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 TWX 710-320-6842 ASTROGRAM CAM ** Brian G. Marsden, Director
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IDENTIFICATION CHANGES.

Continuation to MPC 5659.

Object	Date	UT	R. A. (1950)	Decl.	Old desig.	Mag.	N	Obs.
1936 WK	* 1936 11	16.80500	02 20 35.31	+10 03 28.7	1936 UD			020
1936 WL	* 1936 11	23.11	02 35.5	+07 35	1936 UB			020
1936 XF	* 1936 12	06.77524	02 43 06.32	+16 13 32.5	1936 VF		1	020
1936 XF	1936 12	06.81651	02 43 05.31	+16 13 32.2	1936 VF		1	020
1936 XG	* 1936 12	06.77524	02 45 15.86	+16 34 30.1	1936 VE			020
1936 XG	1936 12	06.81651	02 45 14.50	+16 34 31.5	1936 VE			020
1953 EV1	* 1953 03	06.92212	10 20 00.84	+12 11 32.9	1538	14.8		020
1956 TC1	* 1956 10	01.32677	01 34 45.68	+03 23 51.2	1393	15.2		760
1956 TC1	1956 10	01.36985	01 34 43.32	+03 23 43.6	1393			760
1956 TC1	1956 10	09.17435	01 27 39.93	+02 56 08.4	1393	15.3		760
1956 TC1	1956 10	09.21671	01 27 37.29	+02 55 59.5	1393			760
1956 TC1	1956 11	03.25697	01 04 27.98	+02 03 50.0	1393	16.4		760
1956 TC1	1956 11	03.30002	01 04 26.15	+02 03 47.2	1393			760
1960 CB	* 1960 02	01.20	08 32.6	+15 59	1960 BD	16.0		760
1969 QU	* 1969 08	21.96891	23 10 22.65	-07 53 55.4	1538			095
1969 QU	1969 09	13.90668	22 47 22.68	-06 40 12.3	1538			095
1972 CE	* 1972 02	06.82239	08 12 55.27	+22 09 34.6	1972 BE	16.5		095

Note 1: these accurate positions (from MPC 3231) correspond to the approxi-
 mate position labelled 1936 VE on RI 1513.

* * * * *

OBSERVATIONS MADE AT NICE BY B. MILET.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
1	1972 02	22.94933	09 16 34.11	+31 05 11.9	020
1	1972 02	22.95210	09 16 33.96	+31 05 11.6	020
1	1972 04	13.81319	09 07 33.50	+29 32 56.2	020
1	1972 04	13.81469	09 07 33.56	+29 32 55.7	020
1	1972 04	13.81596	09 07 33.59	+29 32 55.0	020
1	1972 04	14.83471	09 08 06.90	+29 27 07.5	020
1	1972 04	14.83609	09 08 06.91	+29 27 07.4	020
2	1972 01	07.74804	03 52 20.52	-29 04 54.6	020
2	1972 01	07.74978	03 52 20.43	-29 04 52.2	020
2	1972 01	07.75151	03 52 20.41	-29 04 51.4	020
2	1972 01	19.75580	03 53 14.14	-26 29 06.1	020
2	1972 01	19.75684	03 53 14.19	-26 29 05.6	020
2	1972 01	19.75788	03 53 14.22	-26 29 05.7	020
2	1972 01	20.77904	03 53 31.16	-26 14 25.5	020
2	1972 01	20.78077	03 53 31.14	-26 14 23.2	020
2	1972 01	20.78250	03 53 31.23	-26 14 21.9	020
2	1972 02	15.75410	04 10 35.92	-19 19 34.2	020
2	1972 02	15.75514	04 10 35.98	-19 19 34.2	020

2	1972 02 15.75618	04 10 36.05	-19 19 32.7	020
2	1972 02 22.82364	04 18 09.96	-17 20 25.5	020
2	1972 02 22.82468	04 18 10.05	-17 20 24.1	020
2	1972 02 22.82571	04 18 10.10	-17 20 23.7	020
3	1972 05 02.91749	12 31 29.50	+05 26 24.0	020
3	1972 05 02.91958	12 31 29.54	+05 26 23.4	020
3	1972 05 11.87491	12 28 12.99	+05 52 50.5	020
3	1972 05 11.87732	12 28 12.92	+05 52 50.6	020
3	1972 06 07.85382	12 27 58.26	+05 51 09.3	020
3	1972 06 07.85555	12 27 58.29	+05 51 09.5	020
3	1972 06 07.85728	12 27 58.33	+05 51 09.1	020
3	1972 06 16.85383	12 30 52.21	+05 28 04.8	020
3	1972 06 16.85556	12 30 52.26	+05 28 03.7	020
3	1972 06 16.85729	12 30 52.35	+05 28 04.3	020
3	1972 06 30.86547	12 37 51.97	+04 35 40.5	020
3	1972 06 30.86789	12 37 52.08	+04 35 38.5	020
3	1972 06 30.87031	12 37 52.14	+04 35 38.8	020
4	1972 10 18.17522	05 03 11.15	+15 37 57.7	020
4	1972 10 18.17625	05 03 11.13	+15 37 57.8	020
4	1972 10 18.17729	05 03 11.15	+15 37 57.5	020
4	1972 11 04.07339	04 56 06.63	+15 21 53.3	020
4	1972 11 04.07443	04 56 06.63	+15 21 53.3	020
4	1972 11 04.07547	04 56 06.52	+15 21 52.8	020
4	1972 11 15.14307	04 47 09.72	+15 12 41.5	020
4	1972 11 15.14411	04 47 09.67	+15 12 40.6	020
4	1972 11 15.14515	04 47 09.61	+15 12 40.6	020
4	1972 11 17.14142	04 45 15.68	+15 11 19.7	020
4	1972 11 17.14246	04 45 15.65	+15 11 18.6	020
4	1972 11 17.14350	04 45 15.62	+15 11 18.5	020
4	1972 11 28.00162	04 33 58.07	+15 06 11.3	020
4	1972 11 28.00266	04 33 57.99	+15 06 11.5	020
4	1972 11 28.00370	04 33 57.94	+15 06 10.4	020
4	1972 12 01.95382	04 29 38.75	+15 05 34.7	020
4	1972 12 01.95452	04 29 38.71	+15 05 34.6	020
4	1972 12 01.95521	04 29 38.66	+15 05 34.7	020
4	1972 12 12.85904	04 18 02.66	+15 08 35.6	020
4	1972 12 12.85973	04 18 02.62	+15 08 35.7	020
4	1972 12 12.86042	04 18 02.61	+15 08 35.5	020
5	1972 08 21.88762	20 52 17.74	-16 54 31.2	020
5	1972 08 21.89143	20 52 17.61	-16 54 32.4	020
6	1972 08 21.84641	20 35 40.52	-17 50 00.1	020
6	1972 08 21.84814	20 35 40.48	-17 50 02.1	020
6	1972 10 14.79073	20 43 54.46	-24 12 47.0	020
6	1972 10 14.79350	20 43 54.57	-24 12 46.9	020
6	1972 10 16.78285	20 46 01.47	-24 14 35.0	020
6	1972 10 16.78458	20 46 01.54	-24 14 35.2	020
6	1972 10 29.75151	21 02 13.47	-24 07 09.1	020
6	1972 10 29.75324	21 02 13.60	-24 07 08.3	020
6	1972 11 03.81369	21 09 32.83	-23 55 30.9	020
6	1972 11 03.81542	21 09 33.05	-23 55 30.6	020
6	1972 11 27.74227	21 49 50.67	-22 00 17.9	020
6	1972 11 27.74401	21 49 50.86	-22 00 17.7	020
6	1972 12 01.71784	21 57 13.55	-21 32 19.8	020
6	1972 12 01.71957	21 57 13.72	-21 32 18.8	020
7	1972 07 07.97621	17 33 02.56	-21 26 45.2	020
7	1972 07 07.98798	17 33 01.82	-21 26 43.4	020
7	1972 08 21.84087	17 17 38.26	-20 27 28.4	020
7	1972 08 21.84329	17 17 38.29	-20 27 28.3	020
10	1972 05 09.91616	14 08 37.66	-18 36 14.3	020

10	1972	05	09.92711	14	08	37.09	-18	36	12.3	020
11	1972	02	22.92302	08	52	08.86	+19	16	34.2	020
11	1972	02	22.93895	08	52	08.02	+19	16	38.9	020
11	1972	04	13.80661	08	43	41.56	+20	27	29.3	020
11	1972	04	13.80834	08	43	41.65	+20	27	28.8	020
11	1972	04	14.84198	08	44	12.78	+20	25	48.7	020
11	1972	04	14.84406	08	44	12.84	+20	25	48.8	020
12	1972	12	05.15738	06	43	44.00	+15	42	42.7	020
12	1972	12	05.15981	06	43	43.79	+15	42	42.9	020
12	1972	12	06.13215	06	42	52.55	+15	40	12.6	020
12	1972	12	06.13457	06	42	52.42	+15	40	12.3	020
13	1972	05	02.86555	11	54	34.12	+14	46	38.7	020
13	1972	05	02.86763	11	54	34.06	+14	46	38.0	020
13	1972	05	03.85796	11	54	13.93	+14	38	18.4	020
13	1972	05	03.86143	11	54	13.84	+14	38	16.3	020
15	1972	10	14.93893	23	38	00.62	+20	07	13.4	020
15	1972	10	14.94084	23	38	00.62	+20	07	12.8	020
15	1972	10	16.86249	23	36	48.70	+19	54	24.5	020
15	1972	10	16.86422	23	36	48.64	+19	54	23.6	020
15	1972	10	29.78510	23	31	49.98	+18	26	24.5	020
15	1972	10	29.78683	23	31	50.06	+18	26	25.9	020
15	1972	11	03.83550	23	31	21.91	+17	53	06.4	020
15	1972	11	03.83758	23	31	21.96	+17	53	06.0	020
17	1972	02	22.92925	08	33	03.72	+20	24	26.2	020
17	1972	02	22.93271	08	33	03.58	+20	24	27.8	020
17	1972	03	17.88068	08	22	11.65	+21	34	56.5	020
17	1972	03	17.88276	08	22	11.64	+21	34	56.5	020
18	1972	01	07.84500	05	27	37.48	+07	48	34.7	020
18	1972	01	07.84777	05	27	37.34	+07	48	36.7	020
18	1972	01	19.84549	05	21	23.07	+09	25	43.3	020
18	1972	01	19.86626	05	21	22.74	+09	25	54.9	020
18	1972	02	15.75826	05	25	20.18	+13	15	13.9	020
18	1972	02	15.75930	05	25	20.22	+13	15	14.3	020
18	1972	02	15.76034	05	25	20.26	+13	15	14.7	020
18	1972	02	22.82710	05	30	04.74	+14	10	46.9	020
18	1972	02	22.82814	05	30	04.77	+14	10	47.6	020
18	1972	03	17.81039	05	54	42.46	+16	48	34.9	020
18	1972	03	17.81212	05	54	42.62	+16	48	34.7	020
19	1972	01	07.91391	06	56	00.03	+20	09	39.8	020
19	1972	01	07.91599	06	55	59.95	+20	09	39.5	020
19	1972	01	19.99542	06	43	51.66	+20	26	11.2	020
19	1972	01	19.99922	06	43	51.43	+20	26	11.6	020
19	1972	02	15.77107	06	30	46.02	+20	55	17.0	020
19	1972	02	15.78977	06	30	45.92	+20	55	17.2	020
20	1972	10	30.06679	04	07	48.49	+20	24	32.1	020
20	1972	10	30.06917	04	07	48.36	+20	24	31.1	020
20	1972	11	04.02768	04	04	18.58	+20	12	22.7	020
20	1972	11	04.02872	04	04	18.52	+20	12	22.8	020
20	1972	11	15.04005	03	54	25.19	+19	38	27.1	020
20	1972	11	15.04144	03	54	25.08	+19	38	26.2	020
20	1972	11	27.94727	03	41	14.04	+18	51	43.8	020
20	1972	11	27.94831	03	41	13.98	+18	51	43.8	020
20	1972	12	01.90552	03	37	20.60	+18	37	29.7	020
20	1972	12	01.90656	03	37	20.55	+18	37	29.8	020
20	1972	12	12.80623	03	28	10.78	+18	03	06.5	020
20	1972	12	12.80727	03	28	10.71	+18	03	06.6	020
21	1972	04	13.85093	10	42	17.31	+12	49	39.6	020
21	1972	04	13.85821	10	42	17.15	+12	49	40.3	020
21	1972	04	14.90080	10	41	55.44	+12	50	25.7	020

21	1972	04	14.90842	10	41	55.26	+12	50	26.1	020
22	1972	12	13.11269	11	39	00.77	+18	22	26.9	020
22	1972	12	13.11442	11	39	00.84	+18	22	26.8	020
22	1972	12	13.12273	11	39	01.28	+18	22	26.1	020
22	1972	12	13.12516	11	39	01.39	+18	22	26.2	020
22	1972	12	16.09237	11	41	24.91	+18	23	52.9	020
22	1972	12	16.09480	11	41	25.04	+18	23	53.6	020
24	1972	10	14.87210	22	31	59.54	-10	00	38.8	020
24	1972	10	14.88872	22	31	59.28	-10	00	39.8	020
24	1972	10	16.86318	22	31	27.13	-10	03	14.2	020
24	1972	10	16.88049	22	31	26.90	-10	03	14.2	020
26	1972	11	17.18124	05	57	32.62	+26	11	25.7	020
26	1972	11	17.18366	05	57	32.49	+26	11	26.7	020
27	1972	12	13.09087	09	02	53.08	+17	33	37.1	020
27	1972	12	13.09261	09	02	53.09	+17	33	37.1	020
27	1972	12	16.07852	09	03	26.28	+17	35	24.6	020
27	1972	12	16.08026	09	03	26.31	+17	35	24.7	020
28	1972	10	14.96906	00	16	12.17	-08	39	53.5	020
28	1972	10	14.97668	00	16	11.84	-08	39	55.9	020
28	1972	10	29.85504	00	07	30.72	-09	36	46.4	020
28	1972	10	29.85920	00	07	30.63	-09	36	46.3	020
31	1972	10	18.13886	03	10	39.75	+26	44	16.5	020
31	1972	10	18.14059	03	10	39.69	+26	44	17.2	020
31	1972	10	30.04410	02	57	31.36	+28	21	09.8	020
31	1972	10	30.04583	02	57	31.23	+28	21	11.0	020
31	1972	11	04.00340	02	51	13.57	+28	55	41.1	020
31	1972	11	04.00517	02	51	13.52	+28	55	41.3	020
31	1972	11	15.02360	02	36	37.33	+29	57	26.8	020
31	1972	11	15.02534	02	36	37.13	+29	57	27.6	020
31	1972	11	27.87040	02	20	50.00	+30	44	27.7	020
31	1972	11	27.87213	02	20	49.83	+30	44	27.5	020
31	1972	12	01.82068	02	16	40.69	+30	54	36.4	020
31	1972	12	01.82241	02	16	40.62	+30	54	36.4	020
31	1972	12	01.82414	02	16	40.52	+30	54	36.9	020
32	1972	01	07.82284	05	19	40.38	+16	40	00.9	020
32	1972	01	07.83600	05	19	39.78	+16	40	01.9	020
32	1972	01	19.83579	05	12	10.10	+16	35	21.4	020
32	1972	01	19.85657	05	12	09.46	+16	35	23.4	020
34	1972	11	17.16323	05	39	58.00	+15	30	20.2	020
34	1972	11	17.16566	05	39	57.85	+15	30	18.8	020
35	1972	11	27.93272	03	37	46.15	+30	00	47.3	020
35	1972	11	27.93896	03	37	45.83	+30	00	46.0	020
35	1972	12	12.79411	03	24	59.95	+29	14	18.1	020
35	1972	12	12.79861	03	24	59.71	+29	14	17.1	020
39	1972	06	07.87529	14	56	35.96	-01	44	53.4	020
39	1972	06	07.87910	14	56	35.84	-01	44	53.8	020
39	1972	06	16.91997	14	52	24.70	-01	51	03.5	020
39	1972	06	16.92447	14	52	24.61	-01	51	04.1	020
39	1972	07	03.87144	14	49	13.69	-02	35	13.2	020
39	1972	07	03.87372	14	49	13.67	-02	35	13.2	020
39	1972	07	03.87580	14	49	13.69	-02	35	13.9	020
40	1972	05	02.87455	12	05	44.93	+06	23	08.7	020
40	1972	05	02.87663	12	05	44.88	+06	23	08.7	020
40	1972	05	03.87043	12	05	24.16	+06	22	42.5	020
40	1972	05	03.87389	12	05	24.07	+06	22	42.3	020
40	1972	05	11.86833	12	03	37.63	+06	12	09.1	020
40	1972	05	11.87075	12	03	37.62	+06	12	08.6	020
40	1972	06	07.84759	12	10	13.94	+04	14	50.3	020
40	1972	06	07.84933	12	10	14.02	+04	14	48.5	020

40	1972	06	07.85105	12	10	14.05	+04	14	48.4	020
40	1972	06	16.84794	12	16	34.69	+03	13	26.5	020
40	1972	06	16.84968	12	16	34.68	+03	13	26.7	020
40	1972	06	16.85141	12	16	34.66	+03	13	26.8	020
40	1972	06	30.85542	12	28	13.44	+01	23	48.5	020
40	1972	06	30.85889	12	28	13.48	+01	23	46.8	020
40	1972	06	30.86235	12	28	13.67	+01	23	43.1	020
41	1972	08	21.93713	22	16	36.97	+00	24	35.0	020
41	1972	08	21.94198	22	16	36.77	+00	24	31.9	020
41	1972	08	21.94683	22	16	36.51	+00	24	29.6	020
42	1972	12	13.09503	09	14	46.04	+22	36	36.3	020
42	1972	12	13.09745	09	14	46.03	+22	36	36.7	020
42	1972	12	16.08303	09	14	10.92	+22	50	25.4	020
42	1972	12	16.08540	09	14	10.87	+22	50	26.2	020
43	1972	10	14.82778	22	14	55.47	-04	44	04.5	020
43	1972	10	14.85895	22	14	55.70	-04	44	08.8	020
43	1972	10	16.81401	22	15	19.85	-04	47	07.7	020
43	1972	10	16.83132	22	15	19.92	-04	47	08.5	020
44	1972	11	17.18609	06	07	18.14	+18	11	40.5	020
44	1972	11	17.18713	06	07	18.06	+18	11	40.5	020
44	1972	12	05.13210	05	56	00.51	+18	11	50.0	020
44	1972	12	05.13314	05	56	00.47	+18	11	49.5	020
44	1972	12	06.10912	05	55	07.80	+18	12	22.9	020
48	1972	08	21.87792	20	55	14.95	-10	22	48.5	020
48	1972	08	21.88034	20	55	14.83	-10	22	47.7	020
51	1972	10	14.87210	22	26	32.99	-08	39	00.9	020
51	1972	10	14.88872	22	26	32.84	-08	39	04.8	020
51	1972	10	16.86318	22	26	20.11	-08	48	35.5	020
51	1972	10	16.88049	22	26	20.09	-08	48	39.3	020
52	1972	02	15.80847	06	56	05.73	+20	37	43.3	020
52	1972	02	15.81020	06	56	05.70	+20	37	43.5	020
53	1972	02	15.80847	06	58	41.71	+19	36	10.0	020
53	1972	02	15.81020	06	58	41.68	+19	36	11.7	020
54	1972	02	15.77869	06	45	20.65	+28	33	45.6	020
54	1972	02	15.79600	06	45	20.19	+28	33	42.1	020
57	1972	12	05.16258	06	41	52.58	+01	56	58.0	020
57	1972	12	05.16500	06	41	52.48	+01	56	57.1	020
57	1972	12	06.14115	06	41	16.48	+01	52	31.8	020
57	1972	12	06.14358	06	41	16.36	+01	52	30.6	020
59	1972	10	18.13470	02	58	44.58	+06	09	01.8	020
59	1972	10	18.13643	02	58	44.52	+06	09	01.5	020
59	1972	10	30.04030	02	49	53.56	+04	41	11.0	020
59	1972	10	30.04203	02	49	53.48	+04	41	10.6	020
59	1972	11	03.99964	02	45	49.22	+04	07	52.9	020
59	1972	11	04.00137	02	45	49.15	+04	07	52.2	020
59	1972	11	15.01841	02	36	55.70	+03	06	54.4	020
59	1972	11	15.02083	02	36	55.54	+03	06	53.3	020
59	1972	11	25.86235	02	29	35.25	+02	29	57.0	020
59	1972	11	25.86824	02	29	35.00	+02	29	56.8	020
59	1972	11	27.86208	02	28	28.43	+02	25	55.3	020
59	1972	11	27.86659	02	28	28.26	+02	25	54.9	020
59	1972	12	01.81653	02	26	32.50	+02	20	34.5	020
59	1972	12	01.82830	02	26	32.13	+02	20	33.9	020
62	1972	01	07.77090	04	43	05.62	+20	03	48.7	020
62	1972	01	07.77332	04	43	05.55	+20	03	48.3	020
62	1972	01	19.77277	04	39	42.04	+20	12	16.4	020
62	1972	01	19.77519	04	39	42.01	+20	12	16.9	020
62	1972	01	20.80380	04	39	35.85	+20	13	22.2	020
62	1972	01	20.80587	04	39	35.87	+20	13	22.1	020

63	1972	02	22.95591	09	06	47.43	+19	21	23.7	020
63	1972	02	22.95834	09	06	47.27	+19	21	24.8	020
66	1972	01	07.76571	04	26	04.09	+26	35	37.1	020
66	1972	01	07.76813	04	26	04.00	+26	35	37.8	020
66	1972	01	19.76809	04	24	47.13	+26	15	56.6	020
66	1972	01	19.77017	04	24	47.19	+26	15	56.9	020
66	1972	01	20.79774	04	24	54.84	+26	14	39.8	020
66	1972	01	20.80085	04	24	54.85	+26	14	40.1	020
69	1972	10	29.94404	00	51	38.39	+01	57	05.0	020
69	1972	10	29.96481	00	51	37.58	+01	56	57.7	020
70	1972	10	18.10077	02	34	26.13	+10	13	19.9	020
70	1972	10	18.10804	02	34	25.64	+10	13	20.2	020
70	1972	10	30.01259	02	21	58.02	+10	07	44.0	020
70	1972	10	30.02160	02	21	57.37	+10	07	43.9	020
70	1972	11	03.97124	02	16	43.68	+10	06	05.8	020
70	1972	11	03.98024	02	16	43.15	+10	06	05.7	020
70	1972	11	25.81699	01	57	39.54	+10	16	56.4	020
70	1972	11	25.83707	01	57	38.77	+10	16	58.1	020
70	1972	11	27.80045	01	56	26.47	+10	19	57.3	020
70	1972	11	27.82261	01	56	25.69	+10	19	59.7	020
70	1972	12	01.77740	01	54	18.87	+10	27	13.1	020
70	1972	12	01.80302	01	54	18.05	+10	27	17.1	020
71	1972	11	15.06550	04	04	45.63	+52	35	05.3	020
71	1972	11	15.06862	04	04	45.51	+52	35	05.9	020
71	1972	11	17.07701	04	02	08.36	+52	32	38.0	020
71	1972	11	17.08013	04	02	08.10	+52	32	37.6	020
71	1972	11	27.95523	03	47	38.44	+51	58	27.6	020
71	1972	11	27.96493	03	47	37.69	+51	58	24.6	020
71	1972	12	01.91348	03	42	30.15	+51	37	36.0	020
71	1972	12	01.92249	03	42	29.40	+51	37	32.9	020
71	1972	12	12.80969	03	29	47.58	+50	20	03.3	020
71	1972	12	12.81212	03	29	47.43	+50	20	02.3	020
80	1972	06	07.95909	17	32	23.62	-12	47	46.2	020
80	1972	06	07.96809	17	32	23.06	-12	47	43.0	020
80	1972	07	03.92549	17	06	35.08	-11	05	42.0	020
80	1972	07	03.95319	17	06	33.64	-11	05	42.7	020
80	1972	07	07.91111	17	03	28.87	-10	58	42.5	020
80	1972	07	07.93881	17	03	27.63	-10	58	40.3	020
83	1972	08	21.89523	21	33	37.89	-22	20	35.7	020
83	1972	08	21.89766	21	33	37.65	-22	20	36.2	020
84	1972	01	20.02139	06	50	32.31	+32	27	33.9	020
84	1972	01	20.02382	06	50	32.24	+32	27	33.6	020
84	1972	02	15.77869	06	31	40.25	+30	39	37.4	020
84	1972	02	15.79600	06	31	39.62	+30	39	37.8	020
87	1972	11	25.79344	01	23	57.07	-01	34	50.0	020
87	1972	11	25.79587	01	23	57.02	-01	34	49.1	020
87	1972	11	27.77933	01	23	19.79	-01	29	16.1	020
87	1972	11	27.78175	01	23	19.71	-01	29	15.2	020
89	1972	08	21.87342	20	47	12.36	-13	44	32.6	020
89	1972	08	21.87515	20	47	12.27	-13	44	32.8	020
90	1972	10	14.95175	23	46	32.74	-04	48	11.4	020
90	1972	10	14.96075	23	46	32.40	-04	48	12.9	020
90	1972	10	29.77817	23	40	48.40	-05	08	09.1	020
90	1972	10	29.79964	23	40	48.15	-05	08	09.6	020
91	1972	01	25.18056	10	19	38.73	+13	11	57.7	020
91	1972	01	25.18264	10	19	38.78	+13	11	59.9	020
93	1972	10	14.81878	22	12	15.98	-14	51	29.9	020
93	1972	10	14.84198	22	12	15.88	-14	51	24.1	020
93	1972	10	16.80639	22	12	11.51	-14	43	05.2	020

93	1972	10	16.82371	22	12	11.42	-14	43	02.9	020
100	1972	10	18.05714	01	31	34.58	-00	32	18.9	020
100	1972	10	18.06198	01	31	34.31	-00	32	20.4	020
100	1972	10	29.99200	01	22	49.84	-01	19	19.1	020
100	1972	10	29.99961	01	22	49.54	-01	19	20.5	020
101	1972	10	29.95096	00	49	31.29	+17	59	18.2	020
101	1972	10	29.95789	00	49	30.96	+17	59	17.0	020
103	1972	01	07.85885	05	47	11.61	+17	54	26.9	020
103	1972	01	07.86786	05	47	11.12	+17	54	31.4	020
103	1972	01	19.88427	05	38	31.02	+18	18	40.6	020
103	1972	01	19.91267	05	38	29.98	+18	18	45.2	020
107	1972	10	18.04190	01	35	38.21	+02	31	57.7	020
107	1972	10	18.04779	01	35	38.05	+02	31	56.2	020
108	1972	02	22.92925	08	37	05.08	+22	26	15.3	020
108	1972	02	22.93271	08	37	04.94	+22	26	15.5	020
113	1972	12	05.14284	06	39	01.43	+18	33	09.7	020
113	1972	12	05.14526	06	39	01.27	+18	33	11.4	020
113	1972	12	06.11865	06	38	15.20	+18	34	37.0	020
113	1972	12	06.12107	06	38	15.13	+18	34	37.1	020
114	1972	10	14.87210	22	29	54.72	-10	03	25.2	020
114	1972	10	14.88872	22	29	54.47	-10	03	28.6	020
114	1972	10	16.86318	22	29	26.24	-10	08	24.3	020
114	1972	10	16.88049	22	29	26.08	-10	08	26.1	020
116	1972	10	14.81878	22	05	48.24	-16	32	51.1	020
116	1972	10	14.84198	22	05	48.04	-16	32	50.3	020
117	1972	01	25.18541	10	40	39.92	+17	43	02.2	020
117	1972	01	25.18783	10	40	39.74	+17	42	58.1	020
121	1972	01	07.90906	06	55	08.69	+27	56	31.3	020
121	1972	01	07.91149	06	55	08.54	+27	56	30.9	020
121	1972	01	19.98538	06	45	17.00	+28	20	04.6	020
121	1972	01	19.98781	06	45	16.86	+28	20	04.7	020
121	1972	02	15.77869	06	31	12.39	+28	39	40.5	020
121	1972	02	15.79600	06	31	12.14	+28	39	41.7	020
125	1972	10	14.95175	23	52	59.68	-02	59	48.6	020
125	1972	10	14.96075	23	52	59.28	-02	59	51.8	020
125	1972	10	29.77817	23	46	29.39	-03	57	16.6	020
125	1972	10	29.79964	23	46	29.07	-03	57	19.7	020
128	1972	10	29.97797	01	07	55.19	-01	40	11.6	020
128	1972	10	29.98559	01	07	54.90	-01	40	11.9	020
129	1972	10	29.82630	23	51	52.44	-14	27	52.4	020
129	1972	10	29.82803	23	51	52.39	-14	27	50.7	020
130	1972	01	25.16359	09	56	36.20	+09	46	43.5	020
130	1972	01	25.16671	09	56	36.05	+09	46	46.0	020
135	1972	02	22.92302	08	52	41.44	+19	04	47.8	020
135	1972	02	22.93895	08	52	40.58	+19	04	50.5	020
137	1972	02	22.89255	08	35	36.79	+01	55	48.9	020
137	1972	02	22.89739	08	35	36.77	+01	55	48.5	020
139	1972	10	30.05380	03	41	51.90	+32	27	05.2	020
139	1972	10	30.05623	03	41	51.83	+32	27	07.9	020
139	1972	11	04.01244	03	37	13.39	+32	33	40.3	020
139	1972	11	04.01487	03	37	13.25	+32	33	40.3	020
139	1972	11	15.03226	03	25	40.14	+32	33	41.4	020
139	1972	11	15.03607	03	25	39.93	+32	33	41.0	020
139	1972	11	27.91818	03	11	46.13	+32	08	51.7	020
139	1972	11	27.92545	03	11	45.69	+32	08	50.7	020
139	1972	12	01.87863	03	07	47.74	+31	56	51.0	020
139	1972	12	01.88590	03	07	47.32	+31	56	49.1	020
139	1972	12	12.78199	02	58	24.69	+31	17	15.6	020
139	1972	12	12.78788	02	58	24.40	+31	17	15.2	020

146	1972	01	07.78544	04	57	11.18	+23	14	58.8	020
146	1972	01	07.78925	04	57	10.97	+23	14	59.5	020
146	1972	01	19.79735	04	50	08.75	+23	47	28.6	020
146	1972	01	19.80047	04	50	08.64	+23	47	30.3	020
146	1972	01	20.82682	04	49	43.64	+23	50	15.5	020
146	1972	01	20.82994	04	49	43.58	+23	50	16.9	020
148	1972	10	14.93339	23	21	25.24	-27	51	39.8	020
148	1972	10	14.93616	23	21	25.17	-27	51	39.9	020
148	1972	10	16.89885	23	20	52.29	-28	01	13.2	020
148	1972	10	16.90127	23	20	52.25	-28	01	14.0	020
153	1972	01	07.88517	06	03	21.99	+16	17	11.7	020
153	1972	01	07.89279	06	03	21.83	+16	17	13.4	020
153	1972	01	19.94660	05	56	26.47	+16	17	49.7	020
153	1972	01	19.96807	05	56	26.20	+16	17	49.2	020
164	1972	01	20.00216	06	43	18.96	+42	40	46.0	020
164	1972	01	20.00425	06	43	18.69	+42	40	44.9	020
169	1972	02	22.84199	07	48	32.31	+27	06	22.1	020
169	1972	02	22.86069	07	48	31.63	+27	06	21.7	020
172	1972	02	15.81314	06	45	34.38	+31	32	05.1	020
172	1972	02	15.81591	06	45	34.29	+31	32	04.4	020
180	1972	01	07.78544	04	48	31.81	+23	27	36.9	020
180	1972	01	07.78925	04	48	31.66	+23	27	36.5	020
180	1972	01	19.79735	04	44	02.39	+23	12	34.3	020
180	1972	01	19.80047	04	44	02.41	+23	12	36.5	020
180	1972	01	20.82682	04	43	52.97	+23	11	40.6	020
180	1972	01	20.82994	04	43	53.02	+23	11	41.6	020
181	1972	01	25.16359	09	58	49.52	+09	44	32.2	020
181	1972	01	25.16671	09	58	49.35	+09	44	34.8	020
182	1972	04	13.82843	10	36	04.55	+11	41	14.8	020
182	1972	04	13.83258	10	36	04.46	+11	41	14.6	020
182	1972	04	14.86385	10	35	53.59	+11	41	38.9	020
182	1972	04	14.86795	10	35	53.59	+11	41	39.3	020
184	1972	11	25.81699	01	58	51.29	+13	40	27.5	020
184	1972	11	25.83707	01	58	50.68	+13	40	24.0	020
184	1972	11	27.80045	01	57	50.45	+13	34	36.4	020
184	1972	11	27.82261	01	57	49.78	+13	34	32.7	020
184	1972	12	01.77740	01	56	00.97	+13	23	52.3	020
184	1972	12	01.80302	01	56	00.27	+13	23	48.8	020
185	1972	12	06.14669	10	07	11.61	+01	10	49.7	020
185	1972	12	06.14912	10	07	11.72	+01	10	49.2	020
185	1972	12	06.15154	10	07	11.75	+01	10	49.5	020
185	1972	12	13.10542	10	09	50.79	+01	10	05.1	020
185	1972	12	13.10784	10	09	50.82	+01	10	05.2	020
185	1972	12	13.11027	10	09	50.87	+01	10	05.6	020
185	1972	12	16.10623	10	10	40.61	+01	12	12.4	020
185	1972	12	16.10796	10	10	40.65	+01	12	13.3	020
185	1972	12	16.10969	10	10	40.63	+01	12	12.5	020
190	1972	10	29.94404	00	50	04.37	+01	55	57.1	020
190	1972	10	29.96481	00	50	03.75	+01	55	52.8	020
191	1972	11	25.82495	02	21	20.50	-02	23	54.5	020
191	1972	11	25.82911	02	21	20.40	-02	23	55.9	020
191	1972	11	27.84442	02	20	17.98	-02	25	18.0	020
191	1972	11	27.84754	02	20	17.87	-02	25	17.5	020
191	1972	12	01.79575	02	18	30.28	-02	25	23.4	020
191	1972	12	01.79817	02	18	30.23	-02	25	23.0	020
200	1972	02	22.96769	09	23	39.97	+15	28	13.1	020
200	1972	02	22.97150	09	23	39.75	+15	28	13.6	020
207	1972	10	29.86370	00	07	30.89	-00	44	42.0	020
207	1972	10	29.86959	00	07	30.63	-00	44	42.8	020

207	1972	11	03.90268	00	05	11.08	-00	48	17.5	020
207	1972	11	03.90857	00	05	10.89	-00	48	17.5	020
208	1972	10	14.88041	23	08	03.04	-05	54	41.9	020
208	1972	10	14.90777	23	08	02.06	-05	54	46.9	020
209	1972	05	09.91616	14	08	00.00	-20	18	47.3	020
209	1972	05	09.92711	14	07	59.04	-20	18	47.4	020
209	1972	05	11.90434	14	06	27.20	-20	13	12.9	020
209	1972	05	11.91542	14	06	26.77	-20	13	10.3	020
213	1972	06	07.86559	14	28	28.74	-04	19	10.8	020
213	1972	06	07.87010	14	28	28.52	-04	19	10.7	020
213	1972	06	16.90543	14	26	03.22	-04	43	34.9	020
213	1972	06	16.91304	14	26	03.11	-04	43	35.6	020
224	1972	03	17.94232	10	20	19.40	+12	16	45.0	020
224	1972	03	17.94475	10	20	19.27	+12	16	45.2	020
227	1972	10	29.88932	00	19	43.79	+12	12	07.1	020
227	1972	10	29.91426	00	19	42.97	+12	12	01.6	020
227	1972	11	03.91584	00	17	09.92	+11	52	39.8	020
227	1972	11	03.93938	00	17	09.33	+11	52	36.5	020
230	1972	01	07.88517	06	13	51.06	+13	13	16.6	020
230	1972	01	07.89279	06	13	50.59	+13	13	17.5	020
238	1972	06	07.87529	14	59	36.78	-03	10	00.2	020
238	1972	06	07.87910	14	59	36.71	-03	09	59.9	020
238	1972	06	16.91997	14	55	36.11	-03	01	03.9	020
238	1972	06	16.92447	14	55	35.86	-03	01	03.0	020
241	1972	01	25.17260	10	14	03.15	+04	23	53.7	020
241	1972	02	22.97634	09	52	51.16	+05	45	31.5	020
241	1972	02	22.98119	09	52	50.95	+05	45	31.7	020
245	1972	01	07.89867	06	40	13.54	+28	19	24.3	020
245	1972	01	07.90110	06	40	13.40	+28	19	24.3	020
245	1972	01	19.97915	06	29	40.33	+28	35	31.5	020
245	1972	01	19.98157	06	29	40.20	+28	35	32.1	020
258	1972	10	18.16621	04	24	59.84	+12	58	54.2	020
258	1972	10	18.16864	04	24	59.83	+12	58	53.0	020
258	1972	10	30.07007	04	20	04.68	+10	49	59.0	020
258	1972	10	30.07181	04	20	04.69	+10	49	58.6	020
258	1972	10	30.07354	04	20	04.64	+10	49	57.9	020
258	1972	11	04.03080	04	16	50.64	+09	55	07.0	020
258	1972	11	04.03253	04	16	50.59	+09	55	06.4	020
258	1972	11	15.08940	04	07	52.67	+07	57	24.4	020
258	1972	11	15.09182	04	07	52.55	+07	57	22.5	020
258	1972	11	17.08128	04	06	05.77	+07	37	31.8	020
258	1972	11	17.09156	04	06	05.66	+07	37	30.5	020
258	1972	12	01.93634	03	52	55.20	+05	33	13.3	020
258	1972	12	01.93807	03	52	55.11	+05	33	11.9	020
258	1972	12	12.83774	03	44	54.16	+04	35	24.1	020
258	1972	12	12.83947	03	44	54.13	+04	35	23.6	020
270	1972	11	04.06023	04	55	26.81	+23	37	00.0	020
270	1972	11	04.06265	04	55	26.69	+23	36	59.7	020
270	1972	11	15.13026	04	45	35.61	+23	07	58.3	020
270	1972	11	15.13268	04	45	35.41	+23	07	56.5	020
270	1972	11	17.10471	04	43	29.63	+23	01	41.5	020
270	1972	11	17.10714	04	43	29.50	+23	01	41.5	020
270	1972	11	27.99679	04	30	54.30	+22	22	10.6	020
270	1972	11	27.99921	04	30	54.11	+22	22	10.3	020
270	1972	12	01.94846	04	26	11.56	+22	06	22.4	020
270	1972	12	01.95088	04	26	11.38	+22	06	22.4	020
270	1972	12	12.85090	04	14	02.20	+21	22	13.0	020
270	1972	12	12.85332	04	14	02.04	+21	22	12.6	020
274	1972	01	20.01516	06	38	11.95	+24	14	31.0	020

274	1972	01	20.02970	06	38	11.29	+24	14	32.7	020
278	1972	10	30.01259	02	27	32.81	+09	30	00.0	020
278	1972	10	30.02160	02	27	32.30	+09	29	58.9	020
278	1972	11	03.97124	02	23	04.42	+09	17	30.6	020
278	1972	11	03.98024	02	23	03.88	+09	17	29.0	020
281	1972	10	14.95175	23	56	59.78	-04	30	54.9	020
281	1972	10	14.96075	23	56	59.26	-04	30	53.8	020
281	1972	10	29.77817	23	48	22.16	-04	08	46.5	020
281	1972	10	29.79964	23	48	21.78	-04	08	43.7	020
282	1972	05	09.98598	15	45	02.79	-04	32	37.9	020
282	1972	05	09.99602	15	45	02.27	-04	32	30.7	020
283	1972	11	27.93272	03	33	31.38	+30	30	50.1	020
283	1972	11	27.93896	03	33	31.03	+30	30	48.4	020
283	1972	12	01.89167	03	30	04.17	+30	10	19.9	020
283	1972	12	01.89686	03	30	03.90	+30	10	18.8	020
283	1972	12	12.79411	03	21	58.42	+29	09	43.1	020
283	1972	12	12.79861	03	21	58.26	+29	09	42.4	020
288	1972	01	19.88427	05	50	09.71	+21	00	13.6	020
288	1972	01	19.91267	05	50	08.27	+21	00	17.5	020
292	1972	11	27.89186	02	40	35.36	+19	34	14.8	020
292	1972	11	27.89914	02	40	34.96	+19	34	14.2	020
293	1972	05	09.94175	14	16	15.06	-03	30	49.9	020
293	1972	05	09.95274	14	16	14.28	-03	30	49.5	020
293	1972	05	11.92740	14	14	30.18	-03	34	55.8	020
293	1972	05	11.93828	14	14	29.53	-03	34	55.8	020
302	1972	10	14.88041	23	03	10.73	-06	54	26.4	020
302	1972	10	14.90777	23	03	09.95	-06	54	27.3	020
306	1972	10	18.05714	01	27	25.41	-03	06	05.0	020
306	1972	10	18.06193	01	27	25.20	-03	06	06.1	020
306	1972	10	29.99200	01	17	26.31	-04	07	00.7	020
306	1972	10	29.99961	01	17	25.97	-04	07	02.8	020
308	1972	01	07.82284	05	30	42.47	+16	48	07.9	020
308	1972	01	07.83600	05	30	41.85	+16	48	09.5	020
308	1972	01	19.83579	05	23	02.19	+16	58	21.3	020
308	1972	01	19.85657	05	23	01.52	+16	58	25.0	020
313	1972	10	18.08761	02	16	33.72	+02	11	26.0	020
313	1972	10	18.09384	02	16	33.44	+02	11	22.4	020
313	1972	11	27.80980	01	45	21.89	-02	40	09.7	020
313	1972	11	27.81361	01	45	21.78	-02	40	09.6	020
332	1972	08	21.95237	22	13	20.75	-15	35	04.4	020
332	1972	08	21.95722	22	13	20.24	-15	35	08.1	020
334	1972	01	07.85885	05	43	08.56	+19	29	20.4	020
334	1972	01	07.86786	05	43	08.19	+19	29	23.1	020
334	1972	01	19.88427	05	36	24.06	+19	38	46.2	020
334	1972	01	19.91267	05	36	23.21	+19	38	48.3	020
342	1972	03	17.94820	10	24	10.15	-02	01	12.2	020
342	1972	03	17.95097	10	24	09.88	-02	01	09.4	020
344	1972	11	17.15805	05	44	08.59	+35	55	48.7	020
344	1972	11	17.17190	05	44	07.81	+35	55	53.4	020
344	1972	12	12.91704	05	15	31.88	+37	30	46.3	020
344	1972	12	12.92777	05	15	31.07	+37	30	47.5	020
347	1972	11	25.82495	02	15	47.76	+01	15	34.6	020
347	1972	11	25.82911	02	15	47.61	+01	15	34.3	020
347	1972	11	27.83681	02	14	21.68	+01	18	41.3	020
347	1972	11	27.84062	02	14	21.50	+01	18	41.4	020
347	1972	12	01.78917	02	11	47.04	+01	26	45.1	020
347	1972	12	01.79229	02	11	46.88	+01	26	45.2	020
349	1972	11	04.06958	04	57	18.11	+29	07	19.7	020
349	1972	11	04.07131	04	57	18.02	+29	07	20.6	020

349	1972	11	15.13926	04	49	03.28	+29	36	25.2	020
349	1972	11	15.14099	04	49	03.13	+29	36	26.4	020
349	1972	11	17.13415	04	47	16.98	+29	40	27.8	020
349	1972	11	17.13588	04	47	16.94	+29	40	28.2	020
349	1972	11	28.00952	04	36	37.80	+29	55	02.6	020
349	1972	11	28.01063	04	36	37.71	+29	55	02.5	020
349	1972	12	01.96058	04	32	31.97	+29	57	02.5	020
349	1972	12	01.96162	04	32	31.87	+29	57	02.7	020
349	1972	12	12.86233	04	21	29.37	+29	54	05.4	020
349	1972	12	12.86337	04	21	29.29	+29	54	04.8	020
352	1972	06	07.89226	15	40	08.11	-19	53	49.3	020
352	1972	06	07.90334	15	40	07.25	-19	53	51.4	020
360	1972	05	09.98598	15	43	33.49	-03	18	27.4	020
360	1972	05	09.99602	15	43	33.19	-03	18	22.6	020
360	1972	06	07.91338	15	22	26.76	-02	40	37.9	020
360	1972	06	07.92100	15	22	26.31	-02	40	36.8	020
364	1972	01	20.01516	06	47	43.75	+23	53	08.1	020
364	1972	01	20.02970	06	47	42.86	+23	53	14.5	020
369	1972	12	06.10912	05	54	41.39	+19	30	14.7	020
379	1972	02	22.85168	07	56	22.37	+19	09	55.2	020
379	1972	02	22.86969	07	56	21.57	+19	09	56.8	020
389	1972	10	18.06752	01	58	20.77	+24	43	11.9	020
389	1972	10	18.07356	01	58	20.36	+24	43	10.9	020
389	1972	11	25.80141	01	28	15.28	+20	31	54.0	020
389	1972	11	25.80383	01	28	15.19	+20	31	52.9	020
389	1972	11	27.78487	01	27	28.49	+20	19	07.9	020
389	1972	11	27.78729	01	27	28.43	+20	19	07.5	020
394	1972	10	30.02888	02	51	06.38	+11	26	04.1	020
394	1972	10	30.03302	02	51	06.12	+11	26	03.9	020
394	1972	11	03.98752	02	46	15.74	+11	18	34.5	020
394	1972	11	03.99167	02	46	15.49	+11	18	34.1	020
394	1972	12	01.83903	02	23	36.69	+11	07	17.4	020
394	1972	12	01.84284	02	23	36.54	+11	07	17.2	020
395	1972	08	21.92051	21	54	11.94	-07	17	11.9	020
395	1972	08	21.92675	21	54	11.21	-07	17	08.7	020
397	1972	01	07.79756	04	57	41.89	+09	34	38.4	020
397	1972	01	07.79999	04	57	41.81	+09	34	38.1	020
397	1972	01	19.78731	04	53	37.44	+09	30	24.2	020
397	1972	01	19.78974	04	53	37.43	+09	30	24.1	020
397	1972	01	20.81695	04	53	28.62	+09	31	02.8	020
397	1972	01	20.81903	04	53	28.63	+09	31	02.2	020
403	1972	10	29.88932	00	16	02.56	+12	24	27.6	020
403	1972	10	29.91426	00	16	01.62	+12	24	17.6	020
403	1972	11	03.91584	00	13	44.47	+11	48	40.2	020
403	1972	11	03.93938	00	13	43.92	+11	48	31.3	020
412	1972	10	29.89902	00	22	36.26	-18	36	13.9	020
416	1972	10	30.02888	02	44	37.47	+09	45	37.0	020
416	1972	10	30.03302	02	44	37.21	+09	45	36.6	020
416	1972	11	03.98752	02	39	59.51	+09	38	27.2	020
416	1972	11	03.99167	02	39	59.28	+09	38	26.9	020
416	1972	12	01.83903	02	17	11.88	+09	23	36.9	020
416	1972	12	01.84284	02	17	11.42	+09	23	37.3	020
424	1972	06	07.86559	14	20	34.12	-04	30	15.3	020
424	1972	06	07.87010	14	20	33.92	-04	30	16.4	020
425	1972	06	07.93658	16	38	57.06	-23	29	47.0	020
425	1972	06	07.94766	16	38	56.49	-23	29	47.2	020
426	1972	12	13.02023	06	38	48.74	+42	26	15.4	020
426	1972	12	13.02266	06	38	48.58	+42	26	15.1	020
433	1972	07	08.00738	22	54	12.85	-03	10	01.5	020

433	1972	07	13.08999	22	53	47.22	-02	20	33.6	020
433	1972	07	13.10799	22	53	46.94	-02	20	24.9	020
433	1972	07	18.05146	22	52	17.35	-01	35	05.6	020
433	1972	07	18.06669	22	52	16.92	-01	34	57.9	020
433	1972	07	20.04594	22	51	22.19	-01	17	43.0	020
433	1972	07	20.05633	22	51	21.91	-01	17	38.1	020
433	1972	08	21.93713	22	10	14.25	+01	39	04.5	020
433	1972	08	21.94198	22	10	13.66	+01	39	05.8	020
433	1972	08	21.94683	22	10	13.11	+01	39	06.3	020
433	1972	10	16.78873	21	13	00.48	+00	00	45.7	020
433	1972	10	16.79393	21	13	00.55	+00	00	44.7	020
433	1972	10	29.75774	21	20	55.80	+00	05	07.5	020
433	1972	10	29.76363	21	20	56.09	+00	05	08.0	020
433	1972	11	03.82027	21	25	49.11	+00	14	10.7	020
433	1972	11	03.82615	21	25	49.43	+00	14	12.7	020
433	1972	11	25.75708	21	56	19.39	+01	44	28.5	020
433	1972	11	25.77440	21	56	21.09	+01	44	34.8	020
433	1972	11	27.72876	21	59	41.13	+01	56	33.0	020
433	1972	11	27.73638	21	59	41.96	+01	56	36.5	020
433	1972	12	01.72373	22	06	45.94	+02	22	56.1	020
433	1972	12	01.72996	22	06	46.55	+02	22	59.2	020
433	1972	12	18.72406	22	40	35.20	+04	43	07.5	020
433	1972	12	18.73099	22	40	36.09	+04	43	12.2	020
448	1972	11	17.15805	05	42	02.92	+34	23	38.6	020
448	1972	11	17.17190	05	42	02.26	+34	23	42.0	020
448	1972	12	12.91704	05	18	01.32	+35	32	36.3	020
448	1972	12	12.92777	05	18	00.66	+35	32	36.7	020
450	1972	10	14.95175	23	49	08.43	-04	00	41.8	020
450	1972	10	14.96075	23	49	08.03	-04	00	41.9	020
450	1972	10	29.77817	23	41	20.12	-03	45	39.9	020
450	1972	10	29.79964	23	41	19.72	-03	45	36.6	020
455	1972	02	22.94933	09	05	17.89	+31	56	10.1	020
455	1972	02	22.95210	09	05	17.75	+31	56	10.2	020
459	1972	10	14.96906	00	11	04.45	-05	39	01.6	020
459	1972	10	14.97668	00	11	03.94	-05	38	58.4	020
459	1972	10	29.81141	23	59	26.69	-04	46	04.8	020
459	1972	10	29.83491	23	59	25.53	-04	45	58.1	020
459	1972	11	03.85593	23	58	28.76	-04	19	10.8	020
459	1972	11	03.88502	23	58	27.98	-04	18	59.7	020
465	1972	01	25.16359	09	59	00.88	+09	54	16.1	020
465	1972	01	25.16671	09	59	00.58	+09	54	16.5	020
471	1972	12	13.12273	11	44	35.79	+17	38	28.3	020
471	1972	12	13.12516	11	44	35.92	+17	38	28.2	020
471	1972	12	16.09237	11	46	46.61	+17	43	01.5	020
471	1972	12	16.09480	11	46	46.70	+17	43	01.9	020
472	1972	01	07.80310	05	00	47.74	+06	08	44.6	020
472	1972	01	07.80622	05	00	47.65	+06	08	46.7	020
472	1972	01	19.80359	04	55	22.01	+08	08	30.9	020
472	1972	01	19.80601	04	55	21.93	+08	08	32.5	020
488	1972	11	25.86235	02	30	39.60	+03	54	50.8	020
488	1972	11	25.86824	02	30	39.31	+03	54	50.5	020
488	1972	11	27.86208	02	29	18.03	+03	55	51.6	020
488	1972	11	27.86659	02	29	17.83	+03	55	51.5	020
488	1972	12	01.81653	02	26	47.43	+03	59	19.2	020
488	1972	12	01.82830	02	26	46.94	+03	59	19.8	020
490	1972	01	19.84549	05	26	29.19	+10	26	25.7	020
490	1972	01	19.86626	05	26	28.81	+10	26	29.2	020
499	1972	11	27.89186	02	39	35.91	+16	56	20.6	020
499	1972	11	27.89914	02	39	35.63	+16	56	20.5	020

499	1972	12	01.84977	02	37	30.29	+16	43	41.2	020
499	1972	12	01.85843	02	37	29.97	+16	43	40.0	020
517	1972	02	22.85168	07	57	25.27	+18	02	24.2	020
517	1972	02	22.86969	07	57	24.74	+18	02	24.3	020
524	1972	01	20.02139	06	52	55.43	+31	21	06.5	020
524	1972	01	20.02382	06	52	55.27	+31	21	06.7	020
524	1972	02	15.77869	06	36	52.69	+29	27	52.4	020
524	1972	02	15.79600	06	36	52.54	+29	27	48.0	020
532	1972	12	13.12758	11	15	41.56	+15	41	17.4	020
532	1972	12	13.12931	11	15	41.67	+15	41	17.3	020
532	1972	12	16.09740	11	19	08.87	+15	47	41.7	020
532	1972	12	16.09947	11	19	09.04	+15	47	42.2	020
538	1972	10	29.97797	00	56	45.09	-03	09	36.4	020
538	1972	10	29.98559	00	56	44.75	-03	09	37.2	020
545	1972	10	18.06752	01	46	28.89	+25	35	49.3	020
545	1972	10	18.07356	01	46	28.56	+25	35	47.5	020
551	1972	02	22.96769	09	20	17.37	+16	00	46.8	020
551	1972	02	22.97150	09	20	17.18	+16	00	47.5	020
554	1972	06	07.93678	16	27	24.19	-24	58	46.6	020
554	1972	06	07.94766	16	27	23.55	-24	58	44.7	020
558	1972	10	14.96906	00	16	29.33	-07	39	27.0	020
558	1972	10	14.97668	00	16	28.98	-07	39	29.4	020
563	1972	05	09.94175	14	17	00.61	-02	15	24.4	020
563	1972	05	09.95274	14	17	00.09	-02	15	22.5	020
563	1972	05	11.92740	14	15	25.14	-02	12	41.8	020
563	1972	05	11.93828	14	15	24.60	-02	12	40.6	020
569	1972	02	22.92302	08	57	15.58	+16	31	07.0	020
569	1972	02	22.93895	08	57	14.76	+16	31	09.9	020
572	1972	10	29.94404	00	53	34.29	+01	57	26.4	020
572	1972	10	29.96481	00	53	33.57	+01	57	13.1	020
589	1972	02	22.88423	08	27	14.05	+08	23	43.8	020
589	1972	02	22.90432	08	27	13.37	+08	23	51.0	020
592	1972	10	18.08761	02	17	07.93	+02	20	57.6	020
592	1972	10	18.09384	02	17	07.73	+02	20	54.5	020
592	1972	11	27.80980	01	51	35.07	-00	56	40.9	020
592	1972	11	27.81361	01	51	34.93	-00	56	41.4	020
593	1972	01	07.77956	04	51	10.76	+29	17	12.2	020
593	1972	01	07.78198	04	51	10.61	+29	17	13.7	020
593	1972	01	19.78264	04	45	08.44	+30	37	09.7	020
593	1972	01	19.78472	04	45	08.44	+30	37	10.1	020
593	1972	01	20.81245	04	44	53.86	+30	43	25.3	020
593	1972	01	20.81453	04	44	53.97	+30	43	25.8	020
599	1972	11	17.15805	05	46	29.35	+36	27	46.3	020
599	1972	11	17.17190	05	46	28.56	+36	27	53.0	020
634	1972	10	29.90421	00	40	13.68	-13	58	37.1	020
634	1972	10	29.90802	00	40	13.60	-13	58	36.2	020
647	1972	10	29.88932	00	21	38.25	+13	44	43.0	020
647	1972	10	29.91426	00	21	37.43	+13	44	29.6	020
647	1972	11	03.91584	00	19	29.99	+13	00	24.4	020
647	1972	11	03.93938	00	19	29.50	+13	00	13.5	020
654	1972	08	21.85541	20	25	18.73	-01	44	36.6	020
654	1972	08	21.85818	20	25	18.61	-01	44	35.0	020
662	1972	01	07.91391	06	57	00.17	+19	49	27.8	020
662	1972	01	07.91599	06	57	00.18	+19	49	27.4	020
678	1972	05	11.90434	14	02	51.38	-20	46	08.8	020
678	1972	05	11.91542	14	02	51.06	-20	46	05.9	020
690	1972	01	07.75480	04	22	21.71	+19	39	55.6	020
690	1972	01	07.75757	04	22	21.65	+19	39	54.8	020
690	1972	01	19.76030	04	20	07.53	+19	01	48.8	020

690	1972	01	19.76203	04	20	07.58	+19	01	48.8	020
692	1972	06	07.89226	15	28	57.14	-16	35	38.3	020
692	1972	06	07.90334	15	28	56.73	-16	35	37.4	020
712	1972	12	12.88276	04	58	52.63	+11	47	06.3	020
712	1972	12	12.88449	04	58	52.53	+11	47	05.3	020
714	1972	06	07.95909	17	19	25.19	-13	14	05.9	020
714	1972	06	07.96809	17	19	24.66	-13	14	02.4	020
714	1972	07	07.91111	16	54	23.51	-11	02	01.4	020
714	1972	07	07.93881	16	54	22.62	-11	01	57.3	020
718	1972	01	20.79774	04	23	45.95	+27	43	52.5	020
718	1972	01	20.80085	04	23	45.83	+27	43	53.3	020
726	1972	07	07.91111	17	07	09.41	-10	52	31.6	020
726	1972	07	07.93881	17	07	08.25	-10	52	23.9	020
736	1972	01	07.82284	05	19	18.05	+17	59	15.2	020
736	1972	01	07.83600	05	19	17.34	+17	59	17.1	020
736	1972	01	19.83579	05	11	38.78	+18	26	44.6	020
736	1972	01	19.85657	05	11	38.23	+18	26	48.5	020
739	1972	04	13.86721	11	05	45.27	+27	33	10.3	020
739	1972	04	13.86998	11	05	45.25	+27	33	11.3	020
739	1972	04	14.91435	11	05	35.79	+27	34	45.5	020
739	1972	04	14.91804	11	05	35.72	+27	34	45.5	020
742	1972	06	07.89226	15	27	59.87	-17	55	33.2	020
742	1972	06	07.90334	15	27	59.20	-17	55	34.7	020
750	1972	10	30.01259	02	28	28.34	+10	58	24.6	020
750	1972	10	30.02160	02	28	27.80	+10	58	22.6	020
750	1972	11	03.97124	02	23	26.99	+10	41	00.6	020
750	1972	11	03.98024	02	23	26.53	+10	40	59.3	020
756	1972	06	07.91338	15	22	35.63	-01	56	20.5	020
756	1972	06	07.92100	15	22	35.37	-01	56	18.0	020
758	1972	12	05.14803	06	36	03.80	+20	48	39.5	020
758	1972	12	05.15046	06	36	03.70	+20	48	39.3	020
758	1972	12	06.12730	06	35	24.16	+20	50	42.0	020
758	1972	12	06.12973	06	35	24.07	+20	50	42.6	020
760	1972	02	22.95591	09	17	08.19	+19	55	18.2	020
760	1972	02	22.95834	09	17	08.07	+19	55	18.1	020
762	1972	04	13.83812	10	39	55.95	-06	56	30.0	020
762	1972	04	13.84089	10	39	55.88	-06	56	29.1	020
762	1972	04	14.87487	10	39	37.28	-06	53	22.3	020
762	1972	04	14.87764	10	39	37.20	-06	53	20.8	020
776	1972	10	29.78994	23	25	16.26	-30	40	52.3	020
776	1972	10	29.79237	23	25	16.02	-30	40	51.4	020
783	1972	08	21.95237	22	16	42.23	-13	41	18.6	020
783	1972	08	21.95722	22	16	41.92	-13	41	16.6	020
834	1972	08	21.92051	21	54	12.10	-08	51	45.3	020
834	1972	08	21.92675	21	54	11.06	-08	51	51.2	020
838	1972	01	07.88517	06	02	18.57	+14	20	05.5	020
838	1972	01	07.89279	06	02	18.15	+14	20	06.7	020
838	1972	01	19.94660	05	53	29.63	+14	09	24.0	020
838	1972	01	19.96807	05	53	29.29	+14	09	24.8	020
850	1972	01	07.88517	06	02	54.62	+13	41	01.8	020
850	1972	01	07.89279	06	02	54.27	+13	41	06.5	020
850	1972	01	19.94660	05	53	57.95	+14	32	54.3	020
850	1972	01	19.96807	05	53	57.62	+14	32	57.5	020
857	1972	10	29.97797	01	06	44.83	-01	49	43.2	020
857	1972	10	29.98559	01	06	44.45	-01	49	41.8	020
872	1972	08	21.90735	21	30	59.23	-05	26	22.3	020
872	1972	08	21.91359	21	30	59.13	-05	26	23.8	020
906	1972	10	18.04190	01	27	06.92	+02	55	15.3	020
906	1972	10	18.04779	01	27	06.60	+02	55	17.0	020

912	1972	10	18.15201	04	03	08.81	+28	41	33.2	020
912	1972	10	18.15444	04	03	08.73	+28	41	33.5	020
912	1972	10	30.05865	03	54	59.59	+29	52	37.2	020
912	1972	10	30.06107	03	54	59.56	+29	52	37.7	020
912	1972	11	04.01868	03	50	31.52	+30	18	23.3	020
912	1972	11	04.02110	03	50	31.42	+30	18	23.3	020
912	1972	11	15.05236	03	38	56.97	+31	04	36.9	020
912	1972	11	15.05963	03	38	56.54	+31	04	39.0	020
912	1972	11	27.93272	03	24	20.24	+31	36	53.9	020
912	1972	11	27.93896	03	24	19.78	+31	36	54.2	020
912	1972	12	01.87863	03	20	01.27	+31	42	13.7	020
912	1972	12	01.88590	03	20	00.82	+31	42	10.7	020
912	1972	12	01.89167	03	20	00.49	+31	42	11.9	020
912	1972	12	01.89686	03	20	00.19	+31	42	13.5	020
912	1972	12	12.78199	03	09	27.26	+31	48	11.3	020
912	1972	12	12.78788	03	09	26.99	+31	48	11.4	020
920	1972	02	22.89255	08	33	36.92	+02	58	39.1	020
920	1972	02	22.89739	08	33	36.78	+02	58	40.7	020
925	1972	12	05.13487	06	14	44.78	+42	39	32.9	020
925	1972	12	05.13661	06	14	44.68	+42	39	31.9	020
925	1972	12	06.11449	06	13	36.48	+42	36	20.8	020
925	1972	12	06.11622	06	13	36.09	+42	36	22.7	020
962	1972	01	07.82284	05	19	22.08	+19	54	28.6	020
962	1972	01	07.83600	05	19	21.34	+19	54	30.5	020
975	1972	11	25.81699	01	52	43.41	+11	46	11.0	020
975	1972	11	25.83707	01	52	42.73	+11	46	09.4	020
975	1972	11	27.80045	01	51	43.79	+11	42	23.5	020
975	1972	11	27.82261	01	51	43.10	+11	42	20.5	020
975	1972	12	01.77740	01	50	00.78	+11	36	12.3	020
975	1972	12	01.80302	01	50	00.28	+11	36	10.1	020
987	1972	10	18.06752	01	50	38.10	+25	18	33.1	020
987	1972	10	18.07356	01	50	37.69	+25	18	32.1	020
1021	1972	11	04.05503	04	22	26.50	-06	03	16.0	020
1021	1972	11	04.05677	04	22	26.47	-06	03	14.4	020
1021	1972	11	17.09433	04	12	20.59	-05	50	25.3	020
1021	1972	11	17.09675	04	12	20.49	-05	50	23.7	020
1021	1972	12	01.94015	03	58	52.40	-04	20	23.7	020
1021	1972	12	01.94188	03	58	52.29	-04	20	22.9	020
1021	1972	12	12.84674	03	50	24.73	-02	26	18.0	020
1021	1972	12	12.84848	03	50	24.68	-02	26	17.7	020
1036	1972	10	15.00681	05	49	18.46	+09	51	04.8	020
1036	1972	10	15.01097	05	49	18.52	+09	50	56.8	020
1036	1972	10	15.01512	05	49	18.55	+09	50	49.1	020
1036	1972	10	18.11912	05	49	47.68	+08	13	42.0	020
1036	1972	10	18.12293	05	49	47.66	+08	13	34.6	020
1036	1972	10	18.12674	05	49	47.70	+08	13	27.9	020
1036	1972	10	30.08116	05	46	57.81	+02	04	12.1	020
1036	1972	10	30.08427	05	46	57.70	+02	04	05.9	020
1036	1972	10	30.08739	05	46	57.62	+02	04	01.8	020
1036	1972	11	04.04292	05	43	42.81	-00	21	32.8	020
1036	1972	11	04.04534	05	43	42.75	-00	21	37.1	020
1036	1972	11	04.04776	05	43	42.66	-00	21	41.1	020
1036	1972	11	15.07797	05	32	53.53	-05	12	20.1	020
1036	1972	11	15.08178	05	32	53.28	-05	12	26.1	020
1036	1972	11	15.08559	05	32	53.00	-05	12	30.8	020
1036	1972	11	17.06593	05	30	32.15	-05	58	13.7	020
1036	1972	11	17.06922	05	30	31.98	-05	58	17.4	020
1036	1972	11	17.07251	05	30	31.65	-05	58	23.4	020
1036	1972	11	28.01340	05	16	22.77	-09	26	39.7	020

1036	1972	11	28.01583	05	16	22.57	-09	26	42.8	020
1036	1972	11	28.01825	05	16	22.40	-09	26	44.1	020
1036	1972	12	01.96439	05	11	06.31	-10	22	03.8	020
1036	1972	12	01.96681	05	11	06.10	-10	22	06.3	020
1036	1972	12	01.96923	05	11	05.96	-10	22	08.2	020
1036	1972	12	06.09787	05	05	41.60	-11	08	28.1	020
1036	1972	12	06.10099	05	05	41.36	-11	08	30.0	020
1036	1972	12	06.10410	05	05	41.05	-11	08	31.3	020
1036	1972	12	12.87341	04	57	25.67	-11	59	48.4	020
1036	1972	12	12.87652	04	57	25.43	-11	59	48.8	020
1036	1972	12	12.87964	04	57	25.22	-11	59	49.5	020
1036	1972	12	16.01065	04	53	57.06	-12	13	50.8	020
1036	1972	12	16.01377	04	53	56.81	-12	13	51.8	020
1036	1972	12	16.01689	04	53	56.59	-12	13	52.4	020
1059	1972	07	07.91111	17	04	30.17	-06	11	31.2	020
1059	1972	07	07.93881	17	04	29.42	-06	11	33.0	020
1107	1972	12	01.81653	02	34	01.49	+05	41	12.7	020
1107	1972	12	01.82830	02	34	00.96	+05	41	12.9	020
1137	1972	01	20.01516	06	36	46.52	+26	27	39.5	020
1137	1972	01	20.02570	06	36	45.88	+26	27	42.5	020
1186	1972	12	01.84977	02	39	06.75	+17	56	41.0	020
1186	1972	12	01.85843	02	39	06.29	+17	56	40.8	020
1204	1972	11	27.89186	02	27	53.18	+17	07	56.5	020
1204	1972	11	27.89914	02	27	52.81	+17	07	54.3	020
1212	1972	02	22.85168	08	12	19.64	+16	34	03.4	020
1212	1972	02	22.86969	08	12	18.66	+16	34	04.8	020
1243	1972	10	18.06752	01	54	56.31	+23	35	18.9	020
1243	1972	10	18.07356	01	54	55.91	+23	35	18.7	020
1296	1972	02	22.97634	09	55	09.88	+04	52	33.4	020
1296	1972	02	22.98119	09	55	09.56	+04	52	34.1	020
1307	1972	02	15.83721	07	31	39.96	+15	02	23.2	020
1307	1972	02	15.85660	07	31	38.65	+15	02	24.9	020
1333	1972	01	07.88517	06	05	05.68	+15	47	49.5	020
1333	1972	01	07.89279	06	05	05.24	+15	47	54.7	020
1333	1972	01	19.94660	05	55	29.02	+17	35	31.5	020
1333	1972	01	19.96807	05	55	28.84	+17	35	34.7	020
1334	1972	02	22.85168	07	55	46.54	+19	15	26.8	020
1334	1972	02	22.86969	07	55	45.67	+19	15	35.5	020
1339	1972	01	20.01516	06	53	27.87	+23	45	53.1	020
1339	1972	01	20.02570	06	53	27.59	+23	45	46.8	020
1368	1972	10	29.77817	23	42	43.26	-05	43	27.0	020
1368	1972	10	29.79964	23	42	42.70	-05	43	22.0	020
1416	1972	11	27.91818	03	17	32.41	+33	08	25.8	020
1416	1972	11	27.92545	03	17	31.99	+33	08	24.7	020
1416	1972	12	01.87863	03	13	54.84	+32	55	44.5	020
1416	1972	12	01.88590	03	13	54.48	+32	55	44.3	020
1416	1972	12	12.78199	03	05	36.57	+32	13	46.4	020
1416	1972	12	12.78788	03	05	36.33	+32	13	44.8	020
1499	1972	06	07.89226	15	37	34.32	-17	34	49.0	020
1499	1972	06	07.90334	15	37	34.13	-17	34	47.4	020
1506	1972	06	07.95909	17	18	20.96	-12	16	00.0	020
1506	1972	06	07.96809	17	18	20.58	-12	15	55.6	020
1555	1972	10	29.95096	00	57	29.77	+18	09	52.3	020
1555	1972	10	29.95789	00	57	29.51	+18	09	51.8	020
1576	1972	02	22.85168	07	56	38.87	+19	54	08.4	020
1576	1972	02	22.86969	07	56	38.20	+19	54	09.8	020
1609	1972	10	29.81903	23	53	59.06	-33	01	08.2	020
1609	1972	10	29.82284	23	53	58.96	-33	01	00.9	020
1614	1972	02	22.88423	08	23	41.58	+09	25	25.7	020

1614	1972	02	22.90432	08	23	41.05	+09	25	39.2	020
1648	1972	10	18.04190	01	41	45.82	+02	29	04.1	020
1648	1972	10	18.04779	01	41	45.36	+02	29	03.7	020
1685	1972	07	07.96305	21	31	45.96	-00	11	48.0	020
1685	1972	07	08.03750	21	31	49.54	-00	07	55.9	020
1685	1972	07	18.04280	21	41	37.05	+11	14	24.9	020
1685	1972	07	18.05942	21	41	37.87	+11	15	52.1	020
1685	1972	07	20.02032	21	43	46.60	+14	16	53.9	020
1685	1972	07	20.03070	21	43	47.43	+14	17	55.7	020
1685	1972	07	20.03763	21	43	47.68	+14	18	34.7	020
1738	1972	10	14.96906	00	05	05.00	-05	33	21.0	020
1738	1972	10	14.97668	00	05	04.51	-05	33	18.6	020
1738	1972	10	29.81141	23	58	33.84	-04	43	32.7	020
1738	1972	10	29.83496	23	58	33.42	-04	43	26.8	020

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

Object	Date	UT	R. A. (1950)			Decl.	Mag.	Obs.			
302	1980	12	08.85245	05	33	44.67	+29	19	21.8	046	
302	1980	12	08.86663	05	33	43.78	+29	19	22.3	046	
396	1980	12	12.81625	03	06	24.26	+18	12	31.3	046	
396	1980	12	12.83049	03	06	23.70	+18	12	27.2	046	
1073	1980	12	01.84633	03	06	37.56	+18	12	39.4	046	
1073	1980	12	01.86080	03	06	36.84	+18	12	38.1	046	
1073	1980	12	08.81542	03	02	08.91	+17	56	39.0	046	
1073	1980	12	08.82977	03	02	08.48	+17	56	37.1	046	
1619	1980	12	12.81625	03	10	54.61	+18	43	43.0	046	
1619	1980	12	12.83049	03	10	54.13	+18	43	45.1	046	
1970	1980	12	08.77745	03	46	52.67	+30	20	28.6	16.5	046
1970	1980	12	08.79163	03	46	51.73	+30	20	25.6	046	
2333	1980	12	01.88638	03	56	52.95	+29	15	55.4	15.4	046
2333	1980	12	01.90067	03	56	51.79	+29	15	55.9	046	
2333	1980	12	08.77745	03	49	05.85	+29	21	30.8	046	
2333	1980	12	08.79163	03	49	04.97	+29	21	31.8	046	
1979 PB	1980	12	01.84633	03	06	59.21	+17	59	29.1	046	
1979 PB	1980	12	01.86080	03	06	58.49	+17	59	28.1	046	
1979 PB	1980	12	08.81542	03	02	02.93	+17	26	57.1	046	
1979 PB	1980	12	08.82977	03	02	02.36	+17	26	52.0	046	
1979 QE	1980	12	01.92440	05	43	38.81	+29	02	23.2	046	
1979 QE	1980	12	01.93867	05	43	38.08	+29	02	19.4	046	
1979 QE	1980	12	08.85245	05	37	10.73	+28	36	20.9	046	
1979 QE	1980	12	08.86663	05	37	09.93	+28	36	17.5	046	
1979 QE	1980	12	12.89108	05	33	14.16	+28	19	17.2	046	
1979 QE	1980	12	12.90531	05	33	13.23	+28	19	12.0	046	
1980 SO	1980	12	07.73525	23	44	05.54	+09	45	14.5	17.0	046
1980 SO	1980	12	07.74949	23	44	06.08	+09	45	18.4	046	
1980 VW	1980	12	08.81542	03	06	18.22	+19	35	04.5	17.5	046
1980 VW	1980	12	08.82977	03	06	17.48	+19	35	03.6	046	
1980 VW	1980	12	12.81625	03	03	36.38	+19	34	49.7	046	
1980 VW	1980	12	12.83049	03	03	35.47	+19	34	48.9	046	
1980 VX	1980	12	01.84633	03	12	39.32	+19	37	05.0	16.8	046
1980 VX	1980	12	01.86080	03	12	38.55	+19	37	02.1	046	
1980 VX	1980	12	08.81542	03	07	11.00	+19	01	16.5	046	
1980 VX	1980	12	08.82977	03	07	10.31	+19	01	13.9	046	
1980 VX	1980	12	12.81625	03	04	43.73	+18	43	07.2	046	
1980 VX	1980	12	12.83049	03	04	43.25	+18	43	03.7	046	
1980 XM *	1980	12	01.88638	03	53	55.25	+30	55	13.8	16.8	046
1980 XM	1980	12	01.90067	03	53	54.41	+30	55	14.3	046	
1980 XM	1980	12	08.77745	03	47	23.72	+30	44	38.0	046	
1980 XM	1980	12	08.79163	03	47	22.86	+30	44	37.1	046	

1980 XN	*	1980 12 01.92440	05 45 46.13	+29 00 00.9	18.0	046
1980 XN		1980 12 01.93867	05 45 45.10	+29 00 07.2		046
1980 XO	*	1980 12 08.81542	03 10 18.69	+19 27 54.4		046
1980 XO		1980 12 08.82977	03 10 17.62	+19 27 54.5		046
1980 XP	*	1980 12 08.81542	03 12 26.69	+18 22 57.5	16.0	046
1980 XP		1980 12 08.82977	03 12 26.13	+18 22 51.5		046
1980 XP		1980 12 12.81625	03 10 11.51	+18 00 07.1		046
1980 XP		1980 12 12.83049	03 10 11.06	+18 00 03.5		046
1980 XQ	*	1980 12 08.85245	05 36 59.64	+28 38 57.9	17.5	046
1980 XQ		1980 12 08.86663	05 36 58.56	+28 38 58.3		046
1980 XQ		1980 12 12.90531	05 31 57.30	+28 28 35.2		046
1980 XR	*	1980 12 12.81625	03 05 42.18	+18 56 52.7	17.6	046
1980 XR		1980 12 12.83049	03 05 41.54	+18 56 55.8		046
1980 XS	*	1980 12 12.81625	03 09 18.75	+19 29 26.3	17.8	046
1980 XS		1980 12 12.83049	03 09 17.55	+19 29 41.2		046
1980 XT	*	1980 12 12.81625	03 11 14.38	+19 16 25.4	17.8	046
1980 XT		1980 12 12.83049	03 11 13.88	+19 16 23.0		046

OBSERVATIONS MADE AT THE PURPLE MOUNTAIN OBSERVATORY UNDER THE DIRECTION OF
J.-X. ZHANG. FROM CHINESE ASTRON. CIRC. NO. 7.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
1979 BH	*	1979 01 18.58458	08 24 57.82	+27 00 40.7	330
1979 BH		1979 01 25.57693	08 18 07.05	+28 34 45.4	330
1979 BH		1979 02 20.54206	07 57 34.96	+32 43 28.4	330
1979 SQ		1979 09 25.57853	23 26 34.04	+02 17 01.4	330
1979 SQ		1979 09 28.58478	23 24 10.88	+02 01 50.2	330
1979 SQ		1979 10 10.46538	23 16 21.69	+01 06 03.7	330
1979 SB1	*	1979 09 26.63478	00 33 22.60	+03 01 39.7	330
1979 SB1		1979 10 11.55080	00 22 37.16	-00 42 18.7	330
1979 SB1		1979 10 15.50635	00 20 15.85	-01 33 16.1	330
1979 SB1		1979 10 19.51469	00 18 13.51	-02 19 46.3	330
1979 SB1		1979 10 22.50983	00 16 57.20	-02 51 00.1	330
1979 SB1		1979 10 27.63066	00 15 19.67	-03 37 11.9	330
1979 SC1	*	1979 09 27.67645	00 18 25.40	-05 33 29.4	330
1979 SC1		1979 10 10.54316	00 08 39.88	-06 28 02.3	330
1979 SC1		1979 10 15.59108	00 05 23.08	-06 41 52.7	330
1979 SC1		1979 10 19.56955	00 03 09.07	-06 49 12.2	330
1979 SC1		1979 10 26.54455	00 00 06.69	-06 54 06.1	330
1979 TH	*	1979 10 10.54316	00 23 04.37	-08 58 33.1	330
1979 TH		1979 10 15.59108	00 19 09.31	-09 09 46.5	330
1979 TH		1979 10 19.56955	00 16 28.77	-09 13 39.3	330
1979 TH		1979 10 26.51330	00 12 51.36	-09 09 41.7	330
1979 TJ	*	1979 10 12.49802	00 49 36.16	+03 12 36.4	330
1979 TJ		1979 10 16.53483	00 45 39.32	+02 57 40.5	330
1979 TJ		1979 10 21.59108	00 41 00.29	+02 41 10.8	330
1979 TJ		1979 10 26.57949	00 36 55.11	+02 28 19.0	330
1979 TK	*	1979 10 12.52580	00 39 43.56	-00 20 38.4	330
1979 TK		1979 10 16.53483	00 35 51.45	-00 23 04.6	330
1979 TK		1979 10 21.59108	00 31 28.18	-00 22 43.8	330
1979 TK		1979 10 26.57649	00 27 49.58	-00 18 16.3	330
1979 TL	*	1979 10 12.52580	00 52 30.28	-01 00 16.3	330
1979 TL		1979 10 16.53483	00 48 36.74	-01 12 02.0	330
1979 TL		1979 10 21.59108	00 43 58.76	-01 22 50.7	330
1979 TL		1979 10 26.57649	00 39 54.60	-01 28 31.2	330
1979 UA2	*	1979 10 18.59490	01 26 53.49	+05 36 14.3	330
1979 UA2		1979 10 21.53899	01 24 25.65	+05 24 47.3	330
1979 UA2		1979 10 27.67858	01 19 29.26	+05 02 45.1	330
1979 UA2		1979 11 19.55892	01 05 53.01	+04 15 07.7	330
1979 UB2	*	1979 10 19.61816	02 02 22.45	+19 17 11.2	330

1979 UB2	1979 10	22.60983	01 59	25.88	+19 12	31.2	330
1979 UB2	1979 10	26.64108	01 55	26.76	+19 04	41.5	330
1979 UB2	1979 11	19.61726	01 35	11.73	+18 02	24.1	330
1979 UB2	1979 11	23.45648	01 32	59.70	+17 53	07.6	330
1979 UC2 *	1979 10	19.61816	02 03	19.05	+18 20	30.2	330
1979 UC2	1979 10	22.60983	02 00	31.66	+18 18	01.9	330
1979 UC2	1979 10	26.64108	01 56	43.58	+18 13	19.9	330
1979 UC2	1979 11	19.61726	01 36	59.20	+17 31	34.6	330
1979 UC2	1979 11	23.45648	01 34	46.26	+17 25	25.4	330

OBSERVATIONS MADE AT GEISEI BY T. SEKI. IN PART FROM NIHONDAIRA OBS.
CIRC. NO. 1167 AND ORIENT. ASTRON. ASSOC. COMET BULL. NOS. 206-209.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
/1980h	1980 11	13.79931	10 18	48.8	+27 32 31	8.8T 372
/1980q	1980 11	13.49903	18 00	29.1	+37 50 20	13 T 372
/1980q	1980 11	13.51968	18 00	28.0	+37 49 37	372
/1980q	1980 11	24.42092	17 55	57.68	+32 45 09.1	15 T 372
/1980q	1980 11	26.44028	17 55	28.32	+31 57 33.7	15 T 372
/1980q	1980 11	26.44514	17 55	28.30	+31 57 27.9	372
/1980u	1980 12	28.40625	18 48	14.47	+39 32 01.3	10 T 372
/1980u	1980 12	29.42986	18 48	45.24	+39 47 40.5	10 T 372
/1980u	1980 12	30.86386	18 49	30.09	+40 10 23.6	10 T 372
/1981a	1981 01	02.79757	11 05	15.13	+36 04 06.8	18 T 372
/1981a	1981 01	03.78333	11 05	18.72	+36 08 45.0	372
/1981a	1981 01	03.80799	11 05	18.80	+36 08 50.2	372
1862	1980 11	26.51632	01 15	26.56	+29 24 45.3	13.5 372
1862	1980 11	26.52153	01 15	28.85	+29 24 47.0	372
2312	1980 11	29.52813	01 42	07.58	+07 31 54.7	17 372
2312	1980 12	01.44444	01 41	31.66	+07 31 57.0	17 372
2312	1980 12	01.55660	01 41	29.50	+07 31 54.7	372
1980 VB	1980 12	07.50745	01 51	14.26	+03 04 47.4	16.5 372
1980 VB	1980 12	07.52708	01 51	14.11	+03 04 57.3	372

OBSERVATION MADE AT THE TOKYO OBSERVATORY'S KISO STATION BY H. KOSAI.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N Obs.
/1981a	1981 01	08.76749	11 05	10.65	+36 33 12.9	17 1 381

Note 1: tail 0 .3 long in p.a. 280 .

OBSERVATIONS MADE AT YATSUKATAKE OBSERVATORY BY T. URATA. FROM NIHON-DAIRA OBS. CIRC. NO. 1167.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
/1980g	1980 12	01.83958	05 31	11.55	+19 57 31.9	386
/1980g	1980 12	01.84282	05 31	11.55	+19 57 40.1	386
/1980g	1980 12	01.84572	05 31	11.53	+19 57 46.1	386
/1980g	1980 12	11.71528	05 31	46.72	+25 26 16.8	386
/1980g	1980 12	11.71970	05 31	46.69	+25 26 23.8	386
/1980g	1980 12	11.72474	05 31	46.66	+25 26 35.1	386
/1980h	1980 12	01.82894	10 47	59.35	-11 56 37.0	386
/1980h	1980 12	01.83108	10 47	59.52	-11 56 57.2	386
/1980h	1980 12	01.83328	10 47	59.75	-11 57 16.5	386
1980 VB	1980 12	11.46056	01 50	29.60	+03 42 33.9	16 386
1980 VB	1980 12	11.47188	01 50	29.45	+03 42 41.0	386

OBSERVATIONS MADE AT SIDING SPRING (CODE 413) AND AT PALOMAR (CODE 675).
SCANNED, IDENTIFIED AND MEASURED BY S. J. BUS.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
287	1979 07	24.24444	19 48	43.34	-13 42 25.5	13.0 675
287	1979 07	24.56597	19 48	25.18	-13 44 51.2	413
287	1979 07	25.24097	19 47	47.42	-13 50 12.2	675

287		1979 07 26.18819	19 46 54.81	-13 57 39.3		675
287		1979 07 28.47749	19 44 48.81	-14 15 38.3		413
585		1979 07 24.56597	19 56 51.92	-10 01 56.4	16.5	413
585		1979 07 26.18819	19 55 21.53	-10 09 10.4		675
585		1979 07 28.47749	19 53 14.56	-10 19 35.1		413
608		1979 07 24.30208	20 05 16.15	-18 49 29.9	16.5	675
608		1979 07 24.51944	20 05 04.47	-18 49 19.4		413
608		1979 07 25.31042	20 04 21.29	-18 48 52.9		675
608		1979 07 27.18542	20 02 39.67	-18 47 43.8		675
933		1979 07 24.51944	20 00 51.22	-17 10 28.4	17.0	413
933		1979 07 26.19722	19 59 11.67	-17 18 41.5		675
933		1979 07 27.18542	19 58 13.52	-17 23 32.0		675
933		1979 07 27.30486	19 58 06.33	-17 24 06.9		675
933		1979 08 23.19097	19 36 57.64	-19 20 26.2	16.5	675
1244		1979 07 24.24444	19 49 20.81	-15 34 50.2	16.5	675
1244		1979 07 24.51944	19 49 03.11	-15 34 37.2		413
1244		1979 07 24.56597	19 49 00.13	-15 34 36.4	16.5	413
1244		1979 07 25.24097	19 48 17.46	-15 34 20.4		675
1244		1979 07 26.18819	19 47 17.68	-15 33 54.4		675
1244		1979 07 27.18542	19 46 15.11	-15 33 27.8		675
1244		1979 07 28.47749	19 44 55.40	-15 32 53.1		413
1244		1979 08 23.19097	19 25 17.11	-15 28 11.1	16.0	675
1789		1979 07 24.30208	20 13 16.51	-21 25 36.2	16.0	675
1789		1979 07 25.31042	20 12 22.53	-21 30 27.1		675
1827		1979 07 24.24444	19 52 48.92	-14 17 31.8	18.0	675
1827		1979 07 24.56597	19 52 31.89	-14 18 16.7		413
1827		1979 07 25.29306	19 51 53.82	-14 19 59.5		675
1827		1979 07 26.18819	19 51 07.01	-14 22 09.6		675
1827		1979 07 26.24931	19 51 03.55	-14 22 17.2		675
1827		1979 07 28.47749	19 49 07.69	-14 27 39.3		413
1827		1979 08 23.19097	19 30 52.36	-15 32 16.3	17.5	675
1968	HK1	1979 07 24.24444	19 45 28.35	-13 14 00.9	17.5	675
1968	HK1	1979 07 24.56597	19 45 09.77	-13 15 54.3		413
1968	HK1	1979 07 25.24097	19 44 31.23	-13 20 09.7		675
1968	HK1	1979 07 26.18819	19 43 37.78	-13 26 02.2		675
1968	HK1	1979 07 28.47749	19 41 30.66	-13 40 15.4		413
1974	OS	1979 07 24.30208	20 03 08.82	-21 36 48.5	17.5	675
1974	OS	1979 07 24.51944	20 02 57.36	-21 36 48.2		413
1974	OS	1979 07 25.31042	20 02 15.03	-21 36 56.7		675
1974	OS	1979 07 27.18542	20 00 35.54	-21 37 08.8		675
1979	MA	1979 07 24.56597	19 46 25.86	-11 10 53.4	19.0	413
1979	MA	1979 07 26.18819	19 44 22.71	-10 58 58.6		675
1979	MA	1979 07 28.47749	19 41 34.05	-10 42 36.2		413
1979	MK1	1979 07 24.24444	19 42 39.94	-17 41 47.2	18.0	675
1979	MK1	1979 07 24.51944	19 42 24.43	-17 42 55.7		413
1979	MK1	1979 07 25.24097	19 41 43.44	-17 46 27.2		675
1979	MK1	1979 08 23.19097	19 23 59.93	-19 44 38.4	18.0	675
1979	ML1	1979 07 24.24444	19 41 31.95	-16 34 01.3	18.0	675
1979	ML1	1979 07 24.51944	19 41 15.28	-16 33 29.5		413
1979	ML1	1979 07 25.24097	19 40 31.74	-16 32 41.7		675
1979	ML1	1979 08 23.20486	19 20 42.61	-16 04 29.4	17.5	675
1979	MM1	1979 07 24.24444	19 47 41.87	-15 59 00.1	18.5	675
1979	MM1	1979 07 24.51944	19 47 28.98	-16 00 46.7		413
1979	MM1	1979 07 25.24097	19 46 55.27	-16 05 40.3		675
1979	MM1	1979 07 27.18542	19 45 24.96	-16 18 44.0		675
1979	MN1	1979 07 24.24444	19 42 02.99	-19 04 37.3	18.5	675
1979	MN1	1979 07 24.51944	19 41 46.37	-19 05 34.5		413
1979	MN1	1979 07 25.24097	19 41 02.28	-19 08 20.3		675
1979	MP1	1979 07 24.24444	19 45 00.20	-18 52 34.1	18.5	675

1979 MP1	1979 07 24.51944	19 44 44.88	-18 53 20.1	413
1979 MP1	1979 07 25.29306	19 44 01.08	-18 55 57.5	675
1979 MP1	1979 07 27.18542	19 42 16.22	-19 01 59.0	675
1979 MP1	1979 08 23.20486	19 24 57.93	-20 13 40.0	18.5 675
1979 MQ1	1979 07 24.24444	19 42 23.81	-15 15 33.8	18.5 675
1979 MQ1	1979 07 24.56597	19 42 04.77	-15 14 22.8	413
1979 MQ1	1979 07 25.29306	19 41 22.34	-15 12 01.0	675
1979 MQ1	1979 08 22.26736	19 21 54.02	-13 57 33.9	19.0 675
1979 MR1	1979 07 24.24444	19 48 46.39	-19 04 59.6	19.0 675
1979 MR1	1979 07 24.51944	19 48 33.17	-19 05 49.4	413
1979 MR1	1979 07 25.29306	19 47 55.92	-19 08 31.0	675
1979 MR1	1979 07 27.18542	19 46 25.21	-19 14 52.7	675
1979 MS1	1979 07 24.24444	19 47 48.54	-18 17 05.1	19.0 675
1979 MS1	1979 07 24.51944	19 47 34.92	-18 17 47.2	413
1979 MS1	1979 07 25.24097	19 46 58.84	-18 19 54.1	675
1979 MS1	1979 07 27.18542	19 45 22.64	-18 25 23.9	675
1979 MV1	1979 07 24.24444	19 45 31.03	-17 45 54.8	18.5 675
1979 MV1	1979 07 24.51944	19 45 15.69	-17 47 39.6	413
1979 MV1	1979 07 25.24097	19 44 35.10	-17 52 40.1	675
1979 MV1	1979 07 27.18542	19 42 47.79	-18 05 49.1	675
1979 MW1	1979 07 24.24444	19 46 05.62	-14 44 02.3	18.5 675
1979 MW1	1979 07 24.56597	19 45 47.22	-14 44 21.1	413
1979 MW1	1979 07 25.24097	19 45 09.54	-14 45 14.9	675
1979 MW1	1979 07 26.18819	19 44 16.54	-14 46 27.2	675
1979 MW1	1979 07 28.47749	19 42 09.30	-14 49 25.6	413
1979 MW1	1979 08 23.19097	19 24 20.94	-15 30 47.1	18.0 675
1979 MX1	1979 07 24.24444	19 46 00.10	-18 35 03.8	19.0 675
1979 MX1	1979 07 24.51944	19 45 45.40	-18 35 20.7	413
1979 MX1	1979 07 25.24097	19 45 06.81	-18 36 22.4	675
1979 MX1	1979 07 27.18542	19 43 24.30	-18 38 54.7	675
1979 MX1	1979 08 23.19097	19 25 28.94	-19 06 20.2	19.0 675
1979 MZ1	1979 07 24.24444	19 47 57.96	-18 01 45.0	19.5 675
1979 MZ1	1979 07 24.51944	19 47 43.86	-18 02 55.0	413
1979 MZ1	1979 07 25.24097	19 47 06.72	-18 06 19.8	675
1979 MC2	1979 07 24.24444	19 48 01.08	-17 42 47.2	18.0 675
1979 MC2	1979 07 24.51944	19 47 46.89	-17 43 25.4	413
1979 MC2	1979 07 25.24097	19 47 09.64	-17 45 21.9	675
1979 MC2	1979 07 27.18542	19 45 30.57	-17 50 24.2	675
1979 MC2	1979 08 23.19097	19 28 07.32	-18 52 36.8	18.0 675
1979 MD2	1979 07 24.24444	19 43 53.65	-16 00 51.4	19.0 675
1979 MD2	1979 07 24.51944	19 43 36.49	-16 01 39.5	413
1979 MD2	1979 07 25.24097	19 42 51.67	-16 04 08.1	675
1979 ME2	1979 07 24.29653	19 52 44.26	-18 28 09.9	19.0 675
1979 ME2	1979 07 24.51944	19 52 33.29	-18 30 06.6	413
1979 ME2	1979 07 27.18542	19 50 22.91	-18 55 27.8	675
1979 ME2	1979 08 23.25347	19 35 24.12	-22 51 51.8	19.0 675
1979 MF2	1979 07 24.24444	19 50 41.81	-18 55 37.7	18.0 675
1979 MF2	1979 07 24.30208	19 50 39.02	-18 55 48.3	675
1979 MF2	1979 07 24.51944	19 50 27.87	-18 56 15.6	413
1979 MF2	1979 07 25.24097	19 49 50.88	-18 58 35.4	675
1979 MF2	1979 07 27.18542	19 48 13.62	-19 04 23.6	675
1979 MF2	1979 08 23.20486	19 34 50.27	-20 08 12.5	18.0 675
1979 MG2	1979 07 24.24444	19 44 27.55	-18 52 21.0	19.5 675
1979 MG2	1979 07 24.55069	19 44 08.12	-18 53 41.3	413
1979 MG2	1979 07 25.24097	19 43 23.82	-18 57 10.2	675
1979 MH2	1979 07 24.24444	19 50 37.62	-14 54 27.1	19.0 675
1979 MH2	1979 07 24.56597	19 50 22.29	-14 55 12.9	413
1979 MH2	1979 07 25.29306	19 49 48.08	-14 57 04.2	675
1979 MH2	1979 07 26.18819	19 49 05.92	-14 59 21.9	675

1979 MH2	1979 07 28.47749	19 47 19.27	-15 05 13.1		413
1979 MH2	1979 08 23.19097	19 32 08.59	-16 14 01.2	18.5	675
1979 MK2	1979 07 24.51944	19 46 21.41	-20 28 27.5	17.5	413
1979 MK2	1979 07 27.18542	19 43 58.21	-20 42 06.2		675
1979 MK2	1979 08 23.22569	19 26 36.24	-22 30 42.3	17.0	675
1979 ML2	1979 07 24.24444	19 52 15.39	-16 19 31.9	17.5	675
1979 ML2	1979 07 24.51944	19 52 02.75	-16 21 49.1		413
1979 ML2	1979 07 25.24097	19 51 29.99	-16 28 06.8		675
1979 ML2	1979 07 26.19722	19 50 46.76	-16 36 23.2		675
1979 ML2	1979 07 27.18542	19 50 02.33	-16 44 51.8		675
1979 ML2	1979 08 23.19097	19 35 29.23	-20 18 07.0	17.5	675
1979 MM2	1979 07 24.24444	19 46 25.19	-14 54 34.2	19.5	675
1979 MM2	1979 07 24.56597	19 46 06.14	-14 54 25.3		413
1979 MM2	1979 07 25.24097	19 45 27.17	-14 54 26.1		675
1979 MM2	1979 07 28.47749	19 42 22.61	-14 54 13.1		413
1979 MM2	1979 08 23.19097	19 25 48.03	-15 04 58.4	19.0	675
1979 MN2	1979 07 24.24444	19 49 04.44	-18 20 54.1	17.5	675
1979 MN2	1979 07 24.51944	19 48 48.74	-18 22 08.9		413
1979 MN2	1979 07 25.24097	19 48 07.45	-18 25 51.1		675
1979 MN2	1979 07 27.18542	19 46 17.46	-18 35 34.1		675
1979 MN2	1979 08 23.22569	19 27 57.48	-20 35 37.5	17.5	675
1979 MO2	1979 07 24.56597	19 50 28.41	-11 54 06.0	19.0	413
1979 MO2	1979 07 26.18819	19 49 04.56	-11 57 11.6		675
1979 MO2	1979 07 28.47749	19 47 08.56	-12 01 40.9		413
1979 MO2	1979 08 22.27951	19 34 39.26	-13 15 56.7	19.0	675
1979 MP2	1979 07 24.24444	19 49 06.51	-15 04 22.3	19.5	675
1979 MP2	1979 07 24.56597	19 48 49.65	-15 04 16.0		413
1979 MP2	1979 07 25.24097	19 48 14.86	-15 04 11.9		675
1979 MP2	1979 07 28.47749	19 45 29.51	-15 03 50.1		413
1979 MP2	1979 08 23.19097	19 28 52.23	-15 07 53.3	19.5	675
1979 MQ2	1979 07 24.24444	19 48 23.51	-14 33 28.1	19.0	675
1979 MQ2	1979 07 24.56597	19 48 05.63	-14 35 01.5		413
1979 MQ2	1979 07 25.24097	19 47 29.17	-14 38 37.2		675
1979 MQ2	1979 07 28.47749	19 44 37.01	-14 55 26.0		413
1979 MQ2	1979 08 23.19097	19 29 19.27	-17 03 28.4	19.0	675
1979 MR2	1979 07 24.24444	19 50 05.33	-19 03 31.5	18.5	675
1979 MR2	1979 07 24.51944	19 49 50.96	-19 04 05.0		413
1979 MR2	1979 07 25.24097	19 49 12.82	-19 05 50.1		675
1979 MR2	1979 07 27.18542	19 47 31.56	-19 10 19.6		675
1979 MR2	1979 08 23.19097	19 29 02.94	-20 01 28.6	18.0	675
1979 MS2	1979 07 24.24444	19 48 27.72	-16 34 21.2	19.0	675
1979 MS2	1979 07 24.51944	19 48 11.87	-16 34 58.0		413
1979 MS2	1979 07 25.24097	19 47 30.81	-16 37 02.0		675
1979 MS2	1979 08 23.19097	19 28 57.93	-17 50 13.5	19.5	675
1979 MT2	1979 07 24.51944	19 48 59.42	-17 31 23.1	19.5	413
1979 MT2	1979 08 23.19097	19 28 53.96	-17 09 01.6	19.5	675
1979 MU2	1979 07 24.56597	19 53 45.13	-14 27 53.3	19.0	413
1979 MU2	1979 07 25.24097	19 53 14.09	-14 30 42.1		675
1979 MU2	1979 07 26.18819	19 52 30.66	-14 34 42.6		675
1979 MU2	1979 07 26.24931	19 52 27.46	-14 34 58.6		675
1979 MU2	1979 07 27.30486	19 51 39.15	-14 39 24.3		675
1979 MU2	1979 07 28.47749	19 50 45.90	-14 44 20.4		413
1979 MU2	1979 08 23.19097	19 36 01.67	-16 34 10.5	19.0	675
1979 MW2	1979 07 24.24444	19 52 42.41	-16 32 31.6	19.0	675
1979 MW2	1979 07 24.51944	19 52 28.90	-16 33 17.6		413
1979 MW2	1979 07 25.24097	19 51 53.37	-16 35 40.2		675
1979 MW2	1979 08 23.19097	19 32 50.08	-18 04 57.0	19.0	675
1979 MX2	1979 07 24.24444	19 50 42.97	-16 50 15.3	17.5	675
1979 MX2	1979 07 24.51944	19 50 28.31	-16 49 59.1		413

1979 MX2	1979 07 25.24097	19 49 50.06	-16 49 34.1	675
1979 MX2	1979 07 27.18542	19 48 07.51	-16 48 17.3	675
1979 MX2	1979 08 23.19097	19 29 31.12	-16 32 17.3	17.5 675
1979 MY2	1979 07 24.24444	19 48 06.75	-14 21 17.1	19.0 675
1979 MY2	1979 07 24.56597	19 47 47.97	-14 21 51.9	413
1979 MY2	1979 07 25.24097	19 47 09.40	-14 23 17.2	675
1979 MY2	1979 07 26.18819	19 46 15.58	-14 25 14.1	675
1979 MY2	1979 07 28.47749	19 44 06.98	-14 29 57.0	413
1979 MY2	1979 08 23.19097	19 26 50.58	-15 27 18.1	19.0 675
1979 MZ2	1979 07 24.24444	19 49 15.31	-18 51 43.0	18.5 675
1979 MZ2	1979 07 24.51944	19 48 59.91	-18 52 31.5	413
1979 MZ2	1979 07 25.24097	19 48 19.53	-18 54 53.8	675
1979 MZ2	1979 07 27.18542	19 46 30.30	-19 01 09.4	675
1979 MZ2	1979 08 23.19097	19 26 57.38	-20 13 30.4	18.5 675
1979 MA3	1979 07 24.24444	19 46 39.08	-18 27 20.2	19.5 675
1979 MA3	1979 07 24.51944	19 46 21.94	-18 27 38.3	19.0 413
1979 MB3	1979 07 24.30208	19 52 13.53	-20 49 38.5	19.0 675
1979 MB3	1979 07 24.51944	19 52 02.14	-20 51 44.3	413
1979 MB3	1979 07 25.31042	19 51 20.59	-20 59 53.7	675
1979 MC3	1979 07 24.24444	19 51 15.91	-17 49 41.0	19.5 675
1979 MC3	1979 07 24.35417	19 51 09.66	-17 50 04.9	675
1979 MC3	1979 07 24.51944	19 51 01.00	-17 50 28.6	413
1979 MC3	1979 07 25.24097	19 50 21.59	-17 53 00.8	675
1979 MC3	1979 08 23.20486	19 31 29.86	-19 17 50.3	19.5 675
1979 MF3	1979 07 24.29653	19 53 28.77	-16 26 24.9	19.5 675
1979 MF3	1979 07 24.51944	19 53 16.95	-16 26 57.0	413
1979 MF3	1979 07 25.29306	19 52 36.87	-16 29 18.4	675
1979 MF3	1979 07 26.19722	19 51 50.37	-16 31 57.6	675
1979 MF3	1979 07 27.18542	19 50 59.92	-16 34 50.1	675
1979 MF3	1979 08 23.19097	19 34 24.13	-17 50 17.4	19.0 675
1979 MG3	1979 07 24.24444	19 52 59.89	-14 33 27.4	18.5 675
1979 MG3	1979 07 24.56597	19 52 43.24	-14 33 22.7	413
1979 MG3	1979 07 25.24097	19 52 08.83	-14 33 16.1	675
1979 MG3	1979 07 26.18819	19 51 20.87	-14 33 09.2	675
1979 MG3	1979 07 26.24931	19 51 17.55	-14 33 07.4	675
1979 MG3	1979 07 28.47749	19 49 25.35	-14 32 49.6	413
1979 MG3	1979 08 23.19097	19 32 41.19	-14 37 50.2	18.5 675
1979 MK3	1979 07 24.30208	19 55 03.19	-18 24 47.1	19.0 675
1979 MK3	1979 07 24.51944	19 54 53.10	-18 25 28.8	413
1979 MK3	1979 07 25.31042	19 54 16.07	-18 28 17.3	675
1979 MK3	1979 08 23.19097	19 35 22.10	-19 58 53.1	19.0 675
1979 ML3	1979 07 24.24444	19 52 54.78	-15 31 39.5	17.5 675
1979 ML3	1979 07 24.51944	19 52 39.51	-15 32 13.3	413
1979 ML3	1979 07 25.29306	19 51 57.36	-15 34 08.3	675
1979 ML3	1979 07 27.18542	19 50 14.75	-15 38 40.6	675
1979 ML3	1979 08 23.19097	19 32 20.91	-16 43 10.3	17.5 675
1979 MM3	1979 07 24.30208	19 55 10.87	-20 03 14.5	19.0 675
1979 MM3	1979 07 24.51944	19 54 59.61	-20 05 06.7	413
1979 MM3	1979 07 25.31042	19 54 18.45	-20 12 14.1	675
1979 MM3	1979 08 23.22569	19 33 52.52	-24 01 40.6	18.0 675
1979 MN3	1979 07 24.24444	19 49 41.77	-17 58 53.8	18.5 675
1979 MN3	1979 07 24.51944	19 49 24.40	-17 59 28.6	413
1979 MN3	1979 07 25.24097	19 48 39.34	-18 01 23.4	675
1979 MN3	1979 07 27.18542	19 46 39.29	-18 06 16.1	675
1979 MN3	1979 08 23.19097	19 25 50.23	-19 02 49.1	18.5 675
1979 MP3	1979 07 24.24444	19 50 57.22	-15 48 10.9	19.5 675
1979 MP3	1979 07 24.51944	19 50 39.67	-15 48 47.2	413
1979 MP3	1979 07 25.24097	19 49 53.84	-15 50 44.4	675
1979 MP3	1979 07 27.18542	19 47 51.53	-15 55 50.4	675

1979 MP3	1979 08 23.19097	19 25 53.65	-17 06 45.4	19.5	675
1979 MQ3	1979 07 26.19722	19 51 33.60	-14 44 13.7	19.0	675
1979 MQ3	1979 07 28.47749	19 49 21.45	-14 59 09.1		413
1979 MQ3	1979 08 23.19097	19 29 13.76	-17 47 23.0	19.0	675
1979 MR3	1979 07 24.30208	19 56 33.69	-19 53 02.0	17.5	675
1979 MR3	1979 07 24.51944	19 56 22.06	-19 54 48.6		413
1979 MR3	1979 07 25.31042	19 55 39.33	-20 01 49.0		675
1979 MR3	1979 07 27.18542	19 53 59.59	-20 18 02.4		675
1979 MR3	1979 08 23.22569	19 37 35.12	-23 31 01.9	18.0	675
1979 MT3	1979 07 24.51944	19 56 01.99	-16 08 45.7	19.5	413
1979 MT3	1979 07 26.19722	19 54 24.78	-16 08 19.8		675
1979 MT3	1979 07 27.25278	19 53 23.99	-16 08 00.3		675
1979 MT3	1979 08 23.20486	19 36 11.41	-16 08 54.1	19.5	675
1979 MV3	1979 07 24.56597	19 59 47.23	-12 51 59.5	19.0	413
1979 MV3	1979 07 26.18819	19 58 25.00	-12 58 15.0		675
1979 MV3	1979 07 27.25278	19 57 30.67	-13 02 25.3		675
1979 MV3	1979 07 28.47749	19 56 28.84	-13 07 12.0		413
1979 MV3	1979 08 23.19097	19 41 05.18	-15 08 12.8	19.0	675
1979 MW3	1979 07 24.56597	19 56 37.76	-15 22 14.2	18.5	413
1979 MW3	1979 07 26.18819	19 55 13.01	-15 25 33.3		675
1979 MW3	1979 07 26.24931	19 55 09.52	-15 25 41.3		675
1979 MW3	1979 07 27.25278	19 54 17.44	-15 27 44.2		675
1979 MW3	1979 07 28.47749	19 53 15.45	-15 30 07.8		413
1979 MW3	1979 08 23.20486	19 39 47.88	-16 25 45.8	18.5	675
1979 MX3	1979 07 24.56597	19 56 55.19	-15 24 25.7	19.5	413
1979 MX3	1979 07 26.18819	19 55 22.70	-15 25 36.0		675
1979 MX3	1979 07 26.24931	19 55 18.91	-15 25 38.9		675
1979 MX3	1979 07 27.25278	19 54 21.35	-15 26 22.5		675
1979 MX3	1979 07 28.47749	19 53 12.51	-15 27 09.1		413
1979 MX3	1979 08 23.19097	19 36 31.28	-15 56 07.2	19.0	675
1979 MY3	1979 07 24.30208	19 56 55.70	-19 46 51.2	19.0	675
1979 MY3	1979 07 24.51944	19 56 43.87	-19 48 07.7		413
1979 MY3	1979 07 25.31042	19 56 00.26	-19 53 13.4		675
1979 MY3	1979 08 23.22569	19 35 26.16	-22 31 07.2	18.5	675
1979 MZ3	1979 07 24.30208	19 57 27.05	-18 57 47.8	18.0	675
1979 MZ3	1979 07 24.51944	19 57 16.02	-18 58 15.9		413
1979 MZ3	1979 07 25.31042	19 56 36.46	-19 00 15.5		675
1979 MZ3	1979 07 27.18542	19 55 03.44	-19 04 47.4		675
1979 MZ3	1979 08 23.19097	19 37 19.30	-19 58 17.8	18.0	675
1979 MA4	1979 07 24.56597	20 00 15.57	-14 31 21.1	17.5	413
1979 MA4	1979 07 26.18819	19 59 03.24	-14 35 56.8		675
1979 MA4	1979 07 26.24931	19 59 00.42	-14 36 07.3		675
1979 MA4	1979 07 27.25278	19 58 15.55	-14 38 59.3		675
1979 MA4	1979 07 28.47749	19 57 21.26	-14 42 27.8		413
1979 MA4	1979 08 23.19097	19 42 05.42	-15 59 29.8	18.0	675
1979 MC4	1979 07 24.56597	19 57 45.02	-11 11 57.8	20.0	413
1979 MC4	1979 07 28.47749	19 53 59.33	-11 06 58.5		413
1979 MC4	1979 08 22.26736	19 36 57.54	-11 14 12.7	19.5	675
1979 MD4	1979 07 24.51944	19 55 33.00	-17 15 53.4	17.0	413
1979 MD4	1979 07 26.19722	19 53 48.21	-17 20 21.7		675
1979 MD4	1979 07 27.18542	19 52 46.63	-17 22 57.9		675
1979 MD4	1979 07 27.30486	19 52 38.91	-17 23 17.9		675
1979 MD4	1979 08 23.19097	19 31 08.24	-18 29 40.0	16.5	675
1979 ME4	1979 07 24.30208	19 57 09.57	-20 02 35.7	18.5	675
1979 ME4	1979 07 24.51944	19 56 57.39	-20 04 28.7		413
1979 ME4	1979 07 25.31042	19 56 12.67	-20 11 41.4		675
1979 ME4	1979 08 23.22569	19 33 32.66	-24 06 54.9	18.0	675
1979 MF4	1979 07 24.30208	20 00 16.91	-18 59 27.1	16.5	675
1979 MF4	1979 07 24.51944	20 00 05.66	-19 01 00.0		413

1979 MF4	1979 07 25.31042	19 59 24.29	-19 07 14.5	675
1979 MF4	1979 07 27.18542	19 57 47.42	-19 21 41.3	675
1979 MF4	1979 08 23.22569	19 42 03.38	-22 17 39.1	17.0 675
1979 MG4	1979 07 24.30208	19 58 52.38	-18 49 26.6	18.5 675
1979 MG4	1979 07 24.51944	19 58 41.73	-18 50 00.3	413
1979 MG4	1979 07 25.31042	19 58 02.95	-18 52 18.7	675
1979 MG4	1979 07 27.18542	19 56 32.13	-18 57 37.1	675
1979 MG4	1979 08 23.19097	19 39 33.26	-20 00 52.6	18.5 675
1979 MH4	1979 07 24.56597	19 58 38.57	-13 06 41.6	19.0 413
1979 MH4	1979 07 26.18819	19 57 13.06	-13 13 01.1	675
1979 MH4	1979 07 26.24931	19 57 09.23	-13 13 15.9	675
1979 MH4	1979 07 27.25278	19 56 17.05	-13 17 12.7	675
1979 MH4	1979 07 28.50874	19 55 12.05	-13 22 04.8	413
1979 MH4	1979 08 23.19097	19 39 57.13	-15 12 25.5	19.5 675
1979 MJ4	1979 07 24.30208	20 01 25.25	-18 35 54.9	18.0 675
1979 MJ4	1979 07 24.51944	20 01 14.61	-18 38 18.8	413
1979 MJ4	1979 07 25.31042	20 00 35.33	-18 47 27.5	675
1979 MJ4	1979 07 27.18542	19 59 02.96	-19 08 57.2	675
1979 MJ4	1979 08 23.22569	19 42 40.39	-23 44 06.5	18.0 675
1979 MK4	1979 07 24.30208	19 58 34.52	-18 12 31.4	19.0 675
1979 MK4	1979 07 24.51944	19 58 22.55	-18 13 42.1	413
1979 MK4	1979 07 25.31042	19 57 39.00	-18 18 37.4	675
1979 MK4	1979 07 27.18542	19 55 57.50	-18 29 57.4	675
1979 MK4	1979 08 23.22569	19 39 10.74	-20 48 57.2	19.0 675
1979 MM4	1979 07 24.56597	19 57 01.78	-14 38 31.0	18.5 413
1979 MM4	1979 07 26.18819	19 55 30.43	-14 44 30.7	675
1979 MM4	1979 07 26.24931	19 55 26.81	-14 44 44.8	675
1979 MM4	1979 07 27.25278	19 54 30.87	-14 48 26.0	675
1979 MM4	1979 07 28.47749	19 53 23.75	-14 52 51.0	413
1979 MM4	1979 08 23.19097	19 38 13.87	-16 27 20.5	18.5 675
1979 MN4	1979 07 24.56597	20 05 53.30	-09 46 52.7	18.5 413
1979 MN4	1979 07 26.18819	20 04 34.20	-09 39 02.9	675
1979 MN4	1979 07 28.50874	20 02 39.25	-09 28 01.4	413
1979 MP4	1979 07 24.56597	19 59 08.40	-13 53 17.4	19.5 413
1979 MP4	1979 07 26.19722	19 57 42.12	-13 57 45.3	675
1979 MP4	1979 07 28.47749	19 55 42.66	-14 03 53.6	413
1979 MP4	1979 08 23.21875	19 38 32.34	-15 19 52.9	20.0 675
1979 MQ4	1979 07 24.59722	20 00 07.32	-11 54 31.6	18.5 413
1979 MQ4	1979 07 26.18819	19 58 49.38	-11 55 46.9	675
1979 MQ4	1979 07 26.24931	19 58 46.12	-11 55 48.1	675
1979 MQ4	1979 07 27.25278	19 57 57.04	-11 56 37.8	675
1979 MQ4	1979 07 28.47749	19 56 57.33	-11 57 37.1	413
1979 MQ4	1979 08 22.26736	19 40 07.91	-12 29 11.2	18.5 675
1979 MR4	1979 07 24.56597	19 56 48.91	-13 12 46.2	17.5 413
1979 MR4	1979 07 26.18819	19 55 14.13	-13 17 50.7	675
1979 MR4	1979 07 26.24931	19 55 10.32	-13 18 01.0	675
1979 MR4	1979 07 27.25278	19 54 11.87	-13 21 12.1	675
1979 MR4	1979 07 28.47749	19 53 01.05	-13 25 02.5	413
1979 MR4	1979 08 23.19097	19 33 14.09	-14 52 27.6	18.0 675
1979 MS4	1979 07 24.30208	19 59 37.21	-17 40 42.9	19.0 675
1979 MS4	1979 07 24.51944	19 59 25.35	-17 41 41.2	413
1979 MS4	1979 07 25.31042	19 58 42.17	-17 45 50.2	675
1979 MS4	1979 07 26.24931	19 57 51.71	-17 50 36.3	675
1979 MS4	1979 07 27.25278	19 56 57.34	-17 55 41.7	675
1979 MS4	1979 08 23.19097	19 40 08.96	-19 52 37.0	19.5 675
1979 MT4	1979 07 24.56597	19 55 58.24	-12 56 04.0	19.0 413
1979 MT4	1979 07 26.18819	19 54 20.83	-12 54 50.9	675
1979 MT4	1979 07 26.24931	19 54 16.99	-12 54 47.1	675
1979 MT4	1979 07 27.25278	19 53 16.78	-12 54 04.6	675

1979	MT4	1979	07	28.47749	19	52	03.68	-12	53	10.9		413
1979	MT4	1979	08	22.26736	19	31	35.82	-12	47	51.4	18.5	675
1979	MU4	1979	07	24.30208	19	59	17.01	-18	22	15.4	19.0	675
1979	MU4	1979	07	24.51944	19	59	04.94	-18	23	03.5		413
1979	MU4	1979	07	25.31042	19	58	20.59	-18	26	25.3		675
1979	MU4	1979	07	27.18542	19	56	37.14	-18	34	07.8		675
1979	MU4	1979	08	23.20486	19	39	00.91	-20	05	27.6	19.0	675
1979	MV4	1979	07	24.51944	19	55	27.53	-16	31	14.5	19.0	413
1979	MV4	1979	07	26.19722	19	53	44.45	-16	34	06.1		675
1979	MV4	1979	07	27.18542	19	52	44.57	-16	35	43.1		675
1979	MV4	1979	08	23.19097	19	33	25.28	-17	16	44.9	19.0	675
1979	MW4	1979	07	24.30208	20	00	06.16	-18	19	31.8	20.0	675
1979	MW4	1979	07	24.51944	19	59	54.24	-18	21	01.1		413
1979	MY4	1979	07	24.56597	19	58	39.27	-10	13	02.2	19.5	413
1979	MY4	1979	07	28.47749	19	54	34.28	-09	43	15.8		413
1979	MZ4	1979	07	24.30208	20	04	29.89	-19	22	55.8	18.5	675
1979	MZ4	1979	07	24.51944	20	04	19.20	-19	24	45.9		413
1979	MZ4	1979	07	25.31042	20	03	39.91	-19	31	51.0		675
1979	MZ4	1979	07	27.18542	20	02	07.51	-19	48	24.6		675
1979	MZ4	1979	08	23.22569	19	45	41.36	-23	15	25.2	18.5	675
1979	MA5	1979	07	24.56597	20	01	10.97	-11	53	53.6	19.0	413
1979	MA5	1979	07	26.18819	19	59	48.01	-11	54	52.5		675
1979	MA5	1979	07	26.24931	19	59	44.75	-11	54	53.1		675
1979	MA5	1979	07	27.25278	19	58	53.52	-11	55	33.6		675
1979	MA5	1979	07	28.47749	19	57	51.11	-11	56	21.9		413
1979	MB5	1979	07	24.56597	20	03	19.23	-13	44	49.3	18.5	413
1979	MB5	1979	07	26.18819	20	01	56.56	-13	49	41.1		675
1979	MB5	1979	07	27.25278	20	01	02.19	-13	52	55.3		675
1979	MB5	1979	07	28.47749	20	00	00.11	-13	56	35.7		413
1979	MB5	1979	08	23.19097	19	43	49.98	-15	24	52.8	18.5	675
1979	MC5	1979	07	24.56597	20	00	16.02	-13	02	52.0	19.5	413
1979	MC5	1979	07	26.18819	19	58	37.94	-13	10	06.0		675
1979	MC5	1979	07	26.24931	19	58	34.04	-13	10	22.0		675
1979	MC5	1979	07	27.25278	19	57	33.26	-13	14	55.6		675
1979	MC5	1979	07	28.47749	19	56	19.08	-13	20	27.2		413
1979	MC5	1979	08	23.19097	19	35	42.46	-15	32	46.7	19.0	675
1979	MD5	1979	07	24.30208	20	02	16.86	-21	16	52.9	18.5	675
1979	MD5	1979	07	24.51944	20	02	05.71	-21	18	21.2		413
1979	MD5	1979	07	25.31042	20	01	24.63	-21	23	58.4		675
1979	MD5	1979	07	27.18542	19	59	48.04	-21	37	03.0		675
1979	MD5	1979	08	23.22569	19	41	50.29	-24	10	03.9	18.5	675
1979	MF5	1979	07	24.35417	20	01	17.40	-17	49	03.9	19.0	675
1979	MF5	1979	07	24.51944	20	01	08.68	-17	49	07.7		413
1979	MF5	1979	07	25.31042	20	00	25.92	-17	49	41.9		675
1979	MF5	1979	08	23.19097	19	39	17.84	-18	03	19.2	19.0	675
1979	MG5	1979	07	24.56597	20	04	20.17	-13	13	03.9	18.0	413
1979	MG5	1979	07	26.18819	20	02	56.59	-13	15	10.1		675
1979	MG5	1979	07	26.24931	20	02	53.19	-13	15	14.3		675
1979	MG5	1979	07	27.25278	20	02	01.70	-13	16	35.3		675
1979	MG5	1979	07	28.47749	20	00	59.48	-13	18	09.9		413
1979	MJ5	1979	07	26.24931	19	56	47.73	-15	00	25.3		675
1979	MJ5	1979	07	27.25278	19	55	46.70	-15	04	51.3		675
1979	MJ5	1979	07	28.47749	19	54	32.77	-15	10	12.2		413
1979	MM5	1979	07	24.30208	20	01	27.45	-18	22	16.0	18.5	675
1979	MM5	1979	07	24.51944	20	01	14.30	-18	22	40.6		413
1979	MM5	1979	07	25.31042	20	00	25.98	-18	24	35.6		675
1979	MM5	1979	07	27.18542	19	58	32.27	-18	28	58.4		675
1979	MM5	1979	08	23.19097	19	36	39.36	-19	20	47.4	18.0	675
1979	MO5	1979	07	24.56597	20	02	02.03	-12	42	47.7	19.5	413

1979	MO5	1979	07	26.19722	20	00	30.15	-12	45	36.9		675
1979	MO5	1979	07	27.30486	19	59	27.90	-12	47	31.4		675
1979	MO5	1979	07	28.47749	19	58	22.74	-12	49	33.1		413
1979	MP5	1979	07	24.35417	20	08	11.15	-18	26	21.4	19.0	675
1979	MP5	1979	07	25.31042	20	07	24.37	-18	31	28.1		675
1979	MQ5	1979	07	24.56597	20	04	14.15	-12	24	32.9	20.0	413
1979	MQ5	1979	07	27.25278	20	01	57.88	-12	25	30.3		675
1979	MQ5	1979	07	28.47749	20	00	56.05	-12	25	59.1		413
1979	MR5	1979	07	24.30208	20	02	19.14	-18	23	08.9	18.5	675
1979	MR5	1979	07	24.51944	20	02	06.15	-18	23	26.0		413
1979	MR5	1979	07	25.31042	20	01	18.15	-18	24	57.2		675
1979	MR5	1979	07	27.18542	19	59	25.40	-18	28	18.8		675
1979	MR5	1979	08	23.19097	19	38	48.68	-19	05	32.4	18.5	675
1979	MS5	1979	07	24.30208	20	01	53.98	-20	37	37.0	19.0	675
1979	MS5	1979	07	24.51944	20	01	41.23	-20	38	54.7		413
1979	MS5	1979	07	27.18542	19	59	06.86	-20	55	45.7		675
1979	MS5	1979	08	23.22569	19	39	30.61	-23	09	33.1	19.5	675
1979	MX5	1979	07	24.51944	20	01	32.18	-17	19	42.6	19.0	413
1979	MX5	1979	07	26.24931	19	59	46.43	-17	26	53.3		675
1979	MX5	1979	07	27.18542	19	58	49.60	-17	30	45.5		675
1979	MX5	1979	07	27.30486	19	58	42.25	-17	31	13.9		675
1979	MX5	1979	08	23.19097	19	38	08.18	-19	06	42.5	19.0	675
1979	MY5	1979	07	24.56597	20	02	37.67	-12	23	11.9	18.0	413
1979	MY5	1979	07	26.19722	20	01	03.00	-12	19	56.0		675
1979	MY5	1979	07	27.25278	20	00	01.63	-12	17	50.0		675
1979	MY5	1979	07	28.47749	19	58	51.30	-12	15	26.7		413
1979	MY5	1979	08	22.26736	19	40	14.17	-11	47	40.3	17.5	675
1979	MZ5	1979	07	24.51944	20	05	30.59	-16	08	33.2	19.5	413
1979	MZ5	1979	07	26.24931	20	03	58.77	-16	11	51.3		675
1979	MZ5	1979	07	27.25278	20	03	05.54	-16	13	45.7		675
1979	MZ5	1979	08	23.19097	19	45	07.56	-17	02	48.4	20.0	675
1979	MA6	1979	07	24.51944	20	02	53.30	-17	29	49.2	19.0	413
1979	MA6	1979	07	25.31042	20	02	05.67	-17	34	17.2		675
1979	MA6	1979	07	27.25278	20	00	09.36	-17	45	10.0		675
1979	MB6	1979	07	24.51944	20	06	25.99	-16	35	51.8	18.0	413
1979	MB6	1979	07	26.19722	20	04	47.45	-16	45	05.4		675
1979	MB6	1979	07	27.18542	20	03	49.50	-16	50	33.4		675
1979	MB6	1979	07	27.30486	20	03	42.26	-16	51	11.5		675
1979	MB6	1979	08	23.19097	19	43	10.16	-19	12	47.6	18.5	675
1979	ME6	1979	07	24.56597	20	03	33.70	-11	43	53.6	20.0	413
1979	ME6	1979	07	28.47749	19	59	35.99	-11	42	05.7		413
1979	MG6	1979	07	24.56597	20	05	58.84	-11	17	29.3	18.5	413
1979	MG6	1979	07	26.18819	20	04	24.38	-11	17	19.4		675
1979	MG6	1979	07	28.50874	20	02	09.62	-11	17	15.8		413
1979	MG6	1979	08	22.26736	19	44	33.98	-11	46	12.6	18.0	675
1979	MH6	1979	07	24.30208	20	09	36.95	-20	12	38.4	19.0	675
1979	MH6	1979	07	25.31042	20	08	47.67	-20	18	16.3		675
1979	MJ6	1979	07	24.30208	20	10	49.65	-18	28	00.0	19.5	675
1979	MJ6	1979	07	25.36250	20	09	52.17	-18	32	18.4		675
1979	MK6	1979	07	26.19722	20	07	04.67	-17	17	26.0	19.0	675
1979	MK6	1979	07	27.25278	20	06	07.75	-17	21	14.1		675
1979	MK6	1979	08	23.19097	19	45	57.88	-18	49	39.1	19.0	675
1979	ML6	1979	07	26.19722	20	08	40.11	-16	18	38.6	18.5	675
1979	ML6	1979	07	27.25278	20	07	42.71	-16	24	47.2		675
1979	MM6	1979	07	26.19722	20	08	45.73	-14	07	01.7	19.0	675
1979	MM6	1979	07	27.25278	20	07	55.23	-14	09	21.2		675
1979	MN6	1979	07	24.30208	20	04	18.43	-19	29	56.8	18.5	675
1979	MN6	1979	07	24.51944	20	04	04.43	-19	30	49.7		413
1979	MN6	1979	07	25.31042	20	03	13.72	-19	34	27.0		675

1979 MN6	1979 07 27.18542	20 01 14.26	-19 42 45.4		675
1979 MN6	1979 08 23.22569	19 39 18.23	-21 15 53.8	18.5	675
1979 MO6	1979 07 24.30208	20 09 21.33	-20 08 48.0	18.0	675
1979 MO6	1979 07 25.31042	20 08 25.80	-20 16 19.0		675
1979 MQ6	1979 07 24.51944	20 04 03.93	-16 22 17.9	18.5	413
1979 MQ6	1979 07 26.19722	20 02 15.92	-16 24 03.1		675
1979 MQ6	1979 07 27.18542	20 01 13.12	-16 25 05.4		675
1979 MQ6	1979 07 27.30486	20 01 05.18	-16 25 12.4		675
1979 MQ6	1979 08 23.19097	19 39 38.00	-16 51 09.0	19.0	675
1979 MR6	1979 07 26.19722	20 05 50.43	-14 46 06.4	19.0	675
1979 MR6	1979 07 27.25278	20 04 48.52	-14 51 51.7		675
1979 MR6	1979 07 28.47749	20 03 37.73	-14 58 26.0		413
1979 MR6	1979 08 23.19097	19 45 20.28	-17 11 22.4	19.5	675
1979 MS6	1979 07 24.56597	20 06 36.09	-12 22 40.4	17.5	413
1979 MS6	1979 07 26.18819	20 05 00.95	-12 25 58.2		675
1979 MS6	1979 07 26.24931	20 04 57.25	-12 26 05.4		675
1979 MS6	1979 07 27.25278	20 03 58.41	-12 28 10.4		675
1979 MS6	1979 07 28.47749	20 02 47.17	-12 30 41.7		413
1979 MS6	1979 08 22.26736	19 43 04.25	-13 32 23.9	18.0	675
1979 MU6	1979 07 26.19722	20 10 46.27	-16 39 10.2	19.5	675
1979 MU6	1979 07 27.25278	20 09 52.56	-16 47 24.1		675
1979 MV6	1979 07 26.19722	20 08 03.36	-13 53 12.7	17.5	675
1979 MV6	1979 07 27.25278	20 07 02.63	-13 55 58.8		675
1979 MV6	1979 07 28.47749	20 05 52.61	-13 59 11.3		413
1979 MV6	1979 08 23.19097	19 46 25.78	-15 14 13.2	17.5	675
1979 MW6	1979 07 26.19722	20 09 38.67	-15 54 41.1	19.5	675
1979 MW6	1979 07 27.25278	20 08 43.02	-15 57 59.2		675
1979 MX6	1979 07 24.24444	19 41 45.44	-13 05 42.8	17.5	675
1979 MX6	1979 07 24.56597	19 41 26.51	-13 05 43.3		413
1979 MX6	1979 07 25.24097	19 40 47.22	-13 06 05.0		675
1979 MX6	1979 08 22.27951	19 21 41.47	-13 36 34.0	17.0	675
1979 MY6	1979 07 24.24444	19 48 05.21	-16 37 28.7	19.0	675
1979 MY6	1979 07 24.51944	19 47 50.41	-16 38 27.2		413
1979 MY6	1979 07 25.24097	19 47 12.37	-16 41 31.1		675
1979 MY6	1979 07 27.18542	19 45 31.42	-16 49 26.7		675
1979 MY6	1979 08 23.20486	19 30 34.64	-18 32 49.5	19.0	675
1979 MZ6	1979 07 24.29653	19 46 07.48	-15 07 03.9	18.0	675
1979 MZ6	1979 07 24.56597	19 45 51.45	-15 07 03.8		413
1979 MZ6	1979 07 25.24097	19 45 12.38	-15 07 34.1		675
1979 MZ6	1979 07 26.18819	19 44 17.55	-15 08 08.0		675
1979 MZ6	1979 07 28.47749	19 42 06.37	-15 09 32.9		413
1979 MZ6	1979 08 23.19097	19 25 27.07	-15 37 42.4	17.5	675
1979 MA7	1979 07 24.24444	19 46 46.33	-16 30 48.7	19.5	675
1979 MA7	1979 07 24.51944	19 46 31.73	-16 31 12.9		413
1979 MA7	1979 07 25.24097	19 45 54.02	-16 32 36.4		675
1979 MA7	1979 08 23.19097	19 26 38.20	-17 23 53.9	19.5	675
1979 MC7	1979 07 24.24444	19 49 23.35	-18 08 49.7	19.5	675
1979 MC7	1979 07 24.51944	19 49 09.01	-18 10 00.6		413
1979 MC7	1979 07 25.24097	19 48 31.59	-18 13 39.8		675
1979 MD7	1979 07 24.24444	19 43 46.44	-18 54 44.2	19.5	675
1979 MD7	1979 07 24.51944	19 43 30.15	-18 56 12.7		413
1979 ME7	1979 07 24.56597	19 44 25.01	-12 41 56.0	19.0	413
1979 ME7	1979 07 26.18819	19 42 47.45	-12 40 01.7		675
1979 MF7	1979 07 24.24444	19 51 10.57	-18 22 56.1	19.0	675
1979 MF7	1979 07 24.35417	19 51 05.24	-18 23 30.1		675
1979 MF7	1979 07 24.51944	19 50 57.74	-18 24 15.4		413
1979 MF7	1979 07 25.24097	19 50 23.36	-18 28 04.4		675
1979 MG7	1979 07 24.24444	19 49 03.24	-16 50 13.5	20.0	675
1979 MG7	1979 07 24.51944	19 48 48.55	-16 50 59.9		413

1979	MG7	1979	07	25.24097	19	48	10.40	-16	53	23.5		675
1979	MG7	1979	08	23.20486	19	29	16.48	-18	19	32.1	19.5	675
1979	MH7	1979	07	24.24444	19	48	59.85	-15	55	03.3	18.5	675
1979	MH7	1979	07	24.51944	19	48	45.22	-15	57	01.4		413
1979	MH7	1979	07	25.24097	19	48	07.38	-16	02	26.3		675
1979	MH7	1979	07	27.18542	19	46	26.21	-16	16	51.0		675
1979	MH7	1979	08	23.19097	19	28	30.84	-19	21	16.1	18.5	675
1979	MK7	1979	07	24.29653	19	51	27.99	-17	04	07.7	19.0	675
1979	MK7	1979	07	24.51944	19	51	17.27	-17	04	31.3		413
1979	MK7	1979	07	25.24097	19	50	42.74	-17	06	04.3		675
1979	MK7	1979	08	23.19097	19	31	56.29	-18	01	51.6	19.0	675
1979	ML7	1979	07	24.30208	19	50	47.22	-20	11	02.5	19.0	675
1979	ML7	1979	07	24.51944	19	50	35.34	-20	12	01.7		413
1979	ML7	1979	07	27.18542	19	48	13.54	-20	26	02.8		675
1979	ML7	1979	08	23.23958	19	33	12.32	-22	13	28.0	19.0	675
1979	MM7	1979	07	24.24444	19	51	12.54	-15	46	04.6	19.5	675
1979	MM7	1979	07	24.51944	19	50	57.81	-15	47	25.3		413
1979	MM7	1979	07	25.29306	19	50	17.05	-15	51	53.0		675
1979	MM7	1979	08	23.19097	19	34	50.95	-18	19	12.3	19.5	675
1979	MN7	1979	07	24.24444	19	49	47.07	-14	56	49.7	19.0	675
1979	MN7	1979	07	24.56597	19	49	28.24	-14	58	23.8		413
1979	MN7	1979	07	25.29306	19	48	46.50	-15	02	08.5		675
1979	MN7	1979	07	26.18819	19	47	54.74	-15	06	46.3		675
1979	MN7	1979	07	28.47749	19	45	43.11	-15	18	34.7		413
1979	MN7	1979	08	23.19097	19	26	18.29	-17	32	43.4	19.0	675
1979	MO7	1979	07	24.56597	19	53	13.56	-12	35	46.2	20.0	413
1979	MO7	1979	07	28.47749	19	50	09.33	-12	42	46.7		413
1979	MR7	1979	07	24.29653	19	49	57.52	-15	56	27.5	19.0	675
1979	MR7	1979	07	24.51944	19	49	43.73	-15	55	43.2		413
1979	MR7	1979	07	25.24097	19	48	59.61	-15	53	56.3		675
1979	MR7	1979	08	23.19097	19	28	17.04	-14	54	01.2	19.5	675
1979	MS7	1979	07	24.56597	19	53	54.33	-15	07	14.4	19.5	413
1979	MS7	1979	07	25.24097	19	53	18.52	-15	08	00.8		675
1979	MS7	1979	07	26.19722	19	52	27.63	-15	09	07.4		675
1979	MS7	1979	07	27.25278	19	51	31.69	-15	10	18.4		675
1979	MS7	1979	07	28.47749	19	50	27.81	-15	11	37.6		413
1979	MS7	1979	08	23.21875	19	33	39.19	-15	46	32.2	19.5	675
1979	MU7	1979	07	24.56597	20	01	53.78	-11	21	46.6	19.0	413
1979	MU7	1979	07	26.18819	20	00	34.72	-11	20	47.4		675
1979	MU7	1979	07	28.47749	19	58	43.77	-11	19	36.9		413
1979	MU7	1979	08	22.27951	19	45	57.76	-11	45	43.5	19.5	675
1979	MV7	1979	07	24.56597	20	00	01.58	-13	40	49.8	19.5	413
1979	MV7	1979	07	26.19722	19	58	45.27	-13	44	39.3		675
1979	MV7	1979	07	27.25278	19	57	56.17	-13	47	07.6		675
1979	MV7	1979	07	28.47749	19	56	59.81	-13	49	59.6		413
1979	MV7	1979	08	23.20486	19	41	26.49	-14	55	59.9	19.5	675
1979	MW7	1979	07	24.56597	19	57	18.38	-13	46	18.3	20.0	413
1979	MW7	1979	07	26.19722	19	55	43.05	-13	49	09.7		675
1979	MW7	1979	07	27.25278	19	54	41.34	-13	51	02.1		675
1979	MW7	1979	08	23.19097	19	36	35.75	-14	52	36.0	19.5	675
1979	MX7	1979	07	24.51944	19	57	20.26	-15	50	41.4	19.0	413
1979	MX7	1979	07	27.25278	19	54	36.21	-15	47	50.4		675
1979	MX7	1979	08	23.19097	19	33	40.57	-15	25	38.4	19.0	675
1979	MY7	1979	07	24.51944	19	58	17.53	-17	04	48.6	19.5	413
1979	MY7	1979	08	23.21875	19	36	45.33	-16	42	32.2	19.5	675
1979	MZ7	1979	07	24.51944	20	02	37.98	-16	15	06.1	19.5	413
1979	MZ7	1979	07	26.19722	20	01	07.29	-16	23	13.0		675
1979	MZ7	1979	07	27.25278	20	00	10.12	-16	28	18.6		675
1979	MZ7	1979	08	23.20486	19	42	40.48	-18	33	45.8	19.5	675

1979 MC8	1979 07 24.51944	20 03 28.18	-16 57 33.0	19.0	413
1979 MC8	1979 07 26.19722	20 02 03.46	-17 01 07.0		675
1979 MC8	1979 07 27.18542	20 01 14.12	-17 03 13.3		675
1979 MC8	1979 07 27.30486	20 01 07.76	-17 03 28.7		675
1979 MC8	1979 08 23.20486	19 46 22.72	-17 54 37.1	19.0	675
1979 MD8	1979 07 24.56597	20 01 37.41	-12 30 04.1	19.5	413
1979 MD8	1979 07 26.18819	20 00 11.86	-12 32 05.3		675
1979 MD8	1979 07 26.24931	20 00 08.49	-12 32 09.2		675
1979 MD8	1979 07 27.30486	19 59 12.84	-12 33 31.8		675
1979 MD8	1979 07 28.47749	19 58 11.26	-12 35 02.1		413
1979 MD8	1979 08 22.26736	19 40 04.96	-13 16 10.7	19.5	675
1979 ME8	1979 07 24.56597	19 58 45.45	-14 20 50.7	19.5	413
1979 ME8	1979 07 26.24931	19 57 02.87	-14 26 54.8		675
1979 ME8	1979 07 27.30486	19 55 58.40	-14 30 44.0		675
1979 ME8	1979 07 28.47749	19 54 47.73	-14 34 55.6		413
1979 ME8	1979 08 23.19097	19 34 00.27	-16 08 28.0	20.0	675
1979 MG8	1979 07 24.35417	20 05 17.85	-18 22 36.4	19.5	675
1979 MG8	1979 07 24.51944	20 05 09.79	-18 23 37.7		413
1979 MG8	1979 07 25.31042	20 04 31.38	-18 28 34.4		675
1979 MG8	1979 08 23.22569	19 43 56.34	-21 16 19.7	19.5	675
1979 MH8	1979 07 26.19722	20 05 26.18	-16 04 01.7	19.5	675
1979 MH8	1979 07 27.30486	20 04 30.64	-16 08 11.6		675
1979 MJ8	1979 07 24.56597	20 02 31.67	-13 46 16.7	19.5	413
1979 MJ8	1979 07 26.19722	20 00 54.86	-13 49 40.3		675
1979 MJ8	1979 07 27.25278	19 59 52.20	-13 51 53.0		675
1979 MJ8	1979 07 28.47749	19 58 39.58	-13 54 25.1		413
1979 MJ8	1979 08 23.19097	19 37 30.06	-14 59 27.7	19.5	675
1979 MM8	1979 07 24.56597	20 05 28.66	-14 26 27.6	18.0	413
1979 MM8	1979 07 26.18819	20 04 00.08	-14 33 11.4		675
1979 MM8	1979 07 26.24931	20 03 56.62	-14 33 27.4		675
1979 MM8	1979 07 27.25278	20 03 01.79	-14 37 38.7		675
1979 MM8	1979 07 28.47749	20 01 55.41	-14 42 41.2		413
1979 MM8	1979 08 23.19097	19 44 03.59	-16 33 04.8	18.0	675
1979 MO8	1979 07 24.51944	20 04 51.27	-16 21 23.7	19.0	413
1979 MO8	1979 07 26.19722	20 03 20.85	-16 20 21.5		675
1979 MO8	1979 07 27.25278	20 02 24.32	-16 19 42.2		675
1979 MO8	1979 08 23.19097	19 42 54.16	-16 05 20.0	19.5	675
1979 MQ8	1979 07 24.30208	20 04 00.83	-19 00 45.4	19.5	675
1979 MQ8	1979 07 24.51944	20 03 48.18	-19 01 39.1		413
1979 MQ8	1979 07 25.31042	20 03 01.42	-19 05 14.4		675
1979 MQ8	1979 08 23.22569	19 39 11.31	-20 55 58.5	19.5	675
1979 MS8	1979 07 24.30208	20 08 49.01	-17 56 06.3	17.0	675
1979 MS8	1979 07 25.31042	20 07 56.97	-17 58 47.3		675
1979 MS8	1979 07 26.19722	20 07 10.96	-18 01 05.8	17.5	675
1979 MS8	1979 07 27.30486	20 06 14.08	-18 04 08.5		675
1979 MS8	1979 08 23.19097	19 47 09.77	-19 07 41.2	17.0	675
1979 MT8	1979 07 26.19722	20 07 04.00	-13 12 12.5	19.0	675
1979 MT8	1979 07 27.25278	20 06 11.44	-13 14 45.3		675
1979 MT8	1979 07 28.50874	20 05 09.13	-13 17 44.5		413
1979 MU8	1979 07 24.30208	20 07 35.06	-18 04 27.7	18.0	675
1979 MU8	1979 07 24.51944	20 07 23.12	-18 06 13.5		413
1979 MU8	1979 07 25.31042	20 06 39.47	-18 12 59.2		675
1979 MU8	1979 07 27.18542	20 04 56.57	-18 28 49.2		675
1979 MU8	1979 08 23.22569	19 45 01.48	-21 49 14.4	18.5	675
1979 MV8	1979 07 26.24931	20 10 52.87	-14 44 16.5	19.5	675
1979 MV8	1979 07 27.25278	20 10 02.49	-14 51 16.4		675
1979 MX8	1979 07 24.30208	20 10 28.34	-18 09 01.7	18.5	675
1979 MX8	1979 07 25.31042	20 09 36.14	-18 11 41.0		675
1979 MZ8	1979 07 26.19722	20 06 45.96	-13 19 01.9	19.5	675

1979 MZ8	1979 07 27.25278	20 05 43.25	-13 18 53.4	675
1979 MZ8	1979 07 28.47749	20 04 30.19	-13 18 41.1	413
1979 MZ8	1979 08 22.26736	19 43 08.35	-13 26 47.1	20.0 675
1979 MB9	1979 07 24.30208	20 12 26.39	-18 12 56.8	19.0 675
1979 MB9	1979 07 25.31042	20 11 37.54	-18 15 44.7	675
1979 MC9	1979 07 26.24931	20 09 27.11	-15 58 45.8	19.5 675
1979 MC9	1979 07 27.25278	20 08 32.20	-16 02 38.5	675
1979 OL *	1979 07 24.24444	19 38 21.49	-18 25 47.2	18.5 675
1979 OL	1979 07 25.24097	19 37 27.80	-18 28 19.4	675
1979 OM *	1979 07 24.24444	19 38 57.47	-17 56 39.1	19.5 675
1979 OM	1979 07 25.24097	19 38 00.72	-17 57 05.3	675
1979 ON *	1979 07 24.24444	19 39 12.88	-17 23 09.4	19.5 675
1979 ON	1979 07 25.24097	19 38 12.25	-17 25 05.5	675
1979 OO *	1979 07 24.24444	19 39 21.80	-18 58 23.1	18.0 675
1979 OO	1979 07 25.24097	19 38 31.28	-19 01 22.0	675
1979 OP *	1979 07 24.24444	19 40 51.06	-18 56 06.4	18.0 675
1979 OP	1979 07 25.24097	19 40 01.20	-18 58 42.7	675
1979 OQ *	1979 07 24.24444	19 40 55.53	-16 15 49.2	18.5 675
1979 OQ	1979 07 25.29306	19 39 58.83	-16 17 33.7	675
1979 OR *	1979 07 24.24444	19 41 27.43	-13 06 22.9	19.0 675
1979 OR	1979 07 24.56597	19 41 12.73	-13 07 31.1	413
1979 OR	1979 07 25.24097	19 40 42.17	-13 10 07.1	675
1979 OS *	1979 07 24.24444	19 41 28.75	-17 55 02.9	19.5 675
1979 OS	1979 07 25.24097	19 40 31.38	-17 56 10.8	675
1979 OT *	1979 07 24.24444	19 41 53.87	-16 31 13.6	20.0 675
1979 OT	1979 07 25.24097	19 41 06.22	-16 41 55.6	675
1979 OU *	1979 07 24.24444	19 42 01.12	-16 18 22.4	19.5 675
1979 OU	1979 07 24.51944	19 41 45.89	-16 20 02.3	413
1979 OU	1979 07 25.24097	19 41 06.24	-16 24 57.8	675
1979 OV *	1979 07 24.24444	19 43 03.21	-18 45 11.8	18.0 675
1979 OV	1979 07 24.51944	19 42 51.58	-18 45 44.9	413
1979 OV	1979 07 25.24097	19 42 20.28	-18 47 22.6	675
1979 OW *	1979 07 24.24444	19 43 06.20	-17 03 43.0	19.0 675
1979 OW	1979 07 24.55069	19 42 48.90	-17 05 36.8	413
1979 OW	1979 07 25.24097	19 42 10.84	-17 10 17.9	675
1979 OX *	1979 07 24.24444	19 43 17.06	-18 12 13.1	19.0 675
1979 OX	1979 07 24.51944	19 43 00.30	-18 12 45.9	413
1979 OX	1979 07 25.24097	19 42 16.44	-18 14 46.3	675
1979 OY *	1979 07 24.24444	19 43 34.35	-14 19 47.6	19.5 675
1979 OY	1979 07 25.24097	19 42 38.75	-14 24 38.6	675
1979 OY	1979 07 26.18819	19 41 46.42	-14 29 19.4	675
1979 OZ *	1979 07 24.24444	19 43 47.77	-15 16 20.5	17.5 675
1979 OZ	1979 07 24.56597	19 43 30.47	-15 18 55.6	413
1979 OZ	1979 07 25.24097	19 42 54.60	-15 24 48.0	675
1979 OZ	1979 07 26.18819	19 42 04.70	-15 32 52.1	675
1979 OA1 *	1979 07 24.24444	19 43 51.06	-18 38 26.4	19.5 675
1979 OA1	1979 07 24.51944	19 43 33.36	-18 38 54.9	413
1979 OA1	1979 07 25.24097	19 42 45.87	-18 40 33.9	675
1979 OB1 *	1979 07 24.24444	19 44 08.78	-17 04 39.7	19.5 675
1979 OB1	1979 07 24.51944	19 43 54.14	-17 04 59.6	413
1979 OB1	1979 07 25.24097	19 43 16.05	-17 06 12.5	675
1979 OC1 *	1979 07 24.24444	19 45 04.41	-15 46 12.3	19.5 675
1979 OC1	1979 07 24.51944	19 44 49.22	-15 47 07.6	413
1979 OC1	1979 07 25.24097	19 44 09.22	-15 49 57.7	675
1979 OD1 *	1979 07 24.24444	19 45 12.31	-16 37 08.1	19.0 675
1979 OD1	1979 07 24.51944	19 44 54.81	-16 36 53.4	413
1979 OD1	1979 07 25.29306	19 44 05.82	-16 36 44.6	675
1979 OE1 *	1979 07 24.24444	19 45 29.09	-19 06 49.0	19.0 675
1979 OE1	1979 07 24.51944	19 45 15.45	-19 07 33.7	413

1979	OE1		1979	07	25.24097	19	44	38.76	-19	09	49.1	675	
1979	OE1		1979	07	27.18542	19	43	01.92	-19	15	42.1	675	
1979	OF1	*	1979	07	24.24444	19	45	42.50	-17	36	35.6	19.0	675
1979	OF1		1979	07	25.24097	19	44	45.64	-17	40	32.1	675	
1979	OG1	*	1979	07	24.24444	19	45	47.58	-16	59	27.7	19.0	675
1979	OG1		1979	07	24.51944	19	45	34.95	-16	59	52.2	413	
1979	OG1		1979	07	25.24097	19	45	01.87	-17	01	25.3	675	
1979	OH1	*	1979	07	24.24444	19	46	02.90	-14	49	41.9	18.5	675
1979	OH1		1979	07	24.56597	19	45	48.10	-14	51	29.4	413	
1979	OH1		1979	07	25.24097	19	45	17.71	-14	55	24.9	675	
1979	OH1		1979	07	26.18819	19	44	35.10	-15	00	50.9	675	
1979	OH1		1979	07	28.47749	19	42	53.24	-15	14	02.1	413	
1979	OJ1	*	1979	07	24.24444	19	46	09.97	-15	26	08.6	19.0	675
1979	OJ1		1979	07	24.59722	19	45	53.34	-15	27	52.4	413	
1979	OJ1		1979	07	25.29306	19	45	21.03	-15	31	33.6	675	
1979	OK1	*	1979	07	24.24444	19	46	41.93	-18	33	01.5	19.5	675
1979	OK1		1979	07	24.51944	19	46	26.26	-18	33	43.3	413	
1979	OK1		1979	07	25.24097	19	45	44.60	-18	35	51.5	675	
1979	OL1	*	1979	07	24.24444	19	46	48.12	-17	18	43.1	18.5	675
1979	OL1		1979	07	24.51944	19	46	32.35	-17	17	44.7	413	
1979	OL1		1979	07	25.24097	19	45	51.06	-17	15	53.6	675	
1979	OL1		1979	07	27.18542	19	44	01.82	-17	10	30.7	675	
1979	OM1	*	1979	07	24.24444	19	46	50.41	-18	39	28.9	17.5	675
1979	OM1		1979	07	24.51944	19	46	36.82	-18	39	44.7	413	
1979	OM1		1979	07	25.24097	19	46	00.53	-18	40	39.7	675	
1979	OM1		1979	07	27.18542	19	44	24.02	-18	42	56.9	675	
1979	ON1	*	1979	07	24.24444	19	47	22.07	-17	41	39.3	19.0	675
1979	ON1		1979	07	24.51944	19	47	09.11	-17	42	46.3	413	
1979	ON1		1979	07	25.24097	19	46	35.16	-17	45	59.2	675	
1979	ON1		1979	07	27.18542	19	45	04.80	-17	54	28.7	675	
1979	OO1	*	1979	07	24.24444	19	47	32.99	-13	23	16.5	19.0	675
1979	OO1		1979	07	24.56597	19	47	17.53	-13	24	03.0	413	
1979	OO1		1979	07	25.24097	19	46	45.41	-13	26	03.8	675	
1979	OO1		1979	07	26.18819	19	46	00.81	-13	28	48.3	675	
1979	OO1		1979	07	28.47749	19	44	14.27	-13	35	35.2	413	
1979	OP1	*	1979	07	24.24444	19	48	01.55	-15	15	18.9	18.5	675
1979	OP1		1979	07	24.56597	19	47	43.55	-15	15	34.9	413	
1979	OP1		1979	07	25.24097	19	47	06.95	-15	16	39.6	675	
1979	OP1		1979	07	26.18819	19	46	15.40	-15	18	00.8	675	
1979	OP1		1979	07	28.47749	19	44	12.13	-15	21	20.0	413	
1979	OQ1	*	1979	07	24.24444	19	48	19.77	-15	13	38.0	20.0	675
1979	OQ1		1979	07	24.56597	19	48	03.80	-15	13	57.7	413	
1979	OQ1		1979	07	25.29306	19	47	28.37	-15	14	57.0	675	
1979	OR1	*	1979	07	24.24444	19	48	41.55	-13	25	32.2	19.0	675
1979	OR1		1979	07	25.24097	19	47	46.88	-13	32	16.9	675	
1979	OS1	*	1979	07	24.24444	19	48	43.73	-16	29	32.0	18.0	675
1979	OS1		1979	07	24.51944	19	48	31.46	-16	33	20.3	413	
1979	OS1		1979	07	25.24097	19	47	59.78	-16	43	46.7	675	
1979	OS1		1979	07	27.18542	19	46	35.38	-17	11	32.9	675	
1979	OT1	*	1979	07	24.24444	19	48	48.28	-16	28	55.7	19.5	675
1979	OT1		1979	07	24.51944	19	48	35.43	-16	30	12.0	413	
1979	OT1		1979	07	25.29306	19	47	59.96	-16	34	07.9	675	
1979	OU1	*	1979	07	24.24444	19	49	56.37	-18	41	39.1	19.5	675
1979	OU1		1979	07	24.51944	19	49	41.73	-18	41	39.4	413	
1979	OU1		1979	07	27.18542	19	47	18.62	-18	43	15.7	675	
1979	OV1	*	1979	07	24.24444	19	51	53.36	-19	15	35.6	18.5	675
1979	OV1		1979	07	24.30208	19	51	50.39	-19	15	40.7	675	
1979	OV1		1979	07	24.51944	19	51	38.24	-19	15	49.5	413	
1979	OV1		1979	07	25.24097	19	50	57.75	-19	16	58.5	675	

1979	OV1	1979	07	25.36250	19	50	50.99	-19	17	08.8	675	
1979	OV1	1979	07	27.18542	19	49	11.48	-19	19	39.4	675	
1979	OW1	* 1979	07	24.24444	19	51	54.20	-19	03	06.1	19.5	675
1979	OW1	1979	07	25.29306	19	50	53.13	-19	05	12.9	675	
1979	OX1	* 1979	07	24.24444	19	52	22.81	-15	21	17.0	19.5	675
1979	OX1	1979	07	25.29306	19	51	28.19	-15	19	44.0	675	
1979	OY1	* 1979	07	24.24444	19	53	05.23	-13	45	29.4	19.5	675
1979	OY1	1979	07	24.56597	19	52	48.45	-13	46	39.3	413	
1979	OY1	1979	07	25.24097	19	52	13.65	-13	49	09.1	675	
1979	OZ1	* 1979	07	24.24444	19	53	18.86	-14	21	06.9	20.0	675
1979	OZ1	1979	07	24.56597	19	53	00.21	-14	22	29.2	413	
1979	OZ1	1979	07	25.24097	19	52	21.21	-14	25	27.9	675	
1979	OZ1	1979	07	28.47749	19	49	15.21	-14	39	47.8	413	
1979	OA2	* 1979	07	24.24444	19	53	27.32	-14	31	28.0	19.0	675
1979	OA2	1979	07	25.24097	19	52	29.28	-14	37	55.8	675	
1979	OB2	* 1979	07	24.24444	19	53	40.48	-16	04	25.3	19.5	675
1979	OB2	1979	07	24.55069	19	53	21.58	-16	06	06.7	413	
1979	OC2	* 1979	07	24.29653	19	38	17.72	-18	32	24.3	19.5	675
1979	OC2	1979	07	25.24097	19	37	23.88	-18	24	09.6	675	
1979	OD2	* 1979	07	24.29653	19	38	53.91	-14	57	21.9	19.0	675
1979	OD2	1979	07	25.24097	19	38	03.38	-14	59	17.9	675	
1979	OE2	* 1979	07	24.29653	19	38	58.30	-13	44	06.6	18.0	675
1979	OE2	1979	07	25.24097	19	38	00.16	-13	46	50.3	675	
1979	OF2	* 1979	07	24.29653	19	38	59.30	-18	20	17.1	19.0	675
1979	OF2	1979	07	25.24097	19	38	07.35	-18	20	34.7	675	
1979	OG2	* 1979	07	24.29653	19	39	32.54	-14	55	23.3	19.5	675
1979	OG2	1979	07	25.24097	19	38	40.37	-15	01	48.7	675	
1979	OH2	* 1979	07	24.29653	19	40	39.35	-14	13	58.0	19.0	675
1979	OH2	1979	07	25.24097	19	39	53.62	-14	19	47.9	675	
1979	OJ2	* 1979	07	24.29653	19	43	37.05	-18	30	32.0	19.5	675
1979	OJ2	1979	07	24.51944	19	43	26.32	-18	32	07.5	413	
1979	OJ2	1979	07	25.24097	19	42	51.81	-18	37	46.8	675	
1979	OK2	* 1979	07	24.29653	19	46	05.28	-16	53	11.0	19.0	675
1979	OK2	1979	07	24.51944	19	45	52.14	-16	53	51.2	413	
1979	OK2	1979	07	25.24097	19	45	10.52	-16	56	34.2	675	
1979	OK2	1979	07	27.18542	19	43	19.20	-17	03	36.7	675	
1979	OL2	* 1979	07	24.29653	19	46	40.62	-18	58	46.7	18.5	675
1979	OL2	1979	07	24.51944	19	46	29.65	-18	58	50.5	413	
1979	OL2	1979	07	25.24097	19	45	54.19	-18	59	25.2	675	
1979	OL2	1979	07	27.18542	19	44	20.68	-19	00	45.8	675	
1979	OM2	* 1979	07	24.29653	19	51	31.36	-13	12	56.0	20.0	675
1979	OM2	1979	07	24.56597	19	51	15.79	-13	14	20.2	413	
1979	OM2	1979	07	25.24097	19	50	36.57	-13	18	06.9	675	
1979	OM2	1979	07	26.18819	19	49	41.64	-13	23	26.9	675	
1979	OM2	1979	07	28.47749	19	47	30.06	-13	36	19.3	413	
1979	ON2	* 1979	07	24.30208	19	50	57.26	-20	55	56.1	18.5	675
1979	ON2	1979	07	24.51944	19	50	42.86	-20	55	49.5	413	
1979	ON2	1979	07	27.18542	19	47	47.51	-20	55	59.6	675	
1979	OO2	* 1979	07	24.30208	19	51	19.24	-19	21	20.9	17.5	675
1979	OO2	1979	07	24.51944	19	51	08.59	-19	21	50.8	413	
1979	OO2	1979	07	25.31042	19	50	29.80	-19	24	03.2	675	
1979	OO2	1979	07	27.18542	19	48	58.54	-19	29	00.7	675	
1979	OP2	* 1979	07	24.30208	19	51	19.36	-21	36	49.7	19.0	675
1979	OP2	1979	07	24.51944	19	51	05.46	-21	36	52.2	413	
1979	OQ2	* 1979	07	24.30208	19	52	05.40	-20	21	02.9	19.5	675
1979	OQ2	1979	07	24.55069	19	51	49.75	-20	21	38.3	413	
1979	OR2	* 1979	07	24.30208	19	52	43.92	-20	28	54.8	19.5	675
1979	OR2	1979	07	24.51944	19	52	31.34	-20	29	15.9	413	
1979	OS2	* 1979	07	24.30208	19	54	12.73	-17	56	29.3	19.5	675

1979 OS2	1979 07 24.51944	19 54 00.57	-17 58 17.9	413
1979 OS2	1979 07 25.31042	19 53 16.31	-18 05 29.0	675
1979 OT2 *	1979 07 24.30208	19 54 34.50	-19 48 12.9	19.5 675
1979 OT2	1979 07 24.51944	19 54 22.80	-19 49 18.9	413
1979 OT2	1979 07 25.36250	19 53 38.96	-19 53 49.4	675
1979 OU2 *	1979 07 24.30208	19 54 45.60	-20 12 23.4	19.5 675
1979 OU2	1979 07 24.51944	19 54 34.66	-20 13 02.3	413
1979 OU2	1979 07 25.36250	19 53 52.61	-20 15 46.2	675
1979 OV2 *	1979 07 24.30208	19 54 51.26	-18 33 03.8	19.5 675
1979 OV2	1979 07 24.51944	19 54 40.16	-18 33 39.0	413
1979 OV2	1979 07 25.31042	19 53 59.76	-18 36 12.2	675
1979 OW2 *	1979 07 24.30208	19 55 15.21	-17 42 16.0	17.5 675
1979 OW2	1979 07 24.51944	19 55 02.37	-17 41 09.0	413
1979 OW2	1979 07 25.31042	19 54 15.08	-17 37 39.1	675
1979 OW2	1979 07 26.19722	19 53 22.88	-17 33 35.3	675
1979 OW2	1979 07 27.18542	19 52 25.19	-17 29 07.9	675
1979 OW2	1979 07 27.30486	19 52 18.01	-17 28 36.5	675
1979 OX2 *	1979 07 24.30208	19 55 23.13	-18 38 04.1	19.5 675
1979 OX2	1979 07 24.55069	19 55 09.73	-18 37 46.2	413
1979 OY2 *	1979 07 24.30208	19 55 45.87	-18 40 15.8	20.0 675
1979 OY2	1979 07 24.55069	19 55 30.63	-18 41 00.9	413
1979 OY2	1979 07 25.36250	19 54 39.72	-18 43 53.7	675
1979 OZ2 *	1979 07 24.30208	19 55 48.18	-20 04 25.6	19.5 675
1979 OZ2	1979 07 24.51944	19 55 34.49	-20 04 42.6	413
1979 OZ2	1979 07 25.31042	19 54 44.49	-20 06 08.4	675
1979 OA3 *	1979 07 24.30208	19 56 10.86	-19 10 40.7	19.5 675
1979 OA3	1979 07 24.51944	19 56 00.19	-19 11 08.8	413
1979 OB3 *	1979 07 24.30208	19 56 18.26	-18 43 13.1	19.5 675
1979 OB3	1979 07 24.51944	19 56 07.30	-18 44 02.3	413
1979 OB3	1979 07 25.36250	19 55 24.57	-18 47 42.8	675
1979 OC3 *	1979 07 24.30208	19 56 33.98	-21 00 34.2	19.5 675
1979 OC3	1979 07 24.51944	19 56 20.01	-21 01 34.3	413
1979 OC3	1979 07 25.31042	19 55 29.44	-21 05 38.8	675
1979 OD3 *	1979 07 24.30208	19 56 34.18	-20 03 30.9	20.0 675
1979 OD3	1979 07 24.51944	19 56 24.18	-20 03 59.2	413
1979 OE3 *	1979 07 24.30208	19 56 37.95	-21 33 35.7	19.0 675
1979 OE3	1979 07 24.51944	19 56 25.86	-21 33 55.0	413
1979 OE3	1979 07 25.36250	19 55 39.85	-21 35 23.1	675
1979 OF3 *	1979 07 24.30208	19 56 49.30	-17 57 45.8	20.0 675
1979 OF3	1979 07 24.51944	19 56 37.08	-17 59 33.0	413
1979 OF3	1979 07 25.36250	19 55 48.97	-18 07 11.1	675
1979 OG3 *	1979 07 24.30208	19 56 54.30	-19 53 42.8	19.5 675
1979 OG3	1979 07 24.51944	19 56 40.34	-19 53 41.9	413
1979 OG3	1979 07 25.31042	19 55 49.46	-19 54 12.5	675
1979 OH3 *	1979 07 24.30208	19 57 12.28	-18 58 08.9	20.0 675
1979 OH3	1979 07 24.55069	19 56 59.53	-18 58 32.0	413
1979 OH3	1979 07 25.36250	19 56 17.76	-19 00 10.1	675
1979 OJ3 *	1979 07 24.30208	19 58 06.84	-21 13 19.7	19.0 675
1979 OJ3	1979 07 24.51944	19 57 54.81	-21 14 17.6	413
1979 OJ3	1979 07 25.31042	19 57 10.75	-21 18 19.2	675
1979 OK3 *	1979 07 24.30208	19 58 25.93	-21 00 37.9	18.5 675
1979 OK3	1979 07 24.51944	19 58 14.13	-21 01 28.6	413
1979 OK3	1979 07 25.31042	19 57 30.78	-21 04 51.2	675
1979 OK3	1979 07 27.18542	19 55 48.72	-21 12 38.0	675
1979 OL3 *	1979 07 24.30208	19 58 36.15	-21 34 26.0	19.0 675
1979 OL3	1979 07 24.51944	19 58 22.66	-21 35 01.6	413
1979 OL3	1979 07 25.31042	19 57 33.40	-21 37 24.5	675
1979 OM3 *	1979 07 24.30208	19 58 38.07	-21 03 50.4	19.5 675
1979 OM3	1979 07 24.51944	19 58 24.84	-21 01 54.2	413

1979	OM3		1979	07	25.31042	19	57	36.20	-20	55	34.1		675
1979	ON3	*	1979	07	24.30208	19	58	40.81	-21	19	13.9	19.5	675
1979	ON3		1979	07	24.51944	19	58	28.15	-21	20	19.4		413
1979	ON3		1979	07	25.31042	19	57	41.96	-21	24	25.6		675
1979	OO3	*	1979	07	24.30208	19	58	46.79	-21	16	22.2	19.0	675
1979	OO3		1979	07	24.51944	19	58	34.53	-21	16	27.9		413
1979	OO3		1979	07	25.31042	19	57	48.75	-21	17	10.6		675
1979	OP3	*	1979	07	24.30208	19	58	56.04	-20	16	38.3	19.5	675
1979	OP3		1979	07	24.51944	19	58	45.44	-20	17	16.2		413
1979	OP3		1979	07	25.36250	19	58	04.76	-20	20	22.3		675
1979	OQ3	*	1979	07	24.30208	19	59	32.35	-19	03	59.7	19.5	675
1979	OQ3		1979	07	24.51944	19	59	21.61	-19	05	00.0		413
1979	OQ3		1979	07	25.31042	19	58	43.51	-19	08	52.1		675
1979	OR3	*	1979	07	24.30208	19	59	35.54	-20	24	15.3	19.5	675
1979	OR3		1979	07	25.31042	19	58	35.96	-20	25	31.3		675
1979	OS3	*	1979	07	24.30208	19	59	41.17	-18	04	09.2	19.5	675
1979	OS3		1979	07	24.55069	19	59	28.91	-18	05	14.8		413
1979	OT3	*	1979	07	24.30208	19	59	51.82	-21	11	25.4	19.5	675
1979	OT3		1979	07	24.51944	19	59	37.19	-21	10	27.7	19.0	413
1979	OT3		1979	07	25.36250	19	58	39.90	-21	06	57.9		675
1979	OU3	*	1979	07	24.30208	19	59	53.37	-20	41	42.9	19.0	675
1979	OU3		1979	07	24.51944	19	59	39.57	-20	41	29.3		413
1979	OU3		1979	07	25.31042	19	58	50.56	-20	40	53.8		675
1979	OU3		1979	07	27.18542	19	56	54.56	-20	39	18.2		675
1979	OV3	*	1979	07	24.30208	19	59	57.96	-18	20	38.5	18.5	675
1979	OV3		1979	07	24.51944	19	59	44.53	-18	20	35.9		413
1979	OV3		1979	07	25.31042	19	58	55.63	-18	20	52.7		675
1979	OV3		1979	07	27.18542	19	57	00.98	-18	21	20.2		675
1979	OW3	*	1979	07	24.30208	20	00	03.60	-19	39	57.3	19.0	675
1979	OW3		1979	07	24.51944	19	59	52.84	-19	40	26.8		413
1979	OW3		1979	07	25.31042	19	59	13.74	-19	42	30.8		675
1979	OW3		1979	07	25.36250	19	59	11.13	-19	42	38.0		675
1979	OX3	*	1979	07	24.30208	20	00	06.02	-19	07	56.2	20.0	675
1979	OX3		1979	07	24.51944	19	59	54.89	-19	08	35.6		413
1979	OX3		1979	07	25.36250	19	59	11.20	-19	11	20.1		675
1979	OY3	*	1979	07	24.30208	20	00	09.96	-21	10	52.1	18.5	675
1979	OY3		1979	07	24.51944	19	59	56.17	-21	10	19.7		413
1979	OY3		1979	07	25.31042	19	59	05.35	-21	08	56.6		675
1979	OY3		1979	07	27.18542	19	57	06.17	-21	05	14.1		675
1979	OZ3	*	1979	07	24.30208	20	00	33.90	-19	13	50.3	19.5	675
1979	OZ3		1979	07	24.51944	20	00	20.29	-19	14	50.4		413
1979	OZ3		1979	07	25.31042	19	59	33.47	-19	18	41.7		675
1979	OA4	*	1979	07	24.30208	20	00	34.91	-20	31	29.6	19.5	675
1979	OA4		1979	07	24.51944	20	00	24.15	-20	31	34.8		413
1979	OB4	*	1979	07	24.30208	20	00	36.16	-20	55	57.4	19.5	675
1979	OB4		1979	07	24.51944	20	00	25.59	-20	56	47.7		413
1979	OB4		1979	07	25.31042	19	59	47.17	-21	00	08.1		675
1979	OC4	*	1979	07	24.30208	20	00	37.18	-20	18	42.7	20.0	675
1979	OC4		1979	07	24.51944	20	00	26.89	-20	19	20.3		413
1979	OD4	*	1979	07	24.30208	20	00	41.47	-21	27	00.5	18.5	675
1979	OD4		1979	07	24.51944	20	00	31.02	-21	27	34.1		413
1979	OD4		1979	07	25.31042	19	59	52.61	-21	29	45.6		675
1979	OE4	*	1979	07	24.30208	20	00	50.84	-21	39	56.3	19.0	675
1979	OE4		1979	07	24.51944	20	00	38.57	-21	40	43.5		413
1979	OE4		1979	07	25.31042	19	59	53.67	-21	43	53.0		675
1979	OF4	*	1979	07	24.30208	20	00	52.61	-17	54	46.6	19.5	675
1979	OF4		1979	07	24.51944	20	00	41.14	-17	55	02.8		413
1979	OG4	*	1979	07	24.30208	20	01	21.55	-19	40	50.0	18.5	675
1979	OG4		1979	07	24.51944	20	01	07.97	-19	41	30.1		413

1979	OG4	1979	07	25.31042	20	00	17.81	-19	44	17.7		675
1979	OG4	1979	07	27.18542	19	58	19.58	-19	50	41.6		675
1979	OH4	* 1979	07	24.30208	20	01	24.55	-20	19	31.9	19.5	675
1979	OH4	1979	07	24.51944	20	01	12.94	-20	19	48.4		413
1979	OH4	1979	07	25.31042	20	00	31.46	-20	20	56.9		675
1979	OJ4	* 1979	07	24.30208	20	01	29.67	-19	22	58.6	19.5	675
1979	OJ4	1979	07	24.51944	20	01	17.81	-19	24	33.3		413
1979	OK4	* 1979	07	24.30208	20	01	37.50	-19	41	08.0	19.0	675
1979	OK4	1979	07	24.51944	20	01	26.09	-19	41	07.9		413
1979	OK4	1979	07	25.31042	20	00	44.62	-19	41	20.1		675
1979	OK4	1979	07	27.18542	19	59	06.97	-19	41	40.5		675
1979	OL4	* 1979	07	24.30208	20	01	42.08	-17	57	48.5	19.5	675
1979	OL4	1979	07	24.51944	20	01	30.33	-17	58	06.6		413
1979	OL4	1979	07	25.31042	20	00	47.03	-17	59	31.0		675
1979	OM4	* 1979	07	24.30208	20	02	26.14	-18	02	54.6	19.0	675
1979	OM4	1979	07	24.51944	20	02	13.02	-18	03	03.8		413
1979	OM4	1979	07	25.36250	20	01	22.21	-18	04	02.2		675
1979	ON4	* 1979	07	24.30208	20	02	32.66	-19	40	56.4	18.0	675
1979	ON4	1979	07	24.51944	20	02	21.75	-19	41	39.1		413
1979	ON4	1979	07	25.31042	20	01	41.36	-19	44	22.6		675
1979	ON4	1979	07	27.18542	20	00	06.55	-19	50	43.7		675
1979	OO4	* 1979	07	24.30208	20	02	32.76	-21	19	13.7	19.0	675
1979	OO4	1979	07	24.51944	20	02	18.78	-21	20	00.2		413
1979	OO4	1979	07	25.31042	20	01	27.74	-21	23	08.3		675
1979	OP4	* 1979	07	24.30208	20	02	36.11	-21	28	31.6	19.0	675
1979	OP4	1979	07	24.51944	20	02	22.14	-21	29	18.5		413
1979	OP4	1979	07	25.31042	20	01	31.24	-21	32	20.3		675
1979	OQ4	* 1979	07	24.30208	20	03	30.92	-20	00	14.3	19.0	675
1979	OQ4	1979	07	24.51944	20	03	16.59	-20	00	51.5		413
1979	OQ4	1979	07	25.36250	20	02	20.67	-20	03	37.0		675
1979	OR4	* 1979	07	24.30208	20	04	01.33	-19	47	40.7	20.0	675
1979	OR4	1979	07	24.51944	20	03	49.53	-19	48	09.7		413
1979	OR4	1979	07	25.31042	20	03	08.00	-19	50	02.9		675
1979	OS4	* 1979	07	24.30208	20	04	10.19	-19	59	29.3	18.0	675
1979	OS4	1979	07	24.55069	20	03	58.98	-19	59	51.2		413
1979	OS4	1979	07	25.31042	20	03	24.68	-20	01	05.5		675
1979	OS4	1979	07	27.18542	20	02	00.75	-20	04	03.1		675
1979	OT4	* 1979	07	24.30208	20	04	35.96	-20	36	03.3	19.5	675
1979	OT4	1979	07	25.31042	20	03	42.31	-20	39	21.4		675
1979	OU4	* 1979	07	24.30208	20	04	42.91	-19	51	42.5	20.0	675
1979	OU4	1979	07	24.51944	20	04	30.37	-19	52	08.9		413
1979	OV4	* 1979	07	24.30208	20	04	46.94	-20	45	12.2	18.5	675
1979	OV4	1979	07	24.51944	20	04	35.60	-20	45	40.0		413
1979	OV4	1979	07	25.31042	20	03	54.58	-20	47	31.3		675
1979	OV4	1979	07	27.18542	20	02	17.84	-20	51	46.6		675
1979	OW4	* 1979	07	24.30208	20	04	52.74	-21	17	15.4	19.0	675
1979	OW4	1979	07	24.51944	20	04	41.66	-21	17	47.8		413
1979	OW4	1979	07	25.31042	20	04	01.28	-21	19	52.0		675
1979	OX4	* 1979	07	24.30208	20	05	14.65	-17	49	55.7	19.5	675
1979	OX4	1979	07	24.51944	20	05	03.25	-17	49	52.4		413
1979	OX4	1979	07	25.36250	20	04	18.70	-17	49	52.8		675
1979	OY4	* 1979	07	24.30208	20	05	33.03	-20	00	51.8	19.5	675
1979	OY4	1979	07	24.51944	20	05	18.94	-20	00	27.7		413
1979	OY4	1979	07	25.31042	20	04	26.75	-19	59	29.6		675
1979	OZ4	* 1979	07	24.30208	20	05	40.78	-20	12	53.7	18.0	675
1979	OZ4	1979	07	24.51944	20	05	28.37	-20	13	39.0		413
1979	OZ4	1979	07	25.31042	20	04	42.48	-20	16	57.8		675
1979	OZ4	1979	07	27.18542	20	02	54.12	-20	24	30.2		675
1979	OA5	* 1979	07	24.30208	20	05	47.73	-20	28	38.4	20.0	675

1979	OA5		1979	07	24.51944	20	05	36.68	-20	31	19.4		413
1979	OB5	*	1979	07	24.30208	20	05	53.43	-18	15	32.1	19.5	675
1979	OB5		1979	07	24.51944	20	05	43.56	-18	16	00.2		413
1979	OC5	*	1979	07	24.30208	20	06	33.95	-19	44	29.7	19.0	675
1979	OC5		1979	07	25.31042	20	05	40.99	-19	48	33.4		675
1979	OD5	*	1979	07	24.30208	20	06	39.68	-19	17	18.2	19.0	675
1979	OD5		1979	07	25.31042	20	05	37.93	-19	16	23.5		675
1979	OE5	*	1979	07	24.30208	20	06	43.90	-20	46	38.1	19.5	675
1979	OE5		1979	07	24.51944	20	06	31.65	-20	47	07.5		413
1979	OE5		1979	07	25.31042	20	05	47.26	-20	49	14.2		675
1979	OF5	*	1979	07	24.30208	20	06	59.19	-20	30	18.0	19.0	675
1979	OF5		1979	07	24.51944	20	06	45.84	-20	31	26.0		413
1979	OF5		1979	07	25.31042	20	05	57.28	-20	35	54.4		675
1979	OF5		1979	07	27.18542	20	04	02.81	-20	46	12.2		675
1979	OG5	*	1979	07	24.30208	20	07	09.36	-17	49	17.0	20.0	675
1979	OG5		1979	07	24.51944	20	06	56.83	-17	49	49.1		413
1979	OG5		1979	07	25.31042	20	06	11.91	-17	52	10.9		675
1979	OH5	*	1979	07	24.30208	20	07	15.43	-19	26	53.0	18.5	675
1979	OH5		1979	07	25.31042	20	06	27.22	-19	29	45.0		675
1979	OJ5	*	1979	07	24.30208	20	07	27.13	-20	30	28.6	18.5	675
1979	OJ5		1979	07	24.51944	20	07	12.64	-20	29	53.5		413
1979	OJ5		1979	07	25.31042	20	06	19.49	-20	28	05.8		675
1979	OJ5		1979	07	27.18542	20	04	13.68	-20	23	33.0		675
1979	OK5	*	1979	07	24.30208	20	07	28.75	-21	05	22.8	19.5	675
1979	OK5		1979	07	24.51944	20	07	17.55	-21	05	37.4		413
1979	OK5		1979	07	25.31042	20	06	37.08	-21	06	37.9		675
1979	OL5	*	1979	07	24.30208	20	07	35.64	-18	48	24.6	18.5	675
1979	OL5		1979	07	24.51944	20	07	23.87	-18	48	16.3		413
1979	OL5		1979	07	25.31042	20	06	40.84	-18	48	07.4		675
1979	OL5		1979	07	27.18542	20	04	59.38	-18	47	38.3		675
1979	OM5	*	1979	07	24.30208	20	08	26.40	-19	57	46.3	19.0	675
1979	OM5		1979	07	25.31042	20	07	24.37	-20	03	29.7		675
1979	ON5	*	1979	07	24.30208	20	09	20.36	-19	18	42.7	19.0	675
1979	ON5		1979	07	25.31042	20	08	22.45	-19	20	38.4		675
1979	OO5	*	1979	07	24.30208	20	09	21.80	-21	04	51.7	17.5	675
1979	OO5		1979	07	25.31042	20	08	15.91	-21	05	26.9		675
1979	OP5	*	1979	07	24.30208	20	09	22.11	-19	29	18.7	18.5	675
1979	OP5		1979	07	25.31042	20	08	26.00	-19	31	55.7		675
1979	OQ5	*	1979	07	24.30208	20	10	03.97	-20	16	23.0	17.5	675
1979	OQ5		1979	07	25.31042	20	09	12.48	-20	17	21.9		675
1979	OR5	*	1979	07	24.30208	20	10	07.75	-20	58	00.7	19.5	675
1979	OR5		1979	07	25.36250	20	09	16.48	-21	03	22.8		675
1979	OS5	*	1979	07	24.30208	20	10	37.51	-20	43	46.5	18.0	675
1979	OS5		1979	07	25.31042	20	09	32.64	-20	44	27.1		675
1979	OT5	*	1979	07	24.30208	20	10	48.13	-20	07	59.3	18.5	675
1979	OT5		1979	07	25.31042	20	09	59.48	-20	10	22.9		675
1979	OU5	*	1979	07	24.30208	20	10	49.33	-20	57	35.0	18.0	675
1979	OU5		1979	07	25.31042	20	10	00.89	-20	59	57.9		675
1979	OV5	*	1979	07	24.30208	20	11	15.24	-20	30	37.2	19.5	675
1979	OV5		1979	07	25.31042	20	10	20.39	-20	35	13.9		675
1979	OW5	*	1979	07	24.30208	20	11	30.98	-17	54	17.0	19.0	675
1979	OW5		1979	07	25.31042	20	10	26.37	-17	56	40.8		675
1979	OW5		1979	07	26.19722	20	09	29.81	-17	58	42.3	19.5	675
1979	OW5		1979	07	27.25278	20	08	22.82	-18	01	16.4		675
1979	OX5	*	1979	07	24.30208	20	11	45.89	-19	13	51.2	19.0	675
1979	OX5		1979	07	25.31042	20	10	56.90	-19	17	13.2		675
1979	OY5	*	1979	07	24.30208	20	12	01.91	-19	45	59.4	19.0	675
1979	OY5		1979	07	25.31042	20	11	09.44	-19	49	59.8		675
1979	OZ5	*	1979	07	24.30208	20	12	23.60	-20	32	14.3	19.0	675

1979	OZ5		1979	07	25.31042	20	11	21.52	-20	30	36.5		675
1979	OA6	*	1979	07	24.30208	20	12	36.53	-21	15	33.2	18.5	675
1979	OA6		1979	07	25.31042	20	11	37.72	-21	15	47.8		675
1979	OB6	*	1979	07	24.30208	20	12	50.67	-18	33	44.4	18.0	675
1979	OB6		1979	07	25.31042	20	11	55.36	-18	38	33.1		675
1979	OC6	*	1979	07	24.30208	20	12	51.88	-20	09	28.6	19.5	675
1979	OC6		1979	07	25.31042	20	11	47.25	-20	10	51.5		675
1979	OD6	*	1979	07	24.30208	20	12	57.96	-17	39	43.0	19.0	675
1979	OD6		1979	07	25.31042	20	12	02.34	-17	47	49.8		675
1979	OE6	*	1979	07	24.30208	20	13	01.54	-20	17	45.1	19.0	675
1979	OE6		1979	07	25.31042	20	12	07.54	-20	17	40.7		675
1979	OF6	*	1979	07	24.30208	20	13	05.42	-17	57	57.3	19.0	675
1979	OF6		1979	07	25.31042	20	12	05.16	-18	02	19.8		675
1979	OG6	*	1979	07	24.30208	20	13	07.22	-18	15	00.1	18.5	675
1979	OG6		1979	07	25.31042	20	12	04.49	-18	16	21.3		675
1979	OH6	*	1979	07	24.30208	20	13	22.66	-18	23	07.9	19.0	675
1979	OH6		1979	07	25.31042	20	12	21.16	-18	27	28.5		675
1979	OJ6	*	1979	07	24.30208	20	13	37.03	-19	30	17.0	18.0	675
1979	OJ6		1979	07	25.31042	20	12	50.59	-19	33	10.0		675
1979	OK6	*	1979	07	24.30208	20	13	46.09	-17	52	42.6	18.5	675
1979	OK6		1979	07	25.31042	20	12	50.88	-17	55	09.8		675
1979	OL6	*	1979	07	24.30208	20	14	01.80	-21	06	16.6	18.0	675
1979	OL6		1979	07	25.31042	20	13	07.66	-21	10	26.0		675
1979	OM6	*	1979	07	24.30208	20	14	07.12	-21	10	56.4	18.5	675
1979	OM6		1979	07	25.31042	20	13	13.25	-21	14	18.9		675
1979	ON6	*	1979	07	24.35417	19	51	13.20	-20	43	52.3	19.0	675
1979	ON6		1979	07	24.51944	19	51	03.29	-20	44	45.2		413
1979	ON6		1979	07	27.18542	19	48	23.88	-21	01	12.9		675
1979	OO6	*	1979	07	24.35417	19	52	03.05	-19	49	39.6	19.0	675
1979	OO6		1979	07	24.51944	19	51	54.15	-19	49	53.9		413
1979	OO6		1979	07	25.31042	19	51	12.02	-19	51	27.8		675
1979	OP6	*	1979	07	24.35417	19	53	37.89	-19	32	55.8	19.5	675
1979	OP6		1979	07	24.51944	19	53	27.29	-19	32	08.2		413
1979	OP6		1979	07	25.31042	19	52	36.32	-19	29	14.8		675
1979	OQ6	*	1979	07	24.35417	19	53	50.81	-19	36	30.2	19.5	675
1979	OQ6		1979	07	24.51944	19	53	41.97	-19	36	58.5		413
1979	OQ6		1979	07	25.36250	19	52	55.62	-19	40	16.4		675
1979	OR6	*	1979	07	24.35417	19	54	43.30	-21	21	09.8	19.5	675
1979	OR6		1979	07	24.55069	19	54	31.70	-21	21	24.0		413
1979	OS6	*	1979	07	24.35417	19	56	33.97	-20	45	11.2	19.5	675
1979	OS6		1979	07	25.31042	19	55	48.85	-20	49	05.2		675
1979	OT6	*	1979	07	24.35417	19	57	26.42	-17	59	53.3	19.5	675
1979	OT6		1979	07	24.51944	19	57	17.47	-17	59	56.2		413
1979	OT6		1979	07	25.31042	19	56	35.17	-18	00	40.7		675
1979	OU6	*	1979	07	24.35417	19	58	13.06	-21	14	17.4	19.5	675
1979	OU6		1979	07	24.51944	19	58	04.35	-21	15	28.7		413
1979	OV6	*	1979	07	24.35417	19	59	06.36	-21	35	25.9	19.5	675
1979	OV6		1979	07	24.51944	19	58	56.83	-21	35	25.8		413
1979	OV6		1979	07	25.31042	19	58	11.36	-21	35	45.1		675
1979	OW6	*	1979	07	24.35417	19	59	12.50	-18	44	15.1	19.5	675
1979	OW6		1979	07	24.51944	19	59	01.65	-18	43	50.4		413
1979	OW6		1979	07	25.31042	19	58	10.61	-18	42	23.5		675
1979	OX6	*	1979	07	24.35417	19	59	32.25	-19	21	43.0	19.5	675
1979	OX6		1979	07	24.51944	19	59	21.89	-19	22	20.2		413
1979	OX6		1979	07	25.31042	19	58	33.25	-19	25	39.3		675
1979	OY6	*	1979	07	24.35417	19	59	57.35	-20	33	49.8	19.5	675
1979	OY6		1979	07	24.51944	19	59	48.55	-20	33	44.9		413
1979	OY6		1979	07	25.31042	19	59	06.99	-20	33	37.4		675
1979	OZ6	*	1979	07	24.35417	20	01	29.27	-17	46	13.4	19.5	675

1979 OZ6	1979 07 24.55069	20 01 16.83	-17 46 27.6		413
1979 OA7 *	1979 07 24.35417	20 01 56.17	-19 22 22.0	19.5	675
1979 OA7	1979 07 24.51944	20 01 47.14	-19 23 13.2		413
1979 OA7	1979 07 25.31042	20 01 03.15	-19 27 40.3		675
1979 OB7 *	1979 07 24.35417	20 03 20.75	-18 32 03.4	19.5	675
1979 OB7	1979 07 24.51944	20 03 11.60	-18 32 35.8		413
1979 OB7	1979 07 25.31042	20 02 28.32	-18 35 11.7		675
1979 OC7 *	1979 07 24.35417	20 04 29.38	-19 59 10.2	19.5	675
1979 OC7	1979 07 24.51944	20 04 19.25	-19 59 21.6		413
1979 OC7	1979 07 25.31042	20 03 32.33	-20 00 29.6		675
1979 OD7 *	1979 07 24.35417	20 05 47.67	-20 52 23.0	19.5	675
1979 OD7	1979 07 24.51944	20 05 39.41	-20 53 05.4		413
1979 OD7	1979 07 25.31042	20 04 59.35	-20 56 43.4		675
1979 OE7 *	1979 07 24.35417	20 06 19.25	-18 46 25.9	19.5	675
1979 OE7	1979 07 24.51944	20 06 10.93	-18 47 20.7		413
1979 OE7	1979 07 25.36250	20 05 26.22	-18 52 16.3		675
1979 OF7 *	1979 07 24.35417	20 07 12.98	-21 17 54.2	20.0	675
1979 OF7	1979 07 24.51944	20 07 04.06	-21 18 30.5		413
1979 OF7	1979 07 25.31042	20 06 20.59	-21 21 37.7		675
1979 OG7 *	1979 07 24.35417	20 07 36.11	-18 54 14.4	19.0	675
1979 OG7	1979 07 24.51944	20 07 26.84	-18 54 28.7		413
1979 OG7	1979 07 25.31042	20 06 40.47	-18 56 01.2		675
1979 OH7 *	1979 07 24.35417	20 07 41.48	-21 04 04.3	19.5	675
1979 OH7	1979 07 24.51944	20 07 31.22	-21 04 15.4		413
1979 OH7	1979 07 25.36250	20 06 37.98	-21 05 50.8		675
1979 OJ7 *	1979 07 24.35417	20 08 10.94	-20 43 44.9	19.0	675
1979 OJ7	1979 07 25.36250	20 07 06.32	-20 49 35.5		675
1979 OK7 *	1979 07 24.35417	20 12 42.01	-20 12 27.8	18.0	675
1979 OK7	1979 07 25.31042	20 11 39.27	-20 15 12.4		675
1979 OL7 *	1979 07 24.51944	19 43 15.91	-20 03 58.2	19.0	413
1979 OL7	1979 07 27.18542	19 41 03.34	-20 22 18.4		675
1979 OM7 *	1979 07 24.51944	19 44 04.05	-20 25 38.5	18.5	413
1979 OM7	1979 07 27.18542	19 41 05.91	-20 15 00.2		675
1979 ON7 *	1979 07 24.51944	19 44 34.10	-19 43 41.2	19.0	413
1979 ON7	1979 07 27.18542	19 41 58.34	-19 39 10.5		675
1979 OO7 *	1979 07 24.51944	19 45 39.12	-20 14 19.0	19.0	413
1979 OO7	1979 07 27.18542	19 43 00.04	-20 23 02.8		675
1979 OP7 *	1979 07 24.51944	19 47 39.79	-19 19 51.0	19.0	413
1979 OP7	1979 07 27.18542	19 44 50.94	-19 20 54.3		675
1979 OQ7 *	1979 07 24.51944	19 47 43.26	-20 26 57.2	19.5	413
1979 OQ7	1979 07 27.18542	19 45 24.06	-20 26 15.5		675
1979 OR7 *	1979 07 24.51944	19 47 59.21	-20 00 37.4	18.0	413
1979 OR7	1979 07 27.18542	19 45 35.83	-19 58 15.0		675
1979 OS7 *	1979 07 24.51944	19 48 26.69	-20 41 37.2	18.5	413
1979 OS7	1979 07 27.18542	19 45 35.96	-20 45 39.4		675
1979 OT7 *	1979 07 24.51944	19 49 22.54	-20 27 45.3	19.0	413
1979 OT7	1979 07 27.18542	19 47 13.76	-20 41 28.2		675
1979 OU7 *	1979 07 24.51944	19 49 57.16	-19 50 44.9	18.5	413
1979 OU7	1979 07 27.18542	19 47 36.12	-19 49 11.5		675
1979 OV7 *	1979 07 24.51944	19 52 39.54	-19 29 27.9	19.5	413
1979 OV7	1979 07 25.36250	19 51 58.19	-19 32 32.1		675
1979 OW7 *	1979 07 24.51944	19 52 44.14	-19 23 31.4	19.5	413
1979 OW7	1979 07 25.31042	19 52 06.39	-19 25 41.3		675
1979 OX7 *	1979 07 24.51944	19 53 32.10	-21 02 00.7	19.0	413
1979 OX7	1979 07 25.31042	19 52 52.24	-21 04 01.6		675
1979 OY7 *	1979 07 24.51944	19 53 59.06	-20 25 30.4	19.5	413
1979 OY7	1979 07 25.31042	19 53 10.50	-20 24 45.7		675
1979 OZ7 *	1979 07 24.51944	19 57 06.57	-16 14 43.4	19.5	413
1979 OZ7	1979 07 27.25278	19 54 56.28	-16 19 01.0		675

1979	OA8	*	1979	07	24.51944	19	58	20.90	-17	08	31.4	19.0	413
1979	OA8		1979	07	26.19722	19	57	01.16	-17	11	45.0		675
1979	OA8		1979	07	27.18542	19	56	14.79	-17	13	36.9		675
1979	OA8		1979	07	27.30486	19	56	08.98	-17	13	49.9		675
1979	OB8	*	1979	07	24.51944	19	59	11.92	-18	15	58.2	19.5	413
1979	OB8		1979	07	25.31042	19	58	31.07	-18	18	29.6		675
1979	OC8	*	1979	07	24.51944	20	01	07.49	-19	23	51.9	19.5	413
1979	OC8		1979	07	25.36250	20	00	10.19	-19	19	25.4		675
1979	OD8	*	1979	07	24.51944	20	01	37.42	-17	18	53.8	19.0	413
1979	OD8		1979	07	26.19722	19	59	51.48	-17	16	24.4		675
1979	OD8		1979	07	27.25278	19	58	44.81	-17	14	49.7		675
1979	OE8	*	1979	07	24.51944	20	03	20.93	-19	50	16.5	20.0	413
1979	OE8		1979	07	25.31042	20	02	36.48	-19	51	12.1		675
1979	OF8	*	1979	07	24.51944	20	03	46.90	-15	39	26.2	19.0	413
1979	OF8		1979	07	26.24931	20	02	17.19	-15	51	01.1		675
1979	OF8		1979	07	27.25278	20	01	25.10	-15	57	43.1		675
1979	OG8	*	1979	07	24.51944	20	05	08.01	-15	54	52.7	18.0	413
1979	OG8		1979	07	26.19722	20	03	27.82	-16	31	02.7		675
1979	OG8		1979	07	27.25278	20	02	23.85	-16	54	03.6		675
1979	OH8	*	1979	07	24.51944	20	06	37.16	-17	19	28.4	19.0	413
1979	OH8		1979	07	26.19722	20	04	49.01	-17	11	24.9		675
1979	OH8		1979	07	27.18542	20	03	46.25	-17	06	43.8		675
1979	OH8		1979	07	27.30486	20	03	38.37	-17	06	08.3		675
1979	OJ8	*	1979	07	24.51944	20	07	03.26	-21	09	43.2	19.5	413
1979	OJ8		1979	07	25.31042	20	06	21.69	-21	11	34.1		675
1979	OK8	*	1979	07	24.51944	20	07	13.57	-17	31	39.9	19.0	413
1979	OK8		1979	07	27.18542	20	04	35.31	-17	42	27.2		675
1979	OL8	*	1979	07	24.55069	19	42	44.59	-18	22	22.2	19.0	413
1979	OL8		1979	07	25.24097	19	42	11.36	-18	28	13.1		675
1979	OM8	*	1979	07	24.55069	19	46	06.50	-19	28	26.3	19.0	413
1979	OM8		1979	07	27.18542	19	43	37.33	-19	44	42.6		675
1979	ON8	*	1979	07	24.56597	19	43	12.42	-10	36	50.0	19.5	413
1979	ON8		1979	07	26.18819	19	41	50.21	-10	48	52.4		675
1979	OO8	*	1979	07	24.56597	19	43	28.06	-10	34	38.4	19.0	413
1979	OO8		1979	07	26.18819	19	42	11.39	-10	36	47.9		675
1979	OP8	*	1979	07	24.56597	19	43	31.83	-11	53	56.6	19.5	413
1979	OP8		1979	07	26.18819	19	42	16.14	-12	01	16.7		675
1979	OQ8	*	1979	07	24.56597	19	44	08.94	-11	43	59.0	19.5	413
1979	OQ8		1979	07	26.18819	19	42	34.16	-11	44	32.6		675
1979	OR8	*	1979	07	24.56597	19	44	59.10	-12	42	48.5	20.0	413
1979	OR8		1979	07	28.47749	19	41	32.07	-12	53	41.3		413
1979	OS8	*	1979	07	24.56597	19	46	31.75	-11	42	34.0		413
1979	OS8		1979	07	28.50874	19	43	12.93	-11	37	49.6		413
1979	OT8	*	1979	07	24.56597	19	46	37.79	-10	03	28.0	19.5	413
1979	OT8		1979	07	28.47749	19	42	37.38	-10	14	59.2		413
1979	OU8	*	1979	07	24.56597	19	47	00.96	-12	22	53.9		413
1979	OU8		1979	07	28.47749	19	43	36.78	-12	38	33.7		413
1979	OV8	*	1979	07	24.56597	19	47	02.24	-10	54	38.3	18.5	413
1979	OV8		1979	07	26.18819	19	45	48.80	-11	00	49.3		675
1979	OV8		1979	07	28.47749	19	44	06.39	-11	09	40.5		413
1979	OW8	*	1979	07	24.56597	19	47	06.50	-10	08	21.6	19.0	413
1979	OW8		1979	07	26.18819	19	45	46.84	-10	15	21.3		675
1979	OW8		1979	07	28.47749	19	43	55.56	-10	25	35.1		413
1979	OX8	*	1979	07	24.56597	19	47	50.99	-09	38	03.9	18.5	413
1979	OX8		1979	07	26.18819	19	46	34.20	-09	43	04.5		675
1979	OX8		1979	07	28.47749	19	44	46.50	-09	50	21.6		413
1979	OY8	*	1979	07	24.56597	19	48	14.81	-11	38	12.7		413
1979	OY8		1979	07	26.18819	19	46	45.97	-11	40	33.1		675
1979	OY8		1979	07	28.47749	19	44	42.38	-11	43	58.8		413

1979	OZ8	*	1979	07	24.56597	19	48	40.58	-12	10	06.8	413	
1979	OZ8		1979	07	26.18819	19	47	18.07	-12	19	36.4	675	
1979	OZ8		1979	07	28.47749	19	45	22.60	-12	33	01.3	413	
1979	OA9	*	1979	07	24.56597	19	48	43.68	-12	13	36.2	413	
1979	OA9		1979	07	28.47749	19	45	34.75	-12	41	20.6	413	
1979	OB9	*	1979	07	24.56597	19	49	08.29	-11	44	48.4	413	
1979	OB9		1979	07	26.18819	19	47	29.91	-11	49	13.6	675	
1979	OB9		1979	07	28.47749	19	45	11.77	-11	55	36.0	413	
1979	OC9	*	1979	07	24.56597	19	49	22.49	-12	27	23.1	19.0	413
1979	OC9		1979	07	26.18819	19	48	08.47	-12	43	11.1	675	
1979	OD9	*	1979	07	24.56597	19	49	27.74	-10	39	43.7	20.0	413
1979	OD9		1979	07	28.47749	19	45	31.95	-10	38	19.9	413	
1979	OE9	*	1979	07	24.56597	19	49	44.75	-10	18	28.5	19.5	413
1979	OE9		1979	07	28.50874	19	45	58.29	-10	29	36.1	413	
1979	OF9	*	1979	07	24.56597	19	51	33.47	-10	50	13.4	19.0	413
1979	OF9		1979	07	26.18819	19	50	05.55	-10	56	55.9	675	
1979	OF9		1979	07	28.47749	19	48	02.84	-11	06	35.2	413	
1979	OG9	*	1979	07	24.56597	19	52	00.55	-11	51	27.0	19.5	413
1979	OG9		1979	07	26.18819	19	50	23.55	-11	57	23.8	675	
1979	OG9		1979	07	28.47749	19	48	06.75	-12	05	54.4	413	
1979	OH9	*	1979	07	24.56597	19	52	03.96	-09	38	50.9	18.5	413
1979	OH9		1979	07	26.18819	19	50	33.53	-09	43	11.0	675	
1979	OH9		1979	07	28.47749	19	48	28.23	-09	49	33.8	413	
1979	OJ9	*	1979	07	24.56597	19	52	08.30	-12	27	26.0	19.5	413
1979	OJ9		1979	07	26.18819	19	50	38.43	-12	36	04.0	675	
1979	OJ9		1979	07	28.47749	19	48	32.53	-12	48	17.0	413	
1979	OK9	*	1979	07	24.56597	19	52	12.65	-12	02	32.5	20.0	413
1979	OK9		1979	07	26.18819	19	50	49.99	-12	13	56.3	675	
1979	OK9		1979	07	28.47749	19	48	53.54	-12	30	13.4	413	
1979	OL9	*	1979	07	24.56597	19	52	34.01	-11	06	24.8	19.5	413
1979	OL9		1979	07	28.47749	19	49	31.79	-11	12	08.4	413	
1979	OM9	*	1979	07	24.56597	19	52	43.24	-10	32	56.6	19.5	413
1979	OM9		1979	07	28.47749	19	49	02.83	-10	32	14.0	413	
1979	ON9	*	1979	07	24.56597	19	53	39.77	-10	23	24.9	19.0	413
1979	ON9		1979	07	26.18819	19	52	26.23	-10	27	52.8	675	
1979	ON9		1979	07	28.47749	19	50	42.88	-10	34	19.8	413	
1979	OO9	*	1979	07	24.56597	19	54	43.45	-12	58	45.3	19.5	413
1979	OO9		1979	07	26.18819	19	53	20.04	-13	05	53.5	675	
1979	OO9		1979	07	27.25278	19	52	25.42	-13	10	37.1	19.5	675
1979	OO9		1979	07	28.47749	19	51	23.32	-13	15	59.9	413	
1979	OP9	*	1979	07	24.56597	19	55	06.35	-11	04	15.9	19.5	413
1979	OP9		1979	07	28.47749	19	51	53.39	-11	30	02.3	413	
1979	OQ9	*	1979	07	24.56597	19	55	24.44	-14	00	43.1	19.0	413
1979	OQ9		1979	07	26.18819	19	53	53.34	-14	10	01.4	675	
1979	OQ9		1979	07	27.25278	19	52	53.70	-14	16	06.0	675	
1979	OQ9		1979	07	28.50874	19	51	44.66	-14	23	11.4	413	
1979	OR9	*	1979	07	24.56597	19	56	10.98	-10	37	20.7	18.5	413
1979	OR9		1979	07	26.18819	19	54	42.75	-10	42	11.6	675	
1979	OR9		1979	07	28.47749	19	52	38.85	-10	49	15.2	413	
1979	OS9	*	1979	07	24.56597	19	56	46.94	-10	11	46.1	20.0	413
1979	OS9		1979	07	28.47749	19	53	17.07	-10	43	44.2	413	
1979	OT9	*	1979	07	24.56597	19	56	53.13	-09	25	41.7	19.0	413
1979	OT9		1979	07	28.47749	19	53	32.14	-09	18	41.0	413	
1979	OU9	*	1979	07	24.56597	19	56	55.20	-13	36	14.1	18.0	413
1979	OU9		1979	07	26.18819	19	55	27.89	-13	46	26.6	675	
1979	OU9		1979	07	26.24931	19	55	24.31	-13	46	48.6	675	
1979	OU9		1979	07	27.25278	19	54	30.39	-13	53	11.0	675	
1979	OU9		1979	07	28.47749	19	53	25.16	-14	00	52.3	413	
1979	OV9	*	1979	07	24.56597	19	56	59.68	-12	40	17.5	20.0	413

1979	OV9	1979	07	28.47749	19	53	01.28	-13	03	06.3		413
1979	OW9 *	1979	07	24.56597	19	57	04.35	-11	23	20.0	19.5	413
1979	OW9	1979	07	28.47749	19	53	07.13	-11	41	22.9		413
1979	OX9 *	1979	07	24.56597	19	57	09.82	-10	40	52.3	20.0	413
1979	OX9	1979	07	28.47749	19	54	09.48	-11	03	57.4		413
1979	OY9 *	1979	07	24.56597	19	57	30.68	-14	14	57.5	19.5	413
1979	OY9	1979	07	26.24931	19	55	49.57	-14	19	10.7		675
1979	OY9	1979	07	27.25278	19	54	50.10	-14	21	41.0		675
1979	OY9	1979	07	28.47749	19	53	37.63	-14	24	42.2		413
1979	OZ9 *	1979	07	24.56597	19	58	17.66	-11	43	30.8	19.5	413
1979	OZ9	1979	07	27.30486	19	56	05.71	-12	01	32.0		675
1979	OZ9	1979	07	28.47749	19	55	10.95	-12	09	13.1		413
1979	OA10*	1979	07	24.56597	19	58	59.75	-12	12	25.1	20.0	413
1979	OA10	1979	07	28.47749	19	55	20.16	-12	29	42.6		413
1979	OB10*	1979	07	24.56597	19	59	01.64	-14	35	17.5	19.0	413
1979	OB10	1979	07	26.18819	19	57	23.92	-14	26	49.4		675
1979	OB10	1979	07	26.24931	19	57	20.03	-14	26	31.5		675
1979	OB10	1979	07	27.25278	19	56	19.83	-14	21	17.8		675
1979	OB10	1979	07	28.47749	19	55	07.22	-14	14	54.9		413
1979	OC10*	1979	07	24.56597	19	59	18.62	-10	42	36.6	19.0	413
1979	OC10	1979	07	26.18819	19	57	57.53	-10	53	25.1		675
1979	OC10	1979	07	28.47749	19	56	03.28	-11	08	52.5		413
1979	OD10*	1979	07	24.56597	19	59	33.98	-14	53	51.4	19.0	413
1979	OD10	1979	07	26.18819	19	58	25.71	-15	01	13.5		675
1979	OE10*	1979	07	24.56597	20	00	06.91	-12	51	07.4	19.5	413
1979	OE10	1979	07	26.18819	19	58	40.20	-12	57	09.4		675
1979	OE10	1979	07	26.24931	19	58	36.65	-12	57	22.9		675
1979	OE10	1979	07	27.25278	19	57	43.05	-13	01	10.1		675
1979	OE10	1979	07	28.47749	19	56	37.79	-13	05	47.4		413
1979	OF10*	1979	07	24.56597	20	00	21.05	-11	18	57.3	19.0	413
1979	OF10	1979	07	26.18819	19	58	59.94	-11	20	03.5		675
1979	OF10	1979	07	28.47749	19	57	05.70	-11	21	41.3		413
1979	OG10*	1979	07	24.56597	20	00	25.24	-11	48	48.6	19.0	413
1979	OG10	1979	07	28.47749	19	56	21.67	-11	35	53.4		413
1979	OH10*	1979	07	24.56597	20	00	30.80	-10	22	56.7	19.5	413
1979	OH10	1979	07	26.18819	19	59	17.28	-10	32	16.9		675
1979	OH10	1979	07	28.47749	19	57	33.85	-10	45	36.3		413
1979	OJ10*	1979	07	24.56597	20	00	37.93	-11	14	11.3	19.0	413
1979	OJ10	1979	07	26.18819	19	59	35.81	-11	22	41.9		675
1979	OJ10	1979	07	28.47749	19	58	08.54	-11	34	46.5		413
1979	OK10*	1979	07	24.56597	20	00	38.35	-10	35	23.7	18.5	413
1979	OK10	1979	07	26.18819	19	59	15.26	-10	41	39.8		675
1979	OK10	1979	07	28.47749	19	57	18.38	-10	50	39.0		413
1979	OL10*	1979	07	24.56597	20	00	54.98	-12	31	25.9	19.0	413
1979	OL10	1979	07	26.18819	19	59	39.67	-12	39	34.3		675
1979	OL10	1979	07	26.24931	19	59	36.60	-12	39	51.4		675
1979	OL10	1979	07	27.25278	19	58	50.11	-12	44	55.7		675
1979	OL10	1979	07	28.47749	19	57	53.30	-12	51	06.8		413
1979	OM10*	1979	07	24.56597	20	01	06.66	-13	04	12.4	19.5	413
1979	OM10	1979	07	27.25278	19	58	27.26	-13	12	37.7		675
1979	OM10	1979	07	28.47749	19	57	15.00	-13	16	26.8		413
1979	ON10*	1979	07	24.56597	20	01	23.42	-13	37	19.6	19.5	413
1979	ON10	1979	07	27.25278	19	59	08.97	-13	56	47.6		675
1979	ON10	1979	07	28.47749	19	58	08.33	-14	05	36.3		413
1979	OO10*	1979	07	24.56597	20	01	41.51	-10	17	18.1	19.0	413
1979	OO10	1979	07	26.18819	20	00	16.15	-10	27	16.6		675
1979	OO10	1979	07	28.47749	19	58	16.16	-10	41	38.7		413
1979	OP10*	1979	07	24.56597	20	01	42.14	-11	38	12.9	20.0	413
1979	OP10	1979	07	28.47749	19	58	23.96	-11	53	02.1		413

1979	OQ10*	1979	07	24.56597	20	01	43.84	-12	18	54.1	19.5	413
1979	OQ10	1979	07	26.19722	20	00	28.67	-12	28	16.1		675
1979	OQ10	1979	07	27.25278	19	59	39.91	-12	34	18.5		675
1979	OQ10	1979	07	28.47749	19	58	43.81	-12	41	21.0		413
1979	OR10*	1979	07	24.56597	20	01	58.00	-12	01	22.1	19.0	413
1979	OR10	1979	07	28.47749	19	58	58.04	-12	21	13.0		413
1979	OS10*	1979	07	24.56597	20	02	02.53	-11	22	57.6	20.0	413
1979	OS10	1979	07	28.47749	19	58	53.91	-11	42	01.9		413
1979	OT10*	1979	07	24.56597	20	02	20.02	-11	01	50.4	19.5	413
1979	OT10	1979	07	26.18819	20	00	41.15	-11	08	03.1		675
1979	OT10	1979	07	28.47749	19	58	21.33	-11	16	59.7		413
1979	OU10*	1979	07	24.56597	20	02	22.64	-10	03	30.0	19.0	413
1979	OU10	1979	07	28.47749	19	59	08.95	-10	07	41.0		413
1979	OV10*	1979	07	24.56597	20	02	30.31	-09	52	39.7	19.0	413
1979	OV10	1979	07	26.18819	20	01	09.01	-10	01	04.7		675
1979	OV10	1979	07	28.47749	19	59	13.56	-10	13	19.8		413
1979	OW10*	1979	07	24.56597	20	03	16.24	-11	32	49.9	18.5	413
1979	OW10	1979	07	26.18819	20	01	39.17	-11	36	05.3		675
1979	OW10	1979	07	28.47749	19	59	21.24	-11	40	55.2		413
1979	OX10*	1979	07	24.56597	20	03	31.26	-10	19	58.9	19.5	413
1979	OX10	1979	07	28.47749	20	00	15.96	-10	23	40.6		413
1979	OY10*	1979	07	24.56597	20	03	38.47	-11	29	53.9	19.5	413
1979	OY10	1979	07	26.18819	20	02	29.43	-11	34	07.9		675
1979	OZ10*	1979	07	24.56597	20	03	54.68	-15	11	27.6	18.0	413
1979	OZ10	1979	07	26.24931	20	01	25.70	-14	51	47.2		675
1979	OZ10	1979	07	27.25278	19	59	57.44	-14	40	00.2		675
1979	OZ10	1979	07	28.47749	19	58	11.05	-14	25	34.8		413
1979	OA11*	1979	07	24.56597	20	04	03.33	-09	36	17.9	20.0	413
1979	OA11	1979	07	28.47749	20	00	50.87	-09	42	09.5		413
1979	OB11*	1979	07	24.56597	20	04	20.04	-14	03	49.7	20.0	413
1979	OB11	1979	07	26.19722	20	02	41.62	-14	05	52.6		675
1979	OB11	1979	07	27.30486	20	01	34.78	-14	07	13.4		675
1979	OB11	1979	07	28.47749	20	00	24.50	-14	08	39.2		413
1979	OC11*	1979	07	24.56597	20	04	44.21	-10	52	43.0	19.0	413
1979	OC11	1979	07	28.47749	20	01	41.39	-11	00	25.5		413
1979	OD11*	1979	07	24.56597	20	05	29.12	-11	43	53.4	19.0	413
1979	OD11	1979	07	26.18819	20	04	05.25	-12	00	21.9		675
1979	OD11	1979	07	26.24931	20	04	01.80	-12	00	58.6		675
1979	OD11	1979	07	27.25278	20	03	09.88	-12	11	15.8		675
1979	OD11	1979	07	28.47749	20	02	06.48	-12	23	50.7		413
1979	OE11*	1979	07	24.56597	20	05	35.42	-11	25	05.1	18.0	413
1979	OE11	1979	07	26.18819	20	04	11.90	-11	35	50.9		675
1979	OE11	1979	07	28.47749	20	02	13.59	-11	51	19.5		413
1979	OF11*	1979	07	24.56597	20	05	40.64	-12	57	54.6	19.0	413
1979	OF11	1979	07	27.25278	20	03	30.74	-13	12	05.7		675
1979	OF11	1979	07	28.47749	20	02	31.65	-13	18	34.2		413
1979	OG11*	1979	07	24.56597	20	05	47.96	-12	59	52.2	19.0	413
1979	OG11	1979	07	26.18819	20	04	19.25	-13	06	20.0		675
1979	OG11	1979	07	26.19722	20	04	18.74	-13	06	24.0		675
1979	OG11	1979	07	27.25278	20	03	21.16	-13	10	36.3		675
1979	OG11	1979	07	28.47749	20	02	14.74	-13	15	28.7		413
1979	OH11*	1979	07	24.56597	20	06	11.81	-11	06	54.9	20.0	413
1979	OH11	1979	07	28.47749	20	02	21.67	-11	17	01.3		413
1979	OJ11*	1979	07	24.56597	20	06	48.23	-11	54	44.2	19.5	413
1979	OJ11	1979	07	26.24931	20	05	29.67	-12	05	01.5		675
1979	OJ11	1979	07	27.25278	20	04	42.69	-12	11	16.6		675
1979	OJ11	1979	07	28.47749	20	03	45.29	-12	18	54.6		413
1979	OK11*	1979	07	24.56597	20	06	51.49	-11	59	32.1	19.0	413

1979	OK11	1979	07	26.18819	20	05	38.44	-12	10	08.6	675
1979	OK11	1979	07	26.24931	20	05	35.68	-12	10	30.2	675
1979	OK11	1979	07	27.25278	20	04	50.29	-12	17	07.4	675
1979	OK11	1979	07	28.47749	20	03	55.42	-12	25	09.7	413
1979	OL11*	1979	07	24.59722	19	46	22.85	-11	55	56.3	413
1979	OL11	1979	07	26.18819	19	44	44.81	-12	00	49.3	675
1979	OL11	1979	07	28.47749	19	42	25.43	-12	07	52.6	413
1979	OM11*	1979	07	24.59722	19	48	26.55	-12	35	43.6	19.5
1979	OM11	1979	07	28.47749	19	45	27.24	-12	41	47.3	413
1979	ON11*	1979	07	24.59722	19	49	00.82	-12	14	44.2	413
1979	ON11	1979	07	26.18819	19	47	47.11	-12	16	17.5	675
1979	ON11	1979	07	28.47749	19	46	02.52	-12	18	33.5	413
1979	OO11*	1979	07	24.59722	19	54	58.40	-14	08	40.3	20.0
1979	OO11	1979	07	28.47749	19	51	58.11	-14	22	49.3	413
1979	OP11*	1979	07	24.59722	20	00	16.84	-13	13	55.5	19.0
1979	OP11	1979	07	26.19722	19	58	53.60	-13	25	52.7	675
1979	OP11	1979	07	27.25278	19	57	58.70	-13	33	43.9	675
1979	OP11	1979	07	28.47749	19	56	55.55	-13	42	50.7	413
1979	OQ11*	1979	07	24.59722	20	00	52.43	-12	54	14.6	20.0
1979	OQ11	1979	07	28.47749	19	57	46.46	-13	10	16.6	413
1979	OR11*	1979	07	24.59722	20	03	47.05	-13	45	14.9	20.0
1979	OR11	1979	07	28.47749	20	00	25.57	-14	00	40.2	413
1979	OS11*	1979	07	24.59722	20	03	52.73	-13	29	19.3	19.5
1979	OS11	1979	07	26.18819	20	02	35.86	-13	31	16.9	675
1979	OS11	1979	07	26.24931	20	02	32.79	-13	31	21.9	675
1979	OS11	1979	07	27.25278	20	01	44.55	-13	32	37.1	675
1979	OS11	1979	07	28.47749	20	00	45.74	-13	34	07.2	413
1979	OT11*	1979	07	24.59722	20	03	59.17	-09	43	05.9	19.0
1979	OT11	1979	07	26.18819	20	02	28.84	-09	49	05.2	675
1979	OT11	1979	07	28.47749	20	00	19.90	-09	57	51.1	413
1979	OU11*	1979	07	26.18819	20	04	53.66	-13	13	06.2	19.0
1979	OU11	1979	07	26.24931	20	04	50.18	-13	13	35.4	675
1979	OU11	1979	07	27.30486	20	03	52.67	-13	22	29.9	675
1979	OU11	1979	07	28.47749	20	02	48.96	-13	32	25.4	413
1979	OV11*	1979	07	26.18819	20	05	50.01	-13	20	06.9	18.0
1979	OV11	1979	07	26.24931	20	05	46.54	-13	20	48.5	675
1979	OV11	1979	07	27.25278	20	04	53.59	-13	32	05.3	675
1979	OW11*	1979	07	26.18819	20	05	53.46	-11	34	02.9	675
1979	OW11	1979	07	28.47749	20	03	43.87	-11	41	01.5	413
1979	OX11*	1979	07	26.18819	20	05	53.55	-09	57	15.8	675
1979	OX11	1979	07	28.47749	20	03	26.21	-10	03	10.0	413
1979	OY11*	1979	07	26.19722	19	58	59.59	-16	22	09.5	675
1979	OY11	1979	07	27.25278	19	58	00.68	-16	25	00.3	675
1979	OZ11*	1979	07	26.19722	20	04	54.36	-13	39	17.5	19.5
1979	OZ11	1979	07	28.47749	20	02	40.09	-13	37	03.6	413
1979	OA12*	1979	07	26.19722	20	06	06.13	-16	00	56.9	675
1979	OA12	1979	07	27.25278	20	05	06.77	-16	02	32.5	675
1979	OB12*	1979	07	26.19722	20	06	07.26	-13	26	02.4	18.5
1979	OB12	1979	07	27.25278	20	05	14.19	-13	30	40.4	675
1979	OB12	1979	07	28.47749	20	04	12.45	-13	36	01.3	413
1979	OC12*	1979	07	26.19722	20	06	49.82	-13	56	58.2	20.0
1979	OC12	1979	07	27.25278	20	05	58.92	-13	59	53.2	675
1979	OD12*	1979	07	26.19722	20	07	33.06	-17	24	21.2	18.0
1979	OD12	1979	07	27.25278	20	06	32.97	-17	21	30.1	675
1979	OE12*	1979	07	26.19722	20	07	53.19	-13	18	44.4	19.0
1979	OE12	1979	07	27.25278	20	06	50.53	-13	20	02.2	675
1979	OF12*	1979	07	26.19722	20	08	24.72	-15	00	01.3	19.5
1979	OF12	1979	07	28.47749	20	06	39.65	-15	16	34.4	413

1979	OG12*	1979	07	26.19722	20	09	04.41	-12	44	15.4	19.5	675
1979	OG12	1979	07	27.30486	20	08	07.21	-12	48	39.3		675
1979	OH12*	1979	07	26.19722	20	09	09.81	-13	36	14.2	19.0	675
1979	OH12	1979	07	27.25278	20	07	59.36	-13	32	47.6		675
1979	OJ12*	1979	07	26.19722	20	09	22.46	-13	43	54.2	19.0	675
1979	OJ12	1979	07	27.25278	20	08	28.76	-13	51	19.3		675
1979	OK12*	1979	07	26.19722	20	09	31.40	-14	53	19.7	20.0	675
1979	OK12	1979	07	27.25278	20	08	32.13	-14	55	02.6		675
1979	OL12*	1979	07	26.19722	20	09	45.03	-16	52	09.0	19.0	675
1979	OL12	1979	07	27.25278	20	08	48.55	-16	53	26.8		675
1979	OM12*	1979	07	26.19722	20	10	05.28	-17	28	04.4	19.5	675
1979	OM12	1979	07	27.25278	20	09	05.56	-17	30	06.3		675
1979	ON12*	1979	07	26.19722	20	10	40.18	-15	55	17.8	19.5	675
1979	ON12	1979	07	27.25278	20	09	42.05	-16	03	14.3		675
1979	OO12*	1979	07	26.19722	20	10	46.32	-15	59	12.9	19.0	675
1979	OO12	1979	07	27.30486	20	09	41.15	-16	04	18.3		675
1979	OP12*	1979	07	26.19722	20	10	48.56	-16	26	11.5	19.5	675
1979	OP12	1979	07	27.25278	20	09	46.80	-16	33	24.9		675
1979	OQ12*	1979	07	26.19722	20	11	07.22	-11	59	50.5	19.0	675
1979	OQ12	1979	07	27.25278	20	10	02.66	-12	01	26.0		675
1979	OR12*	1979	07	26.19722	20	11	22.23	-16	23	30.0	18.5	675
1979	OR12	1979	07	27.25278	20	10	26.87	-16	31	17.0		675
1979	OS12*	1979	07	26.19722	20	11	32.16	-16	20	47.5		675
1979	OS12	1979	07	27.25278	20	10	23.12	-16	23	12.5		675
1979	OT12*	1979	07	26.19722	20	11	46.16	-13	40	13.8	17.5	675
1979	OT12	1979	07	27.25278	20	10	51.21	-13	39	21.6		675
1979	OU12*	1979	07	26.19722	20	11	47.58	-14	34	31.4	19.0	675
1979	OU12	1979	07	27.25278	20	10	50.32	-14	37	33.2		675
1979	OV12*	1979	07	26.19722	20	11	49.73	-12	33	49.4	19.5	675
1979	OV12	1979	07	27.25278	20	10	50.21	-12	38	50.8		675
1979	OW12*	1979	07	26.19722	20	11	52.41	-14	26	48.5	19.0	675
1979	OW12	1979	07	27.25278	20	10	57.36	-14	30	08.5		675
1979	OX12*	1979	07	26.19722	20	12	23.46	-15	56	56.3	18.5	675
1979	OX12	1979	07	27.25278	20	11	23.02	-16	02	22.0		675
1979	OY12*	1979	07	26.19722	20	13	13.87	-14	38	58.2	19.0	675
1979	OY12	1979	07	27.30486	20	12	14.77	-14	37	27.3		675
1979	OZ12*	1979	07	26.19722	20	13	25.20	-16	56	31.8	19.0	675
1979	OZ12	1979	07	27.25278	20	12	21.68	-17	02	14.1		675
1979	OA13*	1979	07	26.19722	20	13	54.84	-13	51	08.2	17.0	675
1979	OA13	1979	07	27.25278	20	13	05.72	-13	56	28.0		675
1979	OB13*	1979	07	26.19722	20	14	07.34	-15	12	42.3	17.0	675
1979	OB13	1979	07	27.25278	20	13	06.92	-15	22	00.6		675
1979	OC13*	1979	07	27.25278	20	06	22.93	-12	28	24.1	20.0	675
1979	OC13	1979	07	28.47749	20	05	09.66	-12	32	08.1		413

OBSERVATION MADE WITH THE 1.2-M SCHMIDT TELESCOPE AT SIDING SPRING BY J. BARROW AND R. J. SMYTH.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
/1980t	1980	07	18.42207	16 43 59.40	-50 50 42.9	16	T 1 413

Note 1: precovery observation, identified by K. S. Russell from an ephemeris by D. A. Pickup; measured by Russell.

OBSERVATIONS MADE AT STAKENBRIDGE BY B. MANNING. COMMUNICATED BY G. M. HURST.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
/1980u	1980	12	27.76076	18 47 55.60	+39 22 27.5	12 T 494
/1980u	1980	12	27.78993	18 47 56.34	+39 22 52.1	494
/1980u	1980	12	27.83819	18 47 57.90	+39 23 34.1	494

OBSERVATIONS MADE AT THE OSSERVATORIO S. VITTORE.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
2333	1980 12	08.90903	03 48 56.96	+29 21 35.6		552
2333	1980 12	09.86667	03 47 55.28	+29 21 58.8		552
2333	1980 12	09.90000	03 47 53.09	+29 22 01.5		552
2333	1980 12	12.85833	03 44 49.88	+29 22 39.4		552
2333	1980 12	12.87569	03 44 48.89	+29 22 39.6		552
2333	1980 12	12.91042	03 44 46.60	+29 22 39.6		552
2333	1980 12	13.92500	03 43 46.41	+29 22 43.4		552
2333	1980 12	13.93958	03 43 45.53	+29 22 42.1		552
2333	1980 12	13.95417	03 43 44.60	+29 22 43.0		552
1980 XA	1980 12	08.90903	03 46 44.57	+29 34 17.8		552
1980 XA	1980 12	09.86667	03 45 58.97	+29 29 02.1		552
1980 XA	1980 12	09.90000	03 45 57.33	+29 28 51.6		552
1980 XA	1980 12	12.85833	03 43 42.07	+29 12 17.7		552
1980 XA	1980 12	12.87569	03 43 41.36	+29 12 14.3		552
1980 XA	1980 12	12.91042	03 43 39.69	+29 12 03.3		552
1980 XA	1980 12	13.92500	03 42 55.58	+29 06 18.4		552
1980 XA	1980 12	13.93958	03 42 54.91	+29 06 12.6		552
1980 XA	1980 12	13.95417	03 42 54.28	+29 06 08.1		552
1980 XA	1980 12	24.72778	03 36 25.83	+28 05 25.3	16.5	552
1980 XA	1980 12	24.74167	03 36 25.41	+28 05 21.1		552
1980 XA	1980 12	24.75556	03 36 25.03	+28 05 16.8		552
1980 XA	1980 12	25.73958	03 35 57.30	+27 59 51.1	16.5	552
1980 XA	1980 12	25.76042	03 35 56.85	+27 59 44.2		552
1980 XA	1980 12	28.82847	03 34 40.46	+27 43 09.6	16.8	552
1980 XA	1980 12	28.84375	03 34 40.17	+27 43 06.6		552
1980 XA	1980 12	28.85694	03 34 39.92	+27 43 01.4		552
1980 XA	1980 12	28.87014	03 34 39.54	+27 42 56.5		552
1980 XA	1980 12	29.83333	03 34 18.50	+27 37 53.2	16.8	552
1980 XA	1980 12	29.85347	03 34 18.04	+27 37 46.7		552
1980 XA	1980 12	30.83056	03 33 58.28	+27 32 37.7	16.8	552
1980 XA	1980 12	30.84653	03 33 58.02	+27 32 33.3		552
1980 XA	1981 01	02.82014	03 33 06.67	+27 17 20.4	17.0	552
1980 XA	1981 01	02.84306	03 33 06.34	+27 17 13.2		552

OBSERVATION MADE AT MT. WILSON BY L. E. CUNNINGHAM. DISCOVERY AND MEASUREMENT BY J. GIBSON.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
1951 AW1 *	1951 01	13.37221	08 30 07.65	+05 27 15.3	17.5	672

OBSERVATIONS MADE AT PALOMAR BY E. HELIN, S. J. BUS AND H. C. ARP.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
/1980s	1981 01	06.44722	08 58 11.45	+33 42 25.1	17	T	1 675
1976 UA	1981 01	05.31597	04 47 47.52	-14 10 16.2			2 675
1976 UA	1981 01	07.27569	04 33 10.88	-14 47 52.1			2 675

Note 1: 0.46-m Schmidt; measurer E. Howell. Note 2: 1.2-m Schmidt; measurer Bus.

OBSERVATIONS MADE WITH THE 1.2-M SCHMIDT AT PALOMAR. SCANNED AND MEASURED BY R. BINZEL.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
1977 KA1 *	1977 05	18.16250	15 41 44.61	-18 47 45.5	19.0	675
1977 KA1	1977 05	18.21458	15 41 41.54	-18 47 42.7		675
1977 KA1	1977 05	19.14236	15 40 45.99	-18 46 59.5		675
1977 KA1	1977 05	19.19444	15 40 42.98	-18 46 56.5		675
1977 KB1 *	1977 05	18.16250	15 48 26.35	-20 52 30.3	19.0	675
1977 KB1	1977 05	18.21458	15 48 22.97	-20 52 13.9		675
1977 KB1	1977 05	19.14236	15 47 23.06	-20 47 22.4		675

1977 KB1	1977 05 19.19444	15 47 20.12	-20 47 08.0		675
1977 KC1 *	1977 05 18.21910	16 17 06.61	-22 37 38.8	18.0	675
1977 KC1	1977 05 18.27118	16 17 04.18	-22 37 32.8		675
1977 KC1	1977 05 19.19931	16 16 20.30	-22 36 01.5		675
1977 KC1	1977 05 19.25139	16 16 17.91	-22 35 55.5		675
1977 LB *	1977 06 12.07465	16 49 20.32	-21 55 25.8	19.0	675
1977 LB	1977 06 12.12674	16 49 16.93	-21 55 12.9		675
1977 LB	1977 06 13.10156	16 48 15.61	-21 50 45.0		675
1977 LB	1977 06 13.15365	16 48 12.04	-21 50 30.6		675
1977 LC *	1977 06 12.07465	16 54 13.30	-22 01 57.5	19.0	675
1977 LC	1977 06 12.12674	16 54 10.46	-22 01 56.5		675
1977 LC	1977 06 13.10156	16 53 14.42	-22 01 20.1		675
1977 LC	1977 06 13.15365	16 53 11.85	-22 01 19.2		675
1977 LD *	1977 06 12.07465	16 55 30.76	-20 04 39.0	19.5	675
1977 LD	1977 06 12.12674	16 55 27.62	-20 04 30.5		675
1977 LD	1977 06 13.10156	16 54 29.66	-20 01 32.7		675
1977 LD	1977 06 13.15365	16 54 26.81	-20 01 24.7		675
1977 LE *	1977 06 12.13160	17 04 55.40	-22 22 52.1	18.5	675
1977 LE	1977 06 12.18368	17 04 52.76	-22 22 50.7		675
1977 LF *	1977 06 12.13160	17 07 17.82	-21 43 29.1	19.5	675
1977 LF	1977 06 12.18368	17 07 14.22	-21 43 21.7		675
1977 LF	1977 06 13.15880	17 06 13.84	-21 41 09.3		675
1977 LF	1977 06 13.21088	17 06 10.57	-21 41 00.9		675
1977 LG *	1977 06 14.23623	17 58 54.41	-23 35 43.0	19.0	675
1977 LG	1977 06 14.28831	17 58 51.78	-23 35 44.5		675
1977 LH *	1977 06 14.23623	18 13 56.31	-23 48 25.6	18.5	675
1977 LH	1977 06 14.28831	18 13 52.93	-23 48 27.9		675
1977 QE5 *	1977 08 19.13299	21 37 09.32	-16 09 32.6	18.0	675
1977 QE5	1977 08 19.18507	21 37 06.74	-16 09 42.7		675
1977 RC8 *	1977 09 08.05313	22 13 50.08	-09 32 53.4	20.0	675
1977 RC8	1977 09 08.10521	22 13 47.16	-09 33 11.0		675
1977 RC8	1977 09 08.97951	22 13 02.92	-09 38 15.6		675
1977 RC8	1977 09 09.03160	22 13 00.07	-09 38 28.9		675

OBSERVATIONS MADE WITH THE 1.2-M SCHMIDT TELESCOPE AT PALOMAR. MEASURED
BY J. GIBSON. COMMUNICATED BY J. G. WILLIAMS.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
/1980g	1980 11 28.40661	05 30 34.69	+18 07 39.7			2	675
/1980i	1980 12 14.16391	23 25 27.01	-33 58 58.5			4	675
/1980q	1980 11 28.13613	17 55 06.92	+31 19 28.3			2	675
848	1978 02 02.25835	08 51 17.24	+16 11 31.2		16	5	675
848	1978 02 03.26113	08 50 28.76	+16 14 51.5			5	675
1489	1978 02 02.25835	08 47 22.15	+16 18 55.5		16	5	675
1489	1978 02 03.26113	08 46 32.77	+16 23 02.0			5	675
2212	1974 12 18.35984	05 48 18.12	+41 42 29.0			7	675
2212	1974 12 18.39109	05 48 09.31	+41 42 43.9			7	675
1976 QV	1978 02 02.25835	08 53 22.94	+16 10 39.3		16.5	5	675
1976 QV	1978 02 03.26113	08 52 17.20	+16 13 44.3			5	675
1978 CH *	1978 02 02.25835	08 51 58.22	+16 50 40.3		16.5	6	675
1978 CH	1978 02 03.26113	08 51 12.65	+16 55 15.5			5	675
1978 CJ *	1978 02 02.25835	08 54 28.17	+16 15 01.6		16.5	6	675
1978 CJ	1978 02 03.26113	08 52 47.68	+16 06 21.5			5	675
1978 CK *	1978 02 02.25835	09 02 14.87	+14 47 30.5		16.5	6	675
1978 CK	1978 02 03.26113	09 01 13.95	+14 45 27.6			5	675
1978 CL *	1978 02 02.25835	09 02 37.83	+15 25 38.0		16.5	6	675
1978 CL	1978 02 03.26113	09 02 01.85	+15 34 27.8			5	675
1978 CM *	1978 02 02.25835	09 02 40.50	+14 59 49.6		17	6	675
1978 CM	1978 02 03.26113	09 01 31.08	+15 00 28.4			5	675

1980 WH * 1980 11 28.47571 03 24 26.61 +24 02 54.4 16.5 3 675
 1980 WH 1980 11 28.50210 03 24 25.27 +24 02 48.0 2 675
 Note 1: discoverer Gibson. 2: observer Gibson. 3 = 1 + 2. 4: observer C.
 Kowal; timing may be uncertain by a few seconds. 5: observer P. Usher.
 6 = 1 + 5. 7: observer A. R. Sandage; beginning and end of trail.

OBSERVATIONS MADE AT THE LOWELL OBSERVATORY'S ANDERSON MESA STATION BY
 E. BOWELL, B. A. SKIFF AND N. G. THOMAS. MEASURED BY BOWELL.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
/1980t	1981 01 09.07049	20 22 47.34	-01 57 47.1				688
/1980u	1980 12 31.06597	18 49 35.87	+40 13 42.9				688
/1980u	1980 12 31.07500	18 49 36.08	+40 13 52.4				688
66	1981 01 01.38264	09 28 56.80	+19 17 15.1				688
66	1981 01 01.42431	09 28 55.57	+19 17 22.2				688
75	1980 12 30.07847	01 42 02.67	+16 20 32.8				688
75	1980 12 30.12153	01 42 04.59	+16 20 41.0				688
87	1980 12 12.40972	08 54 39.57	+27 12 16.1				688
87	1980 12 12.46944	08 54 38.70	+27 12 30.8				688
87	1981 01 09.27083	08 41 15.20	+29 30 35.0				688
90	1981 01 03.37708	11 06 03.90	+08 36 35.3				688
90	1981 01 03.43681	11 06 03.90	+08 36 38.0				688
94	1980 12 16.32431	05 05 56.47	+34 40 32.4				688
94	1980 12 16.34375	05 05 55.31	+34 40 30.7				688
97	1980 12 12.43889	08 34 06.60	+03 39 46.3				688
188	1980 12 30.07847	01 38 02.85	+13 49 37.3				688
188	1980 12 30.12153	01 38 04.12	+13 49 33.1				688
200	1981 01 01.38264	09 37 44.53	+17 24 46.0				688
200	1981 01 01.42431	09 37 43.31	+17 24 47.8				688
207	1981 01 03.37708	11 18 48.29	+09 33 20.3				688
207	1981 01 03.43681	11 18 49.73	+09 33 15.7				688
209	1980 12 31.09028	03 14 56.15	+26 48 46.3				688
209	1980 12 31.12431	03 14 55.51	+26 48 41.3				688
214	1981 01 01.38264	09 35 41.70	+17 30 23.4				688
214	1981 01 01.42431	09 35 40.66	+17 30 27.8				688
234	1981 01 10.28889	09 45 20.74	+09 19 00.0				688
234	1981 01 10.32431	09 45 19.46	+09 19 13.0				688
262	1980 12 31.09028	03 32 35.56	+27 35 36.0				688
262	1980 12 31.12431	03 32 35.29	+27 35 37.5				688
262	1981 01 09.10696	03 33 17.07	+27 42 51.0				688
262	1981 01 09.14514	03 33 17.54	+27 42 52.8				688
263	1981 01 03.28681	08 13 03.99	+17 59 15.7				688
263	1981 01 03.32014	08 13 02.44	+17 59 20.7				688
280	1981 01 03.37708	11 10 01.24	+12 48 04.1				688
280	1981 01 03.43681	11 10 01.79	+12 48 03.2				688
306	1981 01 01.28056	07 35 36.31	+15 19 26.1				688
306	1981 01 01.31458	07 35 34.24	+15 19 33.7				688
306	1981 01 09.18472	07 27 24.39	+15 51 51.8			1	688
306	1981 01 09.22222	07 27 21.90	+15 52 01.6				688
334	1981 01 03.37708	10 58 56.88	+08 28 59.0				688
334	1981 01 03.43681	10 58 56.86	+08 29 03.6				688
360	1980 12 16.39236	09 16 31.67	+12 18 29.3				688
360	1980 12 16.44379	09 16 31.51	+12 18 38.3				688
388	1980 12 30.07847	01 40 02.64	+17 02 46.0				688
388	1980 12 30.12153	01 40 03.44	+17 02 47.8				688
419	1980 12 30.07847	01 52 43.46	+11 40 50.3				688
419	1980 12 30.12153	01 52 44.02	+11 40 51.3				688
420	1981 01 01.28056	07 56 58.45	+13 28 34.2				688
420	1981 01 01.31458	07 56 56.94	+13 28 34.3				688

436	1981	01	03.37708	11	14	49.23	+14	30	38.1	688
436	1981	01	03.43681	11	14	49.08	+14	30	34.5	688
444	1980	12	12.43889	08	51	27.72	+04	10	57.9	688
464	1981	01	01.38264	09	45	28.21	+20	12	54.5	688
464	1981	01	01.42431	09	45	27.33	+20	13	08.5	688
526	1981	01	03.37708	10	58	26.93	+06	56	49.2	688
526	1981	01	03.43681	10	58	27.70	+06	56	47.7	688
544	1980	12	30.24375	06	26	48.12	+27	52	49.3	688
544	1980	12	30.27708	06	26	45.90	+27	52	46.2	688
573	1981	01	03.37708	11	07	12.22	+08	51	04.7	688
573	1981	01	03.43681	11	07	12.11	+08	51	00.7	688
574	1981	01	03.37708	11	15	19.11	+06	58	20.1	688
574	1981	01	03.43681	11	15	19.87	+06	58	07.1	688
575	1981	01	03.37708	11	20	03.15	+11	51	28.2	688
575	1981	01	03.43681	11	20	03.32	+11	51	22.8	688
587	1981	01	03.37708	10	57	05.99	+13	57	01.3	688
587	1981	01	03.43681	10	57	05.77	+13	56	15.7	688
615	1981	01	03.37708	11	08	12.85	+08	24	10.4	688
615	1981	01	03.43681	11	08	13.51	+08	24	07.4	688
627	1980	12	16.39236	09	20	35.41	+12	41	20.5	688
627	1980	12	16.44379	09	20	35.04	+12	41	23.4	2 688
661	1980	12	12.40972	08	50	37.92	+26	29	02.4	688
661	1980	12	12.46944	08	50	37.08	+26	29	06.6	688
661	1980	12	30.29444	08	42	27.57	+27	00	06.7	688
661	1980	12	30.31111	08	42	26.88	+27	00	09.0	688
661	1981	01	09.27083	08	34	35.69	+27	18	38.6	688
673	1981	01	01.28056	07	43	55.92	+17	19	52.5	688
673	1981	01	01.31458	07	43	54.17	+17	19	55.6	688
673	1981	01	09.18472	07	36	45.07	+17	31	37.5	1 688
673	1981	01	09.22222	07	36	42.86	+17	31	41.1	688
734	1980	12	30.29444	08	16	51.52	+27	56	47.3	688
734	1980	12	30.31111	08	16	50.68	+27	56	51.2	688
768	1980	12	31.09028	03	17	39.06	+31	33	48.3	688
768	1980	12	31.12431	03	17	38.49	+31	33	49.5	688
768	1981	01	09.10696	03	16	45.62	+31	40	35.6	688
768	1981	01	09.14514	03	16	45.65	+31	40	37.8	688
786	1980	12	30.29444	08	19	04.20	+28	23	40.6	688
786	1980	12	30.31111	08	19	03.40	+28	23	47.8	688
810	1981	01	03.28681	08	13	08.69	+17	08	15.2	688
810	1981	01	03.32014	08	13	06.49	+17	08	24.2	688
819	1981	01	01.38264	09	23	22.09	+19	11	57.8	688
819	1981	01	01.42431	09	23	20.60	+19	12	02.8	688
828	1980	12	30.24375	06	51	39.27	+24	31	50.2	688
828	1980	12	30.27708	06	51	37.41	+24	31	52.8	688
828	1981	01	09.12708	06	42	56.60	+24	40	51.3	688
828	1981	01	09.16528	06	42	54.64	+24	40	52.2	688
828	1981	01	09.20278	06	42	52.60	+24	40	54.2	688
839	1980	12	16.32431	05	17	16.21	+41	44	26.1	688
839	1980	12	16.34375	05	17	14.87	+41	44	23.5	688
928	1981	01	01.28056	07	55	44.95	+12	22	32.2	688
928	1981	01	01.31458	07	55	43.43	+12	22	45.3	688
972	1981	01	01.28056	07	43	52.93	+19	43	41.3	688
972	1981	01	01.31458	07	43	51.04	+19	43	40.9	688
972	1981	01	09.18472	07	36	24.63	+19	41	54.6	1 688
972	1981	01	09.22222	07	36	22.39	+19	41	54.4	688
1015	1981	01	03.28681	08	33	47.54	+18	15	52.9	688
1015	1981	01	03.32014	08	33	46.17	+18	16	01.5	688
1029	1980	12	30.07847	02	01	08.65	+13	28	10.2	688

1029	1980	12	30.12153	02	01	09.11	+13	28	13.0		688
1044	1980	12	12.40972	08	55	36.49	+22	13	48.9		688
1044	1980	12	12.46944	08	55	35.79	+22	13	58.2		688
1044	1981	01	09.27083	08	39	58.49	+24	04	54.4		688
1064	1980	12	30.24375	06	52	53.19	+22	45	20.6		688
1064	1980	12	30.27708	06	52	51.11	+22	45	18.1		688
1064	1981	01	09.16528	06	42	15.39	+22	31	27.6		688
1064	1981	01	09.20278	06	42	13.01	+22	31	24.4		688
1080	1980	12	31.09028	03	24	43.15	+27	13	52.8		688
1080	1980	12	31.12431	03	24	43.56	+27	13	49.0		688
1080	1981	01	09.10696	03	28	42.14	+27	01	20.9		688
1080	1981	01	09.14514	03	28	43.43	+27	01	18.5		688
1087	1980	12	31.09028	03	18	34.67	+27	28	55.2		688
1087	1980	12	31.12431	03	18	34.06	+27	28	53.4		688
1087	1981	01	09.10696	03	17	26.78	+27	22	25.7		688
1087	1981	01	09.14514	03	17	26.75	+27	22	25.0		688
1125	1980	12	30.24375	06	31	06.97	+23	18	34.0	16.0	688
1125	1980	12	30.27708	06	31	05.11	+23	18	38.4		688
1125	1981	01	09.12708	06	22	20.44	+23	37	56.1	16.2	688
1125	1981	01	09.16528	06	22	18.47	+23	38	00.0		688
1125	1981	01	09.20278	06	22	16.47	+23	38	04.5		688
1153	1981	01	09.16528	06	27	49.55	+23	12	33.4		688
1153	1981	01	09.20278	06	27	46.96	+23	12	33.0		688
1173	1980	12	16.39236	09	30	38.87	+10	39	25.1		688
1173	1980	12	16.44379	09	30	38.42	+10	39	21.0		688
1246	1980	12	16.39236	09	29	07.46	+08	54	58.0	16.8	688
1246	1980	12	16.44379	09	29	06.42	+08	54	46.5		688
1254	1980	12	16.39236	09	20	46.13	+12	58	10.5		688
1254	1980	12	16.44379	09	20	45.76	+12	58	03.9		688
1297	1980	12	30.24375	06	47	25.31	+26	53	37.9		688
1297	1980	12	30.27708	06	47	23.25	+26	53	35.3		688
1297	1981	01	09.12708	06	37	42.09	+26	33	32.6		688
1297	1981	01	09.16528	06	37	39.69	+26	33	30.2		688
1297	1981	01	09.20278	06	37	37.46	+26	33	26.0		688
1333	1981	01	03.37708	11	17	22.95	+14	53	18.6		688
1333	1981	01	03.43681	11	17	24.52	+14	53	39.8		688
1363	1980	12	30.07847	01	38	39.33	+09	59	47.4		688
1363	1980	12	30.12153	01	38	40.41	+09	59	53.9		688
1473	1980	12	12.43889	08	41	37.33	-00	09	22.1	1	688
1539	1980	12	16.39236	09	33	15.64	+13	51	26.2		688
1539	1980	12	16.44379	09	33	15.36	+13	51	27.4		688
1539	1981	01	01.38264	09	29	13.47	+14	14	59.3	1	688
1539	1981	01	01.42431	09	29	12.47	+14	15	06.8		688
1587	1980	12	31.09028	03	31	47.34	+31	56	50.9		688
1587	1980	12	31.12431	03	31	46.80	+31	56	42.7		688
1587	1981	01	09.10696	03	31	17.83	+31	22	00.4		688
1587	1981	01	09.14514	03	31	17.96	+31	21	52.0		688
1627	1980	12	30.10000	02	34	10.72	+02	34	18.8		688
1627	1980	12	30.14236	02	34	11.57	+02	34	40.5		688
1634	1980	12	30.29444	08	34	23.12	+23	50	04.8		688
1634	1980	12	30.31111	08	34	22.17	+23	50	11.3		688
1637	1980	12	16.32431	05	07	50.30	+40	27	54.6		688
1637	1980	12	16.34375	05	07	48.96	+40	27	55.0		688
1650	1980	12	16.39236	09	21	46.56	+11	39	30.2		688
1650	1980	12	16.44379	09	21	46.35	+11	39	27.3		688
1667	1981	01	03.37708	11	09	53.42	+11	24	16.3		688
1667	1981	01	03.43681	11	09	54.49	+11	24	21.0		688
1678	1981	01	03.37708	11	22	57.44	+09	05	27.6		688

1678	1981	01	03.43681	11	22	58.11	+09	05	19.7		688	
1682	1981	01	03.32014	08	33	36.39	+21	57	13.6		688	
1684	1980	12	30.24375	06	30	51.11	+22	33	05.4		688	
1684	1980	12	30.27708	06	30	49.33	+22	33	08.7		688	
1684	1981	01	09.12708	06	22	16.30	+22	46	16.1	2	688	
1684	1981	01	09.16528	06	22	14.32	+22	46	19.5		688	
1684	1981	01	09.20278	06	22	12.37	+22	46	22.7		688	
1691	1981	01	10.28889	09	44	34.08	+12	35	46.2		688	
1691	1981	01	10.32431	09	44	33.03	+12	35	51.0		688	
1786	1980	12	31.09028	03	42	40.10	+32	21	30.2		688	
1786	1980	12	31.12431	03	42	39.17	+32	21	24.3		688	
1786	1981	01	09.10696	03	40	02.19	+31	57	14.9		688	
1786	1981	01	09.14514	03	40	01.79	+31	57	07.9		688	
1789	1981	01	03.28681	08	09	39.64	+20	45	51.2	16.8	688	
1789	1981	01	03.32014	08	09	37.71	+20	45	59.2		688	
1800	1981	01	10.28889	09	37	21.55	+15	12	18.1		688	
1800	1981	01	10.32431	09	37	20.00	+15	12	31.3	1	688	
1822	1981	01	03.28681	08	18	35.22	+18	04	45.8		688	
1822	1981	01	03.32014	08	18	33.45	+18	04	50.1		688	
1859	1980	12	12.40972	08	39	27.93	+26	19	52.5	2	688	
1859	1980	12	12.46944	08	39	26.91	+26	19	59.4		688	
1859	1980	12	30.29444	08	30	30.09	+26	59	53.1		688	
1859	1981	01	09.27083	08	22	49.15	+27	22	47.1	16.5	688	
1867	1980	12	30.24375	06	46	50.75	+24	42	56.8		688	
1867	1980	12	30.27708	06	46	49.44	+24	42	53.4		688	
1930	1980	12	12.40972	08	46	45.99	+25	42	54.5		688	
1930	1980	12	12.46944	08	46	44.56	+25	42	56.1		688	
1930	1980	12	30.29444	08	36	23.75	+25	59	24.8		688	
1930	1980	12	30.31111	08	36	22.98	+25	59	25.4		688	
1930	1981	01	09.27083	08	27	50.25	+26	08	47.4		688	
1941	1980	12	30.24375	06	38	41.31	+26	28	11.4	2	688	
1941	1980	12	30.27708	06	38	39.65	+26	28	12.8		688	
1970	1980	12	31.09028	03	32	05.96	+28	21	29.7	17.2	688	
1970	1980	12	31.12431	03	32	05.14	+28	21	20.3		688	
1970	1981	01	09.10696	03	30	18.97	+27	38	46.5	17.2	688	
1970	1981	01	09.14514	03	30	18.89	+27	38	34.1		688	
2004	1981	01	01.38264	09	35	17.95	+18	18	12.6		688	
2004	1981	01	01.42431	09	35	17.00	+18	18	19.6		688	
2030	1981	01	10.28889	09	56	23.99	+09	52	57.0		688	
2030	1981	01	10.32431	09	56	23.16	+09	53	01.7	1	688	
2046	1981	01	03.28681	08	15	56.77	+22	21	31.9		688	
2046	1981	01	03.32014	08	15	55.15	+22	21	38.3		688	
2086	1981	01	10.28889	09	37	48.22	+12	55	40.9		688	
2086	1981	01	10.32431	09	37	47.18	+12	55	53.0		688	
2133	1981	01	09.12708	06	21	48.65	+27	39	35.6	3	688	
2133	1981	01	09.16528	06	21	45.73	+27	39	44.8	3	688	
2133	1981	01	09.20278	06	21	43.83	+27	39	49.9	3	688	
2203	1981	01	01.38264	09	24	53.06	+17	29	44.5		688	
2203	1981	01	01.42431	09	24	51.86	+17	29	51.4		688	
2249	1981	01	10.28889	09	41	20.13	+12	28	03.3		688	
2249	1981	01	10.32431	09	41	19.08	+12	28	09.9		688	
2297	1981	01	03.28681	08	10	44.85	+19	05	12.7		688	
2297	1981	01	03.32014	08	10	43.44	+19	05	18.9		688	
2320	1981	01	03.28681	08	24	34.49	+18	52	24.5		688	
2320	1981	01	03.32014	08	24	33.12	+18	52	34.7		688	
2325	1981	01	01.28056	07	48	18.29	+19	40	13.4	17.0	3	688
2325	1981	01	01.31458	07	48	16.70	+19	40	18.2		688	
2325	1981	01	09.18472	07	41	31.91	+20	00	53.0	17.0	1	688

2325		1981	01	09.22222	07	41	29.89	+20	00	59.7		688	
2333		1980	12	31.09028	03	31	13.84	+29	17	49.5	16.5	688	
2333		1980	12	31.12431	03	31	12.88	+29	17	49.5		688	
2333		1981	01	09.10696	03	28	34.69	+29	15	50.5	16.8	688	
2333		1981	01	09.14514	03	28	34.30	+29	15	50.0		688	
1968	UQ	1980	12	30.24375	06	29	45.33	+22	46	38.2	16.8	688	
1968	UQ	1980	12	30.27708	06	29	43.31	+22	46	39.4		688	
1968	UQ	1981	01	09.12708	06	21	07.87	+22	52	07.0	16.8	688	
1968	UQ	1981	01	09.16528	06	21	05.99	+22	52	07.8		688	
1968	UQ	1981	01	09.20278	06	21	04.00	+22	52	08.9		688	
1975	VD3	1981	01	01.38264	09	28	31.37	+20	18	14.9	17.0	688	
1975	VD3	1981	01	01.42431	09	28	29.77	+20	18	26.6		3 688	
1976	GQ1	1981	01	01.38264	09	37	40.62	+16	37	07.3	17.0	688	
1976	GQ1	1981	01	01.42431	09	37	39.81	+16	37	13.6		688	
1979	UD	1980	12	12.40972	08	42	09.77	+26	18	18.5	17.2	688	
1979	UD	1980	12	12.46944	08	42	08.87	+26	18	34.0		3 688	
1979	UD	1980	12	30.29444	08	34	03.76	+27	49	37.6	16.8	688	
1979	UD	1980	12	30.31111	08	34	03.10	+27	49	41.5		688	
1979	UD	1981	01	09.27083	08	26	53.24	+28	42	36.9	16.8	688	
1979	UJ	1980	12	12.43889	08	38	41.75	-00	59	20.0		688	
1979	UJ	1980	12	16.36563	08	37	44.66	-01	10	29.3	16.8	688	
1979	UJ	1980	12	16.41806	08	37	43.60	-01	10	38.9		688	
1980	TO	1980	11	06.18472	01	22	45.90	+05	35	17.4	16.8	688	
1980	TO	1980	11	06.22153	01	22	44.19	+05	35	05.4		688	
1980	UC	1980	11	06.18472	01	22	06.54	+04	10	39.8	17.0	688	
1980	UC	1980	11	06.22153	01	22	05.12	+04	10	33.6		688	
1980	VA	1980	11	29.18681	02	39	05.17	+08	25	31.9	16.8	688	
1980	VA	1980	11	29.22083	02	39	04.38	+08	25	31.0		688	
1980	VA	1980	12	04.25208	02	38	00.39	+08	26	27.2	17.2	688	
1980	VP	1980	12	30.10000	02	36	51.87	+05	12	13.9	17.2	688	
1980	VP	1980	12	30.14236	02	36	51.73	+05	12	26.8		688	
1980	WA	1980	12	30.07847	01	51	42.20	+14	38	52.8	16.8	688	
1980	WA	1980	12	30.12153	01	51	43.91	+14	38	45.5		688	
1980	WG	*	1980	11	29.18681	02	40	19.68	+08	36	02.5	16.8	4 688
1980	WG		1980	11	29.22083	02	40	18.37	+08	36	01.1		688
1980	WG		1980	12	04.25208	02	37	49.42	+08	36	08.2	17.2	688
1980	XE		1980	12	12.40972	08	53	31.12	+25	45	43.7	17.0	688
1980	XE		1980	12	12.46944	08	53	29.70	+25	45	22.1		688
1980	XG		1980	12	12.43889	08	32	22.54	-02	08	14.1		688
1980	XG		1980	12	16.36563	08	32	19.64	-01	45	34.1	16.8	688
1980	XG		1980	12	16.41806	08	32	19.19	-01	45	15.4		3 688
1980	XL		1980	12	04.34722	08	47	04.11	+26	51	26.3		688
1980	XL		1980	12	04.39653	08	47	04.50	+26	51	48.6		688
1980	XL	*	1980	12	12.40972	08	47	06.52	+27	53	58.9	16.5	6 688
1980	XL		1980	12	12.46944	08	47	05.99	+27	54	26.4		688
1980	XL		1980	12	30.29444	08	40	47.02	+30	34	23.5	16.8	688
1980	XL		1980	12	30.31111	08	40	46.49	+30	34	32.7		2 688
1980	YA	*	1980	12	30.24375	06	36	02.90	+26	14	39.7	16.2	4 688
1980	YA		1980	12	30.27708	06	36	00.40	+26	14	31.6		688
1980	YA		1981	01	09.12708	06	25	00.14	+25	33	12.9	16.8	688
1980	YA		1981	01	09.16528	06	24	57.53	+25	33	01.9		688
1980	YA		1981	01	09.20278	06	24	55.26	+25	32	54.0		688
1980	YB	*	1980	12	30.24375	06	48	51.89	+22	03	34.2	16.8	4 688
1980	YB		1980	12	30.27708	06	48	49.61	+22	03	43.1		688
1980	YB		1981	01	09.12708	06	37	40.68	+22	46	54.1	17.0	688
1980	YB		1981	01	09.16528	06	37	38.06	+22	47	04.0		688
1980	YB		1981	01	09.20278	06	37	35.50	+22	47	13.9		688
1980	YC	*	1980	12	30.29444	08	36	57.05	+28	47	02.1	17.2	5 688

1980 YC		1980 12 30.31111	08 36 56.38	+28 47 07.3			688
1980 YD	*	1980 12 30.29444	08 39 30.76	+23 39 17.7	16.5	4	688
1980 YD		1980 12 30.31111	08 39 29.28	+23 39 09.1			1 688
1980 YE	*	1980 12 30.29444	08 43 04.76	+24 02 52.6	16.8	4	688
1980 YE		1980 12 30.31111	08 43 04.01	+24 02 55.7			688
1980 YE		1981 01 09.27083	08 34 47.01	+24 27 57.5			688
1980 YF	*	1980 12 31.09028	03 22 44.37	+30 31 37.0	16.8	4	688
1980 YF		1980 12 31.12431	03 22 42.71	+30 32 01.6			688
1980 YF		1981 01 09.10696	03 18 32.49	+32 10 32.9	16.8		688
1980 YF		1981 01 09.14514	03 18 31.88	+32 10 57.4			688
1980 YG	*	1980 12 31.09028	03 37 15.66	+25 57 48.5	17.2	4	688
1980 YG		1980 12 31.12431	03 37 15.07	+25 57 49.6			688
1981 AA	*	1981 01 03.28681	08 09 57.46	+20 27 25.7	15.0	5	688
1981 AA		1981 01 03.32014	08 09 55.44	+20 28 19.8			688
1981 AB	*	1981 01 01.28056	07 32 57.12	+19 29 52.6	17.0	4	688
1981 AB		1981 01 01.31458	07 32 54.72	+19 30 12.4			688
1981 AB		1981 01 09.18472	07 24 55.63	+20 32 56.4	16.8	1	688
1981 AC	*	1981 01 01.28056	07 49 18.19	+18 03 02.0	17.0	4	688
1981 AC		1981 01 01.31458	07 49 17.16	+18 03 03.8			688
1981 AC		1981 01 09.18472	07 45 04.79	+18 13 55.0	16.8		688
1981 AC		1981 01 09.22222	07 45 03.45	+18 13 57.1			688
1981 AD	*	1981 01 01.28056	07 51 17.28	+19 52 02.4	15.5	4	688
1981 AD		1981 01 01.31458	07 51 15.51	+19 52 25.9			688
1981 AE	*	1981 01 01.38264	09 33 41.68	+19 31 22.0	16.8	4	688
1981 AE		1981 01 01.42431	09 33 40.96	+19 31 29.5			688
1981 AF	*	1981 01 03.37708	10 59 35.30	+07 18 57.6	17.2	4	688
1981 AF		1981 01 03.43681	10 59 36.78	+07 18 53.6			688
1981 AG	*	1981 01 03.37708	11 09 24.59	+10 44 43.7	17.0	4	688
1981 AG		1981 01 03.43681	11 09 24.70	+10 44 56.7			688
1981 AH	*	1981 01 01.28056	07 31 06.40	+13 40 17.3	17.2	5	688
1981 AH		1981 01 01.31458	07 31 04.83	+13 40 29.5			688

Note 1 : right ascension uncertain. 2: declination uncertain. 3 = 1 + 2.
4: discoverer Bowell. 5 = 1 + 4. 6: discoverer Thomas.

OBSERVATIONS MADE AT THE GOETHE LINK OBSERVATORY, MEASURED AND REDUCED
AT INDIANA UNIVERSITY.

Object	Date	UT	R. A. (1950)		Decl.		Obs.
909	1966 02	21.25358	10 40	08.58	+12 38	52.7	760
909	1966 02	21.29803	10 40	06.84	+12 39	11.5	760
1105	1958 08	09.16771	19 36	12.37	-22 36	23.0	760
1105	1958 08	09.20972	19 36	10.76	-22 36	36.0	760
1951 NA	1951 07	03.34998	00 15	21.85	+11 17	33.8	760
1952 BQ	1952 01	31.35349	11 05	57.32	+06 52	21.2	760
1952 BQ	1952 01	31.40627	11 05	55.68	+06 52	40.2	760
1952 DU	1952 02	26.31910	10 51	39.27	+09 04	18.4	760
1952 DU	1952 02	26.37743	10 51	36.66	+09 04	33.6	760
1952 FG	1952 03	20.11874	10 56	18.87	+11 02	09.4	760
1952 FG	1952 03	20.23264	10 56	14.21	+11 02	35.6	760
1957 LM	1957 06	06.03000	17 22	18.87	-19 50	22.6	760
1957 WG	1957 11	23.26734	02 50	22.24	+22 11	52.3	760
1957 WG	1957 11	23.31317	02 50	19.83	+22 11	40.3	760
1958 OB	1958 08	09.16771	19 34	47.01	-22 00	00.8	760
1958 OB	1958 08	09.20972	19 34	45.21	-22 00	20.8	760
1960 CB	1960 02	01.19688	08 32	41.34	+15 59	36.8	760
1960 CB	1960 02	01.24888	08 32	39.37	+15 59	42.7	760
1963 TV	1963 10	14.20281	02 35	17.04	+01 04	19.7	760
1963 TV	1963 10	14.24795	02 35	14.85	+01 04	02.2	760
1963 TA1	1963 10	18.27849	02 19	37.94	+01 19	44.8	760

1963 TA1	1963 10 18.32294	02 19 35.51	+01 19 35.5	760
1963 VE	1963 11 11.16080	03 15 32.74	+12 20 36.2	760
1963 VE	1963 11 11.20594	03 15 30.25	+12 20 34.1	760

OBSERVATIONS MADE AT THE U.S. NAVAL OBSERVATORY (CODE 786) BY R. S. HARRINGTON AND G. G. DOUGLASS AND AT CERRO TOLOLO INTERAMERICAN OBSERVATORY (CODE 807) BY J. A. GRAHAM.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
1	1979 10 16.04861	00 59 02.01	-09 30 26.4	786	
1	1979 10 16.05694	00 59 01.57	-09 30 27.7	786	
2	1979 09 18.09861	20 48 16.04	+05 11 36.0	786	
2	1979 09 18.10903	20 48 15.83	+05 11 28.3	786	
2	1980 11 13.15515	02 07 41.18	-25 08 29.3	786	
2	1980 11 13.15648	02 07 41.11	-25 08 29.9	786	
3	1979 11 27.36528	07 47 19.22	+01 31 49.7	786	
3	1980 02 14.03681	07 02 01.08	+06 54 06.1	786	
3	1980 02 14.04375	07 02 00.98	+06 54 09.9	786	
4	1979 11 19.13958	02 28 36.62	+04 16 11.9	786	
4	1979 11 19.15000	02 28 36.04	+04 16 11.2	786	
9	1979 11 27.41875	09 26 46.12	+20 15 59.7	786	
9	1979 12 05.43611	09 32 50.19	+20 21 02.1	786	
9	1980 03 19.13958	08 43 51.10	+26 35 56.3	786	
11	1980 03 19.15000	11 04 30.35	+11 22 41.7	786	
11	1980 03 19.16181	11 04 29.71	+11 22 46.3	786	
13	1980 03 19.11458	09 39 48.90	+39 05 44.2	786	
13	1980 03 19.13542	09 39 48.18	+39 05 34.3	786	
17	1980 03 19.14444	10 22 49.05	+15 54 39.1	786	
17	1980 03 19.15694	10 22 48.45	+15 54 42.2	786	
19	1980 03 19.11944	09 47 13.87	+11 18 47.0	786	
19	1980 03 19.13125	09 47 13.47	+11 18 49.4	786	
44	1979 10 16.03125	00 03 08.01	-05 08 55.3	786	
44	1979 10 16.04306	00 03 07.47	-05 08 58.9	786	
51	1979 09 18.07431	20 11 34.26	-11 39 17.7	786	
51	1979 09 18.09444	20 11 34.31	-11 39 25.0	786	
1792	1980 09 08.08889	21 21 11.22	-30 29 13.4	807	

OBSERVATIONS MADE AT THE HARVARD COLLEGE OBSERVATORY'S AGASSIZ STATION BY R. E. MC CROSKY, C.-Y. SHAO, G. SCHWARTZ AND J. BULGER (WITH ASSISTANCE FROM C. M. BARDWELL AND B. G. MARSDEN).

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
/1980s	1981 01 09.27706	08 55 16.55	+33 39 23.9	17 T	801	
/1980u	1980 12 27.95390	18 48 01.12	+39 25 19.8		801	
/1980u	1980 12 30.95234	18 49 32.25	+40 11 53.0		801	
1538	1981 01 05.99213	00 36 56.18	+14 22 05.5		801	
1538	1981 01 08.98325	00 41 49.01	+14 47 44.6		801	
1929 PC	1980 08 13.09091	17 17 47.77	-13 13 29.0		801	
1976 UA	1980 12 07.36708	07 26 04.56	+01 17 26.4	20	801	
1976 UA	1981 01 03.20828	05 03 35.25	-13 22 12.2		801	
1976 UA	1981 01 06.13773	04 41 39.37	-14 26 52.9	19.5	801	

OBSERVATIONS MADE WITH THE 0.5-M DOUBLE ASTROGRAPH AT THE ESTACION ASTRONOMICA DE ALTURA EL LEONCITO OF THE OBSERVATORIO ASTRONOMICO FELIX AGUILAR BY M. R. CESCO, H. MIRA, G. SANCHEZ AND J. G. SANGUIN, WITH C. U. CESCO AS SCIENTIFIC COORDINATOR. REDUCTIONS UNDER THE DIRECTION OF A. ZARAGOZA AT THE UNIVERSIDAD NACIONAL DE SAN JUAN.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
77	1975 09 09.20476	21 26 58.44	-17 11 06.3		808	
77	1975 09 09.24146	21 26 56.80	-17 11 10.6		808	
207	1975 09 26.08507	19 59 42.52	-25 31 29.5		808	

268	1975	09	09.20476	21	22	56.92	-16	48	31.7	808
268	1975	09	09.24146	21	22	55.57	-16	48	38.2	808
269	1976	10	21.20810	00	40	56.65	-01	32	10.9	808
269	1976	10	21.24068	00	40	55.23	-01	32	21.0	808
269	1976	10	23.15804	00	39	34.93	-01	41	55.9	808
269	1976	10	23.20164	00	39	33.08	-01	42	08.8	808
289	1975	08	11.18628	20	04	22.01	-11	13	50.0	808
289	1975	08	11.22992	20	04	20.08	-11	14	02.9	808
289	1975	08	29.14757	19	54	15.42	-12	46	30.6	808
289	1975	08	29.19469	19	54	14.38	-12	46	44.3	808
289	1975	09	27.07741	19	55	45.31	-14	43	14.0	808
289	1975	09	27.12450	19	55	46.49	-14	43	21.4	808
289	1975	09	30.05263	19	57	14.68	-14	51	05.7	808
379	1975	09	09.20476	21	39	31.45	-13	01	55.9	808
379	1975	09	09.24146	21	39	30.05	-13	02	04.2	808
539	1976	05	29.24152	17	10	18.25	-26	29	41.2	808
539	1976	05	29.30524	17	10	14.54	-26	29	30.2	808
553	1976	06	19.07059	15	08	25.58	-16	24	54.7	808
553	1976	06	19.11423	15	08	24.11	-16	24	57.9	808
553	1976	06	26.05565	15	05	26.66	-16	29	23.5	808
553	1976	06	26.09581	15	05	25.84	-16	29	27.5	808
553	1976	06	29.05716	15	04	35.83	-16	32	56.8	808
553	1976	06	29.09731	15	04	35.18	-16	33	00.4	808
586	1976	06	19.07059	15	09	19.72	-17	12	29.8	808
586	1976	06	19.11423	15	09	18.62	-17	12	25.2	808
586	1976	06	29.05716	15	06	25.12	-16	57	57.0	808
586	1976	06	29.09731	15	06	24.60	-16	57	54.7	808
638	1976	11	11.04833	00	27	30.00	-08	13	11.6	808
638	1976	11	11.08919	00	27	29.13	-08	13	09.6	808
638	1976	11	22.08513	00	24	56.38	-07	53	17.9	808
638	1976	11	22.12874	00	24	56.06	-07	53	10.7	808
689	1976	10	21.20810	00	43	54.93	-02	16	37.2	808
689	1976	10	21.24068	00	43	53.83	-02	16	49.9	808
689	1976	10	23.15804	00	42	58.34	-02	29	00.0	808
689	1976	10	23.20164	00	42	57.00	-02	29	16.2	808
689	1976	10	28.10941	00	41	00.62	-02	55	07.6	808
689	1976	10	28.15511	00	40	59.52	-02	55	19.5	808
694	1975	12	29.16103	07	28	42.57	+02	02	04.4	808
694	1975	12	29.19495	07	28	40.58	+02	02	00.4	808
737	1975	12	30.14098	06	57	21.70	+04	44	05.7	808
737	1975	12	30.17493	06	57	19.72	+04	44	08.2	808
771	1975	03	09.19675	11	11	19.94	-14	29	36.6	808
771	1975	03	09.23899	11	11	17.77	-14	29	11.3	808
791	1976	10	28.26764	04	28	00.00	-01	14	14.6	808
791	1976	10	28.30298	04	27	58.73	-01	14	23.1	808
818	1976	11	18.15178	01	36	12.91	-05	13	33.1	808
818	1976	11	18.17188	01	36	12.19	-05	13	28.4	808
818	1976	11	19.05832	01	35	41.96	-05	09	43.7	808
818	1976	11	19.09087	01	35	40.81	-05	09	35.1	808
818	1976	11	23.18903	01	33	32.92	-04	50	35.6	808
818	1976	11	23.22020	01	33	31.96	-04	50	26.6	808
818	1976	11	26.08667	01	32	15.72	-04	35	34.5	808
818	1976	11	26.12061	01	32	14.87	-04	35	23.3	808
845	1976	08	23.29134	01	17	12.32	-04	59	15.7	808
845	1976	08	23.33913	01	17	11.70	-04	59	21.5	808
845	1976	10	21.20810	00	35	39.30	-06	40	42.7	808
845	1976	10	21.24068	00	35	37.74	-06	40	41.0	808
845	1976	11	22.08513	00	21	01.66	-04	55	16.8	808
845	1976	11	22.12874	00	21	01.36	-04	55	02.2	808

865	1976	12	27.19185	07	55	50.81	-03	01	44.3	808
865	1976	12	27.23055	07	55	49.37	-03	01	46.1	808
865	1977	01	20.15430	07	37	06.50	-01	27	37.6	808
876	1975	09	04.14056	21	31	25.27	-13	39	26.9	808
876	1975	09	04.17720	21	31	23.90	-13	39	43.7	808
876	1975	09	09.20476	21	28	35.17	-14	16	18.1	808
876	1975	09	09.24146	21	28	33.87	-14	16	33.9	808
910	1975	04	09.24199	15	40	36.20	-17	39	24.3	808
910	1975	04	09.28772	15	40	35.18	-17	39	30.3	808
925	1975	08	11.18628	20	22	56.45	-13	33	13.1	808
925	1975	08	11.22992	20	22	53.86	-13	33	06.4	808
1062	1976	06	28.26558	20	31	29.13	-24	49	14.7	808
1062	1976	06	28.30782	20	31	27.50	-24	49	21.2	808
1093	1976	11	18.15178	01	33	42.23	-07	21	15.8	808
1093	1976	11	18.17188	01	33	41.38	-07	21	06.9	808
1093	1976	11	19.05832	01	33	05.53	-07	14	04.3	808
1093	1976	11	19.09087	01	33	04.19	-07	13	48.7	808
1093	1976	11	23.18903	01	30	32.08	-06	39	53.0	808
1093	1976	11	23.22020	01	30	30.97	-06	39	36.2	808
1093	1976	11	26.08667	01	28	59.70	-06	14	40.4	808
1093	1976	11	26.12061	01	28	58.65	-06	14	22.6	808
1135	1976	05	29.24152	17	20	39.76	-30	22	29.4	808
1135	1976	05	29.30524	17	20	35.98	-30	22	30.6	808
1170	1976	08	21.21370	23	12	11.26	-27	12	34.1	808
1170	1976	08	21.24277	23	12	08.86	-27	12	32.7	808
1183	1975	09	09.20476	21	38	16.42	-17	28	58.2	808
1183	1975	09	09.24146	21	38	14.66	-17	29	02.2	808
1185	1976	06	26.05565	15	05	27.92	-16	30	54.3	808
1185	1976	06	26.09581	15	05	27.11	-16	30	56.8	808
1185	1976	06	29.05716	15	04	38.40	-16	34	54.7	808
1185	1976	06	29.09731	15	04	37.74	-16	35	01.6	808
1196	1975	07	18.32390	23	33	40.44	-23	27	44.2	808
1196	1975	07	18.36684	23	33	41.71	-23	28	12.9	808
1251	1976	10	21.20810	00	29	14.11	-05	49	31.5	808
1251	1976	10	21.24068	00	29	12.91	-05	49	38.3	808
1251	1976	11	18.07216	00	22	11.03	-06	05	30.2	808
1251	1976	11	18.11162	00	22	11.22	-06	05	25.6	808
1251	1976	11	22.08513	00	22	50.57	-05	53	42.6	808
1251	1976	11	22.12874	00	22	51.07	-05	53	33.8	808
1252	1976	12	28.16698	08	32	43.53	-03	10	05.3	808
1252	1976	12	28.19666	08	32	42.52	-03	09	52.5	808
1276	1976	09	26.20752	01	36	04.53	-25	22	06.7	808
1276	1976	09	26.26984	01	36	01.89	-25	22	36.4	808
1276	1976	10	22.18639	01	16	50.48	-27	29	32.9	808
1276	1976	10	22.23346	01	16	48.23	-27	29	36.2	808
1304	1975	10	25.08333	23	12	49.47	-30	19	40.8	808
1304	1975	10	25.11243	23	12	48.93	-30	19	33.4	808
1466	1975	09	09.20476	21	31	09.01	-13	07	49.9	808
1466	1975	09	09.24146	21	31	07.52	-13	08	10.3	808
1483	1976	10	23.15804	00	43	19.87	-01	13	32.1	808
1483	1976	10	23.20164	00	43	17.84	-01	13	38.5	808
1483	1976	10	28.10941	00	39	44.01	-01	28	37.5	808
1483	1976	10	28.15511	00	39	42.10	-01	28	48.1	808
1484	1976	11	18.15178	01	34	13.92	-07	32	11.4	808
1484	1976	11	18.17188	01	34	13.02	-07	32	08.4	808
1484	1976	11	19.05832	01	33	39.09	-07	29	49.5	808
1484	1976	11	19.09087	01	33	37.83	-07	29	44.2	808
1568	1975	09	30.21048	01	38	21.05	-30	19	14.3	808
1568	1975	09	30.24788	01	38	20.28	-30	20	04.8	808

1568	1975	10	07.29527	01	35	44.50	-32	42	14.0	808
1573	1975	12	30.22168	08	15	24.27	-19	11	04.0	808
1573	1975	12	30.25768	08	15	22.47	-19	11	12.5	808
1628	1976	10	28.26764	04	34	06.38	-01	07	42.9	808
1628	1976	11	21.14742	04	18	49.93	-04	15	12.5	808
1628	1976	11	21.19518	04	18	47.59	-04	15	29.4	808
1630	1976	10	21.20810	00	31	28.02	-01	14	41.2	808
1630	1976	10	21.24068	00	31	26.70	-01	14	50.6	808
1679	1976	10	21.20810	00	41	09.09	-03	26	00.6	808
1679	1976	10	21.24068	00	41	07.90	-03	26	14.7	808
1679	1976	10	23.15804	00	40	01.49	-03	39	50.1	808
1679	1976	10	23.20164	00	39	59.92	-03	40	07.5	808
1679	1976	11	11.04833	00	31	59.22	-05	19	59.3	808
1679	1976	11	11.08919	00	31	58.51	-05	20	07.2	808
1679	1976	11	12.07642	00	31	43.36	-05	23	35.1	808
1679	1976	11	12.10204	00	31	42.94	-05	23	40.2	808
1679	1976	11	18.07216	00	30	34.94	-05	40	45.1	808
1679	1976	11	18.11162	00	30	34.57	-05	40	50.0	808
1679	1976	11	22.08513	00	30	12.27	-05	48	38.2	808
1679	1976	11	22.12874	00	30	12.05	-05	48	42.3	808
1715	1976	10	21.20810	00	34	46.44	-04	11	10.8	808
1715	1976	10	21.24068	00	34	45.05	-04	11	22.1	808
1724	1975	12	30.14098	06	58	22.26	+05	19	37.2	808
1724	1975	12	30.17493	06	58	20.33	+05	19	42.6	808
1733	1975	09	04.17720	21	29	42.03	-13	25	27.4	808
1733	1975	09	09.20476	21	25	51.33	-13	56	29.4	808
1733	1975	09	09.24146	21	25	49.56	-13	56	42.8	808
1753	1976	05	29.24152	17	15	22.59	-28	18	37.8	808
1753	1976	05	29.30524	17	15	19.00	-28	18	52.0	808
1781	1976	09	16.16832	21	08	50.06	-27	45	10.7	808
1781	1976	09	19.05765	21	07	51.41	-27	35	38.0	808
1781	1976	09	19.11374	21	07	50.37	-27	35	23.0	808
1798	1976	09	16.11223	20	58	38.33	-27	30	54.7	808
1798	1976	09	16.16832	20	58	36.87	-27	30	44.4	808
1798	1976	09	19.05765	20	57	45.37	-27	20	39.9	808
1798	1976	09	19.11374	20	57	44.38	-27	20	31.1	808
1819	1976	08	21.21370	23	12	47.87	-27	26	30.0	808
1819	1976	08	21.24277	23	12	46.73	-27	26	53.3	808
1819	1976	08	29.14182	23	07	37.62	-29	06	45.2	808
1819	1976	08	29.19376	23	07	35.35	-29	07	22.2	808
1850	1976	06	19.07059	15	05	19.52	-17	16	50.3	808
1850	1976	06	19.11423	15	05	18.63	-17	16	56.2	808
1907	1975	06	07.14839	16	28	57.68	-16	20	57.2	808
1937	1976	08	28.24982	00	09	41.93	-24	25	47.1	808
1937	1976	08	28.31284	00	09	39.81	-24	26	11.5	808
1937	1976	09	19.17989	23	50	10.74	-26	35	02.2	808
1937	1976	09	19.23250	23	50	07.45	-26	35	10.4	808
1937	1976	09	24.14130	23	45	22.78	-26	42	29.2	808
1937	1976	09	24.20363	23	45	19.11	-26	42	31.6	808
1937	1976	10	21.05263	23	27	41.61	-24	50	24.2	808
1937	1976	10	21.13712	23	27	40.02	-24	49	42.6	808
1947	1976	09	15.05541	21	24	48.37	-29	04	56.7	808
1947	1976	09	15.12467	21	24	46.37	-29	05	00.2	808
1947	1976	09	16.11223	21	24	19.68	-29	05	36.4	808
1947	1976	09	16.16832	21	24	17.98	-29	05	35.9	808
1947	1976	09	18.09914	21	23	29.28	-29	06	17.5	808
1947	1976	09	18.16219	21	23	27.67	-29	06	18.1	808
1947	1976	09	24.03429	21	21	28.71	-29	04	42.7	808
1952	1975	07	18.32390	23	38	54.27	-21	57	49.5	808

17.3

17.5

1952		1975	07	18.36684	23	38	54.59	-21	58	05.2	808	
2038		1976	08	21.28365	00	35	28.90	-21	54	09.2	808	
2038		1976	08	21.31203	00	35	28.35	-21	54	23.9	808	
2038		1976	09	20.22562	00	11	24.55	-25	13	02.6	808	
2038		1976	09	20.27826	00	11	21.16	-25	13	13.6	808	
2039		1975	04	09.24199	15	39	43.24	-16	42	48.6	808	
2039		1975	04	09.28772	15	39	42.42	-16	42	43.5	808	
2047		1976	08	30.26807	02	06	00.98	-18	10	30.3	808	
2047		1976	08	30.31653	02	05	59.70	-18	10	30.8	808	
2048		1976	08	23.29134	01	16	02.70	-05	24	10.8	808	
2048		1976	08	23.33913	01	16	03.29	-05	25	08.5	808	
2048		1976	09	18.22104	01	10	08.90	-15	13	10.4	808	
2179		1976	08	23.17393	21	30	27.17	-28	02	45.2	808	
2189		1975	09	26.08507	20	03	13.38	-27	13	49.7	808	
2219		1976	11	18.07216	00	23	06.12	-06	25	02.4	808	
2219		1976	11	18.11162	00	23	05.85	-06	24	54.7	808	
2219		1976	11	22.08513	00	22	53.61	-06	08	56.7	808	
2219		1976	11	22.12874	00	22	53.50	-06	08	45.1	808	
1975	DA	1975	04	12.05618	10	15	07.12	-14	28	38.1	808	
1975	DA	1975	04	12.09427	10	15	06.23	-14	28	27.3	808	
1975	DA	1975	04	15.04794	10	14	15.77	-14	14	56.9	808	
1975	DA	1975	04	15.08810	10	14	15.01	-14	14	44.7	808	
1975	DC	1975	02	16.21184	11	00	30.74	-14	29	20.7	808	
1975	DC	1975	02	16.25339	11	00	28.54	-14	29	24.3	808	
1975	GO1	*	1975	04	12.05618	10	19	17.52	-11	10	00.0	808
1975	GO1		1975	04	12.09427	10	19	16.74	-11	09	47.8	808
1975	RP		1975	09	09.20476	21	38	57.10	-13	05	02.2	808
1975	RP		1975	09	09.24146	21	38	55.70	-13	05	06.3	808
1975	RQ		1975	09	09.20476	21	39	23.64	-13	51	43.3	808
1975	RQ		1975	09	09.24146	21	39	22.22	-13	51	49.3	808
1975	RR		1975	09	09.20476	21	39	02.80	-14	00	44.8	808
1975	RR		1975	09	09.24146	21	39	01.10	-14	00	59.3	808
1975	RC2	*	1975	09	04.14056	21	25	07.06	-15	37	16.8	808
1975	RC2		1975	09	04.17720	21	25	05.82	-15	37	27.2	808
1975	RD2	*	1975	09	04.14056	21	26	07.53	-13	28	52.7	808
1975	RD2		1975	09	04.17720	21	26	05.60	-13	29	01.9	808
1975	RD2		1975	09	09.20476	21	22	22.35	-13	50	24.9	808
1975	RD2		1975	09	09.24146	21	22	20.61	-13	50	34.4	808
1975	RE2	*	1975	09	04.14056	21	27	06.88	-14	35	03.9	808
1975	RE2		1975	09	04.17720	21	27	05.22	-14	35	07.8	808
1975	RF2	*	1975	09	04.14056	21	28	37.28	-13	48	19.6	808
1975	RF2		1975	09	04.17720	21	28	36.01	-13	48	33.8	808
1975	RG2	*	1975	09	04.14056	21	29	16.17	-16	03	13.0	808
1975	RG2		1975	09	04.17720	21	29	14.73	-16	03	28.8	808
1975	RH2	*	1975	09	09.20476	21	20	32.01	-17	05	16.2	808
1975	RH2		1975	09	09.24146	21	20	30.84	-17	05	21.7	808
1975	RJ2	*	1975	09	09.20476	21	21	59.04	-16	28	13.7	808
1975	RJ2		1975	09	09.24146	21	21	57.67	-16	28	19.5	808
1975	RK2	*	1975	09	09.20476	21	23	33.11	-15	39	29.0	808
1975	RK2		1975	09	09.24146	21	23	31.75	-15	39	36.9	808
1975	RL2	*	1975	09	09.20476	21	31	08.88	-12	26	49.4	808
1975	RL2		1975	09	09.24146	21	31	07.60	-12	26	39.1	808
1975	RM2	*	1975	09	09.20476	21	33	57.27	-14	37	05.0	808
1975	RM2		1975	09	09.24146	21	33	55.82	-14	37	08.6	808
1975	TL6	*	1975	10	01.21610	23	52	11.91	-21	25	57.9	808
1975	TL6		1975	10	02.05273	23	51	38.22	-21	29	38.8	808
1975	TL6		1975	10	02.09706	23	51	36.41	-21	29	52.2	808
1975	TL6		1975	10	04.06524	23	50	18.31	-21	37	49.9	808
1975	TL6		1975	10	04.10679	23	50	16.56	-21	38	00.1	808

17.2

1975 VB10*	1975 11 08.09426	23 11 35.71	-23 54 05.5	808
1975 VB10	1975 11 08.14481	23 11 35.73	-23 53 46.9	808
1976 KV	1976 06 26.05565	15 06 55.60	-15 44 40.3	808
1976 KV	1976 06 26.09581	15 06 55.22	-15 44 32.8	808
1976 KV	1976 06 29.05716	15 06 45.97	-15 35 40.0	808
1976 KV	1976 06 29.09731	15 06 45.90	-15 35 33.5	808
1976 KA2 *	1976 05 29.08640	15 32 39.04	-15 32 11.2	808
1976 KA2	1976 05 29.15703	15 32 35.15	-15 32 03.8	808
1976 MN	1976 07 01.14035	16 29 04.82	-28 06 49.5	808
1976 MN	1976 07 01.21514	16 29 01.78	-28 06 49.8	808
1976 QV1	1976 08 29.03949	20 40 52.78	-10 49 38.1	808
1976 QV1	1976 08 29.08313	20 40 51.05	-10 49 42.2	808
1976 QZ1	1976 09 16.11223	21 07 11.17	-28 23 51.4	17.6 808
1976 QZ1	1976 09 16.16832	21 07 09.86	-28 23 40.1	808
1976 QK2 *	1976 08 20.17487	21 34 11.48	-27 57 57.0	808
1976 QK2	1976 08 20.22403	21 34 09.26	-27 58 08.3	808
1976 QK2	1976 08 23.17393	21 32 20.23	-28 09 02.7	17.6 808
1976 QK2	1976 08 23.22728	21 32 18.22	-28 09 12.9	808
1976 QK2	1976 08 28.14609	21 29 35.51	-28 21 15.6	17.8 808
1976 QK2	1976 08 28.20151	21 29 33.68	-28 21 21.8	808
1976 QK2	1976 08 30.09354	21 28 39.94	-28 23 57.0	17.5 808
1976 QK2	1976 09 15.05541	21 25 05.32	-28 03 12.8	808
1976 QK2	1976 09 15.12467	21 25 05.19	-28 02 57.8	808
1976 QK2	1976 09 18.09914	21 25 19.36	-27 51 28.6	17.5 808
1976 QK2	1976 09 18.16219	21 25 19.72	-27 51 12.2	808
1976 QL2 *	1976 08 20.17487	21 37 18.85	-29 04 47.3	808
1976 QL2	1976 08 20.22403	21 37 16.28	-29 04 55.0	808
1976 QL2	1976 08 23.17393	21 34 46.85	-29 10 53.5	17.8 808
1976 QL2	1976 08 23.22728	21 34 44.31	-29 10 59.3	808
1976 QL2	1976 08 28.14609	21 30 43.24	-29 17 53.6	17.9 808
1976 QL2	1976 08 28.20151	21 30 40.51	-29 17 57.7	808
1976 QL2	1976 08 30.09354	21 29 11.64	-29 19 33.8	17.8 808
1976 QL2	1976 08 30.15587	21 29 08.73	-29 19 35.8	808
1976 QM2 *	1976 08 29.03949	20 44 15.09	-10 38 44.7	808
1976 QM2	1976 08 29.08313	20 44 13.42	-10 38 57.3	808
1976 QN2 *	1976 08 29.03949	20 44 26.73	-10 57 19.5	808
1976 QN2	1976 08 29.08313	20 44 25.06	-10 57 34.9	808
1976 QO2 *	1976 08 29.03949	20 45 05.74	-10 37 55.5	808
1976 QO2	1976 08 29.08313	20 45 04.72	-10 38 11.8	808
1976 QP2 *	1976 08 29.14182	23 11 13.88	-30 13 52.8	808
1976 QP2	1976 08 29.19376	23 11 11.32	-30 14 16.7	808
1976 QQ2 *	1976 08 29.14182	23 13 02.91	-28 01 03.4	808
1976 QQ2	1976 08 29.19376	23 12 59.70	-28 01 12.4	808
1976 QR2 *	1976 08 30.09354	21 29 50.23	-29 34 31.7	16.5 808
1976 QR2	1976 08 30.15587	21 29 48.11	-29 34 07.7	808
1976 RA *	1976 09 15.05541	21 26 42.10	-27 23 15.4	808
1976 RA	1976 09 15.12467	21 26 42.25	-27 22 32.1	808
1976 SD10*	1976 09 16.11223	20 58 33.34	-29 15 17.2	17.0 808
1976 SD10	1976 09 16.16832	20 58 31.89	-29 14 53.3	808
1976 SE10*	1976 09 16.11223	20 59 47.94	-28 06 21.7	17.3 808
1976 SE10	1976 09 16.16832	20 59 46.70	-28 06 17.2	808
1976 SE10	1976 09 19.05765	20 59 02.21	-28 01 38.5	17.6 808
1976 SE10	1976 09 19.11374	20 59 01.30	-28 01 34.1	808
1976 SF10*	1976 09 16.11223	21 07 49.24	-28 44 58.8	17.5 808
1976 SF10	1976 09 16.16832	21 07 47.24	-28 44 48.1	808
1976 SG10*	1976 09 16.11223	21 13 14.35	-27 44 20.5	17.3 808
1976 SG10	1976 09 16.16832	21 13 13.12	-27 44 11.7	808
1976 SG10	1976 09 19.05765	21 11 52.91	-27 36 20.1	17.3 808
1976 SG10	1976 09 19.11374	21 11 51.34	-27 36 12.5	808

1976 SH10*	1976 09 16.11223	21 14 34.69	-25 21 53.9	17.6	808
1976 SH10	1976 09 16.16832	21 14 32.80	-25 21 48.0		808
1976 SJ10*	1976 09 17.05478	20 54 17.73	-29 38 28.8	17.0	808
1976 SJ10	1976 09 17.11365	20 54 16.81	-29 38 27.8		808
1976 SK10*	1976 09 17.05478	20 55 16.06	-29 14 43.2	17.8	808
1976 SK10	1976 09 17.11365	20 55 14.89	-29 15 06.3		808
1976 SL10*	1976 09 17.05478	21 02 04.85	-28 58 54.3	17.4	808
1976 SL10	1976 09 17.11365	21 02 03.65	-28 59 16.1		808
1976 SM10*	1976 09 18.09914	21 29 53.05	-26 33 22.4	17.6	808
1976 SM10	1976 09 18.16219	21 29 50.80	-26 33 20.8		808
1976 SN10*	1976 09 19.05765	21 06 32.02	-28 13 52.1		808
1976 SN10	1976 09 19.11374	21 06 31.11	-28 13 44.5	17.6	808
1976 SO10*	1976 09 19.17989	23 46 57.21	-25 52 48.1		808
1976 SO10	1976 09 19.23250	23 46 53.69	-25 52 44.7		808
1976 SP10*	1976 09 19.17989	23 56 00.90	-27 48 43.3		808
1976 SP10	1976 09 19.23250	23 55 57.69	-27 48 48.3		808
1976 SP10	1976 09 24.14130	23 51 19.65	-27 51 48.9		808
1976 SP10	1976 09 24.20363	23 51 16.01	-27 51 46.7		808
1976 SR10*	1976 09 25.18564	00 03 53.16	-27 37 21.5		808
1976 SR10	1976 09 28.22490	00 01 18.94	-28 17 44.4		808
1976 SR10	1976 10 18.15990	23 47 01.46	-30 57 56.3		808
1976 SR10	1976 10 19.12810	23 46 32.35	-31 00 57.9		808
1976 SR10	1976 10 23.03371	23 44 51.97	-31 08 58.2		808
1976 SR10	1976 10 23.09398	23 44 50.26	-31 09 04.4		808
1976 SS10*	1976 09 25.18564	00 04 06.75	-28 37 45.4		808
1976 SS10	1976 09 28.26714	00 01 23.84	-28 43 07.5		808
1976 ST10*	1976 09 26.20752	01 35 47.92	-24 43 21.4		808
1976 ST10	1976 09 26.26984	01 35 45.96	-24 43 15.8		808
1976 UM20*	1976 10 21.20810	00 43 01.94	-03 44 12.7		808
1976 UM20	1976 10 21.24068	00 43 00.73	-03 44 13.8		808
1976 UN20*	1976 10 21.20810	00 50 09.06	-06 17 43.8		808
1976 UN20	1976 10 21.24068	00 50 07.24	-06 17 47.7		808
1976 UN20	1976 10 24.05141	00 47 41.84	-06 21 53.6		808
1976 UN20	1976 10 24.08257	00 47 40.22	-06 21 55.6		808
1976 UN20	1976 11 11.04833	00 36 55.79	-05 57 02.8		808
1976 UN20	1976 11 11.08919	00 36 54.87	-05 56 55.6		808
1976 UN20	1976 11 12.07642	00 36 36.91	-05 53 02.5		808
1976 UN20	1976 11 12.10204	00 36 36.44	-05 52 56.0		808
1976 UN20	1976 11 18.07216	00 35 30.52	-05 24 26.5		808
1976 UN20	1976 11 18.11162	00 35 30.22	-05 24 12.3		808
1976 UN20	1976 11 22.12874	00 35 27.44	-05 00 20.7		808
1976 UO20*	1976 10 21.20810	00 52 44.16	-02 43 22.6		808
1976 UO20	1976 10 21.24068	00 52 43.10	-02 43 38.1		808
1976 UO20	1976 10 24.12967	00 51 21.54	-03 05 25.9		808
1976 UO20	1976 10 24.17052	00 51 20.40	-03 05 43.8		808
1976 UP20*	1976 10 21.20810	00 54 06.80	-05 15 57.2		808
1976 UP20	1976 10 21.24068	00 54 05.54	-05 16 08.3		808
1976 UP20	1976 10 24.05141	00 52 23.62	-05 32 12.3		808
1976 UP20	1976 10 24.08257	00 52 22.52	-05 32 21.8		808
1976 UP20	1976 11 11.04833	00 44 26.91	-06 36 01.2		808
1976 UP20	1976 11 11.08919	00 44 26.23	-06 36 05.4		808
1976 UP20	1976 11 18.07216	00 43 07.62	-06 41 44.3		808
1976 UP20	1976 11 18.11162	00 43 07.38	-06 41 44.2		808
1976 UP20	1976 11 22.08513	00 42 53.05	-06 40 15.9		808
1976 UQ20*	1976 10 23.15804	00 41 10.48	-02 28 42.8		808
1976 UQ20	1976 10 23.20164	00 41 08.60	-02 28 47.7		808
1976 UR20*	1976 10 23.15804	00 41 30.66	-01 59 13.1		808
1976 UR20	1976 10 23.20164	00 41 28.98	-01 59 21.7		808
1976 US20*	1976 10 24.05141	00 47 05.81	-05 55 54.8		808

1976 US20	1976 10 24.08257	00 47 04.14	-05 55 50.4	808
1976 VA *	1976 11 11.04833	00 35 33.31	-07 34 43.0	808
1976 VA	1976 11 11.08919	00 35 32.61	-07 34 41.8	808
1976 VA	1976 11 18.07216	00 34 19.04	-07 23 55.0	808
1976 VA	1976 11 18.11162	00 34 18.70	-07 23 48.4	808
1976 VA	1976 11 22.08513	00 34 07.54	-07 13 37.9	808
1976 VA	1976 11 22.12874	00 34 07.46	-07 13 30.0	808
1976 WA1 *	1976 11 18.07216	00 25 34.04	-08 02 43.9	808
1976 WA1	1976 11 18.11162	00 25 33.52	-08 02 38.8	808
1976 WB1 *	1976 11 18.15178	01 33 06.22	-05 31 23.6	808
1976 WB1	1976 11 18.17188	01 33 05.56	-05 31 24.1	808
1976 WB1	1976 11 19.05832	01 32 38.28	-05 31 21.5	808
1976 WB1	1976 11 19.09087	01 32 37.30	-05 31 20.4	808
1976 WB1	1976 11 23.18903	01 30 42.62	-05 29 08.7	808
1976 WB1	1976 11 23.22020	01 30 41.82	-05 29 06.7	808
1976 WB1	1976 11 26.08667	01 29 34.26	-05 25 43.1	808
1976 WB1	1976 11 26.12061	01 29 33.46	-05 25 40.5	808
1976 WC1 *	1976 11 18.15178	01 41 23.93	-05 49 41.7	808
1976 WC1	1976 11 18.17188	01 41 22.98	-05 49 36.7	808
1976 WC1	1976 11 23.18903	01 38 06.25	-05 28 26.2	808
1976 WC1	1976 11 23.22020	01 38 05.05	-05 28 17.5	808

OBSERVATIONS MADE AT TOKAI BY T. FURUTA. MAINLY FROM NIHONDAIRA OBS. CIRC.
NO. 1167.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
2320	1980 12 06.71424	08 36 45.87	+16 59 07.0	16.5		879	
2320	1980 12 06.74601	08 36 45.44	+16 59 12.8			879	
2325	1980 12 06.69549	08 03 28.08	+18 52 18.4	16.5		879	
2325	1980 12 06.73056	08 03 27.33	+18 52 21.6			879	
1980 VA	1980 11 29.49410	02 38 59.53	+08 25 23.6	17	1	879	
1980 VA	1980 11 29.50810	02 38 59.22	+08 25 23.2		1	879	
1980 VA	1980 12 06.46424	02 37 50.08	+08 29 02.1			879	
1980 VA	1980 12 06.47986	02 37 50.08	+08 29 06.6			879	
1980 VB	1980 11 29.46806	01 54 16.97	+01 52 31.1	15.8		879	
1980 VB	1980 11 29.47708	01 54 16.71	+01 52 36.7			879	

Note 1: correction to MPC 5676.

OBSERVATIONS MADE AT JCPM OI STATION BY K. SUZUKI. FROM NIHONDAIRA OBS.
CIRC. NO. 1167.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
/1977 XI	1980 11 18.84491	14 19 12.28	-00 49 47.9			882
/1977 XI	1980 11 18.84618	14 19 12.55	-00 49 55.1			882
/1980g	1980 11 14.81215	05 25 07.43	+11 42 45.2			882
/1980g	1980 11 14.81563	05 25 07.39	+11 42 50.2			882
/1980g	1980 11 14.81944	05 25 07.54	+11 42 55.9			882
/1980g	1980 11 18.77500	05 27 14.24	+13 25 01.8			882
/1980h	1980 11 14.78889	10 20 27.48	+25 54 21.1			882
/1980h	1980 11 14.79410	10 20 27.75	+25 53 49.6			882
/1980h	1980 11 18.80556	10 27 00.79	+18 35 24.6			882
/1980h	1980 11 18.81146	10 27 01.27	+18 34 42.4			882

OBSERVATIONS MADE AT WOOLSTON BY H. B. RIDLEY, A. GRIFFITHS AND G. H. RUTTER.
MEASURED BY R. L. WATERFIELD.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
/1980g	1980 12 07.01715	05 31 41.38	+22 48 53.1	9.5T	1	993	
/1980u	1980 12 27.77116	18 47 55.88	+39 22 36.3	9.5T	2	993	

Note 1: inner coma diameter 1', outer coma diameter 2', faint tail 3' long
in p.a. 225. 2: well condensed inner coma diameter 20", outer coma dia-
meter 50", diffuse tail 7' long in p.a. 25.

ORBITAL ELEMENTS OF ONE-OPPOSITION MINOR PLANETS.

The orbit computers are B = C. M. Bardwell, E = E. Bowell, F = E. Fogelin, G = D. W. E. Green, M = B. G. Marsden, Z = Purple Mountain Observatory. For further information see MPC 4499.

Planet	B(1,0)	Epoch	M	Peri.	Node	Incl.	e	a	Arc	O	N	C
1975 RP	13.0	750905	359.05	133.26	198.08	0.81	0.1582	3.2120	5	4	1	M
1975 RQ	13.0	750905	359.74	169.90	160.10	0.59	0.1191	3.1885	5	4	1	M
1975 RR	15.5	750905	328.20	238.25	155.70	3.50	0.3267	2.2982	5	4		M
1975 TL6		750925	45.63	172.04	121.58	15.13	0.1699	3.0908	3	5		M
1976 QZ1	15.0	760830	356.74	265.58	62.09	6.77	0.0622	2.2485	27	0		M
1976 QK2	16.0	760830	12.99	219.34	82.13	6.73	0.3082	2.6178	29	0		M
1976 QL2	13.5	760830	271.95	22.68	35.14	9.99	0.0702	3.1496	10	8		M
1976 SR10		761009	301.15	303.57	137.54	22.45	0.1878	2.2852	28	6		B
1976 VA		761118	27.29	220.02	127.24	7.71	0.1170	3.0056	11	6		M
1979 BH	12.8	790904	80.84	331.40	107.49	18.83	0.1869	2.6613	33	3		Z
1979 MA	17.0	790726	52.37	285.95	284.75	21.18	0.3282	2.4403	35	7		M
1979 MK1	16.5	790726	27.32	112.79	151.27	3.27	0.1097	2.2693	61	7		B
1979 ML1	16.0	790726	340.67	48.12	274.51	6.32	0.1202	2.3476	61	7		B
1979 MM1	14.5	790726	285.81	254.93	129.06	16.44	0.1109	3.1726	34	7		B
1979 MN1	15.5	790726	226.12	300.85	140.95	3.36	0.1531	2.3443	32	6		B
1979 MP1	16.5	790726	335.07	164.18	165.41	1.69	0.1209	2.4399	61	8		B
1979 MQ1	16.0	790726	24.50	344.40	281.31	12.35	0.1395	2.6820	60	7		B
1979 MR1	16.0	790726	344.95	177.00	142.80	2.77	0.1799	3.0414	34	8		M
1979 MS1	16.0	790726	327.58	169.78	168.50	2.25	0.1167	2.9758	33	6		B
1979 MV1	16.5	790726	25.45	135.07	133.12	6.76	0.0806	2.3379	34	8		M
1979 MW1	15.0	790726	306.97	125.51	244.60	4.64	0.1811	2.6441	61	0		M
1979 MX1	15.5	790726	86.27	296.83	269.11	3.52	0.0453	2.7832	60	8		B
1979 MZ1	16.5	790726	314.92	213.59	136.18	5.83	0.0797	2.7856	31	6		B
1979 MC2	15.0	790726	359.13	103.93	194.82	2.16	0.0392	2.8283	61	9		M
1979 MD2	16.0	790726	241.67	247.27	185.42	3.39	0.1888	2.3020	32	7		B
1979 ME2	18.0	790726	335.29	218.27	126.80	7.94	0.3004	2.5399	61	8		B
1979 MF2	17.5	790726	352.80	134.87	175.62	1.07	0.2088	2.2707	61	0		M
1979 MG2	17.5	790726	290.29	248.49	138.03	3.54	0.1667	2.2166	31	6		B
1979 MH2	15.5	790726	338.61	125.78	200.94	3.83	0.1376	3.1507	61	0		B
1979 MK2	14.5	790726	69.36	82.71	120.65	6.93	0.2149	2.7010	61	6		M
1979 ML2	15.0	790726	13.31	148.14	130.11	12.88	0.2012	3.0515	61	0		M
1979 MM2	17.5	790726	353.97	43.70	262.51	5.63	0.1086	2.4077	60	8		B
1979 MO2	18.0	790726	5.27	66.25	225.91	4.04	0.1833	2.1798	60	7		B
1979 MP2	16.0	790726	42.38	338.47	272.37	8.80	0.0640	2.9814	61	9		B
1979 MQ2	17.0	790726	48.22	73.24	162.01	5.07	0.1561	2.4452	61	9		B
1979 MR2	15.0	790726	277.30	175.01	215.50	1.26	0.0867	2.8439	61	8		B
1979 MS2	17.5	790726	36.20	35.79	215.95	2.33	0.1380	2.3387	61	8		B
1979 MT2	16.0	790726	57.13	297.42	284.64	9.93	0.1766	3.0535	60	5		B
1979 MU2	16.0	790726	349.78	152.04	161.16	5.74	0.1576	3.1124	61	0		M
1979 MW2	15.5	790726	307.88	197.49	167.59	3.63	0.1437	3.0427	61	8		B
1979 MX2	14.0	790726	313.49	74.26	281.51	9.23	0.1175	3.0238	61	9		M
1979 MY2	16.5	790726	78.59	325.56	238.30	4.53	0.1400	2.4806	61	0		M
1979 MZ2	15.5	790726	173.27	329.33	154.20	2.29	0.0827	2.5341	61	9		B
1979 MA3	17.0	790726	222.48	172.20	268.19	3.20	0.0689	2.2974	30	5		M
1979 MB3	16.5	790726	38.33	127.06	118.22	14.47	0.1753	2.6615	32	7		M
1979 MC3	17.5	790726	30.89	87.21	172.50	2.12	0.1201	2.5297	61	9		B
1979 MF3	17.5	790726	356.93	107.85	195.46	2.50	0.1477	2.6792	60	9		B
1979 MG3	15.0	790726	344.16	47.50	270.70	8.47	0.0913	3.0547	61	0		M
1979 MK3	14.5	790726	203.56	325.71	133.95	6.11	0.1228	3.1161	61	8		B
1979 ML3	15.0	790726	43.82	21.33	225.35	3.21	0.0985	2.5923	61	9		M
1979 MM3	16.0	790726	298.78	252.43	119.67	17.71	0.1156	2.8673	61	8		M
1979 MN3	16.0	790726	155.03	265.07	235.10	1.98	0.0691	2.2751	61	9		M

1979	MP3	17.0	790726	271.71	181.97	222.07	2.96	0.1492	2.2764	61 9	B
1979	MQ3	16.0	790726	269.37	273.06	140.24	10.23	0.2158	2.4634	61 7	B
1979	MR3	16.0	790726	2.57	174.07	121.97	7.67	0.1385	2.3172	61 9	M
1979	MT3	19.0	790726	336.77	72.29	263.39	3.24	0.2089	2.1398	61 8	B
1979	MV3	18.0	790726	334.86	159.10	184.75	3.94	0.2664	2.4564	61 9	B
1979	MW3	17.5	790726	20.46	34.64	233.76	2.65	0.2135	2.3213	61 0	M
1979	MX3	18.5	790726	333.51	91.76	249.61	3.06	0.2197	2.2473	60 9	B
1979	MY3	17.0	790726	319.01	231.79	123.25	6.53	0.1684	2.5603	61 8	B
1979	MZ3	14.5	790726	26.34	65.89	204.35	1.11	0.0445	3.0090	61 9	M
1979	MA4	14.0	790726	335.08	148.11	188.32	4.12	0.1896	3.4329	61 0	M
1979	MC4	19.0	790726	332.40	92.41	252.30	5.56	0.2325	2.2394	60 6	B
1979	ME4	16.0	790726	293.04	269.99	120.05	15.17	0.2117	2.6555	61 8	B
1979	MF4	15.5	790726	353.37	182.68	126.91	5.50	0.1710	2.2704	61 8	M
1979	MG4	15.0	790726	41.55	83.97	161.89	1.67	0.1367	3.0998	61 9	M
1979	MH4	17.5	790726	6.97	97.94	192.80	3.83	0.1550	2.3725	60 9	B
1979	MJ4	16.5	790726	347.53	194.60	123.79	12.86	0.1870	2.5863	61 9	M
1979	MK4	18.0	790726	6.71	155.42	135.54	4.14	0.1366	2.2782	61 9	B
1979	MM4	17.5	790726	30.73	55.39	202.18	2.80	0.1677	2.1936	61 0	M
1979	MN4	18.5	790726	337.51	96.35	254.32	5.29	0.3665	2.3149	35 7	B
1979	MP4	17.0	790726	4.83	80.49	213.94	3.88	0.0787	2.6589	60 7	B
1979	MQ4	14.5	790726	215.76	187.09	259.87	8.90	0.0327	3.0654	60 0	M
1979	MR4	14.5	790726	204.92	251.95	207.10	4.51	0.0973	2.3850	61 0	M
1979	MS4	17.5	790726	28.10	116.90	144.53	3.45	0.1600	2.4024	61 0	B
1979	MT4	15.5	790726	246.40	152.96	276.14	12.30	0.1610	2.5659	60 0	M
1979	MU4	17.5	790726	32.68	106.39	150.03	2.26	0.1470	2.4207	61 8	B
1979	MV4	17.0	790726	60.49	323.71	258.33	3.43	0.1566	2.3036	61 8	B
1979	MW4	16.5	790726	260.05	293.83	124.99	13.57	0.1840	2.6494	30 5	B
1979	MY4	18.5	790726	337.07	63.75	276.27	11.15	0.2554	2.3455	34 5	B
1979	MZ4	17.0	790726	346.49	197.70	123.06	8.61	0.1973	2.5653	61 9	M
1979	MA5	15.5	790726	282.47	131.17	259.75	8.52	0.1103	2.9779	35 9	B
1979	MB5	16.5	790726	342.28	125.81	201.78	3.48	0.1993	2.6236	61 9	G
1979	MC5	17.5	790726	307.88	202.56	176.62	4.54	0.2478	2.3269	61 0	F
1979	MD5	16.0	790726	36.99	137.37	116.51	10.14	0.1130	2.7662	61 8	F
1979	MF5	16.0	790726	321.28	61.50	282.03	5.55	0.0649	2.8525	60 7	F
1979	MG5	17.0	790726	1.49	61.18	237.73	3.56	0.2037	2.3260	35 9	G
1979	MJ5	16.0	790726	181.93	307.13	171.01	4.18	0.0670	2.2502	35 7	M
1979	MM5	16.5	790726	303.51	125.39	251.56	1.56	0.1905	2.4336	61 9	G
1979	MO5	18.0	790726	29.55	20.38	240.58	4.52	0.1541	2.3833	35 8	F
1979	MP5	18.0	790726	356.11	171.47	135.67	2.97	0.2110	2.3777	32 6	F
1979	MQ5	16.5	790726	303.52	99.37	265.46	8.82	0.0712	3.0372	34 6	M
1979	MR5	17.0	790726	324.10	79.83	266.96	1.95	0.1375	2.3245	61 9	G
1979	MS5	17.0	790726	62.77	108.04	118.63	6.49	0.0961	2.3887	61 8	F
1979	MX5	17.0	790726	86.72	37.41	164.45	2.47	0.1004	2.2813	61 9	G
1979	MY5	15.5	790726	29.65	346.85	277.53	11.80	0.1116	2.7031	60 9	G
1979	MZ5	17.0	790726	27.61	13.93	248.55	2.94	0.1658	2.7111	60 6	F
1979	MA6	16.5	790726	202.58	323.78	136.39	5.91	0.0655	2.3114	34 7	G
1979	MB6	17.0	790726	318.82	210.08	149.74	3.52	0.1952	2.2315	61 9	G
1979	ME6	18.5	790726	18.64	16.34	261.65	6.71	0.1113	2.2506	34 5	F
1979	MG6	17.0	790726	3.42	42.68	254.40	5.84	0.1376	2.2676	60 8	G
1979	MH6	15.5	790726	205.61	337.45	119.94	11.38	0.0520	2.9917	31 5	F
1979	MJ6	18.0	790726	338.97	186.46	145.71	1.81	0.1892	2.4198	31 5	F
1979	MK6	16.0	790726	283.75	224.71	162.62	2.68	0.0895	2.6933	61 7	F
1979	ML6	17.0	790726	335.74	187.25	146.35	4.62	0.1427	2.4046	33 5	F
1979	MM6	15.0	790726	75.67	342.66	233.07	4.25	0.0899	3.1212	34 6	F
1979	MN6	16.5	790726	100.80	60.10	131.88	2.21	0.0672	2.1775	61 9	F
1979	MO6	15.0	790726	282.12	280.84	120.19	12.26	0.1958	2.6797	32 6	G
1979	MQ6	16.5	790726	70.48	305.98	272.35	4.51	0.1057	2.2398	60 8	F
1979	MR6	17.5	790726	51.50	72.27	164.49	4.07	0.1306	2.2436	61 8	F
1979	MS6	14.5	790726	141.32	271.40	243.57	5.55	0.0769	2.4252	60 0	G

1979	MU6	16.5	790726	291.56	248.35	130.26	13.53	0.0803	2.7718	33	5	F
1979	MV6	15.0	790726	339.41	99.20	225.62	3.53	0.0604	2.4193	61	8	G
1979	MW6	16.5	790726	23.98	77.33	198.32	2.59	0.0382	2.7321	33	5	F
1979	MX6	15.5	790726	36.58	1.47	253.63	6.39	0.0873	2.3688	60	7	G
1979	MY6	17.5	790726	352.60	140.57	168.85	2.77	0.1704	2.3617	60	8	F
1979	MZ6	16.5	790726	327.20	99.89	248.66	3.86	0.2150	2.3675	61	0	G
1979	MA7	16.5	790726	5.71	52.30	239.43	3.38	0.0338	2.7804	60	7	F
1979	MC7	18.0	790726	351.58	167.74	143.30	3.34	0.1787	2.4279	31	6	F
1979	MD7	17.5	790726	62.59	79.36	131.39	5.19	0.2160	2.3453	30	5	F
1979	ME7	16.0	790726	263.34	139.20	272.63	12.28	0.1524	2.5656	33	6	G
1979	MF7	16.0	790726	338.41	196.79	129.83	7.67	0.1381	3.0994	32	7	F
1979	MG7	17.5	790726	9.97	106.19	180.36	2.76	0.0807	2.6569	60	7	F
1979	MH7	15.0	790726	100.74	53.74	130.73	14.05	0.1151	2.6700	60	8	F
1979	MK7	14.5	790726	152.31	274.65	226.50	2.83	0.0950	3.0943	61	8	F
1979	ML7	18.0	790726	11.23	158.15	125.12	3.24	0.1594	2.2962	60	7	F
1979	MM7	18.5	790726	26.03	100.89	160.63	3.46	0.1883	2.2011	61	8	F
1979	MN7	16.0	790726	288.62	245.43	150.74	6.57	0.2290	2.5309	61	0	F
1979	MO7	16.0	790726	278.13	166.90	231.50	6.04	0.1517	3.1954	34	5	F
1979	MR7	17.5	790726	347.43	36.42	279.65	7.81	0.1428	2.3671	60	7	F
1979	MS7	17.0	790726	338.87	75.00	252.04	4.48	0.1343	2.7424	61	0	F
1979	MU7	18.5	790726	353.66	66.08	245.72	4.52	0.2367	2.2525	60	8	G
1979	MV7	16.0	790726	25.73	49.47	217.54	4.39	0.1275	3.2007	60	8	F
1979	MW7	19.0	790726	353.69	72.24	236.23	3.58	0.1238	2.1812	61	7	F
1979	MX7	17.0	790726	316.15	82.12	278.65	7.51	0.1823	2.5770	60	6	F
1979	MY7	17.0	790726	25.99	342.80	284.15	7.95	0.1177	2.7603	60	5	F
1979	MZ7	18.5	790726	336.59	175.40	159.80	3.02	0.1932	2.2979	61	7	F
1979	MC8	18.0	790726	8.29	54.24	233.19	1.69	0.2210	2.3972	60	8	F
1979	MD8	15.5	790726	171.72	230.13	257.33	7.67	0.1023	2.7618	59	9	F
1979	ME8	16.5	790726	187.82	280.95	192.90	3.92	0.1364	2.2796	60	8	F
1979	MG8	15.5	790726	265.75	290.19	124.75	14.98	0.1886	3.0625	60	7	F
1979	MH8	18.5	790726	10.15	100.20	185.11	2.10	0.2105	2.3355	33	5	F
1979	MJ8	17.0	790726	302.51	158.55	231.40	4.06	0.2821	2.6122	60	8	F
1979	MM8	16.0	790726	335.75	154.36	177.78	3.65	0.1266	2.4499	61	0	G
1979	MO8	16.0	790726	4.69	10.19	285.04	9.36	0.0748	2.9661	61	8	F
1979	MQ8	17.0	790726	251.80	288.97	132.11	3.78	0.1249	2.4328	60	7	F
1979	MT8	15.0	790726	192.20	246.99	224.40	4.80	0.0987	2.8838	35	7	F
1979	MU8	15.0	790726	88.31	73.18	125.49	13.70	0.1187	2.5581	61	9	G
1979	MV8	18.0	790726	8.39	141.40	148.36	5.79	0.1712	2.4290	33	5	F
1979	MX8	15.5	790726	21.05	58.39	218.12	1.17	0.0776	2.8684	31	5	F
1979	MZ8	16.5	790726	296.21	123.88	272.93	8.60	0.2728	2.7351	59	7	F
1979	MB9	15.0	790726	254.97	247.48	172.30	1.51	0.1280	3.1057	31	5	F
1979	MC9	18.0	790726	25.01	79.42	186.70	2.19	0.1743	2.3484	34	6	F
1979	OY	18.0	790726	328.93	175.07	168.70	4.18	0.1922	2.2495	2	3	B
1979	OZ	15.5	790726	6.25	152.14	138.06	8.71	0.1108	2.3423	2	4	B
1979	OE1	15.5	790726	50.64	85.31	150.13	2.39	0.1156	2.9018	3	4	B
1979	OH1	14.5	790726	10.89	146.78	137.89	11.63	0.0720	3.1895	4	5	B
1979	OL1	17.5	790726	354.30	27.49	280.15	5.32	0.1917	2.2128	3	4	B
1979	OM1	13.0	790726	180.15	200.04	276.94	5.12	0.1459	2.9678	3	4	B
1979	ON1	15.5	790726	25.14	126.65	138.41	5.95	0.1303	3.0974	3	4	B
1979	OO1	17.0	790726	350.28	115.02	199.84	4.02	0.2330	2.7354	4	5	B
1979	OP1	17.5	790726	333.11	116.38	228.77	2.83	0.2661	2.3860	4	5	B
1979	OS1	16.0	790726	8.11	158.21	125.83	17.17	0.2623	2.8744	3	4	B
1979	OV1	17.0	790726	4.01	23.55	269.83	1.77	0.1570	2.4278	3	6	B
1979	OZ1	17.0	790726	266.90	248.77	162.70	5.59	0.1752	2.4712	4	4	B
1979	OK2	17.0	790726	34.58	82.15	177.37	2.69	0.0587	2.3372	3	4	B
1979	OL2	16.0	790726	25.27	338.31	273.83	3.03	0.2917	3.0275	3	4	1 M
1979	OM2	17.0	790726	228.64	284.24	154.05	7.85	0.1039	2.3522	4	5	B
1979	OO2	14.0	790726	313.79	209.92	155.68	1.68	0.2157	3.2378	3	4	B
1979	OW2	15.0	790726	31.07	311.77	291.56	13.47	0.2998	2.9659	3	6	B

1979	OK3	14.5	790726	217.20	337.73	116.46	6.81	0.2267	2.6575	3	4	B
1979	OU3	18.0	790726	326.99	50.53	299.76	4.59	0.2198	2.3810	3	4	1 M
1979	OV3	15.5	790726	101.65	249.54	289.10	7.79	0.1834	2.5092	3	4	B
1979	OY3	16.5	790726	325.11	45.14	301.41	7.46	0.1561	2.4419	3	4	B
1979	OG4	15.0	790726	242.26	300.27	141.22	1.40	0.2884	2.3569	3	4	B
1979	OK4	17.0	790726	339.41	42.27	292.65	3.85	0.2558	2.9412	3	4	1 M
1979	ON4	15.0	790726	357.53	171.73	130.81	2.41	0.0689	2.9149	3	4	1 M
1979	OS4	13.5	790726	15.00	350.53	293.56	2.68	0.0192	3.5297	3	4	1 M
1979	OV4	14.5	790726	179.62	163.97	316.07	0.92	0.0877	2.9009	3	4	1 M
1979	OZ4	16.0	790726	316.32	250.33	121.35	1.94	0.2749	2.6126	3	4	B
1979	OF5	17.5	790726	359.64	183.04	117.89	3.56	0.0529	2.2014	3	4	1 M
1979	OJ5	15.5	790726	274.43	112.36	300.51	16.51	0.2402	2.6368	3	4	1 M
1979	OL5	14.5	790726	179.14	185.07	296.08	13.30	0.1448	2.9168	3	4	1 M
1979	OW5	17.5	790726	318.28	81.38	264.93	1.85	0.0410	2.2031	3	4	1 M
1979	OA8	16.5	790726	22.11	20.62	239.84	2.31	0.2764	3.1416	3	4	1 M
1979	OD8	17.0	790726	311.12	79.14	287.43	8.04	0.1757	2.4857	3	3	1 M
1979	OF8	18.5	790726	333.59	195.38	148.17	4.25	0.2385	2.2095	3	3	1 M
1979	OG8	17.0	790726	323.64	247.80	125.67	20.45	0.3684	2.3895	3	3	1 M
1979	OH8	18.0	790726	32.08	312.12	292.13	9.19	0.2924	2.4010	3	4	1 M
1979	OV8	15.5	790726	344.43	139.33	181.91	6.85	0.1837	3.1201	4	3	B
1979	OW8	18.5	790726	335.06	157.32	185.60	4.59	0.2677	2.1229	4	3	B
1979	OX8	15.0	799726	340.93	175.89	192.65	7.47	0.2421	3.1838	4	3	1 M
1979	OY8		790726	344.10	89.18	231.88	5.13	0.1519	2.3912	4	3	B
1979	OZ8		790726	188.28	327.68	143.83	13.39	0.1476	2.6845	4	3	B
1979	OB9		790726	305.74	168.45	209.40	4.83	0.2260	2.3457	4	3	B
1979	OF9	17.5	790726	338.96	136.73	192.00	5.00	0.1574	2.2652	4	3	B
1979	OG9	17.0	799726	334.89	205.47	188.67	5.44	0.2725	2.4859	4	3	1 M
1979	OH9	17.5	799726	64.46	58.10	220.18	5.16	0.1397	2.1448	4	3	1 M
1979	OJ9	16.5	790726	234.89	273.40	158.21	8.00	0.0867	2.4654	4	3	B
1979	OK9	18.0	799726	357.92	209.77	150.99	8.91	0.2918	2.7453	4	3	1 M
1979	ON9	14.5	790726	183.51	277.34	198.82	7.30	0.0664	3.1312	4	3	1 M
1979	OO9	17.0	790726	340.14	150.97	174.04	5.33	0.1234	2.6333	4	4	M
1979	OQ9	16.0	790726	75.00	40.94	152.50	7.29	0.2673	2.5574	4	4	1 M
1979	OR9	17.0	790726	328.92	141.33	204.62	5.02	0.1968	2.4056	4	3	B
1979	OU9	17.0	799726	20.97	178.91	161.07	4.61	0.1973	2.1526	4	5	1 M
1979	OY9	18.0	790726	335.65	105.30	224.32	3.27	0.0966	2.2182	4	4	1 M
1979	OZ9	18.5	790726	16.27	104.53	171.23	4.88	0.2034	2.2139	4	3	1 M
1979	OB10	16.5	790726	2.37	9.54	287.54	15.68	0.1771	2.8556	4	5	B
1979	OC10	16.5	790726	321.06	201.05	154.93	9.69	0.1936	2.7257	4	3	B
1979	OE10	18.0	790726	328.37	164.88	187.33	4.08	0.2507	2.4780	4	5	B
1979	OF10	14.5	790726	246.01	172.22	265.04	11.08	0.2480	3.0231	4	3	B
1979	OH10	16.0	790726	325.07	190.04	154.25	11.37	0.1242	3.1271	4	3	B
1979	OJ10	14.5	790726	8.31	142.61	146.10	14.53	0.1327	3.9972	4	3	B
1979	OK10	15.0	790726	283.71	203.31	183.40	6.83	0.0877	2.7319	4	3	B
1979	OL10	14.5	790726	278.59	267.36	144.92	12.84	0.2748	3.2372	4	5	B
1979	ON10	16.5	790726	57.43	92.55	140.41	11.79	0.0934	2.7555	4	3	B
1979	OQ10	19.0	790726	342.38	160.71	169.74	4.26	0.2447	2.1894	4	4	1 M
1979	OT10	17.0	790726	284.28	210.00	191.30	5.52	0.2149	2.3371	4	3	B
1979	OV10	18.5	799726	18.86	171.64	177.04	5.13	0.2680	2.1891	4	3	1 M
1979	OW10	18.5	790726	321.42	151.08	214.75	3.89	0.2770	2.2134	4	3	1 M
1979	OZ10	17.5	790726	348.66	21.66	292.52	15.64	0.0648	1.8941	4	4	B
1979	OB11	18.5	790726	333.48	87.34	247.96	3.77	0.1295	2.2134	4	4	1 M
1979	OD11	17.5	790726	328.22	203.48	144.01	10.43	0.1954	2.3544	4	5	B
1979	OF11	16.5	790726	359.37	142.42	159.35	6.73	0.1322	2.8208	4	3	1 M
1979	OG11	17.5	790726	355.07	115.03	192.92	3.54	0.1450	2.2418	4	5	1 M
1979	OJ11	19.5	799726	23.24	181.05	165.29	4.45	0.2792	2.1279	4	4	1 M
1979	OK11	16.0	790726	344.15	174.70	149.74	9.99	0.1878	3.0685	4	5	B
1979	OL11		790726	163.16	275.70	215.14	5.56	0.1584	2.2191	4	3	B
1979	ON11	17.0	790726	359.83	57.89	241.34	6.22	0.2065	3.1978	4	3	1 M

1979	OP11	15.5	790726	136.12	18.58	137.18	15.31	0.1065	2.6500	4 4	B
1979	OS11	16.5	790726	351.89	65.44	247.03	5.13	0.1698	3.1163	4 5	B
1979	OT11	16.5	790726	70.05	9.65	205.58	5.96	0.1413	2.4145	4 3	B
1979	OU11	17.0	790726	354.27	163.99	143.34	10.11	0.0545	2.3736	2 4 1	M
1979	OB12	15.5	790726	355.17	137.85	168.97	5.47	0.0742	2.7578	2 3 1	M
1979	SB1	15.1	790904	33.20	111.85	184.46	12.61	0.3076	2.3837	31 6	Z
1979	TH	14.8	790904	30.31	206.88	102.82	5.28	0.2026	2.2563	16 4	Z
1979	TK	15.5	790904	27.16	282.61	35.55	5.54	0.1946	2.2257	14 4	Z
1979	UA2	12.4	790904	56.87	241.40	63.42	3.23	0.1091	2.8873	32 4	Z
1980	SO	13.0	801117	33.69	340.74	353.32	15.32	0.1635	2.5352	92 0	M
1980	TF	13.0	800918	276.17	333.00	126.84	2.15	0.1295	3.2541	21 9 2	M
1980	TG	15.0	800918	49.87	148.32	139.12	2.55	0.2225	2.4140	21 9 2	M
1980	UC	13.7	801028	15.11	254.99	109.15	2.65	0.1962	3.1003	12 6	E
1980	VP	12.4	801117	88.48	211.71	95.37	11.72	0.0933	3.0115	51 8	E
1980	VW	13.0	801117	243.37	122.78	50.75	11.05	0.0274	3.0109	31 6	M
1980	WA	12.9	801207	356.63	166.85	245.09	12.23	0.1406	2.6202	31 8	E
1980	XG	14.5	801207	15.86	299.98	137.82	22.18	0.2080	2.3285	12 5	M

Note 1: e assumed. 2: double designations 1980 TF = 1980 RC2, 1980 TG = 1980 RE2 by F. N. Bowman, Cincinnati.

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ORBITAL ELEMENTS BY L. K. KRISTENSEN, INSTITUTE OF PHYSICS, AARHUS.

(730) Athanasia

Epoch 1981 July 15.0 ET = JDE 2444800.5

M	209.13189		(1950.0)		P		Q
n	0.29326484	Peri.	122.32585		-0.79483829		+0.60234897
a	2.2436893	Node	94.81683		-0.57858507		-0.71573145
e	0.17693449	Incl.	4.23219		-0.18295194		-0.35341789
P	3.36	B(1,0)	14.8				

Residuals in seconds of arc

120411	045	3.8-	2.7+	120424	045	3.8-	0.4+	490426	012	0.7-	2.2+
120411	045	3.0+	1.5+	120503	045	5.2+	0.3-	690313	095	3.6+	3.3-
120413	045	3.0+	1.0-	120506	045	1.5-	0.2+	690314	095	2.8-	3.4+
120415	045	0.7-	1.3+	120519	045	0.1-	2.1-	800912	801	31.4-	2.0-
120417	045	0.1+	1.8+	120519	045	0.0	1.1-	801005	801	0.6-	2.9+
120421	045	5.0+	3.2-	490422	024	0.5+	3.9-	801013	801	0.8-	0.5+

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

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

(1538) Detre = 1980 SK

The identification is by L. K. Kristensen.

Epoch 1981 July 15.0 ET = JDE 2444800.5

M	83.54338		(1950.0)		P		Q
n	0.27159148	Peri.	13.05248		+0.99662557		+0.06639969
a	2.3615218	Node	342.91704		-0.08193556		+0.83989163
e	0.2188704	Incl.	9.45480		+0.00490341		+0.53867720
P	3.63	B(1,0)	15.6				

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

400908	053	(34.0-	69.8-)	401005	053	(54.5+	11.0-)	801001	046	0.9-	1.0-
400913	053	9.6-	0.7+	401127	053	(61.7+	28.1+)	801003	046	0.7-	1.2-
400922	053	(46.5+	28.8+)X	800929	046	2.4+	1.7-	801003	046	1.1+	0.3-
400924	053	7.9+	2.5+	800929	046	1.1+	0.1-	810105	801	0.5+	0.4-
400927	053	(19.6+	3.3+)X	801001	046	0.4-	0.2+	810108	801	2.5-	3.5+

(1867) Deiphobus

Epoch 1981 July 15.0 ET = JDE 2444800.5

M	195.72233	(1950.0)		P		Q	
n	0.08363758	Peri.	357.59117	+0.18743688		+0.87823637	
a	5.1784735	Node	282.95485	-0.89345915		-0.03368528	
e	0.0437958	Incl.	26.83706	-0.40816436		+0.47703897	
P	11.78	B(1,0)	10.6				

Residuals in seconds of arc

710303	808	1.3+	0.2-	710331	808	0.1-	0.5+	740719	808	1.4-	0.8+
710318	808	0.1-	0.7+	720324	808	0.4+	0.5+	750509	693	(4.2+	3.2-)Y
710318	808	1.2-	0.5+	720324	808	0.3-	0.8+	750607	808	0.2-	0.6-
710319	808	0.8-	0.0	720405	808	0.3+	0.2+	750607	808	0.4+	0.1-
710319	808	0.4+	0.4-	720405	808	0.7+	0.0	750614	808	0.7+	0.9+
710320	808	0.8-	0.3+	720512	808	0.7+	1.5+	750614	808	0.8+	0.0
710320	808	0.2+	0.1-	720512	808	0.5+	1.1+	750701	801	0.4-	0.7-
710323	808	0.1+	0.3+	720514	693	(0.1+	4.2-)Y	750702	801	0.3+	0.3+
710323	808	1.5+	0.5-	720514	693	(8.6+	0.3+)Y	750729	801	0.8-	0.6-
710324	808	0.7+	0.3-	730309	808	0.4+	0.4-	760726	801	0.3-	0.2+
710326	808	1.0+	0.6-	740526	808	0.6+	1.7-	760802	801	0.3-	1.5+
710326	808	2.5-	0.3+	740526	808	0.4+	1.8-	760824	801	1.1-	0.2+
710328	808	0.1-	0.7-	740615	808	0.0	0.2-	801230	688	0.8-	1.4-
710328	808	0.0	0.3-	740619	693	0.7+	0.5-	801230	688	0.8-	1.2-
710331	808	0.2-	0.0	740719	808	1.2+	0.5-				

(2340)* 1976 UA

Discovered 1976 Oct. 22 by C. Kowal at Palomar.

Epoch 1981 July 15.0 ET = JDE 2444800.5

M	127.00459	(1950.0)		P		Q	
n	1.27119269	Peri.	39.63072	-0.33080588		+0.94222296	
a	0.8439728	Node	211.15599	-0.88960433		-0.33001151	
e	0.4497616	Incl.	5.85278	-0.31491522		-0.05751777	
P	0.78	B(1,0)	21.5				

Residuals in seconds of arc

761022	675	1.8-	6.3-	761028	693	0.2+	1.7+	761030	485	0.7+	1.7-
761022	675	5.6-	7.5+	761028	371	3.5-	1.0+	761030	485	(6.9+	0.7-)
761025	675	3.2-	3.7+	761028	371	3.2-	1.1+	761030	095	(14.8-	17.0+)
761025	675	2.2-	0.5-	761028	323	2.6+	0.9-	761030	095	3.6-	5.4+
761025	675	1.9-	0.4-	761029	801	1.0-	1.3+	761031	809	0.8-	1.8-
761025	095	4.3+	3.2-	761029	688	0.4+	2.7-	761031	809	0.5+	0.3+
761026	675	2.3-	1.3-	761029	809	0.5-	0.2-	761101	809	0.1-	0.8+
761026	675	2.6-	0.8-	761029	809	1.0-	0.4+	761101	809	0.0	0.5+
761026	675	1.2-	3.7-	761029	688	0.2+	0.5+	761111	809	0.4-	0.7+
761026	675	(3.4+	10.2-)	761029	485	(0.2+	12.5-)	761112	809	0.2-	0.5+
761026	095	(11.0-	20.8+)	761029	485	(11.4+	9.0-)	761117	801	2.9+	4.8+
761027	675	1.6+	5.4-	761029	323	0.2+	1.6-	761127	691	0.9-	0.1-
761027	675	0.6-	1.2+	761029	323	(9.5+	1.4-)	761127	691	0.5-	1.6+
761027	801	1.1-	0.2-	761030	809	1.3-	0.8-	801207	801	0.6-	1.5-
761027	675	0.2+	2.1+	761030	809	0.5-	0.5-	810103	801	4.3-	1.1-
761027	095	4.4+	5.1-	761030	809	2.0-	0.3+	810105	675	1.9+	0.7-
761028	809	0.6-	0.1-	761030	809	1.1-	0.2+	810106	801	0.6+	4.6+
761028	809	0.7-	0.5+	761030	693	1.1-	0.9+	810107	675	1.9+	3.9-
761028	693	0.6-	1.8+	761030	693	0.1-	1.5+				

(2341)* 1976 YU1 = 1933 UA = 1941 BO = 1956 TC1 = 1966 UV = 1969 RH
= 1979 TL

Discovered 1976 Dec. 16 by L. Chernykh at the Crimean Astrophysical Observatory.

Epoch 1981 July 15.0 ET = JDE 2444800.5

M	167.43126		(1950.0)		P		Q	
n	0.29953637	Peri.	347.09951		+0.66447819		-0.74470434	
a	2.2122609	Node	61.22020		+0.69176936		+0.58140361	
e	0.1520435	Incl.	4.07754		+0.28270812		+0.32769694	
P	3.29	B(1,0)	14.0					

Residuals in seconds of arc

331020	012	(2.9+ 1.0+)	561103	760	2.2-	0.9+	770113	095	0.0	2.3-
410122	062	(77.1+ 30.1+)X	561103	760	0.6-	1.9-	791012	330	0.8-	2.3+
410130	062	(16.6- 12.3-)X	661022	095	(1.1-	3.7+)	791016	330	1.1-	0.1-
561001	760	4.2+ 2.1-	690908	095	1.3+	2.1-	791021	330	0.8-	2.6+
561001	760	2.6+ 0.6-	761216	095	0.3+	0.5-	791026	330	1.1+	1.1+
561009	760	0.7- 0.1+	761218	095	0.2-	1.0-				
561009	760	1.6- 0.1-	761220	095	1.0+	1.1-				

1935 TC = 1942 XW = 1976 UN20

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M	101.48585		(1950.0)		P		Q	
n	0.28824150	Peri.	340.61189		+0.39861822		-0.91102746	
a	2.2696867	Node	85.78015		+0.85475380		+0.32734667	
e	0.1463936	Incl.	6.07311		+0.33241456		+0.25074512	
P	3.42	B(1,0)	14.0					

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

351002	020	2.9+ 6.3+	421203	062	(0.04+ 0.01+)X	761112	808	0.3+	0.9+	
351002	020	4.8+ 2.7+	761021	808	2.4+	0.3+	761112	808	0.9+	1.2+
351004	094	4.4- 5.5-	761021	808	2.5+	0.1-	761118	808	2.0+	0.4+
351019	020	0.5- 0.0	761024	808	0.3-	0.6+	761118	808	1.9+	1.6+
351019	020	0.9+ 0.0	761024	808	0.1+	0.7+	761122	808	2.0+	1.3+
351023	094	1.5+ 3.2-	761111	808	0.8+	2.0+				
351025	020	(0.9+ 17.6+)	761111	808	0.5+	0.1-				

1974 SN1 = 1951 WB1 = 1979 UB2

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M	193.28174		(1950.0)		P		Q	
n	0.20879890	Peri.	308.63258		+0.69157799		+0.72216061	
a	2.8139612	Node	5.19287		-0.60390518		+0.58895111	
e	0.1571058	Incl.	9.07841		-0.39625550		+0.36279560	
P	4.72	B(1,0)	13.0					

Residuals in seconds of arc

511129	711	0.2- 0.4- Y	740923	095	1.1+	0.4+	791026	330	0.8-	0.1+
511129	711	0.1- 0.2+ Y	741009	095	1.1-	0.5-	791119	330	3.9+	4.5-
740919	095	0.3- 0.3-	791019	330	1.0-	0.5-	791123	330	0.1-	1.8-
740921	095	0.7- 0.6+	791022	330	0.2-	2.3+				

1976 QV = 1976 SV = 1969 RH1 = 1980 VS

The identification 1976 QV = 1976 SV = 1969 RH1 and the basis for the 1978 observations are by J. G. Williams.

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M	117.04414		(1950.0)		P		Q	
n	0.27956641	Peri.	61.78430		+0.99880409		+0.00512721	
a	2.3164001	Node	297.88568		-0.02514339		+0.90676643	
e	0.0784654	Incl.	3.15340		+0.04193078		+0.42160211	
P	3.53	B(1,0)	14.5					

Residuals in seconds of arc

690913	095	0.6- 1.4+	760830	675	0.5-	0.4-	780203	675	0.0	0.7+
760826	095	0.9+ 0.6+	760924	095	1.7-	0.6+	801109	688	0.6-	1.2-
760827	675	1.3+ 0.9-	780202	675	0.3+	0.3+	801109	688	0.7+	0.1+

1976 WB1 = 1932 CF1 = 1974 FD1 = 1980 PD

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M	158.98857		(1950.0)		P		Q
n	0.21252587	Peri.	100.18546	-0.63041794			+0.76398199
a	2.7809662	Node	129.82629	-0.76368529			-0.57865525
e	0.0820233	Incl.	10.31336	-0.13913299			-0.28546386
P	4.64	B(1,0)	13.0				

Residuals in seconds of arc

320213	754	0.1+	2.2-	761119	808	0.8-	0.2-	761126	808	0.2+	0.9-
320213	754	0.9-	2.8-	761119	808	0.0	0.7+	800719	688	0.4-	0.7-
740321	095	0.1+	0.2+	761123	808	0.2-	0.1-	800806	688	0.9+	1.6-
761118	808	0.2-	1.0+	761123	808	0.1+	0.2+	800904	688	1.2+	1.7-
761118	808	0.2-	0.5+	761126	808	0.4+	0.5-	800907	688	0.6-	1.7-

1976 YS1 = 1959 TA = 1969 UV1 = 1979 TJ

The identification 1976 YS1 = 1969 UV1 is by T. Urata (NOC 1053).

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M	164.53169		(1950.0)		P		Q
n	0.29674508	Peri.	13.16885	+0.66912940			-0.74257560
a	2.2261165	Node	34.84427	+0.67708815			+0.59303876
e	0.1200808	Incl.	2.92035	+0.30629638			+0.31126597
P	3.32	B(1,0)	14.0				

Residuals in seconds of arc

591001	024	0.4+	0.1-	761220	095	0.6+	0.6+	791021	330	1.2-	0.8-
691017	095	1.0-	1.7-	770113	095	0.3-	0.3+	791026	330	2.7+	0.6-
761216	095	0.1-	1.2+	791012	330	0.1+	1.0+				
761218	095	0.8-	0.4+	791016	330	2.4-	1.4+				

1978 TA

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M	265.09850		(1950.0)		P		Q
n	0.27672918	Peri.	70.44833	+0.67991266			-0.71378271
a	2.3322062	Node	334.17956	+0.43961403			+0.58016375
e	0.2159917	Incl.	22.69210	+0.58690568			+0.39233181
P	3.56	B(1,0)	12.5				

From 15 observations 1978 Sept. 23-1979 Jan. 19.

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

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

(2342)* 1968 UQ = 1950 OC = 1950 PG = 1951 YM = 1963 WF

Discovered 1968 Oct. 22 by T. Smirnova at the Crimean Astrophysical Observatory. The key identification 1968 UQ = 1963 WF is by T. Urata (MPC 5037). The double designation 1950 OC = 1950 PG is by O. Kippes, but the double designation 1950 OC = 1950 RS is invalid (MPC 1745).

Epoch 1981 July 15.0 ET = JDE 2444800.5

M	80.42446		(1950.0)		P		Q
n	0.17103639	Peri.	203.46420	+0.80011736			-0.59984201
a	3.2142307	Node	193.39463	+0.55122682			+0.73614389
e	0.1452256	Incl.	0.32992	+0.23656120			+0.31349917
P	5.76	B(1,0)	12.5				

Residuals in seconds of arc

500725	760	2.4+	1.4+	631123	675	0.0	1.6+	801230	688	0.8+	0.7-
500725	760	1.9+	1.4-	631124	675	0.4+	0.5+	801230	688	1.5-	0.8-
500812	760	2.2-	1.5-	631125	675	1.0-	0.5+	810109	688	0.4+	0.5-
500812	760	1.5-	0.5+	681022	095	1.7+	0.4+	810109	688	1.2+	1.0-
511223	711	0.9+	0.4-	Y 681026	095	1.6-	0.8+	810109	688	0.2+	1.2-
631122	675	0.5+	1.1+	681213	095	2.0-	0.2+				

(2343)* 1979 MD4 = 1940 RQ = 1951 YU1 = 1965 SM = 1972 RZ = 1977 AV

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

The key identification 1979 MD4 = 1965 SM is by E. Bowell.

Epoch 1981 July 15.0 ET = JDE 2444800.5

M 152.41375	(1950.0)	P	Q
n 0.27613388	Peri. 154.43985	+0.97701574	-0.21233695
a 2.3355523	Node 217.83472	+0.18993066	+0.90715613
e 0.2548785	Incl. 1.75594	+0.09678118	+0.36329156
P 3.57	B(1,0) 15.0		

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

400907	119(0.02+ 0.03-)X	511228	711	0.1+	4.9-	Y 790624	413	0.6-	0.1+
400908	094(0.08+ 0.08-)X	650921	095	0.0	1.1+	790625	413	0.3-	0.1+
400910	119(11.3- 24.0-)X	650923	095	1.3+	4.8+	790629	413	0.5+	0.5+
400912	119(16.3- 52.0+)X	650927	095	0.4-	4.1-	790724	413	0.2+	0.7-
400921	119(0.05+ 0.03+)X	720909	095	0.7+	0.6+	790726	675	0.0	0.2+
400925	094(14.9+ 58.6+)X	720910	095	2.5-	1.4-	790727	675	1.2+	0.4-
400930	094(28.4- 72.4+)X	770113	095	0.9-	2.1+	790727	675	2.1+	0.9-
401009	094(10.5- 0.8-)X	770120	095	0.5+	4.6+	790823	675	1.9-	0.1-
511227	711 0.2- 0.7- Y	790623	413	0.3-	0.2-				

(2344)* 1979 SC1 = 1929 UR = 1951 MD = 1956 RH = 1972 BE = 1974 MO
= 1975 VS8 = 1977 DJ4

Discovered 1979 Sept. 27 at the Purple Mountain Observatory.

Epoch 1981 July 15.0 ET = JDE 2444800.5

M 158.61941	(1950.0)	P	Q
n 0.21573567	Peri. 238.51247	+0.92300017	+0.37889918
a 2.7533076	Node 99.14812	-0.32592933	+0.86253566
e 0.1881422	Incl. 3.89868	-0.20455013	+0.33536195
P 4.57	B(1,0) 13.0		

Residuals in seconds of arc

291027	690(64.5+ 12.1+)X	720117	095	0.2+	2.2+	790927	330	1.3-	0.6-
291103	690(81.9- 10.2+)X	740627	095	0.1-	1.8+	791010	330	0.0	0.6+
510624	078(15.5- 12.7-)Y	751107	095	0.3+	0.8-	791015	330	0.9-	0.5-
560907	760 1.4+ 1.8-	770218	381	0.1-	0.0	791019	330	1.9+	0.5+
560907	760 2.4- 0.4+	770218	381	0.3+	0.1+	791026	330	0.4-	1.9+
560909	760 0.5+ 0.2+	770219	381	0.2-	0.3-				
560909	760 1.0+ 0.0	770219	381	0.1+	0.1+				

A921 SA = 1936 MG = 1974 XD = 1979 UC2

The key identification A921 SA = 1979 UC2 is by B. G. Marsden.

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M 153.15447	(1950.0)	P	Q
n 0.18790806	Peri. 338.02730	+0.98322017	+0.17865864
a 3.0188391	Node 11.86102	-0.12892056	+0.82349993
e 0.1110274	Incl. 10.33296	-0.12906425	+0.53845051
P 5.25	B(1,0) 12.5		

Residuals in seconds of arc

210930	024	4.8-	1.2-	211123	029	0.2-	2.9+	791026	330	0.8-	1.5-
211001	024	3.7+	3.3+	360626	078	(47.7+	89.1+)X	791119	330	1.9+	4.2-
211006	045	0.3-	1.0+	741214	095	0.9+	0.4-	791123	330	0.1+	2.7-
211006	024	0.5+	0.2-	791019	330	0.4-	0.9-				
211009	045	3.1+	2.0-	791022	330	2.0+	2.0+				

1974 XX = 1952 BU = 1980 XL

The key identification 1974 XX = 1980 XL was found independently by E. Bowell.

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M	64.69212	(1950.0)	P	Q	
n	0.17143046	Peri.	347.66980	+0.23491755	-0.92702263
a	3.2093094	Node	88.19274	+0.91476858	+0.10917046
e	0.1431382	Incl.	17.00478	+0.32865206	+0.35876294
P	5.75	B(1,0)	12.5		

Residuals in seconds of arc

520123	711	0.2+	0.4+	Y	801204	688	1.0-	1.1-	801230	688	1.5-	0.1+
741214	330	0.6-	0.6+		801204	688	0.5+	0.5-	801230	688	0.5-	0.2-
741218	330	1.5+	0.8+		801212	688	1.8+	2.2+				
750104	330	0.9-	1.4-		801212	688	1.2+	0.2+				

1976 KV = 1953 XQ = 1958 VA1 = 1962 QE = 1968 UK3 = 1970 CA = 1971 KK

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M	11.89600	(1950.0)	P	Q	
n	0.19860309	Peri.	1.31671	-0.52432599	+0.84248652
a	2.9094635	Node	237.07457	-0.78255482	-0.53401546
e	0.1161303	Incl.	8.47377	-0.33569362	-0.07102071
P	4.96	B(1,0)	12.5		

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

531202	024	1.1-	1.5-	710524	095	2.9+	3.2+	760619	808	0.6+	0.5-
581111	760	(1.5-	23.0+)X	760526	095	0.4+	1.0-	760619	808	0.7+	0.4-
620829	760	(0.04-	0.00+)X	760529	808	0.0	0.0	760626	808	0.8+	1.0-
681026	095	1.5+	2.8+	760529	808	0.4-	0.8+	760626	808	0.4-	1.2-
700202	805	1.3+	0.4+	760529	095	2.3-	2.0+	760629	808	0.6-	0.1+
700204	805	0.3-	0.4-	760602	808	0.2-	0.3+	760629	808	0.1-	0.2-
700204	805	0.2-	0.3-	760602	808	0.1+	0.2+				
700204	805	1.6-	0.3-	760606	808	0.5+	0.3+				

1976 UP20 = 1970 QT = 1970 RV

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M	280.34627	(1950.0)	P	Q	
n	0.17348555	Peri.	247.23854	+0.69648765	-0.71440998
a	3.1839144	Node	158.16244	+0.70664459	+0.66657273
e	0.1781541	Incl.	10.41673	+0.12473317	+0.21283602
P	5.68	B(1,0)	12.5		

Residuals in seconds of arc

700828	095	4.6-	2.0-	761021	808	0.7+	1.0+	761118	808	0.6-	0.0
700829	095	0.3+	0.4+	761024	808	1.6-	1.1-	761118	808	0.6+	0.2+
700830	095	0.6+	1.3-	761024	808	0.8-	0.4-	761122	808	0.2+	0.3-
700909	095	3.8+	2.6+	761111	808	0.4-	0.1-				
761021	808	0.6+	0.5+	761111	808	0.3+	0.4-				

1979 MN2 = 1957 UK = 1976 YA3

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M 150.23768		(1950.0)		P		Q
n 0.26361947	Peri.	215.49580	+0.99578417			+0.08143163
a 2.4088990	Node	139.76867	-0.06150730			+0.93426229
e 0.1930874	Incl.	3.74829	-0.06804960			+0.34716403
P 3.74	B(1,0)	14.5				

Residuals in seconds of arc

571030 024	0.3-	0.8+	790625 413	0.4-	0.7+	790725 675	1.5-	0.6+
761216 095	0.1+	1.2-	790629 413	1.2+	0.1+	790727 675	1.3+	1.1-
790623 413	0.2+	0.3+	790724 675	0.7-	0.2+	790823 675	0.1+	0.9-
790624 413	0.6-	0.1+	790724 413	0.3+	0.6-			

1979 MS8 = 1974 OO1 = 1975 WB1

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M 104.37848		(1950.0)		P		Q
n 0.19897682	Peri.	145.76781	+0.99134077			+0.13090290
a 2.9058192	Node	206.71615	-0.12505272			+0.91697441
e 0.1523299	Incl.	1.32397	-0.04006607			+0.37685852
P 4.95	B(1,0)	14.0				

Residuals in seconds of arc

740719 808	0.5+	0.4-	790624 413	1.9-	0.7-	790725 675	1.4+	1.4+
740719 808	0.2-	0.5-	790625 413	0.5-	0.5+	790726 675	(4.7-	4.9+)
751128 095	0.0	0.3-	790629 413	0.3-	0.5+	790727 675	1.8+	0.8+
790623 413	1.5-	0.8+	790724 675	1.1+	0.8+	790823 675	1.7-	0.6-

1980 TO = 1928 RA = 1951 YN1 = 1954 QO = 1971 BB3

The double designation 1954 QO = 1954 TD (MPC 2567) is invalid.

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M 149.49846		(1950.0)		P		Q
n 0.26717742	Peri.	104.14906	+0.41235325			+0.91088735
a 2.3874654	Node	190.24647	-0.86630001			+0.38669038
e 0.1174926	Incl.	5.08971	-0.28193808			+0.14406521
P 3.69	B(1,0)	14.0				

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

280905 024(0.06-	0.01-)X	710127 805	0.6-	1.8-	801030 046	0.2+	2.5-	
280907 024(0.00+	0.04-)X	710129 805	0.9-	3.7-	801106 688	1.5+	1.0-	
280908 024(6.5-	8.4+)X	801003 046	1.0+	0.8+	801106 688	0.3-	0.3-	
280911 024(0.06-	0.04-)X	801003 046	0.3+	1.3-	801111 046	0.6-	1.8-	
511227 711	0.3-	9.3+ Y	801005 046	0.9+	1.2-	801111 046	0.7-	0.9-
540829 839	0.8-	2.4+	801005 046(12.9+	0.6-)	801113 046	0.3+	1.5-	
540829 839	1.2-	1.9+	801030 046	0.7-	2.2-	801113 046	2.3+	0.8+

1980 VX = 1973 SU5 = 1975 EH5 = 1979 MQ

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M 39.35102		(1950.0)		P		Q
n 0.29479731	Peri.	192.16949	-0.04342034			-0.99813786
a 2.2359113	Node	260.33036	+0.92017839			-0.02325449
e 0.0979922	Incl.	2.49087	+0.38908404			-0.05639194
P 3.34	B(1,0)	15.0				

Residuals in seconds of arc

730928 095	3.0-	4.0+	801111 046	2.4+	1.7+	801208 046	0.5-	1.0+
750315 095	3.0+	1.3+	801111 046	0.3-	1.4+	801212 046	0.4-	1.0+
790622 805	1.6-	1.4-	801201 046	1.5-	1.9-	801212 046	0.2-	1.1+
790622 805	1.6+	2.6-	801201 046	1.1-	0.1-			
790625 805	0.3+	2.5-	801208 046	0.5+	0.5-			

1980 XA = 1965 AC1 = 1971 DD1

Epoch 1981 July 15.0 ET = JDE 2444800.5 (J-P)

M 344.58094	(1950.0)	P	Q
n 0.17786442	Peri. 196.39019	-0.56452764	-0.81019209
a 3.1314408	Node 288.23823	+0.77469559	-0.45409163
e 0.0496136	Incl. 9.56317	+0.28487766	-0.37066099
P 5.54	B(1,0) 12.5		

Residuals in seconds of arc

650111 330	0.4+	0.3+	801212 552	0.8-	1.0+	801228 552	1.6+	0.8+
650126 330	0.4+	1.5+	801212 552	1.6-	1.6+	801228 552	2.5+	0.1-
710218 095	0.7-	1.4-	801213 552	0.8-	0.1-	801228 552	1.7+	0.8-
801208 552	1.1+	0.4-	801213 552	1.2-	0.9-	801229 552	0.8+	2.3+
801208 552	0.7+	0.2-	801213 552	0.9-	0.4-	801229 552	0.7+	2.1+
801209 552	0.6+	0.8+	801224 552	1.1-	1.4-	801230 552	1.5+	0.5+
801209 552	0.6-	0.4+	801224 552	1.2-	1.0-	801230 552	2.5+	1.1+
801209 552	0.3+	1.3+	801224 552	0.7-	0.8-	810102 552	0.3+	0.8+
801210 552	0.8+	1.7-	801225 552	3.8-	1.7-	810102 552	0.9+	0.5+
801212 552	1.5-	1.5-	801225 552	1.9-	1.8-			
801212 552	0.4-	0.9+	801228 552	0.6+	1.0-			

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EPHEMERIDES.

(2342) 1968 UQ					Elements MPC 5791				
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.	
1981 01 16		06 15.78	+22 54.9	2.021	2.957	158.3	7.1	16.5	
1981 01 26		06 09.56	+22 57.7						
1981 02 05		06 05.66	+22 59.6	2.197	2.983	135.6	13.4	16.9	
1981 02 15		06 04.33	+23 01.0						
1981 02 25		06 05.55	+23 02.2	2.449	3.009	115.4	17.3	17.2	
1981 03 07		06 09.16	+23 02.8						
1981 03 17		06 14.92	+23 02.4	2.741	3.036	97.5	19.0	17.5	
1981 03 27		06 22.52	+23 00.2						
1981 04 06		06 31.69	+22 55.3	3.045	3.064	81.6	18.9	17.8	

(2344) 1979 SC1					Elements MPC 5792				
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.	
1981 01 16		07 41.51	+22 53.1	2.091	3.074	177.4	0.8	16.8	
1981 01 26		07 32.11	+23 23.3						
1981 02 05		07 23.86	+23 47.4	2.187	3.101	153.4	8.2	17.3	
1981 02 15		07 17.55	+24 04.5						
1981 02 25		07 13.63	+24 15.2	2.387	3.125	130.8	13.9	17.7	
1981 03 07		07 12.24	+24 19.9						
1981 03 17		07 13.35	+24 19.6	2.655	3.148	110.8	17.2	18.0	
1981 03 27		07 16.74	+24 14.5						
1981 04 06		07 22.13	+24 05.0	2.955	3.170	93.0	18.4	18.3	

1974 SN1					Elements MPC 5790				
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.	
1981 01 16		08 04.25	+32 50.0	2.258	3.226	167.8	3.7	17.3	
1981 01 26		07 53.95	+33 04.3						
1981 02 05		07 44.42	+33 04.9	2.321	3.236	153.9	7.7	17.5	
1981 02 15		07 36.61	+32 52.5						
1981 02 25		07 31.12	+32 29.4	2.490	3.243	132.6	13.0	17.8	
1981 03 07		07 28.23	+31 58.5						
1981 03 17		07 27.97	+31 22.2	2.733	3.249	112.7	16.4	18.1	
1981 03 27		07 30.15	+30 42.1						
1981 04 06		07 34.51	+29 59.4	3.013	3.253	94.8	17.9	18.4	

1979 MN2		Elements MPC 5794							
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.	
1981 01 16		08 06.23	+18 00.5	1.609	2.590	175.0	1.9	17.5	
1981 01 26		07 55.67	+18 45.5						
1981 02 05		07 46.07	+19 26.9	1.681	2.626	159.2	7.7	17.9	
1981 02 15		07 38.52	+20 01.9						
1981 02 25		07 33.68	+20 29.1	1.857	2.660	136.0	15.0	18.3	
1981 03 07		07 31.77	+20 48.3						
1981 03 17		07 32.76	+20 59.8	2.106	2.691	115.7	19.5	18.7	
1981 03 27		07 36.39	+21 03.9						
1981 04 06		07 42.31	+21 00.8	2.393	2.721	98.1	21.4	19.1	
1981 04 16		07 50.18	+20 50.6						
1981 04 26		07 59.65	+20 33.5	2.690	2.748	82.6	21.3	19.3	

1974 XX		Elements MPC 5793							
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.	
1981 01 16		08 28.11	+33 05.9	1.890	2.852	165.2	5.1	16.2	
1981 01 26		08 18.97	+34 22.0						
1981 02 05		08 10.05	+35 19.8	1.942	2.872	156.3	7.9	16.4	
1981 02 15		08 02.50	+35 57.1						
1981 02 25		07 57.21	+36 14.8	2.098	2.894	136.1	13.7	16.7	
1981 03 07		07 54.63	+36 15.7						
1981 03 17		07 54.94	+36 03.2	2.329	2.917	116.8	17.7	17.1	
1981 03 27		07 57.97	+35 40.1						
1981 04 06		08 03.44	+35 08.6	2.602	2.941	99.7	19.6	17.4	
1981 04 16		08 11.02	+34 30.2						
1981 04 26		08 20.35	+33 45.8	2.889	2.965	84.4	19.7	17.6	

A921 SA		Elements MPC 5792							
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.	
1981 01 16		08 31.27	+33 28.0	2.250	3.209	164.5	4.7	16.9	
1981 01 26		08 21.37	+33 50.5						
1981 02 05		08 11.72	+33 58.3	2.292	3.226	157.5	6.7	17.0	
1981 02 15		08 03.36	+33 50.9						
1981 02 25		07 57.03	+33 30.2	2.444	3.241	137.3	12.0	17.3	
1981 03 07		07 53.16	+32 58.8						
1981 03 17		07 51.89	+32 19.5	2.677	3.256	117.4	15.7	17.6	
1981 03 27		07 53.11	+31 34.8						
1981 04 06		07 56.57	+30 46.1	2.955	3.270	99.3	17.6	17.8	
1981 04 16		08 02.02	+29 54.3						
1981 04 26		08 09.12	+28 59.9	3.249	3.283	83.0	17.7	18.0	

1935 TC		Elements MPC 5790							
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.	
1981 01 16		09 50.86	+21 08.3	1.168	2.087	151.7	12.9	16.2	
1981 01 26		09 42.89	+22 32.2						
1981 02 05		09 32.78	+23 52.7	1.139	2.118	170.9	4.2	15.9	
1981 02 15		09 22.16	+24 58.2						
1981 02 25		09 12.78	+25 41.6	1.211	2.150	155.3	11.1	16.3	
1981 03 07		09 05.95	+26 00.6						
1981 03 17		09 02.47	+25 57.1	1.372	2.184	134.0	19.1	16.8	
1981 03 27		09 02.48	+25 34.7						
1981 04 06		09 05.73	+24 56.9	1.593	2.217	115.6	24.0	17.3	
1981 04 16		09 11.80	+24 06.8						
1981 04 26		09 20.19	+23 06.3	1.847	2.251	100.0	26.1	17.7	
1981 05 06		09 30.42	+21 57.0						
1981 05 16		09 42.12	+20 39.9	2.114	2.285	86.3	26.2	18.0	
1981 05 26		09 54.92	+19 15.9						
1981 06 05		10 08.58	+17 45.8	2.380	2.317	74.1	24.9	18.3	

(2343) 1979 MD4

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Elements MPC	Mag.
1981 01 16		10 22.18	+07 28.1	1.758	2.595	140.7	13.9	5792	18.6
1981 01 26		10 15.25	+08 02.8						
1981 02 05		10 06.29	+08 50.6	1.675	2.640	165.0	5.5	18.3	
1981 02 15		09 56.23	+09 46.1						
1981 02 25		09 46.23	+10 42.6	1.704	2.682	169.0	4.0	18.3	
1981 03 07		09 37.38	+11 34.3						
1981 03 17		09 30.55	+12 16.5	1.845	2.721	145.1	12.1	18.8	
1981 03 27		09 26.25	+12 46.8						
1981 04 06		09 24.61	+13 04.3	2.073	2.757	123.7	17.6	19.2	
1981 04 16		09 25.55	+13 09.3						
1981 04 26		09 28.81	+13 02.5	2.353	2.790	105.1	20.4	19.6	
1981 05 06		09 34.08	+12 45.0						
1981 05 16		09 41.05	+12 17.6	2.653	2.819	88.8	21.0	19.9	
1981 05 26		09 49.42	+11 41.4						
1981 06 05		09 58.93	+10 57.1	2.949	2.845	74.2	20.1	20.1	
1981 06 15		10 09.38	+10 05.5						
1981 06 25		10 20.57	+09 07.3	3.224	2.868	60.7	18.0	20.2	

1976 YS1

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Elements MPC	Mag.
1981 01 16		13 01.38	-03 56.9	1.973	2.348	99.7	24.4	5791	17.9
1981 01 26		13 07.29	-04 31.3						
1981 02 05		13 10.70	-04 50.5	1.748	2.371	117.5	21.6	17.6	
1981 02 15		13 11.27	-04 53.5						
1981 02 25		13 08.86	-04 39.7	1.562	2.392	138.2	16.0	17.2	
1981 03 07		13 03.47	-04 10.0						
1981 03 17		12 55.54	-03 27.0	1.447	2.411	161.6	7.5	16.9	
1981 03 27		12 45.91	-02 36.1						
1981 04 06		12 35.71	-01 43.9	1.433	2.429	172.9	2.9	16.7	
1981 04 16		12 26.22	-00 58.0						
1981 04 26		12 18.50	-00 24.4	1.526	2.444	149.1	12.2	17.1	
1981 05 06		12 13.22	-00 06.6						
1981 05 16		12 10.71	-00 05.9	1.704	2.458	127.9	18.9	17.5	
1981 05 26		12 10.93	-00 21.7						
1981 06 05		12 13.66	-00 52.5	1.936	2.469	109.7	22.8	17.9	
1981 06 15		12 18.64	-01 36.4						
1981 06 25		12 25.54	-02 31.4	2.192	2.479	93.9	24.2	18.2	

(2341) 1976 YU1

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Elements MPC	Mag.
1981 01 16		13 23.56	-04 16.4	2.098	2.385	94.4	24.3	5789	18.1
1981 01 26		13 30.69	-04 47.6						
1981 02 05		13 35.53	-05 04.6	1.868	2.412	111.6	22.3	17.8	
1981 02 15		13 37.72	-05 06.3						
1981 02 25		13 37.04	-04 52.5	1.666	2.437	131.4	17.7	17.5	
1981 03 07		13 33.36	-04 23.7						
1981 03 17		13 26.85	-03 42.2	1.527	2.460	154.0	10.2	17.1	
1981 03 27		13 18.12	-02 52.2						
1981 04 06		13 08.06	-01 59.8	1.481	2.480	175.1	2.0	16.7	
1981 04 16		12 57.89	-01 12.1						
1981 04 26		12 48.79	-00 35.5	1.545	2.498	155.8	9.5	17.1	
1981 05 06		12 41.66	-00 14.1						
1981 05 16		12 37.06	-00 10.0	1.704	2.513	133.9	16.9	17.5	
1981 05 26		12 35.16	-00 22.8						
1981 06 05		12 35.87	-00 51.1	1.927	2.525	114.7	21.4	17.9	
1981 06 15		12 38.98	-01 33.0						
1981 06 25		12 44.20	-02 26.2	2.182	2.535	98.2	23.4	18.3	

1976 KV		R. A. (1950)		Decl.	Delta	r	Elements MPC		5793
Date	ET						Elong.	Phase	Mag.
1981 02 25		15 52.13	-23 19.6		2.307	2.588	95.0	22.4	16.9
1981 03 07		16 01.05	-23 30.9						
1981 03 17		16 07.81	-23 32.2		2.045	2.581	111.4	21.0	16.6
1981 03 27		16 12.14	-23 23.4						
1981 04 06		16 13.76	-23 03.9		1.816	2.576	130.0	17.3	16.2
1981 04 16		16 12.54	-22 33.3						
1981 04 26		16 08.64	-21 51.8		1.646	2.573	150.9	11.0	15.9
1981 05 06		16 02.44	-21 00.1						
1981 05 16		15 54.73	-20 00.8		1.564	2.572	173.8	2.4	15.4
1981 05 26		15 46.53	-18 57.9						
1981 06 05		15 38.90	-17 56.8		1.586	2.573	162.8	6.7	15.7
1981 06 15		15 32.81	-17 02.7						
1981 06 25		15 28.91	-16 19.8		1.705	2.576	141.0	14.4	16.0
1981 07 05		15 27.50	-15 50.1						
1981 07 15		15 28.68	-15 33.9		1.898	2.581	121.7	19.6	16.4
1981 07 25		15 32.32	-15 30.3						
1981 08 04		15 38.21	-15 37.2		2.135	2.588	104.8	22.3	16.7

1978 TA		R. A. (1950)		Decl.	Delta	r	Elements MPC		5791
Date	ET						Variation		Mag.
1981 04 26		20 05.00	-45 10.3		2.258	2.635	-1.21	-7.6	16.9
1981 05 06		20 13.36	-45 49.0						
1981 05 16		20 18.72	-46 35.0		1.997	2.599	-1.42	-9.3	16.5
1981 05 26		20 20.56	-47 27.1						
1981 06 05		20 18.32	-48 22.0		1.773	2.561	-1.72	-10.3	16.2
1981 06 15		20 11.64	-49 13.2						
1981 06 25		20 00.58	-49 51.0		1.611	2.520	-2.04	-9.8	15.8
1981 07 05		19 45.87	-50 04.6						
1981 07 15		19 29.20	-49 44.4		1.534	2.477	-2.19	-7.6	15.7
1981 07 25		19 12.80	-48 46.7						
1981 08 04		18 58.81	-47 15.3		1.552	2.433	-2.01	-5.5	15.7
1981 08 14		18 48.74	-45 19.1						
1981 08 24		18 43.14	-43 09.1		1.654	2.386	-1.67	-4.9	15.9
1981 09 03		18 41.94	-40 54.3						
1981 09 13		18 44.68	-38 40.5		1.814	2.338	-1.37	-5.3	16.2
1981 09 23		18 50.74	-36 30.5						
1981 10 03		18 59.58	-34 25.0		2.004	2.289	-1.14	-6.2	16.4

1976 UP20		R. A. (1950)		Decl.	Delta	r	Elements MPC		5793
Date	ET						Elong.	Phase	Mag.
1981 05 16		20 54.91	-09 11.2		2.938	3.284	101.0	17.6	17.8
1981 05 26		20 58.53	-08 47.2						
1981 06 05		21 00.38	-08 31.8		2.642	3.250	118.5	15.9	17.5
1981 06 15		21 00.31	-08 26.6						
1981 06 25		20 58.28	-08 33.1		2.391	3.217	137.7	12.3	17.2
1981 07 05		20 54.36	-08 52.2						
1981 07 15		20 48.78	-09 23.8		2.215	3.183	158.5	6.7	16.9
1981 07 25		20 41.98	-10 06.5						
1981 08 04		20 34.56	-10 57.6		2.140	3.148	172.0	2.6	16.6
1981 08 14		20 27.29	-11 53.6						
1981 08 24		20 20.90	-12 50.5		2.176	3.113	153.4	8.4	16.8
1981 09 03		20 16.03	-13 44.7						
1981 09 13		20 13.15	-14 33.1		2.310	3.078	132.3	14.0	17.1
1981 09 23		20 12.49	-15 14.0						
1981 10 03		20 14.10	-15 46.1		2.512	3.043	112.9	17.6	17.3
1981 10 13		20 17.93	-16 08.8						
1981 10 23		20 23.79	-16 21.7		2.750	3.009	95.3	19.2	17.5