

Observations of Winnecke's Comet 1892 IV at Windsor, New South Wales.

By *John Tebbutt*.

Winnecke's Comet was found with the help of Dr. von Haerdlt's ephemeris on June 12, but as it could be well seen from the northern hemisphere and was unfavourably placed here no observations were then attempted. After conjunction with the Sun the comet was picked up on July 17 and was observed on all possible occasions when the weather and the moon's absence permitted till September 27. All the positions sent herewith were determined with a square bar micrometer, the $4\frac{1}{2}$ inch equatorial being employed on July 17 and the 8 inch instrument on the other dates. On looking for the comet on September 27 it could not be seen as a separate object, but a small star of the 10th magnitude was found fringed with a faint

nebulous haze. This object was doubtless the comet centrally projected on the star, and four comparisons was accordingly obtained of it with star No. 29. The resulting position agrees to a minute of arc with that given by Dr. von Haerdlt's ephemeris in Astr. Nachr. 3112. Clouds prevented further comparisons and the observation of the separation of the comet from the star.

I may add that a careful search was made here for Periodical Comet Tempel₁ on June 19 between 17^h 30^m and 18^h 50^m of RA. and 25° and 32° of South Declination, but although the sky was brilliantly clear and the moon absent no trace of the comet could be found.

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1892	Winds. M.T.	Δ RA.	Δ NPD.	Cp.	RA. app.	$\log p.\Delta$	NPD. app.	$\log p.\Delta$	Red. ad l. app.	*	
July	17	17 ^h 48 ^m 57 ^s	+0 ^m 55 ^s 54	— 2' 32".3	10	5 ^h 15 ^m 18 ^s 04	9.6095 _n	94° 56' 36".9	0.6524	—0 ^s 11 —12".1	1
	19	17 19 27	+1 58.15	+ 1 55.0	10	—	9.6200 _n	—	0.6264	—0.02 —13.6	2
	20	17 41 36	—0 37.89	+ 2 23.5	10	—	9.5739 _n	—	0.5972	+0.01 —14.3	3
	20	17 48 33	+2 42.36	+ 0 46.7	8	—	9.5619 _n	—	0.5939	+0.02 —14.4	4
	21	17 30 57	—3 17.05	+ 5 7.8	14	—	9.5760 _n	—	0.5814	+0.04 —14.9	5
	22	17 15 33	+2 53.70	— 0 36.2	12	4 39 34.06	9.5869 _n	102 40 11.1	0.5698	+0.12 —15.9	6
	23	17 48 41	+7 11.65	+ 1 51.9	5	4 33 38.50	9.5058 _n	103 54 5.5	0.5257	+0.19 —16.7	7
	24	17 26 26	—3 38.77	— 8 53.0	8	4 28 18.80	9.5366 _n	104 59 35.5	0.5182	+0.17 —17.0	8
	27	17 35 16	+0 6.79	— 7 31.2	11	4 14 2.36	9.4580 _n	107 50 23.0	0.4409	+0.34 —18.9	9
	28	16 31 47	—1 2.85	+ 0 44.9	10	—	9.5842 _n	—	0.4816	+0.38 —19.3	10
	28	16 31 47	—4 55.63	— 9 28.5	10	—	9.5842 _n	—	0.4816	+0.35 —19.3	11
	29	16 15 24	+2 1.60	— 2 38.6	10	4 6 10.03	9.6003 _n	109 22 4.6	0.4798	+0.44 —19.9	12
	29	16 15 24	+0 58.57	+ 5 17.9	10	4 6 10.19	9.6003 _n	109 22 6.5	0.4798	+0.44 —19.9	13
	29	16 57 17	+0 57.45	—10 31.4	7	4 6 3.38	9.5190 _n	109 23 21.3	0.4312	+0.44 —20.0	14
Aug.	2	16 9 18	+1 43.33	+ 2 35.1	9	3 52 22.87	9.5661 _n	111 55 32.6	0.4038	+0.64 —21.7	15
	2	16 9 18	+1 26.47	+ 1 7.6	9	3 52 23.05	9.5661 _n	111 55 31.1	0.4038	+0.64 —21.7	16
	3	15 54 24	+1 12.59	— 7 49.1	10	3 49 21.73	9.5826 _n	112 27 48.8	0.4075	+0.68 —22.1	17
	15	13 50 8	—2 27.04	— 8 24.0	12	3 19 31.69	9.6704 _n	117 12 59.9	0.4042	+1.24 —25.5	18
	23	13 57 48	+7 9.54	+ 0 13.6	8	3 1 41.85	9.5899 _n	119 19 57.8	0.2121	+1.72 —26.7	19
	23	13 57 48	—5 48.80	— 4 18.9	8	3 1 41.78	9.5899 _n	119 20 2.4	0.2121	+1.61 —26.8	20
	25	13 34 22	—2 1.44	+ 6 23.0	10	2 57 12.09	9.6128 _n	119 45 42.3	0.2297	+1.74 —26.9	21
	26	13 44 17	—1 18.35	— 9 51.3	10	2 54 53.74	9.5823 _n	119 57 52.2	0.1737	+1.80 —27.0	22
	27	13 56 2	+3 54.57	— 6 30.5	10	2 52 35.15	9.5424 _n	120 9 32.7	0.1080	+1.89 —27.0	23
	27	13 56 2	+2 31.18	— 6 54.1	10	2 52 35.26	9.5424 _n	120 9 32.5	0.1080	+1.88 —27.0	24
Sept.	16	10 0 45	+0 43.27	+ 9 52.2	10	—	9.7207 _n	—	0.3964	+2.76 —25.4	25
	16	10 0 45	—2 19.91	+ 0 59.7	10	—	9.7207 _n	—	0.3964	+2.74 —25.5	26
	17	10 36 5	—1 45.31	+ 8 43.6	10	—	9.6744 _n	—	0.2751	+2.78 —25.3	25
	17	10 36 5	—4 48.47	— 0 8.3	10	—	9.6744 _n	—	0.2751	+2.76 —25.4	26
	18	11 10 3	+2 7.38	— 1 44.2	5	—	9.6087 _n	—	0.1327	+2.84 —24.9	27
	18	11 10 3	—4 13.13	+ 6 54.6	5	—	9.6087 _n	—	0.1327	+2.80 —25.2	25
	18	11 10 3	—7 16.36	— 1 58.7	5	—	9.6087 _n	—	0.1327	+2.78 —25.3	26
	20	11 49 45	+2 34.29	+10 12.9	10	1 54 55.45	9.4790 _n	121 46 26.2	9.9195	+2.91 —24.5	28
	22	10 33 58	—1 58.05	+ 2 28.5	15	1 50 23.15	9.6279 _n	121 38 42.1	0.1814	+2.95 —24.2	28
	26	11 3 48	+2 15.77	— 0 0.2	10	1 41 20.79	9.5030 _n	121 15 46.1	9.9897	+3.07 —23.0	29
	27	11 34 5	+0 2.09	— 7 31.4	4	1 39 7.13	9.3766 _n	121 8 15.0	9.8444	+3.09 —22.9	29

Mean Places of the Comparison Stars for 1892.0.

*	RA.	NPD.	Authority	*	RA.	NPD.	Authority
1	5 ^h 14 ^m 22 ^s .61	94° 59' 21".3	Lal. 9981-2	17	3 ^h 48 ^m 8 ^s .46	112° 36' 0".0	Lal. 7217; AOe ₂ 2613
2	4 57 34	98 22	Equatorial	18	3 21 57.49	117 21 49.4	AOe ₂ 2279; Cord. Z. 46.103
3	4 52 59	99 55	Equatorial	19	2 54 30.59	119 20 10.9	AOe ₂ 1951; Quet. 1165;
4	4 49 37	99 57	Equatorial				Cord. Z. 73.116; St. 1233
5	4 49 0	101 18	Equatorial	20	3 7 28.97	119 24 48.1	Yarn. 1395; Quet. 1228;
6	4 36 40.24	102 41 3.2	Lal. 8880; Schj. 1508-9;				Cord. Z. 73.136; 10 yr.
			Arm ₂ 580				484; St. 1317
7	4 26 26.66	103 52 30.3	Lal. 8575; Schj. 1449	21	2 59 11.79	119 39 46.2	AOe ₂ 2006; Cord. Z. 73.123
8	4 31 57.40	105 8 45.5	Lal. 8745-6; AOe ₂ 3220-1	22	2 56 10.29	120 8 10.5	AOe ₂ 1970; Cord. Z. 73.120
9	4 13 55.23	107 58 13.1	Lal. 8119	23	2 48 38.69	120 16 30.2	AOe ₂ 1881; Cord. Z. 73.109
10	4 11 8	108 36	Equatorial	24	2 50 2.20	120 16 53.6	AOe ₂ 1899-1900; Cord. Z.
11	4 15 1	108 47	Equatorial				73.110
12	4 4 7.99	109 25 3.1	AOe ₂ 2842; Cinc. 579	25	2 4 0	121 45	Equatorial
13	4 5 11.18	109 17 8.5	Lal. 7815; Cinc. 584; Arm ₂	26	2 7 4	121 54	Equatorial
			516	27	1 57 40	121 55	Equatorial
14	4 5 5.49	109 34 12.7	AOe ₂ 2861; Cinc. 583	28	1 52 18.25	121 36 37.8	Cord. Z. 107.43; St. 770
15	3 50 38.90	111 53 19.2	Lal. 7298; Cinc. 542	29	1 39 1.95	121 16 9.3	Cord. Z. 107.20
16	3 50 55.94	111 54 45.2	Lal. 7311; Cinc. 543				

Private Observatory, The Peninsula, Windsor, N. S. Wales, 1892 Nov. 4.

John Tebbutt.

Beobachtungen von kleinen Planeten.

1892	M. Ortszeit	$\Delta\alpha$	$\Delta\delta$	Vgl.	α app.	$\log p.\Delta$	δ app.	$\log p.\Delta$	Red. ad l. app.	*
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Planet 1892 T, beobachtet von Prof. A. Abetti in Padua.

Dec. 25	9 ^h 26 ^m 24 ^s	+0 ^m 32 ^s .77	+ 5' 41".9	24.16	4 ^h 40 ^m 49 ^s .43	9.061 _n	+31° 29' 29".8	0.340	+4.42 +15".8	1
25	9 26 24	-1 32.55	+14 13.5	24.16	4 40 49.32	9.061 _n	+31 29 27.8	0.340	+4.42 +15.8	2
26	8 56 19	-0 16.66	+ 4 27.1	24.12	4 40 0.00	9.221 _n	+31 28 15.0	0.360	+4.42 +15.8	1
26	8 56 19	-2 21.90	+12 59.6	24.12	4 39 59.97	9.221 _n	+31 28 13.9	0.360	+4.42 +15.8	2
28	8 19 49	-1 49.78	+ 1 48.7	24.16	4 38 26.89	9.343 _n	+31 25 36.8	0.390	+4.43 +16.0	1

Planet 1892 V, beobachtet von Dr. R. Schorr in Hamburg.

Dec. 22	11 16 28	-1 13.96	+ 5 53.1	24.4	5 47 38.84	8.584 _n	+20 31 55.1	0.681	+4.25 + 8.0	3
22	11 16 28	-1 37.72	+ 4 50.7	13.4	5 47 38.67	8.584 _n	+20 31 54.8	0.681	+4.25 + 8.0	4

Mittlere Oerter der Vergleichsterne für 1892.0

*	α	δ	Autorität	*	α	δ	Autorität
1	4 ^h 40 ^m 12 ^s .24	+31° 23' 32".1	Leid. AG. Z. 150, 246	3	5 ^h 48 ^m 48 ^s .55	+20° 25' 54".0	Berl. AG. Z. 190
2	4 42 17.45	+31 14 58.5	Leid. AG. Z. 142, 395	4	5 49 12.14	+20 26 56.1	Berl. AG. Z. 190

Anzeige betreffend Erneuerung des Abonnements siehe Nr. 3143.

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