A DETERMINATION
OF
THE SOLAR PARALLAX.

BY
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FROM
OBSERVATIONS OF EROS

MADE BY
T. J. J. SEE IN 1900-1901.

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A DETERMINATION OF THE SOLAR PARALLAX.

In connection with the campaign planned by the Paris Conference of July, 1900, for the determination of the solar parallax, the visual observations of Eros, made with the 26-inch equatorial at Washington during the opposition of 1900 and 1901, were printed in Publications of the United States Naval Observatory, Second Series, Volume III. The results there given, pages A 69-A 72, are differences between the asteroid and near-by comparison stars, the positions of the latter not being known, but according to the plan of the Conference they were to be determined photographically in the course of the Eros work. These places have now become available, making it possible to complete the reduction of the observations.

However, there are certain small changes that have been made in the published results, and a few material errors have been discovered. Since these changes affect the majority of the observations, it was thought best to reprint the entire series. The changes in question have to do with the small corrections which depend upon the orientation of the micrometer. These corrections were all recomputed, the formulæ used for the purpose being as follows:

$$\epsilon_{\alpha} = +\Delta\delta(\lambda + 0.00120 - \sin 0^{\circ}.52); \quad \epsilon_{\delta} = -\Delta\alpha(\lambda + 0.00120 - \sin 0^{\circ}.52), \quad \text{for the first twelve observations.}$$

$$\epsilon_{\alpha} = +\Delta\delta(\lambda + 0.00120); \quad \epsilon_{\delta} = -\Delta\alpha(\lambda + 0.00120), \quad \text{for all observations after the twelfth.}$$

where

$\epsilon_{\alpha}, \epsilon_{\delta}$ = the corrections in right ascension, and in declination, respectively.

$\Delta\delta$ = the difference in declination between the asteroid and star at the time of the measurement in right ascension.

$\Delta\alpha$ = the difference in right ascension between the asteroid and star at the time of the measurement in declination.

λ = the sine of the error of the micrometer in orientation; this quantity was taken from the table on page F 99 of Publications of the United States Naval Observatory, Second Series, Volume IV, Appendix III.

The number $+0.00120$ is added to λ because of the manner in which the micrometer was oriented; this was done by trailing equatorial stars with the telescope *west* of the pier, the table being based upon the assumption that the orientation is made with the telescope *east* of the pier. The quantity $-\sin 0^{\circ}.52 = -0.00908$ must be included for the reduction of the first twelve observations because of an error of $0^{\circ}.52$ which was made in setting the micrometer in these observations. In cases of change, other than the above, the quantities in question are noted at the foot of the page of observations.

Revised Rectangular Coordinates (Asteroid—Star.)

No.	Date.	Washington Mean Time.	$\Delta\alpha \cos \delta$	Washington Mean Time.	$\Delta\delta$
	1900	h m s	"	h m s	"
1	Oct. 9	7 28 34.2	- 29.316	7 34 29.8	+ 40.952
2	9	7 40 35.6	+ 53.538	7 44 39.6	- 17.500*
3	9	8 33 8.1	+ 43.717	8 37 26.2	+ 31.032
4	9	8 43 0.8	- 46.790	8 47 15.1	- 1.831
5	9	17 28 21.4	- 37.997	17 33 1.8	+ 48.603
6	9	17 38 47.5	- 40.383	...	...
7	10	7 13 29.0	+ 16.311	7 16 56.9	- 2.319
8	10	7 36 6.5	+ 11.960	7 40 6.9	+ 18.678
9	10	8 21 41.2	+ 2.818	8 25 52.6	+ 60.112
10	10	16 18 2.1	- 19.277	16 24 53.2†	- 42.499
11	10	16 31 57.0	- 22.896	16 38 8.1	- 31.126
12	10	16 48 40.0	- 27.173	16 53 1.5	- 18.933
13	11	8 20 5.9	+ 158.245‡	8 28 18.1	+ 54.563‡
14	11	8 49 32.2	+ 83.944‡	8 53 42.9	+ 21.163‡
15	11	16 31 9.3	+ 15.918‡	16 35 50.8	+ 70.514‡
16	11	16 50 12.2	+ 11.171‡	16 54 7.3	+ 85.535‡
17	15	6 37 10.7	+ 16.572	6 40 36.0	+ 14.645
18	15	6 44 34.3	+ 14.450	6 48 58.0	+ 21.687
19	15	6 53 43.7	+ 11.130	6 56 41.0	+ 27.896
20	15	8 32 46.6	- 22.762	8 37 19.8	+ 112.304
21	15	8 43 34.6	+ 2.440	8 47 1.6	+ 35.188
22	15	16 34 2.1	- 15.215	16 39 16.1	+ 68.604
23	15	16 52 24.8	+ 22.792	16 57 48.1	- 117.189
24	15	17 13 59.8	+ 14.307	17 18 12.6	- 101.605
25	16	6 55 26.0	+ 109.729	6 59 16.8	+ 14.919
26	16	7 33 4.0	+ 71.868	7 36 39.6	- 45.735
27	16	8 34 2.6	+ 49.062	8 39 4.0	+ 4.717
28	16	16 55 47.9	- 62.989	17 0 31.1	+ 51.885
29	16	17 12 34.7	- 69.772	17 17 10.9	+ 63.940
30	17	6 7 30.7	+ 16.171	6 10 56.9	- 25.871
31	17	6 15 17.4	+ 17.293	6 18 34.4	+ 46.723
32	17	6 22 36.1	+ 10.890	6 25 45.7	- 13.767
33	17	16 23 39.4	- 140.383	16 29 21.1	- 19.829
34	17	17 6 37.1	+ 26.012	17 10 29.4	- 54.716
35	18	6 17 53.9	+ 104.755	6 23 2.9	+ 109.556
36	18	6 30 5.9	- 28.292	6 34 34.8	- 77.742
37	18	8 6 52.7	- 69.039	8 10 52.1	- 1.616
38	18	16 15 19.8	+ 34.680	16 19 33.3	+ 17.494
39	18	16 30 24.0	+ 27.249	16 34 24.3	+ 27.139
40	18	17 3 59.0	+ 11.238	17 7 43.6	+ 50.005
41	18	17 17 13.8	+ 6.075	17 20 54.3	+ 58.919
42	19	6 22 0.8	- 66.142	6 26 22.7	- 29.605
43	19	7 33 17.1	- 98.178	7 37 23.6	+ 25.108
44	19	7 55 44.1	- 108.199	7 59 51.1	+ 42.686
45	19	16 15 57.6	- 3.144	16 19 47.6	- 33.500
46	19	17 4 44.4	- 27.203	17 7 46.9	- 1.373
47	19	17 21 52.9	- 35.360	17 25 15.9	+ 9.819
48	20	6 2 9.3	+ 68.512	5 58 16.9	- 96.112
49	20	8 1 28.6	+ 11.763	8 4 17.9	- 2.261
50	20	8 11 47.1	+ 6.660	8 15 1.3	+ 5.709
51	20	8 29 7.9	- 1.770	8 31 49.3	+ 18.171
52	20	16 23 43.0	+ 34.560	16 30 2.3	- 23.013
53	20	17 6 59.4	+ 11.315	17 11 10.8	+ 3.023
54	21	6 38 35.3	+ 4.689	6 41 41.5	+ 20.108
55	21	6 52 16.7	- 1.560	6 55 17.0	+ 30.133
56	21	8 7 3.7	- 40.125	8 10 36.7	+ 84.174
57	22	6 18 49.9	+ 52.545	6 22 9.4	+ 59.537
58	22	7 19 49.9	+ 20.086	7 23 35.4	+ 102.788
59	24	6 29 43.6	- 12.374	6 33 15.3	- 35.644
60	24	6 37 36.8	- 43.019	6 40 47.6	+ 48.985

* Sign of $\Delta\delta$ changed from that originally published.† Time of $\Delta\delta$ increased 5^m from that originally published.

‡ Correction for large error in parallel for Nos. 1-12 was originally incorrectly applied to Nos. 13-16.

SOLAR PARALLAX FROM OBSERVATIONS OF EROS.

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Revised Rectangular Coordinates (Asteroid—Star)—Continued.

No.	Date.	Washington Mean Time.	$\Delta\alpha \cos \delta$	Washington Mean Time.	$\Delta\delta$
	1900	h m s	"	h m s	"
61	Oct. 24	8 32 48.0	- 85.475	8 36 44.0	+ 43.809
62	24	16 37 42.0	- 29.750	16 42 43.0	- 59.818
63	24	17 19 5.3	- 54.338	17 25 21.0	- 38.000
64	26	8 39 2.7	+ 20.416	8 42 15.5	- 51.529
65	27	6 28 22.7	+ 64.607	6 31 33.7	+ 72.464
66	27	6 35 17.6	- 43.913	6 38 16.7	+ 36.505
67	27	7 59 16.7	+ 4.815	8 3 14.9	+123.018
68	29	6 25 5.3	- 35.069	6 28 28.7	+ 29.931
69	29	7 13 34.9	- 68.973	7 16 57.3	+ 52.969
70	29	7 32 30.1	+ 66.693	7 36 37.2	- 21.612
71	29	16 14 19.7	+ 54.788	16 18 27.0	- 27.463
72	29	17 1 23.4	+ 21.778	17 4 42.7	- 10.839
73	29	17 16 48.4	+ 11.425	17 19 42.4	- 5.478
74	30	7 21 14.3	+ 70.300	7 26 1.4	-189.630
75	30	7 30 40.5	- 18.204	7 33 51.5	+ 16.808
76	30	8 10 47.6	+ 34.309	8 15 20.1	-167.899
77	Nov. 4	6 33 12.7	-107.000	6 36 50.2	- 30.477
78	4	7 24 53.2	-146.425	7 29 48.9	- 17.038
79	4	7 55 12.9	-170.637	8 0 8.2	- 9.799
80	5	5 44 24.7	-193.875	5 49 22.3	+137.810
81	5	6 1 2.5	- 8.241	5 55 29.3	+138.806
82	5	7 48 14.7	- 92.054	7 52 36.0	+163.003
83	5	16 24 54.0	- 23.426	16 28 35.5	+ 75.560
84	5	16 34 58.3	- 47.198	16 31 44.5	- 29.625
85	5	17 12 20.0	+ 67.070	17 16 17.0	+131.478
86	6	5 52 8.6	- 42.603	5 55 3.4	+ 24.739
87	6	7 33 24.6	-122.069	7 37 8.4	+ 42.795
88	6	16 24 3.4	- 36.237	16 27 31.4	+ 27.265
89	6	17 3 39.2	- 66.483	17 7 5.9	+ 28.738
90	7	5 39 34.6	-147.410	5 43 45.9	- 36.370
91	7	8 0 17.4	+105.743	8 4 41.6	+163.464
92	9	6 7 43.8	- 16.595	6 10 42.4	+ 49.620
93	9	6 17 45.1	- 13.278	6 22 24.8	+196.282
94	9	7 29 46.6	- 70.537	7 34 17.4	+199.483
95	9	16 58 14.7	+ 52.253	17 1 59.5	-121.233
96	10	5 49 22.6	+ 37.043	5 53 7.0	-140.836
97	10	5 59 56.3	+ 31.584	6 2 58.6	+ 74.957
98	10	7 52 1.0	- 59.046	7 55 38.3	-140.660
99	10	8 2 35.8	+ 41.485	7 59 6.6	+ 37.697
100	12	5 47 12.6	- 47.757	5 50 53.1	- 71.996
101	12	6 5 46.9	- 13.045	6 1 7.1	+180.886
102	12	7 54 47.0	- 98.820	7 59 15.0	+170.556
103	12	16 40 47.1	- 64.457	16 44 57.8	+106.771
104	12	16 52 50.1	+ 67.318	16 57 27.5	- 59.450
105	13	5 33 23.1	-108.273	5 37 24.7	+ 5.373
106	13	5 40 57.9	+ 23.976	5 44 16.3	- 32.853
107	13	5 52 48.7	+ 14.544	5 55 53.0	- 33.702
108	13	7 12 46.5	- 45.883	7 16 41.3	- 44.673
109	13	16 24 33.1	+107.687	16 29 11.0	+ 81.181
110	14	5 47 18.9	+ 50.715	5 51 36.1	-152.699
111	14	5 59 14.9	+ 15.558	6 2 46.9	- 39.519
112	14	8 9 41.9	- 15.178	8 13 42.5	+115.296
113	15	5 34 36.1	+101.361	5 38 2.3	- 48.098
114	15	5 46 38.8	+138.474	5 50 20.8	+ 89.040
115	15	7 36 47.5	+ 10.975	7 40 8.0	- 74.543
116	15	7 43 41.2	+ 51.295	7 46 58.3	+ 63.917
117	15	16 18 12.5	- 49.768	16 22 43.6	+ 9.340
118	16	5 31 58.2	- 30.625	5 34 38.2	- 17.036
119	16	5 37 53.5	+ 8.546	5 40 24.0	+ 6.579
120	16	7 56 57.9	+ 48.888	8 0 46.4	+ 22.087
121	17	5 28 53.6	- 55.743	5 32 49.6	+ 78.163
122	17	7 24 34.8	+ 92.778	7 27 56.8	- 4.440
123	17	7 50 24.2	+ 74.132	7 54 0.4	- 12.645
124	21	5 46 23.9	- 67.366	5 50 14.8	+ 22.129
125	21	5 59 34.2	+ 79.289	6 3 38.4	+ 3.924

Revised Rectangular Coordinates (Asteroid—Star)—Continued.

No.	Date.	Washington Mean Time.	$\Delta\alpha \cos \delta$	Washington Mean Time.	$\Delta\delta$
		h m s	"	h m s	"
126	1900 Nov. 21	7 57 8.4	+ 7.135	8 0 53.4	- 51.707
127	22	5 39 1.7	+ 7.691	5 41 33.5	- 2.837
128	22	5 44 39.5	+ 4.908	5 47 51.5	- 5.748
129	22	7 13 28.6	- 46.512	7 16 56.3	- 50.538
130	22	7 55 4.0	- 71.274	7 58 39.6	- 71.906
131	27	5 45 14.8	+ 35.137	5 47 59.8	+ 4.484
132	27	5 57 14.2	+ 30.597	5 59 56.3	- 3.618
133	27	7 40 6.1	- 11.473	7 44 0.2	- 73.086
134	27	7 48 15.1	+ 19.906	7 52 6.1	+ 68.297
135	27	15 53 53.2	+ 59.558	... ..	... ..
136	30	5 31 38.8	- 19.135	5 35 0.1	+ 73.643
137	30	5 39 6.2	+ 112.959	5 42 41.2	+ 42.353
138	30	7 53 40.3	- 59.403	7 57 55.0	- 34.263
139	30	8 4 39.9	+ 71.253	8 1 18.9	- 62.716
140	30	14 57 12.8	- 56.752	15 1 35.9	- 176.796
141	30	15 14 39.8	- 59.835	15 10 19.7	- 184.793
142	Dec. 1	5 26 52.1	+ 132.350	5 30 9.7	+ 98.541
143	1	5 37 46.7	+ 129.746	5 34 27.3	+ 95.217
144	1	6 56 49.9	+ 110.764	7 0 33.5	+ 29.037
145	1	7 13 9.0	+ 106.983	7 9 27.8	+ 21.966
146	1	14 58 20.2	+ 69.491	15 3 19.7	- 31.792
147	1	15 11 21.6	- 93.025	15 7 14.8	+ 85.642
148	2	5 19 58.0	- 13.153	5 22 58.5	- 59.820
149	2	5 33 19.5	+ 11.710	5 36 36.2	+ 63.429
150	2	5 43 37.0	- 17.553	5 40 6.9	- 73.098
151	2	15 17 8.6	- 169.733	15 12 59.9	- 13.117
152	8	6 32 46.4	- 4.556	6 36 0.1	- 86.009
153	8	6 44 11.8	+ 60.402	6 40 37.4	+ 104.683
154	8	7 22 11.3	+ 62.919	7 25 28.8	+ 63.197
155	8	14 19 56.2	- 96.774	14 16 41.8	- 47.402
156	10	5 39 31.4	- 37.661	5 36 13.2	- 73.637
157	10	5 43 17.6	- 37.599	5 46 42.1	- 83.123
158	10	5 53 37.2	- 30.804	5 50 2.8	+ 112.213
159	10	6 59 39.5	- 20.068	6 56 26.6	+ 49.472
160	10	14 4 49.0	- 71.584	14 1 0.8	- 43.359
161	10	14 9 26.9	- 70.499	14 13 31.0	- 56.783
162	11	5 21 27.6	+ 2.477	5 18 20.6	+ 26.023
163	11	5 24 47.8	+ 3.074	5 28 5.8	+ 16.691
164	11	5 36 27.8	+ 5.882	5 33 38.1	+ 11.399
165	11	7 13 54.8	+ 26.842	7 17 34.3	- 88.182
166	11	14 48 48.8	- 109.831	14 45 6.8	- 127.434
167	11	14 53 54.9	- 25.195	14 56 25.2	+ 21.908
168	12	5 11 26.5	- 110.734	5 8 1.7	- 37.613
169	12	5 16 32.8	- 108.601	5 19 49.6	- 48.641
170	12	7 6 41.1	- 86.018	7 3 46.4	+ 21.205
171	12	7 11 47.3	- 84.616	7 14 55.4	+ 10.087
172	13	5 28 49.0	+ 98.932	5 25 33.6	+ 31.552
173	13	5 33 41.9	- 54.519	5 37 0.9	- 40.545
174	13	5 45 14.0	+ 103.760	5 41 59.8	+ 15.377
175	13	7 25 34.2	- 19.329	7 22 44.2	- 22.880
176	13	7 28 28.9	+ 12.738	7 31 15.9	+ 21.216
177	13	13 46 27.5	- 0.968	13 43 0.9	+ 5.619
178	13	13 52 0.8	- 2.926	13 56 24.3	+ 93.495
179	13	14 6 26.4	+ 8.765	14 3 14.6	- 16.745
180	14	5 17 2.2	+ 180.266	5 11 42.7	+ 159.097
181	14	5 25 19.1	- 60.422	5 29 7.1	- 75.557
182	14	7 11 2.5	- 23.113	7 5 47.7	- 170.457
183	14	7 14 48.2	- 58.011	7 18 26.6	+ 103.796
184	14	13 50 43.3	- 1.872*	13 47 16.3	- 120.000*
185	14	13 56 53.7	+ 1.472*	14 1 0.5	- 135.317*
186	15	5 4 20.9	- 124.558	5 1 3.9	+ 9.835
187	15	5 14 43.1	- 119.849	5 17 47.8	- 6.786
188	15	7 21 9.4	- 69.324	7 17 29.8	- 126.443
189	15	7 25 23.0	+ 71.827	7 28 47.4	- 72.593
190	16	5 18 40.6	+ 267.330	5 12 57.1	+ 2.834

* Signs of $\Delta\alpha$ and $\Delta\delta$ changed from those originally published.

Revised Rectangular Coordinates (Asteroid—Star)—Continued.

No.	Date.	Washington Mean Time.	$\Delta\alpha \cos \delta$	Washington Mean Time.	$\Delta\delta$
	1900	h m s	"	h m s	"
191	Dec. 16	5 24 5.8	+ 38.905	5 27 24.3	- 67.198
192	16	7 25 5.4	+ 56.836	7 21 17.9	- 5.159
193	16	7 35 9.5	- 139.523	7 39 18.9	- 10.805
194	16	14 29 48.2	- 7.428*	14 27 36.8	- 7.209*
195	18	5 37 49.5	+ 162.836	5 33 5.3	+ 29.071
196	18	5 44 37.6	- 37.946	5 48 19.9	- 28.850
197	18	5 54 59.4	+ 4.055	5 52 17.1	+ 66.316
198	18	7 53 27.1	+ 67.811	7 56 48.8	- 62.830
199	19	5 17 43.5	- 13.146	5 13 12.0	+ 67.738
200	19	5 25 34.5	- 8.620	5 28 46.1	+ 51.978
201	19	7 7 31.2	+ 51.287	7 4 1.8	- 46.183
202	19	7 13 28.6	+ 54.559	7 16 31.5	- 59.282
203	20	5 31 21.1	- 58.819	5 25 23.1	- 218.051
204	20	5 39 35.1	+ 127.486	5 44 46.1	+ 93.686
205	20	6 36 58.2	+ 163.623	6 32 59.5	+ 43.977
206	21	5 34 41.8	- 170.911	5 30 24.1	- 23.177
207	21	5 42 10.1	- 139.787	5 46 34.0	+ 118.430
208	21	7 18 17.8	- 74.397	7 14 37.5	+ 26.994
209	21	13 41 50.4	+ 134.656	13 50 11.8	+ 39.996
210	24	5 14 58.6	- 0.685	5 13 2.1	+ 1.423
211	24	5 19 12.9	+ 2.246	5 21 35.6	- 7.525
212	29	5 35 2.8	+ 153.660	5 30 23.5	+ 53.657
213	29	5 40 58.3	- 76.642	5 45 0.2	+ 156.787
214	29	7 9 28.9	+ 14.163	7 5 16.4	+ 71.611
215	29	7 14 3.6	- 78.467	7 17 53.6	- 47.616
216	29	13 38 33.3	- 27.939	13 33 49.4	+ 321.940
217	1901 Jan. 2	7 11 7.5	- 30.128	7 7 2.3	- 106.102
218	3	5 35 1.7	- 64.879	5 26 46.7	- 277.569
219	3	5 41 49.5	- 51.150	5 46 49.4	- 128.165
220	3	5 54 26.6	- 23.382	5 51 20.0	+ 91.902
221	3	7 15 37.4	+ 76.388	7 20 33.1	- 2.843
222	4	5 30 26.9	- 31.814	5 27 0.1	+ 66.073
223	4	5 33 53.7	- 27.569	5 36 42.8	+ 55.754
224	4	6 29 31.3	+ 43.243	6 26 59.3	+ 2.683
225	4	6 32 56.1	+ 47.459	6 35 33.6	- 6.625
226	5	5 30 30.2	- 84.392	5 26 54.5	+ 34.221
227	5	5 35 31.7	- 77.720	5 38 40.6	+ 21.916
228	5	6 41 37.4	+ 8.418	6 38 55.1	- 42.233
229	5	6 44 25.7	+ 21.177	6 47 14.7	+ 50.207
230	5	12 45 13.3	+ 37.081	12 40 28.8	- 123.771
231	5	12 50 25.9	+ 44.444	12 54 0.2	- 138.611
232	8	6 21 58.8	+ 56.866	6 18 13.3	- 69.020†
233	8	6 26 39.2	+ 63.325	6 29 48.4	- 81.630
234	9	6 1 30.2	+ 71.710	5 58 13.6	- 22.687
235	9	6 5 43.5	+ 77.638	6 8 27.2	- 34.588
236	13	5 59 24.7	+ 108.801	5 55 21.7	- 4.687
237	13	6 4 14.4	+ 116.018	6 7 22.7	- 18.058
238	13	12 11 27.4	- 65.884	12 7 37.7	+ 4.511
239	13	12 16 36.6	- 57.033	12 20 22.2	- 9.760
240	15	6 23 55.3	- 86.292	6 21 8.0	- 87.285
241	15	6 28 56.3	- 77.973	6 31 26.3	- 99.003
242	16	5 55 40.4	- 155.519	5 51 43.9	+ 67.340
243	16	6 46 32.9	- 71.692	6 50 46.1†	+ 4.713
244	19	6 18 12.4	+ 146.455	6 14 10.2	- 90.053
245	19	6 24 11.4	+ 156.772	6 28 17.3	- 104.857
246	20	6 17 39.3	+ 47.866	6 13 52.8	- 134.104
247	20	6 22 18.2	+ 55.495	6 25 59.7	- 147.091
248	22	6 42 7.3	+ 50.706	6 39 16.3	+ 55.770
249	22	6 47 31.1	+ 59.921	6 50 55.0	+ 44.129
250	29	6 53 4.0	- 120.178	6 49 9.1	- 174.704

* Signs of $\Delta\alpha$ and $\Delta\delta$ changed from those originally published.† Time of $\Delta\delta$ decreased 2^m 30^s from that originally published.† $\Delta\delta$ Changed 1'', error in original reduction.

In the following reduction of the observations the numbers correspond throughout with those originally published. The positions of the comparison stars were furnished by ARTHUR R. HINKS, M. A., of Cambridge Observatory, England, in advance of the publication of his Standard Catalogue of Photographic Star Places. The weights assigned to these star places are also those of Mr. HINKS. Since they are all from the same authority, a separate table was not made of the star places, but they were printed with the other items of the reduction. It sometimes happened that comparison stars could not be found upon the photographic plates. In such cases the positions of the stars were reconstructed and inserted in the column of star places, where they are indicated by means of brackets. Over forty observations were lost by the lack of comparison stars.

The reductions to apparent place were made throughout with the constants of STRUVE and PETERS. Thus, up to December 36, 1900, independent star numbers were taken from the Berliner Jahrbuch for 1900, pages 349 to 351. From January 8, 1901, to the end the reduction was still given to 1900.0. The precession was computed by the formulæ

$$\left. \begin{aligned} \Delta\alpha &= 3^s.07273 + 1^s.33680 \sin \alpha' \tan \delta' \\ \Delta\delta &= 20''.0520 \cos \alpha' \end{aligned} \right\} \alpha' \text{ and } \delta' \text{ are for 1900.5.}$$

Observations in Right Ascension.

No.	Date.	Washington Mean Time.	Comparison Star α 1900.0	Weight.	Ap. Pl. Red.	$\Delta\alpha$	Parallax.	Geocentric α .	O-C
		h m s	h m s		s	s	s	h m s	s
1	1900 Oct. 9	7 28 34.2	2 42 53.992	(6)	+6.236	- 2.914	-1.315	2 42 55.999	-0.097
2	9	7 40 35.6	2 42 45.654	(3)	6.237	+ 5.322	-1.313	42 55.900	[-0.001]
3	9	8 33 8.1	45.654	(3)	6.238	+ 4.346	-1.266	42 54.972	-0.076
4	9	8 43 0.8	2 42 54.470	(8)	6.240	- 4.653	-1.250	42 54.807	-0.080
5	9	17 28 21.4	2 42 42.355	(9)	+6.257	- 3.787	+1.121	2 42 45.946	-0.098
6	9	17 38 47.5	42.355	(9)	+6.257	- 4.025	+1.176	2 42 45.763	-0.100
7	10	7 13 29.0	2 42 24.388	(9)	6.285	+ 1.632	-1.337	42 30.968	-0.077
8	10	7 36 6.5	24.388	(9)	6.286	+ 1.197	-1.338	42 30.533	-0.082
9	10	8 21 41.2	24.388	(9)	6.287	+ 0.282	-1.300	42 29.657	-0.087
10	10	16 18 2.1	2 42 14.997	(4)	+6.306	- 1.935	+0.927	2 42 20.285	-0.098
11	10	16 31 57.0	14.997	(4)	+6.307	- 2.297	+0.985	2 42 19.992	-0.121
12	10	16 48 40.0	14.997	(4)	6.307	- 2.727	+1.050	42 19.627	-0.149
13	11	8 20 5.9	2 41 39.113	(6)	6.337	+15.945	-1.320	42 0.075	[-0.017]
14	11	8 49 32.2	2 41 [45.81]	..	6.338	+ 8.460	-1.265	.. .. .	.....
15	11	16 31 9.3	2 41 39.896	(4)	+6.353	+ 1.608	+1.018	2 41 48.875	-0.118
16	11	16 50 12.2	39.896	(4)	+6.354	+ 1.128	+1.091	2 41 48.469	-0.083
17	15	6 37 10.7	2 39 14.377	(14)	6.525	+ 1.714	-1.456	39 21.160	-0.134
18	15	6 44 34.3	14.377	(14)	6.525	+ 1.495	-1.461	39 20.936	-0.105
19	15	6 53 43.7	14.377	(14)	6.526	+ 1.151	-1.465	39 20.589	-0.139
20	15	8 32 46.6	14.377	(14)	+6.527	- 2.355	-1.356	2 39 17.193	-0.137
21	15	8 43 34.6	2 39 11.429	(3)	+6.529	+ 0.252	-1.328	2 39 16.882	-0.076
22	15	16 34 2.1	2 38 54.229	(1)	6.545	- 1.578	+1.182	39 0.378	-0.135
23	15	16 52 24.8	2 38 49.604	(10)	6.548	+ 2.365	+1.250	38 59.767	-0.093
24	15	17 13 59.8	49.604	(10)	6.549	+ 1.485	+1.319	38 58.957	-0.136
25	16	6 55 26.0	2 38 12.589	(3)	+6.571	+11.426	-1.492	2 38 29.094	[-0.053]
26	16	7 33 4.0	2 38 14.99	(1)	+6.574	+ 7.486	-1.476	2 38 27.57	-0.17
27	16	8 34 2.6	14.99	(1)	6.575	+ 5.111	-1.365	38 25.31	-0.14
28	16	16 55 47.9	2 38 4.868	(24)	6.591	- 6.576	+1.300	38 6.183	-0.138
29	16	17 12 34.7	4.868	(24)	6.591	- 7.284	+1.352	2 38 5.527	-0.145
30	17	6 7 30.7	2 37 [28.03]	..	+6.616	+ 1.695	-1.488	.. .. .	.....

For the reduction to 1901.0 the quantities f' , H , h , $\log i$, were taken from the American Ephemeris for 1901, page 295; and the quantities G' and g' from the same Ephemeris, page 303.

The parallax of the asteroid was computed for $\pi=8''.800$. The following numbers were used in the computations:

$$\log \frac{1}{15} \pi \rho \cos \varphi' = 9.659963$$

$$\log \tan \varphi' = 9.904188$$

$$\log \pi \rho \sin \varphi' = 0.740242$$

These were arrived at by the use of CLARK'S spheroid of 1866, as best representing this region. No allowance was made for the elevation of the observatory which is about 300 feet above sea level.

The observed positions of Eros were compared with the ephemeris given in Circular No. 9, of the Paris Astrographic Conference of July, 1900. The differences are printed in the column (O—C), where a number of outstanding cases have been bracketed.

Observations in Declination.

No.	Date.	Washington Mean Time.	Comparison Star δ 1900.0	Weight.	Ap. Pl. Red.	$\Delta\delta$	Parallax.	Geocentric δ .	O—C
		h m s	° ' "		"	"	"	° ' "	"
1	1900 Oct. 9	7 34 29.8	+47 51 50.96	(6)	+13.70	+ 40.95	+6.93	+47 52 52.54	+1.52
2	9	7 44 39.6	+47 52 57.94	(3)	13.71	— 17.50*	+6.50	53 0.65	+0.75
3	9	8 37 26.2	57.94	(3)	13.72	+ 31.03	+4.27	53 46.96	+0.95
4	9	8 47 15.1	+47 53 40.02	(8)	13.69	— 1.83	+3.87	+47 53 55.75	+1.17
5	9	17 33 1.8	+48 0 29.55	(9)	+13.78	+ 48.60	+2.36	+48 1 34.29	+1.51
6	9	.. .. .	29.55	(9)	.....	.....	.....	.. .. .	.....
7	10	7 16 56.9	+48 13 8.62	(9)	+13.91	— 2.32	+7.54	+48 13 27.75	+1.18
8	10	7 40 6.9	8.62	(9)	13.92	+ 18.68	+6.53	13 47.74	+1.19
9	10	8 25 52.6	8.62	(9)	13.92	+ 60.11	+4.56	13 27.21	+1.18
10	10	16 24 53.2†	+48 21 47.72	(4)	+13.99	— 42.50	+0.08	+48 21 19.29	+1.01
11	10	16 38 8.1	47.72	(4)	+13.99	— 31.13	+0.50	+48 21 31.08	+1.42
12	10	16 53 1.5	47.72	(4)	14.00	— 18.93	+1.01	21 43.80	+1.36
13	11	8 28 18.1	+48 33 49.50	(6)	14.18	+ 54.57	+4.26	35 2.51	+0.87
14	11	8 53 42.9	+48 34 [46.1]	..	14.17	+ 21.16	+3.20	.. .. .	.....
15	11	16 35 50.8	+48 40 31.55	(4)	+14.24	+ 70.51	+0.50	+48 41 56.80	+1.56
16	11	16 54 7.3	31.55	(4)	+14.24	+ 85.54	+1.14	+48 42 12.47	+1.77
17	15	6 40 36.0	+49.51 57.83	(14)	15.19	+ 14.65	+8.39	+49 52 36.06	+1.84
18	15	6 48 58.0	57.83	(14)	15.19	+ 21.69	+7.99	52 42.70	+1.85
19	15	6 56 41.0	57.83	(14)	15.20	+ 27.90	+7.63	52 48.56	+1.60
20	15	8 37 19.8	57.83	(14)	+15.21	+112.30	+2.98	+49 54 8.32	+1.65
21	15	8 47 1.6	+49 53 22.65	(3)	+15.22	+ 35.19	+2.56	+49 54 15.62	+1.28
22	15	16 39 16.1	+49 59 3.15	(1)	15.32	+ 68.60	+1.01	+50 0 28.08	+1.42
23	15	16 57 48.1	+50 2 22.47	(10)	15.33	—117.19	+1.75	0 42.36	+1.14
24	15	17 18 12.6	22.47	(10)	15.34	—101.60	+2.60	0 58.81	+1.57
25	16	6 59 16.8	+50 11 1.54	(3)	+15.53	+ 14.92	+7.31	+50 11 39.30	+1.63
26	16	7 36 39.6	+50 12 32.6	(1)	+15.52	— 45.74	+5.52	+50 12 7.9	+1.3
27	16	8 39 4.0	32.6	(1)	15.53	+ 4.72	+2.66	12 55.5	+0.6
28	16	17 0 31.1	+50 18 13.28	(24)	15.62	+ 51.88	+2.01	19 22.79	+1.58
29	16	17 17 10.9	13.28	(24)	15.63	+ 63.94	+2.73	+50 19 35.58	+1.59
30	17	6 10 56.9	+50 29 [25.3]	..	+15.81	— 25.87	+9.47	.. .. .	.....

* Sign of $\Delta\delta$ changed from that originally published.

† Time of $\Delta\delta$ increased 5^m from that originally published.

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Observations in Right Ascension—Continued.

No.	Date.	Washington Mean Time.	Comparison Star α 1900.0	Weight.	Ap. Pl. Red.	$\Delta\alpha$	Parallax.	Geocentric α .	O-C
		h m s	h m s		s	s	s	h m s	s
31	1900								
32	Oct. 17	6 15 17.4	2 37 [27.63]	..	+6.614	+ 1.812	-1.497	.. .. .	.. .. .
33	17	6 22 36.1	2 37 [28.03]	..	6.616	+ 1.141	-1.505	.. .. .	.. .. .
34	17	16 23 39.4	2 37 16.416	(16)	6.636	-14.752	+1.222	2 37 9.522	-0.161
35	17	17 6 37.1	2 36 [57.00]	..	6.637	+ 2.734	+1.373	.. .. .	.. .. .
	18	6 17 53.9	2 36 17.805	(16)	+6.656	+11.043	-1.531	2 36 33.973	-0.182
36	18	6 30 5.9	2 36 31.260	(2)	+6.662	- 2.984	-1.540	2 36 33.398	-0.124
37	18	8 6 52.7	31.260	(2)	6.663	- 7.284	-1.454	36 29.185	-0.103
38	18	16 15 19.8	2 35 55.952	(4)	6.676	+ 3.667	+1.230	36 7.525	-0.076
39	18	16 30 24.0	55.952	(4)	6.677	+ 2.881	+1.290	36 6.800	-0.123
40	18	17 3 59.0	55.952	(4)	+6.677	+ 1.188	+1.404	2 36 5.221	-0.191
41	18	17 17 13.8	55.952	(4)	+6.677	+ 0.642	+1.441	2 36 4.712	-0.103
42	19	6 22 0.8	2 35 [30.66]	..	6.703	- 7.019	-1.565	.. .. .	.. .. .
43	19	7 33 17.1	[30.66]	..	6.705	-10.421	-1.536	.. .. .	.. .. .
44	19	7 55 44.1	[30.66]	..	6.705	-11.485	-1.496	.. .. .	.. .. .
45	19	16 15 57.6	2 34 52.800	(18)	+6.720	- 0.335	+1.275	2 35 0.460	-0.121
46	19	17 4 44.4	52.800	(18)	+6.721	- 2.895	+1.446	2 34 58.072	-0.161
47	19	17 21 52.9	52.800	(18)	6.721	- 3.763	+1.491	34 57.249	-0.157
48	20	6 2 9.3	2 34 7.441	(8)	6.744	+ 7.316	-1.579	34 19.922	-0.173
49	20	8 1 28.6	7.441	(8)	6.746	+ 1.256	-1.496	34 13.947	-0.178
50	20	8 11 47.1	7.441	(8)	+6.746	+ 0.711	-1.469	2 34 13.429	-0.179
51	20	8 29 7.9	7.441	(8)	+6.746	- 0.189	-1.417	2 34 12.581	-0.156
52	20	16 23 43.0	2 33 36.728	(4)	6.760	+ 3.700	+1.348	33 48.536	-0.122
53	20	17 6 59.4	36.728	(4)	6.760	+ 1.211	+1.491	33 46.190	-0.248
54	21	6 38 35.3	2 32 58.213	(11)	6.781	+ 0.504	-1.626	33 3.872	-0.187
55	21	6 52 16.7	58.213	(11)	+6.781	- 0.168	-1.621	2 33 3.205	-0.127
56	21	8 7 3.7	58.213	(11)	+6.783	- 4.310	-1.493	2 32 59.193	-0.160
57	22	6 18 49.9	2 31 35.521	(4)	6.817	+ 5.675	-1.652	31 46.361	-0.142
58	22	7 19 49.9	35.521	(4)	6.818	+ 2.170	-1.612	31 42.897	-0.180
59	24	6 29 43.6	2 28 51.621	(2)	6.888	- 1.352	-1.706	28 55.451	-0.192
60	24	6 37 36.8	2 28 54.428	(13)	+6.886	- 4.699	-1.702	2 28 54.913	-0.241
61	24	8 32 48.0	2 28 51.621	(2)	+6.889	- 9.340	-1.418	2 28 47.752	-0.240
62	24	16 37 42.0	2 28 [12.13]	..	6.902	- 3.258	+1.567	.. .. .	.. .. .
63	24	17 19 5.3	[12.13]	..	6.903	- 5.950	+1.670	.. .. .	.. .. .
64	26	8 39 2.7	2 25 32.111	(13)	6.948	+ 2.254	-1.384	25 39.929	-0.215
65	27	6 28 22.7	2 23 57.325	(3)	+6.968	+ 7.162	-1.775	2 24 9.680	-0.154
66	27	6 35 17.6	2 24 8.73	(1)	+6.970	- 4.868	-1.768	2 24 9.06	-0.29
67	27	7 59 16.7	2 23 57.325	(3)	6.970	+ 0.534	-1.554	24 3.275	-0.177
68	29	6 25 5.3	2 20 39.714	(10)	7.012	- 3.921	-1.818	20 40.987	-0.208
69	29	7 13 34.9	39.714	(10)	7.013	- 7.713	-1.717	2 20 37.297	-0.268
70	29	7 32 30.1	2 20 [23.08]	..	+7.013	+ 7.460	-1.657	.. .. .	.. .. .
71	29	16 14 19.7	2 19 41.747	(13)	+7.020	+ 6.138	+1.701	2 19 56.606	-0.244
72	29	17 1 23.4	41.747	(13)	7.020	+ 2.440	+1.815	19 53.022	-0.263
73	29	17 16 48.4	41.747	(13)	7.020	+ 1.280	+1.836	19 51.883	-0.234
74	30	7 21 14.3	2 18 34.133	(13)	7.035	+ 7.898	-1.699	18 47.367	-0.246
75	30	7 30 40.5	2 18 43.364	(2)	+7.030	- 2.094	-1.666	2 18 46.634	-0.252
76	30	8 10 47.6	2 18 34.133	(13)	+7.035	+ 3.855	-1.493	2 18 43.530	-0.265
77	Nov. 4	6 33 12.7	2 9 14.358	(9)	7.064	-12.186	-1.866	9 7.370	-0.359
78	4	7 24 53.2	14.358	(9)	7.065	-16.676	-1.668	9 3.079	-0.294
79	4	7 55 12.9	14.358	(9)	7.065	-19.434	-1.512	9 0.477	-0.339
80	5	5 44 24.7	2 7 26.613	(11)	+7.058	-22.104	-1.979	2 7 9.588	-0.319
81	5	6 1 2.5	2 7 4.093	(11)	+7.054	- 0.940	-1.951	2 7 8.256	-0.237
82	5	7 48 14.7	4.093	(11)	7.055	-10.496	-1.533	6 59.119	-0.252
83	5	16 24 54.0	2 6 8.717	(4)	7.052	- 2.673	+1.981	6 15.077	-0.261
84	5	16 34 58.3	2 6 10.502	(6)	7.055	- 5.388	+1.994	6 14.163	-0.316
85	5	17 12 20.0	2 5 54.312	(7)	+7.046	+ 7.652	+2.012	2 6 11.022	-0.268

Observations in Declination—Continued.

No.	Date.	Washington Mean Time.	Comparison Star δ 1900.0	Weight.	Ap. Pl. Red.	$\Delta\delta$	Parallax.	Geocentric δ .	O-C
		h m s	° ' "		"	"	"	° ' "	"
31	1900 Oct. 17	6 18 34.4	+50 28 [19.0]	..	+15.82	+46.72	+9.09	.. .. .	....
32	17	6 25 45.7	+50 29 [25.3]	..	15.81	-13.77	+8.74	.. .. .	....
33	17	16 29 21.1	+50 37 13.01	(16)	15.92	-19.83	+0.87	+50 37 9.97	+1.28
34	17	17 10 29.4	+50 38 [17.0]	..	15.97	-54.72	+2.61	.. .. .	....
35	18	6 23 2.9	+50 45 14.13	(16)	+16.17	+109.56	+8.69	+50 47 28.55	+1.10
36	18	6 34 34.8	+50 48 30.25	(2)	+16.13	-77.74	+8.12	+50 47 36.76	+0.84
37	18	8 10 52.1	30.25	(2)	16.15	-1.62	+3.42	48 48.20	+1.47
38	18	16 19 33.3	+50 54 11.34	(4)	16.30	+17.49	+0.61	54 45.74	+1.76
39	18	16 34 24.3	11.34	(4)	16.30	+27.14	+1.22	54 56.00	+1.22
40	18	17 7 43.6	11.34	(4)	+16.30	+50.00	+2.68	+50 55 20.32	+1.32
41	18	17 20 54.3	11.34	(4)	+16.31	+58.92	+3.28	+50 55 29.85	+1.27
42	19	6 26 22.7	+51 4 [58.9]	..	16.47	-29.60	+8.33	.. .. .	....
43	19	7 37 23.6	[58.9]	..	16.48	+25.11	+4.77	.. .. .	....
44	19	7 59 51.1	[58.9]	..	16.48	+42.69	+3.68	.. .. .	....
45	19	16 19 47.6	+51 12 12.86	(18)	+16.64	-33.50	+0.76	+51 11 56.76	+0.82
46	19	17 7 46.9	12.86	(18)	+16.65	-1.37	+2.88	+51 12 31.02	+1.26
47	19	17 25 15.9	12.86	(18)	16.65	+9.82	+3.70	12 43.03	+0.95
48	20	5 58 16.9	+51 22 38.88	(8)	16.86	-96.11	+9.54	21 29.17	+1.25
49	20	8 4 17.9	38.88	(8)	16.88	-2.26	+3.20	22 56.70	+1.67
50	20	8 15 1.3	38.88	(8)	+16.88	+5.71	+2.70	+51 23 4.17	+1.75
51	20	8 31 49.3	38.88	(8)	+16.89	+18.17	+1.92	+51 23 15.86	+1.84
52	20	16 30 2.3	+51 28 48.19	(4)	17.03	-23.01	+1.35	28 43.56	+1.58
53	20	17 11 10.8	48.19	(4)	17.03	+3.02	+3.25	29 11.49	+1.47
54	21	6 41 41.5	+51 37 33.42	(11)	17.23	+20.11	+7.10	38 17.86	+1.34
55	21	6 55 17.0	33.42	(11)	+17.23	+30.13	+6.58	+51 38 27.36	+1.78
56	21	8 10 36.7	33.42	(11)	+17.25	+84.17	+2.63	+51 39 17.47	+1.68
57	22	6 22 9.4	+51 52 23.09	(4)	17.64	+59.54	+7.89	53 48.16	+1.45
58	22	7 23 35.4	23.09	(4)	17.65	+102.79	+4.67	+51 54 28.20	+2.07
59	24	6 33 15.3	+52 23 35.91	(2)	18.45	-35.64	+6.79	+52 23 25.51	+0.91
60	24	6 40 47.6	+52 22 16.70	(13)	+18.44	+48.98	+6.38	+52 23 30.50	+1.48
61	24	8 36 44.0	+52 23 35.91	(2)	+18.47	+43.81	+0.55	+52 24 38.74	+1.84
62	24	16 42 43.0	+52 29 [58.4]	..	18.64	-59.82	+2.79	.. .. .	....
63	24	17 25 21.0	[58.4]	..	18.64	-38.00	+5.00	.. .. .	....
64	26	8 42 15.5	+52 51 49.95	(13)	19.38	-51.53	-0.30	+52 51 17.50	+0.87
65	27	6 31 33.7	+53 0 46.23	(3)	+19.82	+72.46	+6.05	+53 2 24.56	+1.42
66	27	6 38 16.7	+53 1 24.3	(1)	+19.79	+36.50	+5.67	+53 2 26.3	[-0.2]
67	27	8 3 14.9	+53 0 46.23	(3)	19.84	+123.02	+1.19	3 10.28	+1.91
68	29	6 28 28.7	+53 23 34.56	(10)	20.74	+29.93	+5.62	24 30.85	+1.66
69	29	7 16 57.3	34.56	(10)	20.74	+52.97	+2.93	+53 24 51.20	+1.35
70	29	7 36 37.2	+53 24 [58.4]	..	+20.79	-21.61	+1.89	.. .. .	....
71	29	16 18 27.0	+53 28 41.11	(13)	+20.97	-27.46	+2.88	+53 28 37.50	+0.78
72	29	17 4 42.7	41.11	(13)	20.98	-10.84	+5.46	28 56.71	+0.94
73	29	17 19 42.4	41.11	(13)	20.98	-5.48	+6.32	29 2.93	+1.00
74	30	7 26 1.4	+53 37 27.64	(13)	21.27	-189.63	+2.12	34 41.40	+0.67
75	30	7 33 51.5	+53 34 5.24	(2)	+21.26	+16.81	+1.71	+53 34 45.02	+1.24
76	30	8 15 20.1	+53 37 27.64	(13)	+21.28	-167.90	-0.33	+53 35 0.69	+0.77
77	Nov. 4	6 36 50.2	+54 10 3.18	(9)	23.76	-30.48	+3.19	+54 9 59.65	+0.89
78	4	7 29 48.9	3.18	(9)	23.77	-17.04	+0.29	10 10.20	+0.93
79	4	8 0 8.2	3.18	(9)	23.77	-9.80	-1.20	10 15.95	+0.70
80	5	5 49 22.3	+54 11 22.94	(11)	+24.24	+137.81	+5.69	+54 14 10.68	[+1.97]
81	5	5 55 29.3	+54 11 23.28	(11)	+24.29	+138.81	+5.32	+54 14 11.70	[+2.01]
82	5	7 52 36.0	23.28	(11)	24.31	+163.00	-1.16	14 29.43	+1.24
83	5	16 28 35.5	+54 14 0.00	(4)	24.52	+75.56	+5.95	15 46.03	+1.01
84	5	16 31 44.5	+54 15 45.06	(6)	24.52	-29.62	+6.15	15 46.11	+0.65
85	5	17 16 17.0	+54 13 7.44	(7)	+24.60	+131.48	+8.92	+54 15 52.44	+0.71

Observations in Right Ascension—Continued.

No.	Date.	Washington Mean Time.	Comparison Star α 1900.0	Weight.	Ap. Pl. Red.	$\Delta\alpha$	Parallax.	Geocentric α .	O-C
	1900	h m s	h m s		s	s	s	h m s	s
86	Nov. 6	5 52 8.6	2 5 5.804	(6)	+7.050	-4.866	-1.976	2 5 6.012	-0.316
87	6	7 33 24.6	5.804	(6)	7.051	-13.942	-1.598	4 57.315	-0.341
88	6	16 24 3.4	2 4 [6.96]	..	7.046	-4.140	+2.008	..	..
89	6	17 3 39.2	[6.96]	..	7.046	-7.596	+2.032	..	..
90	7	5 39 34.6	2 3 15.312	(13)	+7.044	-16.855	-2.007	2 3 3.494	-0.369
91	7	8 0 17.4	2 2 33.784	(12)	+7.032	+12.084	-1.417	2 2 51.483	-0.289
92	9	6 7 43.8	1 58 [50.53]	..	7.007	-1.898	-1.942	..	..
93	9	6 17 45.1	1 58 49.286	(9)	7.002	-1.518	-1.908	1 58 52.862	-0.297
94	9	7 29 46.6	49.286	(9)	7.002	-8.064	-1.558	58 46.666	-0.321
95	9	16 58 14.7	1 57 42.969	(10)	+7.001	+5.980	+2.081	1 57 57.802	-0.291
96	10	5 49 22.6	1 56 42.916	(6)	+6.991	+4.239	-1.995	1 56 52.151	-0.341
97	10	5 59 56.3	1 56 [42.65]	..	6.985	+3.611	-1.963	..	..
98	10	7 52 1.0	1 56 42.916	(6)	6.991	-6.756	-1.388	56 41.763	-0.284
99	10	8 2 35.8	1 56 30.478	(2)	6.984	+4.744	-1.313	56 40.893	-0.253
100	12	5 47 12.6	1 52 49.942	(3)	+6.939	-5.453	-1.993	1 52 49.435	-0.333
101	12	6 5 46.9	1 52 44.437	(14)	+6.932	-1.488	-1.927	1 52 47.954	-0.267
102	12	7 54 47.0	44.437	(14)	6.931	-11.274	-1.301	52 38.793	-0.357
103	12	16 40 47.1	1 51 53.625	(6)	6.921	-7.350	+2.124	51 55.320	[-0.205]
104	12	16 52 50.1	1 51 [37.51]	..	6.922	+7.681	+2.112	..	..
105	13	5 33 23.1	1 50 59.037	(3)	+6.910	-12.341	-2.029	1 50 51.577	-0.362
106	13	5 40 57.9	1 50 43.359	(3)	+6.908	+2.733	-2.006	1 50 50.994	-0.325
107	13	5 52 48.7	43.359	(3)	6.908	+1.658	-1.965	50 49.960	-0.388
108	13	7 12 46.5	43.359	(3)	6.908	-5.230	-1.559	50 43.478	-0.327
109	13	16 24 33.1	1 49 37.280	(20)	6.888	+12.260	+2.141	49 58.569	-0.274
110	14	5 47 18.9	1 48 43.040	(6)	+6.878	+5.772	-1.974	1 48 53.716	-0.351
111	14	5 59 14.9	1 48 46.13	(1)	+6.876	+1.770	-1.927	1 48 52.85	-0.26
112	14	8 9 41.9	1 48 [38.32]	..	6.870	-1.726	-1.109	..	..
113	15	5 34 36.1	1 46 44.367	(4)	6.840	+11.505	-2.008	47 0.704	-0.274
114	15	5 46 38.8	1 46 39.187	(7)	6.835	+15.711	-1.964	46 59.769	-0.267
115	15	7 36 47.5	1 46 44.367	(4)	+6.839	+1.246	-1.325	1 46 51.127	-0.304
116	15	7 43 41.2	1 46 39.187	(7)	+6.835	+5.819	-1.273	1 46 50.568	-0.325
117	15	16 18 12.5	1 46 7.18	(1)	6.825	-5.641	+2.159	46 10.52	[-0.42]
118	16	5 31 58.2	1 45 8.522	(11)	6.806	-3.466	-2.006	45 9.856	-0.274
119	16	5 37 53.5	1 45 3.570	(3)	6.804	+0.967	-1.984	45 9.357	-0.324
120	16	7 56 57.9	1 44 47.612	(6)	+6.799	+5.531	-1.129	1 44 58.813	-0.321
121	17	5 28 53.6	1 43 23.99	(1)	+6.765	-6.287	-2.003	1 43 22.47	-0.29
122	17	7 24 34.8	1 42 58.112	(3)	6.760	+10.465	-1.341	43 13.996	-0.286
123	17	7 50 24.2	58.112	(3)	6.760	+8.362	-1.139	43 12.095	-0.297
*124	21	5 46 23.9	1 36 55.834	(9)	6.599	-7.477	-1.843	36 53.113	-0.345
125	21	5 59 34.2	1 36 38.708	(7)	+6.596	+8.801	-1.771	1 36 52.334	-0.324
126	21	7 57 8.4	38.708	(7)	+6.595	+0.792	-0.904	1 36 45.191	-0.351
127	22	5 39 1.7	1 35 23.215	(22)	6.554	+0.850	-1.855	35 28.764	-0.350
128	22	5 44 39.5	23.215	(22)	6.554	+0.542	-1.826	35 28.485	-0.308
129	22	7 13 28.6	23.215	(22)	6.554	-5.137	-1.227	35 23.405	-0.338
130	22	7 55 4.0	23.215	(22)	+6.553	-7.872	-0.876	1 35 21.020	-0.364
131	27	5 45 14.8	1 29 43.469	(3)	+6.333	+3.773	-1.672	1 29 51.903	-0.300
132	27	5 57 14.2	43.469	(3)	6.333	+3.285	-1.596	29 51.491	-0.281
133	27	7 40 6.1	43.469	(3)	6.332	-1.232	-0.783	29 47.786	-0.319
134	27	7 48 15.1	1 29 39.819	(1 1/2)	6.328	+2.136	-0.710	29 47.573	-0.232
135	27	15 53 53.2	1 29 15.821	(5)	+6.314	+6.379	+2.134	1 29 30.648	-0.262
136	30	5 31 38.8	1 27 44.17	(1)	+6.208	-2.015	-1.660	1 27 46.70	-0.22
137	30	5 39 6.2	1 27 30.022	(11)	6.205	+11.894	-1.613	27 46.508	-0.256
138	30	7 53 40.3	1 27 44.17	(1)	6.206	-6.252	-0.529	27 43.60	-0.21
139	30	8 4 39.9	1 27 30.022	(11)	6.203	+7.500	-0.427	27 43.298	-0.278
140	30	14 57 12.8	1 27 32.188	(8)	+6.196	-5.963	+2.173	1 27 34.594	-0.319

* Ephemeris changed from A to B.

Observations in Declination—Continued.

No.	Date.	Washington Mean Time.	Comparison Star δ 1900.0	Weight.	Ap. Pl. Red.	$\Delta\delta$	Parallax.	Geocentric δ .	O-C
	1900	h m s	° ' "		"	"	"	° ' "	"
86	Nov. 6	5 55 3.4	+54 16 36.37	(6)	+24.80	+ 24.74	+5.01	+54 17 30.92	[+0.18]
87	6	7 37 8.4	+54 16 36.37	(6)	24.82	+ 42.80	-0.73	17 43.26	[+1.58]
88	6	16 27 31.4	+54 17 [41.1]	..	25.04	+ 27.26	+6.30	.. .. .	....
89	6	17 7 5.9	[41.1]	..	25.04	+ 28.74	+8.80	.. .. .	....
90	7	5 43 45.9	+54 19 55.35	(13)	+25.28	- 36.37	+5.38	+54 19 49.64	+0.57
91	7	8 4 41.6	+54 16 53.79	(12)	+25.41	+163.46	-2.30	+54 20 0.36	+0.77
92	9	6 10 42.4	+54 20 [8.9]	..	26.36	+ 49.62	+3.05	.. .. .	....
93	9	6 22 24.8	+54 17 43.18	(9)	26.38	+196.28	+2.36	21 28.20	+1.16
94	9	7 34 17.4	43.18	(9)	26.39	+199.48	-1.50	21 27.55	+1.29
95	9	17 1 59.5	+54 22 39.71	(10)	+26.62	-121.23	+9.85	+54 21 14.95	+0.25
96	10	5 53 7.0	+54 22 33.92	(6)	+26.88	-140.84	+3.79	+54 20 43.75	+0.20
97	10	6 2 58.6	+54 18 [58.7]	..	26.88	+ 74.96	+3.19	.. .. .	....
98	10	7 55 38.3	+54 22 33.92	(6)	26.90	-140.66	-2.75	20 37.41	+0.45
99	10	7 59 6.6	+54 19 35.78	(2)	26.93	+ 37.70	-2.89	20 37.52	+0.75
100	12	5 50 53.1	+54 16 50.65	(3)	+27.86	- 72.00	+3.27	+54 16 9.78	+0.34
101	12	6 1 7.1	+54 12 37.51	(14)	+27.87	+180.89	+ 2.64	+54 16 8.91	+0.89
102	12	7 59 15.0	37.51	(14)	+27.89	+170.56	- 3.40	15 52.56	+1.14
103	12	16 44 57.8	+54 12 7.96	(6)	28.08	+106.77	+10.15	14 32.96	+0.53
104	12	16 57 27.5	+54 14 [51.4]	..	28.12	- 59.45	+10.97	.. .. .	....
105	13	5 37 24.7	+54 11 44.60	(3)	+28.31	+ 5.37	+ 3.78	+54 12 22.06	+0.76
106	13	5 44 16.3	+54 12 21.23	(3)	+28.35	- 32.85	+ 3.36	+54 12 20.09	+0.03
107	13	5 55 53.0	21.23	(3)	28.35	- 33.70	+ 2.64	12 18.52	+0.57
108	13	7 16 41.3	21.23	(3)	28.37	- 44.67	- 1.80	12 3.17	+0.02
109	13	16 29 11.0	+54 8 17.89	(20)	28.60	+ 81.18	+ 9.58	10 17.25	+0.53
110	14	5 51 36.1	+54 9 27.06	(6)	+28.83	-152.70	+ 2.59	+54 7 25.78	-0.13
111	14	6 2 46.9	+54 7 33.0	(1)	+28.82	- 39.52	+ 1.91	+54 7 24.2	+0.8
112	14	8 13 42.5	+54 4 [34.3]	..	28.86	+115.30	- 4.36	.. .. .	....
113	15	5 38 2.3	+54 1 50.96	(4)	29.31	- 48.10	+ 3.12	1 35.29	+0.18
114	15	5 50 20.8	+53 59 31.40	(7)	29.32	+ 89.04	+ 2.36	1 32.12	+0.30
115	15	7 40 8.0	+54 1 50.96	(4)	+29.33	- 74.54	- 3.32	+54 1 2.43	+0.14
116	15	7 46 58.3	+53 59 31.40	(7)	+29.33	+ 63.92	- 3.60	+54 1 1.05	+0.62
117	15	16 22 43.6	+53 57 48.3	(1)	29.48	+ 9.34	+10.11	+53 58 37.2	+0.4
118	16	5 34 38.2	+53 54 25.68	(11)	29.73	- 17.04	+ 3.02	54 41.39	+0.11
119	16	5 40 24.0	+53 54 0.76	(3)	29.73	+ 6.58	+ 2.67	54 39.74	+0.24
120	16	8 0 46.4	+53 53 8.68	(6)	29.79	+ 22.09	- 4.30	+53 53 56.26	+0.44
121	17	5 32 49.6	+53 44 55.7	(1)	+30.15	+ 78.16	+ 2.84	+53 46 46.8	-0.2
122	17	7 27 56.8	+53 45 44.27	(3)	30.22	- 4.44	- 3.25	46 6.80	+0.36
123	17	7 54 0.4	44.27	(3)	30.22	- 12.64	- 4.24	45 57.61	+0.40
*124	21	5 50 14.8	+53 4 24.20	(9)	31.71	+ 22.13	+ 0.72	5 18.76	+0.66
125	21	6 3 38.4	+53 4 36.49	(7)	+31.74	+ 3.92	- 0.03	+53 5 12.12	+0.83
126	21	8 0 53.4	36.49	(7)	+31.76	- 51.71	- 4.98	+53 4 11.56	+0.06
127	22	5 41 33.5	+52 52 14.15	(22)	32.07	- 2.84	+ 0.99	+52 52 44.37	-0.13
128	22	5 47 51.5	14.15	(22)	32.07	- 5.75	+ 0.63	52 41.10	+0.03
129	22	7 16 56.3	14.15	(22)	32.08	- 50.54	- 3.65	51 52.04	-0.39
130	22	7 58 39.6	14.15	(22)	+32.09	- 71.91	- 5.00	+52 51 29.33	-0.25
131	27	5 47 59.8	+51 36 31.39	(3)	+33.50	+ 4.48	- 0.32	+51 37 9.05	-0.67
132	27	5 59 56.3	31.39	(3)	33.50	- 3.62	- 0.93	37 0.34	-0.92
133	27	7 44 0.2	31.39	(3)	33.51	- 73.09	- 4.86	35 46.95	-0.51
134	27	7 52 6.1	+51 34 5.14	(1½)	+33.51	+ 68.30	- 5.05	+51 35 41.90	+0.19
135	27	.. .. .	+51 30 0.92	(5)	.....	.....	.....	.. .. .	....
136	30	5 35 0.1	+50 41 35.4	(1)	+34.08	+ 73.64	- 0.03	+50 43 23.1	-0.1
137	30	5 42 41.2	+50 42 0.70	(11)	34.10	+ 42.35	- 0.43	43 16.72	-0.46
138	30	7 57 55.0	+50 41 35.4	(1)	34.09	- 34.26	- 5.08	41 30.2	-0.2
139	30	8 1 18.9	+50 42 0.70	(11)	34.12	- 62.72	- 5.13	41 26.97	-0.76
140	30	15 1 35.9	+50 38 4.59	(8)	+34.16	-176.80	+11.44	+50 35 53.39	-0.52

*Ephemeris changed from A to B.

Observations in Right Ascension—Continued.

No.	Date.	Washington Mean Time.	Comparison Star α 1900.0	Weight.	Ap. Pl. Red.	$\Delta\alpha$	Parallax.	Geocentric α .	O-C
	1900	h m s	h m s		s	s	s	h m s	s
141	Nov. 30	15 14 39.8	1 27 32.188	(8)	+6.196	- 6.287	+2.161	1 27 34.258	-0.300
142	Dec. 1	5 26 52.1	1 26 59.910	(20)	6.163	+13.840	-1.658	27 18.255	-0.213
143	1	5 37 46.7	59.910	(20)	6.163	+13.567	-1.589	27 18.051	-0.227
144	1	6 56 49.9	59.910	(20)	6.163	+11.580	-0.993	27 16.660	-0.248
145	1	7 13 9.0	59.910	(20)	+6.162	+11.184	-0.853	1 27 16.403	-0.225
146	1	14 58 20.2	1 26 53.154	(11)	+6.150	+ 7.249	+2.164	1 27 8.717	-0.290
147	1	15 11 21.6	1 27 9.911	(12)	6.152	- 9.700	+2.153	27 8.516	-0.288
148	2	5 19 58.0	1 26 53.324	(3)	6.131	- 1.367	-1.669	26 56.419	-0.326
149	2	5 33 19.5	1 26 50.545	(14)	6.128	+ 1.216	-1.585	26 56.304	-0.270
150	2	5 43 37.0	1 26 53.324	(3)	+6.131	- 1.824	-1.517	1 26 56.114	-0.329
151	2	15 17 8.6	1 26 58.666	(3)	+6.118	-17.580	+2.133	1 26 49.337	-0.328
152	8	6 32 46.4	1 27 3.085	(4)	5.924	- 0.453	-0.937	27 7.619	-0.274
153	8	6 44 11.8	1 26 56.776	(10)	5.919	+ 6.006	-0.842	27 7.859	-0.208
154	8	7 22 11.3	56.776	(10)	5.919	+ 6.256	-0.509	27 8.442	-0.207
155	8	14 19 56.2	1 27 16.648	(13)	+5.915	- 9.604	+2.111	1 27 15.070	-0.278
156	10	5 39 31.4	1 28 2.268	(7)	+5.870	- 3.693	-1.287	1 28 3.158	-0.262
157	10	5 43 17.6	2.268	(7)	5.870	- 3.687	-1.260	28 3.191	-0.320
158	10	5 53 37.2	1 28 1.826	(7)	5.865	- 3.019	-1.183	28 3.489	-0.270
159	10	6 59 39.5	1.826	(7)	5.865	- 1.967	-0.642	28 5.082	-0.274
160	10	14 4 49.0	1 28 14.75	(1)	+5.859	- 7.001	+2.090	1 28 15.70	-0.26
161	10	14 9 26.9	14.75	(1)	+5.859	- 6.895	+2.091	1 28 15.81	-0.27
162	11	5 21 27.6	1 28 35.716	(7)	5.841	+ 0.241	-1.385	28 40.413	-0.300
163	11	5 24 47.8	35.716	(7)	5.841	+ 0.299	-1.362	28 40.494	-0.314
164	11	5 36 27.8	35.716	(7)	5.841	+ 0.572	-1.279	28 40.850	-0.290
165	11	7 13 54.8	35.716	(7)	+5.840	+ 2.612	-0.485	1 28 43.683	-0.245
166	11	14 48 48.8	1 28 59.764	(5)	+5.835	-10.663	+2.045	1 28 56.981	-0.343
167	11	14 53 54.9	1 28 [51.78]	..	5.830	- 2.445	+2.036	..	..
168	12	5 11 26.5	1 29 30.430	(14)	5.820	-10.702	-1.423	29 24.125	-0.329
169	12	5 16 32.8	30.430	(14)	5.821	-10.496	-1.389	29 24.366	-0.255
170	12	7 6 41.1	1 29 30.942	(4)	+5.817	- 8.307	-0.518	1 29 27.934	-0.315
171	12	7 11 47.3	30.942	(4)	+5.817	- 8.172	-0.473	1 29 28.114	-0.304
172	13	5 28 49.0	1 30 1.12	(1)	5.790	+ 9.489	-1.276	30 15.12	-0.27
173	13	5 33 41.9	1 30 [15.97]	..	5.795	- 5.230	-1.241	..	..
174	13	5 45 14.0	1 30 1.12	(1)	5.790	+ 9.952	-1.156	1 30 15.71	-0.30
175	13	7 25 34.2	1 30 [15.85]	..	+5.792	- 1.853	-0.321	..	..
176	13	7 28 28.9	1 30 11.22	(1)	+5.790	+ 1.221	-0.295	1 30 17.94	[-1.91]
177	13	13 46 27.5	1 30 [26.22]	..	5.785	- 0.093	+2.055	..	..
178	13	13 52 0.8	1 30 26.620	(4)	5.783	- 0.280	+2.057	30 34.180	-0.267
179	13	14 6 26.4	1 30 [26.22]	..	5.780	+ 0.839	+2.058	..	..
180	14	5 17 2.2	1 30 49.636	(9)	+5.766	+17.161	-1.330	1 31 11.233	-0.211
181	14	5 25 19.1	1 31 12.726	(2)	+5.774	- 5.755	-1.272	1 31 11.473	-0.314
182	14	7 11 2.5	12.726	(2)	5.773	- 2.201	-0.421	31 15.877	-0.301
183	14	7 14 48.2	1 31 16.197	(7)	5.770	- 5.520	-0.388	31 16.059	-0.276
184	14	13 50 43.3	1 31 25.126	(19)	5.765	- 0.178*	+2.047	31 32.760	-0.316
185	14	13 56 53.7	25.126	(19)	+5.764	+ 0.140*	+2.047	1 31 33.077	-0.264
186	15	5 4 20.9	1 32 20.570	(18)	+5.754	-11.778	-1.388	1 32 13.158	-0.296
187	15	5 14 43.1	20.570	(18)	5.754	-11.332	-1.319	32 13.673	-0.253
188	15	7 21 9.4	20.570	(18)	5.753	- 6.553	-0.305	32 19.465	-0.244
189	15	7 25 23.0	1 32 [7.37]	..	5.749	+ 6.788	-0.268	..	..
190	16	5 18 40.6	1 32 52.887	(12)	+5.727	+25.096	-1.265	1 33 22.445	-0.258
191	16	5 24 5.8	1 33 [14.55]	..	+5.733	+ 3.653	-1.227	..	..
192	16	7 25 5.4	1 33 [17.93]	..	5.729	+ 5.332	-0.244	..	..
193	16	7 35 9.5	1 33 36.706	(2)	5.733	-13.089	-0.155	1 33 29.195	-0.318
194	16	14 29 48.2	1 33 43.206	(5)	5.725	- 0.695*	+1.997	33 50.233	-0.291
195	18	5 37 49.5	1 35 38.718	(16)	+5.695	+15.068	-1.076	1 35 58.405	-0.232

* Sign of $\Delta\alpha$ changed from that originally published.

Observations in Declination—Continued.

No.	Date.	Washington Mean Time.	Comparison Star δ 1900.0	Weight.	Ap. Pl. Red.	$\Delta\delta$	Parallax.	Geocentric δ .	O-C
	1900	h m s	° ' "		"	"	"	° ' "	"
141	Nov. 30	15 10 19.7	+50 38 4.59	(8)	+34.16	-184.79	+12.05	+50 35 46.01	-0.94
142	Dec. 1	5 30 9.7	+50 22 1.03	(20)	34.27	+98.54	+0.11	24 13.95	-0.78
143	1	5 34 27.3	1.03	(20)	34.27	+95.22	-0.12	24 10.40	-0.84
144	1	7 0 33.5	1.03	(20)	34.28	+29.04	-3.72	23 0.63	-0.62
145	1	7 9 27.8	1.03	(20)	+34.28	+21.97	-3.98	+50 22 53.30	-0.71
146	1	15 3 19.7	+50 16 11.32	(11)	+34.33	-31.79	+11.98	+50 16 25.84	-0.78
147	1	15 7 14.8	+50 14 11.09	(12)	34.30	+85.64	+12.26	16 23.29	-0.11
148	2	5 22 58.5	+50 4 59.26	(3)	34.39	-59.82	+0.39	4 34.22	-0.63
149	2	5 36 36.2	+50 2 45.82	(1½)	34.38	+63.43	-0.32	4 23.31	-0.16
150	2	5 40 6.9	+50 4 59.26	(3)	+34.39	-73.10	-0.50	+50 4 20.05	-0.49
151	2	15 12 59.9	+49 55 44.51	(3)	+34.42	-13.12	+13.06	+49 56 18.87	-0.87
152	8	6 36 0.1	+47 55 41.20	(4)	34.81	-86.01	-2.81	+47 54 47.19	-0.59
153	8	6 40 37.4	+47 52 26.50	(10)	34.81	+104.68	-2.94	54 43.05	-0.35
154	8	7 25 28.8	26.50	(10)	34.81	+63.20	-3.93	54 0.58	-0.38
155	8	14 16 41.8	+47 47 31.79	(13)	+34.80	-47.40	+11.45	+47 47 30.64	-0.27
156	10	5 36 13.2	+47 10 19.12	(7)	+34.79	-73.64	-0.57	+47 9 39.70	-0.93
157	10	5 46 42.1	19.12	(7)	34.78	-83.12	-1.00	9 29.78	-0.64
158	10	5 50 2.8	+47 7 1.27	(7)	34.78	+112.21	-1.13	9 27.13	-0.04
159	10	6 56 26.6	1.27	(7)	34.79	+49.47	-3.18	8 22.35	-0.17
160	10	14 1 0.8	+47 1 25.5	(1)	+34.78	-43.36	+11.07	+47 1 28.0	-0.2
161	10	14 13 31.0	25.5	(1)	+34.78	-56.78	+11.93	+47 1 15.4	-0.5
162	11	5 18 20.6	+46 45 26.23	(7)	34.76	+26.02	+0.24	+46 46 27.25	-0.31
163	11	5 28 5.8	26.23	(7)	34.76	+16.69	-0.20	46 17.48	-0.47
164	11	5 33 38.1	26.23	(7)	34.76	+11.40	-0.43	46 11.96	-0.53
165	11	7 17 34.3	26.23	(7)	+34.77	-88.18	-3.45	+46 44 29.37	-0.61
166	11	14 45 6.8	+46 38 24.76	(5)	+34.74	-127.43	+14.40	+46 37 6.47	-1.12
167	11	14 56 25.2	+46 35 [43.9]	..	34.73	+21.91	+15.16	.. .. .	..
168	12	5 8 1.7	+46 22 51.60	(14)	34.70	-37.61	+0.73	22 49.42	-0.65
169	12	5 19 49.6	51.60	(14)	34.70	-48.64	+0.19	22 37.85	-0.45
170	12	7 3 46.4	+46 20 1.42	(4)	+34.69	+21.20	-3.10	+46 20 54.21	-0.40
171	12	7 14 55.4	1.42	(4)	+34.69	+10.09	-3.28	+46 20 42.92	-0.56
172	13	5 25 33.6	+45 57 22.1	(1)	34.66	+31.55	-0.03	+45 58 28.3	-0.5
173	13	5 37 0.9	+45 58 [23.0]	..	34.64	-40.54	-0.50	.. .. .	..
174	13	5 41 59.8	+45 57 22.1	(1)	34.66	+15.38	-0.69	+45 58 11.5	-0.7
175	13	7 22 44.2	+45 56 [21.5]	..	+34.63	-22.88	-3.24	.. .. .	..
176	13	7 31 15.9	+45 55 30.0	(1)	+34.64	+21.22	-3.33	+45 56 22.5	[+0.4]
177	13	13 43 0.9	+45 49 [14.8]	..	34.61	+5.62	+10.84	.. .. .	..
178	13	13 56 24.3	+45 47 32.54	(4)	34.61	+93.50	+11.74	49 52.39	-0.65
179	13	14 3 14.6	+45 49 [14.8]	..	34.61	-16.74	+12.20	.. .. .	..
180	14	5 11 42.7	+45 31 9.60	(9)	+34.58	+159.10	+0.62	+45 34 23.90	-0.64
181	14	5 29 7.1	+45 34 46.52	(2)	+34.55	-75.56	-0.13	+45 34 5.38	-1.45
182	14	7 5 47.7	46.52	(2)	34.56	-170.46	-2.87	32 27.75	-0.68
183	14	7 18 26.6	+45 29 59.63	(7)	34.54	+103.80	-3.04	32 14.93	-0.62
184	14	13 47 16.3	+45 26 52.17	(19)	34.53	-120.00*	+11.44	25 38.14	-1.05
185	14	14 1 0.5	52.17	(19)	+34.53	-135.32*	+12.36	+45 25 23.74	-1.43
186	15	5 1 3.9	+45 9 17.86	(18)	+34.44	+9.84	+1.14	+45 10 3.28	-0.74
187	15	5 17 47.8	17.86	(18)	34.44	-6.79	+0.40	9 45.91	-0.94
188	15	7 17 29.8	17.86	(18)	34.44	-126.44	-2.87	+45 7 42.99	-0.98
189	15	7 28 47.4	+45 8 [12.7]	..	34.46	-72.50	-2.98	.. .. .	..
190	16	5 12 57.1	+44 44 29.37	(12)	+34.37	+2.83	+0.66	+44 45 7.23	-1.02
191	16	5 27 24.3	+44 45 [25.4]	..	+34.34	-67.20	+0.06	.. .. .	..
192	16	7 21 17.9	+44 42 [28.4]	..	34.33	-5.16	-2.75	.. .. .	..
193	16	7 39 18.9	+44 42 15.78	(2)	34.30	-10.80	-2.86	+44 42 36.42	-0.41
194	16	14 27 36.8	+44 34 51.51	(5)	34.28	-7.21*	+14.70	+44 35 33.28	-0.55
195	18	5 33 5.3	+43 53 44.76	(16)	+34.06	+29.07	+0.01	+43 54 47.90	-0.77

*Sign of $\Delta\delta$ changed from that originally published.

Observations in Right Ascension—Continued.

No.	Date.	Washington Mean Time.	Comparison Star $\alpha_{1900.0}$	Weight.	Ap. Pl. Red.	$\Delta\alpha$	Parallax.	Geocentric α .	O-C
	1900	h m s	h m s		s	s	s	h m s	s
196	Dec. 18	5 44 37.6	1 35 57.580	(5)	+5.699	- 3.512	-1.025	1 35 58.742	-0.288
197	18	5 54 59.4	1 35 54.262	(3)	5.698	+ 0.375	-0.946	35 59.389	-0.241
198	18	7 53 27.1	54.262	(3)	5.696	+ 6.272	+0.053	36 6.283	-0.221
199	19	5 17 43.5	1 37 19.968	(6)	5.683	- 1.208	-1.196	37 23.247	-0.253
200	19	5 25 34.5	19.968	(6)	+5.683	- 0.792	-1.140	1 37 23.719	-0.266
201	19	7 7 31.2	19.968	(6)	+5.682	+ 4.711	-0.324	1 37 30.037	-0.253
202	19	7 13 28.6	19.968	(6)	5.682	+ 5.012	-0.273	37 30.389	-0.270
203	20	5 31 21.1	1 38 56.498	(10)	5.674	- 5.371	-1.075	1 38 55.726	-0.288
204	20	5 39 35.1	1 38 [40.02]	..	5.666	+11.632	-1.014	..	..
205	20	6 36 58.2	[40.02]	..	+5.665	+14.926	-0.560	..	..
206	21	5 34 41.8	1 40 [44.02]	..	+5.659	-15.492	-1.027	..	..
207	21	5 42 10.1	1 40 [41.66]	..	5.657	-12.666	-0.971	..	..
208	21	7 18 17.8	[41.66]	..	5.656	- 6.739	-0.188	..	..
209	21	13 41 50.4	1 40 47.612	(7)	5.648	+12.174	+1.965	1 41 7.399	[-0.109]
210	24	5 14 58.6	1 45 50.488	(9)	+5.626	- 0.061	-1.102	1 45 54.951	-0.236
211	24	5 19 12.9	50.488	(9)	+5.625	+ 0.200	-1.072	1 45 55.241	-0.286
212	29	5 35 2.8	1 56 15.916	(2)	5.588	+13.221	-0.863	1 56 33.862	-0.202
213	29	5 40 58.3	1 56 [36.24]	..	5.591	- 6.593	-0.820	..	..
214	29	7 9 28.9	[36.24]	..	5.587	+ 1.218	-0.125	..	..
215	29	7 14 3.6	1 56 [44.64]	..	+5.592	- 6.750	-0.087	..	..
216	29	13 38 33.3	1 57 15.564	(10)	+5.585	- 2.398	+1.865	1 57 20.616	[-0.305]
217	1901 Jan. 2	7 11 7.5	2 6 29.363	(1)	5.578	- 2.531	-0.061	2 6 32.349	[-0.308]
218	3	5 35 1.7	2 8 59.472	(6)	5.578	- 5.423	-0.784	8 58.843	-0.236
219	3	5 41 49.5	2 8 59.112	(3)	5.576	- 4.274	-0.735	8 59.679	-0.148
220	3	5 54 26.6	2 8 58.067	(1)	+5.573	- 1.953	-0.642	2 9 1.045	-0.173
221	3	7 15 37.4	58.067	(1)	+5.572	+ 6.380	-0.015	2 9 10.004	-0.163
222	4	5 30 26.9	2 11 36.622	(13)	5.571	- 2.643	-0.802	11 38.748	-0.199
223	4	5 33 53.7	36.622	(13)	5.571	- 2.290	-0.778	11 39.125	-0.210
224	4	6 29 31.3	36.622	(13)	5.571	+ 3.592	-0.364	11 45.421	-0.180
225	4	6 32 56.1	36.622	(13)	+5.571	+ 3.942	-0.338	2 11 45.797	-0.189
226	5	5 30 30.2	2 14 24.778	(13)	+5.571	- 6.972	-0.788	2 14 22.589	-0.214
227	5	5 35 31.7	24.778	(13)	5.571	- 6.421	-0.752	14 23.176	-0.204
228	5	6 41 37.4	24.778	(13)	5.569	+ 0.695	-0.260	14 30.782	-0.202
229	5	6 44 25.7	2 14 24.070	(4)	5.569	+ 1.749	-0.238	14 31.150	-0.157
230	5	12 45 13.3	2 15 2.319	(12)	+5.570	+ 3.059	+1.769	2 15 12.717	-0.217
231	5	12 50 25.9	2.319	(12)	+5.570	+ 3.667	+1.774	2 15 13.330	-0.206
232	8	6 21 58.8	2 22 50.400	(10)	5.567	+ 4.623	-0.377	23 0.213	-0.163
233	8	6 26 39.2	50.400	(10)	5.567	+ 5.148	-0.342	2 23 0.773	-0.172
234	9	6 1 30.2	2 25 [43.57]	..	5.566	+ 5.800	-0.518	..	..
235	9	6 5 43.5	[43.57]	..	+5.566	+ 6.280	-0.487	..	..
*236	13	5 59 24.7	2 37 [55.55]	..	+5.563	+ 8.627	-0.493	..	..
237	13	6 4 14.4	[55.55]	..	5.563	+ 9.199	-0.459	..	..
238	13	12 11 27.4	2 38 [56.17]	..	5.564	- 5.217	+1.638	..	..
239	13	12 16 36.6	[56.17]	..	5.564	- 4.516	+1.647	..	..
240	15	6 23 55.3	2 44 37.159	(9)	+5.566	- 6.779	-0.302	2 44 35.644	+0.003
241	15	6 28 56.3	37.159	(9)	+5.566	- 6.125	-0.266	2 44 36.334	+0.018
242	16	5 55 40.4	2 47 54.06	(1)	5.565	-12.159	-0.482	47 46.986	+0.032
243	16	6 46 32.9	54.06	(1)	5.565	- 5.605	-0.133	47 53.889	0.000
244	19	6 18 12.4	2 57 32.071	(6)	5.562	+11.302	-0.316	57 48.619	-0.004
245	19	6 24 11.4	32.071	(6)	+5.562	+12.098	-0.274	2 57 49.457	-0.008
246	20	6 17 39.3	3 1 3.250	(3)	+5.563	+ 3.678	-0.313	3 1 12.178	+0.019
247	20	6 22 18.2	3.250	(3)	5.563	+ 4.265	-0.281	3 1 12.797	-0.023
248	22	6 42 7.3	3 7 [59.25]	..	5.559	+ 3.863	-0.135	..	..
249	22	6 47 31.1	[59.25]	..	5.559	+ 4.566	-0.097	..	..
250	29	6 53 4.0	3 33 [6.85]	..	+5.551	- 8.921	-0.045	..	..

* Ephemeris changed from B to C.

Observations in Declination—Continued.

No.	Date.	Washington Mean Time.	Comparison Star δ 1900.0	Weight.	Ap. Pl. Red.	$\Delta\delta$	Parallax.	Geocentric δ .	O-C
		h m s	° ' "		"	"	"	° ' "	"
196	1900 Dec. 18	5 48 19.9	+43 54 27.77	(5)	+34.04	- 28.85	- 0.52	+43 54 32.44	-0.26
197	18	5 52 17.1	+43 52 48.36	(3)	34.04	+ 66.32	- 0.64	54 28.08	-0.57
198	18	7 56 48.8	48.36	(3)	34.04	- 62.83	- 2.48	52 17.09	-0.96
199	19	5 13 12.0	+43 28 14.22	(6)	33.87	+ 67.74	+ 0.85	29 56.68	-0.24
200	19	5 28 46.1	14.22	(6)	+33.87	+ 51.98	+ 0.26	+43 29 40.33	-0.20
201	19	7 4 1.8	14.22	(6)	+33.87	- 46.18	- 2.06	+43 27 59.85	-0.34
202	19	7 16 31.5	14.22	(6)	33.87	- 59.28	- 2.18	27 46.63	-0.40
203	20	5 25 23.1	+43 7 27.38	(10)	33.70	-218.05	+ 0.48	+43 4 23.51	-0.63
204	20	5 44 46.1	+43 1 [55.7]	..	33.71	+ 93.69	- 0.18	.. .. .	..
205	20	6 32 59.5	[55.7]	..	+33.70	+ 43.98	- 1.42	.. .. .	..
206	21	5 30 24.1	+42 38 [41.1]	..	+33.48	- 23.18	+ 0.40	.. .. .	..
207	21	5 46 34.0	+42 36 [2.6]	..	33.47	+118.43	- 0.12	.. .. .	..
208	21	7 14 37.5	[2.6]	..	33.47	+ 26.99	- 1.80	.. .. .	..
209	21	13 50 11.8	+42 28 34.99	(7)	33.45	+ 39.99	+13.53	+42 30 1.96	[+0.57]
210	24	5 13 2.1	+41 21 46.51	(9)	+32.82	+ 1.42	+ 1.35	+41 22 22.10	-0.58
211	24	5 21 35.6	46.51	(9)	+32.82	- 7.52	+ 1.05	+41 22 12.86	-0.66
212	29	5 30 23.5	+39 11 43.84	(2)	31.43	+ 53.66	+ 1.44	+39 13 10.37	[-1.43]
213	29	5 45 0.2	+39 9 [46.1]	..	31.39	+156.79	+ 1.05	.. .. .	..
214	29	7 5 16.4	[46.1]	..	31.40	+ 71.61	- 0.18	.. .. .	..
215	29	7 17 53.6	+39 11 [31.8]	..	+31.39	- 47.62	- 0.22	.. .. .	..
216	29	13 33 49.4	+38 58 25.57	(10)	+31.28	+321.94	+13.60	+39 4 32.39	[+0.60]
217	1901 Jan. 2	7 7 2.3	+37 29 27.61	(1)	30.03	-106.10	+ 0.63	37 28 12.17	-0.50
218	3	5 26 46.7	+37 8 17.27	(6)	29.70	-277.57	+ 2.30	4 11.70	-1.01
219	3	5 46 49.4	+37 5 27.45	(3)	29.69	-128.16	+ 1.82	3 50.80	-0.37
220	3	5 51 20.0	+37 1 42.20	(1)	+29.67	+ 91.90	+ 1.72	+37 3 45.49	-0.84
221	3	7 20 33.1	42.20	(1)	+29.67	- 2.84	+ 0.82	+37 2 9.85	-0.60
222	4	5 27 0.1	+36 36 46.88	(13)	29.31	+ 66.07	+ 2.45	36 38 24.71	-0.84
223	4	5 36 42.8	46.88	(13)	29.31	+ 55.75	+ 2.21	38 14.15	-0.96
224	4	6 26 59.3	46.88	(13)	29.30	+ 2.68	+ 1.32	37 20.18	-0.95
225	4	6 35 33.6	46.88	(13)	+29.30	- 6.62	+ 1.23	+36 37 10.79	-1.14
226	5	5 26 54.5	+36 11 32.81	(13)	+28.91	+ 34.22	+ 2.62	+36 12 38.56	-0.93
227	5	5 38 40.6	32.81	(13)	28.90	+ 21.92	+ 2.33	12 25.96	-0.91
228	5	6 38 55.1	32.81	(13)	28.90	- 42.23	+ 1.39	11 20.87	-1.33
229	5	6 47 14.7	+36 9 51.93	(4)	28.90	+ 50.21	+ 1.32	11 12.36	-0.91
230	5	12 40 28.8	+36 6 15.66	(12)	+28.81	-123.77	+12.12	+36 4 52.82	-1.34
231	5	12 54 0.2	15.66	(12)	+28.81	-138.61	+12.87	+36 4 38.73	-0.91
232	8	6 18 13.3	+34 55 10.77	(10)	27.68	- 69.02*	+ 2.18	34 54 31.61	-1.20
233	8	6 29 48.4	10.77	(10)	27.68	- 81.63	+ 2.05	+34 54 18.87	-1.54
234	9	5 58 13.6	+34 29 [5.0]	..	27.24	- 22.69	+ 2.64	.. .. .	..
235	9	6 8 27.2	[5.0]	..	+27.24	- 34.59	+ 2.49	.. .. .	..
†236	13	5 55 21.7	+32 46 [24.3]	..	+25.40	- 4.69	+ 3.40	.. .. .	..
237	13	6 7 22.7	[24.3]	..	25.40	- 18.06	+ 3.23	.. .. .	..
238	13	12 7 37.7	+32 39 [30.8]	..	25.26	+ 4.51	+11.44	.. .. .	..
239	13	12 20 22.2	[30.8]	..	25.26	- 9.76	+12.06	.. .. .	..
240	15	6 21 8.0	+31 56 20.18	(9)	+24.39	- 87.28	+ 3.44	+31 55 20.73	+1.29
241	15	6 31 26.3	20.18	(9)	+24.39	- 99.00	+ 3.35	+31 55 8.92	+0.41
242	16	5 51 43.9	+31 28 50.90	(1)	23.87	+ 67.34	+ 3.97	30 26.08	+1.57
243	16	6 50 46.1†	50.90	(1)	23.87	+ 4.71	+ 3.44	31 29 22.92	+0.92
244	19	6 14 10.2	+30 15 4.88	(6)	22.35	- 90.05	+ 4.21	30 14 1.39	+0.58
245	19	6 28 17.3	4.88	(6)	+22.35	-104.86	+ 4.10	+30 13 46.47	+0.52
246	20	6 13 52.8	+29 50 36.10	(3)	+21.79	-134.10	+ 4.39	+29 48 48.18	+0.27
247	20	6 25 59.7	36.10	(3)	21.80	-147.09	+ 4.29	+29 48 35.10	-0.09
248	22	6 39 16.3	+28 56 [45.7]	..	20.66	+ 55.77	+ 4.56	.. .. .	..
249	22	6 50 55.0	[45.7]	..	20.66	+ 44.13	+ 4.53	.. .. .	..
250	29	6 49 9.1	+26 6 [52.2]	..	+16.56	-174.70	+ 5.68	.. .. .	..

* $\Delta\delta$ changed 1'', error in original reduction.† Time of $\Delta\delta$ decreased 2^m 30^s from that originally published

† Ephemeris changed from B to C.

It was the purpose of the Paris Conference to treat the observations of Eros made at all observatories in a comprehensive manner. But it is not out of place for each observatory to make a preliminary discussion of its own observations and determine a value of the solar parallax.

It is important to determine a proper system of weights to be applied to the observations. For this purpose it is necessary to determine the mean error of a measurement, asteroid minus star, and the mean error of a star place. From those cases where a number of observations were made using the same comparison star the mean error of a measurement may be obtained by studying the ephemeris residuals. These determinations were classified according to the observer's estimated weights, which were printed with the observations as originally published, Volume III of the Publications of the United States Naval Observatory, Second Series. But no difference was shown in the quality of the observations, which would correspond with the scale of weighting. Therefore these weights may be neglected. The following is a tabulation of the results obtained:

Weight assigned by Observer.	α			
	Ephemeris A.		Ephemeris B.	
	ϵ	No. of Determinations.	ϵ	No. of Determinations.
	"		"	
I	0.29	I	....	..
I.5	0.26	3	....	..
2	0.16	5	0.12	3
2.5	0.12	2	0.08	2
3	0.25	14	0.17	20
3.5	....	..	0.22	I
4	0.10	I	0.39	I
Mean $\epsilon =$	0.22	26	0.17	27
" $r =$	0.15		0.11	

Weight assigned by Observer.	δ			
	Ephemeris A.		Ephemeris B.	
	ϵ	No. of Determinations.	ϵ	No. of Determinations.
	"		"	
I	0.12	I	....	..
I.5	0.15	3	....	..
2	0.26	5	0.15	2
2.5	0.44	I	0.17	I
3	0.20	15	0.18	20
3.5	....	..	0.18	I
4	0.26	I	0.06	I
Mean $\epsilon =$	0.23	26	0.17	25
" $r =$	0.15		0.11	

General mean $\epsilon = 0''.20$; $r = 0''.13$.

From this it would appear that the observations in right ascension are practically of the same accuracy as those in declination. But the observations through the first half of the work, Ephemeris A, are not as good as those of the last half. It should be noted that after the completion of the work which was compared with Ephemeris A, and before beginning that which was compared with Ephemeris B, a small burr was removed from the micrometer, see page A v, Volume III, Publications of the United States Naval Observatory, Second Series.

The mean error of an observed position of Eros was obtained by studying the residuals from a smooth curve which was drawn through the plotted ephemeris corrections (O-C). But since the star places have different weights this quantity should be a variable, depending upon the value of the star places.

Let

- $P_{\star}$ = the weight of a star place.
 $\epsilon_{\star 1}$ = the mean error of a star place of weight unity.
 $\epsilon_{o-\star}$ = the mean error of a measurement (asteroid — star) = a constant.
 ϵ_o = the mean error of an observed position of the asteroid.

Thus we have

$$\epsilon_{o-\star}^2 + \frac{\epsilon_{\star 1}^2}{P_{\star}} = \epsilon_o^2.$$

Now, if we take the residuals from the smooth curve mentioned above, and classify them according to the star weights, we may determine a value of ϵ_o^2 for each weight. Thus we should have a series of observation equations from which to determine $\epsilon_{o-\star}$ and $\epsilon_{\star 1}$. This depends upon the assumption that the scale of star weights is mathematically right. But it would make little difference, ultimately, whether the scale were right or not. In this way we obtain

Right Ascensions	$\left\{ \begin{array}{l} \text{Ephemeris A} \begin{cases} \epsilon_{o-\star} = 0''.27 \\ \epsilon_{\star 1} = 0''.25 \end{cases} \\ \text{Ephemeris B} \begin{cases} \epsilon_{o-\star} = 0''.30 \\ \epsilon_{\star 1} = 0''.33 \end{cases} \end{array} \right\}$	Mean for α $\left\{ \begin{array}{l} \epsilon_{o-\star} = 0''.285 \\ \epsilon_{\star 1} = 0''.290 \end{array} \right\}$	General mean $\left\{ \begin{array}{l} \epsilon_{o-\star} = 0''.30 \\ \epsilon_{\star 1} = 0''.26 \end{array} \right\}$
Declinations	$\left\{ \begin{array}{l} \text{Ephemeris A} \begin{cases} \epsilon_{o-\star} = 0''.34 \\ \epsilon_{\star 1} = 0''.18 \end{cases} \\ \text{Ephemeris B} \begin{cases} \epsilon_{o-\star} = 0''.29 \\ \epsilon_{\star 1} = 0''.28 \end{cases} \end{array} \right\}$	Mean for δ $\left\{ \begin{array}{l} \epsilon_{o-\star} = 0''.315 \\ \epsilon_{\star 1} = 0''.230 \end{array} \right\}$	

Whence

$$r_{o-\star} = 0''.20, r_{\star 1} = 0''.18$$

In these determinations all residuals greater than $0''.7$ were rejected in computing the values of ϵ_o^2 , with the exception of Ephemeris A in declination, where the limit was set at $0''.8$ as there was an unusual number of large residuals, especially in the higher weights.

It is seen that the probable error of a measurement between the asteroid and a star determined in this way is 50 per cent greater than that obtained by inter-comparing measurements made on a single star. But this is what should be expected, since all systematic errors, both in the star places and in the quantities (asteroid — star), would be largely independent of the scale of star weights, and consequently they would be added to the constant term ($\epsilon_{o-\star}^2$) in the above equation. Thus we should regard the value $r_{\star 1} = 0''.18$ as only that portion of the probable error of a star place of weight unity which corresponds to the scale of weights; and an unknown constant, which is independent of the scale of weighting, has been shifted to the probable error of a measurement ($r_{o-\star}$).

Now, in order to settle upon a proper scheme of weighting with which to determine mean corrections to the ephemeris, and the value of the solar parallax, we may assume that the systematic errors will be partly eliminated on account of the shorter periods of time involved.

Thus, for practical purposes, we may take as the basis of the scheme of weighting

$$\epsilon_{o-\star} = \epsilon_{\star 1}.$$

That is, the precision of a single observed difference (asteroid — star) is assumed to be the same as that of a star place of weight unity. The weights may then be computed from the following formula:

$$P_o = \frac{n P_{\star}}{n + P_{\star}},$$

where

P_o = the weight of the mean of n observations of the asteroid, all with a single comparison star.

$P_{\star}$ = the weight of the star place.

n = the number of observations made with a single comparison star.

For convenience in making computations the following table was constructed:

Weight of Mean of n Observations.

$n \backslash$ Star Wt.	1	2	3	4	5	6	7	8	9	10	11	12
1.....	0.5	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9
2.....	0.7	1.0	1.2	1.3	1.4	1.5	1.6	1.6	1.6	1.7	1.7	1.7
3.....	0.8	1.2	1.5	1.7	1.9	2.0	2.1	2.2	2.2	2.3	2.4	2.4
4.....	0.8	1.3	1.7	2.0	2.2	2.4	2.6	2.7	2.8	2.9	2.9	3.0
$n \backslash$ Star Wt.	13	14	15	16	17	18	19	20	21	22	23	24
1.....	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0
2.....	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
3.....	2.4	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.7
4.....	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.3	3.4	3.4	3.4	3.4

In assigning weights to individual observations from the table it is necessary to divide the weight of the mean, which is given by the table, by the number of observations which were made with a single comparison star.

The weighted means of the ephemeris corrections (O-C) and their corresponding parallaxes were computed for each date, and, lest there be some ambiguity on account of the rejection of certain erratic cases, it was thought necessary to print the exact data used in the computations. Thus, in the following pages we have printed the number of the observation, the date, parallax, ephemeris residual (O-C), and weight. A brace is placed after certain residuals to indicate those which depend upon a single comparison star. From the daily means similar weighted means were determined for groups, the division into groups being governed principally by breaks in the series of observations.

The group means of the ephemeris corrections were plotted upon cross-section paper and a smooth curve was drawn which would represent them. Ephemeris corrections were then scaled from this curve and are given in Table II, see page B 65.

When the curve had been traced it was seen that its curvature in passing through some of the groups would effect the mean; thus, a correction should be applied if we wish the mean of the group to represent an ephemeris correction at the mean epoch of the group. These corrections, when appreciable, are given beneath the group means, where they are indicated by the letter ρ , and are included in the values given in Table I, see page B 64.

Parallax and Ephemeris Residuals with Weighted Means, by Dates.

No.	α					δ				
	Berlin Mean Time.	Parallax.	O-C	Weight.		Berlin Mean Time.	Parallax.	O-C	Weight.	
	1900 d	s	s			1900 d	"	"		
1	Oct. 9.563	-1.315	-0.097	(0.9)		Oct. 9.567	+6.93	+1.52	(0.9)	
2	.571	-1.313	[0.001]	...		.574	+6.50	0.75	(0.6)	
3	.608	-1.266	0.076	(0.8)		.611	+4.27	0.95	(0.6)	
4	.614	-1.250	0.080	(0.9)		.618	+3.87	1.17	(0.9)	
5	.979	+1.121	0.098	(0.8)		.983	+2.36	+1.51	(0.9)	
6	.987	+1.176	-0.100	(0.8)		....	....	....	...	
	Mean.. 9.742	-0.353	-0.090	(4.2)		Mean.. 9.683	+4.69	+1.23	(3.9)	
7	Oct. 10.552	-1.337	-0.077	(0.7)		Oct. 10.555	+7.54	+1.18	(0.7)	
8	.568	-1.338	0.082	(0.7)		.571	+6.53	1.19	(0.7)	
9	.599	-1.300	0.087	(0.7)		.603	+4.56	1.18	(0.7)	
10	.930	+0.927	0.098	(0.6)		.932	+0.08	1.01	(0.6)	
11	.940	+0.985	0.121	(0.6)		.944	+0.50	1.42	(0.6)	
12	.952	+1.050	-0.149	(0.6)		.955	+1.01	+1.36	(0.6)	
	Mean.. 10.743	-0.258	-0.101	(3.9)		Mean.. 10.746	+3.59	+1.22	(3.9)	
13	Oct. 11.599	-1.320	[-0.017]	...		Oct. 11.604	+4.26	+0.87	(0.9)	
15	.940	+1.018	0.118	(0.6)		.943	+0.50	1.56	(0.6)	
16	.953	+1.091	-0.083	(0.6)		.956	+1.14	+1.77	(0.6)	
	Mean.. 11.946	+1.054	-0.100	(1.2)		Mean.. 11.801	+2.29	+1.32	(2.1)	
17	Oct. 15.527	-1.456	-0.134	(0.8)		Oct. 15.529	+8.39	+1.84	(0.8)	
18	.532	-1.461	0.105	(0.8)		.535	+7.99	1.85	(0.8)	
19	.539	-1.465	0.139	(0.8)		.541	+7.63	1.60	(0.8)	
20	.607	-1.356	0.137	(0.8)		.611	+2.98	1.65	(0.8)	
21	.615	-1.328	0.076	(0.8)		.617	+2.56	1.28	(0.8)	
22	.942	+1.182	0.135	(0.5)		.945	+1.01	1.42	(0.5)	
23	.954	+1.250	0.093	(0.8)		.958	+1.75	1.14	(0.8)	
24	.969	+1.319	-0.136	(0.8)		.972	+2.60	+1.57	(0.8)	
	Mean.. 15.699	-0.493	-0.119	(6.1)		Mean.. 15.702	+4.53	+1.55	(6.1)	
25	Oct. 16.540	-1.492	[-0.053]	...		Oct. 16.542	+7.31	+1.63	(0.8)	
26	.566	-1.476	0.17	(0.4)		.568	+5.52	1.3	(0.4)	
27	.608	-1.365	0.14	(0.4)		.612	+2.66	0.6	(0.4)	
28	.957	+1.300	0.138	(0.9)		.960	+2.01	1.58	(0.9)	
29	.968	+1.352	-0.145	(0.9)		.972	+2.73	+1.59	(0.9)	
	Mean.. 16.847	+0.048	-0.146	(2.6)		Mean.. 16.778	+3.94	+1.45	(3.4)	
33	Oct. 17.934	+1.222	-0.161	(0.9)		Oct. 17.938	+0.87	+1.28	(0.9)	
35	Oct. 18.514	-1.531	-0.182	(0.9)		Oct. 18.517	+8.69	+1.10	(0.9)	
36	.522	-1.540	0.124	(0.5)		.525	+8.12	0.84	(0.5)	
37	.589	-1.454	0.103	(0.5)		.592	+3.42	1.47	(0.5)	
38	.929	+1.230	0.076	(0.5)		.932	+0.61	1.76	(0.5)	
39	.939	+1.290	0.123	(0.5)		.941	+1.22	1.22	(0.5)	
40	.962	+1.404	0.191	(0.5)		.965	+2.68	1.32	(0.5)	
41	.972	+1.441	-0.103	(0.5)		.974	+3.28	+1.27	(0.5)	
	Mean.. 18.748	-0.049	-0.134	(3.9)		Mean.. 18.751	+4.48	+1.26	(3.9)	
45	Oct. 19.929	+1.275	-0.121	(2.6)		Oct. 19.932	+0.76	+0.82	(2.6)	
46	.963	+1.446	0.161	(2.6)		.965	+2.88	1.26	(2.6)	
47	.975	+1.491	-0.157	(2.6)		.977	+3.70	+0.95	(2.6)	
	Mean.. 19.956	+1.404	-0.146	(2.6)		Mean.. 19.958	+2.44	+1.01	(2.6)	

Parallax and Ephemeris Residuals with Weighted Means, by Dates—Continued.

No.	α				δ			
	Berlin Mean Time.	Parallax.	O-C	Weight.	Berlin Mean Time.	Parallax.	O-C	Weight.
	1900 d	s	s		1900 d	"	"	
48	Oct. 20.503	-1.579	-0.173	(0.7)	Oct. 20.500	+9.54	+1.25	(0.7)
49	.586	-1.496	0.178	(0.7)	.588	+3.20	1.67	(0.7)
50	.593	-1.469	0.179	(0.7)	.595	+2.70	1.75	(0.7)
51	.605	-1.417	0.156	(0.7)	.607	+1.92	1.84	(0.7)
52	.934	+1.348	0.122	(0.8)	.939	+1.35	1.58	(0.7)
53	.964	+1.491	[-0.248]	...	.967	+3.25	+1.47	(0.7)
	Mean.. 20.652	-0.860	-0.160	(3.6)	Mean.. 20.699	+3.66	+1.59	(4.2)
54	Oct. 21.528	-1.626	-0.187	(2.4)	Oct. 21.530	+7.10	+1.34	(2.4)
55	.538	-1.621	0.127		.540	+6.58	1.78	
56	.590	-1.493	-0.160		.592	+2.63	+1.68	
	Mean.. 21.552	-1.580	-0.158	(2.4)	Mean.. 21.554	+5.44	+1.60	(2.4)
57	Oct. 22.514	-1.652	-0.142	(1.3)	Oct. 22.517	+7.89	+1.45	(1.3)
58	.557	-1.612	-0.180		.559	+4.67	+2.07	
	Mean.. 22.536	-1.632	-0.161	(1.3)	Mean.. 22.538	+6.28	+1.76	(1.3)
59	Oct. 24.522	-1.706	-0.192	(0.5)	Oct. 24.524	+6.79	+0.91	(0.5)
61	.607	-1.418	0.240	(0.5)	.610	+0.55	1.84	(0.5)
60	.527	-1.702	-0.241	(0.9)	.530	+6.38	+1.48	(0.9)
	Mean.. 24.547	-1.628	-0.228	(1.9)	Mean.. 24.549	+4.95	+1.42	(1.9)
64	Oct. 26.612	-1.384	-0.215	(0.9)	Oct. 26.614	-0.30	+0.87	(0.9)
65	Oct. 27.521	-1.775	-0.154	(0.6)	Oct. 27.523	+6.05	+1.42	(0.6)
67	.584	-1.554	0.177	(0.6)	.587	+1.19	+1.91	(0.6)
66	.526	-1.768	-0.29	(0.5)	.528	+5.67	[-0.2]	...
	Mean.. 27.545	-1.695	-0.202	(1.7)	Mean.. 27.555	+3.62	+1.66	(1.2)
68	Oct. 29.519	-1.818	-0.208	(0.8)	Oct. 29.521	+5.62	+1.66	(0.8)
69	.552	-1.717	0.268	(0.8)	.553	+2.93	1.35	(0.8)
71	.928	+1.701	0.244	(0.8)	.931	+2.88	0.78	(0.8)
72	.961	+1.815	0.263	(0.8)	.963	+5.46	0.94	(0.8)
73	.971	+1.836	-0.234	(0.8)	.973	+6.32	+1.00	(0.8)
	Mean.. 29.786	+0.363	-0.243	(4.0)	Mean.. 29.788	+4.64	+1.15	(4.0)
74	Oct. 30.558	-1.699	-0.246	(0.9)	Oct. 30.561	+2.12	+0.67	(0.9)
76	.592	-1.493	0.265	(0.9)	.595	+1.71	0.77	(0.9)
75	.564	-1.666	-0.252	(0.7)	.566	-0.33	+1.24	(0.7)
	Mean.. 30.572	-1.616	-0.254	(2.5)	Mean.. 30.575	+1.12	+0.86	(2.5)
77	Nov. 4.524	-1.866	-0.359	(2.2)	Nov. 4.527	+3.19	+0.89	(2.2)
78	.560	-1.668	0.294		.564	+0.29	0.93	
79	.581	-1.512	-0.339		.585	-1.20	+0.70	
	Mean.. 4.555	-1.682	-0.331	(2.2)	Mean.. 4.559	+0.76	+0.84	(2.2)

Parallax and Ephemeris Residuals with Weighted Means, by Dates—Continued.

No.	α				δ			
	Berlin Mean Time.	Parallax.	O-C	Weight.	Berlin Mean Time.	Parallax.	O-C	Weight.
	1900 d	s	s		1900 d	"	"	
80	Nov. 5.490	-1.979	-0.319	(0.9)	Nov. 5.494	+5.69	[+1.97]	...
81	.502	-1.951	.237	(0.8)	.498	+5.32	[2.01]	...
82	.576	-1.533	.252	(0.8)	.579	-1.16	1.24	(0.9)
83	.935	+1.981	.261	(0.8)	.938	+5.95	1.01	(0.8)
84	.942	+1.994	.316	(0.9)	.940	+6.15	0.65	(0.9)
85	.968	+2.012	-0.268	(0.9)	.971	+8.92	+0.71	(0.9)
	Mean.. 5.739	+0.122	-0.277	(5.1)	Mean.. 5.855	+4.94	+0.90	(3.5)
86	Nov. 6.496	-1.976	-0.316	(1.5)	Nov. 6.498	+5.01	[+0.18]	...
87	.566	-1.598	-0.341	(1.5)	.569	-0.73	[+1.58]	...
	Mean.. 6.531	-1.787	-0.328	(1.5)	Mean.. ..	....	....	...
90	Nov. 7.487	-2.007	-0.369	(0.9)	Nov. 7.490	+5.38	+0.57	(0.9)
91	.585	-1.417	-0.289	(0.9)	.588	-2.30	+0.77	(0.9)
	Mean.. 7.536	-1.712	-0.329	(1.8)	Mean.. 7.539	+1.54	+0.67	(1.8)
93	Nov. 9.514	-1.908	-0.297	(0.8)	Nov. 9.517	+2.36	+1.16	(0.8)
94	.564	-1.558	0.321	(0.8)	.567	-1.50	1.29	(0.8)
95	.958	+2.081	-0.291	(0.9)	.961	+9.85	+0.25	(0.9)
	Mean.. 9.690	-0.360	-0.303	(2.5)	Mean.. 9.693	+3.82	+0.87	(2.5)
96	Nov. 10.494	-1.995	-0.341	(0.7)	Nov. 10.496	+3.79	+0.20	(0.7)
98	.579	-1.388	0.284	(0.7)	.582	-2.75	0.45	(0.7)
99	.586	-1.313	-0.253	(0.7)	.584	-2.89	+0.75	(0.7)
	Mean.. 10.553	-1.565	-0.293	(2.1)	Mean.. 10.554	-0.62	+0.47	(2.1)
100	Nov. 12.492	-1.993	-0.333	(0.8)	Nov. 12.495	+3.27	+0.34	(0.8)
101	.505	-1.927	0.267	(0.9)	.502	+2.64	0.89	(0.9)
102	.581	-1.301	0.357	(0.9)	.584	-3.40	1.14	(0.9)
103	.946	+2.124	[-0.205]	...	.949	+10.15	+0.53	(0.9)
	Mean.. 12.527	-1.731	-0.318	(2.6)	Mean.. 12.636	+3.16	+0.74	(3.5)
105	Nov. 13.483	-2.029	-0.362	(0.8)	Nov. 13.486	+3.78	+0.76	(0.8)
106	.488	-2.006	0.325	(0.5)	.490	+3.36	0.03	(0.5)
107	.496	-1.965	0.388	(0.5)	.498	+2.64	0.57	(0.5)
108	.553	-1.559	0.327	(0.5)	.555	-1.80	0.02	(0.5)
109	.935	+2.141	-0.274	(1.0)	.938	+9.58	+0.53	(1.0)
	Mean.. 13.633	-0.681	-0.328	(3.3)	Mean.. 13.636	+4.46	+0.44	(3.3)
110	Nov. 14.492	-1.974	-0.351	(0.9)	Nov. 14.495	+2.59	-0.13	(0.9)
111	.501	-1.927	-0.26	(0.5)	.503	+1.91	+0.8	(0.5)
	Mean.. 14.495	-1.957	-0.318	(1.4)	Mean.. 14.498	+2.35	+0.20	(1.4)
113	Nov. 15.484	-2.008	-0.274	(0.6)	Nov. 15.486	+3.12	+0.18	(0.6)
115	.568	-1.325	0.304	(0.6)	.571	-3.32	0.14	(0.6)
114	.492	-1.964	0.267	(0.8)	.495	+2.36	0.30	(0.8)
116	.573	-1.273	0.325	(0.8)	.576	-3.60	0.62	(0.8)
117	.931	+2.159	[-0.42]	...	.934	+10.11	+0.4	(0.5)
	Mean.. 15.530	-1.639	-0.293	(2.8)	Mean.. 15.593	+1.19	+0.34	(3.3)

Parallax and Ephemeris Residuals with Weighted Means, by Dates—Continued.

No.	α				δ			
	Berlin Mean Time.	Parallax.	O-C	Weight.	Berlin Mean Time.	Parallax.	O-C	Weight.
118	1900 d Nov. 16.482	s -2.006	s -0.274	(0.9)	1900 d Nov. 16.484	" + 3.02	" +0.11	(0.9)
119	.486	-1.984	0.324	(0.8)	.488	+ 2.67	0.24	(0.8)
120	.582	-1.129	-0.321	(0.9)	.585	- 4.30	+0.44	(0.9)
	Mean.. 16.518	-1.696	-0.306	(2.6)	Mean.. 16.520	+ 0.38	+0.26	(2.6)
121	Nov. 17.480	-2.003	-0.29	(0.5)	Nov. 17.482	+ 2.84	-0.2	(0.5)
122	.560	-1.341	0.286	(0.6)	.562	- 3.25	+0.36	(0.6)
123	.578	-1.139	-0.297	(0.6)	.580	- 4.24	+0.40	(0.6)
	Mean.. 17.543	-1.464	-0.291	(1.7)	Mean.. 17.545	- 1.81	+0.21	(1.7)
124	Nov. 21.492	-1.843	-0.345	(0.9)	Nov. 21.495	+ 0.72	+0.66	(0.9)
125	.501	-1.771	0.324	(0.8)	.504	- 0.03	0.83	(0.8)
126	.583	-0.904	-0.351	(0.8)	.585	- 4.98	+0.06	(0.8)
	Mean.. 21.524	-1.519	-0.340	(2.5)	Mean.. 21.527	- 1.34	+0.52	(2.5)
127	Nov. 22.487	-1.855	-0.350		Nov. 22.488	+ 0.99	-0.13	
128	.491	-1.826	0.308	(3.4)	.493	+ 0.63	+0.03	(3.4)
129	.552	-1.227	0.338		.555	- 3.65	-0.39	
130	.581	-0.876	-0.364		.584	- 5.00	-0.25	
	Mean.. 22.528	-1.446	-0.340	(3.4)	Mean.. 22.530	- 1.76	-0.18	(3.4)
131	Nov. 27.491	-1.672	-0.300	(0.5)	Nov. 27.493	- 0.32	-0.67	(0.5)
132	.499	-1.596	0.281	(0.5)	.501	- 0.93	-0.92	(0.5)
133	.571	-0.783	0.319	(0.5)	.574	- 4.86	-0.51	(0.5)
134	.576	-0.710	0.232	(0.6)	.579	- 5.05	+0.19	(0.6)
135	.914	+2.134	-0.262	(0.8)	....	....	....	...
	Mean.. 27.640	-0.257	-0.275	(2.9)	Mean.. 27.539	- 2.90	-0.45	(2.1)
136	Nov. 30.482	-1.660	-0.22	(0.4)	Nov. 30.484	- 0.03	-0.1	(0.4)
138	.580	-0.529	0.21	(0.4)	.583	- 5.08	0.2	(0.4)
137	.487	-1.613	0.256	(0.8)	.489	- 0.43	0.46	(0.8)
139	.588	-0.427	0.278	(0.8)	.586	- 5.13	0.76	(0.8)
140	.874	+2.173	0.319	(0.8)	.877	+11.44	0.52	(0.8)
141	.886	+2.161	-0.300	(0.8)	.883	+12.05	-0.94	(0.8)
	Mean.. 30.673	+0.240	-0.274	(4.0)	Mean.. 30.674	+ 3.08	-0.57	(4.0)
142	Dec. 1.478	-1.658	-0.213	(0.8)	Dec. 1.481	+ 0.11	-0.78	(0.8)
143	.486	-1.589	0.227	(0.8)	.484	- 0.12	-0.84	(0.8)
144	.541	-0.993	0.248	(0.8)	.543	- 3.72	0.62	(0.8)
145	.552	-0.853	0.225	(0.8)	.550	- 3.98	0.71	(0.8)
146	.875	+2.164	0.290	(0.9)	.879	+11.98	0.78	(0.9)
147	.884	+2.153	-0.288	(0.9)	.881	+12.26	-0.11	(0.9)
	Mean.. 1.646	-0.038	-0.250	(5.0)	Mean.. 1.646	+ 3.13	-0.63	(5.0)
148	Dec. 2.473	-1.669	-0.326	(0.6)	Dec. 2.476	+ 0.39	-0.63	(0.6)
150	.490	-1.517	0.329	(0.6)	.487	- 0.50	0.49	(0.6)
149	.483	-1.585	0.270	(0.6)	.485	- 0.32	0.16	(0.6)
151	.888	+2.133	-0.328	(0.8)	.885	+13.06	-0.87	(0.8)
	Mean.. 2.607	-0.445	-0.314	(2.6)	Mean.. 2.606	+ 3.92	-0.56	(2.6)

Parallax and Ephemeris Residuals with Weighted Means, by Dates—Continued.

No.	α				δ			
	Berlin Mean Time.	Parallax.	O-C	Weight.	Berlin Mean Time.	Parallax.	O-C	Weight.
	1900 d	s	s		1900 d	"	"	
152	Dec. 8.524	-0.937	-0.274	(0.8)	Dec. 8.526	-2.81	-0.59	(0.8)
153	.532	-0.842	0.208	(0.8)	.529	-2.94	0.35	(0.8)
154	.558	-0.509	0.207	(0.8)	.561	-3.93	0.38	(0.8)
155	.848	+2.111	-0.278	(0.9)	.846	+11.45	-0.27	(0.9)
	Mean.. 8.623	+0.021	-0.243	(3.3)	Mean.. 8.622	+0.78	-0.39	(3.3)
156	Dec. 10.487	-1.287	-0.262	(0.8)	Dec. 10.485	-0.57	-0.93	(0.8)
157	.490	-1.260	0.320	(0.8)	.492	-1.00	0.64	(0.8)
158	.497	-1.183	0.270	(0.8)	.494	-1.13	0.04	(0.8)
159	.543	-0.642	0.274	(0.8)	.540	-3.18	0.17	(0.8)
160	.838	+2.090	0.26	(0.4)	.835	+11.07	0.2	(0.4)
161	.841	+2.091	-0.27	(0.4)	.844	+11.93	-0.5	(0.4)
	Mean.. 10.571	-0.456	-0.278	(4.0)	Mean.. 10.570	+1.12	-0.43	(4.0)
162	Dec. 11.475	-1.385	-0.300	(0.6)	Dec. 11.472	+0.24	-0.31	(0.6)
163	.477	-1.362	0.314	(0.6)	.479	-0.20	0.47	(0.6)
164	.485	-1.279	0.290	(0.6)	.483	-0.43	0.53	(0.6)
165	.553	-0.485	0.245	(0.6)	.555	-3.45	0.61	(0.6)
166	.869	+2.045	-0.343	(0.8)	.867	+14.40	-1.12	(0.8)
	Mean.. 11.590	-0.335	-0.301	(3.2)	Mean.. 11.590	+2.88	-0.64	(3.2)
168	Dec. 12.468	-1.423	-0.329	(0.9)	Dec. 12.465	+0.73	-0.65	(0.9)
169	.471	-1.389	0.255	(0.9)	.473	+0.19	0.45	(0.9)
170	.548	-0.518	0.315	(0.6)	.547	-3.10	0.40	(0.6)
171	.551	-0.473	-0.304	(0.6)	.553	-3.28	-0.56	(0.6)
	Mean.. 12.501	-1.042	-0.299	(3.0)	Mean.. 12.501	-1.00	-0.52	(3.0)
172	Dec. 13.480	-1.276	-0.27	(0.4)	Dec. 13.477	-0.03	-0.5	(0.4)
174	.491	-1.156	0.30	(0.4)	.489	-0.69	0.7	(0.4)
178	.829	+2.057	-0.267	(0.8)	.832	+11.74	-0.65	(0.8)
	Mean.. 13.657	+0.420	-0.276	(1.6)	Mean.. 13.658	+5.69	-0.62	(1.6)
180	Dec. 14.471	-1.330	-0.211	(0.9)	Dec. 14.468	+0.62	-0.64	(0.9)
181	.477	-1.272	0.314	(0.5)	.480	-0.13	1.45	(0.5)
182	.551	-0.421	0.301	(0.5)	.547	-2.87	0.68	(0.5)
183	.553	-0.388	0.276	(0.9)	.556	-3.04	0.62	(0.9)
184	.828	+2.047	0.316	(0.9)	.826	+11.44	1.05	(0.9)
185	.832	+2.047	-0.264	(0.9)	.835	+12.36	-1.43	(0.9)
	Mean.. 14.637	+0.281	-0.276	(4.6)	Mean.. 14.637	+3.86	-0.96	(4.6)
186	Dec. 15.463	-1.388	-0.296		Dec. 15.460	+1.14	-0.74	
187	.470	-1.319	0.253	(2.6)	.472	+0.40	0.94	(2.6)
188	.558	-0.305	-0.244		.555	-2.87	-0.98	
	Mean.. 15.497	-1.004	-0.264	(2.6)	Mean.. 15.496	-0.44	-0.89	(2.6)
190	Dec. 16.473	-1.265	-0.258	(0.9)	Dec. 16.469	+0.66	-1.02	(0.9)
193	.567	-0.155	0.318	(0.7)	.570	-2.86	0.41	(0.7)
194	.855	+1.997	-0.291	(0.8)	.854	+14.70	-0.55	(0.8)
	Mean.. 16.628	+0.146	-0.286	(2.4)	Mean.. 16.627	+4.31	-0.69	(2.4)

Parallax and Ephemeris Residuals with Weighted Means, by Dates—Continued.

No.	α				δ			
	Berlin Mean Time.	Parallax.	O-C	Weight.	Berlin Mean Time.	Parallax.	O-C	Weight.
195	1900 Dec. 18.486	s -1.076	s -0.232	(0.9)	1900 Dec. 18.483	" + 0.01	" -0.77	(0.9)
196	.491	-1.025	0.288	(0.8)	.493	- 0.52	0.26	(0.8)
197	.498	-0.946	0.241	(0.6)	.496	- 0.64	0.57	(0.6)
198	.580	+0.053	-0.221	(0.6)	.582	- 2.48	-0.96	(0.6)
	Mean.. 18.509	-0.801	-0.247	(2.9)	Mean.. 18.509	- 0.79	-0.63	(2.9)
199	Dec. 19.472	-1.196	-0.253	(2.4)	Dec. 19.469	+ 0.85	-0.24	(2.4)
200	.477	-1.140	0.266		.480	+ 0.26	0.20	
201	.548	-0.324	0.253		.546	- 2.06	0.34	
202	.552	-0.273	-0.270		.554	- 2.18	-0.40	
	Mean.. 19.512	-0.733	-0.260	(2.4)	Mean.. 19.512	- 0.78	-0.30	(2.4)
203	Dec. 20.481	-1.075	-0.288	(0.9)	Dec. 20.477	+ 0.48	-0.63	(0.9)
210	Dec. 24.470	-1.102	-0.236	(1.6)	Dec. 24.469	+ 1.35	-0.58	(1.6)
211	.473	-1.072	-0.286		.475	+ 1.05	-0.66	
	Mean.. 24.472	-1.087	-0.261	(1.6)	Mean.. 24.472	+ 1.20	-0.62	(1.6)
212	Dec. 29.484	-0.863	-0.202	(0.7)	Dec. 29.481	+ 1.44	[-1.43]	...
217	1901 Jan. 2.551	-0.061	[-0.308]	...	1901 Jan. 2.548	+ 0.63	-0.50	(0.5)
218	Jan. 3.484	-0.784	-0.236	(0.9)	Jan. 3.478	+ 2.30	-1.01	(0.9)
219	.489	-0.735	0.148	(0.8)	.492	+ 1.82	0.37	(0.8)
220	.497	-0.642	0.173	(0.4)	.495	+ 1.72	0.84	(0.4)
221	.554	-0.015	-0.163	(0.4)	.557	+ 0.82	-0.60	(0.4)
	Mean.. 3.489	-0.623	-0.186	(2.5)	Mean.. 3.498	+ 1.82	-0.71	(2.5)
222	Jan. 4.481	-0.802	-0.199	(3.1)	Jan. 4.479	+ 2.45	-0.84	(3.1)
223	.483	-0.778	0.210		.485	+ 2.21	0.96	
224	.522	-0.364	0.180		.520	+ 1.32	0.95	
225	.524	-0.338	-0.189		.526	+ 1.23	-1.14	
	Mean.. 4.502	-0.570	-0.194	(3.1)	Mean.. 4.502	+ 1.80	-0.97	(3.1)
226	Jan. 5.481	-0.788	-0.214	(0.8)	Jan. 5.478	+ 2.62	-0.93	(0.8)
227	.484	-0.752	0.204	(0.8)	.486	+ 2.33	0.91	(0.8)
228	.530	-0.260	0.202	(0.8)	.528	+ 1.39	1.33	(0.8)
229	.532	-0.238	0.157	(0.8)	.534	+ 1.32	0.91	(0.8)
230	.783	+1.769	0.217	(0.8)	.779	+12.12	1.34	(0.8)
231	.786	+1.774	-0.206	(0.8)	.789	+12.87	-0.91	(0.8)
	Mean.. 5.599	+0.251	-0.200	(4.8)	Mean.. 5.599	+ 5.44	-1.06	(4.8)
232	Jan. 8.517	-0.377	-0.163	(1.7)	Jan. 8.514	+ 2.18	-1.20	(1.7)
233	.520	-0.342	-0.172		.522	+ 2.05	-1.54	
	Mean.. 8.518	-0.360	-0.168	(1.7)	Mean.. 8.518	+ 2.12	-1.37	(1.7)

SOLAR PARALLAX FROM OBSERVATIONS OF EROS.

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Weighted Means of Parallax and Ephemeris Residuals, by Groups.

α				δ			
Berlin Mean Time.	Parallax.	O-C	Weight.	Berlin Mean Time.	Parallax.	O-C	Weight.
1900 d	s	s		1900 d	"	"	
Oct. 9.742	-0.353	-0.090	(4.2)	Oct. 9.683	+4.69	+1.23	(3.9)
10.743	-0.258	0.101	(3.9)	10.746	+3.59	1.22	(3.9)
11.946	+1.054	-0.100	(1.2)	11.801	+2.29	+1.32	(2.1)
Mean.. 10.446	-0.132	-0.096	(9.3)	Mean.. 10.551	+3.75	+1.25	(9.9)
Oct. 15.699	-0.493	-0.119	(6.1)	Oct. 15.702	+4.53	+1.55	(6.1)
16.847	+0.048	0.146	(2.6)	16.778	+3.94	1.45	(3.4)
17.934	+1.222	0.161	(0.9)	17.938	+0.87	1.28	(0.9)
18.748	-0.049	0.134	(3.9)	18.751	+4.48	1.26	(3.9)
19.956	+1.404	0.146	(2.6)	19.958	+2.44	1.01	(2.6)
20.652	-0.860	0.160	(3.6)	20.699	+3.66	1.59	(4.2)
21.552	-1.580	0.158	(2.4)	21.554	+5.44	1.60	(2.4)
22.536	-1.632	-0.161	(1.3)	22.538	+6.28	+1.76	(1.3)
Mean.. 18.636	-0.313	-0.142 +0.001= ρ	(23.4)	Mean.. 18.627	+4.12	+1.45 +0.01= ρ	(24.8)
Oct. 24.547	-1.628	-0.228	(1.9)	Oct. 24.549	+4.95	+1.42	(1.9)
26.612	-1.384	0.215	(0.9)	26.614	-0.30	0.87	(0.9)
27.545	-1.695	0.202	(1.7)	27.555	+3.62	1.66	(1.2)
29.786	+0.363	0.243	(4.0)	29.788	+4.64	1.15	(4.0)
30.572	-1.616	-0.254	(2.5)	30.575	+1.12	+0.86	(2.5)
Mean.. 28.454	-0.892	-0.234	(11.0)	Mean.. 28.500	+3.32	+1.17	(10.5)
Nov. 4.555	-1.682	-0.331	(2.2)	Nov. 4.559	+0.76	+0.84	(2.2)
5.739	+0.122	0.277	(5.1)	5.855	+4.94	0.90	(3.5)
6.531	-1.787	0.328	(1.5)	.....	.....	.....	.....
7.536	-1.712	-0.329	(1.8)	7.539	+1.54	+0.67	(1.8)
Mean.. 5.910	-0.834	-0.304	(10.6)	Mean.. 5.879	+2.90	+0.83	(7.5)
Nov. 9.690	-0.360	-0.303	(2.5)	Nov. 9.693	+3.82	+0.87	(2.5)
10.553	-1.565	-0.293	(2.1)	10.554	-0.62	+0.47	(2.1)
Mean.. 10.084	-0.910	-0.298	(4.6)	Mean.. 10.086	+1.79	+0.69	(4.6)
Nov. 12.527	-1.731	-0.318	(2.6)	Nov. 12.636	+3.16	+0.74	(3.5)
13.633	-0.681	0.328	(3.3)	13.636	+4.46	0.44	(3.3)
14.495	-1.957	0.318	(1.4)	14.498	+2.35	0.20	(1.4)
15.530	-1.639	0.293	(2.8)	15.593	+1.19	0.34	(3.3)
16.518	-1.696	0.306	(2.6)	16.520	+0.38	0.26	(2.6)
17.543	-1.464	-0.291	(1.7)	17.545	-1.81	+0.21	(1.7)
Mean.. 14.869	-1.457	-0.310	(14.4)	Mean.. 14.795	+1.96	+0.41	(15.8)
Nov. 21.524	-1.519	-0.340	(2.5)	Nov. 21.527	-1.34	+0.52	(2.5)
22.528	-1.446	-0.340	(3.4)	22.530	-1.76	-0.18	(3.4)
Mean.. 22.103	-1.477	-0.340	(5.9)	Mean.. 22.105	-1.58	+0.11	(5.9)
Nov. 27.640	-0.257	-0.275	(2.9)	Nov. 27.539	-2.90	-0.45	(2.1)
30.673	+0.240	0.274	(4.0)	30.674	+3.08	0.57	(4.0)
Dec. 1.646	-0.038	0.250	(5.0)	Dec. 1.646	+3.13	0.63	(5.0)
2.607	-0.445	-0.314	(2.6)	2.606	+3.92	-0.56	(2.6)
Mean.. 30.749	-0.078	-0.273 +0.001= ρ	(14.5)	Mean.. 30.915	+2.34	-0.57 -0.01= ρ	(13.7)

Weighted Means of Parallax and Ephemeris Residuals, by Groups—Continued.

α				δ			
Berlin Mean Time.	Parallax.	O-C.	Weight.	Berlin Mean Time.	Parallax.	O-C.	Weight.
1900 d	s	s		1900 d	"	"	
Dec. 8.623	+0.021	-0.243	(3.3)	Dec. 8.622	+0.78	-0.39	(3.3)
10.571	-0.456	0.278	(4.0)	10.570	+1.12	0.43	(4.0)
11.590	-0.335	0.301	(3.2)	11.590	+2.88	0.64	(3.2)
12.501	-1.042	0.299	(3.0)	12.501	-1.00	0.52	(3.0)
13.657	+0.420	0.276	(1.6)	13.658	+5.69	0.62	(1.6)
14.637	+0.281	0.276	(4.6)	14.637	+3.86	0.96	(4.6)
15.497	-1.004	0.264	(2.6)	15.496	-0.44	0.89	(2.6)
16.628	+0.146	-0.286	(2.4)	16.627	+4.31	-0.69	(2.4)
Mean.. 12.741	-0.253	-0.278 -0.001= ρ	(24.7)	Mean.. 12.741	+1.99	-0.65 -0.01= ρ	(24.7)
Dec. 18.509	-0.801	-0.247	(2.9)	Dec. 18.509	-0.79	-0.63	(2.9)
19.512	-0.733	0.260	(2.4)	19.512	-0.78	0.30	(2.4)
20.481	-1.075	0.288	(0.9)	20.477	+0.48	0.63	(0.9)
24.472	-1.087	-0.261	(1.6)	24.472	+1.20	-0.62	(1.6)
Mean.. 20.268	-0.871	-0.259	(7.8)	Mean.. 20.268	-0.23	-0.53 +0.01= ρ	(7.8)
Dec. 29.484	-0.863	-0.202	(0.7)	.....	....	....	...
1901				1901			
Jan. ....	.....	.....	...	Jan. 2.548	+0.63	-0.50	(0.5)
3.489	-0.623	-0.186	(2.5)	3.498	+1.82	0.71	(2.5)
4.502	-0.570	0.194	(3.1)	4.502	+1.80	0.97	(3.1)
5.599	+0.251	0.200	(4.8)	5.599	+5.44	1.06	(4.8)
8.518	-0.360	-0.168	(1.7)	8.518	+2.12	-1.37	(1.7)
Mean.. 5.294	-0.226	-0.191	(12.1)	Mean.. 5.185	+3.19	-0.99	(12.6)

TABLE I.—Summary of Groups.

α				δ			
Berlin Mean Time.	Parallax.	O-C.	Weight.	Berlin Mean Time.	Parallax.	O-C.	Weight.
1900 d	s	s		1900 d	"	"	
Oct. 10.446	-0.130	-0.096	(9.3)	Oct. 10.551	+3.75	+1.25	(9.9)
18.636	-0.313	-0.141	(23.4)	18.627	+4.12	+1.46	(24.8)
28.454	-0.892	-0.234	(11.0)	28.500	+3.32	+1.17	(10.5)
Nov. 5.910	-0.834	-0.304	(10.6)	Nov. 5.879	+2.90	+0.83	(7.5)
10.115	-1.638	-0.300	(3.7)	10.086	+1.79	+0.69	(4.6)
14.869	-1.457	-0.310*	(14.4)	14.795	+1.96	+0.41*	(15.8)
22.103	-1.477	-0.340	(5.9)	22.105	-1.58	+0.11	(5.9)
30.749	-0.078	-0.272	(14.5)	30.915	+2.34	-0.58	(13.7)
Dec. 12.741	-0.253	-0.279	(24.7)	Dec. 12.741	+1.99	-0.66	(24.7)
20.268	-0.871	-0.259	(7.8)	20.268	-0.23	-0.52	(7.8)
29.484	-0.863	-0.202	(0.7)	1901			
1901				Jan. 5.185	+3.19	-0.99	(12.6)
Jan. 5.294	-0.226	-0.191	(12.1)				

* Ephemeris changed from A to B.

TABLE II.—*Corrections to the Ephemeris.*

α				δ			
Ephemeris A.		Ephemeris B.		Ephemeris A.		Ephemeris B.	
Berlin Mean Time.	Eph. Corr.	Berlin Mean Time.	Eph. Corr.	Berlin Mean Time.	Eph. Corr.	Berlin Mean Time.	Eph. Corr.
1900 d	s	1900 d	s	1900 d	"	1900 d	"
Oct. 8.0	-0.084	Nov. 22.0	-0.341	Oct. 8.0	+1.24	Nov. 22.0	+0.14
11.0	-0.099	25.0	-0.310	11.0	+1.26	25.0	-0.29
14.0	-0.114	28.0	-0.288	14.0	+1.33	28.0	-0.46
17.0	-0.131	Dec. 1.0	-0.276	17.0	+1.39	Dec. 1.0	-0.58
20.0	-0.152	4.0	-0.273	20.0	+1.39	4.0	-0.65
23.0	-0.180	7.0	-0.274	23.0	+1.34	7.0	-0.68
26.0	-0.210	10.0	-0.276	26.0	+1.25	10.0	-0.68
29.0	-0.240	13.0	-0.275	29.0	+1.14	13.0	-0.65
Nov. 1.0	-0.266	16.0	-0.272	Nov. 1.0	+1.02	16.0	-0.59
4.0	-0.286	19.0	-0.264	4.0	+0.90	19.0	-0.54
7.0	-0.300	22.0	-0.255	7.0	+0.79	22.0	-0.53
10.0	-0.307	25.0	-0.243	10.0	+0.67	25.0	-0.57
13.0	-0.310	28.0	-0.230	13.0	+0.52	28.0	-0.65
16.0	-0.310	31.0	-0.216	16.0	+0.31	31.0	-0.76
		1901				1901	
19.0	-0.309	Jan. 3.0	-0.201	19.0	+0.06	Jan. 3.0	-0.88
22.0	-0.305	6.0	-0.186	22.0	-0.16	6.0	-1.03
		9.0	-0.172			9.0	-1.18

A determination of the solar parallax may now be undertaken. The material for this purpose is printed below, as much depends upon the selection of this matter, and it is important to know which observations were used and which rejected. The number of the observation, date, parallax, and ephemeris residual (O-C), together with the weight of the observed place of the asteroid, are given for each observation: A brace is placed after those residuals which depend upon a single comparison star.

The solar parallax was computed by means of the following formula:

$$\pi = 8''.800 - 8''.800 \frac{C_2 - C_1 - s(t_2 - t_1)}{P_2 - P_1},$$

where

C_1, C_2 = the means of the ephemeris residuals from the observations, evening and morning, respectively.

P_1, P_2 = the means of the corresponding parallaxes for the observations, evening and morning, respectively.

t_1, t_2 = the means of the times of the observations, evening and morning, respectively.

s = the daily change of the ephemeris correction, = the slope of the smooth curve, the coordinates of which are given in Table II.

No material error is introduced by taking the mean of the parallaxes, since there was never a great range among the individual values of P_1 and P_2 .

The formulæ used for computing the weight of a determination of π are as follows:

$$w_\pi = \frac{15^2 \cos^2 \delta (P_2 - P_1)^2}{8.80^2} \times \frac{w_1 w_2}{w_1 + w_2}, \text{ for right ascensions,}$$

$$w_\pi = \frac{(P_2 - P_1)^2}{8.80^2} \times \frac{w_1 w_2}{w_1 + w_2}, \text{ for declinations,}$$

where

w_π = the weight of a determination of π .

w_1, w_2 = the weights of the mean ephemeris residuals, for the evening and morning observations, respectively.

The items for the computation of π are given in Tables III and IV. The quantities given in the column of weights, which follows immediately after that headed $(C_2 - C_1)$ in these tables, are the values of $\frac{w_1 w_2}{w_1 + w_2}$, and apply to the quantities $(C_2 - C_1)$. The probable error of π was computed from the weight by means of the formula

$$r = 0.674 \frac{0''.26}{\sqrt{w_\pi}}.$$

In several cases the value found for $\Delta\pi$ is out by an unreasonable amount, and it was decided, somewhat arbitrarily, to reject those determinations where the mean of the ephemeris residuals, C_2 and C_1 , differ by more than a half second of arc. There are three such cases in right ascension and two in declination. They are marked with an asterisk in the tables.

However, the value of π was deduced in two ways: First, retaining all the determinations of $\Delta\pi$ and, second, rejecting those values which are marked with an asterisk. The latter should be considered the value of π determined from the Washington Observations in their present state. Combining the determination in right ascension with that in declination we obtain

$$\Delta\pi = +0''.008 \quad \text{Weight} = (199.7)$$

or

$$\pi = 8''.808 \pm 0''.0125$$

Observations used in the Determination of the Solar Parallax from Right Ascensions of Eros.

No.	Berlin Mean Time.	Parallax.	O-C	Weight.	No.	Berlin Mean Time.	Parallax.	O-C	Weight.
	1900 d	s	s			1900 d	s	s	
1	Oct. 9.563	-1.315	-0.097	(0.9)	22	Oct. 15.942	+1.182	-0.135	(0.5)
3	.608	-1.266	0.076	(0.8)	23	.954	+1.250	0.093	(0.8)
4	.614	-1.250	-0.080	(0.9)	24	.969	+1.319	-0.136	(0.8)
	Mean. 9.594	-1.2774	-0.0847	(2.6)		Mean. 15.957	+1.2601	-0.1194	(2.1)
5	Oct. 9.979	+1.121	-0.098	(0.8)	26	Oct. 16.566	-1.476	-0.170	(0.4)
6	.987	+1.176	-0.100	(0.8)	27	.608	-1.365	-0.140	(0.4)
	Mean. 9.983	+1.1485	-0.0990	(1.6)		Mean. 16.587	-1.4205	-0.1550	(0.8)
7	Oct. 10.552	-1.337	-0.077	(0.7)	28	Oct. 16.957	+1.300	-0.138	(0.9)
8	.568	-1.338	0.082	(0.7)	29	.968	+1.352	-0.145	(0.9)
9	.599	-1.300	-0.087	(0.7)		Mean. 16.962	+1.3260	-0.1415	(1.8)
	Mean. 10.573	-1.3250	-0.0820	(2.1)					
10	Oct. 10.930	+0.927	-0.098	(0.6)	35	Oct. 18.514	-1.531	-0.182	(0.9)
11	.940	+0.985	0.121	(0.6)	36	.522	-1.540	0.124	(0.5)
12	.952	+1.050	-0.149	(0.6)	37	.589	-1.454	-0.103	(0.5)
	Mean. 10.941	+0.9873	-0.1227	(1.8)		Mean. 18.536	-1.5131	-0.1459	(1.9)
17	Oct. 15.527	-1.456	-0.134	(0.8)	33	Oct. 17.934	+1.222	-0.161	(0.9)
18	.532	-1.461	0.105	(0.8)	38	18.929	+1.230	0.076	(0.5)
19	.539	-1.465	0.139	(0.8)	39	.939	+1.290	0.123	(0.5)
20	.607	-1.356	0.137	(0.8)	40	.962	+1.404	0.191	(0.5)
21	.615	-1.328	-0.076	(0.8)	41	.972	+1.441	-0.103	(0.5)
	Mean. 15.564	-1.4132	-0.1182	(4.0)		Mean. 18.635	+1.3042	-0.1350	(2.9)

Observations used in the Determination of the Solar Parallax from Right Ascensions of Eros—Cont'd.

No.	Berlin Mean Time.	Parallax.	O-C	Weight.	No.	Berlin Mean Time.	Parallax.	O-C	Weight.
45	1900 d Oct. 19.929	s +1.275	s -0.121	(0.9)	136	1900 d Nov. 30.482	s -1.660	s -0.220	(0.5)
46	.963	+1.446	0.161	(0.9)	137	.487	-1.613	-0.256	(0.9)
47	.975	+1.491	0.157	(0.9)		Mean. 30.485	-1.6298	-0.2431	(1.4)
52	20.934	+1.348	-0.122	(0.8)					
	Mean. 20.179	+1.3912	-0.1408	(3.5)	140	Nov. 30.874	+2.173	-0.319	(0.8)
48	Oct. 20.503	-1.579	-0.173	(0.7)	141	.886	+2.161	-0.300	(0.8)
49	.586	-1.496	0.178	(0.7)		Mean. 30.880	+2.1670	-0.3095	(1.6)
50	.593	-1.469	0.179	(0.7)					
51	.605	-1.417	-0.156	(0.7)	142	Dec. 1.478	-1.658	-0.213	(0.9)
	Mean. 20.572	-1.4902	-0.1715	(2.8)	143	.486	-1.589	-0.227	(0.9)
68	Oct. 29.519	-1.818	-0.208	(0.8)		Mean. 1.482	-1.6235	-0.2200	(1.8)
69	.552	-1.717	0.268	(0.8)	146	Dec. 1.875	+2.164	-0.290	(0.9)
74	30.558	-1.699	0.246	(0.9)	147	.884	+2.153	-0.288	(0.9)
76	.592	-1.493	0.265	(0.9)		Mean. 1.880	+2.1585	-0.2890	(1.8)
75	.564	-1.666	-0.252	(0.7)					
	Mean. 30.167	-1.6749	-0.2481	(4.1)	148	Dec. 2.473	-1.669	-0.326	(0.6)
71	Oct. 29.928	+1.701	-0.244	(0.8)	150	.490	-1.517	0.329	(0.6)
72	.961	+1.815	0.263	(0.8)	149	.483	-1.585	-0.270	(0.6)
73	.971	+1.836	-0.234	(0.8)		Mean. 2.482	-1.5903	-0.3083	(1.8)
	Mean. 29.953	+1.7840	-0.2470	(2.4)	151	Dec. 2.888	+2.133	-0.328	(0.8)
80	Nov. 5.490	-1.979	-0.319	(0.9)	152	Dec. 8.524	-0.937	-0.274	(0.8)
81	.502	-1.951	0.237	(0.8)	155	Dec. 8.848	+2.111	-0.278	(0.9)
82	.576	-1.533	0.252	(0.8)					
86	6.496	-1.976	0.316	(0.8)	156	Dec. 10.487	-1.287	-0.262	(0.8)
87	.566	-1.598	-0.341	(0.8)	157	.490	-1.260	0.320	(0.8)
	Mean. 5.915	-1.8116	-0.2936	(4.1)	158	.497	-1.183	-0.270	(0.9)
83	Nov. 5.935	+1.981	-0.261	(0.8)		Mean. 10.492	-1.2409	-0.2834	(2.5)
84	.942	+1.994	0.316	(0.9)	160	Dec. 10.838	+2.090	-0.260	(0.4)
85	.968	+2.012	-0.268	(0.9)	161	.841	+2.091	-0.270	(0.4)
	Mean. 5.949	+1.9962	-0.2825	(2.6)		Mean. 10.840	+2.0905	-0.2650	(0.8)
105	Nov. 13.483	-2.029	-0.362	(0.8)	162	Dec. 11.475	-1.385	-0.300	(0.7)
106	.488	-2.006	0.325	(0.6)	163	.477	-1.362	0.314	(0.7)
108	.553	-1.559	0.327	(0.6)	164	.485	-1.279	-0.290	(0.7)
110	14.492	-1.974	0.351	(0.9)		Mean. 11.479	-1.3420	-0.3013	(2.1)
111	.501	-1.927	-0.260	(0.5)	166	Dec. 11.869	+2.045	-0.343	(0.8)
	Mean. 13.913	-1.9124	-0.3314	(3.4)	172	Dec. 13.480	-1.276	-0.270	(0.4)
109	Nov. 13.935	+2.141	-0.274	(1.0)	174	.491	-1.156	-0.300	(0.4)
131	Nov. 27.491	-1.672	-0.300	(0.6)		Mean. 13.485	-1.2160	-0.2850	(0.8)
132	.499	-1.596	-0.281	(0.6)					
	Mean. 27.495	-1.6340	-0.2905	(1.2)					
135	Nov. 27.914	+2.134	-0.262	(0.8)					

Observations used in the Determination of the Solar Parallax from Right Ascensions of Eros—Cont'd.

No.	Berlin Mean Time.	Parallax.	O-C	Weight.	No.	Berlin Mean Time.	Parallax.	O-C	Weight.
178	1900 d Dec. 13.829	s +2.057	s -0.267	(0.8)	190	1900 d Dec. 16.473	s -1.265	s -0.258	(0.9)
180	Dec. 14.471	-1.330	-0.211	(0.9)	194	Dec. 16.855	+1.997	-0.291	(0.8)
181	.477	-1.272	0.314	(0.7)	226	1901 Jan. 5.481	-0.788	-0.214	(0.8)
186	15.463	-1.388	0.296	(0.9)	227	.484	-0.752	-0.204	(0.8)
187	.470	-1.319	-0.253	(0.9)	Mean.	5.482	-0.7700	-0.2090	(1.6)
Mean.	14.999	-1.3305	-0.2658	(3.4)	230	Jan. 5.783	+1.769	-0.217	(0.8)
184	Dec. 14.828	+2.047	-0.316	(0.9)	231	.786	+1.774	-0.206	(0.8)
185	.832	+2.047	-0.264	(0.9)	Mean.	5.785	+1.7715	-0.2115	(1.6)
Mean.	14.830	+2.0470	-0.2900	(1.8)					

TABLE III.—Determination of the Solar Parallax from Right Ascensions of Eros.

Berlin Mean Time.	P_2-P_1	C_2-C_1	Weight.	t_2-t_1	s	$\Delta\pi$	Weight.
1900 d	s	s		d	s	"	
Oct. 9.8	+2.426	-0.0143	(1.0)	+0.39	-0.0050	+0.045	(7.6)
10.8	+2.312	-0.0407	(1.0)	+0.37	-0.0052	+0.148	(6.9)
15.8	+2.673	-0.0012	(1.4)	+0.39	-0.0059	-0.004	(12.1)
16.8	+2.746	+0.0135	(0.6)	+0.37	-0.0062	-0.051	(5.4)
18.6	+2.817	+0.0109	(1.1)	+0.10	-0.0074	-0.036	(10.2)
20.4	+2.881	+0.0307	(1.6)	-0.39	-0.0084	-0.084	(14.9)
30.1	+3.459	+0.0011	(1.5)	-0.21	-0.0093	+0.002	(18.3)
Nov. 5.9	+3.808	+0.0111	(1.6)	+0.03	-0.0045	-0.026	(23.2)
13.9	+4.053	+0.0574*	(0.8)	+0.02	0.0000	-0.125*	(13.1)
27.7	+3.768	+0.0285	(0.5)	+0.42	+0.0060	-0.061	(8.0)
30.7	+3.797	-0.0664*	(0.7)	+0.40	+0.0029	+0.156*	(11.8)
Dec. 1.7	+3.782	-0.0690*	(0.9)	+0.40	+0.0020	+0.162*	(15.3)
2.7	+3.723	-0.0197	(0.6)	+0.41	+0.0006	+0.047	(10.1)
8.7	+3.048	-0.0040	(0.4)	+0.32	-0.0005	+0.011	(4.8)
10.7	+3.331	+0.0184	(0.7)	+0.35	-0.0003	-0.049	(10.4)
11.7	+3.387	-0.0417	(0.6)	+0.39	+0.0002	+0.108	(9.5)
13.7	+3.273	+0.0180	(0.4)	+0.34	+0.0011	-0.047	(6.0)
14.9	+3.378	-0.0242	(1.2)	-0.17	+0.0014	+0.062	(19.8)
16.7	+3.262	-0.0330	(0.4)	+0.38	+0.0019	+0.091	(6.2)
1901 Jan. 5.6	+2.542	-0.0025	(0.8)	+0.30	+0.0050	+0.014	(9.8)

Retaining all determinations,

$$\begin{aligned} \text{Mean } \Delta\pi &= +0''.017 & \text{Weight} &= (223.4) \\ \pi &= 8''.817 \pm 0''.0116, \text{ r deduced from weight,} \\ & \pm 0''.0127, \text{ r from intercomparison of } \Delta\pi\text{'s.} \end{aligned}$$

Rejecting those determinations where C_2-C_1 is greater than $0''.05$, marked by asterisks,

$$\begin{aligned} \text{Mean } \Delta\pi &= +0''.006 & \text{Weight} &= (183.2) \\ \pi &= 8''.806 \pm 0''.0129, \text{ r deduced from weight,} \\ & \pm 0''.0102, \text{ r from intercomparison of } \Delta\pi\text{'s.} \end{aligned}$$

Observations used in the Determination of the Solar Parallax from Declinations of Eros.

No.	Berlin Mean Time.	Parallax.	O-C	Weight.	No.	Berlin Mean Time.	Parallax.	O-C	Weight.
102	1900 d Nov. 12.584	" - 3.40	" +1.14	(0.9)	155	1900 d Dec. 8.846	" +11.45	" -0.27	(0.9)
103	Nov. 12.949	+10.15	+0.53	(0.9)	156	Dec. 10.485	- 0.57	-0.93	(0.8)
115	Nov. 15.571	- 3.32	+0.14	(0.8)	157	.492	- 1.00	0.64	(0.8)
116	.576	- 3.60	+0.62	(0.9)	158	.494	- 1.13	0.04	(0.8)
	Mean. 15.574	- 3.47	+0.39	(1.7)	159	.540	- 3.18	-0.17	(0.8)
117	Nov. 15.934	+10.11	+0.40	(0.5)		Mean. 10.503	- 1.47	-0.445	(3.2)
138	Nov. 30.583	- 5.08	-0.20	(0.5)	160	Dec. 10.835	+11.07	-0.20	(0.4)
139	.586	- 5.13	-0.76	(0.9)	161	.844	+11.93	-0.50	(0.4)
	Mean. 30.585	- 5.11	-0.560	(1.4)		Mean. 10.840	+11.50	-0.350	(0.8)
140	Nov. 30.877	+11.44	-0.52	(0.8)	165	Dec. 11.555	- 3.45	-0.61	(0.9)
141	.883	+12.05	-0.94	(0.8)	166	Dec. 11.867	+14.40	-1.12	(0.8)
	Mean. 30.880	+11.745	-0.730	(1.6)	172	Dec. 13.477	- 0.03	-0.50	(0.4)
144	Dec. 1.543	- 3.72	-0.62	(0.9)	174	.489	- 0.69	-0.70	(0.4)
145	.550	- 3.98	-0.71	(0.9)		Mean. 13.483	- 0.36	-0.600	(0.8)
	Mean. 1.546	- 3.850	-0.665	(1.8)	178	Dec. 13.832	+11.74	-0.65	(0.8)
146	Dec. 1.879	+11.98	-0.78	(0.9)	182	Dec. 14.547	- 2.87	-0.68	(0.7)
147	.881	+12.26	-0.11	(0.9)	183	.556	- 3.04	-0.62	(0.9)
	Mean. 1.880	+12.120	-0.445	(1.8)		Mean. 14.552	- 2.966	-0.646	(1.6)
148	Dec. 2.476	+ 0.39	-0.63	(0.6)	184	Dec. 14.826	+11.44	-1.05	(1.0)
150	.487	- 0.50	0.49	(0.6)	193	Dec. 16.570	- 2.86	-0.41	(0.7)
149	.485	- 0.32	-0.16	(0.6)	194	Dec. 16.854	+14.70	-0.55	(0.8)
	Mean. 2.483	- 0.143	-0.427	(1.8)	228	1901 Jan. 5.528	+ 1.39	-1.33	(0.9)
151	Dec. 2.885	+13.06	-0.87	(0.8)	229	.534	+ 1.32	-0.91	(0.8)
152	Dec. 8.526	- 2.81	-0.59	(0.8)		Mean. 5.531	+ 1.357	-1.132	(1.7)
153	.529	- 2.94	0.35	(0.8)	230	Jan. 5.779	+12.12	-1.34	(0.8)
154	.561	- 3.93	-0.38	(0.8)	231	.789	+12.87	-0.91	(0.8)
	Mean. 8.539	- 3.227	-0.440	(2.4)		Mean. 5.784	+12.495	-1.125	(1.6)

TABLE IV.—*Determination of the Solar Parallax from Declinations of Eros.*

Berlin Mean Time.	$P_2 - P_1$	$C_2 - C_1$	Weight.	$t_2 - t_1$	s	$\Delta\pi$	Weight.
1900 d	"	"		d	"	"	
Nov. 12.8	+13.55	-0.610*	(0.4)	+0.36	-0.054	+0.383*	(0.9)
15.8	+13.58	+0.010	(0.4)	+0.36	-0.074	-0.024	(0.9)
30.7	+16.85	-0.170	(0.7)	+0.30	-0.029	+0.084	(2.6)
Dec. 1.7	+15.97	+0.220	(0.9)	+0.33	-0.028	-0.126	(3.0)
2.7	+13.20	-0.443	(0.6)	+0.40	-0.023	+0.289	(1.4)
8.7	+14.68	+0.170	(0.7)	+0.31	0.000	-0.102	(2.0)
10.7	+12.97	+0.095	(0.6)	+0.34	+0.008	-0.062	(1.3)
11.7	+17.85	-0.510*	(0.4)	+0.31	+0.012	+0.253*	(1.6)
13.7	+12.10	-0.050	(0.4)	+0.35	+0.020	+0.041	(0.8)
14.7	+14.41	-0.404	(0.6)	+0.27	+0.020	+0.250	(1.6)
16.7	+17.56	-0.140	(0.4)	+0.28	+0.017	+0.072	(1.6)
1901							
Jan. 5.7	+11.14	+0.007	(0.8)	+0.25	-0.048	-0.015	(1.3)

Retaining all determinations,

$$\text{Mean } \Delta\pi = +0''.064$$

$$\text{Weight} = (19.0)$$

$$\pi = 8''.864 \pm 0''.0401, \text{ r deduced from weight,}$$

$$\pm 0''.0321, \text{ r from intercomparison of } \Delta\pi\text{'s.}$$

Rejecting those determinations where $C_2 - C_1$ is greater than $0''.5$, marked by asterisks,

$$\text{Mean } \Delta\pi = +0''.029$$

$$\text{Weight} = (16.5)$$

$$\pi = 8''.829 \pm 0''.0431, \text{ r deduced from weight,}$$

$$\pm 0''.0306, \text{ r from intercomparison of } \Delta\pi\text{'s.}$$