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

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NOTES FROM THE IAU GENERAL ASSEMBLY.

At its meetings in New Delhi in November IAU Commission 20 adopted the following resolution concerning magnitudes of minor planets:

(1) Commission 20 recommends that the minor planet magnitude system put forward by the ad hoc Committee on Magnitude Ephemerides be adopted for use in publications that conform with the policies of the Commission. A formula for the prediction of the apparent magnitude of a minor planet is

$$5 \log r + H - 2.5 \log [(1 - G) \Phi_1 + G \Phi_2],$$

where r and Δ are, respectively, the heliocentric and geocentric distances (in AU), H is the absolute magnitude (in the V band unless otherwise specified) at solar phase angle $\alpha = 0°$, G is termed the slope parameter, and Φ_1 and Φ_2 are two phase functions approximated by

$$\Phi_i = \exp \{-A_i [\tan (\alpha/2)]^{**}B_i\}; \quad i = 1, 2$$
$$A_1 = 3.33, \quad A_2 = 1.87, \quad B_1 = 0.63, \quad B_2 = 1.22.$$

(2) It is recommended that, for numbered minor planets, values of H and G be published annually in the Efemeridy Malykh Planet, that files of photometric data be maintained and frequently updated, and that the files files be overseen and approved for publication by a standing committee.

(3) If G cannot be satisfactorily determined, and in the absence of albedo or taxonomic class, it is sufficient to adopt the value $G = 0.25$. If further sophistication is desired, it is appropriate to adopt instead $G = 0.15$ if the minor planet appears (even in the absence of available proper elements) to belong to the Nysa family or to have semimajor axis $a > 2.50$ AU (unless it is an Apollo object), or $G = 0.40$ if it appears to belong to Williams family 190.

Note. It is anticipated that the new magnitude formula will become effective with respect to orbits and ephemerides appearing in the MPCs for 1986 Jan. 26 and in the EMP for 1988. USERS SHOULD NOTE IN PARTICULAR THAT VISUAL (V) RATHER THAN PHOTOGRAPHIC (B) MAGNITUDES WILL BE UTILIZED IN EPHEMERIDES IN THE FUTURE. However, observations made in the B system are quite acceptable. The principal advantage of the new formula is that the opposition effect is handled in a more logical way and thus that there is a more straightforward relationship among the absolute magnitude, albedo (which can be associated with the slope parameter G) and diameter. The combined effect of this and the conversion from B to V is that H B(1,0) - 1.0. The new formula is reliable to at least $\alpha = 120°$. A more accurate version of the formula and extensive additional information are contained in the paper "A Two-Parameter Magnitude System for Asteroids", by E. Bowell, A. Harris and K. Lumme (available in preprint form from the first author).

Values of H and G for the numbered minor planets are being prepared by E. Tedesco, Jet Propulsion Laboratory, and it is hoped that the first version of these values will be published in the MPCs in the near future. The standing committee consists of E. Bowell, Y. Kozai and B. G. Marsden.

Commission 20 also adopted the following resolution concerning proposals of new names:

Names proposed for minor planets will not be accepted if, in the opinion of the Minor Planet Names Committee, they are too nearly similar to those of other minor or major planets or natural satellites, or are in questionable taste. Names should be pronounceable, preferably expressible as a single word, and no more than sixteen characters long. Names glorifying individuals or events principally known for their political or military activities or implications are considered unsuitable unless at least one hundred years have elapsed since the individuals died or the events concerned took place. Objects involved with the Jovian triangular libration points should be named in accordance with the tradition of honoring the heroes of the Trojan War. In a disputed case the proposer may appeal the committee's decision at a general meeting of Commission 20, provided that due written notice is given to the President of the Commission.

Note. Discoverers are urged to be more imaginative in their choice of names, and names consisting simply of both the first and last name of an individual are discouraged. Although not specifically prohibited, names of pet animals, particularly when the citations for them appear in the MPCs in juxtaposition to those honoring worthy human beings, were regarded by half of the Commission 20 members present in New Delhi as being "in questionable taste". The Minor Planet Names Committee currently consists of Y. Kozai and Yu. V. Batrakov, President and Vice-President of Commission 20, and B. G. Marsden, Director of the Minor Planet Center. Names for consideration should be submitted to Marsden; appeals should be directed to Kozai in advance of the meetings to be held in Baltimore in August 1988.

Note on B1950.0 vs. J2000.0. The statement on MPC 8025 supporting the continued use of the standard equinox 1950.0 (B1950.0) in the MPCs, IAUCs and EMP was reaffirmed. Observers should NOT attempt to adjust to J2000.0 observations reduced using a 1950.0 catalogue. It was noted with interest that work on appropriate J2000.0 star catalogues is progressing, and it was anticipated that some observations of minor planets specifically made in the J2000.0 system will be appearing on the MPCs in the rather near future.

Note on the name of (1148). Following discussions among the parties involved, it was affirmed that erroneous transliteration (from French to Russian to German) caused the name of this minor planet to be spelled incorrectly in the A.N. (when the name was introduced), recent editions of the EMP and other standard references. The explanation of the name in "The Names of the Minor Planets" (Cincinnati 1955, 1968) is correct, and henceforth the original French spelling, RARAHU (not Raraju), is to be used.

* * * * *

ERRATA.

MPC	Line	
7761	21	For 68.60 read 68.68
9981	- 1	Add and D. Olevic
10163	-18	Insert Residuals in seconds of arc

CORRECTED OBSERVATIONS.

The following observations correct those previously published.

Object	Date	UT	R. A. (1950)	Decl.	Reference	Mag.	N Obs.
3325	1985 05	25.76475	21 07 07.50	-42 12 59.7	MPC 9998		1 474
1985 DM *	1985 02	16.93958	10 26 51.28	+13 30 22.8	MPC 9524		046
1985 DM	1985 02	16.95382	10 26 50.50	+13 30 29.8	MPC 9524		046
1985 QA1 *	1985 08	17.28264	21 47 20.97	-01 48 44.6	MPC10093	17.5	675
1985 QB1 *	1985 08	17.28264	21 48 50.00	-01 43 54.1	MPC10093	18	675
1985 QC1 *	1985 08	17.28264	21 49 57.39	-01 35 46.7	MPC10093	17	675
1985 QF1 *	1985 08	17.28264	21 47 24.27	-00 10 21.2	MPC10093	18.5	675
1985 QG1 *	1985 08	17.28264	21 47 30.34	+00 29 18.7	MPC10093	18.5	675
1985 QH1 *	1985 08	17.28264	21 47 33.29	+00 22 10.8	MPC10093	19	675
1985 QJ1 *	1985 08	17.28264	21 49 12.38	+00 07 09.5	MPC10093	19.5	675

Note 1: time originally incorrectly given as 0.03 day later.

* * * * *

DELETED OBSERVATIONS.

The following observations are to be deleted.

Object	Date	UT	R. A. (1950)	Decl.	Reference	Obs.
1941 SF	1941 09	23.96540	00 58 22.97	+13 37 16.1	RI 2327	012
1941 SZ1	1941 09	21.02242	01 00 49.64	+13 29 11.4	RI 2331	012

* * * * *

IDENTIFICATION CHANGES.

Continuation to MPC 10064.

Object	Date	UT	R. A. (1950)	Decl.	Old desig.	Mag.	Obs.
1970 QR1 *	1970 08	28.93281	22 25 12.98	-13 30 03.0	1970 PT	15.5	095
1972 TC11*	1972 10	04.79078	22 25 27.60	-14 36 18.7	1972 RV2	16.5	095
1974 RD2 *	1974 09	11.92380	23 03 14.93	-03 33 45.8	1974 QS1	17.0	095
1974 RE2 *	1974 09	11.92380	23 04 07.98	-03 48 57.4	1974 QQ1	16.5	095
1980 DE6 *	1980 02	20.78223	08 09 05.31	+19 22 34.4	1980 BL4	16.5	095
1981 SD9 *	1981 09	25.98979	02 29 03.98	+09 31 09.3	1984 SH	17.5	095
1981 TM4 *	1981 10	05.96127	00 04 57.50	-06 24 41.6	1981 SJ6	17.0	095

* * * * *

DOUBLE DESIGNATIONS.

Continuation to MPC 9041.

	Note		Note		Note
1980 TX = 1980 TO8	1	1980 VK = 1980 VL2	1	1980 WD = 1980 WQ	1
1981 WY2 = 1981 WD6	2	1981 WJ3 = 1981 WE6	2	1981 WR3 = 1981 WH6	2

Note 1: by B. G. Marsden. 2: by T. Furuta (JAM 1946).

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OBSERVATIONS OF COMETS.

Observations are published here for the following observatory codes:

006 Fabra Observatory, Barcelona. 0.38-m f/11 astrograph. Observers J. M. Codina, J. Nunez, and N. Torras, with the collaboration of F. Sanchez.

008 Algiers. Observer F. S. Gonnessiat. 0.32-m equatorial coude telescope. Positions re-reduced by S. Roser.
010 INAG-CERGA, St. Vallier de Thiey. Observers R. Chemin, J. D. Strich and T. Laverge.
012 Uccle. Observers H. Debehogne and T. Pauwels. Communicated by J. Dommanget.
017 Hoher List. Sept. 19 observations made with 0.3-m Schmidt by A. Haenel, measured by H. Novak and J. Stegert. Other observations made with 0.3-m f/5 astrograph, measured and reduced by M. Geffert and C. Sterken.
020 Nice. 0.76-m Gautier equatorial telescope. Observer S. Javelle. Positions re-reduced by S. Roser.
022 Pino Torinese. Observers G. Massone (0.38-m photographic refractor) and W. Ferreri (0.20-m astrograph).
024 Heidelberg. Observers H. Mandel, H. J. Schiffer, E. Kiefer, U. Bastian and S. Roser. Measured by Schiffer, Mandel and R. Madejsky. Reduced by Bastian and Roser.
033 Tautenburg. 1.34-m Schmidt. Observers F. Borngen, F. Ludwig and K. H. Mau. Reductions by Borngen.
046 Klet. Observer A. Mrkos.
051 Cape. Observer J. Churms.
056 Skalnate Pleso. 0.3-m f/5 astrograph. Observers G. Cervak and P. Rychtarcik. Measured and reduced by Cervak, Rychtarcik, L. Kornos and J. Svoren.
057 Belgrade. Observer V. Protitch-Benishek.
061 Uzhgorod. Observers I. I. Goroshchak, S. Ignatovich, Vorinka, T. Y. Galas and N. D. Polishchuk.
063 Turku-Tuorla. 0.70-m Schmidt. Observer A. Niemi.
069 Baldone. Observers I. I. Urgitis, I. K. Platajs, A. K. Alksnis, Rydzinskis, E. K. Grasberg, I. E. Eglitis and V. Ozolinya.
071 Bulgarian National Observatory. Observers V. Ivanova, V. Shkodrov, S. Major, H. Kirova, V. Radeva and A. Georgieva.
083 Golosseevo-Kiev. Observers S. P. Major, E. M. Sereda, V. V. Golovnya, Y. Sizonenko, E. M. Izhakevich, Y. I. Safronov and S. V. Shatokhina.
084 Pulkovo. Observers T. P. Kiseleva, V. V. Bobylev, N. M. Bronnikova, A. A. Kiselev and Narizhnaya.
085 Kiev. Observer V. V. Telnyuk.
089 Nikolaev. Observers N. D. Kalinenkov, G. K. Gorel, V. I. Voronenko and L. A. Gudkova.
090 Mainz. 0.2-m reflector. Observers W. Landgraf and R. Riemann.
091 St. Etienne. 0.41-m reflector. Observer R. Chanal. Communicated by G. M. Hurst and by R. Chemin.
092 Torun-Piwnice. 0.90/0.60/1.80-m Schmidt telescope. Observers M. Antal, A. Woszczyk, M. Muciek and S. Krawczyk. Measured by Antal.
093 Skibotn. Observers J. E. Solheim, O. Havnes and K. Henriksen. Long. and Parallax 20.37, -151, -397 (see MPC 7759).
095 Crimea-Nauchnij. Observers N. S. Chernykh, L. G. Karachkina, L. I. Chernykh, L. Zhuravleva, Ponomaryev, E. Pavlenko, V. Tarashchuk and V. Prokofeva.
096 Merate. 0.20-m astrograph. Observers M. Scardia, C. Barbieri and Kranjc. Long. and Parallax 9.40, -298, -304 (see MPC 7759).
102 Zvenigorod. Observers V. P. Osipenko and Panferova.
105 Moscow. Observer Y. A. Shokin.
114 Engelhardt Observatory, Zelenchukskaya Station. Observers V. N. Kitkin and I. E. Zelishchev.
119 Abastuman. Observer G. A. Majsuradze.
123 Byurakan. Observers L. G. Akhverdyan and I. V. Ledovskaya.
129 Ordubad. Observers V. V. Bobylev, E. I. Yagudina and L. I. Yagudin.
168 Kourovskaya. Observers T. I. Levitskaya, V. Kajzer, Tearo, Vasilevskij, S. N. Timofeev, Seleznev, Zvonareva, Yuminova, Pyatkes, Zhukova,

Ryazanov, Matkin, Sobolenko and N. Kalinina.
186 Kitab. Observers E. Mirmakhmudov, M. Kamalov, E. Rakhmatov, S. P. Major, S. Shatokhina, N. Kadyrova, V. Kadyrova, E. Pattakhov, G. Saidov and L. Bashtova.
188 Shokin Majdanak. Observers S. B. Novikov and Y. A. Shokin.
190 Gissar. Observer S. I. Gerasimenko.
192 Tashkent. Observers A. G. Rakhimov, T. Khamidov, A. Rakhmatov, E. Rakhimov and S. K. Azizov.
293 Burlington remote site, New Jersey. Observer T. Handley.
323 Perth Observatory, Bickley. Observers M. P. Candy, P. Jekabsons, A. John and G. Kinnear.
330 Purple Mountain Observatory. Observers J.-x. Yang, J.-h. Lu, Q. Wang, S.-l. Wei, D.-c. Wang, G.-s. Luo, J.-z. Yang, J.-x. Zhang, G.-y. Li and Y.-l. Ge. Communicated by J.-x. Zhang and J.-z. Yang.
334 Institute of Oceanology, Academia Sinica, Tsingtao. Observers S.-s. Sun, W.-q. Song, Y.-j. Shao, X.-y. Ma, Y.-q. Huei, Z.-l. Wang, W.-q. Sun and B.-l. Zhang.
337 Zo-Se. Observer J.-l. Zhao.
372 Geisei. Observer T. Seki.
381 Tokyo Observatory, Kiso Station. Observer H. Kosai.
391 Ayashi Station, Sendai Observatory. 0.20-m reflector. Observer M. Koishikawa. Measured by T. Tsumagari and Koishikawa.
392 JCPM Sapporo Station. Observer H. Kandea. Communicated by S. Nakano.
397 Sapporo Science Center. 0.60-m reflector. Observer K. Watanabe.
415 Kambah, near Canberra. 0.32-m reflector. Observer D. Herald.
474 Mount John University Observatory. 0.6-m f/14 Cassegrain reflector and 0.25-m f/7 astrograph. Observers A. C. Gilmore and P. M. Kilmartin.
482 St. Andrews. Observers J. R. Stapleton, R. P. Edwin et al.
493 Calar Alto. Observers U. Thiele, L. Kohoutek, K. Birkle et al. Measured by Kohoutek and G. Klare, reduced by Kohoutek, S. Roser and U. Bastian. Communicated in part by T. Morley and U. Bastian.
494 Stakenbridge. 0.25-m reflector. Observer B. Manning.
501 Herstmonceux. Observer D. H. P. Jones. Measured in part by D. L. King.
502 Colchester. 0.25-m f/7 reflector. Observer M. J. Hendrie.
503 Cambridge. Observers J. D. Shanklin and A. N. Argue.
509 La Seyne-sur-mer. Communicated by J. Pinson.
552 S. Vittore. Observers G. Sassi, E. Colombini and C. Vacchi. Measured by Vacchi, V. Goretti and Colombini, reduced by Colombini.
553 Chorzow. Observer I. Wlodarczyk.
555 Cracow-Fort Skala. Observers S. Zola, M. Winiarska and W. Waniak.
562 Figl Observatory, Vienna. Observers M. Stoll and A. Schnell.
571 Cavriana. Observers L. Lai, I. Ronchetti, M. Ruzza and G. Vesentini.
575 La Chaux de Fonds. Observer A. R. Behrend.
576 Burwash. 0.57-m reflector stopped down to 0.46-m. Observer A. Young. Measured and reduced by the Royal Greenwich Observatory staff.
583 Odessa-Mayaki. Observer I. Shestaka. Long. and Parallax 30.27, -295, -307 (see MPC 7759).
657 Victoria. Observers D. D. Balam, J. M. Tatum and T. B. Lowe. Measured by Tatum and Balam.
662 Lick Observatory. Observer B. Jones.
675 Palomar. Observations of comet 1984e on July 16 by E. Helin, S. Singer-Brewster and D. Schneeberger with the 0.46-m Schmidt; measured by Singer-Brewster and P. Saunders. Other observations by J. Gibson.
691 University of Arizona, Kitt Peak. 0.91-m reflector, CCD in scanning mode. Observer J. V. Scotti.
707 Chamberlin field station. Observer J. Briggs. Measurer E. Everhart.
711 McDonald Observatory. Observer M. L. Frueh. Measured by P. Sada and S. Gonzaga.
792 Quonochontaug. 0.24-m Schmidt. Observer W. S. Penhallow. Measured by

Penhallow and M. Lokcynski.
801 Oak Ridge Observatory. Observers G. Schwartz and C.-Y. Shao. Measured by Shao.
808 El Leoncito. Observers C. E. Lopez, M. R. Cesco, J. G. Sanguin and J. Vicentela.
821 Bosque Alegre. Observer Z. M. Pereyra. Measured by B. O. de Zarate, reduced by J. J. Rodriguez.
839 La Plata. 0.40-m refractor. Observer R. Castro. Positions re-reduced by S. Roser.
976 Leamington Spa. 0.25-m reflector. Observer G. Johnstone. Measured by B. Manning.
978 Condor Brow. Observers D. G. Buczynski and J. D. Greenwood. 0.47-m reflector. Measured by Buczynski. Communicated in part by G. M. Hurst.
979 South Wonston. Observer R. W. Arbour. 0.4-m f/5 reflector. Measured by M. J. Hendrie, communicated by J. D. Shanklin.
984 Eastfield. 0.14-m f/5 astrograph and 0.70-m-focal-length Zeiss triplet. Observer H. B. Ridley. Measured by M. J. Hendrie and J. D. Shanklin.
996 Oxford. Observer G. Waddington. 0.3-m reflector.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
		Periodic Comet Halley					
/1910 II	1909	10 13.08536	06 15 28.40	+16 58 31.3			020
/1910 II	1909	12 30.76066	02 26 38.23	+11 59 50.0			020
/1910 II	1910	05 10.11248	00 21 02.60	+10 30 28.4			020
/1910 II	1910	05 13.12096	00 46 36.30	+12 21 59.1			020
/1910 II	1910	05 25.82451	08 48 44.89	+07 50 45.7			020
/1910 II	1910	05 26.83181	09 05 54.15	+06 24 29.0			020
/1910 II	1910	06 06.86856	10 15 33.79	+00 13 19.7			020
/1910 II	1910	06 13.86609	10 29 43.73	-01 04 33.2			020
/1910 II	1910	06 14.84247	10 31 12.68	-01 12 47.7			008
/1910 II	1910	06 20.84735	10 38 55.15	-01 56 17.4			008
/1910 II	1910	06 21.84715	10 40 01.78	-02 02 38.6			008
/1910 II	1910	06 27.86973	10 46 04.10	-02 37 56.0			008
/1910 II	1910	07 02.86889	10 50 30.14	-03 04 43.7			020
/1910 II	1910	11 11.18701	12 06 10.00	-15 00 46.0			020
/1910 II	1910	12 07.15579	12 06 19.52	-17 06 42.0			008
/1910 II	1910	12 31.16909	11 56 15.80	-18 24 36.5			008
/1910 II	1910	12 31.23999	11 56 12.80	-18 24 43.4			839
/1910 II	1911	01 01.23044	11 55 32.99	-18 26 38.9			839
/1910 II	1911	01 06.19659	11 51 53.94	-18 34 28.2			839
/1910 II	1911	01 11.20184	11 47 40.77	-18 39 04.4			020
/1910 II	1911	01 31.17990	11 26 01.06	-18 15 29.1			839
/1910 II	1911	02 23.00997	10 55 04.35	-16 18 20.1			008
/1910 II	1911	02 23.97853	10 53 43.32	-16 11 25.9			008
/1910 II	1911	02 27.98589	10 48 10.65	-15 41 17.3			008
/1910 II	1911	03 03.95983	10 42 46.76	-15 09 28.9			008
/1910 II	1911	04 25.85868	09 54 36.98	-07 47 38.0			020
/1982i	1985	08 14.47917	06 00 08.31	+19 05 34.7			662
/1982i	1985	08 16.12773	06 01 02.64	+19 07 03.2			979
/1982i	1985	08 16.47917	06 01 14.04	+19 07 21.7			662
/1982i	1985	08 16.75559	06 01 22.89	+19 07 39.8			474
/1982i	1985	08 20.47917	06 03 20.16	+19 10 52.2			662
/1982i	1985	08 21.05625	06 03 37.69	+19 11 20.8		1	033
/1982i	1985	08 21.07222	06 03 38.22	+19 11 22.0			033
/1982i	1985	08 21.08924	06 03 38.75	+19 11 22.9			033
/1982i	1985	08 22.94000	06 04 33.95	+19 13 00.2			186
/1982i	1985	08 23.45972	06 04 49.02	+19 13 27.8			662
/1982i	1985	08 24.94793	06 05 31.69	+19 14 44.6			186

/1982i	1985	08	25.46910	06	05	46.17	+19	15	13.4		662
/1982i	1985	08	25.48021	06	05	46.46	+19	15	14.0		662
/1982i	1985	09	11.16806	06	11	47.61	+19	31	13.6		493
/1982i	1985	09	11.48646	06	11	52.03	+19	31	34.5		662
/1982i	1985	09	11.99655	06	11	58.81	+19	32	07.9		123
/1982i	1985	09	12.02849	06	11	59.24	+19	32	09.8		123
/1982i	1985	09	12.04370	06	11	59.41	+19	32	10.7		123
/1982i	1985	09	12.10764	06	12	00.08	+19	32	15.1		091
/1982i	1985	09	12.12360	06	12	00.40	+19	32	16.4		096
/1982i	1985	09	12.94543	06	12	10.59	+19	33	09.8		190
/1982i	1985	09	13.01039	06	12	11.43	+19	33	16.7		123
/1982i	1985	09	13.03163	06	12	11.66	+19	33	18.0		123
/1982i	1985	09	13.05417	06	12	11.96	+19	33	19.0		092
/1982i	1985	09	13.07014	06	12	12.07	+19	33	19.7	13.1T	092
/1982i	1985	09	14.04167	06	12	22.99	+19	34	28.2		092
/1982i	1985	09	14.06944	06	12	23.24	+19	34	30.4		092
/1982i	1985	09	14.08542	06	12	23.41	+19	34	30.9	12.9T	092
/1982i	1985	09	14.16597	06	12	24.25	+19	34	37.8		493
/1982i	1985	09	14.18611	06	12	24.49	+19	34	39.1		493
/1982i	1985	09	14.45764	06	12	27.27	+19	34	58.5		662
/1982i	1985	09	14.90069	06	12	31.36	+19	35	28.2		190
/1982i	1985	09	15.11806	06	12	33.16	+19	35	48.6		091
/1982i	1985	09	15.17847	06	12	34.11	+19	35	49.9		493
/1982i	1985	09	15.19271	06	12	34.20	+19	35	51.0		493
/1982i	1985	09	16.17986	06	12	42.52	+19	37	03.6		493
/1982i	1985	09	17.46736	06	12	51.28	+19	38	41.8		662
/1982i	1985	09	17.97392	06	12	54.04	+19	39	19.6		190
/1982i	1985	09	18.10870	06	12	54.74	+19	39	30.1		096
/1982i	1985	09	18.13229	06	12	54.85	+19	39	33.7		033
/1982i	1985	09	18.14583	06	12	54.85	+19	39	34.4		033
/1982i	1985	09	18.19618	06	12	55.10	+19	39	38.9		493
/1982i	1985	09	18.70920	06	12	57.38	+19	40	24.2		474
/1982i	1985	09	18.72193	06	12	57.42	+19	40	25.4		474
/1982i	1985	09	19.00208	06	12	58.48	+19	40	41.7		092
/1982i	1985	09	19.00550	06	12	58.60	+19	40	42.4		089
/1982i	1985	09	19.01944	06	12	58.57	+19	40	43.5		092
/1982i	1985	09	19.02778	06	12	58.58	+19	40	44.9		095
/1982i	1985	09	19.03472	06	12	58.61	+19	40	43.7		095
/1982i	1985	09	19.03697	06	12	58.62	+19	40	45.6		089
/1982i	1985	09	19.04028	06	12	58.63	+19	40	45.3		092
/1982i	1985	09	19.04653	06	12	58.75	+19	40	46.2		033
/1982i	1985	09	19.06584	06	12	58.71	+19	40	47.7		089
/1982i	1985	09	19.07222	06	12	58.72	+19	40	48.3		092
/1982i	1985	09	19.07986	06	12	58.85	+19	40	48.6		017
/1982i	1985	09	19.09306	06	12	58.79	+19	40	50.1	12.5T	092
/1982i	1985	09	19.12639	06	12	58.95	+19	40	52.6		033
/1982i	1985	09	19.15521	06	12	58.96	+19	40	55.3		017
/1982i	1985	09	19.37186	06	12	59.69	+19	41	17.7	13.3T	821
/1982i	1985	09	19.37603	06	12	59.70	+19	41	18.1		821
/1982i	1985	09	19.38020	06	12	59.72	+19	41	19.3		821
/1982i	1985	09	19.96388	06	13	01.22	+19	42	02.5		186
/1982i	1985	09	19.96746	06	13	01.22	+19	42	02.5		186
/1982i	1985	09	20.05191	06	13	01.43	+19	42	07.2		089
/1982i	1985	09	20.07478	06	13	01.48	+19	42	09.0		089
/1982i	1985	09	20.08472	06	13	01.44	+19	42	12.4		033
/1982i	1985	09	20.11458	06	13	01.54	+19	42	14.8		493
/1982i	1985	09	20.20249	06	13	01.64	+19	42	21.3		493
/1982i	1985	09	20.35450	06	13	01.86	+19	42	39.8	13.2T	821
/1982i	1985	09	20.36284	06	13	01.87	+19	42	40.6		821

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/1982i	1985	09	20.47847	06	13	02.07	+19	42	45.9		662
/1982i	1985	09	20.70150	06	13	02.14	+19	43	08.8		474
/1982i	1985	09	20.98218	06	13	02.52	+19	43	26.2		089
/1982i	1985	09	20.99873	06	13	02.38	+19	43	29.3		089
/1982i	1985	09	21.01776	06	13	02.37	+19	43	32.6		089
/1982i	1985	09	21.03472	06	13	02.40	+19	43	32.8		089
/1982i	1985	09	21.07266	06	13	02.45	+19	43	36.0		089
/1982i	1985	09	21.07674	06	13	02.49	+19	43	36.3		033
/1982i	1985	09	21.08050	06	13	02.44	+19	43	36.0		089
/1982i	1985	09	21.10694	06	13	02.48	+19	43	39.3		033
/1982i	1985	09	21.18854	06	13	02.46	+19	43	46.6		493
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/1982i	1985	09	22.07194	06	13	01.82	+19	45	03.7		089
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/1982i	1985	09	22.89757	06	13	00.11	+19	46	16.5		190
/1982i	1985	09	23.04167	06	12	59.54	+19	46	30.9		033
/1982i	1985	09	23.07778	06	12	59.49	+19	46	34.3		033
/1982i	1985	09	23.11042	06	12	59.28	+19	46	37.9		033
/1982i	1985	09	23.15278	06	12	59.17	+19	46	42.0		493
/1982i	1985	09	23.41042	06	12	58.28	+19	47	06.0		662
/1982i	1985	09	23.88093	06	12	56.23	+19	47	49.0		186
/1982i	1985	09	23.88574	06	12	56.33	+19	47	51.3		186
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/1982i	1985	09	27.06154	06	12	30.76	+19	53	07.6		089
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/1982i	1985	09	27.51181	06	12	25.58	+19	53	56.3		662
/1982i	1985	09	27.98321	06	12	19.39	+19	54	47.3		186
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/1982i	1985	09	28.09064	06	12	18.01	+19	54	58.2		089
/1982i	1985	09	28.09499	06	12	18.02	+19	54	55.8		089
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/1982i	1985	10	01.03314	06	11	28.13	+20	00	35.9		089
/1982i	1985	10	01.07471	06	11	27.19	+20	00	42.9		089
/1982i	1985	10	01.09020	06	11	26.73	+20	00	45.3		089
/1982i	1985	10	03.48021	06	10	29.37	+20	05	49.5		675
/1982i	1985	10	03.49910	06	10	28.82	+20	05	51.9		675
/1982i	1985	10	08.01442	06	07	52.77	+20	16	38.7		129
/1982i	1985	10	09.19444	06	07	00.14	+20	19	49.3		493

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/1982i	1985	10	10.22222	06	06	09.92	+20	22	41.0	493
/1982i	1985	10	10.78264	06	05	41.01	+20	24	23.1	323
/1982i	1985	10	10.88138	06	05	35.88	+20	24	31.8	192
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/1982i	1985	10	13.63889	06	02	51.11	+20	32	55.1	397
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/1982i	1985	10	14.06597	06	02	22.21	+20	34	17.7	017
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/1982i	1985	10	14.07995	06	02	21.30	+20	34	20.3	017
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/1982i	1985	10	15.61765	06	00	30.21	+20	39	28.7	392
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/1982i	1985	10	17.02884	05	58	35.99	+20	44	19.0		129
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/1982i	1985	10	17.03817	05	58	35.29	+20	44	25.6		123
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/1982i	1985	10	17.16563	05	58	24.53	+20	44	54.1		006
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/1982i	1985	10	17.86270	05	57	23.70	+20	47	22.5		186
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/1982i	1985	10	18.01663	05	57	09.74	+20	47	57.0		129
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/1982i	1985	10	18.03924	05	57	07.81	+20	48	01.7	11.0T	552
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/1982i	1985	10	18.10486	05	57	01.77	+20	48	15.1		102
/1982i	1985	10	18.10699	05	57	01.35	+20	48	16.7		089
/1982i	1985	10	18.10764	05	57	01.22	+20	48	17.5		089
/1982i	1985	10	18.12674	05	56	59.49	+20	48	20.6		089
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/1982i	1985	10	18.76042	05	56	00.42	+20	50	51.2		323
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/1982i	1985	10	19.02126	05	55	35.66	+20	51	42.5		095
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/1982i	1985	10	19.15018	05	55	22.83	+20	52	14.0		509
/1982i	1985	10	19.17305	05	55	20.50	+20	52	15.8		509

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/1982i	1985	10	19.72656	05	54	25.16	+20	54	33.6			415
/1982i	1985	10	19.99201	05	53	57.89	+20	55	24.2			017
/1982i	1985	10	20.00451	05	53	56.64	+20	55	29.3			017
/1982i	1985	10	20.06592	05	53	50.15	+20	55	44.0			083
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/1982i	1985	10	20.18229	05	53	37.89	+20	56	13.3			006
/1982i	1985	10	20.19271	05	53	36.69	+20	56	14.0			017
/1982i	1985	10	20.19792	05	53	36.23	+20	56	16.9			006
/1982i	1985	10	20.21007	05	53	34.73	+20	56	19.6			006
/1982i	1985	10	20.32082	05	53	23.32	+20	56	52.0	11.1	T	821
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/1982i	1985	10	21.14896	05	51	52.77	+21	00	01.8			061
/1982i	1985	10	21.78542	05	50	40.04	+21	02	45.4			323
/1982i	1985	10	21.80639	05	50	37.73	+21	02	43.9	7	T	334
/1982i	1985	10	21.80972	05	50	37.14	+21	02	51.4			323
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/1982i	1985	10	22.03507	05	50	10.38	+21	03	37.5			095
/1982i	1985	10	22.05604	05	50	07.88	+21	03	43.0			084
/1982i	1985	10	22.05853	05	50	07.71	+21	03	45.3			095
/1982i	1985	10	22.05904	05	50	07.56	+21	03	45.3			089
/1982i	1985	10	22.06508	05	50	06.96	+21	03	47.0			583
/1982i	1985	10	22.06853	05	50	06.49	+21	03	46.9			089
/1982i	1985	10	22.08236	05	50	04.73	+21	03	51.6			095
/1982i	1985	10	22.09000	05	50	03.71	+21	03	53.6			095
/1982i	1985	10	22.09955	05	50	02.79	+21	03	54.6			089
/1982i	1985	10	22.10268	05	50	02.30	+21	03	56.0			089
/1982i	1985	10	22.15243	05	49	56.28	+21	04	08.4			061
/1982i	1985	10	22.15521	05	49	55.95	+21	04	08.1			061
/1982i	1985	10	22.15972	05	49	55.42	+21	04	08.8			061
/1982i	1985	10	22.17014	05	49	54.25	+21	04	13.6			012
/1982i	1985	10	22.18785	05	49	52.11	+21	04	17.8			493
/1982i	1985	10	22.31943	05	49	36.27	+21	04	57.6	10.8	T	821
/1982i	1985	10	22.32221	05	49	35.91	+21	04	58.5			821
/1982i	1985	10	22.32499	05	49	35.59	+21	04	59.2			821

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/1982i	1985	10	22.76285	05	48	41.93	+21	06	49.6			323
/1982i	1985	10	22.80208	05	48	36.81	+21	06	59.5			323
/1982i	1985	10	22.81294	05	48	35.36	+21	06	54.5	11	T	334
/1982i	1985	10	22.91849	05	48	22.29	+21	07	21.1			114
/1982i	1985	10	22.92617	05	48	21.35	+21	07	23.0			114
/1982i	1985	10	22.95972	05	48	17.01	+21	07	32.6			095
/1982i	1985	10	22.97199	05	48	15.17	+21	07	34.6			095
/1982i	1985	10	22.97952	05	48	14.42	+21	07	36.2			095
/1982i	1985	10	22.99263	05	48	12.84	+21	07	39.7			114
/1982i	1985	10	23.00987	05	48	10.61	+21	07	42.0			129
/1982i	1985	10	23.01413	05	48	10.16	+21	07	44.5			095
/1982i	1985	10	23.01519	05	48	09.88	+21	07	43.7			129
/1982i	1985	10	23.02385	05	48	08.79	+21	07	48.2			095
/1982i	1985	10	23.03149	05	48	07.87	+21	07	49.5			095
/1982i	1985	10	23.03775	05	48	06.91	+21	07	51.9			095
/1982i	1985	10	23.05252	05	48	05.05	+21	07	56.2			095
/1982i	1985	10	23.05284	05	48	05.01	+21	07	54.8			089
/1982i	1985	10	23.05374	05	48	05.06	+21	07	55.4			071
/1982i	1985	10	23.07646	05	48	02.01	+21	08	01.2			095
/1982i	1985	10	23.09211	05	48	00.07	+21	08	05.3			071
/1982i	1985	10	23.09802	05	47	59.14	+21	08	07.4			095
/1982i	1985	10	23.10486	05	47	58.41	+21	08	05.3			012
/1982i	1985	10	23.11258	05	47	57.30	+21	08	10.8			095
/1982i	1985	10	23.12862	05	47	55.33	+21	08	14.5			071
/1982i	1985	10	23.14132	05	47	53.68	+21	08	15.0			061
/1982i	1985	10	23.14873	05	47	52.67	+21	08	18.3			061
/1982i	1985	10	23.15139	05	47	52.32	+21	08	19.3			061
/1982i	1985	10	23.15347	05	47	52.09	+21	08	18.9			061
/1982i	1985	10	23.16181	05	47	51.22	+21	08	25.1			012
/1982i	1985	10	23.42014	05	47	17.62	+21	09	30.9			675
/1982i	1985	10	23.42667	05	47	16.98	+21	09	32.2			675
/1982i	1985	10	23.74444	05	46	35.21	+21	11	00.8			323
/1982i	1985	10	23.77847	05	46	30.55	+21	11	10.3			323
/1982i	1985	10	23.82436	05	46	24.18	+21	11	12.7	10	T	334
/1982i	1985	10	23.84172	05	46	21.55	+21	11	18.9	10	T	334
/1982i	1985	10	23.97157	05	46	04.47	+21	11	50.2			129
/1982i	1985	10	23.97674	05	46	03.86	+21	11	49.9			046
/1982i	1985	10	23.97813	05	46	03.71	+21	11	50.7			046
/1982i	1985	10	23.98599	05	46	02.61	+21	11	53.1			129
/1982i	1985	10	23.99160	05	46	01.79	+21	11	54.3			129
/1982i	1985	10	23.99271	05	46	01.69	+21	11	54.5			056
/1982i	1985	10	23.99939	05	46	00.54	+21	11	58.9			186
/1982i	1985	10	24.00492	05	45	59.77	+21	12	00.4			186
/1982i	1985	10	24.01115	05	45	58.95	+21	12	01.3			186
/1982i	1985	10	24.01215	05	45	59.04	+21	12	01.3			046
/1982i	1985	10	24.01354	05	45	58.81	+21	12	00.6			046
/1982i	1985	10	24.03461	05	45	55.44	+21	12	08.2			192
/1982i	1985	10	24.05000	05	45	53.79	+21	12	11.7			056
/1982i	1985	10	24.05210	05	45	53.39	+21	12	10.7			095
/1982i	1985	10	24.05884	05	45	52.41	+21	12	14.0			123
/1982i	1985	10	24.06597	05	45	51.62	+21	12	13.8			095
/1982i	1985	10	24.07992	05	45	49.51	+21	12	19.1			095
/1982i	1985	10	24.09028	05	45	48.18	+21	12	21.3			056
/1982i	1985	10	24.09722	05	45	47.17	+21	12	22.7			095
/1982i	1985	10	24.10584	05	45	46.42	+21	12	24.0			089
/1982i	1985	10	24.12292	05	45	43.95	+21	12	29.5			012
/1982i	1985	10	24.12639	05	45	43.39	+21	12	31.2			493
/1982i	1985	10	24.13437	05	45	42.28	+21	12	34.0			493

/1982i	1985	10	24.14583	05	45	40.67	+21	12	33.7		056
/1982i	1985	10	24.17286	05	45	36.78	+21	12	43.2		502
/1982i	1985	10	24.19161	05	45	34.38	+21	12	46.4		502
/1982i	1985	10	24.38369	05	45	07.59	+21	13	37.3		792
/1982i	1985	10	24.38611	05	45	07.49	+21	13	39.0		792
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/1982i	1985	10	24.73958	05	44	18.00	+21	15	20.0		323
/1982i	1985	10	25.01528	05	43	38.24	+21	16	22.4		084
/1982i	1985	10	25.03571	05	43	35.22	+21	16	28.2		084
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/1982i	1985	10	25.05272	05	43	32.79	+21	16	34.3		095
/1982i	1985	10	25.06097	05	43	31.54	+21	16	35.8		095
/1982i	1985	10	25.07465	05	43	29.67	+21	16	39.0		046
/1982i	1985	10	25.07604	05	43	29.46	+21	16	38.9		046
/1982i	1985	10	25.07886	05	43	28.82	+21	16	40.1		095
/1982i	1985	10	25.08181	05	43	28.42	+21	16	42.1		095
/1982i	1985	10	25.09790	05	43	25.94	+21	16	46.9		071
/1982i	1985	10	25.10264	05	43	25.22	+21	16	46.6		095
/1982i	1985	10	25.11771	05	43	23.30	+21	16	50.5		046
/1982i	1985	10	25.11910	05	43	23.09	+21	16	51.0		046
/1982i	1985	10	25.12500	05	43	22.27	+21	16	49.1		012
/1982i	1985	10	25.12604	05	43	22.01	+21	16	52.3		046
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/1982i	1985	10	25.15278	05	43	17.95	+21	16	59.9		061
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/1982i	1985	10	25.16111	05	43	16.83	+21	17	02.3		571
/1982i	1985	10	25.18229	05	43	13.67	+21	17	06.6		091
/1982i	1985	10	25.90382	05	41	25.88	+21	20	18.1		069
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/1982i	1985	10	25.92628	05	41	22.38	+21	20	26.6		114
/1982i	1985	10	25.93707	05	41	20.70	+21	20	26.9		084
/1982i	1985	10	25.93868	05	41	20.46	+21	20	30.1		114
/1982i	1985	10	25.94236	05	41	19.94	+21	20	30.4	10.5T	552
/1982i	1985	10	25.96250	05	41	16.78	+21	20	35.5		552
/1982i	1985	10	25.97302	05	41	15.05	+21	20	39.8		114
/1982i	1985	10	25.97778	05	41	14.38	+21	20	40.0		552
/1982i	1985	10	25.97892	05	41	14.17	+21	20	40.4		114
/1982i	1985	10	25.98560	05	41	12.84	+21	20	44.0		186
/1982i	1985	10	25.99044	05	41	12.20	+21	20	44.1		186
/1982i	1985	10	25.99422	05	41	11.78	+21	20	43.3		084
/1982i	1985	10	25.99698	05	41	11.34	+21	20	44.1		084
/1982i	1985	10	26.01603	05	41	08.28	+21	20	49.6		084
/1982i	1985	10	26.06494	05	41	00.79	+21	21	03.2		056
/1982i	1985	10	26.14653	05	40	48.02	+21	21	24.4		061
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/1982i	1985	10	26.15156	05	40	47.07	+21	21	26.4		061
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/1982i	1985	10	26.17674	05	40	43.13	+21	21	31.9		046
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/1982i	1985	10	26.73681	05	39	14.06	+21	24	07.3	9.5T	391
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/1982i	1985	10	26.94931	05	38	39.63	+21	25	02.2	10.5T	552
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/1982i	1985	10	26.96667	05	38	36.84	+21	25	08.3		552
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/1982i	1985	10	27.02132	05	38	27.32	+21	25	23.1	186
/1982i	1985	10	27.02998	05	38	25.84	+21	25	24.8	186
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/1982i	1985	10	27.14583	05	38	06.79	+21	25	55.8	056
/1982i	1985	10	27.17731	05	38	01.44	+21	26	04.7	046
/1982i	1985	10	27.17801	05	38	01.31	+21	26	04.1	046
/1982i	1985	10	27.18426	05	38	00.22	+21	26	04.9	046
/1982i	1985	10	27.73715	05	36	26.48	+21	28	40.0	391
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/1982i	1985	10	27.94514	05	35	50.61	+21	29	36.1	10.5T 552
/1982i	1985	10	27.94653	05	35	50.39	+21	29	36.5	552
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/1982i	1985	10	28.72201	05	33	30.37	+21	33	13.0	9.5T 397
/1982i	1985	10	28.73181	05	33	28.56	+21	33	14.4	397
/1982i	1985	10	28.75347	05	33	24.57	+21	33	19.5	391
/1982i	1985	10	28.78194	05	33	19.20	+21	33	26.8	391
/1982i	1985	10	29.18958	05	32	02.80	+21	35	16.0	575
/1982i	1985	10	29.80144	05	30	04.74	+21	38	05.4	192
/1982i	1985	10	29.81322	05	30	02.21	+21	38	07.7	192
/1982i	1985	10	29.83157	05	29	58.43	+21	38	14.4	192
/1982i	1985	10	29.84680	05	29	55.13	+21	38	21.0	192
/1982i	1985	10	29.84792	05	29	54.95	+21	38	27.0	323
/1982i	1985	10	30.02191	05	29	19.86	+21	39	06.8	186
/1982i	1985	10	30.02595	05	29	19.21	+21	39	07.2	186
/1982i	1985	10	30.03010	05	29	18.21	+21	39	10.6	186
/1982i	1985	10	30.05710	05	29	13.21	+21	39	14.9	083
/1982i	1985	10	30.07021	05	29	10.51	+21	39	17.8	083
/1982i	1985	10	30.07061	05	29	10.43	+21	39	18.0	083
/1982i	1985	10	30.67882	05	27	06.02	+21	42	14.5	323
/1982i	1985	10	30.69340	05	27	02.84	+21	42	19.9	323
/1982i	1985	10	30.76910	05	26	46.61	+21	42	32.5	391
/1982i	1985	10	30.77083	05	26	46.21	+21	42	33.3	391
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/1982i	1985	10	30.80799	05	26	38.34	+21	42	50.3	323
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/1982i	1985	10	30.82569	05	26	34.60	+21	42	55.2	323
/1982i	1985	10	30.83953	05	26	32.12	+21	42	48.2	114
/1982i	1985	10	30.85982	05	26	27.75	+21	42	53.3	114
/1982i	1985	10	30.87747	05	26	24.05	+21	42	58.6	114
/1982i	1985	10	31.07134	05	25	42.13	+21	43	51.3	083
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/1982i	1985	10	31.08588	05	25	39.16	+21	43	54.6	083
/1982i	1985	10	31.09247	05	25	37.66	+21	43	55.4	083
/1982i	1985	10	31.12025	05	25	31.90	+21	44	06.4	493
/1982i	1985	10	31.68056	05	23	29.31	+21	46	44.9	323
/1982i	1985	10	31.70035	05	23	24.79	+21	46	48.7	323
/1982i	1985	10	31.75694	05	23	11.89	+21	47	04.9	323
/1982i	1985	11	01.87807	05	18	51.28	+21	51	49.4	069
/1982i	1985	11	02.00297	05	18	21.02	+21	52	22.1	501
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/1982i	1985	11	02.55940	05	16	03.47	+21	54	43.5	330

/1982i	1985	11	02.59447	05	15	54.93	+21	54	53.6	330
/1982i	1985	11	02.60350	05	15	52.36	+21	54	55.5	330
/1982i	1985	11	02.71354	05	15	24.17	+21	55	23.2	8.5T 391
/1982i	1985	11	02.73750	05	15	18.09	+21	55	29.3	391
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/1982i	1985	11	02.99063	05	14	13.34	+21	56	29.5	576
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/1982i	1985	11	03.69693	05	11	06.34	+21	59	16.3	168
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/1982i	1985	11	03.89691	05	10	11.78	+22	00	08.0	129
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/1982i	1985	11	03.99653	05	09	44.54	+22	00	29.4	056
/1982i	1985	11	04.00017	05	09	43.33	+22	00	29.9	046
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/1982i	1985	11	04.00664	05	09	41.06	+22	00	32.7	188
/1982i	1985	11	04.00781	05	09	41.22	+22	00	32.1	046
/1982i	1985	11	04.00885	05	09	40.91	+22	00	31.7	046
/1982i	1985	11	04.02254	05	09	37.24	+22	00	35.5	089
/1982i	1985	11	04.03472	05	09	33.85	+22	00	38.2	056
/1982i	1985	11	04.04370	05	09	31.25	+22	00	40.3	089
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/1982i	1985	11	04.10625	05	09	14.17	+22	00	57.5	006
/1982i	1985	11	04.11111	05	09	12.74	+22	00	58.2	006
/1982i	1985	11	04.11667	05	09	11.01	+22	00	56.4	006
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/1982i	1985	11	04.73222	05	06	16.90	+22	03	12.5	186
/1982i	1985	11	04.73672	05	06	15.47	+22	03	13.6	186
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/1982i	1985	11	04.93819	05	05	16.65	+22	03	54.4	061

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/1982i	1985	11	04.97433	05	05	05.88	+22	04	02.9			089
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/1982i	1985	11	05.03807	05	04	47.14	+22	04	16.2			555
/1982i	1985	11	05.05723	05	04	41.35	+22	04	20.9			089
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/1982i	1985	11	05.55660	05	02	12.20	+22	05	59.1			397
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/1982i	1985	11	05.69936	05	01	28.68	+22	06	26.1			186
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/1982i	1985	11	05.98055	05	00	01.18	+22	07	17.0			494
/1982i	1985	11	05.98273	05	00	00.54	+22	07	18.1			501
/1982i	1985	11	05.99028	04	59	58.08	+22	07	19.4			494
/1982i	1985	11	06.00897	04	59	52.18	+22	07	23.7			503
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/1982i	1985	11	06.70188	04	56	10.53	+22	09	21.8	8	T	334
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/1982i	1985	11	06.71950	04	56	04.72	+22	09	22.5			186
/1982i	1985	11	06.72375	04	56	02.95	+22	09	25.6	8	T	334
/1982i	1985	11	06.77188	04	55	47.54	+22	09	33.5			190
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/1982i	1985	11	06.79965	04	55	38.34	+22	09	37.8			190
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/1982i	1985	11	06.89073	04	55	07.98	+22	09	51.3			188
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/1982i	1985	11	06.91928	04	54	58.71	+22	09	54.2			095
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/1982i	1985	11	06.95205	04	54	47.67	+22	09	59.5			114
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/1982i	1985	11	07.92257	04	49	15.13	+22	12	06.7			190
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/1982i	1985	11	07.97854	04	48	56.06	+22	12	09.6			057
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/1982i	1985	11	08.81296	04	43	53.13	+22	13	21.5			056
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/1982i	1985	11	08.93066	04	43	08.66	+22	13	31.0			095
/1982i	1985	11	08.94520	04	43	02.68	+22	13	31.7			192
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/1982i	1985	11	08.96617	04	42	55.30	+22	13	31.5			555
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/1982i	1985	11	09.67460	04	38	23.71	+22	13	57.7			186
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/1982i	1985	11	09.82605	04	37	23.96	+22	13	58.8			085
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/1982i	1985	11	09.91281	04	36	49.52	+22	13	59.3			089
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/1982i	1985	11	11.85382	04	23	12.30	+22	11	45.1		056
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/1982i	1985	11	11.87639	04	23	02.27	+22	11	42.8		022
/1982i	1985	11	11.91446	04	22	44.80	+22	11	36.2		168
/1982i	1985	11	11.91546	04	22	44.17	+22	11	35.1		168
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/1982i	1985	11	11.93641	04	22	34.98	+22	11	33.5		105
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/1982i	1985	11	11.98422	04	22	13.88	+22	11	25.0			063
/1982i	1985	11	11.99639	04	22	08.12	+22	11	24.8			555
/1982i	1985	11	12.00448	04	22	04.26	+22	11	24.8			553
/1982i	1985	11	12.01753	04	21	58.67	+22	11	20.8			017
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/1982i	1985	11	12.02240	04	21	56.39	+22	11	19.8			017
/1982i	1985	11	12.02785	04	21	54.02	+22	11	19.4	10	T	503
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/1982i	1985	11	12.03125	04	21	52.39	+22	11	18.3			056
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/1982i	1985	11	12.15972	04	20	54.20	+22	10	56.1			056
/1982i	1985	11	12.63559	04	17	16.31	+22	09	28.3			391
/1982i	1985	11	12.67447	04	16	58.50	+22	09	18.4	7	T	334
/1982i	1985	11	12.67899	04	16	55.94	+22	09	18.8			391
/1982i	1985	11	12.72587	04	16	33.99	+22	09	07.9			391
/1982i	1985	11	12.73141	04	16	31.60	+22	09	05.8	7	T	334
/1982i	1985	11	12.73628	04	16	29.84	+22	09	05.6			190
/1982i	1985	11	12.77411	04	16	12.28	+22	08	54.5			129
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/1982i	1985	11	14.92083	03	58	27.54	+21	56	23.5			552
/1982i	1985	11	14.92222	03	58	26.83	+21	56	22.9			552
/1982i	1985	11	14.92951	03	58	23.45	+21	56	20.6			571
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/1982i	1985	11	15.97182	03	49	03.24	+21	46	44.0			046
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/1982i	1985	11	17.10174	03	38	25.32	+21	33	17.4			056
/1982i	1985	11	17.10799	03	38	21.41	+21	33	14.1			061
/1982i	1985	11	17.11129	03	38	19.53	+21	33	11.8			061
/1982i	1985	11	17.11406	03	38	17.90	+21	33	08.8			061
/1982i	1985	11	17.15694	03	37	53.24	+21	32	30.8			056
/1982i	1985	11	17.54320	03	34	08.27	+21	27	27.8			415
/1982i	1985	11	17.54466	03	34	07.36	+21	27	27.4			415
/1982i	1985	11	17.54898	03	34	05.07	+21	27	07.4	7	T	330
/1982i	1985	11	17.57051	03	33	52.26	+21	26	49.7	7	T	330
/1982i	1985	11	17.60188	03	33	33.57	+21	26	20.9	7	T	334
/1982i	1985	11	17.61507	03	33	25.71	+21	26	09.7	7	T	334
/1982i	1985	11	17.62051	03	33	22.61	+21	26	05.2	7	T	330
/1982i	1985	11	17.62861	03	33	17.61	+21	25	58.0	7	T	334
/1982i	1985	11	17.64134	03	33	10.13	+21	25	47.2	7	T	330
/1982i	1985	11	17.65113	03	33	04.23	+21	25	39.1			337
/1982i	1985	11	17.65593	03	33	01.39	+21	25	34.3	7	T	330

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/1982i	1985	11	17.76204	03	31	58.83	+21	23	51.4			168
/1982i	1985	11	17.76441	03	31	57.31	+21	23	50.9			168
/1982i	1985	11	17.76537	03	31	56.74	+21	23	49.1			168
/1982i	1985	11	17.77197	03	31	53.18	+21	23	45.0			129
/1982i	1985	11	17.77560	03	31	50.94	+21	23	43.3			129
/1982i	1985	11	17.79306	03	31	39.92	+21	23	29.2			188
/1982i	1985	11	17.80914	03	31	30.83	+21	23	09.2			069
/1982i	1985	11	17.81782	03	31	25.67	+21	23	01.6			069
/1982i	1985	11	17.85951	03	31	00.18	+21	22	27.4			186
/1982i	1985	11	17.86298	03	30	58.17	+21	22	24.1			186
/1982i	1985	11	17.86852	03	30	54.93	+21	22	19.5			186
/1982i	1985	11	17.89948	03	30	36.66	+21	21	48.9			095
/1982i	1985	11	17.90087	03	30	35.89	+21	21	47.6			095
/1982i	1985	11	17.91024	03	30	30.25	+21	21	38.8			095
/1982i	1985	11	17.91233	03	30	29.19	+21	21	35.1			056
/1982i	1985	11	17.92659	03	30	20.75	+21	21	20.9			583
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/1982i	1985	11	17.97452	03	29	51.82	+21	20	37.8			501
/1982i	1985	11	18.02431	03	29	21.95	+21	19	46.8			093
/1982i	1985	11	18.02899	03	29	18.92	+21	19	44.3			056
/1982i	1985	11	18.05868	03	29	00.75	+21	19	16.6			061
/1982i	1985	11	18.06285	03	28	58.30	+21	19	11.7			061
/1982i	1985	11	18.06366	03	28	57.89	+21	19	11.1			061
/1982i	1985	11	18.08351	03	28	46.03	+21	18	50.6			056
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/1982i	1985	11	18.25443	03	27	03.31	+21	16	12.4		7	711
/1982i	1985	11	18.26146	03	26	59.07	+21	16	05.3			711
/1982i	1985	11	18.60938	03	23	27.20	+21	10	03.4	7	T	330
/1982i	1985	11	18.62411	03	23	18.13	+21	09	46.1	7	T	334
/1982i	1985	11	18.63090	03	23	13.99	+21	09	40.5	7	T	330
/1982i	1985	11	18.67030	03	22	49.78	+21	08	58.3	7	T	334
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/1982i	1985	11	18.70174	03	22	30.12	+21	08	24.9	7	T	330
/1982i	1985	11	18.72326	03	22	16.80	+21	08	01.9	7	T	330
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/1982i	1985	11	18.72901	03	22	13.79	+21	07	53.1			186
/1982i	1985	11	18.73109	03	22	12.45	+21	07	51.2			186
/1982i	1985	11	18.73455	03	22	10.49	+21	07	47.2			186
/1982i	1985	11	18.76011	03	21	54.78	+21	07	18.2			114
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/1982i	1985	11	18.79964	03	21	30.22	+21	06	36.0			129
/1982i	1985	11	18.79994	03	21	30.22	+21	06	36.0			129
/1982i	1985	11	18.84194	03	21	04.14	+21	05	49.4			095
/1982i	1985	11	18.85583	03	20	55.46	+21	05	33.3			095
/1982i	1985	11	18.91068	03	20	21.28	+21	04	32.1			095
/1982i	1985	11	18.92052	03	20	15.42	+21	04	20.0			095
/1982i	1985	11	18.92708	03	20	11.45	+21	04	11.4			482
/1982i	1985	11	18.93819	03	20	04.83	+21	03	59.6			482
/1982i	1985	11	19.09965	03	18	24.25	+21	00	58.8			792
/1982i	1985	11	19.10243	03	18	22.49	+21	00	56.6			792
/1982i	1985	11	19.10521	03	18	20.78	+21	00	53.5			792
/1982i	1985	11	19.22020	03	17	08.20	+20	58	53.6			808
/1982i	1985	11	19.23266	03	17	00.32	+20	58	38.7			808
/1982i	1985	11	19.24513	03	16	52.47	+20	58	24.0			808
/1982i	1985	11	19.25760	03	16	44.62	+20	58	09.3			808
/1982i	1985	11	19.57073	03	13	28.16	+20	51	34.6	7	T	334
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/1982i	1985	11	19.64148	03	12	43.02	+20	50	06.0	7	T	334
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/1982i	1985	11	19.70936	03	11	59.59	+20	48	41.7	7	T	330
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/1982i	1985	11	20.02431	03	08	38.33	+20	41	50.7			006
/1982i	1985	11	20.02778	03	08	36.04	+20	41	46.5			006
/1982i	1985	11	20.56683	03	02	47.95	+20	29	19.2	7	T	334
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/1982i	1985	11	20.70589	03	01	17.12	+20	25	55.2			186
/1982i	1985	11	20.70938	03	01	14.99	+20	25	52.3			190
/1982i	1985	11	20.71143	03	01	14.00	+20	25	49.2			186
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/1982i	1985	11	20.72943	03	01	01.74	+20	25	22.2			186
/1982i	1985	11	20.73220	03	00	59.90	+20	25	19.1			186
/1982i	1985	11	20.73497	03	00	57.93	+20	25	14.6			186
/1982i	1985	11	20.80771	03	00	10.36	+20	23	25.4			129
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/1982i	1985	11	21.01111	02	57	56.22	+20	18	21.0			493
/1982i	1985	11	21.71095	02	50	12.23	+19	59	38.6			114
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/1982i	1985	11	21.76013	02	49	38.63	+19	58	18.7			192
/1982i	1985	11	21.77073	02	49	32.07	+19	57	55.3			069
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/1982i	1985	11	21.83836	02	48	46.44	+19	56	04.9			095
/1982i	1985	11	21.84478	02	48	41.54	+19	55	55.7			186
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/1982i	1985	11	22.59282	02	40	17.24	+19	33	42.5			168
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/1982i	1985	11	22.78577	02	38	05.16	+19	27	49.6			190
/1982i	1985	11	22.90045	02	36	46.63	+19	24	09.8			129
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/1982i	1985	11	23.62402	02	28	31.30	+19	00	17.8			129
/1982i	1985	11	23.87545	02	25	37.23	+18	51	32.8			114
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/1982i	1985	11	24.78905	02	15	05.35	+18	18	13.6			129
/1982i	1985	11	25.70511	02	04	30.05	+17	42	17.2			192
/1982i	1985	11	25.71203	02	04	25.36	+17	42	03.0			192
/1982i	1985	11	26.61710	01	54	00.08	+17	04	16.4			129
/1982i	1985	11	26.63303	01	53	49.26	+17	03	38.6			129
/1982i	1985	11	26.64144	01	53	43.03	+17	03	14.9			186
/1982i	1985	11	26.64491	01	53	40.65	+17	03	05.2			186
/1982i	1985	11	26.64872	01	53	37.96	+17	02	57.4			186
/1982i	1985	11	26.65426	01	53	34.15	+17	02	42.4			186
/1982i	1985	11	26.65772	01	53	31.85	+17	02	35.2			186
/1982i	1985	11	26.74284	01	52	32.81	+16	58	50.5			192
/1982i	1985	11	26.75392	01	52	24.84	+16	58	21.7			192
/1982i	1985	11	27.63802	01	42	19.88	+16	19	20.4			186
/1982i	1985	11	27.64096	01	42	17.90	+16	19	13.3			186
/1982i	1985	11	27.65268	01	42	09.75	+16	18	41.9			186
/1982i	1985	11	27.78624	01	40	38.95	+16	12	36.6			046
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/1982i	1985	11	27.87188	01	39	40.23	+16	08	41.3			084
/1982i	1985	11	27.87279	01	39	39.79	+16	08	39.5			084
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/1982i	1985	11	27.97811	01	38	27.78	+16	03	52.5			071
/1982i	1985	11	28.59237	01	31	34.73	+15	35	26.9			186
/1982i	1985	11	28.59514	01	31	32.86	+15	35	17.9			186
/1982i	1985	11	28.59756	01	31	31.13	+15	35	12.3			186

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/1982i	1985	11	28.71544	01	30	11.52	+15	29	40.3			192
/1982i	1985	11	28.73137	01	30	01.20	+15	28	56.3			192
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/1982i	1985	11	28.78855	01	29	23.35	+15	26	11.4			502
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/1982i	1985	11	28.91840	01	27	56.00	+15	20	04.4			552
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/1982i	1985	11	28.93368	01	27	45.70	+15	19	20.6			552
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/1982i	1985	11	29.72743	01	19	02.75	+14	41	17.9			093
/1982i	1985	11	29.74727	01	18	49.42	+14	40	25.5			192
/1982i	1985	11	29.75004	01	18	47.30	+14	40	15.7			192
/1982i	1985	11	29.75281	01	18	45.48	+14	40	07.4			192
/1982i	1985	11	29.75858	01	18	41.67	+14	39	53.4			192
/1982i	1985	11	29.76130	01	18	39.77	+14	39	42.9			192
/1982i	1985	11	29.76389	01	18	38.26	+14	39	34.6			192
/1982i	1985	11	29.77013	01	18	34.07	+14	39	22.1			192
/1982i	1985	11	29.79873	01	18	16.02	+14	38	13.4			051
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/1982i	1985	11	29.86632	01	17	31.82	+14	34	38.5			006
/1982i	1985	11	30.43356	01	11	25.72	+14	07	03.6	6	T	330
/1982i	1985	11	30.45509	01	11	11.81	+14	06	01.6	6	T	330
/1982i	1985	11	30.48009	01	10	55.77	+14	04	47.7	6	T	330
/1982i	1985	11	30.48634	01	10	51.58	+14	04	29.8	6	T	330
/1982i	1985	11	30.55924	01	10	04.62	+14	00	53.9	6	T	334
/1982i	1985	11	30.65146	01	09	05.98	+13	56	17.6			192
/1982i	1985	11	30.65394	01	09	04.42	+13	56	11.5			192
/1982i	1985	11	30.65723	01	09	02.37	+13	56	01.6			192
/1982i	1985	11	30.66347	01	08	58.00	+13	55	44.3			192
/1982i	1985	11	30.66797	01	08	55.56	+13	55	30.5			192
/1982i	1985	11	30.67062	01	08	53.73	+13	55	21.8			192
/1982i	1985	11	30.67541	01	08	50.38	+13	55	11.2			192
/1982i	1985	11	30.67818	01	08	48.85	+13	54	59.2			192
/1982i	1985	11	30.68066	01	08	47.00	+13	54	54.7			192
/1982i	1985	11	30.68563	01	08	44.12	+13	54	39.9			192
/1982i	1985	11	30.68805	01	08	42.62	+13	54	31.1			192
/1982i	1985	11	30.69053	01	08	40.91	+13	54	24.3			192
/1982i	1985	11	30.70521	01	08	31.97	+13	53	38.0			093
/1982i	1985	11	30.72014	01	08	22.46	+13	52	57.4			089

/1982i	1985	11	30.72050	01	08	22.22	+13	52	57.1			555
/1982i	1985	11	30.73413	01	08	13.52	+13	52	18.9			555
/1982i	1985	11	30.76813	01	07	51.70	+13	50	37.0			089
/1982i	1985	11	30.80572	01	07	27.78	+13	48	44.6			095
/1982i	1985	11	30.81266	01	07	23.35	+13	48	24.7			095
/1982i	1985	11	30.82655	01	07	14.56	+13	47	44.1			095
/1982i	1985	11	30.84860	01	07	00.51	+13	46	39.3			095
/1982i	1985	11	30.85936	01	06	53.55	+13	46	06.7			095
/1982i	1985	12	01.43760	01	00	51.58	+13	17	36.7	6	T	330
/1982i	1985	12	01.45844	01	00	38.47	+13	16	35.8	6	T	330
/1982i	1985	12	01.51538	01	00	02.88	+13	13	46.4	6	T	330
/1982i	1985	12	01.54744	00	59	42.95	+13	12	10.7	6	T	334
/1982i	1985	12	01.56052	00	59	34.70	+13	11	31.8	6	T	330
/1982i	1985	12	01.69843	00	58	09.99	+13	04	40.5			114
/1982i	1985	12	01.70795	00	58	03.59	+13	04	10.8			186
/1982i	1985	12	01.70865	00	58	03.09	+13	04	08.8			186
/1982i	1985	12	01.72229	00	57	55.41	+13	03	27.1			046
/1982i	1985	12	01.72299	00	57	55.02	+13	03	25.4			046
/1982i	1985	12	01.72368	00	57	54.51	+13	03	22.5			046
/1982i	1985	12	01.73160	00	57	49.32	+13	03	02.4		8	056
/1982i	1985	12	01.75396	00	57	35.53	+13	01	55.3			114
/1982i	1985	12	01.76146	00	57	31.16	+13	01	32.6		8	056
/1982i	1985	12	01.80434	00	57	04.34	+12	59	26.7			114
/1982i	1985	12	01.83894	00	56	43.29	+12	57	40.6			084
/1982i	1985	12	01.84286	00	56	40.80	+12	57	27.1			084
/1982i	1985	12	01.88021	00	56	17.86	+12	55	40.2			552
/1982i	1985	12	01.88160	00	56	17.19	+12	55	35.3			552
/1982i	1985	12	01.90451	00	56	03.11	+12	54	22.4			093
/1982i	1985	12	02.48001	00	50	14.86	+12	25	58.8	6	T	330
/1982i	1985	12	02.49640	00	50	05.17	+12	25	11.0	6	T	334
/1982i	1985	12	02.50091	00	50	02.42	+12	24	57.4	6	T	334
/1982i	1985	12	02.50438	00	50	00.38	+12	24	48.0	6	T	334
/1982i	1985	12	02.55426	00	49	30.08	+12	22	18.9	6	T	330
/1982i	1985	12	02.60757	00	48	58.81	+12	19	39.2			186
/1982i	1985	12	02.60999	00	48	57.42	+12	19	33.7			186
/1982i	1985	12	02.61242	00	48	55.88	+12	19	25.1			186
/1982i	1985	12	02.61726	00	48	53.03	+12	19	09.7			186
/1982i	1985	12	02.62021	00	48	51.23	+12	19	03.0			186
/1982i	1985	12	02.62298	00	48	49.56	+12	18	52.9			186
/1982i	1985	12	02.62713	00	48	47.07	+12	18	41.5			186
/1982i	1985	12	02.62956	00	48	45.56	+12	18	34.3			186
/1982i	1985	12	02.63198	00	48	44.14	+12	18	26.9			186
/1982i	1985	12	02.69755	00	48	05.47	+12	15	12.0			071
/1982i	1985	12	02.70579	00	48	00.51	+12	14	49.3			071
/1982i	1985	12	02.72637	00	47	48.15	+12	13	45.7			095
/1982i	1985	12	02.73331	00	47	43.91	+12	13	24.9			095
/1982i	1985	12	02.75156	00	47	33.03	+12	12	31.8			071
/1982i	1985	12	02.75580	00	47	30.64	+12	12	19.0			071
/1982i	1985	12	02.78209	00	47	14.84	+12	11	00.0			095
/1982i	1985	12	02.79899	00	47	04.88	+12	10	08.8			069
/1982i	1985	12	02.80380	00	47	02.06	+12	09	55.5			069
/1982i	1985	12	02.80584	00	47	00.81	+12	09	48.5			046
/1982i	1985	12	02.80729	00	46	59.92	+12	09	46.1			046
/1982i	1985	12	02.81525	00	46	55.05	+12	09	21.8			095
/1982i	1985	12	02.81959	00	46	52.54	+12	09	08.7			095
/1982i	1985	12	02.82413	00	46	50.02	+12	08	53.1			046
/1982i	1985	12	02.82483	00	46	49.57	+12	08	53.7			046
/1982i	1985	12	02.82552	00	46	49.14	+12	08	52.7			046
/1982i	1985	12	02.82622	00	46	48.71	+12	08	49.0			046

/1982i	1985	12	02.85451	00	46	31.88	+12	07	26.1			552
/1982i	1985	12	02.85590	00	46	31.23	+12	07	21.9			552
/1982i	1985	12	02.88646	00	46	13.15	+12	05	47.1			093
/1982i	1985	12	03.65826	00	38	45.24	+11	27	51.1			114
/1982i	1985	12	03.69103	00	38	26.49	+11	26	11.5			046
/1982i	1985	12	03.69311	00	38	25.31	+11	26	06.5			046
/1982i	1985	12	03.70625	00	38	17.87	+11	25	26.8	6	T	056
/1982i	1985	12	03.71110	00	38	14.96	+11	25	16.2			071
/1982i	1985	12	03.71918	00	38	10.25	+11	24	51.6			071
/1982i	1985	12	03.74192	00	37	57.14	+11	23	43.9			114
/1982i	1985	12	03.76619	00	37	43.27	+11	22	32.6			071
/1982i	1985	12	03.77674	00	37	37.34	+11	21	58.8	6	T	056
/1982i	1985	12	03.78311	00	37	33.68	+11	21	42.0			555
/1982i	1985	12	03.81361	00	37	16.22	+11	20	12.6			555
/1982i	1985	12	03.85552	00	36	52.13	+11	18	09.8			071
/1982i	1985	12	03.92695	00	36	11.71	+11	14	41.0			071
/1982i	1985	12	03.95868	00	35	53.96	+11	13	05.1			503
/1982i	1985	12	03.96519	00	35	50.29	+11	12	46.1			996
/1982i	1985	12	04.44522	00	31	22.73	+10	49	28.2	6	T	330
/1982i	1985	12	04.47302	00	31	07.20	+10	48	08.3	6	T	330
/1982i	1985	12	04.48897	00	30	58.32	+10	47	21.0			337
/1982i	1985	12	04.58642	00	30	04.35	+10	42	38.6	6	T	330
/1982i	1985	12	04.60865	00	29	51.94	+10	41	33.4	6	T	330
/1982i	1985	12	04.69034	00	29	07.95	+10	37	33.0			046
/1982i	1985	12	04.69103	00	29	07.54	+10	37	30.2			046
/1982i	1985	12	04.69172	00	29	07.19	+10	37	29.7			046
/1982i	1985	12	04.69242	00	29	06.82	+10	37	26.7			046
/1982i	1985	12	04.69362	00	29	06.07	+10	37	25.4			071
/1982i	1985	12	04.73964	00	28	40.83	+10	35	12.4			046
/1982i	1985	12	04.74034	00	28	40.56	+10	35	10.8			046
/1982i	1985	12	04.74104	00	28	40.07	+10	35	07.0			046
/1982i	1985	12	04.74172	00	28	39.68	+10	35	06.5			046
/1982i	1985	12	04.74536	00	28	37.60	+10	34	55.3			071
/1982i	1985	12	04.76932	00	28	24.38	+10	33	46.6			071
/1982i	1985	12	04.81979	00	27	56.96	+10	31	16.2			093
/1982i	1985	12	04.84687	00	27	42.22	+10	30	01.0			552
/1982i	1985	12	04.84826	00	27	41.46	+10	29	58.0			552
/1982i	1985	12	04.86944	00	27	29.72	+10	28	55.5			056
/1982i	1985	12	04.89549	00	27	15.54	+10	27	39.7			056
/1982i	1985	12	04.92939	00	26	56.99	+10	26	03.5			071
/1982i	1985	12	05.69581	00	20	10.39	+09	49	32.4			071
/1982i	1985	12	05.73271	00	19	50.93	+09	47	42.0			093
/1982i	1985	12	05.73404	00	19	50.35	+09	47	42.2			555
/1982i	1985	12	05.76059	00	19	36.50	+09	46	26.5			562
/1982i	1985	12	05.76714	00	19	32.94	+09	46	08.5			555
/1982i	1985	12	05.76892	00	19	32.14	+09	46	03.0			562
/1982i	1985	12	05.81930	00	19	05.40	+09	43	41.1			071
/1982i	1985	12	05.82766	00	19	01.59	+09	43	15.3			093
/1982i	1985	12	05.92049	00	18	13.17	+09	38	53.8			494
/1982i	1985	12	05.93038	00	18	08.03	+09	38	25.7			494
/1982i	1985	12	05.93493	00	18	05.38	+09	38	14.0			071
/1982i	1985	12	05.93666	00	18	04.81	+09	38	08.6			494
/1982i	1985	12	06.71308	00	11	32.00	+09	02	07.5			071
/1982i	1985	12	06.94237	00	09	37.75	+08	51	36.3			071
/1982i	1985	12	07.70495	00	03	30.61	+08	17	15.0			071
/1982i	1985	12	07.77674	00	02	56.80	+08	14	02.3			502
/1982i	1985	12	07.78993	00	02	50.54	+08	13	28.5			502
/1982i	1985	12	07.79940	00	02	45.69	+08	13	02.6			071
/1982i	1985	12	07.83991	00	02	26.48	+08	11	14.9			071

/1982i	1985	12	07.86470	00	02	14.92	+08	10	07.7			555
/1982i	1985	12	07.86725	00	02	13.76	+08	10	01.4			555
/1982i	1985	12	08.44434	23	57	47.47	+07	44	46.7	6	T	334
/1982i	1985	12	08.44885	23	57	45.44	+07	44	35.0	6	T	334
/1982i	1985	12	08.46682	23	57	37.25	+07	43	48.9	6	T	330
/1982i	1985	12	08.48753	23	57	27.58	+07	42	55.1	6	T	330
/1982i	1985	12	08.62156	23	56	26.46	+07	37	07.2	6	T	330
/1982i	1985	12	09.43774	23	50	26.76	+07	02	30.4	6	T	334
/1982i	1985	12	09.52455	23	49	49.08	+06	58	55.8	6	T	334
/1982i	1985	12	09.73559	23	48	19.06	+06	50	09.4			562
/1982i	1985	12	09.74080	23	48	16.82	+06	49	56.4			562
/1982i	1985	12	09.89653	23	47	10.26	+06	43	33.1			006
/1982i	1985	12	09.90139	23	47	08.18	+06	43	20.3			006
/1982i	1985	12	09.90625	23	47	06.16	+06	43	09.0			006
/1982i	1985	12	09.91042	23	47	04.47	+06	42	58.9			006
/1982i	1985	12	09.91597	23	47	02.04	+06	42	44.4			006
/1982i	1985	12	09.92153	23	46	59.69	+06	42	30.8			006
/1982i	1985	12	09.92708	23	46	57.39	+06	42	18.3			006
/1982i	1985	12	09.93264	23	46	55.02	+06	42	03.7			006
/1982i	1985	12	10.52387	23	42	50.50	+06	18	13.9	6	T	334
/1982i	1985	12	10.52734	23	42	49.13	+06	18	05.0	6	T	334
/1982i	1985	12	10.76829	23	41	11.77	+06	08	29.0			093
/1982i	1985	12	11.40789	23	36	59.07	+05	43	44.6	6	T	334
/1982i	1985	12	11.41137	23	36	57.51	+05	43	35.9	6	T	334
/1982i	1985	12	11.41310	23	36	57.25	+05	43	32.2	6	T	334
/1982i	1985	12	11.41657	23	36	55.72	+05	43	24.4	6	T	334
/1982i	1985	12	12.41032	23	30	40.15	+05	06	12.3	6	T	334
/1982i	1985	12	12.41241	23	30	39.41	+05	06	08.8	6	T	334

Periodic Comet Giacobini-Zinner

/1984e	1985	07	16.45208	23	18	01.78	+56	20	08.6			675
/1984e	1985	07	25.32708	00	16	00.95	+59	04	00.9			707
/1984e	1985	08	09.89826	02	28	16.77	+57	56	44.3			006
/1984e	1985	08	09.90521	02	28	21.04	+57	56	27.1			006
/1984e	1985	08	09.91806	02	28	28.52	+57	56	14.9			006
/1984e	1985	08	13.87326	03	02	53.12	+55	55	09.7			006
/1984e	1985	08	13.89306	03	03	03.23	+55	54	27.2			006
/1984e	1985	08	21.11180	04	00	00.39	+50	15	12.2			022
/1984e	1985	08	21.11771	04	00	02.68	+50	14	53.3			022
/1984e	1985	08	21.98368	04	06	14.15	+49	24	16.5			006
/1984e	1985	08	22.00903	04	06	24.84	+49	22	51.0			006
/1984e	1985	08	22.01458	04	06	27.31	+49	22	33.8			006
/1984e	1985	08	28.07604	04	45	33.75	+42	39	51.6			022
/1984e	1985	08	28.09062	04	45	38.82	+42	38	48.4			022
/1984e	1985	08	29.13056	04	51	38.99	+41	22	08.5			006
/1984e	1985	08	29.17292	04	51	53.42	+41	19	00.7			006
/1984e	1985	08	29.17778	04	51	55.22	+41	18	40.2			006
/1984e	1985	08	30.05347	04	56	49.12	+40	12	27.5			022
/1984e	1985	08	30.06250	04	56	52.33	+40	11	47.3			022
/1984e	1985	09	05.02639	05	26	50.80	+32	14	35.3			022
/1984e	1985	09	05.02917	05	26	51.43	+32	14	25.0			022
/1984e	1985	09	17.71347	06	14	44.79	+14	34	15.5			474
/1984e	1985	09	17.71660	06	14	45.30	+14	34	00.8			474
/1984e	1985	09	18.16667	06	16	08.47	+13	57	18.6			006
/1984e	1985	09	18.17847	06	16	10.50	+13	56	21.6			006
/1984e	1985	09	18.19097	06	16	12.64	+13	55	22.2			006
/1984e	1985	09	20.16806	06	22	04.27	+11	17	55.5			006
/1984e	1985	09	20.19097	06	22	08.49	+11	16	11.1			006
/1984e	1985	09	20.19375	06	22	08.82	+11	15	57.5			006

/1984e	1985 10 09.84861	07 04 38.84	-10 33 38.0			323
/1984e	1985 10 10.84375	07 06 08.27	-11 27 12.1			323
/1984e	1985 10 11.14097	07 06 34.59	-11 43 16.5			046
/1984e	1985 10 11.14271	07 06 34.58	-11 43 23.3			046
/1984e	1985 10 14.83889	07 11 32.17	-14 51 00.7			323
/1984e	1985 10 15.84271	07 12 44.98	-15 39 25.8			323
/1984e	1985 10 16.33044	07 13 19.07	-16 02 52.7			801
/1984e	1985 10 18.07892	07 15 14.03	-17 23 51.3			056
/1984e	1985 10 18.12535	07 15 16.77	-17 25 56.1			056
/1984e	1985 10 18.83090	07 16 00.41	-17 57 28.6			323
/1984e	1985 10 19.34882	07 16 31.15	-18 20 29.0			808
/1984e	1985 10 19.74597	07 16 54.06	-18 37 54.1			415
/1984e	1985 10 21.03854	07 18 05.39	-19 33 54.5			056
/1984e	1985 10 21.06944	07 18 06.90	-19 35 13.3			056
/1984e	1985 10 21.83715	07 18 46.26	-20 07 19.5			323
/1984e	1985 10 22.11181	07 18 59.83	-20 18 59.2			056
/1984e	1985 10 22.13958	07 19 00.91	-20 20 06.0			056
/1984e	1985 10 22.83333	07 19 34.47	-20 48 22.2			323
/1984e	1985 10 23.83264	07 20 19.44	-21 28 42.1			323
/1984e	1985 10 24.81076	07 21 00.30	-22 07 15.4			323
/1984e	1985 10 29.82222	07 23 38.63	-25 11 43.9			323
/1984e	1985 10 30.77222	07 23 59.38	-25 44 16.5			323
/1984e	1985 10 31.80208	07 24 17.98	-26 18 43.8			323
/1984e	1985 11 08.63657	07 24 45.09	-30 13 30.1			415
/1984e	1985 11 09.63142	07 24 33.85	-30 39 53.7			415

Comet Shoemaker (1984f)

/1984f	1985 06 12.96629	11 47 08.67	-34 28 09.0			808
/1984f	1985 06 12.98915	11 47 06.15	-34 27 57.2			808
/1984f	1985 06 16.96784	11 40 28.97	-33 57 01.9			808
/1984f	1985 06 16.98169	11 40 27.57	-33 56 55.0			808
/1984f	1985 07 10.97329	11 15 40.47	-31 49 58.8			808
/1984f	1985 07 10.98299	11 15 40.10	-31 49 56.4			808
/1984f	1985 07 11.97056	11 15 04.84	-31 47 14.7			808
/1984f	1985 07 11.98026	11 15 04.53	-31 47 12.2			808

Comet Shoemaker (1984r)

/1984r	1985 09 12.28353	01 23 50.68	+08 10 31.8			801
/1984r	1985 10 12.19322	00 52 24.19	+04 55 12.4			801
/1984r	1985 10 17.16349	00 47 09.55	+04 21 49.1			801
/1984r	1985 10 19.32976	00 44 54.46	+04 07 31.7			691
/1984r	1985 10 19.34508	00 44 53.49	+04 07 25.8			691
/1984r	1985 10 19.35934	00 44 53.01	+04 07 19.5			691

Comet Hartley (1984v)

/1984v	1985 10 10.70486	07 14 40.16	-57 14 24.2			323
/1984v	1985 10 14.73403	07 17 22.22	-58 47 00.1			323
/1984v	1985 10 18.70417	07 19 45.30	-60 17 54.8			323

Periodic Comet Ashbrook-Jackson

/1985a	1985 09 18.53825	19 29 53.16	-34 45 45.5			474
/1985a	1985 09 18.55782	19 29 53.75	-34 45 35.4			474
/1985a	1985 10 16.49514	19 53 44.10	-30 36 08.6			323

Periodic Comet Giclas

/1985g	1985 10 16.31568	03 27 35.15	+04 01 38.1			801
/1985g	1985 10 18.00625	03 27 20.89	+03 58 08.4			552
/1985g	1985 10 18.02014	03 27 20.66	+03 58 07.4			552
/1985g	1985 11 09.14840	03 17 37.28	+03 47 30.0			801

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/1985g     1985 11 09.39375  03 17 27.51  +03 47 51.6                    293
/1985g     1985 11 09.40833  03 17 26.75  +03 47 51.3                    293
/1985g     1985 11 13.41744  03 14 59.38  +03 55 58.8                    657

                Periodic Comet Whipple
/1985h     1985 10 19.11656  21 21 45.32  -09 52 42.8                    691
/1985h     1985 10 19.16073  21 21 46.99  -09 52 39.8                    691

                Periodic Comet Maury
/1985k     1985 09 16.27118  21 41 34.87  -06 17 57.8                    707
/1985k     1985 10 03.35539  21 44 56.26  -08 15 00.8                    675
/1985k     1985 10 03.36822  21 44 56.55  -08 15 04.7                    675
/1985k     1985 10 17.99538  21 53 10.10  -09 10 41.9                  9 801
/1985k     1985 10 19.22686  21 54 03.61  -09 13 28.5                    691
/1985k     1985 10 19.26932  21 54 05.41  -09 13 30.9                    691
/1985k     1985 11 17.13277  22 22 11.15  -09 01 23.6          18.6T     691
/1985k     1985 11 17.15527  22 22 12.64  -09 01 21.0                    691
/1985k     1985 12 07.08285  22 47 08.32  -07 43 13.1          18.9T     691
/1985k     1985 12 07.09532  22 47 09.31  -07 43 10.0                    691

                Comet Hartley-Good (1985l)
/1985l     1985 10 07.81122  21 48 11.71  -19 42 33.9                    046
/1985l     1985 10 07.81307  21 48 10.44  -19 42 24.7                    046
/1985l     1985 10 07.92222  21 47 05.41  -19 35 59.1          11.0T     552
/1985l     1985 10 09.63299  21 30 31.22  -17 50 33.4                    323
/1985l     1985 10 09.65104  21 30 20.82  -17 49 24.1                    323
/1985l     1985 10 11.80625  21 10 23.54  -15 29 52.1                    046
/1985l     1985 10 11.80833  21 10 22.26  -15 29 43.1                    046
/1985l     1985 10 11.96713  21 08 57.09  -15 19 10.2                    801
/1985l     1985 10 12.12083  21 07 33.98  -15 08 57.7                    293
/1985l     1985 10 12.12292  21 07 32.97  -15 08 48.7                    293
/1985l     1985 10 15.74866  20 37 10.06  -11 06 20.9                    046
/1985l     1985 10 15.75069  20 37 09.15  -11 06 13.2                    046
/1985l     1985 10 16.52917  20 31 08.45  -10 14 19.0                    323
/1985l     1985 10 16.54306  20 31 02.09  -10 13 24.0                    323
/1985l     1985 10 16.75300  20 29 27.37  -09 59 56.1                    046
/1985l     1985 10 16.75473  20 29 26.49  -09 59 48.8                    046
/1985l     1985 10 17.05049  20 27 13.37  -09 40 22.3                    801
/1985l     1985 10 17.77535  20 21 55.4   -08 53 18                      024
/1985l     1985 10 17.98226  20 20 26.33  -08 39 54.6                  A 801
/1985l     1985 10 20.14444  20 05 41.36  -06 23 46.0                    707
/1985l     1985 10 20.74309  20 01 51.22  -05 47 16.9                    046
/1985l     1985 10 21.72118  19 55 47.70  -04 48 55.7                    056
/1985l     1985 10 21.73163  19 55 44.16  -04 48 16.7                    046
/1985l     1985 10 21.73325  19 55 43.34  -04 48 11.8                    046
/1985l     1985 10 21.76218  19 55 32.57  -04 46 29.9                    056
/1985l     1985 10 23.76285  19 43 58.20  -02 52 24.8                    056
/1985l     1985 10 23.80486  19 43 44.17  -02 50 06.5                    056
/1985l     1985 10 25.72848  19 33 33.28  -01 07 14.9                    056
/1985l     1985 10 25.78334  19 33 16.55  -01 04 22.8                    056
/1985l     1985 10 26.77049  19 28 22.99  -00 14 13.8                    056
/1985l     1985 10 26.80312  19 28 13.58  -00 12 37.3                    056
/1985l     1985 10 27.75937  19 23 41.43  +00 34 14.4                    056
/1985l     1985 10 27.79965  19 23 29.99  +00 36 10.4                    056
/1985l     1985 10 30.43347  19 11 55.07  +02 37 21.9                  B 415
/1985l     1985 10 31.13167  19 09 02.70  +03 07 10.5                    657
/1985l     1985 11 02.43995  19 00 03.82  +04 41 24.5           7  T     330
/1985l     1985 11 02.44968  19 00 01.69  +04 41 46.4                    330
/1985l     1985 11 03.72986  18 55 21.49  +05 30 30.7                    056
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/1985l	1985	11	03.75868	18	55	15.54	+05	31	34.8			056
/1985l	1985	11	04.73420	18	51	49.85	+06	07	14.1			046
/1985l	1985	11	04.73490	18	51	49.72	+06	07	15.2			046
/1985l	1985	11	06.15562	18	47	01.27	+06	56	52.8			657
/1985l	1985	11	06.74913	18	45	04.49	+07	16	46.4			046
/1985l	1985	11	06.75017	18	45	04.24	+07	16	49.1			046
/1985l	1985	11	08.40569	18	39	48.32	+08	10	04.1			397
/1985l	1985	11	09.41944	18	36	40.82	+08	41	15.5			415
/1985l	1985	11	09.42229	18	36	40.68	+08	41	18.3			415
/1985l	1985	11	09.73218	18	35	44.16	+08	50	21.3			046
/1985l	1985	11	09.73426	18	35	43.93	+08	50	25.3			046
/1985l	1985	11	11.75575	18	29	45.88	+09	47	54.8			046
/1985l	1985	11	11.75801	18	29	45.45	+09	47	59.5			046
/1985l	1985	11	12.75909	18	26	53.58	+10	14	44.3			494
/1985l	1985	11	12.77049	18	26	51.62	+10	15	03.0			494
/1985l	1985	11	14.08757	18	23	09.78	+10	48	37.6			657
/1985l	1985	11	15.94642	18	18	03.97	+11	32	53.0			801
/1985l	1985	11	23.09451	17	59	17.34	+13	49	27.4			657

Comet Thiele (1985m)

/1985m	1985	10	24.06215	04	39	54.27	+32	47	46.0			493
/1985m	1985	10	24.09792	04	39	33.85	+32	50	00.5			493
/1985m	1985	10	24.21771	04	38	24.91	+32	57	33.0			493
/1985m	1985	10	25.21354	04	28	24.84	+34	00	53.4			493
/1985m	1985	10	26.76632	04	10	47.60	+35	40	18.6			391
/1985m	1985	10	26.78160	04	10	36.32	+35	41	14.2			391
/1985m	1985	11	01.93715	02	33	14.47	+40	51	50.6			493
/1985m	1985	11	02.06840	02	30	42.57	+40	55	06.5			493
/1985m	1985	11	02.52919	02	21	48.84	+41	05	00.2	9	T	330
/1985m	1985	11	04.74965	01	37	30.10	+41	13	46.4			046
/1985m	1985	11	04.75104	01	37	28.45	+41	13	45.5			046
/1985m	1985	11	05.90737	01	14	21.45	+40	51	48.4			494
/1985m	1985	11	05.91493	01	14	12.04	+40	51	37.8			494
/1985m	1985	11	05.95249	01	13	27.32	+40	50	38.5			494
/1985m	1985	11	06.23162	01	07	58.06	+40	42	33.9			657
/1985m	1985	11	06.76007	00	57	41.44	+40	24	29.8			046
/1985m	1985	11	06.76146	00	57	39.73	+40	24	26.8			046
/1985m	1985	11	07.93056	00	35	39.86	+39	33	09.0			552
/1985m	1985	11	07.93542	00	35	34.55	+39	32	54.0			552
/1985m	1985	11	07.94028	00	35	29.25	+39	32	39.1			552
/1985m	1985	11	08.53626	00	24	46.88	+39	01	06.0			381
/1985m	1985	11	08.53965	00	24	43.26	+39	00	55.5			381
/1985m	1985	11	08.62556	00	23	12.01	+38	56	03.2	10.0	T	397
/1985m	1985	11	08.63875	00	22	58.05	+38	55	17.9			397
/1985m	1985	11	08.70312	00	21	51.50	+38	51	35.5			056
/1985m	1985	11	08.73265	00	21	20.96	+38	49	54.9			056
/1985m	1985	11	08.93576	00	17	48.71	+38	38	12.0			493
/1985m	1985	11	09.09338	00	15	06.92	+38	28	49.2			801
/1985m	1985	11	09.30799	00	11	28.21	+38	15	33.6			293
/1985m	1985	11	09.31007	00	11	26.23	+38	15	32.7			293
/1985m	1985	11	09.74722	00	04	13.55	+37	47	54.6			046
/1985m	1985	11	09.74861	00	04	12.13	+37	47	49.2			046
/1985m	1985	11	10.89583	23	46	17.99	+36	30	15.1			978
/1985m	1985	11	10.91215	23	46	03.62	+36	29	04.0			978
/1985m	1985	11	12.93721	23	18	22.78	+34	00	59.7			494
/1985m	1985	11	12.94516	23	18	16.87	+34	00	24.2			494
/1985m	1985	11	12.97326	23	17	55.93	+33	58	18.8			984
/1985m	1985	11	14.11257	23	04	29.32	+32	33	07.1			657
/1985m	1985	11	14.89028	22	56	04.59	+31	35	21.5			552

/1985m	1985	11	14.90694	22	55	54.38	+31	34	08.0				552
/1985m	1985	11	15.89343	22	46	07.50	+30	22	10.9				046
/1985m	1985	11	15.89481	22	46	06.74	+30	22	04.9				046
	Periodic Comet Boethin												
/1985n	1985	10	15.51250	19	06	05.64	-28	32	15.7				323
/1985n	1985	11	08.41519	19	50	55.52	-25	32	19.7		11	T	474
	Periodic Comet Kojima												
/1985o	1985	10	22.77639	07	55	30.07	+19	57	07.9		20	T	372
/1985o	1985	11	15.47728	08	16	48.62	+18	49	53.8				691
/1985o	1985	11	15.50038	08	16	49.69	+18	49	49.7				691
/1985o	1985	11	15.51491	08	16	50.13	+18	49	47.8				691
/1985o	1985	11	20.37640	08	19	50.32	+18	39	19.1				691
/1985o	1985	11	20.38925	08	19	50.72	+18	39	18.6				691
/1985o	1985	11	20.40237	08	19	51.11	+18	39	15.9				691
	Comet Ciffreo (1985p)												
/1985p	1985	11	08.10312	04	32	47.49	+23	24	56.4				010
/1985p	1985	11	08.80729	04	32	32.16	+23	36	39.0				391
/1985p	1985	11	08.95000	04	32	29.23	+23	39	04.0				010
/1985p	1985	11	09.01285	04	32	27.47	+23	40	09.1				010
/1985p	1985	11	09.64182	04	32	12.88	+23	50	39.3				381
/1985p	1985	11	09.66682	04	32	11.24	+23	51	04.6				381
/1985p	1985	11	09.92951	04	32	05.79	+23	55	28.1				010
/1985p	1985	11	09.93045	04	32	05.48	+23	55	29.4		13	T	095
/1985p	1985	11	10.71731	04	31	44.85	+24	08	39.4				381
/1985p	1985	11	10.96352	04	31	38.36	+24	12	43.1		13	T	095
/1985p	1985	11	11.61174	04	31	20.47	+24	23	30.9		12	T	397
/1985p	1985	11	11.66132	04	31	18.85	+24	24	24.6				397
/1985p	1985	11	11.67708	04	31	18.35	+24	24	43.5		13.5	T	372
/1985p	1985	11	11.70313	04	31	17.42	+24	25	12.4		12	T	391
/1985p	1985	11	11.71887	04	31	16.90	+24	25	21.8		13.0	T	392
/1985p	1985	11	11.73854	04	31	16.49	+24	25	44.4				372
/1985p	1985	11	11.73958	04	31	16.16	+24	25	43.1				391
/1985p	1985	11	12.50937	04	30	54.50	+24	38	32.1		13.5	T	372
/1985p	1985	11	12.66042	04	30	49.03	+24	41	06.9				391
/1985p	1985	11	12.71250	04	30	47.19	+24	41	57.2				391
/1985p	1985	11	12.87895	04	30	42.78	+24	44	41.6		13	T	095
/1985p	1985	11	12.95418	04	30	40.14	+24	45	57.9		13	T	095
/1985p	1985	11	12.98507	04	30	39.24	+24	46	27.5			C	494
/1985p	1985	11	12.98924	04	30	38.85	+24	46	33.5		12	T D	978
/1985p	1985	11	13.39521	04	30	26.17	+24	53	15.9				657
/1985p	1985	11	13.58814	04	30	20.36	+24	56	29.3		13.0	T	392
/1985p	1985	11	13.62980	04	30	18.55	+24	57	10.0				392
/1985p	1985	11	13.67292	04	30	16.92	+24	57	55.4				391
/1985p	1985	11	13.72292	04	30	15.08	+24	58	44.8				391
/1985p	1985	11	14.25939	04	29	57.57	+25	07	39.8			E	801
/1985p	1985	11	14.34757	04	29	54.83	+25	09	06.4				657
/1985p	1985	11	15.01771	04	29	31.82	+25	20	13.5				010
/1985p	1985	11	15.12847	04	29	27.52	+25	22	02.5		11	T F	090
/1985p	1985	11	15.13508	04	29	27.06	+25	22	07.7			F	090
/1985p	1985	11	16.11046	04	28	52.87	+25	38	15.4				801
/1985p	1985	11	16.35922	04	28	42.70	+25	42	20.8				801
/1985p	1985	11	17.36552	04	28	05.16	+25	58	49.1				657
/1985p	1985	11	20.35458	04	26	03.20	+26	47	08.7				675
/1985p	1985	11	20.36042	04	26	02.96	+26	47	14.2				675
/1985p	1985	11	22.48333	04	24	29.52	+27	20	47.2				707

Periodic Comet Wirtanen

/1985q	1985	11	13.43486	21 12 39.83	-29 11 52.1		19	T	474
/1985q	1985	11	13.48463	21 12 43.49	-29 11 22.1				474
/1985q	1985	12	09.43475	21 52 17.66	-24 18 38.8		18	N	474
/1985q	1985	12	09.46750	21 52 20.93	-24 18 10.0				474
/1985q	1985	12	10.43301	21 54 07.38	-24 05 11.5		18	N	474

Note 1: comet image involved with faint star. 2: comet very close to a star. 3: fanshaped tail 10′ long in p.a. 260 . 4: through thin clouds; comet image faint. 5: narrow tail 9′ long curving from p.a. 185 at head. 6: no central condensation. 7: guiding problems. 8: poor atmospheric conditions. 9: very weak. A: very diffuse. B: poor seeing; image faint. C: image very weak; only four badly-placed reference stars. D: possible tail 2′ long in p.a. 190 . E: diffuse with slight condensation. F: strong, curved jet extending 18" in p.a 62 .

* * * * *

OBSERVATIONS MADE AT CAUSSOLS.

Plates taken by J.-L. Heudier, T. Laverge, C. Pollas and J. D. Strich with the 0.9-m Schmidt, measured and reduced by Heudier and R. Chemin.
Contact: J.-L. Heudier, CERGA, Avenue Copernic, F-06130 Grasse, France.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
1985 PM1 *	1985	08 14.97708	23 21 27.31	+00 13 09.9	010
1985 PM1	1985	08 15.00486	23 21 27.31	+00 12 43.5	010
1985 PM1	1985	08 15.01528	23 21 27.32	+00 12 34.2	010
1985 PM1	1985	08 15.02563	23 21 27.37	+00 12 24.5	010
1985 PM1	1985	08 16.02153	23 21 30.94	-00 03 09.5	010
1985 PM1	1985	08 16.04236	23 21 30.91	-00 03 30.6	010
1985 PM1	1985	08 24.07852	23 21 07.58	-02 23 14.9	010
1985 PM1	1985	08 24.09241	23 21 07.33	-02 23 29.6	010
1985 PM1	1985	08 24.09785	23 21 07.27	-02 23 36.1	010
1985 PN1 *	1985	08 14.97708	23 26 41.70	-03 39 42.7	010
1985 PN1	1985	08 15.00486	23 26 40.76	-03 39 56.1	010
1985 PN1	1985	08 15.01528	23 26 40.43	-03 39 58.9	010
1985 PN1	1985	08 15.02563	23 26 40.06	-03 40 04.6	010
1985 PN1	1985	08 16.02153	23 26 03.81	-03 47 01.3	010
1985 PN1	1985	08 16.04236	23 26 03.08	-03 47 11.2	010
1985 PN1	1985	08 24.07852	23 20 24.67	-04 48 01.3	010

OBSERVATIONS MADE AT PINO TORINESE.

Contact: W. Ferreri, Osservatorio Astronomico di Torino, I-10025 Pino Torinese, Italy.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
3	1985	02 24.95131	12 44 30.82	-01 22 12.6	022
3	1985	02 24.98524	12 44 29.81	-01 21 57.2	022
3	1985	03 17.93898	12 30 57.40	+01 38 18.3	022
3	1985	03 17.96115	12 30 56.37	+01 38 29.9	022
3	1985	03 17.96530	12 30 56.10	+01 38 32.6	022
3	1985	03 17.96946	12 30 55.89	+01 38 34.2	022
3	1985	03 23.92052	12 26 14.65	+02 32 37.9	022
3	1985	03 23.92398	12 26 14.46	+02 32 39.8	022
3	1985	03 23.94269	12 26 13.53	+02 32 50.1	022
3	1985	03 27.89973	12 23 04.24	+03 07 57.5	022
3	1985	03 27.92675	12 23 02.89	+03 08 11.3	022
3	1985	03 27.92951	12 23 02.79	+03 08 13.3	022
3	1985	04 10.91086	12 12 31.24	+05 00 01.8	022
3	1985	04 10.91432	12 12 31.08	+05 00 03.0	022
3	1985	04 10.93716	12 12 30.09	+05 00 12.7	022

3	1985	04	18.87655	12	07	30.31	+05	51	13.0	022
3	1985	04	18.90009	12	07	29.49	+05	51	21.0	022
3	1985	04	18.90425	12	07	29.36	+05	51	22.3	022
4	1985	03	27.93852	14	19	54.42	-01	02	46.9	022
4	1985	03	27.96830	14	19	53.41	-01	02	37.2	022
4	1985	03	27.97106	14	19	53.31	-01	02	35.7	022
4	1985	04	28.86473	13	53	30.87	+01	33	01.6	022
4	1985	04	28.86750	13	53	30.73	+01	33	02.9	022
4	1985	04	28.86957	13	53	30.53	+01	33	02.6	022
4	1985	05	14.97765	13	40	34.77	+01	46	52.1	022
4	1985	05	14.98042	13	40	34.57	+01	46	51.6	022
4	1985	05	14.98250	13	40	34.56	+01	46	51.8	022
6	1985	02	24.84015	05	56	05.52	+14	33	20.0	022
6	1985	02	24.86301	05	56	06.21	+14	33	30.4	022
6	1985	03	17.82264	06	12	03.60	+17	08	43.5	022
6	1985	03	17.84479	06	12	04.87	+17	08	51.6	022
7	1985	02	24.87063	05	25	29.55	+19	32	36.7	022
7	1985	02	24.89833	05	25	31.40	+19	32	36.4	022
12	1985	04	29.95593	14	51	56.86	-19	57	39.3	022
12	1985	04	29.97116	14	51	55.96	-19	57	31.1	022
39	1985	03	17.90781	10	56	30.17	+09	34	37.6	022
39	1985	03	17.93067	10	56	29.20	+09	34	47.1	022
39	1985	03	23.88659	10	52	23.37	+10	14	56.9	022
39	1985	03	23.89005	10	52	23.22	+10	14	58.0	022
39	1985	03	23.91429	10	52	22.24	+10	15	07.6	022
39	1985	03	27.86390	10	49	54.68	+10	39	20.3	022
39	1985	03	27.87844	10	49	54.17	+10	39	26.2	022
39	1985	03	27.88605	10	49	53.90	+10	39	29.1	022
39	1985	04	10.87414	10	43	21.38	+11	46	49.7	022
39	1985	04	10.87760	10	43	21.31	+11	46	50.1	022
39	1985	04	10.90392	10	43	20.78	+11	46	55.6	022
40	1985	02	24.90525	06	01	06.92	+25	21	53.6	022
40	1985	02	24.92742	06	01	07.48	+25	21	54.2	022
40	1985	03	17.87631	06	16	59.32	+25	32	01.9	022
40	1985	03	17.89985	06	17	00.85	+25	32	02.3	022
129	1985	05	14.86823	10	04	44.07	+19	44	19.1	022
129	1985	05	14.90978	10	04	46.07	+19	44	08.5	022
148	1985	06	24.87678	17	37	49.29	+08	33	51.6	022
148	1985	06	24.91625	17	37	47.21	+08	33	41.6	022
148	1985	07	21.91006	17	18	43.26	+05	25	30.7	022
148	1985	07	21.93291	17	18	42.54	+05	25	17.0	022
148	1985	07	24.88837	17	17	21.47	+04	57	16.1	022
148	1985	07	24.90672	17	17	20.99	+04	57	05.8	022
148	1985	08	20.87351	17	13	58.16	+00	12	14.1	022
148	1985	08	20.89775	17	13	58.65	+00	11	57.6	022
389	1984	10	29.87875	21	39	10.71	-04	38	22.7	022
389	1984	10	29.90230	21	39	11.35	-04	38	22.6	022
1036	1985	07	21.98624	01	20	04.62	+46	06	25.4	022
1036	1985	07	22.00009	01	20	08.31	+46	06	31.9	022
1627	1985	06	24.98586	21	40	13.54	+10	28	30.4	022
1627	1985	06	25.00595	21	40	19.52	+10	28	27.9	022
1627	1985	07	22.01330	23	53	21.40	+03	45	28.6	022
1627	1985	07	22.02853	23	53	25.05	+03	45	05.8	022

OBSERVATIONS MADE AT TAUTENBURG BY F. BORNGEN, F. LUDWIG, K. H. MAU, H. MEUSINGER AND R. ZIENER.

Plates taken with the 1.34-m (134/200/400 cm) Schmidt. Reductions by Borngen and Kirsch, using the SAO Catalog. Contact: S. Marx, Karl Schwarzschild Observatorium, DDR-6901 Tautenburg, Democratic Republic of Germany.

Object		Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
2199		1985 07	19.97083	20 45 52.41	-10 19 21.1	15.4		033
2199		1985 07	21.02222	20 45 10.70	-10 29 41.0			033
3181		1985 07	19.97083	20 47 54.70	-10 45 26.3	16.6		033
3181		1985 07	21.02222	20 46 54.42	-10 48 26.2			033
3259		1985 09	18.13229	06 11 56.56	+19 46 11.9			033
3259		1985 09	18.14583	06 11 57.17	+19 46 09.2			033
3259		1985 09	19.04653	06 12 39.36	+19 42 54.0			033
3259		1985 09	19.12639	06 12 43.03	+19 42 36.5	16.2		033
3259		1985 09	20.08472	06 13 26.98	+19 39 07.2			033
3259		1985 09	21.07674	06 14 11.99	+19 35 24.3		1	033
3259		1985 09	21.10694	06 14 13.04	+19 35 20.6			033
3259		1985 09	23.04167	06 15 37.75	+19 28 03.9			033
3259		1985 09	23.07778	06 15 39.25	+19 27 55.8			033
3259		1985 09	24.05694	06 16 20.87	+19 24 10.7			033
3259		1985 09	24.13368	06 16 24.07	+19 23 53.4			033
1985 OG		1985 07	19.97083	20 50 11.97	-12 24 57.6	16.4		033
1985 OG		1985 07	21.02222	20 49 20.87	-12 27 06.9			033
1985 OQ	*	1985 07	19.97083	20 42 14.67	-11 08 25.8	16.6		033
1985 OQ		1985 07	21.02222	20 41 54.01	-10 59 12.5			033
1985 OR	*	1985 07	19.97083	20 42 27.95	-12 31 04.5	16.8		033
1985 OS	*	1985 07	19.97083	20 42 30.04	-09 45 20.3	17.0		033
1985 OT	*	1985 07	19.97083	20 54 49.95	-10 04 53.2	17.2		033
1985 OT		1985 07	21.02222	20 53 44.95	-10 01 59.2			033

Note 1: extremely faint.

OBSERVATIONS MADE AT ASIAGO BY W. FERRERI.

Plates taken with the 0.65-m Schmidt, reduced using the AGK3. Contact: W. Ferreri, Osservatorio Astronomico di Torino, I-10025 Pino Torinese, Italy.

Object		Date	UT	R. A. (1950)	Decl.	Obs.
1985 RL2	*	1985 09	11.99792	01 04 48.08	+11 10 03.0	043
1985 RL2		1985 09	12.01806	01 04 47.20	+11 10 06.3	043
1985 RL2		1985 09	13.01493	01 04 02.13	+11 12 54.8	043
1985 RL2		1985 09	13.03715	01 04 00.98	+11 12 58.1	043
1985 RL2		1985 09	15.03403	01 02 27.56	+11 18 15.5	043
1985 RL2		1985 09	15.05556	01 02 26.45	+11 18 18.8	043
1985 RL2		1985 09	18.04479	00 59 58.74	+11 25 27.5	043
1985 RL2		1985 09	18.07049	00 59 57.45	+11 25 31.1	043
1985 RM2	*	1985 09	11.99792	01 11 46.89	+12 52 58.3	043
1985 RM2		1985 09	12.01806	01 11 46.32	+12 52 56.0	043
1985 RM2		1985 09	13.01493	01 11 20.02	+12 51 07.4	043
1985 RM2		1985 09	13.03715	01 11 19.39	+12 51 04.5	043
1985 RM2		1985 09	18.04479	01 08 55.51	+12 40 28.8	043
1985 RM2		1985 09	18.07049	01 08 54.84	+12 40 24.9	043

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.
320	1985 10	07.84444	23 51 17.79	+08 04 51.0			046
320	1985 10	07.85903	23 51 17.19	+08 04 43.3			046
334	1985 10	24.03100	01 36 38.84	+03 36 12.4			046
334	1985 10	24.04517	01 36 38.33	+03 36 09.1			046
465	1985 10	07.84444	23 59 43.37	+06 23 18.6			046
465	1985 10	07.85903	23 59 42.71	+06 23 15.9			046
465	1985 10	11.86319	23 57 00.40	+06 04 46.8			046
465	1985 10	11.87847	23 56 59.72	+06 04 42.4			046
659	1985 10	20.87017	01 40 21.64	+14 08 08.1			046

659	1985	10	20.88435	01	40	21.17	+14	08	07.1	046
659	1985	10	21.93319	01	39	47.49	+14	05	26.7	046
659	1985	10	21.94760	01	39	46.92	+14	05	24.1	046
659	1985	10	24.06508	01	38	39.07	+13	59	55.6	046
857	1985	10	20.94205	01	42	39.55	+01	36	58.9	046
857	1985	10	20.95628	01	42	38.71	+01	34	58.0	046
857	1985	10	21.97347	01	41	34.42	+01	31	31.1	046
857	1985	10	21.98806	01	41	33.52	+01	31	27.4	046
857	1985	10	24.03100	01	39	25.50	+01	24	56.0	046
857	1985	10	24.04517	01	39	24.62	+01	24	52.9	046
929	1985	10	20.97885	02	15	08.78	+15	44	38.4	046
929	1985	10	20.99297	02	15	07.71	+15	44	34.3	046
929	1985	10	22.01705	02	14	05.95	+15	37	40.9	046
929	1985	10	22.03142	02	14	05.02	+15	37	34.7	046
929	1985	10	25.08924	02	10	58.56	+15	16	34.0	046
929	1985	10	25.10347	02	10	57.66	+15	16	28.1	046
992	1985	11	04.78333	01	04	58.89	+08	52	34.2	046
992	1985	11	04.79861	01	04	58.39	+08	52	27.9	046
1087	1985	10	20.97885	02	14	13.58	+14	16	47.9	046
1087	1985	10	20.99297	02	14	12.52	+14	16	48.0	046
1087	1985	10	22.01705	02	13	17.23	+14	16	01.4	046
1087	1985	10	22.03142	02	13	16.42	+14	16	00.9	046
1285	1985	10	11.86319	00	04	15.13	+07	48	57.6	046
1285	1985	10	11.87847	00	04	14.45	+07	48	54.3	046
1500	1985	10	20.97885	02	13	07.72	+16	59	06.1	046
1500	1985	10	20.99297	02	13	06.68	+16	59	09.6	046
1500	1985	10	22.01705	02	11	59.61	+17	01	46.6	046
1500	1985	10	22.03142	02	11	58.64	+17	01	48.8	046
1500	1985	10	25.08924	02	08	35.24	+17	08	54.5	046
1500	1985	10	25.10347	02	08	34.26	+17	08	57.0	046
1532	1985	10	11.86319	23	57	57.51	+08	26	15.3	046
1532	1985	10	11.87847	23	57	56.82	+08	26	12.2	046
1707	1985	10	20.97885	02	18	04.82	+17	53	13.9	046
1707	1985	10	20.99297	02	18	04.00	+17	53	14.5	046
1707	1985	10	22.01705	02	17	02.50	+17	52	24.2	046
1707	1985	10	22.03142	02	17	01.61	+17	52	23.9	046
1707	1985	10	25.08924	02	13	54.69	+17	48	58.7	046
1707	1985	10	25.10347	02	13	53.84	+17	48	58.7	046
1835	1985	10	20.97885	02	10	38.44	+14	51	46.8	046
1835	1985	10	20.99297	02	10	37.60	+14	51	44.7	046
1835	1985	10	22.01705	02	09	45.84	+14	47	18.4	046
1835	1985	10	22.03142	02	09	45.13	+14	47	14.2	046
1835	1985	10	25.08924	02	07	08.10	+14	33	41.0	046
1835	1985	10	25.10347	02	07	07.27	+14	33	36.7	046
1839	1985	10	20.94205	01	37	02.86	+01	45	24.9	046
1839	1985	10	20.95628	01	37	01.96	+01	45	24.7	046
1839	1985	10	21.97347	01	36	03.53	+01	45	23.5	046
1839	1985	10	21.98806	01	36	02.69	+01	45	22.2	046
1839	1985	10	24.03100	01	34	05.88	+01	45	37.0	046
1839	1985	10	24.04517	01	34	05.10	+01	45	36.8	046
1948	1985	10	20.97885	02	20	11.63	+15	47	44.8	046
1948	1985	10	20.99297	02	20	10.69	+15	47	44.1	046
1948	1985	10	22.01705	02	19	12.29	+15	44	45.3	046
1948	1985	10	22.03142	02	19	11.70	+15	44	41.3	046
1948	1985	10	25.08924	02	16	15.37	+15	35	24.3	046
1948	1985	10	25.10347	02	16	14.57	+15	35	24.0	046
2056	1985	11	04.78333	01	11	00.08	+09	37	17.1	046
2056	1985	11	04.79861	01	10	59.58	+09	37	09.4	046
2235	1985	10	11.86319	23	57	43.90	+08	38	54.5	046

2235			1985	10	11.87847	23	57	43.34	+08	38	47.4	046
2451			1985	10	24.08435	02	08	21.03	+25	46	33.2	046
2451			1985	10	24.09726	02	08	20.33	+25	46	30.4	046
2591			1985	10	20.97885	02	15	34.10	+15	04	36.8	046
2591			1985	10	20.99297	02	15	33.13	+15	04	34.0	046
2591			1985	10	22.01705	02	14	42.65	+15	00	44.2	046
2591			1985	10	22.03142	02	14	41.95	+15	00	41.1	046
2591			1985	10	25.08924	02	12	09.17	+14	48	58.7	046
2591			1985	10	25.10347	02	12	08.24	+14	48	54.9	046
2632			1985	11	04.78333	01	04	46.40	+09	16	40.6	046
2632			1985	11	04.79861	01	04	45.74	+09	16	39.7	046
1976	SP4		1985	10	20.97885	02	15	59.58	+15	03	57.8	046
1976	SP4		1985	10	20.99297	02	15	58.82	+15	03	56.0	046
1976	SP4		1985	10	22.01705	02	15	03.84	+15	01	15.5	046
1976	SP4		1985	10	22.03142	02	15	02.91	+15	01	12.7	046
1976	SP4		1985	10	25.08924	02	12	15.42	+14	52	48.4	046
1976	SP4		1985	10	25.10347	02	12	14.57	+14	52	46.0	046
1984	GF		1985	10	20.94205	01	42	33.49	+01	41	11.3	046
1984	GF		1985	10	20.95628	01	42	32.58	+01	41	03.7	046
1984	GF		1985	10	21.97347	01	41	32.06	+01	34	19.3	046
1984	GF		1985	10	21.98806	01	41	31.11	+01	34	12.3	046
1984	GF		1985	10	24.03100	01	39	30.53	+01	21	02.7	046
1984	GF		1985	10	24.04517	01	39	29.65	+01	20	56.0	046
1985	RL1		1985	09	19.85684	23	12	21.20	+08	00	28.6	16.0 046
1985	RL1		1985	09	19.87096	23	12	20.47	+08	00	17.2	046
1985	RM1		1985	09	13.85696	23	17	52.31	+13	07	27.5	046
1985	ST	*	1985	09	18.92684	23	47	33.33	+06	21	50.0	16.5 046
1985	ST		1985	09	18.94102	23	47	32.60	+06	21	36.9	046
1985	ST		1985	09	19.90053	23	46	55.35	+06	10	09.3	046
1985	ST		1985	09	19.91459	23	46	54.84	+06	10	00.0	046
1985	SU	*	1985	09	18.92684	23	50	05.57	+07	29	22.6	16.7 046
1985	SU		1985	09	18.94102	23	50	04.76	+07	29	19.9	046
1985	SU		1985	09	19.90053	23	49	08.57	+07	26	57.9	046
1985	SU		1985	09	19.91459	23	49	07.72	+07	26	55.1	046
1985	SV	*	1985	09	19.90053	23	47	41.57	+04	51	13.2	16.0 046
1985	SV		1985	09	19.91459	23	47	40.74	+04	51	13.7	046
1985	SW	*	1985	09	19.90053	23	55	25.49	+05	09	11.0	17.0 046
1985	SW		1985	09	19.91459	23	55	24.87	+05	09	18.2	046
1985	SX	*	1985	09	19.90053	23	59	32.37	+05	11	37.9	17.0 046
1985	SX		1985	09	19.91459	23	59	31.65	+05	11	35.0	046
1985	TE1		1985	11	04.78333	01	08	43.01	+06	47	47.5	046
1985	TE1		1985	11	04.79861	01	08	42.42	+06	47	41.7	046
1985	TD2	*	1985	10	07.84444	23	51	10.88	+06	31	20.8	16.9 046
1985	TD2		1985	10	07.85903	23	51	10.31	+06	31	13.9	046
1985	TE2	*	1985	10	11.86319	23	57	40.62	+06	55	12.2	16.3 046
1985	TE2		1985	10	11.87847	23	57	40.02	+06	55	10.1	046
1985	TF2	*	1985	10	11.86319	00	02	03.55	+06	54	52.9	16.6 046
1985	TF2		1985	10	11.87847	00	02	02.80	+06	54	48.4	046
1985	TG2	*	1985	10	11.86319	00	04	09.55	+09	19	00.6	16.7 046
1985	TG2		1985	10	11.87847	00	04	08.84	+09	18	54.8	046
1985	TH2	*	1985	10	11.86319	00	05	02.46	+09	22	59.6	16.7 046
1985	TH2		1985	10	11.87847	00	05	02.00	+09	22	54.1	046
1985	UJ	*	1985	10	20.87017	01	31	28.66	+12	34	18.5	15.7 046
1985	UJ		1985	10	20.88435	01	31	27.94	+12	34	29.2	046
1985	UJ		1985	10	21.93319	01	30	38.85	+12	47	33.7	046
1985	UJ		1985	10	21.94760	01	30	38.05	+12	47	44.7	046
1985	UJ		1985	10	24.06508	01	29	00.04	+13	13	48.2	046
1985	UK	*	1985	10	20.87017	01	34	59.50	+15	02	57.8	16.2 046
1985	UK		1985	10	20.88435	01	34	58.74	+15	02	54.1	046

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1985 UK    1985 10 21.93319  01 34 00.40  +14 57 13.8                    046
1985 UK    1985 10 21.94760  01 33 59.43  +14 57 10.0                    046
1985 UK    1985 10 24.06508  01 32 02.75  +14 45 29.3                    046
1985 UL  * 1985 10 20.87017  01 39 31.45  +15 06 57.2          16.3      046
1985 UL    1985 10 20.88435  01 39 30.64  +15 06 53.5                    046
1985 UL    1985 10 21.93319  01 38 27.01  +14 59 15.3                    046
1985 UL    1985 10 21.94760  01 38 26.01  +14 59 10.7                    046
1985 UL    1985 10 24.06508  01 36 18.33  +14 43 29.0                    046
1985 UM  * 1985 10 20.87017  01 42 43.76  +12 07 35.3          16.4      046
1985 UM    1985 10 20.88435  01 42 43.00  +12 07 29.0                    046
1985 UM    1985 10 21.93319  01 41 51.34  +11 58 38.0                    046
1985 UM    1985 10 21.94760  01 41 50.51  +11 58 32.4                    046
1985 UM    1985 10 24.06508  01 40 06.48  +11 40 36.3                  1 046
1985 UN  * 1985 10 20.87017  01 43 16.06  +13 22 52.8          16.3      046
1985 UN    1985 10 20.88435  01 43 15.26  +13 22 51.6                    046
1985 UN    1985 10 21.93319  01 42 19.23  +13 19 08.5                    046
1985 UN    1985 10 21.94760  01 42 18.39  +13 19 04.8                    046
1985 UN    1985 10 24.06508  01 40 25.17  +13 11 19.9                    046
1985 UO  * 1985 10 20.94205  01 37 51.37  +00 15 06.8          16.5      046
1985 UO    1985 10 20.95628  01 37 50.61  +00 15 05.3                    046
1985 UO    1985 10 21.97347  01 36 56.46  +00 13 47.4                    046
1985 UO    1985 10 21.98806  01 36 55.66  +00 13 50.2                    046
1985 UO    1985 10 24.03100  01 35 07.41  +00 12 21.1                    046
1985 UO    1985 10 24.04517  01 35 06.86  +00 12 19.9                    046
1985 UP  * 1985 10 20.94205  01 39 31.55  +02 29 10.2          16.7      046
1985 UP    1985 10 20.95628  01 39 30.71  +02 29 09.3                    046
1985 UP    1985 10 21.97347  01 38 38.40  +02 29 21.0                    046
1985 UP    1985 10 21.98806  01 38 37.57  +02 29 21.5                    046
1985 UP    1985 10 24.03100  01 36 54.40  +02 30 07.1                    046
1985 UP    1985 10 24.04517  01 36 53.60  +02 30 08.2                    046
1985 UQ  * 1985 10 20.94205  01 40 23.65  +02 04 17.2          16.4      046
1985 UQ    1985 10 20.95628  01 40 22.80  +02 04 14.6                    046
1985 UQ    1985 10 21.97347  01 39 23.76  +02 00 58.5                    046
1985 UQ    1985 10 21.98806  01 39 22.97  +02 00 54.7                    046
1985 UQ    1985 10 24.03100  01 37 25.60  +01 54 47.5                    046
1985 UQ    1985 10 24.04517  01 37 24.78  +01 54 44.6                    046
1985 UR  * 1985 10 20.94205  01 41 05.06  +03 53 49.4          16.4      046
1985 UR    1985 10 20.95628  01 41 04.26  +03 53 34.9                    046
1985 UR    1985 10 21.97347  01 40 22.90  +03 38 37.0                    046
1985 UR    1985 10 21.98806  01 40 22.37  +03 38 23.7                    046
1985 UR    1985 10 24.03100  01 38 59.88  +03 08 44.3                  2 046
1985 UR    1985 10 24.04517  01 38 59.38  +03 08 35.4                    046
1985 US  * 1985 10 20.94205  01 41 10.73  +03 16 34.1          16.7      046
1985 US    1985 10 20.95628  01 41 09.85  +03 16 30.7                    046
1985 US    1985 10 21.97347  01 40 18.32  +03 11 25.8                    046
1985 US    1985 10 21.98806  01 40 17.58  +03 11 23.6                    046
1985 US    1985 10 24.03100  01 38 34.35  +03 01 27.9                    046
1985 US    1985 10 24.04517  01 38 33.79  +03 01 24.4                    046
1985 UT  * 1985 10 20.94205  01 41 50.09  +03 28 53.9          16.6      046
1985 UT    1985 10 20.95628  01 41 49.28  +03 28 50.6                    046
1985 UT    1985 10 21.97347  01 40 56.69  +03 26 32.1                    046
1985 UT    1985 10 21.98806  01 40 55.94  +03 26 29.8                    046
1985 UT    1985 10 24.03100  01 39 10.95  +03 22 05.5                    046
1985 UT    1985 10 24.04517  01 39 10.36  +03 22 03.6                    046
1985 UU  * 1985 10 20.94205  01 49 24.94  +03 14 18.8          16.7      046
1985 UU    1985 10 20.95628  01 49 24.05  +03 14 20.0                    046
1985 UU    1985 10 21.97347  01 48 16.64  +03 15 34.8                    046
1985 UU    1985 10 21.98806  01 48 15.64  +03 15 35.5                    046
1985 UU    1985 10 24.03100  01 46 00.38  +03 18 29.6                    046
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1985	UU		1985	10	24.04517	01	45	59.42	+03	18	29.1		046
1985	UV	*	1985	10	20.97885	02	16	53.24	+16	16	11.6	16.3	046
1985	UV		1985	10	20.99297	02	16	52.37	+16	16	08.1		046
1985	UV		1985	10	22.01705	02	16	01.01	+16	11	12.6		046
1985	UV		1985	10	22.03142	02	16	00.16	+16	11	08.4		046
1985	UV		1985	10	25.08924	02	13	23.36	+15	55	49.6		046
1985	UV		1985	10	25.10347	02	13	22.58	+15	55	44.0		046
1985	UW	*	1985	10	20.97885	02	19	34.59	+17	30	12.7	16.4	046
1985	UW		1985	10	20.99297	02	19	34.02	+17	30	10.6		046
1985	UW		1985	10	22.01705	02	18	38.09	+17	25	41.3		046
1985	UW		1985	10	22.03142	02	18	37.36	+17	25	38.2		046
1985	UW		1985	10	25.08924	02	15	48.89	+17	11	30.0		046
1985	UW		1985	10	25.10347	02	15	48.06	+17	11	26.8		046
1985	UX	*	1985	10	20.97885	02	20	52.08	+16	32	16.6	16.4	046
1985	UX		1985	10	20.99297	02	20	51.39	+16	32	18.9		046
1985	UX		1985	10	22.01705	02	19	41.77	+16	33	24.0		046
1985	UX		1985	10	22.03142	02	19	40.79	+16	33	24.9		046
1985	UX		1985	10	25.08924	02	16	11.20	+16	36	10.0		046
1985	UX		1985	10	25.10347	02	16	10.50	+16	36	14.0		046
1985	UY	*	1985	10	24.03100	01	47	19.45	+03	18	39.6	16.6	046
1985	UY		1985	10	24.04517	01	47	18.85	+03	18	32.0		046
1985	UB1	*	1985	10	24.08435	02	15	17.09	+24	02	41.9		046

Note 1: position uncertain. 2: on a star.

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

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

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N Obs.
135	1985 10	18.91745	23 41 00.77	-00 03 01.4		054
270	1985 11	17.97370	04 08 35.08	+22 03 41.0		054
494	1985 11	17.97370	03 58 12.44	+24 26 44.6		054
603	1985 09	22.93800	23 25 05.48	-01 10 33.6		054
603	1985 09	22.95536	23 25 04.43	-01 10 37.8		054
830	1985 09	22.94494	23 29 28.51	-01 53 24.6		054
926	1985 11	17.97370	04 02 36.31	+25 45 10.3		054
997	1985 11	17.97370	04 06 03.60	+22 37 44.6	17.3	054
1117	1985 11	14.02579	03 02 53.42	+09 30 20.1		054
1117	1985 11	15.94523	03 00 51.86	+09 22 36.1		054
1400	1985 10	15.84280	00 23 29.79	+10 19 16.6		054
1400	1985 10	15.86016	00 23 29.25	+10 19 05.7		054
1408	1985 11	14.02579	03 08 17.58	+11 30 49.5		054
1408	1985 11	15.94523	03 06 47.93	+11 20 14.4		054
1425	1985 10	18.91745	23 42 02.74	-01 47 20.3		054
2227	1985 09	22.93800	23 25 36.05	-03 04 17.9	17.0	054
2227	1985 09	22.95536	23 25 35.08	-03 04 28.2		054
2242	1985 09	22.93800	23 26 10.12	-02 37 45.0	16.8	054
2242	1985 09	22.95536	23 26 09.19	-02 37 48.8		054
2322	1985 10	18.91745	23 43 54.44	-01 17 03.1		054
2466	1985 11	14.02579	03 07 27.73	+09 02 13.1		054
2466	1985 11	15.94523	03 05 44.48	+08 54 29.9		054
2501	1985 11	17.97370	03 58 26.58	+24 23 22.6		054
2881	1985 11	14.02579	03 03 53.96	+10 05 46.4	16.7	054
2881	1985 11	15.94523	03 01 54.12	+09 54 40.7		054
3012	1985 10	18.94523	00 36 00.07	+15 30 08.9	16.6	054
3012	1985 10	18.96259	00 35 59.19	+15 30 07.1		054
3012	1985 11	07.87648	00 21 34.74	+14 59 23.9	17.0	054
3072	1985 11	14.02579	03 10 14.28	+07 58 30.1		054
3072	1985 11	15.94523	03 08 12.64	+07 50 28.4		054

3139			1985	08	12.99465	23	47	19.24	+27	50	54.7		054
3176			1985	11	17.97370	04	05	07.19	+24	52	01.7	16.0	054
1948	RD		1985	10	10.84350	23	42	33.58	+00	26	17.6	16.0	054
1948	RD		1985	10	12.89732	23	41	07.85	+00	27	39.6		054
1948	RD		1985	10	18.91745	23	37	44.30	+00	34	28.4		054
1971	UX		1985	09	22.93800	23	27	19.40	-01	43	19.4	17.2	054
1971	UX		1985	09	22.95536	23	27	18.61	-01	43	24.6		054
1981	QP		1985	11	14.02579	03	05	48.80	+08	59	22.8	16.5	054
1981	QP		1985	11	15.94523	03	03	45.42	+09	00	10.4		054
1983	FC		1985	10	18.94523	00	46	32.27	+18	24	16.1	17.0	054
1983	FC		1985	10	18.96259	00	46	31.33	+18	24	12.4		054
1983	FC		1985	11	07.87648	00	31	14.45	+16	56	57.6		054
1983	FC		1985	11	13.82995	00	28	11.56	+16	31	46.4	17.4	054
1985	QS		1985	10	18.91745	23	43	55.82	-02	38	01.8	16.5	054
1985	QT		1985	10	18.91745	23	46	52.72	-00	26	27.6	16.5	054
1985	RF		1985	10	10.84350	23	50	23.27	-00	43	10.8		054
1985	RF		1985	10	18.91745	23	46	24.81	-01	27	28.2	17.2	054
1985	RE1		1985	09	15.97301	00	03	17.06	+16	21	16.3	1	054
1985	RL2		1985	11	14.82093	00	12	32.67	+11	55	14.7	16.7	054
1985	RL2		1985	11	15.80704	00	12	11.20	+11	55	53.7		054
1985	SZ	*	1985	09	17.89384	00	02	54.14	+16	12	19.3	17.5	054
1985	SZ		1985	09	18.01190	00	02	50.39	+16	11	55.5		054
1985	SZ		1985	09	22.97752	23	58	31.22	+15	52	54.3		054
1985	SA1	*	1985	09	17.99384	23	14	34.98	-05	59	00.4	17.0	054
1985	SA1		1985	09	22.90276	23	10	21.39	-06	23	13.0		054
1985	SB1	*	1985	09	22.93800	23	17	45.44	-01	39	21.1	17.0	054
1985	SB1		1985	09	22.95536	23	17	44.93	-01	39	32.0		054
1985	TB2	*	1985	10	10.80183	23	46	17.46	+01	23	27.7	17.3	054
1985	TB2		1985	10	12.85565	23	44	22.45	+01	28	07.1		054
1985	TB2		1985	10	18.91745	23	39	09.17	+01	42	57.5	17.5	054
1985	TC2	*	1985	10	10.80183	23	47	44.04	+01	44	38.1	17.0	054
1985	TC2		1985	10	12.85565	23	46	24.42	+01	29	02.9		054
1985	TC2		1985	10	18.91745	23	42	55.81	+00	45	56.1	17.2	054
1985	TJ2	*	1985	10	10.80183	23	51	19.57	+00	36	18.0	17.2	054
1985	TJ2		1985	10	12.85565	23	49	07.96	+00	28	14.5		054
1985	TK2	*	1985	10	15.81520	23	43	03.67	+15	54	00.3	17.2	054
1985	TK2		1985	10	18.89940	23	41	08.47	+15	33	34.0		054
1985	TL2	*	1985	10	15.81520	23	45	07.65	+13	56	01.6	17.0	054
1985	TL2		1985	10	18.89940	23	42	52.35	+13	45	35.5		054
1985	TM2	*	1985	10	15.81520	23	45	10.42	+16	29	24.7	17.2	054
1985	TM2		1985	10	18.89940	23	42	47.69	+16	21	48.0		054
1985	UZ	*	1985	10	18.94523	00	49	02.04	+17	49	05.2	16.8	054
1985	UZ		1985	10	18.96259	00	49	01.14	+17	48	58.7		054
1985	UZ		1985	11	07.87648	00	37	20.35	+15	32	56.4		054
1985	UZ		1985	11	13.82995	00	35	25.45	+14	55	15.7	17.2	054
1985	UA1	*	1985	10	18.95218	00	45	53.77	+18	03	58.3	17.0	054
1985	VC	*	1985	11	13.82995	00	31	26.16	+15	52	15.8	17.2	054
1985	VD	*	1985	11	14.02579	03	01	50.04	+08	22	57.0	16.7	054
1985	VD		1985	11	15.94523	03	00	16.84	+08	18	05.2		054
1985	VE	*	1985	11	14.02579	03	03	43.09	+09	27	16.3	17.5	054
1985	VE		1985	11	15.94523	03	01	47.68	+09	17	35.6		054
1985	VF	*	1985	11	14.02579	03	04	38.93	+09	15	20.6	17.3	054
1985	VF		1985	11	15.94523	03	02	33.36	+09	15	00.8		054
1985	VG	*	1985	11	14.02579	03	06	15.62	+12	14	20.9	17.0	054
1985	VG		1985	11	15.94523	03	04	16.35	+12	09	51.5		054
1985	VH	*	1985	11	14.02579	03	07	57.45	+09	41	33.6	17.5	054
1985	VH		1985	11	15.94523	03	05	59.30	+09	30	54.1		054
1985	VJ	*	1985	11	14.02579	03	08	47.85	+10	42	01.9	17.5	054
1985	VK	*	1985	11	14.02579	03	12	39.27	+10	04	57.1	17.0	054

1985 VK		1985 11 15.94523	03 10 52.10	+10 03 28.2			054
1985 VL	*	1985 11 14.02579	03 12 46.28	+10 14 17.9		17.0	054
1985 VL		1985 11 15.94523	03 11 19.52	+10 02 09.4			054
1985 VM	*	1985 11 14.02579	03 13 13.59	+10 32 34.6		15.8	054
1985 VM		1985 11 15.94523	03 11 40.19	+10 19 07.1			054
1985 VN	*	1985 11 14.02579	03 14 30.87	+09 23 59.0		16.2	054
1985 VN		1985 11 15.94523	03 12 50.73	+09 04 10.3			054
1985 VO	*	1985 11 14.82093	00 08 16.74	+11 16 28.2		17.0	054
1985 VO		1985 11 15.80704	00 08 00.73	+11 15 45.0			054
1985 VP	*	1985 11 14.82093	00 13 02.09	+11 22 16.4		17.2	054
1985 VP		1985 11 15.80704	00 12 44.56	+11 21 12.2			054
1985 VQ	*	1985 11 15.94523	03 04 19.17	+11 33 38.7		16.0	054
1985 VR	*	1985 11 15.94523	03 09 24.49	+12 22 08.1		16.7	054
1985 WC	*	1985 11 17.97370	04 03 52.15	+24 29 53.0		16.5	054
1985 WD	*	1985 11 17.97370	04 06 28.40	+22 45 47.2		17.0	054
1985 WE	*	1985 11 17.97370	04 08 11.74	+23 10 30.4		17.3	054
1985 WF	*	1985 11 17.97370	04 10 26.22	+25 17 30.7		17.0	054

Note 1: correction to MPC 10090.

OBSERVATIONS MADE AT SKALNATE PLESO BY G. CERVAK.
Contact: J. Svoren, Astronomical Institute, Slovak Academy of Sciences, C-05960 Tatranska Lomnica, Czechoslovakia.

Object	Date	UT	R. A. (1950)	Decl.		Obs.
1225	1985 10	24.01319	05 17 09.64	+26 39 16.1		056
1225	1985 10	24.07187	05 17 09.58	+26 39 25.7		056
1225	1985 10	26.08612	05 17 08.76	+26 44 34.5		056
1225	1985 10	26.14029	05 17 08.42	+26 44 43.2		056

OBSERVATIONS MADE AT PIWNICE.
Plates taken with the 0.60-m f/3 Schmidt by M. Antal and S. Krawczyk, measured by Antal, reduced with the help of E. Pittich, using SAO and AGK3 reference stars. Contact: M. Antal, Rastislavova 2, C-92101 Piestany, Czechoslovakia.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
3259	1985 09	19.04028	06 12 39.01	+19 42 55.8		092
3259	1985 09	19.07222	06 12 40.55	+19 42 48.1	15.0	092
3259	1985 09	19.09306	06 12 41.44	+19 42 43.5		092

OBSERVATIONS MADE AT THE BURLINGTON REMOTE SITE BY T. HANDLEY.
Contact: T. Handley, 13 Linden Avenue, Burlington, NJ 08016, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.		Obs.
1979 SK11	1985 07	19.26354	19 00 23.40	-09 53 10.2		293
1979 SK11	1985 07	19.27882	19 00 22.52	-09 53 13.4		293

OBSERVATIONS MADE AT GEISEI BY T. SEKI.
Copied from Nihondaira Obs. Circ. Nos. 1524 and 1527. Measured by T. Urata. Contact: T. Seki, Kamimachi 2-9-35, Kochi, Japan.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
1985 SB	1985 09	25.77708	00 52 51.08	+09 24 08.1		372
1985 SB	1985 10	06.53438	00 42 12.53	+09 07 39.0	16	372
1985 SB	1985 10	06.54653	00 42 11.66	+09 07 39.2		372
1985 SB	1985 10	19.55194	00 30 01.37	+08 38 30.1	16.5	372
1985 SB	1985 10	19.56424	00 30 00.83	+08 38 30.2		372
1985 SB	1985 10	22.66250	00 27 33.34	+08 31 46.5	16.5	372
1985 SB	1985 10	22.67431	00 27 32.68	+08 31 46.6		372
1985 TC	1985 10	19.57500	01 28 17.13	+10 26 03.6	16	372
1985 TC	1985 10	19.58611	01 28 16.56	+10 25 59.2		372
1985 TC	1985 10	22.64479	01 25 47.67	+10 02 11.7	16	372
1985 TC	1985 10	22.65347	01 25 47.26	+10 02 09.9		372

1985 TC 1985 11 12.43854 01 13 30.99 +07 47 37.6 372
1985 TC 1985 11 12.45035 01 13 30.82 +07 47 36.0 372

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

Plates taken by J. Dawe, J. Barrow, M. Hartley, D. Morgan, K. Russell and A. Savage in the course of the U.K.-Caltech Asteroid Survey under the direction of E. Helin and E. Shoemaker. Scanned and measured by S. J. Bus (with assistance from R. S. Dunbar). Contact: S. J. Bus, Lowell Observatory, P.O. Box 1269, Flagstaff, AZ 86002, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
44	1981	05 02.43701	11 22 32.16	+09 05 59.2		413
48	1981	05 03.45194	11 04 57.88	+05 29 55.7		413
123	1981	05 01.49549	11 51 24.41	-08 14 20.9		413
140	1981	05 01.37533	11 54 42.10	+05 25 12.5		413
150	1981	05 01.43386	11 46 05.74	+00 33 48.9		413
225	1981	05 01.43386	11 35 33.43	-02 31 02.7		413
225	1981	05 03.51150	11 35 05.63	-02 17 10.6		413
272	1981	05 01.37533	11 54 32.82	+03 33 32.2		413
279	1981	05 01.37533	11 49 09.45	+04 03 05.4		413
331	1981	05 01.37533	11 50 38.50	+03 00 32.5		413
358	1981	05 02.43701	11 08 49.36	+06 19 22.5		413
358	1981	05 03.45194	11 08 49.37	+06 20 03.2		413
391	1981	04 30.47156	11 10 02.96	-09 56 59.7		413
391	1981	05 02.37780	11 09 44.67	-09 37 50.9		413
435	1981	04 26.48632	11 35 00.86	+03 27 52.5		413
435	1981	05 01.37533	11 33 19.34	+03 35 09.0		413
569	1981	04 26.48632	11 26 18.61	+01 49 03.8		413
569	1981	05 02.49622	11 25 25.05	+01 57 03.7		413
569	1981	05 03.51150	11 25 21.22	+01 57 52.5		413
658	1981	04 26.48632	11 24 10.80	+03 20 52.2		413
658	1981	05 02.49622	11 22 59.82	+03 26 45.0		413
699	1981	04 30.47156	11 03 08.24	-12 02 55.4		413
717	1981	05 03.45194	10 55 18.39	+06 30 25.9		413
797	1981	05 01.49549	11 55 08.45	-04 33 01.9		413
837	1981	05 01.43386	11 39 30.97	+00 48 47.7		413
837	1981	05 03.51150	11 39 14.56	+00 57 42.0		413
865	1981	05 02.43701	11 08 38.19	+09 31 49.7		413
865	1981	05 03.45194	11 09 05.24	+09 34 18.0		413
959	1981	04 26.48632	11 41 18.60	+07 07 57.3		413
959	1981	05 01.37533	11 39 41.46	+07 11 01.7		413
969	1981	04 30.53008	11 14 10.24	+01 40 55.0		413
969	1981	05 02.49622	11 13 50.48	+01 44 39.2		413
987	1981	04 29.43724	11 20 16.09	-03 38 26.1		413
987	1981	05 03.51150	11 19 11.30	-03 29 11.4		413
990	1981	05 01.43386	11 36 08.44	-00 26 15.5		413
990	1981	05 03.51150	11 35 24.97	-00 23 58.2		413
991	1981	04 26.48632	11 42 54.06	+04 24 57.5		413
991	1981	05 01.37533	11 41 13.45	+04 31 46.5		413
1018	1981	04 30.53008	11 13 34.10	+04 23 24.1		413
1018	1981	05 02.49622	11 13 03.08	+04 23 31.3		413
1086	1981	04 29.43724	11 15 43.56	-04 55 15.0		413
1124	1981	05 03.45194	11 03 46.29	+10 04 32.4		413
1242	1981	04 30.53008	11 20 24.04	+00 27 00.8		413
1242	1981	05 02.49622	11 19 55.73	+00 27 22.2		413
1242	1981	05 03.51150	11 19 43.03	+00 27 23.4		413
1258	1981	04 29.43724	11 01 43.24	-03 18 10.4		413
1280	1981	04 29.43724	11 04 43.25	-02 03 05.9		413
1374	1981	05 03.51150	11 22 33.45	-03 06 21.6		413
1394	1981	05 03.45194	10 58 53.05	+06 52 42.1		413

1399	1981	04	26.48632	11	30	52.55	+07 35 27.9	413
1399	1981	05	01.37533	11	29	43.72	+07 45 58.5	413
1399	1981	05	02.43701	11	29	33.47	+07 47 35.8	413
1508	1981	05	02.43701	11	11	58.73	+10 44 45.5	413
1508	1981	05	03.45194	11	11	53.79	+10 27 14.3	413
1561	1981	05	01.43386	11	45	04.13	-02 41 42.0	413
1561	1981	05	03.51150	11	44	35.72	-02 34 19.4	413
1640	1981	04	30.53008	11	07	21.90	+04 29 50.1	413
1640	1981	05	02.43701	11	06	50.98	+04 30 45.0	413
1640	1981	05	02.49622	11	06	49.93	+04 30 44.1	413
1640	1981	05	03.45194	11	06	36.43	+04 31 01.3	413
1685	1981	04	30.47156	11	12	52.49	-13 15 14.5	413
1685	1981	05	02.37780	11	12	38.58	-12 52 19.9	413
1695	1981	05	01.49549	11	51	05.65	-09 43 59.9	413
1695	1981	05	01.55678	11	51	04.26	-09 43 33.7	413
1718	1981	05	02.49622	11	27	37.82	+00 33 27.6	413
1718	1981	05	03.51150	11	27	22.68	+00 38 02.5	413
1742	1981	05	03.45194	11	02	13.12	+07 44 18.6	413
1767	1981	05	01.43386	11	40	59.38	+01 00 56.7	413
1767	1981	05	03.51150	11	40	32.58	+01 09 18.9	413
1769	1981	05	03.45194	10	58	55.56	+04 48 46.9	413
1802	1981	04	26.48632	11	21	10.65	+06 48 58.8	413
1802	1981	05	02.43701	11	20	24.30	+06 53 01.8	413
1802	1981	05	03.45194	11	20	21.12	+06 53 11.1	413
1824	1981	04	26.48632	11	20	43.19	+04 47 43.3	413
1824	1981	05	02.43701	11	19	46.12	+04 49 27.0	413
1824	1981	05	02.49622	11	19	45.82	+04 49 24.5	413
1885	1981	05	01.49549	11	43	07.22	-04 52 59.8	413
1885	1981	05	03.39307	11	42	17.24	-04 46 31.1	413
1940	1981	04	29.43724	11	08	01.29	-03 42 56.1	413
1944	1981	04	30.53008	11	09	43.78	+01 37 35.0	413
1944	1981	05	02.49622	11	09	25.65	+01 44 53.3	413
1953	1981	04	26.48632	11	21	51.74	+07 23 11.7	413
1953	1981	05	02.43701	11	20	35.79	+07 25 39.5	413
1953	1981	05	03.45194	11	20	26.66	+07 25 39.2	413
1982	1981	05	01.37533	11	44	34.59	+07 24 22.8	413
2021	1981	04	26.48632	11	33	05.86	+07 34 32.1	413
2021	1981	05	01.37533	11	31	29.16	+07 46 08.9	413
2031	1981	05	01.37533	11	53	14.08	+03 45 09.0	413
2092	1981	05	03.45194	11	02	41.54	+10 13 25.1	413
2128	1981	05	01.49549	11	52	10.83	-05 05 06.1	413
2181	1981	05	01.43386	11	54	07.32	+01 36 01.2	413
2264	1981	05	01.43386	11	43	36.35	+01 35 42.2	413
2264	1981	05	03.51150	11	42	59.96	+01 39 43.8	413
2296	1981	04	26.48632	11	33	26.94	+03 59 14.9	413
2296	1981	05	01.37533	11	32	44.10	+04 00 27.1	413
2354	1981	05	01.37533	11	48	42.24	+02 24 34.7	413
2384	1981	05	01.43386	11	52	57.41	-02 48 07.8	413
2432	1981	05	01.43386	11	43	05.44	+00 45 18.3	413
2432	1981	05	03.51150	11	42	34.77	+00 43 05.4	413
2452	1981	05	01.43386	11	50	19.31	-02 12 38.2	413
2461	1981	05	02.43701	11	18	42.92	+07 28 32.5	413
2461	1981	05	03.45194	11	18	32.78	+07 29 05.3	413
2518	1981	05	01.43386	11	44	12.43	+00 04 10.6	413
2518	1981	05	03.51150	11	44	09.77	+00 14 25.6	413
2547	1981	05	01.43386	11	37	12.56	-01 14 54.4	413
2547	1981	05	03.51150	11	36	33.49	-01 12 22.7	413
2626	1981	05	03.45194	10	55	52.21	+06 39 16.4	413
2662	1981	04	26.48632	11	21	09.91	+01 58 54.0	413

2662	1981	04	30.53008	11	20	34.03	+02	01	31.1	413
2662	1981	05	02.49622	11	20	26.64	+02	01	52.3	413
2662	1981	05	03.51150	11	20	25.11	+02	01	45.8	413
2723	1981	05	03.45194	11	01	17.88	+07	22	55.2	413
2763	1981	05	01.43386	11	45	11.60	-03	17	20.5	413
2771	1981	05	03.51150	11	25	49.98	-03	07	36.5	413
2780	1981	05	01.49549	11	43	37.98	-08	36	46.6	413
2780	1981	05	03.39307	11	43	30.40	-08	26	52.0	413
2789	1981	04	30.53008	11	08	47.00	+00	37	22.8	413
2789	1981	05	02.49622	11	08	39.64	+00	42	50.1	413
2798	1981	04	30.53008	11	11	26.54	+00	45	08.4	413
2798	1981	05	02.49622	11	11	26.56	+00	51	24.1	413
2799	1981	04	29.43724	11	14	22.25	-03	33	07.0	413
2808	1981	04	29.43724	11	10	13.69	-04	33	43.7	413
2823	1981	05	01.43386	11	40	12.05	-02	53	45.3	413
2823	1981	05	03.51150	11	39	42.82	-02	45	51.8	413
2884	1981	04	26.48632	11	28	15.03	+05	08	39.8	413
2884	1981	05	02.43701	11	26	51.46	+05	13	05.7	413
2885	1981	04	30.53008	11	08	33.72	+04	20	34.3	413
2885	1981	05	02.49622	11	08	23.35	+04	20	38.2	413
2886	1981	04	26.48632	11	26	03.73	+05	46	04.8	413
2886	1981	05	02.43701	11	25	25.20	+05	46	19.1	413
2919	1981	05	02.43701	11	14	42.45	+05	33	45.2	413
2919	1981	05	03.45194	11	14	36.80	+05	34	30.9	413
2921	1981	05	02.43701	11	13	33.16	+05	58	03.5	413
2921	1981	05	03.45194	11	13	24.13	+05	59	00.1	413
2923	1981	05	01.43386	11	30	15.95	+01	17	53.6	413
2923	1981	05	02.49622	11	30	17.12	+01	16	51.8	413
2923	1981	05	03.51150	11	30	20.24	+01	15	41.7	413
2928	1981	04	29.43724	11	09	53.08	-06	08	13.5	413
2940	1981	04	29.43724	11	13	54.67	-04	04	34.4	413
2944	1981	05	01.43386	11	48	59.94	+00	04	26.5	413
2948	1981	05	03.51150	11	25	36.33	-02	36	54.4	413
2952	1981	05	01.43386	11	30	33.03	-00	35	09.9	413
2952	1981	05	02.49622	11	30	18.73	-00	33	10.1	413
2952	1981	05	03.51150	11	30	07.01	-00	31	28.3	413
2964	1981	04	29.43724	11	15	05.95	-06	53	14.5	413
2968	1981	04	30.47156	11	06	10.44	-08	37	07.4	413
2968	1981	05	02.37780	11	05	45.86	-08	25	39.7	413
2969	1981	05	01.43386	11	52	27.64	+01	20	21.3	413
2980	1981	05	02.43701	11	09	15.47	+07	31	36.5	413
2980	1981	05	03.45194	11	09	19.84	+07	32	44.8	413
2981	1981	04	30.53008	11	18	11.44	+04	24	35.2	413
2981	1981	05	02.49622	11	17	54.19	+04	26	54.4	413
2990	1981	04	26.48632	11	44	54.92	+03	20	38.7	413
2990	1981	05	01.37533	11	44	11.06	+03	29	12.0	413
2993	1981	05	02.37780	11	29	05.07	-12	03	20.7	413
2993	1981	05	02.56063	11	29	01.40	-12	02	34.7	413
2998	1981	05	02.43701	11	17	45.48	+06	33	22.4	413
2998	1981	05	03.45194	11	17	36.84	+06	34	25.9	413
3000	1981	04	30.53008	11	09	25.12	+04	14	13.7	413
3000	1981	05	02.49622	11	09	13.69	+04	17	41.4	413
3027	1981	05	01.43386	11	51	09.90	+00	44	38.9	413
3029	1981	04	30.53008	11	06	51.71	+00	35	00.8	413
3029	1981	05	02.49622	11	07	11.41	+00	34	31.0	413
3030	1981	05	01.43386	11	39	32.53	-03	07	16.0	413
3030	1981	05	03.51150	11	38	56.65	-03	00	25.2	413
3039	1981	05	01.37533	11	47	14.83	+02	44	49.5	413
3042	1981	04	30.53008	11	14	28.58	-00	01	59.4	413

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3058		1981	05	01.43386	11	35	11.46	+01 04 16.3	413
3058		1981	05	03.51150	11	34	54.72	+01 10 04.6	413
3059		1981	05	02.43701	11	12	20.74	+05 29 10.7	413
3059		1981	05	03.45194	11	12	25.35	+05 29 31.8	413
3075		1981	05	01.49549	11	32	26.97	-07 07 09.6	413
3075		1981	05	03.39307	11	31	47.88	-07 02 44.9	413
3135		1981	04	29.43724	11	10	15.39	-02 55 18.9	413
3154		1981	05	02.43701	11	05	15.61	+09 04 33.4	413
3154		1981	05	03.45194	11	05	12.83	+09 04 05.5	413
3183		1981	05	03.45194	10	59	30.81	+08 35 06.9	413
3189		1981	04	26.48632	11	38	06.60	+03 39 56.6	413
3189		1981	05	01.37533	11	36	40.48	+03 55 01.5	413
3190		1981	05	01.43386	11	29	30.04	+01 31 37.6	413
3190		1981	05	02.49622	11	29	11.70	+01 31 40.8	413
3190		1981	05	03.51150	11	28	55.41	+01 31 38.4	413
3196		1981	05	03.45194	11	01	56.44	+09 07 33.0	413
3202		1981	05	01.43386	11	47	39.75	-03 03 08.9	413
3207		1981	04	26.48632	11	38	53.70	+03 21 32.3	413
3207		1981	05	01.37533	11	37	30.84	+03 32 01.6	413
3211		1981	05	03.39307	11	27	31.75	-04 29 32.2	413
3234		1981	04	26.48632	11	30	30.67	+04 29 08.5	413
3234		1981	05	02.49622	11	28	55.00	+04 37 17.6	413
3245		1981	05	02.43701	11	13	26.40	+04 54 09.6	413
3245		1981	05	02.49622	11	13	25.94	+04 54 12.1	413
3245		1981	05	03.45194	11	13	22.68	+04 54 30.9	413
3252		1981	04	30.47156	11	11	23.11	-08 38 29.3	413
3252		1981	05	02.37780	11	11	13.07	-08 36 02.2	413
3269		1981	05	01.43386	11	31	52.57	-03 34 22.0	413
3269		1981	05	03.51150	11	31	07.94	-03 34 20.2	413
3287		1981	05	01.43386	11	31	29.57	-04 06 32.8	413
3287		1981	05	01.49549	11	31	28.57	-04 06 08.9	413
3287		1981	05	03.39307	11	30	59.80	-03 50 38.8	413
3287		1981	05	03.51150	11	30	58.23	-03 49 38.7	413
3304		1981	04	26.48632	11	24	19.58	+01 54 11.6	413
3307		1981	05	01.49549	11	30	40.33	-06 40 45.8	413
3307		1981	05	03.39307	11	30	25.38	-06 31 07.6	413
3308		1981	05	02.43701	11	30	04.82	+10 29 21.4	413
3314		1981	05	01.43386	11	53	50.17	-03 11 01.9	413
3323		1981	05	03.45194	10	58	34.50	+06 54 51.9	413
A923	NB	1981	05	01.55678	11	47	40.50	-15 45 24.1	413
1971	OV	1981	05	01.43386	11	40	44.49	+01 37 45.2	413
1971	OV	1981	05	03.51150	11	39	57.00	+01 45 38.3	413
1978	PS4	1981	04	30.47156	11	18	51.69	-07 29 23.8	413
1978	PS4	1981	05	02.37780	11	18	17.14	-07 24 00.0	413
1981	DJ	1981	05	01.49549	11	32	45.52	-05 46 05.9	413
1981	DK	1981	05	02.37780	11	29	05.02	-09 58 25.4	413
1981	DK	1981	05	02.56063	11	29	02.45	-09 57 37.8	413
1981	DK	1981	05	03.39307	11	28	51.76	-09 54 05.4	413
1981	DL	1981	05	01.49549	11	34	21.04	-06 36 16.3	413
1981	DL	1981	05	03.39307	11	34	08.95	-06 26 21.5	413
1981	DM	1981	05	03.39307	11	26	31.63	-06 53 20.1	413
1981	DN	1981	05	01.49549	11	29	55.17	-09 25 36.2	413
1981	DN	1981	05	02.37780	11	30	02.88	-09 23 31.1	413
1981	DN	1981	05	03.39307	11	30	13.67	-09 21 15.8	413
1981	DO	1981	05	01.49549	11	31	15.32	-05 41 59.5	413
1981	DO	1981	05	03.39307	11	31	08.60	-05 26 11.7	413
1981	DP	1981	05	01.49549	11	32	04.32	-05 39 43.8	413
1981	DP	1981	05	03.39307	11	32	13.68	-05 26 58.3	413

1981	DQ	1981	05	01.49549	11 31 46.09	-07	25	55.5	413
1981	DQ	1981	05	03.39307	11 31 35.37	-07	11	19.9	413
1981	DR	1981	05	02.37780	11 28 02.92	-11	29	31.4	413
1981	DR	1981	05	02.56063	11 28 00.15	-11	28	48.5	413
1981	DS	1981	05	01.49549	11 37 59.51	-08	25	13.6	413
1981	DS	1981	05	03.39307	11 37 37.89	-08	16	06.4	413
1981	DT	1981	05	02.37780	11 26 16.56	-11	32	50.6	413
1981	DT	1981	05	02.56063	11 26 13.50	-11	32	28.9	413
1981	DU	1981	05	03.39307	11 24 40.11	-05	56	22.3	413
1981	DV	1981	05	01.49549	11 36 44.96	-04	10	11.5	413
1981	DV	1981	05	03.39307	11 36 39.20	-03	55	40.7	413
1981	DV	1981	05	03.51150	11 36 38.82	-03	54	48.5	413
1981	DW	1981	05	02.37780	11 28 54.98	-10	33	16.4	413
1981	DW	1981	05	02.56063	11 28 53.77	-10	32	36.9	413
1981	DX	1981	05	01.49549	11 36 13.16	-07	28	15.0	413
1981	DX	1981	05	03.39307	11 35 50.52	-07	20	25.9	413
1981	DY	1981	05	01.49549	11 31 32.98	-06	55	37.2	413
1981	DY	1981	05	03.39307	11 31 16.04	-06	48	28.1	413
1981	DZ	1981	05	01.49549	11 36 07.56	-08	15	46.8	413
1981	DZ	1981	05	03.39307	11 36 02.26	-08	03	29.9	413
1981	DA1	1981	05	01.49549	11 36 53.37	-09	36	58.4	413
1981	DA1	1981	05	03.39307	11 36 42.21	-09	22	17.0	413
1981	DB1	1981	05	01.49549	11 39 08.99	-05	21	10.3	413
1981	DB1	1981	05	03.39307	11 38 38.37	-05	10	34.3	413
1981	DC1	1981	05	01.43386	11 37 43.97	-03	22	01.6	413
1981	DC1	1981	05	03.51150	11 37 34.76	-03	06	00.3	413
1981	DD1	1981	05	02.37780	11 22 48.41	-11	30	40.3	413
1981	DD1	1981	05	02.56063	11 22 45.70	-11	30	21.4	413
1981	DF1	1981	05	01.55678	11 32 40.40	-11	05	03.1	413
1981	DF1	1981	05	02.56063	11 32 23.45	-11	01	45.4	413
1981	DH1	1981	05	01.49549	11 38 48.96	-07	49	11.5	413
1981	DH1	1981	05	03.39307	11 38 17.04	-07	41	39.3	413
1981	DJ1	1981	05	01.49549	11 34 36.11	-07	21	53.3	413
1981	DJ1	1981	05	03.39307	11 34 32.76	-07	13	20.6	413
1981	DL1	1981	05	01.55678	11 35 37.85	-12	02	41.6	413
1981	DL1	1981	05	02.56063	11 35 17.55	-11	59	20.3	413
1981	DM1	1981	05	01.43386	11 45 41.37	-03	22	03.7	413
1981	DN1	1981	05	01.49549	11 31 23.81	-10	06	13.4	413
1981	DN1	1981	05	01.55678	11 31 22.58	-10	05	58.8	413
1981	DN1	1981	05	02.56063	11 31 02.74	-10	01	39.2	413
1981	DN1	1981	05	03.39307	11 30 47.20	-09	58	06.3	413
1981	DO1	1981	05	01.55678	11 41 23.78	-10	07	48.0	413
1981	DO1	1981	05	02.56063	11 41 30.51	-10	03	03.1	413
1981	DO1	1981	05	03.39307	11 41 38.30	-09	59	13.5	413
1981	DP1	1981	05	01.49549	11 33 03.45	-06	11	11.2	413
1981	DP1	1981	05	03.39307	11 32 44.47	-05	59	57.1	413
1981	DQ1	1981	05	01.55678	11 36 46.37	-10	22	58.7	413
1981	DQ1	1981	05	02.56063	11 36 34.73	-10	18	29.9	413
1981	DR1	1981	05	01.49549	11 40 55.28	-07	23	44.0	413
1981	DR1	1981	05	03.39307	11 40 43.24	-07	06	42.3	413
1981	DS1	1981	05	01.49549	11 33 52.46	-10	04	06.8	413
1981	DS1	1981	05	02.56063	11 33 35.06	-09	59	10.9	413
1981	DS1	1981	05	03.39307	11 33 23.35	-09	55	23.6	413
1981	DT1	1981	05	01.49549	11 46 05.63	-08	36	54.3	413
1981	DU1	1981	05	01.49549	11 42 20.78	-09	57	24.9	413
1981	DU1	1981	05	01.55678	11 42 19.80	-09	57	03.4	413
1981	DW1	1981	05	01.49549	11 42 40.57	-08	21	59.0	413
1981	DW1	1981	05	03.39307	11 42 35.16	-08	12	33.2	413
1981	DX1	1981	05	01.55678	11 32 34.34	-12	20	12.1	413

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1981	DY1	1981	05	01.55678	11	36	18.62	-12 27 31.1	413
1981	DY1	1981	05	02.56063	11	35	59.57	-12 25 02.1	413
1981	DZ1	1981	05	01.49549	11	50	16.02	-06 42 54.2	413
1981	DA2	1981	05	01.49549	11	44	11.52	-07 33 54.7	413
1981	DA2	1981	05	03.39307	11	43	38.55	-07 27 14.8	413
1981	DB2	1981	05	01.49549	11	42	47.36	-08 52 24.7	413
1981	DB2	1981	05	03.39307	11	42	36.62	-08 44 47.7	413
1981	DC2	1981	05	01.49549	11	42	55.12	-07 52 11.3	413
1981	DC2	1981	05	03.39307	11	42	22.42	-07 38 43.1	413
1981	DD2	1981	05	01.49549	11	46	24.77	-10 02 12.8	413
1981	DD2	1981	05	01.55678	11	46	23.93	-10 01 54.5	413
1981	DE2	1981	05	01.49549	11	42	48.67	-08 53 17.7	413
1981	DE2	1981	05	03.39307	11	42	17.91	-08 47 53.2	413
1981	DF2	1981	05	01.49549	11	37	51.76	-07 43 11.4	413
1981	DF2	1981	05	03.39307	11	37	19.97	-07 32 21.5	413
1981	DG2	1981	05	01.49549	11	48	03.09	-06 02 04.6	413
1981	DH2	1981	05	01.49549	11	46	58.55	-08 56 58.6	413
1981	DJ2	1981	05	01.49549	11	47	16.22	-06 47 22.3	413
1981	DK2	1981	05	01.55678	11	48	49.64	-10 47 45.0	413
1981	DL2	1981	05	01.49549	11	34	20.83	-09 54 36.2	413
1981	DL2	1981	05	02.56063	11	34	05.99	-09 51 39.9	413
1981	DL2	1981	05	03.39307	11	33	56.86	-09 49 26.5	413
1981	DM2	1981	05	01.49549	11	43	44.86	-10 05 45.1	413
1981	DM2	1981	05	01.55678	11	43	43.37	-10 05 33.2	413
1981	DM2	1981	05	02.56063	11	43	22.88	-10 02 11.3	413
1981	DN2	1981	05	01.49549	11	49	40.94	-09 51 11.6	413
1981	DN2	1981	05	01.55678	11	49	39.54	-09 50 48.2	413
1981	DP2	1981	05	01.55678	11	46	58.15	-11 15 36.7	413
1981	DQ2	1981	05	01.49549	11	46	44.46	-05 36 32.5	413
1981	DR2	1981	05	02.37780	11	22	40.34	-10 07 27.7	413
1981	DR2	1981	05	02.56063	11	22	38.50	-10 06 54.0	413
1981	DR2	1981	05	03.39307	11	22	32.46	-10 04 18.7	413
1981	DS2	1981	05	02.37780	11	23	10.33	-11 53 13.8	413
1981	DS2	1981	05	02.56063	11	23	07.91	-11 52 19.0	413
1981	DT2	1981	04	30.47156	11	19	09.89	-10 57 15.7	413
1981	DT2	1981	05	02.37780	11	18	42.78	-10 52 44.3	413
1981	DU2	1981	04	30.47156	11	20	28.00	-12 09 24.7	413
1981	DU2	1981	05	02.37780	11	19	56.49	-12 01 50.5	413
1981	DU2	1981	05	02.56063	11	19	53.48	-12 01 08.2	413
1981	DV2	1981	05	01.43386	11	33	32.86	+01 49 56.7	413
1981	DV2	1981	05	03.51150	11	33	36.41	+02 07 57.8	413
1981	DW2	1981	05	03.39307	11	27	41.39	-05 12 11.4	413
1981	DX2	1981	05	01.49549	11	37	15.41	-09 19 56.3	413
1981	DX2	1981	05	03.39307	11	36	57.30	-09 10 39.4	413
1981	DZ2	1981	05	01.43386	11	54	29.39	-02 18 59.8	413
1981	DA3	1981	05	01.49549	11	44	15.44	-08 56 06.8	413
1981	DA3	1981	05	03.39307	11	43	52.91	-08 49 09.8	413
1981	DB3	1981	05	01.49549	11	36	03.81	-05 18 32.1	413
1981	DB3	1981	05	03.39307	11	35	33.49	-05 08 45.2	413
1981	DC3	1981	05	01.49549	11	35	34.92	-06 06 37.7	413
1981	DC3	1981	05	03.39307	11	35	22.58	-05 58 11.6	413
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1981	DF3	1981	05	01.55678	11	34	16.08	-13 39 31.5	413
1981	DF3	1981	05	02.56063	11	34	03.21	-13 35 39.3	413
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1981	DG3	1981	05	02.56063	11	35	21.33	-13 57 32.5	413

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1981	DJ3	1981	05	01.49549	11	41	54.38	-08 47 49.3	413
1981	DJ3	1981	05	03.39307	11	41	33.06	-08 39 48.0	413
1981	DK3	1981	05	01.55678	11	37	25.28	-12 37 59.8	413
1981	DK3	1981	05	02.56063	11	37	03.63	-12 33 32.3	413
1981	DL3	1981	05	01.49549	11	37	18.94	-06 45 30.9	413
1981	DL3	1981	05	03.39307	11	36	48.75	-06 36 52.5	413
1981	DN3	1981	05	01.49549	11	38	35.82	-05 04 56.7	413
1981	DN3	1981	05	03.39307	11	37	58.46	-04 54 57.0	413
1981	DO3	1981	05	01.49549	11	50	48.71	-07 57 33.7	413
1981	DP3	1981	05	01.49549	11	52	27.13	-06 33 43.3	413
1981	DQ3	1981	05	01.55678	11	42	46.16	-13 28 49.1	413
1981	DQ3	1981	05	02.56063	11	42	30.58	-13 25 45.0	413
1981	DR3	1981	05	02.37780	11	22	45.77	-07 48 11.6	413
1981	DR3	1981	05	03.39307	11	22	34.01	-07 43 51.6	413
1981	DS3	1981	05	01.55678	11	30	43.75	-10 51 42.6	413
1981	DS3	1981	05	02.37780	11	30	33.37	-10 48 18.7	413
1981	DS3	1981	05	02.56063	11	30	31.21	-10 47 36.1	413
1981	DT3	1981	05	01.55678	11	45	25.78	-11 57 06.5	413
1981	DT3	1981	05	02.56063	11	45	05.66	-11 52 23.6	413
1981	EO	1981	04	30.53008	11	02	14.76	-01 00 09.7	413
1981	ET	1981	04	30.53008	11	09	05.07	+04 50 23.4	413
1981	ET	1981	05	02.43701	11	08	36.63	+04 49 26.3	413
1981	ET	1981	05	03.45194	11	08	23.47	+04 48 45.3	413
1981	EU	1981	05	02.43701	11	19	57.48	+05 17 25.0	413
1981	EZ	1981	04	30.53008	11	20	25.00	+04 38 57.8	413
1981	EZ	1981	05	02.43701	11	20	36.61	+04 36 18.5	413
1981	EZ	1981	05	02.49622	11	20	37.07	+04 36 10.3	413
1981	EB1	1981	05	02.43701	11	15	50.88	+07 30 47.3	413
1981	EB1	1981	05	03.45194	11	15	49.29	+07 30 40.7	413
1981	ED1	1981	04	30.53008	11	09	52.31	+04 01 13.1	413
1981	ED1	1981	05	02.49622	11	09	34.96	+03 56 22.4	413
1981	EE1	1981	04	26.48632	11	21	20.79	+07 40 48.1	413
1981	EE1	1981	05	02.43701	11	21	58.70	+07 36 07.2	413
1981	EJ2	1981	04	29.43724	11	06	05.80	-06 42 56.8	413
1981	EK2	1981	04	29.43724	11	05	40.47	-05 33 36.4	413
1981	EM2	1981	04	29.43724	11	13	47.31	-04 11 48.7	413
1981	EN2	1981	04	30.47156	11	11	26.93	-07 15 51.5	413
1981	EN2	1981	05	02.37780	11	11	24.83	-07 07 18.9	413
1981	EO2	1981	04	29.43724	11	11	39.97	-04 31 07.7	413
1981	EP2	1981	04	29.43724	11	12	32.67	-05 57 30.4	413
1981	EQ2	1981	04	29.43724	11	06	59.58	-04 19 19.3	413
1981	ER2	1981	04	26.48632	11	23	28.49	+02 07 29.1	413
1981	ER2	1981	05	02.49622	11	24	36.00	+03 04 30.4	413
1981	ES2	1981	04	29.43724	11	06	20.02	-06 32 26.9	413
1981	EU2	1981	04	29.43724	11	07	22.26	-06 10 18.2	413
1981	EV2	1981	04	29.43724	11	11	53.61	-07 00 42.2	413
1981	EW2	1981	04	30.47156	11	01	26.09	-09 15 58.6	413
1981	EY2	1981	04	29.43724	11	14	48.57	-03 23 34.0	413
1981	EZ2	1981	04	29.43724	11	15	59.96	-02 16 45.2	413
1981	EA3	1981	04	29.43724	11	06	04.74	-04 02 50.1	413
1981	EC3	1981	04	29.43724	11	07	15.96	-03 27 34.0	413
1981	EF3	1981	04	29.43724	11	11	52.27	-03 47 13.1	413
1981	EG3	1981	04	30.47156	11	13	39.14	-07 41 50.6	413
1981	EG3	1981	05	02.37780	11	13	25.40	-07 33 44.8	413
1981	EH3	1981	04	29.43724	11	08	59.92	-04 53 57.6	413
1981	EJ3	1981	04	30.47156	11	08	11.58	-08 27 09.4	413
1981	EJ3	1981	05	02.37780	11	08	02.35	-08 21 27.5	413

1981	EK3	1981	04	29.43724	11	15	15.42	-02 44 40.3	413
1981	EL3	1981	04	30.47156	11	12	33.10	-07 31 29.0	413
1981	EL3	1981	05	02.37780	11	12	30.07	-07 24 19.1	413
1981	EM3	1981	04	29.43724	11	11	09.44	-03 14 52.9	413
1981	EN3	1981	05	03.51150	11	29	22.77	-01 32 23.3	413
1981	EO3	1981	04	30.47156	11	02	46.36	-09 26 17.9	413
1981	EP3	1981	05	03.39307	11	22	26.07	-04 39 12.2	413
1981	EQ3	1981	04	30.47156	11	12	36.44	-09 23 03.2	413
1981	EQ3	1981	05	02.37780	11	12	08.13	-09 16 47.2	413
1981	ES3	1981	04	30.47156	11	09	19.30	-08 53 36.7	413
1981	ES3	1981	05	02.37780	11	08	58.38	-08 46 51.8	413
1981	EU3	1981	04	29.43724	11	20	51.06	-05 19 05.1	413
1981	EU3	1981	05	03.39307	11	21	28.17	-04 53 06.5	413
1981	EV3	1981	04	29.43724	11	12	35.48	-02 53 52.3	413
1981	EW3	1981	04	29.43724	11	11	41.41	-06 13 13.8	413
1981	EX3	1981	04	29.43724	11	19	29.69	-04 22 59.0	413
1981	EX3	1981	05	03.39307	11	19	27.30	-04 04 05.7	413
1981	EY3	1981	05	03.39307	11	21	47.03	-04 37 04.1	413
1981	EA4	1981	04	29.43724	11	17	20.13	-01 48 32.0	413
1981	EC4	1981	04	29.43724	11	18	42.37	-06 09 35.0	413
1981	ED4	1981	05	02.37780	11	27	27.99	-07 57 15.1	413
1981	ED4	1981	05	03.39307	11	27	50.49	-07 54 44.7	413
1981	EE4	1981	05	03.39307	11	20	37.98	-06 58 15.1	413
1981	EF4	1981	04	29.43724	11	18	19.45	-05 21 41.2	413
1981	EG4	1981	04	29.43724	11	11	33.96	-04 02 57.9	413
1981	EH4	1981	04	29.43724	11	17	16.95	-03 34 54.5	413
1981	EJ4	1981	05	03.51150	11	22	38.79	-02 50 05.0	413
1981	EK4	1981	04	29.43724	11	12	12.42	-07 07 51.5	413
1981	EL4	1981	04	29.43724	11	17	39.79	-06 24 24.5	413
1981	EN4	1981	05	02.37780	11	21	52.69	-08 47 29.2	413
1981	EN4	1981	05	03.39307	11	21	47.80	-08 42 14.0	413
1981	EO4	1981	04	30.47156	11	18	36.01	-08 30 05.0	413
1981	EO4	1981	05	02.37780	11	18	11.68	-08 22 46.5	413
1981	EP4	1981	05	03.51150	11	24	18.65	-02 19 27.2	413
1981	EQ4	1981	05	03.39307	11	25	48.75	-04 18 02.0	413
1981	ER4	1981	05	03.51150	11	24	13.96	-02 04 00.0	413
1981	ES4	1981	04	30.47156	11	10	42.83	-09 40 57.8	413
1981	ES4	1981	05	02.37780	11	10	10.99	-09 35 39.9	413
1981	EU4	1981	05	02.37780	11	21	16.21	-08 26 20.3	413
1981	EU4	1981	05	03.39307	11	21	08.99	-08 21 25.6	413
1981	EV4	1981	04	29.43724	11	17	56.02	-04 58 41.6	413
1981	EX4	1981	05	03.39307	11	25	45.72	-06 21 59.0	413
1981	EY4	1981	04	29.43724	11	16	13.92	-06 42 14.7	413
1981	EZ4	1981	04	30.47156	11	15	14.72	-07 55 10.5	413
1981	EZ4	1981	05	02.37780	11	15	01.13	-07 50 09.2	413
1981	EA5	1981	05	02.37780	11	21	28.23	-07 43 04.0	413
1981	EA5	1981	05	03.39307	11	21	22.41	-07 38 03.7	413
1981	EB5	1981	05	03.39307	11	20	19.20	-06 28 19.0	413
1981	EC5	1981	04	29.43724	11	15	56.33	-05 27 44.5	413
1981	ED5	1981	04	30.47156	11	19	54.85	-07 50 25.5	413
1981	ED5	1981	05	02.37780	11	19	54.04	-07 39 37.1	413
1981	ED5	1981	05	03.39307	11	19	56.38	-07 34 07.8	413
1981	EF5	1981	05	03.39307	11	26	06.99	-05 16 58.9	413
1981	EG5	1981	04	29.43724	11	15	42.49	-05 12 52.5	413
1981	EH5	1981	05	03.39307	11	27	42.06	-06 24 42.9	413
1981	EJ5	1981	04	29.43724	11	13	46.70	-03 24 00.8	413
1981	EK5	1981	05	03.39307	11	25	12.88	-05 50 35.0	413
1981	EL5	1981	05	02.37780	11	28	15.65	-08 27 52.7	413
1981	EL5	1981	05	03.39307	11	28	08.72	-08 22 32.2	413

1981	EM5	1981	05	02.37780	11	27	51.19	-08 23 47.8	413
1981	EM5	1981	05	03.39307	11	27	43.04	-08 19 30.1	413
1981	EN5	1981	05	03.51150	11	26	31.01	-03 00 17.9	413
1981	EO5	1981	05	03.51150	11	23	43.28	-02 59 39.7	413
1981	EQ5	1981	05	03.51150	11	27	29.59	-03 30 37.3	413
1981	ES5	1981	04	29.43724	11	02	31.93	-06 47 44.9	413
1981	ET5	1981	04	29.43724	11	08	52.15	-02 01 10.6	413
1981	EV5	1981	04	29.43724	11	15	16.36	-04 57 16.2	413
1981	EW5	1981	04	29.43724	11	13	06.93	-06 18 21.6	413
1981	EZ5	1981	04	29.43724	11	21	24.32	-05 54 05.4	413
1981	EZ5	1981	05	03.39307	11	21	06.23	-05 39 12.2	413
1981	EA6	1981	04	29.43724	11	17	23.53	-03 56 17.0	413
1981	EC6	1981	04	29.43724	11	08	26.34	-06 36 24.6	413
1981	EE6	1981	04	29.43724	11	20	05.20	-06 18 41.0	413
1981	EE6	1981	05	03.39307	11	20	07.39	-06 01 03.4	413
1981	EF6	1981	04	30.47156	11	19	33.15	-08 24 05.4	413
1981	EF6	1981	05	02.37780	11	19	17.94	-08 17 47.2	413
1981	EF6	1981	05	03.39307	11	19	11.87	-08 14 32.5	413
1981	EH6	1981	05	01.49549	11	35	58.95	-04 31 38.1	413
1981	EH6	1981	05	03.39307	11	36	31.27	-04 27 40.1	413
1981	EJ6	1981	05	01.49549	11	31	37.58	-04 33 55.7	413
1981	EJ6	1981	05	03.39307	11	31	26.40	-04 21 42.3	413
1981	EL6	1981	05	01.49549	11	30	56.93	-07 53 15.8	413
1981	EL6	1981	05	03.39307	11	30	44.08	-07 42 17.5	413
1981	EM6	1981	05	01.49549	11	30	44.40	-05 05 15.4	413
1981	EM6	1981	05	03.39307	11	30	25.33	-04 52 16.6	413
1981	EN6	1981	05	03.39307	11	22	13.51	-06 22 30.7	413
1981	EO6	1981	05	01.49549	11	32	43.15	-07 09 02.5	413
1981	EO6	1981	05	03.39307	11	32	26.29	-06 59 15.1	413
1981	EP6	1981	05	02.37780	11	26	16.46	-12 58 16.9	413
1981	EP6	1981	05	02.56063	11	26	13.29	-12 58 01.4	413
1981	EQ6	1981	05	02.37780	11	24	05.88	-10 51 57.3	413
1981	EQ6	1981	05	02.56063	11	24	03.31	-10 51 44.9	413
1981	ER6	1981	05	01.49549	11	36	37.53	-06 06 12.5	413
1981	ER6	1981	05	03.39307	11	36	41.77	-05 59 37.5	413
1981	ES6	1981	05	01.49549	11	37	42.71	-08 41 32.7	413
1981	ES6	1981	05	03.39307	11	37	25.54	-08 30 15.4	413
1981	ET6	1981	05	01.49549	11	40	28.24	-08 30 28.7	413
1981	ET6	1981	05	03.39307	11	40	02.15	-08 26 10.9	413
1981	EU6	1981	05	01.49549	11	30	01.81	-07 04 27.8	413
1981	EU6	1981	05	03.39307	11	29	27.13	-06 51 44.3	413
1981	EV6	1981	05	01.49549	11	41	06.07	-08 52 51.8	413
1981	EV6	1981	05	03.39307	11	40	34.54	-08 44 54.8	413
1981	EW6	1981	05	01.49549	11	37	36.25	-08 11 24.6	413
1981	EW6	1981	05	03.39307	11	37	35.01	-08 02 53.7	413
1981	EX6	1981	05	01.49549	11	39	12.97	-08 53 21.2	413
1981	EX6	1981	05	03.39307	11	38	29.87	-08 49 36.7	413
1981	EY6	1981	05	01.55678	11	40	42.06	-11 27 53.8	413
1981	EY6	1981	05	02.56063	11	40	22.45	-11 23 49.5	413
1981	EZ6	1981	05	01.49549	11	37	56.14	-06 23 30.8	413
1981	EZ6	1981	05	03.39307	11	37	38.33	-06 14 12.7	413
1981	EA7	1981	05	01.49549	11	34	36.15	-05 56 14.9	413
1981	EA7	1981	05	03.39307	11	34	01.19	-05 47 07.4	413
1981	EB7	1981	05	01.49549	11	42	24.07	-08 31 01.5	413
1981	EB7	1981	05	03.39307	11	41	51.55	-08 25 19.4	413
1981	EC7	1981	05	01.49549	11	48	50.69	-08 50 28.7	413
1981	ED7	1981	05	01.49549	11	49	10.97	-07 38 19.3	413
1981	EE7	1981	05	01.49549	11	36	47.09	-08 43 44.1	413
1981	EE7	1981	05	03.39307	11	36	28.90	-08 37 48.6	413

1981	EF7	1981	05	01.49549	11	47	53.79	-05 56 26.8	413
1981	EG7	1981	05	01.49549	11	44	42.35	-09 00 31.6	413
1981	EG7	1981	05	03.39307	11	44	20.34	-08 52 51.7	413
1981	EH7	1981	05	03.51150	11	29	04.75	-01 34 15.3	413
1981	EJ7	1981	04	29.43724	11	06	22.28	-03 23 40.2	413
1981	EK7	1981	04	30.53008	11	08	39.14	+01 36 23.4	413
1981	EK7	1981	05	02.49622	11	08	25.92	+01 41 17.1	413
1981	EL7	1981	04	30.53008	11	09	11.04	+00 55 56.4	413
1981	EL7	1981	05	02.49622	11	09	22.89	+01 06 15.3	413
1981	EM7	1981	04	30.53008	11	04	01.45	+00 45 11.9	413
1981	EN7	1981	04	29.43724	11	04	53.54	-01 12 13.0	413
1981	EN7	1981	04	30.53008	11	04	41.41	-01 10 54.8	413
1981	EO7	1981	04	30.53008	11	10	25.58	+00 17 17.2	413
1981	EO7	1981	05	02.49622	11	10	27.52	+00 28 05.7	413
1981	EP7	1981	04	29.43724	11	03	17.37	-02 41 56.3	413
1981	EQ7	1981	04	29.43724	11	07	02.61	-04 16 31.8	413
1981	ER7	1981	04	30.53008	11	05	02.92	+00 59 43.7	413
1981	ES7	1981	04	30.53008	11	09	11.61	+01 06 47.2	413
1981	ES7	1981	05	02.49622	11	09	35.60	+01 12 32.1	413
1981	ET7	1981	04	30.53008	11	05	24.58	-00 33 30.5	413
1981	ET7	1981	05	02.49622	11	05	33.60	-00 30 50.9	413
1981	EV7	1981	04	30.53008	11	08	53.83	-00 24 31.6	413
1981	EV7	1981	05	02.49622	11	08	46.53	-00 19 28.1	413
1981	EW7	1981	04	30.53008	11	14	59.99	+03 07 35.8	413
1981	EW7	1981	05	02.49622	11	15	15.32	+03 18 00.8	413
1981	EX7	1981	04	30.53008	11	11	43.45	+02 00 38.0	413
1981	EX7	1981	05	02.49622	11	11	36.27	+02 10 24.0	413
1981	EY7	1981	04	30.53008	11	17	49.73	-00 43 22.6	413
1981	EY7	1981	05	02.49622	11	18	26.95	-00 36 20.2	413
1981	EZ7	1981	04	30.53008	11	09	47.73	+00 32 36.5	413
1981	EZ7	1981	05	02.49622	11	09	33.67	+00 39 04.6	413
1981	EB8	1981	04	29.43724	11	05	15.89	-02 48 15.6	413
1981	EC8	1981	04	30.53008	11	03	14.92	+01 06 08.2	413
1981	ED8	1981	04	30.53008	11	07	53.08	-00 38 29.7	413
1981	ED8	1981	05	02.49622	11	08	04.79	-00 37 04.2	413
1981	EF8	1981	04	30.53008	11	15	55.28	-00 32 44.2	413
1981	EF8	1981	05	02.49622	11	15	44.38	-00 26 07.8	413
1981	EG8	1981	04	30.53008	11	12	14.96	-00 44 45.0	413
1981	EG8	1981	05	02.49622	11	12	34.75	-00 43 23.5	413
1981	EH8	1981	04	29.43724	11	07	36.10	-04 39 03.8	413
1981	EJ8	1981	04	30.53008	11	16	01.34	+00 51 25.0	413
1981	EJ8	1981	05	02.49622	11	16	04.10	+00 54 25.3	413
1981	EK8	1981	04	29.43724	11	06	02.94	-03 02 09.5	413
1981	EL8	1981	04	29.43724	11	06	56.49	-03 46 01.3	413
1981	EM8	1981	04	30.53008	11	14	26.81	-00 08 49.1	413
1981	EM8	1981	05	02.49622	11	14	05.87	-00 03 49.7	413
1981	EO8	1981	04	30.53008	11	11	29.02	-00 33 00.4	413
1981	EO8	1981	05	02.49622	11	11	27.76	-00 29 32.8	413
1981	EP8	1981	04	29.43724	11	05	07.69	-05 35 15.5	413
1981	EQ8	1981	04	30.53008	11	12	47.93	+01 02 13.6	413
1981	EQ8	1981	05	02.49622	11	12	42.14	+01 06 37.4	413
1981	ER8	1981	04	30.53008	11	11	50.01	-00 06 07.4	413
1981	ER8	1981	05	02.49622	11	11	52.81	-00 05 18.0	413
1981	ES8	1981	04	30.53008	11	17	06.65	-00 46 18.6	413
1981	ES8	1981	05	02.49622	11	16	52.11	-00 38 12.2	413
1981	ET8	1981	04	30.53008	11	14	39.76	+02 15 33.6	413
1981	ET8	1981	05	02.49622	11	14	51.26	+02 19 46.7	413
1981	EU8	1981	04	29.43724	11	09	34.33	-03 34 34.5	413
1981	EV8	1981	04	30.53008	11	08	58.22	+01 41 40.8	413

1981 EV8	1981 05 02.49622	11 08 44.56	+01 48 25.5	413
1981 EW8	1981 04 30.53008	11 15 43.26	+02 05 21.4	413
1981 EW8	1981 05 02.49622	11 15 49.98	+02 08 57.7	413
1981 EX8	1981 04 30.53008	11 09 30.70	+00 17 01.1	413
1981 EX8	1981 05 02.49622	11 09 17.66	+00 20 46.5	413
1981 EY8	1981 04 29.43724	11 12 29.48	-02 34 42.8	413
1981 EA9	1981 04 30.53008	11 06 17.57	+00 37 51.1	413
1981 EA9	1981 05 02.49622	11 05 53.08	+00 40 25.9	413
1981 EB9	1981 04 29.43724	11 04 49.67	-01 42 05.3	413
1981 ED9	1981 04 29.43724	11 12 30.58	-01 36 34.0	413
1981 ED9	1981 04 30.53008	11 12 32.68	-01 33 03.4	413
1981 ED9	1981 05 02.49622	11 12 41.98	-01 27 20.9	413
1981 EE9	1981 04 29.43724	11 17 15.81	-03 24 33.2	413
1981 EF9	1981 04 29.43724	11 15 19.26	-02 20 07.3	413
1981 EG9	1981 05 02.49622	11 21 37.05	-01 17 12.0	413
1981 EG9	1981 05 03.51150	11 21 41.85	-01 15 16.6	413
1981 EH9	1981 05 03.51150	11 22 45.50	-01 51 24.6	413
1981 EJ9	1981 04 30.53008	11 15 58.92	-00 47 11.0	413
1981 EJ9	1981 05 02.49622	11 16 06.10	-00 46 10.4	413
1981 EK9	1981 04 30.53008	11 18 29.16	+00 30 25.4	413
1981 EK9	1981 05 02.49622	11 18 10.30	+00 34 05.6	413
1981 EL9	1981 04 29.43724	11 16 28.48	-04 18 47.7	413
1981 EM9	1981 04 29.43724	11 10 14.97	-02 34 03.7	413
1981 EN9	1981 04 29.43724	11 11 32.39	-02 12 58.1	413
1981 EO9	1981 04 29.43724	11 18 01.51	-04 57 47.2	413
1981 EP9	1981 04 30.53008	11 15 25.22	-01 03 11.9	413
1981 EP9	1981 05 02.49622	11 15 14.78	-00 56 15.7	413
1981 EQ9	1981 05 02.49622	11 24 01.41	+01 15 39.3	413
1981 EQ9	1981 05 03.51150	11 24 01.48	+01 18 01.2	413
1981 ER9	1981 04 29.43724	11 20 54.06	-02 33 51.8	413
1981 ER9	1981 05 03.51150	11 20 28.29	-02 26 01.9	413
1981 ES9	1981 05 02.49622	11 24 00.50	+00 39 17.6	413
1981 ES9	1981 05 03.51150	11 23 56.72	+00 43 03.3	413
1981 ET9	1981 04 29.43724	11 16 29.72	-02 07 22.6	413
1981 EU9	1981 04 30.53008	11 13 15.85	+01 52 43.0	413
1981 EU9	1981 05 02.49622	11 13 05.49	+01 59 28.7	413
1981 EV9	1981 04 29.43724	11 16 01.59	-02 52 53.6	413
1981 EW9	1981 04 30.53008	11 09 07.25	-00 16 10.1	413
1981 EW9	1981 05 02.49622	11 08 53.20	-00 13 36.0	413
1981 EY9	1981 04 29.43724	11 17 56.16	-01 38 46.2	413
1981 EZ9	1981 05 02.49622	11 23 30.39	+01 16 28.0	413
1981 EZ9	1981 05 03.51150	11 23 24.36	+01 21 53.9	413
1981 EA10	1981 04 29.43724	11 14 53.34	-03 06 07.5	413
1981 EB10	1981 04 26.48632	11 23 42.22	+02 03 34.3	413
1981 EB10	1981 05 02.49622	11 24 09.60	+02 20 53.8	413
1981 EC10	1981 05 02.49622	11 24 56.07	-00 15 30.2	413
1981 EC10	1981 05 03.51150	11 24 53.17	-00 11 49.5	413
1981 ED10	1981 05 02.49622	11 23 13.30	+00 14 33.2	413
1981 ED10	1981 05 03.51150	11 23 30.47	+00 13 14.5	413
1981 EE10	1981 04 30.53008	11 12 55.66	+00 25 40.6	413
1981 EE10	1981 05 02.49622	11 12 45.83	+00 29 06.2	413
1981 EG10	1981 04 29.43724	11 20 31.10	-01 40 20.7	413
1981 EG10	1981 05 03.51150	11 19 57.22	-01 30 11.2	413
1981 EH10	1981 04 29.43724	11 13 36.55	-01 47 29.3	413
1981 EJ10	1981 05 02.49622	11 20 57.76	-01 08 33.8	413
1981 EJ10	1981 05 03.51150	11 20 48.46	-01 05 32.1	413
1981 EK10	1981 04 30.53008	11 19 16.14	-00 06 01.8	413
1981 EK10	1981 05 02.49622	11 19 22.89	-00 04 50.8	413
1981 EK10	1981 05 03.51150	11 19 28.96	-00 04 27.9	413

1981	EL10	1981	04	29.43724	11	19	42.38	-02 13 32.6	413
1981	EM10	1981	05	03.51150	11	21	22.52	-01 58 51.0	413
1981	EO10	1981	05	02.49622	11	25	14.69	+00 38 49.1	413
1981	EO10	1981	05	03.51150	11	25	11.24	+00 44 33.4	413
1981	EP10	1981	04	29.43724	11	17	02.29	-04 02 32.7	413
1981	EQ10	1981	04	30.53008	11	19	29.41	-00 04 56.2	413
1981	EQ10	1981	05	02.49622	11	19	28.52	-00 02 49.4	413
1981	EQ10	1981	05	03.51150	11	19	30.46	-00 01 57.8	413
1981	ER10	1981	04	30.53008	11	17	05.79	+01 25 22.0	413
1981	ER10	1981	05	02.49622	11	16	47.00	+01 29 55.5	413
1981	ES10	1981	04	29.43724	11	20	31.66	-01 35 54.0	413
1981	ES10	1981	05	02.49622	11	20	23.31	-01 28 15.6	413
1981	ES10	1981	05	03.51150	11	20	23.88	-01 26 07.6	413
1981	ET10	1981	04	29.43724	11	14	05.58	-05 25 41.8	413
1981	EU10	1981	04	29.43724	11	16	50.52	-02 51 00.0	413
1981	EV10	1981	05	03.51150	11	22	11.88	-01 25 05.9	413
1981	EW10	1981	04	29.43724	11	17	49.81	-05 28 30.8	413
1981	EX10	1981	05	02.49622	11	28	56.57	+00 47 11.1	413
1981	EX10	1981	05	03.51150	11	28	59.62	+00 51 25.0	413
1981	EY10	1981	04	26.48632	11	22	41.77	+02 06 06.8	413
1981	EY10	1981	05	02.49622	11	21	36.94	+02 22 18.9	413
1981	EZ10	1981	05	02.49622	11	25	01.93	-00 56 33.1	413
1981	EZ10	1981	05	03.51150	11	24	55.12	-00 54 09.1	413
1981	EA11	1981	05	02.49622	11	19	05.56	-01 01 15.9	413
1981	EB11	1981	04	30.53008	11	20	26.96	+00 10 13.9	413
1981	EB11	1981	05	02.49622	11	20	01.39	+00 15 27.1	413
1981	EB11	1981	05	03.51150	11	19	50.58	+00 17 53.6	413
1981	EC11	1981	05	03.51150	11	23	43.27	-02 44 24.8	413
1981	ED11	1981	04	29.43724	11	16	56.58	-05 04 04.5	413
1981	EE11	1981	04	30.53008	11	18	25.41	+00 32 15.9	413
1981	EE11	1981	05	02.49622	11	18	13.65	+00 34 17.4	413
1981	EF11	1981	04	29.43724	11	20	22.43	-02 59 07.7	413
1981	EG11	1981	05	01.43386	11	33	55.29	-00 15 31.0	413
1981	EG11	1981	05	03.51150	11	34	13.06	-00 08 47.9	413
1981	EH11	1981	04	29.43724	11	19	25.89	-03 12 07.7	413
1981	EJ11	1981	05	02.49622	11	21	24.64	-01 28 08.8	413
1981	EJ11	1981	05	03.51150	11	21	14.44	-01 25 40.8	413
1981	EK11	1981	04	30.53008	11	06	27.26	-01 06 07.9	413
1981	EK11	1981	05	02.49622	11	06	25.73	-00 56 38.5	413
1981	EL11	1981	04	29.43724	11	10	06.97	-01 54 34.7	413
1981	EM11	1981	04	29.43724	11	06	58.68	-03 27 59.7	413
1981	EN11	1981	04	29.43724	11	16	40.24	-02 33 45.6	413
1981	EO11	1981	04	30.53008	11	17	46.56	+01 16 54.0	413
1981	EO11	1981	05	02.49622	11	18	18.29	+01 16 09.7	413
1981	EP11	1981	04	30.53008	11	06	03.53	+00 36 09.6	413
1981	EQ11	1981	04	29.43724	11	12	46.62	-01 37 28.8	413
1981	EQ11	1981	05	02.49622	11	12	25.19	-01 27 08.8	413
1981	ER11	1981	04	30.53008	11	18	04.54	+00 48 11.6	413
1981	ER11	1981	05	02.49622	11	18	03.70	+00 50 20.9	413
1981	ES11	1981	04	29.43724	11	16	32.91	-02 21 07.6	413
1981	ET11	1981	04	29.43724	11	13	21.98	-05 25 03.1	413
1981	EU11	1981	04	30.53008	11	12	35.71	-01 05 17.2	413
1981	EU11	1981	05	02.49622	11	12	06.77	-01 05 27.9	413
1981	EV11	1981	05	02.49622	11	20	32.23	-00 20 24.8	413
1981	EW11	1981	05	02.49622	11	25	18.57	+01 30 07.9	413
1981	EW11	1981	05	03.51150	11	25	27.95	+01 30 28.5	413
1981	EX11	1981	04	29.43724	11	13	28.27	-07 22 27.5	413
1981	EX11	1981	04	30.47156	11	13	15.31	-07 27 18.8	413
1981	EX11	1981	05	02.37780	11	12	57.29	-07 36 20.1	413

1981	EY11	1981	04	29.43724	11	20	57.28	-02 57 49.8	413
1981	EY11	1981	05	03.51150	11	20	40.99	-02 54 12.4	413
1981	EZ11	1981	05	02.49622	11	23	18.96	-00 31 40.9	413
1981	EZ11	1981	05	03.51150	11	23	19.42	-00 31 32.8	413
1981	EA12	1981	05	02.49622	11	26	41.06	+01 46 45.8	413
1981	EA12	1981	05	03.51150	11	26	44.61	+01 48 08.6	413
1981	EB12	1981	05	01.49549	11	30	52.47	-04 55 01.8	413
1981	EB12	1981	05	03.39307	11	30	38.23	-04 48 17.6	413
1981	EC12	1981	05	03.39307	11	27	42.13	-04 49 25.9	413
1981	ED12	1981	05	01.43386	11	34	34.50	+00 00 06.0	413
1981	ED12	1981	05	03.51150	11	34	41.63	+00 13 05.8	413
1981	EE12	1981	05	03.39307	11	23	16.07	-04 34 30.2	413
1981	EF12	1981	05	03.39307	11	27	12.45	-05 11 16.4	413
1981	EG12	1981	05	01.43386	11	34	14.72	-02 45 57.8	413
1981	EG12	1981	05	03.51150	11	34	16.45	-02 34 55.0	413
1981	EH12	1981	05	03.51150	11	27	51.71	-03 23 59.3	413
1981	EJ12	1981	05	01.43386	11	33	40.68	-03 18 49.6	413
1981	EJ12	1981	05	03.51150	11	33	27.63	-03 13 18.3	413
1981	EK12	1981	05	01.43386	11	31	06.24	-00 46 28.9	413
1981	EK12	1981	05	03.51150	11	31	10.39	-00 37 59.8	413
1981	EL12	1981	05	03.51150	11	26	55.36	-02 34 10.5	413
1981	EM12	1981	05	02.37780	11	26	18.39	-07 44 58.0	413
1981	EM12	1981	05	03.39307	11	26	01.21	-07 44 02.0	413
1981	EN12	1981	05	01.43386	11	31	20.85	-00 49 04.7	413
1981	EN12	1981	05	03.51150	11	31	27.40	-00 44 28.0	413
1981	EO12	1981	05	01.43386	11	32	33.12	-01 00 58.3	413
1981	EO12	1981	05	03.51150	11	32	31.25	-00 52 23.8	413
1981	EP12	1981	05	03.39307	11	26	43.10	-04 04 00.8	413
1981	EP12	1981	05	03.51150	11	26	42.65	-04 03 29.8	413
1981	EQ12	1981	05	03.39307	11	25	22.23	-03 44 54.9	413
1981	EQ12	1981	05	03.51150	11	25	20.33	-03 44 17.6	413
1981	ER12	1981	05	03.39307	11	27	56.66	-05 13 19.4	413
1981	ES12	1981	05	01.43386	11	39	04.88	-02 24 56.6	413
1981	ES12	1981	05	03.51150	11	38	52.84	-02 12 28.7	413
1981	ET12	1981	05	01.43386	11	39	17.29	-01 39 43.7	413
1981	ET12	1981	05	03.51150	11	39	36.88	-01 29 37.3	413
1981	EU12	1981	05	01.43386	11	37	11.25	-00 28 47.7	413
1981	EU12	1981	05	03.51150	11	37	19.27	-00 24 37.3	413
1981	EV12	1981	05	01.49549	11	31	48.54	-04 30 53.6	413
1981	EV12	1981	05	03.39307	11	31	17.86	-04 27 10.0	413
1981	EW12	1981	05	03.51150	11	24	09.00	-03 35 53.1	413
1981	EX12	1981	05	01.43386	11	37	00.25	-02 29 33.8	413
1981	EX12	1981	05	03.51150	11	36	46.60	-02 16 27.9	413
1981	EY12	1981	05	01.43386	11	37	34.11	-01 28 23.4	413
1981	EY12	1981	05	03.51150	11	37	40.12	-01 17 54.3	413
1981	EZ12	1981	05	03.39307	11	27	04.70	-03 40 07.3	413
1981	EZ12	1981	05	03.51150	11	27	03.88	-03 39 42.5	413
1981	EA13	1981	05	03.39307	11	28	29.74	-04 32 33.0	413
1981	EC13	1981	05	01.49549	11	33	36.96	-05 50 36.9	413
1981	EC13	1981	05	03.39307	11	33	13.68	-05 45 36.2	413
1981	ED13	1981	05	01.49549	11	31	54.52	-04 39 35.6	413
1981	ED13	1981	05	03.39307	11	31	31.79	-04 35 16.2	413
1981	EE13	1981	05	03.39307	11	26	33.17	-04 51 10.6	413
1981	EF13	1981	05	03.39307	11	28	07.22	-06 07 54.4	413
1981	EG13	1981	05	03.39307	11	28	32.46	-06 27 34.2	413
1981	EH13	1981	05	03.51150	11	28	41.56	-00 48 57.0	413
1981	EJ13	1981	05	03.39307	11	29	04.26	-07 07 52.9	413
1981	EK13	1981	05	01.43386	11	31	57.93	-03 50 03.8	413
1981	EK13	1981	05	03.39307	11	31	37.26	-03 40 55.8	413

1981	EK13	1981	05	03.51150	11	31	36.13	-03	40	20.6	413
1981	EL13	1981	05	01.43386	11	40	32.75	-01	04	42.2	413
1981	EL13	1981	05	03.51150	11	40	04.05	-00	55	44.9	413
1981	EM13	1981	05	01.43386	11	37	05.24	-03	01	18.6	413
1981	EM13	1981	05	03.51150	11	37	12.10	-02	52	02.2	413
1981	EN13	1981	05	01.49549	11	35	03.85	-04	34	22.4	413
1981	EN13	1981	05	03.39307	11	35	07.95	-04	27	11.1	413
1981	EO13	1981	05	01.43386	11	30	23.11	-03	45	05.6	413
1981	EO13	1981	05	01.49549	11	30	22.58	-03	45	01.2	413
1981	EO13	1981	05	03.39307	11	30	16.59	-03	42	59.9	413
1981	EO13	1981	05	03.51150	11	30	16.22	-03	42	53.4	413
1981	EP13	1981	05	03.39307	11	25	27.64	-03	40	37.2	413
1981	EP13	1981	05	03.51150	11	25	26.30	-03	40	16.2	413
1981	EQ13	1981	05	02.37780	11	28	40.34	-12	00	37.4	413
1981	EQ13	1981	05	02.56063	11	28	39.60	-12	00	49.9	413
1981	ER13	1981	05	01.49549	11	36	22.88	-04	09	35.9	413
1981	ER13	1981	05	03.39307	11	36	08.81	-04	04	02.7	413
1981	ET13	1981	05	01.49549	11	36	45.44	-06	12	14.2	413
1981	ET13	1981	05	03.39307	11	36	54.94	-06	07	25.2	413
1981	EU13	1981	05	01.43386	11	42	09.31	+00	51	54.3	413
1981	EU13	1981	05	03.51150	11	42	18.61	+01	01	40.2	413
1981	EV13	1981	05	01.43386	11	42	42.89	-02	29	33.7	413
1981	EV13	1981	05	03.51150	11	42	17.18	-02	18	50.3	413
1981	EW13	1981	05	01.43386	11	36	47.28	-00	26	14.2	413
1981	EW13	1981	05	03.51150	11	36	39.96	-00	22	54.9	413
1981	EX13	1981	05	01.43386	11	41	34.69	-02	58	39.0	413
1981	EX13	1981	05	03.51150	11	41	07.94	-02	48	14.0	413
1981	EY13	1981	05	01.43386	11	42	16.43	-02	21	33.2	413
1981	EY13	1981	05	03.51150	11	41	47.56	-02	12	40.3	413
1981	EZ13	1981	05	01.55678	11	30	15.21	-10	39	22.7	413
1981	EZ13	1981	05	02.37780	11	30	10.41	-10	39	14.6	413
1981	EZ13	1981	05	02.56063	11	30	09.10	-10	39	11.8	413
1981	EA14	1981	05	01.43386	11	39	50.11	-00	19	58.0	413
1981	EA14	1981	05	03.51150	11	39	40.28	-00	10	34.5	413
1981	EB14	1981	05	01.49549	11	41	06.35	-05	02	24.5	413
1981	EB14	1981	05	03.39307	11	40	40.67	-04	55	12.9	413
1981	EC14	1981	05	01.43386	11	33	28.09	-02	41	16.0	413
1981	EC14	1981	05	03.51150	11	33	09.81	-02	37	53.9	413
1981	ED14	1981	05	01.43386	11	34	07.10	-02	12	30.3	413
1981	ED14	1981	05	03.51150	11	34	00.52	-02	11	20.6	413
1981	EE14	1981	05	01.43386	11	35	55.90	-00	54	02.9	413
1981	EE14	1981	05	03.51150	11	35	36.52	-00	44	02.7	413
1981	EF14	1981	05	01.43386	11	34	32.75	-01	35	51.7	413
1981	EF14	1981	05	03.51150	11	34	25.00	-01	30	42.5	413
1981	EG14	1981	05	01.43386	11	36	18.88	-02	39	16.9	413
1981	EG14	1981	05	03.51150	11	36	01.44	-02	29	32.5	413
1981	EH14	1981	05	01.43386	11	40	28.89	-02	58	03.6	413
1981	EH14	1981	05	03.51150	11	40	01.49	-02	44	47.3	413
1981	EJ14	1981	05	01.49549	11	33	54.29	-06	11	25.9	413
1981	EJ14	1981	05	03.39307	11	33	41.90	-06	07	55.7	413
1981	EK14	1981	05	01.43386	11	33	45.75	-00	53	33.4	413
1981	EK14	1981	05	03.51150	11	33	23.70	-00	48	01.7	413
1981	EL14	1981	05	01.43386	11	33	53.45	-03	49	15.6	413
1981	EL14	1981	05	03.39307	11	33	19.35	-03	48	09.7	413
1981	EL14	1981	05	03.51150	11	33	17.30	-03	48	07.2	413
1981	EM14	1981	05	01.43386	11	40	12.24	-03	17	26.3	413
1981	EM14	1981	05	03.51150	11	39	54.17	-03	06	52.3	413
1981	EN14	1981	05	01.43386	11	37	35.58	-00	56	11.2	413
1981	EN14	1981	05	03.51150	11	37	28.36	-00	52	22.1	413

1981	EO14	1981	05	02.37780	11	28	05.89	-08	11	47.8	413
1981	EO14	1981	05	03.39307	11	27	44.33	-08	09	59.8	413
1981	EP14	1981	05	01.43386	11	38	13.33	-02	42	53.6	413
1981	EP14	1981	05	03.51150	11	38	10.30	-02	32	22.8	413
1981	EQ14	1981	05	01.49549	11	32	13.57	-05	45	54.6	413
1981	EQ14	1981	05	03.39307	11	31	41.25	-05	40	16.6	413
1981	ER14	1981	05	02.37780	11	25	28.42	-07	19	07.0	413
1981	ER14	1981	05	03.39307	11	25	09.35	-07	16	12.8	413
1981	ES14	1981	05	01.49549	11	36	00.13	-04	09	43.5	413
1981	ES14	1981	05	03.39307	11	35	39.51	-04	04	31.9	413
1981	ES14	1981	05	03.51150	11	35	38.21	-04	04	14.7	413
1981	ET14	1981	05	01.43386	11	43	23.48	-01	49	58.2	413
1981	ET14	1981	05	03.51150	11	43	01.96	-01	45	13.4	413
1981	EU14	1981	05	01.43386	11	34	01.83	-03	03	28.6	413
1981	EU14	1981	05	03.51150	11	33	41.64	-03	01	58.0	413
1981	EV14	1981	05	01.49549	11	42	02.83	-04	59	09.4	413
1981	EV14	1981	05	03.39307	11	41	41.93	-04	54	16.1	413
1981	EW14	1981	05	01.49549	11	32	44.49	-07	53	56.1	413
1981	EW14	1981	05	03.39307	11	32	05.79	-07	49	31.9	413
1981	EX14	1981	05	01.43386	11	43	58.80	-01	39	11.8	413
1981	EX14	1981	05	03.51150	11	43	38.24	-01	28	26.7	413
1981	EY14	1981	05	01.49549	11	39	03.67	-04	17	43.6	413
1981	EY14	1981	05	03.39307	11	39	01.23	-04	12	10.2	413
1981	EZ14	1981	05	01.49549	11	41	00.89	-04	50	18.7	413
1981	EZ14	1981	05	03.39307	11	40	34.08	-04	44	33.0	413
1981	EA15	1981	05	01.49549	11	39	47.92	-06	51	42.6	413
1981	EA15	1981	05	03.39307	11	39	15.66	-06	48	22.6	413
1981	EB15	1981	05	01.43386	11	41	33.69	-01	48	33.5	413
1981	EB15	1981	05	03.51150	11	41	20.17	-01	43	27.7	413
1981	EC15	1981	05	01.49549	11	40	47.36	-04	12	30.9	413
1981	EC15	1981	05	03.39307	11	40	44.96	-04	13	11.1	413
1981	ED15	1981	05	01.43386	11	38	17.62	-02	33	41.3	413
1981	ED15	1981	05	03.51150	11	37	52.31	-02	28	02.9	413
1981	EE15	1981	05	01.49549	11	42	51.66	-06	11	40.2	413
1981	EE15	1981	05	03.39307	11	42	31.81	-06	05	03.1	413
1981	EF15	1981	05	01.49549	11	41	43.19	-07	38	38.3	413
1981	EF15	1981	05	03.39307	11	41	09.12	-07	33	53.3	413
1981	EG15	1981	05	01.43386	11	36	04.94	-00	32	47.8	413
1981	EG15	1981	05	03.51150	11	35	49.68	-00	27	17.6	413
1981	EH15	1981	05	01.43386	11	43	29.10	-01	36	50.4	413
1981	EH15	1981	05	03.51150	11	43	21.77	-01	29	13.8	413
1981	EJ15	1981	05	01.43386	11	39	29.77	-01	08	11.9	413
1981	EJ15	1981	05	03.51150	11	39	00.30	-01	02	40.2	413
1981	EK15	1981	05	01.49549	11	41	34.25	-05	48	58.6	413
1981	EK15	1981	05	03.39307	11	41	01.64	-05	46	36.0	413
1981	EL15	1981	05	01.49549	11	45	42.99	-04	41	06.7	413
1981	EN15	1981	05	01.43386	11	39	37.66	-01	52	59.8	413
1981	EN15	1981	05	03.51150	11	39	24.05	-01	48	27.8	413
1981	EO15	1981	05	01.43386	11	46	03.17	-03	28	35.1	413
1981	EP15	1981	05	01.49549	11	37	46.28	-05	01	00.6	413
1981	EP15	1981	05	03.39307	11	37	18.33	-04	53	57.3	413
1981	EQ15	1981	05	01.43386	11	46	03.54	-04	00	46.6	413
1981	EQ15	1981	05	01.49549	11	46	02.82	-04	00	27.6	413
1981	ER15	1981	05	01.49549	11	42	32.28	-04	35	32.3	413
1981	ER15	1981	05	03.39307	11	42	18.81	-04	27	37.7	413
1981	ES15	1981	05	01.49549	11	34	48.09	-08	46	47.2	413
1981	ES15	1981	05	03.39307	11	34	21.49	-08	46	56.9	413
1981	ET15	1981	05	01.49549	11	35	30.97	-05	56	45.8	413
1981	ET15	1981	05	03.39307	11	34	50.08	-05	56	13.4	413

1981	EU15	1981	05	01.43386	11	44	33.61	-03 09 09.9	413
1981	EU15	1981	05	03.51150	11	44	25.10	-03 00 21.6	413
1981	EV15	1981	05	01.49549	11	37	08.16	-05 14 07.4	413
1981	EV15	1981	05	03.39307	11	36	37.59	-05 13 55.8	413
1981	EW15	1981	05	01.49549	11	40	21.45	-07 45 28.2	413
1981	EW15	1981	05	03.39307	11	40	07.68	-07 46 12.0	413
1981	EX15	1981	05	01.43386	11	42	16.89	-01 59 14.7	413
1981	EX15	1981	05	03.51150	11	41	42.15	-01 54 56.6	413
1981	EZ15	1981	05	01.49549	11	38	00.27	-05 44 58.8	413
1981	EZ15	1981	05	03.39307	11	37	38.61	-05 38 44.6	413
1981	EA16	1981	05	01.49549	11	34	53.79	-05 44 54.6	413
1981	EA16	1981	05	03.39307	11	34	31.46	-05 42 42.3	413
1981	EB16	1981	05	01.49549	11	42	51.76	-04 48 29.5	413
1981	EB16	1981	05	03.39307	11	42	39.83	-04 41 36.1	413
1981	EC16	1981	05	01.49549	11	42	42.46	-04 37 42.1	413
1981	EC16	1981	05	03.39307	11	42	21.25	-04 30 05.3	413
1981	ED16	1981	05	01.49549	11	48	41.50	-05 24 44.0	413
1981	EE16	1981	05	01.49549	11	50	45.49	-04 40 21.6	413
1981	EF16	1981	05	01.43386	11	47	54.97	-00 15 48.5	413
1981	EG16	1981	05	01.49549	11	34	45.33	-10 06 06.3	413
1981	EG16	1981	05	01.55678	11	34	44.01	-10 06 06.9	413
1981	EG16	1981	05	02.56063	11	34	27.37	-10 06 32.2	413
1981	EJ16	1981	05	01.43386	11	38	45.40	-03 38 54.5	413
1981	EJ16	1981	05	03.51150	11	38	12.13	-03 37 24.2	413
1981	EK16	1981	05	01.49549	11	40	21.52	-04 38 36.9	413
1981	EK16	1981	05	03.39307	11	39	55.34	-04 36 58.4	413
1981	EL16	1981	04	29.43724	11	18	46.01	-02 23 21.8	413
1981	EM16	1981	05	03.39307	11	28	05.67	-05 35 48.7	413
1981	EN16	1981	05	03.39307	11	26	07.07	-07 01 50.9	413
1981	EO16	1981	05	03.51150	11	26	28.15	-02 02 50.4	413
1981	EQ16	1981	05	01.49549	11	30	27.52	-05 53 25.5	413
1981	EQ16	1981	05	03.39307	11	29	56.58	-05 51 00.6	413
1981	ER16	1981	05	03.39307	11	22	31.45	-06 40 40.5	413
1981	ES16	1981	05	01.43386	11	31	55.85	-01 16 35.5	413
1981	ES16	1981	05	03.51150	11	31	40.08	-01 13 43.6	413
1981	ET16	1981	05	01.43386	11	37	22.95	+01 24 20.5	413
1981	ET16	1981	05	03.51150	11	37	02.56	+01 38 00.9	413
1981	EU16	1981	05	01.43386	11	32	39.38	-02 56 37.5	413
1981	EU16	1981	05	03.51150	11	32	33.90	-02 54 43.3	413
1981	EV16	1981	05	03.39307	11	27	41.92	-05 03 55.4	413
1981	EW16	1981	05	01.43386	11	42	18.27	-00 41 06.7	413
1981	EW16	1981	05	03.51150	11	42	19.12	-00 36 36.5	413
1981	EY16	1981	05	01.43386	11	35	21.62	-01 02 15.4	413
1981	EY16	1981	05	03.51150	11	34	51.29	-00 55 05.5	413
1981	EZ16	1981	05	01.43386	11	36	52.21	-02 23 33.5	413
1981	EZ16	1981	05	03.51150	11	36	19.83	-02 21 58.4	413
1981	EA17	1981	05	01.49549	11	37	44.14	-04 09 02.6	413
1981	EA17	1981	05	03.39307	11	37	17.46	-04 05 04.7	413
1981	EA17	1981	05	03.51150	11	37	15.79	-04 04 49.6	413
1981	EB17	1981	05	01.43386	11	44	02.24	-01 30 24.9	413
1981	EB17	1981	05	03.51150	11	43	36.48	-01 28 10.2	413
1981	EC17	1981	05	01.49549	11	43	25.07	-04 15 35.7	413
1981	EC17	1981	05	03.39307	11	43	09.93	-04 12 12.0	413
1981	EF17	1981	04	30.53008	11	14	02.80	+04 13 35.1	413
1981	EF17	1981	05	02.49622	11	13	53.40	+04 22 31.0	413
1981	EG17	1981	04	26.48632	11	27	48.12	+05 57 57.5	413
1981	EG17	1981	05	02.43701	11	27	54.74	+06 37 14.5	413
1981	EH17	1981	04	26.48632	11	29	18.44	+02 24 31.8	413
1981	EH17	1981	05	02.49622	11	28	11.80	+02 47 49.3	413

1981	EJ17	1981	04	26.48632	11	26	06.25	+03 34 06.7	413
1981	EJ17	1981	05	02.49622	11	26	28.46	+03 53 55.4	413
1981	EK17	1981	05	02.49622	11	28	11.78	+01 01 43.1	413
1981	EK17	1981	05	03.51150	11	28	06.71	+01 05 27.5	413
1981	EL17	1981	05	01.37533	11	38	36.03	+02 08 02.0	413
1981	EL17	1981	05	01.43386	11	38	35.51	+02 08 25.2	413
1981	EM17	1981	05	01.43386	11	31	57.58	+00 39 41.0	413
1981	EM17	1981	05	03.51150	11	31	25.52	+00 47 51.6	413
1981	EN17	1981	05	02.49622	11	28	32.83	+00 48 05.9	413
1981	EN17	1981	05	03.51150	11	28	21.77	+00 51 29.2	413
1981	EQ17	1981	05	01.43386	11	46	48.43	+00 01 24.1	413
1981	ER17	1981	04	30.53008	11	09	30.25	+02 27 13.0	413
1981	ER17	1981	05	02.49622	11	09	18.02	+02 31 36.5	413
1981	ES17	1981	04	30.53008	11	06	03.62	+02 58 36.2	413
1981	ES17	1981	05	02.49622	11	05	53.58	+03 01 31.6	413
1981	ET17	1981	04	30.53008	11	06	16.68	+04 02 34.0	413
1981	ET17	1981	05	02.49622	11	06	17.67	+04 03 30.3	413
1981	EV17	1981	04	30.53008	11	04	55.98	+03 46 08.4	413
1981	EW17	1981	04	30.53008	11	07	54.41	+04 02 41.9	413
1981	EW17	1981	05	02.49622	11	08	05.00	+04 03 57.3	413
1981	EX17	1981	04	30.53008	11	07	25.57	+04 15 19.8	413
1981	EX17	1981	05	02.49622	11	07	49.97	+04 10 32.8	413
1981	EY17	1981	05	02.43701	11	07	25.16	+06 29 30.5	413
1981	EY17	1981	05	03.45194	11	07	28.03	+06 29 37.8	413
1981	EZ17	1981	05	02.43701	11	17	55.89	+10 16 03.4	413
1981	EZ17	1981	05	03.45194	11	18	10.68	+10 19 43.4	413
1981	EA18	1981	05	02.43701	11	15	27.66	+08 21 35.4	413
1981	EA18	1981	05	03.45194	11	15	30.36	+08 23 36.1	413
1981	EB18	1981	05	02.43701	11	12	22.05	+06 34 23.0	413
1981	EB18	1981	05	03.45194	11	12	31.39	+06 34 51.7	413
1981	ED18	1981	04	30.53008	11	12	03.85	+04 30 07.7	413
1981	ED18	1981	05	02.43701	11	12	02.84	+04 32 16.8	413
1981	ED18	1981	05	02.49622	11	12	02.72	+04 32 21.1	413
1981	ED18	1981	05	03.45194	11	12	04.27	+04 33 13.6	413
1981	EE18	1981	04	30.53008	11	11	38.80	+04 26 35.7	413
1981	EE18	1981	05	02.49622	11	11	32.76	+04 24 59.0	413
1981	EF18	1981	05	02.43701	11	08	52.60	+05 45 31.1	413
1981	EF18	1981	05	03.45194	11	08	56.48	+05 47 03.5	413
1981	EG18	1981	04	30.53008	11	02	49.40	+03 28 14.7	413
1981	EJ18	1981	04	30.53008	11	12	10.02	+02 47 36.6	413
1981	EJ18	1981	05	02.49622	11	11	59.71	+02 47 44.8	413
1981	EK18	1981	04	30.53008	11	15	28.50	+03 47 28.4	413
1981	EK18	1981	05	02.49622	11	15	28.36	+03 48 47.3	413
1981	EL18	1981	04	30.53008	11	12	29.39	+03 07 01.1	413
1981	EL18	1981	05	02.49622	11	12	40.91	+03 10 21.6	413
1981	EM18	1981	04	30.53008	11	06	39.03	+00 06 13.7	413
1981	EM18	1981	05	02.49622	11	06	57.51	+00 02 39.2	413
1981	EN18	1981	04	30.53008	11	17	35.17	+02 38 19.7	413
1981	EN18	1981	05	02.49622	11	17	36.71	+02 42 46.9	413
1981	EO18	1981	04	30.53008	11	07	58.61	+03 26 43.8	413
1981	EO18	1981	05	02.49622	11	07	59.60	+03 26 31.1	413
1981	EP18	1981	04	30.53008	11	18	10.60	+04 26 44.3	413
1981	EP18	1981	05	02.43701	11	18	11.45	+04 32 22.8	413
1981	EP18	1981	05	02.49622	11	18	11.50	+04 32 29.0	413
1981	EQ18	1981	05	02.43701	11	14	37.81	+06 15 40.6	413
1981	EQ18	1981	05	03.45194	11	14	30.97	+06 16 21.1	413
1981	ER18	1981	04	30.53008	11	10	28.83	+02 11 00.5	413
1981	ER18	1981	05	02.49622	11	10	38.28	+02 08 03.5	413
1981	ES18	1981	04	30.53008	11	15	46.08	+03 49 44.9	413

1981	ES18	1981	05	02.49622	11	16	16.41	+03 50 07.4	413
1981	ET18	1981	04	30.53008	11	12	11.26	+02 18 40.2	413
1981	ET18	1981	05	02.49622	11	12	21.23	+02 16 20.2	413
1981	EU18	1981	05	02.43701	11	13	24.23	+05 18 02.4	413
1981	EU18	1981	05	03.45194	11	13	17.51	+05 18 39.6	413
1981	EV18	1981	04	30.53008	11	15	43.70	+02 28 15.8	413
1981	EV18	1981	05	02.49622	11	15	35.46	+02 32 41.8	413
1981	EW18	1981	04	30.53008	11	03	58.03	+03 18 19.5	413
1981	EY18	1981	04	30.53008	11	08	54.99	+01 58 01.7	413
1981	EY18	1981	05	02.49622	11	09	03.25	+01 59 43.3	413
1981	EZ18	1981	04	30.53008	11	11	57.76	+02 47 47.2	413
1981	EZ18	1981	05	02.49622	11	11	48.30	+02 50 00.7	413
1981	EA19	1981	05	02.43701	11	09	38.88	+05 36 45.3	413
1981	EA19	1981	05	03.45194	11	09	37.09	+05 36 02.6	413
1981	EB19	1981	05	03.45194	11	04	53.13	+06 37 48.3	413
1981	ED19	1981	05	02.43701	11	12	57.16	+06 00 41.9	413
1981	ED19	1981	05	03.45194	11	12	54.53	+06 01 22.6	413
1981	EE19	1981	05	02.49622	11	11	21.70	+04 19 39.3	413
1981	EF19	1981	04	30.53008	11	11	42.47	+02 01 40.5	413
1981	EF19	1981	05	02.49622	11	11	45.70	+02 01 50.6	413
1981	EH19	1981	04	30.53008	11	09	45.42	+04 33 39.9	413
1981	EH19	1981	05	02.49622	11	10	03.08	+04 28 08.2	413
1981	EJ19	1981	05	02.43701	11	18	15.98	+05 09 02.3	413
1981	EK19	1981	04	30.53008	11	05	03.02	+01 36 35.2	413
1981	EL19	1981	05	02.43701	11	14	46.09	+04 59 51.5	413
1981	EL19	1981	05	03.45194	11	14	39.88	+05 02 14.0	413
1981	EM19	1981	04	30.53008	11	14	32.99	+03 58 21.2	413
1981	EM19	1981	05	02.49622	11	14	22.89	+03 59 18.4	413
1981	EN19	1981	04	30.53008	11	16	21.23	+02 44 31.5	413
1981	EN19	1981	05	02.49622	11	16	20.46	+02 47 57.7	413
1981	EO19	1981	05	02.43701	11	19	04.16	+05 01 18.9	413
1981	EP19	1981	05	02.43701	11	10	44.99	+06 53 02.9	413
1981	EP19	1981	05	03.45194	11	10	46.55	+06 53 22.7	413
1981	EQ19	1981	04	30.53008	11	10	47.16	+04 33 56.8	413
1981	EQ19	1981	05	02.43701	11	10	35.54	+04 37 06.5	413
1981	EQ19	1981	05	03.45194	11	10	31.36	+04 38 35.0	413
1981	ES19	1981	04	30.53008	11	07	52.63	+03 08 49.4	413
1981	ES19	1981	05	02.49622	11	07	56.98	+03 05 06.4	413
1981	ET19	1981	05	02.43701	11	13	44.89	+07 27 28.5	413
1981	ET19	1981	05	03.45194	11	13	50.21	+07 26 35.8	413
1981	EU19	1981	04	30.53008	11	06	23.92	+02 23 49.2	413
1981	EU19	1981	05	02.49622	11	06	17.89	+02 21 56.5	413
1981	EV19	1981	04	30.53008	11	19	29.28	+03 41 24.9	413
1981	EV19	1981	05	02.49622	11	19	12.68	+03 45 17.9	413
1981	EW19	1981	04	30.53008	11	05	49.90	-00 22 28.1	413
1981	EW19	1981	05	02.49622	11	05	47.80	-00 25 17.9	413
1981	EX19	1981	05	02.43701	11	06	27.76	+05 23 50.9	413
1981	EX19	1981	05	03.45194	11	06	22.68	+05 24 53.2	413
1981	EY19	1981	04	30.53008	11	16	29.08	+03 10 20.5	413
1981	EY19	1981	05	02.49622	11	16	17.13	+03 12 37.4	413
1981	EZ19	1981	04	30.53008	11	11	18.62	+03 00 11.6	413
1981	EZ19	1981	05	02.49622	11	11	06.36	+03 00 28.5	413
1981	EB20	1981	04	30.53008	11	14	55.12	+02 54 04.8	413
1981	EB20	1981	05	02.49622	11	15	14.75	+02 53 45.0	413
1981	EC20	1981	04	30.53008	11	10	39.71	+03 36 35.9	413
1981	EC20	1981	05	02.49622	11	10	18.32	+03 39 57.6	413
1981	ED20	1981	05	02.43701	11	11	28.72	+05 16 03.6	413
1981	ED20	1981	05	03.45194	11	11	32.76	+05 13 32.0	413
1981	EF20	1981	05	02.43701	11	23	36.98	+08 21 21.1	413

1981	EG20	1981	04	30.53008	11	14	11.99	+01	29	50.8	413
1981	EG20	1981	05	02.49622	11	13	47.47	+01	30	59.2	413
1981	EH20	1981	04	30.53008	11	18	05.24	+04	45	55.8	413
1981	EH20	1981	05	02.43701	11	18	01.81	+04	48	10.7	413
1981	EH20	1981	05	02.49622	11	18	01.68	+04	48	10.5	413
1981	EJ20	1981	04	30.53008	11	12	30.94	+03	34	19.7	413
1981	EJ20	1981	05	02.49622	11	12	21.23	+03	29	54.6	413
1981	EK20	1981	04	30.53008	11	07	43.40	+03	19	46.9	413
1981	EK20	1981	05	02.49622	11	07	24.79	+03	14	08.0	413
1981	EL20	1981	04	30.53008	11	15	21.27	+00	05	49.8	413
1981	EL20	1981	05	02.49622	11	14	56.97	+00	06	30.4	413
1981	EM20	1981	04	26.48632	11	22	58.13	+04	37	41.0	413
1981	EM20	1981	05	02.43701	11	21	48.38	+04	32	43.0	413
1981	EM20	1981	05	02.49622	11	21	47.89	+04	32	37.7	413
1981	EN20	1981	05	02.43701	11	17	53.04	+07	14	49.3	413
1981	EN20	1981	05	03.45194	11	18	02.59	+07	13	40.8	413
1981	EO20	1981	05	02.43701	11	12	23.25	+06	33	51.7	413
1981	EO20	1981	05	03.45194	11	12	22.03	+06	34	43.6	413
1981	EP20	1981	05	02.43701	11	11	53.17	+06	08	36.0	413
1981	EP20	1981	05	03.45194	11	11	45.88	+06	08	22.4	413
1981	EQ20	1981	05	02.43701	11	16	06.52	+05	19	47.8	413
1981	EQ20	1981	05	03.45194	11	16	02.40	+05	20	54.7	413
1981	ES20	1981	04	30.53008	11	16	48.83	+03	24	35.6	413
1981	ES20	1981	05	02.49622	11	16	33.72	+03	25	44.3	413
1981	ET20	1981	04	30.53008	11	13	42.47	+01	38	09.9	413
1981	ET20	1981	05	02.49622	11	13	43.32	+01	31	09.7	413
1981	EU20	1981	04	30.53008	11	16	30.36	+03	22	52.5	413
1981	EU20	1981	05	02.49622	11	16	14.73	+03	24	57.3	413
1981	EV20	1981	04	30.53008	11	12	09.56	+00	12	15.5	413
1981	EV20	1981	05	02.49622	11	12	05.41	+00	11	00.8	413
1981	EW20	1981	04	26.48632	11	22	21.06	+04	20	55.1	413
1981	EW20	1981	05	02.49622	11	20	55.19	+04	28	30.5	413
1981	EX20	1981	05	02.43701	11	22	41.58	+08	04	02.9	413
1981	EY20	1981	04	26.48632	11	21	01.17	+03	06	34.3	413
1981	EY20	1981	04	30.53008	11	20	01.63	+03	13	10.3	413
1981	EY20	1981	05	02.49622	11	19	40.06	+03	15	36.7	413
1981	EZ20	1981	04	30.53008	11	19	47.09	+03	27	14.9	413
1981	EZ20	1981	05	02.49622	11	19	35.77	+03	29	37.8	413
1981	EA21	1981	04	26.48632	11	20	55.68	+03	14	18.5	413
1981	EA21	1981	04	30.53008	11	20	21.33	+03	18	21.5	413
1981	EA21	1981	05	02.49622	11	20	13.57	+03	19	24.2	413
1981	EB21	1981	05	02.49622	11	21	53.87	+01	07	08.6	413
1981	EB21	1981	05	03.51150	11	21	50.58	+01	08	07.8	413
1981	EC21	1981	05	02.43701	11	16	42.94	+05	23	43.7	413
1981	EC21	1981	05	03.45194	11	16	41.40	+05	21	53.5	413
1981	ED21	1981	04	30.53008	11	13	12.03	+00	08	08.6	413
1981	ED21	1981	05	02.49622	11	13	05.83	+00	06	19.7	413
1981	EE21	1981	04	26.48632	11	22	58.01	+04	33	52.0	413
1981	EE21	1981	05	02.43701	11	21	54.66	+04	56	40.0	413
1981	EF21	1981	05	02.43701	11	26	38.68	+08	47	50.0	413
1981	EG21	1981	04	26.48632	11	26	56.42	+06	26	44.8	413
1981	EG21	1981	05	02.43701	11	25	45.19	+06	36	57.7	413
1981	EH21	1981	04	26.48632	11	28	02.30	+06	27	54.3	413
1981	EH21	1981	05	02.43701	11	27	09.68	+07	00	32.0	413
1981	EJ21	1981	04	26.48632	11	30	58.19	+07	27	21.7	413
1981	EJ21	1981	05	01.37533	11	30	22.78	+07	37	46.7	413
1981	EJ21	1981	05	02.43701	11	30	18.39	+07	39	33.7	413
1981	EK21	1981	04	30.53008	11	16	13.71	+00	41	00.5	413
1981	EK21	1981	05	02.49622	11	15	57.82	+00	39	58.2	413

1981 EL21	1981 04 26.48632	11 21 19.80	+02 46 24.8					413
1981 EL21	1981 04 30.53008	11 20 25.71	+02 55 51.3					413
1981 EL21	1981 05 02.49622	11 20 07.61	+02 59 33.9					413
1981 EM21	1981 04 26.48632	11 24 54.62	+05 54 38.4					413
1981 EM21	1981 05 02.43701	11 24 26.98	+05 52 07.0					413
1981 EN21	1981 04 26.48632	11 23 38.20	+03 47 38.8					413
1981 EN21	1981 05 02.49622	11 22 43.15	+03 57 04.4					413
1981 EO21	1981 04 30.53008	11 16 06.50	+02 54 27.6					413
1981 EO21	1981 05 02.49622	11 15 50.59	+02 56 40.2					413
1981 EP21	1981 04 30.53008	11 07 59.08	+02 01 57.2					413
1981 EP21	1981 05 02.49622	11 07 40.07	+01 54 39.5					413
1981 ER21	1981 04 26.48632	11 27 06.39	+06 57 08.5					413
1981 ER21	1981 05 02.43701	11 25 46.51	+07 06 51.7					413
1981 ES21	1981 04 30.53008	11 13 05.25	+00 58 03.6					413
1981 ES21	1981 05 02.49622	11 12 50.11	+00 53 19.8					413
1981 ET21	1981 04 26.48632	11 25 42.95	+06 29 53.6					413
1981 ET21	1981 05 02.43701	11 25 46.04	+06 35 38.1					413
1981 EV21	1981 04 30.53008	11 19 06.21	+01 57 10.6					413
1981 EV21	1981 05 02.49622	11 18 43.77	+01 55 31.4					413
1981 EW21	1981 04 26.48632	11 23 36.88	+02 59 25.5					413
1981 EW21	1981 05 02.49622	11 23 16.44	+03 06 12.6					413
1981 EX21	1981 04 26.48632	11 24 22.79	+05 57 17.1					413
1981 EX21	1981 05 02.43701	11 23 04.57	+06 18 55.0					413
1981 EY21	1981 04 26.48632	11 29 08.66	+05 01 00.1					413
1981 EY21	1981 05 02.43701	11 28 31.58	+05 20 21.0					413
1981 EZ21	1981 04 26.48632	11 24 31.14	+03 04 29.1					413
1981 EZ21	1981 05 02.49622	11 23 32.89	+03 14 52.0					413
1981 EA22	1981 05 02.43701	11 27 00.06	+08 44 22.3					413
1981 EB22	1981 04 26.48632	11 28 02.98	+06 40 37.6					413
1981 EB22	1981 05 02.43701	11 27 25.25	+06 40 16.7					413
1981 EC22	1981 04 26.48632	11 21 08.87	+04 57 23.0					413
1981 EC22	1981 05 02.43701	11 21 11.61	+05 00 50.6					413
1981 ED22	1981 04 26.48632	11 24 52.71	+04 38 19.3					413
1981 ED22	1981 05 02.43701	11 24 21.36	+04 45 57.7					413
1981 ED22	1981 05 02.49622	11 24 21.56	+04 45 58.9					413
1981 EE22	1981 04 26.48632	11 24 46.42	+04 51 23.6					413
1981 EE22	1981 05 02.43701	11 23 50.21	+04 45 13.3					413
1981 EE22	1981 05 02.49622	11 23 50.09	+04 45 06.4					413
1981 EF22	1981 04 26.48632	11 28 19.57	+03 15 33.5					413
1981 EF22	1981 05 02.49622	11 29 09.20	+03 20 58.1					413
1981 EG22	1981 04 29.43724	11 13 52.16	-02 28 19.3					413
1981 EH22	1981 04 26.48632	11 24 00.51	+02 47 24.3					413
1981 EH22	1981 05 02.49622	11 23 14.29	+02 59 05.0					413
1981 EJ22	1981 04 26.48632	11 20 53.11	+04 01 01.2					413
1981 EJ22	1981 04 30.53008	11 19 59.18	+04 16 40.2					413
1981 EJ22	1981 05 02.49622	11 19 43.08	+04 23 04.4					413
1981 EK22	1981 04 26.48632	11 26 35.23	+02 28 15.0					413
1981 EK22	1981 05 02.49622	11 25 43.51	+02 35 55.8					413
1981 EL22	1981 05 02.49622	11 22 18.04	+00 24 30.5					413
1981 EL22	1981 05 03.51150	11 22 29.20	+00 21 28.3					413
1981 EM22	1981 04 26.48632	11 22 45.23	+02 00 35.0					413
1981 EM22	1981 05 02.49622	11 22 54.50	+01 58 39.6					413
1981 EN22	1981 04 30.53008	11 21 02.72	+00 43 10.1					413
1981 EN22	1981 05 02.49622	11 20 56.66	+00 42 37.0					413
1981 EN22	1981 05 03.51150	11 20 55.97	+00 42 05.2					413
1981 EO22	1981 04 26.48632	11 24 12.81	+02 20 35.1					413
1981 EO22	1981 05 02.49622	11 24 03.61	+02 24 55.0					413
1981 EQ22	1981 04 26.48632	11 22 05.42	+02 43 24.9					413
1981 EQ22	1981 05 02.49622	11 21 38.38	+02 54 08.4					413

1981	ER22	1981	04	26.48632	11	20	52.58	+04 51 22.7	413
1981	ER22	1981	05	02.43701	11	19	18.48	+05 00 34.1	413
1981	ET22	1981	04	26.48632	11	23	52.86	+05 14 47.8	413
1981	ET22	1981	05	02.43701	11	23	48.58	+05 04 32.2	413
1981	EU22	1981	04	26.48632	11	21	49.62	+02 14 22.4	413
1981	EU22	1981	05	02.49622	11	21	51.96	+02 12 04.9	413
1981	EV22	1981	04	26.48632	11	27	16.10	+04 45 07.0	413
1981	EV22	1981	05	02.43701	11	25	48.43	+04 56 50.2	413
1981	EW22	1981	04	26.48632	11	31	11.11	+03 00 09.6	413
1981	EW22	1981	05	01.37533	11	30	43.84	+03 08 33.3	413
1981	EW22	1981	05	02.49622	11	30	41.81	+03 09 55.2	413
1981	EY22	1981	04	26.48632	11	23	58.92	+05 22 23.1	413
1981	EY22	1981	05	02.43701	11	23	32.60	+05 33 52.4	413
1981	EZ22	1981	04	30.53008	11	17	23.04	+03 45 33.3	413
1981	EZ22	1981	05	02.49622	11	16	58.47	+03 46 50.8	413
1981	EA23	1981	05	02.49622	11	21	22.03	+00 23 59.3	413
1981	EA23	1981	05	03.51150	11	21	13.83	+00 22 49.0	413
1981	EB23	1981	04	26.48632	11	23	36.95	+05 19 45.0	413
1981	EB23	1981	05	02.43701	11	21	48.75	+05 24 53.5	413
1981	EC23	1981	04	30.53008	11	10	35.07	+04 13 19.6	413
1981	EC23	1981	05	02.49622	11	10	24.86	+04 15 14.6	413
1981	EE23	1981	04	30.53008	11	07	40.84	+01 59 57.1	413
1981	EE23	1981	05	02.49622	11	07	28.15	+02 02 32.9	413
1981	EG23	1981	04	30.53008	11	19	03.89	+04 23 32.8	413
1981	EG23	1981	05	02.49622	11	18	56.25	+04 23 51.8	413
1981	EH23	1981	04	30.53008	11	13	54.95	+03 17 29.1	413
1981	EH23	1981	05	02.49622	11	13	55.78	+03 18 35.3	413
1981	EJ23	1981	04	30.53008	11	14	25.09	+03 01 32.5	413
1981	EJ23	1981	05	02.49622	11	14	16.86	+03 00 57.2	413
1981	EK23	1981	05	02.43701	11	11	28.70	+05 14 44.4	413
1981	EK23	1981	05	03.45194	11	11	23.68	+05 16 20.4	413
1981	EL23	1981	05	03.45194	11	17	52.24	+06 54 24.4	413
1981	EM23	1981	05	02.43701	11	17	02.36	+05 06 04.6	413
1981	EM23	1981	05	03.45194	11	16	50.87	+05 05 15.8	413
1981	EN23	1981	04	30.53008	11	16	27.01	+03 01 33.5	413
1981	EN23	1981	05	02.49622	11	16	43.51	+02 58 47.8	413
1981	EO23	1981	04	30.53008	11	14	44.42	+03 28 31.8	413
1981	EO23	1981	05	02.49622	11	14	45.28	+03 29 51.6	413
1981	EP23	1981	04	30.53008	11	13	20.11	+00 26 11.8	413
1981	EP23	1981	05	02.49622	11	12	57.57	+00 20 11.5	413
1981	EQ23	1981	04	26.48632	11	30	01.51	+05 08 38.6	413
1981	ER23	1981	04	26.48632	11	25	45.10	+06 24 44.0	413
1981	ER23	1981	05	02.43701	11	25	05.21	+06 23 13.0	413
1981	ES23	1981	04	26.48632	11	25	46.58	+04 50 26.0	413
1981	ES23	1981	05	02.43701	11	24	37.14	+04 58 14.8	413
1981	ET23	1981	04	30.53008	11	16	23.49	+04 48 19.8	413
1981	ET23	1981	05	03.45194	11	15	45.14	+04 46 37.8	413
1981	EV23	1981	04	26.48632	11	24	10.33	+02 00 37.8	413
1981	EV23	1981	05	02.49622	11	23	14.78	+01 52 52.4	413
1981	EV23	1981	05	03.51150	11	23	11.19	+01 51 04.8	413
1981	EW23	1981	04	30.53008	11	06	56.58	+03 03 58.7	413
1981	EW23	1981	05	02.49622	11	07	06.87	+03 04 36.3	413
1981	EX23	1981	04	30.53008	11	12	44.64	+01 54 06.6	413
1981	EX23	1981	05	02.49622	11	12	33.77	+01 57 35.2	413
1981	EY23	1981	05	02.43701	11	17	57.40	+09 11 08.9	413
1981	EY23	1981	05	03.45194	11	17	59.52	+09 13 53.6	413
1981	EZ23	1981	04	30.53008	11	18	06.23	+02 44 25.5	413
1981	EZ23	1981	05	02.49622	11	18	05.29	+02 47 53.7	413
1981	EB24	1981	05	02.43701	11	17	25.35	+05 24 08.4	413

1981	EB24	1981	05	03.45194	11	17	21.27	+05 22 54.3	413
1981	EC24	1981	04	26.48632	11	26	40.01	+02 55 53.6	413
1981	ED24	1981	04	26.48632	11	24	32.89	+07 39 52.5	413
1981	ED24	1981	05	02.43701	11	23	46.33	+07 53 42.7	413
1981	EE24	1981	04	26.48632	11	24	14.76	+06 23 32.0	413
1981	EE24	1981	05	02.43701	11	23	06.25	+06 23 33.6	413
1981	EF24	1981	04	26.48632	11	25	46.01	+06 13 42.3	413
1981	EF24	1981	05	02.43701	11	24	04.92	+06 14 07.8	413
1981	EG24	1981	05	02.49622	11	23	26.53	+01 40 21.9	413
1981	EG24	1981	05	03.51150	11	23	21.56	+01 41 11.4	413
1981	EH24	1981	04	26.48632	11	27	31.28	+04 53 27.6	413
1981	EH24	1981	05	02.43701	11	26	13.16	+04 56 13.5	413
1981	EJ24	1981	04	26.48632	11	21	58.19	+04 40 42.9	413
1981	EJ24	1981	04	30.53008	11	20	59.00	+04 34 27.4	413
1981	EJ24	1981	05	02.43701	11	20	41.56	+04 30 38.1	413
1981	EJ24	1981	05	02.49622	11	20	41.12	+04 30 27.8	413
1981	EL24	1981	04	26.48632	11	30	22.06	+01 52 45.9	413
1981	EL24	1981	05	02.49622	11	28	57.52	+02 02 44.0	413
1981	EL24	1981	05	03.51150	11	28	47.94	+02 03 56.5	413
1981	EM24	1981	05	02.49622	11	27	23.56	+01 17 01.9	413
1981	EM24	1981	05	03.51150	11	27	12.29	+01 18 13.4	413
1981	EN24	1981	05	02.49622	11	26	07.90	+01 01 02.5	413
1981	EN24	1981	05	03.51150	11	26	09.47	+01 02 20.5	413
1981	EO24	1981	04	26.48632	11	26	50.52	+05 46 00.3	413
1981	EO24	1981	05	02.43701	11	25	42.57	+05 55 52.6	413
1981	EP24	1981	05	01.43386	11	30	51.80	+01 48 36.4	413
1981	EP24	1981	05	02.49622	11	30	40.90	+01 50 02.6	413
1981	EP24	1981	05	03.51150	11	30	32.37	+01 51 15.4	413
1981	EQ24	1981	04	26.48632	11	26	07.63	+02 33 50.2	413
1981	EQ24	1981	05	02.49622	11	25	19.84	+02 56 51.6	413
1981	ER24	1981	04	26.48632	11	25	47.52	+02 51 18.9	413
1981	ER24	1981	05	02.49622	11	24	52.08	+03 04 16.4	413
1981	ES24	1981	05	03.51150	11	21	32.46	-02 21 13.4	413
1981	ET24	1981	04	26.48632	11	32	13.37	+05 05 38.1	413
1981	ET24	1981	05	01.37533	11	31	54.40	+05 21 26.5	413
1981	EU24	1981	05	01.43386	11	29	36.04	+00 23 55.9	413
1981	EU24	1981	05	02.49622	11	29	22.40	+00 25 29.1	413
1981	EU24	1981	05	03.51150	11	29	10.82	+00 26 50.1	413
1981	EV24	1981	04	26.48632	11	29	11.63	+02 24 41.8	413
1981	EW24	1981	04	26.48632	11	33	46.60	+04 12 54.7	413
1981	EW24	1981	05	01.37533	11	32	29.45	+04 22 16.4	413
1981	EX24	1981	04	26.48632	11	36	15.34	+03 42 11.4	413
1981	EX24	1981	05	01.37533	11	34	54.05	+03 50 39.2	413
1981	EZ24	1981	04	26.48632	11	37	26.21	+05 36 13.2	413
1981	EZ24	1981	05	01.37533	11	36	53.60	+06 03 12.8	413
1981	EB25	1981	04	26.48632	11	36	17.31	+04 17 04.0	413
1981	EB25	1981	05	01.37533	11	34	49.59	+04 37 07.7	413
1981	EC25	1981	04	26.48632	11	22	24.24	+04 05 07.4	413
1981	EC25	1981	04	30.53008	11	21	04.54	+04 07 50.4	413
1981	EC25	1981	05	02.49622	11	20	36.22	+04 08 08.4	413
1981	ED25	1981	04	26.48632	11	26	07.85	+02 00 40.5	413
1981	ED25	1981	05	02.49622	11	24	18.43	+02 23 31.1	413
1981	EF25	1981	04	26.48632	11	31	05.86	+03 39 08.6	413
1981	EF25	1981	05	01.37533	11	30	32.21	+03 41 34.0	413
1981	EF25	1981	05	02.49622	11	30	29.68	+03 41 30.9	413
1981	EG25	1981	04	29.43724	11	21	12.88	-03 55 02.8	413
1981	EG25	1981	05	03.39307	11	20	23.83	-04 03 12.3	413
1981	EH25	1981	04	26.48632	11	37	22.67	+04 31 11.8	413
1981	EH25	1981	05	01.37533	11	36	59.73	+04 41 35.7	413

1981	EJ25	1981	04	26.48632	11	35	13.63	+03 35 41.8	413
1981	EJ25	1981	05	01.37533	11	34	54.60	+03 43 55.2	413
1981	EK25	1981	05	02.49622	11	26	27.10	+00 52 42.2	413
1981	EK25	1981	05	03.51150	11	26	16.03	+00 54 22.6	413
1981	EL25	1981	04	26.48632	11	35	07.24	+03 02 37.3	413
1981	EL25	1981	05	01.37533	11	34	32.27	+03 19 53.0	413
1981	EM25	1981	04	26.48632	11	36	37.45	+04 27 37.9	413
1981	EM25	1981	05	01.37533	11	36	26.38	+04 34 55.0	413
1981	EN25	1981	04	26.48632	11	36	14.26	+04 45 32.5	413
1981	EN25	1981	05	01.37533	11	36	10.50	+04 51 44.9	413
1981	EO25	1981	04	26.48632	11	42	47.95	+03 49 51.1	413
1981	EO25	1981	05	01.37533	11	41	50.63	+04 20 35.9	413
1981	EP25	1981	05	01.43386	11	36	14.72	+00 59 08.6	413
1981	EP25	1981	05	03.51150	11	36	01.74	+01 02 21.1	413
1981	ER25	1981	04	26.48632	11	35	23.34	+04 01 46.8	413
1981	ER25	1981	05	01.37533	11	34	13.19	+04 13 58.9	413
1981	ES25	1981	04	26.48632	11	30	14.42	+04 01 02.6	413
1981	ES25	1981	05	02.49622	11	28	54.09	+04 01 39.0	413
1981	ET25	1981	04	26.48632	11	35	08.43	+03 55 59.4	413
1981	ET25	1981	05	01.37533	11	34	07.46	+04 13 59.1	413
1981	EU25	1981	04	26.48632	11	32	20.47	+05 21 34.8	413
1981	EU25	1981	05	01.37533	11	30	55.75	+05 36 35.1	413
1981	EU25	1981	05	02.43701	11	30	42.28	+05 39 13.7	413
1981	EV25	1981	04	26.48632	11	38	02.00	+04 57 06.4	413
1981	EV25	1981	05	01.37533	11	36	36.75	+05 12 51.4	413
1981	EW25	1981	05	02.49622	11	22	50.22	-01 14 08.7	413
1981	EW25	1981	05	03.51150	11	22	46.28	-01 17 47.3	413
1981	EZ25	1981	05	01.43386	11	32	21.95	-02 50 58.8	413
1981	EZ25	1981	05	03.51150	11	31	36.81	-02 50 38.2	413
1981	EA26	1981	05	01.43386	11	41	03.08	+00 38 55.4	413
1981	EA26	1981	05	03.51150	11	41	06.90	+00 41 35.1	413
1981	EB26	1981	05	01.43386	11	37	40.34	+00 25 48.6	413
1981	EB26	1981	05	03.51150	11	37	14.48	+00 27 28.4	413
1981	EC26	1981	04	26.48632	11	36	39.73	+02 30 32.6	413
1981	EC26	1981	05	01.37533	11	36	10.98	+02 29 41.0	413
1981	ED26	1981	04	26.48632	11	39	08.89	+03 30 18.0	413
1981	ED26	1981	05	01.37533	11	38	49.67	+03 46 50.6	413
1981	EE26	1981	04	26.48632	11	41	44.60	+02 22 03.8	413
1981	EE26	1981	05	01.37533	11	41	32.53	+02 35 31.6	413
1981	EF26	1981	04	26.48632	11	44	08.54	+04 04 31.3	413
1981	EF26	1981	05	01.37533	11	43	07.38	+04 18 06.0	413
1981	EG26	1981	05	01.43386	11	31	36.16	-01 15 29.8	413
1981	EG26	1981	05	03.51150	11	31	17.89	-01 18 20.6	413
1981	EH26	1981	04	26.48632	11	41	47.69	+04 27 40.2	413
1981	EH26	1981	05	01.37533	11	40	07.35	+04 37 15.6	413
1981	EJ26	1981	04	26.48632	11	28	50.88	+04 30 47.4	413
1981	EJ26	1981	05	02.43701	11	27	10.29	+04 35 31.4	413
1981	EJ26	1981	05	02.49622	11	27	09.88	+04 35 27.9	413
1981	EK26	1981	04	26.48632	11	37	45.79	+04 31 01.5	413
1981	EK26	1981	05	01.37533	11	36	34.37	+04 41 05.0	413
1981	EL26	1981	05	02.49622	11	24	51.63	-01 29 18.5	413
1981	EL26	1981	05	03.51150	11	24	43.20	-01 31 52.0	413
1981	EM26	1981	04	26.48632	11	39	22.99	+02 09 56.7	413
1981	EM26	1981	05	01.37533	11	37	47.10	+02 11 08.6	413
1981	EM26	1981	05	01.43386	11	37	45.86	+02 11 08.6	413
1981	EM26	1981	05	03.51150	11	37	14.11	+02 10 47.5	413
1981	EN26	1981	05	01.37533	11	46	10.48	+03 12 07.9	413
1981	EO26	1981	05	01.43386	11	38	55.64	+00 59 03.0	413
1981	EO26	1981	05	03.51150	11	38	30.35	+01 02 21.6	413

1981	EP26	1981	04	26.48632	11	41	12.63	+05 47 01.6	413
1981	EP26	1981	05	01.37533	11	40	36.85	+06 00 39.7	413
1981	EQ26	1981	04	26.48632	11	41	15.43	+03 30 00.8	413
1981	EQ26	1981	05	01.37533	11	40	00.11	+03 39 41.1	413
1981	ER26	1981	04	26.48632	11	30	33.67	+01 55 50.5	413
1981	ER26	1981	05	02.49622	11	29	08.56	+01 44 22.5	413
1981	ER26	1981	05	03.51150	11	29	01.02	+01 41 55.2	413
1981	ES26	1981	05	01.43386	11	39	11.08	+01 08 29.4	413
1981	ES26	1981	05	03.51150	11	39	04.83	+01 12 39.6	413
1981	ET26	1981	05	02.49622	11	28	13.52	+00 58 49.2	413
1981	ET26	1981	05	03.51150	11	28	04.57	+00 58 23.1	413
1981	EU26	1981	04	26.48632	11	45	11.40	+02 51 02.5	413
1981	EU26	1981	05	01.37533	11	43	37.01	+03 04 52.0	413
1981	EV26	1981	05	01.43386	11	40	02.82	+00 41 52.8	413
1981	EV26	1981	05	03.51150	11	39	35.10	+00 45 33.6	413
1981	EW26	1981	05	01.37533	11	45	13.78	+05 29 14.5	413
1981	EX26	1981	04	26.48632	11	35	52.61	+01 55 17.2	413
1981	EX26	1981	05	01.37533	11	34	26.58	+02 13 21.4	413
1981	EX26	1981	05	03.51150	11	34	02.44	+02 19 38.3	413
1981	EY26	1981	05	01.43386	11	40	19.14	-01 43 37.5	413
1981	EY26	1981	05	03.51150	11	39	48.33	-01 41 08.3	413
1981	EZ26	1981	05	01.43386	11	39	36.43	-00 01 42.2	413
1981	EZ26	1981	05	03.51150	11	39	25.48	+00 01 34.9	413
1981	EA27	1981	04	26.48632	11	43	47.65	+04 17 56.5	413
1981	EA27	1981	05	01.37533	11	42	42.95	+04 20 50.3	413
1981	EB27	1981	04	26.48632	11	42	11.15	+04 50 59.3	413
1981	EB27	1981	05	01.37533	11	41	12.50	+04 59 08.1	413
1981	EC27	1981	04	26.48632	11	41	20.68	+03 53 24.3	413
1981	EC27	1981	05	01.37533	11	39	49.34	+04 01 54.0	413
1981	ED27	1981	05	01.37533	11	46	19.49	+05 38 52.0	413
1981	EE27	1981	05	01.37533	11	49	21.16	+06 12 44.6	413
1981	EF27	1981	05	01.37533	11	42	57.33	+02 37 34.9	413
1981	EG27	1981	05	01.43386	11	42	41.68	-01 02 20.5	413
1981	EG27	1981	05	03.51150	11	42	14.89	-00 58 41.4	413
1981	EH27	1981	05	03.51150	11	28	55.78	-02 49 00.4	413
1981	EJ27	1981	05	01.43386	11	39	16.29	+00 48 23.0	413
1981	EJ27	1981	05	03.51150	11	39	10.64	+00 50 08.0	413
1981	EK27	1981	05	01.43386	11	32	41.12	+00 05 54.2	413
1981	EK27	1981	05	03.51150	11	32	19.58	+00 05 23.1	413
1981	EL27	1981	05	01.37533	11	43	05.84	+01 55 03.9	413
1981	EL27	1981	05	01.43386	11	43	04.78	+01 55 11.1	413
1981	EL27	1981	05	03.51150	11	42	40.11	+01 59 47.8	413
1981	EM27	1981	05	01.37533	11	47	43.78	+04 32 08.3	413
1981	EO27	1981	04	26.48632	11	38	28.07	+03 06 24.9	413
1981	EO27	1981	05	01.37533	11	37	00.44	+03 32 44.5	413
1981	EP27	1981	05	01.37533	11	48	30.48	+02 37 55.2	413
1981	EQ27	1981	05	01.37533	11	47	08.41	+03 47 50.8	413
1981	ER27	1981	05	01.43386	11	33	45.22	+01 00 12.9	413
1981	ER27	1981	05	03.51150	11	33	12.30	+00 59 24.4	413
1981	ES27	1981	05	01.43386	11	35	02.55	-00 16 13.6	413
1981	ES27	1981	05	03.51150	11	34	56.59	-00 25 11.3	413
1981	ET27	1981	05	01.37533	11	46	20.20	+02 45 23.1	413
1981	EU27	1981	04	26.48632	11	43	17.26	+06 30 16.2	413
1981	EU27	1981	05	01.37533	11	42	13.38	+06 50 22.9	413
1981	EV27	1981	05	01.37533	11	46	10.69	+02 55 55.0	413
1981	EW27	1981	05	01.37533	11	46	30.01	+02 58 29.5	413
1981	EX27	1981	05	01.37533	11	45	36.10	+01 55 52.8	413
1981	EX27	1981	05	01.43386	11	45	35.69	+01 55 54.5	413
1981	EY27	1981	05	01.43386	11	33	46.19	+01 29 26.6	413

1981	EY27	1981	05	03.51150	11	32	58.86	+01 26 56.9	413
1981	EZ27	1981	04	26.48632	11	42	27.90	+03 22 33.5	413
1981	EZ27	1981	05	01.37533	11	40	45.60	+03 29 53.8	413
1981	EA28	1981	04	26.48632	11	38	46.55	+01 54 37.2	413
1981	EA28	1981	05	01.37533	11	36	43.92	+01 55 52.1	413
1981	EA28	1981	05	01.43386	11	36	42.60	+01 55 51.9	413
1981	EA28	1981	05	03.51150	11	36	01.80	+01 55 21.1	413
1981	EB28	1981	04	26.48632	11	45	26.37	+04 52 07.3	413
1981	EB28	1981	05	01.37533	11	44	21.77	+04 57 39.7	413
1981	EC28	1981	05	01.43386	11	42	49.40	+01 17 40.0	413
1981	EC28	1981	05	03.51150	11	42	38.04	+01 13 06.9	413
1981	ED28	1981	05	01.37533	11	47	15.66	+04 00 23.3	413
1981	EE28	1981	05	01.37533	11	46	49.20	+02 51 03.3	413
1981	EF28	1981	04	26.48632	11	42	22.15	+02 19 18.5	413
1981	EF28	1981	05	01.37533	11	40	07.85	+02 18 33.3	413
1981	EF28	1981	05	03.51150	11	39	19.16	+02 17 15.9	413
1981	EG28	1981	05	01.43386	11	44	01.24	+01 43 45.2	413
1981	EG28	1981	05	03.51150	11	43	27.49	+01 50 55.3	413
1981	EH28	1981	05	01.37533	11	44	29.13	+02 32 54.3	413
1981	EJ28	1981	04	26.48632	11	43	55.23	+02 49 52.4	413
1981	EJ28	1981	05	01.37533	11	41	57.16	+03 04 04.4	413
1981	EK28	1981	05	03.39307	11	25	35.08	-05 06 56.5	413
1981	EL28	1981	04	26.48632	11	42	32.42	+02 54 47.3	413
1981	EL28	1981	05	01.37533	11	41	20.15	+03 02 52.1	413
1981	EM28	1981	05	03.39307	11	23	44.87	-04 17 25.3	413
1981	EN28	1981	05	01.43386	11	39	07.26	-00 49 58.8	413
1981	EN28	1981	05	03.51150	11	38	53.26	-00 52 00.4	413
1981	EO28	1981	05	01.43386	11	41	30.04	+00 00 47.6	413
1981	EO28	1981	05	03.51150	11	40	54.14	+00 02 02.8	413
1981	EP28	1981	05	01.43386	11	46	39.46	+00 13 51.0	413
1981	EQ28	1981	05	01.37533	11	46	27.63	+04 03 56.5	413
1981	ER28	1981	05	01.43386	11	38	57.35	-00 26 50.4	413
1981	ER28	1981	05	03.51150	11	38	05.51	-00 28 29.6	413
1981	ES28	1981	05	01.43386	11	44	15.36	-00 15 04.0	413
1981	ES28	1981	05	03.51150	11	43	57.27	-00 18 15.4	413
1981	EU28	1981	04	30.53008	10	58	10.75	+00 41 20.2	413
1981	EV28	1981	04	29.43724	11	12	03.79	-01 30 20.3	413
1981	EV28	1981	04	30.53008	11	11	55.59	-01 25 13.2	413
1981	EV28	1981	05	02.49622	11	11	44.63	-01 16 21.2	413
1981	EW28	1981	04	30.53008	11	07	11.63	+00 25 20.6	413
1981	EX28	1981	04	29.43724	11	02	53.89	-03 52 07.3	413
1981	EY28	1981	04	29.43724	11	03	31.18	-03 30 36.9	413
1981	EA29	1981	04	30.53008	11	15	36.32	+02 29 38.1	413
1981	EA29	1981	05	02.49622	11	15	22.92	+02 36 06.6	413
1981	EB29	1981	04	26.48632	11	22	40.24	+04 36 25.5	413
1981	EB29	1981	05	02.43701	11	23	27.77	+05 01 08.8	413
1981	EC29	1981	04	30.53008	11	17	46.54	+00 31 03.4	413
1981	EC29	1981	05	02.49622	11	17	26.84	+00 35 18.2	413
1981	EF29	1981	04	30.53008	11	20	52.61	+00 34 08.7	413
1981	EF29	1981	05	02.49622	11	20	29.60	+00 36 41.5	413
1981	EF29	1981	05	03.51150	11	20	19.57	+00 37 49.2	413
1981	EG29	1981	04	26.48632	11	28	49.74	+03 45 42.2	413
1981	EG29	1981	05	02.49622	11	28	42.89	+04 07 22.5	413
1981	EJ29	1981	05	01.43386	11	30	16.54	+00 43 32.1	413
1981	EJ29	1981	05	02.49622	11	30	10.83	+00 47 56.0	413
1981	EJ29	1981	05	03.51150	11	30	06.80	+00 51 56.5	413
1981	EK29	1981	05	02.49622	11	27	03.84	-00 36 33.2	413
1981	EK29	1981	05	03.51150	11	26	59.47	-00 33 12.2	413
1981	EL29	1981	04	26.48632	11	25	07.90	+02 51 25.7	413

1981	EL29	1981	05	02.49622	11	24	35.16	+03 12 49.0	413
1981	EM29	1981	05	03.39307	11	26	37.07	-06 23 28.8	413
1981	EO29	1981	05	01.49549	11	50	41.98	-06 14 05.2	413
1981	EQ29	1981	05	01.43386	11	49	37.70	-03 43 45.2	413
1981	EQ29	1981	05	01.49549	11	49	36.62	-03 43 32.5	413
1981	ER29	1981	05	01.43386	11	54	31.44	+01 33 44.0	413
1981	ET29	1981	05	01.43386	11	53	53.32	-03 09 11.9	413
1981	EU29	1981	05	01.49549	11	46	39.55	-05 38 36.5	413
1981	EV29	1981	04	29.43724	11	11	19.46	-02 21 49.0	413
1981	EX29	1981	04	30.47156	10	58	11.88	-10 13 17.6	413
1981	EZ29	1981	04	30.53008	10	59	01.52	+04 25 52.2	413
1981	EB30	1981	04	30.53008	10	57	08.31	-00 46 57.1	413
1981	EC30	1981	04	30.47156	11	03	44.81	-12 12 23.7	413
1981	ED30	1981	05	02.37780	11	24	22.93	-09 09 33.5	413
1981	ED30	1981	05	03.39307	11	24	14.35	-09 05 12.0	413
1981	EE30	1981	04	29.43724	11	15	35.53	-04 45 03.3	413
1981	EF30	1981	05	02.43701	11	25	08.07	+08 23 59.0	413
1981	EH30	1981	04	26.48632	11	31	43.73	+05 32 13.1	413
1981	EH30	1981	05	01.37533	11	31	21.43	+05 45 50.5	413
1981	EK30	1981	05	03.39307	11	19	40.84	-05 18 50.3	413
1981	EL30	1981	05	02.37780	11	23	42.30	-10 37 43.9	413
1981	EL30	1981	05	02.56063	11	23	40.64	-10 37 08.6	413
1981	EM30	1981	04	26.48632	11	27	09.74	+06 10 04.1	413
1981	EM30	1981	05	02.43701	11	25	29.10	+06 19 09.2	413
1981	EN30	1981	04	26.48632	11	30	21.87	+05 28 29.0	413
1981	EN30	1981	05	02.43701	11	28	38.43	+05 35 15.8	413
1981	EO30	1981	04	26.48632	11	32	31.28	+07 58 41.4	413
1981	EP30	1981	04	26.48632	11	39	01.90	+08 09 26.5	413
1981	EQ30	1981	04	26.48632	11	23	44.69	+02 44 22.7	413
1981	EQ30	1981	05	02.49622	11	21	13.94	+02 42 01.4	413
1981	ER30	1981	05	01.43386	11	32	36.27	+01 35 32.4	413
1981	ER30	1981	05	03.51150	11	32	15.72	+01 39 43.9	413
1981	ET30	1981	04	26.48632	11	35	26.93	+05 52 07.2	413
1981	ET30	1981	05	01.37533	11	35	04.81	+06 05 13.4	413
1981	EU30	1981	05	02.49622	11	23	57.33	-00 56 35.4	413
1981	EU30	1981	05	03.51150	11	23	43.60	-00 55 35.9	413
1981	EV30	1981	05	01.43386	11	31	23.44	-00 02 50.4	413
1981	EV30	1981	05	03.51150	11	30	53.05	+00 00 45.8	413
1981	EW30	1981	04	26.48632	11	27	57.90	+03 53 48.8	413
1981	EW30	1981	05	02.49622	11	26	13.29	+04 06 07.3	413
1981	EX30	1981	04	26.48632	11	32	02.06	+05 37 01.2	413
1981	EX30	1981	05	02.43701	11	30	14.19	+05 48 02.0	413
1981	EY30	1981	04	26.48632	11	30	11.30	+06 19 37.0	413
1981	EY30	1981	05	02.43701	11	28	22.04	+06 33 03.0	413
1981	EZ30	1981	05	01.43386	11	34	43.27	+00 18 47.5	413
1981	EZ30	1981	05	03.51150	11	34	19.87	+00 21 18.5	413
1981	EA31	1981	05	01.43386	11	35	25.41	-00 54 03.3	413
1981	EA31	1981	05	03.51150	11	35	29.00	-00 52 40.9	413
1981	EB31	1981	04	26.48632	11	43	49.76	+05 41 18.6	413
1981	EB31	1981	05	01.37533	11	42	57.31	+05 52 11.4	413
1981	EC31	1981	05	03.51150	11	26	57.03	-01 48 55.5	413
1981	ED31	1981	04	26.48632	11	35	50.80	+05 19 15.3	413
1981	ED31	1981	05	01.37533	11	34	48.14	+05 26 53.3	413
1981	EF31	1981	04	26.48632	11	37	33.43	+05 54 37.5	413
1981	EF31	1981	05	01.37533	11	36	37.22	+06 03 17.8	413
1981	EG31	1981	05	01.43386	11	35	09.24	-00 46 16.9	413
1981	EG31	1981	05	03.51150	11	34	32.31	-00 41 55.7	413
1981	EH31	1981	04	26.48632	11	40	40.05	+06 24 38.6	413
1981	EH31	1981	05	01.37533	11	39	31.86	+06 38 46.0	413

1981	EJ31	1981	04	26.48632	11	44	15.73	+05 35 23.5	413
1981	EJ31	1981	05	01.37533	11	43	39.80	+05 46 20.3	413
1981	EK31	1981	05	01.43386	11	34	01.70	-02 19 54.7	413
1981	EK31	1981	05	03.51150	11	33	23.25	-02 18 52.5	413
1981	EL31	1981	05	01.37533	11	46	37.66	+06 40 18.5	413
1981	EM31	1981	04	26.48632	11	39	41.39	+03 12 05.4	413
1981	EM31	1981	05	01.37533	11	38	10.01	+03 22 50.4	413
1981	EN31	1981	04	26.48632	11	40	03.85	+05 32 36.2	413
1981	EN31	1981	05	01.37533	11	38	33.65	+05 44 23.1	413
1981	EO31	1981	05	01.37533	11	46	54.84	+03 11 09.4	413
1981	EP31	1981	04	26.48632	11	38	01.08	+03 27 32.3	413
1981	EP31	1981	05	01.37533	11	35	56.90	+03 32 55.9	413
1981	EQ31	1981	05	01.37533	11	49	36.71	+04 18 25.9	413
1981	ER31	1981	05	01.37533	11	49	03.56	+05 57 04.5	413
1981	ES31	1981	05	01.37533	11	53	49.17	+06 56 04.6	413
1981	ET31	1981	05	01.37533	11	51	01.52	+03 48 06.7	413
1981	EU31	1981	05	01.43386	11	49	05.47	+01 34 58.7	413
1981	EV31	1981	04	26.48632	11	44	51.41	+04 30 08.3	413
1981	EV31	1981	05	01.37533	11	43	20.62	+04 44 10.1	413
1981	EW31	1981	05	01.37533	11	52	50.99	+05 21 40.1	413
1981	EX31	1981	05	01.37533	11	50	47.45	+02 48 55.4	413
1981	EY31	1981	04	30.53008	11	03	46.64	+03 23 19.7	413
1981	EZ31	1981	05	01.55678	11	30	15.72	-10 45 41.7	413
1981	EZ31	1981	05	02.37780	11	30	14.33	-10 41 58.1	413
1981	EZ31	1981	05	02.56063	11	30	13.88	-10 41 07.7	413
1981	EA32	1981	05	01.49549	11	39	49.21	-08 30 31.5	413
1981	EA32	1981	05	03.39307	11	39	24.14	-08 19 48.9	413
1981	EB32	1981	05	01.49549	11	40	37.52	-08 41 34.8	413
1981	EB32	1981	05	03.39307	11	40	16.71	-08 31 49.5	413
1981	EC32	1981	05	01.49549	11	43	26.46	-09 45 49.3	413
1981	EC32	1981	05	01.55678	11	43	25.46	-09 45 33.3	413
1981	EE32	1981	05	01.49549	11	46	27.79	-04 35 06.8	413
1981	EF32	1981	05	01.55678	11	41	59.92	-11 06 12.7	413
1981	EF32	1981	05	02.56063	11	41	45.41	-11 00 18.1	413
1981	EH32	1981	05	01.49549	11	52	21.55	-08 11 37.0	413
1981	EJ32	1981	05	01.49549	11	46	32.65	-06 25 30.7	413
1981	EK32	1981	04	29.43724	11	05	00.83	-01 41 33.3	413
1981	EL32	1981	04	29.43724	10	59	47.59	-01 55 24.9	413
1981	EN32	1981	04	29.43724	11	21	05.07	-06 09 34.2	413
1981	EN32	1981	05	03.39307	11	20	38.64	-05 51 55.7	413
1981	EO32	1981	05	03.51150	11	20	57.36	-01 34 31.8	413
1981	EP32	1981	04	29.43724	11	10	47.01	-02 03 04.1	413
1981	EQ32	1981	05	03.51150	11	23	02.33	-03 00 04.9	413
1981	ER32	1981	04	26.48632	11	31	03.01	+07 32 24.1	413
1981	ER32	1981	05	01.37533	11	30	11.20	+07 43 48.3	413
1981	ER32	1981	05	02.43701	11	30	03.51	+07 45 46.2	413
1981	ET32	1981	05	01.55678	11	34	04.24	-11 17 27.5	413
1981	ET32	1981	05	02.56063	11	33	48.82	-11 12 22.1	413
1981	EW32	1981	04	30.53008	11	05	17.62	+01 33 04.2	413
1981	EX32	1981	04	30.53008	11	07	41.53	-00 38 09.4	413
1981	EX32	1981	05	02.49622	11	07	33.89	-00 29 50.2	413
1981	EZ32	1981	04	30.53008	11	15	42.89	+02 53 05.0	413
1981	EZ32	1981	05	02.49622	11	15	40.23	+03 00 03.6	413
1981	EB33	1981	04	29.43724	11	02	46.56	-04 33 06.5	413
1981	EF33	1981	04	30.53008	11	16	21.94	+00 57 45.4	413
1981	EF33	1981	05	02.49622	11	16	42.77	+01 06 17.5	413
1981	EH33	1981	04	30.53008	11	19	05.74	+02 35 45.6	413
1981	EH33	1981	05	02.49622	11	18	56.17	+02 42 50.5	413
1981	EJ33	1981	04	30.53008	11	07	49.67	-01 04 27.0	413

1981	EL33	1981	04	29.43724	11	03	27.71	-02 21 10.6	413
1981	EN33	1981	04	30.53008	11	13	36.59	-00 45 11.7	413
1981	EO33	1981	04	26.48632	11	25	26.13	+03 01 57.7	413
1981	EO33	1981	05	02.49622	11	26	07.93	+03 45 58.3	413
1981	ER33	1981	05	02.49622	11	19	58.31	+02 22 39.7	413
1981	ES33	1981	04	29.43724	11	10	51.66	-01 32 58.6	413
1981	ES33	1981	05	02.49622	11	10	14.05	-01 26 58.0	413
1981	ET33	1981	05	02.49622	11	20	12.47	+00 11 20.4	413
1981	ET33	1981	05	03.51150	11	20	02.29	+00 13 13.5	413
1981	EV33	1981	04	26.48632	11	27	23.83	+06 46 14.3	413
1981	EW33	1981	05	03.51150	11	19	41.80	+00 48 28.5	413
1981	EX33	1981	05	03.51150	11	20	06.46	-03 52 24.7	413
1981	EZ33	1981	05	03.51150	11	24	37.11	-01 36 25.0	413
1981	EA34	1981	05	02.49622	11	24	46.99	-01 02 00.5	413
1981	EA34	1981	05	03.51150	11	24	44.59	-00 57 40.4	413
1981	ED34	1981	05	02.49622	11	17	35.38	+01 46 44.2	413
1981	EE34	1981	05	02.49622	11	25	43.10	+00 35 59.3	413
1981	EE34	1981	05	03.51150	11	25	54.52	+00 35 22.2	413
1981	EF34	1981	05	03.51150	11	28	09.03	-01 27 10.1	413
1981	EG34	1981	05	01.37533	11	36	37.47	+01 57 15.7	413
1981	EG34	1981	05	01.43386	11	36	36.75	+01 57 30.8	413
1981	EG34	1981	05	03.51150	11	36	20.21	+02 05 13.3	413
1981	EH34	1981	05	02.43701	11	06	36.23	+05 13 45.2	413
1981	EH34	1981	05	03.45194	11	06	35.54	+05 13 27.3	413
1981	EK34	1981	05	03.45194	11	04	41.38	+05 32 21.8	413
1981	EL34	1981	04	30.53008	11	10	43.75	+03 58 45.9	413
1981	EL34	1981	05	02.49622	11	10	24.69	+04 01 35.7	413
1981	EO34	1981	05	02.43701	11	09	20.25	+06 39 35.3	413
1981	EO34	1981	05	03.45194	11	09	14.72	+06 42 01.6	413
1981	EQ34	1981	05	02.43701	11	10	15.93	+07 42 12.5	413
1981	EQ34	1981	05	03.45194	11	10	13.10	+07 43 42.7	413
1981	ER34	1981	04	29.43724	11	15	38.82	-05 36 02.2	413
1981	EU34	1981	05	02.43701	11	15	45.94	+06 49 32.8	413
1981	EU34	1981	05	03.45194	11	16	01.37	+06 47 18.4	413
1981	EV34	1981	05	02.43701	11	09	34.99	+06 51 04.6	413
1981	EV34	1981	05	03.45194	11	09	26.82	+06 52 02.7	413
1981	EW34	1981	04	30.53008	11	08	36.62	+02 19 40.8	413
1981	EW34	1981	05	02.49622	11	08	43.24	+02 14 34.0	413
1981	EX34	1981	05	02.43701	11	17	23.50	+08 59 53.6	413
1981	EX34	1981	05	03.45194	11	17	24.36	+09 00 46.1	413
1981	EZ34	1981	04	30.53008	11	16	12.57	+04 51 32.8	413
1981	EZ34	1981	05	02.43701	11	16	03.20	+04 56 44.7	413
1981	EZ34	1981	05	03.45194	11	16	00.10	+04 59 14.9	413
1981	EA35	1981	04	30.53008	11	11	54.58	+02 53 30.5	413
1981	EA35	1981	05	02.49622	11	11	25.10	+02 52 29.2	413
1981	EB35	1981	05	02.43701	11	16	09.03	+05 34 34.8	413
1981	EB35	1981	05	03.45194	11	16	17.16	+05 36 06.6	413
1981	EC35	1981	05	02.43701	11	12	50.52	+09 35 31.1	413
1981	EC35	1981	05	03.45194	11	12	54.83	+09 35 50.5	413
1981	ED35	1981	04	30.53008	11	13	36.64	+04 43 03.7	413
1981	ED35	1981	05	02.43701	11	13	43.28	+04 41 17.3	413
1981	ED35	1981	05	02.49622	11	13	43.37	+04 41 14.3	413
1981	ED35	1981	05	03.45194	11	13	49.00	+04 40 08.4	413
1981	EE35	1981	05	02.43701	11	14	05.06	+08 09 47.0	413
1981	EE35	1981	05	03.45194	11	13	58.44	+08 11 25.2	413
1981	EF35	1981	05	02.43701	11	17	20.61	+06 30 29.7	413
1981	EF35	1981	05	03.45194	11	17	22.51	+06 30 51.9	413
1981	EH35	1981	04	30.53008	11	14	04.89	+01 25 28.6	413
1981	EH35	1981	05	02.49622	11	14	07.16	+01 25 54.1	413

1981	EK35	1981	04	26.48632	11	22	40.10	+02 52 09.9	413
1981	EK35	1981	05	02.49622	11	21	20.17	+03 02 13.9	413
1981	EL35	1981	02	02.62286	12	07	32.87	-13 57 11.9	413
1981	EL35	1981	05	02.37780	11	23	41.35	-07 28 36.0	413
1981	EL35	1981	05	03.39307	11	23	36.28	-07 22 55.0	413
1981	EM35	1981	04	30.53008	11	11	20.68	+03 46 17.0	413
1981	EM35	1981	05	02.49622	11	11	10.98	+03 41 51.4	413
1981	EO35	1981	04	29.43724	11	15	39.93	-03 13 59.4	413
1981	EQ35	1981	04	26.48632	11	25	57.48	+05 15 15.0	413
1981	EQ35	1981	05	02.43701	11	25	49.42	+05 15 42.3	413
1981	ER35	1981	05	02.37780	11	22	53.99	-07 11 23.5	413
1981	ER35	1981	05	03.39307	11	22	43.48	-07 07 49.5	413
1981	ES35	1981	04	26.48632	11	23	23.34	+03 25 01.0	413
1981	ES35	1981	05	02.49622	11	21	55.72	+03 18 14.6	413
1981	ET35	1981	05	03.39307	11	28	12.43	-05 37 23.4	413
1981	EU35	1981	04	26.48632	11	22	59.88	+06 19 12.4	413
1981	EU35	1981	05	02.43701	11	21	20.33	+06 31 44.7	413
1981	EV35	1981	04	30.53008	11	19	51.58	+00 53 00.3	413
1981	EV35	1981	05	02.49622	11	19	11.33	+00 51 23.2	413
1981	EX35	1981	05	03.39307	11	25	57.34	-04 54 02.7	413
1981	EY35	1981	04	26.48632	11	24	02.01	+02 40 22.7	413
1981	EY35	1981	05	02.49622	11	23	28.67	+02 31 01.0	413
1981	EZ35	1981	04	26.48632	11	22	30.26	+04 46 29.8	413
1981	EZ35	1981	05	02.43701	11	22	01.33	+04 48 15.4	413
1981	EZ35	1981	05	02.49622	11	22	01.43	+04 48 14.0	413
1981	EB36	1981	04	30.53008	11	19	17.92	+04 02 47.3	413
1981	EB36	1981	05	02.49622	11	19	25.87	+04 00 09.7	413
1981	EC36	1981	04	26.48632	11	29	44.70	+04 05 38.3	413
1981	EC36	1981	05	02.49622	11	28	20.77	+04 16 15.1	413
1981	ED36	1981	04	29.43724	11	19	34.15	-02 04 01.2	413
1981	EE36	1981	05	01.49549	11	46	29.28	-08 37 15.9	413
1981	EG36	1981	05	02.43701	11	09	31.20	+06 27 28.9	413
1981	EG36	1981	05	03.45194	11	09	28.50	+06 28 41.2	413
1981	EJ36	1981	05	02.43701	11	07	51.30	+05 36 26.9	413
1981	EJ36	1981	05	03.45194	11	07	45.93	+05 36 24.3	413
1981	EO36	1981	04	29.43724	11	05	54.90	-05 49 49.2	413
1981	EP36	1981	04	29.43724	11	18	28.62	-06 36 35.0	413
1981	EW36	1981	05	03.51150	11	21	02.66	-03 34 48.3	413
1981	EA37	1981	05	03.51150	11	22	32.76	-01 51 22.0	413
1981	EB37	1981	04	30.53008	11	05	37.39	+04 42 24.3	413
1981	EB37	1981	05	02.43701	11	05	27.13	+04 38 59.9	413
1981	EB37	1981	05	02.49622	11	05	26.79	+04 38 51.7	413
1981	EB37	1981	05	03.45194	11	05	23.64	+04 36 57.6	413
1981	ED37	1981	05	02.43701	11	17	23.70	+06 57 24.2	413
1981	ED37	1981	05	03.45194	11	17	11.48	+06 56 37.8	413
1981	EE37	1981	04	26.48632	11	21	05.13	+05 55 41.0	413
1981	EE37	1981	05	02.43701	11	19	19.33	+05 54 54.3	413
1981	EE37	1981	05	03.45194	11	19	06.93	+05 54 13.5	413
1981	EF37	1981	04	30.53008	11	16	52.87	+02 36 01.0	413
1981	EF37	1981	05	02.49622	11	16	17.75	+02 30 29.6	413
1981	EH37	1981	05	02.49622	11	08	17.59	+02 17 17.7	413
1981	EJ37	1981	04	30.53008	11	04	55.97	-00 14 33.3	413
1981	EL37	1981	05	02.49622	11	16	36.78	-01 29 27.8	413
1981	EM37	1981	04	30.53008	11	06	50.17	+01 15 44.0	413
1981	EM37	1981	05	02.49622	11	06	43.81	+01 19 56.4	413
1981	EP37	1981	05	02.49622	11	17	16.30	+00 53 23.0	413
1981	ES37	1981	05	03.51150	11	29	19.21	-00 44 03.3	413
1981	ET37	1981	04	30.53008	11	16	02.20	+01 46 57.1	413
1981	ET37	1981	05	02.49622	11	15	53.87	+01 53 32.0	413

1981	EU37	1981	05	03.51150	11	24	07.70	-02	28	25.5	413
1981	EV37	1981	05	02.49622	11	25	18.41	+00	14	37.5	413
1981	EV37	1981	05	03.51150	11	25	20.38	+00	18	34.3	413
1981	EW37	1981	05	03.51150	11	21	37.08	-02	04	32.9	413
1981	EX37	1981	04	26.48632	11	24	21.82	+02	28	11.3	413
1981	EX37	1981	05	02.49622	11	24	12.45	+02	45	16.8	413
1981	EZ37	1981	04	26.48632	11	31	41.13	+02	06	19.9	413
1981	EZ37	1981	05	01.37533	11	30	41.31	+02	22	52.0	413
1981	EZ37	1981	05	02.49622	11	30	30.91	+02	26	10.5	413
1981	EA38	1981	05	03.51150	11	24	27.29	-02	23	33.7	413
1981	EB38	1981	05	02.49622	11	25	23.33	-00	16	44.9	413
1981	EB38	1981	05	03.51150	11	25	17.34	-00	16	01.3	413
1981	EC38	1981	05	02.49622	11	22	15.67	+01	25	59.6	413
1981	EC38	1981	05	03.51150	11	22	09.74	+01	28	10.6	413
1981	EE38	1981	05	02.49622	11	27	33.87	+01	01	31.7	413
1981	EE38	1981	05	03.51150	11	27	25.00	+01	02	48.2	413
1981	EH38	1981	05	02.49622	11	27	14.74	+01	14	39.3	413
1981	EH38	1981	05	03.51150	11	27	11.51	+01	17	56.2	413
1981	EJ38	1981	05	01.43386	11	36	08.55	+01	42	47.3	413
1981	EJ38	1981	05	03.51150	11	36	06.81	+01	52	10.2	413
1981	EK38	1981	05	03.51150	11	28	06.92	-02	11	47.7	413
1981	EL38	1981	05	01.37533	11	38	04.05	+02	12	22.1	413
1981	EL38	1981	05	01.43386	11	38	03.63	+02	12	38.6	413
1981	EM38	1981	05	01.43386	11	36	23.61	-03	28	55.8	413
1981	EM38	1981	05	03.51150	11	36	04.66	-03	24	21.1	413
1981	EN38	1981	05	01.43386	11	46	39.44	-00	44	12.4	413
1981	EO38	1981	04	26.48632	11	42	04.68	+02	01	57.2	413
1981	EO38	1981	05	01.37533	11	40	48.64	+02	30	54.6	413
1981	EP38	1981	05	01.43386	11	46	12.91	+00	26	00.4	413
1981	EQ38	1981	05	01.37533	11	49	41.34	+04	51	48.0	413
1981	ER38	1981	05	01.37533	11	45	26.20	+02	17	27.2	413
1981	ER38	1981	05	01.43386	11	45	25.73	+02	17	40.1	413
1981	ES38	1981	05	01.43386	11	38	59.09	+01	01	01.7	413
1981	ES38	1981	05	03.51150	11	38	30.54	+01	09	36.4	413
1981	ET38	1981	05	01.43386	11	45	15.62	+00	14	01.9	413
1981	ET38	1981	05	03.51150	11	44	43.06	+00	22	55.2	413
1981	EU38	1981	05	01.43386	11	42	48.46	+01	04	32.1	413
1981	EU38	1981	05	03.51150	11	42	39.11	+01	10	32.6	413
1981	EV38	1981	05	01.43386	11	47	01.55	-03	27	12.3	413
1981	EW38	1981	05	01.49549	11	47	48.92	-05	17	24.6	413
1981	EX38	1981	04	29.43724	11	00	29.27	-04	39	34.7	413
1981	EY38	1981	04	29.43724	10	58	58.24	-07	12	37.1	413
1981	EB39	1981	05	02.43701	11	09	01.54	+07	09	28.7	413
1981	EB39	1981	05	03.45194	11	09	12.48	+07	12	41.6	413
1981	EC39	1981	05	02.43701	11	15	42.53	+07	48	11.0	413
1981	EC39	1981	05	03.45194	11	15	42.83	+07	54	21.4	413
1981	EE39	1981	05	02.43701	11	13	07.46	+07	22	47.9	413
1981	EE39	1981	05	03.45194	11	13	04.03	+07	24	06.1	413
1981	EG39	1981	04	30.53008	11	11	21.14	+04	01	57.7	413
1981	EG39	1981	05	02.49622	11	10	59.08	+04	03	03.1	413
1981	EM39	1981	04	30.53008	11	05	40.51	+04	14	08.7	413
1981	EM39	1981	05	02.49622	11	05	50.55	+04	08	23.7	413
1981	EN39	1981	04	30.53008	11	13	20.75	+04	41	46.8	413
1981	EN39	1981	05	02.43701	11	13	15.52	+04	44	24.8	413
1981	EN39	1981	05	03.45194	11	13	14.73	+04	45	36.4	413
1981	EQ39	1981	04	30.53008	11	17	04.73	+04	02	55.9	413
1981	EQ39	1981	05	02.49622	11	17	04.39	+04	03	30.5	413
1981	ES39	1981	04	26.48632	11	21	19.09	+02	06	36.8	413
1981	ES39	1981	04	30.53008	11	20	44.40	+02	12	32.2	413

1981	ES39	1981	05	02.49622	11	20	35.65	+02	14	35.1	413
1981	ES39	1981	05	03.51150	11	20	33.06	+02	15	22.3	413
1981	ET39	1981	04	30.53008	11	20	37.73	+01	10	04.4	413
1981	ET39	1981	05	02.49622	11	20	22.73	+01	11	27.9	413
1981	ET39	1981	05	03.51150	11	20	16.67	+01	11	59.3	413
1981	EU39	1981	04	30.53008	11	12	37.28	+04	30	12.0	413
1981	EU39	1981	05	02.49622	11	12	20.95	+04	25	49.0	413
1981	EV39	1981	04	26.48632	11	23	04.55	+04	37	39.6	413
1981	EW39	1981	04	30.53008	11	18	52.38	+03	04	38.8	413
1981	EW39	1981	05	02.49622	11	18	27.18	+03	02	22.6	413
1981	EY39	1981	04	26.48632	11	23	15.68	+03	59	46.6	413
1981	EY39	1981	05	02.49622	11	23	41.92	+04	00	44.9	413
1981	EA40	1981	04	26.48632	11	26	37.74	+06	34	58.8	413
1981	EA40	1981	05	02.43701	11	25	06.72	+06	42	51.5	413
1981	EB40	1981	04	26.48632	11	27	04.09	+04	01	32.3	413
1981	EB40	1981	05	02.49622	11	26	10.65	+04	05	27.2	413
1981	EC40	1981	04	30.47156	11	19	00.80	-09	27	19.9	413
1981	EC40	1981	05	02.37780	11	18	30.26	-09	19	09.5	413
1981	ED40	1981	04	26.48632	11	30	57.81	+05	13	28.9	413
1981	ED40	1981	05	01.37533	11	30	30.82	+05	29	45.4	413
1981	EF40	1981	04	26.48632	11	23	14.25	+03	16	46.0	413
1981	EF40	1981	05	02.49622	11	21	41.04	+03	13	01.9	413
1981	EG40	1981	04	26.48632	11	29	44.13	+04	48	01.1	413
1981	EH40	1981	04	26.48632	11	24	50.74	+03	38	46.6	413
1981	EH40	1981	05	02.49622	11	23	55.01	+03	34	30.9	413
1981	EJ40	1981	04	30.47156	11	09	05.64	-11	40	12.2	413
1981	EJ40	1981	05	02.37780	11	08	17.99	-11	37	39.7	413
1981	EK40	1981	04	26.48632	11	28	58.50	+03	05	06.8	413
1981	EK40	1981	05	02.49622	11	27	34.99	+03	21	45.3	413
1981	EL40	1981	05	02.49622	11	25	47.55	-00	03	35.1	413
1981	EL40	1981	05	03.51150	11	25	46.25	-00	04	06.4	413
1981	EM40	1981	04	26.48632	11	28	31.10	+07	11	13.8	413
1981	EM40	1981	05	02.43701	11	27	07.73	+07	16	41.3	413
1981	EO40	1981	04	26.48632	11	30	41.42	+07	38	54.7	413
1981	EO40	1981	05	01.37533	11	29	32.58	+07	59	36.5	413
1981	EP40	1981	04	26.48632	11	24	15.39	+02	44	15.6	413
1981	EP40	1981	05	02.49622	11	22	44.41	+03	10	59.8	413
1981	EQ40	1981	05	02.43701	11	19	02.17	+04	47	10.8	413
1981	EQ40	1981	05	02.49622	11	19	01.36	+04	47	12.9	413
1981	ER40	1981	05	02.49622	11	29	04.51	+01	17	10.7	413
1981	ER40	1981	05	03.51150	11	29	08.57	+01	17	07.4	413
1981	ES40	1981	04	26.48632	11	32	00.59	+02	46	51.0	413
1981	ES40	1981	05	01.37533	11	31	15.28	+03	04	55.8	413
1981	ET40	1981	05	02.49622	11	27	13.15	-00	15	37.9	413
1981	ET40	1981	05	03.51150	11	27	06.59	-00	14	21.1	413
1981	EW40	1981	04	30.53008	11	18	48.60	+00	40	27.1	413
1981	EW40	1981	05	02.49622	11	18	14.90	+00	39	59.5	413
1981	EX40	1981	05	02.49622	11	26	45.92	-01	02	23.6	413
1981	EX40	1981	05	03.51150	11	26	32.54	-01	02	26.9	413
1981	EY40	1981	04	26.48632	11	30	51.75	+02	04	12.1	413
1981	EY40	1981	05	02.49622	11	29	29.27	+02	17	16.3	413
1981	EZ40	1981	05	02.49622	11	21	19.22	+01	39	10.2	413
1981	EZ40	1981	05	03.51150	11	21	06.59	+01	39	40.2	413
1981	EA41	1981	04	26.48632	11	37	37.77	+03	02	53.0	413
1981	EA41	1981	05	01.37533	11	36	41.01	+03	17	26.4	413
1981	EE41	1981	04	26.48632	11	34	04.35	+04	05	40.8	413
1981	EH41	1981	05	01.37533	11	38	47.02	+01	57	48.9	413
1981	EH41	1981	05	01.43386	11	38	46.08	+01	58	04.0	413
1981	EH41	1981	05	03.51150	11	38	24.45	+02	06	24.8	413

1981	EK41	1981	04	26.48632	11	33	32.01	+02 35 04.2	413
1981	EK41	1981	05	01.37533	11	32	43.69	+02 55 00.7	413
1981	EL41	1981	04	26.48632	11	34	03.64	+02 12 49.7	413
1981	EL41	1981	05	01.37533	11	32	28.29	+02 09 22.1	413
1981	EL41	1981	05	03.51150	11	31	56.01	+02 06 57.6	413
1981	EM41	1981	05	01.43386	11	36	25.49	-01 05 12.4	413
1981	EM41	1981	05	03.51150	11	35	49.66	-01 01 46.5	413
1981	EN41	1981	04	26.48632	11	39	07.15	+05 03 25.7	413
1981	EO41	1981	04	26.48632	11	33	15.54	+03 02 55.4	413
1981	EO41	1981	05	01.37533	11	31	26.48	+03 02 45.3	413
1981	EP41	1981	05	01.37533	11	30	59.81	+02 13 50.6	413
1981	EP41	1981	05	01.43386	11	30	58.93	+02 13 50.7	413
1981	EP41	1981	05	03.51150	11	30	37.29	+02 15 03.1	413
1981	EQ41	1981	05	01.43386	11	34	49.26	-00 54 42.7	413
1981	EQ41	1981	05	03.51150	11	34	18.92	-00 51 48.1	413
1981	ER41	1981	04	29.43724	11	20	15.90	-01 50 15.4	413
1981	ET41	1981	04	26.48632	11	36	51.68	+05 46 28.4	413
1981	ET41	1981	05	01.37533	11	35	31.64	+06 03 27.3	413
1981	EU41	1981	05	01.37533	11	36	01.01	+01 53 26.3	413
1981	EU41	1981	05	01.43386	11	36	00.39	+01 53 32.3	413
1981	EU41	1981	05	03.51150	11	35	50.04	+01 56 59.0	413
1981	EV41	1981	05	01.43386	11	37	03.59	-00 17 35.3	413
1981	EV41	1981	05	03.51150	11	36	40.89	-00 14 51.2	413
1981	EW41	1981	04	26.48632	11	34	13.44	+04 14 50.4	413
1981	EW41	1981	05	01.37533	11	32	35.19	+04 25 42.2	413
1981	EX41	1981	05	01.43386	11	43	03.41	+01 25 37.5	413
1981	EX41	1981	05	03.51150	11	42	31.27	+01 29 46.1	413
1981	EY41	1981	04	26.48632	11	42	41.21	+01 58 00.9	413
1981	EY41	1981	05	01.37533	11	42	20.53	+02 05 08.2	413
1981	EY41	1981	05	01.43386	11	42	20.28	+02 05 09.4	413
1981	EY41	1981	05	03.51150	11	42	24.55	+02 06 36.0	413
1981	EA42	1981	04	26.48632	11	38	25.36	+05 50 24.5	413
1981	EA42	1981	05	01.37533	11	37	18.14	+06 06 52.9	413
1981	ED42	1981	05	01.37533	11	46	44.64	+04 22 14.0	413
1981	EE42	1981	05	01.37533	11	48	48.15	+06 13 53.3	413
1981	EF42	1981	04	26.48632	11	41	58.60	+03 23 57.2	413
1981	EF42	1981	05	01.37533	11	40	34.68	+03 27 56.1	413
1981	EJ42	1981	05	01.37533	11	50	47.85	+03 16 05.5	413
1981	EK42	1981	05	01.43386	11	47	47.57	+00 40 27.0	413
1981	EM42	1981	05	01.43386	11	46	55.18	+01 49 16.1	413
1981	EN42	1981	04	26.48632	11	37	04.79	+01 58 11.7	413
1981	EN42	1981	05	01.37533	11	35	35.77	+02 11 28.6	413
1981	EN42	1981	05	03.51150	11	35	10.66	+02 15 42.6	413
1981	EO42	1981	04	26.48632	11	38	59.83	+02 00 04.8	413
1981	EO42	1981	05	01.37533	11	37	13.45	+02 03 41.3	413
1981	EO42	1981	05	01.43386	11	37	12.16	+02 03 43.0	413
1981	EO42	1981	05	03.51150	11	36	37.53	+02 04 14.1	413
1981	EP42	1981	05	01.43386	11	42	48.00	+01 46 55.3	413
1981	EP42	1981	05	03.51150	11	42	19.13	+01 52 05.7	413
1981	ER42	1981	05	01.43386	11	45	31.51	+01 43 32.8	413
1981	ES42	1981	05	01.37533	11	41	51.52	+02 16 07.3	413
1981	ES42	1981	05	01.43386	11	41	50.37	+02 16 05.4	413
1981	ES42	1981	05	03.51150	11	41	29.20	+02 16 41.5	413
1981	ET42	1981	05	01.43386	11	35	48.61	+00 46 00.9	413
1981	ET42	1981	05	03.51150	11	35	12.14	+00 49 52.1	413
1981	EU42	1981	05	01.43386	11	48	20.86	+00 55 17.2	413
1981	EV42	1981	05	01.43386	11	32	59.29	-00 20 37.9	413
1981	EV42	1981	05	03.51150	11	32	20.93	-00 22 18.0	413
1981	EX42	1981	05	01.43386	11	40	27.59	+00 53 30.2	413

1981	EX42	1981	05	03.51150	11	39	59.81	+00 54 38.9	413
1981	EY42	1981	05	01.43386	11	46	19.06	+01 10 02.8	413
1981	EA43	1981	05	01.43386	11	40	41.84	+00 33 54.0	413
1981	EA43	1981	05	03.51150	11	40	08.94	+00 37 37.9	413
1981	EB43	1981	05	01.43386	11	43	55.04	+01 31 10.0	413
1981	EB43	1981	05	03.51150	11	43	27.42	+01 32 27.1	413
1981	EC43	1981	05	01.37533	11	42	32.40	+02 22 33.1	413
1981	ED43	1981	05	01.37533	11	42	46.98	+01 57 51.9	413
1981	ED43	1981	05	01.43386	11	42	45.28	+01 57 50.9	413
1981	ED43	1981	05	03.51150	11	41	58.37	+01 58 11.2	413
1981	EJ43	1981	04	30.53008	11	08	34.02	+02 03 24.1	413
1981	EJ43	1981	05	02.49622	11	09	01.70	+02 01 41.3	413
1981	EN43	1981	05	02.43701	11	18	52.22	+04 58 40.0	413
1981	EO43	1981	04	26.48632	11	23	57.97	+02 21 40.8	413
1981	EO43	1981	05	02.49622	11	22	53.07	+02 23 35.7	413
1981	EQ43	1981	04	26.48632	11	28	29.99	+03 27 04.8	413
1981	EQ43	1981	05	02.49622	11	28	11.45	+03 33 24.4	413
1981	ER43	1981	04	26.48632	11	28	51.17	+02 01 35.8	413
1981	ER43	1981	05	02.49622	11	27	22.82	+02 12 57.3	413
1981	ER43	1981	05	03.51150	11	27	12.20	+02 14 24.8	413
1981	ES43	1981	04	26.48632	11	31	52.70	+01 54 39.6	413
1981	ES43	1981	05	01.37533	11	30	43.49	+02 06 12.2	413
1981	ES43	1981	05	01.43386	11	30	42.54	+02 06 16.9	413
1981	ES43	1981	05	02.49622	11	30	30.91	+02 08 23.8	413
1981	ES43	1981	05	03.51150	11	30	21.21	+02 10 15.4	413
1981	ET43	1981	05	01.43386	11	37	54.15	+01 36 52.2	413
1981	ET43	1981	05	03.51150	11	37	51.91	+01 57 10.2	413
1981	EU43	1981	05	02.37780	11	20	24.48	-12 04 38.4	413
1981	EU43	1981	05	02.56063	11	20	21.51	-12 04 05.7	413
1981	EX43	1981	05	02.49622	11	28	25.96	+01 07 58.8	413
1981	EX43	1981	05	03.51150	11	28	16.57	+01 11 35.2	413
1981	EY43	1981	05	01.43386	11	31	30.34	-03 00 36.5	413
1981	EY43	1981	05	03.51150	11	31	18.74	-02 54 40.3	413
1981	EZ43	1981	05	01.43386	11	33	41.88	-00 34 37.2	413
1981	EZ43	1981	05	03.51150	11	33	05.48	-00 33 20.4	413
1981	EA44	1981	04	26.48632	11	37	54.23	+04 09 47.2	413
1981	EA44	1981	05	01.37533	11	36	27.13	+04 32 53.3	413
1981	ED44	1981	05	01.43386	11	37	21.65	-02 45 36.5	413
1981	ED44	1981	05	03.51150	11	36	57.18	-02 44 18.2	413
1981	EE44	1981	05	01.43386	11	47	06.69	-02 10 44.2	413
1981	EF44	1981	05	01.43386	11	44	57.45	-02 26 12.3	413
1981	EF44	1981	05	03.51150	11	44	22.35	-02 22 30.6	413
1981	EG44	1981	05	01.37533	11	43	54.56	+02 32 50.1	413
1981	EL44	1981	04	29.43724	11	01	40.59	-02 39 17.2	413
1981	EO44	1981	04	30.53008	11	06	45.21	+03 58 34.8	413
1981	EO44	1981	05	02.49622	11	06	50.23	+03 58 05.6	413
1981	EZ44	1981	04	30.53008	11	16	03.84	+01 17 48.2	413
1981	EZ44	1981	05	02.49622	11	15	53.34	+01 25 39.6	413
1981	EC45	1981	05	02.49622	11	28	39.94	-00 18 58.8	413
1981	ED45	1981	05	03.51150	11	21	24.99	-03 44 38.7	413
1981	EE45	1981	05	01.37533	11	41	27.17	+02 11 30.6	413
1981	EE45	1981	05	01.43386	11	41	25.57	+02 11 21.6	413
1981	EE45	1981	05	03.51150	11	40	46.53	+02 07 34.0	413
1981	EF45	1981	04	26.48632	11	41	01.95	+04 20 58.7	413
1981	EF45	1981	05	01.37533	11	39	51.35	+04 22 31.3	413
1981	EG45	1981	04	30.53008	11	06	17.20	-00 03 29.6	413
1981	EG45	1981	05	02.49622	11	06	33.81	-00 01 32.5	413
1981	EH45	1981	05	03.39307	11	25	41.36	-05 30 15.5	413
1981	EK45	1981	05	03.51150	11	21	39.30	-01 55 39.6	413

1981	EL45	1981	05	01.49549	11	32	24.63	-05 18 26.6	413
1981	EL45	1981	05	03.39307	11	32	25.91	-05 10 44.5	413
1981	EM45	1981	05	03.39307	11	25	12.66	-06 03 35.0	413
1981	EN45	1981	05	02.49622	11	24	33.70	-00 47 51.4	413
1981	EN45	1981	05	03.51150	11	24	26.17	-00 45 56.3	413
1981	EP45	1981	05	01.49549	11	32	23.83	-05 48 04.8	413
1981	EP45	1981	05	03.39307	11	31	48.99	-05 47 36.5	413
1981	ER45	1981	05	01.37533	11	47	31.06	+02 00 58.0	413
1981	ER45	1981	05	01.43386	11	47	30.74	+02 01 10.0	413
1981	ES45	1981	05	01.43386	11	50	18.36	-02 53 12.8	413
1981	ET45	1981	05	01.43386	11	53	28.90	+00 14 00.8	413
1981	EV45	1981	05	01.43386	11	47	22.21	-02 39 02.0	413
1981	EW45	1981	05	01.43386	11	53	14.72	-00 48 49.3	413
1981	EY45	1981	05	01.43386	11	51	12.80	-03 47 46.5	413
1981	EY45	1981	05	01.49549	11	51	11.79	-03 47 38.3	413
1981	EZ45	1981	05	02.43701	11	09	54.50	+07 44 42.7	413
1981	EZ45	1981	05	03.45194	11	09	49.27	+07 45 47.0	413
1981	EE46	1981	04	30.53008	11	07	21.41	+00 44 48.8	413
1981	EE46	1981	05	02.49622	11	07	03.33	+00 47 45.6	413
1981	EG46	1981	04	30.53008	11	05	53.99	+01 56 46.9	413
1981	EG46	1981	05	02.49622	11	06	07.71	+01 52 59.4	413
1981	EM46	1981	04	30.53008	11	07	23.21	+03 44 04.2	413
1981	EM46	1981	05	02.49622	11	07	25.16	+03 45 42.0	413
1981	EP46	1981	04	30.53008	11	09	02.72	+04 08 18.0	413
1981	EP46	1981	05	02.49622	11	08	48.10	+04 07 25.2	413
1981	EQ46	1981	05	02.43701	11	16	27.98	+06 27 50.0	413
1981	EQ46	1981	05	03.45194	11	16	23.02	+06 28 49.6	413
1981	ET46	1981	04	30.53008	11	15	51.73	+03 20 34.9	413
1981	ET46	1981	05	02.49622	11	15	35.03	+03 22 09.5	413
1981	EV46	1981	04	30.53008	11	09	23.56	+04 15 26.2	413
1981	EV46	1981	05	02.49622	11	09	06.32	+04 17 17.0	413
1981	EW46	1981	04	26.48632	11	21	26.85	+04 45 27.0	413
1981	EW46	1981	05	02.43701	11	20	29.68	+04 49 21.8	413
1981	EX46	1981	04	26.48632	11	23	37.49	+02 39 53.2	413
1981	EX46	1981	05	02.49622	11	22	21.78	+02 50 31.8	413
1981	EZ46	1981	04	26.48632	11	22	36.51	+06 04 03.5	413
1981	EZ46	1981	05	02.43701	11	21	07.14	+06 08 59.1	413
1981	EA47	1981	04	30.53008	11	13	59.46	+02 28 37.2	413
1981	EA47	1981	05	02.49622	11	13	40.96	+02 28 20.4	413
1981	EC47	1981	05	02.43701	11	24	56.11	+09 04 48.9	413
1981	ED47	1981	04	26.48632	11	22	19.78	+02 07 58.6	413
1981	ED47	1981	05	02.49622	11	22	23.47	+02 06 29.0	413
1981	EE47	1981	04	26.48632	11	27	52.66	+06 45 22.7	413
1981	EE47	1981	05	02.43701	11	26	21.63	+06 57 47.3	413
1981	EF47	1981	04	26.48632	11	30	13.75	+03 15 39.5	413
1981	EF47	1981	05	02.49622	11	29	03.45	+03 16 36.4	413
1981	EJ47	1981	04	26.48632	11	35	18.81	+06 42 09.4	413
1981	EK47	1981	05	01.43386	11	42	06.05	-00 06 40.9	413
1981	EK47	1981	05	03.51150	11	41	43.85	-00 02 45.2	413
1981	EN47	1981	04	26.48632	11	24	55.63	+01 48 40.1	413
1981	EO47	1981	05	01.37533	11	39	15.98	+05 03 32.6	413
1981	EP47	1981	05	01.37533	11	47	39.70	+02 09 02.1	413
1981	EP47	1981	05	01.43386	11	47	39.06	+02 09 16.0	413
1981	EQ47	1981	04	26.48632	11	41	52.95	+04 15 48.4	413
1981	EQ47	1981	05	01.37533	11	40	21.66	+04 23 34.2	413
1981	ER47	1981	04	26.48632	11	42	09.60	+03 42 38.4	413
1981	ER47	1981	05	01.37533	11	40	19.33	+03 49 14.2	413
1981	ES47	1981	04	26.48632	11	40	09.65	+04 52 33.7	413
1981	ES47	1981	05	01.37533	11	38	21.85	+04 57 18.7	413

1981 ET47	1981 05 01.43386	11 41 45.49	+00 35 42.5		413
1981 ET47	1981 05 03.51150	11 41 01.40	+00 38 38.5		413
1981 EV47	1981 05 01.37533	11 49 05.40	+05 57 00.8		413
1981 EE48	1981 04 26.48632	11 41 26.66	+03 43 48.5		413
1981 EE48	1981 05 01.37533	11 41 13.01	+04 11 41.7		413
1981 EF48	1981 05 01.43386	11 50 52.30	-00 20 32.6		413
1981 EH48	1981 05 01.49549	11 47 21.79	-04 10 14.5		413
1981 EJ48	1981 05 03.51150	11 22 16.30	-03 20 49.7		413
1981 FP	1981 04 26.48632	11 23 17.05	+04 36 38.4		413
1981 FP	1981 05 02.43701	11 23 41.68	+04 41 19.2		413
1981 FP	1981 05 02.49622	11 23 42.44	+04 41 17.9		413
1981 FQ	1981 04 26.48632	11 21 43.38	+04 19 55.9		413
1981 FQ	1981 04 30.53008	11 21 05.94	+04 23 14.4		413
1981 FQ	1981 05 02.49622	11 20 56.59	+04 23 56.4		413
1981 FR	1981 04 26.48632	11 22 25.65	+06 28 02.8		413
1981 FR	1981 05 02.43701	11 21 42.39	+06 54 31.2		413
1981 FC1	1981 04 30.53008	11 08 22.28	+04 11 52.7		413
1981 FC1	1981 05 02.49622	11 08 21.29	+04 06 39.6		413
1981 GD1	1981 05 01.43386	11 45 31.38	-01 33 43.8		413
1981 GM1	1981 04 30.53008	11 16 23.25	+02 07 34.5		413
1981 GM1	1981 05 02.49622	11 16 06.34	+01 58 01.9		413
1981 GN1	1981 04 26.48632	11 21 25.23	+06 33 21.3		413
1981 GN1	1981 05 02.43701	11 20 40.48	+06 56 51.4		413
1981 GN1	1981 05 03.45194	11 20 38.56	+07 00 04.9		413
1981 GO1	1981 04 26.48632	11 22 53.99	+04 06 15.8		413
1981 GO1	1981 05 02.49622	11 23 15.53	+03 53 34.7		413
1984 AB1	1981 05 02.43701	11 20 37.99	+10 45 57.6		413
2037 P-L	1981 04 30.53008	11 17 51.79	+03 31 06.6		413
2037 P-L	1981 05 02.49622	11 17 17.59	+03 24 46.5		413
4063 P-L	1981 05 01.43386	11 40 48.51	-02 38 41.8		413
4063 P-L	1981 05 03.51150	11 40 21.51	-02 34 59.1		413
4113 P-L	1981 04 26.48632	11 35 37.65	+01 54 51.9		413
4113 P-L	1981 05 01.37533	11 35 17.30	+02 03 15.4		413
4113 P-L	1981 05 01.43386	11 35 17.07	+02 03 19.8		413
4113 P-L	1981 05 03.51150	11 35 20.92	+02 05 26.4		413
4530 P-L	1981 05 01.43386	11 40 50.50	+01 32 29.3		413
4530 P-L	1981 05 03.51150	11 40 14.26	+01 37 36.9		413
4805 P-L	1981 04 26.48632	11 23 08.15	+04 43 19.3		413
4805 P-L	1981 05 02.43701	11 23 06.06	+04 32 49.2		413
4805 P-L	1981 05 02.49622	11 23 06.48	+04 32 38.6		413
6073 P-L	1981 04 30.53008	11 12 15.54	+02 57 25.5		413
6073 P-L	1981 05 02.49622	11 12 04.63	+02 57 28.6		413
6299 P-L	1981 05 01.43386	11 36 28.75	+00 50 47.4		413
6299 P-L	1981 05 03.51150	11 36 29.79	+01 02 35.0		413

OBSERVATIONS MADE AT MOUNT JOHN UNIVERSITY OBSERVATORY.

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

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N Obs.
159	1985 08 15.75374	05 59 29.68	+18 54 28.5		15	474
159	1985 08 15.76323	05 59 30.51	+18 54 28.6			474
159	1985 08 16.75559	06 00 59.27	+18 54 13.2			474
1266	1985 10 16.38728	19 09 21.82	-28 16 20.0		16	474
1266	1985 10 16.40557	19 09 22.90	-28 16 14.2			474
3122	1984 09 21.39990	17 28 08.94	-26 06 04.6			474

3122		1984	09	21.41020	17	28	10.98	-26	05	30.6		474
3288		1985	02	19.68207	16	40	34.06	-26	05	26.3		474
1964	XA	1985	09	17.61394	23	31	49.47	-27	03	27.0		474
1964	XA	1985	09	17.64438	23	31	47.14	-27	03	27.5		474
1978	LB	1985	09	18.63142	23	49	12.67	-28	41	52.8		474
1978	LB	1985	09	18.65075	23	49	11.88	-28	41	56.1		474
1978	PC	1985	09	16.62111	00	20	10.24	-40	05	25.9		474
1978	PC	1985	09	16.64958	00	20	08.09	-40	05	33.0		474
1981	VO	1985	09	20.47847	22	46	22.58	-14	49	32.3	1	474
1981	VO	1985	09	20.54103	22	46	20.05	-14	49	40.4	1	474
1982	MH	1985	04	24.56902	15	40	04.12	-18	15	59.3		474
1982	MH	1985	04	24.61196	15	40	01.75	-18	15	55.7		474
1984	HX	1985	09	16.55433	22	47	23.36	+00	00	02.4		474
1984	HX	1985	09	16.58153	22	47	21.82	-00	00	03.4		474
1985	NE	1985	09	17.57736	19	06	52.38	-29	21	09.7		474
1985	NE	1985	09	17.55479	19	06	51.26	-29	21	18.7		474
1985	PA	1985	09	15.55174	21	12	22.00	-46	05	47.9	1	474
1985	PA	1985	09	16.47944	21	09	50.59	-46	49	46.2		474
1985	PA	1985	09	16.50514	21	09	45.95	-46	51	02.8		474

Note 1: observation with 0.25-m astrograph.

OBSERVATIONS MADE AT THE OSSERVATORIO S. VITTORE.

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

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
1367	1985	10 17.95139	00 55 47.11	+41 29 25.1	17.5	552
1367	1985	10 17.97222	00 55 45.84	+41 29 14.4		552
1711	1985	09 21.88750	23 07 03.81	-15 56 58.1		552
1711	1985	09 21.90486	23 07 03.01	-15 57 09.4		552
2601	1985	10 11.88264	00 47 07.94	+20 12 26.6	17.0	552
2601	1985	10 11.90208	00 47 06.91	+20 12 20.3		552
2646	1985	10 11.97292	04 22 05.97	+33 12 30.2	17.0	552
2646	1985	10 11.99792	04 22 05.62	+33 12 36.8		552
2920	1985	09 21.92431	23 25 27.80	+18 42 05.6		552
2920	1985	09 21.94167	23 25 27.43	+18 42 00.1		552
1948	RD 1985	10 11.92986	23 41 47.04	+00 26 59.7	15.5	552
1948	RD 1985	10 11.94931	23 41 46.22	+00 27 00.5		552
1948	RD 1985	10 16.89444	23 38 44.40	+00 31 41.2	15.5	552
1948	RD 1985	10 16.92014	23 38 43.55	+00 31 43.0		552
1981	WE 1985	10 10.90972	23 50 16.01	+10 50 39.1	16.3	552
1981	WE 1985	10 10.93125	23 50 15.29	+10 50 22.5		552
1981	WE 1985	10 14.93750	23 48 25.36	+09 58 15.3	16.3	552
1981	WE 1985	10 14.95625	23 48 24.89	+09 58 02.8		552

OBSERVATIONS MADE AT BASSANO BRESCIANO BY U. QUADRI AND V. MARINELLO.

Plates taken with an 0.15-m astrometric reflector, measured with a one-axis machine, reduced using a modified dependence method and SAO reference-star positions. Contact: U. Quadri, Osservatorio Astronomico Brixia, Via S. Michele 4, I-25020 Bassano Bresciano, Brescia, Italy.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
28	1985	08 17.87512	19 40 15.87	-16 40 01.8	565
28	1985	08 17.92486	19 40 14.19	-16 40 14.1	565
335	1985	08 18.86645	19 24 01.57	-18 39 28.2	565
335	1985	08 18.89265	19 24 01.21	-18 39 35.6	565
409	1985	09 19.80058	21 29 57.85	+03 19 48.8	565
409	1985	09 19.83213	21 29 57.00	+03 19 36.6	565

OBSERVATIONS MADE AT ELDAGSEN BY W. BONK.

Contact: W. Bonk, Nordstrasse 33, D-3257 Springe 3, Federal Republic of Germany.

Object		Date	UT	R. A. (1950)	Decl.	Obs.
95		1985 10	11.90000	01 24 30.13	+22 56 18.8	573
95		1985 10	11.90625	01 24 29.83	+22 56 15.7	573
95		1985 10	11.91250	01 24 29.54	+22 56 12.6	573
95		1985 10	11.91875	01 24 29.24	+22 56 09.4	573
95		1985 10	11.92569	01 24 28.91	+22 56 05.9	573
95		1985 10	15.81388	01 21 37.14	+22 25 34.8	573
95		1985 10	15.82152	01 21 36.79	+22 25 31.1	573
95		1985 10	15.82916	01 21 36.44	+22 25 27.4	573
95		1985 10	15.83680	01 21 36.09	+22 25 23.6	573
95		1985 10	15.84444	01 21 35.74	+22 25 19.9	573
98		1985 11	03.72639	02 00 17.20	+30 54 14.8	573
98		1985 11	03.73472	02 00 16.67	+30 54 14.2	573
98		1985 11	03.74236	02 00 16.18	+30 54 13.7	573
98		1985 11	03.75000	02 00 15.69	+30 54 13.2	573
98		1985 11	03.75764	02 00 15.19	+30 54 12.6	573
705		1985 10	12.80833	01 30 50.08	+27 13 17.2	573
705		1985 10	12.81597	01 30 49.60	+27 13 18.7	573
705		1985 10	12.82361	01 30 49.11	+27 13 20.3	573
705		1985 10	12.83125	01 30 48.62	+27 13 21.8	573
705		1985 10	12.83958	01 30 48.09	+27 13 23.5	573
705		1985 10	15.85347	01 27 15.62	+27 20 41.8	573
705		1985 10	15.86111	01 27 15.08	+27 20 42.4	573
705		1985 10	15.86875	01 27 14.54	+27 20 42.9	573
705		1985 10	15.87638	01 27 14.00	+27 20 43.5	573
705		1985 10	15.88472	01 27 13.41	+27 20 44.1	573
914		1985 11	03.76736	03 21 00.74	+37 06 01.3	573
914		1985 11	03.77500	03 21 00.26	+37 05 56.3	573
914		1985 11	03.78333	03 20 59.73	+37 05 50.8	573
914		1985 11	03.79097	03 20 59.24	+37 05 45.8	573

OBSERVATIONS MADE AT VICTORIA BY D. D. BALAM.

Films (Kodak 2415 emulsion) taken with a 0.25-m f/2 Schmidt (Celestron 10). Measurements on single-coordinate engine. Generally 6-8 reference stars from SAO Catalog, least-squares plate-constants solution (Tatum 1982, J. Roy. Astron. Soc. Canada 76, 97). Contact: J. B. Tatum, Dept of Physics, University of Victoria, P.O. Box 1700, Victoria, BC, V8W 2Y2, Canada.

Object		Date	UT	R. A. (1950)	Decl.	Obs.
1948 RD		1985 09	18.28727	00 03 45.54	+00 27 36.6	657
1948 RD		1985 09	18.33932	00 03 42.17	+00 27 37.5	657

OBSERVATIONS MADE WITH THE 1.5-m REFLECTOR AND CCD AT PALOMAR BY J. GIBSON.

Coordination with J. G. Williams and with the Minor Planet Center. AGK3 and SAO reference stars, reduction using Palomar Sky Survey prints. Contact: J. Gibson, MS 264-700, Jet Propulsion Laboratory, Pasadena, CA 91109, U.S.A.

Object		Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
1981 VA		1985 11	06.42951	06 08 21.30	+21 53 07.5		675
1981 VA		1985 11	06.43715	06 08 20.45	+21 53 02.8		675
1981 VA		1985 11	06.44090	06 08 20.02	+21 52 59.5		675
1985 UA	*	1985 10	23.28576	01 05 01.62	+12 25 53.7	16	675
1985 UA		1985 10	23.29375	01 05 01.11	+12 25 51.3		675
1985 UA		1985 11	05.32222	00 53 29.52	+11 19 16.6		675
1985 UA		1985 11	05.33326	00 53 29.02	+11 19 13.4		675
1985 UA		1985 11	06.33229	00 52 46.52	+11 14 35.4		675
1985 UA		1985 11	06.35083	00 52 45.70	+11 14 30.3		675

OBSERVATIONS MADE WITH THE 0.46-m SCHMIDT AT PALOMAR.

Films taken in the course of the International Near-Earth Asteroid Survey (INAS) by E. F. Helin, S. Singer-Brewster and D. Schneeberger. Measured by Singer-Brewster and P. Saunders. Contact: E. Helin, MS 183-501, Jet Propulsion Laboratory, Pasadena, CA 91109, U.S.A.

Object		Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
1759		1985 07	16.39653	20 58 24.48	-11 58 08.2	16	675
1759		1985 07	16.41944	20 58 23.56	-11 58 12.5		675
1985 QD		1985 09	13.29838	22 54 57.56	-05 21 56.4	15	675
1985 QD		1985 09	14.32396	22 53 57.02	-05 25 01.5		675
1985 RJ2	*	1985 09	13.29838	22 53 52.87	-06 22 00.3	16.8	675
1985 RJ2		1985 09	14.32396	22 52 51.43	-06 22 09.1		675
1985 RK2	*	1985 09	13.29838	22 55 04.66	-05 17 00.1	16.5	675
1985 RK2		1985 09	14.32396	22 54 17.29	-05 22 59.4		675
1985 TB		1985 11	14.16632	23 36 51.72	+31 26 32.1		675
1985 TB		1985 11	15.12674	23 33 13.24	+32 11 30.0		675

OBSERVATIONS MADE WITH THE 1.2-m SCHMIDT AT PALOMAR.

Plates taken by J. Schombert and R. Windhorst, scanned by E. Helin, measured by M. Rudnyk. Contact: E. Helin, MS 183-501, Jet Propulsion Laboratory, Pasadena, CA 91109, U.S.A.

Object		Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
922		1985 08	23.30277	21 31 42.26	-02 28 12.2		675
922		1985 08	23.35486	21 31 40.04	-02 28 32.2		675
1189		1985 08	16.30486	21 49 23.27	+00 03 15.5	15.5	675
1189		1985 08	16.35694	21 49 20.69	+00 03 11.9		675
1985 QA1		1985 08	16.30486	21 48 12.93	-01 42 54.9		675
1985 QA1		1985 08	16.35694	21 48 10.30	-01 43 11.2		675
1985 QF1		1985 08	16.30486	21 48 21.24	-00 09 33.6		675
1985 QF1		1985 08	16.35694	21 48 18.39	-00 09 34.7		675
1985 QG1		1985 08	16.30486	21 48 11.70	+00 36 55.6		675
1985 QG1		1985 08	16.35694	21 48 09.20	+00 36 31.6		675
1985 QH1		1985 08	16.30486	21 48 24.68	+00 22 42.7		675
1985 QH1		1985 08	16.35694	21 48 21.82	+00 22 42.5		675
1985 QJ1		1985 08	16.30486	21 50 00.64	+00 13 41.2		675
1985 QJ1		1985 08	16.35694	21 49 58.15	+00 13 22.0		675
1985 QK1		1985 08	16.30486	21 45 26.43	+01 08 04.2		675
1985 QK1		1985 08	16.35694	21 45 23.73	+01 07 53.7		675
1985 QK1	*	1985 08	17.28263	21 44 31.84	+01 02 51.5	18.5	675
1985 QK1		1985 08	17.34513	21 44 28.33	+01 02 36.5		675
1985 QL1		1985 08	16.30486	21 46 49.44	+03 06 33.6		675
1985 QL1		1985 08	16.35694	21 46 46.77	+03 06 20.5		675
1985 QL1	*	1985 08	17.28263	21 46 01.71	+03 01 04.8	18	675
1985 QL1		1985 08	17.34513	21 45 58.62	+03 00 46.8		675
1985 QM1		1985 08	16.30486	21 46 50.82	+03 21 35.0		675
1985 QM1		1985 08	16.35694	21 46 48.22	+03 21 12.6		675
1985 QM1	*	1985 08	17.28263	21 46 04.58	+03 14 37.3	18	675
1985 QM1		1985 08	17.34513	21 46 01.62	+03 14 13.7		675
1985 QN1		1985 08	16.30486	21 47 47.35	-00 33 45.5		675
1985 QN1		1985 08	16.35694	21 47 44.97	-00 33 55.5		675
1985 QN1	*	1985 08	17.28263	21 47 04.29	-00 37 15.4	17	675
1985 QN1		1985 08	17.34513	21 47 01.52	-00 37 27.3		675
1985 QO1		1985 08	16.30486	21 48 11.34	+02 17 41.2		675
1985 QO1		1985 08	16.35694	21 48 09.25	+02 17 28.3		675
1985 QO1	*	1985 08	17.28263	21 47 28.89	+02 11 48.0	18.5	675
1985 QO1		1985 08	17.34513	21 47 26.22	+02 11 29.7		675
1985 QP1	*	1985 08	17.28263	21 49 50.88	-01 10 49.5	18.5	675
1985 QP1		1985 08	17.34513	21 49 47.68	-01 11 02.6		675
1985 QQ1		1985 08	16.30486	21 52 40.21	+01 44 40.6		675

1985	QQ1		1985	08	16.35694	21	52	37.63	+01	44	42.6	675
1985	QQ1	*	1985	08	17.28263	21	51	51.59	+01	45	02.7	17.5 675
1985	QQ1		1985	08	17.34513	21	51	48.45	+01	45	05.6	675
1985	QR1	*	1985	08	17.28264	21	29	56.70	-02	00	16.4	18.5 675
1985	QR1		1985	08	17.34514	21	29	53.64	-02	00	30.7	675
1985	QS1	*	1985	08	17.28264	21	30	37.75	-01	49	39.5	18.5 675
1985	QS1		1985	08	17.34514	21	30	34.59	-01	49	43.1	675
1985	QT1	*	1985	08	17.28264	21	31	48.62	-00	48	16.5	18 675
1985	QT1		1985	08	17.34514	21	31	46.05	-00	48	33.6	675
1985	QU1	*	1985	08	17.28264	21	32	04.82	+00	03	16.5	18 675
1985	QU1		1985	08	17.34514	21	32	01.91	+00	03	15.6	675
1985	QU1		1985	08	23.30277	21	27	21.99	-00	03	08.3	675
1985	QU1		1985	08	23.35486	21	27	19.45	-00	03	13.8	675
1985	QV1	*	1985	08	17.28264	21	34	19.22	-01	24	18.7	18.5 675
1985	QV1		1985	08	17.34514	21	34	15.93	-01	24	32.4	675
1985	QW1	*	1985	08	17.28264	21	35	15.26	-00	45	09.9	18 675
1985	QW1		1985	08	17.34514	21	35	11.81	-00	45	27.3	675
1985	QW1		1985	08	23.30277	21	29	45.28	-01	18	37.9	675
1985	QW1		1985	08	23.35486	21	29	42.49	-01	18	55.0	675
1985	QX1	*	1985	08	17.28264	21	35	29.61	-02	29	42.6	18.5 675
1985	QX1		1985	08	17.34514	21	35	27.09	-02	30	04.8	675
1985	QY1	*	1985	08	17.28264	21	36	02.53	-00	55	28.0	17 675
1985	QY1		1985	08	17.34514	21	35	59.50	-00	55	51.8	675
1985	QY1		1985	08	23.30277	21	31	13.36	-01	40	19.9	675
1985	QY1		1985	08	23.35486	21	31	10.60	-01	40	46.7	675
1985	QZ1	*	1985	08	17.28264	21	36	11.01	-02	35	17.6	19 675
1985	QZ1		1985	08	17.34514	21	36	07.75	-02	35	22.9	675
1985	QZ1		1985	08	23.35486	21	30	44.23	-02	48	10.7	675
1985	QA2	*	1985	08	17.28264	21	37	28.06	-01	36	04.2	17.5 675
1985	QA2		1985	08	17.34514	21	37	25.20	-01	36	30.9	675
1985	QA2		1985	08	23.30277	21	32	59.60	-02	24	44.8	675
1985	QA2		1985	08	23.35486	21	32	57.44	-02	25	08.9	675
1985	QB2	*	1985	08	17.28264	21	37	43.01	-02	17	48.2	17.5 675
1985	QB2		1985	08	17.34514	21	37	39.95	-02	17	53.2	675
1985	QB2		1985	08	23.30277	21	32	45.34	-02	29	41.1	675
1985	QB2		1985	08	23.35486	21	32	42.78	-02	29	47.6	675
1985	QC2	*	1985	08	17.28264	21	38	00.07	-03	09	16.5	17 675
1985	QC2		1985	08	17.34514	21	37	57.27	-03	09	47.5	675
1985	QD2	*	1985	08	17.28264	21	38	04.42	+00	21	21.4	16.5 675
1985	QD2		1985	08	17.34514	21	38	01.15	+00	21	16.1	675
1985	QD2		1985	08	23.30277	21	33	13.99	+00	06	22.9	675
1985	QD2		1985	08	23.35486	21	33	11.38	+00	06	14.1	675
1985	QE2	*	1985	08	17.28264	21	39	42.08	-01	48	09.1	19 675
1985	QE2		1985	08	17.34514	21	39	38.70	-01	48	24.4	675
1985	QE2		1985	08	23.30277	21	34	16.08	-02	17	43.6	675
1985	QE2		1985	08	23.35486	21	34	13.05	-02	18	01.7	675
1985	QF2	*	1985	08	17.28264	21	39	42.84	+00	09	55.0	18 675
1985	QF2		1985	08	17.34514	21	39	40.07	+00	09	36.7	675
1985	QF2		1985	08	23.30277	21	35	17.80	-00	24	28.4	675
1985	QF2		1985	08	23.35486	21	35	15.50	-00	24	46.0	675
1985	QG2	*	1985	08	17.28264	21	39	49.23	-00	01	58.4	18 675
1985	QG2		1985	08	17.34514	21	39	45.62	-00	01	56.7	675
1985	QH2	*	1985	08	17.28264	21	40	33.15	+00	29	56.5	18 675
1985	QH2		1985	08	17.34514	21	40	30.45	+00	29	32.9	675
1985	QH2		1985	08	23.30277	21	35	58.71	-00	19	55.5	675
1985	QH2		1985	08	23.35486	21	35	56.21	-00	20	19.5	675
1985	QJ2	*	1985	08	17.28264	21	40	52.70	+00	26	08.4	16.5 675
1985	QJ2		1985	08	17.34514	21	40	49.59	+00	25	43.4	675
1985	QJ2		1985	08	23.35486	21	36	05.54	-00	14	05.0	675

1985 QK2	*	1985	08	17.28264	21	41	09.66	-01	03	11.8	18	675
1985 QK2		1985	08	17.34514	21	41	06.67	-01	03	29.9		675
1985 QK2		1985	08	23.30277	21	36	01.30	-01	40	37.7		675
1985 QK2		1985	08	23.35486	21	35	58.30	-01	41	00.5		675
1985 QL2	*	1985	08	17.28264	21	41	38.53	-02	11	58.9	18.5	675
1985 QL2		1985	08	17.34514	21	41	36.00	-02	12	10.4		675
1985 QM2	*	1985	08	17.28264	21	42	24.33	-01	38	34.5	18	675
1985 QM2		1985	08	17.34514	21	42	20.75	-01	38	45.1		675
1985 QN2	*	1985	08	17.28264	21	42	57.94	+00	11	30.4	17.5	675
1985 QN2		1985	08	23.30277	21	38	12.45	-00	22	33.2		675
1985 QN2		1985	08	23.35486	21	38	09.95	-00	22	51.8		675
1985 QO2		1985	08	16.30486	21	44	41.14	-01	35	56.1		675
1985 QO2		1985	08	16.35694	21	44	38.98	-01	36	14.1		675
1985 QO2	*	1985	08	17.28264	21	43	59.14	-01	42	05.4	19	675
1985 QO2		1985	08	17.34514	21	43	56.54	-01	42	27.1		675
1985 QO2		1985	08	23.30277	21	39	42.97	-02	22	17.3		675
1985 QO2		1985	08	23.35486	21	39	40.82	-02	22	37.7		675
1985 QP2	*	1985	08	17.28264	21	45	15.20	-02	38	51.9	18	675
1985 QP2		1985	08	17.34514	21	45	12.29	-02	39	07.8		675
1985 QQ2	*	1985	08	17.28264	21	46	11.75	-02	36	24.5	18.5	675
1985 QQ2		1985	08	17.34514	21	46	08.79	-02	36	35.4		675
1985 QQ2		1985	08	23.30277	21	41	16.14	-02	59	19.7		675
1985 QQ2		1985	08	23.35486	21	41	13.46	-02	59	33.2		675
1985 QR2	*	1985	08	17.28264	21	47	14.29	+01	12	50.0	18.5	675
1985 QR2		1985	08	17.34514	21	47	14.12	+01	12	44.4		675
1985 QS2	*	1985	08	17.28264	21	49	13.11	-02	55	41.3	17.5	675
1985 QS2		1985	08	17.34514	21	49	09.60	-02	55	58.0		675
1985 QT2	*	1985	08	16.30486	21	45	19.55	+00	56	43.7	20.5	675
1985 QT2		1985	08	16.35694	21	45	16.94	+00	56	30.3		675
1985 QU2	*	1985	08	17.28264	21	27	59.08	-02	44	15.8	18	675
1985 QU2		1985	08	17.34514	21	27	56.64	-02	44	52.3		675
1985 QV2	*	1985	08	17.28264	21	28	30.58	-02	15	38.9	17.5	675
1985 QV2		1985	08	17.34514	21	28	27.32	-02	15	34.5		675
1985 QW2	*	1985	08	17.28264	21	29	00.02	-02	46	57.8	19.5	675
1985 QW2		1985	08	17.34514	21	28	54.37	-02	47	01.4		675
1985 QX2	*	1985	08	17.28264	21	45	58.87	-01	32	54.0	20.5	675
1985 QX2		1985	08	17.34514	21	45	55.27	-01	33	05.4		675
1985 QY2		1985	08	16.30486	21	47	16.06	-01	51	08.6		675
1985 QY2		1985	08	16.35694	21	47	13.11	-01	51	16.2		675
1985 QY2	*	1985	08	17.28264	21	46	17.50	-01	54	03.8	18	675
1985 QY2		1985	08	17.34514	21	46	13.80	-01	54	14.0		675
1985 QZ2	*	1985	08	17.28264	21	47	02.73	-01	36	53.2	20.5	675
1985 QZ2		1985	08	17.34514	21	46	59.58	-01	36	50.3		675
1985 QA3	*	1985	08	17.28264	21	47	17.07	-01	16	35.7	19	675
1985 QA3		1985	08	17.34514	21	47	14.29	-01	16	43.4		675
1985 QB3	*	1985	08	23.30277	21	27	20.99	-00	11	00.4		675
1985 QB3		1985	08	23.35486	21	27	18.44	-00	11	11.2		675
1985 QC3	*	1985	08	23.30277	21	34	16.23	-03	04	52.2	17	675
1985 QC3		1985	08	23.35486	21	34	10.99	-03	04	19.2		675
1985 QD3	*	1985	08	23.30277	21	35	57.00	-02	51	49.4	19.5	675
1985 QD3		1985	08	23.35486	21	35	55.08	-02	52	07.1		675
1985 QE3	*	1985	08	23.30277	21	42	44.73	-02	06	08.5	18	675
1985 QE3		1985	08	23.35486	21	42	42.78	-02	06	37.4		675
1985 QF3	*	1985	08	23.30277	21	43	35.83	-02	53	58.0	20	675
1985 QF3		1985	08	23.35486	21	43	32.73	-02	54	12.5		675

OBSERVATIONS MADE AT PALOMAR BY C. S. SHOEMAKER AND E. M. SHOEMAKER.
Four-minute exposures with the 0.46-m Schmidt telescope. Film pairs scanned by C. Shoemaker with a stereomicroscope, measured by her with a Mann

comparator at the U.S. Geological Survey. Reference stars from the SAO Catalog. Contact: C. S. Shoemaker, P.O. Box 984, Flagstaff, AZ 86002, U.S.A.

Object		Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
1980 TG5		1985 09	16.14184	19 51 23.17	-03 35 11.0			675
1980 TG5		1985 09	16.20763	19 51 24.22	-03 35 32.9			675
1981 JD2		1985 09	16.14652	21 06 14.07	-24 21 56.7			675
1981 JD2		1985 09	16.21232	21 06 13.47	-24 21 43.7			675
1985 TB		1985 11	07.20313	00 04 55.12	+25 39 13.2			675
1985 TB		1985 11	07.24653	00 04 44.12	+25 41 27.7			675
1985 TB		1985 11	08.13056	00 01 07.37	+26 27 23.0			675
1985 TB		1985 11	08.21510	00 00 45.85	+26 31 46.5			675
1985 TB		1985 11	17.24253	23 25 14.40	+33 47 33.8			675
1985 TD		1985 10	11.25590	00 18 47.42	+01 39 04.1	16.5		675
1985 TD		1985 10	11.28454	00 18 46.09	+01 38 26.4			675
1985 TD		1985 10	13.21233	00 17 26.68	+00 54 56.8			675
1985 TD		1985 10	13.24201	00 17 25.45	+00 54 17.6			675
1985 TE	*	1985 10	11.25590	00 14 13.43	+01 21 54.5	16.5		675
1985 TE		1985 10	11.28454	00 14 10.65	+01 22 08.7			675
1985 TE		1985 10	13.21233	00 11 11.92	+01 39 35.6			675
1985 TN2	*	1985 10	13.19756	22 50 29.47	+39 31 02.4	16.8		675
1985 TN2		1985 10	13.22725	22 50 27.65	+39 30 59.8			675
1985 VB	*	1985 11	07.34444	04 03 07.84	+17 41 49.1	16		675
1985 VB		1985 11	07.37292	04 03 06.52	+17 41 20.0			675
1985 VB		1985 11	16.35226	03 56 05.24	+15 11 52.1			675
1985 VB		1985 11	16.39010	03 56 03.15	+15 11 14.7			675
1985 WA		1985 11	16.22986	01 34 16.30	+17 37 53.4	17		675
1985 WA	*	1985 11	16.26198	01 34 21.44	+17 40 32.6			675
1985 WA		1985 11	18.27760	01 40 22.85	+20 21 15.5			675
1985 WA		1985 11	18.30451	01 40 27.23	+20 23 19.9		1	675
1985 WA		1985 11	18.30868	01 40 27.95	+20 23 37.0			675
1985 WA		1985 11	19.30729	01 43 28.98	+21 39 13.2			675
1985 WA		1985 11	19.31719	01 43 30.66	+21 39 55.9			675
1985 WA		1985 11	19.38333	01 43 41.81	+21 44 44.8			675
1985 WA		1985 11	19.38767	01 43 42.66	+21 45 05.1		1	675
1985 WB		1985 10	13.40138	01 25 52.15	+59 10 26.5			675
1985 WB		1985 10	13.43246	01 25 50.30	+59 10 25.3			675
1985 WB	*	1985 11	19.32257	01 09 23.42	+50 57 05.8	17		675
1985 WB		1985 11	19.35538	01 09 23.96	+50 56 20.5			675

Note 1: difficult to measure.

OBSERVATIONS MADE AT PALOMAR.

Palomar-Leiden Survey plates taken with the 1.2-m Schmidt by T. Gehrels, scanned and measured by C. J. van Houten and I. van-Houten-Groeneveld at Leiden. Computational support from the late P. Herget.

Object		Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
6034 P-L	*	1960 09	24.33613	23 59 09.70	+04 40 45.5	16.9	675
6034 P-L		1960 09	25.32502	23 58 30.24	+04 30 18.2		675
6034 P-L		1960 09	26.27573	23 57 52.63	+04 20 12.9		675
6034 P-L		1960 09	28.32780	23 56 32.22	+03 58 24.2		675
6034 P-L		1960 10	17.21390	23 47 08.22	+00 53 29.4		675
6034 P-L		1960 10	22.15559	23 45 59.94	+00 15 02.5		675
6034 P-L		1960 10	24.18787	23 45 43.68	+00 00 54.5		675
6034 P-L		1960 10	26.26113	23 45 34.16	-00 12 26.1		675

OBSERVATIONS MADE WITH THE 0.33-m PHOTOGRAPHIC TELESCOPE AT THE LOWELL OBSERVATORY'S ANDERSON MESA STATION.

Observations made by S. J. Bus, B. A. Skiff and N. G. Thomas, measured by E. Bowell and S. J. Bus using a PDS scanning microdensitometer. See also

MPC 9533. Contact: E. Bowell, Lowell Observatory, 1400 W. Mars Hill Road, Flagstaff, AZ 86001, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
5	1985 10	12.14514	23 47 00.59	-07 08 18.6			688
5	1985 10	12.25000	23 46 55.96	-07 08 49.2			688
84	1985 10	15.19931	00 32 03.07	+20 14 51.8			688
84	1985 10	15.26597	00 31 59.07	+20 14 41.8			688
117	1985 10	15.19931	00 20 34.64	+12 49 44.6			688
117	1985 10	15.26597	00 20 31.09	+12 49 37.1			688
135	1985 10	12.14514	23 44 27.16	+00 12 32.7			688
135	1985 10	12.25000	23 44 23.08	+00 12 15.3			688
162	1983 09	10.28750	23 31 42.12	-09 54 07.8			688
162	1983 09	10.32222	23 31 40.48	-09 54 16.4			688
172	1985 10	15.19931	00 16 28.44	+15 34 16.2			688
172	1985 10	15.26597	00 16 24.44	+15 34 02.5			688
209	1985 10	20.28125	01 00 05.19	+10 16 09.0			688
209	1985 10	20.33264	01 00 02.81	+10 15 58.5			688
255	1983 09	10.28750	23 31 25.48	-09 43 31.6			688
255	1983 09	10.32222	23 31 23.59	-09 43 37.7			688
267	1985 10	12.19340	00 31 34.60	-05 36 59.1			688
267	1985 10	15.17708	00 29 13.63	-05 45 39.8			688
267	1985 10	15.24375	00 29 10.38	-05 45 50.2			688
315	1985 10	12.14514	23 37 06.21	-04 40 16.8			688
315	1985 10	12.25000	23 37 02.97	-04 40 43.8			688
319	1985 10	15.29236	01 30 31.99	+04 22 58.0			688
319	1985 10	15.33958	01 30 30.07	+04 22 33.5			688
359	1985 10	20.28125	00 59 54.20	+09 43 53.4			688
359	1985 10	20.33264	00 59 51.39	+09 43 45.9			688
431	1985 10	15.29236	01 14 52.69	+04 48 51.0			688
431	1985 10	15.33958	01 14 50.42	+04 48 37.5			688
453	1985 10	12.14514	23 33 58.50	-04 15 35.0			688
453	1985 10	12.25000	23 33 53.44	-04 15 45.5			688
467	1985 10	15.19931	00 40 30.07	+13 27 50.6			688
467	1985 10	15.26597	00 40 26.65	+13 27 34.1			688
588	1985 10	12.17083	00 02 49.79	+11 25 37.1			688
588	1985 10	15.15486	00 01 23.40	+11 16 41.5			688
588	1985 10	15.22153	00 01 21.48	+11 16 29.3			688
750	1983 09	10.28750	23 34 03.91	-09 31 58.9	16.8		688
750	1983 09	10.32222	23 34 01.97	-09 32 11.7			688
775	1985 10	12.17083	23 59 07.23	+14 07 53.4			688
775	1985 10	15.15486	23 57 01.29	+13 52 27.6			688
775	1985 10	15.22153	23 56 58.47	+13 52 06.5			688
835	1985 10	20.28125	01 02 23.95	+12 26 45.4			688
835	1985 10	20.33264	01 02 21.56	+12 26 31.0			688
838	1985 10	15.15486	23 48 10.90	+12 50 12.0			688
838	1985 10	15.22153	23 48 08.73	+12 49 36.4			688
842	1985 10	12.14514	23 35 16.52	-04 25 30.5			688
842	1985 10	12.25000	23 35 11.98	-04 25 21.0			688
946	1985 10	15.29236	01 18 21.23	+06 33 17.9			688
946	1985 10	15.33958	01 18 18.95	+06 33 05.3			688
946	1985 10	20.28125	01 14 30.08	+06 11 40.5			688
946	1985 10	20.33264	01 14 27.65	+06 11 26.9			688
960	1985 10	12.17083	00 15 28.98	+07 17 12.6			688
992	1985 10	15.29236	01 18 40.53	+11 14 03.0			688
992	1985 10	15.33958	01 18 38.41	+11 13 42.4			688
992	1985 10	20.28125	01 15 04.81	+10 38 50.5			688
992	1985 10	20.33264	01 15 02.53	+10 38 27.9			688
1005	1985 10	15.19931	00 24 07.67	+17 14 43.1			688
1005	1985 10	15.26597	00 24 03.81	+17 14 40.3			688

1046	1985	10	12.14514	23	32	57.20	-05	06	14.7		688
1046	1985	10	12.25000	23	32	53.00	-05	06	21.3		688
1049	1985	10	12.17083	00	08	19.21	+13	33	36.1		688
1049	1985	10	15.15486	00	05	46.21	+13	29	29.4		688
1049	1985	10	15.22153	00	05	42.78	+13	29	23.1		688
1121	1985	10	15.29236	01	12	16.64	+12	37	46.9		688
1121	1985	10	15.33958	01	12	13.69	+12	37	41.3		688
1121	1985	10	20.28125	01	07	24.05	+12	26	45.5		688
1121	1985	10	20.33264	01	07	20.97	+12	26	37.6		688
1143	1985	10	15.29236	01	07	13.55	+08	40	53.5		688
1143	1985	10	15.33958	01	07	12.15	+08	40	44.1		688
1143	1985	10	20.28125	01	04	48.02	+08	24	01.8	16.5	688
1143	1985	10	20.33264	01	04	46.55	+08	23	51.4		688
1144	1985	10	12.19340	00	36	36.84	-04	07	50.2		688
1156	1983	09	10.28750	23	32	07.49	-05	43	06.7		688
1156	1983	09	10.32222	23	32	05.47	-05	43	20.0		688
1259	1985	10	15.29236	01	25	18.01	+06	05	05.5		688
1259	1985	10	15.33958	01	25	15.84	+06	04	53.3		688
1259	1985	10	20.28125	01	21	32.91	+05	44	41.7		688
1259	1985	10	20.33264	01	21	30.57	+05	44	28.2		688
1263	1983	09	10.28750	23	18	28.37	-12	07	27.5		688
1263	1983	09	10.32222	23	18	26.82	-12	08	01.2		688
1285	1985	10	12.17083	00	04	01.73	+07	47	41.8	16.5	688
1285	1985	10	15.15486	00	01	56.06	+07	35	07.9	15.8	688
1285	1985	10	15.22153	00	01	53.23	+07	34	51.6		688
1366	1985	10	12.19340	00	20	35.66	-01	58	07.3		688
1366	1985	10	15.17708	00	18	09.02	-02	00	25.8		688
1366	1985	10	15.24375	00	18	05.72	-02	00	29.0		688
1375	1985	10	15.30903	05	43	30.03	+24	52	35.9		688
1375	1985	10	15.32361	05	43	30.44	+24	52	41.9		688
1377	1985	10	15.29236	01	14	50.68	+11	53	21.9		688
1377	1985	10	15.33958	01	14	47.87	+11	52	58.2		688
1377	1985	10	20.33264	01	10	06.49	+11	10	54.9		688
1425	1985	10	12.14514	23	45	52.31	-00	53	29.1		688
1425	1985	10	12.25000	23	45	48.25	-00	54	20.7		688
1454	1985	10	12.14514	23	39	09.57	-00	25	05.1	16.8	688
1454	1985	10	12.25000	23	39	04.40	-00	25	26.7		688
1522	1985	10	12.19340	00	16	02.78	-06	06	28.1		688
1522	1985	10	15.17708	00	13	27.04	-06	13	57.3		688
1522	1985	10	15.24375	00	13	23.41	-06	14	06.8		688
1532	1985	10	12.17083	23	57	44.07	+08	25	13.3		688
1532	1985	10	15.15486	23	55	35.19	+08	14	36.3		688
1532	1985	10	15.22153	23	55	32.35	+08	14	22.3		688
1636	1985	10	12.14514	23	33	14.19	-05	29	32.2		688
1636	1985	10	12.25000	23	33	10.48	-05	30	11.3		688
1704	1985	10	20.28125	00	59	32.63	+07	52	31.3		688
1733	1985	10	12.14514	23	55	19.58	-04	28	32.2		688
1733	1985	10	12.25000	23	55	14.48	-04	29	14.6		688
1749	1985	10	12.14514	23	34	13.98	-00	17	45.3	17.2	688
1749	1985	10	12.25000	23	34	11.32	-00	17	58.8		688
1809	1985	10	12.19340	00	19	45.37	-03	26	24.1	16.8	688
1809	1985	10	15.17708	00	17	40.63	-03	37	23.7	16.8	688
1809	1985	10	15.24375	00	17	37.89	-03	37	38.9		688
1924	1985	10	12.25000	23	49	37.38	+00	10	27.4		688
2056	1985	10	15.29236	01	26	54.01	+12	28	44.4		688
2056	1985	10	15.33958	01	26	51.35	+12	28	19.9		688
2056	1985	10	20.28125	01	22	31.94	+11	45	42.9		688
2056	1985	10	20.33264	01	22	29.09	+11	45	15.4		688
2084	1985	10	12.14514	23	45	19.36	-07	05	13.6		688

2084		1985	10	12.25000	23	45	15.16	-07	05	46.7		688
2115		1985	10	15.19931	00	23	36.33	+12	59	46.1		688
2115		1985	10	15.26597	00	23	33.57	+12	59	19.2		688
2164		1983	09	10.28750	23	08	50.76	-08	51	28.2		688
2164		1983	09	10.32222	23	08	49.24	-08	51	38.3		688
2226		1985	10	12.19340	00	27	33.84	+00	39	23.3		688
2226		1985	10	15.17708	00	25	17.95	+00	28	21.6		688
2226		1985	10	15.24375	00	25	14.84	+00	28	08.6		688
2235		1985	10	12.17083	23	57	33.03	+08	36	12.4	16.8	688
2235		1985	10	15.15486	23	55	49.75	+08	09	18.2	17.0	688
2235		1985	10	15.22153	23	55	47.41	+08	08	43.0		688
2271		1985	10	12.19340	00	35	00.66	-01	02	36.7		688
2271		1985	10	15.17708	00	32	45.51	-01	17	45.6	16.0	688
2271		1985	10	15.24375	00	32	42.50	-01	18	05.5		688
2279		1985	10	15.29236	01	30	16.27	+05	04	22.8		688
2279		1985	10	15.33958	01	30	13.76	+05	04	05.7		688
2310		1985	10	12.19340	00	31	08.09	-00	33	09.7	17.0	688
2310		1985	10	15.17708	00	29	01.38	-00	46	43.2		688
2310		1985	10	15.24375	00	28	58.56	-00	47	01.3		688
2322		1985	10	12.14514	23	48	05.24	-00	39	05.8		688
2322		1985	10	12.25000	23	48	00.49	-00	39	46.1		688
2374		1985	10	15.19931	00	32	57.29	+17	30	20.9	16.0	688
2374		1985	10	15.26597	00	32	53.42	+17	30	20.2		688
2438		1985	10	12.19340	00	22	17.88	-03	35	30.7		688
2438		1985	10	15.17708	00	19	32.56	-03	45	14.4	1	688
2438		1985	10	15.24375	00	19	29.03	-03	45	26.8		688
2483		1985	10	15.30903	05	36	27.91	+23	49	45.7		688
2483		1985	10	15.32361	05	36	28.20	+23	49	43.2		688
2496		1985	10	15.29236	01	06	46.94	+05	59	53.8		688
2496		1985	10	15.33958	01	06	43.99	+05	59	35.3		688
2496		1985	10	20.28125	01	01	54.55	+05	27	49.2	16.8	688
2496		1985	10	20.33264	01	01	51.53	+05	27	29.7		688
2563		1985	10	12.14514	23	42	47.81	-04	37	25.6		688
2563		1985	10	12.25000	23	42	43.99	-04	37	48.0		688
2625		1983	09	10.28750	23	08	56.21	-11	26	17.4	16.5	688
2625		1983	09	10.32222	23	08	54.26	-11	26	35.3		688
2632		1985	10	15.29236	01	21	45.60	+09	46	13.4		688
2632		1985	10	15.33958	01	21	42.92	+09	46	08.7		688
2632		1985	10	20.28125	01	17	17.02	+09	38	24.6		688
2632		1985	10	20.33264	01	17	14.20	+09	38	19.2		688
2731		1983	09	10.28750	23	09	58.77	-10	54	22.4	16.0	688
2731		1983	09	10.32222	23	09	57.31	-10	54	41.2		688
2917		1985	10	15.19931	00	31	03.68	+14	15	41.0		688
2917		1985	10	15.26597	00	30	59.74	+14	15	35.7		688
2955		1983	09	10.28750	23	09	33.12	-10	51	23.3	16.8	688
2955		1983	09	10.32222	23	09	30.69	-10	51	34.9		688
3012		1985	10	15.19931	00	39	19.94	+15	34	44.7	16.5	688
3012		1985	10	15.26597	00	39	16.17	+15	34	40.0		688
3330		1985	10	15.17708	00	06	59.60	+00	35	26.3	16.0	688
3330		1985	10	15.24375	00	06	56.45	+00	35	27.6		688
1940	EF	1985	10	12.14514	23	38	01.08	-07	35	48.5	17.0	688
1940	EF	1985	10	12.25000	23	37	57.02	-07	36	07.1		688
1948	RD	1985	10	12.14514	23	41	38.60	+00	27	10.8	16.0	688
1948	RD	1985	10	12.25000	23	41	34.05	+00	27	14.8		688
1969	DA	1985	10	15.19931	00	18	04.53	+14	48	51.1	17.0	688
1969	DA	1985	10	15.26597	00	18	01.47	+14	48	24.0		688
1971	UG1	1985	10	12.14514	23	39	57.54	-02	25	46.5	17.0	688
1971	UG1	1985	10	12.25000	23	39	53.62	-02	26	16.8		688
1977	QE1	1985	10	12.14514	23	46	31.69	-00	57	15.8	17.0	688

1977	QE1		1985	10	12.25000	23	46	28.56	-00	57	46.1		688
1978	ST6		1985	10	12.17083	00	08	02.34	+09	30	08.8	16.2	688
1978	ST6		1985	10	15.15486	00	06	01.91	+09	02	47.9	16.0	688
1978	ST6		1985	10	15.22153	00	05	59.32	+09	02	11.5		688
1981	WE		1985	10	15.15486	23	48	20.20	+09	55	30.6	16.2	688
1981	WE		1985	10	15.22153	23	48	18.42	+09	54	38.6		688
1982	UG7		1985	10	15.29236	01	30	28.33	+09	54	20.0	16.5	688
1982	UG7		1985	10	15.33958	01	30	25.41	+09	53	55.1		688
1982	UG7		1985	10	20.28125	01	25	55.72	+09	14	43.4	16.0	688
1982	UG7		1985	10	20.33264	01	25	52.79	+09	14	18.2		688
1983	AT2		1985	10	12.14514	23	42	18.33	-04	39	58.0	17.2	688
1983	AT2		1985	10	12.25000	23	42	13.16	-04	40	04.2		688
1983	CN		1985	10	15.19931	00	21	41.36	+17	13	11.6	17.0	688
1983	CN		1985	10	15.26597	00	21	37.27	+17	13	00.5		688
1983	RY3		1983	09	10.28750	23	11	08.30	-11	47	11.5	16.8	688
1983	RY3		1983	09	10.32222	23	11	06.43	-11	47	17.8		688
1983	RA4		1983	09	10.28750	23	15	06.75	-07	50	16.6	16.8	688
1983	RA4		1983	09	10.32222	23	15	04.69	-07	50	12.4		688
1983	RB4		1983	09	10.28750	23	20	02.08	-10	24	49.7	16.8	688
1983	RB4		1983	09	10.32222	23	20	00.37	-10	24	56.8		688
1983	RC4		1983	09	10.28750	23	23	13.32	-10	01	40.2	16.5	688
1983	RC4		1983	09	10.32222	23	23	12.01	-10	02	02.2		688
1983	RM4	*	1983	09	10.28750	23	22	16.56	-07	22	58.7	17.2 4	688
1983	RM4		1983	09	10.32222	23	22	14.51	-07	23	08.8		688
1984	EU		1985	10	12.19340	00	30	52.35	-04	33	51.2	17.2 1	688
1984	EU		1985	10	15.17708	00	28	10.84	-04	47	39.4	17.2	688
1984	EU		1985	10	15.24375	00	28	07.07	-04	47	57.0		688
1985	PG1		1985	10	12.14514	23	33	12.89	-00	25	41.5	17.0	688
1985	PG1		1985	10	12.25000	23	33	09.98	-00	26	26.4		688
1985	QN		1985	10	12.14514	23	33	52.65	-06	20	42.7	17.5	688
1985	QN		1985	10	12.25000	23	33	49.08	-06	21	01.9		688
1985	QQ		1985	10	12.14514	23	43	09.46	-03	31	34.0	16.5	688
1985	QQ		1985	10	12.25000	23	43	03.98	-03	31	30.6		688
1985	QS		1985	10	12.14514	23	49	17.69	-02	42	12.4	16.5	688
1985	QS		1985	10	12.25000	23	49	11.96	-02	42	12.0		688
1985	QT		1985	10	12.14514	23	51	51.04	-00	33	55.3	16.8	688
1985	QT		1985	10	12.25000	23	51	45.99	-00	33	50.3		688
1985	RN		1985	10	12.14514	23	31	57.96	-02	49	37.4	17.5	688
1985	RN		1985	10	12.25000	23	31	55.86	-02	50	14.8		688
1985	RQ		1985	10	12.14514	23	48	41.03	-03	49	16.5	17.2 1	688
1985	RQ		1985	10	12.25000	23	48	37.01	-03	48	53.9		688
1985	RR		1985	10	12.14514	23	53	18.39	-04	12	04.0	16.8	688
1985	RR		1985	10	12.25000	23	53	15.05	-04	12	15.5		688
1985	RT		1985	10	12.25000	23	34	17.48	-00	58	27.0	17.5	688
1985	SC		1985	10	12.14514	23	52	40.69	-06	53	25.8	17.2	688
1985	SC		1985	10	12.25000	23	52	36.27	-06	53	20.1		688
1985	TC		1985	10	15.29236	01	31	49.18	+10	59	21.5	16.8	688
1985	TC		1985	10	15.33958	01	31	46.56	+10	58	59.8		688
1985	TD		1985	10	12.19340	00	18	08.63	+01	17	51.1	16.8	688
1985	TF	*	1985	10	15.15486	23	49	34.31	+08	54	28.0	16.8 4	688
1985	TF		1985	10	15.22153	23	49	31.44	+08	54	03.5		688
1985	TG	*	1985	10	15.15486	23	51	14.13	+08	57	46.7	17.5 4	688
1985	TG		1985	10	15.22153	23	51	11.83	+08	57	12.8		688
1985	TH	*	1985	10	15.15486	23	55	05.30	+09	59	36.3	17.8 4	688
1985	TH		1985	10	15.22153	23	55	03.04	+09	59	03.5		688
1985	TJ	*	1985	10	15.15486	00	08	25.52	+14	35	10.1	17.5 4	688
1985	TJ		1985	10	15.22153	00	08	19.01	+14	35	39.2		688
1985	TK		1985	10	12.17083	00	18	38.14	+12	46	06.1	16.8	688
1985	TK	*	1985	10	15.15486	00	14	50.31	+13	07	29.3	17.0 4	688

1985	TK		1985	10	15.22153	00	14	45.53	+13	07	55.9		688
1985	TL	*	1985	10	15.29236	01	06	03.79	+10	27	25.1	17.0 4	688
1985	TL		1985	10	15.33958	01	06	01.52	+10	27	06.1		688
1985	TL		1985	10	20.28125	01	02	27.00	+09	55	04.6	17.2	688
1985	TL		1985	10	20.33264	01	02	24.84	+09	54	43.9		688
1985	TM	*	1985	10	15.29236	01	11	43.60	+05	35	08.8	17.5 4	688
1985	TM		1985	10	15.33958	01	11	40.26	+05	35	15.2		688
1985	TM		1985	10	20.28125	01	06	05.63	+05	47	26.5	17.2	688
1985	TM		1985	10	20.33264	01	06	01.65	+05	47	36.0		688
1985	TN	*	1985	10	15.29236	01	12	58.90	+06	46	37.7	17.2 4	688
1985	TN		1985	10	15.33958	01	12	55.97	+06	46	31.8		688
1985	TN		1985	10	20.28125	01	07	57.94	+06	39	24.3	17.0	688
1985	TN		1985	10	20.33264	01	07	54.61	+06	39	20.2		688
1985	TO	*	1985	10	15.29236	01	13	11.32	+10	09	02.2	16.5 4	688
1985	TO		1985	10	15.33958	01	13	08.02	+10	08	51.2		688
1985	TO		1985	10	20.28125	01	08	01.97	+09	49	43.7	16.8	688
1985	TO		1985	10	20.33264	01	07	58.82	+09	49	31.4		688
1985	TP	*	1985	10	15.29236	01	13	13.48	+06	34	50.0	16.8 4	688
1985	TP		1985	10	15.33958	01	13	11.14	+06	34	34.6		688
1985	TP		1985	10	20.28125	01	09	16.93	+06	07	52.3	17.0	688
1985	TP		1985	10	20.33264	01	09	14.35	+06	07	34.1		688
1985	TQ	*	1985	10	15.29236	01	13	20.31	+07	30	59.2	17.0 4	688
1985	TQ		1985	10	15.33958	01	13	18.87	+07	30	50.2		688
1985	TQ		1985	10	20.28125	01	10	46.12	+07	17	16.8	17.0	688
1985	TQ		1985	10	20.33264	01	10	44.55	+07	17	07.5		688
1985	TR	*	1985	10	15.29236	01	14	12.63	+08	44	31.2	17.0 4	688
1985	TR		1985	10	15.33958	01	14	09.54	+08	44	20.9		688
1985	TR		1985	10	20.28125	01	09	18.93	+08	26	20.3	17.0	688
1985	TR		1985	10	20.33264	01	09	15.89	+08	26	08.8		688
1985	TS	*	1985	10	15.29236	01	17	11.26	+10	28	37.4	16.8 4	688
1985	TS		1985	10	15.33958	01	17	08.23	+10	28	27.1		688
1985	TS		1985	10	20.28125	01	12	11.44	+10	12	21.4	16.8	688
1985	TS		1985	10	20.33264	01	12	07.99	+10	12	11.0		688
1985	TT	*	1985	10	15.29236	01	17	43.17	+05	55	56.2	16.8 4	688
1985	TT		1985	10	15.33958	01	17	41.35	+05	55	40.0		688
1985	TT		1985	10	20.28125	01	14	34.88	+05	28	19.6	16.8	688
1985	TT		1985	10	20.33264	01	14	32.91	+05	28	02.5		688
1985	TU	*	1985	10	15.29236	01	17	49.30	+10	12	36.0	17.0 4	688
1985	TU		1985	10	15.33958	01	17	46.85	+10	12	20.2		688
1985	TU		1985	10	20.28125	01	13	52.62	+09	43	31.9	17.2	688
1985	TU		1985	10	20.33264	01	13	50.10	+09	43	12.6		688
1985	TV	*	1985	10	15.29236	01	20	08.18	+06	35	14.8	16.5 4	688
1985	TV		1985	10	20.28125	01	15	12.95	+06	40	15.3	16.5	688
1985	TV		1985	10	20.33264	01	15	09.92	+06	40	18.6		688
1985	TW	*	1985	10	15.29236	01	20	35.82	+09	13	19.7	16.8 4	688
1985	TW		1985	10	15.33958	01	20	32.89	+09	13	07.2		688
1985	TW		1985	10	20.28125	01	16	05.95	+08	51	27.2	17.0	688
1985	TW		1985	10	20.33264	01	16	03.07	+08	51	14.0		688
1985	TX	*	1985	10	15.29236	01	21	15.31	+10	03	50.4	16.8 4	688
1985	TX		1985	10	15.33958	01	21	12.60	+10	03	31.0		688
1985	TX		1985	10	20.28125	01	16	48.08	+09	30	09.4	16.5	688
1985	TX		1985	10	20.33264	01	16	45.24	+09	29	48.6		688
1985	TY	*	1985	10	15.29236	01	22	31.92	+05	13	24.3	17.5 5	688
1985	TY		1985	10	15.33958	01	22	28.84	+05	13	12.6		688
1985	TY		1985	10	20.28125	01	17	57.87	+04	55	27.3	17.5	688
1985	TY		1985	10	20.33264	01	17	55.32	+04	55	17.3		688
1985	TZ	*	1985	10	15.29236	01	22	40.42	+04	34	13.1	16.8 4	688
1985	TZ		1985	10	15.33958	01	22	38.80	+04	34	05.8		688
1985	TA1	*	1985	10	15.29236	01	22	50.16	+08	17	34.0	17.0 4	688

1985	TA1		1985	10	15.33958	01	22	47.49	+08	17	13.0		688
1985	TA1		1985	10	20.28125	01	19	02.47	+07	43	52.7	17.0	688
1985	TA1		1985	10	20.33264	01	19	00.03	+07	43	32.0		688
1985	TB1	*	1985	10	15.29236	01	23	20.51	+09	50	18.4	17.5 4	688
1985	TB1		1985	10	15.33958	01	23	18.00	+09	50	07.9		688
1985	TC1	*	1985	10	15.29236	01	24	28.55	+08	34	55.4	16.8 4	688
1985	TC1		1985	10	15.33958	01	24	27.04	+08	34	51.0		688
1985	TC1		1985	10	20.28125	01	21	48.79	+08	27	05.0	16.8	688
1985	TC1		1985	10	20.33264	01	21	46.97	+08	27	00.2		688
1985	TD1	*	1985	10	15.29236	01	24	46.24	+11	55	35.3	17.2 4	688
1985	TD1		1985	10	15.33958	01	24	43.32	+11	55	14.3		688
1985	TD1		1985	10	20.28125	01	19	40.28	+11	21	02.3	17.5	688
1985	TD1		1985	10	20.33264	01	19	37.10	+11	20	42.0		688
1985	TE1	*	1985	10	15.29236	01	25	20.82	+08	36	08.1	16.8 4	688
1985	TE1		1985	10	15.33958	01	25	18.03	+08	35	51.2		688
1985	TE1		1985	10	20.28125	01	20	54.09	+08	07	25.8	16.8	688
1985	TE1		1985	10	20.33264	01	20	51.22	+08	07	07.6		688
1985	TF1	*	1985	10	15.29236	01	28	57.37	+11	51	05.2	16.8 4	688
1985	TF1		1985	10	15.33958	01	28	54.88	+11	50	47.9		688
1985	TF1		1985	10	20.28125	01	24	45.47	+11	19	33.7	16.5	688
1985	TF1		1985	10	20.33264	01	24	42.89	+11	19	14.5		688
1985	TG1	*	1985	10	15.29236	01	29	26.05	+08	05	58.3	16.8 4	688
1985	TG1		1985	10	15.33958	01	29	23.99	+08	05	28.5		688
1985	TG1		1985	10	20.28125	01	25	39.26	+07	16	17.9	17.0	688
1985	TG1		1985	10	20.33264	01	25	36.76	+07	15	45.6		688
1985	TH1	*	1985	10	15.29236	01	31	51.15	+08	03	19.0	17.0 4	688
1985	TH1		1985	10	15.33958	01	31	48.40	+08	03	03.0		688
1985	TJ1		1985	10	12.19340	00	17	46.33	-03	43	30.4	17.0	688
1985	TJ1	*	1985	10	15.17708	00	15	24.26	-03	45	01.2	17.2 4	688
1985	TJ1		1985	10	15.24375	00	15	21.11	-03	45	04.6		688
1985	TK1		1985	10	12.19340	00	18	36.51	-00	08	21.5	17.0	688
1985	TK1	*	1985	10	15.17708	00	16	35.70	-00	18	33.5	17.0 4	688
1985	TK1		1985	10	15.24375	00	16	32.86	-00	18	45.6		688
1985	TL1	*	1985	10	15.17708	00	17	10.18	-02	09	31.4	17.0 4	688
1985	TL1		1985	10	15.24375	00	17	07.66	-02	09	53.4		688
1985	TM1		1985	10	12.19340	00	20	59.71	-02	05	07.1	16.5	688
1985	TM1	*	1985	10	15.17708	00	17	52.58	-01	56	17.5	16.2 4	688
1985	TM1		1985	10	15.24375	00	17	48.40	-01	56	05.1		688
1985	TN1		1985	10	12.19340	00	20	40.43	-06	29	45.7	17.2	688
1985	TN1	*	1985	10	15.17708	00	17	56.03	-06	21	12.0	17.0 4	688
1985	TN1		1985	10	15.24375	00	17	52.07	-06	20	59.8		688
1985	TO1		1985	10	12.19340	00	25	43.34	-05	36	16.2	17.0	688
1985	TO1	*	1985	10	15.17708	00	24	14.70	-06	14	06.9	17.0 4	688
1985	TO1		1985	10	15.24375	00	24	12.59	-06	14	53.7		688
1985	TP1	*	1985	10	15.17708	00	32	25.59	-01	14	13.4	17.0 4	688
1985	TP1		1985	10	15.24375	00	32	23.24	-01	14	57.0		688
1985	TQ1		1985	10	12.19340	00	35	04.01	+01	16	13.9	17.0	688
1985	TQ1	*	1985	10	15.17708	00	32	41.53	+01	11	24.7	17.2 4	688
1985	TQ1		1985	10	15.24375	00	32	38.42	+01	11	19.6		688
1985	TR1	*	1985	10	15.19931	00	14	47.17	+13	07	48.7	16.8 4	688
1985	TR1		1985	10	15.26597	00	14	42.17	+13	08	15.3		688
1985	TS1	*	1985	10	15.19931	00	16	03.79	+15	09	20.6	16.8 4	688
1985	TS1		1985	10	15.26597	00	16	00.80	+15	08	56.8		688
1985	TT1	*	1985	10	15.19931	00	17	54.26	+15	38	03.9	17.0 4	688
1985	TT1		1985	10	15.26597	00	17	51.64	+15	37	28.1		688
1985	TU1	*	1985	10	15.19931	00	20	17.90	+20	10	45.1	17.0 4	688
1985	TU1		1985	10	15.26597	00	20	14.85	+20	10	10.7		688
1985	TV1	*	1985	10	15.19931	00	21	53.86	+16	04	03.4	17.2 4	688

1985 TV1		1985 10 15.26597	00 21 51.87	+16 03 28.1								688
1985 TW1	*	1985 10 15.19931	00 28 20.25	+20 09 25.2					16.2		4	688
1985 TW1		1985 10 15.26597	00 28 16.38	+20 09 09.5								688
1985 TX1	*	1985 10 15.19931	00 29 24.93	+15 41 51.1					16.8		4	688
1985 TX1		1985 10 15.26597	00 29 21.85	+15 41 22.7								688
1985 TY1	*	1985 10 15.19931	00 32 07.56	+15 02 48.1					17.0		4	688
1985 TY1		1985 10 15.26597	00 32 04.39	+15 02 18.0								688
1985 TZ1	*	1985 10 15.19931	00 37 52.32	+12 29 56.8					16.8		4	688
1985 TZ1		1985 10 15.26597	00 37 49.35	+12 29 27.0								688
1985 TA2	*	1985 10 15.19931	00 38 04.49	+18 44 14.6					17.0		4	688
1985 TA2		1985 10 15.26597	00 38 01.26	+18 43 55.7								688
1985 UA		1985 10 20.28125	01 08 07.09	+12 41 36.3					17.2			688
1985 UA		1985 10 20.33264	01 08 03.63	+12 41 19.8								688
1985 UB	*	1985 10 20.28125	00 59 42.76	+12 13 53.3					17.5		4	688
1985 UB		1985 10 20.33264	00 59 39.70	+12 13 44.9							1	688
1985 UC		1985 10 15.29236	01 06 05.75	+12 30 43.8					17.5			688
1985 UC		1985 10 15.33958	01 06 02.33	+12 30 45.1								688
1985 UC	*	1985 10 20.28125	01 00 09.74	+12 37 24.3					17.2		4	688
1985 UC		1985 10 20.33264	01 00 06.10	+12 37 25.2								688
1985 UD	*	1985 10 20.28125	01 02 05.86	+05 15 13.3					17.5		4	688
1985 UD		1985 10 20.33264	01 02 03.37	+05 15 08.4								688
1985 UE	*	1985 10 20.28125	01 03 13.78	+12 11 06.5					16.2		4	688
1985 UE		1985 10 20.33264	01 03 11.26	+12 10 37.6								688
1985 UF		1985 10 15.29236	01 17 53.82	+06 52 08.8					16.8			688
1985 UF		1985 10 15.33958	01 17 50.46	+06 52 07.4								688
1985 UF	*	1985 10 20.28125	01 12 32.57	+06 50 58.4					17.0		4	688
1985 UF		1985 10 20.33264	01 12 29.19	+06 50 58.8								688
1985 UG	*	1985 10 20.28125	01 14 25.50	+12 38 27.2					17.0		4	688
1985 UG		1985 10 20.33264	01 14 21.99	+12 38 18.4								688
1985 UH	*	1985 10 20.28125	01 18 46.99	+12 04 37.0					16.8		4	688
1985 UH		1985 10 20.33264	01 18 44.72	+12 04 07.6								688
4122 P-L		1985 10 15.29236	01 19 03.57	+08 53 12.7					16.8			688
4122 P-L		1985 10 15.33958	01 19 01.21	+08 52 57.6								688
4122 P-L		1985 10 20.28125	01 15 05.86	+08 26 56.4					17.0			688
4122 P-L		1985 10 20.33264	01 15 03.39	+08 26 40.2								688

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

OBSERVATIONS MADE WITH THE 0.79-M REFLECTOR AT THE LOWELL OBSERVATORY'S ANDERSON MESA STATION BY S. J. BUS AND C. GULLIXSON.

CCD images reduced by S. J. Bus. Contact: E. Bowell, Lowell Observatory, 1400 W. Mars Hill Road, Flagstaff, AZ 86001, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
1985 WA	1985 12 05.15955		02 32 08.59	+35 38 23.9	688
1985 WA	1985 12 05.16597		02 32 09.57	+35 38 36.3	688

OBSERVATIONS MADE AT THE LOWELL OBSERVATORY.

Plates with the 0.33-m photographic telescope. Observers K. A. Newman, C. W. Tombaugh, H. L. Giclas and R. D. Schaldach. Measured by S. J. Bus using a PDS scanning microdensitometer. SAO reference stars, global solutions. Contact: E. L. G. Bowell, Lowell Observatory, 1400 W. Mars Hill Road, Flagstaff, AZ 86001, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	N Obs.
201	1949 07 25.27088		20 21 21.02	-13 29 20.3	690
201	1949 07 26.28202		20 20 31.45	-13 34 57.0	690
201	1949 07 29.26011		20 18 04.24	-13 51 57.9	690
1929 WG1	1929 11 27.20278		04 13 27.70	+15 59 46.4	690
1929 WG1	1929 12 03.18750		04 07 13.26	+15 57 11.9	690

1930	XR		1930	11	13.18750	02	47	21.45	+21	33	24.5	690
1930	XR		1930	11	14.20313	02	46	16.48	+21	35	23.7	1 690
1930	XR		1930	11	26.16667	02	34	05.10	+21	55	02.8	690

Note 1: position uncertain, interference from cloud.

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

Observations made by T. Gehrels, J. V. Scotti and S. Tapia with a CCD in scanning mode. Reductions by 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.	Obs.
3200		1985	11 07.13141	02	59	40.62	+39	52	44.1	17.7V	691
3200		1985	11 07.16061	02	59	35.96	+39	52	28.1		691
3200		1985	11 07.18981	02	59	31.25	+39	52	10.3		691
1977	DD3	1985	11 15.41056	01	36	30.55	+26	31	35.8	17.5V	691
1977	DD3	1985	11 15.43050	01	36	29.96	+26	31	32.0		691
1977	DD3	1985	11 17.21627	01	35	38.52	+26	26	11.6		691
1977	DD3	1985	11 17.23794	01	35	37.89	+26	26	07.4		691
1981	CW	1985	10 19.28396	00	43	12.82	-06	37	59.2	18.0V	691
1981	CW	1985	11 20.11219	00	15	28.11	-07	46	25.0	18.0V	691
1981	CW	1985	11 20.11650	00	15	28.04	-07	46	24.1		691
1981	CW	1985	11 20.13973	00	15	27.69	-07	46	18.5		691
1981	CW	1985	12 05.16840	00	17	33.92	-06	12	17.8		691
1981	CW	1985	12 05.18036	00	17	34.11	-06	12	10.9		691
1981	CW	1985	12 05.19921	00	17	34.67	-06	12	02.1		691
1981	VA	1985	11 15.44191	05	50	34.11	+19	59	45.1	18.6V	691
1981	VA	1985	11 15.45610	05	50	32.24	+19	59	33.6		691
1981	VA	1985	11 15.46841	05	50	30.69	+19	59	24.6		691
1981	VA	1985	11 16.45801	05	48	25.44	+19	46	53.0		691
1981	VA	1985	11 16.46949	05	48	23.95	+19	46	44.5		691
1981	VA	1985	11 16.48228	05	48	22.32	+19	46	34.5		691
1982	FT	1985	11 15.36089	01	02	20.70	+36	02	19.5	18.4V	691
1982	FT	1985	11 15.36882	01	02	19.79	+36	02	13.7		691
1982	FT	1985	11 15.39336	01	02	18.30	+36	02	03.5		691
1982	FT	1985	11 16.34178	01	01	11.57	+35	54	25.7		691
1982	FT	1985	11 16.36828	01	01	09.75	+35	54	12.2		691
1982	FT	1985	11 16.39638	01	01	07.72	+35	53	58.1		691
1985	RV	1985	10 14.28757	23	58	50.16	+18	31	06.1	17.9V	691
1985	RV	1985	10 14.31135	23	58	49.21	+18	30	50.4		691
1985	RV	1985	10 14.33529	23	58	48.25	+18	30	34.4		691
1985	RW	1985	10 14.10818	20	56	13.64	+11	19	16.8		691
1985	RW	1985	10 14.12183	20	56	14.11	+11	19	07.8		691
1985	RW	1985	10 14.13667	20	56	14.61	+11	18	57.4		691
1985	RW	1985	12 05.12991	21	58	37.35	+05	58	39.0		691
1985	RW	1985	12 05.14538	21	58	38.86	+05	58	38.1		691
1985	RW	1985	12 05.15888	21	58	40.13	+05	58	37.5		691
1985	TB	1985	11 19.23594	23	18	00.79	+35	14	35.5		691
1985	TB	1985	11 19.25308	23	17	57.06	+35	15	18.5		691
1985	TB	1985	11 19.26391	23	17	54.65	+35	15	45.7		691
1985	TB	1985	11 20.15404	23	14	47.39	+35	53	34.9	16.3V	691
1985	TB	1985	11 20.17402	23	14	43.04	+35	54	24.4		691
1985	TB	1985	11 20.19561	23	14	38.33	+35	55	18.4		691
1985	VS	* 1985	11 06.21777	03	08	48.65	+05	58	21.0	18.0V	691
1985	VS	1985	11 06.24161	03	08	47.92	+05	58	13.9		691
1985	VS	1985	11 06.26464	03	08	47.27	+05	58	06.6		691
1985	VS	1985	11 15.31156	03	04	12.34	+05	12	16.2		691
1985	VS	1985	11 15.33137	03	04	11.73	+05	12	10.3		691
1985	VS	1985	11 15.34361	03	04	11.33	+05	12	07.4		691

1985	VS		1985	11	16.41010	03	03	39.15	+05	07	00.6	691
1985	VS		1985	11	16.42435	03	03	38.76	+05	06	56.6	691
1985	VS		1985	11	16.43207	03	03	38.50	+05	06	54.5	691
1985	VS		1985	11	19.27698	03	02	13.74	+04	53	38.7	18.2V 691
1985	VS		1985	11	19.28887	03	02	13.36	+04	53	35.9	691
1985	VS		1985	11	19.30341	03	02	12.93	+04	53	31.4	691
1985	VS		1985	12	05.21266	02	55	01.27	+03	50	44.5	691
1985	VS		1985	12	05.22322	02	55	01.00	+03	50	42.4	691
1985	VS		1985	12	05.23185	02	55	00.81	+03	50	40.7	691
1985	VT	*	1985	11	06.22791	03	23	27.36	+06	02	53.8	17.8V 691
1985	VT		1985	11	06.25175	03	23	26.02	+06	02	44.5	691
1985	VT		1985	11	06.27475	03	23	24.79	+06	02	35.6	691
1985	VU	*	1985	11	06.22941	03	25	37.85	+05	59	30.0	17.0V 691
1985	VU		1985	11	06.25325	03	25	36.76	+05	59	23.4	691
1985	VU		1985	11	06.27628	03	25	35.81	+05	59	15.9	691
1985	WA		1985	12	05.25273	02	32	24.09	+35	41	33.3	17.0V 691
1985	WA		1985	12	05.26573	02	32	26.34	+35	41	58.4	691
1985	WA		1985	12	05.28130	02	32	28.85	+35	42	29.6	691
1985	WA		1985	12	07.19890	02	38	15.91	+36	43	01.4	17.0V 691
1985	WA		1985	12	07.20802	02	38	17.41	+36	43	17.7	691

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.
1791	1985 07	18.33063	21 24 07.73	-06 37 16.2			801
3271	1985 09	15.05314	19 48 27.18	-17 30 49.7			801
A922 WB	1985 10	12.10602	22 54 37.53	-01 05 08.3		1	801
1931 TJ1	1985 09	13.22654	22 53 04.58	-08 47 42.2			801
1931 TJ1	1985 10	12.07812	22 33 50.45	-11 08 40.0		2	801
1951 AB	1985 07	19.18502	17 55 32.44	-08 19 39.3			801
1951 AB	1985 08	13.13461	17 47 43.19	-11 57 23.9			801
1966 AA	1985 11	15.96175	21 47 46.66	+02 07 51.8			801
1971 UX	1985 10	18.12741	23 14 10.29	-03 27 05.9			801
1972 RT3	1985 10	17.08330	22 18 41.91	-15 28 53.0			801
1974 ST	1985 09	18.10304	21 17 37.01	-18 28 32.6			801
1974 SB1	1985 09	15.18413	23 11 34.73	-08 07 50.8			801
1974 SB1	1985 10	17.12355	22 53 27.28	-10 34 23.8			801
1974 SD5	1985 09	12.38540	02 53 20.33	+26 13 44.4			801
1974 SD5	1985 10	16.39140	02 36 04.73	+29 48 26.9			801
1974 VG	1985 09	17.33034	01 38 45.35	+01 01 00.6			801
1974 VG	1985 11	09.13020	00 59 57.95	-00 20 45.0			801
1975 VN1	1985 09	18.08593	21 24 22.09	-10 27 00.4			801
1975 VN1	1985 10	17.03637	21 21 47.37	-11 42 53.7			801
1976 SP4	1985 11	16.12360	01 53 19.27	+13 48 03.2			801
1977 DD3	1985 11	08.09719	01 40 19.74	+26 52 32.0			801
1977 DD3	1985 11	09.10938	01 39 46.44	+26 49 44.7			801
1978 EA3	1985 10	12.06304	22 15 49.26	-05 56 30.5			801
1978 QQ2	1985 09	13.36626	03 06 40.88	+15 12 13.3			801
1978 QQ2	1985 10	16.37639	03 05 39.54	+13 28 31.0			801
1979 FH2	1984 06	05.24097	15 07 13.83	-17 34 08.5			801
1979 FH2	1985 09	12.13190	22 39 13.37	-15 25 31.2			801
1979 YB	1985 10	16.29335	01 42 48.04	+49 48 16.5			801
1979 YB	1985 11	09.16876	01 11 57.57	+45 10 31.4			801
1980 OD	1985 07	19.25708	20 19 18.57	-13 17 02.1			801

1980	OD		1985	10	16.98493	20	07	23.47	-20	24	12.7	801
1981	CW		1985	11	09.07729	00	20	39.23	-08	06	02.1	801
1981	EX19		1985	10	12.09353	22	35	42.53	-08	08	38.8	3 801
1981	JY1		1985	09	15.16965	23	08	14.10	-05	32	38.9	801
1981	JY1		1985	10	17.10659	22	47	00.39	-08	01	54.5	801
1982	BD3		1983	04	12.27757	14	34	14.81	-06	31	17.6	801
1982	BD3		1985	10	17.14398	23	34	02.80	-08	24	19.0	801
1982	YC1		1985	09	15.14478	22	28	02.06	+07	37	50.5	801
1982	YC1		1985	10	12.04558	22	09	09.42	+05	54	01.8	801
1982	YC1		1985	10	18.05699	22	07	13.93	+05	32	30.7	801
1982	YC1		1985	11	08.96177	22	08	05.99	+04	42	06.2	801
1983	AG2		1985	08	18.19814	22	20	59.68	-11	09	24.1	801
1983	AG2		1985	11	15.99822	21	33	06.73	-02	51	55.9	4 801
1983	CA3		1985	10	18.10526	23	10	02.85	+02	40	30.7	801
1983	HO		1984	07	26.12730	17	54	48.08	-19	06	06.1	801
1983	HO		1985	09	17.16122	23	06	46.40	-16	22	43.9	801
1984	EU		1985	09	12.26139	00	58	41.10	-01	18	19.5	801
1984	EU		1985	10	18.19848	00	25	36.72	-04	59	48.0	801
1984	ES1		1985	09	13.31536	00	29	59.43	+05	13	28.4	801
1984	ES1		1985	10	12.13973	00	01	51.87	+02	55	42.4	801
1984	QA		1985	09	12.21453	00	23	06.33	-15	14	05.3	801
1984	QC		1985	09	13.38545	04	57	37.50	+35	33	31.3	5 801
1984	QC		1985	10	16.36427	05	10	12.59	+37	33	17.8	801
1984	QC		1985	11	14.33319	04	56	50.52	+38	22	36.4	801
1985	HC		1985	09	12.01068	15	52	59.50	+02	05	14.2	801
1985	PL		1985	09	12.08596	21	43	10.09	-05	48	19.2	5 801
1985	PL		1985	09	12.16787	21	43	06.08	-05	47	56.4	7 801
1985	PS		1985	11	09.03681	22	52	13.51	-15	51	12.2	801
1985	SQ	*	1985	09	17.16122	23	06	27.88	-16	39	39.3	17 801
1985	SR	*	1985	09	17.18394	23	06	35.50	-10	20	40.3	17 801
1985	SS	*	1985	09	17.18394	23	07	09.08	-10	36	09.5	18 801
1985	SY	*	1985	09	17.26068	23	42	56.98	-10	59	05.0	18.5 801
1985	TB		1985	11	08.08689	00	01	17.37	+26	25	03.6	801
1985	TB		1985	11	09.05158	23	57	20.85	+27	14	39.3	801
1985	VV	*	1985	11	09.13020	01	00	29.53	-00	08	55.8	17 801
1985	WG	*	1985	11	16.28896	03	29	14.65	+20	24	19.4	17 801

Note 1: poor plate, inkdot measured. 2: poor image, very uncertain. 3: involved with star. 4: very faint. 5: trailed image. 7 = 5 + 2.

OBSERVATIONS MADE AT CERRO CALAN BY H. WROBLEWKSI AND C. TORRES.
Plates taken with the normal Gautier astrograph. Reductions using 6-8 comparison stars from the AGK3 (when possible) or Yale zone catalogues.
Contact: H. Wroblewksi, Departamento de Astronomia, Universidad de Chile, Casilla 36-D, Santiago, Chile.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
1	1982	04 21.18924	15 32 41.88	-09 17 04.7	806
1	1982	04 21.19618	15 32 41.56	-09 17 04.1	806
1	1982	04 21.20312	15 32 41.24	-09 17 03.7	806
1	1982	05 26.14340	15 02 06.61	-09 08 27.2	806
1	1982	05 26.15035	15 02 06.21	-09 08 27.7	806
1	1982	05 26.15729	15 02 05.87	-09 08 27.8	806
1	1982	06 17.10382	14 48 33.21	-09 58 59.3	806
1	1982	06 17.11285	14 48 33.01	-09 59 01.1	806
1	1982	06 17.12187	14 48 32.78	-09 59 02.8	806
2	1982	04 21.15660	13 01 08.91	+19 50 12.0	806
2	1982	04 21.16354	13 01 08.63	+19 50 17.0	806
2	1982	04 21.17049	13 01 08.31	+19 50 22.1	806

2	1982	06	17.02951	12	57	53.89	+21	44	39.0	806
2	1982	06	17.03854	12	57	54.17	+21	44	36.2	806
2	1982	06	17.04757	12	57	54.44	+21	44	33.6	806
3	1981	05	20.01424	13	45	03.23	+02	26	44.1	806
3	1981	05	20.02118	13	45	03.07	+02	26	45.7	806
3	1981	05	20.02812	13	45	02.80	+02	26	46.3	806
4	1981	05	19.97951	10	22	03.67	+18	31	57.0	806
4	1981	05	19.98646	10	22	04.04	+18	31	53.1	806
4	1981	05	19.99340	10	22	04.45	+18	31	50.3	806
6	1982	04	01.15174	11	53	49.17	+16	21	46.1	806
6	1982	04	01.15868	11	53	48.77	+16	21	49.0	806
6	1982	04	01.16562	11	53	48.47	+16	21	51.6	806
6	1982	04	21.12882	11	40	38.66	+17	46	09.1	806
6	1982	04	21.13576	11	40	38.41	+17	46	10.2	806
6	1982	04	21.14271	11	40	38.18	+17	46	11.4	806
6	1982	04	30.12257	11	37	16.33	+17	54	24.0	806
6	1982	04	30.12951	11	37	16.27	+17	54	24.3	806
6	1982	04	30.13646	11	37	16.14	+17	54	24.6	806
7	1982	04	17.04618	11	33	25.87	-05	40	09.3	806
7	1982	04	17.05660	11	33	25.49	-05	40	05.0	806
7	1982	04	17.06701	11	33	25.12	-05	40	01.3	806
7	1982	04	21.10174	11	31	20.21	-05	16	03.6	806
7	1982	04	21.10868	11	31	19.99	-05	16	01.3	806
7	1982	04	21.11562	11	31	19.75	-05	15	58.9	806
7	1982	04	30.09965	11	28	06.54	-04	29	47.9	806
7	1982	04	30.10660	11	28	06.47	-04	29	45.9	806
7	1982	04	30.11354	11	28	06.29	-04	29	44.2	806
7	1982	05	25.99271	11	29	36.17	-03	23	07.7	806
7	1982	05	25.99965	11	29	36.32	-03	23	07.3	806
7	1982	05	26.00660	11	29	36.45	-03	23	07.0	806
18	1981	09	23.12674	21	45	18.68	-17	43	11.2	806
18	1981	09	23.13715	21	45	18.56	-17	43	16.1	806
18	1981	09	23.14757	21	45	18.42	-17	43	21.3	806
18	1981	11	20.08924	22	33	25.53	-17	31	31.5	806
18	1981	11	20.09618	22	33	26.05	-17	31	28.8	806
18	1981	11	20.11493	22	33	27.91	-17	31	20.0	806
25	1982	01	20.11424	07	14	16.80	-08	55	49.2	806
25	1982	01	20.12118	07	14	16.45	-08	55	48.4	806
25	1982	01	20.12812	07	14	16.02	-08	55	47.2	806
40	1982	04	17.01424	10	03	17.93	+18	01	50.8	806
40	1982	04	17.02465	10	03	17.98	+18	01	49.0	806
40	1982	04	17.03507	10	03	18.05	+18	01	47.7	806
40	1982	05	20.99757	10	22	03.53	+15	18	40.4	806
40	1982	05	21.00451	10	22	03.79	+15	18	37.9	806
40	1982	05	25.95938	10	26	43.68	+14	44	12.3	806
40	1982	05	25.96632	10	26	44.06	+14	44	08.9	806
51	1982	05	26.11771	14	23	49.54	-00	17	01.0	806
51	1982	05	26.12465	14	23	49.38	-00	16	59.8	806
51	1982	05	26.13160	14	23	49.11	-00	16	58.8	806
51	1982	06	17.06146	14	18	08.62	-00	20	37.2	806
51	1982	06	17.07188	14	18	08.61	-00	20	38.3	806
51	1982	06	17.08229	14	18	08.62	-00	20	40.6	806
130	1981	11	20.15660	03	48	20.31	-17	23	33.9	806
130	1981	11	20.16354	03	48	19.96	-17	23	34.5	806
130	1981	11	20.17049	03	48	19.62	-17	23	34.8	806
130	1981	12	23.11007	03	28	10.81	-14	39	08.9	806
130	1981	12	23.11701	03	28	10.65	-14	39	05.2	806
130	1981	12	23.12396	03	28	10.51	-14	39	01.3	806

130	1982 01 20.08368	03 29 50.51	-09 09 37.1			806
130	1982 01 20.09063	03 29 50.68	-09 09 32.6			806
130	1982 01 20.09757	03 29 50.87	-09 09 26.1			806
130	1982 01 27.10382	03 33 10.08	-07 37 31.0			806
130	1982 01 27.11076	03 33 10.30	-07 37 26.9			806
130	1982 01 27.11771	03 33 10.50	-07 37 22.4			806
148	1981 09 23.09062	21 02 44.93	-20 14 31.2			806
148	1981 09 23.10104	21 02 44.83	-20 14 37.5			806
148	1981 09 23.11146	21 02 44.74	-20 14 43.4			806
704	1982 04 01.09062	09 16 17.75	-03 21 12.1			806
704	1982 04 01.09757	09 16 17.69	-03 21 11.1			806
704	1982 04 01.10451	09 16 17.57	-03 21 09.1			806
704	1982 04 16.98090	09 15 31.85	-02 30 22.2			806
704	1982 04 16.99132	09 15 31.92	-02 30 20.2			806
704	1982 04 17.00174	09 15 31.96	-02 30 18.7			806

OBSERVATIONS MADE AT TOYOTA BY K. SUZUKI AND T.URATA.
Copied from Nihondaira Obs. Circ. Nos. 1524 and 1527. Contact: T. Urata, Nishitaka-cho 8-23, Shimizu, Shizuoka 424, Japan.

Object		Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
33		1985 10 19.59479	01 29 25.10	+10 32 21.0		11.5		881
33		1985 10 19.68924	01 29 20.22	+10 32 02.0				881
33		1985 10 19.71736	01 29 18.82	+10 31 56.4				881
2527		1985 10 08.53472	01 43 17.67	+09 16 50.3		16		881
2527		1985 10 08.55139	01 43 16.86	+09 16 43.1				881
1975	VA9	1985 02 11.51875	07 12 23.01	+16 37 10.2		16.5		881
1975	VA9	1985 02 11.54444	07 12 22.24	+16 37 07.2				881
1982	UG7	1985 10 08.50972	01 36 36.80	+10 47 20.6		16.5		881
1982	UG7	1985 10 08.52639	01 36 35.86	+10 47 14.3				881
1985	TC	1985 10 08.50972	01 37 15.63	+11 49 45.0		16	1	881
1985	TC	1985 10 08.52639	01 37 14.82	+11 49 37.2			1	881
1985	TC	1985 10 12.61806	01 34 00.66	+11 19 44.2			2	881
1985	TC	1985 10 12.64583	01 33 59.50	+11 19 31.8			2	881
1985	TC	1985 10 19.59479	01 28 16.02	+10 25 55.3		16		881
1985	TC	1985 10 19.68924	01 28 11.08	+10 25 10.6				881
1985	TC	1985 10 19.71736	01 28 09.62	+10 24 57.5				881
1985	TC	1985 10 22.66215	01 25 46.65	+10 02 03.5				881
1985	TC	1985 11 12.53021	01 13 29.01	+07 47 13.6		17		881
1985	TC	1985 11 12.55799	01 13 28.46	+07 47 06.8				881
1985	TC	1985 11 15.54271	01 12 43.54	+07 34 40.3		17		881
1985	VA *	1985 11 12.63160	03 37 10.3	+18 48 31		16.5	3	881
1985	VA	1985 11 12.66076	03 37 08.4	+18 48 30			3	881

Note 1: near edge of film. 2: faint image. 3: poor distribution of reference stars.

OBSERVATIONS MADE AT KARASUYAMA BY S. INODA.
Films measured by T. Urata. Copied from Nihondaira Obs. Circ. No. 1527. Contact: T. Urata, Nishitaka-cho 8-23, Shimizu, Shizuoka 424, Japan.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
1985 TC	1985 11 14.58402	01 12 55.77	+07 38 25.6		889
1985 TC	1985 11 14.61883	01 12 55.36	+07 38 16.6		889

OBSERVATION MADE AT CONDER BROW.
Films by J. D. Greenwood and D. G. Buczynski with a 0.47-m reflector. Measured by Buczynski using six SAOC reference stars. Contact: G. M. Hurst, 16 Westminster Close, Kempshott Rise, Basingstoke, Hants. RG22 4PP, England.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
583	1985 11 11.96625	04 30 01.89	+24 49 59.5		978

ORBITAL ELEMENTS OF ONE-OPPOSITION MINOR PLANETS.

The orbit computers and authors of double designations are B = C. M. Bardwell, E = E. Bowell, f = T. Furuta, G = D. W. E. Green, h = K. Hurukawa, l = W. Landgraf, M = B. G. Marsden, s = L. D. Schmadel, U = T. Urata. For further information see MPC 7828.

Planet	B(1,0)	Epoch	M	Peri.	Node	Incl.	e	a	Arc	O	N	C
1980 TB12	13.0	801028	44.10	123.16	222.40	9.06	0.0558	3.1738	29	4	1	f
1981 DB1	14.0	810317	222.65	124.38	210.49	14.15	0.2487	3.1288	83	0		M
1981 DM1	13.5	810317	11.22	316.39	209.91	11.07	0.1408	2.6825	81	0		M
1981 DN1	15.0	810317	186.40	52.11	307.13	9.94	0.2054	2.5589	83	0		M
1981 DC2	15.0	810317	237.09	98.90	224.69	11.86	0.2031	2.6625	88	0		M
1981 DF2	15.5	810317	153.20	126.17	255.56	7.30	0.2011	2.3181	83	0		M
1981 DT2	14.0	810317	98.13	104.26	328.33	14.58	0.0980	2.5999	82	0		M
1981 DV2	16.5	810317	66.07	245.96	192.09	22.37	0.3011	2.4219	88	0		M
1981 DG3	12.0	810317	324.79	259.35	327.93	15.17	0.0958	3.1989	82	0		M
1981 DK3	14.0	810317	164.72	63.76	312.33	11.82	0.1881	2.6868	87	0		M
1981 DQ3	14.0	810317	333.68	258.84	321.21	10.50	0.1492	2.6870	79	0		M
1981 EO	15.0	810317	316.13	241.73	352.92	16.02	0.1684	2.5536	87	0		M
1981 ET	13.5	810317	237.60	318.30	358.71	9.66	0.2494	2.7514	90	0		M
1981 EZ	15.5	810317	45.60	92.76	20.20	1.25	0.1779	2.4082	89	0		M
1981 ED1	14.5	810317	91.18	67.79	359.34	12.60	0.1426	2.6870	89	0		M
1981 EZ2	14.0	810317	339.26	343.29	218.84	8.61	0.1020	2.5354	86	0		M
1981 EW3	14.0	810317	244.06	32.46	276.70	7.45	0.1586	2.5369	86	0		M
1981 EH4	15.0	810317	165.89	137.83	229.33	8.15	0.2305	2.6251	86	0		M
1981 EK4	14.5	810317	138.88	66.69	321.47	12.07	0.1905	2.6578	74	0		M
1981 ES4	15.0	810317	177.50	35.40	326.76	15.87	0.1805	2.6147	82	0		M
1981 EU4	13.5	810317	262.73	24.08	261.20	9.00	0.0716	2.9873	90	0		M
1981 EG5	15.0	810317	214.63	11.30	320.51	8.68	0.1278	2.4138	76	0		M
1981 EU6	16.5	810317	253.73	70.61	245.82	7.97	0.2901	2.3175	83	9		M
1981 EM7	15.0	810317	261.54	73.82	221.44	5.80	0.2060	2.5889	80	0		M
1981 EC8	16.5	810317	208.33	99.47	237.33	4.14	0.2264	2.2008	80	0		M
1981 ES8	13.5	810317	168.19	159.20	207.05	9.63	0.1023	3.0219	89	0		M
1981 EB9	14.5	810317	264.80	307.30	342.23	12.67	0.1647	2.6092	79	0		M
1981 EH11	15.0	810317	203.24	358.80	344.01	13.77	0.1838	2.6435	76	0		M
1981 EQ12	16.0	810317	222.35	94.30	240.18	6.45	0.2670	2.3918	83	0		M
1981 EN13	15.0	810317	7.56	270.70	260.66	4.36	0.0820	2.2234	83	0		M
1981 ET13	15.5	810317	329.88	294.87	291.71	4.19	0.2184	2.2828	80	0		M
1981 ER14	15.0	810317	261.43	339.15	324.79	9.08	0.2219	2.3407	83	0		M
1981 EM17	15.0	810317	192.13	152.59	199.64	7.41	0.2435	2.5562	80	0		M
1981 EN17	14.5	810317	168.05	157.25	210.72	4.57	0.1727	2.2945	80	0		M
1981 EZ17	14.0	810317	333.36	34.30	174.29	14.80	0.1296	2.5675	83	0	1	M
1981 EK18	13.5	810317	28.77	281.98	215.78	1.30	0.1277	3.1447	82	0		M
1981 EM18	15.0	810317	357.18	201.16	337.23	5.86	0.0992	2.2816	89	0		M
1981 ED19	14.0	810317	232.78	140.54	167.45	2.30	0.0727	2.6762	90	0		M
1981 EK19	15.5	810317	273.06	303.76	335.25	4.95	0.1484	2.3245	80	0		M
1981 EQ19	15.0	810317	147.94	184.04	193.71	2.76	0.1828	2.3831	83	0		M
1981 EU19	15.0	810317	277.41	288.18	345.51	5.40	0.1394	2.3145	89	0		M
1981 EC20	15.0	810317	207.69	74.43	262.88	1.17	0.2243	2.4014	82	0		G
1981 EW21	14.5	810317	327.23	359.17	219.15	1.08	0.1251	2.6266	82	0		G
1981 EX21	15.0	810317	169.62	187.65	176.00	12.37	0.1971	2.6538	82	0		M
1981 EY21	14.0	810317	59.91	272.64	178.68	10.99	0.2292	3.1370	82	0		G
1981 ET22	15.0	810317	45.63	88.94	26.33	2.59	0.1601	2.3962	82	0		G
1981 EU22	14.5	810317	0.74	196.60	339.30	1.93	0.0684	2.1767	82	0		G
1981 EK23	15.5	810317	237.31	128.65	184.95	3.06	0.1844	2.3602	83	0		G
1981 EC25	15.5	810317	207.14	330.91	7.01	3.70	0.1746	2.1728	82	0		G
1981 EG25	16.0	810317	322.83	262.90	346.85	9.83	0.3442	2.7735	83	0		M
1981 EF26	12.0	810317	36.45	321.27	174.47	6.95	0.0979	3.2211	81	0		G

1981	EN26	14.5	810317	357.02	357.90	186.12	8.17	0.1588	2.7840	78	0		G
1981	ET26	15.0	810317	288.69	277.58	353.14	3.89	0.1783	2.2327	83	0		G
1981	EX26	16.0	810317	291.09	78.99	198.75	2.98	0.2518	2.4238	80	0		G
1981	EY26	12.0	810317	304.73	266.64	340.39	5.23	0.1050	3.1806	80	0		G
1981	EY27	15.0	810317	251.31	301.71	5.29	11.79	0.1841	2.5286	80	0		G
1981	EA28	15.0	810317	177.98	354.94	6.92	7.56	0.1352	2.3614	80	0		G
1981	EF28	14.0	810317	223.50	318.30	9.44	10.47	0.1551	2.6458	80	0		G
1981	EQ28	14.5	810317	106.23	257.40	157.30	3.39	0.1980	2.7574	81	0		G
1981	EU28	15.0	810317	235.06	18.97	296.40	4.11	0.1936	2.2283	80	8		G
1981	EM30	15.0	810317	155.69	234.58	137.31	2.65	0.2492	2.7639	82	9		G
1981	EQ30	15.5	810317	242.62	316.83	1.12	12.67	0.2655	2.5923	82	0		G
1981	EY30	15.5	810317	222.82	170.67	158.04	4.05	0.2060	2.2432	82	0		G
1981	EQ32	15.5	810317	228.95	102.41	228.50	7.38	0.3005	2.6960	83	0		G
1981	EW32	16.0	810317	125.70	186.69	199.10	10.03	0.3112	2.5440	87	8		G
1981	EL33	17.0	810317	238.15	29.38	293.75	5.89	0.3135	2.2807	86	0		G
1981	EY35	15.5	810317	316.10	232.09	1.70	3.88	0.1418	2.2827	82	0		G
1981	EF37	14.0	810317	250.70	296.93	1.38	15.21	0.1213	2.5490	82	0		G
1981	EU38	15.5	810317	307.16	43.19	203.71	3.17	0.1350	2.2513	80	0		G
1981	EY38	16.5	810317	278.93	37.84	249.62	9.46	0.2588	2.3178	86	8		G
1981	EH41	13.5	810317	259.49	100.12	189.50	10.04	0.0837	2.9991	80	0		G
1981	ES45	14.0	810317	250.44	116.96	201.95	12.90	0.2758	3.2115	81	6		G
1981	EJ48	17.5	810317	63.91	74.81	359.36	21.62	0.3590	2.3252	58	4		G
1981	FQ	13.0	810317	316.83	202.98	30.12	0.32	0.1563	3.1108	89	0		M
1981	FR	14.5	810317	270.88	104.75	177.97	12.19	0.1537	2.6241	82	0		M
1981	FC1	13.5	810317	23.49	142.23	357.96	8.88	0.1699	3.1452	89	0		M
1981	GM1	14.5	810317	356.48	177.97	2.23	14.00	0.0995	2.5939	78	0		M
1981	GN1	15.0	810317	241.16	129.58	177.49	9.85	0.1283	2.3267	83	0	1	M
1981	UM11	15.5	811112	19.10	191.18	183.30	2.60	0.1605	2.2947	13	4	1	f
1982	UU8	15.0	821107	41.07	88.45	241.93	9.64	0.2836	2.5976	22	3	1	f
1985	CU1	16.0	850204	39.20	120.04	323.58	24.18	0.2394	2.3323	42	0	1	B
1985	CC2	15.0	850204	311.92	78.45	119.59	3.76	0.0328	2.2720	16	0	1	B
1985	NE	14.0	850803	35.57	245.18	358.25	6.74	0.1940	2.5427	69	0		M
1985	OG	15.5	850714	20.45	35.08	231.57	2.46	0.2474	2.3488	2	4		B
1985	PS	15.5	850912	346.31	222.93	149.34	7.52	0.3571	2.6616	87	7		B
1985	PG1	13.5	850912	344.20	183.85	191.01	9.92	0.1033	3.0000	58	8		M
1985	PM1		850803	349.89	189.13	162.08	17.43	0.3301	2.7713	9	9		M
1985	PN1		850803	83.83	77.82	158.38	5.92	0.1348	2.3236	9	7	2	M
1985	QD	14.0	850823	305.88	78.39	336.84	4.78	0.2025	2.4359	25	6		M
1985	QT	12.0	850912	356.09	359.55	3.86	19.11	0.0979	3.3823	58	0		M
1985	QO2	16.0	850803	18.99	98.85	196.37	8.84	0.1696	3.0104	7	6		M
1985	RQ	16.0	850912	3.66	328.88	18.05	6.36	0.2942	2.5225	28	6		E
1985	RR	15.5	850912	1.89	264.35	87.05	1.49	0.2441	2.3392	51	8		M
1985	RT	16.5	850912	346.53	21.08	352.60	3.14	0.1872	2.2232	51	8		M
1985	RV	16.0	850912	37.53	41.43	259.45	9.97	0.2584	2.4142	32	0		M
1985	RW	16.0	851022	226.27	246.73	240.76	19.15	0.0750	1.9635	83	0		M
1985	RL1	14.5	850912	11.53	122.00	212.76	9.89	0.1646	2.4337	10	0		M
1985	SB	14.5	851002	22.48	347.53	352.36	6.18	0.1689	2.4335	32	0		U
1985	TC	15.0	851022	10.08	155.85	215.15	2.86	0.1899	2.2689	38	0		U
1985	TD	15.0	851002	314.06	252.53	190.73	22.37	0.2836	2.3498	4	7		M
1985	TE1	15.0	851022	341.53	223.01	186.38	0.66	0.1466	2.4305	21	6		M
1985	TB2	13.5	851002	319.69	53.91	0.34	25.12	0.1342	3.1739	8	3		B
1985	TC2	13.5	851002	104.83	39.59	196.55	8.84	0.2141	2.5793	8	3		B
1985	UA	15.0	851022	301.16	124.84	329.52	3.27	0.1105	2.1819	17	8		B
1985	UJ	16.5	851022	358.02	12.07	19.69	7.23	0.3498	2.2206	3	5	2	G
1985	UK	15.0	851022	1.94	87.91	297.01	2.31	0.1623	2.2932	3	5		G
1985	UL	13.5	851022	213.00	297.74	244.06	4.50	0.1218	2.2289	3	5	2	M
1985	UN	16.0	851022	343.56	75.26	340.11	1.39	0.2382	2.1630	3	5	2	G
1985	UO	16.0	851022	350.52	320.99	80.36	4.59	0.2338	2.1675	3	5	2	M
1985	UP	16.0	851022	17.58	282.02	70.35	4.51	0.3050	2.4236	3	6	2	G

1985 UQ	14.5	851022	37.60	249.62	85.49	4.75	0.1582	2.3810	3	6	G
1985 UR	14.0	851022	17.64	165.13	195.19	17.93	0.1945	2.7249	3	6	G
1985 US	13.0	851022	141.88	112.59	127.25	4.46	0.0599	2.6962	3	6	G
1985 UT	13.0	851022	46.22	257.67	62.02	7.00	0.2018	3.0362	3	6	G
1985 UU	15.5	851022	353.70	345.11	50.55	9.05	0.1562	2.3011	3	6	G
1985 UV	15.0	851022	7.18	113.98	266.96	1.40	0.2171	2.3943	4	6	G
1985 UW	15.0	851022	25.80	49.46	300.29	1.70	0.2562	2.5157	4	6 2	G
1985 UX	13.0	851022	83.08	261.13	29.31	17.08	0.1844	2.6331	4	6	G
1985 UZ	13.5	851022	340.13	139.54	267.49	7.95	0.1279	3.0429	26	4	B
1985 VS	12.0	851111	338.39	222.97	208.53	28.26	0.0338	5.2798	29	0	M

Note 1: double designations 1980 TB12 = 1980 VM (f, JAM 1953); 1981 EZ17 = 1981 ED (l, MPC 8530); 1981 GN1 = 1981 GP1 (h, JAM 1902); 1981 UM11 = 1981 VT (f, JAM 1953); 1982 UU8 = 1982 VG10 (f, JAM 1953); 1985 CU1 = 1985 BA1 (s); 1985 CC2 = 1985 DM (s). 2: e assumed.

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ORBITAL ELEMENTS BY L. D. SCHMADEL, ASTRONOMISCHES RECHEN-INSTITUT.

The identifications are by L. D. Schmadel unless otherwise stated.

(3331)* 1979 QS = 1972 TW7 = 1976 YV4 = 1978 JP1 = 1985 CO1

Discovered 1979 Aug. 22 by C.-I. Lagerkvist at the European Southern Observatory. The identifications were found independently by K. Hurukawa.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	154.43033	(1950.0)	P	Q
n	0.26203967	Peri. 303.59469	-0.36751947	-0.92992540
a	2.4185664	Node 167.94735	+0.87249343	-0.34958250
e	0.0905804	Incl. 3.56074	+0.32200101	-0.11415262
P	3.76	B(1,0) 14.5		

Residuals in seconds of arc

721006	095	1.3+	2.1+	850211	809	0.1-	0.1+	850221	809	0.6+	0.1-
761218	095	0.0	0.8-	850211	809	0.0	0.4+	850221	809	1.0+	0.6-
761220	095	1.8-	0.7-	850213	809	0.5-	0.4-	850221	809	1.1+	0.5-
780506	095	0.3-	0.5+	850213	809	0.2-	0.4-	850222	809	0.1+	0.1-
790822	809	0.2-	0.4+	850213	809	0.1+	0.3-	850222	809	0.1+	0.2-
790822	809	1.0+	0.8+	850215	809	0.4-	0.1-	850222	809	0.2+	0.3-
790822	809	0.9+	0.7+	850215	809	0.2+	0.1-	850224	809	0.6-	0.3-
790823	809	0.1-	0.0	850215	809	0.0	0.2-	850224	809	0.4-	0.6-
790823	809	2.3	0.2-	850217	809	0.2+	0.1-	850224	809	0.4-	0.6-
790826	809	0.3-	0.1-	850217	809	0.1-	0.2-	850225	809	0.1-	0.5+
790826	809	0.6-	0.2-	850217	809	0.1-	0.1-	850225	809	0.0	0.2+
790830	809	1.7-	0.1+	850818	809	0.1+	0.6+	850225	809	0.0	0.4+
790830	809	2.5-	0.2-	850818	809	0.1-	0.8+	850226	809	1.1-	0.4+
850209	809	0.5-	0.3+	850818	809	0.1+	0.9+	850226	809	0.7-	0.5+
850209	809	0.5-	0.0	850819	809	0.2-	0.2+	850226	809	0.5-	0.4+
850209	809	0.4-	0.8+	850819	809	0.1-	0.0	850227	809	0.6+	0.7+
850210	809	0.2+	0.1-	850819	809	0.4-	0.2-	850227	809	0.6+	0.9+
850210	809	0.5+	0.2-	850220	809	0.5-	0.4-	850228	809	1.4+	0.2+
850210	809	0.7+	0.0	850220	809	0.1+	0.2-	850228	809	1.4+	0.1+
850211	809	0.3-	0.1-	850220	809	0.2+	0.1+				

1978 QA2 = 1985 RN

The identification was also found independently by E. Bowell, K. Hurukawa and O. Kippes.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	85.78037		(1950.0)	P	Q
n	0.28259367	Peri.	154.51858	+0.95170756	+0.30688808
a	2.2998231	Node	187.62447	-0.29149792	+0.89458698
e	0.2208182	Incl.	3.67749	-0.09634147	+0.32485973
P	3.49	B(1,0)	16.0		

Residuals in seconds of arc

780831 095	0.1-	0.5-	850815 688	0.1-	0.0	850914 688	0.8-	0.1-
780905 095	1.1-	2.6+	850815 688	0.8+	1.5-	850918 688	1.8+	0.2+
780927 095	0.7+	1.2-	850914 688	0.7+	0.2-	850918 688	2.0-	0.4+

1980 DS = 1978 QQ1 = 1985 PZ

The identifications were found independently by K. Hurukawa.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	45.89583		(1950.0)	P	Q
n	0.27980978	Peri.	235.90175	+0.93274381	-0.35557748
a	2.3150522	Node	144.82085	+0.35538736	+0.87890622
e	0.0988238	Incl.	5.93900	+0.06073561	+0.31794421
P	3.52	B(1,0)	14.5		

Residuals in seconds of arc

780831 095	0.3-	1.0+	800221 046	0.2-	2.1-	850814 688	2.5+	2.4-
800124 095	0.9+	2.8+	800221 046	3.1-	0.0	850820 688	0.8+	1.0-
800219 046	1.2+	3.9-	800223 046	0.4-	0.1-	850820 688	2.3+	2.5-
800219 046	3.2+	3.3-	800223 046	1.2-	0.4+	850914 688	0.4-	0.6-
800220 095	2.4-	2.4-	850814 688	0.7-	2.4-	850914 688	1.8-	0.0

1982 TQ2 = 1982 VQ9 = 1985 PD1

The double designation and identification were found independently by K. Hurukawa, and the identification 1982 TQ2 = 1985 PD1 was also found by O. Kippes.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	88.37394		(1950.0)	P	Q
n	0.30535045	Peri.	20.85743	+0.94503943	+0.32238196
a	2.1840891	Node	320.20400	-0.31073218	+0.83372162
e	0.1494288	Incl.	4.88466	-0.10171521	+0.44830584
P	3.23	B(1,0)	15.5		

Residuals in seconds of arc

821015 095	2.9-	1.3+	850814 688	0.1-	0.5-	850912 688	0.6-	0.9+
821021 095	1.1+	1.8+	850814 688	1.1-	1.1-	850912 688	2.5-	0.3+
821022 095	1.5+	3.1-	850820 688	4.0+	0.8+			
821111 095	0.4+	0.9-	850820 688	0.3+	0.4-			

1985 PB1 = 1981 GW = 1982 VQ

The identifications were found independently by K. Hurukawa.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	128.72179		(1950.0)	P	Q
n	0.29202871	Peri.	81.53540	+0.16480490	+0.98582218
a	2.2500164	Node	198.04295	-0.94022444	+0.14736334
e	0.1794029	Incl.	5.84224	-0.29802238	+0.08024133
P	3.38	B(1,0)	15.0		

Residuals in seconds of arc

810407 688	2.9-	0.1+	821114 046	0.7-	1.7-	850820 688	0.3-	1.2-
810407 688	1.7+	1.0-	821114 046	0.1-	1.0-	850912 688	1.2-	0.8-
810409 688	0.3+	2.2-	850814 688	1.5+	1.1-	850912 688	0.3+	1.4+
810409 688	0.4-	1.2-	850814 688	1.5+	0.6+			
821111 046	1.6+	0.9-	850820 688	1.1-	1.0-			

1985 RK = 1974 QS1 = 1974 RE2
Epoch 1986 June 19.0 ET = JDE 2446600.5

M	45.29434	(1950.0)	P	Q
n	0.26998113	Peri. 54.47481	+0.84196415	-0.53774027
a	2.3709029	Node 337.95323	+0.44928906	+0.74390726
e	0.1374726	Incl. 6.72429	+0.29872347	+0.39678380
P	3.65	B(1,0) 15.0		

Residuals in seconds of arc

740824	095	1.7+	1.3-	850815	688	1.4-	0.4+	850914	688	2.0+	0.0
740827	095	1.0-	1.6-	850815	688	0.4-	1.8+	850918	688	1.4-	0.1-
740911	095	0.1-	1.7+	850914	688	0.3-	0.4-	850918	688	0.6+	0.4-

1985 RP = 1978 RT3 = 1978 SJ4

The identification and double designation were found independently by K. Hurukawa.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	55.68048	(1950.0)	P	Q
n	0.28384207	Peri. 225.38471	+0.84836049	-0.52840213
a	2.2930747	Node 166.40394	+0.51660135	+0.81268169
e	0.2293888	Incl. 8.02002	+0.11579089	+0.24564133
P	3.47	B(1,0) 15.5		

Residuals in seconds of arc

780903	095	1.4-	2.4+	850822	688	0.8-	2.6-	850918	688	0.8+	0.1-
780928	095	0.2+	2.6+	850914	688	2.4+	1.5+	950918	688	0.0	0.6-
850822	688	0.6-	2.7-	850914	688	0.8-	0.8-				

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ORBITAL ELEMENTS BY K. HURUKAWA, TOKYO ASTRONOMICAL OBSERVATORY.

The following orbital elements are from JAM 1949-1950. The identifications are by H. Oishi unless otherwise stated.

(3332)* 1978 NT1 = 1978 RF1 = 1936 FT = 1950 TC4 = 1952 CB = 1962 TH = 1970 PP = 1974 OR

Discovered 1978 July 4 by L. I. Chernykh at the Crimean Astrophysical Observatory.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	240.93577	(1950.0)	P	Q
n	0.24292046	Peri. 277.46172	+0.53756044	-0.82586128
a	2.5438606	Node 138.50885	+0.83882127	+0.50313402
e	0.0852597	Incl. 14.89008	+0.08606772	+0.25457671
P	4.06	B(1,0) 12.8		

Residuals in seconds of arc

360318	012	(23.3-	15.0+)	621004	760	0.9-	2.7-	780824	414	0.2+	1.5-
360327	012	1.1+	2.1+	700809	095	1.9+	0.8+	780824	414	0.2+	2.4-
501007	711	3.2-	5.4- Y	740725	095	1.0-	5.9+	780905	095	0.3+	2.5-
501008	711	3.5-	4.0- Y	740727	095	0.6-	2.7+	850422	801	1.0-	0.3+
520201	711	2.5+	5.2+ Y	780704	095	0.8+	0.2+	850514	552	0.1+	2.2-
520217	711	1.3+	1.8+ Y	780708	095	0.5-	1.0+	850514	552	0.9-	2.3-
520217	711	1.9-	0.2+ Y	780824	808	0.2+	1.0-				

(3333)* 1980 TG5 = 1964 WR = 1975 XM2

Discovered 1980 Oct. 9 by C. S. Shoemaker at Palomar. The identifications are by T. Furuta (MPC 9683).

Epoch 1986 June 19.0 ET = JDE 2446600.5

M 61.82637	(1950.0)	P	Q	
n 0.17870381	Peri. 67.88057	+0.46433819	+0.87095475	
a 3.1216210	Node 230.80126	-0.86962803	+0.41399692	
e 0.2304998	Incl. 11.96883	-0.16774125	+0.26465899	
P 5.52	B(1,0) 12.7			

Residuals in seconds of arc

641127	330	4.4+	0.7+	801008	675	1.0-	1.1+	850524	801	0.2-	0.2+
641203	330	4.4-	2.2+	801009	675	0.9+	0.7+	850619	801	0.1+	0.2+
751202	095	0.0	2.2-	801010	675	0.2-	0.0	850916	675	(1.2-	2.2+)
801007	675	0.4-	0.7-	801107	675	0.9+	1.5-	850916	675	(1.7-	0.3-)

(3334)* 1981 YR = 1942 VG = 1969 KF = 1970 QW = 1974 HT2 = 1976 YV = 1978 EV4 = 1980 TE10 = 1984 MK

Discovered 1981 Dec. 20 by A. Mrkos at Klet. The identification 1981 YR = 1984 MK is by T. Furuta (JAM 1950).

Epoch 1986 June 19.0 ET = JDE 2446600.5

M 149.02692	(1950.0)	P	Q	
n 0.20508068	Peri. 188.59539	+0.08428483	+0.99482149	
a 2.8478660	Node 86.25341	-0.91075422	+0.10003776	
e 0.0273045	Incl. 3.26315	-0.40425588	-0.01796251	
P 4.81	B(1,0) 13.0			

Residuals in seconds of arc

421105	062	1.1-	0.2+	761218	095	1.3+	1.7-	811228	046	1.3-	1.9-
421105	062	0.2-	2.6+	761220	095	0.9+	1.5-	840624	071	4.7-	4.1-
421105	062	2.1-	0.8-	780306	095	1.4-	2.4-	840624	071	1.2+	4.0-
690519	095	2.6+	0.3-	801015	095	2.6+	1.9+	840624	071	6.1-	2.6-
700829	095	3.9+	1.1-	811125	095	1.5+	1.2-	840624	071	0.6+	2.2-
740424	805	0.8+	0.7-	811220	046	0.6+	3.4-	840625	071	2.1+	0.7-
740425	805	1.5+	1.0+	811220	046	0.7-	3.3-				
761216	095	4.3-	1.9-	811228	046	2.9+	1.3-				

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ORBITAL ELEMENTS BY H. OISHI, NIIZA, JAPAN.

The following orbital elements are from JAM 1946-1948, 1951, 1954 and 1958-1959. The identifications are by H. Oishi unless otherwise stated.

1964 TN2 = 1981 SU7 = 1981 WS5

The identification and double designation are by T. Furuta (JAM 1947).

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M 350.45875	(1950.0)	P	Q	
n 0.17441049	Peri. 70.68991	+0.90866289	+0.39325684	
a 3.1726476	Node 265.94833	-0.41599801	+0.82393383	
e 0.0956911	Incl. 8.08487	-0.03574085	+0.40802218	
P 5.65	B(1,0) 12.5			

Residuals in seconds of arc

641009	330	0.3+	0.2-	641111	330	2.7-	2.6-	811002	095	0.7-	1.2-
641030	330	2.2+	3.4+	810929	095	0.1+	0.0	811124	095	0.7+	0.4+

1964 TT2 = 1968 QH1 = 1981 SD5 = 1981 UF10

The key identification and double designation 1964 TT2 = 1981 SD5 = 1981 UF10 are by T. Furuta (JAM 1954).

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	68.07409	(1950.0)	P	Q
n	0.23288904	Peri. 308.58678	+0.94014900	+0.33964686
a	2.6164004	Node 31.58543	-0.29397435	+0.84931203
e	0.2086657	Incl. 3.01684	-0.17233380	+0.40411518
P	4.23	B(1,0) 14.2		

Residuals in seconds of arc

641008	330	0.1+	0.8+	680827	095	0.1+	0.5-	811023	330	1.6+	0.0
641030	330	1.5+	0.3+	810925	095	1.9-	0.8+				
641109	330	0.7-	3.3-	811007	095	0.8-	1.5+				

1974 MG = 1981 SE3 = 1981 UH13

The identification and double designation are by T. Furuta (JAM 1946).

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	200.67473	(1950.0)	P	Q
n	0.29582916	Peri. 337.18168	+0.51556781	+0.85498197
a	2.2307091	Node 323.78347	-0.77060400	+0.43381745
e	0.1830026	Incl. 5.49034	-0.37464559	+0.28426791
P	3.33	B(1,0) 15.4		

Residuals in seconds of arc

740617	808	0.7+	0.1-	740719	808	0.6-	0.1+	810927	095	0.1-	0.0
740617	808	0.2-	0.4-	740719	808	0.4-	0.9-	811023	095	0.1+	0.0
740622	808	0.0	0.7+	740724	808	0.0	0.9+				
740622	808	0.5-	0.1+	740724	808	1.1+	0.4-				

1980 FY4 = 1974 QB

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	102.96967	(1950.0)	P	Q
n	0.27680010	Peri. 163.22842	+0.98209665	+0.18813882
a	2.3318078	Node 185.95167	-0.18162155	+0.93230995
e	0.1745078	Incl. 5.24811	-0.04999782	+0.30887203
P	3.56	B(1,0) 15.7		

Residuals in seconds of arc

740816	808	0.5-	0.3+	740818	808	0.5+	1.9-	800317	809	0.2+	0.2-
740816	808	0.0	0.3+	800316	809	0.3+	0.2-	800317	809	0.2-	0.2+
740817	808	0.4+	1.4+	800316	809	0.0	0.3+	809317	809	0.1+	1.2+
740817	808	0.6-	0.3-	800316	809	0.2+	0.0	800317	809	0.0	0.8-
740818	808	0.1+	0.2+	800316	809	0.9-	0.7-	800323	809	0.3+	0.0

1980 JH = 1981 UP11

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	97.82255	(1950.0)	P	Q
n	0.23318254	Peri. 115.39035	+0.68569420	+0.72442383
a	2.6142045	Node 198.47465	-0.72197012	+0.66447374
e	0.1706723	Incl. 12.93767	-0.09264235	+0.18353407
P	4.23	B(1,0) 14.0		

Residuals in seconds of arc

800511	046	0.9-	0.8+	800513	046	2.2+	0.8-	811024	095	3.4+	1.2+
800511	046	1.0+	0.2+	800513	046	1.8-	0.2+	811028	095	1.4-	0.2-
800512	046	0.2+	0.1-	800517	095	0.4-	0.6-				
800512	046	0.4-	0.3+	811022	095	2.1-	0.9-				

1981 DP2 = 1933 BU = 1979 YY9 = 1983 RG4

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	101.62577	(1950.0)	P	Q
n	0.18738653	Peri. 130.30470	+0.23264843	-0.96396513
a	3.0244379	Node 305.77794	+0.83704427	+0.26600891
e	0.0720885	Incl. 9.15059	+0.49520864	+0.00323852
P	5.26	B(1,0) 13.0		

Residuals in seconds of arc

330129 024	0.1+	0.2+	810308 413	0.8-	0.3-	810408 413	0.4-	0.3+
791225 095	0.2-	1.3-	810308 413	0.8+	0.5-	810409 413	1.5-	0.0
810212 413	0.5-	0.2+	810312 413	0.4-	0.3+	810409 413	0.1-	0.1-
810228 413	2.0-	0.3-	810312 413	1.0+	0.5+	810501 413	(0.4-	0.6-)
810228 413	0.4+	0.4-	810407 413	1.5-	0.3+	830911 688	2.0-	1.4-
810306 413	1.0+	0.2-	810407 413	0.7+	0.6+	830911 688	3.2+	0.9-
810306 413	3.3+	2.0-	810408 413	1.2-	0.5-			

1981 ER21 = 1982 JE3
Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M 125.80636		(1950.0)	P	Q
n 0.16947988	Peri.	216.04529	+0.97834071	-0.20285164
a 3.2338868	Node	155.56102	+0.20546442	+0.92738211
e 0.1235563	Incl.	5.72063	+0.02517602	+0.31434637
P 5.82	B(1,0)	14.1		

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

810202 413	0.3-	0.2-	810311 413	0.3-	1.0+	810426 413	(1.9+	0.5-)
810213 413	1.6-	0.1+	810311 413	0.6+	0.0	810502 413	(0.2+	0.1+)
810302 413	0.4+	0.7-	810316 413	2.7-	1.0+	820515 675	(0.12+	0.02-)
810303 413	1.8-	0.6+	810329 413	1.2-	0.2+	820516 675	1.1-	1.0-
810303 413	1.3+	0.1-	810329 413	1.4+	0.9-	820517 675	0.6-	0.1+
810307 413	1.7+	0.7-	810408 413	0.1+	0.9-	820518 675	1.7+	0.9+
810307 413	3.3+	0.1+	810408 413	1.1-	0.5+			

1981 SF2 = 1981 SJ6 = 1981 UB19 = 1929 WG1 = 1968 DP = 1970 WR
= 1977 QJ

The triple designation 1981 SF2 = 1981 SJ6 = 1981 UB19 is by K. Hurukawa (JAM 1959).

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M 18.93457		(1950.0)	P	Q
n 0.26336387	Peri.	349.03122	-0.07043939	-0.99511353
a 2.4104574	Node	104.98089	+0.92049516	-0.09157024
e 0.1468598	Incl.	4.10733	+0.38435264	+0.03693164
P 3.74	B(1,0)	14.1		

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

291127 690	(0.03+	0.01+)	810908 095	1.0-	1.3+	810928 095	1.1-	3.3+
291203 690	(0.03+	0.01+)	810926 688	1.8+	0.9-	811005 688	2.2-	1.5-
680227 095	0.0	0.1+	810926 688	0.7-	0.8-	811005 688	0.9+	0.4+
701126 095	0.6+	1.5-	810926 688	2.4+	1.8+	811026 095	(2.3+	7.1+)
770818 095	0.7+	2.2-	810926 688	1.4-	0.6-			

1981 TC3 = 1977 PT = 1984 JD1

The identifications are by T. Furuta (JAM 1947).

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M 156.08230		(1950.0)	P	Q
n 0.27070181	Peri.	61.60801	+0.59724198	+0.80125768
a 2.3666978	Node	245.10927	-0.74899624	+0.54116331
e 0.1919670	Incl.	2.26756	-0.28689135	+0.25520268
P 3.64	B(1,0)	14.3		

Residuals in seconds of arc

770807 095	1.8+	0.9+	811021 095	1.2-	0.7-	840503 688	0.3+	0.0
770813 095	2.0-	0.5-	811027 095	0.8+	2.0+			
811006 095	0.5+	1.7-	840503 688	0.4-	0.5-			

1981 TH4 = 1941 SF = 1941 SZ1 = 1958 TJ1 = 1975 TQ1 = 1977 EF
= 1983 ES

The key identifications 1981 TH4 = 1975 TQ1 = 1977 EF = 1983 ES are by T. Furuta (JAM 1948).

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	278.03715		(1950.0)		P		Q				
n	0.17192631	Peri.	99.90277		+0.33571206		-0.94036812				
a	3.2031358	Node	330.29901		+0.81502238		+0.31915613				
e	0.2201271	Incl.	6.35229		+0.47226680		+0.11767401				
P	5.73	B(1,0)	13.0								

Residuals in seconds of arc

410921	012	1.6-	3.2-	581010	690	5.1+	1.0+	811024	095	3.5-	1.4+
410922	024	2.0-	3.5-	751003	095	2.1-	1.4-	830310	688	3.2-	1.0-
410923	012	(31.2+	58.6-)	770309	095	3.2+	1.8-	830310	688	0.9-	1.4-
410924	024	1.7-	1.8-	770313	095	2.7+	0.1+	830316	688	0.8-	1.2-
581007	690	5.4+	0.7+	811008	095	1.7-	0.3+	830316	688	3.1-	1.0-
581008	690	4.3+	0.0	811022	095	0.4-	2.2+				

1982 UX = 1982 VW5 = 1936 LA = 1947 LP = 1965 UL1 = 1969 JN = 1970 PT = 1970 QF = 1974 ER = 1976 SP9

The key identifications and double designations 1982 UX = 1982 VW5 = 1965 UL1 = 1969 JN = 1970 PT = 1970 QF = 1974 ER = 1976 SP9 are by T. Furuta (JAM 1954). The identification 1974 ER = 1976 SV9 (NOC 1053) is invalid.

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	348.09093		(1950.0)		P		Q				
n	0.17631181	Peri.	179.96184		-0.02895338		+0.99798818				
a	3.1497976	Node	88.37896		-0.91706728		-0.00407184				
e	0.1358277	Incl.	3.23467		-0.39767990		-0.06326943				
P	5.59	B(1,0)	12.4								

Residuals in seconds of arc

360614	078	(12.7-	30.3+)X	700810	095	1.0-	1.4-	821021	688	0.3+	0.1+
470614	690	(1.3-	38.5-)Y	700828	095	0.4+	1.1-	821021	688	2.1+	0.4-
470615	690	(0.4-	51.6-)Y	740315	095	0.1+	1.9-	821107	095	2.6-	1.7+
651018	330	1.1-	0.1+	740319	095	0.6-	0.7+	821108	095	2.1-	1.0+
651023	330	0.6+	0.9+	740321	095	2.2-	4.0-				
690507	095	1.3+	1.9+	760929	095	4.5+	4.1-				

1984 DC1 = 1957 TO = 1968 UQ1 = 1979 YH8

The following orbital elements correct those on MPC 9825. The residuals are as given there. The identifications are by T. Furuta.

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

M	265.56600		(1950.0)		P		Q
n	0.27402624	Peri.	251.64689		+0.57837590		-0.81569596
a	2.3475174	Node	163.00286		+0.76193283		+0.53533043
e	0.2094413	Incl.	2.16025		+0.29144412		+0.21922918
P	3.60	B(1,0)	15.1				

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

Periodic Comet Ciffreo (1985p)

T	1985 Oct. 29.78149 ET						
q	1.7032595		(1950.0)		P		Q
n	0.13556839	Peri.	357.71968		+0.63072164		-0.75443922
a	3.7528721	Node	53.11548		+0.71548735		+0.47471685
e	0.5461451	Incl.	13.12978		+0.30044645		+0.45328290
P	7.27						

From 33 observations 1985 Nov. 8-22.

1978 ST6 = 1925 TE

The identification is by D. W. E. Green.

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	95.92568		(1950.0)		P		Q				
n	0.28029172	Peri.	101.03432		+0.92306854		+0.37522814				
a	2.3124024	Node	236.97782		-0.38037585		+0.85789682				
e	0.1320677	Incl.	5.78736		-0.05708480		+0.35102263				
P	3.52	B(1,0)	13.5								

Residuals in seconds of arc

251006	024	0.3+	0.2+	781008	095	0.6-	1.7-	851015	688	0.4-	1.1-
780926	095	1.7-	0.6-	781101	095	1.4+	0.1-	851015	688	1.6+	1.3-
781002	095	1.6-	0.4+	851012	688	1.7+	1.3-				

1981 JA2 = 1985 TD1

The identification is by E. Bowell.

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	161.81731		(1950.0)		P		Q				
n	0.30340036	Peri.	25.34583		+0.18050319		+0.98302457				
a	2.1934421	Node	255.06720		-0.90806509		+0.15370644				
e	0.1354019	Incl.	1.95029		-0.37793700		+0.10018498				
P	3.25	B(1,0)	15.0								

Residuals in seconds of arc

810411	675	1.1-	1.5+	810506	675	0.3-	1.5+	851015	688	1.1+	1.4-
810411	675	0.6-	1.5+	810506	675	2.7+	1.1+	851020	688	0.4+	0.9-
810505	675	0.5+	0.9-	810511	675	1.2+	1.8+	851020	688	1.0+	0.2+
810505	675	1.6-	1.3+	851015	688	0.7-	0.2+				

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

The identifications are by B. G. Marsden unless otherwise stated.

Periodic Comet Maury (1985k)

Epoch 1985 June 24.0 ET = JDE 2446240.5

T 1985 June 8.14590 ET

q	2.0108977		(1950.0)		P		Q
n	0.11151696	Peri.	113.95118		+0.45420656		+0.89085235
a	4.2747309	Node	183.10559		-0.86522129		+0.43872462
e	0.5295850	Incl.	9.41169		-0.21234056		+0.11791008
P	8.84						

From 34 observations 1985 Aug. 16-Dec. 7, mean residual 1".0.

Comet Hartley (1984v)

Epoch 1985 Sept. 12.0 ET = JDE 2446320.5

T 1985 Sept. 28.38043 ET

q	4.0001689		(1950.0)		P		Q
z	+0.0001208	Peri.	255.27494		+0.07836510		-0.34133892
	+/-0.0000132	Node	249.50980		+0.60686584		-0.72908446
e	0.9995170	Incl.	89.32897		-0.79093158		-0.59323148

From 18 observations 1984 Nov. 17-1985 Oct. 18, mean residual 1".0.

Comet Thiele (1985m)

T 1985 Dec. 19.18807 ET

q	1.3172651		(1950.0)		P		Q
z	+0.0121890	Peri.	52.97645		+0.84545542		-0.12814489
		Node	52.30959		-0.10929983		-0.99175545
e	0.9839439	Incl.	139.06833		+0.52274151		-0.00011078

From 56 observations 1985 Oct. 9-Nov. 15.

(3335)* 1966 AA = 1977 UK2

Discovered 1966 Jan. 1 at the Purple Mountain Observatory.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M 320.28111	(1950.0)	P	Q	
n 0.23385443	Peri. 179.16818	-0.12452093	-0.96560493	
a 2.6091896	Node 277.96256	+0.90896004	-0.01876974	
e 0.1277063	Incl. 13.32533	+0.39785195	-0.25933534	
P 4.21	B(1,0) 13.5			

Residuals in seconds of arc

660101	330	0.2-	1.1-	771016	033	0.4+	0.1-	850814	801	0.9+	0.0
660213	330	1.6+	0.6+	771017	033	0.2+	0.2+	850915	801	0.2-	0.3-
660218	330	1.6-	0.0	771017	033	0.1+	0.3+	851115	801	2.0-	0.3+
771011	033	0.6-	0.2-	840726	474	0.1-	0.1+				
771015	033	0.4+	0.1+	840726	474	0.4+	0.8+				

(3336)* 1971 UX = 1978 SR7

Discovered 1971 Oct. 26 by L. Kohoutek at Bergedorf.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M 68.39717	(1950.0)	P	Q	
n 0.27814814	Peri. 122.86344	+0.99554070	-0.09340168	
a 2.3242630	Node 242.49897	+0.08079681	+0.91661469	
e 0.1866308	Incl. 0.85413	+0.04868860	+0.38870763	
P 3.54	B(1,0) 16.0			

Residuals in seconds of arc

711026	029	1.7+	0.5-	781002	095	0.1+	1.8+	850918	688	1.1+	0.6-
711027	029	1.7-	0.2+	781008	095	1.6-	0.4-	850922	054	0.9-	0.3+
711030	029	1.5-	0.2+	781101	095	4.2+	1.3-	850922	054	0.2+	1.0+
711110	029	0.1+	0.0	850914	688	0.9+	0.5-	851018	801	1.7-	0.0
711110	029	1.0+	0.1-	850914	688	0.6-	1.7-	851018	801	1.7-	0.0
711119	029	0.3-	0.5+	850917	801	0.1-	1.1+				
780926	095	1.0-	0.6-	850918	688	1.9+	0.4+				

(3337)* 1971 UG1 = 1980 RT

Discovered 1971 Oct. 26 by L. Kohoutek at Bergedorf. The identification is by E. Bowell (MPC 5519).

Epoch 1986 June 19.0 ET = JDE 2446600.5

M 22.33211	(1950.0)	P	Q	
n 0.20568074	Peri. 218.16368	+0.80004510	-0.59993934	
a 2.8423243	Node 178.70111	+0.55856391	+0.74439081	
e 0.0764019	Incl. 1.98282	+0.21893878	+0.29318099	
P 4.79	B(1,0) 13.5			

Residuals in seconds of arc

711026	029	0.2-	0.1+	800902	688	0.4-	0.1+	850914	688	4.4+	0.3+
711027	029	0.6-	1.7+	800904	688	0.8-	1.9-	850918	688	0.4+	0.5+
711030	029	0.4-	1.0+	800904	688	1.2+	0.9-	850918	688	1.0-	0.7+
711110	029	0.1-	0.2+	811125	095	1.2+	1.2+	851012	688	0.2-	0.8+
711110	029	0.4+	2.3+	850822	688	0.4+	0.8+	851012	688	0.6-	0.6-
711119	029	1.2-	0.1-	850822	688	1.4+	0.0				
711119	029	0.7+	0.2+	850914	688	0.9-	0.2+				

(3338)* 1973 UX5 = 1976 QL1

Discovered 1973 Oct. 28 at Tautenburg.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M 73.81734	(1950.0)	P	Q	
n 0.31350119	Peri. 177.12096	+0.54195498	+0.84034278	
a 2.1460669	Node 125.69563	-0.77127737	+0.50226633	
e 0.1701887	Incl. 0.73593	-0.33379037	+0.20384442	
P 3.14	B(1,0) 15.5			

Residuals in seconds of arc

731028	033	0.3-	0.3+		760826	095	1.3-	1.2-		840103	801	0.1-	0.1+
731031	033	0.8-	0.2+		760924	095	0.1-	0.3-		850525	801	0.5+	0.8-
731101	033	0.2+	1.9+		760928	095	2.0+	0.9+		850526	801	0.4+	3.7+
731102	033	0.1-	0.5+		790721	095	0.0	0.5-					
731103	033	0.5-	0.5+		790730	095	0.1-	0.3-					

(3339)* 1978 LB = 1969 VO2

Discovered 1978 June 6 by A. Mrkos at Klet. The identification 1978 LB = 1969 VO2 is by K. Hurukawa (JAM 1846).

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	144.83853		(1950.0)	P	Q
n	0.17393053	Peri.	152.79338	-0.52165935	+0.79708640
a	3.1784753	Node	84.28868	-0.82775016	-0.38650840
e	0.1307235	Incl.	17.80007	-0.20664266	-0.46396609
P	5.67	B(1,0)	12.5		

Residuals in seconds of arc

691115	095	1.0+	1.9-		780629	046	0.6+	1.5-		830314	801	1.4+	0.0
780511	330	0.4-	1.6-		780629	046	2.0-	0.7-		830414	801	0.2+	1.4+
780606	046	0.3+	0.1-		780630	046	1.7+	1.1-		840525	801	0.6+	0.6-
780606	046	1.4-	3.3-		780630	046	1.2+	1.7-		840630	552	0.4-	0.5-
780608	046	0.3-	1.3+		811228	046	1.8+	2.4-		840630	552	0.2-	0.6-
780609	095	1.1-	0.4-		811228	046	0.7+	1.7-		850815	474	1.1-	0.6-
780609	046	0.7-	1.2+		830121	801	1.6+	0.3+		850815	474	0.4-	0.2-
780611	046	0.3-	0.7+		830219	046	1.8-	0.0		850918	474	0.5-	0.5-
780611	046	0.1+	2.7+		830219	046	1.7-	0.0		850918	474	1.6+	0.1+

(3340)* 1979 TK = 1939 UE = 1969 TT4 = 1976 YZ4

Discovered 1979 Oct. 12 at the Purple Mountain Observatory. The key identification 1979 TK = 1939 UE is by E. Bowell (MPC 8056).

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	39.60544		(1950.0)	P	Q
n	0.29529421	Peri.	282.54379	+0.73912827	+0.67119225
a	2.2333979	Node	35.34344	-0.57381289	+0.67136476
e	0.1946007	Incl.	5.60337	-0.35274376	+0.31427745
P	3.34	B(1,0)	15.5		

Residuals in seconds of arc

391018	062	1.7-	1.2+		791016	330	1.5-	0.5+		850414	688	1.9+	0.7-
391020	062	1.2+	0.1-		791021	330	0.7+	0.5+		850423	688	1.5+	0.6+
691014	095	1.3-	0.1+		791026	330	4.6+	1.2+		850423	688	0.4+	0.1+
761218	095	0.2+	0.3+		791110	095	1.6-	1.9-		850515	688	3.7-	0.1-
791012	330	0.5-	2.3+		791111	095	1.6-	1.7-		850515	688	1.6-	0.8+
791014	095	0.1-	1.7-		850414	688	1.8+	0.5+					

(3341)* 1980 OD = 1980 RE3

Discovered 1980 July 17 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory. The double designation is by K. Hurukawa (JAM 1872).

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	13.29377		(1950.0)	P	Q
n	0.18758976	Peri.	232.49594	+0.95899022	-0.26066399
a	3.0222471	Node	142.24513	+0.28123975	+0.92392116
e	0.2360410	Incl.	10.47522	-0.03524154	+0.28004278
P	5.25	B(1,0)	13.5		

Residuals in seconds of arc

800717	688	0.3+	2.0-	800904	095	0.7-	2.3+	840507	801	1.1-	0.5+
800717	688	1.4+	0.8-	800907	688	0.6+	1.6+	840605	801	1.1+	0.8+
800808	688	0.6+	0.0	801002	688	2.3-	1.7+	850719	801	0.4+	0.3+
800902	688	0.5-	1.2-	820123	801	1.0+	0.9-	851016	801	0.4-	1.3-
800904	688	0.5+	0.7-	820326	801	1.2-	1.2+				

(3342)* 1982 BD3 = 1969 VY2 = 1980 WE

Discovered 1982 Jan. 27 at the Oak Ridge Observatory.

Epoch 1986 June 19.0 ET = JDE 2446600.5

			(1950.0)	P	Q
M	319.24625				
n	0.17730693	Peri.	308.70838	-0.05226338	-0.99663189
a	3.1379949	Node	144.13444	+0.94641179	-0.06962636
e	0.0691198	Incl.	6.19195	+0.31870560	+0.04332482
P	5.56	B(1,0)	13.0		

Residuals in seconds of arc

691115	095	1.0+	2.3-	820213	046	0.1+	1.3-	820327	801	1.4+	2.1+
801013	095	2.6+	1.3+	820213	046	1.8-	1.8-	830412	801	1.0-	0.4-
801129	688	0.9-	0.7-	820214	046	0.2+	0.9-	850913	801	0.7-	0.5-
801129	688	0.7+	2.5-	820214	046	2.5-	1.4+	850914	688	1.4+	0.4+
801204	688	1.7-	1.0+	820216	046	2.4-	1.1-	850918	688	0.1+	1.2+
801204	688	2.9-	1.3+	820216	046	0.8+	0.1-	850918	688	0.5+	0.7+
820127	801	5.4+	1.7+	820326	801	0.5+	2.1+	851017	801	0.7-	0.5+

(3343)* 1982 HS

Discovered 1982 Apr. 28 at the Lincoln Laboratory ETS, New Mexico.

Epoch 1986 June 19.0 ET = JDE 2446600.5

			(1950.0)	P	Q
M	23.90465				
n	0.27372760	Peri.	229.19280	-0.00763570	+0.95703766
a	2.3492198	Node	43.16521	-0.74134076	+0.18911645
e	0.3111208	Incl.	25.06916	-0.67108536	-0.21980421
P	3.60	B(1,0)	14.5		

Residuals in seconds of arc

820428	704	0.5+	0.3-	820429	704	1.4-	2.6+	820921	474	0.1+	0.6-
820428	704	2.8+	2.2-	820430	801	2.8+	1.5+	831128	675	0.5+	0.3+
820428	704	1.0-	0.4+	820504	704	3.3-	2.6+	831129	675	0.8-	0.0
820428	704	0.6+	0.7-	820504	704	0.5-	0.0	850118	691	0.0	0.1+
820428	704	2.9-	0.5+	820504	704	0.2+	2.1+	850118	691	0.5-	0.4-
820428	688	1.7-	1.5-	820504	704	0.5+	3.0+	850118	691	0.1+	0.3-
820428	688	1.4+	2.7-	820504	704	0.7-	1.1+	850320	691	0.4+	0.7+
820429	704	4.0-	1.0-	820525	675	0.6+	0.1-	850320	691	0.0	0.7+
820429	704	0.3-	2.0-	820525	675	(6.1-	6.7-)	850320	691	0.3+	0.9+
820429	704	1.1+	1.8-	820526	675	0.4-	0.3-	850414	691	0.4-	0.9-
820429	704	0.5-	0.3-	820526	675	(12.1+	10.5+)	850414	691	0.1-	0.6-
820429	704	2.2+	1.4+	820527	801	1.1+	0.3-	850414	691	0.0	0.5-
820429	704	3.4+	1.7-	820921	474	0.2-	0.2-				

(3344)* 1982 JA

Discovered 1982 May 15 at the Osservatorio San Vittore.

Epoch 1986 June 19.0 ET = JDE 2446600.5

			(1950.0)	P	Q
M	345.60977				
n	0.26246914	Peri.	206.66967	+0.24103946	+0.95720142
a	2.4159275	Node	77.62900	-0.85853086	+0.28727853
e	0.1180997	Incl.	9.43987	-0.45257566	-0.03516358
P	3.76	B(1,0)	14.0		

Residuals in seconds of arc

820515	552	1.7-	0.9+	820614	552	1.2+	0.8-	831129	552	2.3-	0.1+
820515	552	0.1-	0.4+	831011	552	2.0+	2.6-	831129	552	0.5-	1.0-
820516	552	3.2-	0.5+	831011	552	1.3+	0.1+	850128	552	0.0	1.9-
820516	552	0.2+	0.6-	831012	552	1.4+	1.5-	850128	552	1.8-	0.4-
820518	552	0.0	1.6-	831012	552	0.2+	0.9-	850130	552	1.3+	0.0
820518	552	0.9+	2.5-	831012	552	0.1+	1.2-	850130	552	0.4-	1.6-
820519	552	0.2+	1.8+	831012	552	2.3+	0.5+	850212	552	0.1+	3.6+
820519	552	1.0+	1.2+	831013	552	0.2+	0.3-	850212	552	1.2-	0.9-
820524	552	0.4+	1.3-	831013	552	1.8+	0.4+	850218	801	1.2+	0.5+
820524	552	0.9+	0.0	831013	552	2.0+	1.3+	850218	552	1.4+	1.0-
820525	552	0.2+	1.1-	831013	552	2.5+	1.2+	850218	552	0.5+	0.2+
820525	552	0.0	0.5-	831027	552	3.5-	0.4-	850219	801	0.3+	1.6+
820611	552	2.1+	1.7+	831027	552	5.6-	0.5+	850219	552	1.6-	1.2-
820611	552	0.5+	2.0-	831105	552	0.7-	0.4-	850219	552	0.2-	0.1+
820612	552	0.4-	0.9-	831105	552	0.5-	2.7+	850322	801	0.0	0.3+
820612	552	0.7+	0.2-	831110	552	0.3-	0.2+				
820614	552	3.0-	4.3+	831110	552	0.3-	0.3+				

(3345)* 1982 YC1 = 1938 QC = 1952 BD2 = 1969 OB

Discovered 1982 Dec. 23 by L. G. Karachkina at the Crimean Astrophysical Observatory.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	289.34040		(1950.0)	P	Q
n	0.25309950	Peri.	194.04468	-0.74042547	-0.63339930
a	2.4751899	Node	304.37309	+0.63996233	-0.56206544
e	0.1854405	Incl.	15.81122	+0.20547101	-0.53187194
P	3.89	B(1,0)	13.0		

Residuals in seconds of arc

380819	024	0.1-	2.2+	810905	095	0.0	0.4+	830114	095	1.9-	2.8-
520129	711	0.5-	1.1+ Y	821223	095	0.3-	0.3-	850915	801	0.0	0.8-
690716	095	(6.4-	4.2-)	821223	095	2.5+	0.4+	851012	801	0.4+	0.0
690717	095	(6.9+	1.6-)	821224	095	4.2+	2.5+	851018	801	1.0-	0.4-
730829	095	3.7-	0.1+	830106	095	1.3-	1.3-	851108	801	1.2-	1.0-
730902	095	1.2-	0.7-	830109	095	2.1-	1.2-				

1985 PA

Epoch 1985 Aug. 23.0 ET = JDE 2446300.5

M	262.83607		(1950.0)	P	Q
n	0.58372290	Peri.	311.83856	-0.33553008	-0.82988021
a	1.4179630	Node	147.36184	+0.89904797	-0.14079042
e	0.3018960	Incl.	55.74476	-0.28130464	+0.53988599
P	1.69	B(1,0)	16.5		

From 23 observations 1985 Aug. 15-Sept. 16.

1985 QN = 1970 GG2 = 1979 HC2

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	87.21261		(1950.0)	P	Q
n	0.21488435	Peri.	193.34852	+0.74934209	+0.66129536
a	2.7605803	Node	125.19927	-0.60359304	+0.70341239
e	0.1359261	Incl.	2.40406	-0.27232677	+0.26057523
P	4.59	B(1,0)	13.5		

Residuals in seconds of arc

700413	805	0.3+	0.2+	850822	688	1.5+	2.0-	850918	688	0.1+	0.9-
700413	805	0.1+	0.8+	850914	688	2.3-	0.3+	850918	688	2.5-	3.5+
700413	805	0.1+	0.3+	850914	688	2.5+	2.0-	850918	688	0.1+	1.3-
790420	095	1.4+	1.0+	850914	688	3.0-	0.0	851012	688	2.6+	0.6+
790425	095	1.4-	1.3-	850914	688	0.0	1.3-	851012	688	1.9+	1.5+
850822	688	1.7+	0.6-	850918	688	2.6-	3.0+				

1985 QQ = 1964 CA = 1972 TC11 = 1982 VQ1
Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	46.69101	(1950.0)	P	Q
n	0.30548301	Peri. 31.63652	+0.70242213	-0.71127934
a	2.1834615	Node 13.80258	+0.62796606	+0.60199998
e	0.1388036	Incl. 6.29748	+0.33505489	+0.36287425
P	3.23	B(1,0) 14.5		

Residuals in seconds of arc

640215	760	(17.8-	38.9-)X	850822	688	1.1-	0.4+	850918	688	0.5+	0.0
721004	095	0.4+	2.1-	850822	688	1.0-	0.3+	850918	688	0.6-	0.1+
821113	704	0.5+	0.2-	850914	688	0.3+	0.6+	851012	688	0.1+	0.5-
821115	704	0.4-	1.7+	850914	688	0.3-	0.3+	851012	688	1.7+	0.3+

1985 QS = 1969 ER = 1978 SW5 = 1978 WN
Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	32.92299	(1950.0)	P	Q
n	0.27434393	Peri. 44.40955	+0.54003418	-0.84118465
a	2.3457047	Node 12.98653	+0.73365263	+0.45431393
e	0.1832706	Incl. 7.09986	+0.41245230	+0.29326991
P	3.59	B(1,0) 14.0		

Residuals in seconds of arc

690312	095	0.3-	0.6-	850822	688	0.5-	0.2+	850918	688	0.3-	0.7+
780928	095	0.7-	0.6+	850822	688	0.1+	0.0	851012	688	1.0-	0.5-
781008	095	0.3-	0.7+	850914	688	1.1+	0.3+	851012	688	0.1+	0.8-
781124	033	0.5+	0.1+	850914	688	0.1+	1.0-	851018	054	0.2-	0.4-
781124	033	0.2+	0.4-	850918	688	1.2+	0.3+				

1985 RF = 1975 TG5 = 1975 VH7 = 1978 NR1 = 1981 JF
Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	112.37286	(1950.0)	P	Q
n	0.28973612	Peri. 120.05226	+0.64857917	+0.76109873
a	2.2618744	Node 190.39563	-0.71367426	+0.60416543
e	0.1946891	Incl. 2.72838	-0.26460177	+0.23603569
P	3.40	B(1,0) 14.5		

Residuals in seconds of arc

751014	095	0.8+	1.3-	810503	688	0.3-	1.5-	850923	054	0.3+	0.4-
751106	095	0.1-	1.3-	810503	688	0.6-	1.5-	851010	054	1.1-	0.9-
780704	095	0.8+	0.7+	850915	054	0.6+	0.2-	851012	054	0.3+	1.8+
780708	095	0.9-	0.2-	850917	054	0.2+	0.5-	851018	054	0.0	0.3-

1985 TB
Epoch 1985 Oct. 22.0 ET = JDE 2446360.5

M	342.75958	(1950.0)	P	Q
n	0.23898715	Peri. 66.97741	+0.03277258	-0.98329706
a	2.5716963	Node 23.39413	+0.66904989	-0.11149058
e	0.5669405	Incl. 26.80168	+0.74249458	+0.14386360
P	4.12	B(1,0) 16.5		

From 17 observations 1985 Oct. 14-Nov. 20.

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

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

(3346)* 1951 SD = 1942 GM = 1977 EX1 = 1979 RC = 1985 RL2
Discovered 1951 Sept. 27 by S. Arend at Uccle.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	53.26863	(1950.0)	P	Q
n	0.17389478	Peri. 2.42204	+0.99651717	-0.08189449
a	3.1789109	Node 2.44747	+0.06897562	+0.70365195
e	0.0520363	Incl. 21.58583	+0.04686028	+0.70580962
P	5.67	B(1,0) 12.0		

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

420411	024	1.9+	2.0+	511010	012	1.0-	0.7-	850913	043	2.0-	0.3+
420411	024	1.5+	0.6+	770313	095	0.4-	1.7+	850915	043	0.3-	0.3+
510927	012	(0.04-	0.11-)	770322	095	0.8+	0.4+	850915	043	1.1-	0.3+
510930	711	0.0	1.3-	790901	095	2.1-	4.2+	850918	043	1.1-	0.7+
510930	711	0.1+	2.3-	850911	043	0.4-	0.2+	850918	043	0.4-	0.9+
511003	012	5.4+	1.3-	850912	043	0.3+	0.1+	851114	054	0.1-	1.1+
511008	012	0.6-	0.7-	850913	043	0.4-	0.6+	851115	054	0.7+	0.5+

(3347)* 1975 VN1 = 1975 XA7 = 1975 YJ = A903 UF = 1952 QL = 1964 VW1 = 1964 WD = 1969 TA5 = 1978 JV2 = 1980 TX7

Discovered 1975 Nov. 2 by T. M. Smirnova at the Crimean Astrophysical Observatory. The triple designation 1975 VN1 = 1975 XA7 = 1975 YJ is by B. G. Marsden (MPC 9078).

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	345.65549	(1950.0)	P	Q
n	0.17832235	Peri. 211.63963	+0.70717750	-0.70677314
a	3.1260712	Node 193.38881	+0.66480025	+0.67396943
e	0.1009199	Incl. 4.77603	+0.24070856	+0.21502774
P	5.53	B(1,0) 13.0		

Residuals in seconds of arc

031027	024	0.9-	0.9+	691014	095	1.0+	0.1-	801010	095	0.5-	0.2+
520828	024	0.4+	0.8+	751102	095	2.7-	3.5-	801015	095	0.5+	0.5+
520915	024	0.3+	1.6-	751202	330	(15.4+	4.2+)	850918	801	0.6-	0.2+
641110	330	0.5-	1.3+	751222	330	0.8+	0.8-	851017	801	1.2-	0.0
641129	760	1.2+	2.5+	751230	330	0.2+	1.5-				
641129	760	1.5+	0.8+	780509	095	0.2-	0.0				

(3348)* 1978 EA3 = 1978 JM2 = 1951 RO = 1951 TM = 1972 EP

Discovered 1978 Mar. 6 by N. S. Chernykh at the Crimean Astrophysical Observatory. The double designations 1978 EA3 = 1978 JM2 and 1951 RO = 1951 TM are by B. G. Marsden (MPC 9210) and by W. Landgraf (MPC 9210), respectively.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	120.15102	(1950.0)	P	Q
n	0.17438129	Peri. 65.91197	-0.32212786	+0.94654479
a	3.1729955	Node 185.38148	-0.92084154	-0.31743103
e	0.1607440	Incl. 10.39942	-0.21973734	-0.05736289
P	5.65	B(1,0) 13.0		

Residuals in seconds of arc

510904	024	0.7-	0.8+	780306	095	0.1-	1.0-	850814	688	1.2+	1.6-
510905	024	0.4+	1.0-	780407	095	2.1-	0.6+	850912	801	1.0+	4.4+
510906	024	(48.7-	17.3-)	780509	095	1.9+	1.2+	851012	801	4.5-	1.7+
511003	024	1.0+	1.2-	850814	801	2.1+	1.8-				
720314	095	0.3+	1.5-	850814	688	0.2-	2.0-				

(3349)* 1979 FH2 = 1952 HE = 1981 VS2

Discovered 1979 Mar. 23 by N. S. Chernykh at the Crimean Astrophysical Observatory. The key identification 1979 FH2 = 1981 VS2 is by L. D. Schmadel (MPC 7608).

Epoch 1986 June 19.0 ET = JDE 2446600.5

M 190.38923	(1950.0)	P	Q	
n 0.21758730	Peri. 149.69687	-0.88229415	+0.46648308	
a 2.7376653	Node 58.23955	-0.44531902	-0.78399150	
e 0.0331560	Incl. 4.23935	-0.15247296	-0.40957399	
P 4.53	B(1,0) 14.0			

Residuals in seconds of arc

520418 024	0.2+	0.3+	790425 095	0.5-	1.2-	850814 688	0.5+	0.7-
790323 095	0.2-	1.2-	811103 033	0.9+	0.2+	850814 688	0.4+	0.3+
790329 095	1.4-	0.7-	811103 033	0.5+	0.2-	850912 801	1.0-	3.3-
790420 095	1.1-	0.8-	840605 801	2.1+	1.0+			

(3350)* 1980 PJ = 1973 SG2 = 1976 JU10

Discovered 1980 Aug. 8 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M 242.25648	(1950.0)	P	Q	
n 0.28055526	Peri. 330.24501	+0.80534176	+0.59277130	
a 2.3109494	Node 353.38850	-0.53145457	+0.71682526	
e 0.2045151	Incl. 3.40789	-0.26264176	+0.36712904	
P 3.51	B(1,0) 15.5			

Residuals in seconds of arc

730922 095	0.3-	0.3+	800904 688	0.3+	1.3-	820227 801	1.1+	0.1-
730923 095	0.3-	0.8+	800904 095	1.8-	1.5+	841120 801	0.4-	0.0
760502 809	0.4-	0.4+	800907 688	2.3+	1.2-	841224 801	0.4-	0.1+
800808 688	1.6+	1.0+	801002 688	2.3-	0.2+			
800902 688	0.4+	1.5-	820122 801	0.3-	0.9-			

(3351)* 1980 RN1 = 1959 TL = 1975 TX3 = 1975 TO4 = 1975 TM6

Discovered 1980 Sept. 7 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M 18.12054	(1950.0)	P	Q	
n 0.18608015	Peri. 178.85945	+0.99649061	-0.08033806	
a 3.0385707	Node 185.90489	+0.07487122	+0.98101376	
e 0.2707756	Incl. 13.20467	+0.03742684	+0.17651567	
P 5.30	B(1,0) 14.0			

Residuals in seconds of arc

591006 024	0.6+	2.7-	800907 688	2.1-	0.8+	801004 688	0.9+	0.1-
751003 095	0.9+	1.4-	800917 688	0.0	1.4-	850719 801	0.1+	1.8+
751011 033	0.7+	0.1-	800917 688	0.8+	0.8-	850915 801	0.1+	0.0
751013 095	2.1-	5.1+	801002 688	0.3+	0.2+			

(3352)* 1981 CW

Discovered 1981 Feb. 6 by N. G. Thomas at the Anderson Mesa Station of the Lowell Observatory.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M 30.61386	(1950.0)	P	Q	
n 0.38272249	Peri. 15.60876	-0.53685903	-0.83990156	
a 1.8787979	Node 106.92207	+0.76482725	-0.52437429	
e 0.3694568	Incl. 4.77705	+0.35612027	-0.13998918	
P 2.58	B(1,0) 17.5			

Residuals in seconds of arc

810206 688	1.4-	2.3-	810407 801	(7.9-	5.2+)	851120 691	0.5-	0.1+
810206 688	0.9+	0.6+	810423 801	0.2-	0.6+	851120 691	0.1-	0.4+
810309 688	1.6+	0.4-	810603 801	0.6-	0.5-	851205 691	0.2-	0.6+
810309 688	1.8+	0.5+	851019 691	2.1+	0.5+	851205 691	1.9-	1.4+
810403 801	0.2+	1.8+	851109 801	0.1+	1.0-	851205 691	0.8-	0.5+
810404 801	1.7-	1.2+	851120 691	0.4-	0.2+			

(3353)* 1981 YC

Discovered 1981 Dec. 20 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	60.30929	(1950.0)	P	Q	
n	0.38757168	Peri.	34.46030	+0.12885774	+0.93268826
a	1.8630937	Node	245.07054	-0.97275044	+0.05285334
e	0.0846753	Incl.	21.80774	-0.19274918	+0.35679004
P	2.54	B(1,0)	14.5		

Residuals in seconds of arc

811127	330	1.1+	0.7+	820116	688	1.3+	2.4-	850413	691	0.1-	0.4+
811201	330	0.2-	3.1+	820116	688	0.6-	1.0-	850413	691	0.3-	0.2+
811220	688	1.0-	1.4-	830709	026	0.8-	0.2-	850422	801	0.8-	0.3+
811220	688	0.2+	0.6+	830711	026	0.7+	0.7+	850424	691	0.0	0.1+
811230	688	0.1+	1.4+	850323	801	1.0+	0.4+	850424	691	0.5+	0.2-
811230	688	1.4-	1.1-	850413	691	0.3-	0.1+	850424	691	0.2+	0.2+

(3354)* 1984 CW = 1971 SV2 = 1978 SJ2

Discovered 1984 Feb. 8 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	119.19401	(1950.0)	P	Q	
n	0.27821003	Peri.	325.42065	+0.28155153	+0.95694759
a	2.3239183	Node	320.79830	-0.85318868	+0.21601207
e	0.0968094	Incl.	6.41051	-0.43908747	+0.19388166
P	3.54	B(1,0)	14.0		

Residuals in seconds of arc

710927	095	0.8+	0.1-	840301	688	1.9+	1.2-	850814	688	0.1-	0.1-
711011	095	1.2-	1.4-	840306	688	1.7+	0.9-	850820	688	0.1+	0.4-
780926	095	0.1+	0.5+	840306	688	0.9-	1.5-	850820	688	0.7+	0.6-
781002	095	1.4+	0.4+	840329	688	0.8-	0.3+	850822	688	1.2+	0.6-
840206	688	0.1+	1.6-	840331	688	0.8-	1.5+	850822	688	0.7+	0.0
840208	688	0.2+	0.7-	840331	688	2.2-	1.4+	850912	688	0.3-	0.4-
840208	688	2.4-	1.0+	850813	801	1.2-	0.1-				
840301	688	0.9+	1.2-	850814	688	0.8-	0.8-				

(3355)* 1984 CC1 = 1945 BA = 1979 SM10 = 1981 GD

Discovered 1984 Feb. 8 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	330.98129	(1950.0)	P	Q	
n	0.30494221	Peri.	299.59761	+0.17162071	-0.98412687
a	2.1860379	Node	140.43920	+0.92659060	+0.14567223
e	0.0658368	Incl.	4.06726	+0.33462842	+0.10136030
P	3.23	B(1,0)	14.5		

Residuals in seconds of arc

450115	062	0.0	0.3+	840208	688	0.6+	2.2-	840306	688	1.3-	1.4-
450116	062	0.4+	1.9-	840301	688	0.7-	0.1+	840306	688	0.1-	0.3-
790928	095	2.1+	0.1-	840301	688	3.5-	0.6+	840331	688	4.0+	0.9-
810405	688	2.4+	1.8-	840302	675	2.0-	2.0+	840331	688	2.9+	1.8-
810405	688	0.4+	0.8-	840302	675	1.8+	2.8+	850719	801	1.2-	1.4-
840206	688	2.0+	0.2+	840304	675	1.4-	0.9+	850813	801	0.5-	1.9-
840208	688	2.8-	0.7-	840304	675	0.9-	1.8+				

(3356)* 1984 EU = 1932 EV = 1936 PJ = 1969 TT6 = 1972 TR = 1979 YQ4

Discovered 1984 Mar. 6 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	169.18247		(1950.0)		P		Q				
n	0.30362195	Peri.	157.03495		-0.08741197		+0.99384979				
a	2.1923705	Node	107.89574		-0.92465779		-0.05555683				
e	0.1139759	Incl.	4.09669		-0.37063069		-0.09579160				
P	3.25	B(1,0)	14.5								

Residuals in seconds of arc

320314	024	4.7-	2.5+	840306	688	0.0	0.1+	850912	801	0.0	0.5-
320315	024	3.5+	1.4-	840306	688	1.2-	0.1-	851012	688	2.8+	0.3-
360809	078(21.6+	19.6-)X		840309	688	0.3+	0.1-	851015	688	1.1-	0.3-
691015	095	2.1+	0.8-	840309	688	0.5+	0.4+	851015	688	2.8-	0.5-
721007	095	2.2+	0.9+	840403	688	0.1+	0.7-	851018	801	1.3-	0.8-
791218	095	1.3-	0.9+	840403	688	0.6+	2.4-				

(3357)* 1984 FT = 1952 DP3 = 1968 FD = 1973 EM

Discovered 1984 Mar. 21 by A. Mrkos at Klet.

Epoch 1986 June 19.0 ET = JDE 2446600.5

M	130.80364		(1950.0)		P		Q				
n	0.18703680	Peri.	66.36390		-0.84258371		+0.52687731				
a	3.0282009	Node	145.13404		-0.53721898		-0.80759464				
e	0.0533597	Incl.	11.25694		-0.03805849		-0.26493620				
P	5.27	B(1,0)	12.5								

Residuals in seconds of arc

520228	760	0.9-	2.5+	840322	046	0.9+	1.3-	840408	808	1.2-	2.4+
520228	760	0.2-	1.0-	840322	046	2.1-	1.1-	840408	808	0.2-	1.2+
680327	095	1.5+	1.0-	840331	046	1.0-	2.8-	850619	801	0.9-	0.9+
730307	029	0.4+	1.3+	840331	046	0.7+	1.2-	850714	046	0.0	0.3-
730307	029	1.1-	1.8+	840405	046	2.7-	0.2+	850714	046	1.1+	1.7+
730309	029	1.2+	0.3+	840405	046	1.3-	0.2-	850718	801	0.2-	0.1+
840321	046	2.8+	0.2+	840407	808	0.1-	0.3+				
840321	046	2.6+	1.1-	840407	808	0.1-	1.8+				

1969 TK = 1969 TZ7 = 1969 UV2 = 1961 TX = 1970 XH = 1977 RP5 = 1985 RM2

The triple designation 1969 TK = 1969 TZ7 = 1969 UV2 is by B. G. Marsden (MPC 6045 and 6751).

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	328.94582		(1950.0)		P		Q				
n	0.12530931	Peri.	180.34622		-0.18334469		-0.98094735				
a	3.9550139	Node	280.21915		+0.90204206		-0.14189947				
e	0.1881677	Incl.	3.74279		+0.39077466		-0.13269078				
P	7.87	B(1,0)	11.5								

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

611010	760(0.04-	0.02-)		701203	095	0.0	0.0	850913	043	0.3-	1.4-
691007	095	1.1-	4.0-	770909	095	0.1-	0.5+	850918	043	1.1-	0.4-
691008	033	0.7+	1.3+	850911	043	0.7+	0.1+	850918	043	0.9+	0.6-
691008	033	0.2+	0.7+	850912	043	0.3+	0.1-				
691016	095	0.9-	4.2+	850913	043	0.1-	1.0-				

1979 QC2 = 1977 EC9 = 1980 WS2

The identification 1979 QC2 = 1980 WS2 is by K. Hurukawa and A. Lowe, who found it independently, The identification 1979 QC2 = 1977 EC9 was also independently found by Hurukawa.

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	48.43606		(1950.0)	P	Q
n	0.19465894	Peri.	254.94899	+0.56478525	-0.82512353
a	2.9486327	Node	160.64453	+0.77214075	+0.52249725
e	0.0990391	Incl.	2.37588	+0.29123233	+0.21486687
P	5.06	B(1,0)	14.5		

Residuals in seconds of arc

770314 381	0.6-	0.9+	790822 809	0.1-	0.6+	790830 809	1.3+	0.8-
770314 381	0.1+	0.5-	790823 809	0.2-	0.0	790830 809	0.4+	1.1-
770315 381	0.3+	1.1-	790823 809	0.2-	0.5+	801130 095	2.3+	0.4+
770315 381	(7.7-	8.8+)	790826 809	0.5-	0.1-	801210 095	2.3-	0.8-
790822 809	0.0	0.4+	790826 809	0.1-	0.0			
790822 809	0.1-	0.6+	790826 809	0.4-	0.2-			

1981 EL21 = 1955 KG = 1978 QT

The identifications are by H. Oishi (JAM 1958).

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	259.56049		(1950.0)	P	Q
n	0.22013738	Peri.	131.90720	+0.95318995	+0.30179414
a	2.7164875	Node	210.54120	-0.28715831	+0.88414255
e	0.0940295	Incl.	2.10753	-0.09470496	+0.35666824
P	4.48	B(1,0)	13.5		

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

550523 020	(0.45+	0.01-)	810303 413	0.3-	0.0	810408 413	0.7-	0.7+
780831 095	0.4-	0.2-	810307 413	0.7-	0.5+	810408 413	2.5+	0.8-
780905 095	0.1+	0.8-	810307 413	0.6+	0.1-	810411 413	1.1-	1.1+
810209 413	0.7+	1.9-	810311 413	0.5-	0.0	810411 413	1.0+	0.2+
810213 413	1.2+	1.1-	810311 413	0.9+	0.8-	810426 413	3.8+	1.8-
810302 413	0.4-	0.2+	810316 413	0.3-	1.0-	810430 413	2.2-	0.7+
810302 413	1.4-	0.3-	810329 413	1.0-	2.3+	810502 413	1.7-	0.1-

1981 JA = 1975 EZ2 = 1975 EQ3 = 1980 BL4

The key identification and double designation 1981 JA = 1975 EZ2 = 1975 EQ3 are by T. Urata (MPC 6192).

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	340.72591		(1950.0)	P	Q
n	0.17696874	Peri.	70.94336	-0.84173713	+0.53963082
a	3.1419977	Node	141.71018	-0.50486906	-0.77584030
e	0.1210199	Incl.	1.53963	-0.19127422	-0.32691038
P	5.57	B(1,0)	13.5		

Residuals in seconds of arc

750308 095	0.8+	1.2+	810504 879	0.2+	1.0-	810508 688	0.1+	0.8-
750314 095	0.5+	1.8+	810505 675	0.4-	1.9-	810508 688	0.4-	0.6+
800122 095	0.5-	2.2-	810505 675	0.0	1.6-	810510 675	1.8+	1.1+
810430 372	2.2-	0.6-	810506 675	1.4-	0.0	810601 372	1.8-	0.9+
810430 372	2.4-	1.4+	810506 675	0.1+	0.5-	810601 372	2.5-	1.6+
810503 688	0.1+	0.3-	810507 372	2.2+	1.7-	810604 688	4.3+	1.0-
810504 879	0.8+	1.5-	810507 372	0.4+	1.7+	810604 688	0.4+	0.7-

1981 QP = 1951 WH2 = 1984 KK

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	121.79515		(1950.0)	P	Q
n	0.25985658	Peri.	249.37822	+0.83426480	+0.52785411
a	2.4320982	Node	78.45098	-0.42565548	+0.80022112
e	0.1347056	Incl.	9.35659	-0.35045636	+0.28463342
P	3.79	B(1,0)	14.0		

Residuals in seconds of arc

511129	711	1.1-	3.2+	810928	688	0.1+	0.7-	840526	046	1.2+	0.4-
810830	688	1.0-	1.1+	811004	688	1.6-	2.2-	851114	054	1.9+	1.2-
810830	688	1.1-	1.4+	811004	688	2.0+	0.2-	851115	054	0.5-	1.9-
810928	688	1.0+	1.6+	840526	046	1.3-	0.4+				

1981 SN = 1985 UM

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	72.53902		(1950.0)	P	Q
n	0.25181854	Peri.	155.55480	+0.97994801	-0.19217017
a	2.4835817	Node	215.65136	+0.16468132	+0.92989267
e	0.1567116	Incl.	5.18316	+0.11216933	+0.31364029
P	3.91	B(1,0)	15.0		

Residuals in seconds of arc

810922	046	3.2+	1.0+	811006	046	0.3-	1.8-	851021	046	1.9+	1.0+
810922	046	1.4+	0.8+	811007	046	0.5+	1.4+	851021	046	0.6+	2.7+
810925	046	0.0	0.9+	811007	046	1.0+	1.1+	851024	046	2.8+	1.7+
810925	046	0.2-	2.6+	851020	046	1.6-	0.2-				
811006	046	1.8-	0.5+	851020	046	2.1-	0.6+				

1982 UG7 = 1982 XR3

The double designation was found by W. Landgraf (MPC 8892).

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	108.09507		(1950.0)	P	Q
n	0.31323009	Peri.	131.14270	+0.92850201	+0.37081277
a	2.1473093	Node	207.10857	-0.35222867	+0.86286420
e	0.1891447	Incl.	2.45797	-0.11755415	+0.34345779
P	3.15	B(1,0)	15.5		

Residuals in seconds of arc

821021	095	1.0+	1.0+	821214	381	0.5+	0.7-	851015	688	1.8+	1.2+
821023	095	1.1-	1.2+	821214	381	0.4-	0.2-	851015	688	0.3-	1.1-
821112	095	0.7+	0.9+	851008	881	0.0	1.3-	851020	688	0.4-	1.1+
821213	381	0.8-	0.9-	851008	881	0.3-	0.2-	851020	688	0.3-	0.1+

1985 CZ1 = 1979 OO5

The identification is by K. Hurukawa and L. D. Schmadel, who found it independently.

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	188.82163		(1950.0)	P	Q
n	0.27484827	Peri.	143.20116	+0.02580319	-0.99585278
a	2.3428343	Node	305.15999	+0.88982109	+0.06265308
e	0.0687702	Incl.	6.12591	+0.45557942	-0.06596841
P	3.59	B(1,0)	15.0		

Residuals in seconds of arc

790724	675	0.6-	0.4-	850217	809	1.1-	0.4+	850222	809	0.1-	0.5+
790725	675	0.7+	0.3-	850217	809	1.1-	0.5+	850224	809	0.9+	0.2+
850212	809	0.6-	0.7+	850217	809	0.9-	0.7+	850224	809	0.7+	0.2-
850212	809	0.4-	0.6+	850218	809	0.2-	0.0	850224	809	0.3+	0.0
850212	809	0.1-	0.6+	850218	809	0.1-	0.0	850225	809	0.1-	0.2+
850214	809	0.4+	0.6-	850218	809	0.1+	0.1-	850225	809	0.3-	0.2+
850214	809	0.4+	0.6-	850219	809	0.7-	0.3-	850225	809	0.1-	0.4+
850214	809	0.3+	0.7-	850219	809	0.4-	0.1-	850226	809	0.1+	0.2-
850215	809	0.2+	0.3+	850219	809	0.1-	0.3-	850226	809	0.2+	0.1-
850215	809	0.3+	0.1+	850220	809	0.2-	0.3+	850226	809	0.7+	0.6-
850215	809	0.8+	0.3-	850220	809	0.0	0.0	850227	809	0.7-	0.9+
850216	809	1.0+	0.2+	850220	809	0.3+	0.2+	850227	809	0.4-	0.6+
850216	809	0.8+	0.0	850222	809	0.4-	0.6+	850228	809	0.4-	0.7+
850216	809	1.1+	0.2-	850222	809	0.0	0.3+	850228	809	0.3-	0.1+

1985 CH2 = 1979 UN1 = 1981 EJ1

The identification 1985 CH2 = 1979 UN1 is by K. Hurukawa and A. Lowe, who found it independently. The identification 1985 CH2 = 1981 EJ1 was found by Hurukawa.

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	133.81813		(1950.0)	P	Q
n	0.23924592	Peri.	328.21536	-0.52220697	-0.84941996
a	2.5698467	Node	153.03793	+0.81335482	-0.52287479
e	0.0741802	Incl.	9.65770	+0.25642506	-0.07132800
P	4.12	B(1,0)	15.0		

Residuals in seconds of arc

791021	805	0.8+	0.7+	850214	809	0.1-	1.7+	850220	809	0.4-	0.2-
791023	805	0.1+	0.0	850214	809	0.1-	1.8+	850221	809	0.2-	0.4-
791023	805	1.0-	0.4-	850215	809	0.1+	0.2+	850221	809	0.2+	0.7-
810306	809	0.1+	0.2+	850215	809	0.1+	0.2+	850221	809	0.3+	0.7-
810306	809	0.2-	0.3+	850215	809	0.3+	0.1+	850222	809	0.1+	0.3+
810306	809	1.2-	1.2+	850216	809	0.6-	0.3+	850222	809	0.0	0.4+
810307	809	1.0+	0.4-	850216	809	0.4-	0.5+	850222	809	0.1-	0.1+
810307	809	1.4+	1.1-	850216	809	0.3-	0.7+	850224	809	0.8+	1.5-
810307	809	1.2+	0.1+	850217	809	0.0	0.0	850224	809	0.7+	1.4-
810308	809	0.5-	0.7+	850217	809	0.0	0.3+	850224	809	0.8+	1.3-
810308	809	0.1+	0.8+	850217	809	0.2+	0.5+	850225	809	0.3+	1.4-
810308	809	0.4+	0.8+	850218	809	1.0-	0.7+	850225	809	0.1+	1.5-
810309	809	0.8-	1.2-	850218	809	0.9-	0.7+	850225	809	0.4+	1.4-
810309	809	0.7-	0.7-	850218	809	0.9-	0.7+	850227	809	0.3-	0.3-
810309	809	0.2+	0.2-	850219	809	0.5-	0.6+	850227	809	0.4-	0.3-
810310	809	0.0	0.7+	850219	809	0.6-	0.3+	850227	809	0.5-	0.2-
810310	809	0.1+	0.7+	850219	809	0.2-	0.2-	850228	809	3.0+	2.6-
810310	809	0.2+	0.6+	850220	809	0.8-	0.3-	850228	809	3.1+	2.8-
850214	809	0.3-	1.8+	850220	809	0.6-	0.6-				

1985 WA

Epoch 1985 Dec. 1.0 ET = JDE 2446400.5

M	6.15787		(1950.0)	P	Q
n	0.20463067	Peri.	350.85524	+0.82715035	-0.54989105
a	2.8520397	Node	43.17700	+0.52570415	+0.68418972
e	0.6024651	Incl.	9.75528	+0.19863899	+0.47906602
P	4.82	B(1,0)	20.0		

From 16 observations 1985 Nov. 16-Dec. 7.

6034 P-L = 1985 TG1

The identification is by E. Bowell.

Epoch 1986 June 19.0 ET = JDE 2446600.5 (J-P)

M	85.89142		(1950.0)	P	Q
n	0.23772143	Peri.	141.86560	+0.93663863	+0.34796346
a	2.5808219	Node	197.89953	-0.34491276	+0.89597068
e	0.2266833	Incl.	7.54702	-0.06118224	+0.27596731
P	4.15	B(1,0)	15.0		

Residuals in seconds of arc

600924	675	0.2+	0.1-	601017	675	0.4-	0.3+	851015	688	1.8-	0.5+
600925	675	0.3+	0.2+	601022	675	0.3-	0.5-	851015	688	1.7+	0.8-
600926	675	0.3-	0.1-	601024	675	1.0+	0.1-	851020	688	0.8+	1.1+
600928	675	0.5-	0.6-	601026	675	0.7-	1.4+	851020	688	0.1-	1.0-

NEW NAMES OF MINOR PLANETS.

(1945) Wesselink = 1930 OL
Discovered 1930 July 22 by H. van Gent at Johannesburg.
Named in honor of A. J. Wesselink, astronomer at the Leiden, Radcliffe and Yale Observatories. From 1946 to 1950 he was Leiden observer at the Union Observatory, Johannesburg. Name proposed by the Leiden Observatory.

(2516) Roman = 1964 VY
Discovered 1964 Nov. 6 at the Goethe Link Observatory, Indiana University.
Named in honor of Nancy Grace Roman, a space-age astronomer who joined the staff of the National Aeronautics and Space Administration during its first year and who served with distinction at NASA headquarters in positions of increasing responsibility for two decades. Her earlier professional experience included positions at the Yerkes Observatory and the U.S. Naval Research Laboratory. Her many honors include the NASA Exceptional Scientific Achievement award in 1969, the NASA Outstanding Leadership award in 1978 and four honorary degrees. Name proposed by F. K. Edmondson.

(3057) Malaren = 1981 EG
Discovered 1981 Mar. 9 by E. Bowell at the Anderson Mesa Station of the Lowell Observatory.
Named for the large Swedish lake between Stockholm and Uppsala. A souvenir of a relaxing shipboard evening spent at the conclusion of a most successful conference on minor planets, comets and meteors held in Uppsala in June 1985. Name suggested by B. G. Marsden following a request by the discoverer.

(3107) Weaver = 1981 JG2
Discovered 1981 May 5 by C. S. Shoemaker on films taken by S. J. Bus at Palomar.
Named in honor of Kenneth F. Weaver, senior assistant editor for science of the National Geographic magazine. For more than two decades Weaver has followed closely the exploration of the solar system by spacecraft. He has been responsible for the accurate and skillful presentation of new discoveries in space to a large segment of the public.

(3194) Dorsey = 1982 KD1
Discovered 1982 May 27 by C. S. Shoemaker and E. M. Shoemaker at Palomar.
Named in honor of Dorsey Taylor Shoemaker, Jr., businessman in Gabbs, Nevada, and uncle of the second discoverer.

(3199) Nefertiti = 1982 RA
Discovered 1982 Sept. 13 by C. S. Shoemaker and E. M. Shoemaker at Palomar.
Named for the beautiful consort of the revolutionary pharoah Akhenaten of the seventeenth dynasty in Egypt. She is generally believed to have had a major influence on radical changes that occurred in the court and religion of Egypt during the reign of Akhenaten.

(3225) Hoag = 1982 QQ
Discovered 1982 Aug. 20 by C. S. Shoemaker and E. M. Shoemaker at Palomar.
Named in honor of Arthur Allen Hoag, American astronomer and, since 1977, director of the Lowell Observatory at Flagstaff, Arizona. He is specially recognized for his work on both photoelectric and photographic

photometry, development of astronomical sites and instruments, and investigations of quasistellar sources. Name endorsed by E. Bowell and W. A. Baum.

(3270) Dudley = 1982 DA

Discovered 1982 Feb. 18 by C. S. Shoemaker and S. J. Bus at Palomar.

Named in honor of H. Dudley Wright, engineer, inventor, entrepreneur and benefactor of science, education and the arts in California and in Geneva, Switzerland. Name endorsed by E. M. Shoemaker.

(3285) Ruth Wolfe = 1983 VW1

Discovered 1983 Nov. 5 by C. S. Shoemaker and E. M. Shomaker at Palomar.

Named in honor of Ruth Fanton Wolfe, mathematician with the U.S. Geological Survey, recognized for her dynamical investigations of the orbital evolution and collision of small bodies in the solar system. Name endorsed by B. G. Marsden.

(3299) Hall = 1980 TX5

Discovered 1980 Oct. 10 by C. S. Shoemaker on films taken by S. J. Bus at Palomar.

Named in honor of John Scoville Hall, American astronomer and director of the Lowell Observatory from 1958 to 1977. He was a pioneer in the photoelectric photometry of stars in the infrared region of the spectrum and codiscoverer with W. A. Hiltner of the polarization of starlight.

(3317) Paris = 1984 KF

Discovered 1984 May 26 by C. S. Shoemaker and E. M. Shoemaker at Palomar.

Named for one of the numerous sons of Priam, the king of Troy. Paris, considered by the gods to be the most handsome man on earth, abducted Helen, the most beautiful woman and the wife of Menelaus, thereby precipitating the Trojan War.

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EPHEMERIDES.

1985 TB a,e,i = 2.57, 0.57, 27 Elements MPC 10303

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	22 03.49	+53 08.2	0.484	1.124	93.6	60.9	16.6
1985	12 26	21 57.61	+55 37.2					
1985	12 31	21 52.81	+58 08.2	0.511	1.114	90.8	62.0	16.7
1986	01 05	21 49.01	+60 43.0					
1986	01 10	21 46.16	+63 23.8	0.531	1.118	90.1	61.6	16.8
1986	01 15	21 44.23	+66 12.7					
1986	01 20	21 43.26	+69 11.6	0.545	1.135	91.3	60.1	16.8
1986	01 25	21 43.4	+72 22.1					
1986	01 30	21 45.0	+75 45.8	0.554	1.164	94.1	57.5	16.9
1986	02 04	21 49.2	+79 24.1					
1986	02 09	22 00.1	+83 17.8	0.562	1.205	98.4	54.1	16.9
1986	02 14	22 48	+87 24.1					
1986	02 19	08 01	+87 49.5	0.575	1.254	103.5	50.0	16.9
1986	02 24	09 05.8	+83 14.9					
1986	03 01	09 20.0	+78 23.2	0.597	1.311	108.8	45.7	17.0
1986	03 06	09 27.5	+73 23.0					
1986	03 11	09 33.07	+68 19.3	0.634	1.373	113.2	41.7	17.2
1986	03 16	09 38.04	+63 17.2					
1986	03 21	09 42.81	+58 21.5	0.692	1.440	116.0	38.5	17.4
1986	03 26	09 47.57	+53 36.4					

1986 03 31	09 52.39	+49 04.9	0.771	1.510	116.5	36.3	17.7
1986 04 05	09 57.32	+44 48.9					
1986 04 10	10 02.38	+40 49.5	0.871	1.582	115.0	35.0	18.0
1986 04 15	10 07.59	+37 06.8					
1986 04 20	10 12.95	+33 40.4	0.992	1.655	112.0	34.3	18.4

1985 WA a,e,i = 2.85, 0.60, 10 Elements MPC 10310

Date ET	R. A. (1950) Decl.	Delta	r	Elong.	Phase	Mag.
1985 12 21	03 18.04 +41 06.8	0.361	1.290	143.1	27.3	19.0
1985 12 26	03 31.65 +41 48.9					
1985 12 31	03 44.81 +42 12.2	0.442	1.350	139.4	28.3	19.5
1986 01 05	03 57.57 +42 21.1					
1986 01 10	04 09.97 +42 19.0	0.536	1.416	135.4	29.2	20.1
1986 01 15	04 22.09 +42 08.6					
1986 01 20	04 33.96 +41 52.1	0.642	1.485	130.9	30.1	20.6
1986 01 25	04 45.60 +41 30.9					
1986 01 30	04 57.04 +41 06.3	0.760	1.558	126.0	30.8	21.1

Periodic Comet Ciffreo (1985p) Elements MPC 10297

Date ET	R. A. (1950) Decl.	Delta	r	Elong.	Phase	m1
1985 12 21	04 05.52 +33 07.9	0.838	1.777	154.4	13.9	12.1
1985 12 31	04 04.38 +34 19.8					
1986 01 10	04 07.46 +35 12.6	1.002	1.839	135.8	21.9	12.7
1986 01 20	04 14.66 +35 51.5					
1986 01 30	04 25.45 +36 20.1	1.223	1.917	120.1	26.4	13.3
1986 02 09	04 39.18 +36 39.8					
1986 02 19	04 55.25 +36 51.5	1.487	2.007	106.6	28.2	13.9
1986 03 01	05 13.08 +36 54.9					
1986 03 11	05 32.18 +36 49.7	1.781	2.107	94.5	28.0	14.5

1985 PA a,e,i = 1.42, 0.30, 56 Elements MPC 10302

Date ET	R. A. (1950) Decl.	Delta	r	Elong.	Phase	Mag.
1986 01 10	00 08.11 -63 44.1	0.995	1.021	62.1	58.4	17.9
1986 01 15	00 32.91 -62 23.7					
1986 01 20	00 57.97 -60 37.1	0.897	1.002	64.2	62.1	17.7
1986 01 25	01 23.00 -58 18.9					
1986 01 30	01 47.70 -55 22.3	0.788	0.992	67.0	66.1	17.5
1986 02 04	02 11.85 -51 38.8					
1986 02 09	02 35.31 -46 59.1	0.678	0.990	70.3	69.7	17.2
1986 02 14	02 57.98 -41 13.2					
1986 02 19	03 19.83 -34 12.8	0.582	0.998	73.9	72.1	17.0
1986 02 24	03 40.86 -25 55.6					
1986 03 01	04 01.15 -16 31.3	0.524	1.014	77.4	72.4	16.8
1986 03 06	04 20.79 -06 26.1					
1986 03 11	04 39.92 +03 40.7	0.525	1.039	79.8	70.3	16.8
1986 03 16	04 58.68 +13 09.6					
1986 03 21	05 17.17 +21 33.9	0.587	1.069	80.5	66.7	17.0
1986 03 26	05 35.52 +28 43.5					
1986 03 31	05 53.83 +34 40.5	0.690	1.105	79.4	62.7	17.4
1986 04 05	06 12.19 +39 33.3					
1986 04 10	06 30.70 +43 31.8	0.814	1.145	77.4	58.6	17.7
1986 04 15	06 49.41 +46 45.2					
1986 04 20	07 08.33 +49 21.3	0.944	1.188	75.1	54.8	18.0
1986 04 25	07 27.47 +51 26.5					
1986 04 30	07 46.81 +53 05.5	1.072	1.233	72.6	51.3	18.3
1986 05 05	08 06.32 +54 22.1					
1986 05 15	08 45.64 +55 59.6					
1986 05 20	09 05.30 +56 24.7	1.305	1.324	68.4	45.3	18.7
1986 05 25	09 24.84 +56 36.1					

1986 05 30	09 44.18	+56 35.2	1.406	1.369	66.7	42.8	18.9
1986 06 04	10 03.25	+56 22.8					
1986 06 09	10 22.01	+55 59.8	1.496	1.414	65.3	40.7	19.1
1986 06 14	10 40.40	+55 27.2					
1986 06 19	10 58.37	+54 45.8	1.576	1.457	64.2	38.9	19.2

Periodic Comet Schwassmann-Wachmann 1 Elements MPC 4830

Date ET	R. A. (1950) Decl.	Delta	r	Elong.	Phase	m2
1986 01 30	18 10.27 -29 23.3	6.811	6.058	37.5	5.7	(19.5)
1986 02 09	18 18.10 -29 22.3					
1986 02 19	18 25.35 -29 21.1	6.577	6.052	54.2	7.6	(19.4)
1986 03 01	18 31.91 -29 20.2					
1986 03 11	18 37.66 -29 19.6	6.287	6.046	71.5	9.0	(19.3)
1986 03 21	18 42.50 -29 19.9					
1986 03 31	18 46.31 -29 21.2	5.967	6.039	89.4	9.5	(19.2)
1986 04 10	18 49.01 -29 23.6					
1986 04 20	18 50.52 -29 27.3	5.647	6.033	108.0	9.1	(19.1)
1986 04 30	18 50.79 -29 31.9					
1986 05 10	18 49.81 -29 37.3	5.360	6.027	127.4	7.7	(18.9)
1986 05 20	18 47.63 -29 42.9					
1986 05 30	18 44.36 -29 47.8	5.141	6.020	147.5	5.2	(18.9)
1986 06 09	18 40.17 -29 51.4					
1986 06 19	18 35.31 -29 52.9	5.018	6.014	167.4	2.1	(18.8)
1986 06 29	18 30.11 -29 51.7					
1986 07 09	18 24.88 -29 47.4	5.011	6.008	167.6	2.1	(18.8)
1986 07 19	18 19.99 -29 40.2					
1986 07 29	18 15.73 -29 30.4	5.117	6.001	147.8	5.2	(18.8)
1986 08 08	18 12.37 -29 18.4					
1986 08 18	18 10.09 -29 05.1	5.322	5.995	127.7	7.7	(18.9)
1986 08 28	18 09.00 -28 50.9					
1986 09 07	18 09.16 -28 36.3	5.594	5.989	108.4	9.2	(19.0)
1986 09 17	18 10.55 -28 21.7					
1986 09 27	18 13.12 -28 07.2	5.901	5.982	89.8	9.6	(19.1)
1986 10 07	18 16.81 -27 52.8					
1986 10 17	18 21.51 -27 38.4	6.208	5.976	72.0	9.1	(19.2)
1986 10 27	18 27.11 -27 23.8					
1986 11 06	18 33.50 -27 08.6	6.487	5.970	54.8	7.8	(19.3)
1986 11 16	18 40.57 -26 52.8					
1986 11 26	18 48.20 -26 36.0	6.711	5.964	38.0	5.8	(19.4)

Periodic Comet Smirnova-Chernykh Elements NK 445

Date ET	R. A. (1950) Decl.	Delta	r	Elong.	Phase	m2
1986 01 30	18 19.69 -24 19.0	4.942	4.172	34.8	7.7	19.7
1986 02 09	18 30.85 -24 20.2					
1986 02 19	18 41.36 -24 19.6	4.761	4.196	50.1	10.4	19.6
1986 03 01	18 51.12 -24 17.8					
1986 03 11	18 59.98 -24 15.8	4.526	4.221	66.0	12.4	19.5
1986 03 21	19 07.82 -24 14.2					
1986 03 31	19 14.50 -24 14.1	4.257	4.245	82.5	13.5	19.4
1986 04 10	19 19.88 -24 16.2					
1986 04 20	19 23.82 -24 21.3	3.977	4.269	100.1	13.4	19.3
1986 04 30	19 26.21 -24 29.8					
1986 05 10	19 26.95 -24 42.3	3.713	4.292	118.8	11.9	19.2
1986 05 20	19 26.00 -24 58.4					
1986 05 30	19 23.38 -25 17.7	3.500	4.315	138.9	8.9	19.1
1986 06 09	19 19.23 -25 39.1					
1986 06 19	19 13.81 -26 01.3	3.369	4.338	160.1	4.6	19.0
1986 06 29	19 07.49 -26 22.6					
1986 07 09	19 00.74 -26 41.6	3.347	4.361	175.3	1.1	19.0

1986 07 19	18 54.11	-26 57.0				
1986 07 29	18 48.12	-27 08.5	3.440	4.383	155.3	5.6	19.1
1986 08 08	18 43.19	-27 16.0				
1986 08 18	18 39.67	-27 19.8	3.637	4.405	134.4	9.4	19.2
1986 08 28	18 37.75	-27 20.6				
1986 09 07	18 37.50	-27 18.8	3.909	4.426	114.7	11.9	19.4
1986 09 17	18 38.93	-27 15.1				
1986 09 27	18 41.93	-27 09.4	4.225	4.447	96.2	12.9	19.6
1986 10 07	18 46.40	-27 02.0				
1986 10 17	18 52.18	-26 52.8	4.551	4.467	78.9	12.6	19.8
1986 10 27	18 59.11	-26 41.5				
1986 11 06	19 07.05	-26 28.0	4.861	4.487	62.3	11.3	20.0
1986 11 16	19 15.83	-26 12.1				
1986 11 26	19 25.30	-25 53.6	5.130	4.506	46.4	9.1	20.1
1986 12 06	19 35.34	-25 32.4				
1986 12 16	19 45.80	-25 08.5	5.341	4.524	30.8	6.4	20.2

1980 FY4 a,e,i = 2.33, 0.17, 5 Elements MPC 10295

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 12 21	02 39.36	+08 28.0	1.361	2.141	131.2	20.2	18.5
1985 12 31	02 41.33	+08 51.5					
1986 01 10	02 46.18	+09 30.1	1.598	2.179	113.0	24.6	19.0
1986 01 20	02 53.56	+10 20.0					
1986 01 30	03 03.09	+11 17.5	1.867	2.218	97.2	26.1	19.4

1981 QP a,e,i = 2.43, 0.13, 9 Elements MPC 10309

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 12 21	02 39.13	+10 30.9	1.618	2.390	132.0	17.8	17.3
1985 12 31	02 38.54	+11 22.3					
1986 01 10	02 40.87	+12 22.3	1.864	2.420	112.7	22.0	17.8
1986 01 20	02 45.84	+13 28.9					
1986 01 30	02 53.10	+14 39.9	2.144	2.450	95.9	23.6	18.1

1979 QC2 a,e,i = 2.95, 0.10, 2 Elements MPC 10307

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 12 21	04 05.54	+17 09.1	1.748	2.666	153.9	9.3	18.1
1985 12 31	04 00.17	+17 02.9					
1986 01 10	03 57.38	+17 05.6	1.915	2.673	131.8	15.9	18.4
1986 01 20	03 57.36	+17 17.3					
1986 01 30	04 00.03	+17 37.0	2.149	2.681	112.2	19.9	18.8
1986 02 09	04 05.15	+18 03.0					
1986 02 19	04 12.49	+18 33.4	2.416	2.690	95.0	21.5	19.1

1981 TC3 a,e,i = 2.37, 0.19, 2 Elements MPC 10296

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 12 21	04 09.38	+20 30.2	1.646	2.574	155.7	9.1	17.6
1985 12 31	04 02.55	+20 05.0					
1986 01 10	03 58.66	+19 48.4	1.839	2.608	132.7	16.1	18.1
1986 01 20	03 57.82	+19 41.6					
1986 01 30	03 59.85	+19 44.0	2.100	2.640	112.6	20.2	18.5
1986 02 09	04 04.45	+19 54.1					
1986 02 19	04 11.30	+20 10.2	2.394	2.669	95.1	21.6	18.8

1974 MG a,e,i = 2.23, 0.18, 5 Elements MPC 10295

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 12 21	07 01.99	+28 59.3	1.633	2.592	163.7	6.1	18.7
1985 12 31	06 49.68	+29 04.9					
1986 01 10	06 37.18	+29 00.0	1.638	2.608	167.8	4.6	18.6
1986 01 20	06 26.00	+28 44.8					

1986 01 30	06 17.33	+28 22.2	1.757	2.620	144.2	12.7	19.0
1986 02 09	06 11.82	+27 55.4					
1986 02 19	06 09.68	+27 27.6	1.962	2.629	122.5	18.5	19.4
1986 03 01	06 10.78	+27 00.4					
1986 03 11	06 14.75	+26 34.3	2.218	2.635	103.7	21.5	19.7
1986 03 21	06 21.25	+26 08.9					
1986 03 31	06 29.84	+25 43.2	2.491	2.639	87.2	22.2	20.0

1981 ER21 a,e,i = 3.23, 0.12, 6 Elements MPC 10296

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 12 21	08 55.91	+12 53.6	2.543	3.318	135.7	12.0	19.0
1985 12 31	08 51.55	+13 13.3					
1986 01 10	08 45.45	+13 42.4	2.406	3.341	158.5	6.2	18.7
1986 01 20	08 38.12	+14 18.8					
1986 01 30	08 30.28	+14 59.3	2.380	3.363	175.0	1.5	18.4
1986 02 09	08 22.70	+15 40.5					
1986 02 19	08 16.13	+16 19.2	2.474	3.384	152.8	7.7	18.9
1986 03 01	08 11.15	+16 53.0					
1986 03 11	08 08.13	+17 20.6	2.671	3.404	130.8	12.8	19.2
1986 03 21	08 07.23	+17 41.1					
1986 03 31	08 08.42	+17 54.3	2.938	3.424	110.9	15.8	19.5
1986 04 10	08 11.56	+18 00.4					
1986 04 20	08 16.46	+17 59.2	3.239	3.444	93.1	16.9	19.7

1981 DG3 a,e,i = 3.20, 0.10, 15 Elements MPC 10289

Date ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985 12 21	09 19.21	+24 56.5	2.501	3.257	-1.33	+7.1	16.8
1985 12 31	09 14.80	+25 04.6					
1986 01 10	09 08.14	+25 14.9	2.318	3.239	-1.44	+7.4	16.5
1986 01 20	08 59.70	+25 23.8					
1986 01 30	08 50.22	+25 27.4	2.241	3.221	-1.46	+7.2	16.2
1986 02 09	08 40.61	+25 22.8					
1986 02 19	08 31.86	+25 08.5	2.285	3.202	-1.38	+6.6	16.5
1986 03 01	08 24.76	+24 44.8					
1986 03 11	08 19.85	+24 12.9	2.434	3.184	-1.23	+6.0	16.8
1986 03 21	08 17.39	+23 34.2					
1986 03 31	08 17.37	+22 50.3	2.654	3.165	-1.08	+5.5	17.0
1986 04 10	08 19.64	+22 02.2					
1986 04 20	08 23.98	+21 10.2	2.911	3.147	-0.96	+5.2	17.2

1981 DP2 a,e,i = 3.02, 0.07, 9 Elements MPC 10295

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985 12 21	11 19.50	-00 29.1	2.660	2.956	97.7	19.3	17.9
1985 12 31	11 23.10	-01 29.2					
1986 01 10	11 24.64	-02 18.9	2.405	2.970	116.0	17.3	17.7
1986 01 20	11 23.95	-02 56.3					
1986 01 30	11 21.01	-03 19.9	2.192	2.985	136.5	13.1	17.4
1986 02 09	11 15.92	-03 28.7					
1986 02 19	11 09.06	-03 22.7	2.057	2.999	158.4	7.0	17.1
1986 03 01	11 01.06	-03 03.6					
1986 03 11	10 52.72	-02 34.7	2.030	3.013	170.1	3.2	16.9
1986 03 21	10 44.91	-02 00.3					
1986 03 31	10 38.41	-01 25.6	2.116	3.027	150.8	9.3	17.2
1986 04 10	10 33.75	-00 54.9					
1986 04 20	10 31.25	-00 31.7	2.297	3.042	129.9	14.7	17.6
1986 04 30	10 30.97	-00 18.1					
1986 05 10	10 32.79	-00 15.2	2.543	3.056	111.1	18.0	17.9
1986 05 20	10 36.56	-00 23.2					
1986 05 30	10 42.02	-00 41.8	2.820	3.069	94.4	19.2	18.1

1981 JA a,e,i = 3.14, 0.12, 2 Elements MPC 10308

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 19.87	+04 35.0	2.606	2.935	99.6	19.3	18.4
1985	12 31	11 24.87	+04 08.2					
1986	01 10	11 27.93	+03 54.1	2.322	2.914	117.8	17.4	18.1
1986	01 20	11 28.86	+03 54.2					
1986	01 30	11 27.55	+04 09.1	2.083	2.894	138.4	13.1	17.7
1986	02 09	11 24.03	+04 38.3					
1986	02 19	11 18.57	+05 19.7	1.922	2.875	161.1	6.4	17.3
1986	03 01	11 11.70	+06 09.4					
1986	03 11	11 04.18	+07 01.9	1.867	2.858	174.7	1.8	17.0
1986	03 21	10 56.92	+07 51.3					
1986	03 31	10 50.76	+08 32.2	1.924	2.841	151.3	9.7	17.4
1986	04 10	10 46.35	+09 01.0					
1986	04 20	10 44.10	+09 15.7	2.075	2.826	129.9	15.8	17.7
1986	04 30	10 44.15	+09 15.8					
1986	05 10	10 46.44	+09 02.0	2.287	2.812	111.1	19.6	18.0
1986	05 20	10 50.80	+08 35.2					
1986	05 30	10 57.00	+07 56.7	2.529	2.800	94.6	21.2	18.2

(3350) 1980 PJ a,e,i = 2.31, 0.20, 3 Elements MPC 10305

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 33.71	+04 22.8	2.490	2.777	96.3	20.6	20.2
1985	12 31	11 38.40	+03 49.9					
1986	01 10	11 40.99	+03 29.8	2.210	2.769	114.7	18.8	19.9
1986	01 20	11 41.21	+03 24.1					
1986	01 30	11 38.89	+03 33.5	1.967	2.757	135.5	14.5	19.5
1986	02 09	11 33.98	+03 58.1					
1986	02 19	11 26.73	+04 36.0	1.797	2.743	159.0	7.4	19.1
1986	03 01	11 17.71	+05 23.2					
1986	03 11	11 07.78	+06 14.3	1.734	2.726	175.9	1.5	18.7
1986	03 21	10 58.02	+07 02.8					
1986	03 31	10 49.48	+07 42.8	1.786	2.706	151.3	10.2	19.2
1986	04 10	10 42.95	+08 10.5					
1986	04 20	10 38.91	+08 23.8	1.934	2.682	129.0	16.9	19.5
1986	04 30	10 37.51	+08 22.3					
1986	05 10	10 38.65	+08 06.7	2.141	2.656	109.6	21.0	19.8
1986	05 20	10 42.15	+07 37.9					
1986	05 30	10 47.70	+06 57.4	2.374	2.628	92.9	22.7	20.0

1983 GQ a,e,i = 2.22, 0.17, 0 Elements MPC 8380

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	12 21	11 31.09	+03 33.5	2.142	2.458	-1.06	+6.3	19.1
1985	12 31	11 37.99	+02 51.0					
1986	01 10	11 42.81	+02 21.9	1.859	2.429	-1.22	+7.5	18.8
1986	01 20	11 45.19	+02 08.8					
1986	01 30	11 44.84	+02 13.3	1.609	2.398	-1.45	+9.0	18.3
1986	02 09	11 41.56	+02 36.7					
1986	02 19	11 35.43	+03 18.1	1.425	2.364	-1.72	+10.4	17.9
1986	03 01	11 26.93	+04 14.0					
1986	03 11	11 16.95	+05 18.0	1.336	2.329	-1.92	+10.9	17.2
1986	03 21	11 06.78	+06 21.6					
1986	03 31	10 57.77	+07 16.3	1.355	2.292	-1.89	+10.1	17.7
1986	04 10	10 50.99	+07 55.9					
1986	04 20	10 47.13	+08 17.0	1.464	2.254	-1.69	+8.7	18.0
1986	04 30	10 46.41	+08 18.7					
1986	05 10	10 48.74	+08 02.1	1.629	2.214	-1.45	+7.6	18.4
1986	05 20	10 53.84	+07 28.5					
1986	05 30	11 01.35	+06 39.8	1.819	2.175	-1.25	+6.8	18.6

(3254) Bus a,e,i = 3.94, 0.18, 4 Elements MPC 9686

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 43.80	+06 14.3	4.443	4.629	94.7	12.2	18.8
1985	12 31	11 45.97	+06 07.8					
1986	01 10	11 46.78	+06 10.0	4.141	4.634	114.4	11.1	18.7
1986	01 20	11 46.17	+06 21.1					
1986	01 30	11 44.15	+06 40.5	3.885	4.638	135.4	8.6	18.5
1986	02 09	11 40.78	+07 07.2					
1986	02 19	11 36.25	+07 39.4	3.712	4.641	157.6	4.7	18.2
1986	03 01	11 30.86	+08 14.6					
1986	03 11	11 24.99	+08 50.1	3.652	4.643	175.2	1.0	17.9
1986	03 21	11 19.08	+09 22.9					
1986	03 31	11 13.57	+09 50.5	3.716	4.644	155.6	5.1	18.3
1986	04 10	11 08.84	+10 11.0					
1986	04 20	11 05.19	+10 23.1	3.888	4.644	134.1	8.9	18.5
1986	04 30	11 02.82	+10 26.4					
1986	05 10	11 01.81	+10 21.0	4.139	4.643	114.0	11.5	18.7
1986	05 20	11 02.16	+10 07.2					
1986	05 30	11 03.82	+09 45.8	4.433	4.641	95.5	12.6	18.9

1971 UD1 a,e,i = 2.21, 0.13, 2 Elements MPC 9465

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 42.29	+03 26.2	2.107	2.386	94.0	24.3	19.6
1985	12 31	11 49.45	+02 49.1					
1986	01 10	11 54.39	+02 27.1	1.870	2.407	111.2	22.4	19.3
1986	01 20	11 56.77	+02 22.3					
1986	01 30	11 56.33	+02 36.1	1.662	2.426	131.1	17.8	18.9
1986	02 09	11 52.96	+03 08.6					
1986	02 19	11 46.79	+03 58.1	1.516	2.443	154.1	10.2	18.6
1986	03 01	11 38.37	+04 59.8					
1986	03 11	11 28.60	+06 06.8	1.465	2.458	177.4	1.1	18.1
1986	03 21	11 18.70	+07 10.7					
1986	03 31	11 09.89	+08 03.8	1.525	2.470	155.7	9.6	18.6
1986	04 10	11 03.10	+08 41.1					
1986	04 20	10 58.93	+09 00.1	1.682	2.481	133.3	17.1	19.0
1986	04 30	10 57.55	+09 01.0					
1986	05 10	10 58.85	+08 45.1	1.901	2.489	114.0	21.8	19.4
1986	05 20	11 02.59	+08 14.3					
1986	05 30	11 08.45	+07 30.5	2.152	2.494	97.4	23.8	19.7

1977 QK2 a,e,i = 3.19, 0.06, 15 Elements MPC 9754

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 47.84	+00 16.9	2.811	3.002	91.5	19.1	17.6
1985	12 31	11 52.59	-00 55.2					
1986	01 10	11 55.47	-01 59.3	2.534	3.004	109.2	18.0	17.3
1986	01 20	11 56.24	-02 54.0					
1986	01 30	11 54.76	-03 38.3	2.289	3.008	128.9	14.8	17.0
1986	02 09	11 50.99	-04 10.8					
1986	02 19	11 45.08	-04 30.8	2.111	3.012	150.7	9.3	16.7
1986	03 01	11 37.47	-04 38.8					
1986	03 11	11 28.81	-04 36.1	2.031	3.016	171.1	2.9	16.4
1986	03 21	11 19.96	-04 25.5					
1986	03 31	11 11.81	-04 11.1	2.067	3.022	159.3	6.7	16.6
1986	04 10	11 05.09	-03 56.8					
1986	04 20	11 00.33	-03 46.5	2.208	3.028	137.8	12.9	16.9
1986	04 30	10 57.80	-03 43.1					
1986	05 10	10 57.52	-03 48.3	2.426	3.035	118.1	17.1	17.2
1986	05 20	10 59.37	-04 03.1					
1986	05 30	11 03.17	-04 27.6	2.686	3.042	100.7	19.1	17.5

1982 FN a,e,i = 2.55, 0.21, 27 Elements MPC 7359

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	12 21	11 15.76	-12 32.6	1.951	2.238	-1.53	-2.3	18.8
1985	12 31	11 25.59	-13 09.0					
1986	01 10	11 33.67	-13 24.6	1.673	2.197	-1.83	-2.7	18.4
1986	01 20	11 39.64	-13 13.3					
1986	01 30	11 43.22	-12 28.3	1.418	2.159	-2.18	-2.8	17.9
1986	02 09	11 44.14	-11 03.0					
1986	02 19	11 42.36	-08 52.0	1.217	2.124	-2.50	-2.4	17.4
1986	03 01	11 38.21	-05 55.0					
1986	03 11	11 32.38	-02 19.7	1.104	2.093	-2.69	-2.1	16.8
1986	03 21	11 26.01	+01 36.9					
1986	03 31	11 20.40	+05 31.6	1.102	2.067	-2.58	-3.1	17.0
1986	04 10	11 16.66	+09 03.0					
1986	04 20	11 15.60	+11 56.6	1.203	2.045	-2.19	-4.7	17.4
1986	04 30	11 17.52	+14 07.2					
1986	05 10	11 22.36	+15 35.9	1.371	2.029	-1.76	-5.4	17.8
1986	05 20	11 29.90	+16 26.7					
1986	05 30	11 39.74	+16 45.4	1.571	2.019	-1.48	-5.1	18.2

1983 AF2 a,e,i = 1.96, 0.14, 22 Elements MPC 7935

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	12 21	11 56.99	-10 33.7	1.787	1.964	-0.44	+12.9	17.9
1985	12 31	12 05.52	-13 46.5					
1986	01 10	12 11.71	-16 58.4	1.591	1.998	-1.96	+13.1	17.7
1986	01 20	12 15.05	-20 06.7					
1986	01 30	12 15.01	-23 07.6	1.412	2.031	-2.62	+13.7	17.4
1986	02 09	12 11.12	-25 54.8					
1986	02 19	12 03.11	-28 18.9	1.273	2.062	-3.48	+15.2	17.1
1986	03 01	11 51.30	-30 09.1					
1986	03 11	11 36.70	-31 14.9	1.202	2.092	0.22	+18.0	16.9
1986	03 21	11 21.15	-31 31.3					
1986	03 31	11 06.78	-31 02.1	1.218	2.119	0.48	+20.4	16.9
1986	04 10	10 55.38	-29 59.1					
1986	04 20	10 47.99	-28 37.8	1.317	2.144	0.49	+20.2	17.2
1986	04 30	10 44.86	-27 13.2					
1986	05 10	10 45.71	-25 55.7	1.479	2.166	0.35	+18.0	17.6
1986	05 20	10 50.07	-24 52.2					
1986	05 30	10 57.33	-24 05.7	1.679	2.185	0.20	+15.1	17.9

(3218) 6611 P-L a,e,i = 2.52, 0.22, 3 Elements MPC 9468

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 47.11	-00 14.5	2.160	2.396	91.4	24.2	19.1
1985	12 31	11 54.56	-01 00.7					
1986	01 10	11 59.80	-01 32.0	1.948	2.444	108.4	22.5	18.9
1986	01 20	12 02.55	-01 46.2					
1986	01 30	12 02.59	-01 41.8	1.761	2.492	128.0	18.1	18.6
1986	02 09	11 59.86	-01 18.1					
1986	02 19	11 54.52	-00 35.7	1.631	2.539	150.5	11.0	18.3
1986	03 01	11 47.09	+00 21.8					
1986	03 11	11 38.38	+01 28.7	1.594	2.585	175.1	1.9	17.9
1986	03 21	11 29.48	+02 37.6					
1986	03 31	11 21.45	+03 40.7	1.668	2.630	160.2	7.4	18.4
1986	04 10	11 15.14	+04 32.0					
1986	04 20	11 11.10	+05 08.0	1.844	2.673	137.6	14.7	18.8
1986	04 30	11 09.53	+05 27.2					
1986	05 10	11 10.35	+05 30.2	2.092	2.715	117.9	19.2	19.2
1986	05 20	11 13.38	+05 18.2					
1986	05 30	11 18.34	+04 53.0	2.380	2.755	100.7	21.2	19.6

(3182) 1984 WC a,e,i = 2.61, 0.14, 13 Elements MPC 9419

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 48.04	-13 03.9	2.582	2.700	86.1	21.3	18.2
1985	12 31	11 54.42	-14 31.1					
1986	01 10	11 58.87	-15 48.7	2.344	2.729	102.4	20.6	18.0
1986	01 20	12 01.13	-16 53.8					
1986	01 30	12 01.01	-17 43.3	2.123	2.756	120.4	17.9	17.7
1986	02 09	11 58.42	-18 13.9					
1986	02 19	11 53.46	-18 22.1	1.951	2.783	140.1	13.2	17.5
1986	03 01	11 46.55	-18 05.7					
1986	03 11	11 38.35	-17 24.7	1.862	2.808	158.1	7.6	17.3
1986	03 21	11 29.80	-16 22.1					
1986	03 31	11 21.87	-15 04.2	1.877	2.832	158.8	7.3	17.3
1986	04 10	11 15.40	-13 38.9					
1986	04 20	11 10.99	-12 14.6	1.998	2.854	141.5	12.7	17.6
1986	04 30	11 08.91	-10 58.3					
1986	05 10	11 09.18	-09 54.3	2.202	2.875	122.6	17.2	17.9
1986	05 20	11 11.70	-09 05.3					
1986	05 30	11 16.20	-08 32.1	2.458	2.894	105.2	19.8	18.2

(3208) 1981 JM a,e,i = 3.11, 0.12, 2 Elements MPC 9463

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 43.11	+02 40.2	2.499	2.741	93.5	21.0	17.7
1985	12 31	11 50.23	+02 03.6					
1986	01 10	11 55.51	+01 39.8	2.232	2.738	110.6	19.6	17.4
1986	01 20	11 58.69	+01 30.6					
1986	01 30	11 59.58	+01 36.9	1.998	2.738	130.0	16.0	17.1
1986	02 09	11 58.10	+01 59.1					
1986	02 19	11 54.33	+02 36.0	1.828	2.739	151.8	9.8	16.7
1986	03 01	11 48.64	+03 24.3					
1986	03 11	11 41.66	+04 19.3	1.752	2.743	175.1	1.8	16.3
1986	03 21	11 34.26	+05 14.6					
1986	03 31	11 27.37	+06 03.6	1.786	2.748	160.5	7.0	16.6
1986	04 10	11 21.80	+06 41.4					
1986	04 20	11 18.16	+07 04.6	1.922	2.755	138.4	14.0	16.9
1986	04 30	11 16.73	+07 12.1					
1986	05 10	11 17.57	+07 04.2	2.131	2.764	118.9	18.7	17.3
1986	05 20	11 20.58	+06 41.8					
1986	05 30	11 25.54	+06 06.7	2.383	2.775	101.9	20.9	17.6

1981 WB1 a,e,i = 2.27, 0.16, 5 Elements MPC 10024

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 41.24	-02 40.8	1.827	2.102	91.8	27.9	18.6
1985	12 31	11 50.87	-03 44.5					
1986	01 10	11 58.22	-04 32.4	1.625	2.137	107.5	26.0	18.3
1986	01 20	12 02.94	-05 01.2					
1986	01 30	12 04.71	-05 08.2	1.442	2.173	126.1	21.5	18.0
1986	02 09	12 03.34	-04 51.0					
1986	02 19	11 58.89	-04 08.5	1.309	2.209	147.9	13.7	17.6
1986	03 01	11 51.83	-03 03.2					
1986	03 11	11 43.05	-01 40.8	1.258	2.246	172.2	3.5	17.2
1986	03 21	11 33.84	-00 10.7					
1986	03 31	11 25.52	+01 16.0	1.311	2.282	162.0	7.8	17.5
1986	04 10	11 19.16	+02 30.4					
1986	04 20	11 15.42	+03 26.2	1.461	2.317	139.3	16.4	18.0
1986	04 30	11 14.53	+04 01.0					
1986	05 10	11 16.37	+04 15.3	1.681	2.351	119.8	21.9	18.5
1986	05 20	11 20.68	+04 10.5					
1986	05 30	11 27.12	+03 49.0	1.940	2.384	103.1	24.5	18.9

1964 UC a,e,i = 2.24, 0.19, 3 Elements MPC 9588

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 57.18	+01 36.4	2.308	2.507	89.9	23.1	19.3
1985	12 31	12 04.03	+00 47.6					
1986	01 10	12 08.78	+00 11.6	2.066	2.535	107.0	21.8	19.1
1986	01 20	12 11.12	-00 09.6					
1986	01 30	12 10.81	-00 14.8	1.846	2.560	126.7	18.0	18.8
1986	02 09	12 07.70	-00 03.1					
1986	02 19	12 01.85	+00 25.0	1.682	2.582	149.3	11.3	18.4
1986	03 01	11 53.70	+01 06.7					
1986	03 11	11 43.98	+01 57.6	1.611	2.601	174.1	2.3	18.0
1986	03 21	11 33.77	+02 50.9					
1986	03 31	11 24.23	+03 39.9	1.654	2.618	160.9	7.2	18.3
1986	04 10	11 16.34	+04 18.7					
1986	04 20	11 10.78	+04 43.8	1.800	2.631	137.7	14.9	18.7
1986	04 30	11 07.84	+04 53.5					
1986	05 10	11 07.52	+04 48.0	2.018	2.641	117.5	19.8	19.1
1986	05 20	11 09.65	+04 28.3					
1986	05 30	11 13.94	+03 55.8	2.276	2.648	100.1	22.1	19.4

1931 VP a,e,i = 1.92, 0.21, 22 Elements MPC 9212

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	12 13.49	+20 38.1	2.014	2.300	93.8	25.3	18.9
1985	12 31	12 21.74	+20 25.4					
1986	01 10	12 27.60	+20 28.7	1.759	2.286	109.6	23.9	18.6
1986	01 20	12 30.57	+20 48.3					
1986	01 30	12 30.14	+21 22.7	1.528	2.267	127.6	20.1	18.2
1986	02 09	12 25.84	+22 08.2					
1986	02 19	12 17.43	+22 57.2	1.351	2.244	146.9	13.9	17.7
1986	03 01	12 05.22	+23 38.7					
1986	03 11	11 50.16	+24 00.2	1.261	2.217	159.0	9.3	17.4
1986	03 21	11 33.96	+23 51.2					
1986	03 31	11 18.65	+23 07.3	1.278	2.186	147.3	14.3	17.6
1986	04 10	11 05.94	+21 51.2					
1986	04 20	10 56.88	+20 09.5	1.387	2.151	127.5	21.8	17.9
1986	04 30	10 51.77	+18 10.3					
1986	05 10	10 50.43	+15 59.7	1.554	2.112	109.1	26.9	18.2
1986	05 20	10 52.42	+13 41.8					
1986	05 30	10 57.23	+11 19.0	1.745	2.070	93.4	29.3	18.5

1980 VO a,e,i = 2.55, 0.32, 10 Elements MPC 9292

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	12 07.04	+09 19.9	2.721	2.904	90.7	19.8	19.9
1985	12 31	12 12.21	+09 08.2					
1986	01 10	12 15.36	+09 10.2	2.490	2.958	108.8	18.3	19.8
1986	01 20	12 16.25	+09 26.4					
1986	01 30	12 14.73	+09 56.0	2.288	3.008	129.1	14.7	19.5
1986	02 09	12 10.78	+10 37.1					
1986	02 19	12 04.53	+11 26.1	2.153	3.056	151.1	9.0	19.3
1986	03 01	11 56.44	+12 17.7					
1986	03 11	11 47.18	+13 06.1	2.119	3.100	169.0	3.5	19.1
1986	03 21	11 37.62	+13 45.4					
1986	03 31	11 28.67	+14 11.5	2.204	3.141	155.7	7.5	19.4
1986	04 10	11 21.08	+14 22.1					
1986	04 20	11 15.39	+14 17.1	2.394	3.179	134.4	13.1	19.7
1986	04 30	11 11.84	+13 57.6					
1986	05 10	11 10.47	+13 25.5	2.659	3.213	114.6	16.6	20.0
1986	05 20	11 11.16	+12 42.7					
1986	05 30	11 13.70	+11 51.1	2.963	3.244	96.9	18.1	20.3

(3147) 1976 YU3 a,e,i = 2.62, 0.19, 4 Elements MPC 9288

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 45.46	-02 18.9	2.025	2.267	91.0	25.7	18.4
1985	12 31	11 54.41	-03 25.2					
1986	01 10	12 01.20	-04 17.6	1.815	2.302	106.9	24.1	18.2
1986	01 20	12 05.53	-04 53.3					
1986	01 30	12 07.13	-05 10.3	1.626	2.340	125.5	20.0	17.9
1986	02 09	12 05.85	-05 06.5					
1986	02 19	12 01.78	-04 41.1	1.488	2.379	147.0	13.1	17.5
1986	03 01	11 55.34	-03 56.0					
1986	03 11	11 47.33	-02 55.2	1.434	2.420	170.5	3.9	17.2
1986	03 21	11 38.83	-01 46.0					
1986	03 31	11 31.01	-00 37.1	1.486	2.461	163.7	6.5	17.4
1986	04 10	11 24.82	+00 24.0					
1986	04 20	11 20.93	+01 11.4	1.639	2.503	141.3	14.5	17.9
1986	04 30	11 19.58	+01 42.2					
1986	05 10	11 20.74	+01 55.8	1.866	2.546	121.6	19.7	18.3
1986	05 20	11 24.23	+01 52.9					
1986	05 30	11 29.74	+01 35.0	2.139	2.588	104.6	22.3	18.7

(3296) 1975 SF a,e,i = 2.66, 0.19, 14 Elements MPC 9954

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 57.75	+11 30.8	2.726	2.956	93.7	19.4	18.5
1985	12 31	12 03.84	+11 51.4					
1986	01 10	12 08.04	+12 28.3	2.480	2.985	111.6	17.8	18.3
1986	01 20	12 10.10	+13 21.6					
1986	01 30	12 09.85	+14 30.2	2.270	3.013	131.3	14.2	18.0
1986	02 09	12 07.22	+15 51.1					
1986	02 19	12 02.34	+17 19.1	2.132	3.038	151.5	8.9	17.8
1986	03 01	11 55.58	+18 47.2					
1986	03 11	11 47.57	+20 07.5	2.098	3.061	162.8	5.5	17.6
1986	03 21	11 39.15	+21 12.8					
1986	03 31	11 31.21	+21 57.9	2.177	3.082	149.9	9.3	17.8
1986	04 10	11 24.53	+22 21.0					
1986	04 20	11 19.66	+22 22.6	2.353	3.101	130.5	14.3	18.1
1986	04 30	11 16.90	+22 04.9					
1986	05 10	11 16.31	+21 31.0	2.596	3.118	112.0	17.5	18.4
1986	05 20	11 17.80	+20 43.9					
1986	05 30	11 21.16	+19 46.2	2.873	3.132	95.2	18.8	18.7

1969 TT1 a,e,i = 2.41, 0.18, 2 Elements MPC 9291

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	11 59.76	+02 06.0	2.508	2.685	89.5	21.5	19.6
1985	12 31	12 06.21	+01 27.1					
1986	01 10	12 10.68	+01 00.9	2.258	2.713	106.9	20.3	19.4
1986	01 20	12 12.90	+00 49.2					
1986	01 30	12 12.66	+00 52.9	2.032	2.738	126.7	16.8	19.1
1986	02 09	12 09.85	+01 12.3					
1986	02 19	12 04.54	+01 46.5	1.865	2.760	149.1	10.6	18.8
1986	03 01	11 57.12	+02 32.4					
1986	03 11	11 48.24	+03 25.4	1.791	2.781	173.4	2.4	18.4
1986	03 21	11 38.84	+04 19.2					
1986	03 31	11 29.95	+05 07.5	1.833	2.798	161.5	6.5	18.7
1986	04 10	11 22.44	+05 45.3					
1986	04 20	11 16.97	+06 09.3	1.981	2.814	138.6	13.7	19.0
1986	04 30	11 13.85	+06 18.3					
1986	05 10	11 13.13	+06 12.5	2.205	2.826	118.2	18.3	19.4
1986	05 20	11 14.70	+05 53.0					
1986	05 30	11 18.32	+05 21.3	2.470	2.836	100.5	20.6	19.7

1984 QO a,e,i = 2.56, 0.26, 14 Elements MPC 9424

Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1985	12 21	12 07.28	+01 24.3	2.144	2.319	-0.69	+10.0	17.6
1985	12 31	12 14.60	-00 06.2					
1986	01 10	12 19.64	-01 26.5	1.940	2.376	-0.88	+10.7	17.4
1986	01 20	12 22.07	-02 35.1					
1986	01 30	12 21.63	-03 30.7	1.753	2.434	-1.09	+11.7	17.1
1986	02 09	12 18.16	-04 12.0					
1986	02 19	12 11.74	-04 37.8	1.616	2.491	-1.31	+12.7	16.8
1986	03 01	12 02.83	-04 48.5					
1986	03 11	11 52.25	-04 45.5	1.567	2.547	-0.97	+13.4	16.6
1986	03 21	11 41.16	-04 32.5					
1986	03 31	11 30.81	-04 14.6	1.628	2.603	-0.98	+13.1	16.8
1986	04 10	11 22.20	-03 57.1					
1986	04 20	11 16.01	-03 44.8	1.795	2.656	-0.90	+11.9	17.2
1986	04 30	11 12.53	-03 40.9					
1986	05 10	11 11.70	-03 46.9	2.041	2.709	-0.77	+10.4	17.6
1986	05 20	11 13.33	-04 03.8					
1986	05 30	11 17.10	-04 31.0	2.333	2.759	-0.63	+9.0	18.0

(3167) 1955 RS a,e,i = 2.54, 0.10, 16 Elements MPC 9351

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	12 07.63	+11 59.0	2.428	2.645	91.6	21.8	17.0
1985	12 31	12 15.01	+11 22.4					
1986	01 10	12 20.44	+10 57.3	2.145	2.625	108.2	20.8	16.7
1986	01 20	12 23.60	+10 44.5					
1986	01 30	12 24.18	+10 43.9	1.889	2.604	127.1	17.6	16.4
1986	02 09	12 21.91	+10 54.2					
1986	02 19	12 16.73	+11 12.8	1.689	2.582	148.1	11.7	16.0
1986	03 01	12 08.87	+11 34.7					
1986	03 11	11 58.94	+11 54.1	1.580	2.560	168.0	4.6	15.6
1986	03 21	11 47.95	+12 04.5					
1986	03 31	11 37.17	+12 00.7	1.581	2.537	158.7	8.2	15.7
1986	04 10	11 27.76	+11 40.2					
1986	04 20	11 20.61	+11 02.6	1.684	2.515	137.1	15.8	16.0
1986	04 30	11 16.21	+10 09.5					
1986	05 10	11 14.66	+09 03.2	1.860	2.492	117.4	21.1	16.3
1986	05 20	11 15.85	+07 45.9					
1986	05 30	11 19.49	+06 19.4	2.076	2.469	100.4	23.8	16.6

1975 AM a,e,i = 3.02, 0.08, 11 Elements MPC 10030

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	12 04.51	+12 00.3	2.967	3.163	92.3	18.1	18.3
1985	12 31	12 10.52	+12 04.1					
1986	01 10	12 14.77	+12 21.6	2.702	3.176	110.0	16.9	18.1
1986	01 20	12 17.06	+12 52.9					
1986	01 30	12 17.22	+13 37.0	2.470	3.187	129.4	13.8	17.8
1986	02 09	12 15.17	+14 31.8					
1986	02 19	12 11.00	+15 33.5	2.307	3.198	149.6	9.0	17.5
1986	03 01	12 05.00	+16 36.5					
1986	03 11	11 57.69	+17 34.6	2.242	3.208	163.9	4.9	17.4
1986	03 21	11 49.80	+18 21.6					
1986	03 31	11 42.15	+18 52.9	2.291	3.218	153.9	7.8	17.5
1986	04 10	11 35.45	+19 06.2					
1986	04 20	11 30.31	+19 01.0	2.442	3.227	134.5	12.8	17.8
1986	04 30	11 27.07	+18 38.7					
1986	05 10	11 25.85	+18 01.7	2.667	3.235	115.7	16.3	18.1
1986	05 20	11 26.63	+17 12.1					
1986	05 30	11 29.26	+16 12.6	2.933	3.242	98.5	18.0	18.3

1983 RO3 a,e,i = 3.15, 0.19, 2 Elements MPC 10038

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	12 08.08	+00 55.4	3.162	3.263	87.1	17.5	19.0
1985	12 31	12 13.45	+00 25.0					
1986	01 10	12 17.16	+00 05.6	2.902	3.297	105.0	16.7	18.8
1986	01 20	12 19.02	-00 01.6					
1986	01 30	12 18.91	+00 03.8	2.666	3.330	125.0	14.0	18.6
1986	02 09	12 16.78	+00 21.8					
1986	02 19	12 12.72	+00 51.4	2.491	3.362	146.9	9.2	18.3
1986	03 01	12 07.04	+01 30.5					
1986	03 11	12 00.18	+02 15.6	2.410	3.394	170.3	2.8	18.0
1986	03 21	11 52.79	+03 02.4					
1986	03 31	11 45.57	+03 46.1	2.447	3.424	165.6	4.2	18.2
1986	04 10	11 39.17	+04 23.0					
1986	04 20	11 34.13	+04 50.0	2.597	3.453	143.0	10.1	18.5
1986	04 30	11 30.76	+05 05.3					
1986	05 10	11 29.21	+05 08.7	2.835	3.481	122.3	14.2	18.8
1986	05 20	11 29.49	+05 00.4					
1986	05 30	11 31.48	+04 41.4	3.125	3.507	103.8	16.3	19.1

1980 RJ2 a,e,i = 2.56, 0.27, 6 Elements MPC 9161

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1985	12 21	12 11.24	-00 41.9	2.292	2.425	85.7	23.9	17.8
1985	12 31	12 19.00	-01 51.3					
1986	01 10	12 24.66	-02 48.9	2.083	2.484	102.2	22.8	17.6
1986	01 20	12 27.92	-03 33.1					
1986	01 30	12 28.56	-04 02.6	1.889	2.542	121.1	19.4	17.4
1986	02 09	12 26.41	-04 16.1					
1986	02 19	12 21.50	-04 13.2	1.741	2.599	142.9	13.3	17.1
1986	03 01	12 14.19	-03 54.9					
1986	03 11	12 05.12	-03 23.9	1.678	2.655	166.8	4.9	16.8
1986	03 21	11 55.29	-02 44.7					
1986	03 31	11 45.79	-02 03.6	1.724	2.708	167.6	4.5	16.9
1986	04 10	11 37.59	-01 26.2					
1986	04 20	11 31.43	-00 57.4	1.879	2.760	144.5	12.2	17.4
1986	04 30	11 27.66	-00 40.2					
1986	05 10	11 26.35	-00 35.7	2.119	2.809	123.9	17.4	17.8
1986	05 20	11 27.38	-00 44.0					
1986	05 30	11 30.50	-01 04.5	2.408	2.856	105.8	20.0	18.1

1983 NU a,e,i = 2.44, 0.16, 2 Elements MPC 8794

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986	01 10	12 17.03	-02 57.6	2.246	2.659	103.9	21.0	18.4
1986	01 20	12 21.07	-03 32.9					
1986	01 30	12 22.86	-03 54.4	1.966	2.630	122.5	18.4	18.0
1986	02 09	12 22.14	-04 00.3					
1986	02 19	12 18.78	-03 49.5	1.736	2.600	143.7	13.0	17.6
1986	03 01	12 12.92	-03 22.2					
1986	03 11	12 05.00	-02 40.3	1.589	2.568	167.3	4.9	17.1
1986	03 21	11 55.82	-01 48.3					
1986	03 31	11 46.48	-00 52.7	1.550	2.534	167.6	4.9	17.0
1986	04 10	11 38.06	-00 00.6					
1986	04 20	11 31.53	+00 41.7	1.616	2.500	144.0	13.7	17.3
1986	04 30	11 27.49	+01 09.7					
1986	05 10	11 26.17	+01 21.5	1.763	2.464	123.1	20.1	17.7
1986	05 20	11 27.58	+01 16.6					
1986	05 30	11 31.50	+00 55.9	1.955	2.428	105.3	23.7	17.9
1986	06 09	11 37.66	+00 20.6					
1986	06 19	11 45.80	-00 27.7	2.165	2.392	90.0	25.1	18.1

1984 SW3 a,e,i = 2.39, 0.26, 10 Elements MPC 9356

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986 01 10	12 30.88	-13 10.8	2.470	2.761	96.5	20.7	18.6
1986 01 20	12 33.90	-14 17.7					
1986 01 30	12 34.60	-15 12.4	2.238	2.799	114.9	18.6	18.4
1986 02 09	12 32.79	-15 52.4					
1986 02 19	12 28.42	-16 14.8	2.045	2.834	135.2	14.2	18.1
1986 03 01	12 21.72	-16 17.5					
1986 03 11	12 13.16	-15 59.5	1.928	2.865	156.2	8.0	17.9
1986 03 21	12 03.54	-15 22.0					
1986 03 31	11 53.86	-14 29.0	1.917	2.894	165.3	5.0	17.8
1986 04 10	11 45.09	-13 26.8					
1986 04 20	11 38.03	-12 22.6	2.017	2.919	148.1	10.5	18.1
1986 04 30	11 33.18	-11 23.2					
1986 05 10	11 30.72	-10 33.3	2.211	2.941	127.9	15.7	18.4
1986 05 20	11 30.65	-09 56.0					
1986 05 30	11 32.77	-09 32.5	2.465	2.960	109.4	18.9	18.7
1986 06 09	11 36.85	-09 22.9					
1986 06 19	11 42.64	-09 26.6	2.747	2.975	92.8	19.9	19.0

(3297) 1978 WN14 a,e,i = 3.14, 0.16, 2 Elements MPC 9955

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986 01 10	12 25.68	-00 19.9	3.023	3.381	102.9	16.5	18.9
1986 01 20	12 27.98	-00 25.1					
1986 01 30	12 28.40	-00 17.9	2.774	3.407	122.6	14.1	18.7
1986 02 09	12 26.85	+00 01.7					
1986 02 19	12 23.40	+00 33.1	2.581	3.432	144.3	9.7	18.5
1986 03 01	12 18.26	+01 14.1					
1986 03 11	12 11.84	+02 01.6	2.480	3.456	167.3	3.6	18.2
1986 03 21	12 04.70	+02 51.3					
1986 03 31	11 57.54	+03 38.7	2.495	3.479	168.1	3.4	18.2
1986 04 10	11 50.99	+04 19.6					
1986 04 20	11 45.61	+04 50.6	2.625	3.500	145.5	9.3	18.5
1986 04 30	11 41.79	+05 10.0					
1986 05 10	11 39.72	+05 17.1	2.847	3.520	124.6	13.6	18.8
1986 05 20	11 39.45	+05 12.0					
1986 05 30	11 40.91	+04 55.7	3.125	3.539	105.8	16.0	19.1
1986 06 09	11 43.97	+04 29.3					
1986 06 19	11 48.46	+03 53.9	3.429	3.557	88.9	16.6	19.3

1984 VA a,e,i = 3.07, 0.28, 2 Elements MPC 9361

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986 01 10	12 28.30	-00 27.9	2.573	2.943	102.3	19.1	19.3
1986 01 20	12 31.25	-00 41.2					
1986 01 30	12 32.03	-00 40.7	2.362	2.999	121.6	16.2	19.1
1986 02 09	12 30.53	-00 26.2					
1986 02 19	12 26.80	+00 01.4	2.203	3.053	143.3	11.2	18.9
1986 03 01	12 21.13	+00 39.9					
1986 03 11	12 14.00	+01 25.7	2.132	3.107	166.7	4.2	18.6
1986 03 21	12 06.11	+02 13.9					
1986 03 31	11 58.27	+02 59.4	2.175	3.160	168.6	3.6	18.7
1986 04 10	11 51.23	+03 37.5					
1986 04 20	11 45.62	+04 05.0	2.330	3.212	145.9	10.1	19.1
1986 04 30	11 41.80	+04 19.9					
1986 05 10	11 39.94	+04 21.9	2.575	3.262	125.1	14.7	19.5
1986 05 20	11 40.04	+04 11.5					
1986 05 30	11 41.96	+03 49.8	2.877	3.311	106.5	17.1	19.8
1986 06 09	11 45.53	+03 18.2					
1986 06 19	11 50.55	+02 37.7	3.203	3.358	89.9	17.6	20.1

(3207) 1981 EY25 a,e,i = 2.91, 0.06, 2 Elements MPC 9463

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986	01 10	12 30.94	-03 13.9	2.721	3.058	100.6	18.4	17.0
1986	01 20	12 34.81	-03 33.1					
1986	01 30	12 36.73	-03 39.1	2.445	3.052	119.4	16.3	16.7
1986	02 09	12 36.53	-03 31.0					
1986	02 19	12 34.15	-03 08.4	2.217	3.045	140.5	11.9	16.4
1986	03 01	12 29.72	-02 32.3					
1986	03 11	12 23.58	-01 45.0	2.072	3.037	163.5	5.3	16.1
1986	03 21	12 16.29	-00 50.6					
1986	03 31	12 08.64	+00 05.7	2.036	3.029	172.4	2.5	15.9
1986	04 10	12 01.43	+00 58.2					
1986	04 20	11 55.39	+01 41.9	2.114	3.020	149.1	9.8	16.2
1986	04 30	11 51.08	+02 13.3					
1986	05 10	11 48.78	+02 30.6	2.284	3.011	127.9	15.4	16.5
1986	05 20	11 48.60	+02 33.4					
1986	05 30	11 50.48	+02 22.3	2.513	3.002	109.1	18.6	16.8
1986	06 09	11 54.25	+01 58.5					
1986	06 19	11 59.72	+01 23.3	2.770	2.991	92.4	19.8	17.0

(3155) 1984 SP3 a,e,i = 2.34, 0.10, 7 Elements MPC 9290

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986	01 10	12 37.66	+02 31.6	1.994	2.389	101.2	23.8	16.9
1986	01 20	12 43.13	+02 02.6					
1986	01 30	12 46.06	+01 48.4	1.770	2.410	119.2	20.9	16.6
1986	02 09	12 46.16	+01 49.4					
1986	02 19	12 43.25	+02 05.1	1.589	2.431	140.0	15.1	16.3
1986	03 01	12 37.45	+02 33.3					
1986	03 11	12 29.19	+03 10.0	1.483	2.450	163.2	6.7	15.9
1986	03 21	12 19.33	+03 49.0					
1986	03 31	12 09.06	+04 23.4	1.480	2.469	169.6	4.2	15.8
1986	04 10	11 59.59	+04 47.5					
1986	04 20	11 51.95	+04 57.0	1.584	2.487	146.9	12.8	16.3
1986	04 30	11 46.79	+04 50.5					
1986	05 10	11 44.36	+04 28.2	1.772	2.503	126.0	19.0	16.7
1986	05 20	11 44.63	+03 51.4					
1986	05 30	11 47.37	+03 01.9	2.011	2.518	108.1	22.5	17.0
1986	06 09	11 52.27	+02 01.7					
1986	06 19	11 59.04	+00 52.4	2.274	2.531	92.5	23.6	17.3

1978 QC a,e,i = 3.01, 0.27, 2 Elements MPC 9754

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986	01 10	12 38.20	-04 39.3	3.151	3.434	98.3	16.5	20.0
1986	01 20	12 40.68	-04 53.9					
1986	01 30	12 41.31	-04 56.6	2.901	3.472	117.9	14.5	19.8
1986	02 09	12 40.01	-04 46.8					
1986	02 19	12 36.79	-04 24.3	2.699	3.509	139.4	10.6	19.6
1986	03 01	12 31.84	-03 50.4					
1986	03 11	12 25.50	-03 07.0	2.583	3.543	162.5	4.8	19.4
1986	03 21	12 18.30	-02 17.6					
1986	03 31	12 10.89	-01 26.4	2.581	3.575	173.6	1.8	19.2
1986	04 10	12 03.90	-00 37.7					
1986	04 20	11 57.93	+00 04.5	2.698	3.606	150.4	7.9	19.6
1986	04 30	11 53.39	+00 37.2					
1986	05 10	11 50.51	+00 58.8	2.914	3.634	128.9	12.5	19.9
1986	05 20	11 49.41	+01 08.7					
1986	05 30	11 50.02	+01 07.3	3.196	3.660	109.5	15.1	20.2
1986	06 09	11 52.24	+00 55.1					
1986	06 19	11 55.92	+00 33.2	3.508	3.684	91.9	16.0	20.4

(3231) 1972 RU2 a,e,i = 2.45, 0.13, 6 Elements MPC 9585

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986 01 10	12 40.29	-07 53.4	2.420	2.715	96.6	21.1	18.6
1986 01 20	12 44.72	-08 50.0					
1986 01 30	12 46.97	-09 35.0	2.164	2.726	114.7	19.2	18.3
1986 02 09	12 46.77	-10 06.7					
1986 02 19	12 43.99	-10 23.2	1.945	2.736	135.1	14.8	18.0
1986 03 01	12 38.70	-10 23.5					
1986 03 11	12 31.22	-10 07.2	1.799	2.744	157.6	7.9	17.6
1986 03 21	12 22.23	-09 35.9					
1986 03 31	12 12.67	-08 53.7	1.756	2.750	172.5	2.7	17.4
1986 04 10	12 03.57	-08 06.0					
1986 04 20	11 55.88	-07 19.3	1.826	2.753	152.0	9.9	17.7
1986 04 30	11 50.27	-06 39.4					
1986 05 10	11 47.07	-06 10.3	1.990	2.755	130.6	16.2	18.1
1986 05 20	11 46.38	-05 54.3					
1986 05 30	11 48.06	-05 52.1	2.215	2.755	111.7	20.0	18.4
1986 06 09	11 51.90	-06 03.3					
1986 06 19	11 57.65	-06 27.2	2.471	2.753	95.1	21.6	18.7

6552 P-L a,e,i = 2.27, 0.11, 7 Elements MPC 9761

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986 01 10	12 28.23	-03 41.5	1.773	2.185	101.0	26.2	18.5
1986 01 20	12 35.67	-03 59.4					
1986 01 30	12 40.58	-03 57.0	1.564	2.210	118.4	23.1	18.2
1986 02 09	12 42.62	-03 32.0					
1986 02 19	12 41.59	-02 43.7	1.394	2.235	138.9	16.9	17.9
1986 03 01	12 37.56	-01 33.4					
1986 03 11	12 30.94	-00 05.7	1.294	2.260	162.2	7.7	17.5
1986 03 21	12 22.59	+01 31.0					
1986 03 31	12 13.72	+03 05.8	1.293	2.286	171.3	3.8	17.4
1986 04 10	12 05.59	+04 28.5					
1986 04 20	11 59.28	+05 31.2	1.395	2.310	148.2	13.3	17.8
1986 04 30	11 55.47	+06 10.2					
1986 05 10	11 54.39	+06 25.5	1.579	2.334	127.4	20.1	18.3
1986 05 20	11 56.01	+06 18.8					
1986 05 30	12 00.07	+05 53.2	1.813	2.358	109.8	23.9	18.7
1986 06 09	12 06.26	+05 11.8					
1986 06 19	12 14.28	+04 17.4	2.072	2.380	94.6	25.2	19.0

(3215) 1980 BQ a,e,i = 3.12, 0.11, 7 Elements MPC 9467

Date ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986 01 10	12 37.94	+04 46.3	2.534	2.903	102.0	19.4	17.8
1986 01 20	12 42.47	+04 42.3					
1986 01 30	12 44.89	+04 51.9	2.294	2.920	120.5	16.9	17.5
1986 02 09	12 45.04	+05 14.5					
1986 02 19	12 42.86	+05 48.8	2.104	2.938	141.0	12.2	17.2
1986 03 01	12 38.48	+06 31.6					
1986 03 11	12 32.27	+07 18.4	1.996	2.957	162.2	5.9	17.0
1986 03 21	12 24.84	+08 03.7					
1986 03 31	12 17.02	+08 41.7	1.996	2.977	166.8	4.4	16.9
1986 04 10	12 09.63	+09 07.9					
1986 04 20	12 03.44	+09 19.1	2.105	2.997	146.8	10.6	17.2
1986 04 30	11 58.98	+09 14.6					
1986 05 10	11 56.54	+08 54.9	2.304	3.018	126.7	15.6	17.6
1986 05 20	11 56.20	+08 21.3					
1986 05 30	11 57.86	+07 35.9	2.560	3.038	108.5	18.4	17.9
1986 06 09	12 01.37	+06 40.5					
1986 06 19	12 06.51	+05 36.7	2.845	3.059	92.3	19.4	18.1

4260 P-L a,e,i = 2.80, 0.13, 4 Elements MPC 9070

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986	01 10	12 46.05	-09 11.1	2.757	3.003	94.8	19.0	18.3
1986	01 20	12 50.43	-09 51.5					
1986	01 30	12 52.84	-10 19.9	2.498	3.023	113.1	17.4	18.1
1986	02 09	12 53.11	-10 35.0					
1986	02 19	12 51.13	-10 35.3	2.275	3.041	133.5	13.6	17.8
1986	03 01	12 46.99	-10 20.3					
1986	03 11	12 40.97	-09 50.3	2.125	3.059	155.9	7.6	17.5
1986	03 21	12 33.58	-09 07.3					
1986	03 31	12 25.58	-08 15.2	2.079	3.075	174.9	1.6	17.2
1986	04 10	12 17.78	-07 19.1					
1986	04 20	12 10.96	-06 24.7	2.147	3.090	155.5	7.8	17.6
1986	04 30	12 05.73	-05 37.2					
1986	05 10	12 02.43	-05 00.0	2.317	3.103	133.8	13.6	17.9
1986	05 20	12 01.23	-04 35.5					
1986	05 30	12 02.09	-04 24.3	2.557	3.115	114.4	17.2	18.2
1986	06 09	12 04.86	-04 26.1					
1986	06 19	12 09.36	-04 40.1	2.834	3.126	97.1	18.8	18.5

1980 PF a,e,i = 2.26, 0.16, 8 Elements MPC 9469

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986	01 10	12 47.73	-11 43.8	2.333	2.585	93.4	22.3	19.4
1986	01 20	12 53.56	-13 02.6					
1986	01 30	12 57.30	-14 12.4	2.053	2.568	110.4	21.1	19.1
1986	02 09	12 58.61	-15 11.1					
1986	02 19	12 57.19	-15 55.8	1.803	2.549	129.6	17.4	18.7
1986	03 01	12 52.94	-16 23.7					
1986	03 11	12 45.96	-16 32.0	1.614	2.528	150.7	11.1	18.3
1986	03 21	12 36.78	-16 19.1					
1986	03 31	12 26.35	-15 46.0	1.518	2.504	167.8	4.8	18.0
1986	04 10	12 15.84	-14 56.9					
1986	04 20	12 06.51	-13 59.0	1.530	2.477	155.0	9.9	18.1
1986	04 30	11 59.35	-13 01.0					
1986	05 10	11 54.94	-12 10.0	1.637	2.449	134.0	17.2	18.4
1986	05 20	11 53.51	-11 31.6					
1986	05 30	11 54.96	-11 08.5	1.808	2.419	115.1	22.3	18.7
1986	06 09	11 59.05	-11 01.5					
1986	06 19	12 05.50	-11 10.4	2.012	2.387	98.7	24.9	19.0

1981 EP27 a,e,i = 2.90, 0.04, 12 Elements MPC 9962

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1986	01 10	12 42.24	-07 39.8	2.739	3.009	96.2	19.0	20.0
1986	01 20	12 47.34	-07 52.5					
1986	01 30	12 50.58	-07 50.6	2.462	3.008	114.6	17.3	19.7
1986	02 09	12 51.77	-07 32.5					
1986	02 19	12 50.79	-06 57.2	2.224	3.007	135.1	13.4	19.4
1986	03 01	12 47.70	-06 04.9					
1986	03 11	12 42.74	-04 57.3	2.061	3.004	157.9	7.2	19.1
1986	03 21	12 36.38	-03 38.3					
1986	03 31	12 29.33	-02 13.6	2.003	3.002	177.9	0.7	18.6
1986	04 10	12 22.36	-00 50.0					
1986	04 20	12 16.26	+00 25.7	2.062	2.999	154.4	8.3	19.1
1986	04 30	12 11.64	+01 28.2					
1986	05 10	12 08.88	+02 14.7	2.219	2.995	132.5	14.4	19.4
1986	05 20	12 08.18	+02 43.8					
1986	05 30	12 09.52	+02 56.0	2.444	2.992	113.2	18.2	19.7
1986	06 09	12 12.78	+02 52.8					
1986	06 19	12 17.80	+02 35.7	2.703	2.987	96.1	19.8	20.0