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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

ERRATA.

MPC	Line	
9013	1	Delete V. ZAPPALA AND
9316	11	It should state that the observations of comet 1984u were by E. Helin and R. S. Dunbar (1.2-m Schmidt).
9316	15	Add T. Dadisman assisted.
9347	1	Delete V. ZAPPALA AND
9389	-20	For 9173-9174 read 9253
9401	6	For f/5 read f/3.5
9426	-21	Add The identification 1978 RY = 1979 YS2 is by N. S. Chernykh.

* * * * *

IDENTIFICATION CHANGES.

Continuation to MPC 9389.

Object	Date	UT	R. A. (1950)	Decl.	Old desig.	Mag.	Obs.
A915 JE	* 1915 05	15.85555	13 33.1	+00 01	A915 GD	13.3	094
1967 KG	* 1967 05	20.33437	16 06 12.37	-29 14 37.0	1967 JK		808
1971 SC4	* 1971 09	26.88487	23 10 22.46	+03 32 24.0	1971 QP1	16.5	095
1975 XG7	* 1975 12	01.92080	04 31 50.37	+21 49 08.6	1975 VS1	16.5	095

* * * * *

IDENTIFICATIONS.

The following list of identifications with numbered minor planets continues that on MPC 9253.

	Note		Note		Note
1956 XD = (3176)	1	1979 TT1 = (2761)	2	1985 AD = (2458)	3

Note 1: identification by K. Hurukawa. 2: by H. Oishi (JAM 1788). 3: by T. Urata (NOC 1499).

* * * * *

OBSERVATIONS OF COMETS.

Observations are published here for the following observatory codes:

010 Caussols. 0.14-m Schmidt. Observer D. Albanese. Reduced by R. Chemin.

046 Klet. Observer A. Mrkos.
057 Belgrade. 0.12-m f/8 astrograph. Observer V. Protitch-Benishek.
071 Bulgarian National Observatory. 2-m reflector. Observers V. Shkodrov, T. Bonev and V. Ivanova.
072 Scheuren Observatory, Leverkusen. Observer K. Gussow. Long. and Parallax 7.17, -268, -330 (see MPC 7759).
293 Burlington remote site, New Jersey. Observer T. Handley.
323 Perth Observatory, Bickley. 0.33-m astrograph. Observers M. P. Candy, D. J. Gans, D. N. Harwood, C. Jekabsons, P. Jekabsons, J. Johnston and A. Verveer.
372 Geisei. Observer T. Seki.
381 Tokyo Observatory, Kiso Station. Observer H. Kosai.
415 Kambah, near Canberra. Observer D. Herald.
474 Mt. John University Observatory. Observer A. C. Gilmore. Measured by P. M. Kilmartin (assisted by R. McIntosh and W. M. Kissling).
491 Centro Astronomico de Yebes. Observer M. de Pascual.
493 German-Spanish Astronomical Center, Calar Alto. 0.80-m (80/120/240 cm) Schmidt. Observer and measurer L. Kohoutek. An average of eight reference stars on each plate.
502 Colchester. 0.25-m f/7 reflector. Observer M. J. Hendrie.
552 Osservatorio San Vittore. Observers G. Sassi and C. Vacchi. Measured by Vacchi, V. Goretti and E. Colombini.
657 Victoria. Observers D. D. Balam and J. B. Tatum.
675 Palomar. Observers E. Helin and R. S. Dunbar. Measured by D. Steele.
688 Lowell Observatory, Anderson Mesa Station. 1.8-m reflector and CCD. Observers W. A. Baum, S. J. Bus, T. J. Kreidl and B. A. Skiff. Measured by 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 and J. Huchra (assisted by C. M. Bardwell, D. W. E. Green and B. G. Marsden).
979 South Wonston. 0.40-m f/5 reflector. Observer R. W. Arbour. Measured by M. J. Hendrie. Long. and Parallax 358.75, -268, -330 (see MPC 7759).
984 Eastfield. Observer H. B. Ridley. Measured by D. Buczynski and M. J. Hendrie.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
		Comet Lovas (1975 VIII)					
/1975 VIII	1976	11 14.65280	23 48 15.84	-18 14 21.1			323
		Comet Mori-Sato-Fujikawa (1975 XII)					
/1975 XII	1975	12 13.71736	07 55 30.81	-69 05 59.8			323
		Comet Bradfield (1976 IV)					
/1976 IV	1976	02 29.49792	02 41 00.32	-25 31 13.2			323
/1976 IV	1976	03 10.52083	03 38 11.43	-11 07 17.2			323
		Comet Bradfield (1976 V)					
/1976 V	1976	03 04.86875	21 50 50.96	-48 18 34.2			323
/1976 V	1976	03 05.86684	22 12 24.93	-49 20 56.0			323
		Periodic Comet Kopff					
/1977 V	1977	12 13.57257	00 53 27.37	-00 28 22.2		1	323

Periodic Comet Gehrels 3

/1977 VII	1978	02	03.73159	11	20	05.53	+02	44	35.3	323

Comet West (1977 IX)

/1977 IX	1978	02	04.73611	14	30	58.20	-11	18	15.1	323

Comet Kohler (1977 XIV)

/1977 XIV	1978	01	02.52083	23	56	27.32	-34	15	14.1	323

Comet Bradfield (1978 VII)

/1978 VII	1978	02	28.86719	20	51	23.34	-24	06	10.6	323
/1978 VII	1978	03	12.88692	22	02	08.62	-04	03	05.0	323
/1978 VII	1978	03	12.88762	22	02	08.93	-04	02	57.9	323

Comet Bradfield (1978 XVIII)

/1978 XVIII	1978	10	13.85539	11	06	42.74	-24	09	34.1	323

Periodic Comet Haneda-Campos

/1978 XX	1978	09	06.54670	20	59	09.61	-32	14	35.1	2	323

Comet Bradfield (1979 X)

/1979 X	1980	01	10.79566	16	08	44.26	-46	12	23.5	323
/1979 X	1980	01	17.83356	16	31	20.41	-59	37	45.4	323

Comet Panther (1981 II)

/1981 II	1981	03	05.92088	19	50	32.52	+83	19	17.4	057
/1981 II	1981	03	05.95283	19	50	40.40	+83	21	21.4	057
/1981 II	1981	03	07.94866	20	01	09.93	+85	34	36.1	057
/1981 II	1981	03	08.90769	20	10	23.62	+86	38	51.4	057

Comet Bowell (1982 I)

/1982 I	1984	09	21.24306	23	19	44.22	-06	01	13.8	688

Periodic Comet Churyumov-Gerasimenko

/1982 VIII	1982	11	08.91672	06	10	54.05	+26	49	13.0	057
/1982 VIII	1982	11	09.94311	06	13	29.93	+27	09	43.7	057
/1982 VIII	1982	11	11.92436	06	18	23.73	+27	49	34.4	057
/1982 VIII	1982	11	13.91499	06	23	09.35	+28	29	22.5	057
/1982 VIII	1982	11	20.91325	06	38	20.44	+30	47	11.8	057
/1982 VIII	1982	11	21.93756	06	40	20.69	+31	06	58.4	057
/1982 VIII	1982	11	22.92020	06	42	12.92	+31	25	46.4	057
/1982 VIII	1982	11	23.94867	06	44	06.32	+31	45	18.4	057

Periodic Comet Halley

/1982i	1985	01	23.78927	05	21	09.44	+12	26	44.7		071
/1982i	1985	01	23.87239	05	21	04.34	+12	26	51.7		071
/1982i	1985	01	25.57500	05	19	26.59	+12	29	23.9	19.5T	372
/1982i	1985	01	26.56285	05	18	31.19	+12	30	52.6	19.5T	372
/1982i	1985	01	26.59375	05	18	29.43	+12	30	55.6		372
/1982i	1985	02	16.05005	05	02	34.90	+13	07	15.4		801
/1982i	1985	02	19.07580	05	00	47.82	+13	13	32.2		801

Periodic Comet Tempel 2

/1983 X	1983	12	01.92781	02	16	02.11	-06	33	56.6	3	491

Comet Cernis (1983 XII)

/1983 XII	1983	12	01.76853	23	48	07.63	-30	09	20.9	491
/1983 XII	1983	12	05.88798	23	44	59.00	-30	23	45.6	491

Periodic Comet IRAS

/1983 XIV	1983	11	10.84284	22	37	18.82	+42 05 22.2	4	491
/1983 XIV	1983	11	30.95894	22	37	55.54	+43 04 39.2	4	491
/1983 XIV	1983	12	01.82185	22	38	24.80	+43 07 35.0	5	491

Comet Shoemaker (1983 XV)

/1983 XV	1983	12	01.75433	22	01	18.20	-10 34 45.4		491
/1983 XV	1983	12	01.79346	22	01	17.70	-10 35 14.4		491

Comet IRAS (1983 XVI)

/1983 XVI	1984	03	02.13193	14	22	59.98	-00 47 52.5	5	491
/1983 XVI	1984	03	05.99429	14	16	35.79	+01 52 40.0	5	491
/1983 XVI	1984	03	06.08016	14	16	26.71	+01 56 18.7	5	491
/1983 XVI	1984	04	04.96222	13	08	25.47	+23 14 32.0	4	491
/1983 XVI	1984	04	05.92350	13	05	58.97	+23 48 45.6	4	491

Periodic Comet Crommelin

/1983n	1983	08	09.00764	20	41	30.30	+23 32 21.6	6	493
/1983n	1983	08	09.03608	20	41	28.13	+23 32 25.1	6	493
/1983n	1983	08	10.00347	20	40	14.86	+23 33 35.5	6	493
/1983n	1983	08	18.03981	20	29	51.38	+23 31 52.6		493
/1983n	1983	08	18.06412	20	29	49.54	+23 31 49.6	7	493
/1983n	1983	09	27.86081	19	47	58.05	+18 37 27.3	8	493
/1983n	1984	02	01.79306	23	28	38.75	+04 19 02.0		493
/1983n	1984	02	01.80278	23	28	41.34	+04 18 58.2		493
/1983n	1984	02	05.78750	23	47	05.04	+03 44 13.0		493
/1983n	1984	02	08.80399	00	01	36.85	+03 11 45.3		493
/1983n	1984	02	11.79062	00	16	29.79	+02 33 41.4		493
/1983n	1984	02	12.79201	00	21	35.64	+02 19 30.9		493
/1983n	1984	02	25.12517	01	28	19.73	-01 35 47.3		675

Periodic Comet Hartley-IRAS

/1983v	1984	04	05.12531	20	00	22.15	+66 56 10.2		491
/1983v	1984	04	06.10737	19	56	08.19	+67 46 18.4	4	491

Periodic Comet Clark

/1983w	1984	06	28.05818	20	45	17.75	-36 40 24.9	4	491

Periodic Comet Neujmin 1

/1984c	1985	01	23.98066	00	10	03.75	+11 19 24.1		801

Periodic Comet Wolf-Harrington

/1984g	1985	02	25.31042	09	37	29.68	-20 13 20.1		707

Periodic Comet Faye

/1984h	1984	11	25.42083	09	17	19.02	+03 42 08.7	9	293
/1984h	1985	01	18.39409	09	03	15.97	+02 18 13.0		691
/1984h	1985	01	18.41814	09	03	14.58	+02 18 17.4		691
/1984h	1985	01	18.44141	09	03	13.31	+02 18 23.7		691
/1984h	1985	01	20.32392	09	01	30.58	+02 27 11.2	9	801
/1984h	1985	01	20.35613	09	01	28.91	+02 27 18.1		691
/1984h	1985	01	20.38152	09	01	27.49	+02 27 25.8		691
/1984h	1985	01	20.40588	09	01	26.10	+02 27 32.0		691
/1984h	1985	02	15.19583	08	38	56.16	+05 13 01.5		707
/1984h	1985	02	15.22698	08	38	55.02	+05 13 15.2		691
/1984h	1985	02	15.24117	08	38	54.37	+05 13 21.1		691

Comet Austin (1984i)

/1984i	1984	10	06.14375	06	58	32.65	+44 15 00.1		984

Periodic Comet Takamizawa

/1984j	1984	08	15.47037	21	07	58.37	-21	56	42.7			415
/1984j	1984	09	19.83891	21	12	26.98	-24	44	38.0			071
/1984j	1984	09	19.87491	21	12	27.82	-24	44	36.9			071

Periodic Comet Arend-Rigaux

/1984k	1985	01	18.19193	09	03	48.61	+18	17	37.9			691
/1984k	1985	01	18.21684	09	03	48.58	+18	18	25.3			691
/1984k	1985	01	18.24137	09	03	48.52	+18	19	14.9			691
/1984k	1985	01	20.20299	09	03	48.02	+19	23	12.1			691
/1984k	1985	01	20.22815	09	03	47.91	+19	24	00.8			691
/1984k	1985	01	20.25322	09	03	47.78	+19	24	51.0			691
/1984k	1985	01	20.27702	09	03	46.94	+19	25	37.1			801
/1984k	1985	02	14.23760	09	00	48.07	+30	21	36.5			657
/1984k	1985	02	14.26550	09	00	48.00	+30	22	03.5			657
/1984k	1985	02	15.27128	09	00	46.15	+30	39	52.0			691
/1984k	1985	02	15.62863	09	00	45.74	+30	45	59.2			381

Periodic Comet Schaumasse

/1984m	1984	11	25.22639	11	56	57.2	+09	56	53			010
/1984m	1985	01	23.43059	15	11	21.96	-03	58	28.6			801

Periodic Comet Tsuchinshan 1

/1984p	1985	01	17.33889	10	25	08.59	+25	22	34.6	18	T A	707
/1984p	1985	01	17.45770	10	25	14.89	+25	24	25.7			691
/1984p	1985	01	17.48343	10	25	16.26	+25	24	47.7			691
/1984p	1985	01	17.50963	10	25	17.64	+25	25	10.5			691
/1984p	1985	01	20.43800	10	27	55.99	+26	10	14.7			691
/1984p	1985	01	20.45417	10	27	56.72	+26	10	29.8			691
/1984p	1985	01	20.47153	10	27	57.45	+26	10	46.0			691
/1984p	1985	01	23.36122	10	30	10.93	+26	55	15.6		B	801
/1984p	1985	02	14.25036	10	36	23.82	+31	41	28.3			657
/1984p	1985	02	15.35104	10	36	19.02	+31	51	26.6			691
/1984p	1985	02	16.84387	10	36	11.65	+32	03	47.8			502

Periodic Comet Shoemaker 1

/1984q	1984	11	25.81240	23	01	44.49	+23	11	51.1			979
/1984q	1984	11	25.82899	23	01	45.30	+23	11	56.4			979
/1984q	1985	01	22.02073	00	24	47.59	+29	33	44.3		3	801
/1984q	1985	01	24.00126	00	28	30.63	+29	49	39.6			801

Comet Shoemaker (1984r)

/1984r	1984	11	25.36424	02	39	29.42	+15	19	43.2		9	293
/1984r	1985	01	22.03936	01	50	27.84	+11	06	15.3			801
/1984r	1985	01	24.03066	01	49	45.44	+11	02	13.8			801

Comet Shoemaker (1984s)

/1984s	1984	11	25.98333	02	10	21.95	+03	18	00.9			984
/1984s	1984	12	19.46009	02	56	25.46	-10	43	43.1		C	415
/1984s	1984	12	19.47175	02	56	27.25	-10	44	04.0		C	415
/1984s	1985	01	09.76431	04	11	19.28	-17	51	44.0			046
/1984s	1985	01	09.76894	04	11	20.37	-17	51	49.5			046
/1984s	1985	01	11.76928	04	19	23.45	-18	07	15.4			046
/1984s	1985	01	11.77513	04	19	24.66	-18	07	17.4			046
/1984s	1985	01	15.24424	04	33	30.98	-18	23	48.3			657
/1984s	1985	01	17.11377	04	41	11.37	-18	27	19.1			675
/1984s	1985	01	18.80977	04	48	08.11	-18	27	24.4	10.6T		046
/1984s	1985	01	18.81567	04	48	09.18	-18	27	26.4			046

/1984s	1985	02	08.19514	06 08 21.01	-15 23 42.3			657
/1984s	1985	02	10.16047	06 15 26.91	-14 53 29.3			657

Comet Levy-Rudenko (1984t)

/1984t	1984	11	24.79931	18 43 30.84	+15 25 02.3			984
/1984t	1984	11	25.77083	18 43 08.17	+15 56 13.7			984
/1984t	1984	12	04.15764	18 39 38.31	+20 25 17.9			657
/1984t	1984	12	13.74201	18 34 43.68	+25 37 57.4			072
/1984t	1984	12	25.71458	18 26 30.86	+32 31 33.0		8.0T	552
/1984t	1984	12	25.72569	18 26 30.36	+32 31 57.2			552
/1984t	1984	12	25.72986	18 26 30.01	+32 32 06.3			552
/1984t	1985	01	09.70366	18 10 20.65	+42 55 39.5			046
/1984t	1985	01	09.70690	18 10 20.21	+42 55 48.2			046
/1984t	1985	01	11.70591	18 07 13.63	+44 35 36.2			046
/1984t	1985	01	11.70962	18 07 13.22	+44 35 49.4		8.4T	046
/1984t	1985	02	15.29444	10 50 38.55	+72 19 54.7			707

Comet Hartley (1984v)

/1984v	1985	01	27.42650	04 08 29.91	-19 26 26.4		18 N	474
/1984v	1985	01	30.42537	04 07 15.54	-19 31 18.0			474
/1984v	1985	01	30.45176	04 07 14.94	-19 31 19.6			474

Note 1: correction to IAUC 3166. 2: correction to MPC 4525; time was given as 1978 09 06.55035. 3: inkdot measured. 4: image diffuse and difficult to measure. 5: image very diffuse and very difficult to measure. 6: accurate measurement of position on MPC 8090. 7: guiding error. 8: accurate measurement of position on MPC 8325. 9: image very faint and weak. A: fairly well defined, round image. B: image involved with star. C: poor seeing.

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OBSERVATIONS MADE AT CAUSSOLS.

Plates taken with the 0.9-m Schmidt. Contact: J.-L. Heudier, CERGA, Avenue Copernic, F-06130 Grasse, France.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
1985 BZ *	1985 01	16.99322	08 28 25.73	+18 22 18.6	17	010
1985 BZ	1985 01	17.03488	08 28 22.83	+18 23 08.8		010
1985 BA1 *	1985 01	17.07280	10 46 03.14	+12 20 30.7	17	010
1985 BA1	1985 01	17.15613	10 45 58.25	+12 19 32.5		010

OBSERVATIONS MADE AT ZIMMERWALD BY P. WILD.

Contact: P. Wild. Astronomisches Institut der Universitat, Sidlerstrasse 5, CH-3012, Berne, Switzerland.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
1505	1983 07	11.96597	20 59 42.09	+03 18 18.9	16	026
1747	1983 09	28.82257	23 18 16.31	+44 26 52.5		026

OBSERVATIONS MADE AT HOHER LIST.

Plates obtained and scanned by M. Hoffmann with the 0.30-m astrograph. Measured by M. Geffert. Contact: M. Hoffmann, Observatorium Hoher List, D-5568 Daun, Federal Republic of Germany.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
1980 DC6 *	1980 02	20.94722	08 46 08.12	+15 46 18.5	15.5	017
1980 DC6	1980 02	21.99931	08 45 22.51	+15 51 29.7		017
1980 DD6 *	1980 02	21.99931	08 44 49.46	+15 40 04.7	15.5	017
1980 JA1 *	1980 05	09.97986	15 24 32.50	-14 41 14.5	16.5	017
1980 JA1	1980 05	10.00625	15 24 31.15	-14 41 12.1		017
1980 JB1 *	1980 05	09.97986	15 29 56.80	-15 40 05.1	16.5	017

1980	JB1		1980	05	10.00625	15	29	55.54	-15	39	56.3	017
1980	JB1		1980	05	11.00833	15	29	08.86	-15	33	52.7	017
1980	JB1		1980	05	11.98264	15	28	23.28	-15	28	00.0	017

OBSERVATIONS MADE AT KLET BY A. MRKOS AND Z. VAVROVA.

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.
121		1985	01 18.83205	07	55	40.13	+27	54	43.2			046
121		1985	01 18.84831	07	55	39.31	+27	54	46.0			046
425		1985	01 11.73751	04	44	47.40	+24	39	58.9			046
425		1985	01 11.75181	04	44	47.09	+24	39	58.5			046
576		1985	01 16.94583	08	31	33.01	+18	00	40.0			046
576		1985	01 16.96007	08	31	32.29	+18	00	42.0			046
763		1985	01 18.88546	08	22	29.53	+17	54	23.0			046
763		1985	01 18.89958	08	22	28.44	+17	54	24.4			046
937		1985	01 11.79388	06	19	35.84	+19	48	25.2			046
937		1985	01 11.80800	06	19	34.82	+19	48	24.8			046
984		1985	01 18.83205	07	49	53.77	+25	29	35.6			046
984		1985	01 18.84831	07	49	52.83	+25	29	35.3			046
988		1985	01 11.73751	04	50	11.15	+24	04	29.2			046
988		1985	01 11.75181	04	50	10.93	+24	04	28.4			046
1162		1985	01 18.91822	08	46	37.50	+20	30	40.8			046
1162		1985	01 18.93257	08	46	36.91	+20	30	42.1			046
1333		1985	01 16.90961	08	14	21.95	+21	48	24.7			046
1333		1985	01 16.92373	08	14	21.23	+21	48	33.4			046
1819		1985	01 18.91822	08	48	00.56	+20	10	38.1			046
1819		1985	01 18.93257	08	47	59.86	+20	10	44.5			046
1937		1985	01 11.73751	04	49	47.58	+25	11	01.8			046
1937		1985	01 11.75181	04	49	47.37	+25	11	02.7			046
2025		1985	01 18.91822	08	44	31.48	+22	29	56.1			046
2025		1985	01 18.93257	08	44	30.84	+22	29	57.9			046
2123		1985	01 16.94583	08	29	02.59	+19	18	42.5			046
2123		1985	01 16.96007	08	29	01.80	+19	18	43.7			046
2123		1985	01 18.95352	08	27	13.16	+19	24	28.2			046
2123		1985	01 18.96764	08	27	12.33	+19	24	33.8			046
2240		1985	01 16.90961	08	11	46.74	+21	09	39.0			046
2240		1985	01 16.92373	08	11	46.02	+21	09	41.4			046
2365		1985	01 11.82789	07	30	11.69	+20	25	04.8			046
2365		1985	01 11.84207	07	30	10.65	+20	25	04.4			046
2945		1985	01 18.91822	08	47	56.26	+19	53	53.0			046
2945		1985	01 18.93257	08	47	55.67	+19	53	58.4			046
1984	YP	1985	01 11.82789	07	36	58.25	+22	12	05.8	16.8		046
1984	YP	1985	01 11.84207	07	36	57.50	+22	12	06.2			046
1985	BC *	1985	01 16.90961	08	11	03.02	+22	31	47.3	16.8		046
1985	BC	1985	01 16.92373	08	11	02.40	+22	31	50.9			046
1985	BD *	1985	01 16.90961	08	19	18.70	+23	21	20.3	16.7		046
1985	BD	1985	01 16.92373	08	19	17.93	+23	21	20.2			046
1985	BE *	1985	01 16.94583	08	26	14.36	+22	15	04.5	16.5		046
1985	BE	1985	01 16.96007	08	26	13.30	+22	15	14.3		1	046
1985	BE	1985	01 18.95352	08	24	13.80	+22	31	24.7			046
1985	BE	1985	01 18.96764	08	24	13.11	+22	31	32.6			046
1985	BF *	1985	01 16.94583	08	27	46.46	+22	04	33.1	16.7		046
1985	BF	1985	01 16.96007	08	27	45.63	+22	04	36.9			046
1985	BF	1985	01 18.95352	08	25	52.85	+22	13	16.1			046
1985	BF	1985	01 18.96764	08	25	51.88	+22	13	19.8			046
1985	BG *	1985	01 16.94583	08	28	14.70	+18	35	30.9	16.7		046
1985	BG	1985	01 16.96007	08	28	13.98	+18	35	33.8			046

1985	BH	*	1985	01	16.94583	08	31	49.32	+20 40 49.9		16.7	046
1985	BH		1985	01	16.96007	08	31	48.34	+20 40 56.9			046
1985	BH		1985	01	18.95352	08	29	36.92	+20 54 27.8			046
1985	BH		1985	01	18.96764	08	29	36.01	+20 54 33.8			046
1985	BJ	*	1985	01	16.94583	08	34	51.17	+22 30 11.0		16.8	046
1985	BJ		1985	01	16.96007	08	34	50.17	+22 30 21.2			046
1985	BJ		1985	01	18.95352	08	32	59.03	+22 50 26.0			046
1985	BJ		1985	01	18.96764	08	32	58.21	+22 50 34.1			046
1985	BK	*	1985	01	18.83205	07	48	56.26	+26 40 12.4		16.7	046
1985	BK		1985	01	18.84831	07	48	55.21	+26 40 17.9			046
1985	BL	*	1985	01	18.88546	08	21	45.75	+15 45 35.8		16.9	046
1985	BL		1985	01	18.89958	08	21	44.91	+15 45 35.8			046
1985	BM	*	1985	01	18.88546	08	27	36.78	+19 05 03.6		16.9	046
1985	BM		1985	01	18.89958	08	27	36.07	+19 05 09.5			046
1985	BN	*	1985	01	18.91822	08	42	50.29	+21 03 32.1		17.0	046
1985	BN		1985	01	18.93257	08	42	49.51	+21 03 37.8			046
1985	BO	*	1985	01	18.91822	08	43	20.57	+19 16 26.3			2 046
1985	BO		1985	01	18.93257	08	43	19.91	+19 16 24.0		16.5	046
1985	BP	*	1985	01	18.91822	08	43	34.67	+20 43 13.6		17.0	046
1985	BP		1985	01	18.93257	08	43	33.88	+20 43 22.0			046
1985	BQ	*	1985	01	18.91822	08	44	13.92	+20 54 29.9		16.9	046
1985	BQ		1985	01	18.93257	08	44	13.33	+20 54 43.3			046
1985	BR	*	1985	01	18.91822	08	44	21.57	+21 58 03.4		16.8	046
1985	BR		1985	01	18.93257	08	44	20.69	+21 58 09.6			046
1985	BS	*	1985	01	18.91822	08	46	02.94	+20 10 17.0		16.7	046
1985	BS		1985	01	18.93257	08	46	02.07	+20 10 21.7			046
1985	BT	*	1985	01	18.91822	08	50	16.23	+22 33 23.1		16.7	046
1985	BT		1985	01	18.93257	08	50	15.28	+22 33 27.3			046
1985	BU	*	1985	01	18.91822	08	50	17.29	+22 22 51.7		16.6	046
1985	BU		1985	01	18.93257	08	50	16.51	+22 22 56.6			046
1985	BV	*	1985	01	18.91822	08	53	08.70	+22 14 38.5		16.8	046
1985	BV		1985	01	18.93257	08	53	07.89	+22 14 45.2			046
1985	BW	*	1985	01	18.91822	08	53	30.13	+21 17 44.2		16.5	046
1985	BW		1985	01	18.93257	08	53	29.45	+21 17 51.8			046

Note 1: at edge of plate. 2: image diffuse.

OBSERVATIONS MADE AT THE SOUTH AFRICAN ASTRONOMICAL OBSERVATORY, CAPE TOWN.

Plates taken with the astrographic telescope by the S.A.A.O. Astrometric Group. Reference stars from the the AGK3, SAO, CPC2 and Klemola catalogues. Contact: J. Churms, South African Astronomical Observatory, P.O. Box 9, Observatory, Cape 7935, South Africa.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
52	1983	02 07.92501	07 55 55.46	+19 53 03.3	051
52	1983	02 07.93369	07 55 55.10	+19 53 06.0	051
87	1984	08 06.93582	20 16 39.40	-32 09 47.6	051
87	1984	08 06.93999	20 16 39.23	-32 09 47.9	051
209	1984	08 28.91360	19 42 35.21	-29 33 21.3	051
209	1984	08 28.92402	19 42 34.96	-29 33 20.0	051
241	1984	03 04.13634	16 17 40.03	-25 27 00.8	051
241	1984	03 04.14867	16 17 40.46	-25 27 02.2	051
326	1984	05 09.97998	15 51 12.98	-41 43 54.2	051
326	1984	05 09.98484	15 51 12.50	-41 43 59.4	051
326	1984	05 09.99664	15 51 11.32	-41 44 12.4	051
326	1984	05 10.00081	15 51 10.88	-41 44 17.0	051
326	1984	05 28.92824	15 16 40.03	-46 14 56.2	051
326	1984	05 28.93241	15 16 39.56	-46 14 58.6	051
532	1983	11 17.79201	19 13 50.56	-26 00 21.1	051
532	1983	11 17.79968	19 13 51.28	-26 00 20.7	051
532	1983	11 17.80683	19 13 51.86	-26 00 20.3	051

602	1984 05 28.95706	17 25 26.65	-44 02 48.0		051
602	1984 05 28.96331	17 25 26.33	-44 02 49.0		051

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

Plates taken with the 0.45-m (45/77/150-cm) Schmidt. Contact: H. J. Fogh Olsen, Copenhagen University Observatory, Brorfelde, DK-4340 Tollose, Denmark.

Object		Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
1985 CB		1985 02 11.85251		08 46 19.02	+21 46 55.1	16.4	054
1985 CB		1985 02 13.93760		08 44 28.12	+21 58 01.9	16.4	054
1985 CG	*	1985 02 11.85251		08 56 33.70	+21 27 28.3	16.3	054
1985 CG		1985 02 12.93105		08 55 34.73	+21 32 42.5	16.3	054
1985 CH	*	1985 02 13.96554		09 03 43.30	+14 15 38.6	16.5	054
1985 CH		1985 02 18.93036		08 58 18.06	+14 44 14.3	16.5	054
1985 CJ	*	1985 02 13.96554		09 07 07.33	+14 08 18.7	16.5	054
1985 CJ		1985 02 18.93036		09 02 53.52	+14 09 41.6	16.5	054
1985 CK	*	1985 02 13.96554		09 09 32.84	+15 43 01.7	16.3	054
1985 CK		1985 02 18.93036		09 05 36.48	+16 00 20.2	16.3	054

OBSERVATIONS MADE AT TURKU.

Plates taken with the 0.50-m (500/1031 mm) anastigmatic reflector at Iso-Heikkila, measured by L. Oterma. Contact: L. Oterma, Sirkkalank 31, SF-20700 Turku, Finland.

Object	Date	UT	R. A. (1950)	Decl.	N	Obs.
3181	1942 09 05.86075		22 53 21.77	-00 49 26.2	1	062
3181	1942 09 08.89352		22 50 30.19	-01 10 50.7	3	062
3181	1942 09 08.92211		22 50 28.34	-01 11 04.3	3	062
3181	1942 09 15.86918		22 44 06.52	-02 01 07.2	1	062
3181	1942 09 15.89094		22 44 05.34	-02 01 17.4	1	062
1942 RH	1942 09 08.89352		22 50 29.52	-01 10 51.4	3	062
1942 RH	1942 09 08.92211		22 50 27.90	-01 10 59.4	3	062

Note 1: very faint and uncertain. 2: with reference to MPC 9417 (see also NOC 1490 and JAM 1786), there remains inevitable confusion between the images of (3181) and 1942 RH; these observations of 1942 RH should presumably supersede those on MPC 7529, but it could be that the two objects are to be interchanged. 3 = 1 + 2.

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.
201	1984 07 23.90660		19 23 15.84	-15 08 38.9	071
201	1984 07 23.98530		19 23 11.80	-15 09 00.2	071
354	1984 09 23.77169		22 00 15.14	-19 56 06.9	071
354	1984 09 23.82444		22 00 13.48	-19 56 26.3	071
551	1984 06 24.89097		18 17 04.15	-23 58 28.6	071
551	1984 06 24.93056		18 17 02.16	-23 58 30.3	071
551	1984 06 24.96806		18 17 00.13	-23 58 31.2	071
551	1984 06 25.00278		18 16 57.85	-23 58 31.3	071
551	1984 06 29.90139		18 12 40.40	-24 00 01.6	071
551	1984 06 29.96180		18 12 37.19	-24 00 01.5	071
551	1984 06 30.01806		18 12 33.64	-24 00 00.0	071
1053	1984 09 19.88961		00 05 29.89	-04 26 31.6	071
1053	1984 09 19.92875		00 05 27.52	-04 26 37.2	071
1053	1984 09 23.97271		00 01 34.18	-04 36 12.2	071
1249	1984 06 29.89444		18 16 09.19	-20 55 13.5	071
1249	1984 06 29.90833		18 16 08.68	-20 55 12.5	071

1249			1984	06	29.95468	18	16	04.58	-20	55	07.4	071
1249			1984	06	29.96875	18	16	04.29	-20	55	06.1	071
1249			1984	06	30.02500	18	16	00.59	-20	55	00.3	071
1562			1984	09	24.89160	00	18	52.33	-05	17	41.0	071
1562			1984	09	24.90547	00	18	51.57	-05	17	49.2	071
1562			1984	09	25.02133	00	18	44.87	-05	18	41.0	071
1562			1984	09	25.03522	00	18	44.22	-05	18	46.6	071
1614			1984	07	22.89271	18	19	05.65	-06	01	36.2	071
1614			1984	07	22.94618	18	19	03.74	-06	01	47.2	071
1614			1984	07	23.87812	18	18	30.48	-06	06	24.4	071
1614			1984	07	23.94618	18	18	27.96	-06	06	44.2	071
2349			1984	09	23.85273	22	49	59.28	-24	05	39.8	071
2349			1984	09	23.86662	22	49	59.03	-24	05	46.0	071
2349			1984	09	23.89482	22	49	57.81	-24	05	59.2	071
2567			1984	09	19.85676	22	14	10.64	-15	59	16.9	071
2567			1984	09	19.91490	22	14	09.17	-15	59	34.7	071
2887			1984	09	24.89854	00	22	03.56	-05	20	10.4	071
2887			1984	09	25.02133	00	21	56.27	-05	21	03.2	071
2887			1984	09	25.03522	00	21	55.67	-05	21	08.4	071
1931	VP		1984	10	18.81757	23	50	49.65	-08	09	14.0	071
1931	VP		1984	10	18.83146	23	50	48.73	-08	09	00.8	071
1931	VP		1984	10	18.83583	23	50	48.06	-08	08	50.1	071
1931	VP		1984	10	18.84972	23	50	47.34	-08	08	37.8	071
1931	VP		1984	10	18.87194	23	50	45.43	-08	07	59.1	071
1931	VP		1984	10	18.88583	23	50	44.80	-08	07	46.7	071
1931	VP		1984	10	21.72045	23	47	32.28	-07	03	16.4	071
1931	VP		1984	10	21.73434	23	47	31.58	-07	03	04.5	071
1931	VP		1984	10	23.85496	23	45	25.07	-06	15	28.0	071
1931	VP		1984	10	23.86885	23	45	24.54	-06	15	12.2	071
1931	VP		1984	10	23.91023	23	45	22.02	-06	14	17.9	071
1931	VP		1984	10	23.92412	23	45	21.28	-06	13	57.2	071
1931	VP		1984	10	24.75746	23	44	36.26	-05	55	25.1	071
1931	VP		1984	10	24.77309	23	44	35.46	-05	55	05.8	071
1931	VP		1984	10	24.77622	23	44	35.23	-05	55	01.0	071
1931	VP		1984	10	24.79184	23	44	34.40	-05	54	40.4	071
1981	EP		1984	09	24.89160	00	19	14.40	-05	08	55.6	071
1981	EP		1984	09	24.90547	00	19	13.87	-05	09	06.0	071
1981	EP		1984	09	25.02827	00	19	08.97	-05	10	27.9	071
1984	MF	*	1984	06	23.87812	18	17	17.87	-05	34	30.7	071
1984	MF		1984	06	23.94618	18	17	15.47	-05	34	42.8	071
1984	MG	*	1984	06	23.89271	18	18	36.41	-09	05	35.0	071
1984	MG		1984	06	23.94618	18	18	33.19	-09	05	00.2	071
1984	MH	*	1984	06	24.89097	18	32	05.40	-22	48	39.9	071
1984	MH		1984	06	24.90556	18	32	04.80	-22	48	41.2	071
1984	MH		1984	06	24.96806	18	32	03.03	-22	48	43.8	071
1984	MH		1984	06	25.00278	18	32	01.92	-22	48	47.7	071
1984	MH		1984	06	25.02986	18	32	01.26	-22	48	47.8	071
1984	MH		1984	06	29.87361	18	29	41.80	-22	54	10.2	071
1984	MH		1984	06	29.88750	18	29	41.26	-22	54	10.8	071
1984	MH		1984	06	29.92292	18	29	40.43	-22	54	14.5	071
1984	MH		1984	06	30.00764	18	29	37.87	-22	54	20.8	071
1984	MJ	*	1984	06	24.89861	18	28	04.56	-24	48	05.7	071
1984	MJ		1984	06	24.91250	18	28	04.13	-24	48	10.5	071
1984	MJ		1984	06	24.93542	18	28	01.93	-24	48	19.2	071
1984	MJ		1984	06	24.94931	18	28	01.88	-24	48	21.1	071
1984	MJ		1984	06	25.02986	18	27	56.86	-24	48	43.4	071
1984	MK	*	1984	06	24.89861	18	29	18.95	-24	05	33.6	071
1984	MK		1984	06	24.91250	18	29	18.62	-24	05	35.0	071
1984	MK		1984	06	24.93542	18	29	16.83	-24	05	36.1	071

1984	MK		1984	06	24.94931	18	29	16.56	-24	05	37.2	071
1984	MK		1984	06	25.02986	18	29	12.25	-24	05	44.5	071
1984	QC1		1984	09	19.85676	22	16	06.77	-15	20	32.4	071
1984	QC1		1984	09	19.91490	22	16	05.24	-15	20	42.0	071
1984	SH		1984	09	24.89160	00	09	01.39	-04	45	17.8	071
1984	SH		1984	09	24.90547	00	09	00.67	-04	45	24.2	071
1984	SH		1984	09	25.02133	00	08	53.74	-04	46	08.2	071
1984	SH		1984	09	25.03522	00	08	53.09	-04	46	14.5	071
1984	SJ		1984	09	24.89854	00	13	53.23	-07	54	08.3	071
1984	SJ		1984	09	25.02827	00	13	46.79	-07	55	10.2	071
1984	SK		1984	09	24.89160	00	17	03.28	-07	23	27.8	071
1984	SK		1984	09	24.90547	00	17	02.96	-07	23	39.3	071
1984	SK		1984	09	25.02133	00	16	59.27	-07	25	27.8	071
1984	SK		1984	09	25.03522	00	16	58.94	-07	25	40.1	071
1984	SL		1984	09	24.89160	00	18	41.08	-07	10	16.5	071
1984	SL		1984	09	24.90547	00	18	40.72	-07	10	25.8	071
1984	SL		1984	09	25.02133	00	18	36.68	-07	11	48.5	071
1984	SL		1984	09	25.03522	00	18	36.12	-07	11	57.8	071
1984	SR4	*	1984	09	19.85676	22	17	26.74	-15	22	59.3	071
1984	SR4		1984	09	19.91490	22	17	23.94	-15	23	00.6	071
1984	SS4	*	1984	09	19.85676	22	21	37.81	-16	30	41.2	071
1984	SS4		1984	09	19.91490	22	21	36.08	-16	30	34.2	071
1984	ST4	*	1984	09	19.88266	00	04	33.72	-04	38	43.3	071
1984	ST4		1984	09	19.89655	00	04	33.24	-04	38	50.5	071
1984	ST4		1984	09	19.92180	00	04	31.54	-04	39	01.2	071
1984	ST4		1984	09	19.93569	00	04	31.15	-04	39	06.3	071
1984	SU4	*	1984	09	19.88961	23	58	10.29	-03	41	22.0	071
1984	SU4		1984	09	19.92875	23	58	07.40	-03	41	36.2	071
1984	SU4		1984	09	23.97271	23	54	28.05	-04	06	18.5	071
1984	SV4	*	1984	09	19.88961	23	58	59.53	-03	43	30.3	071
1984	SV4		1984	09	19.92875	23	58	57.53	-03	43	38.7	071
1984	SW4	*	1984	09	23.75413	21	40	22.01	-05	29	42.0	071
1984	SW4		1984	09	23.80715	21	40	21.95	-05	30	06.7	071
1984	SX4	*	1984	09	23.75413	21	42	06.08	-02	53	41.6	071
1984	SX4		1984	09	23.80715	21	42	04.77	-02	54	12.5	071
1984	SY4	*	1984	09	23.85273	22	43	53.77	-24	15	00.6	071
1984	SY4		1984	09	23.86662	22	43	53.52	-24	15	06.5	071
1984	SY4		1984	09	23.89482	22	43	52.07	-24	15	19.0	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.	N	Obs.
2667	1984	11 25.36424	02 43 55.82	+15 12 30.8	1	293

Note 1: image very faint.

OBSERVATIONS MADE AT GEISEI BY T. SEKI.
Plates taken with a 0.40-m reflector. Mainly copied from Nihondaira Obs. Circ. No. 1499. Contact: T. Seki, Kamimachi 2-9-35, Kochi, Japan.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
954	1985	01 20.55451	07 44 36.16	+20 05 18.4	15.5		372
954	1985	01 20.56701	07 44 35.46	+20 05 21.6			372
954	1985	01 21.59444	07 43 44.71	+20 07 36.4	15.5		372
954	1985	01 21.61493	07 43 43.65	+20 07 40.0			372
2458	1985	01 20.55451	07 48 25.55	+20 31 29.3	17.8	1	372
2458	1985	01 21.59444	07 47 33.61	+20 34 12.7	17.8	1	372
2458	1985	01 21.61493	07 47 32.67	+20 34 16.0		1	372
1985	AE	1985 01 20.55451	07 47 36.85	+20 04 13.9	18		372
1985	AE	1985 01 20.56701	07 47 36.04	+20 04 17.5			372

1985 BB	*	1985 01 26.61563	08 58 10.27	+20 26 48.8			18.5	1	372
1985 BB		1985 01 26.62951	08 58 09.45	+20 26 54.6				1	372
1985 BB		1985 01 31.74757	08 53 40.92	+20 46 31.6			18.5	1	372
1985 BB		1985 01 31.76146	08 53 40.01	+20 46 34.8				1	372
1985 CA	*	1985 02 10.50521	08 45 53.05	+21 29 22.2			19		372
1985 CA		1985 02 10.51910	08 45 52.43	+21 29 21.2					372
1985 CB	*	1985 02 10.50521	08 47 33.55	+21 39 21.1			15		372
1985 CB		1985 02 10.51910	08 47 32.87	+21 39 27.8					372

Note 1: object somewhat diffuse.

OBSERVATIONS MADE AT STAKENBRIDGE BY B. MANNING.

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

Object	Date	UT	R. A. (1950)	Decl.			N	Obs.
3200	1984 12 24.87293		00 36 31.48	+14 09 17.0			1	494
3200	1984 12 25.78265		00 26 39.18	+12 08 07.5			1	494
3200	1984 12 25.80140		00 26 27.12	+12 05 37.9			1	494

Note 1: time may be slightly in error.

OBSERVATIONS MADE AT HAUTE PROVENCE.

Plates taken with the 0.6-m f/5 OHP-Liege Schmidt. G. Sause assisted with the observing. 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.
1984 YV	1984 12 23.97562		07 41 38.69	+22 10 27.7		511
1984 YV	1984 12 26.02153		07 38 40.07	+21 37 55.9		511
1984 YV	1984 12 28.05833		07 35 34.09	+21 04 58.6	14.0	511
1984 YV	1984 12 29.06181		07 33 59.92	+20 48 32.4		511
1984 YV	1984 12 30.06875		07 32 23.82	+20 31 49.9	14.0	511
1984 YV	1985 01 24.81875		06 51 20.09	+13 22 57.2	15.0	511
1984 YV	1985 01 24.88611		06 51 14.62	+13 21 57.7		511
1984 YV	1985 01 24.93194		06 51 10.86	+13 21 19.5		511

OBSERVATIONS MADE AT THE OSSERVATORIO S. VITTORE.

Plates taken by C. Vacchi and G. Sassi; blinked by C. 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.
3200	1984 12 25.75903		00 26 48.32	+12 11 27.1	15.0	552
3200	1984 12 25.76458		00 26 44.63	+12 10 46.7		552
1982 JA	1985 01 28.01042		09 10 27.76	+28 41 42.8	17.4	552
1982 JA	1985 01 28.02639		09 10 26.59	+28 41 51.0		552
1982 JA	1985 01 30.05208		09 08 18.91	+28 55 45.0	17.4	552
1982 JA	1985 01 30.07500		09 08 17.29	+28 55 52.6		552

OBSERVATIONS MADE AT THE OSSERVATORIO CHAONIS BY C. R. BAUR AND J. M. BAUR.

Plates taken with the 0.40-m f/4.5 reflector, blinked by G. Carniel. Measured and reduced by J. M. Baur using four or five SAO or AGK3 reference stars. Contact: M. Baur, Via Zara 20, I-33083 Chions, Italy.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
A916 PC	1985 02 12.88611		08 06 29.71	+19 43 01.1	17.2	567
A916 PC	1985 02 12.89722		08 06 29.08	+19 43 00.8		567
A916 PC	1985 02 12.90694		08 06 28.55	+19 43 00.6		567
1981 EM4	1985 02 18.88888		08 46 53.49	+21 38 59.1	15.8	567
1981 EM4	1985 02 18.89931		08 46 52.67	+21 38 56.9		567
1981 EM4	1985 02 18.90972		08 46 52.06	+21 38 54.8		567
1983 WB	1985 02 12.99930		11 38 21.76	+17 37 09.7	15.8	567
1983 WB	1985 02 13.01388		11 38 21.22	+17 37 15.1		567

1983	WB		1985	02	13.02361	11	38	20.89	+17	37	18.9		567
1983	WB		1985	02	18.96875	11	34	44.44	+18	15	18.9	15.9	567
1983	WB		1985	02	18.97916	11	34	44.08	+18	15	22.8		567
1983	WB		1985	02	18.98958	11	34	43.71	+18	15	26.7		567
1983	WH1		1985	02	19.00277	11	28	21.53	+15	27	56.4	16.5	567
1983	WH1		1985	02	19.01319	11	28	21.11	+15	28	02.2		567
1983	WH1		1985	02	19.02361	11	28	20.71	+15	28	07.7		567
1985	AG	*	1985	01	11.87083	06	20	35.52	+17	16	14.7	16.3	567
1985	AG		1985	01	11.88055	06	20	34.83	+17	16	11.1		567
1985	BX	*	1985	01	30.95174	09	18	14.02	+13	31	21.3	16.3	567
1985	BX		1985	01	30.96215	09	18	13.52	+13	31	22.2		567
1985	BX		1985	01	30.97049	09	18	13.08	+13	31	23.1		567
1985	BY	*	1985	01	30.95174	09	19	50.33	+14	02	18.4	16.7	567
1985	BY		1985	01	30.96215	09	19	50.13	+14	02	14.5		567
1985	BY		1985	01	30.97049	09	19	49.16	+14	02	09.5		567

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.
2356		1984	08 21.46946	00	03	49.70	+06	39	41.5			675
1977	DD3	1983	08 31.27919	22	02	09.82	-16	02	42.6			675
1977	DD3	1983	09 01.30836	22	01	37.05	-16	03	53.1			675
1977	DD3	1984	08 21.46946	00	03	12.16	+05	54	34.3	18.0		675
1981	XA	1985	01 02.51321	08	09	43.50	+46	52	48.6		1	675
1983	EA	1984	08 21.48960	00	16	31.24	-22	10	19.0			675
1983	EA	1984	09 06.39030	23	52	43.34	-21	40	36.5			675
1983	QD	1984	12 31.52016	11	09	19.43	+01	35	54.3			675
1983	QD	1985	01 02.42918	11	09	40.28	+01	22	38.5		2	675
1983	SA	1984	10 05.44797	06	52	36.51	+55	09	45.7		3	675
1984	QN1	* 1984	08 21.46946	00	03	00.44	+05	42	19.4	18.5		675
1984	QO1	* 1984	08 21.46946	00	03	26.02	+05	50	14.0	18.0		675
1984	QP1	* 1984	08 21.46946	00	04	49.51	+06	08	39.7	18.0		675
1984	QQ1	* 1984	08 21.46946	00	05	12.96	+05	44	44.3	18.5		675

Note 1: irregularly shaped star trails. 2: very weak image. 3: correction to MPC 9403; time originally given as 10 min later.

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 stereoscope. Reference stars from the SAO Catalog. 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.
265		1985	02 14.36736	11	13	58.00	+02	36	52.3	15		675
265		1985	02 15.35138	11	12	42.61	+02	26	12.2			675
1984	SR	1984	11 24.10000	23	23	17.39	+24	43	32.7		1	675
1984	SU	1984	09 26.39444	00	04	08.17	+04	34	22.0	17	2	675
1984	SU	1984	09 27.26388	00	03	26.29	+04	31	01.7			675
1984	SA1	1984	09 26.41389	00	42	56.75	+07	24	25.8			675
1984	SA1	1984	09 27.27361	00	42	07.45	+07	23	10.7	17	3	675
1984	ST2	1984	09 26.39444	23	54	38.11	+06	11	43.8	16.5	2	675
1984	ST2	1984	09 27.26388	23	53	46.66	+06	11	58.9			675
1984	SZ4	* 1984	09 25.51805	01	52	30.25	+24	45	42.5	16.5	4	675
1984	SZ4	1984	09 27.47847	01	51	23.34	+24	39	19.7			675
1984	SA5	* 1984	09 25.51805	02	03	50.39	+25	26	00.2	16.5	4	675
1984	SA5	1984	09 27.47847	02	02	42.38	+25	23	55.6			675
1984	SB5	* 1984	09 26.38472	23	25	40.65	+19	34	03.3	16.8	5	675
1984	SB5	1984	09 27.29930	23	24	58.32	+19	30	23.4			675

1984 SB5		1984 09 28.31458	23 24 12.35	+19 26 03.9								675
1984 SC5	*	1984 09 27.30416	00 11 30.45	+19 59 31.5					16		6	675
1984 SC5		1984 09 28.32847	00 10 23.51	+19 58 02.4								675
1984 SD5	*	1984 09 27.30416	00 23 39.10	+21 33 10.5					17.5		6	675
1984 SD5		1984 09 28.32847	00 22 47.53	+21 30 55.1								675
1984 SE5	*	1984 09 27.39513	01 22 48.78	+16 35 46.6					17		7	675
1984 SE5		1984 09 27.41458	01 22 48.00	+16 35 44.3								675
1984 SF5	*	1984 09 27.39513	01 27 50.29	+17 41 06.6					16.8		7	675
1984 SF5		1984 09 27.41458	01 27 49.43	+17 41 05.0								675
1984 SG5	*	1984 09 27.39513	01 32 21.62	+17 48 30.0					16.5		7	675
1984 SG5		1984 09 27.41458	01 32 20.96	+17 48 27.2								675
1984 SH5	*	1984 09 27.42430	01 40 22.81	+17 30 18.3					16.5		8	675
1984 SH5		1984 09 27.45277	01 40 21.75	+17 30 14.9								675
1984 SJ5	*	1984 09 27.42430	01 45 50.50	+20 49 42.2					17		8	675
1984 SJ5		1984 09 27.45277	01 45 49.02	+20 49 46.2								675
1984 SK5		1984 09 26.41389	00 25 10.37	+10 50 07.9								675
1984 SK5	*	1984 09 27.27361	00 24 18.10	+10 46 49.2					17		3	675
1984 SL5		1984 09 26.41389	00 36 52.26	+09 54 22.8								675
1984 SL5	*	1984 09 27.27361	00 35 56.43	+09 58 33.6					17		3	675
1984 WV1	*	1984 11 21.34930	03 37 24.07	+34 02 46.4					16		9	675
1984 WV1		1984 11 21.35277	03 37 22.89	+34 02 48.1								675
1984 UQ		1984 09 27.39513	01 32 37.36	+13 55 29.0					16		7	675
1984 UQ		1984 09 27.41458	01 32 36.53	+13 55 17.1								675
1985 CL	*	1985 02 12.25208	09 51 58.42	+37 39 10.0					16		1	675
1985 CL		1985 02 16.35833	09 44 14.32	+37 06 38.5								675
1985 CT	*	1985 02 12.30417	09 48 31.40	+11 18 36.2					17		1	675
1985 CT		1985 02 16.37361	09 44 37.77	+12 29 25.2								675
1985 CU	*	1985 02 14.31597	10 11 01.34	+02 40 29.0					16		1	675
1985 CU		1985 02 22.34652	10 02 12.47	+01 49 51.3								675

Note 1: scanned and measured by C. Shoemaker. 2: T. Dowling. 3: D. Padgett. 4: J. Platt. 5: K. Stapelfeldt. 6: M. Nolan. 7: B. Anderson. 8: A. Grossman. 9: C. Brigham.

OBSERVATIONS MADE AT PALOMAR BY E. HELIN, R. S. DUNBAR AND D. STEELE.
Plates mainly taken with the 1.2-m Schmidt and 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.
1984 YV		1985 01 18.27083	07 00 40.37	+15 06 22.2				15.2	1	675
1985 DA	*	1985 02 24.41181	11 34 17.70	+09 30 45.8				17	2	675
1985 DA		1985 02 24.44236	11 34 16.42	+09 31 42.5						675
1985 DA		1985 02 26.41319	11 33 08.04	+10 31 22.5						675
1985 DA		1985 02 26.42708	11 33 07.11	+10 31 56.1						675
1985 DA		1985 02 27.45394	11 32 29.29	+11 03 05.1						675
1985 DA		1985 02 27.46782	11 32 28.58	+11 03 28.9						675

Note 1: 0.46-m Schmidt; measured by E. Helin. 2: discoverer Helin.

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, L. J. Martin and B. A. Skiff. Measured by Bus. SAO primary reference stars, faint star transfer. Contact: E. L. G. Bowell, Lowell Observatory, P.O. Box 1269, Flagstaff, AZ 86002, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.			Obs.
1863	1985 01 22.27940	07 40 08.95	+44 41 38.3				688
1863	1985 01 22.28542	07 40 08.27	+44 41 38.4				688
2061	1985 01 22.26215	07 18 29.68	+14 58 01.4				688
2061	1985 01 22.26736	07 18 29.27	+14 58 02.9				688
1980 PF	1985 01 22.23727	05 16 37.56	+30 30 53.6				688
1980 PF	1985 01 22.24514	05 16 37.41	+30 30 51.5				688

OBSERVATIONS MADE AT THE LOWELL OBSERVATORY.

Plates with the 0.33-m photographic telescope. Observers C. Osterberg, R. Burnham and C. Slaughter. Measured by E. Bowell and S. J. Bus using a PDS scanning microdensitometer. SAO reference stars, global solution. Contact: E. Bowell, Lowell Observatory, P.O. Box 1269, Flagstaff, AZ 86002, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	N	Obs.
1950 FE	1950	03 21.28483	11 19 56.33	+12 56 27.6		690
1958 TN1	1958	10 10.31972	01 21 38.54	+12 20 37.5		690
1958 TN1	1958	10 11.30913	01 20 43.98	+12 15 53.5		690
1958 TN1	1958	10 14.27229	01 17 59.94	+12 01 18.2	1	690

Note 1: right ascension uncertain.

OBSERVATIONS MADE WITH THE SPACEWATCH CAMERA 0.91-M TELESCOPE AT 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.
1978 PA		1985 01	18.47736	11 41 52.02	+28 46 52.1	16.5V	1	691
1978 PA		1985 01	18.50414	11 41 52.49	+28 47 26.1		1	691
1978 PA		1985 01	18.53035	11 41 52.92	+28 47 58.6		1	691
1978 PA		1985 01	20.50274	11 42 24.21	+29 29 53.6		2	691
1978 PA		1985 01	20.51806	11 42 24.38	+29 30 13.2		2	691
1978 PA		1985 01	20.53650	11 42 24.57	+29 30 36.7		2	691
1982 HS		1985 01	18.28866	10 14 09.92	+50 36 42.5	17.8V	1	691
1982 HS		1985 01	18.32211	10 14 07.86	+50 37 04.2		1	691
1982 HS		1985 01	18.35274	10 14 06.07	+50 37 24.5		1	691
1985 BB1	*	1985 01	17.44948	10 13 11.91	+25 23 20.1	17.2V		691
1985 BB1		1985 01	17.47520	10 13 10.94	+25 23 30.3			691
1985 BB1		1985 01	17.50138	10 13 10.12	+25 23 40.3			691
1985 BC1	*	1985 01	18.38712	08 53 03.30	+02 16 01.2	17.5V	1	691
1985 BC1		1985 01	18.41118	08 53 01.96	+02 16 00.6		1	691
1985 BC1		1985 01	18.43444	08 53 00.73	+02 16 00.1		1	691
1985 BD1	*	1985 01	18.38875	08 55 27.38	+02 19 54.8	19.6V	1	691
1985 BD1		1985 01	18.41282	08 55 26.26	+02 19 58.0		1	691
1985 BD1		1985 01	18.43609	08 55 25.30	+02 20 02.0		1	691
1985 BE1	*	1985 01	18.39006	08 57 22.42	+02 12 13.8	18.7V	1	691
1985 BE1		1985 01	18.41412	08 57 21.78	+02 12 19.6		1	691
1985 BE1		1985 01	18.43740	08 57 20.86	+02 12 24.6		1	691
1985 BF1	*	1985 01	18.18834	08 58 32.38	+18 21 10.5	19.4V		691
1985 BF1		1985 01	18.21324	08 58 31.09	+18 21 19.0			691
1985 BF1		1985 01	18.23775	08 58 29.85	+18 21 27.6			691
1985 BG1	*	1985 01	18.18979	09 00 39.46	+18 22 38.4	19.3V		691
1985 BG1		1985 01	18.21468	09 00 38.13	+18 22 41.4			691
1985 BG1		1985 01	18.23919	09 00 36.85	+18 22 44.7			691
1985 BH1	*	1985 01	18.19105	09 02 29.51	+18 14 03.5	17.4V		691
1985 BH1		1985 01	18.21593	09 02 28.52	+18 14 08.4			691
1985 BH1		1985 01	18.24044	09 02 27.34	+18 14 13.4			691
1985 BJ1	*	1985 01	18.19139	09 02 59.91	+18 15 04.2	18.6V		691
1985 BJ1		1985 01	18.21627	09 02 58.57	+18 15 07.3			691
1985 BJ1		1985 01	18.24080	09 02 57.25	+18 15 11.5			691
1985 BK1	*	1985 01	18.19502	09 08 19.51	+18 18 29.3	19.5V		691
1985 BK1		1985 01	18.21991	09 08 18.10	+18 18 40.0			691
1985 BK1		1985 01	18.24442	09 08 16.76	+18 18 53.5			691
1985 BL1	*	1985 01	18.40167	09 14 22.97	+02 20 19.5	18.6V	1	691
1985 BL1		1985 01	18.42573	09 14 21.58	+02 20 20.7		1	691
1985 BL1		1985 01	18.44900	09 14 20.86	+02 20 21.5		1	691
1985 BM1	*	1985 01	18.28867	10 14 11.08	+50 37 22.7	18.8V	1	691
1985 BM1		1985 01	18.32211	10 14 08.64	+50 37 46.0		1	691

1985	BM1		1985	01	18.35274	10	14	06.54	+50	38	07.4		1 691
1985	BN1	*	1985	01	18.48110	11	47	21.06	+28	45	32.2	17.5V	1 691
1985	BN1		1985	01	18.50787	11	47	20.68	+28	45	40.8		1 691
1985	BN1		1985	01	18.53405	11	47	20.28	+28	45	49.3		1 691
1985	BO1	*	1985	01	20.19334	08	49	51.79	+19	21	45.6	16.6V	691
1985	BO1		1985	01	20.21848	08	49	50.12	+19	21	55.2		691
1985	BO1		1985	01	20.24354	08	49	48.52	+19	22	05.2		691
1985	BP1	*	1985	01	20.19458	08	51	38.48	+19	24	24.4	18.6V	691
1985	BP1		1985	01	20.21972	08	51	37.05	+19	24	32.1		691
1985	BP1		1985	01	20.24478	08	51	35.58	+19	24	40.7		691
1985	BQ1	*	1985	01	20.19495	08	52	10.95	+19	21	33.6	19.6V	691
1985	BQ1		1985	01	20.22010	08	52	09.74	+19	21	38.8		691
1985	BQ1		1985	01	20.24516	08	52	08.59	+19	21	45.1		691
1985	BR1	*	1985	01	20.19495	08	52	11.33	+19	28	36.1	18.6V	691
1985	BR1		1985	01	20.22010	08	52	09.78	+19	28	45.0		691
1985	BR1		1985	01	20.24515	08	52	08.23	+19	28	54.6		691
1985	BS1	*	1985	01	20.35150	08	54	42.76	+02	26	05.8	18.4V	691
1985	BS1		1985	01	20.37689	08	54	41.15	+02	26	04.3		691
1985	BS1		1985	01	20.40125	08	54	39.58	+02	26	02.7		691
1985	BT1	*	1985	01	20.19713	08	55	19.33	+19	26	52.8	19.2V	691
1985	BT1		1985	01	20.22227	08	55	17.65	+19	26	48.5		691
1985	BT1		1985	01	20.24731	08	55	16.01	+19	26	44.9		691
1985	BU1	*	1985	01	20.19750	08	55	51.89	+19	20	53.9	18.7V	691
1985	BU1		1985	01	20.22265	08	55	50.55	+19	21	02.8		691
1985	BU1		1985	01	20.24770	08	55	49.19	+19	21	12.7		691
1985	BV1	*	1985	01	20.35308	08	57	01.64	+02	27	17.7	16.6V	691
1985	BV1		1985	01	20.37846	08	57	00.14	+02	27	47.9		691
1985	BV1		1985	01	20.40282	08	56	58.61	+02	28	16.6		691
1985	BW1	*	1985	01	20.19953	08	58	47.15	+19	21	21.7	18.5V	691
1985	BW1		1985	01	20.22466	08	58	45.47	+19	21	27.6		691
1985	BW1		1985	01	20.24971	08	58	43.79	+19	21	34.2		691
1985	BX1	*	1985	01	20.20123	09	01	15.29	+19	20	07.1	19.8V	691
1985	BX1		1985	01	20.22638	09	01	13.97	+19	20	17.1		691
1985	BX1		1985	01	20.25144	09	01	12.64	+19	20	27.6		691
1985	BY1	*	1985	01	20.20631	09	08	35.59	+19	28	27.6	18.6V	691
1985	BY1		1985	01	20.23145	09	08	34.03	+19	28	35.3		691
1985	BY1		1985	01	20.25650	09	08	32.51	+19	28	43.5		691
1985	BZ1	*	1985	01	20.21023	09	14	15.58	+19	22	52.0	19.6V	691
1985	BZ1		1985	01	20.23537	09	14	14.15	+19	22	59.3		691
1985	BZ1		1985	01	20.26043	09	14	12.79	+19	23	07.9		691
1985	BA2	*	1985	01	20.21119	09	15	39.00	+19	29	19.9	17.8V	691
1985	BA2		1985	01	20.23634	09	15	37.89	+19	29	31.8		691
1985	BA2		1985	01	20.26140	09	15	36.87	+19	29	45.0		691
1985	CM	*	1985	02	13.35132	12	02	20.71	+00	09	56.6	18.0V	1 691
1985	CM		1985	02	13.37536	12	02	20.27	+00	10	02.7		1 691
1985	CM		1985	02	13.39876	12	02	19.85	+00	10	08.8		1 691
1985	CN	*	1985	02	13.35193	12	03	14.18	+00	11	40.7	18.3V	1 691
1985	CN		1985	02	13.37596	12	03	13.61	+00	11	52.8		1 691
1985	CN		1985	02	13.39935	12	03	13.03	+00	12	05.7		1 691
1985	CN		1985	02	15.39068	12	02	24.30	+00	29	58.8		691
1985	CN		1985	02	15.41361	12	02	23.71	+00	30	12.3		691
1985	CN		1985	02	15.43663	12	02	23.01	+00	30	24.9		691
1985	CO	*	1985	02	13.35828	12	12	32.64	+00	08	44.8	18.5V	1 691
1985	CO		1985	02	13.38231	12	12	31.99	+00	08	46.7		1 691
1985	CO		1985	02	13.40571	12	12	31.33	+00	08	49.5		1 691
1985	CP	*	1985	02	13.36096	12	16	29.20	+00	11	04.9	19.6V	1 691
1985	CP		1985	02	13.38498	12	16	28.55	+00	11	00.4		1 691
1985	CP		1985	02	13.40839	12	16	27.89	+00	10	56.5		1 691
1985	CP		1985	02	15.45228	12	15	29.10	+00	05	50.0		691

1985 CP		1985 02 15.46536	12	15	28.61	+00	05	47.8				691
1985 CP		1985 02 15.48196	12	15	28.14	+00	05	45.8				691
1985 CQ	*	1985 02 13.36705	12	25	25.13	+00	12	05.6		18.2V	1	691
1985 CQ		1985 02 13.39109	12	25	24.47	+00	12	05.8			1	691
1985 CQ		1985 02 13.41448	12	25	23.83	+00	12	07.7			1	691
1985 CR	*	1985 02 15.38301	11	51	09.95	+00	24	57.5		19.4V		691
1985 CR		1985 02 15.40595	11	51	09.11	+00	25	01.0				691
1985 CR		1985 02 15.42896	11	51	08.30	+00	25	04.1				691
1985 CS	*	1985 02 15.39750	12	12	24.76	+00	25	55.9		19.4V		691
1985 CS		1985 02 15.42043	12	12	24.20	+00	25	58.3				691
1985 CS		1985 02 15.44345	12	12	23.48	+00	26	01.5				691
6536 P-L		1985 02 13.35216	12	03	35.41	+00	06	57.8		18.4V	1	691
6536 P-L		1985 02 13.37620	12	03	34.79	+00	07	01.5			1	691
6536 P-L		1985 02 13.39959	12	03	34.11	+00	07	06.6			1	691

Note 1: poor fit in R.A. to reference stars. 2: only two reference stars.

OBSERVATION MADE AT KITT PEAK.

CCD observation with the 4-m reflector by M. J. S. Belton, H. Spinrad, P. A. Wehinger and S. Wyckoff. Contact: M. J. S. Belton, Kitt Peak National Observatory, P.O. Box 26732, Tucson, AZ 85726, U.S.A.

Object	Date	UT	R. A. (1950)			Decl.				Obs.
3200	1984 12 27.15862		00	12	31.83	+09	09	22.2		695

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.
3198	1985 01 22.97346		02	31	54.88	+10	03	20.7			801
A908 AA	1983 07 14.22465		18	32	24.69	-09	19	06.8		1	801
A916 PC	1984 12 24.40476		08	57	52.49	+19	22	16.3			801
A916 PC	1985 01 23.27378		08	29	03.11	+19	39	00.7			801
1931 CE	1985 01 23.29156		08	44	54.09	+28	18	07.8			801
1950 DH	1984 12 23.27136		07	12	39.11	+08	46	10.3			801
1950 DH	1985 01 22.16791		06	45	10.67	+10	46	01.9			801
1975 QO	1985 01 22.99476		02	59	06.60	+31	36	15.0			801
1978 TZ6	1985 01 20.11248		05	21	22.16	+20	55	25.5			801
1978 WN14	1984 12 21.29935		07	04	55.36	+21	49	37.3			801
1978 WN14	1985 01 20.15453		06	39	02.78	+22	46	30.5			801
1979 HF5	1984 12 24.38282		08	13	57.39	+12	13	10.1			801
1979 HF5	1985 01 20.23339		07	47	50.83	+13	25	17.2		2	801
1980 BQ	1983 09 05.32085		00	11	41.98	-09	29	03.8		3	801
1980 BQ	1983 09 08.33862		00	09	42.67	-09	43	41.4		4	801
1980 BQ	1983 10 09.16316		23	47	07.74	-11	41	13.1		5	801
1980 BQ	1985 02 17.04468		04	57	37.16	+26	54	34.1			801
1980 PF	1984 12 24.30786		05	43	04.41	+33	02	40.4			801
1980 TX5	1985 01 20.13067		06	15	20.02	+17	56	46.5			801
1980 VO	1985 01 24.97248		01	46	53.81	+16	14	57.0		6	801
1980 VN1	1985 01 24.99010		02	35	00.02	+15	17	35.5			801
1981 EY25	1984 12 21.31794		07	13	32.39	+19	24	34.3			801
1981 EY25	1985 01 22.19804		06	45	29.01	+20	15	06.4		2	801
1981 EY25	1985 01 22.22595		06	45	27.64	+20	15	10.5			801
1981 XA	1985 02 18.31796		07	23	01.33	+55	11	23.5			801
1982 BL1	1985 01 20.21775		06	46	44.00	+19	59	34.0			801
1982 BL1	1985 01 22.19804		06	44	49.55	+20	09	00.1			801
1982 BL1	1985 01 22.22595		06	44	47.94	+20	09	08.2			801
1983 NU	1984 12 18.29556		06	01	01.56	+25	28	19.2			801

1983 WH1	1984 12 24.43513	11 28 21.41	+09 47 02.9		801
1983 WH1	1985 01 23.40931	11 37 01.84	+11 50 52.1		801
1984 WB	1985 01 22.10597	04 13 47.39	+05 19 05.7		801
1984 YC	1985 01 23.24982	08 02 49.15	+02 47 18.7		801

Note 1: time erroneously given as 1983 07 14.60893 on MPC 8121. 2: very weak image. 3: weak image near edge of plate; inkdot measured. 4: near edge of plate; only four reference stars. 5: image involved with star. 6: only four reference stars.

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 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.	Obs.
283	1980 03	22.20204	11 45 04.08	-08 29 46.8	808
362	1977 08	17.10422	20 16 12.00	-32 28 38.5	808
362	1977 08	17.19008	20 16 07.49	-32 28 34.9	808
362	1977 08	18.09825	20 15 22.19	-32 28 00.8	808
362	1977 08	18.18274	20 15 17.85	-32 27 56.6	808
362	1977 08	19.07993	20 14 34.40	-32 27 12.0	808
362	1977 08	19.16512	20 14 30.15	-32 27 07.6	808
362	1977 09	03.01266	20 05 33.78	-31 56 05.1	808
362	1977 09	03.06945	20 05 32.36	-31 55 54.8	808
362	1977 09	04.01062	20 05 11.36	-31 52 53.3	808
362	1977 09	04.05622	20 05 10.27	-31 52 44.3	808
362	1977 09	07.10978	20 04 13.19	-31 42 13.3	808
362	1977 09	07.15479	20 04 12.42	-31 42 03.4	808
581	1977 04	17.29669	15 52 39.96	+06 00 07.5	808
581	1977 05	12.12206	15 35 10.13	+06 44 36.0	808
581	1977 05	12.19616	15 35 06.42	+06 44 36.3	808
663	1977 05	14.05357	12 54 57.15	-16 45 42.5	808
663	1977 05	14.14845	12 54 55.92	-16 44 40.4	808
663	1977 05	20.04654	12 54 10.32	-15 43 13.8	808
999	1978 11	05.06847	22 52 34.24	+00 02 17.8	808
999	1978 11	05.09340	22 52 35.67	+00 02 08.0	808
1090	1977 09	15.23337	00 56 59.97	-15 18 09.3	808
1090	1977 09	15.31163	00 56 57.01	-15 19 19.5	808
1119	1977 08	17.10422	20 16 24.29	-33 10 11.1	808
1119	1977 08	17.19008	20 16 20.46	-33 10 11.2	808
1119	1977 09	04.01062	20 08 55.60	-32 40 40.0	808
1119	1977 09	04.05622	20 08 55.16	-32 40 31.3	808
1191	1977 08	20.19910	21 17 41.26	-18 27 26.6	808
1191	1977 08	22.15831	21 16 14.16	-18 44 28.0	808
1260	1980 03	22.20204	11 44 35.70	-09 52 03.7	808
1260	1980 03	22.23666	11 44 33.73	-09 51 54.3	808
1336	1977 08	20.19910	21 23 54.07	-18 58 56.9	808
1336	1977 08	22.15831	21 22 20.46	-19 07 19.1	808
1336	1977 09	05.05706	21 12 38.58	-19 54 48.1	808
1336	1977 09	05.11662	21 12 36.39	-19 54 57.4	808
1336	1977 09	11.12379	21 09 30.19	-20 08 05.2	808
1336	1977 09	11.20204	21 09 27.89	-20 08 12.8	808
1336	1977 09	13.06985	21 08 40.59	-20 11 19.0	808
1336	1977 09	17.08109	21 07 15.30	-20 16 21.5	808
1343	1977 08	18.09825	20 11 19.85	-30 26 49.5	808
1343	1977 08	18.18274	20 11 16.05	-30 26 45.3	808
1343	1977 08	19.07993	20 10 40.06	-30 26 13.3	808

1343		1977	08	19.16512	20	10	36.49	-30	26	12.4	808
1343		1977	08	22.06828	20	08	49.16	-30	23	31.5	808
1381		1977	09	05.05706	21	12	10.86	-19	48	50.9	808
1381		1977	09	05.11662	21	12	08.14	-19	48	48.9	808
1381		1977	09	11.12379	21	08	21.26	-19	43	56.7	808
1381		1977	09	13.06985	21	07	21.93	-19	41	16.3	808
1381		1977	09	17.08109	21	05	42.46	-19	33	58.5	808
1534		1977	08	17.10422	20	17	55.09	-32	23	13.0	808
1534		1977	08	17.19008	20	17	50.67	-32	23	21.1	808
1534		1977	08	18.09825	20	17	05.87	-32	24	40.1	808
1534		1977	08	19.07993	20	16	18.43	-32	25	52.6	808
1719		1977	05	13.08262	13	44	44.49	-32	25	52.1	808
1719		1977	05	13.12902	13	44	41.89	-32	25	35.5	808
1829		1977	06	08.04591	14	23	22.38	-23	06	32.3	808
1829		1977	06	08.13110	14	23	19.76	-23	06	02.2	808
1829		1977	06	11.03218	14	22	06.32	-22	49	00.4	808
1829		1977	06	11.11182	14	22	04.31	-22	48	32.7	808
1829		1978	08	27.26860	23	29	24.96	+06	23	59.2	808
1829		1978	08	27.29839	23	29	23.40	+06	23	57.3	808
1829		1978	11	05.06847	22	46	55.20	+02	05	30.4	808
1829		1978	11	05.09340	22	46	55.85	+02	05	28.1	808
1829		1980	03	22.20204	11	40	23.94	-09	04	50.7	808
1829		1980	03	22.23666	11	40	21.80	-09	04	39.8	808
1940		1978	08	27.26860	23	34	35.89	+07	30	47.4	808
1940		1978	08	27.29839	23	34	34.68	+07	30	42.8	808
1957		1977	10	15.18885	01	22	00.44	-00	42	15.1	808
1957		1977	10	15.24010	01	21	57.72	-00	42	21.2	808
1957		1977	10	19.16685	01	18	38.17	-00	49	56.5	808
1963		1977	10	13.23656	01	59	05.43	-33	09	41.4	808
1963		1977	10	17.26089	01	54	57.49	-33	28	26.9	808
2033		1977	05	13.18512	16	31	41.88	-35	48	53.5	808
2033		1977	05	13.23152	16	31	38.65	-35	48	53.1	808
2034		1977	07	09.02083	15	58	12.06	-31	36	55.8	808
2034		1977	07	09.10532	15	58	09.78	-31	36	39.2	808
2064		1977	05	20.04654	12	54	08.14	-17	29	10.9	808
2064		1977	05	20.07701	12	54	07.24	-17	28	57.8	808
2114		1977	08	22.15831	21	10	25.16	-16	52	16.9	808
2130		1977	07	07.00897	16	02	01.52	-31	12	14.5	808
2130		1977	07	07.09416	16	01	59.92	-31	11	51.9	808
2274		1977	09	05.05706	21	10	12.24	-17	44	46.1	808
2274		1977	09	05.11662	21	10	09.61	-17	44	54.4	808
2492		1977	08	20.19910	21	17	12.07	-17	00	36.5	808
2492		1977	08	22.15831	21	15	45.56	-17	06	34.0	808
2492		1977	09	05.05706	21	07	02.23	-17	39	59.4	808
2492		1977	09	05.11662	21	07	00.29	-17	40	06.3	808
2492		1977	09	18.15697	21	02	15.37	-17	54	34.0	808
2607		1977	08	20.19910	21	13	49.13	-19	00	54.6	808
2607		1977	08	22.15831	21	12	16.29	-19	03	35.8	808
2607		1977	09	05.05706	21	03	53.23	-19	06	57.4	808
2607		1977	09	05.11662	21	03	51.57	-19	06	55.2	808
2607		1977	09	12.08366	21	01	57.45	-18	57	33.3	808
2607		1977	09	15.07547	21	01	41.68	-18	51	08.0	808
2607		1977	09	15.13987	21	01	41.11	-18	51	01.1	808
2928		1978	08	27.26860	23	23	37.07	+05	06	43.2	808
2928		1978	08	27.29839	23	23	35.71	+05	06	40.9	808
1977	HH	*	1977	04	17.29671	15	45	43.26	+06	50	32.7	808
1977	HH		1977	04	17.34933	15	45	41.74	+06	50	38.7	808
1977	JD1	*	1977	05	12.12206	15	27	24.38	+06	18	52.5	808
1977	JD1		1977	05	12.19616	15	27	20.54	+06	19	05.9	808

1977	JD1		1977	05	14.22810	15	25	39.33	+06	24	32.2	808
1977	JD1		1977	05	14.27450	15	25	36.86	+06	24	38.7	808
1977	JD1		1977	05	17.09036	15	23	17.48	+06	30	02.6	808
1977	JD1		1977	05	17.13676	15	23	15.12	+06	30	06.7	808
1977	KD1	*	1977	05	21.07947	15	18	34.06	-05	45	47.5	808
1977	KD1		1977	05	21.12656	15	18	31.52	-05	45	42.9	808
1977	KD1		1977	05	26.19601	15	13	56.12	-05	24	35.0	808
1977	KD1		1977	06	09.04872	15	03	25.76	-04	50	56.5	808
1977	KD1		1977	06	09.13322	15	03	22.66	-04	50	52.0	808
1977	LJ	*	1977	06	08.04591	14	17	24.63	-22	34	37.3	808
1977	LJ		1977	06	08.13110	14	17	21.55	-22	34	36.1	808
1977	LK	*	1977	06	08.04591	14	20	18.46	-23	47	20.2	808
1977	LK		1977	06	08.13110	14	20	15.67	-23	46	51.9	808
1977	LL	*	1977	06	08.04591	14	21	53.43	-21	43	38.2	808
1977	LL		1977	06	08.13110	14	21	51.02	-21	43	20.9	808
1977	LL		1977	06	11.03218	14	20	45.49	-21	33	08.2	808
1977	LL		1977	06	11.11182	14	20	43.71	-21	32	51.7	808
1977	LM	*	1977	06	08.04591	14	28	23.57	-22	42	57.6	808
1977	LM		1977	06	08.13110	14	28	20.96	-22	42	41.9	808
1977	LM		1977	06	11.03218	14	27	13.17	-22	35	04.6	808
1977	LM		1977	06	11.11182	14	27	11.34	-22	34	51.6	808
1977	LN	*	1977	06	09.04872	15	07	56.73	-04	09	57.2	808
1977	LN		1977	06	09.13322	15	07	53.04	-04	10	18.9	808
1977	LO	*	1977	06	11.03218	14	26	55.94	-21	39	38.1	808
1977	LO		1977	06	11.11182	14	26	54.88	-21	39	16.9	808
1977	PB		1977	08	20.19910	21	20	26.21	-19	04	07.4	808
1977	PB		1977	08	22.15831	21	18	54.72	-19	21	51.2	808
1977	QC4		1977	09	12.08366	21	02	03.77	-17	12	17.6	808
1977	QC4		1977	09	14.06296	21	01	46.80	-17	29	13.8	808
1977	QC4		1977	09	15.07547	21	01	40.79	-17	37	32.6	808
1977	QC4		1977	09	15.13987	21	01	40.32	-17	38	05.8	808
1977	QG4		1977	08	22.15831	21	17	38.98	-16	58	56.9	808
1977	QG4		1977	09	05.05706	21	10	08.02	-18	07	16.1	808
1977	QG4		1977	09	05.11662	21	10	06.51	-18	07	29.7	808
1977	QG4		1977	09	11.12379	21	08	35.57	-18	26	20.7	808
1977	QG4		1977	09	11.20204	21	08	34.48	-18	26	32.5	808
1977	QG4		1977	09	13.06985	21	08	22.51	-18	30	54.5	808
1977	QG4		1977	09	15.07547	21	08	17.37	-18	34	45.5	808
1977	QG4		1977	09	15.13987	21	08	17.08	-18	34	52.4	808
1977	QG4		1977	09	18.15697	21	08	26.60	-18	39	04.4	808
1977	QH4		1977	09	05.05706	21	08	51.49	-19	44	26.2	808
1977	QH4		1977	09	05.11662	21	08	48.58	-19	44	23.0	808
1977	QH4		1977	09	11.12379	21	04	48.41	-19	34	20.1	808
1977	QH4		1977	09	11.20204	21	04	45.36	-19	34	10.6	808
1977	QH4		1977	09	13.06985	21	03	46.07	-19	30	01.4	808
1977	QH4		1977	09	17.08109	21	02	02.52	-19	19	29.1	808
1977	QK5	*	1977	08	17.10422	20	13	43.49	-31	29	53.6	808
1977	QK5		1977	08	17.19008	20	13	39.46	-31	29	42.0	808
1977	QK5		1977	08	18.09825	20	13	02.54	-31	27	04.5	808
1977	QK5		1977	08	19.07993	20	12	24.11	-31	24	00.5	808
1977	QL5	*	1977	08	17.10422	20	13	45.55	-31	34	06.6	808
1977	QL5		1977	08	17.19008	20	13	41.50	-31	34	21.6	808
1977	QM5	*	1977	08	18.09825	20	10	21.27	-30	35	55.4	808
1977	QM5		1977	08	18.18274	20	10	17.26	-30	36	26.4	808
1977	QM5		1977	08	22.06828	20	07	38.18	-30	59	30.9	808
1977	QN5	*	1977	08	18.09825	20	18	17.90	-32	08	57.3	808
1977	QN5		1977	08	18.18274	20	18	13.38	-32	08	49.5	808
1977	QN5		1977	08	19.07993	20	17	22.63	-32	08	12.3	808
1977	QO5	*	1977	08	20.19910	21	12	27.19	-17	47	18.7	808

1977 QO5		1977 08 22.15831	21 10 57.70	-18 04 52.7		808
1978 QO3	*	1978 08 27.26860	23 23 43.14	+05 07 57.2		808
1978 QO3		1978 08 27.29839	23 23 41.72	+05 07 53.7		808
1978 QP3	*	1978 08 27.26860	23 28 52.87	+05 52 37.0		808
1978 QP3		1978 08 27.29839	23 28 51.62	+05 52 28.4		808
1978 VX16	*	1978 11 05.06847	22 44 37.79	-00 23 04.3		808
1980 FJ12	*	1980 03 22.23666	11 45 02.47	-08 29 38.4		808

OBSERVATIONS MADE AT TOYOTA BY K. SUZUKI.
Plates measured by T. Urata. Copied from Nihondaira Obs. Circ. No. 1499. Contact: T. Urata, Nishitaka-cho 8-23, Shimizu, Shizuoka 424, Japan.

Object		Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
442		1985 01	23.53021	07 48 43.28	+18 13 18.1	13	881
442		1985 01	23.55000	07 48 42.18	+18 13 24.5		881
442		1985 01	26.64028	07 45 29.90	+18 31 10.4	13	881
442		1985 01	26.66181	07 45 28.41	+18 31 18.4		881
1246		1985 01	23.53021	07 47 45.77	+17 48 59.8	16	881
1246		1985 01	23.55000	07 47 44.52	+17 48 58.1		881
1246		1985 01	26.64028	07 44 29.07	+17 45 41.2	16	881
1246		1985 01	26.66181	07 44 27.66	+17 45 39.6		881
1514		1985 01	26.64028	07 39 49.57	+18 08 17.3	17	881
1514		1985 01	26.66181	07 39 48.35	+18 08 24.9		881
2240		1985 01	17.57569	08 11 11.86	+21 11 35.6	16	881
2240		1985 01	17.59792	08 11 10.61	+21 11 39.1		881
2240		1985 01	23.57639	08 05 54.21	+21 28 35.7		881
2240		1985 01	23.59583	08 05 53.30	+21 28 39.3		881
1985 AB		1985 01	20.50972	07 30 37.30	+17 44 17.3	16	881
1985 AB		1985 01	20.61319	07 30 30.59	+17 43 56.2		881
1985 AB		1985 01	21.52361	07 29 33.08	+17 40 51.4	16	881
1985 AB		1985 01	21.54306	07 29 31.70	+17 40 49.4		881
1985 AE		1985 01	21.56458	07 46 32.76	+20 08 05.7	17.5	881
1985 AE		1985 01	21.58403	07 46 31.71	+20 08 06.3		881
1985 AF		1985 01	21.56458	07 48 09.44	+18 35 28.4	15	881
1985 AF		1985 01	21.58403	07 48 08.03	+18 35 30.5		881
1985 AF		1985 01	23.53021	07 46 04.36	+18 31 28.4	15	881
1985 AF		1985 01	23.55000	07 46 03.11	+18 31 26.0		881
1985 AF		1985 01	26.64028	07 42 51.75	+18 25 14.4	15.5	881
1985 AF		1985 01	26.66181	07 42 50.23	+18 25 12.6		881
1985 BA		1985 01	23.57639	08 07 38.88	+21 14 23.1		881
1985 BA		1985 01	23.59583	08 07 37.87	+21 14 21.9		881
1985 CC	*	1985 02	14.52639	09 36 12.36	+06 21 00.4	16.5	881
1985 CC		1985 02	14.54306	09 36 11.32	+06 21 33.6		881
1985 CD	*	1985 02	14.55208	10 29 33.95	+09 20 13.6	16.5	881
1985 CD		1985 02	14.56875	10 29 33.17	+09 20 27.5		881
1985 CE	*	1985 02	14.51806	09 37 11.57	+09 41 46.1	17	881
1985 CE		1985 02	14.53472	09 37 10.38	+09 41 55.3		881
1985 CF	*	1985 02	14.51806	09 35 11.79	+09 05 53.8	15.5	881
1985 CF		1985 02	14.53472	09 35 10.75	+09 05 51.3		881

* * * * *

ORBITAL ELEMENTS OF ONE-OPPOSITION MINOR PLANETS.

The orbit computers and authors of double designations are B = C. M. Bardwell, b = F. N. Bowman, h = K. Hurukawa, I = H. Oishi, l = W. Landgraf, 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
1969 TQ2	16.0	691115	27.08	246.05	117.86	2.54	0.1174	2.2662	36	3	1	I
1971 QO1	13.1	710926	1.41	32.01	321.13	9.29	0.1089	3.0170	27	3	1	I
1974 XW		741219	350.56	26.10	79.35	4.78	0.1857	2.6378	29	3	1	I
1975 TK2	13.4	751104	329.41	18.06	48.10	1.44	0.2116	3.1475	35	3	1	I
1977 JD1		770517	9.61	77.30	140.47	13.63	0.1438	2.6098	5	6		M
1977 KD1		770517	220.67	205.38	172.48	8.28	0.0885	2.3174	19	5		M
1977 PB		770805	67.42	100.88	132.52	14.60	0.1455	2.6813	16	0		M
1977 QC4	13.5	770825	9.97	160.40	147.65	14.02	0.1782	2.6794	27	5		M
1977 QH4	14.5	770914	312.43	42.74	344.29	5.85	0.1053	2.2416	51	8	1	B
1977 QK5		770825	351.14	304.38	24.18	5.57	0.1762	2.1879	2	4	2	M
1980 JB1	14.5	800501	354.80	22.38	214.55	6.30	0.1646	2.9248	2	4		M
1980 PQ2	13.9	800829	352.71	183.92	162.92	12.96	0.1728	2.6005	25	5	1	h
1980 TJ15		801008	324.40	295.33	106.55	7.83	0.1767	2.7990	12	7	1	h
1984 SH	13.5	840917	183.69	65.72	110.23	3.34	0.1161	2.2368	4	0	2	M
1984 SR	15.5	840917	331.85	60.08	0.26	22.39	0.3570	2.3712	59	6		M
1984 SU	15.5	840917	348.18	69.38	308.76	2.02	0.2370	2.2996	10	0		M
1984 SA1	14.0	840917	338.14	38.03	355.89	6.42	0.1358	2.4575	10	0		M
1984 SK1	14.5	840927	28.69	325.00	344.92	6.00	0.3015	3.0677	60	9	1	h
1984 ST2	15.6	840917	0.89	18.66	338.00	6.51	0.2059	2.2168	31	8		M
1984 SB5	15.0	840917	358.65	74.89	285.37	10.35	0.2570	2.5135	2	3	2	M
1984 UQ	13.0	841027	96.71	65.62	207.69	14.59	0.1307	2.5574	32	6		M
1984 WB	14.0	841226	299.38	267.30	249.58	23.36	0.1338	1.8923	62	6		B
1984 YV	14.0	841226	321.53	224.24	282.84	21.35	0.0770	1.9210	33	0		M
1985 AE	15.5	850115	328.37	19.81	136.60	1.72	0.1332	2.3793	6	6	2	B
1985 AF	14.5	850115	344.13	215.48	285.09	4.93	0.2154	2.2865	11	8		U
1985 DA	16.5	850224	34.82	323.41	154.36	19.99	0.1224	1.8403	3	6		M

Note 1: double designations 1969 TQ2 = 1969 VG (I, JAM 1814); 1971 QO1 = 1971 SC4 (I, JAM 1814); 1974 XW = 1975 AE1 (I, JAM 1823), 1975 TK2 = 1975 VA2 (I, JAM 1815); 1977 QH4 = 1977 TR (B); 1980 PQ2 = 1980 RF3 (l; h, JAM 1820); 1980 TJ15 = 1980 SV (h, JAM 1821); 1984 SK1 = 1984 QB1 (b, MPC 9414); 1984 SK1 = 1984 UT2 (h, JAM 1821). 2: e assumed.

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

(143) Adria
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	343.77760		(1950.0)	P	Q
n	0.21483559	Peri.	249.54626	-0.72842414	+0.67913978
a	2.7609924	Node	332.98299	-0.53068050	-0.64271750
e	0.0716090	Incl.	11.47555	-0.43333184	-0.35451851
P	4.59	B(1,0)	10.5		

From 47 observations at 22 oppositions 1875-1982, mean residual 0".9.

(263) Dresda
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	89.88347		(1950.0)	P	Q
n	0.20086461	Peri.	160.12896	+0.95910521	-0.28272583
a	2.8875783	Node	216.30269	+0.25648975	+0.88834194
e	0.0756848	Incl.	1.31034	+0.11970883	+0.36182136
P	4.91	B(1,0)	11.8		

From 92 observations at 27 oppositions 1886-1984, mean residual 1".3.

(278) Paulina
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	150.62249	(1950.0)	P	Q
n	0.21560024	Peri. 139.44904	-0.92742913	+0.35432583
a	2.7544606	Node 61.68420	-0.36857027	-0.81155659
e	0.1342475	Incl. 7.81475	-0.06349140	-0.46457410
P	4.57	B(1,0) 10.6		

From 85 observations at 20 oppositions 1888-1984, mean residual 1".0.

(802) Epyaxa
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	308.94607	(1950.0)	P	Q
n	0.30289722	Peri. 115.77382	-0.54685644	-0.83714467
a	2.1958662	Node 7.41056	+0.73194443	-0.48482493
e	0.0792886	Incl. 5.20341	+0.40645464	-0.25324608
P	3.25	B(1,0) 13.7		

From 26 observations at 7 oppositions 1915-1983, mean residual 1".1.

(1116) Catriona
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	222.77408	(1950.0)	P	Q
n	0.19711633	Peri. 81.95615	+0.19783111	-0.98008062
a	2.9240691	Node 356.48666	+0.74901432	+0.16263172
e	0.2282549	Incl. 16.55327	+0.63232934	+0.11398642
P	5.00	B(1,0) 10.8		

From 37 observations at 18 oppositions 1908-1983, mean residual 0".9.

(1125) China
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	310.13035	(1950.0)	P	Q
n	0.17747834	Peri. 12.09688	-0.32380145	-0.94465862
a	3.1359742	Node 96.81383	+0.86352835	-0.31781786
e	0.2093943	Incl. 3.03989	+0.38661531	-0.08131364
P	5.55	B(1,0) 14.3		

From 43 observations at 11 oppositions 1909-1982, mean residual 0".9.

(1253) Frisia
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	197.17413	(1950.0)	P	Q
n	0.17594521	Peri. 357.86042	+0.79381358	-0.60797570
a	3.1541650	Node 39.59562	+0.55829896	+0.71871506
e	0.2170485	Incl. 1.35019	+0.24116855	+0.33736362
P	5.60	B(1,0) 13.3		

From 67 observations at 11 oppositions 1931-1984, mean residual 0".8.

(1525) Savonlinna
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	173.25421	(1950.0)	P	Q
n	0.22237082	Peri. 63.77755	+0.95110716	+0.29180896
a	2.6982623	Node 279.11846	-0.30709775	+0.85850219
e	0.2622411	Incl. 5.88324	-0.03295675	+0.42168888
P	4.43	B(1,0) 13.2		

From 26 observations at 10 oppositions 1930-1983, mean residual 1".3.

(1544) Vinterhansenia
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	5.05533	(1950.0)	P	Q
n	0.26957187	Peri. 355.94192	+0.56631908	-0.82265933
a	2.3733021	Node 59.55696	+0.75776700	+0.49578849
e	0.1035939	Incl. 3.33430	+0.32414791	+0.27825419
P	3.66	B(1,0) 12.9		

From 83 observations at 17 oppositions 1906-1983, mean residual 0".9.

(1669) Dagmar
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	222.81848	(1950.0)	P	Q
n	0.17764804	Peri. 183.18023	-0.92831795	+0.37175003
a	3.1339767	Node 18.64603	-0.34072696	-0.84501286
e	0.1178123	Incl. 0.94334	-0.14876466	-0.38438936
P	5.55	B(1,0) 12.1		

From 46 observations at 13 oppositions 1934-1984, mean residual 1".0.

(1670) Minnaert
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	64.40675	(1950.0)	P	Q
n	0.19939474	Peri. 19.50810	+0.20426387	-0.96634169
a	2.9017518	Node 58.98662	+0.87210544	+0.10707012
e	0.1034614	Incl. 10.51445	+0.44464409	+0.23392249
P	4.94	B(1,0) 12.3		

From 41 observations at 13 oppositions 1934-1984, mean residual 1".0.

(1697) Koskenniemi
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	74.46626	(1950.0)	P	Q
n	0.26939474	Peri. 91.48623	+0.45499965	-0.88922782
a	2.3743421	Node 331.29777	+0.77265653	+0.42070746
e	0.1172609	Incl. 5.66724	+0.44269312	+0.17966391
P	3.66	B(1,0) 13.3		

From 23 observations at 10 oppositions 1940-1982, mean residual 0".9.

(1801) Titicaca
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	31.97574	(1950.0)	P	Q
n	0.18793253	Peri. 12.57751	+0.00221350	-0.98252091
a	3.0185710	Node 77.51909	+0.90012583	-0.07912950
e	0.0742902	Incl. 10.99039	+0.43562435	+0.16849681
P	5.24	B(1,0) 12.4		

From 37 observations at 7 oppositions 1952-1982, mean residual 1".0.

(1830) Pogson
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	228.34298	(1950.0)	P	Q
n	0.30437137	Peri. 335.14200	-0.53299146	-0.84528699
a	2.1887702	Node 147.02888	+0.78734659	-0.51173115
e	0.0559455	Incl. 3.95646	+0.30984746	-0.15369165
P	3.24	B(1,0) 13.8		

From 54 observations at 14 oppositions 1929-1984, mean residual 1".0.

(1854) Skvortsov
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	35.47881	(1950.0)	P	Q
n	0.24348857	Peri. 273.93358	-0.22315439	-0.97469127
a	2.5399022	Node 188.99444	+0.92483858	-0.20736319
e	0.1360882	Incl. 4.90992	+0.30801902	-0.08353105
P	4.05	B(1,0) 13.7		

From 60 observations at 7 oppositions 1962-1984, mean residual 0".6.

(1890) Konoshenkova
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	81.73094	(1950.0)	P	Q
n	0.17111961	Peri. 21.87541	-0.02709850	-0.98649193
a	3.2131885	Node 69.97627	+0.88972413	-0.09747470
e	0.1369864	Incl. 9.90104	+0.45569357	+0.13165237
P	5.76	B(1,0) 12.6		

From 18 observations at 8 oppositions 1966-1983, mean residual 1".2.

(2224) Tucson
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	122.41879	(1950.0)	P	Q
n	0.20169808	Peri. 242.52973	+0.39880052	+0.91632094
a	2.8796180	Node 51.02037	-0.82400559	+0.37541100
e	0.0467384	Incl. 2.67278	-0.40245861	+0.13936464
P	4.89	B(1,0) 13.1		

From 46 observations at 8 oppositions 1960-1983, mean residual 0".6.

(2330) Ontake
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	60.91421	(1950.0)	P	Q
n	0.17387995	Peri. 149.97103	+0.35169735	+0.93118478
a	3.1790917	Node 140.39791	-0.88600804	+0.36419960
e	0.0453908	Incl. 8.65593	-0.30215676	+0.01592367
P	5.67	B(1,0) 12.0		

From 33 observations at 5 oppositions 1972-1984, mean residual 0".6.

(2764) Moeller
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	118.02595	(1950.0)	P	Q
n	0.29253821	Peri. 251.69471	-0.99591518	-0.08373267
a	2.2474032	Node 283.49154	+0.09023790	-0.90981779
e	0.0826380	Incl. 1.99140	+0.00317510	-0.40647315
P	3.37	B(1,0) 14.9		

From 21 observations at 4 oppositions 1976-1984, mean residual 1".2.

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

The identifications are by C. M. Bardwell unless otherwise stated.

(3202)* A908 AA = 1981 ES13
Discovered 1908 Jan. 3 by M. Wolf at Heidelberg.
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	272.37405	(1950.0)	P	Q
n	0.12584614	Peri. 270.69209	-0.42502311	-0.90156509
a	3.9437507	Node 204.95585	+0.88786410	-0.39783832
e	0.1022651	Incl. 11.04674	+0.17621774	-0.17001487
P	7.83	B(1,0) 11.5		

Residuals in seconds of arc

080103	024	1.6-	3.0+		810306	413	0.7+	0.2-		810409	413	0.2+	0.4+
080105	024	2.6+	7.2+		810308	413	0.4-	0.2+		830714	801	0.8+	2.1+
080106	024	1.5+	6.1+		810308	413	0.0	0.3+		840725	801	0.8+	1.1+
080123	024	0.1+	4.8-		810312	413	0.2-	1.4+		840731	801	0.8-	1.6+
080124	024	1.7-	5.3-		810312	413	0.3+	0.6+		840825	801	0.3-	1.7+
080202	024	(11.3-	1.4+)		810406	413	0.2+	1.0+		840828	801	1.0-	1.7+
810301	413	0.5-	1.1+		810406	413	1.1+	0.5+		841021	801	1.7-	1.4+
810301	413	0.2+	0.1+		810408	413	0.3-	0.3+					
810306	413	0.8-	0.8+		810408	413	0.7+	0.3-					

(3203)* 1938 SL = 1977 TQ3

Discovered 1938 Sept. 18 by C. Hoffmeister at Sonneberg.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	127.08807		(1950.0)	P	Q
n	0.27832814	Peri.	304.60939	+0.98788229	+0.12893939
a	2.3232608	Node	48.14724	-0.07429365	+0.88155871
e	0.2628912	Incl.	6.66022	-0.13626825	+0.45412429
P	3.54	B(1,0)	14.5		

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

380918	031	(0.11+	0.10-)X		381115	062	0.0	0.0		841023	688	0.3+	1.4-
380920	031	(0.02+	0.05-)X		771010	330	0.4+	0.0		841023	688	1.1+	2.6-
380921	031	(63.5-	40.4-)X		771021	330	(5.6+	6.6-)		841029	688	1.8+	1.4-
380922	062	2.6-	1.3+		771103	330	0.3-	0.2+		841029	688	0.7+	1.6-
380924	062	0.1-	1.0+		771112	330	1.5-	1.7+		841029	552	0.7+	1.8+
380926	062	0.2+	0.3+		830418	801	0.0	0.1+		841029	552	0.1-	0.8-
381015	062	1.0+	0.9+		840926	801	1.4-	0.4+		841120	688	1.3+	0.8+
381021	062	0.9-	0.6+		841016	801	0.5-	0.9-		841120	688	(3.0+	4.0+)

(3204)* 1978 RH = 1980 CQ = 1980 DM

Discovered 1978 Sept. 1 by N. S. Chernykh at the Crimean Astrophysical Observatory.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	64.65124		(1950.0)	P	Q
n	0.17361430	Peri.	298.72823	+0.68000529	-0.73241063
a	3.1823338	Node	108.38553	+0.68461018	+0.61756124
e	0.2644552	Incl.	2.06345	+0.26249134	+0.28669285
P	5.68	B(1,0)	13.0		

Residuals in seconds of arc

780901	095	0.7-	1.8-		800214	046	0.2+	0.7-		800221	046	0.6+	0.7+
780905	095	0.2-	0.1+		800214	046	1.0-	0.4+		800222	046	0.5-	0.5+
780907	095	2.0+	0.1-		800215	046	0.5-	0.9-		841029	688	0.6+	0.6-
780928	095	0.5-	0.8-		800215	046	0.9+	0.4-		841029	688	0.2+	1.1-
781004	095	0.6-	0.2+		800219	046	0.8-	0.1-		841031	688	1.5-	0.8-
781008	095	0.0	0.9+		800219	046	1.4+	0.2-		841031	688	0.5+	1.0-
781009	095	0.3-	2.2+		800220	046	0.6+	0.6+		841124	801	1.3+	1.3+
800122	095	1.8-	0.2-		800220	046	0.7+	0.0		841221	801	1.0-	1.9+

(3205)* 1979 MO6 = 1975 TG6

Discovered 1979 June 25 by E. Helin and S. J. Bus at Siding Spring.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	81.49099		(1950.0)	P	Q
n	0.22427768	Peri.	282.19573	+0.72236319	-0.66638601
a	2.6829465	Node	119.91708	+0.68783335	+0.66488600
e	0.1985955	Incl.	12.30510	+0.07125104	+0.33742598
P	4.39	B(1,0)	14.5		

Residuals in seconds of arc

751001	808	0.4+	1.0+	790623	413	1.0+	0.5+	790725	675	0.6-	0.3+
751002	808	0.8-	0.5-	790624	413	0.3+	1.1-	820323	801	0.1+	0.3+
751002	808	0.2-	0.4+	790625	413	0.7+	0.1-	841026	688	0.1+	0.7-
751008	808	0.6+	0.3+	790629	413	0.3+	0.3-	841026	688	0.0	1.2+
751008	808	0.1-	0.5-	790724	675	1.5-	0.0	841127	801	0.0	1.0-

(3206)* 1980 VN1 = 1973 AD

Discovered 1980 Nov. 13 at the Purple Mountain Observatory. The identification is by L. D. Schmadel (MPC 7016).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	78.61739		(1950.0)	P	Q
n	0.24151211	Peri.	354.31262	+0.42173482	-0.89548305
a	2.5537405	Node	70.67562	+0.83769072	+0.32473731
e	0.2350816	Incl.	8.67317	+0.34700719	+0.30439412
P	4.08	B(1,0)	15.0		

Residuals in seconds of arc

730101	095	0.9+	0.8-	801210	330	0.2-	1.3+	841127	688	1.1+	1.0-
730103	095	0.8-	0.7-	841021	801	1.1+	0.6+	841218	801	0.6-	1.0+
801113	330	0.6+	0.9-	841126	801	0.1-	0.4-	850124	801	0.8-	1.1+
801207	330	1.2-	1.5+	841127	688	1.0-	1.6-				

(3207)* 1981 EY25 = 1963 TR = 1978 RM5

Discovered 1981 Mar. 2 by S. J. Bus at Siding Spring in the course of the U.K.-Caltech Asteroid Survey. The identification 1981 EY25 = 1978 RM5 was found independently by W. Landgraf (MPC 8400).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	205.12463		(1950.0)	P	Q
n	0.19862102	Peri.	152.70970	+0.77056606	+0.63730713
a	2.9092827	Node	167.68852	-0.59154589	+0.71991888
e	0.0597811	Incl.	2.20944	-0.23727917	+0.27487528
P	4.96	B(1,0)	12.0		

Residuals in seconds of arc

631014	760	0.5+	0.4+	810315	413	2.0-	0.1+	810410	413	0.9+	0.2-
631014	760	0.0	1.4-	810315	413	0.2+	0.8-	810410	413	0.0	0.7-
780906	095	0.3-	0.2-	810405	413	1.0-	0.2+	831004	688	0.2+	3.3-
810302	413	1.5-	0.6-	810405	413	3.3+	1.9-	831004	688	2.4+	2.9-
810302	413	0.2-	1.6-	810406	413	0.6-	0.9+	841221	801	0.7+	0.9+
810306	413	2.1-	1.2-	810406	413	0.0	0.1+	850122	801	0.1-	0.2-
810311	413	1.2-	0.7-	810407	413	0.4-	0.0	850122	801	0.5-	1.4+
810311	413	0.4-	0.7-	810407	413	2.0+	1.3-				

(3208)* 1981 JM = 1931 GH = 1942 EA1 = 1962 WN1

Discovered 1981 May 3 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	350.31545		(1950.0)	P	Q
n	0.17949275	Peri.	25.30938	-0.95026598	-0.31017634
a	3.1124672	Node	136.58962	+0.27834249	-0.88619861
e	0.1203720	Incl.	2.33689	+0.13971407	-0.34415499
P	5.49	B(1,0)	13.0		

Residuals in seconds of arc

310408	024	0.5+	0.4+	810503	688	0.2-	1.5-	810604	688	0.4+	0.4-
420312	062	0.8+	0.4+	810503	688	0.6+	1.4-	830909	801	1.1+	1.0-
420312	062	0.1-	1.5-	810505	675	1.3-	0.1+	841120	688	0.8+	1.3-
420314	062	0.2-	1.0+	810506	675	0.8+	0.8-	841120	688	0.9-	1.6-
621130	760	0.6-	0.2+	810508	688	0.2+	0.3+	841125	801	0.1+	0.0
621130	760	1.4-	0.3-	810508	688	0.2-	1.9-	841127	688	2.0+	0.4-
810411	675	1.7-	1.8+	810510	675	0.8-	0.6+	841127	688	0.2-	0.5+

(3209)* 1982 BL1 = 1977 TS6

Discovered 1982 Jan. 24 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory. The identification is by L. D. Schmadel (MPC 8285).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	52.12972		(1950.0)	P	Q
n	0.30365610	Peri.	29.49830	-0.92125439	-0.38223155
a	2.1922061	Node	127.85190	+0.33658488	-0.87623127
e	0.0533242	Incl.	5.23454	+0.19493836	-0.29345834
P	3.25	B(1,0)	14.5		

Residuals in seconds of arc

771008 095	0.3+	0.9-	820219 046	1.2-	0.7+	830813 688	1.1+	2.7-
820124 688	0.8-	1.6-	820219 046	5.0-	2.8+	841219 801	0.8+	0.4-
820124 688	2.2+	2.7-	820220 688	0.7+	2.1-	841224 567	0.9-	0.9-
820130 688	3.3+	1.3-	820220 688	2.2+	2.1-	841224 567	0.8+	0.3-
820130 688	3.1+	2.9-	820228 688	0.8+	0.2-	841224 567	1.3-	0.3-
820214 046	1.6-	1.7+	820228 688	0.1+	1.9-	841224 567	1.2+	0.0
820214 046	0.9-	1.0+	820321 688	0.2+	0.3-	850120 801	0.2-	0.2+
820216 046	2.7-	0.8+	820321 688	0.0	0.6-	850122 801	0.5-	0.8+
820216 046	1.3-	2.7+	830813 688	0.3-	0.4-	850122 801	0.2-	1.1+

(3210)* 1983 WH1 = 1952 DY1 = 1957 AB = 1974 DR1

Discovered 1983 Nov. 29 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory. The key identification 1983 WH1 = 1957 AB is by W. Landgraf (MPC 8535).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	70.55649		(1950.0)	P	Q
n	0.17976854	Peri.	11.71414	-0.76126082	-0.62147279
a	3.1092830	Node	128.25984	+0.57424541	-0.77868554
e	0.0592637	Incl.	13.63311	+0.30120452	-0.08614173
P	5.48	B(1,0)	12.5		

Residuals in seconds of arc

520224 711	3.8-	2.7+ Y	831129 688	0.5-	1.3-	841224 801	0.1+	1.1+
570109 024	0.2+	0.2-	831209 688	0.4+	0.3-	850123 801	1.8-	2.0+
570128 024	2.0+	0.6+	831209 688	1.0+	0.7+	850219 567	0.7-	2.5-
740216 095	8.1+	1.9+	831229 688	1.4-	0.5+	850219 567	1.3-	2.3-
831129 688	0.4-	0.1-	831229 688	0.5-	0.8-	850219 567	1.6-	2.5-

1941 WA = 1973 YB3 = 1980 DN3 = 1985 BF

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

M	108.11244		(1950.0)	P	Q
n	0.18526901	Peri.	312.55114	+0.76176111	-0.64530069
a	3.0474393	Node	87.72114	+0.60996384	+0.68446087
e	0.2938930	Incl.	3.29932	+0.21832114	+0.33926440
P	5.32	B(1,0)	13.0		

Residuals in seconds of arc

411112 062	1.7-	1.8+	411124 020	2.3+	1.5-	800220 095	0.0	0.7-
411114 062	2.5-	2.0+	411125 006	(4.7-	5.4+)Y	850116 046	1.1+	0.4+
411115 062	0.5-	1.6+	411208 020	(22.0+	1.2-)	850116 046	1.0+	0.5+
411117 062	0.7+	0.7+	411210 006	0.7+	0.2- Y	850118 046	0.0	0.2+
411117 006	(3.5+	13.0+)Y	411214 006	0.1+	3.4- Y	850118 046	2.1-	0.3+
411120 006	(23.4-	4.5+)Y	411222 006	(5.1-	3.8+)Y			
411124 020	1.3+	2.5-	731225 095	0.0	0.9+			

1971 UD1 = 1984 SU4
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	115.65467	(1950.0)	P	Q
n	0.29943733	Peri. 277.98187	+0.95518479	-0.29475761
a	2.2127531	Node 99.16425	+0.28127136	+0.87514773
e	0.1288021	Incl. 1.57893	+0.09224120	+0.38371134
P	3.29	B(1,0) 15.5		

Residuals in seconds of arc

711026 029	0.6-	0.1+	711110 029	0.2+	0.6-	840919 071	0.2-	0.8-
711027 029	0.4-	0.3-	711110 029	1.1+	0.1+	840919 071(10.0-		0.4-)
711030 029	0.0	0.4+	711119 029	0.3+	0.9-	840923 071	0.4+	0.7+

1977 DD3
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	322.91181	(1950.0)	P	Q
n	0.08198001	Peri. 101.63129	+0.12745743	-0.98808412
a	5.2480535	Node 340.40676	+0.77982226	+0.15358528
e	0.0841311	Incl. 14.90950	+0.61288811	+0.01006619
P	12.02	B(1,0) 11.5		

Residuals in seconds of arc

770218 381	0.6-	0.0	770312 381	1.2+	1.1-	830831 675	0.5-	0.3+
770218 381	0.2+	0.7-	770315 381	1.5+	1.1-	830901 675	0.5+	0.1+
770219 381	0.7-	0.3-	770315 381	1.1+	1.0-	840821 675	0.3-	0.5-
770219 381	0.5+	0.3-	770410 381	1.9-	0.5-			
770312 381	1.1+	0.1+	770410 381	2.1-	1.1+			

1977 QG4 = 1977 RS3 = A915 RA = 1981 WS2
The double designation 1977 QG4 = 1977 RS3 is by B. G. Marsden.
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	87.92517	(1950.0)	P	Q
n	0.26982491	Peri. 202.82399	+0.90729587	+0.41887196
a	2.3718227	Node 132.35904	-0.37766249	+0.85030985
e	0.2276164	Incl. 2.86116	-0.18489252	+0.31862114
P	3.65	B(1,0) 14.5		

Residuals in seconds of arc

150909 024	0.5-	1.0+	770906 095	0.6-	0.3-	770915 808	0.4+	0.1-
770818 095	0.0	0.5+	770911 808	0.3+	0.5+	770918 808	0.1+	0.5-
770822 808	0.6+	0.1+	770911 808	1.6-	0.0	811124 033	0.2+	0.0
770905 808	0.5+	0.5+	770913 808	1.5+	0.6-	811124 033	0.1+	0.4-
770905 808	0.0	0.4+	770915 808	1.1+	0.3+			

1980 FV = 1980 DZ4 = 1967 JK = 1977 LL
The double designation 1980 FV = 1980 DZ4 is by B. G. Marsden (MPC 9203). The identification 1980 FV = 1967 JK was also suggested by W. Landgraf.
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	131.97735	(1950.0)	P	Q
n	0.29291711	Peri. 319.92405	+0.51922718	+0.85429825
a	2.2454691	Node 341.31742	-0.76360198	+0.45110704
e	0.0907379	Incl. 4.30296	-0.38381654	+0.25821879
P	3.36	B(1,0) 14.5		

Residuals in seconds of arc

670506 808	0.1-	0.0	800221 095	1.0-	0.4-	800317 809	0.1-	0.1+
670510 808	0.2+	0.6+	800316 809	0.3-	0.1+	800317 809	0.1+	0.2+
770608 808	0.1+	1.3+	800316 809	0.5+	0.0	800317 809	0.3+	0.3+
770608 808	0.3+	0.3-	800316 809	0.2-	0.2+	800323 809	1.0+	1.2-
770611 808	0.4-	1.2-	800316 809	0.4-	0.4+			
770611 808	0.6-	0.8-	800317 809	0.0	0.4+			

1981 XA
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	133.78144		(1950.0)	P	Q
n	0.34603368	Peri.	3.23885	+0.18309181	-0.91912695
a	2.0093572	Node	76.42437	+0.89366961	+0.00774380
e	0.2040344	Incl.	21.03002	+0.40967305	+0.39388536
P	2.85	B(1,0)	15.5		

Residuals in seconds of arc

811005	688	0.3-	0.6+	811205	801	1.4-	1.5+	811223	675	0.6-	0.6-
811005	688	1.3+	0.4-	811205	801	0.1+	1.8+	850102	675	0.5-	0.1+
811202	688	2.2-	2.1-	811220	688	0.6+	1.2+	850218	801	0.7+	0.0
811202	688	1.0+	1.2-	811220	688	2.3+	0.8-				

1982 KG1 = 1951 WG1 = 1969 TS6 = 1969 VG3 = 1985 CB
The identifications were independently found by T. Urata.
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M	88.17336		(1950.0)	P	Q
n	0.27217964	Peri.	16.98352	-0.55687007	-0.82770769
a	2.3581232	Node	106.90668	+0.75336399	-0.53843884
e	0.1222570	Incl.	4.15066	+0.34976910	-0.15806200
P	3.62	B(1,0)	14.0		

Residuals in seconds of arc

511129	711	0.6+	2.0- Y	820516	675	2.8-	0.4+	850210	372	(7.0+	6.0-)
691015	095	0.1+	0.7+	820517	675	1.3-	0.1-	850210	372	(8.7+	4.2-)
691115	095	1.2-	2.3+	820518	675	1.0-	0.6+	850211	054	0.2+	0.4-
820515	675	0.2+	1.1-	820527	675	1.7+	1.3+	850213	054	0.1+	1.3+
820516	675	0.8-	0.7-	820527	675	4.4+	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.

(3211)* 1931 CE = 1981 EB13
Discovered 1931 Feb. 10 by G. Van Biesbroeck at the Yerkes Observatory. The identification was found independently by S. J. Bus (MPC 7598).
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	108.17268		(1950.0)	P	Q
n	0.21797827	Peri.	83.18385	+0.48822137	-0.86985752
a	2.7343908	Node	337.16901	+0.71140077	+0.44354519
e	0.2510962	Incl.	10.48713	+0.50551837	+0.21590637
P	4.52	B(1,0)	14.0		

Residuals in seconds of arc

310210	754	1.5+	0.1-	810306	413	1.3+	0.6-	810408	413	1.2+	0.9-
310214	754	3.4-	1.9+	810308	413	1.0-	0.0	810409	413	1.1-	1.2+
310224	754	2.2+	0.8-	810308	413	0.8+	0.2-	810409	413	0.6+	0.1-
310225	754	0.8+	1.1-	810312	413	0.9-	0.1+	841121	801	1.1-	0.4+
310226	754	0.1+	0.6+	810312	413	0.4+	0.4-	841221	801	0.8+	0.9-
810301	413	0.8-	0.1-	810406	413	1.6-	1.0+	850123	801	0.0	0.1+
810301	413	2.0+	0.8-	810406	413	1.3+	1.1-				
810306	413	0.9-	1.1+	810408	413	1.7-	0.0				

(3212)* 1938 DH2 = 1982 BB2

Discovered 1938 Feb. 19 by Y. Vaisala at Turku.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	47.54986		(1950.0)	P	Q
n	0.29088356	Peri.	34.37574	-0.80423001	-0.58035000
a	2.2559178	Node	109.63929	+0.51012514	-0.78466192
e	0.1526394	Incl.	7.81676	+0.30493675	-0.21794391
P	3.39	B(1,0)	15.0		

Residuals in seconds of arc

380219	062	0.9-	2.0+	820221	688	1.0+	1.7-	841120	688	1.2+	2.8-
380224	062	1.0+	1.2+	820221	688	1.7-	0.1+	841127	801	0.9-	1.4+
380308	062	0.7+	0.2-	820304	688	0.3-	1.0-	841127	688	0.1+	0.8+
820130	688	0.3-	2.9-	820304	688	0.9-	0.7+	841221	801	0.6-	2.2+
820130	688	0.8+	0.9-	841120	688	0.3-	1.5-				

(3213)* 1977 NQ = 1980 BJ5 = 1983 PL

Discovered 1977 July 14 by N. S. Chernykh at the Crimean Astrophysical Observatory. The key identification 1977 NQ = 1983 PL is by E. Bowell (MPC 8210).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	132.46539		(1950.0)	P	Q
n	0.17116465	Peri.	316.88737	+0.98645102	+0.16378887
a	3.2126248	Node	33.68909	-0.14555080	+0.90007610
e	0.1419758	Incl.	0.96676	-0.07569245	+0.40377743
P	5.76	B(1,0)	13.0		

Residuals in seconds of arc

770714	095	1.0+	1.3+	830813	688	2.1+	0.7-	841120	688	0.6-	2.6-
770722	095	0.1-	0.4-	830902	688	0.1+	0.0	841120	688	1.0+	0.7-
770818	095	1.2-	0.3+	830902	688	0.9+	1.8-	841126	801	0.3+	2.1+
800122	095	0.3-	1.1-	830906	688	0.9-	1.2+	841223	801	0.8-	2.1+
830813	688	0.3-	0.6-	830906	688	1.2-	0.3+				

(3214)* 1978 TZ6 = 1975 BR1 = 1979 YR7 = 1980 BB4

Discovered 1978 Oct. 2 by L. V. Zhuravleva at the Crimean Astrophysical Observatory. The key identification and double designation 1978 TZ6 = 1979 YR7 = 1980 BB4 are by T. Furuta (JAM 1460). The identification 1978 TZ6 = 1975 BR1 was found independently by T. Urata (NOC 1448).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	261.12919		(1950.0)	P	Q
n	0.18833656	Peri.	152.18872	-0.29321841	+0.93570049
a	3.0142524	Node	100.20744	-0.90995561	-0.21019863
e	0.0568625	Incl.	11.49822	-0.29326396	-0.28333924
P	5.23	B(1,0)	12.0		

Residuals in seconds of arc

750117	330	1.0-	1.5+	800122	095	1.3+	2.0-	841224	046	0.0	0.6-
781002	095	0.6+	1.2+	831105	801	2.5+	0.8-	841224	567	0.5+	1.4-
781008	095	0.1-	0.2+	831209	801	0.8-	1.0-	841224	567	1.2-	0.3+
781101	095	1.7-	1.2+	831209	801	1.1-	0.1+	841224	567	1.1-	0.9+
791223	095	1.2+	2.2+	841224	046	0.4+	2.8-	850120	801	1.0+	0.8+

(3215)* 1980 BQ = 1956 VH = 1981 GR1 = 1981 JL2

Discovered 1980 Jan. 23 by L. G. Karachkina at the Crimean Astrophysical Observatory. The identifications 1980 BQ = 1956 VH = 1981 JL2 are by T. Urata (NOC 1338).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 37.23313		(1950.0)	P	Q
n 0.17852831	Peri.	46.51987	-0.39095224	-0.91312547
a 3.1236665	Node	66.82378	+0.80396360	-0.39992241
e 0.1079450	Incl.	7.22256	+0.44810586	-0.07914510
P 5.52	B(1,0)	13.0		

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

561106	760(0.18-	0.14-)X	810505	675	0.3-	0.9-	841126	801	0.5+	0.1-
800123	095	0.9-	1.5+	810510	675	0.2+	0.9+	841220	801	0.5-	0.0
800123	095	1.8+	2.1-	830905	801	(1.7-	8.9+)	850217	801	0.3-	1.1+
800220	095	1.0-	0.4+	830908	801	2.2-	0.7+				
810411	675	0.4+	0.7+	831009	801	1.9+	0.1-				

(3216)* 1980 RB = 1969 TH3

Discovered 1980 Sept. 4 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 150.79039		(1950.0)	P	Q
n 0.26577790	Peri.	223.91264	+0.87745361	+0.47264287
a 2.3958344	Node	107.71662	-0.41297356	+0.83110313
e 0.3051891	Incl.	4.92349	-0.24398362	+0.29304660
P 3.71	B(1,0)	15.0		

Residuals in seconds of arc

691009	095	0.2+	0.4-	800904	688	0.2-	0.7-	841127	801	0.3+	0.8+
800717	688	0.1+	0.2+	800907	688	1.9+	1.0+	841218	801	0.6-	0.2+
800806	688	0.2-	1.9+	801002	688	0.6-	0.8-				
800904	688	1.3-	1.1-	820227	801	0.0	0.7+				

(3217)* 1980 RK = 1958 TK1

Discovered 1980 Sept. 2 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory. The identification is by L. D. Schmadel (MPC 7776).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 150.20144		(1950.0)	P	Q
n 0.26719947	Peri.	356.42838	+0.93713748	+0.34757394
a 2.3873292	Node	343.13082	-0.31743628	+0.81210430
e 0.2626480	Incl.	6.14753	-0.14493984	+0.46869921
P 3.69	B(1,0)	15.5		

Residuals in seconds of arc

581007	690	1.1-	1.1-	800907	688	0.6+	0.8-	841120	688	0.0	0.4-
581008	690	3.1+	0.4-	800909	095	1.2-	0.7-	841126	801	0.0	0.6+
581010	690	1.0-	0.4-	800911	688	1.0-	0.3+	841218	801	0.4-	0.6+
800902	688	1.2+	0.0	800911	688	2.0+	0.5+				
800904	688	0.8-	0.6+	801002	688	1.2-	2.3+				

(3218)* 6611 P-L = 1976 QJ1 = 1976 SH8

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

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 59.71284		(1950.0)	P	Q
n 0.24622658	Peri.	240.64723	+0.44495411	-0.89555009
a 2.5210382	Node	182.93557	+0.83714689	+0.41689431
e 0.2172700	Incl.	2.71121	+0.31812092	+0.15552866
P 4.00	B(1,0)	15.0		

Residuals in seconds of arc

600924	675	0.9+	2.3-	601024	675	0.8+	0.0	840827	801	0.6+	1.0+
600926	675	0.2+	1.7-	601026	675	0.0	0.5-	841122	801	1.6-	0.3+
601017	675	0.3-	0.9+	760826	095	4.0-	0.5+	841224	801	0.0	1.1+
601022	675	0.8-	0.1-	760928	095	3.0+	1.1+				

A915 TE = 1940 TL = 1957 HO = 1971 SL1 = 1973 AJ
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M 118.66388		(1950.0)	P	Q
n 0.15995448	Peri.	312.10668	+0.98047483	+0.17486151
a 3.3610320	Node	38.07998	-0.10758235	+0.85992260
e 0.2081537	Incl.	8.38688	-0.16460601	+0.47953787
P 6.16	B(1,0)	12.0		

Residuals in seconds of arc

151015 024	4.6+	0.9+	570424 076	0.6+	1.3+ X	730101 095	1.9-	1.3+
151017 024	4.4-	1.3-	710916 095	1.9-	4.6-	730103 095	1.9+	0.7-
401001 119(13.7-	18.1-)X		710926 095	1.1+	5.9+			

1971 QP1 = 1973 AM = 1982 VT1 = 1984 CG
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M 220.62519		(1950.0)	P	Q
n 0.18769033	Peri.	73.80263	+0.84004458	-0.53272069
a 3.0211733	Node	318.23672	+0.41997602	+0.75831423
e 0.1089441	Incl.	8.86418	+0.34343156	+0.37572355
P 5.25	B(1,0)	13.5		

Residuals in seconds of arc

710830 095	1.6+	0.5-	730103 095	0.3+	0.3+	840208 372	2.0+	0.5-
710916 095	2.3-	1.8+	821114 033	0.2+	0.8-	840212 372	0.8-	0.9+
730101 095	0.3-	0.3-	840208 372	1.3-	0.4-	840212 372	0.7+	1.1+

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

M 200.96815		(1950.0)	P	Q
n 0.28959183	Peri.	17.36986	+0.85797729	+0.50232341
a 2.2626257	Node	311.98132	-0.48678016	+0.72823635
e 0.1615605	Incl.	8.31122	-0.16407328	+0.46620060
P 3.40	B(1,0)	15.0		

Residuals in seconds of arc

800717 688	0.2+	0.2-	800907 688	1.2+	0.3-	841224 801	0.4-	0.7-
800806 688	0.7-	1.1+	800917 688	1.1-	0.3-	850122 688	0.2-	0.2+
800907 688	0.1-	0.8-	801002 688	0.5+	0.7+	850122 688	0.7+	0.8+

1983 EA
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M 74.59123		(1950.0)	P	Q
n 0.37862623	Peri.	87.43447	-0.08071944	-0.99514696
a 1.8923281	Node	7.88879	+0.67068545	-0.09599389
e 0.1343765	Incl.	24.20595	+0.73733669	-0.02162648
P 2.60	B(1,0)	16.0		

Residuals in seconds of arc

830313 675	0.0	0.2-	830315 675	1.2-	0.0	830519 675	0.1-	0.2-
830313 675	0.4+	0.7+	830401 675	1.1+	0.8-	840821 675	0.1-	0.3+
830315 675	0.1-	0.2-	830503 675	0.1-	0.4+	840906 675	0.2+	0.4-

1983 QD
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 130.91492		(1950.0)	P	Q
n 0.22760279	Peri.	121.39742	+0.26383530	-0.95280251
a 2.6567519	Node	312.51919	+0.80121588	+0.30318095
e 0.1669471	Incl.	11.75793	+0.53706986	+0.01576991
P 4.33	B(1,0)	12.5		

Residuals in seconds of arc

830831	675	0.0	0.1+	830917	675	0.3+	0.5-	840222	675	0.8+	0.8-
830901	675	0.3+	1.6+	831027	675	0.2+	0.4+	841231	675	0.1+	0.4-
830902	675	0.3-	1.1-	831127	675	0.1-	0.7-	850102	675	0.0	0.7+
830904	688	0.8+	0.3-	840124	675	0.1+	0.3-				
830904	688	1.4-	0.5+	840202	801	0.9-	1.1+				

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ORBITAL ELEMENTS BY S. NAKANO, TOKYO.

The following orbital elements are taken in part from JAM 1812, 1813, 1822 and 1823. The identifications are by S. Nakano unless otherwise stated.

(3219)* 1934 CX = 1934 AG = 1950 AF = 1978 NJ3 = 1978 PU = 1984 QZ

Discovered 1934 Feb. 4 by K. Reinmuth at Heidelberg.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	205.13011		(1950.0)	P	Q
n	0.18650524	Peri.	290.62458	-0.75696484	+0.64386528
a	3.0339519	Node	289.63112	-0.54671820	-0.71752019
e	0.1318620	Incl.	6.80127	-0.35791542	-0.26571091
P	5.28	B(1,0)	12.5		

Residuals in seconds of arc

340107	024	3.6-	0.8+	500115	760	1.7+	0.8-	780808	095	0.2+	0.5+
340204	024	3.8+	0.3+	500116	760	2.6-	0.9+	840826	801	0.6-	0.5+
340209	024	0.5-	0.1-	500116	760	1.5+	1.4+	841123	801	0.2+	0.2-
340214	024	1.1+	1.5+	780710	095	1.1-	2.7+	841223	801	0.3-	1.0+

(3220)* 1951 WF = 1941 WH = 1974 TW = 1976 GF6 = 1984 SK3

Discovered 1951 Nov. 22 by M. Laugier at Nice. The identification 1974 TW = 1984 SK3 was found independently by E. Bowell.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	93.88347		(1950.0)	P	Q
n	0.29681664	Peri.	25.64360	+0.61795534	-0.78455638
a	2.2257543	Node	26.28235	+0.70001087	+0.51950148
e	0.1735888	Incl.	6.61575	+0.35793292	+0.33851070
P	3.32	B(1,0)	14.5		

Residuals in seconds of arc

411116	062	2.0-	0.5+	511129	020	1.6-	2.0-	741019	808	0.6+	1.3+
411116	062	0.6-	3.9+	511201	020	1.0-	4.7+	760402	095	2.8+	5.4+
411116	062	1.4-	1.3+	741010	808	0.2-	2.5+	840928	688	1.0-	1.6-
411116	062	1.5-	1.7+	741010	808	0.8-	1.8+	840928	688	0.5-	1.4-
511122	020	6.7+	8.3-	741017	808	0.6-	1.5+	841029	688	1.0+	1.1-
511124	020(64.2+	2.5-)X		741019	808	0.3-	1.4+	841029	688	1.0+	1.6-

(3221)* 1981 XF2 = 1954 KG = 1954 LJ = 1970 GU1 = 1973 DO = 1974 RS1

Discovered 1981 Dec. 2 at the Purple Mountain Observatory. The key identifications 1981 XF2 = 1970 GU1 = 1973 DO are by S. Nakano and K. Hurukawa (JAM 1261).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	183.80736		(1950.0)	P	Q
n	0.30111821	Peri.	232.72695	+0.65422532	+0.75372136
a	2.2045064	Node	78.25408	-0.67211719	+0.61725027
e	0.1533188	Incl.	3.65400	-0.34676751	+0.22562403
P	3.27	B(1,0)	14.5		

Residuals in seconds of arc

540525 078	1.1-	2.2+	741009 095(24.0-	0.7+)	841028 567	3.0+	0.2-
540607 760	2.2+	0.2-	811202 330	3.2+	5.6+	841028 567	0.0	0.3-
540607 760	0.2+	0.7+	811220 330	1.8-	1.5+	841029 688	2.7+	1.5-
700412 805	1.9-	0.1+	811223 330	0.2+	1.3+	841029 688	1.5-	5.0-
700412 805	2.2-	0.8+	830316 688	2.0+	4.0-	841031 688	0.6-	0.1-
700412 805	2.0-	0.7+	830316 688	1.7+	4.6-	841031 688	0.3+	0.3-
730227 029	0.3-	0.4+	830412 801	0.8-	0.5+	841120 688	2.5-	1.9-
730228 029	0.2-	0.1-	840731 801	0.2-	0.6-	841120 688	1.4-	1.8-
730307 029	0.6-	0.5+	840825 801	2.9-	2.1+			
740914 095	2.5+	0.8-	841003 801	0.1+	0.9+			

(3222)* 1983 NJ = 1935 TJ = 1975 BA = 1982 HQ

Discovered 1983 July 10 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory. The key identification 1983 NJ = 1982 HQ is by T. Furuta (JAM 1623).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 188.58095		(1950.0)	P	Q
n 0.18161290	Peri.	118.33086	+0.00268388	+0.99100461
a 3.0881965	Node	150.87708	-0.98644998	+0.02457261
e 0.0656998	Incl.	15.95742	-0.16404033	-0.13155249
P 5.43	B(1,0)	12.5		

Residuals in seconds of arc

351003 078(93.3-	17.8+)X	830710 688	0.4+	2.9-	841003 801	0.1+	0.5-
750117 095	0.4+	2.9-	830710 688	1.0+	0.2+	841021 801	0.1-	0.4-
820418 688	0.6-	2.1-	830713 688	0.7+	1.4-	841026 688	0.3+	3.6-
820418 688	0.9-	1.2-	830713 688	2.4-	0.7-	841026 688	0.7+	3.7-
820425 688	0.0	2.0-	830813 688	0.7+	1.8+	841122 801	0.2+	1.1+
820425 688	0.7-	2.3-	830813 688	0.5+	0.7+			

1931 TE4 = 1969 TM3 = 1982 JO1

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

M 243.73527		(1950.0)	P	Q
n 0.28566404	Peri.	275.35315	+0.95430071	-0.29415782
a 2.2833187	Node	101.76184	+0.29106273	+0.87483490
e 0.2498645	Incl.	3.08799	+0.06776909	+0.38488319
P 3.45	B(1,0)	15.5		

Residuals in seconds of arc

311006 690	1.6-	0.5-	691009 095	0.5-	1.3+	820516 675	0.4-	0.5+
311007 690	0.3-	0.5-	820515 675	0.1+	0.5+	820517 675	0.1+	0.4-
311009 690	2.4+	0.1-	820516 675	0.3-	1.0-	820518 675	0.6+	0.7+

1966 BO = 1934 GS = 1950 FE

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

M 259.33198		(1950.0)	P	Q
n 0.24167264	Peri.	52.61947	-0.96425316	+0.24947615
a 2.5526146	Node	141.59532	-0.26480555	-0.91954236
e 0.1894910	Incl.	8.26654	+0.00968794	-0.30365029
P 4.08	B(1,0)	14.5		

Residuals in seconds of arc

340414 008(0.04-	0.05-)X	500317 690(98.4+	29.0+)Y	660128 330	1.0+	1.5-
340508 008(0.06-	0.01+)X	500321 690	0.0	0.1+	660214 330	2.6-	1.3-
340509 008(0.05-	0.01+)X	660120 330	0.2-	2.0+	660224 330	1.8+	0.8+

1971 QN = 1978 WQ13 = 1980 FW6
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M 144.90234		(1950.0)	P	Q
n 0.30326396	Peri.	56.38548	+0.75705180	+0.65144682
a 2.1940998	Node	262.91125	-0.61483995	+0.68451039
e 0.2028486	Incl.	2.88207	-0.22100771	+0.32720417
P 3.25	B(1,0)	15.5		

Residuals in seconds of arc

710818 095	1.1-	1.1-	781129 675	1.1+	0.7+	800323 809	0.4+	0.6-
710824 095	2.5+	0.8+	781130 675	1.0-	0.9-			
710830 095	1.4-	0.2+	800323 809	0.5-	0.4+			

1971 SN2 = 1983 XT
The identification 1971 SN2 = 1982 RX1 (JAM 1507) is invalid.
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M 194.38595		(1950.0)	P	Q
n 0.17395140	Peri.	261.89929	+0.96297013	+0.26645574
a 3.1782273	Node	82.64010	-0.22813917	+0.88657670
e 0.1642292	Incl.	2.37556	-0.14366991	+0.37813106
P 5.67	B(1,0)	13.0		

Residuals in seconds of arc

710926 095	0.0	0.0	831204 046	0.2-	1.0-	831208 046	0.6-	0.3-
711013 095	1.5+	1.0-	831204 046	0.2-	0.8-	831208 046	0.6+	0.0
711014 095	0.7-	0.1+	831205 046	0.5-	1.0+			
711015 095	0.8-	1.0+	831205 046	0.8+	1.2+			

1973 DS = 1973 GU = 1982 VQ10 = 1982 XK3 = 1984 HC
The double designations and identifications are by H. Oishi (JAM 1815).
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M 156.02702		(1950.0)	P	Q
n 0.27401186	Peri.	125.98492	-0.84283726	+0.51127979
a 2.3475995	Node	85.32437	-0.53188219	-0.74380337
e 0.1486342	Incl.	9.70318	-0.08201638	-0.43052240
P 3.60	B(1,0)	14.5		

Residuals in seconds of arc

730228 029	0.8-	0.1+	730404 095	0.8+	0.2+	821214 381	0.5-	1.6-
730228 029	0.2+	0.3+	821112 095	1.1+	1.9+	840429 675	0.7-	0.0
730309 029	0.5-	0.1+	821213 381	0.7+	0.8-	840430 675	0.1+	1.3-
730401 095	0.8+	0.3+	821214 381	0.8-	0.7-			

1974 SB1 = 1974 TV = 1974 UQ = 1941 US = 1978 YW = 1983 CU1
The double designations 1974 SB1 = 1974 TV and 1974 TV = 1974 UQ are by B. G. Marsden (MPC 9064) and O. Kippes (MPC 6840) respectively.
Epoch 1985 Dec. 1.0 ET = JDE 2446400.5 (J-P)

M 345.36206		(1950.0)	P	Q
n 0.26762784	Peri.	262.07253	+0.75097605	-0.65957875
a 2.3847859	Node	139.18725	+0.62320721	+0.69219410
e 0.2098025	Incl.	2.76050	+0.21828363	+0.29295598
P 3.68	B(1,0)	15.0		

Residuals in seconds of arc

411027 062	0.2+	1.4+	741010 808	0.5-	0.1+	781222 095	0.0	0.3-
411027 062	1.2-	1.5+	741010 808	1.6-	0.8+	781231 095	0.0	0.2+
740919 095	0.7-	2.8-	741019 808	0.3+	0.2+	830204 046	0.2-	1.8-
740921 095	3.9+	3.0-	741019 808	0.4+	0.5+	830204 046	0.6-	1.5-

1974 SU1 = 1978 YT1 = 1981 OM

The identification 1974 SU1 = 1978 UG (NOC 1053) is invalid.

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

M 58.06298		(1950.0)	P	Q
n 0.27560999	Peri.	162.18099	+0.95328851	+0.30206126
a 2.3385156	Node	180.23762	-0.27986942	+0.88313240
e 0.1897886	Incl.	1.32891	-0.11364033	+0.35893754
P 3.58	B(1,0)	15.0		

Residuals in seconds of arc

740919 095	0.4+	0.8-	781222 095	0.3+	0.7+	810806 033	0.3+	0.1+
740921 095	0.4-	0.5-	781231 095	0.4-	0.1+	810807 033	0.0	0.1-
740923 095	2.3+	0.7+	810730 033	0.6-	0.2+			
741009 095	2.1-	0.2-	810730 033	0.1-	0.9+			

1975 ES = 1954 LD = 1968 DY = 1972 LH1 = 1973 UX4 = 1979 KN1

The identification 1975 ES = 1968 DY was also suggested by E. Bowell.

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

M 328.28734		(1950.0)	P	Q
n 0.27425245	Peri.	311.24423	-0.98916038	+0.14202402
a 2.3462263	Node	236.95243	-0.11786167	-0.91940936
e 0.1448984	Incl.	2.55012	-0.08758069	-0.36676368
P 3.59	B(1,0)	14.5		

Residuals in seconds of arc

540607 760	2.0-	1.5-	720615 095	3.3+	2.7+	750312 095	1.4-	0.7+
540607 760	2.2-	0.4-	731026 095	0.2-	5.0+	790517 323	3.1-	0.9+
680228 095	5.5+	0.1+	750306 095	2.8-	0.4-	790518 323	0.8+	0.3+
680303 095	3.7+	1.7+	750308 095	1.8-	0.2-			

1978 PS4 = 1974 RD = 1981 EP5

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

M 252.24341		(1950.0)	P	Q
n 0.23868707	Peri.	20.43506	+0.96355201	+0.24007202
a 2.5738564	Node	324.99422	-0.26500257	+0.79614499
e 0.1899916	Incl.	11.87418	-0.03662184	+0.55544450
P 4.13	B(1,0)	14.5		

Residuals in seconds of arc

740911 095	0.1-	0.1+	810301 413	2.7+	1.2-	810312 413	1.2+	0.6-
780801 323	1.4+	0.6-	810302 413	2.9-	0.0	810407 413	0.3-	0.8+
780801 323	0.1+	0.4+	810307 413	2.2-	0.5+	810407 413	4.3+	1.6-
780806 323	4.2-	1.1+	810307 413	0.8+	0.2+	810408 413	1.1-	0.4+
780806 323	2.9-	1.3+	810310 413	2.3-	0.5+	810408 413	2.0+	0.3+
780811 323	5.8+	2.6-	810310 413	0.8+	0.7+	810409 413	1.0-	0.3-
810301 413	0.1+	0.7-	810312 413	2.2-	1.0+	810409 413	0.1+	0.1-

1979 QA10 = 1953 TW1 = 1957 WK = 1959 ED = 1973 AM2 = 1977 AJ1

The key identifications 1979 QA10 = 1973 AM2 = 1977 AJ1 are by T. Furuta (JAM 1819). The identifications 1979 QA10 = 1953 TW1 = 1957 WK = 1959 ED were found independently by H. Oishi and S. Nakano.

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

M 252.53285		(1950.0)	P	Q
n 0.26575697	Peri.	352.13270	+0.97962147	+0.20070040
a 2.3959650	Node	356.26212	-0.17712208	+0.84487196
e 0.1006654	Incl.	6.88757	-0.09470765	+0.49589387
P 3.71	B(1,0)	14.0		

Residuals in seconds of arc

531009 760	0.8+	0.0	730102 095	2.7-	0.4+	790827 095	0.3-	1.1-
531009 760	0.5+	0.9+	730103 095	2.4-	2.8-	790902 095	0.3-	0.9+
571123 760(20.8+ 55.4+)X			770113 095	2.0+	0.5-	790924 095	0.4-	1.2+
590309 024	1.1-	2.2+	770120 095	3.8+	0.1+			

1984 DF1 = 1982 VN7

The identification is by T. Furuta (JAM 1695).

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

M	152.14249		(1950.0)	P	Q
n	0.22438536	Peri.	167.99739	-0.91950726	-0.39289018
a	2.6820934	Node	348.84549	+0.35529865	-0.81771075
e	0.1133815	Incl.	3.55269	+0.16813467	-0.42069756
P	4.39	B(1,0)	14.5		

Residuals in seconds of arc

821109	095	0.5-	0.2+	840305	809	0.6+	0.1-	840310	809	0.2+	0.0
821114	095	0.5+	0.2-	840306	809	1.1-	0.5+	840310	809	0.4+	0.1+
840228	809	1.2+	0.5-	840306	809	0.3-	0.4+	840310	809	0.3+	0.1+
840228	809	1.2+	0.3-	840306	809	0.3-	0.2+	840310	809	0.1+	0.3+
840228	809	1.0+	0.2+	840308	809	0.5-	0.1+	840310	809	0.3+	0.4+
840301	809	0.1+	0.4+	840308	809	0.2-	0.0	840310	809	0.3+	0.3+
840301	809	0.4+	0.0	840308	809	0.1-	0.0	840311	809	0.1-	0.1+
840301	809	0.7+	0.3-	840308	809	0.5-	1.0-	840311	809	0.2+	0.1+
840303	809	0.5-	0.3+	840308	809	0.4-	1.2-	840311	809	0.5+	0.1+
840303	809	0.1-	0.2+	840308	809	0.5-	1.4-	840311	809	0.6+	0.7-
840303	809	0.2+	0.1+	840309	809	0.2-	0.4+	840311	809	0.6+	0.5-
840304	809	1.2-	0.4+	840309	809	0.1-	0.3+	840311	809	0.3+	0.4-
840304	809	1.1-	0.4+	840309	809	0.5+	0.3+	840314	809	0.1+	0.1+
840304	809	0.9-	0.4+	840309	809	0.7-	0.1-	840314	809	0.3+	0.1+
840305	809	0.4-	0.4+	840309	809	0.6-	0.1-	840314	809	0.3+	0.0
840305	809	0.1-	0.1+	840309	809	0.5-	0.4-				

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ORBITAL ELEMENTS BY K. HURUKAWA, TOKYO ASTRONOMICAL OBSERVATORY.

The identifications are by K. Hurukawa unless otherwise stated.

(3223)* 1942 RN = A915 GD = 1932 HN = 1934 VP = 1940 GS = 1951 YB1
= 1957 JC = 1967 RC = 1979 OU14 = 1980 RD5
= 1982 DA3 = 1982 DK6

Discovered 1942 Sept. 7 by Y. Vaisala at Turku.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	8.64041		(1950.0)	P	Q
n	0.23406707	Peri.	291.91851	-0.17524440	-0.98385985
a	2.6076092	Node	168.00308	+0.95525988	-0.17881445
e	0.1438494	Incl.	10.02477	+0.23826030	-0.00672229
P	4.21	B(1,0)	11.4		

Residuals in seconds of arc

150409	094	(29.5-	4.1+)X	790721	095	1.9+	0.7+	830716	801	0.1+	0.5+
320429	078	(17.6-	8.0+)Y	800909	095	4.4+	1.6+	840725	801	2.1+	0.1+
341110	094	(1.0-	13.9+)X	820222	704	0.9-	1.0-	840826	801	0.2-	0.1+
400403	094	(11.9-	15.8-)X	820223	704	(53.7-	64.4+)	840829	046	0.2-	0.9+
420907	062	0.7-	1.5+	820227	010	0.3+	1.9+	840829	046	1.0-	0.8+
420908	062	0.8-	0.3-	830516	561	0.3+	0.2+	840831	046	0.5-	1.0-
420908	062	0.9+	0.5+	830516	561	0.5+	0.0	840831	046	0.8+	0.9-
420915	062	0.4+	0.1+	830520	561	0.5+	0.3+	840901	046	1.0-	1.4-
421003	062	0.5-	0.8-	830520	561	0.5+	0.4+	840901	046	1.2-	1.3-
511223	711	1.5+	2.2- Y	830521	561	1.1+	0.2-	840919	657	0.3-	0.9-
570502	760	0.4-	3.6-	830521	561	0.1+	1.0-	840925	688	0.9-	0.5+
570502	760	1.4-	2.9-	830609	801	0.4+	0.9+	840925	688	0.5-	0.1+
670903	095	0.2+	2.0-	830611	801	2.9-	1.3+	840928	688	0.4-	1.4-
670909	095	0.2-	1.0-	830710	801	0.7+	1.6+	840928	688	0.5-	0.8-

(3224)* 1977 RL6 = 1952 DE2 = 1953 NF = 1953 PH = 1957 HN = 1966 DP = 1971 KR = 1978 YX1 = 1982 TS = 1984 AL

Discovered 1977 Sept. 11 by N. S. Chernykh at the Crimean Astrophysical Observatory. The key identification 1977 RL6 = 1982 TS is by T. Furuta (JAM 1629). The double designation 1953 NF = 1953 PH is by O. Kippes (MPC 1331).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 41.27144	(1950.0)	P	Q	
n 0.21191328	Peri. 3.84197	-0.61927135	+0.78320700	
a 2.7863175	Node 227.90528	-0.72233281	-0.59602837	
e 0.1627816	Incl. 4.29604	-0.30779589	-0.17702254	
P 4.65	B(1,0) 12.4			

Residuals in seconds of arc

520224 711	(11.8-	2.4+)Y	660223 760	3.5-	0.2+	781231 095	0.3-	0.3+
530714 760	0.4-	0.0	660223 760	1.1+	0.3+	821013 688	1.3-	3.1-
530714 760	0.5-	0.8+	710525 095	0.5-	3.0-	821013 688	1.3-	2.1-
530809 760	0.4-	0.7+	770911 095	2.6+	0.2-	821014 095	2.6-	1.4-
530809 760	2.2-	1.1+	770918 095	1.7+	1.9+	821022 095	0.6-	1.1-
570424 076	4.2+	0.5-	770921 095	1.0+	0.2+	840105 688	(15.9+	16.7+)
660216 330	2.8-	1.3+	781222 095	5.5+	4.0+	840105 688	(0.9-	0.4-)

(3225)* 1982 QQ = 1977 RN7 = 1977 SY2

Discovered 1982 Aug. 20 by C. Shoemaker and E. Shoemaker at Palomar.

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 104.64222	(1950.0)	P	Q	
n 0.38244278	Peri. 137.79562	+0.82107653	+0.56751139	
a 1.8797138	Node 188.32752	-0.56719659	+0.82322905	
e 0.0529264	Incl. 25.06297	+0.06419774	+0.01499163	
P 2.58	B(1,0) 14.6			

Residuals in seconds of arc

770911 095	(0.6+	7.2+)	820918 675	3.1+	0.1-	840329 675	0.0	0.2+
770921 095	0.1-	1.9-	820918 675	0.8+	1.7-	840331 688	1.0-	1.5-
820820 675	0.5+	2.3+	820920 675	0.5-	0.2-	840331 688	0.2+	3.0-
820820 675	1.1-	1.6+	820920 675	2.9-	0.8-	840331 675	1.1-	0.0
820830 675	1.9-	3.8-	840326 807	1.3-	2.1-	840430 801	1.9+	1.3+
820914 675	0.3+	1.3+	840327 807	4.0-	2.2-	840430 675	0.3+	0.6+
820914 675	1.5+	1.1+	840328 801	0.1+	1.3+	840507 801	0.5+	1.3-

(3226)* 6565 P-L = 1977 DR = 1982 DT3

Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld on Palomar Schmidt plates taken by T. Gehrels. The identification 6565 P-L = 1982 DT3 was found independently by E. Bowell (MPC 9033).

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M 24.98686	(1950.0)	P	Q	
n 0.20233936	Peri. 302.86502	+0.74792919	-0.66167160	
a 2.8735304	Node 98.62110	+0.62544323	+0.67583315	
e 0.0723672	Incl. 3.06387	+0.22231216	+0.32471563	
P 4.87	B(1,0) 14.4			

Residuals in seconds of arc

600924 675	0.5-	0.4-	770218 381	2.0-	2.0-	820220 033	1.0+	0.2+
600926 675	0.4-	0.3-	770218 381	0.4-	0.9-	820221 033	0.8+	0.3+
600927 675	1.0+	0.2+	770219 381	0.2+	0.4+	820221 033	0.3+	0.1+
600928 675	0.4+	0.4-	770219 381	1.1-	0.6+	840824 801	1.3-	1.1-
601017 675	0.3-	1.2+	820220 033	0.7+	0.0	841121 801	1.8+	0.1-
601026 675	0.0	0.5+	820220 033	0.5+	0.5+			

1969 TB2 = 1979 WW6 = 1982 GH

The key identification 1969 TB2 = 1982 GH is by T. Furuta (JAM 1507).

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

M	174.51311		(1950.0)		P		Q				
n	0.19972264	Peri.	281.68584		+0.54909980		+0.83564126				
a	2.8985806	Node	21.63702		-0.75132283		+0.50084005				
e	0.0625303	Incl.	2.15972		-0.36606477		+0.22552809				
P	4.93	B(1,0)	13.6								

Residuals in seconds of arc

691008	095	1.3+	0.6-	691113	095	5.3+	1.5-	820423	046	0.7+	2.0-
691016	095	1.4+	0.4-	791117	095	0.3-	0.7+	820423	046	0.3+	2.3-
691104	095	5.6-	0.5+	820415	046	0.2-	1.2+				
691111	095	0.9-	1.1-	820415	046	1.9-	0.7+				

1973 QB2 = 1951 WJ2 = 1975 BU1 = 1979 WP7

Contrary to MPC 6655, the identification 1973 QB2 = 1975 BU1 is valid.

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

M	43.83335		(1950.0)		P		Q				
n	0.17355068	Peri.	289.33733		+0.97490881		-0.21879235				
a	3.1831177	Node	83.31726		+0.21657766		+0.88967936				
e	0.2186809	Incl.	2.36708		+0.05144833		+0.40074998				
P	5.68	B(1,0)	13.1								

Residuals in seconds of arc

511129	711	0.8+	3.7- Y	730905	095	0.5-	0.4+	750117	095	0.0	0.4+
730831	095	0.5+	0.5-	730927	095	0.2-	0.3+	791117	095	0.0	0.0

1977 EO1 = 1972 HF = 1982 DG4

The key identification 1977 EO1 = 1972 HF is by K. Hurukawa and S. Nakano (MPC 7228).

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

M	196.54115		(1950.0)		P		Q				
n	0.18656830	Peri.	183.09784		-0.57865699		+0.81461293				
a	3.0332742	Node	51.54981		-0.74714574		-0.51005693				
e	0.1574418	Incl.	2.89257		-0.32700049		-0.27612986				
P	5.28	B(1,0)	13.9								

Residuals in seconds of arc

720418	095	0.1+	0.6+	770322	095	0.2-	1.6-	820220	033	0.2-	0.5-
720509	095	0.7-	1.9-	770325	095	1.6+	0.7+	820220	033	0.0	0.2-
770313	095	0.6+	0.7-	770410	381	0.4-	1.6+	820221	033	0.1+	0.1+
770315	381	0.7-	0.1-	770410	381	0.3+	2.2+	820221	033	0.1-	0.2-
770315	381	0.2-	0.1-	820220	033	0.5-	0.4-				

1977 PE1 = 1982 UR5 = 1982 VC6

The identification 1977 PE1 = 1982 UR5 is by C. M. Bardwell (MPC 8786).

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

M	263.21746		(1950.0)		P		Q				
n	0.21278961	Peri.	128.58584		+0.99795123		+0.01435332				
a	2.7786679	Node	230.68168		-0.03531528		+0.93618163				
e	0.1813918	Incl.	4.62255		+0.05334953		+0.35122348				
P	4.63	B(1,0)	14.5								

Residuals in seconds of arc

770814	095	0.1+	0.5-	770909	095	0.1-	0.6+	821021	095	0.3+	0.8-
770821	095	0.0	0.0	821020	095	0.1-	0.6+	821108	095	0.1-	0.0

ORBITAL ELEMENTS BY T. URATA, SHIMIZU, JAPAN.

The following orbital elements have been copied from NOC 1500:

1975 VA9 = 1985 AB

The identification is by T. Urata.

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

M 116.47196	(1950.0)	P	Q
n 0.22845692	Peri. 131.72376	+0.54021127	-0.81409736
a 2.6501312	Node 284.36389	+0.69188307	+0.57382564
e 0.1573252	Incl. 12.70846	+0.47902985	+0.08927278
P 4.31	B(1,0) 13.5		

Residuals in seconds of arc

751108	095	1.6-	1.3-	850115	881	0.4-	0.6-	850121	881	0.3+	0.8-
751112	095	0.8+	0.7+	850115	881	1.3+	0.6-	850121	881	1.4-	1.0+
751127	095	0.0	0.5+	850120	881	0.7-	0.6+				
751228	095	0.6+	0.2+	850120	881	0.8+	0.2+				

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NEW NAMES OF MINOR PLANETS.

(2244) Tesla = 1952 UW1

Discovered 1952 Oct. 22 by M. B. Protitch at Belgrade.

Named in memory of Nikola Tesla (1856-1943), the famous Yugoslav-born physicist well known for his numerous scientific researches and discoveries in the field of multi-phase and high frequency currents and radio electro-communications.

(2348) Michkovitch = 1939 AA

Discovered 1939 Jan. 10 by M. B. Protitch at Belgrade.

Named by the discoverer as a sign of much appreciation and in memory of his professor, Vojislav V. Michkovitch (1892-1976), the first director of the new Belgrade Astronomical Observatory which, by his efforts, was built in 1932. He was also founder of the Astronomical Institute of the Serbian Academy of Sciences and was well known for his works on minor planets, especially their identifications.

(2370) van Altena = 1965 LA

Discovered 1965 June 10 by A. R. Klemola at the Yale-Columbia Southern Station, El Leoncito.

Named in honor of William F. van Altena, well-known astrometrist at the Yale University Observatory. His contributions include works on stellar proper motions and parallaxes, including a revised edition of the Yale Catalogue of Stellar Trigonometric Parallaxes. The southern proper motion program with respect to galaxies is conducted under his direction with the 0.5-m astrograph at El Leoncito.

(2658) Gingerich = 1980 CK

Discovered 1980 Feb. 13 at the Harvard College Observatory’s Agassiz Station.

Named in honor of Owen Jay Gingerich, Harvard professor of astronomy and of the history of science, and an astrophysicist at the Smithsonian Astrophysical Observatory. Although he has made important contributions to the modeling of stellar atmospheres, he is best known for effectively setting the standards of scholarship for modern studies of the history of astronomy and astrophysics. His historical interests are broad, but much of his work

centers on Copernicus and Kepler, as is appropriately acknowledged by this planet's provisional designation. He is also celebrated for his basic course on science to non-scientist Harvard students, and he served as director of the IAU Central Bureau for Astronomical Telegrams for the three years following the transfer from Copenhagen at the end of 1964.

(2693) Yan'an = 1977 VM1
Discovered 1977 Nov. 3 at the Purple Mountain Observatory.
Named for a town in the northern part of Shaanxi province, along the Yan River.

(2872) Gentelec = 1981 RU
Discovered 1981 Sept. 5 at the Oak Ridge Observatory.
Named for the GTE Research Laboratories, Waltham, Massachusetts, in recognition of their support of astronomy during the current apparition of Halley's Comet.

(2900) Lubos Perek = 1972 AR
Discovered 1972 Jan. 14 by L. Kohoutek at Bergedorf.
Named in honor of Lubos Perek, well known for his work on galactic dynamics and planetary nebulae. He worked at the Purkyne University in Brno and later at the Astronomical Institute of the Czechoslovak Institute of Sciences in Prague, serving as director from 1968 to 1975. Subsequently he has been chief of the space department in the secretariat of the United Nations. He was general secretary of the IAU from 1967 to 1970 and has also served as president of the International Astronautical Federation.

(2986) Mrinalini = 2525 P-L
Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.
Named in honor of Mrinalini Sarabhai, a distinguished author, choreographer and performer of classical South Indian dances, and deeply involved with the problems of the people of India.

(2987) Sarabhai = 4583 P-L
Discovered 1960 Sept. 24 by C. J. van Houten and I. van Houten-Groeneveld at Leiden on Palomar Schmidt plates taken by T. Gehrels.
Named in honor of Vikram Ambalal Sarabhai (1919-1971), a cosmic-ray physicist who created several institutions, including the Physical Research Laboratory in Ahmedabad, and directed the Indian programs of space research and atomic energy. He was married to Mrinalini Sarabhai.

(2996) Bowman = 1954 RJ
Discovered 1954 Sept. 5 at the Goethe Link Observatory, Indiana University.
Named in honor of Fred N. Bowman, a volunteer astronomer at the Cincinnati Observatory, born on the day this object was discovered, and who has found several minor-planet identifications. Name proposed by F. K. Edmondson, following a suggestion by Viola R. Bowman.

(3008) Nojiri = 1938 WA
Discovered 1938 Nov. 17 by K. Reinmuth at Heidelberg.
Named in memory of Hoei Nojiri (1885-1977), the most famous popularizer of astronomy in Japan. Having begun his career as a teacher of English, he wrote many books based on his study of the mythology and ethnology of stars in Japan and abroad. His books have inspired many professional astronomers currently active in Japan. Name proposed by T. Urata, who found the identification involving this planet, and endorsed by Y. Kozai.

(3045) Alois = 1984 AW

Discovered 1984 Jan. 8 by J. Wagner at the Anderson Mesa Station of the Lowell Observatory.

Named by the discoverer in memory of his grandfather, Alois T. Stuczynski.

(3087) Beatrice Tinsley = 1981 QJ1

Discovered 1981 Aug. 30 by A. C. Gilmore and P. M. Kilmartin at the Mount John University Observatory.

Named in memory of Beatrice Muriel Tinsley, nee Hill (1941-1981), a graduate of the University of Canterbury, New Zealand, and a professor at Yale University, well known for her work on the evolution of galaxies.

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EPHEMERIDES.

1975 VA9 a,e,i = 2.65, 0.16, 13 Elements MPC 9477

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	02 24	07 08.27	+16 05.8	1.674	2.444	131.3	17.7	17.0
1985	03 06	07 08.56	+15 43.2					
1985	03 16	07 11.76	+15 21.4	1.920	2.476	112.4	21.8	17.4
1985	03 26	07 17.51	+14 58.9					
1985	04 05	07 25.42	+14 34.2	2.196	2.508	96.1	23.4	17.7
1985	04 15	07 35.08	+14 06.0					
1985	04 25	07 46.17	+13 33.2	2.482	2.542	81.8	23.1	18.0

1981 XA a,e,i = 2.01, 0.20, 21 Elements MPC 9466

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	02 24	07 24.47	+54 43.9	0.973	1.720	122.4	29.0	17.3
1985	03 06	07 31.64	+53 31.8					
1985	03 16	07 43.53	+51 57.9	1.156	1.764	110.0	32.0	17.8
1985	03 26	07 58.86	+50 07.3					
1985	04 05	08 16.50	+48 03.2	1.358	1.810	99.2	33.1	18.2
1985	04 15	08 35.52	+45 47.7					
1985	04 25	08 55.29	+43 22.2	1.572	1.859	89.5	32.8	18.6

1941 WA a,e,i = 3.05, 0.29, 3 Elements MPC 9464

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	02 24	07 58.33	+23 53.9	1.928	2.775	141.9	12.7	16.9
1985	03 06	07 55.72	+23 58.9					
1985	03 16	07 55.82	+23 55.2	2.187	2.835	121.4	17.4	17.4
1985	03 26	07 58.44	+23 43.7					
1985	04 05	08 03.31	+23 25.4	2.495	2.896	103.4	19.6	17.7
1985	04 15	08 10.08	+23 00.9					
1985	04 25	08 18.42	+22 30.4	2.824	2.955	87.4	19.9	18.1

1982 KG1 a,e,i = 2.36, 0.12, 4 Elements MPC 9466

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	02 24	08 37.02	+22 41.1	1.157	2.078	150.7	13.5	16.2
1985	03 06	08 32.74	+23 05.3					
1985	03 16	08 32.04	+23 11.6	1.307	2.087	129.6	21.6	16.7
1985	03 26	08 34.89	+23 01.8					
1985	04 05	08 40.96	+22 37.6	1.508	2.099	112.0	26.2	17.1
1985	04 15	08 49.73	+22 00.6					
1985	04 25	09 00.71	+21 12.0	1.736	2.114	97.3	28.2	17.5
1985	05 05	09 13.45	+20 12.5					
1985	05 15	09 27.53	+19 03.2	1.974	2.131	84.6	28.2	17.8

1971 SN2 a,e,i = 3.18, 0.16, 2 Elements MPC 9472

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	02 24	09 07.27	+19 19.6	2.693	3.632	158.5	5.7	18.1
1985	03 06	09 01.08	+19 44.0					
1985	03 16	08 56.52	+19 59.7	2.863	3.645	136.0	10.9	18.3
1985	03 26	08 53.84	+20 06.4					
1985	04 05	08 53.15	+20 04.6	3.113	3.657	115.4	14.3	18.6
1985	04 15	08 54.38	+19 54.8					
1985	04 25	08 57.39	+19 37.9	3.406	3.667	97.0	15.8	18.8
1985	05 05	09 01.99	+19 14.2					
1985	05 15	09 07.97	+18 44.6	3.709	3.676	80.2	15.7	19.0

1978 PS4 a,e,i = 2.57, 0.19, 12 Elements MPC 9473

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	02 24	11 31.27	-04 30.8	2.119	3.061	158.5	6.8	18.7
1985	03 06	11 22.25	-04 10.7					
1985	03 16	11 12.78	-03 41.4	2.071	3.057	170.9	3.0	18.5
1985	03 26	11 03.75	-03 07.0					
1985	04 05	10 56.01	-02 32.8	2.141	3.051	150.4	9.3	18.8
1985	04 15	10 50.15	-02 03.0					
1985	04 25	10 46.49	-01 41.1	2.308	3.042	128.9	14.9	19.1
1985	05 05	10 45.15	-01 29.3					
1985	05 15	10 46.03	-01 28.5	2.538	3.031	109.7	18.3	19.4
1985	05 25	10 48.96	-01 39.0					
1985	06 04	10 53.71	-02 00.4	2.796	3.018	92.6	19.6	19.6

1979 QA10 a,e,i = 2.40, 0.10, 7 Elements MPC 9473

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	02 24	11 40.72	+04 00.4	1.682	2.637	160.8	7.1	17.4
1985	03 06	11 31.37	+04 35.9					
1985	03 16	11 21.33	+05 13.1	1.645	2.637	174.1	2.2	17.1
1985	03 26	11 11.71	+05 46.2					
1985	04 05	11 03.58	+06 10.0	1.721	2.635	150.0	11.0	17.5
1985	04 15	10 57.66	+06 21.4					
1985	04 25	10 54.32	+06 19.2	1.887	2.631	128.2	17.5	17.9
1985	05 05	10 53.64	+06 03.0					
1985	05 15	10 55.46	+05 34.1	2.111	2.626	109.4	21.3	18.2
1985	05 25	10 59.54	+04 53.3					
1985	06 04	11 05.58	+04 01.9	2.361	2.619	93.1	22.8	18.5
1985	06 14	11 13.29	+03 01.2					
1985	06 24	11 22.42	+01 52.3	2.612	2.610	78.7	22.4	18.7

1931 TE4 a,e,i = 2.28, 0.25, 3 Elements MPC 9471

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	02 24	13 26.82	-04 34.1	2.071	2.839	132.9	14.8	19.7
1985	03 06	13 22.55	-03 54.9					
1985	03 16	13 16.00	-03 04.1	1.911	2.848	155.8	8.2	19.4
1985	03 26	13 07.63	-02 05.4					
1985	04 05	12 58.28	-01 04.8	1.854	2.853	175.2	1.7	19.0
1985	04 15	12 48.87	-00 08.3					
1985	04 25	12 40.34	+00 38.3	1.913	2.854	154.4	8.8	19.4
1985	05 05	12 33.48	+01 10.9					
1985	05 15	12 28.75	+01 27.5	2.072	2.851	132.3	15.2	19.7
1985	05 25	12 26.35	+01 27.9					
1985	06 04	12 26.29	+01 13.0	2.296	2.845	112.7	19.2	20.0
1985	06 14	12 28.39	+00 44.6					
1985	06 24	12 32.46	+00 04.4	2.552	2.836	95.5	20.9	20.3
1985	07 04	12 38.26	-00 45.8					
1985	07 14	12 45.57	-01 44.3	2.813	2.823	80.2	20.8	20.5

1971 QP1 a,e,i = 3.02, 0.11, 9 Elements MPC 9469

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 02 24	14 07.06	-23 04.8	2.778	3.345	116.9	15.3	18.7
1985 03 06	14 05.74	-23 35.0					
1985 03 16	14 02.26	-23 53.0	2.550	3.348	137.0	11.7	18.4
1985 03 26	13 56.79	-23 57.2					
1985 04 05	13 49.73	-23 46.6	2.403	3.350	157.6	6.5	18.2
1985 04 15	13 41.69	-23 21.9					
1985 04 25	13 33.43	-22 45.1	2.362	3.350	167.2	3.8	18.0
1985 05 05	13 25.74	-22 00.4					
1985 05 15	13 19.29	-21 12.5	2.433	3.350	150.4	8.6	18.2
1985 05 25	13 14.57	-20 26.5					
1985 06 04	13 11.87	-19 46.7	2.601	3.348	130.3	13.4	18.5
1985 06 14	13 11.23	-19 15.8					
1985 06 24	13 12.61	-18 55.5	2.835	3.346	111.6	16.4	18.8
1985 07 04	13 15.88	-18 46.3					
1985 07 14	13 20.83	-18 47.8	3.102	3.342	94.7	17.6	19.0
1985 07 24	13 27.31	-18 59.3					
1985 08 03	13 35.12	-19 19.7	3.376	3.337	79.1	17.4	19.2

(3224) 1977 RL6 a,e,i = 2.79, 0.16, 4 Elements MPC 9475

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 02 24	15 10.22	-19 44.9	1.917	2.364	104.3	23.9	16.2
1985 03 06	15 17.99	-20 06.0					
1985 03 16	15 23.32	-20 14.9	1.677	2.351	121.2	21.2	15.9
1985 03 26	15 25.86	-20 10.8					
1985 04 05	15 25.43	-19 53.1	1.481	2.342	140.6	15.7	15.5
1985 04 15	15 22.10	-19 21.9					
1985 04 25	15 16.25	-18 38.1	1.356	2.336	162.6	7.4	15.1
1985 05 05	15 08.73	-17 44.8					
1985 05 15	15 00.66	-16 47.1	1.325	2.333	173.9	2.6	14.8
1985 05 25	14 53.23	-15 51.5					
1985 06 04	14 47.54	-15 04.4	1.393	2.334	151.2	12.1	15.2
1985 06 14	14 44.26	-14 30.2					
1985 06 24	14 43.71	-14 11.5	1.543	2.338	130.9	19.2	15.6
1985 07 04	14 45.94	-14 08.2					
1985 07 14	14 50.75	-14 18.9	1.747	2.346	113.5	23.4	16.0
1985 07 24	14 57.92	-14 41.5					
1985 08 03	15 07.16	-15 13.2	1.983	2.357	98.5	25.2	16.3

1984 FA a,e,i = 2.69, 0.10, 7 Elements MPC 8891

Date ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985 04 05	18 59.09	-18 13.1	2.776	2.961	-0.79	+0.3	18.0
1985 04 15	19 06.02	-17 59.1					
1985 04 25	19 11.03	-17 47.5	2.496	2.955	-0.88	+0.1	17.8
1985 05 05	19 13.91	-17 40.0					
1985 05 15	19 14.49	-17 37.9	2.241	2.948	-1.00	+0.0	17.5
1985 05 25	19 12.61	-17 42.3					
1985 06 04	19 08.34	-17 53.6	2.041	2.940	-1.12	+0.1	17.1
1985 06 14	19 01.89	-18 11.5					
1985 06 24	18 53.74	-18 34.8	1.927	2.930	-1.20	+0.4	16.8
1985 07 04	18 44.67	-19 01.9					
1985 07 14	18 35.58	-19 30.8	1.920	2.919	-1.20	+0.8	16.8
1985 07 24	18 27.42	-19 59.8					
1985 08 03	18 20.98	-20 27.8	2.019	2.907	-1.12	+1.1	17.1
1985 08 13	18 16.79	-20 54.2					
1985 08 23	18 15.13	-21 18.6	2.202	2.893	-1.00	+1.2	17.4
1985 09 02	18 16.07	-21 40.7					
1985 09 12	18 19.46	-22 00.0	2.436	2.879	-0.89	+1.1	17.7

1964 VE a,e,i = 2.34, 0.28, 25 Elements MPC 7459

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 13.66	+02 01.6	2.308	2.714	102.8	21.2	20.0
1985	05 05	19 16.99	+04 09.0					
1985	05 15	19 18.04	+06 18.8	2.047	2.668	117.4	19.7	19.6
1985	05 25	19 16.57	+08 26.5					
1985	06 04	19 12.52	+10 26.1	1.836	2.619	131.3	16.9	19.3
1985	06 14	19 06.02	+12 10.8					
1985	06 24	18 57.45	+13 32.7	1.695	2.567	141.1	14.4	19.0
1985	07 04	18 47.54	+14 25.0					
1985	07 14	18 37.26	+14 43.5	1.638	2.512	141.2	14.7	18.9
1985	07 24	18 27.71	+14 27.6					
1985	08 03	18 19.91	+13 40.9	1.663	2.455	131.4	18.1	19.0
1985	08 13	18 14.57	+12 29.6					
1985	08 23	18 12.12	+11 01.3	1.751	2.395	117.7	22.0	19.1
1985	09 02	18 12.71	+09 23.3					
1985	09 12	18 16.25	+07 42.2	1.881	2.333	103.7	24.8	19.3
1985	09 22	18 22.57	+06 02.8					
1985	10 02	18 31.42	+04 29.2	2.028	2.270	90.5	26.2	19.4

1980 OF a,e,i = 3.11, 0.16, 10 Elements MPC 6645

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 11.73	-31 28.8	2.355	2.840	108.6	19.6	18.1
1985	05 05	19 16.31	-31 31.5					
1985	05 15	19 18.30	-31 36.1	2.093	2.812	126.3	16.9	17.7
1985	05 25	19 17.51	-31 41.7					
1985	06 04	19 13.91	-31 46.5	1.886	2.785	145.8	11.8	17.4
1985	06 14	19 07.70	-31 47.7					
1985	06 24	18 59.42	-31 41.8	1.762	2.759	166.0	5.1	17.0
1985	07 04	18 49.97	-31 26.2					
1985	07 14	18 40.47	-30 59.8	1.739	2.735	165.5	5.4	17.0
1985	07 24	18 32.05	-30 23.8					
1985	08 03	18 25.66	-29 40.8	1.818	2.712	145.0	12.4	17.2
1985	08 13	18 21.89	-28 54.1					
1985	08 23	18 20.98	-28 06.5	1.979	2.691	125.2	17.9	17.5
1985	09 02	18 22.94	-27 19.7					
1985	09 12	18 27.55	-26 34.3	2.193	2.673	107.5	21.1	17.8
1985	09 22	18 34.54	-25 50.0					
1985	10 02	18 43.62	-25 05.7	2.433	2.657	91.6	22.1	18.1

1984 FT a,e,i = 3.02, 0.05, 11 Elements MPC 8796

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 15.86	-11 15.9	2.512	2.938	105.0	19.3	17.3
1985	05 05	19 19.30	-10 50.3					
1985	05 15	19 20.55	-10 30.5	2.276	2.947	122.7	16.8	17.0
1985	05 25	19 19.51	-10 18.7					
1985	06 04	19 16.21	-10 16.6	2.090	2.957	142.0	12.2	16.7
1985	06 14	19 10.88	-10 25.4					
1985	06 24	19 03.95	-10 45.7	1.984	2.966	161.7	6.2	16.5
1985	07 04	18 56.09	-11 16.6					
1985	07 14	18 48.10	-11 56.4	1.980	2.976	165.8	4.8	16.4
1985	07 24	18 40.81	-12 42.6					
1985	08 03	18 34.97	-13 32.5	2.082	2.986	147.2	10.6	16.7
1985	08 13	18 31.07	-14 23.4					
1985	08 23	18 29.43	-15 13.1	2.272	2.996	127.4	15.6	17.0
1985	09 02	18 30.13	-16 00.0					
1985	09 12	18 33.09	-16 42.7	2.521	3.006	109.2	18.4	17.3
1985	09 22	18 38.18	-17 20.1					
1985	10 02	18 45.16	-17 51.5	2.802	3.016	92.5	19.4	17.6

1983 AS2 a,e,i = 2.92, 0.06, 10 Elements MPC 8136

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	04 25	19 23.01	-28 48.2	2.587	3.022	-0.95	-0.2	18.4
1985	05 05	19 27.16	-29 22.2					
1985	05 15	19 28.97	-30 03.0	2.329	3.012	-1.08	-0.4	18.1
1985	05 25	19 28.22	-30 50.1					
1985	06 04	19 24.84	-31 41.7	2.124	3.001	-1.23	-0.4	17.8
1985	06 14	19 18.96	-32 34.5					
1985	06 24	19 10.96	-33 24.1	2.003	2.990	-1.34	+0.2	17.5
1985	07 04	19 01.59	-34 05.7					
1985	07 14	18 51.83	-34 35.8	1.986	2.979	-1.36	+1.0	17.4
1985	07 24	18 42.75	-34 52.6					
1985	08 03	18 35.34	-34 56.8	2.075	2.967	-1.28	+1.7	17.7
1985	08 13	18 30.28	-34 50.5					
1985	08 23	18 27.94	-34 36.6	2.248	2.955	-1.14	+1.9	18.0
1985	09 02	18 28.43	-34 17.5					
1985	09 12	18 31.61	-33 54.9	2.476	2.942	-1.01	+1.5	18.3
1985	09 22	18 37.26	-33 29.8					
1985	10 02	18 45.11	-33 02.3	2.731	2.930	-0.91	+1.0	18.5

(3073) 1979 SW11 a,e,i = 2.24, 0.14, 5 Elements MPC 8898

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 25.02	-16 29.1	2.105	2.540	103.8	22.6	18.7
1985	05 05	19 29.84	-15 51.2					
1985	05 15	19 32.13	-15 16.9	1.857	2.532	121.1	20.0	18.3
1985	05 25	19 31.63	-14 48.3					
1985	06 04	19 28.24	-14 27.0	1.652	2.521	140.7	14.8	17.9
1985	06 14	19 22.08	-14 14.2					
1985	06 24	19 13.54	-14 10.6	1.522	2.508	162.1	7.2	17.6
1985	07 04	19 03.45	-14 15.8					
1985	07 14	18 52.88	-14 28.7	1.489	2.493	168.4	4.7	17.4
1985	07 24	18 43.06	-14 47.8					
1985	08 03	18 35.10	-15 11.1	1.559	2.476	147.5	12.7	17.7
1985	08 13	18 29.73	-15 36.9					
1985	08 23	18 27.35	-16 03.5	1.712	2.456	127.0	19.2	18.1
1985	09 02	18 28.04	-16 29.4					
1985	09 12	18 31.64	-16 52.9	1.916	2.435	108.8	23.0	18.4
1985	09 22	18 37.90	-17 12.7					
1985	10 02	18 46.51	-17 27.3	2.144	2.411	92.9	24.5	18.6

(3127) 1973 ST4 a,e,i = 2.60, 0.20, 5 Elements MPC 9158

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 11.52	-25 50.1	1.747	2.271	108.1	24.9	17.1
1985	05 05	19 19.72	-25 31.3					
1985	05 15	19 25.24	-25 13.9	1.501	2.234	124.3	21.9	16.6
1985	05 25	19 27.71	-24 59.0					
1985	06 04	19 26.90	-24 46.6	1.301	2.198	143.1	16.1	16.2
1985	06 14	19 22.80	-24 35.8					
1985	06 24	19 15.77	-24 24.8	1.170	2.167	164.6	7.2	15.7
1985	07 04	19 06.73	-24 11.2					
1985	07 14	18 57.00	-23 53.3	1.127	2.138	171.9	3.8	15.4
1985	07 24	18 48.10	-23 30.9					
1985	08 03	18 41.46	-23 05.3	1.177	2.115	149.4	14.1	15.8
1985	08 13	18 37.93	-22 38.4					
1985	08 23	18 37.95	-22 11.4	1.302	2.095	129.4	21.9	16.2
1985	09 02	18 41.50	-21 44.8					
1985	09 12	18 48.27	-21 17.7	1.476	2.081	112.5	26.5	16.5
1985	09 22	18 57.91	-20 48.6					
1985	10 02	19 09.97	-20 16.0	1.679	2.072	98.1	28.6	16.9

6548 P-L a,e,i = 2.65, 0.27, 4 Elements MPC 7663

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 35.14	-17 02.0	2.912	3.265	101.5	17.6	19.8
1985	05 05	19 38.16	-16 42.9					
1985	05 15	19 39.14	-16 28.2	2.619	3.241	119.7	15.7	19.5
1985	05 25	19 37.95	-16 19.2					
1985	06 04	19 34.53	-16 16.6	2.373	3.216	139.8	11.7	19.2
1985	06 14	19 28.99	-16 20.6					
1985	06 24	19 21.61	-16 30.8	2.207	3.187	161.5	5.8	18.8
1985	07 04	19 12.95	-16 46.3					
1985	07 14	19 03.72	-17 05.6	2.146	3.156	172.1	2.6	18.6
1985	07 24	18 54.78	-17 27.1					
1985	08 03	18 46.95	-17 49.3	2.197	3.122	150.7	9.2	18.9
1985	08 13	18 40.88	-18 11.4					
1985	08 23	18 37.02	-18 32.3	2.344	3.085	129.3	14.7	19.1
1985	09 02	18 35.57	-18 51.6					
1985	09 12	18 36.55	-19 08.7	2.553	3.046	109.9	18.1	19.4
1985	09 22	18 39.85	-19 22.9					
1985	10 02	18 45.29	-19 33.6	2.791	3.005	92.4	19.4	19.6

1979 SK11 a,e,i = 2.22, 0.04, 7 Elements MPC 9417

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 22.22	-14 01.1	1.649	2.129	104.0	27.3	17.4
1985	05 05	19 30.13	-12 57.3					
1985	05 15	19 35.30	-11 55.7	1.441	2.129	119.5	24.4	17.0
1985	05 25	19 37.39	-10 59.9					
1985	06 04	19 36.23	-10 13.3	1.270	2.131	137.5	18.8	16.6
1985	06 14	19 31.85	-09 39.5					
1985	06 24	19 24.61	-09 21.6	1.160	2.133	157.0	10.7	16.2
1985	07 04	19 15.40	-09 21.2					
1985	07 14	19 05.43	-09 37.9	1.135	2.136	166.4	6.4	16.1
1985	07 24	18 56.15	-10 09.5					
1985	08 03	18 48.86	-10 51.7	1.202	2.141	149.8	13.8	16.4
1985	08 13	18 44.43	-11 39.8					
1985	08 23	18 43.29	-12 29.6	1.346	2.146	130.6	21.0	16.8
1985	09 02	18 45.50	-13 17.2					
1985	09 12	18 50.81	-13 59.8	1.543	2.152	113.5	25.4	17.2
1985	09 22	18 58.90	-14 35.2					
1985	10 02	19 09.39	-15 01.7	1.770	2.159	98.6	27.3	17.5

1981 PK a,e,i = 2.59, 0.27, 12 Elements MPC 6629

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	04 25	19 24.97	-24 29.0	1.951	2.415	-1.38	-6.8	17.9
1985	05 05	19 32.34	-23 40.6					
1985	05 15	19 37.22	-22 50.0	1.665	2.355	-1.63	-8.4	17.5
1985	05 25	19 39.26	-21 57.9					
1985	06 04	19 38.19	-21 04.6	1.423	2.295	-1.94	-9.9	16.9
1985	06 14	19 33.92	-20 10.2					
1985	06 24	19 26.64	-19 14.7	1.248	2.235	-2.23	-10.7	16.4
1985	07 04	19 17.07	-18 18.3					
1985	07 14	19 06.35	-17 22.1	1.166	2.178	-2.32	-10.7	16.0
1985	07 24	18 55.93	-16 28.2					
1985	08 03	18 47.32	-15 39.0	1.180	2.123	-2.16	-10.3	16.3
1985	08 13	18 41.58	-14 56.4					
1985	08 23	18 39.34	-14 21.0	1.273	2.071	-1.88	-9.8	16.6
1985	09 02	18 40.77	-13 51.7					
1985	09 12	18 45.70	-13 26.5	1.415	2.024	-1.62	-9.3	16.9
1985	09 22	18 53.82	-13 02.8					
1985	10 02	19 04.74	-12 37.5	1.582	1.982	-1.43	-8.9	17.2

(3121) 1981 EV a,e,i = 2.23, 0.09, 6 Elements MPC 9155

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 25.40	-16 21.2	1.617	2.096	103.6	27.8	17.8
1985	05 05	19 33.70	-16 02.5					
1985	05 15	19 39.17	-15 51.6	1.421	2.112	119.6	24.6	17.5
1985	05 25	19 41.46	-15 51.7					
1985	06 04	19 40.38	-16 05.2	1.261	2.129	138.4	18.4	17.1
1985	06 14	19 35.94	-16 33.1					
1985	06 24	19 28.49	-17 14.6	1.162	2.147	160.3	9.2	16.7
1985	07 04	19 18.92	-18 06.3					
1985	07 14	19 08.54	-19 03.0	1.152	2.166	174.1	2.8	16.4
1985	07 24	18 58.85	-19 59.7					
1985	08 03	18 51.22	-20 52.0	1.238	2.185	151.8	12.7	17.0
1985	08 13	18 46.55	-21 37.7					
1985	08 23	18 45.26	-22 15.8	1.404	2.205	131.1	20.2	17.4
1985	09 02	18 47.37	-22 45.8					
1985	09 12	18 52.60	-23 07.7	1.624	2.224	113.4	24.5	17.9
1985	09 22	19 00.61	-23 21.2					
1985	10 02	19 10.96	-23 25.8	1.874	2.244	98.0	26.2	18.2

1984 AZ a,e,i = 2.34, 0.15, 6 Elements MPC 8901

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 37.72	-21 06.8	2.043	2.451	101.6	23.7	18.5
1985	05 05	19 43.62	-21 10.0					
1985	05 15	19 46.86	-21 21.5	1.831	2.482	118.9	20.9	18.3
1985	05 25	19 47.18	-21 42.3					
1985	06 04	19 44.44	-22 12.8	1.657	2.511	138.8	15.4	18.0
1985	06 14	19 38.72	-22 51.4					
1985	06 24	19 30.40	-23 35.2	1.555	2.539	161.2	7.4	17.6
1985	07 04	19 20.29	-24 19.7					
1985	07 14	19 09.50	-25 00.4	1.551	2.564	174.1	2.3	17.4
1985	07 24	18 59.30	-25 33.9					
1985	08 03	18 50.87	-25 59.0	1.652	2.588	151.2	10.9	17.9
1985	08 13	18 44.98	-26 15.9					
1985	08 23	18 42.06	-26 25.9	1.842	2.609	130.0	17.3	18.3
1985	09 02	18 42.17	-26 30.2					
1985	09 12	18 45.13	-26 29.7	2.089	2.629	111.4	20.9	18.7
1985	09 22	18 50.67	-26 24.7					
1985	10 02	18 58.46	-26 15.2	2.366	2.646	94.8	22.1	19.0

1984 DF1 a,e,i = 2.68, 0.11, 4 Elements MPC 9474

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 40.68	-25 30.4	2.398	2.781	101.6	20.8	19.1
1985	05 05	19 45.75	-25 29.8					
1985	05 15	19 48.38	-25 34.9	2.166	2.802	119.2	18.4	18.8
1985	05 25	19 48.33	-25 46.0					
1985	06 04	19 45.55	-26 02.5	1.977	2.823	139.0	13.6	18.5
1985	06 14	19 40.13	-26 22.5					
1985	06 24	19 32.44	-26 43.2	1.863	2.842	160.7	6.8	18.3
1985	07 04	19 23.18	-27 01.2					
1985	07 14	19 13.30	-27 13.4	1.849	2.861	173.3	2.4	18.0
1985	07 24	19 03.86	-27 18.4					
1985	08 03	18 55.88	-27 15.8	1.943	2.878	152.0	9.5	18.5
1985	08 13	18 50.06	-27 07.0					
1985	08 23	18 46.81	-26 53.4	2.129	2.895	131.0	15.3	18.8
1985	09 02	18 46.25	-26 36.7					
1985	09 12	18 48.28	-26 17.6	2.378	2.910	112.1	18.7	19.1
1985	09 22	18 52.70	-25 56.4					
1985	10 02	18 59.22	-25 33.1	2.660	2.924	95.1	19.9	19.4

1981 EB19 a,e,i = 2.25, 0.23, 2 Elements MPC 7933

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	04 25	19 01.92	-20 12.3	1.281	1.877	-2.46	-2.4	18.6
1985	05 05	19 14.25	-19 39.4					
1985	05 15	19 24.04	-19 07.6	1.069	1.835	-3.03	-4.2	18.1
1985	05 25	19 30.80	-18 40.2					
1985	06 04	19 34.15	-18 20.6	0.896	1.798	-3.75	-5.8	17.5
1985	06 14	19 33.86	-18 11.5					
1985	06 24	19 29.99	-18 14.3	0.778	1.769	-4.41	-6.4	17.0
1985	07 04	19 23.30	-18 28.4					
1985	07 14	19 15.14	-18 51.1	0.732	1.747	-4.63	-5.5	16.5
1985	07 24	19 07.32	-19 18.3					
1985	08 03	19 01.69	-19 46.0	0.762	1.733	-4.23	-4.1	16.9
1985	08 13	18 59.49	-20 11.0					
1985	08 23	19 01.36	-20 31.0	0.859	1.729	-3.56	-3.5	17.4
1985	09 02	19 07.32	-20 43.8					
1985	09 12	19 16.95	-20 47.5	1.003	1.733	-2.95	-3.9	17.9
1985	09 22	19 29.74	-20 40.5					
1985	10 02	19 45.09	-20 21.3	1.179	1.747	-2.48	-4.8	18.3

1984 EN a,e,i = 2.40, 0.08, 4 Elements MPC 9019

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	04 25	19 43.38	-25 08.9	2.179	2.568	-1.08	-3.5	18.3
1985	05 05	19 49.59	-25 01.2					
1985	05 15	19 53.25	-24 59.1	1.940	2.575	-1.22	-4.2	18.0
1985	05 25	19 54.09	-25 03.4					
1985	06 04	19 51.92	-25 13.9	1.740	2.581	-1.41	-4.7	17.6
1985	06 14	19 46.78	-25 29.2					
1985	06 24	19 38.93	-25 46.3	1.609	2.585	-1.58	-4.6	17.3
1985	07 04	19 29.11	-26 01.7					
1985	07 14	19 18.35	-26 11.9	1.575	2.589	-1.64	-3.8	16.9
1985	07 24	19 07.90	-26 14.7					
1985	08 03	18 58.98	-26 09.8	1.645	2.590	-1.54	-2.8	17.4
1985	08 13	18 52.47	-25 58.3					
1985	08 23	18 48.89	-25 42.3	1.806	2.591	-1.36	-2.2	17.7
1985	09 02	18 48.36	-25 23.1					
1985	09 12	18 50.76	-25 01.6	2.028	2.590	-1.17	-2.0	18.1
1985	09 22	18 55.83	-24 38.0					
1985	10 02	19 03.24	-24 11.8	2.281	2.587	-1.02	-2.2	18.4

1983 AQ a,e,i = 2.46, 0.25, 10 Elements MPC 7766

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	04 25	19 28.96	-27 15.9	1.947	2.405	-1.47	-0.4	17.9
1985	05 05	19 37.64	-27 51.3					
1985	05 15	19 44.07	-28 37.1	1.667	2.347	-1.78	-1.2	17.5
1985	05 25	19 47.81	-29 35.0					
1985	06 04	19 48.47	-30 45.5	1.429	2.290	-2.18	-1.7	17.0
1985	06 14	19 45.74	-32 06.5					
1985	06 24	19 39.55	-33 33.1	1.259	2.232	-2.59	-0.9	16.5
1985	07 04	19 30.35	-34 56.8					
1985	07 14	19 19.20	-36 08.1	1.177	2.176	-2.79	+1.5	16.2
1985	07 24	19 07.70	-36 58.8					
1985	08 03	18 57.73	-37 25.3	1.188	2.120	-2.65	+3.8	16.3
1985	08 13	18 50.82	-37 29.3					
1985	08 23	18 47.93	-37 14.8	1.276	2.067	-2.32	+4.5	16.6
1985	09 02	18 49.39	-36 46.9					
1985	09 12	18 54.97	-36 08.8	1.411	2.017	-2.00	+3.5	16.9
1985	09 22	19 04.31	-35 22.3					
1985	10 02	19 16.85	-34 27.6	1.570	1.972	-1.77	+1.6	17.1

1980 RN1 a,e,i = 3.04, 0.27, 13 Elements MPC 7779

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 37.44	-06 20.5	2.492	2.827	98.8	20.6	18.7
1985	05 05	19 43.34	-05 13.5					
1985	05 15	19 47.35	-04 08.2	2.196	2.771	114.4	19.4	18.4
1985	05 25	19 49.24	-03 07.2					
1985	06 04	19 48.87	-02 14.1	1.938	2.716	131.2	16.3	18.0
1985	06 14	19 46.21	-01 32.2					
1985	06 24	19 41.36	-01 05.7	1.742	2.661	148.3	11.6	17.6
1985	07 04	19 34.74	-00 57.8					
1985	07 14	19 26.98	-01 10.5	1.631	2.607	159.4	7.9	17.3
1985	07 24	19 18.98	-01 43.8					
1985	08 03	19 11.72	-02 35.3	1.617	2.555	151.5	10.9	17.3
1985	08 13	19 06.07	-03 40.5					
1985	08 23	19 02.71	-04 54.1	1.692	2.505	134.3	16.8	17.5
1985	09 02	19 02.05	-06 10.5					
1985	09 12	19 04.19	-07 25.1	1.833	2.456	116.8	21.5	17.8
1985	09 22	19 09.09	-08 34.2					
1985	10 02	19 16.56	-09 35.0	2.014	2.411	100.8	24.1	18.0

(3042) 1981 EF10 a,e,i = 2.28, 0.21, 5 Elements MPC 8783

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 16.42	-18 36.5	1.320	1.868	106.1	31.2	17.2
1985	05 05	19 29.22	-17 25.0					
1985	05 15	19 39.42	-16 10.5	1.118	1.841	119.6	28.5	16.7
1985	05 25	19 46.58	-14 56.3					
1985	06 04	19 50.34	-13 46.4	0.952	1.819	135.4	23.0	16.2
1985	06 14	19 50.49	-12 44.9					
1985	06 24	19 47.07	-11 56.3	0.836	1.805	153.9	14.3	15.7
1985	07 04	19 40.73	-11 24.0					
1985	07 14	19 32.62	-11 09.9	0.789	1.798	169.4	6.0	15.4
1985	07 24	19 24.37	-11 13.6					
1985	08 03	19 17.73	-11 31.8	0.821	1.799	156.8	12.8	15.6
1985	08 13	19 13.98	-11 59.7					
1985	08 23	19 13.84	-12 31.9	0.924	1.807	138.0	22.0	16.1
1985	09 02	19 17.49	-13 03.1					
1985	09 12	19 24.65	-13 29.3	1.081	1.823	121.7	28.0	16.6
1985	09 22	19 34.90	-13 47.3					
1985	10 02	19 47.73	-13 54.5	1.274	1.846	107.9	31.1	17.1

1982 SL a,e,i = 2.20, 0.20, 3 Elements MPC 7470

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 36.35	-19 11.9	1.785	2.218	101.6	26.4	19.1
1985	05 05	19 45.79	-18 31.7					
1985	05 15	19 52.96	-17 53.7	1.520	2.172	116.8	24.6	18.7
1985	05 25	19 57.45	-17 20.3					
1985	06 04	19 58.92	-16 53.9	1.288	2.125	134.3	20.0	18.1
1985	06 14	19 57.10	-16 36.4					
1985	06 24	19 51.93	-16 29.3	1.112	2.077	154.8	12.0	17.6
1985	07 04	19 43.79	-16 32.5					
1985	07 14	19 33.61	-16 44.4	1.016	2.030	174.9	2.6	17.0
1985	07 24	19 22.80	-17 02.5					
1985	08 03	19 13.09	-17 23.7	1.011	1.985	156.9	11.6	17.3
1985	08 13	19 05.93	-17 45.2					
1985	08 23	19 02.34	-18 05.2	1.087	1.941	135.3	21.5	17.6
1985	09 02	19 02.76	-18 21.8					
1985	09 12	19 07.10	-18 33.3	1.216	1.900	117.2	28.1	18.0
1985	09 22	19 15.09	-18 38.1					
1985	10 02	19 26.27	-18 34.3	1.374	1.862	102.2	31.7	18.3

1979 XK a,e,i = 2.41, 0.22, 1 Elements MPC 8675

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	20 01.01	-20 26.3	2.464	2.759	96.1	21.3	19.7
1985	05 05	20 06.41	-20 12.1					
1985	05 15	20 09.50	-20 04.5	2.230	2.791	113.4	19.4	19.4
1985	05 25	20 10.08	-20 04.7					
1985	06 04	20 08.01	-20 13.2	2.029	2.820	133.0	15.2	19.1
1985	06 14	20 03.30	-20 29.6					
1985	06 24	19 56.17	-20 52.4	1.893	2.847	155.0	8.7	18.9
1985	07 04	19 47.16	-21 18.8					
1985	07 14	19 37.08	-21 45.7	1.854	2.870	178.6	0.5	18.3
1985	07 24	19 26.93	-22 10.1					
1985	08 03	19 17.75	-22 29.9	1.926	2.891	157.8	7.6	18.9
1985	08 13	19 10.38	-22 44.5					
1985	08 23	19 05.38	-22 53.8	2.098	2.909	135.7	14.1	19.3
1985	09 02	19 03.02	-22 58.3					
1985	09 12	19 03.29	-22 58.6	2.341	2.924	115.9	18.0	19.6
1985	09 22	19 06.04	-22 54.9					
1985	10 02	19 11.03	-22 47.2	2.623	2.936	98.1	19.7	19.9

1984 CZ a,e,i = 2.64, 0.08, 10 Elements MPC 8795

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 49.34	-11 41.8	2.224	2.551	97.1	23.0	17.8
1985	05 05	19 56.10	-11 09.0					
1985	05 15	20 00.63	-10 42.6	1.996	2.568	113.2	21.2	17.5
1985	05 25	20 02.70	-10 25.6					
1985	06 04	20 02.18	-10 20.2	1.799	2.586	131.6	17.1	17.2
1985	06 14	19 59.07	-10 28.6					
1985	06 24	19 53.53	-10 51.6	1.662	2.604	152.0	10.6	16.9
1985	07 04	19 46.09	-11 28.9					
1985	07 14	19 37.51	-12 18.1	1.614	2.621	170.4	3.7	16.6
1985	07 24	19 28.78	-13 15.6					
1985	08 03	19 20.95	-14 16.9	1.670	2.639	158.3	8.2	16.9
1985	08 13	19 14.86	-15 17.8					
1985	08 23	19 11.12	-16 15.1	1.823	2.657	137.5	14.9	17.3
1985	09 02	19 10.03	-17 06.3					
1985	09 12	19 11.59	-17 50.1	2.047	2.675	118.3	19.4	17.6
1985	09 22	19 15.67	-18 25.7					
1985	10 02	19 22.04	-18 52.5	2.313	2.692	101.1	21.4	18.0

1978 SA3 a,e,i = 4.01, 0.21, 4 Elements MPC 7453

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 55.05	-24 20.1	3.704	3.974	98.2	14.5	18.2
1985	05 05	19 58.66	-24 15.9					
1985	05 15	20 00.62	-24 16.0	3.384	3.937	116.3	13.3	17.9
1985	05 25	20 00.81	-24 20.7					
1985	06 04	19 59.18	-24 29.7	3.108	3.900	135.8	10.5	17.7
1985	06 14	19 55.77	-24 42.2					
1985	06 24	19 50.75	-24 56.8	2.908	3.862	156.7	6.0	17.4
1985	07 04	19 44.46	-25 11.7					
1985	07 14	19 37.38	-25 25.0	2.809	3.824	176.1	1.0	16.9
1985	07 24	19 30.09	-25 35.1					
1985	08 03	19 23.26	-25 40.7	2.825	3.786	158.3	5.7	17.2
1985	08 13	19 17.46	-25 41.6					
1985	08 23	19 13.17	-25 37.8	2.945	3.749	137.0	10.6	17.5
1985	09 02	19 10.72	-25 29.8					
1985	09 12	19 10.22	-25 18.3	3.143	3.711	117.1	14.0	17.7
1985	09 22	19 11.72	-25 03.6					
1985	10 02	19 15.13	-24 46.1	3.386	3.674	98.8	15.6	17.8

(3022) 1980 SH a,e,i = 1.93, 0.10, 24 Elements MPC 8673

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 44.91	+07 18.8	1.792	2.114	93.9	28.3	18.5
1985	05 05	19 53.57	+09 35.5					
1985	05 15	19 59.91	+11 51.7	1.592	2.104	105.7	27.6	18.3
1985	05 25	20 03.59	+14 02.2					
1985	06 04	20 04.34	+16 00.6	1.412	2.090	118.1	25.4	17.9
1985	06 14	20 01.97	+17 38.9					
1985	06 24	19 56.50	+18 47.3	1.268	2.075	130.2	22.0	17.6
1985	07 04	19 48.34	+19 15.7					
1985	07 14	19 38.35	+18 56.1	1.177	2.057	139.2	18.8	17.4
1985	07 24	19 27.78	+17 44.5					
1985	08 03	19 18.14	+15 44.3	1.156	2.038	139.6	18.8	17.3
1985	08 13	19 10.70	+13 05.4					
1985	08 23	19 06.39	+10 01.8	1.208	2.016	130.4	22.4	17.4
1985	09 02	19 05.66	+06 48.5					
1985	09 12	19 08.51	+03 38.1	1.323	1.993	117.1	26.7	17.7
1985	09 22	19 14.75	+00 39.9					
1985	10 02	19 24.02	-02 00.1	1.481	1.969	103.3	29.6	18.0

1984 CM1 a,e,i = 2.74, 0.21, 10 Elements MPC 8779

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	04 25	19 58.62	-10 52.8	2.640	2.900	-0.75	-0.4	18.9
1985	05 05	20 03.52	-10 17.1					
1985	05 15	20 06.34	-09 47.4	2.412	2.938	-0.82	-0.5	18.7
1985	05 25	20 06.93	-09 25.6					
1985	06 04	20 05.20	-09 13.8	2.215	2.975	-0.92	-0.5	18.4
1985	06 14	20 01.24	-09 13.2					
1985	06 24	19 55.24	-09 24.7	2.081	3.010	-1.01	-0.6	18.2
1985	07 04	19 47.69	-09 48.2					
1985	07 14	19 39.25	-10 22.2	2.041	3.043	-1.05	-0.6	18.0
1985	07 24	19 30.71	-11 04.3					
1985	08 03	19 22.93	-11 51.2	2.110	3.075	-1.02	-0.4	18.2
1985	08 13	19 16.59	-12 39.9					
1985	08 23	19 12.20	-13 27.7	2.281	3.105	-0.94	-0.3	18.5
1985	09 02	19 10.03	-14 12.3					
1985	09 12	19 10.13	-14 52.2	2.529	3.132	-0.83	-0.2	18.9
1985	09 22	19 12.43	-15 26.3					
1985	10 02	19 16.76	-15 54.0	2.823	3.158	-0.74	-0.2	19.2

1975 XY1 a,e,i = 2.39, 0.21, 24 Elements MPC 7940

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	20 06.80	-06 10.4	2.684	2.894	91.7	20.3	18.4
1985	05 05	20 11.15	-04 28.2					
1985	05 15	20 13.45	-02 45.5	2.427	2.900	107.8	19.4	18.2
1985	05 25	20 13.50	-01 04.4					
1985	06 04	20 11.18	+00 32.0	2.201	2.904	125.0	16.6	17.9
1985	06 14	20 06.50	+02 00.4					
1985	06 24	19 59.59	+03 16.4	2.036	2.905	142.0	12.4	17.6
1985	07 04	19 50.89	+04 15.9					
1985	07 14	19 41.06	+04 55.6	1.959	2.903	153.2	9.1	17.5
1985	07 24	19 30.94	+05 13.6					
1985	08 03	19 21.47	+05 10.6	1.985	2.898	148.3	10.6	17.5
1985	08 13	19 13.47	+04 49.6					
1985	08 23	19 07.56	+04 14.9	2.105	2.890	132.9	14.9	17.8
1985	09 02	19 04.07	+03 31.6					
1985	09 12	19 03.11	+02 44.5	2.294	2.879	115.8	18.3	18.0
1985	09 22	19 04.61	+01 57.6					
1985	10 02	19 08.41	+01 14.1	2.523	2.865	99.6	20.2	18.3

(3064) 1984 BB1 a,e,i = 2.46, 0.12, 3 Elements MPC 8792

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	19 58.37	-17 39.3	2.231	2.544	96.1	23.2	18.8
1985	05 05	20 05.30	-17 12.4					
1985	05 15	20 09.90	-16 51.8	2.002	2.567	112.6	21.3	18.5
1985	05 25	20 11.95	-16 39.2					
1985	06 04	20 11.26	-16 36.2	1.803	2.588	131.4	17.1	18.2
1985	06 14	20 07.81	-16 43.5					
1985	06 24	20 01.75	-17 00.8	1.664	2.609	152.7	10.3	17.9
1985	07 04	19 53.58	-17 26.3					
1985	07 14	19 44.10	-17 57.2	1.614	2.629	175.1	1.9	17.5
1985	07 24	19 34.36	-18 30.1					
1985	08 03	19 25.49	-19 01.9	1.671	2.647	159.9	7.6	17.9
1985	08 13	19 18.42	-19 30.4					
1985	08 23	19 13.79	-19 54.2	1.825	2.664	137.9	14.7	18.3
1985	09 02	19 11.93	-20 12.9					
1985	09 12	19 12.82	-20 26.0	2.051	2.679	118.3	19.3	18.6
1985	09 22	19 16.34	-20 33.5					
1985	10 02	19 22.20	-20 34.9	2.317	2.693	100.9	21.4	19.0

1936 XA a,e,i = 2.76, 0.19, 8 Elements MPC 7661

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	20 05.08	-15 28.9	3.028	3.259	94.1	17.9	18.9
1985	05 05	20 09.51	-14 49.3					
1985	05 15	20 12.09	-14 13.3	2.737	3.247	111.5	16.8	18.6
1985	05 25	20 12.64	-13 42.2					
1985	06 04	20 11.06	-13 17.2	2.480	3.232	130.5	13.8	18.3
1985	06 14	20 07.35	-12 59.2					
1985	06 24	20 01.63	-12 48.7	2.288	3.216	151.2	8.8	18.0
1985	07 04	19 54.28	-12 45.9					
1985	07 14	19 45.84	-12 50.0	2.191	3.197	170.4	3.1	17.7
1985	07 24	19 37.05	-13 00.0					
1985	08 03	19 28.72	-13 14.3	2.205	3.177	159.9	6.3	17.9
1985	08 13	19 21.58	-13 31.1					
1985	08 23	19 16.23	-13 48.9	2.324	3.155	138.7	12.2	18.1
1985	09 02	19 13.04	-14 06.1					
1985	09 12	19 12.14	-14 21.6	2.521	3.131	118.6	16.4	18.4
1985	09 22	19 13.54	-14 34.2					
1985	10 02	19 17.11	-14 43.0	2.763	3.105	100.4	18.5	18.6

1978 RJ2 a,e,i = 2.38, 0.21, 1 Elements MPC 6206

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	20 03.19	-21 46.3	2.220	2.529	95.9	23.3	20.3
1985	05 05	20 11.87	-21 22.6					
1985	05 15	20 18.53	-21 03.6	1.928	2.485	111.6	22.2	19.9
1985	05 25	20 22.85	-20 51.4					
1985	06 04	20 24.51	-20 47.4	1.666	2.439	129.4	18.8	19.5
1985	06 14	20 23.27	-20 52.5					
1985	06 24	20 18.98	-21 06.5	1.459	2.392	149.8	12.3	19.0
1985	07 04	20 11.83	-21 27.4					
1985	07 14	20 02.39	-21 51.9	1.332	2.344	172.7	3.2	18.4
1985	07 24	19 51.68	-22 15.6					
1985	08 03	19 41.12	-22 34.6	1.306	2.295	163.1	7.4	18.5
1985	08 13	19 32.07	-22 46.5					
1985	08 23	19 25.68	-22 50.5	1.373	2.246	140.3	16.7	18.8
1985	09 02	19 22.64	-22 47.1					
1985	09 12	19 23.13	-22 37.0	1.509	2.198	120.4	23.3	19.1
1985	09 22	19 27.08	-22 20.5					
1985	10 02	19 34.17	-21 57.5	1.683	2.150	103.5	26.9	19.4

4031 P-L a,e,i = 2.37, 0.18, 5 Elements MPC 8909

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	20 13.86	-25 02.0	2.456	2.720	94.1	21.6	20.6
1985	05 05	20 21.42	-24 50.1					
1985	05 15	20 26.90	-24 44.4	2.172	2.698	110.5	20.6	20.3
1985	05 25	20 29.99	-24 46.3					
1985	06 04	20 30.42	-24 56.3	1.917	2.673	128.8	17.2	19.9
1985	06 14	20 28.01	-25 14.1					
1985	06 24	20 22.67	-25 38.0	1.719	2.645	149.5	11.3	19.5
1985	07 04	20 14.67	-26 04.4					
1985	07 14	20 04.63	-26 28.9	1.607	2.615	171.0	3.5	19.1
1985	07 24	19 53.53	-26 47.0					
1985	08 03	19 42.68	-26 55.2	1.600	2.583	161.9	7.0	19.2
1985	08 13	19 33.27	-26 52.4					
1985	08 23	19 26.31	-26 39.7	1.693	2.550	139.7	14.9	19.5
1985	09 02	19 22.38	-26 19.0					
1985	09 12	19 21.63	-25 52.1	1.860	2.514	119.6	20.4	19.8
1985	09 22	19 23.99	-25 20.6					
1985	10 02	19 29.18	-24 44.8	2.068	2.476	101.9	23.3	20.1

1982 RK a,e,i = 2.21, 0.14, 5 Elements MPC 7446

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	04 25	20 00.75	-19 04.8	2.027	2.353	-1.24	-1.7	19.0
1985	05 05	20 10.25	-18 47.0					
1985	05 15	20 17.69	-18 36.0	1.760	2.325	-1.45	-2.5	18.6
1985	05 25	20 22.72	-18 34.4					
1985	06 04	20 25.01	-18 44.7	1.520	2.296	-1.73	-3.3	18.2
1985	06 14	20 24.28	-19 08.5					
1985	06 24	20 20.35	-19 46.1	1.332	2.265	-2.04	-3.8	17.7
1985	07 04	20 13.42	-20 35.6					
1985	07 14	20 04.06	-21 32.4	1.222	2.234	-2.27	-3.3	17.2
1985	07 24	19 53.36	-22 30.6					
1985	08 03	19 42.82	-23 23.6	1.211	2.202	-2.26	-1.9	17.3
1985	08 13	19 33.90	-24 06.8					
1985	08 23	19 27.80	-24 38.3	1.291	2.169	-2.03	-0.7	17.6
1985	09 02	19 25.21	-24 57.9					
1985	09 12	19 26.30	-25 06.6	1.439	2.136	-1.74	-0.4	18.0
1985	09 22	19 30.92	-25 05.0					
1985	10 02	19 38.74	-24 53.5	1.624	2.104	-1.51	-0.7	18.3

4601 P-L a,e,i = 3.01, 0.23, 3 Elements MPC 9300

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	20 18.56	-21 20.6	3.419	3.602	92.3	16.2	20.3
1985	05 05	20 23.21	-21 13.7					
1985	05 15	20 26.18	-21 12.8	3.112	3.584	109.9	15.4	20.1
1985	05 25	20 27.30	-21 18.5					
1985	06 04	20 26.45	-21 31.3	2.835	3.563	129.1	12.8	19.8
1985	06 14	20 23.59	-21 50.8					
1985	06 24	20 18.78	-22 16.0	2.624	3.541	150.0	8.2	19.5
1985	07 04	20 12.29	-22 44.8					
1985	07 14	20 04.55	-23 14.8	2.507	3.516	172.1	2.3	19.1
1985	07 24	19 56.17	-23 43.2					
1985	08 03	19 47.90	-24 07.5	2.503	3.490	164.1	4.6	19.3
1985	08 13	19 40.47	-24 26.1					
1985	08 23	19 34.49	-24 38.3	2.609	3.462	142.0	10.4	19.5
1985	09 02	19 30.43	-24 44.3					
1985	09 12	19 28.51	-24 44.5	2.800	3.433	121.3	14.5	19.7
1985	09 22	19 28.81	-24 39.5					
1985	10 02	19 31.25	-24 29.7	3.043	3.402	102.4	16.7	20.0

1981 VS a,e,i = 2.78, 0.29, 9 Elements MPC 8777

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	04 25	20 12.62	-10 26.7	2.886	3.076	-0.73	-2.2	18.7
1985	05 05	20 18.57	-09 33.3					
1985	05 15	20 22.84	-08 42.3	2.564	3.025	-0.83	-2.6	18.4
1985	05 25	20 25.19	-07 55.7					
1985	06 04	20 25.45	-07 15.5	2.270	2.971	-0.95	-3.1	18.0
1985	06 14	20 23.50	-06 43.8					
1985	06 24	20 19.31	-06 23.0	2.030	2.916	-1.08	-3.5	17.6
1985	07 04	20 13.09	-06 14.8					
1985	07 14	20 05.26	-06 20.2	1.873	2.859	-1.16	-3.8	17.3
1985	07 24	19 56.47	-06 39.2					
1985	08 03	19 47.63	-07 10.1	1.820	2.800	-1.16	-3.7	17.2
1985	08 13	19 39.64	-07 50.0					
1985	08 23	19 33.33	-08 35.4	1.869	2.740	-1.09	-3.3	17.3
1985	09 02	19 29.31	-09 22.4					
1985	09 12	19 27.90	-10 07.9	1.999	2.679	-0.98	-2.8	17.6
1985	09 22	19 29.19	-10 49.2					
1985	10 02	19 33.10	-11 24.1	2.178	2.617	-0.89	-2.4	17.8

(3088) 1981 UX9 a,e,i = 3.03, 0.05, 10 Elements MPC 8905

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	20 14.17	-09 40.9	2.979	3.156	90.7	18.6	18.3
1985	05 05	20 19.82	-09 00.1					
1985	05 15	20 23.73	-08 24.0	2.710	3.159	107.1	17.8	18.1
1985	05 25	20 25.73	-07 54.7					
1985	06 04	20 25.71	-07 34.0	2.467	3.161	125.1	15.2	17.8
1985	06 14	20 23.64	-07 23.7					
1985	06 24	20 19.59	-07 25.3	2.279	3.163	144.7	10.7	17.5
1985	07 04	20 13.83	-07 39.4					
1985	07 14	20 06.83	-08 05.7	2.176	3.165	163.8	5.1	17.3
1985	07 24	19 59.21	-08 42.6					
1985	08 03	19 51.73	-09 27.4	2.180	3.166	163.6	5.2	17.3
1985	08 13	19 45.10	-10 16.9					
1985	08 23	19 39.95	-11 07.7	2.290	3.166	144.3	10.7	17.5
1985	09 02	19 36.72	-11 56.9					
1985	09 12	19 35.62	-12 42.0	2.486	3.166	124.4	15.2	17.8
1985	09 22	19 36.72	-13 21.4					
1985	10 02	19 39.93	-13 53.9	2.739	3.165	106.0	17.7	18.1

1981 EY35 a,e,i = 2.28, 0.14, 4 Elements MPC 8529

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	04 25	19 59.59	-25 31.6	1.602	1.999	-1.71	-5.4	18.7
1985	05 05	20 12.28	-25 16.4					
1985	05 15	20 22.31	-25 07.3	1.414	2.018	-1.93	-7.4	18.4
1985	05 25	20 29.26	-25 06.8					
1985	06 04	20 32.77	-25 16.6	1.250	2.041	-2.26	-9.2	18.1
1985	06 14	20 32.56	-25 36.6					
1985	06 24	20 28.53	-26 04.8	1.132	2.066	-2.64	-10.1	17.7
1985	07 04	20 21.07	-26 36.3					
1985	07 14	20 11.10	-27 04.6	1.086	2.094	-2.87	-9.1	17.4
1985	07 24	20 00.07	-27 23.2					
1985	08 03	19 49.73	-27 28.2	1.132	2.123	-2.76	-6.8	17.6
1985	08 13	19 41.57	-27 19.2					
1985	08 23	19 36.57	-26 58.4	1.267	2.154	-2.37	-5.1	18.1
1985	09 02	19 35.14	-26 28.5					
1985	09 12	19 37.16	-25 52.1	1.468	2.186	-1.95	-4.4	18.6
1985	09 22	19 42.33	-25 10.4					
1985	10 02	19 50.18	-24 23.8	1.714	2.219	-1.60	-4.4	19.0

1984 CQ a,e,i = 2.25, 0.08, 7 Elements MPC 8895

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	20 11.45	-15 59.0	2.145	2.412	92.7	24.6	18.1
1985	05 05	20 20.18	-15 33.9					
1985	05 15	20 26.78	-15 16.1	1.903	2.419	108.3	23.4	17.9
1985	05 25	20 30.97	-15 08.1					
1985	06 04	20 32.47	-15 12.2	1.684	2.425	126.1	19.8	17.5
1985	06 14	20 31.10	-15 30.2					
1985	06 24	20 26.79	-16 02.7	1.514	2.429	146.7	13.3	17.1
1985	07 04	20 19.80	-16 48.4					
1985	07 14	20 10.72	-17 43.8	1.424	2.431	169.8	4.3	16.7
1985	07 24	20 00.55	-18 44.0					
1985	08 03	19 50.55	-19 43.0	1.436	2.432	165.7	5.9	16.8
1985	08 13	19 41.93	-20 36.3					
1985	08 23	19 35.69	-21 20.8	1.547	2.431	142.9	14.5	17.2
1985	09 02	19 32.41	-21 55.3					
1985	09 12	19 32.26	-22 19.8	1.734	2.429	122.6	20.4	17.6
1985	09 22	19 35.16	-22 34.5					
1985	10 02	19 40.84	-22 39.6	1.967	2.425	104.9	23.5	17.9

(3085) 1980 DA a,e,i = 2.39, 0.10, 4 Elements MPC 8903

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	20 16.15	-19 07.6	2.346	2.590	92.3	22.8	18.4
1985	05 05	20 24.28	-18 27.5					
1985	05 15	20 30.38	-17 51.6	2.078	2.578	108.1	21.9	18.1
1985	05 25	20 34.16	-17 21.8					
1985	06 04	20 35.38	-16 59.5	1.834	2.564	125.9	18.7	17.8
1985	06 14	20 33.86	-16 46.0					
1985	06 24	20 29.53	-16 41.7	1.641	2.549	146.3	12.8	17.4
1985	07 04	20 22.61	-16 46.1					
1985	07 14	20 13.67	-16 57.3	1.528	2.533	168.8	4.5	17.0
1985	07 24	20 03.58	-17 12.8					
1985	08 03	19 53.54	-17 29.4	1.518	2.516	166.5	5.4	17.0
1985	08 13	19 44.71	-17 44.7					
1985	08 23	19 38.05	-17 57.0	1.609	2.498	143.8	13.8	17.3
1985	09 02	19 34.18	-18 05.0					
1985	09 12	19 33.33	-18 08.3	1.777	2.478	123.4	19.8	17.7
1985	09 22	19 35.46	-18 06.3					
1985	10 02	19 40.35	-17 58.5	1.992	2.458	105.6	23.1	18.0

1978 VQ3 a,e,i = 2.55, 0.13, 9 Elements MPC 8383

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	20 22.96	-12 14.7	2.705	2.872	89.2	20.5	20.3
1985	05 05	20 29.38	-11 14.2					
1985	05 15	20 33.93	-10 16.7	2.439	2.875	105.2	19.8	20.1
1985	05 25	20 36.38	-09 24.1					
1985	06 04	20 36.57	-08 38.2	2.195	2.876	123.0	17.2	19.8
1985	06 14	20 34.41	-08 01.0					
1985	06 24	20 29.92	-07 34.3	2.001	2.876	142.6	12.4	19.5
1985	07 04	20 23.35	-07 19.5					
1985	07 14	20 15.18	-07 17.2	1.889	2.873	162.0	6.3	19.2
1985	07 24	20 06.11	-07 27.0					
1985	08 03	19 57.08	-07 46.9	1.881	2.869	163.7	5.7	19.2
1985	08 13	19 48.97	-08 14.4					
1985	08 23	19 42.54	-08 46.2	1.977	2.863	144.7	11.8	19.4
1985	09 02	19 38.33	-09 19.2					
1985	09 12	19 36.59	-09 50.7	2.158	2.855	124.8	16.8	19.7
1985	09 22	19 37.35	-10 18.4					
1985	10 02	19 40.50	-10 40.5	2.393	2.845	106.6	19.7	20.0

1975 XP3 a,e,i = 2.35, 0.13, 3 Elements MPC 7606

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	04 25	20 18.46	-22 56.8	2.341	2.590	92.7	22.8	19.4
1985	05 05	20 27.13	-22 39.2					
1985	05 15	20 33.79	-22 28.0	2.068	2.573	108.4	21.9	19.1
1985	05 25	20 38.13	-22 24.9					
1985	06 04	20 39.86	-22 31.1	1.819	2.553	126.2	18.7	18.8
1985	06 14	20 38.75	-22 47.1					
1985	06 24	20 34.68	-23 11.9	1.622	2.532	146.5	12.8	18.4
1985	07 04	20 27.81	-23 43.0					
1985	07 14	20 18.64	-24 16.0	1.505	2.510	168.7	4.5	17.9
1985	07 24	20 08.09	-24 46.0					
1985	08 03	19 57.43	-25 08.3	1.490	2.485	165.6	5.8	17.9
1985	08 13	19 47.94	-25 20.4					
1985	08 23	19 40.71	-25 21.9	1.575	2.460	143.2	14.3	18.3
1985	09 02	19 36.46	-25 13.7					
1985	09 12	19 35.42	-24 57.4	1.736	2.433	122.8	20.3	18.6
1985	09 22	19 37.55	-24 34.3					
1985	10 02	19 42.62	-24 05.1	1.943	2.406	105.0	23.7	18.9

(3004) 1976 DD a,e,i = 2.59, 0.26, 30 Elements MPC 8536

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	21 11.85	-41 32.5	2.157	2.604	104.7	22.1	20.3
1985	05 25	21 14.02	-41 39.3					
1985	06 04	21 12.55	-41 52.5	1.982	2.659	121.7	18.9	20.0
1985	06 14	21 07.23	-42 08.3					
1985	06 24	20 58.06	-42 20.3	1.853	2.713	140.2	13.9	19.8
1985	07 04	20 45.55	-42 20.5					
1985	07 14	20 30.70	-42 01.4	1.805	2.765	156.2	8.5	19.7
1985	07 24	20 15.01	-41 18.0					
1985	08 03	20 00.18	-40 10.3	1.863	2.816	155.1	8.7	19.8
1985	08 13	19 47.58	-38 42.9					
1985	08 23	19 38.11	-37 02.7	2.028	2.864	138.3	13.6	20.1
1985	09 02	19 32.09	-35 16.8					
1985	09 12	19 29.40	-33 30.7	2.278	2.909	119.5	17.5	20.5
1985	09 22	19 29.72	-31 47.6					
1985	10 02	19 32.64	-30 08.9	2.582	2.953	101.7	19.4	20.9
1985	10 12	19 37.71	-28 34.6					
1985	10 22	19 44.58	-27 04.1	2.908	2.994	85.2	19.3	21.1

1978 PU3 a,e,i = 2.33, 0.13, 7 Elements MPC 7773

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	20 19.57	-10 27.7	1.542	2.097	108.7	27.2	18.6
1985	05 25	20 27.03	-09 31.7					
1985	06 04	20 31.85	-08 45.3	1.329	2.076	124.2	23.8	18.2
1985	06 14	20 33.76	-08 12.2					
1985	06 24	20 32.57	-07 56.9	1.159	2.058	142.2	17.6	17.7
1985	07 04	20 28.36	-08 02.4					
1985	07 14	20 21.62	-08 30.1	1.052	2.043	162.0	8.9	17.3
1985	07 24	20 13.24	-09 18.7					
1985	08 03	20 04.62	-10 23.0	1.031	2.032	166.7	6.6	17.1
1985	08 13	19 57.16	-11 35.8					
1985	08 23	19 52.11	-12 49.5	1.098	2.024	147.3	15.6	17.5
1985	09 02	19 50.28	-13 57.4					
1985	09 12	19 51.90	-14 55.2	1.236	2.020	128.2	23.1	17.9
1985	09 22	19 56.93	-15 40.0					
1985	10 02	20 05.03	-16 10.2	1.423	2.020	111.7	27.4	18.3
1985	10 12	20 15.78	-16 25.2					
1985	10 22	20 28.75	-16 24.8	1.638	2.023	97.4	29.2	18.7

(3077) 1982 SK a,e,i = 2.24, 0.06, 1 Elements MPC 8899

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	20 34.13	-19 15.9	1.805	2.320	107.6	24.5	17.7
1985	05 25	20 39.76	-18 51.5					
1985	06 04	20 42.65	-18 36.2	1.577	2.311	124.7	21.2	17.3
1985	06 14	20 42.54	-18 31.3					
1985	06 24	20 39.26	-18 37.5	1.395	2.300	144.6	14.8	16.9
1985	07 04	20 32.94	-18 53.6					
1985	07 14	20 24.10	-19 16.9	1.286	2.289	167.3	5.6	16.4
1985	07 24	20 13.69	-19 43.0					
1985	08 03	20 03.09	-20 07.5	1.274	2.277	168.6	5.1	16.4
1985	08 13	19 53.68	-20 26.7					
1985	08 23	19 46.66	-20 38.9	1.358	2.265	145.5	14.6	16.8
1985	09 02	19 42.78	-20 43.4					
1985	09 12	19 42.27	-20 40.4	1.518	2.253	125.1	21.4	17.2
1985	09 22	19 45.07	-20 30.2					
1985	10 02	19 50.88	-20 12.5	1.724	2.240	107.6	25.2	17.5
1985	10 12	19 59.30	-19 47.3					
1985	10 22	20 09.95	-19 14.0	1.951	2.228	92.4	26.5	17.8

1980 OD a,e,i = 3.02, 0.24, 10 Elements MPC 6894

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	20 29.54	-11 28.8	2.377	2.837	106.6	20.0	18.1
1985	05 25	20 33.87	-11 11.2					
1985	06 04	20 36.14	-11 03.6	2.092	2.789	124.0	17.6	17.7
1985	06 14	20 36.20	-11 08.1					
1985	06 24	20 33.93	-11 26.7	1.857	2.741	143.4	12.8	17.3
1985	07 04	20 29.45	-12 00.0					
1985	07 14	20 23.09	-12 47.3	1.700	2.694	164.6	5.7	16.9
1985	07 24	20 15.44	-13 46.1					
1985	08 03	20 07.40	-14 52.1	1.644	2.648	169.3	4.1	16.7
1985	08 13	19 59.95	-16 00.3					
1985	08 23	19 54.02	-17 05.9	1.692	2.603	147.7	12.0	17.0
1985	09 02	19 50.36	-18 04.9					
1985	09 12	19 49.36	-18 54.9	1.824	2.560	127.1	18.3	17.3
1985	09 22	19 51.18	-19 34.5					
1985	10 02	19 55.76	-20 03.0	2.012	2.519	108.8	22.1	17.5
1985	10 12	20 02.88	-20 20.0					
1985	10 22	20 12.27	-20 25.3	2.226	2.481	92.7	23.6	17.8

1984 EC a,e,i = 2.67, 0.12, 12 Elements MPC 8779

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	05 15	20 43.80	-33 36.2	1.954	2.469	-1.31	-7.9	17.9
1985	05 25	20 49.25	-33 56.4					
1985	06 04	20 51.61	-34 24.8	1.763	2.492	-1.48	-9.3	17.7
1985	06 14	20 50.64	-34 59.4					
1985	06 24	20 46.24	-35 36.2	1.623	2.516	-1.71	-9.9	17.4
1985	07 04	20 38.70	-36 09.0					
1985	07 14	20 28.71	-36 30.8	1.559	2.541	-1.89	-9.2	17.2
1985	07 24	20 17.40	-36 35.3					
1985	08 03	20 06.26	-36 19.4	1.593	2.566	-1.88	-7.4	17.2
1985	08 13	19 56.63	-35 43.6					
1985	08 23	19 49.54	-34 51.7	1.724	2.592	-1.69	-5.8	17.6
1985	09 02	19 45.55	-33 48.6					
1985	09 12	19 44.71	-32 38.6	1.933	2.619	-1.43	-4.9	18.0
1985	09 22	19 46.87	-31 24.9					
1985	10 02	19 51.69	-30 09.2	2.192	2.645	-1.19	-4.7	18.3
1985	10 12	19 58.74	-28 52.3					
1985	10 22	20 07.67	-27 34.1	2.477	2.671	-1.00	-4.7	18.6

1981 EB20 a,e,i = 2.15, 0.09, 1 Elements MPC 8683

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	20 44.90	-17 47.9	1.876	2.346	104.8	24.6	18.3
1985	05 25	20 50.37	-17 21.1					
1985	06 04	20 53.16	-17 04.1	1.651	2.351	121.9	21.5	17.9
1985	06 14	20 53.00	-16 58.5					
1985	06 24	20 49.72	-17 05.0	1.469	2.353	141.8	15.5	17.5
1985	07 04	20 43.42	-17 22.9					
1985	07 14	20 34.54	-17 49.8	1.358	2.353	164.5	6.6	17.2
1985	07 24	20 23.95	-18 21.7					
1985	08 03	20 12.95	-18 53.5	1.344	2.351	171.1	3.8	17.0
1985	08 13	20 02.91	-19 21.1					
1985	08 23	19 55.00	-19 42.0	1.430	2.348	147.6	13.3	17.4
1985	09 02	19 50.05	-19 54.9					
1985	09 12	19 48.35	-19 59.8	1.598	2.342	126.6	20.2	17.8
1985	09 22	19 49.89	-19 56.9					
1985	10 02	19 54.42	-19 46.0	1.815	2.334	108.5	24.0	18.2
1985	10 12	20 01.56	-19 27.4					
1985	10 22	20 10.96	-19 00.6	2.054	2.325	92.7	25.3	18.5

(3136) 1981 WD4 a,e,i = 3.18, 0.13, 5 Elements MPC 9205

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	20 46.24	-20 45.7	3.182	3.583	105.2	15.8	18.5
1985	05 25	20 48.51	-20 51.2					
1985	06 04	20 48.90	-21 04.5	2.914	3.580	123.9	13.6	18.3
1985	06 14	20 47.34	-21 25.6					
1985	06 24	20 43.83	-21 53.7	2.702	3.576	144.2	9.6	18.0
1985	07 04	20 38.55	-22 26.8					
1985	07 14	20 31.84	-23 02.4	2.576	3.571	165.9	4.0	17.7
1985	07 24	20 24.21	-23 37.6					
1985	08 03	20 16.32	-24 09.1	2.561	3.564	169.8	2.9	17.7
1985	08 13	20 08.88	-24 34.7					
1985	08 23	20 02.55	-24 52.9	2.658	3.557	148.0	8.7	18.0
1985	09 02	19 57.85	-25 03.4					
1985	09 12	19 55.09	-25 06.5	2.849	3.548	127.1	13.1	18.2
1985	09 22	19 54.41	-25 02.8					
1985	10 02	19 55.82	-24 53.0	3.101	3.538	107.8	15.6	18.5
1985	10 12	19 59.18	-24 37.5					
1985	10 22	20 04.33	-24 16.8	3.382	3.527	90.1	16.4	18.7

(3115) 1981 PL a,e,i = 2.58, 0.14, 10 Elements MPC 9075

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	20 48.51	-11 13.0	2.441	2.831	102.1	20.4	17.2
1985	05 25	20 52.25	-10 12.8					
1985	06 04	20 53.82	-09 18.0	2.171	2.810	119.3	18.4	16.8
1985	06 14	20 53.06	-08 30.4					
1985	06 24	20 49.86	-07 51.9	1.945	2.788	138.3	14.0	16.5
1985	07 04	20 44.35	-07 24.3					
1985	07 14	20 36.84	-07 08.5	1.793	2.764	158.4	7.8	16.1
1985	07 24	20 27.93	-07 05.1					
1985	08 03	20 18.51	-07 12.9	1.740	2.738	167.0	4.8	16.0
1985	08 13	20 09.55	-07 29.8					
1985	08 23	20 01.98	-07 52.8	1.793	2.712	149.3	11.0	16.2
1985	09 02	19 56.55	-08 18.4					
1985	09 12	19 53.65	-08 43.7	1.934	2.684	129.0	16.9	16.5
1985	09 22	19 53.45	-09 06.0					
1985	10 02	19 55.90	-09 23.1	2.134	2.656	110.5	20.7	16.7
1985	10 12	20 00.78	-09 33.5					
1985	10 22	20 07.86	-09 35.9	2.363	2.626	93.9	22.2	17.0

1984 FC a,e,i = 2.48, 0.07, 6 Elements MPC 8891

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	05 15	20 48.78	-25 09.6	2.175	2.636	-1.08	-4.4	18.3
1985	05 25	20 53.93	-25 19.0					
1985	06 04	20 56.57	-25 38.6	1.937	2.632	-1.24	-5.4	18.0
1985	06 14	20 56.46	-26 08.5					
1985	06 24	20 53.43	-26 47.3	1.745	2.627	-1.43	-5.9	17.6
1985	07 04	20 47.58	-27 31.5					
1985	07 14	20 39.30	-28 16.1	1.631	2.621	-1.60	-5.7	17.3
1985	07 24	20 29.35	-28 54.7					
1985	08 03	20 18.90	-29 22.1	1.617	2.614	-1.63	-4.7	17.2
1985	08 13	20 09.18	-29 34.8					
1985	08 23	20 01.31	-29 32.5	1.705	2.606	-1.52	-3.5	17.5
1985	09 02	19 56.09	-29 16.8					
1985	09 12	19 53.87	-28 50.2	1.876	2.597	-1.33	-2.9	17.9
1985	09 22	19 54.70	-28 15.1					
1985	10 02	19 58.37	-27 33.2	2.100	2.587	-1.14	-2.8	18.2
1985	10 12	20 04.56	-26 45.6					
1985	10 22	20 12.94	-25 52.6	2.348	2.577	-0.99	-3.0	18.4

1981 EB28 a,e,i = 2.29, 0.16, 2 Elements MPC 8288

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	20 34.24	-16 44.3	1.396	1.948	106.9	29.8	18.4
1985	05 25	20 43.18	-16 11.9					
1985	06 04	20 49.09	-15 51.5	1.228	1.969	122.5	25.8	18.0
1985	06 14	20 51.66	-15 45.7					
1985	06 24	20 50.67	-15 56.5	1.096	1.993	141.2	18.6	17.6
1985	07 04	20 46.23	-16 23.6					
1985	07 14	20 38.87	-17 04.1	1.026	2.021	163.3	8.3	17.3
1985	07 24	20 29.61	-17 52.5					
1985	08 03	20 20.00	-18 41.6	1.041	2.052	172.7	3.6	17.2
1985	08 13	20 11.54	-19 25.1					
1985	08 23	20 05.52	-19 59.1	1.148	2.085	150.0	14.0	17.7
1985	09 02	20 02.69	-20 21.4					
1985	09 12	20 03.24	-20 32.0	1.329	2.121	130.0	21.3	18.2
1985	09 22	20 07.04	-20 31.0					
1985	10 02	20 13.71	-20 19.1	1.561	2.157	112.9	25.3	18.7
1985	10 12	20 22.81	-19 56.7					
1985	10 22	20 33.90	-19 23.9	1.824	2.195	97.9	26.7	19.1

(3029) 1981 EA8 a,e,i = 2.24, 0.11, 3 Elements MPC 8681

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	20 49.52	-20 13.8	1.598	2.092	104.3	27.9	17.8
1985	05 25	20 57.29	-19 38.0					
1985	06 04	21 02.09	-19 11.7	1.412	2.115	120.4	24.4	17.4
1985	06 14	21 03.64	-18 56.6					
1985	06 24	21 01.70	-18 53.5	1.261	2.139	139.5	18.0	17.1
1985	07 04	20 56.35	-19 01.3					
1985	07 14	20 48.05	-19 17.2	1.175	2.164	161.8	8.4	16.7
1985	07 24	20 37.74	-19 36.4					
1985	08 03	20 26.85	-19 54.0	1.178	2.189	174.0	2.8	16.5
1985	08 13	20 16.90	-20 06.0					
1985	08 23	20 09.17	-20 10.2	1.277	2.215	150.8	12.9	17.1
1985	09 02	20 04.51	-20 06.3					
1985	09 12	20 03.18	-19 54.6	1.456	2.241	130.1	20.1	17.5
1985	09 22	20 05.13	-19 35.8					
1985	10 02	20 10.03	-19 09.9	1.690	2.267	112.3	24.1	18.0
1985	10 12	20 17.47	-18 37.1					
1985	10 22	20 27.04	-17 57.0	1.952	2.292	96.7	25.6	18.3

1984 CC1 a,e,i = 2.19, 0.07, 4 Elements MPC 8795

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 05 15	20 50.33	-14 44.0	1.873	2.315	102.7	25.2	18.3
1985 05 25	20 57.15	-14 17.0					
1985 06 04	21 01.53	-14 00.9	1.638	2.308	119.1	22.6	17.9
1985 06 14	21 03.17	-13 58.2					
1985 06 24	21 01.82	-14 11.0	1.440	2.299	138.1	17.2	17.5
1985 07 04	20 57.46	-14 39.7					
1985 07 14	20 50.32	-15 23.1	1.307	2.289	160.1	8.7	17.1
1985 07 24	20 41.06	-16 17.3					
1985 08 03	20 30.81	-17 16.3	1.265	2.278	175.3	2.1	16.7
1985 08 13	20 20.91	-18 13.6					
1985 08 23	20 12.70	-19 03.9	1.323	2.266	151.8	12.2	17.2
1985 09 02	20 07.20	-19 43.5					
1985 09 12	20 04.90	-20 11.1	1.466	2.253	130.4	19.9	17.6
1985 09 22	20 05.96	-20 26.6					
1985 10 02	20 10.21	-20 30.0	1.662	2.239	112.0	24.5	17.9
1985 10 12	20 17.27	-20 21.9					
1985 10 22	20 26.80	-20 02.5	1.886	2.224	96.1	26.4	18.2

1982 TH2 a,e,i = 2.36, 0.12, 4 Elements MPC 8777

Date ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985 05 15	20 53.99	-22 38.4	2.061	2.505	-1.16	-5.3	18.6
1985 05 25	21 00.31	-22 29.8					
1985 06 04	21 04.19	-22 31.0	1.806	2.483	-1.35	-6.5	18.2
1985 06 14	21 05.36	-22 43.0					
1985 06 24	21 03.55	-23 05.7	1.592	2.459	-1.58	-7.4	17.8
1985 07 04	20 58.73	-23 37.1					
1985 07 14	20 51.14	-24 13.5	1.449	2.434	-1.80	-7.6	17.4
1985 07 24	20 41.41	-24 49.3					
1985 08 03	20 30.68	-25 18.4	1.401	2.408	-1.88	-6.7	17.2
1985 08 13	20 20.28	-25 36.3					
1985 08 23	20 11.55	-25 40.7	1.454	2.382	-1.76	-5.3	17.5
1985 09 02	20 05.50	-25 31.9					
1985 09 12	20 02.64	-25 11.6	1.590	2.355	-1.53	-4.5	17.8
1985 09 22	20 03.13	-24 41.9					
1985 10 02	20 06.78	-24 04.1	1.781	2.328	-1.32	-4.2	18.1
1985 10 12	20 13.25	-23 18.9					
1985 10 22	20 22.18	-22 26.7	1.997	2.300	-1.14	-4.3	18.4

1984 JZ a,e,i = 3.19, 0.01, 22 Elements MPC 9211

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 05 15	21 01.30	-40 57.1	2.782	3.219	106.5	17.5	17.7
1985 05 25	21 06.75	-42 08.2					
1985 06 04	21 09.80	-43 28.7	2.559	3.217	122.3	15.5	17.4
1985 06 14	21 10.17	-44 56.3					
1985 06 24	21 07.66	-46 26.5	2.391	3.215	137.5	12.3	17.2
1985 07 04	21 02.24	-47 53.0					
1985 07 14	20 54.21	-49 08.4	2.304	3.212	148.1	9.6	17.1
1985 07 24	20 44.24	-50 05.4					
1985 08 03	20 33.40	-50 38.3	2.312	3.210	146.9	9.9	17.1
1985 08 13	20 22.97	-50 44.9					
1985 08 23	20 14.14	-50 26.2	2.412	3.208	135.0	12.9	17.2
1985 09 02	20 07.82	-49 46.0					
1985 09 12	20 04.44	-48 49.2	2.587	3.205	119.6	15.8	17.5
1985 09 22	20 04.11	-47 40.4					
1985 10 02	20 06.66	-46 23.5	2.812	3.203	103.9	17.7	17.7
1985 10 12	20 11.76	-45 01.2					
1985 10 22	20 19.05	-43 35.1	3.063	3.200	88.8	18.1	17.9

(3181) 1964 EC a,e,i = 2.23, 0.06, 4 Elements MPC 9417

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	20 55.31	-12 46.1	1.881	2.299	101.0	25.6	17.8
1985	05 25	21 01.82	-11 54.0					
1985	06 04	21 05.82	-11 10.9	1.664	2.311	117.2	23.0	17.5
1985	06 14	21 07.04	-10 39.0					
1985	06 24	21 05.30	-10 21.0	1.482	2.322	135.9	17.7	17.1
1985	07 04	21 00.61	-10 18.2					
1985	07 14	20 53.28	-10 30.8	1.362	2.333	157.3	9.7	16.7
1985	07 24	20 44.00	-10 57.4					
1985	08 03	20 33.87	-11 34.1	1.332	2.342	172.7	3.2	16.4
1985	08 13	20 24.16	-12 16.2					
1985	08 23	20 16.07	-12 58.7	1.403	2.351	153.2	11.2	16.8
1985	09 02	20 10.52	-13 37.2					
1985	09 12	20 07.95	-14 08.9	1.561	2.358	132.1	18.5	17.3
1985	09 22	20 08.49	-14 32.0					
1985	10 02	20 11.98	-14 45.5	1.778	2.364	113.6	22.8	17.6
1985	10 12	20 18.09	-14 48.8					
1985	10 22	20 26.49	-14 41.8	2.026	2.368	97.3	24.6	18.0

(3180) 1962 RO a,e,i = 2.23, 0.15, 5 Elements MPC 9416

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	20 52.66	-24 01.4	1.849	2.320	104.6	24.9	19.2
1985	05 25	21 00.32	-23 49.8					
1985	06 04	21 05.46	-23 47.8	1.597	2.288	120.8	22.4	18.8
1985	06 14	21 07.73	-23 56.5					
1985	06 24	21 06.77	-24 16.1	1.384	2.255	139.4	17.1	18.4
1985	07 04	21 02.42	-24 44.5					
1985	07 14	20 54.86	-25 17.7	1.237	2.221	160.5	8.8	17.9
1985	07 24	20 44.71	-25 49.1					
1985	08 03	20 33.24	-26 11.6	1.179	2.187	170.6	4.3	17.6
1985	08 13	20 22.02	-26 20.1					
1985	08 23	20 12.64	-26 12.5	1.218	2.152	149.7	13.7	17.9
1985	09 02	20 06.33	-25 49.8					
1985	09 12	20 03.68	-25 14.7	1.336	2.118	129.0	21.7	18.3
1985	09 22	20 04.79	-24 30.0					
1985	10 02	20 09.44	-23 37.1	1.504	2.085	111.1	26.6	18.6
1985	10 12	20 17.17	-22 37.0					
1985	10 22	20 27.55	-21 29.6	1.696	2.053	95.9	28.8	18.9

(3099) 1940 GF a,e,i = 2.89, 0.20, 15 Elements MPC 9026

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	21 11.45	-34 32.2	2.625	3.020	103.2	19.0	17.4
1985	05 25	21 16.30	-35 14.6					
1985	06 04	21 18.69	-36 07.1	2.420	3.057	120.0	16.7	17.2
1985	06 14	21 18.41	-37 07.9					
1985	06 24	21 15.33	-38 13.6	2.264	3.093	137.8	12.8	17.0
1985	07 04	21 09.53	-39 18.8					
1985	07 14	21 01.34	-40 17.1	2.186	3.128	153.4	8.4	16.9
1985	07 24	20 51.45	-41 01.8					
1985	08 03	20 40.85	-41 27.6	2.206	3.161	156.2	7.5	16.9
1985	08 13	20 30.65	-41 32.1					
1985	08 23	20 21.89	-41 16.0	2.329	3.193	142.7	11.1	17.1
1985	09 02	20 15.36	-40 42.2					
1985	09 12	20 11.43	-39 54.7	2.538	3.223	125.0	14.8	17.4
1985	09 22	20 10.23	-38 57.5					
1985	10 02	20 11.61	-37 53.8	2.807	3.252	107.6	17.1	17.7
1985	10 12	20 15.31	-36 45.8					
1985	10 22	20 21.04	-35 34.8	3.105	3.279	91.1	17.7	17.9

1984 CP a,e,i = 2.44, 0.10, 7 Elements MPC 9018

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	05 15	20 58.63	-14 27.4	1.983	2.387	-1.18	-1.9	18.4
1985	05 25	21 05.45	-14 14.7					
1985	06 04	21 09.86	-14 14.7	1.770	2.409	-1.34	-2.5	18.2
1985	06 14	21 11.64	-14 29.5					
1985	06 24	21 10.60	-15 00.5	1.593	2.432	-1.54	-3.2	17.8
1985	07 04	21 06.75	-15 47.3					
1985	07 14	21 00.35	-16 47.4	1.480	2.454	-1.72	-3.5	17.5
1985	07 24	20 52.02	-17 56.2					
1985	08 03	20 42.75	-19 06.9	1.462	2.476	-1.79	-3.1	17.0
1985	08 13	20 33.69	-20 12.8					
1985	08 23	20 25.98	-21 08.7	1.547	2.497	-1.69	-2.2	17.7
1985	09 02	20 20.55	-21 51.5					
1985	09 12	20 17.85	-22 20.6	1.723	2.518	-1.49	-1.6	18.1
1985	09 22	20 18.05	-22 36.3					
1985	10 02	20 21.06	-22 39.5	1.961	2.538	-1.28	-1.3	18.5
1985	10 12	20 26.58	-22 31.4					
1985	10 22	20 34.30	-22 12.9	2.233	2.557	-1.10	-1.5	18.8

1981 EC25 a,e,i = 2.17, 0.17, 4 Elements MPC 8134

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	05 15	20 38.92	-23 49.9	1.386	1.947	-2.14	-8.6	18.3
1985	05 25	20 50.60	-23 30.8					
1985	06 04	20 59.73	-23 20.4	1.170	1.911	-2.59	-11.7	17.9
1985	06 14	21 05.86	-23 20.7					
1985	06 24	21 08.50	-23 33.4	0.991	1.879	-3.19	-14.7	17.3
1985	07 04	21 07.36	-23 57.5					
1985	07 14	21 02.45	-24 29.2	0.867	1.852	-3.80	-15.9	16.8
1985	07 24	20 54.31	-25 01.6					
1985	08 03	20 44.36	-25 25.7	0.818	1.828	-4.04	-14.1	16.4
1985	08 13	20 34.43	-25 34.2					
1985	08 23	20 26.48	-25 23.8	0.851	1.811	-3.70	-11.1	16.8
1985	09 02	20 21.99	-24 55.0					
1985	09 12	20 21.59	-24 10.9	0.954	1.799	-3.08	-9.5	17.2
1985	09 22	20 25.32	-23 14.3					
1985	10 02	20 32.78	-22 07.2	1.104	1.793	-2.50	-9.2	17.7
1985	10 12	20 43.37	-20 50.5					
1985	10 22	20 56.53	-19 24.6	1.285	1.794	-2.06	-9.4	18.1

1981 EZ22 a,e,i = 2.21, 0.18, 2 Elements MPC 7934

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	05 15	20 38.28	-22 01.2	1.316	1.883	-2.28	-9.0	19.2
1985	05 25	20 50.72	-21 27.1					
1985	06 04	21 00.58	-21 00.4	1.114	1.855	-2.74	-12.3	18.7
1985	06 14	21 07.43	-20 43.7					
1985	06 24	21 10.80	-20 39.3	0.947	1.832	-3.34	-15.4	18.2
1985	07 04	21 10.42	-20 47.4					
1985	07 14	21 06.30	-21 05.8	0.833	1.815	-3.95	-17.0	17.7
1985	07 24	20 59.00	-21 29.5					
1985	08 03	20 49.87	-21 51.0	0.791	1.804	-4.18	-15.7	17.2
1985	08 13	20 40.69	-22 03.4					
1985	08 23	20 33.33	-22 02.2	0.830	1.800	-3.82	-12.9	17.7
1985	09 02	20 29.22	-21 46.4					
1985	09 12	20 28.98	-21 17.1	0.940	1.803	-3.17	-10.9	18.2
1985	09 22	20 32.69	-20 35.8					
1985	10 02	20 39.96	-19 43.5	1.101	1.812	-2.56	-10.0	18.7
1985	10 12	20 50.24	-18 41.1					
1985	10 22	21 02.96	-17 28.7	1.296	1.827	-2.09	-9.7	19.1

1983 CX2 a,e,i = 3.10, 0.09, 3 Elements MPC 7836

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	21 10.92	-15 22.4	3.075	3.369	98.1	17.3	18.5
1985	05 25	21 14.68	-14 58.3					
1985	06 04	21 16.63	-14 41.8	2.797	3.364	115.8	15.8	18.2
1985	06 14	21 16.65	-14 33.5					
1985	06 24	21 14.68	-14 34.2	2.559	3.359	135.3	12.3	18.0
1985	07 04	21 10.76	-14 43.4					
1985	07 14	21 05.11	-15 00.3	2.394	3.352	156.7	6.9	17.7
1985	07 24	20 58.11	-15 23.1					
1985	08 03	20 50.35	-15 49.0	2.330	3.344	178.1	0.6	17.2
1985	08 13	20 42.52	-16 15.3					
1985	08 23	20 35.36	-16 39.5	2.379	3.336	157.5	6.6	17.6
1985	09 02	20 29.53	-16 59.2					
1985	09 12	20 25.46	-17 13.3	2.530	3.327	135.8	12.2	17.9
1985	09 22	20 23.45	-17 21.0					
1985	10 02	20 23.59	-17 22.0	2.756	3.317	115.8	15.8	18.2
1985	10 12	20 25.80	-17 16.2					
1985	10 22	20 29.94	-17 03.5	3.024	3.306	97.6	17.4	18.4

1984 EO1 a,e,i = 2.46, 0.10, 7 Elements MPC 9207

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	21 04.64	-23 50.2	1.782	2.223	101.9	26.4	17.8
1985	05 25	21 13.68	-23 23.5					
1985	06 04	21 20.13	-23 05.5	1.568	2.225	117.3	23.9	17.5
1985	06 14	21 23.65	-22 57.4					
1985	06 24	21 23.95	-22 59.8	1.388	2.228	135.3	18.7	17.1
1985	07 04	21 20.91	-23 11.0					
1985	07 14	21 14.70	-23 27.8	1.267	2.234	156.0	10.7	16.7
1985	07 24	21 05.91	-23 44.9					
1985	08 03	20 55.67	-23 56.3	1.231	2.242	173.6	2.9	16.4
1985	08 13	20 45.40	-23 57.3					
1985	08 23	20 36.53	-23 45.7	1.293	2.253	155.6	10.7	16.8
1985	09 02	20 30.22	-23 21.6					
1985	09 12	20 27.04	-22 47.1	1.440	2.265	134.8	18.4	17.2
1985	09 22	20 27.16	-22 03.9					
1985	10 02	20 30.41	-21 13.7	1.650	2.279	116.4	23.2	17.6
1985	10 12	20 36.41	-20 17.3					
1985	10 22	20 44.77	-19 14.9	1.895	2.294	100.4	25.3	18.0

7607 P-L a,e,i = 2.36, 0.21, 3 Elements MPC 8386

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	21 14.52	-17 04.2	2.389	2.717	97.8	21.6	21.1
1985	05 25	21 20.79	-16 48.2					
1985	06 04	21 25.05	-16 42.4	2.104	2.688	114.5	20.1	20.7
1985	06 14	21 27.05	-16 48.4					
1985	06 24	21 26.52	-17 07.5	1.853	2.656	133.4	16.2	20.3
1985	07 04	21 23.33	-17 39.7					
1985	07 14	21 17.54	-18 23.5	1.666	2.622	154.8	9.5	19.9
1985	07 24	21 09.47	-19 15.6					
1985	08 03	20 59.83	-20 10.5	1.572	2.586	176.7	1.3	19.3
1985	08 13	20 49.66	-21 02.2					
1985	08 23	20 40.14	-21 45.4	1.584	2.547	157.2	8.8	19.7
1985	09 02	20 32.39	-22 16.7					
1985	09 12	20 27.20	-22 35.0	1.692	2.506	134.9	16.5	20.0
1985	09 22	20 25.02	-22 40.3					
1985	10 02	20 25.92	-22 33.7	1.867	2.464	115.1	21.6	20.3
1985	10 12	20 29.75	-22 16.2					
1985	10 22	20 36.23	-21 48.4	2.074	2.419	97.8	24.0	20.6

1981 WV1 a,e,i = 2.89, 0.05, 1 Elements MPC 6818

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	21 11.62	-17 05.3	2.449	2.783	98.4	21.1	18.2
1985	05 25	21 17.82	-16 37.4					
1985	06 04	21 21.99	-16 17.9	2.190	2.776	115.0	19.3	17.9
1985	06 14	21 23.94	-16 08.2					
1985	06 24	21 23.49	-16 09.2	1.967	2.769	133.8	15.4	17.5
1985	07 04	21 20.61	-16 20.8					
1985	07 14	21 15.46	-16 41.9	1.809	2.763	154.8	9.0	17.2
1985	07 24	21 08.42	-17 09.8					
1985	08 03	21 00.22	-17 40.7	1.743	2.757	177.6	0.9	16.7
1985	08 13	20 51.75	-18 10.7					
1985	08 23	20 43.99	-18 35.9	1.784	2.752	159.1	7.5	17.1
1985	09 02	20 37.84	-18 53.7					
1985	09 12	20 33.89	-19 02.9	1.922	2.748	137.3	14.4	17.4
1985	09 22	20 32.46	-19 03.0					
1985	10 02	20 33.63	-18 54.2	2.132	2.745	117.7	18.8	17.8
1985	10 12	20 37.24	-18 36.8					
1985	10 22	20 43.08	-18 11.0	2.383	2.742	100.3	20.9	18.1

1982 TD2 a,e,i = 2.26, 0.15, 3 Elements MPC 8777

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	05 15	20 58.53	-16 08.7	1.701	2.140	-1.53	-7.4	17.4
1985	05 25	21 08.32	-15 07.6					
1985	06 04	21 15.86	-14 12.1	1.457	2.107	-1.81	-9.2	17.0
1985	06 14	21 20.83	-13 24.6					
1985	06 24	21 22.85	-12 47.9	1.245	2.075	-2.18	-11.2	16.5
1985	07 04	21 21.68	-12 24.2					
1985	07 14	21 17.27	-12 14.7	1.086	2.044	-2.58	-12.9	16.0
1985	07 24	21 09.96	-12 19.2					
1985	08 03	21 00.66	-12 35.0	1.004	2.016	-2.81	-13.3	15.5
1985	08 13	20 50.71	-12 57.9					
1985	08 23	20 41.73	-13 22.5	1.012	1.990	-2.70	-12.3	15.8
1985	09 02	20 35.17	-13 43.8					
1985	09 12	20 31.92	-13 58.2	1.102	1.968	-2.35	-10.6	16.1
1985	09 22	20 32.39	-14 03.3					
1985	10 02	20 36.51	-13 57.6	1.251	1.949	-1.98	-9.3	16.5
1985	10 12	20 43.90	-13 40.3					
1985	10 22	20 54.15	-13 10.7	1.433	1.935	-1.68	-8.5	16.9

1982 UJ8 a,e,i = 2.35, 0.07, 6 Elements MPC 9358

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	21 12.14	-10 59.5	1.949	2.295	96.5	26.0	17.3
1985	05 25	21 19.81	-09 45.6					
1985	06 04	21 25.14	-08 38.7	1.732	2.309	111.8	24.1	17.1
1985	06 14	21 27.90	-07 41.1					
1985	06 24	21 27.84	-06 55.8	1.542	2.324	129.5	19.7	16.7
1985	07 04	21 24.90	-06 25.1					
1985	07 14	21 19.20	-06 11.0	1.406	2.339	149.5	12.7	16.4
1985	07 24	21 11.20	-06 14.0					
1985	08 03	21 01.80	-06 32.7	1.351	2.354	168.5	4.9	16.1
1985	08 13	20 52.13	-07 03.7					
1985	08 23	20 43.41	-07 42.2	1.396	2.369	159.3	8.7	16.3
1985	09 02	20 36.70	-08 22.5					
1985	09 12	20 32.65	-09 00.0	1.534	2.384	138.6	16.2	16.7
1985	09 22	20 31.56	-09 31.2					
1985	10 02	20 33.41	-09 53.5	1.741	2.398	119.6	21.3	17.1
1985	10 12	20 37.96	-10 05.7					
1985	10 22	20 44.89	-10 07.0	1.989	2.412	102.7	23.7	17.5

2055 P-L a,e,i = 2.37, 0.14, 9 Elements MPC 9297

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	21 18.92	-25 19.9	1.746	2.153	99.2	27.6	19.7
1985	05 25	21 28.40	-24 53.2					
1985	06 04	21 35.11	-24 36.2	1.555	2.180	114.4	25.1	19.4
1985	06 14	21 38.74	-24 30.1					
1985	06 24	21 38.95	-24 35.0	1.393	2.208	132.2	19.9	19.1
1985	07 04	21 35.62	-24 48.9					
1985	07 14	21 28.91	-25 07.6	1.285	2.238	152.8	12.0	18.8
1985	07 24	21 19.39	-25 25.2					
1985	08 03	21 08.21	-25 35.0	1.260	2.268	171.1	4.0	18.5
1985	08 13	20 56.85	-25 31.8					
1985	08 23	20 46.80	-25 13.9	1.334	2.299	157.0	9.9	18.9
1985	09 02	20 39.27	-24 42.0					
1985	09 12	20 34.87	-23 59.1	1.498	2.330	136.1	17.4	19.3
1985	09 22	20 33.79	-23 07.7					
1985	10 02	20 35.83	-22 10.1	1.727	2.361	117.4	22.1	19.8
1985	10 12	20 40.63	-21 07.5					
1985	10 22	20 47.79	-20 00.3	1.995	2.392	100.9	24.1	20.1

1984 EZ a,e,i = 2.67, 0.12, 13 Elements MPC 9030

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	05 15	21 15.77	-06 06.2	2.209	2.495	-1.04	-0.4	17.8
1985	05 25	21 23.16	-05 29.7					
1985	06 04	21 28.51	-05 04.6	1.988	2.519	-1.16	-0.6	17.5
1985	06 14	21 31.59	-04 53.7					
1985	06 24	21 32.24	-04 59.8	1.792	2.544	-1.32	-1.0	17.2
1985	07 04	21 30.40	-05 25.2					
1985	07 14	21 26.18	-06 10.5	1.650	2.569	-1.48	-1.4	16.9
1985	07 24	21 19.93	-07 14.8					
1985	08 03	21 12.34	-08 34.1	1.591	2.595	-1.57	-1.6	16.6
1985	08 13	21 04.30	-10 02.5					
1985	08 23	20 56.79	-11 32.6	1.637	2.621	-1.53	-1.5	16.8
1985	09 02	20 50.76	-12 57.5					
1985	09 12	20 46.84	-14 12.1	1.785	2.647	-1.39	-1.1	17.2
1985	09 22	20 45.40	-15 13.1					
1985	10 02	20 46.53	-15 59.2	2.011	2.673	-1.22	-0.8	17.6
1985	10 12	20 50.09	-16 30.5					
1985	10 22	20 55.88	-16 47.3	2.285	2.699	-1.06	-0.7	17.9

1981 EU22 a,e,i = 2.18, 0.07, 2 Elements MPC 7934

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	05 15	21 21.00	-17 18.6	1.878	2.230	-1.20	-6.2	18.2
1985	05 25	21 29.84	-16 39.0					
1985	06 04	21 36.32	-16 09.3	1.661	2.244	-1.37	-7.5	17.9
1985	06 14	21 40.13	-15 51.5					
1985	06 24	21 40.95	-15 47.5	1.468	2.257	-1.60	-8.8	17.6
1985	07 04	21 38.62	-15 57.9					
1985	07 14	21 33.15	-16 21.7	1.328	2.270	-1.85	-9.7	17.2
1985	07 24	21 24.90	-16 55.6					
1985	08 03	21 14.77	-17 34.3	1.269	2.281	-2.01	-9.6	16.7
1985	08 13	21 03.98	-18 11.5					
1985	08 23	20 53.95	-18 41.7	1.310	2.291	-1.94	-8.3	17.1
1985	09 02	20 45.97	-19 01.2					
1985	09 12	20 40.85	-19 08.8	1.445	2.300	-1.71	-6.9	17.5
1985	09 22	20 38.96	-19 04.6					
1985	10 02	20 40.28	-18 49.3	1.647	2.308	-1.44	-5.9	17.9
1985	10 12	20 44.55	-18 23.9					
1985	10 22	20 51.39	-17 48.8	1.888	2.314	-1.21	-5.4	18.3

1982 VZ4 a,e,i = 2.46, 0.05, 4 Elements MPC 9069

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	21 21.32	-10 44.8	2.154	2.447	94.3	24.3	18.7
1985	05 25	21 29.00	-09 47.6					
1985	06 04	21 34.58	-08 58.5	1.921	2.457	109.7	22.9	18.4
1985	06 14	21 37.83	-08 19.9					
1985	06 24	21 38.52	-07 54.2	1.714	2.467	127.4	19.1	18.1
1985	07 04	21 36.54	-07 43.3					
1985	07 14	21 31.95	-07 48.4	1.558	2.477	147.7	12.7	17.7
1985	07 24	21 25.08	-08 09.3					
1985	08 03	21 16.61	-08 43.8	1.484	2.487	169.0	4.5	17.4
1985	08 13	21 07.51	-09 27.9					
1985	08 23	20 58.89	-10 16.2	1.511	2.497	163.5	6.6	17.5
1985	09 02	20 51.81	-11 03.3					
1985	09 12	20 47.01	-11 44.7	1.636	2.506	141.9	14.4	17.9
1985	09 22	20 44.91	-12 17.5					
1985	10 02	20 45.63	-12 39.7	1.837	2.515	122.0	19.7	18.3
1985	10 12	20 49.00	-12 50.7					
1985	10 22	20 54.79	-12 50.2	2.085	2.524	104.4	22.5	18.6

1981 EU38 a,e,i = 2.25, 0.13, 3 Elements MPC 8888

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	05 15	21 12.53	-12 03.2	1.615	2.003	-1.52	-5.9	18.7
1985	05 25	21 23.19	-10 55.1					
1985	06 04	21 31.40	-09 56.1	1.428	2.024	-1.73	-7.1	18.4
1985	06 14	21 36.86	-09 09.3					
1985	06 24	21 39.23	-08 38.3	1.264	2.049	-2.02	-8.4	18.1
1985	07 04	21 38.36	-08 25.7					
1985	07 14	21 34.25	-08 33.3	1.144	2.075	-2.33	-9.6	17.7
1985	07 24	21 27.29	-09 00.6					
1985	08 03	21 18.39	-09 44.2	1.097	2.103	-2.51	-10.0	17.4
1985	08 13	21 08.79	-10 38.0					
1985	08 23	20 59.94	-11 34.5	1.143	2.133	-2.41	-9.2	17.6
1985	09 02	20 53.13	-12 26.6					
1985	09 12	20 49.17	-13 09.3	1.278	2.163	-2.09	-7.7	18.1
1985	09 22	20 48.42	-13 39.7					
1985	10 02	20 50.83	-13 56.4	1.483	2.194	-1.74	-6.5	18.6
1985	10 12	20 56.09	-13 59.5					
1985	10 22	21 03.85	-13 49.2	1.731	2.225	-1.45	-5.6	19.0

1984 EV a,e,i = 2.37, 0.04, 7 Elements MPC 9025

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	21 27.26	-22 04.2	2.074	2.407	96.4	24.7	18.6
1985	05 25	21 35.60	-21 38.6					
1985	06 04	21 41.64	-21 22.8	1.843	2.415	112.1	22.9	18.3
1985	06 14	21 45.10	-21 18.0					
1985	06 24	21 45.67	-21 25.0	1.641	2.423	130.1	18.7	17.9
1985	07 04	21 43.19	-21 42.8					
1985	07 14	21 37.69	-22 09.0	1.493	2.431	150.7	11.8	17.6
1985	07 24	21 29.51	-22 39.0					
1985	08 03	21 19.46	-23 06.6	1.430	2.438	171.3	3.6	17.2
1985	08 13	21 08.70	-23 26.2					
1985	08 23	20 58.56	-23 33.5	1.469	2.444	160.1	8.1	17.5
1985	09 02	20 50.27	-23 26.9					
1985	09 12	20 44.64	-23 07.3	1.604	2.450	138.5	15.8	17.8
1985	09 22	20 42.07	-22 36.4					
1985	10 02	20 42.60	-21 56.0	1.809	2.455	119.0	20.9	18.2
1985	10 12	20 45.98	-21 07.9					
1985	10 22	20 51.88	-20 12.7	2.055	2.459	101.8	23.3	18.6

1980 CT a,e,i = 2.35, 0.19, 10 Elements MPC 8793

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	21 32.46	-26 06.2	2.386	2.695	96.5	21.9	19.5
1985	05 25	21 40.02	-26 08.7					
1985	06 04	21 45.50	-26 22.5	2.111	2.670	112.6	20.5	19.2
1985	06 14	21 48.63	-26 48.6					
1985	06 24	21 49.06	-27 26.8	1.868	2.643	130.4	17.0	18.9
1985	07 04	21 46.56	-28 15.5					
1985	07 14	21 41.07	-29 10.6	1.684	2.614	149.8	11.3	18.5
1985	07 24	21 32.78	-30 06.0					
1985	08 03	21 22.36	-30 53.7	1.588	2.582	164.9	5.9	18.2
1985	08 13	21 10.87	-31 26.1					
1985	08 23	20 59.68	-31 38.2	1.595	2.547	154.9	9.7	18.3
1985	09 02	20 50.13	-31 28.6					
1985	09 12	20 43.19	-30 59.2	1.697	2.511	134.9	16.5	18.5
1985	09 22	20 39.44	-30 13.7					
1985	10 02	20 38.98	-29 15.9	1.867	2.473	115.8	21.4	18.8
1985	10 12	20 41.64	-28 08.7					
1985	10 22	20 47.10	-26 54.1	2.074	2.433	98.8	23.8	19.1

(3118) 1974 OD a,e,i = 3.04, 0.06, 13 Elements MPC 9153

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	05 15	21 36.21	-14 59.9	2.821	3.033	92.2	19.5	17.1
1985	05 25	21 41.47	-14 05.3					
1985	06 04	21 44.84	-13 16.7	2.561	3.045	108.9	18.4	16.9
1985	06 14	21 46.18	-12 35.3					
1985	06 24	21 45.33	-12 02.0	2.330	3.056	127.4	15.3	16.6
1985	07 04	21 42.26	-11 37.3					
1985	07 14	21 37.08	-11 21.1	2.157	3.068	148.1	10.1	16.3
1985	07 24	21 30.09	-11 12.9					
1985	08 03	21 21.85	-11 11.0	2.075	3.079	170.0	3.3	16.0
1985	08 13	21 13.08	-11 13.5					
1985	08 23	21 04.62	-11 18.0	2.102	3.090	165.0	4.9	16.1
1985	09 02	20 57.27	-11 22.2					
1985	09 12	20 51.63	-11 24.0	2.237	3.101	143.0	11.3	16.5
1985	09 22	20 48.11	-11 22.1					
1985	10 02	20 46.87	-11 15.3	2.456	3.111	122.6	15.7	16.8
1985	10 12	20 47.87	-11 03.0					
1985	10 22	20 50.97	-10 44.4	2.727	3.121	104.0	18.0	17.1

1981 JD2 a,e,i = 2.28, 0.16, 4 Elements MPC 7613

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	21 34.91	-20 15.5	1.395	2.023	113.3	27.4	17.4
1985	06 14	21 43.28	-20 11.4					
1985	06 24	21 48.83	-20 22.0	1.191	1.994	129.1	23.3	16.9
1985	07 04	21 51.20	-20 48.6					
1985	07 14	21 50.11	-21 30.2	1.033	1.969	147.7	16.0	16.4
1985	07 24	21 45.54	-22 22.7					
1985	08 03	21 38.04	-23 18.1	0.945	1.948	167.5	6.5	16.0
1985	08 13	21 28.75	-24 06.6					
1985	08 23	21 19.29	-24 38.8	0.941	1.930	163.0	8.8	16.0
1985	09 02	21 11.46	-24 48.8					
1985	09 12	21 06.56	-24 36.0	1.019	1.918	142.5	18.6	16.4
1985	09 22	21 05.34	-24 02.2					
1985	10 02	21 07.91	-23 10.8	1.161	1.911	124.1	25.7	16.8
1985	10 12	21 13.95	-22 04.7					
1985	10 22	21 23.00	-20 46.0	1.342	1.908	108.5	29.6	17.2
1985	11 01	21 34.54	-19 16.2					
1985	11 11	21 48.04	-17 36.4	1.547	1.911	95.2	31.1	17.6

(3188) 1978 OM a,e,i = 2.29, 0.13, 5 Elements MPC 9421

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	21 44.15	-18 05.1	1.538	2.119	110.5	26.6	17.7
1985	06 14	21 51.23	-17 28.8					
1985	06 24	21 55.55	-17 03.4	1.320	2.092	126.7	22.9	17.2
1985	07 04	21 56.75	-16 50.2					
1985	07 14	21 54.62	-16 49.2	1.147	2.068	145.8	16.0	16.7
1985	07 24	21 49.16	-16 58.9					
1985	08 03	21 40.90	-17 15.1	1.043	2.046	167.9	6.0	16.3
1985	08 13	21 30.88	-17 31.8					
1985	08 23	21 20.62	-17 43.1	1.028	2.027	167.5	6.2	16.2
1985	09 02	21 11.77	-17 44.1					
1985	09 12	21 05.63	-17 32.8	1.102	2.011	145.0	16.7	16.6
1985	09 22	21 02.95	-17 08.8					
1985	10 02	21 03.95	-16 32.9	1.245	1.998	125.3	24.1	17.0
1985	10 12	21 08.40	-15 46.1					
1985	10 22	21 15.92	-14 48.8	1.432	1.990	108.8	28.3	17.4
1985	11 01	21 26.03	-13 41.4					
1985	11 11	21 38.25	-12 24.4	1.641	1.985	94.7	29.8	17.7

1974 ST a,e,i = 3.17, 0.23, 2 Elements MPC 7838

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	21 46.05	-14 21.0	1.915	2.440	108.9	23.2	17.4
1985	06 14	21 51.96	-14 03.4					
1985	06 24	21 55.47	-13 59.0	1.708	2.445	125.8	19.7	17.1
1985	07 04	21 56.43	-14 08.8					
1985	07 14	21 54.78	-14 32.7	1.551	2.455	145.1	13.7	16.7
1985	07 24	21 50.68	-15 08.8					
1985	08 03	21 44.63	-15 53.1	1.470	2.469	166.9	5.4	16.4
1985	08 13	21 37.42	-16 40.1					
1985	08 23	21 30.06	-17 23.9	1.486	2.487	169.7	4.2	16.4
1985	09 02	21 23.62	-17 59.0					
1985	09 12	21 18.96	-18 22.3	1.600	2.509	147.7	12.4	16.8
1985	09 22	21 16.67	-18 32.1					
1985	10 02	21 16.97	-18 28.4	1.796	2.535	127.7	18.2	17.2
1985	10 12	21 19.83	-18 11.9					
1985	10 22	21 25.04	-17 43.7	2.047	2.564	110.0	21.4	17.6
1985	11 01	21 32.33	-17 04.8					
1985	11 11	21 41.35	-16 16.1	2.330	2.596	94.2	22.4	17.9

1983 CY2 a,e,i = 2.99, 0.06, 9 Elements MPC 7829

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	06 04	22 03.63	-15 11.6	2.678	3.102	-0.71	-6.0	18.0
1985	06 14	22 06.43	-14 45.6					
1985	06 24	22 07.19	-14 28.5	2.416	3.092	-0.80	-6.7	17.7
1985	07 04	22 05.79	-14 20.7					
1985	07 14	22 02.20	-14 21.9	2.205	3.081	-0.90	-7.4	17.4
1985	07 24	21 56.57	-14 30.7					
1985	08 03	21 49.27	-14 44.8	2.078	3.070	-0.97	-7.6	17.1
1985	08 13	21 40.91	-15 01.2					
1985	08 23	21 32.27	-15 16.6	2.056	3.059	-0.99	-7.4	17.0
1985	09 02	21 24.21	-15 27.7					
1985	09 12	21 17.50	-15 32.6	2.145	3.048	-0.94	-6.8	17.3
1985	09 22	21 12.71	-15 29.9					
1985	10 02	21 10.18	-15 19.0	2.325	3.036	-0.84	-6.1	17.6
1985	10 12	21 09.97	-15 00.1					
1985	10 22	21 12.05	-14 33.3	2.564	3.024	-0.75	-5.5	17.9
1985	11 01	21 16.21	-13 58.8					
1985	11 11	21 22.22	-13 17.0	2.831	3.011	-0.67	-5.2	18.1

6092 P-L a,e,i = 2.61, 0.19, 11 Elements MPC 9301

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	21 59.51	+00 34.1	2.077	2.471	100.4	23.8	18.3
1985	06 14	22 04.15	+01 31.0					
1985	06 24	22 06.47	+02 14.2	1.884	2.511	116.7	21.2	18.1
1985	07 04	22 06.33	+02 40.4					
1985	07 14	22 03.72	+02 46.8	1.727	2.552	135.3	16.3	17.8
1985	07 24	21 58.78	+02 31.3					
1985	08 03	21 51.99	+01 53.4	1.636	2.592	155.2	9.5	17.6
1985	08 13	21 44.03	+00 55.2					
1985	08 23	21 35.84	-00 18.5	1.638	2.632	166.4	5.2	17.5
1985	09 02	21 28.39	-01 40.7					
1985	09 12	21 22.52	-03 04.0	1.745	2.671	151.1	10.5	17.8
1985	09 22	21 18.81	-04 21.8					
1985	10 02	21 17.53	-05 29.2	1.944	2.709	131.1	16.2	18.2
1985	10 12	21 18.71	-06 23.3					
1985	10 22	21 22.21	-07 03.0	2.208	2.746	112.4	19.6	18.6
1985	11 01	21 27.78	-07 27.8					
1985	11 11	21 35.15	-07 38.5	2.507	2.782	95.5	20.7	18.9

(3056) INAG a,e,i = 2.42, 0.12, 6 Elements MPC 8789

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	21 57.09	-19 59.8	1.715	2.249	108.2	25.4	17.5
1985	06 14	22 04.33	-19 43.8					
1985	06 24	22 08.98	-19 40.3	1.490	2.228	124.4	22.1	17.1
1985	07 04	22 10.72	-19 49.9					
1985	07 14	22 09.31	-20 12.2	1.310	2.208	143.1	16.0	16.7
1985	07 24	22 04.70	-20 44.2					
1985	08 03	21 57.27	-21 20.2	1.198	2.191	163.8	7.4	16.3
1985	08 13	21 47.86	-21 53.1					
1985	08 23	21 37.77	-22 15.4	1.178	2.176	167.5	5.8	16.1
1985	09 02	21 28.53	-22 21.5					
1985	09 12	21 21.44	-22 09.7	1.251	2.163	146.6	14.8	16.5
1985	09 22	21 17.39	-21 40.7					
1985	10 02	21 16.73	-20 56.7	1.399	2.153	126.8	21.9	16.9
1985	10 12	21 19.37	-20 00.2					
1985	10 22	21 25.03	-18 52.9	1.596	2.146	109.6	25.9	17.3
1985	11 01	21 33.27	-17 36.0					
1985	11 11	21 43.66	-16 10.7	1.819	2.141	94.7	27.4	17.6

1975 VN1 a,e,i = 3.13, 0.10, 5 Elements MPC 9078

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 01.48	-06 58.0	2.728	3.115	102.8	18.5	18.1
1985	06 14	22 05.07	-06 27.9					
1985	06 24	22 06.81	-06 08.1	2.454	3.094	120.3	16.5	17.8
1985	07 04	22 06.58	-06 00.2					
1985	07 14	22 04.35	-06 05.2	2.227	3.074	139.8	12.3	17.5
1985	07 24	22 00.20	-06 23.5					
1985	08 03	21 54.43	-06 54.3	2.077	3.054	161.0	6.2	17.1
1985	08 13	21 47.53	-07 35.2					
1985	08 23	21 40.17	-08 22.7	2.028	3.034	172.9	2.4	16.9
1985	09 02	21 33.17	-09 12.2					
1985	09 12	21 27.25	-09 59.5	2.089	3.014	151.9	9.0	17.2
1985	09 22	21 23.02	-10 40.6					
1985	10 02	21 20.87	-11 12.8	2.244	2.995	130.7	14.7	17.5
1985	10 12	21 20.96	-11 34.6					
1985	10 22	21 23.29	-11 45.3	2.465	2.976	111.4	18.1	17.7
1985	11 01	21 27.72	-11 44.5					
1985	11 11	21 34.04	-11 32.8	2.719	2.957	94.0	19.5	18.0

1941 UL a,e,i = 3.15, 0.20, 3 Elements MPC 6894

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	21 58.17	-14 27.4	2.411	2.865	106.2	19.9	17.7
1985	06 14	22 02.93	-14 14.4					
1985	06 24	22 05.70	-14 12.7	2.136	2.827	123.5	17.4	17.3
1985	07 04	22 06.29	-14 23.3					
1985	07 14	22 04.61	-14 46.2	1.911	2.791	142.9	12.7	16.9
1985	07 24	22 00.70	-15 20.3					
1985	08 03	21 54.85	-16 02.6	1.764	2.755	164.5	5.7	16.5
1985	08 13	21 47.62	-16 48.7					
1985	08 23	21 39.82	-17 33.3	1.717	2.721	171.4	3.2	16.3
1985	09 02	21 32.42	-18 11.2					
1985	09 12	21 26.32	-18 38.5	1.775	2.689	149.2	11.1	16.6
1985	09 22	21 22.26	-18 53.0					
1985	10 02	21 20.65	-18 54.1	1.920	2.659	128.4	17.2	16.9
1985	10 12	21 21.64	-18 42.1					
1985	10 22	21 25.18	-18 17.7	2.122	2.632	109.8	20.8	17.2
1985	11 01	21 31.04	-17 41.9					
1985	11 11	21 38.96	-16 55.5	2.353	2.606	93.4	22.3	17.5

(3111) 1977 DX8 a,e,i = 2.22, 0.16, 2 Elements MPC 9074

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	21 51.73	-14 06.4	1.616	2.151	107.5	26.7	18.3
1985	06 14	21 59.74	-13 38.3					
1985	06 24	22 05.36	-13 23.9	1.378	2.114	123.3	23.7	17.9
1985	07 04	22 08.25	-13 25.7					
1985	07 14	22 08.09	-13 45.3	1.181	2.077	141.8	17.6	17.4
1985	07 24	22 04.71	-14 22.9					
1985	08 03	21 58.35	-15 15.2	1.048	2.042	163.5	8.1	16.8
1985	08 13	21 49.69	-16 15.8					
1985	08 23	21 39.99	-17 15.8	1.002	2.008	171.6	4.2	16.6
1985	09 02	21 30.87	-18 05.9					
1985	09 12	21 23.82	-18 39.8	1.046	1.976	148.6	15.4	16.9
1985	09 22	21 19.96	-18 54.1					
1985	10 02	21 19.78	-18 48.6	1.163	1.948	128.2	23.8	17.3
1985	10 12	21 23.27	-18 24.5					
1985	10 22	21 30.13	-17 43.3	1.325	1.923	111.1	28.9	17.7
1985	11 01	21 39.91	-16 46.5					
1985	11 11	21 52.10	-15 35.5	1.510	1.902	96.8	31.1	18.0

(3040) 1979 BA a,e,i = 1.84, 0.20, 47 Elements MPC 8782

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 03.47	+10 34.3	1.691	2.054	95.5	29.4	20.4
1985	06 14	22 10.41	+10 01.8					
1985	06 24	22 15.13	+08 55.2	1.405	2.015	111.6	28.0	19.9
1985	07 04	22 17.17	+07 02.6					
1985	07 14	22 16.07	+04 10.1	1.142	1.972	132.0	22.5	19.3
1985	07 24	22 11.35	+00 03.3					
1985	08 03	22 02.85	-05 25.4	0.946	1.926	158.4	11.2	18.6
1985	08 13	21 50.87	-12 05.8					
1985	08 23	21 36.53	-19 21.8	0.874	1.878	169.6	5.6	18.2
1985	09 02	21 21.81	-26 20.2					
1985	09 12	21 08.98	-32 17.1	0.945	1.827	138.9	21.2	18.7
1985	09 22	21 00.01	-36 54.9					
1985	10 02	20 56.08	-40 18.1	1.109	1.776	114.5	30.8	19.2
1985	10 12	20 57.47	-42 40.2					
1985	10 22	21 03.95	-44 14.7	1.303	1.724	96.3	35.0	19.6
1985	11 01	21 14.95	-45 12.0					
1985	11 11	21 29.83	-45 38.6	1.485	1.673	82.4	35.9	19.8

(3035) A924 EJ a,e,i = 2.64, 0.13, 3 Elements MPC 8781

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 14.32	-08 28.7	2.283	2.660	100.4	22.0	17.9
1985	06 14	22 19.12	-07 58.2					
1985	06 24	22 21.75	-07 40.2	2.062	2.687	117.5	19.6	17.7
1985	07 04	22 22.05	-07 36.4					
1985	07 14	22 19.94	-07 47.6	1.880	2.713	137.0	14.8	17.4
1985	07 24	22 15.48	-08 13.8					
1985	08 03	22 09.00	-08 53.2	1.768	2.739	158.9	7.7	17.1
1985	08 13	22 01.08	-09 42.1					
1985	08 23	21 52.56	-10 35.8	1.754	2.764	176.6	1.3	16.7
1985	09 02	21 44.40	-11 28.3					
1985	09 12	21 37.47	-12 14.9	1.849	2.788	153.9	9.1	17.3
1985	09 22	21 32.47	-12 51.8					
1985	10 02	21 29.79	-13 17.0	2.038	2.811	132.3	15.3	17.6
1985	10 12	21 29.55	-13 29.8					
1985	10 22	21 31.69	-13 30.3	2.293	2.832	112.8	18.9	18.0
1985	11 01	21 36.00	-13 19.0					
1985	11 11	21 42.22	-12 56.9	2.583	2.853	95.4	20.2	18.3

(3074) 1979 YE9 a,e,i = 2.34, 0.11, 2 Elements MPC 8898

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 17.72	-12 32.2	2.200	2.593	101.1	22.6	18.3
1985	06 14	22 22.80	-12 04.4					
1985	06 24	22 25.64	-11 48.8	1.958	2.597	118.1	20.2	18.0
1985	07 04	22 26.01	-11 46.6					
1985	07 14	22 23.76	-11 58.3	1.755	2.598	137.6	15.3	17.6
1985	07 24	22 18.87	-12 23.3					
1985	08 03	22 11.63	-12 59.1	1.622	2.598	159.8	7.7	17.3
1985	08 13	22 02.62	-13 41.5					
1985	08 23	21 52.77	-14 24.9	1.586	2.596	175.8	1.6	16.9
1985	09 02	21 43.21	-15 03.6					
1985	09 12	21 35.00	-15 33.0	1.658	2.592	152.3	10.4	17.4
1985	09 22	21 28.97	-15 50.6					
1985	10 02	21 25.63	-15 55.3	1.821	2.586	130.5	17.1	17.8
1985	10 12	21 25.08	-15 47.3					
1985	10 22	21 27.26	-15 27.4	2.045	2.578	111.2	21.1	18.1
1985	11 01	21 31.91	-14 56.3					
1985	11 11	21 38.70	-14 15.1	2.298	2.568	94.2	22.6	18.4

1982 UP a,e,i = 2.18, 0.14, 2 Elements MPC 8777

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	06 04	22 00.31	-09 13.6	1.559	2.054	-1.65	-8.2	18.7
1985	06 14	22 09.60	-08 09.2					
1985	06 24	22 16.63	-07 15.7	1.330	2.023	-1.98	-10.1	18.3
1985	07 04	22 21.06	-06 36.3					
1985	07 14	22 22.54	-06 14.3	1.136	1.994	-2.40	-12.4	17.8
1985	07 24	22 20.83	-06 12.6					
1985	08 03	22 16.01	-06 32.3	0.995	1.967	-2.82	-14.5	17.2
1985	08 13	22 08.56	-07 11.7					
1985	08 23	21 59.53	-08 05.8	0.933	1.943	-3.00	-15.1	16.7
1985	09 02	21 50.47	-09 05.8					
1985	09 12	21 42.94	-10 02.4	0.959	1.922	-2.81	-13.6	17.1
1985	09 22	21 38.22	-10 47.8					
1985	10 02	21 37.05	-11 16.8	1.064	1.904	-2.41	-11.4	17.5
1985	10 12	21 39.54	-11 27.3					
1985	10 22	21 45.50	-11 18.9	1.221	1.890	-2.02	-9.6	18.0
1985	11 01	21 54.50	-10 52.1					
1985	11 11	22 06.03	-10 08.2	1.408	1.881	-1.71	-8.6	18.3

1984 CW a,e,i = 2.32, 0.10, 6 Elements MPC 8684

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 15.27	-13 34.3	1.648	2.107	102.0	28.1	17.3
1985	06 14	22 23.45	-12 27.7					
1985	06 24	22 29.05	-11 31.2	1.446	2.114	117.2	25.3	17.0
1985	07 04	22 31.75	-10 46.7					
1985	07 14	22 31.29	-10 15.7	1.277	2.124	135.3	19.7	16.6
1985	07 24	22 27.55	-09 58.9					
1985	08 03	22 20.78	-09 55.4	1.165	2.135	156.7	10.8	16.2
1985	08 13	22 11.67	-10 02.4					
1985	08 23	22 01.37	-10 15.3	1.138	2.149	178.2	0.9	15.7
1985	09 02	21 51.36	-10 28.7					
1985	09 12	21 43.00	-10 37.7	1.208	2.165	155.6	11.1	16.3
1985	09 22	21 37.32	-10 39.0					
1985	10 02	21 34.85	-10 30.3	1.363	2.182	134.2	19.2	16.8
1985	10 12	21 35.61	-10 11.1					
1985	10 22	21 39.40	-09 41.1	1.577	2.201	115.8	24.0	17.3
1985	11 01	21 45.85	-09 00.4					
1985	11 11	21 54.51	-08 09.5	1.825	2.220	99.9	26.1	17.6

(3090) 1982 AN a,e,i = 3.17, 0.09, 10 Elements MPC 8905

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 13.05	-04 02.0	2.595	2.931	99.0	20.0	18.4
1985	06 14	22 18.20	-03 31.1					
1985	06 24	22 21.54	-03 11.9	2.332	2.921	115.7	18.3	18.1
1985	07 04	22 22.93	-03 06.4					
1985	07 14	22 22.28	-03 16.4	2.107	2.911	134.5	14.4	17.8
1985	07 24	22 19.58	-03 42.8					
1985	08 03	22 15.06	-04 25.3	1.949	2.903	155.4	8.4	17.5
1985	08 13	22 09.11	-05 21.7					
1985	08 23	22 02.37	-06 28.3	1.887	2.895	174.7	1.9	17.1
1985	09 02	21 55.63	-07 39.3					
1985	09 12	21 49.67	-08 48.9	1.933	2.889	157.6	7.6	17.4
1985	09 22	21 45.20	-09 51.7					
1985	10 02	21 42.71	-10 43.7	2.079	2.884	136.0	13.9	17.7
1985	10 12	21 42.42	-11 22.6					
1985	10 22	21 44.41	-11 47.4	2.297	2.880	116.3	18.0	18.0
1985	11 01	21 48.55	-11 58.0					
1985	11 11	21 54.63	-11 55.2	2.558	2.878	98.6	19.9	18.3

(3124) 1981 VB a,e,i = 2.75, 0.08, 6 Elements MPC 9156

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 14.66	-07 04.2	2.160	2.538	99.8	23.2	18.2
1985	06 14	22 21.40	-06 29.9					
1985	06 24	22 26.13	-06 08.5	1.918	2.533	115.9	21.2	17.9
1985	07 04	22 28.64	-06 02.2					
1985	07 14	22 28.75	-06 12.8	1.712	2.529	134.3	16.7	17.6
1985	07 24	22 26.40	-06 41.5					
1985	08 03	22 21.78	-07 27.2	1.569	2.527	155.5	9.6	17.2
1985	08 13	22 15.33	-08 26.9					
1985	08 23	22 07.79	-09 35.4	1.516	2.527	177.8	0.9	16.7
1985	09 02	22 00.18	-10 45.5					
1985	09 12	21 53.48	-11 50.3	1.567	2.527	157.8	8.7	17.2
1985	09 22	21 48.58	-12 44.1					
1985	10 02	21 46.05	-13 23.2	1.712	2.530	136.0	16.0	17.6
1985	10 12	21 46.11	-13 46.3					
1985	10 22	21 48.77	-13 53.4	1.926	2.533	116.6	20.6	17.9
1985	11 01	21 53.84	-13 45.1					
1985	11 11	22 01.03	-13 22.6	2.178	2.538	99.6	22.6	18.2

(2961) Katsurahama a,e,i = 2.27, 0.14, 5 Elements MPC 8383

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 16.11	-04 55.9	1.942	2.323	98.7	25.6	18.1
1985	06 14	22 23.75	-03 48.3					
1985	06 24	22 29.37	-02 50.3	1.685	2.292	113.8	23.9	17.7
1985	07 04	22 32.68	-02 04.8					
1985	07 14	22 33.40	-01 34.9	1.458	2.261	131.2	19.8	17.2
1985	07 24	22 31.30	-01 23.8					
1985	08 03	22 26.44	-01 33.6	1.285	2.230	151.4	12.6	16.8
1985	08 13	22 19.16	-02 04.8					
1985	08 23	22 10.23	-02 55.0	1.193	2.198	171.1	4.1	16.3
1985	09 02	22 00.88	-03 58.2					
1985	09 12	21 52.43	-05 06.5	1.198	2.167	158.6	9.8	16.5
1985	09 22	21 46.09	-06 11.2					
1985	10 02	21 42.71	-07 05.3	1.293	2.136	136.9	18.7	16.8
1985	10 12	21 42.60	-07 44.5					
1985	10 22	21 45.79	-08 06.3	1.450	2.107	117.8	24.7	17.2
1985	11 01	21 52.00	-08 10.2					
1985	11 11	22 00.86	-07 56.7	1.642	2.079	101.4	27.8	17.5

1983 AG2 a,e,i = 2.32, 0.33, 22 Elements MPC 8061

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 43.72	-16 30.3	2.280	2.600	96.6	22.8	18.4
1985	06 14	22 49.36	-15 29.1					
1985	06 24	22 52.90	-14 33.7	1.962	2.535	112.8	21.7	18.0
1985	07 04	22 53.99	-13 44.5					
1985	07 14	22 52.25	-13 01.7	1.674	2.467	131.4	18.0	17.5
1985	07 24	22 47.34	-12 25.0					
1985	08 03	22 39.15	-11 53.0	1.447	2.396	153.1	11.1	17.0
1985	08 13	22 27.90	-11 23.6					
1985	08 23	22 14.35	-10 53.8	1.311	2.322	177.7	1.0	16.2
1985	09 02	21 59.83	-10 20.6					
1985	09 12	21 45.95	-09 42.1	1.286	2.245	156.5	10.3	16.5
1985	09 22	21 34.26	-08 57.2					
1985	10 02	21 25.86	-08 05.9	1.360	2.167	132.6	19.9	16.8
1985	10 12	21 21.24	-07 08.3					
1985	10 22	21 20.44	-06 04.2	1.496	2.087	112.2	26.2	17.1
1985	11 01	21 23.21	-04 52.9					
1985	11 11	21 29.13	-03 33.9	1.656	2.006	95.3	29.4	17.3

1984 EY a,e,i = 2.37, 0.07, 7 Elements MPC 8779

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	06 04	22 41.37	-17 12.2	1.965	2.324	-1.10	-8.0	18.4
1985	06 14	22 49.84	-16 51.1					
1985	06 24	22 56.06	-16 43.7	1.751	2.341	-1.23	-9.6	18.1
1985	07 04	22 59.73	-16 51.2					
1985	07 14	23 00.56	-17 13.7	1.566	2.358	-1.42	-11.2	17.8
1985	07 24	22 58.36	-17 50.0					
1985	08 03	22 53.17	-18 36.3	1.436	2.374	-1.64	-12.2	17.4
1985	08 13	22 45.37	-19 26.4					
1985	08 23	22 35.72	-20 12.7	1.390	2.390	-1.77	-11.9	17.2
1985	09 02	22 25.45	-20 47.1					
1985	09 12	22 15.83	-21 04.4	1.446	2.407	-1.71	-10.3	17.4
1985	09 22	22 08.05	-21 02.1					
1985	10 02	22 02.89	-20 40.8	1.595	2.422	-1.51	-8.7	17.8
1985	10 12	22 00.68	-20 03.0					
1985	10 22	22 01.42	-19 11.3	1.812	2.437	-1.27	-7.5	18.2
1985	11 01	22 04.87	-18 08.3					
1985	11 11	22 10.67	-16 55.8	2.069	2.451	-1.07	-6.8	18.6

(3091) 6081 P-L a,e,i = 2.35, 0.17, 2 Elements MPC 8906

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 38.89	-06 02.0	1.867	2.183	93.8	27.6	18.7
1985	06 14	22 47.60	-04 58.8					
1985	06 24	22 54.06	-04 08.1	1.675	2.221	108.7	25.7	18.4
1985	07 04	22 58.01	-03 32.5					
1985	07 14	22 59.19	-03 14.1	1.504	2.258	126.2	21.3	18.1
1985	07 24	22 57.44	-03 14.9					
1985	08 03	22 52.84	-03 35.3	1.379	2.296	146.8	14.0	17.8
1985	08 13	22 45.75	-04 13.8					
1985	08 23	22 36.92	-05 06.4	1.332	2.334	169.9	4.4	17.5
1985	09 02	22 27.50	-06 06.1					
1985	09 12	22 18.69	-07 05.4	1.386	2.372	164.9	6.3	17.7
1985	09 22	22 11.57	-07 57.3					
1985	10 02	22 06.93	-08 36.8	1.537	2.409	142.3	14.7	18.2
1985	10 12	22 05.06	-09 01.5					
1985	10 22	22 06.00	-09 10.5	1.764	2.444	122.2	20.2	18.6
1985	11 01	22 09.54	-09 04.4					
1985	11 11	22 15.36	-08 44.2	2.038	2.479	104.5	22.7	19.0

(3082) 1972 KE a,e,i = 2.58, 0.08, 10 Elements MPC 8902

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 31.16	-12 17.2	2.054	2.413	97.9	24.6	17.5
1985	06 14	22 40.17	-12 13.6					
1985	06 24	22 47.29	-12 25.9	1.812	2.403	113.4	22.8	17.2
1985	07 04	22 52.24	-12 56.4					
1985	07 14	22 54.77	-13 46.4	1.602	2.396	131.0	18.7	16.9
1985	07 24	22 54.65	-14 55.7					
1985	08 03	22 51.84	-16 21.4	1.451	2.389	150.9	11.9	16.5
1985	08 13	22 46.57	-17 57.6					
1985	08 23	22 39.43	-19 35.3	1.384	2.384	168.7	4.8	16.2
1985	09 02	22 31.40	-21 04.0					
1985	09 12	22 23.64	-22 15.0	1.418	2.380	157.8	9.2	16.3
1985	09 22	22 17.28	-23 02.2					
1985	10 02	22 13.21	-23 24.0	1.544	2.378	137.3	16.6	16.7
1985	10 12	22 11.86	-23 21.7					
1985	10 22	22 13.37	-22 57.9	1.738	2.378	118.4	21.6	17.1
1985	11 01	22 17.59	-22 16.0					
1985	11 11	22 24.20	-21 18.8	1.971	2.379	101.7	24.0	17.4

1934 CU a,e,i = 2.22, 0.11, 7 Elements MPC 9068

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	06 04	22 35.32	-07 05.4	2.046	2.362	95.1	25.3	19.5
1985	06 14	22 44.03	-06 31.6					
1985	06 24	22 50.89	-06 11.4	1.788	2.342	110.2	24.0	19.2
1985	07 04	22 55.63	-06 07.4					
1985	07 14	22 57.95	-06 22.4	1.555	2.321	127.8	20.3	18.8
1985	07 24	22 57.57	-06 58.5					
1985	08 03	22 54.40	-07 56.0	1.373	2.299	148.3	13.4	18.3
1985	08 13	22 48.58	-09 12.6					
1985	08 23	22 40.62	-10 42.7	1.271	2.276	171.4	3.8	17.8
1985	09 02	22 31.53	-12 17.0					
1985	09 12	22 22.54	-13 45.4	1.269	2.251	163.4	7.3	17.9
1985	09 22	22 14.94	-14 58.8					
1985	10 02	22 09.76	-15 51.2	1.362	2.227	140.3	16.7	18.3
1985	10 12	22 07.58	-16 20.8					
1985	10 22	22 08.58	-16 28.0	1.526	2.201	120.1	23.0	18.7
1985	11 01	22 12.62	-16 14.5					
1985	11 11	22 19.38	-15 42.6	1.729	2.176	102.9	26.3	19.0