

1906	Wash. M. T.	$\Delta\alpha$	$\Delta\delta$	Cp.	Obs.	$\alpha$ app.	$\log p.\Delta$	$\delta$ app.	$\log p.\Delta$	Red. ad l. app.	*
June 30	10 <sup>h</sup> 15 <sup>m</sup> 53 <sup>s</sup>	+4 <sup>m</sup> 1 <sup>s</sup> .02	+ 6' 47".4	25,5	F	17 <sup>h</sup> 30 <sup>m</sup> 45 <sup>s</sup> .29	8.925 <sub>n</sub>	-10° 16' 8".1	0.820	+2.17 +6.2	12
July 12	11 35 57	-2 23.45	- 6 9.2	30,6	»	17 22 13.75	9.270	-11 10 12.7	0.820	+2.20 +6.6	13
13	10 56 15	-4 16.28	+ 1 19.0	5,1	H	17 21 40.33	9.075	-11 15 11.0	0.825	+2.20 +6.7	14
15	11 26 57	-1 5.26	+ 9 58.5	33,7	»	17 20 34.63	9.290	-11 25 35.5	0.821	+2.19 +6.6	15
19	12 16 17	+2 32.26	+ 3 42.4	25,5	F	17 18 41.57	9.490	-11 47 23.0	0.808	+2.17 +6.5	16
21	12 29 22	+1 55.59	- 1 1.2	30,6	»	17 17 54.57	9.533	-11 58 31.7	0.803	+2.16 +6.4	17
21	12 57 10	+3 57.12	- 5 33.9	25,5	»	17 17 54.11	9.577	-11 58 38.8	0.794	+2.15 +6.4	18
24	12 42 41	+1 17.47	+ 3 54.7	19,4	»	17 16 56.38	9.575	-12 15 43.0	0.795	+2.15 +6.4	19
26	11 31 43	+0 47.63	- 7 32.1	25,6	»	17 16 26.53	9.457	-12 27 9.8	0.815	+2.14 +6.4	19
26	11 31 43	-1 10.21	- 8 37.8	25,6	»	17 16 26.61	9.457	-12 27 9.1	0.815	+2.14 +6.5	20

Estimated magnitudes: 12.6 on July 12, 13.0 on July 15, 13.0 on July 19.

Observer: H = *F. C. Hammond*, F = *M. Frederickson*.

#### Mean places of the comparison stars.

*	$\alpha$ 1906.0	$\delta$ 1906.0	Authority	*	$\alpha$ 1906.0	$\delta$ 1906.0	Authority
1	13 <sup>h</sup> 56 <sup>m</sup> 6 <sup>s</sup> .23	-14° 24' 12".6	AG. Washington	11	17 <sup>h</sup> 31 <sup>m</sup> 11 <sup>s</sup> .41	- 9° 44' 4".4	AG. Ottakr. 5952
2	13 55 23.35	-14 29 44.4	» »	12	17 26 42.10	-10 23 10.1	Paris 22274
3	13 57 28.60	-15 26 17.5	» »	13	17 24 35.00	-11 4 10.7	» 22209
4	13 59 10.02	-15 35 29.6	» »	14	17 25 54.41	-11 16 36.7	AG. Harvard
5	14 0 6.59	-15 53 8.4	» »	15	17 21 37.70	-11 35 40.6	» »
6	13 59 28.32	-16 33 46.4	» »	16	17 16 7.14	-11 51 11.9	» »
7	14 6 5.32	-16 34 50.8	» »	17	17 15 56.82	-11 57 36.9	» »
8	17 38 57.11	- 9 46 7.9	AG. Ottakr. 5982	18	17 13 54.84	-11 53 11.3	» »
9	17 39 57.09	- 9 46 30.2	» » 5990	19	17 15 36.76	-12 19 44.1	» »
10	17 31 32.06	- 9 46 23.0	» » 5954	20	17 17 34.68	-12 18 37.8	» »

The star places from the AG. Harvard Zones were furnished through the courtesy of the Director of the Observatory at that place.

#### Osservazioni di pianetini.

1906	T.m. Roma	$\Delta\alpha$	$\Delta\delta$	Cf.	Oss.	$\alpha$ app.	$\log p.\Delta$	$\delta$ app.	$\log p.\Delta$	Red. ad l. app.
------	-----------	----------------	----------------	-----	------	---------------	-----------------	---------------	-----------------	-----------------

(408) Fama. Gr. 12<sup>m</sup>3.

Ott. 12	6 <sup>h</sup> 47 <sup>m</sup> 4 <sup>s</sup>	-0 <sup>m</sup> 55 <sup>s</sup> .90	-6' 22".1	10,3	M	23 <sup>h</sup> 38 <sup>m</sup> 17 <sup>s</sup> .40	9.549 <sub>n</sub>	+11° 35' 56".5	0.692	+2.72 +19.4
12	7 10 4	-0 56.58	-6 27.3	20,2	Z	23 38 16.81	9.511 <sub>n</sub>	+11 35 51.3	0.683	+2.72 +19.4

Stella di confronto (1906.0): 23<sup>h</sup> 39<sup>m</sup> 10<sup>s</sup>.67 +11° 41' 59".2 AG. Leipzig I 9415

(24) Themis.	Ott. 20	10 <sup>h</sup> 53 <sup>m</sup> 6 <sup>s</sup>	Roma	1 <sup>h</sup> 19 <sup>m</sup> 19 <sup>s</sup> .41	(8.435 <sub>n</sub> )	+ 8° 5' 55".6	(0.328)	Gr. 11 <sup>m</sup> 2	Z
(385) Ilmatar.	Ott. 21	9 48 36	»	1 1 57.35	(9.181 <sub>n</sub> )	+20 7 59.0	(0.526)	Gr. 11.6	Z
(470) Kilia.	Ott. 12	10 42 57	»	1 41 37.07	(9.253 <sub>n</sub> )	+ 4 23 14.4	(0.730)	Gr. 12.2	M
1906 VY.	Ott. 21	11 20 52	»	2 29 27.56	(9.131 <sub>n</sub> )	+10 50 58.5	(0.659)	Gr. 13.0	M

M = *E. Millosevich*, Z = *G. Zappa*.

Roma, Osservatorio al Coll. Romano, 1906 Ott. 22.

*E. Millosevich*.

#### Beobachtungen von kleinen Planeten.

Planet	1906	M. Z. Wien	Gr.	$\alpha$ app.	$\log p.\Delta$	$\delta$ app.	$\log p.\Delta$
(279) Thule	Okt. 23	15 <sup>h</sup> 39 <sup>m</sup> 16 <sup>s</sup>	13.0	2 <sup>h</sup> 16 <sup>m</sup> 32 <sup>s</sup> .18	9.500	+11° 36' 8".4	0.755
(422) Berolina	» 17	14 13 26	12.0	1 59 39.13	9.296	+15 59 30.6	0.687
(501) Urhixidur	» 11	8 47 8	—	22 4 47.41	6.680	-20 1 32.0	0.911
(507) Laodica	» 12	11 1 44	12.2	23 24 58.81	9.006	+10 35 54.2	0.731

Planet	1906	M. Z. Wien	Gr.	$\alpha$ app.	$\log p \cdot \Delta$	$\delta$ app.	$\log p \cdot \Delta$
1906 VB	Okt. 18	12 <sup>h</sup> 51 <sup>m</sup> 14 <sup>s</sup>	—	0 <sup>h</sup> 6 <sup>m</sup> 2 <sup>s</sup> 20	9.397	+15° 52' 3" 3	0.701
1906 VC	» 14	11 54 40	13.0	23 55 39.86	9.188	+15 31 27.7	0.685
»	» 17	11 24 32	13.0	23 53 40.04	9.104	+15 13 12.2	0.685
»	» 23	12 38 38	—	23 50 4.79	9.448	+14 35 53.2	0.869
1906 VD	» 14	13 43 45	13.5	0 8 2.57	9.472	+16 39 34.0	0.708
»	» 18	13 11 1	—	0 5 21.37	9.444	+16 17 27.0	0.705
»	» 23	13 6 25	—	0 2 22.73	9.478	+15 48 51.7	0.717
1906 VF	» 10	11 32 34	—	0 38 38.66	8.245	+ 1 19 37.8	0.806
»	» 13	14 9 37	—	0 36 27.24	9.442	+ 1 2 40.5	0.811
1906 VG	» 13	13 12 7	—	0 39 32.20	9.289	+ 2 12 24.2	0.802
1906 VH	» 10	11 19 27	—	0 44 53.62	8.276 <sub>n</sub>	+ 0 52 36.9	0.809
»	» 13	12 27 22	—	0 42 45.90	9.077	+ 0 36 36.8	0.811
1906 VK	» 17	11 42 20	—	0 28 45.68	8.974	+ 0 1 34.3	0.815
1906 VL	» 17	12 8 21	12.0	1 7 48.01	8.861	+ 3 36 37.4	0.789
1906 VM	» 17	11 56 23	12.7	0 47 31.94	8.937	+ 3 21 38.9	0.794
1906 VN	» 11	13 16 36	13.0	23 31 30.31	9.456	+ 9 41 9.2	0.760
»	» 12	11 39 39	—	23 31 12.60	9.185	+ 9 27 28.3	0.744
»	» 17	9 38 25	—	23 29 58.87	8.230	+ 8 16 41.5	0.750
»	» 23	7 18 55	—	23 29 13.25	9.311 <sub>n</sub>	+ 6 56 56.8	0.770
1906 VP	» 14	14 56 3	12.8	1 52 15.61	9.411	+18 28 5.3	0.672
1906 VQ	» 14	14 33 54	13.2	1 59 46.18	9.321	+14 20 9.4	0.707
»	» 17	13 32 11	13.0	1 57 26.42	9.124	+13 58 3.0	0.699
1906 VR	» 17	13 45 9	13.0	2 2 1.23	9.167	+13 39 41.5	0.703
1906 VS	» 14	15 44 50	12.9	2 5 56.31	9.485	+18 55 28.2	0.690
1906 VT	» 25	15 10 2	12.7	0 55 28.68	9.581	+18 57 38.3	0.736
1906 VV	» 23	14 20 11	14.0	2 1 21.07	9.343	+ 9 1 35.2	0.859
1906 VW	» 23	15 14 47	13.5	2 15 22.43	9.462	+11 56 51.2	0.745
1906 VX	» 23	14 41 52	13.2	2 18 25.88	9.385	+11 18 7.7	0.852
1906 VZ	» 25	13 14 27	12.5	1 50 42.39	9.224	-15 14 10.1	0.887
1906 WA	» 25	14 28 38	12.8	2 35 4.47	9.321	+ 9 12 45.8	0.753

Wien, k. k. Sternwarte, 1906 Okt. 29.

J. Palisa.

## Provisional elements of (600) [1906 UM].

By J. C. Hammond and M. Frederickson.

(Communicated by Rear-Admiral Asa Walker, U. S. N., Superintendent U. S. Naval Observatory.)

From the observations of 1906 June 22, June 30, July 12 and July 26, made at Washington, the following provisional elements have been computed.

1906 June 22.5 Berlin Mean Time.

$$\left. \begin{aligned} M &= 12^{\circ} 41' 3''.5 \\ \pi &= 252 17 23.4 \\ \Omega &= 139 34 54.6 \\ i &= 10 11 20.0 \\ \varphi &= 3 8 12.2 \\ \mu &= 817''198 \\ \log a &= 0.425120 \\ m_0 &= 13.0 \quad g = 9.8 \end{aligned} \right\} 1906.0$$

The observations, made at Washington, give the following corrections to an ephemeris, computed from these elements,

1906	O-C		1906	O-C	
	$\alpha$	$\delta$		$\alpha$	$\delta$
June 22	-0 <sup>s</sup> 01	+0 <sup>h</sup> 3	July 15	+0 <sup>s</sup> 13	+1 <sup>h</sup> 0
22	0.00	+1.3	19	+0.14	-0.5
24	-0.02	+1.9	21	+0.07	+3.5
25	-0.19	+1.0	21	+0.06	+2.9
30	+0.01	-0.6	24	+0.10	+3.8
July 12	+0.03	-1.3	26	0.00	-0.6
13	+0.16	-3.5	26	+0.08	+0.1

Inhalt zu Nr. 4129. H. Ludendorff. Untersuchungen über die Spektren der Sterne R Coronae borealis, 12 Canum venaticorum und 72 Ophiuchi. 1. — G. Gori. Osservazioni di piccoli pianeti. 7. — P. Tsutshashi, S. J. Ephéméride de la planète (461) Saskia. 9. — P. Tsutshashi, S. J. Ephéméride de la planète (495) Eulalia. 11. — G. H. Peters. Planet (536) Merapi. 11. — J. C. Hammond and M. Frederickson. Observations of minor planets. 11. — E. Millosevich. Osservazioni di pianetini. 13. — J. Palisa. Beobachtungen von kleinen Planeten. 13. — J. C. Hammond and M. Frederickson. Provisional elements of (600) [1906 UM]. 15.