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List of Stars in Heis' Catalog which fall outside the ascertained limits of any B. A. C. constellation, and might with equal propriety be assigned to one or another B. A. C. constellation.

[See Book R 37, p. 49–50.]

The B.A.C. stars, which are nearest the limits of the several constellations, having been located on an atlas, some space intervenes between the extreme stars in one constellation and those in ~~another.~~ the next. If a star, not in the B. A. C., occurs in this space, it is uncertain to which constellation it would have been assigned by the B.A.C.

Heis page	Heis no. and Constellation	Heis a.R.	Heis Decl.	Neighboring B.A.C. Constellations		Our Cat. No.
		h m	° ′			
1	4* Urs. min.	195°5	+73°48	Urs. min.	Drac.	2090
"	5* "	197°21	73°34′	"	"	
"	7 "	203°26	71 59	"	"	2174
"	8* "	206°52	69 2	"	"	
"	11* "	211 49	69 33	"	"	
"	14* "	214 16	68 27	"	"	
2	30 "	234 20	69 45	"	"	2469
"	34* "	239 46	71 19	"	"	
"	40* "	248 27	72 55	"	"	
"	50 "	262 40	80 15	"	"	2760
"	1* Drac	134 25	79 52	Drac. Urs. maj. Camel.		
3	4* "	158 44	73 3	Drac. Urs. maj.		
"	27* "	193 38	76 15	"	Urs. min.	2079
"	33 "	206 15	62 12	"	Urs. maj.	2213 a
"	35 "	208 15	62 12	"	"	2233
4	37 "	212 49	57 22	"	Urs. maj. Boot.	{2267 / 2269}

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		° ′	° ′		
4	39 Drac	216 56	60 51	Drac. Urs.maj Boot.	2300
"	40 "	217 0	56 2	" " "	2301
"	41* "	217 28	57 42	" " "	2304
5	79 "	246 15	51 45	" Herc.	2609
6	132* "	270 52	50 49	" "	
7	137* "	273 8	50 29	" "	
8	176* "	283 58	79 46	" Urs. min.	
"	179 "	284 9	50 20	" Lyr. Cygn	3031
"	194* "	292 36	79 18	" Urs. min. Ceph.	
9	211* "	305 38	80 4	" Ceph.	
"	214* "	308 9	79 43	" "	3372
"	1* Ceph	293 21	83 10	Drac. Urs. min.	3153
[10	15* "	313 $\frac{9}{12}$	74 $\frac{12}{6}$	Drac.	]
"	16* "	313 55	54 39	Ceph. Cygn.	
"	19 "	314 33	56 5	" "	3477
"	21* "	316 26	67 40	" Drac.	
["	26* "	318 21	75 42	Drac.	]
"	32* "	319 48	80 37	Ceph. Drac.	
13	103* "	342 40	84 0	" Urs. min.	
"	115* "	351 3	85 37	" "	
"	122* "	354 51	65 58	" Cassiop.	3945
"	126* "	359 18	66 21	" "	3995
"	131* "	7 37	76 5	" "	
[14	141* "	29 9	79 0	Cass.	]
["	145* "	43 50	79 36	"	]
["	146* "	44 35	78 19	"	464]
["	155* "	65 25	79 21	Cass. Camel.	
["	157* "	70 15	85 45	Urs. min.	817]
15	2* Cass.	344 8	54 28	{Cass. Ceph. Androm. Lacert}	
17	66* "	13 29	50 15	Cass. Androm. Pers.	

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		° ′		° ′		
18	96* Cass.	23	49	56	21	Cass. Pers.
"	100* "	27	4	58	55	" "
"	101* "	27	5	60	59	" Pers. Camel.
"	116*	36	28	65	7	" " "
"	117* "	36	30	63	28	" " "
"	120* "	39	33	64	2	" " "
"	123* "	43	48	63	30	" " " 454
19	11* Pers.	29	1	49	6	Pers. Androm.
"	21* "	36	41	36	41	" Andr. Triang. 373
"	24* "	37	20	37	7	" " "
"	25* "	37	39	48	56	Pers. Andr.
20	61 "	46	11	56	35	" Cass, Camel. 476
21	65* "	46	42	32	19	" Taur, Arietis
"	70* "	47	13	30	35	" " "
"	75* "	48	52	33	1	" " " 508
"	79* "	49	49	33	18	" " " 519
22	106* "	56	35	30	38	" Taur.
"	110* "	58	53	32	10	" "
"	114 "	60	25	33	12	" " 647
"	123* "	62	44	31	37	" "
23	130* "	65	23	39	42	" Aurig.
"	134* "	68	0	37	59	" "
"	135 "	68	5	49	42	" Camel. 771
"	6* Camel					Camel. Cass.
"	10* "					" "
"	21* "					" Pers.
25	82* "					" Aurig. Lynx
26	119* "					" Urs. maj.
"	121 "					" Urs. min. Drac. 1535
27	122 "					Urs. maj. Drac. 1589

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27	133* Camel	Urs. min.	2172
"	134* "	"	
"	137* "	"	
28	20* Lacert.	Lacert. Ceph.	
"	25* "	" Pegas.	
"	28 "	" "	3757
"	30* "	" Ceph.	3762
"	36* "	" "	
"	37* "	" "	3782
"	42 "	" Pegas. Androm.	3803
"	43 "	" " "	3804
29	47* "	" Androm.	
"	48 "	" "	3810
30	28* Lync.	Lynx Aurig.	
"	31* "	" "	1358
"	36* "	" Camel.	
"	37* "	" Aurig. Gem.	
"	38 "	" " "	1378
"	41* "	" Gem.	
"	44* "	" "	
"	49* "	" Canc.	
31	60* "	" "	1455
"	70* "	" Urs. maj.	
32	16* Urs. maj.	Lynx	
"	22* "	"	
33	37* "	"	
"	42* "	"	
"	53* "	Urs. maj. Drac.	
"	38½ "	" Lynx	
34	78* "	" Drac.	

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34	80* Urs. maj.	Urs. maj. Leo min	
35	111 "	" Drac.	1790
"	119 "	" Leo min	1806
"	127 "	" Drac.	1828
36	141 "	" "	1854
"	160 "	" "	1893
37	173 "	" Can. ven.	1918
"	177* "	" "	
"	179 "	" "	1932
"	180* "	" "	
"	181* "	" "	
"	182* "	" "	1934
"	183* "	" "	
"	184 "	" "	1939
"	187* "	" "	
["	190* "	Can. ven.	]
38	210* "	Urs. maj. Drac.	
"	214 "	" Can. ven.	2147
"	219 "	" Drac.	2181
"	221* "	" "	
"	223 "	" "	2193
"	226 "	" "	2214
39	1* Can. ven.	Can. ven. Urs. maj.	
"	4* "	" Coma	
"	6* "	" Urs. maj.	
"	14 "	" "	2007
40	33* "	" Coma	
"	39* "	" "	
"	45* "	" "	
"	48* "	" "	

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41	66* Can. ven.	Can. ven. Urs. maj.	
"	69 "	Can. ven. Boot. Coma.	2178
"	70* "	" " "	2182+
"	73 "	Can. ven. Boot.	2189
"	84* "	" "	
"	86* "	" "	
"	87 "	" "	2239
"	88* "	" "	
"	1* Androm	Androm. Lacert.	
"	3* "	" "	
43	40 "	" Pegas.	3977
"	53 "	" "	24
"	56 "	" "	33
"	63* "	" "	
44	71* "	" "	
"	81* "	" "	80
"	96 "	" Pisc.	142
45	111* "	Andr. Pisc. Triang.	
"	113 "	" " "	210
46	4 Equul	Equul. Aquar.	3476
"	9* "	" "	
"	14 "	" "	3528
"	16 "	" Pegas.	3536
47	1 Pegas.	Pegas. Vulpec.	3516
"	4* "	Pegas. Equul. Delph.	
"	7* "	" " "	
"	9 "	Pegas. Equul.	3551+
"	11 "	" "	3554
"	20* "	Pegas. Cygn. Lacert.	
49	89* "	" Pisc. Aquar.	

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50	106* Pegas.	Pegas. Pisc.	
"	108* "	Pegas. Lacert. Andr.	
"	110* "	Pegas. Pisc.	
"	119* "	Pegas. Lacert. Andr.	
51	144* "	Pegas. Andr.	
52	169* "	" Pisc.	
"	172* "	" Andr.	
"	174 "	" "	8
"	178* "	Pegas. Andr. Pisc.	30
53	22* Pisc.	Pisc. Pegas.	
55	101* "	Pisc. Andr. Triang.	
"	107* "	" " "	
56	114* "	" " "	
"	120* "	" " "	
"	1* Triang.	Triang. Pisc.	226b
"	4 "	" Andr.	262
"	7* "	Triang. Pisc. Aries	
"	9* "	" " "	
57	14* "	Triang. Aries	
"	29* "	Triang. Aries. Pers.	
"	30* "	" " "	
58	12* Ariet.	Aries Pisc.	
59	57* "	Aries Cet. Taur.	
"	60* "	Aries Taur.	
"	62* "	" "	459
60	1 Aurig.	Aurig. Taur.	787
"	6 "	" Pers.	797
"	8 "	" "	806
"	15* "	" "	
[61	24* "	Camel	873]

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[61	26* Aurig.	Camel.	]
"	42 "	Aurig. Taur.	932
"	44* "	" Camel.	934
["	49* "	Camel.	957]
64	122* "	Aurig. Gem.	
"	127* "	" Lynx	
"	130* "	" "	
"	131* "	" "	
"	132 "	" "	1235
["	136 "	Gem.	1268]
"	137* "	Aurig. Gem.	
"	138* "	" "	
"	2* Taur.	Taur. Aries	512a
65	5* "	" "	
"	7 "	Taur. Aries Pers.	528
"	9* "	Taur. Cet.	
"	12* "	" "	
"	17* "	Taur. Pers. Aries	
"	21* "	" " "	
66	60 "	" Erid. Orion	630
"	68* "	" " "	
67	77 "	" " "	{672 / 673}
"	87 "	" " "	697
68	104* "	" " "	
"	118* "	" " "	
"	123* "	" " "	
"	124 "	" " "	745
69	133 "	" " "	764
"	142* "	Taur. Orion	
70	185* "	" "	

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71	14* Gem.	Gem. Orion Monoc.	
73	97* "	" Can. min. Canc.	
"	99* "	Gem. Canc.	
74	103* "	" "	
"	105* "	" "	
"	2* Can. min.	Can. min. Monoc.	
"	3* "	" "	
"	4* "	" "	
"	23* "	Can. min. Gem. Canc.	
75	30* "	" Monoc. Hydr	
"	31* "	" Canc. Hydr.	
"	33* "	" " "	
"	34 "	" " "	1419
"	35* "	Can. min. Canc.	
"	37* "	" "	
"	5* Canc.	Canc. Can. min. Gem.	
"	9* "	" " "	
76	42 "	Canc. Hydr.	1483
78	86 "	{Canc. Leo Lynx Leo min.}	1566
79	21 Leonis	Leo Leo min.	1637
"	31* "	" "	
80	55* "	" "	
"	59* "	" "	1709
"	61* "	" "	
"	62* "	" "	
"	69* "	" Sext.	
81	86* "	" "	
"	88* "	" "	
"	90* "	" "	
"	94 " "	" Leo min.	1802

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81	97* Leonis	Leo Sext.	
82	146 "	" Virg.	1887
"	150* "	" "	
"	151* "	{Leo Leo min.} Coma Urs. maj.	
83	155* "	{ " " }	
"	161* "	Leo Coma	
"	10* Leo min.	Leo min. Urs. maj.	
84	22* "	" Leo	
"	26* "	" "	
"	37* "	" "	
85	10 Comae	Coma Can. ven. Urs. maj.	1967
"	11* "	" " "	
"	36* "	Coma Can. ven.	
86	64 "	Coma Boot. Virg.	2113
"	65* "	" " "	
"	66* "	" " "	
"	67* "	Coma Can. ven.	
87	70 "	" Boot.	2169
"	1* Boot.	Boot. Virg.	
"	2* "	" "	
"	3* "	" "	
"	18 "	" "	2235
"	21* "	" "	
89	91* "	Boot. Serp. Virg.	
"	92 "	" " "	2335
90	119* "	Boot. Serp.	2380
"	125 "	" "	2387
"	126 "	" Coron.	2388
91	136 "	" "	2416
"	137* "	" "	

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91	138 Boot.	Boot. Coron.	{2425 2431}
"	2* Coron.	Coron. Boot.	
"	4* "	Coron. Boot. Serp.	2418
"	6* "	Coron. Boot.	
"	11 "	Coron. Boot. Serp.	2455
93	10 Herc.	Herc. Serp.	2542
"	9* "	" Boot.	
"	17* "	" "	
94	57* "	" Drac.	
96	107* "	" Oph.	2710
97	148* "	" Drac.	
"	154 "	" Oph.	2794
98	178* "	" "	2836
"	188 "	" Lyra	2856
"	190* "	" Oph.	
"	195 "	" Lyra	2866
"	197 "	" Drac.	2869
"	198* "	" Oph.	2872
"	199 "	" Lyra	2873
"	201 "	" "	2876
99	202 "	Herc. Drac. Lyra	2882
"	212* "	Herc. Lyra	
"	213 "	" "	{2920 2921}
"	215 "	Herc. Oph. Aquil.	2929a
"	219 "	" " "	2941
"	220 "	" Lyra Vulpec.	2954a
"	223 "	" Aquil. Sagitta	2972
"	224 "	" Lyra Vulpec.	2970
"	227 "	" Aquil. Sagitta	3003
"	1* Lyrae	Lyra Herc.	2879

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100	8 Lyrae	Lyra Herc.	2919
"	9 "	" "	2931a
"	11 "	" "	2942
"	13* "	" "	
"	16* "	" "	
"	19 "	" "	2953
"	24 "	Lyra Herc. Vulpec.	2964
"	26 "	Lyra Herc.	2971
"	29* "	Lyra Herc. Vulpec.	
101	32* "	" " "	
"	38* "	" " "	
"	42 "	" " "	3018
"	46 "	" " "	3028
"	52 "	Lyra Cygn.	3050
"	55 "	" "	{3056} {3057}
"	56 "	Lyra Vulpec. Herc.	{3061} {3062}
"	58* "	Lyra Cygn.	
"	59 "	" "	3071
102	61* "	" "	3078
"	62* "	Lyra Vulpec. Herc.	3082
"	64* "	Lyra Cygn.	
"	65 "	" "	3100
"	66* "	" "	3102
"	67 "	" "	3103
"	68 "	" "	3110
"	2 Cygni	Cygn. Lyra Drac.	3092
"	13* "	Cygn. Drac.	
103	41* "	" Vulpec.	
104	59 "		3261
108	2 Vulpec	Vulp. Sagit. Herc.	3054
"	7* "	" Lyra Cygn.	

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109	17* Vulpec.	Vulpec. Sagitta	
"	40 "	Vulpec. Sagitta Aquila Delph	3341
"	41* "	" " "	
110	42* "	" " "	
"	44* "	" " "	
"	54* "	Vulpec. Cygn.	3434
"	58* "	Vulpec. Peg. Delph.	
111	1 Delph.	Delph. Aquila	3319
"	2 "	" "	3330
"	3* "	" "	
"	4* "	" "	
"	6* "	Delph. Vulpec. Sagitta Aquila	
"	10* "	Delph. Aquil.	
"	14* "	Delph. Vulpec. Sagitta Aquila	
112	18* "	" " "	
"	20* "	" " "	
"	25* "	Delph. Aquil. Equul.	
"	26* "	Delph. Vulp. Aquil. Sagitta Pegas.	3436
"	30 "	" " " "	3462
"	31 "	" " " "	3466
115	82* Ceti	Cet. Fornax Erid.	
"	87* "	" " "	
"	100 "	" " "	327
116	110* "	" " "	
"	112* "	" " "	
"	113* "	" " "	
"	116* "	" " "	357
"	137 "	Cetus Erid.	392
"	140* "	" "	
"	142* "	" "	
"	143* "	" "	

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117	145* Ceti	Cet. Erid.	
"	1* Erid.	Fornax	
"	2* "	Erid. Cet. Forn.	
"	3* "	" " "	
"	5* "	" " "	
"	9* "	Erid. Cet.	
"	10* "	" "	
118	11* "	Erid. Cet. Forn.	
"	12 "	Erid. Cet.	431
"	25* "	" "	473
119	53 "	" "	552
120	80 "	" Taur.	622
"	81* "	" "	
121	135 "	" Lepus	820
"	137 "	" "	827
"	138 "	" "	831
122	2 Orion.	Orion Taur.	783
"	3 "	Orion Taur. Erid.	793
"	7 "	Orion Taur.	801
"	19 "	" Erid.	838
"	21 "	" "	850
"	26 "	" "	871
123	28 "	" "	876a
"	33 "	" "	890
"	37 "	" "	907
"	46 "	" Lepus	931
124	69* "	" Taur.	
"	71 "	Orion Lep Monoc.	981
"	80* "	Orion Lep.	
"	87* "	Orion Lep. Monoc.	

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125	94* Orion.	Orion Monoc.	
"	99* "	Orion Lep. Monoc.	
"	100 "	Orion Monoc.	1034
"	107 "	" "	1056
"	112 "	" "	1066
"	117 "	" "	1075
"	118 "	" "	1083
126	131 "	" "	1114
"	133 "	" "	1124
"	134* "	" "	1145
"	5 Monoc.	Monoc. Orion	1106
"	7 "	" "	1111
"	8 "	" "	1113
"	11 "	" "	1128
"	13 "	" "	1131
"	14 "	Monoc. Can. maj. Lep.	1135
"	15* "	Monoc. Orion.	1138
127	17 "	" "	1141
"	19 "	Monoc. Can. maj. Lep.	1143a
"	21 "	Monoc. Orion	1149
"	25* "	Mon. Orion Gem.	
"	26 "	" " "	1160
"	31 "	Monoc. Can. maj.	1172
"	32 "	" Orion.	1174
"	34* "	" "	
"	45 "	" Can. maj.	1196
128	50 "	" "	1216
"	53 "	" "	1227
"	60 "	" Gem.	1242.
"	68 "	" Can. min.	1271

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128	69 Monoc.	Monoc. Can. min.	1273
"	75 "	" Can. maj.	1293
"	79* "	" Can. min.	
129	90* "	" Puppis	
"	106 "	Monoc. Pupp. Hydr.	1468
"	107* "	Hydra	
"	108 "	"	1485
"	110* "	Monoc. Hydra	
"	111* "	" "	
130	1* Leporis	Lepus Erid.	834
"	7 "	" "	861
131	43* "	" Can. maj.	
"	44* "	" "	1084a
"	45* "	" "	1088
132	1 Can. maj.	Can. maj. Lep.	1117
"	2* "	" "	1119
"	3* "	" "	1122
"	4* "	" "	
"	5* "	" "	
"	8* "	Can. maj. Lep. Monoc.	
"	14* "	" " "	
"	15 "	" " "	1162
133	33 "	Can. maj. Monoc.	1212
"	55 "	" "	1272
"	60* "	" "	
134	1* Argus	Can. maj.	
"	2 "	Can. maj. Puppis	1316
"	5* "	" "	1333
"	6 "	" "	1339
"	8 "	Puppis Can. maj.	1350

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134	9 Argus	Puppis Can. maj.	1352
135	46 "	{ Puppis Malds } Hydra Monoc }	1467
"	48* "	Puppis Malus	1472
"	49* "	" "	
"	53 "	Malus Pupp. Hydra	1497
"	56* "	" " "	1516
136	62* "	" " "	
"	69* "	Malus Antlia	1618
137	27* Hydrae	Hydr. Mal. Pupp.	
"	33* "	Hydr. Canc.	
138	59 "	" Malus	1600
"	67 "	" "	1616
"	69 "	" "	1620
"	70* "	" "	
"	79 "	Hydr. Mal. Antl.	1641
"	80 "	" " "	1643
"	81* "	Hydr. Sext.	
139	92* "	" "	
"	103* "	" "	
"	107* "	" "	
"	108* "	Hydr. Sext. Crat.	
"	110* "	" " "	
"	111 "	" " "	1787
"	114* "	Hydr. Crat.	
"	116* "	" "	
140	121 "	" "	1872
141	12* Sext.	Sext. Hydr.	
"	17* "	" "	
142	29* "	" "	
143	.5* Virg.	Virg. Leo	

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143	24 Virg.	Virg. Crat. Corv.	1959
"	29* "	Virg. Coma	
"	31 "	" Corv.	1988
144	60 "	" "	2062
147	154* "	" Libra	
["	163* "	Libra	]
148	173* "	Virg. Libr. Serp.	2318
"	176 "	" Boot. "	2332
"	177 "	" " "	2347
"	178 "	" " "	2350
"	179 "	" " "	2360
"	181 "	" " "	2379
"	1* Crat.	Crat. Hydr.	1809
"	3* "	" "	1812
"	4* "	{Crat. Hydr. Sext. Leo.}	1820
"	6* "	{ " " " }	
"	7* "	Crat. Hydr. Sext.	
"	8* "	" " "	
"	13* "	" " "	
"	14* "	" Leo "	1848b
149	29* "	Crat. Virg.	
"	30* "	Crat. Virg. Leo	
"	33* "	" " Corv.	
"	34 "	" " "	1936
"	4 Corvi	Corv. Crat.	1958
150	14 "	" Virg.	2010
"	15 "	" "	2011
"	17 "	" "	{2019 2020}
"	19 "	" "	2028
"	20 "	" "	2034

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150	22* Corvi	Corv. Hydr. Virg.	
"	23* "	Corv. Virg.	2039
["	24* "	Virg.	]
"	25* "	Corv. Hydr. Virg.	
"	26* "	" " "	2083b
151	3* Serp.	Serp. Libr.	
152	43* "	" Herc.	
"	49 "	" "	2505
"	53* "	Serp. Libr. Oph.	
"	54* "	Serp. Oph.	
"	57* "	" Herc.	
"	60* "	" "	
"	61* "	" "	
153	69* "	" Oph.	2825
"	71* "	" "	2841
"	72* "	" "	
"	78 "	" Aquil.	2940a
"	4* Oph.	Oph. Serp.	
"	9 "	" "	2600a
"	10 "	" Scorp.	2602
154	34* "	" Serp.	2691
"	43* "	" "	
155	49 "	" Herc.	2732
"	50 "	" "	2731
"	59 "	" Serp.	2754
"	60* "	" "	
"	61 "	" Herc.	2759
"	63* "	" Serp.	
"	67* "	" "	
156	89* "	" "	

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156	99* Oph.	Oph. Herc.	
"	100* "	" Serp.	
"	107* "	" "	
"	108* "	" Herc.	2905a
"	109 "	Oph. Herc. Serp.	2914
"	111 "	" " "	2935
157	112 "	Oph. Serp.	2936
"	113* "	Serp.	
"	1 Scuti	Aquil. Serp.	2908b
"	8 "	Aquila	2955b
"	10 "	"	2963b
"	3 Aquil.	Aquil. Herc. Oph.	2980a
"	5 "	" " Sagitta	3010
158	10* "	" " Oph.	
"	12 "	Aquil. Serp.	3033
"	16* "	" "	
"	18 "	Aquil. Sagit. Herc.	3047
"	21* "	Aquil. Serp.	
160	95 "	Aquil. Capr. Sag-rius	3240
161	114 "	" Sag. Delph.	3324
"	119 "	Aquil. Aquar.	3356 / 3357
"	121* "	" "	
"	1* Librae	Libr. Virg.	
"	6* "	" " Serp.	
"	7* "	" "	
162	11* "	Libr. Virg. Serp.	
"	31* "	Libr. Serp.	
163	41* "	" "	
"	43* "	" Scorp.	
"	53* "	Libr. Serp. Oph. Scorp.	

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164	17* Scorp.	Scorp. Libra.	2538
"	26* "	" Oph.	2564
165	3* Sag-rii	Serp. Sag-rius, Oph.	
166	45 "	Sag-rius, Aquila	3009
"	55 "	" "	3059
168	8* Capr.	Capr. "	
"	29* "	" Aquar.	3452
169	33* "	" Pisc. aust.	
170	24* Aquar	Aquar. Equul.	
171	25* "	" "	
172	82* "	Aquar. Peg. Pisc.	
174	146* "	Aquar. Cet.	3962
175	18* Pisc. aust.	Pisc. aust. Sculpt. Aquar.	3870

The above list contains 608 stars, 296 of which are in our Catalog and 312 of which are not; of these 27 are certainly placed in wrong constellations, 9 of which are in our Catalog and 18 of which are not.

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List of Stars not in Heis' Catalog, but in our MS. Catalog of Zones, which fall outside the ascertained limits of any B.A.C. constellation, and might with equal propriety be assigned to one or another B.A.C. constellation.

Our Cat. No.	assumed Constell.	auth. for assumption	aR	Decl	Neighboring B.A.C. Constellations
20	Pegas.				Pegas. Andr. Pisc.
25b	Sculp.	UA			Sculp. Cet.
118	Cet	Behrm.			Cet. Sculp.
128	"	"			" "
151	Cass.				Cass. Pers. Andr.
246	Pisc.				Pisc. Triang. Ari.
288	Forn.				Forn. Sculp.
300	"				Forn. Sculp. Cet.
317	"				Forn. Sculp.
377	"				Forn. Erid. Cet.
411	"				" " "
424	Cass.				Cass. Pers. Cam.
625	Cam.				Cam. Pers.
805	Erid.				Erid. Lep.
819b	"				" "
824	"				" "
884	Col				Col. Cael. Lep.
1013	"				" Lep. Can. maj.
1036	Taur.				Taur. Gem.
1129	Can. maj.				Can. maj. Lep.
1143b	Monoc.				Monoc. Orion
1334b	Can. maj.				Can. maj. Pupp.
1453b	Pupp.				{Pupp. Monoc. Mal. Hydr.}
1475	Mal	Behrm.			Mal. Pupp.

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1484	Mal.			Mal. Pupp.
1621	Hydr.			Hydr. Mal. Antl.
1628	"			" " "
1629	"			" " "
1670	"			Hydr. Antl.
1671	"			" "
1688	Antl.			Antl. Hydr.
1689	"			" "
1701	"			" "
1752	"			" "
1762	"			" "
2207	Hydr.			Hydr. Cent.
2248	Drac.			Drac. Urs. maj. Boot.
2342	Cent.			Cent. Lup. Hydr.
2351	Hydr.			{Hydr. Cent. Lup. Libra}
2453	Drac.			Drac. Boot.
2534b	Scorp.	Houz		{Scorp. Libr. oph. Serp.}
2534c	"	"		{ " " }
2545b	Serp.			{ " " }
2561	Herc.			Herc. Coron.
2789	Urs. min.			Drac.
2905b	Scutum			Aquil. Serp. Sagitt.
2922b	Serp.			Serp. Oph.
2975	Lyr.			Herc. Lyr. Vulpec.
3011	Herc.			" Sag. Aquil
3027	"			" " Vulp.
3035	"			" " "
3060	Ceph.			Drac. Urs. Min.
3073	Vulp.			Vulp. Sag.
3287	"			" "

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3513	Cygn.			Cygn. Ceph.
3814	Cass.			{Lac. Andr. Ceph. Cass.}
3816	Aquar.			Aquar. Pisc. aust.
3836	Andr.			{Andr. Lac. Cass. Ceph.}
2399	Boot.			Boot. Herc.
2411	Herc.			" "
2422	"			Boot.
2201	Cam.	Heis		Urs. min.
2149				Hydr.
2153				"
2207				"
2220				Drac.

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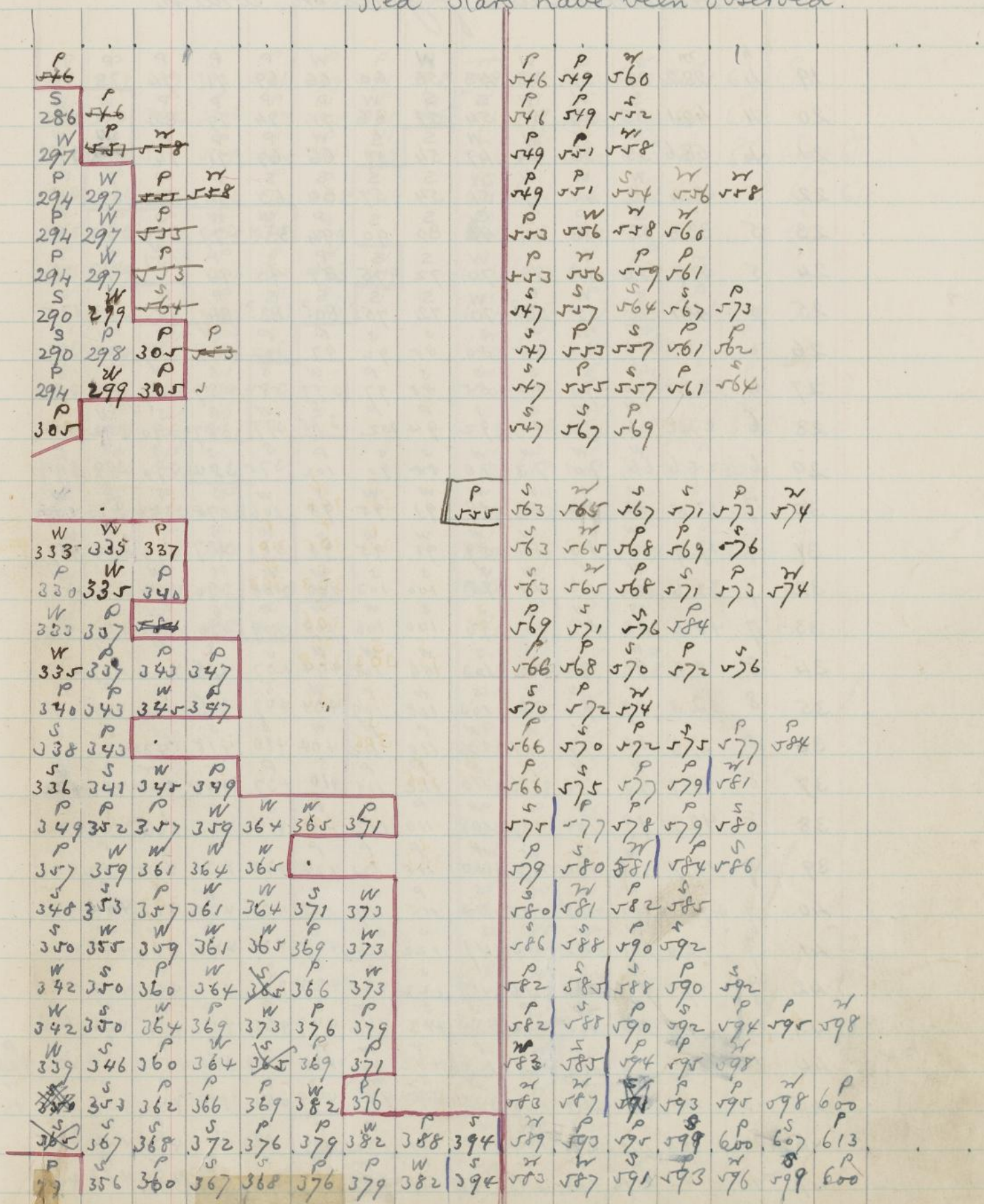
Memorandum of Zones in which

No.	AR h	m												
91	21	23.6	P 1	S 239	S 244	S 250	S 256	S 259	P 265	P 268	W 273	P 276	P 279	P 284
92	21	42.5	P 6	S 241	W 245	P 248	S 256	S 263	P 265	P 268	S 271	S 274	P 276	P 284
93	22	9.3	P 1	P 4	P 6	P 8	P 11	W 14	W 245	S 253	S 263	P 265	S 280	P 284
94	22	15.5	W 2	P 4	P 6	P 8	P 11	W 14	P 248	W 257	P 265	S 274	S 280	W 282
95	22	34.5	W 14	P 16	P 19	P 242	W 245	P 248	W 251	P 260	S 263	S 271	P 276	W 282
96	22	56.3	P 11	W 14	P 16	P 19	P 242	W 251	S 263	S 266	S 269	P 275	S 280	W 285
97	23	15.7	S 3	W 5	S 7	S 9	S 12	S 15	P 16	P 19	W 251	W 272	S 277	P 283
98	23	24.3	S 3	W 5	S 7	S 9	S 12	S 15	P 16	S 17	P 19	W 272	S 277	P 283
99	23	35.8	S 7	S 12	S 15	S 20	W 254	S 269	W 272	P 276	W 281	W 285	W 287	P 288
100	23	59.7	W 13	S 15	S 269	W 272	P 275	W 278	W 281	P 283	W 287	S 289	S 290	P 302
1	0	19.5	W 10	W 13	P 21	W 278	W 287	P 300	W 308	P 317	P 318	P 321	W 324	P 327
2	0	25.0	W 13	W 18	W 278	W 287	S 289	P 300	P 305	P 310	P 317	P 318	P 321	W 324
3	0	50.7	W 13	P 21	P 23	P 26	S 289	W 291	S 303	W 308	W 313	P 317	S 322	P 327
4	0	57.0	P 21	P 23	W 278	S 289	W 291	S 295	S 306	W 311	W 313	P 318	W 324	P 327
5	1	12.5	P 21	P 23	W 291	S 295	S 301	S 303	W 308	W 311	S 316	S 322	S 328	P 330
6	1	24.0	S 22	P 27	P 28	P 30	W 291	S 301	S 306	S 312	S 319	S 322	S 328	P 334
7	1	46.0	S 22	S 24	P 30	P 292	W 296	S 306	S 314	W 315	S 319	P 325	S 331	P 334
8	1	47.9	P 28	P 30	W 296	S 301	S 306	S 314	W 315	S 319	S 322	P 325	S 328	P 334
9	2	9.9	S 22	S 24	P 28	W 31	P 292	S 301	P 309	S 319	P 334	S 338	S 344	W 345
10	2	39.0	P 292	W 307	S 312	P 325	S 336	S 338	S 344	S 348	P 349	S 341	P 352	W 355
11	2	51.1	W 25	P 26	W 31	P 33	P 34	36	39	45	48	W 307	S 338	S 341
12	2	55.7	W 25	P 26	W 31	P 33	P 34	36	39	45	S 312	S 336	S 346	S 348
13	3	20.9	W 25	P 26	W 29	W 31	P 34	W 42	W 56	S 68	S 77	W 320	W 329	W 332
14	3	21.8	W 25	P 26	W 29	W 31	P 34	S 37	W 42	P 45	P 53	P 320	W 329	W 332
15	3	29.4	W 25	P 26	W 29	W 31	P 34	W 42	P 45	W 48	P 53	W 56	S 77	W 329
16	3	59.7	W 29	P 32	S 37	S 40	S 43	S 49	P 53	P 62	S 77	W 320	W 339	S 356
17	4	6.0	P 32	S 46	W 56	P 59	P 62	P 65	P 69	P 71	W 329	W 342	S 353	S 358
18	4	22.4	P 32	S 35	W 38	S 40	S 43	S 46	P 59	W 66	P 69	P 71	P 74	P 78

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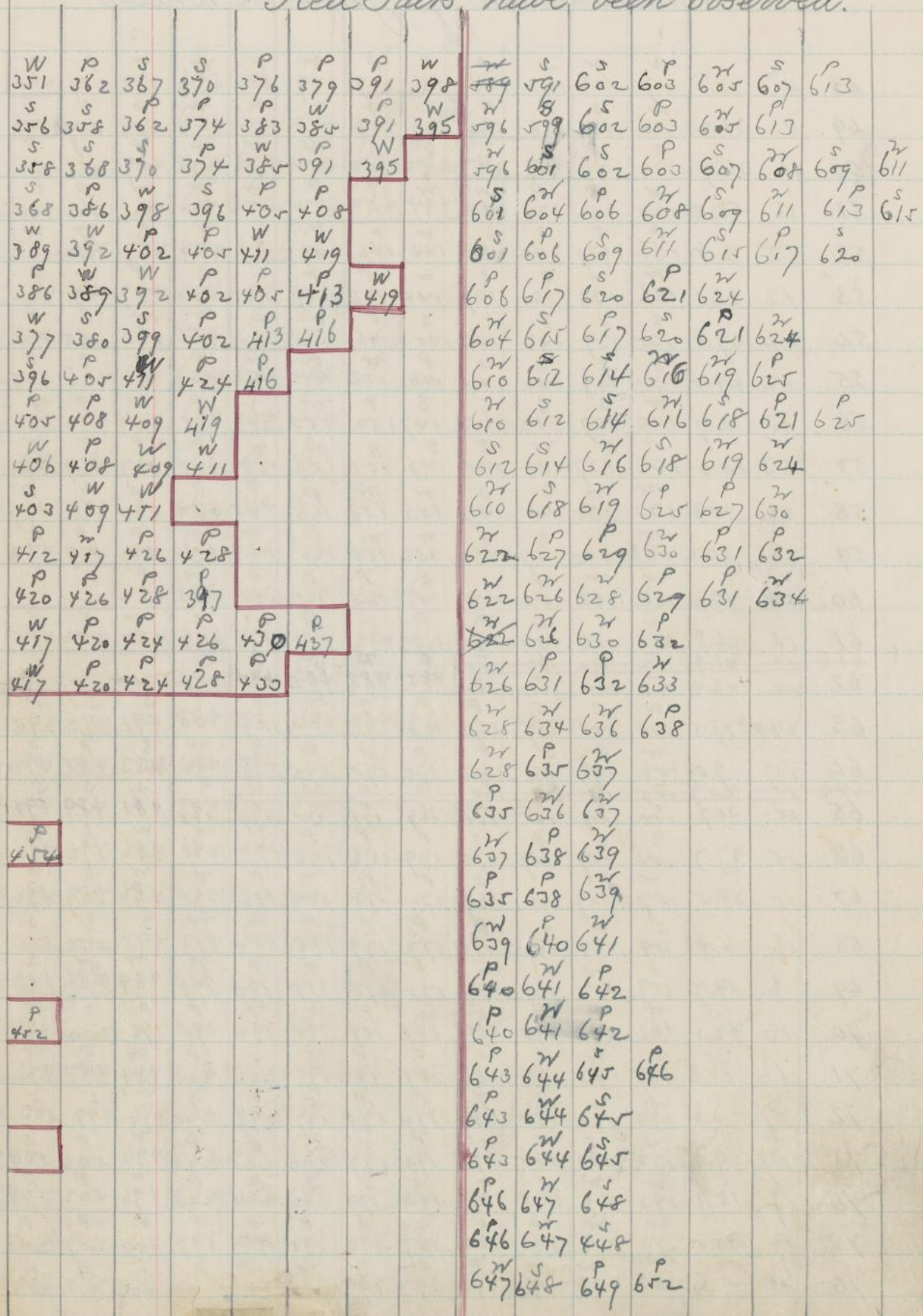
Memorandum of Zones in which

	h	m													
19	4	28.2	W 32	S 35	W 38	43	W 56	60	W 66	P 69	P 71	P 74	P 78	P 79	
20	4	48.1	S 35	W 38	W 51	S 54	S 57	W 66	P 71	P 74	P 79	P 82	W 351	W 354	
21	4	58.6	S 35	W 38	W 44	W 47	S 54	S 57	W 66	P 69	P 71	P 74	W 351	W 354	
22	5	8.4	W 38	W 44	W 47	W 51	S 54	S 57	S 60	S 63	P 82	P 84	P 87	W 351	
23	5	33.8	S 52	P 58	W 61	~~68~~	S 80	S 90	P 94	W 354	W 377	S 380	P 383	P 386	
24	5	37.7	S 52	W 55	P 58	W 70	S 72	S 75	P 87	S 90	P 94	W 351	W 377	S 380	
25	5	44.1	S 52	W 55	P 58?	W 70	S 72	S 75?	S 80?	S 83?	P 84	P 94	S 363	S 375	
26	6	13.2	P ~~58~~	W 64	S 75	S 80	S 88	S 92	P 97	P 102	W 377	S 387	W 392	S 399	
27	6	22.5	S 60	S 75	S 80	S 85	S 88	P 97	W 377	S 384	S 387	W 389	S 390	S 399	
28	6	23.2	W 66	W 70	S 90	S 92	P 94	P 102	S 375	W 377	S 387	S 390	W 392	S 403	
29	6	25.6	W 66	W 70	W 73	W 76	S 88	S 90	P 102	S 375	S 384	S 390	S 399	P 397	
30	7	12.5	W 81	S 83	W 86	W 89	W 91	W 95	S 98	W 106	S 378	S 384	S 393	W 409	
31	7	17.9	W 81	S 83	W 86	W 89	W 91	W 95	S 98	W 381	S 387	S 390	W 406	W 417	
32	7	32.6	W 81	W 86	W 89	S 98	S 100	S 103	W 106	W 108	S 390	W 404	W 406	W 409	
33	7	48.6	W 86	W 89	W 91	S 96	S 100	W 106	W 108	P 109	S 390	W 404	S 407	S 415	
34	8	0.2	W 91	S 96	S 100	S 103	W 106	W 108	W 404	S 407	S 415	P 424	W 417	S 418	
35	8	2.3	W 89	W 93	S 98	S 103	W 108	P 109	W 404	S 407	S 415	P 420	P 424	P 433	
36	8	27.6	W 86	W 99	W 104	W 106	P 110	P 112	W 404	S 410	S 418	S 421	P 433	P 437	
37	8	41.7	W 93	W 101	W 106	P 110	P 112	P 115	S 410	P 407	W 445	W 448	P 451	~~P 452~~	
38	8	42.9	W 99	W 104	W 107	W 108	P 110	P 112	P 118	S 410	S 421	P 426	P 440	P 430	
39	9	15.7	W 104	W 105	W 107	P 110	P 115	P 121	P 124	S 425	S 431	S 435	P 442	W 448	
40	9	27.1	W 101	W 104	W 105	S 113	P 115	S 119	P 127	S 435	S 438	P 440	P 442	W 448	
41	9	42.0	W 101	W 111	S 113	S 119	S 122	S 124	S 425	S 429	P 442	W 446	W 448	P 451	
42	9	57.5	W 111	S 113	S 116	S 119	S 122	S 425	S 429	S 431	S 435	W 441	W 446	P 452	
43	10	0.2	S 116	S 125	P 130	S 435	S 443	W 446	S 449	P 451	P 452	P 454	W 456	P 458	
44	10	22.7	S 113	S 116	S 125	P 130	W 432	W 436	W 438	S 449	P 451	P 452	P 454	~~P 456~~	P 458
45	10	34.4	W 111	W 114	W 120	W 436	~~S 440~~	W 446	S 449	P 451	~~P 455~~	P 454	P 458	P 459	P 461
46	10	45.4	W 114	W 120	W 123	S 128	S 131	P 136	P 139	S 443	P 452	P 454	W 456	P 458	
47	11	4.1	W 117	W 120	W 123	S 131	P 134	W 444	P 450	P 452	P 454	W 456	P 458	P 459	

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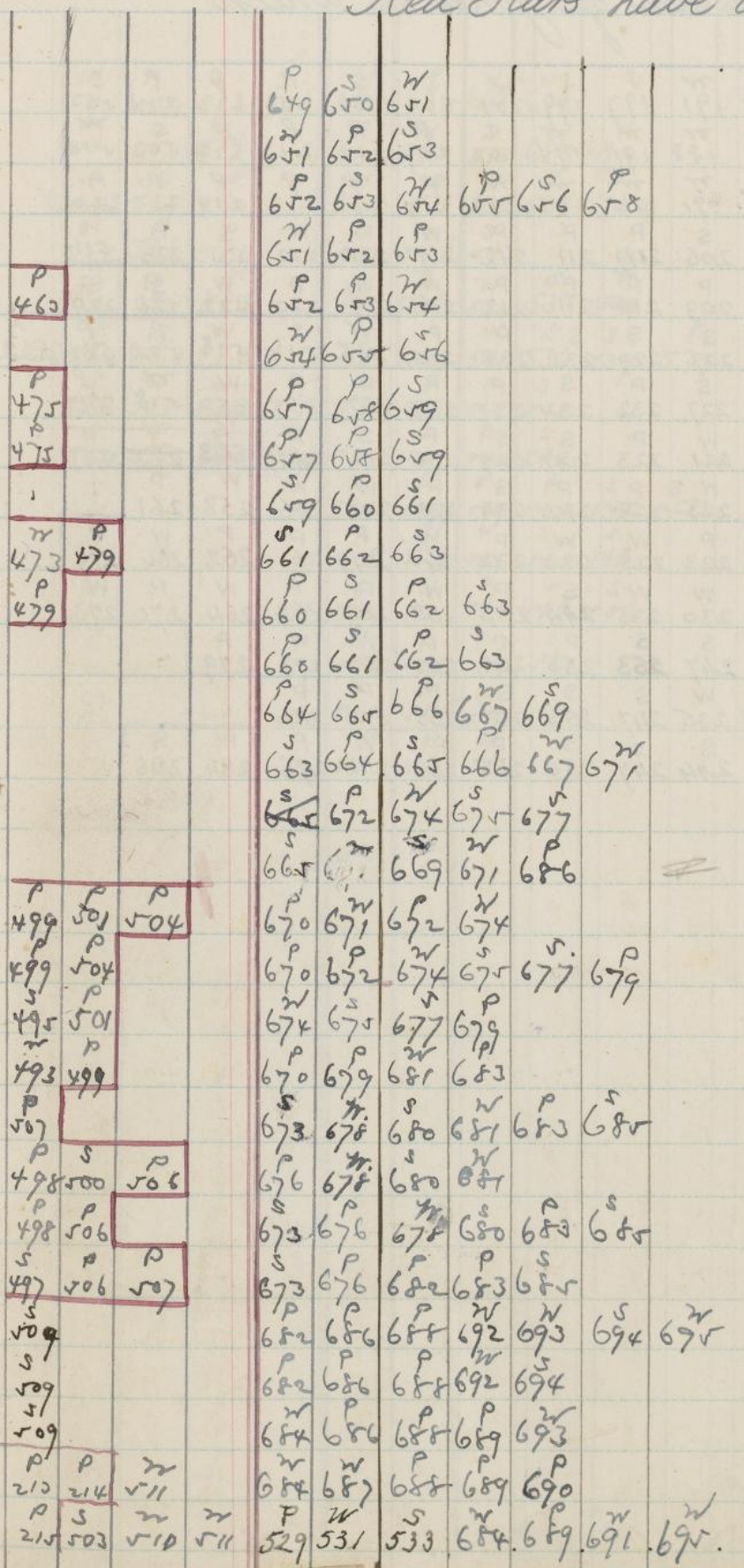
Memorandum of Zones in which

												10			
48	11h	13.8	117	126	131	134	136	139	447	454	456	458	459	461	
49	11	34.2	120	132	136	142	439	444	453	454	456	458	459		
50	11	36.7	132	134	439	447	450	453	454	456	458	459	461	463	
51	11	58.5	120	132	134	144	444	450	454	456	460	461	463	466	
52	12	2.8	134	137	140	140	144	146	149	453	454	457	460	461	
53	12	26.1	126	133	137	137	144	146	149	153	453	457	460	462	
54	12	37.8	137	137	140	140	145	146	150	155	455	460	465	468	
55	12	49.5	137	137	140	145	146	153	155	455	457	460	465	468	
56	13	2.7	133	137	140	140	147	150	153	463	465	466	470	471	
57	13	18.0	133	137	141	145	147	151	153	158	465	467	469	471	
58	13	45.8	133	138	145	147	153	158	160	465	467	470	476	477	
59	13	52.1	138	145	147	151	153	158	160	464	476	477	479	482	
60	14	19.2	138	148	152	154	156	160	165	476	480	482			
61	14	26.8	152	156	158	163	165	472	474	476	478	480	482	485	
~~61½~~	~~14~~	~~41.9~~	~~152~~	~~154~~	~~156~~	~~158~~	485	488	492	494					
62	14	46.4	148	154	163	168									
63	14	57.3	148	154	159	163	168	480	483	485	488	491	492	494	
64	15	9.5	152	156	159	163	170	175	177	478	480	483	485	492	
~~64½~~	~~15~~	~~20.9~~	~~153~~	~~156~~	~~158~~	169									
65	15	31.7	154	159	161	164	167	171	175	177	184	481	489	491	
66	15	37.7	154	159	167	175	179	186	196	478	481	486	492	493	
67	15	38.5	157	159	161	169	171	175	184	186	196	486	489	492	
68	16	6.4	159	167	169	170	177	179	198	486	493	495	500	505	
69	16	19.7	159	162	169	172	175	178	184	192	198	484	486	489	
70	16	42.1	162	170	178	180	185	189	190	192	195	196	200	205	
71	16	52.8	167	170	178	180	187	192	199	200	205	484	487	496	
72	17	3.6	170	176	180	187	190	195	197	199	200	496	497	500	
73	17	9.2	170	180	185	190	195	197	200	205	208	496	502	508	
74	17	18.9	170	176	185	187	193	199	200	205	208	496	502	508	
75	17	30.5	170	176	181	185	187	190	195	197	199	200	207	212	
76	18	5.6	183	188	191	193	197	199	201	202	203	206	212	213	

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Memorandum of Zones in which

			P	W	W	S	S	W	S	S	P	P	P	S
77	18	6.9	183	188	191	197	199	201	203	206	208	212	214	503
			P	W	W	W	W	S	P	P	P	P	S	W
78	18	22.8	174	181	188	191	194	203	207	210	213	214	503	510
			P	W	W	W	W	W	P	P	P	P	P	P
79	18	38.4	174	188	191	194	201	204	210	212	213	214	215	220
			P	W	S	P	P	P	W	P	W	S	P	W
80	19	5.4	174	201	206	209	211	212	217	220	222	231	233	511
			W	S	P	P	P	P	W	W	P	W	S	S
81	19	18.4	201	206	209	210	211	212	216	217	220	222	224	229
			P	P	S	S	S	P	P	W	S	W	P	P
82	19	45.8	209	210	227	229	231	238	252	515	516	518	520	521
			P	P	S	P	S	P	P	P	P	W	W	P
83	19	51.9	209	211	227	232	234	237	238	252	255	258	518	520
			W	W	W	P	S	S	P	S	P	S	W	W
84	20	0.9	216	219	221	223	227	229	232	234	243	523	522	525
			W	P	W	P	P	S	P	W	W	W	P	
85	20	20.3	219	223	225	228	232	234	238	240	246	258	261	
			W	W	P	W	W	P	W	P	P	P	W	P
86	20	29.7	216	221	223	225	230	232	240	249	261	262	264	279
			W	W	W	W	S	P	W	P	P	W	P	W
87	20	51.7	219	240	230	235	244	255	258	261	262	264	270	273
			W	W	S	S	P	P	P	W	W	P		
88	21	1.0	230	240	247	253	255	261	262	267	273	279		
			W	W	W	S	S	S	P	P	P			
89	21	4.9	219	225	235	247	253	259	265	270	284			
			W	S	S	S	S	P	P	W	P	P	S	
90	21	22.1	240	241	244	247	250	262	268	273	276	284	286	

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Red Stars have been observed.

W	P	S	S
ν11	ν12	ν13	ν14
P	S	S	
ν12	ν13	514	
W	W	P	
222	226	232	
S	P	P	
517	521	527	
P	P	S	
231	233	523	
P	S	W	
522	528	525	
S	W	W	
526	528	534	
S	P	W	P
526	527	528	530

P
279

W	P	W	W	
687	690	691	692	
P	W	S	W	P
529	531	533	687	690
P	W	S	S	W
529	531	533	538	691
S	P	S		
538	ν41	ν43		
P	P	W	S	P
✕	532	534	538	539
S	P	W	S	S	P
530	532	534	536	ν37	539
W	P	P	S		
534	539	ν41	ν45		
P	S	P	S		
ν35	ν37	ν42	ν45		
P	P	P	P	S	S
535	539	ν39	ν42	ν45	ν48
P	P	P	S	S	
535	539	ν42	ν45	ν48	
P	P	P	S	S	
539	ν41	ν42	ν48	ν50	
P	P	P	S		
ν40	ν44	ν62	ν64		
P	P	S			
ν40	ν44	ν50			
P	P	W			
ν40	ν46	ν60			

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Memorandum of Zones in which

			P	W	P	P	P	P	S	P	S	S	P	P	
42	21	57.5	1	2	4	6	8	248	256	265	274	280	284	293	
			P	W	P	P	P	S	S	S	P	W	S	W	
43	22	0.3	1	2	4	6	8	253	263	271	276	282	286	297	
			P	P	W	P	S	W	P	S	S	S	P	W	
44	22	22.7	8	11	14	16	241	245	248	266	271	280	284	297	
			S	P	W	P	P	P	W	P	P	S	W	P	
45	22	34.4	3	4	5	6	8	11	14	16	19	263	282	294	
			S	S	P	W	P	P	P	W	P	S	P	W	
46	22	45.4	3	9	11	14	16	19	242	245	260	277	288	299	
			S	W	S	S	S	W	P	P	S	P	W	W	
47	23	4.1	3	5	7	9	12	14	16	19	269	275	281	297	
			S	W	S	S	S	P	P	W	W	W	P		
48	23	13.8	3	5	9	12	15	16	19	251	254	272	283		
			S	S	S	S	S	P	S	S	W	W	P	P	
49	23	34.2	9	12	15	17	20	242	269	277	281	285	288	302	
			S	S	S	S	P	S	P	W	P				
50	23	36.7	7	12	15	277	288	290	294	299	305				
			W	W	S	S	S	W	S	S	P	P			
51	23	58.5	10	13	15	17	20	287	290	295	300	310			
			W	S	S	W	P	S	S	P	W	P	P	P	
52	0	2.8	13	15	17	278	283	290	295	305	311	317	321	327	
			W	W	W	P	W	S	P	P	W	P	P	W	
53	0	26.1	10	13	18	21	287	289	300	305	311	317	321	333	
			W	W	W	P	W	W	P	P	W	P	W	W	
54	0	37.8	10	13	18	23	278	291	302	310	313	318	324	335	
=Black 3			W	W	P	P	P	S	W	S	S	S	W	W	
55	0	49.5	13	18	21	23	26	289	291	295	303	306	311	313	
			P	P	S	P	S	S	S	P	P	P			
56	1	2.7	21	28	J01	306	312	316	322	330	337	343			
			P	S	P	S	W	S	S	S	P	P			
57	1	18.0	21	22	295	303	308	314	319	328	337	347			
			S	P	P	S	S	S	S	S	S	W			
58	1	45.8	24	28	30	301	306	314	322	331	341	345			
			S	P	P	W	P	S	S	S	P	P	P	W	
59	1	52.1	22	30	292	304	309	319	328	336	343	347	349	364	
			S	S	P	P	S	S	P	S	P	W	W	W	
60	2	19.2	22	24	36	39	301	314	325	341	349	359	361	365	
			S	P	P	P	P	S	S	S	P	W	W	W	
61	2	26.8	24	28	30	36	292	312	336	344	349	355	361	365	
			P	W	W	P	S	S	S	S	P	P	W	W	
62	2	46.4	26	31	33	34	312	331	338	346	352	357	364	373	
			P	W	P	W	S	S	P	S	P	W	W	P	
63	2	57.3	26	33	39	323	336	346	352	253	357	359	364	369	
			W	P	W	W	P	P	W	S	S	S	W	P	
64	3	9.5	25	26	29	33	34	36	320	326	348	353	364	369	
			W	S	W	P	S	P	P	P	S				
65	3	31.7	29	350	395	397	399	400	401	402	403				
			W	S	S	S	W	S	W	S	S	P	S	P	
66	3	37.7	31	37	43	68	320	326	342	350	353	362	365	366	
			P	W	S	S	P	S	S	S	S	P	P	P	
67	3	38.5	26	29	37	40	59	77	326	346	353	360	376	402	
			P	S	S	W	S	S	W	S	S	S	W	P	
68	4	6.4	32	37	43	329	350	353	354	358	360	367	382	388	
			P	S	P	P	P	P	W	S	P	S	P	W	
69	4	19.7	32	40	59	69	71	79	342	356	360	368	379	382	
			W	W	W	P	P	W	W	S	S	S	P	P	
70	4	42.1	38	41	66	71	79	351	354	358	368	370	374	383	

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Blue Stars have been observed.

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Memorandum of Zones in which

		m	s												
71	4h	52.8	38	W 41	W 69	P 71	P 74	P 0	W ~~W~~	S 356	S 367	S 370	P 374	P 383	W 385
72	5h	3.6	38	W 44	W 57	P 74	P 79	P 84	P	S 363	W 395	W 398	P 413		
73	5h	9.2	69	P 71	P 79	W 351	S 368	S ~~379~~	P	P 374	P 408	S 396	P 408	P 413	P 416
74	5h	18.9	47	W 54	S 57	W 70	S 75	S 80	P 87	P 94	P 405	P 413	P 416		
75	5h	30.5	57	S 63	P 82	S 90	P 94	W 354	S 375	P 405	W 411	W 377	P 416		
76	6	5.6	S 52	W 55	P 58	W 61	S 85	S 88	P 94	S 384	S 387	W 389	S 396	S 399	
77	6	6.9	S 52	W 55	P 58	W 61	S 72	S 75	S 92	P 97	S 387	W 392	P 405	W 411	
78	6	22.8	W 70	S 75	S 80	S 90	S 92	P 94	P 97	S ~~S~~ 384	W 389	S 390	S 399	W 377	
79	6	38.4	W 64	W 70	W ~~76~~	W 81	S 83	S 85	S 88	S 92	P 97	P 102	S 375	S 403	
80	7	5.4	S 83	S 85	S 88	W 91	W 95	P 102	S 378	S 390	W 406	P 412	W 417	P 424	
81	7	18.4	W 76	W 81	W 86	W 89	S 98	W 381	~~S 384~~	S 384	S 390	W 406	W 417	P 420	
82	7	45.8	W 89	W 91	S 96	S 98	S 103	W 106	W 108	W 404	S 410	S 415	W 417	P 420	
83	7	51.9	W 86	W 89	W 91	W 93	S 100	W 108	S 390	W 404	S 410	P 424	P 426	P ~~428~~	
84	8	0.9	W 89	W 93	S 96	S 98	S 100	W 108	W 404	S 407	S 410	S 415	S 418	P 420	
85	8	20.3	W 86	W 89	S 96	W 99	S 100	W 108	P 110	P 112	S 407	S 415	S 418	S 421	
86	8	29.7	W 99	W 104	W 106	W 108	P 109	P 118	P 121	W 404	S 410	P 433	P 437	P 430	
87	8	51.7	W 93	W 104	W 105	W 106	W 108	P 110	P 112	P 115	P 118	P 121	P 124	S 421	
88	9	1.0	W 104	W 105	W 107	P 112	P 118	P 124	S 429	W 438	P 442	W 445	W 448	P 451	
89	9	4.9	W 104	W 107	P 110	P 115	P 127	S 427	P 430	W 438	P 442	W 445	W 448	P 451	
90	9	22.1	W 101	W 107	P 110	P 115	S 119	P 127	S 435	~~W 438~~	P 440	W 445	W 446	P 452	
91	9	29.6	S 119	P 121	P 124	S 425	S 435	W 438	P 440	P 442	W 445	W 446	P 451	P 452	
92	9	42.5	W 101	W 105	W 111	P 115	S 119	S 124	P 127	P 130	W 446	P 452	P 454	W 456	
93	10	9.3	W 111	S 113	S 116	S 119	S 122	P 130	W 438	W 441	W 446	P 451	P 454	W 456	
94	10	15.5	S 113	S 116	S 125	S 128	P 130	W 438	S 443	W 446	P 451	P 452	P 454	W 456	
95	10	24.5	W 114	W 120	S 125	S S 128	W 432 436	W 436	S 443	W 446	S 449	P 451	P 454	W 456	
96	10	46.3	W 114	W 117	W 120	W 123	S 125	S 128	S 101	P 134	P 450	P 452	P 454	W 456	
97	11	15.7	W 117	S 128	S 131	P 136	P 142	W 439	W 444	P 450	P 452	P 454	W 456	P 458	
98	11	24.3	W 120	W 123	W 126	S 131	S 132	P 134	P 136	P 109	P 142	W 144	P 450	P 454	
99	11	35.8	W 120	W 123	W 126	W 129	S 132	P 134	P 142	S 447	S 453	P 454	W 456	P 458	

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Blue Stars have been observed.

S 394 P 376

P 408 W 419

W 377 W 414 W 423

P 405

W 411 P 412 P 424

P 426

P 428

P 430

P 437 P 430

P 430

P 428 P 433

S 415 S 418

W 445 W 448

P 454

W 432

W 596	S 599	S 601	P 603	S 607	W 608	S 609	W 611
S 601	W 604	P 606	S 609	W 611	P 613	S 615	W 619
P 606	W 608	P 613	S 615	P 617			
W 604	P 606	W 608	S 615	P 617	W 619	P 621	
W 604	P 617	S 620	W 624	P 629	W 630		
W 610	S 614	W 616	S 618	S 620	P 621		
S 612	S 614	W 616	S 618	W 624	P 625		
W 610	S 612	S 614	W 616	P 621	W 624	P 625	
W 610	S 612	S 618	W 619	W 622	P 625	P 627	
W 622	P 627	P 629	W 630	P 631			
W 622	W 626	W 628	P 631	P 632			
W 626	P 631	P 632	W 633				
W 628	P 632	W 634					
W 628	W 634	P 635					
W 634	P ~~635~~	W 636	W 637	P 638			
P ~~634~~	P 635	W 636	P 638				
P 635	W 637	P 638					
W 637	W 639	P 646					
W 639	W 641	P 642					
W 639	W 641	P 642					
P 640	W 641	P 642					
P 640	P 643	W 644					
P 643	W 644	S 645					
P 643	W 644	S 645					
P 646	W 647	S 648					
P 646	W 647	S ~~648~~					
P 646	S 648	S ~~650~~	W 651	P 652			
P 649	S 650	W 651					
W 651	P 652	P 653					

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Memorandum of Zones in which

													10		12
100	11h	59.5m	W 120	W 123	W 129	W 144	P 146	W 444	P 450	S 453	P 454	W 456	W 460	W 461
												6		
1	12	19.5	W 126	W 129	~~S 132~~	~~S 135~~	~~S 142~~	P 146	P 149	~~P 453~~	~~W 460~~	S 462	P 463	S 466
2	12	25.0	S 132	S 137	S 140	S 143	W 144	P 146	W 153	P 155	P 461	W 463	S 466	P 468
3	12	30.7	S 135	S 137	S 140	S 145	W 153	W 455	P 457	W 460	P 463	P 465	P 468	W 473
4	12	37.0	S 137	S 140	S 145	S 147	W 153	P 155	W 455	W 460	P 463	P 465	P 468	W 473
5	13	12.5	W 133	S 145	S 147	S 151	P 155	S 462	W 464	S 469	S 471	W 473		
6	13	24.0	W 138	S 145	S 147	S 151	W 153	P 160	P 465	S 462	P 467	S 469	P 470	S 471
7	13	46.0	W 138	~~S 145~~	S 151	W 153	W 158	P 160	P 465	P 467	W 476	P 477	P 479	
8	13	47.9	S 145	S 147	S 151	P 160	P 165	W 464	P 467	P 470	W 476	P 477	P 479	
9	14	9.9	W 138	S 156	W 158	P 165	S 472	P 474	W 476	S 478	P 482	P 485	P 488	S 491
10	14	39.0	W 148	W 152	W 158	P 162	P 165	P 168	S 472	P 474	S 478	W 480	P 485	P 494
11	14	51.1	W 148	S 156	W 152	W 158	P 162	S 166	P 168	P 170	S 175	S 478	W 480	P 488
12	14	57.7	W 148	S 154	S 156	P 162	P 168	P 170	S 175	P 177	S 478	W 480	P 485	P 488
13	15	20.9	S 154	W 157	S 161	W 164	S 166	P 171	P 179	P 186	S 481	S 483	W 486	S 489
14	15	21.8	W 152	S 159	S 161	W 164	S 169	S 175	P 177	P 182	P 184	S 478	S 481	S 489
15	15	29.4	W 152	S 154	W 157	S 159	W 164	S 169	P 171	P 177	P 179	P 186	S 483	S 499
16	15	59.7	W 157	S 159	S 161	S 169	P 170	S 175	P 177	P 179	P 184	P 186	P 189	P 196
17	16	6.0	S 167	S 172	S 175	P 186	P 192	P 198	W 484	S 497	S 500	S 505	P 506	P 507
18	16	22.4	S 159	S 167	S 172	P 184	P 186	P 192	P 198	P 484	S 487	S 489	W 493	S 495
19	16	28.2	S 167	S 172	S 180	P 186	P 189	P 196	P 198	S 200	S 487	W 493	S 494	S 497
20	16	40.1	W 162	P 170	S 172	W 176	S 178	S 180	S 190	P 196	S 199	S 200	P 498	S 500
21	16	58.6	S 167	W 176	S 180	S 187	P 192	S 199	S 200	P 205	W 490	W 496	S 500	P 506
22	17	8.4	W 173	W 176	S 178	S 180	S 185	S 190	S 200	P 205	P 208	P 213	W 496	W 497
23	17	33.8	W 173	W 176	P 183	S 187	S 190	S 193	S 199	S 200	P 207	P 210	P 215	W 496
24	17	37.7	W 173	W 176	W 181	P 183	S 190	P 195	S 197	S 203	P 205	P 212	P 214	P 215
25	17	44.1	W 173	W 181	P 183	W 188	P 195	S 197	S 199	S 200	S 203	P 207	P 214	W 510
26	18	13.2	W 188	W 191	S 199	W 201	W 202	S 203	P 207	P 210	P 212	P 213	P 214	P 215
27	18	22.5	W 181	W 188	S 199	W 201	P 210	P 214	W 226	P 502	S 503	W 510	W 511	P 512

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Blue Stars have been observed.

			S 650	W 651	P 652					
P 468	S 471	P 475	W 653	W 654	P 655	P 657	ds revision			
			S 653	W 654	P 655	P 657				
P 475			S 656	P 657	P 658					
			S 656	P 657	P 658	S 659				
			S 659	P 660	S 661	P 662				
			P 658	S 661	P 662	S 663				
			P 660	S 661	P 662	S 663				
			P 660	S 661	P 662	S 663				
			P 664	S 665	P 666	W 667				
			P 664	S 665	P 666	W 667	S 669			
			P 664	S 665	S 669	W 671				
P 494	S 159		S 665	P 666	S 669	W 671				
P 499	P 501		S 669	P 670	W 671	P 672	W 674	S 675	S 677	P 679
P 499	P 504		S 669	P 670	P 672	W 674	S 675			
P 501	P 504		P 670	P 672	W 674	S 675	S 677	P 679		
P 498	P 504		S 673	W 674	P 676	W 677	P 679	W 681		
			S 673	S 680	W 681	P 686				
			S 673	W 675	S 680	P 683	S 685			
P 507			P 676	W 678	S 680	W 681				
			P 676	W 678	P 682	P 683	S 685			
			P 676	P 682	P 683	W 692	S 694	W 695		
			P 682	W 684	P 688	P 689	W 692	S 694	W 695	
			W 684	P 686	P 688	P 689	W 691	W 692		
509			W 684	W 687	P 688	W 693				
W 511			W 687	P 689	P 690	W 693				
S 513			P 529	W 531	W 533	W 687	P 689			
			P 529	W 533	W 687	W 691	W 693			

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Memorandum of Zones in which

28	18h	23.2	W 194	S 199	W 201	S 203	P 207	P 213	P 215	S 503	W 510	W 511	P 512	S 513
29	18	25.6	W 181	W 188	W 194	S 203	P 214	P 232	S 503	W 511	S 513	S 514	S 516	
30	19	12.5	P 174	W 201	P 209	P 210	P 211	P 215	P 218	S 229	S 231	P 238	S 517	P 520
31	19	17.9	S 206	P 210	P 212	W 216	W 217	P 220	W 222	W 224	S 229	P 233	P 520	P 521	S 523
32	19	32.6	P 210	W 217	W 222	S 227	S 231	P 237	P 243	W 515	S 516	W 518	P 520	P 522	
33	19	48.6	P 209	P 211	S 234	P 237	P 238	P 252	W 515	W 518	P 520	P 521	P 522	W 524	
34	20	0.2	W 216	W 221	S 227	S 234	P 238	P 255	W 258	S 523	W 524	W 525	S 526	P 527	
35	20	2.3	W 216	W 219	S 229	P 232	P 249	P 252	P 522	S 523	W 524	W 525	S 526	W 528	
36	20	27.6	W 216	P 228	S 234	P 238	P 243	P 255	W 258	W 264	W 267	P 279			
37	20	41.7	P 223	W 225	W 230	P 232	W 240	P 261	P 262	P 270	W 273	W 282			
38	20	42.9	W 219	P 228	S 239	S 247	P 249	P 252	W 258	W 264	W 273	P 279			
39	21	15.7	W 230	W 240	S 244	S 247	S 250	S 256	P 261	P 265	P 270	P 279	P 284		
40	21	27.1	W 235	S 239	S 244	S 250	S 253	S 259	P 262	P 268	W 273	S 286	P 293		
41	21	42.0	W 2	P 4	P 6	S 241	W 245	S 256	S 263	P 268	S 271	P 276	P 284		

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Blue Stars have been observed.

S		W	P	W			
516		531	690	691			
		W	P	W			
		531	690	691			
P		S	P	W	S	S.	
527		530	532	534	537	538	539
		S	P	W	S	S	
		530	532	534	537	538	539
S.	W	S	P	S	S	S.	P
526	528	530	532	536	537	538	541
W		S	P	S	S.		P
525		530	532	537	538	539	541
		P	S	S	P	P	S
		530	537	538	540	541	545
		S	P	P	S		
		536	540	542	548		
		P	S				
		535	536	539			
		P	S	S			
		540	548	550			
		P	S	S			
		542	548	550			
		P	P	S			
		540	544	552			
		P	S	W			
		544	550	560			
		P	P				
		546	549				

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Memorandum of Zones in which

	h	m												
			P	W	P	W	S	S	S	P	P	S	S	W
51	21	38.3	1	2	4	235	241	244	250	265	268	274	280	297
			S	W	P	W	P	P	P	W	W	S	S	P
52	22	51.0	3	5	11	14	16	19	242	251	254	263	266	275
			S	S	S	P	W	P	P	P	W	W	S	W
53	22	58.8	3	7	9	11	14	16	19	242	251	254	266	272
			W	W	S	S	S	W	W	P	S	S	P	P
1	0	2.2	10	13	15	17	20	278	281	283	289	290	298	300
			W	W	W	P	P	W	S	W	S	P	P	P
2	0	37.6	10	13	18	21	23	278	289	291	295	300	302	310
=Blue 55			W	W	P	P	P	S	W	S	S	S	W	W
3	0	49.5	13	18	21	23	26	289	291	295	303	306	311	313
			P	P	W	S	S	S	S	W	W	S	S	S
4	1	3.0	21	23	291	295	301	303	306	308	313	316	322	328
			P											
5	1	14.6	21	= α Ursae Minoris										
			S	P	P	S	W	S	W	P	S	W	P	
6	1	56.6	22	28	30	301	304	306	307	309	314	345	347	
			S	S	P	W	S	W	S	W	P	S	P	S
7	2	0.4	22	24	292	296	301	304	306	307	309	331	334	338
			P	W	W	P	P	P	S	W	S	W	P	
8	3	0.3	26	29	31	33	34	36	45	326	332	350	364	366
			W	P	W	W	W	P	S	W	S	W	W	W
9	3	15.8	25	26	29	31	33	34	37	320	326	329	332	342
			P	S	W	S	P	W	S	P	S	S	S	P
10	4	29.0	32	35	38	40	79	351	358	362	367	370	372	374
			W	W	W	P	P	W	S	P	P	W	W	P
11	5	7.8	38	41	66	84	94	354	367	370	374	395	398	401
			W	W	P	P	P	S	S	P	S	W	P	P
12	5	8.7	38	41	71	74	79	368	370	374	096	398	401	408
			W	W	P	P	W	S	S	W	S	P	S	S
13	5	18.7	41	44	79	82	354	368	370	377	380	386	396	399
			W	W	P	W	W	S	S	W	S	P	S	S
14	5	18.7	41	44	94	351	354	368	370	377	380	386	396	399
			W	W	S	P	S	P	S	S	W	P	W	
15	5	30.1	44 70	75	84	90	94	363	370	375	377 386	396 411		01
			S	W	S	P	S	W	S	P	P	W		
16	5	34.7	52	55	83	94	375	377	380	383	386	392		
			P	S	P	S	W	S	S	P	P	W		
17	5	35.2	87	90	94	380	389	396	399	402	416	419		
			S	W	P	W	P	S	W	W	S	S		
18	5	42.0	52	55	58	61	94	380	389	392	396	399		
			W	P	P	P	S	S	W	S	S			
19	5	50.7	55	58	70	87	363	375	377	380	396	399		
			P	W	S	S	P	P	S	W	S	S	W	
20	6	17.4	58	61	80	85	94	97	375	381	384	387	392	
			W	S	P	P	S	S	W	S	S	P	S	W
21	6	30.8	64	90	94	97	375	378	381	387	393	397	399	409
			W	W	S	S	P	S	W	S	P	S	P	
22	6	39.8	64	76	85	92	102	375	381	387	397	399	412	
			W	W	P	P	P	S	W	S	P	W	P	P
23	6	53.9	73	81	95	97	102	378	381	384	390	393	397	400
			S	S	P	W	S	W	S	P	P	W		
24	7	3.5	85	88	102	381	384	390	393	397	400	409		
			W	S	S	W	P	S	S	W	S	W	P	P
25	7	27.0	91	96	98	106	109	390	393	409	415	417	420	424

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Black Stars have been observed.

P ~40	S ~50						
S 277	P ~49	S ~57	P ~59				
S 277	P 283	P ~53	P ~59	W ~60			
P 302	S ~63	W ~65	P ~69				
W 311	W 313	P 317	W 323	W 335	P 340	W ~65 S ~71 P ~75	
P 317	P 318	P 327	See blue ~55				
P 330	P 337	P ~66	S ~70	W ~74			
S ~70	S ~76	P ~77					
S 341	P 352	W 364	P ~76	P ~79	S ~80		
P 369	P 379	P ~82	S ~85	W ~88			
S 353	W 364	P 366	P 369	P ~82	S ~90	S ~92	
P 376	W ~83	W ~87	P ~93				
P 402	W 604	P 606	S 615				
S 609	S 615	P 617					
S 601	P 617	W 619					
W 411	S 601	P 613	W 619				
W 604	P 617	S 620					
S 615	P 617	S 620					
P 606	P 621	W 624					
P 606	S 620	W 630	P 631				
S 601	~~P 621~~	W 608	P 621				
S 612	S 618	P 625					
W 411	P 412	S 612	W 616	P 625			
W 610	W 622	P 629					
W 610	W 616	W 619	P 625				
W 619	W 622	P 629					
W 622	W 626	P 629					

1881 wants W
1881 wants S
Finished

Finished

1881 wants S S
Finished

1881 wants W

Thrown out

1881 wants W
Finished

1881 wants S S

1882 wants S

1881 wants W W
S S P
W W S S
~~X~~ S S P P
S S P P P
W W W P P
W W W S P P P
W W W W S S S P P
W W S S S P P
W W S S P P
W W W S P
W W W S S P P
W W S P P P
W S S S S P P
W W W W S S P P P
W W S S P P P

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Memorandum of Zones in which

						P 109					S 415		10			
26	7h	33.0	W 89	S 96	S 98	W 106	S 390	W 404	W 406	W 409	W 417	P 420			
27	7	38.0	W 86	W 89	S 103	P 109	S 390	W 404	S 407	W 409	W 417	P 420	P 424		
28	9	21.7	W 101	W 106	P 110	S 113	P 115	S 119	S 429	S 435	W 438	P 440	P 442	W 446	
29	10	2.0	W 111	S 113	S 116	P 120	S 431	S 435	W 439	S 443	P 451	P 452	P 454	W 456	
30	10	13.4	W 111	S 113	S 116	S 119	S 122	P 130	S 435	W 438	S 443	P 451	P 452	P 454	
31	10	54.6	W 114	W 120	W 123	S 125	S 128	P 134	P 142	W 436	S 439	S 443	P 452	P 454	
=Blue 96															
32	S 10	56.3													
33	11	42.9	W 120	W 123	P 134	P 142	W 144	W 444	S 447	P 450	S 453	P 454	W 456		
34	11	47.5	W 120	W 126	P 142	W 144	P 149	W 444	S 447	S 453	P 454	W 456			
35	12	9.6	W 126	W 129	S 137	S 140	S 140	P 150	S 453	W 455	P 457	W 460			
36	12	48.7	W 103	S 107	S 140	S 145	P 146	W 150	P 155	W 455	P 457	W 460			
37	13	18.9	W 133	S 145	S 147	W 158	P 160	S 462	W 464	P 465	P 467	S 471			
38	13	19.1	W 138	S 145	S 151	W 153	P 160	S 462	W 464	P 465	P 467	P 470			
39	13	42.8	W 133	W 138	S 145	S 151	P 160	P 165	P 168	W 464	P 465	P 467			
40	14	10.2	W 138	W 148	P 160	P 160	W 164	P 165	P 168	S 472	P 474	W 476			
=Blue 11															
41	14	51.1													
42	15	10.5	W 152	W 157	S 161	S 166	S 169	P 170	P 171	P 179	S 478	W 480	P 485		
43	15	29.6	W 152	S 154	S 161	S 163	P 177	P 179	P 182	S 481	W 486	S 489			
44	15	58.4	S 159	S 161	S 169	S 175	P 179	P 184	P 189	S 481	W 486	W 493			
45	16	22.0	S 159	S 163	S 169	P 170	W 172	S 178	P 189	P 192	S 489	S 489			
46	17	29.4	W 173	W 176	W 181	S 190	S 193	S 199	S 200	P 205	P 207	P 208	P 212	P 213	
47	18	32.9	P 174	W 181	W 188	W 191	S 206	P 207	P 210	P 212	P 214	S 503	W 511	P 512	
48	19	44.9	P 209	P 211	W 217	S 227	S 234	P 237	P 238	W 515	S 523	W 524	W 525		
49	20	17.9	W 216	W 219	W 230	P 232	P 238	W 240	P 243						
50	20	37.3	W 219	W 221	P 223	W 225	P 228	W 230	P 232	S 239	S 244				

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Black Stars have been observed.

1880 wants W W S S P P P P
W W S S S P P P

	628 W	630 W	632 P		
	626 W	630 W	632 P		
	637 W	641 W	642 P		
	642 P	643 P	644 W		
	642 P	643 P	644 W		
	644 W	645 S	646 P		
	649 P	650 S	651 W		
	649 P	651 W	652 P		
	653 S	655 P	656 S		
	654 W	655 P	656 S		
	661 S	662 P	663 S		
	661 S	662 P	663 S		
	660 P	661 S	662 P		
	663 S	666 P	667 W		
	672 P	674 W	675 S		
	672 P	674 W	677 S		
	670 P	678 S	679 P		
	676 P	680 S	683 P		
214 P	682 P	688 P	692 W		
	539 P	690 P	691 W		
	534 W	536 S	538 S	539 P	
	535 P	536 S	541 P	542 P	545 S
	535 P	540 P	545 S		

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Memorandum of the number of observations yet to be made, in order to have one, two or three observations, respectively, made upon all the ordinary ["white"] stars.

About ... observations	will make...	in the half-hour preceding...
1st count, 13 Sep. 1880.		
54	3	19h 0m
29	2	19 30
111	3	
10	1	20 0
86	2	
26	1	20 30
112	2	
15	1	21 0
86	2	
50	1	21 30
48	1	22 0
27	1	22 30
98	2	
12	1	23 0
76	2	
13	1	23 30
72	2	
24	1	0 0
109	2	
30, 132, 38 } 200	3	20 0
78, 120, 13 } 211	3	20 30
45, 112, 14 } 171	3	21 0
100, 52 } 152	2	21 30
150, 104, 3 } 257	3	
96, 28 } 124	2	22 0
144, 30, 4 } 204	3	
81, 88, 15 } 184	3	22 30
36, 104, 9 } 149	3	23 0
39, 92, 17 } 148	3	23 30
96, 122, 1 } 219	3	0 0
31	1	
622, 433 } 105	2	0 30
23, 80, 0 } 179	3	
38	1	
76, 46 } 122	2	1 0
114, 92, 3 } 209	3	
34	1	
68, 39 } 107	2	1 30
162, 78, 0 } 180	3	
29	1	2 0
58, 42 } 100	2	
2nd Count, 24 Sep 80		
1	1	20 30
74	2	
11	1	21 0
80	2	
30	1	21 30
27	1	22 0
21	1	22 30
51	2	
3	1	23 0
54	2	
11	1	23 30
56	2	
21	1	0 0
62	2	
3rd Count 25 Sep. '80		
55	2	20 30
84	2	21 0
24	1	21 30
17	1	22 0
8	1	22 30
59	2	
4th Count 10 Oct. 80		
52	2	20 0
1	1	
2, 75, 9	2	20 30
3, 14, 87 } 104	3	
50	2	21 0
60	2	21 30
66	2	22 0
34	2	22 30
6	2	23 0
123, 67 } 79	3	
56	2	23 30

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5th count 20 Oct 80				0	3	23	0	17	2	0	0		
31	2	21	0	7	2	23	30	34 62 96	3				
44	2	21	30	14 65 79	3			15	1				
58	2	22	0	30	2	0	0	30 54 84	2	0	30		
21	2	22	30	60 54 114	3			45 108 4 157	3				
6th count 7 Oct 80				9th Count, 14 Oct. 80				24	1				
38	3	20	30	(Excluding 1 zone in each)				48 58 106	2	1	0		
87	3	21	0	30 (Ponly)	3	23	30	72 116 4 192	3				
89	3	21	30	~~32 (Ponly) 24 56~~	3	0	0	11th count, 21 Oct 80					
52	2	22	0	5	1	0	30	20	3	23	30		
18	2	22	30	10 44 54	2			66	3	0	0		
36 61 97	3							59	2	0	30		
				See middle of page 46				118 12 130	3				
55	3	23	0	178	3	2	0	77	2	1	0		
7th Count, 9 Oct. '80				40	1			154 8 162	3				
0	3	20	30	80 29 109	2	2	30	34	1				
55	3	21	0	120 58 73 191	3			68 40 108	2	1	30		
35 Ponly 9 anyone 44	3	21	30	5	1			102 80 182	3				
16 Ponly 69 anyone 9 not P 74	3	22	0	10 41 51	2	3	0	13	1				
6	2	22	30	15 82 26 123	3			26 58 84	2	2	0		
12 34 46	3			3	1			39 116 4 169	3				
13 Ponly 10 anyone 5 not P 28	3	23	0	6 17 23	2	3	30	29	1				
42	2	23	30	9 34 43 86	3			58 42 100	2	2	30		
84 52 136	3			11	1			87 84 14 185	3				
70	2	0	0	22 10 32	2	4	0	5	1				
140 21 161	3			33 20 38 91	3			10 37 47	2	3	0		
8th count, 13 Oct. 80				10th Count, 15 Oct 80				15 24 29 118	3				
22	3	21	0	15	3	22	0						
16	3	21	30	0	3	22	30	See p. 54.					
40	3	22	0	0	3	23	0						
3	3	22	30	~~12~~ 45	3	23	30						

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1879-

Memorandum of the number of observations after the zone for the

	From h	From m	to h	to m	Number of sheets containing ... observations 0	1	2	Observations yet to be made to have on each sheet ... observations 1	2	3	Number of sheets containing 3 observations	3 times the total of sheets	
25 Oct.	21	0	21	30	88	0	0	88	176	264	0	264	
25 Oct. 1 Nov.	21	30	22	0	52	30	2	52	134	218	0	252	34
25 Oct. 7 Nov.	22	0	22	30	30	45	14	30	105	194	0	267	73
29 Oct. 10 Nov.	22	30	23	0	13	51	9	13	77	150	2	225	75
29 Oct. 10 Nov.	23	0	23	30	13	55	16	13	81	165	0	252	87
31 Oct. 10 Nov.	23	30	0	0	24	60	1	24	108	217	0	255	38
1 Nov. 4 Dec.	0	0	0	30	31	43	0	31	105	179	0	222	43
1 Nov. 15 Dec.	0	30	1	0	38	46	3	38	122	209	0	261	52
4 Dec. 26 Dec.	1	0	1	30	34	40	0	34	108	182	0	222	40
4 Dec. 26 Dec.	1	30	2	0	29	42	7	29	100	178	0	234	56
4 Dec. 8 Jan.	2	0	2	30	40	29	13	40	109	191	2	252	61
12 Dec. 14 Jan.	2	30	3	0	5	41	26	5	51	123	8	240	117
12 Dec. 24 Jan.	3	0	3	30	3	17	43	3	23	86	19	246	160
12 Dec 5 Feb	3	30	4	0	11	10	38	11	32	91	39	294	203
26 Dec. 6 Feb.	4	0	4	30	9	54	40	9	72	175	10	339	164
2 Jan. 9 Feb.	4	30	5	0	3	30	39	3	36	108	27	297	189
5 Jan. 27 Feb.	5	0	5	30	8	53	49	8	69	179	10	360	181
19 Jan. 2 Mar.	5	30	6	0	14	59	17	14	87	177	6	288	111
19 Jan. 8 Mar.	6	0	6	30	17	√√	24	17	89	185	9	315	130
28 Jan. 8 Mar.	6	30	7	0	12	33	42	12	57	144	6	279	135
2 Feb. 30 Mar.	7	0	7	30	2√	√4	8	25	104	191	0	261	70
6 Feb. 30 Mar.	7	30	8	0	10	42	18	10	62	132	1	243	111
16 Feb. 8 Apr.	8	0	8	30	6	2√	26	6	37	94	9	198	104
16 Feb. 8 Apr.	8	30	9	0	2	15	31	2	19	67	22	210	143
5 Mar. 13 Apr.	9	0	9	30	√	21	2√	√	31	82	12	189	107

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-1880.

yet to be made upon ordinary ("white") stars,
current year has passed.

From		to		Number of sheets containing ... observations				Observations yet to be made to have on each sheet ... observations			3 times the total of sheets	
h	m	h	m	0	1	2	3	1	2	3		
5 mar.	22 apr.	9	30	10	0	6	30	22	8	6	42	100	198	98
1 apr.	22 apr.	10	0	10	30	17	38	12	0	17	72	139	201	62
1 apr.	11 may	10	30	11	0	8	37	17	0	8	53	115	186	71
5 apr.	11 may	11	0	11	30	0	18	39	7	0	18	75	192	117
8 apr.	24 may	11	30	12	0	1	13	36	2	1	15	65	156	91
12 apr.	31 may	12	0	12	30	7	43	24	3	7	57	131	231	100
30 apr.	31 may	12	30	13	0	8	25	27	4	8	66	101	192	91
30 apr.	10 June	13	0	13	30	14	32	32	0	14	60	148	234	86
30 apr.	22 June	13	30	14	0	15	39	18	3	15	69	141	225	84
6 may	22 June	14	0	14	30	9	22	9	18	9	40	80	174	94
12 may	4 July	14	30	15	0	13	27	18	15	27	53	111	219	108
25 may	13 July	15	0	15	30	1	12	28	23	12	14	55	192	137
25 may	19 July	15	30	16	0	4	51	37	7	51	57	151	297	146
9 June	28 July	16	0	16	30	2	33	35	9	33	37	107	237	130
10 June	31 July	16	30	17	0	4	17	39	11	17	25	85	213	128
29 June	16 aug.	17	0	17	30	1	3	36	40	3	5	45	240	195
29 June	16 aug.	17	30	18	0	0	1	20	64	1	1	22	255	233
29 June	11 Sep.	18	0	18	30	2	2	74	16	2	4	84	282	198
29 June	11 Sep.	18	30	19	0	0	1	53	64	0	1	55	354	299
29 June	25 Sep.	19	0	19	30	0	15	76	20	0	15	106	333	227
7 aug	2 oct.	19	30	20	0	2	44	67	32	2	48	161	435	274
16 aug.	7 oct.	20	0	20	30	0	0	0	95	0	0	0	285	285
		20	30	21	0	0	0	0	111	0	0	0	333	333
		21	0	21	30	0	0	0	88	0	0	0	264	264

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1880-

From h	From m	to h	to m	Number of sheets containing ... observations: 0	1	2	3	Observations yet to be made to have on each sheet ... observations: 1	2	3	3 times the total of sheets
21	30	22	0								
22	0	22	30								
22	30	23	0								
23	0	23	30								
23	30	0	0								
0	0	0	30								
0	30	1	0								
1	0	1	30								
1	30	2	0								
2	0	2	30								
2	30	3	0								
3	0	3	30	0	0	0	82	0	0	0	
3	30	4	0	0	0	0	96	0	0	0	
4	0	4	30								
4	30	5	0	0	0	0	97	0	0	0	
5	0	5	30								
5	30	6	0								
6	0	6	30								
6	30	7	0								
7	0	7	30								
7	30	8	0								
8	0	8	30								
8	30	9	0								
9	0	9	30								

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-1881.

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Memorandum etc. See p. 46–47

12th Count
10 Nov. 1880.

		h	m
	3	23	30
19	3	0	0
12	2	0	30
24 53 77	3		
48	2	1	0
96 29 125	3		
50	2	1	30
100 19 119	3		
37	2	2	0
74 40 114	3		
64	2	2	30
128 20 148	3		
46	2	3	0
92 31 123	3		
24	2	3	30
48 43 91	3		

13th Count, 25 Nov. 1880

32	3	0	30
59	3	1	0
79	3	1	30
24	2	2	0
48 37 85	3		
38	2	2	30
76 48 124	3		
26	2	3	0
52 32 84	3		
17	2	3	30
34 42 76	3		

14th Count
Dec. 1, 1880.

1	3	0	30
27	3	1	0
1	1		
2 11 13	2	1	30
3 22 48 73	3		
10	2	2	0
20 32 52	3		
3	1		
6 16 22	2	2	30
9 32 44 95	3		
3	1		
6 26 32 64	2	3	0
2 32 93	3		
9	2	3	30
18 40 58	3		
4	1		
8 10 12 18	2	4	0
20 36 68	3		
7	1		
14 49 63	2	4	30
21 23 44 63	3		

15th Count
Dec. 20, 1880

2	2		
4 3 7	3	2	0
2	1		
4 2 6	2	2	30
6 4 23 33	3		

9	2	3	0
18 33 51	3		
24	3	3	30
3	2	4	0
6 32 38	3		
2	1		
4 38 42	2	4	30
6 56 138	3		
25	2	√	0
50 45 95	3		
7	1		
14 34 48	2	√	30
21 68 151	3		

16 Count
Jan 1, 1881

4	3	3	0
7	3	3	30
19	3	4	0
13	2	4	30
26 76 102	3		
6	2	√	0
12 49 61	3		
3	1		
6 36 42	2	√	30
9 72 66 147	3		
14	1		
28 57 85	2	6	0
42 11 40 176	3		

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17th Count Jan. 15, 1881		
4	3	2 30
4	3	3 30
6	3	4 0
7	2	4 30
14 74 88	3	
38	3	5 0
16	2	5 30
32 91 123	3	
13	1	6 0
26 58 84	2	
39 116 176	3	

18th Count, 17 Feb 81		
0	3	3 30
0	3	4 0
3 2 15 20	3	4 30
0	3	5 0
10 83 93	3	5 30
32 60 92	3	6 0
9 94 46 149	3	6 30
3 10 63 76	3	7 0
completed		
94		4 30
30		5 30
20		6 0
11		6 30
11		7 0
2 48 50	2	7 30
3 96 35 134	3	7 30
10 43 53	2	8 0
15 86 124	3	

19th Count, 15 Feb 81		
3	2	4h 30m
6	3	
34	3	5 30
14 67 81	3	6 0
70 64 134	3	6 30
3 2 57 62	3	7 0
3 52 52 107	3	7 30
9 68 28 105	3	8 0
9 52 31 92	3	8 30
6 28 28 62	3	9 0

20th Count, 1 Mar. 1881		
5	3	4h 30m
1	3	5 30
1	2	6 0
2 32 34	3	
1	1	6 30
2 1 3	2	
3 2 55 60	3	
1	1	7 0
2 2 4	2	
3 4 28 35	3	
46	3	7 30
47	3	8 0
1	2	8 30
2 41 43	3	
16	3	9 0
5	1	9 30
10 21 31	2	
15 43 82	3	

5	1	10h 0m
10 30 40	2	
15 60 21 96	3	

21st Count, 16 Mar. 81		
1	3	5h 30m
1	3	6h 0m
1	2	6 30
2 10 12	3	
1	2	7 0
2 9 11	3	
1	1	7 30
2 2 4	2	
3 4 36 43	3	
17	3	8 0
1	2	8 30
2 23 25	3	
1	2	9 0
2 18 20	3	
53	3	9 30
92	3	10 0
144	3	10 30
117	3	11 0

22d Count, 31 Mar. 81		
2	2	9 30
4 2 6	3	
2	1	10 0
4 5 9	2	
6 10 14 30	3	
10	2	10 30
20 8 28	3	

See page 107

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Treatment of Stars repeated for discordance.

20 hours.

No.		Probable Error of accepted Zones.	Probable Error, if rejected Zones were retained
3295	Retain all four.	.14	
3302	Reject Zone 227 for discordance.	.02	.40
3393	Retain all four.	.12	
3400	" " "	.12	
3413	" " "	.12	
3425	" " "	.12	
3455	" " "	.06	
3471	" " "	.14	
3477	In Zone 247, read 68.8 for 78.8, and read $5^m.7$ for $6^m.2$; retain all four.	.11	.11

21 hours.

3482	Retain all four.	.15	
3489	" " "	.12	
3500	" " five.	.14	
3504	" " four.	.11	
3540	" " five, unless Zone 270 proves to be the middle of three stars, of which the southern should have been observed.	.14	
3557	Retain all five.	.11	
3559	" " four.	.17	
3561	" " five. Readings bad in Zone 256.	.11	
3570	Reject Zone 259 for discordance	.03	.32
3592	Retain all five. Identification unsatisfactory. Companion perhaps variable.	.11	

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Treatment of Stars repeated for discordance.

21 hours (cont.)

No.			
3611	Retain all four	.16	
3620	" " ". In Zone 284, reading 284.4 is bad.	.16	
3633	" " ". Repeated by error.	.09 ~~.15~~	

22 hours.

3661	Retain all five. See no. 3592.	.09	
3663	" " four. In Zone 256, read 264.5 for 274.5 and read for (?)		.14
3669	Retain all four.	.14	
3674	" " "	.16	
3686	Reject Zone 263 for discordance?	.07	.19
3715	Retain all four.	.14	
3736	Reject Zone 4 for discordance. although adjacent, not identified.	.03	.32
3766	Retain all five, probably.	.12	
3773	" " four.	.16	
3775	Reject Zone 5 for discordance, and also for doubtful identification	.13	.24
3778	Retain all four.	.15	
3781	" " "	.16 ~~.15~~	
3786	~~Zone 305 prob. wrong star.~~ Retain all four	.14	
3798	Retain all four.	.19	
3800	Reject Zone 266 for discordance. Reading in Zone 266 should perhaps be 65.4 instead of 75.4, and magnitude $6^m.2$ instead of $6^m.9$.	.05	.25
3802	Retain all five.	.17	
3812	" " four.	.11	

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Treatment of Stars repeated for discordance.

23 hours.

No.		Probable Error of accepted Zones	Probable Error, if Rejected Zones were retained.
3840	Reject Zone 281 for discordance.	.05	.34
3856	Reject Zone 9 for discordance	.03	.22
3857	Reject Zone 7 for discordance	.03	.20
3885	Reject Zone 9 for discordance	.04	.26
3888	Retain all four	.12	
3890	Reject Zone 15 for discordance	.07	.21
3898	Retain all four	.17	
3913	Reject Zone 9 for discordance	.05	.32
3918	" " 17 " " . Probably no. 3912 was observed	.09	.20
3921	Reject Zone 9 for discordance	.12	.40
3935	~~Retain all four~~ Reject Zone 17 for discordance	.12 ~~.12~~	.20
3950	Reject Zone 12 for discordance M	.08	.37
3957	Retain all four; perhaps no. 3936 was observed in Zone 7	.15	
3967a	Retain all four. M	.12	
3973	" " "	.17	
3981	" " " M	.17	
3983	" " " M	.15	
3991	" " " M	.17	

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Retain

See p. 56-73

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Retain

See p 56-73

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Retain

See p. 56-73

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Retain

See p. 56–73

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Retain

See p 56–73

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Return

See p. 56–73

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Return

See p. 56-73

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Retain

See p 56–73

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(Continued on p. 82-83.)

Residuals in the first 30 Zones

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
51	0	−1		0											
41		+7		+2		−1									
42	−2	−2		−1		+3		−3							
43	+1	+1		−1		0		0							
44								0			0			−2	
45			+3	+1	−5	−4		−2			0			0	
52			−1		−1						−3			−2	
46			−3						−9		−2			0	
53			+1				−6		−5		0			+1	
47			+1		+1		−3		−2			+1		−2	
48			−2		+2				−2			0			−3
49									+1			×			−8
50							+2					×			+2
51										0			−1		−4
1										−2			−2		+3
52													−2		−2
53										−1			−4		
2										−2			−3		
54										0			−3		
553													−2		
													−2		
56															
4															
57															
5	= Polaris														
58															
59	31	32	33	34	35	36	37	38	39	40	43	45	59	68	
6															
60						0			0						
7															
61						0									
62	−2		−2	0											
63			0						0						
8	−1		−1	+1		−1						−1			
64			−3	+1		+1									
9	−1		−1	0			−4								
65															
66	−1						+3				−3			+1	
67							?			?		?	?		
	−.03	+.12	−.02	+.02	−.08	−.05	−.23	−.12	−.34	−.10	−.10	+05	−.24	−.08	−.20

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and of the Bright (Black) Stars.

Of the Upper Culmination Bright (Blue) Stars.

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Remarks.
−1															
−3			+2												
+3			+3												
−1			−1												Rejecting Zone 299
0			+4												
−4			−1												
+1			+2												
	×			−1											Rejecting Zones 12 & 17
				×											Rejecting Zones 12 & 20
	×			+2											Rejecting Zone 17
	−6			−2											
	0														
		−1			+1		−2								Rejecting Zone 335
		+1			+1	+2									
		−2			+1		0			+3					
		−2			+1		0			+3					
					+5							−5			
					+2		+1								
					+3	−1	×								Rejecting Zone 23
						×		0				−1		+1	Rejecting Zone 22
						×								+1	Rejecting Zone 22
						+4						0		−1	
						+2		+3							
						0		0							
								−1				−2		−4	
										+1					
										+2					
										+2			−3		
									−1	+1			+1		
									+3	−1			−1		
													?		
										?			?		Rejecting Zone 56
−.07	−.30	−.10	+.15	−.03	+.20	+.14	−.02	−.05	+.10	+.16 ?		−.20	−.10 ?	−.06	+0.94 −2.52

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Residuals in the first 30 Zones

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
91	-6					[-17] Rej.									
92						-4									
93	-7			+3		+4		[-14] Rej.			+6			-4	
94		+4		-3		+3		-7			+9			0	
95														-2	
96											-2			+1	
97			+3		+5		-4		+7			+5			-2
98			0		+10		-1		+7			-3			-2
99							-2					Rej.			-3
100													+3		+1
1										-3			0		
2													Rej.		
3													+1		
4															
5															
6															
7															

8	31	33	34	36	37	39	42	45	48	53	56	67
9	+8											
11	×	×	×	×		×		×	×			
12	×	×	×	×		×		×				
13	×		×				×				×	×
14	×		×		×		×	×		×		
15	×		×				×	×	×	×	×	

16 See p. 84-85 for these Zones of this star.

17

	-.65	+.40	+.15	0	+.75	+.10	-.23	-.70	+.70	-.30	+.43	+.10	+.13	-.12	-.15

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of the Lower Culmination Bright (Red) Stars.

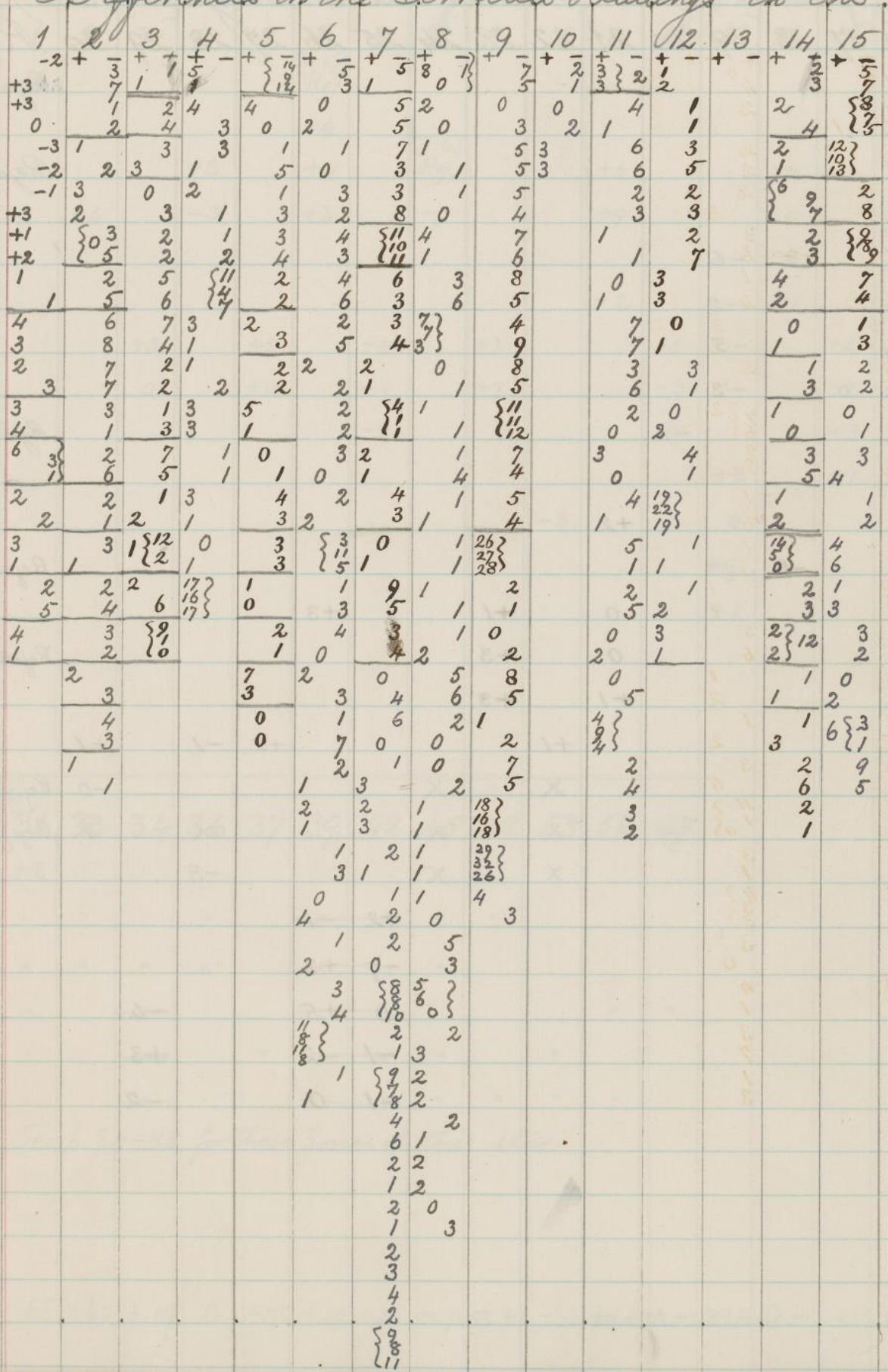
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Remarks.
															Rejecting Zone 6
															Rejecting Zone 8
+5			−6												
0			−2												
+2			−5												
+4	0		−2												
				−1											Rejecting Zone 12
					+2										
		−5													Rejecting Zone 13
					0		+1			+3					
					0		+3								Rejecting Zone 337
					+1		+3								
						+1					+2	−1		+1	
						×		×						−0	Rej. Z. 22, 24, 296, 338
						×		×				×		×	Rej. Z. 22, 24, 28, 30
						×		×				−3			
									+2 −1						
									−7 +3						
									0 +5				−4		
									−1 −2				+3		
									−1 0				−2		
+.28	0	−.50	−.38	−.10	+.08		+.23								

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Posted to the end of 23h

Differences in the Corrected Readings in the



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The underscored line is where the comparison is with another of these 30 Zones.

first 30 Zones of the ordinary (White) Stars.

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
+ −	+ −		+ −	+ −										
2 1	2 1		4 0	1 4										
4	3		4	6										
2	1		2 1	6										
0	12 13 9		2	1										
1			2	2										
1	12 10 7		2	5										
2			2 0											
1	3		3	3										
1	1		6	4										
3	7 7 7		1	4										
2			4	0										
1	6		3	2										
2	3		2	4										
9 5 5	4 2		2	1 4										
			3											
2	7		7 6	2 5 7										
1	7													
2 0	14		9 9	0 2 1 2										
1			1	7										
2			6	4										
0			1	3 2										
1			3											
20 2 2			1 1	1 2										
1			5											
1			6											
2			1											
0			2											
2			1											
5			2											
4			3											
0			5											
1			11 1 0											
2														
0			3											
0			1											
4			4 3 3											
4														
4			3											
1			0											
1			4											
1			1											
			3											
			7											
			1											
			3											

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(Continued from p. 76-77.)

Residuals in Zones 31 to 70 of the Upper Culmination

No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
68		−1					+2						+3							
69		−2														+3			×	
10		+1			+2			−1		−1	0									
70					×			+1			0									
71					×			+1			0									
72								×						×						
11								0			×									
12								×			×									
73																				
13											×			×						
14											×			×						
74																	×			
15														×						
75																				
16																				
18																				
19																				
76																				
77																				
20																				
78																				
21																				
79																				
22																				

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(Blue) and of the Bright (Black) Stars.

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	
								+1										−2		Rej. Z. 49
															−3			+1		Rej. Z. 35
																		+1		Rej. Z. 35

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(Continued from p. 78-79.)

Residuals in Zones 31 to 70 of the

No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
16		×					×			×			×						×	
17		×											×			×			×	
18		×			×			×		×			×			×				
19		×			×			×					×							
20					×			×												
21					×			×						×			×			
22								×						×			×			
23																				
24																				
25																				
26																				
27																				
28																				
29																				

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Lower Culmination Bright (Red) Stars.

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
		x									x								
					x			x			x			x				x	
								x							x			x	
					x				x						x			x	
x			x			x									x			x	
			x			x									x			x	
x			x			x			x			x							
	x						x			x									
	x			x			x			x									x
	x			x			x												x
							x						x						
									x										
															x				x
															x				x

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Residuals in Zones 1–70 of the

No.	1	2	5	8	11	19	20	24	26	28	29	30	33
3580	+1	−3											
3647				+1.									
3676				0									
3695					X Rej								
3737					−2								
3770			0			0							
23							−2						
272												−2	
277										+2			
301								0					
313												0	
334 b½								−5					
345½								+3					
346										−1			
347													0
360								+1					+1

	34	36	39	42
370			+1	
379		+4		
388				−4
401				
404		0		
443			+1	
448	−1			
449				

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Comparison Stars for Variables.

No.	26	29	33	34	35	40	42	43	50	53	56	65	68
463	0		−5										
513		+1		−2						+2			
517							+1						
553	+2						+2						
562	0												
564	+2					+4							
598									−1				0
608		0				+4					+2	0	
623	incomplete				~~X Rej~~			~~+1~~			~~−1~~	~~−0~~	
691						+7							
727					−3								

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The dash — means that in the respective catalog the star has no name. The + means that the star is not in the respective catalog.

List of Stars not in Heis Catalog which fall outside the ascertained limits of any Heis or Argelander (U.N.) constellation; and of stars upon which Heis and the B.A.C. disagree.

On p. 1–21 of this book is a list of Heis' stars which could not certainly be located in any B.A.C. constellation, and on p. 22–24 is a list of stars in our catalog not in Heis similarly circumstanced.

No.	B.A.C.	U.A.	Behrm.	Heis	B.A.C	U.A.	Heis	U.N.
3989	Sculpt.		—	Pisc. aust.				
3951	"			" "				
3907	Urs. min.	—	—	Ceph.				
3900	Pisc.		—	Aquar.				
3881								
11	Sculpt. 10	Sculpt.	Sculpt.	[Pisc. aust.]	—	κ'	+	+
18	" 23	"	"	"	—	κ^2	−	−
25	["] 72	"	[Ceti]	[Ceti]	+	—	+	+
48	"	"	Sculpt.	[Pisc. aust.]	ι	ι	+	+
57	" 103	"	"	"	—	η	−	−
137	["] 262	"	["]	[Ceti]	+	—	+	+
143	Urs. min. 272	—	—	Ceph.	2	+	−	−
145	Sculpt.	Sculpt.	Sculpt.	Ceti	α	α	−	−
151	[Cass.? 320]	—	—	[Cass.?]	+	+	+	+
167	Cass. 393	—	—	Ceph.	−	+	−	−
196	" 452	—	—	"	−	+	−	−
223	Sculpt. 487	Sculpt.	Sculpt.	[Ceti]	−	—	+	+
235	Androm. 522	—	—	Pers.	51	+	υ	υ
253	" 541	—	—	"	54	+	ϕ	ϕ
258	Sculpt. 547	Sculpt.	Sculpt.	Ceti	ε	ε	−	−
263a	Androm. 561	—	—	Pers.	—	+	−	−
268	Ceti	[Pisc.]	—	Arietis	54	+	−	−

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No.	B.A.C.	U.A.	Behrm.	Heis	BAC	U.A.	Heis	U.N.
288	[Forn.]	[Forn.]	Forn.	[Ceti]	+	+	+	+
298	Cass. 605	—	—	Ceph.	−	+	−	−
300	[Forn.]	Forn.	Forn.	[Ceti]	+	−	+	+
302	" 627	"	"	"	−	π	−	−
308	" 643	"	"	"	−	ν	−	−
317	["]	"	"	["]	+	−	+	+
328	" 688	"	"	"	μ	μ	−	−
343a	" 723	"	"	["]	−	−	+	+
*354	["]	"	"	["]	+	−	+	+
364	" 773	Ceti	"	[" ?]	−	−	+	+
366	" 774	Forn.	"	[" ?]	−	−	+	+
367	" 775	Ceti	"	[" ?]	−	−	+	+
375a	" 790	Forn.	"	"	−	ω	−	−
377	[" ?]	Ceti	"	[Erid.]	+	−	+	+
385	Cass. 784	—	—	Ceph.	−	+	−	−
397	Ariet. 830	—	[—]	Ceti	−	+	85	85
404	" 845	Ceti	—	"	−	μ	87 μ	μ,87
411	[Forn?]	Eridani	Forn.	[Erid.]	+	−	+	+
416	" 879	Forn.	"	"	β	β	−	−
418	" 880	"	"	["]	γ	γ′	+	+
419	" 883	"	"	"	−	γ^2	−	−
424	[Cass?]	—	—	[Cass?]	+	+	+	+
430	Cass. 896	—	—	Ceph.	−	+	−	−
442	" 908	—	—	"	−	+	−	−
445	Forn. 939	Forn.	Forn.	[Erid.]	−	−	+	+
446	" 940	"	"	["]	−	ζ	+	+
450	" 951	"	"	["]	−	ε	+	+
464	[Cass]	—	—	Ceph.	+	+	−	+

*351	Forn. 737	Forn	Forn.	Ceti	K	K	−	−

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No.	B.A.C	U.A.	Behrm.	Heis.	B.A.C	U.A.	Heis	U.A.
466	978 Forn.	Forn	Forn.	[Erid.]	−	−	+	+
469	960 Urs. min.	—	—	Ceph.	−	+	−	−
471	979 Cass.	—	—	"	−	+	−	−
474	991 Ceti	Ceti	—	Tauri	−	−	g	g
481	1001 Cass.	—	—	Camel.	−	+	−	−
537	1061 Urs. min.	—	—	Ceph.	−	+	−	−
609	1211 Cass.	—	—	"	−	+	−	−
635B	1235 Urs. min.	—	—	"	−	+	−	+
640	1247 " "	—	—	"	−	+	−	−
649	1263 " "	—	—	"	−	+	−	−
658	1276 Camel.	—	—	"	−	+	−	−
716	1364 Taur.	—	—	Pers.	−	+	−	−
776	1460 "	—	—	Orion.	−	+	−	−
778	1448 Camel.	—	—	Ceph.	−	+	−	−
783	[Taur.]	[Taur.]	—	Orion.	+	+	−	−
817	[Urs. min.]	—	—	Ceph.	+	+	−	+
869	[" "]	—	—	(")	+	+	+	−
873	[Camel.]	—	—	Aurig.	+	+	−	+
884	[Columb.] 1634	Columb.	Columb.	[Lep.]	+	−	+	+
894	" 1655	Lep.	"	"	−	−	−	−
914	" 1688	Columb.	"	"	−	−	−	+
925	" 1662	Lep.	"	"	−	−	−	+
945	Urs. min	—	—	Ceph.	−	+	−	−
957	[Camel?] 1783	—	—	Aurig.	+	+	−	+
983	Columb. 1797	Columb.	Columb.	[Lep.]	−	v'	+	+
994b	Camel. 1946	—	—	Aurig.	26	+	−	+
1067	Lep.	Lep.	Lep.	Columb.	−	−	−	+
1091	[Lep.] 1995	"	"	["]	+	−	+	+
1096	Can. maj. 1997	"	Can. maj.	["]	−	−	+	+
1098	" "	"	" "	"	−	−	−	+

seep. 99 >

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No.	B.A.C.	U.A.	Behrm.	Heis	BAC	U.A	Heis	U.N.
	2066							
1142	Can. maj.	Columb.	Can. maj.	Columb.	3	δ	δ	δ
	2157							
1222	Urs. min.	—	—	Ceph.	—	+	—	—
1235	[Lync.?]	—	—	Aurig.	+	+	ψ^9	ψ^9
	2261							
1240	"	—	—	"	16	+	ψ^{10}	ψ^{10}
	2306							
1262	Monoc.	[Monoc.]	—	Gemin.	—	+	—	—
	2314							
1266	Gemin.	—	—	Aurig.	—	+	—	—
1268	["]	—	—	"	+	+	—	—
	2373							
1291	Can. min.	Can. min.	—	Monoc.	—	—	—	—
1316	[Can. maj.]	Can. maj.	[Pupp.]	Arg.	+	—	—	—
	2449							
1321	Pupp.	" "	"	"	s	—	υ	υ
	2454							
1323	Can. maj.	" "	["]	"	—	—	—	—
1333	[" "?]	" "	["]	"	+	—	—	+
1334b	[" "?]	" "	["]	["]	+	—	+	+
1339	[Pupp.]	Pupp.	["]	"	+	—	—	—
	2484							
1342	"	"	"	"	—	—	—	—
	2494							
1349	"	"	"	["]	—	—	+	+
1350	["]	"	["]	"	+	—	—	—
1352	["]	"	["]	"	+	—	—	—
	2497							
1353	"	"	"	"	n^1	$n^{dupl.}$	—	+
	2508							
1354	"	"	"	"	ρ	ρ	ρ	ρ
	2511							
1355b	"	"	["]?	"	—	+	—	—
	2525							
1363	"	"	"	"	m	m	π	π
	2530							
1365	"	"	"	"	k^1	$k^{dupl.}$	K	K
	2538							
1366	"	"	["]	"	—	—	—	—
1372	["]	["]	["]	"	+	+	—	+
	2557							
1376	"	"	"	"	—	—	—	+
	2560							
1379	"	"	"	"	1	1	—	+
	2565							
1382	"	"	"	"	—	—	—	+
	2573							
1386	"	"	["]	"	4	4	4	4
	2562							
* 1380	"	"	"	"	3	3,l	τ,3	τ,3

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	No.	B.A.C.	U.A.	Behrm.	Heis.	BAC	U.A.	Heis	U.K.
	1387	Puppis 2589	Puppis	[Pupp.]	Argûs	5	5	5	5
—	1388	" 2594	"	"	"	0	0	0	0
	1389	["] 2601	"	["]	"	+	—	—	+
	1390	" 2602	"	["]	"	6	6	6	6
	1391	Arg. 2622	"	"	"	ξ	ξ	ξ,7	ξ,7
	1399	Puppis 2624	"	["]	"	9	9	9	9
	1401	" 2585	"	["]	"	10	10	10	+
	1402	Urs. min 2652	—	—	Camel.	—	+	—	—
	1409	Puppis 2655	Puppis	Puppis	Argûs	11	11,j	e,11	e,11
	1413	" 2662	"	"	"	—	—	χ	χ
	1417	" 2672	"	"	"	12	12	12	12
<see p. 99>	1422	Cancr. 2704	—	—	Gemin.	6	+	χ	χ
	1427	Camel. 2707	—	—	Lync.	—	+	—	—
<see p. 99>	1430	" 2723	—	—	Urs. maj.	55	+	—	—
	1431	Puppis 2728	"	[Puppis]	Argûs	—	—	—	—
	1432	Arg. 2736	"	"	"	ρ	ρ	e,15	e,15
	1435	Puppis 2750	"	["]	"	16	16	16	16
	1439a	" 2747	"	["]	"	19	19	19	19
	1440	Canc.	—	—	Gemin.	15	+	ψ	ψ
	1442a	[Puppis] 2769	Puppis	Puppis	[Argûs]	+	—	+	+
	1443	" 2765	"	["]	"	20	20	20	20
	1445	Camel.	—	—	Urs. maj.	57	+	—	—
	1452b	[Puppis]	Puppis	[Puppis]	[Argûs]	+	—	+	+
	1453a	["]	"	["]	"	+	—	—	—
	1453b	["] 2811	"	["]	["]	+	—	+	+
	1456	" 2825	"	"	["]	—	—	+	+
	1463a	Hydr.	Hydr.	—	Monoc.	—	C	30	30
	1463b	[Puppis] 2827	Puppis	[Puppis]	[Argus]	+	—	+	+
	1464	"	"	"	"	—	—	~	+
	1467	["]	"	"	"	+	—	—	—

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No.	B.A.C.	U.A.	Behrm.	Heis	BAC	U.A.	Heis	U.N.
1470	Puppis 2839	Puppis	[Mali]	Arg.	−	−	−	+
1471	" 2846	Pyxidis	Puppis	["]	−	−	+	+
1472	["]	"	[" ?]	"	+	−	−	+
1475	[" ?]	"	Mali	["]	+	−	+	+
1480	Monoc. 2868	"	[Puppis]	"	−	−	−	−
1481	Urs. maj. 2852	—	—	Camel.	−	+	−	−
1484	[Mal.]	Pyxidis	Mali	[Arg.]	+	−	+	+
1487	Lync. 2887	—	—	Urs maj.	−	+	−	−
1490	" 2892	—	—	"	−	+	−	−
1491	Mal. 2898	Pyxidis	Mali	Arg.	−	−	−	+
1496	" 2916	"	"	"	g	η	−	+
1497	["]	"	"	"	+	−	−	−
1499	" 2932	"	"	"	f	ζ	−	−
1504	Hydr. 2954	Hydr.	—	Monoc.	−	F	31	31
1508	Mal. 2964	Pyxidis	Mali	Arg.	a	α	o^2	o^2
1513	["]	"	"	["]	+	−	+	+
1516	["]	Hydr.	[Hydr.]	"	+	−	−	+
1521	" 3005	Pyxidis	Mali	"	−	−	−	+
1523	" 3007	"	"	"	−	−	−	+
1525	" 3010	"	"	"	c	γ	o^3	o^3
1535	[Urs. min.]	—	—	Camel.	+	+	−	−
1536	Mali 3051	Pyxidis	Mali	Arg.	d	δ	o^4	o^4
1544	Lync. 3059	—	—	Urs. maj.	−	+	10	10
1550	Mali 3082	Pyxidis	Mali	[Arg.]	−	−	+	+
1554	" 3096	"	"	"	−	−	−	+
1555	Lync. 3097	—	—	Urs. maj.	−	+	−	−
1565	Mali 3121	Pyxidis	Mali	Arg.	−	κ	−	−
1568	["]	"	"	["]	+	−	+	+
1572	" 3130	"	"	["]	e	ε	+	+
1585	" 3180	["]	["]	"	−	+	−	−

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No.	B.A.C.	U.A.	Behm.	Heis	BAC	U.A.	Heis	U.H.
1589	[Urs. maj.?] 3195	—	—	Camel.	+	+	−	−
1590	Mali 3207	Pyxidis	Mali	Arg.	h	θ	−	−
1593	" 3218	"	"	"	−	λ	−	−
1596	Lync. 3224	—	—	Urs. maj.	41	+	−	−
1597	Mali 3248	Pyxidis	Mali	[Arg.]	−	−	+	+
1608	"	Antl.	"	"	−	−	−	+
1618	[" ?] 3286	"	Antl.	"	+	−	−	+
1626	Leo.	Leo.	—	Sext.	10	10	1	1
1628	[Hydr.?]	Antl.	Hydr.	[Hydr.?]	+	−	+	+
1629	[" ?] 3332	"	"	[" ?]	+	−	+	+
1646	Antl. 3336	"	Antl.	Arg.	θ	θ	−	−
1648	Leo. 3341	Leo.	—	Sext.	−	−	−	−
1651	Leo. min. 3385	—	—	Urs. maj.	15	+	−	−
1662	Antl.	Antl.	Antl.	[Arg.]	−	−	+	+
1664	["] 3391	"	"	["]	+	−	+	+
1666	Hydr.	Hydr.	Hydr.	"	−	−	−	−
1670	[" ?]	"	"	["]	+	−	+	+
1671	[Antl?]	Antl.	Antl.	["]	+	−	+	+
1688	[" ?]	"	"	[" ?]	+	−	+	+
1689	[" ?]	"	"	[" ?]	+	−	+	+
1701	["] 3495	"	"	[" ?]	+	−	+	+
1713	Urs. min. 3521	—	—	Camel.	−	+	−	−
1717	Antl. 3528	Antl.	Antl.	[Hydr.]	−	−	+	+
1727	Drac. 3578	—	—	Camel.	−	+	−	−
1737	Antl. 3577	Antl.	Antl.	Hydr.	α	α	−	−
1742	Drac. 3596	—	—	Camel.	−	+	−	+
1743	Antl. 3598	Hydr.	Antl.	[Hydr.]	−	−	+	+
1744	"	Antl.	"	["]	δ	δ	+	+
1752	[" ?]	Hydr.	"	["]	+	−	+	+
1762	[" ?]	"	"	["]	+	−	+	+

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No.	B.A.C.	U.A.	Behrm.	Heis	B.A.C.	U.A.	Heis	U.N.
1777	Leo 3671	—	—	Leo. min.	—	+	41	41
1800	Leo. min. 3741	—	—	Urs. maj.	—	+	46	+
1837	Drac. 3821	—	—	" "	—	+	—	—
1870	" 3906	—	—	Camel.	—	+	—	—
1888	Urs. maj. 3937	—	—	Leo	—	+	—	—
1952	Urs. min. 41106	—	—	Camel.	—	+	—	—
1957	Can. ven. 4121	—	—	Urs. maj.	1	+	—	—
2063	Urs. min. 4339	—	—	Camel.	—	+	—	—
2064	" " 4342	—	—	"	—	+	—	—
2090	[Drac.] 4517	—	—	Urs. min.	+	+	—	+
2152	Hydr.	Hydr.	Hydr.	[Centauri]	—	—	+	+
2153	["] 4527	"	"	["]	+	—	+	+
2154	Urs. min. 4548	—	—	Camel.	—	+	—	—
2170	Hydr.	Hydr.	Hydr.	Cent.	—	—	—	+
2172	[Urs. min.] 4559	—	—	Camel.	+	+	—	+
2173	Virg. 4614	[Virg.]	—	Boot.	—	+	—	—
2201	Urs. min.	—	—	[Camel.]	+	+	+	+
2207	[Hydr.] 4643	Hydr.	Hydr.	[Centaur]	+	—	+	+
2210	Urs. min 4636	—	—	Camel.	—	+	—	—
2217	Hydr. 4640	Hydr.	Hydr.	Cent.	—	—	—	+
2218	Boot. 4767	—	—	Can. ven.	—	+	—	—
2283	Librae 4773	Librae	Hydr.	[Hydr.]	—	—	—	+
2284	Virg. 4800	Virg.	—	Boot.	—	—	—	—
2292.	Librae 4854	[Hydr.]	[Hydr.]	Hydr.	—	+	—	+
2313	"	Libr.	"	["?]	4	4	+	+
2342	[Cent.?]	Cent.	Cent.	[Lupi?]	+	—	+	+
2351	[Hydr?] 4930	Hydr.	Hydr.	["?]	+	—	+	+
2358	" 4940	"	"	["?]	59	59	+	+
2362	" 4949	"	"	["?]	60	60	+	+
2365	Drac.	—	—	Urs. min.	—	+	—	—

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No.	B.A.C.	U.A.	Behrm.	Heis.	B.A.C.	U.A.	Heis	U.N.
2369	Librae 4950	Librae	Scorp.	Scorpii	20	20,5	γ	γ
2371	Urs. min. 4982	—	—	Camel.	—	+	—	—
2383	Drac. 4989	—	—	Urs. min.	—	+	—	—
2404	Boot. 5071	—	—	Drac.	—	+	—	—
2411	["]	—	—	[Herc.]	+	+	+	+
2422	["]	—	—	["]	+	+	+	+
2432	Libr. 5121	Libr.	Scorp.	[Scorp.]	36	36	+	+
2442	" 5138	"	"	"	39	39,v	—	—
2448	" 5151	"	"	"	40	40,τ	0	0
2456	" 5166	"	"	["?]	42	42	+	+
2459	Boot. 5177	—	—	Herc.	—	+	—	—
2462	" 5181	—	—	Drac.	—	+	—	—
2524	" 5316	—	—	Herc.	—	+	—	+
2530	Librae 5324	Scorp.	Scorp.	Scorp.	51	ε	ε	ε
2534b	[Scorp?]	Oph.	—	[Librae]	+	—	+	+
2534c	["]	"	—	["]	+	—	+	+
2545b	[Serp?]	Cap. Serp.	—	["?]	+	—	+	+
2629	Oph. 5579	Oph.	[Scorp?]	Scorp.	—	—	24	24
2631	" 5580	"	["?]	"	—	—	—	—
2811	Serp. 6060	Sag-rii	[Oph.?]	Sag-rii	—	—	—	—
2813	" 6065	Caud. Serp.	["]	Oph.	—	—	—	—
2905b	[Aquil.]	Scuti	[Scut.]	[Scuti]	+	—	+	+
2908b	["] 6280	"	—	"	+	ζ	—	—
2921b	Serp.	[Caud. Serp.]	—	Oph.	—	+	—	—
2922b	["]	" "	—	["]	+	—	+	+
2922d	Sag-rii 6279 6306	Scuti	Scut.	Scuti	—	γ	—	—
2929b	"	"	"	["]	—	—	+	+
2929d	" 6313	"	"	"	—	—	—	—
2931b	Aquil. 6324 6325	"	—	"	—	—	—	—
2931c	"	"	—	"	1	α	—	—

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No.	B.A.C.	U.A.	Behrm.	Heis	BAC	U.A.	Heis	U.N.
2946 b.	Aquil. 6361	Scuti	—	Scut.	2	δ	—	—
2948 b	" 6367	"	—	"	3	ε	—	—
2954 b.	[Serp?]	Caud. Serp.	—	[Serp?]	+	—	+	+
2955 b	[Aquil.] 6388	Scuti	—	Scut.	+	—	—	—
2962 b	"	"	—	"	6	β	—	—
2963 b	["] 6464	"	—	"	+	R	R	—
3002 b	"	"	—	"	9	η	—	—
3060	[Drac.] 6582	—	—	[Ceph.]	+	+	+	+
3075	Vulp. 6656	—	—	Sag-tae	—	+	/	/
3124	Cygn.	—	—	Lyrae	—	+	—	—
3153	[Urs. min?] 6852	—	—	Ceph.	+	+	—	+
3231	Drac. 6867	—	—	Cygn.	—	+	—	—
3241	Ceph. 7018	—	—	"	—	+	—	—
3333	Capr. 7064	Sag-rii	Capr.	[Sag-rii]	—	—	+	+
3349	Ceph. 7086	—	—	Cygn.	—	+	—	—
3358	" 7105	—	—	"	—	+	—	—
3366	" 7130	—	—	"	—	+	—	—
3381	Aquar. 7299	Aquar.	—	Aquil.	—	—	—	+
3458	Ceph. 7285	—	—	Drac.	—	+	—	—
3461 b	Aquar. 7311	Equul.	—	[Equul?]	—	—	+	+
3468	Drac. 7310	—	—	Ceph.	—	+	—	+
3470	Cygn. 7363	—	—	"	—	+	—	—
3493	Drac. 7381	—	—	"	—	+	—	—
3498	" 7410	—	—	"	77	+	—	—
3520	Vulpec. 7438	—	—	Pegas.	34	+	—	—
3531	Drac. 7437	—	—	Ceph.	—	+	—	+
3537	Vulp. 7587	—	—	Pegas.	—	+	—	—
3608	Aquar. 7597	Pegas.	—	"	27	11	11	11
3610	Drac. 7620	—	—	Ceph.	78	+	—	—
3623	Aquar.	Capr.	Capr.	Capr.	—	—	—	—

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No.	B.A.C.	U.A.	Behrm.	Heis	B.A.C.	U.A.	Heis	U.N.
	7631							
3627	Ceph.	—	—	Cygn.	—	+	—	—
	7642							
3628b	"	—	—	["]	—	+	+	+
	7654							
3631b.	Drac.	—	—	[Ceph.]	79	+	+	+
	7676							
3643	Ceph.	—	—	Cygn.	—	+	—	—
	7681							
3648	Cygn.	—	—	Lacert.	—	+	—	—
	7745							
3677	Aquar.	Pisc. aust.	Aquar.	Pisc. aust.	—	—	—	—
	7851							
3721	Urs. min.	—	—	Ceph.	—	+	—	—
3814	[Lacert.?]	—	—	[Lacert?]	—	+	+	+
3819	[Ceph.]	—	—	[Cass.]	—	+	+	+
	8024							
3821	"	—	—	"	—	+	—	—
	8053							
3837	Aquar.	Sculpt.	Aquar.	[Pisc. aust.]	—	—	+	+
	8064							
3842	Pisc. aust.	"	"	[" "]	—	—	+	+
	8107							
3863	Cass.	—	—	Andr.	—	+	—	—
	8113							
3869	Sculpt	Sculpt.	Sculpt.	Pisc. aust.	γ	γ	—	—
	8132							
3881	Aquar.	"	Aquar.	[" "]	—	—	+	+
	8184							
3900	Pisc.	Aquar.	—	Aquar.	—	—	—	—
	8213							
3907	Urs. min.	—	—	Ceph.	—	+	—	—
	8275							
3951	Sculpt.	Sculpt.	Sculpt.	Pisc. aust.	δ	δ	—	—
	8352							
3989	"	"	"	" "	ζ	ζ	—	—

	1787							
987	Columb.	Columb.	Columb.	Columb.		ν^2	—	—
	2666							
1418	Puppis			Argûs			—	—
	2714							
1428				Cancri			μ,10	μ,10
	2730							
1434				"			ψ,14	ψ,14

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Remarks suggested by Revision of and Comparison between Blue and Red Observation Sheets.

(Upper and Lower Culmination Stars.)

Upper Culm. AR	No	Catal. No.	
0h 2.8	52	9	Blue Zones not identified; red neither. Clouds susp. in Zone 137 red, hazy in Z 143 red.
0 26.1	53	65	Blu Z. 317, 321, 335, 340 ident.; Z. 333 not ident, but prob. checked. — Red Z. 453, 457, 460, 462 ident. — B. & R. same.
0 37.8	54	96	Blu Z. 10, 13, 278, 302, 313, 324, 325, 337, 340 ident.; other Z. prob. chkd. — Red Z. 143, 455, 460, 465, 468, 475 ident. — B & R same. — DM+74°29 obs'd in Z. 149 on Red sheet.
0 49.5	55	132	Blu Z. 13, 303, 306, 317, 318, 319 ident.; other Z. prob. chkd. — Red Z. 146, 455, 457, 460, 468, 475 ident.; Z. 153 and foll. prob. chkd. — B & R same.
1 2.7	56	171	Blu Z 301, 306, 316, 330, 337, 343 ident.; prob. Z 312, 322 chkd. — Red Z. 463, 466, 479, 471 ident. — B & R same. — DM+67°81 obs'd in Z. 291 on Blu sheet.
1 45.8	58	270	Blu Z 22 rej. for discordance only, prob. = DM+63°238. — Red Z 477 near edge of shutter.
1 52.1	59	286	Blu Z 22 rej. for discordance only, perhaps = DM+70°137 — Star foll'g & Blu Z 309 rej. for cloud. — Red Z 477, 482 comp. n. s.
2 26.8	61	372	Red Z 478 comp. n. s.
2 46.4	62	424	DM+61°513 has comp. similar to that ~~obs'd~~ given in Red Z. 154, and is near.
3 9.5	64	481	R. Z. 170 ident. doubtful.
3 31.7	65	545	R. Z. 184 comp. n. s., star ft; R. Z. 491 clouds susp.
3 37.7	66	569	B. Z. 365 rej. for clouds.
3 38.5	67	574	R. Z. 177 has been stricken out, but ~~checks~~ identifies readily; R. Z 186 "image very bad at times."
4 6.4	68	660	B. Z. 365 rej. for clouds;

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Upper Culm.	AR	No.	Catal. No.	
H	19.7	69	721	B.Z.49 rej. for discordance only; B.Z.388 rej. for clouds susp.
H	42.1	70	790	B.Z. 35 rej. for discordance only
H	52.8	71	829	DM+60°853 obs'd in Blu Z.35
5	9.2	73	889	Blu Z 47 prob. = DM+62°734, and B Z 370 certainly = that star; Blu Z 395 rej. for clouds
5	18.9	74	929	Red Z 193 comp. not seen; Red Z 200 comp. prob. seen; Red Z 205 comp. not certain. ~ Blu Z 416 comprises two stars, both ident. and the one not belonging on this sheet transferred.
6	38.4	79	1203	Blu Z 76 identifies well enough, perhaps, but must be rejected for discordance, and is probably the wrong star.
7	5.4	80	1283	Blu Z. 88 was interrupted by clouds; Blu Z 91 is wrong star; in Blu Z 426 a slightly preceding star was also observed.
7	45.8	82	1395	Red Z 237 perhaps = DM+74°335
8	20.3	85	1466	Red Z 217 rejected for clouds; Red Z 267 rej. for doubtful identity.
8	29.7	86	1489	Red Z 221 very ft., possibly clouds; Red Z 267 rej. for very doubtful identity
8	51.7	87	1541	Zones 228, 230 and one of the Zones 235 are DM+67°577 = *1557
9	1.0	88	1560	Comp. to Blu Z 104 and 105 not satisfactory
9	4.9	89	1571	Red Z 284 rej. for obstruction of field.
9	22.1	90	1602	Red Z 236 rej. for reason not given
9	23.6	91	1605	Catal. No. 1630 obs'd in Blu Z 104 and 105; Blu Z 113 rej. for probable wrong star observed. ~ Red Z 235 and 236 = Catal. No. 1630

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upper Culm AR		No.	Catal. No.	
10	15.5	94	1725	The remark "right of two" seems to refer to Red Z. 14. As the star in question is between two others (one at 140°d12, and the other at 300°d8 at lower culm.), this description may indicate that the star obs'd is the correct star, or it may indicate DM+65°767 (*), ~~previous~~ The remark "right, brighter and following" is especially unfortunate, as almost all the right hand of the field is in a preceding position. None of the Red Zones before Z 248 are reliable.
11	15.7	97	1856	Red Z 266 is DM+65°843
11	24.3	98	1876	Blu Z 131 "clouds approaching"
12	19.5	1	1991	Blu Z 132, 135, 137, ~~457~~ are DM+64°890; probably Blu Z 457 is the same; Blu Z 460 is prob. right and Blu Z 471 is certainly so; some other Zones doubtful. No fault to find with Red Zones.
12	25.0	2	2005	DM+70°703 [*] obs'd in Red Z. 10 and 21 and in all likelihood in Red Z 13; clouds near in Red Z 310 and in one of Red Zones 314
13	47.9	8	2219	DM+65°978 [*2243] obs'd in Red Z 292 and prob. in Red Z 28 and 30; prob. DM+65°953 [*2186] or DM+65°966 obs'd in Red Z 22 and 2~~8~~.
14	9.9	9	2260	The distances of comp. given in Blu Z 138 and 472 can only be considered as fractions of the diameter of the field, and not of the radius.
16	6.0	17	2553	DM+68°858 obs'd in Blu Z 159 and in Red Z 43 & 49.

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Memorandum &c See pages 46-47, 54-55.

22d Count Continued See p. 55

22	2	11 0
44 38 } 82	3	
1	2	11 30
2 39 } 41	3	
4	2	12 0
8 40 } 48	3	

23d Count Apr. 16, 1881

9	3	10 30
2	3	11 0
2	3	11 30
1	3	12 0
4	1	
8 23 } 31	2	12 30
12 46 44 } 102	3	
4	1	
8 20 } 28	2	13 0
12 40 34 } 86	3	

24th Count May 2, 1881.

19	3	12 30
1	2	13 0
2 39 } 41	3	
30	2	13 30
60 46 } 106	3	
1	1	
2 48 } 50	2	14 0
3 26 23 } 122	3	

25th Count May 16, 1881.

1	2	12 30
2	3	

25th Count continued.

1	2	13 0
2 3 } 5	3	
48	3	13 30
1	1	
2 13 } 15	2	14 0
3 26 } 64	3	

26th Count June 1, 1881

1	3	12 30
2	3	13 0
19	3	13 30
3	2	14 0
6 23 } 29	3	
12	2	14 30
24 29 } 53	3	
6	1	
12 30 } 42	2	15 0
18 60 17 } 95	3	

27 Count June 15, '81.

3	3	13 30
√	3	14 0
√	2	14 30
10 27 } 37	3	
3	2	15 0
6 48 } 54	3	
3	2	15 30
6 34 } 40	3	
38	2	16 0
76 √2 } 128	3	

28th Count July 1, 1881

1	3	15 30
27	3	16 0
1	2	16 30
2 55 } 57	3	
1	1	
2 1 } 3	2	17 0
3 2 39 } 44	3	
2	2	17 30
4 26 } 30	3	
1	2	18 0
2 14 } 16	3	

29th Count July 15, 1881.

10	3	18 30
11	3	19 0
3	2	19 30
6 79 } 85	3	
1	1	
2 42 } 44	2	20 0
3 84 65 } 152	3	

30th Count Aug 1, 1881.

1	3	17 30
1	3	18 30

12	2	19 30
24 55 } 79	3	
1	1	
2 14 } 16	2	20 0
3 28 81 } 112	3	

31st Count Aug 15 1881

6	3	19 30
1	2	20 0
2 64 } 66	3	

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1881 -

Memorandum of the number of observations to

From h	m	to h	m	No. rep. 3 obs.	Additional Observations	Total No of Obs.
0	0	0	30	18	6,6,	66
0	30	1	0	26	6,4,6,	94
1	0	1	30	19		57
1	30	2	0	28		84
2	0	2	30	21	6,6,	75
2	30	3	0	21	6,	69
3	0	3	30	25		75
3	30	4	0	31		93
4	0	4	30	40	6,2,2,4	134
4	30	5	0	27		81
5	0	5	30	29	1,	90
5	30	6	0	26	4,	82
6	0	6	30	16	4,1,4,4,2	63
6	30	7	0	33	1,6	106
7	0	7	30	22	4,	70
7	30	8	0	23	6,	75
8	0	8	30	13	4,	43
8	30	9	0	24		72
9	0	9	30	22		66
9	30	10	0	17		51
10	0	10	30	23		69
10	30	11	0	16	6,	54
11	0	11	30	23	6,	75
11	30	12	0	12	6,	42

From h	m	to h	m	No. rep. 3 obs.	Additional Observations	Total No of Obs.
12	0	12	30	24	4,	76
12	30	13	0	16	4	52
13	0	13	30	22	1,4,	71
13	30	14	0	17	4,6,	61
14	0	14	30	22	4,4,4,	78
14	30	15	0	19	4,6,	67
15	0	15	30	29	6,	93
15	30	16	0	32	6,	102
16	0	16	30	26		78
16	30	17	0	20		60
17	0	17	30	24	4,	76
17	30	18	0	26		78
18	0	18	30	16	4,	52
18	30	19	0	26		78
19	0	19	30	24	4,	76
19	30	20	0	22	1,4,4,	75
20	0	20	30	15	6,	51
20	30	21	0	26		78
21	0	21	30	19	6,	63
21	30	22	0	19	6,6,2	71
22	0	22	30	25		75
22	30	23	0	24	6	78
23	0	23	30	21	6	69
23	30	24	0	26	6	84

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– 1882.

be made to complete entire work. (Meridian Photometer)

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Observations rejected

No. Stern	Ro. Zone.		Obs'n.	Corr'n.	Obs'n.
					1882
3236	255		✓	✓	✓
3108	238.				

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Memorandum of the number of observations yet to be made, in order to have one, two, or three observations, respectively, made upon all the ordinary stars.

1st Count Sept. 1, 1881.

2	1	
4, 6, 10	2	18 30
6, 12, 14, 22	3	
4, 5	1	
10, 4, 14	2	19 0
15, 8, 9, 32	3	
3	1	
6, 15, 21	2	19 30
9, 30, 6, 45	3	
4		
4	1	
8, 12, 20	2	20 0
12, 24, 10, 46	3	
4		
3	1	
6, 13	2	20 30
9, 14, 27	3	
6		
11	1	
22, 14, 36	2	21 0
33, 28, 1, 62	3	

2d Count Sept. 15, 1881.

1	1	
2, 7, 9	2	18 30
3, 14, 4, 21	3	
4	1	
8, 2, 10	2	19 0
12, 4, 7, 23	3	
3	1	
6, 8, 14	2	19 30
9, 16, 9, 34	3	
4		
4	1	
8, 7, 15	2	20 0
12, 14, 6, 32	3	
3, 4		
4	1	
8, 6, 14	2	20 30
12, 12, 4, 28	3	
✓		

3d Count Oct. 1, 1881.

1	1	
2	2	19 30
3, 4, 7	3	
✓	3	20 0

3d Count continued

1	1	
2, 4, 6	2	20 30
3, 8, 16	3	
23	3	21 0
8	2	
16, 9, 25	3	21 30
✓		
7	1	
14, 11, 25	2	22 0
21, 22, 2, 45	3	
6, 6		

4th Count Oct. 15, 1881.

1	3	20 0
1	3	21 0
1	2	21 30
2	3	
2	1	
4	2	22 0
6, 5, 11	3	
7	2	
14, 9, 23	3	22 30
4		
4	2	23 0
8, 2, 10	3	

4th Count continued

7	1	
14, 12, 26	2	23 30
21, 24, 3, 48	3	
✓		
8	1	
16, 12, 28	2	0 0
24, 24, 6, 54	3	
4		
12	1	
24, 6, 30	2	0 30
36, 12, 0, 48	3	
27	1	
24, 2, 26	2	1 0
5, 8, 45	3	

5th Count 1 Nov 1881

1	3	23 30
3	3	0 0
6	1	
12, 6, 18	2	0 30
15, 12, 1, 31	3	
6, 6		
14	1	
28, 3, 31	2	1 0
42, 6, 48	3	
✓		

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5th Count Continued		
6	1	
12, 13	2	1 30
18, 29	3	
7	1	
14, 31	2	2 0
21, 36	3	
20	1	
40, 41	2	2 30
60, 62	3	
6,6		

6th Count Nov. 15, 1881		
1	1	
2, 3	2	0 30
3, 5	3	
1	1	
2	2	1 0
3	3	
3	2	1 30
6, 8	3	
2	1	
4, 9	2	2 0
6, 19	3	
17	1	
34, 38	2	2 30
51, 59	3	
6,5		
18	1	
36, 38	2	3 0
54, 58	3	
5,		

7th Count Dec. 1, 1881.		
1	1	
2	2	2 0
3	3	
3	1	
6, 15	2	2 30
19, 34	3	
7	1	
14, 27	2	3 0
21, 47	3	
4,		

8th Count, Dec. 15, 1881.		
1	3	2 0
1	1	
2	2	2 30
3, 4	3	
1	1	
2	2	3 0
3, 5	3	
8	1	
16, 33	2	3 30
24, 61	3	
12	1	
24, 38	2	4 0
36, 71	3	
16	1	
32, 50	2	4 30
48, 94	3	
6,		

Additional Stars inserted for suspected variability.

9th Count Jan. 1, 1882.		
1	1	
2	2	0 30
3, 5	3	
1	3	1 0
1	3	1 30
2	3	2 0
1	3	2 30
1	2	3 0
2, 4	3	
1	2	3 30
2	3	
1	2	4 0
2, 8	3	
2	1	
4, 12	2	4 30
22, 55	3	
22	1	
44, 51	2	5 0
66, 80	3	

10th Count Jan 16, 1882		
2	3	4 30
1	1	
2, 6	2	5 0
3, 28	3	
19	1	
38, 54	2	5 30
57, 93	3	
4,		

Next Column

10th Count continued		
11	1	
22, 36	2	6 0
22, 58	3	
19	1	
38, 39	2	6 30
5, 60	3	
4,4		

11th Count Feb. 1. 1882.		
2	3	4 30
1	2	5 0
2, 2	3	
11	3	6 0
8	2	6 30
16, 31	3	
1	1	
2, 4	2	7 0
34, 42	3	
9	1	
18, 35	2	7 30
27, 63	3	
4,		

12th Count Feb. 15, 1882		
1	3	5 30
2	3	6 0
2	3	7 0
2, 4	3	7 30
1	1	
2, 7	2	8 0
3, 32	3	
5,		

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13th Count March 1, 1882

1	3	5 0
1	2	7 0
2	3	
1	1	
2 17 } 19	2	8 30
3 8 4 } 38	3	
23	1	
46 2 } 48	2	9 0
69 4 1 } 74	3	

14 Count March 15, 1882

1	3	8 0
1	1	
2 6 } 8	2	9 30
3 12 14 } 29	3	
10	2	10 0
20 7 } 27	3	

15 Count Apr 1, 1882

1	2	
2 4 } 7	3	11 0
5,		
2	1	
4 11 } 15	2	11 30
6 22 4 } 32	3	
5,		

16th Count Apr 15, 1882

1	3	11 0
1	3	11 30
1	1	
2	2	12 0
3 2 } 5	3	

16th Count Continued

20	1	
40 6 } 46	2	12 30
60 12 0 } 72	3	
4,		

17th Count May 1, 1882

6	3	12 30
1	1	
2 6 } 8	2	13 0
12 7 } 22	3	

18 Count May 15, 1882

1	3	13 0
5	3	13 30
2	1	
4 3 } 7	2	14 0
6 6 9 } 21	3	
4, 5,		

19th Count June 1, 1882

1	2	14 0
2 1 } 3	3	
1	1	
2 13 } 15	2	14 30
3 26 18 } 47	3	
7	1	
14 15 } 29	2	15 0
21 30 2 } 53	3	
5,		

20th Count June 15, 1882

2	3	15 0
20	3	15 30
28	2	16 00
56 8 } 64	3	
5	1	16 30
10 26 } 36	2	16 30
15 32 0 } 47	3	
8	1	
16 13 } 29	2	17 0
24 26 0 } 50	3	

21st Count July 1, 1882

1	2	17 0
2 3 } 5	3	
21	2	
42 13 } 55	3	17 30
4, 4		
3	1	
6 11 } 17	2	18 0
9 22 12 } 43	3	
4	1	
8 6 } 14	2	18 30
12 12 4 } 28	3	
6	1	
12 6 } 18	2	19 0
18 12 1 } 31	3	

22d Count July 15, 1882

1	3	17 0
21	3	17 30
4,		

20th Count. Continued

10	2	18 0
20 5 } 25	3	
4	1	
8 4 } 12	2	18 30
12 8 5 } 25	3	
6	1	
12 6 } 18	2	19 0
18 12 1 } 31	3	

21st Count Sept 15, 1882

8	3	20 to 21
2	2	21 to 22
4	3	
3	2	22 to 23
6	3	
4	1	
8 4 } 12	2	23 to 0
12 8 } 20	3	

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Revision of Remarks
Compared with B.A. Addenda I & II
Included B.A.C. 2' & 2" in numbers.
Mrs "Boyd" letter = B.A.C. marked "Boyd".
Castle = Robinson, pg stars not = B.A.C.
III: I included from Rolleston

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Progress of checking Meridian Photometer Observations.

Residuals of the Upper Culmination Stars checked and corrected. This completes from Star 3088 (Blue 79/30) 19hrs to Star 454 (Blue 12/63) 2hrs inclusive. All observations preceding 3.794 of Blue stars between 3hrs & 18hrs are checked but they are to be observed further. (28 Dec. 1881 - a.m.c.)

The checking of all the stars (white) between 0h and 24h again checked - this refers to the original magnitude and after applying the Pole star correction. The following stars are exceptions as their original sheets are missing viz — 123 (0hrs), 2661 (16hrs), 2901, 2961, 2992 (18hrs) & 3971 (23hrs.). (28 Dec. 1881, - a.m.c.)

Residuals of Upper Culmination stars checked and entered in "Copy of Ledgers of M.C". This includes from Star 481 (Blue 13/64) 3h to star 1410 (Blue 32/83) 7h
(10 March 1882 - a.m.c.)

Residuals of Upper Culminations on sheets marked "Copy of Ledgers of Upper Culmination", betwn 19h and 12h checked
(16 May 1882 - a.m.c.)

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Additional Remarks.

To be inserted in Part I in numbers following Catalogue.

p ε 131,2 Σ 6.0 6.0. Components assumed to be equal in authority of Σ, ~~true~~ Each will then be 0.7 fainter than their combined magnitude.

p ε 472,3 Σ 5.7 6.0 Not clear & measured with Micr. H A difference in the components of 0.3 was therefore assumed for Σ

p ε 490.1 Σ 6.0 6.0 Not clear & measured with Micr H A difference in the components of 0.3 was therefore assumed for Σ

See page 135 1521.3 Visible Σ. A 5.0, B 5.7 C 5.5 Diff Mags CB and CA 0.7

See p 135 3215.6 Diff in magnitude assumed to be 0.4. In Vol XI Meas. of ~~gave~~ gave 1.4, but this is probably due to variability since many intermediate Meas. allowed give smaller diff. 0.4

omit 3747. Double. Color of component accordingly to Struve's Lilac.

p omit 717,8 In Lewis M. 596. 717 6.9 718 6.1

p omit 1100 M 55 gives 3.0 First reading 76.8 evidently wrong. Set accordingly rejected

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Comet – Part II

1325. h 81 large h 378 clouds?

ε 1311. Resembles a comet of its nucleus & spectrum which consists mainly of 3 bright bands

ε 1220,1 A third star magnitude S.E.

ε 2112. Large for

ε 1275. On account of the brightness of this star, eye attended by its light has little value

ε m 55 (? H.P.51?) 8.5 = D.m. Beyond limits of Cattle.

~~1281 5½ = U.a. Cam = F.~~

ε ~~1435 ? = U.a. " "~~

ε 1684 6 = U.m. 6 = Hind F = F.

ε 2506 5 U.m. 5.6 = U.a. Var = F.

2543 6.5 D.m.

2544

ε 2663 7.9 D.m. Beyond limits of Cattle

ε 3494 8.3 D.m. Beyond limits of Cattle

ε 3588 8.2 " " " " "

ε 3559 7.5 U.a. " " " "

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The following stars still require measures with Phot. H in order that their residuals may be fully entered correctly.

ε	717,8	8.5, 7.5 = D.M.	7.2, 6.5 = U.A.
ε	2037.40	7.3, 7.5 D.M.	
ε	2234,5	6.5 .63 D.M.	
ε	2257.2	6.7, 7.7. D.M	6.5, 7.1 = U.A.
ε	3357,8	4.2 6.4 D.M	

169, 170. Diff. magn. stained by Phot. H. Vol. XI.
199, 200. " " " " " " Vol. XI.
291, 292. " " " " " " Vol. XI.
320, 321. " " " " " " Vol. XI
324, 325. " " " " " " Vol. XI.

ε H.P. 2840 comes from Houzeau; not in D.M.
ε 2938 " " U.M. ; " " "

3041 has been marked R in magn. col. left hand page.

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omit: 1294. See 87, 198. Contents entered with photH
.6 .6 .8 .7 Mean .68 Result 1110

Reasons for intensity of rooms for Clerks.

35 Stars. 338.

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131, 132	ε	Comb. 5.6; diff. from	— ε	~~2249, (2246)~~	Comb. ~~5.0~~,	diff. from	
169, 170	ε	5.0	Vol. XI. p. 145	(2251), 2252	ε	5.8	Table XXV. p. 91
199, 200	ε	5.0	Vol. XI. p. 145	2264, 2265	ε	2.4	Vol. XI. p. 149
291, 292	ε	4.3	Vol. XI. p. 145	2273, 2274	ε	6.0	Table XXV. p. 91
320, 321	ε	4.0	Vol. XI. p. 145	(2405), 2406	ε	5.9	Table XXV. p. 91
324, 325	ε	2.1	Vol. XI. p. 145	2449, 2450	ε	4.6	Vol. XI. p. 149
410, 411	ε	6.1	Table XXV p. 91	2452, 2453	ε	3.8	ε —
472, 473	ε	4.6	— ε	2559, 2560	ε	5.0	ε —
490, 491	ε	5.3	— ε	2590, 2591	ε	4.0	Vol. XI. p. 151
644, 645	ε	4.8	Vol. XI. p. 147	2614, 2615	ε	4.8	Vol. XI. p. 151
(674), 675	ε	5.8	Table XXV. p. 91	2688, 2689	ε	4.1	—
717, 718	ε	6.0	Table XXV. p. 91	2690, 2691	ε	2.9	Vol. XI. p. 151
(885), 886	ε	4.7	Vol. XI. p. 147	2706, 2707	ε	4.8	Vol. XI. p. 151
1019, 1020	ε	3.5	Vol. XI. p. 147	2755, 2756	ε	4.8	Table XXV. p. 91
1045, 1046	ε	1.9	Vol. XI. p. 147	2794, 2795	ε	5.2	Vol. XI. p. 151
1220, 1221	ε	3.9	Vol. XI. p. 147	2865, 2866	ε	5.2	Vol. XI. p. 151
1267, 1268	ε	5.5	—	2914, 2915	ε	4.1	Vol. XI. p. 151
1423, 1424	ε	1.6	Vol. XI. p. 149	2967, 2968	ε	5.8	Table XXV. p. 91
1445, 1446	ε	3.9	Vol. XI. p. 149	2985, 2986	ε	4.5	Vol. XI. p. 151
1521, 1522, 1523	ε	4.7	(Vol. XI. p. 149 b)	3026, 3027	ε	4.6	Vol. XI. p. 151
1811, 1812	ε	3.6	Vol. XI. p. 149	3028, 3029	ε	4.9	—
1823, 1824	ε	2.2	Vol. XI. p. 149	3049, 3050	ε	5.2	Table XXV p. 91
1959, 1960	ε	3.8	Vol. XI. p. 149	3071, 3072	ε	5.2	Table XXV. p. 91
2039, 2040	ε	5.8	Table XXV p. 91	3167, 3168	ε	4.6	Vol. XI. p. 151
2116, 2117	ε	5.2	Vol. XI. p. 149	3169, 3170	ε	4.6	Vol. XI. p. 151
2155, 2156	ε	2.8	Vol. XI. p. 149	3215, 3216	ε	4.1	Vol. XI. p. 153
(2182, 2183)	ε	(5.5)	Table XXV. p. 91	(3280), 3281	ε	6.7 6	Table XXV. p. 91
2188, 2189	ε	5.0	Vol. XI. p. 149	(3357), 3358	ε	4.4	Table XXV. p. 91
2195, 2196	ε	3.0	Vol. XI. p. 149	3362, 3363	ε	3.0	Vol. XI. p. 153
2226, 2227	ε	4.4	ε —	3410, 3411	ε	5.5	Table XXV. p. 91
2234, (2235)	ε	~~6.1~~	Table XXV p. 91	(3493), 3494	ε	6.1	Table XXV. p. 91

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3553 (3554) Lamb. 3.3 ; diff. from Vol. XI. p. 153
3588, (3589) " 6.2 Table XXV p. 91
3645, 3646 " 4.2 Vol. XI. p. 153
3717, 3718 " 5.1 Vol. XI. p. 153
(3768) 3769 " 6.2 Table XXV. p. 91
~~3774~~, (3775) " 5.6 Table XXV. p. 91
3840, 3841 " 4.4 Vol. XI. p. 153
(3882), 3883 " 5.6 Table XXV. p. 91
3970, 3971 " 3.8 Vol. XI. p. 153
3981, 3982 " ~~3.9~~ Vol. XI. p. 153
4239, 4240 " 5.8 Σ

h		n		c	
409	78 Ceti	492	10 Eridani	1492 δ	155 +85° Ursa
640	43 Arietis	~~1492~~			259 τ Andr.
1079	dub 7h	1864	49 Leo.		486 ρ Cass
		1867	Hydra		2565 Tauri
					897 Sept
					1468 b 7

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Special remarks.

1521–1523 ζ Coronæ Triple.

3215–3216 ι Scorpii. Numerous nebulæ Rect. H. Sm. 12ᵍ

2506 δ Libræ.
β Ursæ
ζ Tauri

213 Blanks.

207 Remarks written. Regard to be examined shewing large proper motion
Binaries.

2 Var? to be examined.

~~23 m?~~

35 Why inserted δ m

~~33 c?~~

~~39 c?~~

~~48 p?~~

~~57 m?~~

~~63 m?~~

~~81 c?~~

~~137 c = 70!~~

142 c? Br. line in spectrum.

155 c?

157 m?

259 c? Neb. also!

409 h?

~~462 h? 44~~

484 c?

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8

492 n?
565 c?
✓ 594 c? — Wolff - 8
✓ 598 c?
~~630 t?~~ U. A. c
643 h?
✓ 735 c?
807 808 Residuals in h 5, 2?
✓ 870 c?
897 c?
1005 c? v in Heis.
1079 h? dupl. Flamsteed no.
1104 hy?
~~1203 h?~~
1213 e? } Additional Observations?
1292 e? }
1321 (Old no. 1249). What star was observed in P 631.
✓ 1334 c? var. in Hh D.
✓ 1349 c? Wolff? -13
1448 c? B.F.?
✓ 1461 c? Bayer?
1492 t? ~~2~~ δ Cr not = Bond R76
✓ 1584 c?
✓ 1784 c?
1864 n? U.A.?
1867 n? U.A.?
✓ 1925 c? Wolff +9
1933 f? not Sem. δ
J 2094, 2100 c? Harvard?
2147 f? R Vir In Heis P 150, mag. 5.8 mean but not identified
2151 f? Region shows nebulosity.

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✓ 2191 c? Wolff

✓ 2228, 2229 e? Ark J.R.E. 2079. & 659 whom 6 stars

2240 ? p. 267 referred to in A_2. 2y. U.A. p. 267?

2251, 2252 p? 2y 7.

2264, 2265 & Urs. Maj., general note.

2275 p? R. Hydrae.

2289 p? S Virginis.

~~2346, 2347 c? double?~~

✓ 2940 Ark J.R.E. 660 not ds. = this seems read 675

✓ 3309 = 3290 = ε 672 Cyg.? yes.

✓ 2705 = 2543 = ε 667 Ds yes.

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Lectures still to be accounted for.

n

492 instead n

1 1864 vdw δn

1 1867. vdw n δn substitg

c

155

259

565

897

1005 v c Hers

1334 v c H and D

1448 δ

2240

2432

2813 n-c v810c

3209

p

2275 2143 van

2289 2157 van.

3049-50 2862 ah 300° 4 ftr.

3357-8 3125 ah. 260° 2½ ftr.

247 R Vir.

2151 ?

3557 R Cyni

r

1492 δr nth δr

3308 3307 = Bn 491 dth δr

m

157 why included? δn

2543 " " δn. ab-bound.

h

409 78 v Celg 5 II δh ° for 68 Cet

643 43 A Leon 3 IV δh

1079 Dsh Fl. 2 δh

1104 37 Leon 1 IV δh

e

1213 e wound.

4096. [illegible] removed from h. no explanation

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Why were the following stars included?

35

157

~~2543~~

~~2837 R c Phot 2 D.~~

~~2840 var.~~

~~3849~~

2543 R c Phot 2 D. not observed.

2837 var.

2840

3849

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Large Proper Motions.

			H.P.			
ε	Groombridge 1830	7.0	2034			
ε	61 Cygni	5.2	3717-8	+5.36	+3.2 / 3.2	B.A.C. Bess.
	Lal. 21185	4.7	—			
	ε Indi	4.5	—			
	Lal. 21258	4.4	—			
ε	0² Eridani	4.1	721	-5.15	-3.4	Oel XII
ε	μ Cassiop.	3.8	175	+5.39	-1.6	Oel XII
	α Centauri	3.7	—			

Binary Stars

42 Com. Beren.	26	~~2226,7~~	2226,7
ξ Herculis	35	~~[illegible]~~	2807
δ Equulei	~~14~~	~~[illegible]~~	3735
Aqu. Lacr.	~~37~~	~~[illegible]~~	—
η Cor. Bor.	40	~~[illegible]~~	2554
22 1 Ophiuchi		~~2829~~	2929
α Can. Maj.			1275
γ Cor. Aus.			—
ξ Urs. Maj			1959
ξ Canem			1521
α Centauri			—

Parallax

	α Centauri	0"78	01
✓	61 Cygni	0.48	Hall ±.014
✓	α Lyrae	0.18	" ±.006
✓	α Can Maj	0.38	Gill.

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1884 March 18. Sent to printers pp. 1–12 of copy for Remarks.

C Note will be required on 3311. "c". Examine magn. of Hammering & change rem. if needed.

C Nos 155, 259. Notes at printing office. To be examined when proof comes.

C No. 274. Note to be inserted; copy at printers.

C No. 3347. Resid. F. should be examined.

E No. 2. Residuals; in P 15, 15; in B, 13; in G, 16; in h, 12.
See Part II, Chapter IV (?)

C 3629. Strike out h in Column Rem.

E No. 94, ~~103~~ In Seris E 427 109 & 105 adopted for 109 & 155
E 103 In Seris E 634 60 – 60 adopted for 60 – 62
E 106 Residuals = P 17.
E 112 " " S 11
✓ 3527-8 ~~P = S 4~~
✓ 3537-8 ~~P = S 3~~
E Note = Star 2
? E 104 ~~In Seris E~~ At home culminate = Seris E P 137, Seris E, ii
E 200 Resident = E
~~401 Resident = Seris P 580, 14 checked~~
E 9 At-home culmin. resident in Seris P. 143.
E 219 At-home culmin resident = Seris P 151, 25.

E 92 Spectrum contains faint resolvable bands. S.
~~E~~ 142 Spectrum contains a bright line at F. S.

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ε 150 Spectrum seems to be banded. S.

ε 183 See that η Ceti is not marked III. S.

? 71 Ag-lone culmination united in ε 635, "

ε 71 Resided = ε 635, "

ε 103 Resided = ε 635

175. This star has a proper motion of −0.s39 in right ascension, and −1.″6 in declination.

120 Binary, period 222 years according to Dobrecke.

~~142~~ " " 349 " " " "

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Stars requiring additional Observations.
to be mentioned Part II Chapter IV.

2 Identify stars observed with the meridian photometers.

~~307~~
307 Examine region for star probably observed by various Observers.

393 Two observations only obtained.

2M.+33°851 ≦ 533, 6.0, 7.5. Supposed to be δ Tauri; hence escaped observation.

946 } Houzeau calls the visible star 17 Aurigae, Magn. 5.
17 Aurigae } Observe both.

1141 Given by Behrmann; not seen

1228, 1240. Var?

1273 Given by Behrmann; not seen.

1630 Not to be observed
To be mentioned in Part II.

1778 See if Lacaille's star exists.

2112

2151 Identify star previously observed.

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Work to be done on Notes to H.P.

C Residuals corresponding to ~~E~~ e and ~~F~~ f.

C Entered 3150 4260 ~~omitted 3950–4100~~

C Combined magn. & pairs of stars; ~~omitted~~

C 1st Roman.

C Completed ~~3000, omitted 1–300~~ 4260 ~~omitted 3950–4100~~

C 2d " Italic.

C Completed

Remarks on known variables.

C Remarks on Spectra. R76.

C ~~complete 4–16~~.

Miscellaneous remarks.

Webb. Cel. Obj.

C Look to see if there is a remark when R occurs.

C Completed 3250 ~~omitted~~ Stars ~~51~~, 54, 101, 104 242 4260 ~~omitted 3950–4100~~ var var nebs Hazel. Eskr.

C Remarks ~~H~~ continued with original

C Complete ~~omitted 1–300~~

C Remarks E continued with original.

C Complete ~~omitted 1–300~~, 1752 var, ~~1899~~–2346,

C Residuals b and f entered from Table XXVIII

C Complete ~~401~~–1474

C Residuals b and f entered from Table XXIX

C Complete except 1–300 which are entered as 142

C Confirm remarks E to be if O.S. is always designated in remarks

C Complete from ~~301~~ 3700

C Residual remarks .9 entered in Table from card punch and E of letter for remarks. 4260

C Complete from ~~301~~–3150 ~~omitted~~ 1050, H 2115, H 2555, H 2677, H 2854, H 3092

See p. 148

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Nebs. and Clusters.

C	101	Androm.	0	36.2	+40	M116,117	M31,32
	242	Tri	1	27	+30	M35	M33
?	362	Peck.	2	10	+56	C 512 ~~512 521~~	
?	372	"		13	+56.	C 521	
C	426	"		35	+42	C 584	M34
	673	Camel.	3	58	+62	~~Pyc 50~~ neb ⊂ Gr. C.	
C	1138	Lyn	6	1	+24	C 1360	M35
	1206	Monoc.	6	19	+11	neb ⊂ Gr. C.	
	1274	Aurig.	6	39	+41	~~Pyc 1451~~ neb ⊂ Gr. C.	
C	1281	Cam. Maj		40	−20	C 1454	M41
C	1528	Monoc.	8	7	−5	C 1637	
C	1592	Can	c	8 33	+20	C 1681	M44
C	1617	Can	n	8 45	+12	C 1712	M67
	2075	C.V.	c	12 9	+47	— neb ⊂ Gr. C.	
	2138	C.V.	c	12 29	+37	— neb ⊂ Gr. C.	
C	2216	C.V.	n	13 37	+29	C 3636	M3
	2663	Serp.		15 50	+9	— neb ⊂ Gr. C.	
C	2809	Herc.	n	16 37	+36	C 4230	M13
C	2892	Herc.	n	17 13	+43	C 4294	M92
	2973	Oph.	c	17 40	+5	— neb ⊂ Gr. C.	
C	3078	Sagitt	c	18 11	−18	C 4397	M24
C	3117	Oph.	c	18 22	+6	C 4410	—
C	3791	Pegasus	n	21 24	+11	C 4670	M15
C	3797	Cygnus	n	21 27	+48	C 4681	M39
C		Orion		5 29	−5	N 1179	M42

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Additional Remarks from Wolb.

	R.A.		
	Sirius	6 40	
✓	γ Androm.	1 57	
✓	Nebl. Androm.	0 38	
✓	Algenib	8 36	
✓	Polaris	0 19	
2 obs	Cassiop. Var.	0 5m	
	o Ceti		
	α Scuti	18 41	
	Herculis Neb.	18 14	
	ζ Cor Bor.	15 18	Bri
	ζ Cor Bor.	15 54	
	β Cygni	19 26	
61	61 Cygni	21 1	
	Nova Cygni	21 37	
	ζ Antigua		
	α Serpentis	7 27	
	η Aquil.	6 8	Wollaston & Spectral Sc
	Cluster in Hercules		H I 2809
	" "		2892
	α Leporis.	4 54	V. red.
	61 Cygni		
	Nova Ophi.	17 28	Nova
	Neb. Anon.	5 29	
	Cluster Pegasus	2 11	
	ζ Serpentis	18 50	
	Pleiades Nebula		
	ζ Ursa Maj.	13 19	
	γ Virginis	12 36	

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Remks.

All binaries contained in A.A.S. 12 and 8 Equatorials
have been entered in remks.
All proper motions exceeding 3".7 have been entered See p. 440
Parallax of 61 Cygni to be entered

Counter to Cost Keys.

An important clue comes to index of eye-lines
runs 440 pp. principally. Chart 5 pp. 12–17.

A. Observations only
B. Identifications only
C. Observ. & ids.
D. Stars not seen

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Additional Observations.

			h	m	°	′		
✓	2		0	1.6	− 23	11	7.3	B
✓	307		1	53.5	− 26	53	6.8	BC
✓	293						6.3	a
	946					33 37	5.3	C
✓	1141					− 20 58	F	D
✓	1228				+ 26.0	− 27 41	5.7	C
2 ✓	1240				6 28.1	− 27 51	5.7	C
✓	1273				6 39.6	− 30 4	F	D
	1321	(1383) (1309) not = H.P. 3 Stars only?						
	1630	?	8	49.4	+ 12	6	5.7	
	1684 (1585)		9	13.4	− 23	58	F	D
P-II	1778	Sw if Lacaille star exists	9	52.7	− 24	34	6.7	B.
✓	2112		12	21.7	+ 42	2	7.4	BC
	2157		12	33.0	− 28	53	F	D
	2182.3	No drawn.	12	46.2	+ 17	44	−	a
			12	46.4	+ 17	46	−	a
	2239		13	8.9	+ 67	57	−	a
	2543	No drawn.	15	13.2	+ 27	17	−	a
	~~2770~~ 2784	?	16	23.0	− 14	17	5.8	
			16	29.5	− 1	23	7	
	2823		16	44.4	+ 55	37	6.8	B.
	2840	h 5.6 not seen	16	53.0	+ 0	29	−	D
	2938	Not = D m	17	27.7	+ 18	50	−	C
	~~3011-12~~	?	~~17~~	~~54.1~~	~~− 22~~	~~47~~	~~5.8~~	
			17	54.2	− 22	43	6.5	
	3041	Adjoint star drawn by middle	18	1.0	+ 48	28	7.0	a
	3604		20	31.4	+ 79	48	7.4	C
	~~3884~~	?	21	54.9	+ 0	2	~~5.8~~	
	3215.6	I Suspect by Ch XI.						

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Additional Observations.

			h m	° ′		
✓	2		0 1.6	− 23 11	7.3	B
✓	307	M-2	1 53.5	− 26 53	6.8	BC
✓	393 Two dist. only	M-2	2 24.4	− 23 13	6.3	a
		M-2	[illegible]			
	946 Lg. 17 Antlipse		5 11.1	+ 33 37	5.3	C
✓	1141 Bohm, not seen.		6 2.5	− 20 58	F	D
✓	1228 (1166)		6 26.0	− 27 41	5.7	C
2 ✓	1240 (1176)		6 28.1	− 27 51	5.7	C
✓	1273 Bohm, not seen.		6 39.6	− 30 4	F	D
✓	1321 (1243) (1383) (1309) not = H.P. is Star wrong?					D=3.5m
	1630 ?		8 49.4	+ 12 6	5.7	
	1684 (1585)		9 13.4	− 23 58	F	D=2.6m
M-II	1778 See if Lacaille star exists		9 52.7	− 24 34	6.7	b.
✓	2112 a		12 21.7	+ 42 2	7.4	a=C
	2157		12 33.0	− 28 53	F	D
	2182,3 No doubles.		12 46.2	+ 17 44	−	a
			12 46.4	+ 17 46	−	a
	2239		13 8.9	+ 67 57	−	a
	2543 No double.		15 13.2	+ 27 17	−	a
	2784 ?		16 23.0	− 14 17	5.8	
			16 29.4	− 1 25		
	2823		16 44.4	+ 55 37	6.8	b.
	2840 h 5.6 not seen		16 53.0	+ 0 29	−	D
	2938 Not = D.M.		17 27.7	+ 18 50	−	C
	3011-12 ?		17 54.1	− 22 47	5.8	
			17 54.2	− 22 43	6.5	
	3041 Adjoint star seemed by middle		18 1.0	+ 48 28	7.0	a
	3604		20 31.4	+ 79 48	7.4	C
	3884 ?		21 54.9	+ 0 2	5.8	
	3215.6 2 Sculptoris Ch. XI.					

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Comding to printed catalogue 6-h

mode = Bessel = Distribution of Stars

✓	2559-60	Br.	remove	1	
✓	2588	"	insert	1	
✓	3767	H	for	6 read	2
✓	1539	U	"	4 "	6
Double ✓	2039 }	p	"	2 "	8
	2040 }				
✓ " "	3280-1	U	"	6 "	8
✓ "		H	"	6 "	8
✓ "	3218	P	remove	1	
✓ "	"	S	"	0	
✓ "	3866	G	for	6 read	2
✓ "	4832	G	remove	0	
✓ "	1245	D	for	2 read	+8
✓ "	2813	D	"	0 read	+2
✓	799	H	"	1 "	7+3
✓	2328	S	remove	6	
Southern star.	4057	H	for	4 read	5
✓	2191	W	for	1 read	1
✓	4232	G	remove	1	find this is a northern star.
✓	4096	h	remove	6	
✓	3924	l	remove	6	
✓	"	S	"	6	
✓	4050	P	"	6	
✓	"	S	"	6	
✓	2460	h		2	a = 6.0
Summary changed ✓	1319	B		5	a, 6.5
" " ✓	2884	B		8	C, 5.0
" " ✓	3920	B		2	C, = 6.0
✓	2057	pn		1	C 6
✓	2916	pn		2	D 6
✓	2949	pn		1	D 6

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Large middle checked by putting slip containing all middle 79 in empty tin. Then read & filling counting back from 2150 2869 from 3 to 5 among 4 diff entries 4076 to 6

Hb.

✓ 82. Hb L for O mod 7

✓ 114. " " O " 4

✓ 406 " " 8 " 1

753 " " 8 " 1

Double. 2039-40 DE for 2, 1 mod 4 3

" " D " 97 " 75

2460. Resid 2 removed from L column, in right hand pages. ~ carry changes through

4231
4232
4233
} changes made in resids, right hand pages. ~ carry changes through.

Standards collect ~ marks.
Complete ~ 1500

Reference ~ pp 81, 82
Complete ~ 1500

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Photos missing from estimates of work of
nebs with x. keys of catalogue and copying titles

735 δc
750 δe ?
753 [illegible] e?
785 δp ?
799 ?c
8702δc ?
897 δc ?

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Stars whose variability may be suspected
Jan mid. = Calleyn

~~2207~~
1253
1312
1455
1541
2160
2207

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Corrections for cast proof.

S P. 91 W x W x

S 93.4 For 5.6 read 5.4

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Corrections to be added at end of Part II.

71. At Lone calmia F. 656. 2 61 - 61
omitted 10, putting 6 61 - 61 not intended.

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Observations to be made for Chapter XI.

1240 is said to have a companion 300° 7 in mer. phot. ~~See if~~ (also 0° 4 suspected).
See if 1228 has such companions with equat.
Observed ② 162

1273 from Behrmann (no catalogue). Not seen in mer. phot.
Observed ② 163 ~~Look for stars in region~~

1321 Lacaille's place probably wrong. Look for star, and make remark on Series P 636, seen in about right place, but too faint to observe.
See if it precedes or follows 1320.
Observed ② 163.

1630. ~~Compare with field glass with adjacent stars~~ for magnitude. Series P 410 rejected because two readings were in same quadrant.

1684 = Gould 1051. See if any bright stars near. Gould 801 p. 3m, 1p. 938 1½, 4s.
Observed ② Jan. 18

1776. Look for Lacaille 4087.
Observed ② 163.

2938. Ld. 31992 Not in D.M. to be observed for magnitude with field-glass; 3 nights. × Look with equat. for faint star.

3222. Observe with field glass.

3604. Observe with field glass.

2. Observe region with E. Equatorial Observed

307. Identify Lacaille 589 and ~~.~~ 3702, Now 20
See Gould 1333, 1341, 1364, 1406, 1447, 1465, Stone 794, Gould 1447, Gould 1406

1141. Look for this with ~~field-glass~~ equatorial. (6)162 Behrmann's star is probably B.A. Zones, 91 which wants obs. with mer. phot. Observed ②

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