

*	α 1903.0	δ 1903.0	Autorität	*	α 1903.0	δ 1903.0	Autorität
12	22 ^h 55 ^m 46 ^s 39	+ 2° 29' 37".6	AG. Albany 7938	21	23 ^h 14 ^m 32 ^s 82	+ 5° 21' 19".9	AG. Albany 8047
13	22 59 8.05	+ 2 46 19.2	» » 7960	22	21 49 43.79	— 2 11 21.1	Schj. 8912
14	22 59 21.96	+ 3 1 15.8	» » 7961	23	21 41 56.39	+ 0 24 14.9	AG. Nicol. 5510
15	23 2 43.19	+ 3 13 21.2	» » 7979	24	21 37 27.65	+ 5 28 9.0	AG. Leipz. II 10890
16	23 8 5.46	+ 4 14 50.5	» » 8011	25	19 46 44.03	+ 52 48 19.2	AG. Cambr. 6218
17	23 9 4.63	+ 4 28 9.1	» » 8021	26	14 37 1.36	+ 67 36 39.4	AG. Christiania 2182
18	23 8 56.03	+ 4 45 55.1	» » 8019	27	12 45 55.34	+ 60 57 28.3	AG. Hels.-Gotha 7329
19	23 12 11.57	+ 4 54 48.5	» » 8037	28	12 25 25.96	+ 58 56 19.3	» » » 7184
20	23 8 20.12	+ 5 12 40.2	» » 8014	29	11 15 12.41	+ 43 55 42.5	AG. Bonn 7992

Kremsmünster, 1903 Aug. 17.

P. Fr. Schwab.

Observations of Comet 1903 II (1902 d)

made by *Charles F. Ling* at Chamberlin Observatory, University Park, Colorado, U. S. A.

1903	Un. P. M. T.	$\Delta\alpha$	$\Delta\delta$	Cp.	α app.	$\log p.A$	δ app.	$\log p.A$	Red. ad l. app.	*
Jan. 16	8 ^h 49 ^m 8 ^s	+ 0 ^m 19 ^s 02	— 2' 40".4	19.8	6 ^h 51 ^m 25 ^s 42	9.481 _n	+ 8° 39' 33".7	0.678	+ 1 ^s 93 — 12".5	1
16	9 0 23	— 0 46.60	+ 5 18.2	20.8	6 51 24.97	9.460 _n	+ 8 39 40.7	0.675	+ 1.93 — 12.6	2
17	7 15 6	+ 0 18.79	— 8 49.5	20.8	6 50 45.10	9.587 _n	+ 8 58 3.5	0.695	+ 1.93 — 12.6	3
17	7 26 3	— 1 8.32	— 9 29.6	20.6	6 50 44.66	9.573 _n	+ 8 58 14.0	0.691	+ 1.93 — 12.6	4
22	9 35 31	— 0 30.20	+ 3 6.2	20.8	6 47 17.37	9.119 _n	+ 10 38 44.8	0.632	+ 1.92 — 12.7	5
22	9 50 56	— 0 37.43	— 3 25.2	20.8	6 47 16.93	9.006 _n	+ 10 38 54.6	0.631	+ 1.92 — 12.6	6
Febr. 3	8 32 46	— 1 45.65	+ 1 34.3	20.6	6 40 37.89	9.179 _n	+ 14 37 26.9	0.578	+ 1.92 — 12.4	7
3	8 41 33	— 1 51.88	+ 0 31.3	20.6	6 40 38.09	9.126 _n	+ 14 37 36.1	0.576	+ 1.92 — 12.4	8
16	7 30 37	— 1 18.15	+ 0 22.9	20.8	6 36 50.13	9.227 _n	+ 18 45 19.0	0.512	+ 1.84 — 11.3	9
16	7 40 26	+ 0 52.62	— 1 20.6	10.4	6 36 49.88	9.174 _n	+ 18 45 27.2	0.508	+ 1.84 — 11.3	10
18	9 13 27	+ 2 21.74	— 0 54.7	20.6	6 36 37.13	8.776	+ 19 22 52.5	0.483	+ 1.81 — 11.1	11
18	9 25 44	+ 0 22.29	+ 7 12.2	20.8	6 36 36.77	8.930	+ 19 23 2.1	0.475	+ 1.82 — 11.2	12
19	7 32 0	+ 2 13.22	— 5 9.9	20.6	6 36 33.27	9.154 _n	+ 19 39 30.8	0.489	+ 1.81 — 11.0	13
19	7 41 9	— 0 29.17	— 1 6.1	20.8	6 36 33.51	9.087 _n	+ 19 39 35.6	0.485	+ 1.81 — 11.1	14
Mar. 16	8 38 16	+ 2 19.66	— 5 19.2	20.6	6 43 48.13	9.279	+ 26 8 35.9	0.352	+ 1.49 — 8.6	15
16	8 52 1	— 1 13.52	+ 8 23.6	20.8	6 43 48.71	9.330	+ 26 8 44.5	0.365	+ 1.50 — 8.8	16
23	9 5 0	— 0 24.65	+ 8 0.2	20.8	6 48 46.96	9.464	+ 27 36 20.4	0.375	+ 1.41 — 8.3	17
23	9 19 11	— 3 21.35	— 9 21.4	20.6	6 48 47.01	9.498	+ 27 36 27.2	0.394	+ 1.43 — 8.2	18
27	9 25 6	— 1 20.88	— 1 46.5	20.6	6 52 9.55	9.542	+ 28 22 22.5	0.406	+ 1.34 — 7.8	19
27	9 42 45	+ 2 15.64	— 2 53.4	20.6	6 52 10.54	9.576	+ 28 22 33.4	0.435	+ 1.32 — 7.7	20
28	7 57 41	+ 2 44.69	+ 0 3.9	20.6	6 53 0.07	9.276	+ 28 32 46.8	0.277	+ 1.30 — 7.9	21
30	8 57 42	+ 2 14.78	+ 9 59.2	20.6	6 54 54.64	9.501	+ 28 54 46.7	0.362	+ 1.26 — 7.7	22
30	9 8 43	+ 2 6.10	+ 7 24.9	20.6	6 54 54.77	9.528	+ 28 54 50.0	0.382	+ 1.26 — 7.7	23
April 13	8 29 6	— 1 36.98	— 1 55.9	20.6	7 10 16.30	9.536	+ 31 5 45.9	0.328	+ 1.09 — 7.0	24
13	8 39 23	— 1 58.88	+ 5 58.1	20.6	7 10 16.98	9.560	+ 31 5 47.2	0.350	+ 1.09 — 7.1	25
14	8 22 46	+ 1 38.61	+ 13 0.3	20.5	7 11 30.67	9.531	+ 31 13 53.5	0.318	+ 1.06 — 7.0	26
14	8 33 8	— 2 43.98	+ 14 19.8	20.6	7 11 31.35	9.553	+ 31 13 57.2	0.340	+ 1.08 — 7.1	27
15	9 34 13	— 2 48.22	+ 6 19.4	20.6	7 12 50.10	9.655	+ 31 22 12.3	0.465	+ 1.07 — 7.1	28
15	9 47 9	— 2 51.11	+ 6 25.0	20.6	7 12 50.63	9.669	+ 31 22 18.6	0.491	+ 1.07 — 7.1	29
16	7 55 26	— 0 31.66	— 10 13.1	20.8	7 14 1.57	9.477	+ 31 29 29.1	0.266	+ 1.05 — 6.9	30
16	8 10 3	+ 3 57.82	— 0 10.9	20.6	7 14 2.17	9.515	+ 31 29 31.2	0.296	+ 1.04 — 7.0	31
17	9 24 1	+ 1 20.26	+ 4 58.6	20.6	7 15 23.64	9.650	+ 31 37 36.9	0.452	+ 1.04 — 7.0	32
17	9 36 11	— 2 27.81	+ 0 5.0	20.6	7 15 24.09	9.664	+ 31 37 40.6	0.477	+ 1.06 — 7.0	33
22	8 48 54	— 0 42.58	+ 2 7.3	20.8	7 22 4.92	9.623	+ 32 13 8.2	0.376	+ 0.99 — 6.7	34
22	9 11 56	+ 2 15.14	— 4 37.1	20.6	7 22 6.94	9.654	+ 32 13 20.9	0.445	+ 0.98 — 6.6	35
25	9 18 53	+ 0 58.69	+ 5 57.6	20.8	7 26 20.65	9.672	+ 32 32 58.0	0.470	+ 0.92 — 6.6	36
25	9 29 42	— 0 56.75	+ 3 20.3	20.8	7 26 21.14	9.683	+ 32 32 59.8	0.492	+ 0.91 — 6.6	37
May 14	9 24 43	+ 3 18.52	— 1 44.4	20.6	7 55 54.43	9.726	+ 34 6 42.0	0.553	+ 0.73 — 6.4	38
14	9 38 54	+ 2 57.06	— 1 16.9	20.6	7 55 55.83	9.727	+ 34 6 46.5	0.580	+ 0.73 — 6.4	39

Mean places of comparison stars.

*	α 1903.0	δ 1903.0	Authority	*	α 1903.0	δ 1903.0	Authority
1	6 ^h 51 ^m 4 ^s .47	+ 8° 42' 26".6	AG. Leipzig II 3361	21	6 ^h 50 ^m 14 ^s .08	+28° 32' 50".8	AG. Cambr. 3604
2	6 52 9.64	+ 8 34 35.1	» » » 3378	22	6 52 38.60	+28 44 55.2	» » 3633
3	6 50 24.38	+ 9 7 5.6	» » » 3348	23	6 52 47.41	+28 47 32.8	» » 3635
4	6 51 51.05	+ 9 7 56.2	» » » 3375	24	7 11 52.19	+31 7 48.8	AG. Leiden 3068
5	6 47 45.65	+10 35 51.3	AG. Leipzig I 2556	25	7 12 14.77	+30 59 56.2	» » 3070
6	6 47 52.44	+10 42 32.4	» » » 2557	26	7 9 51.00	+31 1 0.2	» » 3046
7	6 42 21.62	+14 36 5.0	» » » 2492	27	7 14 14.25	+30 59 44.5	» » 3077
8	6 42 28.05	+14 37 17.2	» » » 2493	28	7 15 37.25	+31 16 0.0	» » 3091
9	6 38 6.44	+18 45 7.4	AG. Berlin A 2348	29	7 15 40.67	+31 16 0.7	» » 3092
10	6 35 55.42	+18 46 59.1	» » » 2328	30	7 14 32.18	+31 39 49.1	» » 3080
11	6 34 13.58	+19 23 58.3	» » » 2297	31	7 11 3.31	+31 29 49.1	» » 3058
12	6 36 12.66	+19 16 1.1	» » » 2325	32	7 14 2.34	+31 32 45.3	» » 3076
13	6 34 18.24	+19 44 51.7	» » » 2298	33	7 17 50.84	+31 37 42.6	» » 3113
14	6 37 0.87	+19 40 52.8	» » » 2335	34	7 22 46.51	+32 11 7.6	» » 3148
15	6 41 26.98	+26 14 3.7	AG. Cambr. 3495	35	7 19 50.82	+32 18 4.6	» » 3127
16	6 45 0.73	+26 0 28.7	» » 3535	36	7 25 21.04	+32 32 58.0	» » 3167
17	6 49 10.20	+27 28 28.5	» » 3588	37	7 27 16.98	+32 32 59.8	» » 3178
18	6 52 6.93	+27 45 56.8	» » 3627	38	7 52 35.17	+34 8 32.8	» » 3353
19	6 53 29.09	+28 24 16.8	» » 3648	39	7 52 58.04	+34 8 9.8	» » 3354
20	6 49 53.58	+28 25 34.5	» » 3597				

Observations de la comète 1903 c

faites à l'équatorial Brunner (0.16 m) de l'observatoire de Lyon par MM. *J. Guillaume* et *G. Le Cadet*.

1903	T. m. Paris	$\Delta\alpha$	$\Delta\delta$	Cp.	Obs.	α app.	$\log p.\Delta$	δ app.	$\log p.\Delta$	Red. ad l. app.	*	
Juin	23	13 ^h 30 ^m 46 ^s	+0 ^m 15 ^s .75	— 2' 24".2	16.20	JG	21 ^h 51 ^m 6 ^s .13	9.335 _n	— 6° 24' 28".0	0.833	+2 ^s .43 +16".5	1
	23	14 30 29	+0 1.47	— 5 12.8	16.20	LC	21 51 3.93	9.073 _n	— 6 22 16.4	0.838	+2.43 +16.5	2
	25	13 3 54	—0 4.50	+ 5 41.3	16.20	JG	21 49 10.37	9.383 _n	— 4 27 46.3	0.822	+2.49 +16.4	3
	25	13 44 12	+1 24.42	+ 0 32.0	12.16	LC	21 49 8.44	9.253 _n	— 4 26 5.5	0.825	+2.50 +16.3	4
	26	13 1 26	+0 13.85	+ 4 2.2	10.16	JG	21 47 59.72	9.375 _n	— 3 21 55.3	0.816	+2.53 +16.2	5
	26	13 56 1	+0 10.92	+ 6 38.0	10.16	JG	21 47 56.79	9.179 _n	— 3 19 19.5	0.819	+2.53 +16.2	5
	27	14 35 41	+0 12.90	— 3 16.6	12.16	JG	21 46 34.39	8.864 _n	— 2 5 27.9	0.812	+2.57 +16.0	6
	30	13 24 42	+0 36.85	— 3 21.9	10.16	JG	21 41 29.16	9.220 _n	+ 2 6 10.3	0.782	+2.68 +15.5	7
	30	13 44 46	+0 35.19	— 2 1.7	10.16	LC	21 41 27.50	9.122 _n	+ 2 7 30.5	0.782	+2.68 +15.5	7
Juill.	1	13 37 9	—0 10.93	+ 1 46.1	10.16	JG	21 39 16.19	9.131 _n	+ 3 48 54.3	0.768	+2.71 +15.3	8
	1	13 53 9	—0 12.54	+ 2 57.0	10.16	LC	21 39 14.58	9.031 _n	+ 3 50 5.2	0.768	+2.71 +15.3	8
	2	12 47 59	—0 38.38	+ 8 27.5	10.16	JG	21 36 52.10	9.313 _n	+ 5 36 51.5	0.757	+2.75 +15.0	9
	2	13 2 58	—0 40.18	+ 9 37.1	10.16	LC	21 36 50.30	9.264 _n	+ 5 38 1.1	0.721	+2.75 +15.0	9
	7	11 37 28	—0 10.00	— 5 12.5	10.16	JG	21 18 14.91	9.425 _n	+18 7 22.4	0.648	+2.97 +13.5	10
	7	11 49 24	—0 12.57	— 3 37.9	10.16	LC	21 18 12.34	9.394 _n	+18 8 57.0	0.642	+2.97 +13.5	10
	10	10 11 32	+0 2.93	— 4 23.5	10.16	JG	20 58 29.55	9.566 _n	+29 2 32.2	0.559	+3.14 +12.7	11
	10	10 24 2	—0 1.67	— 2 12.9	10.16	LC	20 58 24.95	9.546 _n	+29 4 42.8	0.543	+3.14 +12.7	11
	10	11 19 52	+0 24.47	— 0 30.5	10.16	JG	20 58 4.80	9.425 _n	+29 14 38.0	0.475	+3.15 +12.7	12
	10	11 32 7	+0 19.97	+ 1 40.7	10.16	LC	20 58 0.30	9.389 _n	+29 16 49.2	0.461	+3.15 +12.7	12
	11	10 8 31	+0 46.22	— 0 58.1	10.16	JG	20 49 8.21	9.570 _n	+33 25 30.2	0.478	+3.21 +12.6	13
	11	10 23 46	+0 39.55	+ 1 55.6	10.16	LC	20 49 1.54	9.543 _n	+33 28 23.9	0.453	+3.21 +12.6	13
	13	11 18 50	+0 11.63	+ 7 42.2	10.16	JG	20 23 5.89	9.343 _n	+43 17 27.2	9.829	+3.38 +12.9	14
	15	14 58 24	—0 51.12	— 3 56.7	12.16	JG	19 39 47.07	9.693 _n	+54 1 20.5	9.177	+3.53 +14.4	15
	20	9 50 51	—1 50.64	—10 34.5	16.8	JG	16 16 23.23	9.653	+68 36 49.5	0.473 _n	+1.64 +18.9	16
20	10 13 55	—2 42.18	—10 4.3	16.8	LC	16 15 31.69	9.745	+68 37 19.7	0.432 _n	+1.64 +18.9	16	
20	12 20 11	+0 52.19	— 6 5.0	16.10	JG	16 10 45.50	0.000	+68 39 36.2	9.576 _n	+1.51 +18.8	17	
21	14 13 50	—1 49.48	— 5 40.9	16.10	JG	15 15 16.02	0.033	+68 31 8.5	0.585 _n	+0.71 +17.5	18	
24	10 39 54	+0 53.99	+ 7 39.9	16.10	JG	13 29 22	9.976	+64 35	0.272	—0.27 +11.4	19	