+	1.3-
640510	760	0.1-	0.3+	880714	675	1.3-	0.1+	910417	657	0.1-	0.6-
640510	760	0.1-	0.9+	880808	675	(2.7+	3.0-)	910417	657	1.6-	0.4-
850915	095	0.5-	2.1+	880808	675	2.0+	0.3-	910418	400	0.2+	2.4+
850920	095	0.1-	0.6-	910313	801	0.2+	0.9-	910418	400	(3.0+	2.2+)
850922	095	0.3+	0.3-	910313	801	0.3+	0.7-	910419	801	0.1+	0.5+
870228	010	0.7+	0.9+	910412	657	(2.5-	1.9-)	910419	801	0.2+	0.6+
870228	010	0.9-	0.6+	910412	657	0.2-	0.7-				

(5320)\* 1985 VD = 1990 QG5

Discovered 1985 Nov. 14 by P. Jensen at Brorfelde.

Id. E. Bowell (MPC 17017)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 121.74752		(2000.0)		P	Q
n 0.17754207	Peri.	210.74196	+0.92799211	+0.36436454	
a 3.1352237	Node	127.68615	-0.31870509	+0.88453294	
e 0.1627758	Incl.	5.64949	-0.19302257	+0.29127299	
P 5.55	H 12.2		G 0.15		

Residuals in seconds of arc

790920 675	0.1+	0.6-	851115 054	2.4-	0.1-	911106 801	0.5-	0.2-
790921 675	0.1+	0.1+	900825 675	0.2+	0.3+	920101 801	0.2-	0.2-
851022 095	0.8+	0.3+	900825 675	0.3+	0.2+	920101 801	1.2+	0.1-
851109 095	1.0+	1.5+	900826 675	0.6+	0.1-	920106 801	0.1-	0.5-
851111 095	0.2-	0.3+	900826 675	1.0-	1.0-	920106 801	0.1-	0.2-
851114 054	0.1+	0.1-	911106 801	0.2-	0.6-			

(5321)\* 1985 VN = 1931 VK1 = 1989 TH

Discovered 1985 Nov. 14 by P. Jensen at Brorfelde.

Id. T. Furuta (MPC 15412), H. Oishi (MPC 17203)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M 255.39297		(2000.0)		P	Q
n 0.23775700	Peri.	138.42462	+0.97221228	+0.20147436	
a 2.5805593	Node	210.57150	-0.22239219	+0.95389806	
e 0.2207871	Incl.	13.55539	+0.07310951	+0.22245576	
P 4.15	H 12.9		G 0.15		

Residuals in seconds of arc

311103 690	0.6+	0.1+	890929 675	0.9-	1.5-	891030 807	0.3+	0.0
311106 690	0.5-	1.2-	890929 675	0.9-	1.1-	891101 807	0.1+	0.3-
710513 675	0.4-	0.2-	891004 881	0.1-	0.1-	891229 801	1.2-	0.4-
710514 675	1.8-	0.2+	891004 881	0.0	0.2-	891229 801	0.8-	0.6-
710514 675	0.8-	0.1-	891005 881	0.5+	1.8+	920404 809	0.0	2.0-
710514 675	0.1+	0.6-	891005 881	1.2-	0.4+	920404 809	0.8-	2.1-
710516 675	2.1+	1.0-	891021 095	1.9-	1.6-	920404 809	(0.0	3.0-)
851022 095	0.5+	0.7-	891022 046	0.6+	0.1-	920406 809	0.7-	2.1-
851109 095	(0.6-	2.9-)	891022 046	1.5+	1.0-	920406 809	1.0-	1.7-
851111 095	0.4+	1.1-	891023 046	2.4+	0.1+	920406 809	(1.0-	2.6-)
851114 054	0.5+	0.3+	891023 046	2.1+	0.0	920423 809	0.9-	0.9+
851115 054	0.4-	0.9+	891024 046	1.7+	0.2-	920423 809	0.9-	1.1+
851115 054	0.0	0.5+	891024 046	1.4+	0.6-	920423 809	1.2+	1.2-
851120 095	(0.2+	13.6+)	891025 095	(2.2-	4.1+)	920425 809	0.6+	0.5+
890927 675	1.4-	0.7-	891025 095	1.2-	2.4+	920425 809	1.1+	0.5+
890928 675	0.9-	1.4-	891028 046	0.9-	0.2+	920425 809	1.0+	0.7+
890928 675	0.9-	1.2-	891028 046	0.5+	1.3+			

(5322)\* 1986 QB1 = 1972 TW6 = 1975 HC = 1982 VM = 1984 DE2

Discovered 1986 Aug. 26 by H. Debehogne at the European Southern

Observatory.

Id. D. W. E. Green (MPC 12133), S. Nakano (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M 147.34304		(2000.0)		P	Q
n 0.20368111	Peri.	204.37418	-0.13087789	+0.99019326	
a 2.8608969	Node	58.13906	-0.89988369	-0.09796658	
e 0.0083306	Incl.	3.29859	-0.41602923	-0.09959847	
P 4.84	H 12.2		G 0.15		

Residuals in seconds of arc

721006 095	(1.0-	3.9-)	821114 381	0.8-	0.4+	860826 809	1.9-	0.5+
750420 805	0.5-	0.3+	821114 046	0.7-	0.9-	860826 809	1.7-	0.5+
821111 046	0.8-	0.6-	821114 046	1.0+	1.0+	860826 809	1.6-	0.3+
821111 046	0.8+	0.4-	821116 046	1.4-	0.2-	860827 809	1.1-	1.2+
821112 095	0.6+	0.5-	821116 046	1.1-	1.6+	860827 809	1.1-	0.9+
821114 381	0.9+	0.1+	840226 095	(4.6+	2.6+)	860827 809	1.0-	0.8+

860829	809	0.1+	0.9+	860906	809	0.1-	0.0	860914	809	(2.1-	1.6+)
860829	809	0.1-	0.9+	860906	809	0.1+	0.1+	871123	801	0.1-	1.5+
860829	809	0.2-	0.8+	860906	809	0.2+	0.1+	871125	400	1.3+	0.7-
860901	809	1.0+	0.2+	860906	809	1.0+	0.1+	871125	400	(3.2+	2.0-)
860901	809	0.8+	0.0	860906	809	1.0+	0.0	910807	675	0.5-	1.6-
860901	809	0.6+	0.4-	860906	809	0.7+	0.0	910808	675	0.3-	0.1-
860902	809	1.2+	0.4+	860907	809	0.8-	0.4-	910812	808	(3.0-	1.2-)
860902	809	1.3+	0.3+	860907	809	0.9-	0.0	910812	808	(3.5-	1.9-)
860902	809	1.6+	0.6+	860907	809	0.5-	0.4-	910814	808	(2.2-	1.8-)
860903	809	0.6+	0.0	860907	809	0.2-	0.1+	910814	808	0.3+	0.3-
860903	809	0.5+	0.1-	860907	809	0.1-	0.1+	910909	801	0.4+	0.4+
860903	809	1.2+	0.1+	860907	809	0.1-	0.0	910909	801	0.4+	0.4+
860904	809	1.5+	0.0	860908	095	0.5-	1.7-	910912	801	0.4-	0.1-
860904	809	1.4+	0.3-	860909	809	0.5-	0.3-	910912	801	0.4-	0.0
860904	809	1.7+	0.1-	860909	809	0.6-	0.3-	910914	675	1.4+	0.4-
860905	809	0.5+	0.5-	860909	809	0.5-	0.5-	910914	675	0.4+	0.1-
860905	809	0.4+	0.3-	860911	809	1.7-	1.1+	910915	675	0.6-	0.8-
860905	809	0.4+	0.5-	860911	809	1.5-	1.0+	910915	675	0.3-	1.1-
860905	809	0.6+	0.1-	860911	809	1.5-	1.2+	910917	675	0.4-	1.1-
860905	809	0.4+	0.3-	860914	809	(2.0-	1.7+)	910917	675	0.1-	1.1-
860905	809	0.3+	0.4-	860914	809	(2.1-	1.7+)				

(5323)\* 1986 TL4 = 1979 YC9 = 1980 BY5

Discovered 1986 Oct. 13 by P. Jensen at Brorfelde.

Id. C. M. Bardwell (MPC 11436)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bardwell

M 177.68063

(2000.0)

P

Q

n 0.26546223

Peri. 346.77538

+0.66084493

-0.74878006

a 2.3977334

Node 61.83437

+0.69375921

+0.58346523

e 0.1996164

Incl. 3.32369

+0.28632523

+0.31447853

P 3.71

H 14.1

G 0.15

Residuals in seconds of arc

791224	095	0.8+	0.3+	901116	801	0.1-	0.3-	920406	809	0.6-	0.1-
800123	095	0.3+	1.4+	901116	801	0.4+	0.2-	920406	809	0.3+	0.7-
810508	675	0.5-	0.4-	901213	801	0.3-	0.7-	920406	809	0.5+	1.2-
810509	675	1.4-	0.0	901213	801	0.5-	0.7-	920427	691	0.2+	0.0
861013	054	0.7-	1.0-	901215	801	0.2-	0.3-	920427	691	0.2-	0.8+
861029	054	1.9+	1.1-	901215	801	0.4-	0.2-	920427	691	0.3-	0.4+
861102	054	0.7-	1.6-	920404	809	1.1+	1.5-	920507	691	0.4-	0.7+
861104	095	0.3+	1.5+	920404	809	0.8-	1.6-	920507	691	0.6-	1.0+
861106	054	0.7+	0.5-	920404	809	0.8+	2.5-				

(5324)\* 1987 SL

Discovered 1987 Sept. 22 by L. G. Karachkina at the Crimean Astrophysical Observatory.

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 347.64763

(2000.0)

P

Q

n 0.19351254

Peri. 320.16478

+0.69043468

+0.72230159

a 2.9602608

Node 353.15447

-0.54910933

+0.48752247

e 0.6147462

Incl. 19.48290

-0.47093407

+0.49051225

P 5.09

H 14.1

G 0.15

Residuals in seconds of arc

870919	688	(2.4-	2.7-)	870929	688	1.6+	1.0+	871016	691	0.1+	0.4-
870922	095	1.8-	0.3+	871002	675	0.1-	0.2-	871018	675	0.0	0.0
870925	675	1.0-	0.1+	871002	675	0.9-	0.5+	871019	801	0.1-	0.1-
870925	675	0.7-	0.0	871015	095	0.0	1.8+	871020	675	0.4+	1.5-
870925	095	0.5+	0.4-	871015	095	(3.2-	0.5-)	871020	657	(1.4-	2.3-)
870926	095	(3.7+	1.4-)	871016	691	0.1-	0.5-	871022	657	(0.7+	2.6-)
870929	688	1.6+	1.3+	871016	691	0.1+	0.2-	871120	801	0.9-	1.1-

871122	675	0.7+	0.6-	880207	675	0.8-	0.1-	920530	474	0.1+	0.2-
871222	691	0.3+	0.6+	880207	675	1.0-	0.2+	920530	474	0.1-	0.2+
871222	691	0.5+	1.0+	880306	675	0.3-	0.3-	920619	413	0.5+	0.2+
871222	691	0.2+	0.6+	880306	675	0.2-	0.9-	920619	413	0.4+	0.1+
880112	688	0.8-	0.6-	880306	675	0.5-	0.5+	920730	413	0.4+	0.4+
880112	688	0.8-	0.8-	880306	675	0.9+	0.3-	920805	413	0.8-	0.3+
880115	691	0.1+	1.0+	920430	474	0.2+	0.4+	920805	413	0.9-	0.3+
880115	691	0.0	0.9+	920430	474	0.1-	0.7+	920820	413	0.0	0.5-
880115	691	0.6+	1.1+	920502	474	1.0+	0.3+	920820	413	0.2-	0.1-
880206	675	0.3-	0.0	920502	474	0.4+	0.3-	920821	413	0.0	0.4-
880206	675	0.8-	0.7-	920503	413	0.6+	1.0+	920821	413	0.1-	0.5-
880206	675	0.7-	0.2+	920524	413	0.1+	0.0				
880207	675	0.4-	0.2-	920524	413	0.1+	0.0				

(5325)\* 1988 JQ = 1981 OJ

Discovered 1988 May 12 by C. S. Shoemaker at Palomar.

Id. B. G. Marsden (MPC 17960), G. V. Williams (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	42.25146		(2000.0)		P		Q
n	0.27110793	Peri.	119.82618		-0.20682884		+0.93736500
a	2.3643290	Node	135.26173		-0.97724108		-0.18412637
e	0.2176779	Incl.	23.46750		-0.04713493		-0.29570988
P	3.64	H	12.4	G	0.15		

Residuals in seconds of arc

810726	688	0.4+	0.8+	880619	675	0.1+	1.3-	910214	675	1.5+	1.0-
810726	688	0.1-	1.2+	880621	688	0.4-	1.7-	910214	675	1.2+	1.6-
880512	675	0.4+	0.1-	880621	688	0.6-	0.3-	910219	675	0.5-	1.1+
880515	675	0.4+	1.3+	910118	675	1.8-	1.4-	910219	675	1.1+	0.2+
880608	675	2.0-	0.0	910118	675	1.5-	0.6-	920726	801	0.3+	0.9-
880610	675	0.1-	0.3+	910122	675	0.5-	0.4-	920726	801	0.3+	0.9-
880612	675	0.1+	0.6-	910122	675	0.3-	0.1+	920728	801	0.2+	1.0-
880616	675	0.5+	0.7+	910207	675	0.2+	1.3-	920728	801	0.3+	0.9-
880616	675	(1.6-	3.1+)	910208	675	0.1+	0.1+	920825	801	0.5-	1.0-
880619	675	1.0+	0.0	910211	675	0.8+	0.2+	920825	801	0.2-	0.6-

(5326)\* 1988 RT6 = 1971 HV = 1979 HT5

Discovered 1988 Sept. 8 by H. Debehogne at the European Southern Observatory.

Id. C. M. Bardwell (MPC 15417)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bardwell

M	18.21487		(2000.0)		P		Q
n	0.24327719	Peri.	122.79098		+0.40864290		+0.91180555
a	2.5413733	Node	171.04916		-0.89978613		+0.40986539
e	0.1249503	Incl.	15.00016		-0.15295716		+0.02491986
P	4.05	H	12.9	G	0.15		

Residuals in seconds of arc

710427	095	1.7+	0.3-	880912	809	0.4+	0.9+	880920	809	0.4-	0.5-
790428	095	2.8-	2.8+	880914	809	0.2-	0.4+	880920	809	0.3-	0.6-
880908	809	0.2-	0.1+	880914	809	0.0	0.7+	880920	809	0.2-	0.7-
880908	809	0.2+	0.0	880914	809	0.0	0.5+	881104	807	1.1+	0.6+
880908	809	0.3+	0.1+	880915	809	0.1+	0.4+	881106	807	0.1+	1.4+
880909	809	0.3+	0.2+	880915	809	0.2+	0.5+	910313	801	0.6-	0.1-
880909	809	0.5+	0.2+	880915	809	0.2+	0.5+	910313	801	0.5-	0.1+
880909	809	0.8+	0.1+	880916	675	1.0-	1.6-	910317	801	0.1-	0.1+
880910	675	0.1+	0.2-	880916	675	1.1-	1.6-	910317	801	0.2-	0.3-
880912	675	1.1-	0.8-	880918	809	0.4-	0.1-	910412	801	0.2+	0.2-
880912	809	0.3+	1.0+	880918	809	0.1+	0.1-	910412	801	0.3+	0.0
880912	809	0.4+	0.9+	880918	809	0.1+	0.1+	910419	801	1.2+	0.7-

910419	801	1.0+	0.7-	920729	801	0.1-	0.1+	920806	675	0.7-	1.1-
920726	801	0.2-	0.1-	920729	801	0.2-	0.3+	920830	801	0.4+	0.1+
920726	801	0.2-	0.2-	920806	675	0.0	1.2-	920830	801	0.8+	0.3+

(5327)\* 1989 EX1 = 1950 LB = 1950 LP = 1979 OB13

Discovered 1989 Mar. 5 by Z. Vavrova at Klet.

Id. D. W. E. Green (MPC 15252), B. Potter (d, MPC 491)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 282.48637		(2000.0)		P		Marsden		Q	
n	0.27501157	Peri.	82.33693	-0.75917626				+0.64072150	
a	2.3419021	Node	137.41156	-0.64373564				-0.71309415	
e	0.1622011	Incl.	9.74753	-0.09620722				-0.28455699	
P	3.58	H	13.6	G	0.15				

Residuals in seconds of arc

500604	024	(5.2+	4.8-)	890212	809	0.3+	0.3+	890302	809	0.2-	0.8+
500607	760	0.2+	1.8+	890214	809	0.0	0.6+	890302	809	0.3-	0.8+
500607	760	0.4-	2.9-	890214	809	0.1-	0.6+	890303	809	0.4-	0.1-
790726	675	1.0-	1.8+	890217	809	0.3-	0.4-	890303	809	0.2-	0.0
790727	675	0.3+	0.4+	890217	809	0.3-	0.3-	890303	809	0.0	0.1+
890207	809	0.6-	0.5-	890217	809	0.4-	0.2-	890305	046	(2.2+	1.5-)
890207	809	0.0	0.4-	890218	809	0.1+	0.2+	890305	046	(2.9+	2.7-)
890207	809	0.1+	0.3-	890218	809	0.1+	0.1+	890306	046	1.7+	1.0-
890208	809	0.7-	0.5-	890223	809	0.0	0.5+	890306	046	(2.3+	2.4-)
890208	809	0.6-	0.6-	890223	809	0.4+	0.6+	890307	046	(2.9+	1.3-)
890208	809	0.3-	0.6-	890224	809	0.1+	0.5+	890307	046	1.7+	1.6-
890209	809	0.8-	0.4-	890224	809	0.3+	0.4+	900827	675	0.3-	0.7-
890209	809	0.2-	0.4-	890226	809	0.4+	0.4+	900827	675	0.4-	0.6-
890209	809	0.0	0.4-	890226	809	0.4+	0.5+	900916	675	0.2+	1.8+
890210	809	0.4-	0.6+	890226	809	0.8+	0.8+	900916	675	1.4+	1.0+
890210	809	0.1-	0.2+	890228	809	0.1+	0.2+	900917	675	0.4-	0.2-
890210	809	0.3-	0.3+	890228	809	0.2+	0.5+	900917	675	0.7+	0.1-
890212	809	0.2-	0.1-	890228	809	0.3+	0.5+	900920	675	0.2+	0.7-
890212	809	0.1+	0.3+	890302	809	0.0	0.5+	900920	675	1.0-	0.4+

(5328)\* 1989 UH1 = 1978 YP1 = 1980 GO1

Discovered 1989 Oct. 26 by S. Ueda and H. Kaneda at Kushiro.

Id. E. Bowell (k, MPC 18118), G. V. Williams (ibid.)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 271.56510		(2000.0)		P		Williams		Q	
n	0.26374607	Peri.	162.12287	+0.93926780				-0.33516862	
a	2.4081233	Node	217.71830	+0.29831190				+0.90361376	
e	0.1428394	Incl.	6.92316	+0.16966442				+0.26672863	
P	3.74	H	13.4	G	0.15				

Residuals in seconds of arc

781222	095	0.2+	1.8-	891029	399	(2.4+	2.2+)	891125	399	(3.0+	0.5-)
800408	675	0.4+	0.4+	891102	391	1.4-	1.8+	891125	399	0.3+	1.0+
800409	675	0.1-	1.7+	891102	391	(1.5-	2.7+)	891203	399	0.7-	1.7-
891024	095	0.3-	0.7-	891104	391	1.5+	0.9+	891203	399	(2.2-	1.5-)
891024	095	0.4+	1.9+	891104	391	1.2+	0.5-	920629	801	0.7+	0.1-
891026	399	0.8-	0.5+	891107	391	0.4+	0.1+	920629	801	1.0+	0.6-
891026	399	1.3-	0.4+	891107	391	(1.3-	2.5-)	920703	801	0.3-	0.5-
891026	399	1.3-	0.9-	891107	391	(3.1-	2.1+)	920703	801	0.3-	0.1-
891026	095	1.0+	1.5-	891120	399	1.9-	0.3+	920729	801	1.1-	0.8-
891026	095	(0.1-	3.6-)	891120	399	0.4-	0.3+	920729	801	0.4-	0.0
891029	399	0.5+	1.3+	891120	399	(2.7-	0.3+)	920731	801	0.4+	1.3+
891029	399	0.5+	0.1-	891125	399	1.6+	0.8-				

(5329)\* 1989 YP = 1927 DA = 1978 EF5 = 1982 DR

Discovered 1989 Dec. 21 by R. H. McNaught at Siding Spring.



Id. B. G. Marsden (MPC 16031)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M 240.08843	(2000.0)		P	Q
n 0.23416248	Peri. 256.31577	+0.76537594		-0.62771228
a 2.6069008	Node 142.27529	+0.64274624		+0.73427599
e 0.2682314	Incl. 13.42373	+0.03281679		+0.25848805
P 4.21	H 12.5	G 0.15		

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

270223 024	(0.24+ 0.04-)	X	820228 688	1.0+	2.1-	891226 413	1.0+	0.3-
780306 095	(3.6- 0.1+)		860205 675	1.0-	1.2+	891226 413	1.4+	0.9-
790715 413	0.3- 0.3+		860205 675	1.2-	1.5+	900103 413	1.4+	1.7-
790716 413	0.1+ 0.2+		860206 675	0.2+	0.4+	920703 413	0.1+	0.4+
790718 413	0.1+ 0.0		860206 675	1.0-	1.3+	920703 413	0.1+	0.5+
800803 675	0.4- 0.3+		860207 675	1.4-	2.1+	920704 413	0.2-	0.3+
800805 675	0.2+ 0.3-		860207 675	0.9-	1.8+	920704 413	0.2-	0.3+
820221 688	1.8+ 2.2-		870310 413	0.1-	0.1+	920822 413	0.4+	0.1+
820221 688	0.3+ 0.6-		891221 413	0.3-	0.4-	920822 413	0.3+	0.1+
820228 688	0.0 1.9-		891221 413	1.4-	1.6+			

(5330)\* 1990 BQ1 = 1951 RD2

Discovered 1990 Jan. 21 by A. Sugie at the Dynic Astronomical Observatory.

Id. C. M. Bardwell (MPC 17209)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bardwell

M 347.88397	(2000.0)		P	Q
n 0.21459347	Peri. 20.94128	+0.80818633		+0.39296225
a 2.7630689	Node 307.90502	-0.58768514		+0.48978407
e 0.1578829	Incl. 33.77535	-0.03822348		+0.77826232
P 4.59	H 11.7	G 0.15		

Residuals in seconds of arc

510910 675	0.1+ 0.3-		910508 474	0.6+	0.3+	920730 596	1.8-	0.8+
510910 675	1.8- 2.7+		910508 474	0.1+	0.3+	920731 675	0.4-	1.4-
900121 402	(5.1+ 1.5+)		920629 801	0.2-	0.1+	920731 675	0.5-	1.1-
900121 402	0.9+ 1.2+		920629 801	0.5-	0.5-	920731 596	0.9-	1.2+
900201 402	1.9+ 0.6+		920701 801	0.3-	0.7-	920731 596	0.6+	1.0+
900201 402	(1.1+ 3.4+)		920701 801	0.3-	0.1+	920731 596	0.8-	0.4+
900202 402	0.7+ 0.8+		920722 104	0.6+	2.5+	920731 596	0.3+	0.4-
900202 402	0.8- 1.3-		920722 104	0.1+	1.0+	920802 675	0.7-	0.9-
900216 402	1.0- 1.3-		920726 801	0.6-	1.3-	920802 675	0.0	1.2-
900216 402	0.4+ 0.8+		920726 801	0.6-	1.2-	920806 675	0.3-	0.9-
900322 801	0.2- 0.5+		920728 801	1.0-	0.6-	920806 675	0.1-	0.3-
900322 801	0.1- 0.6+		920728 801	1.0-	0.8-	920824 801	0.0	0.2-
900327 801	0.2- 0.3+		920729 104	2.0+	1.0+	920824 801	0.2-	0.2-
910312 474	0.0 0.2-		920729 104	1.8+	1.2+	920826 801	0.1-	0.4-
910312 474	0.4- 0.1+		920730 596	0.3+	2.3+	920826 801	0.1-	0.5-
910414 474	0.8+ 0.6+		920730 104	(3.1+ 0.7+)		920831 801	0.3-	0.2-
910414 474	0.5+ 0.7+		920730 596	0.1+	1.2+	920831 801	0.3-	0.3-
910416 474	0.1+ 0.1-		920730 104	2.5+	0.7+			
910416 474	0.5+ 0.2+		920730 596	1.4+	0.8+			

(5331)\* 1990 BT1 = 1984 YY2

Discovered 1990 Jan. 27 by K. Endate and K. Watanabe at Kitami.

Id. B. G. Marsden (MPC 16240)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M 249.76438	(2000.0)		P	Q
n 0.21417989	Peri. 282.12895	+0.82104783		-0.53611584
a 2.7666247	Node 110.58740	+0.57035290		+0.75592485
e 0.3882298	Incl. 12.09256	+0.02404203		+0.37570923
P 4.60	H 12.0	G 0.15		

## Residuals in seconds of arc

841223	095	1.1+	1.3-	900222	046	1.1-	0.5+	910412	801	0.5+	0.3+
841227	095	(15.8-	10.8+)	900326	801	0.4-	0.3-	910516	801	0.3+	0.8+
841230	095	1.4-	2.4+	900326	801	0.7-	0.3-	910516	801	0.0	0.5+
900127	400	2.3+	0.5+	900328	801	0.3-	0.4-	910517	801	0.6+	0.4+
900127	400	0.8+	1.8-	900328	801	0.4-	0.9-	910517	801	0.2-	0.7+
900131	400	2.1+	1.2+	900424	801	0.6+	1.6-	910614	801	0.5+	0.2+
900131	400	(2.2+	3.7+)	900424	801	0.4-	0.7-	910614	801	0.6+	0.1+
900214	400	0.4-	1.9-	910317	801	0.0	0.3+	920603	801	1.1+	1.5-
900214	400	(0.5-	3.4-)	910317	801	0.1-	0.0	920629	801	1.0-	0.5+
900221	046	2.5-	1.9+	910320	801	0.0	0.2-	920629	801	0.5-	0.1+
900221	046	0.2+	0.6+	910320	801	0.4-	0.2-				
900222	046	0.5-	0.4-	910412	801	0.1-	0.3+				

(5332)\* 1990 DA

Discovered 1990 Feb. 16 by A. Sugie at the Dynic Astronomical Observatory.

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 285.90244	(2000.0)	P	Williams
n	0.30952705	Peri. 305.52056	-0.02571246
a	2.1643973	Node 143.25010	+0.99831839
e	0.4556777	Incl. 25.42553	+0.05195448
P	3.18	H 13.7	G 0.15
			Q
			-0.96610049
			-0.03817049
			+0.25532893

## Residuals in seconds of arc

731018	413	0.1+	0.7-	900221	385	0.6-	1.0+	900317	046	1.1+	0.0
731021	413	0.1-	0.9-	900221	402	0.5-	0.1-	900317	046	0.6+	0.0
790920	413	1.5-	1.0-	900221	385	0.1-	0.1-	900318	046	1.4+	0.1-
900130	675	1.2-	1.6+	900221	402	0.3-	0.2-	900318	046	1.1+	1.1-
900130	675	0.9-	0.5-	900221	898	1.2+	1.0-	900319	046	1.3+	0.4-
900216	402	0.1+	0.9+	900221	898	(1.5-	2.2-)	900319	046	1.0+	0.6-
900216	402	0.2-	0.5+	900221	898	0.6-	0.7-	900321	402	1.2+	0.8+
900217	402	0.7-	0.7+	900222	568	0.2+	0.1-	900321	402	0.7-	0.0
900217	402	0.6+	0.3-	900223	675	0.2+	0.6-	900322	801	0.7-	0.4+
900217	402	0.3+	1.1+	900223	675	0.5-	1.2-	900322	801	0.7-	0.5+
900217	402	0.2+	0.7+	900223	657	(1.6-	4.2-)	900322	675	0.0	0.2+
900217	402	0.2-	0.4+	900223	657	0.0	1.9-	900322	675	0.6-	0.1+
900219	413	0.2+	0.6-	900224	391	(1.4-	3.7-)	900323	801	1.1-	0.1-
900219	413	0.5+	1.7-	900224	391	0.2-	0.7-	900323	801	0.9-	0.1-
900219	413	0.5+	1.4-	900227	402	0.4+	1.4+	900324	675	0.8+	0.6+
900220	385	1.1-	1.8-	900227	402	0.5-	0.3-	900324	675	2.0+	1.4+
900220	385	0.6-	0.4+	900228	685	0.7+	0.2+	900428	801	0.3-	0.2+
900220	881	(1.1-	2.6-)	900228	685	1.1+	0.1-	900428	801	0.6-	0.3+
900220	896	0.1+	0.1+	900302	657	0.5-	0.1+	900528	801	0.5+	0.7-
900220	881	1.1-	0.4+	900302	657	0.9-	1.4-	900528	801	0.2+	0.1-
900220	896	0.5+	0.3-	900304	402	0.9+	0.8+	920726	801	0.4+	0.4-
900220	898	0.7-	0.1-	900304	402	0.3-	0.8+	920726	801	0.0	0.4-
900220	887	0.5-	0.2-	900312	568	(0.1-	2.6+)	920727	658	1.0-	0.6-
900220	898	(0.9-	3.0-)	900313	046	0.9-	1.3-	920727	658	1.1-	0.7-
900220	887	0.1-	0.7+	900313	046	0.5-	0.0	920727	658	0.9-	0.4-
900220	898	0.5-	0.6+	900315	046	1.0+	1.2-	920821	413	0.5+	0.4-
900220	374	1.3+	0.2-	900315	046	1.6+	0.5-	920821	413	0.6+	0.3-
900220	374	0.6+	0.0	900316	046	1.1+	0.4-	920822	413	1.0+	0.9-
900220	374	0.2-	0.4+	900316	046	(2.6+	0.5+)	920822	413	1.0+	0.9-

(5333)\* 1990 UH = 1974 HC2 = 1979 SJ2 = 1981 EJ49 = 1985 JE2

Discovered 1990 Oct. 18 by M. Akiyama and T. Furuta at Susono. Id. S. Nakano (MPC 17455)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	57.18957		(2000.0)		P		Nakano	Q
n	0.27442159	Peri.	308.90498	-0.91763294			-0.38677888	
a	2.3452575	Node	208.68301	+0.39728371			-0.88649993	
e	0.1674359	Incl.	10.97657	+0.01074399			-0.25400784	
P	3.59	H	13.2	G	0.15			

Residuals in seconds of arc

541022	760	1.8-	0.2+	901018	886	1.0-	1.9+	920421	894	0.2+	1.4+
541022	760	1.2-	2.2+	901020	886	1.3-	1.4-	920421	894	0.4-	0.4+
740424	805	(8.9-	5.7-)	901020	886	(3.2-	0.5+)	920423	809	0.4-	1.9+
740424	805	1.7+	0.2-	901021	886	1.9-	0.4+	920423	809	0.7-	1.4+
740425	805	0.3+	1.4-	901021	886	0.1+	0.9+	920423	809	0.8-	1.1+
790922	095	(0.3+	5.2-)	901024	886	2.4+	2.0-	920425	809	0.6+	1.4+
790928	095	1.1+	0.8+	901024	886	1.5+	1.1-	920425	809	1.1+	0.9+
810308	095	0.4+	2.1+	920404	809	0.5+	1.7-	920425	809	0.7+	1.1+
850514	675	(1.8-	4.7-)	920404	809	0.0	0.9-	920501	886	1.6-	2.3+
901011	033	0.5+	0.7+	920404	809	0.3+	1.6-	920501	886	1.1-	2.2+
901012	033	0.9+	0.7+	920406	809	0.3+	1.2-	920527	886	0.2-	0.7-
901012	033	0.6+	0.7+	920406	809	0.3+	1.7-	920527	886	0.2-	1.0-
901018	886	0.8-	0.9+	920406	809	0.3-	1.6-				

(5334)\* 1991 CF = A924 TD = 1971 KE1 = 1981 FJ1 = 1981 GL = 1989 TR13

Discovered 1991 Feb. 8 by M. Akiyama and T. Furuta at Susono.

Id. G. V. Williams (MPC 19308; unpublished)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	78.26675		(2000.0)		P		Williams	Q
n	0.28897762	Peri.	54.72350	-0.70058787			+0.71326230	
a	2.2658261	Node	170.71382	-0.68941222			-0.66905747	
e	0.1252403	Incl.	7.41359	-0.18408537			-0.20885158	
P	3.41	H	12.8	G	0.15			

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

241003	024	(0.04+	0.02-)X	910212	886	1.4-	1.2+	Y	920730	801	0.6-	0.4-
710522	095	0.3-	0.6+	910212	886	1.5+	2.0-	Y	920730	801	0.4-	0.4-
810329	095	(4.8-	1.3+)	910216	886	(1.8+	3.3+)Y		920802	801	0.4-	0.7-
810405	688	0.3+	2.2-	910216	886	(3.6+	2.8+)Y		920802	801	0.5-	0.6-
810405	688	(0.3-	4.0-)	910221	886	1.9-	0.1+		920803	801	0.7-	0.5-
891003	809	0.5-	0.5-	910221	886	(4.1-	1.5+)		920803	801	0.6-	0.5-
891003	809	0.2+	0.1+	910307	809	0.7-	0.2-		920825	801	0.8+	0.1+
891003	809	0.8+	0.3-	910307	809	0.1+	0.4-		920825	801	0.9+	0.5-
910208	886	(0.2-	3.5-)Y	910307	809	0.8+	0.4-		920830	801	1.1+	0.6-
910208	886	0.4+	1.0+	Y	910309	809	0.1+	0.2-	920830	801	1.1+	0.5-
910209	886	0.7-	0.1-		910309	809	0.4+	0.2-				
910209	886	0.7-	1.5-		910309	809	0.6+	0.1-				

(5335)\* 1991 DA

Discovered 1991 Feb. 18 by R. H. McNaught at Siding Spring.

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	13.75687		(2000.0)		P		Williams	Q
n	0.02407108	Peri.	191.26613	-0.74872526			-0.19584879	
a	11.8797038	Node	314.10977	+0.65581603			-0.07974975	
e	0.8670480	Incl.	61.88547	+0.09651845			-0.97738592	
P	40.95	H	13.3	G	0.15			

Residuals in seconds of arc

910218	413	0.8-	0.6-	910223	413	0.6+	0.3-		910314	413	0.2+	0.7-
910218	413	1.4-	0.4-	910223	413	(2.9+	1.0+)		910314	413	0.7-	0.5-
910219	413	0.8+	0.0	910224	413	1.3-	0.4-		910314	413	0.1+	0.4-
910219	413	1.3+	0.5+	910225	413	0.6+	1.0+		910314	413	0.8-	0.3-
910220	413	0.2+	0.4-	910311	474	1.3-	1.8+		910315	474	(0.5-	2.4+)
910222	413	0.9+	0.5-	910311	474	0.5+	0.7+		910315	474	0.5+	1.0+

910317	413	1.6+	0.4-	910505	413	0.3+	0.6+	920821	413	0.2-	0.3-
910317	413	0.9+	0.3+	910508	474	0.5+	0.8-	920821	413	0.2-	0.3-
910317	413	1.5+	0.2-	910508	474	1.1+	0.1+	920822	413	0.3+	0.3+
910320	413	0.9+	0.5-	910513	413	1.1-	0.1-	920822	413	0.6+	0.1+
910324	413	0.6-	0.3+	920703	413	0.1-	0.2+	920822	413	0.2+	0.1-
910403	413	0.5-	0.0	920703	413	0.1-	0.0	920822	413	0.3-	0.4-
910405	413	0.4-	0.0	920703	413	0.1-	0.0	920822	413	0.2-	0.5+
910406	413	0.8-	0.5-	920703	413	0.4-	0.2+	920822	413	0.3+	0.0
910411	413	0.3-	1.3+	920703	413	0.3+	0.2-	920822	413	0.5+	0.6+
910415	413	0.3-	0.3+	920821	413	0.1-	0.4-				
910504	413	1.8-	0.2-	920821	413	1.1-	0.3-				

(5336)\* 1991 JE1 = 1969 LD = 1974 EJ = 1976 SQ4 = 1980 KB1 = 1987 SM6  
= 1990 BH2

Discovered 1991 May 7 by N. Kawasato at Uenohara.

Id. S. Nakano (MPC 18443)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				P		Nakano	
				Q			
M	58.37718		(2000.0)				
n	0.17824915	Peri.	65.37252	-0.43345552		+0.90116737	
a	3.1269270	Node	178.91925	-0.88139088		-0.42308053	
e	0.1320631	Incl.	11.31142	-0.18779361		-0.09434106	
P	5.53	H	11.7	G	0.15		

Residuals in seconds of arc

690606	095	0.3-	0.5+	910507	376	(0.8+	4.0+)	920806	675	0.7-	0.3-
740313	095	0.1+	2.5-	910514	376	1.0+	1.8-	920806	675	0.2+	0.1+
760924	095	2.0+	2.1-	910514	376	(0.4-	2.9-)	920807	675	0.1-	0.7-
760929	095	(4.9+	1.7-)	910518	376	0.3-	0.9-	920807	675	1.3-	1.1-
800517	095	1.8-	2.0-	910518	376	0.8+	0.8-	920807	675	0.3+	0.9-
870917	095	0.6+	2.4-	920727	376	(1.5+	3.4+)	920807	675	0.7-	0.8-
870921	046	0.7+	2.2-	920727	376	0.6-	1.0+	920822	376	0.1+	0.6+
870921	046	(0.7-	3.7-)	920728	801	0.1+	0.2-	920822	376	0.0	0.1-
900121	675	0.9-	2.2-	920728	801	0.2+	0.3-	920825	801	0.2+	0.1-
900121	675	1.3-	1.1-	920731	801	0.3+	0.1+	920825	801	0.1+	0.0
900124	675	0.4-	1.8-	920731	801	0.2+	0.1+	920830	801	1.2+	0.4-
900124	675	0.0	2.4-	920806	675	0.4+	1.1-				
910507	376	(22.3-	12.5+)	920806	675	0.2-	0.9-				

(5337)\* 1991 LD = 1972 AL = 1978 CN = 1978 ED4 = 1980 OL = 1981 UP13  
= 1982 YX2 = 1985 JZ1 = 1987 SR25 = 1990 FP3

Discovered 1991 June 6 by S. Otomo and O. Muramatsu at Kiyosato.

Id. H. Kaneda (MPC 18640)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				P		Nakano	
				Q			
M	77.99203		(2000.0)				
n	0.17084532	Peri.	0.43341	-0.50759894		+0.85632512	
a	3.2166267	Node	239.06522	-0.79082991		-0.50688318	
e	0.0735539	Incl.	6.36786	-0.34195229		-0.09887737	
P	5.77	H	11.6	G	0.15		

Residuals in seconds of arc

510730	675	0.4-	0.5+	811023	095	1.2+	1.5-	910606	894	0.6+	0.3-
510730	675	0.2-	0.5+	821222	095	0.7-	0.2-	910611	894	0.3-	0.1+
720114	029	0.9+	0.2-	850514	675	0.4+	0.4+	910611	894	0.4+	0.4+
720115	029	0.4-	0.1-	850515	675	1.5-	0.1-	910617	894	0.1+	0.1-
720116	029	0.5-	0.7-	850523	095	0.5-	1.9-	910617	894	0.7-	0.2+
720117	029	0.5-	1.1-	870924	095	2.2-	1.0+	910617	894	1.4-	1.8-
780201	330	1.8+	1.7-	900320	095	(6.1-	2.9+)	910708	894	0.2+	0.3-
780306	095	0.7-	0.3+	900320	095	(5.7-	0.5-)	910708	894	1.4+	0.6+
800721	095	0.7+	1.3+	910606	894	(3.4-	0.7+)	910708	894	0.6-	0.3-

920802 675 0.9+ 0.5-	920806 675 0.3+ 0.5-	920831 894 0.1- 1.1-
920802 675 0.6+ 0.4+	920825 894 0.6+ 0.3-	
920806 675 0.4+ 0.7-	920825 894 0.1+ 0.9-	

(5338)\* 1991 RJ5 = 1981 RW6 = 1986 QL4 = 1986 RY12 = 1990 MN1

Discovered 1991 Sept. 13 by H. E. Holt at Palomar.

Id. G. V. Williams (MPC 19034), A. Lowe

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 38.29008	(2000.0)	P	Q
n 0.20234074	Peri. 295.55658	+0.90128893	-0.42924196
a 2.8735174	Node 89.90986	+0.41551911	+0.81828645
e 0.0724930	Incl. 3.35732	+0.12256479	+0.38230697
P 4.87	H 12.4	G 0.15	

Residuals in seconds of arc

771207 675 0.0 0.2-	900625 808 0.7+ 0.3-	910913 675 0.2+ 0.4-
771208 675 0.1+ 0.4-	900628 808 0.9+ 0.0	910916 675 0.7+ 1.1-
810903 675 0.7+ 0.2-	900628 808 0.4+ 0.2-	910916 675 0.9+ 0.7-
810904 675 0.3+ 0.7-	910902 413 0.4+ 0.7+	911107 675 0.6- 0.1-
860817 095(37.8+ 7.2-)	910902 413 0.8+ 0.9+	911107 675 1.3- 0.1+
860909 095 2.0- 1.3+	910903 413 0.3- 0.7+	911109 675 0.7+ 0.5-
900625 808 2.2- 0.0	910913 675 0.8+ 0.1-	911109 675 1.7- 0.3+

(5339)\* 1992 CD = 1970 JP = 1973 YH1 = 1975 EH6 = 1980 BP3 = 1990 VZ13

Discovered 1992 Feb. 4 by T. Hioki and S. Hayakawa at Okutama.

Id. G. V. Williams (MPC 20341)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 34.15352	(2000.0)	P	Q
n 0.17340125	Peri. 165.80828	-0.79477960	-0.60667625
a 3.1849399	Node 336.81824	+0.55267365	-0.71233148
e 0.0789197	Incl. 2.38928	+0.25075331	-0.35288496
P 5.68	H 11.8	G 0.15	

Residuals in seconds of arc

700508 805 0.1+ 0.0	781129 675 0.7- 0.3+	920208 877 0.2+ 1.0-
731220 095 1.9+ 1.4-	800122 095 1.0- 0.7+	920208 877 0.5+ 0.5+
750308 095 1.1- 0.7-	901114 095 (3.0+ 1.7+)	920225 691 0.2- 0.2-
750315 095 (4.0- 2.4+)	901114 095 0.1+ 0.8-	920225 691 0.5- 0.1-
781027 675 0.0 0.4+	901120 095 1.1- 0.2-	920225 691 0.1- 0.2-
781028 675 0.4- 0.9+	901120 095 0.8+ 0.1+	920306 691 0.6- 0.7+
781029 675 0.4- 0.5+	920204 877 1.7+ 0.7+	920306 691 1.2+ 0.8+
781128 675 0.1- 0.3+	920204 877 0.1- 1.1+	920306 691 0.1- 0.0

(5340)\* 4027 P-L = 1987 SU18 = 1989 YX1

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

Id. S. Nakano (MPC 15903)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M 62.69235	(2000.0)	P	Q
n 0.18102576	Peri. 323.70702	-0.54550448	+0.83591895
a 3.0948703	Node 273.15948	-0.75396935	-0.52100026
e 0.1215864	Incl. 3.47575	-0.36599873	-0.17262166
P 5.44	H 12.5	G 0.15	

Residuals in seconds of arc

600924 675 0.5+ 0.7-	601026 675 0.1+ 0.5-	920728 801 0.2+ 0.2-
600925 675 0.8- 0.3+	870916 095 1.1- 2.7+	920730 801 0.7+ 0.4+
600926 675 0.1+ 1.1-	891230 413 0.7- 0.6-	920730 801 0.8+ 0.6+
600928 675 0.3+ 0.7-	891230 413 0.8- 0.6-	920804 675 0.2+ 0.9+
601017 675 0.7+ 0.3-	891231 413 0.5+ 0.2-	920805 675 1.9- 0.7+
601022 675 0.2- 0.3+	891231 413 0.6+ 0.1+	920805 675 0.5+ 0.9-
601024 675 0.0 1.0+	920728 801 0.3+ 0.3+	920807 675 1.3+ 0.1-

920807	675	1.2+	0.1+	920809	010	0.9+	0.3-	920825	801	0.2+	0.2+
920808	010	1.7-	0.5-	920809	010	0.6+	0.8-	920901	801	0.3-	0.5+
920808	010	2.0-	1.9-	920809	010	0.4-	1.4-				
920808	010	(3.2-	1.7-)	920825	801	0.2+	0.4+				

(5341)\* 6040 P-L = 1957 WW = 1989 TD1

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

Id. H. Oishi (MPC 15570)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	318.28608		(2000.0)			P		Nakano		Q	
n	0.30672029	Peri.	56.81951			+0.99979588				-0.01016776	
a	2.1775813	Node	303.75732			+0.00215138				+0.91280252	
e	0.2068977	Incl.	1.20328			+0.02008918				+0.40827464	
P	3.21	H	14.2			G	0.15				

Residuals in seconds of arc

571126	760	0.1+	0.3+	890926	809	0.2-	0.2+	891029	888	(3.4-	4.6+)
571126	760	0.6-	0.9+	890926	809	0.7+	0.0	891104	888	2.0-	1.9+
600924	675	0.0	0.0	890926	809	1.6+	0.2+	891104	888	2.2-	1.0+
600925	675	0.3+	0.2+	891002	385	1.2-	2.1-	910313	809	0.1+	0.4+
600926	675	0.3+	0.9-	891002	385	1.3-	0.8-	910313	809	0.1-	0.7-
600928	675	0.2+	1.0-	891009	385	0.5+	0.2-	910313	809	0.1-	1.1-
601017	675	0.4-	0.3+	891009	385	0.9-	0.6+	920726	801	0.5-	0.6-
601022	675	0.2+	0.2-	891020	385	0.0	0.8-	920726	801	1.0-	0.3-
601024	675	0.2-	0.6-	891020	385	0.7-	0.6+	920729	801	0.6-	0.0
601026	675	0.7+	0.2+	891026	385	0.1-	1.2-	920729	801	0.2-	0.2-
890924	809	1.3+	0.8+	891026	385	0.2-	0.3-	920825	801	0.7+	0.5+
890924	809	2.2+	0.9+	891029	385	2.2-	0.0	920825	801	0.3+	0.2+
890924	809	(3.1+	0.8+)	891029	385	1.6+	0.3-	920827	801	0.6+	0.6+
890925	809	0.6+	0.9+	891029	385	(8.3-	0.4+)	920827	801	0.2-	0.9+
890925	809	1.4+	0.8+	891029	385	1.9+	2.2-				
890925	809	(2.7+	0.8+)	891029	888	(3.4-	2.5+)				

(5342)\* 3129 T-2 = 1988 NB = 5028 T-3

Discovered 1973 Sept. 30 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels.

Id. S. Nakano (MPC 15083)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	10.66449		(2000.0)			P		Nakano		Q	
n	0.25513291	Peri.	105.70789			+0.05284662				+0.99703997	
a	2.4620208	Node	166.93451			-0.98443482				+0.06140189	
e	0.2363038	Incl.	14.30158			-0.16761658				-0.04627206	
P	3.86	H	13.6			G	0.15				

Residuals in seconds of arc

730919	675	0.4+	0.5+	771012	675	0.6+	1.9-	920604	801	0.3+	0.3-
730919	675	1.0-	0.9-	771016	675	0.6-	0.0	920604	801	0.1+	0.3-
730920	675	0.1+	0.4+	771016	675	1.0-	1.1-	920719	596	0.8-	0.0
730924	675	1.3-	0.7+	771017	675	1.5-	0.7-	920719	596	0.1-	0.6+
730924	675	0.9-	0.4-	771017	675	0.8-	1.2-	920719	596	0.5-	0.1-
730925	675	2.0+	0.0	771021	675	1.2+	0.1+	920719	596	1.0-	1.1-
730925	675	2.3+	0.5-	771021	675	1.5+	0.4+	920720	596	0.4-	0.3-
730929	675	1.0-	1.7+	771022	675	1.6+	0.7-	920720	596	0.1+	0.1+
730929	675	1.0-	1.7+	880712	675	0.2-	0.8-	920720	596	0.3+	0.6-
730930	675	0.5-	1.7+	880714	675	0.8-	1.1-	920721	413	0.1+	0.1+
730930	675	0.3+	2.1+	920430	801	1.2+	0.6+	920721	589	0.3+	0.5+
771011	675	1.0-	0.5-	920430	801	0.2+	0.0	920721	589	0.6+	0.6+
771011	675	0.1+	0.2-	920530	801	0.3+	0.4-	920721	589	0.4+	0.6+
771012	675	0.7+	2.2-	920530	801	0.2+	0.3-	920721	589	0.2+	0.5+

1950 DE = 1950 BL1 = 1990 DB1 = 1990 EX5

Id. O. Kippes (d, NAZ 12, 23), R, Nagata (MPC 17423), G. V. Williams  
(d, MPC 17178)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 124.23582	(2000.0)		P	Q					
n 0.17108994	Peri. 24.57302		-0.99505921						-0.03562503
a 3.2135599	Node 152.88883		+0.01408851						-0.97462658
e 0.1162603	Incl. 11.73308		+0.09827856						-0.22098390
P 5.76	H 11.0		G 0.15						

Marsden

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

500125 094(0.05+ 0.06-)X	900222 220 (1.0+ 5.6-)	900303 809 0.9+	0.0
500217 024 (4.1+ 1.4+)	900301 809 0.5- 0.4-	900304 809 0.1+	0.7+
500223 024 (0.5- 3.6+)	900301 809 0.0 0.4-	900304 809 0.5+	0.8+
500308 024 0.2+ 1.4-	900301 809 0.3+ 0.3-	900304 809 0.9+	0.9+
500322 024 0.3- 0.5+	900301 095 0.4- 1.4-	920808 010 0.1+	0.0
900216 399 0.1- 0.4-	900302 809 1.1- 0.0	920808 010 0.4+	0.3-
900216 399 0.4- 0.6+	900302 809 0.9- 0.0	920808 010 0.2-	0.5-
900216 399 0.7- 0.1+	900302 809 0.5- 0.1-	920809 010 0.0	0.0
900221 220(0.04+ 0.00-)	900303 809 1.1+ 0.3+	920809 010 0.3-	0.3+
900221 220(0.04+ 0.00-)	900303 809 0.9+ 0.2+	920809 010 0.0	0.3+

1951 SY = 1980 TS2

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 291.43632	(2000.0)		P	Q					
n 0.23679213	Peri. 199.94076		+0.98183913						-0.17912561
a 2.5875646	Node 169.75757		+0.18259511						+0.98164515
e 0.3022741	Incl. 20.57772		-0.05148730						+0.06547380
P 4.16	H 15.0		G 0.15						

Williams

Residuals in seconds of arc

510930 675 0.6- 0.4-	511005 675 1.2+ 0.4+	511222 672 0.2-	0.8-
510930 675 0.4- 0.1+	511007 675 0.2- 0.8+	801005 809 0.0	0.6+
511002 675 0.1+ 0.9-	511221 672 0.0 2.1+	920821 413 0.1+	0.2+
511004 675 0.4- 1.2-	511222 672 0.8+ 0.4-	920821 413 0.0	0.0

1953 GN = 1991 PX1

Id. H. Kaneda (MPC 19009)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 195.26288	(2000.0)		P	Q					
n 0.29023960	Peri. 38.43789		-0.91399741						+0.40491506
a 2.2592534	Node 165.38430		-0.39276876						-0.86728455
e 0.1310385	Incl. 5.81018		-0.10169282						-0.28958817
P 3.40	H 14.3		G 0.15						

Kaneda

Residuals in seconds of arc

530407 024 0.1+ 0.5-	910810 809 (0.7+ 4.1-)	910814 809 0.3+	1.4+
530412 024 0.9- 0.5-	910810 809 0.6- 1.0-	910913 675 1.5-	1.3-
530419 024 0.7+ 0.8+	910814 809 1.4+ 1.2+	910913 675 0.4+	0.6-
910810 809 (7.4- 5.7-)	910814 809 0.2- 0.0		

1973 AT3 = 1981 QJ4 = 1987 SF21

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

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 151.22252	(2000.0)		P	Q					
n 0.18258665	Peri. 224.24276		-0.99669028						+0.04855978
a 3.0772070	Node 318.40873		-0.01287169						-0.88613598
e 0.0329679	Incl. 5.63630		-0.08026703						-0.46087415
P 5.40	H 12.0		G 0.15						

Williams

Residuals in seconds of arc

730102 095 1.5- 0.5-	810830 675 0.0 0.1-	870918 095 1.6-	0.3-
730104 095 1.4+ 0.4+	810831 675 0.1+ 0.0	870926 095 1.5+	0.4+

1973 SE1 = 1992 GU3

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 300.55848

(2000.0)

P

Marsden

Q

n	0.08527703	Peri.	262.94804	+0.26764680	+0.96307324
a	5.1118882	Node	22.64190	-0.85131319	+0.25058372
e	0.0392701	Incl.	4.35638	-0.45125496	+0.09847703
P	11.56	H	11.0	G	0.15

Residuals in seconds of arc

730919	675	0.3+	0.1-	730929	675	0.5+	1.4+	731005	675	1.0-	2.8+
730919	675	0.7-	1.4+	730930	675	1.7+	2.8-	731005	675	0.3-	0.9-
730920	675	0.1-	0.5+	730930	675	1.5+	1.6+	731005	675	2.1-	1.4+
730924	675	0.8-	0.3-	730930	675	1.0-	0.6-	920404	809	1.4+	0.8+
730924	675	0.6-	0.2+	730930	675	1.4+	1.7+	920404	809	0.1+	0.2-
730925	675	0.2+	2.8-	731004	675	1.5+	1.8-	920404	809	1.0-	0.6-
730925	675	0.4-	0.3+	731004	675	0.9-	2.1+	920406	809	0.5-	0.7-
730929	675	1.4-	0.6-	731004	675	0.8-	0.5-	920406	809	0.1-	0.5+
730929	675	2.2+	1.6-	731004	675	0.6+	1.4+	920406	809	0.1+	0.2+
730929	675	0.3-	0.5-	731005	675	0.5+	2.3-				

1974 SF = 1985 UC2 = 1985 UV3

Id. S. Nakano (MPC 12447)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 317.40648

(2000.0)

P

Nakano

Q

n	0.27153150	Peri.	175.41964	+0.99852464	-0.05306565
a	2.3618695	Node	187.65076	+0.04666785	+0.94706045
e	0.2445089	Incl.	4.96138	+0.02776054	+0.31663945
P	3.63	H	15.0	G	0.15

Residuals in seconds of arc

740919	095	2.4-	0.9-	851017	010	(19.8-	4.6-)	851024	049	(3.5-	15.7-)
740921	808	0.8+	0.5-	851018	010	(21.0-	6.7-)	851024	049	0.7-	0.8-
740921	808	0.5+	2.1+	851018	095	0.6+	1.0+	920731	801	0.5-	1.0-
741019	808	1.3+	1.0-	851020	049	0.0	0.5-	920802	801	0.3+	0.4+
741019	808	0.0	0.4+	851020	049	0.0	0.4+	920802	801	0.3+	0.4+

1975 TM2 = 1975 VQ = 1989 YS5

Id. H. Oishi (d, JAM 1265), D. W. E. Green (MPC 15874)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 343.44463

(2000.0)

P

Bowell

Q

n	0.29018780	Peri.	192.80980	+0.99760238	-0.06895267
a	2.2595222	Node	171.13766	+0.06640061	+0.92955286
e	0.1350409	Incl.	2.20150	+0.01950522	+0.36218368
P	3.40	H	14.0	G	0.15

Residuals in seconds of arc

751003	095	0.1-	1.6-	810508	675	0.4+	0.4-	891230	511	0.1-	0.1-
751013	095	0.6+	0.3+	810509	675	0.5-	0.4-	900104	511	0.9+	0.0
751015	675	(2.6+	1.8+)	891229	511	(1.5-	2.3+)	900104	511	0.7-	1.3-
751016	675	1.1+	0.1+	891229	511	0.0	0.1-				
751101	095	1.5-	0.8+	891230	511	0.1-	0.7+				

1976 YP1 = 1981 UU10

Id. S. Nakano

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 325.92183

(2000.0)

P

Williams

Q

n	0.18005582	Peri.	39.64148	+0.62153685	-0.78336167
a	3.1059749	Node	11.93418	+0.71112984	+0.56096040
e	0.1773953	Incl.	1.67291	+0.32861269	+0.26770866
P	5.47	H	12.5	G	0.15



## Residuals in seconds of arc

761216	095	0.3-	0.9-	860905	809	0.9+	0.2+	860909	809	0.5-	0.4+
761218	095	0.8-	1.8-	860905	809	1.2+	0.3+	860909	809	0.6-	0.4+
761220	095	0.3-	1.3-	860906	809	0.1-	1.1-	861030	801	1.3-	0.1+
770113	095	(2.7-	4.6-)	860906	809	0.1+	1.1-	871223	801	0.0	0.8-
780315	675	0.3+	0.1-	860906	809	0.1-	1.1-	910710	809	0.1-	0.3-
780316	675	0.6+	0.3-	860907	809	0.1-	0.2-	910710	809	0.0	0.4-
811007	095	0.7-	2.5+	860907	809	0.2-	0.0	910710	809	0.1+	0.5-
811021	095	2.7+	0.9+	860907	809	0.3-	0.1+	910711	809	0.0	0.7-
811125	095	2.0-	0.8+	860908	095	0.8+	0.9-	910711	809	0.3-	0.5-
860905	809	0.7+	0.2+	860909	809	0.5-	0.3+				

1976 YC2 = 1975 WC2 = 1978 EU5 = 1981 UK23 = 1982 YD5 = 1987 XE = 1991 RE30  
 Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams

M 161.30641		(2000.0)		P		Q
n 0.17767739	Peri.	135.03957		-0.78620217		+0.60521102
a 3.1336316	Node	82.60786		-0.59647048		-0.69032634
e 0.0823226	Incl.	7.23677		-0.16158315		-0.39644566
P 5.55	H 11.5		G 0.15			

## Residuals in seconds of arc

751124	033	0.1+	0.2-	811025	675	0.5-	0.7+	910915	675	(4.2+	1.0-)
751125	033	0.1+	0.2+	821224	095	2.2+	0.1-	910915	675	0.4+	0.8-
761216	095	0.1-	2.2-	871214	400	(3.5+	2.8-)	910915	675	0.5-	0.1-
761218	095	1.0+	1.5-	871214	400	1.8-	1.0+	910916	675	0.2+	0.7-
761220	095	0.0	0.3+	910914	675	0.5+	0.1-	910916	675	0.7+	1.0-
780306	095	1.5-	1.0-	910914	675	0.0	0.2+				
811024	675	0.6-	0.7+	910915	675	(0.4-	3.0-)				

1978 PU2 = 1992 PG

Id. B. G. Marsden, E. Bowell

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 331.57283		(2000.0)		P		Q
n 0.20953582	Peri.	197.73915		+0.96402138		+0.24773695
a 2.8073541	Node	147.42677		-0.21700336		+0.94283165
e 0.1719484	Incl.	10.31270		-0.15353283		+0.22292350
P 4.70	H 12.5		G 0.15			

## Residuals in seconds of arc

780808	095	1.8-	1.3-	920805	675	0.4+	0.2+	920808	010	1.4-	0.1-
780903	095	(0.8-	5.2+)	920805	675	0.2+	0.0	920809	010	0.7-	1.3-
780928	095	1.9+	1.0+	920807	675	0.8+	0.6+	920809	010	0.4-	0.4-
920705	675	1.0+	0.6+	920807	675	0.5+	0.4+	920809	010	0.3+	1.1+
920705	675	0.9+	0.2+	920808	010	0.5-	0.6-				
920804	675	0.1+	0.4+	920808	010	1.0-	0.7-				

1978 SV7 = 1990 EM5

Id. G. V. Williams (MPC 17198)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 307.65384		(2000.0)		P		Q
n 0.20519428	Peri.	34.77769		+0.94872169		-0.31432317
a 2.8468148	Node	343.44383		+0.25664915		+0.82792907
e 0.0764890	Incl.	6.76909		+0.18454910		+0.46447218
P 4.80	H 12.5		G 0.15			

## Residuals in seconds of arc

780926	095	(2.0+	6.3-)	900302	809	0.5+	0.2-	920726	801	0.1-	0.0
781002	095	1.8+	0.4-	900302	809	0.8+	0.4-	920726	801	0.2-	0.4-
781008	095	1.1-	0.7+	900302	809	1.2+	0.2-	920802	801	0.2+	0.3+
781027	675	0.6-	0.1-	900303	809	1.0-	0.4+	920802	801	0.0	0.3+
781028	675	0.1-	0.2-	900303	809	0.8-	0.3+				
781101	095	(2.2+	5.7+)	900303	809	0.6-	0.3+				

1978 TP6 = 1984 WN1

Id. A. Lowe (MPC 12325)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	116.43731		(2000.0)		P		Q
n	0.17888857	Peri.	124.97007	-0.14335202			-0.98903986
a	3.1194713	Node	333.20590	+0.88052015			-0.11114877
e	0.1979592	Incl.	4.49899	+0.45181243			-0.09719107
P	5.51	H	12.5	G	0.15		

Residuals in seconds of arc

781002	095	0.1+	0.8+	781029	675	0.7+	0.6+	841121	675	0.3-	1.6+
781008	095	0.1-	0.9-	841119	675	0.0	0.9+	841127	010	0.6+	0.1-
781027	675	0.7-	0.5-	841120	688	0.1-	1.9-	841128	010	0.5-	0.7+
781028	675	0.1-	0.1+	841120	688	0.3+	1.3-				

1978 TU8 = 1981 JC5 = 1990 EN7 = 1992 PF4

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

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	291.95833		(2000.0)		P		Q
n	0.20045975	Peri.	177.30879	+0.84433006			-0.53558634
a	2.8914649	Node	215.08987	+0.49108912			+0.78539520
e	0.0652831	Incl.	1.58874	+0.21433206			+0.31032507
P	4.92	H	12.5	G	0.15		

Residuals in seconds of arc

781009	095	0.1+	0.3-	900303	809	0.6-	0.1-	920802	675	0.4-	0.6+
781028	675	2.0-	1.1+	900303	809	0.5-	0.0	920802	675	0.0	0.0
781029	675	0.1+	0.9+	900303	809	0.2-	0.0	920806	675	0.5+	0.7-
781101	095	1.7+	1.0-	900304	809	0.0	0.3-	920806	675	0.4+	1.4-
810508	675	1.5+	0.1-	900304	809	0.3+	0.6-				
810509	675	1.2-	1.3+	900304	809	0.3+	0.7-				

1978 UL4 = 1978 TG8 = 1991 VO4

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	71.64200		(2000.0)		P		Q
n	0.23130020	Peri.	171.46405	+0.87880003			-0.45818536
a	2.6283632	Node	216.76884	+0.42361042			+0.87769137
e	0.1969334	Incl.	12.86999	+0.21969233			+0.14044231
P	4.26	H	14.0	G	0.15		

Residuals in seconds of arc

781008	095	1.4-	1.9+	781129	675	0.3-	0.7+	911115	894	1.1-	0.4-
781027	675	0.9+	1.1-	911109	399	0.7-	0.2-	911115	894	0.6-	0.5+
781028	675	0.6+	0.9-	911109	399	1.4-	1.2-	911209	894	2.3+	0.9+
781029	675	0.8+	0.7-	911111	894	1.2+	1.1+				
781128	675	0.8-	0.5+	911111	894	0.5+	0.8-				

1978 UJ5 = 1989 YM1

Id. G. V. Williams; 1991 TR6 = 1989 YM1 (MPC 19681) is invalid (a preliminary orbit for 1991 TR6 is given on MPC 20778)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	311.52291		(2000.0)		P		Q
n	0.28240958	Peri.	104.32425	+0.66415930			-0.74719231
a	2.3008224	Node	304.03118	+0.67404700			+0.61262843
e	0.1276317	Incl.	1.68819	+0.32334668			+0.25766268
P	3.49	H	15.5	G	0.15		

Residuals in seconds of arc

781027	675	0.4-	0.9-	781128	675	0.1-	0.6+	891231	413	0.6+	0.5-
781028	675	1.3+	0.4+	781129	675	0.3-	0.4+				
781029	675	0.6-	0.3-	891230	413	0.7-	0.3+				

1978 UN5 = 1982 SO11 = 1990 RN1

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	182.98735		(2000.0)		P		Williams	Q
n	0.24381832	Peri.	301.31860		+0.67327071		+0.73919417	
a	2.5376117	Node	11.05307		-0.64406974		+0.59778655	
e	0.2575768	Incl.	5.17067		-0.36315387		+0.31023091	
P	4.04	H	14.5	G	0.15			

Residuals in seconds of arc

781027	675	0.1-	0.7-	900914	675	0.1-	0.4-	900921	809	0.7+	1.1+
781028	675	0.5+	0.0	900918	809	2.1-	0.5+	900921	809	0.9+	0.9+
781029	675	0.1+	0.3+	900918	809	1.3-	0.5+	900922	809	0.3+	1.0-
781128	675	0.1-	0.6-	900918	809	0.3-	0.6+	900922	809	0.7+	1.0-
781129	675	0.1+	0.3+	900920	675	0.3+	0.5-	900922	809	1.1+	1.2-
820927	095	1.0-	1.6+	900920	675	0.8+	0.3-				
900914	675	0.6-	1.2-	900921	809	0.1+	1.1+				

1978 US5 = 1978 RJ6 = 1991 GU2

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	18.68043		(2000.0)		P		Williams	Q
n	0.21101515	Peri.	287.81747		+0.57549445		+0.81288307	
a	2.7942180	Node	18.19724		-0.59858924		+0.49334202	
e	0.2905533	Incl.	16.67230		-0.55722264		+0.30957190	
P	4.67	H	14.0	G	0.15			

Residuals in seconds of arc

780913	095	0.3+	1.3-	781128	675	0.8-	0.1-	910408	809	2.2-	0.8-
781027	675	1.0+	1.1-	781129	675	0.6-	0.4+	910410	809	0.9+	1.3-
781028	675	0.8+	0.4-	910408	809	0.2-	0.2+	910410	809	0.5-	1.3-
781029	675	1.3+	0.3-	910408	809	0.1-	0.7+	910410	809	0.2-	0.4-

1978 UF6 = 1978 RH6

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	87.70447		(2000.0)		P		Williams	Q
n	0.28886996	Peri.	280.54419		+0.24238832		+0.97015471	
a	2.2663890	Node	3.50609		-0.84008496		+0.21344282	
e	0.1322409	Incl.	6.48741		-0.48528874		+0.11507390	
P	3.41	H	13.5	G	0.15			

From 6 observations 1978 Sept. 13-Nov. 29, mean residual 0".21.

1978 UA7 = 1978 ST4 = 1951 KW = 1980 BU1 = 1984 EF1 = 1989 TW15

Id. G. V. Williams; 1988 GS = 1984 EF1 (MPC 13598) is invalid

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	47.60620		(2000.0)		P		Williams	Q
n	0.26602385	Peri.	197.35409		-0.76477514		+0.64222878	
a	2.3943575	Node	22.85013		-0.57425052		-0.64313582	
e	0.0961294	Incl.	7.63402		-0.29215633		-0.41703538	
P	3.70	H	13.0	G	0.15			

Residuals in seconds of arc

510527	711	0.0	1.9-	Y	800123	095	2.0+	1.7-	891004	809	0.3-	0.0
780927	095	(4.2-	0.2+)		840301	675	0.2-	0.0	891007	809	0.4+	0.1-
781027	675	1.3-	0.6-		840301	675	1.3-	0.5+	891007	809	0.5+	0.5-
781028	675	0.8-	0.7-		840304	675	0.1+	0.6-	891007	809	0.7+	0.5-
781029	675	1.3-	0.1-		840304	675	1.4-	0.2-	891008	809	1.5+	0.4+
781128	675	0.2-	1.0-		891004	809	1.1-	0.1-	891008	809	1.9+	0.1+
781129	675	0.6-	0.8-		891004	809	0.7-	0.0	891008	809	2.2+	0.0

1978 UK7 = 1978 TA6 = 1980 FT4

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 203.53710

(2000.0)

P

Williams

Q

n	0.25944353	Peri.	199.26288	+0.75172109	-0.65939312
a	2.4346740	Node	202.00187	+0.60877396	+0.70011206
e	0.1755526	Incl.	1.64821	+0.25359350	+0.27394127
P	3.80	H	14.5	G	0.15

Residuals in seconds of arc

781007	095	0.2-	0.7+	781128	675	0.0	0.2-	800317	809	0.0	0.3-
781027	675	0.3-	0.4-	781129	675	0.0	0.1-	800317	809	0.3+	0.4-
781028	675	0.3+	0.3-	800316	809	0.1-	0.3+	800317	809	0.1+	1.0+
781029	675	0.2+	0.5+	800316	809	0.4-	0.0	800317	809	0.2+	0.4-

1978 UL7 = 1930 KU = 1975 TA5 = 1977 FZ1 = 1980 FE9 = 1987 QX8

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 247.23580

(2000.0)

P

Williams

Q

n	0.31288012	Peri.	352.01128	-0.33568834	+0.94105521
a	2.1489059	Node	258.36686	-0.86187995	-0.32465580
e	0.1121315	Incl.	2.43273	-0.38010037	-0.09494054
P	3.15	H	14.0	G	0.15

Residuals in seconds of arc

300525	690	(2.6-	2.6+)	751014	095	2.2+	1.1+	781129	675	0.2-	0.3-
300527	690	0.5-	1.6-	770326	095	0.3+	0.0	800316	095	0.1+	1.8+
300529	690	0.4+	1.6+	781027	675	0.3-	0.0	870820	010	0.8-	0.4+
300529	690	(5.0-	1.1-)	781028	675	0.9-	0.1+	870820	010	0.9+	1.0+
300531	690	(11.9-	2.3-)	781029	675	0.8-	0.4-				
300531	690	(5.8-	2.3+)	781128	675	0.3-	0.0				

1979 ME8

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 99.25496

(2000.0)

P

Williams

Q

n	0.28640774	Peri.	281.05863	-0.41564080	-0.90938809
a	2.2793598	Node	193.53491	+0.85889327	-0.38665226
e	0.1360128	Incl.	3.92034	+0.29924084	-0.15334060
P	3.44	H	15.0	G	0.15

Residuals in seconds of arc

780315	675	1.5-	0.9+	790726	675	2.3+	0.8+	920406	809	0.1-	0.7+
780316	675	0.2-	0.2-	790727	675	0.0	0.8+	920406	809	0.1-	0.1+
780316	675	1.6+	0.8-	790728	413	0.8+	0.1+	920406	809	0.0	0.7-
790624	413	0.7-	0.6-	790823	675	1.4-	0.6-	920425	809	1.0-	0.8+
790625	413	(3.5+	0.1+)	920404	809	1.5+	1.2+	920425	809	0.7-	0.5-
790629	413	0.3-	0.8+	920404	809	0.5+	0.3+	920425	809	1.1-	1.0-
790724	413	0.9-	1.3-	920404	809	1.1+	0.9-				

1979 SN4 = 1978 JW3 = 1991 JH7 = 1992 QD

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 344.98596

(2000.0)

P

Nakano

Q

n	0.22513012	Peri.	164.29781	+0.94430511	+0.32879205
a	2.6761697	Node	176.41978	-0.32043132	+0.92810655
e	0.1759032	Incl.	12.53347	-0.07491077	+0.17468263
P	4.38	H	12.5	G	0.15

Residuals in seconds of arc

780505	095	0.3-	1.2+	910505	399	0.6+	1.3+	920827	372	1.2-	2.1-
790827	095	0.2-	1.1-	910505	399	0.0	0.5-	920827	402	0.4-	0.9-
790902	095	0.2-	0.6-	920826	372	0.2+	0.1-	920827	402	0.5-	0.5-
790924	095	1.1+	3.1+	920826	372	0.7+	0.1+	920827	372	0.1+	0.6+
790924	095	1.1-	1.2+	920827	372	1.1+	1.2+				

1981 DU1

Id. E. Bowell (1949, 1954 obs.)  
 Epoch 1992 June 27.0 TT = JDT 2448800.5  
 M 204.25109 (2000.0)  
 n 0.20047537 Peri. 190.97933  
 a 2.8913147 Node 235.75695  
 e 0.1764256 Incl. 11.65912  
 P 4.92 H 13.8 G 0.15

Bowell  
 Q  
 -0.90195264  
 +0.43082993  
 -0.02944489

Residuals in seconds of arc

491119	675	0.5+	0.5+	810228	413	1.8+	1.0-	810408	413	1.3-	1.5+
491119	675	1.1-	1.3+	810306	413	0.2+	0.7+	810409	413	1.0-	1.8+
541006	675	2.4+	1.8+	810306	413	1.8+	1.0-	810409	413	0.7+	0.9+
541006	675	2.4-	1.3-	810308	413	0.5+	0.2-	810501	413	1.4+	1.4+
810204	413	1.0-	1.2-	810308	413	1.4+	0.7-	810501	413	0.5+	1.4-
810208	413	0.3-	0.6-	810312	413	0.8-	0.4-				
810228	413	1.9-	0.3+	810408	413	1.3-	1.6+				

1981 EF5 = 1975 VK3

Id. L. D. Schmadel (MPC 10769)  
 Epoch 1992 June 27.0 TT = JDT 2448800.5  
 M 317.68398 (2000.0)  
 n 0.23535754 Peri. 223.65105  
 a 2.5980688 Node 224.73824  
 e 0.2107273 Incl. 10.49661  
 P 4.19 H 13.9 G 0.15

Bowell  
 Q  
 -0.99108228  
 +0.07033115  
 -0.11317885

Residuals in seconds of arc

541006	675	0.6+	1.4+	810209	413	0.4+	0.2-	810312	413	0.9-	0.8+
541006	675	0.8-	0.8-	810302	413	0.0	0.0	810312	413	1.1+	0.5-
751102	095	0.3-	1.6+	810302	413	1.9+	0.5+	810409	413	0.3+	0.0
751107	095	(6.9+	5.7+)	810307	413	1.5-	1.5+	810409	413	1.3+	1.0-
780705	675	0.6-	1.4+	810307	413	0.1-	0.1-	810503	413	0.2+	1.0+
780706	675	0.4+	0.1+	810310	413	1.3-	1.1+				
810209	413	1.2-	0.1+	810310	413	0.6+	0.6-				

1981 EY8 = 1983 SD

Id. E. Bowell (MPC 9424)  
 Epoch 1992 June 27.0 TT = JDT 2448800.5  
 M 312.62264 (2000.0)  
 n 0.21481395 Peri. 73.49975  
 a 2.7611779 Node 304.83961  
 e 0.2381007 Incl. 6.45861  
 P 4.59 H 14.0 G 0.15

Marsden  
 Q  
 -0.31612409  
 +0.85722972  
 +0.40647603

Residuals in seconds of arc

780707	675	0.1-	0.5+	810311	413	0.6+	1.4-	830927	046	(3.7+	2.2+)
780708	675	0.3-	0.7+	810315	413	0.8-	0.1-	830928	046	0.1+	1.0+
780709	675	0.3-	1.2+	810315	413	0.2+	0.1+	830928	046	0.5-	0.1-
810202	413	1.1+	0.7+	810405	413	0.3-	1.3-	920808	010	1.7+	0.4-
810214	413	1.3+	0.7+	810405	413	(1.1+	2.4-)	920808	010	0.6+	0.3-
810301	413	0.6-	1.4+	810412	413	1.0-	0.5-	920808	010	0.7+	0.3-
810307	413	0.0	0.1+	810412	413	1.3+	1.1-	920809	010	0.2-	0.9-
810307	413	0.5+	0.3+	810429	413	1.2-	0.3+	920809	010	0.5-	0.5-
810311	413	1.3-	0.6+	830927	046	(5.0+	3.5-)	920809	010	1.0-	0.1-

1981 EZ10

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	41.17502		(2000.0)		P		Q	
n	0.21209679	Peri.	30.62965		+0.43567208		+0.89832899	
a	2.7847100	Node	265.25045		-0.83689950		+0.38116311	
e	0.0420165	Incl.	3.25144		-0.33134433		+0.21844843	
P	4.65	H	14.0	G	0.15			

Residuals in seconds of arc

770518	675	0.3+	1.5+	810307	413	0.6+	0.5+	810406	413	0.9+	0.8-
770519	675	0.1-	0.6+	810307	413	1.0+	0.8+	810407	413	1.6-	0.7-
780901	675	0.2+	0.6-	810311	413	0.4+	0.0	810407	413	0.2-	0.9-
780902	675	0.3+	0.5-	810311	413	1.2+	0.0	810412	413	0.3-	0.9-
810212	413	1.1-	0.3+	810315	413	0.5+	0.5-	810412	413	0.3-	0.4-
810213	413	0.1-	0.3-	810405	413	2.2-	0.5-	810502	413	1.3-	0.5-
810301	413	1.1-	1.1+	810405	413	0.1+	1.3-	810503	413	1.9+	0.0
810301	413	2.0+	0.7+	810406	413	1.6-	0.0	870822	801	0.6+	1.7-

1981 EL21 = 1978 QT

Id. H. Oishi (JAM 1958); 1981 EL21 = 1955 KG (ibid.) is invalid

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	25.04396		(2000.0)		P		Q	
n	0.22014612	Peri.	130.64500		+0.95043364		+0.31034215	
a	2.7164102	Node	211.28890		-0.29520505		+0.88141889	
e	0.0961415	Incl.	2.10426		-0.09762111		+0.35607370	
P	4.48	H	12.0	G	0.15			

Residuals in seconds of arc

780831	095	0.2+	1.2-	810307	413	0.7+	0.1-	810411	413	1.6+	0.6-
780905	095	0.8+	1.6-	810311	413	0.2-	0.1-	810426	413	(4.4+	2.7-)
810209	413	0.9+	1.6-	810311	413	1.1+	0.9-	810430	413	1.8-	0.3-
810213	413	1.3+	0.8-	810316	413	0.1-	1.1-	810502	413	1.3-	1.0-
810302	413	0.3-	0.3+	810329	413	0.5-	1.7+	860512	801	0.4+	1.4+
810302	413	1.3-	0.2-	810408	413	0.1-	0.0	870821	801	0.1-	0.3+
810303	413	0.3-	0.1+	810408	413	(3.1+	1.5-)				
810307	413	0.7-	0.5+	810411	413	0.5-	0.3+				

1981 EM30

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	321.40704		(2000.0)		P		Q	
n	0.21522641	Peri.	235.23805		+0.97423032		-0.22341526	
a	2.7576492	Node	137.64774		+0.21905262		+0.90440296	
e	0.2509017	Incl.	2.63728		+0.05377012		+0.36351192	
P	4.58	H	14.0	G	0.15			

Residuals in seconds of arc

780707	675	0.8+	0.5+	810303	413	0.8+	0.2-	920802	675	0.5+	0.3-
780708	675	0.4-	0.1+	810307	413	1.8-	1.0+	920802	675	0.6+	0.3-
780709	675	0.5-	0.2+	810307	413	0.3+	0.6+	920806	675	0.0	0.2+
810209	413	0.0	1.5-	810311	413	0.3-	0.9-	920806	675	0.6-	1.2-
810213	413	0.6-	1.5-	810426	413	2.1+	0.4-				
810302	413	2.4-	0.8+	810502	413	1.8+	0.6+				

1981 EF37 = 1990 MH

Id. G. V. Williams (MPC 16695)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	169.53798		(2000.0)		P		Q	
n	0.24248849	Peri.	296.67267		+0.47879532		+0.87787854	
a	2.5468809	Node	2.00561		-0.68296972		+0.37902309	
e	0.1224331	Incl.	15.21078		-0.55164066		+0.29269569	
P	4.06	H	13.0	G	0.15			

## Residuals in seconds of arc

541006	675	1.8+	2.1-	810329	413	1.3-	0.7-	810430	413	0.8-	0.9-
541006	675	0.2+	0.8-	810329	413	0.9+	0.0	810502	413	0.1-	0.8-
810209	413	(3.1-	1.2-)	810407	413	1.5-	0.1+	900620	413	0.1-	0.8-
810212	413	(3.4+	1.1-)	810407	413	1.1+	0.4+	900620	413	1.3-	0.1-
810213	413	0.1-	0.0	810408	413	1.4-	0.4-	900622	413	0.4+	0.1+
810311	413	1.6-	0.3-	810408	413	1.6+	0.0	900819	413	1.2+	0.4-
810316	413	0.3+	0.9-	810411	413	1.4-	0.3-	900819	413	0.2+	0.5-
810316	413	0.9+	0.2+	810411	413	0.7+	0.1+				

1981 EV45 = 1992 PM1

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	25.21783		(2000.0)		P		Q
n	0.19854324	Peri.	338.73033	+0.06077617		+0.99726940	
a	2.9100424	Node	294.73385	-0.90899193		+0.03793483	
e	0.1637092	Incl.	2.64743	-0.41235899		+0.06336167	
P	4.96	H	15.5	G	0.15		

## Residuals in seconds of arc

810212	413	0.8+	0.4+	810409	413	0.2+	0.7+	920809	010	1.2-	0.5-
810301	413	2.2-	0.3-	810501	413	0.3-	0.9-	920809	010	1.4-	0.1-
810301	413	0.8-	0.1-	920808	010	1.4+	1.9+	920809	010	1.0-	1.0-
810308	413	0.7+	0.1+	920808	010	1.6+	0.3+				
810312	413	1.6+	0.1+	920808	010	0.6+	0.5-				

1981 JM2 = 1978 UL5

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	299.67425		(2000.0)		P		Q
n	0.26019850	Peri.	66.44527	+0.20298470		+0.97904088	
a	2.4299623	Node	215.27911	-0.90854763		+0.18198599	
e	0.1786988	Incl.	1.64883	-0.36515533		+0.09143335	
P	3.79	H	14.5	G	0.15		

## Residuals in seconds of arc

781027	675	0.4+	0.0	810411	675	0.4-	1.3-	810506	675	0.6-	0.4+
781028	675	0.3-	0.1-	810505	675	0.4+	2.3-	810508	675	1.0-	0.3+
781029	675	0.1-	0.3+	810505	675	1.2+	0.8+	810509	675	1.0-	0.3-
810411	675	0.4+	2.0+	810506	675	(1.2+	4.0-)	810511	675	1.1+	0.8+

1981 PF = 1992 NL

Id. G. V. Williams (MPC 20629)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	330.36485		(2000.0)		P		Q
n	0.26542222	Peri.	181.33804	+0.85532836		+0.50459862	
a	2.3979743	Node	147.49155	-0.47328195		+0.85323492	
e	0.2896270	Incl.	12.62304	-0.21075484		+0.13179684	
P	3.71	H	14.5	G	0.15		

## Residuals in seconds of arc

810726	688	0.3+	0.1+	810812	046	0.7-	0.2+	920705	675	0.1+	0.5+
810726	688	0.5-	0.7-	810826	688	1.3+	0.0	920705	675	1.8-	0.4-
810806	046	0.8+	1.8-	810826	688	(0.8+	3.9-)	920726	675	1.1+	0.6+
810806	046	0.9+	0.8-	810829	801	0.2+	0.4+	920726	675	0.1-	1.6+
810808	801	0.6-	1.0+	810830	688	(1.0+	3.8-)	920728	675	0.3-	0.6-
810808	046	0.4+	2.3+	810830	688	(1.0-	8.4-)	920728	675	0.1-	0.3-
810808	046	(0.2+	3.3+)	810831	675	1.7-	1.6-	920825	801	0.4+	0.8+
810810	046	0.0	1.0-	810831	675	0.4-	0.9-	920825	801	0.1+	0.2-
810811	046	0.4+	0.7+	920702	675	0.6+	0.6-	920901	801	0.3+	0.4-
810812	046	0.3-	1.8+	920702	675	0.3+	0.9-	920901	801	0.3-	0.0

1981 TP = 1953 TL3 = 1961 DM = 1989 EU6 = 1992 PQ4

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

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	325.88451		(2000.0)		P		Q
n	0.17653912	Peri.	339.69122	+0.99401615			-0.10895372
a	3.1470869	Node	26.56747	+0.10247565			+0.90538303
e	0.2106673	Incl.	1.00042	+0.03782369			+0.41037866
P	5.58	H	13.0	G	0.15		

Residuals in seconds of arc

531009	760	0.5-	0.6+	810926	688	0.9-	1.7-	920802	675	0.2+	0.5+
531009	760	1.2-	0.8+	810928	095	0.3+	0.2-	920802	675	0.1-	0.1+
610217	033	0.2-	0.8-	811004	688	(4.1-	9.1-)	920806	675	0.0	0.5-
610217	033	2.0+	1.1-	811004	688	(0.2+	5.4-)	920806	675	0.1-	0.3+
810905	095	0.4-	3.8+	890305	033	0.0	1.2+				
810926	688	2.1+	3.2-	890305	033	1.6-	1.4+				

1982 BS = 1986 AD2

Id. E. Bowell (MPC 10529)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	240.36084		(2000.0)		P		Q
n	0.23635914	Peri.	118.95543	+0.54854922			-0.81243357
a	2.5907238	Node	296.44304	+0.66957353			+0.56838251
e	0.1704479	Incl.	12.74945	+0.50076446			+0.12997313
P	4.17	H	13.0	G	0.15		

Residuals in seconds of arc

530309	675	0.5+	0.9+	820130	688	1.8-	2.9-	860117	688	1.0+	0.6+
530309	675	(1.4-	5.0+)	820221	688	1.2+	1.0+	860117	688	1.1+	0.9+
820124	688	(3.1-	4.5-)	820221	688	0.0	1.7+	880816	675	0.4-	1.1+
820124	688	(1.6-	4.3-)	860112	688	0.5-	0.6+	880816	675	(4.5+	1.0-)
820130	688	0.3-	1.8-	860112	688	0.8-	0.5+				

1982 TB2 = 1973 AB2 = 1992 PS2

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

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	261.16420		(2000.0)		P		Q
n	0.28436902	Peri.	162.40449	+0.39902583			-0.91359607
a	2.2902410	Node	264.01999	+0.83153393			+0.39649762
e	0.1008188	Incl.	4.51168	+0.38643203			+0.09017681
P	3.47	H	13.5	G	0.15		

Residuals in seconds of arc

730101	095	0.0	0.1-	821021	095	0.2-	0.6-	920806	675	0.6-	0.2-
821014	095	1.3-	0.2-	821022	095	0.2-	0.0	920806	675	0.4+	0.3-
821015	095	1.6+	0.9+	920802	675	0.3+	0.4+				

1982 UD4 = 1978 WT19 = 1986 RH15 = 1990 RG11

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

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	143.16706		(2000.0)		P		Q
n	0.24293583	Peri.	1.77215	+0.99303389			-0.11778988
a	2.5437534	Node	4.99548	+0.10767230			+0.89666048
e	0.2337412	Incl.	1.99956	+0.04785773			+0.42676167
P	4.06	H	15.0	G	0.15		

Residuals in seconds of arc

781128	675	0.8+	0.4+	820926	095	0.5+	1.3-	900914	675	0.2-	0.4-
781129	675	0.5-	0.1+	821019	033	0.0	0.7-	900914	675	0.3-	0.4-
820916	095	0.1+	1.3+	821019	033	0.7-	0.4-				
820920	095	1.2-	0.4+	860912	095	1.5+	1.0+				

1982 UK7 = 1981 JS6

Id. S. J. Bus



Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	213.83743		(2000.0)		P		Q
n	0.25836001	Peri.	280.65263	+0.97184367			-0.22128983
a	2.4414763	Node	92.16783	+0.23513666			+0.88867490
e	0.2442513	Incl.	4.64572	+0.01518669			+0.40160645
P	3.81	H	13.5	G	0.15		

Residuals in seconds of arc

810508	675	0.5+	0.0	821023	095	1.9-	0.4-	821112	095	0.1-	0.2+
810509	675	0.5-	0.0	821025	095	0.7+	0.1-				
821021	095	1.2+	0.4+	821111	095	0.1+	0.2-				

1984 DE1 = 1977 FL3 = 1977 GQ

Id. S. Nakano (MPC 12942)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M	14.87893		(2000.0)		P		Q
n	0.13193466	Peri.	234.91424	-0.92779797			+0.37268466
a	3.8214671	Node	326.95737	-0.33118429			-0.84399423
e	0.1381962	Incl.	1.81142	-0.17177862			-0.38571995
P	7.47	H	12.5	G	0.15		

Residuals in seconds of arc

770325	095	1.7+	1.5+	840304	809	0.2-	0.2+	840309	809	0.6+	0.7-
770326	095	0.5+	3.5+	840304	809	0.0	0.1-	840309	809	0.2+	0.7-
770410	381	(13.0-	13.5-)	840304	809	0.3+	0.3+	840310	809	0.2-	0.2-
770410	381	(2.3-	16.3-)	840305	809	0.3-	0.3-	840310	809	0.5-	0.2+
840228	809	0.0	0.2+	840305	809	0.1-	0.0	840310	809	0.1-	0.1+
840228	809	0.2+	0.1+	840305	809	0.0	0.1+	920404	809	0.0	0.1-
840228	809	0.3+	0.1-	840306	809	0.2-	0.3+	920404	809	0.4-	0.5-
840301	809	0.2+	0.7-	840306	809	0.1-	0.6+	920404	809	0.8-	0.7-
840301	809	0.1+	0.7-	840306	809	0.2+	0.4+	920406	809	0.3+	0.3+
840301	809	0.2+	0.7-	840308	809	0.8-	0.0	920406	809	0.2+	0.8-
840303	809	0.2-	0.3+	840308	809	0.7-	0.1-	920406	809	0.3-	1.1-
840303	809	0.2-	0.3+	840308	809	0.8-	0.1-				
840303	809	0.1-	0.3-	840309	809	1.0+	1.0-				

1985 QA1 = 1978 UB5

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	93.24394		(2000.0)		P		Q
n	0.26416899	Peri.	323.57397	-0.98715764			-0.14719411
a	2.4055524	Node	208.15280	+0.15892049			-0.94438620
e	0.0767905	Incl.	7.56035	-0.01625045			-0.29405543
P	3.73	H	13.2	G	0.15		

Residuals in seconds of arc

781027	675	0.4-	0.1-	850816	675	0.3+	0.1+	850817	675	(3.1+	1.8+)
781028	675	0.3+	0.2+	850816	675	(3.7+	2.2+)	850823	675	0.7-	0.3-
781029	675	0.1+	0.0	850817	675	0.5-	0.2-	850823	675	1.0+	0.4+

1985 UO3 = 1992 GY4

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	228.53627		(2000.0)		P		Q
n	0.23334555	Peri.	333.72172	+0.97714293			-0.06156563
a	2.6129817	Node	31.90751	+0.18436713			+0.72193044
e	0.0448979	Incl.	22.64159	-0.10583222			+0.68922138
P	4.22	H	13.5	G	0.15		

Residuals in seconds of arc

851018	095	(4.4+	1.2-)	851024	049	0.8+	0.3+	920404	809	0.0	1.2+
851020	049	1.4-	0.0	851112	095	1.3+	1.3+	920406	809	0.3-	1.7-
851020	049	1.1-	1.1+	920404	809	0.8+	1.3+	920406	809	0.5-	1.5-
851024	049	0.6+	2.7-	920404	809	0.2+	1.5+	920406	809	0.4-	0.8-

1986 SZ1 = 1938 BJ = 1941 WM = 1992 AS

Id. G. V. Williams (MPC 19675; unpublished)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Williams			
M		(2000.0)		P		Q	
n	48.03973		Peri.	198.31597	-0.08841383	-0.97320459	
a	0.23775198		Node	257.17923	+0.93894342	-0.01029011	
e	2.5805956		Incl.	12.57344	+0.33251805	-0.22971057	
P	0.1507543		H	11.0	G	0.15	

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

380121	053(14.1+ 33.6+)X	380227	053(11.2+ 16.6+)X	860929	095	0.0	0.6-
380131	053(0.19+ 0.06+)X	411116	062 1.8- 1.3+	861003	095	1.6-	0.8-
380203	053(44.5- 43.5+)X	411116	062 1.3- 0.0	861006	095	(5.5-	1.2-)
380219	053(22.1+ 11.4+)X	411116	062 0.3- 1.3+	920110	675	0.7+	1.8-
380220	053(44.7+ 48.2-)X	411116	062 0.9+ 1.7+	920110	675	0.1+	1.2+
380221	053(53.5+ 1.5+)X	491119	675 2.3+ 0.5-	920111	675	1.0-	1.9-
380223	053 (2.8+ 22.4-)X	491119	675 3.0+ 1.5-				

1987 MM1 = 1991 GD1

Id. G. V. Williams (MPC 18287)

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Williams			
M		(2000.0)		P		Q	
n	355.47462		Peri.	124.22951	+0.75722017	+0.65193730	
a	0.21283523		Node	195.21251	-0.63809422	+0.72531154	
e	2.7782652		Incl.	8.75553	-0.13947540	+0.22113553	
P	0.1628235		H	12.5	G	0.15	

Residuals in seconds of arc

870625	046 0.3- 0.9+	870630	046 0.2+ 0.3-	910419	809	0.1+	1.9-
870626	046 1.8- 1.3+	870630	046 1.3+ 0.2-	910419	809	0.5-	1.5-
870627	046 1.4+ 0.7+	910410	675 0.8- 1.0+	910419	809	0.7-	0.3-
870627	046 0.2+ 1.3-	910410	675 0.4+ 0.2+	920807	675	0.0	0.4-
870628	046 0.9- 0.0	910412	675 0.1+ 1.4+	920807	675	0.1+	0.0
870628	046 0.1- 0.5-	910412	675 1.3+ 0.6+				

1987 QV10 = 1991 KL = 1992 PN4

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

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Williams			
M		(2000.0)		P		Q	
n	329.57552		Peri.	209.71429	+0.98897893	+0.09838744	
a	0.18979962		Node	144.11233	-0.06807252	+0.96576257	
e	2.9987424		Incl.	10.87908	-0.13147932	+0.24004700	
P	0.1121483		H	12.0	G	0.15	

Residuals in seconds of arc

870827	095 0.3- 1.0-	870922	095 0.2- 1.2+	920802	675	0.1-	0.1+
870902	095 0.2- 0.4+	910518	413 0.6- 0.2+	920802	675	0.1+	0.0
870920	095 0.7+ 0.8-	910518	413 0.6+ 0.2-	920806	675	0.1-	0.2+

1988 QY

Epoch 1992 June 27.0 TT = JDT 2448800.5

				Williams			
M		(2000.0)		P		Q	
n	134.31932		Peri.	93.19565	+0.62829547	+0.70153963	
a	0.08491906		Node	222.65275	-0.74735943	+0.66433830	
e	5.1262437		Incl.	29.75690	+0.21609878	+0.25786968	
P	0.0660683		H	10.5	G	0.15	

Residuals in seconds of arc

541006	675 0.3+ 2.2+	880912	675 0.3- 0.9-	901123	372	1.0-	1.3-
541006	675 0.1+ 1.7+	880913	675 0.2+ 0.8-	911225	950	0.2-	0.4-
880818	675 0.4+ 0.0	891101	675 1.0+ 0.2+	911225	950	0.1-	0.7-
880818	675 0.6+ 0.5-	891102	675 0.2- 0.8-				
880910	675 0.7- 0.1+	901123	372 (1.1- 4.7-)				

1988 RF1

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M 130.90809	(2000.0)		P	Q
n 0.08542221	Peri. 330.15136	+0.88414803		+0.46698204
a 5.1060944	Node 2.17183	-0.31576121		+0.62012505
e 0.1187148	Incl. 22.48344	-0.34435028		+0.63037504
P 11.54	H 11.1	G 0.15		

Residuals in seconds of arc

541006 675	3.1+	0.1+	880910 675	0.7-	0.7+	891102 675	0.6+	0.8+
541006 675	2.3-	1.0-	880912 675	0.2+	0.5+	891103 675	1.1-	0.3-
840329 413	0.4-	0.4-	881008 675	0.2-	0.8-			
880818 675	1.9+	0.3+	881008 675	1.1-	0.7-			

1988 RA11 = 1977 XG1

Id. S. J. Bus

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M 232.75234	(2000.0)		P	Q
n 0.16176322	Peri. 208.45824	+0.86522944		+0.49923894
a 3.3359244	Node 121.51910	-0.44910937		+0.81273119
e 0.0801017	Incl. 3.10965	-0.22288737		+0.30038058
P 6.09	H 13.6	G 0.15		

Residuals in seconds of arc

771207 675	0.6-	0.2-	880916 807	0.9+	0.4-	881008 807	0.1-	0.0
771208 675	0.6+	0.1+	881004 807	0.0	0.7+	881103 807	0.3-	0.2-
880914 807	0.2-	0.8-	881005 807	0.4-	1.1+	881105 807	0.4+	0.3+
880915 807	0.1+	0.4-	881007 807	0.5-	0.1-			

1988 RD11 = 1978 UW6

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M 49.04524	(2000.0)		P	Q
n 0.18524216	Peri. 183.10065	-0.99798692		+0.06341768
a 3.0477276	Node 0.53628	-0.05685497		-0.89081752
e 0.1411948	Incl. 3.35524	-0.02810008		-0.44991371
P 5.32	H 12.7	G 0.15		

Residuals in seconds of arc

781027 675	0.3-	0.4+	781129 675	0.2+	0.1-	881005 807	0.2+	0.4+
781028 675	0.5-	0.5-	880914 807	0.4+	0.1+	881008 807	0.6+	0.0
781029 675	0.9-	0.3+	880915 807	0.0	0.3-	881103 807	0.5-	0.2+
781128 675	1.6+	0.1-	881004 807	0.4-	0.3-	881105 807	0.4-	0.0

1988 TH1 = 1989 VU3 = 1989 WA7

Id. H. Kaneda (MPC 18430)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M 183.45077	(2000.0)		P	Q
n 0.08355449	Peri. 118.05294	+0.36071446		+0.93237329
a 5.1819060	Node 172.96491	-0.90929513		+0.35722888
e 0.1131598	Incl. 11.19207	-0.20752699		+0.05538576
P 11.80	H 10.0	G 0.15		

Residuals in seconds of arc

510730 675	0.0	0.3-	881112 071	(1.1-	3.5+)	891128 511	1.4-	0.6+
880910 675	0.2+	0.5-	881112 071	(0.8-	4.2+)	891128 511	(2.8+	0.1+)
880910 675	0.1-	0.5-	891103 809	2.5+	0.1-	920204 675	1.7-	0.9-
881008 675	0.8+	0.9+	891103 809	0.4+	0.0	920204 675	2.3+	0.5-
881010 675	0.0	0.7+	891103 809	1.1-	0.7+	920205 675	0.7-	0.1+
881104 675	0.3-	0.5-	891128 511	1.8-	0.2-			
881106 675	0.3-	1.5-	891128 511	1.2+	0.6+			



890301 875	1.1+	0.2-	920802 801	1.3-	0.3-	920827 801	0.4-	0.7+
890306 675	(2.6-	2.7-)	920802 801	1.2-	0.2-	920829 675	2.3+	1.5-
890306 675	(4.0-	3.8-)	920803 801	1.2-	0.1-	920829 675	0.9+	0.1-
890405 675	0.6+	0.6+	920803 801	1.2-	0.1-	920831 675	1.4+	0.1-
890407 675	1.2+	0.7+	920824 801	0.9-	0.3+	920831 675	1.8+	0.2+
890407 675	0.9-	0.6+	920824 801	0.9-	0.8+			

## 1989 PE

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M 145.83062		(2000.0)		P	Q
n 0.39117750	Peri.	88.35862	-0.47557862	+0.85017497	
a 1.8516269	Node	149.70600	-0.87283566	-0.48801341	
e 0.0229509	Incl.	26.60334	+0.10946639	-0.19759914	
P 2.52	H 14.3		G 0.15		

Residuals in seconds of arc

510826 675	0.1+	1.5+	890905 675	1.0+	2.0+	910410 675	0.0	1.2-
510826 675	0.1+	0.8-	890905 675	0.2-	1.5+	910412 675	(2.7-	1.5+)
890809 675	0.2-	0.6-	890907 675	0.4-	2.2-	910412 675	0.7-	1.0+
890809 675	0.6-	0.8-	890907 675	0.2+	0.9-			
890810 675	(1.3-	2.5-)	910410 675	0.5+	0.2-			

## 1989 SF = 1962 CT = 1992 QJ

Id. H. Kaneda

Epoch 1992 June 27.0 TT = JDT 2448800.5

Nakano

M 273.37071		(2000.0)		P	Q
n 0.31078607	Peri.	92.25217	+0.52577617	-0.84983244	
a 2.1585479	Node	325.94641	+0.75209507	+0.48457937	
e 0.0883310	Incl.	3.75414	+0.39738196	+0.20728643	
P 3.17	H 13.6		G 0.15		

Residuals in seconds of arc

620210 033	0.8-	1.3+	891003 046	2.2-	0.7+	891024 046	1.7-	0.3-
620210 033	1.4+	0.3+	891005 046	(3.0-	2.4-)	891024 046	1.3+	0.6+
890923 400	2.6-	0.7-	891005 046	1.9-	1.9-	891028 046	0.5+	0.9-
890923 400	1.4+	1.1-	891008 400	1.8+	0.4-	891028 046	2.1+	0.4-
890923 400	(3.3-	1.7-)	891008 400	0.5+	0.1-	920826 399	1.1-	1.3+
890928 400	0.7-	1.4+	891021 400	1.2+	0.4-	920826 399	1.8-	1.0+
890928 400	1.1-	1.0+	891021 400	2.3+	1.0+	920826 399	0.3+	1.1+
890928 400	0.3-	2.1+	891022 046	0.2+	0.3+	920828 399	0.1-	1.5-
890929 392	0.3+	1.1-	891022 046	1.2-	0.8-	920828 399	1.9+	0.3-
890929 392	(3.5-	3.1+)	891023 046	0.5+	0.7+			
891003 046	0.1-	0.7-	891023 046	0.1-	0.4+			

## 1989 SS2 = 1992 PR4

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M 22.74414		(2000.0)		P	Q
n 0.30070241	Peri.	135.30785	+0.18573917	+0.98085342	
a 2.2065382	Node	145.27271	-0.92782526	+0.19468882	
e 0.1122405	Incl.	5.89870	-0.32348298	+0.00477829	
P 3.28	H 15.2		G 0.15		

Residuals in seconds of arc

890926 809	1.7+	0.3-	891003 809	1.3-	1.2-	920802 675	0.7-	0.2+
890926 809	0.2+	0.0	891003 809	1.3-	1.1-	920802 675	0.3-	1.3+
890926 809	0.0	0.6-	891003 809	0.7-	1.2-	920806 675	1.0+	0.3-
890928 809	0.0	0.6+	891007 809	1.8+	1.4+	920806 675	0.1-	1.1-
890928 809	0.1-	0.7+	891007 809	1.5+	1.1+			
890928 809	2.0-	0.9-	891007 809	0.3+	1.3+			

1989 SB3 = 1979 OU15 = 1979 QD7 = 1992 OE1

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	328.45798		(2000.0)			P		Marsden				
							Q					
n	0.30221924	Peri.	203.31611			+0.91642349		+0.39556548				
a	2.1991489	Node	133.23699			-0.35279460		+0.87019480				
e	0.1865119	Incl.	4.78680			-0.18895492		+0.29374981				
P	3.26	H	15.5			G	0.15					

Residuals in seconds of arc

790730	095	2.5+	1.7-	890928	809	1.2+	0.1+	920726	010	0.8-	1.1-
790820	095	1.8-	1.5-	890928	809	0.5+	0.9-	920726	010	0.9+	1.3+
890926	809	0.5-	0.7+	891003	809	0.2+	0.5+	920726	010	0.5-	0.8+
890926	809	0.8-	0.3+	891003	809	0.6-	0.7+	920727	010	0.3-	0.7+
890926	809	1.0-	1.2-	891003	809	1.0-	0.8+				
890928	809	1.8+	0.3-	920726	010	0.2+	1.4+				

1989 TY4 = 1989 SJ4 = 1992 PGI

Id. S. Nakano (d, MPC 16003), B. G. Marsden

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	15.90166		(2000.0)			P		Marsden				
							Q					
n	0.29618401	Peri.	115.97704			+0.17597215		+0.98398764				
a	2.2289226	Node	164.08148			-0.93606571		+0.17616755				
e	0.1570615	Incl.	5.92707			-0.30465520		+0.02707988				
P	3.33	H	15.5			G	0.15					

Residuals in seconds of arc

890926	809	1.3+	1.8+	891007	809	0.1-	0.1-	920808	010	0.0	0.6-
890926	809	0.2-	0.9-	891007	809	0.7-	0.5-	920808	010	0.3+	0.2+
890926	809	0.9+	0.0	891007	809	0.1-	0.7+	920808	010	0.8-	0.7-
891003	809	1.3-	0.2-	891008	809	1.8+	0.4-	920809	010	1.5+	1.1+
891003	809	1.5-	1.0-	891008	809	1.7+	0.1-	920809	010	0.2+	0.5+
891003	809	2.0-	0.1-	891008	809	0.3+	0.8+	920809	010	1.3-	0.4-

1989 UO1 = 1992 PD3

Id. H. E. Holt

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	336.35101		(2000.0)			P		Bowell				
							Q					
n	0.30384078	Peri.	145.61960			+0.93897066		+0.34353722				
a	2.1913177	Node	194.32011			-0.32955595		+0.88352639				
e	0.2173509	Incl.	4.12332			-0.09862548		+0.31837604				
P	3.24	H	14.0			G	0.15					

Residuals in seconds of arc

891028	403	0.1+	0.5-	891120	399	1.3-	0.1+	920806	675	0.4-	0.3+
891028	403	0.1-	0.4-	891120	399	(2.7-	0.3-)	920806	675	0.4+	0.3+
891029	403	0.4-	1.5+	891120	399	0.4+	0.2+	920807	675	0.2-	0.6-
891029	403	1.4+	0.2+	891125	399	(1.3+	2.4-)	920807	675	0.1+	0.0
891102	403	(3.2-	4.4-)	891125	399	0.6+	1.3-				
891102	403	0.8-	0.6-	891125	399	0.1+	0.7+				

1989 UA3 = 1992 PN

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	298.04650		(2000.0)			P		Marsden				
							Q					
n	0.29240478	Peri.	193.12555			+0.91325241		-0.40731214				
a	2.2480868	Node	190.92134			+0.37756722		+0.85375757				
e	0.1664535	Incl.	2.47359			+0.15301318		+0.32433754				
P	3.37	H	15.5			G	0.15					

Residuals in seconds of arc

891031	494	1.3+	0.9-	891104	494	0.9-	0.2-	891105	494	0.8-	0.9+
891031	494	1.4+	1.3-	891104	494	2.0-	0.2+	891106	978	0.4+	2.5+

891125	494	1.6-	0.6-	920808	010	0.6+	0.5+	920809	010	0.5-	0.5-
891125	494	1.5+	0.1+	920808	010	0.1-	0.9-	920809	010	0.0	0.1+
891129	494	0.7+	0.8-	920808	010	1.1-	0.0	920809	010	1.2+	0.6+

1990 TS = 1963 TD1 = 1980 XE1

Id. H. Kaneda (MPC 17217)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Kaneda

M	164.53345		(2000.0)			P		Q	
n	0.29306964	Peri.	51.21122			+0.57559701		-0.81771687	
a	2.2446855	Node	3.65898			+0.72264083		+0.50566687	
e	0.1717975	Incl.	4.68712			+0.38272485		+0.27502752	
P	3.36	H	13.5		G	0.15			

Residuals in seconds of arc

631015	760	0.4+	1.3+	901015	392	1.4+	1.0-	901117	408	(3.7+	2.3+)
631015	760	2.0-	1.6+	901015	392	0.1+	1.6-	901117	408	2.1+	0.1-
631017	760	0.5-	1.1+	901015	399	0.5-	0.2-	920404	809	(0.8-	3.5-)
801209	330	0.6+	1.9+	901015	399	1.8-	1.9+	920404	809	(1.6-	3.4-)
801213	330	1.5-	0.3+	901015	399	0.4+	0.6+	920404	809	(0.3-	4.2-)
901011	399	2.0+	1.4-	901017	095	0.1+	0.5-	920406	809	0.3-	0.8-
901011	399	0.2+	1.4-	901017	095	0.9+	1.0-	920406	809	0.9-	0.8-
901011	399	0.2-	1.6-	901018	392	0.1+	1.9-	920406	809	0.1-	1.3-
901013	095	(3.2+	0.3+)	901018	392	1.3-	0.2+				
901013	095	(0.1+	3.1-)	901117	408	(2.8+	3.7+)				

1990 TJ2 = 1969 UK2 = 1985 VQ2

Id. H. Kaneda (MPC 17453)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Schmadel

M	60.14497		(2000.0)			P		Q	
n	0.18588551	Peri.	224.13818			+0.12151993		-0.98763081	
a	3.0406915	Node	219.19609			+0.94858802		+0.14494583	
e	0.0756998	Incl.	9.02060			+0.29225617		-0.05980044	
P	5.30	H	12.4		G	0.15			

Residuals in seconds of arc

691018	095	0.2-	0.4+	901012	033	1.0-	0.4-	920103	033	0.2+	0.2-
851109	095	(2.4+	4.9+)	901013	033	0.4+	0.6-	920103	033	1.2-	0.6-
851111	095	0.0	1.1+	901014	033	0.0	0.2-	920208	033	0.3-	0.3-
901010	033	0.3+	0.2-	911212	033	0.0	0.0	920208	033	0.6-	0.4+
901011	033	0.4-	0.1+	911212	033	0.4-	0.1+	920209	033	0.6+	0.1-
901011	033	1.0+	0.2-	911213	033	1.7+	0.1-				

1990 UB2 = 1977 XD3

Id. S. J. Bus

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	241.13168		(2000.0)			P		Q	
n	0.29766121	Peri.	221.37029			+0.67647465		+0.73007505	
a	2.2215421	Node	91.44055			-0.64767785		+0.65232993	
e	0.2168181	Incl.	5.55735			-0.35056448		+0.20360768	
P	3.31	H	13.9		G	0.15			

Residuals in seconds of arc

771207	675	0.2+	0.2+	901019	809	0.6-	0.7-	901026	385	0.2+	1.5+
771208	675	0.3-	0.1+	901021	385	(0.1+	2.5-)	901110	385	1.0-	0.6-
901016	809	1.1+	0.7+	901021	385	1.7+	0.3-	901110	385	(3.0-	0.2+)
901016	809	0.2+	0.6+	901024	809	0.7-	0.5-	901122	385	1.4+	0.7-
901016	809	0.1+	1.1+	901024	809	1.1-	0.9-	901122	385	0.6+	0.1+
901019	809	0.2+	0.7-	901024	809	1.7-	0.0				
901019	809	0.5-	1.0-	901026	385	0.3+	0.9+				

1991 AY1 = 1990 WT7 = 1950 DK = 1968 QR1 = 1989 QZ = 1989 RE4  
 Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda  
 M 151.17413 (2000.0) P Q  
 n 0.18769239 Peri. 226.54454 +0.92388755 -0.37469842  
 a 3.0211453 Node 155.15369 +0.38217008 +0.89317753  
 e 0.0478401 Incl. 10.65243 +0.01943757 +0.24866642  
 P 5.25 H 11.7 G 0.15

Residuals in seconds of arc

500217	024	0.1+	0.4+	890828	888	(1.9+	7.3-)	910111	675	1.8+	1.4-
500223	024	0.1-	0.5-	890908	095	0.3+	1.3-	910111	675	0.2-	1.0-
680828	095	0.2-	0.8+	901120	413	1.9-	0.7+	910115	675	0.0	0.3-
890828	888	(0.4+	7.3-)	901120	413	0.2-	1.3+	910115	675	0.7+	0.5+

1991 CM5 = 1992 RC

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
 M 83.48135 (2000.0) P Q  
 n 0.36430383 Peri. 109.99378 -0.49373199 +0.80432228  
 a 1.9416021 Node 125.94650 -0.86861493 -0.47435612  
 e 0.0548621 Incl. 24.10208 +0.04167512 -0.35784345  
 P 2.71 H 13.5 G 0.15

Residuals in seconds of arc

910118	675	1.0-	1.0+	910209	675	1.1-	0.6-	920904	413	1.2-	0.4-
910118	675	0.9-	0.4-	910210	675	0.7+	0.5+	920904	413	1.0+	0.9+
910119	675	0.4+	0.5-	910210	675	(2.2-	3.8+)	920905	413	0.0	0.3-
910119	675	1.4+	0.1-	920902	413	0.0	1.1-	920905	413	0.1-	0.4-
910209	675	0.4+	0.1+	920902	413	0.2+	1.2+				

1991 DB

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
 M 190.95312 (2000.0) P Q  
 n 0.43832450 Peri. 50.95545 -0.86520933 +0.49611303  
 a 1.7163488 Node 158.48567 -0.49905315 -0.83799933  
 e 0.4019569 Incl. 11.43316 -0.04856711 -0.22722013  
 P 2.25 H 18.5 G 0.15

From 46 observations 1991 Feb. 13-July 10, mean residual 1".16.

1991 FF

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
 M 87.60798 (2000.0) P Q  
 n 0.17029625 Peri. 198.52375 -0.99299230 -0.03548781  
 a 3.2235370 Node 338.47741 +0.09994576 -0.76118595  
 e 0.0610638 Incl. 17.89435 -0.06306451 -0.64756202  
 P 5.79 H 13.0 G 0.15

Residuals in seconds of arc

871018	413	0.1-	0.1+	910321	413	0.6-	0.3-	910507	413	0.4+	0.2+
910318	413	0.3+	0.7-	910406	413	0.2-	0.3-	920821	413	0.1+	0.1-
910319	413	0.0	1.8+	910413	413	0.2+	0.7-	920821	413	0.1-	0.1+

1991 GN

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
 M 346.76710 (2000.0) P Q  
 n 0.36704876 Peri. 168.13603 +0.95304232 -0.24159110  
 a 1.9319099 Node 207.99172 +0.23616402 +0.97036135  
 e 0.0900431 Incl. 22.89611 +0.18957029 +0.00570821  
 P 2.69 H 12.5 G 0.15



## Residuals in seconds of arc

910410	675	1.3+	0.4+	910509	675	0.5-	0.4+	920803	675	0.7-	0.2-
910410	675	1.4+	0.4-	910509	675	0.7-	1.0+	920803	675	0.3-	1.2-
910412	675	0.1+	0.5-	910614	801	0.6-	0.5-	920824	801	0.1+	0.1-
910412	675	1.3-	1.1-	910614	801	0.2-	0.0	920824	801	0.4+	0.3+

1991 NS1 = 1987 MR

Id. H. Kaneda (MPC 19028)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	94.35681		(2000.0)			P		Q			
n	0.25986299	Peri.	126.81784			+0.50065486		+0.86553850			
a	2.4320533	Node	173.18344			-0.82644354		+0.48263177			
e	0.1751477	Incl.	6.63053			-0.25755735		+0.13382709			
P	3.79	H	13.7			G	0.15				

Kaneda

## Residuals in seconds of arc

870626	675	4.1-	0.3-	910719	675	1.4+	1.3-	910913	675	0.4-	0.8-
870628	675	4.1+	0.1-	910805	675	0.2+	0.9+	910913	675	0.8+	0.0
910713	675	0.1+	1.1+	910805	675	1.0-	0.1+	910914	675	0.0	0.5-
910713	675	0.5+	0.8+	910913	675	0.4+	0.2-	910914	675	0.6-	0.2+
910719	675	1.3-	0.2-	910913	675	0.2-	0.2+				

1991 NT2 = 1953 LJ = 1957 LB = 1981 DY3

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	100.05164		(2000.0)			P		Q			
n	0.23516451	Peri.	0.80581			+0.36579193		+0.90903108			
a	2.5994902	Node	290.66918			-0.85508673		+0.24355812			
e	0.1654100	Incl.	12.32057			-0.36745468		+0.33814486			
P	4.19	H	12.0			G	0.15				

Williams

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

530612	078	0.2+	0.5-	910712	675	1.3-	0.6+	910718	675	0.0	0.1-
570602	076(0.06-	0.01+)	X	910712	675	0.5-	0.6+	910912	675	1.7+	0.1-
810223	095	0.0	0.1-	910718	675	0.3+	0.5-	910912	675	0.5-	0.3-

1991 PS = 1986 AG2

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	355.36017		(2000.0)			P		Q			
n	0.28497617	Peri.	145.76803			+0.43987934		-0.89498210			
a	2.2869870	Node	278.03569			+0.80626189		+0.42997983			
e	0.0933964	Incl.	4.30049			+0.39553499		+0.11884610			
P	3.46	H	14.0			G	0.15				

Williams

## Residuals in seconds of arc

860112	688	1.2-	1.3-	910806	809	1.2-	0.2+	910913	675	0.3-	0.1+
860112	688	0.7-	0.5-	910806	809	0.8+	0.7+	910913	675	0.6+	0.1+
860117	688	1.5+	0.4+	910808	675	0.1+	1.0+	910913	675	0.4-	0.8-
860117	688	0.3+	1.4+	910808	675	0.3-	1.1+	910913	675	0.2+	0.5+
910805	675	0.3+	0.4+	910811	809	0.9+	1.7-	910914	675	0.4-	0.4+
910805	675	0.2-	0.3+	910811	809	0.2+	1.5-	910914	675	0.1-	0.6+
910806	809	0.1+	1.0+	910811	809	0.3-	2.4-				

1991 PT1 = 1987 HB2

Id. G. V. Williams (MPC 18829)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	163.35514		(2000.0)			P		Q			
n	0.28065814	Peri.	38.15776			-0.64845414		+0.76116636			
a	2.3103846	Node	191.43270			-0.71195619		-0.61175480			
e	0.1457758	Incl.	3.33546			-0.26949138		-0.21536443			
P	3.51	H	14.5			G	0.15				

Williams

Residuals in seconds of arc

870428	046	0.9+	1.3-	910808	675	0.7+	1.0-	910908	691	0.5-	0.2-
870428	046	1.4-	0.5-	910810	809	1.5-	0.1+	910908	691	0.5-	0.6-
870429	046	0.6+	2.2+	910810	809	1.8-	0.0	910908	691	0.3-	0.1-
870429	046	0.0	0.3-	910810	809	0.1-	0.7+	910913	675	1.2+	0.8+
910805	675	0.8+	1.4-	910814	809	0.8+	1.2+	910913	675	(2.3-	2.6+)
910805	675	0.3+	1.2-	910814	809	0.0	1.1+				
910808	675	0.0	0.7-	910814	809	1.0+	1.4+				

1991 PB12 = 1974 SG2 = 1988 AN

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	95.98189		(2000.0)			P		Q	
n	0.17294089	Peri.	27.66093	+0.24169483				+0.96160675	
a	3.1905894	Node	256.56495	-0.91313805				+0.18007635	
e	0.1653319	Incl.	7.68011	-0.32827201				+0.20708685	
P	5.70	H	12.0	G	0.15				

Residuals in seconds of arc

740920	095	1.5+	2.3+	910807	675	1.0+	0.3-	910910	675	0.8-	0.8-
740922	095	1.7-	1.7-	910807	675	0.8+	0.3-	910910	675	0.8-	0.6-
880111	033	0.0	0.0	910810	675	0.1-	0.8+				
880111	033	0.0	0.1-	910810	675	0.2+	0.6+				

1991 PX14 = 1977 XL1

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	84.78191		(2000.0)			P		Q	
n	0.27091579	Peri.	69.31617	+0.86405475				+0.49458340	
a	2.3654467	Node	260.93755	-0.48995106				+0.78347308	
e	0.1509563	Incl.	5.44994	-0.11557403				+0.37624088	
P	3.64	H	14.5	G	0.15				

Residuals in seconds of arc

771207	675	1.1+	0.3+	910806	675	0.3+	0.4-	910907	372	1.1-	1.5-
771208	675	1.1-	0.3-	910809	675	0.8-	0.1+	910907	372	1.1+	1.5+
910806	675	0.1+	0.3+	910809	675	0.3+	0.0				

1991 RD7 = 1954 RW = 1987 SL21

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	70.43090		(2000.0)			P		Q	
n	0.24024461	Peri.	353.95177	+0.99909144				+0.03766534	
a	2.5627148	Node	4.05334	-0.01619785				+0.76837237	
e	0.1835057	Incl.	16.38575	-0.03941991				+0.63889375	
P	4.10	H	13.0	G	0.15				

Residuals in seconds of arc

540903	675	0.0	0.2-	910902	413	0.7+	0.9-	910917	675	0.4+	0.9-
540903	675	0.1-	0.4+	910903	413	0.9-	0.7+	911007	033	0.4-	0.5+
870918	095	0.4+	1.3-	910903	413	0.4-	0.5+	911007	033	0.7-	1.2+
910902	413	0.3+	0.1+	910917	675	1.2+	1.1-	911008	033	0.4-	1.1+

1991 SN1 = 1981 TX

Id. G. V. Williams

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	88.08823		(2000.0)			P		Q	
n	0.29806261	Peri.	159.95986	+0.99753758				-0.05752979	
a	2.2195472	Node	203.44748	+0.04225770				+0.94950404	
e	0.1675011	Incl.	5.78587	+0.05597370				+0.30843541	
P	3.31	H	14.3	G	0.15				

Residuals in seconds of arc

510730	675	0.8+	0.5+	811005	688	0.2+	1.6-	910916	675	0.7+	1.4-
510730	675	0.9-	0.5+	910914	675	0.1+	0.3-	910916	675	0.9+	1.1-
811005	688	(5.5-	6.0-)	910914	675	0.4+	0.1-	910930	400	1.6+	0.3+

910930	400	0.2-	0.4+	911010	691	1.2-	0.6+	911029	400	1.4-	0.5+
911005	400	1.3-	0.5+	911010	691	1.3-	0.4+	911029	400	0.2-	0.4-
911005	400	(0.8-	2.6+)	911018	400	0.3+	1.5+	911031	400	1.8+	0.6+
911010	691	1.2-	0.3+	911018	400	0.9-	0.2-	911031	400	1.9+	0.6-

## 1991 VG

Epoch 1992 June 27.0 TT = JDT 2448800.5 Yeomans & Chodas  
M 171.20382 (2000.0) P Q  
n 0.94845157 Peri. 24.49907 -0.14808662 -0.98867646  
a 1.0259494 Node 74.02435 +0.90315063 -0.14519585  
e 0.0493068 Incl. 1.44680 +0.40297554 -0.03790808  
P 1.04 H 28.8 G 0.15  
From 58 observations 1991 Nov. 6-1992 Apr. 27, mean residual 1".48.

## 1991 VM5 = 1977 XU1

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 110.00668 (2000.0) P Q  
n 0.27823129 Peri. 266.95016 +0.91554764 +0.38855008  
a 2.3237999 Node 70.16647 -0.31098039 +0.84771432  
e 0.2127017 Incl. 6.34317 -0.25507589 +0.36112224  
P 3.54 H 13.5 G 0.15

## Residuals in seconds of arc

771207	675	0.0	0.2-	911110	894	0.3+	0.0	911204	399	0.5+	0.5-
771208	675	0.0	0.2+	911110	894	0.0	0.8-	911204	399	0.8+	1.1+
911105	894	0.3+	0.6+	911112	894	0.2+	0.0	911207	399	0.5-	1.2-
911105	894	0.1-	0.5+	911112	894	0.8-	0.6-	911207	399	0.7-	1.0+

## 1992 EB1

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 10.37283 (2000.0) P Q  
n 0.15888371 Peri. 231.11189 -0.89713798 +0.40548804  
a 3.3761091 Node 331.50344 -0.19517337 -0.71979122  
e 0.5714335 Incl. 21.55416 -0.39629637 -0.56345367  
P 6.20 H 16.5 G 0.15  
From 24 observations 1992 Mar. 10-Aug. 22, mean residual 0".62.

## 1992 FE

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 210.53412 (2000.0) P Q  
n 1.10407055 Peri. 82.24406 +0.82177694 -0.56644190  
a 0.9271247 Node 312.23414 +0.48431559 +0.75154296  
e 0.4053889 Incl. 4.79232 +0.30020172 +0.33812239  
P 0.89 H 17.0 G 0.15  
From 26 observations 1992 Mar. 26-Aug. 23, mean residual 0".73.

## 1992 FL1

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 22.60393 (2000.0) P Q  
n 0.24463150 Peri. 237.65514 -0.96169047 +0.26703330  
a 2.5319850 Node 317.74156 -0.21016205 -0.86338402  
e 0.4187739 Incl. 5.29044 -0.17602087 -0.42809025  
P 4.03 H 16.5 G 0.15  
From 20 observations 1992 Mar. 26-Aug. 22, mean residual 0".38.

## 1992 FM1

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	41.73543	(2000.0)		P		Q	
n	0.28957611	Peri.	201.11675	-0.98535032		+0.13357428	
a	2.2627030	Node	345.30843	-0.01347349		-0.68075851	
e	0.1151158	Incl.	24.71338	-0.17000946		-0.72022619	
P	3.40	H	14.0	G	0.15		

From 17 observations 1992 Mar. 29-Aug. 22, mean residual 0".58.

## 1992 GA

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	23.40455	(2000.0)		P		Q	
n	0.23024874	Peri.	247.04810	-0.94112239		+0.30044391	
a	2.6363590	Node	310.06505	-0.18452983		-0.84067502	
e	0.1173686	Incl.	11.68430	-0.28326205		-0.45055407	
P	4.28	H	14.0	G	0.15		

From 14 observations 1992 Apr. 4-June 22, mean residual 0".83.

## 1992 GE2 = 1990 US = 1990 UU11

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	174.63811	(2000.0)		P		Q	
n	0.30362967	Peri.	43.74347	+0.66460164		-0.74717720	
a	2.1923333	Node	4.61495	+0.66514173		+0.58821107	
e	0.1397350	Incl.	3.96067	+0.34042788		+0.30940907	
P	3.25	H	14.5	G	0.15		

Residuals in seconds of arc

901017 095	(2.0- 3.6-)	920404 809	0.4- 0.6-	920423 809	0.5+ 0.6-
901017 095	0.2- 0.4-	920406 809	0.7- 1.3+	920425 809	0.7- 1.4+
901023 017	1.5+ 1.1+	920406 809	0.8+ 0.0	920425 809	0.2- 0.7+
901024 017	1.3- 0.8-	920406 809	0.0 0.1+	920425 809	0.4- 0.1-
920404 809	0.1+ 0.2-	920423 809	0.2+ 1.0-		
920404 809	0.0 0.3-	920423 809	0.7+ 0.8-		

## 1992 HE

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	1.70867	(2000.0)		P		Q	
n	0.29379877	Peri.	262.59967	+0.24728641		+0.92803289	
a	2.2409701	Node	27.32064	-0.45723634		+0.36524611	
e	0.5717767	Incl.	37.36993	-0.85427417		+0.07314528	
P	3.35	H	14.0	G	0.15		

From 42 observations 1992 Apr. 25-Aug. 30, mean residual 0".56.

## 1992 HJ = 1968 HK = 1989 OF1

Id. S. Nakano (MPC 20345), G. V. Williams

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	358.13744	(2000.0)		P		Q	
n	0.28948753	Peri.	129.95677	-0.37926059		+0.92235399	
a	2.2631646	Node	117.60973	-0.87226485		-0.32983343	
e	0.1209508	Incl.	4.76771	-0.30873198		-0.20117907	
P	3.40	H	13.5	G	0.15		

Residuals in seconds of arc

680422 095	3.1- 5.1+	920408 691	2.1- 0.0	920505 896	0.2- 0.8+
680426 095	6.2+ 2.9+	920430 896	0.7+ 2.0-	920729 801	0.6- 0.4+
890729 675	0.7- 1.8+	920430 896	0.5+ 3.0-	920729 801	0.8- 0.5+
890729 675	0.1+ 1.4+	920503 896	2.4+ 0.7-	920731 801	0.0 1.5-
920408 691	1.9- 0.1-	920503 896	0.8+ 1.8-	920731 801	1.0- 0.3+
920408 691	2.2- 0.1-	920505 896	0.2+ 0.2-		

1992 HX = 1972 TE3

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	287.21726		(2000.0)			P		Marsden					
							Q						
n	0.18586177	Peri.	273.45306			+0.80376488		+0.59460155					
a	3.0409505	Node	50.06386			-0.53481759		+0.73703948					
e	0.2005179	Incl.	1.51510			-0.26063799		+0.32128149					
P	5.30	H	14.0			G	0.15						

Residuals in seconds of arc

721005	095	0.5+	2.0-	920406	809	0.8-	0.3+	920424	691	1.1-	0.2-
721013	095	0.7-	2.5+	920406	809	0.7+	0.4+	920508	691	0.5+	0.2+
920404	809	1.0+	0.1+	920406	809	1.0+	0.8+	920508	691	0.5+	0.3-
920404	809	0.3-	0.1-	920424	691	1.5-	0.2-	920508	691	0.5+	0.2-
920404	809	0.8+	0.0	920424	691	1.2-	0.1-				

1992 HY = 1986 WU8

Id. A. Lowe

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	90.72232		(2000.0)			P		Marsden					
							Q						
n	0.25845362	Peri.	303.75964			-0.72456287		-0.68920571					
a	2.4408868	Node	192.67351			+0.63536591		-0.66681054					
e	0.0467752	Incl.	0.53171			+0.26705582		-0.28347698					
P	3.81	H	14.5			G	0.15						

Residuals in seconds of arc

861130	381	(9.1+	1.8+)	920406	809	0.5+	0.1+	920425	809	1.7+	0.4+
861130	381	0.6+	0.4-	920406	809	0.4+	0.7-	920425	809	1.8+	0.0
861201	381	0.3-	0.4+	920406	809	0.2+	0.7-	920508	691	0.2-	0.9-
861201	381	0.3-	0.4-	920424	691	1.5-	0.1+	920508	691	0.3-	0.1-
920404	809	0.1+	1.0+	920424	691	1.8-	0.0	920508	691	0.0	0.1-
920404	809	0.6-	0.9+	920424	691	1.7-	0.1+				
920404	809	0.6-	0.2-	920425	809	1.7+	0.2-				

1992 HZ3 = 1989 UD5

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	347.20880		(2000.0)			P		Marsden					
							Q						
n	0.21200807	Peri.	226.09165			-0.50685467		+0.86196124					
a	2.7854869	Node	13.46627			-0.77673488		-0.45112676					
e	0.0741757	Incl.	2.70930			-0.37387333		-0.23131682					
P	4.65	H	13.0			G	0.15						

Residuals in seconds of arc

891030	807	0.2-	0.2-	920404	809	0.7+	0.4+	920423	809	1.8-	1.3+
891101	807	0.2+	0.2+	920404	809	0.1+	0.2+	920423	809	0.0	0.2-
920403	303	0.2+	0.5+	920406	809	0.2+	0.9-	920425	809	1.3+	0.1-
920403	303	0.4-	0.1-	920406	809	0.5-	1.1-	920425	809	0.6+	0.1-
920403	303	0.4+	0.3+	920406	809	0.9-	1.0-	920425	809	0.3+	0.9-
920404	809	0.3+	1.2+	920423	809	0.6-	0.5+				

1992 HG4 = 1959 NJ = 1977 FC1 = 1989 TS14

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	317.63531		(2000.0)			P		Marsden					
							Q						
n	0.26573886	Peri.	79.14893			+0.42900290		+0.90322557					
a	2.3960691	Node	216.26274			-0.83638527		+0.39223865					
e	0.2214124	Incl.	1.14654			-0.34119818		+0.17416199					
P	3.71	H	14.5			G	0.15						

Residuals in seconds of arc

590710	760	0.2-	0.2-	891002	809	0.5+	0.1+	891003	809	0.2-	0.0
590710	760	0.3+	0.0	891002	809	1.1+	0.1+	920404	809	1.7+	0.1-
770325	095	0.0	0.0	891003	809	0.9-	0.2-	920404	809	0.4+	0.2-
891002	809	0.0	0.1+	891003	809	0.4-	0.2-	920404	809	1.1+	0.9-

920406 809	0.1+	1.1-	920423 809	1.6-	1.9+	920425 809	0.2-	0.7+
920406 809	0.6-	1.1-	920423 809	0.7-	1.4+	920425 809	0.6+	0.4+
920406 809	0.5-	1.4-	920423 809	1.1-	0.2+	920425 809	0.9+	0.0

## 1992 JB

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 56.25691 (2000.0) P Q  
n 0.50745909 Peri. 306.71956 -0.94759113 -0.26896914  
a 1.5566896 Node 218.54108 +0.29919636 -0.93634782  
e 0.3600241 Incl. 16.06423 -0.11203837 -0.22562879  
P 1.94 H 17.5 G 0.15  
From 45 observations 1992 Apr. 26-Aug. 21, mean residual 0".78.

## 1992 JE

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 344.17637 (2000.0) P Q  
n 0.30411018 Peri. 109.46379 +0.54987799 +0.83488047  
a 2.1900234 Node 193.97662 -0.79952376 +0.51758466  
e 0.4629458 Incl. 5.86348 -0.24165256 +0.18729849  
P 3.24 H 16.0 G 0.15  
From 50 observations 1992 May 2-Sept. 1, mean residual 0".77.

## 1992 JG

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 341.13604 (2000.0) P Q  
n 0.28919637 Peri. 239.29693 +0.47039203 +0.87853140  
a 2.2646834 Node 58.98876 -0.77283187 +0.45560843  
e 0.4246767 Incl. 5.56742 -0.42598384 +0.14353937  
P 3.41 H 18.0 G 0.15  
From 26 observations 1992 May 2-Aug. 22, mean residual 0".85.

## 1992 KD

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 9.61707 (2000.0) P Q  
n 0.27510944 Peri. 355.34226 -0.52795320 +0.73344618  
a 2.3413467 Node 242.18286 -0.76272102 -0.63121625  
e 0.4337048 Incl. 28.95376 -0.37352652 +0.25223548  
P 3.58 H 16.0 G 0.15  
From 47 observations 1992 May 27-Sept. 1, mean residual 0".71.

## 1992 LC

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 20.77765 (2000.0) P Q  
n 0.24664322 Peri. 89.59499 -0.83722564 -0.47520015  
a 2.5181983 Node 62.01306 +0.29364489 -0.80813129  
e 0.7055437 Incl. 17.84632 +0.46133059 -0.34800667  
P 4.00 H 15.0 G 0.15  
From 25 observations 1992 June 4-Aug. 23, mean residual 0".92.

## 1992 LE

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 347.38281 (2000.0) P Q  
n 0.20089773 Peri. 136.62854 +0.34594415 +0.93114870  
a 2.8872609 Node 152.98860 -0.91517561 +0.36195797  
e 0.2976411 Incl. 14.70141 -0.20682421 -0.04414215  
P 4.91 H 13.5 G 0.15  
From 18 observations 1992 June 3-Aug. 21, mean residual 0".73.

## 1992 LM

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 93.07077 (2000.0) P Q  
n 0.22744510 Peri. 69.81447 -0.80684871 -0.57992476  
a 2.6579797 Node 74.57993 +0.48897760 -0.76256421  
e 0.0934222 Incl. 6.70870 +0.33150574 -0.28667594  
P 4.33 H 12.5 G 0.15  
From 19 observations 1992 June 3-Aug. 22, mean residual 0".88.

## 1992 LN

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 33.72018 (2000.0) P Q  
n 0.26826540 Peri. 123.72920 -0.83637611 +0.53271508  
a 2.3810011 Node 88.77553 -0.53591122 -0.74512378  
e 0.0637013 Incl. 7.42440 -0.11521360 -0.40125453  
P 3.67 H 13.5 G 0.15  
From 20 observations 1992 Apr. 28-Aug. 22, mean residual 0".60.

## 1992 LQ

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 325.88538 (2000.0) P Q  
n 0.19005009 Peri. 211.57654 +0.28684227 +0.93842341  
a 2.9961070 Node 75.69873 -0.83233333 +0.34365456  
e 0.0686776 Incl. 11.46259 -0.47428129 -0.03553936  
P 5.19 H 12.5 G 0.15  
From 17 observations 1992 Apr. 28-Aug. 22, mean residual 0".80.

## 1992 LR

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 348.70624 (2000.0) P Q  
n 0.39804431 Peri. 67.50279 +0.51350854 +0.85761517  
a 1.8302698 Node 233.42597 -0.79969250 +0.46631262  
e 0.4088430 Incl. 2.02489 -0.31112840 +0.21690726  
P 2.48 H 18.0 G 0.15  
From 100 observations 1992 May 21-Aug. 26, mean residual 0".67.

## 1992 LU

Epoch 1992 June 27.0 TT = JDT 2448800.5 Williams  
M 48.37130 (2000.0) P Q  
n 0.23666039 Peri. 15.85069 -0.98059806 +0.19496113  
a 2.5885248 Node 175.24794 -0.19569673 -0.96753273  
e 0.1090638 Incl. 14.28059 -0.01141182 -0.16084331  
P 4.16 H 13.0 G 0.15  
From 10 observations 1992 June 4-Aug. 21, mean residual 0".57.

## 1992 MB = 1972 RY = 1976 YB8 = 1978 EB3 = 1979 SG11 = 1979 TG2 = 1989 SO11

Epoch 1992 June 27.0 TT = JDT 2448800.5 Kaneda  
M 312.18423 (2000.0) P Q  
n 0.29177104 Peri. 146.75913 +0.89205286 +0.45183937  
a 2.2513409 Node 186.39911 -0.43040852 +0.84325559  
e 0.1594278 Incl. 4.68508 -0.13780492 +0.29113777  
P 3.38 H 13.6 G 0.15

## Residuals in seconds of arc

720909	095	(6.4+ 1.8-)	790924	095	1.0-	0.3+	890930	809	0.1+	0.2-
720910	095	0.2+ 0.8-	791014	095	1.7+	1.1-	891001	809	0.1-	0.1+
761220	095	0.5+ 0.9-	890930	809	1.4-	0.2-	891001	809	0.4+	0.3+
780306	095	1.6- 1.5-	890930	809	0.7-	0.3-	891001	809	0.9+	0.2+

920622 399	1.8+	0.6+	920624 399	(2.6+	0.0 )	920629 399	2.1-	1.2-
920622 399	2.4+	0.0	920627 399	0.5-	0.1-	920629 399	2.2-	0.4+
920624 399	1.7+	0.1-	920627 399	(2.9-	0.2-)			

1992 MM = 1961 CC1 = 1980 BG5

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 111.11477		(2000.0)		P	Q	Williams
n 0.26389320	Peri.	62.55104	-0.68741387		-0.72419472	
a 2.4072281	Node	70.98613	+0.64419759		-0.64284624	
e 0.0377797	Incl.	3.32350	+0.33536793		-0.24958109	
P 3.73	H 13.0		G 0.15			

Residuals in seconds of arc

610215 033	2.2-	0.2-	610217 033	1.6-	1.4-	920608 675	0.3+	1.7-
610215 033	1.5+	0.4+	610217 033	0.6+	0.0	920627 675	0.0	1.2+
610215 033	1.4+	1.2-	800122 095	0.2+	0.8+	920627 675	0.5+	0.2-
610215 033	0.4+	1.0+	920604 675	1.3-	0.3-	920629 675	1.3+	0.8+
610217 033	0.0	0.3+	920604 675	0.4-	0.6-	920629 675	0.2-	0.7+

1992 NA

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 338.85655		(2000.0)		P	Q	Williams
n 0.26644121	Peri.	7.83249	+0.99867170		+0.04151303	
a 2.3918565	Node	349.64009	-0.05144303		+0.83673874	
e 0.5615441	Incl.	9.77138	+0.00290552		+0.54602650	
P 3.70	H 16.5		G 0.15			

From 34 observations 1992 July 1-Aug. 31, mean residual 0".61.

1992 OG = 1986 KB = 1989 NB

Epoch 1992 June 27.0 TT = JDT 2448800.5

M 299.73559		(2000.0)		P	Q	Williams
n 0.36841126	Peri.	251.17954	+0.73773098		-0.63499842	
a 1.9271438	Node	147.03914	+0.65841414		+0.75177177	
e 0.1132914	Incl.	24.91428	-0.14914364		+0.17780950	
P 2.68	H 14.0		G 0.15			

Residuals in seconds of arc

860530 675	(6.2-	0.3-)	890702 675	0.2-	1.0-	920729 413	0.7+	1.7-
860530 675	2.6-	0.7+	890704 675	0.1-	0.3+	920730 413	1.0-	1.0+
860602 675	2.6+	0.1-	890704 675	0.8+	0.5-	920821 413	0.6+	0.2-
860602 675	(4.8+	2.4+)	920728 413	0.0	0.2-	920821 413	0.6+	0.1-
890702 675	0.4-	0.6+	920728 413	1.5-	1.2+	920825 413	0.2+	0.4+

1992 OM

Epoch 1992 Aug. 6.0 TT = JDT 2448840.5

M 7.27497		(2000.0)		P	Q	Williams
n 0.30326721	Peri.	346.81442	+0.51242175		+0.85253955	
a 2.1940798	Node	313.89840	-0.77434072		+0.40689780	
e 0.4084165	Incl.	8.21473	-0.37124169		+0.32804039	
P 3.25	H 16.0		G 0.15			

From 25 observations 1992 July 27-Aug. 27.

1992 QN

Epoch 1992 Aug. 26.0 TT = JDT 2448860.5

M 100.25784		(2000.0)		P	Q	Williams
n 0.75858664	Peri.	202.04398	-0.94997071		+0.31213184	
a 1.1906915	Node	356.09037	-0.25584470		-0.79851720	
e 0.3587907	Incl.	9.60274	-0.17916234		-0.51472711	
P 1.30	H 16.5		G 0.15			

From 11 observations 1992 Aug. 29-Sept. 5.



1992 QR = 1991 CG3

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	303.08145		(2000.0)			P		Q	
n	0.36937861	Peri.	239.62731	+0.83081667				-0.52231339	
a	1.9237777	Node	150.54102	+0.54037827				+0.83968863	
e	0.1047681	Incl.	23.00206	-0.13317279				+0.14870015	
P	2.67	H	14.0	G	0.15				

Residuals in seconds of arc

910214	675	1.9-	0.3+	910216	675	0.3+	0.5-	920827	675	0.4+	0.1+
910214	675	0.5+	0.2-	920823	675	0.4-	0.6+	920827	675	0.5-	0.4+
910216	675	1.2+	0.5+	920823	675	0.4+	0.6-	920828	675	0.1+	0.6-

2561 P-L = 1978 TT4 = 1978 WB21

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

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	223.99680		(2000.0)			P		Q	
n	0.22073015	Peri.	161.18836	-0.99225113				+0.08239455	
a	2.7116165	Node	24.12162	-0.12118039				-0.80706470	
e	0.0646245	Incl.	13.15361	+0.02744095				-0.58468600	
P	4.47	H	13.5	G	0.15				

Residuals in seconds of arc

600924	675	0.5-	0.7+	601017	675	0.3+	0.2+	781007	095	0.4-	0.1-
600926	675	0.3+	0.4+	601022	675	0.8-	0.1-	781128	675	0.4+	0.1-
600928	675	0.5+	0.7-	601025	675	0.3+	0.9-	781129	675	0.0	0.4+
600929	675	0.4+	0.1+	601026	675	0.5-	0.2+				

4072 P-L = 1992 PH

Id. B. G. Marsden, E. Bowell

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	30.35238		(2000.0)			P		Q	
n	0.27434466	Peri.	18.69081	-0.26640696				+0.96313110	
a	2.3456959	Node	235.87480	-0.88999820				-0.26073989	
e	0.2251966	Incl.	2.59600	-0.37004128				-0.06628122	
P	3.59	H	15.5	G	0.15				

Residuals in seconds of arc

600924	675	0.2-	0.3-	601022	675	0.9-	1.4-	920807	675	0.2+	0.8+
600924	675	0.4-	0.0	601024	675	1.7+	1.8+	920808	010	1.0+	0.3+
600925	675	1.1+	0.0	601026	675	0.6-	0.5-	920808	010	0.7-	0.8-
600926	675	0.2+	0.6-	920804	675	0.3-	0.3+	920808	010	0.7-	0.7-
600928	675	0.6-	0.2+	920805	675	0.7-	0.4+	920809	010	0.5+	0.2-
601017	675	0.3-	0.3+	920805	675	0.1+	0.0	920809	010	0.1-	0.4-
601017	675	0.0	0.5+	920807	675	0.7+	0.3+	920809	010	0.1+	0.0

4095 P-L = 1978 UJ8

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	340.27782		(2000.0)			P		Q	
n	0.22045950	Peri.	206.91639	+0.19859854				-0.97826646	
a	2.7138354	Node	231.68859	+0.91233277				+0.20674853	
e	0.1395211	Incl.	4.35695	+0.35806081				+0.01580410	
P	4.47	H	15.3	G	0.15				

Residuals in seconds of arc

600924	675	0.1+	0.2+	601017	675	0.5-	0.2+	781028	675	0.8-	0.8-
600925	675	1.2-	0.8-	601022	675	0.2+	1.5+	781029	675	1.5+	0.3+
600926	675	1.2+	0.5+	601026	675	0.4-	0.6+	781128	675	0.1+	0.2-
600928	675	0.3+	1.5-	781027	675	0.7-	0.0	781129	675	0.2+	0.1+

4607 P-L = 1978 UQ7

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	206.56064		(2000.0)		P		Q
n	0.22191408	Peri.	185.32197	-0.91106771			+0.41110136
a	2.7019635	Node	19.04353	-0.37466503			-0.79445811
e	0.1180369	Incl.	5.42417	-0.17199347			-0.44702571
P	4.44	H	13.7	G	0.15		

Residuals in seconds of arc

600924	675	0.2+	0.0	601022	675	0.4+	0.7+	781029	675	0.9-	0.5+
600926	675	0.4+	0.0	601025	675	0.3+	0.7-	781128	675	0.8+	0.3-
600927	675	0.7+	0.1+	601026	675	0.7-	0.1-	781129	675	0.4-	0.3-
600928	675	0.1-	0.1+	781027	675	0.3-	0.4+				
601017	675	1.3-	0.3-	781028	675	0.8+	0.3-				

5011 P-L = 1978 UH5

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	36.51910		(2000.0)		P		Q
n	0.21965119	Peri.	118.66043	+0.99626406			-0.03124501
a	2.7204892	Node	243.23007	+0.00027036			+0.93337860
e	0.0250129	Incl.	5.17358	+0.08635885			+0.35753061
P	4.49	H	14.6	G	0.15		

Residuals in seconds of arc

600929	675	0.1-	0.1-	601026	675	0.4-	0.1+	781029	675	0.0	0.1+
601022	675	0.1-	0.1+	781027	675	0.0	0.1-				
601025	675	0.4+	0.2-	781028	675	0.1-	0.0				

9057 P-L = 1978 UG6

Id. E. Bowell

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	97.59545		(2000.0)		P		Q
n	0.27674734	Peri.	270.95019	-0.71859279			+0.69417047
a	2.3320995	Node	313.01255	-0.61311562			-0.66079035
e	0.1095038	Incl.	3.28140	-0.32819757			-0.28545309
P	3.56	H	14.5	G	0.15		

Residuals in seconds of arc

600924	675	0.4-	0.4-	601024	675	0.0	0.6-	781028	675	0.6+	0.7+
601017	675	0.9+	0.5+	601026	675	0.7-	0.6+	781029	675	0.3-	0.6-
601022	675	0.2+	0.0	781027	675	0.2-	0.2-				

1188 T-1 = 1992 PR3

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	62.30623		(2000.0)		P		Q
n	0.29096278	Peri.	240.77584	-0.61936184			+0.78491965
a	2.2555083	Node	350.89564	-0.67761841			-0.54543292
e	0.1311230	Incl.	6.20010	-0.39651507			-0.29394569
P	3.39	H	14.1	G	0.15		

Residuals in seconds of arc

710324	675	0.1+	0.3+	710402	675	1.6+	0.1+	920805	675	0.4-	0.2+
710325	675	0.8+	0.5+	710416	675	2.0-	0.4-	920805	675	1.0-	0.2+
710325	675	0.2+	0.4+	710416	675	1.7-	0.1+	920806	675	1.1+	0.9+
710326	675	0.9+	0.6-	710513	675	0.3+	0.7-	920806	675	0.2+	1.0-
710327	675	0.3-	0.1-	710514	675	0.1+	0.5+				

2291 T-1 = 1981 UX21

Id. E. Bowell (MPC 20516)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	239.79613		(2000.0)		P		Q
n	0.23063903	Peri.	245.87486	+0.73580213		+0.67400322	
a	2.6333839	Node	71.67618	-0.59348758		+0.68852335	
e	0.2167728	Incl.	3.96783	-0.32614064		+0.26768497	
P	4.27	H	13.2	G	0.15		

Residuals in seconds of arc

710324	675	(3.1-	0.8+)	710327	675	1.5-	0.3+	811024	675	0.1+	0.0
710325	675	0.9+	0.3-	710402	675	(4.2+	0.3+)	811025	675	0.1+	0.2-
710325	675	1.2+	0.9-	771207	675	0.5+	0.2-	811026	675	0.2-	0.2+
710326	675	0.7-	0.9+	771208	675	0.5-	0.2+				

3057 T-1 = 1977 XA3

Id. S. J. Bus

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	21.79484		(2000.0)		P		Q
n	0.24512795	Peri.	42.36078	+0.05788429		+0.99776986	
a	2.5285652	Node	230.98510	-0.92702708		+0.04136487	
e	0.0454326	Incl.	2.45170	-0.37049993		+0.05238554	
P	4.02	H	15.3	G	0.15		

Residuals in seconds of arc

710324	675	1.1+	1.1-	710327	675	0.6-	1.4+	771207	675	0.4-	0.1-
710325	675	1.3+	0.4+	710402	675	0.5-	0.8-	771208	675	0.4+	0.1+
710326	675	0.2+	0.2-	710416	675	0.1+	0.7-				
710326	675	0.7-	0.3-	710416	675	0.9-	1.4+				

1010 T-2 = 1989 XG

Id. T. Kobayashi (MPC 15906)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Marsden

M	57.32276		(2000.0)		P		Q
n	0.18917846	Peri.	318.94342	-0.95255745		-0.29684391	
a	3.0053030	Node	204.04088	+0.30405003		-0.91814895	
e	0.0921814	Incl.	9.49681	+0.01370738		-0.26246182	
P	5.21	H	12.0	G	0.15		

Residuals in seconds of arc

730929	675	0.9-	0.2+	731005	675	1.0-	0.6+	920404	809	0.2+	0.1+
730929	675	0.5+	0.6+	891124	675	1.2+	0.0	920404	809	0.2-	0.1-
730930	675	1.3-	1.4+	891124	675	0.8+	1.4+	920404	809	0.1-	0.5+
730930	675	1.3-	0.9+	891202	010	1.3-	0.5-	920406	809	0.0	0.4-
731004	675	2.1+	2.6-	891202	010	0.8+	0.6+	920406	809	0.3-	0.2-
731004	675	2.4+	2.5-	891202	010	0.4-	1.1-	920406	809	0.3+	0.5-
731005	675	0.5-	1.3+	891203	010	1.0-	1.0-				

1158 T-2 = 1977 XZ1

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	343.69497		(2000.0)		P		Q
n	0.26525029	Peri.	187.88727	+0.61474513		-0.78846089	
a	2.3990105	Node	224.18232	+0.72523334		+0.57525591	
e	0.2028271	Incl.	1.68072	+0.31004036		+0.21773852	
P	3.72	H	16.0	G	0.15		

Residuals in seconds of arc

730919	675	1.0-	0.3-	730925	675	0.3+	0.2-	731004	675	0.2-	1.7-
730919	675	0.9+	1.0-	730929	675	0.3+	0.3+	731005	675	0.2-	0.5-
730920	675	0.5-	0.3+	730929	675	0.1-	1.3+	731005	675	1.1+	0.7+
730924	675	0.8+	0.7+	730930	675	1.8-	0.5+	771207	675	0.1-	0.2+
730924	675	1.0+	1.1+	730930	675	1.5-	0.7+	771208	675	0.1+	0.1-
730925	675	(0.7-	2.7-)	731004	675	1.0+	1.8-				

1310 T-2 = 1977 XY2

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	6.19806		(2000.0)		P		Q
n	0.26644578	Peri.	345.23330		+0.85744124		-0.51393127
a	2.3918291	Node	45.72294		+0.47570716		+0.77249483
e	0.1869286	Incl.	2.07055		+0.19620706		+0.37299650
P	3.70	H	15.5	G	0.15		

Residuals in seconds of arc

730919	675	0.9+	0.8-	730925	675	0.4+	0.4-	731004	675	0.8-	1.2-
730919	675	0.3-	0.0	730925	675	0.7-	0.3-	731004	675	0.3+	0.2-
730920	675	0.2+	1.0-	730925	675	1.2-	2.0+	731004	675	0.3-	0.1+
730920	675	(3.2+	2.8+)	730925	675	0.7-	0.9+	731004	675	1.4+	0.1+
730920	675	0.1+	0.7-	730929	675	1.3+	2.0-	731005	675	0.2+	1.1-
730924	675	(0.7+	3.2+)	730929	675	0.2-	0.5+	731005	675	0.4+	0.8+
730924	675	0.2+	1.1+	730929	675	2.3+	0.5-	731005	675	1.0-	0.9-
730924	675	(0.6+	3.1+)	730929	675	0.1+	0.2+	731005	675	0.0	0.9+
730924	675	0.2+	0.4-	730930	675	0.4-	0.4+	771207	675	0.5+	0.4+
730925	675	1.1-	1.7+	730930	675	1.4-	0.6+	771208	675	0.5-	0.4-

1360 T-2 = 1978 UG8

Epoch 1992 June 27.0 TT = JDT 2448800.5

Bowell

M	352.11281		(2000.0)		P		Q
n	0.20310324	Peri.	114.15872		+0.71701207		+0.69701372
a	2.8663210	Node	201.65629		-0.64724047		+0.66140814
e	0.0903161	Incl.	1.25728		-0.25879231		+0.27696777
P	4.85	H	14.2	G	0.15		

Residuals in seconds of arc

730919	675	1.2-	0.1+	730929	675	0.0	1.3+	731005	675	0.2-	0.5-
730919	675	0.8+	0.4+	730930	675	0.9+	0.4+	731005	675	1.4-	0.5-
730920	675	0.2+	0.3+	730930	675	0.0	0.1-	731005	675	0.4+	1.5-
730924	675	0.3-	1.2+	730930	675	1.4+	0.7+	781027	675	0.4-	0.5+
730924	675	1.0-	0.3+	730930	675	0.8+	0.5-	781028	675	0.0	0.3-
730925	675	0.4-	2.1-	731004	675	0.4-	0.1-	781029	675	0.0	1.2+
730925	675	0.6+	0.5-	731004	675	1.6+	0.5-	781128	675	0.2+	0.4-
730929	675	1.1-	0.7+	731004	675	1.2-	0.0	781129	675	0.0	0.4-
730929	675	1.1+	0.4+	731004	675	0.8+	0.4-				
730929	675	0.7-	1.2+	731005	675	0.5-	1.0-				

2280 T-2 = 1991 CE3

Id. G. V. Williams (MPC 17977)

Epoch 1992 June 27.0 TT = JDT 2448800.5

Williams

M	151.02547		(2000.0)		P		Q
n	0.30575714	Peri.	337.53191		-0.90375175		-0.42804823
a	2.1821519	Node	177.11995		+0.40055169		-0.84791818
e	0.0515138	Incl.	3.12302		+0.15096730		-0.31274507
P	3.22	H	15.0	G	0.15		

Residuals in seconds of arc

730925	675	0.8+	1.6-	731005	675	2.6-	0.3+	910320	801	0.4-	0.6-
730925	675	2.1+	0.9-	731005	675	0.7-	0.5-	910320	801	0.4-	0.7-
730929	675	1.2+	0.5-	910212	372	1.2+	1.8+	920808	010	2.2-	0.5-
730929	675	1.3+	0.1-	910212	372	0.9-	0.8-	920808	010	1.1-	1.0+
730930	675	1.7+	0.4+	910219	372	1.7-	0.9-	920808	010	1.2-	1.0-
730930	675	0.7-	0.9-	910219	372	2.3+	0.2-	920809	010	(5.3+	1.5+)
731004	675	1.1-	1.5+	910317	801	0.5-	0.5-	920809	010	2.3+	0.0
731004	675	1.4-	0.6+	910317	801	0.6-	0.8-	920809	010	2.5+	0.8-

5137 T-2 = 1992 GS3

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	24.22725		(2000.0)			P		Marsden					
								Q					
n	0.24328482	Peri.	350.85372			-0.90948010		+0.39331190					
a	2.5413201	Node	213.34274			-0.36426348		-0.91005480					
e	0.0991296	Incl.	14.18881			-0.20039476		-0.13078995					
P	4.05	H	15.5			G	0.15						

Residuals in seconds of arc

730920	675	2.2+	0.7-	730930	675	0.1-	0.1+	920404	809	0.3+	0.8-
730920	675	(2.7+	1.5-)	730930	675	0.1-	0.6-	920406	809	0.6-	0.2+
730924	675	(0.7+	3.5+)	731004	675	1.6-	1.0+	920406	809	0.4+	0.1+
730924	675	1.5-	1.8+	731004	675	(2.9-	2.0-)	920406	809	0.0	0.1-
730925	675	0.3-	1.2-	731005	675	0.6+	0.2+	920425	809	0.0	0.4+
730925	675	0.6-	0.6-	731005	675	0.1-	1.5-	920425	809	0.1-	0.0
730929	675	0.5+	0.6+	920404	809	0.1-	0.6+	920425	809	0.1+	0.5-
730929	675	1.0+	1.0+	920404	809	0.0	0.0				

3109 T-3 = 1992 GA3

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	13.46070		(2000.0)			P		Marsden					
								Q					
n	0.17137322	Peri.	212.05320			-0.87956410		+0.47578028					
a	3.2100176	Node	356.35691			-0.43538885		-0.80517955					
e	0.1108587	Incl.	0.30492			-0.19184250		-0.35400425					
P	5.75	H	13.5			G	0.15						

Residuals in seconds of arc

771007	675	1.1+	0.3-	771017	675	0.8-	1.1+	920404	809	0.0	0.8+
771011	675	1.9-	0.2+	771017	675	(3.6-	1.7+)	920404	809	0.5+	0.1+
771011	675	(0.1+	3.0+)	771021	675	0.2+	0.1-	920406	809	0.3-	0.2+
771012	675	0.0	1.0+	771021	675	1.6+	0.6+	920406	809	0.6-	1.0-
771012	675	0.3-	0.7+	771022	675	0.3-	0.3+	920406	809	0.7-	0.8-
771016	675	1.0+	1.1-	771022	675	0.7-	1.5-				
771016	675	0.2+	1.0-	920404	809	1.1+	0.6+				

3220 T-3 = 1981 JN5

Id. E. Bowell (MPC 19883)

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	322.09565		(2000.0)			P		Marsden					
								Q					
n	0.17710559	Peri.	97.42898			+0.10392865		+0.99458466					
a	3.1403728	Node	178.53625			-0.91924516		+0.09622683					
e	0.1243390	Incl.	0.99784			-0.37971985		+0.03926524					
P	5.57	H	13.5			G	0.15						

Residuals in seconds of arc

771007	675	1.0-	0.3+	771017	675	0.5+	1.8+	810509	675	0.2-	0.1+
771011	675	1.6-	0.3+	771017	675	0.5-	0.2+	920404	809	1.5+	0.4+
771011	675	1.3-	0.5+	771021	675	0.5-	0.6-	920404	809	0.5+	0.5+
771012	675	0.4+	0.8+	771021	675	0.2-	0.5-	920404	809	1.0+	0.6-
771012	675	0.8+	0.8-	771022	675	2.8+	0.7-	920406	809	0.7-	0.3-
771016	675	0.2+	0.4+	771022	675	0.5+	0.6-	920406	809	0.7-	0.6+
771016	675	0.1-	1.0-	810508	675	0.1+	0.5-	920406	809	1.5-	0.2-

3226 T-3 = 1992 GR3

Epoch 1992 June 27.0 TT = JDT 2448800.5

M	123.35104		(2000.0)			P		Marsden					
								Q					
n	0.23463459	Peri.	58.49570			-0.01132763		-0.99451824					
a	2.6034028	Node	32.64725			+0.83960768		-0.06591858					
e	0.1451185	Incl.	11.10962			+0.54307516		+0.08116779					
P	4.20	H	14.0			G	0.15						

## Residuals in seconds of arc

771007	675	0.9-	0.7-	771016	675	1.5+	0.1-	920404	809	1.4+	0.0
771007	675	0.5+	0.1+	771016	675	1.1+	0.2-	920404	809	0.1-	0.1+
771011	675	1.5-	1.3+	771016	675	0.0	0.9+	920404	809	1.9+	1.2-
771011	675	(3.1+	1.9+)	771017	675	0.6-	1.2-	920406	809	1.1-	1.2-
771011	675	1.5-	2.0+	771017	675	0.7+	0.6+	920406	809	0.9-	0.2-
771011	675	(2.4+	0.7+)	771017	675	1.0-	0.4-	920406	809	1.6-	0.1+
771012	675	0.5-	0.1+	771017	675	0.2+	0.1-	920425	809	0.0	0.3+
771012	675	0.1-	0.3+	771021	675	0.7+	0.6-	920425	809	0.9-	0.2+
771012	675	0.9-	0.7-	771021	675	0.7+	0.4+	920425	809	0.7+	0.4+
771012	675	0.2-	0.2+	771022	675	1.0+	0.9-				
771016	675	1.2+	0.9-	771022	675	0.4+	1.5-				

\* \* \* \* \*

## NEW NAMES OF MINOR PLANETS.

(2740) Tsoj = 1974 SY4

Discovered 1974 Sept. 26 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.

Named in memory of Victor Robertovich Tsoj (1962-1990), poet, composer and soloist of the rock-group Kino.

(2743) Chengdu = 1965 WR

Discovered 1965 Nov. 21 at the Purple Mountain Observatory.

Named for the capital of Sichuan province in southwestern China.

Located in the heart of the Sichuan basin, Chengdu was the capital of the Shu-Han dynasty during the Three Kingdoms period of Chinese history. Today, Chengdu is a major agricultural and industrial center, and it is also the homeland of the Giant Panda.

(2778) Tangshan = 1979 XP

Discovered 1979 Dec. 14 at the Purple Mountain Observatory.

Named for a city in Hebei province in northern China with a long history and flourishing industry. Tangshan city overlooks Bohai Bay, which is rich in natural resources. The coal, iron and steel and power industries are its economic pillars, and the city is well known as the "granary of eastern Hebei province", the "northern city of coal" and the "northern center of porcelain".

(2850) Mozhaiskij = 1978 TM7

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

Named in memory of Aleksandr Fedorovich Mozhaiskij (1825-1890), Russian inventor and pioneer of flight.

(2851) Harbin = 1978 UQ2

Discovered 1978 Oct. 30 at the Purple Mountain Observatory.

Named for the city in the north of China, famed as "the jewel of the Eurasia Continent Bridge". Harbin is the capital of Heilongjiang province and is a popular summer resort, on account of its cool and pleasant climate.

(3011) Chongqing = 1978 WM14

Discovered 1978 Nov. 26 at the Purple Mountain Observatory.

Named for a city in southwestern China on the upper reach of the Yangtse River. Founded more than 3000 years ago, Chongqing was the capital of Ba state in ancient times as well as the provisional capital of China from 1937 to 1946.

(3051) Nantong = 1974 YP

Discovered 1974 Dec. 19 at the Purple Mountain Observatory.

Named for the industrial port city at the mouth of the Yangtse, on the Yellow Sea. The city has a long history of education and culture, and the first school and the first museum in China were here.

(3283) Skorina = 1979 QA10

Discovered 1979 Aug. 27 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Francis Skorina, who lived from before 1490 to not later than 1551, and who pioneered printing in Belorus.

(3410) Vereshchagin = 1978 SZ7

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

Named for Vasilij Vasil'evich Vereshchagin (1842-1904), Russian publicist and war artist.

(3442) Yashin = 1978 TO7

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

Named in memory of Lev Ivanovich Yashin (1929-1990), football goalkeeper and trainer.

(3466) Ritina = 1975 EA6

Discovered 1975 Mar. 6 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of discoverer's daughter Margarita, an astronomer at the Crimean Astrophysical Observatory.

(3470) Yaronika = 1975 ES

Discovered 1975 Mar. 6 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of the discoverer's son Yaroslav, who works in electronics at the Crimean Astrophysical Observatory.

(3493) Stepanov = 1976 GR6

Discovered 1976 Apr. 3 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in memory of Vladimir Evgen'evich Stepanov (1913-1986), a corresponding member of the former Soviet Academy of Sciences, well-known for his work in solar physics and solar-terrestrial relations. For many years he led the solar researches at the Siberian Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation, and he did much for the development of astronomy in Siberia.

(3517) Tatianicheva = 1976 SE1

Discovered 1976 Sept. 24 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in memory of the lyric poetess Lyudmila Konstantinovna Tatianicheva (1915-1980).

(3557) Sokolsky = 1977 QE1

Discovered 1977 Aug. 19 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Andrej Georgievich Sokolskij, director of the Institute of Theoretical Astronomy in St. Petersburg, known for his work on the theory of periodic and quasiperiodic solutions of Hamiltonian systems.

As founder and executive director of the International Institute for Problems of the Asteroid Hazard he is much involved in the current international interest in Near-Earth asteroids.

(3591) Vladimirsij = 1978 QJ2

Discovered 1978 Aug. 31 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Boris Mikhajlovich Vladimirsij, astronomer at the Crimean Astrophysical Observatory since 1958, well known for his researches in various fields of astronomy, especially high-energy astrophysics and solar-terrestrial relations.

(3601) Velikhov = 1979 SP9

Discovered 1979 Sept. 22 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Evgenij Pavlovich Velikhov, member of the Russian Academy of Sciences, renowned for his research in plasma physics, magneto-hydrodynamics and controllable thermonuclear synthesis. He is the president of the International Center for Scientific Culture-World Laboratory.

(3618) Kuprin = 1979 QP8

Discovered 1979 Aug. 20 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Aleksandr Ivanovich Kuprin (1870-1938), famous Russian writer.

(3632) Grachevka = 1976 SJ4

Discovered 1976 Sept. 24 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named for a village in the Tambov (now Lipetsk) region in Russia, the birthplace of the discoverer's parents, Stepan Semenovich Chernykh (1904-1942) and Melaniya Petrovna Chernykh (1910-1977).

(3661) Dolmatovskij = 1979 UY3

Discovered 1979 Oct. 16 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Evgenij Aronovich Dolmatovskij, poet and publicist.

(3669) Vertinskij = 1982 UO7

Discovered 1982 Oct. 21 by L. G. Karachkina at the Crimean Astrophysical Observatory.

Named in memory of Aleksandr Nikolaevich Vertinskij (1889-1957), variety actor, composer and poet, famous for his sincere rendition of songs with words by Blok, Akhmatova and Tsvetaeva.

(3762) Amaravella = 1976 QN1

Discovered 1976 Aug. 26 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named for a group of Russian painters, known for the cosmic themes of their work.

(3818) Gorlitsa = 1979 QL8

Discovered 1979 Aug. 20 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Mariya Avksent'evna Rudenko, village schoolmistress in the Ukrainian region of Mogilev-Podol'skij, collector of Ukrainian folklore, and founder and leader of Gorlitsa. Meaning turtle-dove, this women's amateur chorus is very popular throughout Ukraine.



(3836) Lem = 1979 SR9

Discovered 1979 Sept. 22 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Stanislaw Lem (1921- ), famous Polish writer and founder of the Polish Astronautical Society.

(3839) Bogaevskij = 1971 OU

Discovered 1971 July 26 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Konstantin Fedorovich Bogaevskij (1872-1943), Russian painter who lived and worked in the Crimea for many years and who devoted many of his paintings to the eastern part of that peninsula.

(3845) Neyachenko = 1979 SA10

Discovered 1979 Sept. 22 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Il'ya Isakovich Neyachenko, journalist and amateur astronomer from Yalta, known for his research on the history of the Simeis Astronomical Observatory and the names of minor planets discovered there.

(3856) Lutskij = 1976 QX

Discovered 1976 Aug. 26 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Valerij Konstantinovich Lutskij, Moscow astronomer and scientific commentator on astronomy and space exploration. An authority on the history of astronomy, he has been a scientific consultant at the Moscow Planetarium for many years.

(4391) Balodis = 1977 QW2

Discovered 1977 Aug. 21 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Named in honor of Janis Balodis, chief of the cosmic geodesy department at the Astronomical Observatory of the Latvian University, known for his work on astrometric and laser observations of artificial satellites and on methods of mathematical reductions in photographic astrometry. A set of his computer programs has been used in the Crimean minor planet service for many years.

(4392) Agita = 1978 RX5

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

Named in honor of Agita Tarasova, a scientific worker at the Astronomical Observatory of the Latvian University, engaged in the mathematical reduction of observations and in the preparation of computer programs. She has rendered valuable assistance to the Crimean minor planet service by installing the Balodis reduction programs on the CrAO computer.

(4556) Gumilyov = 1987 QW10

Discovered 1987 Aug. 27 by L. G. Karachkina at the Crimean Astrophysical Observatory.

Named in memory of Nikolaj Stepanovich Gumilyov (1886-1921), famous poet and dramatist. He was one of the founders of acmeism, a poetic tendency that was popular among the Russian intelligentsia at the beginning of the current century.

(4645) Tentaikojo = 1990 SP4

Discovered 1990 Sept. 16 by T. Fujii and K. Watanabe at Kitami.

Named for a museum of stars and their images, scheduled to be opened in Sapporo in 1993. Originally built in 1892 as a brewery, the historic and beautiful building is becoming a "star factory", where visitors can experience displays and stories about constellations and the birth of stars.

(4712) Iwaizumi = 1989 QE

Discovered 1989 Aug. 25 by K. Endate and K. Watanabe at Kitami.

Named for a forestry town of population 15 000 in the eastern part of Iwate Prefecture. Birthplace of the first discoverer, Iwaizumi is famous for Ryusen-Do Cave, one of the Big Three Limestone Caves in Japan.

(4839) Daisetsuzan = 1989 QG

Discovered 1989 Aug. 25 by K. Endate and K. Watanabe at Kitami.

Named for the Daisetsuzan Mountains, which rise to the height of about 2000 meters in central Hokkaido. The mountains are a treasury of the beauty of nature. A quasi-national park, it contains many marshy districts and great stocks of alpine plants.

(4845) Tsubetsu = 1991 EC1

Discovered 1991 Mar. 5 by K. Endate and K. Watanabe at Kitami.

Named for a timber town, with a population of less than 9000, in eastern Hokkaido. The first discoverer spent his boyhood in Tsubetsu between 1966 and 1972.

(4943) Lac d'Orient = 1987 OQ

Discovered 1987 July 27 by E. W. Elst at Haute Provence.

Named for the lake Lac de la Foret d'Orient, situated about 20 km east of the the city of Troyes (in the departement de l'Aube, France). The region has great historical interest for its "commanderies" of the so-called Knights of the Temple. The discoverer favors this place very much for vacations, especially in the summer.

(4952) Kibeshigemaro = 1990 FC1

Discovered 1990 Mar. 26 by A. Sugie at the Dynic Astronomical Observatory.

Named in memory of Shigemaro Kibe (1912-1990), foremost amateur telescope maker in Japan and well known observer of the sun, planets and variable stars. The telescope mirrors made by him are used all over Japan and include the mirror for the 0.60-m reflector at Kyoto University's Hida Observatory.

(5059) Saroma = 1988 AF

Discovered 1988 Jan. 11 by K. Endate and K. Watanabe at Kitami.

Named for a lake in Abashiri National Park in eastern Hokkaido. With an area of 151.2 square kilometers Saroma is the third largest lake in Japan, and it is famous for its harvest of scallops and oysters. Each autumn many visitors came to see its large stock of "sango-so" plants.

(5117) Mokotoyama = 1988 GH

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

Named for a mountain in eastern Hokkaido. Rising to 1000 feet, the mountain gives a view from Lake Kussharo to the southwest to the Sea of Okhotsk to the north. A hut at its eighth station has "Ginryosui", the only spring in the area.

(5182) Bray = 1989 NE

Discovered 1989 July 1 by E. F. Helin at Palomar.

Named in honor of Olin D. Bray on the occasion of his 85th birthday, 1992 August 28. A medical doctor formerly in the U.S. Army and a lifetime

caregiver to innumerable patients, Dr. Bray has been the healer and longtime friend of four generations of the families of the discoverer and her husband. He has always found time to live life to its fullest while doctoring and rendering comfort to others wherever needed.

(5186) Donalu = 1990 SB4

Discovered 1990 Sept. 22 by B. Roman at Palomar.

Named for Dona(lu) Wheeler Roman, wife of the discoverer. Dona is an actress, teacher, administrator and mother. Her love and support have touched everyone around her.

(5187) Domon = 1990 TK1

Discovered 1990 Oct. 15 by K. Endate and K. Watanabe at Kitami.

Named in memory of Ken Domon (1911-1991), renowned in the field of art and news photography. Born in Sakata city, he developed what came to be known as "Domon realism". Among his works, collections of photographs including "Hiroshima" and "Children in Chikuno" are especially famous.

(5224) Abbe = 1982 DX3

Discovered 1982 Feb. 21 by F. Borngen at Tautenburg.

Named in memory of Ernst Karl Abbe (1840-1905), director of the Jena Observatory from 1877 to 1900, known for his fundamental contributions to optics. These includes work on microscopes, the Abbe number and comparators--the last being very useful for the detection of minor planets. Abbe, a long-time collaborator and friend of Carl Zeiss, secured considerable financial support for the University of Jena from the Zeiss foundation. The minor planet is being named on the occasion of the first meeting of the Astronomische Gesellschaft in the reunited Germany.

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#### EPHEMERIDES.

##### Periodic Comet Tuttle (1992r)

Periodic Comet Tuttle (1992r)						Elements MPC 20775			
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m2	
1992 08 26		19 47.58	+30 37.5	5.504	6.140	125.0	7.7	21.2	
1992 09 05		19 42.49	+29 53.8	5.507	6.085	120.8	8.2	21.2	
1992 09 15		19 38.53	+29 01.9	5.527	6.029	115.5	8.7	21.2	
1992 09 25		19 35.82	+28 04.9	5.561	5.973	109.6	9.1	21.2	
1992 10 05		19 34.45	+27 05.7	5.606	5.916	103.3	9.5	21.2	
1992 10 15		19 34.42	+26 07.0	5.659	5.859	96.7	9.7	21.2	
1992 10 25		19 35.67	+25 11.4	5.716	5.801	90.0	9.9	21.2	
1992 11 04		19 38.15	+24 20.9	5.774	5.743	83.3	9.9	21.2	
1992 11 14		19 41.74	+23 37.3	5.829	5.684	76.7	9.8	21.2	
1992 11 24		19 46.33	+23 01.7	5.879	5.624	70.3	9.5	21.2	
1992 12 04		19 51.80	+22 35.3	5.921	5.564	64.2	9.2	21.2	
1992 12 14		19 58.04	+22 18.8	5.952	5.503	58.6	8.8	21.2	
1992 12 24		20 04.91	+22 12.5	5.970	5.441	53.4	8.3	21.1	
1993 01 03		20 12.30	+22 16.9	5.974	5.379	48.9	7.9	21.1	
1993 01 13		20 20.11	+22 32.0	5.963	5.316	45.2	7.5	21.0	
1993 01 23		20 28.21	+22 57.9	5.936	5.252	42.5	7.3	21.0	

1992 OM

a, e, i = 2.19, 0.41, 8

Elements MPC 20828

Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V	
1992 08 26		22 19.37	+01 17.3	0.359	1.364	168.3	8.6	15.0	
1992 09 05		22 14.22	+03 25.9	0.397	1.396	165.3	10.5	15.4	

1992 09 15	22 11.83	+04 45.0	0.448	1.432	158.4	15.0	15.9
1992 09 25	22 12.90	+05 29.5	0.513	1.472	150.8	19.4	16.4
1992 10 05	22 17.50	+05 55.3	0.590	1.515	143.4	23.2	16.9
1992 10 15	22 25.25	+06 14.9	0.680	1.561	136.3	26.2	17.3
1992 10 25	22 35.54	+06 35.8	0.782	1.609	129.6	28.4	17.8
1992 11 04	22 47.87	+07 03.0	0.894	1.659	123.1	30.0	18.2
1992 11 14	23 01.74	+07 38.8	1.017	1.710	116.9	31.1	18.5
1992 11 24	23 16.75	+08 23.5	1.149	1.761	110.9	31.6	18.9
1992 12 04	23 32.63	+09 16.9	1.289	1.813	105.0	31.7	19.2
1992 12 14	23 49.16	+10 18.1	1.435	1.865	99.2	31.4	19.5
1992 12 24	00 06.16	+11 25.7	1.588	1.917	93.4	30.8	19.7

1992 QN		a,e,i = 1.19, 0.36, 10				Elements MPC 20828		
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	V
1992 08 26	22 50.97	-21 35.9	0.391	1.394	166.6	9.7	15.8	
1992 09 05	22 20.48	-20 29.0	0.438	1.434	163.7	11.4	16.2	
1992 09 15	21 58.79	-18 54.1	0.505	1.471	152.1	18.7	16.8	
1992 09 25	21 46.12	-17 09.6	0.587	1.503	140.6	25.1	17.4	
1992 10 05	21 41.11	-15 24.2	0.682	1.532	130.3	29.9	17.9	
1992 10 15	21 42.02	-13 40.4	0.785	1.556	121.2	33.2	18.3	
1992 10 25	21 47.31	-11 57.8	0.895	1.577	113.1	35.5	18.7	
1992 11 04	21 55.90	-10 14.4	1.008	1.593	105.6	36.8	19.0	
1992 11 14	22 06.93	-08 28.8	1.123	1.605	98.7	37.5	19.3	
1992 11 24	22 19.83	-06 39.7	1.237	1.613	92.3	37.7	19.5	
1992 12 04	22 34.21	-04 46.3	1.349	1.617	86.2	37.4	19.7	
1992 12 14	22 49.75	-02 48.2	1.458	1.617	80.4	36.9	19.9	
1992 12 24	23 06.28	-00 45.3	1.561	1.613	74.9	36.1	20.0	

Comet Helin-Lawrence (1992q)		Elements MPC 20775						
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	ml
1992 08 26	02 05.49	-10 43.6	2.388	3.077	124.7	15.7	15.3	
1992 09 05	01 59.72	-15 50.9	2.208	3.000	134.3	13.9	15.0	
1992 09 15	01 50.31	-21 41.2	2.067	2.923	141.7	12.3	14.7	
1992 09 25	01 36.77	-27 57.4	1.974	2.849	144.2	11.9	14.5	
1992 10 05	01 18.96	-34 10.5	1.933	2.776	140.2	13.3	14.4	
1992 10 15	00 57.50	-39 47.1	1.940	2.705	131.3	16.1	14.3	
1992 10 25	00 33.84	-44 21.5	1.991	2.636	120.3	19.0	14.2	
1992 11 04	00 10.19	-47 43.3	2.073	2.570	108.8	21.4	14.2	
1992 11 14	23 48.84	-49 58.6	2.175	2.506	97.7	23.0	14.2	
1992 11 24	23 31.37	-51 22.1	2.285	2.446	87.3	23.8	14.2	
1992 12 04	23 18.58	-52 10.2	2.394	2.389	77.8	23.8	14.2	
1992 12 14	23 10.43	-52 37.6	2.495	2.337	69.3	23.2	14.2	
1992 12 24	23 06.54	-52 54.6	2.580	2.288	61.9	22.3	14.2	

Comet Brewington (1992p)		Elements MPC 20775						
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	ml
1992 08 26	07 06.62	+36 57.5	2.423	1.951	50.9	23.7	11.3	
1992 09 05	07 34.03	+36 35.3	2.409	2.005	54.8	24.3	11.4	
1992 09 15	07 59.14	+36 01.1	2.392	2.065	59.1	24.7	11.5	
1992 09 25	08 21.79	+35 20.0	2.371	2.130	63.9	25.0	11.7	
1992 10 05	08 41.87	+34 36.7	2.346	2.200	69.2	25.2	11.8	
1992 10 15	08 59.30	+33 55.0	2.315	2.273	75.1	25.1	11.9	
1992 10 25	09 14.02	+33 18.5	2.280	2.350	81.5	24.7	12.0	
1992 11 04	09 25.92	+32 50.2	2.241	2.429	88.6	24.1	12.1	
1992 11 14	09 34.87	+32 31.9	2.201	2.511	96.3	23.1	12.2	
1992 11 24	09 40.76	+32 24.7	2.161	2.594	104.7	21.6	12.3	
1992 12 04	09 43.42	+32 28.5	2.126	2.680	113.8	19.7	12.4	
1992 12 14	09 42.83	+32 41.3	2.099	2.766	123.5	17.3	12.5	
1992 12 24	09 39.08	+32 59.7	2.085	2.854	133.6	14.4	12.7	

1992 08 26	23 23.36	+00	08.1	2.201	3.174	161.1	5.9	16.7
- 6.86 -0.52	- 25.4 - 4.4		1973 AT3	20803	- 6.74 +0.56	- 34.5 + 1.6		
1992 09 25	23 00.98	-01	33.1	2.204	3.176	163.0	5.3	16.7
1992 08 26	23 52.72	+02	37.4	1.512	2.458	153.6	10.5	18.0
- 7.45 -1.00	- 29.7 - 7.7		9057 P-L	20830	- 8.87 +0.59	- 50.8 + 1.5		
1992 09 25	23 25.30	+00	19.7	1.495	2.487	169.2	4.3	17.7
1992 09 25	01 12.70	+03	46.4	1.298	2.278	163.7	7.1	16.9
-10.90 -0.69	+ 27.3 - 1.9		1978 US5	20807	- 8.87 +1.22	+ 29.4 + 2.5		
1992 10 25	00 39.51	+05	03.5	1.410	2.366	159.1	8.6	17.2
1992 09 25	01 56.65	+09	59.3	1.019	1.960	151.6	14.1	16.3
- 5.05 -1.52	- 49.0 - 8.1		1975 TM2	20804	- 8.45 +0.56	- 60.8 + 5.4		
1992 10 25	01 32.54	+06	49.5	0.986	1.975	171.6	4.2	15.8
1992 09 25	02 00.06	+15	24.8	1.112	2.038	148.9	14.7	18.1
- 4.97 -1.55	- 13.8 - 9.7		1978 UJ5	20806	- 9.17 +0.40	- 53.2 - 1.2		
1992 10 25	01 35.25	+13	28.8	1.028	2.020	174.1	2.9	17.4
1992 10 25	02 52.50	+09	18.4	2.416	3.391	166.6	3.9	16.4
- 7.48 -0.39	- 26.3 + 0.5		1976 YC2	20805	- 6.56 +0.66	- 10.0 + 4.6		
1992 11 24	02 29.50	+08	16.4	2.469	3.389	154.9	7.1	16.6
1992 10 25	04 11.56	+24	42.4	2.619	3.490	146.3	9.1	17.4
- 5.74 -0.88	- 22.8 - 3.9		1991 PB12	20822	- 8.12 +0.16	- 40.7 - 1.3		
1992 11 24	03 48.85	+23	02.5	2.538	3.524	176.4	1.0	16.9
1992 11 24	04 14.53	+30	49.8	1.506	2.483	+1.78	+5.2	16.7
-12.29 -0.12	- 13.8 - 7.9		1978 UF6	20807	- 6.83 +1.65	- 37.5 + 0.8		
1992 12 24	03 42.61	+29	16.7	1.630	2.509	+1.57	+6.4	17.3
1992 11 24	04 18.75	+29	36.0	1.525	2.504	170.0	3.9	15.6
-10.70 -0.38	+6.7 - 6.4		1989 BD	20816	- 6.72 +1.51	- 17.9 - 0.6		
1992 12 24	03 49.13	+29	08.2	1.573	2.461	147.8	12.3	16.0
1992 11 24	04 48.32	+17	54.4	1.648	2.622	168.3	4.4	18.1
-10.26 -0.56	- 28.8 + 0.1		1991 PT1	20821	- 8.14 +1.16	- 15.7 + 4.3		
1992 12 24	04 17.53	+16	39.8	1.690	2.603	152.6	10.0	18.4
1992 11 24	05 09.66	+29	32.9	1.933	2.888	161.9	6.1	17.9
- 9.41 -0.80	+7.0 - 4.5		4607 P-L	20830	- 9.00 +0.92	- 18.0 - 2.5		
1992 12 24	04 38.86	+29	12.7	1.920	2.858	158.6	7.2	17.9
1992 11 24	05 11.51	+33	05.4	1.585	2.534	159.8	7.7	16.9
-10.14 -0.99	+ 11.5 - 7.1		(5065)	19669	- 9.50 +1.18	- 29.3 - 4.3		
1992 12 24	04 38.01	+32	33.5	1.581	2.518	157.6	8.6	16.9
1992 11 24	05 18.28	+38	37.8	1.833	2.761	155.3	8.6	17.6
-10.23 -1.08	+ 41.0 - 8.1		2561 P-L	20829	-10.42 +1.04	- 14.2 - 7.8		
1992 12 24	04 43.36	+39	17.5	1.816	2.742	155.6	8.5	17.6
1992 11 24	05 20.24	+21	37.1	1.745	2.698	161.2	6.8	18.5
- 8.47 -0.81	- 28.6 - 1.4		5011 P-L	20830	- 8.26 +0.86	- 27.5 + 2.1		
1992 12 24	04 52.06	+20	06.4	1.755	2.706	161.4	6.7	18.5
1992 11 24	05 46.86	+32	57.2	2.020	2.935	153.2	8.7	16.5
- 9.22 -1.02	- 16.0 - 5.6		1991 NT2	20821	-10.23 +0.72	- 48.6 - 3.7		
1992 12 24	05 14.46	+31	16.7	2.000	2.962	165.2	4.9	16.3

1992 11 24	06 13.17	+27 55.4	1.763	2.658	148.8	11.1	18.0
- 7.71 -1.36	-8.1 - 2.7	1990 ES1	18819	-10.99 +0.42		- 28.9	- 3.0
1992 12 24	05 41.83	+27 00.7	1.688	2.666	172.5	2.8	17.6
1992 11 24	06 13.74	+23 23.8	1.324	2.229	148.9	13.2	18.1
- 6.99 -1.66	+4.8 + 0.1	1980 FN1	13854	-11.29 +0.46		-1.8	- 1.5
1992 12 24	05 42.41	+23 31.3	1.255	2.234	173.4	2.9	17.5
1992 11 24	06 15.92	+38 58.3	2.151	3.017	145.5	10.7	17.3
- 8.31 -1.35	+ 22.7 - 5.4	(4963)	19002	-11.66 +0.39		- 24.3	- 8.4
1992 12 24	05 42.76	+39 01.7	2.070	3.025	163.3	5.4	17.0
1992 11 24	06 10.72	+20 24.8	2.247	3.137	149.4	9.2	18.1
- 6.68 -0.99	+5.2 + 0.9	1986 QO1	19674	- 9.13 +0.27		+7.6	+ 0.1
1992 12 24	05 44.68	+20 45.4	2.188	3.167	173.3	2.1	17.6
1992 11 24	06 13.05	+19 45.6	2.073	2.961	148.8	9.9	18.0
- 7.35 -1.08	+2.8 + 1.1	(5097)	19832	- 9.90 +0.33		+6.7	+ 0.4
1992 12 24	05 44.58	+20 01.2	2.030	3.008	173.0	2.3	17.6
1992 11 24	06 11.24	+03 39.4	1.909	2.768	143.8	12.1	17.8
- 6.12 -1.10	- 51.7 + 5.8	1977 EF1	16694	- 9.16 +0.22		-1.6	+ 9.9
1992 12 24	05 45.89	+02 11.9	1.808	2.745	157.9	7.7	17.5
1992 11 24	06 16.59	+24 52.2	1.182	2.087	148.3	14.4	16.3
- 6.79 -1.78	-1.1 - 0.9	1981 QT	16230	-11.10 +0.58		- 13.2	- 1.9
1992 12 24	05 45.40	+24 32.8	1.145	2.126	174.0	2.8	15.7
1992 11 24	06 15.46	+18 16.5	1.669	2.561	148.0	11.8	16.9
- 7.35 -1.32	- 26.3 + 1.2	1988 VO1	14026	-10.63 +0.38		- 15.6	+ 2.5
1992 12 24	05 45.37	+17 11.1	1.606	2.583	171.3	3.3	16.4
1992 11 24	06 10.01	-02 04.4	1.850	2.689	140.9	13.4	16.8
- 5.34 -1.07	- 19.2 + 9.6	1988 BK4	13451	- 8.16 +0.24		+ 48.7	+11.4
1992 12 24	05 47.35	-01 23.6	1.777	2.698	154.5	9.0	16.5
1992 11 24	06 13.04	+26 24.3	2.007	2.898	149.0	10.1	17.5
- 6.52 -1.12	-6.3 - 1.6	1986 TZ11	19019	- 9.17 +0.34		- 18.6	- 1.8
1992 12 24	05 46.81	+25 47.5	1.964	2.944	174.0	2.0	17.0
1992 11 24	06 21.66	+29 21.4	1.289	2.184	146.8	14.3	17.6
- 8.32 -1.83	+ 24.9 - 2.6	1981 EC25	10541	-12.64 +0.63		-7.5	- 6.2
1992 12 24	05 45.68	+29 54.3	1.266	2.243	171.4	3.8	17.1
1992 11 24	06 17.76	+12 04.1	1.531	2.413	145.9	13.3	18.1
- 7.71 -1.35	- 12.4 + 5.0	1981 QE2	13855	-10.81 +0.45		+ 19.7	+ 5.0
1992 12 24	05 46.63	+12 15.1	1.513	2.482	167.4	5.0	17.8
1992 11 24	06 12.15	+19 11.0	2.432	3.317	148.9	8.8	17.2
- 6.20 -0.91	+0.4 + 1.2	1975 TR2	20627	- 8.55 +0.21		+5.9	+ 0.8
1992 12 24	05 47.94	+19 21.3	2.363	3.342	173.3	2.0	16.8
1992 11 24	06 15.05	+12 01.5	1.140	2.038	146.5	15.5	17.1
- 5.22 -1.73	- 13.5 + 6.3	1990 EA	16436	-10.51 +0.28		+ 32.2	+ 7.6
1992 12 24	05 47.76	+12 27.1	1.038	2.010	167.7	6.0	16.5
1992 11 24	06 20.72	+31 42.1	1.402	2.292	146.7	13.7	16.7
- 6.92 -1.82	+ 21.3 - 3.1	1990 DL	18819	-12.34 +0.34		- 16.3	- 7.6
1992 12 24	05 47.85	+31 58.1	1.293	2.268	170.0	4.3	16.1

1992 11 24	06 20.01	+03 25.6	2.004	2.847	141.8	12.4	18.0
- 6.58 -1.07	- 34.8 + 6.5	1983 QE	16578	- 9.40 +0.23	+ 14.2 + 8.7		
1992 12 24	05 53.63	+02 50.8	1.953	2.893	159.0	7.0	17.8
1992 11 24	06 21.81	+17 38.7	2.004	2.878	146.4	10.9	18.5
- 6.82 -1.17	- 12.8 + 1.7	2197 P-L	18830	-10.12 +0.21	-2.1 + 1.9		
1992 12 24	05 53.85	+17 16.0	1.918	2.896	172.6	2.5	18.0
1992 11 24	06 24.02	+26 44.9	1.999	2.875	146.5	10.9	18.5
- 7.40 -1.25	-8.6 - 1.7	1990 EU	19027	-10.69 +0.29	- 23.2 - 2.3		
1992 12 24	05 54.05	+25 58.6	1.933	2.914	175.4	1.6	18.0
1992 11 24	06 21.34	+22 09.4	1.170	2.070	147.1	15.0	16.1
- 4.61 -1.82	+0.5 + 1.2	1991 PM8	19030	-10.56 +0.19	+2.3 - 0.4		
1992 12 24	05 54.89	+22 16.8	1.057	2.039	176.1	1.9	15.2
1992 11 24	06 22.94	+22 13.8	1.966	2.844	146.7	11.0	17.9
- 6.18 -1.26	-1.6 + 0.4	1981 EW21	11045	-10.14 +0.11	-2.9 - 0.6		
1992 12 24	05 55.94	+22 08.8	1.832	2.815	176.3	1.3	17.2
1992 11 24	06 22.94	+11 30.8	1.041	1.932	144.5	17.2	16.5
- 4.88 -1.82	- 31.3 + 6.7	1975 VS5	13297	-10.13 +0.35	+ 19.6 + 8.8		
1992 12 24	05 56.41	+11 09.3	0.990	1.961	167.3	6.4	16.0
1992 11 24	06 28.48	+20 33.5	1.628	2.504	145.3	13.0	17.6
- 6.51 -1.48	- 24.2 + 0.5	1987 JG	18812	-11.10 +0.17	- 20.8 + 1.1		
1992 12 24	05 59.02	+19 24.9	1.519	2.500	175.1	1.9	16.9
1992 11 24	06 25.31	+22 19.0	1.983	2.857	146.2	11.1	18.0
- 5.73 -1.26	-4.1 + 0.4	3196 T-1	19523	- 9.91 +0.05	-5.3 - 0.5		
1992 12 24	05 59.43	+22 06.7	1.830	2.812	177.0	1.0	17.2
1992 11 24	06 22.53	+14 41.5	2.333	3.197	145.6	10.1	17.0
- 5.42 -0.97	- 30.3 + 2.0	1980 TB12	14614	- 8.28 +0.12	- 13.4 + 3.4		
1992 12 24	06 00.00	+13 33.3	2.235	3.208	169.8	3.1	16.6
1992 11 24	06 24.34	+19 02.8	2.311	3.178	146.1	10.0	17.5
- 5.89 -1.02	- 25.8 + 0.7	3086 P-L	20037	- 8.86 +0.13	- 19.4 + 1.6		
1992 12 24	06 00.10	+17 53.4	2.214	3.194	173.9	1.9	17.0
1992 11 24	06 34.17	+34 33.1	1.051	1.935	143.3	17.7	16.5
- 6.54 -2.28	+2.6 - 6.0	1985 TW1	14195	-12.64 +0.59	- 51.3 - 8.9		
1992 12 24	06 00.07	+33 25.7	1.020	1.996	169.7	5.1	16.0
1992 11 24	06 30.06	+25 56.9	1.641	2.516	145.2	12.9	18.6
- 5.92 -1.57	+7.9 - 0.3	3105 T-1	20037	-11.27 +0.05	-4.6 - 3.2		
1992 12 24	06 01.28	+26 07.3	1.499	2.481	176.5	1.4	17.8
1992 11 24	06 26.08	+08 24.2	2.000	2.849	142.7	12.1	17.5
- 5.13 -1.18	- 34.6 + 4.1	4343 T-3	12703	- 9.29 -0.04	+1.0 + 7.2		
1992 12 24	06 02.35	+07 28.1	1.818	2.776	163.9	5.6	17.0
1992 11 24	06 29.49	+24 28.0	1.992	2.860	145.3	11.3	17.7
- 5.94 -1.32	+3.7 0.0	(5048)	19662	-10.47 +0.01	-3.1 - 1.9		
1992 12 24	06 02.44	+24 32.5	1.830	2.813	177.7	0.8	16.9
1992 11 24	06 32.51	+25 25.7	1.891	2.757	144.7	12.0	17.8
- 6.88 -1.36	+6.3 - 0.4	1980 UU1	20628	-11.01 +0.17	-4.3 - 2.5		
1992 12 24	06 02.85	+25 32.9	1.809	2.791	177.2	1.0	17.2

1992 11 24	06 38.24	+16 44.7	0.993	1.875	142.4	18.7	16.8
- 5.55 -2.38	+153.5 +17.9	1985 DD	13465	-16.27 -0.49	+209.4	- 4.5	
1992 12 24	06 02.08	+26 30.9	0.852	1.834	176.3	2.0	15.7
1992 11 24	06 36.12	+31 43.2	1.210	2.088	143.4	16.4	17.9
- 6.54 -2.06	+ 41.8 - 2.3	1978 SB8	10952	-12.67 +0.37	+1.8	- 9.1	
1992 12 24	06 02.80	+33 01.5	1.173	2.149	170.2	4.5	17.4
1992 11 24	06 29.16	+07 56.4	2.111	2.951	141.8	11.9	18.2
- 6.07 -1.09	- 33.1 + 4.6	1987 SR1	19862	- 9.40 +0.11	+2.4	+ 6.6	
1992 12 24	06 03.75	+07 06.6	2.022	2.979	163.6	5.3	17.8
1992 11 24	06 38.41	+29 06.4	1.607	2.469	143.2	13.9	18.3
- 7.18 -1.68	+ 17.7 - 1.4	1978 RC9	15063	-12.46 +0.19	-6.4	- 5.5	
1992 12 24	06 05.50	+29 31.1	1.526	2.506	173.8	2.4	17.7
1992 11 24	06 33.33	+13 35.8	1.906	2.757	142.8	12.5	18.0
- 6.26 -1.25	- 16.9 + 3.5	1991 NS1	20821	-10.20 +0.10	+6.8	+ 4.0	
1992 12 24	06 06.16	+13 19.7	1.814	2.788	169.8	3.6	17.6
1992 11 24	06 33.57	+19 34.6	1.234	2.114	144.0	15.9	17.0
- 4.29 -1.81	- 23.4 + 1.6	2019 P-L	15901	-10.82 -0.01	- 12.0	+ 2.3	
1992 12 24	06 07.61	+18 40.2	1.103	2.084	175.2	2.3	16.2
1992 11 24	06 34.20	+25 35.7	1.997	2.858	144.3	11.6	17.5
- 5.68 -1.28	+ 10.0 - 0.1	(5094)	19830	- 9.82 +0.07	+1.2	- 2.4	
1992 12 24	06 08.46	+25 57.0	1.901	2.884	177.4	0.9	16.8
1992 11 24	06 35.23	+18 20.5	1.816	2.674	143.4	12.7	17.6
- 5.85 -1.38	+7.2 + 2.8	1991 RD24	20152	-10.63 0.00	+ 19.4	+ 1.1	
1992 12 24	06 07.98	+19 03.7	1.687	2.668	175.6	1.6	16.9
1992 11 24	06 32.38	+26 57.2	2.511	3.365	144.7	9.8	18.1
- 5.57 -1.06	+2.8 - 0.7	1979 OQ5	16869	- 9.03 +0.03	-7.8	- 2.4	
1992 12 24	06 08.47	+26 52.8	2.382	3.365	176.5	1.0	17.5
1992 11 24	06 34.63	+18 16.0	1.398	2.269	143.5	15.0	17.3
- 4.82 -1.56	- 44.0 + 1.7	5069 T-2	15087	- 9.60 +0.17	- 27.2	+ 4.0	
1992 12 24	06 09.80	+16 25.0	1.341	2.320	173.0	3.0	16.8
1992 11 24	06 32.90	+20 39.5	2.051	2.910	144.3	11.4	18.1
- 4.73 -1.20	-9.0 + 1.1	1979 MK7	13164	- 8.91 -0.02	-4.4	+ 0.5	
1992 12 24	06 10.27	+20 20.4	1.902	2.884	176.9	1.1	17.4
1992 11 24	06 37.91	+31 03.5	2.588	3.430	143.1	9.9	18.0
- 6.57 -1.08	+5.5 - 1.9	1991 RQ7	19314	- 9.86 +0.10	- 14.2	- 3.9	
1992 12 24	06 11.09	+30 54.2	2.512	3.489	172.5	2.1	17.6
1992 12 24	06 11.34	+10 33.4	1.319	2.289	167.1	5.5	15.8
-10.25 +0.11	-3.5 + 7.5	1984 QQ	14349	- 4.41 +1.56	+ 32.7	+ 3.9	
1993 01 23	05 46.67	+11 23.9	1.477	2.332	141.9	15.1	16.5
1992 12 24	06 12.90	+05 22.3	2.086	3.036	162.0	5.8	16.8
- 8.24 0.00	+ 33.3 + 7.2	(5017)	19486	- 4.74 +1.04	+ 64.0	+ 2.6	
1993 01 23	05 51.51	+07 56.7	2.224	3.059	141.9	11.5	17.2
1992 12 24	06 13.35	+15 16.6	1.561	2.539	171.8	3.2	16.4
-11.04 -0.06	+4.3 + 3.5	(5069)	19670	- 6.14 +1.47	+ 21.7	+ 2.2	
1993 01 23	05 44.77	+15 57.7	1.672	2.526	142.6	13.7	17.0



1992 12 24	06 13.73	+39 01.8	1.807	2.767	164.4	5.5	16.4
-11.03 +0.09	- 51.0 - 9.4	1988 BK5	14355	- 5.24 +1.55	- 84.9 - 1.1		
1993 01 23	05 46.64	+35 22.3	1.925	2.771	142.4	12.5	16.9
1992 12 24	06 15.78	+22 20.4	1.804	2.787	178.5	0.5	17.6
-11.03 -0.05	+4.4 - 0.9	1991 PH15	20024	- 6.48 +1.37	+1.0 + 0.2		
1993 01 23	05 46.89	+22 26.5	1.930	2.786	143.9	12.0	18.4
1992 12 24	06 15.76	+18 41.6	2.047	3.028	175.2	1.6	18.0
-10.05 +0.01	+ 11.9 + 1.0	1987 RA3	19500	- 5.97 +1.18	+ 15.7 + 0.5		
1993 01 23	05 49.57	+19 23.7	2.217	3.070	144.2	10.8	18.6
1992 12 24	06 16.02	+16 38.5	1.395	2.374	173.1	2.8	16.4
-11.55 +0.13	-8.5 + 3.0	1988 PV	18629	- 5.49 +1.59	+8.7 + 2.5		
1993 01 23	05 47.79	+16 39.7	1.578	2.440	143.4	13.9	17.2
1992 12 24	06 16.96	+24 46.5	2.031	3.014	178.1	0.6	16.0
- 9.52 -0.06	+ 12.4 - 1.7	1981 QP3	19016	- 5.66 +1.20	+3.0 - 0.9		
1993 01 23	05 51.88	+25 08.1	2.160	3.020	145.0	10.8	16.7
1992 12 24	06 16.74	+24 55.8	1.821	2.805	178.0	0.7	16.0
- 9.01 -0.03	+9.1 - 1.8	(4980)	19275	- 4.74 +1.27	+0.1 - 0.8		
1993 01 23	05 53.72	+25 07.8	1.966	2.832	145.5	11.4	16.7
1992 12 24	06 17.23	+25 57.1	1.347	2.330	177.1	1.2	16.7
-11.87 0.00	+6.6 - 3.4	1988 RR	14621	- 5.68 +1.73	-7.9 - 0.7		
1993 01 23	05 47.71	+25 50.0	1.496	2.364	144.1	14.1	17.5
1992 12 24	06 17.83	+30 54.3	1.467	2.445	172.4	3.1	17.1
-11.48 +0.13	- 37.7 - 5.8	1981 ES5	19857	- 5.15 +1.65	- 53.5 + 0.8		
1993 01 23	05 50.10	+28 25.0	1.638	2.505	144.4	13.2	17.8
1992 12 24	06 17.80	+25 38.5	1.495	2.478	177.3	1.1	17.7
-11.64 -0.12	+ 11.6 - 3.0	4606 P-L	18830	- 6.36 +1.62	-3.0 - 1.1		
1993 01 23	05 47.63	+25 47.7	1.608	2.473	144.1	13.5	18.5
1992 12 24	06 18.81	+29 45.3	1.279	2.259	173.4	2.9	17.1
-12.92 +0.07	- 12.7 - 6.3	1982 TQ2	10292	- 5.87 +1.88	- 34.8 - 0.3		
1993 01 23	05 47.30	+28 22.6	1.438	2.307	143.8	14.6	17.9
1992 12 24	06 24.19	+19 37.1	1.067	2.049	175.1	2.3	17.3
-11.01 -0.01	+ 24.0 + 1.3	1988 PG2	20502	- 4.47 +1.81	+ 24.6 - 0.5		
1993 01 23	05 57.62	+20 53.0	1.230	2.120	146.3	14.9	18.2
1992 12 24	06 24.75	-13 21.9	1.103	1.979	143.1	17.4	17.1
-11.60 -0.35	+ 57.6 +27.0	1988 FK	19022	- 6.48 +1.79	+182.6 +11.0		
1993 01 23	05 53.66	-06 51.8	1.127	1.952	135.1	20.9	17.2
1992 12 24	06 26.02	+21 29.4	1.071	2.054	176.0	1.9	16.9
-11.58 -0.15	+ 22.4 - 0.1	1985 RD3	11743	- 5.26 +1.88	+ 17.3 - 0.8		
1993 01 23	05 57.01	+22 30.0	1.203	2.094	146.2	15.2	17.8
1992 12 24	06 26.37	+30 22.0	1.037	2.016	172.3	3.8	16.2
-12.07 -0.23	+ 61.4 - 8.0	1978 SH1	12325	- 5.24 +2.07	+ 12.1 - 6.1		
1993 01 23	05 56.15	+32 08.3	1.175	2.061	145.1	15.9	17.0
1992 12 24	06 26.00	+29 07.0	1.640	2.620	173.4	2.5	15.9
-10.53 -0.11	+ 23.7 - 4.7	1987 UF5	15250	- 5.79 +1.46	-2.0 - 2.8		
1993 01 23	05 58.64	+29 36.2	1.798	2.672	146.1	11.9	16.6

1992 12 24	06 27.24	+37 40.6	1.627	2.591	165.3	5.5	17.6
-11.49 -0.11	+5.0 - 9.5	2252 T-2	19329	- 6.04	+1.62	- 39.7	- 3.9
1993 01 23	05 57.76	+36 37.8	1.780	2.642	144.2	12.6	18.1
1992 12 24	06 27.62	+18 03.7	1.868	2.848	173.4	2.3	17.4
-10.47 -0.19	+ 18.6 + 1.5	(5156)	19991	- 6.87	+1.23	+ 23.0	+ 0.2
1993 01 23	05 59.00	+19 08.4	1.979	2.851	146.4	11.0	17.9
1992 12 24	06 28.06	+13 27.1	2.543	3.514	169.3	3.0	18.1
- 8.10 -0.13	+4.2 + 3.0	1990 OH4	16882	- 5.69	+0.86	+ 19.0	+ 1.8
1993 01 23	06 05.56	+14 04.3	2.646	3.514	147.1	8.8	18.4
1992 12 24	06 30.96	-19 28.5	1.045	1.886	136.8	20.9	16.8
-12.07 -0.40	+ 82.0 +32.4	1989 PE	20817	- 6.75	+1.88	+231.1	+12.6
1993 01 23	05 58.51	-11 01.7	1.063	1.881	133.4	22.3	16.9
1992 12 24	06 31.04	+31 33.0	0.964	1.941	170.7	4.7	15.3
-12.27 -0.27	- 10.1 - 8.7	3128 T-1	19323	- 5.18	+2.15	- 45.6	- 1.6
1993 01 23	06 00.41	+29 55.8	1.072	1.969	146.4	16.0	16.0
1992 12 24	06 29.47	-11 36.4	0.673	1.582	144.7	21.1	15.2
- 8.31 -0.21	+246.6 +35.1	1986 CB	13466	- 1.74	+1.98	+322.5	-10.8
1993 01 23	06 10.37	+04 03.5	0.759	1.661	144.5	20.1	15.5
1992 12 24	06 31.64	+16 42.2	1.228	2.206	171.7	3.7	15.6
-10.58 -0.25	- 10.0 + 3.5	(4938)	18791	- 5.69	+1.62	+9.1	+ 2.6
1993 01 23	06 03.78	+16 42.4	1.332	2.224	147.2	13.9	16.3
1992 12 24	06 32.03	+27 39.4	2.305	3.284	173.6	1.9	17.9
- 9.31 -0.19	+ 21.9 - 2.7	1991 TQ	20509	- 6.39	+1.04	+4.4	- 2.4
1993 01 23	06 06.21	+28 18.1	2.428	3.304	147.9	9.1	18.4
1992 12 24	06 33.17	+28 45.3	1.931	2.909	172.7	2.5	17.0
-11.20 -0.20	+2.3 - 4.1	1991 PC13	20024	- 7.35	+1.31	- 18.2	- 1.8
1993 01 23	06 02.57	+28 17.2	2.054	2.930	147.2	10.5	17.6
1992 12 24	06 32.86	+27 03.9	1.467	2.447	173.9	2.5	16.0
-10.00 -0.34	+ 20.5 - 3.2	1991 RQ21	19870	- 5.96	+1.49	-0.2	- 2.6
1993 01 23	06 05.54	+27 33.0	1.547	2.437	147.9	12.4	16.6
1992 12 24	06 34.93	+16 01.3	2.198	3.172	170.7	2.9	18.0
- 9.88 -0.14	+4.9 + 2.1	1991 NY	18641	- 6.80	+1.04	+ 14.4	+ 1.1
1993 01 23	06 07.74	+16 32.1	2.348	3.226	148.1	9.3	18.5
1992 12 24	06 36.91	+31 08.9	1.385	2.361	170.4	4.0	16.4
-12.37 -0.41	- 13.3 - 7.0	(4987)	19278	- 7.59	+1.73	- 45.0	- 2.0
1993 01 23	06 03.01	+29 32.0	1.455	2.343	147.1	13.2	16.9
1992 12 24	06 36.42	+18 26.7	1.673	2.651	172.3	2.9	16.5
- 9.14 -0.20	+4.6 + 1.8	1981 RM3	14347	- 5.55	+1.23	+ 11.7	+ 0.7
1993 01 23	06 11.77	+18 52.9	1.808	2.703	149.4	10.7	17.1
1992 12 24	06 39.08	+26 31.0	1.225	2.204	172.9	3.1	17.5
-12.04 -0.52	+5.3 - 3.8	1987 EQ	18811	- 7.45	+1.78	- 15.6	- 1.8
1993 01 23	06 05.59	+26 11.6	1.288	2.186	148.1	13.8	18.0
1992 12 24	06 39.97	+23 20.8	1.296	2.275	173.4	2.9	16.6
-11.66 -0.23	+2.3 - 1.5	1988 TC2	15561	- 6.53	+1.64	-5.4	- 0.4
1993 01 23	06 09.22	+23 13.9	1.445	2.344	149.0	12.5	17.4

1992 12 24	06 39.62	+11	53.5	1.815	2.782	166.6	4.7	17.4
- 9.90 -0.30	+2.7 + 4.9		1991	PR10	19311	- 7.00 +1.15	+ 26.4	+ 2.7
1993 01 23	06 11.60	+12	41.2	1.897	2.782	148.1	10.8	17.8
1992 12 24	06 41.02	+32	31.5	1.592	2.564	168.7	4.3	15.7
-10.40 -0.53	+ 31.7 - 5.8		(5128)		19844	- 7.18 +1.45	-7.0	- 5.2
1993 01 23	06 10.98	+33	07.3	1.635	2.524	147.9	12.0	16.1
1992 12 24	06 40.80	+23	01.4	2.117	3.096	173.1	2.2	17.8
- 9.07 -0.30	+5.8 - 0.7		1989	GC4	20635	- 6.61 +1.02	+0.1	- 0.7
1993 01 23	06 14.83	+23	10.4	2.188	3.082	150.3	9.1	18.3
1992 12 24	06 39.98	+10	01.0	2.206	3.166	164.9	4.6	18.2
- 8.53 -0.18	-2.4 + 4.9		7075	P-L	20516	- 6.00 +0.93	+ 22.2	+ 2.9
1993 01 23	06 16.14	+10	34.4	2.333	3.214	148.5	9.2	18.6
1992 12 24	06 43.60	+30	38.8	1.687	2.661	169.8	3.8	17.6
-11.55 -0.46	+ 19.5 - 5.3		1324	T-2	19036	- 8.13 +1.43	- 12.6	- 3.9
1993 01 23	06 10.60	+30	46.4	1.763	2.652	148.4	11.2	18.0
1992 12 24	06 46.77	+30	03.5	1.566	2.540	169.6	4.0	16.4
-11.97 -0.45	-1.6 - 5.5		1990	DU3	19027	- 8.13 +1.51	- 30.3	- 2.6
1993 01 23	06 12.99	+29	10.1	1.653	2.549	149.3	11.4	16.8
1992 12 24	06 44.28	+11	51.9	2.162	3.125	166.0	4.4	17.0
- 8.22 -0.31	+ 21.1 + 4.5		1988	AE5	16429	- 6.23 +0.90	+ 40.0	+ 1.6
1993 01 23	06 20.38	+13	28.9	2.227	3.121	150.4	9.0	17.3
1992 12 24	06 43.56	+24	38.4	3.325	4.302	172.5	1.7	17.5
- 7.08 -0.18	+7.3 - 0.9		1990	RW	17825	- 5.53 +0.64	+0.6	- 1.0
1993 01 23	06 23.14	+24	50.6	3.435	4.330	152.1	6.1	17.8
1992 12 24	06 45.31	+20	22.6	1.789	2.766	171.5	3.0	16.3
- 8.55 -0.40	+ 12.1 + 1.0		1986	WP8	19019	- 6.16 +1.10	+ 12.9	- 0.3
1993 01 23	06 20.47	+21	02.6	1.843	2.749	151.6	9.8	16.7
1992 12 24	06 45.61	+30	16.9	1.880	2.854	169.7	3.5	16.3
- 9.35 -0.34	+3.8 - 4.3		1977	EW5	19290	- 6.37 +1.19	- 20.3	- 2.7
1993 01 23	06 19.21	+29	49.0	1.981	2.879	150.5	9.7	16.7
1992 12 24	06 47.80	+19	23.1	1.126	2.102	170.5	4.4	16.8
-11.53 -0.45	+5.8 + 1.7		1982	UP	10040	- 6.84 +1.72	+ 10.7	+ 0.4
1993 01 23	06 16.24	+19	50.2	1.239	2.151	150.5	13.0	17.4
1992 12 24	06 47.40	+17	44.0	1.168	2.143	169.8	4.7	15.9
- 9.88 -0.59	-9.2 + 3.0		1984	UK1	14616	- 6.39 +1.56	+6.2	+ 2.1
1993 01 23	06 19.02	+17	41.1	1.216	2.130	150.9	13.0	16.3
1992 12 24	06 47.16	+24	49.9	1.946	2.923	171.6	2.8	17.1
-10.04 -0.50	+ 55.1 - 0.9		1985	FD	19295	- 8.01 +1.10	+ 37.7	- 3.8
1993 01 23	06 17.11	+27	14.3	1.992	2.889	150.5	9.7	17.4
1992 12 24	06 49.53	+31	35.4	1.241	2.213	168.2	5.2	16.1
-11.68 -0.55	+ 52.3 - 7.3		1988	VR	14025	- 7.20 +1.76	+3.2	- 6.6
1993 01 23	06 16.93	+32	57.1	1.364	2.266	149.1	12.9	16.7
1992 12 24	06 49.17	+24	45.2	1.748	2.724	171.2	3.2	16.2
-10.65 -0.32	- 16.7 - 2.0		1962	SR	15549	- 7.31 +1.27	- 24.8	- 0.1
1993 01 23	06 19.29	+23	39.5	1.866	2.770	151.3	9.8	16.7

1992 12 24	06 49.69	-01 15.9	1.743	2.660	153.6	9.5	17.5
-10.18 -0.41	+ 55.9 +12.6	1987 HS	13457	- 7.72 +1.12	+109.4	+ 4.1	
1993 01 23	06 20.02	+03 07.8	1.807	2.681	146.1	11.8	17.6
1992 12 24	06 48.99	+03 42.2	1.645	2.584	158.3	8.1	17.2
- 9.24 -0.31	+ 11.8 +10.0	1981 EX21	13157	- 6.34 +1.14	+ 57.7	+ 4.4	
1993 01 23	06 22.93	+05 36.7	1.761	2.648	148.0	11.4	17.5
1992 12 24	06 49.26	+16 19.7	1.076	2.049	168.6	5.5	16.4
- 9.58 -0.70	+5.6 + 4.8	2114 T-2	15727	- 6.33 +1.61	+ 25.7	+ 1.8	
1993 01 23	06 21.11	+17 12.1	1.106	2.026	151.4	13.5	16.7
1992 12 24	06 48.91	+27 23.1	2.374	3.349	170.6	2.8	17.5
- 8.84 -0.36	+6.3 - 2.3	1967 JP	18103	- 6.96 +0.91	-9.2	- 2.1	
1993 01 23	06 22.86	+27 18.3	2.424	3.324	151.7	8.1	17.8
1992 12 24	06 51.60	+34 29.7	1.431	2.397	165.8	5.8	17.1
-11.90 -0.50	+ 26.7 - 8.4	1980 SG	9296	- 7.69 +1.65	- 22.0	- 5.6	
1993 01 23	06 18.24	+34 31.3	1.554	2.450	148.9	12.0	17.6
1992 12 24	06 52.84	+13 13.9	1.504	2.469	165.8	5.6	16.7
-10.51 -0.46	+ 28.0 + 5.2	1984 MR	18809	- 7.54 +1.30	+ 45.8	+ 0.7	
1993 01 23	06 22.52	+15 13.0	1.601	2.509	151.3	10.9	17.1
1992 12 24	06 54.09	+26 00.1	1.243	2.218	169.9	4.5	16.6
-11.75 -0.44	+ 11.9 - 3.3	1977 QK1	13684	- 7.22 +1.66	-8.7	- 2.2	
1993 01 23	06 21.76	+26 02.7	1.384	2.299	151.7	11.7	17.2
1992 12 24	06 52.35	+25 31.2	1.885	2.859	170.4	3.3	18.0
- 8.90 -0.38	+ 18.9 - 1.7	1986 WC1	20500	- 6.41 +1.09	+4.2	- 2.3	
1993 01 23	06 26.68	+26 06.8	1.995	2.905	152.8	8.9	18.4
1992 12 24	07 03.60	+66 11.7	1.242	2.069	136.4	19.1	16.0
-21.82 -1.31	+ 20.6 -30.8	1988 RD	16430	- 9.73 +3.80	-129.7	-13.9	
1993 01 23	06 06.78	+62 55.7	1.367	2.144	130.8	20.3	16.3
1992 12 24	06 53.46	+33 36.9	2.235	3.199	166.2	4.2	17.1
- 9.51 -0.46	+ 36.8 - 4.8	1984 JA2	14616	- 7.59 +1.03	+2.5	- 5.2	
1993 01 23	06 25.05	+34 36.6	2.306	3.197	150.1	8.8	17.4
1992 12 24	06 53.68	+19 57.0	1.881	2.854	169.5	3.6	16.5
- 9.13 -0.46	+0.8 + 0.9	2041 T-3	19036	- 7.11 +1.04	+2.9	+ 0.1	
1993 01 23	06 26.55	+20 03.8	1.930	2.842	153.0	9.1	16.8
1992 12 24	06 57.58	+34 05.4	1.524	2.488	165.3	5.8	16.9
-12.42 -0.57	+ 22.8 - 7.9	4517 P-L	13863	- 8.72 +1.58	- 23.9	- 5.5	
1993 01 23	06 21.89	+33 59.1	1.636	2.535	149.8	11.3	17.3
1992 12 24	06 54.94	+23 22.7	2.065	3.039	169.9	3.2	15.8
- 8.50 -0.48	+ 12.1 - 0.5	1977 EC2	20139	- 6.96 +0.94	+4.6	- 1.5	
1993 01 23	06 29.13	+23 49.6	2.085	2.998	153.6	8.4	16.1
1992 12 24	06 55.14	+13 37.9	1.786	2.750	165.7	5.1	17.9
- 8.88 -0.46	+ 10.3 + 4.4	2287 T-2	19690	- 6.88 +1.04	+ 29.0	+ 1.7	
1993 01 23	06 28.74	+14 41.8	1.845	2.757	152.7	9.4	18.2
1992 12 24	06 56.17	+26 44.2	1.946	2.918	169.3	3.6	17.8
- 9.24 -0.42	+ 19.8 - 2.3	4556 P-L	19875	- 6.97 +1.07	+1.6	- 2.8	
1993 01 23	06 29.10	+27 17.1	2.048	2.959	153.1	8.7	18.2

1992 12 24	06 58.98	+23 54.0	1.352	2.325	169.0	4.6	16.9
-12.38 -0.47	-9.6 - 1.9	1942 RJ	11628	- 8.30	+1.58	- 18.9	- 0.3
1993 01 23	06 24.18	+23 08.3	1.480	2.397	152.5	10.9	17.4
1992 12 24	07 00.29	+32 29.3	1.399	2.366	165.9	5.8	16.6
-12.09 -0.65	+ 14.5 - 7.1	1981 SO	17199	- 8.52	+1.61	- 28.0	- 4.8
1993 01 23	06 25.19	+32 04.5	1.494	2.403	151.1	11.4	17.0
1992 12 24	07 01.13	+39 39.4	2.018	2.964	160.6	6.3	16.9
-11.75 -0.53	+6.6 - 8.8	1991 RJ	19033	- 8.96	+1.31	- 43.8	- 6.0
1993 01 23	06 26.66	+38 38.2	2.104	2.989	148.6	9.9	17.1
1992 12 24	06 56.05	+22 32.6	4.607	5.577	+0.38	-0.3	17.8
- 5.41 -0.19	+8.9 0.0	1989 TU5	16236	- 4.78	+0.39	+6.5	- 0.6
1993 01 23	06 39.71	+22 56.7	4.650	5.564	+0.37	-0.2	17.9
1992 12 24	07 03.05	+26 31.6	1.626	2.596	167.8	4.6	17.0
-11.38 -0.64	+9.6 - 2.9	1981 SY1	18807	- 8.99	+1.31	- 11.4	- 2.8
1993 01 23	06 28.89	+26 28.6	1.688	2.605	153.2	9.8	17.4
1992 12 24	07 01.43	+23 39.3	1.033	2.006	168.5	5.6	15.0
- 9.70 -0.92	+2.7 - 0.9	1986 EZ1	14022	- 7.02	+1.66	-8.0	- 1.5
1993 01 23	06 31.56	+23 32.5	1.056	1.989	154.1	12.5	15.4
1992 12 24	07 11.29	+55 08.9	1.086	1.981	146.4	16.0	15.4
-18.35 -2.21	+140.3 -26.4	1989 UH2	18293	-13.90	+3.31	- 27.8	-20.9
1993 01 23	06 12.51	+57 46.6	1.184	2.004	135.0	20.3	15.8
1992 12 24	07 02.01	+20 01.1	1.047	2.019	167.7	6.0	18.1
-10.04 -0.69	+5.6 + 1.9	1158 T-2	20831	- 6.53	+1.62	+8.9	- 0.2
1993 01 23	06 32.86	+20 26.7	1.142	2.074	154.5	11.8	18.6
1992 12 24	07 03.89	+28 02.4	1.589	2.557	167.2	4.9	17.5
-11.38 -0.61	+1.1 - 3.9	1194 T-3	19883	- 8.70	+1.35	- 23.0	- 2.7
1993 01 23	06 30.13	+27 27.3	1.667	2.584	153.3	9.9	17.8
1992 12 24	07 03.64	+33 00.6	1.343	2.307	165.0	6.3	15.8
-10.59 -0.93	+ 42.2 - 6.2	(5150)	19852	- 8.50	+1.52	-6.9	- 7.5
1993 01 23	06 30.44	+33 55.9	1.365	2.279	151.4	11.9	16.1
1992 12 24	07 01.19	+17 20.8	1.772	2.739	166.8	4.7	17.3
- 8.06 -0.54	+ 26.0 + 3.0	1979 MK3	12941	- 6.56	+0.98	+ 33.4	- 0.3
1993 01 23	06 36.44	+18 55.9	1.813	2.737	155.2	8.7	17.6
1992 12 24	07 05.78	+33 52.6	1.590	2.551	164.1	6.1	16.4
-11.87 -0.84	+ 32.6 - 6.7	1981 TM3	18808	- 9.80	+1.42	- 15.4	- 6.8
1993 01 23	06 29.07	+34 18.5	1.626	2.532	151.0	10.9	16.7
1992 12 24	07 11.96	+33 18.5	1.199	2.160	163.4	7.5	17.1
-12.64 -0.87	+ 18.5 - 8.4	3058 T-1	19322	- 9.10	+1.78	- 33.2	- 6.0
1993 01 23	06 34.44	+32 51.7	1.297	2.217	152.6	11.8	17.5
1992 12 24	07 03.91	+19 56.8	4.168	5.132	167.2	2.4	19.1
- 5.43 -0.24	+9.9 + 0.6	(5233)	20323	- 4.94	+0.39	+ 10.7	- 0.3
1993 01 23	06 47.20	+20 29.4	4.197	5.122	157.8	4.2	19.2
1992 12 24	07 08.87	+21 58.1	2.441	3.405	166.6	3.8	17.5
- 8.33 -0.42	+ 19.0 + 0.1	1980 UC	19014	- 7.12	+0.77	+ 13.3	- 1.5
1993 01 23	06 43.52	+22 49.5	2.532	3.460	156.9	6.4	17.7

1992 12 24	07 09.07	+20	15.5	2.214	3.178	166.2	4.2	16.4
- 8.06 -0.56	+ 13.8 + 1.1		1991 UZ2	19514	- 7.41 +0.76		+ 13.8	- 0.8
1993 01 23	06 43.43	+21	00.2	2.203	3.133	157.0	7.1	16.5
1992 12 24	07 06.08	+21	08.2	4.303	5.266	167.1	2.4	19.4
- 5.37 -0.24	+ 10.6 + 0.4		(5257)	20491	- 4.94 +0.38		+9.7	- 0.5
1993 01 23	06 49.47	+21	40.3	4.332	5.259	158.4	4.0	19.6
1992 12 24	07 05.73	-10	05.5	4.598	5.424	143.9	6.1	18.0
- 5.11 -0.21	- 20.0 + 6.2		1988 QY	20814	- 4.73 +0.33		+ 16.5	+ 5.4
1993 01 23	06 49.98	-10	09.3	4.614	5.430	142.8	6.3	18.0
1992 12 24	07 11.78	+26	35.9	1.035	2.004	165.9	6.9	17.6
- 9.05 -0.97	+3.4 - 2.8		1981 EF19	11840	- 6.73 +1.57		- 19.4	- 3.1
1993 01 23	06 43.42	+26	12.1	1.086	2.027	156.5	11.2	17.9
1992 12 24	07 14.47	+28	58.4	1.435	2.398	164.7	6.2	16.7
-11.47 -0.81	+ 28.9 - 4.3		1981 SQ2	18808	- 9.21 +1.42		-5.4	- 5.1
1993 01 23	06 39.31	+29	35.1	1.519	2.445	154.7	9.9	17.0
1992 12 24	07 15.95	+29	24.4	1.144	2.108	164.3	7.3	16.0
-11.55 -0.98	+6.4 - 5.3		1988 RL9	17442	- 8.90 +1.66		- 29.5	- 4.3
1993 01 23	06 40.36	+28	47.6	1.210	2.144	155.2	11.1	16.4
1992 12 24	07 07.36	+05	57.1	4.587	5.511	157.9	3.9	17.4
- 4.94 -0.21	-0.6 + 3.4		1989 TO11	17208	- 4.59 +0.32		+ 17.3	+ 2.4
1993 01 23	06 52.09	+06	23.9	4.607	5.513	154.6	4.4	17.4
1992 12 24	07 15.33	+25	28.6	1.759	2.722	165.2	5.3	16.8
-10.72 -0.76	+ 10.1 - 1.8		(5034)	19492	- 9.53 +1.10		-7.5	- 2.9
1993 01 23	06 41.51	+25	34.3	1.785	2.715	156.1	8.4	17.0
1992 12 24	07 14.21	+26	39.1	2.195	3.156	165.3	4.5	16.1
- 8.50 -0.63	+ 45.9 - 1.1		(5042)	19660	- 7.91 +0.81		+ 26.9	- 4.2
1993 01 23	06 46.95	+28	33.9	2.222	3.150	156.6	7.1	16.2
1992 12 24	07 17.24	+28	43.5	1.656	2.617	164.2	5.9	17.9
-11.21 -0.78	+6.8 - 3.8		1991 NP2	19029	- 9.58 +1.23		- 21.1	- 3.8
1993 01 23	06 42.34	+28	21.9	1.709	2.637	155.7	8.8	18.2
1992 12 24	07 15.34	+09	39.2	1.451	2.396	159.4	8.3	17.1
- 8.37 -0.81	+ 26.1 + 8.5		(5098)	19832	- 7.62 +1.03		+ 62.0	+ 2.7
1993 01 23	06 47.95	+12	02.0	1.456	2.390	156.3	9.5	17.1
1992 12 24	07 10.96	+09	14.9	4.372	5.306	159.8	3.7	17.0
- 5.14 -0.24	-9.7 + 2.8		(5130)	19845	- 4.83 +0.33		+5.3	+ 2.1
1993 01 23	06 54.96	+09	09.6	4.390	5.308	156.7	4.2	17.0
1992 12 24	07 17.30	+16	09.7	1.295	2.254	162.8	7.4	15.4
- 9.49 -0.93	- 19.3 + 3.7		1988 XE1	18631	- 8.46 +1.23		+0.0	+ 2.6
1993 01 23	06 46.38	+15	42.7	1.301	2.240	157.0	9.9	15.5
1992 12 24	07 16.46	+06	04.0	1.411	2.346	156.6	9.6	16.0
- 8.66 -0.85	+8.8 +10.3		1986 EE2	20144	- 8.01 +1.05		+ 60.2	+ 5.4
1993 01 23	06 47.94	+07	56.7	1.404	2.332	154.6	10.4	16.0
1992 12 24	07 16.23	+32	00.7	2.636	3.589	163.2	4.5	16.7
- 8.81 -0.49	+7.8 - 3.6		1979 QX3	19291	- 7.84 +0.77		- 17.3	- 3.8
1993 01 23	06 48.93	+31	46.8	2.701	3.621	155.8	6.4	16.8

1992 12 24	07 18.91	+20 34.9	1.560	2.520	164.0	6.2	17.5
-10.38 -0.70	+ 14.3 + 0.9	1931 UB	11855	- 8.66 +1.17	+ 10.7 - 1.4		
1993 01 23	06 46.89	+21 16.6	1.650	2.588	157.8	8.3	17.7
1992 12 24	07 19.07	+11 02.4	1.487	2.433	159.6	8.1	17.1
- 8.46 -0.73	+ 13.7 + 7.0	1978 RN	15700	- 7.36 +1.03	+ 43.1 + 2.3		
1993 01 23	06 52.08	+12 36.3	1.542	2.480	157.5	8.7	17.2
1992 12 24	07 19.86	-04 04.7	1.470	2.361	147.8	12.8	17.5
- 8.76 -0.66	+ 25.6 +15.5	1983 RL4	18424	- 7.31 +1.05	+ 98.4 + 6.8		
1993 01 23	06 52.59	-00 42.7	1.548	2.451	150.3	11.5	17.6
1992 12 24	07 14.38	-00 41.6	4.724	5.607	151.4	4.8	18.0
- 4.73 -0.23	-3.6 + 4.5	3104 T-3	16243	- 4.59 +0.28	+ 21.6 + 3.6		
1993 01 23	06 59.45	-00 12.9	4.706	5.594	151.9	4.8	18.0
1992 12 24	07 24.07	+33 20.8	1.583	2.534	161.2	7.2	18.0
-11.13 -1.00	+ 51.4 - 5.6	1981 UZ24	20630	-10.18 +1.26	+2.0 - 8.3		
1993 01 23	06 47.92	+34 45.8	1.633	2.555	154.3	9.6	18.2
1992 12 24	07 23.00	+27 33.4	1.911	2.867	163.3	5.7	18.1
- 9.36 -0.72	+ 17.0 - 2.3	2087 T-2	19689	- 8.56 +0.95	-4.8 - 3.8		
1993 01 23	06 53.04	+27 54.4	1.958	2.894	158.1	7.3	18.3
1992 12 24	07 21.65	+09 58.6	1.830	2.769	158.4	7.5	14.4
- 8.11 -0.72	- 56.7 + 4.6	1976 AH	20627	- 7.89 +0.79	- 23.1 + 5.9		
1993 01 23	06 54.87	+07 56.4	1.801	2.730	156.0	8.4	14.3
1992 12 24	07 24.56	+18 27.2	1.562	2.517	162.1	6.9	18.0
-10.09 -0.92	+ 15.8 + 2.6	1988 RD3	16430	- 9.66 +1.05	+ 19.9 - 0.8		
1993 01 23	06 51.29	+19 27.0	1.567	2.510	158.7	8.2	18.0
1992 12 24	07 24.02	+35 35.2	1.513	2.461	160.1	7.8	15.4
- 9.53 -1.00	+ 58.6 - 6.6	1989 EV	14479	- 8.65 +1.24	+2.5 - 9.4		
1993 01 23	06 52.58	+37 12.1	1.573	2.494	153.7	10.1	15.6
1992 12 24	07 24.71	+34 49.1	1.851	2.797	160.3	6.8	18.0
- 9.72 -0.88	+ 39.7 - 5.4	4135 T-2	19690	- 9.16 +1.04	-5.1 - 7.5		
1993 01 23	06 52.84	+35 44.8	1.885	2.806	154.6	8.7	18.1
1992 12 24	07 26.71	+43 38.5	1.524	2.449	154.5	10.0	16.5
-10.69 -1.24	+ 43.8 -10.9	1978 TH6	20009	-10.02 +1.43	- 36.4 -12.2		
1993 01 23	06 50.66	+43 51.9	1.536	2.434	149.1	12.0	16.6
1992 12 24	07 27.56	+44 14.8	1.612	2.533	153.9	9.8	16.7
-11.31 -1.26	+ 39.5 -10.9	1981 GM1	19015	-10.79 +1.41	- 40.6 -12.2		
1993 01 23	06 49.46	+44 15.5	1.608	2.502	148.7	11.8	16.7
1992 12 24	07 25.31	+17 50.4	1.194	2.150	161.8	8.2	17.1
- 9.76 -1.01	+ 17.3 + 3.8	1988 RK8	18114	- 8.65 +1.30	+ 25.2 - 0.7		
1993 01 23	06 53.40	+19 02.7	1.241	2.189	159.2	9.2	17.3
1992 12 24	07 26.07	+20 41.2	1.669	2.623	162.4	6.5	18.4
- 9.83 -0.89	+ 28.7 + 1.6	1991 PJ15	20508	- 9.53 +0.98	+ 24.2 - 2.3		
1993 01 23	06 53.57	+22 07.8	1.679	2.623	159.3	7.6	18.5
1992 12 24	07 25.23	+20 28.0	1.933	2.887	162.6	5.9	18.2
- 9.34 -0.68	+ 20.7 + 1.1	1987 SN12	18813	- 8.63 +0.88	+ 17.3 - 1.7		
1993 01 23	06 55.38	+21 30.0	1.991	2.934	159.7	6.7	18.3

1992 12 24	07 28.09	-12 39.9	1.090	1.944	139.3	19.3	16.1
-10.30 -1.14	- 93.5 +22.9	1991 JAL	18638	- 9.59 +1.33	+ 52.6 +20.8		
1993 01 23	06 53.66	-13 37.4	1.110	1.971	140.5	18.5	16.2
1992 12 24	07 29.78	+30 43.7	1.572	2.523	161.0	7.3	17.0
-10.96 -0.90	+ 82.0 - 4.9	1983 QG	8678	- 9.67 +1.23	+ 32.2 - 9.1		
1993 01 23	06 54.90	+33 42.5	1.705	2.635	156.0	8.7	17.4
1992 12 24	07 24.34	+12 46.4	2.607	3.546	159.6	5.5	17.0
- 7.38 -0.50	-9.1 + 3.3	1991 VA1	20642	- 7.15 +0.57	+7.4 + 2.0		
1993 01 23	07 00.58	+12 46.2	2.622	3.560	159.5	5.6	17.0
1992 12 24	07 30.17	+25 03.7	1.425	2.380	161.9	7.4	17.2
-10.61 -0.90	+9.6 - 1.5	1980 PW	16022	- 9.29 +1.24	-8.3 - 3.0		
1993 01 23	06 56.35	+25 08.4	1.505	2.452	159.5	8.1	17.4
1992 12 24	07 24.51	+06 15.2	2.778	3.695	+0.66	+0.3	17.0
- 7.03 -0.47	+ 14.2 + 5.6	1990 OF1	17446	- 6.95 +0.50	+ 41.5 + 3.0		
1993 01 23	07 01.75	+07 43.5	2.780	3.708	+0.67	+0.3	17.0
1992 12 24	07 27.52	+19 05.6	2.461	3.409	161.7	5.2	17.7
- 7.87 -0.54	+9.9 + 1.4	1991 SM1	19316	- 7.53 +0.64	+ 11.6 - 0.6		
1993 01 23	07 02.27	+19 41.6	2.512	3.458	161.3	5.2	17.8
1992 12 24	07 32.71	+30 02.5	1.134	2.088	160.6	9.0	17.0
- 9.79 -1.33	+ 22.6 - 4.3	1991 PJ3	20639	- 9.49 +1.41	- 19.1 - 7.0		
1993 01 23	06 58.69	+30 12.7	1.147	2.094	158.4	10.0	17.0
1992 12 24	07 35.26	+29 59.0	1.455	2.403	160.1	8.0	16.3
-11.13 -1.06	+ 20.4 - 4.2	1964 TA2	13851	-10.34 +1.26	- 16.6 - 5.9		
1993 01 23	06 58.75	+30 07.7	1.510	2.452	158.4	8.5	16.4
1992 12 24	07 35.33	+31 44.0	1.857	2.800	159.6	7.0	17.2
-10.49 -0.99	+ 27.6 - 4.0	1990 DL3	19678	-10.59 +0.96	-9.6 - 6.5		
1993 01 23	07 00.10	+32 15.6	1.861	2.796	157.7	7.7	17.2
1992 12 24	07 35.89	+21 17.7	1.677	2.624	160.3	7.3	18.2
-10.23 -1.04	+9.3 + 0.9	1978 NQ1	15875	-10.75 +0.91	+3.9 - 1.9		
1993 01 23	07 00.81	+21 42.7	1.645	2.596	161.0	7.1	18.2
1992 12 24	07 33.97	+24 26.0	2.059	3.006	161.0	6.1	17.9
- 8.70 -0.77	+ 21.6 - 0.4	1079 T-2	19881	- 8.75 +0.75	+8.8 - 3.1		
1993 01 23	07 04.97	+25 16.7	2.078	3.027	161.4	6.0	18.0
1992 12 24	07 32.77	+09 18.0	2.215	3.139	155.9	7.4	18.0
- 7.76 -0.64	+4.5 + 5.6	3019 T-3	19331	- 7.85 +0.62	+ 31.2 + 2.8		
1993 01 23	07 07.03	+10 16.7	2.223	3.165	159.8	6.2	18.0
1992 12 24	07 36.34	+24 19.1	1.247	2.198	160.5	8.6	16.8
- 9.56 -1.18	-5.8 - 0.9	5485 T-2	15259	- 9.42 +1.21	- 19.6 - 2.4		
1993 01 23	07 03.43	+23 43.5	1.260	2.216	161.4	8.2	16.8
1992 12 24	07 33.27	+15 25.4	1.118	2.067	159.1	9.8	18.5
- 7.62 -1.15	-4.1 + 5.8	1981 EW8	9962	- 7.67 +1.13	+ 20.1 + 1.9		
1993 01 23	07 06.13	+15 56.6	1.129	2.086	161.7	8.5	18.4
1992 12 24	07 34.13	+07 15.7	1.901	2.820	154.3	8.7	17.8
- 7.21 -0.75	-7.9 + 7.1	4050 P-L	20514	- 7.52 +0.66	+ 30.0 + 4.6		
1993 01 23	07 09.45	+07 53.5	1.887	2.829	159.0	7.2	17.8



1992 12 24	07 35.30	+21 43.2	2.286	3.229	160.5	5.8	16.7
- 8.07 -0.69	-3.4 + 0.4	1986 TU6	17018	- 8.29 +0.63		-6.8	- 1.1
1993 01 23	07 08.31	+21 30.5	2.275	3.228	162.7	5.2	16.7
1992 12 24	07 38.43	+15 02.1	1.542	2.481	157.8	8.6	16.9
- 9.20 -1.04	-8.1 + 4.2	1990 EO	18819	- 9.83 +0.88		+ 10.5	+ 1.8
1993 01 23	07 06.33	+15 10.1	1.515	2.468	161.6	7.2	16.8
1992 12 24	07 31.02	+12 07.1	4.757	5.681	157.9	3.7	17.3
- 4.61 -0.30	+ 10.4 + 2.3	1988 TA3	15893	- 4.83 +0.23		+ 20.7	+ 1.0
1993 01 23	07 15.90	+12 56.0	4.716	5.664	163.0	2.9	17.2
1992 12 24	07 44.06	+24 53.3	1.372	2.317	158.8	8.9	18.1
-10.60 -1.22	+ 10.2 - 0.9	1981 EP13	10159	-10.88 +1.14		-8.9	- 3.8
1993 01 23	07 07.47	+25 00.6	1.387	2.343	162.0	7.5	18.1
1992 12 24	07 41.47	+17 48.0	1.088	2.034	158.1	10.4	16.4
- 8.16 -1.37	+ 22.9 + 5.3	1978 TW2	14013	- 9.18 +1.11		+ 34.6	- 1.3
1993 01 23	07 10.85	+19 26.4	1.074	2.037	163.3	8.0	16.3
1992 12 24	07 43.02	+15 48.5	1.669	2.603	157.1	8.5	17.8
- 9.57 -0.97	+ 10.3 + 4.0	1978 SD7	13854	-10.02 +0.84		+ 22.7	+ 0.3
1993 01 23	07 10.28	+16 44.9	1.676	2.633	162.9	6.3	17.7
1992 12 24	07 44.42	+23 19.7	1.558	2.499	158.6	8.3	16.5
-10.14 -1.14	+ 41.8 + 0.8	1988 KA	13303	-10.83 +0.95		+ 26.3	- 4.8
1993 01 23	07 09.10	+25 12.2	1.567	2.523	162.3	6.8	16.5
1992 12 24	07 40.07	+09 10.9	2.020	2.938	154.4	8.3	17.4
- 7.19 -0.78	- 15.0 + 5.7	3074 P-L	14628	- 7.94 +0.57		+ 16.5	+ 4.1
1993 01 23	07 14.87	+09 16.1	1.975	2.923	160.9	6.3	17.3
1992 12 24	07 42.49	+35 20.0	2.771	3.696	156.9	6.0	17.6
- 8.02 -0.77	+ 40.5 - 3.2	1938 HA	18617	- 8.92 +0.51		+8.1	- 6.4
1993 01 23	07 14.71	+36 38.8	2.737	3.665	157.4	5.9	17.6
1992 12 24	07 43.12	+23 15.1	1.807	2.747	158.9	7.4	16.5
- 7.53 -0.90	+ 23.7 + 0.7	1991 RP15	20027	- 8.14 +0.72		+ 14.4	- 3.1
1993 01 23	07 16.63	+24 19.2	1.820	2.780	164.2	5.5	16.5
1992 12 24	07 47.70	+24 18.1	1.251	2.194	157.9	9.7	18.3
- 9.22 -1.26	+ 34.3 + 0.3	1310 T-2	20832	- 9.66 +1.12		+ 14.8	- 5.2
1993 01 23	07 14.98	+25 41.8	1.295	2.256	163.4	7.1	18.4
1992 12 24	07 44.54	+14 57.6	1.614	2.545	156.4	8.9	16.3
- 7.73 -0.96	+ 46.6 + 5.6	1991 PJ	19029	- 8.43 +0.76		+ 59.6	- 1.3
1993 01 23	07 17.14	+17 49.6	1.634	2.596	164.7	5.8	16.2
1992 12 24	07 49.67	+23 38.6	1.563	2.500	157.4	8.7	17.9
- 9.63 -1.27	+ 22.4 + 0.7	1987 DK6	19862	-11.35 +0.81		+8.9	- 4.1
1993 01 23	07 14.32	+24 34.4	1.508	2.468	163.6	6.5	17.6
1992 12 24	07 51.31	+19 10.5	1.513	2.446	156.3	9.3	18.2
- 9.90 -1.14	+ 22.9 + 2.8	(5020)	19487	-10.71 +0.91		+ 23.2	- 2.1
1993 01 23	07 16.60	+20 29.0	1.530	2.493	164.7	6.0	18.1
1992 12 24	07 46.30	-00 22.2	1.551	2.435	146.8	12.8	17.6
- 7.32 -0.98	- 22.5 +12.1	1981 EO7	8392	- 8.27 +0.71		+ 48.0	+ 9.4
1993 01 23	07 19.81	+00 21.0	1.535	2.465	155.6	9.5	17.5

1992 12 24	07 49.00	-10 53.1	1.872	2.686	138.2	14.1	17.8
- 7.72 -0.99	-9.7 +14.5	1987 OR	16427	- 9.50 +0.50	+ 83.0	+13.8	
1993 01 23	07 20.40	-09 02.0	1.755	2.640	147.8	11.5	17.5
1992 12 24	07 47.40	+02 04.3	2.114	2.996	148.4	9.9	16.7
- 6.96 -0.73	- 25.8 + 8.2	1991 RV1	19507	- 7.63 +0.53	+ 22.2	+ 6.7	
1993 01 23	07 23.20	+02 01.6	2.113	3.046	157.5	7.1	16.6
1992 12 24	07 51.09	+13 29.8	1.300	2.227	154.3	11.0	16.5
- 8.14 -1.18	+ 49.0 + 7.6	1988 XP	14202	- 9.09 +0.90	+ 68.7	- 1.3	
1993 01 23	07 21.39	+16 42.8	1.331	2.297	165.4	6.2	16.4
1992 12 24	07 43.03	+27 04.7	5.740	6.668	158.9	3.0	17.1
- 4.73 -0.30	+ 10.1 - 0.5	(5144)	19850	- 5.10 +0.18	+3.5	- 1.5	
1993 01 23	07 27.39	+27 27.0	5.713	6.670	165.3	2.2	17.1
1992 12 24	07 49.40	+13 55.0	2.311	3.228	154.9	7.4	18.1
- 7.47 -0.79	-2.8 + 3.6	1990 OE5	17211	- 8.65 +0.45	+ 13.0	+ 1.5	
1993 01 23	07 22.92	+14 14.0	2.243	3.204	165.0	4.5	17.9
1992 12 24	07 48.79	+01 07.0	1.590	2.476	147.5	12.3	16.7
- 6.50 -1.01	-4.5 +11.5	1051 T-2	15075	- 8.03 +0.59	+ 61.3	+ 8.5	
1993 01 23	07 24.05	+02 37.9	1.528	2.469	158.1	8.6	16.5
1992 12 24	07 50.25	+24 40.8	1.816	2.750	157.3	7.9	17.0
- 7.24 -0.98	+ 11.1 0.0	1986 WO7	20633	- 8.38 +0.65	-0.8	- 3.2	
1993 01 23	07 23.83	+25 02.2	1.798	2.762	165.5	5.1	16.8
1992 12 24	07 55.12	+18 40.8	1.630	2.557	155.3	9.3	17.4
- 9.03 -1.16	+9.5 + 2.9	1991 PF15	19312	-10.62 +0.72	+ 13.9	- 1.1	
1993 01 23	07 22.17	+19 23.2	1.595	2.561	166.0	5.3	17.2
1992 12 24	07 50.51	+04 33.4	2.138	3.026	149.5	9.5	18.5
- 7.23 -0.82	+3.9 + 7.8	1981 FR	20329	- 8.52 +0.45	+ 45.5	+ 5.1	
1993 01 23	07 24.52	+05 52.5	2.072	3.018	160.6	6.2	18.3
1992 12 24	07 50.47	+12 45.2	1.204	2.133	154.1	11.6	16.3
- 6.53 -1.28	+ 29.2 + 8.7	1989 BN1	14622	- 8.26 +0.81	+ 61.3	+ 1.1	
1993 01 23	07 24.41	+15 15.2	1.181	2.148	165.7	6.5	16.0
1992 12 24	07 53.88	+26 03.1	1.821	2.751	156.5	8.2	17.1
- 7.88 -1.08	+ 36.9 + 0.1	1978 SM5	14471	- 9.54 +0.62	+ 18.9	- 5.1	
1993 01 23	07 24.60	+27 36.6	1.784	2.745	164.6	5.5	16.9
1992 12 24	07 51.97	+15 41.3	1.950	2.872	155.0	8.3	17.3
- 7.26 -0.83	+ 15.5 + 3.9	1991 PT11	20024	- 8.06 +0.59	+ 27.4	0.0	
1993 01 23	07 26.36	+16 52.7	1.975	2.941	166.6	4.4	17.2
1992 12 24	07 55.79	+14 29.3	1.169	2.097	153.7	12.0	17.2
- 8.10 -1.41	+ 38.0 + 7.9	1977 DD1	14780	- 9.90 +0.91	+ 60.1	- 0.9	
1993 01 23	07 24.49	+17 12.8	1.164	2.133	166.3	6.3	17.0
1992 12 24	07 53.10	+19 04.0	2.244	3.167	155.9	7.3	16.8
- 7.04 -0.82	+6.6 + 2.0	1980 TW5	19014	- 8.26 +0.46	+ 10.2	- 0.7	
1993 01 23	07 27.79	+19 34.2	2.201	3.169	167.3	3.9	16.6
1992 12 24	07 54.04	+23 42.3	1.964	2.893	156.4	7.8	17.2
- 7.21 -0.91	+ 30.7 + 0.8	1969 TQ1	19854	- 8.33 +0.58	+ 20.3	- 3.6	
1993 01 23	07 27.96	+25 06.8	1.975	2.941	166.4	4.5	17.1