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CORRECTED OBSERVATIONS.

The following observations correct those previously published.

Object	Date	UT	R. A. (1950)	Decl.	Reference	Mag.	N	Obs.
6	1983 07	07.93411	17 21 13.08	-05 03 01.2	MPC 8701		1	022
6	1983 07	07.93619	17 21 12.96	-05 03 02.3	MPC 8701		1	022
6	1983 07	07.93826	17 21 12.86	-05 03 02.4	MPC 8701		1	022
16	1969 07	16.09503	20 54 36.15	-15 17 32.5	MPC 3144		2	012
35	1977 11	19.02791	02 54 21.70	+26 20 23.9	MPC 5191			069
50	1969 07	18.15259	22 03 10.70	-08 34 24.8	MPC 3144		2	012
211	1952 08	01.24825	20 12 35.45	-16 20 11.4	MPC 3957		3	760
211	1952 08	01.29861	20 12 33.03	-16 20 17.2	MPC 3957		3	760
284	1969 07	15.10400	20 21 19.20	-03 08 38.1	MPC 3144		2	012
418	1950 07	08.96312	20 35 52.34	-09 43 06.6	MPC 465		4	012
554	1969 07	18.15259	21 52 16.55	-11 18 45.0	MPC 3144		2	012
577	1977 11	19.02791	02 59 46.36	+24 48 30.9	MPC 5191			069
592	1950 07	08.96312	20 26 51.92	-07 53 30.7	MPC 465		4	012
670	1950 07	08.96312	20 22 32.89	-08 47 27.7	MPC 465		4	012
747	1941 06	19.91389	17 28 23.36	-04 35 35.8	RI 2297			028
747	1963 11	19.91368	03 51 32.61	-14 38 04.2	MPC 2543			073
903	1969 05	13.08820	15 37 42.35	-02 57 35.1	MPC 3028		5	026
904	1951 01	14.97937	09 04 55.57	-05 00 50.3	MPC 534	14.5		078
914	1965 06	24.93213	17 19 31.26	-12 50 26.6	MPC 2603		6	095
924	1948 05	28.94	16 04.7	-07 23	MPC 160	13.1		020
924	1969 07	18.15259	21 49 36.69	-09 09 41.1	MPC 3144		2	012
928	1976 03	02.04636	12 26 51.08	+17 38 16.8	MPC 4317		7	012
928	1976 03	02.06713	12 26 51.13	+17 38 02.6	MPC 4317		7	012
943	1957 08	18.10472	19 15 18.86	-22 52 23.3	MPC 1729	14.8		839
952	1940 04	01.97512	13 53 00.04	-13 17 47.3	MPC 3222			020
953	1964 11	07.04	01 00.5	+03 42	MPC 2414	14.6		760
958	1968 09	25.04861	01 39 18.38	+15 19 56.9	MPC 3445			020
960	1957 03	06.67847	12 23 25.84	-07 26 09.1	MPC 2612			388
970	1974 08	27.00950	23 10 09.94	-00 15 35.2	MPC 4109			095
977	1962 08	25.92153	22 11 32.35	-33 21 41.2	MPC 2186	15.0	8	076
983	1949 03	23.84983	13 01 06	-25 42.4	MPC 239	13.0		078
983	1960 03	19.05097	11 08 41.27	-17 27 49.9	MPC 3150			839
983	1960 03	19.07798	11 08 40.13	-17 27 41.1	MPC 3150			839
989	1935 11	04.05116	02 34 53.66	+26 20 39.5	RI 2140			062
997	1954 09	05.22879	00 57 18.76	+21 39 53.4	MPC 2354			760
1007	1966 05	17.12	13 57.7	-16 07	MPC 2657		9	760
1034	1969 07	18.15259	21 55 33.77	-11 57 21.8	MPC 3144		2	012
1035	1963 10	22.08	23 41.4	+01 07	MPC 2309	15.1		760
1042	1972 06	14.89097	18 22 21.28	-42 50 29.9	MPC 3474	14.8	A	076
1043	1968 03	23.87736	11 26 42.07	+07 02 21.3	MPC 3447			020
1043	1968 03	23.89190	11 26 41.54	+07 02 25.8	MPC 3447			020
1046	1968 04	29.85903	15 17 28.74	-25 36 30.1	MPC 2938	15.8		076

1052	1967	04	30.86042	12	46	13.65	+02	52	29.5	MPC	2841		095
1053	1963	11	11.07675	00	44	26.64	+07	01	13.2	MPC	2640	5	760
1055	1954	09	02.97670	23	10	35.82	-08	48	53.0	MPC	1206		057
1056	1935	07	29.96356	20	22	27.62	-23	44	40.9	MPC	2404		078
1069	1978	06	01.89247	14	39	54.08	+04	38	18.1	MPC	4403	B	046
1069	1978	06	01.90682	14	39	53.71	+04	38	15.1	MPC	4403	B	046
1069	1978	06	02.89981	14	39	25.56	+04	36	34.1	MPC	4403	B	046
1069	1978	06	02.91405	14	39	25.17	+04	36	33.2	MPC	4403	B	046
1072	1940	03	30.95417	12	29.	3	+03	05		RI	2109	14.5	053
1072	1956	01	04.84095	04	54	11.90	+32	12	05.9	MPC	1432		012
1081	1954	09	27.05140	22	36	03.64	-13	44	09.4	MPC	1202	16.0	C 760
1081	1954	09	27.10140	22	36	01.82	-13	44	16.9	MPC	1202		C 760
1082	1979	01	26.55471	08	19	58.68	+18	29	53.5	MPC	5938		330
1084	1941	09	18.87	23	02.	2	-03	59		RI	2292	12.8	020
1093	1943	12	02.968	03	43.	4	+23	30		RI	2527	13.8	053
1097	1953	03	21.27884	12	41	08.07	-02	24	30.6	MPC	965	16.4	760
1097	1953	03	21.32329	12	41	05.86	-02	24	14.6	MPC	965	16.4	760
1097	1966	05	09.88222	12	50	11.91	-02	59	36.5	MPC	3345		020
1097	1966	05	09.90507	12	50	11.00	-02	59	31.0	MPC	3345		020
1104	1929	01	04.25625	04	52	13.86	+14	05	41.5	RI	191	14.0	754
1118	1972	07	04.87292	19	44	39.94	-32	06	42.2	MPC	3474	14.5	2 076
1127	1961	11	05.51535	03	04.	2	-13	28		MPC	2126		414
1135	1968	08	25.96477	23	47	59.76	-01	56	35.8	MPC	3448		020
1135	1968	08	25.97378	23	47	58.70	-01	56	47.4	MPC	3448		020
1135	1968	08	26.08112	23	47	54.83	-01	56	49.3	MPC	3448		020
1140	1951	08	23.87176	22	19	55	-34	10.	1	MPC	689	13.0	078
1148	1950	07	08.96312	20	13	42.02	-11	17	21.3	MPC	465		4 012
1150	1965	12	20.64796	04	36	20.92	+18	36	26.2	MPC	4967		D 330
1172	1931	01	15.06609	01	49	36.80	+19	02	49.8	RI	403	15	754
1176	1954	04	08.01977	11	17	49.98	-06	17	35.7	MPC	1305		839
1181	1969	12	09.85497	02	43	56.11	+19	42	23.4	MPC	3449		E 020
1181	1969	12	09.86813	02	43	55.80	+19	42	19.6	MPC	3449		E 020
1186	1965	04	30.83681	15	21	29.14	-20	04	57.1	MPC	2558	15.0	076
1202	1954	09	27.05	22	35.	2	-13	41		MPC	1195	17.0	F 760
1240	1961	02	06.89273	08	41	16.16	+21	57	22.8	MPC	2208	15.8	008
1241	1939	09	17.84	20	40.	0	-18	54		RI	2032		012
1246	1939	03	21.87153	09	55	00	-05	16.	5	RI	2086	16.7	029
1246	1939	03	21.90757	09	54	58	-05	16.	3	RI	2086		029
1252	1955	01	17.62532	09	31	25.79	+05	39	39.5	MPC	2300		G 388
1252	1955	01	17.64688	09	31	25.26	+05	39	56.0	MPC	2300		G 388
1253	1937	11	29.88901	03	24	54.79	+19	24	07.2	RI	1718	14.3	020
1266	1968	10	22.88279	01	06	00.09	+31	11	12.7	MPC	3450		020
1266	1968	10	22.89180	01	05	59.64	+31	11	10.4	MPC	3450		020
1266	1971	01	26.03600	11	07	27.82	-00	54	03.4	MPC	3355		095
1268	1970	06	29.86944	18	31	47.78	-28	50	23.4	MPC	3165	15.5	076
1270	1953	11	03.54167	01	56	10.34	-00	17	11.6	MPC	2158		388
1274	1955	10	11.65694	02	14	25.76	+20	15	25.2	MPC	2613		388
1289	1955	01	24.55694	08	42	28.94	+15	59	13.1	MPC	2613		388
1294	1955	11	14.53000	02	35	14	+04	45.	9	MPC	1396	12.5	H 388
1294	1968	09	25.08542	00	01	26.82	-17	28	41.4	MPC	2938	14.3	5 076
1296	1953	01	10.99455	07	37	18.92	+14	23	58.6	MPC	1153		020
1299	1949	04	05.03359	13	44	09.11	-03	30	42.8	MPC	256	15.4	008
2045	1949	09	24.21317	22	42	44.91	-13	14	41.3	MPC	4188		I 760
2045	1949	09	24.26525	22	42	42.10	-13	14	41.4	MPC	4188		I 760
1937 LB	1937	06	13.02817	18	46	54.44	-20	43	44.8	MPC	3224		J 020
1937 LB	1937	06	15.03671	18	45	20.80	-20	45	21.1	MPC	3224		J 020
1937 LB	1937	06	15.07121	18	45	19.39	-20	45	20.3	MPC	3224		J 020
1941 FD1	1941	03	23.84549	10	39	39.84	+17	06	57.2	MPC	3224		K 020
1977 VQ2	1977	11	19.02791	02	51	02.50	+23	40	57.9	MPC	5191		069

Note 1: the times were originally erroneously given as 1983 07 07.94450, 07.94657 and 07.94796, respectively. 2: time originally given as one month earlier. 3: object originally given as (747); see MPC 853. 4: time originally given as one day later. 5: time originally given as one day earlier. 6: time originally given as 1965 06 24.63213. 7: object originally given as (982). 8: date originally given as 1962 08 05. 9: object originally given as (1107). A: date originally given as 1972 06 04. B: object originally given as (1060). C: object originally given as (1202). D: date originally given as 1965 12 30. E: object originally given as (1187). F: object originally given as (1081). G: object originally given as (1251). H: object originally given as (1249). I: object originally given as (1054); see MPC 430. J: object originally given as (1171); see RI 1597. K: object originally given as (1132).

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DELETED OBSERVATIONS.

The following observations are to be deleted.

Object	Date	UT	R. A. (1950)	Decl.	Reference	N Obs.
911	1972 09	07.86365	23 28 08.66	+04 48 40.8	MPC 5167	073
911	1972 09	07.87820	23 28 08.20	+04 48 36.4	MPC 5167	073
913	1966 12	17.13732	07 55 22.76	+22 24 45.0	MPC 3343	020
913	1966 12	17.15255	07 55 21.37	+22 24 43.3	MPC 3343	020
913	1966 12	23.05983	07 50 57.90	+22 54 02.3	MPC 3343	020
913	1966 12	23.07575	07 50 56.96	+22 54 02.4	MPC 3343	020
913	1968 08	14.90015	20 47 02.77	-20 10 36.5	MPC 3444	020
913	1968 08	14.91109	20 47 01.89	-20 10 29.3	MPC 3444	020
913	1969 12	09.02154	05 44 23.10	+21 26 03.6	MPC 3444	020
913	1969 12	09.03227	05 44 22.31	+21 26 09.3	MPC 3444	020
913	1971 05	14.93180	13 27 06.06	+00 39 11.5	MPC 6381	020
913	1971 05	14.94046	13 27 05.61	+00 39 10.0	MPC 6381	020
914	1969 07	14.99652	19 29 54.63	+11 33 42.1	MPC 3405	048
914	1969 07	15.01007	19 29 59.05	+11 33 50.1	MPC 3405	048
916	1968 02	27.93875	10 43 35.91	+04 59 48.9	MPC 3444	020
916	1968 02	27.95329	10 43 35.18	+05 00 01.0	MPC 3444	020
916	1968 02	29.95702	10 41 19.94	+05 05 51.3	MPC 3444	020
916	1968 02	29.97157	10 41 18.51	+05 05 55.0	MPC 3444	020
919	1968 08	16.92043	20 21 08.11	-06 35 47.3	MPC 3444	020
919	1968 08	16.93359	20 21 07.55	-06 35 34.0	MPC 3444	020
919	1968 08	19.02668	20 19 56.48	-06 49 50.7	MPC 3444	020
919	1968 08	19.03360	20 19 56.00	-06 49 54.5	MPC 3445	020
919	1968 08	25.88029	20 14 22.33	-07 03 09.6	MPC 3445	020
919	1968 08	25.90037	20 14 21.47	-07 03 09.3	MPC 3445	020
923	1968 03	29.93766	13 04 53.63	-07 49 23.6	MPC 3445	020
923	1968 03	29.95497	13 04 53.51	-07 49 23.5	MPC 3445	020
923	1968 04	03.91054	13 01 39.86	-07 04 20.9	MPC 3445	020
923	1968 04	03.93893	13 01 38.31	-07 04 08.6	MPC 3445	020
946	1968 08	25.96477	23 49 32.69	-03 21 06.5	MPC 3445	020
946	1968 08	25.97378	23 49 31.51	-03 20 48.7	MPC 3445	020
946	1968 08	26.08112	23 49 31.84	-03 21 04.2	MPC 3445	020
946	1968 08	26.09774	23 49 31.14	-03 21 05.8	MPC 3445	020
946	1968 08	31.07444	23 46 56.84	-03 41 44.4	MPC 3445	020
946	1968 08	31.08829	23 46 56.16	-03 41 39.0	MPC 3445	020
946	1968 09	02.05356	23 45 28.36	-03 53 31.7	MPC 3445	020
946	1968 09	02.06602	23 45 27.64	-03 53 23.7	MPC 3445	020

956	1969	04	23.88671	11	58	10.18	+00	13	17.6	MPC	3445	020
956	1969	04	23.91164	11	58	08.78	+00	13	23.9	MPC	3445	020
959	1969	02	18.04242	10	18	52.61	+17	05	42.9	MPC	3445	020
959	1969	02	18.05350	10	18	52.38	+17	05	52.8	MPC	3445	020
960	1973	01	05.99799	06	02	59.52	+21	03	27.2	MPC	4880	020
960	1973	01	06.00837	06	02	59.13	+21	03	29.0	MPC	4880	020
961	1968	03	29.93766	13	07	13.55	-03	04	01.7	MPC	3445	020
961	1968	03	29.95497	13	07	13.19	-03	03	55.5	MPC	3445	020
961	1968	04	03.91054	13	02	52.35	-02	58	19.9	MPC	3446	020
961	1968	04	03.93893	13	02	52.06	-02	58	07.5	MPC	3446	020
962	1968	03	22.91809	10	49	47.49	+09	00	26.0	MPC	3446	020
962	1968	03	22.93125	10	49	46.80	+09	00	40.8	MPC	3446	020
962	1968	03	25.88867	10	47	56.79	+09	12	13.9	MPC	3446	020
962	1968	03	25.90737	10	47	55.44	+09	12	24.2	MPC	3446	020
962	1969	05	23.98661	15	39	15.15	-15	34	19.9	MPC	3446	020
962	1969	05	24.00530	15	39	14.94	-15	34	18.1	MPC	3446	020
969	1969	02	17.94443	09	25	22.05	+13	03	45.2	MPC	3446	020
969	1969	02	17.95759	09	25	21.46	+13	03	57.7	MPC	3446	020
983	1968	09	24.99667	01	23	58.60	+25	47	13.1	MPC	3446	020
983	1968	09	25.01329	01	23	57.78	+25	47	21.1	MPC	3446	020
983	1968	09	27.05075	01	22	57.18	+25	40	05.5	MPC	3446	020
983	1968	09	27.05906	01	22	56.66	+25	40	10.4	MPC	3446	020
983	1968	09	29.96907	01	21	02.08	+25	30	43.6	MPC	3446	020
983	1968	09	29.97531	01	21	00.52	+25	30	44.0	MPC	3446	020
997	1966	04	14.88988	13	10	51.10	-20	09	45.3	MPC	3343	020
997	1966	04	14.92313	13	10	43.31	-20	09	19.7	MPC	3343	020
997	1966	04	18.86757	13	07	49.49	-19	38	39.3	MPC	3343	020
997	1966	04	18.89520	13	07	47.89	-19	38	33.2	MPC	3343	020
997	1966	04	21.83821	13	05	26.86	-19	10	26.8	MPC	3343	020
997	1966	04	21.88598	13	05	25.09	-19	10	20.8	MPC	3343	020
1012	1971	01	23.00282	08	42	21.02	+24	07	21.1	MPC	6382	020
1012	1971	01	23.01598	08	42	19.97	+24	07	20.3	MPC	6382	020
1012	1971	02	19.90007	08	17	00.35	+25	54	38.9	MPC	6382	020
1012	1971	02	19.91184	08	16	59.66	+25	54	39.4	MPC	6382	020
1017	1968	09	25.07008	01	45	54.95	-01	26	34.0	MPC	3447	020
1017	1968	09	25.08393	01	45	53.49	-01	26	36.2	MPC	3447	020
1017	1968	09	27.02652	01	45	34.90	-01	45	08.9	MPC	3447	020
1017	1968	09	27.03898	01	45	34.19	-01	45	22.6	MPC	3447	020
1017	1968	09	30.02656	01	43	14.13	-02	02	03.4	MPC	3447	020
1017	1968	09	30.03522	01	43	13.42	-02	02	01.4	MPC	3447	020
1027	1967	09	07.94159	23	00	29.58	-07	39	31.3	MPC	3344	020
1027	1967	09	07.95475	23	00	29.30	-07	39	29.4	MPC	3344	020
1027	1968	10	23.07740	03	04	49.20	+17	46	43.8	MPC	3447	020
1027	1968	10	23.09126	03	04	48.14	+17	46	42.8	MPC	3447	020
1029	1966	12	17.07879	07	28	37.89	+25	14	18.4	MPC	3344	020
1029	1966	12	17.10684	07	28	36.19	+25	14	16.8	MPC	3344	020
1029	1966	12	23.13531	07	25	35.50	+25	38	01.4	MPC	3344	020
1029	1966	12	23.15678	07	25	33.51	+25	38	01.6	MPC	3344	020
1029	1968	04	30.01283	13	13	23.48	-07	59	09.3	MPC	3447	020
1029	1968	04	30.02252	13	13	22.33	-07	58	53.1	MPC	3447	020
1032	1976	11	18.00635	04	18	28.18	+18	25	50.8	MPC	6234	020
1032	1976	11	18.01224	04	18	28.16	+18	25	51.1	MPC	6234	020
1041	1969	06	19.96793	16	24	48.98	-26	38	26.8	MPC	3447	020
1041	1969	06	19.98109	16	24	48.65	-26	38	15.9	MPC	3447	020
1045	1967	08	15.03147	22	20	22.76	-09	44	41.8	MPC	3344	020
1045	1967	08	15.05294	22	20	22.88	-09	44	38.8	MPC	3344	020
1046	1964	01	21.23960	07	06	01.56	+24	27	43.7	MPC	4140	1 760
1046	1964	01	21.28266	07	05	59.24	+24	27	42.5	MPC	4140	1 760
1051	1952	09	24.20838	23	18	08.33	-01	57	17.9	MPC	4140	2 760

1051	1952	09	24.26809	23	18	05.53	-01	57	55.9	MPC	4140	2	760
1055	1969	02	11.03930	08	43	48.07	+16	07	55.4	MPC	3447		020
1055	1969	02	11.05385	08	43	47.55	+16	07	53.8	MPC	3447		020
1055	1969	02	13.02731	08	41	29.60	+16	19	13.8	MPC	3447		020
1055	1969	02	13.04185	08	41	28.86	+16	19	22.6	MPC	3447		020
1055	1969	02	17.91603	08	37	36.57	+16	51	26.8	MPC	3447		020
1055	1969	02	17.93058	08	37	36.00	+16	51	38.7	MPC	3447		020
1057	1971	01	06.85291	05	11	19.80	+22	07	58.4	MPC	6383		020
1057	1971	01	06.86399	05	11	19.58	+22	07	57.3	MPC	6383		020
1059	1938	08	24.86273	21	59	22.99	+00	56	55.0	MPC	3223		020
1059	1967	02	08.10469	11	26	42.58	-06	01	40.2	MPC	3344		020
1059	1967	02	08.13725	11	26	41.55	-06	01	31.3	MPC	3344		020
1059	1967	02	15.08308	11	23	25.99	-05	34	15.5	MPC	3344		020
1059	1967	02	15.10594	11	23	24.94	-05	34	06.3	MPC	3344		020
1059	1967	03	02.93208	11	11	43.01	-04	04	25.2	MPC	3344		020
1059	1967	03	02.95355	11	11	41.59	-04	04	20.5	MPC	3344		020
1060	1968	04	29.98894	13	06	14.27	-09	42	42.1	MPC	3447		020
1060	1968	04	30.00071	13	06	13.20	-09	42	42.1	MPC	3447		020
1072	1969	05	13.01338	14	13	10.69	-14	06	42.7	MPC	3447		020
1072	1969	05	13.02793	14	13	10.22	-14	06	34.1	MPC	3447		020
1074	1967	08	01.95520	20	47	16.19	-19	17	52.0	MPC	3345		020
1074	1967	08	01.97667	20	47	15.22	-19	17	59.3	MPC	3345		020
1074	1967	08	10.87793	20	40	04.41	-19	43	58.3	MPC	3345		020
1074	1967	08	10.89248	20	40	03.52	-19	44	02.5	MPC	3345		020
1079	1971	01	07.15590	09	17	44.49	+16	26	02.0	MPC	6383		020
1079	1971	01	07.17807	09	17	44.94	+16	26	03.9	MPC	6383		020
1081	1969	05	23.98661	15	33	40.16	-22	07	08.3	MPC	3447		020
1081	1969	05	24.00530	15	33	38.85	-22	07	20.3	MPC	3447		020
1082	1969	04	23.88671	12	03	17.41	+01	18	28.8	MPC	3448		020
1082	1969	04	23.91164	12	03	16.26	+01	18	42.4	MPC	3448		020
1084	1966	03	02.08	10	48.	6	+04	30		MPC	2649		020
1084	1966	03	14.95407	10	38	06.83	+05	49	52.7	MPC	3345		020
1084	1966	03	14.98316	10	38	06.08	+05	50	04.3	MPC	3345		020
1085	1971	06	24.83112	16	28	22.72	-13	01	22.0	MPC	5118		073
1085	1971	06	24.84635	16	28	22.54	-13	01	20.9	MPC	5118		073
1087	1935	03	29.91861	11	11	05.02	+15	25	34.7	MPC	3224		020
1087	1935	03	29.97713	11	11	03.35	+15	25	44.0	MPC	3224		020
1109	1968	01	18.76266	06	32	15.57	+21	57	00.6	MPC	3448		020
1109	1968	01	18.77652	06	32	14.65	+21	57	01.0	MPC	3448		020
1109	1968	01	23.77303	06	28	23.14	+21	52	44.6	MPC	3448		020
1109	1968	01	23.79450	06	28	22.12	+21	52	47.7	MPC	3448		020
1109	1968	01	25.75740	06	27	12.53	+21	52	08.5	MPC	3448		020
1109	1968	01	25.77887	06	27	11.74	+21	52	15.4	MPC	3448		020
1110	1967	03	13.96671	12	28	49.98	-11	50	19.4	MPC	3345		020
1110	1967	03	13.99938	12	28	49.27	-11	50	04.7	MPC	3345		020
1110	1967	03	17.95820	12	25	15.83	-11	26	18.8	MPC	3345		020
1110	1967	03	17.97274	12	25	14.92	-11	26	18.3	MPC	3345		020
1117	1967	03	02.99718	11	42	47.70	+04	44	14.2	MPC	3345		020
1117	1967	03	03.00619	11	42	47.27	+04	44	22.0	MPC	3345		020
1117	1967	03	11.90342	11	34	52.75	+05	53	24.6	MPC	3345		020
1117	1967	03	17.89380	11	29	01.29	+06	47	21.0	MPC	3345		020
1117	1967	03	17.90832	11	29	00.13	+06	47	19.6	MPC	3345		020
1117	1967	04	05.89199	11	12	25.06	+08	50	40.9	MPC	3345		020
1117	1967	04	05.90722	11	12	24.51	+08	50	45.1	MPC	3345		020
1117	1967	04	12.85966	11	08	40.85	+09	05	13.6	MPC	3345		020
1117	1967	04	12.89360	11	08	41.41	+09	05	15.8	MPC	3345		020
1117	1971	08	20.77391	19	29	12.62	-19	17	03.5	MPC	5118		073
1117	1971	08	20.78915	19	29	11.93	-19	17	15.1	MPC	5118		073
1131	1966	12	17.04	07	22.	7	+21	45		MPC	2703		020

1142	1966 09 14.87	22 10.3	-12 43	MPC 2703	020
1142	1966 09 21.88	22 05.8	-12 18	MPC 2703	020
1148	1966 08 24.98	22 31.2	-11 53	MPC 2703	020
1148	1966 09 12.86	22 18.6	-14 19	MPC 2703	020
1148	1966 09 14.87	22 17.6	-14 37	MPC 2703	020
1148	1966 09 19.82	22 14.5	-15 06	MPC 2703	020
1148	1966 09 21.88	22 13.4	-15 24	MPC 2703	020
1171	1937 07 14.90102	18 20 57.34	-21 11 41.2	MPC 3224	020
1173	1968 01 27.90155	07 20 16.13	+20 59 10.3	MPC 3449	020
1173	1968 01 27.92302	07 20 15.42	+20 59 08.5	MPC 3449	020
1180	1969 02 11.03930	09 01 58.01	+23 39 53.4	MPC 3449	020
1180	1969 02 11.05385	09 01 57.17	+23 40 01.1	MPC 3449	020
1180	1969 02 13.02731	09 00 48.06	+23 39 17.5	MPC 3449	020
1180	1969 02 13.04185	09 00 47.10	+23 39 24.6	MPC 3449	020
1180	1969 02 17.91603	08 57 39.98	+23 58 43.8	MPC 3449	020
1180	1969 02 17.93058	08 57 39.29	+23 58 45.3	MPC 3449	020
1183	1968 09 05.05560	00 45 44.35	+03 46 00.4	MPC 3449	020
1183	1968 09 05.07291	00 45 43.17	+03 46 15.5	MPC 3449	020
1183	1968 09 17.04108	00 36 19.63	+02 58 45.0	MPC 3449	020
1183	1968 09 17.05493	00 36 18.15	+02 58 48.7	MPC 3449	020
1183	1968 09 18.98512	00 34 51.45	+02 49 13.3	MPC 3449	020
1183	1968 09 19.00728	00 34 49.80	+02 49 28.9	MPC 3449	020
1183	1968 09 22.91138	00 31 17.86	+02 34 05.3	MPC 3449	020
1183	1968 09 22.93285	00 31 16.04	+02 34 06.9	MPC 3449	020
1259	1968 08 22.09330	23 01 08.03	-10 00 53.1	MPC 3450	020
1259	1968 08 22.11269	23 01 06.73	-10 00 43.3	MPC 3450	020
1259	1968 08 25.94088	22 58 01.37	-10 18 10.9	MPC 3450	020
1259	1968 08 25.95196	22 57 59.18	-10 17 58.2	MPC 3450	020
1259	1968 08 30.99341	22 54 39.64	-10 42 55.9	MPC 3450	020
1259	1968 08 31.01211	22 54 38.67	-10 43 04.1	MPC 3450	020
1280	1971 10 10.75000	22 51 29.38	-00 16 06.0	MPC 3385	056
1280	1971 10 10.83819	22 44 32.60	-00 16 44.3	MPC 3385	056
1284	1966 04 18.97486	13 40 46.23	-27 41 16.2	MPC 3348	020
1284	1966 04 18.99737	13 39 44.57	-27 40 00.4	MPC 3348	020
1355	1978 05 29.95932	17 06 40.41	+00 37 23.6	MPC 4686	542
1958 TR1 *	1958 10 08.93792	23 42.2	+05 22	MPC 8585	3 024

Note 1: observations measured again and published correctly as (835) on MPC 5483. 2: observations measured again and published correctly as 1952 SR on MPC 5888. 3: the error on MPC 1826 was noted and the corresponding accurate position was already published as 1958 UE = (137) in Veroff. Heidelberg Landessternw. No. 21.

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IDENTIFICATION CHANGES.

Continuation to MPC 8693-8694.

Object	Date	UT	R. A. (1950)	Decl.	Old desig.	Mag.	N	Obs.
A921 PA *	1921 08 09.99035	22 58 49.25	-08 51 28.6	1085				024
A921 RD *	1921 09 05.95451	23 54 51.61	-13 59 59.5	910				024
A921 RD	1921 09 06.94535	23 53 58.20	-14 02 34.7	910				024
A921 RD	1921 09 07.98897	23 53 00.44	-14 05 15.6	910				024
A921 RD	1921 09 08.95690	23 52 06.06	-14 07 38.2	910				024
A924 GF *	1924 04 08.77825	10 41 12.39	+22 56 57.6	1078				094
A924 WL *	1924 11 29.83814	04 33 33.18	+23 26 11.4	1202				024
A924 YE *	1924 12 22.74695	02 41 26.53	+15 33 05.7	1122				024
1926 GF1 *	1926 04 06.06185	13 57 56.57	-06 03 55.3	1010				024
1927 NA *	1927 07 05.98767	20 47 43.36	-01 05 34.6	920				024

1928	BH	*	1928	01	26.87826	06	47	22.61	+35	48	49.3	964			024
1928	FU	*	1928	03	16.91647	09	35	.7	+24	38		1083			024
1928	FU		1928	03	17.89467	09	35	.2	+24	36		1083			024
1928	FU		1928	03	19.89502	09	34	.1	+24	33		1083			024
1928	HL	*	1928	04	24.95499	13	26	58.00	+10	04	56.4	943			024
1928	VC	*	1928	11	06.80500	00	42	52.63	+04	55	54.4	1286			024
1928	XH	*	1928	12	05.07002	00	37	07.91	+05	07	48.4	1100	14.5		754
1928	XH		1928	12	06.05245	00	37	30.61	+05	06	58.2	1100	15.0		754
1929	EL	*	1929	03	15.03416	13	49	15.78	-01	43	00.6	1051			024
1929	GF	*	1929	04	11.9	10	51	.6	+03	51		1200	13.8		008
1929	JL	*	1929	05	02.86824	10	31	18.29	-02	05	09.9	1106	13.9		008
1929	XV	*	1929	12	02.84132	04	36	.7	+20	00		1289	14		094
1929	XW	*	1929	12	05.77188	03	12	09.10	+35	37	03.0	1040			024
1929	YD	*	1929	12	21.82528	04	19	45.51	+19	38	47.6	1289			024
1929	YE	*	1929	12	21.92125	02	54	07.86	+32	30	19.6	1040			024
1930	KT	*	1930	05	29.95910	13	42	28.39	-07	39	49.6	1930	HB		024
1930	LB	*	1930	06	15.71434	14	26	24.02	-19	17	48.0	1153	13.8		078
1930	MS	*	1930	06	18.95068	18	07	.7	-11	38		1166	13.5		022
1930	MT	*	1930	06	30.97035	17	53	56.22	-16	40	48.3	1200			024
1930	QW	*	1930	08	21.22777	20	11	.4	-18	46		1271	14.5		690
1930	WM	*	1930	11	26.82659	02	43	25.66	+17	27	32.6	1186			094
1930	YA1	*	1930	12	19.95534	06	11	15.41	+13	32	36.2	1281			024
1931	RK1	*	1931	09	08.21250	21	14	.3	-28	18		1226	14.0		690
1931	RK1		1931	09	09.17708	21	13	.7	-28	16		1226	13		690
1931	RK1		1931	09	11.17361	21	12	.3	-28	11		1226	13		690
1931	RK1		1931	09	11.23610	21	12	.2	-28	09		1226	14.0		690
1932	CK1	*	1932	02	06.06568	02	10	02.10	+06	24	47.8	1230	16.5		754
1932	CK1		1932	02	06.07850	02	10	03.13	+06	24	57.3	1230	16.5		754
1932	CK1		1932	02	07.07954	02	11	05.97	+06	32	51.3	1230	16.5		754
1932	YS	*	1932	12	23.96379	05	08	56.92	+08	28	00.5	1165			012
1932	YS		1932	12	24.89198	05	08	38.93	+08	30	20.4	1165			012
1933	FA2	*	1933	03	25.89076	10	03	38.84	+01	51	04.8	1230			024
1933	OV	*	1933	07	27.96396	21	33	49.98	-07	28	36.5	1090			024
1933	QP1	*	1933	08	26.90974	22	21	21.42	-03	53	52.3	1933	QE		012
1933	RK	*	1933	09	15.92743	21	18	52.62	-17	07	40.5	1282			024
1934	FU	*	1934	03	22.98651	12	46	.1	-13	16		1110	14.3		078
1934	GY	*	1934	04	12.16232	09	18	03.65	+27	12	54.6	1300	14.5		754
1934	GY		1934	04	12.19009	09	18	03.88	+27	12	49.2	1300	14.5		754
1936	FA2	*	1936	03	17.99086	12	17	39.70	-00	22	13.7	1247	14.8	1	020
1936	FB2	*	1936	03	18.06392	13	19	12.60	+00	13	19.6	1038			020
1936	JB	*	1936	05	14.01162	15	49	46.09	-20	38	05.1	1088			020
1936	UO	*	1936	10	16.91587	02	42	10.61	+14	15	47.3	1261			020
1937	CO	*	1937	02	12.99703	11	19	31.85	-13	56	52.2	1138			020
1937	CO		1937	02	18.05278	11	15	19.08	-13	42	50.4	1138			020
1937	NZ	*	1937	07	06.93188	18	28	20.65	-21	07	42.33	1937	LB	2	020
1937	NZ		1937	07	10.88842	18	24	57.74	-21	14	31.93	1937	LB	2	020
1937	NZ		1937	07	14.94	18	22	.9	-21	19		1937	LB	15.0	020
1937	NA1	*	1937	07	14.90102	21	34	31.69	-14	10	25.8	1269			020
1937	NA1		1937	07	14.93565	21	34	30.31	-14	10	31.6	1269			020
1938	AJ	*	1938	01	03.00265	08	42	36.41	+24	31	41.5	1122			020
1938	BO	*	1938	01	26.79259	07	32	22.46	+38	44	51.7	1049			020
1938	KD	*	1938	05	30.94542	16	16	12.47	-21	55	29.9	1074			020
1938	KD		1938	05	30.98351	16	16	11.01	-21	55	15.5	1074			020
1939	DN	*	1939	02	16.98035	11	11	45.61	+04	17	26.1	939			020
1939	DN		1939	02	17.02052	11	11	44.06	+04	17	41.7	939			020
1939	FA1	*	1939	03	24.21715	10	12	36.53	+04	05	51.2	1169	15.0		754
1939	XL	*	1939	12	14.99993	06	17	.6	+33	48		1124	13.8		029
1940	AS	*	1940	01	13.88714	08	14	51.32	+37	32	30.2	1041			012
1940	CM	*	1940	02	03.87573	06	34	.3	+37	19		1115	12.0		022

1940	CM		1940	02	10.88063	06	31	22	+37	26.0	1115		022	
1940	CN	*	1940	02	08.81	09	24.4		+23	10	1018	13.5	119	
1940	CO	*	1940	02	03.889	07	57	20	+38	44.3	1041		057	
1940	ER	*	1940	03	09.925	10	18.4		+01	25	1281	13.5	078	
1940	ES	*	1940	03	10.01253	13	18	16.12	-09	57	47.0	1200	020	
1940	ES		1940	03	10.05478	13	18	15.10	-09	57	40.3	1200	020	
1940	GD1	*	1940	04	01.97512	13	52	57.36	-09	47	11.1	1084	020	
1940	GD1		1940	04	11.9253	13	48.3		-09	01		1084	13.0	022
1940	GE1	*	1940	04	01.97512	14	10	11.17	-13	16	39.1	922	020	
1940	GF1	*	1940	04	07.96520	13	37	13.19	-08	12	51.2	964	020	
1940	QM	*	1940	08	24.79	21	35.5		-01	56	1001	12.8	119	
1940	QN	*	1940	08	28.94	22	12.3		-03	59	1173	13.9	020	
1940	RA1	*	1940	09	07.86	23	43.0		+03	23	1256	13.8	119	
1941	BX	*	1941	01	23.86	08	02.2		+27	32	940	13.8	119	
1941	BY	*	1941	01	25.91603	09	25	02.51	+27	34	45.3	1166	020	
1941	BZ	*	1941	01	26.0	08	52.4		+01	24	1230		020	
1941	BA1	*	1941	01	26.01730	10	25	30.73	+09	14	28.9	1247	020	
1941	DQ	*	1941	02	26.92	11	37.2		+05	20	1183		012	
1941	FL1	*	1941	03	17.89072	09	51	50.08	+12	28	15.9	1247	020	
1941	FM1	*	1941	03	19.99440	13	09	00.85	+09	00	26.9	1041	020	
1941	HS	*	1941	04	22.82	13	23.4		-14	41	1018	13.9	078	
1941	JC	*	1941	05	15.90	13	23.0		-13	30	1016		012	
1941	WG1	*	1941	11	17.03	03	23.7		+18	37	1256	14.2	119	
1941	YH	*	1941	12	17.89	05	45.5		+26	50	1228	14.3	119	
1942	BN	*	1942	01	22.55278	06	21	49	+25	15.4	1280	13.5	388	
1942	GB1	*	1942	04	10.87	13	14.2		+13	48	986	14.6	119	
1942	RL1	*	1942	09	07.793	22	00.2		-19	29	973		080	
1942	VB1	*	1942	11	08.71	01	20.6		+04	57	1004	13.5	186	
1943	DO	*	1943	02	26.84388	11	01	12.63	+09	21	16.1	1029	057	
1943	MF	*	1943	06	29.89556	18	59	06.50	+12	24	20.7	1263	057	
1943	OH	*	1943	07	26.89115	20	57	16.15	-15	28	13.7	1258	028	
1943	OH		1943	07	26.97552	20	57	11.13	-15	28	17.3	1258	028	
1943	PF	*	1943	08	07.78	19	52.5		-20	02	954	13.5	078	
1943	PF		1943	08	07.824	19	52.4		-20	02	954	13.6	078	
1943	QG	*	1943	08	23.95	20	53.8		-17	33	1285		012	
1943	RC	*	1943	09	03.94	23	18.3		+02	51	1233	13.6	119	
1943	SG	*	1943	09	24.00749	00	36	34.69	-00	33	23.4	1124	020	
1943	WB	*	1943	11	20.97	04	33.7		+25	15	1181	12.9	119	
1944	ME	*	1944	06	23.883	18	26.6		-21	37	1269	13.8	078	
1944	MF	*	1944	06	25.96707	18	17	07.92	-13	45	05.1	1055	028	
1946	AA	*	1946	01	03.96793	07	58	55.76	+12	12	23.2	1224	012	
1946	AB	*	1946	01	03.96793	08	02	20.72	+13	17	50.0	1167	012	
1946	MC	*	1946	06	21.86	17	28.8		-27	42	1064	13.0	078	
1946	ND	*	1946	07	04.837	19	02.9		-34	06	1140	13.0	078	
1946	NE	*	1946	07	04.903	19	28.6		-17	26	1216	13.0	078	
1946	SO	*	1946	09	25.88533	23	13	55.29	+11	19	46.0	1001	012	
1946	SO		1946	09	27.86152	23	10	27.25	+11	11	30.5	1001	012	
1946	WG	*	1946	11	22.13948	03	49	25.04	+45	36	43.9	1158	057	
1947	BO	*	1947	01	16.99061	08	49	39.56	+17	54	57.7	1228	012	
1947	BO		1947	01	24.00132	08	41	54.01	+18	11	15.4	1228	012	
1947	FN	*	1947	03	18.886	12	22.3		-06	24	1201	13.0	078	
1947	HG	*	1947	04	22.925	15	12.5		-14	14	1119	13.0	078	
1947	OF	*	1947	07	17.913	19	57.1		-20	52	1100	12.5	078	
1947	QG	*	1947	08	22.17084	23	17	15.45	-35	00	25.4	1024	839	
1947	UK	*	1947	10	17.86	00	09.1		+09	01	1242		990	
1948	BE	*	1948	01	16.2	09	31.4		+21	16	1044	14.5	020	
1948	DE	*	1948	02	18.11423	10	58	55.61	+09	55	21.3	1029	012	
1948	EF1	*	1948	03	03.87	11	08.9		+08	38	1188	14.2	020	
1948	EG1	*	1948	03	04.86867	08	43	37.07	+25	13	43.2	1018	012	

1948	EG1	1948	03	09.87995	08	41	02.80	+25	17	24.2	1018		012
1948	EH1	* 1948	03	05.83103	09	52	46.0	+01	47	54	982	13.5	085
1948	EJ1	* 1948	03	04.9	10	54.7		+08	24		1145	14.5	020
1948	ML	* 1948	06	26.79	18	15.7		-49	26		994	13.5	078
1948	NK	* 1948	07	06.94597	20	26.7		-04	54		1287	13.8	094
1948	PE1	* 1948	08	07.97	22	31.6		-13	39		1231	14.0	094
1948	PF1	* 1948	08	08.98118	22	27.3		-01	27		1249	13.6	094
1948	RQ1	* 1948	09	07.01137	18	58	07.35	-30	03	04.5	1266		839
1948	RQ1	1948	09	07.06400	18	58	08.85	-30	02	47.4	1266		839
1948	TM2	* 1948	10	09.93736	01	03	11.19	+08	37	09.5	1257		012
1948	TN2	* 1948	10	10.99315	02	01	26.59	+05	15	03.6	1010		012
1948	VS	* 1948	11	07.1	04	02.3		+10	42		1023		020
1948	WS	* 1948	11	27.94801	03	41	09.11	+11	13	46.1	1120		012
1948	XP	* 1948	12	01.1	05	30.9		+33	33		906		020
1948	YH	* 1948	12	27.0	05	30.0		+15	43		1055		020
1949	BO	* 1949	01	22.9	07	14.2		+32	42		1132		020
1949	BP	* 1949	01	28.94	10	32.6		+11	08		1171	13.2	020
1949	BQ	* 1949	01	29.98345	09	47	22.50	+09	05	55.4	1280		012
1949	BR	* 1949	01	30.1	10	50.9		+02	54		1153		020
1949	DL	* 1949	02	27.0	12	17.8		-01	59		1135		020
1949	EJ	* 1949	03	02.53611	10	15	13	+15	29.9		1242	13.0	388
1949	EK	* 1949	03	04.84889	09	32.0		+11	49		1092	13.8	094
1949	FO1	* 1949	03	23.01215	14	12.7		+04	10		1211	14.2	094
1949	FP1	* 1949	03	24.94893	12	03	29.64	+05	18	41.3	1207		012
1949	FQ1	* 1949	03	25.99479	14	06.6		-06	00		940	13.8	094
1949	HR1	* 1949	04	27.93748	13	32	39.20	+05	02	20.7	1148		012
1949	KE1	* 1949	05	27.85726	16	49	24	-26	44.1		1129	14.0	078
1949	OQ1	* 1949	07	16.87656	19	24	46	-24	26.2		988	14.0	078
1949	RC	* 1949	09	04.01847	00	34.9		+00	12		1046	13.6	094
1949	SU1	* 1949	09	17.90	23	40.0		-02	52		954	13.6	008
1949	SV1	* 1949	09	18.81708	22	04.3		-19	19		959	13.8	094
1949	UJ1	* 1949	10	17.96444	02	39.9		+12	53		1082	13.4	094
1949	UK1	* 1949	10	22.16894	03	44	50.96	+23	18	11.2	1109		012
1949	UL1	* 1949	10	23.1	02	15.2		+12	15		1155		020
1949	VA	* 1949	11	13.0	02	22.8		+15	30		1072		020
1949	WP	* 1949	11	18.01938	04	53	12.76	+18	21	50.0	1060		012
1949	YF1	* 1949	12	22.90580	05	02	37.69	+23	22	05.9	1232		012
1949	YG1	* 1949	12	23.08205	08	03	48.71	+22	23	23.5	1288		012
1950	BU1	* 1950	01	24.93722	08	11.0		+28	52		1133	13.6	094
1950	CX	* 1950	02	08.0	08	26.0		+18	51		1100		020
1950	FS	* 1950	03	16.60417	10	44	01.93	-16	56	00.2	1197		388
1950	HN1	* 1950	04	21.88507	13	39.3		-13	38		1146	13.5	094
1950	LH1	* 1950	06	08.9	16	27.5		-19	32		1172		020
1950	LJ1	* 1950	06	09.2	18	44.2		-13	14		979		020
1950	LK1	* 1950	06	11.99242	17	26	57.99	-05	56	13.2	1215		012
1950	VR	* 1950	11	08.18400	02	47	55.8	+18	46	16	1183	15.9	711
1950	VR	1950	11	12.15000	02	43	30.9	+18	29	48	1183	16.4	711
1950	XX	* 1950	12	04.45417	02	17	03	+13	11		1071	13.0	388
1950	XY	* 1950	12	04.57639	03	51	10	+44	03.4		1266	13.3	388
1951	AY1	* 1951	01	13.9059	08	26.0		-00	31		995	13.7	094
1951	AZ1	* 1951	01	13.96261	07	35	04.34	+06	34	58.5	1287	15.0	020
1951	AA2	* 1951	01	13.96261	07	50	11.56	+07	00	53.8	1136		020
1951	AB2	* 1951	01	14.0	08	50.3		+19	30		970	14.0	020
1951	CB2	* 1951	02	07.03840	09	21	54.85	+14	54	40.5	1076		012
1951	GN1	* 1951	04	03.91945	11	04	14.65	+00	08	09.4	1182		012
1951	JD1	* 1951	05	14.35135	15	51.1		-19	35		1024	16.1	760
1951	NO	* 1951	07	10.96420	20	06	24	-22	41.9		1259	14.0	078
1951	PN	* 1951	08	01.9	20	20.5		-31	45		1242		020
1951	PO	* 1951	08	05.0	21	18.1		-07	48		1181		020

1951	RB2	*	1951	09	02.69885	23	02	47	-17	48.1	1132		377	
1951	RC2	*	1951	09	04.92042	23	55	.3	-14	51	910	13.5	094	
1951	TW	*	1951	10	05.9	02	02	.7	+19	23	1062	13.0	020	
1951	WQ2	*	1951	11	27.56181	03	01	34	+00	53.8	1148	13.6	388	
1951	WR2	*	1951	11	29.57026	03	42	28.88	+21	35	10.1	1223	388	
1951	XH1	*	1951	12	03.008	05	30	33	+25	42.8	1129		075	
1951	YV2	*	1951	12	27.17360	05	25	04.1	+24	06	17	1300	15.9	711
1952	DQ3	*	1952	02	20.1	11	38	.7	+05	20	1183	14.0	020	
1952	FN1	*	1952	03	30.14026	11	03	.3	+11	49	959	17.1	760	
1952	HG4	*	1952	04	16.9307	13	34	.3	-06	20	1004	13.2	094	
1952	HH4	*	1952	04	17.9686	15	10	.2	-15	15	1122	13.2	094	
1952	JO	*	1952	05	15.88681	15	45	09.87	-38	01	05.8	980	11.5	078
1952	JP	*	1952	05	15.9	14	31	.5	-02	25	1115	14.0	020	
1952	OF1	*	1952	07	17.0	20	31	.7	+03	49	1175		020	
1952	OG1	*	1952	07	19.97756	18	56	40.34	-01	41	20.2	1030		012
1952	OG1		1952	07	21.93848	18	55	03.05	-01	50	56.7	1030		012
1952	OH1	*	1952	07	24.88125	21	03	44	-25	08.2	1121	13.3	078	
1952	OJ1	*	1952	07	25.24583	20	36	.1	+01	46	1164	17.8	760	
1952	QK1	*	1952	08	28.15980	20	17	13.87	-10	05	39.3	976		760
1952	QK1		1952	08	28.18407	20	17	13.40	-10	05	50.1	976		760
1952	YJ	*	1952	12	21.0	06	11	.1	+16	24	1217		020	
1952	YK	*	1952	12	21.0	06	12	.1	+19	16	929		020	
1953	AO	*	1953	01	13.61944	05	48	47.49	+32	22	25.9	1140		388
1953	BD	*	1953	01	16.87360	07	00	16.94	+20	38	32.3	931		990
1953	BE	*	1953	01	16.95115	07	02	57.49	+12	34	17.3	928	12.8	008
1953	BE		1953	01	17.00855	07	02	54.14	+12	34	50.0	928		006
1953	CS	*	1953	02	09.48958	07	15	09.49	+15	22	20.7	1296		388
1953	CT	*	1953	02	12.96774	09	43	48.34	+17	46	01.8	1211		020
1953	EX1	*	1953	03	04.83078	09	27	10.77	+19	39	34.5	1211		020
1953	FR1	*	1953	03	17.99074	12	37	18.97	+01	04	46.8	905		012
1953	GY1	*	1953	04	06.63892	12	19	05	-02	22.3	1033	13.2	377	
1953	GZ1	*	1953	04	07.73880	12	09	48.54	-01	41	16.1	1033		210
1953	GZ1		1953	04	08.77000	12	08	55.78	-01	36	37.4	1033		210
1953	HC	*	1953	04	20.00791	13	44	22.14	-00	48	28.1	1144		012
1953	JQ	*	1953	05	10.1	16	34	.9	-22	06	1128		020	
1953	JR	*	1953	05	11.90283	14	23	40.77	-02	21	53.5	1054		012
1953	KD	*	1953	05	17.801	14	47	.7	-13	22	1082		210	
1953	KD		1953	05	18.848	14	47	.0	-13	19	1082		210	
1953	LJ	*	1953	06	12.99444	19	33	17.21	-26	43	15.0	1285	13.5	078
1953	LK	*	1953	06	13.00208	19	47	33.24	-41	32	01.5	973	14.0	078
1953	PG1	*	1953	08	09.9086	21	24	.0	-23	59	1122	13.8	094	
1953	RQ1	*	1953	09	06.04879	00	35	02.62	-12	59	23.6	1210		012
1953	TQ3	*	1953	10	06.00250	01	41	00.18	-03	16	48.9	1078	14.8	020
1953	UB1	*	1953	10	29.8	23	57	.5	-06	04	1013		020	
1953	UC1	*	1953	10	29.88649	01	10	02.62	-04	24	14.8	1032		020
1953	VY3	*	1953	11	06.24	02	57	.3	+14	40	1200	16.5	760	
1953	VZ3	*	1953	11	07.53993	03	39	43.71	+27	30	20.3	1197		388
1953	VA4	*	1953	11	07.53993	03	43	03.59	+27	50	52.3	1280		388
1953	VB4	*	1953	11	07.9	01	17	.0	+20	36	1288		020	
1953	XO1	*	1953	12	09.81	02	40	.3	+12	38	1200		210	
1954	EA1	*	1954	03	06.91310	08	47	50.88	+32	39	15.3	961		012
1954	EB1	*	1954	03	06.91310	08	49	32.78	+30	45	43.1	910		012
1954	HK	*	1954	04	26.89530	12	40	16.02	+11	43	00.6	931		012
1954	HL	*	1954	04	26.95278	13	39	14.88	-07	48	19.4	1003		012
1954	JX	*	1954	05	01.02318	11	10	28.40	-04	08	10.8	1176		839
1954	JX		1954	05	01.14092	11	10	28.25	-04	08	02.3	1176		839
1954	KS	*	1954	05	29.25	16	27	.7	-11	23	1217	15.3	760	
1954	LM	*	1954	06	07.23531	17	19	22.45	-22	42	53.5	1294	17.3	760
1954	LM		1954	06	07.27073	17	19	20.05	-22	42	54.9	1294		760

1954	NY	*	1954	07	09.24	19	44.3	-26	44	1225	17.6	760
1954	UJ3	*	1954	10	23.11	23	27.1	-04	53	1128	16.3	760
1954	UK3	*	1954	10	26.9	01	52.6	+06	57	938		020
1954	WC1	*	1954	11	17.0	01	38.6	+05	58	938		020
1955	BD1	*	1955	01	25.8	06	50.7	+26	11	970	14.0	020
1955	BE1	*	1955	01	29.81979	07	34 47.54	+22	52 56.5	996		059
1955	CF	*	1955	02	15.63194	12	09 36.07	-19	45 50.0	1031		388
1955	DW	*	1955	02	17.88112	08	22 41.78	+28	02 20.4	1231		012
1955	FF2	*	1955	03	18.67986	13	12 28.73	-06	22 30.9	1162		388
1955	FF2		1955	03	18.70764	13	12 28.11	-06	22 30.2	1162		388
1955	FF2		1955	03	23.00692	13	10 01.16	-06	10 49.5	1162	14.8	020
1955	KP	*	1955	05	27.04202	18	11 26.42	-21	21 51.5	1003	13.8	076
1955	QZ1	*	1955	08	18.97917	22	04.5	-13	32	916		990
1955	SA3	*	1955	09	18.03036	23	51 05.59	-03	10 36.8	1142		012
1955	SB3	*	1955	09	20.90207	22	36 26.57	-11	14 06.5	988		012
1955	UW1	*	1955	10	20.26	01	34.0	+15	06	1126	15.5	760
1955	VJ1	*	1955	11	13.47778	01	46 03.08	+02	29 59.7	1048		388
1955	WK	*	1955	11	16.89931	02	33.4	+07	38	1052		990
1955	WK		1955	11	17.90486	02	32.5	+07	35	1052		990
1955	WL	*	1955	11	23.07000	06	08 00.16	+17	20 36.9	1117		020
1956	EQ1	*	1956	03	12.66319	11	54 22.82	-01	41 02.9	939		388
1956	EQ1		1956	03	17.12370	11	50 02.35	-01	15 14.3	939	15.5	839
1956	GW	*	1956	04	03.03989	11	36 23.21	-04	43 39.9	1147	13.5	839
1956	JG	*	1956	05	04.49583	12	42 14.90	-15	04 08.0	1157		388
1956	JG		1956	05	04.52014	12	42 13.83	-15	04 07.3	1157		388
1956	KC	*	1956	05	18.04097	17	42 57.80	-24	58 57.6	1162	14.0	076
1956	PK	*	1956	08	04.97358	20	49 14.27	-14	39 23.8	1295	15.0	020
1956	PL	*	1956	08	12.9	22	05.2	-12	04	1003	15.0	020
1956	TD1	*	1956	10	10.34	01	52.2	+24	59	1002	15.4	760
1956	UR	*	1956	10	28.16	01	28.2	+23	21	1642	14.7	760
1956	US	*	1956	10	28.16	01	34.7	+24	24	1002	15.0	760
1956	VQ	*	1956	11	08.98966	02	33 21.81	+23	29 35.9	1066		012
1956	WE	*	1956	11	26.73958	02	08 57.0	+21	12 00	1188		119
1956	WF	*	1956	11	28.14	01	08.3	+21	48	1002	14.9	760
1956	XV	*	1956	12	01.97024	04	28 52.34	+27	36 03.5	1233	14.5	020
1956	XW	*	1956	12	02.51944	03	16 20.34	+15	08 07.5	1154		388
1956	XX	*	1956	12	02.92553	03	55 32.56	+07	14 56.5	1230		020
1956	XY	*	1956	12	03.1	04	50.0	+20	16	1130	14.8	020
1956	YQ	*	1956	12	24.63889	06	00 01.98	-16	24 40.4	950		388
1956	YR	*	1956	12	25.70347	08	02 04.79	+23	59 01.1	1137		388
1956	YR		1956	12	29.71	07	58.5	+24	15	1137	13.5	388
1957	AK	*	1957	01	06.61771	08	15 57.52	+25	31 41.6	1166		388
1957	AL	*	1957	01	09.00084	07	42 34.92	+19	35 01.7	1247		024
1957	BL1	*	1957	01	20.89267	07	39 14.06	+19	43 31.8	1247	14.8	020
1957	BL1		1957	01	21.90201	07	38 25.57	+19	45 45.4	1247	15.0	020
1957	BM1	*	1957	01	29.89950	07	32 20.76	+20	00 49.4	1247		020
1957	CG	*	1957	02	02.86882	07	39 13.74	+11	05 33.7	1255		024
1957	EO	*	1957	03	04.38	13	53.6	-03	27	1052	15.9	760
1957	EP	*	1957	03	05.24721	11	29 15.37	-13	00 13.5	997	15.8	760
1957	EP		1957	03	05.29095	11	29 13.16	-13	00 11.6	997		760
1957	FH	*	1957	03	21.97758	11	57 01.28	+03	36 56.6	936		012
1957	FJ	*	1957	03	28.18592	12	24 06.07	-09	37 04.9	1285	14.5	839
1957	HC1	*	1957	04	23.92798	13	18 30.49	+03	35 39.8	942		020
1957	KT	*	1957	05	27.93	16	07.8	-17	57	1175	14.8	076
1957	OD1	*	1957	07	20.97257	20	02 53.19	-08	56 50.5	1201		020
1957	OD1		1957	07	24.93416	19	59 50.73	-09	06 27.1	1201	14.5	020
1957	OE1	*	1957	07	24.87847	18	41 37.97	-22	10 04.0	1171	12.8	076
1957	OF1	*	1957	07	25.91553	19	42 53.51	-14	09 35.1	1200	14.6	020
1957	OG1	*	1957	07	31.94156	21	05 14.96	-22	27 21.7	1012		020

1957	SM	*	1957	09	18.0	22	37.3	+12	39	1031	14.8	020
1957	SN	*	1957	09	23.87847	00	04.0	-13	23	906		990
1957	SN		1957	09	27.85764	00	00.2	-13	39	906		990
1957	YZ	*	1957	12	26.79256	05	50 14.34	+11	21 42.5	1262		024
1958	GX	*	1958	04	12.18	11	48.2	+06	24	959	15.7	760
1958	GX		1958	04	17.12	11	44.6	+06	23	959	15.5	760
1958	PF	*	1958	08	08.60420	20	33 59.81	-18	36 30.4	1228		330
1958	XA1	*	1958	12	04.85844	06	28 41.07	+23	49 59.6	946		330
1958	XB1	*	1958	12	07.01121	05	52 31.49	+33	27 39.7	980		012
1959	GA1	*	1959	04	02.92847	14	29 12.68	-25	12 17.4	1129	13.3	076
1959	JT	*	1959	05	07.95417	16	53 23.35	-26	47 52.2	1238	13.5	076
1959	NR	*	1959	07	07.90417	19	26 19.10	-45	27 25.7	912	12.3	076
1959	NS	*	1959	07	09.13	17	46.6	-32	34	984	14.4	760
1959	OD	*	1959	07	26.88091	21	00 05.88	-22	44 36.9	1135	13.8	076
1959	OE	*	1959	07	26.89063	21	26 42.55	-35	26 47.1	1041	13.0	076
1959	PJ	*	1959	08	06.57252	20	34 51.24	-13	44 37.6	1109		420
1960	CC	*	1960	02	01.20	08	41.4	+12	00	1169	16.0	760
1960	QF	*	1960	08	23.94426	21	49 44.22	-12	43 15.5	1212		020
1961	AQ	*	1961	01	13.15	07	07.9	+29	10	1032	15.4	760
1961	CL	*	1961	02	12.95966	09	40 55.21	+16	49 29.7	1271		020
1961	CM	*	1961	02	15.98008	09	54 06.53	+11	18 05.9	1228		024
1961	DG	*	1961	02	16.19	09	16.6	+00	42	997	17.0	760
1961	DH	*	1961	02	18.90149	08	31 41.07	+22	00 36.5	1240		020
1961	GJ	*	1961	04	09.23985	12	27 02.86	-15	26 41.2	972		839
1961	GK	*	1961	04	10.00548	13	17 27.64	+02	21 41.3	1209	15.8	020
1961	GL	*	1961	04	10.00548	13	39 19.66	+02	51 56.0	1193	16.0	020
1961	PC	*	1961	08	07.22014	21	59.6	-01	33	1214	15.1	760
1961	PD	*	1961	08	08.90208	20	50 14.31	-35	03 09.4	1013	15.3	076
1961	PE	*	1961	08	15.57	22	06.6	-18	06	1015	14.0	388
1961	TB2	*	1961	10	06.18	01	51.6	+22	54	1258	16.0	760
1962	CR	*	1962	02	06.53	10	11.8	+37	47	1048	14.1	388
1962	HH	*	1962	04	28.88125	14	13 25.32	-26	50 16.1	1157	15.0	076
1962	JX	*	1962	05	05.00278	15	45 58.49	-17	08 04.1	1097	15.3	076
1962	KC	*	1962	05	25.82639	16	37 42.18	-22	25 58.6	997	15.3	076
1962	QN	*	1962	08	29.31	22	13.3	+01	07	1194	16.0	760
1962	VJ	*	1962	11	01.15	01	04.3	+06	46	1027	16.6	760
1962	VK	*	1962	11	01.15	01	07.2	+06	02	1013	14.4	760
1963	NB	*	1963	07	15.95556	20	43 30.91	-31	43 53.0	971	15.0	076
1964	HA	*	1964	04	18.93681	15	29 03.52	-23	18 18.7	1110	14.8	076
1964	HA		1964	04	18.98542	15	29 01.76	-23	18 11.8	1110	14.8	076
1964	RO	*	1964	09	07.84146	22	05 05.17	-15	02 48.4	1183		095
1964	XO	*	1964	12	03.80270	03	50 56.79	+18	31 32.9	1061		095
1965	AO1	*	1965	01	01.68820	06	47 05.45	+22	57 29.1	1045		330
1965	FB	*	1965	03	31.17	12	46.7	-04	30	1027	15.2	760
1965	JL	*	1965	05	03.11	12	09.4	+01	00	1003	15.6	760
1965	LB	*	1965	06	05.15417	16	01 23.00	-43	05 48.9	1160		808
1965	YP	*	1965	12	28.96994	04	33 15.85	+15	31 06.2	1117		020
1965	YP		1965	12	28.99141	04	33 14.51	+15	31 07.5	1117		020
1966	KJ	*	1966	05	20.92316	13	17 00.49	-24	45 25.8	1284		020
1966	OA	*	1966	07	21.95178	19	48 28.84	-18	14 10.8	1004		095
1966	OB	*	1966	07	22.94509	20	33 07.12	-24	02 39.0	1078		095
1966	QU	*	1966	08	22.89533	20	45 20.14	-23	52 03.6	1089		095
1966	YH	*	1966	12	17.14	07	58.5	+24	15	1012		020
1966	YH		1966	12	23.05983	07	54 53.06	+24	41 30.1	1012		020
1966	YH		1966	12	23.07575	07	54 52.04	+24	41 35.2	1012		020
1967	CM	*	1967	02	15.10472	11	01 56.17	+18	12 10.1	1226		012
1967	EK1	*	1967	03	03.04718	10	45 04.38	+18	46 27.9	1226		012
1967	EK1		1967	03	03.05065	10	45 04.40	+18	46 28.9	1226		012
1967	EL1	*	1967	03	14.02282	13	16 57.15	+06	56 11.3	1300		020

1967	EL1		1967	03	14.05260	13	16	56.02	+06	55	59.5	1300		020
1967	EM1	*	1967	03	14.06784	13	06	59.65	-13	31	38.2	992		020
1967	GV	*	1967	04	12.95523	12	13	24.95	-14	45	00.2	978		020
1967	GV		1967	04	12.97598	12	13	24.26	-14	44	50.9	978		020
1967	GW	*	1967	04	12.99921	12	54	35.30	-14	28	01.5	1035		020
1967	GW		1967	04	13.01582	12	54	34.45	-14	27	56.1	1035		020
1967	JW	*	1967	05	02.89434	14	13	47.60	-15	32	19.4	1014		095
1967	SE	*	1967	09	26.87500	22	53	02.21	+02	37	24.5	1254		020
1967	SE		1967	09	26.88747	22	53	01.30	+02	37	19.0	1254		020
1967	SF	*	1967	09	26.93526	23	22	24.48	-03	15	34.2	1289		020
1967	SF		1967	09	26.95189	23	22	23.54	-03	15	34.3	1289		020
1967	TO	*	1967	10	02.89691	00	02	38.74	+17	29	47.5	997		095
1968	AG	*	1968	01	03.86110	04	32	40.21	+23	34	48.3	988		020
1968	AG		1968	01	03.88114	04	32	39.30	+23	34	51.4	988		020
1968	BP	*	1968	01	29.86453	06	56	35.70	+25	27	32.5	981		020
1968	BP		1968	01	29.87906	06	56	34.88	+25	27	45.2	981		020
1968	FY	*	1968	03	23.87736	11	11	19.66	+08	36	44.4	936		020
1968	FY		1968	03	23.89190	11	11	18.86	+08	36	44.2	936		020
1968	FZ	*	1968	03	27.87368	11	17	10.24	+11	37	02.3	1104		095
1968	FZ		1968	04	02.93333	11	13	22.42	+11	46	53.3	1104		095
1968	MC	*	1968	06	28.95817	19	33	41.64	-16	48	14.1	933		095
1968	ON1	*	1968	07	20.81597	19	41	49.60	-21	45	29.2	1079	15.8	076
1968	QE2	*	1968	08	19.07515	22	20	53.08	-20	00	25.7	1209		020
1968	QE2		1968	08	19.10978	22	20	52.01	-20	00	27.2	1209		020
1968	QE2		1968	08	30.92693	22	12	15.53	-21	00	54.0	1209		020
1968	QE2		1968	08	30.94563	22	12	14.95	-21	00	53.0	1209		020
1968	SL	*	1968	09	16.88490	21	04	47.75	-23	14	12.8	1052		020
1968	SL		1968	09	16.90359	21	04	46.81	-23	14	23.3	1052		020
1968	SM	*	1968	09	23.01803	01	31	44.78	+02	58	06.7	1010		020
1968	SM		1968	09	23.04019	01	31	43.90	+02	58	05.0	1010		020
1969	AH1	*	1969	01	15.53171	06	20	06.77	+18	28	51.6	1120		323
1969	FP	*	1969	03	24.90069	13	56	03.00	-26	45	48.7	1214	15.5	076
1969	HG	*	1969	04	23.84723	11	35	23.16	-00	42	35.1	917		020
1969	HG		1969	04	23.86351	11	35	22.41	-00	42	30.0	917		020
1969	KJ	*	1969	05	23.98661	15	21	57.40	-17	36	06.3	1122		020
1969	KK	*	1969	05	23.98661	15	39	32.69	-19	20	57.9	936		020
1969	KK		1969	05	24.00530	15	39	31.83	-19	21	01.7	936		020
1969	MN	*	1969	06	20.01086	19	14	48.06	-20	23	18.8	1057		020
1969	MN		1969	06	20.02402	19	14	47.16	-20	23	18.5	1057		020
1969	PA1	*	1969	08	07.85833	20	44	44.21	-21	24	53.9	949	14.8	076
1969	PB1	*	1969	08	09.20714	21	23	28.07	-10	01	29.1	1176		805
1970	CS	*	1970	02	10.08759	09	01	24.78	+12	58	34.0	960		805
1970	CS		1970	02	10.09798	09	01	24.09	+12	58	35.6	960		805
1970	CS		1970	02	10.10836	09	01	23.30	+12	58	37.4	960		805
1970	ET3	*	1970	03	03.10514	09	22	26.02	+02	01	11.0	1230		805
1970	ET3		1970	03	03.11553	09	22	25.65	+02	01	09.7	1230		805
1970	ET3		1970	03	03.12661	09	22	25.16	+02	01	09.1	1230		805
1970	EU3	*	1970	03	04.24090	12	07	13.44	-06	02	53.1	1058		805
1970	EU3		1970	03	04.25129	12	07	12.87	-06	02	50.7	1058		805
1970	EU3		1970	03	04.26168	12	07	12.39	-06	02	49.2	1058		805
1970	GP2	*	1970	04	10.19005	12	33	57.85	-15	36	21.3	1086		805
1970	GP2		1970	04	10.20044	12	33	57.33	-15	36	17.7	1086		805
1970	GP2		1970	04	10.21291	12	33	56.66	-15	36	14.0	1086		805
1970	GQ2	*	1970	04	11.15891	11	23	14.43	+05	38	55.3	1097		805
1970	GQ2		1970	04	11.16930	11	23	14.01	+05	39	00.8	1097		805
1970	GQ2		1970	04	11.17968	11	23	13.65	+05	39	04.5	1097		805
1970	HO	*	1970	04	29.92847	16	20	08.99	-29	30	47.5	1062	15.5	076
1970	JT	*	1970	05	03.12410	12	58	47.23	-06	32	13.5	1207		805
1970	JU	*	1970	05	05.91597	16	17	22.41	-28	13	45.7	915	15.5	076

1970 LQ *	1970 06 08.87083	18 08 31.84	-27 11 33.3	1280	15.2	076
1970 MD *	1970 06 30.98062	19 42 29.90	-17 47 42.1	1104		095
1970 VB *	1970 11 01.78800	00 30 14.29	+01 40 08.8	1223		095
1970 VC *	1970 11 04.07791	04 01 33.70	+22 49 29.0	1292		020
1970 VC	1970 11 04.09592	04 01 33.27	+22 49 32.2	1292		020
1971 ML *	1971 06 19.03985	18 55 40.51	-24 37 24.6	991		020
1971 ML	1971 06 19.05300	18 55 39.93	-24 37 20.4	991		020
1971 QP3 *	1971 08 16.92816	23 14 02.67	-17 36 38.1	1133		073
1971 QP3	1971 08 16.93933	23 14 02.33	-17 36 44.8	1133		073
1971 TJ3 *	1971 10 09.79236	22 45 32.81	-00 04 40.5	1280		056
1971 TJ3	1971 10 09.83333	22 45 29.02	-00 05 08.1	1280		056
1971 UQ4 *	1971 10 22.92713	00 58 47.16	+06 50 29.0	1201		020
1971 UQ4	1971 10 22.95275	00 58 46.08	+06 50 15.0	1201		020
1972 KO *	1972 05 16.89012	16 30 46.52	-15 55 17.2	977		073
1972 KO	1972 05 16.90674	16 30 45.69	-15 55 13.8	977		073
1972 LN1 *	1972 06 07.82847	17 03 16.17	-36 57 47.0	1099	15.8	076
1972 NA1 *	1972 07 09.92500	20 53 49.88	-14 24 31.2	1254	15.8	076
1972 NA1	1972 07 13.96066	20 50 33.83	-14 42 58.2	1254		095
1972 RC4 *	1972 09 10.88966	21 58 58.72	-09 31 35.9	1178		095
1972 YT1 *	1972 12 25.76493	04 49 00.39	+13 58 06.2	1251		119
1972 YT1	1972 12 25.81910	04 48 57.56	+13 58 09.0	1251		119
1973 AY4 *	1973 01 01.79298	03 35 43.45	+25 20 09.0	1280		095
1973 AY4	1973 01 01.83654	03 35 42.28	+25 19 59.7	1280		095
1973 CK *	1973 02 05.98485	08 20 16.15	+08 51 54.0	1201		020
1973 CK	1973 02 05.99662	08 20 15.38	+08 51 58.3	1201		020
1973 KC *	1973 05 25.84097	15 51 00.48	-13 31 44.0	1063	14.5	076
1973 LA *	1973 06 05.91875	17 12 48.72	-37 16 05.2	961	15.0	076
1973 LB *	1973 06 05.95139	17 31 48.30	-34 35 01.2	984	14.0	076
1973 LC *	1973 06 05.95139	17 33 08.39	-34 39 21.0	1087	15.0	076
1973 SW6 *	1973 09 29.69236	23 30 09.53	-12 17 29.6	1141		323
1973 SW6	1973 09 29.70764	23 30 09.27	-12 17 31.2	1141		323
1973 YL4 *	1973 12 25.92488	07 07 46.20	+19 21 21.4	1169		095
1973 YM4 *	1973 12 26.00970	09 18 27.98	+14 21 13.1	1247		095
1974 FB2 *	1974 03 18.80799	11 45 23.02	-15 20 35.8	1232	14.8	076
1974 MS *	1974 06 17.05293	14 53 12.57	-19 26 03.5	969		808
1974 MS	1974 06 17.08133	14 53 11.87	-19 25 56.9	969		808
1974 MT *	1974 06 27.95910	19 42 33.80	-26 37 15.0	1225		095
1974 OH2 *	1974 07 25.92931	20 10 24.43	-19 46 44.4	1045		095
1974 OH2	1974 07 26.98330	20 09 23.11	-19 47 28.6	1045		020
1974 OH2	1974 07 26.98884	20 09 23.00	-19 47 31.2	1045		020
1974 QS3 *	1974 08 23.94407	22 03 27.14	-14 40 59.0	1073		095
1974 TY1 *	1974 10 11.05584	21 46 22.57	-07 49 50.6	1058		808
1974 TY1	1974 10 11.10398	21 46 22.17	-07 49 45.6	1058		808
1975 BX1 *	1975 01 17.99875	08 37 47.58	+17 28 33.6	998		095
1975 ED6 *	1975 03 04.91875	11 24 30.08	+10 29 06.1	1141		095
1975 EE6 *	1975 03 08.86610	10 20 03.93	+13 27 59.0	991		095
1975 HN *	1975 04 20.21580	12 13 31.23	+11 48 45.9	1236		805
1975 TC7 *	1975 10 13.95513	01 27 41.50	-00 28 26.6	1975	TN2 17.5	095
1979 KG1 *	1979 05 16.94400	14 21 40.77	-13 01 06.9	1576		046
1979 KG1	1979 05 16.95523	14 21 39.74	-13 01 05.9	1576		046
1980 GM1 *	1980 04 13.93264	13 04 31.40	+00 17 17.4	940	15.5	033
1980 GM1	1980 04 13.95208	13 04 30.23	+00 17 24.8	940		033
1984 DL *	1984 02 26.19236	10 17 20.13	+16 41 00.6	1984	CP 17.0	688
1984 DL	1984 02 26.22896	10 17 18.25	+16 41 23.4	1984	CP	688

Note 1: observation on MPC 3226; the corresponding approximate position on RI 1366 was questionably (and also erroneously) identified as (988).

2: the old designation is as given with the corresponding approximate positions on RI 1597; the accurate positions were published on MPC 3224 under the erroneous identification (1171); see also note J on MPC 8949.

IDENTIFICATIONS WITH COMETS.

The following identification, published by S. Nakano on JAM 1634, continues the list on MPC 8694-8695:

1977 HG = Comet Helin (1977 VIII)

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IDENTIFICATIONS.

The following list of identifications with numbered minor planets continues that on MPC 8695.

	Note		Note		Note
A921 RD = (459)	1	A924 WG = (1202)	2	1943 RC = (2513)	1
1947 HG = (1567)	1	1948 PE1 = (1860)	1	1951 RC2 = (1558)	3
1956 UR = (1002)	2	1958 RG = (1044)	2	1972 NA1 = (1830)	2
1973 LB = (1087)	1	1973 LC = (984)	1	1984 CS = (3021)	4

Note 1: identification by B. G. Marsden. 2: by C. M. Bardwell. 3: by D. W. E. Green. 4: by F. N. Bowman.

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ERRONEOUS IDENTIFICATIONS.

The following identifications with numbered planets are incorrect.

	Note		Note		Note
A904 RE = (960)	1	1931 RO = (1045)	2	1931 VH1 = (993)	3
1952 MJ = (1288)	4	1955 DL = (1270)	5	1957 BQ = (1300)	6
1957 DD = (1291)	7	1958 RG = (1251)	8		

Note 1: reference RI 2187. 2: MPC 4659. 3: MPC 107. 4: JC 182-183. 5: JC 180. 6: MPC 1995. 7: JC 173. 8: MPC 1938.

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OBSERVATIONS OF COMETS.

Observations are published here for the following observatory codes:

010 Caussols. Observers A. Maury and R. Chemin.
 046 Klet. Observer A. Mrkos.
 051 South African Astronomical Observatory, Cape Town. Observer J. Churms. 6-7 reference stars, reduction using SAO Catalog.
 056 Skalnaté Pleso. Observer P. Rychtarcik. Measured by Rychtarcik, reduced by J. Svoren.
 066 National Observatory of Athens, Penteli Astronomical Center. 0.64-m Newall refractor. Observer D. P. Elias.
 323 Perth Observatory, Bickley. Observers P. Birch, M. P. Candy, V. Candy, G. Kinnear, P. Jekabsons, R. Martin and M. Sultana.
 372 Geisei. Observer T. Seki. In part from Orient. Astron. Assoc. Comet Bull. No. 261.
 381 Tokyo Observatory's Kiso Station. 1.05-m Schmidt. Observer K. Ishida.
 387 Tokyo Observatory's Dodaira Station. Observer K. Saito. Measured by H. Kosai.
 415 Kambah, near Canberra. Observer D. Herald.
 474 Mt. John University Observatory. Observer A. C. Gilmore. Measured by P. M. Kilmartin (assisted by R. McIntosh and W. M. Kissling).
 552 Osservatorio S. Vittore.
 657 Victoria. Observers D. D. Balam and J. B. Tatum.

- 675 Palomar. 1.2-m Schmidt. Observations of comet 1984h by J. Gibson. Observation of comet 1984j by E. Helin, measured by S. Swanson (with assistance from R. S. Dunbar).
- 688 Lowell Observatory, Anderson Mesa Station. Observer B. A. Skiff.
- 707 Chamberlin Observatory field station. 0.40-m f/5.5 reflector. Observers E. Everhart and S. Segal.
- 801 Oak Ridge Observatory. Observers R. E. McCrosky, G. Schwartz and C.-Y. Shao (assisted by C. M. Bardwell, D. W. E. Green and B. G. Marsden).

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
Periodic Comet Schwassmann-Wachmann 1							
/1974 II	1984	05 03.69583	14 39 48.77	-27 14 57.8			323
Periodic Comet Smirnova-Chernykh							
/1975 VII	1984	03 01.66528	11 47 50.67	+11 16 45.1			323
/1975 VII	1984	03 12.69583	11 41 06.26	+12 03 19.1			323
/1975 VII	1984	03 30.63021	11 30 07.96	+13 00 09.5			323
/1975 VII	1984	04 06.56632	11 26 30.08	+13 12 38.3			323
Periodic Comet Encke							
/1980 XI	1984	04 12.88576	23 56 14.69	-10 53 26.3			323
/1980 XI	1984	04 13.89792	23 52 58.93	-11 30 47.0			323
/1980 XI	1984	04 26.89028	23 29 05.22	-15 50 05.5			323
/1980 XI	1984	04 27.89201	23 28 07.59	-16 00 20.3			323
/1980 XI	1984	05 02.87812	23 24 13.72	-16 42 31.1			323
/1980 XI	1984	05 03.88194	23 23 34.07	-16 49 48.2			323
Comet IRAS (1983k)							
/1983k	1984	03 27.63576	11 39 29.45	-10 06 09.5			323
/1983k	1984	04 06.63542	11 26 32.03	-07 22 25.3			323
Comet Cernis (1983l)							
/1983l	1983	09 07.99690	02 10 08.21	-03 54 41.9			066
/1983l	1983	09 09.99376	02 07 17.28	-04 47 21.4			066
/1983l	1983	09 10.97372	02 05 50.65	-05 13 33.7			066
/1983l	1983	09 11.96831	02 04 20.93	-05 40 17.2			066
/1983l	1983	09 12.94736	02 02 51.01	-06 06 48.7			066
/1983l	1983	09 13.96469	02 01 15.65	-06 34 29.9			066
/1983l	1983	09 14.97977	01 59 38.35	-07 02 21.6			066
/1983l	1983	10 01.93796	01 28 37.26	-14 54 06.5			066
/1983l	1983	10 03.89979	01 24 39.22	-15 46 52.4			066
/1983l	1983	10 05.89180	01 20 36.39	-16 39 27.8			066
/1983l	1983	10 11.85128	01 08 17.29	-19 09 24.3			066
Periodic Comet Crommelin							
/1983n	1984	01 30.71586	23 19 25.74	+04 33 50.9			056
/1983n	1984	02 08.73565	00 01 16.77	+03 12 32.1			056
/1983n	1984	03 01.50903	01 59 31.44	-03 50 03.3			323
/1983n	1984	03 01.52222	01 59 36.16	-03 50 21.9			323
/1983n	1984	03 02.50208	02 05 24.41	-04 16 26.7			323
/1983n	1984	03 06.51736	02 29 34.56	-06 06 25.8			323
/1983n	1984	03 09.50243	02 47 56.32	-07 30 17.8			323
/1983n	1984	03 09.50972	02 47 59.16	-07 30 33.3			323
/1983n	1984	03 12.48785	03 06 36.88	-08 54 20.5			323
/1983n	1984	03 13.48576	03 12 56.10	-09 22 25.5			323
/1983n	1984	03 20.48090	03 57 57.25	-12 29 33.8			323
/1983n	1984	03 20.49861	03 58 04.37	-12 29 57.5			323
/1983n	1984	03 21.51389	04 04 41.57	-12 55 14.2			323

/1983n	1984 03 23.50139	04 17 41.48	-13 42 46.0	323
/1983n	1984 03 25.47604	04 30 38.78	-14 27 34.0	323
/1983n	1984 03 26.47708	04 37 12.68	-14 49 00.6	323
/1983n	1984 03 26.50312	04 37 22.77	-14 49 34.2	323
/1983n	1984 03 27.47708	04 43 45.99	-15 09 46.3	323
/1983n	1984 03 29.47500	04 56 50.50	-15 48 47.9	323
/1983n	1984 03 30.47361	05 03 21.31	-16 06 57.5	323
/1983n	1984 04 03.52778	05 29 33.03	-17 12 15.4	323
/1983n	1984 04 04.52778	05 35 56.08	-17 26 08.5	323
/1983n	1984 04 05.46944	05 41 54.68	-17 38 29.4	323
/1983n	1984 04 06.47014	05 48 13.12	-17 50 46.1	323
/1983n	1984 04 06.50139	05 48 24.72	-17 51 08.8	323
/1983n	1984 04 09.46875	06 06 49.12	-18 22 35.3	323
/1983n	1984 04 18.46250	06 59 13.69	-19 18 01.3	323
/1983n	1984 04 26.51250	07 41 02.68	-19 28 58.6	323
/1983n	1984 04 27.45972	07 45 37.83	-19 28 46.9	323
/1983n	1984 05 03.50312	08 13 19.73	-19 20 49.4	323

Comet IRAS (1983o)

/1983o	1984 03 01.71701	14 23 38.95	-01 04 31.4	323
/1983o	1984 03 12.74722	14 03 46.12	+06 48 25.2	323

Periodic Comet Harrington-Abell

/1983r	1984 03 26.62257	10 17 54.74	+06 32 57.8	323
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Periodic Comet Clark

/1983w	1984 04 06.76771	18 13 37.39	-22 45 47.1	323
/1983w	1984 04 09.84479	18 21 17.56	-23 08 34.2	323
/1983w	1984 04 12.84132	18 28 44.94	-23 30 50.8	323
/1983w	1984 05 03.82917	19 19 26.19	-26 16 58.7	323

Periodic Comet Bradfield

/1984a	1984 03 13.84757	22 10 47.47	-54 40 53.8	323
/1984a	1984 04 27.82917	00 01 19.22	-45 37 14.5	323

Periodic Comet Russell 4

/1984d	1984 03 26.68264	13 23 05.75	+01 40 56.9	323
/1984d	1984 03 27.90069	13 22 17.00	+01 43 59.6	552
/1984d	1984 03 29.68750	13 21 03.22	+01 48 53.9	323
/1984d	1984 04 03.69792	13 17 25.80	+02 00 51.3	323
/1984d	1984 04 05.64097	13 15 59.34	+02 04 51.5	323
/1984d	1984 04 09.65972	13 12 59.23	+02 11 40.5	323
/1984d	1984 04 26.63889	13 01 40.80	+02 13 52.2	323

Comet Shoemaker (1984f)

/1984f	1984 06 27.20570	16 01 13.47	+11 46 22.0	801
/1984f	1984 06 27.65243	16 00 44.2	+11 43 20	16 T 372
/1984f	1984 06 27.67118	16 00 43.18	+11 43 26.6	372
/1984f	1984 06 27.86806	16 00 30.73	+11 42 10.5	552
/1984f	1984 06 27.88819	16 00 29.31	+11 42 01.0	552
/1984f	1984 06 28.14513	16 00 12.80	+11 40 22.9	801
/1984f	1984 06 29.87500	15 58 22.48	+11 29 03.4	552
/1984f	1984 06 29.89722	15 58 21.12	+11 28 54.2	552
/1984f	1984 06 30.01824	15 58 13.26	+11 28 05.6	15 T 046
/1984f	1984 06 30.02686	15 58 12.88	+11 28 05.9	046
/1984f	1984 07 03.35671	15 54 46.92	+11 05 06.3	657
/1984f	1984 07 06.30604	15 51 51.07	+10 43 46.0	657
/1984f	1984 07 06.33825	15 51 49.19	+10 43 32.1	657
/1984f	1984 07 07.28370	15 50 54.51	+10 36 26.4	657

OBSERVATIONS MADE AT THE EUROPEAN SOUTHERN OBSERVATORY.

Plates taken by H. Debehogne and G. Vieira. Contact: H. Debehogne, Observatoire Royal de Belgique, 3 Avenue Circulaire, B-1180 Brussels, Belgium.

Object	Date	UT	R. A. (1950)			Decl.	Mag.	Obs.
46	1984 02	23.17354	10 54	01.29	+05 39	01.6	809	
46	1984 02	23.18047	10 54	00.95	+05 39	03.8	809	
46	1984 02	23.18740	10 54	00.57	+05 39	06.2	809	
46	1984 02	25.24288	10 52	13.90	+05 51	13.2	809	
46	1984 02	25.24911	10 52	13.56	+05 51	15.3	809	
46	1984 02	25.25535	10 52	13.22	+05 51	17.6	809	
46	1984 02	26.23460	10 51	22.03	+05 57	07.4	809	
46	1984 02	26.24084	10 51	21.69	+05 57	09.2	809	
46	1984 02	26.24707	10 51	21.35	+05 57	11.6	809	
46	1984 02	28.25200	10 49	35.63	+06 09	13.9	809	
46	1984 02	28.25823	10 49	35.28	+06 09	16.3	809	
46	1984 02	28.26446	10 49	34.94	+06 09	18.6	809	
46	1984 03	01.29710	10 47	47.14	+06 21	34.8	809	
46	1984 03	01.30333	10 47	46.81	+06 21	36.9	809	
46	1984 03	01.30956	10 47	46.45	+06 21	39.2	809	
46	1984 03	03.18775	10 46	07.02	+06 33	01.5	809	
46	1984 03	03.19399	10 46	06.68	+06 33	03.3	809	
46	1984 03	03.20022	10 46	06.32	+06 33	05.5	809	
46	1984 03	04.23488	10 45	11.52	+06 39	20.4	809	
46	1984 03	04.24111	10 45	11.17	+06 39	22.7	809	
46	1984 03	04.24735	10 45	10.85	+06 39	24.8	809	
46	1984 03	05.23354	10 44	18.87	+06 45	21.0	809	
46	1984 03	05.23978	10 44	18.55	+06 45	23.3	809	
46	1984 03	05.24601	10 44	18.19	+06 45	25.6	809	
46	1984 03	06.23565	10 43	26.19	+06 51	22.1	809	
46	1984 03	06.24120	10 43	25.90	+06 51	23.9	809	
46	1984 03	06.24673	10 43	25.63	+06 51	25.8	809	
46	1984 03	08.23573	10 41	42.02	+07 03	18.7	809	
46	1984 03	08.24136	10 41	41.72	+07 03	20.2	809	
46	1984 03	08.24690	10 41	41.41	+07 03	22.2	809	
46	1984 03	09.28529	10 40	47.86	+07 09	30.8	809	
46	1984 03	09.29013	10 40	47.60	+07 09	32.5	809	
46	1984 03	09.29498	10 40	47.34	+07 09	34.7	809	
46	1984 03	10.27287	10 39	57.47	+07 15	18.1	809	
46	1984 03	10.27772	10 39	57.23	+07 15	20.1	809	
46	1984 03	10.28256	10 39	56.98	+07 15	21.6	809	
46	1984 03	11.27844	10 39	06.20	+07 21	08.0	809	
46	1984 03	11.28329	10 39	05.95	+07 21	10.1	809	
46	1984 03	11.28814	10 39	05.71	+07 21	11.4	809	
50	1984 02	22.16034	09 31	40.62	+12 32	34.9	809	
50	1984 02	22.16657	09 31	40.31	+12 32	36.9	809	
50	1984 02	22.17281	09 31	39.97	+12 32	38.8	809	
50	1984 02	23.08005	09 30	53.24	+12 37	17.1	809	
50	1984 02	23.08697	09 30	52.87	+12 37	19.3	809	
50	1984 02	23.09390	09 30	52.51	+12 37	21.4	809	
50	1984 02	25.09606	09 29	11.02	+12 47	26.5	809	
50	1984 02	25.10229	09 29	10.69	+12 47	28.1	809	
50	1984 02	25.10852	09 29	10.37	+12 47	30.0	809	
50	1984 02	26.13418	09 28	19.41	+12 52	33.9	809	
50	1984 02	26.14042	09 28	19.09	+12 52	36.0	809	
50	1984 02	26.14665	09 28	18.78	+12 52	37.9	809	
50	1984 02	27.13284	09 27	30.75	+12 57	27.0	809	
50	1984 02	27.13908	09 27	30.43	+12 57	28.8	809	
50	1984 02	27.14531	09 27	30.11	+12 57	30.7	809	
50	1984 03	01.11288	09 25	10.42	+13 11	34.9	809	

50	1984	03	01.11911	09	25	10.17	+13	11	36.4	809
50	1984	03	01.12534	09	25	09.93	+13	11	38.1	809
50	1984	03	02.11568	09	24	25.08	+13	16	10.3	809
50	1984	03	02.12191	09	24	24.83	+13	16	12.1	809
50	1984	03	02.12815	09	24	24.58	+13	16	13.7	809
50	1984	03	04.08044	09	22	59.40	+13	24	57.9	809
50	1984	03	04.08667	09	22	59.16	+13	24	59.6	809
50	1984	03	04.09291	09	22	58.90	+13	25	01.2	809
50	1984	03	05.03963	09	22	19.11	+13	29	07.5	809
50	1984	03	05.04586	09	22	18.86	+13	29	09.5	809
50	1984	03	05.05209	09	22	18.61	+13	29	10.8	809
50	1984	03	06.03828	09	21	38.17	+13	33	21.2	809
50	1984	03	06.04451	09	21	37.90	+13	33	23.0	809
50	1984	03	06.05074	09	21	37.62	+13	33	24.7	809
50	1984	03	07.03762	09	20	58.34	+13	37	30.3	809
50	1984	03	07.04183	09	20	58.16	+13	37	31.5	809
50	1984	03	07.05147	09	20	57.76	+13	37	34.0	809
50	1984	03	08.05429	09	20	18.95	+13	41	38.4	809
50	1984	03	08.05983	09	20	18.74	+13	41	39.8	809
50	1984	03	08.06537	09	20	18.52	+13	41	41.2	809
50	1984	03	09.12323	09	19	38.92	+13	45	52.7	809
50	1984	03	09.12808	09	19	38.72	+13	45	53.4	809
50	1984	03	09.13293	09	19	38.51	+13	45	54.8	809
50	1984	03	10.15375	09	19	01.61	+13	49	51.1	809
50	1984	03	10.15860	09	19	01.43	+13	49	52.0	809
50	1984	03	10.16344	09	19	01.26	+13	49	52.9	809
58	1984	03	02.21679	10	12	20.06	+10	14	01.0	809
58	1984	03	02.22303	10	12	19.74	+10	14	03.4	809
58	1984	03	02.22926	10	12	19.44	+10	14	06.3	809
64	1984	03	02.34284	12	15	34.30	-03	22	26.4	809
64	1984	03	02.34907	12	15	34.01	-03	22	25.1	809
64	1984	03	02.35531	12	15	33.74	-03	22	23.9	809
64	1984	03	04.36854	12	14	09.53	-03	14	51.5	809
64	1984	03	04.37478	12	14	09.25	-03	14	50.4	809
64	1984	03	04.38101	12	14	08.98	-03	14	48.7	809
125	1984	02	26.28655	11	39	51.09	+02	06	03.7	809
125	1984	02	26.29278	11	39	50.84	+02	06	06.0	809
125	1984	02	26.29901	11	39	50.56	+02	06	08.1	809
125	1984	02	27.30875	11	39	08.91	+02	12	18.3	809
125	1984	02	27.31499	11	39	08.62	+02	12	20.6	809
125	1984	02	27.32122	11	39	08.36	+02	12	22.8	809
125	1984	02	28.27832	11	38	28.13	+02	18	19.4	809
125	1984	02	28.28455	11	38	27.87	+02	18	21.5	809
125	1984	02	28.29078	11	38	27.62	+02	18	23.9	809
125	1984	03	01.32618	11	36	59.54	+02	31	17.7	809
125	1984	03	01.33242	11	36	59.27	+02	31	20.0	809
125	1984	03	01.33865	11	36	58.98	+02	31	22.5	809
125	1984	03	01.35181	11	36	58.44	+02	31	27.8	809
125	1984	03	01.35804	11	36	58.13	+02	31	30.2	809
125	1984	03	01.36427	11	36	57.87	+02	31	32.5	809
125	1984	03	03.26255	11	35	33.41	+02	43	52.2	809
125	1984	03	03.26878	11	35	33.13	+02	43	54.5	809
125	1984	03	03.27501	11	35	32.86	+02	43	56.8	809
125	1984	03	04.30137	11	34	46.12	+02	50	42.9	809
125	1984	03	04.30760	11	34	45.84	+02	50	45.4	809
125	1984	03	04.31383	11	34	45.55	+02	50	48.0	809
125	1984	03	05.29830	11	34	00.35	+02	57	20.9	809
125	1984	03	05.30418	11	34	00.08	+02	57	23.3	809
125	1984	03	05.31041	11	33	59.78	+02	57	25.8	809

125	1984	03	06.29521	11	33	14.08	+03	04	01.8	809
125	1984	03	06.30145	11	33	13.80	+03	04	04.3	809
125	1984	03	06.30768	11	33	13.49	+03	04	06.8	809
125	1984	03	06.31599	11	33	13.02	+03	04	10.5	809
125	1984	03	06.32222	11	33	12.73	+03	04	13.0	809
125	1984	03	06.32846	11	33	12.44	+03	04	15.5	809
125	1984	03	08.29737	11	31	40.00	+03	17	33.3	809
125	1984	03	08.30291	11	31	39.74	+03	17	35.5	809
125	1984	03	08.30845	11	31	39.45	+03	17	37.8	809
125	1984	03	08.31884	11	31	38.90	+03	17	42.6	809
125	1984	03	08.32438	11	31	38.64	+03	17	44.9	809
125	1984	03	08.32992	11	31	38.40	+03	17	47.1	809
125	1984	03	09.32649	11	30	51.13	+03	24	34.2	809
125	1984	03	09.33203	11	30	50.87	+03	24	36.4	809
125	1984	03	09.33757	11	30	50.62	+03	24	38.7	809
125	1984	03	09.34485	11	30	50.25	+03	24	42.8	809
125	1984	03	09.34969	11	30	50.02	+03	24	44.7	809
125	1984	03	09.35454	11	30	49.81	+03	24	46.6	809
125	1984	03	10.32550	11	30	03.55	+03	31	24.7	809
125	1984	03	10.33035	11	30	03.33	+03	31	26.4	809
125	1984	03	10.33520	11	30	03.10	+03	31	28.4	809
125	1984	03	10.34282	11	30	02.64	+03	31	32.3	809
125	1984	03	10.34766	11	30	02.45	+03	31	34.0	809
125	1984	03	10.35251	11	30	02.19	+03	31	36.0	809
125	1984	03	11.31307	11	29	16.34	+03	38	10.2	809
125	1984	03	11.31792	11	29	16.11	+03	38	12.1	809
125	1984	03	11.32277	11	29	15.88	+03	38	13.8	809
125	1984	03	11.32900	11	29	15.55	+03	38	17.0	809
125	1984	03	11.33385	11	29	15.33	+03	38	19.3	809
125	1984	03	11.33870	11	29	15.07	+03	38	21.2	809
125	1984	03	14.33467	11	26	51.37	+03	58	50.9	809
125	1984	03	14.33986	11	26	51.12	+03	58	53.1	809
125	1984	03	14.34575	11	26	50.84	+03	58	55.4	809
193	1984	03	02.34284	12	15	47.90	-04	08	07.0	809
193	1984	03	02.34907	12	15	47.51	-04	08	06.9	809
193	1984	03	02.35531	12	15	47.14	-04	08	06.6	809
193	1984	03	04.36854	12	13	51.38	-04	06	10.7	809
193	1984	03	04.37478	12	13	50.99	-04	06	10.5	809
193	1984	03	04.38101	12	13	50.63	-04	06	10.2	809
202	1984	02	23.11277	09	42	31.12	+16	07	54.0	809
202	1984	02	23.11969	09	42	30.80	+16	07	57.0	809
202	1984	02	23.12662	09	42	30.49	+16	08	00.0	809
202	1984	02	29.14884	09	38	12.88	+16	47	38.3	809
202	1984	02	29.15508	09	38	12.63	+16	47	40.7	809
202	1984	02	29.16131	09	38	12.35	+16	47	43.4	809
202	1984	03	01.27147	09	37	27.38	+16	54	36.5	809
202	1984	03	01.27770	09	37	27.16	+16	54	38.5	809
202	1984	03	01.28394	09	37	26.95	+16	54	41.3	809
202	1984	03	02.18840	09	36	51.32	+17	00	11.2	809
202	1984	03	02.19532	09	36	51.08	+17	00	13.9	809
202	1984	03	02.20225	09	36	50.81	+17	00	16.3	809
202	1984	03	03.11434	09	36	15.70	+17	05	43.3	809
202	1984	03	03.12057	09	36	15.46	+17	05	45.4	809
202	1984	03	03.12681	09	36	15.21	+17	05	47.5	809
268	1984	02	28.12526	09	26	22.92	+16	42	04.0	809
268	1984	02	28.13149	09	26	22.63	+16	42	05.5	809
268	1984	02	28.13773	09	26	22.35	+16	42	07.0	809
268	1984	03	01.13642	09	24	58.84	+16	49	50.5	809
268	1984	03	01.14266	09	24	58.62	+16	49	52.0	809

268	1984	03	01.14889	09	24	58.41	+16	49	53.4	809
268	1984	03	02.14269	09	24	18.15	+16	53	35.0	809
268	1984	03	02.14892	09	24	17.94	+16	53	36.3	809
268	1984	03	02.15516	09	24	17.73	+16	53	37.5	809
268	1984	03	03.06863	09	23	41.82	+16	56	56.4	809
268	1984	03	03.07487	09	23	41.59	+16	56	57.6	809
268	1984	03	03.08110	09	23	41.37	+16	56	59.1	809
268	1984	03	04.19125	09	22	58.43	+17	00	54.0	809
268	1984	03	04.19748	09	22	58.22	+17	00	54.7	809
268	1984	03	04.20372	09	22	58.02	+17	00	55.6	809
268	1984	03	05.10473	09	22	24.59	+17	03	59.5	809
268	1984	03	05.11096	09	22	24.36	+17	04	00.3	809
268	1984	03	05.11719	09	22	24.15	+17	04	01.6	809
268	1984	03	06.10476	09	21	48.43	+17	07	16.4	809
268	1984	03	06.11099	09	21	48.20	+17	07	17.6	809
268	1984	03	06.11723	09	21	47.94	+17	07	18.8	809
268	1984	03	07.10687	09	21	13.17	+17	10	28.1	809
268	1984	03	07.11241	09	21	12.98	+17	10	29.3	809
268	1984	03	07.11795	09	21	12.78	+17	10	30.2	809
268	1984	03	08.11385	09	20	39.28	+17	13	32.4	809
268	1984	03	08.11939	09	20	39.11	+17	13	33.7	809
268	1984	03	08.12493	09	20	38.90	+17	13	34.8	809
268	1984	03	10.17037	09	19	33.46	+17	19	27.3	809
268	1984	03	10.17522	09	19	33.31	+17	19	27.8	809
268	1984	03	10.18007	09	19	33.17	+17	19	28.9	809
733	1984	03	02.24034	10	58	16.55	+05	40	38.0	809
733	1984	03	02.24727	10	58	16.16	+05	40	38.0	809
733	1984	03	02.25419	10	58	15.75	+05	40	37.9	809
733	1984	03	04.27990	10	56	22.25	+05	39	47.3	809
733	1984	03	04.28613	10	56	21.88	+05	39	46.9	809
733	1984	03	04.29236	10	56	21.56	+05	39	46.6	809
733	1984	03	05.27648	10	55	26.39	+05	39	23.2	809
733	1984	03	05.28271	10	55	26.05	+05	39	22.9	809
733	1984	03	05.28895	10	55	25.69	+05	39	22.6	809
733	1984	03	06.27513	10	54	30.53	+05	38	58.1	809
733	1984	03	06.28136	10	54	30.20	+05	38	58.2	809
733	1984	03	06.28760	10	54	29.86	+05	38	57.8	809
733	1984	03	08.27729	10	52	38.99	+05	38	09.7	809
733	1984	03	08.28283	10	52	38.68	+05	38	09.7	809
733	1984	03	08.28837	10	52	38.37	+05	38	09.3	809
733	1984	03	09.30260	10	51	42.17	+05	37	42.8	809
733	1984	03	09.30745	10	51	41.91	+05	37	42.6	809
733	1984	03	09.31645	10	51	41.40	+05	37	42.4	809
733	1984	03	10.30680	10	50	46.84	+05	37	15.6	809
733	1984	03	10.31165	10	50	46.58	+05	37	15.9	809
733	1984	03	10.31650	10	50	46.29	+05	37	15.8	809
733	1984	03	11.29645	10	49	52.63	+05	36	49.0	809
733	1984	03	11.30130	10	49	52.39	+05	36	48.9	809
733	1984	03	11.30615	10	49	52.14	+05	36	49.0	809
733	1984	03	13.32908	10	48	02.47	+05	35	49.9	809
733	1984	03	13.33393	10	48	02.24	+05	35	49.4	809
733	1984	03	13.33878	10	48	02.01	+05	35	48.8	809
781	1984	02	24.03437	08	47	22.13	+16	55	50.0	809
781	1984	02	24.04061	08	47	21.92	+16	55	52.3	809
781	1984	02	24.04684	08	47	21.70	+16	55	54.8	809
781	1984	03	01.05193	08	43	54.55	+17	33	37.9	809
781	1984	03	01.05816	08	43	54.37	+17	33	39.8	809
781	1984	03	01.06440	08	43	54.21	+17	33	42.3	809
848	1984	02	23.17354	10	51	04.35	+06	10	10.5	809

848	1984	02	23.18047	10	51	04.05	+06	10	12.5	809
848	1984	02	23.18740	10	51	03.74	+06	10	14.3	809
848	1984	02	25.24288	10	49	34.55	+06	19	30.6	809
848	1984	02	25.24911	10	49	34.32	+06	19	32.0	809
848	1984	02	25.25535	10	49	34.05	+06	19	33.3	809
848	1984	02	26.23460	10	48	51.32	+06	24	00.7	809
848	1984	02	26.24084	10	48	51.08	+06	24	02.3	809
848	1984	02	26.24707	10	48	50.83	+06	24	04.0	809
848	1984	02	28.25200	10	47	22.47	+06	33	14.1	809
848	1984	02	28.25823	10	47	22.19	+06	33	16.1	809
848	1984	02	28.26446	10	47	21.88	+06	33	17.8	809
848	1984	03	01.29710	10	45	52.08	+06	42	37.7	809
848	1984	03	01.30333	10	45	51.82	+06	42	39.4	809
848	1984	03	01.30956	10	45	51.54	+06	42	41.1	809
848	1984	03	03.18775	10	44	28.62	+06	51	19.9	809
848	1984	03	03.19399	10	44	28.34	+06	51	21.4	809
848	1984	03	03.20022	10	44	28.07	+06	51	23.5	809
848	1984	03	04.23488	10	43	42.36	+06	56	09.1	809
848	1984	03	04.24111	10	43	42.08	+06	56	10.8	809
848	1984	03	04.24735	10	43	41.80	+06	56	12.5	809
848	1984	03	05.23354	10	42	58.44	+07	00	44.5	809
848	1984	03	05.23978	10	42	58.15	+07	00	46.2	809
848	1984	03	05.24601	10	42	57.85	+07	00	47.9	809
848	1984	03	06.23565	10	42	14.45	+07	05	20.1	809
848	1984	03	06.24120	10	42	14.23	+07	05	21.1	809
848	1984	03	06.24673	10	42	14.01	+07	05	22.7	809
848	1984	03	08.23573	10	40	47.32	+07	14	26.6	809
848	1984	03	08.24136	10	40	47.12	+07	14	27.8	809
848	1984	03	08.24690	10	40	46.88	+07	14	29.3	809
848	1984	03	09.28529	10	40	01.98	+07	19	10.8	809
848	1984	03	09.29013	10	40	01.74	+07	19	11.9	809
848	1984	03	09.29498	10	40	01.51	+07	19	13.1	809
848	1984	03	10.27287	10	39	19.72	+07	23	36.0	809
848	1984	03	10.27772	10	39	19.50	+07	23	37.5	809
848	1984	03	10.28256	10	39	19.29	+07	23	38.8	809
848	1984	03	11.27844	10	38	36.61	+07	28	03.9	809
848	1984	03	11.28329	10	38	36.44	+07	28	04.9	809
848	1984	03	11.28814	10	38	36.23	+07	28	06.6	809
970	1984	02	23.14169	09	53	53.27	+10	02	58.9	809
970	1984	02	23.14861	09	53	52.89	+10	03	00.9	809
970	1984	02	23.15554	09	53	52.49	+10	03	02.5	809
970	1984	03	06.17194	09	42	55.16	+10	42	07.4	809
970	1984	03	06.17817	09	42	54.87	+10	42	08.6	809
970	1984	03	06.18441	09	42	54.60	+10	42	09.4	809
970	1984	03	11.20919	09	39	09.17	+10	55	34.0	809
970	1984	03	11.21404	09	39	08.96	+10	55	34.9	809
970	1984	03	11.21888	09	39	08.77	+10	55	35.5	809
1043	1984	02	23.14169	09	54	28.38	+10	17	58.2	809
1043	1984	02	23.14861	09	54	28.07	+10	18	00.7	809
1043	1984	02	23.15554	09	54	27.76	+10	18	03.5	809
1043	1984	02	26.18474	09	52	15.30	+10	37	10.6	809
1043	1984	02	26.19097	09	52	15.04	+10	37	12.9	809
1043	1984	02	26.19721	09	52	14.76	+10	37	15.2	809
1043	1984	03	01.21468	09	49	24.45	+11	02	12.3	809
1043	1984	03	01.22195	09	49	24.17	+11	02	15.0	809
1043	1984	03	01.22923	09	49	23.89	+11	02	17.5	809
1066	1984	03	02.26458	10	42	26.05	+08	54	42.4	809
1066	1984	03	02.27081	10	42	25.68	+08	54	43.6	809
1066	1984	03	02.27705	10	42	25.31	+08	54	44.9	809

17.0

1066	1984	03	05.25501	10	39	29.85	+09	07	37.0	809
1066	1984	03	05.26124	10	39	29.48	+09	07	38.3	809
1066	1984	03	05.26748	10	39	29.12	+09	07	39.9	809
1066	1984	03	06.25435	10	38	31.56	+09	11	49.9	809
1066	1984	03	06.26059	10	38	31.20	+09	11	51.4	809
1066	1984	03	06.26682	10	38	30.83	+09	11	53.0	809
1066	1984	03	08.25513	10	36	35.96	+09	20	09.1	809
1066	1984	03	08.26101	10	36	35.62	+09	20	10.6	809
1066	1984	03	08.26690	10	36	35.28	+09	20	12.1	809
1157	1984	03	02.21679	10	12	39.66	+11	35	59.2	809
1157	1984	03	02.22303	10	12	39.34	+11	36	00.3	809
1157	1984	03	02.22926	10	12	39.04	+11	36	01.0	809
1228	1984	02	25.03719	09	08	40.43	+15	05	15.4	809
1228	1984	02	25.04342	09	08	40.13	+15	05	16.4	809
1228	1984	02	25.04966	09	08	39.88	+15	05	17.2	809
1228	1984	02	27.05597	09	07	07.26	+15	09	59.8	809
1228	1984	02	27.06220	09	07	06.94	+15	10	00.6	809
1228	1984	02	27.06844	09	07	06.62	+15	10	01.7	809
1228	1984	03	02.09075	09	04	14.81	+15	18	35.0	809
1228	1984	03	02.09698	09	04	14.60	+15	18	35.9	809
1228	1984	03	02.10321	09	04	14.36	+15	18	36.4	809
1228	1984	03	04.05759	09	02	58.44	+15	22	16.0	809
1228	1984	03	04.06313	09	02	58.26	+15	22	16.8	809
1228	1984	03	04.06936	09	02	58.02	+15	22	17.7	809
1228	1984	03	05.06109	09	02	21.45	+15	24	02.0	809
1228	1984	03	05.06733	09	02	21.23	+15	24	02.4	809
1228	1984	03	05.07356	09	02	21.02	+15	24	02.9	809
1228	1984	03	06.06182	09	01	46.01	+15	25	41.6	809
1228	1984	03	06.06806	09	01	45.78	+15	25	42.4	809
1228	1984	03	06.07429	09	01	45.55	+15	25	42.9	809
1228	1984	03	07.06255	09	01	12.13	+15	27	16.0	809
1228	1984	03	07.06878	09	01	11.91	+15	27	16.8	809
1228	1984	03	07.07502	09	01	11.69	+15	27	17.3	809
1228	1984	03	08.07368	09	00	39.08	+15	28	45.7	809
1228	1984	03	08.07922	09	00	38.89	+15	28	46.0	809
1228	1984	03	08.08476	09	00	38.71	+15	28	46.5	809
1228	1984	03	09.14054	09	00	06.00	+15	30	13.3	809
1228	1984	03	09.14539	09	00	05.83	+15	30	14.0	809
1228	1984	03	09.15024	09	00	05.67	+15	30	14.1	809
1253	1984	02	23.11277	09	40	31.49	+15	53	50.0	809
1253	1984	02	23.11969	09	40	31.14	+15	53	51.3	809
1253	1984	02	23.12662	09	40	30.80	+15	53	52.7	809
1253	1984	02	26.15981	09	38	10.82	+16	04	33.7	809
1253	1984	02	26.16604	09	38	10.52	+16	04	34.8	809
1253	1984	02	26.17227	09	38	10.22	+16	04	36.3	809
1253	1984	02	27.15778	09	37	26.01	+16	07	55.2	809
1253	1984	02	27.16401	09	37	25.68	+16	07	55.9	809
1253	1984	02	27.17024	09	37	25.39	+16	07	56.8	809
1253	1984	02	28.09998	09	36	44.29	+16	11	02.9	809
1253	1984	02	28.10691	09	36	43.96	+16	11	04.3	809
1253	1984	02	28.11383	09	36	43.63	+16	11	06.1	809
1253	1984	02	29.14884	09	35	58.52	+16	14	25.4	809
1253	1984	02	29.15508	09	35	58.20	+16	14	26.1	809
1253	1984	02	29.16131	09	35	57.93	+16	14	27.8	809
1253	1984	03	01.27147	09	35	10.16	+16	17	55.8	809
1253	1984	03	01.27770	09	35	09.92	+16	17	57.0	809
1253	1984	03	01.28394	09	35	09.69	+16	17	58.5	809
1253	1984	03	02.18840	09	34	31.76	+16	20	44.2	809
1253	1984	03	02.19532	09	34	31.50	+16	20	45.4	809

1253	1984	03	02.20225	09	34	31.25	+16	20	46.2	809
1253	1984	03	03.11434	09	33	53.67	+16	23	27.8	809
1253	1984	03	03.12057	09	33	53.40	+16	23	29.6	809
1253	1984	03	03.12681	09	33	53.18	+16	23	30.2	809
1253	1984	03	04.12407	09	33	12.95	+16	26	21.8	809
1253	1984	03	04.13030	09	33	12.70	+16	26	22.4	809
1253	1984	03	04.13654	09	33	12.42	+16	26	24.2	809
1253	1984	03	05.14766	09	32	32.47	+16	29	12.6	809
1253	1984	03	05.15390	09	32	32.23	+16	29	13.4	809
1253	1984	03	05.16013	09	32	31.99	+16	29	14.4	809
1253	1984	03	06.15116	09	31	53.74	+16	31	53.9	809
1253	1984	03	06.15739	09	31	53.50	+16	31	55.3	809
1253	1984	03	06.16363	09	31	53.27	+16	31	56.2	809
1253	1984	03	08.15332	09	30	39.53	+16	36	58.6	809
1253	1984	03	08.15886	09	30	39.33	+16	36	58.9	809
1253	1984	03	08.16440	09	30	39.13	+16	36	59.8	809
1253	1984	03	09.21326	09	30	01.82	+16	39	28.8	809
1253	1984	03	09.21811	09	30	01.65	+16	39	29.8	809
1253	1984	03	09.22296	09	30	01.49	+16	39	30.8	809
1253	1984	03	11.19257	09	28	54.68	+16	43	54.9	809
1253	1984	03	11.19741	09	28	54.55	+16	43	55.5	809
1253	1984	03	11.20226	09	28	54.42	+16	43	56.4	809
1298	1984	02	24.03437	08	43	32.71	+15	57	10.7	809
1298	1984	02	24.04061	08	43	32.43	+15	57	11.6	809
1298	1984	02	24.04684	08	43	32.21	+15	57	12.5	809
1298	1984	03	01.05193	08	39	51.40	+16	06	47.7	809
1298	1984	03	01.05816	08	39	51.23	+16	06	48.2	809
1298	1984	03	01.06440	08	39	51.06	+16	06	48.6	809
1298	1984	03	03.04509	08	38	46.59	+16	09	32.4	809
1298	1984	03	03.05132	08	38	46.44	+16	09	32.9	809
1298	1984	03	03.05755	08	38	46.23	+16	09	33.2	809
1298	1984	03	05.08326	08	37	44.94	+16	12	05.0	809
1298	1984	03	05.08949	08	37	44.77	+16	12	05.7	809
1298	1984	03	05.09572	08	37	44.59	+16	12	06.6	809
1298	1984	03	07.08402	08	36	49.13	+16	14	22.6	809
1298	1984	03	07.09025	08	36	48.97	+16	14	23.1	809
1298	1984	03	07.09649	08	36	48.80	+16	14	23.5	809
1298	1984	03	08.09307	08	36	22.89	+16	15	24.8	809
1298	1984	03	08.09861	08	36	22.72	+16	15	25.1	809
1298	1984	03	08.10415	08	36	22.55	+16	15	26.1	809
1298	1984	03	09.15855	08	35	56.37	+16	16	28.0	809
1298	1984	03	09.16340	08	35	56.22	+16	16	28.4	809
1298	1984	03	09.16825	08	35	56.09	+16	16	28.6	809
1399	1984	02	22.16034	09	30	27.57	+11	37	14.3	809
1399	1984	02	22.16657	09	30	27.23	+11	37	17.2	809
1399	1984	02	22.17281	09	30	26.87	+11	37	20.3	809
1443	1984	03	02.24034	11	00	23.79	+05	45	20.2	809
1443	1984	03	02.24727	11	00	23.46	+05	45	22.3	809
1443	1984	03	02.25419	11	00	23.13	+05	45	24.8	809
1443	1984	03	04.27990	10	58	48.49	+05	56	15.9	809
1443	1984	03	04.28613	10	58	48.19	+05	56	17.4	809
1443	1984	03	04.29236	10	58	47.91	+05	56	18.8	809
1443	1984	03	05.27648	10	58	01.90	+06	01	36.8	809
1443	1984	03	05.28271	10	58	01.64	+06	01	38.6	809
1443	1984	03	05.28895	10	58	01.32	+06	01	40.4	809
1443	1984	03	06.27513	10	57	15.16	+06	06	58.0	809
1443	1984	03	06.28136	10	57	14.87	+06	07	00.2	809
1443	1984	03	06.28760	10	57	14.58	+06	07	02.0	809
1443	1984	03	08.27729	10	55	41.87	+06	17	40.2	809

1443	1984	03	08.28283	10	55	41.59	+06	17	41.9	809
1443	1984	03	08.28837	10	55	41.35	+06	17	43.4	809
1443	1984	03	09.30260	10	54	54.29	+06	23	07.4	809
1443	1984	03	09.30745	10	54	54.06	+06	23	08.7	809
1443	1984	03	09.31645	10	54	53.67	+06	23	11.0	809
1443	1984	03	10.30680	10	54	07.97	+06	28	26.8	809
1443	1984	03	10.31165	10	54	07.74	+06	28	28.3	809
1443	1984	03	10.31650	10	54	07.53	+06	28	29.6	809
1443	1984	03	11.29645	10	53	22.56	+06	33	40.0	809
1443	1984	03	11.30130	10	53	22.36	+06	33	41.1	809
1443	1984	03	11.30615	10	53	22.14	+06	33	42.2	809
1443	1984	03	13.32908	10	51	50.42	+06	44	14.5	809
1443	1984	03	13.33393	10	51	50.21	+06	44	16.3	809
1443	1984	03	13.33878	10	51	49.99	+06	44	17.9	809
1489	1984	02	23.17354	10	56	51.56	+07	02	03.0	809
1489	1984	02	23.18047	10	56	51.24	+07	02	05.8	809
1489	1984	02	23.18740	10	56	50.93	+07	02	07.6	809
1568	1984	02	27.20833	10	15	13.46	+16	06	56.2	809
1568	1984	02	27.21457	10	15	13.11	+16	07	01.0	809
1568	1984	02	27.22080	10	15	12.74	+16	07	06.6	809
1568	1984	03	03.16213	10	10	43.06	+17	09	31.3	809
1568	1984	03	03.16836	10	10	42.73	+17	09	35.3	809
1568	1984	03	03.17459	10	10	42.42	+17	09	40.1	809
1568	1984	03	08.21219	10	06	23.38	+18	08	41.8	809
1568	1984	03	08.21773	10	06	23.09	+18	08	45.7	809
1568	1984	03	08.22396	10	06	22.79	+18	08	49.6	809
1568	1984	03	09.26659	10	05	31.88	+18	20	22.2	809
1568	1984	03	09.27144	10	05	31.64	+18	20	25.4	809
1568	1984	03	09.27628	10	05	31.39	+18	20	28.8	809
1645	1984	02	25.03719	09	12	29.43	+14	54	49.3	809
1645	1984	02	25.04342	09	12	29.15	+14	54	50.3	809
1645	1984	02	25.04966	09	12	28.88	+14	54	51.0	809
1645	1984	02	27.05597	09	11	04.32	+15	01	12.5	809
1645	1984	02	27.06220	09	11	04.05	+15	01	13.3	809
1645	1984	02	27.06844	09	11	03.78	+15	01	14.4	809
1645	1984	02	28.07297	09	10	22.73	+15	04	19.8	809
1645	1984	02	28.07990	09	10	22.43	+15	04	21.4	809
1645	1984	02	28.08682	09	10	22.14	+15	04	22.5	809
1645	1984	02	29.07543	09	09	42.55	+15	07	20.9	809
1645	1984	02	29.08166	09	09	42.30	+15	07	21.9	809
1645	1984	02	29.08790	09	09	42.05	+15	07	22.8	809
1645	1984	03	01.08310	09	09	03.07	+15	10	18.8	809
1645	1984	03	01.08933	09	09	02.86	+15	10	19.5	809
1645	1984	03	01.09556	09	09	02.63	+15	10	20.5	809
1645	1984	03	02.09075	09	08	24.59	+15	13	12.8	809
1645	1984	03	02.09698	09	08	24.38	+15	13	13.7	809
1645	1984	03	02.10321	09	08	24.17	+15	13	14.5	809
1645	1984	03	04.05759	09	07	12.40	+15	18	38.1	809
1645	1984	03	04.06313	09	07	12.21	+15	18	39.1	809
1645	1984	03	04.06936	09	07	12.00	+15	18	40.1	809
1645	1984	03	05.06109	09	06	37.09	+15	21	17.9	809
1645	1984	03	05.06733	09	06	36.85	+15	21	18.7	809
1645	1984	03	05.07356	09	06	36.65	+15	21	19.6	809
1645	1984	03	06.06182	09	06	02.88	+15	23	52.6	809
1645	1984	03	06.06806	09	06	02.67	+15	23	53.6	809
1645	1984	03	06.07429	09	06	02.46	+15	23	54.5	809
1645	1984	03	08.07368	09	04	57.55	+15	28	49.6	809
1645	1984	03	08.07922	09	04	57.39	+15	28	50.3	809
1645	1984	03	08.08476	09	04	57.20	+15	28	50.9	809

1645	1984	03	09.14054	09	04	24.70	+15	31	19.1	809
1645	1984	03	09.14539	09	04	24.51	+15	31	19.3	809
1645	1984	03	09.15024	09	04	24.36	+15	31	19.8	809
1737	1984	02	23.14169	10	00	03.39	+11	35	49.1	809
1737	1984	02	23.14861	10	00	03.01	+11	35	50.1	809
1737	1984	02	23.15554	10	00	02.66	+11	35	50.5	809
1763	1984	02	22.16034	09	32	31.56	+11	58	48.6	809
1763	1984	02	22.16657	09	32	31.17	+11	58	49.8	809
1763	1984	02	22.17281	09	32	30.79	+11	58	50.7	809
1763	1984	02	23.08005	09	31	33.72	+12	02	28.7	809
1763	1984	02	23.08697	09	31	33.31	+12	02	30.4	809
1763	1984	02	23.09390	09	31	32.91	+12	02	31.8	809
1769	1984	02	23.14169	09	57	24.66	+11	56	37.2	809
1769	1984	02	23.14861	09	57	24.22	+11	56	39.3	809
1769	1984	02	23.15554	09	57	23.81	+11	56	41.4	809
1791	1984	02	26.31355	12	13	29.69	-04	58	56.9	809
1791	1984	02	26.31979	12	13	29.51	-04	58	55.7	809
1791	1984	02	26.32602	12	13	29.34	-04	58	54.6	809
1830	1984	03	02.26458	10	43	57.20	+09	51	51.6	809
1830	1984	03	02.27081	10	43	56.85	+09	51	55.1	809
1830	1984	03	02.27705	10	43	56.50	+09	51	57.8	809
1887	1984	02	26.28655	11	39	34.38	+02	04	23.7	809
1887	1984	02	26.29278	11	39	34.12	+02	04	24.4	809
1887	1984	02	26.29901	11	39	33.82	+02	04	25.4	809
1887	1984	02	27.30875	11	38	48.09	+02	06	54.1	809
1887	1984	02	27.31499	11	38	47.79	+02	06	55.0	809
1887	1984	02	27.32122	11	38	47.50	+02	06	55.8	809
1887	1984	02	28.27832	11	38	03.56	+02	09	20.5	809
1887	1984	02	28.28455	11	38	03.30	+02	09	21.3	809
1887	1984	02	28.29078	11	38	03.02	+02	09	22.5	809
1887	1984	03	01.32618	11	36	27.71	+02	14	39.4	809
1887	1984	03	01.33242	11	36	27.39	+02	14	40.4	809
1887	1984	03	01.33865	11	36	27.09	+02	14	41.9	809
1887	1984	03	01.35181	11	36	26.55	+02	14	43.9	809
1887	1984	03	01.35804	11	36	26.24	+02	14	44.9	809
1887	1984	03	01.36427	11	36	25.92	+02	14	45.9	809
1887	1984	03	03.26255	11	34	55.31	+02	19	52.2	809
1887	1984	03	03.26878	11	34	54.99	+02	19	53.6	809
1887	1984	03	03.27501	11	34	54.66	+02	19	54.4	809
1887	1984	03	03.30618	11	34	53.16	+02	19	59.0	809
1887	1984	03	03.31310	11	34	52.85	+02	20	00.2	809
1887	1984	03	03.32003	11	34	52.48	+02	20	01.8	809
1887	1984	03	04.30137	11	34	04.98	+02	22	43.8	809
1887	1984	03	04.30760	11	34	04.66	+02	22	44.4	809
1887	1984	03	04.31383	11	34	04.34	+02	22	45.1	809
1887	1984	03	04.34708	11	34	02.77	+02	22	51.1	809
1887	1984	03	04.35331	11	34	02.48	+02	22	52.0	809
1887	1984	03	04.35954	11	34	02.18	+02	22	53.3	809
1887	1984	03	05.29830	11	33	16.38	+02	25	29.9	809
1887	1984	03	05.30418	11	33	16.09	+02	25	31.1	809
1887	1984	03	05.31041	11	33	15.76	+02	25	32.0	809
1887	1984	03	05.32011	11	33	15.30	+02	25	33.5	809
1887	1984	03	05.32634	11	33	15.01	+02	25	34.5	809
1887	1984	03	05.33258	11	33	14.68	+02	25	35.3	809
1887	1984	03	06.29521	11	32	27.43	+02	28	19.0	809
1887	1984	03	06.30145	11	32	27.16	+02	28	20.0	809
1887	1984	03	06.30768	11	32	26.87	+02	28	20.4	809
1887	1984	03	06.31599	11	32	26.43	+02	28	22.0	809
1887	1984	03	06.32222	11	32	26.08	+02	28	23.1	809

1887	1984	03	06.32846	11	32	25.80	+02	28	23.9	809
1887	1984	03	08.31884	11	30	47.46	+02	34	04.8	809
1887	1984	03	08.32438	11	30	47.15	+02	34	05.9	809
1887	1984	03	08.32992	11	30	46.88	+02	34	06.5	809
1887	1984	03	09.34485	11	29	56.41	+02	37	02.9	809
1887	1984	03	09.34969	11	29	56.18	+02	37	03.9	809
1887	1984	03	09.35454	11	29	55.90	+02	37	04.5	809
1887	1984	03	10.34282	11	29	06.68	+02	39	56.4	809
1887	1984	03	10.34766	11	29	06.43	+02	39	57.4	809
1887	1984	03	10.35251	11	29	06.17	+02	39	58.1	809
1887	1984	03	11.32900	11	28	17.56	+02	42	48.6	809
1887	1984	03	11.33385	11	28	17.32	+02	42	49.7	809
1887	1984	03	11.33870	11	28	17.06	+02	42	50.1	809
1898	1984	02	25.14055	09	39	11.45	+13	35	33.5	809
1898	1984	02	25.14713	09	39	11.16	+13	35	35.0	809
1898	1984	02	25.15371	09	39	10.88	+13	35	36.5	809
1898	1984	02	27.10514	09	37	43.90	+13	43	28.6	809
1898	1984	02	27.11138	09	37	43.62	+13	43	29.8	809
1898	1984	02	27.11761	09	37	43.34	+13	43	31.3	809
1898	1984	02	28.22360	09	36	54.85	+13	47	50.0	809
1898	1984	02	28.22984	09	36	54.55	+13	47	51.4	809
1898	1984	02	28.23607	09	36	54.30	+13	47	53.0	809
1898	1984	02	29.10175	09	36	17.35	+13	51	13.9	809
1898	1984	02	29.10798	09	36	17.04	+13	51	15.4	809
1898	1984	02	29.11421	09	36	16.76	+13	51	17.4	809
1898	1984	02	29.22641	09	36	11.75	+13	51	42.8	809
1898	1984	02	29.23264	09	36	11.45	+13	51	44.0	809
1898	1984	02	29.23887	09	36	11.16	+13	51	45.8	809
1898	1984	03	01.16620	09	35	32.17	+13	55	17.5	809
1898	1984	03	01.17244	09	35	31.93	+13	55	18.7	809
1898	1984	03	01.17867	09	35	31.70	+13	55	19.9	809
1898	1984	03	02.16554	09	34	50.73	+13	59	00.4	809
1898	1984	03	02.17178	09	34	50.50	+13	59	01.4	809
1898	1984	03	02.17801	09	34	50.26	+13	59	03.2	809
1898	1984	03	04.10191	09	33	32.80	+14	05	59.6	809
1898	1984	03	04.10814	09	33	32.56	+14	06	01.4	809
1898	1984	03	04.11438	09	33	32.30	+14	06	03.0	809
1898	1984	03	05.12550	09	32	52.83	+14	09	35.6	809
1898	1984	03	05.13174	09	32	52.59	+14	09	36.8	809
1898	1984	03	05.13797	09	32	52.34	+14	09	38.1	809
1898	1984	03	06.13143	09	32	14.55	+14	13	01.5	809
1898	1984	03	06.13696	09	32	14.35	+14	13	03.0	809
1898	1984	03	06.14251	09	32	14.11	+14	13	04.1	809
1898	1984	03	07.12704	09	31	37.49	+14	16	21.2	809
1898	1984	03	07.13304	09	31	37.28	+14	16	22.7	809
1898	1984	03	07.13881	09	31	37.06	+14	16	23.6	809
1898	1984	03	08.13358	09	31	01.15	+14	19	37.3	809
1898	1984	03	08.13843	09	31	00.93	+14	19	38.1	809
1898	1984	03	08.14328	09	31	00.76	+14	19	39.4	809
1898	1984	03	09.19595	09	30	23.72	+14	22	57.8	809
1898	1984	03	09.20080	09	30	23.57	+14	22	58.5	809
1898	1984	03	09.20564	09	30	23.42	+14	22	59.5	809
1898	1984	03	11.17525	09	29	17.47	+14	28	57.7	809
1898	1984	03	11.18010	09	29	17.35	+14	28	58.5	809
1898	1984	03	11.18495	09	29	17.23	+14	28	59.2	809
1913	1984	02	23.11277	09	43	31.34	+15	00	06.4	809
1913	1984	02	23.11969	09	43	30.99	+15	00	08.3	809
1913	1984	02	23.12662	09	43	30.64	+15	00	09.4	809
1913	1984	02	26.15981	09	41	00.42	+15	11	06.0	809

1913	1984	02	26.16604	09	41	00.13	+15	11	07.1	809
1913	1984	02	26.17227	09	40	59.83	+15	11	08.5	809
1913	1984	02	27.15778	09	40	12.21	+15	14	33.0	809
1913	1984	02	27.16401	09	40	11.87	+15	14	34.3	809
1913	1984	02	27.17024	09	40	11.59	+15	14	35.4	809
1913	1984	02	28.22360	09	39	21.28	+15	18	09.9	809
1913	1984	02	28.22984	09	39	21.02	+15	18	11.6	809
1913	1984	02	28.23607	09	39	20.71	+15	18	12.7	809
1913	1984	02	29.14884	09	38	37.98	+15	21	14.2	809
1913	1984	02	29.15508	09	38	37.66	+15	21	15.4	809
1913	1984	02	29.16131	09	38	37.36	+15	21	16.1	809
1913	1984	02	29.22641	09	38	34.28	+15	21	28.4	809
1913	1984	02	29.23264	09	38	33.98	+15	21	29.7	809
1913	1984	02	29.23887	09	38	33.69	+15	21	31.0	809
1913	1984	03	01.27147	09	37	45.94	+15	24	50.4	809
1913	1984	03	01.27770	09	37	45.68	+15	24	51.8	809
1913	1984	03	01.28394	09	37	45.44	+15	24	52.8	809
1913	1984	03	02.18840	09	37	04.54	+15	27	42.2	809
1913	1984	03	02.19532	09	37	04.26	+15	27	43.4	809
1913	1984	03	02.20225	09	37	03.94	+15	27	45.0	809
1913	1984	03	03.11434	09	36	23.53	+15	30	29.9	809
1913	1984	03	03.12057	09	36	23.24	+15	30	30.9	809
1913	1984	03	03.12681	09	36	22.98	+15	30	31.8	809
1913	1984	03	04.12407	09	35	39.36	+15	33	31.1	809
1913	1984	03	04.13030	09	35	39.10	+15	33	32.5	809
1913	1984	03	04.13654	09	35	38.84	+15	33	33.5	809
1913	1984	03	05.14766	09	34	55.60	+15	36	28.1	809
1913	1984	03	05.15390	09	34	55.36	+15	36	28.7	809
1913	1984	03	05.16013	09	34	55.13	+15	36	29.6	809
1913	1984	03	06.15116	09	34	13.83	+15	39	13.5	809
1913	1984	03	06.15739	09	34	13.56	+15	39	14.3	809
1913	1984	03	06.16363	09	34	13.30	+15	39	15.7	809
1913	1984	03	08.15332	09	32	53.51	+15	44	27.8	809
1913	1984	03	08.15886	09	32	53.30	+15	44	28.5	809
1913	1984	03	08.16440	09	32	53.08	+15	44	29.0	809
1913	1984	03	09.21326	09	32	12.70	+15	47	04.7	809
1913	1984	03	09.21811	09	32	12.53	+15	47	05.4	809
1913	1984	03	09.22296	09	32	12.30	+15	47	06.1	809
1913	1984	03	11.19257	09	31	00.24	+15	51	36.6	809
1913	1984	03	11.19741	09	31	00.10	+15	51	38.0	809
1913	1984	03	11.20226	09	30	59.96	+15	51	38.5	809
1979	1984	02	26.31355	12	07	14.04	-05	58	06.1	809
1979	1984	02	26.31979	12	07	13.77	-05	58	04.3	809
1979	1984	02	26.32602	12	07	13.51	-05	58	01.8	809
1979	1984	03	08.34100	11	58	55.30	-04	46	16.7	809
1979	1984	03	08.34654	11	58	55.03	-04	46	14.1	809
1979	1984	03	08.35208	11	58	54.76	-04	46	12.0	809
1979	1984	03	11.34631	11	56	22.13	-04	23	24.6	809
1979	1984	03	11.35116	11	56	21.85	-04	23	22.3	809
1979	1984	03	11.35601	11	56	21.62	-04	23	19.9	809
2031	1984	02	26.18474	09	47	30.59	+10	34	40.2	809
2031	1984	02	26.19097	09	47	30.22	+10	34	43.3	809
2031	1984	02	26.19721	09	47	29.85	+10	34	45.8	809
2031	1984	03	01.21468	09	43	46.70	+11	03	47.3	809
2031	1984	03	01.22195	09	43	46.36	+11	03	50.4	809
2031	1984	03	01.22923	09	43	46.03	+11	03	53.4	809
2031	1984	03	06.17194	09	39	35.48	+11	37	32.1	809
2031	1984	03	06.17817	09	39	35.19	+11	37	34.8	809
2031	1984	03	06.18441	09	39	34.91	+11	37	36.8	809

2031	1984	03	11.20919	09	35	53.53	+12	08	49.2	809
2031	1984	03	11.21404	09	35	53.33	+12	08	50.8	809
2031	1984	03	11.21888	09	35	53.18	+12	08	52.5	809
2032	1984	02	23.11277	09	45	45.77	+15	29	36.3	809
2032	1984	02	23.11969	09	45	45.43	+15	29	38.1	809
2032	1984	02	23.12662	09	45	45.07	+15	29	39.6	809
2032	1984	02	29.14884	09	41	11.08	+15	50	49.0	809
2032	1984	02	29.15508	09	41	10.78	+15	50	50.8	809
2032	1984	02	29.16131	09	41	10.49	+15	50	51.9	809
2032	1984	03	01.27147	09	40	21.84	+15	54	31.3	809
2032	1984	03	01.27770	09	40	21.59	+15	54	32.3	809
2032	1984	03	01.28394	09	40	21.34	+15	54	33.2	809
2186	1984	02	26.31355	12	08	51.80	-04	33	03.6	809
2186	1984	02	26.31979	12	08	51.58	-04	33	01.9	809
2186	1984	02	26.32602	12	08	51.34	-04	33	01.0	809
2311	1984	03	02.21679	10	10	51.76	+10	31	48.0	809
2311	1984	03	02.22303	10	10	51.51	+10	31	49.7	809
2311	1984	03	02.22926	10	10	51.26	+10	31	51.7	809
2311	1984	03	03.13789	10	10	16.99	+10	36	15.3	809
2311	1984	03	03.14412	10	10	16.74	+10	36	17.7	809
2311	1984	03	03.15035	10	10	16.50	+10	36	19.4	809
2391	1984	03	02.24034	10	58	24.20	+06	30	55.7	809
2391	1984	03	02.24727	10	58	23.84	+06	30	58.1	809
2391	1984	03	02.25419	10	58	23.44	+06	31	01.4	809
2391	1984	03	04.27990	10	56	33.00	+06	45	44.7	809
2391	1984	03	04.28613	10	56	32.66	+06	45	47.6	809
2391	1984	03	04.29236	10	56	32.32	+06	45	50.4	809
2391	1984	03	05.27648	10	55	38.79	+06	52	56.8	809
2391	1984	03	05.28271	10	55	38.48	+06	52	59.5	809
2391	1984	03	05.28895	10	55	38.12	+06	53	02.2	809
2391	1984	03	06.27513	10	54	44.75	+07	00	08.8	809
2391	1984	03	06.28136	10	54	44.41	+07	00	11.3	809
2391	1984	03	06.28760	10	54	44.06	+07	00	13.8	809
2391	1984	03	08.27729	10	52	57.30	+07	14	26.1	809
2391	1984	03	08.28283	10	52	56.98	+07	14	29.1	809
2391	1984	03	08.28837	10	52	56.69	+07	14	31.6	809
2391	1984	03	09.30260	10	52	02.88	+07	21	39.9	809
2391	1984	03	09.30745	10	52	02.61	+07	21	41.6	809
2391	1984	03	09.31645	10	52	02.11	+07	21	45.4	809
2391	1984	03	10.30680	10	51	10.04	+07	28	40.4	809
2391	1984	03	10.31165	10	51	09.79	+07	28	42.4	809
2391	1984	03	10.31650	10	51	09.54	+07	28	44.4	809
2391	1984	03	11.29645	10	50	18.64	+07	35	29.1	809
2391	1984	03	11.30130	10	50	18.39	+07	35	31.0	809
2391	1984	03	11.30615	10	50	18.16	+07	35	32.8	809
2534	1984	02	26.28655	11	39	53.32	+02	13	06.6	809
2534	1984	02	26.29278	11	39	53.08	+02	13	08.7	809
2534	1984	02	26.29901	11	39	52.81	+02	13	10.3	809
2534	1984	02	27.30875	11	39	13.41	+02	17	34.8	809
2534	1984	02	27.31499	11	39	13.18	+02	17	36.0	809
2534	1984	02	27.32122	11	39	12.92	+02	17	37.7	809
2534	1984	02	28.27832	11	38	35.07	+02	21	52.2	809
2534	1984	02	28.28455	11	38	34.82	+02	21	53.8	809
2534	1984	02	28.29078	11	38	34.56	+02	21	55.8	809
2534	1984	03	01.32618	11	37	12.48	+02	31	05.3	809
2534	1984	03	01.33242	11	37	12.24	+02	31	07.3	809
2534	1984	03	01.33865	11	37	12.01	+02	31	08.7	809
2534	1984	03	01.35181	11	37	11.46	+02	31	12.4	809
2534	1984	03	01.35804	11	37	11.20	+02	31	14.0	809

2534	1984	03	01.36427	11	37	10.94	+02	31	16.2	809
2534	1984	03	03.26255	11	35	52.94	+02	39	59.2	809
2534	1984	03	03.26878	11	35	52.67	+02	40	01.0	809
2534	1984	03	03.27501	11	35	52.41	+02	40	02.7	809
2534	1984	03	04.30137	11	35	09.56	+02	44	48.8	809
2534	1984	03	04.30760	11	35	09.27	+02	44	50.8	809
2534	1984	03	04.31383	11	35	08.99	+02	44	52.5	809
2534	1984	03	05.29830	11	34	27.77	+02	49	28.0	809
2534	1984	03	05.30418	11	34	27.52	+02	49	29.6	809
2534	1984	03	05.31041	11	34	27.26	+02	49	31.3	809
2534	1984	03	06.29521	11	33	45.60	+02	54	09.9	809
2534	1984	03	06.30145	11	33	45.35	+02	54	11.6	809
2534	1984	03	06.30768	11	33	45.08	+02	54	13.8	809
2534	1984	03	06.31599	11	33	44.64	+02	54	16.4	809
2534	1984	03	06.32222	11	33	44.37	+02	54	18.1	809
2534	1984	03	06.32846	11	33	44.11	+02	54	19.8	809
2534	1984	03	08.31884	11	32	19.17	+03	03	44.5	809
2534	1984	03	08.32438	11	32	18.94	+03	03	46.0	809
2534	1984	03	08.32992	11	32	18.70	+03	03	47.2	809
2534	1984	03	09.34485	11	31	35.35	+03	08	38.2	809
2534	1984	03	09.34969	11	31	35.16	+03	08	39.3	809
2534	1984	03	09.35454	11	31	34.93	+03	08	41.0	809
2534	1984	03	10.34282	11	30	52.46	+03	13	23.9	809
2534	1984	03	10.34766	11	30	52.25	+03	13	25.2	809
2534	1984	03	10.35251	11	30	52.04	+03	13	26.6	809
2534	1984	03	11.32900	11	30	10.04	+03	18	06.4	809
2534	1984	03	11.33385	11	30	09.85	+03	18	07.6	809
2534	1984	03	11.33870	11	30	09.64	+03	18	09.0	809
2730	1984	02	25.38001	11	22	34.93	+07	50	04.8	809
2730	1984	02	25.38624	11	22	34.64	+07	50	05.8	809
2730	1984	02	25.39247	11	22	34.29	+07	50	07.4	809
2760	1984	03	02.34284	12	14	03.76	-03	32	00.6	809
2760	1984	03	02.34907	12	14	03.52	-03	32	00.4	809
2760	1984	03	02.35531	12	14	03.31	-03	32	00.2	809
2760	1984	03	04.36854	12	12	46.68	-03	30	52.7	809
2760	1984	03	04.37478	12	12	46.44	-03	30	52.5	809
2760	1984	03	04.38101	12	12	46.22	-03	30	52.4	809
2760	1984	03	05.36236	12	12	07.97	-03	30	13.5	809
2760	1984	03	05.36859	12	12	07.74	-03	30	13.3	809
2760	1984	03	05.37482	12	12	07.51	-03	30	13.1	809
2760	1984	03	06.35824	12	11	28.45	-03	29	29.4	809
2760	1984	03	06.36447	12	11	28.21	-03	29	29.1	809
2760	1984	03	06.37070	12	11	27.97	-03	29	29.0	809
2760	1984	03	08.36109	12	10	07.37	-03	27	49.3	809
2760	1984	03	08.36663	12	10	07.13	-03	27	49.0	809
2760	1984	03	08.37217	12	10	06.91	-03	27	48.7	809
2760	1984	03	09.38086	12	09	25.27	-03	26	51.8	809
2760	1984	03	09.38571	12	09	25.07	-03	26	51.6	809
2760	1984	03	09.39056	12	09	24.87	-03	26	51.3	809
2760	1984	03	10.37814	12	08	43.68	-03	25	52.8	809
2760	1984	03	10.38298	12	08	43.48	-03	25	52.5	809
2760	1984	03	10.38783	12	08	43.27	-03	25	52.1	809
2760	1984	03	11.36363	12	08	02.27	-03	24	50.8	809
2760	1984	03	11.36847	12	08	02.08	-03	24	50.5	809
2760	1984	03	11.37332	12	08	01.88	-03	24	50.2	809
2760	1984	03	13.36786	12	06	36.69	-03	22	36.1	809
2760	1984	03	13.37271	12	06	36.50	-03	22	35.8	809
2760	1984	03	13.37756	12	06	36.30	-03	22	35.6	809
2795	1984	02	27.23396	11	29	35.31	-04	59	31.9	809

2795	1984 02	27.24019	11 29	34.97	-04 59	28.9	809
2795	1984 02	27.24642	11 29	34.61	-04 59	26.9	809
2848	1984 02	26.28655	11 38	42.63	+02 02	43.6	18.1 809
2848	1984 02	26.29278	11 38	42.37	+02 02	45.3	809
2848	1984 02	26.29901	11 38	42.11	+02 02	46.9	809
2848	1984 02	27.30875	11 38	01.62	+02 06	55.0	809
2848	1984 02	27.31499	11 38	01.39	+02 06	56.9	809
2848	1984 02	27.32122	11 38	01.14	+02 06	57.7	809
2848	1984 02	28.27832	11 37	22.29	+02 10	57.0	809
2848	1984 02	28.28455	11 37	22.01	+02 10	58.4	809
2848	1984 02	28.29078	11 37	21.74	+02 11	00.0	809
2848	1984 03	01.32618	11 35	57.66	+02 19	36.6	809
2848	1984 03	01.33242	11 35	57.39	+02 19	38.2	809
2848	1984 03	01.33865	11 35	57.13	+02 19	39.8	809
2848	1984 03	01.35181	11 35	56.58	+02 19	44.0	809
2848	1984 03	01.35804	11 35	56.33	+02 19	45.7	809
2848	1984 03	01.36427	11 35	56.07	+02 19	47.3	809
2848	1984 03	03.26255	11 34	36.24	+02 27	59.0	809
2848	1984 03	03.26878	11 34	35.95	+02 28	00.8	809
2848	1984 03	03.27501	11 34	35.68	+02 28	02.1	809
2848	1984 03	03.30618	11 34	34.32	+02 28	10.9	809
2848	1984 03	03.31310	11 34	34.03	+02 28	12.6	809
2848	1984 03	03.32003	11 34	33.74	+02 28	14.3	809
2848	1984 03	04.30137	11 33	51.87	+02 32	32.1	809
2848	1984 03	04.30760	11 33	51.63	+02 32	33.2	809
2848	1984 03	04.31383	11 33	51.33	+02 32	34.8	809
2848	1984 03	04.34708	11 33	49.99	+02 32	43.1	809
2848	1984 03	04.35331	11 33	49.70	+02 32	44.4	809
2848	1984 03	04.35954	11 33	49.46	+02 32	46.5	809
2848	1984 03	05.29830	11 33	09.14	+02 36	54.9	809
2848	1984 03	05.30418	11 33	08.89	+02 36	56.3	809
2848	1984 03	05.31041	11 33	08.62	+02 36	57.5	809
2848	1984 03	05.32011	11 33	08.25	+02 36	59.8	809
2848	1984 03	05.32634	11 33	07.95	+02 37	01.2	809
2848	1984 03	05.33258	11 33	07.64	+02 37	03.4	809
2848	1984 03	06.29521	11 32	26.08	+02 41	20.5	809
2848	1984 03	06.30145	11 32	25.83	+02 41	21.8	809
2848	1984 03	06.30768	11 32	25.58	+02 41	23.0	809
2848	1984 03	06.31599	11 32	25.17	+02 41	25.0	809
2848	1984 03	06.32222	11 32	24.91	+02 41	26.5	809
2848	1984 03	06.32846	11 32	24.64	+02 41	28.1	809
2848	1984 03	08.31884	11 30	58.20	+02 50	21.2	809
2848	1984 03	08.32438	11 30	57.98	+02 50	22.5	809
2848	1984 03	08.32992	11 30	57.73	+02 50	24.2	809
2848	1984 03	09.34485	11 30	13.41	+02 54	57.0	809
2848	1984 03	09.34969	11 30	13.19	+02 54	58.4	809
2848	1984 03	09.35454	11 30	13.01	+02 54	59.2	809
2848	1984 03	10.34282	11 29	29.80	+02 59	25.9	809
2848	1984 03	10.34766	11 29	29.57	+02 59	27.2	809
2848	1984 03	10.35251	11 29	29.32	+02 59	28.9	809
2848	1984 03	11.32900	11 28	46.68	+03 03	52.5	809
2848	1984 03	11.33385	11 28	46.45	+03 03	53.7	809
2848	1984 03	11.33870	11 28	46.27	+03 03	54.9	809
3030	1984 02	24.03437	08 39	53.98	+15 32	26.9	809
3030	1984 02	24.04061	08 39	53.70	+15 32	28.1	809
3030	1984 02	24.04684	08 39	53.43	+15 32	29.4	809
3033	1984 03	02.24034	11 02	58.45	+05 32	41.7	18.2 809
3033	1984 03	02.24727	11 02	58.06	+05 32	45.0	809
3033	1984 03	02.25419	11 02	57.68	+05 32	48.6	809

3033		1984	03	04.27990	11	01	05.15	+05	50	50.2	809
3033		1984	03	04.28613	11	01	04.83	+05	50	53.6	809
3033		1984	03	04.29236	11	01	04.47	+05	50	57.1	809
3033		1984	03	05.27648	11	00	09.64	+05	59	46.0	809
3033		1984	03	05.28271	11	00	09.28	+05	59	49.1	809
3033		1984	03	05.28895	11	00	08.92	+05	59	52.3	809
3033		1984	03	06.27513	10	59	13.81	+06	08	42.6	809
3033		1984	03	06.28136	10	59	13.45	+06	08	45.6	809
3033		1984	03	06.28760	10	59	13.09	+06	08	48.7	809
3033		1984	03	08.27729	10	57	21.90	+06	26	37.5	809
3033		1984	03	08.28283	10	57	21.56	+06	26	40.8	809
3033		1984	03	08.28837	10	57	21.27	+06	26	43.5	809
3033		1984	03	09.30260	10	56	24.82	+06	35	46.4	809
3033		1984	03	09.30745	10	56	24.54	+06	35	49.0	809
3033		1984	03	09.31645	10	56	24.03	+06	35	54.0	809
3033		1984	03	10.30680	10	55	29.21	+06	44	43.7	809
3033		1984	03	10.31165	10	55	28.94	+06	44	45.8	809
3033		1984	03	10.31650	10	55	28.67	+06	44	48.4	809
3033		1984	03	11.29645	10	54	34.81	+06	53	28.6	809
3033		1984	03	11.30130	10	54	34.55	+06	53	31.0	809
3033		1984	03	11.30615	10	54	34.29	+06	53	33.5	809
3033		1984	03	13.32908	10	52	44.48	+07	11	16.0	809
3033		1984	03	13.33393	10	52	44.23	+07	11	17.9	809
3033		1984	03	13.33878	10	52	43.95	+07	11	20.9	809
3071		1984	02	28.12526	09	28	06.38	+15	37	20.1	809
3071		1984	02	28.13149	09	28	06.11	+15	37	20.8	809
3071		1984	02	28.13773	09	28	05.87	+15	37	22.7	809
3071		1984	03	01.13642	09	26	44.72	+15	45	05.1	809
3071		1984	03	01.14266	09	26	44.46	+15	45	06.6	809
3071		1984	03	01.14889	09	26	44.22	+15	45	07.8	809
3071		1984	03	02.14269	09	26	05.17	+15	48	50.0	809
3071		1984	03	02.14892	09	26	04.92	+15	48	51.2	809
3071		1984	03	02.15516	09	26	04.67	+15	48	52.4	809
3071		1984	03	03.06863	09	25	29.65	+15	52	12.1	809
3071		1984	03	03.07487	09	25	29.40	+15	52	13.2	809
3071		1984	03	03.08110	09	25	29.19	+15	52	15.0	809
3071		1984	03	04.19125	09	24	47.47	+15	56	11.0	809
3071		1984	03	04.19748	09	24	47.21	+15	56	12.3	809
3071		1984	03	04.20372	09	24	46.96	+15	56	13.5	809
3071		1984	03	05.10473	09	24	14.35	+15	59	19.7	809
3071		1984	03	05.11096	09	24	14.13	+15	59	20.8	809
3071		1984	03	05.11719	09	24	13.91	+15	59	21.8	809
3071		1984	03	06.10476	09	23	38.98	+16	02	40.5	809
3071		1984	03	06.11099	09	23	38.77	+16	02	41.3	809
3071		1984	03	06.11723	09	23	38.57	+16	02	42.4	809
3071		1984	03	07.10687	09	23	04.60	+16	05	55.7	809
3071		1984	03	07.11241	09	23	04.41	+16	05	56.8	809
3071		1984	03	07.11795	09	23	04.22	+16	05	57.7	809
3071		1984	03	08.11385	09	22	31.18	+16	09	05.6	809
3071		1984	03	08.11939	09	22	30.97	+16	09	07.0	809
3071		1984	03	08.12493	09	22	30.76	+16	09	08.3	809
3071		1984	03	10.17037	09	21	26.45	+16	15	14.4	809
3071		1984	03	10.17522	09	21	26.30	+16	15	15.2	809
3071		1984	03	10.18007	09	21	26.15	+16	15	16.0	809
1979	SN11	1984	02	26.18474	09	48	21.85	+10	27	06.7	809
1979	SN11	1984	02	26.19097	09	48	21.52	+10	27	08.5	809
1979	SN11	1984	02	26.19721	09	48	21.18	+10	27	10.7	809
1979	SN11	1984	03	01.21468	09	44	38.64	+10	46	57.3	809
1979	SN11	1984	03	01.22195	09	44	38.24	+10	46	59.8	809

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1979	SN11	1984	03	01.22923	09	44	37.85	+10	47	02.0	809
1979	SN11	1984	03	06.17194	09	40	32.55	+11	09	25.1	809
1979	SN11	1984	03	06.17817	09	40	32.24	+11	09	26.9	809
1979	SN11	1984	03	06.18441	09	40	31.94	+11	09	28.6	809
1979	SN11	1984	03	11.20919	09	37	01.54	+11	29	28.1	809
1979	SN11	1984	03	11.21404	09	37	01.32	+11	29	29.1	809
1979	SN11	1984	03	11.21888	09	37	01.12	+11	29	30.1	809
1979	YP	1984	02	25.14055	09	37	59.53	+13	09	21.9	809
1979	YP	1984	02	25.14713	09	37	59.15	+13	09	23.9	809
1979	YP	1984	02	25.15371	09	37	58.79	+13	09	25.9	809
1979	YP	1984	02	27.10514	09	36	10.25	+13	19	00.8	809
1979	YP	1984	02	27.11138	09	36	09.89	+13	19	02.7	809
1979	YP	1984	02	27.11761	09	36	09.55	+13	19	04.4	809
1979	YP	1984	02	29.10175	09	34	23.23	+13	28	28.6	809
1979	YP	1984	02	29.10798	09	34	22.90	+13	28	30.1	809
1979	YP	1984	02	29.11421	09	34	22.57	+13	28	32.1	809
1979	YP	1984	03	01.16620	09	33	27.96	+13	33	20.8	809
1979	YP	1984	03	01.17244	09	33	27.63	+13	33	22.5	809
1979	YP	1984	03	01.17867	09	33	27.30	+13	33	24.2	809
1979	YP	1984	03	02.16554	09	32	37.45	+13	37	48.6	809
1979	YP	1984	03	02.17178	09	32	37.12	+13	37	50.4	809
1979	YP	1984	03	02.17801	09	32	36.81	+13	37	52.4	809
1979	YP	1984	03	04.10191	09	31	03.49	+13	46	08.2	809
1979	YP	1984	03	04.10814	09	31	03.19	+13	46	10.3	809
1979	YP	1984	03	04.11438	09	31	02.90	+13	46	12.0	809
1979	YP	1984	03	05.12550	09	30	15.69	+13	50	22.9	809
1979	YP	1984	03	05.13174	09	30	15.41	+13	50	24.5	809
1979	YP	1984	03	05.13797	09	30	15.13	+13	50	26.1	809
1979	YP	1984	03	06.13143	09	29	30.35	+13	54	24.8	809
1979	YP	1984	03	06.13696	09	29	30.10	+13	54	26.5	809
1979	YP	1984	03	06.14251	09	29	29.84	+13	54	27.8	809
1979	YP	1984	03	07.12704	09	28	46.91	+13	58	17.0	809
1979	YP	1984	03	07.13304	09	28	46.65	+13	58	18.5	809
1979	YP	1984	03	07.13881	09	28	46.40	+13	58	19.9	809
1979	YP	1984	03	09.19595	09	27	21.47	+14	05	53.8	809
1979	YP	1984	03	09.20080	09	27	21.27	+14	05	54.9	809
1979	YP	1984	03	09.20564	09	27	21.07	+14	05	55.8	809
1979	YP	1984	03	11.17525	09	26	06.23	+14	12	41.0	809
1979	YP	1984	03	11.18010	09	26	06.04	+14	12	42.0	809
1979	YP	1984	03	11.18495	09	26	05.84	+14	12	42.5	809
1981	EB20	1984	02	22.16034	09	30	11.44	+12	54	24.3	809
1981	EB20	1984	02	22.16657	09	30	11.07	+12	54	25.8	809
1981	EB20	1984	02	22.17281	09	30	10.70	+12	54	27.7	809
1981	EB20	1984	02	23.08005	09	29	17.83	+12	58	29.5	809
1981	EB20	1984	02	23.08697	09	29	17.40	+12	58	31.2	809
1981	EB20	1984	02	23.09390	09	29	16.98	+12	58	33.6	809
1981	EB20	1984	02	25.09606	09	27	23.01	+13	07	16.0	809
1981	EB20	1984	02	25.10229	09	27	22.65	+13	07	17.7	809
1981	EB20	1984	02	25.10852	09	27	22.26	+13	07	18.8	809
1981	EB20	1984	02	26.13418	09	26	25.68	+13	11	37.9	809
1981	EB20	1984	02	26.14042	09	26	25.34	+13	11	39.5	809
1981	EB20	1984	02	26.14665	09	26	24.98	+13	11	41.1	809
1981	EB20	1984	02	27.13284	09	25	32.19	+13	15	46.1	809
1981	EB20	1984	02	27.13908	09	25	31.85	+13	15	47.8	809
1981	EB20	1984	02	27.14531	09	25	31.51	+13	15	49.3	809
1981	EB20	1984	02	29.12599	09	23	49.59	+13	23	40.1	809
1981	EB20	1984	02	29.13222	09	23	49.27	+13	23	41.5	809
1981	EB20	1984	02	29.13845	09	23	48.95	+13	23	42.8	809
1981	EB20	1984	03	01.11288	09	23	01.22	+13	27	25.6	809

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1981	EB20	1984	03	01.11911	09	23	00.90	+13	27	27.0		809
1981	EB20	1984	03	01.12534	09	23	00.58	+13	27	28.3		809
1981	EB20	1984	03	02.11568	09	22	13.66	+13	31	07.4		809
1981	EB20	1984	03	02.12191	09	22	13.36	+13	31	08.6		809
1981	EB20	1984	03	02.12815	09	22	13.05	+13	31	09.8		809
1981	EB20	1984	03	04.08044	09	20	45.82	+13	38	02.0		809
1981	EB20	1984	03	04.08667	09	20	45.53	+13	38	03.1		809
1981	EB20	1984	03	04.09291	09	20	45.23	+13	38	04.1		809
1981	EB20	1984	03	05.03963	09	20	05.59	+13	41	12.9		809
1981	EB20	1984	03	05.04586	09	20	05.33	+13	41	14.4		809
1981	EB20	1984	03	05.05209	09	20	05.09	+13	41	15.3		809
1981	EB20	1984	03	06.03828	09	19	25.53	+13	44	23.4		809
1981	EB20	1984	03	06.04451	09	19	25.27	+13	44	24.8		809
1981	EB20	1984	03	06.05074	09	19	25.03	+13	44	26.1		809
1981	EB20	1984	03	08.05429	09	18	10.60	+13	50	25.1		809
1981	EB20	1984	03	08.05983	09	18	10.38	+13	50	26.0		809
1981	EB20	1984	03	08.06537	09	18	10.13	+13	50	26.9		809
1981	EB20	1984	03	09.12323	09	17	34.08	+13	53	22.4		809
1981	EB20	1984	03	09.12808	09	17	33.91	+13	53	22.9		809
1981	EB20	1984	03	09.13293	09	17	33.75	+13	53	23.9		809
1981	EB20	1984	03	10.15375	09	17	01.28	+13	56	03.6		809
1981	EB20	1984	03	10.15860	09	17	01.11	+13	56	04.4		809
1981	EB20	1984	03	10.16344	09	17	00.96	+13	56	04.9		809
1984	CP	1984	02	27.20833	10	18	05.78	+17	18	53.5	17.2	809
1984	CP	1984	02	27.21457	10	18	05.45	+17	18	56.6		809
1984	CP	1984	02	27.22080	10	18	05.13	+17	18	59.6		809
1984	CP	1984	03	03.16213	10	13	43.43	+17	59	27.4		809
1984	CP	1984	03	03.16836	10	13	43.08	+17	59	30.4		809
1984	CP	1984	03	03.17459	10	13	42.75	+17	59	33.5		809
1984	CP	1984	03	08.21219	10	09	31.25	+18	36	26.8		809
1984	CP	1984	03	08.21773	10	09	30.95	+18	36	29.7		809
1984	CP	1984	03	08.22396	10	09	30.66	+18	36	32.6		809
1984	CP	1984	03	09.26659	10	08	41.50	+18	43	32.2		809
1984	CP	1984	03	09.27144	10	08	41.28	+18	43	34.8		809
1984	CP	1984	03	09.27628	10	08	41.02	+18	43	36.4		809
1984	CQ	1984	03	03.16213	10	12	50.00	+17	11	18.9	16.9	809
1984	CQ	1984	03	03.16836	10	12	49.65	+17	11	21.8		809
1984	CQ	1984	03	03.17459	10	12	49.34	+17	11	24.6		809
1984	CQ	1984	03	08.21219	10	08	37.18	+17	49	31.4		809
1984	CQ	1984	03	08.21773	10	08	36.90	+17	49	33.8		809
1984	CQ	1984	03	08.22396	10	08	36.57	+17	49	36.7		809
1984	CQ	1984	03	09.26659	10	07	47.97	+17	56	46.3		809
1984	CQ	1984	03	09.27144	10	07	47.73	+17	56	48.3		809
1984	CQ	1984	03	09.27628	10	07	47.50	+17	56	49.9		809
1984	CR	1984	02	27.20833	10	19	24.74	+16	08	27.0	18.2	809
1984	CR	1984	02	27.21457	10	19	24.37	+16	08	28.6		809
1984	CR	1984	02	27.22080	10	19	24.01	+16	08	30.1		809
1984	CR	1984	03	03.16213	10	14	35.22	+16	29	22.1		809
1984	CR	1984	03	03.16836	10	14	34.84	+16	29	23.8		809
1984	CR	1984	03	03.17459	10	14	34.49	+16	29	25.2		809
1984	CR	1984	03	08.21219	10	10	01.23	+16	46	47.0		809
1984	CR	1984	03	08.21773	10	10	00.90	+16	46	48.2		809
1984	CR	1984	03	08.22396	10	10	00.56	+16	46	49.5		809
1984	CR	1984	03	09.26659	10	09	07.67	+16	49	52.4		809
1984	CR	1984	03	09.27144	10	09	07.41	+16	49	53.2		809
1984	CR	1984	03	09.27628	10	09	07.20	+16	49	54.1		809
1984	DL	1984	02	27.20833	10	16	28.39	+16	51	25.6	17.0	809
1984	DL	1984	02	27.21457	10	16	28.08	+16	51	29.4		809
1984	DL	1984	02	27.22080	10	16	27.77	+16	51	33.1		809

1984 DL	1984 03	03.16213	10 12	21.65	+17 39	52.8	809
1984 DL	1984 03	03.16836	10 12	21.35	+17 39	56.5	809
1984 DL	1984 03	03.17459	10 12	21.02	+17 40	00.3	809
1984 DL	1984 03	08.21219	10 08	23.22	+18 25	31.1	809
1984 DL	1984 03	08.21773	10 08	22.95	+18 25	34.2	809
1984 DL	1984 03	08.22396	10 08	22.66	+18 25	37.6	809
1984 DL	1984 03	09.26659	10 07	35.78	+18 34	28.6	809
1984 DL	1984 03	09.27144	10 07	35.57	+18 34	31.2	809
1984 DL	1984 03	09.27628	10 07	35.35	+18 34	33.6	809
1984 DM *	1984 02	23.08005	09 32	45.15	+13 48	05.4	17.2 809
1984 DM	1984 02	23.08697	09 32	44.76	+13 48	05.2	809
1984 DM	1984 02	23.09390	09 32	44.36	+13 48	05.0	809
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1984 DM	1984 02	25.10852	09 30	49.59	+13 45	41.6	809
1984 DM	1984 02	26.13418	09 29	52.12	+13 44	24.5	809
1984 DM	1984 02	26.14042	09 29	51.76	+13 44	23.6	809
1984 DM	1984 02	26.14665	09 29	51.39	+13 44	23.3	809
1984 DM	1984 02	27.13284	09 28	57.06	+13 43	05.9	809
1984 DM	1984 02	27.13908	09 28	56.71	+13 43	05.4	809
1984 DM	1984 02	27.14531	09 28	56.36	+13 43	04.9	809
1984 DM	1984 02	29.12599	09 27	09.57	+13 40	19.1	809
1984 DM	1984 02	29.13222	09 27	09.23	+13 40	18.5	809
1984 DM	1984 02	29.13845	09 27	08.87	+13 40	18.0	809
1984 DM	1984 03	01.11288	09 26	17.65	+13 38	52.4	809
1984 DM	1984 03	01.11911	09 26	17.32	+13 38	51.8	809
1984 DM	1984 03	01.12534	09 26	17.00	+13 38	50.9	809
1984 DM	1984 03	02.11568	09 25	25.95	+13 37	19.7	809
1984 DM	1984 03	02.12191	09 25	25.60	+13 37	19.1	809
1984 DM	1984 03	02.12815	09 25	25.29	+13 37	18.8	809
1984 DM	1984 03	04.08044	09 23	47.91	+13 34	09.5	809
1984 DM	1984 03	04.08667	09 23	47.60	+13 34	08.7	809
1984 DM	1984 03	04.09291	09 23	47.30	+13 34	07.8	809
1984 DM	1984 03	05.03963	09 23	01.65	+13 32	31.0	809
1984 DM	1984 03	05.04586	09 23	01.37	+13 32	30.3	809
1984 DM	1984 03	05.05209	09 23	01.05	+13 32	29.5	809
1984 DM	1984 03	06.03828	09 22	14.63	+13 30	43.7	809
1984 DM	1984 03	06.04451	09 22	14.34	+13 30	43.1	809
1984 DM	1984 03	06.05074	09 22	14.05	+13 30	42.2	809
1984 DM	1984 03	08.05429	09 20	43.52	+13 26	57.4	809
1984 DM	1984 03	08.05983	09 20	43.25	+13 26	56.8	809
1984 DM	1984 03	08.06537	09 20	42.98	+13 26	56.2	809
1984 DM	1984 03	09.12323	09 19	57.30	+13 24	52.0	809
1984 DM	1984 03	09.12808	09 19	57.07	+13 24	51.2	809
1984 DM	1984 03	09.13293	09 19	56.81	+13 24	50.9	809
1984 DM	1984 03	10.15375	09 19	14.29	+13 22	46.2	809
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1984 DN	1984 02	23.08697	09 36	12.38	+13 13	45.5	809
1984 DN	1984 02	23.09390	09 36	12.09	+13 13	49.5	809
1984 DN	1984 02	25.14055	09 34	45.48	+13 33	50.4	809
1984 DN	1984 02	25.14713	09 34	45.21	+13 33	54.1	809
1984 DN	1984 02	25.15371	09 34	44.92	+13 33	58.3	809
1984 DN	1984 02	27.10514	09 33	26.37	+13 52	39.8	809
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1984 DN	1984 03	04.12407	09 29	52.39	+14 47	01.9	809	
1984 DN	1984 03	04.13030	09 29	52.18	+14 47	04.8	809	
1984 DN	1984 03	04.13654	09 29	51.95	+14 47	07.9	809	
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1984 DN	1984 03	05.13174	09 29	21.49	+14 55	33.6	809	
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1984 DN	1984 03	06.13143	09 28	52.62	+15 03	50.5	809	
1984 DN	1984 03	06.13696	09 28	52.46	+15 03	53.1	809	
1984 DN	1984 03	06.14251	09 28	52.28	+15 03	56.2	809	
1984 DN	1984 03	06.15116	09 28	51.93	+15 04	00.3	809	
1984 DN	1984 03	06.15739	09 28	51.77	+15 04	03.1	809	
1984 DN	1984 03	06.16363	09 28	51.60	+15 04	06.1	809	
1984 DN	1984 03	07.12704	09 28	25.46	+15 11	53.5	809	
1984 DN	1984 03	07.13304	09 28	25.31	+15 11	56.5	809	
1984 DN	1984 03	07.13881	09 28	25.16	+15 11	59.4	809	
1984 DN	1984 03	08.13358	09 27	59.74	+15 19	50.8	809	
1984 DN	1984 03	08.13843	09 27	59.59	+15 19	52.8	809	
1984 DN	1984 03	08.14328	09 27	59.48	+15 19	54.7	809	
1984 DN	1984 03	08.15332	09 27	59.16	+15 19	59.5	809	
1984 DN	1984 03	08.15886	09 27	59.00	+15 20	02.1	809	
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1984 DN	1984 03	09.19595	09 27	34.31	+15 27	59.9	809	
1984 DN	1984 03	09.20080	09 27	34.20	+15 28	02.6	809	
1984 DN	1984 03	09.20564	09 27	34.09	+15 28	04.3	809	
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1984 DN	1984 03	09.22296	09 27	33.66	+15 28	11.8	809	
1984 DN	1984 03	11.17525	09 26	52.81	+15 42	34.6	809	
1984 DN	1984 03	11.18010	09 26	52.73	+15 42	37.0	809	
1984 DN	1984 03	11.18495	09 26	52.61	+15 42	39.2	809	
1984 DN	1984 03	11.19257	09 26	52.45	+15 42	42.0	809	
1984 DN	1984 03	11.19741	09 26	52.34	+15 42	44.2	809	
1984 DN	1984 03	11.20226	09 26	52.23	+15 42	46.2	809	
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1984 DO		1984 02	27.17024	09 36	13.14	+15 15	39.0	809
1984 DO		1984 02	28.09998	09 35	16.20	+15 20	10.9	809
1984 DO		1984 02	28.10691	09 35	15.78	+15 20	13.0	809
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1984 DO		1984 02	28.22360	09 35	08.38	+15 20	46.4	809

18.2

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1984 DO	1984 02 29.15508	09 34 12.16	+15 25 12.2	809
1984 DO	1984 02 29.16131	09 34 11.78	+15 25 13.9	809
1984 DO	1984 02 29.22641	09 34 07.78	+15 25 32.1	809
1984 DO	1984 02 29.23264	09 34 07.40	+15 25 33.9	809
1984 DO	1984 02 29.23887	09 34 07.03	+15 25 35.7	809
1984 DO	1984 03 01.27147	09 33 05.48	+15 30 23.6	809
1984 DO	1984 03 01.27770	09 33 05.10	+15 30 25.6	809
1984 DO	1984 03 01.28394	09 33 04.71	+15 30 27.2	809
1984 DO	1984 03 02.18840	09 32 11.95	+15 34 33.1	809
1984 DO	1984 03 02.19532	09 32 11.57	+15 34 35.3	809
1984 DO	1984 03 02.20225	09 32 11.16	+15 34 37.1	809
1984 DO	1984 03 03.11434	09 31 19.00	+15 38 39.5	809
1984 DO	1984 03 03.12057	09 31 18.64	+15 38 41.1	809
1984 DO	1984 03 03.12681	09 31 18.28	+15 38 42.6	809
1984 DO	1984 03 04.12407	09 30 22.20	+15 43 00.3	809
1984 DO	1984 03 04.13030	09 30 21.84	+15 43 02.2	809
1984 DO	1984 03 04.13654	09 30 21.49	+15 43 04.1	809
1984 DO	1984 03 04.19125	09 30 18.42	+15 43 15.5	809
1984 DO	1984 03 04.19748	09 30 18.06	+15 43 17.2	809
1984 DO	1984 03 04.20372	09 30 17.71	+15 43 18.8	809
1984 DO	1984 03 05.10473	09 29 28.30	+15 47 05.6	809
1984 DO	1984 03 05.11096	09 29 27.94	+15 47 07.5	809
1984 DO	1984 03 05.11719	09 29 27.61	+15 47 09.3	809
1984 DO	1984 03 05.14766	09 29 25.85	+15 47 17.2	809
1984 DO	1984 03 05.15390	09 29 25.51	+15 47 18.4	809
1984 DO	1984 03 05.16013	09 29 25.16	+15 47 20.2	809
1984 DO	1984 03 06.10476	09 28 34.50	+15 51 08.8	809
1984 DO	1984 03 06.11099	09 28 34.16	+15 51 10.5	809
1984 DO	1984 03 06.11723	09 28 33.82	+15 51 12.0	809
1984 DO	1984 03 06.15116	09 28 31.94	+15 51 20.5	809
1984 DO	1984 03 06.15739	09 28 31.62	+15 51 21.8	809
1984 DO	1984 03 06.16363	09 28 31.29	+15 51 23.3	809
1984 DO	1984 03 07.10687	09 27 41.88	+15 55 05.0	809
1984 DO	1984 03 07.11241	09 27 41.60	+15 55 06.4	809
1984 DO	1984 03 07.11795	09 27 41.27	+15 55 07.7	809
1984 DO	1984 03 08.15332	09 26 48.50	+15 59 03.7	809
1984 DO	1984 03 08.15886	09 26 48.20	+15 59 05.5	809
1984 DO	1984 03 08.16440	09 26 47.91	+15 59 06.7	809
1984 DO	1984 03 09.21326	09 25 55.93	+16 02 55.3	809
1984 DO	1984 03 09.21811	09 25 55.69	+16 02 56.2	809
1984 DO	1984 03 09.22296	09 25 55.45	+16 02 56.9	809
1984 DO	1984 03 10.17037	09 25 10.21	+16 06 17.0	809
1984 DO	1984 03 10.17522	09 25 09.97	+16 06 17.9	809
1984 DO	1984 03 10.18007	09 25 09.73	+16 06 18.7	809
1984 DO	1984 03 11.19257	09 24 22.70	+16 09 42.8	809
1984 DO	1984 03 11.19741	09 24 22.47	+16 09 43.8	809
1984 DO	1984 03 11.20226	09 24 22.24	+16 09 44.8	809
1984 DP *	1984 02 23.11277	09 40 59.70	+15 05 13.5	809
1984 DP	1984 02 23.11969	09 40 59.33	+15 05 16.2	809
1984 DP	1984 02 23.12662	09 40 58.95	+15 05 19.0	809
1984 DP	1984 02 26.15981	09 38 05.15	+15 26 09.4	809
1984 DP	1984 02 26.16604	09 38 04.78	+15 26 11.9	809
1984 DP	1984 02 26.17227	09 38 04.41	+15 26 14.5	809
1984 DP	1984 02 27.15778	09 37 09.45	+15 32 48.0	809
1984 DP	1984 02 27.16401	09 37 09.08	+15 32 50.9	809
1984 DP	1984 02 27.17024	09 37 08.74	+15 32 52.9	809

17.9

1984 DP	1984 02 28.09998	09 36 17.64	+15 39 00.4	809
1984 DP	1984 02 28.10691	09 36 17.24	+15 39 03.2	809
1984 DP	1984 02 28.11383	09 36 16.83	+15 39 05.6	809
1984 DP	1984 02 29.14884	09 35 20.50	+15 45 46.8	809
1984 DP	1984 02 29.15508	09 35 20.17	+15 45 49.3	809
1984 DP	1984 02 29.16131	09 35 19.80	+15 45 51.5	809
1984 DP	1984 03 01.27147	09 34 20.57	+15 52 52.0	809
1984 DP	1984 03 01.27770	09 34 20.26	+15 52 53.8	809
1984 DP	1984 03 01.28394	09 34 19.89	+15 52 56.5	809
1984 DP	1984 03 02.18840	09 33 32.59	+15 58 34.3	809
1984 DP	1984 03 02.19532	09 33 32.23	+15 58 36.7	809
1984 DP	1984 03 02.20225	09 33 31.86	+15 58 39.2	809
1984 DP	1984 03 03.11434	09 32 45.29	+16 04 12.4	809
1984 DP	1984 03 03.12057	09 32 44.97	+16 04 14.2	809
1984 DP	1984 03 03.12681	09 32 44.66	+16 04 16.5	809
1984 DP	1984 03 04.12407	09 31 54.56	+16 10 13.3	809
1984 DP	1984 03 04.13030	09 31 54.27	+16 10 15.5	809
1984 DP	1984 03 04.13654	09 31 53.95	+16 10 17.7	809
1984 DP	1984 03 05.14766	09 31 03.95	+16 16 12.4	809
1984 DP	1984 03 05.15390	09 31 03.66	+16 16 14.0	809
1984 DP	1984 03 05.16013	09 31 03.34	+16 16 16.0	809
1984 DP	1984 03 06.15116	09 30 16.05	+16 21 54.4	809
1984 DP	1984 03 06.15739	09 30 15.74	+16 21 56.1	809
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1984 DP	1984 03 08.15886	09 28 43.45	+16 32 54.3	809
1984 DP	1984 03 08.16440	09 28 43.20	+16 32 56.0	809
1984 DP	1984 03 09.21326	09 27 56.94	+16 38 26.5	809
1984 DP	1984 03 09.21811	09 27 56.76	+16 38 28.4	809
1984 DP	1984 03 09.22296	09 27 56.58	+16 38 29.3	809
1984 DP	1984 03 11.19257	09 26 33.85	+16 48 25.5	809
1984 DP	1984 03 11.19741	09 26 33.63	+16 48 26.8	809
1984 DP	1984 03 11.20226	09 26 33.44	+16 48 28.4	809
1984 DQ *	1984 02 23.11277	09 42 48.67	+14 44 56.7	17.8 809
1984 DQ	1984 02 23.11969	09 42 48.21	+14 44 56.2	809
1984 DQ	1984 02 23.12662	09 42 47.77	+14 44 55.6	809
1984 DQ	1984 02 26.15981	09 39 22.57	+14 42 55.5	809
1984 DQ	1984 02 26.16604	09 39 22.16	+14 42 55.3	809
1984 DQ	1984 02 26.17227	09 39 21.76	+14 42 54.7	809
1984 DQ	1984 02 27.10514	09 38 20.09	+14 42 08.5	809
1984 DQ	1984 02 27.11138	09 38 19.65	+14 42 08.2	809
1984 DQ	1984 02 27.11761	09 38 19.24	+14 42 07.6	809
1984 DQ	1984 02 27.15778	09 38 16.50	+14 42 06.4	809
1984 DQ	1984 02 27.16401	09 38 16.07	+14 42 06.0	809
1984 DQ	1984 02 27.17024	09 38 15.64	+14 42 05.7	809
1984 DQ	1984 02 28.22360	09 37 06.72	+14 41 07.9	809
1984 DQ	1984 02 28.22984	09 37 06.31	+14 41 07.3	809
1984 DQ	1984 02 28.23607	09 37 05.92	+14 41 06.8	809
1984 DQ	1984 02 29.10175	09 36 10.31	+14 40 15.5	809
1984 DQ	1984 02 29.10798	09 36 09.90	+14 40 15.3	809
1984 DQ	1984 02 29.11421	09 36 09.48	+14 40 15.2	809
1984 DQ	1984 02 29.22641	09 36 02.03	+14 40 07.7	809
1984 DQ	1984 02 29.23264	09 36 01.60	+14 40 07.1	809
1984 DQ	1984 02 29.23887	09 36 01.21	+14 40 06.7	809
1984 DQ	1984 03 01.16620	09 35 02.44	+14 39 06.3	809
1984 DQ	1984 03 01.17244	09 35 02.01	+14 39 06.0	809
1984 DQ	1984 03 01.17867	09 35 01.61	+14 39 05.6	809
1984 DQ	1984 03 02.16554	09 33 59.98	+14 37 54.4	809
1984 DQ	1984 03 02.17178	09 33 59.61	+14 37 53.7	809

1984 DQ	1984 03 02.17801	09 33 59.21	+14 37 53.3	809
1984 DQ	1984 03 04.10191	09 32 02.59	+14 35 20.1	809
1984 DQ	1984 03 04.10814	09 32 02.23	+14 35 19.8	809
1984 DQ	1984 03 04.11438	09 32 01.86	+14 35 19.4	809
1984 DQ	1984 03 05.12550	09 31 02.25	+14 33 49.5	809
1984 DQ	1984 03 05.13174	09 31 01.87	+14 33 49.0	809
1984 DQ	1984 03 05.13797	09 31 01.50	+14 33 48.8	809
1984 DQ	1984 03 06.13143	09 30 04.48	+14 32 15.5	809
1984 DQ	1984 03 06.13696	09 30 04.14	+14 32 14.9	809
1984 DQ	1984 03 06.14251	09 30 03.82	+14 32 14.4	809
1984 DQ	1984 03 07.12704	09 29 08.68	+14 30 35.0	809
1984 DQ	1984 03 07.13304	09 29 08.34	+14 30 34.6	809
1984 DQ	1984 03 07.13881	09 29 08.03	+14 30 34.1	809
1984 DQ	1984 03 08.13358	09 28 13.90	+14 28 47.9	809
1984 DQ	1984 03 08.13843	09 28 13.63	+14 28 47.3	809
1984 DQ	1984 03 08.14328	09 28 13.36	+14 28 47.0	809
1984 DQ	1984 03 09.19595	09 27 17.60	+14 26 47.5	809
1984 DQ	1984 03 09.20080	09 27 17.32	+14 26 47.1	809
1984 DQ	1984 03 09.20564	09 27 17.05	+14 26 46.5	809
1984 DQ	1984 03 11.17525	09 25 38.02	+14 22 44.8	809
1984 DQ	1984 03 11.18010	09 25 37.78	+14 22 44.3	809
1984 DQ	1984 03 11.18495	09 25 37.55	+14 22 43.7	809
1984 DR *	1984 02 23.11277	09 44 24.08	+14 58 57.1	17.7 809
1984 DR	1984 02 23.11969	09 44 23.68	+14 59 01.0	809
1984 DR	1984 02 23.12662	09 44 23.28	+14 59 04.2	809
1984 DR	1984 02 26.15981	09 41 38.43	+15 23 34.7	809
1984 DR	1984 02 26.16604	09 41 38.10	+15 23 37.8	809
1984 DR	1984 02 26.17227	09 41 37.77	+15 23 40.8	809
1984 DR	1984 02 27.15778	09 40 46.23	+15 31 20.8	809
1984 DR	1984 02 27.16401	09 40 45.88	+15 31 23.8	809
1984 DR	1984 02 27.17024	09 40 45.54	+15 31 27.0	809
1984 DR	1984 02 29.14884	09 39 05.36	+15 46 23.5	809
1984 DR	1984 02 29.15508	09 39 05.05	+15 46 26.4	809
1984 DR	1984 02 29.16131	09 39 04.73	+15 46 29.0	809
1984 DR	1984 03 01.27147	09 38 10.32	+15 54 34.8	809
1984 DR	1984 03 01.27770	09 38 10.01	+15 54 37.6	809
1984 DR	1984 03 01.28394	09 38 09.68	+15 54 40.3	809
1984 DR	1984 03 02.18840	09 37 26.84	+16 01 07.7	809
1984 DR	1984 03 02.19532	09 37 26.52	+16 01 10.7	809
1984 DR	1984 03 02.20225	09 37 26.19	+16 01 13.7	809
1984 DR	1984 03 03.11434	09 36 44.48	+16 07 32.4	809
1984 DR	1984 03 03.12057	09 36 44.19	+16 07 35.0	809
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1984 DR	1984 03 04.12407	09 35 59.27	+16 14 22.6	809
1984 DR	1984 03 04.13030	09 35 58.96	+16 14 25.0	809
1984 DR	1984 03 04.13654	09 35 58.69	+16 14 27.8	809
1984 DR	1984 03 05.14766	09 35 14.94	+16 21 06.3	809
1984 DR	1984 03 05.15390	09 35 14.70	+16 21 09.0	809
1984 DR	1984 03 05.16013	09 35 14.44	+16 21 10.9	809
1984 DR	1984 03 06.15116	09 34 33.17	+16 27 30.5	809
1984 DR	1984 03 06.15739	09 34 32.94	+16 27 32.5	809
1984 DR	1984 03 06.16363	09 34 32.66	+16 27 34.7	809
1984 DR	1984 03 08.15332	09 33 14.81	+16 39 39.8	809
1984 DR	1984 03 08.15886	09 33 14.59	+16 39 41.5	809
1984 DR	1984 03 08.16440	09 33 14.35	+16 39 43.9	809
1984 DR	1984 03 11.19257	09 31 29.22	+16 56 31.0	809
1984 DR	1984 03 11.19741	09 31 29.06	+16 56 32.8	809
1984 DR	1984 03 11.20226	09 31 28.89	+16 56 34.6	809
1984 DS *	1984 02 23.14169	09 55 04.83	+11 37 26.0	18.3 809

1984 DS	1984 02	23.14861	09 55	04.44	+11 37	29.0	809
1984 DS	1984 02	23.15554	09 55	04.06	+11 37	32.2	809
1984 DS	1984 02	26.18474	09 51	59.15	+11 58	48.4	809
1984 DS	1984 02	26.19097	09 51	58.79	+11 58	51.0	809
1984 DS	1984 02	26.19721	09 51	58.43	+11 58	53.6	809
1984 DS	1984 03	01.21468	09 47	59.91	+12 26	20.3	809
1984 DS	1984 03	01.22195	09 47	59.47	+12 26	23.2	809
1984 DS	1984 03	01.22923	09 47	59.02	+12 26	26.2	809
1984 DT *	1984 02	24.03437	08 45	41.32	+16 50	23.0	17.8 809
1984 DT	1984 02	24.04061	08 45	41.05	+16 50	23.6	809
1984 DT	1984 02	24.04684	08 45	40.77	+16 50	24.2	809
1984 DT	1984 03	01.05193	08 41	00.14	+17 00	46.7	809
1984 DT	1984 03	01.05816	08 40	59.84	+17 00	47.3	809
1984 DT	1984 03	01.06440	08 40	59.57	+17 00	47.9	809
1984 DT	1984 03	03.04509	08 39	41.22	+17 03	27.4	809
1984 DT	1984 03	03.05132	08 39	40.97	+17 03	28.0	809
1984 DT	1984 03	03.05755	08 39	40.71	+17 03	28.7	809
1984 DT	1984 03	05.08326	08 38	28.22	+17 05	45.9	809
1984 DT	1984 03	05.08949	08 38	28.00	+17 05	46.4	809
1984 DT	1984 03	05.09572	08 38	27.77	+17 05	47.0	809
1984 DT	1984 03	08.09307	08 36	55.26	+17 08	24.5	809
1984 DT	1984 03	08.09861	08 36	55.07	+17 08	24.8	809
1984 DT	1984 03	08.10415	08 36	54.90	+17 08	25.1	809
1984 DT	1984 03	09.15855	08 36	26.56	+17 09	06.8	809
1984 DT	1984 03	09.16340	08 36	26.41	+17 09	07.1	809
1984 DT	1984 03	09.16825	08 36	26.29	+17 09	07.3	809
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1984 DU	1984 02	25.04342	09 11	19.38	+14 48	31.9	809
1984 DU	1984 02	25.04966	09 11	19.11	+14 48	34.0	809
1984 DU	1984 02	27.05597	09 09	55.15	+15 00	38.8	809
1984 DU	1984 02	27.06220	09 09	54.87	+15 00	41.2	809
1984 DU	1984 02	27.06844	09 09	54.61	+15 00	43.1	809
1984 DU	1984 02	28.07297	09 09	14.25	+15 06	37.2	809
1984 DU	1984 02	28.07990	09 09	13.97	+15 06	39.8	809
1984 DU	1984 02	28.08682	09 09	13.72	+15 06	42.3	809
1984 DU	1984 02	29.07543	09 08	35.13	+15 12	24.1	809
1984 DU	1984 02	29.08166	09 08	34.88	+15 12	26.3	809
1984 DU	1984 02	29.08790	09 08	34.64	+15 12	28.3	809
1984 DU	1984 03	01.08310	09 07	56.94	+15 18	06.4	809
1984 DU	1984 03	01.08933	09 07	56.70	+15 18	08.3	809
1984 DU	1984 03	01.09556	09 07	56.47	+15 18	10.4	809
1984 DU	1984 03	02.09075	09 07	20.05	+15 23	41.8	809
1984 DU	1984 03	02.09698	09 07	19.82	+15 23	43.9	809
1984 DU	1984 03	02.10321	09 07	19.61	+15 23	45.6	809
1984 DU	1984 03	04.05759	09 06	11.85	+15 34	16.0	809
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1984 DU	1984 03	05.07356	09 05	38.53	+15 39	32.7	809
1984 DU	1984 03	06.06182	09 05	07.57	+15 44	33.6	809
1984 DU	1984 03	06.06806	09 05	07.36	+15 44	35.5	809
1984 DU	1984 03	06.07429	09 05	07.19	+15 44	37.4	809
1984 DU	1984 03	08.07368	09 04	08.67	+15 54	24.2	809
1984 DU	1984 03	08.07922	09 04	08.50	+15 54	25.4	809
1984 DU	1984 03	08.08476	09 04	08.33	+15 54	27.2	809
1984 DU	1984 03	09.14054	09 03	39.70	+15 59	25.0	809
1984 DU	1984 03	09.14539	09 03	39.58	+15 59	25.9	809
1984 DU	1984 03	09.15024	09 03	39.44	+15 59	26.9	809

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1984 DV	1984 02 25.04342	09 13 06.53	+15 42 57.6		809
1984 DV	1984 02 25.04966	09 13 06.26	+15 42 58.0		809
1984 DV	1984 02 27.05597	09 11 32.22	+15 44 37.1		809
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1984 DV	1984 02 27.06844	09 11 31.66	+15 44 37.5		809
1984 DV	1984 02 28.07297	09 10 46.05	+15 45 21.0		809
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1984 DV	1984 02 28.08682	09 10 45.41	+15 45 21.5		809
1984 DV	1984 02 29.07543	09 10 01.58	+15 46 00.7		809
1984 DV	1984 02 29.08166	09 10 01.31	+15 46 00.9		809
1984 DV	1984 02 29.08790	09 10 01.03	+15 46 01.2		809
1984 DV	1984 03 01.08310	09 09 17.89	+15 46 37.1		809
1984 DV	1984 03 01.08933	09 09 17.63	+15 46 37.3		809
1984 DV	1984 03 01.09556	09 09 17.38	+15 46 37.4		809
1984 DV	1984 03 02.09075	09 08 35.25	+15 47 09.9		809
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1984 DV	1984 03 04.05759	09 07 15.43	+15 48 00.2		809
1984 DV	1984 03 04.06313	09 07 15.20	+15 48 00.4		809
1984 DV	1984 03 04.06936	09 07 14.94	+15 48 00.7		809
1984 DV	1984 03 05.06109	09 06 36.31	+15 48 19.7		809
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1984 DV	1984 03 09.14054	09 04 10.14	+15 48 55.6		809
1984 DV	1984 03 09.14539	09 04 09.98	+15 48 55.6		809
1984 DV	1984 03 09.15024	09 04 09.82	+15 48 55.6		809
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1984 DW	1984 02 25.14713	09 39 20.21	+14 12 58.9		809
1984 DW	1984 02 25.15371	09 39 19.80	+14 12 59.0		809
1984 DW	1984 02 26.15981	09 38 18.97	+14 13 38.8		809
1984 DW	1984 02 26.16604	09 38 18.61	+14 13 38.9		809
1984 DW	1984 02 26.17227	09 38 18.26	+14 13 39.0		809
1984 DW	1984 02 27.10514	09 37 23.04	+14 14 12.7		809
1984 DW	1984 02 27.11138	09 37 22.67	+14 14 13.2		809
1984 DW	1984 02 27.11761	09 37 22.32	+14 14 13.3		809
1984 DW	1984 02 29.22641	09 35 19.71	+14 15 12.4		809
1984 DW	1984 02 29.23264	09 35 19.35	+14 15 12.6		809
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1984 DW	1984 03 01.16620	09 34 26.85	+14 15 33.8		809
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1984 DW	1984 03 04.10191	09 31 47.67	+14 16 10.5		809
1984 DW	1984 03 04.10814	09 31 47.32	+14 16 10.6		809
1984 DW	1984 03 04.11438	09 31 46.99	+14 16 10.9		809
1984 DW	1984 03 05.12550	09 30 54.58	+14 16 12.5		809
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1984 DW	1984 03 07.12704	09 29 14.95	+14 16 02.9		809
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1984 DW	1984 03 07.13881	09 29 14.36	+14 16 02.0	809
1984 DW	1984 03 09.19595	09 27 37.88	+14 15 29.3	809
1984 DW	1984 03 09.20080	09 27 37.66	+14 15 29.2	809
1984 DW	1984 03 09.20564	09 27 37.43	+14 15 29.0	809
1984 DW	1984 03 11.17525	09 26 11.28	+14 14 35.3	809
1984 DW	1984 03 11.18010	09 26 11.07	+14 14 35.1	809
1984 DW	1984 03 11.18495	09 26 10.86	+14 14 35.0	809
1984 DX *	1984 02 26.15981	09 34 44.51	+14 54 13.1	18.3 809
1984 DX	1984 02 26.16604	09 34 44.22	+14 54 15.4	809
1984 DX	1984 02 26.17227	09 34 43.91	+14 54 17.6	809
1984 DX	1984 02 27.15778	09 33 57.65	+15 00 11.0	809
1984 DX	1984 02 27.16401	09 33 57.36	+15 00 13.2	809
1984 DX	1984 02 27.17024	09 33 57.05	+15 00 15.4	809
1984 DX	1984 02 28.09998	09 33 14.85	+15 05 43.7	809
1984 DX	1984 02 28.10691	09 33 14.53	+15 05 46.1	809
1984 DX	1984 02 28.11383	09 33 14.24	+15 05 48.2	809
1984 DX	1984 03 02.14269	09 31 03.16	+15 22 42.1	809
1984 DX	1984 03 02.14892	09 31 02.89	+15 22 44.2	809
1984 DX	1984 03 02.15516	09 31 02.61	+15 22 46.2	809
1984 DX	1984 03 02.18840	09 31 01.28	+15 22 56.4	809
1984 DX	1984 03 02.19532	09 31 00.97	+15 22 58.8	809
1984 DX	1984 03 02.20225	09 31 00.68	+15 23 01.1	809
1984 DX	1984 03 03.06863	09 30 25.91	+15 27 36.4	809
1984 DX	1984 03 03.07487	09 30 25.63	+15 27 38.6	809
1984 DX	1984 03 03.08110	09 30 25.35	+15 27 40.7	809
1984 DX	1984 03 04.12407	09 29 44.55	+15 33 01.1	809
1984 DX	1984 03 04.13030	09 29 44.32	+15 33 02.9	809
1984 DX	1984 03 04.13654	09 29 44.11	+15 33 05.0	809
1984 DX	1984 03 04.19125	09 29 42.00	+15 33 20.3	809
1984 DX	1984 03 04.19748	09 29 41.74	+15 33 22.0	809
1984 DX	1984 03 04.20372	09 29 41.50	+15 33 23.9	809
1984 DX	1984 03 05.14766	09 29 06.07	+15 38 06.9	809
1984 DX	1984 03 05.15390	09 29 05.86	+15 38 08.3	809
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1984 DX	1984 03 06.15116	09 28 30.09	+15 42 54.8	809
1984 DX	1984 03 06.15739	09 28 29.85	+15 42 56.6	809
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1984 DY	1984 02 26.29901	11 40 20.57	+02 22 13.7	809
1984 DY	1984 02 27.30875	11 39 39.44	+02 26 23.9	809
1984 DY	1984 02 27.31499	11 39 39.18	+02 26 25.4	809
1984 DY	1984 02 27.32122	11 39 38.93	+02 26 27.1	809
1984 DY	1984 02 28.27832	11 38 59.17	+02 30 29.8	809
1984 DY	1984 02 28.28455	11 38 58.91	+02 30 30.9	809
1984 DY	1984 02 28.29078	11 38 58.64	+02 30 32.4	809
1984 DY	1984 03 01.35181	11 37 30.86	+02 39 26.3	809
1984 DY	1984 03 01.35804	11 37 30.59	+02 39 27.9	809
1984 DY	1984 03 01.36427	11 37 30.33	+02 39 29.5	809
1984 DY	1984 03 03.26255	11 36 07.41	+02 47 55.1	809
1984 DY	1984 03 03.26878	11 36 07.13	+02 47 56.6	809
1984 DY	1984 03 03.27501	11 36 06.87	+02 47 58.4	809
1984 DY	1984 03 04.30137	11 35 21.03	+02 52 36.8	809
1984 DY	1984 03 04.30760	11 35 20.78	+02 52 38.4	809
1984 DY	1984 03 04.31383	11 35 20.49	+02 52 39.4	809
1984 DY	1984 03 05.29830	11 34 36.32	+02 57 09.0	809
1984 DY	1984 03 05.30418	11 34 36.03	+02 57 10.5	809
1984 DY	1984 03 05.31041	11 34 35.72	+02 57 12.0	809
1984 DY	1984 03 06.29521	11 33 51.19	+03 01 43.0	809

1984 DY	1984 03 06.30145	11 33 50.91	+03 01 44.8	809
1984 DY	1984 03 06.30768	11 33 50.59	+03 01 46.4	809
1984 DY	1984 03 06.31599	11 33 50.10	+03 01 49.4	809
1984 DY	1984 03 06.32222	11 33 49.82	+03 01 51.2	809
1984 DY	1984 03 06.32846	11 33 49.53	+03 01 52.9	809
1984 DY	1984 03 08.31884	11 32 18.41	+03 11 06.1	809
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1984 DY	1984 03 09.32649	11 31 31.98	+03 15 46.4	809
1984 DY	1984 03 09.33203	11 31 31.74	+03 15 48.6	809
1984 DY	1984 03 09.33757	11 31 31.47	+03 15 49.9	809
1984 DY	1984 03 09.34485	11 31 31.11	+03 15 52.5	809
1984 DY	1984 03 09.34969	11 31 30.92	+03 15 53.8	809
1984 DY	1984 03 09.35454	11 31 30.74	+03 15 55.2	809
1984 DY	1984 03 10.34282	11 30 45.00	+03 20 32.8	809
1984 DY	1984 03 10.34766	11 30 44.77	+03 20 33.9	809
1984 DY	1984 03 10.35251	11 30 44.56	+03 20 35.3	809
1984 DY	1984 03 11.32900	11 29 59.43	+03 25 08.0	809
1984 DY	1984 03 11.33385	11 29 59.22	+03 25 09.3	809
1984 DY	1984 03 11.33870	11 29 58.97	+03 25 10.8	809
1984 DZ *	1984 02 26.28655	11 42 38.79	+01 30 20.7	18.2 809
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1984 DZ	1984 02 26.29901	11 42 38.12	+01 30 21.2	809
1984 DZ	1984 02 27.30875	11 41 43.65	+01 30 47.9	809
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1984 DZ	1984 02 27.32122	11 41 42.90	+01 30 48.1	809
1984 DZ	1984 03 01.32618	11 38 51.63	+01 32 46.2	809
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1984 DZ	1984 03 01.33865	11 38 50.96	+01 32 46.7	809
1984 DZ	1984 03 03.30618	11 36 52.62	+01 34 32.1	809
1984 DZ	1984 03 03.31310	11 36 52.19	+01 34 32.5	809
1984 DZ	1984 03 03.32003	11 36 51.74	+01 34 33.0	809
1984 DZ	1984 03 04.34708	11 35 48.11	+01 35 35.8	809
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1984 DZ	1984 03 05.33258	11 34 45.94	+01 36 41.4	809
1984 DZ	1984 03 06.31599	11 33 43.09	+01 37 50.7	809
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1984 DZ	1984 03 06.32846	11 33 42.32	+01 37 51.0	809
1984 DZ	1984 03 08.31884	11 31 32.48	+01 40 23.9	809
1984 DZ	1984 03 08.32438	11 31 32.15	+01 40 24.4	809
1984 DZ	1984 03 08.32992	11 31 31.80	+01 40 24.8	809
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1984 DA1	1984 02 26.31979	12 10 22.91	-06 13 43.6	809
1984 DA1	1984 02 26.32602	12 10 22.69	-06 13 41.7	809
1984 DA1	1984 03 04.32283	12 05 49.61	-05 41 39.7	809
1984 DA1	1984 03 04.32907	12 05 49.34	-05 41 38.0	809
1984 DA1	1984 03 04.33530	12 05 49.09	-05 41 36.3	809

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1984 DA1	1984 03	06.34300	12 04	20.18	-05 30	42.8	809
1984 DA1	1984 03	06.34923	12 04	19.88	-05 30	40.8	809
1984 DA1	1984 03	08.34100	12 02	48.04	-05 19	11.0	809
1984 DA1	1984 03	08.34654	12 02	47.80	-05 19	09.5	809
1984 DA1	1984 03	08.35208	12 02	47.54	-05 19	07.2	809
1984 DA1	1984 03	10.36082	12 01	11.53	-05 06	52.7	809
1984 DA1	1984 03	10.36567	12 01	11.30	-05 06	50.8	809
1984 DA1	1984 03	10.37052	12 01	11.04	-05 06	49.1	809
1984 DA1	1984 03	11.34631	12 00	23.46	-05 00	41.5	809
1984 DA1	1984 03	11.35116	12 00	23.21	-05 00	39.7	809
1984 DA1	1984 03	11.35601	12 00	22.97	-05 00	37.8	809
1984 DB1 *	1984 02	27.30875	11 38	26.19	+01 33	43.0	17.9 809
1984 DB1	1984 02	27.31499	11 38	26.00	+01 33	49.2	809
1984 DB1	1984 02	27.32122	11 38	25.79	+01 33	55.4	809
1984 DB1	1984 02	28.27832	11 37	56.43	+01 49	54.9	809
1984 DB1	1984 02	28.28455	11 37	56.24	+01 50	01.5	809
1984 DB1	1984 02	28.29078	11 37	56.02	+01 50	07.9	809
1984 DB1	1984 03	01.32618	11 36	51.09	+02 24	37.2	809
1984 DB1	1984 03	01.33242	11 36	50.86	+02 24	43.7	809
1984 DB1	1984 03	01.33865	11 36	50.66	+02 24	50.2	809
1984 DB1	1984 03	01.35181	11 36	50.24	+02 25	03.8	809
1984 DB1	1984 03	01.35804	11 36	50.04	+02 25	10.1	809
1984 DB1	1984 03	01.36427	11 36	49.83	+02 25	16.4	809
1984 DB1	1984 03	03.26255	11 35	46.74	+02 57	54.8	809
1984 DB1	1984 03	03.26878	11 35	46.55	+02 58	01.2	809
1984 DB1	1984 03	03.27501	11 35	46.36	+02 58	07.6	809
1984 DB1	1984 03	04.30137	11 35	11.19	+03 15	57.4	809
1984 DB1	1984 03	04.30760	11 35	10.98	+03 16	03.9	809
1984 DB1	1984 03	04.31383	11 35	10.77	+03 16	10.3	809
1984 DB1	1984 03	05.29830	11 34	36.58	+03 33	20.5	809
1984 DB1	1984 03	05.30418	11 34	36.39	+03 33	26.6	809
1984 DB1	1984 03	05.31041	11 34	36.18	+03 33	33.0	809
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1984 DB1	1984 03	06.30145	11 34	01.24	+03 50	54.9	809
1984 DB1	1984 03	06.30768	11 34	01.03	+03 51	01.5	809
1984 DB1	1984 03	08.29737	11 32	49.87	+04 25	59.3	809
1984 DB1	1984 03	08.30291	11 32	49.67	+04 26	05.2	809
1984 DB1	1984 03	08.30845	11 32	49.47	+04 26	11.4	809
1984 DB1	1984 03	09.32649	11 32	12.48	+04 44	07.6	809
1984 DB1	1984 03	09.33203	11 32	12.26	+04 44	13.5	809
1984 DB1	1984 03	09.33757	11 32	12.07	+04 44	19.4	809
1984 DB1	1984 03	10.32550	11 31	36.05	+05 01	43.8	809
1984 DB1	1984 03	10.33035	11 31	35.84	+05 01	49.0	809
1984 DB1	1984 03	10.33520	11 31	35.64	+05 01	54.0	809
1984 DB1	1984 03	11.31307	11 30	59.91	+05 19	08.5	809
1984 DB1	1984 03	11.31792	11 30	59.73	+05 19	13.4	809
1984 DB1	1984 03	11.32277	11 30	59.57	+05 19	18.3	809
1984 DB1	1984 03	13.34916	11 29	45.24	+05 54	55.0	809
1984 DB1	1984 03	13.35401	11 29	45.06	+05 54	59.8	809
1984 DB1	1984 03	13.35886	11 29	44.89	+05 55	04.5	809
1984 DC1 *	1984 02	27.30875	11 38	57.18	+02 34	42.2	18.2 809
1984 DC1	1984 02	27.31499	11 38	56.85	+02 34	44.7	809
1984 DC1	1984 02	27.32122	11 38	56.51	+02 34	47.3	809
1984 DC1	1984 02	28.27832	11 38	05.51	+02 41	17.5	809
1984 DC1	1984 02	28.28455	11 38	05.18	+02 41	20.1	809
1984 DC1	1984 02	28.29078	11 38	04.84	+02 41	22.7	809
1984 DC1	1984 03	03.26255	11 34	26.13	+03 09	01.8	809
1984 DC1	1984 03	03.26878	11 34	25.78	+03 09	04.0	809

1984 DC1	1984 03 03.27501	11 34 25.42	+03 09 06.5	809
1984 DC1	1984 03 04.30137	11 33 27.37	+03 16 24.3	809
1984 DC1	1984 03 04.30760	11 33 27.04	+03 16 26.6	809
1984 DC1	1984 03 04.31383	11 33 26.71	+03 16 29.3	809
1984 DC1	1984 03 05.29830	11 32 30.77	+03 23 29.9	809
1984 DC1	1984 03 05.30418	11 32 30.42	+03 23 32.4	809
1984 DC1	1984 03 05.31041	11 32 30.07	+03 23 35.1	809
1984 DC1	1984 03 06.29521	11 31 33.66	+03 30 38.1	809
1984 DC1	1984 03 06.30145	11 31 33.31	+03 30 40.9	809
1984 DC1	1984 03 06.30768	11 31 32.95	+03 30 43.4	809
1984 DC1	1984 03 08.29737	11 29 38.32	+03 44 59.8	809
1984 DC1	1984 03 08.30291	11 29 38.01	+03 45 02.0	809
1984 DC1	1984 03 08.30845	11 29 37.69	+03 45 04.4	809
1984 DC1	1984 03 09.32649	11 28 38.73	+03 52 23.0	809
1984 DC1	1984 03 09.33203	11 28 38.42	+03 52 25.2	809
1984 DC1	1984 03 09.33757	11 28 38.11	+03 52 27.4	809
1984 DC1	1984 03 10.32550	11 27 40.99	+03 59 32.1	809
1984 DC1	1984 03 10.33035	11 27 40.71	+03 59 33.9	809
1984 DC1	1984 03 10.33520	11 27 40.43	+03 59 36.2	809
1984 DC1	1984 03 11.31307	11 26 44.05	+04 06 34.9	809
1984 DC1	1984 03 11.31792	11 26 43.74	+04 06 37.2	809
1984 DC1	1984 03 11.32277	11 26 43.47	+04 06 39.1	809
1984 DC1	1984 03 13.34916	11 24 46.66	+04 21 04.4	809
1984 DC1	1984 03 13.35401	11 24 46.38	+04 21 06.4	809
1984 DC1	1984 03 13.35886	11 24 46.10	+04 21 08.8	809
1984 DC1	1984 03 14.33467	11 23 50.41	+04 28 00.5	809
1984 DC1	1984 03 14.33986	11 23 50.13	+04 28 03.0	809
1984 DC1	1984 03 14.34575	11 23 49.80	+04 28 05.3	809
1984 DD1 *	1984 02 28.25200	10 44 35.52	+06 41 36.9	18.0 809
1984 DD1	1984 02 28.25823	10 44 35.13	+06 41 38.7	809
1984 DD1	1984 02 28.26446	10 44 34.73	+06 41 40.5	809
1984 DD1	1984 03 01.29710	10 42 24.49	+06 50 37.9	809
1984 DD1	1984 03 01.30333	10 42 24.09	+06 50 39.3	809
1984 DD1	1984 03 01.30956	10 42 23.69	+06 50 41.1	809
1984 DD1	1984 03 03.18775	10 40 23.40	+06 59 01.6	809
1984 DD1	1984 03 03.19399	10 40 23.01	+06 59 03.3	809
1984 DD1	1984 03 03.20022	10 40 22.61	+06 59 04.8	809
1984 DD1	1984 03 04.23488	10 39 15.75	+07 03 40.4	809
1984 DD1	1984 03 04.24111	10 39 15.37	+07 03 41.9	809
1984 DD1	1984 03 04.24735	10 39 14.98	+07 03 43.4	809
1984 DD1	1984 03 05.23354	10 38 12.26	+07 08 03.7	809
1984 DD1	1984 03 05.23978	10 38 11.90	+07 08 05.1	809
1984 DD1	1984 03 05.24601	10 38 11.49	+07 08 06.8	809
1984 DD1	1984 03 06.23565	10 37 08.46	+07 12 28.9	809
1984 DD1	1984 03 06.24120	10 37 08.14	+07 12 30.4	809
1984 DD1	1984 03 06.24673	10 37 07.79	+07 12 31.9	809
1984 DD1	1984 03 08.23573	10 35 02.47	+07 21 10.8	809
1984 DD1	1984 03 08.24136	10 35 02.10	+07 21 12.5	809
1984 DD1	1984 03 08.24690	10 35 01.73	+07 21 13.8	809
1984 DD1	1984 03 10.27287	10 32 56.36	+07 29 50.9	809
1984 DD1	1984 03 10.27772	10 32 56.05	+07 29 52.4	809
1984 DD1	1984 03 10.28256	10 32 55.73	+07 29 53.9	809
1984 DE1 *	1984 02 28.25200	10 46 29.56	+07 12 57.7	18.0 809
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1984 DE1	1984 02 28.26446	10 46 29.04	+07 13 00.2	809
1984 DE1	1984 03 01.29710	10 45 04.03	+07 20 30.6	809
1984 DE1	1984 03 01.30333	10 45 03.75	+07 20 32.0	809
1984 DE1	1984 03 01.30956	10 45 03.49	+07 20 33.4	809
1984 DE1	1984 03 03.18775	10 43 44.98	+07 27 31.7	809

1984 DE1	1984 03 03.19399	10 43 44.71	+07 27 33.1	809
1984 DE1	1984 03 03.20022	10 43 44.45	+07 27 33.9	809
1984 DE1	1984 03 04.23488	10 43 01.13	+07 31 23.9	809
1984 DE1	1984 03 04.24111	10 43 00.88	+07 31 25.0	809
1984 DE1	1984 03 04.24735	10 43 00.62	+07 31 26.8	809
1984 DE1	1984 03 05.23354	10 42 19.48	+07 35 04.2	809
1984 DE1	1984 03 05.23978	10 42 19.22	+07 35 05.9	809
1984 DE1	1984 03 05.24601	10 42 18.96	+07 35 07.3	809
1984 DE1	1984 03 06.23565	10 41 37.84	+07 38 45.4	809
1984 DE1	1984 03 06.24120	10 41 37.61	+07 38 46.9	809
1984 DE1	1984 03 06.24673	10 41 37.39	+07 38 48.0	809
1984 DE1	1984 03 08.23573	10 40 15.32	+07 46 01.6	809
1984 DE1	1984 03 08.24136	10 40 15.09	+07 46 02.8	809
1984 DE1	1984 03 08.24690	10 40 14.85	+07 46 04.0	809
1984 DE1	1984 03 09.28529	10 39 32.54	+07 49 47.1	809
1984 DE1	1984 03 09.29013	10 39 32.31	+07 49 48.4	809
1984 DE1	1984 03 09.29498	10 39 32.08	+07 49 49.5	809
1984 DE1	1984 03 10.27287	10 38 52.49	+07 53 19.0	809
1984 DE1	1984 03 10.27772	10 38 52.27	+07 53 20.4	809
1984 DE1	1984 03 10.28256	10 38 52.10	+07 53 21.3	809
1984 DF1 *	1984 02 28.27832	11 35 35.01	+02 50 34.7	809
1984 DF1	1984 02 28.28455	11 35 34.69	+02 50 36.2	809
1984 DF1	1984 02 28.29078	11 35 34.36	+02 50 37.9	809
1984 DF1	1984 03 01.35181	11 33 52.57	+02 57 35.5	809
1984 DF1	1984 03 01.35804	11 33 52.27	+02 57 36.4	809
1984 DF1	1984 03 01.36427	11 33 51.97	+02 57 37.4	809
1984 DF1	1984 03 03.26255	11 32 15.68	+03 04 18.1	809
1984 DF1	1984 03 03.26878	11 32 15.37	+03 04 19.3	809
1984 DF1	1984 03 03.27501	11 32 15.06	+03 04 20.6	809
1984 DF1	1984 03 04.30137	11 31 21.83	+03 08 02.3	809
1984 DF1	1984 03 04.30760	11 31 21.50	+03 08 03.7	809
1984 DF1	1984 03 04.31383	11 31 21.18	+03 08 05.0	809
1984 DF1	1984 03 05.29830	11 30 29.80	+03 11 40.4	809
1984 DF1	1984 03 05.30418	11 30 29.50	+03 11 41.4	809
1984 DF1	1984 03 05.31041	11 30 29.21	+03 11 42.6	809
1984 DF1	1984 03 06.29521	11 29 37.22	+03 15 21.0	809
1984 DF1	1984 03 06.30145	11 29 36.93	+03 15 22.3	809
1984 DF1	1984 03 06.30768	11 29 36.59	+03 15 23.5	809
1984 DF1	1984 03 08.29737	11 27 50.67	+03 22 49.2	809
1984 DF1	1984 03 08.30291	11 27 50.38	+03 22 50.3	809
1984 DF1	1984 03 08.30845	11 27 50.08	+03 22 51.6	809
1984 DF1	1984 03 08.31884	11 27 49.48	+03 22 52.9	809
1984 DF1	1984 03 08.32438	11 27 49.18	+03 22 53.9	809
1984 DF1	1984 03 08.32992	11 27 48.87	+03 22 55.0	809
1984 DF1	1984 03 09.32649	11 26 55.46	+03 26 42.0	809
1984 DF1	1984 03 09.33203	11 26 55.16	+03 26 43.2	809
1984 DF1	1984 03 09.33757	11 26 54.89	+03 26 44.4	809
1984 DF1	1984 03 09.34485	11 26 54.41	+03 26 45.6	809
1984 DF1	1984 03 09.34969	11 26 54.15	+03 26 46.7	809
1984 DF1	1984 03 09.35454	11 26 53.89	+03 26 47.5	809
1984 DF1	1984 03 10.32550	11 26 01.78	+03 30 28.1	809
1984 DF1	1984 03 10.33035	11 26 01.52	+03 30 29.3	809
1984 DF1	1984 03 10.33520	11 26 01.25	+03 30 30.4	809
1984 DF1	1984 03 10.34282	11 26 00.81	+03 30 32.3	809
1984 DF1	1984 03 10.34766	11 26 00.56	+03 30 33.5	809
1984 DF1	1984 03 10.35251	11 26 00.29	+03 30 34.5	809
1984 DF1	1984 03 11.31307	11 25 08.62	+03 34 12.4	809
1984 DF1	1984 03 11.31792	11 25 08.37	+03 34 13.5	809
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1984 DF1	1984 03 11.32900	11 25 07.78	+03 34 15.2	809
1984 DF1	1984 03 11.33385	11 25 07.51	+03 34 16.4	809
1984 DF1	1984 03 11.33870	11 25 07.22	+03 34 17.6	809
1984 DF1	1984 03 14.33467	11 22 26.28	+03 45 35.5	809
1984 DF1	1984 03 14.33986	11 22 26.01	+03 45 36.7	809
1984 DF1	1984 03 14.34575	11 22 25.69	+03 45 37.9	809
1984 EM	1984 02 23.17354	10 54 47.77	+06 04 27.3	18.0 809
1984 EM	1984 02 23.18047	10 54 47.39	+06 04 30.5	809
1984 EM	1984 02 23.18740	10 54 46.99	+06 04 33.0	809
1984 EM	1984 02 25.24288	10 52 52.44	+06 19 04.9	809
1984 EM	1984 02 25.24911	10 52 52.12	+06 19 07.5	809
1984 EM	1984 02 25.25535	10 52 51.79	+06 19 10.1	809
1984 EM	1984 02 26.23460	10 51 56.35	+06 26 13.9	809
1984 EM	1984 02 26.24084	10 51 55.96	+06 26 16.2	809
1984 EM	1984 02 26.24707	10 51 55.58	+06 26 19.1	809
1984 EM	1984 02 28.25200	10 50 00.30	+06 40 56.9	809
1984 EM	1984 02 28.25823	10 49 59.94	+06 40 59.6	809
1984 EM	1984 02 28.26446	10 49 59.58	+06 41 02.3	809
1984 EM	1984 03 01.29710	10 48 01.03	+06 56 03.8	809
1984 EM	1984 03 01.30333	10 48 00.66	+06 56 06.8	809
1984 EM	1984 03 01.30956	10 48 00.31	+06 56 09.6	809
1984 EM	1984 03 03.18775	10 46 10.25	+07 10 07.3	809
1984 EM	1984 03 03.19399	10 46 09.89	+07 10 09.8	809
1984 EM	1984 03 03.20022	10 46 09.53	+07 10 12.6	809
1984 EM	1984 03 04.23488	10 45 08.61	+07 17 53.9	809
1984 EM	1984 03 04.24111	10 45 08.24	+07 17 56.6	809
1984 EM	1984 03 04.24735	10 45 07.88	+07 17 59.4	809
1984 EM	1984 03 05.23354	10 44 09.98	+07 25 21.6	809
1984 EM	1984 03 05.23978	10 44 09.60	+07 25 23.9	809
1984 EM	1984 03 05.24601	10 44 09.22	+07 25 26.4	809
1984 EM	1984 03 06.23565	10 43 11.31	+07 32 47.1	809
1984 EM	1984 03 06.24120	10 43 10.98	+07 32 49.3	809
1984 EM	1984 03 06.24673	10 43 10.66	+07 32 51.8	809
1984 EM	1984 03 08.23573	10 41 14.85	+07 47 32.3	809
1984 EM	1984 03 08.24136	10 41 14.53	+07 47 34.7	809
1984 EM	1984 03 08.24690	10 41 14.22	+07 47 37.2	809
1984 EM	1984 03 09.28529	10 40 14.42	+07 55 12.8	809
1984 EM	1984 03 09.29013	10 40 14.14	+07 55 14.9	809
1984 EM	1984 03 09.29498	10 40 13.86	+07 55 17.0	809
1984 EM	1984 03 10.27287	10 39 18.03	+08 02 23.9	809
1984 EM	1984 03 10.27772	10 39 17.76	+08 02 26.1	809
1984 EM	1984 03 10.28256	10 39 17.48	+08 02 28.0	809
1984 EN	1984 02 23.17354	10 55 20.71	+05 30 54.8	17.9 809
1984 EN	1984 02 23.18047	10 55 20.30	+05 30 56.3	809
1984 EN	1984 02 23.18740	10 55 19.88	+05 30 58.3	809
1984 EN	1984 02 25.24288	10 53 19.86	+05 38 22.3	809
1984 EN	1984 02 25.24911	10 53 19.50	+05 38 23.5	809
1984 EN	1984 02 25.25535	10 53 19.14	+05 38 24.9	809
1984 EN	1984 02 26.23460	10 52 21.27	+05 42 02.1	809
1984 EN	1984 02 26.24084	10 52 20.91	+05 42 03.2	809
1984 EN	1984 02 26.24707	10 52 20.56	+05 42 04.6	809
1984 EN	1984 02 28.25200	10 50 21.10	+05 49 36.6	809
1984 EN	1984 02 28.25823	10 50 20.71	+05 49 38.5	809
1984 EN	1984 02 28.26446	10 50 20.36	+05 49 39.9	809
1984 EN	1984 03 01.29710	10 48 18.29	+05 57 25.3	809
1984 EN	1984 03 01.30333	10 48 17.92	+05 57 26.8	809
1984 EN	1984 03 01.30956	10 48 17.56	+05 57 28.5	809
1984 EN	1984 03 03.18775	10 46 25.21	+06 04 44.1	809
1984 EN	1984 03 03.19399	10 46 24.80	+06 04 45.2	809

1984 EN	1984 03 03.20022	10 46 24.40	+06 04 46.5	809
1984 EN	1984 03 04.23488	10 45 22.46	+06 08 46.2	809
1984 EN	1984 03 04.24111	10 45 22.09	+06 08 47.7	809
1984 EN	1984 03 04.24735	10 45 21.73	+06 08 49.1	809
1984 EN	1984 03 05.23354	10 44 23.06	+06 12 35.0	809
1984 EN	1984 03 05.23978	10 44 22.69	+06 12 36.2	809
1984 EN	1984 03 05.24601	10 44 22.33	+06 12 37.5	809
1984 EN	1984 03 06.23565	10 43 23.81	+06 16 25.2	809
1984 EN	1984 03 06.24120	10 43 23.51	+06 16 26.6	809
1984 EN	1984 03 06.24673	10 43 23.18	+06 16 27.0	809
1984 EN	1984 03 08.23573	10 41 26.91	+06 24 00.3	809
1984 EN	1984 03 08.24136	10 41 26.62	+06 24 01.3	809
1984 EN	1984 03 08.24690	10 41 26.26	+06 24 02.8	809
1984 EN	1984 03 09.28529	10 40 26.37	+06 27 56.4	809
1984 EN	1984 03 09.29013	10 40 26.09	+06 27 57.2	809
1984 EN	1984 03 09.29498	10 40 25.84	+06 27 58.4	809
1984 EN	1984 03 10.27287	10 39 30.36	+06 31 34.1	809
1984 EN	1984 03 10.27772	10 39 30.08	+06 31 35.7	809
1984 EN	1984 03 10.28256	10 39 29.80	+06 31 36.7	809
1984 EV	1984 02 27.30875	11 41 01.70	+02 58 23.1	809
1984 EV	1984 02 27.31499	11 41 01.35	+02 58 23.9	809
1984 EV	1984 02 27.32122	11 41 01.00	+02 58 24.7	809
1984 EV	1984 02 28.27832	11 40 08.39	+03 00 27.7	809
1984 EV	1984 02 28.28455	11 40 08.06	+03 00 28.6	809
1984 EV	1984 02 28.29078	11 40 07.72	+03 00 29.4	809
1984 EV	1984 03 01.35181	11 38 10.87	+03 05 09.6	809
1984 EV	1984 03 01.35804	11 38 10.50	+03 05 10.9	809
1984 EV	1984 03 01.36427	11 38 10.15	+03 05 11.5	809
1984 EV	1984 03 03.26255	11 36 19.44	+03 09 46.2	809
1984 EV	1984 03 03.26878	11 36 19.09	+03 09 47.2	809
1984 EV	1984 03 03.27501	11 36 18.73	+03 09 48.0	809
1984 EV	1984 03 04.30137	11 35 17.44	+03 12 21.1	809
1984 EV	1984 03 04.30760	11 35 17.08	+03 12 21.8	809
1984 EV	1984 03 04.31383	11 35 16.70	+03 12 22.7	809
1984 EV	1984 03 05.29830	11 34 17.29	+03 14 53.1	809
1984 EV	1984 03 05.30418	11 34 16.94	+03 14 53.9	809
1984 EV	1984 03 05.31041	11 34 16.59	+03 14 54.8	809
1984 EV	1984 03 06.29521	11 33 16.56	+03 17 27.3	809
1984 EV	1984 03 06.30145	11 33 16.18	+03 17 28.3	809
1984 EV	1984 03 06.30768	11 33 15.79	+03 17 29.3	809
1984 EV	1984 03 08.29737	11 31 13.03	+03 22 43.4	809
1984 EV	1984 03 08.30291	11 31 12.70	+03 22 44.4	809
1984 EV	1984 03 08.30845	11 31 12.37	+03 22 45.2	809
1984 EV	1984 03 08.31884	11 31 11.45	+03 22 47.9	809
1984 EV	1984 03 08.32438	11 31 11.13	+03 22 49.1	809
1984 EV	1984 03 08.32992	11 31 10.79	+03 22 49.9	809
1984 EV	1984 03 09.32649	11 30 08.94	+03 25 27.5	809
1984 EV	1984 03 09.33203	11 30 08.60	+03 25 28.4	809
1984 EV	1984 03 09.33757	11 30 08.27	+03 25 29.3	809
1984 EV	1984 03 09.34485	11 30 07.81	+03 25 31.1	809
1984 EV	1984 03 09.34969	11 30 07.49	+03 25 31.8	809
1984 EV	1984 03 09.35454	11 30 07.18	+03 25 32.6	809
1984 EV	1984 03 10.32550	11 29 06.49	+03 28 08.8	809
1984 EV	1984 03 10.33035	11 29 06.19	+03 28 09.6	809
1984 EV	1984 03 10.33520	11 29 05.88	+03 28 10.3	809
1984 EV	1984 03 10.34282	11 29 05.35	+03 28 11.5	809
1984 EV	1984 03 10.34766	11 29 05.05	+03 28 12.7	809
1984 EV	1984 03 10.35251	11 29 04.75	+03 28 13.1	809
1984 EV	1984 03 11.31307	11 28 04.68	+03 30 47.9	809

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1984 EV	1984 03	11.31792	11 28	04.38	+03 30	48.6	809
1984 EV	1984 03	11.32277	11 28	04.08	+03 30	49.2	809
1984 EV	1984 03	11.32900	11 28	03.63	+03 30	50.2	809
1984 EV	1984 03	11.33385	11 28	03.34	+03 30	50.9	809
1984 EV	1984 03	11.33870	11 28	03.00	+03 30	51.4	809
1984 EV	1984 03	14.33467	11 24	55.22	+03 38	52.2	809
1984 EV	1984 03	14.33986	11 24	54.91	+03 38	53.1	809
1984 EV	1984 03	14.34575	11 24	54.54	+03 38	53.8	809
1984 EX	1984 02	26.28655	11 41	16.40	+01 54	17.3	809
1984 EX	1984 02	26.29278	11 41	16.11	+01 54	18.3	809
1984 EX	1984 02	26.29901	11 41	15.82	+01 54	19.4	809
1984 EX	1984 02	27.30875	11 40	29.70	+01 56	40.9	809
1984 EX	1984 02	27.31499	11 40	29.41	+01 56	42.0	809
1984 EX	1984 02	27.32122	11 40	29.12	+01 56	43.0	809
1984 EX	1984 02	28.27832	11 39	44.53	+01 59	03.2	809
1984 EX	1984 02	28.28455	11 39	44.23	+01 59	04.1	809
1984 EX	1984 02	28.29078	11 39	43.94	+01 59	05.0	809
1984 EX	1984 03	01.32618	11 38	05.88	+02 04	18.7	809
1984 EX	1984 03	01.33242	11 38	05.59	+02 04	19.8	809
1984 EX	1984 03	01.33865	11 38	05.30	+02 04	20.8	809
1984 EX	1984 03	01.35181	11 38	04.72	+02 04	23.2	809
1984 EX	1984 03	01.35804	11 38	04.43	+02 04	24.2	809
1984 EX	1984 03	01.36427	11 38	04.14	+02 04	25.1	809
1984 EX	1984 03	03.26255	11 36	29.72	+02 09	35.2	809
1984 EX	1984 03	03.26878	11 36	29.40	+02 09	36.2	809
1984 EX	1984 03	03.27501	11 36	29.08	+02 09	37.2	809
1984 EX	1984 03	03.30618	11 36	27.46	+02 09	42.4	809
1984 EX	1984 03	03.31310	11 36	27.11	+02 09	43.5	809
1984 EX	1984 03	03.32003	11 36	26.74	+02 09	44.6	809
1984 EX	1984 03	04.30137	11 35	36.95	+02 12	30.2	809
1984 EX	1984 03	04.30760	11 35	36.59	+02 12	31.7	809
1984 EX	1984 03	04.31383	11 35	36.23	+02 12	33.4	809
1984 EX	1984 03	04.34708	11 35	34.48	+02 12	39.4	809
1984 EX	1984 03	04.35331	11 35	34.17	+02 12	40.4	809
1984 EX	1984 03	04.35954	11 35	33.85	+02 12	41.4	809
1984 EX	1984 03	05.29830	11 34	45.65	+02 15	23.6	809
1984 EX	1984 03	05.30418	11 34	45.36	+02 15	24.7	809
1984 EX	1984 03	05.31041	11 34	45.07	+02 15	25.7	809
1984 EX	1984 03	05.32011	11 34	44.48	+02 15	27.4	809
1984 EX	1984 03	05.32634	11 34	44.15	+02 15	28.1	809
1984 EX	1984 03	05.33258	11 34	43.80	+02 15	29.6	809
1984 EX	1984 03	06.29521	11 33	53.86	+02 18	19.1	809
1984 EX	1984 03	06.30145	11 33	53.52	+02 18	20.2	809
1984 EX	1984 03	06.30768	11 33	53.19	+02 18	21.4	809
1984 EX	1984 03	06.31599	11 33	52.68	+02 18	22.7	809
1984 EX	1984 03	06.32222	11 33	52.33	+02 18	23.9	809
1984 EX	1984 03	06.32846	11 33	52.02	+02 18	24.9	809
1984 EX	1984 03	08.31884	11 32	07.08	+02 24	24.8	809
1984 EX	1984 03	08.32438	11 32	06.79	+02 24	25.8	809
1984 EX	1984 03	08.32992	11 32	06.50	+02 24	26.7	809
1984 EX	1984 03	09.34485	11 31	12.37	+02 27	33.7	809
1984 EX	1984 03	09.34969	11 31	12.11	+02 27	34.7	809
1984 EX	1984 03	09.35454	11 31	11.85	+02 27	35.6	809
1984 EX	1984 03	10.34282	11 30	18.97	+02 30	39.0	809
1984 EX	1984 03	10.34766	11 30	18.70	+02 30	39.4	809
1984 EX	1984 03	10.35251	11 30	18.41	+02 30	40.4	809
1984 EX	1984 03	11.32900	11 29	26.05	+02 33	43.1	809
1984 EX	1984 03	11.33385	11 29	25.80	+02 33	43.9	809
1984 EX	1984 03	11.33870	11 29	25.54	+02 33	44.6	809

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1984	EN1	*	1984	03	02.21679	10	08	48.02	+11	41	45.3	18.0	809
1984	EN1		1984	03	02.22303	10	08	47.66	+11	41	47.6		809
1984	EN1		1984	03	02.22926	10	08	47.28	+11	41	49.9		809
1984	EN1		1984	03	03.13789	10	07	55.87	+11	47	31.7		809
1984	EN1		1984	03	03.14412	10	07	55.54	+11	47	33.7		809
1984	EN1		1984	03	03.15035	10	07	55.21	+11	47	35.9		809
1984	EN1		1984	03	05.19060	10	06	01.21	+12	00	07.0		809
1984	EN1		1984	03	05.19684	10	06	00.87	+12	00	09.4		809
1984	EN1		1984	03	05.20307	10	06	00.49	+12	00	12.1		809
1984	EN1		1984	03	06.19410	10	05	06.42	+12	06	08.5		809
1984	EN1		1984	03	06.20033	10	05	06.06	+12	06	10.8		809
1984	EN1		1984	03	06.20657	10	05	05.71	+12	06	13.5		809
1984	EN1		1984	03	07.20175	10	04	12.28	+12	12	04.8		809
1984	EN1		1984	03	07.20799	10	04	11.98	+12	12	07.3		809
1984	EN1		1984	03	07.21603	10	04	11.58	+12	12	10.4		809
1984	EN1		1984	03	08.19280	10	03	20.05	+12	17	49.0		809
1984	EN1		1984	03	08.19834	10	03	19.77	+12	17	51.3		809
1984	EN1		1984	03	08.20388	10	03	19.48	+12	17	52.8		809
1984	EN1		1984	03	09.24858	10	02	25.49	+12	23	48.1		809
1984	EN1		1984	03	09.25343	10	02	25.24	+12	23	49.6		809
1984	EN1		1984	03	09.25845	10	02	24.99	+12	23	51.3		809
1984	EN1		1984	03	10.23846	10	01	35.63	+12	29	16.1		809
1984	EN1		1984	03	10.24331	10	01	35.36	+12	29	17.8		809
1984	EN1		1984	03	10.24816	10	01	35.10	+12	29	19.7		809
1984	EN1		1984	03	11.24312	10	00	46.15	+12	34	43.7		809
1984	EN1		1984	03	11.24797	10	00	45.92	+12	34	45.1		809
1984	EN1		1984	03	11.25282	10	00	45.69	+12	34	46.5		809
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1984	EO1		1984	03	02.24727	11	00	33.03	+06	09	08.5		809
1984	EO1		1984	03	02.25419	11	00	32.60	+06	09	09.9		809
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1984	EO1		1984	03	04.28613	10	58	29.98	+06	16	04.8		809
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1984	EO1		1984	03	05.28271	10	57	29.66	+06	19	28.9		809
1984	EO1		1984	03	05.28895	10	57	29.31	+06	19	30.1		809
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1984	EO1		1984	03	06.28136	10	56	29.23	+06	22	53.5		809
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1984	EO1		1984	03	09.31645	10	53	26.23	+06	33	08.0		809
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1984	EP1		1984	03	02.27081	10	44	47.06	+08	13	57.0		809
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1984 ER1	1984 03 04.26293	10 46 54.76	+08 27 08.5	809
1984 ER1	1984 03 04.26986	10 46 54.45	+08 27 10.9	809
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1984 ES1	1984 03 02.35531	12 13 24.08	-02 45 05.2	809
1984 ES1	1984 03 04.36854	12 11 50.07	-02 40 06.3	809
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1984 ES1	1984 03 04.38101	12 11 49.46	-02 40 04.3	809
1984 ES1	1984 03 05.36236	12 11 01.52	-02 37 25.4	809
1984 ES1	1984 03 05.36859	12 11 01.19	-02 37 24.1	809
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1984 ES1	1984 03 09.38086	12 07 31.88	-02 25 07.9	809

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1984 EU1	1984 03 04.38101	12 09 05.65	-03 35 56.9	809
1984 EU1	1984 03 05.36236	12 08 16.20	-03 33 45.2	809
1984 EU1	1984 03 05.36859	12 08 15.88	-03 33 44.3	809
1984 EU1	1984 03 05.37482	12 08 15.56	-03 33 43.1	809
1984 EU1	1984 03 06.35824	12 07 24.92	-03 31 22.5	809
1984 EU1	1984 03 06.36447	12 07 24.58	-03 31 21.5	809
1984 EU1	1984 03 06.37070	12 07 24.23	-03 31 20.7	809
1984 EU1	1984 03 10.37814	12 03 46.45	-03 20 18.4	809
1984 EU1	1984 03 10.38298	12 03 46.18	-03 20 17.5	809
1984 EU1	1984 03 10.38783	12 03 45.91	-03 20 16.8	809
1984 EU1	1984 03 13.36786	12 00 55.04	-03 10 44.1	809
1984 EU1	1984 03 13.37271	12 00 54.78	-03 10 43.0	809
1984 EU1	1984 03 13.37756	12 00 54.52	-03 10 41.9	809
1984 EU1	1984 03 14.35544	11 59 57.30	-03 07 21.5	809
1984 EU1	1984 03 14.36029	11 59 57.01	-03 07 20.5	809
1984 EU1	1984 03 14.36514	11 59 56.75	-03 07 19.4	809

18.2

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*   M. P. C. 9000                   *
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INDEX TO ORBITAL ELEMENTS.

The following index to orbital elements continues that on MPC 8000-8007 and refers to orbits of both comets and minor planets published since then. Only the latest orbit for each object is indexed, and multiple-designation minor planets are listed only under the principal designation.

Comet	MPC	Comet	MPC	Comet	MPC	Comet	MPC
/1981 V	8386	/1981 XV	8051	/1982 I	8051	/1982 VI	8051
/1982 IX	8386	/1982i	8665	/1983c	8052	/1983d	8381
/1983e	8052	/1983f	8052	/1983j	8386	/1983k	8671
/1983l	8272	/1983n	8779	/1983o	8671	/1983p	8387
/1983t	8272	/1983v	8672	/1984a	8910	/1984d	8902
/1984e	8289	/1984f	8902	/1984g	8289	/1984h	8287

Comet	MPC	Comet	MPC
/Boethin	8273	/Daniel	8273
/Giclas	8289	/Haneda-Campos	8272
/Holmes	8273	/Honda-Mrkos-Pajdusakova	8273
/Kojima	8274	/Kowal 2	8273
/Russell 1	8289	/Schwassmann-Wachmann 3	8137
/Whipple	8274	/Wirtanen	8274

Planet	MPC	Planet	MPC	Planet	MPC	Planet	MPC	Planet	MPC
(2)	8665	(154)	8892	(747)	8892	(993)	8137	(1153)	8892
(1224)	8892	(1566)	8665	(1672)	8053	(1676)	8053	(1702)	8018
(1719)	8019	(1730)	8019	(1752)	8020	(1753)	8020	(1757)	8020
(1797)	8892	(1802)	8021	(1823)	8021	(1825)	8666	(1840)	8021
(1862)	8381	(1869)	8022	(1879)	8022	(1907)	8208	(2002)	8053
(2005)	8054	(2042)	8666	(2060)	8667	(2101)	8893	(2118)	8666
(2169)	8893	(2234)	8896	(2263)	8054	(2318)	8054	(2500)	8055
(2550)	8893	(2625)	8274	(2756)	8893	(2775)	8893	(2795)	8894
(2889)	8017	(2890)	8017	(2891)	8022	(2892)	8023	(2893)	8055
(2894)	8055	(2895)	8056	(2896)	8057	(2897)	8057	(2898)	8057
(2899)	8058	(2900)	8058	(2901)	8058	(2902)	8058	(2903)	8059
(2904)	8059	(2905)	8059	(2906)	8062	(2907)	8063	(2908)	8063
(2909)	8063	(2910)	8136	(2911)	8137	(2912)	8138	(2913)	8139
(2914)	8140	(2915)	8140	(2916)	8140	(2917)	8141	(2918)	8141
(2919)	8141	(2920)	8142	(2921)	8142	(2922)	8145	(2923)	8145
(2924)	8146	(2925)	8146	(2926)	8146	(2927)	8147	(2928)	8208
(2929)	8209	(2930)	8209	(2931)	8211	(2932)	8211	(2933)	8211
(2934)	8211	(2935)	8274	(2936)	8275	(2937)	8275	(2938)	8275
(2939)	8276	(2940)	8276	(2941)	8278	(2942)	8279	(2943)	8279
(2944)	8279	(2945)	8280	(2946)	8280	(2947)	8280	(2948)	8281
(2949)	8281	(2950)	8281	(2951)	8282	(2952)	8282	(2953)	8282
(2954)	8283	(2955)	8283	(2956)	8283	(2957)	8286	(2958)	8286
(2959)	8381	(2960)	8382	(2961)	8383	(2962)	8387	(2963)	8387
(2964)	8388	(2965)	8388	(2966)	8388	(2967)	8388	(2968)	8389
(2969)	8389	(2970)	8894	(2971)	8390	(2972)	8395	(2973)	8395
(2974)	8396	(2975)	8396	(2976)	8396	(2977)	8397	(2978)	8397
(2979)	8397	(2980)	8398	(2981)	8398	(2982)	8398	(2983)	8399
(2984)	8399	(2985)	8399	(2986)	8400	(2987)	8400	(2988)	8463
(2989)	8463	(2990)	8463	(2991)	8464	(2992)	8464	(2993)	8465

(2994) 8465	(2995) 8466	(2996) 8530	(2997) 8531	(2998) 8531
(2999) 8531	(3000) 8532	(3001) 8532	(3002) 8533	(3003) 8533
(3004) 8536	(3005) 8536	(3006) 8537	(3007) 8537	(3008) 8667
(3009) 8668	(3010) 8668	(3011) 8668	(3012) 8669	(3013) 8669
(3014) 8669	(3015) 8670	(3016) 8670	(3017) 8670	(3018) 8671
(3019) 8672	(3020) 8672	(3021) 8673	(3022) 8673	(3023) 8673
(3024) 8674	(3025) 8674	(3026) 8680	(3027) 8680	(3028) 8680
(3029) 8681	(3030) 8681	(3031) 8681	(3032) 8682	(3033) 8780
(3034) 8780	(3035) 8781	(3036) 8781	(3037) 8781	(3038) 8782
(3039) 8782	(3040) 8782	(3041) 8782	(3042) 8783	(3043) 8783
(3044) 8784	(3045) 8784	(3046) 8784	(3047) 8785	(3048) 8786
(3049) 8787	(3050) 8787	(3051) 8787	(3052) 8788	(3053) 8788
(3054) 8788	(3055) 8789	(3056) 8789	(3057) 8789	(3058) 8789
(3059) 8790	(3060) 8790	(3061) 8790	(3062) 8791	(3063) 8791
(3064) 8792	(3065) 8792	(3066) 8792	(3067) 8894	(3068) 8894
(3069) 8896	(3070) 8897	(3071) 8897	(3072) 8898	(3073) 8898
(3074) 8898	(3075) 8898	(3076) 8899	(3077) 8899	(3078) 8899
(3079) 8900	(3080) 8902	(3081) 8902	(3082) 8902	(3083) 8903
(3084) 8903	(3085) 8903	(3086) 8904	(3087) 8904	(3088) 8905
(3089) 8905	(3090) 8905	(3091) 8906	(3092) 8906	

Planet	MPC	Planet	MPC	Planet	MPC	Planet	MPC
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1931 TJ1	8776	1931 TC4	8776	1931 TE4	8776	1931 TJ4	8777
1932 CN	8390	1934 AF	8537	1937 UE	8900	1940 WL	8138
1948 KF	8209	1949 PL	8212	1949 PP	8147	1949 SF	8284
1950 SJ	8142	1952 SG	8906	1953 VN2	8390	1959 ER	8051
1959 ES	8051	1964 UO	8793	1969 DA	8148	1969 TB2	8910
1971 MG	8148	1971 OV	8785	1971 QP	8907	1971 SN1	8785
1972 LE	8148	1972 RU3	8785	1973 QG2	8664	1973 SZ1	8383
1974 QU1	8533	1974 RV1	8664	1975 TZ2	8907	1975 TJ6	8674
1976 GQ3	8796	1976 QN1	8284	1976 SE1	8051	1976 US2	8391
1976 YU3	8793	1977 EQ1	8786	1977 NQ	8210	1977 PE1	8786
1977 RG	8391	1977 RA6	8212	1977 YA	8060	1978 NN1	8148
1978 PT2	8210	1978 PX2	8797	1978 QX	8910	1978 RX5	8888
1978 RD6	8466	1978 RF6	8149	1978 SN4	8888	1978 SO4	8888
1978 SR6	8149	1978 SY6	8797	1978 SL7	8675	1978 SD8	8888
1978 TR2	8391	1978 TM6	8797	1978 TZ6	8142	1978 TH7	8134
1978 UF	8907	1978 VQ3	8383	1978 VW6	8384	1978 VK9	8149
1978 VR9	8400	1978 WH14	8276	1979 EL	8777	1979 FE2	8682
1979 FJ2	8287	1979 FU2	8908	1979 HP	8675	1979 HF5	8287
1979 MC	8277	1979 MK2	8149	1979 MV6	8675	1979 OB15	8402
1979 RZ	8287	1979 SG2	8527	1979 SU2	8527	1979 TA	8402
1979 TK	8056	1979 XK	8675	1979 YS	8051	1979 YC9	8051
1980 BV	8676	1980 CT	8793	1980 DG	8901	1980 EE2	8269
1980 FA	8911	1980 FB12	8534	1980 GV	8207	1980 GW	8207
1980 GX	8207	1980 GY	8207	1980 GZ	8207	1980 GA1	8207
1980 GB1	8207	1980 GC1	8207	1980 GD1	8207	1980 GE1	8207
1980 GF1	8207	1980 GG1	8207	1980 GH1	8207	1980 GJ1	8207
1980 GK1	8207	1980 KL	8682	1980 KO	8384	1980 NA	8269
1980 NB	8269	1980 ND	8269	1980 NE	8207	1980 NF	8207
1980 NG	8207	1980 NH	8207	1980 NJ	8207	1980 NK	8269
1980 NM	8207	1980 NN	8269	1980 NO	8269	1980 NP	8207
1980 NR	8269	1980 PF	8391	1980 RG1	8391	1980 TP	8284
1980 VL1	8060	1980 VM1	8392	1980 VR1	8061	1981 CH	8269
1981 CK	8895	1981 CB1	8683	1981 DD	8143	1981 DK1	8143
1981 DQ2	8538	1981 DR2	8269	1981 DS2	8269	1981 DT2	8269
1981 DU2	8269	1981 DV2	8269	1981 DW2	8269	1981 DX2	8269
1981 DY2	8269	1981 DZ2	8269	1981 DA3	8269	1981 DB3	8269

1981 DC3	8269	1981 DD3	8269	1981 DE3	8269	1981 DF3	8269
1981 DG3	8269	1981 DH3	8269	1981 DJ3	8269	1981 DK3	8269
1981 DL3	8269	1981 DM3	8269	1981 DN3	8269	1981 DO3	8269
1981 DP3	8269	1981 DQ3	8269	1981 DR3	8527	1981 DS3	8527
1981 DT3	8888	1981 EM	8284	1981 EN	8664	1981 EP	8381
1981 EE1	8269	1981 EL1	8018	1981 EM4	8277	1981 EX4	8143
1981 EX6	8676	1981 EO7	8392	1981 EP10	8527	1981 EW13	8134
1981 EG14	8676	1981 EH14	8392	1981 EX16	8677	1981 EF17	8061
1981 EZ17	8527	1981 EE18	8527	1981 EB20	8683	1981 EA21	8527
1981 EN21	8527	1981 ES21	8527	1981 EC22	8527	1981 EO23	8527
1981 EB24	8527	1981 ED24	8527	1981 EH24	8527	1981 EL24	8134
1981 EM24	8134	1981 EN24	8134	1981 EO24	8134	1981 EP24	8134
1981 EQ24	8134	1981 ER24	8134	1981 ES24	8134	1981 ET24	8134
1981 EU24	8134	1981 EV24	8134	1981 EW24	8134	1981 EX24	8134
1981 EZ24	8134	1981 EB25	8134	1981 EC25	8134	1981 ED25	8793
1981 EF25	8134	1981 EG25	8134	1981 EH25	8134	1981 EJ25	8134
1981 EK25	8134	1981 EL25	8134	1981 EM25	8135	1981 EN25	8135
1981 EO25	8135	1981 EP25	8135	1981 ER25	8135	1981 ES25	8135
1981 ET25	8135	1981 EU25	8135	1981 EV25	8135	1981 EW25	8135
1981 EX25	8135	1981 EY25	8400	1981 EZ25	8135	1981 EA26	8135
1981 EB26	8135	1981 EC26	8135	1981 ED26	8135	1981 EE26	8135
1981 EF26	8135	1981 EG26	8135	1981 EH26	8288	1981 EJ26	8135
1981 EK26	8135	1981 EL26	8135	1981 EM26	8135	1981 EN26	8135
1981 EO26	8135	1981 EP26	8135	1981 EQ26	8135	1981 ER26	8135
1981 ES26	8135	1981 ET26	8135	1981 EU26	8135	1981 EV26	8135
1981 EW26	8135	1981 EX26	8135	1981 EY26	8135	1981 EZ26	8135
1981 EA27	8135	1981 EB27	8135	1981 EC27	8135	1981 ED27	8135
1981 EE27	8135	1981 EF27	8135	1981 EG27	8135	1981 EH27	8135
1981 EJ27	8135	1981 EK27	8135	1981 EL27	8135	1981 EM27	8135
1981 EO27	8288	1981 EP27	8135	1981 EQ27	8135	1981 ER27	8135
1981 ES27	8135	1981 ET27	8135	1981 EU27	8135	1981 EV27	8135
1981 EW27	8135	1981 EX27	8136	1981 EY27	8136	1981 EZ27	8136
1981 EA28	8136	1981 EB28	8288	1981 EC28	8136	1981 ED28	8136
1981 EE28	8136	1981 EF28	8136	1981 EG28	8136	1981 EH28	8136
1981 EJ28	8136	1981 EK28	8136	1981 EL28	8136	1981 EM28	8136
1981 EN28	8136	1981 EO28	8136	1981 EP28	8136	1981 EQ28	8136
1981 ER28	8136	1981 ES28	8136	1981 ET28	8269	1981 EU28	8269
1981 EV28	8269	1981 EW28	8269	1981 EX28	8269	1981 EY28	8269
1981 EZ28	8269	1981 EA29	8269	1981 EB29	8269	1981 EC29	8269
1981 ED29	8269	1981 EE29	8269	1981 EF29	8269	1981 EG29	8269
1981 EH29	8269	1981 EJ29	8269	1981 EK29	8269	1981 EL29	8269
1981 EM29	8269	1981 EN29	8269	1981 EO29	8269	1981 EP29	8269
1981 EQ29	8269	1981 ER29	8270	1981 ES29	8379	1981 ET29	8270
1981 EU29	8270	1981 EV29	8270	1981 EW29	8270	1981 EX29	8270
1981 EY29	8270	1981 EZ29	8270	1981 EA30	8270	1981 EB30	8270
1981 EC30	8270	1981 ED30	8270	1981 EE30	8270	1981 EF30	8270
1981 EH30	8270	1981 EJ30	8270	1981 EK30	8270	1981 EL30	8270
1981 EM30	8270	1981 EN30	8270	1981 EO30	8270	1981 EP30	8270
1981 EQ30	8270	1981 ER30	8270	1981 ES30	8270	1981 ET30	8270
1981 EU30	8270	1981 EV30	8270	1981 EW30	8270	1981 EX30	8270
1981 EY30	8270	1981 EZ30	8270	1981 EA31	8270	1981 EB31	8270
1981 EC31	8270	1981 ED31	8270	1981 EE31	8270	1981 EF31	8270
1981 EG31	8270	1981 EH31	8270	1981 EJ31	8270	1981 EK31	8270
1981 EL31	8270	1981 EM31	8270	1981 EN31	8270	1981 EO31	8270
1981 EP31	8270	1981 EQ31	8270	1981 ER31	8270	1981 ES31	8270
1981 ET31	8270	1981 EU31	8270	1981 EV31	8270	1981 EW31	8270
1981 EX31	8270	1981 EY31	8382	1981 EZ31	8270	1981 EA32	8271
1981 EB32	8271	1981 EC32	8271	1981 ED32	8271	1981 EE32	8271
1981 EF32	8271	1981 EG32	8271	1981 EH32	8271	1981 EJ32	8271

1981 EK32	8271	1981 EL32	8271	1981 EM32	8271	1981 EN32	8271
1981 EO32	8271	1981 EP32	8271	1981 EQ32	8271	1981 ER32	8271
1981 ES32	8271	1981 ET32	8271	1981 EW32	8527	1981 EX32	8527
1981 EY32	8527	1981 EZ32	8527	1981 EA33	8528	1981 EB33	8528
1981 EC33	8528	1981 ED33	8528	1981 EE33	8528	1981 EF33	8528
1981 EG33	8528	1981 EH33	8528	1981 EJ33	8528	1981 EK33	8528
1981 EL33	8528	1981 EM33	8528	1981 EN33	8528	1981 EO33	8528
1981 EP33	8528	1981 EQ33	8528	1981 ER33	8528	1981 ES33	8528
1981 ET33	8528	1981 EU33	8528	1981 EV33	8528	1981 EW33	8528
1981 EX33	8528	1981 EY33	8528	1981 EZ33	8528	1981 EA34	8528
1981 EB34	8528	1981 EC34	8528	1981 ED34	8528	1981 EE34	8528
1981 EF34	8528	1981 EG34	8528	1981 EH34	8528	1981 EJ34	8528
1981 EK34	8528	1981 EL34	8528	1981 EM34	8528	1981 EN34	8528
1981 EO34	8528	1981 EP34	8528	1981 EQ34	8528	1981 ER34	8528
1981 ES34	8528	1981 ET34	8528	1981 EU34	8528	1981 EV34	8528
1981 EW34	8528	1981 EX34	8528	1981 EY34	8528	1981 EZ34	8528
1981 EA35	8528	1981 EB35	8528	1981 EC35	8528	1981 ED35	8528
1981 EE35	8528	1981 EF35	8528	1981 EH35	8528	1981 EJ35	8528
1981 EK35	8529	1981 EL35	8529	1981 EM35	8529	1981 EN35	8529
1981 EO35	8529	1981 EP35	8529	1981 EQ35	8529	1981 ER35	8529
1981 ES35	8529	1981 ET35	8529	1981 EU35	8529	1981 EV35	8529
1981 EW35	8529	1981 EX35	8529	1981 EY35	8529	1981 EZ35	8529
1981 EA36	8529	1981 EB36	8529	1981 EC36	8529	1981 ED36	8529
1981 EE36	8529	1981 EF36	8529	1981 EG36	8529	1981 EH36	8529
1981 EJ36	8529	1981 EK36	8529	1981 EL36	8529	1981 EM36	8529
1981 EN36	8529	1981 EO36	8529	1981 EP36	8529	1981 EQ36	8529
1981 ER36	8529	1981 ES36	8529	1981 ET36	8529	1981 EU36	8529
1981 EV36	8529	1981 EW36	8529	1981 EX36	8529	1981 EY36	8529
1981 EZ36	8529	1981 EA37	8529	1981 EB37	8529	1981 ED37	8529
1981 EE37	8529	1981 EF37	8529	1981 EG37	8888	1981 EH37	8888
1981 EJ37	8888	1981 EK37	8888	1981 EL37	8888	1981 EM37	8888
1981 EN37	8888	1981 EO37	8888	1981 EP37	8888	1981 EQ37	8888
1981 ER37	8888	1981 ES37	8888	1981 ET37	8888	1981 EU37	8888
1981 EV37	8888	1981 EW37	8888	1981 EX37	8888	1981 EY37	8888
1981 EZ37	8888	1981 EA38	8888	1981 EB38	8888	1981 EC38	8888
1981 ED38	8888	1981 EE38	8888	1981 EF38	8888	1981 EH38	8888
1981 EJ38	8888	1981 EK38	8888	1981 EL38	8888	1981 EM38	8888
1981 EN38	8888	1981 EO38	8888	1981 EP38	8888	1981 EQ38	8888
1981 ER38	8888	1981 ES38	8888	1981 ET38	8908	1981 EU38	8888
1981 EV38	8888	1981 EW38	8888	1981 EX38	8888	1981 EY38	8888
1981 EZ38	8888	1981 EA39	8888	1981 EB39	8888	1981 EC39	8888
1981 ED39	8888	1981 EE39	8888	1981 EF39	8888	1981 EG39	8888
1981 EH39	8888	1981 EJ39	8888	1981 EK39	8888	1981 EL39	8888
1981 EM39	8889	1981 EN39	8889	1981 EO39	8889	1981 EP39	8889
1981 EQ39	8889	1981 ER39	8889	1981 ES39	8889	1981 ET39	8889
1981 EU39	8889	1981 EV39	8889	1981 EW39	8889	1981 EX39	8889
1981 EY39	8889	1981 EZ39	8889	1981 EA40	8889	1981 EB40	8889
1981 EC40	8889	1981 ED40	8889	1981 EE40	8889	1981 EF40	8889
1981 EG40	8889	1981 EH40	8889	1981 EJ40	8889	1981 EK40	8889
1981 EL40	8889	1981 EM40	8889	1981 EN40	8889	1981 EO40	8889
1981 EP40	8889	1981 EQ40	8889	1981 ER40	8889	1981 ES40	8889
1981 ET40	8889	1981 EU40	8889	1981 EV40	8889	1981 EW40	8889
1981 EX40	8889	1981 EY40	8889	1981 EZ40	8889	1981 EA41	8889
1981 EB41	8889	1981 EC41	8889	1981 ED41	8889	1981 EE41	8889
1981 EF41	8889	1981 EG41	8889	1981 EH41	8889	1981 EJ41	8889
1981 EK41	8889	1981 EL41	8889	1981 EM41	8889	1981 EN41	8889
1981 EO41	8889	1981 EP41	8889	1981 EQ41	8889	1981 ER41	8889
1981 ES41	8889	1981 ET41	8889	1981 EU41	8889	1981 EV41	8890
1981 EW41	8890	1981 EX41	8890	1981 EY41	8890	1981 EZ41	8890

1981 EA42	8890	1981 EB42	8890	1981 EC42	8890	1981 ED42	8890
1981 EE42	8890	1981 EF42	8890	1981 EG42	8890	1981 EH42	8890
1981 EJ42	8890	1981 EK42	8890	1981 EL42	8890	1981 EM42	8890
1981 EN42	8890	1981 EO42	8890	1981 EP42	8890	1981 EQ42	8890
1981 ER42	8890	1981 ES42	8890	1981 ET42	8890	1981 EU42	8890
1981 EV42	8890	1981 EW42	8890	1981 EX42	8890	1981 EY42	8890
1981 EZ42	8890	1981 EA43	8890	1981 EB43	8890	1981 EC43	8890
1981 ED43	8890	1981 EE43	8890	1981 EF43	8890	1981 EG43	8890
1981 EH43	8890	1981 EJ43	8890	1981 EK43	8890	1981 EL43	8890
1981 EM43	8890	1981 EN43	8890	1981 EO43	8890	1981 EP43	8890
1981 EQ43	8890	1981 ER43	8890	1981 ES43	8890	1981 ET43	8890
1981 EU43	8890	1981 EV43	8890	1981 EW43	8890	1981 EX43	8890
1981 EY43	8890	1981 EZ43	8890	1981 EA44	8890	1981 EB44	8890
1981 EC44	8890	1981 ED44	8890	1981 EE44	8891	1981 EF44	8891
1981 EG44	8891	1981 EJ44	8891	1981 EK44	8891	1981 EL44	8891
1981 EM44	8891	1981 EN44	8891	1981 EO44	8891	1981 EP44	8891
1981 EQ44	8891	1981 ER44	8891	1981 ES44	8891	1981 ET44	8891
1981 EU44	8891	1981 EV44	8891	1981 EW44	8891	1981 EX44	8891
1981 EY44	8891	1981 EZ44	8891	1981 EA45	8891	1981 EB45	8891
1981 EC45	8891	1981 ED45	8891	1981 EE45	8891	1981 EF45	8891
1981 FB	8271	1981 FC1	8529	1981 GM1	8529	1981 GO1	8529
1981 JR1	8271	1981 PA	8392	1981 PB	8908	1981 QC	8144
1981 QM	8144	1981 QO2	8793	1981 QZ2	8384	1981 RF	8908
1981 VE	8777	1981 VS	8777	1981 VW1	8895	1981 VP2	8777
1981 WE1	8777	1981 WO1	8393	1981 WL4	8777	1981 XA	8393
1981 XC2	8271	1981 YC	8891	1981 YH1	8277	1981 YU1	8777
1982 BH	8541	1982 BJ	8393	1982 BL1	8285	1982 DB	8683
1982 FT	8538	1982 FW2	8379	1982 FX2	8529	1982 FY2	8529
1982 GG	8401	1982 HS	8538	1982 HQ1	8393	1982 HB2	8271
1982 JA	8277	1982 JB5	8777	1982 KN1	8777	1982 KV1	8777
1982 KQ3	8777	1982 MH	8538	1982 OK	8379	1982 QN1	8207
1982 QO1	8207	1982 QP1	8462	1982 QW1	8664	1982 QX1	8664
1982 QY1	8891	1982 QZ1	8891	1982 QA2	8891	1982 RU	8677
1982 RZ1	8683	1982 SV	8393	1982 SH1	8393	1982 SV1	8777
1982 SA4	8777	1982 SB4	8777	1982 SO4	8777	1982 TA	8539
1982 TP	8777	1982 TQ	8777	1982 TR	8777	1982 TS	8777
1982 TT	8777	1982 TD1	8794	1982 TF1	8777	1982 TG1	8777
1982 TJ1	8777	1982 TK1	8777	1982 TL1	8777	1982 TP1	8777
1982 TS1	8777	1982 TX1	8777	1982 TB2	8777	1982 TC2	8777
1982 TD2	8777	1982 TF2	8777	1982 TH2	8777	1982 TJ2	8777
1982 TL2	8777	1982 TQ2	8777	1982 TT2	8777	1982 UM	8539
1982 UP	8777	1982 UD2	8777	1982 UE2	8777	1982 UF2	8777
1982 UH2	8794	1982 UJ2	8901	1982 UP2	8777	1982 UQ5	8777
1982 US5	8777	1982 UT5	8777	1982 UU5	8777	1982 UX5	8777
1982 UA6	8778	1982 UC6	8778	1982 UD6	8778	1982 UE6	8778
1982 UG6	8778	1982 UL6	8778	1982 UM6	8778	1982 UO6	8778
1982 UP6	8778	1982 UQ6	8778	1982 UR6	8778	1982 US6	8778
1982 UT6	8778	1982 UA7	8778	1982 UB7	8778	1982 UD7	8778
1982 UE7	8778	1982 UF7	8778	1982 UG7	8891	1982 UH7	8778
1982 UJ7	8778	1982 UK7	8778	1982 UL7	8778	1982 UM7	8891
1982 UO7	8778	1982 UR7	8778	1982 UH8	8778	1982 UJ8	8778
1982 UH9	8778	1982 UQ10	8778	1982 UR10	8778	1982 US10	8778
1982 UV10	8778	1982 UX10	8778	1982 UY10	8778	1982 UA11	8778
1982 UC11	8778	1982 VF	8778	1982 VN	8778	1982 VT	8778
1982 VZ	8379	1982 VB1	8379	1982 VS2	8379	1982 VU2	8379
1982 VY2	8379	1982 VC3	8379	1982 VD3	8379	1982 VN3	8379
1982 VO3	8379	1982 VP3	8379	1982 VX3	8385	1982 VY3	8379
1982 VB4	8379	1982 VC4	8379	1982 VE4	8379	1982 VF4	8379
1982 VG4	8379	1982 VK4	8379	1982 VL4	8379	1982 VR4	8385

1982 VU4	8379	1982 VZ4	8778	1982 VD5	8778	1982 VF5	8778
1982 VL5	8380	1982 VM5	8380	1982 WE	8778	1982 YA	8534
1982 YL1	8778	1982 YM1	8778	1982 YP1	8778	1982 YR1	8778
1983 AY	8380	1983 AG2	8061	1983 AR2	8136	1983 AS2	8136
1983 AT2	8288	1983 AU2	8212	1983 AA3	8778	1983 AE3	8778
1983 BF	8016	1983 CN	8062	1983 CQ2	8136	1983 CS2	8062
1983 CZ2	8138	1983 CF3	8136	1983 CJ3	8136	1983 CN3	8136
1983 CO3	8136	1983 CQ3	8136	1983 EA	8136	1983 EV	8213
1983 EW	8213	1983 EX	8051	1983 EZ	8016	1983 EB1	8136
1983 FC	8062	1983 GQ	8380	1983 HF	8213	1983 HJ	8207
1983 HO	8213	1983 LB	8056	1983 LC	8056	1983 LD	8051
1983 LF	8136	1983 LH	8051	1983 LJ	8051	1983 LL	8136
1983 LM	8051	1983 LQ	8136	1983 NJ	8911	1983 NK	8271
1983 NL	8271	1983 NN	8271	1983 NR	8285	1983 NT	8271
1983 NU	8794	1983 OD	8462	1983 PA	8394	1983 PB	8677
1983 PP	8207	1983 PW	8778	1983 QA	8385	1983 QC	8462
1983 QD	8678	1983 QE	8207	1983 QF	8207	1983 QG	8678
1983 QJ	8664	1983 RB	8394	1983 RC	8271	1983 RD	8534
1983 RE	8271	1983 RJ	8285	1983 RK	8207	1983 RL	8462
1983 RR	8207	1983 RS	8208	1983 RT	8891	1983 RU	8891
1983 RY	8891	1983 RJ1	8664	1983 RB2	8891	1983 RF2	8380
1983 RG2	8380	1983 RL2	8382	1983 RM2	8271	1983 RO2	8382
1983 RP2	8271	1983 RR2	8271	1983 RS2	8664	1983 RX2	8534
1983 RY2	8462	1983 RZ2	8462	1983 RF3	8891	1983 RH3	8664
1983 RJ3	8664	1983 RK3	8664	1983 RL3	8664	1983 RM3	8664
1983 RN3	8664	1983 RO3	8664	1983 RP3	8664	1983 RQ3	8664
1983 RR3	8664	1983 RS3	8664	1983 RT3	8664	1983 RU3	8664
1983 RV3	8664	1983 RW3	8664	1983 RX3	8778	1983 SA	8678
1983 SB	8380	1983 SC	8380	1983 SF	8271	1983 SM	8380
1983 TA	8394	1983 TB	8678	1983 TC	8462	1983 TH	8380
1983 TL	8380	1983 TP	8778	1983 TU	8380	1983 TX	8271
1983 TY	8271	1983 TZ	8271	1983 TE1	8380	1983 TF1	8462
1983 TS1	8380	1983 TT1	8380	1983 TU1	8380	1983 TW1	8380
1983 TC2	8462	1983 TD2	8778	1983 TF2	8539	1983 UC	8380
1983 UG	8380	1983 VA	8678	1983 VE	8464	1983 VZ	8380
1983 VC1	8380	1983 VG1	8380	1983 VH1	8380	1983 VJ1	8380
1983 VM1	8380	1983 VN1	8462	1983 VO1	8380	1983 VP1	8380
1983 VQ1	8678	1983 VR1	8380	1983 VS1	8462	1983 VU1	8380
1983 VV1	8540	1983 VW1	8534	1983 VX1	8380	1983 VY1	8462
1983 VA2	8380	1983 WA	8462	1983 WB	8535	1983 WC	8529
1983 WE	8462	1983 WF	8380	1983 WG	8540	1983 WH	8462
1983 WJ	8529	1983 WK	8462	1983 WL	8462	1983 WM	8462
1983 WN	8462	1983 WO	8462	1983 WP	8679	1983 WQ	8529
1983 WR	8529	1983 WU	8664	1983 WV	8529	1983 WZ	8462
1983 WA1	8778	1983 WF1	8679	1983 WH1	8535	1983 XC	8529
1983 XD	8465	1983 XE	8463	1983 XF	8679	1983 XG	8530
1983 XS	8540	1983 XT	8779	1983 XV	8463	1983 XW	8463
1983 XX	8530	1983 YD	8530	1983 YK	8664	1984 AB	8679
1984 AD	8530	1984 AP	8779	1984 AQ	8779	1984 AR	8535
1984 AU	8664	1984 AZ	8901	1984 AB1	8891	1984 AC1	8891
1984 AF1	8664	1984 BC	8679	1984 BF	8530	1984 BG	8530
1984 BH	8530	1984 BJ	8664	1984 BK	8664	1984 BL	8530
1984 BM	8530	1984 BO	8530	1984 BQ	8530	1984 BS	8530
1984 BT	8795	1984 BY	8664	1984 BZ	8664	1984 CE	8891
1984 CF	8664	1984 CM	8664	1984 CN	8684	1984 CQ	8895
1984 CW	8684	1984 CZ	8795	1984 CC1	8795	1984 CD1	8684
1984 CM1	8779	1984 CN1	8684	1984 CO1	8795	1984 DA	8779
1984 DB	8779	1984 DC	8779	1984 DE	8664	1984 EA	8779
1984 EB	8896	1984 EC	8779	1984 ED	8779	1984 EG	8779

1984 EL	8779	1984 EM	8779	1984 EN	8779	1984 EQ	8779
1984 ET	8779	1984 EU	8796	1984 EV	8779	1984 EY	8779
1984 EZ	8891	1984 EA1	8779	1984 ED1	8779	1984 FA	8891
1984 FC	8891	1984 FH	8891	1984 FM	8891	1984 FN	8891
1984 FO	8891	1984 FS	8779	1984 FT	8796	1984 FU	8779
1984 GA	8891	1984 GF	8901	1984 HD	8891	1984 HE	8891
1984 HL	8891	1984 HX	8891	1984 HA1	8891	1984 JH	8891
1984 JJ	8891	1984 JK	8891	1984 JL	8891	1984 JM	8891
1984 JN	8891	1984 JO	8892	1984 JP	8892	1984 JQ	8892
1984 JR	8892	1984 KB	8909	1984 KD	8909	1984 KE	8892
1984 KF	8892	2037 P-L	8786	2630 P-L	8144	4031 P-L	8909
4063 P-L	8909	4113 P-L	8145	6032 P-L	8395	6299 P-L	8910
6627 P-L	8385	7607 P-L	8386	9103 P-L	8401		

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OBSERVATIONS MADE AT UCCLE BY H. DEBEHOGNE.

Plates taken with the 0.4-m f/5 double astrograph, measured and reduced by G. Peeters. Contact: H. Debehogne, Observatoire Royal de Belgique, 3 Avenue Circulaire, B-1180 Brussels, Belgium.

Object	Date	UT	R. A. (1950)			Decl.	Obs.
2	1982 06	20.97929	13 00	10.55	+21 24	06.8	012
2	1982 06	21.00007	13 00	11.29	+21 23	59.8	012
11	1982 12	19.04293	05 19	36.83	+18 03	41.4	012
11	1982 12	19.05678	05 19	35.98	+18 03	41.5	012
11	1982 12	19.07063	05 19	35.10	+18 03	41.9	012
25	1982 02	14.85655	06 55	11.45	-06 37	02.8	012
25	1982 02	14.87040	06 55	11.06	-06 36	55.7	012
25	1982 02	14.88425	06 55	10.71	-06 36	48.9	012
25	1982 02	14.89464	06 55	10.46	-06 36	43.4	012
28	1982 12	19.08587	05 37	30.13	+09 52	28.7	012
28	1982 12	19.09972	05 37	29.34	+09 52	29.8	012
28	1982 12	19.11357	05 37	28.50	+09 52	31.1	012
45	1982 02	23.04870	11 23	24.16	+07 00	49.4	012
45	1982 02	23.06255	11 23	23.59	+07 00	54.8	012
45	1982 02	23.07640	11 23	23.01	+07 01	00.8	012
45	1982 02	23.09025	11 23	22.47	+07 01	06.8	012
46	1982 11	11.07916	03 41	48.08	+16 16	52.8	012
46	1982 11	11.09301	03 41	47.30	+16 16	49.4	012
46	1982 11	11.10686	03 41	46.43	+16 16	46.0	012
55	1982 11	06.94812	02 06	50.51	+19 11	28.1	012
55	1982 11	06.95919	02 06	49.94	+19 11	27.0	012
55	1982 11	06.97028	02 06	49.37	+19 11	25.4	012
58	1982 11	11.07916	03 14	29.19	+10 30	21.5	012
58	1982 11	11.09301	03 14	28.48	+10 30	17.7	012
58	1982 11	11.10686	03 14	27.73	+10 30	14.2	012
62	1982 12	19.04293	05 02	36.40	+20 16	25.7	012
62	1982 12	19.05678	05 02	35.73	+20 16	25.2	012
62	1982 12	19.07063	05 02	35.07	+20 16	24.5	012
85	1982 11	11.07916	03 37	02.67	+09 34	15.6	012
85	1982 11	11.09301	03 37	01.98	+09 34	08.8	012
85	1982 11	11.10686	03 37	01.16	+09 34	01.6	012
89	1982 02	21.91500	06 05	14.83	+31 05	41.5	012
89	1982 02	21.92885	06 05	15.05	+31 05	35.0	012
89	1982 02	21.94288	06 05	15.18	+31 05	29.2	012
89	1982 02	21.95707	06 05	15.41	+31 05	22.9	012
104	1982 01	19.06082	09 47	59.88	+17 40	59.1	012

104	1982	01	19.07121	09	47	59.52	+17	41	01.4	012
104	1982	01	19.08159	09	47	59.13	+17	41	03.9	012
110	1982	02	21.91500	06	20	12.24	+29	40	26.8	012
110	1982	02	21.92885	06	20	12.37	+29	40	25.7	012
110	1982	02	21.94288	06	20	12.39	+29	40	25.2	012
110	1982	02	21.95707	06	20	12.52	+29	40	24.1	012
156	1982	08	11.97997	21	09	44.58	-00	33	02.2	012
156	1982	08	11.99660	21	09	43.67	-00	33	06.6	012
156	1982	08	12.01322	21	09	42.83	-00	33	11.3	012
204	1982	02	03.09188	10	12	52.92	-00	15	46.4	012
204	1982	02	03.10227	10	12	52.45	-00	15	43.9	012
204	1982	02	03.11266	10	12	52.05	-00	15	41.1	012
204	1982	02	03.12304	10	12	51.58	-00	15	38.6	012
233	1982	02	03.09188	10	12	44.72	-00	33	47.5	012
233	1982	02	03.10227	10	12	44.23	-00	33	45.2	012
233	1982	02	03.11266	10	12	43.75	-00	33	42.9	012
233	1982	02	03.12304	10	12	43.26	-00	33	40.8	012
308	1982	02	23.04870	11	24	23.46	+01	46	58.5	012
308	1982	02	23.06255	11	24	22.86	+01	47	04.6	012
308	1982	02	23.07640	11	24	22.30	+01	47	09.8	012
308	1982	02	23.09025	11	24	21.66	+01	47	14.1	012
336	1982	02	03.09188	10	12	19.22	+00	59	37.4	012
336	1982	02	03.10227	10	12	18.68	+00	59	39.2	012
336	1982	02	03.11266	10	12	18.15	+00	59	41.1	012
336	1982	02	03.12304	10	12	17.61	+00	59	43.0	012
337	1982	01	19.06082	10	09	32.94	+21	09	48.7	012
337	1982	01	19.07121	10	09	32.58	+21	09	50.2	012
337	1982	01	19.08159	10	09	32.19	+21	09	51.6	012
337	1982	01	19.09198	10	09	31.81	+21	09	53.3	012
393	1982	11	11.07916	03	32	51.91	+11	20	23.9	012
393	1982	11	11.09301	03	32	51.13	+11	20	18.5	012
393	1982	11	11.10686	03	32	50.33	+11	20	11.3	012
409	1982	12	19.08587	05	38	44.22	+16	19	23.5	012
409	1982	12	19.09972	05	38	43.34	+16	19	20.6	012
409	1982	12	19.11357	05	38	42.52	+16	19	18.0	012
423	1982	11	11.07916	03	25	48.18	+13	20	57.2	012
423	1982	11	11.09301	03	25	47.47	+13	20	56.0	012
423	1982	11	11.10686	03	25	46.68	+13	20	55.0	012
479	1982	12	19.08587	05	42	01.97	+11	26	49.5	012
479	1982	12	19.09972	05	42	01.15	+11	26	51.2	012
479	1982	12	19.11357	05	42	00.39	+11	26	54.3	012
582	1982	02	03.09188	10	14	36.65	-00	07	43.7	012
582	1982	02	03.10227	10	14	36.24	-00	07	31.1	012
582	1982	02	03.11266	10	14	35.88	-00	07	17.6	012
582	1982	02	03.12304	10	14	35.48	-00	07	04.3	012
713	1982	08	11.97997	21	36	15.12	+01	42	47.9	012
713	1982	08	11.99660	21	36	14.37	+01	42	44.6	012
713	1982	08	12.01322	21	36	13.74	+01	42	41.1	012
752	1982	01	19.06082	09	45	13.81	+21	18	45.9	012
752	1982	01	19.07121	09	45	13.43	+21	18	50.3	012
752	1982	01	19.08159	09	45	13.07	+21	18	54.4	012
752	1982	01	19.09198	09	45	12.68	+21	18	58.8	012
771	1982	11	11.07916	03	13	45.17	+12	19	56.3	012
771	1982	11	11.09301	03	13	44.52	+12	19	44.3	012
771	1982	11	11.10686	03	13	43.85	+12	19	33.3	012
1136	1982	08	11.97997	21	33	11.42	+03	03	49.4	012
1136	1982	08	11.99660	21	33	10.72	+03	03	44.5	012
1136	1982	08	12.01322	21	33	10.02	+03	03	39.4	012

OBSERVATIONS MADE AT TAUTENBURG BY F. BORNGEN, K. KIRSCH AND K.-H. MAU.

Plates taken with the 1.3-m (134/200/400 cm) Schmidt. Reductions by Borngen and Kirsch, using the SAO Catalog. Contact: S. Marx, Karl Schwarzschild Observatory, DDR-6901 Tautenburg, Democratic Republic of Germany.

Object	Date	UT	R. A. (1950)			Decl.		Mag.	Obs.
113	1975 10	29.88646	01 06	58.13	-01 22	16.3	13.0	033	
113	1975 10	30.90556	01 06	09.44	-01 26	06.2		033	
113	1975 10	31.83958	01 05	25.81	-01 29	27.7		033	
365	1975 11	24.81042	01 04	15.97	-02 34	14.4	13.4	033	
365	1975 11	25.79757	01 04	15.95	-02 36	27.2		033	
913	1975 11	24.81042	01 02	26.72	-01 49	55.6	16.3	033	
913	1975 11	25.79757	01 02	17.18	-01 46	15.0		033	
1449	1984 01	30.89583	06 23	42.51	+23 02	05.7	16.9	033	
1449	1984 01	30.96354	06 23	39.40	+23 02	18.1		033	
2093	1975 10	10.95347	00 58	51.69	-01 14	03.5	16.3V	033	
2457	1975 11	24.81042	01 02	03.22	-01 59	23.6	19.0	033	
2457	1975 11	25.79757	01 01	49.45	-01 58	57.1		033	
3003	1984 01	30.89583	06 24	47.53	+24 09	28.9	16.6	033	
3003	1984 01	30.96354	06 24	45.24	+24 09	43.0		033	
1975 TS2	1975 11	24.81042	01 02	28.55	-00 10	59.6	19.3	033	
1975 TS2	1975 11	25.79757	01 02	09.14	-00 08	39.3		033	
1975 TV2	1975 11	24.81042	00 55	15.42	-00 42	04.7	18.8	033	
1975 TV2	1975 11	25.79757	00 54	56.62	-00 39	07.9		033	
1975 TR6 *	1975 10	10.95347	00 54	31.38	-01 03	16.0	17.8V	033	
1975 TS6 *	1975 10	10.95347	00 57	09.03	-00 43	10.4	17.5V	033	
1975 TT6 *	1975 10	10.95347	00 57	31.97	-01 37	11.4	17.5V	033	
1975 TU6 *	1975 10	10.95347	00 58	23.09	-01 00	42.9	17.6V	033	
1975 TV6 *	1975 10	10.95347	00 59	08.42	-00 49	39.8	17.7V	033	
1975 TW6 *	1975 10	10.95347	00 59	39.94	-02 56	46.2	17.6V	033	
1975 TX6 *	1975 10	10.95347	01 01	26.60	-02 49	29.7	18.4V	033	
1975 TY6 *	1975 10	10.95347	01 02	12.11	-00 45	57.9	18.1V	033	
1975 TZ6 *	1975 10	10.95347	01 04	34.05	-00 41	08.2	18.6V	033	
1975 TA7 *	1975 10	10.95347	01 05	46.72	-00 34	16.9	18.0V	033	
1975 TB7 *	1975 10	10.95347	01 05	47.60	-01 37	53.7	17.3V	033	
1975 UW *	1975 10	29.88646	00 55	11.07	-00 46	26.7	17.0	033	
1975 UX *	1975 10	29.88646	00 58	22.25	-00 24	08.0	19.5	033	
1975 UX	1975 10	30.90556	00 57	42.73	-00 25	22.8		033	
1975 UX	1975 10	31.83958	00 57	08.09	-00 26	20.9		033	
1975 UY *	1975 10	29.88646	01 00	10.67	-01 06	24.7	17.5	033	
1975 UY	1975 10	30.90556	00 59	44.22	-01 13	22.7		033	
1975 UY	1975 10	31.83958	00 59	21.51	-01 19	29.7		033	
1975 UZ *	1975 10	29.88646	01 00	29.76	-00 31	42.0	20.0	033	
1975 UZ	1975 10	30.90556	00 59	50.74	-00 30	26.0		033	
1975 UZ	1975 10	31.83958	00 59	16.38	-00 29	04.9		033	
1975 UA1 *	1975 10	29.88646	01 02	08.13	-00 01	31.1	18.4	033	
1975 UA1	1975 10	30.90556	01 01	37.11	-00 12	53.0		033	
1975 UA1	1975 10	31.83958	01 01	09.82	-00 23	06.4		033	
1975 UB1 *	1975 10	29.88646	01 03	22.76	-00 34	38.8	19.0	033	
1975 UB1	1975 10	30.90556	01 02	27.75	-00 35	44.0		033	
1975 UB1	1975 10	31.83958	01 01	38.14	-00 36	36.4		033	
1975 UC1 *	1975 10	29.88646	01 05	08.64	-01 30	54.5	16.8	033	
1975 UC1	1975 10	30.90556	01 04	27.33	-01 28	28.8		033	
1975 UC1	1975 10	31.83958	01 03	51.15	-01 26	02.6		033	
1975 UD1 *	1975 10	29.88646	01 06	36.86	-02 14	28.9	18.8	033	
1975 UD1	1975 10	30.90556	01 05	50.39	-02 13	57.9		033	
1975 UD1	1975 10	31.83958	01 05	08.29	-02 13	23.2		033	
1975 UE1 *	1975 10	31.83958	01 07	05.92	-03 00	39.0	16.1V	033	
1975 VT2	1975 10	29.88646	00 56	18.84	-02 22	15.8	18.2	033	
1975 VT2	1975 10	30.90556	00 55	38.63	-02 23	27.6		033	

1975 VT2	1975 10	31.83958	00 55	02.66	-02 24	26.1		033
1975 VV2	1975 10	29.88646	01 00	25.81	-03 11	48.0	18.5	033
1975 VV2	1975 10	30.90556	00 59	36.62	-03 08	09.2		033
1975 VV2	1975 10	31.83958	00 58	52.43	-03 04	39.7		033
1975 VW2	1975 10	29.88646	01 01	38.77	-01 26	32.7	17.7	033
1975 VW2	1975 10	30.90556	01 00	53.18	-01 30	35.9		033
1975 VW2	1975 10	31.83958	01 00	12.73	-01 34	06.5		033
1975 VX2	1975 10	29.88646	01 03	20.98	-01 59	06.8	17.9	033
1975 VX2	1975 10	30.90556	01 02	35.53	-01 58	40.3		033
1975 VX2	1975 10	31.83958	01 01	54.57	-01 58	06.8		033
1975 VW5	1975 11	24.81042	00 59	34.53	-01 50	01.4	19.6	033
1975 VW5	1975 11	25.79757	00 59	28.63	-01 43	42.0		033
1975 VY5	1975 11	24.81042	00 55	59.19	-02 24	21.5	17.8	033
1975 VY5	1975 11	25.79757	00 55	34.25	-02 19	28.8		033
1975 WC2 *	1975 11	24.81042	00 57	49.02	-02 14	11.7	19.5	033
1975 WC2	1975 11	25.79757	00 57	33.72	-02 12	49.0		033
1983 HY1	1983 04	16.95764	12 23	53.41	+10 54	50.2		033
1983 HA2	1983 04	16.95764	12 21	49.08	+10 33	56.5		033
1983 HA2 *	1983 04	16.98229	12 21	47.73	+10 33	56.3	17.6	033
1984 BD1 *	1984 01	30.89583	06 31	48.76	+23 23	59.6	15.7	033
1984 BD1	1984 01	30.96354	06 31	49.11	+23 23	56.5		033

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

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

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
216	1984 06	27.98353	18 12 09.71	-06 26 42.4		046
216	1984 06	27.99765	18 12 08.88	-06 26 41.4		046
622	1984 06	27.94863	17 42 37.83	-12 25 06.9		046
622	1984 06	27.96351	17 42 36.80	-12 25 08.1		046
622	1984 06	29.94729	17 40 37.98	-12 29 14.7		046
622	1984 06	29.96141	17 40 37.11	-12 29 15.8		046
1579	1984 06	27.94863	17 43 24.69	-11 54 56.5		046
1579	1984 06	27.96351	17 43 23.96	-11 54 59.1		046
1579	1984 06	29.94729	17 42 02.48	-11 55 24.1		046
1579	1984 06	29.96141	17 42 01.78	-11 55 23.2		046
1605	1984 06	29.98091	18 19 49.87	-08 24 18.2		046
1605	1984 06	29.99457	18 19 49.22	-08 24 19.1		046
1605	1984 07	01.96623	18 18 15.87	-08 26 56.2		046
1605	1984 07	01.98041	18 18 15.01	-08 26 57.6		046
1984 LD *	1984 06	01.97132	16 31 57.23	-13 17 56.9	17	046
1984 LD	1984 06	01.98544	16 31 56.54	-13 17 54.6		046
1984 MB *	1984 06	29.94729	17 40 54.16	-11 57 26.0		046
1984 MB	1984 06	29.96141	17 40 53.18	-11 57 20.2		046

OBSERVATIONS MADE AT MOUNT JOHN UNIVERSITY OBSERVATORY.

Plates taken with the 0.6-m f/14 and 0.6-m f/16 Cassegrain reflectors by A. C. Gilmore, measured by P. M. Kilmartin. Computational support from R. McIntosh and W. M. Kissling. Reductions using field plates from the Carter Observatory, AGK3, SAO Catalog and Cape zone catalog. Contact: A. C. Gilmore, P.O. Box 57, Lake Tekapo, New Zealand.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
2101	1984 07	04.44792	17 13 01.45	-41 31 16.8	14	474
2101	1984 07	04.45417	17 12 49.86	-41 32 01.1		474
1982 RA	1984 07	25.60787	00 31 25.21	-42 43 22.3	16.5	474
1982 RA	1984 07	25.62986	00 31 24.17	-42 43 11.7		474
1982 RA	1984 07	26.61470	00 30 43.41	-42 34 42.3	16.5	474
1982 RA	1984 07	26.63738	00 30 42.27	-42 34 30.1		474

OBSERVATIONS MADE AT THE OSSERVATORIO S. VITTORE.

Plates taken at the prime focus of the 0.45-m reflector by G. Sassi and C. Vacchi, blinked by Vacchi, measured by Vacchi, V. Goretti and E. Colombini. Reduced by Colombini using five SAO Catalog or AGK3 reference stars. Contact: E. Colombini, Via S. Vittore 44, I-40136 Bologna, Italy.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
927	1981 10	24.94028	01 31 39.16	+17 23 37.7	15.3	552
927	1981 10	24.98958	01 31 36.60	+17 23 31.0		552
1053	1982 03	01.96319	11 05 24.71	+14 24 16.9	16.8	552
1053	1982 03	01.97986	11 05 23.70	+14 24 20.0		552
1256	1982 01	25.93750	08 39 14.03	+13 11 18.8	16.5	552
1256	1982 01	25.95347	08 39 13.38	+13 11 20.8		552
1298	1982 11	16.94306	03 05 27.30	+25 37 11.0	15.5	552
1298	1982 11	16.95972	03 05 26.43	+25 37 06.3		552
1298	1982 11	17.91667	03 04 36.75	+25 32 45.6		552
1298	1982 11	17.93681	03 04 35.81	+25 32 40.4		552
1298	1982 11	17.95625	03 04 34.79	+25 32 34.7		552
1330	1982 03	17.83403	10 54 18.46	+10 15 12.9	15.4	552
1330	1982 03	17.88403	10 54 16.61	+10 15 38.7		552
1344	1982 02	27.94583	11 42 23.62	+13 31 43.0	16.0	552
1344	1982 02	27.96458	11 42 22.62	+13 31 49.2		552
1452	1982 02	27.91319	11 14 17.85	+21 20 20.4	16.6	552
1452	1982 02	27.93056	11 14 16.80	+21 20 21.1		552
1452	1982 03	15.83542	10 59 05.05	+21 22 32.4	16.6	552
1452	1982 03	15.88333	10 59 02.27	+21 22 30.2		552
1453	1982 01	02.91458	06 40 28.53	+67 27 48.0	15.8	552
1453	1982 01	02.93125	06 40 25.65	+67 27 46.4		552
1594	1982 02	27.98471	12 10 38.52	+14 40 41.6	16.5	552
1594	1982 02	28.00278	12 10 37.63	+14 40 49.9		552
1757	1982 01	23.90278	08 41 26.68	+25 44 00.2	16.4	552
1757	1982 01	23.92014	08 41 25.44	+25 44 04.4		552
1969	1982 11	18.91389	04 23 40.92	+18 58 15.5	17.2	552
1969	1982 11	18.95556	04 23 40.12	+18 58 13.4		552
2183	1982 01	02.99514	07 11 43.98	+29 54 05.6	17.5	552
2183	1982 01	03.01319	07 11 42.68	+29 54 12.3		552
3089	1984 06	27.91250	17 19 50.88	-22 39 53.8		552
3089	1984 06	27.93403	17 19 49.74	-22 40 03.4		552
1978 LB	1984 06	30.87569	16 53 19.04	-21 56 38.8		552
1978 LB	1984 06	30.90417	16 53 17.75	-21 56 47.8		552
1983 AO	1984 03	27.86319	12 47 07.39	+12 15 06.1		552
1983 AO	1984 03	27.88264	12 47 06.58	+12 15 11.3		552

OBSERVATIONS MADE AT OSSERVATORIO GIORDANO BRUNO, CAVRIANA.

Plates taken with the 0.40-m f/5 reflector by L. Lai, I. Ronchetti, M. Ruzza and G. Vesentini. Measured and reduced by E. Colombini. Reference stars from the SAO Catalog. Field diameter 1.5. Contact: E. Colombini, Osservatorio S. Vittore, Via S. Vittore 44, I-40136, Bologna, Italy.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
2238	1983 11	01.93021	02 09 22.44	+13 08 48.1	16.5		571
2238	1983 11	01.96285	02 09 20.86	+13 08 40.6			571
2439	1983 11	01.93021	02 11 11.78	+12 46 12.5	16.0	1	571
2439	1983 11	01.96285	02 11 10.16	+12 46 04.5		1	571
1983 RF4 *	1983 09	04.89097	21 44 57.33	-06 38 17.6	16.0		571
1983 RF4	1983 09	04.90486	21 44 57.21	-06 38 18.1			571
1983 VC7 *	1983 11	01.91528	02 02 24.73	+12 16 23.0	15.3		571
1983 VC7	1983 11	01.94826	02 02 22.58	+12 16 18.5			571
1983 VD7 *	1983 11	01.93021	02 09 45.32	+13 09 34.5	15.8		571
1983 VD7	1983 11	01.96285	02 09 42.94	+13 09 42.1			571

Note 1: correction to MPC 8872.

OBSERVATIONS MADE AT OJAI.

Kodak 103a-O plates taken with a 0.18-m f/7 astrograph by students in the Summer Science Program at the Thacher School under the direction of D. A. Pierce and C. A. Williams. Reduction using 5-7 stars from the SAO Catalog. Contact: D. A. Pierce, Summer Science Program, Thacher School, Ojai, CA 93023, U.S.A.

Object	Date	UT	R. A. (1950)		Decl.		Obs.
10	1984 07 01.36669		21 08	27.40	-14 26	31.6	669
10	1984 07 04.37708		21 07	00.38	-14 28	10.5	669
10	1984 07 06.38889		21 05	56.08	-14 29	44.9	669
10	1984 07 09.31944		21 04	14.77	-14 32	37.4	669
10	1984 07 10.32153		21 03	38.09	-14 33	43.2	669
10	1984 07 19.33333		20 57	26.35	-14 46	57.2	669
16	1984 06 22.43542		21 16	56.61	-13 40	42.6	669
16	1984 06 24.41944		21 16	39.70	-13 42	36.5	669
16	1984 07 02.46181		21 14	33.87	-13 55	10.7	669
16	1984 07 06.43264		21 12	59.16	-14 04	18.1	669
16	1984 07 07.38264		21 12	33.42	-14 06	42.4	669
16	1984 07 20.34306		21 04	57.31	-14 49	17.5	669
18	1984 07 06.24792		16 17	35.25	-06 21	22.4	669
18	1984 07 07.27986		16 17	01.50	-06 25	32.9	669
18	1984 07 14.25486		16 14	01.00	-06 57	29.8	669
18	1984 07 18.25000		16 12	55.14	-07 18	26.3	669
18	1984 07 20.19722		16 12	33.27	-07 29	24.7	669
18	1984 07 21.19722		16 12	24.60	-07 35	08.7	669
22	1984 06 26.23194		15 49	49.58	-21 34	32.2	669
22	1984 07 03.28750		15 46	07.65	-21 43	24.9	669
22	1984 07 05.26042		15 45	17.35	-21 46	11.6	669
22	1984 07 06.20208		15 44	55.32	-21 47	33.7	669
22	1984 07 19.19375		15 41	55.42	-22 10	15.3	669
22	1984 07 22.24306		15 41	46.95	-22 16	36.1	669
196	1984 06 24.23056		14 49	17.98	-13 49	11.9	669
196	1984 07 01.20278		14 48	13.94	-14 01	48.9	669
196	1984 07 02.21250		14 48	10.19	-14 04	00.4	669
196	1984 07 05.22569		14 48	06.56	-14 11	00.2	669
196	1984 07 10.20486		14 48	26.42	-14 24	18.8	669
196	1984 07 13.20069		14 48	53.63	-14 33	08.9	669
216	1984 07 04.33681		18 06	33.79	-06 18	50.0	669
216	1984 07 07.32431		18 04	00.09	-06 16	57.6	669
216	1984 07 09.25556		18 02	23.19	-06 16	22.0	669
216	1984 07 19.27986		17 54	42.99	-06 20	52.1	669
216	1984 07 20.24722		17 54	03.45	-06 21	56.7	669
216	1984 07 24.23611		17 51	30.72	-06 27	24.4	669

OBSERVATIONS MADE AT PALOMAR.

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

Object	Date	UT	R. A. (1950)		Decl.		Mag.	Obs.
2765 P-L *	1960 09 24.46184		00 59	09.53	+06 05	47.4	18.9	675
2765 P-L	1960 09 26.37988		00 57	43.21	+05 58	13.6		675
2765 P-L	1960 09 28.43822		00 56	06.92	+05 49	47.8		675
2765 P-L	1960 09 29.39514		00 55	21.30	+05 45	50.8		675
2765 P-L	1960 10 22.27920		00 36	56.69	+04 07	41.1		675
2765 P-L	1960 10 25.37570		00 34	52.43	+03 56	50.6		675
2765 P-L	1960 10 26.36840		00 34	15.26	+03 53	36.5		675
2808 P-L *	1960 09 24.43750		00 57	46.99	+05 33	20.6	19.5	675
2808 P-L	1960 09 24.46184		00 57	45.74	+05 33	11.7		675
2808 P-L	1960 09 26.35694		00 56	10.75	+05 21	31.5		675

2808 P-L	1960 09 26.37988	00 56 09.55	+05 21 24.4	675
2808 P-L	1960 09 28.41742	00 54 24.39	+05 08 33.8	675
2808 P-L	1960 09 28.43822	00 54 23.21	+05 08 24.6	675
2808 P-L	1960 09 29.37153	00 53 34.47	+05 02 27.0	675
2808 P-L	1960 09 29.39514	00 53 32.95	+05 02 16.3	675
2808 P-L	1960 10 22.26809	00 33 22.19	+02 35 21.9	675
2808 P-L	1960 10 25.30351	00 31 03.19	+02 18 25.4	675
2808 P-L	1960 10 26.35766	00 30 17.02	+02 12 50.0	675
6565 P-L *	1960 09 24.35002	00 07 38.29	-04 24 47.6	17.6 675
6565 P-L	1960 09 26.28543	00 06 06.83	-04 34 50.6	675
6565 P-L	1960 09 27.34237	00 05 16.91	-04 40 13.6	675
6565 P-L	1960 09 28.33822	00 04 30.00	-04 45 14.5	675
6565 P-L	1960 10 17.28198	23 51 15.96	-06 00 05.4	675
6565 P-L	1960 10 26.27157	23 46 59.39	-06 17 19.5	675

OBSERVATIONS MADE AT PALOMAR BY C. KOWAL.

Plates taken with the 1.2-m Schmidt, measured by S. Swanson. Contact: E. Helin, Jet Propulsion Laboratory, MS 183-501, Pasadena, CA 91109, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Obs.
1984 BC	1984 02 08.37917	10 02 02.78	+23 39 04.4	675	
1984 BC	1984 02 08.40000	10 02 02.83	+23 39 50.4	675	

OBSERVATIONS MADE AT PALOMAR BY E. HELIN AND S. SWANSON.

Plates taken with the 0.46-m Schmidt, measured by Swanson. Contact: E. Helin, Jet Propulsion Laboratory, MS 183-501, Pasadena, CA 91109, U.S.A.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
1984 MA *	1984 06 27.21319	17 45 57.91	-25 07 06.3	15.5	675	
1984 MA	1984 06 27.23611	17 45 56.34	-25 06 55.8	675		
1984 MA	1984 06 29.26806	17 43 57.27	-24 50 52.8	675		
1984 MA	1984 06 29.28472	17 43 56.20	-24 50 44.6	675		

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

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

Object	Date	UT	R. A. (1950)	Decl.	Mag.	N	Obs.
2100	1984 07 26.23531	14 27 40.5	+72 33 41.7	801			
2100	1984 07 29.19975	15 25 04.0	+68 50 07.7	801			
3006	1983 12 06.26638	04 29 03.19	+26 54 09.7	1 801			
1978 GB	1984 07 02.18466	18 33 55.78	+22 08 38.3	801			
1978 RO	1984 03 02.32202	11 20 21.62	+01 27 47.9	801			
1978 RO	1984 04 30.12516	10 49 00.30	+06 51 42.9	801			
1979 FE2	1984 06 27.25871	18 04 41.61	+00 08 28.5	801			
1980 RT2	1984 04 02.29463	14 08 10.22	-17 12 18.8	801			
1980 RT2	1984 06 04.13097	13 32 44.98	-13 38 05.7	801			
1980 VL1	1984 06 03.30432	18 44 34.68	-12 56 30.4	801			
1980 VL1	1984 06 27.27400	18 26 08.10	-10 46 35.7	801			
1982 BB1	1984 06 05.30636	19 45 26.29	+06 40 12.4	801			
1982 BB1	1984 06 27.29465	19 34 08.55	+06 54 37.0	801			
1982 SM1	1984 05 02.12365	11 12 50.14	+01 22 17.8	801			
1983 WR	1983 12 06.26638	04 27 46.65	+26 36 46.0	17 3 801			
1984 HA1	1984 06 28.07783	12 48 23.24	+05 26 27.0	801			
1984 HA1	1984 06 30.07768	12 48 53.81	+05 23 34.7	801			
1984 KB	1984 07 03.20412	16 24 56.51	-10 02 42.2	801			
1984 KF	1984 06 28.11830	14 00 00.77	+19 21 52.5	801			
2011 P-L	1984 07 03.18415	16 41 29.39	-11 50 11.0	801			

Note 1: poor fiducial stars. 2: measured in one direction only. 3 = 1 + 2.

OBSERVATIONS MADE AT THE EUROPEAN SOUTHERN OBSERVATORY BY V. ZAPPALA AND W. FERRERI.

Plates taken with the 0.40-m GPO astrograph. Reductions by G. De Sanctis using the SAO Catalog. Contact: V. Zappala, Osservatorio Astronomico de Torino, I-10025 Pino Torinese, Italy.

Object	Date	UT	R. A. (1950)	Decl.	Mag.	Obs.
72	1984 04	29.19757	13 34 09.70	-09 12 48.1		809
72	1984 04	29.21910	13 34 08.52	-09 12 37.3		809
76	1984 04	27.07049	13 00 47.49	-06 35 37.2		809
76	1984 04	27.08993	13 00 46.76	-06 35 32.2		809
76	1984 04	28.04688	13 00 13.49	-06 31 35.1		809
76	1984 04	28.06979	13 00 12.66	-06 31 29.4		809
76	1984 05	01.08715	12 58 32.01	-06 19 30.1		809
76	1984 05	01.10729	12 58 31.34	-06 19 25.2		809
76	1984 05	05.08854	12 56 30.12	-06 04 46.6		809
76	1984 05	05.11007	12 56 29.48	-06 04 41.8		809
158	1984 04	28.08160	13 30 46.74	-11 00 26.1		809
158	1984 04	28.10243	13 30 45.76	-11 00 20.1		809
158	1984 04	30.17118	13 29 12.99	-10 50 50.4		809
158	1984 04	30.19410	13 29 11.95	-10 50 43.8		809
158	1984 05	05.02396	13 25 47.62	-10 29 21.0		809
158	1984 05	05.04410	13 25 46.79	-10 29 16.3		809
158	1984 05	06.22708	13 24 59.34	-10 24 15.6		809
158	1984 05	06.24931	13 24 58.44	-10 24 09.4		809
158	1984 05	07.11597	13 24 24.89	-10 20 33.5		809
158	1984 05	07.14444	13 24 23.73	-10 20 25.6		809
158	1984 05	07.15938	13 24 23.17	-10 20 22.8		809
190	1984 04	23.23611	14 27 12.10	-09 01 33.7		809
190	1984 04	23.25833	14 27 11.26	-09 01 27.6		809
190	1984 04	24.22326	14 26 36.44	-08 57 45.7		809
190	1984 04	24.24201	14 26 35.75	-08 57 40.5		809
190	1984 04	25.13715	14 26 03.44	-08 54 14.6		809
190	1984 04	25.15799	14 26 02.67	-08 54 10.0		809
190	1984 04	27.16632	14 24 49.80	-08 46 32.2		809
190	1984 04	27.18854	14 24 48.95	-08 46 26.6		809
190	1984 04	30.23646	14 22 58.17	-08 35 01.5		809
190	1984 04	30.25729	14 22 57.39	-08 34 57.1		809
377	1984 04	28.11354	13 38 23.38	-10 09 25.4		809
377	1984 04	28.13646	13 38 22.27	-10 09 16.1		809
377	1984 04	29.19757	13 37 33.40	-10 02 16.7		809
377	1984 04	29.21910	13 37 32.38	-10 02 08.1		809
377	1984 05	02.07882	13 35 24.71	-09 43 38.4		809
377	1984 05	02.10174	13 35 23.66	-09 43 29.9		809
377	1984 05	05.15313	13 33 13.63	-09 24 25.2		809
377	1984 05	05.17604	13 33 12.64	-09 24 16.6		809
520	1984 04	28.11354	13 42 07.82	-09 21 42.4		809
520	1984 04	28.13646	13 42 06.61	-09 21 39.6		809
520	1984 04	29.19757	13 41 14.72	-09 19 43.8		809
520	1984 04	29.21910	13 41 13.68	-09 19 41.6		809
520	1984 05	02.07882	13 38 56.87	-09 14 38.3		809
520	1984 05	02.10174	13 38 55.70	-09 14 36.1		809
520	1984 05	05.15313	13 36 34.74	-09 09 38.6		809
520	1984 05	05.17604	13 36 33.70	-09 09 36.3		809
561	1984 04	29.05521	13 26 36.97	-07 22 41.7		809
561	1984 04	29.07743	13 26 36.05	-07 22 36.2		809
561	1984 04	30.01840	13 25 58.48	-07 18 48.2		809
561	1984 04	30.03576	13 25 57.76	-07 18 43.8		809
561	1984 05	06.19375	13 22 06.81	-06 55 34.9		809
561	1984 05	06.21597	13 22 05.98	-06 55 30.0		809

561	1984	05	07.17569	13	21	32.81	-06	52	11.8	809	
561	1984	05	07.20000	13	21	31.97	-06	52	06.4	809	
561	1984	05	07.21667	13	21	31.36	-06	52	03.5	809	
748	1984	04	26.05799	13	17	50.10	-10	59	28.5	809	
748	1984	04	26.08507	13	17	49.14	-10	59	22.3	809	
748	1984	04	27.10243	13	17	14.22	-10	55	30.2	809	
748	1984	04	27.12326	13	17	13.48	-10	55	25.7	809	
748	1984	04	30.14132	13	15	32.74	-10	44	07.9	809	
748	1984	04	30.16146	13	15	32.02	-10	44	03.0	809	
748	1984	05	05.11979	13	12	57.08	-10	26	12.7	809	
748	1984	05	05.14201	13	12	56.40	-10	26	08.0	809	
1256	1984	05	01.18438	14	28	40.06	-16	32	46.9	809	
1256	1984	05	01.20729	14	28	39.19	-16	32	41.6	809	
1256	1984	05	02.18368	14	28	02.22	-16	29	06.6	809	
1256	1984	05	02.20590	14	28	01.30	-16	29	01.3	809	
1256	1984	05	05.21910	14	26	07.80	-16	17	50.8	809	
1256	1984	05	06.26389	14	25	28.67	-16	13	57.7	809	
1256	1984	05	06.28681	14	25	27.82	-16	13	53.1	809	
1576	1984	04	27.03715	12	24	54.48	-02	03	21.6	809	
1576	1984	04	27.06007	12	24	53.75	-02	03	16.6	809	
1576	1984	04	28.01424	12	24	24.82	-02	00	06.3	809	
1576	1984	04	28.03576	12	24	24.19	-02	00	02.1	809	
1576	1984	05	01.01701	12	22	58.93	-01	50	42.4	809	
1576	1984	05	01.04063	12	22	58.24	-01	50	37.8	809	
1576	1984	05	04.98507	12	21	18.49	-01	39	43.0	809	
1576	1984	05	05.01354	12	21	17.82	-01	39	38.2	809	
2363	1984	04	23.23611	14	27	55.35	-09	55	53.1	809	
2363	1984	04	23.25833	14	27	54.68	-09	55	44.1	809	
2363	1984	04	24.22326	14	27	25.99	-09	49	37.8	809	
2363	1984	04	24.24201	14	27	25.42	-09	49	29.9	809	
2363	1984	04	25.13715	14	26	58.77	-09	43	49.7	809	
2363	1984	04	25.15799	14	26	58.19	-09	43	42.9	809	
2363	1984	04	27.16632	14	25	58.03	-09	31	01.0	809	
2363	1984	04	27.18854	14	25	57.37	-09	30	52.4	809	
2363	1984	04	30.23646	14	24	25.79	-09	11	42.4	809	
2363	1984	04	30.25729	14	24	25.21	-09	11	35.0	809	
2407	1984	04	26.05799	13	22	18.59	-11	19	25.2	809	
2407	1984	04	26.08507	13	22	17.30	-11	19	18.3	809	
2407	1984	04	27.10243	13	21	30.75	-11	14	57.2	809	
2407	1984	04	27.12326	13	21	29.82	-11	14	52.4	809	
2407	1984	04	30.14132	13	19	14.86	-11	02	05.4	809	
2407	1984	04	30.16146	13	19	13.97	-11	01	59.9	809	
2407	1984	05	05.11979	13	15	44.60	-10	41	43.2	809	
2407	1984	05	05.14201	13	15	43.70	-10	41	37.8	809	
2509	1984	04	26.05799	13	14	57.32	-11	17	23.1	809	
2509	1984	04	26.08507	13	14	55.85	-11	17	15.2	809	
2509	1984	04	27.10243	13	14	00.64	-11	12	16.2	809	
2509	1984	04	27.12326	13	13	59.48	-11	12	09.9	809	
2533	1984	04	28.11354	13	38	30.61	-09	56	02.1	809	
2533	1984	04	28.13646	13	38	29.63	-09	55	56.3	809	
2533	1984	04	29.19757	13	37	44.74	-09	51	19.0	809	
2533	1984	04	29.21910	13	37	43.79	-09	51	13.4	809	
2533	1984	05	02.07882	13	35	45.95	-09	39	01.0	809	
2533	1984	05	02.10174	13	35	44.98	-09	38	55.2	809	
2533	1984	05	05.15313	13	33	44.07	-09	26	23.4	809	
2533	1984	05	05.17604	13	33	43.15	-09	26	17.6	809	
1977	EQ1	1984	05	01.18438	14	31	31.33	-16	11	13.7	809
1977	EQ1	1984	05	01.20729	14	31	29.87	-16	11	09.4	809
1977	EQ1	1984	05	02.18368	14	30	27.70	-16	07	42.0	809

1977 EQ1	1984 05 02.20590	14 30 26.22	-16 07 37.1	809
1977 EQ1	1984 05 05.21910	14 27 15.75	-15 56 47.9	809
1977 EQ1	1984 05 06.26389	14 26 10.64	-15 53 01.8	809
1977 EQ1	1984 05 06.28681	14 26 09.23	-15 52 56.7	809
1978 QX	1984 04 28.08160	13 29 49.95	-11 07 32.9	809
1978 QX	1984 04 28.10243	13 29 48.76	-11 07 26.3	809
1978 QX	1984 04 30.17118	13 27 57.74	-10 56 37.6	809
1978 QX	1984 04 30.19410	13 27 56.45	-10 56 30.0	809
1978 QX	1984 05 05.02396	13 23 58.12	-10 32 31.4	809
1978 QX	1984 05 05.04410	13 23 57.12	-10 32 26.0	809
1978 QX	1984 05 06.22708	13 23 03.06	-10 26 56.1	809
1978 QX	1984 05 06.24931	13 23 02.06	-10 26 49.5	809
1978 QX	1984 05 07.11597	13 22 24.76	-10 22 54.9	809
1978 QX	1984 05 07.14444	13 22 23.46	-10 22 47.0	809
1978 QX	1984 05 07.15938	13 22 22.74	-10 22 43.2	809
1984 FC	1984 04 27.03715	12 28 30.89	-01 49 37.1	17.0 809
1984 FC	1984 04 27.06007	12 28 29.89	-01 49 34.8	809
1984 FC	1984 04 28.01424	12 27 53.08	-01 48 22.3	809
1984 FC	1984 04 28.03576	12 27 52.27	-01 48 20.7	809
1984 FC	1984 05 01.01701	12 26 05.46	-01 45 24.3	809
1984 FC	1984 05 01.04063	12 26 04.61	-01 45 22.2	809
1984 FC	1984 05 04.98507	12 24 04.12	-01 43 27.7	809
1984 FC	1984 05 05.01354	12 24 03.27	-01 43 28.0	809
1984 HR	1984 04 28.08160	13 33 55.02	-11 12 10.9	17.0 809
1984 HR	1984 04 28.10243	13 33 53.83	-11 12 06.4	809
1984 HR	1984 04 30.17118	13 32 05.82	-11 05 23.5	809
1984 HR	1984 04 30.19410	13 32 04.56	-11 05 19.1	809
1984 HR	1984 05 05.02396	13 28 11.28	-10 50 45.3	809
1984 HR	1984 05 05.04410	13 28 10.48	-10 50 41.5	809
1984 HR	1984 05 06.22708	13 27 17.41	-10 47 25.6	809
1984 HR	1984 05 06.24931	13 27 16.38	-10 47 21.4	809
1984 HR	1984 05 07.11597	13 26 39.58	-10 45 04.1	809
1984 HR	1984 05 07.14444	13 26 38.27	-10 44 59.3	809
1984 HR	1984 05 07.15938	13 26 37.59	-10 44 57.4	809
1984 HE1 *	1984 04 23.06146	12 42 47.05	-11 23 42.4	17.5 809
1984 HE1	1984 04 23.08229	12 42 46.25	-11 23 33.4	809
1984 HE1	1984 04 23.99722	12 42 13.94	-11 16 50.9	809
1984 HE1	1984 04 24.01215	12 42 13.43	-11 16 44.5	809
1984 HE1	1984 04 24.03438	12 42 12.58	-11 16 34.5	809
1984 HE1	1984 04 27.00590	12 40 32.03	-10 55 03.0	809
1984 HE1	1984 04 27.02604	12 40 31.32	-10 54 53.7	809
1984 HE1	1984 04 30.04549	12 38 56.91	-10 33 29.1	809
1984 HE1	1984 04 30.06771	12 38 56.22	-10 33 19.8	809
1984 HE1	1984 05 04.01979	12 37 05.76	-10 06 15.1	809
1984 HE1	1984 05 04.04410	12 37 05.08	-10 06 05.9	809
1984 HE1	1984 05 07.01007	12 35 52.98	-09 46 39.9	809
1984 HE1	1984 05 07.03646	12 35 52.30	-09 46 29.8	809
1984 HE1	1984 05 07.06181	12 35 51.73	-09 46 20.7	809
1984 HF1 *	1984 04 23.06146	12 43 22.58	-11 47 26.9	16.5 809
1984 HF1	1984 04 23.08229	12 43 21.71	-11 47 16.3	809
1984 HF1	1984 04 23.99722	12 42 47.48	-11 39 51.3	809
1984 HF1	1984 04 24.01215	12 42 46.94	-11 39 44.3	809
1984 HF1	1984 04 24.03438	12 42 46.08	-11 39 33.5	809
1984 HF1	1984 04 27.00590	12 41 01.10	-11 15 55.7	809
1984 HF1	1984 04 27.02604	12 41 00.45	-11 15 46.2	809
1984 HF1	1984 04 30.04549	12 39 24.44	-10 52 33.4	809
1984 HF1	1984 04 30.06771	12 39 23.70	-10 52 23.4	809
1984 HF1	1984 05 04.01979	12 37 35.74	-10 23 30.8	809
1984 HF1	1984 05 04.04410	12 37 35.01	-10 23 20.4	809

1984 HF1	1984 05 07.01007	12 36 27.88	-10 03 00.4	809
1984 HF1	1984 05 07.03646	12 36 27.30	-10 02 49.9	809
1984 HF1	1984 05 07.06181	12 36 26.72	-10 02 40.1	809
1984 HG1 *	1984 04 23.06146	12 47 01.68	-11 01 02.7	18.0 809
1984 HG1	1984 04 23.08229	12 47 00.69	-11 00 55.1	809
1984 HG1	1984 04 24.01215	12 46 15.03	-10 54 23.9	809
1984 HG1	1984 04 24.03438	12 46 13.91	-10 54 14.8	809
1984 HG1	1984 04 30.04549	12 41 47.40	-10 13 31.9	809
1984 HG1	1984 04 30.06771	12 41 46.45	-10 13 23.0	809
1984 HH1 *	1984 04 23.23611	14 29 32.43	-10 41 48.6	17.0 809
1984 HH1	1984 04 23.25833	14 29 31.27	-10 41 40.8	809
1984 HH1	1984 04 24.22326	14 28 43.88	-10 35 55.4	809
1984 HH1	1984 04 24.24201	14 28 42.87	-10 35 48.7	809
1984 HH1	1984 04 25.13715	14 27 58.58	-10 30 28.5	809
1984 HH1	1984 04 25.15799	14 27 57.63	-10 30 21.8	809
1984 HH1	1984 04 27.16632	14 26 15.98	-10 18 23.9	809
1984 HH1	1984 04 27.18854	14 26 14.78	-10 18 15.5	809
1984 HH1	1984 04 30.23646	14 23 38.51	-10 00 19.9	809
1984 HH1	1984 04 30.25729	14 23 37.38	-10 00 12.8	809
1984 HJ1 *	1984 04 23.23611	14 29 46.58	-10 16 06.0	17.0 809
1984 HJ1	1984 04 23.25833	14 29 45.32	-10 16 01.5	809
1984 HJ1	1984 04 24.22326	14 28 50.30	-10 12 40.0	809
1984 HJ1	1984 04 24.24201	14 28 49.12	-10 12 35.7	809
1984 HJ1	1984 04 25.13715	14 27 57.86	-10 09 29.6	809
1984 HJ1	1984 04 25.15799	14 27 56.66	-10 09 25.9	809
1984 HJ1	1984 04 27.16632	14 25 59.28	-10 02 31.6	809
1984 HJ1	1984 04 27.18854	14 25 57.86	-10 02 26.8	809
1984 HJ1	1984 04 30.23646	14 22 57.62	-09 52 15.1	809
1984 HJ1	1984 04 30.25729	14 22 56.38	-09 52 11.1	809
1984 HK1 *	1984 04 26.05799	13 19 27.63	-10 01 27.7	17.5 809
1984 HK1	1984 04 26.08507	13 19 26.43	-10 01 20.6	809
1984 HK1	1984 04 27.10243	13 18 40.67	-09 56 57.1	809
1984 HK1	1984 04 27.12326	13 18 39.70	-09 56 51.3	809
1984 HK1	1984 04 30.14132	13 16 28.29	-09 44 06.3	809
1984 HK1	1984 04 30.16146	13 16 27.48	-09 44 01.0	809
1984 HK1	1984 05 05.11979	13 13 07.98	-09 24 14.9	809
1984 HK1	1984 05 05.14201	13 13 07.07	-09 24 11.1	809
1984 HL1 *	1984 04 27.07049	12 59 27.30	-06 56 52.0	16.5 809
1984 HL1	1984 04 27.08993	12 59 26.38	-06 56 48.6	809
1984 HL1	1984 04 28.04688	12 58 43.70	-06 53 52.5	809
1984 HL1	1984 04 28.06979	12 58 42.63	-06 53 48.7	809
1984 HL1	1984 05 01.08715	12 56 37.16	-06 45 25.0	809
1984 HL1	1984 05 01.10729	12 56 36.31	-06 45 21.7	809
1984 HL1	1984 05 05.08854	12 54 14.36	-06 36 18.8	809
1984 HL1	1984 05 05.11007	12 54 13.64	-06 36 16.3	809
1984 HM1 *	1984 04 27.07049	12 59 33.41	-06 30 04.1	16.5 809
1984 HM1	1984 04 27.08993	12 59 32.42	-06 30 00.9	809
1984 HM1	1984 04 28.04688	12 58 49.33	-06 27 21.6	809
1984 HM1	1984 04 28.06979	12 58 48.30	-06 27 17.7	809
1984 HM1	1984 05 01.08715	12 56 41.30	-06 19 46.4	809
1984 HM1	1984 05 01.10729	12 56 40.50	-06 19 43.5	809
1984 HM1	1984 05 05.08854	12 54 16.21	-06 11 52.0	809
1984 HN1 *	1984 04 27.07049	13 03 23.09	-06 34 21.6	16.5 809
1984 HN1	1984 04 27.08993	13 03 22.13	-06 34 13.5	809
1984 HN1	1984 04 28.04688	13 02 36.87	-06 27 15.3	809
1984 HN1	1984 04 28.06979	13 02 35.74	-06 27 05.5	809
1984 HN1	1984 05 01.08715	13 00 19.43	-06 05 50.8	809
1984 HN1	1984 05 01.10729	13 00 18.52	-06 05 42.4	809
1984 HN1	1984 05 05.08854	12 57 35.83	-05 39 32.6	809

1984 HN1		1984 05 05.11007	12 57 34.98	-05 39 24.6		809
1984 HO1 *		1984 04 28.08160	13 32 33.47	-10 49 47.8	18.0	809
1984 HO1		1984 04 28.10243	13 32 32.11	-10 49 43.8		809
1984 HO1		1984 04 30.17118	13 30 29.24	-10 43 21.1		809
1984 HO1		1984 04 30.19410	13 30 27.77	-10 43 16.0		809
1984 HO1		1984 05 05.02396	13 26 01.19	-10 29 33.4		809
1984 HO1		1984 05 05.04410	13 26 00.07	-10 29 28.9		809
1984 HO1		1984 05 06.22708	13 24 59.06	-10 26 25.9		809
1984 HO1		1984 05 06.24931	13 24 57.95	-10 26 23.3		809
1984 HO1		1984 05 07.11597	13 24 15.50	-10 24 16.8		809
1984 HO1		1984 05 07.14444	13 24 13.95	-10 24 12.0		809
1984 HO1		1984 05 07.15938	13 24 13.22	-10 24 10.3		809
1984 HP1 *		1984 04 28.11354	13 35 55.01	-09 16 07.2	17.5	809
1984 HP1		1984 04 28.13646	13 35 53.96	-09 16 03.0		809
1984 HP1		1984 04 29.19757	13 35 07.75	-09 12 26.6		809
1984 HP1		1984 04 29.21910	13 35 06.80	-09 12 22.6		809
1984 HP1		1984 05 02.07882	13 33 06.38	-09 03 04.8		809
1984 HP1		1984 05 02.10174	13 33 05.37	-09 03 00.6		809
1984 HP1		1984 05 05.15313	13 31 02.97	-08 53 38.5		809
1984 HP1		1984 05 05.17604	13 31 02.03	-08 53 35.3		809
1984 HQ1 *		1984 04 28.11354	13 36 37.12	-09 56 22.9	18.0	809
1984 HQ1		1984 04 28.13646	13 36 36.10	-09 56 17.5		809
1984 HQ1		1984 04 29.19757	13 35 49.27	-09 51 46.5		809
1984 HQ1		1984 04 29.21910	13 35 48.23	-09 51 40.9		809
1984 HQ1		1984 05 02.07882	13 33 45.44	-09 39 50.1		809
1984 HQ1		1984 05 02.10174	13 33 44.45	-09 39 43.4		809
1984 HQ1		1984 05 05.15313	13 31 38.72	-09 27 34.0		809
1984 HQ1		1984 05 05.17604	13 31 37.78	-09 27 28.6		809
1984 HR1 *		1984 04 28.11354	13 38 47.38	-10 09 00.2	17.0	809
1984 HR1		1984 04 28.13646	13 38 46.09	-10 08 57.0		809
1984 HR1		1984 04 29.19757	13 37 47.21	-10 06 30.4		809
1984 HR1		1984 04 29.21910	13 37 45.98	-10 06 27.4		809
1984 HR1		1984 05 02.07882	13 35 12.08	-10 00 09.8		809
1984 HR1		1984 05 02.10174	13 35 10.78	-10 00 06.8		809
1984 HR1		1984 05 05.15313	13 32 33.93	-09 53 59.4		809
1984 HR1		1984 05 05.17604	13 32 32.75	-09 53 56.8		809
1984 HS1 *		1984 04 28.11354	13 40 20.26	-10 48 43.4	17.5	809
1984 HS1		1984 04 28.13646	13 40 18.81	-10 48 33.8		809
1984 HS1		1984 04 29.19757	13 39 18.70	-10 41 42.6		809
1984 HS1		1984 04 29.21910	13 39 17.36	-10 41 34.2		809
1984 HS1		1984 05 02.07882	13 36 40.63	-10 23 24.0		809
1984 HS1		1984 05 02.10174	13 36 39.29	-10 23 16.2		809
1984 HS1		1984 05 05.15313	13 34 00.31	-10 04 38.0		809
1984 HS1		1984 05 05.17604	13 33 59.06	-10 04 29.4		809
1984 HT1 *		1984 04 28.11354	13 40 27.10	-10 20 54.1	17.5	809
1984 HT1		1984 04 28.13646	13 40 25.84	-10 20 47.6		809
1984 HT1		1984 04 29.19757	13 39 31.05	-10 15 57.8		809
1984 HT1		1984 04 29.21910	13 39 29.88	-10 15 51.8		809
1984 HT1		1984 05 02.07882	13 37 07.77	-10 03 12.1		809
1984 HT1		1984 05 02.10174	13 37 06.56	-10 03 05.8		809
1984 HT1		1984 05 05.15313	13 34 43.51	-09 50 23.8		809
1984 HT1		1984 05 05.17604	13 34 42.43	-09 50 18.5		809
1984 HU1 *		1984 04 29.05521	13 22 17.26	-07 59 28.4	17.0	809
1984 HU1		1984 04 29.07743	13 22 16.00	-07 59 24.2		809
1984 HU1		1984 04 30.01840	13 21 25.67	-07 56 33.4		809
1984 HU1		1984 04 30.03576	13 21 24.68	-07 56 30.8		809
1984 HU1		1984 05 07.17569	13 15 37.90	-07 38 12.4		809
1984 HU1		1984 05 07.20000	13 15 36.78	-07 38 08.9		809
1984 HU1		1984 05 07.21667	13 15 36.04	-07 38 07.4		809

1984 HV1 *	1984 04 29.05521	13 25 19.77	-07 08 12.6	17.5	809
1984 HV1	1984 04 29.07743	13 25 18.36	-07 08 09.4		809
1984 HV1	1984 04 30.01840	13 24 24.09	-07 06 08.2		809
1984 HV1	1984 04 30.03576	13 24 23.13	-07 06 05.9		809
1984 HV1	1984 05 06.19375	13 18 54.32	-06 55 22.9		809
1984 HV1	1984 05 06.21597	13 18 53.13	-06 55 20.9		809
1984 HV1	1984 05 07.17569	13 18 07.03	-06 54 07.0		809
1984 HV1	1984 05 07.20000	13 18 05.86	-06 54 05.2		809
1984 HV1	1984 05 07.21667	13 18 04.94	-06 54 03.9		809
1984 JE	1984 04 26.05799	13 18 05.28	-10 03 12.4	17.0	809
1984 JE	1984 04 26.08507	13 18 03.52	-10 03 12.5		809
1984 JE	1984 04 27.10243	13 17 02.08	-10 03 02.1		809
1984 JE	1984 04 27.12326	13 17 00.81	-10 03 01.6		809
1984 JE	1984 04 30.14132	13 14 06.98	-10 02 50.5		809
1984 JE	1984 04 30.16146	13 14 05.86	-10 02 50.1		809
1984 JE	1984 05 05.11979	13 09 51.38	-10 03 46.8		809
1984 JE	1984 05 05.14201	13 09 50.24	-10 03 47.0		809

* * * * *

ORBITAL ELEMENTS OF ONE-OPPOSITION MINOR PLANETS.

The orbit computers and authors of double designations are B = C. M. Bardwell, G = D. W. E. Green, I = H. Oishi, k = M. Kretlow, M = B. G. Marsden, N = S. Nakano. For further information see MPC 7828.

Planet	B(1,0)	Epoch	M	Peri.	Node	Incl.	e	a	Arc	O	N	C
1969 TJ1	14.6	691006	329.70	27.53	28.64	8.74	0.0629	2.5619	27	4	1	I
1975 UX	17.5	751104	0.83	293.74	91.22	3.44	0.1866	2.4284	2	3	2	M
1975 UY	16.0	751104	356.62	217.48	175.77	6.87	0.2502	2.4722	2	3	2	M
1975 UZ	18.0	751104	5.25	314.47	62.47	5.49	0.2533	2.7081	2	3	2	M
1975 UA1	15.0	751104	0.65	192.59	191.49	18.03	0.1600	2.8476	2	3	2	M
1975 UB1	15.5	751104	140.04	181.68	51.81	8.60	0.1543	2.2599	2	3	2	M
1975 UC1	15.5	751104	14.62	295.60	68.72	5.43	0.2249	2.3301	2	3		M
1975 UD1	15.5	751104	0.67	322.76	60.36	8.61	0.1278	2.7979	2	3	2	M
1975 VT2	13.5	751104	45.27	258.14	71.37	6.67	0.0699	3.0179	4	4		M
1975 VV2	14.0	751104	37.20	286.91	39.10	18.04	0.2088	3.2053	4	4		M
1975 VW2	15.0	751104	85.52	141.15	142.36	4.90	0.1367	2.2411	4	4		M
1975 VX2	14.0	751104	340.17	355.01	57.86	8.49	0.1906	2.9604	9	5		M
1975 VW5	14.5	751104	26.90	282.66	67.98	8.41	0.1359	2.4629	20	4		M
1975 VY5	12.0	751104	261.52	93.35	39.15	23.85	0.1209	3.1778	20	4		M
1981 WL4	14.5	811202	332.76	36.09	62.69	5.72	0.1031	2.5704	15	4	1	M
1982 SA4	15.0	821018	34.58	299.76	33.53	4.96	0.1922	2.2720	36	8	1	k
1982 SO4	15.0	821018	337.26	53.86	14.11	7.56	0.2926	2.3912	55	9	1	k
1982 UU5	14.1	821018	80.34	23.41	270.97	4.10	0.1420	2.6053	20	5	1	N
1984 CP	14.5	840301	318.51	79.35	124.93	7.47	0.1015	2.4376	33	0		M
1984 DL	13.5	840301	215.43	161.93	139.05	14.95	0.0413	2.5621	12	0		M
1984 DM	14.0	840301	327.47	233.88	323.69	13.97	0.2244	3.1778	16	0		B
1984 DN	15.5	840301	358.45	1.20	151.37	7.54	0.2156	2.5548	17	0		B
1984 DO	15.0	840301	214.76	254.25	49.21	0.57	0.1820	2.1536	17	0		B
1984 DP	14.5	840301	165.16	198.10	140.06	6.45	0.1917	2.2619	17	0		B
1984 DQ	15.5	840301	310.50	251.42	330.21	11.08	0.2205	2.5503	17	0		B
1984 DR	15.5	840301	62.38	292.17	140.89	5.76	0.1349	2.2495	17	0		B
1984 DS	15.0	840301	224.30	142.44	157.75	4.16	0.2047	2.2122	7	9	2	B
1984 DT	14.5	840301	111.90	62.15	308.69	3.76	0.1879	2.1918	14	0		B
1984 DU	14.0	840301	69.83	268.49	149.93	7.05	0.1384	2.7698	13	0		G
1984 DV	14.0	840301	95.21	73.98	320.52	9.65	0.1184	3.0054	13	0		B
1984 DW	15.0	840301	92.47	85.42	328.06	9.81	0.0232	2.5175	15	0		B
1984 DX	16.0	840301	48.72	289.86	143.81	3.95	0.2531	2.5849	9	0		G

1984 DY	14.5	840301	29.94	126.59	359.84	0.69	0.1782	3.1529	14 0	B
1984 DZ	16.0	840301	305.40	260.18	345.31	7.81	0.2140	2.3206	14 0	B
1984 DA1	15.0	840301	326.23	353.23	217.98	4.08	0.0470	2.4580	14 0	B
1984 DB1	15.0	840301	7.15	348.67	168.44	25.59	0.2077	3.0434	15 0	G
1984 DC1	15.0	840301	91.21	250.35	163.10	2.19	0.2120	2.3461	16 0	G
1984 DD1	16.0	840301	276.52	287.15	328.06	3.39	0.1036	2.2350	11 0	G
1984 DE1	14.0	840301	339.13	228.97	326.11	1.52	0.2500	3.8884	11 0	2 G
1984 DF1	15.5	840301	9.16	167.33	348.92	3.63	0.1074	2.6839	15 0	G
1984 EN	14.0	840301	37.96	148.67	327.92	3.80	0.0817	2.3950	37 0	M
1984 EX	14.0	840301	342.70	204.10	346.72	4.95	0.1249	2.7561	37 0	M
1984 EN1	16.0	840301	306.80	76.95	150.54	1.66	0.1868	2.3822	9 0	B
1984 EO1	15.0	840301	234.78	314.98	342.04	6.90	0.1049	2.4555	11 0	B
1984 EP1	16.0	840301	355.47	184.01	341.49	7.12	0.0972	2.3938	9 0	G
1984 EQ1	14.0	840301	77.87	275.36	132.63	2.16	0.2990	3.2412	6 0	G
1984 ER1	14.0	840301	42.61	313.66	149.68	2.14	0.1612	3.1612	11 0	B
1984 ES1	16.0	840301	305.02	257.37	342.47	3.36	0.1133	2.2480	12 0	G
1984 ET1		840301	135.99	224.74	154.94	1.46	0.2028	3.0723	10 0	2 B
1984 EU1	16.5	840301	20.16	173.20	333.58	3.63	0.1244	2.2803	10 0	G
1984 HR	15.0	840430	341.67	222.99	15.66	2.35	0.1744	2.3741	11 0	M
1984 HA1	9.0	840520	267.80	122.41	179.04	24.60	0.0890	5.1313	71 0	B
1984 HE1	13.0	840430	272.91	75.81	222.92	11.04	0.0943	3.1496	14 0	M
1984 HG1	16.0	840430	313.29	359.92	267.63	3.18	0.1559	2.2406	7 6	M
1984 HH1	15.5	840430	338.65	83.82	166.42	2.46	0.1984	2.3531	7 0	M
1984 HJ1	15.5	840430	329.06	177.97	81.10	2.99	0.1455	2.2647	7 0	M
1984 HK1	13.5	840430	279.69	313.31	337.56	1.32	0.0266	2.9004	9 8	M
1984 HL1	14.5	840430	51.33	120.61	18.95	2.42	0.1591	2.2779	8 8	M
1984 HM1	14.5	840430	19.78	157.89	24.52	2.53	0.1103	2.2786	8 7	M
1984 HN1	14.0	840430	287.78	95.28	204.10	4.60	0.1834	2.3938	8 8	M
1984 HO1	16.0	840430	53.23	131.94	23.28	4.17	0.0351	2.1611	9 0	M
1984 HP1	13.5	840430	52.53	106.02	40.81	2.33	0.1077	3.1703	7 8	M
1984 HQ1	14.0	840430	179.71	238.01	152.33	0.09	0.0288	3.0107	7 8	2 M
1984 HR1	14.5	840430	319.85	233.25	32.04	5.16	0.1546	2.5859	7 8	M
1984 HS1	14.5	840430	132.82	209.46	216.29	2.54	0.1823	2.2131	7 8	M
1984 HT1	16.0	840430	334.26	215.85	38.58	0.35	0.2329	2.3940	7 8	M
1984 HU1	15.0	840430	332.56	204.90	35.27	3.43	0.0519	2.2742	8 7	M
1984 HV1	15.0	840430	99.10	67.78	39.67	5.38	0.0301	2.1785	8 9	M
1984 JE	14.5	840430	58.49	105.74	22.73	9.30	0.2058	2.3130	9 0	M

Note 1: double designations 1969 TJ1 = 1969 VB (I, JAM 1624); 1981 WL4 = 1981 XT1 (k); 1982 SA4 = 1982 UR (k); 1982 SO4 = 1982 TL (k); 1982 UU5 = 1982 VD6 (N). 2: e assumed.

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ORBITAL ELEMENTS BY M. KRETLOW, ASTRONOMICAL ASSOCIATION 'URANIA', WIESBADEN.

1984 GA = 1950 TN4 = 1981 JQ2 = 1982 UW9

The identifications are by M. Kretlow. The identifications 1984 GA = 1950 TN4 = 1981 JQ2 were found independently by L. D. Schmadel.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	29.73217	(1950.0)	P	Q
n	0.31170897	Peri. 233.83274	-0.60882139	+0.79330634
a	2.1542851	Node 358.66097	-0.70951372	-0.54521966
e	0.0541251	Incl. 3.07181	-0.35486164	-0.27092541
P	3.16	B(1,0) 15.0		

Residuals in seconds of arc

501010	672	0.3-	0.3+	840330	675	(5.5+)	1.1+	840403	688	(5.8-)	0.4+
501010	672	0.4+	0.4-	840331	688	0.3+	0.4-	840403	688	0.4+	1.0-
810506	675	0.0	0.2-	840331	688	1.0+	1.1-	840504	688	0.8+	0.2-
821022	095	0.1+	0.3-	840331	675	1.1-	(3.2+)	840504	688	1.6-	1.0+

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

1984 AB1 = 1969 UZ1 = 1979 RA

The identifications were found independently by L. D. Schmadel and W. Landgraf.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 150.93431		(1950.0)		P		Q
n 0.29309988	Peri.	286.11879		+0.79517765		-0.60199803
a 2.2445311	Node	110.95088		+0.58183228		+0.72369874
e 0.1646042	Incl.	4.46717		+0.17077383		+0.33742927
P 3.36	B(1,0)	14.5				

Residuals in seconds of arc

691017 095	0.1-	0.2+	840108 688	2.1-	0.7+	840204 688	2.1+	1.1-
790901 095	0.1-	0.1+	840126 688	0.9+	0.9-	840204 688	0.6+	0.2-
840108 688	0.1-	0.5-	840126 688	0.1-	0.9+	840307 801	1.5-	1.6+

* * * * *

ORBITAL ELEMENTS BY W. LANDGRAF, MAX-PLANCK-INSTITUT FUR AERONOMIE, LINDAU.

(386) Siegena

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 268.05874		(1950.0)		P		Q
n 0.19976774	Peri.	218.58144		+0.89625166		-0.43619262
a 2.8981385	Node	166.56678		+0.44136564		+0.89501817
e 0.1703997	Incl.	20.25598		-0.04392424		+0.09315827
P 4.93	B(1,0)	8.6				

From 134 observations at 31 oppositions 1911-1983, mean residual 0".9.

(717) Wisibada

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 28.60202		(1950.0)		P		Q
n 0.17509914	Peri.	19.96802		+0.99727060		-0.07340202
a 3.1643174	Node	344.23508		+0.06312598		+0.90364410
e 0.2424002	Incl.	1.68074		+0.03829450		+0.42194724
P 5.63	B(1,0)	12.0				

From 43 observations at 15 oppositions 1911-1980, mean residual 0".9.

(738) Alagasta

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 136.39799		(1950.0)		P		Q
n 0.18645956	Peri.	48.36148		-0.99893330		+0.00538107
a 3.0344474	Node	131.89300		-0.02152512		-0.93294202
e 0.0606324	Incl.	3.53221		+0.04085254		-0.35998642
P 5.29	B(1,0)	11.1				

From 90 observations at 31 oppositions 1913-1980, mean residual 1".0.

(765) Mattiaca

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 156.03265		(1950.0)		P		Q
n 0.24250179	Peri.	70.18687		+0.79973974		-0.59794357
a 2.5467878	Node	326.47260		+0.50798965		+0.72163671
e 0.2799188	Incl.	5.57557		+0.31994197		+0.34886092
P 4.06	B(1,0)	14.1				

From 37 observations at 13 oppositions 1913-1984, mean residual 1".3.

(766) Moguntia
 Epoch 1984 Oct. 27.0 ET = JDE 2446000.5
 M 142.95998 (1950.0) P Q
 n 0.18791692 Peri. 67.24792 +0.25738147 -0.96600534
 a 3.0187382 Node 7.95447 +0.80971565 +0.20190317
 e 0.0961370 Incl. 10.09583 +0.52736642 +0.16145836
 P 5.24 B(1,0) 11.0
 From 47 observations at 22 oppositions 1908-1983, mean residual 1".1.

(788) Hohensteina
 Epoch 1984 Oct. 27.0 ET = JDE 2446000.5
 M 280.13301 (1950.0) P Q
 n 0.17809582 Peri. 39.17138 -0.79278891 +0.60945313
 a 3.1287216 Node 178.32730 -0.60276856 -0.78221884
 e 0.1263372 Incl. 14.39007 -0.09030952 -0.12923063
 P 5.53 B(1,0) 9.3
 From 51 observations at 22 oppositions 1914-1983, mean residual 1".0.

(1221) Amor
 Epoch 1984 Oct. 27.0 ET = JDE 2446000.5
 M 261.77160 (1950.0) P Q
 n 0.37029870 Peri. 26.16873 -0.95448789 +0.29646129
 a 1.9205897 Node 170.89367 -0.29677191 -0.93319212
 e 0.4343121 Incl. 11.89148 -0.02965298 -0.20313333
 P 2.66 B(1,0) 19.3
 From 217 right ascensions and 242 declinations of 261 observations 1932-1980, mean residual 1".4.

(2101) Adonis
 Epoch 1984 Oct. 27.0 ET = JDE 2446000.5
 M 23.95256 (1950.0) P Q
 n 0.38390764 Peri. 41.58753 +0.84563938 -0.53374075
 a 1.8749292 Node 350.66870 +0.48319409 +0.76858303
 e 0.7637633 Incl. 1.36216 +0.22675430 +0.35270518
 P 2.57 B(1,0) 19.5
 From 49 observations at 3 oppositions 1936-1984, mean residual 1".3.

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

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

(1872) Helenos
 Epoch 1984 Oct. 27.0 ET = JDE 2446000.5
 M 315.12511 (1950.0) P Q
 n 0.08406114 Peri. 108.10905 +0.44594556 +0.89423652
 a 5.1610636 Node 188.67731 -0.88684231 +0.43564630
 e 0.0434957 Incl. 14.74057 -0.12100937 +0.10272952
 P 11.72 B(1,0) 11.6
 Residuals in seconds of arc
 710324 675 1.0+ 0.0 720316 675 0.3+ 0.4+ 740619 693 0.2+ 1.1-
 710325 675 0.5+ 0.1+ 720316 675 0.2- 0.5+ 740812 675 0.4- 1.0-
 710327 675 0.2+ 1.3- 720317 675 0.1- 0.3+ 740813 675 0.2- 0.9-
 710402 675 0.3+ 0.0 720317 675 0.0 0.1+ 740814 675 0.1- 0.9-
 710416 675 0.3+ 1.5- 720410 808 0.0 0.1- 740916 693 0.4+ 0.2- Y
 710513 675 0.9- 0.2+ 730404 693 0.1- 0.7+ Y 840429 801 0.9- 1.1-
 710514 675 0.6- 0.3- 740421 693 1.6+ 3.6+ Y 840603 801 1.1+ 0.4+
 710514 675 1.2- 1.4+ 740522 693 1.1- 0.1- Y

(1873) Agenor

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	42.15355		(1950.0)		P		Q
n	0.08161821	Peri.	355.39090		-0.97394481		+0.19802973
a	5.2635410	Node	197.27662		-0.19434539		-0.97997807
e	0.0924820	Incl.	21.84865		-0.11688191		-0.02066881
P	12.08	B(1,0)	11.8				

Residuals in seconds of arc

710325	675	0.8-	0.1-	720316	675	1.7-	0.4-	740812	675	0.1-	1.2+
710326	675	0.4+	0.5-	720317	675	1.7-	0.1+	740813	675	0.1-	0.8+
710327	675	0.0	0.2+	720317	675	1.3-	0.1-	740814	675	0.5-	0.8+
710402	675	0.5+	0.7+	720514	693	1.8+	0.6-	740912	691	0.1+	1.2-
710416	675	0.5+	0.5-	730702	691	1.1+	3.5+ Y	740912	691	0.6+	1.0+
710514	675	0.0	0.3-	730702	691	1.8+	1.9- Y	840429	801	0.3-	1.1+
710514	675	0.2+	1.2-	740525	691	1.1-	5.2- Y	840603	801	0.3+	1.2+

(3093)* 1971 MG = 1980 RV3 = 1981 YQ1

Discovered 1971 June 28 by T. Smirnova at the Crimean Astrophysical Observatory. The identification 1971 MG = 1980 RV3 is by E. Bowell (MPC 8148).

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	339.60768		(1950.0)		P		Q
n	0.22505630	Peri.	59.77108		+0.90694621		+0.35984416
a	2.6767548	Node	278.37751		-0.42043489		+0.80550955
e	0.2059482	Incl.	12.78901		+0.02613558		+0.47081476
P	4.38	B(1,0)	12.5				

Residuals in seconds of arc

710628	095	1.6-	2.5-	811220	330	1.6-	0.2-	830215	474	0.1+	2.0-
710630	095	3.0+	0.6+	811223	330	0.7+	2.5+	830320	474	0.5+	0.9+
710717	095	0.1-	2.7+	820116	330	0.4+	2.0+	830320	474	1.0+	0.9+
710729	095	2.3-	1.7+	820120	330	0.7+	1.2+	840529	474	0.5-	0.4+
710812	095	(16.6+ 11.4-)		830214	474	0.4+	1.3+	840529	474	0.7-	0.5+
800906	095	1.6-	1.4+	830214	474	1.1+	1.6+				
800911	095	0.8+	1.8+	830215	474	0.3+	0.5-				

(3094)* 1979 FE2 = 1936 HG = 1968 UM1 = 1983 CE3

Discovered 1979 Mar. 23 by N. S. Chernykh at the Crimean Astrophysical Observatory. The key identification 1979 FE2 = 1983 CE3 is by T. Furuta (JAM 1568). The identification 1979 FE2 = 1936 HG is by L. D. Schmadel (MPC 8682).

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	71.72547		(1950.0)		P		Q
n	0.22852103	Peri.	50.52506		-0.73233749		+0.68006563
a	2.6496302	Node	172.10490		-0.67602778		-0.72003532
e	0.0717095	Incl.	14.56077		-0.08165928		-0.13805753
P	4.31	B(1,0)	13.0				

Residuals in seconds of arc

360419	094	(28.9+ 65.4+)X		790420	095	1.2+	2.9-	830214	704	2.2-	1.8-
360421	094	(7.5- 49.6-)X		790425	095	0.9-	3.1+	830215	704	0.8+	2.1-
681023	095	1.0-	5.7+	830212	704	0.3-	2.8+	840503	801	1.2-	1.0+
790323	095	1.3+	0.3+	830212	704	3.4+	1.8+	840526	801	0.2+	2.3+
790329	095	0.8-	1.6+	830213	704	1.4-	1.5+	840627	801	0.7+	1.5+

(3095)* 1980 RT2 = 1974 VC = 1979 OS4

Discovered 1980 Sept. 8 by L. V. Zhuravleva at the Crimean Astrophysical Observatory.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 177.19359	(1950.0)		P	Q
n 0.15096776	Peri. 125.47038		+0.50642715	-0.86095882
a 3.4931178	Node 294.03583		+0.77317722	+0.47792067
e 0.0700823	Incl. 2.99790		+0.38174404	+0.17418882
P 6.53	B(1,0) 12.5			

Residuals in seconds of arc

741112 095	0.9-	2.8+	790727 675	0.7+	0.1-	830118 801	2.5+	1.0+
790724 675	0.2+	1.8+	800908 095	0.3-	0.7+	830216 801	0.9-	1.9+
790724 413	0.3-	0.2+	801008 095	0.4+	0.1+	840402 801	1.0+	0.2+
790725 675	1.3-	1.6+	801012 095	0.1-	0.9-	840604 801	0.8-	1.2+

(3096)* 1981 QC1 = 1933 QE = 1955 SV = 1968 TN

Discovered 1981 Aug. 28 by Z. Vavrova at Klet. The identifications are by L. D. Schmadel (MPC 7780).

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 266.92071	(1950.0)		P	Q
n 0.22644427	Peri. 165.49220		+0.89820204	+0.43749841
a 2.6658057	Node 168.28229		-0.42136126	+0.88460213
e 0.1961695	Incl. 12.15380		-0.12525089	+0.16147508
P 4.35	B(1,0) 14.0			

Residuals in seconds of arc

330820 012	1.8-	3.5-	810831 704	0.1-	1.3+	810925 330	0.6+	2.3+
330821 012	2.4-	1.3+	810901 704	0.1+	0.6+	810926 688	0.8+	2.4-
330823 012	0.4+	0.8-	810902 704	0.1+	4.2+	810926 688	0.5+	2.4-
330825 012	3.9+	3.4+	810903 704	0.7+	0.7+	811004 688	0.1+	2.6-
550918 760	(93.8+ 60.9-)X		810904 046	0.2-	1.3+	811004 688	0.7+	1.8-
681015 095	1.4-	1.8+	810904 046	1.4-	1.0-	840402 801	0.1+	0.0
810828 046	0.7-	0.1+	810905 046	0.3-	1.8-	840526 801	0.5-	2.2-
810828 046	0.6+	1.0+	810905 046	0.0	1.3-			
810830 704	0.3+	0.9-	810919 330	0.4-	0.8-			

(3097)* 2011 P-L = 1965 SX = 1975 TL = 1980 RW2 = 1980 TR6

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

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 4.62145	(1950.0)		P	Q
n 0.19638944	Peri. 86.88052		+0.23234104	+0.97192132
a 2.9312799	Node 196.69700		-0.93588782	+0.21297527
e 0.0907847	Incl. 7.44677		-0.26482375	+0.10005237
P 5.02	B(1,0) 13.0			

Residuals in seconds of arc

600924 675	0.5-	1.1-	601022 675	0.2-	0.9+	800908 095	1.3+	1.5+
600926 675	0.4-	0.5+	601025 675	0.3+	0.7-	801008 095	0.7-	1.0-
600928 675	0.4+	0.8+	601025 675	1.5+	0.3-	840506 801	0.2-	0.2+
600929 675	0.9+	0.2-	601026 675	0.9-	0.5-	840527 801	0.3+	0.8-
601017 675	0.5-	0.6+	650923 330	1.1+	0.7-	840703 801	0.2-	0.6+
601022 675	0.6-	1.1-	751003 095	1.7-	0.7+			

(3098)* 4579 P-L = 1980 FJ3

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

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 356.61631	(1950.0)		P	Q
n 0.28206380	Peri. 194.63515		+0.66917663	+0.74281016
a 2.3027024	Node 117.37317		-0.67936572	+0.62292045
e 0.2113599	Incl. 1.34689		-0.30110605	+0.24536336
P 3.49	B(1,0) 16.0			

Residuals in seconds of arc

600924	675	0.0	0.8-	601026	675	0.0	0.4-	800317	809	0.4-	0.8+
600926	675	0.8-	0.3+	800316	809	0.3+	0.1-	800317	809	0.0	0.5-
600927	675	0.3+	0.6+	800316	809	0.2+	0.2-	810930	801	0.3-	0.4-
600928	675	0.8+	0.8+	800316	809	0.7-	0.0	811125	801	0.7+	0.2+
601017	675	0.1+	0.2-	800316	809	0.0	0.3-	840528	801	1.8-	0.2-
601022	675	0.1-	0.3-	800317	809	0.3+	0.4-	840603	801	1.6+	0.3-
601025	675	0.2+	0.8-	800317	809	0.2-	0.3-				

1975 TS2 = 1975 VA6 = 1979 HV

The double designation 1975 TS2 = 1975 VA6 is by B. G. Marsden.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)

M	302.88203		(1950.0)		P		Q
n	0.15765468	Peri.	188.03171		-0.58569286		+0.79095159
a	3.3936393	Node	46.33343		-0.72934115		-0.41898042
e	0.0402307	Incl.	14.17042		-0.35358924		-0.44592712
P	6.25	B(1,0)	12.5				

Residuals in seconds of arc

751003	095	1.2+	0.2-	751124	033	0.2+	0.6-	790426	807	0.1-	0.2+
751013	095	1.4-	0.1+	751125	033	0.4+	0.3+	790426	807	0.5+	0.5-
751105	095	0.3-	0.4+	790419	807	0.5-	0.3+				

1975 TV2 = 1975 TC7 = 1975 VH9 = 1930 HB = 1952 KO = 1957 VC = 1968 UX

The double designation 1975 TV2 = 1975 VH9 is by B. G. Marsden. The note on MPC 2563 concerning the invalidity of 1930 HB = 1952 KO is incorrect.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	332.02936		(1950.0)		P		Q
n	0.26989492	Peri.	158.65588		-0.82476216		+0.54830172
a	2.3714078	Node	55.34538		-0.54009569		-0.69134425
e	0.1349839	Incl.	9.68037		-0.16752321		-0.47054049
P	3.65	B(1,0)	13.5				

Residuals in seconds of arc

300421	389	4.2-	1.7+	571118	330	0.0	3.1+	751105	095	0.2-	1.3+
300423	024	0.6+	0.7-	571120	330	0.5-	4.7+	751106	095	0.2-	2.9-
300429	024	3.3+	0.7+	681022	095	1.0+	1.0-	751124	033	0.6+	0.9+
520520	711	2.7-	0.3-	681026	095	1.8-	1.3-	751125	033	0.9-	1.4+
520522	711	5.7+	3.7+	751003	095	0.0	1.7-				
571114	330	0.8-	1.7+	751013	095	0.6-	0.1+				

1984 CR = 1952 SY = 1975 VL8 = 1979 YS8

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)

M	130.71850		(1950.0)		P		Q
n	0.26023853	Peri.	18.39025		+0.41932092		-0.90692028
a	2.4297179	Node	46.84078		+0.82570383		+0.36231336
e	0.1833894	Incl.	3.20725		+0.37733692		+0.21499915
P	3.79	B(1,0)	14.5				

Residuals in seconds of arc

520929	760	0.9-	0.7-	840227	809	0.0	0.4-	840308	809	1.0-	0.1-
520929	760	1.0+	0.1-	840227	809	0.3+	0.5-	840308	809	1.5-	0.1+
751107	095	0.1-	0.3+	840227	809	0.7+	0.7-	840308	809	1.6-	0.3+
791224	095	0.5-	0.1-	840303	809	1.2-	0.4+	840309	809	1.4+	0.3-
840205	688	0.2-	0.8+	840303	809	1.3-	0.6+	840309	809	1.2+	0.3-
840205	688	3.0+	2.5-	840303	809	1.1-	0.6+	840309	809	1.8+	0.1-

1984 EV = 1933 FM = 1982 VX6

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)

M	56.19675	(1950.0)	P	Q	
n	0.27050510	Peri.	186.18203	-0.99885063	-0.04445037
a	2.3678450	Node	351.21010	+0.04744631	-0.86383758
e	0.0427741	Incl.	6.73934	+0.00680218	-0.50180553
P	3.64	B(1,0)	14.5		

Residuals in seconds of arc

330322	024	6.3+	0.2-	840305	809	0.5+	0.0	840309	688	3.4+	1.5+
330324	024	1.5-	2.3+	840305	809	1.1+	0.1-	840310	809	0.6-	0.2+
330328	024	0.8-	5.3+	840306	809	0.3+	0.2-	840310	809	0.5-	0.3+
821109	095	0.4-	0.6+	840306	809	0.6+	0.1-	840310	809	0.4-	0.2+
840227	809	0.1-	0.1-	840306	809	0.7+	0.1-	840310	809	1.0-	0.2+
840227	809	0.0	0.0	840306	688	2.1+	3.3-	840310	809	0.9-	0.6+
840227	809	0.0	0.0	840306	688	1.4+	0.5-	840310	809	0.7-	0.2+
840228	809	1.0-	0.4-	840308	809	0.5-	0.1-	840311	809	0.0	0.2+
840228	809	0.5-	0.3-	840308	809	0.1-	0.1+	840311	809	0.2+	0.1+
840228	809	0.2-	0.3-	840308	809	0.3+	0.0	840311	809	0.4+	0.0
840301	809	1.0-	0.5-	840308	809	3.5-	1.0+	840311	809	0.3-	0.0
840301	809	1.0-	0.1-	840308	809	3.0-	1.4+	840311	809	0.0	0.1-
840301	809	0.7-	0.4-	840308	809	2.8-	1.3+	840311	809	0.4-	0.4-
840303	809	0.1-	0.3+	840309	688	0.7+	0.7+	840314	809	0.2+	0.3-
840303	809	0.4+	0.4+	840309	809	0.3-	0.5-	840314	809	0.6+	0.2-
840303	809	0.7+	0.2+	840309	809	0.0	0.5-	840314	809	0.7+	0.5-
840304	809	0.4+	0.0	840309	809	0.3+	0.5-	840403	688	2.2+	2.8-
840304	809	0.8+	0.2-	840309	809	0.4+	0.2+	840403	688	2.2-	3.5-
840304	809	0.9+	0.3-	840309	809	0.3+	0.1+				
840305	809	0.2+	0.1+	840309	809	0.3+	0.1+				

1984 KF = 1982 BN3 = 1982 DC

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)

M	315.16796	(1950.0)	P	Q	
n	0.08328139	Peri.	147.12026	+0.26000508	+0.90786650
a	5.1932385	Node	135.33391	-0.95574694	+0.29051383
e	0.1255414	Incl.	27.89617	-0.13764134	-0.30229147
P	11.83	B(1,0)	9.5		

Residuals in seconds of arc

820120	033	2.9-	0.0	820228	688	0.2-	0.5+	840529	675	0.3-	0.4+
820120	033	2.4+	0.2+	820228	688	0.5+	0.7-	840628	801	0.9-	0.0
820220	688	0.4+	0.8+	840526	675	0.6+	0.2-				
820220	688	0.0	0.8+	840527	675	0.2+	0.7+				

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

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

Periodic Comet Bradfield (1984a)

Epoch 1983 Dec. 12.0 ET = JDE 2445680.5

T 1983 Dec. 27.79249 ET

q	1.3574554	(1950.0)	P	Q	
n	0.00650987	Peri.	219.16071	-0.79979543	+0.59796109
a	28.4067395	Node	356.15972	-0.11243721	-0.23535628
e	0.9522136	Incl.	51.79438	-0.58964832	-0.76619185
P	151.40				

From 32 observations 1984 Jan. 9-May 30, mean residual 1".3.

Periodic Comet Takamizawa (1984j)

T 1984 May 26.07338 ET

q	(1950.0)		P	Q	
n	0.14687227	Peri.	147.76906	+0.03776660	+0.99056228
a	3.5577562	Node	124.07286	-0.94722683	+0.07748903
e	0.5569029	Incl.	9.15262	-0.31833160	-0.11305669
P	6.71				

From 17 observations 1984 July 26-Aug. 6.

Comet Austin (1984i)

T 1984 Aug. 12.13463 ET

q	(1950.0)		P	Q	
		Peri.	353.10700	-0.99851983	+0.03293385
		Node	170.87690	+0.05286504	+0.77475241
e	1.0	Incl.	164.15777	-0.01278450	+0.63140641

From 17 observations 1984 July 8-25.

Comet Shoemaker (1984f)

T 1985 Sept. 4.68938 ET

q	(1950.0)		P	Q	
		Peri.	235.46296	-0.65105320	+0.34867487
		Node	48.97929	+0.12309743	+0.92499000
e	1.0	Incl.	116.66900	-0.74898381	-0.15106067

From 34 observations 1984 May 27-July 17.

(3099)* 1940 GF = 1969 EF1 = 1972 VV = 1979 KE = 1980 NT = 1984 HB
= 1984 JG

Discovered 1940 Apr. 3 by Y. Vaisala at Turku. The double designation
1984 HB = 1984 JG is by F. N. Bowman.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	(1950.0)		P	Q	
n	0.20122068	Peri.	144.67093	-0.98671539	-0.08617093
a	2.8841708	Node	31.25834	-0.01220539	-0.80601956
e	0.1995189	Incl.	15.39145	+0.16199926	-0.58558265
P	4.90	B(1,0)	12.5		

Residuals in seconds of arc

400403	062	1.2-	0.0	690313	095	1.8-	0.3+	800711	808	0.9-	0.8+
400404	062	0.9+	2.3+	721108	095	0.6+	1.6+	840427	675	0.0	0.8+
400412	062	1.6+	0.9+	790529	046	0.0	0.9-	840429	675	0.7-	0.1-
400412	062	(6.6+	5.7+)	790529	046	0.1-	1.8-	840504	688	0.2+	1.3-
400428	062	1.4+	0.5-	800711	808	0.3-	0.1-	840504	688	0.4+	1.0-

(3100)* 1977 EQ1 = 1975 TJ2 = 1975 WV1 = 1982 UJ6

Discovered 1977 Mar. 13 by N. S. Chernykh at the Crimean Astrophysical
Observatory.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	(1950.0)		P	Q	
n	0.29012924	Peri.	93.72522	-0.50717231	-0.86155925
a	2.2598262	Node	26.78667	+0.76986402	-0.46446187
e	0.0868923	Incl.	2.82082	+0.38740885	-0.20491661
P	3.40	B(1,0)	15.5		

Residuals in seconds of arc

751003	095	0.1+	2.6+	770325	095	1.4+	0.8+	840501	809	0.3+	1.0+
751126	381	0.9+	0.4-	770410	381	2.5-	0.6-	840501	809	1.2+	0.5+
751126	381	1.1-	1.5-	770410	381	0.0	0.1-	840502	809	0.7+	0.1+
770313	095	0.6+	0.9+	821020	095	0.7-	0.9+	840502	809	0.6+	0.2+
770315	381	0.1+	0.2+	821025	095	0.3-	0.4-	840505	809	1.6-	0.9+
770315	381	0.1-	0.4+	821109	095	0.3+	1.2+	840506	809	0.5-	0.8+
770322	095	0.4+	0.1-	821114	095	0.4-	0.9-	840506	809	0.4+	0.8+

(3101)* 1978 GB

Discovered 1978 Apr. 11 by E. Helin, G. Grueff and J. Wall at Palomar.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	320.99669		(1950.0)		P		Q
n	0.35404379	Peri.	208.28436		+0.97398872		-0.09310202
a	1.9789344	Node	154.39797		+0.08536425		+0.99528375
e	0.0462015	Incl.	28.56003		-0.20990215		-0.02724448
P	2.78	B(1,0)	15.0				

Residuals in seconds of arc

780411	675	0.9+	0.3-	780501	801	0.2-	0.9-	810630	801	0.7+	0.8+
780412	675	0.0	0.8+	780512	801	1.8-	3.8+	840504	675	1.2+	1.7+
780413	801	(6.0-	4.7+)	780612	801	1.9+	2.2+	840504	675	0.7+	1.5-
780413	801	1.0-	0.5-	780706	801	0.7+	1.1-	840505	675	1.5-	0.1+
780415	801	0.4-	0.0	780905	801	1.1-	0.5-	840505	675	1.1-	3.2-
780428	675	0.4+	0.4-	810508	801	0.2-	0.6-	840603	801	0.1-	1.3+
780429	675	0.4+	1.3-	810602	801	0.8-	1.2-	840702	801	0.5+	1.3+

(3102)* 1981 QA

Discovered 1981 Aug. 21 by L. Brozek at Klet.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	2.59407		(1950.0)		P		Q
n	0.31228735	Peri.	154.20462		+0.82956966		+0.55801146
a	2.1516244	Node	171.78132		-0.53428995		+0.80407697
e	0.4488828	Incl.	8.41257		-0.16232199		+0.20514245
P	3.16	B(1,0)	17.0				

Residuals in seconds of arc

810821	046	0.2+	0.2-	810831	474	1.1-	1.3+	810921	046	1.5-	0.7-
810821	046	0.2+	0.3-	810901	474	0.3+	0.0	810925	046	0.3+	1.1-
810823	381	1.7+	0.2+	810901	474	1.0+	0.1-	810925	046	0.5+	1.7-
810823	381	0.1-	0.1+	810902	489	1.3+	1.2-	810928	489	(4.4+	2.9-)
810823	046	0.3+	0.7-	810902	489	3.1-	1.5+	810928	489	0.6-	2.1+
810824	801	0.9-	0.2-	810903	688	0.9+	0.4-	811004	688	1.0+	0.9-
810824	801	(4.9-	16.4+)	810903	688	2.3+	0.2+	811004	688	0.2+	2.0-
810824	046	0.1+	0.5+	810904	688	0.4-	0.8+	811008	675	0.2-	0.3+
810824	046	0.3+	0.3-	810904	046	1.4-	0.8-	811008	675	0.2-	0.1+
810825	323	0.8+	0.3-	810904	046	0.9-	0.2-	811018	474	0.8-	1.1+
810825	010	0.7+	0.1-	810905	046	0.9+	0.7-	811018	474	0.8+	1.1+
810825	010	1.9-	1.1+	810905	046	0.0	0.1-	811019	675	1.3+	0.3-
810826	801	(3.9-	2.1+)	810905	489	0.7-	0.3+	811022	675	1.6-	0.0
810826	688	(3.8+	3.7-)	810905	489	0.6-	2.2+	811117	675	0.8-	0.0
810826	688	0.1-	1.3+	810907	801	0.5-	0.4-	811118	675	0.3-	0.9-
810827	801	0.0	0.9+	810907	046	0.5+	0.6-	811123	801	2.7+	1.2+
810828	046	1.4+	1.7-	810907	046	1.9+	1.1-	811217	675	0.5+	0.7-
810828	046	0.3-	0.3-	810909	675	0.3-	0.7-	811217	675	0.3+	0.0
810829	801	0.6-	0.3+	810910	675	0.1-	0.4-	811221	801	0.0	0.7+
810830	474	0.2+	1.1+	810918	046	1.8-	2.7+	820116	675	1.4-	1.6+
810830	474	0.5+	1.7+	810918	046	1.4+	0.5+	840310	675	2.1-	0.2-
810831	688	(4.9+	3.1+)	810918	489	1.5+	1.4-	840311	675	1.3-	0.2+
810831	688	1.4+	1.2-	810918	489	1.3+	0.3-	840408	675	0.9-	0.6+
810831	474	0.1+	0.2-	810921	801	1.3-	0.5+	840429	801	2.8+	0.7-
810831	474	0.4+	0.1-	810921	675	0.1-	0.6-				
810831	474	0.8-	0.4+	810921	046	0.7-	0.6+				

(3103)* 1982 BB

Discovered 1982 Jan. 20 by M. Lovas at Piszkesteto.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 306.03818		(1950.0)		P		Q
n 0.59059644	Peri.	253.64698	+0.87188515			-0.40408288
a 1.4069398	Node	129.28803	+0.45715131			+0.87414763
e 0.3546772	Incl.	20.94289	-0.17558179			+0.26941221
P 1.67	B(1,0)	16.0				

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

820120 095	1.9+	2.3+	820213 675	0.9-	0.3+	840211 675	1.2+	0.8-
820120 561	(0.03+	0.00-)X	820321 801	1.2+	0.6+	840310 675	1.3-	0.7-
820121 095	0.5+	0.3-	820327 801	0.9+	0.3+	840311 675	1.5-	0.3-
820202 675	0.8-	1.5-	820401 675	1.8-	0.5+	840327 801	0.8+	0.1+
820203 675	0.5-	0.2-	820413 801	0.3-	1.0+	840430 801	0.1+	0.7-
820203 675	1.1-	1.5-	820424 801	1.0-	0.3-	840507 801	0.2-	0.3-
820213 675	0.5+	0.0	820518 801	1.6+	1.4+	840603 801	0.1+	1.4+

(3104)* 1982 BB1 = 1980 VM2

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

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 274.92211		(1950.0)		P		Q
n 0.19298583	Peri.	242.58255	+0.68991292			-0.71255152
a 2.9656446	Node	161.84160	+0.71894769			+0.69503864
e 0.0861327	Incl.	24.17657	-0.08446528			+0.09587285
P 5.11	B(1,0)	12.5				

Residuals in seconds of arc

801111 330	0.1+	1.3-	820221 688	1.4+	1.9-	830503 675	0.2-	0.1+
820124 688	0.0	0.2+	820221 688	0.8+	0.1+	840605 801	0.3+	2.8-
820124 688	1.0+	1.4-	830220 675	0.6-	1.1+	840627 801	0.5-	3.1-
820131 688	1.4-	1.7-	830221 675	0.1+	0.5+			
820131 688	1.0-	0.6-	830502 675	0.2-	0.4+			

1979 SN11 = 1972 TB1

The identification is by L. D. Schmadel.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)

M 133.26263		(1950.0)		P		Q
n 0.28286241	Peri.	163.10957	+0.41639214			-0.90877906
a 2.2983708	Node	262.27659	+0.83091837			+0.39250726
e 0.1856816	Incl.	1.57117	+0.36904233			+0.14162864
P 3.48	B(1,0)	15.0				

Residuals in seconds of arc

721007 095	0.2-	0.4+	840226 809	0.4-	0.6-	840306 809	0.0	0.3-
790924 095	0.3+	0.9-	840226 809	0.1+	0.3-	840306 809	0.0	0.2-
791014 095	0.4-	0.8+	840301 809	0.1-	0.1+	840311 809	0.8+	0.3+
791116 095	0.2-	0.4-	840301 809	0.0	0.6+	840311 809	0.4+	0.3+
791122 095	0.5+	0.0	840301 809	0.2+	0.7+	840311 809	0.3+	0.2+
840226 809	1.1-	0.5-	840306 809	0.1+	0.5-			

1980 JE = 1984 GJ = 1984 HD

The identification and double designation 1980 JE = 1984 GJ = 1984 HD are by F. N. Bowman. The identification 1980 JE = 1984 HD was also found independently by T. Furuta, O. Kippes and W. Landgraf.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)

M 28.78420		(1950.0)		P		Q
n 0.24128512	Peri.	171.84904	-0.67682172			+0.70863975
a 2.5553470	Node	55.28378	-0.68831281			-0.51316906
e 0.1898709	Incl.	14.03581	-0.26103223			-0.48423880
P 4.08	B(1,0)	14.5				

Residuals in seconds of arc

800511 046	0.4-	0.6-	800514 046	2.5-	0.4+	840424 046	1.7-	1.4+
800511 046	1.0+	0.1+	800514 046	0.9-	0.3+	840424 046	0.7-	0.7-
800512 046	0.3-	0.3-	840408 688	0.4+	2.1+	840425 046	0.6-	0.1+
800512 046	0.5-	0.4-	840408 688	0.2-	0.3-	840425 046	1.5-	1.7+
800513 046	0.1-	0.5+	840419 046	0.8-	1.7-			
800513 046	0.6+	1.1+	840419 046	1.9+	0.7-			

1982 DV

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 315.48270		(1950.0)		P		Q
n 0.33995405	Peri.	349.19484	-0.88705294			+0.45722575
a 2.0332428	Node	218.22288	-0.41547643			-0.85095569
e 0.4566662	Incl.	5.92683	-0.20128690			-0.25849377
P 2.90	B(1,0)	16.5				

From 68 observations 1982 Feb. 28-Sept. 14, mean residual 0".9.

1982 RA

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M 355.35128		(1950.0)		P		Q
n 0.49876132	Peri.	53.25156	+0.79613749			-0.57418734
a 1.5747352	Node	339.45721	+0.21136041			+0.55960193
e 0.2835735	Incl.	32.97355	+0.56700253			+0.59762410
P 1.98	B(1,0)	16.3				

Residuals in seconds of arc

820913 675	0.2+	1.8+	820919 010	(2.1+ 3.7+)	821012 675	(1.0- 11.2+)
820913 675	0.2-	1.8+	820919 010	(2.7+ 3.3+)	821013 675	1.0- 0.1-
820916 413	1.2-	2.1+	820920 675	0.4- 0.8-	821013 675	0.1+ 2.2-
820916 413	1.0+	0.3+	820920 675	2.0+ 0.8-	821017 801	0.1- 0.5+
820916 413	(1.6+ 3.4+)		820920 675	2.3+ 1.6-	821106 675	0.5+ 0.3+
820916 413	1.8-	0.9-	820922 688	(1.4- 4.4-)	821109 801	0.9- 2.2+
820917 675	1.2-	0.2-	820922 688	1.0+ 1.9-	821204 675	0.4+ 0.6+
820918 675	1.0-	1.0+	820922 688	0.4+ 1.2-	821216 801	0.7+ 0.3+
820918 675	0.5-	1.6+	820923 474	0.6- 1.5-	830108 801	0.7+ 0.5+
820918 675	0.7-	0.5-	820923 474	0.3+ 2.0-	830115 801	0.7- 0.5-
820918 675	0.4+	1.1+	820924 675	0.2+ 0.7+	830124 675	(10.2+ 3.2+)
820918 010	(2.4- 3.6+)		821005 413	2.2- 2.0-	840725 474	1.3+ 0.8-
820919 675	(3.5- 1.5+)		821005 413	0.1+ 0.5+	840725 474	0.5+ 0.7-
820919 675	(1.6- 3.4+)		821011 801	0.0 0.1-	840726 474	0.1+ 0.0
820919 010	2.1+	2.6+	821012 675	(0.1- 12.2+)	840726 474	0.2+ 0.7+

1982 TC2 = 1952 DE3 = 1973 UO4 = 1984 HF1

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)

M 112.66586		(1950.0)		P		Q
n 0.21677857	Peri.	235.85302	-0.26303631			-0.95785497
a 2.7444754	Node	229.82877	+0.92741248			-0.21805063
e 0.2015723	Incl.	8.68906	+0.26592853			-0.18699672
P 4.55	B(1,0)	13.5				

Residuals in seconds of arc

520226 711	1.3+	4.6-	Y	821114 095	2.7-	2.5+	840430 809	0.0	0.1-
520226 711	2.3-	4.5+	Y	840423 809	0.5+	0.3-	840430 809	0.5-	0.1-
731029 095	2.1+	5.6-		840423 809	0.2-	0.1+	840504 809	1.0+	0.9+
821014 095	2.9+	0.4-		840423 809	1.1-	0.3+	840504 809	0.3-	1.0+
821020 095	0.4-	1.2+		840424 809	0.6-	0.1+	840507 809	2.2+	0.7+
821022 095	0.1+	0.8-		840424 809	0.7-	0.2+	840507 809	2.3+	0.7+
821025 095	0.6-	1.0-		840427 809	1.4-	0.4-	840507 809	2.1+	0.5+
821109 095	2.6-	4.7+		840427 809	0.5-	0.3-			

1984 AP

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	70.51806	(1950.0)		P		Q
n	0.21995593	Peri.	164.19223		-0.12651723	-0.96980084
a	2.7179759	Node	292.70066		+0.88381150	-0.01475793
e	0.1187646	Incl.	13.06330		+0.45041160	-0.24345129
P	4.48	B(1,0)	13.0			

From 9 observations 1984 Jan. 5-Apr. 3, mean residual 0".8.

1984 AQ = 1940 GL = 1948 EN = 1952 DB2

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)

M	0.37808	(1950.0)		P		Q
n	0.24400950	Peri.	84.35070		-0.93557995	+0.31084021
a	2.5362910	Node	113.66749		-0.35002470	-0.87899715
e	0.1761758	Incl.	10.54001		+0.04661406	-0.36158313
P	4.04	B(1,0)	13.5			

Residuals in seconds of arc

400409	062	0.4-	0.7-	831209	688	0.2-	0.5-	840108	688	3.3-	2.2+
400410	062	0.0	1.2-	831209	688	1.5+	1.9-	840204	688	0.2-	1.5-
480305	012	4.3+	2.2-	840105	688	0.1+	0.5+	840204	688	1.4+	1.5-
480310	012	4.0-	4.5+	840105	688	2.2+	0.7-	840328	801	(52.4-	1.3-)
520220	711	(11.8+	18.1+)Y	840108	688	1.0-	2.0+				

1984 AC1

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	128.27599	(1950.0)		P		Q
n	0.29239068	Peri.	300.24518		+0.59889527	-0.79171619
a	2.2481590	Node	112.47509		+0.77221499	+0.53107976
e	0.2488399	Incl.	7.49030		+0.21215198	+0.30189361
P	3.37	B(1,0)	14.5			

From 13 observations 1984 Jan. 8-May 3, mean residual 1".8.

1984 EZ

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	7.20654	(1950.0)		P		Q
n	0.22639029	Peri.	75.30353		-0.63366219	+0.76762651
a	2.6662294	Node	154.59147		-0.76751805	-0.60826268
e	0.1231127	Incl.	12.93291		-0.09689308	-0.20190604
P	4.35	B(1,0)	13.5			

From 11 observations 1984 Mar. 1-June 5, mean residual 0".9.

1984 KB

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5

M	61.62574	(1950.0)		P		Q
n	0.29776324	Peri.	334.87816		-0.82376615	-0.56677477
a	2.2210346	Node	170.56242		+0.53282313	-0.78198360
e	0.7622750	Incl.	4.63662		+0.19367199	-0.25936076
P	3.31	B(1,0)	16.5			

From 21 observations 1984 May 27-July 3, mean residual 1".3.

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

1973 UL5 = 1981 EJ39

The identification was found independently by F. N. Bowman, T. Furuta and O. Kippes.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)
 M 318.47889 (1950.0) P Q
 n 0.17809929 Peri. 84.44248 +0.29198502 -0.95642221
 a 3.1286870 Node 348.58048 +0.87515251 +0.26765666
 e 0.1548365 Incl. 0.33122 +0.38581450 +0.11668965
 P 5.53 B(1,0) 14.0

Residuals in seconds of arc

731027	033	0.8+	0.3-	731103	033	0.3-	0.1-	810307	413	0.6-	1.0+
731027	033	0.7-	0.3-	810302	413	1.7-	0.9+	810311	413	1.1-	0.7+
731028	033	0.8+	0.0	810302	413	1.7+	1.7-	810311	413	0.2+	0.2-
731031	033	0.0	0.1+	810303	413	0.3-	0.1+	810316	413	1.3+	1.0-
731102	033	0.5-	0.1+	810303	413	0.2+	0.3+				

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ORBITAL ELEMENTS BY S. NAKANO, TOKYO.

The following orbital elements are copied in part from JAM 1634, 1635, 1637 and 1638. The identifications are by S. Nakano unless otherwise stated.

1967 UT = 1974 VT2 = 1978 VK10 = 1984 JL

The key identifications 1967 UT = 1978 VK10 = 1984 JL are by T. Furuta.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)
 M 321.61317 (1950.0) P Q
 n 0.26642647 Peri. 221.26807 +0.73774304 +0.67243836
 a 2.3919495 Node 96.37194 -0.60251798 +0.69573921
 e 0.0551279 Incl. 3.44281 -0.30447871 +0.25253435
 P 3.70 B(1,0) 14.6

Residuals in seconds of arc

671014	029	1.7+	0.1-	671031	029	0.0	1.4-	781108	675	0.3+	0.3+
671014	029	0.1-	0.7-	741109	808	0.2+	1.1-	781129	675	0.2+	0.6+
671030	029	0.1-	0.7-	741109	808	0.2+	0.2+	781130	675	0.8-	0.7+
671030	029	0.3+	1.1-	781105	675	0.4-	0.4+	840507	675	0.3+	0.1-
671031	029	0.6-	0.1-	781106	675	0.3+	1.0+	840508	675	0.6-	0.3-
671031	029	0.5-	1.1-	781107	675	0.4-	1.9+	840509	675	0.2+	0.1+

1977 RL6 = 1952 DE2 = 1953 NF = 1953 PH = 1966 DP = 1971 KR = 1978 YX1
 = 1982 TS

The key identification 1977 RL6 = 1982 TS is by T. Furuta (JAM 1629).

The double designation 1953 NF = 1953 PH is by O. Kippes (MPC 1331).

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)
 M 316.58064 (1950.0) P Q
 n 0.21198335 Peri. 3.71551 -0.62084513 +0.78195896
 a 2.7857090 Node 227.91649 -0.72112718 -0.59748354
 e 0.1626229 Incl. 4.29648 -0.30745229 -0.17763337
 P 4.65 B(1,0) 12.4

Residuals in seconds of arc

520224	711	6.2-	0.3+	Y 660223	760	0.9+	1.3-	781222	095	5.6+	4.0+
530714	760	0.7+	0.0	660223	760	5.5+	1.1-	781231	095	0.1-	0.3+
530714	760	0.6+	0.8+	710525	095	4.1-	2.1-	821013	688	2.9-	3.8-
530809	760	1.0+	0.9+	770911	095	3.2+	0.1-	821013	688	2.8-	2.8-
530809	760	0.8-	1.2+	770918	095	2.4+	2.0+	821014	095	4.1-	2.1-
660216	330	1.5+	0.0	770921	095	1.6+	0.3+	821022	095	2.2-	1.8-

1982 TQ = 1978 SF2

The identification is by T. Furuta (JAM 1629) and W. Landgraf, who found it independently.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)

M	208.95414		(1950.0)		P		Q
n	0.26212542	Peri.	143.99200	+0.98678625			-0.15154306
a	2.4180438	Node	224.83388	+0.12300853			+0.93100537
e	0.1842599	Incl.	4.66466	+0.10545995			+0.33205979
P	3.76	B(1,0)	15.0				

Residuals in seconds of arc

780926	095	0.2+	1.6+	821020	095	0.4-	0.2+	821108	095	0.5+	1.4+
781002	095	0.1-	1.9-	821022	095	1.7-	0.8+	821115	688	0.5+	0.7-
821013	688	0.9+	0.4-	821024	095	0.6+	0.6-	821115	688	0.9+	1.0-
821013	688	1.5+	0.0	821107	095	1.4-	0.4+				
821014	095	0.7-	1.0+	821108	095	0.5-	0.8-				

1982 TL1 = 1953 FP

The identification was found independently by W. Landgraf.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)

M	90.26668		(1950.0)		P		Q
n	0.18745064	Peri.	74.54157	+0.07970445			-0.99648413
a	3.0237483	Node	10.98420	+0.85467217			+0.05498591
e	0.0496984	Incl.	7.78761	+0.51301333			+0.06321336
P	5.26	B(1,0)	13.1				

Residuals in seconds of arc

530316	024	1.2-	1.6+	821020	095	1.4+	0.9+	821108	095	0.4+	1.5+
530320	024	1.2+	1.6-	821022	095	0.4+	1.0-	821112	095	0.4-	0.8-
821014	095	0.6-	0.5+	821024	095	1.2-	1.0-				

1982 UT6 = 1980 GW

The identification is by T. Furuta (JAM 1631) and W. Landgraf, who found it independently.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)

M	199.13739		(1950.0)		P		Q
n	0.20623558	Peri.	350.96240	+0.98089466			+0.19453647
a	2.8372298	Node	357.81902	-0.17661335			+0.88811126
e	0.0863107	Incl.	1.66445	-0.08156829			+0.41643001
P	4.78	B(1,0)	14.1				

Residuals in seconds of arc

800414	805	0.5-	0.2-	821020	095	0.3-	0.5+	821114	095	0.5-	1.0-
800415	805	0.2-	0.3+	821025	095	0.1+	0.9+				
800416	805	0.8+	0.1+	821109	095	0.7+	0.2-				

1982 UJ8 = 1978 PJ4 = 1978 SZ1

The identification and double designation were found by T. Furuta (JAM 1631). The identification 1982 UJ8 = 1978 SZ1 was found independently by W. Landgraf.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)

M	11.35058		(1950.0)		P		Q
n	0.27384918	Peri.	328.17945	-0.78596193			+0.60952551
a	2.3485291	Node	249.72930	-0.54152548			-0.75954942
e	0.0665638	Incl.	6.34350	-0.29835213			-0.22707560
P	3.60	B(1,0)	13.3				

Residuals in seconds of arc

780809	095	1.4+	2.6-	821021	095	1.5-	2.9-	821114	095	1.6+	2.0+
780926	095	0.1-	1.1+	821109	095	0.7+	0.4-				
781002	095	1.8-	2.4+	821111	095	0.4-	0.4+				

ORBITAL ELEMENTS BY K. HURUKAWA, TOKYO ASTRONOMICAL OBSERVATORY.

The following orbital elements are from JAM 1639 and 1640. The identifications are by K. Hurukawa unless otherwise stated.

2765 P-L = 1978 WS1

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)
 M 137.67726 (1950.0) P Q
 n 0.22276330 Peri. 25.56136 +0.76600994 -0.64280682
 a 2.6950975 Node 14.44389 +0.58604158 +0.69492419
 e 0.1885580 Incl. 1.21928 +0.26416669 +0.32230384
 P 4.42 B(1,0) 17.1

Residuals in seconds of arc

600924	675	0.1+	1.3+	600929	675	0.2-	1.3+	601026	675	0.2-	0.3+
600926	675	0.5+	1.3-	601022	675	0.2-	0.1+	781129	675	0.7+	0.0
600928	675	0.3+	2.4-	601025	675	0.4-	0.9+	781130	675	0.6-	0.2-

2808 P-L = 1977 DB5

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)
 M 34.67045 (1950.0) P Q
 n 0.26113462 Peri. 309.57732 -0.63501233 -0.77250200
 a 2.4241563 Node 179.84348 +0.71915922 -0.59120929
 e 0.1526771 Incl. 2.03344 +0.28208041 -0.23175900
 P 3.77 B(1,0) 16.0

Residuals in seconds of arc

600924	675	0.2+	0.3+	600928	675	0.3-	0.5-	601026	675	0.2-	0.1+
600924	675	0.1+	0.3+	600929	675	1.6+	0.2+	770218	381	0.3+	0.3-
600926	675	0.1-	0.7-	600929	675	1.9-	1.3-	770219	381	1.1-	0.6+
600926	675	0.1+	0.8+	601022	675	1.7-	0.6+	770219	381	0.8+	0.3-
600928	675	0.6+	0.7+	601025	675	1.6+	0.5-				

6565 P-L = 1977 DR = 1982 DT3

The identification 6565 P-L = 1977 DR was found independently by E. Howell.

Epoch 1984 Oct. 27.0 ET = JDE 2446000.5 (J-P)
 M 304.20754 (1950.0) P Q
 n 0.20235561 Peri. 302.67175 +0.75012933 -0.65911616
 a 2.8733823 Node 98.62348 +0.62318921 +0.67791349
 e 0.0722131 Incl. 3.06398 +0.22122659 +0.32545367
 P 4.87 B(1,0) 14.4

Residuals in seconds of arc

600924	675	0.6-	0.5-	601026	675	1.4-	2.0-	820220	033	0.2+	0.3+
600926	675	0.5-	0.4-	770218	381	0.3+	0.9-	820220	033	0.0	0.8+
600927	675	0.8+	0.1+	770218	381	0.9+	0.4+	820220	033	0.5+	0.4+
600928	675	0.2+	0.5-	770219	381	0.9+	0.4+	820221	033	0.3+	0.6+
601017	675	0.2-	0.7+	770219	381	0.4-	0.5+	820221	033	0.1-	0.3+

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EPHEMERIDES.

1982 RA	a,e,i = 1.57, 0.28, 33					Elements MPC 9029		
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1984 08 08	00	11.74	-39 56.3	0.419	1.341	134.2	32.8	15.8
1984 08 13	23	57.40	-38 04.0					
1984 08 18	23	38.41	-35 21.0	0.332	1.303	146.8	25.2	15.1
1984 08 23	23	14.60	-31 24.7					
1984 08 28	22	46.53	-25 51.7	0.265	1.266	163.2	13.3	14.2
1984 09 02	22	15.76	-18 32.0					

1984 09 07	21 44.63	-09 48.2	0.236	1.233	160.7	15.7	14.0
1984 09 12	21 15.45	-00 39.1					
1984 09 17	20 49.89	+07 50.0	0.253	1.203	137.0	34.7	14.5
1984 09 22	20 28.68	+15 00.7					
1984 09 27	20 11.86	+20 47.4	0.304	1.177	118.1	48.7	15.2
1984 10 02	19 58.98	+25 22.8					
1984 10 07	19 49.45	+29 03.8	0.370	1.156	105.7	56.4	15.8
1984 10 12	19 42.68	+32 04.9					
1984 10 17	19 38.16	+34 37.2	0.439	1.140	97.6	60.0	16.2
1984 10 22	19 35.54	+36 49.2					
1984 10 27	19 34.54	+38 46.9	0.503	1.131	92.2	61.4	16.5
1984 11 01	19 34.95	+40 35.1					
1984 11 06	19 36.59	+42 17.3	0.560	1.128	88.8	61.4	16.7
1984 11 11	19 39.36	+43 55.7					
1984 11 16	19 43.24	+45 32.3	0.607	1.132	86.9	60.7	16.9
1984 11 21	19 48.23	+47 08.6					
1984 11 26	19 54.42	+48 46.4	0.644	1.142	86.2	59.6	17.0
1984 12 01	20 01.87	+50 26.8					
1984 12 06	20 10.73	+52 10.9	0.670	1.158	86.6	58.1	17.1
1984 12 11	20 21.19	+53 59.0					
1984 12 16	20 33.57	+55 51.4	0.687	1.180	87.9	56.4	17.1

Periodic Comet Takamizawa (1984j)

Elements MPC 9026

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	m2
1984 08 08		21 10.03	-20 32.4	0.730	1.743	175.8	2.5	17.2
1984 08 18		21 07.41	-22 21.4					
1984 08 28		21 06.28	-23 39.4	0.862	1.834	156.7	12.6	17.8
1984 09 07		21 07.47	-24 24.9					
1984 09 17		21 11.20	-24 40.7	1.066	1.936	138.4	20.2	18.5
1984 09 27		21 17.34	-24 31.4					
1984 10 07		21 25.61	-24 01.3	1.330	2.047	122.4	24.4	19.2

Comet Austin (1984i)

Elements MPC 9026

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	m1
1984 08 28		09 12.41	+22 46.3	1.346	0.552	21.6	42.4	8.1
1984 09 07		08 49.50	+27 42.0					
1984 09 17		08 24.53	+32 42.5	1.141	0.987	54.3	55.8	10.2
1984 09 27		07 49.67	+38 26.6					
1984 10 07		06 52.53	+44 46.2	0.891	1.375	93.2	46.5	11.1
1984 10 17		05 18.79	+49 15.6					
1984 10 27		03 24.92	+47 20.3	0.836	1.727	141.4	21.0	12.0
1984 11 06		02 00.31	+39 50.5					
1984 11 16		01 12.96	+31 59.2	1.148	2.053	147.7	14.9	13.4
1984 11 26		00 48.11	+25 59.3					
1984 12 06		00 35.55	+21 50.3	1.685	2.358	121.8	20.8	14.9
1984 12 16		00 29.97	+19 03.3					
1984 12 26		00 28.66	+17 13.7	2.304	2.647	99.3	21.5	16.0

6565 P-L

a, e, i = 2.87, 0.07, 3

Elements MPC 9033

Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1984 08 08		21 51.97	-16 22.1	1.819	2.823	170.0	3.6	18.0
1984 08 18		21 43.94	-17 12.1					
1984 08 28		21 35.89	-17 57.3	1.819	2.809	165.6	5.1	18.0
1984 09 07		21 28.78	-18 33.3					
1984 09 17		21 23.39	-18 57.3	1.923	2.795	143.3	12.4	18.3
1984 09 27		21 20.21	-19 08.3					
1984 10 07		21 19.54	-19 06.1	2.109	2.781	122.9	17.6	18.6
1984 10 17		21 21.35	-18 51.7					

1984 10 27	21 25.50	-18 26.0	2.344	2.768	104.6	20.3	18.9
1984 11 06	21 31.75	-17 49.8					
1984 11 16	21 39.83	-17 04.1	2.601	2.755	88.3	21.0	19.2

1973 UL5		a,e,i = 3.13, 0.15, 0			Elements MPC 9030			
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1984 08 08	01	10.97	+07 37.4	2.325	2.914	115.9	18.2	18.6
1984 08 18	01	12.40	+07 47.5					
1984 08 28	01	11.68	+07 44.5	2.082	2.886	134.9	14.4	18.2
1984 09 07	01	08.76	+07 28.2					
1984 09 17	01	03.83	+06 59.4	1.908	2.858	156.4	8.1	17.9
1984 09 27	00	57.28	+06 20.2					
1984 10 07	00	49.81	+05 34.7	1.832	2.831	179.7	0.1	17.2
1984 10 17	00	42.26	+04 48.0					
1984 10 27	00	35.52	+04 05.8	1.866	2.805	156.5	8.1	17.8
1984 11 06	00	30.36	+03 33.3					
1984 11 16	00	27.29	+03 13.8	2.000	2.781	134.2	14.8	18.1
1984 11 26	00	26.55	+03 09.1					
1984 12 06	00	28.19	+03 19.6	2.204	2.758	114.2	19.0	18.4

(2949) Kaverznev		a,e,i = 2.20, 0.14, 5			Elements MPC 8281			
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1984 10 27	08	13.65	+14 58.3	2.265	2.489	91.0	23.5	18.8
1984 11 06	08	21.17	+14 21.2					
1984 11 16	08	26.45	+13 50.4	2.011	2.496	107.7	22.2	18.5
1984 11 26	08	29.15	+13 28.2					
1984 12 06	08	28.98	+13 17.3	1.779	2.500	127.1	18.3	18.2
1984 12 16	08	25.77	+13 19.4					
1984 12 26	08	19.55	+13 35.6	1.604	2.502	149.4	11.5	17.8
1985 01 05	08	10.73	+14 05.1					
1985 01 15	08	00.17	+14 44.9	1.522	2.501	172.5	2.9	17.4
1985 01 25	07	49.06	+15 30.9					
1985 02 04	07	38.79	+16 18.3	1.553	2.497	158.5	8.3	17.6
1985 02 14	07	30.55	+17 03.1					
1985 02 24	07	25.12	+17 42.5	1.688	2.491	135.3	16.2	18.0
1985 03 06	07	22.88	+18 15.1					
1985 03 16	07	23.80	+18 40.1	1.893	2.482	114.9	21.3	18.3
1985 03 26	07	27.66	+18 57.1					
1985 04 05	07	34.10	+19 05.9	2.132	2.470	97.5	23.7	18.7

1983 RX2		a,e,i = 2.46, 0.14, 6			Elements MPC 8534			
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1984 10 27	08	13.54	+22 54.4	2.264	2.516	92.8	23.2	19.3
1984 11 06	08	21.49	+22 56.6					
1984 11 16	08	27.06	+23 08.0	2.033	2.544	109.8	21.4	19.1
1984 11 26	08	29.90	+23 30.5					
1984 12 06	08	29.72	+24 04.9	1.829	2.571	129.6	17.2	18.8
1984 12 16	08	26.39	+24 50.0					
1984 12 26	08	19.97	+25 43.0	1.688	2.598	152.0	10.2	18.4
1985 01 05	08	10.98	+26 38.3					
1985 01 15	08	00.36	+27 29.5	1.644	2.622	172.8	2.7	18.1
1985 01 25	07	49.37	+28 10.9					
1985 02 04	07	39.42	+28 38.8	1.714	2.646	156.2	8.7	18.5
1985 02 14	07	31.62	+28 52.9					
1985 02 24	07	26.69	+28 54.8	1.886	2.668	133.8	15.5	18.9
1985 03 06	07	24.90	+28 46.8					
1985 03 16	07	26.14	+28 31.2	2.127	2.688	113.9	19.8	19.2
1985 03 26	07	30.15	+28 09.5					
1985 04 05	07	36.57	+27 42.3	2.402	2.707	96.6	21.5	19.6

(2955) 1982 BX1		a,e,i = 2.18, 0.12, 4				Elements MPC		8283
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1984 10 27		08 13.73	+23 37.0	2.165	2.427	92.9	24.1	18.7
1984 11 06		08 22.48	+23 28.0					
1984 11 16		08 28.91	+23 27.2	1.905	2.421	109.5	22.7	18.3
1984 11 26		08 32.61	+23 36.5					
1984 12 06		08 33.19	+23 57.3	1.670	2.413	128.7	18.6	18.0
1984 12 16		08 30.40	+24 29.3					
1984 12 26		08 24.14	+25 10.4	1.494	2.402	151.1	11.4	17.5
1985 01 05		08 14.78	+25 55.4					
1985 01 15		08 03.25	+26 37.8	1.410	2.390	173.2	2.8	17.1
1985 01 25		07 50.95	+27 10.9					
1985 02 04		07 39.56	+27 30.5	1.438	2.375	156.7	9.5	17.4
1985 02 14		07 30.51	+27 36.0					
1985 02 24		07 24.74	+27 29.2	1.564	2.359	133.7	17.7	17.7
1985 03 06		07 22.62	+27 12.8					
1985 03 16		07 24.06	+26 49.2	1.755	2.340	113.8	22.9	18.1
1985 03 26		07 28.73	+26 19.5					
1985 04 05		07 36.20	+25 44.3	1.976	2.320	96.9	25.3	18.4

1981 DM1		a,e,i = 2.68, 0.14, 11				Elements MPC		7357
Date	ET	R. A. (1950)	Decl.	Delta	r	Variation		Mag.
1984 10 27		08 10.67	+08 26.7	2.281	2.492	-1.08	+3.3	17.8
1984 11 06		08 19.42	+07 03.6					
1984 11 16		08 26.20	+05 41.2	2.011	2.465	-1.24	+3.9	17.5
1984 11 26		08 30.73	+04 22.3					
1984 12 06		08 32.70	+03 10.5	1.765	2.440	-1.44	+4.4	17.1
1984 12 16		08 31.95	+02 09.5					
1984 12 26		08 28.40	+01 24.0	1.568	2.416	-1.65	+5.2	16.7
1985 01 05		08 22.30	+00 58.4					
1985 01 15		08 14.29	+00 55.5	1.451	2.393	-1.80	+5.8	16.4
1985 01 25		08 05.34	+01 16.2					
1985 02 04		07 56.68	+01 57.9	1.434	2.373	-1.79	+6.0	16.4
1985 02 14		07 49.53	+02 55.1					
1985 02 24		07 44.77	+04 01.1	1.514	2.355	-1.63	+5.5	16.6
1985 03 06		07 42.98	+05 09.0					
1985 03 16		07 44.27	+06 13.2	1.669	2.340	-1.44	+4.7	17.0
1985 03 26		07 48.53	+07 09.8					
1985 04 05		07 55.47	+07 55.9	1.868	2.327	-1.27	+4.0	17.3

1949 SF		a,e,i = 2.43, 0.25, 9				Elements MPC		8284
Date	ET	R. A. (1950)	Decl.	Delta	r	Elong.	Phase	Mag.
1984 10 27		08 36.93	+28 02.5	2.637	2.799	88.9	20.8	19.8
1984 11 06		08 43.98	+28 02.5					
1984 11 16		08 48.76	+28 11.4	2.397	2.836	106.1	19.6	19.6
1984 11 26		08 50.95	+28 30.0					
1984 12 06		08 50.28	+28 58.3	2.180	2.869	125.8	16.2	19.4
1984 12 16		08 46.60	+29 34.2					
1984 12 26		08 39.93	+30 14.4	2.022	2.900	147.5	10.5	19.1
1985 01 05		08 30.66	+30 53.3					
1985 01 15		08 19.58	+31 24.9	1.961	2.928	167.2	4.3	18.8
1985 01 25		08 07.80	+31 44.1					
1985 02 04		07 56.63	+31 48.0	2.017	2.952	157.6	7.3	19.0
1985 02 14		07 47.19	+31 37.2					
1985 02 24		07 40.27	+31 14.0	2.183	2.974	135.9	13.4	19.4
1985 03 06		07 36.26	+30 41.7					
1985 03 16		07 35.16	+30 03.4	2.426	2.992	115.5	17.5	19.7
1985 03 26		07 36.77	+29 20.9					
1985 04 05		07 40.79	+28 35.6	2.710	3.008	97.4	19.3	20.0