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

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TWX 710-320-6842 ASTROGRAM CAM ** Brian G. Marsden, Director
Telephone 617-495-7244/7440/7444 ** Conrad M. Bardwell, Associate Director

EDITORIAL NOTICE.

Circumstances have made it necessary for us to reduce the amount of time spent by members of the staff of the Minor Planet Center in individual consultations with contributors of material to these Circulars. The Center is eager to receive worthwhile contributions of observations and computations, but contributors should consider publication of their material in these Circulars as sufficient acknowledgment of its receipt. Except in the most critical cases, we shall be unable to discuss with contributors errors that we may find in their data; if an obvious error can be corrected, we shall correct it, but otherwise the material should be considered as rejected. Observers, in particular, are therefore advised to compare the information we publish with what they have submitted and, if they consider it appropriate, to reexamine the observations we have omitted; when extensive sets of observations are submitted, it would be most helpful if this could be done on magnetic tape, a floppy disk, punched cards (not paper tape) or through the Central Bureau for Astronomical Telegrams/Minor Planet Center Computer Service. As mentioned on previous occasions, except in cases clearly exceptional enough for mention on the IAU Circulars, approximate positions should not be submitted, and provisional designations are not given to new minor planets unless and until the observer provides acceptable accurate measurements. It has also been decided that proposed identifications and double designations can no longer be accepted unless they are properly documented. This means that the identifier must list also the residuals of all the observations attributed to the provisional designations concerned and the orbital elements from which the residuals were calculated. In the case of identifications, the residuals should preferably be from orbits including perturbations (at least by Jupiter), although as a first approximation it is certainly possible to give a tolerably good representation of observations a few years apart without consideration of perturbations. If double designations involve observations on only two nights, use should be made of a circular orbit, or preferably a more general orbit with the object assumed to be at perihelion or an orbit conditioned in some other way. We regret that we have had to impose these conditions, but it is only by imposing them that we shall be able adequately to produce these Circulars and carry out the other general services of the Center.

* * * * *

CORRECTED OBSERVATIONS.

The following observations correct those previously published.

Object		Date	UT	R. A. (1950)	Decl.	Reference	Mag.	N Obs.
1985 AA	*	1985 01	15.57222	07 29 52.09	+15 17 25.0	MPC 9412	17	881
1985 CB		1985 02	11.86276	08 46 19.02	+21 46 55.1	MPC 9445	16.4V	1 054

1985 CB		1985 02 13.94785	08 44 28.12	+21 58 01.9	MPC 9445		1	054
1985 CG	*	1985 02 11.86276	08 56 33.70	+21 27 28.3	MPC 9445	16.3V	1	054
1985 CG		1985 02 12.94130	08 55 34.73	+21 32 42.5	MPC 9445		1	054
1985 CH	*	1985 02 13.97579	09 03 43.30	+14 15 38.6	MPC 9445	16.5V	1	054
1985 CH		1985 02 18.94060	08 58 18.06	+14 44 14.3	MPC 9445	16.6V	1	054
1985 CJ	*	1985 02 13.97579	09 07 07.33	+14 08 18.7	MPC 9445	16.5V	1	054
1985 CJ		1985 02 18.94060	09 02 53.52	+14 09 41.6	MPC 9445	16.6V	1	054
1985 CK	*	1985 02 13.97579	09 09 32.84	+15 43 01.7	MPC 9445	16.3V	1	054
1985 CK		1985 02 18.94060	09 05 36.48	+16 00 20.2	MPC 9445	16.4V	1	054

Note 1: time originally given as 14.75 min earlier.

* * * * *

IDENTIFICATION CHANGES.

Continuation to MPC 9437.

Object		Date	UT	R. A. (1950)	Decl.	Old desig.	Mag.	Obs.
1968 FA1	*	1968 03 30.84647	11 56 23.87	-03 56 04.8	1968 DX			095
1970 QQ1	*	1970 08 29.83901	21 32 30.70	-17 39 57.7	1970 PP		16.0	095
1976 SA11	*	1976 09 29.89029	00 14 48.93	+04 09 08.0	1976 SL2		18.0	095
1978 TK9	*	1978 10 07.90949	00 11 33.60	-14 32 52.1	1978 SB1		16.2	095
1978 TL9	*	1978 10 07.90949	00 12 39.62	-13 31 20.6	1978 SA1		16.5	095

* * * * *

OBSERVATIONS OF COMETS.

Observations are published here for the following observatory codes:

046 Klet. Observers A. Mrkos and M. Mahrova.
293 Burlington remote site, New Jersey. Observer T. Handley.
474 Mt. John University Observatory. Observer A. C. Gilmore. Measured by P. M. Kilmartin (assisted by R. McIntosh and W. M. Kissling).
493 German-Spanish Astronomical Center, Calar Alto. 2.2-m reflector. Observers E. Grun and others.
657 Victoria. Observers D. D. Balam and J. B. Tatum.
662 Lick Observatory. 3-m reflector. Observer J. Miller. Reduction by B. Jones and R. Goodrich.
675 Palomar. 1.2-m Schmidt. Observer E. Helin. Measured by D. Steele.
688 Lowell Observatory, Anderson Mesa Station. 0.33-m photographic telescope. Observer B. A. Skiff. Measured by S. J. Bus.
691 University of Arizona, Kitt Peak. 0.91-m reflector, CCD in scanning mode. Observer T. Gehrels. Reductions by J. V. Scotti.
707 Chamberlin Observatory field station. 0.40-m f/5.5 reflector. Observers E. Everhart and J. Briggs. Measured by Everhart.
801 Oak Ridge Observatory. Observers R. E. McCrosky, G. Schwartz, C.-Y. Shao (assisted by C. M. Bardwell, D. W. E. Green and B. G. Marsden).
809 European Southern Observatory. Observer H. Debehogne.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
	Periodic Comet Halley					
/1982i	1984 12 17.98472	06 01 03.20	+11 55 28.4			493
/1982i	1984 12 18.13648	06 00 53.28	+11 55 31.0			493

/1982i	1984	12	18.15836	06	00	51.84	+11	55	31.1		493
/1982i	1985	01	22.23648	05	22	39.48	+12	24	37.4		662
/1982i	1985	01	22.24682	05	22	38.94	+12	24	36.7		662
/1982i	1985	01	29.05972	05	16	14.29	+12	34	43.2		493
/1982i	1985	02	24.23634	04	58	06.72	+13	24	38.5	20 T	675
/1982i	1985	03	14.18090	04	52	14.33	+14	06	42.8	21 T	707
			Periodic Comet Neujmin 1								
/1984c	1985	02	16.99050	01	01	11.09	+17	11	36.3		801
/1984c	1985	02	20.99523	01	09	31.45	+18	04	41.2		801
			Comet Shoemaker (1984f)								
/1984f	1985	02	18.42476	16	10	36.09	-23	01	30.4		801
/1984f	1985	02	21.42241	16	09	44.16	-23	35	22.5		801
			Periodic Comet Wolf-Harrington								
/1984g	1985	02	17.23131	09	44	31.47	-20	59	35.0		801
			Periodic Comet Faye								
/1984h	1985	02	16.16494	08	38	15.46	+05	19	58.8		801
/1984h	1985	03	25.22953	08	29	15.07	+09	01	31.9		691
			Periodic Comet Takamizawa								
/1984j	1984	09	13.06215	21	09	15.48	-24	40	50.0		809
/1984j	1984	09	13.06424	21	09	15.57	-24	40	50.3		809
/1984j	1984	09	13.06632	21	09	15.64	-24	40	50.7		809
/1984j	1984	09	18.03958	21	11	29.59	-24	44	40.4		809
/1984j	1984	09	18.04513	21	11	29.73	-24	44	40.7		809
/1984j	1984	09	18.05069	21	11	29.89	-24	44	41.0		809
/1984j	1984	09	20.99062	21	13	06.16	-24	44	02.4		809
/1984j	1984	09	20.99548	21	13	06.31	-24	44	02.3		809
/1984j	1984	09	21.00035	21	13	06.46	-24	44	02.3		809
/1984j	1984	09	21.99444	21	13	41.71	-24	43	21.3		809
/1984j	1984	09	21.99861	21	13	41.85	-24	43	21.1		809
/1984j	1984	09	22.00278	21	13	41.99	-24	43	21.0		809
/1984j	1984	09	22.98958	21	14	18.30	-24	42	27.0		809
/1984j	1984	09	22.99375	21	14	18.46	-24	42	26.8		809
/1984j	1984	09	22.99791	21	14	18.62	-24	42	26.6		809
/1984j	1984	09	27.14236	21	17	04.74	-24	36	21.3		809
/1984j	1984	09	27.14792	21	17	04.96	-24	36	20.8		809
/1984j	1984	09	27.15347	21	17	05.16	-24	36	20.3		809
			Periodic Comet Arend-Rigaux								
/1984k	1984	09	26.39791	05	51	20.52	-00	23	27.4		809
/1984k	1984	09	27.37361	05	53	48.72	-00	27	02.1		809
/1984k	1984	09	27.38819	05	53	50.94	-00	27	05.1		809
/1984k	1984	09	28.38403	05	56	22.19	-00	30	50.1		809
/1984k	1984	09	28.39479	05	56	23.80	-00	30	52.5		809
/1984k	1984	09	29.37396	05	58	52.69	-00	34	34.7		809
/1984k	1984	09	29.38646	05	58	54.60	-00	34	37.5		809
/1984k	1984	09	30.38784	06	01	26.46	-00	38	25.8		809
/1984k	1984	12	23.41528	08	51	54.61	+05	24	25.7		293
/1984k	1985	01	21.35243	09	03	44.46	+20	00	22.5		688
/1984k	1985	01	21.36701	09	03	44.30	+20	00	53.0		688
/1984k	1985	02	16.21404	09	00	45.28	+30	55	46.6		801
/1984k	1985	02	21.23788	09	01	03.32	+32	10	01.0		801
/1984k	1985	02	25.24514	09	01	46.03	+32	56	28.5		688
/1984k	1985	02	25.30000	09	01	45.85	+32	57	17.6		688

Periodic Comet Schaumasse

/1984m	1984	12	23.45208	13	42	02.60	+02	11	51.5		293
/1984m	1985	02	18.40000	16	01	33.09	-06	43	37.5		801
/1984m	1985	02	21.40499	16	05	44.62	-06	55	42.4		801

Periodic Comet Tsuchinshan 1

/1984p	1985	02	16.24354	10	36	14.49	+31	58	58.0		801
/1984p	1985	03	11.26684	10	33	34.95	+32	49	43.4		657
/1984p	1985	03	11.29204	10	33	34.84	+32	49	37.7		657
/1984p	1985	03	13.27174	10	33	36.65	+32	41	37.7		657
/1984p	1985	03	13.29942	10	33	36.39	+32	41	30.0		657
/1984p	1985	03	15.25497	10	33	43.52	+32	31	53.0		657
/1984p	1985	03	15.29257	10	33	43.45	+32	31	40.0		657

Comet Shoemaker (1984s)

/1984s	1985	02	07.75559	06	06	44.15	-15	30	16.0		046
/1984s	1985	02	07.76198	06	06	45.52	-15	30	10.2		046
/1984s	1985	02	12.75881	06	24	36.79	-14	11	41.1		046
/1984s	1985	02	12.76465	06	24	38.09	-14	11	35.4		046
/1984s	1985	02	13.84365	06	28	22.20	-13	53	43.2		046
/1984s	1985	02	13.84943	06	28	23.05	-13	53	39.4		046
/1984s	1985	02	15.82211	06	35	06.13	-13	20	26.6		046
/1984s	1985	02	15.82795	06	35	07.33	-13	20	19.5		046
/1984s	1985	02	17.09593	06	39	21.50	-12	58	43.2		801
/1984s	1985	03	21.17188	08	09	25.49	-04	38	21.0		691
/1984s	1985	03	25.13563	08	18	41.29	-03	52	58.6		691

Comet Levy-Rudenko (1984t)

/1984t	1984	12	26.93435	18	25	30.35	+33	16	34.4		801
/1984t	1985	02	12.74156	11	55	56.42	+74	46	19.7		046
/1984t	1985	02	12.74475	11	55	50.01	+74	46	17.7		046
/1984t	1985	02	25.27465	08	56	32.78	+57	16	39.9		688
/1984t	1985	02	25.32894	08	56	15.53	+57	11	40.9		688
/1984t	1985	03	14.27847	08	18	00.2	+36	08	39		707
/1984t	1985	03	18.34264	08	15	54.84	+32	38	11.7		691
/1984t	1985	03	22.18559	08	15	02.79	+29	44	58.9		691

Periodic Comet Ashbrook-Jackson

/1985a	1985	03	20.66322	19	15	42.09	-34	23	09.4	18	N		474
/1985a	1985	03	20.70766	19	15	45.86	-34	23	11.0				474

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OBSERVATIONS MADE AT HOHER LIST BY M. GEFFERT.

Plates taken with the 0.30-m f/5 astrograph, measured and reduced in collaboration with M. Tucholke, University of Munster, using the ASCORECORD at Hoher List and PDS 2020G at Munster. Positions reduced to the AGK3 system. Contact: M. Geffert, Observatorium Hoher List, D-5568 Daun, Federal Republic of Germany.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
3177	1984	10 30.94826	02 45 29.28	+19 30 03.0	15.5	017
3177	1984	10 30.96563	02 45 27.93	+19 30 08.1		017
1984 UU3 *	1984	10 31.04236	02 59 18.68	+16 14 45.4	15.5	017
1984 UU3	1984	10 31.06597	02 59 17.39	+16 14 42.2		017

OBSERVATIONS MADE AT PINO TORINESE BY G. MASSONE AND G. DE SANCTIS.
Plates with the 1.05-m astrometric reflector. Contact: V. Zappala, Osservatorio Astronomico di Torino, I-10025 Pino Torinese, Italy.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
1	1984 10	29.99718	03 21 45.53	+08 54 45.0	022
1	1984 10	30.01519	03 21 44.42	+08 54 45.1	022
1	1984 10	30.98925	03 20 53.85	+08 53 18.6	022
1	1984 10	31.00794	03 20 52.78	+08 53 17.9	022
2	1983 09	12.87444	18 21 50.98	+11 22 27.3	022
2	1983 09	12.89661	18 21 51.35	+11 22 11.9	022
2	1984 07	03.98417	23 11 03.74	+09 39 13.9	022
2	1984 07	04.00149	23 11 03.96	+09 39 12.2	022
2	1984 08	26.86685	22 52 50.74	+04 10 17.0	022
2	1984 08	26.88624	22 52 49.88	+04 10 03.4	022
2	1984 09	20.91286	22 34 26.20	-01 10 58.2	022
2	1984 09	20.93709	22 34 25.24	-01 11 18.2	022
2	1984 09	20.94333	22 34 24.91	-01 11 22.3	022
2	1984 09	20.96618	22 34 23.99	-01 11 41.6	022
2	1984 09	22.85753	22 33 09.78	-01 36 36.9	022
2	1984 09	22.87624	22 33 09.02	-01 36 51.8	022
2	1984 10	02.82644	22 27 27.98	-03 43 51.7	022
2	1984 10	02.86868	22 27 26.67	-03 44 22.9	022
3	1983 09	12.94855	02 23 12.97	+04 33 10.9	022
3	1983 09	12.97486	02 23 13.52	+04 32 56.6	022
3	1983 10	25.93918	02 12 18.30	-04 19 05.2	022
3	1983 10	25.94818	02 12 17.97	-04 19 10.4	022
3	1983 10	26.85265	02 11 42.00	-04 29 32.8	022
3	1983 10	26.88036	02 11 40.83	-04 29 50.6	022
3	1983 10	27.91744	02 10 58.96	-04 41 26.6	022
3	1983 10	27.95138	02 10 57.48	-04 41 48.5	022
3	1983 11	09.91346	02 02 36.82	-06 38 57.4	022
3	1983 11	09.93909	02 02 35.77	-06 39 04.6	022
3	1983 11	29.86405	01 55 29.32	-07 37 04.0	022
3	1983 11	29.89175	01 55 29.02	-07 37 01.8	022
3	1983 12	04.85697	01 55 24.02	-07 28 38.1	022
3	1983 12	04.87498	01 55 24.04	-07 28 34.6	022
3	1983 12	06.85637	01 55 34.76	-07 22 55.7	022
3	1983 12	06.87506	01 55 34.86	-07 22 52.4	022
3	1983 12	08.85193	01 55 52.86	-07 15 59.4	022
3	1983 12	08.87340	01 55 53.05	-07 15 55.5	022
3	1983 12	28.83473	02 05 24.57	-05 09 52.7	022
3	1983 12	28.85897	02 05 25.62	-05 09 40.1	022
3	1983 12	29.84343	02 06 10.98	-05 01 18.9	022
3	1983 12	29.86836	02 06 12.09	-05 01 06.2	022
3	1984 01	04.85197	02 11 19.53	-04 06 57.8	022
3	1984 01	04.87968	02 11 20.99	-04 06 42.1	022
3	1984 01	05.87244	02 12 17.15	-03 57 13.6	022
3	1984 01	05.87521	02 12 17.27	-03 57 12.1	022
3	1984 01	05.87867	02 12 17.51	-03 57 10.3	022
4	1983 10	27.95762	05 52 39.75	+17 58 04.6	022
4	1983 10	27.98601	05 52 39.60	+17 58 05.0	022
4	1983 11	16.95910	05 44 57.17	+18 04 55.3	022
4	1983 11	16.99166	05 44 55.79	+18 04 56.4	022
4	1983 11	29.92326	05 33 56.68	+18 16 15.4	022
4	1983 11	29.94681	05 33 55.20	+18 16 16.8	022
4	1983 12	04.93593	05 28 46.15	+18 21 58.6	022
4	1983 12	04.96086	05 28 44.46	+18 22 04.3	022
4	1983 12	08.91947	05 24 26.08	+18 27 02.1	022
4	1983 12	08.94094	05 24 24.63	+18 27 04.2	022

4	1983	12	28.91229	05	02	49.75	+18	58	26.4	022
4	1983	12	28.95731	05	02	47.01	+18	58	30.7	022
4	1983	12	29.91510	05	01	51.90	+19	00	15.6	022
4	1983	12	29.95111	05	01	49.83	+19	00	22.6	022
4	1984	01	04.91707	04	56	32.85	+19	12	00.9	022
4	1984	01	04.94755	04	56	31.34	+19	12	03.9	022
4	1984	01	09.89545	04	52	49.45	+19	22	40.0	022
4	1984	01	09.92108	04	52	48.40	+19	22	42.8	022
4	1984	01	11.94506	04	51	29.59	+19	27	20.2	022
4	1984	01	11.96514	04	51	28.74	+19	27	22.1	022
4	1984	01	11.96791	04	51	28.67	+19	27	21.6	022
4	1984	01	25.87877	04	45	51.30	+20	02	57.4	022
4	1984	01	25.90509	04	45	50.97	+20	03	00.5	022
4	1984	01	30.91464	04	45	19.10	+20	17	28.9	022
4	1984	01	30.93196	04	45	19.05	+20	17	30.8	022
4	1984	03	04.85712	05	00	42.03	+22	09	16.2	022
4	1984	03	04.88344	05	00	43.47	+22	09	21.1	022
4	1984	03	05.85163	05	01	34.86	+22	12	37.7	022
4	1984	03	05.87448	05	01	36.10	+22	12	41.1	022
4	1984	03	06.85513	05	02	29.37	+22	15	59.0	022
4	1984	03	06.87660	05	02	30.49	+22	16	01.7	022
11	1984	02	09.95694	12	42	10.67	+00	39	49.1	022
11	1984	02	09.98326	12	42	10.51	+00	39	53.5	022
11	1984	03	05.92919	12	32	21.96	+02	49	27.0	022
11	1984	03	05.95344	12	32	21.01	+02	49	37.2	022
11	1984	03	06.94793	12	31	39.77	+02	56	18.4	022
11	1984	03	06.97425	12	31	38.58	+02	56	29.5	022
18	1983	04	05.91793	10	26	50.70	+14	28	04.0	022
18	1983	04	05.94704	10	26	49.95	+14	28	10.4	022
18	1984	06	26.89074	16	23	56.19	-05	51	00.5	022
18	1984	06	26.91014	16	23	55.23	-05	51	03.8	022
18	1984	06	26.91706	16	23	54.94	-05	51	05.2	022
18	1984	06	26.92606	16	23	54.49	-05	51	06.4	022
18	1984	06	26.93542	16	23	54.01	-05	51	08.1	022
18	1984	06	26.94512	16	23	53.58	-05	51	09.2	022
18	1984	07	02.95020	16	19	34.38	-06	09	05.0	022
18	1984	07	02.97513	16	19	33.42	-06	09	11.4	022
18	1984	07	03.92253	16	18	57.56	-06	12	32.0	022
18	1984	07	03.94123	16	18	56.87	-06	12	36.2	022
25	1984	10	02.94659	03	48	55.11	+16	31	41.9	022
25	1984	10	02.97429	03	48	54.71	+16	31	23.5	022
25	1984	10	29.99718	03	31	58.15	+10	36	57.8	022
25	1984	10	30.01519	03	31	57.15	+10	36	41.9	022
25	1984	10	30.98925	03	31	02.17	+10	23	07.2	022
25	1984	10	31.00794	03	31	01.10	+10	22	50.7	022
39	1983	11	09.94844	05	19	38.12	+07	23	53.9	022
39	1983	11	09.97128	05	19	37.31	+07	23	48.6	022
39	1983	11	29.95685	05	04	46.79	+06	22	02.8	022
39	1983	11	29.97832	05	04	45.69	+06	21	59.7	022
39	1983	12	04.97955	05	00	14.01	+06	14	48.4	022
39	1983	12	04.99686	05	00	13.05	+06	14	46.4	022
39	1983	12	06.92422	04	58	26.99	+06	13	04.1	022
39	1983	12	06.94293	04	58	25.86	+06	13	03.3	022
39	1983	12	08.94890	04	56	35.43	+06	11	54.8	022
39	1983	12	08.98837	04	56	33.16	+06	11	53.8	022
39	1983	12	28.86693	04	40	11.10	+06	36	20.9	022
39	1983	12	28.90295	04	40	09.57	+06	36	27.0	022
39	1983	12	29.87701	04	39	31.10	+06	39	13.9	022
39	1983	12	29.90541	04	39	29.98	+06	39	19.0	022

39	1984	01	04.88799	04	36	01.56	+06	59	18.7	022
39	1984	01	04.90876	04	36	00.85	+06	59	22.9	022
39	1984	01	05.88594	04	35	31.73	+07	03	05.9	022
39	1984	01	05.91295	04	35	30.96	+07	03	12.3	022
39	1984	01	25.84172	04	31	05.12	+08	40	02.1	022
39	1984	01	25.86874	04	31	05.16	+08	40	10.9	022
39	1984	01	30.86755	04	31	37.83	+09	08	58.1	022
39	1984	01	30.89733	04	31	38.10	+09	09	09.1	022
39	1984	03	04.82076	04	50	43.25	+12	35	49.6	022
39	1984	03	04.84777	04	50	44.64	+12	35	59.5	022
39	1984	03	05.80730	04	51	36.93	+12	41	37.6	022
39	1984	03	05.84263	04	51	38.86	+12	41	50.1	022
39	1984	03	06.82674	04	52	33.42	+12	47	35.5	022
39	1984	03	06.84682	04	52	34.47	+12	47	42.8	022
39	1984	03	26.80017	05	14	03.34	+14	35	03.9	022
39	1984	03	26.82441	05	14	05.06	+14	35	11.5	022
51	1983	10	12.97086	23	08	44.37	-06	14	33.4	022
51	1983	10	12.97779	23	08	44.18	-06	14	36.0	022
51	1983	10	12.99372	23	08	43.73	-06	14	42.3	022
51	1983	10	13.95325	23	08	17.74	-06	21	11.7	022
51	1983	10	14.00103	23	08	16.44	-06	21	30.9	022
51	1983	10	25.88551	23	04	50.15	-07	26	06.9	022
51	1983	10	25.89520	23	04	50.05	-07	26	08.3	022
51	1983	10	26.80868	23	04	43.36	-07	29	52.8	022
51	1983	10	26.81699	23	04	43.33	-07	29	54.9	022
51	1983	10	26.82669	23	04	43.28	-07	29	56.8	022
51	1983	10	27.88385	23	04	36.95	-07	34	02.3	022
51	1983	10	27.88801	23	04	36.98	-07	34	03.7	022
51	1983	10	27.91087	23	04	36.82	-07	34	08.4	022
51	1983	11	09.87468	23	05	44.46	-08	05	17.4	022
51	1983	11	09.88022	23	05	44.55	-08	05	17.9	022
51	1983	11	09.90515	23	05	44.93	-08	05	18.8	022
74	1983	11	29.92326	05	42	03.01	+17	28	53.2	022
74	1983	11	29.94681	05	42	01.76	+17	28	49.8	022
74	1983	12	04.93593	05	37	25.74	+17	18	53.1	022
74	1983	12	04.96086	05	37	24.27	+17	18	51.2	022
74	1983	12	08.91947	05	33	33.20	+17	11	46.4	022
74	1983	12	08.94094	05	33	31.85	+17	11	44.1	022
140	1983	11	29.92326	05	40	09.19	+21	14	42.1	022
140	1983	11	29.94681	05	40	07.92	+21	14	43.9	022
140	1983	12	04.93593	05	35	30.21	+21	14	50.3	022
140	1983	12	04.96086	05	35	28.76	+21	14	49.7	022
140	1983	12	08.91947	05	31	38.85	+21	14	46.6	022
140	1983	12	08.94094	05	31	37.68	+21	14	47.6	022
148	1984	03	05.97317	13	43	33.90	+15	31	33.8	022
148	1984	03	05.99534	13	43	33.52	+15	31	48.8	022
148	1984	07	02.90207	13	03	13.34	+18	40	11.7	022
148	1984	07	02.91869	13	03	13.94	+18	40	03.3	022
213	1983	11	29.92326	05	26	31.74	+16	14	54.3	022
213	1983	11	29.94681	05	26	30.42	+16	14	54.1	022
213	1983	12	04.93593	05	21	59.53	+16	14	26.1	022
213	1983	12	04.96086	05	21	58.09	+16	14	26.4	022
213	1983	12	08.91947	05	18	15.61	+16	14	43.8	022
213	1983	12	08.94094	05	18	14.37	+16	14	43.9	022
245	1984	03	05.92919	12	34	51.11	+02	51	43.8	022
245	1984	03	05.95344	12	34	50.17	+02	51	50.5	022
245	1984	03	06.94793	12	34	12.79	+02	56	08.2	022
245	1984	03	06.97425	12	34	11.73	+02	56	15.8	022
348	1984	10	29.99718	03	21	08.94	+07	36	58.2	022

348		1984	10	30.01519	03	21	08.02	+07	36	55.0	022
348		1984	10	30.98925	03	20	20.73	+07	35	04.8	022
348		1984	10	31.00794	03	20	19.76	+07	35	02.9	022
364		1984	10	29.99718	03	23	27.50	+07	18	29.4	022
364		1984	10	30.01519	03	23	26.46	+07	18	26.1	022
364		1984	10	30.98925	03	22	34.72	+07	15	49.2	022
364		1984	10	31.00794	03	22	33.66	+07	15	45.6	022
389		1984	09	20.85088	21	40	44.29	-03	19	19.9	022
389		1984	09	20.87166	21	40	43.62	-03	19	24.9	022
389		1984	09	20.88066	21	40	43.36	-03	19	26.8	022
389		1984	09	20.90282	21	40	42.70	-03	19	31.6	022
389		1984	09	22.82499	21	39	45.52	-03	26	25.3	022
389		1984	09	22.84750	21	39	44.81	-03	26	30.0	022
389		1984	10	02.85410	21	36	13.68	-03	58	39.4	022
389		1984	10	02.87696	21	36	13.36	-03	58	42.0	022
480		1984	10	02.90712	02	11	21.80	+30	04	56.8	022
480		1984	10	02.93412	02	11	20.79	+30	04	45.5	022
480		1984	10	03.96498	02	10	41.67	+29	57	57.9	022
480		1984	10	03.98991	02	10	40.68	+29	57	48.1	022
582		1984	09	22.88627	21	30	44.04	-12	57	11.2	022
582		1984	09	22.91190	21	30	43.19	-12	57	28.8	022
704		1984	07	03.94988	18	40	56.72	-23	13	29.7	022
704		1984	07	03.97481	18	40	55.24	-23	13	22.6	022
737		1983	11	09.94844	05	21	28.52	+06	35	46.2	022
737		1983	11	09.97128	05	21	27.59	+06	35	38.3	022
737		1983	11	29.95685	05	04	48.67	+04	55	49.7	022
737		1983	11	29.97832	05	04	47.46	+04	55	45.1	022
737		1983	12	04.97955	04	59	55.60	+04	39	30.5	022
737		1983	12	04.99686	04	59	54.51	+04	39	27.3	022
737		1983	12	06.92422	04	58	01.33	+04	34	20.0	022
737		1983	12	06.94293	04	58	00.30	+04	34	16.4	022
737		1983	12	08.94890	04	56	03.04	+04	29	39.9	022
737		1983	12	08.98837	04	56	00.66	+04	29	34.1	022
737		1983	12	28.86693	04	38	48.01	+04	22	47.0	022
737		1983	12	28.90295	04	38	46.54	+04	22	50.1	022
737		1983	12	29.87701	04	38	05.94	+04	24	15.0	022
737		1983	12	29.90541	04	38	04.66	+04	24	17.5	022
737		1984	01	05.88594	04	33	51.67	+04	38	45.6	022
737		1984	01	05.91295	04	33	50.76	+04	38	49.2	022
925		1984	08	26.89524	20	49	12.30	-05	40	19.8	022
925		1984	08	26.91602	20	49	11.25	-05	40	19.5	022
1078		1984	10	29.99718	03	30	45.28	+09	01	51.8	022
1078		1984	10	30.01519	03	30	44.24	+09	01	48.5	022
1078		1984	10	30.98925	03	29	49.37	+08	59	21.0	022
1078		1984	10	31.00794	03	29	48.26	+08	59	18.6	022
1093		1983	12	28.96839	07	52	04.67	+47	57	08.0	022
1093		1983	12	28.99332	07	52	03.37	+47	57	17.3	022
1093		1983	12	29.97535	07	51	04.23	+48	03	26.1	022
1093		1983	12	30.00443	07	51	02.49	+48	03	38.1	022
1093		1984	01	04.95897	07	44	47.74	+48	37	28.5	022
1093		1984	01	04.98529	07	44	45.71	+48	37	36.3	022
1093		1984	01	05.97216	07	43	41.36	+48	42	35.9	022
1093		1984	01	05.99918	07	43	39.44	+48	42	44.5	022
1093		1984	01	09.93182	07	39	16.99	+49	00	50.2	022
1093		1984	01	09.96228	07	39	14.79	+49	00	58.7	022
1093		1984	01	25.91686	07	21	24.75	+49	41	59.9	022
1093		1984	01	25.94595	07	21	22.67	+49	42	02.9	022
1093		1984	01	30.95238	07	16	13.89	+49	44	09.8	022
1093		1984	01	30.98424	07	16	12.29	+49	44	09.8	022

1093	1984	02	01.84581	07	14	23.79	+49	43	40.5	022
1093	1984	02	01.87490	07	14	22.01	+49	43	38.6	022
1093	1984	02	07.90215	07	08	59.34	+49	37	57.2	022
1093	1984	02	07.92916	07	08	58.11	+49	37	54.9	022
1245	1983	11	29.92236	05	20	26.19	+18	52	03.3	022
1245	1983	11	29.94681	05	20	24.92	+18	52	03.4	022
1245	1983	12	04.93593	05	15	55.29	+18	47	08.3	022
1245	1983	12	04.96086	05	15	53.90	+18	47	07.5	022
1245	1983	12	08.91947	05	12	13.02	+18	43	29.7	022
1245	1983	12	08.94094	05	12	11.77	+18	43	29.8	022

OBSERVATIONS MADE AT KLET BY A. MRKOS, Z. VAVROVA AND M. MAHROVA.

Plates with the 0.6-m Maksutov reflector. Contact: A. Mrkos, Department of Astronomy and Astrophysics, Charles University, Svedska 8, C-15000 Prague 5, Czechoslovakia.

Object	Date	UT	R. A. (1950)			Decl.			Mag.	N Obs.
129	1985	02 15.91840	10	20	15.71	+15	05	15.6		046
129	1985	02 15.93258	10	20	15.02	+15	05	22.9		046
129	1985	02 16.90411	10	19	29.32	+15	14	11.0		046
129	1985	02 16.91846	10	19	28.63	+15	14	19.6		046
129	1985	02 20.90784	10	16	16.29	+15	50	18.7		046
129	1985	02 20.92207	10	16	15.53	+15	50	26.6		046
129	1985	02 20.97763	10	16	12.81	+15	50	54.0		046
129	1985	02 20.99186	10	16	12.06	+15	51	01.7		046
213	1985	02 16.93958	10	27	34.34	+15	02	19.6		046
213	1985	02 16.95382	10	27	33.66	+15	02	25.2		046
213	1985	02 20.97763	10	24	13.20	+15	29	31.0		046
213	1985	02 20.99186	10	24	12.46	+15	29	37.3		046
223	1985	02 12.90586	09	37	43.63	+17	21	50.6		046
223	1985	02 12.92009	09	37	42.90	+17	21	53.6		046
223	1985	02 13.93867	09	36	51.48	+17	25	57.8		046
223	1985	02 13.95291	09	36	50.74	+17	26	00.6		046
296	1985	02 15.84722	09	08	26.00	+17	24	38.6		046
296	1985	02 15.86157	09	08	24.98	+17	24	41.1		046
306	1985	02 12.94208	09	54	19.43	+13	31	56.0		046
306	1985	02 12.95644	09	54	18.58	+13	32	02.6		046
306	1985	02 13.97698	09	53	20.13	+13	39	51.3		046
306	1985	02 13.99116	09	53	19.25	+13	39	58.2		046
367	1985	02 12.83757	08	56	53.75	+22	04	12.7		046
367	1985	02 12.85233	08	56	52.90	+22	04	17.4		046
367	1985	02 13.86807	08	55	52.68	+22	08	57.4		046
367	1985	02 13.88236	08	55	51.87	+22	09	01.5		046
575	1985	02 20.90784	10	23	53.33	+17	46	41.3		046
575	1985	02 20.92207	10	23	51.66	+17	46	42.4		046
578	1985	02 20.94464	10	30	38.46	+17	30	45.7		046
578	1985	02 20.95888	10	30	37.70	+17	30	49.6		046
615	1985	02 12.83757	08	47	58.23	+21	40	43.8		046
615	1985	02 12.85233	08	47	57.40	+21	40	46.1		046
615	1985	02 13.86807	08	47	00.53	+21	43	29.2		046
615	1985	02 13.88236	08	46	59.75	+21	43	31.3		046
758	1985	02 15.91840	10	19	39.78	+16	31	42.5		046
758	1985	02 15.93258	10	19	39.09	+16	31	47.4		046
758	1985	02 16.90411	10	18	54.16	+16	37	16.1		046
758	1985	02 16.91846	10	18	53.49	+16	37	21.3		046
758	1985	02 20.90784	10	15	47.38	+16	59	20.0		046
758	1985	02 20.92207	10	15	46.66	+16	59	24.6		046
758	1985	02 20.97763	10	15	44.25	+16	59	40.5		046
758	1985	02 20.99186	10	15	43.52	+16	59	45.4		046
885	1985	02 12.94208	10	00	19.32	+12	02	25.9		046

885		1985	02	12.95644	10	00	18.32	+12	02	34.4		046
885		1985	02	13.97698	09	59	32.18	+12	07	19.3		046
885		1985	02	13.99116	09	59	31.44	+12	07	23.7		046
902		1985	02	20.97763	10	15	29.91	+14	48	36.9	16.5	046
902		1985	02	20.99186	10	15	28.89	+14	48	39.0		046
1132		1985	02	16.97500	10	57	20.53	+15	48	49.8		046
1132		1985	02	16.98918	10	57	19.84	+15	48	53.4		046
1324		1985	02	12.87229	09	09	00.89	+14	22	05.5		046
1324		1985	02	12.88688	09	08	59.90	+14	22	06.3		046
1324		1985	02	13.90238	09	07	50.17	+14	25	19.5		046
1324		1985	02	13.91679	09	07	49.33	+14	25	23.2		046
1512		1985	02	15.91840	10	15	05.29	+16	56	52.9		046
1512		1985	02	15.93258	10	15	04.62	+16	56	55.6		046
1512		1985	02	16.90411	10	14	24.69	+16	59	51.0		046
1512		1985	02	16.91846	10	14	24.10	+16	59	53.2		046
1633		1985	02	12.94208	09	57	10.96	+14	45	06.5		046
1633		1985	02	12.95644	09	57	10.26	+14	45	10.6		046
1633		1985	02	13.97698	09	56	22.21	+14	50	25.0		046
1633		1985	02	13.99116	09	56	21.56	+14	50	29.2		046
1906		1985	02	16.93958	10	22	27.79	+14	42	44.3		046
1906		1985	02	16.95382	10	22	26.92	+14	42	46.9		046
1906		1985	02	20.97763	10	18	10.71	+14	57	26.1		046
1906		1985	02	20.99186	10	18	09.82	+14	57	28.0		046
2138		1985	02	12.83757	08	55	28.02	+21	59	47.9		046
2138		1985	02	12.85233	08	55	27.12	+21	59	52.9		046
2138		1985	02	13.86807	08	54	33.26	+22	04	46.2		046
2138		1985	02	13.88236	08	54	32.58	+22	04	49.0		046
2172		1985	02	12.83757	08	53	58.86	+21	35	41.1		046
2172		1985	02	12.85233	08	53	58.31	+21	35	43.0		046
2172		1985	02	13.86807	08	53	07.32	+21	39	19.5		046
2172		1985	02	13.88236	08	53	06.65	+21	39	22.5		046
2247		1985	02	20.90784	10	23	29.92	+16	05	09.3		046
2247		1985	02	20.92207	10	23	29.29	+16	05	17.0		046
2315		1985	02	15.95764	10	58	13.41	+20	39	05.1		046
2315		1985	02	15.97222	10	58	12.75	+20	39	07.5		046
2321		1985	02	15.95764	10	58	58.64	+18	14	19.7		046
2321		1985	02	15.97222	10	58	57.85	+18	14	25.2		046
2647		1985	02	12.87229	09	08	40.81	+12	47	48.6		046
2647		1985	02	12.88688	09	08	39.89	+12	47	52.6		046
2647		1985	02	13.90238	09	07	35.23	+12	50	57.5		046
2647		1985	02	13.91679	09	07	34.24	+12	51	02.0		046
2941		1985	02	16.93958	10	23	44.87	+14	14	34.0		046
2941		1985	02	16.95382	10	23	43.95	+14	14	38.0		046
2941		1985	02	20.97763	10	19	14.23	+14	33	04.2		046
2941		1985	02	20.99186	10	19	13.22	+14	33	07.5		046
1978	WH14	1985	02	12.90586	09	42	13.50	+14	32	46.6	16.6	046
1978	WH14	1985	02	12.92009	09	42	12.58	+14	32	52.0		046
1978	WH14	1985	02	13.93867	09	41	21.80	+14	37	41.1		046
1978	WH14	1985	02	13.95291	09	41	21.20	+14	37	45.5		046
1978	WH14	1985	02	15.88333	09	39	45.33	+14	46	55.5		046
1978	WH14	1985	02	15.89826	09	39	44.61	+14	46	59.1		046
1978	WH14	1985	02	16.86968	09	38	56.81	+14	51	31.6		046
1978	WH14	1985	02	16.88385	09	38	55.96	+14	51	33.7		046
1981	EM4	1985	02	12.83757	08	52	59.35	+21	58	19.5		046
1981	EM4	1985	02	12.85233	08	52	58.33	+21	58	17.3		046
1981	EM4	1985	02	13.86807	08	51	54.00	+21	55	17.8		046
1981	EM4	1985	02	13.88236	08	51	53.06	+21	55	15.5		046
1983	VV1	1985	02	12.90586	09	41	52.95	+15	33	52.3	16.8	046
1983	VV1	1985	02	12.92009	09	41	52.03	+15	33	56.7		046

1983	VV1		1985	02	13.93867	09	41	00.80	+15	37	14.9		046
1983	VV1		1985	02	13.95291	09	41	00.14	+15	37	17.4		046
1983	VV1		1985	02	15.88333	09	39	23.41	+15	43	30.0		046
1983	VV1		1985	02	15.89826	09	39	22.51	+15	43	33.4		046
1983	VV1		1985	02	16.86968	09	38	34.02	+15	46	40.0		046
1983	VV1		1985	02	16.88385	09	38	33.12	+15	46	43.8		046
1983	XS		1985	02	12.87229	09	06	05.36	+13	59	15.0		046
1983	XS		1985	02	12.88688	09	06	04.51	+13	59	16.6		046
1983	XS		1985	02	13.90238	09	05	12.22	+14	01	19.2		046
1983	XS		1985	02	13.91679	09	05	11.41	+14	01	20.3		046
1985	CK		1985	02	12.87229	09	10	27.33	+15	38	57.2	16.5	046
1985	CK		1985	02	12.88688	09	10	26.66	+15	38	59.3		046
1985	CK		1985	02	13.90238	09	09	36.55	+15	42	41.2		046
1985	CK		1985	02	13.91679	09	09	35.90	+15	42	45.0		046
1985	CK		1985	02	15.84722	09	08	02.23	+15	49	40.8		046
1985	CK		1985	02	15.86157	09	08	01.47	+15	49	44.9		046
1985	CV		1985	02	16.93958	10	22	56.07	+13	06	47.8	16.7	046
1985	CV		1985	02	16.95382	10	22	55.31	+13	06	54.1		046
1985	CV		1985	02	20.97763	10	19	28.07	+13	48	03.3		046
1985	CV		1985	02	20.99186	10	19	27.27	+13	48	12.6		046
1985	CC1	*	1985	02	13.93867	09	39	29.22	+17	23	21.2	17.0	046
1985	CC1		1985	02	13.95291	09	39	28.64	+17	23	30.7		046
1985	CC1		1985	02	15.88333	09	37	34.00	+17	25	00.7		046
1985	CC1		1985	02	15.89826	09	37	32.83	+17	25	09.0		046
1985	CD1	*	1985	02	13.93867	09	43	13.55	+14	20	27.7	16.5	046
1985	CD1		1985	02	13.95291	09	43	12.64	+14	20	39.4		046
1985	CE1	*	1985	02	13.93867	09	46	01.92	+15	22	06.3	17.0	046
1985	CE1		1985	02	13.95291	09	46	01.36	+15	22	12.2		046
1985	CF1	*	1985	02	13.93867	09	47	49.98	+15	23	57.7		046
1985	CF1		1985	02	13.95291	09	47	49.11	+15	24	05.9		046
1985	CF1		1985	02	15.88333	09	46	08.32	+15	40	50.9	16.6	046
1985	CF1		1985	02	15.89826	09	46	07.65	+15	40	58.9		046
1985	CF1		1985	02	16.86968	09	45	16.97	+15	49	18.2		046
1985	CF1		1985	02	16.88385	09	45	16.14	+15	49	26.7		046
1985	CG1	*	1985	02	13.93867	09	48	04.17	+17	03	35.5	1	046
1985	CG1		1985	02	13.95291	09	48	03.54	+17	03	43.0	16.9	046
1985	CH1	*	1985	02	15.91840	10	20	57.63	+16	01	21.6	16.5	046
1985	CH1		1985	02	15.93258	10	20	56.95	+16	01	24.2		046
1985	CH1		1985	02	16.90411	10	19	57.06	+16	05	21.2		046
1985	CH1		1985	02	16.91846	10	19	56.25	+16	05	21.9		046
1985	CH1		1985	02	20.90784	10	15	47.41	+16	20	37.7		046
1985	CH1		1985	02	20.92207	10	15	46.63	+16	20	42.0		046
1985	CH1		1985	02	20.97763	10	15	43.02	+16	20	52.9		046
1985	CH1		1985	02	20.99186	10	15	42.02	+16	20	55.4		046
1985	CJ1	*	1985	02	15.91840	10	24	16.01	+17	40	40.6	16.8	046
1985	CJ1		1985	02	15.93258	10	24	14.96	+17	40	45.8		046
1985	CJ1		1985	02	16.90411	10	23	18.85	+17	46	15.5		046
1985	CJ1		1985	02	16.91846	10	23	17.96	+17	46	19.9		046
1985	CJ1		1985	02	20.90784	10	19	23.79	+18	07	52.3		046
1985	CJ1		1985	02	20.92207	10	19	22.99	+18	07	56.1		046
1985	CK1	*	1985	02	15.99444	11	10	00.39	+13	03	59.5	16.8	046
1985	CK1		1985	02	16.00891	11	09	59.31	+13	04	05.2		046
1985	DH	*	1985	02	16.86968	09	37	36.73	+16	56	48.1	16.7	046
1985	DH		1985	02	16.88385	09	37	35.43	+16	56	52.2		046
1985	DJ	*	1985	02	16.93958	10	22	34.81	+13	32	46.0	16.6	046
1985	DJ		1985	02	16.95382	10	22	34.24	+13	32	49.2		046
1985	DJ		1985	02	20.97763	10	19	26.92	+13	43	32.9		046
1985	DJ		1985	02	20.99186	10	19	25.95	+13	43	33.7		046
1985	DK	*	1985	02	16.93958	10	22	57.34	+16	21	53.8	16.7	046

1985	DK		1985	02	16.95382	10	22	56.47	+16	22	00.8		046
1985	DK		1985	02	20.90784	10	18	54.99	+16	54	38.1		046
1985	DK		1985	02	20.92207	10	18	53.97	+16	54	46.1		046
1985	DK		1985	02	20.97763	10	18	50.54	+16	55	12.0		046
1985	DK		1985	02	20.99186	10	18	49.60	+16	55	19.6		046
1985	DL	*	1985	02	16.93958	10	26	48.56	+15	39	55.8	16.5	046
1985	DL		1985	02	16.95382	10	26	47.74	+15	40	04.2		046
1985	DL		1985	02	20.90784	10	23	37.04	+16	31	13.5		046
1985	DL		1985	02	20.92207	10	23	36.35	+16	31	25.6		046
1985	DL		1985	02	20.97763	10	23	33.19	+16	32	08.0		046
1985	DL		1985	02	20.99186	10	23	32.40	+16	32	18.6		046
1985	DM	*	1985	02	16.93958	10	26	51.28	+13	39	22.8		046
1985	DM		1985	02	16.95382	10	26	50.50	+13	39	29.8		046
1985	DM		1985	02	20.97763	10	22	57.07	+14	01	18.0		046
1985	DM		1985	02	20.99186	10	22	56.42	+14	01	22.1		046
1985	DN	*	1985	02	16.93958	10	26	52.00	+16	29	01.2	16.8	046
1985	DN		1985	02	16.95382	10	26	51.23	+16	29	07.3		046
1985	DO	*	1985	02	16.93958	10	27	50.37	+14	41	44.9		046
1985	DO		1985	02	16.95382	10	27	49.64	+14	41	44.4		046
1985	DP	*	1985	02	16.93958	10	30	45.76	+16	03	42.9	16.4	046
1985	DP		1985	02	16.95382	10	30	44.85	+16	03	48.3		046
1985	DP		1985	02	20.97763	10	26	46.30	+16	33	21.1		046
1985	DP		1985	02	20.99186	10	26	45.34	+16	33	27.4		046
1985	DQ	*	1985	02	16.97500	10	56	56.55	+13	41	52.4	16.0	046
1985	DQ		1985	02	16.98918	10	56	55.79	+13	42	02.8		046
1985	DR	*	1985	02	16.97500	10	57	46.16	+15	29	26.0	16.8	046
1985	DR		1985	02	16.98918	10	57	45.27	+15	29	31.3		046
1985	DS	*	1985	02	16.97500	11	04	34.62	+14	29	45.5	17.0	046
1985	DS		1985	02	16.98918	11	04	33.85	+14	29	52.6		046
1985	DT	*	1985	02	20.90784	10	17	43.81	+19	56	44.1	16.7	046
1985	DT		1985	02	20.92207	10	17	43.16	+19	56	49.1		046
1985	DU	*	1985	02	20.94464	10	29	58.67	+19	59	29.6	16.7	046
1985	DU		1985	02	20.95888	10	29	58.04	+19	59	29.9		046
1985	DV	*	1985	02	20.94464	10	33	00.02	+19	27	31.2	16.8	046
1985	DV		1985	02	20.95888	10	32	59.51	+19	27	35.5		046
1985	DW	*	1985	02	20.97763	10	15	49.64	+15	29	54.3	16.6	046
1985	DW		1985	02	20.99186	10	15	48.86	+15	29	58.6		046

Note 1: image diffuse.

OBSERVATIONS MADE AT BRORFELDE BY K. AUGUSTESEN, P. JENSEN AND H. J. FOGH OLSEN.

Contact: H. J. Fogh Olson, Copenhagen University Observatory, Brorfelde, DK-4340 Tollose, Denmark.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
92	1985 02	18.99766	11 33 02.66	+15 53 15.2	12.8V	054
92	1985 02	19.02405	11 33 01.69	+15 53 23.9		054
367	1985 02	11.86276	08 57 52.15	+21 59 33.6	13.8V	054
367	1985 02	12.94130	08 56 47.37	+22 04 41.5		054
367	1985 02	13.94785	08 55 47.88	+22 09 18.3		054
615	1985 02	11.86276	08 48 53.16	+21 37 59.3	15.0V	054
615	1985 02	13.94785	08 46 56.10	+21 43 41.5		054
1324	1985 02	13.97579	09 07 45.41	+14 25 32.4	16.5V	054
1324	1985 02	18.94060	09 02 14.60	+14 40 35.5	16.6V	054
1681	1985 02	18.99766	11 31 37.06	+15 04 19.3	16.0V	054
2138	1985 02	11.86276	08 56 20.23	+21 55 00.8	16.3V	054
2138	1985 02	12.94130	08 55 22.55	+22 00 18.0		054
2138	1985 02	13.94785	08 54 29.11	+22 05 08.1		054
2138	1985 02	18.96988	08 50 13.52	+22 27 31.9	16.4V	054
2172	1985 02	11.86276	08 54 48.40	+21 32 04.6	16.4V	054

2172		1985	02	12.94130	08	53	53.74	+21	36	02.3	054
2172		1985	02	13.94785	08	53	03.39	+21	39	38.1	054
2172		1985	02	18.96988	08	49	04.88	+21	55	52.2	16.5V 054
2647		1985	02	18.94060	09	02	28.71	+13	05	59.5	16.2V 054
2647		1985	02	19.93412	09	01	31.85	+13	08	48.9	16.3V 054
3210		1985	02	18.99766	11	28	21.62	+15	27	57.4	16.4V 054
1981	EM4	1985	02	11.86276	08	54	01.98	+22	01	04.8	16.2V 054
1981	EM4	1985	02	12.94130	08	52	52.68	+21	58	01.8	054
1981	EM4	1985	02	13.94785	08	51	49.09	+21	55	03.2	054
1981	EM4	1985	02	18.96988	08	46	48.64	+21	38	42.1	16.4V 054
1983	WB	1985	02	19.02405	11	34	42.16	+18	15	38.9	16.0V 054
1983	XS	1985	02	13.97579	09	05	08.40	+14	01	30.0	16.0V 054
1983	XS	1985	02	18.94060	09	01	00.60	+14	11	11.8	16.2V 054
1983	XS	1985	02	19.93412	09	00	13.21	+14	13	02.7	054
1985	CG	1985	02	13.94785	08	54	40.53	+21	37	26.8	054
1985	CG	1985	02	18.96988	08	50	29.77	+21	58	25.4	16.4V 054
1985	CK	1985	02	19.93412	09	04	51.25	+16	03	41.0	054
1985	DF *	1985	02	18.99766	11	29	40.38	+16	45	17.2	16.5V 054
1985	DF	1985	02	19.02405	11	29	39.12	+16	45	31.9	054
1985	DG *	1985	02	19.02405	11	34	08.63	+17	45	54.2	16.5V 054

OBSERVATIONS MADE AT THE BULGARIAN NATIONAL OBSERVATORY, ROZHEN, BY V. IVANOVA, V. SHKODROV AND A. GEORGIEVA.

Contact: V. Shkodrov, Department of Astronomy, Bulgarian Academy of Sciences, Sofia, Bulgaria.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
26	1984 09	23.97271	23 48 47.81	-05 47 10.2	071
26	1984 09	24.01716	23 48 45.58	-05 47 22.4	071
26	1984 10	18.72917	23 31 03.37	-07 01 26.4	071
26	1984 10	18.76686	23 31 02.17	-07 01 29.4	071
801	1984 10	18.74161	23 36 18.01	-02 02 35.3	071
801	1984 10	18.75550	23 36 17.76	-02 02 41.3	071
801	1984 10	18.78082	23 36 16.85	-02 02 56.0	071
801	1984 10	18.79471	23 36 16.60	-02 03 00.5	071
892	1984 10	19.77882	00 04 03.14	-06 07 22.6	071
896	1984 09	24.02815	00 25 50.38	+16 45 16.9	071
896	1984 09	24.04204	00 25 49.87	+16 45 08.6	071
896	1984 09	24.06417	00 25 48.34	+16 44 59.7	071
896	1984 09	24.07806	00 25 47.94	+16 44 55.2	071
940	1984 11	25.11672	09 54 43.86	+18 55 10.4	071
940	1984 11	25.15972	09 54 44.79	+18 55 09.7	071
1053	1984 09	24.01716	00 01 31.51	-04 36 18.4	071
1133	1984 10	19.77882	00 06 34.73	-07 59 32.1	071
1133	1984 10	19.81944	00 06 33.34	-07 59 24.4	071
1368	1984 10	18.80559	23 37 19.35	-08 34 19.8	071
1508	1984 10	18.81253	23 51 47.78	-08 03 59.0	071
1508	1984 10	18.81757	23 51 47.02	-08 03 53.9	071
1508	1984 10	18.83146	23 51 46.22	-08 03 52.3	071
1508	1984 10	18.83583	23 51 45.57	-08 03 50.1	071
1508	1984 10	18.84972	23 51 44.79	-08 03 48.4	071
1508	1984 10	18.85448	23 51 44.44	-08 03 42.8	071
1508	1984 10	18.86837	23 51 43.47	-08 03 40.6	071
1508	1984 10	18.87194	23 51 43.76	-08 03 36.8	071
1508	1984 10	18.88583	23 51 42.36	-08 03 35.3	071
1508	1984 10	18.91860	23 51 39.64	-08 03 22.5	071
1508	1984 10	18.93249	23 51 38.99	-08 03 19.6	071
1508	1984 10	19.79444	23 50 36.16	-07 58 33.0	071
1508	1984 10	19.80833	23 50 35.32	-07 58 30.9	071
1508	1984 10	20.92094	23 49 15.64	-07 52 12.9	071

1508		1984	10	20.93483	23	49	14.74	-07	52	06.8	071
1508		1984	10	21.72740	23	48	19.45	-07	47	31.7	071
1508		1984	10	21.76584	23	48	16.68	-07	47	18.1	071
1508		1984	10	21.77973	23	48	15.98	-07	47	14.4	071
1508		1984	10	23.85496	23	45	54.92	-07	34	36.8	071
1508		1984	10	23.86885	23	45	54.54	-07	34	34.5	071
1562		1984	10	18.81757	23	58	21.55	-07	37	24.8	071
1562		1984	10	18.83146	23	58	21.04	-07	37	29.2	071
1562		1984	10	18.86142	23	58	19.80	-07	37	35.6	071
1562		1984	10	19.77882	23	57	43.98	-07	40	44.2	071
1562		1984	10	19.81944	23	57	42.40	-07	40	52.5	071
1680		1984	09	24.89160	00	21	36.11	-04	38	15.3	071
1680		1984	09	24.90549	00	21	35.50	-04	38	19.4	071
1680		1984	09	25.02133	00	21	29.56	-04	38	53.8	071
1680		1984	09	25.03522	00	21	28.84	-04	38	59.1	071
1680		1984	10	19.77882	00	02	26.59	-06	15	49.3	071
1680		1984	10	19.81944	00	02	24.97	-06	15	55.1	071
1814		1984	10	18.72917	23	18	59.93	-06	34	51.1	071
1814		1984	10	18.76686	23	18	58.75	-06	34	50.8	071
2009		1984	10	23.86191	23	52	36.70	-05	00	23.0	071
2009		1984	10	23.91717	23	52	35.02	-05	00	31.7	071
2088		1984	10	18.74161	23	37	12.01	-00	53	55.0	071
2088		1984	10	18.75550	23	37	11.66	-00	53	56.0	071
2088		1984	10	18.78777	23	37	10.06	-00	54	01.0	071
2317		1984	10	18.74855	23	40	06.04	-02	19	36.3	071
2317		1984	10	18.78777	23	40	04.99	-02	19	50.0	071
2361		1984	09	23.97576	23	49	21.32	-02	58	46.7	071
2361		1984	09	23.97965	23	49	21.09	-02	58	53.4	071
2361		1984	09	24.01716	23	49	19.20	-02	59	26.6	071
2535		1984	10	18.74855	23	39	59.85	-03	42	51.5	071
2535		1984	10	18.78082	23	39	58.47	-03	43	02.3	071
2535		1984	10	18.79471	23	39	58.19	-03	43	06.5	071
2887		1984	10	19.77882	00	01	06.09	-07	26	16.4	071
2887		1984	10	19.81944	00	01	04.50	-07	26	23.4	071
3153		1984	09	24.89160	00	22	23.26	-07	24	39.0	071
3153		1984	09	24.90549	00	22	22.58	-07	24	42.1	071
3153		1984	09	25.02133	00	22	15.16	-07	24	55.5	071
3153		1984	09	25.03522	00	22	14.64	-07	24	57.1	071
3153		1984	10	18.82451	00	00	30.86	-07	31	38.2	071
3153		1984	10	18.86142	00	00	29.20	-07	31	34.8	071
3157		1984	09	24.89854	00	22	44.22	-05	55	23.6	071
3157		1984	09	25.02133	00	22	38.08	-05	55	42.9	071
3157		1984	09	25.03522	00	22	37.56	-05	55	46.3	071
3159		1984	09	24.02815	00	12	12.97	+17	15	13.6	071
3159		1984	09	24.04204	00	12	12.66	+17	15	06.5	071
3159		1984	09	24.06417	00	12	11.28	+17	14	51.0	071
3159		1984	09	24.07806	00	12	11.04	+17	14	46.4	071
1971	UD1	1984	09	24.01716	23	54	25.45	-04	06	35.2	071
1981	EP	1984	10	19.77882	00	03	56.18	-09	30	00.9	071
1981	EP	1984	10	19.81944	00	03	55.32	-09	30	21.6	071
1982	FK	1984	09	24.05322	01	15	08.21	+08	23	11.5	071
1982	FK	1984	09	24.08953	01	15	06.46	+08	23	10.5	071
1984	QQ	1984	10	18.74855	23	30	01.56	-00	54	18.6	071
1984	QQ	1984	10	18.78777	23	30	00.74	-00	54	37.8	071
1984	SA	1984	09	24.03509	00	26	27.78	+15	41	54.6	071
1984	SA	1984	09	24.07111	00	26	26.22	+15	41	42.2	071
1984	SG3	1984	09	24.89854	00	21	08.10	-05	52	09.7	071
1984	SG3	1984	09	25.02872	00	21	00.15	-05	52	16.6	071
1984	SJ3	1984	10	19.77882	00	09	27.72	-08	12	04.6	071

1984 SJ3		1984	10	19.81944	00	09	26.55	-08	12	08.9	071
1984 SV5		1984	10	18.74855	23	39	16.30	-01	10	53.0	071
1984 SV5		1984	10	18.78777	23	39	14.85	-01	10	56.7	071
1984 SA6		1984	10	21.72740	23	50	33.72	-06	21	18.8	071
1984 SA6		1984	10	21.77279	23	50	32.23	-06	21	33.5	071
1984 SC7	*	1984	09	23.96576	23	49	23.21	-02	48	58.3	071
1984 SC7		1984	09	23.97965	23	49	22.79	-02	49	06.4	071
1984 SC7		1984	09	24.01716	23	49	21.13	-02	49	21.7	071
1984 SD7	*	1984	09	23.97271	23	50	51.50	-05	19	04.3	071
1984 SD7		1984	09	24.01716	23	50	49.48	-05	19	16.8	071
1984 SE7	*	1984	09	23.97271	23	55	29.12	-03	12	53.4	071
1984 SE7		1984	09	24.01716	23	55	27.06	-03	13	07.5	071
1984 SF7	*	1984	09	23.97271	23	58	08.85	-04	07	33.7	071
1984 SF7		1984	09	24.01716	23	58	06.46	-04	07	45.7	071
1984 SG7	*	1984	09	24.01716	23	59	50.62	-05	46	31.7	071
1984 SH7	*	1984	09	23.97271	00	00	21.06	-03	19	37.3	071
1984 SH7		1984	09	24.01716	00	00	18.81	-03	19	51.6	071
1984 SJ7	*	1984	09	24.02815	00	15	47.46	+17	00	49.8	071
1984 SJ7		1984	09	24.04204	00	15	47.01	+17	00	45.8	071
1984 SJ7		1984	09	24.06417	00	15	45.27	+17	00	43.4	071
1984 SJ7		1984	09	24.07806	00	15	44.85	+17	00	41.1	071
1984 SK7	*	1984	09	24.02815	00	16	48.50	+14	59	39.4	071
1984 SK7		1984	09	24.04204	00	16	48.16	+14	59	32.3	071
1984 SK7		1984	09	24.07111	00	16	46.36	+14	59	18.6	071
1984 SL7	*	1984	09	24.05322	01	14	51.41	+11	02	58.7	071
1984 SL7		1984	09	24.08953	01	14	49.70	+11	03	02.6	071
1984 SM7	*	1984	09	24.89854	00	08	21.58	-06	05	02.7	071
1984 SM7		1984	09	25.02133	00	08	19.69	-06	07	22.0	071
1984 SM7		1984	09	25.03522	00	08	19.44	-06	07	32.2	071
1984 SN7	*	1984	09	24.89854	00	10	07.61	-07	54	18.5	071
1984 SN7		1984	09	25.02133	00	10	01.88	-07	55	16.5	071
1984 SN7		1984	09	25.03522	00	10	01.30	-07	55	23.5	071
1984 UV3	*	1984	10	18.72917	23	21	43.02	-06	20	19.9	071
1984 UV3		1984	10	18.76686	23	21	41.65	-06	20	14.8	071
1984 UW3	*	1984	10	18.81757	23	53	05.20	-08	45	55.6	071
1984 UW3		1984	10	18.83146	23	53	04.91	-08	46	06.9	071
1984 UW3		1984	10	18.86142	23	53	04.09	-08	46	42.1	071
1984 UX3	*	1984	10	19.77882	00	08	07.63	-07	43	21.3	071
1984 UX3		1984	10	19.81944	00	08	06.05	-07	43	19.7	071

OBSERVATION MADE AT THE BURLINGTON REMOTE SITE BY T. HANDLEY.

Film taken with a 0.20-m f/4 astrograph. Contact: T. Handley, 13 Linden Avenue, Burlington, NJ 08016, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
1981 XA	1984	12 23.38333	08 16 59.70	+41 56 10.2	293

OBSERVATIONS MADE AT GEISEI BY T. SEKI.

Copied in part from Nihondaira Obs. Circ. Nos. 1502, 1504 and 1505. Contact: T. Seki, Kamimachi 2-9-35, Kochi, Japan.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
954	1985	01 25.54201	07 40 33.10	+20 16 21.7		1	372
954	1985	01 25.55451	07 40 32.43	+20 16 26.1		1	372
A915 TE	1985	03 12.50521	04 43 04.03	+28 59 30.6	18.5		372
A915 TE	1985	03 21.50799	04 51 46.2	+29 06 16	18.7		372
1985 AE	1985	01 25.54201	07 42 27.41	+20 22 51.4	18	1	372
1985 AE	1985	01 25.55451	07 42 27.04	+20 22 56.9		1	372
1985 BB	1985	02 10.50521	08 45 14.06	+21 20 18.2	19		372
1985 BB	1985	02 10.51910	08 45 13.72	+21 20 20.2			372
1985 BB	1985	02 24.59063	08 34 41.96	+21 55 36.4	20		372

1985 BB	1985 02 24.61111	08 34 41.10	+21 55 37.9			372
1985 CA	1985 02 12.55764	08 43 47.13	+21 25 07.6		19	372
1985 CA	1985 02 12.57500	08 43 46.17	+21 25 04.0			372
1985 CA	1985 02 17.62431	08 38 58.17	+21 12 43.6		19	372
1985 CA	1985 02 17.64549	08 38 57.12	+21 12 42.5			372
1985 CA	1985 02 19.67118	08 37 12.50	+21 07 04.6		20	372
1985 CA	1985 02 19.68472	08 37 11.62	+21 07 02.6			372
1985 CB	1985 02 11.59028	08 46 33.51	+21 45 30.1		16	372
1985 CB	1985 02 12.55764	08 45 41.48	+21 50 42.6		16	372
1985 CB	1985 02 12.57500	08 45 40.47	+21 50 48.0			372
1985 CB	1985 02 13.63160	08 44 44.37	+21 56 23.3		16.5	372
1985 CB	1985 02 17.66215	08 41 24.19	+22 15 58.5		16.5	372

Note 1: measured by T. Urata.

OBSERVATIONS MADE WITH THE 1.2-M U.K. SCHMIDT TELESCOPE AT SIDING SPRING.

Plates taken by J. Dawe, J. Barrow, M. Hartley, D. Morgan, K. Russell and A. Savage in the course of the U.K.-Caltech Asteroid Survey under the direction of E. Helin and E. Shoemaker. Measured by S. J. Bus using a PDS microdensitometer. Contact: S. J. Bus, Lowell Observatory, P.O. Box 1269, Flagstaff, AZ 86002, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
1981 ED21	1981 02 13.64027	12 10 42.78	-01 36 43.5		413
1981 ED21	1981 04 30.53008	11 13 12.09	+00 08 08.7		413
1981 ED21	1981 05 02.49622	11 13 05.80	+00 06 20.2		413

OBSERVATIONS MADE AT MOUNT JOHN UNIVERSITY OBSERVATORY.

Plates taken with the 0.25-m astrograph (on Feb. 20 and Mar. 1) and the 0.6-m f/14 Cassegrain reflector (on Mar. 2 and 10) by A. C. Gilmore, measured by P. M. Kilmartin. Computational support from R. McIntosh and W. M. Kissling. Reductions using field plates from the Carter Observatory, AGK3, SAO Catalog and Cape Photographic Catalogue. Contact: A. C. Gilmore, P.O. Box 57, Lake Tekapo, New Zealand.

Object		Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
1985 DX	*	1985 02 20.48689	09 53 35.50	-01 19 44.4		16	474
1985 DX		1985 02 20.53039	09 53 33.26	-01 19 39.9			474
1985 DX		1985 03 01.51669	09 45 08.22	-00 28 33.0			474
1985 DX		1985 03 01.56137	09 45 05.78	-00 28 16.8			474
1985 DX		1985 03 02.36528	09 44 24.48	-00 23 10.9			474
1985 DX		1985 03 02.38704	09 44 23.35	-00 23 02.2			474
1985 DX		1985 03 10.35326	09 38 17.37	+00 29 44.5			474
1985 DX		1985 03 10.37201	09 38 16.58	+00 29 51.0			474

OBSERVATIONS MADE AT YEBES BY M. DE PASCUAL, J. GARCIA, C. CABANAS AND F. SANCHEZ.

Plates taken with the 0.4-m f/5 double astrograph at the Centro Astronomico of the National Astronomical Observatory of the National Geographical Institute. Measurements using an ASCORECORD II Coordinatometer, reductions using about eight SAO Catalog reference stars. Contact: M. de Pascual M., Observatorio Astronomico de Madrid, Alfonso XII 3, Madrid, Spain.

Object	Date	UT	R. A. (1950)	Decl.	N	Obs.
3	1983 11 10.81098	02 02 06.37	-06 44 50.4			491
3	1983 11 10.81652	02 02 06.13	-06 44 52.3			491
3	1983 11 10.82206	02 02 05.93	-06 44 54.7			491
3	1983 12 01.94738	01 55 21.46	-07 34 34.4			491
3	1983 12 01.95362	01 55 21.43	-07 34 33.7			491
3	1983 12 01.95916	01 55 21.39	-07 34 33.0			491
3	1983 12 05.86287	01 55 28.57	-07 25 55.3			491
3	1983 12 05.86622	01 55 28.54	-07 25 54.6			491

3		1983	12	05.86968	01	55	28.58	-07	25	53.8	491
3		1984	01	04.94116	02	11	24.36	-04	06	07.0	491
3		1984	01	04.94532	02	11	25.28	-04	06	04.3	491
3		1984	01	04.94947	02	11	24.80	-04	06	02.0	491
3		1984	01	09.91654	02	16	19.75	-03	17	24.1	491
3		1984	01	09.92070	02	16	19.95	-03	17	21.1	491
3		1984	01	09.92485	02	16	20.27	-03	17	18.3	491
4		1983	12	02.11567	05	31	43.37	+18	18	42.5	491
4		1983	12	02.11913	05	31	43.12	+18	18	42.3	491
4		1983	12	02.12259	05	31	42.89	+18	18	41.8	491
4		1983	12	05.93611	05	27	41.75	+18	23	13.8	491
4		1983	12	05.94165	05	27	41.37	+18	23	14.1	491
4		1983	12	05.94719	05	27	41.03	+18	23	14.7	491
4		1984	01	04.95501	04	56	30.89	+19	12	06.6	491
4		1984	01	04.95917	04	56	30.68	+19	12	07.2	491
4		1984	01	04.96332	04	56	30.45	+19	12	07.7	491
39		1984	01	05.06889	04	35	55.83	+06	59	59.9	491
39		1984	01	05.07304	04	35	55.69	+07	00	00.6	491
39		1984	01	05.07754	04	35	55.56	+07	00	01.3	491
39		1984	01	10.02839	04	33	44.09	+07	20	06.5	491
39		1984	01	10.03185	04	33	44.01	+07	20	08.0	491
39		1984	01	10.03532	04	33	43.95	+07	20	08.7	491
80		1983	12	02.04843	01	51	51.76	+08	45	00.5	491
80		1983	12	02.05190	01	51	51.76	+08	44	59.4	491
80		1983	12	02.05536	01	51	51.72	+08	44	57.8	491
80		1983	12	05.91328	01	52	08.99	+08	26	52.4	491
80		1983	12	05.92087	01	52	09.00	+08	26	50.9	491
80		1983	12	05.92849	01	52	09.08	+08	26	49.0	491
259		1984	01	05.09572	05	27	30.44	+23	30	19.5	1 491
259		1984	01	10.07548	05	23	47.63	+23	37	56.3	491
629		1984	01	05.09572	05	20	54.79	+23	39	10.8	491
629		1984	01	10.07548	05	17	16.91	+23	53	29.7	491
940		1984	01	05.09572	05	18	20.40	+25	42	06.4	491
995		1983	12	01.03039	01	59	52.33	+10	31	18.0	491
995		1983	12	01.89561	01	59	39.74	+10	25	07.2	491
1162		1984	01	05.09572	05	22	38.11	+24	55	36.3	491
1162		1984	01	10.07548	05	19	40.34	+24	52	45.8	2 491
1301		1983	12	01.97214	03	36	30.20	-35	34	02.7	491
1301		1983	12	03.93170	03	35	00.73	-35	31	44.7	2 491
1478		1983	12	01.99984	04	35	37.20	+34	49	35.8	491
1478		1983	12	03.95698	04	33	18.78	+34	42	49.9	491
1478		1984	01	04.98491	04	04	52.78	+31	37	56.0	2 491
1552		1983	12	01.99984	04	37	01.53	+35	44	30.1	491
1552		1983	12	03.95698	04	34	56.09	+35	44	26.5	491
2044		1983	12	04.02139	05	06	21.93	+45	29	38.4	491
2044		1983	12	05.96467	05	03	00.62	+46	33	14.9	491
2044		1984	01	05.15597	04	07	17.98	+57	20	58.8	491
2044		1984	01	05.16775	04	07	17.33	+57	21	06.2	491
2044		1984	01	10.04640	04	02	48.03	+58	05	45.2	491
2044		1984	01	10.05679	04	02	47.07	+58	05	49.4	491
2616		1983	12	01.03039	02	00	25.74	+09	38	08.0	491
2616		1983	12	01.89561	02	00	06.36	+09	37	05.3	491
2616		1984	01	04.91393	02	06	54.55	+10	46	20.2	491
2757		1983	12	02.07221	05	51	23.36	+24	27	53.3	491
2757		1983	12	03.99818	05	49	51.58	+24	28	02.0	491
2757		1984	01	05.09572	05	22	13.72	+24	13	32.5	2 491
2757		1984	01	10.07548	05	19	02.31	+24	09	41.2	491

Note 1: close to edge of plate. 2: image diffuse and difficult to measure.

OBSERVATIONS MADE AT HAUTE PROVENCE.

Contact: F. Dossin, Institut d'Astrophysique, Universite de Liege, Avenue de Cointe 5, B-4200 Cointe Ougree, Belgium.

Object		Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
670		1985 01	29.01736	06 40 41.53	+13 02 36.6	14.5	511
670		1985 01	30.04583	06 40 04.19	+13 06 39.1		511
1751		1985 01	29.01736	06 47 55.27	+13 35 41.7	17	511
1751		1985 01	30.04583	06 47 14.35	+13 36 56.3		511
1950	DH	1985 01	29.01736	06 40 37.20	+11 24 45.0	17.3	511
1950	DH	1985 01	30.04583	06 40 02.42	+11 30 42.6		511
1984	YV	1985 01	29.01736	06 46 13.92	+12 21 42.2	16	511
1984	YV	1985 01	30.04583	06 45 06.29	+12 07 22.6		511
1984	YV	1985 02	21.85277	06 33 34.89	+08 03 20.9	16.5	511
1984	YV	1985 02	21.88542	06 33 34.89	+08 03 04.5		511
1985	BB2 *	1985 01	30.04583	06 43 19.57	+11 23 16.7	17.5	511
1985	BC2 *	1985 01	30.04583	06 55 08.34	+11 35 10.7	17.3	511

OBSERVATIONS MADE AT THE OSSERVATORIO S. VITTORE.

Plates taken by C. Vacchi and G. Sassi; blinked by Vacchi; measured by Vacchi, V. Goretti and E. Colombini. Reduced by Colombini from least-squares plate-constants solutions with five or more AGK3 or SAO reference stars. Contact: E. Colombini, Via S. Vittore 44, I-40136 Bologna, Italy.

Object		Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
2068		1985 02	12.91181	08 52 53.55	+30 20 35.4	16.0	552
2068		1985 02	12.93472	08 52 52.28	+30 20 42.5		552
3200		1984 12	21.88333	01 12 02.71	+20 50 49.4	15.0	552
3200		1984 12	21.88889	01 11 58.47	+20 50 05.7		552
3200		1984 12	21.90764	01 11 43.85	+20 47 37.4		552
3200		1984 12	21.91319	01 11 39.84	+20 46 53.7		552
3200		1984 12	22.82917	01 00 19.62	+18 44 44.8		552
3200		1984 12	22.83472	01 00 15.05	+18 43 59.0		552
3200		1984 12	22.85451	01 00 00.64	+18 41 18.5		552
3200		1984 12	22.85660	00 59 59.02	+18 41 01.9		552
3200		1984 12	22.85868	00 59 57.48	+18 40 44.7		552
3200		1984 12	22.86076	00 59 55.96	+18 40 28.0		552
3200		1984 12	22.86285	00 59 54.43	+18 40 10.7		552
3200		1984 12	22.86493	00 59 52.96	+18 39 54.1		552
3200		1984 12	22.86701	00 59 51.38	+18 39 36.9		552
3200		1984 12	22.86910	00 59 49.82	+18 39 20.6		552
1975	SF	1984 12	22.89306	03 56 39.75	+05 00 15.0	16.0	552
1975	SF	1984 12	22.91042	03 56 39.16	+05 00 25.4		552
1980	OA	1984 12	23.91597	04 07 34.69	+22 07 56.4	16.2	552
1980	OA	1984 12	23.94028	04 07 33.87	+22 07 55.5		552
1982	BG1	1984 12	25.90347	04 15 12.56	+27 10 57.1	17.1	552
1982	BG1	1984 12	25.92083	04 15 11.88	+27 10 49.3		552
1982	JA	1985 02	12.91181	08 53 32.60	+30 13 15.8	17.5	552
1982	JA	1985 02	12.93472	08 53 31.04	+30 13 17.3		552
1984	YY	1984 12	22.92778	04 59 06.63	+23 32 30.5	16.5	552
1984	YY	1984 12	22.94167	04 59 05.61	+23 32 27.8		552
1985	CW *	1985 02	12.91181	08 52 24.15	+30 10 36.9	17.0	552
1985	CW	1985 02	12.93472	08 52 22.63	+30 10 32.2		552

OBSERVATIONS MADE AT THE OSSERVATORIO GIORDANO BRUNO, CAVRIANA.

Plates taken with a 0.40-m reflector, blinked and measured by L. Lai, I. Rochetti, M. Ruzza and G. Vesentini. Reference stars from SAO Catalog. Contact: L. Lai, Via Mantovana 130/A, I-37062 Verona, Italy.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
262	1984 11	27.87708	02 24 43.35	+18 00 00.1	571
262	1984 11	27.90138	02 24 42.19	+18 00 01.1	571

497	1984	12	21.85208	04	53	15.13	+30	25	54.0	571
497	1984	12	21.87917	04	53	13.51	+30	25	50.9	571
497	1984	12	22.87222	04	52	18.79	+30	23	34.8	571
497	1984	12	22.89028	04	52	17.74	+30	23	32.2	571
497	1984	12	23.81736	04	51	28.19	+30	21	22.2	571
497	1984	12	23.83194	04	51	27.13	+30	21	19.4	571
497	1984	12	24.81944	04	50	35.41	+30	18	57.4	571
497	1984	12	24.83681	04	50	34.79	+30	18	53.9	571
583	1984	10	02.93264	23	35	16.07	+09	19	56.9	571
583	1984	10	02.95902	23	35	14.92	+09	19	50.1	571
815	1984	12	21.90278	04	55	05.63	+32	17	08.3	571
815	1984	12	21.91180	04	55	05.09	+32	17	10.7	571
815	1984	12	22.90556	04	53	58.92	+32	19	53.9	571
815	1984	12	22.92431	04	53	57.64	+32	19	55.5	571
815	1984	12	23.84931	04	52	57.30	+32	22	19.5	571
815	1984	12	23.86806	04	52	56.11	+32	22	21.8	571
815	1984	12	24.85139	04	51	52.51	+32	24	48.5	571
815	1984	12	24.86875	04	51	51.49	+32	24	51.3	571
833	1984	10	29.90278	00	20	02.29	+09	12	11.4	571
833	1984	10	29.92153	00	20	01.60	+09	12	10.8	571
883	1984	10	29.86667	00	20	11.95	+12	04	08.5	571
883	1984	10	29.88611	00	20	11.34	+12	04	04.2	571
905	1984	11	27.87708	02	26	19.10	+17	30	45.0	571
905	1984	11	27.90138	02	26	17.92	+17	30	48.0	571
911	1984	10	02.93264	23	37	52.21	+10	04	57.8	571
911	1984	10	02.95902	23	37	51.36	+10	04	56.2	571
958	1984	11	27.92014	02	28	34.17	+22	13	38.0	571
958	1984	11	27.94028	02	28	33.50	+22	13	34.8	571
958	1984	11	28.85347	02	28	02.68	+22	10	44.3	571
958	1984	11	28.87708	02	28	01.88	+22	10	40.4	571
1145	1984	12	21.90278	04	57	34.58	+32	22	07.7	571
1145	1984	12	21.91180	04	57	33.97	+32	22	06.3	571
1145	1984	12	22.90556	04	56	28.37	+32	19	18.3	571
1145	1984	12	22.92431	04	56	27.22	+32	19	15.2	571
1145	1984	12	24.85139	04	54	23.07	+32	13	33.5	571
1145	1984	12	24.86875	04	54	22.08	+32	13	29.8	571
1254	1984	10	29.86667	00	21	23.27	+13	03	57.7	571
1254	1984	10	29.88611	00	21	22.60	+13	03	53.1	571
1280	1984	10	29.86667	00	21	23.23	+12	07	24.1	571
1280	1984	10	29.88611	00	21	22.56	+12	07	21.6	571
1404	1984	10	02.93264	23	35	58.00	+09	31	06.9	571
1404	1984	10	02.95902	23	35	57.01	+09	31	03.4	571
1505	1984	11	27.92014	02	25	15.48	+21	48	09.5	571
1505	1984	11	27.94028	02	25	14.52	+21	47	58.9	571
1505	1984	11	28.85347	02	24	39.13	+21	40	31.8	571
1505	1984	11	28.87708	02	24	38.25	+21	40	19.2	571
1678	1984	10	29.90278	00	18	31.27	+08	35	58.4	571
1678	1984	10	29.92153	00	18	30.58	+08	35	56.5	571
1859	1984	10	29.90278	00	19	57.70	+08	21	54.8	571
1859	1984	10	29.92153	00	19	57.15	+08	21	50.6	571
2649	1984	10	02.89236	23	03	12.63	+14	15	25.6	571
2649	1984	10	02.91180	23	03	11.91	+14	15	13.7	571

OBSERVATIONS MADE WITH THE 1.2-M SCHMIDT AT PALOMAR BY E. HELIN.
Plates measured by D. Steele. Contact: E. Helin, Jet Propulsion Laboratory, MS 183-501, 4800 Oak Grove Drive, Pasadena, CA 91109, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N Obs.
1365	1985	02 25.51319	18 06 37.04	-24 31 35.6	17	675
1365	1985	02 25.54792	18 06 41.94	-24 31 34.3		675

1365		1985	02	26.53750	18	08	52.04	-24	29	42.3	675
1365		1985	02	26.55139	18	08	53.41	-24	29	42.9	675
1365		1985	02	27.53958	18	11	01.9	-24	27	36.0	675
1365		1985	02	27.55347	18	11	04.7	-24	27	44.8	675
1985	DB	* 1985	02	27.32639	09	23	35.95	+15	27	08.6	17.5 675
1985	DB	1985	02	27.37153	09	23	31.74	+15	26	17.8	1 675
1985	DC	* 1985	02	27.32639	09	30	46.98	+17	54	02.5	17 675
1985	DC	1985	02	27.35764	09	30	46.32	+17	55	52.2	1 675

Note 1: the time of observation may require correction by -5 min.

OBSERVATIONS MADE WITH THE 1.2-M SCHMIDT AT PALOMAR BY J. GIBSON.

Coordination with J. G. Williams and with the Minor Planet Center. AGK3 and SAO reference stars. Contact: J. Gibson, Jet Propulsion Laboratory, MS 264-781, Pasadena, CA 91109, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
A915 TE	1985	03 13.23474	04 43 43.88	+29 00 00.9			675
1979 MM5	1983	08 30.24864	22 27 13.87	-06 24 43.0	16		675
1979 MM5	1983	09 02.44170	22 24 26.81	-06 40 28.7			675
1981 XA	1985	01 01.46877	08 10 44.55	+46 24 01.6			675
1982 DV	1984	12 02.54863	11 14 04.03	-02 26 57.4			675
1982 DV	1985	01 01.52432	12 53 11.41	-13 42 39.1		1	675

Note 1: image trailed; end of trail involved with a star.

OBSERVATIONS MADE AT PALOMAR BY C. S. SHOEMAKER AND E. SHOEMAKER.

Four-minute exposures with the 0.46-m Schmidt telescope. Film pairs scanned with a stereomicroscope. Reference stars from the SAO Catalog. Assistance from B. Anderson, T. Dowling, A. Grossman, M. Nolan, D. Padgett, J. Platt and K. Stapelfeldt. Contact: C. Shoemaker, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, CA 91125, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
1984 SU	1984	10 23.13888	23 48 05.38	+03 01 15.4		1	675
1984 SU	1984	10 23.15902	23 48 04.99	+03 01 12.5		1	675
1984 SA5	1984	10 23.32430	01 43 14.96	+23 57 41.5			675
1984 SA5	1984	10 27.20902	01 40 04.55	+23 36 30.2			675
1984 SC5	1984	10 22.36944	23 48 09.77	+18 33 25.5			675
1984 SC5	1984	10 23.16458	23 47 38.81	+18 29 42.6			675
1984 SC5	1984	10 24.19791	23 47 00.49	+18 24 55.4			675
1984 SE5	1984	10 26.21813	00 58 48.41	+14 52 02.7			675
1984 SE5	1984	10 26.23541	00 58 47.66	+14 51 58.9			675
1984 SF5	1984	10 26.21813	01 02 06.70	+16 22 28.6			675
1984 SF5	1984	10 26.23541	01 02 05.78	+16 22 23.4			675
1984 SG5	1984	10 25.25625	01 10 28.54	+14 31 03.5			675
1984 SG5	1984	10 26.23125	01 09 44.93	+14 22 20.3			675
1984 SH5	1984	10 25.25625	01 22 08.17	+16 10 02.0			675
1984 SH5	1984	10 26.23125	01 21 29.19	+16 06 13.1			675
1984 SL5	1984	10 23.20763	00 08 17.60	+11 33 35.4			675
1984 SL5	1984	10 23.23680	00 08 15.93	+11 33 39.8			675
1984 US3	* 1984	10 23.11805	23 10 13.47	+17 18 27.1		2	675
1984 UT3	* 1984	10 23.32430	01 29 48.46	+21 13 16.8		3	675
1984 UT3	1984	10 27.20902	01 26 02.63	+20 57 45.4			675
1985 CL	1985	02 26.35227	09 27 16.00	+35 16 32.7			675
1985 CU	1985	02 26.33611	09 57 56.51	+01 28 22.8			675
1985 CV	* 1985	02 12.33819	10 26 47.54	+12 19 16.1	17.5	4	675
1985 CV	1985	02 16.37986	10 23 24.76	+13 01 03.4			675
1985 CX	* 1985	02 12.32847	10 37 44.48	+32 36 09.7	16.8	4	675
1985 CX	1985	02 16.39583	10 34 16.34	+33 09 44.3			675
1985 CX	1985	02 26.40972	10 25 09.88	+34 17 13.6			675
1985 CB1	* 1985	02 14.27361	10 31 05.03	+48 55 43.3	17	4	675

1985 CB1		1985 02 22.30347	10 18 22.11	+48 57 22.7							675
1985 DD	*	1985 02 16.40625	11 04 18.62	+54 10 35.1				16.8		4	675
1985 DD		1985 02 26.42847	10 53 20.30	+56 15 12.5							675
1985 FA	*	1985 03 22.39653	14 34 44.48	+17 40 08.3				17		4	675
1985 FA		1985 03 22.42847	14 34 42.70	+17 40 09.4							675
1985 FB	*	1985 03 26.30625	11 08 02.20	-07 15 07.1				17		9	675
1985 FB		1985 03 26.32569	11 08 00.60	-07 15 08.4							675

Note 1: image faint. 2: discoverer M. Nolan; image faint. 3: discoverer J. Platt. 4: discoverer C. Shoemaker. 5: image diffuse. 9 = 4 + 5.

OBSERVATIONS MADE AT THE LOWELL OBSERVATORY'S ANDERSON MESA STATION.
CCD frames with the 1.8-m Perkins reflector. Observers S. J. Bus, T. J. Kreidl and B. A. Skiff. Measured by Bus and Skiff. SAO primary reference stars, faint star transfer. Contact: E. Bowell, Lowell Observatory, P.O. Box 1269, Flagstaff, AZ 86002, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
834	1984 09	20.38715	02 36 20.71	+12 56 03.8	688
834	1984 09	20.38993	02 36 20.65	+12 56 03.4	688
1916	1984 09	21.43475	03 59 45.61	+37 47 26.9	688
1916	1984 09	21.43735	03 59 45.64	+37 47 29.3	688
2135	1984 09	22.21828	21 39 02.46	+07 37 08.9	688
2135	1984 09	22.22205	21 39 02.17	+07 37 03.9	688
2246	1984 09	21.30174	23 24 14.68	-06 23 50.9	688
2246	1984 09	21.29861	23 24 14.79	-06 23 50.1	688
2495	1984 09	20.40313	02 35 44.30	+16 07 40.6	688
2495	1984 09	20.40521	02 35 44.30	+16 07 38.2	688
2643	1984 09	21.32330	00 09 06.79	+15 08 50.7	688
2643	1984 09	21.32535	00 09 06.59	+15 08 52.4	688
3010	1984 09	21.40313	03 10 00.66	+14 59 12.3	688
3010	1984 09	21.42303	03 10 00.40	+14 59 10.6	688
3193	1984 09	21.41094	03 57 42.47	+24 06 38.9	688
3193	1984 09	21.41458	03 57 42.59	+24 06 40.1	688
3201	1984 09	21.39181	02 18 56.36	+08 54 12.2	688
3201	1984 09	21.39653	02 18 56.22	+08 54 11.1	688
3216	1984 09	21.47083	04 09 59.76	+13 44 04.7	688
3216	1984 09	21.47569	04 09 59.90	+13 44 04.5	688
1984 QA	1984 09	22.24097	22 47 30.53	-24 46 11.7	688
1984 QA	1984 09	22.24444	22 47 30.01	-24 46 14.0	688

OBSERVATIONS MADE AT THE LOWELL OBSERVATORY'S ANDERSON MESA STATION.
Plates with the 0.33-m photographic telescope. Observer B. A. Skiff. Measured by S. J. Bus using a PDS scanning microdensitometer. SAO reference stars, global solutions. It has been known for a long time that the telescope is not in good optical adjustment. Images of bright point sources are asymmetric, even on-axis, while those of faint sources are quite round. As a consequence of the current measurement technique, which consists of determining the centroid of each target image profile, there exist magnitude-dependent position errors of faint sources with respect to bright ones. It has been found that these relative position errors do not depend strongly on the distance from the optic axis, at least up to 0.15 m in the focal plane. Since 1979 June 28 (see MPC 4816) the positions of minor planets and comets have been uniformly measured with respect to SAO or AGK3 stars. Position residuals from 10 212 minor planet observations were analyzed for systematic residuals. Observations of numbered minor planets 1-2300 only were used, since orbits calculated for higher-numbered objects have been slightly affected by the systematic residuals in the observations. For objects fainter than B = 13.7 the mean O-C residuals in arcsec were found to be +0.22 sec in R.A. and -1.70 in Decl. For objects brighter than B = 10.0 the mean residuals are zero. For objects in the range 10.0 B 13.7 the

residuals can be represented by +0.06 (B-10.0) sec and -0.46 (B-10.0), respectively. Accordingly, in the measurements below, and henceforth, these systematic corrections have been subtracted from the observed positions of minor planets. The B magnitudes used are, for preference, those observed, or else those that result from calculations using standard procedures. Note that the corrections are not being made in the case of observations of comets. Contact: E. Bowell, Lowell Observatory, P.O. Box 1269, Flagstaff, AZ 86002, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N Obs.
7	1985 01	19.27125	05 03 23.23	+20 01 36.0		688
7	1985 01	21.17639	05 03 26.40	+19 57 04.6		688
7	1985 01	21.23056	05 03 26.46	+19 56 57.0		688
32	1985 03	18.20972	09 20 52.93	+07 15 30.2		688
32	1985 03	18.25434	09 20 52.03	+07 15 43.2		688
66	1985 01	19.29343	05 27 55.44	+28 09 53.7		688
66	1985 01	20.12569	05 27 36.19	+28 08 19.9		688
66	1985 01	20.16944	05 27 35.15	+28 08 14.6		688
92	1985 02	25.37500	11 28 57.99	+16 33 27.3		688
92	1985 02	25.43750	11 28 55.39	+16 33 50.3		688
100	1985 01	20.22743	06 27 48.47	+19 41 30.5		688
100	1985 01	20.25729	06 27 47.24	+19 41 35.2		688
122	1985 03	18.23199	09 09 28.27	+15 10 41.6		688
122	1985 03	18.27708	09 09 27.39	+15 10 47.0		688
123	1985 02	25.28825	09 25 13.51	+11 43 44.1		688
123	1985 02	25.34097	09 25 10.71	+11 43 50.2		688
140	1985 02	25.28825	09 47 23.77	+16 28 40.8		688
140	1985 02	25.34097	09 47 21.03	+16 28 55.1		688
150	1985 01	20.22743	06 36 36.25	+20 03 44.0		688
150	1985 01	20.25729	06 36 34.82	+20 03 45.3		688
156	1985 01	20.21250	06 17 48.05	+13 55 58.4		688
156	1985 01	20.24236	06 17 46.51	+13 55 58.1		688
167	1985 02	25.34097	09 40 30.65	+12 48 37.6		688
167	1985 03	18.23199	09 27 10.67	+14 11 24.3		688
167	1985 03	18.27708	09 27 09.40	+14 11 32.0		688
206	1985 01	19.27125	05 12 22.29	+18 36 51.7		688
206	1985 01	21.17639	05 11 38.90	+18 40 01.7		688
206	1985 01	21.23056	05 11 37.65	+18 40 07.0		688
215	1985 01	21.35243	08 59 58.19	+19 39 49.6		688
215	1985 01	21.36701	08 59 57.50	+19 39 53.3		688
223	1985 02	25.28825	09 27 45.63	+18 05 38.3		688
223	1985 02	25.34097	09 27 43.15	+18 05 47.6		688
223	1985 03	18.23199	09 16 22.44	+18 42 12.1		688
223	1985 03	18.27708	09 16 21.55	+18 42 13.1		688
231	1985 02	25.28825	09 48 13.92	+16 26 46.1		688
231	1985 02	25.34097	09 48 11.19	+16 26 55.0		688
232	1985 03	18.23199	09 08 46.90	+16 25 49.1		688
232	1985 03	18.27708	09 08 46.20	+16 26 00.9		688
272	1985 01	19.33432	08 07 45.90	+27 17 01.3		688
272	1985 01	19.38676	08 07 42.61	+27 17 10.9		688
306	1985 02	25.28825	09 42 36.55	+15 04 06.0		688
306	1985 02	25.34097	09 42 33.55	+15 04 28.1		688
306	1985 03	18.23199	09 27 00.94	+17 05 50.8		688
306	1985 03	18.27708	09 26 59.47	+17 06 02.0		688
322	1985 01	19.27125	05 08 06.04	+18 51 37.5		688
322	1985 01	21.17639	05 07 35.03	+18 48 14.5		688
322	1985 01	21.23056	05 07 34.15	+18 48 08.9		688
331	1985 01	19.29343	05 42 09.44	+31 33 15.9		688
331	1985 01	20.12569	05 41 39.44	+31 31 56.4		688
331	1985 01	20.16944	05 41 37.94	+31 31 51.9		688

351	1985	01	19.27125	05	07	39.72	+21	30	15.0		688
351	1985	01	21.17639	05	06	58.07	+21	37	56.3		688
351	1985	01	21.23056	05	06	56.92	+21	38	09.4		688
440	1985	01	19.34958	08	48	28.98	+17	07	23.0		688
440	1985	01	19.40176	08	48	25.63	+17	07	30.6		688
446	1985	02	25.24514	08	52	34.80	+32	58	02.1		688
446	1985	02	25.30000	08	52	32.09	+32	58	02.0		688
448	1985	02	25.24514	08	55	29.29	+34	44	05.6		688
448	1985	02	25.30000	08	55	26.68	+34	44	04.3		688
455	1985	02	25.24514	09	05	05.64	+32	00	51.5		688
455	1985	02	25.30000	09	05	02.86	+32	00	57.3		688
476	1985	01	19.29343	05	25	15.68	+26	28	53.1		688
476	1985	01	20.12569	05	24	47.65	+26	25	09.4		688
476	1985	01	20.16944	05	24	46.16	+26	24	57.3		688
480	1985	01	19.13796	01	54	19.56	+13	06	27.9		688
480	1985	01	19.16933	01	54	21.33	+13	06	25.0		688
499	1984	04	08.42778	15	18	59.91	-19	39	47.7		688
576	1985	01	19.34958	08	29	25.87	+18	03	09.7		688
576	1985	01	19.40176	08	29	23.00	+18	03	13.0		688
577	1985	03	18.23199	09	06	38.56	+17	04	12.2		688
577	1985	03	18.27708	09	06	37.42	+17	04	13.4		688
613	1984	04	08.42778	15	14	42.88	-26	16	27.8		688
615	1985	01	21.35243	09	09	41.22	+20	21	19.7		688
615	1985	01	21.36701	09	09	40.59	+20	21	22.9		688
668	1985	01	20.21250	06	24	40.08	+14	20	04.9	17.2	688
668	1985	01	20.24236	06	24	38.56	+14	20	06.8		688
677	1985	01	19.31572	05	59	08.01	+22	05	42.0		688
677	1985	01	20.14757	05	58	34.70	+22	03	50.3		688
677	1985	01	20.19132	05	58	32.86	+22	03	45.1		688
726	1984	04	08.42778	15	17	41.10	-26	10	21.6		688
737	1985	01	19.36816	10	02	05.93	-00	03	47.7		688
737	1985	01	19.42066	10	02	03.94	-00	03	38.8		688
737	1985	02	25.26042	09	33	33.54	+03	17	20.0		688
737	1985	02	25.31528	09	33	30.84	+03	17	44.0		688
737	1985	03	18.20972	09	19	53.84	+05	46	34.2		688
737	1985	03	18.25434	09	19	52.53	+05	46	52.1		688
747	1985	01	20.21250	06	10	34.05	+09	52	49.1		688
747	1985	01	20.24236	06	10	32.99	+09	53	12.8		688
788	1985	01	19.36816	09	48	02.55	-00	24	40.1		688
788	1985	01	19.42066	09	48	00.87	-00	24	30.2		688
788	1985	02	25.26042	09	22	58.87	+03	24	20.6		688
788	1985	02	25.31528	09	22	56.62	+03	24	47.8		688
788	1985	03	18.20972	09	12	18.84	+06	14	30.6		688
788	1985	03	18.25434	09	12	17.94	+06	14	50.9		688
824	1985	01	20.21250	06	04	48.09	+15	52	40.6	15.5	688
824	1985	01	20.24236	06	04	46.82	+15	52	45.9		688
899	1985	01	19.36816	09	50	45.91	-04	03	09.2		688
899	1985	01	19.42066	09	50	43.78	-04	03	11.6		688
899	1985	02	25.26042	09	21	28.02	-02	39	36.0		688
899	1985	02	25.31528	09	21	25.56	-02	39	20.3		688
937	1985	01	19.31572	06	12	18.99	+19	48	44.4		688
937	1985	01	20.14757	06	11	35.93	+19	48	49.7		688
937	1985	01	20.19132	06	11	33.82	+19	48	50.6		688
952	1985	01	21.28056	08	52	07.56	+32	14	48.2		688
952	1985	01	21.31806	08	52	05.25	+32	14	55.7		688
953	1985	01	21.28056	08	36	22.19	+31	18	25.0		688
953	1985	01	21.31806	08	36	19.87	+31	18	33.9		688
957	1984	04	08.40556	14	46	08.27	-22	13	17.6		688
982	1985	01	19.33432	07	55	43.91	+21	29	00.5		688

982	1985	01	19.38676	07	55	41.02	+21	29	00.1		688
984	1985	01	19.33432	07	49	21.80	+25	29	28.3		688
984	1985	01	19.38676	07	49	18.32	+25	29	26.7		688
1055	1985	01	20.22743	06	34	19.32	+17	45	25.2		688
1055	1985	01	20.25729	06	34	17.57	+17	45	32.3		688
1064	1985	01	19.31572	06	06	42.63	+23	25	45.8		688
1064	1985	01	20.14757	06	06	02.94	+23	23	44.1		688
1064	1985	01	20.19132	06	06	00.95	+23	23	38.0		688
1072	1985	02	25.37500	11	22	51.09	+14	22	01.1		688
1072	1985	02	25.43750	11	22	47.97	+14	22	17.3		688
1096	1985	01	21.28056	08	52	38.41	+27	46	24.8	15.8	688
1096	1985	01	21.31806	08	52	36.22	+27	46	39.0		688
1162	1985	01	19.34958	08	46	20.12	+20	31	52.9		688
1162	1985	01	19.40176	08	46	17.98	+20	32	00.4		688
1183	1985	02	25.28825	09	44	46.13	+17	20	41.9		688
1183	1985	02	25.34097	09	44	42.78	+17	20	53.2		688
1183	1985	03	18.23199	09	28	17.98	+18	01	52.1	16.5	688
1183	1985	03	18.27708	09	28	16.45	+18	01	52.3		688
1199	1985	01	19.13796	01	48	24.91	+12	27	26.2		688
1199	1985	01	19.16933	01	48	26.19	+12	27	29.3		688
1232	1985	02	25.26042	09	40	15.10	-00	47	00.7		688
1232	1985	02	25.31528	09	40	12.53	-00	46	48.7		688
1232	1985	03	18.20972	09	26	52.28	+00	38	30.2		688
1232	1985	03	18.25434	09	26	50.96	+00	38	40.6		688
1244	1985	01	20.22743	06	49	43.51	+19	34	47.5		688
1244	1985	01	20.25729	06	49	41.58	+19	34	41.9		688
1263	1985	01	19.36816	10	00	04.22	-05	09	09.2		688
1263	1985	01	19.42066	10	00	02.62	-05	08	32.4		688
1283	1985	03	18.23199	09	12	17.34	+14	01	31.8	16.5	688
1283	1985	03	18.27708	09	12	16.41	+14	01	42.0		688
1333	1985	01	19.33432	08	12	04.07	+22	14	53.1		688
1333	1985	01	19.38676	08	12	00.93	+22	15	27.2		688
1388	1985	02	25.35625	11	00	27.10	+23	18	00.8		688
1388	1985	02	25.41875	11	00	23.98	+23	18	18.9		688
1401	1984	04	08.40556	14	36	28.83	-26	18	09.6		688
1438	1985	02	25.28825	09	43	29.18	+10	43	51.5		688
1438	1985	02	25.34097	09	43	26.55	+10	44	04.5		688
1470	1985	01	19.29343	05	30	04.01	+27	36	32.8		688
1470	1985	01	20.12569	05	29	37.96	+27	35	24.5		688
1470	1985	01	20.16944	05	29	36.70	+27	35	21.0		688
1490	1985	01	20.21250	06	21	15.54	+15	10	27.1		688
1490	1985	01	20.24236	06	21	13.90	+15	10	27.0		688
1567	1985	01	19.13796	01	55	10.42	+10	30	51.5		688
1567	1985	01	19.16933	01	55	11.21	+10	31	02.1		688
1619	1985	02	25.37500	11	22	35.64	+15	02	42.0	16.2	688
1619	1985	02	25.43750	11	22	31.72	+15	03	07.7		688
1633	1985	02	25.28825	09	47	31.33	+15	45	59.0		688
1633	1985	02	25.34097	09	47	28.77	+15	46	12.8		688
1641	1985	01	19.33432	08	11	14.81	+27	26	15.8	16.2	688
1641	1985	01	19.38676	08	11	11.66	+27	26	18.1		688
1681	1985	02	25.37500	11	26	41.37	+15	52	49.4		688
1681	1985	02	25.43750	11	26	38.15	+15	53	17.8		688
1693	1985	01	21.28056	08	31	15.35	+32	20	18.2	17.2	688
1693	1985	01	21.31806	08	31	13.11	+32	20	27.8		688
1700	1985	01	19.29343	05	50	07.07	+30	45	03.1		688
1700	1985	01	20.12569	05	49	35.76	+30	42	28.0		688
1700	1985	01	20.16944	05	49	34.24	+30	42	19.1		688
1734	1985	01	20.21250	06	07	20.98	+11	02	05.9		688
1734	1985	01	20.24236	06	07	19.66	+11	02	14.4		688

1736	1985	01	19.31572	06	13	33.91	+16	28	44.0		688
1736	1985	01	20.14757	06	13	01.30	+16	32	21.2	15.8	688
1736	1985	01	20.19132	06	12	59.51	+16	32	30.8		688
1742	1985	01	19.31572	06	13	33.40	+20	36	06.4		688
1742	1985	01	20.14757	06	12	58.60	+20	37	07.8		688
1742	1985	01	20.19132	06	12	56.75	+20	37	12.0		688
1753	1985	02	25.30000	09	01	30.14	+33	06	03.8		688
1761	1985	01	19.33432	07	50	24.82	+23	45	29.6		688
1761	1985	01	19.38676	07	50	21.94	+23	45	38.6		688
1770	1985	01	19.29343	05	41	02.21	+31	43	53.5		688
1770	1985	01	20.12569	05	40	31.52	+31	42	06.2	16.5	688
1770	1985	01	20.16944	05	40	29.95	+31	42	00.6		688
1802	1985	01	19.31572	06	07	46.13	+20	47	12.0		688
1802	1985	01	20.14757	06	07	12.27	+20	48	20.2		688
1802	1985	01	20.19132	06	07	10.36	+20	48	23.2		688
1803	1985	03	18.23199	09	15	59.10	+17	46	20.3		688
1803	1985	03	18.27708	09	15	56.57	+17	45	51.0		688
1819	1985	01	19.34958	08	47	40.83	+20	13	46.2	16.0	688
1819	1985	01	19.40176	08	47	38.46	+20	14	07.6		688
1902	1985	01	21.28056	08	33	15.93	+33	18	03.5		688
1902	1985	01	21.31806	08	33	14.34	+33	18	10.1		688
1946	1985	01	21.28056	08	40	44.14	+31	35	31.9	16.2	688
1946	1985	01	21.31806	08	40	41.06	+31	35	40.7		688
2025	1985	01	19.34958	08	44	09.62	+22	30	53.3		688
2025	1985	01	19.40176	08	44	06.91	+22	30	58.3		688
2036	1985	01	19.33432	08	17	17.32	+24	20	45.1		688
2036	1985	01	19.38676	08	17	13.39	+24	20	54.0		688
2039	1985	01	20.22743	06	27	24.21	+23	52	49.4		688
2039	1985	01	20.25729	06	27	23.05	+23	52	51.4		688
2107	1985	01	20.21250	06	06	46.79	+11	19	14.4		688
2107	1985	01	20.24236	06	06	45.60	+11	19	17.0		688
2133	1985	01	21.28056	08	48	43.94	+26	08	31.9		688
2133	1985	01	21.31806	08	48	41.52	+26	08	46.3		688
2158	1985	03	18.23199	09	09	16.80	+14	58	11.1		688
2158	1985	03	18.27708	09	09	15.68	+14	58	17.4		688
2185	1985	02	25.35625	11	07	22.19	+20	42	12.9		688
2185	1985	02	25.41875	11	07	18.88	+20	42	34.9		688
2217	1985	01	19.33432	07	59	46.74	+20	04	41.4		688
2217	1985	01	19.38676	07	59	44.05	+20	04	48.6		688
2228	1985	01	19.31572	06	12	24.64	+21	32	53.1		688
2228	1985	01	20.14757	06	11	53.88	+21	33	51.7		688
2228	1985	01	20.19132	06	11	52.12	+21	33	55.1		688
2240	1985	01	19.33432	08	09	38.81	+21	16	43.4	16.5	688
2240	1985	01	19.38676	08	09	36.01	+21	16	51.7		688
2255	1985	02	25.37500	11	41	45.44	+20	13	15.0		688
2255	1985	02	25.43750	11	41	42.35	+20	13	30.4		688
2264	1985	01	19.31572	05	56	39.54	+23	20	35.6		688
2264	1985	01	20.14757	05	56	08.46	+23	20	31.9	16.5	688
2264	1985	01	20.19132	05	56	06.82	+23	20	30.8		688
2307	1984	04	08.42778	15	28	06.92	-24	15	27.9		688
2324	1985	01	20.22743	06	30	16.76	+23	36	02.0		688
2324	1985	01	20.25729	06	30	15.22	+23	36	02.6		688
2331	1985	01	20.22743	06	30	43.01	+19	07	21.3		688
2331	1985	01	20.25729	06	30	41.63	+19	07	19.5		688
2352	1984	04	08.42778	15	18	52.83	-21	44	02.0		688
2354	1985	03	18.23199	09	07	28.75	+14	19	27.9		688
2354	1985	03	18.27708	09	07	27.87	+14	19	36.3		688
2428	1985	01	21.28056	08	56	46.26	+29	30	30.7		688
2428	1985	01	21.31806	08	56	44.14	+29	30	38.2		688

2499		1985	01	20.22743	06	51	19.63	+21	53	59.6		688
2499		1985	01	20.25729	06	51	18.35	+21	54	03.8		688
2593		1985	01	20.22743	06	28	11.62	+23	34	19.5		688
2593		1985	01	20.25729	06	28	09.73	+23	34	19.4		688
2611		1985	01	19.34958	08	44	27.96	+22	09	38.3	17.2	688
2611		1985	01	19.40176	08	44	25.27	+22	09	50.8		688
2625		1985	01	19.34958	08	34	00.79	+18	05	18.5	17.5	688
2625		1985	01	19.40176	08	33	57.30	+18	05	35.6		688
2658		1985	01	20.21250	06	14	33.31	+09	47	15.0	17.0	688
2658		1985	01	20.24236	06	14	32.03	+09	47	18.2		688
2659		1985	01	19.31572	05	54	34.94	+21	47	51.0		688
2659		1985	01	20.14757	05	54	05.50	+21	48	16.3		688
2659		1985	01	20.19132	05	54	03.84	+21	48	17.2		688
2668		1985	01	19.34958	08	34	50.11	+18	10	11.9		688
2668		1985	01	19.40176	08	34	46.52	+18	10	19.4		688
2694		1985	02	25.28825	09	48	00.28	+10	20	46.6	17.2	688
2694		1985	02	25.34097	09	47	56.95	+10	21	03.5		688
2724		1985	01	19.31572	06	18	01.72	+19	01	01.6		688
2724		1985	01	20.14757	06	17	26.18	+19	02	18.7		688
2741		1985	01	20.21250	06	03	21.35	+11	53	25.1		688
2741		1985	01	20.24236	06	03	20.01	+11	53	33.3		688
2747		1985	01	19.33432	08	15	05.59	+25	49	14.2	17.5	688
2747		1985	01	19.38676	08	15	02.76	+25	49	19.2		688
2770		1985	01	19.33432	08	16	21.86	+25	15	18.5		688
2770		1985	01	19.38676	08	16	18.02	+25	15	31.5		688
2776		1985	01	20.21250	06	13	55.35	+14	42	22.4		688
2776		1985	01	20.24236	06	13	53.91	+14	42	27.1		688
2785		1985	01	20.22743	06	44	13.35	+24	40	38.4	17.2	688
2785		1985	01	20.25729	06	44	11.80	+24	40	38.5		688
2788		1985	02	25.28825	09	38	47.90	+17	34	48.6		688
2788		1985	02	25.34097	09	38	45.15	+17	34	58.3		688
2788		1985	03	18.23199	09	25	00.32	+18	03	30.4		688
2788		1985	03	18.27708	09	24	59.23	+18	03	29.0		688
2856		1985	01	21.28056	08	36	03.95	+33	14	11.8		688
2856		1985	01	21.31806	08	36	01.70	+33	14	14.4		688
2950		1985	02	25.37500	11	16	22.25	+16	40	27.0	16.8	688
2950		1985	02	25.43750	11	16	19.00	+16	40	55.5		688
2955		1985	01	19.33432	07	57	55.09	+26	53	33.6	17.5	688
2955		1985	01	19.38676	07	57	51.12	+26	53	45.3		688
2975		1984	04	08.42778	15	15	02.80	-22	25	16.0		688
2985		1985	01	19.33432	07	53	21.48	+24	54	43.6	17.2	688
2985		1985	01	19.38676	07	53	18.66	+24	54	49.7		688
3002		1985	01	19.31572	06	15	13.38	+21	23	32.9		688
3002		1985	01	20.14757	06	14	27.91	+21	26	11.4		688
3002		1985	01	20.19132	06	14	25.37	+21	26	20.2		688
3110		1985	01	19.34958	08	53	38.93	+20	07	45.9		688
3110		1985	01	19.40176	08	53	35.69	+20	07	55.8		688
3115		1984	04	08.40556	14	48	56.53	-26	31	05.6		688
3209		1985	01	20.22743	06	46	43.77	+19	59	37.1	16.8	688
3209		1985	01	20.25729	06	46	41.91	+19	59	46.2		688
3210		1985	02	25.37500	11	24	23.44	+16	25	17.4	16.2	688
3210		1985	02	25.43750	11	24	20.86	+16	25	49.8		688
3211		1985	01	21.28056	08	47	15.67	+28	19	14.0	16.5	688
3211		1985	01	21.31806	08	47	12.97	+28	19	13.4		688
3224		1984	01	05.26597	07	28	19.52	+16	14	48.8	16.8	688
A916	PC	1985	01	19.40176	08	33	33.77	+19	36	12.8	16.5	688
1933	SJ	1985	01	19.34958	08	52	33.28	+18	10	49.6	17.2	688
1933	SJ	1985	01	19.40176	08	52	30.36	+18	10	55.7		688
1978	PA	1985	02	25.39792	11	24	29.68	+42	18	12.7	17.5	688

1978	WH14		1985	02	25.28825	09	32	19.24	+15	28	20.5	17.0	688
1978	WH14		1985	02	25.34097	09	32	16.76	+15	28	32.3		688
1978	WH14		1985	03	18.23199	09	20	43.35	+16	30	28.6	17.5	688
1978	WH14		1985	03	18.27708	09	20	42.35	+16	30	33.8		688
1978	WN14		1985	01	20.22743	06	38	59.65	+22	46	37.7	17.2	688
1978	WN14		1985	01	20.25729	06	38	58.30	+22	46	39.9		688
1980	OA		1982	01	18.39028	08	52	37.52	+21	16	02.5	17.2	688
1980	RA		1985	01	21.29931	08	55	22.06	+46	09	40.7	16.2	688
1980	RA		1985	01	21.33681	08	55	17.22	+46	09	11.4		688
1980	TX5		1985	01	19.31572	06	15	59.31	+17	57	43.1		688
1980	TX5		1985	01	20.14757	06	15	19.53	+17	56	44.4	17.0	688
1980	TX5		1985	01	20.19132	06	15	17.04	+17	56	40.2		688
1981	EE27		1985	01	19.36816	09	59	44.14	-02	45	22.3	17.5	688
1981	EE27		1985	01	19.42066	09	59	42.60	-02	45	12.3		688
1981	EE27		1985	02	25.26042	09	34	26.26	+02	13	31.1	17.2	3 688
1981	EE27		1985	02	25.31528	09	34	23.51	+02	14	13.3		688
1981	EE27		1985	03	18.20972	09	24	01.68	+06	08	59.5	17.5	688
1981	EE27		1985	03	18.25434	09	24	01.10	+06	09	25.2		688
1981	FB		1985	01	19.36816	09	53	53.83	-05	59	02.8	16.8	688
1981	FB		1985	01	19.42066	09	53	52.50	-05	58	57.0		688
1981	FB		1985	02	25.26042	09	28	05.96	-01	43	47.0	16.5	688
1981	FB		1985	02	25.31528	09	28	03.78	-01	43	07.2		688
1981	FB		1985	03	18.20972	09	18	33.15	+02	11	49.9	17.0	688
1981	FB		1985	03	18.25434	09	18	32.55	+02	12	19.0		688
1982	BH1		1985	01	19.27125	05	11	22.89	+21	12	21.5		688
1982	BH1		1985	01	21.17639	05	11	08.56	+21	12	40.1	17.0	688
1982	BH1		1985	01	21.23056	05	11	08.09	+21	12	39.2		688
1982	HE1		1985	01	21.28056	08	53	56.42	+32	07	05.4	17.5	688
1982	HE1		1985	01	21.31806	08	53	53.85	+32	07	21.6		688
1983	VV1		1985	02	25.28825	09	31	47.82	+16	11	06.8	17.2	688
1983	VV1		1985	02	25.34097	09	31	45.20	+16	11	15.6		688
1983	VV1		1985	03	18.23199	09	19	15.61	+16	46	32.5	17.5	688
1983	VV1		1985	03	18.27708	09	19	14.40	+16	46	34.1		688
1983	WB		1985	02	25.37500	11	30	11.34	+18	54	52.9	15.8	688
1983	WB		1985	02	25.43750	11	30	08.42	+18	55	14.9		688
1985	BD2	*	1985	01	19.33432	08	08	06.92	+27	12	36.1	16.8	4 688
1985	BD2		1985	01	19.38676	08	08	02.87	+27	12	57.5		688
1985	BE2	*	1985	01	19.36816	10	00	20.62	-06	00	06.4	17.0	4 688
1985	BE2		1985	01	19.42066	10	00	18.93	-06	00	13.4		688
1985	BF2	*	1985	01	21.28056	08	37	09.00	+28	24	09.4	17.2	4 688
1985	BF2		1985	01	21.31806	08	37	07.06	+28	24	13.4		688
1985	BG2	*	1985	01	21.28056	08	39	03.80	+26	10	43.7	16.8	4 688
1985	BG2		1985	01	21.31806	08	39	01.30	+26	10	45.6		688
1985	BH2	*	1985	01	21.28056	08	49	30.39	+33	41	03.0	17.2	4 688
1985	BH2		1985	01	21.31806	08	49	27.71	+33	41	07.3		688
1985	BJ2	*	1985	01	21.28056	08	51	12.47	+30	55	42.4	17.0	4 688
1985	BJ2		1985	01	21.31806	08	51	10.83	+30	55	57.6		688
1985	BK2	*	1985	01	21.28056	08	56	12.79	+31	03	30.7	16.8	4 688
1985	BK2		1985	01	21.31806	08	56	10.51	+31	03	39.4		688
1985	CT		1985	02	25.28825	09	36	32.48	+14	57	47.9	16.8	688
1985	CT		1985	02	25.34097	09	36	29.74	+14	58	35.4		688
1985	CT		1985	03	18.23199	09	23	51.80	+19	31	19.6	17.2	688
1985	CT		1985	03	18.27708	09	23	50.88	+19	31	45.5		688
1985	DF		1985	02	25.37500	11	24	50.97	+17	38	57.0	17.0	688
1985	DF		1985	02	25.43750	11	24	47.57	+17	39	27.3		688
1985	DD1	*	1985	02	25.26042	09	19	26.95	+04	42	45.4	16.8	5 688
1985	DD1		1985	02	25.31528	09	19	23.45	+04	42	45.4		688
1985	DD1		1985	03	18.20972	09	04	54.16	+04	46	31.3	17.5	688
1985	DD1		1985	03	18.25434	09	04	53.17	+04	46	32.9		688

1985 DE1	*	1985	02	25.26042	09	26	34.50	+01	58	53.0	16.5	5 688
1985 DE1		1985	02	25.31528	09	26	30.92	+01	58	56.8		688
1985 DE1		1985	03	18.20972	09	10	43.53	+02	30	31.3	17.0	688
1985 DE1		1985	03	18.25434	09	10	42.01	+02	30	35.4		688
1985 DF1	*	1985	02	25.26042	09	35	05.20	+03	50	24.1	16.5	5 688
1985 DF1		1985	02	25.31528	09	35	02.29	+03	50	36.7		688
1985 DF1		1985	03	18.20972	09	21	22.59	+05	13	47.3	17.0	688
1985 DF1		1985	03	18.25434	09	21	21.13	+05	13	57.3		688
1985 DG1	*	1985	02	25.26042	09	36	02.43	+01	24	06.3	17.2	5 688
1985 DG1		1985	02	25.31528	09	35	59.90	+01	24	14.1		688
1985 DH1	*	1985	02	25.26042	09	38	38.90	+01	13	07.0	16.2	5 688
1985 DH1		1985	02	25.31528	09	38	36.33	+01	13	19.5		688
1985 DH1		1985	03	18.20972	09	25	35.19	+02	38	01.0	16.8	688
1985 DH1		1985	03	18.25434	09	25	33.94	+02	38	11.7		688
1985 DJ1	*	1985	02	25.28825	09	37	38.22	+13	04	38.6	17.2	5 688
1985 DJ1		1985	02	25.34097	09	37	34.89	+13	04	45.9		688
1985 DK1	*	1985	02	25.35625	11	09	35.37	+21	18	36.9	17.5	5 688
1985 DK1		1985	02	25.41875	11	09	32.59	+21	19	02.8		688
1985 DL1	*	1985	02	25.37500	11	23	12.20	+17	00	20.3	17.0	5 688
1985 DL1		1985	02	25.43750	11	23	08.06	+17	00	47.2		688
1985 DM1	*	1985	02	25.37500	11	24	43.51	+14	50	43.2	17.2	5 688
1985 DM1		1985	02	25.43750	11	24	39.90	+14	50	56.9		688
1985 DN1	*	1985	02	25.37500	11	38	07.80	+21	59	09.9	16.5	5 688
1985 DN1		1985	02	25.43750	11	38	04.86	+21	59	39.4		688
1985 DO1	*	1985	02	25.37500	11	38	37.74	+16	51	14.4	17.0	5 688
1985 DO1		1985	02	25.43750	11	38	34.12	+16	51	48.2		688
1985 FA		1985	03	31.44306	14	25	26.32	+17	53	33.1	17.0	688
1985 FA		1985	03	31.47083	14	25	24.27	+17	53	33.4		688

Note 1: right ascension uncertain. 2: declination uncertain. 3 = 1 + 2. 4: discoverer Skiff. 5: discoverer Bowell.

OBSERVATIONS MADE AT THE LOWELL OBSERVATORY.

Plates taken by A. A. Hoag with the 0.46-m astrographic refractor, measured by L. H. Wasserman using a PDS scanning microdensitometer. AGK3 or SAO reference stars, global solutions. Contact: E. Bowell, Lowell Observatory, P.O. Box 1269, Flagstaff, AZ 86002, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
29	1985 03	14.38333	15 37 02.69	-24 47 48.4	690
42	1985 03	18.16076	11 32 12.77	+17 05 00.8	690
42	1985 03	18.16250	11 32 12.65	+17 05 01.7	690
42	1985 03	18.16458	11 32 12.54	+17 05 02.4	690
129	1985 03	13.22118	10 00 33.95	+18 33 41.3	690
129	1985 03	13.22257	10 00 33.90	+18 33 41.8	690
129	1985 03	13.22431	10 00 33.83	+18 33 42.5	690
129	1985 03	13.22813	10 00 33.69	+18 33 43.3	690
129	1985 03	13.22951	10 00 33.65	+18 33 44.3	690
129	1985 03	13.23125	10 00 33.57	+18 33 44.9	690
129	1985 03	18.13646	09 57 29.76	+19 04 30.0	690
129	1985 03	18.13819	09 57 29.68	+19 04 30.8	690
129	1985 03	18.14028	09 57 29.61	+19 04 31.6	690

OBSERVATIONS MADE WITH THE SPACEWATCH CAMERA 0.91-M TELESCOPE ON KITT PEAK.

Observations made by T. Gehrels with a CCD in scanning mode. Reductions by J. V. Scotti using reference stars from the 1984 SAO Catalog. For further details see MPC 9198. Contact: T. Gehrels, Space Sciences Building, University of Arizona, Tucson, AZ 85721, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
1976 YP2	1985 02	24.20087	04 34 41.98	+30 59 30.9	18.0V	1	691
1976 YP2	1985 02	24.21859	04 34 43.29	+30 59 40.1		1	691

1976	YP2	1985	02	24.23389	04	34	44.41	+30	59	47.7	1	691
1976	YP2	1985	03	22.11878	05	15	20.19	+34	06	27.9		691
1976	YP2	1985	03	22.13527	05	15	22.00	+34	06	33.3		691
1976	YP2	1985	03	22.15152	05	15	23.73	+34	06	38.6		691
1981	AA	1985	03	21.26003	13	20	30.10	+30	59	58.7	17.0V	691
1981	AA	1985	03	21.28730	13	20	28.51	+31	00	14.3		691
1981	AA	1985	03	21.31376	13	20	26.96	+31	00	29.2		691
1981	ED21	1985	02	15.12648	03	36	12.66	+30	40	29.8	18.0V	691
1981	ED21	1985	02	15.18722	03	36	20.73	+30	40	32.5		691
1981	ED21	1985	03	15.11167	04	44	25.77	+30	49	30.9	18.0V	691
1981	ED21	1985	03	15.12851	04	44	28.37	+30	49	29.3		691
1981	ED21	1985	03	15.14436	04	44	30.77	+30	49	28.7		691
1981	ED21	1985	03	26.11779	05	13	02.63	+30	34	06.9		691
1981	ED21	1985	03	26.13382	05	13	05.15	+30	34	05.0		691
1981	ED21	1985	03	26.14325	05	13	06.59	+30	34	03.7		691
1981	XA	1985	02	24.26164	07	24	34.68	+54	42	03.3	17.2V	691
1981	XA	1985	02	24.28319	07	24	35.16	+54	41	55.3		691
1981	XA	1985	02	24.30163	07	24	35.59	+54	41	48.3		691
1981	XA	1985	03	20.23177	07	49	39.09	+51	12	43.3	2	691
1981	XA	1985	03	20.24951	07	49	40.69	+51	12	31.6	2	691
1981	XA	1985	03	20.26782	07	49	42.32	+51	12	19.6	2	691
1982	DA	1985	03	21.11450	06	31	32.48	+17	47	19.9	18.6V	691
1982	DA	1985	03	25.17125	06	41	49.81	+19	32	13.3		691
1982	DA	1985	03	25.18606	06	41	52.08	+19	32	35.0		691
1982	DA	1985	03	25.20140	06	41	54.38	+19	32	57.8		691
1982	HS	1985	03	20.28071	08	55	17.55	+51	32	38.2	18.2V	691
1982	HS	1985	03	20.29888	08	55	16.83	+51	32	28.0		691
1982	HS	1985	03	20.32355	08	55	15.95	+51	32	14.3		691
1982	UM	1985	03	21.19517	08	37	18.65	+23	56	40.0	18.0V 3	691
1982	UM	1985	03	21.21140	08	37	18.46	+23	56	39.5	3	691
1982	UM	1985	03	21.22664	08	37	18.24	+23	56	39.3	3	691
1984	HA1	1985	03	21.34868	15	37	29.05	+01	20	12.5	16.2V	691
1984	HA1	1985	03	21.37159	15	37	28.90	+01	20	19.9		691
1984	HA1	1985	03	21.39436	15	37	28.80	+01	20	27.0		691
1985	CN	1985	03	18.27906	11	39	30.68	+06	12	29.3	18.5V	691
1985	CN	1985	03	18.29646	11	39	29.74	+06	12	40.8		691
1985	CN	1985	03	18.31075	11	39	28.96	+06	12	49.6		691
1985	CN	1985	03	25.29263	11	33	45.11	+07	25	49.1	7	691
1985	CN	1985	03	25.30720	11	33	44.40	+07	25	57.2	7	691
1985	CN	1985	03	25.32149	11	33	43.66	+07	26	06.1	3	691
6536	P-L	1985	03	20.40853	11	41	16.63	+02	38	17.5	18.2V	691
6536	P-L	1985	03	20.41329	11	41	16.42	+02	38	19.0		691
6536	P-L	1985	03	20.41730	11	41	16.25	+02	38	20.2		691
6536	P-L	1985	03	20.43179	11	41	15.60	+02	38	25.8		691

Note 1: only two reference stars. 2: image elongated in R.A. 3: poor fit in R.A. to reference stars. 4: close to star. 7 = 3 + 4.

OBSERVATIONS MADE AT THE GOETHE LINK OBSERVATORY.

Plates measured and reduced at Indiana University under the direction of D. Owings in response to requests from the Minor Planet Center. Contact: F. K. Edmondson, Swain Hall West 319A, Indiana University, Bloomington, IN 47401, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	N	Obs.
1213	1964 10	03.32587	01 57 06.57	+31 01 06.7	1	760
1259	1953 11	06.33608	05 02 54.73	+22 22 14.5	2	760
1259	1953 11	06.38192	05 02 53.08	+22 22 15.5	2	760
1581	1963 10	18.18406	01 41 28.21	+06 47 19.0		760
1581	1963 10	18.22642	01 41 26.13	+06 47 12.1		760
3167	1966 03	29.31675	13 42 30.38	-11 45 49.9		760

3167		1966	03	29.35980	13	42	28.01	-11	45	53.7	760
1950	HG	1950	04	21.20208	14	08	18.40	-18	25	45.7	760
1950	HG	1950	04	21.24789	14	08	15.32	-18	25	32.5	760
1955	SW2	1955	09	19.33815	01	55	15.64	+18	03	27.2	760
1955	SW2	1955	09	19.38050	01	55	14.44	+18	03	21.7	760
1955	SX2	1955	09	17.27286	00	10	17.10	+09	10	39.0	3 760
1955	SX2	1955	09	17.31314	00	10	15.11	+09	10	24.0	3 760
1955	UE	1955	10	20.07884	00	11	12.47	+06	09	23.1	760
1955	UE	1955	10	20.11842	00	11	10.83	+06	09	10.5	760
1955	UK	1955	10	20.17363	01	21	56.02	+04	34	59.4	760
1955	UK	1955	10	20.21461	01	21	54.02	+04	34	46.2	760
1955	UZ	1955	10	20.25765	01	25	52.09	+18	25	24.8	760
1955	UZ	1955	10	20.30210	01	25	50.56	+18	24	44.4	760
1955	UB1	1955	10	20.25765	01	17	27.81	+17	31	43.7	760
1955	UB1	1955	10	20.30210	01	17	25.45	+17	31	26.8	760
1955	UC1	1955	10	20.25765	01	17	33.27	+12	14	18.8	760
1955	UC1	1955	10	20.30210	01	17	30.72	+12	14	07.0	760
1955	UE1	1955	10	25.29096	02	26	08.73	+21	32	31.6	760
1955	UE1	1955	10	25.32708	02	26	06.44	+21	32	26.3	760
1955	UF1	1955	10	25.29096	02	24	28.32	+21	51	31.8	760
1955	UF1	1955	10	25.32708	02	24	26.74	+21	51	13.0	760
1955	UG1	1955	10	25.29096	02	24	53.50	+20	40	11.8	4 760
1955	UG1	1955	10	25.32708	02	24	51.73	+20	39	57.6	4 760
1955	XE	1955	12	06.10482	03	55	24.97	+19	17	35.1	760
1955	XE	1955	12	06.14440	03	55	22.86	+19	17	30.7	760
1955	XS	1955	12	13.23195	04	38	11.86	+01	32	24.0	760
1955	XS	1955	12	13.27223	04	38	09.87	+01	32	22.9	760
1955	XU	1955	12	13.31875	05	32	52.89	+01	08	56.9	760
1955	XU	1955	12	13.35486	05	32	50.89	+01	08	55.7	760
1958	DT	1958	02	24.24162	10	23	24.22	+17	04	00.8	760
1958	DT	1958	02	24.28407	10	23	21.51	+17	04	08.0	760
1961	XA	1961	12	03.08543	02	38	07.94	+13	01	42.7	760
1961	XA	1961	12	03.15835	02	38	05.65	+13	01	51.6	760
1964	TN	1964	10	12.19813	00	53	28.49	+10	59	42.7	760
1964	TN	1964	10	12.24326	00	53	25.90	+10	59	24.7	760
1964	VN	1964	11	04.14184	02	51	50.41	+08	44	07.1	760
1964	VN	1964	11	04.18524	02	51	48.29	+08	43	54.1	760
1964	WD	1964	11	29.18145	04	43	50.74	+16	09	24.0	760
1964	WD	1964	11	29.22520	04	43	48.46	+16	09	15.1	760

Note 1: approximate positions on MPC 2353 inferior. 2: likewise on MPC 1047. 3: likewise on MPC 6482. 4: likewise on MPC 1317.

OBSERVATIONS MADE AT OAK RIDGE OBSERVATORY BY R. E. McCROSKY, C.-Y. SHAO AND G. SCHWARTZ.

Plates with the 1.5-m reflector, reduced using the Astrographic Catalogue. Coordination and verification by, and assistance with identifications from, C. M. Bardwell. Contact: R. E. McCrosky, Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
621	1985	02 16.27310	10 52 29.91	+11 01 16.3			801
1191	1985	02 18.28606	09 13 27.54	+18 59 00.4			801
2068	1985	02 18.23962	08 48 23.78	+30 46 21.8			801
2068	1985	02 19.36563	08 47 30.32	+30 51 01.0			801
2414	1985	02 17.21059	08 49 20.62	+35 19 51.0	17		801
A916	PC 1985	02 17.13388	08 02 44.80	+19 40 54.7			801
1933	SJ 1985	02 17.15574	08 25 36.32	+19 33 51.5			801
1934	RP 1985	02 21.11636	05 06 16.29	+24 52 48.2			801
1950	DH 1985	02 16.10817	06 34 49.76	+13 08 56.6			801
1972	LE 1984	11 27.23029	02 54 15.19	+06 01 23.5			801

1972	LE		1985	02	21.02117	03	04	01.37	+14	24	00.6	801
1972	RU2		1985	02	18.98577	04	29	11.31	+27	43	17.0	801
1975	VB9		1984	12	24.33630	07	45	02.57	+41	28	34.6	801
1975	VB9		1985	02	18.16465	06	54	06.19	+39	26	18.5	801
1977	RA6		1985	02	17.06597	05	21	32.41	+27	33	26.7	801
1978	LB		1984	05	25.30965	17	25	23.67	-18	44	04.7	801
1978	PA		1985	02	16.35115	11	33	40.13	+39	28	08.2	801
1978	VG6		1984	05	07.24273	13	19	45.51	-11	27	26.9	801
1978	WH14		1985	02	21.31197	09	35	21.79	+15	11	33.6	801
1979	SG9		1984	12	24.36263	07	53	48.47	+00	20	54.3	801
1979	SG9		1985	02	17.11721	07	14	43.46	+04	30	24.1	801
1979	SG9		1985	02	19.17320	07	14	16.87	+04	47	18.5	801
1980	OA		1985	03	20.03027	04	56	35.86	+24	11	17.4	801
1980	DC		1985	01	23.39043	10	10	40.59	+17	59	58.1	801
1980	DC		1985	02	17.25822	09	50	22.34	+19	05	39.8	801
1980	RA		1985	02	21.21972	08	07	28.75	+36	37	43.0	801
1981	AA		1985	02	20.34646	13	38	03.65	+24	58	52.2	801
1981	EL1		1984	12	24.25696	05	08	57.25	+45	33	43.7	801
1981	EL1		1985	02	19.11272	04	56	29.22	+38	37	09.3	801
1981	EH26		1985	02	21.08202	05	02	01.78	+21	02	11.4	801
1982	BH1		1985	02	16.07886	05	22	01.95	+21	35	46.1	801
1982	DA		1985	02	19.13281	05	28	18.69	-00	06	29.0	801
1982	HE1		1985	02	21.19750	08	18	52.94	+33	41	52.7	801
1982	JA		1985	02	18.23962	08	48	14.97	+30	33	10.0	801
1982	JA		1985	02	19.36563	08	47	11.21	+30	36	37.3	801
1982	UM		1985	02	16.18775	08	51	37.99	+23	31	22.0	801
1984	HA1		1985	03	21.39506	15	37	28.75	+01	20	29.6	801
1984	UT		1985	02	17.98737	03	23	26.02	+10	29	43.0	801
1984	WB		1985	02	17.01028	04	32	38.56	+03	29	57.3	801
1984	WB		1985	02	23.00987	04	39	58.16	+03	24	00.4	801
1984	WB		1985	03	17.00498	05	13	52.45	+03	27	06.5	801
1984	WL		1985	02	23.02803	04	52	24.16	+02	24	38.2	1 801
1984	YC		1985	02	18.14085	07	30	50.19	-02	51	08.7	801
1984	YV		1985	02	19.15436	06	33	36.77	+08	25	14.7	801
1985	DY	*	1985	02	16.32478	11	31	25.58	+16	00	50.9	17.5 801
1985	DZ	*	1985	02	17.25822	09	50	38.38	+19	08	53.8	17 801
1985	DA1	*	1985	02	21.08202	05	01	56.13	+20	46	19.3	18.5 801
1985	DB1	*	1985	02	21.35919	11	13	55.07	+04	54	54.6	17.5 801
1985	DC1	*	1985	02	21.35919	11	14	56.35	+04	57	49.0	17 801
4008	P-L		1982	04	19.14754	10	25	35.91	+07	46	12.3	801
4008	P-L		1984	12	21.34975	08	11	26.57	+24	47	49.2	801
4008	P-L		1985	02	21.17509	07	13	56.41	+24	59	13.3	801

Note 1: clouds; inkdot measured.

OBSERVATIONS MADE AT THE ESTACION DE ALTURA OF THE FELIX AGUILAR OBSERVATORY, EL LEONCITO.

Plates taken with the 0.50-m f/7.5 astrograph by M. R. Cesco, H. Mira, G. Sanchez and J. G. Sanguin. Coordination by C. U. Cesco and J. G. Sanguin. Assistance with identifications from C. M. Bardwell, D. W. E. Green and B. G. Marsden. Contact: J. G. Sanguin, Observatorio Astronomico Felix Aguilar, Av. Benavidez 8175 Oeste, 5407 Marquesado, San Juan, Argentina.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
85	1978 12 28.16856		05 36 31.56	+07 02 16.1		808
85	1978 12 28.19350		05 36 30.22	+07 02 15.6		808
100	1978 12 29.16583		04 01 32.09	+13 19 39.9		808
100	1978 12 29.20047		04 01 30.96	+13 19 41.8		808
100	1978 12 31.14653		04 00 34.00	+13 21 34.4		808
100	1978 12 31.18115		04 00 32.98	+13 21 37.2		808
123	1978 08 24.10641		20 15 49.32	-19 07 31.6		808

123	1978	08	24.14105	20	15	47.79	-19	07	32.2	808
155	1978	05	06.18516	14	26	17.93	-14	26	52.6	808
155	1978	05	06.21356	14	26	16.29	-14	26	50.3	808
209	1978	06	06.18986	17	06	27.01	-33	34	46.1	808
209	1978	06	06.21548	17	06	25.57	-33	34	46.2	808
209	1978	06	30.10216	16	45	44.47	-32	59	08.8	808
209	1978	06	30.13194	16	45	43.24	-32	59	05.1	808
309	1978	04	03.18593	12	42	15.99	-06	17	02.1	808
309	1978	04	03.22886	12	42	13.55	-06	16	48.9	808
321	1978	07	02.17981	18	43	36.53	-26	28	10.2	808
321	1978	07	02.22206	18	43	34.06	-26	28	12.5	808
383	1978	03	13.25365	12	32	35.75	+00	30	45.5	808
383	1978	03	13.30352	12	32	33.50	+00	31	01.6	808
398	1978	07	02.07107	15	48	15.65	-26	14	21.4	808
398	1978	07	02.12163	15	48	14.14	-26	14	07.8	808
417	1978	12	29.16583	03	59	05.57	+12	58	12.8	808
417	1978	12	29.20047	03	59	04.32	+12	58	10.2	808
417	1978	12	31.14653	03	58	04.04	+12	56	23.3	808
417	1978	12	31.18115	03	58	02.96	+12	56	21.8	808
426	1984	06	03.01178	13	50	11.46	-41	56	28.2	808
426	1984	06	03.04453	13	50	10.75	-41	56	10.9	808
439	1978	02	11.22199	09	50	17.16	-10	37	12.5	808
439	1978	02	11.26492	09	50	15.29	-10	36	57.3	808
439	1978	03	11.12198	09	31	59.43	-06	52	45.0	808
439	1978	03	11.15107	09	31	58.50	-06	52	28.0	808
451	1978	08	01.16230	20	34	07.03	-32	14	10.0	808
451	1978	08	01.19070	20	34	05.49	-32	14	20.1	808
497	1978	07	02.07107	15	52	53.74	-26	44	22.8	808
497	1978	07	02.12163	15	52	51.89	-26	44	14.4	808
501	1978	05	08.23857	16	10	11.59	-48	31	05.8	808
501	1978	05	08.26835	16	10	09.70	-48	31	13.9	808
501	1978	06	06.08736	15	36	50.48	-48	53	38.1	808
501	1978	06	06.11298	15	36	48.74	-48	53	33.7	808
543	1978	06	06.27435	19	18	58.02	-25	45	12.5	808
559	1978	10	22.14687	00	25	23.42	-11	58	43.3	808
559	1978	10	22.17664	00	25	22.25	-11	58	47.0	808
627	1978	08	24.10641	20	19	23.08	-17	53	01.8	808
627	1978	08	24.14105	20	19	21.85	-17	53	11.1	808
642	1978	04	03.18593	12	34	11.53	-04	29	16.2	808
642	1978	04	03.22886	12	34	09.30	-04	29	08.8	808
679	1978	12	01.10551	02	31	20.33	-27	06	33.9	808
679	1978	12	01.13460	02	31	19.60	-27	05	56.2	808
679	1978	12	05.08282	02	30	09.06	-25	37	39.0	808
679	1978	12	05.11191	02	30	08.55	-25	36	59.3	808
720	1978	05	06.18516	14	23	09.01	-14	33	39.5	808
720	1978	05	06.21356	14	23	07.53	-14	33	34.2	808
744	1978	10	31.04614	23	53	15.17	-08	14	50.7	808
744	1978	10	31.08492	23	53	14.37	-08	14	54.7	808
772	1978	06	06.18986	17	07	30.43	-34	38	18.1	808
772	1978	06	06.21548	17	07	28.49	-34	38	32.0	808
801	1978	03	13.11998	10	27	57.84	+00	01	15.1	808
801	1978	03	13.16292	10	27	55.98	+00	01	45.2	808
866	1984	04	08.14273	12	39	42.04	+08	56	50.4	808
866	1984	04	08.17389	12	39	40.66	+08	56	57.0	808
870	1978	12	29.16583	04	08	37.76	+14	05	10.4	808
870	1978	12	29.20047	04	08	36.36	+14	05	15.2	808
870	1978	12	31.14653	04	07	26.76	+14	09	32.9	808
870	1978	12	31.18115	04	07	25.54	+14	09	38.0	808
890	1978	10	31.04614	23	47	02.05	-08	21	55.4	808

890	1978	10	31.08492	23	47	01.41	-08	22	01.9		808
909	1978	01	04.12006	04	45	32.39	-01	06	14.8		808
909	1978	01	04.16646	04	45	30.90	-01	06	01.3		808
909	1978	01	06.07997	04	44	34.88	-00	56	21.4		808
909	1978	01	06.13329	04	44	33.29	-00	56	04.8		808
947	1978	08	01.16230	20	28	19.74	-30	20	40.3		808
947	1978	08	01.19070	20	28	17.96	-30	20	46.8		808
990	1978	08	01.16230	20	33	15.19	-31	04	27.1		808
990	1978	08	01.19070	20	33	13.31	-31	04	27.2		808
999	1978	11	05.15311	22	52	34.23	+00	02	17.8	15.6	808
999	1978	11	05.17804	22	52	35.67	+00	02	08.0		808
1006	1978	07	02.17981	18	46	16.06	-28	41	35.1		808
1006	1978	07	02.22206	18	46	13.42	-28	41	30.0		808
1028	1978	08	01.16230	20	24	47.77	-30	53	17.6		808
1028	1978	08	01.19070	20	24	46.40	-30	53	23.3		808
1029	1978	05	06.18516	14	22	48.29	-14	56	41.9		808
1029	1978	05	06.21356	14	22	46.76	-14	56	37.2		808
1053	1978	04	01.15156	12	16	12.44	+01	07	55.6		808
1053	1978	04	01.20489	12	16	09.39	+01	08	04.8		808
1122	1978	07	02.17981	18	51	35.86	-27	36	12.5		808
1122	1978	07	02.22206	18	51	33.13	-27	36	19.3		808
1223	1978	05	06.18516	14	18	37.73	-13	46	16.5		808
1223	1978	05	06.21356	14	18	36.24	-13	46	11.3		808
1363	1978	04	03.18593	12	41	16.05	-05	08	02.3		808
1363	1978	04	03.22886	12	41	13.99	-05	07	48.8		808
1442	1978	04	03.18593	12	36	33.72	-04	56	31.4		808
1442	1978	04	03.22886	12	36	31.67	-04	56	18.2		808
1628	1978	03	13.11998	10	32	49.60	-00	25	02.5		808
1628	1978	03	13.16292	10	32	47.91	-00	24	34.4		808
1632	1978	12	29.16583	04	03	50.93	+13	53	22.7		808
1632	1978	12	29.20047	04	03	49.77	+13	53	21.1		808
1632	1978	12	31.14653	04	02	52.38	+13	52	04.2		808
1632	1978	12	31.18115	04	02	51.37	+13	52	03.5		808
1679	1978	01	04.12006	04	46	17.46	-01	04	26.4		808
1679	1978	01	04.16646	04	46	15.85	-01	04	18.0		808
1679	1978	01	06.07997	04	45	14.23	-00	59	21.4		808
1679	1978	01	06.13329	04	45	12.55	-00	59	13.0		808
1770	1978	03	13.25365	12	29	10.19	+00	10	05.8		808
1770	1978	03	13.30352	12	29	07.47	+00	10	17.6		808
1770	1978	04	01.15156	12	11	18.42	+01	24	39.5		808
1770	1978	04	01.20489	12	11	15.35	+01	24	51.4		808
1793	1978	04	03.18593	12	38	31.70	-05	57	45.9		808
1793	1978	04	03.22886	12	38	29.23	-05	57	28.2		808
1819	1977	11	12.20936	04	28	13.34	-07	33	31.2		808
1819	1977	11	12.26892	04	28	10.50	-07	33	37.6		808
1819	1977	11	14.20806	04	26	42.02	-07	37	08.2		808
1819	1977	11	14.26831	04	26	39.24	-07	37	14.0		808
1829	1978	11	05.15311	22	46	55.20	+02	05	30.5	17.2	808
1829	1978	11	05.17804	22	46	55.84	+02	05	28.0		808
1951	1977	12	06.10297	02	36	39.67	-58	14	33.8		808
1980	1978	01	13.18274	06	13	28.26	-15	53	40.9		808
1980	1978	01	13.22296	06	13	24.73	-15	53	42.0		808
2000	1984	04	08.07935	11	20	11.06	-33	34	39.5		808
2000	1984	04	08.11398	11	20	09.11	-33	34	22.8		808
2035	1978	07	29.06868	18	19	32.98	-61	59	25.8		808
2035	1978	07	29.09846	18	19	30.38	-61	59	41.1		808
2055	1978	08	25.14871	21	24	36.16	-28	30	38.3		808
2055	1978	08	25.20480	21	24	31.42	-28	30	07.3		808
2491	1978	12	01.10551	02	36	48.66	-26	48	32.5		808

2491		1978	12	01.13460	02	36	47.21	-26	48	09.2	808
2491		1978	12	05.08282	02	34	04.49	-25	49	35.7	808
2491		1978	12	05.11191	02	34	03.35	-25	49	08.0	808
2622		1978	08	24.10641	20	15	49.24	-18	56	34.8	16.5 808
2622		1978	08	24.14105	20	15	48.02	-18	56	45.8	808
3157		1978	08	25.14871	21	27	21.50	-27	14	46.6	17.1 808
3157		1978	08	25.20480	21	27	18.89	-27	14	52.2	808
3157		1978	08	31.15050	21	22	47.85	-27	21	59.8	16.9 808
3157		1978	08	31.20383	21	22	45.48	-27	22	02.0	808
1978	GB5 *	1978	04	01.15156	12	18	34.31	+02	07	57.1	808
1978	GB5	1978	04	01.20489	12	18	31.13	+02	08	18.7	808
1978	JK3 *	1978	05	06.18516	14	21	43.41	-13	57	09.3	808
1978	JK3	1978	05	06.21356	14	21	41.71	-13	56	56.5	808
1978	OS *	1978	07	29.06868	18	27	11.83	-62	10	57.8	14.3 808
1978	OS	1978	07	29.09846	18	27	17.47	-62	10	40.5	808
1978	OT *	1978	07	31.20174	21	40	52.29	-27	10	05.9	16.2 808
1978	OT	1978	07	31.23151	21	40	50.58	-27	10	16.9	808
1978	PF5 *	1978	08	01.16230	20	23	42.48	-29	51	50.1	16.9 808
1978	PF5	1978	08	01.19070	20	23	40.84	-29	51	57.8	808
1978	PG5 *	1978	08	01.16230	20	35	23.67	-31	45	09.6	17.0 808
1978	PG5	1978	08	01.19070	20	35	21.96	-31	45	19.9	808
1978	QQ3 *	1978	08	25.14871	21	24	33.65	-27	28	48.9	16.7 808
1978	QQ3	1978	08	25.20480	21	24	30.42	-27	28	50.7	808
1978	RF1	1978	08	24.10641	20	23	41.54	-17	23	31.7	16.4 808
1978	RF1	1978	08	24.14105	20	23	40.12	-17	23	49.1	808
1978	SE1	1978	10	22.14687	00	18	23.25	-12	08	13.5	17.2 808
1978	SE1	1978	10	22.17664	00	18	22.21	-12	08	08.9	808
1978	UW2 *	1978	10	22.14687	00	27	38.36	-11	19	09.9	17.0 808
1978	UW2	1978	10	22.17664	00	27	37.26	-11	19	14.7	808
1978	VX16	1978	11	05.15311	22	44	37.78	-00	23	04.6	16.8 808
1978	YY1 *	1978	12	28.16856	05	33	02.89	+07	45	41.5	17.0 808
1978	YY1	1978	12	28.19350	05	33	01.68	+07	45	46.7	808
1978	YZ1 *	1978	12	28.16856	05	42	34.35	+07	53	45.2	17.0 808
1978	YZ1	1978	12	28.19350	05	42	33.02	+07	53	47.9	808
1978	YA2 *	1978	12	29.16583	04	00	29.94	+13	56	51.4	16.5 808
1978	YA2	1978	12	29.20047	04	00	29.19	+13	56	38.5	808
1978	YA2	1978	12	31.14653	03	59	52.38	+13	47	06.0	808
1978	YA2	1978	12	31.18115	03	59	51.74	+13	46	56.0	808
1978	YB2 *	1978	12	29.16583	04	05	47.28	+13	36	14.3	17.6 808
1978	YB2	1978	12	29.20047	04	05	45.95	+13	36	11.6	808
1978	YB2	1978	12	31.14653	04	04	42.78	+13	34	35.7	808
1978	YB2	1978	12	31.18115	04	04	41.56	+13	34	35.2	808
1984	GF	1978	08	24.10641	20	21	49.13	-17	42	57.0	16.2 808
1984	GF	1978	08	24.14105	20	21	47.82	-17	43	09.4	808

OBSERVATIONS MADE AT THE EUROPEAN SOUTHERN OBSERVATORY BY H. DEBEHOGNE.

Plates taken with the GPO 0.40-m astrograph. Contact: H. Debehogne, Observatoire Royal de Belgique, Avenue Circulaire 3, B-1180 Brussels, Belgium.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
37	1984 09	18.32083	01 50 46.11	+12 10 52.3		809
37	1984 09	18.32638	01 50 45.96	+12 10 51.9		809
37	1984 09	18.33194	01 50 45.82	+12 10 51.8		809
37	1984 09	21.24722	01 49 28.94	+12 09 17.6		809
37	1984 09	21.25278	01 49 28.77	+12 09 16.7		809
37	1984 09	21.25833	01 49 28.60	+12 09 16.4		809
37	1984 09	23.35625	01 48 24.19	+12 07 23.0		809
37	1984 09	23.36180	01 48 24.01	+12 07 22.5		809
37	1984 09	23.36736	01 48 23.81	+12 07 22.1		809
37	1984 09	24.35914	01 47 51.00	+12 06 15.2		809

37	1984	09	24.36470	01	47	50.80	+12	06	14.3	809
37	1984	09	24.37026	01	47	50.61	+12	06	14.0	809
37	1984	09	27.24791	01	46	07.12	+12	02	13.4	809
37	1984	09	27.25347	01	46	06.88	+12	02	12.7	809
37	1984	09	27.25903	01	46	06.67	+12	02	12.4	809
37	1984	09	29.30903	01	44	45.27	+11	58	40.0	809
37	1984	09	29.31528	01	44	45.05	+11	58	38.9	809
37	1984	09	29.32014	01	44	44.80	+11	58	38.4	809
37	1984	09	30.35763	01	44	01.32	+11	56	38.1	809
37	1984	09	30.36319	01	44	01.06	+11	56	37.1	809
37	1984	09	30.36875	01	44	00.83	+11	56	36.4	809
120	1984	09	22.18125	23	08	47.14	-03	41	13.9	809
120	1984	09	22.18680	23	08	46.87	-03	41	15.0	809
120	1984	09	22.19236	23	08	46.62	-03	41	16.0	809
120	1984	09	23.06389	23	08	08.32	-03	43	50.6	809
120	1984	09	23.06956	23	08	08.06	-03	43	51.6	809
120	1984	09	23.07511	23	08	07.84	-03	43	52.8	809
120	1984	09	28.06736	23	04	36.81	-03	57	53.4	809
120	1984	09	28.07291	23	04	36.61	-03	57	54.4	809
120	1984	09	28.07847	23	04	36.40	-03	57	55.7	809
120	1984	09	29.06180	23	03	56.75	-04	00	30.2	809
120	1984	09	29.06736	23	03	56.50	-04	00	31.2	809
120	1984	09	29.07291	23	03	56.26	-04	00	32.3	809
120	1984	09	30.04687	23	03	17.88	-04	03	04.1	809
120	1984	09	30.05174	23	03	17.72	-04	03	04.8	809
120	1984	09	30.05659	23	03	17.52	-04	03	05.5	809
222	1984	09	21.30833	00	06	50.24	-02	40	13.7	809
222	1984	09	21.31389	00	06	50.00	-02	40	16.0	809
222	1984	09	21.31944	00	06	49.73	-02	40	17.2	809
222	1984	09	22.29513	00	06	05.92	-02	44	54.8	809
222	1984	09	22.30069	00	06	05.65	-02	44	56.5	809
222	1984	09	22.30625	00	06	05.37	-02	44	57.6	809
222	1984	09	23.27014	00	05	22.01	-02	49	30.2	809
222	1984	09	23.27569	00	05	21.77	-02	49	31.9	809
222	1984	09	23.28200	00	05	21.53	-02	49	33.8	809
222	1984	09	24.27014	00	04	37.01	-02	54	11.4	809
222	1984	09	24.27569	00	04	36.78	-02	54	12.6	809
222	1984	09	24.28125	00	04	36.54	-02	54	14.3	809
222	1984	09	26.25208	00	03	08.15	-03	03	22.0	809
222	1984	09	26.25764	00	03	07.86	-03	03	23.4	809
222	1984	09	26.26319	00	03	07.62	-03	03	24.7	809
222	1984	09	27.22639	00	02	24.65	-03	07	48.9	809
222	1984	09	27.23217	00	02	24.39	-03	07	50.5	809
222	1984	09	27.23773	00	02	24.13	-03	07	51.1	809
222	1984	09	28.23125	00	01	40.06	-03	12	20.1	809
222	1984	09	28.23680	00	01	39.83	-03	12	21.4	809
222	1984	09	28.24236	00	01	39.59	-03	12	22.9	809
222	1984	09	29.12430	00	01	00.65	-03	16	19.0	809
222	1984	09	29.12917	00	01	00.44	-03	16	20.5	809
222	1984	09	29.13541	00	01	00.16	-03	16	22.6	809
222	1984	09	29.16458	00	00	58.88	-03	16	28.9	809
222	1984	09	29.17014	00	00	58.64	-03	16	30.5	809
222	1984	09	29.17569	00	00	58.42	-03	16	32.0	809
222	1984	09	30.27778	00	00	09.76	-03	21	24.1	809
222	1984	09	30.28333	00	00	09.50	-03	21	25.7	809
222	1984	09	30.28889	00	00	09.29	-03	21	27.4	809
222	1984	10	01.21666	23	59	29.02	-03	25	26.9	809
222	1984	10	01.22222	23	59	28.79	-03	25	28.4	809
222	1984	10	01.22778	23	59	28.53	-03	25	30.5	809

246	1984	09	20.38472	01	17	32.20	-03	55	13.8	809
246	1984	09	20.39027	01	17	32.00	-03	55	17.2	809
246	1984	09	20.39583	01	17	31.78	-03	55	20.5	809
246	1984	09	21.22778	01	17	00.87	-04	03	53.9	809
246	1984	09	21.23333	01	17	00.69	-04	03	57.3	809
246	1984	09	21.23889	01	17	00.45	-04	04	00.2	809
301	1984	09	21.32847	00	25	10.96	-02	41	09.0	809
301	1984	09	21.33403	00	25	10.70	-02	41	11.1	809
301	1984	09	21.33958	00	25	10.44	-02	41	14.1	809
301	1984	09	22.31528	00	24	24.69	-02	47	45.1	809
301	1984	09	22.32083	00	24	24.43	-02	47	47.3	809
301	1984	09	22.32638	00	24	24.14	-02	47	49.9	809
301	1984	09	23.29305	00	23	38.58	-02	54	15.7	809
301	1984	09	23.29861	00	23	38.31	-02	54	18.1	809
301	1984	09	23.30416	00	23	38.06	-02	54	20.3	809
301	1984	09	24.28958	00	22	51.31	-03	00	52.0	809
301	1984	09	24.29513	00	22	51.08	-03	00	54.4	809
301	1984	09	24.30069	00	22	50.81	-03	00	56.2	809
301	1984	09	26.35694	00	21	12.71	-03	14	27.6	809
301	1984	09	26.36250	00	21	12.41	-03	14	29.5	809
301	1984	09	26.36805	00	21	12.16	-03	14	31.9	809
301	1984	09	27.31041	00	20	27.14	-03	20	39.4	809
301	1984	09	27.31597	00	20	26.89	-03	20	41.8	809
301	1984	09	27.32153	00	20	26.61	-03	20	43.5	809
301	1984	09	28.28333	00	19	40.63	-03	26	53.5	809
301	1984	09	28.28889	00	19	40.38	-03	26	56.2	809
301	1984	09	28.29444	00	19	40.10	-03	26	58.3	809
301	1984	09	29.18403	00	18	57.80	-03	32	39.5	809
301	1984	09	29.18958	00	18	57.50	-03	32	41.2	809
301	1984	09	29.19514	00	18	57.22	-03	32	43.4	809
355	1984	09	17.07153	22	17	19.62	-12	05	53.5	809
355	1984	09	17.07708	22	17	19.37	-12	05	54.2	809
355	1984	09	17.08264	22	17	19.14	-12	05	54.8	809
355	1984	09	18.01389	22	16	35.59	-12	08	13.6	809
355	1984	09	18.01944	22	16	35.36	-12	08	14.4	809
355	1984	09	18.02500	22	16	35.07	-12	08	15.0	809
355	1984	09	21.05312	22	14	20.09	-12	15	01.0	809
355	1984	09	21.05868	22	14	19.87	-12	15	01.8	809
355	1984	09	21.06389	22	14	19.67	-12	15	02.3	809
355	1984	09	22.05208	22	13	37.94	-12	17	02.1	809
355	1984	09	22.05764	22	13	37.70	-12	17	02.7	809
355	1984	09	22.06319	22	13	37.47	-12	17	03.3	809
355	1984	09	23.02500	22	12	58.07	-12	18	51.1	809
355	1984	09	23.03055	22	12	57.85	-12	18	52.1	809
355	1984	09	23.03611	22	12	57.61	-12	18	52.7	809
355	1984	09	24.03542	22	12	17.89	-12	20	39.7	809
355	1984	09	24.04097	22	12	17.67	-12	20	40.0	809
355	1984	09	24.04652	22	12	17.45	-12	20	40.6	809
355	1984	09	24.05833	22	12	16.84	-12	20	40.8	809
355	1984	09	24.06389	22	12	16.63	-12	20	41.2	809
355	1984	09	24.06944	22	12	16.42	-12	20	41.7	809
355	1984	09	26.15694	22	10	57.75	-12	23	56.3	809
355	1984	09	26.16250	22	10	57.55	-12	23	56.8	809
355	1984	09	26.16805	22	10	57.33	-12	23	57.1	809
355	1984	09	26.17569	22	10	57.03	-12	23	58.5	809
355	1984	09	26.18142	22	10	56.80	-12	23	59.0	809
355	1984	09	26.18698	22	10	56.58	-12	23	59.5	809
355	1984	09	27.02257	22	10	27.18	-12	25	07.4	809
355	1984	09	27.02986	22	10	26.88	-12	25	08.1	809

355	1984	09	27.03680	22	10	26.63	-12	25	08.8	809
355	1984	09	28.00764	22	09	53.41	-12	26	20.4	809
355	1984	09	28.01319	22	09	53.21	-12	26	21.0	809
355	1984	09	28.01875	22	09	53.03	-12	26	21.6	809
355	1984	09	29.00011	22	09	20.97	-12	27	27.8	809
355	1984	09	29.00567	22	09	20.77	-12	27	28.0	809
355	1984	09	29.01111	22	09	20.58	-12	27	28.2	809
355	1984	09	29.99444	22	08	49.80	-12	28	26.1	809
355	1984	09	29.99861	22	08	49.67	-12	28	26.4	809
355	1984	09	30.00278	22	08	49.53	-12	28	26.8	809
366	1984	09	22.18125	23	09	29.20	-04	08	16.6	809
366	1984	09	22.18680	23	09	28.94	-04	08	17.5	809
366	1984	09	22.19236	23	09	28.67	-04	08	18.1	809
366	1984	09	23.06389	23	08	47.76	-04	09	42.3	809
366	1984	09	23.06956	23	08	47.47	-04	09	42.7	809
366	1984	09	23.07511	23	08	47.23	-04	09	43.4	809
366	1984	09	28.06736	23	05	02.02	-04	17	02.7	809
366	1984	09	28.07291	23	05	01.73	-04	17	03.2	809
366	1984	09	28.07847	23	05	01.46	-04	17	03.9	809
366	1984	09	29.06180	23	04	19.37	-04	18	19.7	809
366	1984	09	29.06736	23	04	19.12	-04	18	20.3	809
366	1984	09	29.07291	23	04	18.86	-04	18	20.7	809
366	1984	09	30.04687	23	03	38.05	-04	19	33.4	809
366	1984	09	30.05174	23	03	37.88	-04	19	33.6	809
366	1984	09	30.05659	23	03	37.64	-04	19	33.9	809
656	1984	09	23.22430	23	27	16.34	-03	23	34.0	809
656	1984	09	23.22986	23	27	16.08	-03	23	35.5	809
656	1984	09	23.23542	23	27	15.85	-03	23	37.4	809
656	1984	09	24.21042	23	26	35.56	-03	28	03.7	809
656	1984	09	24.21597	23	26	35.33	-03	28	05.3	809
656	1984	09	24.22153	23	26	35.07	-03	28	06.9	809
656	1984	09	24.25243	23	26	33.78	-03	28	13.8	809
656	1984	09	24.25729	23	26	33.59	-03	28	15.0	809
656	1984	09	24.26215	23	26	33.42	-03	28	16.4	809
656	1984	09	26.23264	23	25	12.85	-03	37	07.5	809
656	1984	09	26.23819	23	25	12.63	-03	37	08.8	809
656	1984	09	26.24375	23	25	12.37	-03	37	10.6	809
656	1984	09	27.10763	23	24	37.73	-03	41	00.0	809
656	1984	09	27.11319	23	24	37.49	-03	41	01.4	809
656	1984	09	27.11875	23	24	37.28	-03	41	02.7	809
656	1984	09	28.08750	23	23	58.67	-03	45	17.5	809
656	1984	09	28.09323	23	23	58.42	-03	45	18.9	809
656	1984	09	28.09878	23	23	58.16	-03	45	20.3	809
656	1984	09	29.08240	23	23	19.49	-03	49	35.0	809
656	1984	09	29.08831	23	23	19.24	-03	49	36.0	809
656	1984	09	29.09375	23	23	19.04	-03	49	37.5	809
659	1984	09	22.09444	23	11	56.35	-05	15	54.3	809
659	1984	09	22.10000	23	11	56.19	-05	15	55.0	809
659	1984	09	22.10555	23	11	56.02	-05	15	55.6	809
659	1984	09	23.06389	23	11	27.55	-05	18	15.8	809
659	1984	09	23.06956	23	11	27.40	-05	18	16.3	809
659	1984	09	23.07511	23	11	27.25	-05	18	16.8	809
659	1984	09	26.21493	23	09	55.85	-05	25	47.8	809
659	1984	09	26.21979	23	09	55.71	-05	25	48.6	809
659	1984	09	26.22465	23	09	55.56	-05	25	49.4	809
659	1984	09	30.04687	23	08	09.40	-05	34	25.3	809
659	1984	09	30.05174	23	08	09.29	-05	34	26.5	809
659	1984	09	30.05659	23	08	09.13	-05	34	27.3	809
671	1984	09	18.28333	22	56	47.69	-09	54	16.4	809

671	1984	09	18.30387	22	56	46.74	-09	54	18.5	809
671	1984	09	18.30960	22	56	46.47	-09	54	19.6	809
671	1984	09	21.14027	22	54	37.85	-10	00	14.4	809
671	1984	09	21.14583	22	54	37.61	-10	00	14.9	809
671	1984	09	21.15139	22	54	37.37	-10	00	15.5	809
752	1984	09	20.38472	01	17	46.99	-01	56	44.6	809
752	1984	09	20.39027	01	17	46.78	-01	56	46.2	809
752	1984	09	20.39583	01	17	46.51	-01	56	48.2	809
752	1984	09	21.22778	01	17	10.57	-02	01	23.5	809
752	1984	09	21.23333	01	17	10.29	-02	01	25.6	809
752	1984	09	21.23889	01	17	10.08	-02	01	27.9	809
869	1984	09	18.28333	22	55	23.48	-09	46	11.7	809
869	1984	09	18.30387	22	55	22.68	-09	46	20.1	809
869	1984	09	18.30960	22	55	22.45	-09	46	22.4	809
869	1984	09	21.14027	22	53	25.65	-10	06	40.7	809
869	1984	09	21.14583	22	53	25.47	-10	06	42.8	809
869	1984	09	21.15139	22	53	25.22	-10	06	44.6	809
869	1984	09	24.08264	22	51	32.02	-10	26	28.4	809
869	1984	09	24.08819	22	51	31.79	-10	26	30.1	809
869	1984	09	24.09375	22	51	31.62	-10	26	32.2	809
869	1984	09	26.19583	22	50	15.71	-10	39	48.5	809
869	1984	09	26.20139	22	50	15.55	-10	39	50.8	809
869	1984	09	26.20694	22	50	15.32	-10	39	52.6	809
869	1984	09	27.06597	22	49	46.11	-10	45	05.1	809
869	1984	09	27.07153	22	49	45.87	-10	45	06.4	809
869	1984	09	27.07708	22	49	45.68	-10	45	08.7	809
869	1984	09	28.04803	22	49	13.58	-10	50	50.5	809
869	1984	09	28.05358	22	49	13.36	-10	50	52.4	809
869	1984	09	28.05902	22	49	13.16	-10	50	53.9	809
869	1984	09	29.04166	22	48	41.62	-10	56	27.4	809
869	1984	09	29.04722	22	48	41.40	-10	56	29.2	809
869	1984	09	29.05278	22	48	41.23	-10	56	31.5	809
869	1984	09	30.02812	22	48	11.31	-11	01	53.7	809
869	1984	09	30.03299	22	48	11.14	-11	01	55.5	809
869	1984	09	30.03785	22	48	10.98	-11	01	57.1	809
869	1984	10	01.04166	22	47	41.44	-11	07	16.5	809
869	1984	10	01.04722	22	47	41.24	-11	07	18.9	809
883	1984	09	22.33680	00	49	44.20	+15	57	45.0	809
883	1984	09	22.34375	00	49	43.81	+15	57	43.9	809
883	1984	09	22.34930	00	49	43.56	+15	57	42.7	809
883	1984	09	26.31944	00	46	11.74	+15	42	47.8	809
883	1984	09	26.32500	00	46	11.43	+15	42	46.2	809
883	1984	09	26.33055	00	46	11.10	+15	42	44.5	809
883	1984	09	28.20625	00	44	27.50	+15	34	15.3	809
883	1984	09	28.21284	00	44	27.22	+15	34	13.3	809
883	1984	09	28.21944	00	44	26.78	+15	34	11.4	809
883	1984	09	29.20555	00	43	31.33	+15	29	22.7	809
883	1984	09	29.21111	00	43	31.03	+15	29	21.1	809
883	1984	09	29.21666	00	43	30.72	+15	29	18.9	809
1254	1984	09	22.33680	00	47	39.33	+15	59	10.5	809
1254	1984	09	22.34375	00	47	39.01	+15	59	09.1	809
1254	1984	09	22.34930	00	47	38.74	+15	59	08.3	809
1254	1984	09	26.31944	00	44	46.22	+15	46	08.7	809
1254	1984	09	26.32500	00	44	45.97	+15	46	06.7	809
1254	1984	09	26.33055	00	44	45.70	+15	46	05.7	809
1254	1984	09	28.20625	00	43	22.21	+15	39	15.6	809
1254	1984	09	28.21284	00	43	21.93	+15	39	13.5	809
1254	1984	09	28.21944	00	43	21.65	+15	39	11.5	809
1254	1984	09	29.20555	00	42	37.09	+15	35	25.5	809

1254		1984	09	29.21111	00	42	36.85	+15	35	24.1	809
1254		1984	09	29.21666	00	42	36.63	+15	35	22.6	809
1273		1984	09	27.18472	00	39	48.19	+15	15	13.9	809
1273		1984	09	27.19028	00	39	47.88	+15	15	12.5	809
1273		1984	09	27.19583	00	39	47.58	+15	15	11.0	809
1273		1984	09	28.18403	00	38	53.49	+15	11	35.8	809
1273		1984	09	28.18958	00	38	53.16	+15	11	34.6	809
1273		1984	09	28.19514	00	38	52.82	+15	11	33.3	809
1273		1984	09	29.20555	00	37	57.15	+15	07	39.9	809
1273		1984	09	29.21111	00	37	56.85	+15	07	38.9	809
1273		1984	09	29.21666	00	37	56.50	+15	07	37.5	809
1273		1984	09	30.20486	00	37	01.66	+15	03	36.6	809
1273		1984	09	30.21042	00	37	01.38	+15	03	35.2	809
1273		1984	09	30.21597	00	37	01.11	+15	03	33.9	809
1280		1984	09	26.31944	00	43	35.45	+14	35	48.8	809
1280		1984	09	26.32500	00	43	35.21	+14	35	47.8	809
1280		1984	09	26.33055	00	43	34.98	+14	35	46.5	809
1280		1984	09	28.20625	00	42	15.13	+14	29	27.7	809
1280		1984	09	28.21284	00	42	14.87	+14	29	26.4	809
1280		1984	09	28.21944	00	42	14.61	+14	29	24.8	809
1280		1984	09	29.20555	00	41	32.18	+14	25	54.7	809
1280		1984	09	29.21111	00	41	31.92	+14	25	53.7	809
1280		1984	09	29.21666	00	41	31.67	+14	25	53.0	809
1439		1984	09	27.22639	00	01	35.06	-03	16	24.4	17.3 809
1439		1984	09	27.23217	00	01	34.84	-03	16	25.2	809
1439		1984	09	27.23773	00	01	34.64	-03	16	26.0	809
1439		1984	09	28.23125	00	00	59.06	-03	19	40.4	809
1439		1984	09	28.23680	00	00	58.85	-03	19	41.2	809
1439		1984	09	28.24236	00	00	58.66	-03	19	42.2	809
1439		1984	09	29.16458	00	00	25.72	-03	22	40.3	809
1439		1984	09	29.17014	00	00	25.52	-03	22	41.5	809
1439		1984	09	29.17569	00	00	25.32	-03	22	42.6	809
1439		1984	09	30.18055	23	59	49.45	-03	25	55.3	809
1439		1984	09	30.18750	23	59	49.19	-03	25	56.6	809
1439		1984	09	30.19444	23	59	48.92	-03	25	58.0	809
1439		1984	10	01.21666	23	59	12.70	-03	29	12.5	809
1439		1984	10	01.22222	23	59	12.51	-03	29	13.4	809
1439		1984	10	01.22778	23	59	12.30	-03	29	14.6	809
1669		1984	09	23.22430	23	31	44.55	-03	38	46.3	809
1669		1984	09	23.22986	23	31	44.30	-03	38	47.8	809
1669		1984	09	23.23542	23	31	44.08	-03	38	49.1	809
1669		1984	09	24.21042	23	31	02.76	-03	43	00.7	809
1669		1984	09	24.21597	23	31	02.52	-03	43	02.2	809
1669		1984	09	24.22153	23	31	02.26	-03	43	03.8	809
1669		1984	09	24.25243	23	31	00.98	-03	43	11.6	809
1669		1984	09	24.25729	23	31	00.76	-03	43	13.2	809
1669		1984	09	24.26215	23	31	00.52	-03	43	14.1	809
1669		1984	09	26.23264	23	29	38.01	-03	51	35.4	809
1669		1984	09	26.23819	23	29	37.76	-03	51	36.3	809
1669		1984	09	26.24375	23	29	37.55	-03	51	38.4	809
1669		1984	09	27.10763	23	29	02.04	-03	55	14.2	809
1669		1984	09	27.11319	23	29	01.79	-03	55	15.9	809
1669		1984	09	27.11875	23	29	01.57	-03	55	17.3	809
1669		1984	09	28.08750	23	28	22.03	-03	59	16.8	809
1669		1984	09	28.09323	23	28	21.77	-03	59	18.4	809
1669		1984	09	28.09878	23	28	21.50	-03	59	19.4	809
1669		1984	09	29.08240	23	27	41.80	-04	03	20.0	809
1669		1984	09	29.08831	23	27	41.56	-04	03	21.0	809
1669		1984	09	29.09375	23	27	41.34	-04	03	21.8	809

1680	1984	09	21.32847	00	24	35.58	-04	19	25.6	809
1680	1984	09	21.33403	00	24	35.27	-04	19	27.0	809
1680	1984	09	21.33958	00	24	34.95	-04	19	28.8	809
1680	1984	09	22.31528	00	23	46.13	-04	24	40.5	809
1680	1984	09	22.32083	00	23	45.84	-04	24	41.8	809
1680	1984	09	22.32638	00	23	45.54	-04	24	43.0	809
1680	1984	09	23.29305	00	22	56.73	-04	29	48.8	809
1680	1984	09	23.29861	00	22	56.49	-04	29	50.4	809
1680	1984	09	23.30416	00	22	56.22	-04	29	52.5	809
1680	1984	09	24.28958	00	22	06.36	-04	35	01.4	809
1680	1984	09	24.29513	00	22	06.07	-04	35	03.0	809
1680	1984	09	24.30069	00	22	05.85	-04	35	04.7	809
1680	1984	09	26.35694	00	20	21.49	-04	45	37.7	809
1680	1984	09	26.36250	00	20	21.22	-04	45	39.5	809
1680	1984	09	26.36805	00	20	20.95	-04	45	41.4	809
1680	1984	09	27.31041	00	19	33.22	-04	50	26.2	809
1680	1984	09	27.31597	00	19	32.96	-04	50	27.9	809
1680	1984	09	27.32153	00	19	32.65	-04	50	29.6	809
1680	1984	09	28.28333	00	18	43.94	-04	55	17.4	809
1680	1984	09	28.28889	00	18	43.69	-04	55	18.4	809
1680	1984	09	28.29444	00	18	43.43	-04	55	20.0	809
1680	1984	09	29.18403	00	17	58.56	-04	59	41.3	809
1680	1984	09	29.18958	00	17	58.30	-04	59	42.5	809
1680	1984	09	29.19514	00	17	58.03	-04	59	44.7	809
1680	1984	09	30.24375	00	17	05.11	-05	04	46.5	809
1680	1984	09	30.24930	00	17	04.83	-05	04	48.4	809
1680	1984	09	30.25486	00	17	04.55	-05	04	50.0	809
1680	1984	10	01.07465	00	16	23.57	-05	08	42.3	809
1680	1984	10	01.08090	00	16	23.37	-05	08	44.0	809
1680	1984	10	01.25972	00	16	14.15	-05	09	33.6	809
1680	1984	10	01.26527	00	16	13.85	-05	09	35.4	809
1680	1984	10	01.27083	00	16	13.55	-05	09	37.3	809
2008	1984	09	21.32847	00	26	56.01	-04	17	18.4	809
2008	1984	09	21.33403	00	26	55.68	-04	17	19.0	809
2008	1984	09	21.33958	00	26	55.38	-04	17	20.2	809
2008	1984	09	22.31528	00	26	04.89	-04	18	23.4	809
2008	1984	09	22.32083	00	26	04.55	-04	18	23.2	809
2008	1984	09	22.32638	00	26	04.21	-04	18	23.6	809
2008	1984	09	23.29305	00	25	13.84	-04	19	24.1	809
2008	1984	09	23.29861	00	25	13.57	-04	19	24.4	809
2008	1984	09	23.30416	00	25	13.27	-04	19	25.0	809
2008	1984	09	24.28958	00	24	21.67	-04	20	25.1	809
2008	1984	09	24.29513	00	24	21.39	-04	20	25.3	809
2008	1984	09	24.30069	00	24	21.08	-04	20	25.4	809
2008	1984	09	26.35694	00	22	33.01	-04	22	24.2	809
2008	1984	09	26.36250	00	22	32.68	-04	22	24.4	809
2008	1984	09	26.36805	00	22	32.42	-04	22	24.8	809
2008	1984	09	27.31041	00	21	42.88	-04	23	15.7	809
2008	1984	09	27.31597	00	21	42.61	-04	23	15.9	809
2008	1984	09	27.32153	00	21	42.29	-04	23	16.1	809
2008	1984	09	28.28333	00	20	51.68	-04	24	04.9	809
2008	1984	09	28.28889	00	20	51.41	-04	24	05.0	809
2008	1984	09	28.29444	00	20	51.10	-04	24	05.1	809
2008	1984	09	29.18403	00	20	04.38	-04	24	48.7	809
2008	1984	09	29.18958	00	20	04.10	-04	24	48.9	809
2008	1984	09	29.19514	00	20	03.80	-04	24	49.1	809
2008	1984	09	30.24375	00	19	08.68	-04	25	36.8	809
2008	1984	09	30.24930	00	19	08.39	-04	25	36.9	809
2008	1984	09	30.25486	00	19	08.09	-04	25	36.9	809

2008	1984	10	01.25972	00	18	15.44	-04	26	19.0	809
2008	1984	10	01.26527	00	18	15.16	-04	26	19.2	809
2008	1984	10	01.27083	00	18	14.84	-04	26	19.4	809
2009	1984	09	21.30833	00	14	14.22	-02	46	45.2	809
2009	1984	09	21.31389	00	14	13.98	-02	46	47.4	809
2009	1984	09	21.31944	00	14	13.72	-02	46	49.1	809
2009	1984	09	22.29513	00	13	31.31	-02	51	46.2	809
2009	1984	09	22.30069	00	13	31.09	-02	51	47.5	809
2009	1984	09	22.30625	00	13	30.86	-02	51	49.5	809
2009	1984	09	23.27014	00	12	48.62	-02	56	40.7	809
2009	1984	09	23.27569	00	12	48.39	-02	56	42.4	809
2009	1984	09	23.28200	00	12	48.13	-02	56	44.2	809
2009	1984	09	24.27014	00	12	04.67	-03	01	41.8	809
2009	1984	09	24.27569	00	12	04.48	-03	01	43.3	809
2009	1984	09	24.28125	00	12	04.22	-03	01	45.2	809
2009	1984	09	26.25208	00	10	37.32	-03	11	35.9	809
2009	1984	09	26.25764	00	10	37.07	-03	11	37.5	809
2009	1984	09	26.26319	00	10	36.82	-03	11	39.0	809
2009	1984	09	27.22639	00	09	54.30	-03	16	24.6	809
2009	1984	09	27.23217	00	09	54.04	-03	16	26.3	809
2009	1984	09	27.23773	00	09	53.80	-03	16	27.8	809
2009	1984	09	28.23125	00	09	09.99	-03	21	19.6	809
2009	1984	09	28.23680	00	09	09.72	-03	21	21.4	809
2009	1984	09	28.24236	00	09	09.50	-03	21	23.1	809
2009	1984	09	28.34166	00	09	04.94	-03	21	51.6	809
2009	1984	09	28.34722	00	09	04.71	-03	21	53.3	809
2009	1984	09	28.35278	00	09	04.50	-03	21	55.3	809
2009	1984	09	29.16458	00	08	28.85	-03	25	50.8	809
2009	1984	09	29.17014	00	08	28.58	-03	25	52.8	809
2009	1984	09	29.17569	00	08	28.33	-03	25	54.3	809
2009	1984	09	29.25069	00	08	25.11	-03	26	16.2	809
2009	1984	09	29.25625	00	08	24.84	-03	26	18.0	809
2009	1984	09	29.26180	00	08	24.54	-03	26	19.8	809
2009	1984	09	30.18055	00	07	44.06	-03	30	45.9	809
2009	1984	09	30.18750	00	07	43.77	-03	30	47.3	809
2009	1984	09	30.19444	00	07	43.46	-03	30	49.4	809
2088	1984	09	21.28819	00	03	13.25	+00	23	42.7	809
2088	1984	09	21.29375	00	03	12.91	+00	23	41.7	809
2088	1984	09	21.29930	00	03	12.57	+00	23	40.7	809
2088	1984	09	22.27569	00	02	09.91	+00	20	20.1	809
2088	1984	09	22.28125	00	02	09.57	+00	20	19.0	809
2088	1984	09	22.28680	00	02	09.24	+00	20	17.4	809
2088	1984	09	23.08333	00	01	18.46	+00	17	33.2	809
2088	1984	09	23.08889	00	01	18.13	+00	17	32.1	809
2088	1984	09	23.09444	00	01	17.79	+00	17	31.1	809
2088	1984	09	24.23264	00	00	03.95	+00	13	34.6	809
2088	1984	09	24.23819	00	00	03.61	+00	13	33.2	809
2088	1984	09	24.24375	00	00	03.25	+00	13	32.3	809
2088	1984	09	26.27986	23	57	51.98	+00	06	31.6	809
2088	1984	09	26.28542	23	57	51.66	+00	06	30.1	809
2088	1984	09	26.29097	23	57	51.32	+00	06	28.9	809
2088	1984	09	27.16389	23	56	55.50	+00	03	28.9	809
2088	1984	09	27.16944	23	56	55.14	+00	03	27.8	809
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2088	1984	09	28.16389	23	55	51.59	+00	00	04.8	809
2088	1984	09	28.16944	23	55	51.25	+00	00	03.4	809
2088	1984	09	28.17500	23	55	50.92	+00	00	02.4	809
2088	1984	09	29.14549	23	54	49.27	-00	03	14.7	809
2088	1984	09	29.15069	23	54	48.95	-00	03	15.8	809

2088	1984	09	29.15625	23	54	48.61	-00	03	16.9	809
2088	1984	09	29.32986	23	54	37.16	-00	03	52.6	809
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2088	1984	09	30.16389	23	53	44.87	-00	06	39.0	809
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2088	1984	09	30.33680	23	53	33.62	-00	07	14.0	809
2088	1984	09	30.34236	23	53	33.29	-00	07	15.2	809
2088	1984	09	30.34792	23	53	32.92	-00	07	16.2	809
2088	1984	10	01.23750	23	52	37.42	-00	10	11.0	809
2088	1984	10	01.24305	23	52	37.08	-00	10	11.9	809
2088	1984	10	01.24861	23	52	36.76	-00	10	13.1	809
2117	1984	09	18.28333	22	57	41.22	-11	26	32.6	809
2117	1984	09	18.30387	22	57	40.30	-11	26	36.6	809
2117	1984	09	18.30960	22	57	40.01	-11	26	37.8	809
2117	1984	09	21.14027	22	55	35.00	-11	36	31.8	809
2117	1984	09	21.14583	22	55	34.72	-11	36	32.8	809
2117	1984	09	21.15139	22	55	34.52	-11	36	33.4	809
2117	1984	09	22.07361	22	54	55.15	-11	39	34.7	809
2117	1984	09	22.07917	22	54	54.91	-11	39	35.9	809
2117	1984	09	22.08472	22	54	54.69	-11	39	37.0	809
2117	1984	09	22.16111	22	54	51.25	-11	39	51.8	809
2117	1984	09	22.16666	22	54	51.02	-11	39	53.1	809
2117	1984	09	22.17222	22	54	50.77	-11	39	53.8	809
2117	1984	09	23.04444	22	54	14.17	-11	42	38.8	809
2117	1984	09	23.05000	22	54	13.95	-11	42	39.7	809
2117	1984	09	23.05555	22	54	13.73	-11	42	40.7	809
2117	1984	09	24.08264	22	53	31.35	-11	45	47.1	809
2117	1984	09	24.08819	22	53	31.14	-11	45	47.9	809
2117	1984	09	24.09375	22	53	30.93	-11	45	48.6	809
2117	1984	09	26.19583	22	52	06.90	-11	51	41.9	809
2117	1984	09	26.20139	22	52	06.69	-11	51	42.6	809
2117	1984	09	26.20694	22	52	06.47	-11	51	43.3	809
2117	1984	09	27.06597	22	51	33.74	-11	53	57.1	809
2117	1984	09	27.07153	22	51	33.52	-11	53	57.5	809
2117	1984	09	27.07708	22	51	33.30	-11	53	58.4	809
2117	1984	09	28.04803	22	50	57.03	-11	56	22.2	809
2117	1984	09	28.05358	22	50	56.83	-11	56	23.1	809
2117	1984	09	28.05902	22	50	56.63	-11	56	23.8	809
2117	1984	09	29.04166	22	50	20.79	-11	58	39.1	809
2117	1984	09	29.04722	22	50	20.58	-11	58	39.7	809
2117	1984	09	29.05278	22	50	20.35	-11	58	40.3	809
2117	1984	09	30.02812	22	49	46.22	-12	00	47.5	809
2117	1984	09	30.03299	22	49	46.04	-12	00	49.2	809
2117	1984	09	30.03785	22	49	45.85	-12	00	50.6	809
2117	1984	10	01.04166	22	49	11.57	-12	02	51.2	809
2117	1984	10	01.04722	22	49	11.35	-12	02	51.8	809
2155	1984	09	18.28333	22	53	25.87	-10	31	20.7	809
2155	1984	09	18.30387	22	53	24.96	-10	31	25.0	809
2155	1984	09	18.30960	22	53	24.73	-10	31	26.4	809
2155	1984	09	21.14027	22	51	18.43	-10	41	12.0	809
2155	1984	09	21.14583	22	51	18.18	-10	41	12.6	809
2155	1984	09	21.15139	22	51	17.90	-10	41	13.6	809
2155	1984	09	22.07361	22	50	38.04	-10	44	12.6	809
2155	1984	09	22.07917	22	50	37.82	-10	44	13.9	809
2155	1984	09	22.08472	22	50	37.60	-10	44	15.3	809
2155	1984	09	22.16111	22	50	34.13	-10	44	29.1	809
2155	1984	09	22.16666	22	50	33.88	-10	44	30.5	809

2155	1984	09	22.17222	22	50	33.63	-10	44	31.9	809
2155	1984	09	23.04444	22	49	56.74	-10	47	14.0	809
2155	1984	09	23.05000	22	49	56.50	-10	47	14.9	809
2155	1984	09	23.05555	22	49	56.26	-10	47	15.1	809
2155	1984	09	24.08264	22	49	13.35	-10	50	21.1	809
2155	1984	09	24.08819	22	49	13.12	-10	50	21.7	809
2155	1984	09	24.09375	22	49	12.89	-10	50	22.3	809
2155	1984	09	26.19583	22	47	48.33	-10	56	19.0	809
2155	1984	09	26.20139	22	47	48.12	-10	56	19.9	809
2155	1984	09	26.20694	22	47	47.87	-10	56	20.5	809
2155	1984	09	27.06597	22	47	14.94	-10	58	35.0	809
2155	1984	09	27.07153	22	47	14.69	-10	58	36.0	809
2155	1984	09	27.07708	22	47	14.45	-10	58	37.2	809
2155	1984	09	28.04803	22	46	37.88	-11	01	01.7	809
2155	1984	09	28.05358	22	46	37.64	-11	01	02.6	809
2155	1984	09	28.05902	22	46	37.43	-11	01	03.5	809
2155	1984	09	29.04166	22	46	01.36	-11	03	20.7	809
2155	1984	09	29.04722	22	46	01.15	-11	03	21.7	809
2155	1984	09	29.05278	22	46	00.92	-11	03	22.8	809
2155	1984	09	30.02812	22	45	26.37	-11	05	32.5	809
2155	1984	09	30.03299	22	45	26.20	-11	05	33.3	809
2155	1984	09	30.03785	22	45	26.03	-11	05	33.9	809
2155	1984	10	01.04166	22	44	51.55	-11	07	39.4	809
2155	1984	10	01.04722	22	44	51.36	-11	07	41.2	809
2165	1984	09	23.22430	23	31	35.97	-03	43	56.2	809
2165	1984	09	23.22986	23	31	35.71	-03	43	57.5	809
2165	1984	09	23.23542	23	31	35.45	-03	43	58.9	809
2165	1984	09	24.21042	23	30	52.18	-03	48	14.2	809
2165	1984	09	24.21597	23	30	51.93	-03	48	16.0	809
2165	1984	09	24.22153	23	30	51.69	-03	48	17.3	809
2165	1984	09	24.25243	23	30	50.26	-03	48	25.5	809
2165	1984	09	24.25729	23	30	50.04	-03	48	27.0	809
2165	1984	09	24.26215	23	30	49.83	-03	48	28.2	809
2165	1984	09	26.23264	23	29	23.54	-03	56	54.4	809
2165	1984	09	26.23819	23	29	23.32	-03	56	55.5	809
2165	1984	09	26.24375	23	29	23.11	-03	56	56.9	809
2165	1984	09	27.10763	23	28	45.99	-04	00	35.5	809
2165	1984	09	27.11319	23	28	45.77	-04	00	37.0	809
2165	1984	09	27.11875	23	28	45.54	-04	00	38.2	809
2165	1984	09	28.08750	23	28	04.25	-04	04	39.2	809
2165	1984	09	28.09323	23	28	04.02	-04	04	40.4	809
2165	1984	09	28.09878	23	28	03.80	-04	04	41.8	809
2165	1984	09	29.08240	23	27	22.43	-04	08	42.8	809
2165	1984	09	29.08831	23	27	22.17	-04	08	44.1	809
2165	1984	09	29.09375	23	27	21.94	-04	08	45.4	809
2203	1984	09	17.07153	22	14	53.15	-13	28	58.0	809
2203	1984	09	17.07708	22	14	52.91	-13	28	58.5	809
2203	1984	09	17.08264	22	14	52.66	-13	28	59.5	809
2203	1984	09	18.01389	22	14	18.78	-13	31	28.3	809
2203	1984	09	18.01944	22	14	18.58	-13	31	29.7	809
2203	1984	09	18.02500	22	14	18.34	-13	31	31.0	809
2203	1984	09	24.05833	22	11	01.19	-13	45	03.4	809
2203	1984	09	24.06389	22	11	01.05	-13	45	04.4	809
2203	1984	09	24.06944	22	11	00.85	-13	45	05.2	809
2203	1984	09	26.17569	22	10	02.23	-13	48	40.5	809
2203	1984	09	26.18142	22	10	02.06	-13	48	41.5	809
2203	1984	09	26.18698	22	10	01.93	-13	48	41.9	809
2203	1984	09	27.04583	22	09	40.00	-13	49	59.5	809
2203	1984	09	27.05139	22	09	39.86	-13	49	59.9	809

2203	1984	09	27.05694	22	09	39.73	-13	50	00.7	809
2203	1984	09	28.02778	22	09	16.15	-13	51	18.6	809
2203	1984	09	28.03333	22	09	16.00	-13	51	18.9	809
2203	1984	09	28.03889	22	09	15.89	-13	51	19.8	809
2203	1984	09	29.02014	22	08	53.26	-13	52	31.3	809
2203	1984	09	29.02569	22	08	53.10	-13	52	31.9	809
2203	1984	09	29.03125	22	08	52.95	-13	52	32.6	809
2203	1984	09	30.01076	22	08	31.58	-13	53	36.2	809
2203	1984	09	30.01562	22	08	31.49	-13	53	36.6	809
2203	1984	09	30.02048	22	08	31.40	-13	53	37.0	809
2203	1984	10	01.02708	22	08	11.05	-13	54	34.1	809
2203	1984	10	01.03264	22	08	10.90	-13	54	34.7	809
2248	1984	09	18.01389	22	16	33.56	-12	42	21.9	809
2248	1984	09	18.01944	22	16	33.36	-12	42	23.4	809
2248	1984	09	18.02500	22	16	33.15	-12	42	24.5	809
2248	1984	09	21.05312	22	14	44.77	-12	50	56.7	809
2248	1984	09	21.05868	22	14	44.57	-12	50	58.4	809
2248	1984	09	21.06389	22	14	44.38	-12	50	59.6	809
2248	1984	09	22.05208	22	14	10.63	-12	53	35.4	809
2248	1984	09	22.05764	22	14	10.44	-12	53	36.4	809
2248	1984	09	22.06319	22	14	10.25	-12	53	37.7	809
2248	1984	09	23.02500	22	13	38.34	-12	56	02.9	809
2248	1984	09	23.03055	22	13	38.14	-12	56	03.7	809
2248	1984	09	23.03611	22	13	37.95	-12	56	04.5	809
2248	1984	09	24.03542	22	13	05.49	-12	58	30.2	809
2248	1984	09	24.04097	22	13	05.30	-12	58	31.3	809
2248	1984	09	24.04652	22	13	05.12	-12	58	32.4	809
2248	1984	09	24.05833	22	13	04.78	-12	58	33.6	809
2248	1984	09	24.06389	22	13	04.63	-12	58	34.4	809
2248	1984	09	24.06944	22	13	04.46	-12	58	35.5	809
2248	1984	09	26.17569	22	11	59.17	-13	03	22.8	809
2248	1984	09	26.18142	22	11	59.02	-13	03	23.7	809
2248	1984	09	26.18698	22	11	58.88	-13	03	24.4	809
2248	1984	09	27.04583	22	11	33.72	-13	05	14.2	809
2248	1984	09	27.05139	22	11	33.56	-13	05	14.6	809
2248	1984	09	27.05694	22	11	33.36	-13	05	15.0	809
2248	1984	09	28.02778	22	11	05.88	-13	07	13.9	809
2248	1984	09	28.03333	22	11	05.75	-13	07	14.4	809
2248	1984	09	28.03889	22	11	05.57	-13	07	15.0	809
2248	1984	09	29.02014	22	10	38.53	-13	09	08.3	809
2248	1984	09	29.02569	22	10	38.38	-13	09	08.9	809
2248	1984	09	29.03125	22	10	38.20	-13	09	09.6	809
2248	1984	09	30.01076	22	10	12.45	-13	10	57.7	809
2248	1984	09	30.01562	22	10	12.32	-13	10	58.4	809
2248	1984	09	30.02048	22	10	12.19	-13	10	59.0	809
2248	1984	10	01.02708	22	09	46.79	-13	12	42.4	809
2248	1984	10	01.03264	22	09	46.64	-13	12	43.0	809
2308	1984	09	20.38472	01	11	33.98	-03	31	35.4	809
2308	1984	09	20.39027	01	11	33.68	-03	31	36.4	809
2308	1984	09	20.39583	01	11	33.33	-03	31	37.3	809
2308	1984	09	22.35833	01	09	39.36	-03	35	03.9	809
2308	1984	09	22.36389	01	09	39.03	-03	35	04.7	809
2308	1984	09	22.36944	01	09	38.70	-03	35	05.0	809
2308	1984	09	23.12014	01	08	54.60	-03	36	23.6	809
2308	1984	09	23.12569	01	08	54.23	-03	36	23.7	809
2308	1984	09	23.13125	01	08	53.88	-03	36	24.3	809
2308	1984	09	24.33819	01	07	40.97	-03	38	27.3	809
2308	1984	09	24.34375	01	07	40.65	-03	38	27.7	809
2308	1984	09	24.34930	01	07	40.29	-03	38	28.6	809

2308	1984	09	26.37639	01	05	35.88	-03	41	44.5	809
2308	1984	09	26.38194	01	05	35.56	-03	41	45.3	809
2308	1984	09	26.38750	01	05	35.22	-03	41	45.5	809
2308	1984	09	27.33958	01	04	36.02	-03	43	13.3	809
2308	1984	09	27.34514	01	04	35.64	-03	43	13.8	809
2308	1984	09	27.35069	01	04	35.32	-03	43	14.4	809
2308	1984	09	28.31944	01	03	34.52	-03	44	40.6	809
2308	1984	09	28.32500	01	03	34.13	-03	44	41.3	809
2308	1984	09	28.33055	01	03	33.75	-03	44	41.4	809
2308	1984	09	29.28819	01	02	33.38	-03	46	03.1	809
2308	1984	09	29.29375	01	02	33.03	-03	46	03.9	809
2308	1984	09	29.29930	01	02	32.64	-03	46	04.0	809
2308	1984	09	30.11458	01	01	41.14	-03	47	10.3	809
2308	1984	09	30.12048	01	01	40.77	-03	47	10.6	809
2308	1984	09	30.12535	01	01	40.50	-03	47	11.0	809
2316	1984	09	21.30833	00	08	15.56	-00	58	36.0	809
2316	1984	09	21.31389	00	08	15.26	-00	58	38.3	809
2316	1984	09	21.31944	00	08	14.96	-00	58	40.9	809
2316	1984	09	27.28750	00	03	01.14	-01	37	49.9	809
2316	1984	09	27.29513	00	03	00.74	-01	37	53.5	809
2316	1984	09	27.30069	00	03	00.45	-01	37	55.4	809
2316	1984	09	28.10902	00	02	18.97	-01	43	04.2	809
2316	1984	09	28.11458	00	02	18.68	-01	43	06.3	809
2316	1984	09	28.12014	00	02	18.38	-01	43	08.3	809
2316	1984	09	28.24930	00	02	11.33	-01	43	57.5	809
2316	1984	09	28.25486	00	02	11.10	-01	43	59.8	809
2316	1984	09	28.26041	00	02	10.81	-01	44	01.6	809
2316	1984	09	29.12430	00	01	26.72	-01	49	28.5	809
2316	1984	09	29.12917	00	01	26.48	-01	49	30.3	809
2316	1984	09	29.13541	00	01	26.13	-01	49	32.5	809
2316	1984	09	30.27778	00	00	27.70	-01	56	37.4	809
2316	1984	09	30.28333	00	00	27.42	-01	56	39.7	809
2316	1984	09	30.28889	00	00	27.11	-01	56	41.4	809
2317	1984	09	21.28819	23	58	00.95	+00	58	43.8	809
2317	1984	09	21.29375	23	58	00.68	+00	58	41.1	809
2317	1984	09	21.29930	23	58	00.41	+00	58	37.8	809
2317	1984	09	23.08333	23	56	37.55	+00	44	21.3	809
2317	1984	09	23.08889	23	56	37.30	+00	44	18.4	809
2317	1984	09	23.09444	23	56	37.01	+00	44	15.7	809
2317	1984	09	24.23264	23	55	43.39	+00	35	07.8	809
2317	1984	09	24.23819	23	55	43.15	+00	35	05.3	809
2317	1984	09	24.24375	23	55	42.89	+00	35	02.8	809
2317	1984	09	26.27986	23	54	07.76	+00	18	38.3	809
2317	1984	09	26.28542	23	54	07.46	+00	18	35.6	809
2317	1984	09	26.29097	23	54	07.18	+00	18	32.9	809
2317	1984	09	27.16389	23	53	27.04	+00	11	31.9	809
2317	1984	09	27.16944	23	53	26.75	+00	11	29.3	809
2317	1984	09	27.17500	23	53	26.47	+00	11	26.9	809
2317	1984	09	28.16389	23	52	41.02	+00	03	31.8	809
2317	1984	09	28.16944	23	52	40.77	+00	03	29.5	809
2317	1984	09	28.17500	23	52	40.47	+00	03	26.8	809
2317	1984	09	29.14549	23	51	56.29	-00	04	17.8	809
2317	1984	09	29.15069	23	51	56.01	-00	04	20.4	809
2317	1984	09	29.15625	23	51	55.78	-00	04	23.5	809
2317	1984	09	30.15764	23	51	10.56	-00	12	21.2	809
2317	1984	09	30.16389	23	51	10.27	-00	12	24.2	809
2317	1984	09	30.17083	23	51	09.94	-00	12	27.4	809
2317	1984	10	01.23750	23	50	22.28	-00	20	50.7	809
2317	1984	10	01.24305	23	50	22.01	-00	20	53.1	809

2317		1984	10	01.24861	23	50	21.74	-00	20	55.7	809
2359		1984	09	18.32083	01	48	08.40	+12	24	12.1	809
2359		1984	09	18.32638	01	48	08.24	+12	24	10.2	809
2359		1984	09	18.33194	01	48	08.08	+12	24	08.3	809
2359		1984	09	21.24722	01	46	29.97	+12	10	04.3	809
2359		1984	09	21.25278	01	46	29.77	+12	10	03.0	809
2359		1984	09	21.25833	01	46	29.56	+12	10	01.6	809
2359		1984	09	23.35625	01	45	11.02	+11	59	01.0	809
2359		1984	09	23.36180	01	45	10.79	+11	58	59.5	809
2359		1984	09	23.36736	01	45	10.55	+11	58	57.6	809
2359		1984	09	24.35914	01	44	31.45	+11	53	31.3	809
2359		1984	09	24.36470	01	44	31.21	+11	53	29.3	809
2359		1984	09	24.37026	01	44	30.97	+11	53	27.1	809
2359		1984	09	27.24791	01	42	30.21	+11	36	49.2	809
2359		1984	09	27.25347	01	42	29.96	+11	36	46.9	809
2359		1984	09	27.25903	01	42	29.72	+11	36	45.1	809
2359		1984	09	29.30903	01	40	57.46	+11	24	11.6	809
2359		1984	09	29.31528	01	40	57.16	+11	24	09.0	809
2359		1984	09	29.32014	01	40	56.94	+11	24	07.5	809
2359		1984	09	30.35763	01	40	08.56	+11	17	33.7	809
2359		1984	09	30.36319	01	40	08.29	+11	17	31.4	809
2359		1984	09	30.36875	01	40	08.04	+11	17	29.1	809
2535		1984	09	21.28819	00	02	26.02	-00	32	02.4	809
2535		1984	09	21.29375	00	02	25.73	-00	32	05.1	809
2535		1984	09	21.29930	00	02	25.38	-00	32	08.1	809
2535		1984	09	22.27569	00	01	31.13	-00	39	51.9	809
2535		1984	09	22.28125	00	01	30.82	-00	39	54.6	809
2535		1984	09	22.28680	00	01	30.50	-00	39	57.3	809
2535		1984	09	23.08333	00	00	46.55	-00	46	15.2	809
2535		1984	09	23.08889	00	00	46.21	-00	46	18.0	809
2535		1984	09	23.09444	00	00	45.89	-00	46	20.9	809
2540		1984	09	29.32986	00	00	19.33	+00	02	53.1	17.1 809
2540		1984	09	29.33541	00	00	19.01	+00	02	50.9	809
2540		1984	09	29.34097	00	00	18.69	+00	02	48.6	809
2540		1984	09	30.33680	23	59	22.43	-00	04	01.6	809
2540		1984	09	30.34236	23	59	22.10	-00	04	03.8	809
2540		1984	09	30.34792	23	59	21.77	-00	04	06.1	809
2560		1984	09	17.07153	22	17	33.50	-12	34	11.3	809
2560		1984	09	17.07708	22	17	33.31	-12	34	13.3	809
2560		1984	09	17.08264	22	17	33.14	-12	34	15.4	809
2560		1984	09	18.01389	22	16	57.70	-12	39	13.9	809
2560		1984	09	18.01944	22	16	57.50	-12	39	15.9	809
2560		1984	09	18.02500	22	16	57.28	-12	39	18.0	809
2560		1984	09	21.05312	22	15	08.11	-12	54	47.0	809
2560		1984	09	21.05868	22	15	07.91	-12	54	48.9	809
2560		1984	09	21.06389	22	15	07.72	-12	54	50.8	809
2560		1984	09	22.05208	22	14	34.14	-12	59	38.1	809
2560		1984	09	22.05764	22	14	33.96	-12	59	39.8	809
2560		1984	09	22.06319	22	14	33.75	-12	59	41.8	809
2560		1984	09	23.02500	22	14	02.26	-13	04	11.7	809
2560		1984	09	23.03055	22	14	02.05	-13	04	13.4	809
2560		1984	09	23.03611	22	14	01.87	-13	04	14.6	809
2560		1984	09	24.05833	22	13	29.51	-13	08	54.4	809
2560		1984	09	24.06389	22	13	29.31	-13	08	55.6	809
2560		1984	09	24.06944	22	13	29.12	-13	08	58.1	809
2560		1984	09	26.17569	22	12	26.18	-13	18	05.0	809
2560		1984	09	26.18142	22	12	26.04	-13	18	06.3	809
2560		1984	09	26.18698	22	12	25.88	-13	18	07.8	809
2560		1984	09	27.04583	22	12	02.13	-13	21	39.4	809

2560		1984	09	27.05139	22	12	01.95	-13	21	40.5	809
2560		1984	09	27.05694	22	12	01.79	-13	21	42.4	809
2560		1984	09	28.02778	22	11	35.94	-13	25	33.7	809
2560		1984	09	28.03333	22	11	35.78	-13	25	34.9	809
2560		1984	09	28.03889	22	11	35.63	-13	25	36.1	809
2560		1984	09	29.02014	22	11	10.73	-13	29	20.1	809
2560		1984	09	29.02569	22	11	10.58	-13	29	21.4	809
2560		1984	09	29.03125	22	11	10.41	-13	29	23.3	809
2560		1984	09	30.01076	22	10	46.84	-13	32	58.6	809
2560		1984	09	30.01562	22	10	46.74	-13	32	59.7	809
2560		1984	09	30.02048	22	10	46.64	-13	33	00.7	809
2560		1984	10	01.02708	22	10	23.82	-13	36	32.1	809
2560		1984	10	01.03264	22	10	23.69	-13	36	33.4	809
2561		1984	09	28.10902	00	03	31.58	-00	58	15.7	809
2561		1984	09	28.11458	00	03	31.30	-00	58	17.7	809
2561		1984	09	28.12014	00	03	31.07	-00	58	20.0	809
2712		1984	09	21.28819	23	57	15.39	-00	33	25.9	809
2712		1984	09	21.29375	23	57	15.08	-00	33	28.3	809
2712		1984	09	21.29930	23	57	14.74	-00	33	31.4	809
2759		1984	09	23.06389	23	14	11.90	-04	33	02.9	809
2759		1984	09	23.06956	23	14	11.71	-04	33	04.0	809
2759		1984	09	23.07511	23	14	11.60	-04	33	05.9	809
2759		1984	09	26.21493	23	12	53.04	-04	48	17.9	809
2759		1984	09	26.21979	23	12	52.87	-04	48	19.3	809
2759		1984	09	26.22465	23	12	52.72	-04	48	20.8	809
2761		1984	09	29.10347	23	56	04.74	-02	55	50.6	18.0 809
2761		1984	09	29.10902	23	56	04.48	-02	55	52.1	809
2761		1984	09	29.11458	23	56	04.23	-02	55	53.5	809
2761		1984	09	30.08437	23	55	20.86	-02	59	50.7	809
2761		1984	09	30.08923	23	55	20.63	-02	59	51.8	809
2761		1984	09	30.09410	23	55	20.42	-02	59	52.8	809
1984	QE1	1984	09	17.07153	22	17	40.64	-11	56	06.0	16.2 809
1984	QE1	1984	09	17.07708	22	17	40.35	-11	56	04.9	809
1984	QE1	1984	09	17.08264	22	17	40.06	-11	56	03.8	809
1984	QE1	1984	09	18.01389	22	16	52.39	-11	53	07.3	809
1984	QE1	1984	09	18.01944	22	16	52.09	-11	53	06.3	809
1984	QE1	1984	09	18.02500	22	16	51.81	-11	53	04.9	809
1984	QE1	1984	09	21.05312	22	14	26.86	-11	42	42.2	809
1984	QE1	1984	09	21.05868	22	14	26.59	-11	42	41.1	809
1984	QE1	1984	09	21.06389	22	14	26.34	-11	42	40.3	809
1984	QE1	1984	09	22.05208	22	13	42.81	-11	38	59.3	809
1984	QE1	1984	09	22.05764	22	13	42.55	-11	38	57.9	809
1984	QE1	1984	09	22.06319	22	13	42.33	-11	38	56.6	809
1984	QE1	1984	09	23.02500	22	13	01.83	-11	35	14.2	809
1984	QE1	1984	09	23.03055	22	13	01.55	-11	35	12.9	809
1984	QE1	1984	09	23.03611	22	13	01.34	-11	35	11.5	809
1984	QE1	1984	09	24.03542	22	12	21.19	-11	31	11.9	809
1984	QE1	1984	09	24.04097	22	12	20.95	-11	31	10.8	809
1984	QE1	1984	09	24.04652	22	12	20.70	-11	31	09.5	809
1984	QE1	1984	09	26.15694	22	11	02.53	-11	22	15.6	809
1984	QE1	1984	09	26.16250	22	11	02.33	-11	22	14.2	809
1984	QE1	1984	09	26.16805	22	11	02.12	-11	22	12.4	809
1984	QE1	1984	09	27.02257	22	10	33.90	-11	18	26.1	809
1984	QE1	1984	09	27.02986	22	10	33.66	-11	18	24.1	809
1984	QE1	1984	09	27.03680	22	10	33.43	-11	18	22.1	809
1984	QE1	1984	09	28.00764	22	10	02.90	-11	13	56.8	809
1984	QE1	1984	09	28.01319	22	10	02.72	-11	13	55.2	809
1984	QE1	1984	09	28.01875	22	10	02.53	-11	13	53.2	809
1984	QE1	1984	09	29.00011	22	09	33.69	-11	09	17.3	809

1984	QE1	1984	09	29.00567	22	09	33.51	-11	09	15.5	809
1984	QE1	1984	09	29.01111	22	09	33.37	-11	09	14.4	809
1984	QE1	1984	09	29.99444	22	09	06.86	-11	04	28.3	809
1984	QE1	1984	09	29.99861	22	09	06.74	-11	04	27.4	809
1984	QE1	1984	09	30.00278	22	09	06.62	-11	04	26.3	809
1984	QE1	1984	10	01.01180	22	08	41.64	-10	59	25.7	809
1984	QE1	1984	10	01.01597	22	08	41.53	-10	59	24.1	809
1984	QE1	1984	10	01.02014	22	08	41.41	-10	59	23.0	809
1984	SH	1984	09	28.23125	00	05	48.30	-05	06	48.9	16.5 809
1984	SH	1984	09	28.23680	00	05	47.97	-05	06	51.1	809
1984	SH	1984	09	28.24236	00	05	47.66	-05	06	52.8	809
1984	SH	1984	09	28.35972	00	05	40.76	-05	07	37.4	809
1984	SH	1984	09	28.36597	00	05	40.40	-05	07	39.5	809
1984	SH	1984	09	28.37222	00	05	40.05	-05	07	41.6	809
1984	SH	1984	09	29.16458	00	04	55.51	-05	12	36.6	809
1984	SH	1984	09	29.17014	00	04	55.22	-05	12	38.6	809
1984	SH	1984	09	29.17569	00	04	54.93	-05	12	40.7	809
1984	SH	1984	09	30.18055	00	03	58.45	-05	18	44.5	809
1984	SH	1984	09	30.18750	00	03	58.05	-05	18	47.1	809
1984	SH	1984	09	30.19444	00	03	57.65	-05	18	49.6	809
1984	SV2	1984	09	21.28819	00	04	30.91	+01	01	58.8	17.0 809
1984	SV2	1984	09	21.29375	00	04	30.58	+01	01	57.7	809
1984	SV2	1984	09	21.29930	00	04	30.27	+01	01	56.9	809
1984	SV2	1984	09	22.27569	00	03	35.54	+00	59	27.4	809
1984	SV2	1984	09	22.28125	00	03	35.25	+00	59	26.4	809
1984	SV2	1984	09	22.28680	00	03	34.96	+00	59	25.8	809
1984	SV2	1984	09	23.08333	00	02	50.70	+00	57	22.1	809
1984	SV2	1984	09	23.08889	00	02	50.39	+00	57	21.3	809
1984	SV2	1984	09	23.09444	00	02	50.08	+00	57	20.0	809
1984	SV2	1984	09	24.23264	00	01	45.23	+00	54	22.3	809
1984	SV2	1984	09	24.23819	00	01	44.94	+00	54	21.4	809
1984	SV2	1984	09	24.24375	00	01	44.60	+00	54	20.5	809
1984	SV2	1984	09	26.27986	23	59	49.46	+00	48	58.8	809
1984	SV2	1984	09	26.28542	23	59	49.16	+00	48	57.7	809
1984	SV2	1984	09	26.29097	23	59	48.85	+00	48	56.6	809
1984	SV2	1984	09	27.16389	23	59	00.18	+00	46	39.7	809
1984	SV2	1984	09	27.16944	23	58	59.87	+00	46	38.5	809
1984	SV2	1984	09	27.17500	23	58	59.55	+00	46	37.6	809
1984	SV2	1984	09	28.16389	23	58	04.27	+00	44	03.6	809
1984	SV2	1984	09	28.16944	23	58	03.98	+00	44	02.8	809
1984	SV2	1984	09	28.17500	23	58	03.67	+00	44	01.9	809
1984	SV2	1984	09	29.14549	23	57	09.97	+00	41	31.1	809
1984	SV2	1984	09	29.15069	23	57	09.67	+00	41	30.1	809
1984	SV2	1984	09	29.15625	23	57	09.36	+00	41	29.3	809
1984	SV2	1984	09	29.32986	23	56	59.23	+00	41	02.9	809
1984	SV2	1984	09	29.33541	23	56	58.91	+00	41	02.0	809
1984	SV2	1984	09	29.34097	23	56	58.58	+00	41	01.1	809
1984	SV2	1984	09	30.15764	23	56	14.24	+00	38	55.9	809
1984	SV2	1984	09	30.16389	23	56	13.90	+00	38	54.9	809
1984	SV2	1984	09	30.17083	23	56	13.55	+00	38	53.7	809
1984	SV2	1984	09	30.33680	23	56	03.96	+00	38	28.7	809
1984	SV2	1984	09	30.34236	23	56	03.66	+00	38	27.6	809
1984	SV2	1984	09	30.34792	23	56	03.36	+00	38	26.6	809
1984	SV2	1984	10	01.23750	23	55	15.45	+00	36	14.9	809
1984	SV2	1984	10	01.24305	23	55	15.15	+00	36	13.9	809
1984	SV2	1984	10	01.24861	23	55	14.85	+00	36	13.1	809
1984	SE3	1984	09	22.29513	00	12	47.55	-03	33	30.9	17.1 809
1984	SE3	1984	09	22.30069	00	12	47.24	-03	33	33.8	809
1984	SE3	1984	09	22.30625	00	12	46.92	-03	33	36.3	809

1984	SE3	1984	09	23.27014	00	11	52.69	-03	41	16.5	809
1984	SE3	1984	09	23.27569	00	11	52.38	-03	41	19.1	809
1984	SE3	1984	09	23.28200	00	11	52.02	-03	41	21.9	809
1984	SE3	1984	09	24.27014	00	10	56.09	-03	49	11.6	809
1984	SE3	1984	09	24.27569	00	10	55.76	-03	49	14.6	809
1984	SE3	1984	09	24.28125	00	10	55.44	-03	49	17.3	809
1984	SE3	1984	09	26.25208	00	09	03.41	-04	04	43.9	809
1984	SE3	1984	09	26.25764	00	09	03.12	-04	04	46.4	809
1984	SE3	1984	09	26.26319	00	09	02.80	-04	04	48.8	809
1984	SE3	1984	09	27.22639	00	08	08.00	-04	12	16.1	809
1984	SE3	1984	09	27.23217	00	08	07.67	-04	12	18.8	809
1984	SE3	1984	09	27.23773	00	08	07.33	-04	12	21.5	809
1984	SE3	1984	09	28.23125	00	07	10.77	-04	19	56.7	809
1984	SE3	1984	09	28.23680	00	07	10.49	-04	19	59.2	809
1984	SE3	1984	09	28.24236	00	07	10.19	-04	20	01.4	809
1984	SE3	1984	09	28.34166	00	07	04.36	-04	20	48.2	809
1984	SE3	1984	09	28.34722	00	07	04.02	-04	20	51.1	809
1984	SE3	1984	09	28.35278	00	07	03.72	-04	20	54.1	809
1984	SE3	1984	09	29.16458	00	06	17.99	-04	27	01.5	809
1984	SE3	1984	09	29.17014	00	06	17.67	-04	27	03.9	809
1984	SE3	1984	09	29.17569	00	06	17.35	-04	27	06.4	809
1984	SE3	1984	09	30.18055	00	05	20.56	-04	34	36.3	809
1984	SE3	1984	09	30.18750	00	05	20.15	-04	34	39.2	809
1984	SE3	1984	09	30.19444	00	05	19.74	-04	34	42.6	809
1984	SE3	1984	10	01.21666	00	04	22.24	-04	42	12.9	809
1984	SE3	1984	10	01.22222	00	04	21.93	-04	42	15.4	809
1984	SE3	1984	10	01.22778	00	04	21.63	-04	42	17.9	809
1984	SF3	1984	09	28.14167	00	11	57.32	-02	21	26.6	17.6 809
1984	SF3	1984	09	28.14722	00	11	57.03	-02	21	28.5	809
1984	SF3	1984	09	28.15278	00	11	56.74	-02	21	30.6	809
1984	SF3	1984	09	29.26805	00	11	01.30	-02	28	51.1	809
1984	SF3	1984	09	29.27361	00	11	01.02	-02	28	53.3	809
1984	SF3	1984	09	29.27916	00	11	00.76	-02	28	55.6	809
1984	SF3	1984	09	30.31667	00	10	09.42	-02	35	40.5	809
1984	SF3	1984	09	30.32222	00	10	09.14	-02	35	42.6	809
1984	SF3	1984	09	30.32777	00	10	08.85	-02	35	44.7	809
1984	SM4	1984	09	27.28750	00	08	20.51	-01	39	40.5	16.8 809
1984	SM4	1984	09	27.29513	00	08	20.16	-01	39	43.7	809
1984	SM4	1984	09	27.30069	00	08	19.89	-01	39	46.1	809
1984	SM4	1984	09	28.14167	00	07	41.27	-01	45	20.3	809
1984	SM4	1984	09	28.14722	00	07	41.01	-01	45	22.3	809
1984	SM4	1984	09	28.15278	00	07	40.75	-01	45	24.8	809
1984	SM4	1984	09	28.24930	00	07	36.02	-01	46	03.6	809
1984	SM4	1984	09	28.25486	00	07	35.77	-01	46	05.9	809
1984	SM4	1984	09	28.26041	00	07	35.53	-01	46	08.0	809
1984	SM4	1984	09	29.12430	00	06	55.89	-01	51	49.0	809
1984	SM4	1984	09	29.12917	00	06	55.66	-01	51	51.0	809
1984	SM4	1984	09	29.13541	00	06	55.37	-01	51	53.4	809
1984	SM4	1984	09	30.27778	00	06	02.66	-01	59	21.0	809
1984	SM4	1984	09	30.28333	00	06	02.40	-01	59	22.7	809
1984	SM4	1984	09	30.28889	00	06	02.14	-01	59	25.0	809
1984	SN4	1984	09	22.18125	23	12	28.47	-04	16	05.3	17.8 809
1984	SN4	1984	09	22.18680	23	12	28.21	-04	16	06.8	809
1984	SN4	1984	09	22.19236	23	12	27.96	-04	16	08.3	809
1984	SN4	1984	09	23.06389	23	11	49.94	-04	19	18.0	809
1984	SN4	1984	09	23.06956	23	11	49.69	-04	19	19.3	809
1984	SN4	1984	09	23.07511	23	11	49.44	-04	19	20.6	809
1984	SN4	1984	09	26.21493	23	09	36.64	-04	30	12.3	809
1984	SN4	1984	09	26.21979	23	09	36.41	-04	30	13.2	809

1984	SN4		1984	09	26.22465	23	09	36.19	-04	30	14.2	809
1984	SN4		1984	09	28.06736	23	08	24.02	-04	36	09.7	809
1984	SN4		1984	09	28.07291	23	08	23.83	-04	36	10.6	809
1984	SN4		1984	09	28.07847	23	08	23.63	-04	36	11.3	809
1984	SN4		1984	09	29.06180	23	07	46.66	-04	39	11.1	809
1984	SN4		1984	09	29.06736	23	07	46.46	-04	39	11.9	809
1984	SN4		1984	09	29.07291	23	07	46.26	-04	39	12.4	809
1984	SN4		1984	09	30.04687	23	07	10.92	-04	42	03.9	809
1984	SN4		1984	09	30.05174	23	07	10.74	-04	42	04.9	809
1984	SN4		1984	09	30.05659	23	07	10.56	-04	42	06.0	809
1984	SN4		1984	10	01.05694	23	06	35.61	-04	44	53.7	809
1984	SN4		1984	10	01.06319	23	06	35.44	-04	44	55.2	809
1984	SO4		1984	09	22.33680	00	49	04.17	+15	32	29.3	809
1984	SO4		1984	09	22.34375	00	49	03.82	+15	32	28.0	809
1984	SO4		1984	09	22.34930	00	49	03.54	+15	32	26.9	809
1984	SO4		1984	09	26.31944	00	45	30.45	+15	17	51.9	809
1984	SO4		1984	09	26.32500	00	45	30.11	+15	17	50.2	809
1984	SO4		1984	09	26.33055	00	45	29.80	+15	17	48.5	809
1984	SO4		1984	09	28.20625	00	43	45.54	+15	09	37.5	809
1984	SO4		1984	09	28.21284	00	43	45.16	+15	09	35.8	809
1984	SO4		1984	09	28.21944	00	43	44.80	+15	09	33.9	809
1984	SO4		1984	09	29.20555	00	42	49.04	+15	04	55.6	809
1984	SO4		1984	09	29.21111	00	42	48.71	+15	04	54.0	809
1984	SO4		1984	09	29.21666	00	42	48.39	+15	04	52.4	809
1984	SO4		1984	09	30.22430	00	41	51.03	+14	59	55.8	809
1984	SO4		1984	09	30.22986	00	41	50.71	+14	59	54.2	809
1984	SO4		1984	09	30.23542	00	41	50.40	+14	59	52.4	809
1984	SP4		1984	09	27.18472	00	38	37.13	+14	42	49.5	17.2 809
1984	SP4		1984	09	27.19028	00	38	36.86	+14	42	48.9	809
1984	SP4		1984	09	27.19583	00	38	36.59	+14	42	48.6	809
1984	SP4		1984	09	28.18403	00	37	49.00	+14	41	03.2	809
1984	SP4		1984	09	28.18958	00	37	48.73	+14	41	02.3	809
1984	SP4		1984	09	28.19514	00	37	48.47	+14	41	01.7	809
1984	SP4		1984	09	30.20486	00	36	10.18	+14	36	48.8	809
1984	SP4		1984	09	30.21042	00	36	09.93	+14	36	48.0	809
1984	SP4		1984	09	30.21597	00	36	09.65	+14	36	47.3	809
1984	SQ4		1984	09	26.31944	00	46	11.87	+15	53	49.0	18.0 809
1984	SQ4		1984	09	26.32500	00	46	11.64	+15	53	46.4	809
1984	SQ4		1984	09	26.33055	00	46	11.43	+15	53	43.8	809
1984	SQ4		1984	09	28.20625	00	44	55.54	+15	38	45.4	809
1984	SQ4		1984	09	28.21284	00	44	55.27	+15	38	42.3	809
1984	SQ4		1984	09	28.21944	00	44	55.01	+15	38	39.2	809
1984	SQ4		1984	09	29.20555	00	44	14.54	+15	30	35.9	809
1984	SQ4		1984	09	29.21111	00	44	14.33	+15	30	33.1	809
1984	SQ4		1984	09	29.21666	00	44	14.11	+15	30	30.0	809
1984	SQ4		1984	09	30.22430	00	43	32.67	+15	22	07.5	809
1984	SQ4		1984	09	30.22986	00	43	32.44	+15	22	04.9	809
1984	SQ4		1984	09	30.23542	00	43	32.21	+15	22	02.3	809
1984	SM5	*	1984	09	18.01389	22	16	15.63	-12	28	53.5	17.7 809
1984	SM5		1984	09	18.01944	22	16	15.47	-12	28	55.9	809
1984	SM5		1984	09	18.02500	22	16	15.32	-12	28	58.4	809
1984	SM5		1984	09	21.05312	22	14	47.95	-12	51	17.1	809
1984	SM5		1984	09	21.05868	22	14	47.77	-12	51	19.6	809
1984	SM5		1984	09	21.06389	22	14	47.61	-12	51	21.9	809
1984	SM5		1984	09	22.05208	22	14	22.38	-12	58	11.2	809
1984	SM5		1984	09	22.05764	22	14	22.25	-12	58	13.4	809
1984	SM5		1984	09	22.06319	22	14	22.13	-12	58	15.7	809
1984	SM5		1984	09	23.02500	22	13	59.26	-13	04	38.0	809
1984	SM5		1984	09	23.03055	22	13	59.12	-13	04	40.2	809

1984	SM5		1984	09	23.03611	22	13	58.98	-13	04	42.3	809
1984	SM5		1984	09	24.05833	22	13	36.48	-13	11	14.0	809
1984	SM5		1984	09	24.06389	22	13	36.34	-13	11	16.4	809
1984	SM5		1984	09	24.06944	22	13	36.21	-13	11	18.9	809
1984	SM5		1984	09	26.17569	22	12	55.48	-13	23	56.2	809
1984	SM5		1984	09	26.18142	22	12	55.38	-13	23	58.5	809
1984	SM5		1984	09	26.18698	22	12	55.27	-13	24	00.6	809
1984	SM5		1984	09	27.04583	22	12	41.54	-13	28	50.0	809
1984	SM5		1984	09	27.05139	22	12	41.44	-13	28	51.6	809
1984	SM5		1984	09	27.05694	22	12	41.36	-13	28	53.3	809
1984	SM5		1984	09	28.02778	22	12	27.14	-13	34	06.2	809
1984	SM5		1984	09	28.03333	22	12	27.07	-13	34	08.1	809
1984	SM5		1984	09	28.03889	22	12	26.98	-13	34	10.0	809
1984	SM5		1984	09	29.02014	22	12	14.51	-13	39	10.0	809
1984	SM5		1984	09	29.02569	22	12	14.43	-13	39	11.9	809
1984	SM5		1984	09	29.03125	22	12	14.35	-13	39	13.7	809
1984	SM5		1984	09	30.01076	22	12	03.70	-13	43	59.4	809
1984	SM5		1984	09	30.01562	22	12	03.61	-13	44	00.8	809
1984	SM5		1984	09	30.02048	22	12	03.55	-13	44	02.2	809
1984	SM5		1984	10	01.02708	22	11	54.60	-13	48	39.3	809
1984	SM5		1984	10	01.03264	22	11	54.50	-13	48	40.7	809
1984	SN5	*	1984	09	18.01389	22	19	22.13	-12	34	33.9	17.7 809
1984	SN5		1984	09	18.01944	22	19	21.86	-12	34	33.2	809
1984	SN5		1984	09	18.02500	22	19	21.60	-12	34	32.5	809
1984	SN5		1984	09	21.05312	22	16	55.32	-12	28	08.9	809
1984	SN5		1984	09	21.05868	22	16	55.04	-12	28	08.3	809
1984	SN5		1984	09	21.06389	22	16	54.80	-12	28	07.4	809
1984	SN5		1984	09	22.05208	22	16	10.56	-12	25	49.4	809
1984	SN5		1984	09	22.05764	22	16	10.29	-12	25	48.6	809
1984	SN5		1984	09	22.06319	22	16	10.03	-12	25	47.7	809
1984	SN5		1984	09	23.02500	22	15	28.82	-12	23	26.3	809
1984	SN5		1984	09	23.03055	22	15	28.54	-12	23	25.7	809
1984	SN5		1984	09	23.03611	22	15	28.32	-12	23	25.0	809
1984	SN5		1984	09	24.03542	22	14	46.96	-12	20	52.7	809
1984	SN5		1984	09	24.04097	22	14	46.70	-12	20	51.8	809
1984	SN5		1984	09	24.04652	22	14	46.44	-12	20	50.8	809
1984	SN5		1984	09	24.05833	22	14	45.97	-12	20	49.9	809
1984	SN5		1984	09	24.06389	22	14	45.73	-12	20	48.9	809
1984	SN5		1984	09	24.06944	22	14	45.49	-12	20	47.8	809
1984	SN5		1984	09	26.15694	22	13	25.22	-12	15	07.7	809
1984	SN5		1984	09	26.16250	22	13	25.01	-12	15	06.6	809
1984	SN5		1984	09	26.16805	22	13	24.85	-12	15	06.1	809
1984	SN5		1984	09	26.17569	22	13	24.43	-12	15	06.0	809
1984	SN5		1984	09	26.18142	22	13	24.22	-12	15	05.0	809
1984	SN5		1984	09	26.18698	22	13	23.97	-12	15	04.2	809
1984	SN5		1984	09	27.02257	22	12	54.75	-12	12	40.0	809
1984	SN5		1984	09	27.02986	22	12	54.47	-12	12	38.4	809
1984	SN5		1984	09	27.03680	22	12	54.22	-12	12	37.0	809
1984	SN5		1984	09	28.00764	22	12	21.44	-12	09	44.3	809
1984	SN5		1984	09	28.01319	22	12	21.21	-12	09	43.5	809
1984	SN5		1984	09	28.01875	22	12	21.05	-12	09	42.4	809
1984	SN5		1984	09	29.00011	22	11	49.70	-12	06	41.2	809
1984	SN5		1984	09	29.00567	22	11	49.53	-12	06	40.3	809
1984	SN5		1984	09	29.01111	22	11	49.34	-12	06	39.1	809
1984	SN5		1984	09	29.99444	22	11	19.91	-12	03	31.8	809
1984	SN5		1984	09	29.99861	22	11	19.78	-12	03	31.1	809
1984	SN5		1984	09	30.00278	22	11	19.61	-12	03	30.3	809
1984	SN5		1984	10	01.01180	22	10	51.50	-12	00	12.5	809
1984	SN5		1984	10	01.01597	22	10	51.34	-12	00	12.0	809

1984	SN5		1984	10	01.02014	22	10	51.18	-12	00	11.1		809
1984	SO5	*	1984	09	18.28333	22	55	32.49	-10	31	25.7	17.5	809
1984	SO5		1984	09	18.30387	22	55	31.60	-10	31	33.3		809
1984	SO5		1984	09	18.30960	22	55	31.36	-10	31	35.4		809
1984	SO5		1984	09	21.14027	22	53	29.36	-10	48	43.8		809
1984	SO5		1984	09	21.14583	22	53	29.15	-10	48	45.9		809
1984	SO5		1984	09	21.15139	22	53	28.94	-10	48	47.9		809
1984	SO5		1984	09	22.07361	22	52	50.62	-10	54	09.0		809
1984	SO5		1984	09	22.07917	22	52	50.39	-10	54	11.4		809
1984	SO5		1984	09	22.08472	22	52	50.15	-10	54	13.3		809
1984	SO5		1984	09	22.16111	22	52	46.89	-10	54	40.0		809
1984	SO5		1984	09	22.16666	22	52	46.65	-10	54	41.5		809
1984	SO5		1984	09	22.17222	22	52	46.40	-10	54	43.7		809
1984	SO5		1984	09	23.04444	22	52	10.99	-10	59	39.9		809
1984	SO5		1984	09	23.05000	22	52	10.75	-10	59	41.6		809
1984	SO5		1984	09	23.05555	22	52	10.50	-10	59	43.2		809
1984	SO5		1984	09	24.08264	22	51	29.41	-11	05	23.8		809
1984	SO5		1984	09	24.08819	22	51	29.18	-11	05	25.6		809
1984	SO5		1984	09	24.09375	22	51	28.95	-11	05	27.4		809
1984	SO5		1984	09	26.19583	22	50	08.00	-11	16	31.7		809
1984	SO5		1984	09	26.20139	22	50	07.80	-11	16	33.5		809
1984	SO5		1984	09	26.20694	22	50	07.59	-11	16	35.4		809
1984	SO5		1984	09	27.06597	22	49	36.31	-11	20	54.5		809
1984	SO5		1984	09	27.07153	22	49	36.08	-11	20	56.1		809
1984	SO5		1984	09	27.07708	22	49	35.83	-11	20	57.7		809
1984	SO5		1984	09	28.04803	22	49	01.19	-11	25	42.7		809
1984	SO5		1984	09	28.05358	22	49	00.97	-11	25	44.4		809
1984	SO5		1984	09	28.05902	22	49	00.78	-11	25	45.9		809
1984	SO5		1984	09	29.04166	22	48	26.84	-11	30	21.4		809
1984	SO5		1984	09	29.04722	22	48	26.64	-11	30	23.2		809
1984	SO5		1984	09	29.05278	22	48	26.46	-11	30	24.9		809
1984	SO5		1984	10	01.04166	22	47	21.53	-11	39	15.3		809
1984	SO5		1984	10	01.04722	22	47	21.36	-11	39	16.1		809
1984	SP5	*	1984	09	18.28333	22	56	08.75	-10	27	31.4	17.2	809
1984	SP5		1984	09	18.30387	22	56	07.90	-10	27	35.9		809
1984	SP5		1984	09	18.30960	22	56	07.64	-10	27	37.1		809
1984	SP5		1984	09	21.14027	22	54	11.27	-10	38	02.1		809
1984	SP5		1984	09	21.14583	22	54	11.04	-10	38	03.0		809
1984	SP5		1984	09	21.15139	22	54	10.81	-10	38	04.0		809
1984	SP5		1984	09	22.07361	22	53	34.07	-10	41	19.0		809
1984	SP5		1984	09	22.07917	22	53	33.85	-10	41	19.9		809
1984	SP5		1984	09	22.08472	22	53	33.64	-10	41	20.8		809
1984	SP5		1984	09	22.16111	22	53	30.53	-10	41	36.3		809
1984	SP5		1984	09	22.16666	22	53	30.26	-10	41	37.3		809
1984	SP5		1984	09	22.17222	22	53	30.03	-10	41	38.1		809
1984	SP5		1984	09	23.04444	22	52	55.94	-10	44	35.7		809
1984	SP5		1984	09	23.05000	22	52	55.72	-10	44	36.6		809
1984	SP5		1984	09	23.05555	22	52	55.50	-10	44	37.6		809
1984	SP5		1984	09	24.08264	22	52	15.88	-10	48	01.3		809
1984	SP5		1984	09	24.08819	22	52	15.66	-10	48	02.1		809
1984	SP5		1984	09	24.09375	22	52	15.44	-10	48	03.0		809
1984	SP5		1984	09	26.19583	22	50	56.85	-10	54	36.6		809
1984	SP5		1984	09	26.20139	22	50	56.65	-10	54	37.6		809
1984	SP5		1984	09	26.20694	22	50	56.45	-10	54	38.8		809
1984	SP5		1984	09	27.06597	22	50	25.67	-10	57	11.4		809
1984	SP5		1984	09	27.07153	22	50	25.46	-10	57	12.4		809
1984	SP5		1984	09	27.07708	22	50	25.24	-10	57	13.5		809
1984	SP5		1984	09	28.04803	22	49	51.26	-10	59	58.4		809
1984	SP5		1984	09	28.05358	22	49	51.05	-10	59	59.3		809

1984	SP5		1984	09	28.05902	22	49	50.85	-11	00	00.2	809
1984	SP5		1984	09	29.04166	22	49	17.07	-11	02	38.6	809
1984	SP5		1984	09	29.04722	22	49	16.88	-11	02	39.9	809
1984	SP5		1984	09	29.05278	22	49	16.69	-11	02	40.6	809
1984	SP5		1984	09	30.02812	22	48	44.30	-11	05	14.7	809
1984	SP5		1984	09	30.03299	22	48	44.13	-11	05	15.3	809
1984	SP5		1984	09	30.03785	22	48	43.97	-11	05	16.3	809
1984	SP5		1984	10	01.04166	22	48	11.53	-11	07	45.1	809
1984	SP5		1984	10	01.04722	22	48	11.34	-11	07	45.4	809
1984	SQ5	*	1984	09	20.38472	01	16	07.71	-02	43	09.6	17.8 809
1984	SQ5		1984	09	20.39027	01	16	07.46	-02	43	11.6	809
1984	SQ5		1984	09	20.39583	01	16	07.21	-02	43	13.8	809
1984	SQ5		1984	09	21.22778	01	15	29.26	-02	49	08.9	809
1984	SQ5		1984	09	21.23333	01	15	29.00	-02	49	11.4	809
1984	SQ5		1984	09	21.23889	01	15	28.75	-02	49	13.7	809
1984	SQ5		1984	09	22.35833	01	14	35.76	-02	57	11.5	809
1984	SQ5		1984	09	22.36389	01	14	35.50	-02	57	13.7	809
1984	SQ5		1984	09	22.36944	01	14	35.23	-02	57	16.3	809
1984	SQ5		1984	09	23.12014	01	13	59.56	-03	02	36.4	809
1984	SQ5		1984	09	23.12569	01	13	59.30	-03	02	38.8	809
1984	SQ5		1984	09	23.13125	01	13	59.06	-03	02	41.2	809
1984	SQ5		1984	09	24.33819	01	12	59.13	-03	11	16.1	809
1984	SQ5		1984	09	24.34375	01	12	58.90	-03	11	18.4	809
1984	SQ5		1984	09	24.34930	01	12	58.63	-03	11	20.8	809
1984	SQ5		1984	09	26.37639	01	11	15.54	-03	25	41.0	809
1984	SQ5		1984	09	26.38194	01	11	15.28	-03	25	43.6	809
1984	SQ5		1984	09	26.38750	01	11	15.04	-03	25	46.2	809
1984	SQ5		1984	09	27.33958	01	10	25.59	-03	32	27.1	809
1984	SQ5		1984	09	27.34514	01	10	25.33	-03	32	29.2	809
1984	SQ5		1984	09	27.35069	01	10	25.07	-03	32	31.8	809
1984	SQ5		1984	09	28.31944	01	09	33.74	-03	39	15.9	809
1984	SQ5		1984	09	28.32500	01	09	33.47	-03	39	18.6	809
1984	SQ5		1984	09	28.33055	01	09	33.16	-03	39	21.3	809
1984	SQ5		1984	09	29.28819	01	08	41.89	-03	45	58.6	809
1984	SQ5		1984	09	29.29375	01	08	41.59	-03	46	00.8	809
1984	SQ5		1984	09	29.29930	01	08	41.30	-03	46	03.0	809
1984	SQ5		1984	09	30.11458	01	07	57.59	-03	51	39.3	809
1984	SQ5		1984	09	30.12048	01	07	57.25	-03	51	41.4	809
1984	SQ5		1984	09	30.12535	01	07	56.94	-03	51	43.3	809
1984	SQ5		1984	10	01.33125	01	06	50.59	-03	59	54.2	809
1984	SQ5		1984	10	01.33690	01	06	50.27	-03	59	56.9	809
1984	SQ5		1984	10	01.34245	01	06	50.01	-03	59	59.4	809
1984	SR5	*	1984	09	21.14027	22	52	43.97	-11	47	46.8	18.0 809
1984	SR5		1984	09	21.14583	22	52	43.73	-11	47	47.6	809
1984	SR5		1984	09	21.15139	22	52	43.50	-11	47	48.3	809
1984	SR5		1984	09	22.07361	22	52	05.38	-11	49	29.2	809
1984	SR5		1984	09	22.07917	22	52	05.14	-11	49	29.9	809
1984	SR5		1984	09	22.08472	22	52	04.91	-11	49	30.5	809
1984	SR5		1984	09	22.16111	22	52	01.55	-11	49	38.5	809
1984	SR5		1984	09	22.16666	22	52	01.32	-11	49	39.5	809
1984	SR5		1984	09	22.17222	22	52	01.09	-11	49	40.7	809
1984	SR5		1984	09	23.04444	22	51	25.63	-11	51	08.2	809
1984	SR5		1984	09	23.05000	22	51	25.41	-11	51	08.8	809
1984	SR5		1984	09	23.05555	22	51	25.18	-11	51	09.3	809
1984	SR5		1984	09	24.08264	22	50	43.93	-11	52	47.0	809
1984	SR5		1984	09	24.08819	22	50	43.71	-11	52	47.8	809
1984	SR5		1984	09	24.09375	22	50	43.49	-11	52	48.4	809
1984	SR5		1984	09	26.19583	22	49	21.85	-11	55	44.3	809
1984	SR5		1984	09	26.20139	22	49	21.63	-11	55	44.8	809

1984	SR5		1984	09	26.20694	22	49	21.43	-11	55	45.3	809
1984	SR5		1984	09	27.06597	22	48	49.52	-11	56	47.5	809
1984	SR5		1984	09	27.07153	22	48	49.32	-11	56	48.2	809
1984	SR5		1984	09	27.07708	22	48	49.11	-11	56	48.7	809
1984	SR5		1984	09	28.04803	22	48	13.83	-11	57	55.2	809
1984	SR5		1984	09	28.05358	22	48	13.62	-11	57	55.6	809
1984	SR5		1984	09	28.05902	22	48	13.40	-11	57	56.0	809
1984	SR5		1984	09	29.04166	22	47	38.57	-11	58	52.4	809
1984	SR5		1984	09	29.04722	22	47	38.34	-11	58	52.8	809
1984	SR5		1984	09	29.05278	22	47	38.12	-11	58	53.1	809
1984	SR5		1984	09	30.02812	22	47	04.64	-11	59	44.2	809
1984	SR5		1984	09	30.03299	22	47	04.49	-11	59	44.6	809
1984	SR5		1984	09	30.03785	22	47	04.32	-11	59	45.0	809
1984	SR5		1984	10	01.04166	22	46	30.81	-12	00	28.9	809
1984	SR5		1984	10	01.04722	22	46	30.58	-12	00	29.1	809
1984	SS5	*	1984	09	21.22778	01	12	14.15	-02	36	20.9	18.0 809
1984	SS5		1984	09	21.23333	01	12	13.94	-02	36	22.5	809
1984	SS5		1984	09	21.23889	01	12	13.73	-02	36	24.0	809
1984	SS5		1984	09	22.35833	01	11	30.01	-02	41	29.4	809
1984	SS5		1984	09	22.36389	01	11	29.79	-02	41	30.9	809
1984	SS5		1984	09	22.36944	01	11	29.58	-02	41	32.4	809
1984	SS5		1984	09	23.12014	01	11	00.20	-02	44	57.0	809
1984	SS5		1984	09	23.12569	01	10	59.97	-02	44	58.6	809
1984	SS5		1984	09	23.13125	01	10	59.75	-02	45	00.1	809
1984	SS5		1984	09	24.33819	01	10	10.41	-02	50	29.1	809
1984	SS5		1984	09	24.34375	01	10	10.18	-02	50	30.4	809
1984	SS5		1984	09	24.34930	01	10	09.97	-02	50	31.8	809
1984	SS5		1984	09	26.37639	01	08	45.07	-02	59	40.0	809
1984	SS5		1984	09	26.38194	01	08	44.85	-02	59	41.4	809
1984	SS5		1984	09	26.38750	01	08	44.59	-02	59	42.9	809
1984	SS5		1984	09	27.33958	01	08	03.88	-03	03	56.7	809
1984	SS5		1984	09	27.34514	01	08	03.65	-03	03	58.3	809
1984	SS5		1984	09	27.35069	01	08	03.42	-03	03	59.9	809
1984	SS5		1984	09	28.31944	01	07	21.28	-03	08	16.7	809
1984	SS5		1984	09	28.32500	01	07	21.04	-03	08	18.4	809
1984	SS5		1984	09	28.33055	01	07	20.80	-03	08	20.2	809
1984	SS5		1984	09	29.28819	01	06	38.62	-03	12	31.2	809
1984	SS5		1984	09	29.29375	01	06	38.36	-03	12	32.5	809
1984	SS5		1984	09	29.29930	01	06	38.09	-03	12	33.9	809
1984	SS5		1984	09	30.11458	01	06	02.09	-03	16	05.6	809
1984	SS5		1984	09	30.12048	01	06	01.84	-03	16	06.6	809
1984	SS5		1984	09	30.12535	01	06	01.65	-03	16	08.0	809
1984	SS5		1984	10	01.33125	01	05	06.90	-03	21	15.6	809
1984	SS5		1984	10	01.33690	01	05	06.65	-03	21	17.1	809
1984	SS5		1984	10	01.34245	01	05	06.43	-03	21	18.5	809
1984	ST5	*	1984	09	21.28819	23	58	59.72	+01	01	43.4	17.0 809
1984	ST5		1984	09	21.29375	23	58	59.40	+01	01	41.8	809
1984	ST5		1984	09	21.29930	23	58	59.11	+01	01	40.5	809
1984	ST5		1984	09	22.27569	23	58	07.97	+00	57	38.7	809
1984	ST5		1984	09	22.28125	23	58	07.68	+00	57	37.4	809
1984	ST5		1984	09	22.28680	23	58	07.39	+00	57	36.0	809
1984	ST5		1984	09	23.08333	23	57	26.25	+00	54	18.4	809
1984	ST5		1984	09	23.08889	23	57	25.97	+00	54	17.1	809
1984	ST5		1984	09	23.09444	23	57	25.68	+00	54	15.5	809
1984	ST5		1984	09	24.23264	23	56	25.54	+00	49	32.1	809
1984	ST5		1984	09	24.23819	23	56	25.25	+00	49	30.6	809
1984	ST5		1984	09	24.24375	23	56	24.96	+00	49	29.3	809
1984	ST5		1984	09	26.27986	23	54	38.29	+00	40	59.1	809
1984	ST5		1984	09	26.28542	23	54	38.00	+00	40	57.6	809

1984	ST5		1984	09	26.29097	23	54	37.71	+00	40	55.7	809
1984	ST5		1984	09	27.16389	23	53	52.80	+00	37	17.7	809
1984	ST5		1984	09	27.16944	23	53	52.51	+00	37	16.3	809
1984	ST5		1984	09	27.17500	23	53	52.20	+00	37	15.0	809
1984	ST5		1984	09	28.16389	23	53	01.30	+00	33	10.0	809
1984	ST5		1984	09	28.16944	23	53	01.03	+00	33	08.4	809
1984	ST5		1984	09	28.17500	23	53	00.76	+00	33	06.9	809
1984	ST5		1984	09	29.14549	23	52	11.31	+00	29	06.0	809
1984	ST5		1984	09	29.15069	23	52	11.05	+00	29	04.7	809
1984	ST5		1984	09	29.15625	23	52	10.77	+00	29	03.4	809
1984	ST5		1984	09	30.15764	23	51	20.20	+00	24	58.2	809
1984	ST5		1984	09	30.16389	23	51	19.89	+00	24	56.9	809
1984	ST5		1984	09	30.17083	23	51	19.54	+00	24	55.6	809
1984	ST5		1984	10	01.23750	23	50	26.30	+00	20	37.4	809
1984	ST5		1984	10	01.24305	23	50	26.02	+00	20	36.2	809
1984	ST5		1984	10	01.24861	23	50	25.74	+00	20	35.0	809
1984	SU5	*	1984	09	21.28819	23	59	58.93	+00	24	10.4	17.6 809
1984	SU5		1984	09	21.29375	23	59	58.68	+00	24	07.5	809
1984	SU5		1984	09	21.29930	23	59	58.43	+00	24	04.5	809
1984	SU5		1984	09	23.08333	23	58	37.00	+00	09	17.7	809
1984	SU5		1984	09	23.08889	23	58	36.78	+00	09	15.2	809
1984	SU5		1984	09	23.09444	23	58	36.56	+00	09	12.3	809
1984	SU5		1984	09	24.23264	23	57	44.09	-00	00	09.8	809
1984	SU5		1984	09	24.23819	23	57	43.85	-00	00	12.5	809
1984	SU5		1984	09	24.24375	23	57	43.60	-00	00	14.9	809
1984	SU5		1984	09	26.27986	23	56	11.77	-00	16	49.5	809
1984	SU5		1984	09	26.28542	23	56	11.53	-00	16	52.4	809
1984	SU5		1984	09	26.29097	23	56	11.28	-00	16	55.1	809
1984	SU5		1984	09	27.16389	23	55	32.88	-00	23	56.9	809
1984	SU5		1984	09	27.16944	23	55	32.63	-00	23	59.4	809
1984	SU5		1984	09	27.17500	23	55	32.40	-00	24	02.1	809
1984	SU5		1984	09	28.16389	23	54	49.27	-00	31	54.4	809
1984	SU5		1984	09	28.16944	23	54	49.03	-00	31	57.1	809
1984	SU5		1984	09	28.17500	23	54	48.79	-00	31	59.7	809
1984	SU5		1984	09	29.14549	23	54	07.08	-00	39	37.9	809
1984	SU5		1984	09	29.15069	23	54	06.83	-00	39	40.2	809
1984	SU5		1984	09	29.15625	23	54	06.60	-00	39	42.5	809
1984	SV5	*	1984	09	21.28819	00	00	04.28	-00	27	59.6	17.4 809
1984	SV5		1984	09	21.29375	00	00	04.00	-00	28	00.3	809
1984	SV5		1984	09	21.29930	00	00	03.73	-00	28	01.0	809
1984	SV5		1984	09	22.27569	23	59	13.24	-00	30	03.6	809
1984	SV5		1984	09	22.28125	23	59	13.01	-00	30	04.3	809
1984	SV5		1984	09	22.28680	23	59	12.77	-00	30	05.1	809
1984	SV5		1984	09	23.08333	23	58	32.04	-00	31	42.7	809
1984	SV5		1984	09	23.08889	23	58	31.74	-00	31	43.7	809
1984	SV5		1984	09	23.09444	23	58	31.46	-00	31	44.7	809
1984	SV5		1984	09	24.23264	23	57	32.64	-00	34	05.0	809
1984	SV5		1984	09	24.23819	23	57	32.39	-00	34	05.7	809
1984	SV5		1984	09	24.24375	23	57	32.13	-00	34	06.3	809
1984	SV5		1984	09	26.27986	23	55	47.47	-00	38	19.1	809
1984	SV5		1984	09	26.28542	23	55	47.14	-00	38	19.8	809
1984	SV5		1984	09	26.29097	23	55	46.86	-00	38	20.3	809
1984	SV5		1984	09	27.16389	23	55	02.51	-00	40	07.2	809
1984	SV5		1984	09	27.16944	23	55	02.23	-00	40	07.4	809
1984	SV5		1984	09	27.17500	23	55	01.94	-00	40	08.1	809
1984	SV5		1984	09	28.16389	23	54	11.80	-00	42	07.5	809
1984	SV5		1984	09	28.16944	23	54	11.51	-00	42	08.0	809
1984	SV5		1984	09	28.17500	23	54	11.22	-00	42	08.8	809
1984	SV5		1984	09	29.14549	23	53	22.33	-00	44	04.2	809

1984	SV5		1984	09	29.15069	23	53	22.04	-00	44	04.8	809
1984	SV5		1984	09	29.15625	23	53	21.76	-00	44	05.5	809
1984	SV5		1984	09	29.32986	23	53	12.88	-00	44	26.2	809
1984	SV5		1984	09	29.33541	23	53	12.60	-00	44	26.8	809
1984	SV5		1984	09	29.34097	23	53	12.32	-00	44	27.6	809
1984	SV5		1984	09	30.15764	23	52	31.75	-00	46	01.5	809
1984	SV5		1984	09	30.16389	23	52	31.44	-00	46	02.1	809
1984	SV5		1984	09	30.17083	23	52	31.06	-00	46	03.3	809
1984	SV5		1984	10	01.23750	23	51	38.15	-00	48	04.9	809
1984	SV5		1984	10	01.24305	23	51	37.87	-00	48	05.5	809
1984	SV5		1984	10	01.24861	23	51	37.59	-00	48	06.2	809
1984	SW5	*	1984	09	21.30833	00	06	28.19	-02	26	54.5	18.0 809
1984	SW5		1984	09	21.31389	00	06	28.00	-02	26	56.2	809
1984	SW5		1984	09	21.31944	00	06	27.81	-02	26	57.6	809
1984	SW5		1984	09	22.29513	00	05	54.37	-02	31	31.1	809
1984	SW5		1984	09	22.30069	00	05	54.16	-02	31	32.9	809
1984	SW5		1984	09	22.30625	00	05	53.99	-02	31	34.4	809
1984	SW5		1984	09	23.27014	00	05	20.78	-02	36	06.1	809
1984	SW5		1984	09	23.27569	00	05	20.58	-02	36	07.9	809
1984	SW5		1984	09	23.28200	00	05	20.39	-02	36	10.1	809
1984	SW5		1984	09	24.27014	00	04	46.38	-02	40	47.3	809
1984	SW5		1984	09	24.27569	00	04	46.18	-02	40	48.8	809
1984	SW5		1984	09	24.28125	00	04	45.97	-02	40	50.2	809
1984	SW5		1984	09	26.25208	00	03	38.16	-02	49	59.8	809
1984	SW5		1984	09	26.25764	00	03	37.97	-02	50	00.9	809
1984	SW5		1984	09	26.26319	00	03	37.76	-02	50	02.3	809
1984	SW5		1984	09	27.22639	00	03	04.71	-02	54	29.0	809
1984	SW5		1984	09	27.23217	00	03	04.49	-02	54	30.9	809
1984	SW5		1984	09	27.23773	00	03	04.31	-02	54	32.2	809
1984	SW5		1984	09	27.28750	00	03	02.55	-02	54	44.2	809
1984	SW5		1984	09	27.29513	00	03	02.28	-02	54	46.8	809
1984	SW5		1984	09	27.30069	00	03	02.08	-02	54	48.9	809
1984	SW5		1984	09	28.24930	00	02	29.44	-02	59	08.6	809
1984	SW5		1984	09	28.25486	00	02	29.26	-02	59	10.4	809
1984	SW5		1984	09	28.26041	00	02	29.10	-02	59	12.3	809
1984	SW5		1984	09	29.12430	00	01	59.89	-03	03	09.9	809
1984	SW5		1984	09	29.12917	00	01	59.72	-03	03	11.3	809
1984	SW5		1984	09	29.13541	00	01	59.52	-03	03	13.0	809
1984	SW5		1984	09	30.27778	00	01	20.38	-03	08	22.0	809
1984	SW5		1984	09	30.28333	00	01	20.19	-03	08	23.5	809
1984	SW5		1984	09	30.28889	00	01	19.99	-03	08	25.0	809
1984	SW5		1984	10	01.21666	00	00	48.68	-03	12	33.8	809
1984	SW5		1984	10	01.22222	00	00	48.49	-03	12	35.0	809
1984	SW5		1984	10	01.22778	00	00	48.30	-03	12	36.4	809
1984	SX5	*	1984	09	21.30833	00	10	40.43	-02	44	35.5	17.0 809
1984	SX5		1984	09	21.31389	00	10	40.17	-02	44	38.9	809
1984	SX5		1984	09	21.31944	00	10	39.89	-02	44	42.2	809
1984	SX5		1984	09	22.29513	00	09	51.53	-02	54	12.3	809
1984	SX5		1984	09	22.30069	00	09	51.26	-02	54	15.6	809
1984	SX5		1984	09	22.30625	00	09	50.97	-02	54	18.6	809
1984	SX5		1984	09	23.27014	00	09	02.97	-03	03	39.7	809
1984	SX5		1984	09	23.27569	00	09	02.71	-03	03	42.8	809
1984	SX5		1984	09	23.28200	00	09	02.43	-03	03	46.1	809
1984	SX5		1984	09	24.27014	00	08	12.87	-03	13	20.1	809
1984	SX5		1984	09	24.27569	00	08	12.59	-03	13	23.4	809
1984	SX5		1984	09	24.28125	00	08	12.31	-03	13	26.4	809
1984	SX5		1984	09	26.25208	00	06	33.29	-03	32	23.2	809
1984	SX5		1984	09	26.25764	00	06	33.02	-03	32	26.7	809
1984	SX5		1984	09	26.26319	00	06	32.71	-03	32	29.5	809

1984	SX5		1984	09	27.22639	00	05	44.40	-03	41	39.7	809
1984	SX5		1984	09	27.23217	00	05	44.07	-03	41	42.9	809
1984	SX5		1984	09	27.23773	00	05	43.80	-03	41	45.5	809
1984	SX5		1984	09	28.23125	00	04	54.05	-03	51	09.2	809
1984	SX5		1984	09	28.23680	00	04	53.76	-03	51	12.2	809
1984	SX5		1984	09	28.24236	00	04	53.51	-03	51	15.3	809
1984	SX5		1984	09	29.16458	00	04	07.54	-03	59	53.7	809
1984	SX5		1984	09	29.17014	00	04	07.26	-03	59	56.8	809
1984	SX5		1984	09	29.17569	00	04	06.96	-03	59	59.8	809
1984	SX5		1984	09	30.18055	00	03	17.08	-04	09	17.8	809
1984	SX5		1984	09	30.18750	00	03	16.74	-04	09	21.5	809
1984	SX5		1984	09	30.19444	00	03	16.40	-04	09	25.3	809
1984	SX5		1984	10	01.21666	00	02	25.92	-04	18	45.4	809
1984	SX5		1984	10	01.22222	00	02	25.64	-04	18	48.4	809
1984	SX5		1984	10	01.22778	00	02	25.36	-04	18	51.4	809
1984	SY5	*	1984	09	21.30833	00	11	44.04	-02	22	42.0	17.4 809
1984	SY5		1984	09	21.31389	00	11	43.81	-02	22	43.8	809
1984	SY5		1984	09	21.31944	00	11	43.54	-02	22	45.5	809
1984	SY5		1984	09	22.29513	00	11	02.05	-02	27	45.1	809
1984	SY5		1984	09	22.30069	00	11	01.83	-02	27	46.8	809
1984	SY5		1984	09	22.30625	00	11	01.61	-02	27	48.6	809
1984	SY5		1984	09	23.27014	00	10	20.44	-02	32	44.3	809
1984	SY5		1984	09	23.27569	00	10	20.23	-02	32	46.0	809
1984	SY5		1984	09	23.28200	00	10	19.99	-02	32	48.0	809
1984	SY5		1984	09	24.27014	00	09	37.53	-02	37	49.0	809
1984	SY5		1984	09	24.27569	00	09	37.28	-02	37	50.9	809
1984	SY5		1984	09	24.28125	00	09	37.05	-02	37	52.8	809
1984	SY5		1984	09	26.25208	00	08	12.55	-02	47	47.7	809
1984	SY5		1984	09	26.25764	00	08	12.32	-02	47	49.4	809
1984	SY5		1984	09	26.26319	00	08	12.08	-02	47	51.2	809
1984	SY5		1984	09	27.22639	00	07	30.79	-02	52	37.2	809
1984	SY5		1984	09	27.23217	00	07	30.55	-02	52	38.8	809
1984	SY5		1984	09	27.23773	00	07	30.31	-02	52	40.6	809
1984	SY5		1984	09	27.28750	00	07	28.09	-02	52	55.2	809
1984	SY5		1984	09	27.29513	00	07	27.77	-02	52	57.2	809
1984	SY5		1984	09	27.30069	00	07	27.53	-02	52	58.9	809
1984	SY5		1984	09	28.24930	00	06	46.97	-02	57	39.1	809
1984	SY5		1984	09	28.25486	00	06	46.72	-02	57	41.1	809
1984	SY5		1984	09	28.26041	00	06	46.49	-02	57	42.6	809
1984	SY5		1984	09	28.34166	00	06	42.97	-02	58	05.9	809
1984	SY5		1984	09	28.34722	00	06	42.73	-02	58	07.6	809
1984	SY5		1984	09	28.35278	00	06	42.51	-02	58	09.3	809
1984	SY5		1984	09	29.12430	00	06	09.92	-03	01	55.0	809
1984	SY5		1984	09	29.12917	00	06	09.71	-03	01	56.0	809
1984	SY5		1984	09	29.13541	00	06	09.44	-03	01	57.8	809
1984	SY5		1984	09	30.27778	00	05	20.74	-03	07	26.7	809
1984	SY5		1984	09	30.28333	00	05	20.52	-03	07	28.3	809
1984	SY5		1984	09	30.28889	00	05	20.29	-03	07	29.9	809
1984	SY5		1984	10	01.21666	00	04	41.36	-03	11	53.5	809
1984	SY5		1984	10	01.22222	00	04	41.13	-03	11	55.0	809
1984	SY5		1984	10	01.22778	00	04	40.89	-03	11	56.7	809
1984	SZ5	*	1984	09	21.30833	00	13	22.49	-02	28	58.9	17.8 809
1984	SZ5		1984	09	21.31389	00	13	22.11	-02	28	59.3	809
1984	SZ5		1984	09	21.31944	00	13	21.73	-02	28	59.6	809
1984	SZ5		1984	09	22.29513	00	12	14.53	-02	30	02.2	809
1984	SZ5		1984	09	22.30069	00	12	14.15	-02	30	02.5	809
1984	SZ5		1984	09	22.30625	00	12	13.75	-02	30	02.9	809
1984	SZ5		1984	09	23.27014	00	11	07.14	-02	30	54.4	809
1984	SZ5		1984	09	23.27569	00	11	06.76	-02	30	55.0	809

1984	SZ5		1984	09	23.28200	00	11	06.32	-02	30	55.6	809
1984	SZ5		1984	09	24.27014	00	09	58.26	-02	31	50.2	809
1984	SZ5		1984	09	24.27569	00	09	57.87	-02	31	50.4	809
1984	SZ5		1984	09	24.28125	00	09	57.48	-02	31	50.6	809
1984	SZ5		1984	09	26.25208	00	07	42.70	-02	33	30.4	809
1984	SZ5		1984	09	26.25764	00	07	42.32	-02	33	30.7	809
1984	SZ5		1984	09	26.26319	00	07	41.93	-02	33	30.8	809
1984	SZ5		1984	09	27.22639	00	06	36.69	-02	34	14.4	809
1984	SZ5		1984	09	27.23217	00	06	36.28	-02	34	14.8	809
1984	SZ5		1984	09	27.23773	00	06	35.89	-02	34	15.0	809
1984	SZ5		1984	09	27.28750	00	06	32.41	-02	34	16.5	809
1984	SZ5		1984	09	27.29513	00	06	31.90	-02	34	17.1	809
1984	SZ5		1984	09	27.30069	00	06	31.52	-02	34	17.6	809
1984	SZ5		1984	09	28.24930	00	05	27.84	-02	34	55.4	809
1984	SZ5		1984	09	28.25486	00	05	27.46	-02	34	55.9	809
1984	SZ5		1984	09	28.26041	00	05	27.09	-02	34	56.1	809
1984	SZ5		1984	09	29.12430	00	04	29.97	-02	35	27.2	809
1984	SZ5		1984	09	29.12917	00	04	29.63	-02	35	27.6	809
1984	SZ5		1984	09	29.13541	00	04	29.17	-02	35	28.0	809
1984	SA6	*	1984	09	21.30833	00	13	46.29	-02	05	07.3	17.2 809
1984	SA6		1984	09	21.31389	00	13	46.02	-02	05	10.8	809
1984	SA6		1984	09	21.31944	00	13	45.73	-02	05	14.4	809
1984	SA6		1984	09	22.29513	00	12	55.84	-02	14	53.5	809
1984	SA6		1984	09	22.30069	00	12	55.55	-02	14	56.9	809
1984	SA6		1984	09	22.30625	00	12	55.25	-02	15	00.3	809
1984	SA6		1984	09	23.27014	00	12	05.41	-02	24	36.3	809
1984	SA6		1984	09	23.27569	00	12	05.13	-02	24	39.7	809
1984	SA6		1984	09	23.28200	00	12	04.80	-02	24	43.5	809
1984	SA6		1984	09	24.27014	00	11	13.50	-02	34	32.6	809
1984	SA6		1984	09	24.27569	00	11	13.17	-02	34	36.0	809
1984	SA6		1984	09	24.28125	00	11	12.86	-02	34	39.5	809
1984	SA6		1984	09	26.25208	00	09	30.11	-02	54	09.5	809
1984	SA6		1984	09	26.25764	00	09	29.82	-02	54	12.5	809
1984	SA6		1984	09	26.26319	00	09	29.55	-02	54	16.2	809
1984	SA6		1984	09	27.22639	00	08	39.21	-03	03	43.7	809
1984	SA6		1984	09	27.23217	00	08	38.89	-03	03	46.6	809
1984	SA6		1984	09	27.23773	00	08	38.62	-03	03	49.6	809
1984	SA6		1984	09	28.23125	00	07	46.80	-03	13	32.2	809
1984	SA6		1984	09	28.23680	00	07	46.51	-03	13	35.7	809
1984	SA6		1984	09	28.24236	00	07	46.23	-03	13	39.2	809
1984	SA6		1984	09	28.34166	00	07	40.67	-03	14	36.0	809
1984	SA6		1984	09	28.34722	00	07	40.38	-03	14	39.1	809
1984	SA6		1984	09	28.35278	00	07	40.11	-03	14	42.6	809
1984	SA6		1984	09	29.12430	00	07	00.39	-03	22	10.7	809
1984	SA6		1984	09	29.12917	00	07	00.12	-03	22	13.1	809
1984	SA6		1984	09	29.13541	00	06	59.80	-03	22	17.0	809
1984	SA6		1984	09	29.16458	00	06	58.11	-03	22	35.3	809
1984	SA6		1984	09	29.17014	00	06	57.81	-03	22	38.5	809
1984	SA6		1984	09	29.17569	00	06	57.52	-03	22	41.6	809
1984	SA6		1984	09	30.18055	00	06	05.32	-03	32	22.1	809
1984	SA6		1984	09	30.18750	00	06	04.94	-03	32	26.0	809
1984	SA6		1984	09	30.19444	00	06	04.59	-03	32	29.8	809
1984	SA6		1984	10	01.21666	00	05	11.84	-03	42	13.7	809
1984	SA6		1984	10	01.22222	00	05	11.55	-03	42	16.7	809
1984	SA6		1984	10	01.22778	00	05	11.26	-03	42	19.9	809
1984	SB6	*	1984	09	21.32847	00	23	20.48	-03	49	27.7	17.0 809
1984	SB6		1984	09	21.33403	00	23	20.21	-03	49	29.7	809
1984	SB6		1984	09	21.33958	00	23	19.94	-03	49	31.8	809
1984	SB6		1984	09	22.31528	00	22	33.11	-03	55	14.7	809

1984	SB6		1984	09	22.32083	00	22	32.83	-03	55	16.6	809
1984	SB6		1984	09	22.32638	00	22	32.56	-03	55	18.6	809
1984	SB6		1984	09	23.29305	00	21	45.58	-04	00	56.0	809
1984	SB6		1984	09	23.29861	00	21	45.32	-04	00	58.1	809
1984	SB6		1984	09	23.30416	00	21	45.05	-04	00	59.9	809
1984	SB6		1984	09	24.28958	00	20	56.77	-04	06	38.8	809
1984	SB6		1984	09	24.29513	00	20	56.47	-04	06	40.7	809
1984	SB6		1984	09	24.30069	00	20	56.19	-04	06	42.5	809
1984	SB6		1984	09	26.35694	00	19	14.54	-04	18	18.1	809
1984	SB6		1984	09	26.36250	00	19	14.25	-04	18	20.1	809
1984	SB6		1984	09	26.36805	00	19	13.97	-04	18	21.7	809
1984	SB6		1984	09	27.31041	00	18	27.29	-04	23	33.4	809
1984	SB6		1984	09	27.31597	00	18	27.00	-04	23	35.2	809
1984	SB6		1984	09	27.32153	00	18	26.71	-04	23	36.9	809
1984	SB6		1984	09	28.28333	00	17	39.12	-04	28	48.2	809
1984	SB6		1984	09	28.28889	00	17	38.85	-04	28	50.1	809
1984	SB6		1984	09	28.29444	00	17	38.56	-04	28	51.9	809
1984	SB6		1984	09	29.18403	00	16	54.76	-04	33	34.8	809
1984	SB6		1984	09	29.18958	00	16	54.50	-04	33	36.1	809
1984	SB6		1984	09	29.19514	00	16	54.23	-04	33	37.9	809
1984	SB6		1984	09	29.25069	00	16	51.27	-04	33	55.1	809
1984	SB6		1984	09	29.25625	00	16	50.99	-04	33	56.9	809
1984	SB6		1984	09	29.26180	00	16	50.70	-04	33	58.6	809
1984	SB6		1984	09	30.24375	00	16	02.30	-04	39	02.9	809
1984	SB6		1984	09	30.24930	00	16	01.99	-04	39	04.6	809
1984	SB6		1984	09	30.25486	00	16	01.69	-04	39	06.7	809
1984	SB6		1984	09	30.29722	00	15	59.44	-04	39	19.0	809
1984	SB6		1984	09	30.30278	00	15	59.18	-04	39	20.7	809
1984	SB6		1984	09	30.30833	00	15	58.91	-04	39	22.4	809
1984	SB6		1984	10	01.07465	00	15	21.87	-04	43	14.8	809
1984	SB6		1984	10	01.08090	00	15	21.57	-04	43	16.3	809
1984	SB6		1984	10	01.25972	00	15	12.36	-04	44	09.9	809
1984	SB6		1984	10	01.26527	00	15	12.08	-04	44	11.5	809
1984	SB6		1984	10	01.27083	00	15	11.81	-04	44	13.4	809
1984	SC6	*	1984	09	21.32847	00	27	59.16	-03	57	03.6	17.7 809
1984	SC6		1984	09	21.33403	00	27	58.86	-03	57	05.6	809
1984	SC6		1984	09	21.33958	00	27	58.56	-03	57	07.6	809
1984	SC6		1984	09	22.31528	00	27	06.22	-04	02	59.3	809
1984	SC6		1984	09	22.32083	00	27	05.95	-04	03	01.1	809
1984	SC6		1984	09	22.32638	00	27	05.67	-04	03	03.3	809
1984	SC6		1984	09	23.29305	00	26	13.38	-04	08	45.6	809
1984	SC6		1984	09	23.29861	00	26	13.07	-04	08	47.6	809
1984	SC6		1984	09	23.30416	00	26	12.77	-04	08	49.8	809
1984	SC6		1984	09	24.28958	00	25	18.95	-04	14	33.6	809
1984	SC6		1984	09	24.29513	00	25	18.66	-04	14	35.6	809
1984	SC6		1984	09	24.30069	00	25	18.35	-04	14	37.6	809
1984	SC6		1984	09	26.35694	00	23	26.05	-04	26	21.9	809
1984	SC6		1984	09	26.36250	00	23	25.78	-04	26	23.7	809
1984	SC6		1984	09	26.36805	00	23	25.47	-04	26	25.4	809
1984	SC6		1984	09	27.31041	00	22	34.03	-04	31	37.9	809
1984	SC6		1984	09	27.31597	00	22	33.72	-04	31	39.6	809
1984	SC6		1984	09	27.32153	00	22	33.42	-04	31	41.2	809
1984	SC6		1984	09	28.28333	00	21	41.06	-04	36	55.4	809
1984	SC6		1984	09	28.28889	00	21	40.74	-04	36	56.8	809
1984	SC6		1984	09	28.29444	00	21	40.43	-04	36	58.4	809
1984	SC6		1984	09	29.18403	00	20	52.43	-04	41	41.5	809
1984	SC6		1984	09	29.18958	00	20	52.13	-04	41	43.2	809
1984	SC6		1984	09	29.19514	00	20	51.81	-04	41	45.1	809
1984	SC6		1984	09	30.24375	00	19	55.09	-04	47	10.7	809

1984	SC6		1984	09	30.24930	00	19	54.77	-04	47	12.4	809
1984	SC6		1984	09	30.25486	00	19	54.48	-04	47	14.0	809
1984	SC6		1984	10	01.25972	00	19	00.53	-04	52	16.4	809
1984	SC6		1984	10	01.26527	00	19	00.23	-04	52	18.4	809
1984	SC6		1984	10	01.27083	00	18	59.94	-04	52	20.4	809
1984	SD6	*	1984	09	22.07361	22	53	22.97	-11	51	01.4	18.1 809
1984	SD6		1984	09	22.07917	22	53	22.67	-11	51	01.0	809
1984	SD6		1984	09	22.08472	22	53	22.38	-11	51	00.8	809
1984	SD6		1984	09	22.16111	22	53	18.09	-11	50	58.7	809
1984	SD6		1984	09	22.16666	22	53	17.81	-11	50	58.7	809
1984	SD6		1984	09	22.17222	22	53	17.53	-11	50	58.5	809
1984	SD6		1984	09	23.04444	22	52	32.80	-11	50	29.8	809
1984	SD6		1984	09	23.05000	22	52	32.53	-11	50	29.6	809
1984	SD6		1984	09	23.05555	22	52	32.26	-11	50	29.4	809
1984	SD6		1984	09	24.08264	22	51	40.24	-11	49	44.8	809
1984	SD6		1984	09	24.08819	22	51	39.96	-11	49	44.4	809
1984	SD6		1984	09	24.09375	22	51	39.69	-11	49	44.3	809
1984	SD6		1984	09	26.19583	22	49	58.32	-11	47	34.7	809
1984	SD6		1984	09	26.20139	22	49	58.04	-11	47	34.4	809
1984	SD6		1984	09	26.20694	22	49	57.80	-11	47	34.0	809
1984	SD6		1984	09	27.06597	22	49	18.92	-11	46	27.5	809
1984	SD6		1984	09	27.07153	22	49	18.67	-11	46	27.1	809
1984	SD6		1984	09	27.07708	22	49	18.43	-11	46	26.7	809
1984	SD6		1984	09	28.04803	22	48	35.64	-11	45	02.0	809
1984	SD6		1984	09	28.05358	22	48	35.39	-11	45	01.5	809
1984	SD6		1984	09	28.05902	22	48	35.11	-11	45	01.0	809
1984	SD6		1984	09	29.04166	22	47	53.52	-11	43	21.9	809
1984	SD6		1984	09	29.04722	22	47	53.26	-11	43	21.4	809
1984	SD6		1984	09	29.05278	22	47	52.99	-11	43	21.0	809
1984	SD6		1984	09	30.02812	22	47	13.49	-11	41	34.0	809
1984	SD6		1984	09	30.03299	22	47	13.30	-11	41	33.4	809
1984	SD6		1984	09	30.03785	22	47	13.10	-11	41	32.9	809
1984	SD6		1984	10	01.04166	22	46	34.19	-11	39	30.7	809
1984	SD6		1984	10	01.04722	22	46	33.97	-11	39	29.6	809
1984	SE6	*	1984	09	22.27569	00	04	36.31	-00	16	40.4	16.0 809
1984	SE6		1984	09	22.28125	00	04	35.99	-00	16	41.7	809
1984	SE6		1984	09	22.28680	00	04	35.66	-00	16	43.0	809
1984	SE6		1984	09	23.08333	00	03	51.11	-00	19	05.9	809
1984	SE6		1984	09	23.08889	00	03	50.81	-00	19	09.2	809
1984	SE6		1984	09	23.09444	00	03	50.52	-00	19	12.5	809
1984	SE6		1984	09	24.23264	00	02	45.64	-00	22	38.4	809
1984	SE6		1984	09	24.23819	00	02	45.32	-00	22	39.0	809
1984	SE6		1984	09	24.24375	00	02	44.99	-00	22	39.9	809
1984	SE6		1984	09	26.27986	00	00	50.64	-00	28	45.2	809
1984	SE6		1984	09	26.28542	00	00	50.31	-00	28	45.9	809
1984	SE6		1984	09	26.29097	00	00	49.98	-00	28	46.5	809
1984	SE6		1984	09	27.16389	00	00	01.78	-00	31	23.2	809
1984	SE6		1984	09	27.16944	00	00	01.46	-00	31	24.4	809
1984	SE6		1984	09	27.17500	00	00	01.13	-00	31	25.5	809
1984	SE6		1984	09	28.10902	23	59	09.94	-00	34	03.6	809
1984	SE6		1984	09	28.11458	23	59	09.68	-00	34	04.3	809
1984	SE6		1984	09	28.12014	23	59	09.42	-00	34	05.0	809
1984	SE6		1984	09	28.16389	23	59	06.75	-00	34	13.5	809
1984	SE6		1984	09	28.16944	23	59	06.45	-00	34	15.1	809
1984	SE6		1984	09	28.17500	23	59	06.14	-00	34	16.5	809
1984	SE6		1984	09	29.14549	23	58	13.19	-00	37	00.9	809
1984	SE6		1984	09	29.15069	23	58	12.91	-00	37	01.8	809
1984	SE6		1984	09	29.15625	23	58	12.59	-00	37	02.8	809
1984	SE6		1984	09	29.32986	23	58	02.88	-00	37	31.0	809

1984	SE6		1984	09	29.33541	23	58	02.55	-00	37	31.6	809
1984	SE6		1984	09	29.34097	23	58	02.26	-00	37	32.1	809
1984	SE6		1984	09	30.15764	23	57	18.90	-00	39	47.7	809
1984	SE6		1984	09	30.16389	23	57	18.56	-00	39	48.6	809
1984	SE6		1984	09	30.17083	23	57	18.19	-00	39	49.6	809
1984	SE6		1984	09	30.33680	23	57	08.77	-00	40	16.7	809
1984	SE6		1984	09	30.34236	23	57	08.50	-00	40	17.6	809
1984	SE6		1984	09	30.34792	23	57	08.22	-00	40	18.6	809
1984	SE6		1984	10	01.23750	23	56	21.51	-00	42	42.4	809
1984	SE6		1984	10	01.24305	23	56	21.21	-00	42	43.3	809
1984	SE6		1984	10	01.24861	23	56	20.94	-00	42	44.1	809
1984	SF6	*	1984	09	22.29513	00	09	20.58	-03	14	35.9	17.7 809
1984	SF6		1984	09	22.30069	00	09	20.37	-03	14	37.7	809
1984	SF6		1984	09	22.30625	00	09	20.14	-03	14	38.9	809
1984	SF6		1984	09	23.27014	00	08	38.18	-03	19	33.6	809
1984	SF6		1984	09	23.27569	00	08	37.94	-03	19	35.4	809
1984	SF6		1984	09	23.28200	00	08	37.67	-03	19	37.3	809
1984	SF6		1984	09	24.27014	00	07	54.43	-03	24	37.8	809
1984	SF6		1984	09	24.27569	00	07	54.19	-03	24	39.2	809
1984	SF6		1984	09	24.28125	00	07	53.92	-03	24	40.9	809
1984	SF6		1984	09	26.25208	00	06	27.59	-03	34	34.3	809
1984	SF6		1984	09	26.25764	00	06	27.34	-03	34	36.0	809
1984	SF6		1984	09	26.26319	00	06	27.09	-03	34	37.7	809
1984	SF6		1984	09	27.22639	00	05	44.90	-03	39	24.2	809
1984	SF6		1984	09	27.23217	00	05	44.65	-03	39	25.7	809
1984	SF6		1984	09	27.23773	00	05	44.42	-03	39	27.2	809
1984	SF6		1984	09	28.23125	00	05	01.08	-03	44	20.0	809
1984	SF6		1984	09	28.23680	00	05	00.82	-03	44	21.5	809
1984	SF6		1984	09	28.24236	00	05	00.55	-03	44	23.3	809
1984	SF6		1984	09	29.16458	00	04	20.41	-03	48	52.3	809
1984	SF6		1984	09	29.17014	00	04	20.17	-03	48	53.9	809
1984	SF6		1984	09	29.17569	00	04	19.92	-03	48	55.8	809
1984	SF6		1984	09	30.18055	00	03	36.21	-03	53	44.6	809
1984	SF6		1984	09	30.18750	00	03	35.91	-03	53	46.4	809
1984	SF6		1984	09	30.19444	00	03	35.62	-03	53	48.2	809
1984	SF6		1984	10	01.21666	00	02	51.35	-03	58	38.1	809
1984	SF6		1984	10	01.22222	00	02	51.11	-03	58	39.6	809
1984	SF6		1984	10	01.22778	00	02	50.85	-03	58	41.2	809
1984	SG6	*	1984	09	22.29513	00	09	23.14	-03	19	39.4	17.5 809
1984	SG6		1984	09	22.30069	00	09	22.92	-03	19	42.8	809
1984	SG6		1984	09	22.30625	00	09	22.68	-03	19	46.2	809
1984	SG6		1984	09	23.27014	00	08	44.30	-03	29	44.2	809
1984	SG6		1984	09	23.27569	00	08	44.10	-03	29	47.6	809
1984	SG6		1984	09	23.28200	00	08	43.85	-03	29	51.4	809
1984	SG6		1984	09	24.27014	00	08	04.20	-03	40	04.4	809
1984	SG6		1984	09	24.27569	00	08	03.97	-03	40	07.8	809
1984	SG6		1984	09	24.28125	00	08	03.77	-03	40	11.3	809
1984	SG6		1984	09	26.25208	00	06	44.41	-04	00	27.6	809
1984	SG6		1984	09	26.25764	00	06	44.16	-04	00	31.2	809
1984	SG6		1984	09	26.26319	00	06	43.91	-04	00	34.8	809
1984	SG6		1984	09	27.22639	00	06	05.27	-04	10	24.1	809
1984	SG6		1984	09	27.23217	00	06	05.03	-04	10	27.5	809
1984	SG6		1984	09	27.23773	00	06	04.79	-04	10	30.9	809
1984	SG6		1984	09	28.23125	00	05	24.80	-04	20	36.1	809
1984	SG6		1984	09	28.23680	00	05	24.59	-04	20	39.3	809
1984	SG6		1984	09	28.24236	00	05	24.36	-04	20	42.5	809
1984	SG6		1984	09	28.34166	00	05	20.09	-04	21	42.5	809
1984	SG6		1984	09	28.34722	00	05	19.87	-04	21	45.9	809
1984	SG6		1984	09	28.35278	00	05	19.64	-04	21	49.1	809

1984	SG6		1984	09	30.18055	00	04	06.96	-04	40	09.6	809
1984	SG6		1984	09	30.18750	00	04	06.69	-04	40	13.6	809
1984	SG6		1984	09	30.19444	00	04	06.39	-04	40	17.5	809
1984	SG6		1984	10	01.21666	00	03	25.89	-04	50	25.0	809
1984	SG6		1984	10	01.22222	00	03	25.64	-04	50	28.0	809
1984	SG6		1984	10	01.22778	00	03	25.39	-04	50	31.1	809
1984	SH6	*	1984	09	22.29513	00	10	54.73	-03	50	42.2	17.3 809
1984	SH6		1984	09	22.30069	00	10	54.45	-03	50	44.4	809
1984	SH6		1984	09	22.30625	00	10	54.18	-03	50	46.8	809
1984	SH6		1984	09	23.27014	00	10	06.57	-03	57	37.7	809
1984	SH6		1984	09	23.27569	00	10	06.29	-03	57	39.9	809
1984	SH6		1984	09	23.28200	00	10	05.98	-03	57	42.1	809
1984	SH6		1984	09	24.27014	00	09	16.82	-04	04	41.0	809
1984	SH6		1984	09	24.27569	00	09	16.54	-04	04	43.4	809
1984	SH6		1984	09	24.28125	00	09	16.26	-04	04	45.4	809
1984	SH6		1984	09	26.25208	00	07	38.32	-04	18	28.5	809
1984	SH6		1984	09	26.25764	00	07	38.05	-04	18	30.7	809
1984	SH6		1984	09	26.26319	00	07	37.77	-04	18	33.0	809
1984	SH6		1984	09	27.22639	00	06	49.89	-04	25	09.7	809
1984	SH6		1984	09	27.23217	00	06	49.62	-04	25	11.5	809
1984	SH6		1984	09	27.23773	00	06	49.33	-04	25	13.9	809
1984	SH6		1984	09	28.23125	00	05	59.91	-04	31	54.8	809
1984	SH6		1984	09	28.23680	00	05	59.65	-04	31	57.0	809
1984	SH6		1984	09	28.24236	00	05	59.39	-04	31	58.8	809
1984	SH6		1984	09	29.16458	00	05	14.01	-04	38	08.9	809
1984	SH6		1984	09	29.17014	00	05	13.73	-04	38	10.8	809
1984	SH6		1984	09	29.17569	00	05	13.44	-04	38	12.6	809
1984	SH6		1984	09	30.18055	00	04	23.99	-04	44	48.3	809
1984	SH6		1984	09	30.18750	00	04	23.66	-04	44	50.8	809
1984	SH6		1984	09	30.19444	00	04	23.33	-04	44	53.8	809
1984	SH6		1984	10	01.21666	00	03	33.42	-04	51	28.4	809
1984	SH6		1984	10	01.22222	00	03	33.16	-04	51	30.0	809
1984	SH6		1984	10	01.22778	00	03	32.89	-04	51	32.5	809
1984	SJ6	*	1984	09	23.22430	23	29	58.70	-02	42	03.7	18.1 809
1984	SJ6		1984	09	23.22986	23	29	58.36	-02	42	05.0	809
1984	SJ6		1984	09	23.23542	23	29	58.00	-02	42	06.4	809
1984	SJ6		1984	09	24.21042	23	29	00.03	-02	46	43.5	809
1984	SJ6		1984	09	24.21597	23	28	59.73	-02	46	45.2	809
1984	SJ6		1984	09	24.22153	23	28	59.42	-02	46	46.8	809
1984	SJ6		1984	09	26.23264	23	27	01.58	-02	56	08.1	809
1984	SJ6		1984	09	26.23819	23	27	01.27	-02	56	09.6	809
1984	SJ6		1984	09	26.24375	23	27	00.96	-02	56	11.1	809
1984	SJ6		1984	09	27.10763	23	26	11.83	-03	00	06.1	809
1984	SJ6		1984	09	27.11319	23	26	11.52	-03	00	07.8	809
1984	SJ6		1984	09	27.11875	23	26	11.21	-03	00	09.5	809
1984	SJ6		1984	09	28.08750	23	25	16.64	-03	04	27.8	809
1984	SJ6		1984	09	28.09323	23	25	16.32	-03	04	29.5	809
1984	SJ6		1984	09	28.09878	23	25	16.01	-03	04	31.4	809
1984	SJ6		1984	09	29.08240	23	24	21.55	-03	08	48.9	809
1984	SJ6		1984	09	29.08831	23	24	21.22	-03	08	50.3	809
1984	SJ6		1984	09	29.09375	23	24	20.92	-03	08	51.5	809
1984	SK6	*	1984	09	23.22430	23	32	03.86	-03	48	01.8	18.1 809
1984	SK6		1984	09	23.22986	23	32	03.68	-03	48	04.7	809
1984	SK6		1984	09	23.23542	23	32	03.50	-03	48	07.7	809
1984	SK6		1984	09	24.21042	23	31	31.63	-03	57	02.6	809
1984	SK6		1984	09	24.21597	23	31	31.43	-03	57	05.8	809
1984	SK6		1984	09	24.22153	23	31	31.26	-03	57	09.0	809
1984	SK6		1984	09	24.25243	23	31	30.27	-03	57	25.7	809
1984	SK6		1984	09	24.25729	23	31	30.09	-03	57	28.2	809

1984	SK6		1984	09	24.26215	23	31	29.93	-03	57	30.6	809
1984	SK6		1984	09	26.23264	23	30	27.18	-04	15	13.6	809
1984	SK6		1984	09	26.23819	23	30	27.01	-04	15	16.6	809
1984	SK6		1984	09	26.24375	23	30	26.83	-04	15	19.6	809
1984	SK6		1984	09	27.10763	23	30	00.87	-04	22	57.7	809
1984	SK6		1984	09	27.11319	23	30	00.69	-04	23	00.7	809
1984	SK6		1984	09	27.11875	23	30	00.53	-04	23	03.7	809
1984	SK6		1984	09	28.08750	23	29	31.81	-04	31	28.7	809
1984	SK6		1984	09	28.09323	23	29	31.61	-04	31	31.7	809
1984	SK6		1984	09	28.09878	23	29	31.45	-04	31	34.8	809
1984	SK6		1984	09	29.08240	23	29	03.06	-04	39	58.7	809
1984	SK6		1984	09	29.08831	23	29	02.89	-04	40	01.8	809
1984	SK6		1984	09	29.09375	23	29	02.73	-04	40	04.5	809
1984	SL6	*	1984	09	23.27014	00	06	02.96	-02	27	57.5	18.2 809
1984	SL6		1984	09	23.27569	00	06	02.71	-02	27	58.8	809
1984	SL6		1984	09	23.28200	00	06	02.44	-02	28	00.2	809
1984	SL6		1984	09	26.25208	00	03	51.92	-02	41	36.7	809
1984	SL6		1984	09	26.25764	00	03	51.68	-02	41	38.2	809
1984	SL6		1984	09	26.26319	00	03	51.43	-02	41	39.8	809
1984	SL6		1984	09	27.22639	00	03	09.21	-02	46	02.0	809
1984	SL6		1984	09	27.23217	00	03	08.96	-02	46	03.7	809
1984	SL6		1984	09	27.23773	00	03	08.73	-02	46	05.0	809
1984	SL6		1984	09	27.28750	00	03	06.38	-02	46	18.6	809
1984	SL6		1984	09	27.29513	00	03	06.04	-02	46	20.9	809
1984	SL6		1984	09	27.30069	00	03	05.80	-02	46	22.7	809
1984	SL6		1984	09	28.24930	00	02	24.32	-02	50	37.9	809
1984	SL6		1984	09	28.25486	00	02	24.07	-02	50	39.4	809
1984	SL6		1984	09	28.26041	00	02	23.80	-02	50	40.9	809
1984	SL6		1984	09	29.12430	00	01	46.39	-02	54	32.6	809
1984	SL6		1984	09	29.12917	00	01	46.18	-02	54	33.9	809
1984	SL6		1984	09	29.13541	00	01	45.90	-02	54	35.6	809
1984	SL6		1984	09	30.27778	00	00	55.92	-02	59	38.5	809
1984	SL6		1984	09	30.28333	00	00	55.69	-02	59	40.0	809
1984	SL6		1984	09	30.28889	00	00	55.46	-02	59	41.4	809
1984	SL6		1984	10	01.21666	00	00	15.52	-03	03	42.6	809
1984	SL6		1984	10	01.22222	00	00	15.28	-03	03	44.3	809
1984	SL6		1984	10	01.22778	00	00	15.04	-03	03	45.7	809
1984	SM6	*	1984	09	23.27014	00	06	16.23	-03	25	14.4	18.2 809
1984	SM6		1984	09	23.27569	00	06	15.97	-03	25	17.1	809
1984	SM6		1984	09	23.28200	00	06	15.67	-03	25	20.3	809
1984	SM6		1984	09	26.25208	00	04	13.25	-03	53	04.4	809
1984	SM6		1984	09	26.25764	00	04	13.03	-03	53	07.7	809
1984	SM6		1984	09	26.26319	00	04	12.82	-03	53	10.9	809
1984	SM6		1984	09	30.18055	00	01	32.35	-04	29	01.6	809
1984	SM6		1984	09	30.18750	00	01	32.07	-04	29	05.4	809
1984	SM6		1984	09	30.19444	00	01	31.79	-04	29	09.2	809
1984	SM6		1984	10	01.21666	00	00	50.49	-04	38	16.5	809
1984	SM6		1984	10	01.22222	00	00	50.27	-04	38	19.5	809
1984	SM6		1984	10	01.22778	00	00	50.02	-04	38	22.3	809
1984	SN6	*	1984	09	23.27014	00	12	36.00	-03	31	51.1	18.1 809
1984	SN6		1984	09	23.27569	00	12	35.73	-03	31	52.9	809
1984	SN6		1984	09	23.28200	00	12	35.40	-03	31	55.1	809
1984	SN6		1984	09	24.27014	00	11	43.23	-03	36	57.5	809
1984	SN6		1984	09	24.27569	00	11	42.94	-03	36	59.2	809
1984	SN6		1984	09	24.28125	00	11	42.64	-03	37	00.8	809
1984	SN6		1984	09	26.25208	00	09	58.72	-03	46	56.9	809
1984	SN6		1984	09	26.25764	00	09	58.42	-03	46	58.4	809
1984	SN6		1984	09	26.26319	00	09	58.15	-03	47	00.0	809
1984	SN6		1984	09	27.22639	00	09	07.34	-03	51	46.3	809

1984	SN6		1984	09	27.23217	00	09	07.05	-03	51	48.0	809
1984	SN6		1984	09	27.23773	00	09	06.76	-03	51	49.7	809
1984	SN6		1984	09	28.23125	00	08	14.44	-03	56	42.2	809
1984	SN6		1984	09	28.23680	00	08	14.14	-03	56	43.5	809
1984	SN6		1984	09	28.24236	00	08	13.85	-03	56	44.9	809
1984	SN6		1984	09	28.34166	00	08	08.51	-03	57	14.0	809
1984	SN6		1984	09	28.34722	00	08	08.20	-03	57	15.7	809
1984	SN6		1984	09	28.35278	00	08	07.90	-03	57	17.2	809
1984	SN6		1984	09	29.16458	00	07	25.56	-04	01	12.6	809
1984	SN6		1984	09	29.17014	00	07	25.25	-04	01	14.1	809
1984	SN6		1984	09	29.17569	00	07	24.97	-04	01	15.7	809
1984	SN6		1984	09	30.18055	00	06	32.48	-04	06	03.1	809
1984	SN6		1984	09	30.18750	00	06	32.14	-04	06	05.1	809
1984	SN6		1984	09	30.19444	00	06	31.77	-04	06	07.1	809
1984	SN6		1984	10	01.21666	00	05	38.63	-04	10	53.8	809
1984	SN6		1984	10	01.22222	00	05	38.34	-04	10	55.2	809
1984	SN6		1984	10	01.22778	00	05	38.05	-04	10	56.7	809
1984	SO6	*	1984	09	23.29305	00	22	39.32	-04	01	32.9	18.0 809
1984	SO6		1984	09	23.29861	00	22	38.98	-04	01	33.8	809
1984	SO6		1984	09	23.30416	00	22	38.64	-04	01	34.7	809
1984	SO6		1984	09	24.28958	00	21	39.59	-04	03	45.5	809
1984	SO6		1984	09	24.29513	00	21	39.26	-04	03	46.5	809
1984	SO6		1984	09	24.30069	00	21	38.92	-04	03	47.4	809
1984	SO6		1984	09	26.35694	00	19	34.90	-04	08	07.9	809
1984	SO6		1984	09	26.36250	00	19	34.56	-04	08	09.1	809
1984	SO6		1984	09	26.36805	00	19	34.24	-04	08	09.9	809
1984	SO6		1984	09	27.31041	00	18	37.36	-04	10	02.6	809
1984	SO6		1984	09	27.31597	00	18	37.04	-04	10	03.1	809
1984	SO6		1984	09	27.32153	00	18	36.72	-04	10	03.9	809
1984	SO6		1984	09	28.28333	00	17	38.85	-04	11	52.6	809
1984	SO6		1984	09	28.28889	00	17	38.55	-04	11	53.0	809
1984	SO6		1984	09	28.29444	00	17	38.24	-04	11	53.5	809
1984	SO6		1984	09	29.18403	00	16	45.23	-04	13	30.7	809
1984	SO6		1984	09	29.18958	00	16	44.88	-04	13	31.1	809
1984	SO6		1984	09	29.19514	00	16	44.53	-04	13	31.5	809
1984	SP6	*	1984	09	24.28958	00	18	59.41	-04	15	35.9	17.7 809
1984	SP6		1984	09	24.29513	00	18	59.20	-04	15	40.1	809
1984	SP6		1984	09	24.30069	00	18	58.98	-04	15	44.3	809
1984	SP6		1984	09	26.35694	00	17	44.45	-04	40	48.5	809
1984	SP6		1984	09	26.36250	00	17	44.22	-04	40	52.5	809
1984	SP6		1984	09	26.36805	00	17	44.00	-04	40	57.0	809
1984	SP6		1984	09	27.31041	00	17	09.76	-04	52	17.8	809
1984	SP6		1984	09	27.31597	00	17	09.53	-04	52	22.0	809
1984	SP6		1984	09	27.32153	00	17	09.30	-04	52	26.0	809
1984	SP6		1984	09	28.28333	00	16	34.26	-05	03	53.2	809
1984	SP6		1984	09	28.28889	00	16	34.06	-05	03	57.1	809
1984	SP6		1984	09	28.29444	00	16	33.89	-05	04	01.1	809
1984	SP6		1984	09	29.18403	00	16	01.74	-05	14	29.7	809
1984	SP6		1984	09	29.18958	00	16	01.54	-05	14	33.7	809
1984	SP6		1984	09	29.19514	00	16	01.34	-05	14	37.4	809
1984	SP6		1984	09	29.25069	00	15	59.16	-05	15	15.5	809
1984	SP6		1984	09	29.25625	00	15	58.94	-05	15	19.4	809
1984	SP6		1984	09	29.26180	00	15	58.72	-05	15	22.9	809
1984	SP6		1984	09	30.24375	00	15	23.12	-05	26	47.5	809
1984	SP6		1984	09	30.24930	00	15	22.92	-05	26	51.7	809
1984	SP6		1984	09	30.25486	00	15	22.71	-05	26	55.5	809
1984	SP6		1984	10	01.07465	00	14	53.79	-05	36	18.8	809
1984	SP6		1984	10	01.08090	00	14	53.56	-05	36	22.6	809
1984	SP6		1984	10	01.25972	00	14	46.48	-05	38	24.7	809

1984	SP6		1984	10	01.26527	00	14	46.29	-05	38	28.7				809
1984	SP6		1984	10	01.27083	00	14	46.10	-05	38	32.3				809
1984	SQ6	*	1984	09	27.28750	00	03	31.50	-01	22	00.4			18.3	809
1984	SQ6		1984	09	27.29513	00	03	31.09	-01	22	02.6				809
1984	SQ6		1984	09	27.30069	00	03	30.79	-01	22	04.1				809
1984	SQ6		1984	09	28.10902	00	02	47.10	-01	25	46.5				809
1984	SQ6		1984	09	28.11458	00	02	46.80	-01	25	48.1				809
1984	SQ6		1984	09	28.12014	00	02	46.50	-01	25	49.6				809
1984	SQ6		1984	09	28.24930	00	02	39.08	-01	26	25.5				809
1984	SQ6		1984	09	28.25486	00	02	38.78	-01	26	27.0				809
1984	SQ6		1984	09	28.26041	00	02	38.48	-01	26	28.7				809
1984	SR6	*	1984	09	27.28750	00	04	07.49	-01	48	03.0			18.3	809
1984	SR6		1984	09	27.29513	00	04	07.09	-01	48	06.7				809
1984	SR6		1984	09	27.30069	00	04	06.79	-01	48	09.3				809
1984	SR6		1984	09	28.10902	00	03	24.38	-01	54	37.9				809
1984	SR6		1984	09	28.11458	00	03	24.09	-01	54	40.4				809
1984	SR6		1984	09	28.12014	00	03	23.80	-01	54	43.1				809
1984	SR6		1984	09	29.12430	00	02	31.26	-02	02	38.1				809
1984	SR6		1984	09	29.12917	00	02	31.00	-02	02	40.3				809
1984	SR6		1984	09	29.13541	00	02	30.67	-02	02	42.8				809
1984	SS6	*	1984	09	27.28750	00	08	20.68	-01	56	57.6			17.5	809
1984	SS6		1984	09	27.29513	00	08	20.22	-01	56	57.8				809
1984	SS6		1984	09	27.30069	00	08	19.88	-01	56	58.0				809
1984	SS6		1984	09	28.14167	00	07	29.61	-01	57	26.1				809
1984	SS6		1984	09	28.14722	00	07	29.28	-01	57	26.0				809
1984	SS6		1984	09	28.15278	00	07	28.95	-01	57	25.8				809
1984	SS6		1984	09	28.24930	00	07	22.81	-01	57	29.2				809
1984	SS6		1984	09	28.25486	00	07	22.48	-01	57	29.6				809
1984	SS6		1984	09	28.26041	00	07	22.15	-01	57	30.0				809
1984	SS6		1984	09	29.12430	00	06	30.64	-01	57	55.3				809
1984	SS6		1984	09	29.12917	00	06	30.35	-01	57	55.5				809
1984	SS6		1984	09	29.13541	00	06	29.98	-01	57	55.7				809
1984	SS6		1984	09	30.27778	00	05	21.62	-01	58	25.1				809
1984	SS6		1984	09	30.28333	00	05	21.27	-01	58	25.4				809
1984	SS6		1984	09	30.28889	00	05	20.94	-01	58	25.7				809
1984	ST6	*	1984	09	27.28750	00	08	21.72	-01	02	55.7			17.8	809
1984	ST6		1984	09	27.29513	00	08	21.49	-01	03	03.0				809
1984	ST6		1984	09	27.30069	00	08	21.32	-01	03	08.5				809
1984	ST6		1984	09	28.14167	00	07	55.31	-01	17	10.0				809
1984	ST6		1984	09	28.14722	00	07	55.15	-01	17	15.7				809
1984	ST6		1984	09	28.15278	00	07	54.98	-01	17	21.2				809
1984	ST6		1984	09	28.24930	00	07	51.46	-01	18	57.7				809
1984	ST6		1984	09	28.25486	00	07	51.26	-01	19	03.1				809
1984	ST6		1984	09	28.26041	00	07	51.08	-01	19	09.0				809
1984	ST6		1984	09	29.12430	00	07	24.42	-01	33	27.1				809
1984	ST6		1984	09	29.12917	00	07	24.26	-01	33	32.1				809
1984	ST6		1984	09	29.13541	00	07	24.07	-01	33	38.3				809
1984	ST6		1984	09	30.27778	00	06	48.04	-01	52	22.7				809
1984	ST6		1984	09	30.28333	00	06	47.90	-01	52	28.2				809
1984	ST6		1984	09	30.28889	00	06	47.73	-01	52	33.5				809
1984	ST6		1984	09	30.31667	00	06	46.77	-01	53	00.6				809
1984	ST6		1984	09	30.32222	00	06	46.58	-01	53	06.3				809
1984	ST6		1984	09	30.32777	00	06	46.41	-01	53	11.3				809
1984	SU6	*	1984	09	28.14167	00	09	36.39	-01	19	07.7			17.5	809
1984	SU6		1984	09	28.14722	00	09	36.08	-01	19	10.2				809
1984	SU6		1984	09	28.15278	00	09	35.78	-01	19	13.0				809
1984	SU6		1984	09	29.26805	00	08	33.21	-01	28	29.3				809
1984	SU6		1984	09	29.27361	00	08	32.89	-01	28	31.9				809
1984	SU6		1984	09	29.27916	00	08	32.57	-01	28	34.7				809

1984	SU6		1984	09	30.31667	00	07	34.57	-01	37	07.9		809
1984	SU6		1984	09	30.32222	00	07	34.25	-01	37	10.7		809
1984	SU6		1984	09	30.32777	00	07	33.94	-01	37	13.5		809
1984	SV6	*	1984	09	28.14167	00	11	19.41	-02	24	55.6	17.8	809
1984	SV6		1984	09	28.14722	00	11	19.23	-02	24	56.4		809
1984	SV6		1984	09	28.15278	00	11	19.06	-02	24	57.1		809
1984	SV6		1984	09	29.26805	00	10	44.63	-02	27	55.5		809
1984	SV6		1984	09	29.27361	00	10	44.43	-02	27	56.0		809
1984	SV6		1984	09	29.27916	00	10	44.25	-02	27	56.4		809
1984	SV6		1984	09	30.31667	00	10	12.35	-02	30	40.8		809
1984	SV6		1984	09	30.32222	00	10	12.15	-02	30	41.9		809
1984	SV6		1984	09	30.32777	00	10	11.98	-02	30	43.0		809
1984	SW6	*	1984	09	28.31944	01	09	48.14	-03	53	12.5	17.2	809
1984	SW6		1984	09	28.32500	01	09	47.83	-03	53	13.7		809
1984	SW6		1984	09	28.33055	01	09	47.52	-03	53	14.9		809
1984	SW6		1984	09	29.28819	01	08	59.07	-03	56	44.5		809
1984	SW6		1984	09	29.29375	01	08	58.80	-03	56	46.1		809
1984	SW6		1984	09	29.29930	01	08	58.53	-03	56	47.4		809
1984	SW6		1984	09	30.11458	01	08	17.11	-03	59	40.5		809
1984	SW6		1984	09	30.12048	01	08	16.81	-03	59	42.0		809
1984	SW6		1984	09	30.12535	01	08	16.56	-03	59	43.6		809
1984	SX6	*	1984	09	28.34166	00	10	35.88	-03	12	29.5	17.5	809
1984	SX6		1984	09	28.34722	00	10	35.64	-03	12	31.6		809
1984	SX6		1984	09	28.35278	00	10	35.40	-03	12	33.3		809
1984	SX6		1984	09	29.25069	00	09	56.58	-03	16	55.1		809
1984	SX6		1984	09	29.25625	00	09	56.35	-03	16	56.8		809
1984	SX6		1984	09	29.26180	00	09	56.11	-03	16	58.4		809
1984	SX6		1984	09	30.29722	00	09	11.15	-03	21	54.5		809
1984	SX6		1984	09	30.30278	00	09	10.91	-03	21	56.1		809
1984	SX6		1984	09	30.30833	00	09	10.66	-03	21	57.8		809
1984	SY6	*	1984	09	28.34166	00	11	22.74	-03	40	05.9	17.7	809
1984	SY6		1984	09	28.34722	00	11	22.45	-03	40	07.9		809
1984	SY6		1984	09	28.35278	00	11	22.16	-03	40	09.5		809
1984	SY6		1984	09	29.25069	00	10	35.54	-03	44	22.3		809
1984	SY6		1984	09	29.25625	00	10	35.25	-03	44	23.9		809
1984	SY6		1984	09	29.26180	00	10	34.96	-03	44	25.5		809
1984	SY6		1984	09	30.29722	00	09	41.24	-03	49	11.9		809
1984	SY6		1984	09	30.30278	00	09	40.95	-03	49	13.6		809
1984	SY6		1984	09	30.30833	00	09	40.66	-03	49	15.0		809
1984	SZ6	*	1984	09	28.34166	00	12	19.20	-04	17	33.8	17.8	809
1984	SZ6		1984	09	28.34722	00	12	18.84	-04	17	34.8		809
1984	SZ6		1984	09	28.35278	00	12	18.50	-04	17	35.7		809
1984	SZ6		1984	09	29.25069	00	11	23.66	-04	20	13.9		809
1984	SZ6		1984	09	29.25625	00	11	23.32	-04	20	15.2		809
1984	SZ6		1984	09	29.26180	00	11	22.98	-04	20	16.4		809
1984	SZ6		1984	09	30.29722	00	10	19.58	-04	23	13.5		809
1984	SZ6		1984	09	30.30278	00	10	19.24	-04	23	14.8		809
1984	SZ6		1984	09	30.30833	00	10	18.89	-04	23	15.9		809
1984	SA7	*	1984	09	29.10347	23	55	59.09	-02	43	54.1	17.8	809
1984	SA7		1984	09	29.10902	23	55	58.85	-02	43	56.0		809
1984	SA7		1984	09	29.11458	23	55	58.62	-02	43	57.9		809
1984	SA7		1984	09	30.08437	23	55	16.37	-02	49	49.2		809
1984	SA7		1984	09	30.08923	23	55	16.16	-02	49	50.8		809
1984	SA7		1984	09	30.09410	23	55	15.95	-02	49	52.4		809
1984	SB7	*	1984	09	29.10347	23	59	35.64	-01	48	36.1		809
1984	SB7		1984	09	29.10902	23	59	35.36	-01	48	37.0		809
1984	SB7		1984	09	29.11458	23	59	35.07	-01	48	38.3		809
1984	SB7		1984	09	30.08437	23	58	48.52	-01	50	30.7		809

1984 SB7	1984 09 30.08923	23 58 48.31	-01 50 31.1			809
1984 SB7	1984 09 30.09410	23 58 48.09	-01 50 31.8			809

OBSERVATIONS MADE AT TOYOTA BY K. SUZUKI.

Plates measured by T. Urata, reduced using five or six AGK3 reference stars. Copied from Nihondaira Obs. Circ. Nos. 1504 and 1505. Contact: T. Urata, Nishitaka-cho 8-23, Shimizu, Shizuoka 424, Japan.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
468	1985 02	14.55208	10 28 27.24	+10 03 54.6	15	881
468	1985 02	14.56875	10 28 26.58	+10 03 58.9		881
1283	1985 02	17.53333	09 28 28.14	+11 34 06.0	15.5	881
1283	1985 02	17.55000	09 28 27.39	+11 34 12.1		881
1985 AA	1985 01	23.51736	07 21 55.41	+16 06 00.4	17	881
1985 AA	1985 01	23.54028	07 21 54.15	+16 06 04.9		881
1985 AF	1985 02	11.57153	07 30 07.84	+17 52 47.2	16	881
1985 AF	1985 02	11.59097	07 30 07.23	+17 52 43.5		881

OSERVATIONS MADE AT KARASUYAMA.

Plates taken by Y. Banno, measured by T. Urata. Copied from Nihondaira Obs. Circ. Nos. 1504 and 1505. Contact: T. Urata, Nishitaka-cho 8-23, Shimizu, Shizuoka 424, Japan.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
3178	1985 01	17.55905	03 59 35.68	+15 10 25.4	15	889
3178	1985 01	17.60940	03 59 37.19	+15 10 18.2		889
3182	1985 01	15.56183	02 59 52.63	+16 08 04.4	17	889
1983 WB	1985 02	17.55619	11 35 39.37	+18 06 18.9	15	889
1983 WB	1985 02	17.67078	11 35 35.00	+18 07 03.9		889
1985 AA	1985 01	15.62334	07 29 48.59	+15 17 42.8	17	889
1985 AB	1985 02	15.51944	07 10 31.31	+16 26 38.2	16.5	889
1985 AB	1985 02	15.56944	07 10 29.84	+16 26 30.1		889
1985 CF	1985 02	17.59994	09 31 51.34	+09 01 38.1	15.5	889
1985 CF	1985 02	17.65133	09 31 47.78	+09 01 36.4		889
1985 CY *	1985 02	15.51944	07 09 00.40	+15 59 15.5	17	889
1985 CY	1985 02	15.56944	07 08 59.39	+15 59 18.4		889
1985 CZ *	1985 02	15.53962	07 25 51.53	+20 42 19.3	16.5	889
1985 CZ	1985 02	15.58889	07 25 50.26	+20 42 20.0		889
1985 CA1 *	1985 02	15.53962	07 26 58.67	+20 43 57.2	16	889
1985 CA1	1985 02	15.58889	07 26 56.28	+20 44 03.9		889
1985 DE *	1985 02	17.64161	10 59 37.01	-09 15 12.0	16	889
1985 DE	1985 02	17.69994	10 59 34.78	-09 15 41.3		889

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ORBITAL ELEMENTS OF ONE-OPPOSITION MINOR PLANETS.

The orbit computers and authors of double designations are B = C. M. Bardwell, G = D. W. E. Green, I = H. Oishi, M = B. G. Marsden, U = T. Urata. For further information see MPC 7828.

Planet	B(1,0)	Epoch	M	Peri.	Node	Incl.	e	a	Arc	O	N	C
1976 UG2	16.4	761029	28.80	24.07	326.36	2.22	0.2002	2.4398	25	5	1	I
1978 QY1	15.3	780909	347.56	194.73	167.95	4.30	0.0959	2.4209	10	4	1	I
1979 OX8	15.0	790726	314.39	175.89	192.65	7.47	0.2421	3.1838	4	3	6	M
1979 OG9	17.0	790726	296.41	205.47	188.67	5.44	0.2725	2.4859	4	3	6	M
1979 OH9	17.5	790726	16.45	58.10	220.18	5.16	0.1397	2.1448	4	3	6	M
1979 OK9	18.0	790726	324.77	209.77	150.99	8.91	0.2918	2.7453	4	3	6	M
1979 OU9	17.0	790726	333.22	178.91	161.07	4.61	0.1973	2.1526	4	5	6	M
1979 OV10	18.5	790726	332.30	171.64	177.04	5.13	0.2680	2.1891	4	3	6	M
1979 OJ11	19.5	790726	334.66	181.05	165.29	4.45	0.2792	2.1279	4	4	6	M

1984	QQ	14.0	840917	344.04	180.75	196.56	7.62	0.1304	2.4078	48	0	M
1984	SA	15.0	840917	19.93	77.52	253.77	5.87	0.2223	2.2860	34	6	M
1984	SH	15.0	840917	52.09	174.74	113.98	2.86	0.1686	2.1661	6	0	M
1984	SU	15.5	841007	353.98	68.11	309.69	2.09	0.2387	2.3497	32	0	M
1984	SE3	15.0	840917	284.32	309.31	136.46	3.49	0.0999	2.1886	9	0	M
1984	SF3	16.0	840917	326.49	284.36	132.50	2.18	0.2807	2.5556	2	0	M
1984	SN4	16.0	840917	0.07	13.89	337.08	1.44	0.2125	2.6064	10	0	M
1984	SO4	15.0	840917	22.44	51.02	286.36	4.93	0.1285	2.2741	10	0	M
1984	SP4	16.0	840917	349.50	80.06	302.79	5.08	0.2532	2.5303	8	0	M
1984	SQ4	14.0	840917	50.61	81.72	218.50	14.84	0.1832	3.2238	7	0	M
1984	SC5	13.0	841007	61.34	325.51	324.50	14.56	0.1817	2.5735	27	5	M
1984	SG5	15.0	841007	355.90	135.88	249.14	4.52	0.1681	2.2209	29	4	M
1984	SH5	12.0	841007	351.93	84.47	311.32	4.96	0.1930	3.9428	29	4	M
1984	SL5	15.5	841007	340.49	51.95	356.14	13.61	0.2903	2.7239	27	4	M
1984	SM5	16.0	840917	36.35	139.21	155.84	6.86	0.1422	2.2424	13	0	M
1984	SO5	14.5	840917	325.21	249.01	141.43	4.68	0.1222	2.6884	13	0 2	M
1984	SQ5	15.0	840917	113.70	136.70	112.01	6.06	0.0500	2.3117	11	0	M
1984	SR5	14.0	840917	2.34	325.28	16.98	5.53	0.1077	3.2088	10	0	M
1984	SS5	14.5	840917	8.53	271.35	84.20	6.15	0.1695	3.1190	10	0	M
1984	ST5	15.5	840917	345.90	36.55	341.86	1.70	0.1923	2.3744	10	0	M
1984	SU5	17.0	840917	18.93	144.61	182.27	2.74	0.2234	2.2174	8	0 2	M
1984	SV5	14.0	840917	13.64	341.07	0.94	8.95	0.0849	3.0357	27	0	M
1984	SW5	12.0	840917	192.61	9.07	160.31	6.58	0.1082	3.8893	10	0	M
1984	SX5	15.0	840917	314.12	251.94	162.45	6.38	0.1106	2.3139	10	0	M
1984	SY5	13.5	840917	5.17	233.03	120.36	2.55	0.0914	3.2372	10	0 2	M
1984	SZ5	16.0	840917	46.44	276.50	13.25	7.83	0.2220	2.2617	8	0 2	M
1984	SA6	15.0	840917	286.04	280.30	165.57	7.03	0.1117	2.2730	30	0	M
1984	SB6	15.5	840917	357.63	263.04	99.70	2.92	0.1838	2.4289	10	0	M
1984	SC6	16.0	840917	37.70	207.95	96.14	3.32	0.2104	2.4091	10	0	M
1984	SD6	16.5	840917	345.78	355.40	11.42	5.90	0.1481	2.2755	9	0	M
1984	SE6	14.5	840917	22.26	318.11	5.97	3.24	0.2037	2.3396	9	0	M
1984	SF6	14.0	840917	314.48	309.29	108.94	2.71	0.1462	3.2107	9	0	M
1984	SG6	14.5	840917	327.55	237.77	168.78	12.01	0.1981	2.9567	9	0	M
1984	SH6	15.0	840917	336.68	254.11	134.55	3.50	0.1305	2.4765	9	0	M
1984	SK6	17.5	840917	348.34	203.19	172.61	4.67	0.2961	2.4932	6	0	M
1984	SL6	13.5	840917	227.06	66.51	74.18	2.09	0.1106	3.1184	8	0	M
1984	SM6	14.5	840917	313.48	245.33	169.40	12.80	0.1025	2.9629	8	0 2	M
1984	SN6	14.5	840917	166.93	129.26	61.33	3.31	0.0900	2.5607	8	0	M
1984	SO6	16.0	840917	22.61	297.19	31.53	6.14	0.1523	2.3730	6	0	M
1984	SP6	17.0	840917	351.86	209.89	162.09	7.66	0.2324	2.3461	7	0	M
1984	SR6	16.5	840917	10.85	182.66	162.71	3.12	0.0882	2.1919	2	9 2	M
1984	SS6	15.5	840917	15.68	325.31	11.98	8.40	0.1558	2.5306	3	0	M
1984	ST6	17.5	840917	2.07	175.95	178.77	10.47	0.2183	2.2102	3	0	M
1984	SU6	16.0	840917	308.33	278.90	161.34	2.94	0.2698	2.3109	2	9 2	M
1984	SV6	11.5	840917	2.30	324.50	33.87	5.04	0.0825	5.2273	2	9 2	M
1984	SW6	16.0	840917	2.45	287.09	73.49	5.34	0.1974	2.2870	2	9	M
1984	SX6	16.0	840917	344.39	287.28	100.75	1.97	0.2968	2.7132	2	9	M
1984	SY6	14.5	840917	70.48	215.39	64.86	3.10	0.0819	2.6132	2	9	M
1984	SZ6	15.0	840917	269.10	84.38	24.38	8.32	0.1618	2.4487	2	9	M
1984	WL	16.0	850115	2.39	192.93	253.88	25.23	0.2795	2.3507	87	9	B
1984	YC	13.0	850115	356.58	200.22	287.56	31.72	0.2544	2.7372	58	0	B
1984	YV	14.5	850115	328.79	224.40	282.84	21.36	0.0771	1.9213	61	0	M
1985	AE	16.0	850204	349.65	357.64	139.75	1.39	0.1516	2.2750	10	8	U
1985	AF	14.0	850204	352.56	208.56	286.34	5.95	0.1942	2.4022	27	0	U
1985	BB	15.0	850204	201.92	228.61	61.96	2.31	0.0344	2.9644	29	8	U
1985	CA	17.5	850224	26.41	137.51	325.47	9.37	0.1412	2.5584	9	8	U
1985	CG	15.0	850204	357.36	44.63	92.66	2.88	0.1625	2.3251	7	4	M
1985	CK	12.0	850204	75.34	136.57	247.99	0.46	0.3183	3.1553	7	9	M
1985	CL	14.5	850224	67.68	69.04	355.19	19.04	0.1021	1.9395	14	3	M

1985 CN	17.0	850224	53.87	284.89	162.83	9.67	0.2435	2.3778	40	0	B
1985 CT	14.0	850224	74.79	258.50	146.85	23.07	0.2372	2.3162	34	6	B
1985 CU	15.0	850224	5.98	189.90	312.45	13.20	0.2945	2.6922	12	3	M
1985 CV	13.5	850204	80.97	259.76	143.78	14.00	0.2070	2.6088	9	6	M
1985 CX	13.0	850224	291.01	146.77	83.56	16.18	0.1030	2.8552	14	3	M
1985 CF1	13.0	850224	118.36	233.12	138.87	13.69	0.1766	2.6264	3	6	G
1985 CH1	15.0	850224	15.65	113.28	18.05	3.54	0.1348	2.2711	5	8	G
1985 CJ1	15.0	850224	31.94	50.50	59.49	3.86	0.1407	2.4154	5	6	G
1985 DX	14.0	850224	345.98	286.33	243.59	6.82	0.1081	2.2500	18	8	B

Note 1: double designations 1976 UG2 = 1976 WU (I, JAM 1835); 1978 QY1 = = 1978 QL3 (I, JAM 1860). 2: e assumed. 4: correction to MPC 5787. 6 = 2 + 4.

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ORBITAL ELEMENTS BY W. LANDGRAF, ASTRONOMISCHE ARBEITSGEMEINSCHAFT, MAINZ.

(26) Proserpina
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

			(1950.0)	P	Q
M	207.02012				
n	0.22780678	Peri.	193.76021	-0.51015690	+0.85893449
a	2.6551657	Node	45.58740	-0.78307111	-0.44250733
e	0.0894803	Incl.	3.56375	-0.35572401	-0.25771846
P	4.33	B(1,0)	8.8		

From 178 observations at 37 oppositions 1853-1984, mean residual 0".7.
1853 observations given weight of 0.4.

(50) Virginia
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

			(1950.0)	P	Q
M	252.05665				
n	0.22880647	Peri.	199.33126	+0.97593319	-0.21799193
a	2.6474260	Node	173.25186	+0.20602635	+0.91295347
e	0.2886728	Incl.	2.84103	+0.07146710	+0.34495721
P	4.31	B(1,0)	10.4		

From 165 observations at 32 oppositions 1857-1984, mean residual 0".8.
1857 observations given weight of 0.4.

(157) Dejanira
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

			(1950.0)	P	Q
M	169.47033				
n	0.23793544	Peri.	46.63655	-0.30162671	-0.93524627
a	2.5792689	Node	61.78172	+0.80255941	-0.35397661
e	0.1979166	Incl.	12.13945	+0.51470352	+0.00387020
P	4.14	B(1,0)	12.4		

From 40 observations at 18 oppositions 1875-1984.

(160) Una
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

			(1950.0)	P	Q
M	216.80054				
n	0.21889715	Peri.	50.36745	+0.51780388	-0.85544285
a	2.7267331	Node	8.46445	+0.76297784	+0.45657472
e	0.0675791	Incl.	3.83004	+0.38696762	+0.24445256
P	4.50	B(1,0)	10.1		

From 103 observations at 27 oppositions 1876-1982, mean residual 0".8.

(167) Urda
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 272.87068		(1950.0)	P	Q
n 0.20450861	Peri.	127.67968	+0.40320008	+0.91506486
a 2.8531744	Node	166.08984	-0.85123731	+0.37875716
e 0.0329731	Incl.	2.21073	-0.33589393	+0.13856160
P 4.82	B(1,0)	10.6		

From 89 observations at 25 oppositions 1876-1983, mean residual 1".0.

(262) Valda
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 82.57368		(1950.0)	P	Q
n 0.24161887	Peri.	23.89875	+0.46969918	-0.87889604
a 2.5529884	Node	38.23414	+0.78672105	+0.37393608
e 0.2139378	Incl.	7.72731	+0.40056542	+0.29616476
P 4.08	B(1,0)	12.9		

From 69 observations at 15 oppositions 1886-1984, mean residual 0".7.

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ORBITAL ELEMENTS BY S. NAKANO, TOKYO.

The identifications are by S. Nakano unless otherwise stated.

(3227)* 1928 DF = 1947 CC = 1951 EN = 1955 FR = 1957 UZ = 1957 WL1
= 1959 JM = 1961 XX = 1966 BA = 1972 RW1 = 1974 ET
= 1978 GB2 = 1978 JR2 = 1980 VT2

Discovered 1928 Feb. 24 by K. Reinmuth at Heidelberg. The double designation 1978 GB2 = 1978 JR2 was independently found by N. S. Chernykh.
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 60.08777		(1950.0)	P	Q
n 0.25785828	Peri.	331.64803	-0.58301904	-0.81190509
a 2.4446424	Node	153.98079	+0.75769850	-0.55667169
e 0.1399633	Incl.	3.91906	+0.29322650	-0.17586003
P 3.82	B(1,0)	13.5		

Residuals in seconds of arc

280224	024	5.0-	2.5+	550323	760	1.5+	1.2-	660116	095	4.2+	0.3+
280227	024	2.9+	5.7-	550323	760	2.0+	3.4-	720911	095	0.5-	3.5-
280317	024	(17.5-	12.2+)	571021	760	3.4+	0.9+	740315	095	(14.6+	7.3-)
470213	020	2.2-	5.9+	571021	760	2.3+	1.2+	780407	095	1.5-	0.6-
470215	020	6.7-	1.0+	571127	760	(20.2+	49.2+)X	780509	095	2.6-	0.4+
470220	020	4.6+	2.9-	590507	760	0.9-	0.1-	801113	330	0.1+	0.1+
470223	020	(9.9+	8.7-)	590508	760	0.2+	1.2+				
510313	024	3.6+	1.0+	611205	012	5.4-	3.4-				

(3228)* 1935 CL = A916 GD = A918 WB = 1943 GB = 1958 BA = 1962 EC
= 1970 ER1 = 1972 TB4 = 1972 VD = 1972 XJ1 = 1978 JU2
= 1979 QE7

Discovered 1935 Feb. 8 by S. Arend at Uccle.
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 74.09622		(1950.0)	P	Q
n 0.25529630	Peri.	189.26338	-0.49584214	-0.86784363
a 2.4609703	Node	290.46752	+0.79884733	-0.44162843
e 0.1370316	Incl.	1.92268	+0.34056352	-0.22762199
P 3.86	B(1,0)	14.0		

Residuals in seconds of arc

160403	024	0.5+	3.1-	430406	062	1.8-	1.4-	700302	805	1.9-	0.5-
181122	024	3.5-	2.3+	430406	062	2.7-	2.1-	700302	805	1.7-	0.2+
350208	012	2.1+	0.4+	430407	062	1.4-	0.3+	721005	095	6.9-	5.1-
350210	012	(13.5+	6.8+)	580123	024	2.6+	1.9-	721108	095	2.6+	8.6-
350226	012	0.1+	3.5+	620302	760	0.9+	0.9-	721203	095	4.2+	2.9+
350307	012	3.6+	4.2+	620302	760	1.1+	0.1-	780509	095	0.4+	1.0+
430404	024	0.6-	2.5-	700302	805	1.7-	0.7-	790820	095	3.7+	3.4+

A919 SD = 1929 RS = 1932 KD = 1949 PE = 1962 JV = 1966 SB
= 1973 YZ = 1980 XG3

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	291.58042		(1950.0)	P	Q
n	0.29420225	Peri.	9.91780	+0.81114772	+0.58242448
a	2.2389252	Node	314.32375	-0.54151462	+0.71364752
e	0.1966744	Incl.	4.25776	-0.22091014	+0.38921580
P	3.35	B(1,0)	14.0		

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

190918	024	1.6+	1.3-	290910	094	(61.8-	1.2+)X	660919	095	1.5-	0.1-
190924	045	(0.3-	12.6-)	320525	078	(29.0-	8.9+)Y	661018	095	1.4+	2.7+
190925	045	0.7+	2.7-	490814	078	1.3-	0.8- Y	731220	095	4.4+	4.1-
190927	045	(0.1-	22.5-)	620506	839	0.3+	3.4-	731221	095	3.1-	0.3-
190930	045	0.0	0.0	620506	839	1.1-	2.4-	801210	095	2.0-	0.7-
290901	094	(0.10-	0.00-)X	620507	839	(16.7+	1.1-)				

1948 RD = 1948 RE1 = 1938 SK = 1980 BF6

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	31.12682		(1950.0)	P	Q
n	0.29361793	Peri.	346.29312	+0.95998514	+0.28001176
a	2.2418946	Node	357.43173	-0.24606338	+0.83537255
e	0.1833235	Incl.	6.00200	-0.13372116	+0.47301810
P	3.36	B(1,0)	14.0		

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

380918	029	(56.5-	8.2+)X	380928	029	(0.04-	0.03-)X	480909	690	1.5+	2.0-
380921	062	0.7+	1.4-	480905	094	0.1-	3.3+	480911	094	1.4-	0.1+
380922	062	0.8+	1.3-	480907	690	2.4+	2.2-	480925	094	7.2-	6.2+
380923	029	(40.4+	37.8-)X	480908	690	3.1+	2.6-	800123	095	0.1-	0.3-

1949 PQ = 1977 DW10 = 1978 SW4 = 1978 TY5

The double designation 1978 SW4 = 1978 TY5 is by N. Chernykh (MPC 6287).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	172.86714		(1950.0)	P	Q
n	0.30880435	Peri.	206.08269	+0.09538781	+0.99532849
a	2.1677772	Node	69.39396	-0.91044405	+0.09329025
e	0.1443757	Incl.	0.91283	-0.40248328	+0.02486229
P	3.19	B(1,0)	15.5		

Residuals in seconds of arc

490802	024	0.7-	1.1-	490824	690	0.5-	0.3-	780927	095	1.0-	0.4-
490820	690	4.2+	0.9+	490826	690	0.5-	1.1+	781003	095	0.3-	0.4-
490821	024	2.9-	0.8+	770219	381	0.8-	0.9+	781007	095	1.3+	1.0+
490822	024	0.0	0.4-	770219	381	1.3+	0.4+				

1949 QC1 = 1969 TE4 = 1982 RF1

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	4.53152		(1950.0)	P	Q
n	0.29917380	Peri.	358.95865	+0.86768648	+0.49394340
a	2.2140523	Node	331.22540	-0.45522285	+0.74421618
e	0.1970852	Incl.	6.68506	-0.19973065	+0.44962450
P	3.29	B(1,0)	15.0		

Residuals in seconds of arc

490820	690	1.1-	1.7+		820914	046	2.0-	2.6+		820916	046	0.7-	1.0-
490824	690	0.7+	0.8-		820914	046	1.1+	0.5+		820916	046	1.4+	0.8-
490826	690	0.8+	1.8-		820915	046	0.8+	1.7+		820918	046	1.8-	1.6-
691011	095	0.2+	0.3-		820915	046	1.0+	1.3+		820918	046	0.5-	1.5-

1977 QC4 = 1982 UD3

The identification is by K. Hurukawa.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	326.29266		(1950.0)	P	Q
n	0.22525600	Peri.	164.83650	+0.67950656	+0.72232917
a	2.6751779	Node	147.64957	-0.69561644	+0.68997757
e	0.1771755	Incl.	13.89467	-0.23321366	+0.04659964
P	4.38	B(1,0)	13.5		

Residuals in seconds of arc

770818	095	1.2-	1.0-		770915	808	0.4-	1.8+		821019	695	0.2-	0.9-
770912	808	2.1+	1.0-		770915	808	0.3-	0.1-		821020	695	0.7+	2.2+
770914	808	0.1-	0.4+		821018	807	0.5-	1.5-					

1984 SR = 1973 SF = 1973 SR5

The identification 1984 SR = 1973 SF is by K. Hurukawa and L. D. Schmadel, who found it independently. The double designation 1973 SF = 1973 SR5 is by T. Urata (NOC 957).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	90.60132		(1950.0)	P	Q
n	0.26987496	Peri.	60.04607	+0.49570340	-0.86849020
a	2.3715294	Node	0.25714	+0.60563594	+0.34426304
e	0.3571438	Incl.	22.39619	+0.62248153	+0.35666194
P	3.65	B(1,0)	16.0		

Residuals in seconds of arc

730920	675	9.1+	10.2+		730929	675	1.0-	1.7-		841023	675	0.7+	0.1+
730925	675	0.9-	1.8-		840926	675	3.2-	1.2+		841024	675	0.0	0.1-
730928	095	3.2-	7.1-		840927	675	1.7-	0.9+		841124	675	2.5+	2.0+
730929	675	0.9-	2.2-		841022	675	0.4-	0.7-					

* * * * *

ORBITAL ELEMENTS BY T. URATA, SHIMIZU, JAPAN.

The following orbital elements are taken from NOC 1508.

1975 VG9 = 1985 CF

The identification is by T. Urata.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	65.85877		(1950.0)	P	Q
n	0.23428642	Peri.	196.11733	-0.83308365	-0.52970648
a	2.6059865	Node	310.79013	+0.52788261	-0.67529052
e	0.1270521	Incl.	12.14765	+0.16526217	-0.51321901
P	4.21	B(1,0)	13.0		

Residuals in seconds of arc

751108	095	0.5-	2.6+		751127	095	0.4+	2.4-		850217	889	0.0	2.2-
751112	095	0.5+	0.8-		850214	881	0.4+	1.6+		850217	889	2.0-	0.2+
751127	095	0.2-	0.6+		850214	881	1.7+	0.5+					

ORBITAL ELEMENTS BY C. M. BARDWELL, SMITHSONIAN ASTROPHYSICAL OBSERVATORY.

The identifications are by C. M. Bardwell unless otherwise stated. With reference to the remarks on MPC 9533, it should be noted that the Flagstaff observations have been utilized precisely as published.

(3229)* A916 PC = A916 SB = 1969 RV = 1982 FW2

Discovered 1916 Aug. 9 by H. Thiele at Bergedorf. The double designation A916 PC = A916 SB is by S. Nakano (MPC 9076).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	239.51299		(1950.0)	P	Q
n	0.28001736	Peri.	18.57109	+0.81352573	+0.56619436
a	2.3139079	Node	306.21683	-0.55218519	+0.68055399
e	0.1529595	Incl.	9.46444	-0.18239350	+0.46504861
P	3.52	B(1,0)	13.5		

Residuals in seconds of arc

160729	094	3.4+	0.4+	820322	809	0.6+	0.5-	820328 809	1.3-	0.4+
160808	094	(6.5+	20.4-)	820322	809	1.3-	0.4+	820331 809	0.5+	2.2-
160809	029	7.5+	4.2+	820323	809	0.4+	0.4+	820331 809	0.2-	1.3-
160827	029	(11.5+	8.1+)	820323	809	0.5+	1.0+	820331 809	0.9-	1.5-
160923	029	13.6-	10.7-	820323	809	0.8-	0.3+	820401 809	0.0	1.3-
690910	095	(2.6+	3.4+)	820324	809	1.4+	0.4-	820401 809	0.2-	0.6-
690910	095	3.7+	6.5-	820324	809	1.3+	0.4-	820401 809	0.4-	0.9-
820317	809	0.1+	0.7-	820324	809	1.3+	0.3-	841224 801	1.1+	0.5-
820317	809	0.2-	0.5-	820326	809	0.0	0.3-	850119 688	(1.1+	2.6-)
820317	809	0.1-	0.3-	820326	809	1.3-	0.5+	850123 801	0.7+	0.8+
820318	809	1.8-	0.2+	820326	809	0.0	0.2+	850212 567	0.1-	0.3-
820318	809	0.2+	0.9+	820327	809	1.2-	0.3-	850212 567	0.0	0.4-
820318	809	0.1-	0.5+	820327	809	0.7-	0.4+	850212 567	0.5+	0.4-
820321	809	1.9-	0.3-	820327	809	1.0-	0.2+	850217 801	1.0+	0.7-
820321	809	1.5-	0.0	820328	809	0.7+	0.1+			
820321	809	0.0	0.1-	820328	809	0.2-	0.4-			

(3230)* 1972 LE = 1979 YA3 = 1983 JJ

Discovered 1972 June 8 by N. S. Chernykh at the Crimean Astrophysical Observatory. The key identification 1972 LE = 1983 JJ is by E. Bowell (MPC 8148).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	123.19838		(1950.0)	P	Q
n	0.17777287	Peri.	238.70838	+0.66997369	+0.69498544
a	3.1325094	Node	75.76445	-0.55598702	+0.70270838
e	0.3258220	Incl.	15.62186	-0.49194886	+0.15230285
P	5.54	B(1,0)	13.0		

Residuals in seconds of arc

720514	095	3.1-	4.0-	720616	095	2.9+	1.1+	830516 046	1.9+	2.6+
720518	095	2.7-	1.6+	791224	095	0.3+	1.1-	841127 801	1.0+	1.2-
720608	095	1.4+	1.6-	830515	046	1.3+	0.5-	850221 801	0.1-	0.1-
720609	095	1.3+	0.8-	830515	046	2.1-	2.0-			
720613	095	1.6-	0.3-	830516	046	0.3-	1.8+			

(3231)* 1972 RU2 = 1972 QJ = 1949 QJ1 = 1949 QN1 = 1955 EL

Discovered 1972 Sept. 4 by L. V. Zhuravleva at the Crimean Astrophysical Observatory. The double designation 1972 RU2 = 1972 QJ is by B. G. Marsden (MPC 9077). The double designation 1949 QJ1 = 1949 QN1 is published on MPC 1256.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 136.36767		(1950.0)	P	Q
n 0.25757581	Peri.	53.49106	+0.94972577	-0.30623027
a 2.4464293	Node	324.21084	+0.23961193	+0.84487187
e 0.1263468	Incl.	6.39589	+0.20151197	+0.43865082
P 3.83	B(1,0)	14.0		

Residuals in seconds of arc

490821	760	0.2+	0.4-	720818	095	(2.8+	8.7-)	841127	688	(5.5-	4.7-)
490821	760	1.6+	1.9-	720904	095	0.0	0.6-	841127	688	(3.3+	0.5+)
490827	760	0.2-	1.9-	720908	095	1.5-	4.3+	841127	567	1.2-	0.7+
490827	760	1.9+	2.3-	721004	095	2.7-	5.1+	841127	567	2.3-	0.1+
550314	760	0.2+	0.3+	841120	688	0.8+	1.9-	850218	801	0.1-	0.1-
550314	760	1.0+	1.3+	841120	688	2.4+	2.1-				

(3232)* 1974 SL = 1974 TO = 1946 GE = 1951 ER = 1964 VN = 1969 TS5 = 1979 SB3 = 1983 HM

Discovered 1974 Sept. 19 by L. I. Chernykh at the Crimean Astrophysical Observatory. The double designation 1974 SL = 1974 TO is by B. G. Marsden (MPC 9078).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 90.96087		(1950.0)	P	Q
n 0.18776781	Peri.	114.85528	+0.59792267	+0.80075602
a 3.0203363	Node	192.06603	-0.78320828	+0.57416784
e 0.0821775	Incl.	9.84802	-0.17050885	+0.17064900
P 5.25	B(1,0)	13.0		

Residuals in seconds of arc

460405	078(43.5-	17.4-)X		691017	095	2.2+	2.1+	741009	095	0.8-	2.3+
510305	760	1.3+	0.7+	740919	095	2.8-	1.0+	790923	095	1.7+	0.9+
510305	760	1.3-	0.7-	740920	095	0.3+	4.0-	830418	688	0.7+	0.1-
641104	760	0.1-	2.3-	740921	095	0.1-	3.0+	830418	688	0.7-	0.0
641104	760	0.7-	0.6+	740922	095	0.5+	2.0-	840927	801	0.4-	0.9-
691015	095	0.2+	0.9-	740923	095	(5.0-	7.2+)	841016	801	0.1-	0.8-

(3233)* 1977 RA6 = 1977 TG4 = A909 BH = 1929 EF = 1942 BE = 1952 BJ2 = 1976 JA5 = 1979 FB3 = 1980 RA4

Discovered 1977 Sept. 9 by N. S. Chernykh at the Crimean Astrophysical Observatory. The key identifications 1977 RA6 = 1976 JA5 = 1979 FB3 are by W. Landgraf (MPC 8212). The double designation 1977 RA6 = 1977 TG4 is by H. Oishi (JAM 1423).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 130.59755		(1950.0)	P	Q
n 0.29667683	Peri.	65.26018	+0.60784037	-0.79393859
a 2.2264535	Node	347.27776	+0.70390099	+0.54681142
e 0.1036702	Incl.	3.60368	+0.36749623	+0.26581720
P 3.32	B(1,0)	14.0		

Residuals in seconds of arc

090129	024(83.4-	34.1+)X		760503	809	0.8-	0.4+	800907	095	2.9-	0.6+
290312	024(35.2+	12.4-)		770909	095	3.3+	1.3+	841224	567	2.0-	0.1+
420120	062	0.4+	1.8+	770918	095	1.8+	0.2+	841224	567	0.1-	0.5-
420120	062	0.2+	0.2+	771006	095	2.8-	1.7+	841224	567	0.5-	0.5-
520130	760	0.5-	0.6+	790331	095	3.2+	0.6+	850217	801	1.2+	0.5-

(3234)* 1978 QO2 = 1979 YG8 = 1981 EX22

Discovered 1978 Aug. 31 by N. S. Chernykh at the Crimean Astrophysical Observatory. The key identification 1978 QO2 = 1981 EX22 is by S. J. Bus (MPC 7937). The identification 1978 QO2 = 1979 YG8 is by K. Hurukawa (JAM 1847).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	82.05966		(1950.0)	P	Q
n	0.17952388	Peri.	314.63292	+0.85454842	-0.51911240
a	3.1121073	Node	76.64633	+0.48113917	+0.77934868
e	0.1795894	Incl.	0.96643	+0.19558142	+0.35091017
P	5.49	B(1,0)	13.5		

Residuals in seconds of arc

780826	414	0.4- 1.5+	810303	413	1.4+ 0.3+	810316	413	1.0+ 1.7-
780826	414	0.2- 0.8-	810307	413	0.6- 0.6+	810316	413	0.4+ 0.1-
780831	095	0.8+ 1.4-	810307	413	0.4+ 0.1-	810405	413	1.5- 0.0
780905	095	0.0 0.3-	810311	413	0.4- 0.4-	810405	413	1.9+ 1.3-
780927	095	2.0- 1.1+	810311	413	0.1+ 0.2-	841120	801	3.1+ 3.0+
791223	095	0.4+ 3.4+	810311	413	1.1+ 1.8-	841127	688	1.4- 4.1-
810302	413	1.8- 0.2+	810315	413	2.9- 1.1+	841127	688	1.2+ 3.2-
810303	413	1.4- 0.0	810315	413	1.2+ 1.8-	841221	801	1.8+ 3.1+

(3235)* 1981 EL1 = 1959 EX = 1975 WA

Discovered 1981 Mar. 6 by H. Debehogne and G. De Sanctis at the European Southern Observatory.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	30.52483		(1950.0)	P	Q
n	0.22391230	Peri.	167.73042	-0.91284055	-0.40542807
a	2.6858644	Node	348.00014	+0.35211978	-0.72152847
e	0.2429201	Incl.	13.48400	+0.20672154	-0.56127064
P	4.40	B(1,0)	14.5		

Residuals in seconds of arc

590306	690	1.3+ 2.3-	810308	809	0.8+ 0.5+	810310	809	0.7- 0.1-
590307	690	1.5- 1.1+	810309	809	0.3- 0.2+	810312	809	0.2- 0.2+
751127	095	1.2- 0.6+	810309	809	0.0 0.1-	810312	809	0.3- 0.4+
751128	095	0.2- 0.1-	810309	809	0.1- 0.2-	810312	809	0.2- 0.3+
810306	809	0.8+ 1.1+	810309	809	0.7+ 0.3+	810313	809	0.7- 0.8-
810306	809	1.1+ 1.1+	810309	809	0.7+ 0.3+	810313	809	0.2- 1.0-
810306	809	1.6+ 0.6+	810309	809	0.1+ 0.4+	810314	809	0.3+ 0.4-
810307	809	0.0 0.2+	810310	809	0.2- 0.4-	810314	809	0.5- 0.2-
810307	809	0.3+ 0.1+	810310	809	0.2- 0.2-	810314	809	1.4- 0.2-
810307	809	0.5+ 0.3+	810310	809	0.2- 0.2-	831007	801	0.9- 1.3+
810308	809	0.0 0.5+	810310	809	0.8- 0.2+	841224	801	1.0+ 1.4-
810308	809	0.4+ 0.3+	810310	809	0.6- 0.0	850219	801	0.1+ 0.0

(3236)* 1982 BH1 = 1971 YE = 1972 BR = 1977 SC = 1977 TD2

Discovered 1982 Jan. 24 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	115.49838		(1950.0)	P	Q
n	0.30172027	Peri.	214.01673	+0.32757548	-0.94475389
a	2.2015728	Node	216.86539	+0.87106185	+0.30673155
e	0.1450286	Incl.	1.10723	+0.36598573	+0.11556750
P	3.27	B(1,0)	15.0		

Residuals in seconds of arc

711216	095	0.8+ 1.5-	820124	688	0.7- 1.6-	841127	688	2.2+ 1.6-
720119	095	(5.9+ 5.7+)	820130	688	1.9+ 0.2+	850119	688	3.4- 3.9+
720119	095	1.2- 3.1-	820130	688	1.2- 0.6-	850121	688	0.1+ 2.6+
770918	095	0.6+ 1.6-	820221	688	0.2- 1.3-	850121	688	0.2- 1.0+
771007	095	0.0 0.1-	820221	688	2.1- 1.5+	850216	801	0.6- 2.0+
820124	688	1.5+ 1.9-	841127	688	0.6+ 0.6-			

(3237)* 1984 SA5 = 1929 CB1 = 1934 CO = 1935 HF = 1935 JB = 1951 KC = 1951 KL = 1952 QD1 = 1955 BR = 1957 OK = 1957 QQ = 1965 AO1 = 1971 DA1

Discovered 1984 Sept. 25 by J. Platt at Palomar. The double designation 1935 HF = 1935 JB is by C. Jackson (UOC 4, 214). The double designation 1951 KC = 1951 KL is by B. Potter (MPC 674) and by O. Kippes (MPC 702), who found it independently.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

		(1950.0)	P	Q
M	208.69843			
n	0.18829195	Peri.	333.17414	-0.27739678	+0.94804644
a	3.0147285	Node	280.38670	-0.85055880	-0.31771753
e	0.0647606	Incl.	9.11100	-0.44676698	+0.01623310
P	5.23	B(1,0)	12.5		

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

290208	024	5.3-	1.5-	510531	760	0.1+	1.6-	650101 330	0.5-	0.8-
290301	024	0.6-	0.3-	510531	760	0.0	0.6-	710218 095	(1.9-	8.2-)
340214	012	3.3+	2.5+	510602	711	(0.9-	10.4-)Y	840925 675	0.1-	2.4+
340309	012	2.7+	0.8+	520819	094	(4.8+	25.5+)X	840927 675	0.3-	0.0
350429	078	0.1-	3.6+	550124	388	0.5+	0.4-	841023 675	0.3-	0.7-
350501	078	1.2+	0.9+	550124	388	0.7-	0.8-	841027 675	0.6-	0.9+
350501	078	1.1+	0.3+	570726	760	(0.03+	0.00+)X			
510529	078	(33.1- | 40.5+)Y	570822	024	(47.0+ | 2.3+)X			

1938 DB1 = 1958 DO = 1972 HS = 1975 EH = 1980 TQ11 = 1985 DP

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

		(1950.0)	P	Q
M	121.58584			
n	0.29332107	Peri.	12.63695	-0.28074504	-0.95734496
a	2.2434070	Node	93.69834	+0.87446979	-0.28449567
e	0.0925573	Incl.	3.92789	+0.39558160	-0.05052554
P	3.36	B(1,0)	14.0		

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

380219	062	2.3-	1.1-	580223	760	(0.04-	0.01-)X	850216 046	0.5+	2.6-
380224	062	0.3+	0.5-	720418	095	0.4-	2.4+	850220 046	1.9-	2.8+
380307	062	0.7+	0.4-	750304	095	6.0+	0.6+	850220 046	3.0-	3.0+
380323	062	0.1-	0.8-	801008	095	0.8-	2.8+			
380404	062	0.6-	0.9+	850216	046	1.2+	1.6-			

1964 UC = 1954 UU = 1984 SV2 = 1984 US2

The double designation 1984 SV2 = 1984 US2 is by E. Bowell.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

		(1950.0)	P	Q
M	116.45216			
n	0.29490193	Peri.	21.79815	+0.95446835	-0.29828045
a	2.2353825	Node	355.54939	+0.26472670	+0.85364571
e	0.1870096	Incl.	3.21569	+0.13751345	+0.42698685
P	3.34	B(1,0)	15.0		

Residuals in seconds of arc

541022	760	(55.2-	24.4-)	840924	809	0.0	0.2+	840929 809	0.7+	0.0
641008	330	0.9+	0.8-	840924	809	0.0	0.2+	840929 809	1.0+	0.4+
641030	760	1.7-	0.5-	840925	688	0.2-	0.6+	840929 809	1.0+	0.3+
641030	760	0.3+	0.8+	840925	688	1.8+	1.4+	840929 809	0.8+	0.3+
641101	330	0.4+	0.6+	840926	809	0.6-	0.4-	840930 809	1.2-	0.2-
840921	809	0.3-	0.2-	840926	809	0.2-	0.6-	840930 809	0.8-	0.2-
840921	809	0.3-	0.4-	840926	809	0.1+	0.8-	840930 809	0.0	0.4-
840921	809	0.1-	0.4-	840927	809	0.8-	0.2-	840930 809	0.1-	0.1-
840922	809	0.2-	0.1-	840927	809	0.5-	0.6-	840930 809	0.1+	0.4-
840922	809	0.4+	0.2-	840927	809	0.3-	0.6-	840930 809	0.3+	0.6-
840922	809	1.0+	0.0	840928	809	0.9-	0.3+	841001 809	0.2-	1.2+
840923	809	0.7-	0.0	840928	809	0.3-	0.4+	841001 809	0.1+	1.0+
840923	809	0.3-	0.1+	840928	809	0.0	0.3+	841001 809	0.3+	1.0+
840923	809	0.0	0.4-	840929	809	0.3+	0.1+	841026 688	1.0-	0.3-
840924	809	0.6-	0.2+	840929	809	0.4+	0.1-	841026 688	1.6+	1.1-

1980 FF12 = 1984 SJ6
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	238.49074	(1950.0)	P	Q
n	0.30783357	Peri. 251.16230	-0.48092664	+0.87671819
a	2.1723323	Node 350.07833	-0.78429186	-0.43459285
e	0.0872999	Incl. 2.87682	-0.39191305	-0.20614137
P	3.20	B(1,0) 15.5		

Residuals in seconds of arc

800320	323	0.4-	0.1+	840923	809	1.5-	0.1-	840927	809	0.5+	0.1+
800320	323	0.3+	1.5+	840924	809	0.4+	0.8+	840927	809	0.8+	0.1-
800321	323	1.2+	1.1-	840924	809	1.1+	0.7+	840928	809	0.2+	0.4+
800321	323	0.5-	2.0+	840924	809	1.6+	0.7+	840928	809	0.5+	0.2+
800410	323	0.6-	0.1+	840926	809	0.5-	0.3+	840928	809	0.7+	0.2-
800410	323	0.5-	1.1-	840926	809	0.1-	0.3+	840929	809	0.2-	0.6-
840923	809	1.4-	0.5-	840926	809	0.2+	0.3+	840929	809	0.1-	0.4-
840923	809	1.3-	0.3-	840927	809	0.2+	0.3+	840929	809	0.1+	0.2-

1981 ED21
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	67.85679	(1950.0)	P	Q
n	0.21763987	Peri. 96.00747	+0.13703112	-0.98980350
a	2.7372245	Node 345.93634	+0.83367372	+0.13643554
e	0.3569804	Incl. 9.20643	+0.53498654	+0.04091909
P	4.53	B(1,0) 15.5		

Residuals in seconds of arc

810213	413	0.8+	1.2-	810329	413	0.5-	0.2-	810502	413	1.0+	0.4+
810302	413	2.5-	1.0+	810329	413	1.2+	0.3-	850215	691	0.2-	1.3+
810302	413	0.9+	0.2-	810405	413	1.0-	0.7+	850215	691	0.4-	0.8+
810303	413	0.4+	0.2+	810405	413	0.1+	0.3-	850315	691	0.1+	0.1+
810303	413	0.7+	0.1-	810406	413	1.6-	0.3+	850315	691	0.5+	0.6-
810307	413	2.1-	1.1+	810406	413	1.4+	0.4-	850315	691	0.2+	0.3-
810307	413	1.2+	0.2+	810407	413	0.9-	0.1-	850326	691	0.3-	0.6-
810311	413	1.3-	0.1+	810407	413	1.3+	0.3+	850326	691	0.0	0.5-
810311	413	0.6+	0.5-	810412	413	1.2-	0.3+	850326	691	0.4-	0.5-
810316	413	2.4-	0.0	810412	413	2.1+	0.8-				
810316	413	1.7+	0.2-	810430	413	0.8+	0.0				

1981 EE27
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	64.52765	(1950.0)	P	Q
n	0.23337037	Peri. 330.18255	-0.86595828	-0.50011564
a	2.6128016	Node 179.80472	+0.49184252	-0.85191072
e	0.1301820	Incl. 13.08596	+0.09059352	-0.15534629
P	4.22	B(1,0) 14.0		

Residuals in seconds of arc

810302	413	0.7-	1.2+	810405	413	0.6-	0.9+	810410	413	0.3+	0.2-
810302	413	0.1+	0.0	810405	413	2.4+	3.2-	850119	688	1.1+	0.6-
810306	413	1.0-	1.4+	810406	413	0.9-	0.9+	850119	688	0.7-	0.8-
810306	413	0.7+	0.4-	810406	413	0.5+	1.4-	850225	688	2.5+	1.7-
810311	413	0.6-	0.3-	810407	413	1.3-	0.9+	850225	688	1.8-	2.8+
810315	413	0.4+	0.1-	810407	413	0.4+	0.3-	850318	688	1.7-	1.3+
810315	413	0.8+	1.2-	810410	413	0.6-	1.7+	850318	688	0.3+	0.6-

1984 QE1 = 1970 TE = 1977 RR4 = 1977 TD4
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	98.78587	(1950.0)	P	Q
n	0.27685305	Peri. 32.15922	+0.93889627	-0.34295220
a	2.3315105	Node 347.79244	+0.27912532	+0.80840950
e	0.2258700	Incl. 7.96053	+0.20140218	+0.47839091
P	3.56	B(1,0) 15.0		

Residuals in seconds of arc

701009	095	(54.8-	38.8-)	840921	809	0.5-	1.1-	840927	809	0.5+	0.1-
770909	095	0.3-	1.3+	840922	809	0.1-	0.4-	840927	809	0.8+	0.1+
771006	095	1.2+	2.6-	840922	809	0.2-	0.3-	840928	809	1.0+	0.0
840831	688	0.4+	2.3-	840922	809	0.4+	0.2-	840928	809	1.1+	0.1+
840831	688	1.4+	0.6-	840923	809	0.4-	0.4-	840928	809	1.1+	0.6+
840831	688	0.5+	0.7-	840923	809	0.9-	0.4-	840929	809	0.9-	0.1+
840917	809	1.4+	1.0+	840923	809	0.3-	0.2-	840929	809	1.0-	0.3+
840917	809	1.7+	1.1+	840924	809	0.4-	0.0	840929	809	0.6-	0.1-
840917	809	1.9+	1.2+	840924	809	0.5-	0.2-	840929	809	0.4-	0.9+
840918	809	0.3-	0.5+	840924	809	0.7-	0.3-	840929	809	0.4-	0.6+
840918	809	0.4-	0.5+	840926	809	0.2-	0.2+	840930	809	0.4-	0.5+
840918	809	0.1-	0.9+	840926	809	0.1-	0.1+	841001	809	1.3-	0.2+
840921	809	0.5-	0.7-	840926	809	0.1-	0.5+	841001	809	1.2-	0.5+
840921	809	0.5-	0.8-	840927	809	0.2+	0.1-	841001	809	1.4-	0.4+

1984 UT
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	64.14862	(1950.0)	P	Q
n	0.21223886	Peri. 202.00491	+0.28877978	-0.93186979
a	2.7834672	Node 231.90980	+0.91469431	+0.33628249
e	0.2298578	Incl. 16.20185	+0.28273759	-0.13613517
P	4.64	B(1,0) 14.0		

From 15 observations 1984 Oct. 26-1985 Feb. 17, mean residual 1".1.

1984 WB = 1953 XK1

The identification is by L. D. Schmadel.
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	68.17501	(1950.0)	P	Q
n	0.37874368	Peri. 267.29329	-0.84290880	-0.38927137
a	1.8919369	Node 249.57187	+0.49179155	-0.83745030
e	0.1339233	Incl. 23.35171	-0.21827922	-0.38359457
P	2.60	B(1,0) 14.0		

Residuals in seconds of arc

531207	675	0.4-	0.2+	841129	675	(15.7-	0.1-)	841217	675	(5.3+	0.7+)
531207	675	0.5+	1.7+	841130	675	(12.3-	3.1-)	850122	801	0.9+	1.1+
531207	675	0.3+	0.2-	841202	675	0.5-	0.2+	850217	801	0.5+	0.5-
841121	675	0.2-	1.1+	841215	675	1.2-	2.1-	850223	801	0.5+	0.1+
841124	675	0.4+	0.9+	841217	675	1.3+	1.6-	850317	801	2.7-	0.9-

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ORBITAL ELEMENTS BY B. G. MARSDEN, SMITHSONIAN ASTROPHYSICAL OBSERVATORY.

The identifications are by B. G. Marsden unless otherwise stated. With reference to the remarks on MPC 9533, it should be noted that the Flagstaff observations have been utilized precisely as published.

(3238)* 1975 VB9 = 1953 TP1 = 1977 EF2

Discovered 1975 Nov. 8 by N. S. Chernykh at the Crimean Astrophysical Observatory. The identification 1975 VB9 = 1977 EF2 is by K. Hurukawa (JAM 1233).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 110.52180		(1950.0)	P	Q
n 0.22646015	Peri.	44.18074	+0.57259378	-0.81890676
a 2.6656811	Node	11.08336	+0.68444182	+0.45123821
e 0.1853041	Incl.	11.73271	+0.45130449	+0.35464883
P 4.35	B(1,0)	14.5		

Residuals in seconds of arc

531006 210(16.1+ 35.3-)X	751108 095	0.2+	2.9-	830711 474	0.4-	0.2-
531008 760 1.1- 1.1+	751112 095	0.1+	1.7-	830711 474	0.0	0.3+
531008 760 5.6- 0.1-	751127 095	0.5-	0.2-	831005 474	0.4-	1.3-
531008 210 (9.5- 15.5-)X	751128 095	0.5+	0.5+	831005 474	1.3+	0.0
531010 760 1.5+ 0.4+	770315 381	0.8+	0.6+	841224 801	1.6+	1.9+
531010 760 2.8+ 0.3-	770315 381	0.5+	0.1+	850218 801	0.3+	0.7+
531015 760 3.1+ 1.5-	770410 381	3.5-	2.8-			
531015 760 0.5+ 0.6-	770410 381	2.0-	2.7-			

(3239)* 1978 UJ2 = 1977 EK4 = 1981 QQ1 = 1981 SC1

Discovered 1978 Oct. 29 at the Purple Mountain Observatory. The identification 1978 UJ2 = 1977 EK4 is by K. Hurukawa (JAM 1849).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 118.41837		(1950.0)	P	Q
n 0.30521843	Peri.	238.84701	+0.88349273	+0.46548005
a 2.1847188	Node	93.36520	-0.40982295	+0.82244958
e 0.2210929	Incl.	3.02155	-0.22690471	+0.32696332
P 3.23	B(1,0)	15.5		

Residuals in seconds of arc

770315 381	0.4+	1.7-	810830 704	2.6-	2.8+	810926 688	0.9+	1.4-
770315 381	1.8-	2.2-	810830 688	1.4+	1.6-	810926 688	0.8+	2.0-
781029 330	1.9-	1.2+	810830 688	0.2+	1.1-	811004 688	2.1+	1.4-
781101 095	1.1+	1.1+	810831 704	0.9+	1.4+	811004 688	1.7+	1.9-
781103 330	4.1+	0.4-	810901 704	0.3-	1.3+	830214 801	0.3-	0.0
781107 330	3.7-	1.2-	810902 704	1.9-	2.6+			
810829 704	1.2-	3.2-	810903 704	0.2-	0.9+			

(3240)* 1978 VG6 = 1978 WS12 = 1976 SL2 = 1976 SA9

Discovered 1978 Nov. 7 by E. Helin and S. J. Bus at Palomar. The double designation 1978 VG6 = 1978 WS12 is by J. G. Williams (MPC 5126). The identifications 1978 VG6 = 1976 SL2 = 1976 SA9 are by K. Hurukawa.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 319.92952		(1950.0)	P	Q
n 0.08171370	Peri.	12.88378	+0.62161754	+0.78246592
a 5.2594394	Node	295.56268	-0.72219790	+0.55439796
e 0.1266778	Incl.	2.32448	-0.30335101	+0.28353127
P 12.06	B(1,0)	11.5		

Residuals in seconds of arc

760924 095	2.6-	1.1+	781108 675	0.0	0.3-	810128 675	0.7+	0.1-
760929 095	1.5+	1.1+	781129 675	0.8+	0.8+	810129 675	0.3-	0.2-
781105 675	1.0-	0.2+	781130 675	0.4+	0.2-	810201 675	0.6+	0.6+
781106 675	0.5+	0.3-	791220 675	3.3-	0.2-	840507 801	1.0+	2.5+
781107 675	0.2+	0.4+	791220 675	1.6+	0.5+			

(3241)* 1978 WH14 = 1980 DT4

Discovered 1978 Nov. 28 at the Purple Mountain Observatory.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 101.91257		(1950.0)	P	Q
n 0.18572015	Peri.	312.75220	+0.18015862	-0.98336906
a 3.0424962	Node	126.85468	+0.91060941	+0.15790312
e 0.1625148	Incl.	1.64586	+0.37193194	+0.08973238
P 5.31	B(1,0)	13.5		

Residuals in seconds of arc

781031	330	0.8-	1.5+	831006	046	0.3+	0.3-	850213 046	2.0- 2.3-
781128	330	1.7-	1.4+	831006	046	0.5+	1.0-	850213 046	0.1- 1.9-
781202	330	1.3+	1.1+	831007	046	0.1+	1.5-	850215 046	1.2- 1.6+
781206	330	0.8-	1.5-	831007	046	1.8-	2.6-	850215 046	0.6- 0.9+
781223	330	0.1-	1.8+	831012	688	0.8+	0.9+	850216 046	0.9+ 2.0+
781229	330	0.9+	0.6+	831012	688	0.3-	0.8+	850216 046	1.0- 0.1+
800221	095	0.1-	0.8-	831104	688	0.4-	0.4+	850221 801	1.0+ 0.9+
830910	688	1.0+	0.2+	831104	688	0.7+	0.5+	850225 688	1.4+ 0.5-
830910	688	0.9+	0.7-	840202	801	0.8+	1.5+	850225 688	0.7+ 1.4-
831005	046	1.2-	2.2-	850212	046	0.1+	1.2-	850318 688	1.6+ 1.3-
831005	046	1.5+	1.5-	850212	046	2.7-	0.1+	850318 688	1.0+ 0.8-

(3242)* 1979 SG9 = 1981 EE2

Discovered 1979 Sept. 22 by N. S. Chernykh at the Crimean Astrophysical Observatory. The identification is by G. R. Kastel' (MPC 7156).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	101.90867		(1950.0)	P	Q
n	0.22468199	Peri.	242.58507	+0.28395529	-0.95793862
a	2.6797269	Node	191.15731	+0.93791642	+0.28649315
e	0.1608161	Incl.	12.38696	+0.19920385	+0.01659158
P	4.39	B(1,0)	14.0		

Residuals in seconds of arc

790922	095	0.7-	3.2+	810309	809	0.3-	0.1-	810314 809	0.5- 0.7+
790928	095	0.6+	1.1-	810309	809	1.3+	0.0	810314 809	0.5+ 0.1+
791016	095	0.2+	2.5-	810309	809	0.2+	0.0	810314 809	0.1+ 0.2+
810305	809	1.4-	0.0	810310	809	0.0	0.2-	830816 801	0.4+ 0.2+
810305	809	0.8-	1.0-	810310	809	0.4+	0.8-	831004 801	0.4- 0.1-
810305	809	1.1-	0.4-	810310	809	0.6+	0.1-	841224 801	0.2- 0.2+
810306	809	0.5+	0.7-	810312	809	0.0	0.7+	850217 801	0.1- 0.7+
810306	809	0.2+	0.2+	810312	809	0.2-	0.4+	850219 801	0.4+ 0.0
810306	809	0.3+	0.1+	810312	809	0.0	0.0		

(3243)* 1980 DC

Discovered 1980 Feb. 19 at the Harvard College Observatory's Agassiz Station.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	288.58216		(1950.0)	P	Q
n	0.18597633	Peri.	288.33119	+0.13736057	+0.99007252
a	3.0397015	Node	349.43010	-0.83628093	+0.09979219
e	0.0975101	Incl.	9.35182	-0.53081661	+0.09898450
P	5.30	B(1,0)	12.5		

Residuals in seconds of arc

800219	801	2.0+	2.5+	800313	801	0.0	0.2+	831206 801	0.2+ 0.3-
800222	801	0.2-	0.9+	800417	801	0.9-	0.8-	840104 801	0.7+ 0.1+
800225	801	0.3-	0.5+	800420	801	1.2+	0.2-	840201 801	1.0- 0.5-
800310	801	0.4-	1.9+	820928	675	0.9-	1.0+	850123 801	1.0- 0.5+
800312	801	1.1+	1.0-	820929	675	0.9-	1.8+	850217 801	0.2+ 1.8-

(3244)* 4008 P-L = A923 RD = 1957 XC

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels. The key identification 4008 P-L = A923 RD is by E. Bowell (MPC 6106).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	159.44761		(1950.0)	P	Q
n	0.29326030	Peri.	57.90813	+0.86681143	-0.49771954
a	2.2437124	Node	331.90705	+0.43310808	+0.78154765
e	0.1639575	Incl.	3.67939	+0.24709379	+0.37610973
P	3.36	B(1,0)	15.5		

Residuals in seconds of arc

230911	024	0.9-	0.3-	600926	675	0.7+	0.3-	820223	801	0.2+	1.6-
231015	024	1.5+	2.3-	600928	675	0.5-	0.4-	820419	801	0.2-	0.7+
571215	760	1.8-	0.2-	601017	675	0.6-	0.4-	841221	801	1.0-	1.1+
571215	760	2.8+	0.3-	601022	675	0.2-	1.2+	850221	801	0.5-	0.2-
600924	675	0.3-	0.6-	601024	675	0.5+	1.4+				
600925	675	0.0	0.4+	601026	675	0.0	0.9+				

1976 GO8 = 1984 SN5

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M 177.53687		(1950.0)	P	Q
n 0.26507933	Peri.	266.04303	-0.27039545	+0.96197519
a 2.4000466	Node	348.05348	-0.79259545	-0.24518747
e 0.2368533	Incl.	10.74737	-0.54651509	-0.12036125
P 3.72	B(1,0)	15.5		

Residuals in seconds of arc

760405	808	0.2+	0.0	840922	809	0.3-	0.2-	840927	809	0.5+	0.4-
760405	808	0.7-	0.8-	840923	809	1.6+	0.6+	840927	809	0.3+	0.1-
760423	808	0.4-	0.8+	840923	809	1.1+	0.4+	840927	809	0.4+	0.1+
760423	808	1.0-	2.5+	840923	809	1.5+	0.3+	840928	809	0.2+	0.0
760426	808	0.3+	0.6-	840924	809	0.1-	0.3+	840928	809	0.3-	0.2-
760426	808	0.3-	0.2-	840924	809	0.4-	0.4+	840928	809	0.2+	0.1-
760427	808	0.8+	1.2-	840924	809	0.8-	0.5+	840929	809	0.8-	0.3+
760427	808	1.1+	0.7-	840924	809	0.3-	0.4-	840929	809	0.6-	0.2+
840918	809	0.6-	0.2-	840924	809	0.3-	0.2-	840929	809	0.8-	0.4+
840918	809	0.2-	0.1-	840924	809	0.4-	0.0	840929	809	0.3-	0.4+
840918	809	0.3+	0.0	840926	809	0.1+	0.8+	840929	809	0.3-	0.3+
840921	809	0.4-	0.3-	840926	809	0.2+	1.0+	840930	809	0.9-	0.3+
840921	809	0.6-	0.4-	840926	809	1.0+	0.5+	841001	809	2.1+	0.4-
840921	809	0.5-	0.2-	840926	809	0.8-	0.7-	841001	809	1.6+	0.7-
840922	809	0.1-	0.3-	840926	809	0.7-	0.7-	841001	809	1.0+	0.6-
840922	809	0.3-	0.3-	840926	809	1.2-	0.8-				

1977 EN1 = 1982 BP3 = 1984 SP5

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M 152.88313		(1950.0)	P	Q
n 0.17828708	Peri.	182.15505	-0.27138567	+0.96171285
a 3.1264896	Node	72.09993	-0.88240468	-0.23277048
e 0.1470859	Incl.	2.29985	-0.38433292	-0.14465927
P 5.53	B(1,0)	14.0		

Residuals in seconds of arc

770313	095	0.4+	0.2-	840922	809	0.3+	0.8-	840927	809	0.7-	0.8-
770315	381	0.3-	0.1+	840922	809	0.4+	0.6-	840927	809	0.7-	0.8-
770315	381	0.6-	0.2+	840922	809	0.7+	0.3-	840927	809	0.9-	0.9-
770322	095	1.0+	1.9-	840922	809	1.1+	0.0	840928	809	1.1+	0.5-
770325	095	1.5+	0.0	840922	809	0.5+	0.2+	840928	809	0.9+	0.5-
770410	381	1.8-	0.1-	840922	809	0.5+	0.5+	840928	809	0.9+	0.5-
770410	381	0.4-	1.3+	840923	809	0.3+	0.4+	840929	809	1.2-	1.5+
820120	033	0.2-	0.2-	840923	809	0.3+	0.7+	840929	809	1.1-	1.1+
820120	033	0.1+	0.1-	840923	809	0.4+	0.8+	840929	809	1.1-	1.3+
840918	809	1.0-	0.6-	840924	809	0.6+	0.0	840930	809	0.2-	0.8-
840918	809	0.4-	0.5-	840924	809	0.6+	0.3+	840930	809	0.3-	0.6-
840918	809	0.6-	0.4-	840924	809	0.6+	0.5+	840930	809	0.2-	0.8-
840921	809	0.1-	0.3+	840926	809	0.2-	0.1+	841001	809	0.2-	0.5-
840921	809	0.1-	0.5+	840926	809	0.0	0.1+	841001	809	0.3-	0.0
840921	809	0.0	0.7+	840926	809	0.1+	0.1-				

1980 OA
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M 177.10183		(1950.0)	P	Q
n 0.28828448	Peri.	289.79866	+0.97822412	+0.20467368
a 2.2694611	Node	58.40475	-0.17205119	+0.89247765
e 0.0803565	Incl.	2.31744	-0.11608601	+0.40198548
P 3.42	B(1,0)	14.0		

Residuals in seconds of arc

800717 688	1.0+	2.7+	800806 688	0.0	0.1-	841223 552	1.6-	0.6-
800717 688	0.0	1.5+	800904 688	2.4-	0.4-	841223 552	2.9+	0.3+
800719 688	0.9+	2.3-	820118 688	0.6+	1.2+	850320 801	2.5-	0.2+

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ORBITAL ELEMENTS BY D. W. E. GREEN, SMITHSONIAN ASTROPHYSICAL OBSERVATORY.

With reference to the remarks on MPC 9533, it should be noted that the Flagstaff observations have been used precisely as published.

(3245)* 1973 UL5 = 1981 EJ39

Discovered 1973 Oct. 27 at Tautenburg. The identification was found independently by F. N. Bowman, T. Furuta and O. Kippes (MPC 9030).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 27.10186		(1950.0)	P	Q
n 0.17788500	Peri.	87.02105	+0.24721234	-0.96896065
a 3.1311929	Node	348.66614	+0.88663346	+0.22668371
e 0.1530485	Incl.	0.33331	+0.39085440	+0.09863948
P 5.54	B(1,0)	14.0		

Residuals in seconds of arc

731027 033	1.4-	1.3-	810302 413	0.2+	1.7-	840927 033	0.2+	1.2-
731027 033	3.0-	1.3-	810303 413	1.6-	0.1+	840927 033	0.0	0.4-
731028 033	1.0-	0.8-	810303 413	1.0-	0.3+	841003 801	0.1+	0.7-
731031 033	0.4+	0.4+	810307 413	0.1-	0.8+	841019 801	(0.4+	5.6+)
731102 033	1.9+	1.2+	810311 413	1.9+	0.1-	841021 801	0.2-	1.1+
731103 033	3.3+	1.6+	810311 413	3.3+	0.9-			
810302 413	3.3-	1.0+	810316 413	(8.0+	2.6-)			

(3246)* 1976 GQ3 = 1971 MF = 1982 JE4

Discovered 1976 Apr. 1 by N. S. Chernykh at the Crimean Astrophysical Observatory. The identifications are by D. W. E. Green; the identification 1976 GQ3 = 1971 MF was independently suggested by T. Urata (MPC 8796).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 267.35929		(1950.0)	P	Q
n 0.17258299	Peri.	349.17221	-0.98983283	+0.09067416
a 3.1949989	Node	197.21978	-0.08616381	-0.99525398
e 0.0346330	Incl.	21.72653	-0.11316698	-0.03532286
P 5.71	B(1,0)	13.0		

Residuals in seconds of arc

710628 095	0.3+	0.3+	760503 095	0.8+	0.5-	841018 801	0.7-	0.9+
760401 095	1.7-	1.7-	760523 095	0.8+	1.5-	841026 688	0.3+	3.3-
760402 095	1.0+	3.3-	760525 095	0.6-	0.9-	841026 688	0.2+	3.4-
760404 095	(0.7-	4.7-)	820515 095	2.4+	1.4+	841031 688	1.8+	1.3-
760405 095	0.9-	0.9-	820523 095	0.2+	1.9+	841031 688	0.5-	2.2-
760423 095	0.3+	2.7-	820526 095	2.5-	1.9-	841124 801	1.3-	1.0-

1981 FB
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	77.38605		(1950.0)	P	Q
n	0.23212694	Peri.	299.42070	-0.66398568	-0.74610471
a	2.6221239	Node	192.56591	+0.74033133	-0.64665988
e	0.1468190	Incl.	13.15259	+0.10503583	-0.15861515
P	4.25	B(1,0)	14.0		

Residuals in seconds of arc

810301	413	1.3-	1.0+	810401	688	3.1+	1.8-	850119	688	1.2-	1.5-
810306	413	1.1-	1.5+	810405	688	1.7+	2.1-	850119	688	2.0+	0.2-
810306	413	0.1-	0.3+	810405	688	0.3+	0.8-	850225	688	2.0-	1.5-
810308	413	0.2-	0.8+	810409	688	2.8-	1.2-	850225	688	1.0+	2.0+
810308	413	0.4-	0.4+	810409	688	0.9-	0.8+	850318	688	0.2+	0.4+
810330	688	0.0	0.1-	810502	688	2.2-	0.3+	850318	688	0.2-	0.9+
810330	688	2.1+	0.3-	810502	688	0.6-	0.8-				

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ORBITAL ELEMENTS BY H. OISHI, NIIZA, JAPAN.

The following orbital elements are from JAM 1844 and 1860.

1976 SP4 = 1972 VK1 = 1972 YA1 = 1981 YW = 1982 AP
The identifications are by T. Furuta (JAM 1842).
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	5.30799		(1950.0)	P	Q
n	0.22290539	Peri.	18.85797	+0.79044297	-0.61225357
a	2.6939521	Node	18.93121	+0.55433801	+0.70210300
e	0.1390717	Incl.	3.28437	+0.26059410	+0.36358898
P	4.42	B(1,0)	13.1		

Residuals in seconds of arc

721109	095	3.5+	2.1+	760924	095	1.1-	0.0	811228	046	1.4-	1.0-
721109	095	4.9-	2.2+	760929	095	2.0+	0.8-	811228	046	1.0-	0.7-
721230	095	1.0+	0.6-	761026	095	0.1-	1.0-	820115	330	2.4+	0.9-

1978 NT1 = 1978 RF1 = 1936 FT = 1950 TC4 = 1952 CB = 1962 TH
= 1970 PP = 1974 OR
The identifications are by H. Oishi.
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	192.31490		(1950.0)	P	Q
n	0.24297831	Peri.	277.49044	+0.53713570	-0.82614091
a	2.5434619	Node	138.50986	+0.83907788	+0.50270079
e	0.0853508	Incl.	14.88894	+0.08621801	+0.25452527
P	4.06	B(1,0)	12.9		

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

360318	012(63.9+ | 4.9+)		520217	711	2.2-	0.6-	Y	780708	095	0.5-	1.4-
360327	012(85.8+	5.8-)		621004	760(0.04-	0.00)		X	780824	809 (0.6-	0.3+)	
501007	711	0.1+	1.1-	Y	700809	095	1.1+	0.6+		780824	809 (0.6- | 0.6+)
501008	711	0.3-	0.4+	Y	740725	095	0.0	4.5+		780824	414	0.5-	0.2+
520201	711	1.4+	2.0+	Y	740727	095	0.2+	1.5+		780824	414	0.5-	0.7-
520217	711	1.0+	1.0+	Y	780704	095	1.1+	2.3-		780905	095	0.9-	0.4+

EPHEMERIDES.

Periodic Comet Wild 2 (1983s) Elements MPC 7658

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	m2
1985	03 16	19 36.84	-19 31.1	2.762	2.460	62.1	20.9	19.1
1985	03 26	19 49.91	-18 58.3					
1985	04 05	20 01.17	-18 26.6	2.635	2.584	76.1	22.1	19.2
1985	04 15	20 10.49	-17 58.0					
1985	04 25	20 17.72	-17 34.3	2.484	2.706	91.6	21.8	19.3
1985	05 05	20 22.70	-17 17.2					
1985	05 15	20 25.29	-17 08.2	2.329	2.827	109.1	19.8	19.3
1985	05 25	20 25.36	-17 08.4					
1985	06 04	20 22.88	-17 18.2	2.199	2.944	128.9	15.6	19.4
1985	06 14	20 17.98	-17 37.0					
1985	06 24	20 10.94	-18 03.4	2.130	3.059	150.9	9.3	19.5
1985	07 04	20 02.33	-18 34.9					
1985	07 14	19 52.89	-19 08.2	2.157	3.170	174.2	1.9	19.7
1985	07 24	19 43.47	-19 40.7					
1985	08 03	19 34.91	-20 09.8	2.299	3.279	162.0	5.5	20.0
1985	08 13	19 27.87	-20 34.3					
1985	08 23	19 22.79	-20 53.7	2.547	3.384	139.9	11.1	20.3
1985	09 02	19 19.89	-21 08.0					
1985	09 12	19 19.15	-21 17.3	2.876	3.486	119.7	14.5	20.7

Comet Shoemaker (1984s) Elements MPC 9425

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	m2
1985	05 15	09 57.38	-00 03.9	1.859	2.232	97.7	26.7	15.8
1985	05 25	10 13.89	-00 15.7					
1985	06 04	10 29.77	-00 39.4	2.289	2.448	86.6	24.4	16.7
1985	06 14	10 45.11	-01 12.6					
1985	06 24	10 59.98	-01 53.6	2.737	2.663	75.1	21.6	17.4
1985	07 04	11 14.44	-02 40.6					
1985	07 14	11 28.51	-03 32.2	3.186	2.877	63.3	18.4	18.1
1985	07 24	11 42.26	-04 27.5					
1985	08 03	11 55.69	-05 25.3	3.620	3.088	51.3	14.8	18.7
1985	08 13	12 08.84	-06 24.8					
1985	08 23	12 21.71	-07 25.3	4.023	3.297	38.8	11.1	19.2

Periodic Comet Holmes Elements MPC 8273

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	m2
1985	05 15	18 49.22	-46 15.2	2.253	3.004	130.0	14.9	20.5
1985	05 25	18 46.04	-46 56.0					
1985	06 04	18 39.63	-47 27.4	2.026	2.923	146.1	11.2	20.2
1985	06 14	18 30.39	-47 43.2					
1985	06 24	18 19.17	-47 37.1	1.886	2.843	155.7	8.5	19.9
1985	07 04	18 07.34	-47 05.6					
1985	07 14	17 56.38	-46 08.9	1.843	2.765	149.0	10.9	19.7
1985	07 24	17 47.64	-44 51.2					
1985	08 03	17 42.03	-43 19.3	1.892	2.687	132.9	16.1	19.7
1985	08 13	17 39.91	-41 40.2					
1985	08 23	17 41.31	-39 59.5	2.009	2.612	115.7	20.4	19.7
1985	09 02	17 45.97	-38 20.9					
1985	09 12	17 53.50	-36 45.8	2.169	2.540	99.7	23.0	19.7
1985	09 22	18 03.55	-35 14.4					
1985	10 02	18 15.72	-33 45.5	2.347	2.472	85.2	23.8	19.8
1985	10 12	18 29.65	-32 17.7					
1985	10 22	18 45.06	-30 49.2	2.525	2.409	71.9	23.1	19.8
1985	11 01	19 01.66	-29 18.3					
1985	11 11	19 19.20	-27 43.2	2.690	2.351	59.6	21.3	19.9

1985 11 21	19 37.49	-26 02.8						
1985 12 01	19 56.31	-24 15.8	2.835	2.299	48.2	18.6	19.9	
1985 12 11	20 15.53	-22 21.6						
1985 12 21	20 35.01	-20 19.7	2.955	2.255	37.4	15.4	19.9	

Periodic Comet Boethin — Elements MPC 8273

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		m2
1985 05 15	19 59.09	-27 35.7	2.522	3.116	-0.97	-2.3	20.9	
1985 05 25	20 00.64	-27 59.1						
1985 06 04	19 59.78	-28 30.7	2.130	2.945	-1.17	-2.6	20.3	
1985 06 14	19 56.20	-29 09.9						
1985 06 24	19 49.68	-29 54.7	1.809	2.771	-1.37	-2.3	19.7	
1985 07 04	19 40.30	-30 41.0						
1985 07 14	19 28.50	-31 23.3	1.584	2.592	-1.48	-1.2	19.1	
1985 07 24	19 15.23	-31 55.4						
1985 08 03	19 01.91	-32 12.6	1.467	2.408	-1.41	+0.3	18.6	
1985 08 13	18 50.07	-32 13.5						
1985 08 23	18 41.10	-31 59.9	1.442	2.222	-1.21	+1.2	18.3	
1985 09 02	18 35.95	-31 35.3						
1985 09 12	18 35.03	-31 03.3	1.472	2.032	-1.04	+1.0	17.9	
1985 09 22	18 38.44	-30 26.0						
1985 10 02	18 46.02	-29 43.7	1.516	1.842	-0.97	+0.1	17.6	
1985 10 12	18 57.49	-28 55.3						
1985 10 22	19 12.59	-27 58.0	1.544	1.655	-1.02	-1.4	17.1	
1985 11 01	19 31.03	-26 48.3						
1985 11 11	19 52.54	-25 21.9	1.542	1.477	-1.16	-3.6	16.6	
1985 11 21	20 16.91	-23 34.1						
1985 12 01	20 43.87	-21 20.2	1.507	1.318	-1.37	-6.9	16.1	
1985 12 11	21 13.21	-18 36.0						
1985 12 21	21 44.74	-15 18.3	1.450	1.193	-1.63	-11.5	15.6	
1985 12 31	22 18.24	-11 25.9						
1986 01 10	22 53.57	-07 00.7	1.393	1.123	-1.93	-16.8	15.2	
1986 01 20	23 30.62	-02 08.6						
1986 01 30	00 09.25	+02 59.8	1.370	1.124	-2.24	-20.9	15.2	
1986 02 09	00 49.31	+08 09.8						
1986 02 19	01 30.53	+13 04.8	1.414	1.194	-2.53	-21.2	15.5	
1986 03 01	02 12.43	+17 28.6						
1986 03 11	02 54.41	+21 09.3	1.544	1.319	-2.68	-16.8	16.1	
1986 03 21	03 35.76	+24 00.9						
1986 03 31	04 15.74	+26 03.0	1.755	1.478	-2.56	-9.9	16.9	
1986 04 10	04 53.80	+27 19.7						
1986 04 20	05 29.57	+27 57.4	2.028	1.656	-2.22	-3.9	17.7	
1986 04 30	06 02.88	+28 03.2						
1986 05 10	06 33.73	+27 43.8	2.339	1.843	-1.80	+0.1	18.5	
1986 05 20	07 02.26	+27 05.0						
1986 05 30	07 28.64	+26 11.5	2.667	2.033	-1.41	+2.2	19.2	
1986 06 09	07 53.08	+25 07.1						
1986 06 19	08 15.80	+23 54.7	2.990	2.223	-1.09	+3.2	19.8	

Periodic Comet Whipple — Elements MPC 8274

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	m2
1985 06 04	21 54.07	-03 51.4	3.204	3.578	103.4	16.0	20.6	
1985 06 14	21 56.96	-03 24.7						
1985 06 24	21 58.28	-03 07.5	2.903	3.535	121.0	14.3	20.3	
1985 07 04	21 57.94	-03 01.4						
1985 07 14	21 55.94	-03 07.6	2.651	3.493	140.2	10.7	20.0	
1985 07 24	21 52.40	-03 26.7						
1985 08 03	21 47.57	-03 58.2	2.480	3.453	160.4	5.7	19.9	
1985 08 13	21 41.87	-04 40.7						

1985 08 23	21 35.84	-05 31.3	2.412	3.413	170.4	2.8	19.7
1985 09 02	21 30.11	-06 26.2					
1985 09 12	21 25.27	-07 21.4	2.455	3.375	151.7	8.1	19.7
1985 09 22	21 21.83	-08 13.1					
1985 10 02	21 20.14	-08 58.0	2.595	3.339	131.1	13.1	19.8
1985 10 12	21 20.37	-09 34.1					
1985 10 22	21 22.57	-09 59.9	2.803	3.304	111.7	16.2	19.9
1985 11 01	21 26.67	-10 14.8					
1985 11 11	21 32.51	-10 18.9	3.049	3.271	94.0	17.6	20.1
1985 11 21	21 39.93	-10 12.1					
1985 12 01	21 48.71	-09 55.0	3.302	3.240	77.8	17.3	20.2
1985 12 11	21 58.68	-09 28.2					
1985 12 21	22 09.64	-08 52.4	3.542	3.212	62.7	15.8	20.3
1985 12 31	22 21.43	-08 08.3					
1986 01 10	22 33.92	-07 16.8	3.751	3.185	48.5	13.4	20.4
1986 01 20	22 46.97	-06 18.7					
1986 01 30	23 00.46	-05 14.9	3.918	3.162	35.0	10.3	20.5

1975 VG9 a,e,i = 2.61, 0.13, 12 Elements MPC 9584

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 03 16	09 10.30	+08 28.2	1.409	2.277	141.9	15.6	15.9
1985 03 26	09 07.36	+08 10.7					
1985 04 05	09 07.70	+07 47.5	1.588	2.281	122.0	21.8	16.3
1985 04 15	09 11.04	+07 17.5					
1985 04 25	09 17.02	+06 39.9	1.809	2.288	105.1	25.1	16.7
1985 05 05	09 25.24	+05 54.3					
1985 05 15	09 35.28	+05 00.6	2.049	2.298	90.8	26.1	17.0
1985 05 25	09 46.83	+03 58.8					
1985 06 04	09 59.59	+02 49.0	2.292	2.311	78.3	25.5	17.2
1985 06 14	10 13.32	+01 31.8					
1985 06 24	10 27.84	+00 07.7	2.527	2.326	67.0	23.7	17.4

1981 FB a,e,i = 2.62, 0.15, 13 Elements MPC 9595

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 03 16	09 19.03	+01 47.8	1.375	2.260	144.5	14.8	16.8
1985 03 26	09 18.05	+03 31.3					
1985 04 05	09 20.05	+04 58.8	1.542	2.274	125.5	21.0	17.2
1985 04 15	09 24.82	+06 07.3					
1985 04 25	09 32.06	+06 55.8	1.761	2.291	108.7	24.6	17.6
1985 05 05	09 41.40	+07 24.8					
1985 05 15	09 52.45	+07 35.6	2.008	2.310	94.0	25.9	17.9
1985 05 25	10 04.90	+07 29.9					
1985 06 04	10 18.45	+07 09.3	2.264	2.332	81.0	25.4	18.2
1985 06 14	10 32.85	+06 35.7					
1985 06 24	10 47.93	+05 50.7	2.517	2.356	69.2	23.8	18.4

1981 EE27 a,e,i = 2.61, 0.13, 13 Elements MPC 9589

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 03 16	09 24.63	+05 45.8	1.381	2.274	145.8	14.3	16.8
1985 03 26	09 23.12	+07 24.6					
1985 04 05	09 24.59	+08 45.3	1.543	2.278	125.8	20.9	17.2
1985 04 15	09 28.90	+09 45.8					
1985 04 25	09 35.75	+10 25.7	1.756	2.284	108.5	24.7	17.6
1985 05 05	09 44.80	+10 46.0					
1985 05 15	09 55.64	+10 48.3	1.996	2.294	93.7	26.1	17.9
1985 05 25	10 07.96	+10 34.3					
1985 06 04	10 21.46	+10 05.7	2.243	2.306	80.7	25.7	18.2
1985 06 14	10 35.88	+09 24.4					
1985 06 24	10 51.03	+08 32.0	2.485	2.321	68.9	24.1	18.4

1938 DB1 a,e,i = 2.24, 0.09, 4 Elements MPC 9588

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	03 16	10 06.23	+18 32.0	1.180	2.108	151.5	13.0	16.3
1985	03 26	10 01.08	+18 47.2					
1985	04 05	09 59.25	+18 40.0	1.336	2.126	130.5	21.0	16.7
1985	04 15	10 00.70	+18 13.1					
1985	04 25	10 05.14	+17 29.4	1.544	2.145	112.8	25.6	17.2
1985	05 05	10 12.16	+16 31.7					
1985	05 15	10 21.27	+15 22.3	1.781	2.165	97.9	27.5	17.6
1985	05 25	10 32.10	+14 02.7					
1985	06 04	10 44.27	+12 34.6	2.027	2.186	85.0	27.5	17.9
1985	06 14	10 57.51	+10 59.3					
1985	06 24	11 11.61	+09 17.7	2.272	2.207	73.3	26.2	18.1

A919 SD a,e,i = 2.24, 0.20, 4 Elements MPC 9583

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	03 16	10 57.70	+02 29.1	1.638	2.622	169.1	4.1	17.2
1985	03 26	10 48.30	+03 19.1					
1985	04 05	10 40.74	+04 01.5	1.716	2.601	145.3	12.6	17.5
1985	04 15	10 35.65	+04 32.4					
1985	04 25	10 33.30	+04 49.4	1.879	2.578	123.8	18.9	17.9
1985	05 05	10 33.68	+04 51.8					
1985	05 15	10 36.59	+04 39.9	2.091	2.551	105.3	22.5	18.2
1985	05 25	10 41.74	+04 14.7					
1985	06 04	10 48.85	+03 37.2	2.320	2.522	89.4	23.7	18.4
1985	06 14	10 57.60	+02 48.6					
1985	06 24	11 07.78	+01 49.9	2.545	2.490	75.4	23.3	18.5

1978 NT1 a,e,i = 2.54, 0.09, 15 Elements MPC 9595

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	03 16	13 44.05	+08 42.0	1.791	2.691	148.7	11.1	16.6
1985	03 26	13 38.00	+10 21.8					
1985	04 05	13 30.42	+11 52.5	1.741	2.703	160.2	7.2	16.4
1985	04 15	13 22.20	+13 05.9					
1985	04 25	13 14.28	+13 55.6	1.796	2.714	150.0	10.7	16.6
1985	05 05	13 07.57	+14 18.9					
1985	05 15	13 02.70	+14 16.4	1.943	2.724	131.9	16.0	16.9
1985	05 25	13 00.02	+13 50.9					
1985	06 04	12 59.63	+13 05.9	2.155	2.733	114.3	19.8	17.2
1985	06 14	13 01.44	+12 05.7					
1985	06 24	13 05.27	+10 53.4	2.402	2.741	98.4	21.5	17.5
1985	07 04	13 10.91	+09 32.2					
1985	07 14	13 18.12	+08 04.6	2.660	2.747	84.1	21.6	17.7

1977 QC4 a,e,i = 2.68, 0.18, 14 Elements MPC 9584

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	03 16	14 23.11	+02 34.1	1.942	2.775	139.5	13.4	17.5
1985	03 26	14 19.66	+04 03.9					
1985	04 05	14 14.06	+05 36.0	1.791	2.740	157.0	8.2	17.1
1985	04 15	14 06.86	+07 02.7					
1985	04 25	13 58.82	+08 15.9	1.741	2.703	158.7	7.8	17.0
1985	05 05	13 50.90	+09 08.7					
1985	05 15	13 44.00	+09 37.3	1.794	2.666	142.3	13.4	17.2
1985	05 25	13 38.82	+09 40.8					
1985	06 04	13 35.84	+09 20.7	1.926	2.629	123.8	18.7	17.5
1985	06 14	13 35.22	+08 40.2					
1985	06 24	13 36.95	+07 42.7	2.107	2.591	106.8	22.1	17.7
1985	07 04	13 40.91	+06 31.9					
1985	07 14	13 46.90	+05 10.8	2.310	2.553	91.8	23.5	17.9

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

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 05	17 47.78	-32 17.3	1.605	2.126	107.1	26.7	18.3
1985	04 15	17 57.91	-32 58.5					
1985	04 25	18 05.23	-33 39.8	1.357	2.079	122.6	24.1	17.8
1985	05 05	18 09.22	-34 21.1					
1985	05 15	18 09.39	-35 00.7	1.151	2.034	140.2	18.5	17.3
1985	05 25	18 05.40	-35 34.7					
1985	06 04	17 57.50	-35 56.7	1.008	1.989	159.3	10.4	16.7
1985	06 14	17 46.61	-35 59.8					
1985	06 24	17 34.45	-35 39.0	0.946	1.947	165.7	7.4	16.5
1985	07 04	17 23.22	-34 55.3					
1985	07 14	17 14.84	-33 55.0	0.969	1.908	147.8	16.5	16.7
1985	07 24	17 10.56	-32 47.0					
1985	08 03	17 10.84	-31 39.1	1.061	1.872	128.8	25.0	17.1
1985	08 13	17 15.52	-30 35.8					
1985	08 23	17 24.16	-29 38.3	1.197	1.841	112.7	30.4	17.4
1985	09 02	17 36.22	-28 45.5					
1985	09 12	17 51.11	-27 55.0	1.357	1.815	99.3	33.2	17.7

1981 QF a,e,i = 2.55, 0.25, 4 Elements MPC 6629

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	06 04	22 22.03	-13 09.0	1.683	2.115	-1.57	-10.7	18.9
1985	06 14	22 33.21	-12 01.4					
1985	06 24	22 42.49	-11 01.5	1.439	2.071	-1.85	-13.2	18.5
1985	07 04	22 49.55	-10 11.5					
1985	07 14	22 54.02	-09 33.5	1.225	2.032	-2.23	-16.2	18.0
1985	07 24	22 55.53	-09 09.4					
1985	08 03	22 53.92	-08 59.7	1.060	1.998	-2.65	-18.9	17.5
1985	08 13	22 49.27	-09 03.3					
1985	08 23	22 42.14	-09 16.9	0.965	1.970	-2.96	-20.3	17.0
1985	09 02	22 33.69	-09 34.4					
1985	09 12	22 25.36	-09 49.3	0.957	1.948	-2.92	-19.4	17.0
1985	09 22	22 18.68	-09 55.3					
1985	10 02	22 14.82	-09 48.1	1.034	1.934	-2.57	-17.2	17.4
1985	10 12	22 14.33	-09 26.0					
1985	10 22	22 17.32	-08 48.5	1.176	1.927	-2.15	-14.9	17.9
1985	11 01	22 23.54	-07 56.2					
1985	11 11	22 32.55	-06 50.4	1.361	1.929	-1.81	-13.2	18.3

1978 EA3 a,e,i = 3.18, 0.16, 10 Elements MPC 9210

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 44.36	+00 14.2	2.750	2.934	90.2	20.2	18.0
1985	06 14	22 50.45	+00 57.5					
1985	06 24	22 54.83	+01 29.9	2.515	2.964	106.2	19.2	17.8
1985	07 04	22 57.35	+01 49.4					
1985	07 14	22 57.90	+01 54.2	2.303	2.995	124.2	16.3	17.6
1985	07 24	22 56.40	+01 42.8					
1985	08 03	22 52.98	+01 14.4	2.143	3.026	144.3	11.3	17.3
1985	08 13	22 47.89	+00 29.9					
1985	08 23	22 41.60	-00 28.6	2.067	3.057	165.7	4.7	17.1
1985	09 02	22 34.78	-01 36.8					
1985	09 12	22 28.14	-02 49.0	2.098	3.088	167.4	4.1	17.1
1985	09 22	22 22.41	-03 59.6					
1985	10 02	22 18.17	-05 03.3	2.240	3.120	146.0	10.3	17.5
1985	10 12	22 15.77	-05 56.3					
1985	10 22	22 15.41	-06 36.5	2.470	3.151	125.2	15.0	17.8
1985	11 01	22 17.06	-07 02.8					
1985	11 11	22 20.61	-07 15.5	2.760	3.182	106.3	17.4	18.1