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SECOND INDEX CATALOGUE OF NEBULÆ AND CLUSTERS OF STARS; CONTAINING OBJECTS FOUND IN THE YEARS 1895 to 1907, WITH NOTES AND CORRECTIONS TO THE NEW GENERAL CATALOGUE AND TO THE INDEX CATALOGUE FOR 1888-94. BY J. L. E. DREYER, Ph.D.

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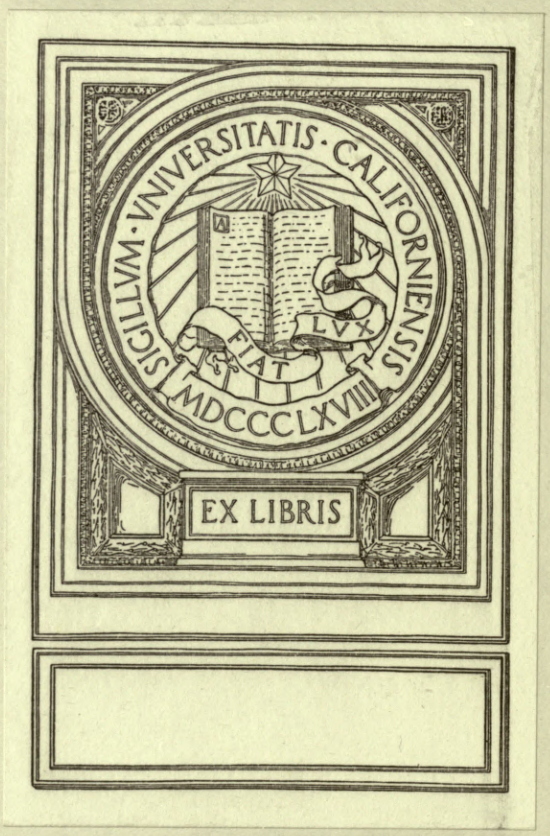
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Second Index Catalogue of Nebulæ and Clusters of Stars, containing objects found in the Years 1895 to 1907, with Notes and Corrections to the New General Catalogue and to the Index Catalogue for 1888–94.

By J. L. E. Dreyer, Ph.D.

[Received May 4; read May 8, 1908.]

The following catalogue is a continuation of the Index Catalogue of Nebulæ found in the years 1888 to 1894, published in Vol. LI. of the *Memoirs*.

Since 1895 about 1400 nebulæ have been detected with powerful telescopes and their places determined, nearly all by observers previously engaged in this work. But the majority of the objects in the present catalogue have been found by means of photography. Seven lists of nebulæ have been issued from the astrophysical department of the Heidelberg Observatory, containing in all about 2800 objects. Most of these have been found by Professor Max Wolf on plates taken with the 16-inch Bruce refractor at Heidelberg, while one list (No. 2) was made by Dr. Schwassmann from plates taken with a 6-inch lens. The third list* contains about 1500 points of condensation in the great cloud of nebulosity situated about the northern pole of the Milky Way, near R.A. $12^h\ 53^m$, N.P.D. $61^\circ{\cdot}5$. These objects (of which 123 are identical with objects in the N.G.C. or the Index Catalogues) are arranged by Professor Wolf in separate zone-catalogues one degree of N.P.D. in breadth, from 59° to 64°, for the epoch 1875. As these zone-catalogues will be more convenient to the few photographic observers likely to study this small part of the heavens than a catalogue arranged in order of right ascension and extending from pole to pole could possibly be, these objects have not been included in the present reference catalogue. Besides, they ought more properly to be considered, not as separate nebulæ, but as the more conspicuous points of condensation or "knots" in one great mass of nebulosity similar to the nebula of Orion, the great "America-nebula" in Cygnus (N.G.C. 7000 = V. 37), and others.† Should continued examination of photographic plates prove the correctness of Professor Keeler's estimate, according to

* *Publikationen des astrophysikalischen Observatoriums Königstuhl-Heidelberg*, Band I., Karlsruhe, 1902, pp. 125–176.

† For this reason I have not included any of the "knots" in the great nebula in Triangulum (Messier 33) which I measured on a plate taken by Dr. Isaac Roberts, *Proc. R. Irish Acad.*, vol. xxv., sect. A., No. 2 (1904).

which there are at least about 120,000 nebulæ in the whole sky,* the future great catalogue of nebulæ will certainly have to be arranged in zones of one degree.

While the objects found and measured at Heidelberg are all in the northern hemisphere, Dr. DELISLE STEWART and Mr. R. H. FROST have measured a number of plates, chiefly of regions in the southern hemisphere, obtained with the 24-inch Bruce refractor at the Arequipa station of Harvard College Observatory, and containing about 1130 new nebulæ.

The positions of all objects found on photographic plates are of course very reliable, and more than sufficient to identify the objects, but it is possible that in a few instances photographic defects have been mistaken for nebulæ. All such objects seen on only one Harvard plate have been recorded as "susp," although in most cases they are believed to be genuine nebulæ, and some marked thus were afterwards identified with known objects. In the Heidelberg lists such objects are marked with a ?. A region extending from about $12^h\ 2^m$ to $12^h\ 42^m$ and 80° to 75° is common to Dr. SCHWASSMANN'S list and the Harvard list. In this region 45 new objects are given in the former which are not in the latter, while 208 objects in the latter do not occur in the former. Thirty-six objects seen as nebulæ by Dr. SCHWASSMANN are distinctly stellar on the Harvard plates, being either faint double, or triple, or single stars which have been mistaken for nebulæ. In six cases nothing was found in Dr. SCHWASSMANN'S places, though there were faint stars near. Discrepancies like these are of course to be expected on account of the difference in size of the instruments used, and they are not greater than those with which telescopic observers are familiar, since extremely faint stars have occasionally been mistaken for nebulæ, while very faint nebulæ have been suspected in places where no nebulosity exists.

A very marked peculiarity of photographic records of nebulæ is the general tendency of the observers to overestimate the brightness, even to the extent of two or three degrees of brightness. This fact must always be borne in mind by observers using even very powerful telescopes, but it did not seem feasible to allow for it in this catalogue, as the objects observed both visually and photographically are hardly yet numerous enough.

The descriptions are given with the usual abbreviations, to which only one has been added, viz. "spir" for spiral. Even among very faint nebulæ photography has revealed many cases of spiral form. Of the very extensive and diffused nebulosities found by photography, I have only inserted a few fairly well-defined objects of limited size. An object like No. 27 of W. HERSCHEL'S list of regions "affected with nebulosity," filling the whole constellation of Orion, could obviously not find a place here. About these regions see ROBERTS, *Astr. Nachr.*, No. 3836, and *Monthly Notices*,

* *Monthly Notices*, vol. lx. p. 128. After the completion of KEELER'S work (not yet published) Professor PERRINE estimated the total number at 500,000; *Astrophys. Journal*, vol. xx. p. 356.

vol. lxii. p. 26; BARNARD, *Astrophys. Journal*, vol. xvii. p. 77; and M. WOLF, *Monthly Notices*, vol. lxiii. p. 303.

By special desire of the Council, the positions are given not only for 1860, the epoch of former catalogues, but also for 1900, the epoch of the photographic chart of the heavens.

In the column "Observer," a high number in brackets (*e.g.* 3520) denotes the number of the *Astronomische Nachrichten* where the object is recorded. The other references are:—

BAILEY, Catalogue of Bright Clusters and Nebulæ; *Ann. Harv. Coll. Obs.*, vol. lx. No. 8. Contains thirteen objects (clusters) not in the N.G.C., two of which (the Pleiades and the Hyades) I have not inserted.

BARNARD, *Monthly Notices*, vol. lv. p. 453; *Astr. Journal*, No. 422; *Astr. Nachr.*, Nos. 3301, 3315, 4112, 4136, 4239; *Astrophys. Journal*, vol. xiv. p. 157, vol. xxv. p. 224, p. 281. Also many MS. communications.

B. with a number refers to BIGOURDAN'S third and fourth lists, *Comptes Rendus*, vol. cxxiii. p. 1243, vol. cxxiv. pp. 65 and 133 (Nos. 245 to 356), and vol. cxxxii. pp. 1094 and 1465, vol. cxxxiii. pp. 26 and 206 (Nos. 357 to 455). The fourth list includes a copious list of corrections to the places of objects in the N.G.C., most of which are given at the end of the present catalogue.

BURNHAM, *Publ. of the Yerkes Observatory*, vol. i. p. 296 (40-inch refractor).

D. S. See STEWART.

ESPIN, *Monthly Notices*, vol. lxvii. p. 360; *A.N.*, No. 3633.

FINLAY, *Monthly Notices*, vol. lviii. p. 329. Found with the 6-inch and 7-inch refractors of the Cape Observatory.

FLEMING, *Ann. Harv. Coll. Obs.*, vol. lx. p. 150 (planetary nebulæ discovered by their spectra).

F = FROST, Nos. 786–1238, *Ann. Harv. Coll. Obs.*, vol. lx. pp. 179–192: nebulæ found by photography, see above.

Ho. = HOWE, three lists of new nebulæ found and micrometrically measured with the 20-inch refractor at Denver, Colorado,

I. *Monthly Notices*, vol. lviii. p. 523.
II. „ „ „ lx. „ 129.
III. „ „ „ lx. „ 611.

At the end of list II. and also in vol. lviii. pp. 515–522 and vol. lxi. pp. 29–51 Professor HOWE gives a great number of valuable notes on old nebulæ, containing accurate positions of many of which only rough places had previously been given by their discoverers. These corrections are inserted in the Notes at the end of this catalogue.

Innes, *Monthly Notices*, vol. lviii. p. 329, vol. lix. p. 339, vol. lxii. p. 468. Found with the 7-inch refractor at the Cape Observatory.

J. with a number refers to M. Javelle's third list of micrometrically measured places of new nebulæ found with the 30-inch refractor of the Nice Observatory (*Annales*, T. xi.).

Keeler, *Monthly Notices*, vol. lix. p. 537. Seven small nebulæ found on photographs of M. 51 with the Crossley reflector.

Kobold, *Vierteljahrsschrift der Astr. Ges.*, xxxiii. p. 153. Nebulæ found with the 18-inch refractor at Strassburg.

Lunt, *Monthly Notices*, vol. lxii. p. 468. Found with the 18-inch refractor at the Cape Observatory.

Pickering. A few objects mentioned in vol. xxvi. of the *Annals of H. C. Obs.*, p. 207 *sq.*

Roberts, *Monthly Notices*, vol. lxiii. p. 302, and *A.N.*, No. 3429. Found by photography.

Sn = Schwassmann, *Publ. des astrophys. Observatoriums Königstuhl-Heidelberg*, vol. i. p. 89. Found and measured on a plate taken by Professor Max Wolf with a 6-inch lens.

Stewart (D. S., Nos. 109–785). Found on Arequipa plates (see above). *Ann. Harv. Coll. Obs.*, vol. lx. pp. 156–172.

Sw. = Swift. This veteran observer continued for some years at Echo Mountain, Los Angeles, California, his search for new nebulæ. Eight separate lists were combined into one list (XI.) in *Astr. Nachr.*, No. 3517, which I have followed (a few discrepancies are noted in the column "Description"); list XII. in *Monthly Notices*, lix. p. 568. When any of these objects has been observed by some later observer, I have adopted the position given by him, as Mr. Swift's places are not as good as those formerly found by him with the same 16-inch refractor at Rochester, N.Y. Observers should remember that Mr. Swift used a very large field, so that some of his remarks about neighbouring stars may refer to stars a good way off.

W. = Max Wolf (see above). His second list is referred to as Sn. The other references (to *Publ. des astroph. Obs.*) are

I.	vol.	i.	p.	12.
IV.	,,	ii.	,,	57.
V.	,,	ii.	,,	77.
VI.	,,	ii.	,,	89.
VII.	,,	iii.	,,	77.

I have to express my thanks to Professor Barnard for many valuable communications, and to Professor E. C. Pickering for the loan of a card catalogue of references to new nebulæ (exclusive of the Harvard and Heidelberg objects), which supplied a useful check on the completeness of my own notes.

Second Index Catalogue of Nebulæ, 1895 *to* 1907.

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
1530	B. 357	0 0 6	+ 3·07	58 10	−20·1	vF, S, iF, bM	2 9	57 57
1531	Sw. XII.	0 2 8	3·06	123 3·3	20·1	vF, vS, R, D* n	4 10	122 49·9
1532	F. 786	0 2 53	3·02	155 8	20·1	2′l, mE, bM	4 54	154 55
1533	Sw. XII.	0 3 27	3·07	98 11·7	20·1	eeF, vS, R, v diffic; * 7·5 n, * 9 s	5 30	97 58·3
1534	Barnard (4136)	0 6 26	3·12	42 37·8	20·0	pF, vS, diffic, * 10 nr nf	8 31	42 24·5
1535	Barnard (4136)	0 6 38	3·12	42 37·4	20·0	vF, S, 48 nf 6′	8 43	42 24·1
1536	Barnard (4136)	0 6 59	3·12	42 39·5	20·0	F, S, R	9 4	42 26·2
1537	Sw. XI.	0 8 59	3·03	130 5·5	20·0	eeF, vL, vmE; 55 np	11 0	129 52·2
1538	B. 358	0 10 46	3·10	60 43	20·0	eF	12 50	60 30
1539	B. 359	0 11 8	3·10	60 41	20·0	eF, bet 2 st 13	13 12	60 28
1540	J. 808	0 12 34	3·10	67 3·8	20·0	F, S, iF	14 38	66 50·5
1541	J. 809	0 12 45	3·10	68 46·6	20·0	F, S, R, lbM, r	14 49	68 33·3
1542	J. 810	0 13 26	3·10	68 11·1	20·0	F, dif, gbM	15 30	67 57·8
1543	J. 811	0 13 40	3·11	68 54·5	20·0	F, S, R, gbMN	15 44	68 41·2
1544	J. 812	0 14 2	3·11	67 44·4	20·0	F, S, R, vlbM	16 6	67 31·1
1545	J. 813	0 14 5	3·11	68 47·6	20·0	F, vS, R, dif, vFN	16 9	68 34·3
1546	J. 814	0 14 14	3·11	68 16·3	20·0	vF, S, v diffic	16 18	68 3·0
1547	B. 360	0 14 21	3·11	68 16	20·0	eF, pS, sbM *	16 25	68 3
1548	J. 815	0 14 39	3·11	68 46·2	20·0	F, vS, R, stell	16 43	68 32·9
1549	Sw. XI.	0 16 0	3·08	83 47·9	20·0	eF, D * f 46^s	18 3	83 34·6
1550	J. 816	0 17 5	3·18	52 35·1	20·0	R, stell, vFN	19 12	52 21·8
1551	J. 817	0 20 21	3·09	81 54·2	20·0	F, vS, R, r	22 25	81 40·9
1552	J. 818	0 22 26	3·12	69 18·4	20·0	F, pL, dif	24 31	69 5·1
1553	D. S. 109	0 25 36	2·99	116 22	19·9	vF, vmE 10°	27 36	116 9
1554	D. S. 110	0 25 55	2·97	122 48	19·9	vF, vS, eE 170°, sbM	27 54	122 35
1555	Sw. XII.	0 27 41	2·97	120 46·2	19·9	eeF, S, R, 2 st p in line	29 40	120 32·9
1556	Sw. XI.	0 27 58	3·04	100 20·3	19·9	eeF, pS, R, v diffic	30 0	100 7·0
1557	Ho. III.	0 28 26	3·05	93 39·0	19·9	eF, vS, 2 vF st close; nr 161	30 28	93 25·7
1558	D. S. 111	0 28 54	2·99	116 9	19·9	E 160°, * n, perhaps spir	30 54	115 56
1559	Ld. R., B. 245, J. 819	0 29 30	3·15	66 47·6	19·9	vF, 0′·5 ssf 169	31 36	66 34·3
1560	B. 361	0 30 28	3·08	88 6	19·9	eF, ?=164	32 31	87 53
1561	D. S. 112	0 31 31	2·98	115 6	19·9	E 105°, * n	33 30	114 53
1562	D. S. 113	0 31 37	2·98	115 2	19·9	S, R, psbM	33 36	114 49
1563	B. 362	0 31 55	3·04	99 46	19·8	eF, stellar, 0′·6 sf 191	33 57	99 33
1564	Ho. I.	0 31 56	3·09	84 48	19·8	eF	34 0	84 35
1565	J. 820	0 32 11	3·09	84 2·5	19·8	F, S, R, gbM	34 15	83 49·3
1566	J. 821	0 32 19	3·09	83 57·3	19·8	F, S, R, gbM, r	34 23	83 44·1
1567	Ho. I.	0 32 21	3·09	84 9	19·8	Neb *	34 25	83 56
1568	J. 822	0 32 43	3·09	83 55·2	19·8	F, S, R, gbM, r	34 47	83 42·0
1569	J. 823	0 33 15	3·09	84 3·0	19·8	vF, vS, R, gbM	35 19	83 49·8
1570	J. 824	0 33 20	3·09	84 0·9	19·8	vF, vS, R, vFN	35 24	83 47·7
1571	J. 825	0 33 28	3·07	91 6·4	19·8	F, pS, R, dif	35 31	90 53·2
1572	B. 363	0 33 55	3·13	74 30	19·8	eF, stell, III 200 nr	36 0	74 17
1573	D. S. 114	0 35 13	2·98	114 18	19·8	eF, eS, mE 60°	37 12	114 5
1574	D. S. 115	0 36 7	2·98	113 0	19·8	vF, vmE 0°, gbM	38 6	112 47
1575	Sw. XI.	0 36 28	3·05	94 55·1	19·8	eF, S, R, * 10 s	38 30	94 41·9
1576	D. S. 116	0 37 20	+ 2·96	115 52	−19·8	vF, vS, eE 135°, bet 2 st	39 18	115 39

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
1577	Barnard	0 37 31	+ 3·04	98 54·3	− 19·8	pB, S, R, gbM stell N	39 33	98 41·1
1578	D. S. 117	0 37 32	2·96	115 50	19·8	vF, vS, vmE	39 30	115 37
1579	D. S. 118	0 38 44	2·95	117 20	19·8	eF, eS, cE 15°, gbM	40 42	117 7
1580	B. 364	0 38 49	3·20	60 51	19·8	vF, v stell	40 57	60 38
1581	D. S. 119	0 39 14	2·96	116 40	19·8	eF, eS, E 45°, gbM	41 12	116 27
1582	D. S. 120	0 39 20	2·96	115 3	19·8	eF, eS, E 45°, sbM *	41 18	114 50
1583	J. 826	0 39 47	3·17	67 41·3	19·8	F, vS, R, stell N	41 54	67 28·1
1584	B. 365	0 39 48	3·19	62 57	19·8	eF, L, dif, r	41 56	62 44
1585	J. 827	0 39 51	3·17	67 42·5	19·7	F, vS, R, stell N	41 58	67 29·4
1586	J. 828	0 40 32	3·17	68 24·8	19·7	F, vS, R, gbM, r	42 39	68 11·7
1587	D. S. 121	0 41 50	2·96	114 19	19·7	eF, eS, alm R	43 48	114 6
1588	D. S. 122	0 44 8	2·96	114 19	19·7	vF, vS, cE 155°	46 6	114 6
1589	Sw. XI.	0 44 49	2·89	125 13·6	19·7	eF, eS, R, like D neb	46 45	125 0·5
1590	B. 366	0 44 57	3·46	34 10	19·7	Cl, vL, st sc ; 281 f	47 15	33 57
1591	D. S. 123	0 45 14	2·96	113 26	19·6	vF, vS, cE 95°, bM	47 12	113 13
1592	Ho. I.	0 46 13	3·10	84 59·4	19·6	eF, S, bet * 12 and * 13	48 17	84 46·3
1593	B. 367	0 47 4	3·24	58 16	19·6	eF, semi-stellar	49 14	58 3
1594	D. S. 124	0 47 16	2·76	138 24	19·6	eF, eS, cE 130°, stell N	49 6	138 11
1595	D. S. 125	0 47 21	2·78	135 57	19·6	eF, S, mE 10°, stell N	49 12	135 44
1596	J. 829	0 47 17	3·18	69 14·7	19·6	F, S, Epf, gbM	49 24	69 1·6
1597	D. S. 126	0 47 27	2·62	148 52	19·6	eF, eS, cE 165°, cbM	49 12	148 39
1598	Ho. I.	0 47 28	3·10	84 59·2	19·6	Neb * 11 ; * 9 p 10^s, 4′·5 n	49 32	84 46·1
1599	D. S. 127	0 47 44	2·95	114 15	19·6	vF, vS, cE 100°	49 42	114 2
1600	D. S. 128	0 48 14	2·94	114 17	19·6	vF, vS, cE 95°	50 12	114 4
1601	D. S. 129	0 48 44	2·94	114 55	19·6	vF, vS, lE 105°	50 42	114 42
1602	Ho. II.	0 48 49	3·02	100 44·7	19·6	vF, S, nr 309	50 50	100 31·6
1603	D. S. 130	0 50 34	2·76	136 11	19·6	eF, eS, cE 115°, cbM	52 24	135 58
1604	Sw. XII.	0 51 1	2·98	107 ±	19·5	pF, vS, * 7·5 np, F * nr sp [? = 333]	53 0	107 ±
1605	D. S. 131	0 51 17	2·72	139 40	19·5	vF, eS, R	53 6	139 27
1606	Sw. XI.	0 51 22	3·01	102 56·2	19·5	eF, pS, nearly bet * 7 p and * 9 nf	53 22	102 43·2
1607	Ho. I, J. 830	0 51 38	3·07	90 10·2	19·5	vF, pS, R, lbM	53 41	89 57·2
1608	Sw. XI.	0 52 36	2·86	125 4·5	19·5	pB, pS, R ; 2 st nf, 2 np	54 30	121 51·5
1609	Sw. XI.	0 53 8	2·80	131 6·9	19·5	vF, vS, R	55 0	130 53·9
1610	Sw. XI., Ho.	0 54 45	2·98	106 19·3	19·5	pF, pS, R, * 10 np	56 44	106 6·3
1611	D. S. 132	0 55 3	2·02	163 6	19·5	vF, bM	56 24	162 53
1612	D. S. 133	0 55 21	2·02	163 8	19·5	eF, vS	56 42	162 55
1613	Wolf	0 56 0	3·08	88 48	19·4	F, eeL	58 3	88 35
1614	J. 831	0 57 25	3·29	57 32·5	19·4	vF, S, E 120°, vlbM, * 15 nr	59 37	57 19·6
1615	D. S. 134	0 57 56	2·64	141 54	19·4	eF, S, cE 140°, cbM	59 42	141 41
1616	Sw. XII.	0 58 4	2·89	118 9·3	19·4	eF, pS, 3 st in line nr	0 0	117 56·4
1617	D. S. 135	0 58 8	2·64	141 47	19·4	eF, S, cE 130°, cbM	59 54	141 34
1618	Kobold	0 58 13	3·28	58 19·1	19·4	vF, S	0 24	58 6·2
1619	J. 832	0 59 41	3·30	57 39·9	19·4	F, S, R, gbMFN, bet 2 st 13	1 53	57 27·0
1620	J. 833	0 59 51	3·16	76 47·6	19·4	F, pS, dif	1 57	76 34·7
1621	D. S. 136	1 0 6	2·69	137 28	19·4	eF, eS, mE 0°, cbM	1 54	137 15
1622	Sw. XI.	1 0 39	2·96	108 15·4	19·3	vF, S, R, sp of 2	2 37	108 2·5
1623	Sw. XI.	1 0 47	2·96	108 13·4	19·3	B, cS, lE, nf of 2	2 45	108 0·5
1624	D. S. 137	1 0 49	1·93	162 47	19·3	vF, S, R	2 6	162 34
1625	D. S. 138	1 1 25	2·68	137 40	19·3	eF, vS, R, susp	3 12	137 27
1626	D. S. 139	1 1 59	+ 1·82	164 3	− 19·3	vF, cS, R	3 12	163 50

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
1627	D. S. 140	1 2 1	+ 2·68	137 1	− 19·3	cF, S, eE 135°, vmbM	3 48	136 48
1628	Sw. XII.	1 2 5	2·87	119 19·4	19·3	cB, pS, R, 3 st 8 nr	4 0	119 6·6
1629	J. 834	1 2 6	3·08	88 10·9	19·3	F, vS, R, stell	4 9	87 58·0
1630	D. S. 141	1 2 7	2·68	137 31	19·3	eF, eS, E 60°, susp	3 54	137 18
1631	D. S. 142	1 2 31	2·68	137 13	19·3	eF, S, R, susp.	4 18	137 0
1632	J. 835	1 3 16	3·19	73 4·2	19·3	vF, vS, dif, * 15 v close	5 24	72 51·3
1633	Sw. XI., D. S.	1 3 31	2·68	136 42·7	19·3	vF, S, R, vF * f	5 18	136 29·8
1634	J. 836	1 3 36	3·19	73 5·4	19·3	F, S, R, gbM, r	5 44	72 52·5
1635	J. 837	1 3 37	3·19	73 6·1	19·3	F, S, R, gbM, r	5 45	72 53·2
1636	J. 838	1 3 51	3·31	57 23·4	19·3	F, vS, gbMN	6 3	57 10·5
1637	D. S. 144	1 4 24	2·85	121 11	19·2	eF, S, R, susp	6 18	120 58
1638	J. 839	1 4 35	3·31	57 22·8	19·2	F, vS, R, gbMN, r	6 47	57 10·0
1639	J. 840	1 4 36	3·06	91 25·0	19·2	vS, R, stell	6 38	91 12·2
1640	J. 841	1 4 41	3·06	91 23·0	19·2	vS, R, bMN	6 43	91 10·2
1641	D. S. 143	1 4 56	1·89	162 31	19·2	eF, eS, R	6 12	162 18
1642	J. 842	1 4 57	3·18	74 59·2	19·2	F, S, R, lbMN	7 4	74 46·4
1643	J. 843	1 5 0	3·07	91 10·0	19·2	F, S, R, gbM	7 3	90 57·2
1644	Fleming 83	1 5 2	1·76	163 57	19·2	Planetary, stell	6 12	163 44
1645	J. 844	1 5 3	3·18	75 0·2	19·2	F, S, R, dif	7 10	74 47·4
1646	J. 845	1 5 20	3·18	75 2·8	19·2	vF, pS, dif	7 27	74 50·0
1647	J. 846	1 5 22	3·38	51 51·8	19·2	vF, S, R, diffic	7 37	51 39·0
1648	J. 847	1 5 55	3·31	57 31·5	19·2	F, vS, R, N, r	8 7	57 18·7
1649	D. S. 145	1 6 8	2·50	146 37	19·2	eF, cS, E 140°, cbM	7 48	146 24
1650	D. S. 146	1 6 16±	2·60	141 8	19·2	cF, S, mE 55°, cbM	8 0	140 55
1651	B. 368	1 6 17	3·08	88 39	19·2	* 13 with neb, chiefly nnf	8 20	88 26
1652	J. 848	1 7 10	3·31	58 48·1	19·2	F, S, Eus, * 12 v close	9 22	58 35·3
1653	J. 849	1 7 20	3·33	57 21·9	19·2	F, vS, R, gbMN, r	9 33	57 9·1
1654	J 850	1 7 29	3·30	60 32·9	19·2	F, S, lE, glbM, r	9 41	60 20·1
1655	D. S. 147	1 7 33	1·87	162 5	19·2	Cl, C, eF, vS	8 48	161 52
1656	Barnard	1 7 50	3·32	57 39·1	19·2	Neb, S * close sf, * 9 sf 3′	10 3	57 26·3
1657	Sw. XI.	1 7 53	2·81	123 24·4	19·2	eF, S, vm E	9 45	123 11·6
1658	J. 851	1 8 4	3·31	59 39·1	19·2	vF, pS, E, N, r	10 16	59 26·3
1659	J. 852	1 8 21	3·30	60 23·1	19·2	F, S, R, N, r	10 33	60 10·3
1660	D. S. 148	1 8 23	1·82	162 30	19·2	eF, vS, R, stell N or F * in M	9 36	162 17
1661	Barnard	1 8 25	3·32	57 39·4	19·2	eF, S, R	10 38	57 26·6
1662	D. S. 149	1 8 41	1·68	164 12	19·1	vF, eS, ? vS Cl	9 48	163 59
1663	Sw. XI.	1 9 31	2·83	121 24·1	19·1	eF, mE 350° [? PD 54′1]	11 24	121 11·4
1664	D. S. 150	1 9 49	1·93	160 33	19·1	2F st inv in eeF neb	11 6	160 20
1665	J. 853	1 9 54	3·35	56 2·3	19·1	F, vS, R, like 2 or 3 F st in neb	12 8	55 49·6
1666	J. 854	1 10 44	3·33	58 16·1	19·1	F, pS, dif, * 13 att	12 57	58 3·4
1667	Sw. XI.	1 10 47	2·94	107 51·0	19·1	eF, pS, R	12 45	107 38·3
1668	J. 855	1 11 3	3·33	57 33·5	19·1	eF, vS, R, vFN	13 16	57 20·8
1669	J. 856	1 12 16	3·34	57 32·7	19·0	vF, S, dif	14 29	57 20·0
1670	Sw. XI.	1 12 22	2·94	107 35·2	19·0	vF, pS, lE, 2st nr nf	14 20	107 22·5
1671	Sw. XI.	1 12 42	2·94	107 50·1	19·0	eF, vS, R, * 7 nf 47^s	14 40	107 37·4
1672	J. 857	1 12 52	3·31	61 2·4	19·0	pB, S, R, gbMN, r	15 4	60 49·7
1673	J. 858	1 12 59	3·34	57 42·8	19·0	F, R, stell N	15 13	54 30·1
1674	D. S. 151	1 13 6	2·54	141 23	19·0	eF, eS, bM, 2 spir wisps	14 48	141 10
1675	Kobold	1 13 8	3·35	56 29·2	19·0	F, S	15 22	56 16·5
1676	J. 859	1 13 13	+ 3·31	60 28·3	− 19·0	F, vS, stell N	15 25	60 15·6

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		h m s	s	° ′	″		m s	° ′
1677	J. 860	1 13 16	+ 3·34	57 30·8	− 19·0	F, pS, R, bMN	15 30	57 18·1
1678	J. 861	1 13 46	3·11	85 10·9	19·0	F, vS, R, stell	15 50	84 58·2
1679	J. 862	1 13 55	3·35	57 14·7	19·0	F, S, iF, vlbM, dif	16 9	57 2·0
1680	J. 863	1 14 0	3·35	57 26·8	19·0	F, vS, bMN	16 14	57 14·1
1681	J. 864	1 14 12	3·07	90 38·8	19·0	F, S, R, gbM, r	16 15	90 26·1
1682	J. 865	1 14 22	3·35	57 30·7	19·0	F, vS, R, stell	16 36	57 18·0
1683	J. 866	1 14 46	3·36	56 17·7	19·0	F, S, E ns, gbM, r	17 0	56 5·0
1684	J. 867	1 15 3	3·35	57 20·7	19·0	F, S, R, dif	17 17	57 8·0
1685	J. 868	1 15 15	3·35	57 32·2	19·0	F, S, R, vlbM, dif	17 29	57 19·5
1686	J. 869	1 15 21	3·35	57 18·1	19·0	pB, pS, lE pf, gbMN	17 35	57 5·4
1687	J. 870	1 15 30	3·35	57 27·3	19·0	F, vS, R, bMN	17 44	57 14·6
1688	J. 871	1 15 35	3·35	57 40·1	19·0	F, vS, R, bMN	17 49	57 27·4
1689	J. 872	1 15 55	3·35	57 41·8	18·9	F, vS, R, gbMN, * 14 close	18 9	57 29·2
1690	J. 873	1 15 58	3·35	57 34·2	18·9	F, vS, R, stell	18 12	57 21·6
1691	J. 874	1 16 35	3·35	57 21·4	18·9	pF, vS, R, dif	18 49	57 8·8
1692	J. 875	1 16 49	3·36	57 31·0	18·9	F, vS, R, gbM, r	19 3	57 18·4
1693	Ho. III.	1 16 55	3·05	92 23·2	18·9	eF, vS, possibly F *	18 57	92 10·6
1694	B. 246	1 17 37	3·08	89 7	18·9	vF, S, mbM	19 40	88 54
1695	Sw. XI.	1 17 39	3·14	81 59·7	18·9	eF, pS, R, * 10 att p	19 45	81 47·1
1696	Ho. III.	1 17 44	3·05	92 20·9	18·9	eF, eS, 530 np	19 46	92 8·3
1697	J. 876	1 17 53	3·07	90 17·3	18·9	F, vS, R, gbM	19 56	90 4·7
1698	J. 877	1 17 57	3·19	75 53·3	18·9	pB, S, iF, bMN	20 5	75 40·7
1699	J. 878	1 17 58	3·19	75 46·7	18·9	vF, vS, R, gbM	20 6	75 34·1
1700	J. 879	1 18 0	3·19	75 51·6	18·9	pB, S, R, gbMN	20 8	75 39·0
1701	J. 880	1 18 19	3·22	72 32·0	18·9	F, S, dif, N 13 mag	20 28	72 19·4
1702	Sw. XI.	1 18 22	3·20	74 7·9	18·9	eeF, pS, lE, v diffic, bet 2 st ns	20 30	73 55·3
1703	B. 369	1 19 18	3·05	92 23	18·8	eF, S, dif	21 20	92 10
1704	J. 881	1 19 26	3·19	76 0·6	18·8	pB, pS, dif, iF, gvlbM	21 34	75 48·1
1705	Ho. I.	1 19 39	3·04	94 13·8	18·8	Neb * 12, FD * nf 2′	21 41	94 1·3
1706	J. 882	1 19 48	3·19	75 58·0	18·8	F, S, dif, vlbM	21 56	75 45·5
1707	B. 370	1 20 56	3·38	57 8	18·8	eF, dif, * 13·3 close	23 11	56 55
1708	D. S. 152	1 21 0	1·66	161 55	18·8	vF, vS, R, *9 sf 4′	22 6	161 42
1709	Sw. XI.	1 21 46	2·72	126 29·5	18·8	eF, pS, R, v diffic	23 35	126 17·0
1710	J. 883	1 23 10	3·26	69 17·1	18·7	F, pL, dif, * 13·5 att	25 20	69 4·6
1711	J. 884	1 23 24	3·21	73 31·7	18·7	F, pL, E 260°, gbM	25 32	73 19·2
1712	Barnard	1 24 20	3·01	97 35·4	18·7	No descr	26 20	97 22·9
1713	B. 247	1 24 43	3·41	55 24	18·7	* 13, nebs ?	26 59	55 12
1714	Sw. XII.	1 26 2	2·95	104 13·2	18·6	eeF, S, lE, v dif, * 8 n	28 0	104 0·8
1715	J. 885	1 26 12	3·18	78 8·2	18·6	F, S, R, N, r	28 19	77 55·8
1716	B. 371	1 26 33	2·96	103 2	18·6	eF, r, neb ?	28 31	102 50
1717	D. S. 153	1 28 18	1·80	158 15	18·6	eF, eS, mE 25°, stell N	29 30	158 3
1718	J. 886	1 30 28	3·41	57 22·1	18·5	F, vS, pR, * 13·5 att	32 44	57 9·8
1719	Sw. XI.	1 31 22	2·71	124 42·0	18·4	vF, S, R, cF * nr nf	33 10	124 29·7
1720	Sw. XI.	1 33 38	2·77	119 38·6	18·4	eF, eS, R, B * p	35 29	119 26·3
1721	J. 887	1 34 3	3·15	82 10·9	18·4	pB, pS, Epf, gbM, r	36 9	81 58·6
1722	D. S. 154	1 36 36	2·69	124 54	18·3	F, S, cE 45°	38 24	124 42
1723	J. 888	1 36 51	3·15	81 54·4	18·2	F, pL, E 200°, glbM	38 57	81 42·3
1724	D. S. 155	1 36 54	2·69	124 55	18·2	F, S, cE 175°	38 42	124 43
1725	J. 889	1 37 29	3·29	68 54·9	18·2	F, S, pR, dif	39 41	68 42·8
1726	J. 890	1 38 3	+ 3·11	86 5·1	− 18·2	F, vS, gbM, * 13·5 close	40 7	85 53·0

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		h m s	s	° ′	″		m s	° ′
1727	Roberts	1 39 39	+ 3·36	63 22·3	− 18·1	F, L, st inv, I 157 nf	41 53	63 10·2
1728	D. S. 156	1 41 25	2·68	124 18	18·1	F, S, E 160°, mbM	43 12	124 6
1729	Sw. XI., Ho.	1 41 28	2·77	117 35·4	18·1	pB, eS, alm stell, rr ?	43 19	117 23·3
1730	J. 891	1 42 12	3·30	68 43·2	18·1	F, S, R, gbM	44 24	68 31·1
1731	Roberts	1 42 19	3·36	63 29·7	18·1	F, E np sf, bM, prob spir	44 33	63 17·6
1732	B. 248	1 42 39	3·49	54 46	18·0	vF, pS, mbM, ? eF st inv	44 59	54 34
1733	J. 892	1 42 40	3·44	57 36·2	18·0	F, vS, pR, r	44 58	57 24·2
1734	Sw. XI., D. S.	1 42 45	2·69	123 27·3	18·0	vF, pS, lE 100°, bM	44 33	123 15·3
1735	J. 893	1 42 48	3·44	57 35·6	18·0	vF, vS, r	45 6	57 23·6
1736	J. 894	1 43 17	3·26	72 24·2	18·0	F, pS, E 210°, glbM	45 27	72 12·2
1737	B. 249	1 43 29	3·49	54 27	18·0	eF, 3 or 4 vF st in neb	45 49	54 15
1738	Sw. XI., Ho.	1 44 13	2·96	100 29·2	18·0	eF, vS, I 62 p	46 11	100 17·2
1739	D. S. 157	1 44 14	2·66	124 45	18·0	cF, cS, R, mbM	46 0	124 33
1740	Sw. XI.	1 44 56	2·72	120 38·3	18·0	pB, eS, lE, like D *	46 45	120 26·3
1741	Ho. III.	1 45 12	2·89	107 28·8	17·9	eF, eS, ? = 690	47 8	107 16·9
1742	J. 895	1 45 28	3·32	67 58·5	17·9	F, S, lEpf, glbM	47 41	67 46·6
1743	B. 250	1 45 32	3·20	77 59	17·9	vF, pS, lbM, dif, ? = 716	47 40	77 47
1744	J. 896	1 45 58	3·28	70 50·4	17·9	F, S, R, glbM	48 9	70 38·5
1745	Ho. III.	1 46 15	2·89	107 21·6	17·9	eF, eS	48 11	107 9·7
1746	J. 897	1 47 7	3·12	85 53·1	17·9	F, S, pR, gbM	49 12	85 41·2
1747	Fleming 103	1 47 22	4·26	27 23	17·8	planetary, stell	50 12	27 11
1748	Palisa (3634)	1 48 32	3·26	73 2·8	17·8	vF	50 42	72 50·9
1749	J. 898	1 48 50	3·14	83 56·7	17·8	F, S, E ns, biN, r	50 56	83 44·8
1750	J. 899	1 49 2	3·11	86 36·5	17·8	vF, vS, pR, N	51 6	86 24·6
1751	Sw. XI., Ho.	1 49 3	3·13	85 3·6	17·8	pB, pS, R, * 9 np	51 8	84 51·7
1752	J. 900	1 49 19	3·40	62 3·9	17·8	F, v S, *. 14·5 att	51 35	61 52·0
1753	J. 901	1 49 23	3·40	62 5·3	17·8	F, vS, dif, 14·5 close	51 39	61 53·4
1754	J. 902	1 49 34	3·11	86 39·6	17·8	F, S, gbM	51 38	86 27·7
1755	J. 903	1 49 37	3·23	76 9·0	17·8	F, S, dif	51 46	75 57·1
1756	Barnard	1 49 53	3·06	91 9·6	17·8	vF, E np sf, * 13 close sf	51 55	90 57·7
1757	Barnard	1 49 57	3·06	91 10·0	17·8	eF, vS, R	51 59	90 58·1
1758	Ho. III.	1 50 9	2 88	107 13·5	17·7	F, eS, sbM * 11	52 4	107 1·7
1759	Sw. XI.	1 51 18	2·65	123 43·3	17·7	pB, vS, R, bM, * 10 close sp	53 4	123 31·5
1760	Sw. XI.	1 51 18	2·67	122 41·5	17·7	eF, pS, R [? PD 123°]	53 5	122 29 7
1761	J. 904	1 51 41	3·07	90 5·8	17·7	vF, vS, R, gbMN	53 44	89 54·0
1762	Sw. XI., D. S.	1 51 49	2·65	123 57 5	17·7	eeF, pS, R, *7 nf	53 35	123 45·7
1763	Sw. XII.	1 52 26	2·73	118 28·3	17·7	eeF, S, R, * 8 ssf	54 15	118 16·5
764	J. 905	1 52 32	3·35	66 6·1	17·7	F, vS, R, lbM	54 46	65 54·3
1765	Barnard	1 52 32	3·46	58 50·2	17·7	S * att p	54 50	58 38·4
1766	Barnard	1 53 5	3·46	58 54·2	17·6	No descr	55 23	58 42·4
1767	Sw. XI.	1 53 7	2 94	101 48·1	17·6	eF, pS, bet 2 st 10·5, 2 st n	55 5	101 36·4
1768	Sw. XI.	1 54 18	2·76	115 46·4	17 6	eeF, pS, R, 3 st 9 sf, v diffic	56 8	115 34·7
1769	D. S. 158	1 54 44	2·66	122 36	17·6	eF, eS, mE 80°	56 30	122 24
1770	J. 906	1 54 48	3·18	80 41·6	17·5	F, vS, R, stell	56 55	80 29·9
1771	J. 907	1 54 50	3·18	80 42·4	17·5	F, vS, R, stell	56 57	80 30·7
1772	Barnard	1 55 21	3·15	82 55·8	17 5	F, S, slbM, * 8·5 166″n	57 27	82 44·1
1773	B. 372	1 55 58	3·45	59 52	17·5	vF, vS, gbM, r	58 16	59 40
1774	J. 908	1 56 23	3·25	75 21·7	17·5	vF, dif	58 33	75 10·0
1775	J. 909	1 57 45	3·22	77 9·4	17·4	F, S, dif, * 13·5 nr	59 54	76 57·8
1776	J. 910	1 57 56	+ 3·13	84 33·3	− 17·4	F, pL, iR, dif	0 1	84 21·7

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		h m s	s	° ′	″		m s	° ′
1777	J. 911	1 58 34	+ 3·25	75 28·0	− 17·3	F, eS, R, stell	0 44	75 16·5
1778	J. 912	1 58 53	3·17	81 26·9	17·3	F, S, R, gbMN	1 0	81 15·4
1779	J. 913	1 59 8	3·11	86 58·6	17·3	F, S, R, * 14 nr	1 12	86 47·1
1780	J. 914	1 59 17	3·24	75 56·5	17·3	F, S, dif, sev st 9·10 nr	1 27	75 45·0
1781	J. 915	1 59 47	3·06	91 11·9	17·3	F, vS, R, N	1 49	91 0·4
1782	Sw. XI.	2 1 5	2·74	116 9·0	17·3	vF, D * in neb	2 55	115 57·5
1783	Sw. XI., D. S.	2 3 55	2·61	123 39·4	17·1	pF, vS, mE ns, F * p	5 39	123 28·0
1784	J. 916	2 7 59	3·52	58 1·3	17·0	F, L, Epf, gbM	10 20	57 50·0
1785	J. 917	2 8 7	3·52	58 0·3	17·0	F, S, R, stell	10 28	57 49·0
1786	J. 918	2 8 44	3·13	85 30·2	16·9	vF, vS, R, N	10 49	85 18·9
1787	Sw. XI.	2 9 24	2·91	102 36·2	16·9	eF, vmE, bet 2 st pf, * 8 nf	11 20	102 24·9
1788	Sw. XI.	2 9 25	2·63	121 50·6	16·9	pF, pS, R, 2 st nf	11 10	121 39·3
1789	Barnard	2 9 59	3·52	58 14·8	16·9	F, S, iF, ?	12 20	58 3·5
1790	J. 919	2 10 5	3·23	78 8·6	16·9	F, S, dif	12 14	77 57·3
1791	J. 920	2 10 9	3·23	78 10·9	16·9	S, R, like neb * 11	12 18	77 59·6
1792	J. 921	2 10 43	3·56	56 11·3	16·8	F, S, pR, gbM, r	13 5	56 0·1
1793	J. 922	2 13 15	3·53	58 6·8	16·7	F, S, E 200°, glbM	15 36	57 55·7
1794	J. 923	2 13 49	3·27	74 54·2	16·7	F, vS, dif, r	16 0	74 43·1
1795	Barnard	2 16 20±	4·46	28 34	16·6	Patch of neby	19 18±	28 23
1796	D. S. 159	2 17 12	2·39	132 1	16·5	vF, vS, R	18 48	131 50
1797	J. 924	2 17 39	3·35	70 13·5	16·5	F, vS, iF, dif	19 53	70 2·5
1798	J. 925	2 18 40	3·25	77 11·3	16·5	vF, vS, sbM * 15	20 50	77 0·3
1799	B. 251	2 19 41	3·85	44 40	16·4	vF, S, lbM, * 13 p 0′·5	22 15	44 29
1800	B. 373	2 20 17	3·54	59 13	16·4	eF, S, ? eS Cl	22 39	59 2
1801	J. 926	2 20 24	3·34	71 3·3	16·4	F, S, glbM, dif	22 38	70 52·4
1802	Barnard	2 20 44	3·39	67 30·6	16·3	* 11 np 1′	23 0	67 19·7
1803	Barnard	2 21 21	3·39	67 28·6	16·3	Stell N	23 37	67 17·7
1804	Barnard	2 21 26	3·39	67 28·1	16·3	No descr	23 42	67 17·2
1805	Barnard	2 21 30	4·47	29 9	16·3	Cl, co, eL neby extends f	24 29	28 58
1806	J. 927	2 21 37	3·39	67 40·6	16·3	F, vS, R, bMN	23 53	67 29·7
1807	J. 928	2 22 33	3·39	67 40·2	16·2	F, vS, R, lbM	24 49	67 29·4
1808	J. 929	2 23 29	3·00	94 50·2	16·2	F, vS, R, gbM, r	25 29	94 39·4
1809	J. 930	2 23 43	3·40	67 42·7	16·2	pB, pL, E 135°, gbM	25 59	67 31·9
1810	D. S. 160	2 24 3	2·32	133 43	16·2	vF, R, stell N	25 36	133 32
1811	Sw. XI.	2 24 4	2·52	124 52·8	16·2	eeF, S, R, 2 st p, np of 2 (sic)	25 45	124 42·0
1812	D. S. 161	2 24 9	2·33	133 27	16 2	vF, bM	25 42	133 16
1813	Sw. XI.	2 24 19	2·52	124 52·5	16·2	eF, eS, R, F * n, 2 st np, sf of 2 (sic)	26 0	124 41·7
1814	Sw. XI.	2 24 35	2·49	126 39·6	16·1	pB, pS, mE	20 15	126 28·9
1815	J. 931	2 25 59	3·57	58 11·3	16·1	F, S, R, gbMN	28 22	58 0·6
1816	Sw. XI.	2 26 11	2·47	127 22·5	16·1	vF, S, R, 2 st nr p	27 50	127 11·7
1817	J. 932	2 26 18	3·22	79 24·7	16·1	F, pL, Epf, dif	28 27	79 14·0
1818	Ho. II.	2 27 20	2·91	101 39·4	16·0	vF, eS, R, prob neb *	29 16	101 28·7
1819	J. 933	2 28 24	3·12	86 34·4	16·0	F, vS, R	30 29	86 23·7
1820	J. 934	2 28 31	3·15	84 34·1	15·9	F, vS, R, bMN	30 37	84 23·5
1821	J. 935	2 28 47	3·26	76 49·1	15·9	pF, S, gbM, dif	30 57	76 38·5
1822	B. 252	2 28 49	2·94	99 11	15·9	* 13·5 slightly nebs	30 47	99 0
1823	J. 936	2 30 15	3·57	58 32·8	15·8	F, S, iF, dif	32 38	58 22·3
1824	Barnard	2 30 30	4·56	29 0	15·8	Cl, st F, perh. F neby p extends to it	33 32	28 50
1825	J. 937	2 31 27	3·20	81 30·6	15·8	F, S, R, gbMN	33 35	81 20·1
1826	Sw. XI., D. S.	2 32 18	+ 2·63	118 2·9	− 15·7	pB, eS, R, * 8 nr p	34 3	117 52·4

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
1827	J. 938	2 32 31	+ 3·09	89 2·7	− 15·7	F, S, fan-shape, * 13·5 close s	34 35	88 52·2
1828	J. 939	2 32 35	3·36	71 16·6	15·7	F, S, iF, gbMN	34 49	71 6·1
1829	J. 940	2 32 50	3·36	71 17·5	15·7	vF, vS, dif, r	35 4	71 7·0
1830	D. S. 162	2 32 57	2·63	118 3	15·7	vF, S, susp, eF * 1′·5 sp	34 42	117 53
1831	Wolf (4082)	2 33 ...	4·70	27 ...	15·7	vF, eeL	36 ...	27 ...
1832	J. 941	2 34 3	3·35	71 34·7	15·6	F, iF or lEns, bMN	36 17	71 24·3
1833	Sw XI., Ho.	2 35 34	2·61	118 46·2	15·6	eeF, S, R, 3 D st nf	37 18	118 35·8
1834	J. 942	2 35 34	3·11	87 29·9	15·6	F, pS, pR, glbM	37 38	87 19·5
1835	J. 943	2 36 7	3·29	75 42·6	15·5	F, S, R, dif	38 19	75 32·3
1836	J. 944	2 36 9	3·11	87 28·8	15·5	F, S, R, vlbM	38 13	87 18·5
1837	J. 945	2 36 22	3·07	90 29·1	15·5	F, vS, R, gbM, r	38 25	90 18·8
1838	J. 946	2 36 51	3·36	71 9·1	15·5	F, vS, R, sbM * 14	39 5	70 58·8
1839	J. 947	2 37 0	3·29	75 20·2	15·5	vF, S, R, dif	39 12	75 9·9
1840	Ho. III.	2 37 5	2·83	106 18·0	15·5	vF, vS, mbM, 1081 nf	38 58	106 7·7
1841	J. 948	2 37 44	3·35	71 40·7	15·4	F, vS, R, gvlbM	39 58	71 30·4
1842	J. 949	2 37 50	3·24	79 8·0	15·4	F, vS, R, glbM	40 0	78 57·7
1843	J. 950	2 38 10	3·11	87 42·4	15·4	F, pL, Epf, dif	40 14	87 32·1
1844	J. 951	2 38 36	3·11	87 20·9	15·4	F, pS, Epf, dif	40 40	87 10·6
1845	Sw. XI.	2 38 51	2·61	118 32·9	15·4	eeF, S, R, D * np	40 35	118 22·6
1846	J. 952	2 40 6	3·27	77 21·1	15·3	F, S, glbM	42 17	77 10·9
1847	J. 953	2 40 9	3·29	76 4·8	15·3	F, S, iF, r	42 21	75 54·6
1848	Barnard	2 40 30	4·57	30 9	15·3	Cl, st F, extends 8^{m} f, in F neby	43 33	29 59
1849	J. 954	2 40 41	3·21	81 13·5	15·3	F, vS, R, stell	42 49	81 3·3
1850	J. 955	2 41 2	3 27	77 20·7	15·2	F, S, dif	43 13	77 10·6
1851	Barnard	2 41 17	4·45	32 16·1	15·2	* 6·2, neb att sp, 5′1	44 15	32 6·0
1852	J. 956	2 41 21	3·27	77 22·9	15·2	F, pS, R, gbM	43 32	77 12·8
1853	Ho. III.	2 41 26	2·85	104 34·7	15·2	eF, vS, 1103 f 2^{s}, 2′n	43 20	104 24·6
1854	J. 957	2 41 28	3·37	71 16·3	15·2	F, vS, R, bMN	43 43	71 6·2
1855	J. 958	2 41 37	3·27	77 13·2	15·2	F, pL, Dns, biN	43 52	77 3·1
1856	J. 959	2 41 42	3·05	91 19·5	15·2	F, S, E 200°, gbMN	43 44	91 9·4
1857	J. 960	2 41 57	3·29	75 57·7	15·2	F, S, R, glbM	44 9	75 47·6
1858	Sw. XI.	2 42 49	2·53	121 52·6	15·1	vF, pS, R, 1st of 3	44 30	121 42·5
1859	Sw. XI.	2 42 51	2·53	121 46·6	15·1	pF, pS, R, 2nd of 3	44 32	121 36·5
1860	Sw. XI.	2 43 23	2·53	121 46·6	15·1	pF, pS, lE, 3rd of 3	45 4	121 36·5
1861	Barnard	2 45 8	3·48	65 5·8	15·0	F, pS, R, vgbM	47 27	64 55·8
1862	Sw. XI.	2 45 31	2·48	123 56·8	15·0	eeF, vS, lE, v diffic, * 7 sf	47 10	123 46·8
1863	J. 961	2 47 22	3·20	81 48·4	14·9	F, vS, R, gbMN	49 30	81 38·5
1864	Sw. XI.	2 47 27	2·45	124 46·8	14·9	eF, S, R	49 5	124 36·9
1865	J. 962	2 47 51	3·20	81 45·7	14·8	F, vS, R, gbM, r	49 59	81 35·8
1866	Ho. III.	2 48 19	2·81	106 13·4	14·8	vF, eS, alm stell	50 11	106 3·5
1867	J. 963	2 48 21	3·20	81 14·5	14·8	F, S, pR, gbM	50 29	81 4·6
1868	J. 964	2 48 38	3·20	81 13·4	14·8	F, vS, R, stell	50 46	81 3·5
1869	J. 965	2 50 46	3·16	84 43·6	14·7	F, eS, like neb D *	52 52	84 33·8
1870	Barnard	2 50 48	3·03	92 53·6	14·7	vF, R, vgbM, v diffic	52 49	92 43·8
1871	Barnard	2 55 17	4·69	29 52·2	14·4	* 9·3 nebs, chiefly f	58 25	29 42·6
1872	Bidschof (3520)	2 55 23	3·92	47 44·4	14·3	Cl	58 0	47 34·9
1873	J. 966	2 56 18	3·22	81 1·7	14·3	F, S, E 200°	58 27	80 52·2
1874	J. 967	2 57 35	3·74	54 31·8	14·2	F, vS, vlbM, dif	0 5	54 22·3
1875	Sw. XI.	2 57 56	2·31	130 2·1	14·2	eF, pS, R, FD * sf in line	59 28	129 52·6
1876	Sw. XI.	2 58 37	+ 2·57	118 2·1	− 14·2	eeF, S, R, F * nr sf	0 20	117 52·6

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
1877	D. S. 165	2 58 44	+ 1·91	141 3	− 14·2	eF, vS, E 170°, prob neb	0 0	140 54
1878	D. S. 166	2 59 22	1·84	142 39	14·1	eeF, eS, cE 5°, prob neb	0 36	142 30
1879	D. S. 167	2 59 34	1·84	142 39	14·1	eeF, eS, mE 135°, stell N	0 48	142 30
1880	Ho. III.	2 59 42	2·90	100 16·3	14·1	eF, S, * 9 f 8^s	1 38	100 6·9
1881	B. 253	3 0 20	3·82	51 52	14·1	vF, pS, v dif [? = 1213]	2 53	51 43
1882	J. 968	3 0 33	3·12	87 23·4	14·1	F, pL, E 210°	2 38	87 14·0
1883	Barnard	3 0 35	3·88	49 38·8	14·1	S, R, vgbM	3 10	49 29·4
1884	Barnard	3 0 36	3·88	49 33·8	14·1	S, E npsf, diffic, * 12 close f	3 11	49 24·4
1885	D. S. 168	3 0 58	2·44	123 23	14·1	vF, vS, mE 140°, gbM	2 36	123 14
1886	B. 254	3 1 3	2·99	94 56	14·1	vF, S, vmbM, * 13 s 1″·2	3 3	94 47
1887	Barnard	3 1 4	3·88	49 46·8	14·1	* 12 close sf	3 39	49 37·4
1888	Barnard	3 1 51	3·88	49 24·3	14·1	vF, S	4 26	49 14·9
1889	Barnard	3 1 55	3·88	49 55·4	14·1	F, R, vgbM	4 30	49 46·0
1890	J. 969	3 2 3	3·40	71 20·4	14·0	pB, pL, iF, N, r	4 19	71 11·1
1891	J. 970	3 2 14	3·40	70 55·7	14·0	vF, S, bM, dif	4 30	70 46·4
1892	Ho. III.	3 2 15	2·66	113 35·6	14·0	vF, L, nr 1230	4 1	113 26·3
1893	J. 971	3 2 19	3·40	70 54·9	14·0	eF, vS, diffic	4 35	70 45·6
1894	J. 972	3 2 28	3·40	70 55·6	14·0	F, S, vlbM, dif	4 44	70 46·3
1895	Sw. XI.	3 3 24	2·61	115 51·8	13·9	eeF, pS, 2 st close p	5 8	115 42·5
1896	D. S. 169	3 3 58	1·71	144 46	13·9	eeF, eS, cE 10°, stell N	5 6	144 37
1897	Ho. III.	3 4 2	2·88	101 19·9	13·9	eF, vS, nr 1238	5 57	101 10·6
1898	D. S. 170	3 4 14	2·66	112 56	13·9	Neb line at 60°, susp	6 0	112 47
1899	Sw. XI.	3 5 46	2·60	115 51·2	13·8	eeF, S, R, 2 F st sp in line	7 30	115 42·0
1900	J. 973	3 7 1	3·80	53 22·2	13·7	F, S, pR, gbMN	9 33	53 13·1
1901	J. 974	3 7 9	3·80	53 24·7	13·7	F, vS, R, gbMN	9 41	53 15·6
1902	J. 975	3 7 18	3·80	53 20·8	13·6	F, vS, R, sbM * 14	9 50	53 11·7
1903	D. S. 171	3 8 46	1·86	141 7	13·6	2 F neb, E	10 0	140 58
1904	D. S. 172	3 9 9	2·48	121 13	13·6	eF, vS, mE 80°, stell N	10 48	121 4
1905	B. 374	3 9 34	3·93	49 9	13·5	Cl, S, vF, ? neb	12 11	49 0
1906	D. S. 173	3 10 31	2·38	124 53	13·4	vF, vS, vmE 60°, gbM	12 6	124 44
1907	B. 375	3 10 40	3·94	48 58	13·4	vF, S, vmbM	13 18	48 49
1908	D. S. 174	3 11 18	1·66	145 21	13·4	vF, vS, spir branch	12 24	145 12
1909	D. S. 175	3 11 42	2·40	124 12	13·4	vF, vS, c E 45°, stell N	13 18	124 3
1910	D. S. 176	3 11 43	2·67	111 57	13·4	2 eF, eS neb susp	13 30	121 48
1911	B. 258	3 11 58	3·76	55 13	13·3	Neb, not well seen	14 28	55 4
1912	D. S. 177	3 12 28	1·84	141 10	13·3	S, Ens	13 42	141 1
1913	D. S. 178	3 13 53	2·42	122 59	13·2	vF, vS, mE 155°, cbM	15 30	122 50
1914	D. S. 179	3 14 45	1·87	140 6	13·2	Spiral ?	16 0	139 57
1915	D. S. 180	3 15 29	1·83	141 12	13·1	Ens	16 42	141 3
1916	D. S. 181	3 15 56	1·89	139 33	13·1	F, S, R, 2 st sp	17 12	139 24
1917	D. S. 182	3 18 16	1·69	143 42	13·0	Ens	19 24	143 33
1918	J. 976	3 18 58	3·15	85 57·4	12·9	F, S, glbM, dif	21 4	85 48·8
1919	Sw. XI.	3 19 49	2·40	123 23·4	12·8	eF, pS, lE, sev st n [? RA 9^m]	21 25	123 14·9
1920	D. S. 183	3 20 16	1·70	143 13	12·8	Stellar	21 24	143 4
1921	D. S. 184	3 20 30	1·80	141 12	12·8	Stellar	21 42	141 3
1922	D. S. 185	3 20 30	1·80	141 14	12·8	Stellar	21 42	141 5
1923	D. S. 186	3 20 36	1·80	141 4	12·8	Stellar	21 48	140 55
1924	D. S. 187	3 20 56	1·74	142 11	12·8	E, stellar	22 6	142 3
1925	D. S. 188	3 21 8	1·76	141 45	12·8	Enp sf, stell	22 18	141 37
1926	D. S. 189	3 21 8	+ 1·74	142 11	− 12·8	E, stell	22 18	142 3

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		h m s	s	° ′	″		m s	° ′
1927	D. S. 190	3 21 8	+ 1·74	142 13	− 12·8	vF	22 18	142 5
1928	D. S. 194	3 21 20	2·65	112 2	12·7	vF, vS, mE 20°, cbM	23 6	111 54
1929	D. S. 191	3 21 20	1·76	141 45	12·8	Enp sf	22 30	141 37
1930	J. 977	3 21 26	3·14	86 5·4	12·7	F, S, R, gbM, * 8 p 3ˢ, s 1′·6	23 32	85 56·9
1931	J. 978	3 21 43	3·09	88 44·3	12·7	vF, dif	23 47	88 35·8
1932	D. S. 192	3 21 44	1·75	141 49	12·7	Ens	22 54	141 41
1933	D. S. 193	3 21 46	1·69	143 16	12·7	lE sp nf	22 54	143 8
1934	Barnard	3 21 50	4·01	47 41·3	12·6	eF, pS, lbM, * 12 dist 34″	24 30	47 32·9
1935	D. S. 195	3 21 53	1·82	140 30	12·7	Stell, E, spir ?	23 6	140 22
1936	D. S. 196	3 22 20	1·75	141 48	12·7	Stell, E np sf	23 30	141 40
1937	D. S. 197	3 22 27	1·87	139 11	12·7	vF, vS, R, bM	23 42	139 3
1938	D. S. 198	3 23 18	1·66	143 30	12·6	Perhaps D *	24 24	143 22
1939	D. S. 199	3 23 38	1·76	141 33	12·6	Epf	24 48	141 25
1940	D. S. 200	3 23 40	1·71	142 37	12·6	bM	24 48	142 29
1941	D. S. 202	3 23 56	3·54	66 3	12·5	vF, S, vmE 0° (prob neb)	26 18	65 55
1942	D. S. 201	3 24 4	1·69	143 9	12·6	Stell, Ens	25 12	143 1
1943	Sw. XI.	3 24 58	2·05	134 35·3	12·5	pB, S, R	26 20	134 27·0
1944	D. S. 203	3 25 14	1·89	138 29	12·5	eF, eS, lE 20°	26 30	138 21
1945	D. S. 204	3 25 23	1·68	143 7	12·5	Stell	26 30	142 59
1946	D. S. 205	3 25 29	1·68	143 6	12·5	Stell	26 36	142 58
1947	D. S. 206	3 26 25	1·78	140 48	12·4	Stell	27 36	140 40
1948	D. S. 207	3 26 27	1·88	138 27	12·4	eeF, S, R	27 42	138 19
1949	D. S. 208	3 26 33	1·88	138 28	12·4	eF, vS, spir, cbM	27 48	138 20
1950	D. S. 209	3 26 55	1·78	140 54	12·3	E np sf	28 6	140 46
1951	D. S. 210	3 27 12	1·64	143 37	12·3	E sp nf	28 18	143 29
1952	D. S. 212	3 27 22	2·60	114 11	12·3	eF, S, vmE 140°, * 1′ sf	29 6	114 3
1953	D. S. 213	3 27 32	2·65	111 57	12·3	vF, eL, spir or annular	29 18	111 49
1954	Innes, D. S.	3 27 44	1·70	142 23	12·3	F, pL, R, spir	28 52	142 15
1955	D. S. 211	3 28 4	1·40	147 42	12·3	eF, vS, R	29 0	147 34
1956	J. 979	3 28 9	3·16	85 24·1	12·3	F, S, E 200°, 2 vF Nuclei	30 15	85 15·9
1957	D. S. 214	3 28 17	1·67	142 55	12·3	E sp nf	29 24	142 47
1958	D. S. 215	3 28 45	1·72	141 55	12·3	Stell	29 54	141 47
1959	D. S. 216	3 29 1	1·77	140 53	12·2	E np sf	30 12	140 45
1960	D. S. 217	3 29 16	1·40	147 40	12·2	eF, vS, R	30 12	147 32
1961	D. S. 218	3 29 17	1·83	139 25	12·2	eF, vS, cE 20°	30 30	139 17
1962	D. S. 221	3 29 26	2·65	111 46	12·2	eF, S, mE 175°, gbM	31 12	111 38
1963	Sw. XI.	3 29 27	2·33	124 55·0	12·2	pB, S, eE 90°	31 0	124 46·9
1964	D. S. 220	3 29 49	1·63	143 38	12·2	Epf	30 54	143 30
1965	D. S. 219	3 29 51	1·43	147 1	12·2	eF, vS, R, cbM	30 48	146 53
1966	D. S. 222	3 30 3	1·72	141 47	12·2	Stell	31 12	141 39
1967	J. 980	3 30 29	3·13	87 11·6	12·1	vF, S, R, * 13 nr	32 34	87 3·5
1968	D. S. 223	3 30 38	1·75	141 6	12·1	Stell	31 48	140 58
1969	D. S. 224	3 31 35	1·98	135 39	12·1	eF, vS, cE 50°, cbM	32 54	135 31
1970	Sw. XI., D. S.	3 31 45	2·03	134 25	12·1	eF, vS, eE 75°	33 6	134 17
1971	D. S. 225	3 32 6	1·65	143 6	12·0	Epf	33 12	142 58
1972	D. S. 226	3 32 29	1·68	142 26	12·0	E	33 36	142 18
1973	D. S. 227	3 32 29	1·68	142 27	12·0	E	33 36	142 19
1974	D. S. 228	3 32 30	1·79	140 2	12·0	E np sf	33 42	139 54
1975	Ho. III.	3 32 37	2·76	105 57·6	12 0	eF, vS, v diffic, nr 1405	34 27	105 49·6
1976	D. S. 229	3 32 45	+ 1·88	137 54	− 12·0	eF, eS, R	34 0	137 46

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
1977	J. 981	3 32 46	+ 3·41	72 42·2	− 12·0	F, S, R, dif, * 13·5 nr	35 2	72 34·2
1978	D. S. 230	3 32 56	1·76	140 37	12·0	Ens	34 6	140 29
1979	D. S. 231	3 33 37	1·32	148 24	11·9	eeF, eS, vmE 20°	34 30	148 16
1980	D. S. 232	3 33 49	1·32	148 26	11·9	eF, cS, vmE 25°	34 42	148 18
1981	Sw. XI.	3 33 59	2·52	117 19·1	11·9	eF, eS, lE, * close nf	35 40	117 11·2
1982	D. S. 233	3 34 31	1·33	148 14	11·8	cF, eS, R	35 24	148 6
1983	Sw. XI.	3 35 1	2·61	113 3·5	11·8	vF, pS, R	36 45	112 55·6
1984	D. S. 234	3 35 26	1·89	137 32	11·8	eeF, eS, mE 150°	36 42	137 24
1985	Barnard	3 35 48	3·74	58 17·0	11·7	* 8 in F, eL neb	38 18	58 9·2
1986	D. S. 235	3 36 0	1·95	135 49	11·8	eF, eS, cE 135°	37 18	135 41
1987	D. S. 236	3 36 48	1·49	145 31	11·7	eF, vS, R	37 48	145 23
1988	Sw. XI.	3 37 44	2·15	130 20·0	11·6	eF, pL, R, 2 st nr f, 2 st np	39 10	130 12·3
1989	D. S. 237	3 37 58	1·71	141 25	11·6	stell	39 6	141 17
1990	Stratonoff (3366)	3 39 12	3·56	65 49	11·5	vL, mE pf, 15′ l	41 34	65 41
1991	D. S. 238	3 40 47	1·67	141 59	11·4	stell, E sp nf	41 54	141 51
1992	D. S. 239	3 41 10	1·69	141 27	11·4	stell	42 18	141 19
1993	Sw. XI.	3 41 27	2·33	124 9·5	11·3	eF, L, cE, * 7·5 att, v diffic	43 0	124 2·0
1994	D. S. 242	3 41 54	1·66	142 6	11·3	Ens	43 0	141 58
1995	Barnard	3 41 54	3·59	64 50·7	11·3	* 6 in eF, eeL neb (*M.N.*, lx. p. 260)	44 18	64 43·2
1996	D. S. 240	3 41 55	1·32	147 46	11·3	eeF, eS, eE 95°	42 48	147 38
1997	D. S. 241	3 42 0	1·19	149 34	11·3	eF, vS, R, cbM, stell N	42 48	149 26
1998	J. 982	3 44 17	3·09	89 13·3	11·1	F, S, R, bMN	46 21	89 5·9
1999	D. S. 243	3 44 31	1·33	147 23	11·1	eeF, vS, cE 140°	45 24	147 16
2000	D. S. 244	3 45 1	1·78	139 17	11·1	cB, L, eE 80°, vmbM	46 12	139 10
2001	D. S. 245	3 46 43	1·78	139 3	11·0	eF, vS, R, 3 st nr	47 54	138 56
2002	J. 983	3 46 49	3·28	79 42·1	11·0	F, Ens, dif, * 14 n	49 0	79 34·8
2003	Espin	3 47 26	3·82	56 32·3	10·9	pB, eS, lEns, * 13 n 4″, * 12 sp 18″	49 59	56 25·0
2004	D. S. 246	3 47 44	1·74	139 50	10·9	eF, S	48 54	139 43
2005	J. 984	3 48 31	3·91	53 36·3	10·8	F, vS, R, stell	51 7	53 29·1
2006	Sw. XI.	3 48 50	2·24	126 24·3	10·8	pB, S, R, * nr nf, D* sp	50 20	126 17·1
2007	Sw. XI.	3 49 2	2·46	118 33·5	10·8	eF, S, R, F * att nf	50 40	118 26·3
2008	Sw. XI.	3 49 23	2·46	118 37·6	10·8	eF, vS, eF * v close nf	51 1	118 30·4
2009	D. S. 249	3 49 26	1·76	139 24	10·8	eF, S	50 36	139 17
2010	D. S. 247	3 49 28	1·10	150 20	10·8	eF, S, E 70°	50 12	150 13
2011	D. S. 248	3 49 33	1·27	147 54	10·8	eeF, vS, R	50 24	147 47
2012	D. S. 250	3 50 0	1·19	149 3	10·7	eeF, eS, cE ns	50 48	148 56
2013	D. S. 251	3 50 24	2·71	107 31	10·7	cB, cL, mE 170°, cbM, susp	52 12	107 24
2014	D. S. 252	3 52 19	1·32	147 9	10·6	eeF, vS, R	53 12	147 2
2015	D. S. 253	3 53 6	2·09	130 51	10·5	eF, S, R, bM, susp	54 30	130 44
2016	Barnard	3 53 50	3·49	70 8·7	10·4	eF, vS, * 15 s 30″	56 10	70 1·8
2017	D. S. 254	3 54 4	1·11	149 48	10·4	eF, vS, R	54 48	149 41
2018	D. S. 255	3 54 16	1·55	143 11	10·4	eF, vS, R	55 18	143 4
2019	J. 985	3 54 32	3·18	84 46·3	10·4	F, S, R, stell, r	56 39	84 39·4
2020	D. S. 256	3 55 31	1·47	144 27	10·3	eF, vS, R	56 30	144 20
2021	D. S. 257	3 55 46	1·55	143 4	10·3	eF, vS, R	56 48	142 57
2022	D. S. 258	3 56 3	1·13	149 26	10·3	eeF, eS, mE 5°, cbM	56 48	149 19
2023	D. S. 259	3 56 4	1·55	143 5	10·3	eF, vS, R	57 6	142 58
2024	D. S. 260	3 56 36	1·51	143 46	10·2	eF, vS, cE 35°	57 36	143 39
2025	D. S. 261	3 56 47	1·52	143 28	10·2	eF, vS, cE 135°	57 48	143 21
2026	B. 376	3 57 18	+ 2·84	101 34	− 10·2	vF, vS, stell	59 12	101 27

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		h m s	s	° ′	″		m s	° ′
2027	J. 986	3 57 28	+ 3·94	53 14·5	− 10·1	F, vS, R, vlbM	0 6	53 7·8
2028	D. S. 262	3 57 40	1·54	143 6	10·2	cF, vS, R	58 42	142 59
2029	D. S. 263	3 57 41	1·53	143 12	10·2	eF, vS, R	58 42	143 5
2030	D. S. 264	3 58 44	2·66	109 37	10·1	cF, vS, eE 135°, susp	0 30	109 30
2031	Barnard	3 59 ...	2·95	96 0±	10·0	eF, vS, dif, lbM, * 11 nf 3′	1 ...	95 53±
2032	D. S. 265	4 3 48	1·35	145 41	9·7	eF, vS, R	4 42	145 35
2033	D. S. 267	4 3 50	1·46	144 3	9·7	eF, vS, cE 130°	4 48	143 57
2034	D. S. 266	4 3 55	1·18	148 19	9·7	eeF, vS, cE 115°	4 42	148 13
2035	Innes	4 4 41	1·86	135 53	9·6	F, vS, R	5 55	135 47
2036	Sw. XI.	4 5 6	2·09	130 4·4	9·6	eeF, pS, R, v diffic, * 9 f	6 30	129 58·0
2037	D. S. 269	4 5 46	1·11	149 6	9·6	eF, vS, eE 90°, cbM	6 30	149 0
2038	D. S. 270	4 5 50	1·31	146 21	9·6	eF, vS, eE 145°	6 42	146 15
2039	D. S. 271	4 5 56	1·31	146 22	9·5	eF, vS, R	6 48	146 16
2040	Sw. XI.	4 6 58	2·31	122 56·1	9·4	vF, vS, R, rr?, 1531–32 s	8 30	122 49·8
2041	Sw. XI.	4 7 13	2·30	123 14·1	9·4	eF, vS, R, * 10 close s	8 45	123 7·8
2042	Innes	4 7 34	1·78	137 37·3	9·4	* 9 in neb 1′ diam	8 45	137 31·0
2043	D. S. 272	4 7 50	1·44	144 3	9·4	eF, vS, eE 5°, vmbM	8 48	143 57
2044	D. S. 273	4 7 58	1·39	144 53	9·4	eF, vS, R	8 54	144 47
2045	Ho. III.	4 8 5	2·79	103 31·7	9·3	eF, eS, alm stell, nr 1538	9 57	103 25·5
2046	D. S. 274	4 8 11	1·38	145 2	9·3	vF, vS, R	9 6	144 56
2047	Ho. III.	4 8 25	2·79	103 32·7	9·3	eF, eS, diffic, nr 1538	10 17	103 26·5
2048	Sw. XI.	4 9 0	2·29	123 28·6	9·3	eeF, eS, B * f, v diffic	10 32	123 22·4
2049	D. S. 275	4 9 28	1·11	148 54	9·3	eF, vS, R	10 12	148 48
2050	D. S. 276	4 10 32	+ 1·45	143 49	9·2	F, vS, cE 60°	11 30	143 43
2051	D. S. 268	4 10 41±	− 8·52	174 14±	9·4	! vF, vS, stell N, ellipt ring	5 0±	174 8±
2052	D. S. 278	4 11 46	+ 1·39	144 41	9·1	vF, vS, mE	12 42	144 35
2053	D. S. 279	4 11 54	+ 1·66	139 43	9·1	eF, S, cE 140°, susp	13 0	139 37
2054	D. S. 277	4 13 35	− 2·83	168 37	9·1	eeF, eS, vF * 1′ nf, susp	11 42	168 31
2055	D. S. 280	4 13 53	+ 1·68	139 16	8·9	F, S, cE ns, susp	15 0	139 10
2056	Innes	4 14 8	0·95	150 33	8·9	F, pL, R, bM	14 46	150 27
2057	J. 987	4 14 34	3·15	86 16·5	8·9	pB, pS, R, gbM, r	16 40	86 10·6
2058	D. S. 281	4 14 51	1·27	146 16	8·9	cB, cL, eE 10°	15 42	146 10
2059	Sw. XI.	4 14 57	2·33	121 47·6	8·8	eeF, pL, R	16 30	121 41·7
2060	D. S. 282	4 14 59	1·22	146 57	8·8	F, S, bM	15 48	146 51
2061	D. S. 283	4 15 45	3·53	69 15	8·8	F, cS, R, susp	18 6	69 9
2062	B. 259	4 16 14	6·71	18 24	8·7	eF	20 42	18 18
2063	Ho. I.	4 16 18	2·73	105 59·6	8·7	eF, vS, nr 1561–65	18 7	105 53·8
2064	Ho.	4 17 5±	2·73	106 1	8·7	susp, nf 1565	18 54	105 55
2065	D. S. 284	4 18 40	1·26	146 16	8·5	vF, vS, vm E 45°, pmbM	19 30	146 10
2066	D. S. 285	4 20 24	1·34	145 4	8·4	eeF, vS, R	21 18	144 58
2067	Roberts	4 21 38	3·93	54 51·9	8·3	vF, R, * 15 inv n, * 17 close np	24 15	54 46·4
2068	Sw. XI.	4 21 45	1·96	132 28·8	8·3	eF, pL, R, h 2643 f	23 3	132 23·3
2069	D. S. 287	4 21 58	1·69	138 31	8·3	eeF, S, R, susp	23 6	138 26
2070	D. S. 286	4 22 16	1·10	148 16	8·2	vF, vS, cbM	23 0	148 11
2071	D. S. 288	4 22 51	1·43	143 27	8·2	eeF, vS, cE 80°	23 48	143 22
2072	D. S. 289	4 22 59	1·68	138 41	8·2	cF, S, R, susp	24 6	138 36
2073	D. S. 290	4 23 15	1·42	143 30	8·2	vF, vS, eE 60°, stell N	24 12	143 25
2074	B. 377	4 23 48	3·23	82 36	8·1	vF, S, st inv, ? S Cl	25 57	82 31
2075	B. 260	4 23 59	2·94	96 6	8·1	eF, pL, vlbM	25 57	96 1
2076	D. S. 291	4 24 10	+ 1·69	138 32	− 8·1	vF, vS, cE 130°, susp	25 18	138 27

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		h m s	s	° ′	″		m s	° ′
2077	J. 988	4 24 55	+ 3·08	89 44·1	− 8·0	F, vS, gbMN	26 58	89 38·8
2078	B. 378	4 24 56	2·97	94 59	8·0	eF, pS	26 55	94 54
2079	D. S. 292	4 25 17	1·38	144 2	8·0	eF, vS, E 130°	26 12	143 57
2080	Ho. III.	4 25 27±	2·94	96 3 ±	8·0	eF, vS, 1594 p 90^s ±, 3′s	27 25±	95 58±
2081	D. S. 293	4 25 46	1·39	143 55	8·0	eF, vS, R, bet 2 F st	26 42	143 50
2082	D. S. 294	4 25 53	1·38	144 8	8·0	cF, S, R	26 48	144 3
2083	D. S. 295	4 27 29	1·37	144 16	7·9	eF, vS, R	28 24	144 11
2084	D. S. 297	4 28 11	1·67	138 35	7·8	F, S, R, susp	29 18	138 30
2085	D. S. 296	4 28 19	1·33	144 43	7·8	eF, vS, eE 110°	29 12	144 38
2086	D. S. 298	4 28 23	1·38	143 56	7·8	eeF, vS, R	29 18	143 51
2087	Barnard	4 31 27	3·67	64 33·1	7·5	eeF, in hole of eL neby	33 54	64 28·1
2088	Wolf (4082)	4 35 ...	+ 3·71	63 ...	7·2	eeL, 3° long	37 ...	63 ...
2089	D. S. 299	4 36 50	− 1·86	165 50	7·2	eeF, vS, R, F ∗ 1′ f, susp	35 36	165 54
2090	Sw. XI.	4 39 33	+ 2·22	124 15·2	6·8	vF, pS, R, 3 st sp	41 2	124 10·7
2091	Roberts	4 39 43	2·96	94 56·4	6·8	F, stell N	41 41	94 51·9
2092	Roberts	4 39 53	2·96	95 12·7	6·8	S, spiral, stell N	41 51	95 8·2
2093	B. 379	4 40 32	3·01	92 58	6·6	vF, stell	42 32	92 54
2094	Roberts	4 41 31	2·95	95 36·6	6·7	Spiral, F stell N	43 29	94 32·1
2095	Roberts	4 41 51	2·96	95 22·9	6·6	F, S, E sp nf, spiral ?	43 49	95 18·5
2096	Roberts	4 42 43	2·96	95 14·1	6·6	S, E, spiral, stell N	44 41	95 9·7
2097	Roberts	4 43 27	2·95	95 19·9	6·5	F, E np sf, spiral, lbM	45 25	95 15·6
2098	Roberts	4 43 50	2·95	95 40·2	6·5	F, spiral, lbM	45 48	95 35·9
2099	Roberts	4 43 55	2·96	95 8·6	6·5	S, mbMN	45 53	95 4·3
2100	B. 380, Roberts	4 44 20	2·96	95 4·3	6·4	vF, S, lE, stell	46 18	95 0·0
2101	Roberts	4 44 51	2·93	96 28·2	6·4	F, E np sf, bM, prob spir	46 48	96 23·9
2102	Roberts	4 44 58	+ 2·96	95 12·7	6·4	vF, lbM, prob spir	46 56	95 8·4
2103	D. S. 300	4 45 0	− 2·40	167 5	6·5	cF, vS, eE 80°, stell N	43 24	167 1
2104	Barnard	4 50 0	+ 2·71	106 1·2	6·0	F, E, gbM	51 48	105 57·2
2105	Fleming 84	4 50 6	− 0·31	159 25	6·1	Planetary, stellar	49 54	159 21
2106	Sw. XI.	4 50 25	+ 2·37	118 45·5	5·9	eeF, pL, D ∗ 24^s f	52 0	118 41·6
2107	B. 381	4 50 45	3·25	81 59	5·9	Cl, vF, vS, R	52 55	81 55
2108	B. 261	4 50 56	2·72	105 31	5·9	vF, pS, R, mbM, ∗ 9·5 sf 1′·3	52 45	105 27
2109	B. 382	4 51 51	3·06	90 32	5·8	vF ∗, ? nebs	53 53	90 28
2110	B. 383	4 51 54	+ 3·06	90 32	5·8	vF ∗, ? nebs	53 56	90 28
2111	Fleming 85	4 52 50	− 0·35	159 37	5·8	Planetary, stellar	52 36	159 33
2112	J. 989	4 53 6	+ 3·17	85 48·5	5·7	vF, pS, dif	55 13	85 44·7
2113	Barnard	4 53 12	+ 2·70	106 2·2	5·7	no descr	55 0	105 58·4
2114	Fleming 86	4 55 19	− 0·33	159 25	5·6	Planetary, stellar	55 6	159 21
2115	Fleming 87	4 56 44	+ 0·11	156 36	5·5	Planetary, stellar	56 48	156 32
2116	Fleming 88	4 57 14	+ 0·11	156 37	5·4	Planetary, stellar	57 18	156 33
2117	Fleming 89	4 57 39	− 0·22	158 39	5·4	Planetary, stellar	57 30	158 35
2118	Wolf (*M.N.* lxv.)	5 0 ...	+ 2·90	97 25	5·1	F, eL, iF, III 500 inv s	2 ...	97 22
2119	Sw. XI., Ho.	5 0 48	2·59	100 32·7	5·1	eeF, pS, v diffic, 2 st 12·5 nr	5 32	110 29·3
2120	B. 262	5 9 36	4·09	51 58	4·3	eF	12 20	51 55
2121	Sw. XI., Ho.	5 14 1	2·46	115 12·7	4·0	eeF, S, R, v diffic, ∗ 7 p 14^s, 3′·6 s	15 39	115 10·0
2122	Sw. XI.	5 14 12	2·08	127 15·6	3·9	pB, eS, R, 3 st nf	15 35	127 13·0
2123	Barnard	5 14 33	3·15	86 38·6	3·9	vS, R, mbM } S ∗ close n	16 39	86 36·0
2124	Barnard	5 14 35	3·15	86 38·7	3·9	vS, R, mbM }	16 41	86 36·1
2125	Sw. XI.	5 18 49	+ 2·40	117 6·9	3·5	eeF, vS, R, v diffic	20 25	117 4·6
2126	Fleming 90	5 22 20	− 0·20	158 5	− 3·3	Planetary, stellar	22 12	158 3

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		h m s	s	° ′	″		m s	° ′
2127	Fleming 91	5 22 38	− 0·20	158 6	− 3·3	Planetary, stellar	22 30	158 4
2128	Bailey	5 23 33	− 0·22	158 10	3·2	Cl, few st and neb (L Mag-Cloud)	23 24	158 8
2129	Sw. XI.	5 25 25	+ 2·51	113 10·2	2·9	eeF, pS, R, * 7 ssf	27 5	113 8·3
2130	Sw. XI.	5 25 50	2·50	113 16·6	2·9	eF, pL, R, * 7·5 nf	27 30	113 14·7
2131	Sw. XI.	5 26 4	2·66	107 19·6	2·9	pB, vS, R	27 50	107 17·7
2132	Ho.	5 26 4	2·74	104 1·8	2·9	vF, S	27 54	103 59·9
2133	B. 385	5 26 47	+ 6·58	20 42	2·7	vF, pL, * 13 sf 0″·7	31 10	20 40
2134	D. S. 301	5 27 46	− 2·04	165 34	2·9	cF, vS	26 24	165 32
2135	Sw. XI.	5 27 56	+ 2·09	126 30·3	2·7	eeF, eS, eE, v diffic	29 20	126 28·5
2136	Sw. XI.	5 27 59	2·41	116 32·5	2·7	eF, pS, eE	29 35	116 30·7
2137	Sw. XI.	5 28 28	2·50	113 26·1	2·7	eF, vS, R, * 8f 10^{s}, III 240 nr	30 8	113 24·3
2138	B. 384, Sw. XI.	5 28 33	2·49	113 38	2·7	eF, S, 2 st inv ½′ apart, * 7 p	30 13	113 36
2139	B. 263	5 29 6	+ 2·64	108 2	2·6	Cl, vvS (12″), looks nebs	30 52	108 0
2140	D. S. 302	5 37 58	− 2·06	165 27	2·0	eF, vS, ? eS Cl	36 36	165 26
2141	Innes	5 39 0	+ 1·42	141 6	1·8	F, vS, R, bM	39 57	141 5
2142	D. S. 303	5 40 34	− 3·24	168 5	1·6	eF, vS, lE 25°, lbM	38 24	168 4
2143	Sw. XI., Ho.	5 40 45	+ 2·62	108 46·8	1·6	eF, pS, vmE 45°, 3 st sf	42 30	108 45·7
2144	Barnard	5 41 41	+ 3·66	66 10·5	1·6	pF, eS, * 12 nnp 2′, * 12 s 1′	44 7	66 9·4
2145	Fleming 92	5 41 46	− 0·54	159 44	1·6	Planetary, stellar	41 24	159 43
2146	D. S. 304	5 42 2	− 1·84	164 51	1·6	Cl, vF, bet 2 st	40 48	164 50
2147	Sw. XI.	5 42 28	+ 2·29	120 32·9	1·5	eeF, pS, R, F * np	44 0	120 31·9
2148	D. S. 305	5 44 7	− 2·12	165 38	1·4	vF, vS, bM	42 42	165 37
2149	Fleming 105	5 45 56	+ 4·46	43 55	1·1	Planetary, stellar	48 54	43 54
2150	Sw. XI.	5 46 20	2·00	128 23·5	1·1	eeF, S, vmE, v diffic, 3 st s	47 40	128 22·8
2151	Ho. III.	5 46 26	2·64	107 49·2	1·1	eF, pS, nr I.C. 438	48 12	107 48·5
2152	Sw. XI., Ho.	5 52 3	2·50	113 11·9	0·7	pB, pS, R, sev B st f	53 43	113 11·4
2153	D. S. 306	5 55 3	2·17	123 55	0·4	eF, vS, susp	56 30	123 55
2154	Sw. XI., Ho.	5 55 19	2·49	113 40·8	0·4	pF, pS, R, * nf, 2 st np, prob. = II 264	56 59	113 40·5
2155	D. S. 307	5 55 45	2·17	124 1	0·3	eF, vS, R, susp	57 12	124 1
2156	Espin	5 56 14	3·67	65 51	0·2	Cl, ? nebs	58 41	65 51
2157	Espin	5 56 17	3·67	65 58	− 0·2	Cl, S	58 44	65 58
2158	Sw. XI., Ho.	5 59 48	2·36	117 50·8	+ 0·1	vF, pS, lE, brush, * att nf	1 22	117 50·9
2159	B. 386	6 1 33	+ 3·57	69 34	0·2	vF, vL, dif	3 56	69 34
2160	D. S. 308	6 1 47	− 2·68	166 55	0·1	vF, vS, stell N	0 0	166 55
2161	D. S. 309	6 1 49	− 1·97	165 8	0·1	eF, vS, bM, susp	0 30	165 8
2162	Barnard	6 5 1	+ 3·51	71 59·7	0·5	vF, pL, R, * 10 inv p	7 21	72 0·0
2163	Ho. I.	6 10 32	+ 2·55	111 19·7	1·0	eF, pS, h 3032 p 7^{s}	12 14	111 20·4
2164	D. S. 310	6 11 28	− 2·04	165 19	0·9	eF, ceS, R, stell N	10 6	165 20
2165	Fleming 79	6 15 16	+ 2·76	102 55	1·5	Planetary, stellar	17 6	102 56
2166	Barnard	6 19 40	5·30	30 50	1·8	Neb ; F * p 1′, D * f 3′	23 12	30 51
2167	Barnard	6 23 32	3·32	79 27·9	2·2	* 9·5 in F, L neb	25 45	79 29·4
2168	B. 387	6 23 33	4·39	45 13	2·2	Cl, S, F neby	26 29	45 14
2169	Barnard	6 23 41	3·31	80 5·2	2·2	F, L, dif, sev st 9–10 inv	25 53	80 6·7
2170	B. 388	6 23 52	4·39	45 12	2·2	eF, S, r, * 13 spp 0′·8	26 48	45 13
2171	Barnard	6 39 ...	2·66	107 32	3·5	F, 3 st 10 around	41 ...	107 34
2172	Barnard	6 39 37	3·11	88 31·7	3·5	Neb *	41 41	88 34·0
2173	B. 339	6 41 35	3·95	56 24	3·7	eF neb *, 2288 close, * 12 nnp 1′	44 13	56 26
2174	B. 264	6 50 20	8·10	14 27	4·7	eF, S, bM	55 44	14 30
2175	B. 265	6 50 21	4·00	54 32	4·5	eF, pL, r, nebs ?	53 1	54 35
2176	J. 990	6 58 25	+ 3·90	57 19·6	+ 5·2	vF, vS, R, stell	1 1	57 23·1

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		h m s	s	° ′	″		m s	° ′
2177	Roberts (3509)	6 58 30	+ 2·82	100 30	+ 5·1	pB, eL, iR, v dif	0 23	100 33
2178	J. 991	6 58 31	3·90	57 17·0	5·2	vF, vS, R, bMN	1 7	57 20·5
2179	B. 267	7 1 58	5·85	24 49	5·5	* 13 in vF, vS neb [? = III 746]	5 52	24 53
2180	J. 992	7 2 40	3·71	63 24·1	5·5	F, S, iF, dif	5 8	63 27·8
2181	J. 993	7 4 59	3·52	70 46·5	5·7	F, S, R, stell	7 20	70 50·3
2182	J. 994	7 5 59	3·52	70 49·3	5·8	vF, vS, dif, * 12 att	8 20	70 53·2
2183	D. S. 311	7 10 52	2·60	110 10	6·2	Wisp 2′ ns, 3 st n, susp	11 36	110 14
2184	B. 390	7 14 10	7·00	17 46	6·6	vF, S, stell, r	18 50	17 50
2185	J. 995	7 14 14	3·89	57 14·4	6·5	F, S, R	16 50	57 18·7
2186	J. 996	7 14 24	3·58	68 12·7	6·5	F, S, R, gbM, r	16 47	68 17·0
2187	J. 997	7 14 24	3·58	68 15·7	6·5	F, S, R, dif, * 11·5 v nr	16 47	68 20·0
2188	J. 998	7 14 24	3·58	68 13·9	6·5	F, S, dif, FN	16 47	68 18·2
2189	Fleming 75	7 17 19	3·28	80 49	6·7	Planetary, stell	19 30	80 33
2190	J. 999	7 20 28	4·04	52 12·0	7·0	F, pS, dif	23 10	52 16·7
2191	J. 1000	7 21 48	3·64	65 23·3	7·1	F, vS, R, stell	24 14	65 28·0
2192	J. 1001	7 24 22	3·84	58 20·8	7·3	F, vS, R, * 14 nearly in cont	26 56	58 25·7
2193	Barnard	7 24 23	3·84	58 15·6	7·3	Close p * 10m [?=J. 1001]	26 57	50 20·5
2194	Barnard, J. 1002	7 24 43	3·84	58 22·5	7·4	F, S, R, gbM, r	27 17	58 27·4
2195	D. S. 312	7 24 52	1·54	140 58	7·3	eB, S, R, bM, susp	25 54	141 3
2196	Barnard, J. 1003	7 25 13	3·84	58 18·1	7·4	F, S, pR, gbM, r, 3 st 2′ p	27 47	58 23·0
2197	Barnard	7 25 27	3·84	58 19·5	7·4	vvF	28 1	58 24·4
2198	J. 1004	7 25 44	3·63	65 43·9	7·5	F, S, R, gbM, r	28 9	65 48·9
2199	Barnard	7 25 59	3·83	58 29·0	7·5	F, S	28 32	58 34·0
2200	D. S. 313	7 26 37	0·73	152 3	7·4	eF, eS, eE 65°, bet 2 st, susp	27 6	152 8
2201	J. 1006	7 27 13	3·89	56 34·5	7·5	F, vS, R, gbM, r	29 49	56 39·5
2202	D. S. 314	7 27 44	0·09	157 16	7·5	eF, eS, R	27 48	157 21
2203	J. 1007	7 31 23	3·91	55 29·0	7·9	F, S, R, gbM, r	33 59	55 34·3
2204	J. 1008	7 32 8	3·91	55 28·8	7·9	F, vS, R, eFN, r	34 44	55 34·1
2205	J. 1009	7 38 17	3·69	62 47·3	8·4	F, vS, neb D *	40 45	62 52·9
2206	Fleming 76	7 40 30	2·25	124 2	8·6	Planetary, stell, 9·5 mag	42 0	124 8
2207	J. 1010	7 40 47	3·89	55 41·4	8·6	vF, vS, dif, * 15 v nr	43 23	55 47·1
2208	J. 1011	7 43 50	3·71	62 8·5	8·9	F, S, R, dif	46 18	62 14·4
2209	B. 268	7 44 12	5·21	29 20	8·9	vF, S, lbM	47 40	29 26
2210	B. 391	7 45 34	4·91	32 57	9·0	eF, stell, * 13 np	48 50	33 3
2211	J. 1012	7 48 52	3·84	57 4·5	9·3	pB, S, R, FN, r	51 26	57 10·7
2212	J. 1013	7 50 4	3·84	57 1·1	9·4	F, pL, vlbM, dif	52 38	57 7·4
2213	J. 1014	7 50 30	3·70	62 10·5	9·4	F, S, R, lbMN	52 58	62 16·8
2214	J. 1015	7 50 55	3·86	56 20·2	9·4	pB, S, R, gbMN	53 29	56 26·5
2215	B. 392	7 51 8	3·63	64 43	9·4	Cl, vS, 30″	53 33	64 49
2216	B. 393	7 52 2	3·19	84 1	9·6	vF, eS, sbM	54 10	84 7
2217	J. 1016	7 52 13	3·69	62 8·0	9·6	F, pS, R, dif, r	54 41	62 14·4
2218	J. 1017	7 53 13	3·61	65 11·5	9·6	F, S, R, * 14 v nr	55 37	65 17·9
2219	J. 1018	7 54 1	3·69	62 10·6	9·6	F, pS, E 135°, gbM, r	56 29	62 17·0
2220	D. S. 315	7 54 15	1·13	148 45	9·6	! ! L, E, spiral, * inv.	55 0	148 51
2221	J. 1019	7 55 53	3·98	52 9·4	9·8	vF, vS, R, diffic	58 32	52 15·9
2222	J. 1020	7 55 59	3·98	52 8·0	9·8	F, S, R dif, r	58 38	52 14·5
2223	J. 1021	7 56 31	3·98	52 8·5	9·9	F, S, R, dif	59 10	52 15·1
2224	J. 1022	7 56 35	3·98	52 8·6	9·9	vF, vS, R, vlbM, diffic	59 14	52 15·2
2225	J. 1023	7 57 18	3·92	53 39·8	9·9	F, pS, gbM, r	59 55	53 46·4
2226	Barnard	7 58 4	+ 3·34	77 3·3	+10·0	F, S	0 18	77 10·0

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		h m s	s	° ′	″		m s	° ′
2227	J. 1024	7 58 12	+ 3·92	53 34·4	+10·0	F, vS, gbMN, r, * 13·5 v nr	0 49	53 41·1
2228	B. 394	7 59 34	3·24	81 33	10·1	eF, S, r	1 44	81 40
2229	J. 1025	8 1 16	3·64	63 43·0	10·2	F, S, R, lbMN, r	3 42	63 49·8
2230	J. 1026	8 2 30	3·63	63 54·6	10·3	F, vS, dif	4 55	64 1·5
2231	Sw. XI., J. 1027	8 3 37	3·18	84 30·1	10·4	F, vS, R, dif, * 14 att	5 44	84 37·0
2232	J. 1028	8 3 49	3·92	53 19·7	10·4	F, pS, R, gbMN	6 26	53 26·6
2233	Roberts	8 4 4	4·25	43 50·0	10·5	pB, L, E np sf; IV. 55 np	6 54	43 57·0
2234	J. 1029	8 4 48	3·90	54 5·4	10·5	pF, vS, dif, vFN	7 24	54 12·4
2235	W. I. 1	8 5 13	3·59	65 30·3	10·5	pB, S, E 135°, dif	7 37	65 37·3
2236	W. I. 2	8 5 16	3·59	65 32·0	10·5	pB, E 0°, dif	7 40	65 39·0
2237	W. I. 3	8 5 44	3·60	64 54·1	10·5	vF, pS, p dif	8 8	65 1·1
2238	W. I. 4	8 5 45	3·61	64 55·2	10·5	pF, S, dif	8 9	65 2·2
2239	W. I. 5	8 5 46	3·58	65 42·9	10·5	pB, S, R, stell N	8 9	65 49·9
2240	W. I. 6	8 6 25	3·60	65 6·8	10·6	vF, S, E 155°, dif	8 49	65 13·9
2241	W. I. 7	8 6 47	3·59	65 26·9	10·6	pB, S, dif	9 11	65 34·0
2242	W. I. 8	8 6 50	3·59	65 26·7	10·6	pF, S, dif	9 14	65 33·8
2243	W. I. 9	8 6 58	3·58	65 36·9	10·6	F, S, dif, biN	9 21	65 44·0
2244	W. I. 10	8 7 0	3·60	65 2·0	10·6	vF, S, E 0°	9 24	65 9·1
2245	W. I. 11	8 7 6	3·60	65 2·5	10·6	vF, S, iF	9 30	65 9·6
2246	W. I. 12	8 7 41	3·58	65 43·6	10·7	pB, S, dif, bf	10 4	65 50·7
2247	W. I. 13	8 7 42	3·56	65 22·6	10·7	pF, E 135°, biN	10 4	65 29·7
2248	W. I. 14	8 7 47	3·56	66 26·5	10·7	pB, pL, E 90°, Nn	10 9	66 33·6
2249	W. I. 15	8 8 12	3·59	65 4·8	10·7	F, vS, iF, att * sp	10 36	65 11·9
2250	W. I. 16	8 8 13	3·57	65 56·7	10·7	F, S, dif	10 36	66 3·8
2251	W. I. 17	8 8 19	3·58	65 37·7	10·7	pF, pS, dif	10 42	65 44·8
2252	W. I. 18	8 8 19	3·60	64 52·8	10·7	pF, S, R	10 43	64 59·9
2253	J. 1030	8 8 22	3·53	68 8·4	10·7	F, vS, R, stell	10 43	68 15·5
2254	J. 1031	8 8 24	3·60	64 48·0	10·7	F, S, R, stell, * 13·5 v nr	10 48	64 55·1
2255	W. I. 19	8 8 24	3·57	66 7·2	10·7	vF, pL, N	10 47	66 14·3
2256	W. I. 20	8 8 34	3·59	65 23·7	10·8	B, pS, E 205°	10 58	65 30·9
2257	W. I. 21	8 8 51	3·57	65 55·4	10·8	F, S, lbM	11 14	66 2·6
2258	W. I. 22	8 8 57	3·56	65 59·7	10·8	pF, S, mE 0°, biN	11 19	66 6·9
2259	W. I. 23	8 8 59	3·57	66 0·5	10·8	vF, S, dif, diffic	11 22	66 7·7
2260	W. I. 24	8 9 5	3·60	64 53·9	10·8	pF, S, R, dif	11 29	65 1·1
2261	W. I. 25	8 9 15	3·57	66 3·4	10·8	vF, mE 45°, B * 1′ f	11 38	66 10·6
2262	W. I. 26	8 9 20	3·45	71 7·0	10·8	pB, S, B * nf	11 38	71 14·2
2263	W. I. 27	8 9 22	3·57	65 59·5	10·8	vF, S, E 0°, vlbM	11 45	66 6·7
2264	W. I. 28	8 9 26	3·57	65 51·3	10·8	pB, S, stell N	11 49	65 58·5
2265	W. I. 29	8 9 29	3·59	65 22·6	10·8	pF, vS, R, dif	11 53	65 29·8
2266	W. I. 30	8 9 36	3·45	71 9·6	10·8	pB, vS, mE, B * att	11 54	71 16·8
2267	W. I. 32	8 9 39	3·60	64 50·0	10·8	pB, mE 135°	12 3	64 57·2
2268	W. I. 33, J. 1302	8 9 44	3·60	64 46·4	10·8	pF, S, R, glbM	12 8	64 53·6
2269	W. I. 34	8 9 52	3·56	66 30·3	10·8	pF, S, E 25°	12 14	66 37·5
2270	W. I. 35	8 9 56	3·47	70 28·4	10·8	pB, S, * v nr np	12 15	70 35·6
2271	W. I. 36	8 9 58	3·59	65 2·6	10·9	pB, S, bM	12 22	65 9·9
2272	W. I. 37	8 10 3	3·46	70 50·0	10·9	vF, vS, gbM, * att	12 21	70 57·3
2273	W. I. 38	8 10 10	3·45	71 10·0	10·9	pF, S, bM	12 28	71 17·3
2274	W. I. 39	8 10 11	3·46	70 54·2	10·9	pB neb *, 2 spir branches	12 29	71 1·5
2275	W. I. 40	8 10 11	3·45	71 9·4	10·9	pB, S, gbM	12 29	71 16·7
2276	W. I. 41	8 10 26	+ 3·45	71 5·4	+10·9	iF, conn with 44 and 46	12 44	71 12·7

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		h m s	s	° ′	″		m s	° ′
2277	W. I. 43	8 10 29	+ 3·46	70 55·0	+10·9	pF, vS, iF	12 47	71 2·3
2278	W. I. 44	8 10 31	3·45	71 6·4	10·9	iF, conn with 41, 46	12 49	71 13·7
2279	W. I. 45	8 10 33	3·46	71 0·0	10·9	F, S, dif	12 51	71 7·3
2280	W. I. 46	8 10 36	3·45	71 7·0	10·9	pF, iF, conn with 41, 44	12 54	71 14·3
2281	W. I. 47	8 10 50	3·46	70 39·5	10·9	* att 51°, spir br	13 8	70 46·8
2282	W. I. 48	8 10 53	3·60	64 46·5	10·9	pF, L, dif, * sf	13 17	64 53·8
2283	W. I. 50, J. 1033	8 10 53	3·60	64 47·0	10·9	pF, pS, R, * 9 f 4^{s}·6, 35″ s	13 17	64 54·3
2284	W. I. 49	8 10 56	3·46	70 57·6	10·9	F, S, dif, stell N, * vnr sf	13 14	71 4·9
2285	W. I. 51	8 11 0	3·46	70 39·2	10·9	pF, S, curved N, conn with 47	13 18	70 46·5
2286	W. I. 52	8 11 0	3·46	70 36·7	10·9	pB, vS, E 50°	13 18	70 44·0
2287	W. I. 53	8 11 3	3·47	70 10·0	10·9	vF, pS, lbM, dif	13 22	70 17·3
2288	W. I. 54	8 11 3	3·57	65 49·3	10·9	F, S, E 90°, bM, dif	13 26	65 56·6
2289	W. I. 55	8 11 5	3·45	71 2·1	10·9	pF, S, iF	13 23	71 9·4
2290	W. I. 56	8 11 11	3·47	70 15·1	10·9	pF, pS, dif, others nr	13 30	70 22·4
2291	W. I. 57	8 11 15	3·45	71 3·5	10·9	vF, S, mE 125°, gbM	13 33	71 10·8
2292	W. I. 58	8 11 16	3·48	70 0·1	10·9	pF, vS, E 135°, bM	13 35	70 7·4
2293	J. 1034	8 11 20	3·52	68 11·0	11·0	F, pS, dif	13 41	68 18·3
2294	W. I. 59	8 11 22	3·47	70 34·8	11·0	pF, vS, iF	13 41	70 42·1
2295	W. I. 60	8 11 24	3·45	71 9·1	11·0	F, vS, E 90°, vF stell N, B * sf	13 42	71 16·4
2296	W. I. 61	8 11 25	3·46	70 40·0	11·0	pF, vS, iF, vlbM	13 43	70 47·3
2297	W. I. 62	8 12 3	3·45	71 10·8	11·0	pB, S, others nr	14 21	71 18·1
2298	W. I. 63	8 12 5	3·45	71 9·6	11·0	pF, S, iF, Ns, * close nf	14 23	71 16·9
2299	W. I. 64	8 12 6	3·45	70 13·5	11·0	F, vm E 60°	14 24	70 20·8
2300	W. I. 65	8 12 10	3·45	71 8·6	11·0	F, pS, iF, arms n and p	14 28	71 15·9
2301	W. I. 66	8 12 12	3·45	71 7·7	11·0	vF, S, mE, exc N, * sf	14 30	71 15·0
2302	W. I. 67	8 12 12	3·47	70 12·4	11·0	F, vS, R, vlbM	14 31	70 19·7
2303	W. I. 68	8 12 15	3·47	70 8·7	11·0	F, vS, mE 0°	14 34	70 16·0
2304	W. I. 69	8 12 30	3·47	70 7·3	11·0	B, vS, neb *	14 49	70 14·6
2305	W. I. 70	8 12 35	3·47	70 6·5	11·0	vF, S, N	14 54	70 13·8
2306	W. I. 71	8 12 35	3·47	70 27·1	11·0	F, vS, R, bM	14 54	70 34·4
2307	W. I. 72	8 12 39	3·47	70 7·3	11·0	pB, pS, dif, E 0°	14 58	70 14·6
2308	W. I. 73	8 12 40	3·47	70 11·9	11·0	pB, vS, iF, bM	14 59	70 19·2
2309	W. I. 74	8 12 41	3·47	71 9·9	11·0	vF, pS, E 165	15 0	71 17·2
2310	W. I. 75	8 12 44	3·45	71 5·9	11·0	pB, pS, mE 40°, curved, mbM	15 2	71 13·2
2311	Ho. I.	8 12 49	2·55	114 56·1	11·0	pB, vS, R, lbM, 6′ n of III 288	14 31	115 3·4
2312	W. I. 76	8 12 51	3·45	71 3·2	11·1	vF, S, E 45°, dif, vlbM	15 9	71 10·6
2313	W. I. 77	8 12 52	3·45	71 2·8	11·1	vF, vS, vF stell N	15 10	71 10·2
2314	W. I. 78	8 13 0	3·46	70 47·9	11·1	F, S, spir, vlbM	15 18	70 55·3
2315	W. I. 79	8 13 7	3·46	70 38·7	11·1	F, vS, R, dif, N	15 25	70 46·1
2316	W. I. 80	8 13 10	3·48	69 48·1	11·1	pB, S, R, exc stell N	15 29	69 55·5
2317	W. I. 81	8 13 18	3·46	70 43·0	11·1	F, vS, dif, v F stell N	15 36	70 50·4
2318	W. I. 83	8 13 30	3·45	70 56·2	11·1	F, vS, N	15 48	71 3·6
2319	W. I. 84	8 13 31	3·45	71 5·0	11·1	F, S, R	15 49	71 12·4
2320	W. I. 85	8 13 32	3·45	70 53·4	11·1	F, vS, N	15 50	71 0·8
2321	W. I. 86	8 13 37	3·45	71 5·4	11·1	pB, vS, R	15 55	71 12·8
2322	W. I. 87	8 13 37	3·45	71 4·5	11·1	F, S, dif	15 55	71 11·9
2323	W. I. 88	8 13 38	3·45	70 56·8	11·1	pF, S, R	15 56	71 4·2
2324	W. I. 89	8 13 54	3·47	70 21·9	11·1	pF, S, mE 155°, sev N	16 13	70 29·3
2325	W. I. 90	8 14 5	3·46	70 38·8	11·1	vF, pL, iF, F * att f	16 23	70 46·2
2326	W. I. 91	8 14 8	+ 3·46	70 32·8	+11·1	vF, mE 90°, dif, sev N	16 26	70 40·2

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		h m s	s	° ′	″		m s	° ′
2327	J. 1035	8 14 9	+ 3·14	86 23·0	+11·1	F, S, dif	16 15	86 30·4
2328	W. I. 92	8 14 12	3·46	69 56·5	11·1	pB, pS, mE 65°	16 30	70 3·9
2329	W. I. 93	8 14 16	3·46	70 8·5	11·2	pF, pS, mE 110°, stell N	16 34	70 16·0
2330	W. I. 94	8 14 20	3·46	70 42·2	11·2	B, vS, stell, 2 spir branches	16 38	70 49 7
2331	W. I. 95	8 14 30	3·48	69 52·5	11·2	vF, pL, R, dif	16 49	70 0·0
2332	W. I. 96	8 14 33	3·48	69 38·0	11·2	pB, vS, R, stell N, F * att s	16 52	69 45·5
2333	W. I. 97	8 14 57	3·44	70 28·5	11·2	F, S, R, N	17 15	70 36·0
2334	W. I. 98	8 14 57	3·45	70 56·5	11·2	pF, S, R	17 15	71 4·0
2335	W. I. 99	8 15 2	3·47	70 8·7	11·2	F, pS, vlbM, dif, bi N	17 21	70 16·2
2336	W. I. 100	8 15 17	3·45	71 1·1	11·2	vF, vS, R	17 35	71 8·6
2337	W. I. 101	8 15 18	3·45	71 1·2	11·2	F, vS, R	17 36	71 8·7
2338	J. 1036	8 15 21	3·52	68 12·6	11·3	F, vS, bMN	17 42	68 20·1
2339	J. 1037	8 15 23	3·52	68 11·9	11·3	F, S, R, bMN	17 44	68 19·4
2340	W. I. 102, J. 1038	8 15 25	3·45	70 48·8	11·3	pF, pS, dif, bMN	17 43	70 56·3
2341	J. 1039	8 15 30	3·52	68 6·6	11·3	F, S, R, bMN	17 51	68 14·1
2342	W. I. 103	8 15 30	3·45	70 58·4	11·3	pB, S, R, * 12 att 112°	17 48	71 5·9
2343	W. I. 104	8 15 51	3·46	70 31·7	11·3	F, pS, lbM, dif	18 9	70 39·2
2344	W. I. 105	8 15 53	3·45	70 53·7	11·3	pF, pS, R, lbM	18 11	71 1·2
2345	W. I. 106	8 16 2	3·48	69 36·0	11·3	F, S, E 90°, att B * sp	18 21	69 43·5
2346	W. I. 107	8 16 5	3·47	69 50·7	11·3	vF, S, R, bM, 2nd v nr sf	18 24	69 58·2
2347	W. I. 108	8 16 12	3·43	70 46·7	11·3	vF, S, iF, dif	18 29	70 54·2
2348	W. I. 109	8 16 12	3·49	69 1·1	11·3	F, pS, mE 45°, bM	18 32	69 8·6
2349	W. I. 110	8 16 13	3·46	70 32·8	11·3	pF, L, lbM, dif	18 31	70 40·3
2350	W. I. 111	8 16 23	3·47	70 0·0	11·3	vF, S, gbMN, B * s	18 42	70 7·5
2351	W. I. 112	8 16 28	3·45	70 57·8	11·3	pF, pS, iF, F stell N, 2581 f	18 46	71 5·3
2352	W. I. 114	8 16 35	3·47	69 56·9	11 3	F, S, lbM, S neb f	18 54	70 4·4
2353	W. I. 115	8 16 35	3·45	70 53·7	11·3	pB, S, R, spir br	18 53	71 1·2
2354	W. I. 116	8 16 38	3·45	70 53·1	11·3	vF, vS, dif, vFN	18 56	71 0·6
2355	W. I. 117	8 16 44	3·49	69 5·2	11·3	pB, S, R, stell N	19 4	69 12·7
2356	W. I. 118	8 16 56	3·47	70 3·2	11·4	F, vS, mE, lbM	19 15	70 10·8
2357	W. I. 119	8 16 59	3·47	70 2·5	11·4	pF, S, R, dif, stell N	19 18	70 10·1
2358	W. I. 120	8 17 0	3·47	70 3·3	11·4	F, S, E 135°, FN, vS neb f	19 19	70 10·9
2359	W. I. 121	8 17 4	3·49	69 12·9	11·4	F, vS, E 160°, stell N exc nf	19 24	69 20·5
2360	W. I. 122	8 17 10	3·47	70 5·5	11·4	F, S, dif, vFN exc	19 29	70 13·1
2361	J. 1040	8 17 13	3·47	61 40·9	11·4	F, pS, lEns, gbM, r	19 32	61 48·5
2362	W. I. 123	8 17 35	3·48	69 36·4	11·4	pF, pL, dif, bet 4 B st	19 54	69 44·0
2363	W. I. 124	8 17 41	3·45	70 6·0	11·4	pF, pL, dif	19 59	70 13·6
2364	W. I. 125	8 17 46	3·47	69 47·3	11·4	pF, S, R, bM	20 5	69 54·9
2365	J. 1041	8 17 47	3·66	61 40·4	11·4	pB, vS, R, stell	20 13	61 48·0
2366	J. 1042	8 17 47	3·66	61 42·9	11·4	pB, vS, R, bMN	20 13	61 50·5
2367	Barnard	8 17 48	2·71	108 19·8	11·4	pB, S	19 36	108 27·4
2368	W. I. 126	8 17 55	3·48	69 39·7	11·4	pF, vS, bMNE 170°	20 14	69 47·3
2369	W. I. 127	8 18 9	3·48	69 18·9	11·4	pB, S, R, stell N	20 28	69 26·5
2370	W. I. 128	8 18 18	3·47	69 54·5	11·5	pB, vS, iF, N	20 37	70 2·2
2371	W. I. 129	8 18 31	3·47	69 44·8	11·5	pB, S, lE 90°	20 50	69 52·5
2372	W. I. 130	8 18 35	3·48	69 39·7	11·5	F, S, lE 135°, B * sf	20 54	69 47·4
2373	W. I. 131	8 18 41	3·50	69 10·8	11·5	F, S, dif, exc N	21 1	69 18·5
2374	J. 1043	8 19 41	3 73	59 6·1	11·6	pF, S, R, dif, * 11·5 close	22 10	59 13·8
2375	Ho. I.	8 19 44	2·82	102 50·8	11·5	F, vS, E 90°, 1st of 3	21 37	102 58·5
2376	J. 1044	8 19 46	+ 3·73	59 8·4	+11·6	F, vS, R, * 14 close	22 15	59 16·1

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		h m s	s	° ′	″		m s	° ′
2377	Ho. I.	8 19 51	+ 2·82	102 51·0	+ 11·6	eF, vS, 2nd of 3	21 44	102 58·7
2378	J. 1045	8 19 51	3·73	59 6·9	11·6	F, S, R, glbM, r	22 20	59 14·6
2379	Ho. I	8 19 52	2·82	102 50·2	11·6	vF, vS, 3rd of 3	21 45	102 57·9
2380	J. 1046	8 20 4	3·73	59 8·5	11·6	F, S, R, lbM, r	22 33	59 16·2
2381	W. I. 132	8 20 16	3·47	69 45·0	11·6	pF, S, R, bM, dif	22 35	69 52·7
2382	J. 1047	8 20 34	3·51	67 28·6	11·7	F, S, R, r, * 12·5 close	22 54	67 36·4
2383	J. 1048	8 21 2	3·73	58 50·1	11·7	F, vS, R, bMN	23 31	58 57·9
2384	J. 1049	8 25 38	3·76	57 5·8	12·0	F, S, R, stell	28 8	57 13·8
2385	J. 1050	8 26 3	3·90	52 15·7	12·1	F, S, R, dif, r	28 39	52 23·8
2386	B. 395	8 26 25	3·61	63 42	12·1	eF, L, e dif	28 49	63 50
2387	J. 1051	8 29 55	3·71	58 43·2	12·3	F, pS, Ens, gbM, r	32 23	58 51·4
2388	Barnard	8 31 54	3·46	69 51·9	12·4	eF, S, dif, ? FN ; * 10 n 90″	34 12	70 0·2
2389	B. 269	8 32 33	6·70	15 58	12·5	vF, S, lbM	37 1	16 6
2390	Barnard	8 33 49	3·45	69 48·2	12·5	iF, gbM, * 10 sf 1½′, * 12 nf 1′	36 7	69 56·5
2391	Bailey	8 36 21	1·72	142 26	12·7	Cl, co, incl. *o* Velorum 3·7 mag	37 30	142 34
2392	W. I. 133	8 36 33	3·42	71 12·3	12·7	pB, pS, E 180°, vlbM	38 50	71 20·8
2393	J. 1052	8 38 23	3·63	61 19·1	12·9	F, S, R, N, r	40 48	61 27·7
2394	J. 1053	8 38 39	3·63	61 15·2	12·9	F, S, R, gbM	41 4	61 23·8
2395	Bailey	8 38 42	1·95	137 40	12·9	Cl, co	40 0	137 49
2396	W. I. 134	8 38 45	3·40	71 50·6	12·9	vF, vS	41 1	71 59·2
2397	W. I. 135	8 38 46	3·41	71 49·9	12·9	F, vS, R	41 2	71 58·5
2398	W. I. 136	8 38 48	3·41	71 44·2	12·9	pB, S, R, bM	41 5	71 52·8
2399	W. I. 137	8 38 51	3·43	70 34·6	12·9	vF, pL, E 190°, bs	41 8	70 43·2
2400	J. 1054	8 38 58	3·89	51 25·0	12·9	F, S, stell	41 34	51 33·6
2401	J. 1055	8 39 10	3·88	51 45·1	12·9	F, S, R, N, r	41 45	51 53·7
2402	J. 1056	8 39 21	3·72	57 42·1	12·9	F, S, R, gbMN, r	41 50	57 50·7
2403	Ho. I	8 39 38	2·80	104 50·8	12·9	vF, eS, 1E	41 30	104 59·4
2404	J. 1057	8 39 40	3·66	59 59·4	13·0	F, S, R, sbMN	42 6	60 8·1
2405	J. 1058	8 39 43	3·86	52 15·9	13·0	F, S, R, gbM	42 17	52 24·6
2406	W. I. 138	8 40 9	3·40	71 47·1	13·0	B, pS, E 165°	42 25	71 55·8
2407	W. I. 139	8 40 14	3·40	71 52·6	13·0	pB, pS, mE 80°	42 30	72 1·3
2408	W. I. 140	8 40 21	3·43	70 27·0	13·0	pF, vS, R	42 38	70 35·7
2409	W. I. 141	8 40 27	3·42	71 9·4	13·0	pB, pL, bM, * 15 p	42 44	71 18·1
2410	W. I. 142	8 40 28	3·43	70 28·1	13·0	pB, S, E 90°, stell N	42 45	70 36·8
2411	W. I. 143	8 40 31	3·43	70 26·6	13·0	vF, S, E 235°	42 48	70 35·3
2412	W. I. 146	8 41 26	3·42	70 56·5	13·0	pB, S, R, N, * 14 np	43 43	71 5·2
2413	W. I. 147	8 41 34	3·42	70 44·5	13·1	pF, vS, FN	43 51	70 53·2
2414	W. I. 148	8 41 52	3·42	70 41·5	13·1	pF, vS, R, vlbM	44 9	70 50·2
2415	W. I. 150	8 42 4	3·42	70 49·9	13·1	F, vS, E 65°, FN	44 21	70 58·6
2416	W. I. 151	8 42 34	3·42	70 55·4	13·1	pB, S, R	44 51	71 4·1
2417	W. I. 152	8 43 11	3·42	70 51·3	13·2	B, S, R, stell N	45 28	71 0·1
2418	W. I. 153	8 43 29	3·43	71 32·0	13·2	vF, pL, R, 2nd v nr sf	45 46	71 40·8
2419	W. I. 154	8 44 13	3·43	71 22·6	13·2	F, pS, E 0°, dif	46 30	71 31·4
2420	J. 1059	8 44 14	3·13	86 22·9	13·2	F, S, gbMN	46 19	86 31·7
2421	J. 1060	8 45 43	3·72	56 47·2	13·3	vF, pS, dif, diffic	48 12	56 56·1
2422	J. 1061	8 46 23	3·45	69 15·0	13·4	pF, S, R, dif, * 14 close	48 41	69 23·9
2423	J. 1062	8 46 46	3·45	69 15·3	13·4	F, S, R, dif	49 4	69 24·2
2424	B. 271	8 47 45	3·90	50 5	13·5	vF, S, lbM [? = 2704]	50 21	50 14
2425	B. 396	8 48 46	3·02	92 52	13·5	eF, neb ?	50 47	93 1
2426	J. 1063	8 51 12	+ 3·13	86 33·3	+13·7	F, vS, R, stell	53 17	86 42·4

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		h m s	s	° ′	″		m s	° ′
2427	J. 1064	8 52 6	+ 3·84	51 34·9	+13·8	F, vS, R, bM	54 40	51 44·1
2428	J. 1065	8 54 45	3·65	58 51·9	13·9	F, pS, Epf, glbM	57 11	59 1·2
2429	J. 1066	8 55 19	3·62	60 8·4	14·0	F, vS, R, bMN	57 44	60 17·7
2430	J. 1067	8 56 3	3·59	61 30·1	14·0	F, S, R, gbM, r	58 27	61 39·4
2431	J. 1068	8 56 50	3·33	74 50·8	14·0	F, S, R, N, r	59 3	75 0·1
2432	J. 1069	8 57 16	3·17	83 57·1	14·1	F, vS, R, dif	59 23	84 6·5
2433	J. 1070	8 57 25	3·48	66 50·3	14·1	F, lEpf, dif	59 44	66 59·7
2434	J. 1071	8 58 26	3·80	52 12·7	14·1	F, pS, lbM, r	0 58	52 22·1
2435	J. 1072	8 58 33	3·55	63 9·9	14·2	F, S, R, gbM, r	0 55	63 19·4
2436	D. S. 316	8 58 58	2·75	108 37	14·2	eF, S, stell, susp	0 48	108 46
2437	Ho. I., D. S.	8 59 8	2·75	108 38·9	14·2	F, vS, R, 10′ s of 2754, 57, 58	0 58	108 48·4
2438	B. 272	8 59 28	6·34	16 0	14·3	Cl, 5 or 6 st 13 ... within 1″·5	3 42	16 10
2439	J. 1073	9 0 6	3·69	56 49·5	14·3	F, S, dif, r	2 34	56 59·0
2440	B. 273	9 1 1	6·32	15 58	14·3	vF, stell (13m), neb ?	5 14	16 8
2441	J. 1074	9 1 56	3·47	66 34·4	14·4	F, S, R, glbM, D ?	4 15	66 44·0
2442	J. 1075	9 1 59	3·47	66 35·4	14·4	vF, vS, R, vlbM	4 18	66 45·0
2443	J. 1076	9 3 10	3·59	60 36·1	14·4	F, S, R, gbMN	5 34	60 45·7
2444	J. 1077	9 4 27	3·62	59 12·7	14·5	F, vS, R, stell	6 52	59 22·4
2445	J. 1078	9 4 43	3·65	57 37·2	14·5	F, S, R, dif, r	7 9	57 46·9
2446	J. 1079	9 5 10	3·59	60 28·4	14·5	F, S, E 130°, bMN, r	7 34	60 38·1
2447	J. 1080	9 5 11	3·59	60 41·1	14·5	F, S, R, gbMN	7 35	60 50·8
2448	Fleming 80	9 5 42	0·61	159 22	14·5	Planetary, stell	6 6	159 32
2449	J. 1081	9 6 51	3·61	59 25·6	14·7	vF, vS, lbM	9 15	59 35·4
2450	J. 1082	9 7 32	3·52	63 58·1	14·7	F, S, gbM, r	9 53	64 7·9
2451	J. 1083	9 7 43	3·48	65 54·7	14·7	F, S, R, gbMN	10 2	66 4·5
2452	J. 1084	9 7 53	3·48	65 56·1	14·7	F, S, R, gbMN	10 12	66 5·9
2453	J. 1085	9 7 57	3·43	68 29·9	14·7	F, S, R, gbM, r	10 14	68 39·7
2454	J. 1086	9 8 10	3·37	71 37·0	14·7	F, vS, gbMN	10 25	71 46·8
2455	J. 1087	9 8 53	3·41	69 18·1	14·8	F, R, gbMN, r	11 9	69 28·0
2456	J. 1088	9 8 54	3·71	54 38·0	14·8	F, S, dif, r	11 22	54 47·9
2457	J. 1089	9 9 7	3·41	69 19·4	14·8	F, S, R, dif	11 23	69 29·3
2458	B. 397	9 10 20	4·97	25 9	14·9	eF, S, dif, close to 2820	13 39	25 19
2459	J. 1090	9 10 30	3·71	54 32·1	14·9	eF, vS, diffic	12 58	54 42·0
2460	J. 1091	9 10 46	3·68	55 33·6	14·9	F, vS, Epf, stell N	13 13	55 43·5
2461	J. 1092	9 11 15	3·76	52 12·8	14·9	F, vS, vlbM	13 45	52 22·7
2462	J. 1093	9 14 55	3·45	66 43·3	15·1	vF, S, dif, r	17 13	66 53·4
2463	J. 1094	9 15 0	3·45	66 47·9	15·1	F, S, R, gbM, r	17 18	66 58·0
2464	J. 1095	9 15 22	3·45	66 47·2	15·2	pF, S, R, gbM, r	17 40	66 57·3
2465	J. 1096	9 15 28	3·48	64 57·6	15·2	F, S, dif	17 47	65 7·7
2466	J. 1097	9 15 41	3·48	64 53·2	15·2	vF, vS, dif, * 13·5 att	18 0	65 3·3
2467	J. 1098	9 16 6	3·77	51 4·0	15·2	F, vS, R, gbMN	18 37	51 14·1
2468	J. 1099	9 16 15	3·77	51 4·5	15·2	vS, R, sbM * 15	18 46	51 14·6
2469	Sw. XI.	9 16 29	2·53	121 52·8	15·2	pF, cS, mE, * 10 sp nr	18 10	122 2·9
2470	J. 1100	9 17 40	3·13	86 1·5	15·3	F, pS, iF, E 135°, r	19 45	86 11·7
2471	B. 398	9 18 16	2·97	96 13	15·3	vF, 2 or 3 st in neb [?=2876]	20 15	96 23
2472	J. 1101	9 18 36	3·42	67 59·5	15·3	F, S, R, dif	20 53	68 9·7
2473	J. 1102	9 19 2	3·59	58 57·3	15·4	F, pS, R, glbM	21 26	59 7·6
2474	B. 275	9 19 11	3·45	66 22	15·4	* 13 in vS neb, I.C. 538 f	21 29	66 32
2475	J. 1103	9 19 33	3·57	59 36·3	15·4	F, vS, R, lbM	21 56	59 46·6
2476	J. 1104	9 19 33	+ 3·58	59 24·9	+15·4	F, S, R, bM	21 56	59 35·2

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		h m s	s	° ′	″		m s	° ′
2477	J. 1105	9 19 38	+ 3·57	59 41·3	+15·4	F, S, gbM, r	22 1	59 51·6
2478	J. 1106	9 19 41	3·58	59 21·7	15·4	F, S, R, N	22 4	59 32·0
2479	J. 1107	9 19 44	3·58	59 24·4	15·4	F, S, R, vlbM	22 7	59 34·7
2480	J. 1108	9 19 56	3·57	59 41·3	15·4	F, vS, lEpf, gbM, r	22 19	59 51·6
2481	J. 1109	9 20 10	3·14	85 26·8	15·4	F, S, E 150°, gbM, r	22 16	85 37·1
2482	Ho. II.	9 20 13	2·90	101 30·2	15·4	F, vS, * 10 p 7ˢ, 0′·8 n	22 9	101 40·5
2483	J. 1110	9 21 3	3·59	58 24·1	15·5	F, S, R, lbM	23 27	58 34·4
2484	Sw. XI.	9 21 28	2·30	132 14·2	15·5	pB, S, R, * 7 nf, D * p	23 0	132 24·5
2485	D. S. 317	9 21 36	2·39	128 41	15·5	eF, vS, R, st in neb, susp	23 12	128 51
2486	J. 1111	9 22 8	3·51	62 44·8	15·6	vF, cS, dif	24 28	62 55·2
2487	J. 1112	9 22 15	3·39	69 18·0	15·6	F, L, mE 160°	24 31	69 28·4
2488	Bailey	9 23 24	1·80	146 22	15·6	Cl, co	24 36	146 32
2489	Barnard	9 24 13	3·00	95 16·2	15·7	pF, R	26 13	95 26·7
2490	J. 1113	9 24 46	3·56	59 27·4	15·7	F, S, gbM	27 8	59 37·9
2491	J. 1114	9 26 45	3·65	54 39·7	15·8	F, S, R, gbM, r	29 11	54 50·2
2492	D. S. 318	9 27 28	2·44	127 17	15·8	cF, vS, R, B * 1′ np, susp	29 6	127 28
2493	J. 1115	9 27 39	3·71	51 59·8	15·8	F, vS, stell	30 7	52 10·3
2494	Sw. XI., Ho.	9 29 20	2·90	101 48·8	15·9	pB, pL, R, 2 st nr f	31 16	101 59·4
2495	J. 1116	9 29 59	3·51	61 18·2	16·0	F, cS, R, gbMN	32 19	61 28·9
2496	J. 1117	9 30 16	3·64	54 40·6	16·0	F, vS, R, r	32 42	54 51·3
2497	J. 1118	9 32 37	3·64	54 40·0	16·1	vF, vS, R, r	35 3	54 50·7
2498	J. 1119	9 33 12	3·50	61 15·6	16·1	F, S, Ens, r, ? bi N	35 32	61 26·3
2499	J. 1120	9 33 17	3·50	61 28·2	16·1	F, vS, dif, v diffic	35 37	61 38·9
2500	B. 399	9 33 49	3·66	53 2	16·2	vF, pS, R, mbM	36 15	53 13
2501	Fleming 101	9 34 45	1·73	149 27	16·2	Planetary, stell	35 54	149 38
2502	J. 1121	9 34 48	3·60	56 13·4	16·2	F, S, R, gbM, diffic	37 12	56 24·2
2503	J. 1122	9 34 51	3·60	56 10·5	16·2	vF, vS, dif, v diffic	37 15	56 21·3
2504	D. S. 319	9 36 5	1·07	158 27	16·3	eF, vS, eE 170°, lbM, susp	36 48	158 38
2505	J. 1123	9 37 1	3·48	62 5·7	16·3	F, S, R, vlbM	39 20	62 16·6
2506	J. 1124	9 37 7	3·48	62 6·8	16·4	F, S, R, glbM, r	39 26	62 17·7
2507	Sw. XI., Ho., D. S.	9 38 30	2·61	121 9·0	16·4	vF, S, R, * 12·5 nr nf, * 9 np	40 14	121 19·9
2508	J. 1125	9 38 46	3·59	55 49·7	16·4	F, vS, R, dif, r	41 10	56 0·6
2509	B. 276	9 39 35	3·15	83 38	16·5	eF, neb ?	41 41	83 49
2510	D. S. 320	9 41 40	2·60	122 12	16·6	eF, vS, cE 140°, bM, susp	43 24	122 23
2511	Sw. XI., D. S.	9 43 16	2·60	122 12·0	16·6	pB, pS, eE, * 7 np, np of 2	45 0	122 23·1
2512	Sw. XI.	9 43 21	2·60	122 16·6	16·6	eeF, pS, mE, bet 2 st, sf of 2	45 5	122 27·7
2513	Sw. XI.	9 43 46	2·60	122 16·7	16·6	eeF, eS, R, D * nr sf, sp of 2	45 30	122 27·8
2514	Sw. XI., D. S.	9 43 51	2·60	122 14·0	16·6	eeF, eS, 3 F st nr f, nf of 2	45 35	122 25·1
2515	J. 1128	9 46 12	3·64	51 55·0	16·8	F, cS, E ns, r, biN ?	48 38	52 6·2
2516	J. 1129	9 46 22	3·65	51 40·3	16·8	F, S, R, gbM	48 48	51 51·5
2517	D. S. 321	9 46 40	2·60	123 5	16·8	eeF, S, R, susp	48 24	123 16
2518	J. 1130	9 47 32	3·63	52 10·8	16·8	F, S, R, lbM	49 57	52 22·0
2519	J. 1131	9 47 41	3·56	55 17·6	16·8	F, vS, R, dif	50 3	55 28·8
2520	J. 1132	9 48 20	3·44	62 5·1	16·9	F, vS, R, gbMN, r	50 38	62 16·4
2521	J. 1133	9 48 58	3·57	55 21·2	16·9	F, S, dif	51 21	55 32·5
2522	D. S. 322	9 49 4	2·61	122 29	16·9	vF, cL, R, * 8 n, susp	50 48	122 40
2523	D. S. 323	9 49 4	2·61	122 34	16·9	vF, vS, cE 20°, susp	50 48	122 45
2524	J. 1134	9 49 16	3·56	55 43·1	16·9	F, vS, R, stell	51 38	55 54·4
2525	J. 1135	9 50 0	3·62	52 15·6	17·0	F, S, R, gbM	52 25	52 26·9
2526	Sw. XI., D. S.	9 50 47	+ 2·63	121 36·7	+17·0	vF, S, R, * 7·5 nf	52 32	121 48·0

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		h m s	s	° ′	″		m s	° ′
2527	J. 1136	9 51 37	+ 3·64	51 9·7	+17·1	F, vS, R, N	54 3	51 21·1
2528	Sw. XI.	9 52 16	2·72	116 31·2	17·1	eeF, eS, R, v diffic, eF D* s	54 5	116 42·6
2529	Sw. XI.	9 52 58	2·79	112 10·5	17·1	eeF, eS, eF * att	54 50	112 21·9
2530	J. 1137	9 53 7	3·61	52 9·0	17·1	F, vS, stell	55 31	52 20·4
2531	Sw. XI.	9 53 37	2·69	118 59·1	17·1	eeF, pS, cE, 4 st n, nf, D * np	55 25	119 10·5
2532	D. S. 324	9 53 58	2·61	123 34	17·1	cB, S, stell N	55 42	123 45
2533	D. S. 325	9 54 20	2·66	120 35	17·1	cB, S, R	56 6	120 46
2534	D. S. 326	9 55 21	2·62	123 27	17·2	cB, S, R	57 6	123 38
2535	J. 1138	9 56 9	3·62	51 17·0	17·2	pB, pS, E 110°, gbM, r	58 34	51 28·5
2536	D. S. 327	9 57 21	2·62	123 16	17·3	F, S, E 50°, cbM	59 6	123 28
2537	Sw. XI.	9 57 36	2·73	116 53·3	17·3	eeF, L, cE	59 25	117 4·8
2538	D. S. 328	9 57 52	2·61	124 8	17·3	vF, vS, R, cbM	59 36	124 20
2539	D. S. 329	9 58 1	2·67	120 41	17·3	cF, vS, cE 30°, vmbM	59 48	120 53
2540	J. 1139	9 58 40	3·49	57 50·8	17·4	F, vS, R, gbMN	1 0	58 2·4
2541	D. S. 330	9 59 11	2·87	106 45	17·4	F, eE 5°, vmbM	1 6	106 57
2542	J. 1140	9 59 39	3·53	55 8·8	17·4	F, pS, glbM	2 0	55 20·4
2543	J. 1141	10 0 2	3·60	51 28·8	17·4	F, S, R, N, r	2 26	51 40·4
2544	J. 1142	10 0 19	3·52	55 58·1	17·4	F, S, dif	2 40	56 9·7
2545	D. S. 331	10 0 26	2·64	123 10	17·4	eF, eS, cE 25°, Δ 2 st	2 12	123 22
2546	D. S. 332	10 0 56	2·65	122 34	17·4	vF, vS, R, bet 2 st	2 42	122 46
2547	J. 1143	10 1 47	3·57	52 48·2	17·5	F, S, R, dif	4 10	52 59·9
2548	D. S. 333	10 1 51	2·62	124 33	17·5	eF, vS, R, bM, dif	3 36	124 45
2549	J. 1144	10 1 53	3·56	52 50·6	17·5	F, S, R, gvlbM	4 15	53 2·3
2550	J. 1145	10 2 29	3·43	61 22·0	17·5	F, cS, R, dif	4 46	61 33·7
2551	J. 1146	10 2 49	3·37	64 54·0	17·5	F, vS, R, stell	5 4	65 5·7
2552	D. S. 335	10 4 39	2·63	124 9	17·6	cB, S, R, bM	6 24	124 21
2553	Fleming 70	10 4 51	1·87	151 53	17·6	Planetary, stellar	6 6	152 5
2554	D. S. 334	10 5 8	1·61	156 20	17·6	cF, S, cE 10°, N, spir	6 12	156 32
2555	D. S. 336	10 5 24	2·69	120 57	17·6	eF, vS, eE 45°, cbM	7 12	121 9
2556	D. S. 337	10 6 26	2·64	124 2	17·7	eF, S, stell N	8 12	124 14
2557	J. 1147	10 7 46	3·57	51 12·3	17·7	vF, vS, R	10 9	51 24·1
2558	D. S. 338	10 8 32	2·66	123 38	17·8	cF, vS, cE 10°, cbM	10 18	123 50
2559	D. S. 339	10 8 38	2·66	123 22	17·8	eF, S, lE 10°, cbM	10 24	123 34
2560	Sw. XI., Ho., D. S.	10 10 4	2·67	122 50·9	17·8	eF, pS, am 4 st	11 51	123 2·8
2561	J. 1148	10 11 1	3·50	54 36·9	17·9	F, S, E 200°, gbM	13 21	54 48·8
2562	J. 1149	10 11 21	3·25	73 8·7	17·9	F, S, gbM, dif	13 41	73 20·6
2563	D. S. 340	10 12 36	2·70	121 54	17·9	eF, vS, eE 110°, eF * s	14 24	122 6
2564	J. 1150	10 13 15	3·52	52 50·8	18·0	F, S, R, gbM stell N	15 36	53 2·8
2565	J. 1151	10 13 24	3·39	61 22·1	18·0	F, vS, R, stell	15 40	61 34·1
2566	J. 1152	10 14 7	3·52	52 42·8	18·0	F, S, R, gbM, r	16 28	52 54·8
2567	J. 1153	10 14 11	3·35	64 38·9	18·0	F, vS, R, r	16 25	64 50·9
2568	J. 1154	10 14 18	3·52	52 39·4	18·0	F, S, R, N, r	16 39	52 51·4
2569	J. 1155	10 15 7	3·35	64 41·8	18·0	F, vS, R, stell	17 21	64 53·8
2570	D. S. 341	10 15 18	2·69	122 55	18·0	cF, eS, mE 150°, 3 st sf	17 6	123 7
2571	Sw. XI., Ho.	10 15 19	2·68	123 33·8	18·0	vF, cS, R, mbM, * 9 f 9^s	17 6	123 45·8
2572	J. 1156	10 17 15	3·38	61 11·8	18·1	pF, S, iF	19 30	61 23·9
2573	D. S. 342	10 17 19	2·67	124 45	18·1	cF, vS, eE 0°	19 6	124 57
2574	Coddington	10 18 7	4·55	20 49·9	18·2	vF, vL, iF	21 9	21 2·0
2575	D. S. 343	10 19 5	2·72	121 56	18·2	eF, vS, R	20 54	122 8
2576	D. S. 344	10 19 41	+ 2·72	122 12	+18·2	F, S, R	21 30	122 24

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		h m s	s	° ′	″		m s	° ′
2577	J. 1157	10 20 2	+ 3·44	56 30·5	+18·2	F, cS, r, * 12 nr	22 20	56 42·6
2578	D. S. 345	10 21 6	2·71	123 10	18·3	eF, vS, eE 135°	22 54	123 22
2579	J. 1158	10 21 29	3·35	63 10·6	18·3	pB, pL, E 260°, bM [? 3251]	23 43	63 22·8
2580	D. S. 346	10 21 52	2·74	120 48	18·3	cB, S, bM	23 42	121 0
2581	Pickering	10 22 12	2·22	146 55·5	18·3	Cl, around * 5·4 mag	23 41	147 7·7
2582	D. S. 347	10 22 46	2·76	119 38	18·3	bM, indistinct (corner of plate)	24 36	119 50
2583	J. 1159	10 23 23	3·34	63 13·2	18·3	F, vS, R, stell	25 37	63 25·4
2584	D. S. 348	10 23 30	2·70	124 12	18·3	cB, bM	25 18	124 24
2585	D. S. 349	10 24 6	2·70	124 39	18·4	cB, bM	25 54	124 51
2586	Sw. XI.	10 24 12	2·78	118 0·2	18·4	pF, vS, R, 4 st nr sp	26 3	118 12·5
2587	D. S. 350	10 24 36	2·71	123 51	18·4	cB, bM	26 24	124 3
2588	Sw. XI.	10 25 19	2·77	119 40·3	18·4	eeF, pL, R, D * nr sf	27 10	119 52·6
2589	Sw. XI., Ho.	10 25 36	2·84	113 20·0	18·4	eeF, eS, v diffic, * 13 sf, * 9 p 1′	27 30	113 32·3
2590	J. 1160	10 28 31	3·34	62 19·7	18·5	F, S, R, gbM, * 12 close	30 45	62 32·0
2591	J. 1161	10 28 39	3·44	54 13·5	18·5	F, cS, E 200°	30 57	54 25·8
2592	D. S. 351	10 28 58	2·59	132 59	18·5	F, pL, cE 15°, spir?	30 42	133 11
2593	Ho. II.	10 29 22	2·96	102 0·0	18·5	eF, cS, ? *	31 20	102 12·3
2594	Sw. XI., Ho.	10 29 25	2·85	113 35·9	18·6	eF, pS, R, bet 2 wide D st	31 19	113 48·3
2595	Sw. XI.	10 30 36	2·98	100 23·5	18·6	cB, eS, R, alm, stell	32 35	100 35·9
2596	F. 787	10 30 50	1·46	162 32	18·6	eF, pS, bM	31 48	162 44
2597	Sw. XI.	10 31 32	2·82	116 19·9	18·6	pB, pS, D * nr p	33 25	116 32·3
2598	J. 1162	10 31 58	3·33	62 32·4	18·6	F, S, R, N, r	34 11	62 44·8
2599	Pickering	10 32 2	2·28	147 53·5	18·6	* 8·5 in neb, 3324 f 6^s, 6′ s	33 33	148 5·9
2600	B. 400	10 36 8	4·58	16 57	18·8	eF, S, v dif	39 11	17 9
2601	B. 401	10 36 43	4·58	16 57	18·8	eF, pS, sev eF st inv	39 46	17 9
2602	Bailey	10 38 0	2·13	153 39	18·8	Cl, co, incl. θ Carinæ	39 24	153 52
2603	B. 279	10 40 35	3·37	56 20	18·9	vF, pL, biN or Dpf, bf	42 50	56 33
2604	J. 1163	10 41 34	3·36	56 28·8	18·9	F, cS, dif	43 48	56 41·4
2605	B. 402	10 42 1	3·36	56 18	18·9	eF, S, 0′·3 ssp I 116	44 15	56 31
2606	J. 1164	10 42 20	3·42	51 18·7	18·9	F, S, Ens, dif	44 37	51 31·3
2607	J. 1165	10 42 21	3·42	51 16·6	18·9	vF, vS, vlbM, diffic	44 38	51 29·2
2608	J. 1166	10 42 23	3·36	56 29·3	18·9	F, vS, R, * 14 att	44 37	56 41·9
2609	B. 403	10 43 17	2·98	101 22	19·0	vF, S, bM	45 16	101 35
2610	B. 280	10 44 21	3·36	56 11	19·0	vF, S, lbM, * 25″ p	46 35	56 24
2611	B. 404	10 45 18	3·15	79 8	19·0	eF	47 24	79 21
2612	J. 1168	10 45 46	3·35	56 29·0	19·1	F, S, R, dif	48 0	56 41·7
2613	J. 1169	10 46 29	3·35	56 17·1	19·1	B, pL, E 200°, gmbM dif N	48 43	56 29·8
2614	J. 1170	10 53 43	3·38	50 26·7	19·3	vF, vS, R	55 58	50 39·6
2615	J. 1171	10 54 13	3·37	51 18·6	19·3	F, vS, R, lbM	56 28	51 31·5
2616	J. 1172	10 54 16	3·38	50 27·9	19·3	F, S, R, gbM, r	56 31	50 40·8
2617	J. 1173	10 54 17	3·38	50 36·5	19·3	F, S, R, FN	56 32	50 49·4
2618	B. 281	10 54 22	3·27	61 29	19·3	vS neb ?	56 33	61 42
2619	J. 1174	10 54 27	3·37	51 17·3	19·3	F, vS, R stell	56 42	51 30·2
2620	J. 1175	10 54 32	3·37	50 46·2	19·3	F, S, R, N, r	56 47	50 59·1
2621	Fleming 106, Lunt	10 54 58	2·29	154 29·5	19·3	Planetary, stell, 10·5 mag	56 30	154 42·4
2622	Sw. XI.	10 56 31	2·97	105 28·8	19·3	eeF, eS, like D *	58 30	105 41·7
2623	Ho. III.	10 56 58	2·95	109 20·4	19·3	vF, vS	58 56	109 33·3
2624	Sw. XI.	11 0 22	2·96	108 48·2	19·4	cB, pS, R, n of 2	2 20	109 1·1
2625	Sw. XI.	11 0 27	2·96	108 48·9	19·4	eeF, vS, R, s of 2	2 25	109 1·8
2626	J. 1176	11 1 33	+ 3·25	62 20·4	+19·4	F, vS, dif, diffic	3 43	62 33·3

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		h m s	s	° ′	″		m s	° ′
2627	Sw. XI., Ho.	11 3 3	+ 2·93	112 59·0	+ 19·5	eF, L, R, stell N	5 0	113 12·0
2628	W. VII. 1	11 4 19	3·14	77 7·2	19·5	pF, pS, R, bM, spir	6 25	77 20·2
2629	W. VII. 2	11 5 18	3·14	77 8·1	19·5	F, S, R, bM	7 24	77 21·1
2630	W. VII. 4	11 5 24	3·14	76 55·1	19·5	F, vS, R, spir	7 30	77 8·1
2631	D. S. 352	11 5 29	1·82	165 51	19·5	* 9 in L neb	6 42	166 ·4
2632	W. VII. 5	11 5 47	3·14	77 33·9	19·5	F, S, R, bM	7 53	77 46·9
2633	W. VII. 6	11 5 51	3·14	77 38·2	19·5	F, cS, iF	7 57	77 51·2
2634	W. VII. 7	11 6 11	3·13	78 45·1	19·5	cB, cS, R, gbM	8 16	78 58·1
2635	W. VII. 8	11 6 11	3·14	77 46·4	19·5	F, S, stell N	8 17	77 59·4
2636	W. VII. 9	11 6 16	3·14	77 47 0	19·5	F, S, bM	8 22	78 0·0
2637	W. VII. 10	11 6 32	3·13	79 39·1	19·6	pB, cS, R, bM	8 37	79 52·2
2638	W. VII. 11	11 6 34	3·13	78 40·5	19·6	cB, pS, E 100°, bM	8 39	78 53·6
2639	W. VII. 13	11 6 38	3·13	79 35·5	19·6	F, S, R, bM, spir	8 43	79 48·6
2640	W. VII. 14	11 6 47	3·13	78 14·3	19·6	F, S, iF	8 52	78 27·4
2641	W. VII. 15	11 6 54	3·12	79 50·3	19·6	F, S, iF	8 59	80 3·4
2642	W. VII. 16	11 6 57	3·14	78 58·1	19·6	vF, vS, R, bM, spir	9 3	79 11·2
2643	W. VII. 17	11 7 10	3·13	79 6·5	19·6	cF, S, R, bM	9 15	79 19·6
2644	W. VII. 18	11 7 12	3·13	78 28·1	19·6	F, S, R	9 17	78 41·2
2645	W. VII. 19	11 7 12	3·14	77 21·0	19·6	pF, S, R, bM	9 18	77 34·1
2646	W. VII. 21	11 7 19	3·14	76 42·4	19·6	vF, vS, iF	9 25	76 55 5
2647	W. VII. 22	11 7 20	3·14	77 5·7	19·6	eF, pL, iF	9 26	77 18·8
2648	W. VII. 23	11 7 28	3·13	79 0·7	19·6	cF, cS, R, bM	9 33	79 13·8
2649	W. VII. 24	11 7 29	3·13	78 6·5	19·6	pB, S, R, bM, spir	9 34	78 19·6
2650	W. VII. 25	11 7 32	3·15	75 23·0	19·6	F, S, bM, iF	9 38	75 36·1
2651	W. VII. 26	11 7 33	3·14	76 59·7	19·6	F, S, R, bM	9 39	77 12·8
2652	W. VII. 27	11 7 33	3·14	76 47·4	19·6	vF, S, R, bM, spir	9 39	76 0·5
2653	W. VII. 28	11 7 36	3·13	78 41·3	19·6	vF, S, R	9 41	78 54·4
2654	W. VII. 29	11 7 44	3·14	76 44·0	19·6	vF, S, E 120°	9 50	76 57·1
2655	W. VII. 31	11 7 46	3·14	77 4·2	19·6	eF, S, iF	9 52	77 17·3
2656	W. VII. 32	11 7 47	3·14	76 51·4	19·6	vF, S, iF, E 120°	9 53	77 4·5
2657	W. VII. 33	11 7 49	3·15	75 32·6	19·6	F, pL, dif, bet 2 st	9 55	75 45·7
2658	W. VII. 34	11 7 50	3·14	76 14·4	19·6	vF, cS, R, bM	9 56	76 27·5
2659	W. VII. 35	11 8 9	3·14	76 20·9	19·6	F, vS, R. bM, spir	10 15	76 34·0
2660	W. VII. 36	11 8 9	3·14	76 48·0	19·6	vF, S	10 15	77 1·1
2661	W. VII. 37	11 8 10	3·15	75 37·6	19·6	F, pS, E 100°, bM	10 16	75 50·7
2662	W. VII. 38	11 8 11	3·14	76 28·0	19·6	F, vS, R, bM	10 17	76 41·1
2663	W. VII. 39	11 8 14	3·14	76 37·9	19·6	pB, vS, R, sbM *	10 20	76 51·0
2664	W. VII. 40	11 8 20	3·14	76 40·4	19·6	F, vS, lE 80°, bM	10 26	76 53·5
2665	W. VII. 41	11 8 22	3·13	77 30·8	19·6	vF, pL, iF, N, 2 st 13 att	10 27	77 43·9
2666	W. VII. 42	11 8 24	3·15	75 27·3	19·6	cB, cS, E 20°, bM	10 30	75 40·4
2667	W. VII. 43	11 8 26	3·14	77 7·2	19·6	F, vS, R, bM, spir	10 32	77 20·3
2668	Ho. I.	11 8 32	3·00	103 24·4	19·6	eF, S	10 32	103 37·5
2669	W. VII. 44	11 8 34	3·14	75 48·4	19·6	F, S, E 50°, bM	10 40	76 1·5
2670	W. VII. 45	11 8 41	3·13	77 27·3	19·6	F, vS, R, bM, spir	10 46	77 40·4
2671	W. VII. 46	11 8 44	3·14	76 6·6	19·6	F, vS, R, bM	10 50	76 19·7
2672	W. VII. 47	11 8 47	3·13	79 4·7	19·6	F, vS, R, bM	10 52	79 17·8
2673	W. VII. 48	11 8 47	3·13	79 4·4	19·6	F, pL, iF, N, * 11 f 1′	10 52	79 17·5
2674	W. VII. 49	11 8 51	3·13	78 11·1	19·6	F, pS, R, bM, spir	10 56	78 24·2
2675	W. VII. 50	11 8 52	3·14	76 59·2	19·6	F, vS, R	10 58	77 12·3
2676	W. VII. 51	11 9 2	+ 3·12	79 24·7	+ 19·6	F, S, iF, * 11 sf ½′	11 7	79 37·8

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		h m s	s	° ′	″		m s	° ′
2677	W. VII. 52	11 9 2	+ 3·14	77 1·3	+19·6	F, vS, R, bM, in L, E neby	11 8	77 14·4
2678	W. VII. 53	11 9 3	3·14	77 17·3	19·6	F, vS, E 110°, bM	11 9	77 30·4
2679	W. VII. 54	11 9 5	3·14	77 13·1	19·6	F, S, R, bM, spir, * 13 sp 20″	11 11	77 26·2
2680	W. VII. 55	11 9 9	3·12	79 25·7	19·6	cF, S, iF, N, * 11 np	11 14	79 38·8
2681	W. VII. 56	11 9 15	3·13	78 1·8	19·6	cB, vS	11 20	78 14·9
2682	W. VII. 57	11 9 20	3·12	79 49·5	19·6	pF, S, E, bM	11 25	80 2·6
2683	W. VII. 58	11 9 36	3·14	77 8·3	19·6	F, pL, iF, N	11 42	77 21·4
2684	W. VII. 59	11 9 42	3·14	76 8·0	19·6	F, pS, R, bM	11 48	76 21·1
2685	W. VII. 60	11 9 43	3·13	79 8·4	19·6	F, vS, R, sbM * 14	11 48	79 21·5
2686	W. VII. 61	11 9 44	3·14	76 17·0	19·6	F, S, iF, att * 14 sf	11 50	76 30·1
2687	W. VII. 62	11 9 55	3·13	79 4·6	19·6	vF, vS, R, bM, spir	12 0	79 17·7
2688	W. VII. 63	11 10 0	3·14	75 44·8	19·6	vF, S, E 30°, bM	12 5	75 57·9
2689	W. VII. 64	11 10 0	3·14	76 16·6	19·6	F, S, E 40°	12 6	76 29·7
2690	W. VII. 65	11 10 3	3·14	76 15·5	19·6	vF, S, iF, diffic	12 9	76 28·6
2691	W. VII. 66	11 10 7	3·13	77 12·3	19·6	F, vS, R, mbM	12 12	77 25·4
2692	W. VII. 67	11 10 16	3·13	78 28·0	19·6	F, vS	12 21	78 41·1
2693	W. VII. 68	11 10 18	3·14	75 41·2	19·6	vF, S, R, bM	12 23	75 54·3
2694	W. VII. 69	11 10 20	3·14	75 51·6	19·6	pB, S, E 90°, bM	12 26	76 4·7
2695	W. VII. 70	11 10 29	3·14	75 30·4	19·6	F, S, R, bM	12 35	75 43·5
2696	W. VII. 71	11 10 31	3·14	76 28·7	19·6	F, vS, R, bM	12 37	76 41·8
2697	W. VII. 73	11 10 32	3·14	75 50·1	19·6	F, S, iF, N, bet 2 st	12 38	76 3·2
2698	W. VII 72	11 10 34	3·13	77 21·0	19·6	F, pS, iF, biN	12 39	77 34·1
2699	W. VII. 74	11 10 35	3·13	77 19·5	19·6	F, eS, R, bM	12 40	77 32·6
2700	W. VII. 75	11 10 36	3·13	77 10·8	19·6	vF, vS, iF, N	12 41	77 23·9
2701	W. VII. 76	11 10 40	3·13	78 6·9	19·6	F, vS, iF	12 45	78 20·0
2702	W. VII. 77	11 10 41	3·12	79 49·4	19·6	vF, S, E	12 46	80 2·5
2703	Kobold	11 10 43	3·16	71 35·1	19·6	vF, S	12 49	71 48·2
2704	W. VII. 78	11 10 46	3·14	76 46·9	19·6	F, S, E 70°, bM	12 52	77 0·0
2705	W. VII. 79	11 10 46	3·13	77 19·9	19·6	eF, eS, R, bM, diffic	12 51	77 33·0
2706	W. VII. 80	11 11 11	3·14	76 41·2	19·6	F, vS, E 60°, bM	13 17	76 54·3
2707	W. VII. 81	11 11 14	3·12	79 45·6	19·6	F, vS, R, bM, spir, * 13 sf	13 19	79 58·7
2708	W. VII. 82	11 11 16	3·14	76 31·5	19·6	pB, vS, R, bM	13 22	76 44·6
2709	W. VII. 83	11 11 22	3·14	76 40·3	19·6	eF, pL, iF, * 13 n	13 28	76 53·4
2710	W. VII. 84	11 11 26	3·14	75 40·0	19·6	B, vS, R, bM	13 32	75 53·1
2711	W. VII. 85	11 11 28	3·14	75 29·7	19·6	F, vS, R, bM	13 34	75 42·8
2712	W. VII. 86	11 11 37	3·12	79 36·3	19·6	F, vS, R, bM	13 42	79 49·4
2713	W. VII. 88	11 11 52	3·13	77 4·2	19·6	cF, vS, R, bM	13 57	77 17·3
2714	Bailey	11 11 54	2·56	151 57	19·6	Cl, pC	13 36	152 10
2715	W. VII. 89	11 11 56	3·13	77 17·0	19·7	vF, S, iF	14 1	77 30·1
2716	W. VII. 90	11 11 59	3·13	77 32·0	19·7	vF, S, iF	14 4	77 45·1
2717	W. VII. 91	11 12 1	3·13	77 11·1	19·7	vF, vS, R, bM, diffic	14 6	77 24·2
2718	W. VII. 92	11 12 3	3·13	77 12·6	19·7	F, vS, iF	14 8	77 25·7
2719	W. VII. 93	11 12 14	3·13	77 10·4	19·7	vF, S, iF, N	14 19	77 23·5
2720	W. VII. 94	11 12 18	3·13	77 9·4	19·7	cF, vS, R, bM	14 23	77 22·5
2721	W. VII. 95	11 12 25	3·13	77 5·4	19·7	cF, pS, dif	14 30	77 18·5
2722	W. VII. 96	11 12 25	3·13	75 16·0	19·7	F, S, iF	14 30	75 29·1
2723	W. VII. 97	11 12 31	3·13	77 12·0	19·7	F, vS, E 200°, diffic	14 36	77 25·1
2724	W. VII. 98	11 12 31	3·13	78 31·1	19·7	cF, vS, R, bM, * 13 p 20″	14 36	78 44·2
2725	W. VII. 99	11 12 39	3·14	75 48·4	19·7	vF, S, iF, diffic	14 45	76 1·5
2726	W. VII. 100	11 12 40	+ 3·14	75 49·1	+19·7	vF, vS, iF, diffic	14 46	76 2·2

No.	Observer.	R.A. 1880.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
2727	W. VII. 101	11 12 42	+ 3·13	77 12·1	+19·7	F, vS, iF, N, diffic	14 47	77 25·2
2728	W. VII. 102	11 12 47	3·14	75 48·6	19·7	vF, S, iF, N, diffic	14 53	76 1·7
2729	W. VII. 103	11 12 48	3·14	75 49·5	19·7	vF, S, iF, diffic	14 54	76 2·6
2730	W. VII. 104	11 12 50	3·13	76 52·0	19·7	F, eS, E 90°, bM	14 55	77 5·1
2731	W. VII. 105	11 12 52	3·14	75 40·4	19·7	F, S, R, bM, spir	14 58	75 53·5
2732	W. VII. 106	11 12 54	3·13	76 49·8	19·7	vF, S, R, bM	14 59	77 2·9
2733	W. VII. 109	11 13 5	3·14	75 21·9	19·7	vF, cS, iF, N, * 14 n	15 11	75 35·0
2734	W. VII. 110	11 13 6	3·13	76 47·5	19·7	F, S, iF, N	15 11	77 0·6
2735	J. 1177	11 13 32	3·26	54 54·1	19·7	pB, cS, Epf, N, r	15 42	55 7·2
2736	W. VII. 111	11 13 37	3·13	76 49·5	19·7	vF, S, iF, N	15 42	77 2·6
2737	W. VII. 112	11 13 49	3·14	74 56·4	19·7	F, cS, R, bM	15 55	75 9·5
2738	J. 1178	11 13 51	3·26	54 53·4	19·7	F, S, R, gbMN	16 1	55 6·5
2739	W. VII. 113	11 13 55	3·13	77 19·2	19·7	F, vS, annular?	16 0	77 32·3
2740	W. VII. 114	11 14 1	3·11	80 28·8	19·7	vF, S, dif, diffic	16 5	80 41·9
2741	W. VII. 115	11 14 2	3·12	80 4·9	19·7	vF, pS, iF, sev N	16 7	80 18·0
2742	W. VII. 116	11 14 2	3·12	78 47·1	19·7	F, S, iF	16 7	79 0·2
2743	W. VII. 117	11 14 10	3·11	80 32·4	19·7	F, vS, R, bM, spir	16 14	80 45·5
2744	J. 1179	11 14 11	3·25	54 53·0	19·7	F, S, gbM, r	16 21	55 6·1
2745	W. VII. 118	11 14 13	3·14	75 48·4	19·7	pB, Sp, E 70°, bM, * 12 att sf	16 19	76 1·5
2746	W. VII. 119	11 14 19	3·13	77 29·7	19·7	F, vS, R, bM	16 24	77 42·8
2747	W. VII. 120	11 14 25	3·11	80 25·8	19·7	vF, vS, iF, 2 st p	16 29	80 38·9
2748	W. VII. 121	11 14 29	3·11	80 25·6	19·7	F, vS, iF	16 33	80 38·7
2749	W. VII. 122	11 14 30	3·11	80 39·6	19·7	F, S, dif (? D *)	16 34	80 52·7
2750	W. VII. 123	11 14 35	3·12	79 34·5	19·7	vF, vS, iF	16 40	79 47·6
2751	J. 1180	11 14 36	3·25	54 52·7	19·7	F, S, R, 2 st 15 inv	16 46	55 5·8
2752	W. VII. 124	11 14 43	3·14	75 6·4	19·7	F, S, R, bM	16 49	75 19·5
2753	W. VII. 125	11 14 43	3·12	79 21·2	19·7	cF, vS, R, bM	16 48	79 34·3
2754	W. VII. 126	11 14 43	3·14	75 5·4	19·7	F, S, iF, N, diffic	16 49	75 18·5
2755	W. VII. 127	11 14 44	3·14	75 26·4	19·7	F, vS, R, bM	16 50	75 39·5
2756	W. VII. 128	11 14 45	3·12	79 16·2	19·7	vF, vS, E 120°, bM	16 51	79 29·3
2757	W. VII. 129	11 14 47	3 11	80 50·3	19·7	F, S, iF, N	16 51	81 3·4
2758	W. VII. 130	11 14 48	3·11	81 25·2	19·7	F, cS, R, bM, diffic	16 52	81 38·3
2759	B. 405	11 14 48	3·19	64 55	19·7	cF, stell, * 13 npp 2′·5	16 56	65 8
2760	W. VII. 131	11 14 54	3·13	76 34·0	19·7	vF, S, R, bM	16 59	76 47·1
2761	W. VII. 132	11 14 58	3·14	75 3·3	19·7	F, S, R, bM, diffic	17 4	75 16·4
2762	W. VII. 133	11 15 0	3·13	76 30·6	19·7	cF, pS, mE 150°, bM, *12 p	17 5	76 43·7
2763	W. VII. 134	11 15 0	3·13	76 10·1	19 7	cF, pS, E 95°, long N	17 5	76 23·2
2764	Sw. XI.	11 15 2	2·94	118 14·4	19·7	pB, pS, R, * 10 nr nf, * 7 f	17 0	118 27·5
2765	W. VII. 135	11 15 4	3·14	75 2·0	19·7	vF, vS, iF, N	17 10	75 15·1
2766	W. VII. 136	11 15 4	3·13	76 19·8	19·7	vF, S, iF	17 9	76 32·9
2767	W. VII. 137	11 15 5	3·13	76 9·3	19·7	vF, vS, iF	17 10	76 22·4
2768	W. VII. 138	11 15 6	3·13	76 42·3	19·7	vF, vS, iF, N	17 11	76 55·4
2769	W. VII. 139	11 15 7	3·14	75 2·3	19·7	F, cS, R, bM	17 13	75 15·4
2770	W. VII. 140	11 15 9	3·12	80 0·6	19·7	F, S, iF	17 14	80 13·7
2771	W. VII. 141	11 15 10	3·13	76 42·8	19·7	vF, vS, iF, N, diffic	17 15	76 55·9
2772	W. VII. 142	11 15 12	3·14	75 38·0	19·7	vF, eS, iF, N	17 18	75 51·1
2773	W. VII. 143	11 15 18	3·14	75 39·8	19·7	vF, S, viF, diffic	17 24	75 52·9
2774	W. VII. 144	11 15 19	3·13	76 43·1	19·7	vF, vS, iF, N, diffic	17 24	76 56·2
2775	W. VII. 145	11 15 22	3·13	76 43·3	19·7	vF, vS, iF, N, diffic	17 27	76 56·4
2776	W. VII. 146	11 15 22	+ 3·13	75 53·6	+19 7	pF, pS, R, bM, spir	17 27	76 6·7

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
2777	W. VII. 147	11 15 23	+ 3·13	77 12·4	+19·7	pF, vS, R, bM	17 28	77 25·5
2778	W. VII. 148	11 15 24	3·13	76 42·5	19·7	vF, vS, iF, N, diffic	17 29	76 55·6
2779	W. VII. 149	11 15 27	3·13	75 53·1	19·7	cF, eS, R	17 32	76 6·2
2780	W. VII. 150	11 15 32	3·12	79 5·0	19·7	F, vS, R, bM, * 15 n 15″	17 37	79 18·1
2781	W. VII. 151	11 15 33	3·13	76 53·2	19·7	F, vS, iF, fainter one 2′ nf	17 38	77 6·3
2782	W. VII. 152	11 15 37	3·13	75 47·5	19·7	cF, cS, R, bM	17 42	76 0·6
2783	W. VII. 153	11 15 39	3·11	80 20·8	19 7	F, vS, R, bM, spir	17 43	80 33·9
2784	W. VII. 154	11 15 53	3·13	76 6·9	19·7	pB, eS, R, bM, * 13 p 20″	17 58	76 20·0
2785	W. VII. 155	11 15 57	3·13	75 50·5	19·7	pF, S, R, bM	18 2	76 3·6
2786	W. VII. 156	11 16 0	3·13	75 50·5	19·7	cF, S, E 110°, bM	18 5	76 3·6
2787	W. VII. 157	11 16 1	3·13	75 36·1	19·7	cF, S, R, bM	18 6	75 49·6
2788	W. VII. 158	11 16 9	3·13	76 32·0	19·7	vF, S, R	18 14	76 45·1
2789	W. VII. 159	11 16 14	3·14	75 2·6	19·7	pB, S, R, bM	18 20	75 15·7
2790	W. VII. 160	11 16 18	3·12	79 40·7	19·7	vF, S, iF	18 23	79 53·8
2791	W. VII. 161	11 16 20	3·13	76 20·2	19·7	vF, vS, iF, diffic	18 25	76 33·3
2792	W. VII. 162	11 16 25	3·12	77 49·6	19·7	F, S, R	18 30	78 2·7
2793	W. VII. 163	11 16 32	3·11	79 47·0	19·7	vF, S, iF, diffic	18 36	80 0·1
2794	W. VII. 164	11 16 46	3·13	76 26·3	19·7	F, eS, R, bM	18 51	76 39·4
2795	W. VII. 165	11 16 47	3·13	77 5·9	19·7	F, vS, R	18 52	77 19·0
2796	W. VII. 166	11 16 53	3·11	79 53·2	19·7	vF, S, iF	18 57	80 6·3
2797	W. VII. 167	11 17 4	3·12	77 31·5	19·7	F, vS, R, bM	19 9	77 44·6
2798	W. VII. 168	11 17 6	3·13	76 48·9	19·7	vF, S, iF, N, diffic	19 11	77 2·0
2799	W. VII. 169	11 17 9	3·13	75 23·0	19·7	F, S, iF, N	19 14	75 36·1
2800	W. VII. 171	11 17 10	3·13	77 1·5	19·7	vF, S, R, bM	19 15	77 14·6
2801	W. VII. 172	11 17 13	3·12	79 2·9	19·7	F, S, R, bM, spir	19 18	79 16·0
2802	W. VII. 173	11 17 13	3·13	77 1·4	19·7	vF, vS, iF, N, v diffic	19 18	77 14·5
2803	W. VII. 174	11 17 19	3·12	79 22·8	19·7	F, vS, E 70°	19 24	79 35·9
2804	W. VII. 175	11 17 38	3·13	76 0·5	19·7	pB, cS, E 10°, exc N	19 43	76 13·6
2805	W. VII. 176	11 17 42	3·13	75 13·0	19·7	vF, S, R, bM, diffic	19 47	75 26·1
2806	W. VII. 177	11 18 0	3·11	79 34·6	19·7	vF, S, iF, ? annular	20 4	79 47·7
2807	W. VII. 178	11 18 0	3·12	77 42·2	19·7	F, S, iF, * 14 att p	20 5	77 55·3
2808	W. VII. 179	11 18 12	3·11	80 5·6	19·7	vF, vS, R, bM, spir	20 16	80 18·7
2809	W. VII. 180	11 18 23	3·11	80 42·2	19·8	F, S, R, bM, ? spir	20 27	80 55·4
2810	W. VII. 181	11 18 27	3·14	74 33·3	19·8	pF, pS, R, bM, * 14 sf	20 33	74 46·5
2811	W. VII. 182	11 18 30	3·11	80 3·7	19·8	F, S, iF, * 14 f 30″	20 34	80 16·9
2812	W. VII. 184	11 18 39	3·12	77 42·1	19·8	F, S, E 10°	20 44	77 55·3
2813	W. VII. 185	11 18 50	3·12	77 58·5	19·8	F, vS, R, bM, spir	20 55	78 11·7
2814	W. VII. 186	11 18 53	3·11	79 34·0	19·8	pF, vS, R, bM, * 14 nf 30″	20 57	79 47·2
2815	W. VII. 187	11 18 59	3·13	76 25·6	19·8	F, eS, R, bM	21 4	76 38·8
2816	W. VII. 188	11 19 2	3·12	78 35·5	19·8	cF, vS, R, bM, spir	21 7	78 48·7
2817	W. VII. 189	11 19 4	3·11	80 4·8	19·8	F, vS, iF, N	21 8	80 18·0
2818	W. VII. 190	11 19 10	3·13	76 18·5	19·8	F, vS, R, bM	21 15	76 31·7
2819	W. VII. 191	11 19 10	3·13	75 23·0	19·8	cF, S, E 60°, bM	21 15	75 36·2
2820	W. VII. 192	11 19 11	3·12	78 59·5	19·8	pF, vS, * 16 att n	21 16	79 12·7
2821	W. VII. 193	11 19 17	3·13	75 16·0	19·8	F, S	21 22	75 29·2
2822	W. VII. 194	11 19 18	3·12	77 47·5	19·8	F, pL, E 110°, bM, * 14 s	21 23	78 0·7
2823	W. VII. 195	11 19 28	3·13	76 22·9	19·8	pF, S, E 20°, bi N ?	21 33	76 36·1
2824	W. VII. 196	11 19 47	3·13	75 8·6	19·8	pF, S, R, bM	21 52	75 21·8
2825	W. VII. 197	11 19 48	3·11	80 46·6	19·8	F, S, iF, N, * 15 att sf	21 52	80 59·8
2826	W. VII. 198	11 19 49	+ 3·13	75 59·4	+19·8	pF, cS, N	21 54	76 12·6

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		h m s	s	° ′	″		m s	° ′
2827	W. VII. 199	11 19 54	+ 3·12	77 42·8	+ 19·8	F, eS, * 14 sf	21 59	77 56·0
2828	W. VII. 200	11 19 57	3·11	80 29·8	19·8	pF, cS, E 65°, bM, 2 st p	22 1	80 43·0
2829	W. VII. 201	11 19 59	3·12	78 54·5	19·8	cF, vS, R, bM, spir, * 12 s	22 4	79 7·7
2830	W. VII. 202	11 20 7	3·10	81 24·8	19·8	F, S, R, bM	22 11	81 38·0
2831	W. VII. 203	11 20 8	3·11	80 15·1	19·8	F, vS, R	22 12	80 28·3
2832	W. VII. 204	11 20 8	3·13	75 14·4	19·8	pF, S, R, bM	22 13	75 27·6
2833	W. VII. 205	11 20 9	3·13	75 37·6	19·8	vF, S, iF, diffic, * 14 ? att np	22 14	75 50·8
2834	W. VII. 206	11 20 14	3·13	75 39·6	19·8	vF, S, iF, diffic, other neb att f	22 19	75 52·8
2835	W. VII. 207	11 20 15	3·12	77 5·1	19·8	cF, vS, R, bM, * 14 f	22 20	77 18·3
2836	W. VII. 208	11 20 22	3·11	80 8·7	19·8	F, vS, neb * 15 n 1′	22 26	80 21·9
2837	W. VII. 209	11 20 27	3·11	78 54·9	19·8	cF, vS, R, bM, spir	22 31	79 8·1
2838	W. VII. 210	11 20 28	3·13	75 13·0	19·8	F, S	22 33	75 26·2
2839	W. VII. 211	11 20 30	3·12	78 24·6	19·8	vF, S, iF	22 35	78 37·8
2840	W. VII. 212	11 20 30	3·13	75 48·3	19·8	vF, S, iF, N	22 35	76 1·5
2841	W. VII. 213	11 20 32	3·12	76 37·8	19·8	F, vS, R, bM, diffic	22 37	76 51·0
2842	W. VII. 214	11 20 33	3·11	79 34·6	19·8	vF, S, iF	22 37	79 47·8
2843	W. VII. 215	11 20 41	3·13	76 2·6	19·8	F, cS, R, bM, diffic, * 8·7 f 2′	22 46	76 15·8
2844	W. VII. 216	11 20 42	3·12	77 46·6	19·8	F, S, iF	22 47	77 59·8
2845	W. VII. 217	11 20 44	3·12	76 41·9	19·8	F, vS, iF, N	22 49	76 55·1
2846	W. VII. 218	11 20 44	3·12	78 4·2	19·8	pB, vS, R, bM, * 12 f	22 49	78 17·4
2847	W. VII. 219	11 20 46	3·13	75 18·0	19·8	vF, vS, iF, diffic	22 51	75 31·2
2848	W. VII. 220	11 20 56	3·12	76 11·9	19·8	vF, S, iF	23 1	76 25·1
2849	W. VII. 221	11 20 57	3·11	80 8·1	19·8	pF, vS, R, bM	23 1	80 21·3
2850	W. VII. 222	11 20 58	3·11	80 10·0	19·8	pB, S, E 120°, bM, * 13 sf	23 2	80 23·2
2851	W. VII. 223	11 20 59	3·12	77 50·1	19·8	F, S	23 4	78 3·3
2852	W. VII. 224	11 20 59	3·11	79 25·5	19·8	F, vS, R, bM, spir, ? neb *	23 3	79 38·7
2853	W. VII. 225	11 21 0	3·11	80 4·9	19·8	pB, pS, E 160°, bM	23 4	80 18·1
2854	W. VII. 226	11 21 5	3·11	80 15·6	19·8	F, vS, R, bM, spir	23 9	80 28·8
2855	W. VII. 228	11 21 10	3·11	79 32·5	19·8	F, vS, iF, N	23 14	79 45·7
2856	D. S. 353	11 21 17	3·02	102 7	19·8	vF, vS, cE 30°, cbM, susp	23 18	102 20
2857	W. VII. 229	11 21 17	3·11	80 7·6	19·8	F, pL, m E 160°, bM	23 21	80 20·8
2858	W. VII. 230	11 21 19	3·13	75 34·0	19·8	F, S, R, bM	23 24	75 47·2
2859	W. VII. 232	11 21 27	3·11	80 7·2	19·8	cF, vS, R, bM	23 31	80 20·4
2860	W. VII. 233	11 21 27	3·13	75 11·3	19·8	vF, S, iF, N	23 32	75 24·5
2861	J. 1181	11 21 27	3·19	50 23·1	19·8	F, S, R, dif	23 35	50 36·3
2862	W. VII. 234	11 21 29	3·11	79 6·1	19·8	F, S, iF	23 33	79 19·3
2863	W. VII. 235	11 21 39	3·11	80 8·1	19·8	pF, vS, E 110°, bM	23 43	80 21·3
2864	W. VII. 236	11 21 43	3·12	76 51·9	19·8	F, vS, iF	23 48	77 5·1
2865	W. VII. 237	11 21 45	3·11	80 6·6	19·8	vF, S, dif	23 49	80 19·8
2866	W. VII. 238	11 21 45	3 11	80 11·2	19·8	vF, vS, iF	23 49	80 24·4
2867	W. VII. 239	11 21 46	3·11	80 8·5	19·8	cF, S, iF, v diffic, * 14 np	23 50	80 21·7
2868	W. VII. 241	11 21 51	3·11	80 8·1	19·8	vF, S, iF, N	23 55	80 21·3
2869	W. VII. 243	11 21 54	3·11	80 12·7	19·8	vF, S, R, bM, spir	23 58	80 25·9
2870	W. VII. 244	11 21 56	3·12	77 21·8	19·8	F, pL, dif, diffic	24 1	77 35·0
2871	W. VII. 245	11 22 6	3·11	80 37·6	19·8	F, cS, E 85°	24 10	80 50·8
2872	F. 788	11 22 8	2·66	152 13	19·8	vL, m E, bM	23 54	152 26
2873	W. VII. 246	11 22 11	3·12	76 0·6	19·8	pF, cS, E 5°, bM	24 16	76 13·8
2874	W. VII. 247	11 22 12	3·11	78 35·9	19·8	F, pS, iF, ? Cl	24 16	78 49·1
2875	W. VII. 248	11 22 19	3·12	76 14·3	19·8	F, vS, R, bM, * 9 sp	24 24	76 27·5
2876	W. VII. 249	11 22 19	+ 3·11	80 12·6	+ 19·8	vF, S, dif	24 23	80 25·8

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		h m s	s	° ′	″		m s	° ′
2877	W. VII. 250	11 22 21	+ 3·12	76 22·5	+19·8	F, S, R, lbM	24 26	76 35·7
2878	W. VII. 251	11 22 23	3·11	79 15·6	19·8	pF, vS, iF, N	24 27	79 28·8
2879	W. VII. 252	11 22 30	3·11	80 12·8	19·8	vF, S, dif	24 34	80 26·0
2880	W. VII. 253	11 22 37	3·12	76 1·8	19·8	pF, vS, R, bM	24 42	76 15·0
2881	W. VII. 254	11 22 39	3·12	76 43·1	19·8	F, vS	24 44	76 56·3
2882	W. VII. 256	11 22 53	3·12	77 14·3	19·8	vF, S, R, bM, diffic	24 58	77 27·5
2883	W. VII. 257	11 23 1	3·11	78 19·1	19·8	F, vS, R, bM	25 5	78 32·3
2884	D. S. 354	11 23 4	1·99	168 58	19·8	eeF, eS, cE 145°, susp	24 24	169 11
2885	W. VII. 258	11 23 8	3·11	79 27·3	19·8	F, vS, R, bM, spir	25 12	79 40·5
2886	W. VII. 259	11 23 9	3·12	77 40·0	19·8	F, vS, R, bM, spir, * 12 sf	25 14	77 53·2
2887	W. VII. 260	11 23 15	3·11	79 50·4	19·8	F, pS, E, curved, * 10 nf 1′	25 19	80 3·6
2888	W. VII. 261	11 23 21	3·11	79 19·2	19·8	pF, vS, E 130°	25 25	79 32·4
2889	D. S. 355	11 23 29	3·03	102 19	19·8	eF, vS, cE 165°, bM, susp	25 30	102 32
2890	W. VII. 262	11 23 30	3·12	76 2·6	19·8	vF, S, iF, N	25 35	76 15·8
2891	W. VII. 263	11 23 31	3·12	76 33·0	19·8	F, S, iF, N, diffic	25 36	76 46·2
2892	W. VII. 264	11 23 34	3·11	78 38·4	19·8	F, vS, iF	25 38	78 51·6
2893	W. VII. 265	11 23 37	3·12	75 50·1	19·8	F, vS, E 345°	25 42	76 3·3
2894	W. VII. 266	11 23 41	3·12	75 59·6	19·8	vF, cS, R, bM	25 46	76 12·8
2895	W. VII. 267	11 23 42	3·11	79 15·1	19·8	F, vS, R, bM	25 46	79 28·3
2896	W. VII. 268	11 23 58	3·12	76 52·6	19·8	pB, vS, annular?	26 3	77 5·8
2897	W. VII. 269	11 24 4	3·12	77 40·7	19·8	cF, vS, R, bM, * 14 p	26 9	77 53·9
2898	W. VII. 270	11 24 4	3·12	75 53·5	19·8	vF, S, iF, * 14 nf	26 9	76 6·7
2899	W. VII. 271	11 24 5	3·11	78 35·6	19·8	F, S, E 350°, ? st	26 9	78 48·8
2900	W. VII. 272	11 24 13	3·12	76 3·5	19·8	vF, S, R, bM	26 18	76 16·7
2901	W. VII. 273	11 24 16	3·12	76 31·7	19·8	F, S, iF, N	26 21	76 44·9
2902	W. VII. 274	11 24 16	3·12	75 0·3	19·8	F, S, R, bM, diffic	26 21	75 13·5
2903	W. VII. 275	11 24 24	3·12	76 35·2	19·8	F, vS, iF, N	26 29	76 48·4
2904	W. VII. 276	11 24 26	3·12	76 2·5	19·8	FN in vF, dif neb	26 31	76 15·7
2905	W. VII. 277	11 24 32	3·11	80 7·3	19·8	vF, S, R, bM, * 14 nf	26 36	80 20·5
2906	W. VII. 278	11 24 33	3·12	76 5·6	19·8	F, vS, R, bM	26 38	76 18·8
2907	W. VII. 279	11 24 34	3·11	79 19·7	19·8	vF, S, iF, N	26 38	79 32·9
2908	W. VII. 280	11 24 34	3·12	76 17·3	19·8	vF, S, iF, * 13 sp	26 39	76 30·5
2909	W. VII. 281	11 24 35	3·11	77 45·4	19·8	vF, S, R, vlbM	26 39	77 58·6
2910	B. 282	11 24 49	3·04	98 58	19·8	vF, vS, sbM * 13	26 51	99 11
2911	W. VII. 282	11 24 49	3·12	76 15·0	19·8	vF, cS, iF, other nf	26 54	76 28·2
2912	W. VII. 283	11 24 52	3·11	77 31·1	19·8	F, S, R, bM, diffic	26 56	77 44·3
2913	Sw. XI.	11 24 52	2·96	119 39·5	19·8	B, pS, R, sf 3717	26 50	119 52·7
2914	W. VII. 284	11 24 56	3·12	75 44·0	19·8	F, S, R, bM	27 1	75 57·2
2915	W. VII. 285	11 24 59	3·12	74 44·6	19·8	F, cS, R, bM	27 4	74 57·8
2916	W. VII. 286	11 25 1	3·11	77 32·6	19·8	F, S, R, bM	27 5	77 45·8
2917	W. VII. 287	11 25 4	3·11	78 16·8	19·8	vF, pS, iF	27 8	78 30·0
2918	W. VII. 288	11 25 10	3·12	75 58·7	19·8	vF, S, E 100°, bM	27 15	76 11·9
2919	W. VII. 289	11 25 19	3·12	75 2·3	19·8	pF, cS, R, bM	27 24	75 15·5
2920	W. VII. 290	11 25 33	3·12	76 40·1	19·9	F, vS, iF, N	27 38	76 53·4
2921	W. VII. 291	11 25 34	3·11	78 55·8	19·9	cF, S, R, bM, spir	27 38	79 9·1
2922	W. VII. 292	11 25 36	3·12	76 18·2	19·9	pB, vS, R, bM	27 41	76 31·5
2923	W. VII. 293	11 25 38	3·12	76 3·7	19·9	vF, cS, iF, N, diffic, * 10 sf	27 43	76 17·0
2924	W. VII. 294	11 25 38	3·10	80 12·2	19·9	vF, S, iF, N, * 11 nf	27 42	80 25·5
2925	J. 1182	11 25 45	3·21	54 57·2	19·9	F, S, R, gbM, biN	27 53	55 10·5
2926	W. VII. 295	11 25 48	+ 3·12	76 47·4	+19·9	pF, vS, R, stell N, spir	27 53	77 0·7

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		h m s	s	° ′	″		m s	° ′
2927	W. VII. 296	11 25 49	+ 3·12	76 8·4	+19·9	vF, vS, iF	27 54	76 21·7
2928	J. 1183	11 26 1	3·21	54 54·0	19·9	F, cS, R, gbMN	28 9	55 7·3
2929	W. VII. 297	11 26 16	3·11	77 5·2	19·9	F, pS, dif	28 20	77 18·5
2930	W. VII. 298	11 26 30	3·11	79 8·1	19·9	F, cS, E 60°, bM	28 34	79 21·4
2931	W. VII. 299	11 26 35	3·11	76 45·5	19·9	F, cS, N, ? neb * 15 np 20″	28 39	76 58·8
2932	W. VII. 300	11 26 39	3·11	78 40·9	19·9	pB, S, R, bM	28 43	78 54·2
2933	J. 1184	11 26 45	3·20	54 54·2	19·9	F, cS, Ens, gbMN	28 53	55 7·5
2934	W. VII. 302	11 27 4	3·12	75 54·2	19·9	F, S, iF, * 14 nf ½′	29 9	76 7·5
2935	W. VII. 303	11 27 34	3·11	78 58·6	19·9	cF, cS, E 130°, bM	29 38	79 11·9
2936	W. VII. 304	11 27 41	3·12	76 12·9	19·9	F, S, R, bM	29 46	76 26·2
2937	W. VII. 305	11 27 49	3·11	79 7·3	19·9	F, S, R, bM	29 53	79 20·6
2938	W. VII. 306	11 28 21	3·12	75 32·7	19·9	cF, pS	30 26	75 46·0
2939	W. VII. 307	11 28 23	3·11	78 31·7	19·9	cF, S, R, bM	30 27	78 45·0
2940	B. 283	11 28 40	3·14	67 27	19·9	eF, susp [not seen at Birr]	30 46	67 40
2941	W. VII. 308	11 28 56	3·10	79 10·2	19·9	F, pL, R, bM, spir	31 0	79 23·5
2942	W. VII. 309	11 28 57	3·11	77 24·4	19·9	cF, cS, R, bM	31 1	77 37·7
2943	Kobold	11 29 0	3·33	34 22·8	19·9	pF, S	31 13	34 36·1
2944	F. 789	11 29 20	2·74	152 14·7	19·9	* 3·4 in eL neb	31 10	152 28·0
2945	W. VII. 310	11 29 50	3·11	76 17·9	19·9	pF, pS	31 54	76 31·2
2946	J. 1185	11 30 7	3·19	56 58·4	19·9	F, S, R, gvlbM	32 15	57 11·7
2947	J. 1186	11 30 8	3·18	57 51·8	19·9	F, cS, R, gbM, r	32 15	58 5·1
2948	F. 790	11 32 15	2·77	152 45	20·0	eeL	34 6	152 58
2949	Finlay	11 34 ...	2·92	135 42	20·0	No descr	36 ...	135 55
2950	J. 1187	11 34 14	3·19	51 13·8	20·0	F, cS, lEpf, gbM, r	36 22	51 27·1
2951	Bidschof (3520)	11 36 9	3·12	69 28·4	20·0	* 14 in neb	38 14	69 41·7
2952	J. 1188	11 36 57	3·16	55 53·5	20·0	pF, S, dif, vlbM	39 3	56 6·8
2953	J. 1189	11 37 5	3·16	55 53·4	20·0	F, cS, dif, vlbM	39 11	56 6·7
2954	J. 1190	11 37 46	3·14	62 26·4	20·0	F, S, R, gbM, stell	39 52	62 39·7
2955	B. 406	11 37 50	3·12	69 37	20·0	eF, close to III 385	39 55	69 50
2956	J. 1191	11 38 0	3·14	62 27·6	20·0	pF, cS, lbM	40 6	62 40·9
2957	J. 1192	11 38 18	3·15	55 55·4	20·0	F, S, R, * 14 nr f	40 24	56 8·7
2958	J. 1193	11 38 25	3·15	56 4·6	20·0	F, S, dif	40 31	56 17·9
2959	J. 1194	11 38 52	3·15	56 7·4	20·0	vF, S, R, r	40 58	56 20·7
2960	J. 1195	11 39 0	3·15	54 13·2	20·0	F, S, dif, vlbM	41 6	54 26·5
2961	J. 1196	11 40 31	3·14	57 53·1	20·0	F, S, R, lbM	42 37	58 6·4
2962	Sw. XI.	11 41 58	3·05	101 32·0	20·0	eF, cL, iR, 2 st n, f	44 0	101 45·3
2963	B. 284	11 42 15	3·07	94 20	20·0	v diffic, * 12 npp 20″	44 18	94 33
2964	B. 407	11 42 35	3·09	77 11	20·0	eeF, eF * 3^{s} f, 3′ s	44 39	77 24
2965	Sw. XI.	11 43 23	3·04	108 48·7	20·0	B, S, vmE, ray	45 25	109 2·0
2966	F. 791	11 43 35	2·88	154 7	20·0	pL, bM	45 30	154 20
2967	J. 1197	11 43 39	3·12	58 22·3	20·0	pB, vS, stell N	45 44	58 35·6
2968	Kobold	11 45 16	3·10	68 35·4	20·0	eF, vS, 3937 f 12^{s}	47 20	68 48·7
2969	Sw. XI.	11 45 20	3·07	92 56·9	20·0	eF, pS, R, B * f 55^{s}, np of 2	47 23	93 10·2
2970	Sw. XI.	11 46 3	3·04	112 20·7	20·0	pB, S, R, II 623 f	48 5	112 34·0
2971	J. 1198	11 46 13	3·12	58 32·1	20·0	F, S, R, psbM	48 18	58 45·4
2972	Sw. XI.	11 46 30	3·07	93 11·9	20·0	vF, pS, R, 2 B st n, np, sf of 2	48 33	93 25·2
2973	J. 1199	11 46 35	3·12	55 51·3	20·0	F, cS, dif	48 40	56 4·6
2974	Sw. XI.	11 46 45	3·07	94 21·0	20·0	eeF, vS, lE	48 48	94 34·3
2975	Sw. XII.	11 47 ...	+ 3·07	95 ...	+20·0	eeF, vS, lE, 3 B st in line n, circle of st n	49 ...	95 ...

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		h m s	s	° ′	″		m s	° ′
2976	Sw. XI.	11 47 20	+ 3·07	91 56·7	+20·0	vF, vS, R, vF * nr nf	49 23	92 10·0
2977	Sw. XI., Ho.	11 48 10	3·02	126 55·1	20·0	eF, vS, * 7 sp	50 11	127 8·4
2978	J. 1200	11 49 10	3·11	57 11·2	20·0	vF, S, v dif	51 14	57 24·5
2979	J. 1201	11 49 40	3·11	56 3·8	20·0	F, S, R, lbM, r	51 44	56 17·1
2980	D. S. 356	11 50 28	2·91	162 55	20·0	eeF, eS, R, cbM	52 24	163 8
2981	J. 1202	11 50 36	3·11	56 1·9	20·0	F, S, R, gvlbM	52 40	56 15·2
2982	B. 285	11 50 38	3·10	61 24	20·0	vF, stell, * 10 nr	52 42	61 37
2983	B. 286	11 51 8	3·07	91 18	20·0	eF	53 11	91 31
2984	J. 1203	11 51 55	3·10	58 31·4	20·0	F, cS, R, vlbM	53 59	58 44·7
2985	J. 1204	11 52 0	3·10	58 29·4	20·0	pF, S, dif	54 4	58 42·7
2986	J. 1205	11 52 37	3·09	58 22·7	20·0	F, vS, R, N, r	54 41	58 36·0
2987	J. 1206	11 56 15	3·08	50 25·4	20·1	F, S, N, dif	58 18	50 38·8
2988	B. 408	11 56 32	3·07	85 49	20·1	eF, r, * 11·5 sf 2′·7	58 35	86 2
2989	B. 287	11 57 25	3·07	87 25	20·1	vF, S, bM or 2 or 3 eF st inv	59 28	87 38
2990	F. 792	11 57 27	3·07	78 11	20·1	eF, R, poss planetary	59 30	78 24
2991	F. 793	11 57 57	3·07	78 36	20·1	eF, S, E 10°, bet 4082 and 83	0 0	78 49
2992	J. 1207	11 58 4	3·07	58 52·7	20·1	F, S, R, gbMN, r	0 7	59 6·1
2993	J. 1208	11 58 4	3·07	56 21·5	20·1	F, S, N, dif, r	0 7	56 34·9
2994	F. 794	11 58 21	3·07	76 31	20·1	eF, R, bM	0 24	76 44
2995	Sw. XI., Ho., D. S.	11 58 27	3·07	117 9·3	20·1	vF, L, cE 120°, * 8 f	0 30	117 22·7
2996	D. S. 357	11 58 33	3·07	119 12	20·1	F, vS, E 20, * sp	0 36	119 25
2997	B. 288	11 58 36	3·07	68 56	20·1	eF, * 12 sf 2′ [?=4090]	0 39	69 9
2998	B. 289	11 58 46	3·07	68 28	20·1	vF, others near	0 49	68 41
2999	J. 1209	11 58 48	3·07	57 52·8	20·1	vF, vS, N	0 51	58 6·2
3000	D. S. 358	11 58 57	3·07	118 54	20·1	F, indistinct (? defect)	1 0	119 7
3001	J. 1210	11 59 8	3·07	55 42·2	20·1	F, S, R, gbM	1 11	55 55·6
3002	J. 1211	11 59 55	3·07	55 51·2	20·1	F, cS, R, gbM, r	1 58	56 4·6
3003	J. 1212	11 59 59	3·07	56 22·1	20·1	F, S, dif, N, r	2 2	56 35·5
3004	F. 795	12 0 3	3·07	75 58	20·1	R, bM, magn. 15	2 6	76 11
3005	D. S. 359	12 0 3	3·08	119 15	20·1	F, S, eE 160°, stell N	2 6	119 28
3006	F. 796	12 0 15	3·07	76 14	20·1	R, bM, magn 15	2 18	76 27
3007	J. 1213	12 0 21	3·07	57 52·7	20·1	vF, vS, diffic	2 24	58 6·1
3008	F. 797	12 0 45	3·07	75 39	20·1	R, bM, magn 13·5	2 48	75 52
3009	Sn. 221	12 0 51	3·07	76 34·4	20·1	pB, cS	2 54	76 47·8
3010	Sw. XI., Ho.	12 0 52	3·08	119 34·0	20·1	eF, cS, R, 2 st 10 sf 8′	2 55	119 47·4
3011	Sn. 124	12 1 0	3·07	78 50·5	20·1	pF, pS, E 110°	3 3	79 3·9
3012	F. 798	12 1 15	3·07	78 3	20·1	R, planetary ?, magn 15	3 18	78 16
3013	F. 799	12 1 15	3·07	79 13	20·1	bM, magn 15	3 18	79 26
3014	J. 1214	12 1 35	3·06	50 24·3	20·1	pB, cS, R, gbM, r	3 37	50 37·7
3015	Sw. XI., Ho.	12 1 48	3·08	120 44·3	20·1	pB, mE 45°, * 10·5 sf 1′	3 51	120 57·7
3016	F. 800	12 2 9	3·07	77 48	20·1	S, R, bM	4 12	78 1
3017	F. 801	12 2 15	3·07	75 37	20·1	R, bM, dif, magn 14·5	4 18	75 50
3018	F. 802	12 2 21	3·07	75 9	20·1	R, lbM, magn 13·5	4 24	75 22
3019	F. 803	12 2 21	3·07	75 14	20·1	R, bM, dif, magn 14·5	4 24	75 27
3020	F. 804	12 2 27	3·07	75 0	20·1	R, bM, magn 14	4 30	75 13
3021	F. 805	12 2 51	3·07	76 11	20·1	R, bM, v dif, magn 14·5	4 54	76 24
3022	J. 1215	12 2 56	3·05	50 28·9	20·1	pB, pS, gbM	4 58	50 42·3
3023	F. 806	12 2 57	3·07	74 52	20·1	R, bM, dif, magn 15	5 0	75 5
3024	F. 807	12 3 3	3·07	76 55	20·1	R, bM, magn 13·5	5 6	77 8
3025	F. 808	12 3 15	+ 3·07	79 3	+20·1	S, E, bM	5 18	79 16

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		h m s	s	° ′	″		m s	° ′
3026	D. S. 360	12 3 20	+ 3·09	119 9	+20·1	vF, vS, mE 40°, bet 2 st	5 24	119 22
3027	F. 809	12 3 21	3·07	75 2	20·1	bM, magn 14	5 24	75 15
3028	F. 810	12 3 21	3·07	77 28	20·1	bM, magn 15	5 24	77 41
3029	F. 811	12 3 34	3·06	75 54	20·1	E 35°, magn 13·5	5 36	76 7
3030	F. 812	12 3 58	3·06	75 5	20·1	R, bM, magn 14	6 0	75 18
3031	F. 813	12 3 58	3·06	75 55	20·1	vF, wisp at 35°	6 0	76 8
3032	F. 814	12 4 4	3·06	74 57	20·1	R, bM, magn 13·5	6 6	75 10
3033	F. 815	12 4 4	3·06	75 39	20·1	bM, wisps ns 0′·5, magn 13·5	6 6	75 52
3034	F. 816	12 4 46	3·06	75 2	20·1	vF, E, bM	6 48	75 15
3035	Sn. 222	12 5 4	3·06	75 58·4	20·0	F, cS	7 6	76 11·7
3036	F. 817	12 5 10	3·06	76 45	20·0	vF, spir	7 12	76 58
3037	F. 818	12 5 16	3·06	79 14	20·0	R, planetary ?, magn 16	7 18	79 27
3038	F. 819	12 5 22	3·06	77 52	20·0	R, bM, planetary ?, magn 16	7 24	78 5
3039	F. 820	12 5 28	3·06	76 55	20·0	S, R, bM	7 30	77 8
3040	F. 821	12 5 28	3·06	78 9	20·0	R, planetary ?, magn 16	7 30	78 22
3041	F. 822	12 5 34	3·06	76 29	20·0	S, E	7 36	76 42
3042	Sn. 151	12 5 37	3·07	78 21·4	20·0	pF, cL	7 40	78 34·7
3043	F. 823	12 5 40	3·06	79 13	20·0	cS, Ens, magn 15	7 42	79 26
3044	Sn. 273, F.	12 5 41	3·06	75 14·7	20·0	F, stell	7 43	75 28·0
3045	Sn. 224	12 5 51	3·06	76 26·5	20·0	pF, cS, Ns = 10·5 magn	7 53	76 39·8
3046	Sn. 225, F.	12 6 0	3·06	76 18·1	20·0	vF, pS, spir	8 2	76 31·4
3047	F. 824	12 6 10	3·06	76 15	20·0	R, bM, magn 14·5	8 12	76 28
3048	Sn. 226	12 6 14	3·06	76 9·1	20·0	F, S, ? * 13	8 16	76 22·4
3049	F. 825	12 6 28	3·06	74 45	20·0	R, planetary ?, magn 16	8 30	74 58
3050	Sn. 227	12 6 40	3·06	75 47·7	20·0	pB, cL, gbM	8 42	76 1·0
3051	Sn. 228	12 6 46	3·06	76 2·9	20·0	pB, pS	8 48	76 16·2
3052	F. 826	12 6 46	3·06	76 33	20·0	R, planetary ?, magn 16·5	8 48	76 46
3053	F. 827	12 6 52	3·06	75 1	20·0	R, bM, planetary ?, magn 16	8 54	75 14
3054	F. 828	12 7 10	3·06	75 42	20·0	R, planetary ?, magn 16·5	9 12	75 55
3055	F. 829	12 7 16	3·06	77 9	20·0	bM, magn 15	9 18	77 22
3056	F. 830	12 7 28	3·06	75 26	20·0	pL, vm E 50°	9 30	75 39
3057	D. S. 361	12 7 43	3·12	133 42	20·0	cF, S, R (? defect)	9 48	133 55
3058	F. 831	12 7 46	3·06	75 9	20·0	R, planetary ?, magn 16	9 48	75 22
3059	F. 832	12 7 52	3·06	75 47	20·0	vF, spir, doubtful	9 54	76 0
3060	Sn. 229	12 7 54	3·06	76 40·5	20·0	vF, S, lE 0°, ? * 14 m	9 56	76 53·8
3061	Sn. 274, F.	12 7 57	3·06	75 11·5	20·0	F, pL, spir	9 59	75 24·8
3062	Sn. 275	12 7 58	3·06	75 37·6	20·0	F, S	10 0	75 50·9
3063	F. 833	12 8 4	3·06	77 13	20·0	bM, magn 14·5	10 6	77 26
3064	Sn. 230	12 8 9	3·06	76 11·9	20·0	cF, cL, E 5°	10 11	76 25·2
3065	F. 834	12 8 10	3·06	74 49	20·0	R, planetary ?, magn 14	10 12	75 2
3066	F. 835	12 8 10	3·06	75 46	20·0	pL, E 160°, spir	10 12	75 59
3067	J. 1216	12 8 10	3·05	65 17·3	20·0	vF, vS, stell	10 12	65 30·6
3068	F. 836	12 8 16	3·06	77 43	20·0	bM, magn 16	10 18	77 56
3069	F. 837	12 8 16	3·06	79 3	20·0	bM, magn 15·5	10 18	79 16
3070	Sn. 231	12 8 17	3·06	76 10·9	20·0	vF, vS	10 19	76 24·2
3071	Sn. 126	12 8 23	3·06	79 40·5	20·0	eF, eS	10 25	79 53·8
3072	Sn. 127	12 8 28	3·06	79 39·9	20·0	eF, eS, ?	10 30	79 53·2
3073	F. 838	12 8 34	3·06	75 37	20·0	bM, magn 16	10 36	75 50
3074	Sn. 152, F.	12 8 38	3·06	78 31·3	20·0	cF, pL, E 170°	10 40	78 44·6
3075	J. 1217	12 8 49	+ 3·05	65 38·0	+20·0	F, vS, R, stell	10 51	65 51·3

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		h m s	s	° ′	″		m s	° ′
3076	Sn. 77	12 8 56	+ 3·06	80 8·6	+20·0	vF, vS	10 58	80 21·9
3077	F. 839	12 8 58	3·06	74 49	20·0	bM, magn 15	11 0	75 2
3078	F. 840	12 8 58	3·06	76 34	20·0	bM, magn 14	11 0	76 47
3079	F. 841	12 8 58	3·06	77 41	20·0	bM, magn 14	11 0	77 54
3080	F. 842	12 9 4	3·06	75 4	20·0	bM, magn 14	11 6	75 17
3081	F. 843	12 9 4	3·06	76 33	20·0	bM, magn 15	11 6	76 46
3082	J. 1218	12 9 7	3·05	65 22·8	20·0	vF, vS, dif, * 5 n 6′	11 9	65 36·1
3083	F. 844	12 9 16	3·06	76 38	20·0	bM, magn 15	11 18	76 51
3084	J. 1219	12 9 18	3·04	65 18·3	20·0	F, vS, R, dif	11 20	65 31·6
3085	Sn. 128	12 9 18	3·06	79 45·1	20·0	cF, vS, = * 13	11 20	79 58·4
3086	Sn. 78	12 9 19	3·06	80 12·8	20·0	eF, vS	11 21	80 26·1
3087	Sn. 234	12 9 20	3·06	75 56·0	20·0	F, S, eE 30°, neb ?	11 22	76 9·3
3088	Sn. 129	12 9 21	3·06	79 45·6	20·0	vF, vS, = * 14	11 23	79 58·9
3089	J. 1220	12 9 24	3·04	65 23·6	20·0	vF, S, vlbM, dif	11 26	65 36·9
3090	Sn. 79	12 9 24	3·06	79 46·9	20·0	vF, vS	11 26	80 0·2
3091	F. 845	12 9 28	3·06	75 14	20·0	bM, magn 14	11 30	75 17
3092	F. 846	12 9 28	3·06	79 10	20·0	bM, magn 15·5	11 30	79 23
3093	F. 847	12 9 40	3·06	74 58	20·0	bM, magn 14	11 42	75 11
3094	Sn. 277, F.	12 9 49	3·06	75 35·7	20·0	F, S, bM	11 51	75 49·0
3095	W. IV. 1, J. 1221	12 9 50	3·04	65 15·8	20·0	pF, S, vlEpf, bM, * 5 p 35^s, 1′ s	11 52	65 29·1
3096	F. 848	12 9 52	3·05	74 44	20·0	bM, magn 14·5	11 54	74 57
3097	Sn. 80, F.	12 9 53	3·06	79 48·9	20·0	vF, S, lbM	11 55	80 2·2
3098	Sn. 5	12 10 1	3·06	82 1·8	20·0	pF, pS, E 45°	12 3	82 15·1
3099	Sn. 235, F.	12 10 2	3·06	76 46·1	20·0	vF, pL, lE 0°	12 4	76 59·4
3100	F. 849	12 10 4	3·06	76 58	20·0	bM, wisps 45° ?, magn 14·5	12 6	77 11
3101	F. 850	12 10 10	3·06	77 18	20·0	bM, magn 15	12 12	77 31
3102	Sn. 6	12 10 17	3·06	82 32·0	20·0	pF, pS, ? *	12 19	82 45·3
3103	Sn. 81	12 10 21	3·06	79 51·7	20·0	vF, vS, stell	12 23	80 5·0
3104	D. S. 362	12 10 25	3·42	168 56	20·0	eeF, cS, or v S Cl, * 12 sp 0′·5	12 42	169 9
3105	Sn. 177, F.	12 10 27	3·06	76 49·9	20·0	vF, pS, E 40°	12 29	77 3·2
3106	Sn. 130	12 10 38	3·06	79 36·5	20·0	vF, vS, E 95°	12 40	79 49·8
3107	Sn. 153, F.	12 10 39	3·06	78 22·6	20·0	F, vS, lE, mbM	12 41	78 35·9
3108	F. 851	12 10 40	3·06	75 52	20·0	R, bM, magn 14	12 42	76 5
3109	F. 852	12 10 40	3·06	76 5	20·0	bM, magn 14	12 42	76 18
3110	J. 1222	12 10 43	3·02	51 50·5	20·0	vF, S, dif	12 44	52 3·8
3111	Sn. 36	12 10 43	3·06	80 47·6	20·0	eF, S ?	12 45	81 0·9
3112	W. IV. 2	12 10 44	3·04	63 11·5	20·0	F, S, iF, N	12 46	63 24·8
3113	Sn. 7	12 10 49	3·06	82 2·1	20·0	cF, pL, E	12 51	82 15·4
3114	Sn. 82	12 10 49	3·06	80 5·3	20·0	cF, vS, stell	12 51	80 18·6
3115	Sn. 8	12 10 51	3·06	82 34·1	20·0	vF, pL, E	12 53	82 47·4
3116	W. IV. 3	12 10 53	3·04	64 8·7	20·0	vF, cS, R, bM	12 55	64 22·0
3117	Sn. 83	12 10 56	3·06	80 9·0	20·0	eF, S, E 30°	12 58	80 22·3
3118	Sn. 131, F.	12 11 3	3·06	79 43·3	20·0	vF, cS, lE, dif	13 5	79 56·6
3119	W. IV. 4	12 11 4	3·04	64 32·1	20·0	pF, cS, R, bM	13 6	64 45·4
3120	F. 853	12 11 16	3·05	75 31	20·0	R, bM, magn 14·5	13 18	75 44
3121	F. 854	12 11 16	3·05	75 59	20·0	eF, lE, magn 15	13 18	76 12
3122	W. IV. 5	12 11 17	3·04	64 0·3	20·0	pF, pL, E 150°, pLN	13 19	64 13·6
3123	Sn. 37	12 11 19	3·06	81 9·4	20·0	Neb, or *	13 21	81 22·7
3124	Sn. 132	12 11 20	3·06	79 38·1	20·0	cF, S, = * 13	13 22	79 51·4
3125	W. IV. 6	12 11 21	+ 3·04	64 51·4	+20·0	F, S, R, bM	13 23	65 4·7

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		h m s	s	° ′	″		m s	° ′
3126	F. 855	12 11 28	+ 3·05	75 25	+20·0	R, bM, magn 15	13 30	75 38
3127	F. 856	12 11 28	3·06	77 22	20·0	R, bM, magn 16	13 30	77 35
3128	F. 857	12 11 34	3·05	77 30	20·0	lE, D ?, magn 14·5	13 36	77 43
3129	Sn. 133	12 11 37	3·06	79 37·6	20·0	vF, eS, = * 14	13 39	79 50·9
3130	Sn. 38	12 11 41	3·06	80 59·5	20·0	eF, pS, m E 140°, ?	13 43	81 12·8
3131	Sn. 39	12 11 42	3·06	81 21·6	20·0	vF, S	13 44	81 34·9
3132	Sn. 40	12 11 43	3·06	81 21·6	20·0	vF, S, stell	13 45	81 34·9
3133	Sn. 41	12 11 47	3·06	81 34·8	20·0	eF, S, dif	13 49	81 48·1
3134	Sn. 84	12 11 48	3·06	80 15·7	20·0	vF, vS, E o°	13 50	80 29·0
3135	W. IV. 7	12 11 49	3·03	61 43·7	20·0	vF, S, iF	13 50	61 57·0
3136	Sn. 2	12 11 49	3·06	83 2·1	20·0	F	13 51	83 15·4
3137	F. 858	12 11 52	3·05	76 46	20·0	pL, E 45°	13 54	76 59
3138	F. 859	12 11 52	3·05	76 48	20·0	R, bM, magn 15·5	13 54	77 1
3139	Sn. 85	12 11 53	3·06	80 5·6	20·0	eF, vS	13 55	80 18·9
3140	W. IV. 8	12 11 54	3·03	62 5·5	20·0	vF, pS, iF, dif	13 55	62 18·8
3141	W. IV. 9	12 11 54	3·04	65 2·1	20·0	F, S, R, bM	13 56	65 15·4
3142	F. 860	12 11 58	3·05	75 15	20·0	R, bM, magn 14·5	14 0	75 28
3143	W. IV. 10	12 12 2	3·03	61 55·4	20·0	vF, S, R	14 3	62 8·7
3144	W. IV. 11	12 12 6	3·04	63 55·5	20·0	vF, S, R, bM	14 8	64 8·8
3145	W. IV. 12	12 12 7	3·04	64 55·7	20·0	F, S, R, bM	14 9	65 9·0
3146	W. IV. 13	12 12 9	3·04	63 30·5	20·0	eF, S, iF	14 10	63 43·8
3147	Sn. 178	12 12 11	3·05	77 12·3	20·0	vF, vS, stell	14 13	77 25·6
3148	Sn. 42	12 12 12	3·06	81 21·2	20·0	vF, S	14 14	81 34·5
3149	Sn. 179, F.	12 12 17	3·05	76 55·1	20 0	vF, vS	14 19	77 8·4
3150	Sn. 43	12 12 21	3·06	81 25·5	20·0	vF, S	14 23	81 38·8
3151	F. 861	12 12 22	3·05	79 49	20·0	R, bM, magn 13·5	14 24	80 2
3152	Sw. XI.	12 12 24	3·11	115 24·0	20·0	pB, S, R, 4st sf, * 8 np	14 28	115 37·3
3153	Kobold	12 12 28	3·06	83 49·5	20·0	vF, S, 4273 f	14 30	84 2·8
3154	W. IV. 15	12 12 30	3·04	63 38·2	20·0	F, S, R, bM	14 32	63 51·5
3155	B. 290	12 12 36	3·06	83 14	20 0	cF, S, sbM, ? vF st inv	14 38	83 27
3156	Sn. 86	12 12 36	3·06	80 4·4	20·0	vF, vS	14 38	80 17·7
3157	F. 862	12 12 40	3·05	76 49	20·0	R, bM, magn 14	14 42	77 2
3158	Sn. 87	12 12 41	3·06	79 55·8	20·0	eF, cS, ??	14 43	80 9·1
3159	F. 863	12 12 46	3·05	77 34	20·0	R, mbM, magn 15	14 48	77 47
3160	Sn. 88	12 12 52	3·06	80 7·3	20·0	eF, cS	14 54	80 20·6
3161	Sn. 89	12 12 53	3·06	80 13·5	20·0	eF, vS, ? *, conn w f one	14 55	80 26·8
3162	Sn. 90	12 12 55	3·06	80 13·5	20·0	eF, vS, ? *, conn w p one	14 57	80 26·8
3163	Sn. 90 *	12 12 55	3·06	79 58·0	20·0	Neb or * ?	14 57	80 11·3
3164	W. IV. 18	12 13 1	3·03	64 16·0	20·0	eF, S, iF, ? D *	15 2	64 29·3
3165	W. IV. 19	12 13 2	3·03	61 14·8	20·0	F, cS, iF, lbM	15 3	61 28·1
3166	Sw. XII.	12 13 8	2·92	28 31·7	20·0	eeF, S, p of 2	15 5	28 45·0
3167	Sn. 134, F.	12 13 11	3·06	79 40·6	20·0	vF, vS, lE 65°, bM	15 13	79 53·9
3168	W. IV. 21	12 13 16	3·03	61 18·1	20·0	F, cS, E 45°, bM	15 17	61 31·4
3169	W. IV. 22	12 13 18	3·03	62 37·5	20·0	vF, vS, R, bM	15 19	62 50·8
3170	Sn. 91, F.	12 13 19	3·06	79 48·0	20·0	F, S, R, bM	15 21	80 1·3
3171	W. IV. 23	12 13 21	3·03	63 39·7	20·0	pB, S, R, bM	15 22	63 53·0
3172	W. IV. 24	12 13 22	3·03	61 24·2	20·0	vF, S, iF	15 23	61 37·5
3173	F. 364	12 13 22	3·05	77 54	20·0	R, bM, magn 13	15 24	78 7
3174	Sn. 135, F.	12 13 22	3·06	78 58·8	20·0	eF, vS, * 13 att sp	15 24	79 12·1
3175	F. 865	12 13 22	+ 3·06	79 23	+20·0	R, bM, magn 13	15 24	79 36

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		h m s	s	° ′	″		m s	° ′
3176	W. IV. 25	12 13 27	+ 3·03	63 42·5	+20·0	vF, vS, R, bM	15 28	63 55·8
3177	F. 866	12 13 28	3·05	75 6	20·0	L, vm E 45°, 2′·5 l	15 30	75 19
3178	W. IV. 26	12 13 32	3·03	63 3·1	20·0	F, vS, iF, N	15 33	63 16·4
3179	W. IV. 27	12 13 35	3·03	63 3·4	20·0	F, vS, iF, N	15 36	63 16·7
3180	Sw. XII.	12 13 38	2·92	28 31·7	20·0	vF, pL, R, * 7·5 s, f of 2	15 35	28 45·0
3181	W. IV. 28	12 13 40	3·03	59 52·6	20·0	pF, pL, lE 150°	15 41	60 5·9
3182	Sn. 237	12 13 41	3·05	76 29·7	20·0	vF, S, bi N	15 43	76 43·0
3183	Sn. 9	12 13 41	3·06	82 32·1	20·0	vF, cS, st ?	15 43	82 45·4
3184	W. IV. 29	12 13 44	3·03	64 18·5	20·0	pF, cS, E 40°, bM	15 45	64 31·8
3185	W. IV. 30	12 13 49	3·03	63 47·6	20·0	F, vS, R, bM	15 50	64 0·9
3186	W. IV. 31	12 13 52	3·03	64 33·3	20·0	pB, S, R, bM	15 53	64 46·6
3187	F. 867	12 13 52	3·05	78 4	20·0	vl E, bM, magn 14·5	15 54	78 17
3188	F. 868	12 13 52	3·05	78 13	20·0	R, bM, magn 13·5	15 54	78 26
3189	W. IV. 32	12 13 53	3·03	63 47·8	20·0	F, vS, R, bM	15 54	64 1·1
3190	Sn. 136	12 13 55	3·06	79 39·2	20·0	eF, eS	15 57	79 52·5
3191	Sn. 45	12 13 57	3·06	81 31·1	20·0	vF, vS, R	15 59	81 44·4
3192	F. 869	12 13 58	3·05	77 29	20·0	lbM, planetary ?, magn 15	16 0	77 42
3193	W. IV. 33	12 13 59	3·03	61 19·4	20·0	F, S, iF, ? D *	16 0	61 32·7
3194	W. IV. 34	12 14 6	3·03	64 5·4	20·0	F, vS, R, bM	16 7	64 18·7
3195	W. IV. 36	12 14 15	3·03	63 24·9	20·0	vF, S, iF	16 16	63 38·2
3196	F. 870	12 14 22	3·05	77 29	20·0	bM, magn 14	16 24	77 42
3197	W. IV. 37	12 14 23	3·03	63 46·8	20·0	F, vS, R, bM	16 24	64 0·1
3198	W. IV. 38	12 14 28	3·03	62 51·4	20·0	eF, S, iF	16 29	63 4·7
3199	F. 871	12 14 34	3·05	78 38	20·0	R, bM, magn 14	16 36	78 51
3200	W. IV. 39	12 14 35	3·03	62 27·7	20·0	vF, S, iF, N	16 36	62 41·0
3201	W. IV. 40	12 14 38	3·03	63 29·9	20·0	vF, S, R, bM	16 39	63 43·2
3202	W. IV. 41	12 14 42	3·03	62 10·0	20·0	eF, S, iF	16 43	62 23·3
3203	W. IV. 42	12 14 43	3·03	63 20·3	20·0	pF, S, E 150°	16 44	63 33·6
3204	W. IV. 43	12 14 47	3·03	64 58·5	20·0	F, S, E	16 48	65 11·8
3205	W. IV. 44	12 14 48	3·03	62 52·9	20·0	cF, S, iF, N	16 49	63 6·2
3206	W. IV. 45	12 14 48	3·03	62 51·7	20·0	cF, S, iF, N	16 49	63 5·0
3207	W. IV. 46	12 14 49	3·03	64 52·0	20·0	F, S, E 100°	16 50	65 5·3
3208	F. 872	12 14 52	3·05	77 16	20·0	F, pL, vm E 70°	16 54	77 29
3209	F. 873	12 14 58	3·05	77 29	20·0	pL, E 140°, sbM *, spir	17 0	77 42
3210	W. IV. 47	12 15 0	3·02	60 47·5	20·0	F, S, R, bM, spir	17 1	61 0·8
3211	Sn 93	12 15 0	3·06	80 14·0	20·0	eF, S	17 2	80 27·3
3212	W. IV. 48	12 15 2	3·02	61 2·2	20·0	F, S, R, glbM	17 3	61 15·5
3213	W. IV. 49	12 15 5	3·03	65 21·9	20·0	pF, S, R, bM, * 12 att np	17 6	65 35·2
3214	W. IV. 50	12 15 7	3·02	61 59·2	20·0	vF, vS, R, bM	17 8	62 12·5
3215	W. IV. 51	12 15 8	3·03	63 10·2	20·0	vF, pS, E 95°, bM	17 9	63 23·5
3216	W. IV. 52	12 15 9	3·03	63 56·2	20·0	F, vS, R, bM	17 10	64 9·5
3217	W. IV. 53	12 15 11	3·03	62 50·2	20·0	cF, S, R, bM, spir	17 12	63 3·5
3218	Sn 12	12 15 12	3·06	82 17·5	20·0	vF, pL, biN ?	17 14	82 30·8
3219	W. IV. 54	12 15 13	3·03	63 16·2	20·0	eF, vS, R, bM, spir	17 14	63 29·5
3220	F. 874	12 15 16	3·05	78 38	20·0	R, bM, magn 15·5	17 18	78 51
3221	W. IV. 55	12 15 17	3·03	63 56·4	20·0	eF, S, iF, v diffic	17 18	64 9·7
3222	W. IV. 56	12 15 17	3·02	60 23·5	20·0	F, cS, dif	17 18	60 36·8
3223	Sn 137	12 15 23	3·06	79 44·2	20·0	vF, pS, am 3 vF st	17 25	79 57·5
3224	F. 875	12 15 28	3·05	77 4	20·0	R, bM, magn 14·5	17 30	77 17
3225	Sn 13	12 15 30	+ 3·06	82 32·8	+20·0	F, S, ? st	17 32	82 46·1

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		h m s	s	° ′	″		m s	° ′
3226	W. IV. 58	12 15 33	+ 3·03	63 9·4	+20·0	vF, vS, bM *, spir	17 34	63 22·7
3227	W. IV. 59	12 15 33	3·03	65 8·3	20·0	F, S, iF	17 34	65 21·6
3228	W. IV. 60	12 15 36	3·03	64 53·6	20·0	F, vS, E 150°, bM	17 37	65 6·9
3229	Sn 14	12 15 36	3·06	82 32·7	20·0	eF, cS, dif, ?	17 38	82 46·0
3230	W. IV. 61	12 15 38	3·02	61 28·7	20·0	F, vS, iF	17 39	61 42·0
3231	W. IV. 62	12 15 41	3·03	64 24·2	20·0	pF, S, iF, bM	17 42	64 37·5
3232	W. IV. 63	12 15 45	3·03	64 47·8	20·0	F, eS, neb *	17 46	65 1·1
3233	F. 876	12 15 46	3·05	76 39	20·0	R, bM, magn 15	17 48	76 52
3234	W. IV. 64	12 15 51	3·02	61 6·7	20·0	F, S, R, bM	17 52	61 20·0
3235	F. 877	12 15 52	3·05	75 41	20·0	lE, bM, magn 15	17 54	75 54
3236	F. 878	12 15 52	3·05	79 8	20·0	R, bM, magn 14	17 54	79 21
3237	W. IV. 65	12 15 57	3·02	60 43·8	20·0	F, cS, iF, eFN, att * 14 sp	17 58	60 57·1
3238	F. 879	12 16 4	3·04	74 47	20·0	R, bM, magn 14	18 6	75 0
3239	F. 880	12 16 4	3·05	77 31	20·0	E, lbM, magn 15	18 6	77 44
3240	F. 881	12 16 4	3·05	78 53	20·0	R, bM, magn 15	18 6	79 6
3241	W. IV. 66	12 16 7	3·02	62 19·1	20·0	F, vS, R, bM	18 8	62 32·4
3242	W. IV. 67	12 16 8	3·02	62 58·4	20·0	vF, S, iF	18 9	63 11·7
3243	W. IV. 68	12 16 10	3·02	61 27·4	20·0	F, S, iF, dif	18 11	61 40·7
3244	F. 882	12 16 10	3·04	74 51	20·0	R, bM, magn 14	18 12	75 4
3245	F. 883	12 16 10	3·05	80 6	20·0	vF, pL, bM, ?defect	18 12	80 19
3246	Sn. 240	12 16 11	3·05	76 10·3	20·0	eF, pL, vmE 145°, ?	18 13	76 23·6
3247	W. IV. 69	12 16 13	3·02	60 19·8	20·0	pF, pS, E 170°, bM	18 14	60 33·1
3248	W. IV. 70	12 16 14	3·02	63 40·3	20·0	eeF, S, R, bM) chain of	18 15	63 53·6
3249	W. IV. 71	12 16 16	3·02	63 46·6	20·0	eeF, S, iF) about 18	18 17	63 59·9
3250	W. IV. 72	12 16 16	3·02	63 35·7	20·0	eeF, S, R, bM) neb	18 17	63 49·0
3251	W. IV. 73	12 16 17	3·02	63 34·2	20·0	eeF, S, R, bM) s to n	18 18	63 47·5
3252	W. IV. 74	12 16 24	3·02	60 36·3	20·0	F, S, iF, ?Cl	18 25	60 49·6
3253	D. S. 363	12 16 24	3·14	123 51	20·0	eF, vL, mE 20°, lbM	18 30	124 4
3254	F. 884	12 16 28	3·04	69 46	20·0	B, S, R, planetary	18 30	69 59
3255	F. 885	12 16 28	3·05	79 35	20·0	R, bM, magn 13	18 30	79 48
3256	B. 291	12 16 28	3·06	82 9	20·0	* 12 in S neb [?= III 95 or 96]	18 30	82 22
3257	B. 292	12 16 32	3·06	81 57	20·0	eF	18 34	82 10
3258	Sn. 241, F.	12 16 38	3·05	76 45·9	20·0	cF, cS, R, exc N s	18 40	76 59·2
3259	B. 293, Sn. 16	12 16 40	3·06	82 2·1	20·0	F, cS, R, bM	18 42	82 15·4
3260	B. 294, Sn. 17	12 16 45	3·06	82 7·0	20·0	F, cS, R, bM	18 47	82 20·3
3261	F. 886	12 16 46	3·05	77 45	20·0	pS, F * M, spir, doubtful	18 48	77 58
3262	W. IV. 75	12 16 47	3·02	61 49·9	20·0	F, S, iF, Cl ?	18 48	62 3·2
3263	W. IV. 76	12 16 49	3·02	61 1·4	20·0	pF, S, R, bM, spir, 2nd sp att	18 50	61 14·7
3264	W. IV. 77	12 16 50	3·02	63 39·9	20·0	vF, S, R, bM	18 51	63 53·2
3265	Sn. 48	12 16 51	3·06	81 25·2	20·0	pF, S, N, ?*	18 53	81 38·5
3266	Sn. 49	12 16 52	3·06	81 26·3	20·0	cF, S, biN, ?st	18 54	81 39·6
3267	B. 295, Sn. 18	12 16 58	3·06	82 10·9	20·0	pF, cS, R	19 0	82 24·2
3268	Sn. 19	12 16 59	3·06	82 37·1	20·0	pB, ?*	19 1	82 50·4
3269	W. IV. 78	12 17 3	3·02	61 47·6	20·0	eF, S, iF	19 4	62 0·9
3270	W. IV. 79	12 17 5	3·02	61 38·7	20·0	vF, vS, iF	19 6	61 52·0
3271	Sn. 50	12 17 6	3·06	81 16·2	20·0	eF, pS, dif, ??	19 8	81 29·5
3272	W. IV. 80	12 17 7	3·03	65 55·9	20·0	vF, S, iF, * 13 att n	19 8	66 9·2
3273	Sn. 95	12 17 8	3·05	80 41·1	20·0	cF, pL, E 48°, * 10·5 inv	19 10	80 54·4
3274	Sn. 96	12 17 8	3·05	79 57·4	20·0	eF, vS, ?	19 10	80 10·7
3275	F. 887	12 17 10	+ 3·05	78 48	+20·0	R, bM, magn 14·5	19 12	79 1

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		h m s	s	° ′	″		m s	° ′
3276	W. IV. 81	12 17 12	+3·02	63 24·3	+20·0	vF, vS, R, bM	19 13	63 37·6
3277	W. IV. 82	12 17 14	3·02	63 39·6	20·0	eF, cS, dif	19 15	63 52·9
3278	W. IV. 83	12 17 14	3·02	61 48·0	20·0	vF, S, iF, N	19 15	62 1·3
3279	Sn. 242	12 17 18	3·05	76 22·3	20·0	pF, S, ? 2 st	19 20	76 35·6
3280	F. 888	12 17 19	3·05	76 0·2	20·0	S, R, bM, magn 15·5	19 21	76 13·5
3281	Sn. 51	12 17 20	3·06	81 24·1	20·0	pB, pS, N, stell	19 22	81 37·4
3282	W. IV. 84	12 17 26	3·02	63 33·2	20·0	eF, vS, R, bM	19 27	63 46·5
3283	W. IV. 85	12 17 27	3·02	62 0·7	20·0	vF, S, R, bM, spir	19 28	62 14·0
3284	F. 889	12 17 28	3·05	78 24·2	20·0	vS, R, bM, magn 14	19 30	78 37·5
3285	W. IV. 86	12 17 32	3·02	64 21·8	20·0	vF, vS, R, bM, in dif neb E 25°	19 33	64 35·1
3286	W. IV. 87	12 17 32	3·02	65 28·4	20·0	S, pR	19 33	65 41·7
3287	W. IV. 88	12 17 35	3·02	64 37·8	20·0	eF, cS, iF, in dif neby	19 36	64 51·1
3288	W. IV. 89	12 17 37	3·02	64 16·5	20·0	vF, vS, R, bM	19 38	64 29·8
3289	Sw. XI., Ho.	12 17 39	3·13	115 15·3	20·0	eF, vS, R, v diffic, *7 nf, *8 np	19 44	115 28·6
3290	Sw. XI., Ho.	12 17 45	3·16	128 59·9	20·0	pF, vS, R, *att, 4373 f	19 51	129 13·2
3291	F. 892	12 17 46	3·05	77 13	20·0	R, bM, magn 14	19 48	77 26
3292	F. 890	12 17 47	3·03	71 1	20·0	F, vS, R, bM	19 48	71 14
3293	F. 891	12 17 47	3·03	71 47	20·0	F, eS, R, planetary	19 48	72 0
3294	W. IV. 90	12 17 48	3·02	63 37·5	20·0	eF, cS, dif	19 49	63 50·8
3295	W. IV. 91	12 17 48	3·01	60 31·0	20·0	cF, S, R, bM	19 49	60 44·3
3296	W. IV. 92	12 17 56	3·02	64 50·4	20·0	cF, neb *13, *13 sp	19 57	65 3·7
3297	W. IV. 93	12 17 57	3·02	62 27·3	20·0	vF, pL, R, bM, spir	19 58	62 40·6
3298	F. 893	12 17 58	3·04	72 11	20·0	S, E 150°, bM	20 0	72 24
3299	W. IV. 95	12 18 3	3·01	61 50·9	20·0	vF, vS, R, bM, spir	20 3	62 4·2
3300	W. IV. 96	12 18 3	3·02	63 15·9	20·0	pF, pS, E 80°, bM	20 4	63 29·2
3301	F. 894	12 18 4	3·04	75 4	20·0	vF, vS, R	20 6	75 17
3302	W. IV. 97	12 18 9	3·02	63 20·7	20·0	eF, vS, iF	20 10	63 34·0
3303	Sn. 244, F.	12 18 9	3·05	76 30·7	20·0	vF, vS	20 11	76 44·0
3304	W. IV. 98	12 18 10	3·02	63 48·0	20·0	eF, S, R	20 11	64 1·3
3305	F. 895	12 18 10	3·05	77 23·2	20·0	vlE, bM, magn 15	20 12	77 36·5
3306	W. IV. 99	12 18 12	3·01	61 49·3	20·0	vF, vS, iF, N	20 12	62 2·6
3307	F. 896	12 18 16	3·04	75 4	20·0	R, bM, magn 15	20 18	75 17
3308	W. IV. 100	12 18 17	3·02	62 30·5	20·0	F, cS, E 70°, bM	20 18	62 43·8
3309	W. IV. 101	12 18 20	3·01	60 50·6	20·0	F, pS, R, bM, spir	20 20	61 3·9
3310	B. 297	12 18 25	3·04	73 33	20·0	vF, S, dif, sbM	20 27	73 46
3311	Sn. 185, F.	12 18 27	3·05	76 57·9	20·0	vF, cS, mE 135°	20 29	77 11·2
3312	W. IV. 102	12 18 28	3·02	65 38·5	20·0	eF, S, R, bM, v diffic	20 29	65 51·8
3313	F. 897	12 18 28	3·04	73 23	20·0	F, vS, R, planetary, B 297 ssp	20 30	73 36
3314	W. IV. 103	12 18 29	3·02	65 38·0	20·0	vF, S, R, bM	20 30	65 51·3
3315	F. 898	12 18 34	3·05	76 55	20·0	E, bM, magn 15	20 36	77 8
3316	W. IV. 104	12 18 35	3·02	63 3·7	20·0	eF, vS, bM, ? neb	20 36	63 17·0
3317	W. IV. 105	12 18 37	3·02	63 52·9	20·0	eF, S, E	20 38	64 6·2
3318	Sn. 139	12 18 43	3·05	79 27·6	20·0	pB, S, = *10·5	20 45	79 40·9
3319	Sn. 140	12 18 44	3·05	78 50·0	20·0	pF, pS	20 46	79 3·3
3320	Sn. 155	12 18 44	3·05	78 46·0	20·0	pF, pS, iF, FN	20 46	78 59·3
3321	W. IV. 106	12 18 45	3·02	63 8·5	20·0	vF, vS, R, ? D *	20 46	63 21·8
3322	Sn. 52	12 18 46	3·06	81 40·0	20·0	cF, pS, m E 130°	20 48	81 53·3
3323	W. IV. 107	12 18 48	3·01	61 40·9	20·0	cF, vS, R, bM, neb *att	20 48	61 54·2
3324	W. IV. 108	12 18 49	3·01	62 29·1	20·0	cF, vS, R, bM, spir	20 49	62 42·4
3325	W. IV. 109	12 18 49	+3·02	65 19·7	+20·0	F, S	20 50	65 33·0

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		h m s	s	° ′	″		m s	° ′
3326	W. IV. 110	12 18 51	+ 3·02	65 27·4	+20·0	F, S, iF	20 52	65 40·7
3327	F. 899	12 18 52	3·04	74 20	20·0	bM, magn 15	20 54	74 33
3328	Sn. 141, F.	12 18 52	3·05	79 10·2	20·0	vF, vS, bM	20 54	79 23·5
3329	W. IV. 112	12 18 56	3·01	61 39·7	20·0	vF, S, iF, att 4393	20 56	61 53·0
3330	J. 1223	12 18 58	3·00	58 22·5	20·0	F, cS, Epf, gbM	20 58	58 35·8
3331	Sn. 186, F.	12 19 0	3·05	77 24·7	20·0	eF, cS, E 78°, bM	21 2	77 38·0
3332	W. IV. 113	12 19 4	3·02	63 56·7	20·0	vF, vS, iF, N	21 5	64 10·0
3333	Sn. 248	12 19 4	3·04	76 5·4	20·0	vF, vS, ? * 14	21 6	76 18·7
3334	W. IV. 114	12 19 10	3·01	60 45·7	20·0	vF, pS, R, bM	21 10	60 59·0
3335	W. IV. 116	12 19 19	3·01	63 5·7	20·0	eF, vS, R, bM, ? neb	21 19	63 19·0
3336	W. IV. 117	12 19 20	3·01	62 23·1	20·0	pB, vS, R, bM	21 20	62 36·4
3337	W. IV. 118	12 19 20	3·02	63 54·7	20·0	eF, vS, R, bM, spir	21 21	64 8·0
3338	W. IV. 119	12 19 21	3·02	63 20·2	20·0	F, vS, R, bM, spir	21 22	63 33·5
3339	Sn. 99	12 19 22	3·05	80 21·2	20·0	* 11 with neb nf	21 24	80 34·5
3340	F. 900	12 19 23	3·03	72 22	20·0	vS, E 200°	21 24	72 35
3341	W. IV. 120	12 19 24	3·01	61 28·6	20·0	vF, cS, dif	21 24	61 41·9
3342	W. IV. 121	12 19 27	3·01	62 5·1	20·0	vF, vS, R, spir, sbM *	21 27	62 18·4
3343	Sn. 100	12 19 28	3·05	80 20·9	20·0	eF, vS, ??	21 30	80 34·2
3344	F. 901	12 19 31	3·04	75 39·2	20·0	R, bM, magn 14·5	21 33	75 52·5
3345	W. IV. 122	12 19 31	3·02	64 51·3	20·0	eF, S, iF	21 32	65 4·6
3346	F. 902	12 19 34	3·05	77 52	20·0	eS, R, bM, magn 15·5	21 36	78 5
3347	F. 903	12 19 34	3·05	78 20	20·0	R, bM, magn 15	21 36	78 33
3348	W. IV. 123	12 19 37	3·02	63 36·0	20·0	eF, vS, iF	21 38	63 49·3
3349	F. 904	12 19 40	3·04	76 47	20·0	vS, R, lbM, magn 15	21 42	77 0
3350	Sn. 102	12 19 40	3·05	79 46·8	20·0	* 10·5 with neb sp	21 42	80 0·1
3351	W. IV. 124	12 19 41	3·02	61 37·1	20·0	eF, S, iF	21 42	61 50·4
3352	Sn. 103	12 19 41	3·05	80 28·0	20·0	F, pS, E	21 43	80 41·3
3353	W. IV. 125	12 19 42	3·02	61 18·7	20·0	eF, S, iF	21 43	61 32·0
3354	Sn. 187	12 19 46	3·04	77 7·7	20·0	eF, S, ?	21 48	77 21·0
3355	Sn. 251, F.	12 19 46	3·04	76 2·9	20·0	eF, pS, E 168°	21 48	76 16·2
3356	F. 905	12 19 46	3·05	77 41	20·0	R, bM, magn 16	21 48	77 54
3357	F. 906	12 19 46	3·05	79 28	20·0	R, bM, magn 15	21 48	79 41
3358	Sn. 188, F.	12 19 48	3·05	77 33·7	20·0	vF, S	21 50	77 47·0
3359	W. IV. 126	12 19 50	3·02	65 43·6	20·0	F, S, iF, N, * 14 np	21 51	65 56·9
3360	W. IV. 127	12 19 50	3·01	63 10·6	20·0	eF, vS, iF	21 50	63 23·9
3361	F. 907	12 19 52	3·05	78 35	20·0	R, bM, magn 15·5	21 54	78 48
3362	W. IV. 128	12 19 54	3·01	62 32·0	20·0	F, vS, bM, spir	21 54	62 45·3
3363	F. 908	12 19 58	3·04	76 41	20·0	E, bM, magn 15	22 0	76 54
3364	W. IV. 130	12 20 4	3·01	63 39·7	20·0	vF, vS, R, bM	22 4	63 53·0
3365	F. 909	12 20 4	3·04	73 19	20·0	pL, vmE 240°	22 6	73 32
3366	Sn. 105	12 20 9	3·05	79 48·7	20·0	vF, vS	22 11	80 2·0
3367	W. IV. 131	12 20 10	3·01	62 16·0	20·0	F, vS, R, att 2nd np	22 10	62 29·3
3368	F. 910	12 20 11	3·03	72 48	20·0	vS, vlE, planetary	22 12	73 1
3369	F. 911	12 20 11	3·03	73 11	20·0	vF, bM, magn 14	22 12	73 24
3370	Sw. XI., Ho.	12 20 12	3·17	128 33·7	20·0	pB, pL, R, * 8·5 p 4′	22 19	128 47·0
3371	F. 912	12 20 16	3·05	78 22·2	20·0	F, pL, vmE 225°	22 18	78 35·5
3372	W. IV. 132	12 20 24	3·01	63 56·3	20·0	vF, vS, bM, spir	22 24	64 9·6
3373	W. IV. 133	12 20 27	3·01	63 46·3	20·0	F, cS, iF	22 27	63 59·6
3374	F. 913	12 20 28	3·05	79 15	20·0	R, bM, magn 15·5	22 30	79 28
3375	W. IV. 134	12 20 41	+ 3·01	61 51·5	+20·0	F, vS, R, att * 14 sp	22 41	62 4·8

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		h m s	s	° ′	″		m s	° ′
3376	W. IV. 135	12 20 51	+ 3·01	62 13·8	+20·0	pB, S, R, bM	22 51	62 27·1
3377	W. IV. 136	12 20 51	3·01	64 17·0	20·0	pF, vS, R, bM	22 51	64 30·3
3378 } 3379	F. 914	12 21 5	3·03	71 55	20·0	2 neb, 1′ apart, magn 15·5	23 6	72 8
3380	W. IV. 137	12 21 6	3·01	62 33·1	20·0	F, vS, bM, spir	23 6	62 46·4
3381	Sn. 192, F.	12 21 9	3·04	77 26·2	20·0	eF, vS, stell	23 11	77 39·5
3382	F. 915	12 21 10	3·04	75 40	20·0	F, pS, mE 150°	23 12	75 53
3383	F. 916	12 21 10	3·05	78 57	20·0	R, bM, magn 15	23 12	79 10
3384	W. IV. 138	12 21 12	3·01	64 8·1	20·0	eF, Sv, iF	23 12	64 21·4
3385	W. IV. 139	12 21 14	3·01	63 47·6	20·0	eF, pS, R, bM, dif	23 14	64 0·9
3386	F. 917	12 21 16	3·04	76 2	20·0	vF, cS, E 90°	23 18	76 15
3387	W. IV. 141	12 21 20	3·00	61 13·7	20·0	vF, S, viF	23 20	61 27·0
3388	F. 918	12 21 22	3·04	76 25	20·0	vS, R, lbM, magn 15	23 24	76 38
3389	W. IV. 142	12 21 25	3·00	61 22·8	20·0	vF, S, iF	23 25	61 36·1
3390	W. IV. 143	12 21 28	3·01	64 24·9	20·0	vF, vS, R, bM	23 28	64 38·2
3391	F. 919	12 21 29	3·03	70 49	20·0	cS, vlE, sbMF *, ? spir	23 30	71 2
3392	F. 920	12 21 34	3·04	74 13·7	20·0	B, L, mE 225°, mbM	23 36	74 27·0
3393	F. 921	12 21 40	3·04	76 19	20·0	S, E 125°, bM, magn 14	23 42	76 32
3394	W. IV. 144	12 21 42	3·01	62 25·6	20·0	F, S, bM, spir	23 42	62 38·9
3395	W. IV. 146	12 21 44	3·01	64 11·4	20·0	vF, vS, R, bM	23 44	64 24·7
3396	W. IV. 147	12 21 44	3·01	64 10·6	20·0	vF, vS, R, bM, others n	23 44	64 23·9
3397	W. IV. 148	12 21 46	3·01	63 29·6	20·0	F, S, v iF	23 46	63 42·9
3398	Sn. 279	12 21 54	3·04	75 39·6	20·0	eF, vS	23 56	75 52·9
3399	W. IV. 149	12 21 56	3·01	63 31·7	20·0	vF, vS, R, bM	23 56	63 45·0
3400	Sn. 108	12 21 56	3·05	79 49·1	20·0	cB, cS, = * 10	23 58	80 2·4
3401	W. IV. 150	12 21 59	3·00	62 45·9	19·9	vF, vS, R	23 59	62 59·2
3402	W. IV. 151	12 22 1	3·00	60 21·5	19·9	vF, cL, E 10°, * np, conn ?	24 1	60 34·8
3403	W. IV. 152	12 22 1	3·01	64 35·6	19·9	cF, S, pR, bM	24 1	64 48·9
3404	Sn. 22	12 22 3	3·05	82 4·3	19·9	cB, cS, R, mbM	24 5	82 17·6
3405	J. 1224	12 22 4	2·97	51 29·7	19·9	F, S, R, vlbM	24 3	51 43·0
3406	W. IV. 153	12 22 4	3·00	61 35·0	19·9	cF, S, bM, spir	24 4	61 48·3
3407	W. IV. 154	12 22 5	3·00	61 26·8	19·9	cF, cS, E 150°, bM, ? spir	24 5	61 40·1
3408	Sn. 194	12 22 10	3·04	77 21·0	19·9	B, stell, ? * 9·5	24 12	77 34·3
3409	F. 923	12 22 10	3·04	74 26	19·9	bM, magn 15	24 12	74 39
3410	F. 922	12 22 11	3·03	70 14	19·9	bM, magn 15·5	24 12	70 27
3411	W. IV. 155	12 22 12	3·01	64 38·5	19·9	eF, S, iF, neby sf	24 12	64 51·8
3412	Sn. 144, F.	12 22 16	3·05	79 14·4	19·9	eF, cS	24 18	79 27·7
3413	Sn. 157, F.	12 22 16	3·05	77 47·5	19·9	vF, vS, R, bM	24 18	78 0·8
3414	Sn. 23	12 22 21	3·05	82 27·3	19·9	cF, cS, mbM	24 23	82 40·6
3415	W. IV. 156	12 22 23	3·00	62 27·5	19·9	F, vS, bM, spir, ? neb *	24 23	62 40·8
3416	F. 924	12 22 28	3·05	78 27	19·9	S, mE 250°	24 30	78 40
3417	Sn. 60	12 22 32	3·05	81 21·8	19·9	eF, vS, ? *	24 34	81 35·1
3418	F. 926	12 22 34	3·04	77 50	19·9	vF, wisp	24 36	78 3
3419	F. 925	12 22 35	3·03	74 12	19·9	vF, R, magn 16	24 36	74 25
3420	Sn. 257	12 22 38	3·04	75 46·9	19·9	vF, S, R, ??	24 40	76 0·2
3421	W. IV. 157	12 22 39	3·00	62 59·7	19·9	Cl, F, cS, R, bM	24 39	63 13·0
3422	F. 927	12 22 40	3·04	74 32	19·9	bM, magn 15	24 42	74 45
3423	Sn. 282	12 22 42	3·04	75 34·0	19·9	vF, vS	24 44	75 47·3
3424	W. IV. 158	12 22 44	3·01	64 49·1	19·9	eF, pS, iF	24 44	65 2·4
3425	F. 928	12 22 52	+ 3·05	78 37	+19·9	bM, magn 14	24 54	78 50

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		h m s	s	° ′	″		m s	° ′
3426	Sn. 284	12 22 57	+ 3·04	75 37·4	+19·9	vF, vS	24 59	75 50·7
3427	Sn. 158, F.	12 23 5	3·04	78 26·8	19·9	F, vS, exc Nf	25 7	78 40·1
3428	W. IV. 160	12 23 7	3·01	65 33·1	19·9	F, S, R, bM	25 7	65 46·4
3429	W. IV. 161	12 23 7	3·01	65 40·9	19·9	vF, S, iF, N	25 7	65 54·2
3430	Sn. 110	12 23 11	3·05	80 8·4	19·9	eF, cS, dif	25 13	80 21·7
3431	F. 930	12 23 16	3·04	77 38	19·9	vS, R	25 18	77 51
3432	F. 929	12 23 17	3·03	75 5	19·9	B, S, R	25 18	75 18
3433	F. 931	12 23 23	3·02	71 56	19 9	bM, magn 14·5	25 24	72 9
3434	F. 932	12 23 29	3·02	70 26	19·9	bM, magn 15	25 30	70 39
3435	F. 933	12 23 29	3·03	74 6	19·9	S, mE 135°, sbM	35 30	74 19
3436	F. 934	12 23 35	3·02	69 34	19·9	bM, magn 14	25 36	69 47
3437	F. 935	12 23 40	3·04	77 54	19·9	bM, magn 15	25 42	78 7
3438	Sn. 65	12 23 53	3·05	81 8·8	19·9	cF, S, FN	25 55	81 22·1
3439	W. IV. 162	12 24 0	3·00	63 39·9	19·9	vF, cS, iF, sev N	26 0	63 53·2
3440	Sn. 198, F.	12 24 0	3·04	77 12·0	19·9	eF, pS, lE 30°	26 2	77 25·3
3441	W. IV. 163	12 24 7	2·99	60 22·3	19·9	F, S, bM, spir	26 7	60 35·6
3442	F. 936	12 24 11	3·03	75 7	19·9	F, vS, R, lbM	26 12	75 20
3443	F. 937	12 24 11	3·03	76 54	19 9	bM, magn 15·5	26 12	77 7
3444	W. IV. 164	12 24 16	2·99	61 40·7	19·9	vF, vS, bM, spir	26 16	61 54·0
3445	F. 938	12 24 16	3·04	76 30	19·9	F, eS, R	26 18	76 43
3446	F. 939	12 24 16	3·04	77 45	19·9	bM, magn 14	26 18	77 58
3447	F. 940	12 24 16	3·04	78 33	19 9	F, eS, R	26 18	78 46
3448	F. 941	12 24 23	3·02	72 2	19·9	vF, vlE	26 24	72 15
3449	W. IV. 165	12 24 24	3·00	63 18·8	19·9	eF, vS, bM, spir	26 24	63 32·1
3450	W. IV. 167	12 24 26	3·00	62 25·1	19·9	vF, vS, spir, ? (I, 83 sp)	26 26	62 38·4
3451	W. IV. 168	12 24 27	2·99	60 22·2	19·9	F, S, bM, spir	26 26	60 35·5
3452	Sn. 199	12 24 27	3·04	77 36·1	19·9	pF, pS, E 100°	26 29	77 49·4
3453	F. 942	12 24 29	3·03	74 22	19·9	F, S, E 160°, lbM	26 30	74 35
3454	W. IV 169	12 24 31	2·99	61 43·8	19·9	F, S, iF, dif, att * 11 n	26 31	61 57·1
3455	W. IV. 170	12 24 45	3·00	63 26·5	19·9	eF, S, iF	26 45	63 39·8
3456	W. IV. 171	12 24 46	2·99	60 52·1	19 9	vF, pS, iF	26 46	61 5·4
3457	F. 943	12 24 46	3·04	76 35	19·9	S, R, lbM	26 48	76 48
3458	W. IV. 172	12 24 47	2·99	61 4·8	19·9	F, S, bM, spir	26 47	61 18·1
3459	Sn. 200, F.	12 24 51	3·04	77 3·1	19·9	vF, pS, dif	26 53	77 16·4
3460	W. IV. 173	12 24 52	2·99	61 50·3	19·9	F, S, iF	26 52	62 3·6
3461	Sn. 201, F.	12 24 57	3·04	77 20·1	19·9	vF, vS	26 59	77 33·4
3462	F. 944	12 24 59	3·03	73 56	19·9	vF, eS, R	27 0	74 9
3463	Sn. 202	12 25 0	3·04	76 54·3	19·9	vF, cS, E 40°	27 2	77 7·6
3464	W. IV. 174	12 25 2	3·00	63 13·3	19·9	eF, vS, bM, spir	27 2	63 26·6
3465	F. 945	12 25 4	3·04	77 10	19·9	bM, magn 16	27 6	77 23
3466	F. 946	12 25 4	3·04	77 26	19·9	bM, magn 15	27 6	77 39
3467	F. 947	12 25 10	3·04	77 27	19·9	cS, vm E 255°, sbM *	27 12	77 40
3468	F. 948	12 25 10	3·04	78 59	19·9	bM, magn 13·5	27 12	79 12
3469	W. IV. 175	12 25 12	3·00	63 25·4	19·9	eF, S, E 50°	27 12	63 38·7
3470	F. 950	12 25 16	3·04	77 58	19·9	bM, magn 13·5	27 18	78 11
3471	F. 949	12 25 17	3·03	73 12	19·9	F, vS, R	27 18	73 25
3472	W. IV. 176	12 25 20	3·00	64 29·9	19·9	eF, S, iF	27 20	64 43·2
3473	F. 951	12 25 23	3 02	71 0	19·9	S, R, lbM	27 24	71 13
3474	Roberts	12 25 28	3·06	86 34·4	19·9	pF, E sp nf, dif, * 17 np, B * sf	27 30	86 47·7
3475	F. 952	12 25 35	+ 3·03	76 28	+19·9	vF, pS, R, dif	27 36	76 41

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		h m s	s	° ′	″		m s	° ′
3476	Sn. 288, F.	12 25 38	+ 3·03	75 10·7	+19·9	pF, pL, lbM	27 39	75 24·0
3477	W. IV. 177	12 25 40	3·00	63 11·1	19·9	vF, vS, bM, spir	27 40	63 24·4
3478	Sn. 289, F.	12 25 40	3·03	75 1·9	19·9	vF, vS, bM	27 41	75 15·2
3479	W. IV. 178	12 25 42	3·00	63 49·3	19·9	vF, vS, iF	27 42	64 2·6
3480	W. IV. 179	12 25 44	2·99	62 23·9	19·9	vF, S, E 90°, bM	27 44	62 37·2
3481	F. 953	12 25 46	3·04	77 50	19·9	bM, magn 13	27 48	78 3
3482	W. IV. 180	12 26 4	2·99	61 23·7	19·9	vF, S, bM, spir	28 4	61 37·0
3483	F. 955	12 26 4	3·04	77 53	19·9	bM, magn 14	28 6	78 6
3484	F. 954	12 26 5	3·02	71 50	19·9	S, R, bM	28 6	72 3
3485	Sn. 112	12 26 5	3·04	80 0·5	19·9	eF, S; ?	28 7	80 13 8
3486	Roberts, F.	12 26 7	3·03	76 22·0	19·9	F, S, R, dif	28 8	76 35·3
3487	Sn. 113	12 26 7	3·04	79 49·8	19·9	vF, vS	28 9	80 3·1
3488	W. IV. 181	12 26 10	2·99	62 52·6	19·9	F, S, R, bM	28 10	63 5·9
3489	F. 956	12 26 10	3·04	76 59	19·9	bM, magn 13	28 12	77 12
3490	F. 957	12 26 10	3·04	78 18	19·9	vF, S, vmE 240°	28 12	78 31
3491	W. IV. 182	12 26 11	2·99	62 8·0	19·9	F, S, iF	28 11	62 21·3
3492	Roberts	12 26 13	3·03	76 22·3	19·9	sbM, prob spiral	28 14	76 35·6
3493	Sn. 114	12 26 15	3·04	79 50·2	19·9	eF, vS	28 17	80 3·5
3494	W. IV. 183	12 26 17	2·99	61 38·6	19·9	vF, vS, neb *, * 15 np	28 17	61 51·9
3495	W. IV. 184	12 26 19	2·99	62 25·2	19·9	vF, cS, iF, diffic	28 19	62 38·5
3496	W. IV. 185	12 26 21	2·99	62 28·0	19·9	vF, cS, iF, * 15 inv, s	28 21	62 41·3
3497	W. IV. 186	12 26 30	2·99	63 44·3	19·9	vF, vS, R, bM	28 30	63 57·6
3498	W. IV. 187	12 26 31	2·99	62 29·4	19·9	vF, S, iF	28 31	62 42·7
3499	F. 959	12 26 40	3·04	78 14	19·9	cS, E (wisps) 130°, bM	28 42	78 27
3500	F. 958	12 26 41	3·03	75 17	19·9	S, E 90°, sbM *	28 42	75 30
3501	Roberts, F.	12 26 44	3·03	75 54·0	19·9	F, S, R, bMN	28 45	76 7·3
3502	W. IV. 188	12 26 45	2·99	62 36·9	19·9	eF, S, iF	28 45	62 50·2
3503	J. 1225	12 26 57	2·94	51 26·9	19·9	eF, vS, bMN	28 55	51 40·2
3504	Sn. 24	12 27 1	3·05	82 20·5	19·9	eF, vS, nr * 10	29 3	82 33·8
3505	F. 960	12 27 5	3·02	73 16	19·9	F, S, E	29 6	73 29
3506	F. 961	12 27 5	3·03	76 30	19·9	vF, R	29 6	76 43
3507	W. IV. 189	12 27 6	2·99	63 51·9	19·9	vF, vS, iF	29 6	64 5·2
3508	W. IV. 190	12 27 10	2·99	62 33·4	19·9	cF, S, bM, spir	29 10	62 46·7
3509	F. 962	12 27 10	3·04	77 11	19·9	bM, magn 14	29 12	77 24
3510	F. 963	12 27 10	3·04	78 9	19·9	eF, bM, magn 15, * 10 nf	29 12	78 22
3511	W. IV. 191	12 27 13	2·99	61 52·7	19·9	vF, S, iF, N	29 13	62 6·0
3512	W. IV. 192	12 27 13	2·99	61 51·9	19·9	vF, S, iF, N	29 13	62 5·2
3513	W. IV. 193	12 27 15	2·99	61 53·9	19·9	vF, S, iF, N	29 15	62 7·2
3514	W. IV. 194	12 27 19	2·99	62 31·7	19·9	vF, vS, bM, spir	29 19	62 45·0
3515	W. IV. 195	12 27 19	2·99	61 21·9	19·9	F, S, iF	29 19	61 35·2
3516	W. IV. 196	12 27 20	2·99	61 46·6	19·9	vF, S, iF, N	29 20	61 59·9
3517	Sn. 117	12 27 25	3·04	80 4·4	19·9	eF, pS, mE 28°; ?	29 27	80 17·7
3518	F. 966	12 27 28	3·04	79 37	19·9	cS, mE 210°, bM	29 30	79 50
3519	F. 964	12 27 29	3·02	73 39	19·9	vF, vS, R	29 30	73 52
3520	F. 965	12 27 29	3·03	75 44	19·9	vF, R	29 30	75 57
3521	Sn. 26	12 27 32	3·05	82 4·1	19·9	pF, cS, E 45°, bM	29 34	82 17·4
3522	F. 967	12 27 35	3·03	74 2	19·9	vF, S, mE 90°	29 36	74 15
3523	F. 968	12 27 35	3·03	75 13	19·9	vF, R	29 36	75 26
3524	Sn. 290	12 27 39	3·03	74 59·9	19·9	cF, S, ? * 12·5	29 40	75 13·2
3525	F. 969	12 27 40	+ 3·04	79 4	+19·9	vF, R	29 42	79 17

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		h m s	s	° ′	″		m s	° ′
3526	W. IV. 197	12 27 43	+ 2·99	63 32·6	+19·9	F, vS, R, bM	29 43	63 45·9
3527	W. IV. 198	12 27 45	2·99	63 4·2	19·9	F, vS, R, bM *	29 45	63 17·5
3528	F. 970	12 27 47	3·02	73 41	19·9	bM, magn 14	29 48	73 54
3529	W. IV. 199	12 27 52	2·99	63 31·7	19·9	F, vS, R, bM	29 52	63 45·0
3530	F. 971	12 27 53	3·02	71 26	19·9	F, vS, R	29 54	71 39
3531	W. IV. 200	12 28 0	2·99	62 36·1	19·9	vF, vS, bM, spir	30 0	62 49·4
3532	W. IV. 201	12 28 0	2·99	63 20·8	19·9	vF, vS, bM, spir	30 0	63 34·1
3533	W. IV. 202	12 28 3	2·99	63 26·9	19·9	pF, vS, R, bM	30 3	63 40·2
3534	F. 972	12 28 11	3·02	74 14	19·9	vF, eS, R	30 12	74 27
3535	W. IV. 203	12 28 13	2·99	63 29·8	19·9	F, vS, R, bM	30 13	63 43·1
3536	W. IV. 204	12 28 15	2·99	62 41·7	19·9	vF, S, iF	30 15	62 55·0
3537	Sn. 69	12 28 16	3·05	81 34·5	19·9	vF, S, ?	30 18	81 47·8
3538	W. IV. 205	12 28 18	2·99	62 59·5	19·9	eF, S, iF	30 18	63 12·8
3539	W. IV. 206	12 28 21	3·00	65 14·7	19·9	eF, S, R, bM, * 13 sp	30 21	65 28·0
3540	Roberts, F.	12 28 22	3·03	76 28·5	19·9	vS, R, sev. condens	30 23	76 41·8
3541	W. IV. 207	12 28 24	3·00	65 15·2	19·9	eF, S, R, * 14 np	30 24	65 28·5
3542	F. 973	12 28 41	3·03	77 34	19 9	bM, magn 14·5	30 42	77 47
3543	W. IV. 209	12 28 44	2·99	62 56·4	19·9	vF, S, lE 150°	30 44	63 9·7
3544	Sn. 291	12 28 44	3·03	74 55·7	19·9	cF, vS, ? * 12·5	30 45	75 9·0
3545	W. IV. 211	12 28 44	2·99	62 42·3	19·9	pB, S, R, bM	30 44	62 55·6
3546	W. IV. 212	12 28 45	2·99	63 0·3	19·9	F, S, lE 150°	30 45	63 13·6
3547	W. IV. 214	12 28 52	2·98	62 53·9	19·9	vF, vS, iF	30 51	63 7·2
3548	F. 974	12 28 52	3·04	78 17	19·9	vF, eS, R	30 54	78 30
3549	W. IV. 216	12 28 54	2·98	62 49·9	19·9	vF, vS, bM, spir	30 53	63 3·2
3550	W. IV. 218	12 28 56	2·98	61 17·7	19·9	Nuclei	30 55	61 31·0
3551	W. IV. 219	12 28 58	2·98	61 15·8	19·9	inv. in	30 57	61 29·1
3552	W. IV. 220	12 28 58	2·98	61 13·9	19·9	I, 92	30 57	61 27·2
3553	W. IV. 221	12 28 59	2·98	63 2·0	19·9	vF, vS, R, bM	30 58	63 15·3
3554	W. IV. 222	12 29 0	2·98	61 18·0	19 9	N inv. in I 92 (2^sp, 1′·8 s)	30 59	61 31·3
3555	W. IV. 223	12 29 1	2·98	61 14·2	19·9	N inv. in I 92 (1^s.5p, 2′·0 n)	31 0	61 27·5
3556	W. IV. 225	12 29 2	2·98	62 15·7	19·9	F, S, R, bM	31 1	62 29·0
3557	F. 975	12 29 5	3·02	72 37	19·9	bM, magn 15·5	31 6	72 50
3558	F. 976	12 29 5	3·03	77 23	19·9	D; F, R, dist 12″ n & s	31 6	77 36
3559	W. IV. 226	12 29 7	2·98	62 14·4	19·9	vF, vS, R, bM	31 6	62 27·7
3560	W. IV. 227	12 29 8	2·98	62 9·0	19·9	vF, vS, R, bM	31 7	62 22·3
3561	W. IV. 228	12 29 8	2·98	62 19·7	19·9	cF, vS, R, bM *	31 7	62 33·0
3562	F. 977	12 29 10	3·04	79 19	19·9	E 220°	31 12	79 32
3563	W. IV. 229	12 29 13	2·98	61 18·1	19·9	Nuclei inv.	31 12	61 31·4
3564	W. IV. 230	12 29 14	2·98	61 18·1	19·9	in I, 92	31 13	61 31·4
3565	W. IV. 231	12 29 16	2·98	62 28·4	19·9	vF, S, E 148°, ? st	31 15	62 41·7
3566	F. 980	12 29 16	3·04	78 4	19·9	Com, R with tail 1′ at 110°	31 18	78 17
3567	F. 979	12 29 17	3·03	75 38	19·9	F, vS, R, bM	31 18	75 51
3568	Aitken (3667)	12 29 18	1·62	6 39·9	19·9	Planetary or neb * 9·5; * 13 p 15″	30 23	6 52·2
3569	F. 978	12 29 18	3·01	69 56	19·9	cS, spir, 2 br, F * M, F * inv	31 18	70 9
3570	W. IV. 233	12 29 20	2·99	65 9·0	19·9	eF, S, iF, * 13 np	31 20	65 22·3
3571	W. IV. 234	12 29 23	2·99	63 8·6	19·9	eF, S, iF, others nr	31 23	63 21·9
3572	Sn. 205	12 29 23	3·03	77 36·6	19·9	cF, vS, ??	31 24	77 49·9
3573	F. 981	12 29 23	3·03	77 29	19·9	F, vS, R	31 24	77 42
3574	Sn. 206	12 29 24	3·03	76 49·5	19·9	vF, vS, ? * 14	31 25	77 2·8
3575	F. 982	12 29 29	+ 3·03	75 29	+19·9	vF, vS, R	31 30	75 42

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		h m s	s	° ′	″		m s	° ′
3576	Sn. 27	12 29 31	+ 3·05	82 36·4	+19·9	F, pS, dif	31 33	82 49·7
3577	Sn. 207	12 29 32	3·03	77 19·9	19·9	vF, pS, dif, * 13 inv nf	31 33	77 33·2
3578	F. 984	12 29 34	3·04	78 8	19·9	S, E 125°	31 36	78 21
3579	W. IV. 236	12 29 36	2 99	63 7·5	19·9	eF, S, iF, others nr	31 36	63 20·8
3580	F. 983	12 29 36	3·01	70 57	19·9	F, vS, R	31 36	71 10
3581	W. IV. 237	12 29 40	2·99	64 48·0	19·9	pB, S, E 50°, bM	31 40	65 1·3
3582	W. IV. 238	12 29 40	2·99	62 59·6	19·9	F, vS, com, bM, others nr	31 40	63 12·9
3583	Roberts, F.	12 29 40	3·03	75 58·5	19·9	vmE, * 13 att sf, 2 st 12 nr	31 41	76 11·8
3584	Sn. 208	12 29 41	3·03	76 59·8	19·9	vF, vS, ? * 14	31 42	77 13·1
3585	W. IV. 239	12 29 44	2·98	62 24·0	19·9	cF, S, neb *	31 43	62 37·3
3586	Sn. 263, F.	12 29 51	3·03	76 42·6	19·9	vF, cS, dif	31 52	76 55·9
3587	W. IV. 240	12 29 53	2·98	61 40·8	19·9	vF, S, lE 120°, * 15 nf	31 52	61 54·1
3588	Sn. 293	12 29 53	3·03	75 0·6	19·9	cF, pL, lbM	31 54	75 13·9
3589	Sn. 29	12 29 54	3·05	82 17·5	19·9	vF, S, R, stell	31 56	82 30·8
3590	W. IV. 241	12 29 55	2·98	61 56·9	19·9	vF, S, viF	31 54	62 10·2
3591	Sn. 30	12 29 56	3·05	82 18·2	19·9	F, pS, nr * 14	31 58	82 31·5
3592	W. IV. 242	12 29 58	2·98	61 22·0	19·9	pF, S, lE 140°	31 57	61 35·3
3593	W. IV. 243	12 29 58	2·98	61 28·8	19·9	pF, S, iF, N	31 57	61 42·1
3594	W. IV. 244	12 30 0	2·98	63 6·9	19·9	eF, vS, iF	31 59	63 20·2
3595	W. IV. 245	12 30 8	2·99	65 26·4	19·9	eF, S, iF	32 8	65 39·7
3596	W. IV. 246	12 30 23	2·98	62 42·5	19·9	vF, S, iF, nr D *	32 22	62 55·8
3597	W. IV. 247	12 30 26	2·99	65 21·9	19·9	eF, S, R	32 26	65 35·2
3598	Roberts, W. IV. 248	12 30 26	2·97	61 1·2	19·9	pF, vS, sbM *, * 15 nf 100″	32 25	61 14·5
3599	W. IV. 249	12 30 45	2·98	62 31·3	19·9	eF, S, R, bM	32 44	62 44·6
3600	W. IV. 250	12 30 46	2·98	62 6·0	19·9	F, vS, neb *	32 45	62 19·3
3601	F. 985	12 30 47	3·02	74 2	19·9	bM, magn 15	32 48	74 15
3602	F. 986	12 31 4	3·04	79 9	19·9	F, eS, R, lbM	33 6	79 22
3603	F. 987	12 31 11	3·02	73 42	19·9	eF, bM, magn 15	33 12	73 55
3604	F. 989	12 31 17	3·03	77 31	19·9	F, vS, R, lbM	33 18	77 44
3605	F. 988	12 31 18	3·01	69 43	19·9	vF, vS, R	33 18	69 56
3606	F. 990	12 31 23	3·03	76 38	19·9	F, vlE	33 24	76 51
3607	F. 991	12 31 28	3·04	78 52	19·9	F, eS, R	33 30	79 5
3608	F. 993	12 31 34	3·04	78 46	19·9	vS, R, wisps pf, 1′ each	33 36	78 59
3609	F. 992	12 31 35	3·02	74 53	19·9	B, vS, R, ? planetary	33 36	75 6
3610	W. IV. 252	12 31 52	2·98	62 21·4	19·9	eF, S, viF	33 51	62 34 7
3611	Sn. 265, F.	12 32 1	3·02	75 52·1	19·8	pF, cS, E 130°	34 2	76 5·3
3612	F. 995	12 32 5	3·02	74 31	19·8	B, vS, R, ? planetary	34 6	74 44
3613	F. 996	12 32 5	3·02	75 30	19·8	F, eS, R, lbM	34 6	75 43
3614	W. IV. 253	12 32 6	2·98	62 55·7	19·8	eF, pS, gbM, spir	34 5	63 8·9
3615	F. 994	12 32 6	3·01	71 3	19·8	S, E 185°, bM	34 6	71 16
3616	F. 997	12 32 11	3·02	74 30	19·8	bM, magn 14	34 12	74 43
3617	Sn. 70	12 32 19	3·04	81 15·8	19·8	vF, S	34 21	81 29·0
3618	W. IV. 254	12 32 22	2·97	62 33·1	19·8	F, vS, R, bM	34 21	62 46·3
3619	W. IV. 255	12 32 22	2·98	65 5·4	19·8	vF, cS, E 160°, bM	34 21	65 18·6
3620	Roberts, W. IV. 256	12 32 23	2·97	61 19·2	19·8	F, S, iF, bM, sev neb st nr	34 22	61 32·4
3621	F. 998	12 32 29	3·02	73 45	19·8	bM, magn 14	34 30	73 58
3622	F. 999	12 32 29	3·02	73 49	19·8	vF, S, R	34 30	74 2
3623	W. IV. 257	12 32 33	2·97	62 7·6	19·8	eF, S, R, bM	34 32	62 20·8
3624	F. 1000	12 32 35	3·03	77 15	19·8	F, S, E 180°	34 36	77 28
3625	F. 1001	12 32 35	+ 3·03	78 16	+19·8	vF, R	34 36	78 29

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		h m s	s	° ′	″		m s	° ′
3626	W. IV. 258	12 32 36	+ 2·98	63 33·1	+19·8	vF, S, bM, spir	34 35	63 46·3
3627	W. IV. 259	12 32 37	2·97	61 44·0	19·8	F, S, iF, N	34 36	61 57·2
3628	W. IV. 260	12 32 44	2·97	62 59·3	19·8	eF, S, R	34 43	63 12·5
3629	F. 1002	12 32 47	3·02	75 43	19·8	S, mE 245°, lbM	34 48	75 56
3630	W. IV. 261	12 32 51	2·98	63 47·9	19·8	vF, vS, lE, ? D *	34 50	64 1·1
3631	F. 1003	12 32 53	3·02	76 16	19·8	bM, magn 13	34 54	76 29
3632	W. IV. 262	12 33 5	2·97	62 32·8	19·8	eF, cS, iF	35 4	62 46·0
3633	F. 1005	12 33 10	3·04	79 21	19·8	vS, planetary, lbM	35 12	79 34
3634	F. 1006	12 33 10	3·04	79 24	19·8	vF, R, dif	35 12	79 37
3635	F. 1004	12 33 11	3·02	76 22	19·8	F, vS, R, bM	35 12	76 35
3636	W. VI. 1	12 33 17	2·99	67 9·4	19·8	eF, vS, E 0°, bM	35 17	67 22·6
3637	F. 1007	12 33 17	3·02	74 32	19·8	vF, vS, R, dif	35 18	74 45
3638	F. 1008	12 33 17	3·03	78 44	19·8	B, S, R, lbM	35 18	78 57
3639	Sw. XI., Ho.	12 33 21	3·22	125 59·2	19·8	pF, pS, * 12·5 ssp	35 30	126 12·4
3640 3641	W. IV. 263	12 33 30	2·97	62 42·3	19·8	F, S, bM, spir; vF, R neb 30″ np	35 29	62 55·5
3642	W. IV. 264	12 33 31	2·97	62 30·0	19·8	vF, cS, iF, dif	35 30	62 43·2
3643	F. 1009	12 33 41	3·03	76 50	19·8	F, vl E	35 42	77 3
3644	W. IV. 265	12 33 42	2·97	62 43·4	19·8	vF, S, iF	35 41	62 56·6
3645	W. IV. 266	12 33 43	2·97	62 41·4	19·8	F, vS, R, bM	35 42	62 54·6
3646	W. IV. 267	12 33 44	2·97	62 42·3	19·8	F, S, E 65°, bM	35 43	62 55·5
3647	F. 1010	12 33 47	3·03	78 46	19·8	F, cS, mE 135°	35 48	78 59
3648	Sn. 266	12 33 50	3·02	76 14·7	19·8	eF, S; ? ?	35 51	76 27·9
3649	W. VI. 2	12 33 51	2·99	68 7·5	19·8	F, vS, iF, N	35 51	68 20·7
3650	W. IV. 268	12 33 53	2·97	62 45·4	19·8	eF, vS, bM, spir	35 52	62 58·6
3651	W. IV. 269	12 33 58	2·97	62 30·2	19·8	pF, cS, R, spir	35 57	62 43·4
3652	F. 1011	12 33 59	3·03	78 4	19·8	S, R, mbM	36 0	78 17
3653	F. 1012	12 34 11	3·03	77 51	19·8	bM, magn 13	36 12	78 4
3654	W. VI. 3	12 34 15	2·98	66 38·5	19·8	F, S, iF, N	36 14	66 51·7
3655	W. VI. 4	12 34 16	2·99	68 33·9	19·8	vF, vS, iF, * 16 inv, other neb nr	36 16	68 47·1
3656	W. VI. 5	12 34 17	2·98	66 38·2	19·8	F, S, iF, N	36 16	66 51·4
3657	W. VI. 6	12 34 21	2·98	67 33·3	19·8	vF, vS, N; ? neb *	36 20	67 46·5
3658	F. 1013	12 34 23	3·02	74 32·3	19·8	F, S, E 240°	36 24	74 45·5
3659	W. VI. 7	12 34 31	2·98	66 18·0	19·8	cF, S, E 50°	36 30	66 31·2
3660	W. VI. 8	12 34 39	2·99	68 8·3	19·8	F, vS, iF, N	36 39	68 21·5
3661	W. VI. 9	12 34 39	2·98	66 44·2	19·8	cF, S, iF, N	36 38	66 57·4
3662	W. VI. 10, J. 1226	12 34 41	2·98	65 48·2	19·8	F, S, R, bM, spir	36 40	66 1·4
3663	F. 1014	12 34 41	3·02	77 0	19·8	F, S, R, dif	36 42	77 13
3664	W. V. 11	12 34 43	2·99	69 17·3	19 8	vF, vS, iF, N	36 43	69 30·5
3665	F. 1015	12 34 47	3·03	77 45	19·8	F, S, R, dif	36 48	77 58
3666	Sn. 72	12 34 48	3 04	81 23·2	19·8	eF, vS, ?	36 50	81 36·4
3667	W. V. 1	12 34 50	2·89	48 4·9	19·8	cB, pL, E 55°, bM	36 46	48 18·1
3668	W. V. 2	12 34 50	2·89	48 6·3	19·8	pF, pS, iF, N	36 46	48 19·5
3669	W. V. 3	12 34 53	2·89	48 5·6	19·8	F, pS, iF, N	36 49	48 18·8
3670	F. 1016	12 34 53	3·02	77 29	19·8	vS, R, bM	36 54	77 42
3671	W. VI. 12, J. 1227	12 34 56	2·98	65 43·3	19·8	eF, cS, lE 230°, bM	36 55	65 56·5
3672	Sn. 213, F	12 35 5	3·03	77 28·7	19·8	vF, vS, R, stell; I. C. 809 n	37 6	77 41·9
3673	W. VI. 13	12 35 7	2·98	68 5·6	19·8	F, vS, iF, N	37 6	68 18·8
3674	W. VI. 14	12 35 8	2·98	66 43·2	19·8	pF, S, exc N, * 11 sp	37 7	66 56·4
3675	W. V. 4	12 35 10	+ 2·89	47 57·4	+19·8	pB, pL, iF, N	37 6	48 10·6

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		h m s	s	° ′	″		m s	° ′
3676	Sn. 294	12 35 10	+ 3·02	75 40·4	+19·8	vF, vS; ? * 13	37 11	75 53·6
3677	W. VI. 16	12 35 14	2·99	68 20·8	19·8	F, vS, iF, N	37 14	68 34·0
3678	W. VI. 17	12 35 14	2·99	68 21·1	19·8	vF, vS, iF, N	37 14	68 34·3
3679	W. VI. 18	12 35 15	2·98	66 24·9	19·8	F, S, iF, N	37 14	66 38·1
3680	W. V. 5	12 35 16	2·90	50 7·7	19·8	F, S, iF, N	37 12	50 20·9
3681	W. V. 6	12 35 17	2·90	50 8·9	19·8	cF, vS, E 135°, bM, * 13 sp	37 13	50 22·1
3682	W VI. 19	12 35 22	2·99	68 22·0	19·8	F, vS, iF, N	37 22	68 35·2
3683	W. VI. 20	12 35 23	2·99	68 21·6	19·8	F, vS, iF, N	37 23	68 34·8
3684	F. 1017	12 35 23	3·03	77 31	19·8	vF, vS, R	37 24	77 44
3685	Sn. 32	12 35 26	3·04	82 21·7	19·8	vF, pL	37 28	82 34·9
3686	F. 1018	12 35 29	3·03	78 41	19·8	F, S, R	37 30	78 54
3687	W. V. 7	12 35 31	2·90	50 43·8	19·8	vF, cL, dif, sev N	37 27	50 57·0
3688	Sn. 295	12 35 35	3·02	74 52·3	19 8	cF, pS	37 36	75 5·5
3689	W. VI. 21	12 35 39	2·98	68 22·9	19·8	F, vS, iF, N	37 38	68 36·1
3690	F. 1019	12 35 47	3·03	78 54	19·8	B, vS, R	37 48	79 7
3691	W. VI. 23	12 35 53	2·97	66 26·6	19·8	F, S, iF, N	37 52	66 39·8
3692	W. VI. 24	12 35 56	2·98	68 14·5	19·8	pF, S, bM, spir	37 55	68 27·7
3693	F. 1020	12 35 59	3·03	78 34	19·8	F, vS, R, lbM	38 0	78 47
3694	F. 1021	12 36 5	3·02	78 2	19·8	bM, magn 13·5	38 6	78 15
3695	W. VI. 25	12 36 11	2·97	66 29·4	19·8	vF, vS, iF, N	38 10	66 42·6
3696	W. VI. 26	12 36 12	2·99	69 18·3	19·8	vF, vS, iF, N	38 12	69 31·5
3697	W. V. 8	12 36 15	2·89	49 23·1	19·8	vF, S, N, ? neb *	38 11	49 36·3
3698	F. 1022	12 36 17	3·02	78 2	19·8	S, R, mbM	38 18	78 15
3699	W. VI. 27	12 36 19	2·99	70 13·8	19·8	F, S, iF, N, 3 st n, np	38 19	70 27·0
3700	W. VI. 28	12 36 21	2·99	69 58·0	19·8	F, S, dif	38 21	70 11·2
3701	F. 1023	12 36 29	3·03	78 12	19·8	F, vS, R, dif	38 30	78 25
3702	F. 1024	12 36 29	3·03	78 23	19·8	B, vS, R	38 30	78 36
3703	W. V. 9	12 36 37	2·90	51 15·4	19·8	F, vS, iF, N, 2 st 11 sf	38 33	51 28·6
3704	Sn. 164, F.	12 36 42	3·03	78 27·6	19·8	F, pL, m E 225°	38 43	78 40·8
3705	W. VI. 29	12 36 43	2·99	69 54·4	19·8	eF, S, iF	38 43	70 7·6
3706	Sn. 118	12 36 43	3·03	80 0·4	19·8	vF, cS, dif	38 44	80 13·6
3707	W. V. 10	12 36 44	2·90	51 15·0	19·8	pF, vS, bM *	38 40	51 28·2
3708	Sn. 270	12 36 50	3·02	76 5·7	19·8	pB, cL, E	38 51	76 18·9
3709	Sn. 119	12 36 59	3·03	80 10·2	19·8	vF, cS, dif	39 0	80 23·4
3710	F. 1025	12 37 11	3·02	77 8	19·8	vF, cS, R, dif	39 12	77 21
3711	F. 1026	12 37 11	3·03	78 4	19·8	vF, vS, R, dif	39 12	78 17
3712	Sn. 148	12 37 13	3·03	78 51·5	19·8	vF, pS, E 42°; ?	39 14	79 4·7
3713	W. V. 11	12 37 23	2·87	48 3·9	19·8	F, pS, dif, * 13 sf 1′	39 18	48 17·1
3714	F. 1027	12 37 23	3·03	79 4	19·8	S, R	39 24	79 17
3715	W. VI. 30	12 37 24	2·98	69 22·5	19·8	vF, vS, iF, N	39 23	69 35·7
3716	Sn. 74	12 37 40	3·04	81 7·9	19·8	vF, vS, sp of 2	39 42	81 21·1
3717	W. V. 12	12 37 41	2·88	49 42·4	19·8	F, cS, E 150°, bM, * 15 np	39 36	49 55·6
3718	Sn. 217, F.	12 37 43	3·02	76 52·9	19·8	F, pS, E 90°	39 44	77 6·1
3719	Sn. 75	12 37 43	3·04	81 7·5	19·8	eF, vS, ? ?, nf of 2	39 45	81 20·7
3720	Sn. 218, F.	12 37 45	3·02	77 10·5	19·8	eF, S, dif	39 46	77 23·7
3721	F. 1028	12 37 48	3·00	70 29	19·8	bM, magn 13·5	39 48	70 42
3722	Sn. 219	12 37 48	3·02	77 27·3	19·8	vF, vS, = * 13	39 49	77 40·5
3723	W. V. 14	12 37 50	2·87	48 29·6	19·8	pF, vS, R, bM	39 45	48 42·8
3724	F. 1029	12 37 53	3·03	78 58	19·8	S, R	39 54	79 11
3725	W. VI. 31	12 37 54	+ 2·99	70 28·7	+19·8	pF, cS, E, bM	39 54	70 41·9

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		h m s	s	° ′	″		m s	° ′
3726	W. V. 15	12 38 2	+ 2·87	48 33·3	+19·8	F, cS, E 145°, bM	39 57	48 46·5
3727	F. 1030	12 38 5	3·03	78 21	19·8	F, S, R, lbM	40 6	78 34
3728	W. VI. 32	12 38 7	2·98	68 15·6	19·8	vF, vS, iF, N	40 6	68 28·8
3729	W. V. 16	12 38 11	2·88	49 52·7	19·8	F, vS, iF, N, neb st np	40 6	50 5·9
3730	W. VI. 33	12 38 11	2·98	68 3·4	19·8	pB, vS, R, bM, in dif neb	40 10	68 16·6
3731	F. 1031	12 38 11	3·02	76 49	19·8	bM, magn 14·5	40 12	77 2
3732	F. 1032	12 38 11	3·03	78 56	19·8	vS, R	40 12	79 9
3733	Sn. 33	12 38 11	3·04	82 16·5	19·8	eF, S, = * 14	40 13	82 29·7
3734	W. VI. 34 *a*	12 38 14	2·97	66 11·9	19·8	* 15 in dif neb ; I.C. 813 f o′·5	40 13	66 25·1
3735	Sn. 298, F.	12 38 19	3·01	75 32·6	19·8	F, S, R	40 19	75 45·8
3736	W. VI. 35	12 38 23	2·97	67 41·9	19·8	pF, vS, E 155°, bM	40 22	67 55·1
3737	W. VI. 36	12 38 24	2·97	67 16·5	19·8	F, vS, iF, N	40 23	67 29·7
3738	W. VI. 37	12 38 27	2·98	70 0·3	19·8	Neb * 15	40 26	70 13·5
3739	Sn. 272	12 38 30	3·02	76 14·1	19·8	cF, cS, biN	40 31	76 27·3
3740	W. VI. 38	12 38 34	2·98	68 25·0	19·8	pF, cS, E o°, bM	40 33	68 38·2
3741	W. VI. 39	12 38 35	2·98	70 1·7	19·8	Neb * 16	40 34	70 14·9
3742	F. 1033	12 38 35	3·02	75 55	19·8	pL, mE 225°, bM	40 36	76 8
3743	Sn. 165	12 38 38	3·03	78 7·9	19·8	vF, S	40 39	78 21·1
3744	W. VI. 40	12 38 44	2·98	69 44·1	19·8	F, vS, iF, N	40 43	69 57·3
3745	W. VI. 41	12 38 47	2·98	70 3·4	19·8	pF, vS, R, bM	40 46	70 16·6
3746	W. V. 17	12 38 49	2·89	51 24·6	19·8	F, S, iF, N	40 45	51 37·8
3747	W. V. 18	12 38 52	2·89	51 15·9	19·8	F, vS, iF, N	40 48	51 29·1
3748	W. VI. 42	12 38 53	2·98	69 48·3	19·8	vF, vS, iF, N	40 52	70 1·5
3749	W. VI. 43	12 38 54	2·98	69 41·8	19·8	vF, eS, bM, spir	40 53	69 55·0
3750	W. VI. 44	12 39 0	2·98	70 7·8	19·8	eF, eS, iF, N	40 59	70 21·0
3751	W. V. 19	12 39 2	2·89	51 24·6	19·8	F, vS, iF, N, neb * 15 p	40 58	51 37·8
3752	W. VI. 45	12 39 6	2·98	70 13·4	19·7	vF, vS, iF, neb * 14 np 1′, * 10 np 1′·5	41 5	70 26·5
3753	W. VI. 46	12 39 8	2·98	70 6·7	19·7	eF, S, E, * 14 conn p	41 7	70 19·8
3754	Sn. 76	12 39 10	3·04	80 53·9	19·7	F, S	41 12	81 7·0
3755	W. VI. 47	12 39 11	2·98	70 4·6	19·7	F, vS, iF, N	41 10	70 17·7
3756	F. 1034	12 39 11	3·02	77 20	19·7	bM, magn 15	41 12	77 33
3757	W. V. 20	12 39 18	2·88	50 43·2	19·7	pF, S, iF, * 13 inv	41 13	50 56·3
3758	W. V. 21	12 39 20	2·87	48 27·5	19·7	pF, S, neb *	41 15	48 40·6
3759	W. VI. 47 *a*	12 39 21	2·98	68 27·0	19·7	vF, vS, iF, N, * 15 sf 20″	41 20	68 40·1
3760	F. 1035	12 39 23	3·02	77 22	19·7	bM, magn 14	41 24	77 35
3761	W. VI. 48	12 39 31	2·98	68 56·8	19·7	vF, vS, R, bM, * 12 sp	41 30	69 9·9
3762	W. VI. 49	12 39 42	2·97	66 59·4	19·7	vF, S, iF, in gr of neb	41 41	67 12·5
3763	W. VI. 50	12 39 51	2·97	67 15·1	19·7	F, S, iF	41 50	67 28·2
3764	Sn. 149	12 39 53	3·03	79 22·6	19·7	vF, cS	41 54	79 35·7
3765	W. V. 22	12 39 54	2·88	50 39·6	19·7	vF, S, iF, N	41 49	50 52·7
3766	W. VI. 51	12 39 56	2·98	70 7·5	19·7	vF, vS, R, bM	41 55	70 20·6
3767	F. 1036	12 39 59	3·03	79 4	19·7	vF, bM, magn 16	42 0	79 17
3768	W. V. 23	12 40 2	2·87	48 38·3	19·7	vF, S, iF, N	41 57	48 51·4
3769	W. V. 24	12 40 9	2·87	48 45·9	19·7	F, vS, iF, N	42 4	48 59·0
3770	Sn. 120	12 40 11	3·03	80 1·9	19·7	cF, cS, E 30° ; ?	42 12	80 15·0
3771	W. V. 25	12 40 12	2·88	50 3·7	19·7	vF, S, dif	42 7	50 16·8
3772	W. V. 26	12 40 13	2·90	52 42·1	19·7	pF, cS, iF, N	42 9	52 55·2
3773	Sn. 150, F.	12 40 13	3·03	79 1·0	19·7	vF, S, bM	42 14	79 14·1
3774	W. V. 27	12 40 17	2·90	52 56·6	19·7	F, cS, iF, N	42 13	53 9·7
3775	F. 1037	12 40 17	+ 3·02	77 30	+19·7	vF, bM, magn 16	42 18	77 43

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		h m s	s	° ′	″		m s	° ′
3776	W. VI. 53	12 40 18	+ 2·97	66 45·0	+19·7	F, S, iF	42 17	66 58·1
3777	Sn. 121	12 40 21	3·03	80 5·5	19·7	F, S	42 22	80 18·6
3778	W. V. 28	12 40 23	2·87	48 38·3	19·7	pF, S, R, bM	42 18	48 51·4
3779	F. 1038	12 40 23	3·02	77 5	19·7	bM, magn 15	42 24	77 18
3780	W. V. 29	12 40 29	2·87	49 0·0	19·7	F, vS, bM, spir	42 24	49 13·1
3781	W. VI. 54	12 40 30	2·97	66 39·9	19·7	vF, pS, iF, 2 st n and p	42 29	66 53·0
3782	W. V. 30	12 40 37	2·87	48 51·4	19 7	F, vS, R, bM	42 32	49 4·5
3783	W. V. 31	12 40 49	2·86	48 40·2	19·7	pF, S, iF, N	42 43	48 53·3
3784	W. VI. 55	12 40 54	2·98	69 51·1	19·7	F, vS, E 70°, bM	42 53	70 4·2
3785	W. VI. 56	12 40 55	2·98	69 57·6	19·7	vF, vS, iF, N	42 54	70 10·7
3786	W. V. 32	12 40 56	2·87	50 11·4	19·7	vF, S, iF, p dif	42 51	50 24·5
3787	W. V. 33	12 41 4	2·86	48 36·8	19·7	F, vS, iF, N	42 58	48 49·9
3788	W. VI. 57	12 41 10	2·98	70 22·0	19·7	F, S, R, * 7 sp 2′	43 9	70 35·1
3789	W. VI. 58	12 41 11	2·97	69 2·5	19·7	F, cS, bM, spir, * 13 sp ½′	43 10	69 15·6
3790	Sn. 166	12 41 12	3·02	78 7·6	19·7	eF, vS, ??	43 13	78 20·7
3791	Sw. XI.	12 41 13	2·73	34 47·1	19·7	eeF, S, cE	43 2	35 0·2
3792	Sn. 167	12 41 13	3·02	78 9·2	19·7	vF, S	43 14	78 22·3
3793	W. VI. 59	12 41 15	2·98	70 5·1	19·7	vF, vS, iF, N	43 14	70 18·2
3794	W. VI. 60	12 41 24	2·98	70 3·9	19·7	F, spir, sbM *	43 23	70 17·0
3795	W. V. 34	12 41 27	2·86	48 31·0	19·7	F, S, iF, N	43 21	48 44·1
3796	W. VI. 61	12 41 31	2·97	69 11·9	19·7	vF, eS, R, bM, D * 13 np	43 30	69 25·0
3797	Sn. 220	12 41 32	3·02	77 38·3	19·7	F, pS, vm E, lbM	43 33	77 51·4
3798	Sn. 123	12 41 39	3·03	79 59·7	19·7	F, S	43 40	80 12·8
3799	Ho. II.	12 41 40	3·14	103 38·0	19·7	vF, pL, vm E 210°, 1st of 7	43 46	103 51·1
3800	W. V. 35	12 41 45	2·88	52 39·5	19·7	F, S, iF, N	43 40	52 52·6
3801	Sn. 169	12 41 58	3·02	78 16·8	19·7	cB, pS, stell	43 59	78 29·9
3802	W. V. 36	12 42 2	2·87	50 59·4	19·7	F, vS, R, bM	43 57	51 12·5
3803	Sn. 170	12 42 2	3·02	78 36·3	19·7	eF, pL, ?	44 3	78 49·4
3804	W. V. 37	12 42 3	2·89	53 54·2	19·7	pF, pL, E 40°, bM	43 59	54 7·3
3805	W. V. 38	12 42 3	2·87	50 59·0	19·7	gr of eF neb and st	43 58	51 12·1
3806	F. 1039	12 42 6	3·00	74 20·4	19·7	vS, R, bM, magn 13·5	44 6	74 33·5
3807	Sw. XI.	12 42 16	3·09	93 38·3	19·7	eeF, L, mE, * 7 sf	44 20	93 51·4
3808	W. V. 39	12 42 21	2·85	48 38·5	19·7	pF, S, iF, N, * 14 f ½′	44 15	48 51·6
3809	W. V. 40	12 42 23	2·88	52 44·8	19·7	pF, S, iF, N	44 18	52 57·9
3810	W. V. 41	12 42 26	2·85	48 35·4	19·7	cF, vS, iF, N	44 20	48 48·5
3811	W. VI. 62	12 42 30	2·97	67 46·4	19·7	F, eS, iF, N	44 29	67 59·5
3812	D. S. 364	12 42 32	3·10	95 58	19·7	ceF, eS, cE 15°	44 36	96 11
3813	Sw. XI., Ho.	12 42 34	3·19	115 9·5	19·7	eF, S, E, * 8 nf	44 42	115 22·6
3814	W. VI. 63	12 42 36	2·97	69 11·2	19·7	vF, vS, E 110°	44 35	69 24·3
3815	W. VI. 64	12 42 42	2·97	69 57·8	19·7	vF, vS, R	44 41	70 10·9
3816	W. V. 42	12 42 47	2·87	52 0·0	19·7	pF, vS, R, bM	44 42	52 13·1
3817	W. VI. 65	12 42 50	2·96	66 24·3	19·7	neb * 15	44 48	66 37·4
3818	W. VI. 66	12 42 52	2·96	67 29·1	19·7	vF, S, iF, * 14 p	44 50	67 42·2
3819	Ho. II.	12 42 56	3·14	103 37·0	19·7	eF, vS, 2nd of 7	45 2	103 50·1
3820	W. V. 43	12 42 58	2·87	52 7·0	19·7	vF, vS, iF, N	44 53	52 20·1
3821	W. VI. 67	12 43 2	2·97	68 16·1	19·7	vF, vS, iF, N	45 1	68 29·2
3822	Ho. II.	12 43 3	3·14	103 33·5	19·7	eF, vS, 3rd of 7	45 9	103 46·6
3823	W. V. 44	12 43 7	2·85	48 21·1	19·7	vF, vS, iF, N	45 1	48 34·2
3824	Ho. II.	12 43 10	3·14	103 39·8	19 7	eF, vS, 4th of 7	45 16	103 52·9
3825	Ho. II.	12 43 17	+ 3·14	103 43·8	+19·7	ceF, vS, ? * 14, 5th of 7	45 23	103 56·9

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
3826	B. 300	12 43 24	+ 3·11	98 16	+ 19·7	vF, vS, mbM	45 28	98 29
3827	Ho. II., III.	12 43 37	3·14	103 44·0	19·7	F, vS, R, * 11 s 0′·6; 6th of 7	45 43	103 57·1
3828	W. V. 45	12 43 41	2·87	51 17·3	19·7	F, vS, iF, ? neb *	45 36	51 30·4
3829	Sw. XI.	12 43 52	3·21	117 4·5	19·7	B, S, lE, * 9 sf [? 119° 14′·5]	46 0	117 17·6
3830	W. VI. 68	12 43 56	2·97	69 24·0	19·7	vF, eS, bM, spir	45 55	69 37·1
3831	B. 301, Ho. II.	12 43 58	3·14	103 48·7	19·7	F, vS, R, bM, 7th of 7	46 4	104 1·8
3832	W. V. 46	12 44 12	2·85	49 25·7	19·7	F. S, iF, p dif	46 6	49 38·8
3833	B. 302	12 44 14	3·13	102 34	19·7	vF, S, iF, bM	46 19	102 47
3834	B. 303	12 44 14	3·13	103 28	19·7	vF, lbM, * 13 p 0′·8	46 19	103 41
3835	W. V. 48	12 44 19	2·85	49 1·9	19·7	vF, vS, iF, N	46 13	49 15·0
3836	W. V. 49	12 44 27	2·85	49 3·1	19·7	vF, vS, iF, N	46 21	49 16·2
3837	W. VI. 69	12 44 37	2·97	69 30·9	19·7	eF, vS, bM, spir	46 36	69 44·0
3838	B. 304	12 44 39	3·14	103 42	19·7	vF, S, lbM, * 13 s 0′·8	46 45	103 55
3839	W. VI. 70	12 44 51	2 96	68 49·1	19·7	vF, S, bM, spir	46 49	69 2·2
3840	W. VI. 71	12 44 52	2·96	67 30·1	19·7	vF, S, iF, * inv sp	46 50	67 43·2
3841	W. VI. 72	12 44 57	2·95	66 53·6	19·7	vF, vS, iF, ?	46 55	67 6·7
3842	W. V. 50	12 45 0	2·84	48 52·0	19·7	vF, eS, dif; neb * np ½′	46 54	49 5·1
3843	W. V. 51	12 45 1	2·85	50 14·2	19·7	F, vS, mE 160°, am 3 st	46 55	50 27·3
3844	W. V. 52	12 45 29	2·84	49 25·3	19·6	vF, S, iF, N	47 23	49 38·4
3845	W. V. 53	12 45 31	2·85	50 37·2	19·6	vF, S, iF, N	47 25	50 50·3
3846	Sn. 300	12 45 39	3·00	75 35·4	19·6	B, pS, N = * 9·2	47 39	75 48·5
3847	W. VI. 73	12 45 40	2·95	67 10·5	19·6	vF, vS, iF, neb * 15 sp	47 38	67 23·6
3848	W. VI. 74	12 45 46	2·96	67 49·5	19·6	vF, vS, E 120°	47 44	68 2·6
3849	W. V. 54	12 46 2	2·83	48 27·9	19·6	vF, vS, iF, N, * 14 nf	47 55	48 41·0
3850	W. V. 55	12 46 4	2·84	49 8·2	19·6	pF, vS, iF, N	47 58	49 21·3
3851	W. VI. 75	12 46 11	2·95	67 19·7	19·6	vF, vS, iF, ?, * 12 s	48 9	67 32·8
3852	W. V. 56	12 46 23	2·87	53 27·9	19·6	F, pS, E 60°, bM	48 18	53 41·0
3853	W. V. 58	12 46 33	2·85	50 24·7	19·6	eF, S, p dif	48 27	50 37·8
3854	W. V. 59	12 46 40	2·83	48 23·6	19·6	vF, pL, dif, diffic, * 15 f	48 34	48 36·7
3855	W. V. 60	12 46 44	2·86	52 26·9	19·6	pF, eS, R, bM	48 38	52 40·0
3856	W. VI. 76	12 46 51	2·96	69 8·8	19·6	vF, S, iF, * 15 inv p	48 49	69 21·9
3857	W. VI. 77	12 47 1	2·96	69 37·9	19·6	eF, vS, R, bM, 2 eF st nr	48 59	69 51·0
3858	W. VI. 78	12 47 2	2·96	68 27·2	19·6	F, vS, R, bM, neb * 14 & * 13 sp	49 0	68 40·3
3859	B. 409	12 47 5	3·11	98 21	19·6	vF, ? eF Cl	49 9	98 34
3860	W. VI. 79	12 47 12	2·97	69 56·4	19·6	vF, vS, R, bM	49 11	70 9·5
3861	W. V. 61	12 47 14	2·85	50 57·5	19·6	F, eS, ? neb *	49 8	51 10·6
3862	W. V. 62	12 47 14	2·86	53 9·2	19·6	vF, pS, dif, * 15 att	49 8	53 22·3
3863	W. V. 63	12 47 17	2·84	50 45·5	19·6	F, S, iF, * 14 att	49 11	50 58·6
3864	W. VI. 80	12 47 17	2·97	70 17·4	19·6	vF, vS, iF, * 14 s 30″; many other neb about	49 16	70 30·5
3865	W. VI. 81	12 47 19	2·97	70 22·3	19·6	vF, vS, R, bM	49 18	70 35·4
3866	W. VI. 82	12 47 23	2·95	66 52·8	19·6	vF, S, iF, N, ? Cl	49 21	67 5·9
3867	W. VI. 83	12 47 24	2·97	70 17·9	19·6	vF, S, iF, N	49 23	70 31·0
3868	W. VI. 84	12 47 25	2·97	70 14·7	19·6	vF, vS, iF, N	49 24	70 27·8
3869	W. VI. 85	12 47 26	2·97	70 16·1	19·6	vF, vS, iF, N	49 25	70 29·2
3870	W. VI. 86	12 47 29	2·95	66 51·5	19·6	vF, S, iF, p dif	49 27	67 4·6
3871	W. VI. 87	12 47 30	2·97	70 18·5	19·6	vF, vS, R, bM	49 29	70 31·6
3872	W. VI. 88	12 47 35	2·97	70 16·7	19 6	vF, vS, iF, N	49 34	70 29·8
3873	W. VI. 89	12 47 36	2·97	70 21·4	19·6	vF, vS, iF, N	49 35	70 34·5
3874	W. VI. 90	12 47 39	+ 2·97	70 17·0	+ 19·6	vF, vS, iF, * 15 sf 20″	49 38	70 30·1

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		h m s	s	° ′	″		m s	° ′
3875	W. VI. 91	12 47 44	+ 2·95	67 12·3	+ 19·6	vF, S, iF, N, * 14 p	49 42	67 25·4
3876	W. VI. 92	12 47 53	2·97	70 13·5	19·6	vF, vS, R, bM	49 52	70 26·6
3877	W. VI 93	12 47 53	2·96	69 56·8	19·6	pF, cL, E 20°, bM	49 51	70 9·9
3878	W. V. 64	12 47 55	2·83	49 10·1	19·6	vF, vS, bM, spir	49 48	49 23·2
3879	W. V. 65	12 47 55	2·84	50 36·7	19·6	F, S, R, bM	49 49	50 49·8
3880	W. VI. 94	12 47 55	2·95	66 44·4	19·6	vF, S, viF	49 53	66 57·5
3881	W. VI. 95	12 47 59	2·96	70 5·4	19·6	vF, vS, R, bM	49 57	70 18·5
3882	W. VI. 96	12 48 1	2·95	66 40·0	19·6	vF, vS, iF, N	49 59	66 53·1
3883	D. S. 365	12 48 2	3·11	97 23	19·6	eF, vS, mE 5°	50 6	97 36
3884	W. VI. 97	12 48 3	2·96	69 33·5	19·6	F, S, R, bM, * 14^{s}	50 1	69 46·6
3885	W. V. 66	12 48 5	2·85	52 5·1	19·6	F, S, R, neb *	49 59	52 18·2
3886	W. VI. 98	12 48 5	2·96	70 13·7	19·6	vF, S, iF, N	50 3	70 26·8
3887	W. V. 67	12 48 9	2·83	48 56·0	19·6	vF, vS, iF, N	50 2	49 9·1
3888	W. V. 68	12 48 12	2·83	49 40·1	19·6	F, S, lE 60°, N	50 5	49 53·2
3889	W. V. 69	12 48 12	2·86	53 13·4	19·6	vF, S, iF, diffic	50 6	53 26·5
3890	W. V. 70	12 48 12	2·85	52 3·0	19·6	vF, S, iF, N	50 6	52 16·1
3891	W. V. 71	12 48 19	2·86	53 11·2	19·6	vF, S, iF, diffic	50 13	53 24·3
3892	W. V. 72	12 48 30	2·83	50 1·0	19·6	F, S, iF	50 23	50 14·1
3893	W. V. 73	12 48 31	2·84	50 40·5	19·6	vF, S, iF, N	50 25	50 53·6
3894	W. VI. 99	12 48 32	2·96	70 10·2	19·6	vF, vS, iF, N	50 30	70 23·3
3895	W. V. 74	12 48 34	2·83	50 2·2	19·6	F, cS, iF, N, * 15 nf conn	50 27	50 15·3
3896	F. 1040	12 48 38	3·41	139 34	19·6	bM, magn 14	50 54	139 47
3897	W. V. 75	12 48 44	2·83	49 34·3	19·6	F, vS, E 40°, bM	50 37	49 47·4
3898	W. V. 76	12 48 46	2·84	51 39·5	19·6	eF, vS, v diffic, att eF *	50 40	51 52·6
3899	W. VI. 100	12 48 47	2·95	68 36·3	19·6	vF, S	50 45	68 49·4
3900	J. 1228	12 48 49	2·92	61 58·6	19·6	pB, S, bMN	50 46	62 11·7
3901	W. VI. 101	12 48 58	2·95	67 18·2	19·6	eF, vS, E 95°	50 56	67 31·3
3902	W. V. 77	12 48 59	2·86	53 14·8	19·6	pF, vS, neb *	50 53	53 27·9
3903	W. V. 78	12 49 5	2·82	48 50·5	19·6	vF, vS, iF, N	50 58	49 3·6
3904	W. V. 79	12 49 7	2·85	52 56·8	19·6	F, S, bM, spir	51 1	53 9·9
3905	W. VI. 102	12 49 13	2·96	69 23·3	19·6	vF, S, iF	51 11	69 36·4
3906	W. V. 80	12 49 17	2·82	48 46·5	19·6	vF, S, iF, N	51 10	48 59·6
3907	W. VI. 103	12 49 23	2·96	70 27·4	19·6	eF, S, iF, N, * 13 sf 1′	51 21	70 40·5
3908	D. S. 366	12 49 26	3·11	96 49	19·6	eF, eS, cE 160° ; ? F trail	51 30	97 2
3909	W. V. 81	12 49 29	2·82	48 51·3	19·6	vF, vS, R, bM	51 22	49 4·4
3910	W. V. 82	12 49 31	2·83	49 31·0	19·6	vF, vS, R, bM, ? neb D *	51 24	49 44·1
3911	W. V. 83	12 49 31	2·86	53 36·3	19·6	vF, pS, dif, diffic	51 25	53 49·4
3912	W. V. 84	12 49 34	2·82	49 19·9	19·6	F, vS, iF, N	51 27	49 33·0
3913	J. 1229	12 49 37	2·92	61 56·2	19 6	F, S, R	51 34	62 9·3
3914	W. V. 85	12 49 45	2·85	52 52·6	19·6	eF, vS, iF, N	51 39	53 5·7
3915	W. VI. 104	12 49 45	2·96	69 7·2	19·6	F, vS, spir, * 14 inv s	51 43	69 20·3
3916	W. V. 86	12 49 56	2·83	50 37·7	19·6	pF, S, bM, spir ?	51 49	50 50·8
3917	W. VI. 106	12 49 59	2·95	67 14·2	19·6	eF, vS, iF, N	51 57	67 27·3
3918	W. VI. 107	12 50 2	2·94	66 52·1	19·6	pF, vS, bM, spir	52 0	67 5·2
3919	W. V. 87	12 50 14	2·83	50 42·7	19·6	F, vS, bM, spir	52 7	50 55·8
3920	W. V. 88	12 50 16	2·82	49 17·0	19·6	F, vS, iF, N	52 9	49 30·1
3921	W. V. 89	12 50 22	2·83	50 36·2	19·6	F, vS, bM, spir	52 15	50 49·3
3922	W. V. 90	12 50 23	2·83	50 45·8	19·6	vF, vS, iF	52 16	50 58·9
3923	W. V. 91	12 50 25	2·84	51 17·2	19·6	pF, eS, E, bM	52 19	51 30·3
3924	W. VI. 108	12 50 30	+ 2·96	70 27·7	+ 19·6	eF, S, R	52 28	70 40·8

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		h m s	s	° ′	″		m s	° ′
3925	W. V. 92	12 50 38	+ 2·85	52 49·1	+ 19·6	pF, vS, E 60°, bM	52 32	53 2·2
3926	W. VI. 109	12 50 39	2·94	66 25·8	19·6	vF, vS, iF, N	52 37	66 38·9
3927	Sw. XI., Ho.	12 50 42	3·19	112 7·1	19·5	vF, vS, * 10 np, * 7 s 10′	52 50	112 20·1
3928	W. V. 93	12 50 48	2·81	48 48·9	19·5	vF, pL, dif, * 13 att	52 40	49 1·9
3929	W. VI. 110	12 50 48	2·95	68 50·7	19·5	vF, vS, bM, spir	52 46	69 3·7
3930	W. V. 94	12 50 49	2·83	50 28·9	19·5	F, vS, N, ? neb *	52 42	50 41·9
3931	W. VI. 111	12 51 5	2·95	69 37·5	19·5	cF, S, iF, N	53 3	69 50·5
3932	W. VI. 112	12 51 12	2·95	69 39·5	19·5	vF, eS, R, bM	53 10	69 52·5
3933	W. V. 96	12 51 20	2·84	52 35·9	19·5	F, vS, iF, N	53 14	52 48·9
3934	W. VI. 113	12 51 23	2·96	70 25·0	19·5	F, S, iF	53 21	70 38·0
3935	J. 1230	12 51 24	2·92	62 52·0	19·5	pB, S, R, N, r, I.C. 838 f	53 21	63 5·0
3936	W. VI. 114	12 51 25	2·96	70 11·6	19·5	Neb * 13, * 12·5 f 1′	53 23	70 24·6
3937	W. VI 115	12 51 30	2·96	70 25·4	19·5	vF, vS, iF, N	53 28	70 38·4
3938	W. VI. 116	12 51 31	2·96	70 29·5	19 5	eF, vS, R, bM, * 13 sp	53 29	70 42·5
3939	W. VI. 117	12 51 34	2·96	70 29·5	19·5	vF, eS, bM, spir	53 32	70 42·5
3940	W. V. 97	12 51 39	2·85	53 24·4	19·5	cF, vS, R, bM	53 33	53 37·4
3941	W. V. 98	12 51 42	2·81	49 28·3	19·5	F, vS, iF, N	53 34	49 41·3
3942	W. V. 99	12 51 42	2·84	53 8·1	19·5	eF, eS, iF, N	53 36	53 21·1
3943	Kobold	12 51 50	2·91	61 7·8	19·5	pF, vS, iF	53 46	61 20·8
3944	W. VI. 118	12 51 54	2·93	65 27·8	19·5	F, vS, iF, N	53 51	65 40·8
3945	W. V. 100	12 51 57	2·82	49 18·4	19·5	F, vS, iF, N	53 50	49 31·4
3946	Kobold	12 52 2	2·91	61 25·8	19·5	F, pS, bM	53 58	61 38 8
3947	Kobold	12 52 6	2·91	61 27·2	19·5	vF, S	54 2	61 40·2
3948	W. VI. 119	12 52 8	2·93	65 10·9	19·5	vF, vS, iF, N	54 5	65 23·9
3949	Kobold	12 52 10	2·91	61 24·4	19·5	F, pS, E	54 6	61 37·4
3950	W. VI. 120	12 52 12	2 96	70 30·5	19·5	F, vS, R, bM	54 10	70 43·5
3951	W. VI. 121	12 52 16	2·96	70 28·7	19·5	F, vS, iF, N, ? neb D *	54 14	70 41·7
3952	W. V. 101	12 52 19	2·82	50 22·5	19·5	F, eS, iF, N	54 12	50 35·5
3953	W. VI. 122	12 52 19	2·93	66 9·5	19·5	vF, S, R, bM, dif	54 16	66 22·5
3954	W. VI. 123	12 52 19	2·95	69 58·3	19·5	F, vS, R, bM	54 17	70 11·3
3955	Kobold	12 52 20	2·90	61 14·7	19·5	vF, S, N 14 mag.	54 16	61 27·7
3956	W. V. 102	12 52 21	2·83	51 50·8	19·5	F, vS, R, bM	54 14	52 3·8
3957	Kobold	12 52 21	2·90	61 28·0	19·5	cF, vS, R, bM	54 17	61 41·0
3958	W. VI. 124	12 52 21	2·93	65 13·3	19·5	vF, vS, iF, N	54 18	65 26·3
3959	Kobold	12 52 22	2·90	61 27·4	19·5	F, pS, R, lbM	54 18	61 40·4
3960	Kobold	12 52 22	2·90	61 23·2	19·5	vF, pS, diffic	54 18	61 36·2
3961	W. V. 105	12 52 24	2·85	54 22·7	19·5	pF, pL, lE 30°, bM	54 18	54 35·7
3962	W. VI. 125	12 52 25	2·93	65 34·6	19·5	vF neb *	54 22	65 47·6
3963	Kobold	12 52 28	2·90	61 27·9	19·5	vF, vS, R, bM	54 24	61 40·9
3964	Kobold	12 52 28	2·90	61 23·4	19·5	eF, vS	54 24	61 36·4
3965	W. VI. 126	12 52 29	2·96	70 24·1	19·5	F, vS, iF, N	54 27	70 37·1
3966	W. V. 105	12 52 36	2·84	53 23·5	19·5	F, S, iF, N	54 30	53 36·5
3967	W. V. 106	12 52 36	2·84	53 6·8	19·5	pF, vS, iF, N	54 30	53 19·8
3968	Kobold	12 52 39	2·90	61 16·4	19·5	eF, vS, * 14 nr	54 35	61 29·4
3969	W. VI. 127	12 52 39	2·95	69 35·4	19·5	eF, S, iF	54 37	69 48·4
3970	W. V. 107	12 52 41	2·80	48 50·4	19·5	F, vS, E 120°, * 15 att p	54 33	49 3·4
3971	W. VI. 128	12 52 41	2·93	66 24·0	19·5	vF, vS, iF, N	54 38	66 37·0
3972	W. V. 108	12 52 42	2·83	51 57·8	19·5	vF, vS, R, bM	54 35	52 10·8
3973	Kobold	12 52 42	2·90	61 21·5	19·5	F, vS, R, N 13 mag.	54 38	61 34·5
3974	Sw. XI.	12 52 42	+ 3·29	124 35·9	+ 19·5	eeF, pS, lE	54 54	124 48·9

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
3975	W. V. 110	12 52 43	+ 2·82	50 21·8	+ 19·5	pF, vS, E 40°, bM	54 36	50 34·8
3976	Kobold	12 52 43	2·90	61 23·6	19·5	* 14 inv in vF neb	54 39	61 36·6
3977	W. V. 111	12 52 44	2·83	52 26·8	19·5	vF, S, iF, N	54 37	52 39·8
3978	W. VI. 129	12 52 44	2·95	69 37·1	19·5	eF, S, iF	54 42	69 50·1
3979	W. V. 112	12 52 45	2·84	52 55·1	19·5	F, eS, R, bM	54 39	53 8·1
3980	W. V. 114	12 52 46	2·81	50 5·7	19·5	eF, vS, iF	54 38	50 18·7
3981	W. V. 115	12 52 46	2·83	52 0·9	19·5	eF, vS, iF, N, diffic	54 39	52 13·9
3982	W. V. 116	12 52 47	2·81	49 9·8	19·5	F, vS, R, bM, bet 2 st 13	54 39	49 22·8
3983	W. V. 118	12 52 48	2·81	49 59·8	19·5	F, S, iF, N	54 40	50 12·8
3984	W. VI. 130	12 52 49	2·95	69 37·1	19·5	eF, S, iF	54 47	69 50·1
3985	W. VI. 131	12 52 50	2·95	69 39·2	19·5	eF, eS, R, bM	54 48	69 52·2
3986	Sw. XI.	12 52 50	3·26	121 30·8	19·5	eeF, pS, R, * 10 nf	55 0	121 43·8
3987	W. V. 119	12 52 52	2·82	50 30·7	19·5	pF, vS, R, bM	54 45	50 43·7
3988	W. V. 120	12 52 52	2·83	51 59·8	19·5	vF, S, iF	54 45	52 12·8
3989	W. V. 121	12 52 53	2·84	52 27·4	19·5	vF, vS, iF, N	54 47	52 40·4
3990	J. 1231	12 52 56	2·90	60 20·7	19·5	F, S, R, N, r	54 52	60 33·7
3991	J. 1232	12 52 57	2·90	60 18·8	19·5	F, S, R, FN, r	54 53	60 31·8
3992	W. V. 122	12 52 57	2·84	52 28·3	19·5	F, vS, iF, N	54 51	52 41·3
3993	W. V. 123	12 53 0	2·80	48 38·6	19·5	F, vS, iF, N	54 52	48 51·6
3994	W. VI. 133	12 53 0	2·93	66 31·7	19·5	eF, vS, iF, ? eF * inv	54 57	66 44·7
3995	W. V. 124	12 53 0	2·82	50 21·4	19·5	F, S, iF, N	54 53	50 34·4
3996	W. V. 125	12 53 1	2·80	48 46·6	19·5	F, vS, sbM *	54 53	48 59·6
3997	W. V. 126	12 53 1	2·84	52 32·7	19·5	vF, S, iF	54 55	52 45·7
3998	Kobold	12 53 1	2·90	61 16·2	19·5	eF, pS	54 57	61 29·2
3999	B. 305	12 53 2	3·15	103 29	19·5	eF, susp	55 8	103 42
4000	W. V. 127	12 53 4	2·81	49 39·5	19·5	vF, vS, iF, ? neb *	54 56	49 52·5
4001	W. V. 128	12 53 5	2·82	50 22·4	19·5	pF, vS, R, bM	54 58	50 35·4
4002	W. V. 129	12 53 5	2·83	52 28·3	19·5	pF, S, iF, N	54 58	52 41·3
4003	W. V. 130	12 53 6	2·82	50 25·7	19·5	pF, vS, iF, N	54 59	50 38·7
4004	W. V. 131	12 53 10	2·82	50 26·0	19·5	pF, vS, iF, N	55 3	50 39·0
4005	W. VI. 134	12 53 12	2·93	66 36·4	19·5	vF, vS, iF, N	55 9	66 49·4
4006	W. V. 132	12 53 14	2·83	52 14·1	19·5	vF, S, iF	55 7	52 27·1
4007	W. VI. 135	12 53 14	2·95	69 16·9	19·5	vF, vS, R, bM	55 12	69 29·9
4008	W. VI. 136	12 53 15	2·93	66 53·6	19·5	vF, vS, iF, N	55 12	67 6·6
4009	W. V. 133	12 53 17	2·83	52 35·0	19·5	vF, vS, R, bM	55 10	52 48·0
4010	W. V. 134	12 53 20	2·82	51 21·9	19·5	F, vS, iF, N	55 13	51 34·9
4011	Kobold	12 53 20	2·90	61 14·3	19·5	eF, vS, N 15 m	55 16	61 27·3
4012	Kobold	12 53 22	2·90	61 9·9	19·5	* 14 in vF neb	55 18	61 22·9
4013	W. V. 135	12 53 23	2·83	52 2·6	19·5	vF, vS, iF, N	55 16	52 15·6
4014	W. VI. 137	12 53 23	2·93	66 44·8	19·5	vF, vS, iF, N	55 20	66 57·8
4015	W. V. 136	12 53 25	2·83	52 2·9	19·5	D neb, eF, S, iF, N	55 18	52 15·9
4016	W. V. 137	12 53 25	2·83	52 3·1	19·5		55 18	52 16·1
4017	W. VI. 138	12 53 25	2·93	66 41·3	19·5	vF, vS, E 80°, bM	55 22	66 54·3
4018	W. V. 138	12 53 27	2·80	48 45·6	19·5	vF, S, iF, N	55 19	48 58·6
4019	W. VI. 139	12 53 27	2·93	65 31·6	19·5	F, vS, iF, * 14 att nf, * 11 sp	55 24	65 44·6
4020	W. V. 139	12 53 29	2·82	50 38·2	19·5	eF, pL, dif	55 22	50 51·2
4021	Kobold	12 53 29	2·90	61 12·2	19·5	* 14 in v F neb	55 25	61 25·2
4022	W. V. 140	12 53 32	2·82	50 45·9	19·5	eF, eS, iF, N	55 25	50 58·9
4023	W. VI. 140	12 53 33	2·95	70 8·9	19·5	vF, vS, iF ; ?	55 31	70 21·9
4024	W. V. 141	12 53 34	+ 2·80	48 44·1	+ 19·5	vF, vS, iF, N	55 26	48 57·1

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		h m s	s	° ′	″		m s	° ′
4025	W. VI. 141	12 53 35	+ 2·95	70 8·3	+19·5	vF, vS, iF, N	55 33	70 21·3
4026	Kobold	12 53 37	2·90	61 11·8	19·5	* 14 in vF neb	55 33	61 24·8
4027	W. V. 142 *b*	12 53 39	2·83	52 6·2	19·5	F, S, iF, N, 4893 np	55 32	52 19·2
4028	W. V. 143	12 53 40	2·84	52 59·4	19·5	F, cS, iF, N	55 34	53 12·4
4029	W. V. 144	12 53 42	2·81	50 29·1	19·5	vF, vS, iF, N	55 34	50 42·1
4030	Kobold	12 53 42	2·90	61 17·3	19·5	eF, vS, R, * 15 inv	55 38	61 30·3
4031	W. V. 145	12 53 43	2·81	50 6·0	19·5	vF, S, R, bM	55 35	50 19·0
4032	J. 1233	12 53 43	2·89	60 22·3	19·5	F, S, R, gbM	55 39	60 35·3
4033	Kobold	12 53 43	2·90	61 16·2	19·5	eF, pS, R	55 39	61 29·2
4034	W. V. 146	12 53 44	2·83	52 11·9	19·5	cF, S, iF, N	55 37	52 24·9
4035	W. V. 147	12 53 46	2·80	48 56·8	19·5	vF, S, viF, diffic	55 38	49 9·8
4036	W. V. 148	12 53 46	2·83	52 20·0	19·5	vF, vS, iF, N	55 39	52 33·0
4037	W. V. 149	12 53 47	2·81	50 14·5	19·5	F, vS, iF, N	55 39	50 27·5
4038	W. V. 150	12 53 47	2·83	52 12·2	19·5	F, vS, iF, N	55 40	52 25·2
4039	W. VI. 142	12 53 48	2·94	67 33·2	19·5	cF, vS, neb *	55 46	67 46·2
4040	B. 306, Kobold	12 53 53	2·90	61 11·2	19·5	vF, S, R, gbM	55 49	61 24·2
4041	Kobold	12 53 56	2·90	61 14·9	19·5	vF, pS	55 52	61 27·9
4042	Kobold	12 53 57	2·90	61 16·4	19·5	F, S, bM	55 53	61 29·4
4043	W. V. 151	12 54 0	2·83	52 10·3	19·5	vF, S, iF	55 53	52 23·3
4044	Kobold	12 54 2	2·90	61 19·1	19·5	eF, S, lbM	55 58	61 32·1
4045	B. 307, Kobold	12 54 4	2·90	61 9·2	19·5	pF, S, bM	56 0	61 22·2
4046	W. V. 152	12 54 5	2·83	52 33·6	19·5	F, vS, R, bM	55 58	52 46·6
4047	W. VI. 143	12 54 5	2·95	69 33·5	19·5	cF, S, E 110°, bM	56 3	69 46·5
4048	W. V. 153	12 54 7	2·80	49 25·0	19·5	vF, vS, iF, N	55 59	49 38·0
4049	W. V. 154	12 54 7	2·83	52 54·0	19·5	pB, vS, sbM *	56 0	53 7·0
4050	W. V. 156	12 54 9	2·83	52 30·4	19·5	vF, S, iF, N, ? D *	56 2	52 43·4
4051	B. 308, Kobold	12 54 9	2·90	61 14·2	19·5	pF, S, R, bM, 4908 np	56 5	61 27·2
4052	W. V. 157	12 54 10	2·80	49 34·7	19·5	vF, vS, iF, N	56 2	49 47·7
4053	W. VI. 144	12 54 11	2·93	66 19·1	19·5	eF, eS, R, bM, ? others nr	56 8	66 32·1
4054	W. VI. 145	12 54 11	2·93	66 20·5	19·5	vF, eS, R, bM, * 10 f ½′	56 8	66 33·5
4055	W. VI. 146	12 54 12	2·93	66 20·2	19·5	eF, vS, iF, N ; ?	56 9	66 33·2
4056	W. V. 159 *a*	12 54 14	2·80	49 29·6	19·5	F, vS, exc N	56 6	49 42·6
4057	W. VI. 147	12 54 15	2·93	66 5·2	19·5	vF, vS, R	56 12	66 18·2
4058	W. VI. 148	12 54 16	2·95	69 45·1	19·5	cF, vS, R, bM	56 14	69 58·1
4059	W. VI. 149	12 54 22	2·95	69 58·4	19·5	F, vS, iF, N	56 20	70 11·4
4060	W. V. 160	12 54 23	2·79	48 39·5	19·5	vF, cS, iF, N	56 15	48 52·5
4061	W. V. 161	12 54 27	2·80	49 39·6	19·5	vF, S, iF	56 19	49 52·6
4062	W. V. 162	12 54 28	2·80	49 23·2	19·5	vF, cS, iF, N	56 20	49 36·2
4063	W. V. 163	12 54 35	2·80	50 0·0	19·5	F, S, iF, N	56 27	50 13·0
4064	W. V. 164	12 54 37	2·80	49 24·5	19·5	pF, S, R, bM, ? spir	56 29	49 37·5
4065	W. V. 165	12 54 40	2·80	49 30·0	19·5	vF, vS, sbM *	56 32	49 43·0
4066	W. VI. 150	12 54 47	2·95	69 58·4	19·5	vF, vS, iF	56 45	70 11·4
4067	W. V. 166	12 54 49	2·80	49 18·4	19·5	vF, vS, iF, N	56 41	49 31·4
4068	W. V. 167	12 54 50	2·80	49 20·8	19·5	vF, vS, iF, N	56 42	49 33·8
4069	W. V. 168	12 54 50	2·83	53 9·7	19·5	vF, vS, pR, eFN	56 43	53 22·7
4070	W. VI. 151	12 54 50	2·95	69 56·7	19·5	F, S, iF, N	56 48	70 9·7
4071	D. S. 367	12 54 50	3·11	96 51	19·5	eeF, eS, cE 10°	56 54	97 4
4072	W. V. 169	12 54 52	2·82	51 53·3	19·5	eF, S, iF, diffic	56 45	52 6·3
4073	W. V. 170	12 54 55	2·80	49 20·0	19·5	F, vS, iF, N	56 47	49 33·0
4074	W. VI. 152	12 54 56	+ 2·95	70 14·3	+19·5	F, S, iF, N	56 54	70 27·3

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		h m s	s	° ′	″		m s	° ′
4075	W. VI. 153	12 54 56	+ 2·95	69 16·9	+19·5	F, vS, bM, spir	56 54	69 29·9
4076	W. VI. 154	12 54 58	2·92	65 51·3	19·5	F, vS, iF, N, ? Cl ; * 15 np	56 55	66 4·3
4077	W. V. 171	12 55 1	2·82	51 51·4	19·5	F, S, R, bM	56 54	52 4·4
4078	W. V. 172	12 55 1	2·83	52 38·1	19·5	pF, vS, iF, N	56 54	52 51·1
4079	W. VI. 155	12 55 3	2·95	69 59·7	19·5	vF, vS, att to next	57 1	70 12·7
4080	W. VI. 156	12 55 4	2·95	69 59·6	19·5	F, vS, * 14 p 0′·3, * 15 sf	57 2	70 12·6
4081	W. VI. 157	12 55 5	2·93	66 28·5	19·5	F, vS, R, bM	57 2	66 41·5
4082	W. V. 173	12 55 5	2·82	51 54·4	19·5	F, S, iF	56 58	52 7·4
4083	W. V. 174	12 55 6	2·81	51 6·2	19·5	F, vS, iF, neb *	56 58	51 19·2
4084	W. V. 175	12 55 7	2·82	52 16·7	19·5	pF, vS, R, bM	57 0	52 29·7
4085	W. V. 176	12 55 7	2·80	49 32·6	19·5	vF, vS, R, bM	56 59	49 45·6
4086	W. V. 177	12 55 8	2·83	52 35·9	19·5	F, pS, iF, N, * 15 n	57 1	52 48·9
4087	W. VI. 158	12 55 8	2·94	69 15·1	19·5	vF, vS, bM ; ? spir	57 6	69 28·1
4088	B. 309	12 55 9	2·89	60 13	19·5	eF, susp ; * 11·12 f 1′·4	57 5	60 26
4089	W. VI. 159	12 55 11	2·95	69 44·6	19·5	eF, S, iF, N, bet 2 st 14	57 9	69 57·6
4090	W. V. 178	12 55 12	2·83	52 24·5	19·5	vF, S, iF, N	57 5	52 37·5
4091	W. VI. 160	12 55 21	2·94	69 21·2	19·5	vF, vS, iF, N	57 19	69 34·2
4092	W. VI. 161	12 55 21	2·95	70 3·7	19·5	vF, S, iF, N	57 19	70 16·7
4093	B. 310	12 55 23	2·88	60 15	19·5	susp, close p * 8	57 18	60 28
4094	W. V. 179	12 55 26	2·82	51 27·1	19·4	F, vS, iF, N	57 19	51 40·0
4095	W. VI. 162	12 55 27	2·95	70 8·8	19·4	F, S, iF, N	57 25	70 21·7
4096	W. VI. 163	12 55 28	2·92	65 14·2	19·4	F, S, iF, N	57 25	65 27·1
4097	W. V. 179 *a*	12 55 31	2·82	52 38·5	19·4	pF, vS, iF, N	57 24	52 51·4
4098	W. V. 180	12 55 32	2·81	51 15·9	19·4	F, vS, R, bM	57 24	51 28·8
4099	W. VI. 164	12 55 34	2·92	65 9·6	19·4	vF, vS, iF, N	57 31	65 22·5
4100	W. V. 181	12 55 35	2·79	48 50·3	19·4	pF, cS, iF, 3 wings	57 27	49 3·2
4101	W. V. 182	12 55 44	2·79	49 18·4	19·4	vF, vS, iF, N	57 36	49 31·3
4102	W. V. 183	12 55 44	2·83	53 5·7	19·4	F, vS, R, sbM *	57 37	53 18·6
4103	W. V. 184	12 55 46	2·81	51 13·7	19·4	F, vS, iF, N	57 38	51 26·6
4104	W. V. 185	12 55 47	2·80	50 39·3	19·4	F, S, iF, N	57 39	50 52·2
4105	W. V. 186	12 55 47	2·81	50 58·4	19·4	vF, vS, iF, neb *	57 39	51 11·3
4106	B. 311	12 55 49	2·90	61 8	19·4	eF, pS, dif	57 45	61 21
4107	W. VI. 165	12 55 52	2·93	67 14·7	19·4	eF, cL, dif	57 49	67 27·6
4108	W. V. 187	12 56 0	2·80	50 46·1	19·4	F, vS, iF, N	57 52	50 59·0
4109	W. VI. 166	12 56 5	2·95	70 14·7	19·4	vF, S, iF	58 3	70 27·6
4110	W. VI. 167	12 56 5	2·95	70 1·2	19·4	eF, vS, R, * 13 p	58 3	70 14·1
4111	B. 312	12 56 8	2·90	61 11	19·4	eF	58 4	61 24
4112	W. V. 188	12 56 11	2·81	52 2·2	19·4	F, S, iF, N, diffic	58 3	52 15·1
4113	W. VI. 168	12 56 12	2·94	68 46·4	19·4	vF, vS, iF, N	58 10	68 59·3
4114	W. V. 189	12 56 13	2·79	49 8·6	19·4	vF, S, viF, N	58 5	49 21·5
4115	W. V. 190	12 56 15	2·81	52 1·4	19·4	F, pL, iF, N	58 7	52 14·3
4116	W. VI. 169	12 56 17	2·95	70 9·9	19·4	F, S, R	58 15	70 22·8
4117	W. V. 191	12 56 20	2·78	48 43·3	19·4	vF, S, iF, neb *	58 11	48 56·2
4118	W. V. 192	12 56 22	2·81	50 57·2	19·4	F, vS, R, bM	58 14	51 10·1
4119	W. VI. 170	12 56 23	2·95	70 0·7	19·4	eF, S, E 30° ; ?	58 21	70 13·6
4120	W. V. 193	12 56 28	2·82	52 9·8	19·4	cF, vS, iF, N	58 21	52 22·7
4121	W. VI. 171	12 56 29	2·95	69 58·0	19·4	vF, vS, iF, N	58 27	70 10·9
4122	W. VI. 172	12 56 30	2·94	69 3·0	19·4	cF, S, bM, spir, * 15 p 20″	58 28	69 15·9
4123	W. V. 194	12 56 34	2·81	50 55·9	19·4	F, S, fan, Ns	58 26	51 8·8
4124	W. VI. 173	12 56 42	+ 2·92	66 24·0	+19·4	vF, vS, E 110°, bM	58 39	66 36·9

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		h m s	s	° ′	″		m s	° ′
4125	W. VI. 174	12 56 42	+ 2·95	70 26·7	+19·4	F, S, iF, N	58 40	70 39·6
4126	W. VI. 175	12 56 43	2·95	69 55·6	19·4	eF, vS, iF, N	58 41	70 8·5
4127	W. V. 195	12 56 46	2·81	51 12·0	19·4	F, vS, iF, neb *	58 38	51 24·9
4128	W. VI. 176	12 56 50	2·94	69 1·9	19·4	F, S, bM, spir	58 48	69 14·8
4129	W. VI. 177	12 56 51	2·94	70 22·2	19·4	vF, S, iF	58 49	70 35·1
4130	W. VI. 178	12 56 54	2·95	69 58·6	19·4	eF, S, R	58 52	70 11·5
4131	W. V. 196	12 56 55	2·80	50 17·9	19·4	F, cS, iF, N	58 47	50 30·8
4132	W. V. 197	12 57 3	2·80	50 52·1	19·4	F, vS, R, bM	58 55	51 5·0
4133	B. 313	12 57 3	2·90	61 16	19·4	vF, vS, mbM	58 59	61 29
4134	B. 314	12 57 4	3·14	100 42	19·4	vF, S, mbM	59 10	100 55
4135	W. V. 198	12 57 8	2·78	49 0·0	19·4	vF, cS, iF, N	58 59	49 12·9
4136	D. S. 368	12 57 8	3·10	95 13	19·4	eeF, cS	59 12	95 26
4137	W. VI. 179	12 57 11	2·92	66 30·5	19·4	eF, vS, iF, N	59 8	66 43·4
4138	W. VI. 180	12 57 11	2·93	68 35·0	19·4	F, vS, iF, N, * 16 inv np, ? D *	59 8	68 47·9
4139	W. VI. 181	12 57 12	2·94	69 57·2	19·4	F, S, iF, N, 2 st nf	59 10	70 10·1
4140	W. VI. 182	12 57 14	2·94	69 9·1	19·4	vF, vS, R ; ?	59 12	69 22·0
4141	W. VI. 183	12 57 15	2·94	70 2·3	19·4	F, S, iF, N	59 13	70 15·2
4142	W. V. 199	12 57 16	2·80	51 3·2	19·4	vF, vS, iF, N	59 8	51 16·1
4143	W. V. 200	12 57 17	2·78	49 2·4	19·4	F, S, iF	59 8	49 15·3
4144	W. V. 201	12 57 17	2·81	52 18·2	19·4	F, cS, iF	59 9	52 31·1
4145	W. V. 202	12 57 18	2·80	50 57·6	19·4	vF, S, iF	59 10	51 10·5
4146	W. VI. 184	12 57 18	2·94	69 58·2	19·4	F, vS, R, bM	59 16	70 11·1
4147	W. VI. 185	12 57 18	2·94	68 59·7	19·4	vF, S, dif	59 16	69 12·6
4148	W. VI. 186	12 57 19	2·94	69 59·4	19·4	eF, vS, R	59 17	70 12·3
4149	W. VI. 187	12 57 21	2·92	66 57·4	19·4	pF, vS, iF, N, * 9 p 2′, * 15 sf	59 18	67 10·3
4150	W. VI. 188	12 57 23	2·92	67 15·7	19·4	vF, vS, R	59 20	67 28·6
4151	W. V. 203	12 57 26	2·81	52 23·4	19·4	vF, cS, iF	59 18	52 36·3
4152	W. V. 204	12 57 28	2·80	51 2·9	19·4	F, vS, iF, N	59 20	51 15·8
4153	W. VI. 189	12 57 34	2·94	70 11·9	19·4	F, S, R, bM	59 32	70 24·8
4154	W. VI. 190	12 57 40	2·92	65 40·4	19·4	pF, S, R	59 37	65 53·3
4155	W. V. 205	12 57 41	2·78	49 14·0	19·4	vF, S, iF, dif	59 32	49 26·9
4156	D. S. 369	12 57 44	3·11	95 31	19·4	eeF, cS, m E 140°	59 48	95 44
4157	W. V. 206	12 57 48	2·79	50 35·0	19·4	eF, pL iF, ? bi-N	59 40	50 47·9
4158	W. V. 207	12 57 52	2·82	52 46·0	19·4	F, S, iF, N	59 45	52 58·9
4159	W. VI. 191	12 57 57	2·92	67 0·4	19·4	F, vS, iF, N	59 54	67 13·3
4160	W. VI. 192	12 57 59	2·92	66 21·4	19·4	vF, S, iF, dif	59 56	66 34·3
4161	W. V. 208	12 58 7	2·78	49 16·2	19·4	F, vS, iF, N	59 58	49 29·1
4162	W. VI. 193	12 58 12	2·93	68 41·7	19·4	vF, S, iF, N, * 14 sp	0 9	68 54·6
4163	W. VI. 194	12 58 17	2·93	68 28·6	19·4	F, vS, bM, ? spir	0 14	68 41·5
4164	W. VI. 195	12 58 24	2·93	68 42·2	19·4	vF, S, ? neb Cl ; * 14 n	0 21	68 55·1
4165	W. V. 209	12 58 29	2·78	49 19·5	19·4	F, cS, p dif	0 20	49 32·4
4166	J. 1234	12 58 37	2·86	57 48·4	19·4	F, S, dif	0 31	58 1·3
4167	W. VI. 197	12 58 41	2·92	67 20·4	19·4	vF, vS, iF, N	0 38	67 33·3
4168	W. V. 210	12 58 43	2·77	49 1·8	19·4	F, vS, R, bM, * 13 sp	0 34	49 14·7
4169	W. V. 211	12 58 43	2·79	50 28·5	19·4	vF, S, iF, N	0 35	50 41·4
4170	W. VI. 198	12 58 45	2·93	68 6·9	19·4	F, vS, iF, N	0 42	68 19·8
4171	W. V. 212	12 58 45	2·81	53 8·7	19·4	F, cS, E 60°, bM	0 37	53 21·6
4172	W. VI. 199	12 58 45	2·92	66 23·9	19·4	F, S, R, bM	0 42	66 36·8
4173	B. 315	12 58 54	3·14	100 49	19·4	Neb * 13, sp of 2	1 0	101 2
4174	W. V. 213	12 58 56	+ 2·81	52 51·0	+19·4	vF, S, iF, N	0 48	53 3·9

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		h m s	s	° ′	″		m s	° ′
4175	W. VI. 200	12 58 56	+ 2·93	68 52·6	+ 19·4	vF, S, R	0 53	69 5·5
4176	B. 316	12 58 57	3·14	100 48	19·4	pF, pS, bM, nf of 2	1 3	101 1
4177	D. S. 370	12 59 6	3·15	102 49	19·4	vF, vS, R, susp	1 12	103 2
4178	W. V. 214	12 59 8	2·81	53 13·8	19·4	vF, cS, R, bM, dif	1 0	53 26·7
4179	W. V. 215	12 59 15	2·80	52 3·2	19·4	F, vS, iF, N, * 14 p	1 7	52 16·1
4180	Sw. XI.	12 59 16	3·22	113 9·2	19·4	eeF, eS, R, 1st of 3	1 25	113 22·1
4181	W. VI. 201	12 59 17	2·93	67 45·4	19·4	cF, vS, R, bM	1 14	67 58·3
4182	W. V. 216	12 59 18	2·80	51 38·4	19·4	cF, vL, iF, N	1 10	51 51·3
4183	W. VI. 202	12 59 22	2·92	67 44·7	19·4	F, vS, iF, N	1 19	67 57·6
4184	W. V. 217	12 59 23	2·79	50 24·7	19·4	pF, S, iF, N	1 15	50 37·6
4185	W. VI. 203	12 59 23	2·92	67 28·4	19·4	vF, S, iF, att * 15 n	1 20	67 41·3
4186	W. V. 218	12 59 26	2·80	52 15·9	19·4	F, S, iF, N	1 18	52 28·8
4187	W. V. 219	12 59 27	2·81	52 56·9	19·4	F, S, iF, N, D * s	1 19	53 9·8
4188	W. V. 220	12 59 30	2·81	52 55·1	19·4	vF, S, iF, cF neb p 1′	1 22	53 8·0
4189	W. V. 221	12 59 31	2·81	53 16·1	19·4	pF, pS, E 60°, bM	1 23	53 29·0
4190	W. V. 222	12 59 35	2·80	51 38·2	19·4	vF, cS, iF, diffic	1 27	51 51·1
4191	Fleming 107	12 59 36	3·91	156 53	19·4	Planetary, stellar	2 12	157 6
4192	W. V. 223	12 59 38	2·80	51 38·6	19·4	vF, S, iF, v diffic	1 30	51 51·5
4193	W. V. 224	12 59 38	2·78	49 49·6	19·4	pF, S, iF, N, eF * att np	1 29	50 2·5
4194	W. V. 225	12 59 39	2·78	50 22·5	19·4	F, S, iF, N	1 30	50 35·4
4195	W. V. 226	12 59 44	2·80	52 12·5	19·4	vF, S, iF	1 36	52 25·4
4196	Sw. XI.	12 59 51	3·22	113 16·2	19·4	eeF, eS, R, * 11 p 4′; 2nd of 3	2 0	113 29·1
4197	Sw. XI., Ho.	13 0 32	3·22	113 2·8	19·3	eeF, eS, R, 3rd of 3, * 8 f 37^{s}	0 41	113 17·7
4198	J. 1235	13 0 56	2·90	64 26·6	19·3	F, cS, R, III 346 nr	2 52	64 39·5
4199	W. V. 227	13 1 0	2·81	53 23·6	19·3	F, S, iF, N	2 52	53 36·5
4200	F. 1041	13 1 15	3·52	141 13	19·3	F, bM, magn 14·5	3 36	141 26
4201	W. V. 228	13 1 19	2·81	53 25·0	19·3	F, S, iF, N	3 11	53 37·9
4202	J. 1236	13 1 46	2·90	64 33·0	19·3	F, cS, E, gbM	3 42	64 45·9
4203	W. V. 229	13 1 53	2·76	48 49·5	19·3	eF, S, dif	3 43	49 2·4
4204	W. V. 230	13 1 55	2·77	49 47·5	19·3	F, cS, ? spir	3 46	50 0·4
4205	Sw. XI.	13 2 44	2·58	36 23·3	19·3	vF, pL, R [? = I.C. 853]	4 27	36 36·2
4206	W. V. 231	13 2 56	2·77	50 13·8	19·3	pF, S, iF, N	4 47	50 26·7
4207	W. V. 232	13 2 59	2·78	51 25·8	19·3	vF, cS, iF	4 50	51 38·7
4208	W. V. 233	13 3 9	2·79	51 59·8	19·3	F, cS, bM, spir	5 1	52 12·7
4209	D. S. 371	13 3 20	3·11	96 25	19·3	eF, eS, cE 100°	5 24	96 38
4210	B. 410	13 4 7	2·85	59 34	19·2	eF, S, dif	6 1	59 47
4211	W. V. 236	13 4 28	2·78	52 4·7	19·2	cF, S, E 315°, bM	6 19	52 17·5
4212	D. S. 373	13 5 14	3·11	96 1	19·2	eF, eS, cE 20°	7 18	96 14
4213	J. 1237	13 5 51	2·79	53 35·2	19·2	F, L, vm E ns, gvlbM	7 43	53 48·0
4214	Sw. XI.	13 8 57	3·32	121 21·1	19·1	pB, pS, R, * 9 sf	11 10	121 33·8
4215	J. 1238	13 9 34	2·88	63 51·4	19·1	F, S, E 210°	11 29	64 4·1
4216	D. S. 374	13 9 42	3·15	100 2	19·1	vF, cL, cE 40°	11 48	100 15
4217	D. S. 376	13 9 48	3·16	102 24	19·1	eF, eS, R	11 54	102 37
4218	D. S. 375	13 9 51	3·08	91 31	19·1	eF, eS, cE 170° ; susp	11 54	91 44
4219	Sw. XI.	13 9 52	3·32	120 55·1	19·1	eeF, pL, R, * 9 sp	12 5	121 7·8
4220	D. S. 377	13 10 29	3·17	102 52	19·1	cF, eS, cE 130°	12 36	103 5
4221	D. S. 378	13 10 59	3·17	103 53	19·1	cF, S, mE 165°, cbM	13 6	104 6
4222	Sw. XI.	13 11 48	3·29	117 41·4	19·0	eeF, eS, R	14 0	117 54·1
4223	B. 411	13 11 55	3·01	81 27	19·0	eF, S, r	13 55	81 40
4224	D. S. 379	13 11 56±	+ 3·09	91 46±	+ 19·0	eF, S, cE 110°, susp	14 0±	91 59±

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		h m s	s	° ′	″		m s	° ′
4225	J. 1239	13 13 29	+ 2·80	57 16·9	+19·0	F, cS, R	15 21	57 29·6
4226	J. 1240	13 13 59	2·80	57 15·5	19·0	F, vS, stell N	15 51	57 28·2
4227	J. 1241	13 14 23	2·79	57 5·1	19·0	F, S, gbM, r	16 15	57 17·8
4228	J. 1242	13 14 52	2·86	63 45·1	19·0	F, S, r	16 46	63 57·8
4229	D. S. 380	13 15 21	3·08	91 40	19·0	eF, eS, R, susp	17 24	91 53
4230	J. 1243	13 15 22	2·85	62 32·0	19·0	F, S, R, N	17 16	62 44·7
4231	F. 1042	13 15 37	3·28	115 34	18·9	pL, vm E	17 48	115 47
4232	F. 1043	13 15 49	3·28	115 22	18·9	bM, magn 14	18 0	115 35
4233	Sw. XI.	13 16 12	3·33	119 35·0	18·9	eeF, pS, R, 4 st sf	18 25	119 47·6
4234	J. 1244	13 16 23	2·84	62 10·2	18·9	F, cS, R, N, r	18 17	62 22·8
4235	D. S. 381	13 16 29	3·17	102 1	18·9	eF, vS, R	18 36	102 14
4236	Sw. XI.	13 16 32	3·02	83 2·1	18·9	eeF, pS, mE, v diffic	18 33	83 14·7
4237	B. 317	13 16 57	3·24	110 25	18·9	vF, S, lbM, r	19 7	110 38
4238	J. 1245	13 17 29	2·81	58 20·3	18·9	F, vS, dif, 5131 np	19 21	58 32·9
4239	J. 1246	13 17 55	2·80	58 18·7	18·9	F, cS, dif	19 47	58 31·3
4240	J. 1247	13 17 57	2·80	58 17·6	18·9	F, vS, dif	19 49	58 30·2
4241	J. 1248	13 18 10	2·84	62 32·0	18·9	F, S, iF, ∗ 12·5 att	20 4	62 44·6
4242	J. 1249	13 18 11	2·79	58 14·7	18·9	F, S, R, N	20 3	58 27·3
4243	F. 1044	13 18 12	3·30	116 54	18·9	bM, magn 14	20 24	117 7
4244	J. 1250	13 18 22	2·84	62 48·7	18·9	F, S, R, gbM	20 16	63 1·3
4245 4246	F. 1045	13 18 24	3·29	115 56	18·9	2 neb, $\Delta\alpha = 0^{s}\cdot3$	20 36	116 9
4247	F. 1046	13 18 53	3·33	119 37	18·8	S, E, magn 14	21 6	119 50
4248	F. 1047	13 18 59	3·33	119 10	18·8	F, spir, ∗ 13 in M	21 12	119 23
4249	F. 1048	13 19 30	3·31	117 13	18·8	vF, bM, magn 13, nr B ∗	21 42	117 26
4250	J. 1251	13 19 35	2·84	62 47·9	18·8	F, S, dif	21 29	63 0·4
4251	F. 1049	13 19 35	3·33	118 44	18·8	vF, bM, magn 14, h 3507 sf	21 48	118 57
4252	F. 1050	13 19 54	3·30	116 36	18·8	bM, magn 13·5	22 6	116 49
4253	F. 1051	13 19 54	3·31	117 8	18·8	bM, ? spir	22 6	117 21
4254	F. 1052	13 20 6	3·30	116 30	18·8	bM, dif, magn 14·5	22 18	116 43
4255	F. 1053	13 20 18	3·31	116 38	18·8	bM, magn 13·5	22 30	116 51
4256	J. 1252	13 20 33	2·79	58 13·8	18·8	vF, S, R	22 25	58 26·3
4257	Keeler	13 21 20	2·55	42 24·2	18·8	eF, S, R, dif	23 2	42 36·7
4258	J. 1253	13 21 21	2·81	60 52·9	18·7	F, S, gbMN	23 13	61 5·4
4259	F. 1055	13 21 40	3·34	119 24	18·7	bM, magn 14	23 54	119 37
4260	F. 1054	13 21 41	3·32	117 33	18·7	bM, magn 14·5	23 54	117 46
4261	F. 1056	13 22 5	3·32	117 18	18·7	bM, magn 14	24 18	117 30
4262	F. 1057	13 22 29	3·32	117 34	18·7	bM, wisps extend $0^{s}\cdot1$	24 42	117 46
4263	Keeler	13 22 35	2·55	42 21·0	18·7	eF, pL, mE, mbM	24 17	42 33·5
4264	F. 1058	13 22 35	3·32	117 13	18·7	bM, magn 14·5	24 48	117 25
4265	F. 1059	13 22 42	3·30	115 3	18·7	bM, magn 14	24 54	115 15
4266	J. 1254	13 22 49	2·70	51 39·2	18·7	F, S, R, N	24 37	51 51·7
4267	F. 1060	13 22 54	3·30	115 33	18·7	wisp, $0^{s}\cdot7$ long	25 6	115 45
4268	J. 1255	13 22 56	2·70	51 36·3	18·7	F, S, R, N	24 44	51 48·8
4269	J. 1256	13 23 4	2·70	51 38·6	18·7	F, S, N	24 52	51 51·1
4270	F. 1061	13 23 6	3·30	114 37	18·7	bM, magn 14	25 18	114 49
4271	J. 1257	13 23 7	2·70	51 51·9	18·7	F, S, R, gbM, r	24 55	52 4·4
4272	F. 1062	13 23 22	3·34	119 15	18·7	bM, ? D, magn 14	25 36	119 27
4273	F. 1063	13 23 35	3·33	118 11	18·7	bM, magn 13	25 48	118 23
4274	Fleming 93	13 23 39	+ 4·13	115 16	+18·7	Planetary, stellar	26 24	155 28

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		h m s	s	° ′	″		m s	° ′
4275	F. 1064	13 23 52	+ 3·34	119 1	+18·7	bM, magn 12·5	26 6	119 13
4276	F. 1065	13 24 23	3·33	117 27	18·7	bM, wisps o′·2 each side	26 36	117 39
4277	Keeler	13 24 24	2·53	41 57·8	18·7	eF, S, vmE, nf M.51	26 5	42 10·3
4278	Keeler	13 24 33	2·53	42 2·0	18·7	eF, vS, R, bM, f M.51	26 14	42 14·5
4279	F. 1066	13 24 47	3·32	116 25	18·7	bM, ? wisps o·3 l	27 0	116 37
4280	Sw. XI.	13 24 48	3·29	113 29·5	18·7	eF, pS, R, * nf, vF * n	27 0	113 42·0
4281	F. 1067	13 24 53	3·32	116 27	18·7	bM, magn 13·5	27 6	116 39
4282	Keeler	13 25 26	2·52	42 6·0	18·6	eF, S, R, dif	27 7	42 18·4
4283	J. 1258	13 25 37	2·80	60 53·4	18·6	F, S, R, * 14 att	27 29	61 5·8
4284	Keeler	13 25 38	2·53	42 29·3	18·6	eF, vS, R	27 19	42 41·7
4285	Keeler	13 25 52	2·53	42 27·8	18·6	eF, vS, l E	27 33	42 40·2
4286	F. 1068	13 25 53	3·33	116 55	18·6	bM, magn 14	28 6	117 7
4287	J. 1259	13 25 59	2·83	63 52·2	18·6	F, S, R, gbM, ? another v nr	27 52	64 4·6
4288	F. 1069	13 26 47	3·33	116 36	18·6	bM, magn 14	29 0	116 48
4289	F. 1070	13 27 5	3·32	116 25	18·6	bM, magn 14	29 18	116 37
4290	F. 1071	13 27 35	3·33	117 19	18·6	Annular, F, pL, stell N	29 48	117 31
4291	Innes	13 27 36	4·00	151 20·4	18·6	pS, R, bM	30 16	151 32·8
4292	F. 1072	13 27 59	3·33	116 58	18·6	bM, magn 13·5	30 12	117 10
4293	F. 1073	13 28 24	3·31	115 11	18·5	bM, magn 13	30 36	115 23
4294	F. 1074	13 28 40	3·35	118 4	18·5	bM, magn 14	30 54	118 16
4295	F. 1075	13 28 40	3·35	118 23	18·5	S, l E, magn 14	30 54	118 35
4296	Sw. XI., Ho.	13 28 44	3·41	123 15	18·5	pF, pS, R	31 0	123 28
4297	J. 1260	13 28 47	2·81	62 50·5	18·5	F, S, R, dif	30 39	63 2·8
4298	F. 1076	13 28 53	3·32	115 51	18·5	bM, ? spiral	31 6	116 3
4299	Sw. XI.	13 28 54	3·41	123 21·6	18·5	eeF, eS, F * att	31 10	123 33·9
4300	J. 1261	13 29 4	2·73	55 51·9	18·5	F, vS, dif	30 53	56 4·2
4301	J. 1262	13 29 13	2·73	55 54·5	18·5	F, S, dif, N	31 2	56 6·8
4302	J. 1263	13 29 15	2·73	55 48·2	18·5	vF, eS, dif	31 4	56 0·5
4303	F. 1077	13 29 22	3·35	117 57	18·5	bM, magn 13·5	31 36	118 9
4304	J. 1264	13 29 37	2·73	55 51·2	18·5	pB, pS, R, gbM, r	31 26	56 3·5
4305	J. 1265	13 29 37	2·73	55 48·6	18·5	pB, eS, l E ns, bMN	31 26	56 0·9
4306	J. 1266	13 29 58	2·72	55 51·6	18·5	F, vS, gbM, * 13 nr	31 47	56 3·9
4307	J. 1267	13 30 5	2·80	62 2·6	18·5	F, S, E pf, * 11 p 6^s	31 57	62 14·9
4308	J. 1268	13 30 28	2·73	56 33·6	18·5	F, S, dif, vlbM	32 17	56 45·9
4309	F. 1078	13 30 52	3·36	118 58	18·5	bM, magn 14	33 6	119 10
4310	F. 1079	13 31 17	3·32	115 8	18·5	vF, bM, wisps o′·3 l	33 30	115 20
4311	F. 1080	13 31 26	3·71	140 20	18·4	vF, ? spiral	33 54	140 32
4312	F. 1081	13 31 44	3·71	140 22	18·4	eeF, bM	34 12	140 34
4313	J. 1269	13 31 51	2·81	62 32·1	18·4	F, vS, R, stell	33 43	62 44·4
4314	J. 1270	13 31 55	2·81	62 33·1	18·4	F, vS, N, stell	33 47	62 45·4
4315	F. 1082	13 32 17	3·32	114 46	18·4	Wisp 1′·3 l	34 30	114 58
4316	F. 1083	13 32 28	3·36	118 11	18·4	bM, magn 14·5	34 42	118 23
4317	J. 1271	13 35 19	2·80	62 11·5	18·4	F, S, R, N, r	37 11	62 23·8
4318	F. 1084	13 35 27	3·37	118 16	18·3	bM, magn 14	37 42	118 28
4319	F. 1085	13 35 33	3·38	119 6	18·3	eL, E, bM, magn 13·5	37 48	119 18
4320	F. 1086	13 36 16	3·35	116 32	18·3	bM, magn 13·5	38 30	116 44
4321	F. 1087	13 36 39	3·38	119 26	18·3	bM, magn 15	38 54	119 38
4322	J. 1272	13 37 13	2·80	63 53·4	18·3	F, S, R, N, r	39 5	64 5·6
4323	F. 1088	13 37 15	3·37	117 57	18 2	eS, wisp, mE	39 30	118 9
4324	F. 1089	13 37 32	+ 3·39	119 32	+18·2	bM, magn 13·5	39 48	119 44

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
4325	F. 1090	13 39 44	+ 3·39	118 44	+18·2	R, planet. ?, magn 14	42 0	118 56
4326	F. 1091	13 40 26	3·39	118 56	18·1	R, planet. ?, magn 14	42 42	119 8
4327	F. 1092	13 40 44	3·40	119 32	18·1	bM, magn 12·5	43 0	119 44
4328	F. 1093	13 41 8	3·40	119 15	18·1	R, lbM, magn 14	43 24	119 27
4329	Ho. III., F.	13 41 8	3·40	119 35·7	18·1	F, cS, bM	43 24	119 47·8
4330	F. 1094	13 41 21	3·38	117 37	18·1	pL, E, magn 13·5	43 36	117 49
4331	J. 1273	13 42 53	2·79	64 9·0	18·0	pF, S, R, dif	44 45	64 21·0
4332	J. 1274	13 43 21	2·79	64 6·9	18·0	F, S, R, gbM	45 13	64 18·9
4333	D. S. 382	13 43 21±	8·48	173 35±	17·9	eF, vS, eE 40°, susp	49 0±	173 47±
4334	J. 1275	13 43 26	2·73	59 37·9	18·0	F, vS, R, N	45 15	59 49·9
4335	B. 318	13 43 31	2·67	55 38	18·0	vF, stell, ? neb ; * 13 nnf 2′·5	45 18	55 50
4336	B. 412	13 44 45	2·57	49 35	18·0	eF, pL, dif, lbM, r	46 28	49 47
4337	Sw. XI.	13 45 24	2·91	75 1·2	17·9	eeF, pL, R, v diffic, 3rd of 4	47 20	75 13·1
4338	Sw. XI.	13 45 30	3·08	90 26·1	17·9	eF, vL, cE ns, F * nr each end	47 33	90 38·0
4339	J. 1276	13 47 26	2·59	51 46·2	17·9	F, S, R, r	49 10	51 58·1
4340	J. 1277	13 47 31	2·60	51 54·4	17·9	F, S, R, gbM	49 15	52 6·3
4341	J. 1278	13 47 32	2·59	51 46·3	17·9	F, S, R, r, * 12 nr	49 16	51 58·2
4342	J. 1279	13 47 52	2·78	64 9·5	17·8	F, S, R, lbM, r	49 43	64 21·4
4343	J. 1280	13 48 26	2·78	64 11·4	17·8	F, S, R, N, r	50 17	64 23·3
4344	J. 1281	13 48 44	2·78	64 16·6	17·8	F, vS, N, stell	50 35	64 28·5
4345	J. 1282	13 48 45	2·78	64 14·8	17·8	cF, vS, R, N, stell	50 36	64 26·7
4346	J. 1283	13 49 11	2·77	64 9·6	17·8	F, S, R, gbMN	51 2	64 21·5
4347	Sw. XI.	13 49 12	3·58	129 19·6	17·8	* 9 in eeF neb	51 35	129 31·5
4348	J. 1284	13 49 16	2·77	64 6·6	17·8	F, S, R, N	51 7	64 18·5
4349	J. 1285	13 49 18	2·77	64 9·7	17·8	F, S, bM	51 9	64 21·6
4350	Sw. XI.	13 49 26	3·36	114 32·2	17·8	eeF, eS, F * close s	51 40	114 44·1
4351	Innes	13 49 48	3·40	118 38	17·7	S, lE	52 4	118 50
4352	Sw. XI.	13 50 0	3·49	123 51·0	17·7	sev eF st in eeF neb, 2 st 8 n	52 20	124 2·8
4353	B. 413	13 51 3	2·58	51 33	17·7	eF, ? vF st & neb, * 8·4 nf 3′	52 46	51 45
4354	D. S. 383	13 51 4	3·21	101 54	17·7	eF, vS, eE 110°	53 12	102 6
4355	J. 1286	13 51 44	2·72	60 54·5	17·7	F, S, R, glbM	53 33	61 6·3
4356	J. 1287	13 52 44	2·58	51 48·6	17·7	F, vS, stell N = * 15	54 27	52 0·4
4357	J. 1288	13 54 32	2·66	57 25·3	17·6	F, S, R, gvlbM	56 18	57 37·0
4358	Wolf (4013)	13 56 8	3·18	99 28·5	17·5	pL, m E 120° ; spir neb f (I.C. 971)	58 15	99 40·2
4359	D. S. 388	13 56 37	3·73	134 36	17·5	eF, vS, E, 170°, bet 2 F st	59 6	134 48
4360	D. S. 385	13 56 40	3·20	100 44	17·5	eF, eS, E 35°	58 48	100 56
4361	D. S. 384	13 56 41	3·18	99 5	17·5	eF, vS, cE 150°	58 48	99 17
4362	D. S. 389	13 56 46	3·65	131 8	17·5	vF, S, v E 175°	59 12	131 20
4363	D. S. 386	13 56 47	3·18	98 58	17·5	eF, vS, c E 150°	58 54	99 10
4364	D. S. 387	13 56 47	3·18	99 19	17·5	eF, vS, R	58 54	99 31
4365	B. 319	13 56 54	2·95	79 48	17·5	* 13 in vF, S neb [perhaps 5438]	58 52	80 0
4366	D. S. 390	13 56 58	3·51	123 5	17·4	vF, vS, c E 170°	59 18	123 17
4367	Sw. XI.	13 57 16	3·60	128 32·1	17·4	eeF, pS, R, bet 2 st	59 40	128 43·7
4368	D. S. 391	13 57 17	3·18	99 17	17·4	F, S, R, bM	59 24	99 29
4369	J. 1289	13 57 59	2·63	56 0·4	17·4	vF, S, R, dif	59 44	56 12·0
4370	J. 1290	13 58 3	2·63	55 58·9	17·4	F, S, iF, gbM, * 14 nr	59 48	56 10·5
4371	J. 1291	13 58 4	2·63	56 1·3	17·4	F, S, R, vlbM	59 49	56 12·9
4372	D. S. 392	13 58 16	3·19	100 13	17·4	eF, eS, E 75°	0 24	100 25
4373	J. 1292	13 59 18	2·75	64 5·8	17·4	F, S, R, N, r	1 8	64 17·4
4374	Sw. XI.	13 59 34	+ 3·41	116 20·4	+17·4	eeF, pS, R	1 50	116 32·0

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		h m s	s	° ′	″		m s	° ′
4375	D. S. 393	13 59 52	+ 3·51	122 38	+17·3	eF, eS, e E 15°, stell N, * sp	2 12	122 50
4376	D. S. 394	14 2 41	3·47	120 9	17·2	F, S, e E 40°	5 0	120 20
4377	D. S. 397	14 3 25	5·67	164 59	17·1	eeF, vS, m E 180°, vmbM	7 12	165 10
4378	D. S. 395	14 3 51	3·53	123 36	17·1	vF, vS, E 150°	6 12	123 47
4379	D. S. 396	14 3 51	3·53	123 37	17·1	vF, vS, E 90°	6 12	123 48
4380	J. 1293	14 4 8	2·53	51 47·2	17·1	F, S, R, dif	5 49	51 58·6
4381	J. 1294	14 4 36	2·73	63 51·3	17·1	F, cS, R, bi N	6 25	64 2·7
4382	J. 1295	14 4 41	2·73	63 49·9	17·1	F, S, R, gbM, 5498 n 11′	6 30	64 1·3
4383	B. 416	14 5 33	2·86	73 29	17·1	1′·7 np 5504 (no descr)	7 27	73 40
4384	J. 1296	14 5 37	2·70	62 13·6	17·1	F, S, R, bMN, r	7 25	62 25·0
4385	F. 1095	14 6 2	3·70	131 39	17·0	vS, R, lbM	8 30	131 50
4386	F. 1096	14 6 18	3·74	133 18	17·0	F, vS, R	8 48	133 29
4387	F. 1097	14 6 18	3·74	133 20	17·0	F, vS, R	8 48	133 31
4388	D. S. 398	14 7 52	3·50	121 7	16·9	vF, vS, R, sbM	10 12	121 18
4389	F. 1098	14 8 9	3·67	129 54	16·9	vF, vS, R, dif	10 36	130 5
4390	D. S. 401	14 8 11	3·77	134 20	16·9	eF, vS, mE 5°, stell N	10 42	134 31
4391	D. S. 400	14 8 16	3·50	121 3	16·9	vF, vS, R	10 36	121 14
4392	D. S. 399	14 8 21	3·23	102 28	16·9	eF, vS, mE 80°, F * sf, susp	10 30	102 39
4393	D. S. 402	14 9 41	3·47	120 42	16·9	cF, S, eE 75°	12 0	120 53
4394	B. 418	14 10 49	2·46	49 39	16·8	eF, S, R	12 27	49 50
4395	J. 1297	14 11 4	2·69	62 29·9	16·8	F, S, R, N, stell	12 52	62 41·1
4396	J. 1298	14 11 18	2·66	60 33·1	16·8	F, S, dif	13 4	60 44·3
4397	B. 419, J. 1299	14 11 40	2·70	62 56·3	16·8	F, cS, R, bM, r	13 28	63 7·5
4398	J. 1300	14 11 51	2·66	60 29·1	16·8	F, S, R, gbM, r	13 37	60 40·3
4399	B. 420, J. 1301	14 12 5	2·70	62 58·1	16·8	F, cS, R, N, r	13 53	63 9·3
4400	Innes	14 12 5	4·29	149 56	16·8	F, S, E	14 57	150 7
4401	Ho. II.	14 12 7	3·12	93 50·4	16·8	vF, S, mE 200°, nr I.C. 997	14 12	94 1·6
4402	F. 1099	14 12 9	3·83	135 39	16·8	L, eE 125°, pointed ends	14 42	135 50
4403	J. 1302	14 12 12	+ 2·61	57 41·6	16·8	F, S, R, gbM, * 14 n	13 56	57 52·8
4404	B. 417	14 12 19	− 0·74	10 43	16·8	eF	11 49	10 54
4405	J. 1303	14 12 58	+ 2·70	63 3·3	16·7	F, S, dif	14 46	63 14·4
4406	Fleming 94, Innes, D.S. 403	14 13 35	3·78	133 30	16·7	Planetary, stellar, 10 mag, E 80°	16 6	133 41
4407	Finlay	14 14 ...	3·14	95 21	16·7	No description	16 ...	95 32
4408	J. 1304	14 15 6	2·63	59 21·0	16·6	F, S, R, gbM	16 51	59 32·1
4409	J. 1305	14 15 28	2·60	57 46·7	16·6	F, S, R, * 13·5 close	17 12	57 57·8
4410	F. 1100	14 15 31	2·83	71 58	16·6	vF, vS, R	17 24	72 9
4411	D. S. 404	14 16 36	3·59	124 23	16·5	F, S, eE 45°	19 0	124 34
4412	J. 1306	14 16 54	2·69	63 5·4	16·5	F, S, R, dif	18 42	63 16·4
4413	J. 1307	14 17 12	2·48	51 48·8	16·5	F, S, R	18 51	51 59·8
4414	J. 1308	14 17 33	2·65	61 1·0	16·5	pB, cS, gbMN, r	19 19	61 12·0
4415	F. 1101	14 17 48	2·84	72 44	16·5	vF, vS, R, lbM	19 42	72 55
4416	J. 1309	14 18 8	2·63	59 43·9	16·5	F, S, R, N	19 53	59 54·9
4417	F. 1102	14 18 13	2·83	72 19	16·5	vF, vS, R, lbM	20 6	72 30
4418	J. 1310	14 19 0	2·70	63 50·5	16·4	pB, S, R, gbMN	20 48	64 1·4
4419	F. 1103	14 19 12	2·84	72 44	16·4	F, vS, R, lbM	21 6	72 55
4420	J. 1311	14 19 21	2·70	63 59·3	16·4	F, S, E 220°, N	21 9	64 10·2
4421	Sw. XI.	14 19 34	3·65	126 57·3	16·4	eeF, vS, R, F * f	22 0	127 8·2
4422	J. 1312	14 19 54	2·61	58 53·7	16·4	F, cS, r	21 38	59 4·6
4423	J. 1313	14 20 2	2·68	63 7·8	16·4	vF, S, R, dif	21 49	63 18·7
4424	B. 320	14 20 33	+ 3·00	84 32	+16·3	eF, S, stellar	22 33	84 43

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		h m s	s	° ′	″		m s	° ′
4425	J. 1314	14 20 34	+ 2·67	62 10·8	+16·3	F, S, R, dif	22 21	62 21·7
4426	F. 1104	14 20 43	2·83	72 33	16·3	F, vS, R, lbM	22 36	72 44
4427	J. 1315	14 20 45	2·67	62 30·3	16·3	F, cS, dif, r	22 32	62 41·2
4428	F. 1105	14 20 48	2·84	73 10	16·3	F, eS, R, lbM	22 42	73 21
4429	F. 1106	14 21 1	2·83	72 29	16·3	F, vS, R	22 54	72 40
4430	D. S. 405	14 21 1	3·58	122 59	16·3	cF, cS, indistinct	23 24	123 10
4431	J. 1316	14 21 8	2·60	58 26·1	16·3	F, cS, R, gbM, r	22 52	58 37·0
4432	D. S. 406	14 21 8	3·70	128 54	16·3	vF, vS, mE 85°	23 36	129 5
4433	F. 1107	14 21 12	2·84	73 10	16·3	F, vS, R, mbM	23 6	73 21
4434	F. 1108	14 21 18	2·84	73 9	16·3	F, vS, R, lbM	23 12	73 20
4435	J. 1317	14 21 40	2·46	51 54·0	16·3	F, R, sbM * 13·5	23 18	52 4·9
4436	J. 1318	14 21 44	2·67	62 52·5	16·3	pB, S, R, gbM, r	23 31	63 3·4
4437	Barnard	14 21 54	2·37	47 53	16·3	No descr., * 8 mag nf	23 29	48 4
4438	F. 1109	14 22 1	2·82	72 2	16·3	F, vS, R, dif	23 54	72 13
4439	F. 1110	14 22 7	2·83	72 20	16·3	F, S, R, mbM	24 0	72 31
4440	F. 1111	14 22 19	2·82	72 3	16·3	bM, magn 15	24 12	72 14
4441	Sw. XI	14 22 28	3·81	132 53·7	16·2	pF, pS, R	25 0	133 4·5
4442	J. 1319	14 22 35	2·63	60 26·2	16·2	F, S, R, N	24 20	60 37·0
4443	F. 1112	14 22 42	2·84	73 11	16·2	vS, vlE, lbM	24 36	73 22
4444	D. S. 407	14 22 46	3·80	132 47	16·2	vF, vS, * M, spir or annular	25 18	132 58
4445	F. 1113	14 22 49	3·87	135 25	16·2	F, cS, E 160°	25 24	135 36
4446	J. 1320	14 23 17	2·46	51 54·7	16·2	F, cS, R, dif	24 55	52 5·5
4447	J. 1321	14 23 34	2·59	58 33·1	16·2	F, S, R, gbMN, r	25 18	58 43·9
4448	D. S. 409	14 23 54	6·91	168 12	16·1	!! F, vS, annul, * in M	28 30	168 23
4449	F. 1114	14 24 42	2·85	74 8	16·1	vF, vS, R, dif	26 36	74 19
4450	J. 1322	14 26 4	2·63	60 50·6	16·1	F, cS, dif, * 10·5 nf	27 49	61 1·3
4451	D. S. 408	14 26 4	3·65	125 40	16·1	vF, vS, R, * n 0′·5	28 30	125 51
4452	J. 1323	14 26 17	2·65	61 58·3	16·1	F, S, R, gbM, r	28 3	62 9·0
4453	Sw. XI., Ho.	14 26 20	3·48	116 54·1	16·1	pB, eS, R, F * close	28 39	117 4·8
4454	F. 1115	14 26 44	2·81	71 40	16·1	F, eS, R, lbM	28 36	71 51
4455	D. S. 410	14 26 49	3·27	104 1	16·1	eF, cS, cE 30°	29 0	104 12
4456	F. 1116	14 27 31	2·83	73 12	16·0	F, S, R, dif	29 24	73 23
4457	F. 1117	14 27 56	2·80	71 10	16·0	F, vS, R, lbM	29 48	71 21
4458	D. S. 411	14 28 25	3·73	128 51	15·9	eF, eS, E 100°	30 54	129 2
4459	J. 1324	14 28 32	2·57	58 24·9	15·9	F, pL, Ens, glbM, r	30 15	58 35·5
4460	J. 1325	14 28 39	2·58	59 7·6	15·9	F, S, dif, glbM	30 22	59 18·2
4461	J. 1326	14 28 49	2·64	62 51·6	15·9	F, vS, R, N, r	30 35	63 2·2
4462	J. 1327	14 28 51	2·64	62 50·9	15·9	F, S, R	30 37	63 1·5
4463	F. 1118	14 29 13	2·83	73 22	15·9	F, vS, R	31 6	73 33
4464	D. S. 412	14 29 15	3·68	126 16	15·9	vF, S, R, N, wisp at 45°	31 42	126 27
4465	F. 1119	14 29 18	2·84	73 49	15·9	vF, vS, lE 180°	31 12	74 0
4466	F. 1120	14 30 14	2·80	71 3	15·9	F, vS, lE	32 6	71 14
4467	F. 1121	14 30 20	2·79	71 1	15·9	F, vS, R, lbM	32 12	71 12
4468	D. S. 413	14 30 32	3·40	111 46	15·8	F, pL, cE 160°, cbM	32 48	111 57
4469	F. 1122	14 30 50	+ 2·79	71 9	15·8	F, pL, eE 110°	32 42	71 20
4470	B. 421	14 30 53	− 1·29	10 29	15·9	Cl, eF, S, ? neb	30 1	10 40
4471	B. 321	14 31 1	+ 2·33	47 43	15·8	No description	32 34	47 54
4472	F. 1124	14 31 2	3·86	133 44	15·8	L, eE 180°, bet 2 st ns, doubtful	33 36	133 55
4473	F. 1123	14 31 19	2·83	73 32	15·8	vS, com, 170°	33 12	73 43
4474	J. 1328	14 32 3	+ 2·70	65 57·8	+15·7	F, vS, R, N	33 51	66 8·3

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		h m s	s	° ′	″		m s	° ′
4475	J. 1329	14 32 4	+ 2·71	66 3·3	+15″·7	F, vS, N, stell	33 52	66 13·8
4476	Burnham	14 32 8	3·30	105 38·1	15·7	Neb, * 7 nf 5′	34 20	105 48·6
4477	J. 1330	14 32 30	2·61	60 56·2	15·7	F, vS, dif, * 12 p 2ˢ, 15″ n	34 14	61 6·7
4478	F. 1125	14 32 37	2·83	73 32	15·7	bM, magn 15	34 30	73 42
4479	J. 1331	14 32 40	2·61	60 53·3	15·7	F, cS, N, dif	34 24	61 3·8
4480	F. 1126	14 33 14	2·79	70 55	15·7	F, S, R, dif, * in M	35 6	71 5
4481	F. 1127	14 33 31	2·83	73 16	15·7	eF, vS, R, dif	35 24	73 26
4482	F. 1128	14 33 39	2·78	70 28	15·7	F, S, R	35 30	70 38
4483	F. 1129	14 33 44	2·81	72 44	15·7	E 200°, lbM	35 36	72 54
4484	D. S. 414	14 33 56	5·79	162 43	15·6	eF, eE 140°, susp	37 48	162 53
4485	J. 1332	14 34 27	2·61	60 44·1	15·6	F, S, dif	36 11	60 54·5
4486	F. 1130	14 35 21	2·78	70 50	15·6	vF, vS, R, dif	37 12	71 0
4487	F. 1131	14 35 33	2·78	70 47	15·6	F, eS, R, lbM	37 24	70 57
4488	F. 1132	14 36 21	2·78	70 48	15·5	vF, eS, R, lbM	38 12	70 58
4489	F. 1133	14 36 45	2·78	70 53	15·5	vF, eS, R, lbM	38 36	71 3
4490	Innes	14 36 45	3·69	125 34·7	15·4	Oval, around 2 st 9·5 and 10	39 13	125 45·0
4491	D. S. 415	14 36 49	3·27	103 8	15·4	F, S, eE 0°	39 0	103 18
4492	J. 1333	14 36 59	2·41	51 59·5	15·4	F, vS, R, N, stell	38 35	52 9·8
4493	B. 422	14 37 38	2·88	77 17	15·4	eF, S, R, dif, rM	39 33	77 27
4494	F. 1134	14 37 55	2·83	73 53	15·4	vF, vS, R, dif	39 48	74 3
4495	J. 1334	14 37 58	2·69	65 50·6	15·4	vF, vS, R	39 46	66 0·9
4496	J. 1335	14 38 9	2·50	56 0·7	15·4	F, S, R, N	39 49	56 11·0
4497	J. 1336	14 38 17	2·60	60 51·2	15·4	F, S, R, N, r, * 12·5 f 5ˢ	40 1	61 1·5
4498	J. 1337	14 38 51	2·64	63 6·4	15·3	F, S, R, gbM	40 37	63 16·6
4499	D. S. 418	14 38 58±	9·05	171 39 ±	15·2	Cl, vF, 4′ diam ; 3 F st in neb ?	45 0±	171 49 ±
4500	J. 1338	14 39 0	2·40	51 56·2	15·3	F, S, R, gbM	40 36	52 6·4
4501	D. S. 416	14 39 25	3·42	111 48	15·3	vF, S, indistinct	41 42	111 58
4502	J. 1339	14 39 39	2·40	52 6·8	15·3	F, S, dif, r, * 14 v nr	41 15	52 17·0
4503	F. 1135	14 40 8	2·81	73 17	15·3	F, vS, R	42 0	73 27
4504	J. 1340	14 40 43	2·53	57 42·3	15·3	F, S, R, N, r	42 24	57 52·5
4505	J. 1341	14 40 45	2·49	56 0·3	15·3	F, S, R, N	42 25	56 10·5
4506	J. 1342	14 40 52	2·49	56 0·8	15·3	vF, vS, N	42 32	56 11·0
4507	F. 1336	14 41 15	2·77	70 58	15·2	vF, eS, R	43 6	71 8
4508	J. 1343	14 41 57	2·52	57 38·5	15·2	F, S, R, sbM * 14	43 38	57 48·6
4509	J. 1344	14 42 33	2·52	57 37·0	15·2	F, cS, iF, r	44 14	57 47·1
4510	D. S. 417	14 42 44	3·39	110 9	15·2	vF, vS, iR, susp	45 0	110 19
4511	F. 1137	14 43 10	3·80	129 55	15·1	cS, R, lbM, dif	45 42	130 5
4512	J. 1345	14 43 49	2·60	61 43·1	15·1	vF, S, R	45 33	61 53·2
4513	D. S. 419	14 44 20	3·40	110 9	15·1	F, S, vE 80°	46 36	110 19
4514	Sw. XI., J. 1346	14 44 51	2·60	61 48·5	15·0	F, S, R, N, * 13 vnr	46 35	61 58·5
4515	J. 1347	14 45 34	2·38	51 48·9	15·0	F, S, R, gbM, r	47 9	51 58·9
4516	Sw. XI.	14 47 23	3·35	73 2·6	14·9	vF, pS, R	49 37	73 12·5
4517	J. 1348	14 48 22	2·67	65 46·6	14·8	F, S, N, dif	50 9	65 56·5
4518	F. 1138	14 48 30	3·90	132 34	14·8	eS, R, Also one p L, eE 100°	51 6	132 44
4519	J. 1349	14 49 13	2·37	52 0·3	14·8	F, S, dif, * 14 sp	50 48	52 10·2
4520	J. 1350	14 49 22	2·46	55 42·5	14·8	F, vS, R, N, r	51 0	55 52·4
4521	J. 1351	14 53 21	2·62	63 52·3	14·5	F, cS, Epf, gbM	55 6	64 2·0
4522	D. S. 420	14 55 45	6·67	165 18	14·3	vF, vS, cbM, st inv	0 12	165 28
4523	F. 1139	14 55 52	3·94	132 58	14·4	bM, magn 14	58 30	133 8
4524	J. 1352	14 55 58	+ 2·62	63 50·9	+14·4	F, S, iF, gbM, r	57 43	64 0·5

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		h m s	s	° ′	″		m s	° ′
4525	J. 1353	14 56 16	+ 2·62	63 48·7	+14·4	vF, cS, dif	58 1	63 58·3
4526	J. 1354	14 56 26	2·66	66 5·1	14·4	vF, vS, N	58 12	66 14·7
4527	F. 1140	14 56 29	3·92	131 54	14·3	cS, E 225°, bM	59 6	132 4
4528	B. 423	14 56 56	1·97	40 21	14·3	eF, pS, dif, r	58 15	40 30
4529	F. 1141	14 57 4	3·94	132 41	14·3	bM, magn 14	59 42	132 51
4530	J. 1355	14 57 41	2·60	63 21·9	14·2	F, S, dif, * 13·5 nf	59 25	63 31·4
4531	J. 1356	14 58 15	2·66	66 3·5	14·2	F, vS, R, N	0 1	66 13·0
4532	J. 1357	14 58 19	2·66	66 14·4	14·2	vF, N, stellar	0 5	66 23·9
4533	J. 1358	14 58 31	2·57	61 39·8	14·2	F, S, iF, * 10·5 f	0 14	61 49·3
4534	J. 1359	15 1 59	2·64	65 45·4	14·0	pB, S, Ens, N	3 45	65 54·7
4535	J. 1360	15 3 17	2·32	51 53·6	13·9	F, S, dif, * 14 sp	4 50	52 2·9
4536	Barnard	15 5 28	3·38	107 36·3	13·8	vF, L, R, F * att np, F * nr sf	7 43	107 45·5
4537	Barnard	15 10 22	3·03	87 26·2	13·5	eF, vS, R, bM	12 23	87 35·2
4538	Sw. XI.	15 12 50	3·50	113 10·9	13·3	eeF, vL	15 10	113 19·8
4539	J. 1361	15 12 53	2·43	57 6·8	13·3	F, S, R, vlbM	14 30	57 15·7
4540	Sw. XI.	15 12 58	3·03	87 42·2	13·3	vF, pS, mE, B * nr	14 59	87 51·1
4541	D. S. 421	15 16 17	5·87	160 5	13·0	eF, vS, mE 150°, susp	20 12	160 14
4542	J. 1362	15 16 30	2·40	56 19·7	13·1	F, S, R, N, * 12 sp	18 6	56 28·4
4543	Sw. XI.	15 17 59	2·82	76 1·2	12·9	eF, pS, vF * nr np	19 52	76 9·8
4544	Fleming 71	15 19 20	4·30	140 6	12·8	Planetary, stellar	22 12	140 14
4545	D. S. 422	15 19 28±	9·79	171 11±	12·7	eeF, eS, mE 145°, bet 2 vF st, susp	26 0±	171 19±
4546	J. 1363	15 21 9	2·50	60 39·8	12·8	F, vS, R, * 13 att	22 49	60 48·3
4547	J. 1364	15 21 25	2·50	60 43·5	12·7	F, S, R, N, r	23 5	60 52·0
4548	J. 1365	15 21 34	2·49	60 39·9	12·7	vF, S, iF, r	23 14	60 48·4
4549	J. 1366	15 23 39	2·39	56 42·0	12·6	F, cS, Epf	25 15	56 50·4
4550	Sw. XI.	15 24 37	4·33	140 10·6	12·5	B, pS, lE	27 30	140 18·9
4551	Sw. XII.	15 27 ...	2·95	83 30·8	12·3	eeF, L, R, v dif	29 ...	83 39·0
4552	Sw. XI.	15 28 1	2·98	84 49·8	12·3	eF, pS, R	30 0	84 58·0
4553	J. 1368	15 28 52	2·60	66 2·3	12·2	F, S, R, gbM	30 36	66 10·4
4554	J. 1369	15 29 0	2·60	66 3·8	12·2	vF, vS, N, stell	30 44	66 11·9
4555	D. S. 423	15 29 24	7·79	167 13	12·1	vF, vS, eE 55°, bM	34 36	167 21
4556	J. 1370	15 29 25	2·56	64 13·5	12·1	F, S, R, N	31 7	64 21·6
4557	J. 1371	15 29 31	2·18	49 48·6	12·1	F, vS, N	30 58	49 56·7
4558	J. 1372	15 29 49	2·56	64 10·6	12·1	vF, vS	31 31	64 18·7
4559	J. 1373	15 29 57	2·56	64 10·9	12·1	F, vS, R, N	31 39	64 19·0
4560	J. 1374	15 30 45	2·17	49 41·5	12·1	vF, vS ; 5966 sf	32 12	49 49·6
4561	J. 1375	15 30 50	2·56	64 7·5	12·1	F, vS, R, N	32 32	64 15·6
4562	Barnard (4136)	15 30 52	2·05	46 6	12·1	pB, S, R, mbM, F * or neb 1′ nf	32 14	46 14
4563	J. 1376	15 30 56	2·17	49 40·6	12·1	vF, vS, N	32 23	49 48·7
4564	Barnard (4136)	15 31 48	2·04	46 1	12·1	pF, R, gbM	33 10	46 9
4565	Barnard (4136)	15 32 0	2·05	46 8	12·0	F, R, gbM	33 22	46 16
4566	Barnard (4136)	15 32 27	2·04	46 0	12·0	pF, R, gbM	33 49	46 8
4567	Barnard (4136)	15 32 44	2·05	46 16	12·0	pF, R, gbM	34 6	46 24
4568	J. 1377	15 34 20	2·49	61 23·7	11·9	F, S, R, N	36 0	61 31·6
4569	J. 1378	15 34 59	2·48	61 15·3	11·8	pB, D * 13 in S neb	36 38	61 23·2
4570	J. 1379	15 35 35	2·48	61 19·1	11·8	F, cS, R	37 14	61 27·0
4571	D. S. 424	15 35 39	5·63	156 52	11·7	cF, eS, mE 155°	39 24	157 0
4572	J. 1380	15 36 7	2·48	61 24·9	11·7	pB, cS, gbM, dif, r	37 46	61 32·7
4573	J. 1381	15 36 8	2·59	65 45·8	11·7	F, vS, dif, r	37 52	65 53·6
4574	J. 1382	15 36 12	+ 2·48	61 18·4	+11·7	pF, S, R	37 51	61 26·2

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		h m s	s	° ′	″		m s	° ′
4575	J. 1383	15 36 15	+ 2·59	65 45·3	+ 11·7	F, S, dif, r, * 15 att	37 59	65 53·1
4576	J. 1384	15 36 31	2·59	65 52·1	11·7	F, vS, R, N, * 14 up	38 15	65 59·9
4577	J. 1385	15 36 41	2·59	65 46·3	11·7	F, S, R, gbM, r	38 25	65 54·1
4578	D. S. 425	15 36 44	7·01	164 23	11·6	eF, eS, cE 140°, bet 2 vF st	41 24	164 31
4579	J. 1386	15 36 47	2·59	65 47·5	11·7	F, S, R, gbM, r	38 31	65 55·3
4580	J. 1387	15 37 28	2·47	61 10·9	11·6	F, S, R	39 7	61 18·6
4581	J. 1388	15 38 15	2·47	61 15·7	11·6	F, S, iF, * 12·5 nr	39 54	61 23·4
4582	J. 1389	15 39 49	2·48	61 29·0	11·5	F, S, Epf, gbM, * 12·5 f 6s·5	41 28	61 36·7
4583	J. 1390	15 40 23	2·58	65 45·7	11·4	F, vS, E, N, r	42 6	65 53·3
4584	D. S. 426	15 46 52	5·60	155 58	10·9	eF, S, iF	50 36	156 5
4585	D. S. 427	15 46 58	5·60	155 55	10·9	eF, S, iF	50 42	156 2
4586	Sw. XII.	15 48 ...	2 94	83 33·7	10·9	eF, S, R, bet * 8 f & curve of st p	50 ...	83 41·0
4587	Barnard	15 54 0	2·51	63 39·6	10·4	eF, eS, T Coronæ sp	55 40	63 46·5
4588	J. 1391	15 59 7	2·55	65 42·2	10·0	vF, vS, R, stell, 5051 p	0 49	65 48·9
4589	B. 323	15 59 57	3·19	96 0	10·0	* 13, in eF neb ?	2 5	96 7
4590	J. 1392	16 2 41	2·43	61 8·6	9·8	F, S, gbM, dif	4 18	61 15·1
4591	Barnard (3301)	16 3 41	3·68	117 34	9·7	* 5·6 in F neb	6 8	117 40
4592	Barnard (3301)	16 3 52	3·49	109 6	9·6	vL, E, ν^2 Scorpii inv	6 11	109 12
4593	Fleming 108	16 5 7	2·82	77 34	9·6	Planetary, stellar	7 0	77 40
4594	J. 1393	16 5 23	2·55	65 58·3	9·5	F, S, R, N, r	7 5	66 4·6
4595	D. S. 429	16 6 6	6·30	159 48	9·4	F, S, eE 55°	10 18	159 54
4596	D. S. 428	16 7 44	3·56	112 16	9·3	F, S, mE 40°, mbMN, prob. spir	10 6	112 22
4597	F. 1142	16 8 43	3·87	124 1	9·3	bM, mag 14	11 18	124 7
4598	F. 1143	16 9 22	3·79	121 6	9·2	Neb streak of F st, 1′ ns	11 54	121 12
4599	F. 1144	16 9 38	4·14	131 55	9·2	Planetary, 15 mag	12 24	132 1
4600	D. S. 430	16 9 56	3·56	112 26	9·2	eF, eS, R	12 18	112 32
4601	Barnard, D. S. 431	16 12 28	3·50	109 44	9·0	2 st 8 in eL, dif neb, lE np sf	14 48	109 50
4602	Sw. XI.	16 16 53	2·79	76 55·0	8·6	eeF, lE, e diffic, F * f	18 45	77 0·7
4603	Barnard (3301)	16 16 53	3·61	114 7	8·6	eF, vL, dif, st inv	19 17	114 13
46 4	Barnard (3301)	16 17 12	3·59	113 7·2	8·6	ρ Ophiuchi in e L neb	19 36	113 12·9
4605	Barnard (3301)	16 21 29	3·64	114 50·5	8·3	* 7 in eF, vL neb	23 55	114 56·0
4606	Finlay	16 23 ...	3·66	115 45	8·2	Neb ; F * p 4s·5, 0′·5 n	25 ...	115 50
4607	J. 1394	16 24 25	2·51	65 7·9	8·1	F, eS, dif	26 5	65 13·3
4608	D. S. 432	16 26 37	8·53	167 13	7·7	vF, vS, cE 85°, bM	32 18	167 18
4609	J. 1395	16 27 3	2·55	66 54·6	7·9	F, vS, R, gbMN	28 45	66 59·9
4610	J. 1396	16 28 50	2·05	50 26·6	7·7	F, eS, R, gbM	30 12	50 31·7
4611	J. 1397	16 28 53	2·05	50 22·1	7·7	F, vS, iF	30 15	50 27·2
4612	J. 1398	16 29 0	2·05	50 26·3	7·7	F, eS, R, gbM	30 22	50 31·4
4613	B. 425	16 32 13	2·16	53 38	7·4	eF, dif [? = 6196]	33 39	53 43
4614	B. 324	16 32 48	2·16	53 37	7·4	eF, stellar	34 14	53 42
4615	B. 325	16 32 51	2·16	53 38	7·4	* 13 in S neb	34 17	53 43
4616	B. 426	16 32 58	2·16	53 44	7·4	eF, S, dif, r ; * 12 sf 2′	34 24	53 49
4617	Barnard	16 36 19	2·13	53 2·8	7·1	S, E 29°, bM	37 44	53 7·5
4618	D. S. 433	16 37 47	8·43	166 44	6·8	!! eF, eS, 2 branch spiral	43 24	166 49
4619	F. 1145	16 38 2	2·66	71 59	6·9	F, R	39 48	72 4
4620	F. 1146	16 42 21	2·63	71 28	6·6	vF, R	44 6	70 32
4621	Kobold	16 44 7	2·87	80 57·6	6·4	vF, vS	46 2	81 1·9
4622	D. S. 434	16 44 7	3·43	106 0	6·4	cF, S, iF, D	46 24	106 4
4623	J. 1399	16 45 8	2·54	67 14·0	6·4	F, S, R, gbM	46 50	64 18·3
4624	F. 1147	16 45 19	+ 2·67	72 20	+ 6·3	vF, R	47 6	72 24

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		h m s	s	° ′	″		m s	° ′
4625	Barnard	16 45 54	+ 3·02	87 19·5	+ 6·3	Neb ; * 10 close nf [? = 6240]	47 55	87 23·7
4626	B. 427	16 46 18	3·02	87 27	6·3	eF	48 19	87 31
4627	Barnard	16 46 34	3·24	97 24·1	6·2	eF, eS, dif, * 12 s 12″	48 44	97 28·2
4628	Barnard, F. 1148	16 46 44	4·15	130 14	6·2	F, eL, Epf, dif	49 30	130 18
4629	D. S. 435	16 48 6±	3·45	106 29	6·1	vF, vS, eE 75°, susp	50 24±	106 33
4630	J. 1400	16 49 29	2·43	63 6·8	6·0	F, S, R, stell N	51 6	63 10·8
4631	D. S. 436	16 50 13	8·82	167 24	5·8	eF, eeS, ann ?, susp	56 6	167 28
4632	B. 326	16 52 36	2·53	66 52	5·8	eF, ? neb	54 17	66 56
4633	D. S. 437	16 52 55	8·82	167 19	5·6	vF, cL, cbM, ? spir	58 48	167 23
4634	Fleming 72	16 53 13	3·58	111 36	5·5	Planetary, stellar	55 36	111 40
4635	D. S. 438	16 54 49	8·83	167 16	5·4	vF, eS, cbM	0 42	167 20
4636	B. 327	16 55 6	1·68	42 36	5·5	vF, fainter than 6279	56 13	42 40
4637	Fleming 95	16 55 19	4·18	130 40	5·4	Planetary, stellar	58 6	130 44
4638	Burnham	16 56 4	2·22	56 14	5·5	No descr, * 9 sf 2′·5	57 33	56 18
4639	J. 1401	16 57 1	2·52	66 53·5	5·4	vF, vS, R	58 42	66 57·1
4640	D. S. 439	17 0 0	10·36	169 54	4·9	vF, eS, cbM	6 54	169 57
4641	D. S. 440	17 0 3	10·42	169 59	4·9	eF, vS, bM	7 0	170 2
4642	Fleming 96	17 0 12	4 96	145 13	5·0	Planetary, stellar	3 30	145 16
4643	Palisa	17 4 8	1·88	47 28·9	4·8	F, * 12 inv	5 23	47 32·1
4644	D. S. 441	17 6 57	7·57	163 47	4·4	eF, vS, m E 135°	12 0	163 50
4645	Barnard	17 10 27	1·84	46 45	4·3	eF, pS, * 13·5 f 80″	11 41	46 48
4646	F. 1149	17 11 33	5·33	149 52	4·0	F, pL, spir	15 6	149 55
4647	D. S. 443	17 11 40	10·56	170 2	3·9	bM	18 42	170 5
4648	B. 428	17 11 59	1·72	43 59	4·1	Cl, vS, neb, vFD * inv	13 8	44 2
4649	B. 429	17 13 28	1·03	32 28	4·0	eF, pS, v dif, * 12·5 f 0′·5	14 9	32 31
4650	B. 430	17 13 28	1·02	32 31	4·0	eF, st and neb	14 9	32 34
4651	Bailey	17 13 49	4·63	139 47	3·9	Cl, p C	16 54	139 50
4652	F. 1150	17 14 10	5·31	149 35	3·8	F, planetary, 15 magn	17 42	149 38
4653	D. S. 442	17 14 11	5·42	150 46	3·8	eeF, eS, bM, eF, * v nr, susp	17 48	150 49
4654	D. S. 444	17 19 8	7·75	164 16	3·3	eF, eS, R, vmbM	24 18	164 18
4655	D. S. 445	17 21 54	5·41	150 37	3·2	eF, eS, m E 170°	25 30	150 39
4656	D. S. 446	17 24 16	5·74	153 38	2·9	eeF, vS, eE 90°, cbM	28 6	153 40
4657	Barnard	17 24 34	3·49	107 25·1	3·0	vF, * 11 np 2′	26 54	107 27·1
4658	F. 1151	17 24 45	5·32	149 29	3·0	F, planetary, 15 magn	27 18	149 31
4659	Barnard	17 26 2	+ 3·50	107 49 6	2·9	pF, S, * 8 f 21^{s}, 3′ n	28 22	107 51·5
4660	Roberts	17 26 40	− 2·23	14 1·0	3·0	pL, Ens, * 9·2 sp 30″	25 11	14 3·0
4661	D. S. 447	17 32 58	+ 7·70	163 58	2·1	eF, vS, R, cbM	38 6	163 59
4662	Innes, D. S.	17 33 20	5·86	154 36·5	2·1	F, pS, 1E	37 14	154 37·9
4663	Fleming 97	17 35 10	4·39	134 51	2·1	Planetary, stell	38 6	134 52
4664	D. S. 448	17 35 36	5·71	153 12	2·0	eF, vS, cE, cbM	39 24	153 13
4665	Bailey	17 39 26	2·94	84 14	1·7	Cl, co	41 24	84 15
4666	B. 431	17 43 28	1·11	34 10	1·4	eF *, slightly nebs	44 12	34 11
4667	B. 432	17 43 45	1·10	34 4	1·4	2 stell neb susp	44 29	34 5
4668	B. 433	17 44 39	0·99	32 33	1·2	eF, * 3′ n	45 19	32 34
4669	B. 328	17 45 46	0·61	28 30	1·1	eF, S, ? eF st inv	46 10	28 31
4670	Lunt	17 46 43	3·61	111 46·3	1·1	stellar, 12·5 magn	49 7	111 47·0
4671	D. S. 449	17 47 24	3·31	100 15	1 0	Spiral ? (edge of plate)	49 36	100 16
4672	D. S. 450	17 49 7	5·67	152 49	0·8	eeF, eS, vE 45°, cbM	52 54	152 50
4673	Barnard (3315)	17 54 34	3·76	117 6·9	0·4	Planetary, 13 mag, * 13 nf 33″	57 4	117 7·2
4674	D. S. 451	17 55 3	+ 5·62	152 25	+ 0·3	eF, vS, eE 80°, cbM stell N	58 48	152 25

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		h m s	s	° ′	″		m s	° ′
4675	B. 329	17 55 31	+ 3·29	99 15	+ 0·3	Doubtful, not seen a second time	57 43	99 15
4676	Barnard	17 56 17	+ 2·79	78 10·9	0·1	eF, vS	58 9	78 11·0
4677	Barnard	17 58 19	− 0·02	23 21·6	+ 0·1	vF, S; IV. 37 f 16^{s}·5	58 18	23 21·7
4678	Barnard (4239)	17 59 25	+ 3·67	113 53	0·0	B, S, E.	1 52	113 53
4679	D. S. 452	17 59 31	5·07	146 17	− 0·1	cF, S, R, vmbM; susp	2 54	146 17
4680	D. S. 453	17 59 41	5·87	154 30	0·1	eF, vS, eE 85°, cbM	3 36	154 30
4681	Barnard (4239)	17 59 46	3·65	113 25	0·1	S neb or neb *	2 12	113 25
4682	D. S. 454	17 59 52	7·09	161 37	0·2	vF, cS, cE 140°, stell N	4 36	161 37
4683	Wolf (3848)	18 0 ...	3·73	116 15	0·1	vF, eeL	2 ...	116 15
4684	Barnard (4239)	18 0 35	3·65	113 26	0·1	S neb or neb *	3 1	113 26
4685	Barnard (4239)	18 0 44	3·67	114 0·3	0·1	* 7·5 in L, dif neb	3 11	114 0·2
4686	F. 1152	18 1 32	5·19	147 46	0·3	bM, magn 14	5 0	147 46
4687	F. 1153	18 1 32	5·19	147 45	0·3	bM, magn 14	5 0	147 45
4688	Barnard	18 1 34	2·80	78 18·8	0·3	vF, pS, dif, * 12 close f	3 26	78 18·6
4689	F. 1154	18 1 38	5·19	147 47	0·3	bM, magn 14	5 6	147 47
4690	Barnard (4239)	18 2 10	3·55	109 50·5	0·3	* 9·5 in neb, E sp nf	4 32	109 50·3
4691	Barnard	18 2 14	2·79	78 12	0·3	F, S, iF, 1 or 2 F st inv	4 6	78 12
4692	D. S. 455	18 2 29	5·28	148 43	0·4	F, S, iF, susp	6 0	148 43
4693	B. 330	18 2 59	2·65	72 41	0·3	eF, S, bM, sev eF st inv	4 45	72 41
4694	D. S. 456	18 3 13	5·23	148 14	0·4	F, S, eE 20°, lbM	6 42	148 14
4695	D. S. 457	18 5 4	5·29	148 57	0·6	eF, vS, R, bM, sev st nr; susp	8 36	148 57
4696	D. S. 458	18 6 28	5·91	154 48	0·8	neb, susp	10 24	154 47
4697	J. 1402	18 6 46	2·44	64 36·5	0·7	F, S, iF, r	8 24	64 36·0
4698	D. S. 459	18 7 40	5·74	153 25	0·8	eF, vS, eE 45°, stell N	11 30	153 24
4699	Fleming 98	18 8 8	4·46	136 3	0·9	Planetary, stellar	11 6	136 2
4700	Barnard (4239)	18 8 48	3·55	109 55·0	0·8	* 9·4 in dense neb	11 10	109 54·5
4701	Barnard (4239)	18 9 ...	3·48	106 45	0·8	eL, conn with cloud I.C. 4715	11 ...	106 45
4702	D. S. 460	18 10 39	5·32	149 18	1·1	eF, eS, * in disc, ring susp	14 12	149 17
4703	Roberts	18 11 ...	3·40	103 50	1·1	B, eL, Cl M. 16 inv	13 ...	103 49
4704	D. S. 462	18 11 16	7·10	161 40	1·2	cB, bM	16 0	161 39
4705	D. S. 463	18 11 27	7·12	161 45	1·2	eF, eS, R	16 12	161 44
4706	Barnard (4239)	18 11 35	3·46	106 4·1	1·2	* 9·2 in S neb } connected	13 53	106 3·3
4707	Barnard (4239)	18 12 5	3·46	106 4·2	1·2	* 9·4 in S neb } with M. 17	14 23	106 3·4
4708	Ho. III.	18 12 15	0·66	28 53·1	1·1	eF, eS, v diffic, 6617 nr	12 41	28 52·4
4709	D. S. 461	18 12 31	5·07	146 16	1·2	eF, vS, vE 0°, stell N; susp	15 54	146 15
4710	D. S. 465	18 14 9	6·22	157 3	1·4	vF, vS, R, bM	18 18	157 2
4711	D. S. 464	18 14 15	5·93	155 1	1·4	eF, eS, eE 125°, stell N	18 12	155 0
4712	D. S. 466	18 14 28	7·11	161 46	1·5	vF, vS, R, bM	19 12	161 45
4713	D. S. 467	18 15 20	6·25	157 18	1·5	vF	19 30	157 17
4714	D. S. 468	18 16 29	6·17	156 44	1·6	vF	20 36	156 43
4715	Barnard (4239)	18 18 ...	3·52	108 30±	1·7	eeL cloud of st and neb	20 ...	108 29±
4716	D. S. 469	18 20 47	5·12	147 3	2·0	eeF, eS, lE 90°, susp	24 12	147 2
4717	D. S. 470	18 21 8	5·20	148 3	2·0	F, S, eE 95°, stell N	24 36	148 2
4718	D. S. 473	18 21 12	5·40	150 12	2·0	cB, S, E 125°, B stell N	24 48	150 11
4719	D. S. 471	18 21 18	5·11	146 49	2·0	eF, vS, 2 patches, susp	24 42	146 48
4720	D. S. 472	18 21 18	5·24	148 29	2·0	cF, S, eE 165°, cbM	24 48	148 28
4721	D. S. 474	18 22 12	5·25	148 35	2·1	F, cL, E 150°	25 42	148 34
4722	D. S. 475	18 22 26	5·19	147 52	2·1	F, vS, 2 branch spir	25 54	147 51
4723	D. S. 476	18 22 28	5·74	153 28	2·1	vF, vS, R	26 18	153 27
4724	D. S. 477	18 22 54	+ 6·74	160 13	− 2·2	eF, eS, cE 170°	27 24	160 12

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		h m s	s	° ′	″		m s	° ′
4725	M. 25, Bailey	18 23 26	+ 3·54	109 20	− 2·2	Cl, pC	25 48	109 19
4726	D. S. 478	18 23 43	5·67	152 57	2·2	eF, vS, R, eF ∗ 0′·5 nf	27 30	152 56
4727	D. S. 479	18 24 38	5·66	152 48	2·3	vF, eS, R	28 24	152 47
4728	D. S. 480	18 24 45	5·63	152 38	2·3	eF, S, cE 170°, stell N	28 30	152 37
4729	D. S. 483	18 25 19	6·27	157 32	2·3	vF, S, R, stell N	29 30	157 30
4730	D. S. 482	18 25 23	5·73	153 28	2·3	eeF, eS, eE 0°, ∗ 9 s 2′	29 12	153 26
4731	D. S. 481	18 25 25	5·67	153 3	2·3	vF, vS, eE 88°, stell N	29 12	153 1
4732	Fleming 99	18 25 29	3·63	112 45	2·3	Planetary, stellar	27 54	112 43
4733	B. 331	18 26 0	0·22	25 7	2·3	vF, stellar	26 9	25 5
4734	D. S. 484	18 26 22	5·15	147 36	2·4	vF, vS, lE 130°	29 48	147 34
4735	D. S. 486	18 26 31	5·67	153 4	2·5	eF, vS, bM	30 18	153 2
4736	D. S. 485	18 26 32	5·19	148 0	2·5	eF, eS, R	30 0	147 58
4737	D. S. 487	18 26 44	5·64	152 43	2 5	eF, vS, cE 10°, bet 2 F st	30 30	152 41
4738	D. S. 488	18 27 24	5·56	152 1	2·6	eeF, eS, eF ∗ sf 0′·5	31 6	151 59
4739	D. S. 489	18 27 48	5·56	152 1	2·6	eeF, eS, eF ∗ inv	31 30	151 59
4740	D. S. 494	18 28 7	6·43	158 29	2·6	eeF, vS, R, lbM, 2 eF st nr	32 24	158 27
4741	D. S. 490	18 28 8	5·79	154 4	2·6	cF, vS, lE 20°, stell N, 4 F st inv	32 0	154 2
4742	D. S. 492	18 28 20	5·79	153 59	2·6	cF, vS, R, bM, F ∗ inv	32 12	153 57
4743	D. S. 491	18 28 24	5·54	151 53	2·6	vF, bM	32 6	151 51
4744	D. S. 493	18 28 30	5·71	153 21	2·6	eeF, eS, R, eF ∗ inv	32 18	153 19
4745	D. S. 495	18 28 46	5·91	155 4	2·7	eF, vS, vF ∗ p 0′·4	32 42	155 2
4746	D. S. 499	18 28 48	7·35	162 48	2·7	eF, eS	33 42	162 46
4747	D. S. 500	18 28 54	7·34	162 45	2·7	vF, eS, cE 75°	33 48	162 43
4748	D. S. 496	18 29 8	5·81	154 12	2·7	eF, vS, R, F ∗ sf 1′	33 0	154 10
4749	D. S. 497	18 29 36	5·71	153 20	2·7	eeF, eS, 3 F st nr	33 24	153 18
4750	D. S. 498	18 29 49	5·68	153 5	2·8	eeF, eS, R, ∗ 11 np 0′ 5	33 36	153 3
4751	D. S. 501	18 30 11	5·58	152 14	2·8	vF, vS, R, bM	33 54	152 12
4752	D. S. 502	18 30 14	5·81	154 13	2·8	eF, vS, R, vF ∗ sf 1′	34 6	154 11
4753	D. S. 503	18 30 29	5·58	152 14	2·8	vF, vS, R, bM	34 12	152 12
4754	D. S. 504	18 30 53	5·57	152 7	2 8	eF, pS, R, stell N, ? ring	34 36	152 5
4755	D. S. 505	18 31 34	5·76	153 49	2·9	vF, vS, eE 90°, stell N	35 24	153 47
4756	Bailey	18 32 2	2·95	84 40	2·9	Cl, C	34 0	84 38
4757	D. S. 506	18 32 5	5·13	147 18	2·9	eF, eS, cE 50°	35 30	147 16
4758	D. S. 509	18 32 23	6·02	155 53	3·0	vF, S, R	36 24	155 51
4759	D. S. 507	18 32 25	5·68	153 13	2·9	eF, eS, R	36 12	153 11
4760	D. S. 508	18 32 31	5·67	153 5	2·9	eF, vS, R, F ∗ np 1′	36 18	153 3
4761	F. 1155	18 32 41	+ 4·82	142 59	3·0	vF, bM, doubtful	35 54	142 57
4762	B. 332	18 32 53	− 0·17	22 16	2·9	vF, eS Cl or ∗ with neb	32 46	22 14
4763	B. 333	18 33 36	− 0·05	22 59	2·9	vF, ? neb ∗; 6677 nr	33 34	22 57
4764	D. S. 510	18 33 41	+ 5·73	153 37	3·1	eeF, eS, bM	37 30	153 35
4765	D. S. 511	18 33 54	5·71	153 28	3·1	vF, S, R, bM	37 42	153 26
4766	D. S. 512	18 34 12	5·71	153 25	3·1	eF, eS, bM	38 0	153 23
4767	D. S. 513	18 34 17	5·72	153 33	3·1	eF, eS, m E 25°, cbM	38 6	153 31
4768	B. 334	18 34 22	3·20	95 39	3·1	Cl, D, st sc	36 30	95 37
4769	D. S. 514	18 34 24	5·69	153 17	3·2	eF, vS, m E 170°, cbM	38 12	153 15
4770	D. S. 515	18 34 47	5·72	153 31	3·2	eeF, eS, bM	38 36	153 29
4771	D. S. 516	18 35 0	5·70	153 23	3·2	eF, eS, R, bM	38 48	153 21
4772	Ho. II.	18 35 22	1·96	50 6·0	3·1	eF, eS; 6685 f 2ˢ, 2′·7 s	36 40	50 3·9
4773	D. S. 519	18 35 44	6·70	160 4	3·3	eF, dif	40 12	160 2
4774	D. S. 517	18 36 8	+ 5·19	148 4	− 3·3	eF, S, iF, mbM	39 36	148 2

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		h m s	s	° ′	″		m s	° ′
4775	D. S. 518	18 36 35	+ 5·12	147 19	− 3·3	eF, eS, m E 15°, susp	40 0	147 17
4776	Fleming 77	18 36 40	3·94	123 29	3·3	Planetary, stellar	39 18	123 27
4777	F. 1156	18 36 52	4·84	143 17	3·4	vF, planet., lE	40 6	143 15
4778	D. S. 520	18 37 7	5·53	151 51	3·4	eF, vS, eE 35°	40 48	151 49
4779	D. S. 521	18 37 19	5·67	153 9	3·4	eeF, eS, eF * p 0′·3	41 6	153 7
4780	D. S. 522	18 37 40	5·30	149 23	3·5	eF, vS, lE 120°	41 12	149 21
4781	D. S. 523	18 38 32	5·64	152 56	3·5	3 eeF st in neb	42 18	152 54
4782	D. S. 524	18 39 16	4·99	145 38	3·6	eeF, eS, susp	42 36	155 36
4783	D. S. 525	18 39 18	5·26	148 57	3·6	eF, vS	42 48	148 55
4784	D. S. 526	18 39 36	5·71	153 34	3·6	eF, S, R, bM	43 24	153 32
4785	D. S. 527	18 40 40	5·30	149 24	3·7	eF, vS, iF, stell N	44 12	149 22
4786	D. S. 528	18 40 55	5·08	146 51	3·7	eeF, eS, m E 0°	44 18	146 49
4787	D. S. 530	18 41 5	6·47	158 51	3·8	eF, dif	45 24	158 48
4788	D. S. 529	18 41 23	5·72	153 36	3·7	eeF, eS, eE 35°	45 12	153 34
4789	D. S. 531	18 41 24	6·46	158 44	3·8	eF, eS, R	45 42	158 41
4790	D. S. 532	18 42 52	5·89	155 6	3·9	eB, S, R, bM	46 48	155 3
4791	Burnham	18 42 55	2·62	70 49·5	3·8	Neb ; * 6 f 2′	44 40	70 47·0
4792	D. S. 533	18 43 56	5·06	146 35	3·9	eeF, eS, m E 160°, bet 2 st, susp	47 18	146 32
4793	D. S. 534	18 44 9	5·48	151 33	4·0	eF, vS, eE 130°	47 48	151 30
4794	D. S. 535	18 44 12	5·56	152 15	4·0	F, S, R, bM	47 54	152 12
4795	D. S. 536	18 44 26	5·51	151 46	4·0	eeF, eS, eE 40°	48 6	151 43
4796	F. 1157	18 44 56	4·90	144 23	4·1	14 magn, bM } near edge of plate	48 12	144 20
4797	F. 1158	18 45 2	4·90	144 28	4·1	14 magn, bM }	48 18	144 25
4798	D. S. 537	18 45 24	5·56	152 17	4·1	F, S, R, bM	49 6	152 14
4799	D. S. 539	18 45 28	5·76	154 6	4·1	vF, S, R, stell N, ring, 2 wisps	49 18	154 3
4800	D. S. 538	18 45 31	5·67	153 19	4·1	vF, S, stell N, oval ring, 2 wisps	49 18	153 16
4801	D. S. 540	18 45 54	5·85	154 51	4·2	eF, S, R, bM	49 48	154 48
4802	B. 434	18 46 40	3·62	112 52	4·2	Neb * 13, 15″ nf III 143	49 5	112 49
4803	D. S. 541	18 47 42	5·55	152 15	4·3	eeF, eS, R	51 24	152 12
4804	D. S. 542	18 48 13	5·53	152 0	4·3	eeF, eS, cE	51 54	151 57
4805	D. S. 543	18 48 50	5·66	153 14	4·4	eF, vS, eE 25°, bM	52 36	153 11
4806	D. S. 544	18 49 29	5·13	147 43	4·4	eeF, eS, eE 10°, 2 st v nr, susp	52 54	147 40
4807	D. S. 546	18 50 25	5·08	147 7	4·5	vF, vS, lE, planetary ?, susp	53 48	147 4
4808	D. S. 545	18 50 46	4·40	135 30	4·5	vF, cL, cE 45°, lbM, susp	53 42	135 27
4809	D. S. 549	18 51 6	5·55	152 22	4·6	eF, vS, lE 20°	54 48	152 19
4810	D. S. 548	18 51 15	5·03	146 21	4·6	eF, S, eE 140°, lbM, susp	54 36	146 18
4811	D. S. 550	18 51 29	6·18	157 19	4·6	eeF, eS, R, alm stell	55 36	157 16
4812	D. S. 547	18 51 37	4·06	127 15·0	4·6	* 7 inv in eL neb	54 19	127 12·0
4813	D. S. 551	18 51 38	6·09	156 43	4·7	vF, S, R	55 42	156 40
4814	D. S. 552	18 52 49	5·23	148 56	4·7	eeF, eS, cE 100°, susp	56 18	148 53
4815	D. S. 553	18 53 56	5·49	151 53	4·8	eF, vS, R, bM	57 36	151 50
4816	Fleming 81	18 53 57	3·38	103 21	4·8	Planetary, stellar	56 12	103 18
4817	D. S. 555	18 54 27	5·02	146 21	4·9	eF, vS, eE 0°	57 48	146 18
4818	D. S. 554	18 54 30	4·94	145 18	4·9	eF, eS, eE 90°	57 48	145 15
4819	D. S. 556	18 54 47	5·28	149 40	4·9	vF, S, eE 130°	58 18	149 37
4820	D. S. 557	18 56 1	5·68	153 40	5·0	eeF, eS	59 48	153 37
4821	D. S. 558	18 58 1	4·93	145 13	5·1	vF, vS, eE 10°	1 18	145 10
4822	D. S. 560	18 58 12	7·19	162 39	5·2	F, S, R	3 0	162 36
4823	D. S. 559	18 58 52	5·74	154 13	5·3	vF, vS	2 42	154 9
4824	D. S. 562	19 0 19	+ 5·52	152 19	− 5·4	eF, eS, D neb	4 0	152 15

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		h m s	s	° ′	″		m s	° ′
4825	D. S. 567	19 0 28	+ 7·26	162 59	− 5·4	eF, eS, R	5 18	162 55
4826	D. S. 561	19 0 31	5·08	147 26	5·4	eF, eeS, R	3 54	147 22
4827	D. S. 564	19 0 42	5·39	151 5	5·4	F, cS, eE 170°, stell N	4 18	151 1
4828	D. S. 565	19 0 49	5·52	152 18	5·4	vF, vS, cE 60°	4 30	152 14
4829	D. S. 563	19 0 50	5·04	146 46	5·4	eeF, eS, mE 20°	4 12	146 42
4830	D. S. 566	19 1 36	5·25	149 31	5·5	eF, eS, R, lbM	5 6	149 27
4831	D. S. 568	19 1 49	5·53	152 30	5·5	! cF, vS, eE 150°, 2 br spir	5 30	152 26
4832	D. S. 569	19 2 20	5·04	146 51	5·5	vF, vS, eE 145°, stell N	5 42	146 47
4833	D. S. 570	19 2 42	5·54	152 34	5·6	eeF, eS, R, bM	6 24	152 30
4834	D. S. 572	19 3 11	5·73	154 15	5·6	eF, vS, lE 140°	7 0	154 11
4835	D. S. 571	19 3 22	5·16	148 28	5·6	eF, eS, cE 0°	6 48	148 24
4836	D. S. 574	19 3 45	5·33	150 26	5·7	F, cL, iF, 2 st inv	7 18	150 22
4837	D. S. 573	19 3 56	4·89	144 54	5·7	F, cS, R, bM	7 12	144 50
4838	D. S. 577	19 4 4	5·46	151 51	5·7	cF, S, eE 45°	7 42	151 47
4839	D. S. 575	19 4 8	4·89	144 52	5·7	F, neb *	7 24	144 48
4840	D. S. 576	19 4 10	5·00	146 27	5·7	cF, vS	7 30	146 23
4841	D. S. 578	19 4 22	7·10	162 28	5·7	eF, S, R, cbM	9 6	162 24
4842	D. S. 579	19 6 56	5·36	150 53	5·9	cF, vS, R	10 30	150 49
4843	D. S. 580	19 7 6	5·24	149 33	5·9	eF, eS, cE 90°	10 36	149 29
4844	D. S 581	19 7 23	4·98	146 16	6·0	vF, vS	10 42	146 12
4845	D. S. 582	19 7 57	5·33	150 38	6·0	cF, bM, * 11 sp 0′.4	11 30	150 34
4846	Fleming 100	19 8 49	3·28	99 18	6·0	Planetary, stellar	11 0	99 14
4847	D. S. 583	19 9 47	5·88	155 46	6·2	vF, eS, R, * 8·9 sf 4′	13 42	155 42
4848	D. S. 584	19 11 9	5·03	147 2	6·3	eF, eS, R	14 30	146 58
4849	D. S. 585	19 12 29	5·57	153 10	6·4	vF, vS	16 12	153 6
4850	Fleming 82	19 13 15	3·08	90 23	6·4	Planetary, stellar	15 18	90 19
4851	D. S. 586	19 13 42	5·09	147 55	6·5	cF, vS, eE 15°, vmbM, susp	17 6	147 51
4852	D. S. 587	19 14 3	5·32	150 36	6·5	cF, bM	17 36	150 32
4853	D. S. 591	19 15 10	6·80	161 21	6·6	eeF, eS, lE 170°	19 42	161 17
4854	D. S. 588	19 15 14	5·21	149 34	6·6	vF, cS, R	18 42	149 30
4855	D. S. 589	19 15 20	5·21	149 34	6·6	eF, vS, R, susp	18 48	149 30
4856	D. S. 590	19 16 9	4·88	145 10	6·7	eF, eS, D neb, susp	19 24	145 6
4857	D. S. 592	19 16 33	5·17	149 2	6·7	vF, cS, R	20 0	148 58
4858	D. S. 593	19 16 39	5·17	149 1	6·7	eeF, eS, prob spir; susp	20 6	148 57
4859	D. S. 595	19 16 55	5·97	156 36	6·8	eF, S, cbM, alm stell N	20 54	156 31
4860	D. S. 596	19 17 14	6·11	157 39	6·8	eF, S, R	21 18	157 34
4861	D. S. 594	19 17 25	5·07	147 51	6·8	vF, eS, cE 25°, susp	20 48	147 46
4862	D. S. 597	19 17 26	6·11	157 37	6·8	eF, S, cbM, lE 0°	21 30	157 32
4863	Sw. XI., Ho.	19 19 0	4·00	126 28·7	6·9	close D *, nebulous? (Ho. says not)	21 40	126 24·1
4864	D. S. 599	19 19 53	8·87	167 52	7·1	cF, vS, eE 70°, vF * sp 1′	25 48	167 47
4865	Innes	19 20 36	4·42	136 59	7·0	F, perh stell N; * 9·5 att sf	23 33	136 54
4866	D. S. 598	19 22 8	5·35	151 27	7·2	cF, S, R, bM	25 42	151 22
4867	Burnham	19 22 45	1·59	40 9	7·2	S; 2 st 7 nf 3′ [? = I.C. 1301]	23 49	40 4
4868	Innes	19 23 23	4·37	136 11·2	7·2	eS, lE, magn 9·4	26 18	136 6·4
4869	D. S. 601	19 23 44	5·36	151 30	7·3	F, S, R, bM, F * sp 1′	27 18	151 25
4870	D. S. 603	19 23 53	5·87	156 7	7·3	vF, S, F * inv	27 48	156 2
4871	D. S. 600	19 23 56	5·04	147 49	7·3	vF, S, eE 15°	27 18	147 44
4872	D. S. 602	19 24 2	5·04	147 49	7·3	vF, S, eE 5°	27 24	147 44
4873	F. 1159	19 24 41	4·38	136 26	7·4	F, S, R, F * M	27 36	136 21
4874	F. 1160	19 26 3	+ 4 43	137 34	− 7·5	F, S, R, F * M	29 0	137 29

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
4875	F. 1161	19 26 41	+ 4·68	142 22	− 7·5	F, S, R, lbM	29 48	142 17
4876	F. 1162	19 26 45	4·72	143 9	7·6	F, S, R, lbM	29 54	143 4
4877	F. 1163	19 26 59	4·67	142 17	7·6	F, S, R, lbM	30 6	142 12
4878	D. S. 604	19 27 0	5·09	148 31	7·6	eF, eS, mE 40°	30 24	148 26
4879	F. 1164	19 28 46	4·69	142 41	7·7	F, S, R, lbM	31 54	142 36
4880	D. S. 607	19 29 0	4·95	146 43	7·7	eF, vS, R	32 18	146 38
4881	D. S. 606	19 29 2	4·91	146 10	7·7	eF, vS, R	32 18	146 5
4882	D. S. 605	19 29 4	4·86	145 30	7·7	eF, eS, R	32 18	145 25
4883	D. S. 608	19 30 39	4·88	145 51	7·9	vF, vS, mE 170°	33 54	145 46
4884	D. S. 609	19 30 55	5·07	148 26	7·9	eF, eS, cE 170°	34 18	148 21
4885	D. S. 610	19 31 59	5·27	150 58	8·0	vF, eS, eE 85,° stell N	35 30	150 53
4886	F. 1165	19 32 30	4·64	142 7	8·0	F, S, R, mbM	35 36	142 2
4887	D. S. 613	19 33 32	6·41	159 55	8·1	cB, S, R, bM	37 48	159 50
4888	F. 1166	19 33 42	4·80	144 47	8·1	F, vS, R, lbM	36 54	144 42
4889	F. 1167	19 34 0	4·80	144 41	8·1	bM, magn 10	37 12	144 36
4890	D. S. 612	19 34 0	4·95	146 51	8·1	eeF, eS, R, F * s 1′	37 18	146 46
4891	D. S. 611	19 34 7	4·78	144 31	8·1	cB, S, R, bM	37 18	144 26
4892	D. S. 614	19 34 22	6·51	160 34	8·2	eF, S, eE 10°	38 42	160 29
4893	D. S. 615	19 34 26	7·01	162 51	8·2	eF, vS, R, bM	39 6	162 46
4894	F. 1168	19 36 12	4·64	142 11	8·3	bM, magn 15	39 18	142 5
4895	Wolf (4207)	19 37 6	3·40	105 9·4	8·3	Group of neb, 25′ diam	39 22	105 3·9
4896	D. S. 616	19 37 11	5·13	149 19	8·4	eeF, eS, R, bet 2 eF st	40 36	149 13
4897	F. 1169	19 38 37	4·63	142 12	8·5	bM, magn 16	41 42	142 6
4898	Sw. XII.	19 38 45	3·87	123 39·7	8·5	eeF, eS, e dif, sev F st nr	41 20	123 34·0
4899	D. S. 617	19 39 14	6·55	160 57	8·6	eeF, eS, vF * sp 1′	43 36	160 51
4900	F. 1170	19 39 38	4·60	141 41	8·6	bM, magn 15	42 42	141 35
4901	D. S. 618	19 42 37	5·07	149 4	8·8	cF, S, vlE 135°	46 0	148 58
4902	D. S. 619	19 43 2	4·89	146 44	8·8	eeF, eS, cE 0° ; susp	46 18	146 38
4903	D. S. 621	19 43 10	6·50	160 49	8·9	eF, vS, bet 2 F st	47 30	160 43
4904	D. S. 622	19 43 36	6·45	160 33	8·9	vF, S, R	47 54	160 27
4905	D. S. 620	19 43 53	5·27	151 35	8·9	eeF, eS, mE 130°, nr 2 eF st	47 24	151 29
4906	D. S. 623	19 44 44	5·20	150 49	8·9	F, S, R, bM, 4 st around	48 12	150 43
4907	F. 1171	19 45 24	4·64	142 49	9·0	bM, magn 16	48 30	142 43
4908	D. S. 624	19 45 41	4·83	146 9	9·0	eF, eS, R, susp	48 54	146 3
4909	F. 1172	19 46 24	4·51	140 24	9·1	bM, magn 15	49 24	140 18
4910	D. S. 625	19 46 26	4·90	147 14	9·1	eF, eS, cE 130°, am st ; susp	49 42	147 8
4911	F. 1173	19 47 2	4·61	142 20	9·1	bM, magn 16	50 6	142 14
4912	D. S. 628	19 47 14	8·50	167 44	9·3	eF, vS, F * np 1′ ; susp	52 54	167 38
4913	Sw. XI., Ho	19 47 30	3·99	127 41·7	9·1	eeF, pS, e diffic, 3 st 10 s 8′	50 10	127 35·6
4914	F. 1174	19 47 36	4·51	140 29	9·2	F, vS, R	50 36	140 23
4915	F. 1175	19 47 42	4·65	143 1	9·2	bM, magn 15	50 48	142 55
4916	F. 1176	19 48 0	4·51	140 38	9·2	F, S, R, F * M	51 0	140 32
4917	F. 1177	19 48 7	4·63	142 39	9·2	bM, magn 16	51 12	142 33
4918	F. 1178	19 48 31	4·62	142 39	9·3	bM, magn 16	51 36	142 33
4919	D. S. 626	19 48 54	4·81	145 45	9·3	eeF, eS, R, * f 1′ ; susp	52 6	145 39
4920	F. 1179	19 49 16	4·69	143 45	9·3	vF, vlE, lbM	52 24	143 39
4921	D. S. 630	19 49 23	6·03	158 13	9·4	vF, S, R, cbM	53 24	158 7
4922	D. S. 627	19 49 58	4·09	130 44	9·4	vF, vS, R ; susp	52 42	130 38
4923	F. 1180	19 50 12	4·64	143 0	9·4	bM, magn 14	53 18	142 54
4924	D. S. 629	19 50 15	+ 4·13	131 55	− 9·4	dif (? defect)	53 0	131 49

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		h m s	s	° ′	″		m s	° ′
4925	F. 1181	19 50 24	+ 4·65	143 14	− 9·4	F, S, vm E 170°	53 30	143 8
4926	Sw. XI., Ho.	19 50 51	4·02	128 57·2	9·4	eeF, S, lE, v diffic, p of 2	53 32	128 50·9
4927	F. 1182	19 50 52	4·71	144 18	9·5	F, S, E 170	54 0	144 12
4928	D. S. 635	19 50 53	8·43	167 41	9·5	eF, vS, eE 25°, eF ∗ n 1′; susp	56 30	167 35
4929	D. S. 633	19 51 8	6·69	162 4	9·5	F, S, cE 15°	55 36	161 58
4930	D. S. 631	19 51 27	4·73	144 41	9·5	cB, S, m E 45°, susp	54 36	144 35
4931	Sw. XI., Ho.	19 51 29	4·02	128 57·1	9·5	eeF, pS, R, ∗ 8 f 20^s, f of 2	54 10	128 50·8
4932	F. 1183	19 51 30	4·65	143 13	9·5	bM, magn 15	54 36	143 7
4933	D. S. 632	19 52 19	4·77	145 21	9·5	eF, eS, 2 branch spir	55 30	145 15
4934	D. S. 636	19 52 44	6·26	159 51	9·6	vF, vS, c E 15°, lbM; susp	56 54	159 45
4935	D. S. 634	19 53 7	4·93	147 58	9·6	vF, vS, m E 5°, ∗ 1′ sp; susp	56 24	147 52
4936	D. S. 637	19 53 42	5·25	151 49	9·7	eF, vS, eE 20°, 2 F st np	57 12	151 43
4937	D. S. 638	19 54 4	4·85	146 38	9·7	eF, vS, eE 0°, N; susp	57 18	146 32
4938	D. S. 639	19 54 16	5·14	150 35	9·7	! vF, pS, annul, stell N, vF ∗ sf	57 42	150 29
4939	D. S. 640	19 55 9	5·18	151 8	9·8	eeF, eS, cE 150°, F ∗ s 2′	58 36	151 1
4940	D. S. 641	19 55 52	4·24	135 6	9·8	F, S, E 100°	58 42	134 59
4941	F. 1185	19 55 59	4·67	144 3	9·8	F, S, R, lbM, v dif	59 6	143 56
4942	F. 1184	19 56 1	4·62	143 1	9·8	F, vS, R	59 6	142 54
4943	Sw. XI.	19 56 4	4·40	138 48·9	9·8	eeF, pS, R, F ∗ n, v diffic	59 0	138 42·4
4944	F. 1186	19 56 9	4·72	144 51	9·9	bM, magn 14	59 18	144 44
4945	D. S. 643	19 56 10	6·51	161 25	9·9	F, S, E 5°, cbM	0 30	161 18
4946	Sw. XII.	19 56 12	4·21	134 25·9	9·9	eF, S, R	59 0	134 19·3
4947	F. 1187	19 56 36	4·64	143 33	9·9	bM, magn 15	59 42	143 26
4948	Sw. XII., D. S.	19 56 42	4·19	134 1	9·9	vF, pS, R, 2 st f, ∗ np	59 30	133 54
4949	Sw. XI.	19 57 4	4·39	138 42·4	9·9	B, vS, cE	0 0	138 35·8
4950	D. S. 642	19 57 11	4·82	146 34	9·9	eF, vS, eE 35°, lbM	0 24	146 27
4951	D. S. 645	19 57 11	5·27	152 16	9·9	vF, vS, eE 170°, vmbM	0 42	152 9
4952	D. S. 644	19 57 31	4·78	145 51	10·0	F, vS, cE 10°	0 42	145 44
4953	D. S. 646	19 57 38	5·35	153 12	10·0	eF, eS, cE 60°, bet 2 eF st	1 12	153 5
4954	Barnard	19 59 6	2·43	61 8·7	10·0	D neb ∗, iF, ∗ 11 close	0 43	61 2·0
4955	Barnard	19 59 12	2·43	61 12·3	10·0	Fine neb ∗ 12	0 49	61 5·6
4956	Sw. XI.	19 59 25	4·27	136 2·5	10·1	vF, pS, R	2 16	135 55·8
4957	F. 1188	19 59 36	4·79	146 6	10·1	bM, mag 14	2 48	145 59
4958	D. S. 649	19 59 44	6·85	163 7	10·1	eF, bM	4 18	163 0
4959	D. S. 647	20 0 13	4·63	143 30	10·1	Hazy star	3 18	143 23
4960	D. S. 651	20 0 32	6·39	160 57	10·2	eF, cS, bM	4 48	160 50
4961	F. 1189	20 0 37	4·63	143 33	10·2	F, pS, mE 90°, dif	3 42	143 26
4962	D. S. 652	20 1 1	6·43	161 25	10·2	F, S, eE 160°, vmbM	5 18	161 18
4963	D. S. 648	20 1 2	4·75	145 39	10·2	vF, vS, R	4 12	145 32
4964	D. S. 654	20 1 2	7·14	164 18	10·3	F, S cbM	5 48	164 11
4965	F. 1190	20 1 4	4·86	147 15	10·2	bM, magn 15	4 18	147 8
4966	D. S. 650	20 1 30	4·65	144 1	10·3	F, vS, E 40°	4 36	143 54
4967	D. S. 655	20 1 38	6·39	160 59	10·3	vF, bM	5 54	160 52
4968	D. S. 653	20 1 48	5·55	155 12	10·3	vF, S, B ∗ sf 3′	5 30	155 5
4969	F. 1191	20 1 59	4·67	144 20	10·3	F, vS, R	5 6	144 13
4970	D. S. 657	20 2 8	6·41	161 11	10·4	bM, nr 6872	6 24	161 4
4971	D. S. 658	20 2 14	6·39	161 3	10·4	eF, vS	6 30	160 56
4972	D. S. 661	20 2 48	6·44	161 20	10·4	cF, vS, eE 15°	7 6	161 13
4973	D. S. 656	20 3 6	4·95	148 47	10·4	eeF, vS, R	6 24	148 40
4974	D. S. 659	20 3 12	+ 5·24	152 17	− 10·4	eF, eS, R, bM, ∗ sp 1′	6 42	152 10

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		h m s	s	° ′	″		m s	° ′
4975	F. 1192	20 3 20	+ 4·59	143 9	− 10·4	bM, magn 15	6 24	143 2
4976	D. S. 660	20 3 24	5·24	152 18	10·4	eF, cS, R, bM, * 3′ np	6 54	152 11
4977	B. 435	20 3 40	3·53	112 3	10·4	Stellar, close to * 13	6 1	111 56
4978	F. 1193	20 3 40	4·69	144 51	10·4	bM, magn 15	6 48	144 44
4979	F. 1194	20 3 49	4·63	143 54	10·4	vF, S, R, dif	6 54	143 47
4980	D. S. 662	20 4 7	4·92	148 19	10·4	vF, S, lE 130°, * 2′ s	7 24	148 12
4981	D. S. 663	20 4 56	6·41	161 16	10·5	eF, eS, * nr	9 12	161 9
4982	D. S. 665	20 5 31	6·43	161 26	10·6	vF, bM	9 48	161 19
4983	F. 1195	20 5 34	4·55	142 30	10·6	vF, cS, R, lbM, dif	8 36	142 23
4984	F. 1196	20 5 39	4·58	143 8	10·6	vF, S, R, dif, 6887 f	8 42	143 1
4985	D. S. 666	20 5 55	6·43	161 25	10·6	vF, bM	10 12	161 18
4986	D. S. 664	20 6 16	4·70	145 27	10·6	eeF, S, cE 0°, bet 2 F st	9 24	145 20
4987	F. 1197	20 6 46	4·56	142 43	10·7	F, vS, R, lbM	9 48	142 36
4988	D. S. 667	20 7 37	6·13	159 49	10·7	Hazy patch, st ? ; susp	11 42	159 42
4989	F. 1198	20 8 0	4·95	148 59	10·8	cS, mE 175°, spir, F * M	11 18	148 52
4990	D. S. 668	20 8 10	5·76	157 20	10·8	eF, eS, cE 15°, bM, susp	12 0	157 13
4991	Sw. XI.	20 8 15	4·09	132 0·6	10·8	vF, cS, R	10 59	131 53·4
4992	D. S. 670	20 8 27	6·53	162 0	10·8	vF, S, eE 65°, * 9 nf 2′	12 48	161 53
4993	D. S. 669	20 8 39	5·77	157 26	10·8	eF, vS, R, bM, susp	12 30	157 19
4994	F. 1199	20 9 2	4·61	143 53	10·8	bM, magn 15	12 6	143 46
4995	F. 1200	20 9 28	4·56	143 3	10·9	bM, magn 14	12 30	142 56
4996	Bellamy	20 11 20	2·22	52 25	11·0	Cl, st 8 . . . 13 (*M.N.*, lxiv.)	12 49	52 18
4997	Fleming 78, Gruss	20 13 46	2·75	73 42	11·2	Planetary, stellar	15 36	73 35
4998	Sw. XII.	20 14 47	3·96	128 41·4	11·2	eF, pS, R, bet 2 st 8·5 sp, nf	17 25	128 33·9
4999	Barnard	20 15 16	3·62	116 27·3	11·3	vF, pL, R, am st	17 41	116 19·8
5000	B. 335	20 15 28	2·95	84 0	11·3	pS, eF st inv	17 26	83 53
5001	F. 1201	20 15 36	4·66	145 12	11·2	bM, magn 15	18 42	145 5
5002	F. 1202	20 15 48	4·66	145 14	11·3	bM, magn 13	18 54	145 7
5003	Sw. XII.	20 16 32	3·71	120 19·4	11·4	vF, cS, R, 2 st sf in line	19 0	120 11·8
5004	Sw. XI.	20 16 40	3·74	121 19·2	11·4	eF, pS, lE, 2 st s	19 10	121 11·6
5005	Barnard	20 16 44	3·62	116 16·5	11·4	pS, R, vgbM, F * close np	19 9	116 8·9
5006	Kobold	20 16 51	2·95	83 58·6	11·4	* 14 in F, vS, R neb	18 49	83 51·0
5007	Sw. XII.	20 16 57	3·71	120 9·4	11·4	eeF, cL, R	19 25	120 1·8
5008	D. S. 673	20 17 27	6·67	163 10	11·5	eF, vS, lE 90°, lbM	21 54	163 2
5009	D. S. 672	20 17 31	6·57	162 38	11·5	vF, vS, bM	21 54	162 30
5010	D. S. 671	20 18 5	5·57	156 23	11·5	vF, vS, cE 20°, mbM	21 48	156 15
5011	Sw. XI.	20 18 15	3·88	126 28·6	11·5	pB, vS, vmE	20 50	126 20·9
5012	F. 1203	20 18 32	4·76	147 12	11·5	pS, E 225°, lbM	21 42	147 4
5013	Sw. XI.	20 19 25	3·88	126 30·0	11·5	eS, vm E ns	22 0	126 22·3
5014	D. S. 674	20 19 33	6·82	163 56	11·6	F, S, bM, bet 2 F st	24 6	163 48
5015	Sw. XII.	20 19 50	3·75	122 9·6	11·6	pB, pS, R, nearly bet 2 st	22 20	122 1·9
5016	D. S. 675	20 20 14	6·70	163 23	11·7	eeF, eS, * 11 sp 1′	24 42	163 15
5017	F. 1204	20 21 0	4·81	148 3	11·7	bM, magn 14·5	24 12	147 55
5018	Sw. XII.	20 21 22	3·94	128 40·7	11·7	eF, pS, R, bet 2 st 8·5 sp, nf	24 0	128 32·9
5019	Sw. XI.	20 21 50	3·88	126 47·0	11·7	vF, cS, R	24 25	126 39·2
5020	Sw. XI.	20 21 58	3·80	123 58·7	11·7	pF, pS, lE	24 30	123 50·9
5021	F. 1205	20 22 50	4·61	144 59	11·8	vS, R disc, magn 14	25 54	144 51
5022	D. S. 676	20 23 35	7·67	166 56	11·9	eF, S, R, cbM, susp	28 42	166 48
5023	D. S. 677	20 25 2	5·66	157 40	12·0	F, S, cE 130°	28 48	157 32
5024	D. S. 678	20 25 43	+ 6·27	161 35	− 12·1	eF, S, mE 15°	29 54	161 27

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		h m s	s	° ′	″		m s	° ′
5025	D. S. 679	20 27 0	+ 7·81	167 28	− 12·2	vF, vS, cE 125°, bM, susp	32 12	167 20
5026	D. S. 681	20 29 30	8·24	168 34	12·4	eF, vS, mE 70°, lbM, susp	35 0	168 26
5027	F. 1206	20 30 25	4·63	145 58	12·3	R, magn 15	33 30	145 50
5028	D. S. 680	20 30 47	5·43	156 8	12·3	vF, dif, * 10 s 2′, susp	34 24	156 0
5029	Sw. XII.	20 31 43	3·68	120 19·9	12·4	eeF, eS, mE, F * sf, np of 2	34 10	120 11·6
5030	Sw. XII.	20 32 3	3·68	120 20·9	12·4	eeF, vS, mE, v dif, sf of 2	34 30	120 12·6
5031	D. S. 682	20 32 14	5·65	158 2	12·5	eF, eS, R, susp	36 0	157 54
5032	D. S. 683	20 32 20	5·65	158 2	12·5	eF, eS, R, susp	36 6	157 54
5033	F. 1208	20 32 51	4·73	147 49	12·5	vS, R, lbM, magn 15	36 0	147 41
5034	F. 1207	20 32 52	4·71	147 31	12·5	bM, magn 14·5	36 0	147 23
5035	F. 1209	20 33 21	4·72	147 38	12·5	vS, R, lbM, magn 15	36 30	147 30
5036	F. 1210	20 33 44	4·74	148 7	12·6	F, pS, mE 125°	36 54	147 59
5037	F. 1211	20 34 30	4·79	148 56	12·6	F, pS, mE 170°	37 42	148 48
5038	D. S. 684	20 34 32	5·35	155 31	12·6	vF, vS, R, alm stell	38 6	155 23
5039	Sw. XI., Ho.	20 34 41	3·68	120 21·1	12·6	eeF, pS, vmE, sp of 2	37 8	120 12·7
5040	D. S. 686	20 34 56	7·60	167 11	12·7	cB, S, R, susp	40 0	167 3
5041	Sw. XI., Ho.	20 35 1	3·68	120 12·2	12·6	eeF, pS, mE, v diffic, nf of 2	37 28	120 3·8
5042	D. S. 685	20 35 26	5·34	155 35	12·7	vF, vS, R, alm stell	39 0	155 27
5043	F. 1212	20 35 52	4·69	147 29	12·7	F, S, E 210°	39 0	147 21
5044	D. S. 687	20 36 4	6·34	162 28	12·8	eF, eS, R	40 18	162 19
5045	D. S. 688	20 36 10	6·34	162 29	12·8	eF, eS, R	40 24	162 20
5046	Sw. XI.	20 36 12	3·68	120 25·0	12·7	eF, pS, mE, 2 vF st sf, sp of 2	38 39	120 16·5
5047	Sw. XI.	20 36 18	3·68	120 15·0	12·7	eeF, pS, mE, v diffic, nf of 2	38 45	120 6·5
5048	D. S. 689	20 37 13	6·28	162 19	12·8	eF, vS	41 24	162 10
5049	Sw. XI.	20 37 49	3·90	128 59·2	12·9	eeF, pS, R	40 25	128 50·6
5050	J. 1403	20 37 51	3·18	96 8·1	12·9	F, eS, dif, vS E N	39 58	95 59·5
5051	D. S. 690	20 37 55	6·27	162 18	12·9	eF, vS	42 6	162 9
5052	D. S. 692	20 38 43	5·83	159 44	12·9	F, L, eE 140°, 4′ l	42 36	159 35
5053	D. S. 694	20 39 25	6·12	161 40	13·0	eF, vS, bM, * 11 n 2′	43 30	161 31
5054	D. S. 695	20 39 32	6·10	161 33	13·0	eF, vS, bet 2 F st	43 36	161 24
5055	D. S. 693	20 39 42	5·71	158 58	13·0	vF, bM, susp	43 30	158 49
5056	D. S. 691	20 39 53	3·92	129 42	12·9	F, cL, eE 150°	42 30	129 33
5057	B. 436	20 40 4	3·07	90 12	13·0	eF, neb * or eS neb	42 7	90 3
5058	B. 438	20 40 12	3·07	90 2	13·0	eF, distinct from 6963	42 15	89 53
5059	F. 1213	20 40 22	4·71	148 12	13·0	vF, S, R, dif	43 30	148 3
5060	D. S. 696	20 40 22	6·20	162 9	13·1	eF, eS, bet 2 F st	44 30	162 0
5061	B. 439	20 40 28	3·07	90 11	13·0	eF, vS Cl, ? neb	42 31	90 2
5062	B. 336	20 40 38	3·23	98 53	13·0	* 13·5 with eF st & neb, * 13 p 1′	42 47	98 44
5063	F. 1214	20 41 5	4·67	147 35	13·1	bM, magn 13	44 12	147 26
5064	F. 1215	20 41 41	4·67	147 45	13·1	bM, magn 14	44 48	147 36
5065	Sw. XII.	20 41 44	3·66	120 20·5	13·1	vF, pS, R	44 10	120 11·8
5066	D. S. 697	20 42 10	6·49	163 41	13·2	vF, vS, bM	46 30	163 32
5067	Espin	20 42 56	2·10	46 9	13·2	F	44 20	46 0
5068	Espin	20 44 52	2·17	47 59	13·2	vF	46 19	47 50
5069	D. S. 698	20 45 47	6·18	162 20	13·4	eF, S, R	49 54	162 11
5070	Espin	20 46 0	2·11	46 9	13·3	F, dif	47 24	46 0
5071	D. S. 699	20 46 47	6·32	163 11	13·5	cB, S, eE 20°, stell N	51 0	163 2
5072	D. S. 700	20 47 20	6·39	163 31	13·5	eF, eS, R	51 36	163 22
5073	D. S. 701	20 48 54	6·31	163 14	13·6	eF, S, R	53 6	163 5
5074	F. 1216	20 49 14	+ 5·04	153 40	− 13·6	R, planet., magn 14	52 36	153 31

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		h m s	s	° ′	″		m s	° ′
5075	D. S. 702	20 50 25	+ 6·13	162 24	− 13·6	vF, S, cbM	54 30	162 15
5076	Roberts	20 51 11	2·02	43 7·0	13·7	vF, vL, lEns, st inv	52 32	42 57·9
5077	D. S. 704	20 54 12	6·45	164 12	13·9	eF, eS, * 10 np 2′	58 30	164 3
5078	D. S. 703	20 54 45	3·37	107 22	13·9	eE, nr 2nd * of 3 ; susp	57 0	107 13
5079	Innes	20 55 ...	4·57	146 48	13·9	F, S, E, ? vS Cl or ring neb	58 ...	146 39
5080	J. 1404	20 56 9	2·75	71 19·5	14·0	F, vS, R, stell N	57 59	71 10·2
5081	J. 1405	20 56 37	2·75	71 20·9	14·0	vF, vS, R, stell N	58 27	71 11·6
5082	B. 440	20 57 0	3·29	102 54	14·1	eF, S	59 12	102 45
5083	Sw XI., Ho.	20 57 8	2·88	78 47·4	14·1	eeF, vS, v diffic ; * 8 f 13^{s}	59 3	78 38·0
5084	D. S. 705	20 57 34	5·00	153 51	14·1	F, pS, eE 155°, cbM	0 54	153 42
5085	D. S. 706	20 58 34	6·49	164 40	14·2	vF, vS, R	2 54	164 31
5086	Sw. XI.	20 59 6	3·63	120 36·0	14·2	eeF, pS, R, F * f	1 31	120 26·5
5087	D. S. 707	20 59 44	6·40	164 21	14·3	vF, vS, * 11 np 3′	4 0	164 11
5088	Ho. I.	21 1 21	3·48	113 26·6	14·3	eF, vS, diffic	3 40	113 17·1
5089	Barnard	21 3 38	3·14	94 25·1	14·4	eF, vS, bM, F * 30″ sp	5 44	94 15·5
5090	H. C. Wilson	21 4 16	3·11	92 36·2	14·5	vF, S, R, sbM	6 20	92 26·5
5091	D. S. 708	21 4 28	5·76	161 14	14·6	eF, vS, R	8 18	161 4
5092	F. 1217	21 4 32	5·04	155 3	14·6	pL, E, mbM	7 54	154 53
5093	D. S. 710	21 5 34	5·74	161 13	14·7	eeF, vS, R, susp	9 24	161 3
5094	D. S. 709	21 5 56	5·21	157 1	14·7	vF, vS, R, * np 0′·5	9 24	156 51
5095	F. 1218	21 6 29	4·67	150 31	14·7	pL, E	9 36	150 21
5096	D. S. 711	21 6 54	4·96	154 20	14·7	F, pL, eE 145°, stell N	10 12	154 10
5097	B. 441	21 7 57	3·01	86 7	14·7	eF, stell, 3′ sf 7045	9 57	85 57
5098	B. 442	21 7 59	3·01	86 5	14·7	eF, 2′·5 sff 7045	9 59	85 55
5099	D. S. 712	21 8 40	5·76	161 35	14·8	vF, S, lE 10°	12 30	161 25
5100	D. S. 713	21 9 59	5·13	156 32	14·9	F, S, cE 110°	13 24	156 22
5101	D. S. 714	21 10 12	5·11	156 26	14·9	cF, S, * in neb	13 36	156 16
5102	D. S. 715	21 12 19	6·13	163 55	15·1	eF, eS, bM	16 24	163 45
5103	D. S. 716	21 15 2	6·24	164 41	15·2	eF, vS, R	19 12	164 31
5104	J. 1406	21 15 6	2·74	69 23·7	15·1	F, vS, Ens, dif, * 14 nr	16 56	69 13·6
5105	Sw. XII.	21 15 27	3·83	131 13·4	15·2	vF, vS, R, st n & s	18 0	131 3·3
5106	D. S. 717	21 15 44	5·65	161 26	15·3	F, S, R, bM	19 30	161 16
5107	D. S. 718	21 16 38	5·04	156 20	15·3	eF, vS, cE 10°	20 0	156 10
5108	D. S. 719	21 19 16	5·89	163 16	15·4	eF, vS, cbM	23 12	163 6
5109	D. S. 720	21 19 47	6·18	164 43	15·4	vF, bM	23 54	164 33
5110	F. 1219	21 20 3	4·58	150 36	15·4	vF, vlE	23 6	150 26
5111	J. 1407	21 21 6	3·04	88 7·6	15·5	F, S, iF	23 8	87 57·3
5112	B. 337	21 22 32	2·98	83 49	15·6	Cl, eF, eS	24 31	83 39
5113	B. 443	21 22 44	2·98	83 47	15·6	Cl, eF, S, ? nebs	24 43	83 37
5114	Sw. XI.	21 23 37	3·71	127 19·4	15·6	eF, pS, R, 2 st f 30^{s}	26 5	127 9·0
5115	Sw. XI.	21 23 44	2·91	78 50·1	15·6	eeF, vS, F * f	25 40	78 39·7
5116	D. S. 721	21 24 18	5·56	161 36	15·7	cF, S, R, stell N	28 0	161 26
5117	Fleming 104	21 27 11	2·27	46 1	15·8	Planetary, stellar	28 42	45 50
5118	D. S. 722	21 27 29	5·57	162 1	15·9	vF, S, cE 35°, * 10 sp 2′	31 12	161 50
5119	J. 1408	21 27 32	2·75	68 49·3	15·9	F, vS, dif, * 15 att, * 13 n	29 22	68 38·7
5120	F. 1220	21 27 41	4·82	154 59	15·9	F, alm R	30 54	154 48
5121	F. 1221	21 30 18	4·79	155 2	16·0	Planetary, stellar, 13 magn	33 30	154 51
5122	Ho. II.	21 31 50	3 41	113 2·1	16·1	eF, vS ; 7103-04, I.C. 1393 nr	34 6	112 51·4
5123	D. S. 724	21 31 55	5·67	163 4	16·1	cF, vS, cE 15°, * 12 p 1′	35 42	162 53
5124	Ho. I.	21 31 59	+ 3·41	113 3·4	− 16·1	eeF, S, diffic ; another susp 1′ s	34 15	112 52·7

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		h m s	s	° ′	″		m s	° ′
5125	D. S. 723	21 32 14	+ 4·14	143 25	− 16·1	F, eS, R, bM	35 0	143 14
5126	J. 1409	21 32 44	3·15	96 0·0	16·1	vF, vS, R, bet 2 st 14	34 50	95 49·3
5127	B. 338	21 32 47	3·00	84 24	16·1	eF, pL, sev eF st & neb	34 47	84 13
5128	Sw. XII.	21 34 1	3·72	129 37·8	16·2	eeF, vS, R, dif, st sp	36 30	129 27·0
5129	D. S. 725	21 36 42	4·80	156 2	16·3	No descr	39 54	155 51
5130	D. S. 726	21 37 12	5·86	164 39	16·4	vF, vS	41 6	164 28
5131	Sw. XI., Ho.	21 39 1	3·61	125 31·7	16·4	vF, vS, R	41 25	125 20·8
5132	Roberts	21 39 8	1·39	24 30	16·4	2 st 13 magn in	40 4	24 19
5133	Roberts	21 39 13	1·39	24 29	16·4	vF neb	40 9	24 18
5134	B. 339	21 39 44	1·39	24 32	16·4	* 9·5 in neb ; IV 75 close	40 40	24 21
5135	Sw. XI., Ho.	21 39 56	3·61	125 35·8	16·4	vF, pL, R	42 20	125 24·9
5136	Sw. XII.	21 40 30	3·62	124 18·0	16·5	eeF, S, R	42 55	124 7·0
5137	D. S. 727	21 40 37	4·78	156 14	16·5	eF, S, R, stell N, spir ? ; susp	43 48	156 3
5138	D. S. 728	21 41 49	5·08	159 36	16·6	eF, eS, R, susp	45 12	159 25
5139	Sw. XII.	21 42 29	3·53	121 37·9	16·6	vF, S, lE	44 50	121 26·8
5140	D. S. 729	21 42 56	4·91	157 59	16·6	eF, vS, mE 135°	46 12	157 48
5141	F. 1222	21 43 6	4·36	150 7	16·6	Planet., stell, 15 magn	46 0	149 56
5142	D. S. 730	21 44 28	4·69	156 10	16·7	eF, vS, R, bet 2 st, susp	47 36	155 59
5143	Sw. XI.	21 47 9	3·92	139 43·1	16·8	eeF, pS, R	49 46	139 31·9
5144	Barnard	21 47 13	2·88	75 33·5	16·8	F, S, sev F st close f	49 8	75 22·3
5145	Barnard	21 47 31	2·88	75 26·2	16·8	No descr	49 26	75 15·0
5146	Espin, Wolf	21 48 6	2·31	43 23·7	16·9	pB, vL, iF, * 9·5 in M	49 38	43 12·4
5147	D. S. 731	21 48 41	4·68	156 7	16·9	eF, eS, R, F * f 2′	51 48	155 56
5148	Sw. XII.	21 50 33	3·67	130 4·1	17·0	vF, L, lE, * att	53 0	129 52·8
5149	Sw. XII.	21 50 42	3·45	118 2·8	17·0	eF, S, R, * 6·5 f 63^{s} on par	53 0	117 51·5
5150	Gale (3426)	21 50 44	3·66	130 5·0	17 0	pB, pL, annular	53 10	129 53·7
5151	J. 1410	21 51 50	3·03	86 54·6	17·1	F, vS, R, gbMN, r	53 51	86 43·2
5152	D. S. 732	21 53 34	3·96	141 57	17·1	F, cL, cE 150°, cbM	56 12	141 46
5153	B. 341	21 53 42	2·86	72 49	17·1	eF, ? st ; * 9·5 sf 1′·4	55 36	72 38
5154	D. S. 733	21 53 47	4·67	156 47	17·1	vF, bM	56 54	156 36
5155	B. 342	21 54 58	3·07	90 10	17·2	eF, S, smbM, * 13 f 1′·5	57 1	89 59
5156	Sw. XII.	21 55 4	3·54	124 28·5	17·2	pF, pS, R	57 26	124 17·0
5157	Sw. XII., D. S.	21 55 8	3·56	125 37·5	17·2	pB, pS, R, 3 st in line nf	57 30	125 26·0
5158	D. S. 734	21 55 31	4·77	158 11	17·2	eeF, eS, bM	58 42	158 0
5159	B. 343	21 55 32	3·07	90 20	17·2	eF, vS, stell, * 11·5 nff 1′·5	57 35	90 9
5160	J. 1412	21 56 14	2·95	79 45·5	17·2	F, vS, R	58 12	79 34·0
5161	J. 1413	21 58 43	2·97	81 7·2	17·4	F, R, stell, r	0 42	80 55·6
5162	D. S. 735	21 58 57	3·97	143 24	17·4	eF, eS, vE 95°	1 36	143 12
5163	B. 444, 45	21 59 22	2·74	63 36	17·4	eF, 2 st 13 nr	1 12	63 24
5164	B. 446	21 59 34	2·74	63 38	17·4	eF, stell	1 24	63 26
5165	D. S. 736	21 59 42	4·50	155 16	17·4	eF, eS	2 42	155 4
5166	B. 447	21 59 43	2·74	63 37	17·4	eF, stell N, or v S Cl	1 33	63 25
5167	B. 344	22 0 8	3·17	98 49	17·4	vF, neb ?	2 15	98 37
5168	Sw. XI.	22 0 48	3·43	118 32·9	17·5	eeF, vS, mE, Δ 2 F st	3 5	118 21·2
5169	D. S. 737	22 1 50	3·56	126 46	17·5	eF, eS, stell N, spir or oval	4 12	126 34
5170	Lunt	22 1 58	3·80	137 51·7	17·5	No descr	4 30	137 40·0
5171	Lunt	22 2 42	3·76	136 47·7	17·5	No descr	5 12	136 36·0
5172	J. 1414	22 3 2	2·94	77 53·9	17·6	vF, vS, stell, * 14 att	5 0	77 42·2
5173	D. S. 740	22 3 41	4·83	160 3	17·6	eF, S, mE 75°	6 54	159 51
5174	D. S. 738	22 4 18	+ 3·59	128 51	− 17·6	eF, eS, cE 150°	6 42	128 39

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		h m s	s	° ′	″		m s	° ′
5175	D. S. 739	22 4 24	+ 3·59	128 49	− 17·6	eF, eS, R, bM	6 48	128 37
5176	D. S. 741	22 4 26	4·60	157 32	17·6	vF, S, eE 30°, * n	7 30	157 20
5177	J. 1415	22 4 44	2·94	78 51·8	17·6	F, S, Ens, glbM	6 42	78 40·1
5178	Ho. I.	22 4 46	3·35	113 38·8	17·6	eF, vS, 7220 p 63^s	7 0	113 27·1
5179	Sw. XII.	22 5 3	3·56	127 34·2	17 6	vF, L, R, * nr s ; B * sp	7 25	127 22·5
5180	B. 345	22 5 12	3·58	51 46	17·6	vF, S, sbM	7 35	51 34
5181	Lunt	22 5 48	3·74	136 35·8	17·7	No descr	8 18	136 24·0
5182	D. S. 742	22 5 48	4·49	156 9	17·7	eF, eS, bM	8 48	155 57
5183	Sw. XII	22 7 9	3·53	126 32·1	17·7	pB, eS, F * att sf	9 30	126 20·3
5184	Sw. XII	22 7 13	3·55	127 34·2	17·7	pF, pS, lE, bet 2 st ns	9 35	127 22·4
5185	D. S. 743	22 7 24	4·50	156 33	17·7	eF, vS, bM	10 24	156 21
5186	Sw. XII., D. S.	22 8 3	3·55	127 32·2	17·7	eeF, S, R, F * nr p	10 25	127 20·4
5187	F. 1223	22 8 44	4·15	150 19	17·8	vS, R, dise, magn 14·5	11 30	150 7
5188	D. S. 744, F.	22 8 50	4·15	150 21	17·8	F, eS, R, cbM	11 36	150 9
5189	B. 448	22 8 55	3·13	95 42	17·8	eF *, ? nebs	11 0	95 30
5190	F. 1224	22 9 20	4·15	150 35	17·8	vF, 2 br spir, * 15 in M	12 6	150 23
5191								
5192	Barnard (4136)	22 9 30±	2·62	53 25±	17·8	Group of 6 neb (sketched), incl N.G.C. 7240, 7242 and B. 449	11 15±	53 13±
5193								
5194	B. 450	22 9 33	3·25	106 39	17·8	eF (not found again)	11 43	106 27
5195	B. 449	22 9 34	2·62	53 24	17·8	eF, S, o′·5 s of 7242	11 19	53 12
5196	D. S. 745	22 9 56	4·44	156 6	17·8	eF, eeS, eE 105°, stell N	12 54	155 54
5197	F. 1225	22 10 8	4·16	150 51	17·8	bM, magn 15	12 54	150 39
5198	B. 451	22 10 10	3 25	106 22	17·8	eF, pL, R, bM, r	12 20	106 10
5199	D. S. 746	22 11 14	3·55	128 13	17·9	eF, eS, cE 160°	13 36	128 1
5200	D. S. 747	22 12 2	4·44	156 27	17·9	eeF, eS, R, F * np 1′	15 0	156 15
5201	Lunt	22 12 44	3·70	136 46·0	18·0	No descr	15 12	136 34·0
5202	D. S. 748	22 12 44	4·44	156 30	18·0	! eF, vS, stell N, spir	15 42	156 18
5203	F. 1226	22 13 4	4·11	150 29	18·0	bM, magn 15	15 48	150 17
5204	Sw. XI.	22 13 10	3·23	105 6·1	18·0	vF, vm E	15 19	104 54·1
5205	F. 1227	22 13 16	4·11	150 30	18·0	bM, magn 16	16 0	150 18
5206	D. S. 749	22 13 48	4·49	157 33	18·0	eF, vS, R, stell N	16 48	157 21
5207	F. 1228	22 13 56	4·14	151 17	18·0	bM, magn 16	16 42	151 5
5208	D. S. 751	22 14 29	4·37	155 55	18·0	eeF, eS, eE 65°, stell N	17 24	155 43
5209	D. S. 750	22 14 50	3·54	128 41	18·0	F, eS, R, 2 st np	17 12	128 29
5210	Sw. XI., Ho.	22 14 53	3·28	109 34·4	18·0	eeF, vS, R, p of 2	17 4	109 22·4
5211	Sw. XI., Ho.	22 15 5	3·28	109 35·1	18·0	eF, S, f of 2	17 16	109 23·1
5212	D. S 752	22 15 14	3·54	128 45	18·1	eF, eS, cE 40°	17 36	128 33
5213	F. 1229	22 15 27	4·12	151 11	18·1	bM, magn 16	18 12	150 59
5214	Sw. XII.	22 15 50	3·38	118 10·6	18·1	eF, pS, R, * 8 p	18 5	117 58·5
5215	D. S. 753	22 16 52	4·39	156 39	18·1	eF, vS, R, * 2′ nf ; susp	19 48	156 27
5216	J. 1416	22 17 8	3·27	108 47·7	18·1	vF, S, R, N	19 19	108 35·6
5217	Fleming 102	22 18 18	2·39	39 44	18·2	Planetary, stellar	19 54	39 32
5218	F. 1230	22 18 40	4·09	151 6	18·2	F, pS, E 195°	21 24	150 54
5219	D. S. 754	22 18 41	4·37	156 35	18·2	eF, eS, cE 15°, susp	21 36	156 23
5220	F. 1231	22 18 48	4·06	150 26	18·2	F, pS, E 105°	21 30	150 14
5221	D. S. 755	22 18 53	4·37	156 36	18·2	eF, bM, susp	21 48	156 24
5222	D. S. 756	22 19 54	4·34	156 21	18·2	! eF, pS, stell N, susp	22 48	156 9
5223	J. 1417	22 22 44	3·00	82 43·2	18·3	F, vS, dif, r	24 44	82 31·0
5224	Lunt	22 23 4	+ 3·65	136 42·2	− 18·3	No descr	25 30	136 30·0

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		h m s	s	° ′	″		m s	° ′
5225	Sw. XII.	22 23 47	+ 3·33	116 4·9	−18·4	eeF, pS, R, bet 2 st	26 0	115 52·6
5226	Sw. XII.	22 23 57	3·33	115 22·6	18·4	eeF, pL, R	26 10	115 10·3
5227	D. S. 757	22 24 22	4·24	155 24	18·4	F, S, stell N	27 12	115 12
5228	Sw. XI.	22 24 46	3·21	104 50·4	18·4	pB, pS, R, B * s	26 54	104 38·1
5229	F. 1232	22 25 24	4·06	152 6	18·4	bM, magn 15	28 6	151 54
5230	D. S. 758	22 26 12	4·06	152 15	18·5	eF, eS, cE 35°, cbM	28 54	152 3
5231	J. 1418	22 27 20	2·85	67 23·0	18·5	F, S, R, gbMN	29 14	67 10·7
5232	D. S. 759	22 27 32	4·45	159 35	18·5	eF, eeS, bM	30 30	159 23
5233	J. 1419	22 29 56	2·83	64 58·4	18·6	F, vS, dif, * 12·5 v close	31 49	64 46·0
5234	D. S. 760	22 30 29	4·22	156 32	18·6	eF, eeS, cE 165°, cbM	33 18	156 20
5235	D. S. 761	22 31 40	4·25	157 18	18·6	eeF, bM	34 30	157 6
5236	D. S. 762	22 31 46	4·25	157 20	18·6	eF, eeS, cE 60°, bM	34 36	157 8
5237	Sw. XII.	22 32 6	3·36	120 44·0	18·6	eeF, eS, eE, * 8 np	34 20	120 31·6
5238	F. 1233	22 32 21	3·97	151 29	18·6	F, vS, vlE	35 0	151 17
5239	Sw. XI.	22 32 41	3·47	128 46·2	18·6	vF, pS, R	35 0	128 33·8
5240	Finlay, Sw. XI.	22 33 38	3·56	135 31·7	18·7	pF, pL, R, F * sf	36 0	135 19·2
5241	J. 1420	22 34 30	3·06	88 5·3	18·7	pB, cS, R, gbM, r	36 32	87 52·8
5242	J. 1421	22 34 30	2·87	67 19·8	18·7	F, S, R, gbM, * 13 nf	36 25	67 7·3
5243	J. 1422	22 34 40	2·87	67 21·7	18·7	F, cS, iF, dif	36 35	67 9·2
5244	D. S. 763	22 34 53	4·08	154 45	18·7	eF, pS, eE, o°, stell N	37 36	154 33
5245	D. S. 764	22 35 33	4·13	156 4	18·7	eF, eS, R, F * np o″·5	38 18	155 52
5246	D. S. 765	22 37 10	4·09	155 38	18·8	eF, eS	39 54	155 25
5247	D. S. 766	22 37 28	4·11	156 1	18·8	vF, vS, mE 125°, mbM	40 12	155 48
5248	B. 347	22 37 31	3·08	91 5	18·8	Susp (13·5 magn)	39 34	90 52
5249	D. S. 767	22 37 47	4·08	155 34	18·8	eF, vS, eE 15', vlbM	40 30	155 21
5250	D. S. 768	22 37 52	4·09	155 49	18·8	eB, S, R, F * f o″·5	40 36	155 36
5251	B. 454	22 38 7	2·99	79 35	18·8	eF	40 7	79 22
5252	D. S. 769	22 38 20	4·30	159 39	18·8	F, S, R, cbM	41 12	159 26
5253	J. 1423	22 38 44	2·89	68 55·9	18 8	F, S, Ens, * 13·5 nr	40 40	68 43·4
5254	J. 1424	22 39 12	2·90	69 36·9	18·8	F, vS, R, r, * 14 att sf, 7375 f	41 8	69 24·4
5255	Barnard	22 39 21	2·75	54 30·5	18·8	F, S, R, gbM	41 11	54 18·0
5256	D. S. 770	22 39 58	4·26	159 26	18·9	vF, vS, eE 25°, cbM	42 48	159 13
5257	D. S. 771	22 42 44	4·15	158 10	19·0	eF, eeS, stell N	45 30	157 57
5258	J. 1425	22 44 46	2·89	67 42·9	19·0	F, vS, R, mbM, r	46 42	67 30·2
5259	Barnard	22 46 17	2·76	54 1·9	19·1	Neb ; D * 9·5 f 2′	48 7	53 49·2
5260	Sw. XII.	22 46 44	3·40	128 6·2	19·1	eeF, pS, R, * 9 sp, v diffic	49 0	127 53·5
5261	Sw. XI.	22 47 1	3·23	111 8·0	19·1	eeF, pL, R, v diffic, * 9 p 22^{s}	49 10	110 55·3
5262	Sw. XII.	22 47 26	3·35	124 34·7	19·1	eeF, pS, R, v diffic	49 40	124 22·0
5263	D. S. 772	22 48 32	4·14	159 49	19·1	eF, S, R, * in neb	51 18	159 36
5264	Sw. XI.	22 48 50	3·38	127 21·5	19·1	vF, S, vmE, sp of 2	51 5	127 8·8
5265	Sw. XI.	22 48 55	3·38	127 16·5	19·1	B, eL, R, bet 2 st pf, nf of 2 [? 7418]	51 10	127 3·8
5266	D. S. 773	22 49 10	3·95	155 52	19·1	eF, vS, eE, stell N	51 48	155 39
5267	Finlay, Sw. XI.	22 49 12	3·46	134 12·1	19·1	pB, S, R, mbM	51 30	133 59·4
5268	Barnard	22 49 42	2·78	54 8·9	19·1	B, S	51 33	53 56·2
5269	Sw. XI.	22 49 45	3·37	126 40·4	19·1	vF, pS, R, np of 2	52 0	126 27·7
5270	Sw. XI.	22 49 50	3·37	126 50·4	19·1	vF, pS, mE, sf of 2	52 5	126 37·7
5271	Sw. XII., D. S.	22 50 16	3·34	124 29·8	19·2	pF, pS, mE 145°, cbM	52 30	124 17·0
5272	D. S. 774	22 50 28	3·94	155 56	19·2	eF, vS, R	53 6	155 43
5273	Sw. XI.	22 51 25	3·38	128 30·6	19·2	vF, eL, lE, 4 st p	53 40	128 17·8
5274	J. 1428	22 51 34	+ 2·94	71 49·3	−19·2	F, cS, R, gbMN	53 32	71 36·5

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
5275	J. 1429	22 51 45	+ 2·94	71 52·7	− 19·2	pF, vS, dif	53 43	71 39·9
5276	J. 1430	22 51 46	2·94	71 55·2	19·2	F, S, E 135°, gbM, r, bet 2 F st	53 44	71 42·4
5277	D. S. 775	22 52 53	3·92	155 57	19·2	vF, S, R, alm. a ∗ ; susp	55 30	155 44
5278	Ho. I.	22 53 20	3·13	98 53	19·2	eF (not verified)	55 25	98 40
5279	D. S. 776	22 53 40	4·09	159 58	19·3	vF, vS, cE 40°, stell N	56 24	159 45
5280	D. S. 777	22 54 48	3·89	155 58	19·3	eF, vS, eE 5°, stell N, bet 2 st ; susp	57 24	155 45
5281	B. 455	22 55 38	2·89	63 43	19·3	eF, stell, ∗ 13 sff 2′·5	57 34	63 30
5282	J. 1431	22 55 56	2·93	68 52·6	19·3	F, cS, iF, vlbM	57 53	68 39·7
5283	B. 348, J. 1432	22 56 15	3·02	81 51·8	19·3	F, S, R, III 230 p 2^{s}, 1′ s	58 16	81 38·9
5284	J. 1433	22 59 49	2·96	71 38·5	19·4	F, cS, R, N	1 47	71 25·6
5285	J. 1434	23 0 9	2·93	67 49·2	19·4	F, vS, R, ∗ 9·4 s 1′·5	2 6	67 36·3
5286	D. S. 778	23 0 46	3·94	159 1	19·4	eeF, eS, mE 130°, 2 st s, susp	3 24	158 48
5287	J. 1435	23 2 10	3·07	89 59·3	19·4	F, vS, R, vlbM	4 13	89 46·4
5288	D. S. 779	23 2 42	3·90	158 51	19·5	eF, eS, alm ∗, susp	5 18	158 38
5289	Sw. XI.	23 3 19	3·28	123 18·2	19·5	S Cl, st eF, in neb	5 30	123 5·2
5290	Palisa (3520)	23 5 25	3·21	114 13·8	19·5	vF, S, stell N	7 33	114 0·8
5291	J. 1436	23 6 35	3·03	81 31·1	19·5	F, vS, R, N, stell	8 36	81 18·1
5292	B. 349	23 6 45	3·01	77 4	19·5	vF, S, slbM	8 45	76 51
5293	J. 1437	23 7 50	2 94	65 37·5	19·6	F, S, like D ∗ in neb	9 48	65 24·4
5294	Sw. XI.	23 8 15	3·35	133 21·5	19·6	pB, pS, R, ∗ 8 p	10 29	133 8·4
5295	J. 1439	23 8 34	2·94	65 38·6	19·6	F, vS, R, N	10 32	65 25·5
5296	J. 1440	23 8 48	2·94	65 40·1	19·6	F, S, R, ∗ 15 att	10 46	65 27·0
5297	J. 1441	23 9 4	2·94	65 43·9	19·6	F, S, R, N	11 2	65 30·8
5298	J. 1442	23 9 5	2·94	65 12·6	19·6	vF, vS, dif	11 3	64 59·5
5299	J. 1443	23 9 23	2·97	69 54·8	19·6	F, eS, ∗ 13 close s	11 22	69 41·7
5300	J. 1444	23 9 38	2·97	69 56·5	19·6	F, S, R, neb ∗ 15	11 37	69 43·4
5301	D. S. 780	23 9 56	3·86	160 20	19·6	eeF, eS, vF ∗ f 1′, susp	12 30	160 7
5302	D. S. 781	23 10 3	3·68	155 20	19·6	vF, vS, 2 st nr, susp	12 30	155 7
5303	B. 350	23 10 45	3·07	90 30	19·6	vF, S, sbM (? D ∗ in M)	12 48	90 17
5304	Sw. XII.	23 10 55	3·13	101 3·7	19·6	eF, S, R, 3 or 4 F st sp	13 0	100 50·6
5305	Kobold	23 10 59	3·02	80 28·1	19·6	pF, vS, 7594 nr	13 0	80 15·0
5306	Kobold	23 11 4	3·02	80 31·1	19·6	vF, S	13 5	80 18·0
5307	Kobold	23 11 15	3·02	80 31·9	19·6	vF, vS	13 16	80 18·8
5308	Sw. XI.	23 11 37	3·33	133 2·9	19·6	eeF, S, cE, f 7599	13 50	132 49·8
5309	J. 1445	23 12 5	3·04	82 46·6	19·6	F, S, fan-shaped, ∗ att s	14 7	82 33·5
5310	Ho. I.	23 13 23	3·18	112 54·9	19·7	eF, eS, alm stell, ∗ 9·5 n 5′	15 30	112 41·8
5311	B. 352	23 13 35	2·99	73 30	19·7	eF, susp, 2′·5 nnf II 250	15 35	73 17
5312	J. 1446	23 14 0	2·98	71 27·0	19·7	F, S, R, gbM, r	15 59	71 13·9
5313	Sw. XI.	23 14 5	3·32	133 16·4	19·7	eeF, pL, R, ∗ 10 sp	16 18	133 3·3
5314	J. 1447	23 14 11	2·98	71 27·5	19·7	F, S, R, gbM, r	16 10	71 14·4
5315	J. 1448	23 14 26	2·95	65 22·6	19·7	F, vS, like neb D ∗ 15	16 24	65 9·5
5316	J. 1449	23 14 58	2·97	69 33·4	19·7	vF, vS, R, N, stell	16 57	69 20·3
5317	J. 1450	23 16 32	2·98	69 35·9	19·7	F, S, R, gbMN, r	18 31	69 22·8
5318	Ho. I.	23 16 50	3·13	102 37·7	19·7	vF, vS, ∗ 9·5 p 1^{s}	18 55	102 24·6
5319	Ho. III.	23 17 47	3·01	76 46·3	19·7	eF, cS, ∗ 9·5 f, 7651 nr	19 47	76 33·2
5320	F. 1234	23 18 58	3·65	158 31	19·8	bM, magn 14	21 24	158 18
5321	Sw. XI., Ho.	23 18 59	3·15	108 43·5	19·8	eF, vS, R, ∗ 10 np 1′	21 5	108 30·3
5322	F. 1235	23 19 4	3·65	158 31	19·8	bM, magn 14	21 30	158 18
5323	D. S. 782, F.	23 19 16	3·65	158 36	19·8	F, S, bM	21 42	158 23
5324	D. S. 783, F.	23 19 52	+ 3·64	158 36	− 19·8	F, S, bM	22 18	158 23

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
5325	Sw. XI. D. S.	23 21 7	+ 3·27	132 6	− 19·8	F, S, R, gbM, * sp 1′	23 18	131 53
5326	Sw. XI., Ho.	23 22 9	3·19	119 36·2	19·8	eeF, S, mE, * 8 p	24 17	119 23·0
5327	Barnard	23 23 2	3·13	104 21·2	19·8	pF, pS, * 11 f 1′	25 7	104 8·0
5328	Sw. XI.	23 25 34	3·27	135 48·9	19·8	vF, S, R, bet 2 st	27 45	135 35·7
5329	J. 1451	23 26 10	3·00	69 32·8	19·8	vF, S, E 250°	28 10	69 19·6
5330	B. 353	23 26 17	3·09	93 38	19·8	vF, S, bM, others nr	28 21	93 25
5331	J. 1452	23 26 26	3·00	69 39·4	19·8	F, S, fan, gbM	28 26	69 26·2
5332	Sw. XI.	23 26 52	3·21	126 52·2	19·8	eeF, vL, bet 2 st, D * p 45^{s}	29 0	126 39·0
5333	D. S. 784	23 26 58	3·49	156 11	19·8	cB, S, dif, susp	29 18	155 58
5334	Ho. I.	23 27 24	3·09	95 18·5	19·9	Neb * 10·5 (? close D *)	29 28	95 5·2
5335	D. S. 785	23 27 40	3·51	158 11	19·9	F, S, susp	30 0	157 58
5336	J. 1453	23 29 19	3·01	69 41·4	19·9	F, S, Ens, vlbM	31 19	69 28·1
5337	J. 1454	23 29 24	3·01	69 38·2	19·9	F, S, R, gbMN	31 24	69 24·9
5338	J. 1455	23 29 30	3·01	69 38·6	19·9	F, S, lEns, gbMN	31 30	69 25·3
5339	F. 1236	23 30 4	3·51	159 13	19·9	bM	32 24	159 0
5340	B. 354	23 31 21	3·09	95 38	19·9	eF, * 13 n 1′·5	33 25	95 25
5341	Ho. III.	23 31 27	2·99	63 47·4	19·9	eF, eS, 7720 nr	33 27	63 34·1
5342	Ho. III.	23 31 38	2·99	63 45·9	19·9	eF, eS, others susp	33 38	63 32·6
5343	Sw. XI., Ho.	23 32 3	3·14	113 16·4	19·9	eF, pS, * 7·5 sf 19^{s}	34 9	113 3·1
5344	B. 355	23 32 4	3·09	95 45	19·9	vF, L, others nr	34 8	95 32
5345	Ho. II.	23 32 13	3·14	113 11·3	19·9	vF, vS, R, 6′ n of Sw. XI.	34 19	112 58·0
5346	J. 1456	23 34 3	3·01	65 49·5	19·9	F, cS, R, gvlbM	36 3	65 36·2
5347	J. 1457	23 34 33	3·01	65 53·4	19·9	vF, vS, R, sbM * 15	36 33	65 40·1
5348	Sw. XI.	23 37 17	3·19	133 42·5	20·0	eF, eS, R	39 25	133 29·2
5349	Ho. II.	23 39 4	3·14	118 46·9	20·0	vF, vS, vmE 200°, ? neb D *	41 10	118 33·6
5350	Sw. XI., Ho.	23 39 57	3·13	118 44·0	20·0	ceF, eS, R, * 9 nr f	42 2	118 30·7
5351	Barnard (4136)	23 40 10	3·08	93 5·0	20·0	cF, vS, bM, * 10 sf 5″±	42 13	92 51·7
5352	Barnard (4136)	23 40 11	3·08	93 3·1	20·0	pF, pS, gbM	42 14	92 49·8
5353	Sw. XI., Ho.	23 40 11	3·13	118 53·1	20·0	eF, S, R, * 6 f	42 16	118 39·8
5354	Sw. XI., Ho.	23 40 11	3·13	118 54·7	20·0	eeF, S, R	42 16	118 41·4
5355	J. 1458	23 40 12	3·00	57 59·5	20·0	F, pL, Ens, gbM	42 12	57 46·2
5356	Barnard (4136)	23 40 13	3·08	93 7·6	20·0	pF, R, mbM	42 16	92 54·3
5357	Barnard (4136)	23 40 14	3·08	93 4·4	20·0	pB, R, mbM	42 17	92 51·1
5358	Sw. XI., Ho.	23 40 28	3·13	118 55·0	20·0	eF, pS, bi-N 20″	42 33	118 41·7
5359	Barnard (4136)	23 40 29	3·08	93 5·9	20·0	F, pS, gbM, * 9·5 p 2′	42 32	92 52·6
5360	Sw. XI.	23 40 34	3·15	127 50·2	20·0	eeF, cS, R	42 40	127 36·9
5361	B. 356, Ho. I.	23 44 16	3·09	104 9·5	20·0	vF, vS, bM, stellar	46 20	103 56·2
5362	Sw. XI., Ho.	23 44 21	3·12	119 8·5	20·0	ceF, pS, * 8 sf	46 26	118 55·2
5363	Sw. XII.	23 44 55	3·12	119 24·7	20·0	vF, eS, R, 3 st in line p	47 0	119 11·4
5364	Sw. XI.	23 48 56	3·11	119 51·2	20·0	vF, pS, R, * 8 sf	51 0	119 37·9
5365	Sw. XI.	23 50 21	3·11	127 48·2	20·0	pB, cS, vmE, * sf	52 25	127 34·9
5366	Barnard	23 50 36	3·01	37 59·3	20·0	eL, mE (30′ by 10′)	52 36	37 46·0
5367	J. 1459	23 51 31	3·05	68 20·3	20·0	F, lE 120°, gbMN, r	53 33	68 7·0
5368	Barnard	23 52 7±	3·07	83 54·7	20·0	eF, vS, lbM, 3′ p or f from ω Piscium	54 10±	83 41·4
5369	J. 1460	23 52 41	3·05	58 5·6	20·0	F, S, R, N	54 43	57 52·3
5370	J. 1461	23 53 0	3·05	58 3·4	20·0	pB, S, R, stell N	55 2	57 50·1
5371	J. 1462	23 53 5	3·05	57 57·9	20·0	F, vS, * 15 att	55 7	57 44·6
5372	J. 1463	23 53 7	3·05	58 0·2	20·0	F, vS, R, N	55 9	57 46·9
5373	J. 1464	23 53 19	3·05	58 0·8	20·0	pB, S, R, stell N	55 21	57 47·5
5374	J. 1465	23 53 54	3·07	86 17·2	20·0	F, S, Ens, gbM, r	55 57	86 3·9

No.	Observer.	R.A. 1860.	Prec. 1880.	N.P.D. 1860.	Prec. 1880.	Description.	R.A. 1900.	N.P.D. 1900.
		h m s	s	° ′	″		m s	° ′
5375	J. 1466	23 53 54	+ 3·07	86 14·8	− 20·0	cF, Ens, gbMN, r	55 57	86 1·5
5376	J. 1467	23 54 12	3·05	56 15·2	20·1	F, S, Ens, gbM	56 14	56 1·8
5377	Roberts	23 54 57	3·07	74 12·4	20·1	vF, S, R, dif	57 0	73 59·0
5378	Roberts	23 55 28	3·07	74 9·4	20·1	F, pS, Ens, * 15 inv	57 31	73 56·0
5379	Roberts	23 55 31	3·07	74 11·8	20·1	F, S, lEp!, lbM, * 17 close p	57 34	73 58·4
5380	F. 1237	23 55 31	3·12	156 58	20·1	vlE	57 36	156 45
5381	Roberts, J. 1468	23 55 59	3·07	74 49·6	20·1	pF, S, lE sp nf, bM, * 13 nr	58 2	74 36·2
5382	F. 1238	23 56 14	3·11	155 58	20·1	alm R, lbM	58 18	155 45
5383	J. 1469	23 56 37	3·07	74 46·6	20·1	F, S, R, bM	58 40	74 33·2
5384	Ho.	23 57 0	3·08	102 45·8	20·1	eF, vS, E 160°; ? = 7813	59 3	102 32·4
5385	Ho. I.	23 59 13	3·07	90 51	20·1	eF (not verified)	1 16	90 38
5386	Sw. XI., Ho.	23 59 19	3·07	94 29·8	20·1	pB, pS, mE	1 22	94 16·4

Notes and Corrections to the New General Catalogue.

Nearly all the following corrections refer to objects of which the positions had only been more or less roughly determined by the original observers. As a rule, errors of 2′ or less have not been pointed out. Special attention is called to the objects N.G.C. 2163, 3013, 7697, and I.C. 346, for the errors in the places of which I am alone responsible.

N.G.C.

17 = 34 (Ho.).

48, 49, 51 R.A. is $0^h\ 6^m\ 42^s$, $0\ 7\ 2$, $0\ 7\ 15$ } B., also BARNARD (*A.N.* 4136, with 3 new ones).

52 R.A. is $0^h\ 7^m\ 28^s$, B.

58 Not found twice by Ho. Probably = 47.

64 R.A. is $0^h\ 10^m\ 22^s$, Ho.

65 ,, ,, 0 11 54 ,,

66 ,, ,, 0 12 0 ,,

77 ,, ,, 0 12 57 ,,

100 is 2′ long ,,

120 N.P.D. is 92° 17′, B.

135 R.A. is $0^h\ 24^m\ 41^s$, Ho.

142 ,, ,, 0 24 8 ,, (the faintest).

143 ,, ,, 0 24 16 ,,

144 ,, ,, 0 24 20 ,, (the brightest, pS).

150 ,, ,, 0 27 19 ,, and D. S.

155 ,, ,, 0 27 35, B.

161 ,, ,, 0 28 26 ,,

164 Not found by B. Perhaps = B. 361 with an error of 1^m.

166 R.A. is $0^h\ 28^m\ 46^s$, Ho.

167 ,, ,, 0 28 24 ,, and D. S.

168 ,, ,, 0 29 40 ,,

172 ,, ,, 0 30 15 ,, (* 13 close sp).

177 Delete the query; it seems to be a neb (Ho.).

178 R.A. is $0^h\ 32^m\ 6^s$, Ho.

179 ,, ,, 0 30 46 ,,

187 ,, ,, 0 32 28 ,,

195 ,, ,, 0 32 33, N.P.D. 99° 58′, B.

N.G.C.

209 R.A. is $0^h\ 32^m\ 4^s$, Ho.

232 ,, ,, 0 35 49 ,,

235 ,, ,, 0 35 57 ,,

237 ,, ,, 0 36 18 ,,

239 The place in *N.G.C.* is correct (M. WOLF).

262 R.A. is $0^h\ 41^m\ 15^s$, B.

276 ,, ,, 0 45 14, Ho., the * nf is 8 mag, close double.

283 ,, ,, 0 46 14, N.P.D. 103° 55′·5, Ho.

284 ,, ,, 0 46 25 ,, 55′·2 ,,

285 ,, ,, 0 46 31 ,, 55′·2 ,,

286 ,, ,, 0 46 31 ,, 52′·4 ,,

303 ,, ,, 0 47 57, E 160° ,,

320 ,, ,, 0 51 54, Ho.

333 N.P.D. is 107° 13′·5 ,,

351 R.A. is $0^h\ 54^m\ 50^s$, B.

362 Minutes of R.A. are 58 (error of reduction in *G.C.*).

363 R.A. is $0^h\ 59^m\ 20^s$, Ho.

369 ,, ,, 0 58 15^s, 108° 30′·6, Ho.

376 Only a D *, Pos 270°, Dist 10″ (D. S.).

395 Group of about 10 stars, no neb (D. S.).

406 B Nucl with eE wisps through it at 165° (not "R"). D. S.

411 Not eF, but cB, S, R, stellar (D. S.).

417 R.A. is $1^h\ 4^m\ 13^s$, Ho.

422 Only 3 eF stars, close together, not a neb (D. S.).

458 Probably a cluster, eS, close, no neb seen by D. S.

465 Many stars, but no neb, perhaps open cluster (D. S.).

481 R.A. is $1^h\ 14^m\ 13^s$, Ho.

487 ,, ,, 1 15 4 ,,

530 ,, ,, 1 17 34 ,, Is = I.C. 106.

554 ,, ,, 1 20 28 ,,

555 ,, ,, 1 20 30 ,,

556 ,, ,, 1 20 31 ,,

580 ,, ,, 1 23 34 ,,

583 ,, ,, 1 22 57 ,,

589 ,, ,, 1 25 46 ,,

603 On two plates of Messier 33 by Dr. ROBERTS I could only see an eF * in this place.

644 Not found by Sw. h. observed it twice.

648 R.A. is $1^h\ 31^m\ 54^s$, Ho.

655 ,, ,, 1 35 3 ,,

667 ,, ,, 1 38 21 ,,

671 ,, ,, 1 39 31 ,,

715 ,, ,, 1 46 23 ,,

716 Not found by B. Query, = B. 250 (I.C. 1743).

725 R.A. is $1^h\ 45^m\ 51^s$, Ho.

756 ,, ,, 1 47 45 ,,

799 ,, ,, 1 55 3 ,, (Nucleus 13 mag).

800 ,, ,, 1 55 2 ,,

809 ,, ,, 1 57 25 ,,

836 ,, ,, 2 3 55 ,,

837 ,, ,, 2 3 47 ,,

858 ,, ,, 2 6 2 ,,

859, 866 Not found by HOWE.

N.G.C.

885 Not found by HOWE, 3 nights.

921 R.A. is $2^h\ 19^m\ 54^s$, Ho.

929 ,, ,, 2 20 32 ,,

944 ,, ,, 2 20 0 ,,

966 ,, ,, 2 25 19 ,, (* 9·5 sp 1′).

981 ,, ,, 2 26 13 ,,

989 ,, ,, 2 27 10 ,,

1034 ,, ,, 2 31 37 ,, (the 2 stars p are only of 11–12 mag).

1074 ,, ,, 2 37 1 ,,

1075 ,, ,, 2 36 59 ,,

1091 ,, ,, 2 38 51 ,,

1092 ,, ,, 2 38 58 ,, (the brighter).

1105 ,, ,, 2 45 43 ,, (nothing in the place given by L.).

1119 ,, ,, 2 41 47 ,,

1151 Delete the query (Ho.).

1163 ,, ,, $2^h\ 53^m\ 53^s$, Ho.

1180 ,, ,, 2 50 30 ,, } L. has 55^m; are they perhaps = 1150 and 1151? Ho. mentions the latter as being really
1181 ,, ,, 2 50 27 ,, } a neb, but gives no places for 1150–1151.

1182 ,, ,, 2 56 42 ,,

1188 ,, ,, 2 57 11 ,,

1189 ,, ,, 2 56 52 ,,

1190 ,, ,, 2 56 54 ,,

1191 ,, ,, 2 56 58 ,,

1204 ,, ,, 2 58 0 ,,

1205 is = 1182 (Ho., 2 obs).

1221 R.A. is $3^h\ 1^m\ 16^s$, = B. 255.

1223 ,, ,, 3 1 20 = B. 256.

1225 ,, ,, 3 1 48 = B. 257.

1228 ,, ,, 3 1 59 Ho.

1229 ,, ,, 3 1 59 ,,

1230 ,, ,, 3 2 4 ,, (* 12 in eF neb).

1262 ,, ,, 3 9 4 ,,

1263 ,, ,, 3 9 8 ,,

1269 Not found by INNES (1901, 7-in. refr), 1291 well seen. h. observed both the same night (once).

1288 c E ns (Sw.), 2 branch spiral (D. S.).

1290 R.A. is $3^h\ 12^m\ 50^s$, Ho.

1295 ,, ,, 3 13 29 ,,

1327 3 vF st close together, no neb (D. S.).

1340 To be struck out (Sw.).

1341 Not R. but m E 140° (D. S.).

1350 The place is $3^h\ 25^m\ 44^s$, 124° 6′, annular (D. S.). h.'s place was very rough.

1391 N.P.D. is 108° 48′·8, O. ST. and Ho.

1405 R.A. is $3^h\ 33^m\ 52^s$, Ho.

1413 ,, ,, 3 33 45 ,,

1414 ,, ,, 3 35 23 ,, N.P.D. 112° 7′·9, Ho.

1416 N.P.D. is 113° 10′·3, Ho.

1422 R.A. is $3^h\ 35^m\ 21^s$, E 65° (D. S.)

1438 ,, ,, 3 39 10, D. S.

1445 ,, ,, 3 38 14, Ho.

1448 = 1457 (D.S.); h. different nights.

1450 R.A. is $3^h\ 38^m\ 52^s$, Ho.

1452 ,, ,, 3 39 5, N.P.D. 109° 4′·4, Ho. and D. S. (the latter calls it a hazy *).

N.G.C.

1486 R.A. is 3^h 50^m 13^s, Ho.

1489 ,, ,, 3 51 24

1512 Not a globular cl, but an eF ring nebula (D. S.).

1518 Minute of R.A. is 0, not 1 (Ho).

1523 Only 3 vF st, not a neb (D. S.).

1547 R.A. is 4^h 10^m 57^s, Ho. (a cluster).

1549 ,, ,, 4 12 44 INNES and D. S. ; 13′ np h. 2630 (h.'s R.A. only rough).

1553 is double, the smaller one being nf. (INNES).

1554–55. HIND'S variable nebula. BARNARD in February and March 1895 found (with the 36-inch refr) that T Tauri was not, as in 1890, the nucleus of a pB, S, neb ; the star was perfectly stellar but involved in a vF, dif, nebulous glow ; STRUVE'S neb was not seen, though there was possibly a slight haziness there (*M.N.*, lv. pp. 442–452, where the whole history of the object is given, to which may be added a reference to a diagram by O. STRUVE in 1862, *M.N.*, xxii. p. 242). In September 1895, on three nights, no trace of HIND'S neb was seen with the 36-inch (*ibid.*, lvi. p. 66). KEELER on two photos taken in December 1899 found three vF, irregular patches, connected by still fainter nebulosity, sp and p T Tauri, but clear of the star ; no trace of STRUVE'S neb (*ibid.*, lx. p. 425). Not visible to BURNHAM around 1907·0 (*A.N.* 4209).

1556 Not R, but E 165° (D. S.).

1561 R.A. 4^h 16^m 29^s, N.P.D. 106° 10′·5, Ho.

1562 ,, 4 15 26 ,, 106 5·3 ,,

1563 ,, 4 16 32 ,, 106 3·7 ,,

1564 ,, 4 16 39 ,, 106 4·1 ,,

1565 ,, 4 17 2 ,, 106 4·4 ,,

1575 = 1577 (Ho.).

1583 R.A. is 4^h 22^m 5^s, Ho.

1584 ,, ,, 4 21 54 ,,

1592 Only F stars seen by HOWE.

1594 R.A. is 4^h 23^m 59^s, Ho.

1614 ,, ,, 4 27 16 ,,

1619 Not found by HOWE.

1631 The description should be vF, S (Ho.).

1639 Only 3 stars 12·5 forming an equilateral triangle found by HOWE.

1643 Is not eF. ROBERTS in 1903 found it B, pL ; D'ARREST has F or pF. I found it F in 1877.

1650 R.A. is 4^h 38^m 52^s, Ho. ; 2 others susp 3′ sf and np, the latter probably 2 eF st.

1655 Not seen, but a hazy star p 1^m, same decl (D. S.).

1656 L, stell N in F neb E np sf, ROBERTS. (I found it F, vS, R, in 1877.)

1686 R.A. is 4^h 46^m 34^s, Ho.

1689 Not found by HOWE. ? = 1667.

1738 R.A. is 4^h 55^m 36^s, Ho.

1739 ,, ,, 4 55 37 ,,

1744 ,, ,, 4 54 14 ,,

1780 ,, ,, 5 0 16 ,,

1781 Not found by HOWE, is = 1794 ; see note in *N.G.C.*

1794 R.A. is 5^h 1^m 45^s, Ho.

1819 ,, ,, 5 4 21^s, B.

1821 ,, ,, 5 5 25^s, Ho.

1886 For "* 8 sp 40″", read "* 9 p 11^s, 0′·9 s, and * 8·5 about 6's." (Ho).

1906 R.A. is 5^h 18^m 29^s, B. and Ho.

1956 vF, hazy * inv in neb (D. S.).

1964 Not vS, but L. (Ho.).

1979 R.A. is 5^h 28^m 10^s, B.

2054 ,, ,, 5 38 36 ,, Only 3 S st and no neb ; Ho. (In 1877 I thought at times it was a vS Cl.)

2090 Not a glob cluster ; cE 10°, stell N (D. S.).

2124 F, S ; not eeF (Ho.).

2139 Not found twice by HOWE. Probably = I.C. 2154, 23^s f, 9′ n of H.'s place.

N.G.C.

2163 N.P.D. is 71° 19′·5 ; the P.D. given belongs to 1741. My mistake.

2175 R.A. is 6^h 1^m 32^s, B.

2179 For "vm E" read "bet 2 st" ; (Ho.).

2203 F Cl, not a neb. (D. S.)

2207 bi-N, surrounded by F trace of ring ; Ho. and D. S.

2211 R.A. is 6^h 12^m 23^s, O. St., B. and Ho.

2243 ,, ,, 6 24 28, B. F, open Cl, st 9 . . . 11 mag ; D. S.

2258 Minutes of R.A. are 29^m (B.).

2264 Delete the ? An eL neb, 3° ± in diam, the densest part is 12′ sp the star 15 Monoc. BARNARD, *Astr. and Astroph.*, xiii. p. 178 ; *M.N.*, lvi. p. 63 and lix. p. 364 ; ROBERTS, *ibid.*, lv. p. 398.

2267 Two nebulæ close together (D. S.).

2292 R.A. 6^h 42^m 3^s, N.P.D. 116° 35′·6, Ho.

2293 ,, 6 42 6 ,, 116 36′·1 ,,

2295 ,, 6 41 47, the D neb is f, not p. Ho.

2296 ,, 6 42 25, Ho.

2303 ,, 6 46 1, B.

2315 ,, 6 51 40, B.

2321 ,, 6 55 8, B.

2322 ,, 6 55 10, B.

2359 R.A. is 1^m too small (W. H. was right). 2361 is one of the points of condensation.

2382 R.A. 7^h 18^m 15^s, N.P.D. 117° 15′·5, Ho. (h.'s place only approximate.)

2392 About its spectrum see PICKERING, *A.N.* 4089, p. 141.

2398 Seems to be a double neb (Javelle III.).

2410 = J. 1005, F, E 250°, 1′ long, gbM, r.

2491 Only a few stars 14 mag. The "B *" is 10 mag (Ho.).

2496 The * (11 mag) is 3^s p (Ho.).

2506 h. was right in giving the P.D. as 100° 24′ (Ho.).

2554 Minute of R.A. is 9, not 10 (D'A.).

2566 vS neb or neb * 11 with * 12 close (Ho.).

2589 Not found on 3 nights by Ho.

2610 HOWE is wrong in placing this 1° north (wrong star). D'A. and SCHÖNFELD agree with h.

2612 Not B but F. (Ho.).

2662 N.P.D. is 104° 36′·8 (Ho.).

2674 Not found by Ho. (2 nights).

2690 R.A. is 8^h 45^m 34^s, Ho.

2757 is only an eF D *, dist 12″ (Ho.)

2783 is = B. 274, 9^h 5^m 14^s, 59° 25′.

2868 R.A. is 9^h 16^m 38^s, Ho.

2869 = 2863 (Ho.).

2876 For "St IX" read "St X". Query = I.C. 2471, B. 398.

2881 The 2 stars are sf, 9·5 and 10·5 mag (Ho.).

2890 R.A. is 9^h 19^m 50^s, Ho.

2978 ,, ,, 9 36 25, ,,

2996 ,, ,, 9 40 1, ,, The * f is of 9 mag, not 20.

3003 = J. 1126, J.^{s} $\Delta\alpha$ should be $+18^s·5$ instead of $-18^s·5$

3013 N.P.D. is 55° 46′·9, misprint.

3030 R.A. is 9^h 43^m 21^s, Ho.

3058 ,, ,, 9 46 47, ,, Pos 210°, Dist 20″, nf one the brighter.

3080 ,, ,, 9 52 23, N.P.D. 76° 15′, B.

3085 Not R but mE 90° (Ho.).

3103 = 3100, Ho., confirmed by reference to SWIFT's original observation.

N.G.C.

3143 N.P.D. is 101° 53′·6, Ho.

3145 Not R but mE, according to Sw. λ Hydræ is np.

3179 = B. 277, $10^h\ 9^m\ 33^s$, 48° 11′.

3199 No neb on photos at Arequipa (*Harv. Ann.*, xxvi. 207). h. observed it 4 times. Has it disappeared?

3208 R.A. is $10^h\ 13^m\ 10^s$, Ho.

3233 ,, ,, 10 15 18, ,,

3247 ,, ,, 10 18 50, N.P.D. 147° 6′, D. S. h.'s place was only approximate.

3251 Is this = I.C. 2579, J. 1158, the R.A. of which is exactly 1^m greater? D'A. only one obs.

3260 No doubt Sw. XI. 108 is identical with this.

3280 R.A. $10^h\ 25^m\ 50^s$, N.P.D. 101° 55′·0, Ho.

3292 ,, 10 28 32, Ho.

3293 ,, 10 30 30, (*Harv. Ann.*, xxvi. p. 207).

3295 Not found by Ho. No doubt = 3280.

3296 R.A. is $10^h\ 25^m\ 52^s$, Ho., "I could only suspect 3297."

3313 ,, ,, 10 30 47 ,, The * is south of the neb.

3321 ,, ,, 10 31 53 ,,

3322 Not found by Ho. (2 nights). Probably = 3321.

3324 R.A. $10^h\ 32^m\ 8^s$, N.P.D. 148° 0′ (*Harv. Ann.*, xxvi. p. 207).

3331 Ho. gives the R.A. = $10^h\ 33^m\ 28^s$, but this does not agree with that given in *Publ. L. M'Cormick Obs.*, vi. p. 207 ($10^h\ 32^m\ 18^s$) unless we assume that the sign of $\Delta\alpha$ ($-35^s{\cdot}4$) is wrong, on which supposition there is perfect agreement with Howe's result.

3360 R.A. $10^h\ 37^m\ 18^s$, N.P.D. 100° 52′, vF, R
3361 ,, 10 37 28 ,, 100 53′·4, mE 160 } Ho.

3369 ,, 10 40 4, Ho.

3404 N.P.D. 101° 22′·0 ,,

3413 is = J. 1167.

3420 R.A. is $10^h\ 43^m\ 17^s$, Ho.

3421–22 Only one seen by Ho., $10^h\ 44^m\ 0^s$, 101° 42′·4, two susp n and sp of it.

3464 R.A. is $10^h\ 47^m\ 51^s$, Ho.

3479 ,, ,, 10 51 58 ,,

3508 is S, and the * ½′ nf is not involved (Ho.).

3511 = V. 39. Not found by Innes, while 3513 = V. 40 (same description) was well seen (*M.N.*, lix. p. 339).

3546 R.A. is $11^h\ 2^m\ 47^s$, O. St. and Ho.

3616 = III. 76. Not seen by M. Wolf, 1907.

3704 Not found by Ho. (4 nights, 1898–99). Tempel saw 3707 four times, 3704 only once (place by sketch, 25 May 1881, in private letter). Common has "2 F, R, on the parallel, * symmetrically placed between." I assumed, perhaps erroneously, that 3704,07 are the same as Common's, the place of which is $11^h\ 22^m\ 57^s$, 100° 33′·3, though Tempel's nebulæ are not on the parallel.

3711 R A. is $11^h\ 22^m\ 22^s$, Ho.

3727 ,, ,, 11 26 37 ,,

3777 ,, ,, 11 29 1 ,,

3779 ,, ,, 11 31 47 ,,

3847 N.P.D. 55° 52′·3, not 42′·3. Wolf, list VIII. (h. one obs only).

3966 R.A. is $11^h\ 48^m\ 29^s$, Wolf list VIII. (D'A. one obs only).

3969 ,, ,, 11 48 1, N.P.D. 108° 8′·9, the * is 8·5 mag, and is nearly north (Ho.).

3984 Nothing in this place, Wolf, list VIII. (h. one obs, about which he seemed rather doubtful).

4024 ,, ,, 11 51 23, Ho.

4107 Not found by Frost on plates of 4^h exposure. Observed by Burnham in 1891.

4113 Nothing in this place, Wolf, list VIII.

4119
4168 } Not found by Frost on plates of 4^h exposure. 4168 is, however, No. 223 in Schwassmann's list.

4188 R.A. is $12^h\ 6^m\ 57^s$, Ho.

4201 ,, ,, 12 7 31 ,,

4263 no doubt = 4265. Ho. saw only one.

N.G.C.

4279 Not found by Ho. (2 nights).

4285 is fainter than 4280 (Ho., 2 nights).

4318 According to SN. it looks on the plate like a * 11·12, not nebulous.

4320, 4354, 4367, 4368, 4380, 4397, 4398, 4407 } Not found by FROST on plates of 4^h exposure. 4380 is = SN. 138.

4411 I assume that B. 298, $12^h\ 19^m\ 40^s$, 80° 21′, vF, L, 2′·5, is identical with this.

4426–27 According to M. WOLF (list IV.) only 2 st 36″ apart, n and s.

4443 Not found by FROST on plate of 4^h exposure.

4465, 4467 } Not found on plate by SCHWASSMANN.

4482 Not found by FROST, but it has been observed by B., R.A. being $12^h\ 23^m\ 4^s$.

4484 R.A. 2^m too great, Ho. (h. only one obs.)

4535 Large spiral nebula, 8 points measured by SN.

4554 Not found by FROST on plate of 4^h exposure.

4560 Not found on plate by SN.

4637 SN. :—cB, S, like a * 10; place agrees.

4667 Not found by FROST on 4^h plate. Not found by D'A. and VOGEL.

4698 R.A. is $12^h\ 41^m\ 18^s$ (SN.).

4702 R A. $12^h\ 42^m\ 11^s$, N.P.D. 62° 3′·7, pF, S, v iF, W. III.

4722–23 Ho. has only one, $12^h\ 44^m\ 14^s$, 102° 34′·0, with a * 11·5 4^s f.

4726 R.A. $12^h\ 44^m\ 12^s$, N.P.D. 103° 27′·5.

4740=4726 Ho. and SW.

4792 Doubtful (Ho.).

4797 Not on Heidelberg plate (W. III.).

4802 Not found by Ho. (one night). The description agrees with that of 4804, exactly 1° south. TEMPEL says it is 8^s f LAMONT 1234 (10 mag), but this identification may be wrong.

4815 According to INNES (7-in. refr), a neb involving, but to the south of, two stars.

4817 Not on Heidelberg plate (W. III.).

4840 N.P.D. is 61° 29′·5 (W. III.).

4846 N.P.D. 52° 52′ (not 51°), W.V. h. had only one observation.

4862 R.A. is $12^h\ 52^m\ 9^s$, Ho., another susp about 5′ south.

4884 Not on Heidelberg plate (W. III.).

4913 Not seen with certainty on Heidelberg plate, W. V. (only seen once at Birr).

4973 R.A. $12^h\ 59^m\ 32^s$, N.P.D. 35° 33′·9 (RÜMKER)=Ho. III. 19.

4974 ,, 12 59 56 ,, 35 35·4 (RÜMKER)=I.C. 847.

5015 is D. S. 372, $13^h\ 4^m\ 44^s$, 93° 35′, eF, eS, cE 55°. Neither h. nor H. determined the R.A. accurately.

5139 N.P.D. is 136° 44′·8 (error of reduction in *G.C.*).

5253 In 1895 a new star appeared at np end of this neb. See diagram in *Publ. A. S. Pac.*, viii. p. 221.

5304 R.A. is $13^h\ 42^m\ 3^s$, the * f is of 12 mag, Pos 160°, Dist 0′·7, Ho.

5357 Not found by INNES (7-in. refr).

5420 R.A. is $13^h\ 56^m\ 26^s$, Ho.

5425 ,, ,, 13 55 24 ,, mE 290°

5459 ,, ,, 13 58 32 B.

5477 ,, ,, 14 0 34 ,,

5480 ,, ,, 14 1 11 ,,

5481 ,, ,, 14 1 29 ,,

5484 ,, ,, 14 2 36, N.P.D. 34° 15′, B.

5494 I assume SW. XI. 167, $14^h\ 4^m\ 31^s$, 119° 52′·1, F, pS, R, not found by Ho., to be = 5494.

5495 The * is nf, not sf; 10 mag (Ho.).

N.G.C.

5519 N.P.D. is 81° 55′, B.

5520 R.A. is 14^h 7^m 15^s, B.

5522 ,, ,, 14 8 8 ,,

5524 ,, ,, 14 8 33 ,,

5624 ,, ,, 14 21 43 ,, and Ho.

5648=5649, B.

5655 N.P.D. is 75° 25′, B.

5664 R.A. is 14^h 26^m 4^s according to Ho., but O. St. has 14^h 27^m 5^s.

5669 ,, ,, 14 25 53, B.

5671 ,, ,, 14 25 39 ,,

5730=B. 322, 14^h 34^m 57^s, 46° 39′ (h.'s place approximate only).

5734 R.A. is 14^h 37^m 13^s, N.P.D. 110° 16′·6, Ho.

5743 ,, ,, 14 37 15 ,, 110 19·2, ,,

5762 ,, ,, 14 42 0, Ho. and B.

5763 ,, ,, 14 42 16 ,, ,, ,,

5766 ,, ,, 14 45 10 ,,

5767 ,, ,, 14 44 41, B.

5778 ,, ,, 14 48 6 ,,

5782 ,, ,, 14 49 14, N.P.D. 77° 33′, B.

5793 ,, ,, 14 51 36, ,, 106 7·9, Ho.

5801 ,, ,, 14 52 44, ,, 103 20·8 ,,

5802 ,, ,, 14 52 48, ,, 103 21·7 ,,

5803 ,, ,, 14 53 16, ,, 103 20·2 ,,

5808 ,, ,, 14 53 48, B.

5810 ,, ,, 14 54 50, Ho.

5815 ,, ,, 14 52 40, ,, D * not seen, but night not very good.

5817 ,, ,, 14 51 54, ,,

5836 ,, ,, 15 0 5, B.

5844 Three very faint nebulæ only (D. S.). h. has 2 obs, pB, pL, R, vglbM.

5898 R.A. is 15^h 10^m 1^s, N.P.D. 113° 34′·9, Cerulli, *A.N.* 3315.

5926 ,, ,, 15 16 47, Ho.

5978 ,, ,, 15 34 41, ,,

5979 ,, ,, 15 35 54 (error of reduction in *G.C.*).

6043 ,, ,, 15 58 43, B.

6045 ,, ,, 15 58 49, ,,

6050 ,, ,, 15 59 4, ,,

6065-66 They *are* sp and nf, $\Delta\alpha = 12^s$ (Ho.).

6079 R.A. is 16^h 4^m 45^s, B.

6080 Has a * 12·5 20″ nf which seems nebulous (Ho.).

6082 Not found by Frost on a plate of 4^h exposure.

6088 R.A. is 16^h 7^m 54^s, B.

6094 ,, ,, 16 8 10, ,,

6111 R.A. is 16^h 13^m 47^s, N.P.D. 26° 55′, B.

6122 N.P.D. is 51° 52′, B.

6154 R.A. is 16^h 21^m 42^s, B.

6155 ,, ,, 16 22 11 ,,

6206 Sw. V. = I.C. 1227, B. 210.

6210 Nucleus susp of variability, Burnham, *A.N.* 4261.

6211 R.A. is 16^h 39^m 0^s, B.

6213 ,, ,, 16 39 10 ,,

6236 ,, ,, 16 45 55 ,,

6251 N.P.D. is 7° 14′, ,,

N.G.C.

6252 N.P.D. is 7° 11′, B.

6292 R.A. ,, 17h 1m 19s, B.

6294 Only a D * 13 and 13·5, dist 8″ (Ho.). h. has only one obs at Slough.

6297 R.A. is 17h 2m 9s, B.

6302 Planetary, 9 mag (Pickering). Drawing by Barnard, *A.N.* 4136.

6303 R.A. is 17h 5m 36s, B.

6309 Close D neb, 160°, both B, eS (Ho.).

6317 R.A. is 17h 7m 48s, B.

6319 ,, ,, 17 8 35 ,,

6324 ,, ,, 17 10 1 ,,

6328 eF pair of stars only, one star hazy (D. S.).

6331 R.A. is 17h 11m 31s, B.

6338 ,, ,, 17 13 1 ,,

6352 A cluster, not a neb (D. S.).

6395 R.A. is 17h 28m 22s, B.

6398 eF, hazy * only (D. S.).

6403 eF, hazy * only (D. S.).

6409 R.A. is 17h 33m 12s, B.

6419 ,, ,, 17 36 42 ,,

6420 ,, ,, 17 36 50 ,,

6422 ,, ,, 17 37 3 ,, 6423 f 26s, 7′ n.

6432 Only 4 stars 12–13 mag (Ho.).

6450 Not found by Ho. (2 nights).

6454 R.A. is 17h 42m 20s, B.

6465 Only 2 F double stars (Ho.).

6503 is B or pB.

6511 R.A. is 17h 53m 6s, B. 6510 p 44s.

6526 Only vF stars (Ho.).

6532 R.A. is 17h 56m 43s, B.

6535 is L, 1′ or 2′ diam, not vS.

6548=6550, Swift in Cat. XI.

6555 R.A. is 18h 1m 38s. Error in R.A. of Schultz's comparison star. B.'s place agrees.

6556 No nebulosity (Ho.).

6579 R.A. is 18h 6m 23s, B.

6580 ,, ,, 18 6 25 ,,

6588 Not seen, sev vF st, no neb (D. S.).

6602 R.A. is 18h 10m 48s, B.

6607 Not found by Ho. (3 nights).

6608 Not found by Ho. (2 nights); = 6609?

6616 R.A. is 18h 11m 47s, the 2 st are 9–10 mag, one p 2s, 0′·6 s (Ho.).

6666 ,, ,, 18 30 10, B.

6668 Not found by Ho. (3 nights), probably = 6677.

6678 Not found by Ho. (2 nights).

6679 N.P.D. is 22° 58′·5, neb D * 12·5, dist 5″ (Ho.).

6685 ,, ,, 50 9, B.

6686 ,, ,, 49 59 ,,

6696 R.A. is 18h 38m 5s, Ho.

6706 The description is: vF, vS, eE 120°, stell N (D. S.).

6725 Not pL, R, but eF, eS, stell N, with straight wisp at 40° (D.S.).

6732 R.A. is 18h 53m 9s, Ho. and B.

6757 ,, ,, 19 2 19 ,, ,, ,,

6762 = 6763, R.A. is 19h 4m 32s, Ho. and B.

N.G.C.

6769, 6770, 6771 } R.A. to be decreased by one minute (D.S.). h. observed them only once.

6776 R A. is $19^h\ 8^m\ 47^s$, D.S. h. one obs only.

6777 Not een, 2 st 8 or 9 mag nr, but no neb, D. S. (only observed by LACAILLE).

6785 R.A. is $19^h\ 13^m\ 37^s$, B.

6786 is only F, not eeF (Ho.).

6788 Minutes of R.A. are 15 not 14, D. S. (h. was doubtful about it).

6797 Not found by Ho.

6810 Not R, but cF, S, eE 170°, stell N (D. S.). h. called it once R, another time mE.

6816 Delete "* np" (not in *Cape Obs.*). There is a * 14 in Pos. 20°, Dist 30″ (Ho).

6822 Not L but vS (Ho.).

6836 * 13·5 att f (Ho.).

6875 * 7 mag sp 3′, not nf (D. S.). h. in *Cape Obs.* has sf.

6888 R.A. is $20^h\ 7^m\ 1^s$, B.

6931 ,, ,, 20 26 1 ,, and Ho.

6936 O. ST.'s place is $20^h\ 26^m\ 26^s$, 115° 53′·4, while Ho. gives $20^h\ 27^m\ 36^s$, 115° 45′·6. There are two comparison stars with exactly these differences, C.D. 14864 and C·D. 14877. O. ST. says he used the former, but Ho.'s N.P.D. agrees with that of LEAVENWORTH, whose P.D.'s. are always right within about a minute.

6951 Place correct, 6952 to be struck out.

6953 17^s p the place is a vS group of 4 st but no neb, Ho. B.'s place agrees with this.

6959 R.A. is $20^h\ 39^m\ 58^s$, B.

6975 =6976.

6986 R.A. is $20^h\ 28^m\ 34^s$, B and H.

6992 is connected with 6960 by F nebulosity forming an irregular oval; a large triangular wisp extends southward from the np part of this oval. PICKERING, *Astroph. Journ.*, xxiii. p. 261.

7005 No nebulosity (Ho.).

7010 R.A. $20^h\ 56^m\ 59^s$, N.P.D. 102° 53′·5, eF, S, R, lbM (Ho.).

7016 ,, 20 59 4 ,, 116 1·8, Ho.

7017 ,, 20 59 8 ,, 116 2·8 ,,

7018 ,, 20 59 13 ,, 115 59·3 ,,

7021 Not seen, D.S. and F. (h. one obs).

7100 R.A. $20^h\ 32^m\ 13^s$, N.P.D. 81° 40′, B. Query, is SPITALER's object (I.C. p. 227) a different one?

7105 Not found by Ho. (3 nights).

7112 Not found by Ho. (2 nights).

7115 R.A. is $21^h\ 35^m\ 35^s$, Ho.

7134 No neb, only 3 or 4 vF st, Ho.

7136 R.A. $21^h\ 42^m\ 10^s$, stellar, nebulosity doubtful, Ho.

7152 Observed by Ho.

7157 Not found by Ho.

7158 R.A. is $21^h\ 49^m\ 56^s$, B. and Ho.

7159 The * sf is involved (Ho.).

7165 Observed by HOWE, is bM * 13.

7170 B. gives the R.A. as $21^h\ 54^m\ 6^s$.

7186 R.A. is $21^h\ 54^m\ 57^s$, B.

7188 ,, ,, 21 55 44 Ho.

7208 ,, ,, 22 0 23 ,,

7220 ,, ,, 22 3 43, N.P.D. 113° 38′·2, Ho.

7240 BARNARD, *A.N.* 4136, gives a sketch of six nebulæ, three of which must be 7240, 7242, and B. 449, but it is difficult to identify these.

7241 R.A. is $22^h\ 9^m\ 8^s$, B.

7247 ,, ,, 22 9 53 Ho.

7254 = 7256, N.P.D. is 112° 26′·5, Ho.

N.G.C.

7266 R.A. $22^h\ 16^m\ 42^s$, N.P.D. 94° 47′, B.

7269 ,, 22 18 19 ,, 103 52 ·6, Ho.

7284 Delete "D * inv." This and 4285 are 2 neb stars 12·5 and 13, Pos 60°, Dist 40″ ±, Ho.

7286 R.A. is $22^h\ 21^m\ 21^s$, B.

7287 Ho. says that the R.A is about 2^m too great, and that the object is only a F D *, dist 6″. But he must have found a different object, as BURNHAM (*Lick Obs.*, ii. p. 180), without noticing any great error in R.A., gives Pos 60°, Dist 20″, and states that the p one is undoubtedly a nebula, while the f one may be a star.

7294 R.A. is $22^h\ 24^m\ 22^s$, Ho.

7300 is not cS, but pL, E 150° (h. and Ho.).

7303 B. 452 is 2^s p this. I assume it is a vF D * I saw in 1875 100″ spp, as B. says his object may be a cluster.

7308 R.A. is $22^h\ 27^m\ 5^s$, Ho.

7310 ,, ,, 22 26 57 ,,

7351 is not R but mE 180°, Ho.

7358 Stellar N with wisps at 175°, D. S.

7359 Ho. gives $22^h\ 37^m\ 10^s$, 114° 25′·3, while O. ST. has $22^h\ 38^m\ 1^s$, 114° 26′·6. STONE's comp star is said to be C.D. 17171 and 3 anonymous stars following. None of these seem to be in the Cordoba D.M. But if he used C.D. 17165, his first anonymous star, 51^s f and 2's, would be 17171 and his result would agree with HOWE's.

7365 R.A. is $22^h\ 37^m\ 37^s$, Ho.

7373 ,, ,, 22 39 13 B.

7375 ,, ,, 22 39 44 ,,

7399 ,, ,, 22 45 19 Ho.

7413 ,, ,, 22 48 5 ,,

7422 I assume J. 1426=7422, the comp * being +3° 4794, and not 4796. Places agree then.

7425 R.A. is $22^h\ 49^m\ 55^s$, Ho.

7435 =J. 1427.

7439 N.P.D. 61° 35, B.

7440 B. gives $22^h\ 52^m\ 10^s$, 54° 53′. This differs from STEPHAN's place by 10^s and 4′. Perhaps STEPHAN applied his $\Delta\delta$ (2′) with the wrong sign.

7451 R.A. is $22^h\ 53^m\ 20^s$, B.

7455 No * p, but * 10 nf 2′ (Ho.).

7492 is a cluster of eF st (ROBERTS).

7519 R.A. is $23^h\ 5^m\ 40^s$, B.

7520 Not found by Ho. (2 nights).

7522 Not found by Ho. (3 nights).

7561 I assume this = B. 350, $23^h\ 8^m\ 50^s$, 86° 15′, eF, stellar.

7566 R.A. is $23^h\ 9^m\ 26^s$, B.

7571 ,, ,, 23 10 12 B.

7573 R.A. is about 50^s too great (Ho.).

7580 R.A. is $23^h\ 10^m\ 19^s$, N.P.D. 76° 40′·7, Ho.

7582 N.P.D. is 133° 7′, D. S. (h. one obs).

7593 R.A. is $23^h\ 10^m\ 53^s$, B.

7627 =7641, SW. and Ho.

7655 Group of stars, not a neb (D. S.).

7656 R.A. is $23^h\ 17^m\ 11^s$, Ho.

7662 The Nucleus is variable to the extent of three magnitudes, period 27⅓ days, BARNARD, *M.N.*, lxviii. p. 465.

7697 Minutes of R.A. should be 26 (misprint).

7709 R.A. is $23^h\ 28^m\ 10^s$, mE 225°, B. and Ho.

7713 In N.P.D. for 13′ read 43′. Misprint in *G.C.*

7719 R.A. is $23^h\ 30^m\ 43^s$, Ho.

7730 Not found by Ho. (2 nights). The place of this object was communicated to me by TEMPEL in 1876, though with the R.A. marked ±.

7754 R.A. is $23^h\ 41^m\ 58^s$, Ho.

7759 R.A. is $23^h\ 41^m\ 41^s$, Ho.

7761 Not found by Ho.

N.G.C.

7763 R.A. is $23^h\ 43^m\ 3^s$, Ho.

7776 and 7761 Ho. only found one neb, in $23^h\ 44^m\ 16^s$, 104° 9′·5, with a * 9 p 3′·5 (I.C. 5361.)

7803 R.A. is $23^h\ 54^m\ 10^s$, Ho.

7807 ,, ,, 23 53 16 N.P.D. 109° 37′·2, Ho.

7808 ,, ,, 23 56 23 Ho.

7813 Ho. only found a neb in $23^h\ 57^m\ 0^s$, 102° 45′·8, E 160°, * 8·5 p 49^s, 2 st 9 n 8′. (I.C. 5384.)

7822 40′ diam, many stars inv. (ROBERTS, *M.N.*, lxiii. p. 301.)

7828 R.A. is $23^h\ 59^m\ 17^s$, Ho.

7829 is only a * 13 mag. ,,

7830 R.A. is $23^h\ 58^m\ 49^s$, B.

7836 ,, ,, 0 0 47 N.P.D. 57° 42′, B.

Notes and Corrections to the Index Catalogue 1888–1894.

I.C.

48 See *M.N.*, lv. p. 451. Up to 1895 always faint (BARNARD).

81 The * is 1′ sff; R.A. $1^h\ 2^m\ 14^s$ (Ho.).

106 = *N.G.C.* 530.

136 Not seen on ROBERTS' plates of M. 33.

164 R.A. is $1^h\ 42^m\ 3^s$, Ho.

165 = *N.G.C.* 684.

179 R.A. is $1^h\ 51^m\ 50^s$, Ho.

246 ,, ,, 2 33 14 ,,

336, etc. Compare *M.N.*, lvii. p. 12, picture of exterior nebulosities around the Pleiades, and M. WOLF: "Die Aussen-Nebel der Plejaden," *Abh. d. K. Bayr. Akad.*, 1900, 4°.

346 The place and description should be $3^h\ 35^m\ 26^s$, 108° 43′·0, eF, pL, E 80°, dif (my mistake). Is no doubt identical with Sw. XI. 60: $3^h\ 35^m\ 13^s$, 108° 39′·8.

395 R.A. is $4^h\ 42^m\ 23^s$, Ho.

453 According to Ho. there is no neb.

454 R.A. is $6^h\ 43^m\ 13^s$, one or 2 st inv (Ho.).

468 Not found by Ho. (3 nights).

487 Not R but E 110° (Ho.).

489 N.P.D. is 63° 37′·2 (*Wiener Annalen* xi, 125).

507 Not found by Ho. (3 nights).

717 Not found by Ho. O. ST. measured $\Delta\alpha = +53^s{\cdot}9$ from 3775, no $\Delta\delta$ (1 obs).

760 Either E 150° or * 14 there, Ho. – F, S, R, bM, D. S.

784 N.P.D. is 93° 52′·6, Ho.

823 Not in WOLF's list III.

834 R.A. is $12^h\ 49^m\ 43^s$, W. III.

841 R.A. $12^h\ 52^m\ 56^s$, N.P.D. 67°′25·9, W. VI.

847 = III. 782, *N.G.C.* 4974. RÜMKER's place agrees.

971 Description is: Fine Spiral, pL, mbM; WOLF, *A.N.* 4013.

1013 N.P.D. is 63°, not 62°. Erratum in *Nice Obs.*

1027 HOWE saw only one, with a * 13 sp 0′·7.

1077 N.P.D. is 108° 38′·7, Ho.

1081 ,, ,, 108 40′·6 ,,

1101 Description is: eF, vS, * 13 f $1^s{\cdot}5$, * 13 p 2^s, a little n. Ho.

1115 Only a D * 12·5 and 13·5, dist 5″. Ho.

1124 Evidently = J. 1367, $15^h\ 23^m\ 55^s$, 65° 53′·0, pB, cS, E 250°, N.

I.C.

1204 N.P.D. is 19° 42′, B.

1227 = *N.G.C.* 6206, B.

1243 Only 5 st 12–14 in line ns, 45″ long., Ho.

1247 Not found by Ho. (2 nights). 30^{s} p is a D * 12 – 12, dist 3″. In the right place is a * 13 (no neb) with * 9·8 sp 0′·7.

1268 R.A. is 17^{h} 44^{m} 27^{s}, Ho.

1269 ,, ,, 17 46 10 ,, * 10 sp 4′.

1271 An eF extension of *N.G.C.* 6523, Ho.

1281 is = I.C. 1279. Ho. saw only the latter.

1284 About the vF, eL nebulosities in this neighbourhood see *A.N.* 4239.

1290 Description is: Cl of ½ dozen stars 12 . . .—Ho.

1291 R.A. 18^{h} 30^{m} 17^{s}, N.P.D. 40° 50′·0, 2 st 12 nf and np, Ho.

1293 3 st 14, of which the f one is nebulous, Ho.

1300 Delenda, =6798.

1301 Query, N.P.D. 36′ less. Sw. in *M.N.*, lxi. p. 48, says that the Decl. should be + 49° 40′. In *A.N.* 3004 it was 49° 4′·0. It is prob. = a S neb 20^{s} p and 1′s of BURNHAM's D * 9349, or in 19^{h} 22^{m} 45^{s}, 40° 9′ (I.C. 4867).

1324 R.A. is 20^{h} 24^{m} 38^{s}, Ho.

1325, 1326 = *N.G.C.* 6928 and 6930, Ho.

1368 Not R but mE 225°, Ho.

1416 R.A. is 21^{h} 51^{m} 42^{s}, B.

1447 ,, ,, 22 22 43 Ho.

1461 ,, ,, 22 51 38 N.P.D. 75° 34′·2, Ho.

1463 Only a F D *, dist 20″, within a trapezoid of st 10 mag, Ho.

1487 For "* 8 f" read "* 7 p 15^{s}, 9′ s", Ho.

1497 R.A. 23^{h} 21^{m} 46^{s}, N.P.D. 78° 47′, B (C.R. 1897).

1505 ,, 23 34 26 Ho.

Note added in Press.

With the exception of Wolf's third list (see p. 105), this catalogue is believed to be complete to August 1908.