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HENRY DRAPER MEMORIAL

Objects of Interest on Southern Plates
and a few Northern

No. 42.

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Omitted 11.

List of Clusters in D.M. Charts.

		R.A. 1855.	Dec.
		4h 37m	+18° 50′
Omit	✓	4 41	+10 40
Omit.	✓	6 24	+5 0
Omit.	✓	6 33	+9 50
Neb.?	✓	8 43	+12 20
?		17 39	+5 40
.	✓	18 20	+6 30
		18 31	+5 20
Coarse.		19 20	+20 0
Neb. in Androm.		0 35	+40 30
		1 25	+29 50
Obs.	✓	1 48	+37 0
?	✓	3 22	+36 50
Pleiades.		3 38	+23 40
		5 26	+22 0
Obs.	✓	5 27	+34 0
Obs.	✓	8 32	+20 20
Neb.?	✓	19 11	+30 0
		18 49	+36 50
		20 1	+35 20
?		20 4	+20 30
		22 30	+37 0
Neb. in Androm.	Obs.	0 35	+40 30
Obl. in Perseus.	Obs.	✓ 2 10	+56 30
	Obs.	✓ 2 33	+42 10
		3 5	+59 30
		3 38	+50 20
	Obs.	✓ 4 4	+50 50
Coarse		5 21	+57 10

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	RA	Dec.
Omit v	6h 38m	+41° 20′
	13 58	+55 0
Omit, v	21 27	+47 50
Obs. v	21 59	+45 50
	21 34	+53 10
	4 1	+72 0
	12 4	+78 10
Coarse?	16 42	+78 0
neb.	17 51	+70 1
?	18 38	+72 10
Obs. v	23 18	+60 8

40 selected 17 ≤ Klein. & Obs. 5 omit.

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Objects of Interest on Southern Chart Plates.

1875 | U A

No.	Plate No.	Plate R.A.	Plate Dec.	Object	R.A.	Dec.	N.G.C. No.	W.
See page	×	~~3309~~ 3601	12h 36m	−61°, Cluster				
	λ	"	"	"				
	β	"	"	"				
	1	3309	12 36	−61 "	12h 46m	−59 35	4755	~~4755~~
	2	3314	12 25	−60 "	12 46	−59 35	4755	
	3	3315	10 40	−59 "	10 31	−57 30	~~3311~~ 3293	
	3a	"	"	"	10 40	−59	~~3320~~	
	4	"	"	"	11 00	−57 50	3532	
	5	3320	12 0	−65 "	12 01	−60 10	4103	
	6	"	"	"	11 29	−61 00	3766	
	7	"	"	"	11 32	−62 30	~~3766~~	
	8	3321	12 ~~30~~ 18	−60 "	12 46	−59 35	4755	
	9	3347	13 20	−65 "	12 46 ~~13 38~~	−59 35 ~~−62 15~~	4755	
	10	"	"	"	13 38	−62 15	5281	
	11	3359	× ~~20~~ 13 30	−60 "	13 38	−62 15	5281	
	12	3378	12 20	−63 "	12 46	−59 35	4755	
	13	"	"	"	12 01	−60 10	4103	
	14	3381	15 0	−55 "	14 55	−55 10	5823	
	15	"	"	"	14 53	−54 0	5822	
	16	3403	14 20	−~~60~~ 65 "	14 22	−60 ~~31~~ 15	5617	
	17	"	"	"	13 ~~42~~ 47	−61 20	~~5316~~	
	18	"	"	"	13 ~~38~~	−62 ~~30~~ 15	5281	
	19	3418	13 20	−65 "	~~20~~ 13 38	−62 ~~30~~ 15	5281	
	20	"	"	"	~~11~~ 13 47	−61 20	~~5316~~	
	21	3419	13 20	−65 "	12 46 ~~13 25~~	−59 35 ~~−61 45~~	4755	
	22	"	"	"	13 38	−62 15	5281	
	23	"	"	"	13 47	−61 20	5316	
	24a	"	"	"	13 14	−60 22		
	24	"	"	"	13 25	−61 45		
	25	3420	13 30	−60 "	13 38 ~~12 46~~	−62 15 ~~−59 35~~	5281	
	26	3433	12 ~~30~~ 26	−60 "	12 46	−59 35	4755	
	27	"	"	"	12 18	−63 0	4349	

Taken to Cal. Tele. not returned

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No. Nt. Observ.
N.G.C. , R.a. Dec. | Description | Appearance on Chart.

Description

Fine close cluster of moderately bright stars. 0.2 cm. in diam.
Small cluster of faint stars surrounding ? bright star 0.1 cm. in diam
Coarse cluster of moderately bright stars 1.0 cm. in diam
✳ ✓ Fine cluster of moderately bright stars 0.2+ cm. in diam
Fine cluster of moderately bright stars 0.2+ cm in diam
✳ ↓ Fine close cluster of moderately bright stars 0.2 cm. in diam.
Wide spread nebulosity.
Coarse cluster of moderately bright stars 0.9+ cm. in diam
✳ ✓ Small cluster of moderately faint stars 0.2+ cm. in diam.
✳ ✓ Fine cluster of moderately bright stars 0.4- cm. in diam.
Small cluster of moderately bright stars 0.2 cm. in diam.
Fine cluster of moderately bright stars 0.3 cm. in diam.
Fine close cluster of moderately bright stars 0.3- cm. in diam.
✳ ✓ Small cluster of moderately bright stars 0.2- cm. in diam.
Small cluster of moderately faint stars 0.1 cm. in diam.
Small cluster of moderately bright stars 0.2+ cm. in diam.
Small coarse cluster of moderately faint stars 0.2- in diam.
Small coarse cluster of moderately faint stars 0.3 cm. in diam.
Coarse cluster of moderately faint stars 0.9+ in diam.
Coarse cluster of faint stars 0.2 cm. in diam
Coarse cluster of faint- stars 0.3 cm. in diam.
Cluster of moderately bright stars. 0.2 cm. in diam.
Close cluster of moderately bright stars 0.1+ cm. in diam.
Coarse cluster of faint stars. 0.4 cm. in diam.
Fine close cluster of moderately bright stars 0.3 cm. in diam.
Small cluster of moderately faint stars 0.1+ cm in diam.
Coarse cluster of faint stars. 0.3+ cm. in diam.
Cluster of faint stars 0.1- cm. in diam.
Close cluster of moderately faint stars. 0.1+ cm. in diam.
Fine cluster of moderately bright stars. 0.3 cm. in diam.
Coarse cluster of faint stars. 0.4 cm. in diam.

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Objects of Interest on Southern Chart Plates

1875 / U.D.

No.	Plate No.	Rd. h m	Dec. °	Object	Ra.	Dec.	N.G.C. No.	W.
28	3433	12 ~~30~~	-60	cluster	11 58	-60 15	4103 ?	
29	3434	13 20	-50	"	~~11 58~~ 13 19	-46 40 ✓	5139 ✓ / ~~3531~~	
30	3477	~~13~~ 12 ~~x~~ 55	-55	"	12 46	-59 35 ✓	~~3275~~ / ~~4755~~	✓
31	3479	13 ~~20~~ 15	-45	"	13 19	-46 40 ✓	5139 ✓ / ~~3531~~	
32	3480	13 ~~24~~ 18	-65	"	12 46	-59 35 ✓	~~3275~~ ✓ / ~~4755~~	
33	"	" " "	"	"	13 38	-62 15 ✓	~~3640~~ ✓ / ~~5281~~	
34	3481	13 ~~20~~ 15	-65	"	12 46	-59 35 ✓	~~3275~~ ✓ / ~~4755~~	
35	"	" " "	"	"	13 38	-62 15 ✓	~~3640~~ ✓ / ~~5281~~	
36	3482	14 ~~30~~ 21	-60	"	14 21	-60 0 ✓	~~3885~~ / 5617 ✓	
37	3511	12 ~~30~~ 0	-60	"	11 30	-61 0 ✓	3766 ✓ / ~~2468~~	
38	"	" " "	"	"	11 ~~37~~ 2	-62 30 ✓		
39	"	" " "	"	"	12 0	-60 ~~50~~ 10 ✓	4103 ✓ / ~~2718~~	
40	3512	12 0	-65	"	11 30	-61 0 ✓	3766 ✓ / ~~2468~~	
41	3529	16 40	-40	"	16 45	-41 30 ✓	6231 ✓ / ~~4245~~	
42	3530	16 40	-~~40~~ 45	"	16 45	-41 30 ✓	6231 ✓ / ~~4245~~	
43	3531	17 20	-50	"	17 31	-53 30 ✓	6397 ✓ / ~~4311~~	
44	3538	19 30	-60	"	19 0	-60 10 ✓	6752 ✓ / ~~4467~~	
45	3543	13 30	-60	"	13 38	-62 15 ✓	~~3640~~ ✓ / ~~5281~~	
46	3552	16 0	-50	"	16 3	-53 50 ✓	6067 ✓	
47	3559	10 30	-60	"	11 0	-57 45 ✓	3532 ✓ / ~~2308~~	
48	"	" " "	"	"	10 31	-57 30 ✓	3293 ✓ / ~~2144~~	
49	"	" " "	"	"	10 23	-57 0 ✓		
50	"	" " "	"	"	9 58	-59 40 ✓	3114 ✓	
51	3560	13 20	-45	"	13 19	-46 30 ✓	5139 ✓ / ~~3531~~	
52	3585	13 20	-45	"	13 19	-46 30 ✓	5139 ✓ / ~~3531~~	
52a	"	" " "	"	nebulae	13 18.2	-42 23.2 ✓	~~5128~~	
53	3587	16 0	-50	Cluster	~~16~~ 03	-53 50 ✓	6067 ✓	
54	"	" " "	"	"	16 18	-49 15 ✓	6134 ✓	
55	3601	10 30	-60	"	11 0	-~~52~~ 57 50 ✓	3532 ✓	
56	"	" " "	"	"	10 31	-57 30 ✓	3293 ✓ / ~~2144~~	
57	"	" " "	"	"	10 23	-57 0 ✓	3247 ✓ / ~~2106~~ ?	

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Description

Coarse cluster of moderately faint stars. 0.2 cm. in diam.

ω Centauri

Cluster of moderately faint stars 0.2+ in diam.

ω Centauri

Cluster of moderately faint stars 0.2+ in diam.

Small cluster of faint stars 0.1+ in diam.

Cluster of moderately faint stars 0.2+ in diam.

Cluster of faint stars. 0.1 cm. in diam.

Cluster of faint stars. 0.2 cm. in diam.

Coarse cluster of moderately faint stars. 0.3+ cm. in diam.

Cluster of moderately faint stars. 0.1+ cm. in diam.

Coarse Cluster of faint stars 0.2 cm. in diam.

Coarse cluster of moderately faint stars. 0.3 cm. in diam.

Coarse cluster of moderately bright stars. 0.3 cm. in diam.

Coarse cluster of moderately bright stars. 0.3 cm. in diam.

Cluster of faint stars. 0.1 cm. in diam.

Cluster of faint stars with bright star in centre. 0.1 cm. in diam.

Cluster of moderately faint stars. 0.1 cm. in diam.

Coarse cluster of moderately faint stars. 0.3 cm. in diam.

Coarse cluster of moderately bright stars. 0.8 cm. in diam.

Fine cluster of bright stars. 0.2 cm. in diam.

Small cluster 0.1 cm. in diam.

Coarse cluster of moderately bright stars 0.8 cm. in diam.

ω Centauri

ϕ Centauri

Small patch of nebulosity

Coarse cluster of bright stars 0.4 cm. in diam.

Coarse cluster of faint stars. 0.2 cm. in diam.

Coarse cluster of bright stars. 1.0 cm. in diam.

Fine cluster of bright stars. 0.2 cm. in diam.

Small cluster. 0.1 cm. in diam.

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Objects of Interest on Southern Chart Plates.

No.	Plate No.	R.A.	Dec.	Object	R.A. 1875	Dec. 1875	G.C.	W.
58	3601	10h 30m	-60°	Cluster	9 58	-59 45	3114	
59	3622	13 20	-40	Nebulae	~~13 18.2~~ ~~13 18.5~~	~~-42 23.2~~ ~~-42 25~~		
60	3625	16 40	-40	Cluster	16 46	-41 30	6231 ~~4245~~ ~~4223~~	
61	"	" "	"	"	16 48	~~-41 0~~ -39 45	~~4249~~	
62	"	" "	"	"	16 53	~~-39 15~~ -39 30	6268 ~~4263~~	
63	"	" "	"	"	16 47	~~-38 15~~ -38 15	6242 ~~4249~~	
64	"	" "	"	"	16 56	-37 30	6281 ~~4265~~	
65	3704	16 0	-40	"	16 17	-40 16	6124 ~~4184~~	
66	3713	15 20	-35	Nebula?	15 37	-37 10	5986 ~~4132~~	
67	3714	16 0	-55	Cluster	16 03	-53 45	6067 ~~4162~~	
68	2 "	" "	"	"	15 43	-56 0	5999 ~~4141~~	
69	"	" "	"	"	16 09	-57 29	6087 ~~4170~~	
70	3715	17 ~~20~~ 15	-30	"	17 33	-32 0	6405 ~~4318~~	
71	"	" "	"	Neb?	17 26	-32 29	6383 ~~4306~~	
72	3727	~~16~~ 15	~~α~~ 56	-20 Neb?	16 11	-22 40	~~4173?~~ ~~6093~~	
73	3728	~~15~~ 17	~~20~~ 16	-35 Neb?	17 27	-32 29	6383 ~~4306~~	
74	"	" "	"	Neb.	17 13	-33 30	6334?	
75	"	" "	"	Cluster	17 33	-32 0	6405 ~~4318~~	
76	3738	16 ~~40~~ 38	-50	Neb?	16 53	-50 ~~45~~ 50		
77	"	" "	"	Cluster	16 37	-46 40	6204 ~~4229~~	
81 = 78	"	" "	"	"	16 20	~~-48 45~~ -49 0	6134 ~~4187~~	
79	"	" "	"	"	16 25	-49 30	6167 ~~4209~~	
80	3742	16 0	-50	"	16 03	-53 50	6067 ~~4162~~	
81	"	" "	"	"	16 17	-48 30	6134 ~~4187~~	
83	3744	~~18~~ 17	~~α~~ 55	-55 Neb?	18 09	-52 15	6584 ~~4393~~	
84	"	" "	"	Cluster	17 30	-53 30	6397 ~~4311~~	
85	3739	18 0	-20	Neb?	18 17	-24 45	6626 ~~4400~~	
86	"	" "	"	Neb?	17 59	-25 0	6544 ~~4374~~	
87	"	" "	"	Neb.	17 56	-24 15	6533 ~~4368~~	
88	"	" "	"	Neb?	18 10	-24 0	6556 ~~4386~~ ~~4384~~	

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Description

Coarse Cluster of moderately bright stars. 0.8 cm. in diam.

*✓ Fine Cluster of bright stars. 0.3 cm. in diam.
Coarse Cluster of moderately bright stars. 0.9 cm. in diam
Coarse Cluster of moderately faint stars. 0.3 cm. in diam.
Coarse cluster of moderately faint stars. 0.4 cm. in diam.
Coarse Cluster of moderately faint stars 0.3 cm. in diam.
Coarse cluster of moderately bright stars 0.6 cm. in diam.
*✓ Surrounding star?
*✓ Fine cluster of moderately bright stars. 0.6 cm. in diam.
Cluster of faint stars. 0.3 cm. in diam
Coarse cluster of moderately bright stars 0.4 cm. in diam.
Coarse cluster of bright stars. 0.6 cm. in diam
*✓ Surrounding star.
*✓ Surrounding star?
*✓ Surrounding star?
Wide spread nebulosity?
Coarse Cluster of bright stars 0.8 cm. in diam.
Surrounding star?
Cluster of moderately faint stars 0.3 cm. in diam.
Cluster of faint stars 0.3 cm. in diam.
Cluster of faint stars 0.3 cm. in diam.
Cluster of moderately faint stars 0.6 cm. in diam.
Cluster of faint stars 0.3 cm. in diam.

*✓ Fine Cluster of faint stars 0.3 cm. in diam.
*✓ Nebulosity surrounding star
Small Patch of Nebulosity
Large Patch of Nebulosity
*✓ Surrounding star?

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Objects of Interest on Southern Chart Plates.

No.	No. Plate	R.A. h m	Dec. °	Object	R.A. 1875	Dec. 1875	N.G.C.	W.
89	3739	18 0	-20	Neb?	18 3	-23 28		
					18 3	-23 30		
					18 4	-23 35		
90	"	" "	"	Neb.	17 55	-22 50	6514 ~~4355~~	6531
91	"	" "	"	Cluster	17 57	-22 15	~~4367~~ 6531	
					17 54	-22 20		
92	"	" "	"	Neb?	17 52	-22 15		
					17 53	-22 30		
93	"	" "	"	Neb?	18 08	-22 0	6583 ~~4397~~	
94	"	" "	"	Neb?	18 04	-20 30		
95	"	" "	"	Neb?	18 09	-19 56	[6589]	
					18 ~~09~~ 10	-19 58	[6590]	
96	"	" "	"	Neb?	18 11	-18 20	6603 ~~4397~~	
97	"	" "	"	Cluster	18 07	-18 32	~~4364~~ 6507	
98	"	" "	"	"	17 50	-18 45	~~4353~~ ~~4364~~	
99	"	" "	"	Neb.	18 13	-16 5	6618 ~~4403~~	
100	3753	~~18~~ 17	~~0~~ 55	-20	Neb.	17 56	-24 15	6533 ~~4368~~
101	"	" "	"	Neb.	17 55	-22 50		
					17 51	-22 28		
102	"	" "	"	Neb?	17 52	-22 15		
					17 53	-22 30		
103	"	" "	"	Neb?	18 04	-20 28		
104	"	" "	"	Cluster	17 49	-~~37~~ 18 45	6494 ~~4346~~ 6603	
105	"	" "	"	Neb?	18 11	-18 25	~~4397~~	
106	"	" "	"	Neb	18 14	-16 0	6618 ~~4403~~	
107	3754	~~18~~ 17	~~0~~ 56	-25	Cluster	17 56	-27 45	6520 ~~4358~~
108	"	" "	"	"	Neb.	18 03	-25 ~~30~~ 55	6553 ~~4378~~
109	"	" "	"	"	Neb.	18 0	-25 0	6544 ~~4374~~
110	"	" "	"	"	Neb.	18 17	-24 35	6626 ~~4406~~
111	"	" "	"	"	Neb.	17 57	-24 15	~~6533~~ 6530 ~~4368~~ ~~4366~~
112	"	" "	"	"	Neb.	17 ~~55~~ 5	-22 40	6514 ~~4355~~
113	"	" "	"	"	Cluster	17 57	-22 20	6531 ~~4367~~
114	3757	18	~~0~~ 35	-40	Neb?	18 51	-36 30	6723 ~~4450~~
115	3782	17	~~20~~ 16	-50	Cluster	17 30	-53 30	6397 ~~4350~~ ~~4311~~
116	3801	16	~~0~~ 35	-25	Neb.	17 55	-26 5	6273 ~~4264~~
117	"	" "	"	"	Neb.	17 52	-30 10	6266 ~~4261~~
118	3802	16	~~0~~ 35	-30	Neb.	17 54	-26 5	6273 ~~4264~~

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Description.

Surrounding three stars?
Patch of Nebulosity
Cluster of bright stars. 0.3 cm. in diam.
Surrounding three stars?
Small Patch of Nebulosity.
Surrounding star?
Surrounding two stars
Small patch of Nebulosity
*✓ Cluster of moderately bright stars 2.0 cm. in diam.
Cluster of moderately bright stars 0.8 cm in diam.
Small patch of nebulosity.
Patch of nebulosity
Patch of nebulosity
Nebulosity surrounding three stars?
Nebulosity surrounding one star?
Cluster of moderately bright stars. 0.7 cm. in diam.
Small patch of nebulosity
Small patch of nebulosity.
Cluster of moderately faint stars 0.1+ cm. in diam
Small patch of nebulosity
Small patch of nebulosity
*✓ Nebulosity surrounding star
Patch of nebulosity
Patch of nebulosity
*✓ Cluster of bright stars 0.4 cm. in diam.
Small patch of nebulosity.
Cluster of faint stars. 0.2 cm. in diam.
*✓ Nebulosity surrounding star.
*✓ Nebulosity surrounding star
*✓ Nebulosity surrounding star.

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Objects of Interest on Southern Chart Plates.

No.	Plate No.	R.A.	Dec.	Object	R.A. 1875	Dec. 1875	N.G.C. / I.N.
119	3802	16 ~~40~~ 42.35 m	− 30°	Neb.	16 17 53	− 30 0 ✓	6266? ~~4261~~
119 = 120	3803	16 ~~40~~ 42.35	− 35	Neb.	16 17 53	− 29 30 ✓	6266? ~~4261~~
121	"	" " "		Cluster	16 56	− 38 45 ✓	6281 ~~4265~~
122	"	" " "		Cluster	16 17 47	− 39 10 ✓	6242 ~~4249~~
123	3804	16 ~~40~~ 42.35	− 45	"	16 45	− 44 30	6231 ~~4245~~
					16 53	− 29 30 ✓	
124	"	" " "		"	16 31	− 43 0 ✓	6192 ~~4224~~
125	"	" " "		"	16 37	− 46 33 ✓	6204 ~~4229~~
126	3807	~~17~~ 16 ~~20~~ 56	− 35	"	16 37	− 37 30 ✓	6284 ~~4265~~
127	"	" " "		"	16 47	− 39 15 ✓	6242 ~~4249~~
128	"	" " "		"	16 53	− 39 30 ✓	6268 ~~4263~~
129	3808	17 20	− 30	"	17 33	− 32 0 ✓	6405? ~~4318~~
130	3811	~~18~~ 17 ~~2~~ 56	− 50	"	17 31	− 53 29 ✓	6397? ~~6545~~
131	3812	~~18~~ 17 ~~2~~ 56	− 45	Neb?	17 58	− 43 45 ✓	6543 ✓
132	3832	16 0	− 25	Neb?	16 10	− 22 30 ✓	6093
133	"	" " "		Neb?	16 19	− 25 30 ✓	6147?
134	"	" " "		Cluster	16 16	− 26 15 ✓	6121
135	3833	17 20	− 40	Neb?	17 42	− 37 0 ✓	6441?
136	"	" " "		Neb?	17 28	− 44 30 ✓	6388
137	3834	18 40	− 40	Cluster	18 51	− 36 40 ✓	6723
138	"	" " "		Neb.	18 54	− 36 54 ✓	6727
138	"	" " "		Neb.	18 54	− 37 0 ✓	6726
139	"	" " "		Neb.	18 55	− 37 4 ✓	6729
					18 53	− 37 10	~~6726~~
140	3842	~~18~~ 17 ~~2~~ 56	− 35	Neb?	17 42	− 37 0 ✓	6441
141	3843	19 ~~20~~ 16	− 35	Cluster	19 32	− 31 6	6809
142	3851	17 20	− 45	Cluster	~~17~~ 17 ~~18~~ 15	− 49 55 ~~− 49 50~~ ✓	
143	"	" " "		"	17 19	− 48 ~~0~~ 25 ✓	6354
144	"	" " "		"	16 52	− 44 29 ✓	6259
145	"	" " "		"	17 10	− 42 30 ✓	6322
146	"	" " "		Neb?	17 28	− ~~40~~ 44 55 0 ✓	6388
147	3852	18 40	− 20	Cluster	18 28	− 23 36 ✓	6656
148	"	" " "		"	18 24	− 19 10 ✓	

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Remark.	Description
* ✓	Nebulosity surrounding star.
* ✓	Nebulosity surrounding star.
	Cluster of moderately faint stars 0.3-cm. in diam.
	Cluster of moderately faint stars 0.2+cm. in diam.
* ✓	Small cluster of bright stars. 0.3-cm. in diam.
	Cluster of faint stars. 0.2-cm. in diam.
	Cluster of faint stars 0.2-cm. in diam.
	Cluster of moderately faint stars 0.2 cm. in diam.
	Cluster of moderately bright stars 0.2+ cm. in diam.
	Cluster of faint stars. 0.2-cm. diam.
	Coarse cluster of bright stars 0.6+cm. in diam.
	Cluster of faint stars 0.1 cm. in diam.
* ✓	Surrounding star?
* ✓	Nebulosity surrounding star.
	Small patch of nebulosity.
* ✓	Fine cluster of moderately bright stars. 0.3 cm. in diam.
* ✓	Nebulosity surrounding star.
* ✓	Nebulosity surrounding star.
* ✓	Fine cluster of faint stars 0.2 cm. in diam.
	Nebulosity surrounding two stars.
	Nebulosity surrounding faint star.
	Nebulosity surrounding star.
	Nebulosity surrounding star.
* ✓	Fine cluster of faint stars.
	Coarse cluster of moderately faint stars. 0.6 cm. in diam.
* ✓	Close cluster of very faint stars 0.1-cm. in diam.
	Coarse cluster of faint stars 0.5 cm. in diam.
	Coarse cluster of moderately bright stars 0.4 cm. in diam.
Defect?	Nebulosity surrounding star."
* ✓	Fine close cluster resembling ω Centauri 0.3 cm. in diam.
	Coarse cluster of moderately bright stars 0.7 cm. in diam.

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Objects of Interest on Southern Chart Plates.

No.	Plate No.		R.A.	Dec.	Object	R.A. 1875	Dec. 1875	N.G.C. No.	W.
149	3852		18h 40m	-20°	Cluster	18h 25m	-16° 30' ✓	6645	
150	3860		17 20	-50	"	~~17 16~~ 17 30	~~-42 58~~ -53 30 ✓	6397.	
151	"		" "	"	"	~~17 25~~ 17 18	~~-49 50~~ -50 ✓		
152	"		" "	"	"	~~17 26~~ 17 16	~~-53 31~~ -48 20 ✓	6354	
153	3861		18 0	-40	"	17 59	-43 35 ✓	6541	
154	"		" "	"	Neb.?	17 55 / 18 2	-41 0 / -41 30 ✓		
155	3867	151	17 ~~20~~ 23	-45	Cluster	17 ~~25~~	-49 50 45 ✓		
156	"	152	" "	"	"	17 ~~26~~	~~-49~~ 48 31 ✓	6354	
157	"		" "	"	Neb.?	17 37	-45 30 ✓		
158	3868		18 ~~40~~ 45	-30	Neb.?	18 35	-32 10 ✓	~~6416?~~ 6681	
159	3875		16 ~~40~~ 35	-25	Cluster	16 ~~52~~ 55	~~-25 15~~ -26 5 ✓	6273	
160	"		" "	"	Neb.?	16 52	-30 10 ✓	6266?	
161	3869		19 20	-30	Cluster	19 33	-31 10 ✓	6809	
162	3876		18 0	-45	Cluster	18 0	-43 33 ✓	6541	
163	3877	147	18 40	-25	"	18 28	-23 36 ✓	6656	
164	3884		15 20	-60	"	15 54	-60 10 ✓	6025	
165	3885		16 0	-30	"	16 15	-26 15 ✓	6121	
107 Page = 166	3886		~~18~~ 17	~~0~~ 55	-25	"	17 ~~45~~ 59	-27 ~~59~~ 30 ✓	6520
167	"		" "	"	Neb.?	17 57	-27 45 ✓	6540	
168	"		" "	"	Neb.	18 2	-23 45 ✓	6553	
169	"		" "	"	Neb.	18 0	-25 ~~15~~ 0 ✓	6544	
170	"		" "	"	Neb.	18 17	-24 45 ✓	6626	
171	"		" "	"	Neb.	17 56	-24 15 ✓	6523	
172	"		" "	"	Neb.	18 03 / 18 03	-24 08 ✓ / -24 10 ✓	6559	
173	"		" "	"	Neb.	18 02 / 18 02 / 18 03	-23 30 ✓ / -23 35 ✓ / -23 45 ✓		
174	"		" "	"	Neb.	18 10	-23 35 ✓		
175	"		" "	"	Neb.	17 55	-22 58 ✓	6517	
176	"		" "	"	Cluster	17 57	-22 30 ✓	6531	
177	"		" "	"	Neb?	18 08	-22 20 ✓	6583	
178	"		" "	"	Neb.	18 10	-19 58 ✓	6595	

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Remark.	Description.
	Coarse cluster of faint stars 0.4 cm. in diam.
* ✓	Fine cluster of moderately bright stars 0.5 cm. in diam.
	Coarse cluster of moderately faint stars 0.6 cm. in diam.
	Cluster of very faint stars 0.1 cm. in diam.
* ✓	Close cluster of faint stars centring round a bright star, 0.1 cm. in diam.
Defect?	Examine another H Plate $18^h\ 0^m - 40^\circ$ wanted.
	Coarse cluster of moderately faint stars 0.6 cm. in diam
	Cluster of faint stars 0.1 cm in diam
Defect?	Examine another H Plate $17^h\ 20^m - 45^\circ$ wanted.
Defect?	Nebulosity surrounding star?
~~Defect?~~ * ✓	~~Nebulosity surrounding star?~~ Close cluster 0.1 cm. in diam.
	Nebulosity surrounding star?
* ✓	Close cluster of faint stars 0.2 cm. in diam.
* ✓	Fine close cluster. 0.1 cm. in diam.
	Fine close cluster resembling ω Centauri. 0.2 cm. in diam.
	Coarse cluster 0.5 cm. in diam.
* ✓	Fine close cluster. 0.2 cm. in diam.
	Cluster of moderately bright stars 0.2 cm. in diam.
	Small patch of nebulosity
	Small patch of nebulosity
	Small patch of nebulosity
	Nebulosity surrounding star
	Large patch of nebulosity
	Surrounding two stars?
	Surrounding three stars.
	Small patch of nebulosity.
	Large patch of nebulosity.
	Coarse cluster of moderately bright stars. 0.3 cm. in diam.
	Small patch of nebulosity.
	Nebulosity surrounding star.

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Objects of Interest on Southern Chart Plates.

No.	Plate No.	R.A.	Dec.	Object	1875 D.A. R.A.	Dec.	N.G.C. No.
179	3887	18h 40m	-25°	Cluster	18h 28m	-23° 36' ✓	6656 ✓
180	3893	15 30	-60	"	15 54	-60 10 ✓	6025 ✓
181	"	" "	"	"	15 44	-55 40 ✓	5999 ✓
182	3895	17 20	-65	"	17 20	-67 0 ✓	6362 ✓
183	3896	18 ~~42~~ 35	-35	Neb.	18 53	-36 58 ✓	6726,7 ✓
					18 53	-37 0 ✓	
184	"	" "	"	Cluster	18 52	-36 ~~25~~ 40 ✓	6723 ✓
185	"	" "	"	Neb.?	18 23	-32 15 ✓	6637 ✓
186	"	" "	"	Neb.?	18 38	-32 12 ✓	6681 ? ✓
187	"	" "	"	Neb.?	18 48	-38 30 ✓	6715 ✓
188	3921	~~17~~ 17 ~~18~~ 6	0 ~~60~~ 50	Neb.?	17 ~~18~~ 19	~~6~~ 7 2 ~~50~~ ✓	6362 ? ✓
189	3923	~~19~~ 18	~~0~~ 55 -55	Cluster	19 0	-60 15 ✓	6752 ✓
190	3943	18 0	-50	Neb?	18 19	-49 0 ✓	
191	"	" "	"	Neb?	18 18	-46 0 ✓	
192	3944	19 ~~30~~ 25	-60	Cluster	19 0	-60 15 ✓	6752 ✓
193	3960	18 0	-35	"	17 45	-34 40 ✓	6455, 6475 ? ✓
194	4007	16 ~~30~~ 25	-60	Neb	16 51	-38 45 ✓	
195	"	" "	"	"	16 56	-38 0 ✓	
196	4016	18 ~~40~~ 32	-65	Cluster	19 0	-60 15 ✓	6752 ✓
197	~~40~~ 20	23 ~~30~~ 10	-70	Neb? in Cluster	0 18	-72 30 ✓	104 ✓
198	4026	16 ~~40~~ 35	-70	Neb.	16 8	-69 39 ✓	
199	"	" "	"	"	16 7	-69 56 ✓	
200	4027	18 0	-20	Neb.	18 14	-15 50 ✓	6618 ✓
201	"	" "	"	Neb.?	18 ~~12~~ 8	-17 15 ✓	6596 ? ✓ 6613 ? ✓
202	"	" "	"	Neb.	18 10	-18 20 ✓	6603
203	"	" "	"	Neb?	18 7	-18 5 ✓	
204	"	" "	"	Neb?	18 9	-19 30 ✓	6580, 6590, 95 ✓
205	"	" "	"	Neb?	18 16	-21 45 ✓	
206	"	" "	"	Neb?	18 6	-22 15 ✓	6573 ✓
207	"	" "	"	Neb?	17 51	-22 30 ✓	
					17 52	-22 20 ✓	
					17 53	-22 31	
208	"	" "	"	Neb.	17 55	-22 55 ✓	6531 ? ✓ 6514 ?

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Remark.	Description.
	Fine close cluster resembling ω Centauri. 0.3 cm. in diam.
	Coarse cluster 0.5 cm. in diam.
	cluster of very faint stars 0.4 cm. in diam.
* ✓	close cluster of very faint stars 0.1 cm. in diam.
	Nebulosity surrounding two stars.
	close cluster of very faint stars 0.1+cm. in diam.
* ✓	Nebulosity surrounding star.
* ✓	Nebulosity surrounding star.
* ✓	Nebulosity surrounding star.
	Small patch of nebulosity
	Small, close cluster of faint stars 0.1 cm. in diam.
	Nebulosity surrounding star.
	Nebulosity surrounding star.
	cluster of faint stars. 0.1+cm. in diam.
	Coarse cluster of bright stars 0.6 cm. in diam.
	Nebulosity surrounding star.
	Patches of Nebulosity?
* ✓	Fine cluster of faint stars. 0.2 cm. in diam.
	Nebulosity surrounding star? Too near edge of plate.
	Nebulosity surrounding star
	Nebulosity surrounding star.
	Well defined patch of nebulosity
	Patch of Nebulosity.
	Small patch of nebulosity
	small patch of nebulosity.
	Nebulosity surrounding three stars.
	Small patch of Nebulosity.
	Small patch of Nebulosity.
	Nebulosity surrounding three stars.
	Large patch of nebulosity.

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Objects of Interest on Southern Chart Plates.

No.	Plate No.	R.A.	Dec.	Object	1875 R.A.	1875 Dec.	N.G.C. No.	W.
209	4027	18 0	− 20°	Neb.	18 2	− 23 15 ✓	6559 ✓	
210	"	" "	"	Neb.	17 58	− 24 10 ✓	6523	
211	"	" "	"	Neb.	18 0	− 25 0 ✓	6544 ✓	
170 = 212	"	" "	"	Neb.	18 15	− 24 59 ✓	6626 ✓	
213	4047	~~16~~ 17 ~~55~~ 0	− 55	Neb?	17 12	− 59 0 ✓		
214	4047	" "	"	Neb?	17 11	− 58 15 ✓		
215	"	" "	"	Cluster	17 30	− 53 25 ✓	6397 ✓	
216	"	" "	"	"	16 47	− 52 15 ✓	6253 ✓	
217	"	" "	"	"	17 15	− 49 40 ✓		
218	4048	18 ~~30~~ 26	− 60	"	19 0	− 60 10 ✓	6752 ✓	
219	4050	~~22~~ 19 ~~2~~ 56	− 30 ?	Neb?	19 37	− 33 20 ✓		
220	4051	21 ~~24~~ 16	− 25	Neb?	~~21 19~~ 21 24	− 21 ~~3~~ 15 ✓		
221	"	" "	"	"	~~21 19~~ 21 9	− 22 30 ✓		
					~~21 19~~ 21 10	− 22 28 ✓		
222	"	" "	"	Cluster	21 32	− 23 30 ✓	7099 ✓	
223	4058	16 ~~40~~ 35	− 30	"	16 16	− 26 15 ✓	6121 ✓	
224	"	" "	"	Neb? a Cluster	16 53	− 26 5 ✓	6273 ✓	
225	"	" "	"	Neb: a Cluster	16 52	− 30 0 ✓	6266 ✓	
226	"	" "	"	Neb.?	16 44	− 29 53 ✓		
227	"	" "	"	Neb.?	16 31	− 30 20 ✓		
228	4061	21 ~~20~~ 15	− 20°	Neb.	21 33	− 23 30 ✓	~~7099~~ 7103 ✓	
229	4068	16 40	− 45	Cluster	16 54	− 39 10 ✓	6268 ✓	
230	"	" "	"	"	16 47	− 40 30 ✓	6242	
231	"	" "	"	"	16 17 / 16 45	− 40 28 / − ~~41 30~~ ✓	6124 ✓	
232	"	" "	"	"	16 45	− 41 30 ✓	6231 ✓	
233	"	" "	"	"	16 32 / ~~16 17~~	− 43 0 / − ~~40 28~~ ✓	6192 ✓	
234	"	" "	"	"	16 ~~47~~ 49	− 44 15 ✓	6222 ~~49~~ ✓	
235	"	" "	"	"	16 40	− 44 5 ✓	6216 ✓	
236	"	" "	"	"	16 36	− 46 45 ✓	6204 ✓	
237	"	" "	"	"	16 18	− 48 50 ✓	6184 ✓	
238	4069	18 ~~40~~ 38	− 45	Neb?	19 0	− 49 0 ✓		

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Remark.	Description
	Wide spread faint nebulosity.
	Large patch of nebulosity.
	Faint wide spread nebulosity
	Nebulosity surrounding star.
	Small patch of nebulosity
	Small patch of nebulosity
* ✓	Fine cluster of faint stars 0.2 cm. in diam.
	cluster of very faint stars 0.1+ cm. in diam.
	Coarse cluster of faint stars 0.5 cm. in diam.
* ✓	Fine close cluster resembling ω Centauri 0.2 cm. in diam.
	Small patch of nebulosity?
	Small patch of nebulosity.
	Nebulosity surrounding two stars?
* ✓	Fine close cluster 0.1 cm. in diam.
	Cluster of faint stars 0.2 cm. in diam
	Close cluster? 0.1 cm. in diam.
	Close Cluster? 0.1 cm. in diam
	Small patch of nebulosity
	Small patch of nebulosity.
* ✓	Nebulosity surrounding star.
	Coarse cluster of moderately faint stars 0.3 cm. in diam.
	Coarse scattering cluster of moderately bright stars .5 cm. in diam
	Coarse cluster of moderately bright stars 0.7 cm. in diam
	Coarse cluster of bright stars. 0.5 cm. in diam.
	Coarse cluster of faint stars. 0.3+ cm. in diam
	Coarse cluster of faint stars 0.7 cm. in diam.
* ✓	Cluster of faint stars. 0.3 cm. in diam.
	Coarse cluster of moderately faint stars 0.6 cm. in diam
	Coarse cluster of faint stars. 0.3 cm. in diam.
	Nebulosity surrounding star.

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Objects of Interest on Southern Chart Plates.

No.	Plate No.	R.A.	Dec.	Object	R.A. 1875	Dec. 1875	N.	G.C. No.	W.
239	4069	18 ~~42~~ 23.8m	- 45°	Neb?	18 23	- 40 35	✓		
240	4070	19 20	- 30	Cluster	19 32	- 31 10	✓	6809	
241	4079	~~18~~ 17 ~~α~~ 56	- 50	Cluster	17 30	- 53 30	✓	6397	
242	"	" "	"	Neb.	18 8	- 52 16	✓	6584	
243	4080	19 ~~30~~ 25	- 60	Cluster	19 0	- 60 10	✓	6752	
244	4083	~~22~~ 21 ~~α~~ 55	- 30	Neb?	21 40	- 31 35	✓		
245	4085	0 40	- 70	Cluster	0 39	- 71 20	✓		
246	"	" "	"	"	0 18	- 72 30	✓	104	
247	"	" "	"	" and Neb	0 ~~25~~ 56 ~~59~~	- 72 40	✓	346, 361+2?	
248	"	" "	"	" " "	0 50	- 73 40	✓	330	
249	"	" "	"	"	1 4	- 73 20	✓	419	
250	"	" "	"	" " "	1 12	- 73 50	✓	465	
251	"	" "	"	"	1 18	- 73 58	✓		
252	4096	~~18~~ 17 ~~α~~ 55	- 45	"	17 58	- 43 45	✓	6541	
253	4098	~~20~~ 19 ~~α~~ 55	- 65	Neb?	19 36	- 66 28	✓		
254	4099	22 0	- 25	" ?	~~0 20 - 12 50~~ 22 6	- 25 45			
255	"	" "	"	" ?	21 58	- 27 30			
256	4101	~~α~~ 23 ~~α~~ 56	- 45	" ?	0 20	- 42 50	✓		
257	"	" "	"	" ?	0 20	- 44 10	✓		
258	4106	3 ~~20~~ 16	- 50	"	2 50	- 50 0	✓		
259	"	" "	"	"	2 51	- 49 30	✓		
260	4124	18 0	- 25°	Cluster	17 57	- 22 28	✓	6531	
261	"	" "	"	Neb.	17 55	- 23 0	✓	6514	
262	"	" "	"	Neb.	17 57	- 24 20	✓	6530?	
263	"	" "	"	Neb?	18 17	- 24 45	✓	6626	
264	"	" "	"	Neb?	17 49	- 28 0	✓		
265	"	" "	"	Cluster	17 55	- 27 45	✓	6520?	
266	4131	0 40	- 45	~~Cluster~~?	0 19	- 46 20			
267	4134	23 0	- 20	Neb?	22 50	- 22 20			
268	"	" "	"	Neb.?	23 1	- 24 25			

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Remark.	Description.
	Nebulosity surrounding three stars?
* ✓	Fine cluster of faint stars. 0,3 cm. in diam.
* ✓	Fine cluster of moderately faint stars 0,3-cm. in diam.
	Nebulosity surrounding star.
	Fine cluster resembling ω Centauri. 0,3-cm. in diam.
	Nebulosity surrounding star? Probably defect not on B 5515 of this same region not in N.G.C.
* ✓	Close cluster 0.1-cm. in diam.
* ✓	Very fine Cluster. 0.2 cm. in diam.
Region of	Region of Clusters and Neb.
Magellanic	Region of Clusters and Neb.
Cloud	Small Cluster 0.05 cm. in diam
	Region of Clusters and Neb
* ✓	Small cluster 0.05-cm. in diam
*	Small cluster 0,2 cm. in diam
	Nebulosity surrounding star?
	Nebulosity surrounding star
	Nebulosity surrounding star.
	Nebulosity surrounding star
	Nebulosity surrounding star.
	Small patch of nebulosity
	Small patch of nebulosity.
	Coarse cluster of bright stars. 0,5 cm. in diam.
	Wide spread nebulosity
	Wide spread nebulosity and coarse cluster of bright stars 0.8 cm. in diam.
	Nebulosity surrounding star.
	Patch of faint nebulosity?
	Coarse cluster of bright stars. 0,3 cm. in diam.
	Object on plate resembling comet. May be something of interest. if not a defect.
	Patch of nebulosity
	Patch of nebulosity

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Objects of Interest on Southern Chart Plates.

No.	Plate No.	R.A.	Dec.	Object	1875 R.A.	1875 Dec.	N.G.C. No.
269	4136	18h 0m	−30°	Cluster	17h 45m	−34° 45′ ✓	6475
270	4138	18 ~~30~~ 25	−60°	"	19 0	−60 10 ✓	6752
271	4159	18 0	−20°	Neb.	18 14	−16 2 ✓	6618
272	"	"	"	"	18 11	−18 10 ✓	~~6613~~
273	"	"	"	Cluster	17 49	−18 45 ✓	6494
274	"	"	"	Neb?	17 +8 52	−19 30 ✓	
275	"	"	"	" ?	18 4	−20 0 ✓	
276	"	"	"	Cluster	17 57	−22 28 ✓	6531
277	"	"	"	Neb.	17 55	−23 0 ✓	6514
278	"	"	"	Neb.	17 57	−24 15 ✓	6530
279	4160	18 0	−25	Cluster	17 56	−22 28 ✓	6531
280	"	"	"	Neb.	17 55	−23 0 ✓	6514
281	"	"	"	Neb.	17 58	−24 15 ✓	6530
282	"	"	"	Neb?	18 2	~~−25 45~~ −26 0 ✓	6557?
283	"	"	"	Neb?	17 52	−26 45 ✓	
284	"	"	"	Cluster	17 55	−27 32 ✓	6520
285	4161	18 40	−20°	"	18 ~~38~~ 28	−23 58 ✓	6656
286	"	"	"	"	18 25	−19 4 ✓	
287	4162	18 40	−25°	"	18 ~~38~~ 28	−23 58 ✓	6656
288	4163	19 20	−30°	" ?	19 31	−31 20 ✓	6809
289	~~4196~~	21 ~~20~~ 13	−40°	" ?	21 12	−41 40	
290	4198	21 ~~20~~ 14	−30°	" ?	21 9	−28 10 ✓	
291	"	"	"	"	21 7	−27 0 ✓	
292	4206	0 0	−~~5~~ 75	"	0 18	−72 40 ✓	104
293	4212	2 0	−75	Neb.	2 39	−75 0 ✓	
294	4243	22 20	−90	Neb.?	13 15 20	−87 40 ✓	
295	4244	20 0	−65°	Neb?	20 14	−64 45 ✓	
296	"	"	"	Neb?	20 21	−66 15 ✓	
297	"	"	"	Neb?	20 34	−66 30 ✓	
298	"	"	"	Neb?	19 21	−67 30 ✓	

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Remarks	Description
	Coarse cluster of bright stars. 1.3 cm. in diam.
	Fine cluster of faint stars. 0.2 cm. in diam.
	Faint patch of nebulosity.
	Wide spread faint nebulosity
	Coarse cluster of bright stars 1.0 cm. in diam.
	Nebulosity surrounding faint star?
	Nebulosity surrounding faint star?
	Coarse cluster of bright stars 0.5 cm. in diam
	Wide spread nebulosity
	Wide spread nebulosity and coarse cluster of bright stars 0.7 cm. in diam.
	Coarse cluster of bright stars 0.5 cm. in diam.
	Wide spread nebulosity.
	Wide spread nebulosity and coarse cluster of bright stars 0.8 cm. in diam.
	Faint patch of nebulosity.
	Faint patch of nebulosity.
	Cluster of moderately bright stars 0.3 cm. in diam.
	Fine cluster of faint stars 0.2+ cm. in diam.
	Coarse cluster of bright stars 0.7 cm. in diam.
	Fine cluster of faint stars 0.2+ cm. in diam.
	Cluster of faint stars 0.3 cm. in diam.
Defect?	Cluster of faint stars 0.1 cm. in diam.
	Cluster of faint stars 0.05 cm. in diam.
	Cluster of faint stars 0.5 cm. in diam.
* J	Fine cluster of faint stars 0.2- cm. in diam.
	Small patch of nebulosity?
	Small patch of nebulosity.
	Small patch of nebulosity
	Small patch of nebulosity.
	Nebulosity surrounding star.
	Small patch of nebulosity.

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Objects of Interest on Southern Chart Plates

No.	Plate No.	R.A.	Dec.	Object	R.A. 1875	Dec.	N.G.C. No.	W
299	4244	20 0	-65°	Neb.?	20 9	- 68 0 ✓		
300	4247	23 20	-70°	Cluster	0 18	- 72 40 ✓		104
301	4266	2 0	-30	Neb?	1 41	- 26 30		
302	"	"	"	"	2 06	- 31 27 ✓		
303	"	"	"	"	1 35	- 26 40		
304	"	"	"	"	1 41	- 26 30 ✓		
305	"	"	"	"	1 47	- 27 05 ✓		
306	"	"	"	"	1 44	- 27 28 ✓		689?
307	4269	4 36 40	-25	Neb?	2 35	- 28 15 ✓		
308	4290	4 36 40	-50	Cluster	1 43	- 31 27 ✓		
					4 28	- 22 50 ✓		
New frame "C" 309	4297	21 0	-80	neb?	4 34	- 49 30 ✓		
310	"	"	"	neb?	20 40	- 81 20 (?)		6920?
311	"	"	"	neb?	21 10	- 81 5		
312	4298	23 20	-25	neb?	21 0	- 77 40		
313	"	"	"	cluster?	23 8	- 28 25		
314	"	"	"	Cluster?	23 17	- 28 5		
315	4310	4	40 -20	Neb.	23 24	- 24 30		
316	4315	4	40 -40	var.	Dm -20°933	442 - 20 18		
317	4321	21	40 -25	neb.	4 37	- 38 45		
318	4322	22	20 -25	cluster?	21 31	- 23 35		7099?
319	4326	23	0 -80	neb.	22 28	- 26 40		7313 & 7314
320	4329	23	20 -40	neb.?	21 10	- 83 55		
321	"	"	"	Cluster?	23 9	- 43 27		7552
322	4331	0	40 -70	Cluster	23 12	- 42 57		7582
323	"	"	"	Magellanic Cloud	1 7	- 73 20 (?)		419?
324	"	"	"	Cluster	from 0 38 to 0 56			-73° 5' to 74° 50'
325	"	"	"	Cluster?	0 17	- 72 45		104
326	"	"	"	Cluster?	0 7	- 71 45		
327	"	"	"	Cluster	23 52	- 71 10		
328	"	"	"	Cluster?	0 59	- 71 30		362
329	"	"	"	Cluster	0 28	- 68 20		
					0 20	- 68 0		

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1882phae.proj..865F

Remark	Description.
	Small patch of nebulosity.
	Fine close cluster 0.2+ cm. in diam.
Defect?	Nebulosity surrounding star.
"	Nebulosity surrounding three stars
"	Nebulosity surrounding star
"	Small patch of nebulosity
"	Nebulosity surrounding star
"	Nebulosity surrounding star.
	Nebulosity surrounding star?
	Cluster of faint stars 0.1 cm. in diam.
Defect?	Faint neb. surrounding faint star?
"	" " " " " ?
"	" " " " " ?
"	Surrounding faint star?
"	Faint close cluster, 0.03 cm.
"	Faint close cluster 0.04 cm
	Patch surrounding faint star.
	New var. in
Defect?	Neb. surrounding star.
* ✓	Faint close cluster, 0.5 cm.
	Neb. surrounding star.
Defect?	surrounding two stars?
* ✓	Faint close cluster, 0.5 cm.
* ✓	Faint close cluster, 0.5 cm.
* ✓	(Which N.G.C.?)
* ✓	Fine close cluster, 3.0 cm. of moderately bright stars.
* ✓	Faint close cluster 0.1 cm.
* ✓	Faint close cluster 0.05 cm.
* ✓	Fine close cluster, of moderately bright stars. 0.1 cm.
	Faint close cluster? .04 cm.
* ✓	Faint close Clusters 0.2 & 0.5 cm.

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Objects of Interest on Southern Chart Plates.

N.	Plate No.	R.A.	Dec.	Object	1875 R.A.	1875 Dec.	N.G.C. No.	W.
330	4331	0h 40m	-70°	Cluster	0	-67 18		
331	43"	"	"	"	0 56	-65 28		360???
332	"	"	"	"	0 42	-65 15		
333	"	"	"	"	0 31	-65 10		
334	"	"	"	"	0 50	-65 05		
335	4337	6 40	-20	Cluster	6 40	-20 33	2287	
336	4340	7 16	-20	Cluster	7 13	-24 40	2362	
337	4341	7 20	-30	"	7 13	-24 40	2362	
338	4392	5 0	-55	" ?	5 23?	-54 59		1947???
339	4491	7 30	-60	Cluster	7 36	-60 30		
340	4699	1 20	-40°	Nebs?	1 22	-37 0		
341	4502	4 40	-70	Cluster?	5 36	-71 2		
342	"	"	"	Cl.	5 6	-70 50		
343	"	"	"	"	5 28	-69 54		
344	"	"	"	"	5 20	-69 40		
345	"	"	"	"	5 18	-69 20		
346	"	"	"	"	5 14	-69 28		
347	"	"	"	"	4 51	-70 15		
348	"	"	"	"	4 53	-69 36		
348a	"	"	"	"	5 5	-69 34		
349	"	"	"	"	4 47	-69 35		
350	"	"	"	"	4 48	-69 16		
351	"	"	"	"	5 28	-69 4		
352	"	"	"	"	5 8	-69 15		
353	"	"	"	"	5 3	-69 3		
354	1/2 8 "	"	"	"	5 11	-69 3		
					5 10	-68 55		
					5 9	-68 50		
355	"	"	"	"	4 57	-68 32		
356	"	"	"	"	4 54	-68 20		
357	"	"	"	"	5 22	-68 8		
358	"	"	"	"	5 27	-67 28		
359	"	"	"	"	4 55	-66 35		
360	"	"	"	"	5 2	-66 30		

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Remark	Description.
*	Faint close Cluster, .05 cm.
*	" " " .03 cm
*	" " " .02 & .05 cm.
*	" " " .10 cm.
*	" " " .03 cm.
	Coarse Cluster. moderately br. stars .8 cm
	Small Cluster. mod. br. stars .2 cm
	" " " " " " "
*	Close Cluster? 0.1 cm.
	Coarse Cl. of moderately bright stars 1.00 cm.
	Star surrounded with nebulosity?
	Very Ft. Cluster 0.02 cm.
	Coarse Cluster of moderately Ft. stars 0.6 cm
	Ft. Cluster & nebulosity 1.00 cm.
	Coarse Cl. of Ft. stars 1.40 cm
	Coarse Cl of Ft. stars .5 cm.
	Coarse Cl. of Ft. stars .4 cm.
	Close Cl. of Ft. stars 0.1 cm
	Coarse Cl. of Ft stars 1.8 cm.
	Close Cl. of Ft stars 0.1 cm.
	Cl? of very Ft. stars 0.05 cm.
	Cl? of very Ft. stars 0. 0.05 cm.
	Coarse Cl. of Ft stars. Ø 1.3 cm.
	Close Cluster of Ft. stars 0.1 cm.
	Oval Cluster of Ft. stars 0.05 cm.
	Three Cluster of Ft. stars (1) 0.2 cm. (2) 0.1 cm. (close) (3) 0.2 cm (close).
	Cluster of Ft. stars 0.2 cm.
	Close Cluster of Ft stars 0.1 cm.
	Cluster of Ft. stars 0.3 cm.
	Cluster of Ft. stars 0.5 cm.
	Cluster of Ft. stars 0.6 cm.
	Close Cluster of Ft. stars 0.1 cm.

Magellanic Cloud.

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Objects of Interest on Southern Chart Plates.

No.	Plate No.	R.A.	Dec.	Object	R.A. 1875	Dec.	N.G.C. No.
					h m	° ′	
361	4502	4 40	−70	Cluster?	4 57	−66 5	
362	"	" "	"	"	5 12	−65 30	
363	4503	5 30	−69	Cl.	5 39	−70 10	
364	"	" "	"	"	5 40	−69 30	
365	"	" "	"	"	5 20	−69 31	
366	"	" "	"	"	5 29	−69 5	
367	"	" "	"	"	5 39	−69 5	
368	"	" "	"	"	5 9	−68 55	
369	"	" "	"	"	4 58	−68 30	
370	"	" "	"	"	5 22	−68 0	
371	"	" "	"	"	5 34	−67 32	
372	"	" "	"	"	5 26	−67 28	
373	"	" "	"	"	5 31	−67 15	
374	"	" "	"	"	5 32	−67 0	
375	"	" "	"	"	4 55	−66 30	
376	"	" "	"	"	5 3	−66 30	
377	"	" "	"	"	5 12	−65 32	
378	4515	7 0	−25°	Cluster	7 14	−24 45	
379	4542	1 56	−40	Neb?	1 37	−37	
380	4545	5 56	−30	neb?	5 48	−32 35	
381	4555	3 0	−55	Cl?	2 58	−55	
382	"	" "	"	Cl?	3 10	−55	
383	"	" "	"	neb?	3 9	−53	
384	4606	6 0	−70°	Cl.	5 19	−69 25	
385	"	" "	"	"	5 28	−68	
386	"	" "	"	"	5 39	−69	
387	"	" "	"	"	5 43	−69	
388	"	" "	"	"	6 2	−67	
389	"	" "	"	"	5 38	−67 45	
390	"	" "	"	"	5 46	−67 45	
391	"	" "	"	"	5 31	−67 15	

1875 pub.

1900 pub.

After this all stars in this plate are estimated in 1900 positions —

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1882phae.proj..865F

Description.

Cluster of ft. stars 0.1 cm.

Close Cluster of ft. stars 0.1 cm.

Irregular Cloud

Cl. of moderately ft. stars surrounding br. star 0.15 cm. *

Two ft. stars surrounded with nebulosity.

Star surrounded with nebulosity.

Ft. Close Cl. 0.1 cm.

Ft. Close Cl. 0.1 cm.

Star surrounded with nebulosity.

Irregular Cloud.

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Objects of Interest on Southern Chart Plates.

1900 Epoch.

No.	Plate No.	R.A.	Dec.	Object	R.A.	Dec.	N.G.C. No.
392	4607	7 30	- 60	Cluster	7h 56m	- 60 30	
393	4609	8 0	- 20	Cluster	7 38	- 23 35	
394	4626	6 20	- 25	Cluster	6 40	- 20 45	
395	4629	7 0	- 25	Cluster	7 14	- 24 45	
396	4641	7 40	- 35	Cluster	7 48	- 35 33	
397	4642	8 0	- 65	Cluster	7 55	- 60 30	
398	4699	7 40	- 25	Cluster	7 38	- 23 34	
399	4700	8 0	- 55	Cluster.	7 56	- 60 30	
400	4748	10 40	- 59	Cluster	10 40	- 59 15	
401	"	" "	"	Cluster	11 00	- 58 0	
402	"	" "	"	Cluster	10 31	- 57 30	
403	4833	17 0	- 35	Cluster	16 55	- 37 32	
404	"	" "	"	Cluster	16 46	- 39 15	
405	4888	12 18	- 62	Cluster	12 47	- 59 45	
406	4909	8 0	- 20	Neb?	8 1	- 20 50	
407	4974	8 0	- 20	Neb?	8 3	- 19 22 45	
408	4984	18 20	- 45°	Cluster.	18 1	- 43 50	
409	"	" "	"	~~Neb.~~ Cl.?	18 26	- 42 32	
410	4990	18 20	- 45	Cluster	18 1	- 43 45	
411	4992	13 40	- 25	Neb.?	13 32	- 29 20	
412	4993	14 0	- 40	Neb.?	13 52	- 39 30	
413	4994	8 40	- 70	Neb.?	8 30	- 66 40	
414	4995	8 30	- 60	Cluster	7 57	- 60 30	
415	4996	9 30	- 60	Cluster	9 24	- 56 30	
416	"	"	"	Cluster	9 59	- 59 30	
417	5001	10 30	- 60	Cluster	~~10 2~~ 9 59	- 59 25	
418	"	" "	"	Cluster	10 23	- 57 10	
419	"	" "	"	Cluster	10 32	- 57 45	
420	"	" "	"	Cluster	11 4	- 58 0	
421	"	" "	"	Cluster	10 40	- 59 5	
422	5003	11 0	- 55	Cluster	10 32	- 57 45	

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Description.

Coarse Cl. of moderately br. stars 1.00 cm.
Coarse Cl. of ft. stars 0.6 cm.
Coarse Cl. of moderately ft. stars 0.6 cm.
Fine close cluster of mod. br. stars 0.2 cm.
Fine close Cluster of ~~mod~~ very ft. stars 0.05 cm.
Coarse Cluster 1.0 cm.
Coarse Cluster of mod. ft. stars 0.7 cm.
Coarse Cluster of mod. ft. stars 0.8 cm.
Coarse Cluster of mod. br. stars 0.7 cm.
Coarse Cluster of mod. br. stars 1.30 cm.
Small Cl. of mod. br. stars 0.2 cm.
Cluster of mod. br. stars 0.5 cm.
Cluster of mod. br. stars 0.2 cm.
Small Cluster of mod. br. stars 0.2 cm,
Defect Small patch of nebulosity, 0.05 cm. Not seen on Plate 4909
Defect. Star surrounded with nebulosity Not seen on Plate 4974
Close Cluster of faint stars, 0.06 cm.
Very ft. close Cl. 0.02? Defect. Not seen on Plate 4984
Close Cluster of faint stars with bright star in centre 0.10 cm.
Defect? * faint star surrounded with nebulosity
Star surrounded with nebulosity
Faint star surrounded by nebulosity
Coarse Cluster of moderately bright stars 1.00 cm.
Coarse Cluster of faint stars 0.6 cm.
Coarse Cluster of Moderately bright stars 1.1 cm.
Coarse Cluster of moderately bright stars 1.1 cm.
Small Coarse Cluster 0.3 cm.
Fine Cluster of bright stars. 0.3 cm.
Coarse Cluster of moderately bright stars. 1.4 cm.
Region of nebulosity & Cluster 2.0 cm.
Fine Cluster of bright stars. 1.3 cm.

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Objects of Interest on Southern Chart Plates.

No.	Plate No.	Region	Object	R.A. 1900	Dec.	Note
#23	5003	11h 0 − 55°	Cluster	10 40	−59 5	
#24	"	" " "	Cluster	11 03	−58 0	
#25	5006	17 40 − 25	Cluster	17 58	−24 25	
#26	5008	8 30 − 60	Cluster	7 56	−60 30	
#27	5009	8 20 − 35	Cluster	8 09	−37 15	
#28	5010	8 40 − 30	Cluster?	8 39	−32 50	
#29	5012	9 0 − 55	Cluster	9 24	−56 30	
#30	5057	9 20 − 50	Cluster	9 27	−52 20	
#31	5060	13 20 − 50	Cluster	13 21	−46 58	
#32	5071	10 40 − 65	Cluster	11 13	−62 5	
#33	"	" " "	Cluster	11 16	−62 58	
#34	"	" " "	Cluster	10 38	−64 30	
#35	"	" " "	Cluster	10 41	−63 50	
#36	5108	9 0 − 55	Cluster	9 25	−56 30	
#37	5134	11 30 − 60	Cluster	11 02	−58 10	
#38	"	" " "	Cluster	11 8	−59 50	
#39	"	" " "	Neb.?	11 9	−60 45	
#40	"	" " "	Cluster	11 32	−61 4	
#41	"	" " "	Cluster	12 2	−60 45	
#42	"	" " "	Cluster	11 13	−62 10	
#43	"	" " "	Cluster	11 34	−62 50	
#44	"	" " "	Cluster	11 15	−62 58	
#45	5136	13 20 − 30	Neb.?	13 32	−29 25	*
#46	5151	17 40 − 35	Cluster	17 34	−32 10	
#47	"	" " "	Cluster	17 47	−34 45	
#48	5152	17 0 − 45	Cluster	16 47	−41 40	
#49	5156	12 20 − 25	Cluster	12 34	−26 5	
#50	5178	10 20 − 45	Cluster	10 13	−45 45	
#51	5199	11 0 − 55	Cluster	10 32	−57 45	
#52	"	" " "	Neb.	10 34	−58 15	
#53	"	" " "	Neb.	10 40	−59 30	

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1882phae.proj..865F

Description

Coarse Cluster of moderately bright stars 2.0 cm.
Region of Nebulosity & Clusters, 2.0 cm.
Coarse Cluster with Nebulosity. 0.5 cm.
Coarse Cluster of moderately bright stars, 1.0 cm.
Coarse Cluster of faint stars. 1.0 cm.
Close Cluster ? 0.1 cm.
Coarse Cluster of faint stars 0.5 cm.
Coarse Cluster of faint stars. 0.3 cm.
Fine close Cluster of faint stars ? 0.4 cm.
Coarse Cluster of faint stars. 0.5 cm.
Cluster of faint stars. 0.2 cm.
Coarse Cluster of very bright stars. 2.00 cm.
Coarse Cluster of faint stars. 0.4 cm.
Coarse Cluster of faint stars, 0.6 cm.
Coarse Cluster of mod. br. stars, 1.3 cm.
Coarse Cluster of Mod. br. stars 1.2 cm.
Patch of Nebulosity surrounding stars, 0.2 cm.
Fine Cluster of bright stars. 0.6 cm.
Small Cluster of bright stars 0.4 cm.
Coarse Cluster of faint stars. 0.6 cm
Coarse Cluster of mod. br. stars 0.6 cm.
Small cluster of faint stars 0.2 cm
* Faint star surrounded by nebulosity. Same as 411 ?
Coarse Cluster of mod. br. stars. 0.6. cm.
Coarse Cluster of br. stars. 1.5 cm.
Cluster of mod. br. stars. 0.3 cm.
Fine close cluster of faint stars. 0.1 cm.
Close cluster of faint stars 0.2 cm.
Close Clusters of br. stars with Nebulosity 0.5 cm.
Nebulosity surrounding Stars. 0.3 cm
Region of Neb. and Clusters. 2.4 cm.

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Objects of Interest on Southern Chart Plates

1900 [illegible]

No.	Plate No.	Region h m s	Object	R.A.	Dec.	No. N.G.C.
454	5199	11 0 – 55	Nebulosity	10 49	– 58 20	
455	"	" " "	Cluster	11 2	– 58 15	
456	5208	10 0 – 50	Cluster	10 13	+46 0	
457	5227	13 36 – 45	Nebulosity	13 19	– 42 30	
458	"	" " "	Cluster	13 21	– 46 59	
459	5234	11 40 – 25	Cluster?	11 38	– 21 10	
460	"	" " "	Cluster?	11 41	– 21 50	
461	"	" " "	Cluster?	11 39	– 22 10	
462	5235	12 40 – 70	Cluster	12 53	– 70 20	
463	5244	16 20 – 45	Cluster	16 18	– 40 30	
464	"	" " "	Cluster	16 47	– 41 45	
465	"	" " "	Cluster	16 33	– 43 10	
466	"	" " "	Cluster	16 39	– 46 45	
467	"	" " "	Cluster	16 26	– 49 0	
468	5245	18 20 – 25	Cluster	18 30	– 23 59	
469	"	" " "	Cluster	18 18	– 24 57	
470	5250	10 0 – 55	Cluster	10 23	– 57 15	
471	"	" " "	Cluster	10 32	– 57 50	
472	"	" " "	Cluster	9 59	– 59 35	
473	"	" " "	Neb.	10 34	– 58 15	
474	"	" " "	Neb.	10 40	– 59 30	
475	5251	10 30 – 60	Cluster	10 23	– 57 10	
476	"	" " "	Cluster	10 32	– 57 45	
477	"	" " "	Neb.	10 33	– 57 10	
478	"	" " "	Cluster	9 59	– 57 40	
479	"	" " "	Neb	11 1	– 58 20	
480	"	" " "	Cluster	10 40	– 59 0	
481	"	" " "	Neb.	10 41	– 60 59	
482	"	" " "	Neb.	11 7	– 60 59	
483						
484						

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Description.

Nebulosity surrounding two bright stars
Coarse Cluster of moderately bright stars.
Cluster of Very faint Stars, 0.2 cm.
Small patch of nebulosity - divided in Centre,
Co Centaur? Fine close Cluster of mod. ft. stars. 0.7 cm.
Defect? Close Cluster of ft stars. 0.1 cm.
" ? Close Cluster of ft. stars 0.04 cm.
" ? Close Cluster of ft. stars 0.02 cm.
Cluster of faint stars. 0.1 cm.
Coarse Cluster of mod. br. stars. 0.7 cm.
Coarse Cluster of mod. br. stars. 0.4 cm.
Coarse Cluster of mod. ft. stars, 0.4 cm.
Coarse Cluster of mod. ft. stars, 0.3 cm.
Coarse Cluster of ft. stars
Fine Cluster of faint stars. 0.4 cm.
Close Cluster of faint stars. 0.15 cm.
Coarse Cluster of mod. ft. stars. 0.3 cm.
Cluster of mod. br. stars. 0.3 cm.
Coarse Cluster of mod. br. stars, 1.20 cm.
Nebulosity surrounding stars.
Wide spread nebulosity
Cluster of mod. br. stars. 0.2 cm.
Close Cluster of br. stars, 0.25 cm.
Nebulosity surrounding stars.
Coarse Cluster of mod. br. stars. 1.20 cm.
Wide spread nebulosity.
Coarse Cluster of mod. br. stars
Faint patch of nebulosity -
Faint patch of nebulosity -

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Objects of Interest on Southern Chart Plates.

No.	Plate No.	Region	Object	R.A. 1900	Dec.	Magn.
485	5257	19h 40m −35°	Cluster	19 34	−31 10	
486	5265	12 40 −30	Cluster	12 34	−26 10	
487	5266	18 52 −25°	Neb?	18 51	−20 55	
488	"	" " "	"	18 56	−21 59	
489	"	" " "	"	18 38	−24 30	
490	"	" " "	"	18 53	−24 30	
491	"	" " "	"	19 1	−26 20	
492	"	" " "	"	19 1	−27 20	
493	"	" " "	"	18 57	−27 40	
494	"	" " "	"	19 8	−28 25	
495	5279	12 0 −55	Cluster	11 45	−55 5	
496	~~5306~~ 5274	13 30 −45	Cluster	13 21	−46 58	
497	5311	18 0 −50	Cluster	18 11	−52 15	
498	"	" " "	Cluster	17 33	−53 40	
499	5333	16 12 −25	Cluster	16 11	−22 45	
500	"	" " "	Cluster	16 17	−26 20	
501	5336	17 0 −25	Cluster & Neb.?	16 58	−24 30	
502	"	" " "	Cluster	16 56	−26 10	
503	"	" " "	Cluster	17 4	−26 30	
504	5337	17 0 −35	Cluster	16 58	−37 50	
505	"	" " "	Cluster	16 49	−39 20	
506	"	" " "	Cluster	16 55	−39 40	
507	5338	17 40 −25°	Nebulosity	17 57	−22 40	
508	"	" " "	Cluster	17 58	−24 25	
509	"	" " "	Cluster	17 57	−27 55	
510	5373	15 40 −35	Cluster	15 39	−37 30	
511	5374	16 20 −25	Cluster	16 17	−22 45	
512	"	" " "	Cluster	16 21	−25 45	
513	"	" " "	Cluster	16 17	−26 20	
514	5392	17 0 −25	Cluster	16 59	−22 30	
515	"	" " "		16 58	−24 40	

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Description

Fine Cluster of faint stars 0,2 cm.
Fine close Cluster of ft. stars 0.1 cm.
Defect? Faint nebulosity
" " "
" " "
" " "
" " "
" " "
" " "
" " "
Coarse Cluster of faint stars. 0,3 cm.
ω Centauri? Fine Cluster of faint stars. 0,4 cm.
Cluster of faint stars. 0.1 cm.
Close Cluster of faint stars. 0,3 cm.
Close Cluster of faint stars. 0.1 cm.
Coarse Cluster of faint stars. 0.4 cm (Fine).
Nebulosity surrounding star?
Cluster of faint stars. 0.15 cm.
Cluster of faint stars 0.05 cm.
Coarse Cluster of mod. ft. stars. 0.6 cm.
Coarse Cluster of mod. ft. stars. 0,3 cm.
Coarse Cluster of ft. stars. 0.3 cm.
Wide spread nebulosity.
Coarse Cluster of mod. br. stars mv. in neb.
Coarse Cluster of ft. stars. 0.25 cm.
Close Cluster of ft. stars. 0.1 cm.
Fine close cluster of ft. stars. 0.1 cm.
Cluster of faint stars. 0,15 cm.
Coarse Cluster of faint stars. 0.5 cm. (Fine)
Cluster of ft. stars. 0.04 cm.
Cluster of ft. stars. 0.06 cm.

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Objects of Interest on Southern Chart Plates.

1900.00

No.	No. Plate	Region	Object	R.A.	Dec.	No. N.G.C.
516	5392	17° 0 – 25°	Cluster	16 57	– 26 10	
517	"	" " "	Cluster	17 4	– 26 30	
518	"	" " "	Cluster	17 9	– 29 30	
519	"	" " "	Cluster?	16 55	– 30 0	
520	5397	17 40 – 35	Neb.	17 57	– 30 0	
521	"	" " "	Cluster	17 44	– 30 10	
522	"	" " "	Cluster	17 34	– 32 15	
523	"	" " "	Cluster	17 37	– 32 20	
524	"	" " "	Cluster	17 28	– 32 30	
525	"	" " "	Cluster	17 47	– 34 45	
526	"	" " "	Cluster	17 50	– 35 15	
527	"	" " "	Neb?	17 43	– 37 0	
528	"	" " "	Cluster	17 33	– 36 57	
529	5401	12 0 – 75	Neb.?	12 54	– 70 20	
530	5402	13 0 – 55°	Cluster	12 34	– 59 0	
531	"	" " "	Cluster	12 48	– 59 50	
532	5404	15 0 – 65°	Cluster	14 56	– 38 33	
533	"	" " "	Cluster	14 38	– 35 10	
534	5405	17 0 – 45	Cluster	16 48 16 47	– 40 40 – 41 40	
535	"	" " "	Cluster	16 47	– 41 40	
536	"	" " "	Cluster	17 12	– 42 56	
537	"	" " "	Cluster	16 54	– 44 30	
538	"	" " "	Cluster?	17 1	– 45 30	
539	"	" " "	Cluster?	17 2	– 46 15	
540	"	" " "	Cluster?	16 59	– 46 40	
541	"	" " "	Cluster?	16 50	– 46 30	
542	"	" " "	Cluster?	17 0	– 46 55	
543	"	" " "	Cluster?	17 4	– 47 10	
544	"	" " "	"	16 57	– 47 30	
545	"	" " "	"	16 59	– 48 10	
546	"	" " "	"	16 59	– 48 20	

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1882phae.proj..865F

Description.

Fine close Cluster of faint stars. 1.0 cm
Fine close Cluster of faint stars. 0.07 cm.
Cluster of ft. stars. 0.05 cm.
Close Cluster? 1.0 cm.
Faint star surrounded by nebulosity.
Coarse Cl. of ft. stars. 0.3 cm.
Coarse Cl. of mod. br. stars. 1.0 cm.
Coarse Cl. of mod. ft. stars. 1.0 cm.
Cluster of br. stars. 0.2 cm.
Coarse Cluster of br. stars. 1.4 cm.
Coarse Cluster of ft. stars. 0.6 cm.
Star surrounded by nebulosity.
Coarse Cluster of faint stars. 0.3 cm.
~~Two~~ faint stars surrounded by nebulosity.
Coarse Cluster of ft. stars. 0.3 cm.
Cluster of Br. stars. 0.3 cm.
Coarse Cluster of fb. stars. 1.1 cm
Coarse Cluster of fb. stars. 0.5 cm
Coarse Cl. of mod. br. stars ~~0.5 cm~~ 1.70 cm
Close Cl. of br. stars 0.5 cm
Coarse Cl. of br. stars 0.3 cm.
Coarse Cl. of ft. stars 0.5 cm.

Defect?
Defect. Very ft. & small
Defect 3. very ft. & small
" " " " "
" " " " "
" " " " "
" " " " "
" " " " "
" " " " "

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Objects of Interest on Southern Chart Plates

No.	Plate No.	Region			Object	R.A. 1900	Dec.	N.G.C. No.
547	5405	17	0	-45	Cluster?	17 18	-48 25	
548	"	"	"	"	Cluster?	16 58	-49 0	
549	"	"	"	"	Cluster ?	17 17 18	-50 0	
550	5406	17	40	-25	Cl. & neb.	17 57	-22 45	
551	"	"	"	"	Cl. & neb.	~~16 38~~ 17 58	~~-47 0~~ -24 25	
552	"	"	"	"	Cluster	17 58	-28 0	
553	5407	17	40	-35	Cluster	17 44	-30 15	
554	"	"	"	"	Cluster	17 40	-31 35	
555	"	"	"	"	Cluster	17 34	-32 10	
556	"	"	"	"	Cluster	17 47	-34 50	
557	"	"	"	"	Cluster	17 50	-35 20	
558	"	"	"	"	Cluster	17 24	-36 ~~50~~ 45	
559	"	"	"	"	Cluster	17 33	-36 55	
560	"	"	"	"	Cluster	17 43	-37 20	
561	5412	12	0	-65	Cluster	12 4	-60 50	
562	"	"	"	"	Cluster	~~12~~ +0 11 32	-61 5	
563	"	"	"	"	Cluster	11 43	-61 50	
564	"	"	"	"	Cluster	11 48	-62 55	
565	"	"	"	"	Cluster	11 34	-62 50	
566	5417	13	0	-45	Cluster	13 21	-46 55	
567	5418	17	0	-35	Neb?	16 55	-29 57	
568	"	"	"	"	Cluster	16 57	-38 0	
569	"	"	"	"	Cluster	16 49	-39 20	
570	5419	14	30	-60	Cluster	14 20	-59 10	
571	"	"	"	"	Cluster	14 22	-60 20	
572	5420	18	20	-45	Cluster	18 1	-43 30	
573	5421	19	0	-35	Cluster	18 53	-36 ~~50~~ 45	
574	5476	17	0	-35	Cluster	16 58	-37 50	
575	"	"	"	"	Cluster	16 49	-39 20	
576	"	"	"	"	Cluster	16 56	-39 40	
577	5482	19	0	-35	Cluster	18 53	-36 45	

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Description.

Defect? Very ft. and small

" " " " "

Coarse Cl. of ft. stars 0.4 cm.
Cluster of br. stars & nebulosity - 1.2 cm.
Coarse Cl. of br. stars surrounded by nebulosity. 0.8 cm.
Faint Stars. 0.2 cm.
Coarse Cluster of ft. stars. 0.2 cm.
Coarse Cluster of ft. stars. 0.3 cm.
Coarse Cl. of mod. br. stars 1.0 cm.
Coarse Cl. of br. stars. 1.4 cm.
Coarse Cl. of ft. stars 0.5 cm.
Coarse Cl. of ft. stars 0.3 cm.
Coarse Cl. of ft. stars 0.2 cm.
Defect? Close Cl. of ft. stars 0.06 cm.
Coarse Cl. of ft. stars 0.2 cm.
Coarse Cl. of br. stars 0.3 cm.
Defect? Close Cl. of ft. stars. 0.04 cm.
" " " " " 0.03 cm
Coarse cluster of mod. br. stars 0.6 cm.
Fine Close Cl. of ft. stars 0.4 cm. α Centauri?
Nebulosity surrounding star?
Coarse Cl. of mod. br. stars. 0.5 cm.
Coarse Cl. of ft. stars. 0.2 cm.
Cl. of ft. stars 0.1 cm.
Coarse Cl. of ft. stars. 0.4 cm.
Fine Close Cluster 0.1 cm *
Fine Close Cluster of ft. stars. 0.12 cm.
Coarse Cl. of Mod. br. stars. 0.5 cm.
Coarse Cl. of mod. br. stars. 0.4 cm.
Coarse Cl. of ft. stars. 0.2 cm.
Fine Close Cl. of ft. stars 0.1 cm.

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Objects of Interest on Southern Chart Plates

No.	Plate No.	Region	Object	R.A. 1900 h m	Dec. ° ′	N.G.C. No.
578	5584	13 0 -45	Nebulosity	13 20	- 42 15	
579	"	" " "	Cluster	13 21	- 46 59	
580	5574	18 10 -50	Cluster	18 11	- 52 15	
581	5592	0 20 -73	Cluster	0 20	- 72 35	
				1 0	- 71 20	
582	5593	0 50 -73	Cluster	~~0 20~~	~~- 72 35~~	
583	"	" " "	Cluster	0 20	- 72 35	
584	"	" " "	Cluster	1 2	- 72 35	
585	"	" " "	Cluster	0 57	- 72 40	
586	"	" " "	Cluster	0 54	- 73 0	
587	5595	23 20 -70	Cluster	0 20	- 72 35	
588	5627	16 40 -45	Cluster	16 56	- 39 40	
589	"	" " "	Cluster	16 47	- 41 45	
590	"	" " "	Cluster	16 33	- 43 10	
591	5630	16 40 -45	Cluster	16 47	- 41 46	
592	"	" " "	Cluster	16 33	- 43 10	
593	"	" " "	Cluster	16 53	- 44 30	
594	"	" " "	Cluster	16 20	- 49 0	
595	5646	21 40 -25	Cluster	21 34	- 23 ~~40~~ 35	
596	5647	21 40 -25	Cluster	21 34	- 23 35	
597	5649	17 0 -35	Cluster	16 54	- 29 55	
598	"	" " "	Cluster	16 58	- 37 50	
599	"	" " "	Cluster	16 49	- 39 25	
600	"	" " "	Cluster	16 55	- 39 40	
601	5653	3 30 -60	Cluster	3 9	- 55 26	
602	5658	17 0 -35	Cluster	16 55	- 30 0	
603	"	" " "	Cluster	16 55	- 38 0	
604	"	" " "	Cluster	16 49	- 39 20	
605	5678	22 20 -25	Cluster	22 13	- ~~25 50~~ 25 30	
606	"	" " " "		22 11	- ~~25 20~~ 25 24	
607	"	" " " "		22 12	- 25 15	
608	"	" " " "		22 20	- 25 0	

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Description.

Small patch of nebulosity
Fine close Cl. of ft. stars 0.6 cm. ω Centauri.
Very ft. cluster, 0.03 cm.
Fine close cluster of ft. stars 0.3 cm. Toucanus *
Fine close cluster of ft. stars 0.15 cm.
Fine close cluster of ft. stars, 0.4 cm.
Coarse Cl. of ft. stars 0.4 cm.
Small Cl. with nebulosity 0.04 cm.
Small Cl. 0.03 cm.
Fine close cluster 0.3 cm *
Coarse Cl. of ft. stars 0.2 cm.
Cl. of br. stars, 0.4 cm.
Coarse Cl. of ft. stars, 0.2 cm
Cl. of br. stars, 0.4 cm
Coarse Cl. of ft. stars, 0.2 cm.
Coarse Cl. of ft. stars, 0.5 cm.
Fine Coarse Cl. of ft. stars 0.2 cm. *
Close Cl. 0.05 cm.
Fine Close Cl. 0.05 cm.
Fine Close Cl. 0.1 cm
Coarse Cl. of mod. br. stars 0.7 cm.
Coarse Cl. of mod. br. stars, 0.5 cm.
Coarse Cl. of ft. stars, 0.3 cm.
Fine Close Cluster, 0.05 cm.
Fine Close Cluster 0.05 cm.
Coarse cluster of mod. br. stars, 0.6 cm.
Coarse Cluster of mod. br. stars, 0.4 cm.
Defect? Very ft. close Cl.
" ? Very ft. close Cl.
" ? Very ft. close Cl.
" ? Very ft. close Cl.

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Objects of Interest on Southern Chart Plates.

No.	Plate No.	Region	Object	R.A. (1900)	Dec.	N.G.C. No.
609	5678	22h 20m -25°	cluster	22h 16m	-24° 30'	
610	"	" " "	"	22 18	-23 55	
611	5688	1 0 -25	cluster	0 48	-27 5	
612	5692	4 0 -55	neb?	4 11	-58 0	
613	"	" " "	"	4 21	-57 15	
614	"	" " "	"	4 14	-56 0	
615	"	" " "	"	4 14	-55 50	
616	"	" " "	"	4 18	-55 10	
617	5704	23 0 -35°	neb?	23 19	-43 15	
618	"	" " "	neb?	22 53	-45 50	
619	"	" " "	neb?	22 53	-46 35	
620	5710	5 30 -69	Clusters	5 28	-69 10	
621	5715	23 48 -73	Cluster	1 0	-71 20	
622	"	" " "	Cluster	0 20	-72 40	
623	"	" " "	"	1 13	-72 2	
624	"	" " "	"	0 56	-72 45	
625	"	" " "	"	0 57	-72 55	
626	"	" " "	"	1 4	-72 50	
627	"	" " "	"	1 5	-72 55	
628	"	" " "	"	0 53	-73 0	
629	"	" " "	"	1 1	-73 25	
630	"	" " "	"	1 6	-73 26	
631	"	" " "	"	0 49	-73 38	
632	"	" " "	"	0 36	-73 57	
633	"	" " "	"	1 13	-73 35	
634	"	" " "	"	1 28	-74 4	
635	5725	0 52 -73	Cluster	0 20	-72 35	
636	"	" " "	"	1 0	-71 20	
637	"	" " "	"	0 48	-73 30	
638	5734	0 22 -35	Neb.	0 25	-33 55	
639	"	" " "	"	0 22	-35 10	

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Description.

Defect? Very ft. close Cl.
" ? Very ft. Close Cl.
Cluster of faint stars. a15 cm.
Star surr. with neb.
Star surr. with neb
Star surr. with neb.
Star surr. with neb.
Star surr. with neb. (Spiral)
Defect? Bi. star surr. with neb.?
Three ft. stars surr. with neb.?
Defect? Faint patch of neb.?

Magellanic Cloud.

Fine close cluster. 1 mm. *
Fine cluster like ω Centauri 5 mm. *
Small Close Cl.
Small Close Cl. 1 mm. *
Small Close Cl.
Small Clos Cl.
Small Close Cl.
Small close Cl. 1 mm. *
Small close Cl.
Small close Cl
Small close Cl.
Small close Cl.
Wide spread Cluster
Small Close Cl.
Fine cluster like ω Centauri. 5 mm.
Fine close Cluster 1 mm.
Magellanic Cloud. Make special examination.
Defect? Nebulosity surr. 5 surrounding star.
" ? Nebulosity surr. surrounding star

Magellanic Cloud.

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Objects of Interest on Southern Chart Plates

No.	Plate No.	Region		Object	R.A. 1900	Dec.	N.G.C.
					h m	° ′	
640	5735	0	43 - 20	Neb.	0 35	- 17 50	
641	"	"	" "	Neb.	0 48	- 18 25	
642	"	"	" "	Neb.	0 28	- 21 0	
643	"	"	" "	Neb.	0 31	- 21 50	
644	5736	16	43 - 45	Cluster	16 47	- 41 45	
646	~~3782~~ 5740	23	58 - 75	Cluster	0 20	- 72 35	
646	"	"	" "	Cluster	0 52	- 73 30	
647	5741	0	22 - 73°	Cluster	0 0	- 71 24	
648	"	"	" "	Cluster	0 ~~20~~ 20	- 72 35	
649	"	"	" "	Cluster	0 52	- 73 30	
650	5745	5	30 - 69		5 28	- 69 0	
651	5753	3	42 - 36.6	Neb ?	3 32.2	- 35 15	
652	"	"	" "	"	3 32.8	- 35 45	
653	"	"	" "	"	3 33	- 35 55	
654	"	"	" "	"	3 34.5	- 35 50	
655	"	"	" "	"	3 35	- 35 59	
656	"	"	" "	"	3 32.4	- 36 15	
657	"	"	" "	"	3 33	- 36 24	
658	"	"	" "	"	3 29.8	- 36 34	
659	"	"	" "	?	3 54	- 36 25	
660	5766	5	21 - 20	Cluster	5 20	- 24 45	
661	5772	4	48 - 80	Neb ?	5 20	- 80 0	
662	"	"	" "	Neb ?	5 14	- 80 0	
663	5784	2	58 - 45°	Neb ?	3 14	- 41 30	
664	5789	0	38 - 70°	Cluster	1 0	- 71 20	
665	"	"	" "	Cluster	0 20	- 72 35	
666	"	"	" "	Cl and Neb	0 56	- 73 30	
667	5814	4	38 - 69.5	Neb ?	5 9	- 68 58	
668	"	"	" "	Neb ?	5 10	- 69 4	
669	"	"	" "	Neb ?	4 58	- 69 35	
670	"	"	" "	Cluster ?	4 46	- 69 40	

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Nebulosity surrounding star
Diject? Neb. surrounding star
Neb. surrounding star
Neb. surrounding star.
Coarse Cluster of bright stars 4.5 mm.
Fine close cluster like ω Centauri .4 mm.
Part of Magellanic Cloud.
Fine close Cluster .15 m
Fine close Cluster .50 m
Magellanic Cloud.
Magellanic Cloud. Make special examination
Star surrounded with nebulosity ?
" " " "
" " " "
" " " "
" " " "
" " " "
" " " "
" " " "
Two stars nearly superposed. or remarkable object?
Close Cluster. 1 mm.
Star surrounded with nebulosity
Star surrounded with nebulosity.
Star surrounded with nebulosity.
Fine close Cluster 2.1 mm.
Fine close cluster 1.25 mm.
Magellanic Cloud
Star surrounded with nebulosity
Star surrounded with nebulosity
Star surrounded with nebulosity
Cluster of faint stars 1 1.05 mm.

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Objects of Interest on Southern Chart Plates.

No.	Plate No.	Region	Object	R.A. 1900 Epoch	Dec.	N.G.C.
671	5835	17h 41m -35°.2	cluster	17 34	-32 10	
672	"	" " "	cluster	17 38	-32 20	
673	"	" " "	cluster	17 47	-34 50	
674	"	" " "	cluster	17 50	-35 15	
675	"	" " "	Neb ?	17 ~~43 - 34 50~~ 43	- 34 50	
676	"	" " "	Neb ?	17 ~~36 - 35 30~~ 36	- 35 30	
677	"	" " "	Neb ?	17 ~~43 - 37 0~~ 43	- 37 0	
678	5833	17 49	-35 Cluster	17 34	- 32 10	
679	"	" " "	cluster	17 47	- 34 50	
680	"	" " "	cluster	17 50	- 35 20	
681	"	" " "	cluster	17 43	- 37 0	
682						
683						
684						
685						
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Description

Coarse Cl. of mod. br. stars 0,7,0 mm.
Coarse Cl. of ft. stars 0,5,0 mm.
Coarse Cl. of br. stars. 1,5,0 mm
Coarse Cl. of ft stars 8. mm
Star surrounded with nebulosity ?
Star surrounded with nebulosity ?
Star surrounded with nebulosity ?
Coarse Cl. of mod br. stars 7. mm
Coarse Cl. of br. stars 15, mm
Coarse Cl. of ft. stars 8, mm.
Fine close cluster 0,5 mm.

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January 27, 1912.

List of Clusters and Nebulae on A.C. Plates.

	Pl. No.	Object.	Design	R.A.	Dec.
C	3136	Neb.			
	3118	Cl.			
	2958	Cl.			
	3018	Cl.			
	3109	Neb.			
	2856	Neb.			
	2900	Cl.			
	2399	Cl,			
	"	Cl.			
	"	Cl.			
	"	Cl			
	3201	Cl.			
	3119	Cl.			
	"	neb?			
	2397	Cl.			
	3110	Cl.			
	2862	Neb			
	2893	Cl.			
	2382	Cl			
	"	Cl			
	"	neb			
	"	neb			
	2305	Cl.			

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Neb. in Androm.
Cl. in Perseus

Neb. in Androm.

Pleiades

Praesepe
Pleiades

Pleiades
Pleiades.
Neb. in Orion

Defect?
Defect?

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List of Coarse Clusters on Spectrum Plates (5" Prism)

No.	No. Plate	R.A.	Dec.	
I	7487	.	.	Small coarse cluster.
B	6621			Small coarse Cluster
B	6762			Small close cl. inside larger coarse cl.

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1992phae.proj..85F

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Objects of Interest on Southern Spectrum Plates.

Order of Discovery from Photo. Plates		No.	Plate No.	V	H	Object	A.G.C.	R.A. (1875 Pos.) h m	Dec. ° ′	Magn
	✓	1	3396	19.1	12.8	III Type	16962	12 20.6	-58 18	6.4
No.6	✓	2	3396	6.3	21.6	Bright line	17840	13 0.1	-64 38	6
" "	"	3	3397	~~10.8~~ 15.8	~~12.5~~ 10.8	" "	"	" "	" "	"
	*	4	3438	23.2	15.5	" " (1855)	Dm-21° 4864	17 59.8	-21 16	7.8
	*	5	3373			" " (1853)	Dm-22° 3601	13 21.8	-22 32	var.
	✓	6	3443	14.2	13.5	IV Type	29232	21 11.9	-45 33	6.0
	✓	7	3416	17.7	21.7	IV Type	~~CBM -48° 7401~~	~~12 14.3 -48 53~~		—
	"	8	3445	7.6	21.7	" "	CBM -48° 7401	12 19.2 -48 53		"
	✓	9	3447	13.1	16.3	III "	20052	14 40.9	-36 7	6.8
No.5	✓	10	3450	4.6	13.0	Bright line	23416	17 10.3	-45 30	7 1/4
No.7	✓	11	3487	22.7	17.6	" "	22748	16 42.8	-41 1	5.9
No.1	✓	12	"	21.5	17.8	" "	22763	16 43.6	-41 38	7 1/2
		13	"	21.6	18.1	" " ?	22782	16 44.0	-41 34	7 3/4
		14	"	21.1	18.3	" " ?	22798	16 44.7	-41 55	9 3/4
	*	15	"	21.8	18.6	" "	22827	16 45.6	-41 37	7
No.8	✓	16	"	22.9	18.9	" "	22843	16 46.3	-40 57	6.4
No.1	✓	17	3488	17.2	18.1	" "	22763	16 43.6	-41 38	7 1/2
	*	18	"	17.2	18.9	" "	22827	16 45.6	-41 37	7
No.5	✓	19	3489	4.5	13.6	" "	23416	17 10.3	-45 30	7 1/4
No.2	✓	20	3566	17.5	17.4	" "	14626	10 36.5	-59 1	7 1/4
No.3	✓	21	"	16.8	18.0	" "	14684	10 39.1	-59 28	6.9
	*	22	"	17.5	18.4	" "	14720	10 40.2	-59 2	var.
	*	23	"	14.5	24.2	" "	15305	11 4.8	-60 18	8
	*	24	"	19.2	17.6	" "	Z.C. 2684 ~~14655~~	10 36.8 ~~10 37.8~~	-58 7 ~~-58 15~~	8 3/4 ~~10 1/4~~
No.4	✓	25	"	5.6	22.3	" "	15220	11 1.3	-64 50	8 1/4
No.1	✓	26	3609	12.0	15.1	" "	22763	16 43.6	-41 38	7 1/2
	*	27	"	12.1	15.7	" "	22827	16 45.6	-41 37	7
No.7	✓	28	"	13.3	14.9	" "	22748	16 42.8	-41 1	5.9
No.8	✓	29	"	13.5	16.1	" "	22843	16 46.3	-40 57	6.4
No.9	✓	30	"	19.6	19.8	" "	23073	16 55.5	-37 40	7.1

An Asterisk is used to designate objects already known. Objects checked have been published in the Nachrichten

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1892phae.proj..865F

Remark. Description

Measured on Page 108

I Draconis "Byline not 7." Rayt class?

"O.A. 17681.

R. Hydrae. = Dunlop 141

var ? Also measured on Page 166

" Fluc bright?

~~Scorpii~~

St. 9168

St. 9168

η Argus.

St. 9168

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates. B

Order of Discovery from Photo Plates		No.	Plate No.	V	H	Object	A.G.C. No.	R.A. (1875 p00) h m	Dec. ° ′	Magn
No 10	✓	31	3609	19.1	19.7	Bright line	23072	16 55.3	-37 58	6.5 ✓
No. 5	✓	32	"	3.9	24.4	" "	23416	17 10.3	-45 30	7¼ ✓
	*	33	3633	9.9	17.0	Mol. (1855)	Dm-22°3601	13 21.8	-22 32	var. ✓
		~~33~~ 34	~~3634~~ 3634			Mol.				
No. 1	✓	34	3637	12.0	14.1	" "	22763	16 43.6	-41 38	7½ ✓
	*	35	"	12.1	14.8	" "	22827	16 45.6	-41 37	7 ✓
No. 7	✓	36	"	13.2	13.8	" "	22748	16 42.8	-41 1	5.9 ✓
No. 8	✓	37	"	13.3	15.0	" "	22843	16 46.3	-40 57	6.4 ✓
No. 9	✓	38	"	19.6	18.6	" "	23073	16 55.5	-37 40	7.1 ✓
No. 10	✓	39	"	19.1	18.6	" "	23072	16 55.3	-37 58	6.5 ✓
No. 5	✓	40	"	3.9	23.3	" "	23416	17 10.3	-45 30	7¼ ✓
		41	"	9.5	14.5	III Type	22803	16 44.8	-42 60	6.6 ✓
	*	42	3673	9.9	15.1	Bright line (1855)	Dm-22°3601	13 21.8	-22 32	var. ✓
No. 5	✓	43	3676	4.3	10.9	" "	23416	17 10.3	-45 30	7¼ ✓
No. 5	✓	44	3681	14.0	11.3	" "	23416	" "	" "	" ✓
No. 1	✓	45	3691	22.2	15.1	" "	22763	16 43.6	-41 38	7½ ✓
	*	46	"	22.3	15.8	" "	22827	16 45.6	-41 37	7 ✓
No. 5	✓	47	"	14.0	24.4	" "	23416	17 10.3	-45 30	7¼ ✓
		48	3902	9.6	8.2	IV Type	23935	17 32.5	-57 39	7.0 ✓
		49	3905	18.5	12.6	III Type	23388	17 9.3	-63 27	7.3 ✓
		50	"	9.1	9.4	III Type	22990	16 6.5	-68 6	7.4 ✓
No. 9	✓	51	3910	9.8	22.5	Bright line	23073	16 55.5	-37 40	7.1 ✓
No. 7	✓	52	"	3.5	17.4	" "	22748	16 42.8	-41 1	5.9 ✓
No. 8	✓	53	"	3.6	18.7	" "	22843	16 46.3	-40 57	6.4 ✓
No. 1	✓	54	"	21.2	17.6	" "	22763	16 43.6	-41 38	7½ ✓
	*	55	"	21.2	18.4	" "	22827	16 45.6	-41 37	7 ✓
No. 1	✓	56	3931	21.2	15.1	" "	22763	16 43.6	-41 38	7½ ✓
	*	57	"	21.3	15.8	" "	22827	16 45.6	-41 37	7 ✓
No. 8		58	"	22.7	16.1	" "	22843	16 46.3	-40 57	6.4 ✓
No. 5		59	"	13.2	24.4	" "	23416	17 10.3	-45 30	7¼ ✓
No. 7		60	"	22.5	15.0	" "	22748	16 42.8	-41 1	5.9 ✓

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Remark.	Description.
	R Hydrae. = Dunér 141
	~~R Hydrae~~
	St. 9168
	R Hydrae = Dunér 141
	St. 9168
	St. 9168
	St. 9168

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Objects of Interest on Southern Spectrum Plates.

B

Order of Discovery from Photo. Plates	No.	Plate No.	x	y	Object	a.G.C. No.	R.A. (1875.000) h m	Dec. ° ′	Magn.	
	61	3935	4.5	11.5	IV Type	29232	21 11.9	-45 33	6.0	✓
	~~62~~	~~3937~~	~~20.2~~	~~18.5~~	~~III Type~~	30913	22 35.2	-43 32	2.2	
No.5	63	3955	14.8	10.5	Bright line	23416	17 10.3	-45 30	7¼	✓
	64	"	14.9	9.5	~~IV Type~~	~~23406~~	Defect.			
No.1	65	3970	2.7	15.1	Bright line	22763	16 43.6	-41 38	7½	✓
	66	"	2.8	15.8	" "	22827	16 45.6	-41 37	7	✓
	67	3971	23.0	13.7	III Type	17048	12 24.2	-56 25	2.0	✓
	68	"	15.2	8 13.3	III Type	16574	12 1.9	-60 9	6.8	✓
No.11	69	4023	20.1	13.1	Bright line?	22268	16 19.3	-57 28	6.6	✓
No.12	70	"	12.2	16.1	Bright line	22520	16 31.4	-61 32	7.2	✓
	71	4033	5.4	13.6	III Type	~~22268~~ 30209	~~16 19.3 -57 28~~ 21 58.6	-40 9	~~6.6~~ 4.7	✓
	72	4034	13.3	20.1	"	~~31264~~ 31267	~~22 53.6 -26 49~~ 22 53.6	-26 18	~~4.3~~ 6.6	✓
	73	"	6.0	12.1	"	30917	22 35.4	-30 1	6.5	✓
	74	4035	8.2	2 13.2	"	377	0 21.7	-33 42	5.2	✓
	75	"	16.3	20.7	"	263	0 15.2	-29 40	5.3	✓
	76	4036	21.8	13.2	"	1323	1 17.7	-31 36	6.1	✓
	77	4037	11.8	17.5	"	1782	1 43.7	-31 41	6.5	✓
	78	4038	20.2	15.4	"	~~24694~~	18 16	-47 32	6.6	✓
	79	4039	16.0	19.5	"	26593	19 17.8	-54 34	5.9	✓
	80	4040	8.8	14.6	"	27496	19 57.8	-53 14	5.5	✓
	80a	"	9.0	14.9	"	27509	19 58.6	-52 56	7.2	✓
	81	4042	6.6	22.4	"	30657	22 22.3	-44 23	4.4	✓
	82	4045	21.0	13.9	"	1345	1 19.1	-42 9	5.8	✓
	83	"	11.2	23.9	"	1864	1 48.6	-46 55	4.8	✓
	84	4090	18.8	13.5	"	26819	19 27.9	-58 15	6.3	✓
	85	"	15.8	19.3	"	27330	19 51.2	-59 43	5.7	✓
	86	"	9.9	15.4	"	~~26998~~ 27509	~~19 35.8 -62 45~~ 19 32.6	-62 20	~~7.2~~ 7.4	✓
	87	"	9.7	21.7	Pec.?	27615	20 3.5	-62 39	7.1	✓
	88	"	3.2	14.1	~~III~~ Type	26851	19 29.5	-66 8	6.5	✓
	89	4091	15.3	15.5	"	27330	19 51.2	-59 43	5.7	✓
	90	"	10.0	9.2	Pec.?	27615	20 3.5	-62 39	7.1	✓
	91	"	8.8	19.5	III Type	28701	20 49.3	-63 21	7¼	✓

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Remark. Description.

~~β. Gruis~~

Defect? Looked for on plate 3637. Not seen. Due to defect on plate 3951. N.V.

Sf. 9168
γ Crucis

λ Gruis

! ν Sculptoris
~~ν Sculptoris~~ ν Sculptoris

Var? Looked on Harv. Is plates
ξ Telescopii
ξ² Gruis

! ψ Pheonicis "

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IV? Type

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IV? Type.

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Objects of Interest on Southern Spectrum B Plates.

Order of Discovery from Photo. Plates	No.	Plate No.	x	y	Object	A.G.C. No.	R.A. (1875 + 00) h m	Dec. ° ′	Magn
	92	4092	18.6	15.1	III Type	27496	19 57.8	−53 14	5.5
	93	"	8.2	7.4	III Type	26819	19 27.9	−58 15	6.3
	94	"	5.8	13.6	III Type	27330	19 51.2	−59 43	5.7
	95	4094	13.8	12.1	2?	31659	23 15.7	−60 44	6.4
	96	4109	14.5	20.1	2?	29336	21 17.5	−70 3	5.9
	97	"	14.0	19.2	IV Type?	29252	21 12.9	−70 16	6.8
	98	"	13.8	17.3	III Type	28995	21 16	−70 38	6.5
	99	"	16.8	13.4	III Type	28430	20 37.4	−69 14	5.7
	100	4110	14.6	6.6	III 2?	29336	21 17.5	−70 3	5.9
	101	"	13.8	6.9	IV Type?	29252	21 12.9	−70 16	6.8
	102	4111	13.2	22.6	III Type	31441	23 3.2	−41 16	6.2
	103	"	7.2	7.7	III Type	30657	22 22.3	−44 23	4.4
	104	4118	20.0	14.6	2?	27615	20 3.5	−62 39	7.1
	105	4119	18.1	22.3	III Type	28915	20 58.7	−73 3	6.5
	106	"	2.8	14.8	III Type	27836	20 12.3	−81 22	6.3
	107	4120	12.0	9.7	III Type	30055	21 51.8	−21 47	6.6
	108	"	12.0	8.2	2? (1855)	Dm-21 6120	21 47.5	−21 49	7.2 (1855)
	109	4170	6.8	9.5	III Type	30657	22 22.3	−44 23	4.4
	110	4171	16.3	10.3	III Type	30657	22 22.3	−44 23	4.4
	111	"	10.4	14.9	III Type	30913	22 35.2	−47 32	2.2
	112	4194	20.2	15.3	III Type	30913	22 35.2	−47 32	2.2
No. 8	113	4223	13.0	18.6	Br. line	~~15220~~ 22843	16 46.3	−40 57	6.4
St 9168 *	114	"	13.0	17.3	Br. line	~~14684~~ 22748	16 42.8	−41 1	5.9
No. 1	115	"	11.8	17.5	Br. line	22763	16 43.6	−41 38	7½
St 9168 *	116	"	11.8	18.3	Br. line	~~14626~~ 22827	16 45.6	−41 37	7
	117	"	9.2	17.9	III Type	22803	16 44.8	−42 50	6.6
	118	4224	20.5	17.7	III Type	26682	19 22.1	−27 14	6
	119	"	19.4	7.6	III Type?	26149	18 69.1	−27 67	3.6
	120	"	16.1	15.5	2?	26582	19 17.2	−29 33	6.1
	121	4225	19.4	7.8	III Type	28918	20 58.8	−32 60	6.7
	122	3367	20.7	18.2	III Type?	17949	13 5.1	−37 8	5.2

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Remark. Description.

... ξ Telescopii ...

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!

! o Pavonis

σ Pavonis

!

var? !

! δ^2 Gruis

Not in N.G.C. or GJ Catalogue.

! δ^2 Gruis

! δ^2 Gruis

!! β Gruis

!! β Gruis

τ Sagittarii

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Objects of Interest on Southern Spectrum Plates. B

	No.	Plate No.	V	H	Object	a 1875	R.A. 1875 Dec.		Magn.	
Nov. 23, 1889	123	3367	16.6	23.4	III Type	18268	13 18.9	-39 6	5.9	V
	124	3369	11.0	9.6	Br. F. line.	18773	13 42.1	-41 51	3.4	V
	125	3371	8.2	22.6	III Type?	21939	16 4.1	-63 22	4.3	V
	126	"	3.9	13.9	III Type	21051	15 25.3	-63 54	4.6	V
	127	3375	11.5	18.4	III Type	21442	15 42.5	-62 14	6.9	V
	128	"	4.2	14.6	III Type?	21051	15 25.3	-63 54	4.6	V
Nov. 24 1889.	129	3390	19.6	22.2	III Type	22393	16 25.3	-77 15	4.5	V
	130	"	18.1	19.1	Rec.	21888	16 1.7	-78 27	5.3	V
	131	"	17.2	20.2	III Type	22170	16 14.3	-78 37	3.9	V
	132	"	18.4	10.4	III Type	19851	14 32.4	-78 31	4.0	V
	133	"	11.4	22.9	III Type	23360	17 19.1	-80 44	6.4	V
	134	"	10.6	12.1	III Type	20104	14 43.2	-82 32	5.9	V
	135	3394	15.4	16.0	Br. F. line	16572	12 1.9	-50 2	2.8	V
*	136	3395	11.9	21.9	III Type	17048	12 24.2	-56 25	2.0	V
	137	3396	19.2	12.8	Rec.	16962	12 20.6	-58 18	6.4	V
	138	"	15.4 17.1 23.0 13.7		2?	17386	12 38.3	-60 18	5.7	V
	139	"	23.0	13.7	III Type	17048	12 24.2	-56 25	2.0	V
	140	"	15.1	8.3	III Type?	16574	12 1.9	-60 9	6.8	V
	141	"	16.4	11.4	2?	16835	12 14.6	-59 43	4.0	V
	142	3397	18.8	21.4	III Type	18920	13 48.6	-63 4	5.7	V
	143	"	17.5	14.1	2?	18202	13 15.6	-63 53	5.3	V
	143a	"	17.6	14.4	Rec.? (1900)→	18232	13 18.6	-63 58	6.3	V
	144	"	13.1	12.8	Rec.?	18039	13 8.8	-66 7	5.5	V
	145	"	7.7	19.0	III Type	18774	13 42.1	-68 47	6.4	V
	146	"	7.2	12.7	III Type	17990	13 6.8	-69 1	6.9	V
	147	"	3.4	10.8	III Type?	17693	12 53.7	-70 52	3.7	V
	148	3405	22.1	9.3	Rec.?	21534	15 46.7	-16 22	4.8	V
	149	"	14.1	15.7	Rec.?	21849	16 0.1	-20 32	4.6	V
	150	"	4.1	13.8	III Type?	21748	15 55.8	-25 31	5.7	V
	151	"	3.8	11.8	Br. F. line?	21638	15 51.3	-25 45	3.4	V
	152	"	3.2	15.8	III Type	21860	16 0.5	-25 59	6.0	V
	153	3416	15.5	16.5	Br. F. line	16572	12 1.9	-50 2	2.8	V

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Remarks	Description
	μ Centauri
	δ Trianq. Aus.
	ε Trianq. Aus.
	ε Trianq. Aus.
	β Apus.
	δ, Apus — Resembling a III Type Spectrum.
	γ Apus
	ζ Apus.
	π² Octāns
	δ Centauri
	γ Crux — Similar to DM + 84° 516
	ι Crux
	γ Crux
	ε Crux
	~~π Centaurus~~
	Centaurus — Entered directly in card cat. as not in books #4 or #6.
	Musca δ
	℘ Libra
	ω² Scorpius
	π Scorpii — Later found to be spectroscopic binary. Not confirmed on exam. of Plate 3694.
	δ Centauri

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Objects of Interest on Southern Spectrum Chart Plates.

No.	Plate No.	x	y	Object	A.G.C. No.	R.A. (1875 Eqx.) h m s	Dec. (1875 Eqx.) ° ′ ″	Magn.
Nov. 24, 1889	154	3416	8.8	8.4	III Type	15962	11 34.7	−53 16	6.7
	155	"	6.7	19.4	III Type?	16793	12 12.3	−54 27	5.8
	156	"	2.6	22.5	III Type	17048	12 24.2	−56 25	2.0
	157	3417	22.8	13.6	III Type?	18150	13 13.6	−46 13	6.4
	158	3427	22.2	14.5	Rec.?	27600	20 3.0	−36 25	5.8
	159	"	19.4	20.6	III Type	28001	20 18.8	−37 48	6.7
	160	"	5.3	22.4	III Type	28141	20 25.3	−44 56	5.6
	161	3437	7.2	10.8	III Type	23419	17 10.4	−24 9	6
	162	"	2.7	9.6	III Type?	23354 / 23355	17 7.7	−26 25	5.8
	163	3438	18.5	16.9	Rec. or III	24755	18 4.1	−23 43	5.7
	164	"	11.8	19.6	Rec. or III	24919	18 10.2	−27 5	5.1
	165	"	10.4	19.1	III Type	24884? / 24829	18 9.1 / 18 7.1	−27 45 / −29 51	7¼ / 6¾
	166	"	6.9	13.9	Rec. or III	24577	17 57.0	−29 35	var.
	167	"	6.2	18.1	III Type	24829	18 7.1	−29 51	6¾
	168	"	6.2	20.7	III Type?	24987	18 13.0	−29 53	2.8
	169	"	8.5	11.3	III Type.	24407 / 24408	17 51.1	−30 14	5.8 / 8.0
	170	"	5.2	14.2	III Type?	24596	17 57.8	−30 25	2.8
	171	"	4.6	15.9	III Type	24708 / 24709	18 2.0	−30 45	6.2 / 8.2
	172	3439	22.2	20.0	III Type	27488	19 56.4	−66 30	3.5
	173	"	20.8	18.5	~~III Type~~ Rec.	27298	19 49.7	−67 17	5.6
	174	"	20.8	18.2	III Type?	27273	19 48.2	−67 17	5.9
	175	"	18.3	8.7	III Type?	26091	18 56.6	−68 37	5.7
	176	3443	21.6	17.7	III Type	29482	21 24.2	−41 44	5.7
	177	"	21.1	8.2	III Type.	28904	20 58.3	−41 53	6
	178	"	18.4	18.4	III Type?	29514	21 26.3	−43 29	6.5
	179	"	14.6	18.0	Rec.?	29495	21 25.3	−45 24	6.0
	180	"	5.2	21.7	III Type.	29731	21 37.0	−50 4	6.6
	181	"	4.5	14.1	III Type	29246	21 12.7	−50 28	6.4
	182	~~3444~~	17.7	23.9	III Type?	30647	22 21.8	−44 8	4.2
	183	"	17.0	24.1	III Type	30657	22 22.3	−44 23	4.4
	184	3445	16.2	10.5	Rec.	16179	11 44.9	−44 29	5.0

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F Centaurus
γ Crux

r Microsop.
o Ophiuchus.
3A Ophiuchus

W Sagittarius

δ Sagittarius

γ Sagittarius

δ Pavo
μ^2 Pavo
μ^1 Pavo
— Pavo
ξ Grus
η Microsop.

δ' Grus
δ² Grus
β Centaurus — B Centauri

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Objects of Interest on Southern Spectrum Plates.

B

	No.	Plate	x	y	Object	A.R.C.	R.A. (1875.0) h m	Dec. ° ′	Magn	
Nov. 24, 1889.	185	3445 ✓	15.3	18.4	Pec.	16700	12 7.5	−45 2	6.5 ✓	
	186	" ✓	8.4	8.9	III Type?	16064	11 89.1	−48 23	6.6 ✓	
	187	" ✓	8.8	22.8	III Type.	16955	12 20.2	−48 13	6.7	
	188	3447 ✓	20.9	19.7	III Type	20228	14 48.9	−32 8	6.4 ✓	
	189	" ✓	19.6	18.8	III Type	20183	14 47.0	−32 47	6.2 ✓	
	190	3448 ✓	20.1	20.2	III Type	21090	15 27.0	−27 37	5.7 ✓	
	191	" ✓	19.9	21.3	III Type	21146	15 29.4	−27 43	3.9 ✓	
	192	" ✓	16.0	13.0	Pec?	20721	15 10.2	−29 41	4.7 ✓	
	193	" ✓	12.0	14.9	III Type 2.	20810	15 14.4	−31 44	7.2 ✓	
	194	" ✓	4.0	14.7	III Type?	20793	15 13.9	−35 28	3.6 ✓	
	195	3449 ✓	23.0	8 X 24	III Type	22314	16 21.7	−26 9	1.4 ✓	
	196	" ✓	7.9	17.3	Pec.	22731	16 42.1	−34 4	2.3 ✓	
	197	"	7.8	23.3	Pec.	23098	16 56.6	−33 57	5.5	2
	198	" ✓	5.9	11.7	Pec.	22454	16 28.2	−35 0	4.4 ✓	
	199	" ✓	4.4	21.5	III Type	23002	16 52.3	−35 42	6.5 ✓	
	200	3457 ✓	21.2	17.7	III Type	16015	12 3.7	−21 55	3.3 ✓	
	201	" ✓	12.9	8 X 23	2	16139	11 42.4	−26 3	5.8 ✓	
	202	3468 ✓	16.8	9.7	III Type II	18192	13 15.3	−24 14	5.6 ✓	
	203	3472 ✓	3.6	23.6	III Type.	22916	16 48.3	−35 47	3.2 ✓	
	204	3487 ✓	20.5	18.7	III Type	22832	16 45.8	−42 9	3.6 ✓	
	205	3493 ✓	12.1	20.5	III Type	24888	18 9.2	−36 48	3.3 ✓	
	206	3496 ✓	9.1	13.2	III Type	25428	18 30.6	−43 17	5.8 ✓	
Nov. 25, 1889	207	3498 ✓	18.6	18.5	III Type?	26780	19 25.9	−48 22	5.4 ✓	
	208	" ✓	6.4	18.7	III Type	26593	19 17.8	−54 34	3.9 ✓	
	209	3561 ✓	7.1	16.8	III Type?	20184	14 47.1	−24 8	5.8 ✓	
	210	" ✓	5.8	21.3	III Type.	20431	14 56.8	−24 47	3.5 ✓	
	211	" ✓	4.2	14.0	III Type	20044	14 48.5	−25 34	5.8 ✓	
	212	3564 ✓	23.7	8.7	III Type	17822 18002	12 59.5 13 7.4	−40 53 −48 17	6.3 6.4 ✓	
	213	" ✓	8.4	12.2	III Type?	18002	13 7.4	−48 17	6.4 ✓	
	214	" ✓	6.8	15.1	III Type	18217	13 16.4	−49 10	7 ✓	
	215	" ✓	6.3	20.3	Pec.	18566	13 32.3	−49 19	6.8 ✓	

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1882phae.proj..865F

Remark | Description

D Centaurus.

υ Libra

F Lupus

φ Lupus

ψ Scorpius

ε Scorpius

~~κ Scorpius~~ ~~Continuous Spectrum. Hydrogen lines barely visible~~ F line br. Examine other plates

H ~~κ~~ Scorpius

~~κ~~ Scorpius

ε Corvus.

ζ Ara

ζ² Scorpius

η Sagittarius

ι Telescopium

σ Libra

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates. B

(1875 hos)

No.	Plate No.	V	H	Object	A.G.C. No.	R.A. h m	Dec. ° ′	Magn.	
June 25, 1889	216	3568	20.1	6.8	III Type	18737	13 40.6	−17 14	5.8	✓
	217	"	19.8	8.0	III Type?	18793	13 43.1	−17 31	5.4	✓
	218	"	6.4	24.0	III Type:	19505	14 17.7	−24 14	5.7	✓
	219	"	3.6	15.6	III Type.	19128	13 59.3	−26 5	3.6	✓
						21234	15 32.9	−23 25	5.7	✓
	220	3569	8.4	21.8	III Type?	~~15 32.9 −23 25 5.7~~				
	220a	"	8.4		III Type	21,040	15 24.9	−23 27	7½	✓
	221	"	6.2	5.5	III Type	20431	14 56.8	−24 47	3.3	✓
	222	3570	21.4	20.4	III Type	22965	16 48.8	−16 36	6.1	✓
	223	"	21.8	9.6	III Type	22358	16 24.0	−16 20	4.6	✓
	224	"	19.6	13.6	III Type?	22588	16 34.3	−17 30	5.3	✓
	225	"	14.4	13.1	III Type?	22562	16 33.2	−20 10	6.8	✓
	226	"	2.5	8.0	III Type	22314	16 21.7	−26 9	1.4	✓
	227	3571	5.7	21.8	III Type	24,987	18 13.0	−29 33	2.8	✓
						~~24587~~	~~18 [illegible]~~	~~−26 27~~	2.4	
	228	3574	21.6	20.1	III Type	24888	18 9.2	−36 48	3.3	✓
	229	"	21.0	9.1	III Type	24179	17 41.3	−37 0	3.4	✓
	230	3606	23.0	9.6	III Type	18060	13 9.9	−30 31	5.7	✓
	231	"	17.4	22.9	III Type. 2?	18779	13 42.2	−33 50	4.6	✓
	232	"	7.8	15.3	III Type	18376	13 23.8	−38 46	4.8	✓
	233	"	7.1	13.6	III Type	18268	13 18.9	−39 6	5.9	✓
	233a	"	7.0		III Type	18567	13 32.4	−39 7	6.7	✓
	234	"	6.2	14.0	III Type	18296	13 20.0	−39 31	6.9	✓
	235	"	3.6	13.9	III Type	18290	13 19.7	−40 31	6.2	✓
	236	"	3.6	19.8	III Type	18623	13 33.5	−40 46	6.6	✓
	237	3607	19.6	19.2	III Type	20341	14 53.3	−37 34	6.4	✓
						~~18707~~	~~13 40.6~~	~~−17 14~~	~~5.8~~	
	238	"	6.4	22.3	III Type?	{20565	15 3.1	−42 48	7.8	✓
						{20566	15 3.1	−42 48	7	
	239	"	3.9	10.4	III Type	19773	14 29.2	−45 35	6.3	✓
	240	3610	22.8	9.9	III Type	24348	17 48.9	−41 42	5.3	✓
	241	3630	3.9	13.9	III Type:	28951	20 39.8	−23 30	4.8	✓
	242	3635	7.4	22.3	III Type	18779	13 42.2	−33 50	4.6	✓
	243	"	10.1	11.6	III Type	18210	13 16.1	−32 32	6.8	✓
	244	3638	6.4	19.6	III Type	26045	18 54.8	−25 1	6.1	✓
	245	3647	6.2	16.0	III Type	21064	15 25.8	−37 38	6.6	✓
	246	3648	18.5	15.9	III Type?	22878	16 47.3	−23 18	7½	✓
						~~23097~~	~~16 56.6~~	~~−28 24~~	~~6.7~~	

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o Libra

φ Ophiuchus

α Scorpius
~~σ Sagittarius~~
η Sagittarius
ζ Scorpius
τ Centaurus
g Centaurus
d Centaurus

A Capricornus
g Centaurus

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Objects of Interest on Southern Spectrum Plates.

B

(1875–[illegible])

No.	Plate No.	r	H	Object	A.G.C. No.	R.A.	Dec.	Magn.
Nov. 25, 1889	247	3648	8.5	20.0	III Type?	23097	16 56.6	-28 24	6.7
	248	3650	8.9	17.0	III Type	25428	18 30.6	-43 17	5.8
	248a	"	21.5	18.7	M.	24888	18 9.2	-36 48	3.3
	249	3652	10.6	10.9	III Type	28321	20 33.0	-42 34	6.4
	250	"	12.0	20.1	III Type?	28906	20 58.3	-41 53	6
	251	3653	20.6	10.9	III Type?	U.A. Capricornus 86	21 15.3	-17 22	4.4
	252	"	9.8	13.1	Rec. III Type?	29382	21 19.5	-22 57	3.7
	253	3656	20.9	12.1	III Type?	20700	15 9.1	-21 56	5.8
	254	"	19.4	17.8	III Type?	21176	15 30.5	-22 44	6.1
	255	"	18.2	18.9	III Type?	21234	15 32.9	-23 25	5.7
	256	"	5.8	8.9	III Type?	20721	15 10.2	-29 41	4.7
	257	3658	5.8	20.5	III Type	20431	14 56.8	-24 47	3.5
	258	"	4.2	13.2	III Type?	20044	14 40.5	-25 34	5.8
	259	3659	7.0	11.9	III Type?	23583 / ~~24242~~	17 17.5 / ~~17 44.0~~	-24 8 / ~~-34 23~~	7.1
	260	"	6.9	8.7	III Type?	{23419 / ~~20420~~	17 10.4	-24 9	{6 / ~~7~~
	261	3660	17.0	6.9	III Type?	24253	17 44.5	-34 5	7
	262	"	16.3	6.7	III Type?	24242	17 44.0	-34 23	7.1
	263	"	13.7	11.9	III? Type?	24557	17 56.4	-35 54	6.4
	264	"	13.4	9.7	Rec. Br. line?	24406	17 51.5	-36 0	7.2
	265	"	13.0	19.3	III Type?	25037	18 15.0	-36 18	6.2
	266	"	12.1	17.0	III Type	24888	18 9.2	-36 48	3.3
	267	"	4.8	9.0	III Type	24330	17 48.2	-40 17	7.5
	268	"	3.7	7.0	III Type	24218	17 42.8	-40 44	6.5
	269	3664	17.5	12.0	III Type?	21725	15 54.9	-28 47	6.7
	270	3666	21.8	18.0	III Type	24888	18 9.2	-36 48	3.3
	271	"	20.9	7.1	III Type?	24179	17 41.3	-37 8	3.4
	272	"	11.9	10.6	III Type?	24348	17 48.9	-41 42	5.3
	273	3667	21.4	9.6	Rec. III Type	25758	18 43.2	-46 44	5.9
	274	"	12.9	13.6	III Type?	26026	18 54.2	-51 11	6.2
	275	3668	19.0	16.0	III Type?	27622	20 3.8	-43 9	6.4
	276	"	9.5	8.5	III Type	27118	19 41.1	-47 52	6.3
	277	3669	22.4	16.2	III Type?	29482	21 24.2	-41 43	5.7

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κ Sagittarius
~~κ Microscop.~~
κ Microscop.
ι Capricornus not in A. & C.
ζ Capricornus Jet confirmation h 62, Gbnd 62 ζ2,

f Lupus
σ Libra

o Ophiuchus
~~Ophiuchus~~

"Entered in list of H β br. but transferred to V Type list Nov. 22 1899. after comparing it with sp. of γ Velorum on B 3888 The br. line in this sp. is not Hβ Traces of 2 br. lines like those in γ Velorum & ζ Puppis, except that both are faint. Otherwise the spectrum resembles γ Velorum more closely than ζ Puppis. Nov. 22 1899"

η Sagittarius

η Sagittarius
ζ Scorpius

ζ Ursae

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Objects of Interest on Southern Spectrum B Plates.

No.	Plate No.	r	H	Object	a.G.C. No.	R.A. h m	Dec. ° ′	Magn.
Nov. 25, 1889. 278	3669	19.0	17.0	III Type	29514	21 26.3	−43 29	6.5
279	"	14.9	12.1	IV Type	29232	21 11.9	−45 33	6.0
280	"	15.2	12.6	III Type	29246	21 12.7	−50 28	6.4
281	3677	22.7	17.2	III Type	24888	18 9.2	−36 48	3.3
282	"	18.8	18.9	III Type?	25003	18 13.7	−38 43	5.6
283	3678	17.2	6.7	III Type	18779	13 42.2	−33 50	4.6
284	3679	15.9	16.6	III Type? Perc	21064	15 25.8	−39 38	6.6
285	3682	18.6	11.4	III Type	25428	18 30.6	−43 17	5.8
286	"	17.9	8.6	III Type?	25262	18 22.9	−43 35	6.1
287	"	3.0	19.3	III Type?	26026	18 54.2	−51 11	6.2
288	3694	16.2	11.8	III Type?	21768	15 56.4	−24 23	6.8
289	"	13.2	13.8	III Type	21860	16 0.5	−23 39	6.0
290	3695	14.6	18.0	III Type	23922	17 32.3	−50 26	6.9
291	3709	19 18.1	11.8	III Type	27430	19 55.0	−28 3	4.7
292	"	20.0	9.2	III Type?	27289	19 49.3	−27 30	4.6
293	3710	19.5	6.0	III Type?	28918	20 58.8	−32 50	5.7
294	"	9.1	14.4	III Type?	29358	21 16.6	−38 22	6.0
295	3720	22.8	9.3	III Type?	29161	21 8.5	−21 10	5.5
296	"	22.4	13.3	III Type?	29326	21 17.1	−21 23	5.7
297	"	19.0	12.8	III Type?	29306	21 15.8	−23 12	6.0
298	3721	15.4	12.7	III Type	30917	22 35.4	−30 1	6.5
299	3723	22.4	15.2	III Type	20948	15 20.7	−46 18	5.9
300	"	20.2	19.0	III Type?	21215	15 32.1	−47 20	6.9
301	3724	8.4	15.8	III Type?	21919	16 3.6	−53 21	6.5
302	"	8.1	16.8	III Type	21995	16 6.9	−53 30	6.0
303	3900	18.4	17.6	III Type	21995	16 6.9	−53 30	6.0
304	"	2.7	20.1	III Type?	22277	16 19.7	−61 21	5.8
305	3901	20.4	21.2	III Type?	23597	17 18.0	−52 11	6.3
306	"	18.9	16.6	III Type	23259	17 3.7	−56 44	7.0
307	"	9.8	11.2	III Type?	22760	16 43.4	−57 42	6.5
308	3907	21.8	8.4	III Type?	24958	18 11.7	−61 33	4.4

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1992phae.proj..865F

η Sagittarius

g. Centaurus

c Sagittarius
b Sagittarius

φ Capricornus

33 Pavo

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates.

B

No.	Plate No.	x	y	Object	a.G.c. No.	R.A. (1875 Epoch.) h	m	Dec. °	′	Magn.
309	3931	19.0	15.7	M.	22803	16	44.8	−42	50	8.6
310	3932	21.4	17.6	M.	24888	18	9.2	−36	48	3.3
311	3934	19.8	11.4	M.	28321	20	33.0	−43	34	6.4
312	3936	16.6	21.8	M.L.	30657	22	22.3	−44	23	4.4
313	3937	20.1	18.5	M.	30913	22	35.2	−47	32	22
314	4030	5.6	13.7	M.	25619	18	38.0	−39	51	7½
315	3699	18.2	9.9	M.	28317	20	32.9	−18	35	3.6
316	"	4.4	22.2	M.	28951	20	39.8	−25	30	4.8
317	3698	9.3	11.8	M.	27430	19	55.0	−28	3	4.7
318	3697	21.2	15.0	M.	26682	19	22.1	−27	14	6
319	3696	13.1	16.7	I Type Pec.	24812	18	6.3	−21	5	4.3
319a	"			Br. Nuc.	24884	18	1.1	−21	28	7.8
320	3692	16.9	18.9	M.	24864	17	59.8	−21	16	7.8
321	"	13.7	5.8	M.	18567	13	32.4	−39	7	6.7
322	"	2.8	12.1	M.	17783	12	57.8	−40	31	7.0
323	3566	21.8	16.0	M.	18150	13	13.6	−46	13	6.4
324	"	20.4	12.6	M.	14478	10	30.8	−36	55	5.3
325	"	19.4	16.8	M.	14175	10	17.7	−37	38	6.9
326	"	19.1	9.9	M.	14586	10	34.2	−38	10	6.8
327	3722	6.2	5.8	M. Pec.	13923	10	7.3	−38	13	6.8
328	"	21.1	12.2	I Type Pec?	18566	13	32.3	−49	19	6.8
329	4108	5.1	9.5	Pec?	18773	13	42.1	−41	31	3.4
330	4114	14.8	9.4	M?	26337	19	6.7	−30	3	7.0
331	"	2.0	9.8	M	1818	1	46.8	−40	27	6.7
332	4041	7.8	12.4	I Type	1864	1	48.6	−46	33	4.8
333	3489	9.6	9.7	I. Pec.	29216	21	10.9	−53	38	4.8
334	3450	9.8	10.3	G.	23849	17	28.3	−42	55	2.1
335	3937	11.2	19.9	I Type Pec.	23250	17	3.2	−43	4	3.6
336	3956	3.2	12.8	I Type Pec.?	31014	22	41.0	−51	58	3.5
337	3659	7.3	12.5	I Type Pec.	23115	17	14.9	−56	15	3.6
338	3575	5.0	15.1	Pec.	23119	17	14.3	−27	52	3.6
339	4257	11.1	12.0	M.	24574	17	56.9	−50	6	3.9
					3607	3	14.0	−22	13	3.4

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1882phae.proj.:805F

Remark	Description.	
	ν Sagittarius	
	δ² Grus.	
	β Grus.	
	~~ϵ Grus~~.	
	ν Capricornus	
	A Capricornus	
First	ι² ~~Capricornus~~ Sagittarius	
	μ Sagittarius	F line bright? Not confirmed on Plate 3911
	τ Carina	
	μ Centauri	Br. F line.
	ψ Phoenix	
	θ Indus	Line f greater wavelength than F visible.
	I Scorpii	
	η Scorpii	G line bright edged towards F.? Confirm.
	ϵ Grus	F 4 G = .2; F 6 G = .1.
another star expected?	γ Ara	F 4 G = .4; F 6 G = .2.
	3 Ophiuchi	F 4 G = .2; F 6 G = .3. K br.
	α Ara	F 3 G = .2; F 6 G = .2; G line br. edged towards F. G + h = .2.
	τ Eridani	

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Objects of Interest on Southern Spectrum Plates. B

(1875 pos)

No.	Plate No.	r	ϒ	Object	a No. G.C.	Rd.	Dec.	Magn:	
340	4282	17.8	6.4	M.	377	0 21.7	− 33 42	5.2	✓
341	4307	18.2	15.0	M?	21444	2 2.8	− 18 22	6.5	✓
342	43331	13.0	18.9	M?	4813	4 12.8	− 21 1	6.4	✓
343	4399	19.5	19.2	M? Rec?	29382	21 19.5	− 22 57	3.7	
344	4403	10.0	5.9	M	30,913	22 35.2	− 47 32	2.2	
					30358	22 5.9	− 81 4	5.6	
345	4405	12.6	10.0	M.	~~31,522~~	~~23 8.0~~	~~− 81 6~~	~~7½~~	
346	4407	9.1	22.8	Rec.	1694	1 33.1	− 57 52	1	✓
347	4411	21.6	13.4	M?	4487	3 56.8	− 61 45	4.7	
					~~4545~~	~~3 59.1~~	~~− 62 31~~	~~4.7~~	
348	"	20.2	13.9	M.	4545	3 59.1	− 62 31	4.7	
349	4415	18.5	21.9	Br. lines	(1875) (approx)	4 36.2	− 38 2~~5~~ 9		✓
350	4423	10.2	12.9	M.	30,709	22 24.5	− 62 37	5.5	
351	4424	16.5	15.0	M	30,657	22 22.3	− 44 23	4.4	
352	"	10.3	19.3	M	30,913	22 35.2	− 47 32	2.2	
353	4435	21.6	21.6	M?	19655	1 54.1	− 21 41	3.9	
					~~1962~~	~~1 53.9~~	~~− 21 26~~	~~5.7~~	
354	4458	7.6	~~22.9~~ 18.9	Br. line	8631	6 49.0	− 23 46	7¼	
					~~8629~~	~~6 48.9~~	~~− 24 2~~	~~3.9~~	
355	"	7.8	23.0	Rec?	8873	6 57.8	− 23 39	3.4	
356	4460	10.0	21.1	Rec?	7843	6 21.2	− 52 38	0.4	
					8631	6 49.0	− 23 46	7¼	
357	4463	17.3	10.4	Br. line	~~8873~~	~~6 57.8~~	~~− 23 39~~	~~3.4~~	
358	"	12.7	16.7	Rec.	9021	7 3.3	− 26 12	2.1	
359	"	9.6	20.3	M?	9255	7 11.6	− 27 40	5.4	
360	4464	11.2	20.2	M	9276	7 12.4	− 36 12	2.7	
					88	7	5	~~5.6~~	
361	4465	16.4	16.8 7	M 2?	9197	7 9.7	− 44 26	var.	
362	"	4.5	11.0	M	8568	6 46.8	− 50 28	3.2	
363	4471	10.2	7.6	M	30,913	22 35.2	− 47 32	2.2	
364	4472	18.0	15.6	M	377	0 21.7	− 33 42	5.2	
365	"	4.3	15.8	M?	390	0 22.3	− 40 36	5.9	
366	4483	3.2	18.9	M?	32372	23 54.9	− 51 −2	5.6	
367	4484	11.8	17.3	M	1864	1 48.6	− 46 55	4.8	
368	"	2.8	14.7	M.	1733	1 41.2	− 51 27	5.8	
369	4487	8.2	12.8	I	4551	0 25.8	− 63 39	4.3	
370	"	8.3	17.7	M.	825	0 48.4	− 63 33	6.0	

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Remark Descriptions.

η Sculptor

ξ Capricorni

β Gruis

Octans ε

α Eridani — Hydrogen lines bright?

δ Reticulum

~~γ Reticulum~~

γ Reticulum — Hydrogen lines bright? 1875.0 CW 4h 36m 10.40 -38° 28' 4".07 / 4 36 9.71 -38 28 5.8

Tucana ν

Gruis δ_2

β Gruis

ν Pelus

H.P. 1311

Canis Majoris o_2 — Hydrogen lines bright? No. Flute bright?

Carina α

H.P. 1311

Canis Majoris δ

Puppis π

L_2 Puppis

Puppis τ

Gruis β

Sculptor η

~~Phoenix ψ~~

Phoenix ψ

Tucana β_1 — Hydrogen lines double

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Objects of Interest on Southern Spectrum Plates

B

(1875 POD)

No.	Plate	v	H	Object	a. 1900	R.A.	Dec.	Magn.	
371	4487	v	13.8	15.4	M?	6352	0 37.1	-60 37	6.1 ✓
372	4488	v	21.2	23.2	M	1864	1 48.6	-46 55	4.8 ✓
373	"	v	20.5	15.0	M	~~1430~~	~~1 24.2~~	~~-47 24~~	~~6.6~~ ✓
374	"	v	12.5	20.1	M	1430	1 24.2	-47 24	6.6 ✓
375	4571	v	21.3	11.2	M	1733	1 41.2	-51 27	5.8 ✓
376	"	v	12.4	9.2	M	1864	1 48.6	-46 55	4.8 ✓
377	4523	v	18.1	19.1	M?	1733	1 41.2	-51 27	5.8 ✓
378	"	v	12.8	20.3	M?	8739	6 32.9	-48 33	5.5 ✓
379	4527	v	12.4	12.6	M?	8874	6 37.8	-51 14	5.8 ✓
380	4530	✓	17.6	10.7	✓ Br. line	1323	1 17.7	-31 36	6.1 ✓
381	"	✓	13.0	17.0	Pec.?	8631	6 49.0	-23 46	7.2 ✓
382	"	✓	11.7	10.3	M	9021	7 3.3	-26 12	2.1 ✓
383	"	✓	10.0	20.6	M	8597	6 48.0	-26 48	7.0 ✓
384	4573	✓	7.8	12.1	M	9253	7 11.6	-27 40	3.4 ✓
385	4574	✓	5.9	8.7	M	6694	5 37.9	-73 49	6.1 ✓
386	4587	✓	9.2	7.5	M? Bright? Broad line?	4353	3 49.2	-74 37	3.2 ✓
387	4588	✓	21.3	10.8	M	1594	1 33.1	-57 32	1 ✓
388	"	✓	12.4	8.7	M	1864	1 48.6	-46 55	4.8 ✓
389	4592	✓	11.4	17.4	M.	1733	1 41.2	-51 27	5.8 ✓
390	4612	✓	8.2	~~17.0~~ 20.7	Ma	1864	1 48.6	-46 55	4.8 ✓
391	4613	✓	16.4	15.8	Ma	377	0 21.7	-33 42	5.2 ✓
392	4614	✓	17.3	19.8	Ma?	142	0 8.3	-19 38	4.3 ✓
393	4616	✓	12.7	8.1	Ma.	1411	1 22.9	-43 58	3.4 ✓
394	"	✓	11.5	10.7	Pec.?	31441	23 3.2	-41 16	6.2 ✓
395	4617	✓	19.6	14.4	Pec.	31558	23 9.9	-41 53	6.7 ✓
396	"	✓	17.5	11.6	Ma?	355	0 20.1	~~-43 6~~ -42 59	2.4 ✓
397	"	✓	14.4	19.1	Ma?	218	0 12.5	-43 56	6.6 ✓
398	4619	✓	19.0	16.6	Ma?	602	0 33.9	-45 29	6.4 ✓
399	"	✓	8.7	17.3	Pec?	2613	2 24.8	-23 6	6.3 ✓
400	4635	✓	20.8	21.1	Ma	2654	2 26.7	-28 21	8 ✓
401	4650	✓	19.5	21.3	Ma	3607	3 14.0	-22 13	3.4 ✓
						4121	3 38.2	-37 43	4.8 ✓

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Phoenix ϕ

Phoenix ψ

N.P. 1311
δ Canis Major

γ Hydrus.
φ Eridani
Phoenix ψ

Flute bright? Other hydrogen lines bright

Phoenix ψ
Sculptor η

Phoenix γ

Phoenix α
Phoenix χ

Br line bet. K and α.
On July 22. 1903 This same star was examined on B12006 & found to be Cl. K 5 M. See Book 414 p. 412

Br. line?

Eridanus τ
Eridanus h

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Objects of Interest on Southern Spectrum Plates.

B (1875 Plates)

No.	Plate No.	v	7t	Object	D.M. C.No.	R.A. h	m	s	Dec.	Magn.	
402	4651	13.9	17.6	Ma?	4747	4	9.3	-	40 41	6.6	✓
403	"	10.2	17.7	Pec.	4757	4	9.9	-	42 36	3.8	✓
404	4652	13.5	15.5	Pec.	1344	3	22.9	-	20 52	2.9	✓
405	"	10.1	22.9	Pec.	6733	3	39.2	-	22 29	3.5	✓
406	4653	14.0	23.2	Pec.	390	0	22.3	-	40 36	3.9	✓
407	"	2.8	15.8	Pec.-Ma	87	0	3.1	-	46 26	3.8	✓
408	4654	21.9	21.2	Ma.	1965	1	54.1	-	21 41	3.9	✓
409	4655	11.1	18.0	Ma	3931	3	29.5	-	32 18	6.7	✓
410	"	3.7	15.1	Ma	3778	3	22.7	-	36 7	3.6	✓
411	4656	12.3	16.2	Ma?	4256	3	44.8	-	36 35	4.1	✓
412	"	10.0	13.7	Ma?	4121	3	38.2	-	37 43	4.8	✓
413	"	4.1	11.6	Ma?	4006	3	32.6	-	40 41	4.8	✓
414	4657	15.6	18.2	Ma?	5610 ~~5034~~	4	50.7	-	39 50	6.5	✓
415	"	10.7	8.3	Ma	5034	4	24.1	-	42 14	6.9	✓
416	"	10.2	8.8	Pec.?	5053	4	25.2	-	42 28	7.5	✓
417	"	9.8	21.2	Ma	5793 ~~5810~~	4	59.1	-	42 40	7.5	✓
418	"	18.4	17.7	Ma?	5572	4	49.0	-	38 27	7.3	✓
419	4658	20.9	11.0	Ma?	7011	5	51.2	-	37 8	5.4	✓
420	"	19.9	9.9	Ma?	6931	5	48.3	-	37 40	6.2	✓
421	"	19.8	19.4	Ma?	7606	6	12.8	-	37 42	5.8	✓
422	"	15.4	10.9	Ma	6996	5	50.8	-	39 59	5.8	✓
423	"	14.8	16.6	Ma	7416	6	6.1	-	40 20	6.0	✓
424	"	9.9	12.7	Pec?	7120	5	53.3	-	42 49	4.0	✓
425	"	5.8	17.0	Ma?	7460	6	7.6	-	44 53	7	✓
426	"	5.4	15.5	Ma?	7346	6	3.4	-	43 3	7.0	✓
427	4659	2.9	9.5	Ma	8057	6	29.4	-	36 8	5.9	✓
428	"	19.6	21.0	Ma?	8839	6	56.7	-	27 45	6.6	✓
429	4660	22.8	9.3	Ma	10357	7	48.5	-	36 2	6.0	✓
430	"	22.9	17.7	Pec.?	10973	8	9.3	-	35 57	5.9	✓
431	"	21.0	16.7	Pec?	10974 ~~10945~~ ~~10829~~ 12574	8	9.3 ~~8.2~~ ~~6.8~~ 7.1	-	35 58 ~~37 3~~ 37 0	7.0 ~~6.8~~ ~~9.3~~ 8.6	✓
432	"	19.5	6.4	Ma?	10113	7	40.8	-	37 40	5.6	✓

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Phoenicis ε
Ceti ν

Fornacis χ ?

Eridani k
Eridani γ?

Columba 33?

Columba η

Canis Major σ
~~Puppis~~

Hydrogen lines double. Double star?
Br. lines?

Puppis ε

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Objects of Interest on Southern Spectrum Plates

B

(1875 [illegible])

No.	Plate No.	r	h	Object	A.G.C. No.	R.A.	Dec.	Diagn.	
433	4660	16.7	16.5	Pec.?	10901	8 6.9	-39 15	4.8	✓
434	"	15.3	17.5	Pec.?	10984	8 9.6	-39 38	4.8	✓
435	"	14.6	17.8	Ma	10220	7 43.9	-40 20	var.	✓
436	"	13.6	13.5	Ma?	10668	7 58.5	-40 58	6.2	✓
437	"	11.1	11.3	Ma?	10485	7 52.8	-42 4	6.8	✓
438	"	5.7	14.8	Pec.?	10769	8 2.7	-44 54	5.8	✓
439	"	4.9	11.8	Pec.?	10516	7 53.9	-45 14	5.6	✓
440	4665	14.8	13.0	Pec.	2851	3 35.7	-40 23	4.2	✓
441	4667	16.9	13.7	Pec.	4940	4 19.3	-34 18	4.0	✓
442	4674	21.5	9.2	Ma	2274	2 9.5	-41 45	6.1	✓
443	"	20.3	11.1	Ma?	2383	2 14.4	-42 25	6.6	✓
444	4676	18.3	19.6	Ma?	6183	5 16.8	-43 20	7.3	✓
445	"	6.4	14.2	Pec.?	5850	5 1.7	-49 45	5.3	✓
446	4679	18.8	21.7	Ma?	3694	3 18.7	-33 9	6.7	✓
447	4681	10.9	14.8	Mc	5276	4 35.3	-62 19	var.	✓
448	"	10.0	6.4	Ma	4545	3 59.1	-62 31	4.7	✓
449	"	9.8	9.7	Pec.?	4812	4 12.8	-62 47	3.3	✓
450	"	7.9	21.6	Ma	5971	5 6.6	-63 33	5.7	✓
451	4683	22.4	18.2	Ma?	1677	1 37.5	-61 25	6.0	✓
452	"	17.9	7.1	Ma	825	0 48.4	-63 33	6.0	✓
453	"	13.2	9.7	Ma	978	0 57.9	-66 8	6.7	✓
454	4685	19.8	8.2	✓ ~~IV~~ type	3514	3 9.4	-57 47	6.3	✓
455	"	10.5	20.3	Ma	4545	3 59.1	-62 31	4.7	✓
456	4686	11.0	15.0	Mc	5276	4 35.3	-62 19	var.	✓
457	"	10.3	6.6	Mc?	4545	3 59.1	-62 31	4.7	✓
458	"	8.0	21.8	Ma	5971	5 6.6	-63 33	5.7	✓
459	4689	11.5	18.1	Ma	1864	1 48.6	-46 53	4.8	✓
460	4718	11.4	10.0	✓ Br. line	10863	8 5.7	-46 38	3	✓
461	4718	21.0	16.4	✓ Br. line	10863	8 5.7	-46 38	3	✓
462	4521	12.0	13.1	Pec.?	4463	3 55.5	-51 27	3	✓
463	"	11.0	13.6	Br. line?	4494	3 56.9	-51 53	7.0	✓

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Puppis h'
Puppis h²
Puppis T

Puppis o
Eridanus c
Eridanus d

Pictor η²
~~Dorado R~~
Doradus R
Reticulum γ
Reticulum α

Reticulum γ
R Doradus
Reticulum γ

Phoenix φ
γ Argus
γ Argus

Br. lines?

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Objects of Interest on Southern Spectrum Plates.

B

No.	Plate No.	r	H	Object	A.G.C. No.	R.a. (1875 Pos.)	Dec.	Magn.		
464	4725	16.2	14.4	Ma	5866	5 24.4	-54 35	6.7	✓	•
465	4726	19.0	22.2 (3)	Ma?	9652	7 25.3	-43 3	3.5	✓	•
466	"	16.7	17.4	M b-sc	9197	7 9.7	-44 26	Var.	✓	•
467	"	8.5	11.9	Ma?	8739	6 52.9	-48 33	5.5	✓	•
468	"	4.6	10.1	Ma?	8568	6 46.8	-50 28	3.2	✓	•
469	"	3.2	13.6	Ma	8874	6 57.8	-51 14	5.8	✓	•
470	4734	6.6	9.9	Ma?	6857	5 44.7	-54 24	6.6	✓	•
471	"	3.2	11.0	Ma?	6915	5 47.6	-56 12	4.7	✓	•
472	4743	12.0	16.9	Pec.	5058 (66)	4 25.6	-46 47	6½	✓	•
473	4754	19.5	20.1	Pec.	7120	5 55.3	-42 49	4.0	✓	•
474	4772	15.5	11.8	Ma	5272	4 35.0	-19 55	4.6	✓	•
475	4777	5.3	19.1	Ma?	7586	6 12.1	-35 6	4.8	✓	•
476	"	3.7	8.8	Pec.	6896	5 46.6	-35 49	2.9	✓	•
477	4779	22.8	23.6	Pec.!	9021	7 3.3	-26 12	2.1	✓	•
478	4781	19.3	16.6	Pec.	7120	5 55.3	-42 49	4.0	✓	•
479	4784	21.3	11.9	Pec.	9288	7 12.7	-36 52	2.7	✓	•
480	"	19.8	22.9	Pec.	10,113	7 40.8	-37 40	3.6	✓	•
481	"	18.8	11.8	Pec.?	9270	7 12.2	-38 6	6.3	✓	•
482	4821	14.0	17.4	v I Pec?	12,465	9 4.6	-70 2	5.2	✓	•
483	"	10.4	18.5	Ma?	12,368	8 59.7	-68 11	6.5	✓	•
484	4822	8.6	8.6	Ma?	~~15478~~ 15,448	~~11 12.2~~ 11 9.4	~~-67 8~~ -67 39	~~6.8~~ 7½	✓	•
485	"	3.8	10.3	v Br. line	~~15177~~ 15220	~~10 59.8~~ 11 1.2	~~-64 53~~ -64 50	~~8¼~~ 8¼	✓	•
486	4825	17.1	14.2	v Br. line	14,626	10 36.5	-59 1	7.2	✓	•
487	"	17.1	15.1	v Br. line	14,720	10 40.2	-59 2	Var.	✓	•
488	"	16.2	14.9	v Br. line	~~14,698~~ 14,684	~~10 39.6~~ 10 39.1	~~-59 20~~ -59 28	~~6.8~~ 6.9	✓	•
489	"	14.2	21.2	v Br. line	15,305	11 4.8	-60 18	8	✓	•
490	"	5.3	19.5	v Br. line	~~15177~~ 15220	~~10 59.8~~ 11 1.2	~~-64 53~~ -64 50	~~8¼~~ 8¼	✓	•
491	4828	17.6	16.5	Pec.	22,672	16 39.0	-58 49	3.8	✓	•
492	4829	20.5	13.9	Pec.	23,577	17 17.2	-21 19	6.4	✓	•
493	4831	21.3	8.2	v Br. line	22,763	16 43.6	-41 38	7½	✓	•
494	"	21.3	9.1	v Br. line.	22,827	16 45.6	-41 37	7	✓	•

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Description

F line bright?

Puppis σ

Puppis L_2

Puppis τ

Pictor ν

Columba η

Columba κ

Columba β

Canis Majoris δ

Columba π

Puppis π

Puppis c

var?

Two stars superposed?

E. Carinae. F line bright?

Carina η

Ara η

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Objects of Interest on Southern Spectrum Plates.

B

No.	Plate	V	H	Object	A.G.C. No. (1875 Yrs)	R.A.	Dec.	Magn.		
495	4831	20.4	9.2	Pec.	~~22,812~~ 22832	~~16 45.2 -42 9~~ 16 45.8 -42 9		~~5.8~~ 3.6	✓	
496	"	13.9	18.0	Br. line	23,416	17 10.3	-45 30	7 1/4	✓	
497	4839	15.7	15.6	B. Pec.?	16,572	12 1.9	-50 2	2.8	✓	
498	"	2.4	21.7	Ma	17,048	12 24.2	-56 25	2.0	✓	
499	4841	11.3	8.7	B. Pec.	18,773	13 42.1	-41 51	3.4	✓	
500	4842	21.1	15.5	B. Pec.	18,773	13 42.1	-41 51	3.4	✓	
501	4843	12.0	10.5	B? Pec?	19,737	14 27.6	-41 36	2.5	✓	
502	4844	15.1	6.2	I Pec?	19,043	13 55.0	-59 46	1.2	✓	
503	4845	11.8	10.0	B? Pec?	19,737	14 27.6	-41 36	2.5	✓	
504	4846	11.0	8.8	B? Pec.?	18,773	13 42.1	-41 51	3.4	✓	
505	4849	22.9	12.6	Pec.	20,793	15 13.9	-35 48	3.6	✓	
506	4853	21.5	23.7	Br. line	22,763	16 43.6	-41 38	7 1/2	✓	
507	"	19.9	10.1	Ma?	21,991	16 6.7	-42 35	6.6	✓	
508	"	18.0	12.7	Pec.?	22,159	16 13.7	~~-43~~ 37	6.5	✓	
509	"	15.3	17.1	Pec.?	22,417	16 26.1	-44 59	7	✓	
510	"	13.4	17.9	Pec?	22,468	16 28.9	-45 54	6 1/2	✓	
511	"	5.9	10.9	Pec.	22,012	16 7.7	-49 45	5.4	✓	
512	"	5.8	11.8	Pec.	22,075	16 10.5	-49 51	4.6	✓	
513	"	21.2	24.4	Br. line	22,827	16 45.6	-41 37	7.1	✓	
514	"	20.8	24.6	Ma?	22 832 ~~22,812~~	16 45.8 ~~16 45.2~~	-42 9 ~~-42 9~~	3.6 ~~5.8~~	✓	
515	4854	21.8	18.2	Pec?	24,348	17 48.9	-41 42	5.3	✓	
516	4858	19.7	8.5	Ma?	10,113	7 40.8	-37 40	3.6	✓	
517	"	16.1	15.7	B. Pec.	10,691	7 59.2	-39 39	2.5	✓	
518	4859	11.4	11.8	Br. line	10,863	8 5.7	-46 58	3	✓	
519	4860	16.9	13.5	Pec.	11,285	8 19.9	-59 6	2.1	✓	
520	4863	22.0	15.0	Pec.	13,030	9 27.4	-56 29	3.2	✓	
521	"	11.4	18.3	Pec.	13,336	9 41.8	-61 56	Var.	✓	
522	"	10.9	15.3	Md	13,073	9 29.1	-62 14	Var.	✓	
523	4865	17.7	16.1	Pec.	14,751	10 41.4	-48 46	2.9	✓	
524	4869	9.0	16.7	Pec.!	15266	11 3.3	-58 18	4.6	✓	
525	"	9.5	16.1	Pec.?	~~15215~~	11 ~~4.2~~	-57 59	6.9	✓	

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Description.

Scorpius ζx^2

δ Centauri. F line bright

Crux γ

μ Centauri F line bright. Same spectrum as H.P. 1124. Plate 2385.

μ Centauri F line bright.

η Centauri F line bright. (July 25, 1890). H7437 14.29.2-41.43

Centaurus β F line bright?

η Centauri

μ Centaurus

Lupus φ.

Norma γ.

Norma γ_2

Scorpius ζ_2

Puppis c

Puppis ξ F 3/2 G = .3

~~γ. Argus.~~ Vela

ε Carinal Remarkable! Probably double star.

Vela, ~~A~~ N

Carina l

R Carinal Hydrogen lines bright.

Vela μ

x Carinal Remarkable

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Objects of Interest on Southern Spectrum Plates. B

No.	Plate	v	H.	Object	A.G.C.	R.A. (1875 Pos)	Dec.	Magn.		
526	4869	7.2	9.9	v Br. line	* 14,626	10 36.5	−59 1	7 1/4	?	✓
527	"	7.3	10.8	v Br. line?	14,720	10 40.2	−59 2	Var.	✓	
528	"	6.4	10.6	v Br. line	* ~~14,698~~ 14,684	~~10 39.6~~ 10 39.1	~~−59 20~~ −59 28	~~6.8~~ 6.9	?	✓
529	4871	15.8	16.3	v B. Pec?	16,572	12 1.9	−50 2	2.8	✓	
530	"	21.8	22.3	Ma?	17,048	12 24.2	−56 25	2.0	✓	
531	4872	22.3	14.2	Mb5c.	17,048	12 24.2	−56 25	2.0	✓	
532	"	5.6	21.9	v Br. line	17,840	13 0.1	−64 38	6	✓	
533	4873	20.0	9.8	Mb5c.	16,761	12 10.8	−67 16	4.7	✓	
534	4874	2.5	11.7	Mb.	17,048	12 24.2	−56 25	2.0	✓	
535	4875	22.5	14.5	Mb3c.!!	17,048	12 24.2	−56 25	2.0	✓	
536	4878	17.7	16.8	Mc !!	18779	13 42.2	−33 50	4.6	✓	
537	4879	22.8	15.6	Pec.	19,128	13 59.3	−26 5	3.6	✓	
538	"	7.5	8.7	Mc.	18,779	13 42.2	−33 50	4.6	✓	
539	"	3.9	15.7	Pec.?	19,129	13 59.3	−35 45	2.2	✓	
540	4885	15.8	16.6	Pec.	22,699	16 40.5	−49 43 H	8	?	✓
541	4892	6.8	20.5	Pec?	11,285	8 19.9	−59 6	2.1	✓	
542	4894	20.3	16.4	v Md	13,073	9 29.1	−62 14	Var.	✓	
543	4895	21.3	21.4	Ma?	12,372	8 59.8	−46 36	4.6	✓	
544	4904	22.0	13.6	Mb5c.!!	17,048	12 24.2	−56 25	2.0	✓	✓
545	"	5.4	21.4	v Br. line	17,840	13 0.1	−64 38	6	✓	
546	4916	14.9	16.3	Pec.	12,916	9 23.5	−20 12	6.4	✓	
547	"	14.3	18.1	Pec.	13,031	9 27.5	−20 34	5.6	✓	
548	"	11.9	15.4	Pec.	12,868	9 21.6	−21 48	5.1	✓	
549	"	4.6	6.8	Pec?	12,415	9 2.6	−25 21	4.9	✓	
550	"	4.6	12.9	Pec.?	12,728	9 16.0	−25 26	5.2	✓	
551	4917	19.5	19.4	Pec.	12,119	8 49.5	−17 46	6 1/4	✓	
552	4918	14.4	17.9	Pec.	13,494	9 48.5	−25 21	5.3	✓	
553	4922	13.1	15.4	Mc.	16,139	11 42.4	−26 3	5.8	✓	
554	4924	19.8	7.1	Ma?	18,793	13 43.1	−17 31	5.4	✓	
555	4925	7.8	7.9	Mb5c	18,779	13 42.2	−33 50	4.6	✓	
556	4935	21.5	9.5	v Br. line	22,763	16 43.6	−41 38	7 1/2	✓	

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1882phae.proj..865F

Description.

Carina η

δ Centauri Br. F line.

Cruc γ

Musca θ

Musca ε

var.? g Centauri Suspected again of var. on B H1233 Aug. 1910 22 chart plates exam. show no evidence of var. See cover B H1232 for list of plates examined.

Hydra π

Centaurus θ

Two bright lines?
Double star?

Carina δ ε

R Carinae

Vela c

γ Crux

Musca θ

Hydra G

Pyxis K

Pyxis θ

Centaurus g

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates. B

No.	Plate No.	~~Object~~			Object	A.G.C. No. (1875.0)	RA	Dec.	Magn.	
557	4935	21.6	10.2	v	Br. line	~~22,827~~	~~16 45.6~~	~~-41 37~~	~~7~~	
						~~22,812~~	~~16 45.2~~	~~-42 9~~	~~5.8~~	
558	"	20.6	10.5		Pec.	22832	16 45.8	-42 9	3.6	
						~~22,812~~	~~16 45.2~~	~~-42 9~~	~~5.8~~	
559	"	14.1	19.2	v	Br. line	23,416	17 10.3	-45 30	7¼	
560	4936	12.2	11.4		M b.	24,888	18 9.2	-36 48	3.3	
561	4941	21.6	19.5		M a	24,348	17 48.9	-41 42	5.3	
562	"	16.8	18.9		Pec.	24,321	17 47.7	-44 19	5.4	
563	"	13.8	5.8	v	Br. line	23,416	17 10.3	-45 30	7¼	
564	"	4.9	21.4		I Pec?	24,574	17 56.9	-50 6	3.9	
565	"	4.6	13.7		M a	23,922	17 32.3	-50 26	6.9	
566	4940	22.5	11.1	v	Br. line	22,843	16 46.3	-40 57	6.4	
567	"	22.3	9.8	v	Pec. Br. line.	22,748	16 42.8	-41 1	5.9	
568	"	21.2	10.1	v	Br. line	22,763	16 43.6	-41 38	7½	
569	"	21.2	10.8	v	Br. line	22,827	16 45.6	-41 37	7	
570	"	20.3	11.0		Pec.	22832 / ~~22,812~~	16 45.8 / ~~45.2~~	-42 9	3.6 / ~~5.8~~	
571	"	18.9	10.6		M b	22,803	16 44.8	-42 50	6.6	
572	"	14.8	11.4	v	Pec. M d.	(1900) 22,855	16 48.4	-44 57	7	
573	"	14.2	13.1		Pec.	~~22,989~~ / ~~23,105~~	~~16 51.4~~ / ~~16 57.0~~	~~-45 16~~ / ~~-44 12~~	7 / ~~7¼~~	
574	"	13.5	19.6	v	Br. line	23,416	17 10.3	-45 30	7¼	
575	"	7.4	16.6		Mas b.	23,215	17 2.1	-48 43	6.6	
576	4942	11.4	17.1		Pec.	24,179	17 41.3	-37 0	3.4	
577	"	5.3	16.0		Pec.?	24,107	17 38.8	-40 5	3.3	
578	4944	16.9	9.2		Pec.	22,731	16 42.1	-34 4	2.3	
579	4947	20.4	9.5		Pec.	11,852	8 39.9	-42 12	4.4	
580	"	19.2	18.0		Pec.	12,438	9 3.4	-42 56	2.5	
581	"	17.4	21.0		Pec.	12,635	9 11.8 / ~~9.2~~	-43 45	5.6	
582	"	16.4	19.0		Pec?	12,515	9 6.5	-44 21	5.6	
583	"	15.4	8.4		Ma	11,750	8 36.3	-44 45	6.5	
584	"	~~11.6~~ 12.0	16.6		Pec.	12,372	8 59.8	-46 36	4.6	
585	"	10.9	13.6	v	Br. line	Not in A.G.C.				
586	"	6.4	10.0		Pec.	11,849	8 39.8	-49 22	5.8	
587	4948	21.2	10.7		Pec.	13,397	9 44.2	-36 36	6.4	

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1882phae..proj..865F

~~Scorpius ξ_1~~
Scorpius ξ_λ ²

Sagittarius η

Ara θ — F line bright?

new var. (confirmed). — * Hydrogen lines bright. (Class A?)
Bright line. (73 9 = .4).

Scorpius G
Scorpius γ
Scorpius ϵ
Vela d
Vela $\chi\lambda$

F line bright?

Vela c
Copeland No 5. (1883) $8^h\ 51^m - 47^\circ\ 8'$ 900.
Vela D

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates

B

No.	Plate No.			Object	A.G.C. No.	RA (1875 Pos'n)	Dec.	Magn.	
588	4948	14.2	13.4	Pec.	~~13,541~~ 13 556	9 50.9	- 40 14	7.5	
589	"	14.5	17.5	Pec.	~~13,541~~	9 50.3	- 39 51	~~7.0~~	
					Z.C. 121	10 1.8	- 40 5	9	=C4V
590	"	14.1	19.3	Ma?	13,901	10 6.6	- 40 15	8	
591	"	12.5	18.7	Pec.	13,881	10 5.4	- 41 6	6.7	
592	"	12.5	23.2	Pec.	14,156	10 17.0	- 41 1	5.3	
593	"	11.0	15.5	Pec.	13,690	9 56.7	- 41 53	8	
594	"	3.6	12.0	Pec.	13,451	9 46.5 9	- 45 37	6.2	
595	"	2.9	12.1	Pec.	13,455	9 46.8	- 45 58	5	
596	4949	17.7	18.8	Pec.	15,361	11 7.4	- 43 42	6.3	
597	"	11.5	9.4	Ma	14,724	10 40.3	- 46 48	7 1/4	
598	"	10.2	7.8	Pec?	14,595	10 35 -	- 47 22	7 3/4	
599	4951	18.6	8.8	Ma	15,962	11 34.7	- 53 16	6.7	
600	"	16.5	19.8	Pec.	16,793	12 12.3	- 54 27	5.8	
601	"	13.9	20.5	Pec.	16,846	12 15.2	- 55 41	6.7	
602	"	13.4	22.6	Ma?	17,014	12 23.0	- 55 50	5.9	
603	"	13.6	11.9	Br.line	~~16169~~ 16163	~~11 43.9~~ 11 45.3	~~- 56 21~~ - 56 37	~~8~~ 9 1/2	
604	"	8.6	21.5	Mb	16,962	12 20.6	- 58 18	6.4	
605	"	5.1	15.6	Ma	16,488	11 58.5	- 60 16	6.6	
606	"	~~14.4~~ 12.	22.8	Ma?	17,048	12 24.2	- 56 25	2.0	
607	4952	21.0	21.6	Ma?	19,438	14 15.1	- 46 51	7.0	
608	"	16.X 6	16.2	Pec.	19,138	13 59.6	- 49 16	6.9	
609	"	16.2	7.4	Mb5c	18,566	13 32.3	- 49 19	6.8	
610	"	9.5	16.6	Pec.	19,179	14 1.6	- 52 50	5.4	
611	4953	~~21.0~~ 19.6	12.9	Pec.	20,296	14 51.3	- 42 39	6.7	
612	"	12.5	10.4	Pec.	20,122	14 44.0	- 46 15	6 1/4	
613	"	10.2	14.0	Pec.	20369	14 54.4	- 47 27	7.5	
614	4954	19.8	18.7	Pec.	~~20,384~~ 21,991	~~14 55.0~~ 16 6.7	~~- 57 12~~ - 42 35	~~7.3~~ 6.6	
615	"	15.0	13.3	Ma	21,647	15 51.6	- 45 5	7 1/2	
616	4955	17.2	23.5	Ma	23,215	17 2.1	- 48 43	6.6	
617	"	10.9	12.3	Ma?	22,~~346~~ 437	16 27.4	- 52 7	7 1/2	
618	"	7.8	6.3	Ma?	21,995	16 6.9	- 53 30	6.0	

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1882phae.proj..865F

=CPM -40° 5782 mag. 8.3 var.?

Identification correct? ~~Z.C. 103 = 133 do not appear on plate. There are two stars with name R.A. with dec. at +0 20 on plate 52,33~~
"Select on B 4948 not on spectrum plate B 955N. which shows star to be class F. Chart plate B 8 Dec 24h 10981 18117 13858 12937 12810 9224 15713+7852 examined & show no evidence of variability."
Enter in III Typecat. & then cross off. With note.

Vela r

Vela m

Centaurus F'

R. Neb.

Cruf γ

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Objects of Interest on Southern Spectrum Plates. B

(1875 Pos)

No.	Plate No.	r	H	Object	A.G.C. No.	R.A. h	m	Dec. °	′	Magn.
619	4955	5.1	13.5	Mc?	22,429	16	26.9	−54	43	7 1/4
620	4956	18.3	20.3	Ma	25,428	18	30.6	−43	17	5.8
621	"	11.9	8.5	Ma?	24,575	17	56.9	−46	29	7.5
622	4957	20.9	11.9	Pec.	12,715	9	15.5	−37	3	6.7
623	"	12.0	12.1	Ma	12,753	9	17.1	−41	40	6.4
624	"	8.5	13.9	Ma5b.	12,836	9	20.4	−43	26	7 1/4
625	4958	14.8	9.1	Br. line	15305	11	4.8	−60	18	8
626	"	13.0	15.4	Br. line	~~14,698~~ 14,710	~~10~~ 10	~~39.6~~ 39.8	~~−59~~ −59	~~20~~ 26	~~6.8~~ 7 1/2
627	"	12.1	15.1	Br. line	14,720	10	40.2	−59	2	Var.
628	"	12.1	16.0	Br. line	14,626	10	36.5	−59	1	7 1/4
629	"	11.0	9.1	Pec.	15,266	11	3.3	−58	18	46
630	"	10.2	15.9	Br. line	~~14,655~~ Z.C. 2684	~~10~~ 10	~~37.8~~ 36.8	~~−58~~ −58	~~15~~ 7	~~10 1/4~~ 8 3/4
631	"	9.9	8.1	Mb.	15,318	11	6.6 5.5	−57	47	7 1/2
632	"	8.0	11.1	Ma	~~14,861~~ Z.C. 3992	~~10~~ 10	~~46.7~~ 53.0	~~−56~~ −56	~~37~~ 53	~~7.1~~ 7.4
633	"	8.0	17.6	Pec.	14,478	10	30.8	−56	55	5.3
634	"	14.1	16.8	Pec.	14,569	10	34.3	−54	57	5
635	"	3.3	22.4	Pec.	14,105	10	14.9	−54	24	5.4
636	"	2.8	20.4	Pec.	14,277	10	22.0	−54	14	6.2
637	"	10.4	16.6	Ma?	14,566	10	34.2	−58	10	6.8
638	4959	18.6	15.0	Ma	17,843	13	0.2	−67	8	7.2
639	"	16.8	13.3	Pec.	18,039	13	8.8	−66	7	5.5
640	"	13.8	15.0	Br. line	17840	13	0.1	−64	38	6
641	4961	19.2	13.8	Md	18,361	13	22.9	−22	38	Var.
642	4962	16.2	14.8	Mc	20,052	14	40.9	−36	7	6.8
643	"	13.4	16.7	Pec.	19,931	14	36.0	−34	38	4.3
644	4963	19.4	13.3	Mb.	22,803	16	44.8	−42	50	6.6
645	"	17.0	13.0	Br. line	22,827	16	45.6	−41	37	7
646	"	17.0	13.7	Br. line	22,734	16	43.6	−41	38	~~7 3/4~~ 7 1/2
647	"	15.8	12.7	Br. line	22,843	16	46.3	−40	57	6.4
648	"	15.9	14.0	Br. line	22,748	16	42.8	−41	1	5.9
649	"	9.2	8.9	Br. line	23,073	16	55.5	−37	40	7.1

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1882phae.proj.865E

Argus
~~Carina~~ η

Carina x

Carina ν
Vela x

Musca β
R Hydrae.

Centaurus C,

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates. B

No.	Plate No.	✓	H		Object	A.G.C. No.	R.A. (1875 Pos.)	Dec.	Magn.	
650	4963	✓	5.5	10.1	Pec.	23,002	16 52.3	-35 44	6.5	✓
651	"	✓	4.1	19.8	Pec.	22,454	16 28.2	-34 60	44	✓
652	"	✓	2.2	14.2	Pec.	22,731	16 42.1	-34 4	2.3	✓
653	4964	✓	14.9	18.1	Br. line	~~23,868~~	~~17 29.7~~	~~-45 41~~	~~7½~~	
						23416	17 10.3	-45 30	7 1/4	✓
654	"	✓	5.8	6.1	Ma	24,218	17 42.8	-40 44	6.5	✓
655	4971	✓	19.9	11.5	Pec.	22,268	16 19.3	-57 28	6.6	✓
656	"	✓	19.5	17.8	Pec.	~~22,760~~	~~16 43.4~~	~~-57 42~~	~~6.5~~	Not in A.G.C. ✓
657	"	✓	19.6	19.0	Pec.	22,885	16 47.6	-57 35	7½	✓
658	"	✓	17.5	16.6	Pec.	22,672	16 39.0	-58 49	3.8	✓
659	4972	✓	17.2	19.4	Ma?	26,532	19 15.4	-43 58	6.6	✓
660	"	✓	14.0	18.0	Pec.	26,448	19 11.9	-45 36	7½	✓
661	4978	✓	20.9	8.6	Ma?	16,039	11 37.6	-61 48	5.8	✓
662	"	✓	10.4	16.0	Mb5c	16,761	12 10.8	-67 16	4.7	✓
663	4979	✓	10.3	16.0	Mb5c	16,761	12 10.8	-67 16	4.7	✓
664	4980	✓	12.6	10.5	Pec.	16,133	11 42.2	-66 7	5.3	✓
665	"	✓	10.4	16.1	Mb5c	16,761	12 10.8	-67 16	4.7	✓
666	3690	✓	2.8	18.1	Ma?	21,266	15 34.4	-51 14	7.3	✓
667	4933	✓	18.7	17.6	Ma?	~~21,995~~	~~16 6.9~~	~~-53 30~~	6.0	
						~~21,998~~	~~16 7.0~~	~~-53 25~~	~~8 3/4~~	✓
668	4950	✓	16.8	18.1	Pec.	16,179	11 44.9	-44 29	5.0	✓
669	"	✓	12.4	12.6	Ma	15,832	11 29.2	-46 41	6.0	✓
670	"	✓	11.7	13.4	Pec.	15,883	11 ~~29.9~~ 31.5	~~-46~~ 7	~~57~~ 3 9	✓
671	"	✓	6.5	19.4	Br. line?					Not in A.G.C. Entered directly in star card catalogue →
672	4093	✓	19.5	17.3	Pec.?	~~24689~~	~~21 34.8~~	~~-57 56~~	~~7.3~~	See Remark
						~~29695~~	~~21 35.1~~	~~-57 54~~	~~6.4~~	
						~~30217~~	~~21 37.1~~	~~-64 7~~	~~7 1/4~~	
						29688	21 35.1	-57 51	6.8	✓
673	4965	✓	16.1	14.6	Br. line	~~21,684~~	~~18 11~~	~~-21 28~~	~~7.0~~	
					(1855)	4864	17 39.8	-21 16	7.8	✓
674	"	✓	12.6	14.7	Br. line?	~~Dm -19 4853~~	~~17 59.4 -19 20~~		~~9.5~~	
					(1855)	Dm -19° 4854	17 59.4 -19 25		9.6	✓
675	4982	✓	9.5	21.3	Ma?	26,532	19 15.4	-43 58	6.6	✓
676	"	✓	12.7	20.0	~~Pec. Ma?~~	26,448	19 11.9	-45 36	7½	✓
677	4985	✓	4.8	13.5	Br. lines	11674	8 33.9	-46 28	7 1/2	✓
						~~11689~~	~~8 34.3~~	~~-46 20~~	~~8 1/2~~	
678	"	✓	6.2	22.4	Pec.	12,372	8 59.8	-46 36	4.6	✓
679	"	✓	6.2	19.2	Br. lines	~~12,372~~	~~8 59.8~~	~~-46 36~~	~~4.6~~	✓
680	4986	✓	5.4	7.0	Ma	12,753	9 17.1	-41 40	6.4	
						~~12836~~	~~9 26.4~~	~~-43 26~~	~~7 1/4~~	

New frame need.

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1992phae.proj..865F

Scorpius H
Scorpius ε

Two stars superposed ? A.gc. 22284 mags. 8 & 11 prec. 3s. N 1'

Ara η

Musca δ ε
~~Musca~~ ε
Musca μ
Musca ε

Centaurus B
Centaurus C,
~~Centaurus C~~ Centaurus C$_3$ due to defect on plate 4950,
(1400) (1875) h 51.5 m
✓ approximate 11 ~~52~~ – 49° 53'. Not confirmed on plate 3416 which shows fainter stars. Probably
~~A.R. 9h 45m 18s 41' N 3'~~ Two stars superposed ? ~~Probably~~ 3 stars superposed

9.M.-19° 1884 18' 2.1 -19 25

Vela c
~~Vela c~~ Copeland No. 5. 1885 8h 51m ✕ – 47° 8'
~~+0 36 54 – 58 8~~
~~1900.0 37.5 – 58 13~~

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates

B

(1875 pos)

No.	Plate No.	r	h	Object	A.G.C. No.	RA	Dec.	Magn
681	4986	8.7	8.4	Mb	12,836	9 20.4	-43 26	7 1/4
682	4987	22.7	13.3	Mb sc.	14,039	10 11.8	-50 35	6.9
683	4988	6.0	15.5	Pec.!	15,622	11 19.5	-37 4	6.5
684	"	12.9	6.8	Mb	15,092	10 56.5	-40 26	6.9
685	5026	10.9	10.2	Br. line	~~17,889~~ 17,840	~~13 0.1~~ 13 0.1	~~-64 38~~ -64 38	~~8 1/4~~ 6
686	5033	8.9	9.0	Mb sc.	21,881 / 21,886	16 1.7 / 1.9	-78 23 / -78 21	5.2 / 5.5
687	5035	9.5	21.0	Mb	~~21,881~~ / ~~21,886~~	~~16 1.7~~ / ~~1.9~~	~~-78 23~~ / ~~-78 21~~	~~5.2~~ / ~~5.5~~
688	5036	9.1	13.9	Pec.	22,607	16 35.4	-68 48	2.2
689	5043	16.8	15.7	Pec.	10,113	7 40.8	-37 40	3.6
690	"	22.2	16.8	Mb.	10,220	7 43.9	-40 20	Var.
691	5044	16.0	24.1	Br. line	10,863	8 5.7	-46 58	3
692	5045	7.1	11.6	I. Pec.	23,849	17 28.3	-42 55	2.1
693	5070	18.1	15.9	Ma?	21,881 / ~~21,886~~	16 1.7 / ~~1.9~~	-78 23 / ~~-78 21~~	5.2 / ~~5.5~~
694	5084	8.9	9.1	Ma	16,684	12 6.7	-33 26	6.9
695	5088	15.5	23.3	I. Pec.	18,773	13 42.1	-41 51	3.4
696	5089	10.5	5.8	Mb	18,566	13 32.3	-49 19	6.8
697	5091	21.3	8.3	Br. line.	~~17,889~~ 17,840	~~13 0.1~~ 13 0.1	~~-64 38~~ -64 38	~~8 1/4~~ 6
698	5093	18.1	14.8	Mb sc.	21,881 / ~~21,886~~	16 1.7 / ~~1.9~~	-78 23 / ~~-78 21~~	5.2 / ~~5.5~~
699	"	18.6	16.0	Pec.	22,170	16 14.3	-78 37	3.9
700	5094	18.2	11.4	Pec.?	Gpm C. 1362	14 21.4	-68 15	8 1/2
701	5095	20.9	18.4	Br. line	~~17,889~~ 17,840	~~13 0.1~~ 13 0.1	~~-64 38~~ -64 38	~~8 1/4~~ 6
702	5097	20.8	11.1	Ma?	18,865	13 46.4	-54 27	7.7
703	5101	10.6	20.0	Mb sc.	27,330	19 51.2	-59 43	5.7
704	5102	11.6	10.3	Mc sd ?	25,977	18 52.5	-70 0	8
705	5104	20.6	12.6	Mb sc. C	27,330	19 51.2	-59 43	5.7
706	5110	6.6	11.0	Pec.?	11,405	8 24.4	-77 5	4.7
707	5119	9.8	17.8	Br. line	14,720	10 40.2	-59 2	Var.
708	"	9.8	16.8	Br. line	14,626 / ~~14,698~~	10 36.5 / ~~10 39.6~~	-59 1 / ~~-59 20~~	7 1/4 / ~~6.8~~
709	"	10.6	17.5	Br. line	14,684 / ~~14,698~~	10 39.1 / ~~10 39.6~~	-59 28 / ~~-59 20~~	6.9 / ~~6.8~~
710	5123	13.8	16.3	Ma sb.	16,139	11 42.4	-26 3	5.8
711	"	22.6	9.6	Ma?	15,777	11 26.7	-30 24	5.8

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1892phae.proj.:865F

δ Muscae
Apus δ_1
δ
Apus δ_2
δ
Triang. Aus. α
Puppis c
Puppis I
γ Argus
Scorpius θ
Apus δ_1
δ

Centaurus μ Fleeting bright.

δ Muscae.
Apus δ_1
Apus δ_2
Apus γ

δ Muscae

Examined on chart plates 3839, 3786 & 3922. No evidence of variability.

Chamaeleon θ
~~Carina~~ Argus η

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates.

B

No.	Plate No.	V	H	Object	A.G.C. No.	R.A. (1875 Pos.)	Dec.	Magn.
712	5124	18.9	14.1	Ma	16,684	12 6.7	-33 26	6.9
713	5125	18.9	17.5	Ma?	16,684	12 6.7	-33 26	6.9
714	5128	13.6	9.5	Ma?	17,020	12 23.3	-41 3	6.6
715	5131	17.1	16.2	Md	18,361	13 22.9	-22 38	Var.
716	5140	5.8	19.8	Ma?	20,700	15 9.1	-21 56	5.8
717	"	11.3	14.1	Ma	20,431	14 56.8	-24 47	3.5
718	"	21.0	20.0	Ma?	20,721	15 10.2	-29 41	4.7
719	5145	13.4	16.4	Pec. !!!	22,314	16 21.7	-26 9	1.4
720	5146	24.3	7.3	Ma	22,314	16 21.7	-26 9	1.4
721	5161	20.7	8.4	Ma?	21,064	15 25.8	-39 38	6.6
722	5163	16.9	13.3	Pec, Bulge?	23,073	16 55.5	-37 40	7.1
723	"	23.5	9.9	Bulge	22,843	16 46.3	-40 57	6.4
724	"	23.7	8.6	Bulge	22,748	16 42.8	-41 1	5.9
725	5166	17.6	21.4	Ma	27,430	19 55.0	-28 3	4.7
726	5167	9.7	12.2	IV Type	14,440	10 29.7	-38 55	5.9
727	"	12.8	22.5	Ma	15,092	10 56.5	-40 26	6.9
728	5168	20.5	10.6	Pec.	16,179	11 44.9	-44 29	5.0
729	5169	6.6	11.9	Ma?	17,568	12 48.4	-42 14	6.1
730	"	13.4	13.1	Pec?	17,632	12 51.0	-45 45	7½?
731	5170	5.6	16.4	I Pec.	18,773	13 42.1	-41 51	3.4
732	"	14.7?	17.8	I Pec.	18,859	13 46.2	-46 31	6.6
733	"	20.3	13.2	Ma	18,566	13 32.3	-49 19	6.8
734	5172	7.7	12.5	Ma	23,994	17 34.9	-32 59	6.7
735	"	9.1	7.7	Ma	23,732	17 23.6	-33 36	6.6
736	"	15.5	15.1	Pec.	24,179	17 41.3	-37 0	3.4
737	"	23.0	15.7	Pec.	24,218	17 42.8	-40 44	6.5
738	5174	11.4	12.8	Mb	25,007	18 13.8	-24 58	Var.
739	5175	12.7	18.7	Mb	25,378	18 28.1	-35 33	7¼?
740	"	15.1	11.2	Mb	24,888	18 9.2	-36 48	3.3
741	5176	6.3	15.5	Ma (1855)	Dm -17° 5746	19 38.8	-17 26	7.0
742	5179	11.3	24.9	Ma	16,897	12 17.3	-29 39	6.8

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1882phae.proj.865E

R Hydrae

Libra o
Lupus f
Scorpius α
Scorpius σ

Sagittarius c

Centaurus B

Centaurus μ F line bright.
F line bright.

1885? 13 477-46 39

Scorpius G

Sagittarius η
= A.G.C. 27095 - Pos. for 1900 = 19h 11m.4 - 17° 19'

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Objects of Interest on Southern Spectrum Plates.

B

No.	Plate No.	V	H	Object	A.G.C. No.	R.A. (1875 h m s)	Dec.	Magn.
743	5179	18.6	17.3	Mbsc	16,684	12 6.7	−33 26	6.9
744	5182	5.7	14.4	Ma	(1855) Dm −21° 4028	14 57.7	−21 50	7.6
745	"	11.2	13.5	Mb	20,431	14 56.8	−24 47	3.5
746	"	20.6	14.0	Ma?	20,455	14 57.8	−29 30	7¼
747	5183	13.6	6.4	Ma?	21,860	16 0.5	−25 59	6.0
748	"	13.6	15.9	Ma?	22,314	16 21.7	−26 9	1.4
749	5184	11.3	18.1	Ma	24,829	18 7.1	−29 51	6¾
750	"	16.9	12.4	v Rubies.	3C. 336 12 17 53.5 −32 42 ~~24,462 17 53.1 −32 44~~			9 8¾?
751	5186	5.5	19.7	Mb	28,337	20 33.6	−32 2	6.1
752	"	14.9	9.3	Mbsc	27,731	20 8.3	−36 50	6.5
753	5187	7.4	20.5	Ma? Pec.	(1855) Dm −18° 5831	20 52.7	−18 5	6.3
754	"	8.5	10.7	Ma	28,317	20 32.9	−18 35	5.6
755	5190	13.2	21.2	Mb	17,783	12 57.8	−40 31	7.0
756	"	14.2	8.2	Mb	17,020	12 23.3	−41 3	6.6
757	"	16.4	17.6	Pec.	17,568	12 48.4	−42 14	6.1
758	"	16.7	8.4	Ma?	17,022	12 23.3	−42 14	7.2
759	5191	7.9	12.3	Ma	18,609	13 34.6	−32 58	6.9
760	"	9.4	15.5	Mbsc	18,779	13 42.2	−33 50	4.6
761	"	10.7	22.5	Ma?	19,125	13 59.1	−34 18	7.5
762	"	13.9	21.9	Ma?	{19 100 19 101} 19 129 {19 100 19 141}	13 58.1 59.3	−35 57 −35 45	{8.3 9.3} 2.2
763	"	20.0	21.7	Mb	18,567	13 32.4	−39 7	6.7
764	5194	11.1	11.1	Ma?	23,004	16 52.3	−24 54	6.3
765	5195	6.2	6.7	Ma?	26,682	19 22.1	−27 14	6
766	"	7.6	21.3	Mbsc	27,430	19 55.0	−28 3	4.7
767	"	13.7	8.1	Mb	26,746	19 37.2	−31 8	6.8
767a	5196			v Md	v (~~Dm −20° 6900~~) 20	9.4	−39 ~~29~~ 30	mag. 9.7
768	5197	21.8	13.7	Ma?	27,969	20 17.6	−30 23	7½
769	5200	6.6	8.8	Mbsc	16,761	12 10.8	−67 16	4.7
770	"	13.2	16.8	v I Pec.	17,717	12 54.6	−70 48	6.6
771	"	13.3	16.6	Pec.	17,693	12 53.7	−70 52	3.7
772	5201	7.2	6.7	v Md	18,361	13 22.9	−22 38	Var.
773	"	13.5	12.2	Pec.	18,603	13 34.5	−25 54	7½

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Libra σ

Scorpius a

Z.C. 3612 (17h).

Z.C. 3612 17 55.1 -32 42

= A.G.C. 28789 Pos. for 1900 = 20h 53.8m -18° 1' Mag. 6s

Capricornus v

Centaurus g

~~Centaurus θ~~

Sagittarius ν

new var. in Sagittarius ~~Possibly~~ C.D.M. 13722 see chart plate B ~~3579~~ 16147

Musca ε

Fluc bright

Musca δ

R Hydrae

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Objects of Interest on Southern Spectrum Plates

B

No.	Plate No.	x	y	Object	A.G.C. No.	R.A. (1875 Eqx)	Dec.	Magn.	
774	5201	17.3	15.5	Mc	18,770	13 42.0	-27 45	7.0	
775	5202	6.6	15.9	Pec.	20,100	14 43.0	-27 26	4.8	
776	"	23.7	15.1	Mbsc.	20,052	14 40.9	-36 7	6.8	
777	5204	8.4	23.5	Ma?	27,622	20 3.8	-43 9	6.4	
778	"	10.0	6.0	Mb.	26,532	19 15.4	-43 58	6.6	
779	"	21.5	18.6	Mb	27,335	19 51.4	-49 57	7	
780	5205	7.6	8.5	Ma?	27,115	19 41.1	-47 52	6.3	
781	"	11.5	12.0	Mb?	27,335	19 51.4	-49 57	7	
782	5206	6.7	19.7	M b.	28,321	20 33.0	-42 34	6.4	
783	5207	12.7	19.1	TV Type	29,232	21 11.9	-45 33	6.0	
784	5212	11.6	9.4	Ma?	18,498	13 29.3	-69 48	6.7	
785	5213	13.9	7.2	Mbsc	20,052	14 40.9	-36 7	6.8	
786	"	22.2	13.7	Mbsc.	20,429	14 50.6	-40 22	7.0	
787	5216	14.4	14.6	Br. Iue	Dm -21°4864 (1855)	17 59.8	-21 16	7.8	
788	5217	17.9	22.6	Ma?	29,306	21 15.8	-23 12	6.0	
789	"	12.2	15.2	Pec.!	28,951	20 59.8	-25 30	4.8	
790	"	18.0	9.5	Ma?	28,656	20 46.6	-28 24	6.7	
791	5228	7.0	23.8	Mc	18,210	13 16.1	-32 32	6.8	
792	"	15.7	18.9	Pec.	17,949	13 5.1	-37 8	5¼	
793	.	22.4	16.0	Mc	17,783	12 57.8	-40 31	7.0	
794	5231	14.6	20.7	Mbsc.	30,358	22 5.9	-81 4	5.6	
795	5232	13.9	10.6	Ma?	30,358	22 5.9	-81 4	5.6	
796	5261	15.6	16.2	Pec.	16,615	12 3.7	-21 55	3.3	
797	5262	5.8	7.2	Ma?	16,615	12 3.7	-21 55	3.3	
798	"	10.5	22.3	Ma? Pec?	17,319	12 36.6	-24 18	7	
799	5270	7.5	17.8	Ma?	17,678	12 53.1	-47 56	7¼	
800	"	8.0	15.4	Pec.!!	17,506	12 46.1	-48 16	5.0	
801	5271	13.3	10.8	TV Type	18,947	13 4.9	-55 44	8	
802	"	16.0	10.7	Br. Iue	~~18,881~~ 18,921	~~13 46.9~~ 13 49.0	~~-56 34~~ -57 6	~~8¼~~ 7 3/4	
803	5272	10.8	17.6	Mbsc	18,566	13 32.3	-49 19	6.8	
804	5273	13.7	21.2	Mbsc	20,052	14 40.9	-36 7	6.8	

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var. ?

Hydra E

29232 21. 13.6 -45 27

O.C. 1681

Capricornus A

Octans ε

Corvus ε

Corvus ε

Centaurus e

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Objects of Interest on Southern Spectrum Plates.

B

(1875 – 1900)

No.	Plate No.	V	H	Object	Alt. No.	R.A.	Dec.	Magn.
					19 369	14 12 2 – 36	17	7
✓805	5273 ✓	13.9	9.7	M+Sc.	~~19,364~~	~~14 11.9 – 36~~	~~17~~	~~10~~
✓806	5274 ✓	8.4	14.1	Rec.	21,939	16 41 – 63	22	4.3
✓807	5275 ✓	14.3	13.4 ✓	Br. line (1855)	Dm –21° 4864	17 59.8 – 21	16	78
✓808	" ✓	21.7	19.3	Ma?	25,007	18 13.8 – 24	58	Vav.
✓809	5276 ✓	10.9	12.7	Mb	25,644	18 38.8 – 29	46	7.2
✓810	5278 ✓	14.1	10.0	Ma?	29,962	21 47.8 – 56	17	8
✓811	" ✓	14.6	14.7	Ma	30,332	22 4.6 – 56	34	7½
✓812	" ✓	17.8	15.4	Ma	30,388	22 7.7 – 58	12	7
					a) ~~19 00~~	12 ~~19 23~~ – 48	~~58~~ 51	
813	5281 ✓	19.3	13.6 ✓	IV Type	~~16,937~~	~~12 19.3 – 48~~	~~54~~	~~7~~
✓814	" ✓	21.9	8.5 ✓	I Rec.	16,572	12 1.9 – 50	2	2.8
✓815	5282 ✓	21.1	7.7 ✓	Br. line	17,840	13 0.1 – 64	38	6
✓816	5283 ✓	21.0	18.5 ✓	IV Type	20,554	15 2.4 – 69	36	6.2
✓817	5285 ✓	5.4	14.1	Rec.	26,102	18 57.2 – 21	55	3.8
✓818	" ✓	16.9	15.0	Rec.	26,149	18 59.1 – 27	51	36
✓819	5286 ✓	14.1	16.5	Mb	26,746	19 24.5 – 31	8	6.8
✓820	5287 ✓	17.5	21.2	Ma	27,430	19 55.0 – 28	3	4.7
✓821	5340 ✓	17.1	21.6	Ma	27,430	19 55.0 – 28	3	4.7
					26 811	19 27.5 – 75	3	7.8
✓822	5341 ✓	12.0	10.7	Ma?	~~26,794~~	~~19 26.7 – 75~~	~~41~~	~~8~~
✓823	5344 ✓	15.7	9.7 ✓	Br. line.	10,863	8 5.7 – 46	58	3
✓824	5357 ✓	16.7	19.5 ✓	Md.	18,361	13 22.9 – 22	38	Vav.
✓825	5381 ✓	7.0	16.6	Ma?	28,092	20 23.2 – 22	48	6.5
✓826	5383 ✓	13.5	10.5	M+Sc	30,358	22 5.9 – 81	4	5.6
✓827	5390 ✓	14.1	19.6	M+Sc.	30,358	22 5.9 – 81	4	5.6
					22,519	16 31.V – 62	18	6.9
✓828	5430 ✓	16.9	15.1	Ma	~~22,520~~	~~16 31.4 – 62~~	~~32~~	~~7.2~~
✓829	5431 ✓	17.0	11.0	Ma?	20,992	15 22.8 – 77	30	6.7
✓830	" ✓	18.3	15.1	Mb	21,881	16 1.7 – 78	23	5.2
✓831	5433 ✓	9.4	18.2	Rec.	26,384	19 8.4 – 33	44	6.9
✓832	5434 ✓	21.4	14.4	M+Sc	29,336	21 17.5 – 70	3	5.9
✓833	✓	22.8	11.7	Ma	28,995	21 1.6 – 70	38	5.5
✓834	5435 ✓	13.3	10.0	Rec.	30,422	22 9.9 – 60	53	2.8
✓836	" ✓	16.5	13.7	Mb	30,709	22 24.5 – 62	37	5.5

Entered directly in card cat.

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Triang. Aus. 8

Not in B.C. or Z.C. Approx. pos. for 1875 = 12h 18.0m − 68° 43'
δ Centauri.
δ Muscae

Sagittarius o
Sagittarius τ

Sagittarius c
Sagittarius c

γ Argus
R Hydrae

ε Octans
ε Octans

S. Apodis

Two stars superposed?

Pavo o
Tucana α
ν Tucanae

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Objects of Interest on Southern Spectrum Plates.

B

No.	Plate No.	V	H	Object	A.G.C. No.	R.A. (1875 1900)	Dec.	Magn.	
836	5436	7.5	18.6	Pec.	17,129	12 27.8	-22 42	2.6	
837	5429	4.0	14.4	Pec.	19,128	13 59.3	-26 5	3.6	
838	"	7.8	9.1	Pec.?	18,890	13 47.2	-27 57	6.5	
839	"	19.3	7.4	Mb.	18,779	13 42.2	-33 50	4.6	
840	"	22.9	14.6	Pec.	19,129	13 59.3	-35 45	2.2	
841	5437	9.1	9.4	Mb.	16,684	12 6.7	-33 26	6.9	
842	"	24.0	16.3	Ma	17,020	12 23.3	-41 3	6.6	
843	5438	14.0	14.1	v Me? in d?	19,014	13 53.2	-76 12	Var.	
844	"	18.7	18.0	Pec.	19,851	14 32.4	-78 31	4.0	
845	5440	4.4	10.9	Pec.	25,927	18 50.3	-21 16	3.5	
846	"	6.6	14.2	Pec.	26,102	18 57.2	-21 55	3.8	
847	"	17.2	15.1	Pec.	26,149	18 59.1	-27 51	3.6	
848	5443	18.7	14.2	IV Type?	29,749	21 38.2	-28 42	7 ?	
849	5445	23.6	15.2	Mb.	31,441	23 3.2	-41 16	6.2	
850	5446	11.5	15.1	v I Pec.	~~16,566~~ 16,572	~~12 1.6~~ 12 1.9	~~-49 58~~ -50 2	~~5.8~~ 2.8	
851	5447	15.2	9.7	Br. lines?	17,123	12 27.5	-31 48	8½ ?	
852	5448	21.2	8.7	v Br. line.	17,840	13 0.1	-64 38	6	
853	"	19.7	11.5	Br. lines?	Zone Cab. 832	13 13.7	-63 59	9½ ?	
854	5449	7.1	18.3	Ma?	Dm -13° 4111	15 6.3	-13 40	7.0	
855	5462	21.1	14.9	Mbsc.	~~28,995~~ 29,336	21 17.5	-70 3	5.9	
856	"	22.3	12.3	Ma?	28,995	21 1.6	-70 38	5.5	Ann. Report. Nov 1, 1890
857	5455	14.8	12.2	Ma?	30,055	21 51.8	-21 47	6.6	
858	5460	14.4	16.5	Pec.	22,358	16 24.0	-16 20	4.6	
859	"	18.0	14.6	v I Pec.	22,280	16 19.8	-18 10	4.6	
860	5577	21.8	11.3	Mbsc.	29,336	21 17.5	-70 3	5.9	
861	"	23.3	8.7	Mb.	28,995	21 1.6	-70 38	5.5	
862	5578	7.1	~~24.7~~ 11	Mb.	30,709	22 24.5	-62 37	5.5	
863	"	9.9	18.4	Ma	31,277	22 54.0	-63 45	7	
864	5584	6.7	13.2	Md	30,913	22 38.2	-47 32	2.2	
865	"	9.7	11.2	Ma?	30,802	22 29.1	-48 57	6.9	
866	5587	13.1	12.0	Pec.	31,676	23 16.4	-28 47	3.9	

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Corvus β
Hydra π

Two stars superposed? A.G.C. prec. 2ʰ 8ʰ 10′ 18888 7.2

Centaurus g
Centaurus θ

var.? P M.4. 5½ 6½ d Apodis
α Apodis
ξ 2 Sagittarii
ο Sagittarii
τ Sagittarii

Slvar. ? Centauri d or ε Centauri P F line bright.

θ Muscae
var. ?

ο Pavo

Ophiuchus Φ
Ophiuchus χ F line bright. Other bright-lines

Pavo ο
Tucana ν

Grus β

Aquarius b,

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates.

B

(1875 Pos)

No.	Plate	V	H	Object	A.G.C. No.	R.A.	Dec.	Magn.	
867	5587	14.2	13.4	Pec.	31,734	23 19.5	-21 20	4.4	
868	"	15.4	5.6	Pec.	31,431	23 2.8	-21 51	33/4	
869	5589	6.5	14.9	Pec.	31,431	23 2.8	-21 51	33/4	
870	"	19.9	18.2	Ma	31,566	23 10.4	-29 7	6.5	
871	5589	20.5	16.4	Ma?	~~29,192~~ 29,191	~~21 10.0~~ 21 9.9	~~-46~~ -39	~~46~~ 21	~~7.4~~ 7.3
872	5590	8.5	19.0	Ma	854	0 49.9	-28 27	6.3	
873	"	11.1	6.8	Ma	381	0 22.0	-29 44	6.7	
874	"	18.8	7.1	Mb	377	0 21.7	-33 42	5.2	
875	5583	10.6	15.7	Mbsc	30,657	22 22.3	-44 23	4.4	
876	"	15.0	13.3	~~IIIb~~ IIIa Type	30,526	22 15.1	-46 35	6.7	
877	"	16.9	20.1	Mbsc.	30,913	22 35.2	-47 32	2.2	
878	5581	13.1	12.1	Ma	31,659	23 15.7	-60 44	6.4	
879	5488	6.5	11.4	Mc	23,964	17 33.7	-2 5	6.5	
880	4968	16.6	16.5	Bright.	2[illegible] 13h 6m 51 13 10.7 -57 29 ~~Faint 6m 13 10.9 -57 36~~			8½ ?	
881	5282	7.0	8.8	Bright	2[illegible].13h 6m 51 13 10.7 -57 29 ~~" " 13 10.9 -57 36~~			8½ ?	
882	5600	21.0	14.9	Mbsc	29,336	21 17.5	-70 3	5.9	
883	"	22.3	12.3	Ma?	28,995	21 1.6	-70 38	5.5	
884	5601	16.7	14.0	Ma	30,709	22 24.5	-62 37	5.5	
885	5604	24.2	16.9	Mb	31,441	23 3.2	-41 16	6.2	
886	5602	13.5	10.7	Pec.	30,422	22 9.9	-60 53	2.8	
887	"	16.7	14.3	Ma	30,709	22 24.5	-62 37	5.5	
888	5603	~~12.7~~ 23.7	15.8	Mbsc	30,358	22 5.9	-81 4	5.6	
889	5609	8.6	15.5	Mb?	377	0 21.7	-33 42	5.2	
890	"	22.3	15.8	Pec.	390	0 22.3	-40 36	5.9	
891	5610	6.5	21.5	Mb	3607	3 14.0	-22 13	3.4	
892	"	11.1	21.4	Ma	3609	3 14.1	-24 35	5.9	
893	5611	11.1	19.7	Pec.?	142	0 8.3	-19 38	4.3	
894	5613	~~14.8~~ 4	9.9	Mb	1733	1 41.2	-51 27	5.8	
895	"	18.6	22.7	Mb	2651	2 26.5	-58 22	6.7	
896	"	19.6	8.6	Mb	1580	1 32.2	-58 55	6.2	
897	5616	8.7	17.4	Ma	2331	2 11.6	-68 26	5.9	

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1892phae.proj..865E

Aquarius b_2
Aquarius c_2
" "

Sculptor η
Grus δ_2
Grus π_1
Grus β

Copeland No. 3 1885 h 13 m 10 s 37 - 5° 7' 31" Copelands' pos. wrong
Copeland No. 3. " " " " " " " " "

σ Pavo
Tucana ν

Tucana α
Tucana ν
Octans ϵ
Sculptor η

Eridanus τ_4

Hydrus π_1

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates. B

No.	Plate No.	✓	H	K	Object	A.G.C. (1875–1905)	R.A.	Dec.	Magn.	
898	5617	✓	13.6	14.2	Ma	32,372	23 54.9	− 51 2	5.6	✓
899	5619	✓	15.6	17.8	Pec.	3502	3 8.7	− 56 52	7½ ??	✓
900	"	✓	17.3	17.9	IV Type	3514	3 9.4	− 57 47	6.3	✓
901	"	✓	9.1	6.8	Pec.	2651	2 26.5	− 58 22	6.7	✓
902	5620	✓	16.9	7.3	Ma.	30,913	22 35.2	− 47 32	2.2	✓
903	5621	✓	18.0	23.2	Neb.	322	0 18.5	− 72 47	4½	✓
904	5622	✓	17.0	11.2	Neb.	322	0 18.5	− 72 47	4½	✓
905	"	✓	22.5	14.9	Pec.	762	0 44.2	− 75 36	5.6	✓
906	5623	✓	9.3	15.0	Mb	1580 ~~1551~~	1 32.2 ~~1 30.6~~	− 58 55 ~~− 58 47~~	6.2 ~~6.0~~	✓
907	"	✓	19.3	5.4	Ma	825	0 48.4	− 63 33	6.0	✓
908	5624	✓	15.5	11.5	Mbsc	2566	2 22.9	− 67 3	6.9	✓
909	5625	✓	6.6	17.6	Neb.	322	0 18.5	− 72 47	4½	✓
910	5626	✓	20.8	18.6	Ma?	4353	3 49.2	− 74 37	3.2	✓
911	5628	✓	15.3	18 ~~19~~	Pec.	626	0 35.4	− 46 46	4.7	✓
912	5631	✓	4.7	16.1	Pec.	1677	1 37.5	− 61 25	6.0	✓
913	"	✓	14.2	7.8	Mb	978	0 57.9	− 66 8	6.7	✓
914	5632	✓	6.9	14.0	Mb.	4545	3 59.1	− 62 31	4.7	✓
915	"	✓	7.2	22.4	Mc	5276	4 35.3	− 62 19	Var.	✓
916	5633	✓	10.2	13.1	Ma	4353	3 49.2	− 74 37	3.2	✓
917	5634	✓	20.1	2 ~~1~~ 8.6	Ma	6694	5 37.9	− 73 49	6.1	✓
918	5648	✓	6.9	13.7	Mb	4494	3 56.9	− 51 55	7.0	✓
919	"	✓	7.1	10.5	Mb	4292	3 46.2	− 52 28	7½	✓
920	"	✓	2 3 ~~13.5~~	12.1	Mb	4331	3 48.3	− 60 48	8 ?	✓
921	5657	✓	18.9	9.3	Ma	5971	5 6.6	− 63 33	5.7	✓
922	5662	✓	6.2	16.7	Mb? (1855)	Dm −24° 6120	21 47.5	− 21 49	7.2	✓
923	"	✓	6.4	18.1	Mb.	30,055	21 51.8	− 21 47	6.6	✓
924	"	✓	14.5	10.6	Ma	29,691	21 34.9	− 26 26	7¼	✓
925	5663	✓	17.7	13.7	Mb	30,272	22 1.6	− 33 6	8½	✓
926	"	✓	21.7	13.5	Mb	30,257	22 1.0	− 35 10	7.1	✓
927	5656	✓	16.2	15.5	Mc	5276	4 35.3	− 62 19	Var.	✓
928	"	✓	17.0	7.3	Ma	4545	3 59.1	− 62 31	4.7	✓

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1882phae..proj..865F

Grus β
Tucana ξ
Tucana ξ
Hydrus λ

Tucana ξ
Hydrus γ
Phoenix μ

Reticulum γ
R Doradus
Hydrus γ

R Doradus
Reticulum γ

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates.

B

No.	Plate	V	H	Object	A.G.C. No.	R.A. 1875 (1875)	Dec. 1875	Magn.	
929	5656	9.1	22.5	Ma	5971	5 6.6	-63 33	5.7	✓
930	5664	17.6	11.5	Mc	31,191	22 49.4	-58 4	7 1/4?	✓
931	"	22.9	18.2	Ma	31,659	23 15.7	-60 44	6.4	✓
932	5665	17.3	16.4	Pec.	336	0 19.1	-77 38	2.7	✓
933	5666	15.8	23.9	Mb	1864	1 48.6	-46 55	4.8	✓
934	"	6.4	15.5	Mb	1430	1 24.2	-47 24	6.6	✓
935	"	9.4	18.1	Mb?	(~~Hilum~~ 1900) 1	33.0	-48 ~~50~~ 48		✓ = EDM-48° 42 t
936	"	14.4	20.8	Ma?	1733	1 41.2	-51 26 ~~17~~	5.8	✓
937	5667	17.8	14.8	TV Type	1377	1 21.2	-33 11	var.	✓
938	5668	14.4	18.8	Ma?	2770	2 31.6	-36 22	8	✓
939	5669	16.0	11.6	Ma	3607	3 14.0	-22 13	6.4	✓
940	"	20.7	11.7	Ma	3609	3 14.1	-24 ~~38~~ 5	5.9	✓
941	5670	14.3	22.6	Ma	4528	3 38.3	-26 12	7 1/4	✓
942	"	22.6	15.2	Ma	~~4205~~ 4198	~~3 42.2~~ 3 42.0	~~-30 17~~ -30 27	~~6.9~~ 7 1/4	✓
943	"	24.6	13.7	Mb	4118	3 38.1	-31 25	7	✓
944	5671	13.5	2~~3~~2 8	Pec?	(1900) Est. Pos.	17 19.0	-26.0	Date Sept 7, 1890	✓
945	5672	9.2	9.6	Mb	21881 ~~21886~~	16 ~~16~~ 1.7	-78 23 ~~-78.3~~	5.2 ~~5.0~~	✓
946	5675	20.1	18.9	Ma?	(1900) 29191	21 11.5	-39 15	7.3	✓
947	"	20.7	9.2	Ma?	28606	20 46.2	-39 29	7 1/4	✓
948	5676	14.8	10.0	Ma	(1855) ~~4494~~ Dec. -21° 6' 120	21 47.5	-21 49	7.2	✓
949	"	14.8	11.5	Ma	(1855) ~~4292~~ Dec. -21° 6131	21 50.6	-21 52	6.2	✓
950	5682	15.2	14.0	Ma	4494	3 57.6	-51 51	7.0	✓
951	"	16.5	10.8	Mb?	4292	3 46.9	-52 23	7 1/2	✓
952	5683	10.3	9.8	Mb	4293	3 47.1	-39 17	7 3/4	✓
953	"	12.5	10.1	Mb?	4310	3 47.9	-40 23	8.0	✓
954	5685	21.7	15.0	Mb	29336	21 19.8	-69 57	5.9	✓
955	"	22.2	14.3	TV Type	29252	21 15.2	-70 10	6.8	✓
956	"	23.1	12.5	Ma	28995	21 4.0	-70 32	5.5	✓
957	5694	8.0	14.2	Pec.	29727	21 38.7	-63 0	7.0	✓
958	"	21.8	11.3	Mb	29336	21 19.8	-69 57	5.9	✓
959	"	22.3	10.6	TV Type	29252	21 15.2	-70 10	6.8	✓

All following stars in this list are entered directly in card catalogue & not in Book III Mb.

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1882phae.proj..865F

var.?

β Hydrus
γ Chronis

421 1 32.0 −77 56 6 (1875)

R Sculptoris
~~T+ Eridanus~~
T+ Eridanus = Dun. −22° 584 3h 13.m1 −22° 17′ 4.0

970 Mars

δ¹ Apus

→ All following R.&C. stars in this book are entered in 1900 pos.

= R.&C. 30055

Paso 0

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Objects of Interest on Southern Spectrum Plates

B

(1900 P05)

No.	Plate No.	r	H	Object	A.G.C. No.	R.A.	Dec.	Magn.		
960	5694	23.4	8.8	Ma	28995	21 4.0	−70 32	5.5	✓	
961	5703	21.9	14.6	Mb	29336	21 19.8	−69 57	5.9	✓	
962	"	21.9	13.8	v IV Type	29252	21 15.2	−70 10	6.8	✓	
963	"	22.7	12.0	Ma	28995	21 4.0	−70 32	5.5	✓	
964	5712	5.4	20.3	v IV Type	30526	22 16.6	−46 27	6.7	✓	
966	5713	9.0	11.5	Ma?	3 20258	22 2.5	−43 32	7.0	✓	
966	"	10.3	19.1	Ma	30657	22 23.8	−44 15	4.4	✓	
967	"	14.6	16.5	v IV Type	30526	22 16.6	−46 27	6.7	✓	
968	"	16.7	23.3	Ma	30913	22 36.7	−47 24	2.2	✓	
969	"	19.5	21.1	Pec.!!	30802	22 30.6	−48 49	6.9	✓	
970	5722	23.7	15.0	Mb	30358	22 8.8	−80 57	5.6	✓	
971	5723	8.0	10.1	Ma?	30468	22 14.0	−58 1	6.8	✓	
972	"	9.3	13.7	Ma?	30727	22 27.1	−58 43	8¼	✓	
973	"	16.6	13.6	Ma	30709	22 26.2	−62 29	5.5	✓	
974	"	18.5	17.6	Ma?	31078	22 44.4	−63 21	7.0	✓	
975	5731	7.6	18.5	v Br. line?	23073	16 57.2	−37 42	7.1	✓	
976	"	10.0	16.0	Ma	22937	16 51.0	−38 57	7½	✓	
977	"	13.9	14.9	v Br. line	22843	16 48.0	−41 0	6.4	✓	
978	"	15.3	14.6	v Br. line	22827	16 47.3	−41 40	7.0	✓	
979	"	15.3	13.9	v Br. line	22763	16 45.3	−41 40	7½	✓	
980	"	17.7	14.3	Ma	22803	16 46.6	−42 53	6.6	✓	
981	"	23.5	23.3	v Br. line	23432 (16 7)	16 12.1	−45 32	7¼	✓	
982	5748	7.0	10.8	Mb	30709	22 26.2	−62 29	5.5	✓	
983	5749	17.1	6.9	Ma	30913	22 36.7	−47 24	2.2	✓	
984	5761	15.2	22.6	I Type	D.M. −12 5721 (1855)	20 17.1	−12 10	7.7	✓	
985	5762	11.9	7.0	Ma	30257	22 2.5	−45 3	7.1	✓	
986	5773	22.6	10.7	Ma	7557	6 11.1	−65 34	55	✓	
987	5775	6.6	22.8	Mb	7557	6 11.1	−65 34	5.5	✓	
988	"	12.0	16.2	v Br. line	6744	5 39.4	−69 9	9¼ (6 1/4)	✓	
989	"	14.5	8.2	Ma?	~~5595~~ 5627	~~4 49.7~~ 4 51.4	~~−70 26~~ −70 0	~~7¼~~ 7¼	✓	
990	"	18.2	7.2	Ma?	5395	4 41.2	−71 41	8.0	✓	

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Grus n 1

Grus S 2

Grus n 1

ε Octans. Entered directly in card catalogue & not in Book, 4/4/1946

Lucana r

Lucana V

Hydrogen lines double; probably two stars.

χ² Dorado n 2

" "

Neb. N.G.C. 2060 G.C. 1261.

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates.

B

No.	Plate No.	r	H	Object	a.f.c. No. (1900) (1900 Pos.)	RA.	Dec.	Magn.		
991	5775	21.2	15.9	Mb	6694	5 37.3	− 73 48	6.1	√	.
992	5776	13.2	8.5	Ma	7557	6 11.1	− 65 34	5.5	√	.
993	5781	16.5	18.6	Mb	30709	22 26.2	− 62 29	5.5	√	.
994	5782	6.6	9.8	Mb	30657 30413	22 23.8 ~~22 36.7~~	− 44 15 ~~− 47 24~~	4.4 ~~2.2~~	√	.
995	"	12.5	14.5	Mb	30913	22 36.7	− 47 24	2.2	√	.
996	5791	14.0	10.7	Mb	30358	22 8.8	− 80 57	5.6	√	
997	5796	18.9	6.6	Ma	377	0 22.9	− 33 34	5.2	√	.
998	5800	11.7	17.2	Pec.?	3189	2 52.5	− 64 51	6.9	√	.
999	"	18.9	9.6	Ma?	2331	2 12.1	− 68 19	5.9	√	.
1000	5805	6.1	8.7	Ma?	14321	25.0	− 72 13	7.6	2 √	.
1001	5806	20.7	18.0	Ma	4353	3 48.8	− 74 33	3.2	√	.
1002	5807	10.5	12.7	Ma	4353	3 48.8	− 74 33	3.2	√	.
1003	"	19.0	20.1	Mb?	5803	4 58.4	− 78 34	7½	√	
1004	5809	7.5	11.2	Mb	5971	5 6.8	− 63 31	5.7	√	.
1005	5812	7.5	20.2	Pec.?	7120	5 56.1	− 42 49	40	√	.
1006	5817	9.0	14.8	Ma?	1580	1 33.1	− 58 47	6.2	3 √	.
1007	5818	14.5	12.3	Ma?	3056	2 47.3	− 41 23	7.1	√	.
1008	5821	19.8	14.3	Mc	7260	6 1.6	− 24 11	6.9	√	.
1009	5823	4.4	13.3	Ma	8874	6 58.4	− 51 16	5.8	√	.
1010	"	11.1	8.8	I Type.	{8408 8412	6 42.1 6 42.2	− 54 38 − 54 36	6.8 6.4	? √	
1011	5827	11.3	22.1	Ma?	11170	8 16.9	− 19 46	6.1	√	.
1012	5828	16.4	14.6	Ma	10699	8 0.4	− 32 23	5.8	√	.
1013	"	18.2	15.2	Pec.?	10728 ~~10709~~	8 1.9 ~~8 1.2~~	+ 33 17 ~~− 33 16~~	6.7½ ~~9.0~~	√	.
1014	5830	8.6	13.9	Pec.	21995	16 8.8	− 53 34	6.0	√	.
1015	5831	5.4	20.6	Bp. line	22827	16 47.3	− 41 40	7.0	√	.
1016	5832	15.0	22.0	Ma	24888	18 10.9	− 36 48	3.3	√	.
1017	5837	19.7	18.6	Ma	31566	23 11.7	− 28 59	6.5	√	.
1018	5838	12.1	7.5	Mb	30257	22 2.5	− 35 3	7.1	√	.
1019	5839	15.9	13.0	Ma	31335	22 58.3	− 27 21	6.9	√	.
1020	"	19.2	18.9	Mb	31566	23 11.7	− 28 59	6.5	√	.
1021	5834	17.8	14.5	Mb	21881	16 5.3	− 78 27	5.2	√	.

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Dorado η^2

Lucanae

~~Grus δ~~

~~Grus ε~~ Grus B

Octans ε

Sculptor η

Hydrus η'

Hydrus γ

Columba η

Two stars superposed ?
H.P. 1542

Sagittarius η

Apus S1

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Objects of Interest on Southern Spectrum Plates.

B

No.	Plate No.	T	H	Object	Age	R.A. (1900 Pos.)	Dec. (1900 Pos.)	Magn.	
1022	3638	10.1	11.0	Mb	(1855) Am. −19° 5194 (1900) 25557	18 37.1	−19 23	6.5 7.0	
1023	"	10.8	12.4	Mb	(1855) Am. −19° 5154 (1900) 25644	18 37.5	−19 45	6.8 6.9	
1024	"	10.2	18.8	Mb	(1855) Am. −19° 5255	18 50.9	−19 28	7.0	
1025	3417	9.9	19.8	Mbc	18566	13 33.8	−49 27	6.8	
1026	"	14.4	9.0	Ma?	17792	18 59.7	−51 35	6.9	
1027	"	15.3	16.3	Ma?	18338	13 23.4	−52 15	7 1/4	
1028	3416	8.9	21.9 v	IV. Type	(Approx 1900)	12 19.3	−48 51		→
1029	"	14.3	7.0	Ma?	15587 N	11 32.2	−51 25	8 3/4	
1030	"	14.7	7.5	Ma?	(1875) Z C. 2271	11 32.3	−51 32	9	
1031	3427	8.9	8.6	Ma?	27265	19 49.5	−38 35	7.0	
1032	"	15.8	9.9 v	Md	27305	19 51 8	−42 4	8.0	
1033	3438	10.7	21.4	Mb	25007	18 15.3	−24 5 8	var.	
1034	"	14.9	13.0	Md?	~~2C 3873 17 57.3 − 27 8 8.5~~ ~~Z 3821 17 56.5 − 27 23 8 1/2~~				
1035	"	15.9	13.3	Md?	(Approx 1900) 17 56.8 − 27 42 ~~24520 17 56.6 − 27 49 8.0~~				
1036	"	15.9	17.3	Md?	Approx	18 6.1	−27 36 42		
1037	3468	13.2	14.9	Mc	19014	13 55.6	−76 19	var.	
1038	3493	5.9	20.2	Ma	24846	18 9.1	−32 23	8.0	
1039	3375	15.4	11.8 v	Br. line	(1875) ~~Z~~ C 934	15 13.7	−62 14	9	
1040	3897	5.5	16.6	Ma?	18453	13 28.4	−62	7	7.0
1041	"	14.9	17.9 v	Br. line	~~(Approx 1900)~~ (R.D. −66° 2299) 1900	13 31 41.9 35.0	−66	5 4 (1875) 5 8	9.0
1042	3567	5.5	18.0	Ma	18382	13 25.5	−41 57	7.0	
1043	3630	11.4	12.0	Ma?	(1855) Am. −19° 5998 ~~24005~~	20 54.5 ~~13 37.0~~	−19 49 ~~−32 37~~	7.0 ~~7.2~~	v
1044	3634	7.0	14.4 v	Md	18361	13 24.3	−22 46	var	
1045	3650	6.5	10.0	Ma?	24976	18 14.1	−37 32	6.9	
1046	3660	6.9	10.6 v	Br. line	(1875) Z b 3612	17 53.5	−32 42	9.0	
1047	3665	16.9	21.0	Mb	~~24005~~ 24017	~~13~~ 37.0	−32 37	7.2	
1048	3679	12.6	5.6	Mb	20429	14 58.2	−40 28	7.0	
1049	3693	11.2	21.3	Mb	20431	14 58.3	−24 53	35	
1050	3695	17.3	13.7	Mb	~~23686 17 20.3 − 53 25 7 1/2~~ 23386	17 19.5	−53 9	7 1/4	
1051	3707	12.3	18.1	Ma	25378	17 29.8	−35 32	7 1/4	
1052	3708	5.5	14.8	Ma?	26215	19 3.6	−27 17	7 3/4	

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Already measured on Page 160 — Not in A.ZC. or ZC

Var. New variable in Sagittarius No. 2. Measured up on 2 Plates

Defective image of a star whose spectrum is Class A. Image well shown on B 13767.

The defective image of a star whose spectrum is Class A. Image well shown on B 13767.

~~Measured Position on A.N. plate B 1160~~

~~Measure~~ { Defective image of star having spectrum Cl. A. Clearly shown on plate B 13767

Apus θ

Not in A.ZC. or ZC

Hydra R ~~Dm.~~ −22° 36 01 13 21.8 −22 32 var.

Libra o

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1882phae.proj..865F

Objects of Interest on Southern Spectrum Plates. B

No.	Plate No.	x	y	Object	A.G.C. No.	R.A. (1900)	Dec.	Magn.	
1053	3708	20.2	18.0	Ma?	Z.C. (1875) 417	19 9.7	−34 44	8½	✓
1054	3724	16.3	23.3	Ma	22437	16 29.3	−52 10	7½	✓
1055	"	18.5	10.0	Ma?	21466	15 45.2	−53 31	8¼	✓
1056	1384	14.2	9.1	IV Type	DM−76°734	19 26.6	−76 17	6.5	✓
1057	3163	7.6	22.3	IV Type	DM+68°617	10 35.0	+68 10	6.2	✓
1058	3148	7.6	8.1	IV Type	DM+68°617	" "	" "	"	✓
1059	3818	7.1	13.0	Ma	27442	19 56.5	−27 59	4.7	✓
1060	3904	7.4	13.0	Ma?	21724	15 56.4	−25 52	8.0	✓
1061	"	7.6	15.3	Ma	21860	16 2.0	−26 3	6.0	✓
1062	"	8.3	22.3	Neb?	22201	16 17.4	−26 17	7¼	✓
1063	3906	22.0	16.7	Ma?	24162	17 43.3	−65 28	6.6	✓
1064	3912	10.5	11.0	IV Type	20554	15 4.8	−69 42	6.2	✓
1065	"	13.1	13.6	Pec.?	Appr. (1900) 15 19.5		−71 5		✓
1066	"	13.8	12.0	Ma.	20648	15 9.4	−71 26	6.8	✓
1067	"	16.9	13.9	Pec.?	20878	15 20.6	−73 2	5.8	✓
1068	3913	13.0	10.7	Ma?	22293	16 23.3	−70 47	5.9	✓
1069	3917	17.7	15.0	Pec.	21881 21886	16 5.3 − 5.5	−78 25	5.2 5.5	✓
1070	3930	11.0	22.0	Ma.	22343	16 24.8	−44 40	8¼	✓
1071	"	11.8	16.9	Pec.	22034	16 10.6	−45 12	8¾	✓
1072	"	13.4	11.4	Pec.	Appr. (1900) 15 55.0		−46 0		✓
1073	"	16.6	13.5	Ma.?	21817	16 0.5	−47 42	8¼	✓
1074	3932	19.7	18.2	Ma?	24941	18 13.2	−44 7	7¼	✓
1075	3935	10.0	10.2	Ma?	29191	21 11.5	−39 15	7.3	✓
1076	"	13.0	17.3	Ma.	29567	21 30.2	−40 46	7½	✓
1077	"	15.7	13.3	Pec.?	29335	21 19.1	−42 8	8.0	✓
1078	"	21.9	13.8	Mb.	29364	21 20.4	−45 15	8.0	✓
1079	"	23.9	9.4	Ma?	29095	21 7.6	−46 12	7.0	✓
1080	3936	9.5	18.5	Ma?	30481 30487	22 14.3 − 14.5	−44 0 −44 12	7¾ 8¾	✓
1081	"	14.2	19.1	IV Type	30526	22 16.6	−46 27	6.7	✓
1082	"	17.6	11.4	IV Type?	30063	21 53.7	−48 8	8.6	✓
1083	3956	10.5	15.0	Pec.	23694	17 24.1	−49 47	2.9	✓

Continued in book 55 Page 100.

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1882phae.proj..865F

Sagittarius c

Bright lines.?

F line bright.? Not in A.C. or Z.C. Not confirmed

F line bright. Apus K1

Apus δ1
Apus δ2 Two stars superposed.

Bright lines.?
Spectrum with bright lines superposed.? H plate 5 Only one star found 244 examined.

Grus 71

F line bright. ✗ Ara ε F line br. confirmed on X plates 5059, 5795, 6484

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Objects of Interest on Northern Spectrum Plates.

Obs. & Ref.	No.	Plate No.	V	H	Object	Dm. No.	R.A. h m	Dec. ° ′	Magn.	
7027	1	Series I 193	9.2	8.1	V Br. lines	+41° 4004	21 1.6	+41 39	8.5	Pl. neb. V
"	2	I 205	9.1	13.5	V " "	" "	" "	" "	"	V
#	3	" "	15.2	9.7	Nec.? V	Appx 1935 21	21	10.0 +38 45		V
7027	4	" 225	9.1	14.8	V Br. lines	+41° 4004	21 1.6	+41 39	8.5	V
~~7662~~	~~5~~	~~B 2818~~	~~11.9~~	~~16.1~~	~~Br. lines~~	~~+41° 4773~~	~~23 19.0~~	~~+41 44~~	~~8.0 Pl. neb.~~	V
7009	6	" 2926	9.3	15.1	V Br. lines	-11° 5511	20 56.3	-11 56	neb.	V
	7	I 501	5.2	15.3	~~J. Mourão~~ K.	+7° 1273	6 17.4	+7 10	7.3	V
	8	V " 502	11.1	~~15.0~~ 14.0	?	+19° 2042	8 27.5	+19 24	var.	V
	9	" 503	16.3	14.2	2′	+12° 2098	9 39.8	+12 6	var.	V
	10	" 504	16.2	13.7	V Br. line	-17° 3140	10 17.8	-17 54	neb. Pl. Net.	V
	11	" "	4.6	7.1	V ~~IV~~	-12° 3218	10 30.4	-12 38	var.	V
	12	" "	10.9	20.3	Nec. Br. line?	-15° 3000	10 3.2	-15 28	8.0	V
	13	" 506	~~13.4~~ 14.1	12.0	V ?	-6° 3837	13 25.4	-6 27	var.	V
	14	" "	~~14.1~~ 14.0	22.4	~~Nec.?~~ Nec III ?!	~~Dm -2° 3644~~ Dm -2° 3645	~~13 13.5~~ 13 16.6	~~-2 14~~ -2 22	~~9.0~~ 8.2	V
						~~+27° 2399~~	~~14 30.6~~	~~+27 22~~	~~9.5~~	
	15	" 507	5.4	18.7	V ?	+27° 2400	14 30.8	+27 22	var.	V
	16	" 521	21.2	20.2	Nec.!	Dm. +11° 1954	9 50.4	+11 23	8.5	V
	17	" "	13.7	12.1	V Nec.!! IV Type	Dm +14 2048	9 50.5 18	+14 48	8.8	V
	18	" "	11.5	16.0	M?	+15° 1977	8 58.3	+15 51	8.1	V
	19	" "	7.3	21.9	V ~~IV~~	+17° 1973	8 47.2	+17 47	6.5	V
	20	" "	6.6	14.8	Nec.?	+18° 2129	9 0.9	+18 4	7.8	V
	21	" "	6.2	19.9	~~IV~~ M	+18° 2093	8 51.0 10	+18 42	7.0	V
	22	" 522	17.2	14.7	M.	-21° 2987	8 0.7	-21 47	7.0	V
	23	" "	9.4	12.9	M	-18° 2861	10 4.4	-18 14	7.0	V
	24	" "	8.8	5.9	V Br. line	-17° 3140	10 17.8	-17 54	neb. Pl. neb.	V
	25	" "	6.4	21.2	M	-16° 2921	9 48.7	-16 47	7.2	V
						-12° 3218	10 30.4	-12 38	var.	
	26	" 523	8.1	15.0	V ~~IV~~	~~+68° 617~~	~~10 34.9~~	~~+68 10~~	~~6.2~~	V
						+68° 617	10 36.0	+68 10	6.2	
	27	" 524	18.4	15.7	V ~~IV~~	~~+69° 600~~	~~10 38.4~~	~~+69 9~~	~~8.2~~	V
						+69° 600	10 58.4	+69 9	8.2	V
	28	" "	15.9	11.2	M?	+70° 625	10 38.0	+70 36	8.2	V
	29	" "	12.9	15.2	M?	+70° 6~~24~~ 41	10 49.1	+70 46	7.1	V
	30	" "	12.5	13.3	M.	+72° 521	11 2.4	+72 22	8.9	V
	31	" "	8.8	11.2	Nec.?					

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See I Plate 85

Measured in book 45 page 132 - No 501 -

I Monoc.
I L Cancri
I Leonis — Spectrum differs only in intensity from that of o Ceti. Bc. Lines present.

II 25 N. Hydrae.

S. Virginis

R Bootis — Spectrum same as that of R Leonis except - that bright lines are wanting

Astron. Nach. Vol 119 p 309. believe it to be a new type. Eginitis — Found by Barnard. Bapt (private letter) believes this a var. Diff. to obs. in the spectroscope on Apr. 14 on acc. of flames, but I

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II, 23
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II, 25 N. Hydrae
II 26
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Objects of Interest on Northern Spectrum Plates. I

No.	Plate No.	v	H	Object	Dm. No.	R.A.	Dec.	Magn.		
32	I 524	3.0	14.1	Rec.!	Dm +75°429	10 46.6	+75 7	8.0	✓	
33	" 525	3.4	9.1	M.	−15° 3174	10 52.4	−15 34	6.5	✓	
34	" 526	20.4	6.7	M.?	+41° 2375	12 39.6	+41 42	7.0	✓	
35	" "	20.0	16.0	M	+42° 2334	12 36.6	+42 4	7.5	✓	
36	" "	16.9	17.5	M.?	+43° 2249	12 33.1	+43 32	7.7	✓	
37	" "	16.0	8.0	M	+43° 2296	12 37.3	+43 47	6.0	✓	
38	" "	11.0	15.5	IV	+46° 1818	12 38.3	+46 13	5.5	✓	
39	" "	10.8	8.7	M.	+46° 1839	12 36.2	+46 9	7.7	✓	
40	" "	8.3	12.5	M	+47° 1998	12 46.7	+47 27	7.0	✓	
42	" "	7.6	19.4	M.?	+47° 2003	12 48.3	+47 59	5.8	✓	
41	" "	7.1	11.9	M	+47° 1970	12 27.8	+47 48	7.3	✓	
43	" "	6.8	15.0	M	+48° 2055	12 39.9	+48 10	7.5	✓	
44	" "	3.1	21.0	Br. line? ✓	Defect in plate					
45	" 537	18.4	21.7	IV. or Rec?	+57°702	0. 3	+57 20	7.9	✓	
46	" "	11.2	6.1	?	+60° 780	3 36.0	+60 29	7.8	✓	
47	" "	7.9	13.4	IV?	+62° 596	3 29.4	+62 10	6.6	✓	
48	" "	6.9	13.3	M	+62° 597	3 29.6	+62 46	5.0	✓	
49	" "	3.9	17.6	M.?	+64° 391	3 12.2	+64 4	6.0	✓	
50	" 542	8.6	14.2	IV	+67° 350	3 36.2	+67 34	7.0	✓	
51	" 543	12.9	13.2	IV	+14° 1283	6 17.2	+14 49	6.5	✓	
52	" "	12.6	10.3	K	+14° 1247	6 11.8	+14 42	5.8	✓	
53	" 544	17.8	17.6	Br. line	−13° 842	4 7.5	−13 6	neb. Rl. Net	✓	
54	" "	15.7	8.3	K	−14° 783	3 49.7	−14 1	6.8	✓	
55	" "	12.9	7.6	K	−15° 787	3 48.3	−15 20	7.0	✓	
56	" "	12.7	6.8	K	−15° 783	3 46.8	−15 24	6.8	✓	
57	" 546	6.4	9.8	Br. line	−17° 2105	7 35.5	−17 32	neb. Rl. Net.	✓	
58	" 547	22.1	22.7	M? Rec?	+28° 1639	8 43.8	+28 48	6.5	✓	
59	" "	18.8	15.2	M.	+30° 1817	8 59.3	+30 14	6.0	✓	
60	" 548	11.6	13.6	M? Rec.?	+60° 1288	10 38.1	+60 24	8.5	✓	
61	" 549	15.9	20.7	IV	−12° 3218	10 30.4	−12 38	Var.	✓	
62	" "	4.2	14.1	Br. line	−17° 3140	10 17.8	−17 54	neb. Rl. Net.	✓	

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I 105

II 29

E 370

approx pos 1855 α 23.6 δ +49.8 Examined to Plate in this region "Defect in plate"

II 7

I 32

II 8 Dimer No. 8

II 18 Dimer No. 18

Br. line in red end. (

N.G.C. 1535

I 35 " " " " "

" " " " "

" " " " "

N.G.C. 2440. 2438 not visible

II 25 U. Hydrae

N.G.C. 3242

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Objects of Interest on Northern Spectrum Plates. I

No.	Plate No.	v	H	Object	DM. No.	R.A. h m	Dec. ° ′	Magn.	
63	I. 550	15.6	7.7	v IV	−17°	3281	10 53.4	−17 33	var. ✓
64	" "	4.9	20.1	v IV?	−12°	3218	10 30.4	−12 38	var. ✓
65	" 553	12.2	19.9	2′	+19°	3098	16 19.4	+19 13	8.7 ✓
66	" "	4.5	13.7	M.	+22°	2998	16 31.5	+22 44	8.0 ✓
67	" 554	14.5	18.3	v IV	+67°	350	4 36.2	+67 54	7.0 ✓
68	" 555	15.2	22.8	v IV	+67°	350	4 36.2	+67 54	7.0 ✓
69	" 556	14.9	14.2	Rec?	+67°	1668 (133)	1 22.0	+67 39	7.4 ✓
70	" "	11.3	21.6	M?	+69°	50	0 44.1	+69 10	7.5 ✓
71	" 568	21.2	22.0	M?	+21°	1688	7 33.7	+21 18	8.5 ✓
72	" "	20.9	15.9	M	+21°	1714	7 45.7	+21 29	7.2 ✓
73	" "	18.0	20.7	M	+22°	1761	7 36.1	+22 48	8.0 ✓
74	" "	17.5	9.9	M	+23°	1887 1786	7 37.7	+23 3	6.0 ✓
75	" "	9.1	9.5	M?	+26°	1722	7 39.0	+26 47	9.1 ✓
76	" "	17.0	14.6	M	+27°	1813 (5)	7 48.8	+27 53	7.7 ✓
77	" 569	20.8	20.1	Rec.!	+11°	1957 (0)	8 30.4	+11 23	8.5 ✓
78	" "	13.0	11.9	Rec.."	+14°	2048	9 5.8	+14 48	8.8 ✓
79	" 571	20.9	9.5	M?	+16°	1833	8 43.1	+16 33	8.0 ✓
80	" "	20.2	6.2	M?	+16°	1863	8 49.4	+16 48	8.0 ✓
81	" "	16.7	19.9	M?	+18°	1963	8 23.3	+18 35	6.0 ✓
82	" 132	20.0	11.9	Rec? ~~M~~?	+33°	3846	20 12.3	+33 38	7.8 ✓
83	" "	15.5	14.6	v Br. line	+35°	4013	20 6.5	+35 46	8.0 ✓
84	" "	15.5	15.4	v Br. line	~~+35° 4000 20 4.8 + 35 46 9.0~~				✓
					(+35° 4001 20 4.8 + 35 45 8.5)				
85	" "	14.5	13.5	v Br. line	+36° 3994 (56) 20 (9.1) + 36 (13) (8.0)				✓
86	" "	12.8	12.4	v Br. line	+36° 3987		20 11.6	+ 36 39	8.1 ✓
87	" "	10.8	14.5	v Br. line.	+37° 3821		20 6.8	+ 37 55	7.1 ✓
88	" "	9.9	11.4	v Br. line?	+38° 4010		20 14.2	+ 38 17	8.7 ✓
89	" 188	10.3	15.1	2′?	−3°	353	21 12.0	− 3 38	var. ✓
90	" 205	13.9	11.6	M?	+39°	4473	21 6.0	+ 39 27	8.3 ✓
91	" "	8.4	19.5	Br. line. ✓	approx. 1855 = 20	(45.9) 46.9	+ 41	(59) 53	✓
92	" 210	17.2	16.6	M	A.G.C. 8597		b 48.0	− 26 48	7.0 ✓
93	" "	10.6	16.2	v Br. line	A.G.C. 8632		b 49.0	− 23 46	7.2 ✓

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II 25 ~~N. Hydrae~~. R Crateris.
II 25 ~~R Crateris~~. N Hydrae.
I 181 N Herculis
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II 8
II 8

I, 18 o Ceti

Br. line confirmed on I 21462 28 chart plates show very slight
New variable in Cygnus. No 2 ? change - See note on cover
I 205

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Objects of Interest on Northern Spectrum Plates. I

No.	Plate No.	r	h	Object	DM. No.	R.A.	Dec.	Magn.	
94	I224	7.5	12.4	M.	-0	4585	23 47.4	-0 42	6.2 ✓
95	" 472	18.5	14.7	Br. line?	Approx 1855.	5	18.3	+32.25	
96	" 492	18.3	7.4	M?	-17°	1029	5 1.3	-17 29	7.0 ✓
97	" 493	9.7	12.2	M in Nec.?	+36°	1167	5 21.6	+36 40	7.8 ✓
98	" 494	12.5	14.0	✓ Br. line	A.G.C.	8631	b 49.0	-23 46	7.2 ✓
99	" 495	16.6	15.2	✓ IV	+38°	1539	b 26.6	+38 33	6.3 ✓
100	" "	11.8	12.2	M	+40°	1696	b 34.1	+40 46	7.0 ✓
101	" "	3.2	13.0	M?	+44°	1518	b 32.5	+44 39	5.3 ✓
102	" 497	9.5	18.7	M?	-3°	353	2 12.2	-3 38	9.5 ✓
103	" "	9.5	18.8	2'	-3°	353	2 12.0	-3 38	var. ✓
104	" 499	15.3	16.9	M	+2°	1196	b 13.5	+2 38	7.8 ✓
105	" "	15.0	12.5	M	+2°	1253	b 21.7	+2 44	6.8 ✓
106	" "	9.9	9.7	M	+5°	1306	b 26.9	+5 5	8.0 ✓
107	" "	6.7	8.9	M?	+6°	1301	b 28.3	+6 30	8.5 ✓
108	" "	5.3	14.9	K	+7°	1273	b 17.4	+7 10	7.3 ✓
109	" 579	3.1	19.4	2'	-3°	353	2 12.0	-3 38	var ✓
110	" 581	15.3	12.3	✓ Br. line ✓	A.G.C.	8631	b 49.0	-23 46	7.2 ✓
111	" 584	14.6	6.1	K ✓					
112	" 585	10.4	14.3	Nec.?	+11°	1954	8 50.4	+11 23	8.3 ✓
113	" 586	12.9	15.6	✓ Nec. " IV	+14	2048	9 3.8	+14 48	8.8 ✓
114	" 587	13.8	15.3	Nec.	+75°	429	10 46.6	+75 7	8.0 ✓
115	" 588	13.6	13.3	2	-2°	3653	13 6.6	-2 2	8.2 ✓
116	" "	11.2	14.0	M	-0°	2668	13 3.3	-0 59	7.3 ✓
117	" "	4.2	13.5	M? 2?	+2°	2646	13 6.6	+2 13	7.0 ✓
118	" 636	9.8	19.7	?	-3°	353	2 12.0	-3 38	var. ✓
119	" "	2.4	18.4	M?	-0	353	2 14.6	-0 16	5.5 ✓
120	" 639	10.2	11.0	✓ IV Type	+61	667	3 53.3	+61 24	7.5 ✓
121	" "	8.7	7.1	III ?	+61°	701	4 8.5	+61 52	8.0 ✓
122	" "	8.7	17.1	✓ IV ?	+62°	593	3 29.4	+62 10	6.6 ✓
123	" "	7.5	17.0	III	+62°	592	3 29.6	+62 46	5.0 ✓
124	" "	7.0	14.3	III ?	+62°	618	3 41.0	+62 57	8.0 ✓

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Dunér.

I, 295

"B r line probably due to defect in plate". Ch. Pl. plates show no evidence of variability

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II 19

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~~I 16~~

I 18 o Ceti

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o Ceti

H.P. 1311

Vesta.

o Ceti.

E 188 IV! ~~Heis.~~

II 7

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Objects of Interest on Northern Spectrum Plates. I

No.	Plate	x	y	Object	D M.	R.A.	Dec.	Magn.	
125	639	2.4	15.4	M?	+65° 389	3 36.3	+65 2	4.5	√
126	640	10.3	15.5	Pec?	+11° 1954	8 50.4	+11 23	8.3	√
127	642	12.9	15.1	Pec.?	+75° W29	10 46.6	+75 7	8.0	√
128	643	9.0	20.5	2'	+12° 2096	9 39.8	+12 6	var	√
129	645	11.6	14.0	IV Type	+57° 702	3 0.3	+57 20	7.9	√
130	650	10.0	10.4	IV	+61° 667	3 53.3	+61 24	7.5	√
131	"	9.4	18.7	Pec?	+61° 604	3 21.4	+61 40	8.1	√
132	"	7.2	16.6	M	+62° 597	3 29.6	+62 46	5.0	√
133	653	9.0	14.2	2'	+12° 2096	9 39.8	+12 6	var	√
134	654	13.5	14.7	2?	+75° 429	10 46.6	+75 7	8.0	√
135	655	12.0	18.7	2'?	−2° 3653	18 6.6	−2 2	8.2	√
136	656	14.2	21.0	M	+15° 2890	15 29.8	+15 34	6.7	
137	"	14.9	10.2	K?	+15° 2858	15 19.1	+15 36	4.8	√
138	652	14.7	19.7	M?	+10° 1876	8 40.7	+10 57	7.1	√
139	"	13.7	14.6	Pec.!	+11° 1954	8 50.4	+11 23	8.3	√
140	"	12.7	18.8	Pec.?	+11 1924	8 42.4	+11 52	9.2	
					+11 1923	8 42.4	+11 57	8.9	√
141	"	11.5	18.0	M?	+12° 1927	8 43.9	+12 25	8.0	√
142	"	10.1	19.7	M	+13° 1994	8 40.7	+13 5	7.2	√
143	"	6.5	9.5	M?	+14° 2033	9 0.1	+14 37	7.7	√
144	660	19.4	10.4	M	+13° 1994	8 40.7	+13 5	7.2	√
145	"	10.8	10.6	Pec.!	+11° 1954	8 50.4	+11 23	8.3	√
146	"	10.9	19.0	M?	+11° 1976	8 56.7	+11 25	7.8	√
147	"	14.8	10.4	M?	+10° 1876	8 40.7	+10 57	7.1	√
148	"	7.9	13.4	M?	+6° 2056	8 46.2	+6 53	8.7	√
149	"	3.9	13.7	M?	+6° 2057	8 46.9	+6 1	7.9	√
150	666	13.8	12.9	M:	+9° 2092	8 49.9	+9 50	8.3	√
151	"	11.3	17.8	M	+10° 1876	8 40.7	+10 57	7.1	√
152	"	10.3	12.6	Pec.	+11° 1954	8 50.4	+11 23	8.3	√
153	"	6.7	17.8	M	+13° 1994	8 40.7	+13 5	7.2	√
154	667	13.7	13.2	Pec.!! IV	+14° 2048	9 5	+14 48	8.8	√
					+15° 1977	8 58.3	+15 51	8.1	
155	"	11.4	17.1	M	+16 1987	9 10.0	+16 4	9.2	√

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Objects of Interest on Northern Spectrum Plates. I

No.	Plate No.	r	H	Object.	Dm. No.	R.A.	Dec.	Magn.
156	564	~~5.2~~ 5.9	~~16.7~~ 16.5	~~M~~ M?	+71° 66	1 9.1	+71 51	rar.
157	569	~~2.8~~ 17.4	~~18.7~~ 18.7	M?	+58° 628	3 25.8	+58 11	9.0
158	"	10.4	11.2	~~M~~	+61° 667	3 53.3	+61 24	7.5
159	"	8.9	17.4	~~M~~	+62° 596	3 29.4	+62 10	6.6
160	"	7.6	17.3	M	+62° 597	3 29.6	+62 46	5.0
161	"	6.5	15.2	M	+63° 451	3 37.8	+63 16	8.0
162	667	7.2	23.0	~~M~~	+17° 1973	8 47.2	+17 47	6.5
163	669	13.7	11.6	Rec. ~~M~~	Dm +14° ~~2028~~ 2048	9h 5.8	+14 48	8.8
164	"	11.5	15.5	M?	+15° 1977	8h 58.3	+15 51	8.1
165	"	7.3	21.4	~~M~~ ?	+17° 1973	8h 47.2	+17 47	6.5
166	"	6.6	14.3	M	+18° 2129	9h 0.9	+18 4	7.8
167	"	5.4	19.5	M	+18° 2093	8 51.0	+18 42	7.0
168	671	11.5	5.9	M	+15° 2890	15 29.8	+15 34	6.7
169	"	9.9	14.9	M	+16° 2765	15 12.9	+16 30	8.3
170	"	3.2	18.8	M	+19° 2985	15 5.5	+19 32	3.9
171	672	11.2	16.7	2	~~+57~~ +19 3098	16 19.4	+19 13	8.7
172	677	20.0	16.7	M	+57° 737	3 30.2	+57 2	8.5
173	~~176~~ "	17.6	18.0	M	+58° 628	3 25.8	+58 11	9.0
174	"	17.2	7.2	M	+58° 724	4 3.4	+58 9	8.7
175	"	13.2	8.9	M?	+59° 765	3 38.7	+59 60	8.7
176	"	10.4	10.6	~~M~~	+61° 667	3 53.3	+61 24	7.5
177	"	9.2	21.4	M	+61° 587	3 11.4	+61 52	8.8
178	"	7.7	16.7	M	+62° 597	3 29.6	+62 46	5.0
179	681	18.8	19.8	M	+37° 2383	13 6.9	+37 39	6.5
180	"	18.6	18.4	M	+37° 2404	13 17.3	+37 47	6.0
181	"	7.2	9.8	M?	+42° 2424	13 31.4	+42 56	7.5
182	"	6.9	21.9	M?	+43° 2300	13 1.3	+43 9	7.1
183	682	20.7	20.0	M?	+61° 1312	12 36.7	+61 57	6.5
184	689	19.7	6.7	M	+23° 938	6 24.3	+23 2	7.8
185	"	15.5	7.9	M?	+21° 896	5 26.8	+21 6	8.5
186	"	13.4	18.3	2'	~~+20° 1192 5 47.3 +20 5 9.2~~	5 47.2	+20 9	

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N Herculis Br. hydrogen lines not visible

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Objects of Interest on Nor Southern Spectrum Plates.

No.	Plate	V	H	Object	Dm. No.	R.A.	Dec.	Magn.	
187	689	9.8	6.2	M	+18°	875	5	23.7 +18 29	4.4 ✓
188	"	7.4	11.0	M	+17°	979	5	32.9 +17 27	8.0 ✓
189	"	0.4	14.1	M?	+16°	887	5	38.9 +16 31	8.6 ✓
190	"	10.3	22.9	M	+18°	1074	5	53.8 +18 42	8.5 ✓
191	"	16.0	13.0	Pec?	+18°	950	5	36.7 +18 38	7.5 ✓
191a	"	14.4	~~14.4~~ 13.1	V IV ?	+20°	10~~27~~43	5	~~38.9~~ 37.0 +20 ~~39~~ 37	~~7.5~~ 7.4 ✓
192	690	18.0	23.1	M.	+7°	1409	6	34.4 +7 32	7.3 ✓
193	"	17.5	7.2	M.	+7°	1185	6	5.1 +7 19	8.2 ✓
194	"	17.2	13.9	K	+7°	1273	6	17.4 +7 10	7.3 ✓
195	"	~~15.5~~ ~~+5.5~~	19.9	M.	+6°	1302	6	28.6 +6 22	8.6 ✓
196	"	14.8	7.2	M.	+6°	1160	6	5.2 +6 3	7.0 ✓
196a	"	14.2	18.4	M.	+5°	1298	6	25.8 +5 45	8.6 ✓
197	"	12.8	19.2	M1-2	+5°	1306	6	26.0 +5 5	8.0 ✓
197a	"	13.9	19.4	M.	+5°	1308	6	27.0 +5 4	9.5 ✓
198	"	7.6	16.1	M.	+5°	1312	6	27.8 +5 37	8.5 ✓
198a	"	13.6	18.1	M.	+2°	1253	6	21.7 +2 44	6.8 ✓
199	"	7.3	11.7	M1-2	+5°	1290	6	25.2 +5 31	8.8 ✓
200	"	13.5	21.3	M1-2	+2°	1196	6	13.5 +2 38	7.8 ✓
201	691	20.4	15.7	M.	+5°	1345	6	31.2 +5 19	8.7 ✓
202	"	19.1	21.7	M.	+21°	1116	5	58.0 +21 54	8.2 ✓
203	"	19.3	22.4	I Pec?	+22°	1095	5	46.1 +22 29	7.6 ✓
204	"	16.6	19.8	M.	+22°	1085	5	44.9 +22 23	9.0 ✓
205	"	16.3	13.9	M.	+23°	1132	5	49.8 +23 38	7.8 ✓
206	"	13.4	9.3	M.	+23°	1231	6	1.7 +23 48	9.2 ✓
207	"	13.2	6.9	M.	+25°	1215	6	10.9 +25 4	7.8 ✓
208	"	12.7	17.0	M.	+25°	1253	6	15.8 +25 7	6.5 ✓
209	"	11.4	13.8	M1? ✓ V IV	+26°	1100	5	55.3 +25 27	6.9 ✓
210	"	9.5	20.4	M.	+26°	1117	6	1.9 +26 3	7.4 ✓
211	"	8.6	10.2	M.	+26°	1011	5	48.3 +26 50	8.0 ✓
212	"	7.8	23.7	M.	+27°	1054	6	9.3 +27 15	7.1 ✓
213	"	4.7	16.1	M.	+27°	887	5	41.7 +27 38	7.7 ✓
214	"	3.8	16.1	M.	+29°	1111	5	57.1 +29 6	7.5 ✓
215	692	16.5	13.5	V IV	+29°	1112	5	57.1 +29 31	6.0 ✓
216	"	15.0	10.9	Pec?	−11°	1805	7	1.3 −11 42	7.6 ✓
217	"	10.3	18.9	M2	−11°	1849	7	6.3 −11 1	6.3 ✓
					−8°	1650	6	51.2 −8 50	7.7 ✓

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Two stars superposed P.r

Dunner $\overset{\text{II}}{\wedge}$ 16.

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Objects of Interest on Nov Southern I Spectrum Plates

No.	Plate	r	H	Object	D.M. No.	R.A.	Dec.	Magn.	
218	692	10.3	13.9	Pec? Bu. Li?	−8° 1753	7 0.7	−8 51	8.8	✓
219	"	9.4	8.8	M1	−8° 1828	7 10.0	−8 29	8.3	✓
220	"	8.9	15.5	M1?	−8° 1726	6 57.6	−8 14	7.0	✓
221	693	21.1	17.1	M1	+11° ~~856~~ 1976	8 36.7	+11 23	7.8	✓
222	"	18.7	15.1	M1	+12° 1973	9 0.3	+12 31	7.3	✓
223	"	13.6	12.3	✓ IV.!!	+14° 2048	9 5.8	+14 48	8.8	✓
224	"	12.6	15.2	M1	+15° 1984	9 0.1	+15 18	7.3	✓
225	"	7.2	22.1	✓ IV?	+17° 1973	8 47.2	+17 47	6.5	✓
226	"	6.6	15.0	M1	+18° 2129	9 0.9	+18 4	7.8	✓
227	"	5.2	20.1	M1	+18° 2093	8 51.0	+18 42	7.0	✓
228	"	5.0	22.9	M1	+18 2076	8 45.7	+18 47	8.0	✓
229	694	16.1	18.9	M2-3	−21° 3280	11 10.6	−21 31	7.7	✓
230	695	3.4	11.4	M1	~~+6~~ −15° 3174	10 52.4	−15 34	6.5	✓
231	696	19.5	7.6	M1	+32° 1541	11 0.9	+32 10	7.2	✓
232	"	12.4	13.1	M1	+33° 1422	10 45.3	+33 33	8.0	✓
233	697	20.7	21.8	M1	+36° 1598	12 20.7	+36 30	6.0	✓
234	"	18.2	21.4	M1	+37° 1373	12 18.1	+37 34	6.4	✓
235	"	8.9	15.7	?	+61° 1313	12 37.6	+61 53	var.	✓
236	698	9.0	16.4	M1	+27° 2413	14 37.0	+27 9	8.8	✓
237	"	8.6	19.5	M3?	+27° 2400	14 30.8	+27 22	var.	✓
238	536	16.0	18.8	M1	−4° 996	4 52.2	−4 21	8.1	✓
239	"	9.3	15.2	M1	−1° 800	4 58.8	−1 26	8.0	✓
240	"	4.1	15.7	✓ IV.	+0° 939	4 57.9	+0 58	6.0	✓
241	~~538~~ 538	20.9	11.1	M1	+6° 2224	9 46.1	+6 39	6.5	✓
242	"	19.3	15.5	M1?	+7° 2181	9 38.5	+7 22	8.8	✓
243	"	9.0	15.0	✓ M4	+12° 2096	9 39.8	+12 6	var.	✓
244	"	13.3	17.0	M1?	+14° 2136	9 35.8	+14 40	6.0	✓
245	658	10.7	9.3	Pec?	−10° 513	2 28.0	−10 5	8.0	✓
246	706	20.0	18.5	M1	−16° 3090	10 28.7	−16 38	8.2	✓
247	"	17.2	12.8	✓ Bridge.	−17° 3140	10 17.8	−17 54	neb.	✓
248	879	19.3	14.2	M1	+58 1281	10 37.3	+58 7	6.3	✓

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R Bootis

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Objects of Interest on Northern Spectrum Plates. I

No.	Plate No.	r	H	Object	D.M. No.	R.A. h m	Dec.	Magnr.	
249	878	19.8	9.1	M_1	+2° 2145	8 37.5	+2	3	6.8 ✓
250	"	16.4	16.4 ✓	$M4?$ ✓	+3° 2085	8 46.0	+3	36	var. ✓
251	869	19.4	7.7	$M3?$	−2° 3853	13 6.6	−2	2	8.2 ✓
252	"	12.1	17.5	M	−5° 3714	13 24.4	−5	30	5.3 ✓
253	"	10.0	18.0 ✓	M4	−6° 3837	13 25.4	−6	27	var. ✓
254	870	17.3	16.3 ✓	M4	+27° 2400	14 30.8	+27	22	var. ✓
255	"	16.9	19.4	M_1	+27° 2413	14 37.0	+27	9	5.8 ✓
256	"	15.4	12.3	M_1	+26° 2575	14 22.3	+26	30	7.0 ✓
257	"	15.0	10.0	M_3	+26° 2563	14 17.7	+26	23	8.0 ✓
258	~~858~~	~~10.8~~	~~17.9~~	~~M4~~	~~−18° 3367~~	~~12 12.1~~	~~−18~~	~~27~~	~~var. ✓~~
259	850	19.2	12.4	$M2?$	+72° 521	11 2.4	+72	22	8.9 ✓
260	"	13.4	15.0	M_2	+75° 429	10 46.6	+75	7	8.0 ✓
261	857	9.9	18.3 ✓	M4	−18° 3367	12 12.1	−18	27	var. ✓
262	853	7.7	12.9 ✓	M4	−22° 3601	13 21.8	−22°	32	var. ✓
263	854	16.9	10.5 ✓	M4	−6° 3837	13 25.4	−6	27	var. ✓
264	"	14.9	11.1	M_1	−5° 3714	13 24.4	−5	30	5.3 ✓
265	"	7.4	20.8	M_3	−2° 3653	13 6.6	−2	2	8.2 ✓
266	"	6.9	10.8	M?	−1° 2833	13 23.1	−1	32	8.6 ✓
267	"	6.2	11.6	M?	−1° 2830	13 23.7	−1	32	8.7 ✓
268	855	14.6	16.9	M_1	~~+5° 1661~~ 4	~~13.7~~	~~+5~~	~~36~~	~~8.0~~ ✓
269	856	7.8	13.4 ✓	M4	+27° 2400	14 30.8	+27	22	var. ✓
270	"	8.1	10.4	M_1	+27° 2413	14 37.0	+27	9	5.8 ✓
271	843	8.5	9.0	M_1	+27° 2400	14 30.8	+27	22	var. ✓
272	"	8.9	9.9	M_1	+27° 2413	14 37.0	+27	9	5.8 ✓
273	842	20.0	13.0	M_1	+1° 2216	8 52.1	+1	38	7.9 ✓
274	"	19.8	8.9	M_1	+2° 2145	8 37.5	+2	3	6.8 ✓
275	"	~~7.5~~ 16.5	16.3 ✓	M4	+3° 2085	8 46.0	+3	36	var. ✓
276	836	16.8	13.7 ✓	TV	−11° 1805	7 1.3	−11	42	7.6 ✓
277	"	15.8	14.5	M_1	−11° 1789	6 59.8	−11	14	8.7 ✓
278	"	13.1	14.6	M_1	−10° 1871	6 59.6	−10	0	8.2 ✓
279	831	21.2	16.5	M_3	+56° 1615	12 33.7	+56	38	8.2 ✓

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S Hydrae

R Bootis
W. Bootis

R Corvi Measured on Page 190

R Corvi
R Hydrae
S Virginis

R. Bootis
W Bootis
R. Bootis
W Bootis

S. Hydrae

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Objects of Interest on Northern Spectrum Plates. I

No.	Plate No.	♈	♓	Object	DM. No.	R.A.	Dec.	Magn.	
280	831	22.4	20.4	M_1?	+56° 1598	12	20.7	+56 30	6.0 ✓
281	"	19.1	21.0	M_1	+57° 1373	12	18.1	+57 34	6.4 ✓
282	"	19.1	17.7	M_1?	+57° 1382	12	29.5	+57 38	7.5 ✓
283	"	17.2	13.2	M_2	+58° 1397	12	45.0	+58 32	8.0 ✓
284	"	18.7	15.7	M_1?	+57° 1388	12	36.0	+57 47	7.5 ✓
285	820	12.1	14.6	M_1	+75° 429	10	46.6	+75 7	8.0 ✓
286	816	3.8	13.3 ✓	~~IV~~	+0° 939	4	51.9	+0 58	6.0 ✓
287	900	12.9	10.7	M_3	~~−2° 3653~~ ~~13 6.6 − 2 53 8.2~~ −1° 2786 10 5.8 1 47 8.0				✓
288	"	3.6	10.8	M_1	+2° 2646	13	6.6	+2 13	7.0 ✓
289	899	21.0	8.7	M_2?	+11° 1954	8	30.4	+11 23	8.5 ✓
290	"	7.1	10.7 ✓	~~IV~~	+17° 1973	8	47.2	+17 47	6.5 ✓
291	"	17.6	14.0	M_1?	+13° 1994	8	40.7	+13 5	7.2 ✓
292	897	14.9	14.5	M_1?	+9° 2097	8	50.6	+9 16	9.0 ✓
293	"	10.2	14.6	M_1	+11° 1954	8	50.2	+11 23	8.5 ✓
294	"	7.2	11.3	M_1?	+12° 1960	8	56.6	+12 47	8.8 ✓
295	"	2.6	6.3 ✓	~~IV~~	+14° 2048	9	5.8	+14 48	8.8 ✓
296	886	16.5	14.6	?	+61° 1313	12	37.6	+61 53	var. ✓
297	"	16.0	13.5	I_1?	+61 1309	12	33.1	+61 41	7.0 ✓
298	887	7.8	10.4 ✓	~~2 M4~~	+7° 2861	12	31.2	+7 48	var. ✓
299	"	14.6	13.0	M_1	+10° 2461	12	36.0	+10 54	8.1 ✓
300	"	17.8	19.4	M_1	+12° 2529	12	48.2	+12 17	7.3 ✓
301	888	18.5	21.3 ✓	~~2 M4~~	+27° 2400	14	30.8	+27 22	var. ✓
302	"	18.2	24.4	M_1	+27° 2413	14	37.0	+27 9	6.8 ✓
303	"	17.4	15.8	M_1	+26° 2569	14	19.4	+26 53	7.5 ✓
304	"	16.5	17.2	M_1	+26° 2575	14	22.3	+26 30	7.0 ✓
315	"	16.0	15.0	~~2~~ M_3	+26° 2563	14	17.7	+26 23	8.0 ✓
306	881	20.5	19.5	M_1?	−16° 3496	12	21.4	−16 17	8.0 ✓
307	"	17.3	16.4	M_1?	−17° 3629	12	20.4	−17 48	7.3 ✓
308	"	15.8	12.2 ✓	M4	−18° 3387	12	12.1	−18 27	var. ✓
309	882	2.3	19.1	M_1	−8° 3449	12	46.8	−8 45	5.3 ✓
310	883	18.5	11.4	M_1	+27° 2661	16	~~31.9~~ 32.0	+27 21	6.5 ✓

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Bmer II 11

Bmer II 23

S. Ursae Majoris

R. Virginis

R Bootis

W Bootis

R Corvi

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Objects of Interest on Northern Spectrum Plates. 1

No.	Plate No.	r	H	Object	DM. No.	R.A.	Dec.	Magn.	
(311	883	19.2	22.1	M1?	+27° 2733	1h 54.1	+27 33	7.2	✓
(312	"	16.4	14.0	M1?	+26° 2885	1h 37.2	+26 19	8.0	✓
313	"	11.4	14.6	v Br. Line	+24° 3048	1h 38.4	+24 4	8.1	✓
314	"	8.4	11.1	Mast½ I	+22° 2998	1h 31.5	+22 44	8.0	✓
315	884	17.2	14.5	v Br. Line.	+66° 1066	17 58.6	+66 38	neb.	✓
					~~+63 12110~~	~~18 5.0~~	~~+63 42~~	~~6.8~~	
316	868	19.0	18.1	Ma	−11° 3291	12 15.8	−11 0	6.8	✓
317	"	2.6	16.3	v Md	−18° 3367	12 12.1	−18 27	var.	✓
318	858	9.8	17.9	✓ Md	~~−18 3367 12 12.1 −18 27 var.~~				✓
319	832	21.1	12.4	Mb	~~A.G.C. 21062 15 25.8 −24 4 7~~				
(320	"	20.6	13.0	Ma?	A.G.C. 21040	15 24.9	−23 27	7.5	✓
					A.G.C. 21019	15 23.8	−23 14	8	
(321	817	17.3	22.2	v TV	−11 1805	7 1.3	−11 42	7.6	✓
322	"	22.0	15.1	Mb?	−14° 1846	7 14.3	−14 5	6.2	✓
(323	"	12.1	10.1	K	−9° 2085	7 23.9	−9 29	6.3	✓
(324	"	10.0	16.4	Ma?	−8° 1839	7 12.4	−8 31	7.5	✓
(325	"	7.4	16.7	Ma?	−7° 1873	7 11.6	−7 19	7.8	✓
(326	901	11.9	17.3	Ma?	−5° 3702	13 21.5	−5 12	7.0	✓
(327	"	11.2	18.9	Ma	−5° 3714	13 24.4	−5 30	5.5	✓
(328	"	9.3	19.5	v Md	−6° 3837	13 25.4	−6 27	var.	✓
(329	902	17.9	19.6	Ma	+12° 2529	12 48.2	+12 17	7.3	✓
(330	"	14.7	13.1	Ma	+10° 2461	12 36.0	+10 54	8.1	✓
(331	"	7.9	10.6	v Md	+7° 2561	12 31.2	+7 48	var.	✓
(332	"	15.8	10.1	Ma?	+11° 2478	12 30.3	+11 23	8.0	✓
333	903	19.3	9.4	Ma?	+28° 2318	14 17.6	+28 5	6.5	✓
(334	"	19.0	9.3	Ma?	+27° 2374	14 17.4	+27 56	8.0	✓
(335	"	18.8	15.7	v Md	+27° 2400	14 30.8	+27 22	var.	✓
(336	"	17.5	18.8	Ma	+27° 2413	14 37.0	+27 9	5.8	✓
337	"	16.7	10.6	Mb?	+26° 2572	14 20.0	+26 51	8.2	✓
338	"	15.9	11.7	Ma	+26° 2575	14 22.3	+26 30	7.0	✓
339	"	15.6	9.4	Mc	+26° 2563	14 17.7	+26 23	8.0	✓
(340	907	21.2	22.8	Ma	+52° 2635	20 4.9	+52 55	8.2	✓
(341	"	19.2	23.0	Ma	+52° 2636	20 5.1	+52 29	8.1	✓

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1002phec.proj : 005F

N.G.C. 6210

N.G.C. 6543

R. Coronæ
R Coronæ

S. Virginis

R Virginis

R Bootis
W. Bootis

var.?

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Objects of Interest on Northern Spectrum Plates.

No.	Plate No.	v	h	Object	Dm No.	R.A.	Dec.	Magn.	
342	907	17.5	20.0	Mb	+51° 2734	19	56.0	+51 45	7.3	✓
343	"	14.8	8.5	Ma	+50° 2791	19	22.1	+50 34	7.8	✓
344	"	14.0	20.2	Ma	+50° 2947	19	55.8	+50 11	8.0	✓
345	"	13.8	15.0	v Br line.	+50° 2869	19	40.9	+50 11	8.3	✓
346	"	13.4	7.9	Mc?	+49° 2999	19	20.7	+49 57	7.5	✓
347	"	12.6	14.3	Ma?	+49° 3086	19	38.8	+49 38	8.8	✓
348	"	12.0	22.0	Mb5c.	+49° 3180	20	0.5	+49 14	9.1	✓
349	"	11.1	11.1	Ma	+48° 2914	19	29.7	+48 56	6.5	✓
350	"	11.0	8.4	Ma?	+48° 2896	19	22.4	+48 53	7.6	✓
351	"	10.0	14.6	v Md	+48° 2942	19	39.5	+48 26	7.1	✓
352	"	9.2	16.1	Ma?	+48° 2955	19	44.0	+48 4	9.0	✓
353	"	6.8	13.8	Ma	+46° 2755	19	37.2	+46 58	7.5	✓
354	"	4.3	9.4	Mb?	+45° 2913	19	25.9	+45 51	7.0	✓
355	996	21.0	20.2	Ma?	+56 1598	12	20.7	+56 30	6.0	✓
356	"	20.8	16.2	Mc	+56 1685	12	33.7	+56 38	8.2	✓
357	"	18.6	20.8	Ma	+57 1373	12	18.1	+57 34	6.4	✓
358	"	16.7	13.0	Ma	+58 1397	12	45.0	+58 32	8.0	✓
359	"	9.3	15.1	Ma?	+61 1313	12	37.6	+61 53	var.	✓
360	997	9.2	16.1	v Md	(1900)	15	17.3	+31 44	var	✓
361	1010	17.8	15.8	v Md..	-22° 3601	13	21.8	-22 32	var.	✓
362	1011	18.3	15.5	v Md:	+27° 2400	14	30.8	+27 22	var.	✓
363	"	17.9	18.5	Ma	+27° 2413	14	37.0	+27 9	8.8	✓
364	"	16.1	9.1	Mc	+26° 2563	14	17.7	+26 23	8.0	✓
365	1019	9.2	12.0	Mc.	-2° 3653	13	6.6	-2 2	8.2	✓
366	"	7.0	12.8	Ma3b.	-0 2668	13	5.3	-0 59	7.3	✓
367	1020	20.6	23.2	Ma?	A.G.C. 20557	15	2.6	-23 30	6.8	✓
368	"	20.1	12.0	Mb	A.G.C. 21040	15	24.9	-23 27	7.5	✓
369	1021	10.5	12.2	Md?	+31° 2746	15	25.0	+31 22	8.8	✓
370	"	9.4	16.6	v Md	(1900)	15	17.3	+31 44	var.	✓
371	1028	17.4	20.0	v Br line.	~~-17° 3140~~ -17° 3140	10	17.8	-17 54	Neb.	✓
372	"	16.6	13.1	Ma	-18° 2861	10	4.4	-18 14	7.0	✓

Continued in Book 45 p. 4

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N.G.C. 6826.

var?

— δ Ursae Majoris
— δ Coronal. = D.M. +31° 2725
— R Hydrae
— R Bootis
— W Bootis
— DM. +26° 2563
— DM -2° 3653.*

- δ Coronal = DM. +31° 2725
— N.G.C 3242

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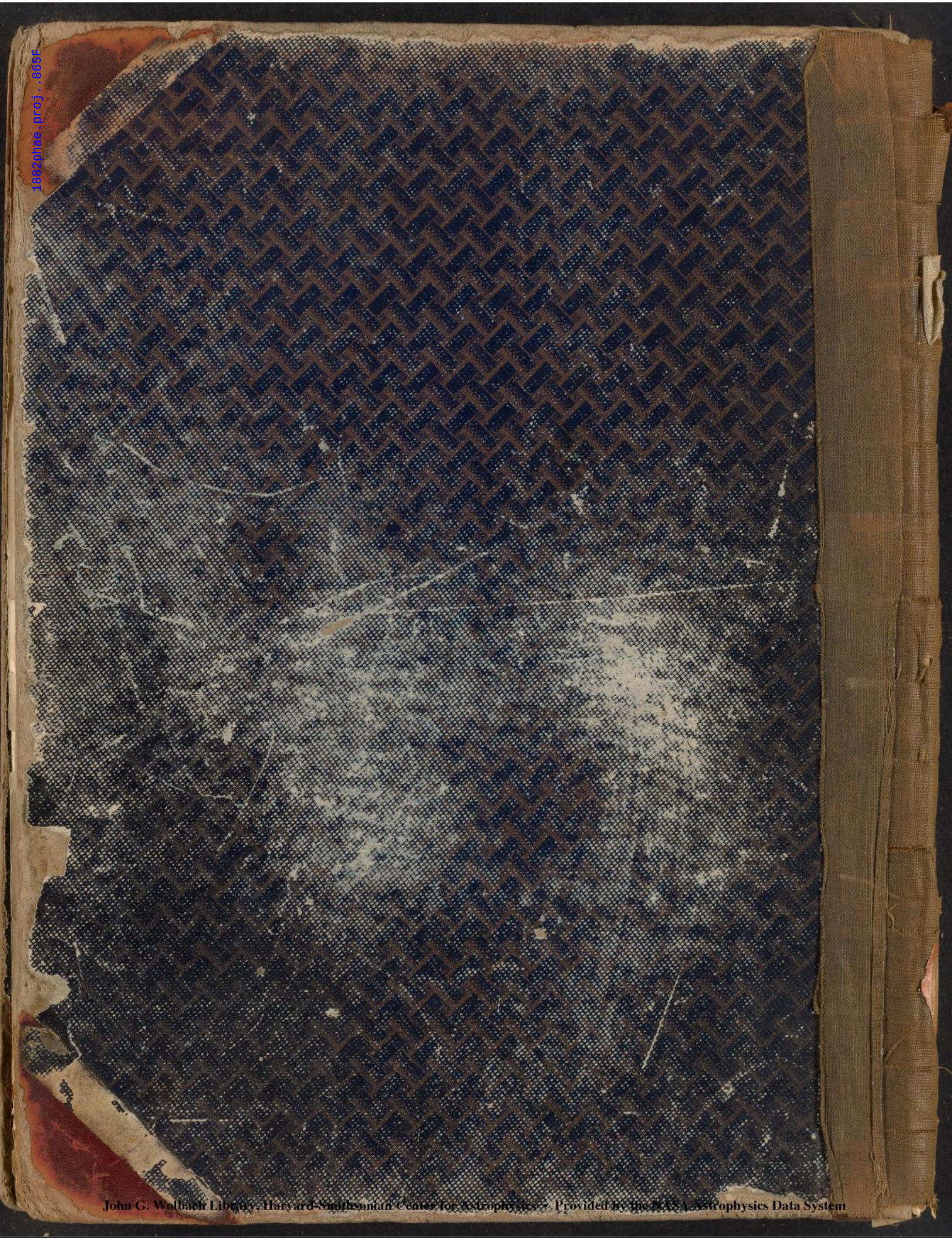
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