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*Acta Universitatis Carolinae. Mathematica et Physica*, Vol. 21 (1980), No. 1, 59--83

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## Observations of Comets and Asteroids at the Kleť Observatory in the Year 1978

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*Received 15 January 1979*

During the year 1978 were observed at the Kleť Observatory 8 comets and 37 asteroids. The following paper contains their precise positions and total magnitudes.

В 1978 году на Обсерватории Клеть было исследовано 8 комет и 37 астероидов. В статье приведены их точные наблюдения и общий блеск.

V roce 1978 bylo na hvězdárně na Kletí pozorováno 8 komet a 37 malých planet. V práci jsou uvedeny jejich přesné polohy a celkové jasnosti.

The routine program of comet and asteroid observations at the Kleť Observatory is continued. A list of precise observations of the following objects obtained at the Observatory during the year 1978 is presented:

Comet Černych 1977I	Asteroid 1775—1968 JA
Comet Schwassmann-Wachmann 1	Asteroid 1978 RA
Comet Wild 1978b	Asteroid 1502 Arenda
Comet West 1978a	Asteroid 454 Mathesis
Comet Meier 1978f	Asteroid 538 Friederika
Comet Ashbrook-Jackson 1977g	Asteroid 535 Roberta
Comet Giclas 1978k	Asteroid 1978 EA
Comet Gehrels 3 — 1975o	Asteroid 1978 GL
Asteroid 1978 CA	Asteroid 1978 LA
Asteroid 1832 Mrkos	Asteroid 1978 LB
Asteroid 589 Croatia	Asteroid 1978 SO
Asteroid 1804 Chebotarev	Asteroid 1978 SP
Asteroid 1856 Růžena	Asteroid 1978 SQ
Asteroid 1725 Crao	Asteroid 1978 SB

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Asteroid 391 Ingeborg  
 Asteroid 1069 Planckia  
 Asteroid 1200 Imperatrix  
 Asteroid 1461 Jean-Jacques  
 Asteroid 1360 Ostanina  
 Asteroid 1176 Lucidor  
 Asteroid 445 Edna  
 Asteroid 342 Endymion  
 Asteroid 390 Alma

Asteroid 1978 WC  
 Asteroid 1978 WD  
 Asteroid 1978 WE  
 Asteroid 1978 WF  
 Asteroid 1978 WG  
 Asteroid 1978 WH  
 Asteroid 1978 WJ  
 Asteroid 1491 Balduinus  
 Asteroid 1978 XA

The positions of comets and asteroids were obtained by means of a new Maksutov camera 636/830/1860 mm. Reference stars were chosen from the Smithsonian Astrophysical Observatory and AGK/3 Star Catalogues.

Comet Černych 1977I

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
199	Jan. 1.71058	$0^{\text{h}}28^{\text{m}}03.18^{\text{s}}$	$-3^{\circ}11'06.7''$	15.0	Mrkos
	1.72204	0 28 03.92	-3 11 01.2		
203	4.70755	0 31 27.82	-2 45 15.7	15.2	Mrkos
205	5.70816	0 32 37.84	-2 36 24.4		Mrkos
	5.72008	0 32 38.38	-2 36 23.6		Mrkos
208	7.72066	0 35 01.00	-2 18 32.6		Mrkos
	7.73148	0 35 01.83	-2 18 27.3	Mrkos	
210	8.71826	0 36 13.16	-2 09 34.0	15.2	Mrkos
	8.72972	0 36 14.05	-2 09 27.9		Mrkos

Reference Stars Numbers

199	SAO	128803	128824	128700	128774	128787	128784
203	SAO	128834	128845	128806	128804	128824	128840
205	SAO	128834	128828	128845	128869	128877	128840
208	SAO	128834	128883	128845	128869	128877	128840
210	SAO	128889	128877	128845	128869	128866	128899

P/Comet Schwassmann-Wachmann I

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
201	Jan. 1.80520	5 <sup>h</sup> 01 <sup>m</sup> 31.45 <sup>s</sup>	+31°30'19.5"	12.8	Mrkos
	1.81741	5 01 31.14	+31 30 18.5		Mrkos
204	4.73590	5 00 10.57	+31 25 00.0	13.0	Mrkos
	4.74499	5 00 10.53	+31 25 00.1		Mrkos
206	5.76730	4 59 43.26	+31 23 04.2	13.3	Mrkos
	5.77841	4 59 43.09	+31 23 04.8		Mrkos
209	7.75851	4 58 52.16	+31 19 20.1		Mrkos
	7.76985	4 56 51.91	+31 19 18.9		Mrkos
211	8.75281	4 58 27.51	+31 17 25.4	13.0	Mrkos
	8.76427	4 58 27.31	+31 17 25.8		Mrkos
212	16.01759	4 55 46.58	+31 03 18.9	13.2	Mrkos
	16.02911	4 55 46.33	+31 03 18.2		Mrkos
213	Jan. 30.81634	4 52 16.62	+30 34 25.5	16.0	Mrkos
216	Feb. 1.76010	4 52 01.68	+30 30 43.0	16.5	Mrkos
219	12.81119	4 51 33.90	+30 11 00.4	17.0	Mrkos
224	27.78940	4 53 30.91	+29 48 19.1	13.2	Mrkos
	27.80093	4 53 31.07	+29 48 18.4		Mrkos
228	28.78395	4 53 44.67	+29 47 00.7	13.1	Mrkos
	28.79552	4 53 44.86	+29 47 00.5		Mrkos
230	March 2.80979	4 54 14.93	+29 44 24.8	13.3	Mrkos
	2.82125	4 54 15.01	+29 44 23.6		Mrkos
232	3.79841	4 54 30.74	+29 43 09.9	13.6	Mrkos
	3.80709	4 54 30.89	+29 43 06.1		Mrkos
236	4.83590	4 54 48.25	+29 41 54.0	14.0	Mrkos
	4.84458	4 54 48.42	+29 41 50.2		Mrkos
238	10.81101	4 56 42.71	+29 35 03.2	12.8	Vávrová
	10.82315	4 56 42.96	+29 35 01.9		Vávrová
240	11.80964	4 57 04.23	+29 33 59.4	12.6	Vávrová
	11.81867	4 57 04.38	+29 33 58.6		Vávrová
242	12.78013	4 57 25.68	+29 32 58.5	12.8	Mrkos
	12.78759	4 57 25.85	+29 32 58.1		Mrkos
248	29.79203	5 05 17.09	+29 18 17.9	17.0	Mrkos
	29.80342	5 05 17.75	+29 18 20.1		Mrkos
341	Oct. 10.01263	7 27 55.39	+27 03 43.2	13.8	Květoň
376	Dec. 24.82500	7 18 23.65	+27 27 31.4	17.0	Mrkos
	24.83958	7 18 23.16	+27 27 32.7		Mrkos

Reference Stars Numbers

201	SAO	057616	057582	057583	057619	057653	057686
204	SAO	057616	057582	057583	057619	057653	057686
206	SAO	057616	057582	057557	057553	057619	057653
209	SAO	057616	057582	057557	057553	057619	057653
211	SAO	057616	057582	057557	057553	057619	057653
212	SAO	057553	057542	057523	057582	057583	057584
213	SAO	094474	077118	077087	077086	094446	094457
216	SAO	094474	077118	077087	077086	094446	094457
219	SAO	076851	077118	077087	077086	094446	076700
224	SAO	076859	076864	057535	057528	076851	076834
228	SAO	076859	076864	057535	057528	076851	076834
230	SAO	076859	076864	057535	057528	076851	076834
232	SAO	076859	076864	057535	057528	076851	076834
236	SAO	076859	076879	076887	076896	076864	
	AGK3	+ 29°507					
238	SAO	076859	076879	076887	076896	057528	076851
240	SAO	076859	076879	076887	076896	057528	076800
242	SAO	076859	076879	076887	076902	076896	076864
248	SAO	076987	076988	077020	077018	076983	076958
341	SAO	079479	079464	079414	079431	079450	079490
376	SAO	079367	079358	079336	079283	079301	079315

P/Comet Wild 1978b

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer	
214	Jan.	30.86825	5 <sup>h</sup> 16 <sup>m</sup> 53.79 <sup>s</sup>	+20°04'39.9"	12.6	Mrkos
		30.88486	5 16 53.44	+20 04 42.1		
215	Feb.	1.73094	5 16 24.62	+20 09 07.9	12.5	Mrkos
		1.73823	5 16 24.45	+20 09 08.3		
218		12.76743	5 16 33.56	+20 39 17.2		Mrkos
		12.77258	5 16 33.73	+20 39 17.7		
220		25.79998	5 23 30.05	+21 20 51.5	12.8	Mrkos
		25.80727	5 23 30.38	+21 20 52.6		
222		26.76317	5 24 17.63	+21 24 02.7		Mrkos
		27.76395	5 25 09.25	+21 27 22.8		
223		27.77130	5 25 09.65	+21 27 24.2	12.9	Mrkos
		28.76196	5 26 03.19	+21 30 41.0		
227		28.76792	5 26 03.49	+21 30 42.9	13.0	Mrkos
		28.76792	5 26 03.49	+21 30 42.9		
229	March	2.76326	5 27 58.48	+21 37 21.0	13.2	Mrkos
		2.77073	5 27 58.89	+21 37 22.4		
231	March	3.76612	5 28 59.67	+21°40'40.8"	13.0	Mrkos
		3.77064	5 29 00.01	+21 40 40.4		

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
234	4.76137	5 30 02.89	+21 43 59.1		Mrkos
	4.76580	5 30 03.12	+21 43 59.2		Mrkos
237	10.78733	5 37 12.56	+22 03 28.1		Mrkos
	10.79190	5 37 12.89	+22 03 29.0		Mrkos
239	11.78858	5 38 31.65	+22 06 36.6	13.2	Mrkos
	11.79297	5 38 32.06	+22 06 37.6		Mrkos
243	12.80409	5 39 54.21	+22 09 46.0		Vávrová
	12.80895	5 39 54.57	+22 09 46.4		Vávrová
246	28.83243	6 06 09.83	+22 51 15.6	12.3	Mrkos
	28.83799	6 06 10.49	+22 51 15.8		Mrkos
249	29.82050	6 08 02.68	+22 53 07.8		Mrkos
	29.82501	6 08 03.11	+22 53 07.4		Mrkos
253	30.82469	6 09 59.01	+22 54 54.6	12.2	Mrkos
	30.82909	6 09 59.50	+22 54 54.9		Mrkos
256	31.80550	6 11 54.37	+22 56 32.2		Mrkos
	31.81001	6 11 54.90	+22 56 33.7		Mrkos
259	Apr. 1.80312	6 13 53.29	+22 58 06.7	12.4	Mrkos
	1.80758	6 13 53.87	+22 58 06.9		Mrkos
261	6.80664	6 24 14.92	+23 04 06.1	12.2	Mrkos
	6.81117	6 24 15.59	+23 04 07.4		Mrkos
266	7.80510	6 26 23.81	+23 04 54.2	12.0	Mrkos
	7.80962	6 26 24.39	+23 04 54.5		Mrkos
270	8.82091	6 28 36.56	+23 05 36.4		Mrkos
	8.82543	6 28 37.13	+23 05 36.1		Mrkos
271	9.80687	6 30 46.89	+23 06 06.2		Mrkos
	9.81133	6 30 47.51	+23 06 06.7		Mrkos
276	30.85550	7 22 18.49	+22 38 33.0	10.6	Mrkos
	30.86001	7 22 19.14	+22 38 32.9		Mrkos
280	May 3.84950	7 30 23.39	+22 27 39.3		Mrkos
	3.85443	7 30 34.28	+22 27 37.8		Mrkos
285	6.84404	7 38 33.78	+22 14 52.2	10.6	Mrkos

Reference Stars Numbers

214	SAO	094474	077118	077087	077086	094446	094457
215	SAO	094474	077118	077087	077086	094446	094457
218	SAO	077118	077111	077087	077086	077101	094474
220	SAO	077176	077202	077193	077162	077149	077161
222	SAO	077176	077202	077193	077162	077149	077161
223	SAO	077176	077202	077193	077162	077149	077161
227	SAO	077202	077212	077230	077226	077193	077182
229	SAO	077202	077212	077230	077226	077193	077182
231	SAO	077202	077212	077226	077286	077297	077269

234	SAO	077202	077212	077226	077286	077297	077269
237	SAO	077382	077460	077442	077418	077340	077344
239	SAO	077382	077460	077442	077418	077340	077344
243	SAO	077382	077460	077501	077442	077418	077340
246	SAO	078030	077996	078080	078107	078094	078020
249	SAO	078030	077996	078080	078107	078094	078020
253	SAO	078194	078195	078080	078107	078094	078158
256	SAO	078194	078195	078080	078107	078094	078158
259	SAO	078194	078195	078205	078107	078094	078158
261	SAO	078437	078493	078452	078378	078345	078366
266	SAO	078437	078493	078452	078378	078345	078366
270	SAO	078437	078430	078452	078519	078516	078525
271	SAO	078437	078430	078452	078519	078516	078525
276	SAO	079364	079409	079415	079418	079344	079345
280	SAO	079519	079509	079499	079449	079476	079550
285	SAO	079660	079621	079596	079573	079613	079627

Comet West 1978a

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer	
247	March	28.89146	14 <sup>h</sup> 07 <sup>m</sup> 42.89 <sup>s</sup>	-3°07'03.9"	16.0	Mrkos
		28.90604	14 07 42.21	-3 06 55.6		
254		30.92665	14 06 13.92	-2 44 17.7	16.0	Mrkos
		30.94205	14 06 13.22	-2 44 08.4		
258		31.97159	14 05 27.70	-2 32 35.4	16.6	Mrkos
		31.98582	14 05 27.11	-2 32 26.1		
265	Apr.	7.02569	14 00 52.39	-1 24 32.6	16.0	Mrkos
265	Apr.	7.04028	14 00 51.68	-1 24 24.4	16.6	Mrkos
269		7.94961	14 00 09.50	-1 14 11.2	15.8	Mrkos
		7.96135	14 00 08.98	-1 14 03.9		
273		9.88431	13 58 39.11	-0 52 29.4	17.0	Mrkos
		9.89646	13 58 38.57	-0 52 22.7		
278		30.90880	13 42 10.61	+2 52 03.9	17.4	Mrkos
282	May	3.90860	13 39 55.27	+3 21 30.7	17.4	Mrkos
		3.92318	13 39 54.67	+3 21 41.1		

Reference Stars Numbers

247	SAO	139791	139790	139786	139760	139749	139759
254	SAO	139696	139745	139786	139760	139749	139715
258	SAO	139696	139745	139786	139760	139749	139715
265	SAO	139696	139745	139728	139702	139674	139668
269	SAO	139696	139745	139728	139702	139674	139668
273	SAO	139643	139647	139702	139728	139674	139668
278	SAO	120090	120109	120111	120098	120066	120056
282	SAO	120090	120109	120111	120098	120066	120056

P/Comet Gehrels 3 — 1975o

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
257	March 31.83189	$10^h48^m48.91^s$	$+6^\circ01'35.4''$	17.5	Mrkos
	31.84601	10 48 49.41	+ 6 01 48.7	17.5	Mrkos

Reference Stars Numbers

257	SAO	118529	118566	118534	118516	118513	118519
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Comet Meier 1978f

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
274	Apr. 29.85490	$7^h21^m32.44^s$	$+53^\circ12'42.1''$	10.2	Mrkos
	29.86091	7 21 32.75	+ 53 12 36.5		Mrkos
277	30.87669	7 22 40.09	+ 52 58 16.3	10.0	Mrkos
	30.88125	7 22 40.40	+ 52 58 12.3		Mrkos
281	May 3.87179	7 26 10.68	+ 52 14 44.7	9.8	Mrkos
	3.87527	7 26 10.87	+ 52 14 41.6		Mrkos
284	4.85385	7 27 21.21	+ 52 00 31.6	9.6	Mrkos
	4.85698	7 27 21.44	+ 52 00 28.6		Mrkos
286	6.87664	7 29 49.58	+ 51 31 11.7		Mrkos
	6.89925	7 29 51.19	+ 51 30 53.0		Mrkos
287	14.85975	7 40 10.78	+ 49 34 32.3	9.2	Mrkos
	14.86171	7 40 10.91	+ 49 34 29.9		Mrkos
288	31.87150	8 04 47.12	+ 45 18 28.3	9.8	Mrkos
	31.87289	8 04 47.44	+ 45 18 28.1		Mrkos
291	June 1.87100	8 06 19.48	+ 45 03 01.4		Mrkos
	1.87221	8 06 19.47	+ 45 02 58.7		Mrkos
294	2.87672	8 07 52.57	+ 44 47 21.4	9.7	Mrkos
	2.87777	8 07 52.66	+ 44 47 20.6		Mrkos
298	3.86943	8 09 24.89	+ 44 31 51.3		Mrkos
	3.87082	8 09 25.10	+ 44 31 50.8		Mrkos
300	6.88006	8 14 08.25	+ 43 44 29.7	9.5	Mrkos
	6.88058	8 14 08.38	+ 43 44 29.2		Mrkos
303	8.87403	8 17 18.19	+ 43 12 47.6		Mrkos
	8.87513	8 17 18.41	+ 43 12 47.3		Mrkos
307	9.88683	8 18 55.30	+ 42 56 37.7	9.4	Mrkos
	9.88816	8 18 55.51	+ 42 56 34.8		Mrkos
309	11.88890	8 22 08.60	+ 42 24 21.6	9.3	Mrkos
	11.89185	8 22 08.84	+ 42 24 18.2		9.3



Reference Stars Numbers

274	SAO	026328	026310	026349	026360	026376	026351
277	SAO	026328	026310	026349	026360	026376	026351
281	SAO	026371	026388	026412	026398	026389	026351
284	SAO	026371	026388	026412	026398	026389	026351
286	SAO	026384	026388	026412	026421	026440	026426
287	SAO	042007	041993	041946	041922	041933	026497
288	SAO	042220	042197	042155	042154	042192	042235
291	SAO	042220	042197	042155	042154	042192	042235
294	SAO	042220	042197	042155	042154	042192	042235
298	SAO	042215	042255	042245	042201	042192	042235
300	SAO	042242	042255	042289	042297	042275	042265
303	SAO	042298	042370	042347	042297	042282	042308
307	SAO	042342	042356	042370	042347	042275	042282
309	SAO	042342	042377	042387	042370	042356	042298

P/Comet Ashbrook-Jackson 1977g

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer	
320	July	31.02046	$0^{\text{h}}36^{\text{m}}04.36^{\text{s}}$	$-1^{\circ}57'08.8''$	14.2	Mrkos
		31.03481	0 36 04.60	$-1 57 03.5$		
323	Aug.	1.00878	0 36 26.29	$-1 50 25.3$	14.0	Vávrová
		1.02360	0 36 26.63	$-1 50 19.9$		
325		2.01550	0 36 47.33	$-1 43 40.4$		Vávrová
		2.03008	0 36 47.72	$-1 43 34.1$		
327		26.90713	0 36 29.98	$+0 35 48.8$	13.0	Mrkos
		26.91928	0 36 29.69	$+0 35 52.6$		
329	Sept.	24.82769	0 16 52.50	$+2 17 15.7$	13.3	Mrkos
		24.83909	0 16 51.89	$+2 17 17.0$		
332		25.83169	0 16 00.10	$+2 20 01.0$		Mrkos
		25.84315	0 15 59.55	$+2 20 03.2$		
335	Oct.	7.84942	0 05 49.23	$+2 51 59.3$		Mrkos
		7.86354	0 05 48.51	$+2 52 00.9$		
337	Oct.	8.88953	0 05 00.09	$+2 54 46.7$	13.5	Mrkos
		8.90376	0 04 59.46	$+2 54 48.6$		
340		9.96558	0 04 10.31	$+2 57 41.6$		Mrkos
		9.98039	0 04 09.56	$+2 57 43.9$		
347		31.90293	23 52 38.78	$+4 07 39.4$		Mrkos
		31.91821	23 52 38.55	$+4 07 43.3$		
348	Nov.	5.78898	23 51 47.86	$+4 27 19.0$	13.6	Mrkos
		5.79662	23 51 47.78	$+4 27 20.9$		
351		17.70617	23 52 33.43	$+5 23 22.7$	14.0	Mrkos
		17.71763	23 52 33.55	$+5 23 27.0$		

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
353	18.71846	23 52 48.07	+5 28 41.7		Vávrová
	18.72998	23 52 48.17	+5 28 44.5		Vávrová
361	22.82311	23 54 03.58	+5 51 01.7	14.2	Mrkos
	22.83804	23 54 03.85	+5 51 06.9		Mrkos
362	24.71836	23 54 47.42	+6 01 49.8	14.3	Mrkos
	24.73259	23 54 47.70	+6 01 55.4		Mrkos
367	Dec. 4.81096	0 00 06.58	+7 04 16.5	14.5	Vávrová
	4.82259	0 00 06.90	+7 04 18.4		Vávrová
370	18.70520	0 10 57.75	+8 42 46.9	16.0	Mrkos
	18.71388	0 10 58.28	+8 42 50.5		Mrkos
375	24.74167	0 16 44.37	+9 29 32.6	16.2	Mrkos
	24.75347	0 16 45.49	+9 29 38.8		Mrkos

#### Reference Stars Numbers

320	SAO	128869	128876	128873	128899	128889	128877
323	SAO	128869	128876	128873	128899	128889	128877
325	SAO	128869	128893	128873	128899	128889	128877
327	SAO	109356	109336	109307	109309	109322	109371
329	SAO	109131	109106	109136	109146	109173	109166
332	SAO	109127	109105	109136	109146	109173	109180
335	SAO	109053	109026	109002	109020	108995	109040
337	SAO	109053	109026	109002	109043	108995	109004
304	SAO	109053	109026	109002	109043	108995	109004
347	SAO	128474	128478	128459	128451	128444	128454
348	SAO	128474	128478	128459	128451	128444	128454
351	SAO	128502	128498	128459	128441	128453	128461
353	SAO	128502	128498	128459	128441	128453	128461
361	SAO	128502	128521	128510	128496	128458	128461
362	SAO	128502	128521	128510	128496	128458	128461
367	SAO	128535	128516	128523	128546	109019	109007
370	SAO	109093	109050	109051	109055	109090	109114
375	SAO	109138	109148	109150	109130	109090	109114

#### Comet Giglas 1978k

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
330	Sept. 24.86779	0 <sup>h</sup> 04 <sup>m</sup> 33.50 <sup>s</sup>	-12°08'13.6"	15.2	Vávrová
	24.88307	0 04 33.06	-12 08 23.7		Vávrová
333	25.87249	0 04 15.68	-12 18 46.0		Vávrová
	25.88736	0 04 15.43	-12 18 55.0		Vávrová
338	Oct. 8.93003	0 00 53.34	-14 12 06.4	15.6	Mrkos
	8.94497	0 00 53.16	-14 12 12.4		Mrkos
339	9.92669	0 00 42.83	-14 18 29.6		Mrkos
	9.94122	0 00 42.66	-14 18 34.9	15.6	Mrkos

## Reference Stars Numbers

330	SAO	147082	147074	147065	147092	147124	147109
333	SAO	147134	147055	147065	147092	147124	147109
338	SAO	147060	166008	165992	165980	147058	147080
339	SAO	147060	166008	165992	165980	147058	147080

## Asteroid Schuster 1978 CA

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
241	March 11.83609	9 <sup>h</sup> 48 <sup>m</sup> 11.44 <sup>s</sup>	+40°46'19.3"	14.0	Mrkos
	11.84083	9 48 10.78	+40 47 10.7	14.0	Mrkos

## Reference Stars Numbers

241	SAO	043083	043072	043054	043043	043041	043070
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## Asteroid 1832 Mrkos

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
260	Apr. 1.84867	10 <sup>h</sup> 29 <sup>m</sup> 32.79 <sup>s</sup>	-6°35'36.4"	17.0	Mrkos
	1.86377	10 29 32.06	-6 35 39.4	17.0	Mrkos

## Reference Stars Numbers

260	SAO	137654	137642	137617	137585	137614	137632
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## Asteroid 589 Croatia

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
257	March 31.83189	10 <sup>h</sup> 45 <sup>m</sup> 21.17 <sup>s</sup>	+5°32'37.2"	13.0	Mrkos
	31.84601	10 45 20.76	+5 32 42.0		Mrkos
264	Apr. 6.96282	10 42 47.94	+6 07 24.8	13.0	Mrkos
	6.98503	10 42 47.38	+6 07 31.5		Mrkos
268	7.90117	10 42 28.01	+6 12 21.3	13.0	Mrkos
	7.92293	10 42 27.58	+6 12 27.7		Mrkos

Reference Stars Numbers

257	SAO	118529	118566	118534	118516	118513	118519
264	SAO	118451	118488	118513	118472	118455	118444
268	SAO	118451	118488	118513	118472	118455	118444

Asteroid 1804 Chebotarev

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
257	March 31.83189	10 <sup>h</sup> 44 <sup>m</sup> 42.21 <sup>s</sup>	+5°04'38.1"	16.0	Mrkos
	31.84601	10 44 41.68	+5 04 39.3		
264	Apr. 6.96282	10 41 15.39	+5 20 50.3	16.0	Mrkos
	6.98503	10 41 14.76	+5 20 52.4		
268	7.90117	10 40 49.34	+5 22 51.5	16.0	Mrkos
	7.92293	10 40 48.62	+5 22 54.8		

Reference Stars Numbers

257	SAO	118529	118566	118534	118516	118513	118519
264	SAO	118451	118488	118513	118472	118455	118444
268	SAO	118451	118488	118513	118472	118455	118444

Asteroid 1856 Růžena

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
283	May 3.96311	14 <sup>h</sup> 03 <sup>m</sup> 20.83 <sup>s</sup>	-7°28'42.1"	16.0	Mrkos
	3.97804	14 03 20.14	-7 28 37.2		

Reference Stars Numbers

283	SAO	139731	139726	139707	139729	139740	139756
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Asteroid 1725 Crao

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
283	May 3.96311	14 <sup>h</sup> 07 <sup>m</sup> 19.75 <sup>s</sup>	-7°55'51.1"	16.3	Mrkos
	3.97804	14 <sup>h</sup> 07 <sup>m</sup> 19.90	-7 55 48.7		
289	31.90137	13 50 09.16	-6 46 34.3	16.3	Mrkos
	31.91699	13 50 08.68	-6 46 30.5		

## Reference Stars Numbers

283	SAO	139762	139784	139766	139729	139740	139756
289	SAO	139633	139631	139605	139601	139582	139590

## Asteroid 391 Ingeborg

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
289	May 31.90137	$13^{\text{h}}54^{\text{m}}17.67^{\text{s}}$	$-4^{\circ}58'03.6''$	15.8	Mrkos
	31.91699	$13^{\text{h}}54 17.18$	$-4 57 58.8$	15.8	Mrkos

## Reference Stars Numbers

289	SAO	139648	139642	139625	139600	139619	139636
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## Asteroid 1069 Planckia

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
292	June 1.89247	$14^{\text{h}}39^{\text{m}}54.08^{\text{s}}$	$+4^{\circ}38'18.1''$	14.6	Mrkos
	1.90682	$14 39 53.71$	$+4 38 15.1$		Mrkos
295	2.89981	$14 39 25.56$	$+4 36 34.1$	14.6	Mrkos
	2.91405	$14 39 25.17$	$+4 36 33.2$		Mrkos

## Reference Stars Numbers

292	SAO	120613	120592	120583	120603	120627	120623
295	SAO	120613	120592	120583	120603	120627	120623

## Asteroid 1200 Imperatrix

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
293	June 1.93071	$16 30 00.43^{\text{s}}$	$-16^{\circ}38'55.7''$	15.1	Mrkos
	1.94582	$16 29 59.61$	$-16 38 54.1$		Mrkos
296	2.93801	$16 29 11.20$	$-16 35 54.5$	15.1	Mrkos
	2.95265	$16 29 10.45$	$-16 35 51.8$		Mrkos
302	6.93856	$16 25 57.79$	$-16 24 12.7$	15.1	Mrkos
	6.95321	$16 25 57.14$	$-16 24 10.2$		Mrkos

Reference Stars Numbers

293	SAO	159986	159989	159971	159944	159937	160004
296	SAO	159986	159989	159971	159944	159937	160004
302	SAO	159906	159909	159934	159944	159937	159925

Asteroid 1461 Jean-Jacques

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
299	June 3.89322	14 <sup>h</sup> 58 <sup>m</sup> 58.24 <sup>s</sup>	+0°53'18.6"	15.2	Mrkos
	3.90797	14 58 57.55	+0 53 16.2		Mrkos
301	6.90182	14 57 11.82	+0 45 09.1		Mrkos
	6.91628	14 57 11.30	+0 45 06.4	15.2	Mrkos

Reference Stars Numbers

299	SAO	120813	120805	120770	120763	120776	120824
301	SAO	120783	120797	120770	120732	120727	120737

Asteroid 1360 Ostanina

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
301	June 6.90182	14 <sup>h</sup> 53 <sup>m</sup> 11.31 <sup>s</sup>	+0°56'12.7"	15.1	Mrkos
	6.91628	14 53 11.04	+0 56 13.6	15.1	Mrkos

Reference Stars Numbers

301	SAO	120783	120797	120770	120732	120727	120737
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Asteroid 1176 Lucidor

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
322	July 31.96909	22 <sup>h</sup> 46 <sup>m</sup> 21.58 <sup>s</sup>	+1°21'41.4"	15.5	Mrkos
	31.98344	22 46 21.07	+1 21 41.8		Mrkos
324	Aug. 1.97580	22 45 51.49	+1 22 20.1		Mrkos
	1.99035	22 45 51.17	+1 22 20.5	15.5	Mrkos

## Reference Stars Numbers

322	SAO	127768	127805	127795	127778	127736	127761
324	SAO	127768	127805	127795	127778	127736	127761

## Asteroid 445 Edna

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
326	Aug. 3.88359 3.90037	21 <sup>h</sup> 20 <sup>m</sup> 56.52 <sup>s</sup> 21 20 55.54	+0°06'39.3" +0 06 43.4	13.0 13.0	Dubová Dubová

## Reference Stars Numbers

326	SAO	126775	126770	126718	126720	145345	145383
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## Asteroid 342 Endymion

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
328	Sept. 4.86192	22 <sup>h</sup> 50 <sup>m</sup> 25.82 <sup>s</sup>	+4°24'19.0"	14.5	Mrkos

## Reference Stars Numbers

328	SAO	127843	127829	127787	127772	127790	127823
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## Asteroid 390 Alma

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
328	Sept. 4.86192	22 <sup>h</sup> 46 <sup>m</sup> 43.03 <sup>s</sup>	+4°47'59.7"	15.3	Mrkos

## Reference Stars Numbers

328	SAO	127843	127829	127787	127772	127790	127823
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## Asteroid 1775 — 1969 JA

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
328	Sept. 4.86192	22 <sup>h</sup> 48 <sup>m</sup> 40.15 <sup>s</sup>	+5°14'40.2"	15.8	Mrkos

## Reference Stars Numbers

328	SAO	127843	127829	127787	127772	127790	127823
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## Asteroid 1978 RA

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
331	Sept. 25.80252	22 <sup>h</sup> 06 <sup>m</sup> 28.22 <sup>s</sup>	-21°00'52.2"	14.5	Mrkos
	25.81120	22 06 26.30	-21°01'23.5"	14.5	Mrkos

## Reference Stars Numbers

331	SAO	199938	190941	190937	190861	190869	190907
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## Asteroid 1502 Arenda

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
337	Oct. 8.88953	0 <sup>h</sup> 00 <sup>m</sup> 20.39 <sup>s</sup>	+2°11'59.3"	16.0	Mrkos
	8.90376	0 00 19.78	+2 11 54.0		Mrkos
340	9.96558	23 59 33.50	+2 05 08.5	16.5	Mrkos
	9.98039	23 59 32.81	+2 05 02.9	16.5	Mrkos

## Reference Stars Numbers

337	SAO	108993	109001	109002	128524	128531	128530
340	SAO	108993	109001	109002	128524	128531	128530

## Asteroid 454 Mathesis

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
343	Oct. 20.77683	23 <sup>h</sup> 21 <sup>m</sup> 49.25 <sup>s</sup>	-9°15'01.3"	11.7	Mrkos
	20.78977	23 21 48.88	-9°15'01.4"	13.7	Mrkos

## Reference Stars Numbers

343	SAO	146688	146681	146678	146713	146738	146721
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Asteroid 538 Friederike

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
354	Nov. 18.75602	3 <sup>h</sup> 26 <sup>m</sup> 42.46 <sup>s</sup>	+8°30'59.3"	13.8	Duc
	18.76794	3 26 41.89	+8 30 57.7		Duc
363	24.82420	3 21 53.23	+8 17 39.2		Mrkos
	24.83896	3 21 52.56	+8 17 36.9		Mrkos
366	25.81931	3 21 07.36	+8 15 51.0		Vávrová
	25.84193	3 21 06.32	+8 15 48.6		Vávrová
368	Dec. 4.84644	3 14 42.85	+8 05 08.8		Mrkos
	4.86102	3 14 42.26	+8 05 07.8		Mrkos
371	18.73459	3 7 36.26	+8 9 41.0		Mrkos
	18.74895	3 7 35.95	+8 9 42.2		Mrkos
372	18.77181	3 7 35.30	+8 9 38.7		Mrkos
	18.78497	3 7 35.01	+8 9 39.4		Mrkos
373	22.71685	3 6 19.46	+8 15 38.3		Mrkos
	22.73103	3 6 19.21	+8 15 39.2		Mrkos
374	22.75377	3 6 18.82	+8 15 41.5		Mrkos
	22.76836	3 6 18.53	+8 15 42.6		Mrkos
378	27.80047	3 5 13.54	+8 26 7.6		Mrkos
	27.81506	3 5 13.37	+8 26 9.5		Mrkos
379	27.83664	3 5 13.15	+8 26 13.2		Mrkos
	27.84631	3 5 13.09	+8 26 14.0		Mrkos

Reference Stars Numbers

354	SAO	111204	111180	111234	111238	111247	111178
363	SAO	111204	111184	111130	111123	111148	111178
366	SAO	111204	111184	111130	111123	111148	111178
368	SAO	111105	111119	111135	111081	111072	111046
371	SAO	111039	111046	111031	111011	111023	110971
372	SAO	111039	111046	111031	111011	111023	110971
373	SAO	111039	111046	111071	111001	110998	111023
374	SAO	111039	111046	111071	111001	110998	111023
378	SAO	110943	110927	110971	111011	110998	110944
379	SAO	110943	110927	110971	111011	110998	110944

Asteroid 335 Roberta

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
369	Dec. 4.88527	3 <sup>h</sup> 13 <sup>m</sup> 42.63 <sup>s</sup>	+9°55'52.0"	13.2	Vávrová
	4.90072	3 13 41.87	+9 55 50.2		Vávrová
371	18.73459	3 4 55.79	+9 46 51.3		Mrkos
	18.74895	3 4 55.40	+9 46 52.9		Mrkos

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
373	22.71685	3 3 16.69	+9 49 8.6		Mrkos
	22.73103	3 3 16.42	+9 49 9.3		Mrkos
379	27.83664	3 1 46.09	+9 55 10.2		Mrkos
	27.84631	3 1 45.95	+9 55 11.0		Mrkos

Reference Stars Numbers

369	SAO	111097	093348	111047	111069	111103	
	AGK3	+10°345					
371	SAO	111021	111029	093279	110959	110962	110998
373	SAO	110990	093297	093264	110932	110940	110962
379	SAO	110990	093297	093264	110932	110940	110962

Asteroid 1978 EA

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
257	March 31.83189	10 <sup>h</sup> 45 <sup>m</sup> 25.35 <sup>s</sup>	+5°01'32.9"	16.0	Mrkos
	31.84601	10 45 24.89	+5 01 34.1		Mrkos
264	Apr. 6.96282	10 41 53.44	+5 10 27.8		Mrkos
	6.98503	10 41 52.55	+5 10 29.7		Mrkos
268	7.90117	10 41 24.38	+5 11 33.9		Mrkos
	7.92293	10 41 23.74	+5 11 35.5	16.0	Mrkos

Reference Stars Numbers

257	SAO	118529	118566	118534	118516	118513	118519
264	SAO	118451	118488	118513	118472	118455	118444
268	SAO	118451	118488	118513	118472	118455	118444

Asteroid 1491 Balduinus

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
268	Apr. 7.90117	10 <sup>h</sup> 38 <sup>m</sup> 54.03 <sup>s</sup>	+5°03'30.9"	14.8	Mrkos
	7.92293	10 38 53.50	+5 03 34.0		Mrkos

## Reference Stars Numbers

268	SAO	118451	118488	118513	118472	118455	118444
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## Asteroid 1978 GL

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
268	Apr. 7.90117	10 <sup>h</sup> 40 <sup>m</sup> 30.93 <sup>s</sup>	+4°43'23.2"	17.0	Mrkos
	7.92293	10 40 30.63	+4 43 24.4	17.0	Mrkos

## Reference Stars Numbers

268	SAO	118451	118488	118513	118472	118455	118444
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## Asteroid 1978 LA

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
301	June 6.90182	14 <sup>h</sup> 47 <sup>m</sup> 37.64 <sup>s</sup>	+0°14'13.6"	16.0	Mrkos
	6.91628	14 47 37.29	+0 14 11.0		Mrkos
305	8.93155	14 46 42.14	+0 08 30.7	16.0	Mrkos
306	9.01471	14 46 39.90	+0 08 13.3		Mrkos
	9.02553	14 46 39.79	+0 08 14.6	Mrkos	
308	9.90917	14 46 18.18	+0 05 16.5	16.0	Mrkos
310	11.91309	14 45 35.41	-0 02 11.1		Mrkos
	11.92837	14 45 35.14	-0 02 14.7	Mrkos	
313	29.94405	14 45 23.20	-1 55 12.4	16.0	Vávrová
	29.95865	14 45 23.33	-1 55 18.3		Vávrová
315	30.90779	14 45 41.61	-2 03 12.3	16.0	Mrkos
	30.92556	14 45 41.96	-2 03 21.3		Mrkos
318	July 10.90322	14 50 41.84	-3 35 12.2	16.0	Mrkos
	10.91745	14 50 42.19	-3 35 20.4		Mrkos

## Reference Stars Numbers

301	SAO	120695	120707	120705	120696	120687	140177
305	SAO	120695	120696	120631	140122	140129	140173
306	SAO	120695	120696	120631	140122	140129	140173
308	SAO	120695	120696	120631	140122	140129	140173
310	SAO	120695	120696	120631	140122	140129	140173
313	SAO	140192	140160	140155	140133	140132	140097
315	SAO	140182	140160	140155	140133	140132	140097
318	SAO	140191	140213	140226	140204	140192	140183

Asteroid 1978 LB

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
301	June 6.90182	14 <sup>h</sup> 47 <sup>m</sup> 14.71 <sup>s</sup>	-1°13'47.3"	16.4	Mrkos
	6.91628	14 47 14.09	-1 13 55.8		Mrkos
305	8.93155	14 46 08.27	-1 26 22.2	16.4	Mrkos
308	9.90917	14 45 38.16	-1 32 38.3		Mrkos
310	11.91309	14 44 40.34	-1 45 52.6		Mrkos
	11.92837	14 44 39.93	-1 45 56.8		Mrkos
312	29.90429	14 40 07.92	-4 04 07.4		Mrkos
	29.91894	14 40 07.70	-4 04 14.0		Mrkos
316	30.95235	14 40 06.07	-4 13 02.9		Vávrová
	30.97162	14 40 06.00	-4 13 13.3		Vávrová

Reference Stars Numbers

301	SAO	140194	140160	140155	140152	140183	140198
305	SAO	140148	140160	140155	140131	140133	
308	SAO	140148	140160	140155	140131	140133	
310	SAO	140182	140160	140155	140131	140133	
312	SAO	140096	140081	140046	140072	140095	
316	SAO	140096	140081	140046	140072	140095	140101

Asteroid 1978 SO

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
329	Sept. 24.82769	0 <sup>h</sup> 17 <sup>m</sup> 19.34 <sup>s</sup>	+3°15'47.7"	16.0	Mrkos
	24.83909	0 17 18.80	+3 15 45.0	16.0	Mrkos
332	25.83169	0 16 31.23	+3 10 54.0	16.0	Mrkos
332	Sept. 25.84315	0 16 30.76	+3 10 51.4	16.0	Mrkos
335	Oct. 7.84942	0 07 03.72	+2 12 02.2	16.3	Mrkos
	7.86354	0 07 03.06	+2 11 58.8		Mrkos
337	8.88953	0 06 17.17	+2 07 06.8	16.2	Mrkos
	8.90376	0 06 16.64	+2 07 02.9		Mrkos
340	9.96535	0 05 29.78	+2 02 03.7	16.8	Mrkos
	9.98039	0 05 29.05	+2 02 00.3		Mrkos
346	31.85374	23 53 42.07	+0 43 44.1	16.2	Vávrová
	31.87561	23 53 41.55	+0 43 41.2		Vávrová
349	Nov. 5.84332	23 52 28.24	+0 34 38.8	16.8	Mrkos
	5.87318	23 52 27.92	+0 34 36.6		Mrkos
360	22.77508	23 52 53.86	+0 32 41.6	16.8	Mrkos
	22.79620	23 52 54.07	+0 32 43.5		Mrkos

Reference Stars Numbers

329	SAO	109127	109105	109136	109146	109173	109180
332	SAO	109127	109105	109136	109146	109173	109180
335	SAO	109053	109026	109002	109020	109039	109078
337	SAO	109053	109026	109002	109020	109039	109078
340	SAO	109053	109026	109002	109020	109039	109078
346	SAO	128484	128476	128460	128470	128485	128522
349	SAO	128484	128476	128434	128449	128452	128485
360	SAO	128484	128476	128434	128449	128452	128485

Asteroid 1978 SP

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
329	Sept. 24.82769 24.83909	0 <sup>h</sup> 20 <sup>m</sup> 12.68 <sup>s</sup>	+2°56'22.9"	16.5	Mrkos
		0 20 11.91	+2 56 21.7		
332	Sept. 25.83169 25.84315	0 19 16.39	+2 51 14.4	16.5	Mrkos
		0 19 15.94	+2 51 13.7		
335	Oct. 7.84942 7.86354	0 08 30.58	+1 51 15.7	16.7	Mrkos
		0 08 29.80	+1 51 12.0		
337	8.88953 8.90376	0 07 40.00	+1 46 31.2	Mrkos	Mrkos
		0 07 39.50	+1 46 28.2		
340	9.96585 9.98039	0 06 49.68	+1 41 46.6	Mrkos	Mrkos
		0 06 48.86	+1 41 41.7		
346	31.85374 31.87561	23 56 57.83	+0 45 34.8	17.2	Mrkos
		23 56 57.94	+0 45 47.5		
349	Nov. 5.84332 5.87318	23 57 10.19	+0 48 00.4	17.4	Mrkos
		23 57 10.33	+0 48 01.6		

Reference Stars Numbers

329	SAO	109127	109105	109136	109146	109173	109180
332	SAO	109127	109105	109136	109146	109173	109180
335	SAO	109053	109026	109002	109020	109039	109078
337	SAO	109053	109026	109002	109020	109039	109078
340	SAO	109053	109026	109002	109020	109039	109078
346	SAO	128528	128530	128484	128485	128481	128542
349	SAO	128528	128530	128484	128485	128481	128542

Asteroid 1978 SQ

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
330	Sept. 24.86779	0 <sup>h</sup> 06 <sup>m</sup> 50.62 <sup>s</sup>	-11°31'51.5"	16.8	Vávrová
	24.88307	0 06 49.97	-11 31 56.3		Vávrová
333	25.87249	0 05 52.99	-11 35 12.1	16.8	Vávrová
	25.88736	0 05 52.32	-11 35 18.4		Vávrová
336	Oct. 7.89080	23 54 47.04	-11 58 30.7	16.8	Mrkos
	7.90608	23 54 46.14	-11 58 32.2		Mrkos
338	8.93003	23 53 54.14	-11 58 56.0	17.0	Mrkos
	8.94497	23 53 53.57	-11 58 58.9		Mrkos
339	9.92669	23 53 05.11	-11 59 04.4	17.0	Mrkos
	9.94122	23 53 04.21	-11 59 04.0		Mrkos
345	31.80328	23 41 36.93	-10 56 52.7	17.0	Vávrová
	31.82550	23 41 36.72	-10 56 44.5		Vávrová
357	Nov. 19.80049	23 44 15.36	- 8 35 06.3	17.0	Vávrová
	19.81958	23 44 15.84	- 8 34 58.2		Vávrová

Reference Stars Numbers

330	SAO	147094	147105	147126	147140	147124	147092
333	SAO	147094	147105	147126	147140	147124	147092
336	SAO	165976	165971	165959	165948	165944	165979
338	SAO	165976	165971	165959	165948	165952	165979
339	SAO	165976	165971	165959	165948	165952	165979
345	SAO	165855	165885	165888	165866	165847	165819
357	SAO	146902	146923	146925	146903	146882	146880

Asteroid 1978 SB

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
336	Oct. 7.88385	23 <sup>h</sup> 59 <sup>m</sup> 51.94 <sup>s</sup>	-13°57'06.8"	12.5	Vávrová
	7.89913	23 59 48.81	-13 56 45.0		Vávrová
338	8.93003	23 57 10.96	-13 37 56.1	12.8	Vávrová
	8.94497	23 57 08.69	-13 37 39.6		Vávrová
339	9.92669	23 54 50.58	-13 20 28.6	13.0	Mrkos
	9.94122	23 54 48.39	-13 20 13.0		Mrkos
342	10.99659	23 52 30.94	-13 02 19.0	14.2	Mrkos
	11.00428	23 52 30.06	-13 02 11.5		Mrkos
344	31.76132	23 32 50.47	- 8 35 53.4	14.2	Vávrová
	31.77556	23 32 50.29	- 8 35 44.3		Vávrová

Reference Stars Numbers

336	SAO	147060	166008	165997	165980	147058	
338	SAO	165978	165996	165992	165980	165962	165956
339	SAO	165978	165960	165992	165980	165962	165956
342	SAO	165914	165917	165936	165952	165960	165956
344	SAO	146785	146755	146786	146812	146815	146799

Asteroid 1978 WC

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
354	Nov. 18.75602	3 <sup>h</sup> 28 <sup>m</sup> 13.34 <sup>s</sup>	+8°32'55.8"		Mrkos
	18.76794	3 28 12.42	+8 33 00.4		
363	24.82420	3 22 07.50	+8 58 49.3		Mrkos
	24.83896	3 22 06.60	+8 58 53.3		
366	25.81931	3 21 10.02	+9 03 38.5	16.5	Vávrová
	25.84193	3 21 08.67	+9 03 45.8		

Reference Stars Numbers

354	SAO	111204	111180	111234	111238	111247	111178
363	SAO	111204	111184	111130	111123	111148	111178
366	SAO	111204	111184	111130	111123	111148	111178

Asteroid 1978 WD

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
363	Nov. 24.82420	3 <sup>h</sup> 20 <sup>m</sup> 42.24 <sup>s</sup>	+8°29'08.4"	16.8	Mrkos
	24.83896	3 20 41.46	+8 29 07.8		
368	Dec. 4.84644	3 12 47.48	+8 33 09.1		Vávrová
	4.86102	3 12 46.76	+8 33 07.0		

Reference Stars Numbers

363	SAO	111204	111184	111130	111123	111148	111178
368	SAO	111105	111119	111135	111081	111072	111046

Asteroid 1978 WE

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
363	Nov. 24.82420	$3^h18^m44.24^s$	$+8^\circ03'29.5''$	17.2	Mrkos
	24.83896	3 18 43.21	$+8\ 03\ 28.2$	17.2	Mrkos

Reference Stars Numbers

363	SAO	111204	111184	111130	111123	111148	111178
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Asteroid 1978 WF

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
363	Nov. 24.82429	$3^h24^m29.00^s$	$+9^\circ53'34.0''$		Mrkos
	24.83896	3 24 27.90	$+9\ 53\ 28.0$		
369	Dec. 4.88527	3 13 54.11	$+9\ 06\ 49.4$	17.0	Vávrová
	4.90072	3 13 53.24	$+9\ 06\ 41.0$	17.0	Vávrová

Reference Stars Numbers

363	AGK3 $+9^\circ321$	AGK2 $+10^\circ354$	AGK3 $+9^\circ315$	AGK3 $+9^\circ314$			
369	SAO	111143	111148	111135		111081	111069

Asteroid 1978 WG

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
354	Nov. 18.75602	$3^h21^m00.60^s$	$+10^\circ22'30.7''$	16.2	Mrkos
	18.76794	3 20 59.80	$+10\ 22\ 26.7$	16.2	Mrkos
363	24.82420	3 14 32.93	$+10\ 03\ 14.8$	16.2	Mrkos
	24.83896	3 14 32.05	$+10\ 03\ 11.6$		Mrkos
369	Dec. 4.88527	3 05 19.65	$+9\ 43\ 26.6$		Mrkos
	4.90072	3 05 18.82	$+9\ 43\ 25.2$	16.2	Mrkos



Reference Stars Numbers

354	AGK3 +10°349	AGK3 +10°351	AGK3 +10°350	AGK3 +10°352	
363	AGK3 + 9°302	AGK3 +10°354	AGK3 + 9°303		
369	SAO   111021	111029	093297	110959	110962
					110998

Asteroid 1978 WH

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
363	Nov. 24.82420	3 <sup>h</sup> 20 <sup>m</sup> 18.39 <sup>s</sup>	+10°19'51.5"		Mrkos
	24.83896	3 20 17.74	+10 19 47.3		Mrkos
366	25.81931	3 19 31.43	+10 14 43.4	16.4	Mrkos
	25.84193	3 19 30.21	+10 14 35.7		Mrkos
369	Dec. 4.88527	3 13 22.45	+ 9 54 48.6		Vávrová
	4.90072	3 13 21.64	+ 9 54 53.8	16.4	Vávrová

Reference Stars Numbers

363	AGK3 +10°349	AGK3 +10°351	AGK3 +9°315	AGK3 +9°314
	AGK3 + 9°309	AGK3 +10°347		
366	AGK3 +10°349	AGK3 +10°351	AGK3 +9°315	AGK3 +9°314
	AGK3 + 9°309	AGK3 +10°347		
369	SAO   111097	093348	111047	111069
	AGK3 +10°345			111103

Asteroid 1978 WJ

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
363	Nov. 24.82420	3 <sup>h</sup> 24 <sup>m</sup> 39.19 <sup>s</sup>	+6°17'47.9"	16.5	Mrkos
	24.83896	3 24 38.43	+6 17 47.6		Mrkos
366	25.81931	3 23 45.20	+6 18 58.5		Vávrová
	25.84193	3 23 43.95	+6 18 59.3	16.5	Vávrová

Reference Stars Numbers

363	AGK3 +6°355	AGK3 +5°359	AGK3 +5°360	AGK3 +5°362
	AGK3 +6°357	AGK3 +6°356		
366	AGK3 +6°355	AGK3 +6°351	AGK3 +6°354	AGK3 +6°352
	AGK3 +6°357	AGK3 +6°356		

Asteroid 1978 XA

Plate No.	1978 UT	$\alpha(1950.0)$	$\delta(1950.0)$	$m_1$	Observer
369	Dec. 4.88527 4.90072	3 <sup>h</sup> 16 <sup>m</sup> 58.71 <sup>s</sup> 3 16 58.12	+9°23'04.4" +9 23 01.7	16.5	Mrkos Mrkos

Reference Stars Numbers

369	SAO	111143	111148	111135	111081	111069	111103
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