

*Nebulæ discovered and observed at the Observatory of Marseilles with the Foucault Telescope of 0<sup>m</sup>80. By M. Stephan.*

Mean Position for 1870.

R.A.			P.			Number and Comparison in		Remarks.	Comparison Stars.	
h	m	s	°	'	"	R.A.	P.			
15	58	35.67	71	53	33.1	5	5	Group of 3 Nebulæ (1), (2), (3). All three very small and very faint, (2) is the least faint, (3) the most, (1) is diffused and attached to a very small star.	29,273 Lat. Herc.— 6	
15	58	44.65	71	55	18.7	5	5		id.	
15	58	48.81	71	56	31.6	5	5		id.	
16	6	44.58	79	47	50.2	5	5	Round, small, very faint centre, more brilliant, but no nucleus.	73 Weisse, xvi. 9	
16	18	28.76	48	45	41.5	5	5	Excessively faint, very small, round, more brilliant in the middle.	2,821 Arg. Z. + 41° 9, 2	
16	23	24.59	56	54	5.0	5	5	Group of 3 nebulae (1), (2), (3). Excessively small and faint, a little more brilliant towards the middle.	5,515 B. A. C. 7½	
16	23	25.51	56	51	38.8	5	5		id.	
16	23	32.35	56	51	52.2	5	5		(1) and (3) are nearly equal. (2) a little less faint.	
16	39	0.75	49	56	57.6	3	3	Scarcely observable.	1,225 Weisse, xvi. 9	
16	46	42.04	87	27	48.7	5	5	Excessively faint, vaporous, irregularly round, edges very undecided. $D_S^N = 58''$ $D_E^W = 2' 22''$	5,625 B. A. C. 7½	
16	51	31.67	61	58	0.8	5	5	Group of 5 nebulae, (1), (2), (3), (4), (5), excessively small and faint.	2,649 Arg. Z. + 28° 9, 1	
16	52	4.81	61	56	23.5	5	5		id.	
16	52	17.70	61	56	50.7	5	5		id.	
16	52	46.78	61	56	17.7	5	5		Order of brightness (increasing). (4), (1), (3), (5), (2).	id.
16	53	32.98	61	56	9.6	5	5		id.	
16	55	17.62	66	45	47.8	3	3	Group of 3 nebulae (1), (2), (3). (1) is extremely faint, no brilliant point; (2) is nearly imperceptible; and (3) is a small nucleus tolerably brilliant, surrounded by a very faint nebulosity: this last seems identical with 4,266 J. F. W. Herschel, of which the position furnished by the catalogue would be a little erroneous.	1,717 Weisse, xxvi. 9	
16	55	21.30	66	46	6.9	3	3		id.	
16	55	22.81	66	47	45.8	3	3		id.	
17	8	48.36	69	31	59.7	5	5	Almost imperceptible, irregularly round and a little less faint towards the centre, edges very indistinct. $D = 40''$ about.	283 Weisse, xvii. 8	
17	26	6.71	82	50	30.8	5	5	Round, small, faint, more brilliant in the middle.	32,068 Lat. 8	
17	33	7.09	71	2	44.6	5	5	Very faint, edges badly defined, irregularly round, a brilliant point towards the centre. $D = 55''$ about.	1,080 Weisse, xvii. 9	
17	34	40.27	77	18	22.5	3	3	Extremely small and faint, a small nucleus surrounded by a nebulosity.	$\alpha$ Ophiuchus.	
17	38	58.98	64	25	49.8	5	5	Round, very small and very faint.	3,330 Arg. Z. + 25° 9, 3	
17	46	59.27	58	30	14.3	5	5	Round, edges badly defined, extremely faint. Extremely small gradually brilliant towards the centre.	3,118 Arg. Z. + 31° 9, 5	
17	48	48.58	71	35	54.2	5	5	Groups of 2 nebulae (1) and (2). (1) extremely small, very faint, round, gradually brilliant towards the middle; (2) like the preceding, but a little less faint.	1,601 W. xvii. 7, 8	
17	49	8.77	71	38	52.9	5	5		id.	

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R.A.	P.	Number and Comparison in		Remarks.	Comparison Stars.
		R.A.	P.		
<sup>h</sup> 17 <sup>m</sup> 54 <sup>s</sup> 15 <sup>64</sup>	<sup>o</sup> 65 <sup>'</sup> 6 <sup>"</sup> 12 <sup>1</sup>	5	5	Very small and very faint nucleus of 15th Mag.	33,103 Lat. 8
18 7 15 <sup>14</sup>	64 22 41 <sup>6</sup>	2	2	Scarcely visible. A vaporous aspect comprised between two very small stars.	33,555 Lat. 8
18 29 9 <sup>76</sup>	67 11 22 <sup>5</sup>	5	5	Extremely small and faint, round, gradually brilliant towards the middle.	34,322 Lat. 7½
18 29 32 <sup>50</sup>	59 22 47 <sup>8</sup>	5	5	Extremely small and faint.	896 W. xviii. 9
18 32 11 <sup>95</sup>	63 41 34 <sup>8</sup>	5	5	Nucleus of 14th Mag. surrounded by a very faint nebulosity.	993 W. xviii. 9
18 33 15 <sup>35</sup>	64 44 11 <sup>9</sup>	5	5	A small nucleus, very faint, surrounded by a tolerably extensive nebulosity, round, the edges badly defined.	34,510 Lat. 8½
18 36 6 <sup>39</sup>	53 45 12 <sup>3</sup>	5	5	Round, tolerably extended, excessively faint on the edges, a brilliant point.	3,224 Arg. Z. + 36° 9, 3
18 45 19 <sup>95</sup>	63 18 50 <sup>1</sup>	5	5	Excessively small and faint, round, edges badly defined, condensation in the centre.	3,360 Arg. Z. + 26° 9, 3
18 58 16 <sup>48</sup>	68 34 54 <sup>4</sup>	5	5	Excessively small, tolerably brilliant, brilliant points towards the centre.	22 W. xix. 8
19 6 5 <sup>05</sup>	59 39 59 <sup>7</sup>	5	5	Round, small, tolerably brilliant, more brilliant in the middle, seems resolvable.	35,989 Lat. 6½
20 32 8 <sup>73</sup>	95 25 32 <sup>1</sup>	5	5	Small, round, whitish, moderately brilliant, more brilliant towards the centre.	39,827 Lat. 6
21 56 44 <sup>03</sup>	79 25 41 <sup>1</sup>	5	5	Irregularly round, very small, extremely faint, scarcely observable, towards the centre a little less faint.	42,973 Lat. 7
22 5 34 <sup>36</sup>	64 46 35 <sup>1</sup>	5	5	Round, small, very faint, vaporous aspect.	96 W. xxii. 8, 9
22 31 7 <sup>30</sup>	52 7 30 <sup>7</sup>	3	3	Small, moderate brightness, more brilliant towards the centre, egg-shaped.	772 W. xxii. 8

## Mean Position for 1870.

Comparison Stars.		R. A.			P.
		<sup>h</sup>	<sup>m</sup>	<sup>s</sup>	
29,273 Lat.	6	15	57	58 <sup>92</sup>	71 50 19 <sup>1</sup>
73 W. xvi.	9	16	5	27 <sup>19</sup>	79 47 36 <sup>9</sup>
2,821 Arg. Z. + 41°	9, 2	16	17	7 <sup>32</sup>	48 49 20 <sup>3</sup>
5,515 B. A. C.	7½	16	23	1 <sup>38</sup>	57 0 33 <sup>1</sup>
1,225 W. xvi.	9	16	39	16 <sup>47</sup>	49 50 14 <sup>0</sup>
5,625 B. A. C.	7½	16	14	20 <sup>83</sup>	87 31 21 <sup>3</sup>
2,649 Arg. Z. + 28°	9, 1	16	55	57 <sup>19</sup>	61 56 11 <sup>4</sup>
1,717 W. xvi.	9	16	56	33 <sup>25</sup>	66 52 38 <sup>5</sup>
283 W. xvii.	8	17	11	20 <sup>48</sup>	69 31 6 <sup>4</sup>
32,068 Lat.	8	17	29	46 <sup>81</sup>	82 53 54 <sup>4</sup>
1,080 W. xvii.	9	17	34	30 <sup>12</sup>	71 3 29 <sup>7</sup>
α Ophiuchus		17	28	53 <sup>95</sup>	77 20 35 <sup>6</sup>
3,330 Arg. Z. + 25°	9, 3	17	37	28 <sup>70</sup>	64 29 41 <sup>9</sup>

Comparison Stars.		Mean Position for 1870.			P.		
		R.A.					
		h	m	s	°	'	"
3,118 Arg. Z. + 31°	9, 5	17	48	37.31	58	32	45.3
1,601 W. xvii.	7, 8	17	50	42.25	71	39	8.3
33,103 Lat.	8	17	56	15.86	65	1	51.7
33,555 Lat.	8	18	7	47.69	64	23	37.9
34,322 Lat.	7½	18	26	0.28	67	6	19.8
896 W. xviii.	9	18	30	42.79	59	26	35.9
993 W. xviii.	9	18	33	39.29	63	41	25.0
34,510 Lat.	8½	18	30	27.23	64	44	6.8
3,224 Arg. Z. + 36°	9, 3	18	35	17.46	53	47	38.2
3,360 Arg. Z. + 26	9, 3	18	42	5.75	63	19	11.5
22 W. xix.	8	19	2	35.01	68	25	28.9
35,989 Lat.	6½	19	4	21.42	59	38	34.0
39,827 Lat.	6	20	32	13.92	95	22	59.3
42,973 Lat.	7	21	56	6.57	79	15	22.8
96 W. xxii.	8, 9	22	4	53.92	64	49	29.9
772 W. xxii.	8	22	33	42.78	51	55	40.1

*Observations of Encke's Comet with the Transit Circle and the Great Equatoreal at the Royal Observatory, Greenwich.*

(Communicated by the Astronomer Royal.)

1871.	G.M.T.	Observed R.A.	Correction to Mr. Hind's Ephemeris.	Observed N.P.D.	Correction to Mr. Hind's Ephemeris.	Observer.
d	h	m	s	°	'	"
Nov. 8	6 28 43	21 38 42.5	+ 11.0	..	..	J.C.
	6 28 48	21 38 47.1	+ 15.6	56 54 27.0	+ 49.0	P.
	9 6 15 7	21 29 0.9	+ 18.8	57 48 7.0	- 17.0	J.C.

The observations were made by Mr. Carpenter and Mr. Potts.

Note by Mr. Carpenter:—"Nov. 9. The comet was large and faint, the diameter of the brightest portion equal to one interval of the wires used in eye-and-ear observations (about 240"). It was somewhat fan-shaped, with no nucleus; the part observed being that which I judged the brightest. The low-power eyepiece (about 50) was used."

In the first observation, on November 8, the transit was observed over two of the vertical wires, and in the second observation over one only. On November 9 the transit was observed over six wires.

Mr. Carpenter further writes: "I observed this comet last night, Nov. 9, with the Great Equatoreal (as well as with the Transit Circle). The appearance was the same as on the pre-