

**RESULTS OF OBSERVATIONS OF THE SUN AND PLANETS
WITH THE BELGRADE LARGE MERIDIAN CIRCLE**

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SUMMARY: In this paper we present the results $(O-C)_\alpha$, $(O-C)_\delta$ and related data obtained during the period 1992-1993 in Belgrade from diurnal observations of the Sun, Mercury, Venus and Mars with the Large Meridian Circle.

Visual observations of the Sun, Mercury and Venus in right ascension and declination are being carried out with Belgrade Large Meridian Circle "Ascania" (d=190 mm, f=2578 mm) since 1973 and January 1981 those of Mars.

The observations are relative ones, the reference stars are taken from the FK5 with declinations from -30° to $+90^\circ$, striving however to satisfy requirements as to the proximity in right ascension.

For observations of the Sun we use a filter from high-quality glass.

The ephemeris of the Sun, Mercury, Venus and Mars were calculated at the Institute of Theoretical Astronomy, in Sankt-Petersburg.

The Sun's right ascension was deduced, as usual, from the trailing front and back edges and the declination from settings on the upper and lower edges.

Mercury was mostly observed by central bisection of its image. In those cases when the seeing was satisfactory, the illuminated part of the planet was observed. Venus and Mars were observed in the same way as the Sun, or only one edge. In both cases of observing one edge only, the diameter correction was applied.

The temperature inside the pavilion was read before and after the observation at two places, to the north and to the south of the instrument. The mean temperature was used in the reductions.

The number of observations of the Sun and planets in the period 1992-1993 is presented in Table 1, where:

N – the number of reference stars transits;

n – the number of observing tours;

$k=N/n$ – the average number of reference stars transits per observing tours.

Table 1. Data on Observations

Object observ.	1992			1993		
	N	n	k	N	n	k
Sun	206	52	4	43	14	3
Mercury	95	16	6	16	4	4
Venus	195	49	4	43	14	3
Mars	125	23	5	5	1	5

Mean annual differences $(O-C)_\alpha$ and $(O-C)_\delta$ for the Sun and planets; $\varepsilon_{(O-C)}$ – mean errors of single observations; n – the number of observations are summarized in Table 2.

Table 2. (O-C) Differences and their Errors for the Observed Objects

Objects	years	$(O-C)_\alpha$	ε_α	n	$(O-C)_\delta$	ε_δ	n
Sun	1992	+0 ^o .000	±0 ^o .018	52	-0 ^o .05	±0 ^o .28	52
	1993	-0.007	±0.015	14	+0.07	±0.30	14
Mercury	1992	-0.006	±0.016	16	-0.04	±0.30	16
	1993	-0.009	±0.013	4	+0.16	±0.31	4
Venus	1992	-0.004	±0.027	49	-0.08	±0.36	49
	1993	+0.004	±0.028	14	-0.09	±0.43	14
Mars	1992	+0.013	±0.016	22	+0.10	±0.34	23
	1993	+0.029	-	1	-0.64	-	1

The error of a single observation was determined according to the formula

$$\varepsilon_{(O-C)} = \pm \left[\frac{\sum \nu_i^2}{(n-1)} \right]^{1/2}$$

where

ν_i – the deviation (O-C) of the mean value,
n – the number of observations.

The apparent right ascensions and declinations obtained from observations are compared with the ephemeris positions and the results are presented in Tables 3-6.

Each of the four tables contains eleven columns. Their description is given below.

Date – the date of observation;

Observ. – observers: 1 – S. Sadžakov, 2 – M. Dačić, 3 – Z. Cvetković;

$t^{\circ}\text{C}$ – mean temperature inside the pavilion;

Ba – atmospheric pressure in mm Hg;

n – the number of the reference FK5 stars;

R.A. – observed right ascensions (hours, minutes and seconds of time);

$(O-C)_\alpha$ – (O-C) of the right ascensions (seconds of time);

DEC – observed declinations (degrees, minutes and seconds of arc);

$(O-C)_\delta$ – (O-C) of the declinations (seconds of arc);

E_p – epoch of observation;

Clamp – clamp position.

Table 3. Data on the Sun observations

Date	Observ.	$t^{\circ}\text{C}$	Ba	n	R.A.	$(O-C)_\alpha$	DEC	$(O-C)_\delta$	E_p	Clamp
1992.										
10.02.	2,3	9.2	746.4	2	21 33 23.218	.001	-14 30 49.63	-.32	2.11	W
25.02.	2,3	5.6	751.0	3	22 31 27.573	.007	-9 16 50.33	.28	2.15	W
26.02.	2,3	8.6	750.5	4	22 35 14.660	-.007	-8 54 31.85	-.91	2.16	W
27.02.	1,2	8.8	754.0	2	22 39 01.192	.022	-8 32 05.34	.13	2.16	W
28.02.	2,3	9.4	753.0	3	22 42 47.185	-.001	-8 09 31.20	.30	2.16	W
05.03.	1,2	10.3	753.6	3	23 05 12.685	-.013	-5 51 49.45	-.40	2.18	E
09.03.	2	7.1	758.2	1	23 20 00.928	-.022	-4 18 21.25	.25	2.19	E
10.03.	2	6.6	759.2	3	23 23 42.052	.010	-3 54 50.34	-.08	2.19	E
11.03.	1,2	6.2	751.1	3	23 27 22.836	-.007	-3 31 16.68	.13	2.19	E
12.03.	2,3	5.8	749.0	3	23 31 03.298	.005	-3 07 40.65	-.31	2.20	E
13.03.	2,3	10.0	740.8	3	23 34 43.456	.011	-2 44 02.65	.15	2.20	E
18.03.	3	5.8	748.7	1	23 53 00.397	.021	-0 45 35.60	.14	2.21	E
15.04.	1,2	14.1	743.0	1	1 35 20.531	.005	9 56 11.80	-.02	2.29	E
									1990+	

Table 3. (continued)

Date	Observ.	$t^{\circ}\text{C}$	Ba	n	R.A.	$(O - C)_{\alpha}$	DEC	$(O - C)_{\delta}$	E_p	Clamp
06.05.	1,2,3	22.0	746.0	1	2 54 43.375	.013	16 40 07.93	-.10	2.35	E
13.05.	1,2	19.6	754.0	3	3 22 03.069	-.012	18 29 59.97	-.13	2.37	W
25.05.	2	17.2	744.9	3	4 09 57.331	.015	21 01 59.68	-.26	2.40	W
26.05.	2	17.3	744.4	2	4 14 00.343	.026	21 12 24.16	.33	2.40	W
27.05.	1,2	16.6	742.4	2	4 18 03.852	-.002	21 22 26.66	-.15	2.41	W
24.06.	3	26.2	739.3	2	6 13 45.774	-.001	23 24 06.44	-.42	2.48	W
29.06.	2,3	21.7	746.0	1	6 34 31.284	.001	23 12 07.55	.20	2.50	W
30.06.	2,3	21.7	744.8	1	6 38 39.845	.016	23 08 30.21	.14	2.50	W
01.07.	1,2	21.6	742.8	1	6 42 48.159	.014	23 04 28.56	.03	2.50	W
02.07.	2,3	22.9	742.8	2	6 46 56.196	.022	23 00 02.74	.11	2.50	W
03.07.	2	23.4	743.3	2	6 51 03.928	-.015	22 55 12.86	-.58	2.51	W
09.07.	2	22.5	745.1	2	7 15 42.707	-.049	22 17 55.82	.27	2.52	W
17.07.	2	22.0	747.5	2	7 48 09.620	-.021	21 06 52.74	.14	2.54	E
20.07.	2	22.1	745.4	2	8 00 11.285	.017	20 34 14.39	.08	2.55	E
21.07.	1,2	24.3	744.9	2	8 04 10.754	.017	20 22 39.69	-.05	2.56	E
22.07.	2	25.2	744.4	2	8 08 09.671	-.031	20 10 44.40	.06	2.56	E
24.07.	2,3	24.8	743.9	2	8 16 05.826	-.016	19 45 53.10	.14	2.56	E
29.07.	2	22.8	751.2	2	8 35 46.134	.026	18 38 03.24	.05	2.58	E
30.07.	2	24.2	750.0	7	8 39 40.401	-.062	18 23 33.06	.01	2.58	E
31.07.	2	26.9	748.0	8	8 43 34.051	-.012	18 08 44.84	-.02	2.58	E
10.08.	2	29.7	744.4	6	9 21 56.564	-.019	15 25 17.36	-.12	2.61	E
20.08.	2	30.3	743.5	9	9 59 21.714	.012	12 17 15.85	-.28	2.64	E
21.08.	2	31.9	742.4	11	10 03 03.515	-.002	11 57 17.92	-.56	2.64	E
26.08.	2,3	28.5	747.3	12	10 21 26.202	.007	10 14 42.97	-.05	2.65	W
27.08.	2,3	30.0	744.3	11	10 25 05.552	-.005	9 53 41.32	-.54	2.66	W
28.08.	2,3	30.4	744.3	11	10 28 44.529	-.001	9 32 30.25	.17	2.66	W
01.09.	1,2,3	27.4	738.1	9	10 43 16.970	.004	8 06 18.71	-.17	2.67	W
03.09.	1,2,3	22.4	748.2	8	10 50 31.312	.003	7 22 25.31	.25	2.68	W
04.09.	2,3	24.7	740.6	7	10 54 08.067	-.004	7 00 17.85	.19	2.68	W
09.09.	1,2,3	23.7	747.9	7	11 12 08.399	.014	5 08 05.92	.09	2.69	E
10.09.	2	22.3	748.2	6	11 15 43.915	.002	4 45 22.78	.17	2.70	E
14.09.	2,3	24.3	745.4	4	11 30 04.875	.003	3 13 44.49	-.26	2.70	E
16.09.	2	19.4	750.0	7	11 37 15.021	.016	2 27 32.18	.53	2.71	E
29.09.	2,3	21.6	743.4	2	12 23 58.846	.002	-2 35 40.66	-.24	2.75	E
02.10.	2,3	16.8	745.3	2	12 34 50.465	-.019	-3 45 29.96	.06	2.76	E
19.10.	2	10.9	748.4	4	13 37 30.935	-.017	-10 08 54.58	-.53	2.80	E
10.11.	3	8.2	749.4	3	15 03 16.945	.020	-17 16 27.95	-.16	2.86	E
13.11.	3	7.2	739.5	3	15 15 28.877	.010	-18 05 15.79	-.33	2.87	E
20.11.	3	7.5	743.1	2	15 44 26.788	.008	-19 47 48.64	.18	2.89	W
1993.									1990+	
11.03.	2,3	4.2	749.1	1	23 26 28.269	-.005	-3 37 06.69	-.07	3.19	W
13.04.	2,3	13.6	736.0	1	1 27 02.342	.007	9 07 46.09	.35	3.28	W
21.04.	1,2	14.6	747.3	3	1 56 44.869	-.010	11 56 12.88	-.06	3.30	W
13.05.	2	21.8	733.3	1	3 21 04.729	-.009	18 26 20.22	.27	3.36	W
10.06.	2	24.9	744.8	5	5 14 33.919	-.018	23 01 39.31	-.12	3.44	E
19.07.	2,3	27.4	742.7	2	7 55 13.664	-.024	20 48 01.97	-.31	3.55	W
02.08.	2	26.0	744.8	3	8 50 23.378	-.005	17 41 58.07	.42	3.59	W
17.08.	2	27.3	746.9	1	9 47 20.152	.011	13 20 29.72	-.59	3.63	W
19.08.	2,3	23.9	748.4	5	9 54 46.591	-.004	12 41 38.64	.12	3.64	W
23.08.	2,3	29.8	743.8	3	10 09 33.610	-.001	11 21 35.22	-.14	3.65	E
24.08.	2,3	29.1	742.2	5	10 13 14.208	-.030	11 01 06.87	.50	3.65	E
13.09.	2,3	21.0	738.6	3	11 25 38.123	.017	3 42 14.11	.34	3.70	E
14.09.	2,3	24.6	737.9	4	11 29 13.421	.007	3 19 13.24	.16	3.70	E
16.09.	2,3	21.3	741.6	6	11 36 23.892	-.030	2 33 00.85	.11	3.71	E

Table 4. Data on the Mercury observations

Date	Observ.	$t^{\circ}\text{C}$	Ba	n	R.A.	$(O - C)_{\alpha}$	DEC	$(O - C)_{\delta}$	E_p	Clamp
1992.									1990+	
06.05.	2	20.8	746.0	1	1 27 19.687	.008	6 08 31.37	.37	2.35	E
24.06.	3	26.9	739.3	2	7 53 55.234	.012	22 29 05.48	.35	2.48	W
30.06.	2	22.4	744.8	1	8 27 17.784	-.019	20 00 19.49	.04	2.50	W
01.07.	2	23.1	742.8	1	8 32 05.054	-.016	19 33 45.56	-.01	2.50	W
02.07.	2	23.0	742.8	2	8 36 38.776	-.017	19 06 57.50	-.06	2.50	W
03.07.	3	24.1	743.3	2	8 40 58.801	-.013	18 40 01.28	.25	2.51	W
20.08.	2	29.3	743.5	9	8 45 19.125	.002	17 03 36.89	.20	2.64	E
21.08.	2	30.0	742.4	11	8 49 22.547	.008	17 04 23.31	-.12	2.64	E
27.08.	3	28.3	744.3	11	9 22 02.316	-.040	16 09 28.21	-.50	2.66	W
28.08.	3	30.0	744.3	11	9 28 35.057	-.024	15 49 55.89	-.10	2.66	W
01.09.	3	27.3	738.1	9	9 56 37.153	.009	14 03 43.19	-.44	2.67	W
02.09.	3	19.7	752.0	7	10 03 55.034	-.026	13 30 49.18	.04	2.67	W
03.09.	2	21.8	748.2	8	10 11 16.106	.000	12 55 43.30	.04	2.68	W
04.09.	2,3	23.0	740.6	7	10 18 38.784	.017	12 18 37.14	.19	2.68	W
09.09.	3	22.7	747.9	7	10 55 14.350	-.004	8 49 52.26	-.66	2.69	E
10.09.	2	22.2	748.2	6	11 02 24.085	.005	8 04 45.85	-.17	2.70	E
1993.									1990+	
13.05.	2	21.3	733.3	1	3 08 12.343	-.016	17 19 33.33	.29	3.36	W
19.08.	2	22.9	748.4	5	9 16 41.382	-.022	17 17 16.84	-.18	3.64	W
14.09.	2,3	25.2	737.9	4	12 19 09.465	.008	-1 35 13.26	.01	3.70	E
16.09.	2,3	21.2	741.6	6	12 30 46.427	-.005	-3 05 30.40	.52	3.71	E

Table 5. Data on the Venus observations

Date	Observ.	$t^{\circ}\text{C}$	Ba	n	R.A.	$(O - C)_{\alpha}$	DEC	$(O - C)_{\delta}$	E_p	Clamp
1992.									1990+	
10.02.	2	6.5	746.4	2	19 25 12.251	.020	-21 37 51.45	-.06	2.11	W
25.02.	2	4.2	751.0	3	20 43 03.230	.003	-18 33 33.70	.11	2.15	W
26.02.	3	5.9	750.5	4	20 48 07.663	.050	-18 16 39.94	.48	2.16	W
28.02.	2	7.9	753.0	3	20 58 13.505	-.052	-17 41 18.34	.54	2.16	W
05.03.	2	9.2	753.6	3	21 28 06.033	.000	-15 43 26.47	.30	2.18	E
09.03.	2	6.0	758.2	1	21 47 39.955	.025	-14 15 55.58	.20	2.19	E
10.03.	2	6.0	759.2	3	21 52 30.839	-.052	-13 53 02.10	-.30	2.19	E
11.03.	2	5.1	751.1	3	21 57 20.706	-.007	-13 29 45.71	-.50	2.19	E
12.03.	2	4.7	749.0	3	22 02 09.569	.034	-13 06 07.12	-.34	2.20	E
13.03.	2	9.5	740.8	3	22 06 57.442	-.010	-12 42 07.04	-.05	2.20	E
17.03.	2	5.5	749.8	2	22 25 59.413	-.010	-11 02 45.75	-.13	2.21	E
18.03.	3	4.5	748.7	1	22 30 42.642	-.028	-10 37 08.62	-.48	2.21	E
15.04.	2	13.5	743.0	1	0 39 04.655	-.006	2 34 18.04	-.19	2.29	E
06.05.	2	21.2	746.0	1	2 15 48.716	-.032	12 20 58.75	-.16	2.35	E
13.05.	2	18.7	754.0	3	2 49 15.574	.017	15 13 33.19	-.68	2.37	W
25.05.	2	17.2	744.9	3	3 48 36.645	-.034	19 24 17.29	-.26	2.40	W
26.05.	2	16.7	744.4	2	3 53 40.705	-.031	19 42 05.81	.37	2.40	W
24.06.	3	26.3	739.3	2	6 26 46.242	.033	23 51 51.57	.15	2.48	W
29.06.	2,3	21.7	746.0	1	6 53 38.463	-.025	23 36 52.39	-.86	2.50	W
30.06.	2,3	22.1	744.8	1	6 59 00.003	-.009	23 31 45.63	-.51	2.50	W
01.07.	2	22.7	742.8	1	7 04 21.100	-.002	23 25 56.97	-.12	2.50	W
02.07.	2,3	23.2	742.8	2	7 09 41.693	-.022	23 19 26.63	-.02	2.50	W
03.07.	2	24.0	743.3	2	7 15 01.724	-.050	23 12 14.85	-.37	2.51	W
09.07.	2	23.0	745.1	2	7 46 47.323	.030	22 14 51.50	-.31	2.52	W
17.07.	2	22.0	747.5	2	8 28 17.784	.050	20 22 22.71	-.45	2.54	E
20.07.	2	23.2	745.4	2	8 43 34.032	.027	19 30 23.26	.56	2.55	E
21.07.	2	24.3	744.9	2	8 48 37.157	-.012	19 11 56.70	-.17	2.56	E
24.07.	2	25.0	743.9	2	9 03 39.536	-.003	18 13 25.68	-.26	2.56	E
29.07.	2	23.2	751.2	2	9 28 19.965	-.030	16 25 56.62	-.05	2.58	E
30.07.	2	24.9	750.0	7	9 33 12.515	.030	16 03 03.56	-.55	2.58	E

RESULTS OF OBSERVATIONS OF THE SUN AND PLANETS WITH THE BELGRADE LARGE MERIDIAN CIRCLE

Table 5. (continued)

Date	Observ.	$t^{\circ}\text{C}$	Ba	n	R.A.	$(O - C)_{\alpha}$	DEC	$(O - C)_{\delta}$	E_p	Clamp
31.07.	2	27.6	748.0	8	9 38 03.894	-.015	15 39 44.44	-.55	2.58	E
20.08.	2	30.3	743.5	9	11 11 34.861	.012	6 40 49.04	-.15	2.64	E
21.08.	2	31.8	742.4	11	11 16 06.763	-.026	6 11 10.17	-.21	2.64	E
26.08.	3	29.5	747.3	12	11 38 38.622	.008	3 40 37.29	.08	2.65	W
27.08.	3	30.1	744.3	11	11 43 07.730	-.011	3 10 08.12	.37	2.66	W
28.08.	3	31.6	744.3	11	11 47 36.507	-.082	2 39 33.14	-.23	2.66	W
01.09.	3	29.3	738.1	9	12 05 29.110	-.005	0 36 29.43	-.62	2.67	W
03.09.	3	23.3	748.2	8	12 14 24.479	.012	-0 25 18.58	-.03	2.68	W
04.09.	3	24.5	740.6	7	12 18 52.072	.000	-0 56 14.10	-.01	2.68	W
09.09.	3	23.3	747.9	7	12 41 10.770	.007	-3 30 38.18	.47	2.69	E
10.09.	2	24.0	748.2	6	12 45 38.953	-.013	-4 01 23.31	-.29	2.70	E
14.09.	2	25.2	745.4	4	13 03 34.624	.023	-6 03 34.57	-.03	2.70	E
16.09.	2	20.9	750.0	7	13 12 34.840	-.013	-7 04 00.74	.01	2.71	E
29.09.	2	22.8	743.4	2	14 12 10.007	.014	-13 18 37.86	.92	2.75	E
02.10.	3	17.5	745.3	2	14 26 15.701	-.009	-14 38 46.54	-.05	2.76	E
19.10.	2	11.5	748.4	4	15 49 15.817	-.006	-21 04 17.57	.10	2.80	E
10.11.	3	9.2	749.4	3	17 44 05.006	.001	-25 19 18.49	.04	2.86	E
13.11.	3	8.3	739.5	3	18 00 04.080	.014	-25 27 57.97	.23	2.87	E
20.11.	3	8.4	743.1	2	18 37 16.722	-.015	-25 22 18.06	.15	2.89	W
1993.										
11.03.	2	5.7	749.1	1	1 02 54.026	.010	14 23 41.67	.13	3.19	W
13.04.	2	11.9	736.0	1	0 10 44.993	-.014	7 28 40.44	-.35	3.28	W
21.04.	2	13.0	747.3	3	0 07 31.939	.015	5 07 37.18	-.38	3.30	W
13.05.	2	19.7	733.3	1	0 40 09.731	.031	4 07 12.23	-.56	3.36	W
10.06.	2	21.7	744.8	5	2 09 15.082	.011	10 19 54.01	.07	3.44	E
19.07.	2	25.0	742.7	2	4 54 19.121	.065	20 14 07.92	.87	3.55	W
02.08.	2	23.1	744.8	3	6 01 54.513	-.026	21 44 53.04	-.10	3.59	W
17.08.	2	25.2	746.9	1	7 16 48.559	-.022	21 23 02.73	.59	3.63	W
19.08.	2	21.3	748.4	5	7 26 51.324	.025	21 10 08.61	.02	3.64	W
23.08.	2	26.9	743.8	3	7 46 55.259	.018	20 37 17.08	.04	3.65	E
24.08.	2	27.2	742.2	5	7 51 55.671	.018	20 27 36.83	-.36	3.65	E
13.09.	3	19.6	738.6	3	9 30 22.645	-.004	15 20 06.77	-.47	3.70	E
14.09.	2	22.5	737.9	4	9 35 11.399	-.036	14 59 33.70	-.62	3.70	E
16.09.	2	19.0	741.6	6	9 44 46.765	-.030	14 17 10.74	-.11	3.71	E
1990+										

Table 6. Data on the Mars observations

Date	Observ.	$t^{\circ}\text{C}$	Ba	n	R.A.	$(O - C)_{\alpha}$	DEC	$(O - C)_{\delta}$	E_p	Clamp
1992.										
13.05.	2	16.1	754.0	3	0 22 57.858	.031	1 01 28.02	.54	2.37	W
25.05.	2	14.6	744.9	3	0 56 30.074	.004	4 36 32.47	.68	2.40	W
27.05.	2	15.1	742.4	2	1 02 05.049	.028	5 11 39.80	-.13	2.41	W
02.07.	2	18.3	742.8	2	2 42 54.272	-	14 37 58.18	-.13	2.50	W
03.07.	2	19.8	743.3	2	2 45 43.245	.025	14 51 21.47	.43	2.51	W
09.07.	2	19.0	745.1	2	3 02 37.604	.026	16 08 24.58	.12	2.52	W
17.07.	2	19.1	747.5	2	3 25 11.068	.027	17 42 02.45	.32	2.54	E
20.07.	2	18.6	745.4	2	3 33 38.525	.013	18 14 20.81	.03	2.55	E
21.07.	2	19.5	744.9	2	3 36 27.619	.018	18 24 45.94	-.32	2.56	E
22.07.	2	21.7	744.4	2	3 39 16.670	.035	18 35 00.49	.22	2.56	E
24.07.	2	21.2	743.9	2	3 44 54.613	.004	18 54 57.59	-.25	2.56	E
29.07.	2	17.7	751.2	2	3 58 57.990	-.002	19 41 41.70	.19	2.58	E
30.07.	2	20.0	750.0	7	4 01 46.299	.004	19 50 29.85	.38	2.58	E
31.07.	2	21.5	748.0	8	4 04 34.453	.018	19 59 07.01	.00	2.58	E
10.08.	2	24.9	744.4	6	4 32 25.547	.017	21 15 13.44	.43	2.61	E
20.08.	2	25.2	743.5	9	4 59 50.584	-.016	22 13 08.22	.12	2.64	E
21.08.	2	26.0	742.4	11	5 02 33.183	.025	22 17 56.69	-.22	2.64	E
26.08.	2	23.8	747.3	12	5 15 59.654	.015	22 39 22.80	.60	2.65	W

Table 6. (continued)

Date	Observ.	$t^{\circ}\text{C}$	Ba	n	R.A.	$(O - C)_{\alpha}$	DEC	$(O - C)_{\delta}$	E_p	Clamp
1992.									1990+	
27.08.	2	24.8	744.3	11	5 18 39.495	.020	22 43 09.28	.29	2.66	W
28.08.	2	25.8	744.3	11	5 21 18.804	-.016	22 46 45.69	-.16	2.66	W
01.09.	2	22.4	738.1	9	5 31 50.406	.025	22 59 32.48	.24	2.67	W
02.09.	2	15.4	752.0	7	5 34 26.829	-.016	23 02 20.02	-.52	2.67	W
03.09.	2	16.8	748.2	8	5 37 02.634	-.010	23 04 58.14	-.49	2.68	W
1993.									1990+	
10.06.	3	26.1	743.9	5	9 42 21.689	.029	15 10 44.25	-.64	3.44	E

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РЕЗУЛТАТИ ПОСМАТРАЊА СУНЦА И ПЛАНЕТА УРАЂЕНИХ НА БЕОГРАДСКОМ ВЕЛИКОМ МЕРИДИЈАНСКОМ КРУГУ

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Претходно саопштење

У овом раду дају се резултати $(O - C)_{\alpha}$ и $(O - C)_{\delta}$ и одговарајући подаци добијени у периоду 1992-1993. године у Београду из дневних посматрања Сунца, Меркура, Венере и Марса на Великом Меридијанском Кругу.