

## POSITIONS OF NEBULÆ. Series II.

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In a former communication to this Journal (Vol. I., p. 51), I have given the positions of some nebulae as read from part of my manuscript charts. Before continuing that series I have thought it well to publish a short list of nebulae determined occasionally, either by the filar micrometer or by the ring micrometer, or simply after the manner of d'Arrest by putting nebula and comparison star into the centre of the field and reading off the circles. These various classes of determinations are indicated in the fourth column by *fil.*, *r.*, or only by a number in brackets, and they may besides be distinguished by the degree of accuracy with which the Right Ascensions and Declinations are given, no significance being, however, claimed for the last figure.

The positions are given for 1860'0, and where not otherwise stated in the notes, their agreement with those of the "General Catalogue" is close. The figures following the authority for the star are the measured differences in  $\alpha$  and  $\delta$  (corrected for refraction, but not for precession, &c.), taken in the sense *nebula minus star*.

NGC	Gen. Cat.	R.A.	Decl.	Compar.	Date.	Notes.
731	440	1 <sup>h</sup> 48 <sup>m</sup> 0 <sup>s</sup> .7	- 0° 42' 0"	4 r.	1881, Jan. 20,	About this neb. and the two following ones see Astr. Nachr. 2365.
755	441	1 49 27.9	- 9 44 58	4 r.	1881, Jan. 20,	—
787	Nova	1 53 53.8	- 9 41 4	2 r.	1865, Feb. 27,	Found independently by Tempel in 1879, see Astr. N. 2347.
"	"	54.1	40 56	4 r.	1881, Jan. 20,	—
1022	574	2 31 38.5	- 7 16 58	4 r.	1880, Dec. 29,	Met with in sweeping for a comet reported to have been found by Mr. Cooper in England (A.N. 2361).
1569	847	4 17 38	+ 64 32.1	(2)	1860, May 14,	—
1994	1202	5 29 37.8	- 6 48 33	2 r.	1861, Mar. 28,	LL 10396 = W. 5 <sup>h</sup> 60 <sup>m</sup> 9 <sup>s</sup> + 5 <sup>m</sup> 4 <sup>s</sup> 37" + 32".8.
2997	1923	9 39 31	- 30 31.3	(1)	1859, Apr. 3,	L, 8', R, central planetary disk.
3031	1949	9 43 54.83	+ 69 43 21.6	1 fil.	1863, June 9,	M. 81. * Arg. + 69° 540 + 2 <sup>m</sup> 19°.02 + 1' 23".5.
3034	1950	9 44 4	+ 70 22 18	2 fil.	1863, June 9,	M. 82. A streak 7' long, 35" broad, mbp. in the M a knot with a B point. * DM + 70°, 587 + 26°.50, + 2' 12".2.
3054	Nova	9 48 12	- 25 2.3	(1)	1859, Apr. 3,	L, pB, irr. oblong.
"	"	47 54	3.0	(2)	1880, Mar. 2,	—
3078	1981	9 52 3	- 26 14.3	(1)	1859, Apr. 3,	—
3521	2301	10 58 38.9	+ 0 43 9	6 r.	1860, Feb. 21,	* W 10 <sup>h</sup> 1019 = Lam. 3186 = Y 4624 + 1 <sup>m</sup> 47".82, - 13".8.
4546	3092	12 28 5	- 3 1.0	(1)	1859, Mar. 2,	—
4666	3198	12 37 57	+ 0 17.7	(1)	1859, Mar. 2,	L.
4684	3214	12 40 0	- 1 58.3	(1)	1859, Mar. 2,	S, a little oblong.
4691	3221	12 41 7	- 2 33.8	(1)	1859, Mar. 2,	vF.
4826	3337	12 52 0	- 14 16.2	(2)	1859, Apr. 27,	B.
4924	3420	13 1 31	- 14 46.2	(1)	1859, Apr. 27,	S, F, a star surrounded by neb- ulosity.
5044	3465	13 7 55	- 15 38.2	(1)	1859, Apr. 27,	Globular.

N <sub>o</sub> . C.	Gen. Cat.	R.A.	Decl.	Compar.	Date.	Notes.
6584	5865	17 <sup>h</sup> 25 <sup>m</sup> 37 <sup>s</sup> .7	+ 7° 9' 50"	2 r.	1859, Aug. 20,	S. F. *W. 17 <sup>h</sup> 49 <sup>m</sup> = Lam. 2552 = Schj. 6282. — 1 <sup>m</sup> 8 <sup>s</sup> .62; — 6' 56".6.
6584	"	25 37.6	9 59	2 r.	1859, Aug. 21,	* Same. — 1 <sup>m</sup> 8 <sup>s</sup> .75; — 6' 47".8.
6584	4308	17 26 24.30	+ 16 29 33.4	5 fil.	1878, July 8,	* W. 17 <sup>h</sup> 817, 818. — 59 <sup>s</sup> .58; + 4' 17".4. The position of Gen. Cat. 26 <sup>m</sup> 3 <sup>s</sup> .6; 30' 57".6 rests upon a single observation of Sir W. Herschel.
6426	4325	17 37 51	+ 3 15 12	2 r.	1859, Aug. 21,	L. F. *DM + 3 <sup>h</sup> 3481 (undetermined). + 1 <sup>m</sup> 16".4; + 1' 18".
"	"	38 0.2	14 17	1 r.	1859, Sept. 18,	* Lam. 2707. — 4 <sup>m</sup> 4 <sup>s</sup> .75; + 5 16".3.
6481	Nova	17 45 54.6	+ 4 12 9	4 r.	1859, Aug. 21,	vS. B.M. *Lam. 2763. — 1 <sup>m</sup> 3 <sup>s</sup> .16; + 6".4.
6535	4369	17 56 39.7	— 0 17 43	2 r.	1859, Sept. 23,	* Cop. and Börg. 4913 = Lam. 5967 = Santini 975. — 2 <sup>m</sup> 16 <sup>s</sup> .19; + 9' 32".5. [W. 17 <sup>h</sup> 1240 is more than 2' too small in Decl.]
6760	4473	19 4 5.5	+ 0 48 8	1 r.	1859, Sept. 25,	Round, large, cometary. *Lam. 6623 and Lam. 6650 = Schj. 7194.
"	"	4 5.0	48 16	4 r.	1859, Sept. 26,	Beautiful night; neb. like a cl. of very fine stars. * W. 19 <sup>h</sup> 40 = Lam. 6639. + 44 <sup>m</sup> 94; + 1' 54".2.
"	"	4 3.00	48 5.6	2 fil.	1880, Oct. 28,	The neb. faint, in haze near the horizon. * W. 19 <sup>h</sup> 40. + 41 <sup>m</sup> 79; + 1' 40".4.
6781	4487	19 11 36.08	+ 6 17 8.3	10 fil.	1880, Nov. 26,	L 5', not vF, though pale; Sir John calls it a planetary neb. * Schj. 7252. + 1 <sup>m</sup> 51 <sup>s</sup> .59; — 3' 58".1.
6818	4510	19 36 4.24	— 14 28 52.9	5; 2 fil.	1864, July 15,	Planetary neb. *Lam. 2984 = Schj. 7545. + 55 <sup>s</sup> .41; + 4' 34".3.
7393	4851	22 44 22.3	— 6 17 50	1 r.	1860, Nov. 7,	F. * W. 22 <sup>h</sup> 995 (only 1 comp., neb. north and star south in ring).
7448	4879	22 53 7.9	+ 15 13 46	8 r.	1881, May 23,	* DM. + 15 <sup>m</sup> 27.42 (det. from 3 Bessel stars). — 9 <sup>s</sup> .97; + 23".9.
7453	Nova	22 54 9.2	— 7 6 21	1 r.	1860, Nov. 7,	S, B, close to an 11 <sup>m</sup> star np. * Y. 10028.
7585	4928	23 10 48.3	— 5 24 53	12 r.	1865, Aug. 13,	* Anon. det. by comp. with W. 23 <sup>h</sup> 280 (Radcl. obs. and Pulkowa). — 59 <sup>s</sup> .20; — 18".6.
7653	4956	23 17 47.7	+ 14 30 24	16 r.	1861, Oct. 28,	vF. Mistaken for Encke's comet. — * DM. + 14 <sup>m</sup> 4982 (det. from W. 23 <sup>h</sup> 312 = R. 11084). + 1 <sup>m</sup> 30 <sup>s</sup> .37; + 1".3.
7688	6206	23 24 6.05	+ 20 38 20.4	7 fil.	1865, Oct. 13,	vS. (I fell in with this neb. in hunting for the lost heads of Biela's comet.) * W. 23 <sup>h</sup> 422. + 3 <sup>m</sup> 30 <sup>s</sup> .16; + 55".0. The position of Gen. Cat. is 4' in $\alpha$ R and 2' in Decl. wrong.
7714	4993	23 29 4.50	+ 1 22 50.7	5; 3 fil.	1865, Sept. 19,	* 16 Piscium. — 10 <sup>m</sup> 13; + 3' 17".8.

On page 53 of Vol. I. of this Journal I beg to correct:

No. 5629. Decl., instead of 24'.7 read 22'.7.

No. 5630.  $\alpha$ R, instead of 23' read 13'.

The note to *Nova* 12<sup>h</sup> 16<sup>m</sup> 42<sup>s</sup>; — 2° 27'.7 should be cancelled, as on 1881, May 5, I have seen and drawn upon my chart also the nebula G. C. 2911.