

KG
11365
351

Stars to be observed
with - East. Transit
Rt + Decl 1868 1870

Stars to be observed with
East. Transit

J. L. Fairbanks, Stationer, 135 Washington Street, Boston.

KG-11365.351

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Unlettered

Record Book

received from

Waterville in

May 1897

Prof Seave says

belongs to Series

O+ to call it O₂₀

and May 24 1897 | 20

KA 11365.351

or instead of work on
the next page

$$\alpha = T + \Delta T + m + n \tan \delta + c \sec \delta$$

$$= T + c (\sec \delta - \tan \delta - 1)$$

$$+ \Delta T + (c + m)$$

$$+ (c + n) \tan \delta$$

$$= T + Cc + (\Delta T + m') + n' \tan \delta$$

$$C = \sec \delta - \tan \delta - 1$$

$$m' = 1.354 b + 1.912 c - .912 n'$$

for Cambridge.



The formula for the correction of transit obsns. may be written

$$\alpha = T + \Delta T + b \sec \varphi + c (C_0 + \tan \varphi) + (c + n) (N_0 - \tan \varphi) + c (\sec \delta - \tan \delta - C_0) + (c + n) (\tan \delta - N_0)$$

C_0, N_0 being arbitrary constants.

Taking $C_0 = 1$ $N_0 = 0$

and putting $n' = c + n$

$$m' = c + m =$$

$$b \sec \varphi + c (1 + \tan \varphi) - n' \tan \varphi =$$

$$1.354 b + 1.912 c - .912 n' \text{ for Cambridge}$$

we have

$$\alpha = T + Cc + (\Delta T + m') + n' \tan \delta$$

in which $C = \sec \delta - \tan \delta - 1 = \tan(45^\circ - \frac{1}{2} \delta) - 1$

For obtaining $\Delta T + m'$, and n' ,
from the Almanac stars;

$$(\Delta T + m') + n' \tan \delta = \alpha - (T + Cc)$$

The following table gives the value of C
for argument δ .

δ	C	δ	C
-40	+1.145	-20	+428
	1.097		402
	1.050		376
	1.006		351
	963		327
-35	921	-15	303
	881		280
	842		257
	804		235
	767		213
-30	732	-10	192
	698		171
	664		150
	632		130
	600		111
-25	570	-5	091
	540		072
	511		054
	483		036
	455		+018
-20	+428	0	000

δ	C	δ	C
0	000	+20	-300
	-017		313
	034		325
	051		338
	067		351
+5	084	+25	363
	100		375
	115		387
	131		399
	146		411
+10	161	+30	423
	176		434
	190		446
	205		457
	219		468
+15	233	+35	479
	246		490
	260		501
	273		512
	287		523
+20	-300	+40	-534

δ	C
+ 40	- 534
	544
	555
	565
	576
+ 45	586
	596
	606
	616
	626
+ 50	636
	646
	656
	665
	675
+ 55	685
	694
	704
	713
	723
+ 60	- 732

δ	C
+ 60	- 732
	741
	751
	760
	769
+ 65	778
	787
	797
	806
	815
+ 70	824
	833
	842
	851
	859
+ 75	868
	877
	886
	895
	904
+ 80	- 913

δ	C	δ	C
+80	-913	+100	-1.087
	921		1.096
	930		1.105
	939		1.114
	948		1.123
+85	956	+105	1.132
	965		1.141
	974		1.149
	983		1.158
	991		1.167
+90	1.000	+110	1.176
	1.009		1.185
	1.017		1.194
	1.026		1.203
	1.035		1.213
+95	1.044	+125	1.222
	1.052		1.231
	1.061		1.240
	1.070		1.249
	1.079		1.259
+100	-1.087	+120	-1.268

List of stars to be
(Pulkova)

Star	α	1868	δ
(α Androm) S	PO	1 31	+ 28 22
		.001	
1 22 Androm	7 3	25	+ 45 20
		.002	
4 Drac. L.C.	5	59	101 39
		.004	
(γ Pegasi) S	P	6 26	+ 14 27
		1.2 .004	1.2
2 35 Piscum	8	10	+ 8 5
		.006	3
3 δ Androm	10	18	+ 37 57
		.007	4
4 ϵ beti S	DP	12 42	- 9 33
		.009	
5 ϵ Sculptoris	14	53	- 29 43
		.010	
6 12 Cassio	17	32	+ 61 6
		.012	5
7 α Phaenico	19	45	- 43 1
		.014	
8 B.A.C. 103	21	23	- 33 44
		.015	
9 12 beti	23	18	- 4 41
		.016	6
10 (κ Cassio) S	P	25 32	+ 62 12
		.018	
(κ Drac. L.C.)	27	50	109 29
		.019	
11 13 beti	28	27	- 4 19
		.020	
12 B.A.C. 160 = PO	130 30	34	- 25 30
		.021	
(α Cassio) S	P	33 2	+ 55 49
		.023	
13 ζ Cassio	34	42	+ 49 48
		.024	
(β beti) S	36	58	- 18 43
		.026	
21 Cassio UC	36	59	+ 74 16
		.026	

observed with E. Transit.

Mag.	Setting	sec ²	sec ²	C	tan δ
2	¹⁴ 284.1	¹ +1.29	¹ +61	1.136 - 40	+54
5	^{357.3} 267	3-		1.422 - 59	+1.01
4.5	210	45		-4.953 - 1.10	-4.85
2.3	^{27.55} 297	⁵⁵ +1.07	⁺²⁷	1.032 - 22	+26
6	^{34.17} 304	17		1.010 - 13	+14
5	^{4.26} 274	26		1.268 - 51	+78
4	321	55		1.014 + 18	-17
5	^{72.3} 342	3		1.152 + 73	-57
5.6	^{34.17} 251	17		2.070 - 74	+1.81
2	355	13		1.368 + 1.30	-93
5	^{76.3} 346	3		1.202 + 87	-67
6	^{47.3} 317	3		1.003 + 09	-08
4	250	11	+4.60 + 4.07	2.144 - 75	+1.90
3.4	⁵⁰ 202	⁵⁶ +8.99	^{+8.49}	~~2.998~~ - 1.17	-2.83
6	^{46.41} 316	41		1.003 + 08	-08
6	^{67.50} 337	50		1.108 + 58	-48
var	^{34.6.34} 256	34	+3.17 + 2.62	1.779 - 69	+1.47
5.6	^{252.36} 262	36		1.549 - 63	+1.18
2	^{61.4} 331	4	+1.12 - .36	1.056 + 40	-34
6	238	7		3.688 - 86	+3.55

No	Star	α	1868	δ
		<i>Fraction of day</i>		
14	BAC 205	0 38 40	-5	21
		.027		
15	ζ Androm S	P 40 21	+23	33
7	γ Androm	DP.028 41		8
16	ν Androm	42 32	+40	22
		.030		
17	BAC 237	44 30	+2	40-9
		.031		
18	20 beti	46 15	-1	52
		.032		
	32 Cam. foll LC	48 11	95	52
		.033		
19	(γ Cassiope)	P 48 45	+60	0
		DP.034 49		
20	h Piscium	50 42	+28	17
		.035		10
21	α Sculptoris	52 15	-30	4
		.036		
22	W O 1371	54 35	+24	35
		.038		
	(ϵ Piscium)	P 56 6	+7	11
		.039		
23	(μ Cassiope)	0 59 23	+54	17
		.041		11, 12, 13
24	(β Androm)	1 2 21	+34	55
		.043		14, 15
25	χ Piscium	4 22	+20	20
		.045		16
26	BAC 362	6 8	-31	30
		.046		17
27	37 beti	7 45	-8	38
		.047		18
28	39 beti	9 54	-3	12
		.049		
	Polaris UC	10 36	+88	36
		.049		
29	ϕ Cassiope	11 48	+57	32
		.050		19
30	ξ Androm	14 35	+44	50
		.052		

Mag	Setting	sec ² d	sec stand	sec ✓	C	tan δ
	47.43					
6	317 43			* 1.005	+10	* -09
	18.50					
4	288 50			* 1.091	-35	* +44
	2.1					
4	272 1			* 1.313	-54	* +85
	39.42					
6	309 42			* 1.001	-04	* +05
	44.14					
5	314 14			* 1.001	+03	* -03
4.5	216 32			* ~~9783~~	-1.05	* -9.73
3	252 23	+4.00	+3.46	* 2.000	-73	* +1.73
	14.6					
6	284 6			* 1.136	-40	* +54
	72.24					
5	342 24			* 1.156	+74	* -58
	17.48					
6.7	287 48			* 1.099	-36	* +46
	35.12					
4	305 12	+1.02	+1.13	* 1.008	-11	* +13
	48.6					
5.6	258 6	+2.93	+2.38	* 1.713	-68	* +1.39
	7.28					
2	277 28	+1.49	+85	* 1.220	-48	* +70
	22.3					
5	292 3			* 1.066	-30	* +37
	73.49					
6	343 49			* 1.173	+78	* -61
	51.0					
5.6	321 0			* 1.012	+16	* -15
	45.33					
6	315 33			* 1.001	+06	* -06
2	223 48			* 4.125	-99.	* +40.92
	344.51			40.930		
5.6	254 51			* 1.863	-71	* +1.57
	357.33					
4.5	267 33			* 1.410	-58	* +99

No	Star	α	1868	δ	57-15
	(δ beti)	Fraction of day		42 230	
		1 17 26	- 8	52	
31	ω Androm	.054 19 45	+ 44	43	
(32 rej.)	<u>A Cassiopea</u>	.055 21 27	+ 69	35	21
33	A Androm	.057 22 12	+ 46	20	
	(η Piscium)	.057 24 25	+ 14	40	2222
34	BAC 466	.059 27 1	- 37	33	
35	(ν Persei)	.060 29 54	+ 47	58	
36	τ Androm	.062 32 48	+ 39	54	
37	ν Piscium	.064 34 34	+ 4	49	
38	BAC 527	.066 36 11	- 33	0	
	(ϕ Piscium)	.067 38 26	+ 8	30	23
39	BAC 544	.068 40 57	+ 37	18	24
40	χ beti	.070 43 6	- 11	20	25
41	ζ beti	.072 44 57	- 10	59	
	(β Arietis)	.073 47 21	+ 20	10	26
42	λ Arietis	.075 50 34	+ 22	57	27
	(50 Cass. UC)	.077 52 13	+ 71	47	
43	BAC 607	.078 52 16	+ 20	25	
44	ν beti	.078 53 47	- 21	43	28
45	(γ Androm)	.079 55 48	+ 41	42	29

Mag	Setting	sec ² d	sec ² d	sec	C	tan δ
3	11-113					
3	321 13	+1.03	-16	1.013	+17	-16
	357.39					
5	267 39			1.407	-58	+99
6	242 48	+8.22	+7.71	2.867	-82	+2.69
5	266 3			1.449	-60	+1.05
	27.42					
3.4	297 42	+1.07	+27	1.033	-23	+26
5.6	349 50			1.261	+1.03	-77
	354.25					
3.4	264 25	+2.23	+1.66	1.493	-62	+1.11
5	272 28			1.303	-53	+84
	37.33					
4.5	307 33			1.003	-08	+08
6	345 19			1.192	+84	-65
	33.53					
4	303 53	+1.02	+15	1.012	-14	+15
6	275 5			1.257	-50	+76
	53.42					
5	323 42			1.020	+22	-20
3	323 21			1.019	+21	-19
	22.13					
2.3	292 13	+1.14	+39	1.065	-30	+37
	19.25					
5.6	289 25			1.086	-34	+42
4	240 47	+10.23	+9.72	3.199	-84	+3.04
	21.57					
6	291 57			1.068	-31	+37
	64.4					
4.5	334 4			1.076	+48	-40
	0.41					
3	270 41	+1.80	+1.19	1.340	-55	+89

No	Star	α	1868	δ
46	Lal 3837	1 57 46	-12	30
	(α Arietis)	.082 1 59 44	+22	50
	(α Drac. L C)	.083 2 0 49	+15	0
47	(β Trianguli)	.084 1 41	+34	22
48	5 Trianguli	.085 3 42	+30	54
2 7	65 beti 5'	.086 6 0	+8	14
49	μ Fornacis	.087 7 6	-31	21
50	δ Trianguli	.088 8 59	+33	37
51	γ Arietis	.090 10 48	+19	17
52	α beti S	.091 12 41	-3	35
53	BAC 727	.092 14 38	+40	48
54	κ Fornacis	.093 16 30	-24	25
	(ν Cassiopea)	.095 18 13	+66	48
55	ρ beti	.096 19 34	-12	53
56	ξ^2 beti S	.097 21 9	+7	52
57	27 Arietis	.098 23 35	+17	7
58	σ beti	.100 25 50	-15	49
59	BAC 788	.101 27 36	-35	14
	<u>5 Urs Min L C</u>	.102 27 50	103	43
60	ν beti	.103 28 57	+5	1

May	Setting	sec ² S	sec ² S	sec S	C	tan S
6.7	^{54.51} 324 51			^x 1.024	+ 25	^x - 22
2	^{19.32} 289 32	+1.17	+46	^x 1.085	- 33	^x + 42
3.4	^{18.1} 197 26	+5.60	+5.06	^x 2.366	- 1.22	^x - 2.14
4	^{11.29} 278 1	+1.47	+82	^x 1.211	- 47	^x + 68
6.7	^{34.9} 281 29			^x 1.166	- 43	^x + 60
4.5	^{73.40} 304 9	+1.02	+14	^x 1.011	- 13	^x + 14
5	^{8.45} 343 40			^x 1.171	+ 77	^x - 61
5.6	^{23.5} 278 45			^x 1.200	- 46	^x + 66
6	^{45.57} 293 5			^x 1.060	- 29	^x + 35
var.	^{1.35} 315 57			^x 1.002	+ 07	^x - 06
6	^{66.46} 271 35			^x 1.321	- 54	^x + 86
5.6	^{66.46} 336 46			^x 1.098	+ 55	^x - 45
4	^{55.15} 245 35	+6.45	+5.92	^x 2.539	- 80	^x + 2.33
5	^{34.30} 325 15			^x 1.026	+ 25	^x - 23
4	^{25.15} 304 30			^x 1.010	- 13	^x + 14
6	^{58.11} 295 15			^x 1.047	- 26	^x + 31
5	328 11			^x 1.039	+ 32	^x - 28
6	347 32			^x 1.224	+ 93	^x - 71
4.5	208 41			^x 4.217	- 1.12	^x - 4.10
4.5	^{37.21} 307 21			^x 1.004	- 08	^x + 09

No	Star	α	1868	δ
61	81 beti	2 31 3	-3	58
62	δ beti S	.105 32 43	-0	15
63	μ Arietis	.106 34 55	+19	27
	(γ beti)	.108 36 28	+2	41 = 38
64	τ Eridani	.109 38 56	-19	8
65	39 Arietis	.110 40 2	+28	42
G. 66	41 Arietis S	.111 42 13	+26	43
G. 67	(τ Persei)	.113 44 55	+52	13
68	BAC 897	.114 47 30	+46	38
69	η Eridani S	.116 49 58	-9	25
	β Urs Min LC	.118 51 7	105	18
70	4 Eridani	.119 51 32	-24	24
71	δ Erid. (pr)	.119 53 15	-40	50
	(α beti)	.120 55 23	+3	34 = 43
72	ρ^3 Eridani	.122 57 47	-8	7
73	(β Persei)	.123 2 59 35	+40	27
74	BAC 978	.125 3 2 13	-28	20
	48 Ceph. U.C.	.126 3 41	+77	15
75	δ Arietis	.128 4 5	+19	31
76	BAC 997	.129 6 28	-29	31

Mag	Setting	sec ²	sec stand	sec	C	tan δ
5.6	^{46.29} 316 20			x 1.002	+ 07	x - 07
4	^{42.37} 312 37			x 1.000	00	x 00
6	^{22.58} 292 55			x 1.061	- 29	x + 35
3.4	^{39.41} 309 41	+1.00	+05	x 1.001	- 05	x + 05
4.5	^{61.29} 331 29			x 1.059	+ 41	x - 35
4	^{13.41} 283 41			x 1.140	- 41	x + 55
3	^{15.40} 285 40			x 1.119	- 38	x + 50
5	^{350.10} 260 10	+2.66	+2.11	x 1.632	- 66	x + 1.29
6	^{355.45} 265 45			x 1.450	- 60	x + 1.06
3	^{51.45} 321 47			x 1.014	+ 18	x - 17
2	^{66.47} 207 6			x -3.789	- 1.13	x -3.65
5.6	^{66.47} 336 44			x 1.098	+ 55	x - 45
3.4	^{35.50} 353 6			x 1.322	+ 1.19	x - 86
2.3	^{52.2} 308 48	+1.00	+06	x 1.002	- 06	x + 06
5	^{2.0} 320 29			x 1.010	+ 15	x - 14
var	^{70.43} 271 56	+1.73	+1.12	x 1.315	- 55	x + 85
6	340 40			x 1.136	+ 67	x - 54
6	235 9			x 4.531	- 89	x + 4.42
4.5	^{23.91} 293 9			x 1.061	- 29	x + 35
3.4	^{71.51} 341 51			x 1.150	+ 72	x - 57

No	Star	α Fraction of day	1868	δ
	ζ Arietis	3 7 19 .130	+ 20	33
77	ζ Eridani	11 9 25 .132	- 9	19
78	κ' Ceti	12 25 .133	+ 2	53 = 45 46
	(α Persei) S	14 55 .135	+ 49	23 47
79	$\circ$ Tauri S	17 43 .137	+ 8	34
80	ξ Tauri S	20 1 .139	+ 9	16
	γ^2 Urs Min LC	20 58 .140	107	42 48
81	f Tauri S	23 35 .141	+ 12	29
82	ϵ Eridani S	26 43 .144	- 9	54
83	τ^5 Eridani	27 48 .144	- 22	5 49
84	10 Tauri	30 8 31 46 36 52 .146	- 0 + 62 46	1 50 52
	(δ Persei) S	33 32 .148	+ 47	22
85	δ Eridani S	36 56 .151	- 10	13
	(η Tauri) S	39 38 .152	+ 23	42
86	τ^7 Eridani	41 59 .154	- 24	17
87	BAC 1199	43 44 .155	- 38	1
	(ζ Persei) S	45 50 .157	+ ~~58~~ 31	29 43
	ζ Urs Min LC	48 50 .159	101	48
88	(ϵ Persei) S	49 0 .159	+ 39	38 44
	(γ^1 Eridani)	51 52 .161	- 13	53

Mag	Setting	sec ² δ	sec tan δ	sec ✓	C	tan δ
4.5	291 49 ^{21 49}	+1.14 +.40	+	1.068	-31	+ 37
4	321 40 ^{51 40}		+	1.014	+18	- 16
5	309 29 ^{39 29}		x	1.001	-05	+ 05
2	263 0 ^{23 0}	+2.36 +1.80	+	1.536	-63	+1.17
4.5	303 48 ^{33 48}		+	1.012	-14	+ 15
4	303 6 ^{33 6}		x	1.013	-15	+ 16
3	204 43		+	-3.290	-1.16	-3.14
5.6	299 53		x	1.024	-20	+ 22
3.4	322 16		+	1.015	+19	- 17
4	334 25		x	1.079	+49	- 41
4.5	312 21		x	1.000	00	00
3	265 1 ^{2 1}	+2.18 +1.61	+	1.477	-61	+1.09
3.4	322 34		x	1.016	+20	- 18
3	288 41 ^{2 41}	+1.19 +.48	+	1.092	-35	+ 44
5	336 38		x	1.097	+55	- 45
5	350 19		x	1.269	+1.05	- 78
3	280 53 ^{2 53}	+1.38 +.72	+	1.173	-44	+ 61
4.5	210 36		x	-4.880	-1.10	- 4.78
3.4	272 45 ^{2 45}	+1.68 +1.08	+	1.298	-53	+ 83
3	326 15 ^{2 15}	+1.06 -.26	x	1.030	+28	- 25

No	Star	α	1868	δ
89	λ Tauri S	3.53 22	+12	7
90	λ Persi	3.56 45	+49	59
91	γ Tauri	3.58 51	+28	39
92	BAC 1272	4.00 25	+16	59
93	μ Tauri	4.02 48	+26	8
94	μ Persei	4.05 12	+48	4
	<u>Gr. 2320 LC</u>	4.05 58	111	51
95	A Eridani	4.08 7	-10	35
96	BAC 1313	4.10 19	+60	25
	(γ Tauri) S	4.12 17	+15	18
97	χ Tauri	4.14 32	+25	19
98	δ^2 Tauri	4.16 29	+17	8
99	δ^3 Tauri	4.17 51	+17	37
100	ν^5 Eridani	4.19 4	-34	20
	(ϵ Tauri) S	4.20 55	+18	53
101	80 Tauri	4.22 37	+15	21
102	85 Tauri	4.24 19	+15	34
103	ρ Tauri	4.26 21	+14	34
	<u>15 Drac. LC</u>	4.28 15	110	57
	(α Tauri)	4.28 21	+16	15

May	Setting	sec ² S	sec tan S	sec ✓	C	tan δ
var	300	15	X	1.022	-19	+21
4.5	262	24	X	1.555	-64	+1.19
5.6	283	44	+	1.140	-41	+55
6	295	23	X	1.046	-26	+31
6	293	7	X	1.059		+35
6	286	14	X	1.114	-38	+49
4.5	264	19	X	1.496	-62	+1.14
5.6	200	35+7.22+6.69	X	2.687	-1.19	-2.49
5	322	57	+	1.017	+21	-19
4.5	320	1/3	X	1.009		-14
6	251	58	+	2.026	-74	+1.76
4	297	4+1.07+1.28	X	1.036	-24	+27
5.6	287	3	X	1.106	-37	+47
4	295	8	X	1.048		+31
4.5	295	14	+	1.047	-26	+31
5	294	45	X	1.050	-27	+32
4	346	38	+	1.211	+90	-68
3.4	293	29+1.12+3.6	X	1.057	-28	+34
6	297	2	X	1.037	-24	+27
6	296	48	X	1.038	-24	+28
5	297	48	X	1.033	-23	+26
5	201	29+7.82+7.49	X	2.797	-1.18	-2.61
1	296	8+1.08+3.0	+	1.040	-25	+29

No	Star	α Fraction of day	1868	δ
9104	ν 7 Eridani	4 30 25 .188	-30	50 61
105	53 Eridani S	32 8 .189	-14	34
9106	τ Tauri	34 19 .190	+22	42
107	α Caeli 4 Canis	36 19 .192 36 51	-42	7 56 31
108	β Caeli	37 24 .193	-37	24 62
9109	μ Eridani S	38 54 .194	-3	30
	(α Camel. UC)	40 57 .195	+66	7
110	1 Aurigae	41 1 .195	+37	15 63.64
111	π Orionis	42 41 .196	+6	44
112	σ Orionis	45 3 .198	+14	2
113	ω Eridani	46 24 .199	-5	41 65.66.67
	(ι Aurigae)	48 24 .200	+32	57
9114	β Camelopard	51 40 .203 52 22	+60	15 43 37 68
115	(ζ Aurigae)	53 15 .204	+40	53 69.70.71
116	ι Tauri	55 12 .205	+21	24
	11 Orionis	57 2 .206	+15	13 72
	(ϵ Urs. Min. LC)	59 36 .208	97	45
9117	ϵ Leporis	4 59 52 .208	-22	-33
118	β Eridani	5 1 22 .209	-5	16 73
119	2 Eridani	2 50 .210	-8	56

Mag	Setting	sec ² S	sec ² tan S	sec	C	tan S
3.4	343	5	+1.36 - .70	* 1.165	+ 76	* - 59
4	326	55		* 1033	+ 29	* - 26
5	289	40		* 1084	- 33	* + 42
4.5	354	21		* 1348	+ 1.25	* - 90
5	349	42		* 1254	+ 1.01	* - 76
5	315	52		* 1.002	+ 06	* - 06
4	246	16	+6.10 +5.58	* 2.470	- 79	* + 2.26
6	275	8		* 1.258	- 51	* + 76
4	305	38		* 1007	+ 11	* + 12
5	298	20		* 1030	- 22	* + 25
5	318	2		* 1005	+ 11	* - 10
3	279	25	+1.42 +.77	* 1.191	- 46	* + 65
4.5	252	9		* 2015	- 74	* + 1.75
4	271	30	+1.85 +1.15	* 1323	- 54	* + 87
4.5	290	58		* 1074	- 32	* + 39
5	297	9	+1.07 +.28	* 1036	- 24	* + 27
4.5	214	39		* ~~7.416~~	- 1.07	* - 7.35
3.4	334	54		* 1082	+ 50	* - 41
3	317	37		* 1004	+ 10	* - 09
4	321	17		* 1013	+ 17	* - 16

No	Star	α	1868	δ
120	μ Aurigae	5 4 24 .211	+ 38	20 74.56
	(α Aurigae)	6 56 .213	+ 45	52 77.70
	(β Orionis)	8 12 .214	- 8	21 79
121	λ Aurigae	9 51 .215	+ 39	58
122	τ Orionis	11 12 .216	- 6	59 810
123	θ Columbae	12 44 .217	- 35	2 81
124	ν Leporis	13 52 .218	- 12	27
125	ϕ Orionis	15 2 .219	- 0	31
126	m Orionis	15 53 .219	+ 3	25 = 82
	(β Tauri)	17 57 .221	+ 28	30
127	ϕ Aurigae	18 54 .221	+ 34	20 83
128	ψ^2 Orionis	19 53 .222	+ 2	59 84.5 6.187
	Gr. 966 UC	22 6 .224	74	57
129	β Leporis	22 35 .224	- 20	52 88
130	χ Aurigae	24 8 .225	+ 32	6 89
	(δ Orionis)	25 16 .226	- 0	24
	α Leporis	26 55 .227	- 17	55 90.91
131	λ Orionis	27 52 .228	+ 9	51
	(ϵ Orionis)	29 31 .229	- 1	17 92
132	σ Orionis	32 7 .231	- 2	41

Mag	Setting	sec ²	sec stand	sec	C	tan δ
5	274 3			+ 1.275	- 52	+ 79
1	266 31	+ 2.06	+ 1.48	1436	- 59	+ 1.03
1	320 43	+ 1.02	- .15	1011	+ 15	- 15
5	272 24			1305	- 53	+ 84
4	319 21			1008	+ 13	- 12
5	347 20			1.221	+ 92	- 70
5.6	324 49.			1024	+ 24	- 22
5.6	312 53			1000	+ 01	- 01
5	308 57			1001	- 06	+ 06
2	283 53	+ 1.30	+ .61	1138	- 40	+ 54
5	278 1			1212	- 47	+ 68
5	309 23			1001	- 05	+ 05
6.7	237 26			3.851	- 87	+ 3.73
4	333 13			1.070	+ 45	- 38
5	280 17			1180	- 45	+ 63
2	312 46	+ 1.00	- .01	1000	+ 01	- 01
3	330 16	+ 1.10	- .34	1051	+ 37	- 32
4	302 31			1015	- 16	+ 17
2	313 39	+ 1.00	- .02	1000	+ 02	- 02
4	315 3			1.001	+ 05	- 05

No	Star	α	1868	δ
		<i>Fraction of day</i>		
133	ζ Orionis	5 34 5	- 2	1
	α Columbae	.232 34 52	- 34	9
	ω Drac. LC	.233 37 44	111	11
		.235 37 44		94
134	γ Leporis	.235 38 56	- 22	29
135	ζ Leporis	.237 40 58	- 14	52
136	(γ Aurigae)	.238 42 20	+ 39	6
137	ξ Aurigae	.239 43 47	+ 55	40
	ψ Drac. pr LC	.239 44 17	107	47
138	β Columbae	.240 46 17	- 35	49
	(α Orionis)	.242 48 2	+ 7	23
139	(β Aurigae)	.243 49 51	+ 44	56
140	(δ Aurigae)	.244 50 43	+ 37	12
141	γ Columbae	.245 52 51	- 35	18
142	μ Orionis	.247 55 8	+ 9	39
143	χ Orionis	.248 56 5	+ 20	8
144	B AC 1946	.249 57 56	- 26	17
145	ν Orionis	.250 6 0 2	+ 14	47
146	δ Columbae	.252 3 0	- 37	14
	<u>22 Camel. UC</u>	.253 4 18	69	22
147	ξ Orionis	.253 4 26	+ 14	14

Mag.	Setting	sec ² d	sec ² d	sec ✓	C	tan δ
2	314	23		+ 1001	+ 04	+ 04
2	346	28	+1.46 - .82	+ 1208	+ 89	+ 68
5	201	14	+7.67 +7.14	-2.768	-1.19	-2.58
4	334	50		+ 1.082	+ 50	+ 41
4.5	327	14		+ 1.034	+ 30	+ 27
5	273	16	+1.66 +1.04	+ 1288	- 53	+ 81
5	256	43		+ 1.773	- 69	+ 1.46
4.5	204	38		- 3.274	- 1.16	- 3.11
3	348	8		+ 1.234	+ 95	+ 72
var	304	59	+1.02 +.13	+ 1.009	- 12	+ 13
2	267	27	+1.99 +1.41	+ 1.412	- 58	+ 1.00
4	275	10	+1.57 +.95	+ 1.255	- 51	+ 76
4	347	37		+ 1.225	+ 93	+ 71
5	302	43		+ 1.014	- 16	+ 17
5	292	14		+ 1.065	- 30	+ 37
5.6	338	38		+ 1.116	+ 61	+ 49
4.5	297	35		+ 1.034	- 23	+ 26
5	349	32		+ 1.255	+ 1.01	+ 76
4.5	243	2	+8.05 +7.55	+ 2.838	- 82	+ 2.66
5	298	8		+ 1.031	- 22	+ 25

No	Star	α	Fraction of day	1868	δ
148	γ Gemin. D	6 76	55	+ 22	33
		.255			106
149	κ^2 Orionis	7 9	2	+ 12	18
		.256			107-108
150	κ Columbae	7 11	51	- 35	6
		.258			109
	δ Urs Min LC	14	55	93	24
		.260			
	(μ Gemin.)	14	58	+ 22	35
		.260			110
151	β Can. Maj.	16	53	- 17	54
		.262			111
152	BAC 2079	19	26	- 36	38
		.263			112, 113
153	ν Gemin. D	21	7	+ 20	18
		.265			114, 115
154	BAC 2109	23	17	- 32	30
		.266			116
155	13 Monoc.	25	46	+ 7	26
		.268			117
156	BAC 2147	27	44	- 31	56
	49 Aurigae	.269			118, 119
	(γ Gemin.)	30	5	+ 16	31
		.271			120, 121, 122, 123
157	55 Aurigae	33	28	+ 44	39
		.273			124
158	ϵ Gemin D	35	49	+ 25	16
		.275			126-7
	51 Cephei UC	37	42	+ 87	14
		.276			
159	ξ Gemin.	37	52	+ 13	2
		.276			
	(α Can Maj)	39	20	- 16	32
		.277			128
160	58 Aurigae	41	26	+ 41	56
		.279			129
161	(δ Gemin)	44	5	+ 34	36
	15 Lynce's A	.281	45	4	36
162	BAC 2252	46	4	- 34	13
		.282			

Mag	Setting	sec ^d	sec ^d stand	sec ^d	C	tan δ
4	289 50			^x 1.082	-33	^x +42
5.6	300 4			⁺ 1.024	-19	^x +22
4.5	347 24			^x 1.222	+92	^x -70
4.5	219 0			^x 16.890 ⁻ 16.861	-1.03	^x 16.856 ⁻ 16.83
3	289 48	+1.17	+45	^x 1.083	-33	^x +42
2.5	330 15			^x 1.051	+37	^x -32
5.6	348 56			^x 1.246	+99	^x -74
4	292 5			^x 1.066	-30	^x +37
4.5	344 49			^x 1.186	+82	^x -64
5	304 57			^x 1.009	-12	^x +13
5.6	344 15			^x 1.178	+80	⁺ -62
2.3	295 52	+1.09	+31	⁺ 1.043	-25	^x +30
5	267 47			⁺ 1.406	-58	^x +99
3	287 7			^x 1.106	-37	⁺ +47
5	225 9			⁺ 2.081 20.717	-98	⁺ 20.718 +20.69
4	299 20			^x 1.027	-20	^x +23
1	328 54	+1.09	-31	⁺ 1.043	+34	^x -30
5	270 27			⁺ 1.345	-55	⁺ +90
5	278 16	+1.46	+82	⁺ 1.208	-47	⁺ +68
5	346 32			^x 1.209	+89	^x -68

No	Star	α	1868	δ
163	^{o Can maj} o' Can Maj	6 48 39	-24	1
164	v Can Maj	50 15	-16	53
	<u>50 Drac LC</u>	50 37	104	43
	e Can Maj	53 26	-28	48
165	ζ Gemin	56 17	+20	46
166	γ Can Maj	6 57 47	-15	26
167	45 Gemin.	7 0 48	+16	8
	^{63 Aurigae} S Can Maj	3 2	-26	11
168	22 Monoc.	5 7	-0	17
169	^{53 Gemin} 64 Aurigae	8 51	+41	7
170	2 Gemin	10 30	+16	47
	(δ Gemin)	12 14	+22	13
	(δ Drac. LC)	12 30	112	34
171	66 Aurigae	15 0	+40	55
	<u>P VII 67 UC</u>	17 7	+68	44
172	v Gemin	17 31	+28	4
	<u>v Drac L.C.</u>	18 4	106	53
173	η Can Maj	18 52	-29	3
173 $\frac{1}{2}$	β . Can Min	20 0	+8	33
174	^{q Geminorum} 6 Can Min	22 27	+12	17

Mag	Setting	sec ² δ	sec tan δ	sec δ	C	tan δ
4	336	22		⁺ 1095	+ 54	⁺ -45
4.5	329	14		⁺ 1045	+ 35	⁺ -30
6	207	42		⁺ -3.937	-1.13	⁺ -3.81
1.2	341	8	+1.30 - .63	⁺ 1.142	+ 69	⁺ -55
4	291	37		⁺ 1070	- 31	⁺ +38
4.5	327	48		⁺ 1037	+ 32	⁺ -28
6	296	14		⁺ 1041	- 25	⁺ +29
2	338	31	+1.24 - .55	⁺ 1115	+ 61	⁺ -49
4.5	312	39		⁺ 1000	+ 01	⁺ -00
5	271	16		⁺ 1327	- 55	⁺ +87
4.5	295	36		⁺ 1045	- 26	⁺ +30
3.4	290	9	+1.17 + .44	⁺ 1080	- 33	⁺ +41
3	199	51	+6.79 + 6.28	⁺ -2.606	-1.20	⁺ -2.41
5	271	27		⁺ 1.323	- 54	⁺ +87
6	243	39	+7.60 + 7.09	⁺ 2.757	- 81	⁺ +2.57
4	284	19		⁺ 1.133	- 40	⁺ +53
5	205	31		⁺ -3.443	-1.15	⁺ -3.30
2	341	23		⁺ 1144	+ 41	⁺ -55
3	303	49		⁺ 1012	- 14	⁺ +15
5.6	300	5		⁺ 1024	- 20	⁺ +22

No	Star	α	1868	δ
	(α Gemin)	Fraction of day		143-4-5
175	γ Puppis Lat 148.10	7 26 10 .31024 28 21 .311	+32 -23 -22	10 116-7.59 1
176	$\circ$ Gemin. (α Can Min)	30 32 .313 32 24 .314	+34 +5	53 150.15-1 34 152
177	γ Monoc. (β Gemin.)	34 56 .316 37 14 .318	-9 +28	15 153 20 15-4-5
178	4 Puppis	39 51 .319	-14	15
179	$\circ$ Puppis	42 35 .321	-25	37 15-6
180	{ β 46 25.98 3 Argus Lat. 137.4 + ϕ Gemin.	43 45 .322 44 05 45 25 .323	-24 +27	32 159-60, 1 6
181	BIC 2629 (ϵ Drac Lo C)	47 21 .325 48 36 .325	-34	23 4 162
182	1 Cancri	49 29 .326	+16	8 163
183	14 Can Min	51 30 .327	+2	34 164 5
184	ω Cancri	52 56 .328	+25	45
9185	6 Cancri	55 25 .330	+28	10
	2 Urs Min LC	56 14 .331	91	5
186	μ Cancri	58 29 .332	+23	1
	3 Urs Maj. LC ~~μ Cancri~~	59 38 .333	+68	52
187	μ^2 Cancri	8 0 0 .333	+21	58

Mag	Setting	sec ²	sec ² and	sec ²	C	tan δ
1.2	280	12	+1.39	+74	1.181 -45	+63
					~~1.088~~	-43
4.5	334	21			1078 +48	-40
5.6	277	30			1219 -48	+70
1	306	49	+1.01	+10	1.005 -10	+10
4.5	321	36			1014 +18	-16
1.2	284	2	+1.29	+61	1.136 -40	+54
5.6	326	35			1031 +28	-25
5	337	57			1.109 +59	-48
3.4	336	52			1099 +56	-46
5	285	16	+1.26	+57	1.123 -39	+51
5	346	41			1212 +89	-68
4	202	21	+850	+802	-2.915 -1.18	-2.75
5	296	14			1.041 -25	+29
6	309	48			1.001 -05	+05
6	286	37			1.110 -37	+48
5	284	13			1.134 -40	+54
6.7	221	19			-52.892 -1.01	-52.88
						~~11.72~~
6	289	22			1.086 -34	+42
6	243	32	+7.69	+7.18	2.773 -81	+2.59
5	290	24			1.078 -32	+40

No	Star	α	1868	δ
	(15 Argus) #	8	1 55	-23 56
188	16 Puppis	.335	3 8	-18 52
✓ 189	ζ Cancer	.336	4 38	+18 3
190	BAC 2758	.337	6 9	-36 54
191	20 Puppis	.338	7 16	-15 24
✓ 192	(β Cancer)	.338	7 21	+9 35
193	χ Cancer	.340	12 2	+27 39
	κ Cephei LC	.342	13 17	102 41
194	η Puppis	.343	13 37	-36 15
195	w Puppis	.343	16 11	-32 38
196	BAC 2825	.345	19 4	-3 29
197	BAC 2846	.347	19 06	+6 110
198	δ Cancer	.349	22 17	-25 42
✓ 199	η Cancer A	.350	24 3	+18 32
200	BAC 2887	.351	25 4	+20 53
	δ Hydrae	.353	28 30	+53 52
201	δ Hydrae	.355	30 33	+7 55
202	σ Hydrae	.355	30 40	+6 10
203	ζ Hydrae	.357	31 51	+3 48
✓ 204	γ Cancer	.358	33 46	-12 1
			35 38	+21 57

Mag	Setting	sec ²	sec ² tan ²	rec ²	C	tan δ
3	336	16	+1.20 - .48	1.094	+ 54	→ 44
5	331	13		1.057	+ 40	× - 34
5.6	294	20		1.052	- 27	× + 33
5.6	349	12		1.250	+ 1.00	× - 75
5	327	45		1.037	+ 31	× - 27
4	302	47	+1.03 + .17	1.014	- 15	× + 17
6	284	44		1.129	- 39	× + 52
4.5	209	43		-4.554	-1.11	× - 4.45
5	348	33		1.240	+ 97	× - 74
5	344	57		1.187	+ 83	× - 64
5.6	315	51		1.001	+ 06	× - 06
6	338	2		1.100	+ 59	× - 48
5.6	293	50		1.055	- 28	× + 34
6	291	29		1.070	- 31	× + 38
5.6	258	32		1.695	- 67	× + 1.37
6.7	204	30		-3.251	-1.16	× - 3.09
4	306	12		1.006	- 10	× + 11
5	308	34		1.002	- 06	× + 06
5.6	324	22		1.022	+ 24	× - 21
4.5	290	26		1.028	- 32	× + 40

No	Star	α	1868	δ
205	(δ Cancri)	8 37 11	+ 18	38
206	α Mali	38 18	- 32	43
	(ϵ Hydrae)	39 47	+ 6	4
207	ρ Hydrae	41 26	+ 6	19
208	35 Lyncis	43 4	+ 44	13
209	σ^2 Cancri	46 11	+ 31	5
210	(ζ Hydrae)	48 25	+ 6	27
	(ν Urs Maj)	50 9	+ 48	23
211	BAC 3059	52 6	+ 42	18
	JYC 1879 LC	53 29	99	57
212	(κ Urs Maj)	54 34	+ 47	41
213	BAC 3097	58 8	+ 38	59
	σ^2 Urs Maj UCH	8 58 44	+ 67	40
	κ Cancri	9 0 36	+ 11	12
214	BAC 3121	2 15	- 25	20
215	ϵ Mali	4 20	- 29	50
216	δ Hydrae	7 30	+ 2	52
217	(38 Lyncis)	10 37	+ 37	22
218	(α Lyncis)	13 0	+ 34	57
219	h Mali	15 40	- 25	24

Mag	Setting		sec ²	sec ² tan ²	sec	tan	tan ²
4.5	293	44	+1.11	+36	1.056	-28	+34
4.5	345	2			1.188	+83	-64
3.4	305	28	+1.01	+11	1.006	-10	+11
5	306	3			1.007	-10	+11
5.6	268	10			1.395	-58	+97
5.6	281	18			1.168	-44	+60
4	305	55	+1.01	+11	1.007	-11	+11
3	263	50	+2.28	+1.71	1.511	-62	+1.13
4	270	4			1.353	-56	+91
6	212	27			-5.788	-1.08	-5.70
4	264	42	+2.21	+1.63	1.485	-61	+1.10
5	273	24			1.286	-52	+81
5	244	43	+6.92	+6.39	2.631	-80	+2.43
5	301	10	+1.04	+20	1.020	-18	+20
5.6	337	40			1.106	+58	-47
5.6	342	10			1.153	+73	-57
4.5	309	30			1.001	-05	+05
4	275	1	+1.58	+96	1.259	-51	+76
4	277	26	+1.49	+85	1.220	-48	+70
5	337	45			1.107	+58	-47

No	Star	α	1868	δ
	<i>Leonis</i>	Fraction of day		
220	α C 3207	9 57	30	-28 16
	β Draconis U.C.	.387 118	2	+81 54
221	A Hydrae	.388 18	48	-4 33
	(α Hydrae)			
	γ Urs. Maj. U.C.	.390 21	6	-8 5
	(δ Urs. Maj.)	.391 22	46	+70 24
	ϵ Urs. Maj.	.392 24	1	+52 17
222	10 Leon. Min.	.393 26	7	+36 59
	(β Cephei L.C.)	.394 26	57	110 1
223	33 Hydrae	.394 27	57	-5 20
224	42 Lynceis	.396 30	7	+40 50
225	ϵ Hydrae	.398 33	7	-0 33
226	o Leonis	.399 34	6	+10 29
227	γ Leonis	.400 36	32	+14 37
	(ϵ Leonis)	.402 38	21	+24 23
	11 Cephei L.C.	.403 39	59	109 18
228	(ν Urs. Maj.)	.404 41	35	+59 40
229	ϕ Urs. Maj.	.405 43	6	+54 41
	(μ Leonis)	.406 45	15	+26 38
230	BAC 3385	.407 46	19	-26 43
231	BAC 3398	.408 49	26	+9 33
232	ν Leonis	.409 51	7	+13 4
	79 Draconis L.C.	.411 -51	13	106 55

Mag	Setting	sec ^{2d}	sec ^{stand}	sec	C	tan δ
5.6	340	36		1.136	+67	-54
4.5	230	29		1.097	-93	+7.03
6	316	55		1.003	+08	-08
2	320	27	+1.02-.14	1.010	+15	-14
4.5	241	59	+8.89+8.38	2.982	-83	+2.81
3	260	6	+2.67+2.41	1.635	-66	+1.29
5	275	24		1.252	-50	+75
3	202	24	+8.53+8.03	-2.921	-1.18	-2.75
6	317	41		1.005	+10	-09
6	271	33		1.322	-54	+86
5	312	55		1.000	+01	-01
4	301	53		1.017	-17	+18
6	297	45		1.033	-23	+26
3	288	0	+1.21+1.49	1.098	-36	+45
5	203	7	+9.16+8.62	-3.026	-1.17	-2.85
4	252	44	+3.92+3.39	1.980	-73	+1.71
5	257	42		1.730	-68	+1.41
4	285	45	+1.25+1.56	1.118	-38	+50
6	339	3		1.119	+62	-50
6	302	49		1.014	-16	+17
5.6	299	18		1.027	-21	+23
6.7	205	29		-3.437	-1.15	-3.29

No	Star	α	1868	8
233	π Leonis #	Fraction of day 9 53 .412	14	+8 22 41
234	BAC 3428	56 9 .414		-12 22 35
235	ν^2 Hydrae	9 58 .416	42	-12 25
236	η Leonis (α Leonis)	10 0 .417 1 20 .418	8	+17 22 24 +12 22 37
237	λ Hydrae 34 Leonis	4 9 .420		-11 22 41
238	BAC 3489	7 15 .422		-26 22 23
	32 Urs Maj UC	8 25 .423		+65 46
239	(λ Urs Maj)	9 8 .423		+43 34
240	22 Sextantis (γ^1 Leonis) #	11 5 .424 12 41 .425		-7 25 +20 30
241	(μ Urs Maj)	14 28 .427		+42 10
242	γ Anthiae	17 51 .429		-28 23 59
243	μ Hydrae	19 42 .430		-16 10
244	31 Lep Min # α Anthiae	20 7 .431 21 7		87 24 -30 24
245	δ Anthiae	23 30 .433		-28 59
	9 Draconis UC	23 48 .433		+76 24
	(ρ Leonis) #	25 52 .435		+9 59
246	48 Leonis	27 55 .436		+7 38
247	ϕ^2 Hydrae	29 50 .437		-15 40

Mag	Setting	sec ² S	sec ² stand	sec ²	C	tan δ
5	303	42		1.012	-14	+15
6	324	57		1.025	+25	-22
5.6	324	47		1.024	+24	-22
3.4	294	58		1.048	-27	+31
1.2	299	45	+1.05 +.23	1.025	-20	+22
4.5	324	2		1.021	+23	-21
6	338	43		1.117	+61	-50
6	246	37	+5.93 +5.41	2.436	-78	+2.22
3.4	268	49	+1.90 +1.31	1.380	-57	+95
6	319	46		1.009	+14	-13
2	291	52	+1.14 +.40	1.068	-31	+37
3	270	13	+1.82 +1.03	1.350	-56	+91
5.6	341	19		1.144	+70	-55
4	328	31		1.041	+33	-29
4.5	342	44		1.160	+75	-59
5.6	341	19		1.144	+70	-55
4.5	236	0		4.253	-88	+4.13
4	302	23	+1.03 +.18	4.015	-16	+18
5.6	304	44		1.009	-13	+13
6	328	1		1.039	+32	-28

37 Leo min D

No	Star	Fraction	July 1868	δ
248	226 Cephei LC ϕ^3 Hydrae +	10 29 57 .438 .439	104 -16	27 12
249	BAC 3665 B.A. 34 Sextantis D C. 3670	35 47 .441 36 15	+46 +46	54 54
250	42 Leon Min	38 31 .443	+31	23
251	6' Hydrae l Leonis *	40 23 .445 42 19 .446 43	-16 +11	36 15
252	41 Sextantis (Cephei LC)	43 41 .447 44 59 .448	-8 114	12 30
253	w Urs Maj	46 22 .449	+43	54
254	54 Leonis	48 28 .450	+25	27
255	BAC 3755 B.M. Maj	50 34 .452 53	-36	26
256	α Crateris (α Urs. Maj.) A	53 21 .454 55 34 .455	-17 +62	36 28
257	γ Leonis D	10 58 12 .457	+8	3
258	ρ^3 Leonis	11 0 10 .458	+2	40
259	(ψ Urs Maj) A	2 14 .460	+45	13
260	β Crateris (δ Leonis) A	5 10 .462 7 5 .463	-22 +21	6 15
261	η Leonis	8 57 .465	+14	2
262	(ξ Urs Maj) (δ Crateris) A	11 8 .466 12 45 .467	+32 -14	16 4

Mag	Setting	sec ²	sec ^{stand}	sec ✓	C	tan δ
5.6	207 57			-4 008	-1.13	-3.88
5	328 33			1.041	+33	29
6	265 29			1.464	-60	+1.07
				1.464		+1.07
4.5	281 0			1.171	-44	+61
6	328 57			1.043	+34	-30
5	301 8	+1.04 +.20		1.020	-18	+20
6	320 34			1.011	+15	-14
				2.412		
3.4	197 56	+5.82 +5.28		~~1.388~~	-1.22	-2.19
5	268 29			1.388	-57	+96
4.5	286 55			1.108	-37	+48
5.6	348 44			1.244	+98	-74
4	329 57			1.049	+37	-32
2	249 55	+4.68 +4.15		2.163	-76	+1.92
5	304 19			1.010	-13	+14
5.6	309 42			1.001	-05	+05
3.4	267 10	+2.01 +1.43		1.419	-59	+1.01
4	334 27			1.079	+49	-41
					-32	
2.3	291 7	+1.15 +.42		1.074	#6	+39
5.6	298 21			1.030	-22	+25
4	280 6	+1.40 +.74		1.182	-45	+63
	25					
3.4	326 55	+1.06 -.26		1.030	+28	-25

No	Star	α	1868	δ
	<u>α Cephei LC</u>	11 13 13	112	37
263	σ Leonis	.467 14 20	+6	45
264	λ Crateris	.468 16 50	-18	3
265	γ Crateris $\#$ BAC 3885	.470 18 11	-16	56
	τ Leonis	.471 18 30	+56	34
	λ Draconis U	.473 21 9	+3	35
266	ϵ Leonis	.475 23 32	+70	4
267	BAC 3928	.475 23 34	-2	17
268	BAC 3934	.477 26 31	-31	8
	η Leonis = β	.478 28 5	-32	8
269	ν Crateris	.479 30 11	-0	6
270	γ Cephei LC	.481 31 58	-12	29
	62 Urs Maj	.482 33 57	103	16
271	BAC 3973	.482 34 42	+32	29
272	χ Urs Maj	.484 36 36	+42	27
273	α' Virginis	.485 39 4	+48	31
	β Leonis	.487 41 8	+8	59
274	β Virginis	.488 42 19	+15	19
	γ Urs Maj	.489 43 49	+2	30
	Gr. 4163 LC	.491 46 52	+54	26
(275 η)	α Leonis	.492 48 26	106	19
276	α Leonis	.492 48 52	+16	23

Mag	Setting	sec ²	sec ² and	sec ✓	C	tan δ
5.6	199 49	+6.76	+6.24	2.600	~~-1.20~~ ~~-80~~	~~+~~ -2.40
4	305 37			1008	-11	~~+~~ +12
6	330 24			1052	+38	~~+~~ -33
5	255 49			1815	-70	~~+~~ +1.52
5	308 47	+1.00	+0.6	1002	-06	~~+~~ +06
3.4	242 20	+8.60	+8.10	2933	-82	~~+~~ +2.76
4.5	314 38			1001	+04	~~+~~ -04
4	343 27			1.169	+77	~~+~~ -60
6	344 28			1181	+81	~~+~~ -63
4.5	312 28	+1.00	.00	1.000	00	~~+~~ 00
5.6	324 50			1024	+24	~~+~~ -22
3.4	209 18	+19.45	+19.01	4.41	-1.11	-4.31
6	279 54			1.185	-45	~~+~~ +64
6	269 56			1.355	-56	~~+~~ +91
4	263 52	+2.28	+1.71	1510	-62	~~+~~ +1.13
5.6	303 23			1.013	-15	~~+~~ +16
2.3	297 4	+1.08	+2.8	1.037	-24	~~+~~ +27
3.4	309 52			1.001	-04	~~+~~ +04
2.3	257 57	+2.95	+2.41	1.719	-68	~~+~~ +1.40
7	206 6			~~1.042~~ ~~1.042~~	-1.14	~~+~~ -3.42
6	295 59			1042	-25	~~+~~ +29

After 12^h, .5 is subtracted
from the fraction of the day

No	Star	α	1868	δ
277	B AC 4037	11 50 21	-32 35	
278	b Virginis	.493 53 11	+4 23	
279	67 Urs Maj (B. A. C. 4059) (o Virginis)	.495 55 24 (.497) 55 47 11 58 29	+43 48 +43 52 +9 28	
280	α Corvi	.499 12 1 36	-23 59	
281	ϵ Corvi β	.001 3 20	-21 53	
282	5 Comae	.002 5 26	+21 17	
P	(4 Draconis UC)	.003 5 59	+78 21	
283	1 Can Ven	.004 8 10	+54 10	
284	B AC 4128 (2 Can)	.006 9 01	-16 48	
285	12 Comae	.007 9 05	+57 45	
286	13 Comae	.009 13 9	+0 4	
287	γ Comae	.011 15 52	+26 35	
288	δ Corvi	.012 17 41	+26 50	
289	η Corvi	.014 20 22	+29 0	
290	ζ Virginis	.016 23 3	-15 47	
291	χ Virginis	.018 24 00	+59 06	
	β Corvi	.019 27 27	-22 40	
	($\times$ Draconis UC)	.019 27 50	+70 31	
	γ Virginis	.021 29 59	-5 6	
	χ Virginis	.022 12 32 26	-7 16	

Mag	Setting	sec ² d	sec stand	sec ✓	C	hand
6	344 55			x 1.186	+83	x -64
5.6	307 59			x 1.003	-07	x +08
5.6	268 35			x 1.386	-57	x +96
4	302 54	+1.03	+1.17	x 1.387 1.014	-15	x +96 +17
4.5	336 20			x 1.095	+54	x -44
3	334 14			x 1.077	+48	x -40
6	291 5			x 1.074	-32	x +39
4.5	234 3	+2.451	+2.402	x 4.953	-90	x +4.85
6	258 13			x 1.708	-68	x +1.38
5	278 35			x 1.203	-47	x +67
3.4	312 18	+1.00	.00	x 1.000	00	x 00
5	285 48			x 1.118	-38	x +50
5	285 32			x 1.121	-39	x +50
4.5	283 22			x 1.144	-41	x +55
3	328 8			x 1.038	+32	x -28
4.5	327 49			x 1.038	+31	x -28
2.3	335 1	+1.17	-.45	x 1.083	+50	x -42
3.4	241 -52	+8.99	+8.49	x 2.998	-83	x +2.83
6	317 28			x 1.004	+09	x -09
5	319 38			x 1.008	+13	x -13

No	Star	α	1868	δ
292	γ Virginis <i>m</i>	12 34 59	- 0 44	
293	BAC 4277	36 50	- 0 51	
	<u>21 Cassiope LC</u>	36 59	105 44	
294	BAC 4287	38 55	+ 46 10	
295	35 Virginis	41 8	+ 4 18	
296	30 Comae	42 51	+ 28 17	
297	31 Comae	45 15	+ 28 16	
298	δ Virginis	47 30	- 8 49	
	<u>32 Camel. fol AC</u>	48 11	+ 84 8	
	<u>(12 Can. Ven)</u>	49 50	+ 39 2	
299	36 Comae	52 24	+ 18 7	
300	ϵ Virginis	55 37	+ 11 40	
301	48 Virginis	57 6	- 2 57	
302	14 Can. Ven	12 59 34	+ 36 30	
303	ψ Hydrae	13 61 56	- 22 25	
	δ Virginis	3 7	- 4 50	
304	β Comae	5 43	+ 28 33	
305	BAC 4433	7 43	+ 40 51	
306	19 Can Ven	9 45	+ 41 33	
	<u>Polaris LC</u>	10 36	91 24	

Mag	Setting	sec ² ₂	sec ² _{tan}	sec ϵ	ϵ	$\tan \delta$
4	313	5	x	1000	+01	x -01
6	313	13	x	1000	+01	x ~~-02~~ 01
6	206	41	x	3.688	-1.14	x -3.55
6	266	3	x	1.444	-60	x +1.04
6	308	4	x	1.003	-07	x +08
6	284	6	x	1.135	-40	x +54
5.6	284	7	x	1.135	-41	x +54
5	321	11	x	1.012	+17	x -15
4.5	228	16	x	9.783	-95	x +9.73
3	273	21 +1.65 +1.04	x	1.286	-52	x +81
4.5	294	15	x	1.053	-27	x +33
3	300	42	x	1.021	-18	x +21
6	315	19	x	1.001	+05	x -05
5	275	52	x	1.244	-50	x +74
4.5	334	45	x	1.082	+49	x -41
4.5	317	12 +1.01 -0.08	x	1.004	+09	x -08
4.5	283	50	x	1.138	-41	x +54
5	271	32	x	1.322	-54	x +86
6	270	50	x	1.336	-55	x +89
2	221	0	x	4.125 -40.930	-1.01	x 41.22 -40.92

No	Star	α	1868	δ
		Fraction of day less .5		
307	61 Virginis	13 11	30	-17 35
	~~20 Can~~	D .051 11	48	+41 15
308	BAC 4466	14	24	-18 48
		.052		
309	63 Virginis	15	57	-17 3
		.053		
	(α Virginis)	18	15	-10 28
P 2	~~20 Can~~	.055 18	44	55.36
310	v Virginis	19	45	-12 1
		.055		
"	<u>A Cassio/LC</u>	21	27	+10 25
		.057		
311	70 Virginis	21	59	+14 29
	P ~~lv. 2001~~	.057 22 50		+72 34
312	BAC 4513	24	35	+24 55
P 69	~~lv. 2001~~	D .059 23 43		+60 06
313	h Virginis	26	0	-9 29
		.059		
P	(ζ Virginis)	B 27	58	+0 5
	~~lv. 2001~~	.061 29 04		+37 50
314	BAC 4541	29	29	-25 49
		.062		
315	25 Can Ven	31	35	+36 58
	P ~~lv. 2029~~	.063 34 01		+71 54
316	m Virginis	D 34	41	-8 2
		.066		
317	83 Virginis	37	23	-15 31
		.068		
318	87 Virginis	40	14	-17 12
	~~lv. 2001~~	.070 41 10		+15 06
P	(η Urs Maj)	B 42	20	+49 58
		.071		
319	h Centauri	45	37	-31 16
	P ~~lv. 2001~~	.073 47 40		+65 21
P	(η Bootis)	B 48	24	+19 4
		.076		
320	q Bootis	50	32	+28 8
		.077		
	(50 Cassio/LC)	52	13	108 13
		.078		

Mag	Setting	sec ² δ	sec ² tan δ	sec ✓	C	tan δ
4.5	329 56			+ 10 49	+ 37	^x -32
^{5.4} 6	330 9			^x 1.057	+ 40	^x -34
6	329 24			^x 1.046	+ 35	^x -31
1	322 50	+1.03	-18	^x 1.017	+ 20	^x -18
^{2.3} 5	324 23			^x 1.022	+ 24	^x -21
6	202 0	+8.22	+7.71	^x -2.867	-1.18	^x -2.69
^{5.6} 6	297 53			^x 1.032	-22	^x +26
6	287 27			^x 1.102	-36	^x +46
^{5.6} 6	321 51			^x 1.014	+ 18	^x -17
3.4	312 17	+1.00	.00	^x 1.000	00	^x 00
⁵ 6	338 10			^x 1.111	+ 59	^x -48
5	275 25			^x 1.252	-50	^x +75
^{5.6} 6	320 24			^x 1.010	+ 15	^x -14
6	327 52			^x 1.038	+ 31	^x -28
6	329 33			^x 1.047	+ 36	^x -31
^{5.4} 2	262 25	+2.42	+1.85	^x 1.555	-64	^x +1.19
5	343 36			^x 1.170	+ 77	^x -61
⁵ 3	293 19	+1.12	+1.36	^x 1.058	-29	^x +34
5	284 14			^x 1.134	-40	^x +53
4	204 12	+10.23	+9.72	^x 3.200 ^x -3.292	-1.16	^x -3.04

No	Star	α	δ	1868	δ
		Fraction of day less .5			
321	48 Hydrae	13 52 37	-24	22	
		.078			
322	τ Virginis β	3 54 56	+2	11	
	β 11 Bootis	.080 55 22	+28	00	
323	BAC 4679	3 57 18	-14	20	
		.082			
324	I Centauri	13 58 56	-35	43	
	α Drac. MC	.083 14 0 49	+65	0	
		.084			
325	BAC 4699	2 39	+44	29	
	α Bootis	.085 4 34	+25	42	
326	K Virginis	D 2 5 51	-9	39	
		.086			
327	14 Bootis	7 45	+13	35	
	α Bootis	.088 7 18	-5	22	
	α Bootis	.090 9 38	+19	52	
	γ Urs Min	.092 11 35	+51	58	
328	λ Virginis	D 11 58	-12	46	
	α Bootis	.093 11 29	+46	41	
329	BAC 4757	14 25	-34	11	
	α Bootis	.095 16 20	-11	7	
330	2 Librae	D 18 12	-26	15	
		.096 18 13	113	12	
331	BAC 4776	20 42	+52	28	
	α Bootis	.098 21 36	-1	38	
332	BAC 4797	22 48	+36	47	
		.099 24 24	+42	24	
333	BAC 4805	26 8	+30	57	
	α Bootis	.101 26 54	38	53	
334	ρ Bootis	27 50	76	17	
	γ Urs Min: UC	.103 28 14	+60	47	
335	σ Bootis	28 55	+30	19	

May	Setting	sec ² d	sec ² tan ² d	sec	C	tan d
6	336	42		x 1.098	+ 55	* -45
4	310	11		x 1.001	- 04	* + 04
6.7	326	42		x 1.032	+ 29	* -26
2.3	348	1		x 1.231	+ 95	* -72
3.4	247	23	+5.60 +5.06	x 2.366	- 78	* +2.14
5.6	267	54		x 1.402	- 58	* + 98
4	322	1		x 1.014	+ 19	* -17
5.6	298	47		* 1.029	- 21	* + 24
1	292	30	+1.13 +.38	x 1.063	- 30	* + 36
4	325	7		x 1.025	+ 25	* -23
6	346	30		* 1.209	+ 89	* -68
6	323	28		x 1.019	+ 21	* -20
6	338	36		x 1.115	+ 61	* -49
4	199	14	+6.45 +5.92	x -2.539	~~+ 80~~	* -2.33
4	259	55	+2.70 +2.13	x 1.642	- 66	* +1.30
6	275	35		x 1.248	- 50	* +75
6	269	59		x 1.355	- 56	* + 91
3.4	281	25	+1.36 +.70	x 1.166	- 43	* + 60
4.5	236	6		x 4.217	- 88	* + 4.10
5	282	3		x 1.159	- 43	* + 58

No	Star	α	1868	δ
336	BAC 4838	14 31 59	-26	9
	P 33 Bootis	.105 33 04	44	59
337	P π Bootis	34 29	+16	59
	P 3 Bootis	.108 35 00	+14	17
338	P μ Virginis	36 5	-5	5
		.109		
339	34 Bootis	37 36	+27	5
		.109		
	(ϵ Bootis)	39 13	+27	38
	P 109 Virginis	.110 39 46	+2	27
340	μ Librae	42 5	-13	36
	α^1 Librae (BAC 4894)	(.113) 43 24	-15	26
	(α^2 Librae)	43 35	-15	29
		.113		
341	ξ Bootis	45 17	+19	39
		.114		
342	ξ^1 Librae	47 13	-11	22
	P 2164	.116 48 12	+15	49
343	ξ^2 Librae	49 36	-10	52
	P 14 22	.118 50 00	+19	58
	β Urs Min UC	51 7	74	42
		.119		
344	BAC 4937	52 0	+50	10
		.119		
345	δ Librae	53 55	-8	0
	P 217 Urs Min	.121 55 39	66	27
	(β Bootis)	56 58	+40	55
		.123		
346	P γ Bootis	14 58 47	+27	28
		.124		
347	ϵ Bootis	15 1 30	+25	23
		.126		
	48 Ceph. LC	3 41	102	45
		.128		
348	24 Librae	4 42	-19	17
		.128		
349	1 Lupi	6 32	-31	1
		.129		
350	BAC 5023	8 44	-21	55
		.131		

Mag	Setting	sec ² S	sec stand	sec	C	tan S
6.7	338 29			1.114	+ 60	+ 49
3.4	295 23			1.046	- 26	+ 31
3.9						
4.5	317 27			1.004	+ 09	- 09
4.5	285 17			1.123	- 39	+ 51
2.3	284 44	+1.37	+0.59	1.128	- 40	+ 52
4.3						
5	325 57			1.029	+ 27	- 24
2.3	327 51	+1.08	-.29	1.037	+ 32	- 28
3.4	292 43			1.062	- 30	+ 36
6	323 43			1.020	+ 22	- 20
6						
5	323 14			1.018	+ 21	- 19
6						
2	237 42			3.789	- 87	+ 3.65
6	262 13			1.561	- 64	+ 1.20
4.5	320 21			1.010	+ 15	- 14
5						
3	271 28	+1.43	+1.15	1.323	- 54	+ 87
4.5	284 55			1.127	- 39	+ 52
5	286 59			1.107	- 37	+ 47
6	209 39			-4.531	-1.11	-4.42
5.6	331 38			1.060	+ 41	- 35
6	343 21			1.167	+ 77	- 60
6	334 15			1.077	+ 48	- 40

No	Star	α	1868	δ
P	(β Librae)	15	9 54	-8 54
351	δ Lupi	.132	10 19	33 38
P	γ Librae	.133	12 42	-40 10
352	ϕ^2 Lupi	.135	13 08	+67 50
353	ϵ Librae	.137	14 43	-36 23
P	(μ' Bootis)	.139	17 2	-9 51
N. Serp	(γ^2 Urs Min UCB)	.140	19 30	+37 50
354	(i Draconis)	.141	19 31	+37 48
P	(β Coronae)	.142	20 58	72 18
355	BAC 5109	.143	22 0	+59 26
356	"37" Librae	.144	22 35	+29 30
P	(α Coronae)	.145	25 2	-19 13
357	ψ^1 Lupi	.147	26 57	-9 36
358	ψ^2 Lupi	.148	27 46	+31 47
359	ν Serpentis	.150	29 6	+27 10
P	(α Serpentis)	.151	31 23	-33 59
360	β Serpentis	.152	33 14	+40 46
361	μ Serpentis	.153	34 17	-34 17
P	(ϵ Serpentis)	.155	35 40	+20 6
362	λ Librae	.157	37 46	+6 51
363	ξ Lupi	.159	40 5	+15 50
P	L Urs Min UCB	.154	42 58	+18 32
		.156	44 44	+63 00
		.157	45 41	-19 46
		.159	48 26	-33 35
		.154	48 50	78 12

Mag	Setting	sec ² _d	sec ² _{stand}	sec ²	C	tan δ	
2	321	15	+1.03	-16	1.013	+17	-16
4	352	27			1.308	+1.15	-84
5	348	41			1.240	+98	-74
5.6	322	12			1.015	+19	-17
3.4	274	32	+1.60	+99	1.266	-51	+78
3	240	5			1.266	-85	+78
3	252	58	+3.87	+3.32	3.290	-85	+3.13
6.7	331	34			1.966	-73	+1.69
4	321	58			1.059	+41	-35
2	285	13	+1.26	+57	1.014	+18	-17
5.6	346	17			1.124	-39	+51
5.6	346	36			1.206	+88	-67
5	292	16			1.210	+89	-68
2.3	305	32	+1.02	+12	1.065	-30	+37
3.4	296	32			1.008	-11	+12
3.4	315	23			1.039	-24	+28
3	307	30	+1.01	+09	1.001	+05	-05
4	332	7			1.004	-08	+09
4.5	345	54			1.063	+42	-36
4.5	234	12			1.200	+86	-66
					4.890	-90	+4.78

No	Star	α	1868	δ
364	γ Serpentis	15 50 21	+16	6
P	(ϵ Cor Bor)	.160 52 7	+27	16
	δ Scorpii	.161 52 32	-22	15
365	τ Herculis	.161 54 45	+55	07
	(β' Scorpii)	.163 55 19	+18	11
366	θ Draconis	.165 57 47	-19	26
	ω Scorpii	.166 59 25	+58	55
367	κ Herculis	.168 16 2 6	+17	24
368	ν Scorpii	.169 4 19	-19	6
P	ϕ Herculis	.169 4 42	+45	16
	Gr. 2320 UC	.171 5 58	+68	9
P	(δ Ophiuchi)	.172 7 25	-3	21
369	σ Coronae	.173 9 44	+34	12
370	ρ Ophiuchi	.174 11 20	-4	22
371	σ Scorpii	.176 13 10	-25	16
P	μ Herculis	.176 14 45	76	13
P	(τ Herculis)	.177 15 46	+46	38
372	ρ Ophiuchi	.177 16 26	+19	27
373	ω Herculis	.179 17 40	-23	8
P	(α Scorpii)	.180 21 17	+76	00
P	(η Draconis)	.181 21 38	+55	30
374	θ Ophiuchi	.182 22 13	+61	49
375	ν Herculis	.182 23 35	-16	19
	ϕ Ophiuchi	.182 24 24	+2	10
	η Herculis	.185 26 6	+5	48

Mag	Setting	sec ² S	sec ² Stand	sec	C	tan S
3	296	16		1,041	-25	+29
4	285	7	+1.27 +.58	1,125	-39	+52
2.3	334	35	+1.18 -.44	1,080	+49	-41
5.6	294	11		1,053	-27	+33
2	331	47	+1.12 -.37	1,060 1,060	+41	-35
3	253	28	+3.75 +3.22	1,937	-72	+1.66
5.6	294	58		1,048	-27	+31
4	331	28		1,059 1,059	+41	-35
5.6	244	14	+7.22 +6.69	2,687	-81	+2.49
3	315	43	+1.00 -.06	1,001	+06	-06
6	278	11		1,209	-47	+68
3	316	44		1,003	+08	-08
4	337	37		1,106	+58	-47
3.4	265	45	+2.57 +1.54	1,456	-60	+1.06
5	335	29		1,087	+51	-43
5	298	2		1,032	-22	+26
1.2	338	28	+1.24 -.55	1,114	+60	-49
2.3	250	34	+4.48 +3.96	2,117	-75	+1.87
4.5	328	41		1,042	+33	-29
5.6	306	34		1,006	-10	+10

P & Herc

16 24 42 21 46

No	Star	α	1868	δ
376	τ Scorpii	<i>Fraction of day less .5</i> 16 27 40	-27	56
P A	15 Draconis UC	.186 28 15	69	3
	(ζ Ophiuchi)	.186 29 54	-10	18
377	BAC 5568	.188 29 58	+42	42
		.190 32 20	+46	53
378	BAC 5579	.190 33 56	-17	29
379P	(ζ Herculis)	.192 36 19	+31	51
P	(η Herculis)	.194 38 22	+39	10
	(α Camel. LC)	.195 40 57	113	53
380	ϵ Scorpii	.195 41 37	-34	3
381P	k Herculis	.197 43 54	+7	29
382	51 Herculis	.199 46 16	+24	53
383	v Ophiuchi	.200 47 45	+10	23
384	54 Herculis	.201 49 33	+18	39
	(κ Ophiuchi)	.203 51 25	+9	35
385	BAC 5718	.204 53 20	-31	57
386P	(ϵ Herculis)	.205 55 14	+31	7
"	d Herculis	.206 56 44	+33	46
387P	60 Herculis	.208 59 15	+12	55
P	ϵ Urs Min UC	.208 16 59 36	+82	15
388	η Ophiuchi	.210 17 2 49	-15	34

Mag	Setting	sec ²	sec stand	sec	C	tan δ
3.4	340 17			1.131	+66	-53
5	243 20	+7.82	+7.49	2.797	-82	+2.61
2.3	322 40	+1.03	-1.18	1.016	+20	-18
6	265 30			1.464	-60	+1.07
5	329 50			1.049	+36	-31
3	280 32	+1.39	+1.73	1.177	-44	+62
3	273 12	+4.66	+1.06	1.289	-53	+82
4	198 33	+6.10	+5.58	2.470	-1.21	-2.26
3	246 26			1.207	+88	-68
5	304 54			1.009	-12	+13
5.6	287 30			1.102	-36	+46
4	301 59			1.017	-17	+18
5.6	293 44			1.056	-28	+34
3.4	302 47	+1.03	+1.17	1.014	-16	+17
6	344 16			1.178	+80	-62
3	281 15	+1.36	+1.70	1.168	-44	+60
5	278 37	+1.45	+1.81	1.203	-46	+67
5	299 27			1.026	-20	+23
4.5	230 8			7.416	-93	+7.35
2.3	327 55			1.038	+32	-28

Plan 2415

17 3 35 + 40 41

 α 1868 δ

Fraction of day less .5

No	Star	α	δ
389	BAC 5795	17 5 3	+51 0
390	BAC 5804	6 40	-33 24
P	α Herculis	8 38	+14 33
P	π Herculis	10 27	+36 58
391	w Herculis	12 27	+33 15
392	I Ophiuchi	13 54	-24 52
393	w Herculis	15 43	+32 38
394	b Ophiuchi	18 19	-24 3
395	o Ophiuchi	19 57	+4 15
396	v Scorpii	21 47	-37 11
Gr. 966 L.C.		22 6	105 3
397	λ Scorpii	24 39	-37 0
P	β Draconis	27 27	+52 24
P	α Ophiuchi	28 48	+12 40
398	μ Ophiuchi	30 40	-8 2
399	K Scorpii	33 22	-38 58
400	58 Ophiuchi	35 31	-21 37
401	β Ophiuchi	36 57	+4 38
P	w Draconis UC	37 44	+68 49
402	3 Sagittarii	39 15	-27 47

Mag	Setting	sec ² S	sec tan S	sec	C	tan S
6	261 22			+ 1.589	- 65	+ 1.24
6	345 43			+ 1.198	+ 86	- 66
var	297 50	+1.07	+ .27	+ 1.033	- 23	+ 26
3.4	275 25	+1.57	+ .94	+ 1.251	- 50	+ 75
4	279 8			+ 1.196	- 46	+ 66
3.4	337 12			+ 1.102	+ 56	- 46
6	279 44			+ 1.187	- 45	+ 64
5	336 24	+1.21	- .49	+ 1.099	+ 54	- 45
4.5	308 6			+ 1.003	- 07	+ 07
3.4	349 29			+ 1.255	+ 1.01	- 76
6.7	207 22			- 3.851	- 1.13	- 3.72
3	349 18			+ 1.252	+ 1.01	- 75
2.3	259 59	+2.69	+2.13	+ 1.639	- 66	+ 1.30
2	299 43	+1.05	+ .23	+ 1.025	- 20	+ 22
5	320 24			+ 1.030	+ 15	- 14
3	351 15			+ 1.285	+ 1.10	- 81
5	333 58			+ 1.076	+ 47	- 40
3	307 45			+ 1.003	- 08	+ 08
5	243 34	+7.67	+7.14	+ 2.768	- 81	+ 2.58
5	340 7			+ 1.132	+ 66	- 53

No	Star	α	1868	δ
	μ Herculis	317	41 18	+27 48
	γ Ophiuchi	.237	41 30	+2 45
403	δ Herculis	.239	43 26	+25 40
	γ Draconis	.239	44 17	72 13
404	BAC 6048 (γ Draconis) U.C.	.239	44 14	72 13
	β Draconis	.240	45 54	+50 49
405	BAC 6062	.242	47 47	+40 1
406	δ Herculis	.244	50 6	+26 4
	γ Ophiuchi	.245	51 46	-9 45
407	β Draconis	.246	52 48	+29 16
	γ Draconis	.246	53 33	+51 30
408	δ Ophiuchi	.247	54 19	+2 56
	γ Sagittarii	.248	55 4	+1 19
	β Sagittarii	.249	55 10	+76 57
	γ Sagittarii	.248	57 20	-30 25
409	BAC 6127	.250	17 59	43 -28 28
410	δ Herculis	.252	18 2	23 +28 45
	β Camel LC	.253	4 48	100 38
	μ Sagittarii	.254	5 52	-21 5
411	η Sagittarii	.256	8 42	-36 48
412	BAC 6194	.257	9 47	-27 5
413	δ Sagittarii	.259	12 33	-29 53
	η Serpentis	.260	14 29	-2 56
	δ Urs Min U.C.	.260	14 55	86 36
414	BAC 6241	.262	16 38	+23 14

Mag	Setting	sec ² d	sec ² d	sec ² d	C	tan δ	
3.4	284	34	+1.28	+60	1.136	-40	+53
6	286	42			1.107	-37	+48
4.5	240	11			3.274	-84	+3.12
5.6	261	34			1.582	-64	+1.23
5.6	272	22			1.305	-53	+84
5.6	286	18			1.113	-38	+49
4	322	7			1.015	+19	-17
2.3	260	53	+2.58	+202	1.606	-65	+1.26
5.6	311	3			1.006	-03	+02
3.4	342	45	+1.35	-68	1.160	+74	-59
5	340	48			1.138	+68	-54
4	283	38	+1.30	+63	1.141	-41	+55
4.5	201	47	+8.05	+7.55	~~2.838~~ ~~3.765~~	-1.18	-2.66
4	333	26	+1.15	-42	1.072	+46	-39
4	349	6			1.249	+1.00	-75
5.6	339	26			1.123	+63	-51
3.4	342	13			1.153	+73	-57
3	315	18	+1.00	-05	1.001	+05	-05
4.5	225	48			16.861	-97	+16.83
5.6	289	9			1.088	-34	+43

No	Star	α	1868	δ
Star		Fraction of day less .5		
415	BAC 6255	18 18 10	+49	3
		.263		
416	2 Sagittarii	19 49	-25	29
		.263		
417	b Draconis	21 58	+58	44
		.265		
418	BAC 6300	23 28 72	+23	41
		.267		
419	BAC 6318	24 7	+23	47
		.268		
	1 Aquilae	25 52	+59	28
		.269		
		28 1	-8	20
420	d Draconis	30 17	+56	57
		.271		
	(α Lyrae)	32 28	+38	40
		.272		
421	2 Aquilae	35 3	-9	11
		.273		
422	ϕ Sagittarii	37 25	-27	7
		.276		
	<u>51 Ceph. L.C.</u>	37 42	92	46
		.276		
423	110 Herculis	39 58	+20	25
		.278		
424	BAC 6404	41 59	+48	18
		.279		
425	BAC 6419	43 46	+52	51
		.281		
	(β Lyrae)	45 12	+33	13
	Arg. Z. +33° 32' 24"	.282 45 14	+33	12
	σ Sagittarii	47 4	-26	27
		.283		
426	δ' Lyrae	49 6	+36	49
	δ^2 Lyrae	.284 49 52	+36	44
	<u>50 Drac. U.C.</u>	50 37	+75	17
		.285		
427	13 Lyrae	51 18	+43	46
		.285		
428	ϵ Aquilae	53 38	+14	53
		.287		

Mag	Setting	sec ² d	sec ² d	sec	C	tan δ
5	263	20		x 1.526	-63	x +1.15
4	337	50		x 1108	+58	x -48
5	253	40		x 1.927	-72	x +1.65
6	288	36		x 1093	-35	x +44
6	252	55		x 1.968	-73	x +1.70
4.5	320	42	+1.02 -15	x 1.011	+15	x -15
5.6	255	26		x 1834	-70	x +1.54
1	273	43	+1.64 +1.02	x 1280	-52	x +80
5	321	32		x 1013	+17	x -16
4.5	339	28		x 1123	+64	x -51
5	219	38		x 20.81 -20.717	-1.02	x -20.69
5	291	57		x 1067	-31	x +37
6	271	5		x 1331	-55	x +88
5	259	32		x 1656	-66	x +1.32
var	279	10	+1.43 +.78	x 1195 1194	-46	x +65 +65
2.3	338	48	+1.25 -56	x 1117	+61	x -50
5.6	275	34		x 1250 1248	-50	x +75 +75
5	237	7		x 3.937	-87	x +3.81
var	268	37		x 1385	-57	x +96
3.4	297	29		x 1.035	-23	x +27

No	Star	α	δ	1868	δ
429	~~2 Aquilae~~ g Aquilae	18 55 57	-3	53	
430	16 Lyrae (ζ Aquilae)	57 42	+46	45	
431	π Sagittarii	18 59 21	+13	40	
432	BAC 6561	4 34	-21	52	
433	ψ Sagittarii	7 27	-25	29	
	d Sagittarii	9 55	-19	11	
434	L Lyrae (δ Draconis U)	11 47	+37	54	
435	d Aquilae	13 46	-1	8	
436	BAC 6626 P VII 67 LC	15 6	+49	19	
437	χ' Sagittarii (δ Aquilae)	17 14	-24	46	
	χ'' Sagittarii	18 4	+73	7	
438	4 Cygni	21 23	+36	3	
439	α Vulpeculae Lal 36950	23 13	+24	24	
440	β Cygni BAC 6691 (β Cygni)	25 24	+27	41	
441	μ Aquilae	27 38	+7	6	
	κ Aquilae	29 47	-7	19	
442	e Sagittae	31 18	+16	10	

Mag	Setting	sec ²	sec ² tan ²	sec	C	tan δ
6	316 15		x	1.002	+ 07	x - 07
5.6	265 38		x	1.460	- 60	x + 1.06
3	298 42	+1.06 +.25	x	1.029	- 22	x + 24
4.5	333 35		x	1.073	+ 46	x - 39
6	334 13		x	1.077	+ 48	x - 40
5	337 49		x	1.108	+ 58	x - 48
5	331 32	+1.12 - .37	x	1.059	+ 41	x - 35
5	274 29		x	1.267	- 51	x + 78
3	244 57	+6.79 +6.28	x	2.606	- 80	x + 2.41
6	313 30		x	1.001	+ 02	x - 02
6	263 3		x	1.534	- 63	x + 1.16
6	201 9	+7.60 +7.09	x	-2.757	- 1.19	x - 2.57
5.6	337 6		x	1.101	+ 56	x - 46
5	239 17		x	3.442	- 85	x + 3.30
3.4	309 31	+1.00 +.05	x	1.001	- 05	x + 05
6	276 19		x	1.237	- 49	x + 73
4	287 58		x	1.098	- 36	x + 45
3	284 41		x	1.129	- 39	x + 73
4.5	305 16		x	1.129	- 12	x + 52
5	319 41	+1.02 - .13	x	1.009	+ 14	x + 52
6	296 12		x	1.041	- 25	x + 12
			x			x - 13
			x			x + 29

No	Star	$\alpha \sim 1868$	δ
443	BAC 6737	19 33 20 +63 8	
444	β Sagittae	35 7 +17 10	
445	BAC 6755	37 36 -32 13	
	(γ Aquilae)	39 59 +10 18	
446	δ Sagittae	41 30 +18 13	
447	ζ Sagittae	43 6 +18 49	
	(α Aquilae)	44 21 +8 31	
448	ν Sagittarii	46 9 -42 13	
	(ϵ Draconis U.C.)	48 36 +69 56	
	(β Aquilae)	48 50 +6 5	
449	η Sagittarii	50 27 -15 50	
450	γ Sagittae	52 53 +19 8	
451	ϵ Sagittarii	54 32 -28 4	
452	BAC 6882	56 8 +24 26	
	λ Urs Min U.C.	56 14 88 55	
	τ Aquilae	57 42 +6 54	
	ζ Urs Maj LC	19 59 38 111 8	
453	ϵ Draconis	20 0 3 +64 27	
454	BAC 6924	2 21 +55 58	
455	δ Aquilae	4 30 -1 13	

Mag	Setting	sec ² S	sec ² tan ² D	C	tan S
5.6	249 15		~~2.213~~ ~~1047~~	-76	+1.98
5	295 12		1047	-26	+31
5.6	344 33		1182	+81	-63
3	302 5	+1.03+1.18	1016	-16	+18
4	294 10		1053	-27	+33
5	293 34		1057	-29	+34
1.2	303 51	+1.02+1.15	1012	-14	+15
4.5	254 36		1.350	+1.26	-91
4	242 27	+8.50+8.02	2.915	-82	+2.74
4	306 17	+1.01+1.11	1006	-10	+11
5.6	328 12		1.039	+32	-28
4.5	293 14		1059	-29	+35
4.5	340 25		1133	+66	-53
5	287 56		1098	-36	+45
6.7	223 29		52.892	-99	+52.88
5.6	305 28	+1.02+1.12	1008	-11	+12
6	201 17	+7.69+7.18	2.773	-1.19	-2.59
5	247 56		2.319	-77	+2.09
6	256 25		1786	-69	+1.48
3.4	313 35		1000	+02	-02

No	Star	α	1868	δ
456	20 Vulpeculae	20 6 28	+26	5
		.338		
457	ρ Aquilae	8 10	+14	48
	α^1 Capricorni	.339 10 20	-12	55
	$(\alpha^2 \text{ Capricorni})$	.341 10 44	-12	57
	κ Cephei UC	13 17	+77	19
	B.A.C. 6992	.343 13 22	-15	12
458	β Capricorni	.343 13 36	-15	12
459	BAC 7008	.344 15 28	+38	59
460	$(\gamma \text{ Cygni})$	.346 17 30	+39	50
	π Capricorni	.347 19 46	-18	39
461	ρ Capricorni	.348 21 20	-18	15
462	41 Cygni	.350 24 0	+29	56
	$(\epsilon \text{ Delphini})$	.352 26 54	+10	51
463	ζ Delphini	.354 29 7	+14	13
	Gr. 3241 UC	.355 30 33	+72	5
464	β Delphini	.355 31 21	+14	8
	B.A.C. 7146	.355 32 57	+15	23
465	α Delphini	.356 33 30	+15	27
(466 rej.)	(10 Delphini)	.356 35 5	+15	11
	$(\alpha \text{ Cygni})$	.359 36 56	+44	49
467	30 Vulpeculae	.361 39 9	+24	48
468	$(\epsilon \text{ Cygni})$	.362 40 52	+33	29
469	$(\eta \text{ Cephei})$	.363 42 36	+61	19
	μ Aquarii	.365 45 32	-9	29

Mag	Setting	sec ² d	sec ² d	sec	C	tan δ
6	286	17		x 1.114	-38	x + 49
5	297	35		x 1034	-23	x + 26
3.4	325	18	+1.05	x ¹⁰²⁷ 1027	+25	x ⁻²³ -23
4.5	235	5		x 4.554	-89	x + 4.45
3.4	327	33		x ¹⁰³⁶ 1036	+31	x ⁻²⁷ -27
6	273	24		x 1286	-52	x + 81
3	272	33	+1.70	x ^{1.302} 1.302	-53	x + 83
5	330	59	+1.12	x ⁻³⁶ 1056	+40	x - 34
5	330	36		x 1053	+38	x - 33
4.5	282	27		x 1154	-42	x + 58
4	301	31	+1.04	x ⁺¹⁹ 1018	-17	x + 19
5	298	9		x 1031	-22	x + 25
6.7	240	18		x 3.251	-84	x + 3.09
4	298	14		x 1031	-22	x + 25
3.4	296	55		x ¹⁰³⁷ 1038	-24	x ⁺²⁸ +28
1.2	267	34	+1.99	x ¹⁰³⁶ 1410	-58	x ⁺²⁷ +99
6	287	34		x 1102	-36	x + 46
3	278	54	+1.44	x ⁺⁷⁹ 1199	-46	x + 66
3.4	251	4	+4.34	x ⁺³⁸¹ 2083	-74	x + 1.83
4.5	321	50	+1.03	x ⁻¹⁷ 1.014	+18	x - 17

No	Star	α	1868	δ
470	19 Capric.	20 47 20	-18 25	
471	32 Vulpec.	48 56	+27 33	
	(γ Cygni)	52 15	+40 40	
	<u>74 C 1879 UC</u>	53 29	+80 3	
472	BAC 7294	54 16	+49 57	
473	η Capricorni	56 53	-20 23	
474	ζ Capricorni	58 31	-17 45	
	σ^2 Mrs. Maj Lo C	58 44	112 20	
	(61' Cygni)	21 0 58	+38 6	
	B.A.C. 7337	(.375) 1	+38 6	
475	γ Aquarii	2 24	-11 54	
476	γ Equulei	3 55	+9 36	
477	3 Pisc. Aut.	5 27	-28 9	
	(ζ Cygni)	7 19	+29 41	
478	(τ Cygni)	9 31	+37 29	
479	σ Cygni	12 14	+38 51	
	(α Cephei)	15 26	+62 2	
	1 Pegasi	15 59	+19 15	
480	6 Cephei	17 37	+64 19	
	<u>1 Drac LC</u>	18 2	98 6	
481	ζ Capric.	19 8	-22 59	

Mag	Setting	sec ²	sec ² tan ²	sec	C	tan δ
6	330 46			$\times$ 1056	+ 38	$\times$ - 33
5.6	284 49			$\times$ 1127	- 39	$\times$ + 52
4	271 43	+1.75	+1.14	$\times$ 1322	- 54	$\times$ + 86
6	232 20			$\times$ 5.788	- 91	$\times$ + 5.70
6	262 26			$\times$ 1554	- 63	$\times$ + 1.19
5	332 43			$\times$ 1067	+ 43	$\times$ - 37
5.6	330 6			$\times$ 1051	+ 37	$\times$ - 32
5	200 5	+6.92	+6.39	$\times$ -2.631	-1.20	$\times$ -2.43
5.6	274 17	+1.62	+1.99	$\times$ 1271	- 51	$\times$ + 78
5	324 16			$\times$ 1022	+ 23	$\times$ - 21
5	302 46			$\times$ 1014	- 15	$\times$ + 17
6	340 30			$\times$ 1134	+ 66	$\times$ - 53
3	282 41	+1.33	+1.66	$\times$ 1152	- 42	$\times$ + 57
5	274 54	+1.59	+1.97	$\times$ 1260	- 51	$\times$ + 77
4.5	273 32			$\times$ 1283	- 52	$\times$ + 81
2.3	250 22	+4.55	+4.01	$\times$ 2133	- 75	$\times$ + 1.88
4.5	293 8	+1.12	+1.37	$\times$ 1059	- 29	$\times$ + 35
5	248 4			$\times$ 2308	- 77	$\times$ + 2.08
4.5	214 18			$\times$ -7098	-1.07	$\times$ -7.03
4	335 20			$\times$ 1086	+ 51	$\times$ - 42

No	Star	α	1868	δ
482	δ Capricorni	21 21	12 -22	23
	24 Urs Maj LC	22 46	109	36
	(β Aquarii)	24 36	-6	9
483	BAC 7488	26 49	+51	37
	(β Cephei UC)	26 57	+69	59
484	ρ Cygni	29 0	+45	1
	ξ Aquarii	30 43	-8	27
485	γ Capric.	32 46	-17	15
486	κ Capric.	35 16	-19	28
	(ϵ Pegasi)	37 42	+9	16
487	δ Capric.	39 45	-16	43
	11 Cephei UC	39 59	+70	42
488	π^2 Cygni	41 55	+48	42
489	14 Pegasi	43 50	+29	34
	μ Capric.	46 6	-14	10
490	BAC 7636	48 40	+55	35
491	μ Cephei	50 27	+55	59
	79 Draconis UC	51 13	+73	5
492	η Pisc. Austr.	53 15	-29	5
493	20 Pegasi (rij)	54 39	+12	29

Mag	Setting	sec ² f	sec stand	sec	C	tan δ
5.6	334 44		*	1.081	+49	* -41
4.5	202 50	+889 +838	*	-2.982	-1.17	* -2.81
3	318 31	+1.01 -.11	*	1.006	+11	* -11
6	260 46		*	1.610	-65	* +1.26
3	242 24	+8.53 +803	*	2.921	-82	* +2.75
4.5	267 22		*	1.414	-59	* +1.00
5	320 48	+1.02 -.15	*	1.011	+16	* -15
4	329 37		*	1.047	+36	* -31
5	331 49		*	1.061	+41	* -35
2.3	303 6	+1.03 +.16	*	1.013	-15	* +16
3.4	329 5		*	1.044	+34	* -30
5	241 41	+9.16 +8.62	*	3.026	-83	* +2.85
5	263 41		*	1.516	-62	* +1.14
5	282 49		*	1.150	-42	* +57
5	326 32	+1.06 -.26	*	1.031	+28	* -25
6	256 48		*	1.769	-69	* +1.46
5.6	256 24		*	1.787	-69	* +1.48
6.7	239 19		*	3.437	-85	* +3.28
5	341 25		*	1.145	+70	* -56
				1025		+22

No	Star	α	1868	δ
494	$\circ$ Aquarii	21 56 29	-2	47
	(α Aquarii)	21 59 0	-0	58
495	ι Pegasi	22 0 51	+24	42
496	δ Pegasi	3 32	+5	33
497	(ζ Cephei)	6 16	+57	33
498	BAC 7765	8 12	+39	4
	<u>32 Urs Maj LC</u>	8 25	114	14
	δ Aquarii	9 52	-8	26
499	45 Aquarii	11 55	-13	58
+500	~~W XXIV~~ 223	12 12	-8	28
	ρ Aquarii	13 15	-8	29
501	γ Aquarii	14 50	-2	3
502	BAC 7803	16 24	+43	5
	π Aquarii	18 32	+0	42
503	BAC 7825	20 6	+49	44
504	ζ Aquarii	22 1	-0	42
	η Draconis LC	23 48	103	37
505	β Pisc. Aust.	23 59	-33	1
506	α Lacertae	25 51	+49	36
507	ν Aquarii	27 27	-21	23
	(η Aquarii)	28 34	-0	48

Mag	Setting	sec ² d	sec stand	sec c	C	tan δ
5	315	9		1001	+05	x -05
3	313	20	+1.00 -02	1000	+02	x -02
4	287	40		1101	-36	x +46
4	306	49		1005	-09	x +10
4	254	50	+3.47 +2.93	1864	-71	x +1.57
5	273	19		1287	-52	x +81
6	198	12	+5.93 +5.41	2436	-1.22	x -2.22
4.5	320	48	+1.02 -15	1011	+16	x -15
6	326	19		1030	+28	x -25
5.6	320	51		1011	+16	x -15
3	314	25		1001	+04	x -04
6	269	18		1370	-57	x +94
4.5	311	40	+1.00 +01	1000	-01	x +01
6	262	39		1547	-63	x +1.18
4	313	4		1000	+01	x -01
4.5	208	48		4248	-1.12	x -4.13
4	345	21		1.192	+84	x -65
4	262	47		1543	-63	x +1.18
5	333	44		1074	+46	x -39
3.4	313	10	+1.00 -01	1000	+02	x -01

No	Star	α	1868	δ
	226 Cephæi UC	22 29 57	+75	33
		.438		
508	κ Aquarii	30 53	-4	54
		.439		
509	ϵ Pisc. Aust.	33 21	-27	44
		.440		
	(ζ Pegasi)	34 53	+10	9
		.441		
510	(η Pegasi)	36 49	+29	32
		.442		
511	13 Lacertæ	38 12	+41	8
		.443		
512	λ Pegasi	40 10	+22	52
		.445		
(513 rej.)	μ Pegasi	43 38	+23	54
514		.447		
	(ι Cephæi UC)	44 59	+65	30
		.448		
	(λ Aquarii)	45 44	-8	17
		.449		
515	δ Aquarii	47 38	-16	31
		.450		
516	δ Pisc. Aust.	48 38	-33	15
		.451		
	α Pisc. Aust.	50 21	-30	19
		.452		
517	BAC 8002	52 23	-30	10
		.453		
518	3 Piscium	53 52	-0	31
		.454		
519	(θ Androm)	55 51	+41	37
		.455		
	(α Pegasi)	22 58 11	+14	30
		.457		
520	55 Pegasi	23 0 24	+8	42
		.458		
521	ϵ^2 Aquarii	2 24	-21	53
	BAC 8073	3 48	-6	40
		.460		
522	59 Pegasi	5 4	+8	0
		.462		

May	Setting	sec ²	sec ² stand	sec ²	B	tan δ
5.6	236 51 47.16			4.008	-87	+3.88
6	317 16 710.4			1004	+09	-09
4	340 4 32.14			1130	+66	-52
3.4	302 14	+1.03	+1.18	1016	-16	+18
3	282 51 12.51	+1.32	+66	1150	-42	+57
6	271 15 1.15			1.328	-55	+87
4.5	289 30 19.30			1085	-34	+42
4	288 28 18.28			1094	-35	+44
3.4	246 53	+5.82	+5.28	2412	-78	+2.19
4	320 39 58.53	+1.02	-15	1011	+15	-15
3	328 53 75.34			1043	+34	-30
5.6	345 34 72.39			1195	+84	-66
1.2	342 39 82.30	+1.34	-67	1159	+74	-58
6	342 30 42.53			1157	+74	-58
6	312 53 0.46			1000	+01	-01
4	270 46	+1.79	+1.19	1338	-55	+89
2	297 53 27.53	+1.07	+27	1032	-22	+26
5	303 40 33.40			1012	-14	+15
4.5	334 14 64.14			1077	+48	-40
5.6	304 22 34.22			1010	-13	+14

No	Star	α	1868	δ
		Fraction of day less .5 ^h		
523	ϕ Aquarii	D 23	7 29	-6 46
		.463		
524	ψ^1 Aquarii		8 59	-9 48
		.465		
525	γ Piscium	D	10 19	+2 34
		.466		
526	ψ^3 Aquarii		12 5	-10 20
		.467		
	α Cephei UC		13 13	+67 23
		.467	13 36	-11 32
527	τ Pegasi	W XXIV 293	14 6	+23 1
		.468		
528	b^1 Aquarii		16 2	-20 49
	K 11133	.469	18 12	+22 41
529	ν Pegasi	D	18 48	~~67~~ 19
		.471		
	ζ Piscium		21 16	+5 39
	(λ Drac. LC)	.473	23 32	109 56
		.475		
530	BAC 8188		23 56	57 49
		.475		
531	b^4 Aquarii		26 22	-21 39
	71 Pegasi	.477		
532	15 Androm		28 10	+39 31
		.478		
(533 rej)	(λ Androm)		31 6	+45 45
534		.480		
5	(ν Piscium)		33 9	+4 55
		.481		
	(γ Cephei UC)		33 57	76 54
		.482		
535	λ Piscium		35 19	+1 3
		.483		
536	i^1 Aquarii		37 21	-19 1
	78 Pegasi	.484		
537	ψ Androm		39 30	+45 41
	20 Pict	.485		
538	δ Sculptoris		42 3	-28 52
		.487		

Mag	Setting	sec ² S	sec ² land	sec ✓	C	tan S
5	319 17			+1.007	+13	x -12
5.6	322 10			+1.015	+19	x -17
4	³⁹⁻⁴⁸ 309 48			x 1.001	-05	x +04
5	322 42			x 1.016	+20	x -18
5.6	245 0	+6.76	+6.24	x 2.600	-80	x +2.40
5	¹⁹⁻²¹ 289 21			x 1.086	-34	x +42
5	⁶³⁻¹⁰ 333 10			x 1.070	+45	x -38
5	¹⁹⁻⁴² 289 42			x 1.084	-34	x +42
4.5	³⁶⁻⁴³ 306 43	+1.01	+1.10	x 1.005	-15	x +10
3.4	202 29	+8.60	+8.10	x -2.933	-1.18	x -2.76
5	^{344 34} 254 34			x 1.877	-71	x +1.59
5	⁶⁴⁻⁰ 333 59			x 1.076	+48	x -40
5.6	^{2.52} 272 52			x 1.296	-53	x +82
4	³⁵⁶⁻³⁸ 266 38	+2.05	+1.48	x 1.433	-59	x +1.03
4.5	³⁷⁻²⁷ 307 27	+1.01	+1.09	x 1.004	-08	x +09
3.4	³¹⁵⁻³⁰ 235 30	+19.45	+19.01	x 4.412	-88	x +4.30
5	⁴¹⁻¹⁹ 311 19			x 1.000	-02	x +02
5	⁶¹⁻²² 321 22			x 1.058	+40	x -34
5	³⁵⁶⁻⁴² 266 42			x 1.431	-59	x +1.02
4.5	⁷¹⁻¹² 341 12			x 1.142	+70	x -55

No	Star	α 1868	δ
539	BAC 8289 22 Piscium	23 43 47 .489	+50 53
540	ϕ Pegasi	45 47 .490	+18 23
541	ρ Cassiope	47 47 .491	+56 46
	<u>Gr. 4163 U.C.</u>	48 26 .492	73 41
542	BAC 8322	50 30 .493	+54 58
	(ω Piscium)	52 32 .494	+6 8
543	30 Piscium	55 11 .497	-6 45
544	2 Ceti	56 58 .498	-18 4
545	33 Piscium	58 35 .499	-6 27

Additional stars entered
on following pages.

Mag	Setting	sec ² δ	sec stand	sec C	tan δ
6	^{351.30} 261 30			⁺ 1.585 - 64	⁺ 1.23
6	^{23.59} 293 59			^x 1054 - 28	^x + 33
5.6	^{345.37} 255 37			^x 1825 - 70	^x + 1.53
7	^{328.43} 238 43			⁺ ~~3560~~ - 86	⁺ 3.42
6	^{347.25} 257 25			⁺ 1742 - 68	⁺ 1.43
4	^{36.14} 306 14	⁺ 1.01 + .11		⁺ 1006 - 10	⁺ + 11
4.5	^{49.7} 319 7			⁺ 1008 + 13	^x - 12
4	^{60.25} 330 25			^x 1052 + 38	⁺ - 33
5	^{406.46} 318 48			⁺ 1.007 + 12	^x - 11

+ checked

List of stars observed
1867 & 1868
with Transit Circle
at Harvard College Observatory
by E. P. Austin
in addition to those of preceding list.

No.	Star	Magn.	No. from observing list	Fraction of day Δ 1870		
1	Weisse ^h 99	6.8	1	0 ^h	7 ^m	7 ^s
2	Lalande 163	7.2	2	.005	7	56
3	B.A.C. 42	7.0	3	.005	9	15
4	B.A.C. 57	7.0	4	.006	11	6
5	44 Piscium	6.2	5	.007	18	43
6	B.A.C. 113	7.0	6	.013	23	29
7	B.A.C. 161	6.8	7	.016	30	49
8	B.A.C. 221	6.0	8	.021	41	35
9	B.A.C. 237	6.2	9	.029	44	36
10	Weisse ^h 870	7.0	10	.031	50	59
11	26 Ceti	6.0	11	.035	57	9
12	73 Piscium	6.0	12	.040	58	9
13	77 Piscium	6.7	13	.040	59	6
14	29 Ceti	7.0	14	.041	1	19
15	33 Ceti	6.0	16	.042	3	55
16	35 Ceti	6.8	17	.044	5	51
17	Weisse ^h 111	6.8	18	.045	8	55
18	B.A.C. 405	6.5	20	.047	15	57
19	Weisse ^h 322	7.0	21	.053	20	9
20	Weisse ^h 679	6.8	23	.056	37	52
				.067		

S 1870	$\tan \delta$	$\sec \delta$	Setting
+ 0° 39.8	+ 0.012	+ 1.000	311° 42'
0 34.7	+ 0.010	+ 1.000	311 47
3 31.5	+ 0.064	+ 1.002	308 50
0 58.0	+ 0.017	+ 1.000	311 24
1 12.7	+ 0.021	+ 1.000	311 9
4 7.1	+ 0.072	+ 1.002	308 14
2 25.1	+ 0.042	+ 1.001	309 57
4 36.3	+ 0.080	+ 1.003	307 45
2 40.3	+ 0.047	+ 1.001	309 41
1 4.5	+ 0.019	+ 1.000	311 17
0 39.6	+ 0.012	+ 1.000	311 42
4 57.3	+ 0.087	+ 1.004	307 24
4 13.3	+ 0.074	+ 1.002	308 8
1 19.1	+ 0.023	+ 1.000	311 3
1 44.3	+ 0.030	+ 1.000	310 37
1 46.4	+ 0.031	+ 1.000	310 35
0 13.6	+ 0.004	+ 1.000	312 8
1 3.0	+ 0.018	+ 1.000	311 19
2 57.2	+ 0.050	+ 1.001	309 31
2 33.2	+ 0.045	+ 1.001	309 49

No.	Star	Hugrov.	No. from observing list	2 1870 Fraction of day
21	Lalande 3226	6.8	24	1 ^h 39 ^m 0 ^s .068
22	B.A.C. 551	6.5	25	41 42 .070
23	ξ Piscium	4.5	26	46 50 .074
24	Weisse 1 ^h 865	6.2	27	49 9 .076
25	112 Piscium	6.5	28	53 33 .079
26	α Piscium	3.5	29	1 55 20 .080
27	Weisse 2 ^h 7	7.5	30	2 2 52 .086
28	Weisse 2 ^h 106	7.2	31	8 29 .090
29	B.A.C. 708	5.8	32	11 15 .092
30	Weisse 2 ^h 334	6.8	33	21 17 .098
31	B.A.C. 776	5.5	34	24 46 .100
32	ν Ceti	5.3	35	29 3 .103
33	Weisse 2 ^h 523	7.2	36	31 52 .105
34	Weisse 2 ^h 585	7.2	37	34 33 .108
35	B.A.C. 852	7.2	39	38 33 .110
36	Weisse 2 ^h 795	7.0	40	46 55 .115
37	Lalande 5460	6.8	41	50 16 .118
38	Lalande 5592	7.0	42	55 2 .121
39	Weisse 2 ^h 1008	6.5	44	2 57 55 .123
40	97 Ceti	6.3	46	3 14 20 .125

δ 1870	$\tan \delta$	$\sec \delta$	Setting
+ 3° 1.5	+ 0.053	+ 1.001	309° 20'
3 1.4	+ 0.053	+ 1.001	309 20
2 33.1	+ 0.045	+ 1.001	309 49
1 12.0	+ 0.021	+ 1.000	311 10
2 28.6	+ 0.043	+ 1.001	309 53
2 8.2	+ 0.037	+ 1.001	310 14
3 37.7	+ 0.064	+ 1.002	308 44
0 8.7	+ 0.003	+ 1.000	312 16
1 8.6	+ 0.020	+ 1.000	311 14
1 23.1	+ 0.024	+ 1.000	310 59
1 42.1	+ 0.030	+ 1.000	310 40
5 0.9	+ 0.088	+ 1.004	307 21
2 52.2	+ 0.047	+ 1.001	309 30
3 51.5	+ 0.067	+ 1.002	308 31
4 9.4	+ 0.073	+ 1.002	308 13
1 27.2	+ 0.025	+ 1.000	310 53
3 58.0	+ 0.069	+ 1.002	308 24
4 50.0	+ 0.085	+ 1.004	307 32
1 22.5	+ 0.024	+ 1.000	311 0
3 12.5	+ 0.056	+ 1.001	309 10

No.	Star	Magn.	No. from observing list	2 1870 Fraction of day		
41	Weisse 3 ^h 277	7.2	47	3 ^h 16 ^m 58 ^s		
42	Weisse 3 ^h 376	6.5	48	.136	22	18
43	B. A. C. 1110	6.9	49	.140	30	9
44	12 Tauri	5.8	50	.146	33	6
45	Lalande 6765	7.0	51	.148	33	38
46	Weisse 3 ^h 836	7.0	52	.148	44	1
47	Weisse 3 ^h 915	6.7	53	.156	46	45
48	Weisse 3 ^h 943	7.0	54	.158	49	48
49	Lalande 7540	5.8	55	.160	3 57	21
50	Weisse 4 ^h 14	7.1	56	.165	4 2	56
51	Weisse 4 ^h 377	7.2	57	.169	19	10
52	Weisse 4 ^h 400	6.3	58	.180	20	16
53	Lalande 8414	6.5 (?)	59	.181	21	19
54	44 Eridani	5.7	60	.181	21	49
55	49 Eridani	5.7	61	.182	30	32
56	Weisse 4 ^h 808	6.8	62	.188	38	2
57	Weisse 4 ^h 875	7.2	63	.194	41	40
58	Weisse 4 ^h 881	7.0	64	.196	41	56
59	Weisse 4 ^h 936	7.3	K (1)	.196	44	4
60	5 Orionis	5.0	65	.198	46	36
				.199		

δ 1870	$\tan \delta$	$\sec \delta$	Setting
+ 0° 27.6	+0.008	+1.000	311 54
2 48.2	+0.049	+1.001	309 34
0 10.0	+0.003	+1.000	312 12
2 39.5	+0.046	+1.001	309 42
4 43.1	+0.082	+1.003	307 39
1 10.2	+0.020	+1.000	311 12
1 43.4	+0.030	+1.000	310 39
2 41.1	+0.047	+1.001	309 41
2 28.2	+0.043	+1.001	309 54
2 58.7	+0.052	+1.001	309 23
4 4.2	+0.071	+1.002	308 18
1 47.4	+0.031	+1.000	310 35
1 34.3	+0.027	+1.000	310 48
1 5.2	+0.019	+1.000	311 17
0 44.5	+0.013	+1.000	311 38
0 19.8	+0.006	+1.000	312 2
2 29.4	+0.044	+1.001	309 53
3 21.0	+0.058	+1.002	309 1
0 55.5	+0.016	+1.000	311 27
2 17.9	+0.040	+1.001	310 4

No.	Star	Magn.	No. from observing list	2 1870 Fraction of day
61	Laalande 9207	7.5	l(2)	4 ^h 47 ^m 13 ^s
62	π^5 Orionis	3.5	66	.199 47 28
63	B. A. C. 1519	6.2	67	.199 48 10
64	Laalande 9261	7.5	l(3)	.200 49 16
65	π^6 Orionis	5.0	68	.201 51 48
66	Weisse 4 ^h 1171	7.0	69	.203 53 53
67	Weisse 4 ^h 1207	6.2	70	.204 55 10
68	Laalande 9469	6.5	71	.205 55 16
69	Weisse 4 ^h 1296	6.0	72	.205 4 58 40
70	Laalande 9699	7.0	73	.207 5 2 7
71	Weisse 5 ^h 64	6.5	74	.210 5 3
72	ρ Orionis	4.8	75	.212 6 28
73	Laalande 9802	6.8	76	.213 6 46
74	Laalande 9820	6.0	78	.213 7 49
75	Weisse 5 ^h 183?	6.8	79	.214 9 55
76	21 Orionis	6.1	80	.215 12 23
77	Weisse 5 ^h 259	7.5	$\kappa(4)$	.217 13 2
78	Weisse 5 ^h 287	7.2	81	.217 13 56
79	Weisse 5 ^h 291	7.3	$\kappa(5)$	.218 14 3
80	Weisse 5 ^h 303	7.3	$\kappa(6)$	.218 14 28

S 1870	$\tan S$	$\sec S$	Setting
+ 1° 21.1	+0.024	+1.000	311° 1'
2 14.9	+0.039	+1.001	310 7
0 15.2	+0.004	+1.000	312 7
1 24.8	+0.025	+1.000	310 57
1 31.7	+0.027	+1.000	310 50
4 23.4	+0.077	+1.003	307 59
0 33.0	+0.010	+1.000	311 49
1 24.9	+0.025	+1.000	310 57
1 0.0	+0.017	+1.000	311 22
3 3.6	+0.054	+1.001	309 18
0 52.0	+0.015	+1.000	311 30
2 42.0	+0.047	+1.001	309 40
1 48.7	+0.032	+1.000	310 33
5 0.2	+0.087	+1.004	307 22
1 49.0	+0.032	+1.000	310 33
2 28.2	+0.043	+1.001	309 54
2 23.5	+0.042	+1.001	309 59
2 25.3	+0.042	+1.001	309 57
2 47.6	+0.049	+1.001	309 34
3 52.1	+0.068	+1.002	308 30

No.	Star	Magn.	No. from observing list	α 1870 Fraction of day
81	m Orionis	5.3	82	5 ^h 16 ^m 0 ^s .219
82	Weisse 5 ^h 343	7.5	K(7)	16 2 .219
83	Lalande 10133	7.4	l(8)	17 51 .221
84	ψ' Orionis	5.0	(9)	18 0 .221
85	Weisse 5 ^h 458	7.2	85	20 14 .222
86	Lalande 10264	7.2	87	21 18 .223
87	Lalande 10328	7.2	88	23 9 .224
88	Weisse 5 ^h 543	7.4	K(10)	23 28 .225
89	n' Orionis	6.5	89	24 14 .225
90	Lalande 10465	7.2	90	27 13 .227
91	Weisse 5 ^h 731	6.0	92	30 18 .230
92	w Orionis	5.0	(11)	32 19 .231
93	Weisse 5 ^h 854	7.3	K(12)	34 15 .232
94	51 Orionis	5.7	93	35 46 .233
95	Weisse 5 ^h 955	7.0	94	38 9 .235
96	B. A. C. 1831	6.5	95	39 53 .236
97	Weisse 5 ^h 1008	7.5	K(14)	40 37 .237
98	Arg. Zones +3° 1041	7.5	(15)	41 23 .238
99	Weisse 5 ^h 1043	7.5	K(16)	42 7 .238
100	Weisse 5 ^h 1083	6.0	96	43 20 .239

δ 1870	$\tan \delta$	$\sec \delta$	Setting
+ 3° 25.2	+ 0.060	+ 1.001	308° 57'
3 25.7	+ 0.060	+ 1.001	308 56
2 14.3	+ 0.039	+ 1.001	310 8
1 43.5	+ 0.030	+ 1.000	310 38
3 43.7	+ 0.065	+ 1.002	308 38
1 11.3	+ 0.021	+ 1.000	311 11
1 40.0	+ 0.029	+ 1.000	310 42
4 5.9	+ 0.072	+ 1.002	308 16
3 11.8	+ 0.056	+ 1.001	309 10
1 20.1	+ 0.023	+ 1.000	311 2
4 41.0	+ 0.082	+ 1.003	307 41
4 2.3	+ 0.071	+ 1.002	308 19
0 16.0	+ 0.005	+ 1.000	312 6
1 24.6	+ 0.025	+ 1.000	310 57
3 57.0	+ 0.069	+ 1.002	308 25
1 7.5	+ 0.020	+ 1.000	311 15
4 2.4	+ 0.071	+ 1.002	308 20
3 51.8	+ 0.067	+ 1.002	308 30
0 41.3	+ 0.012	+ 1.000	311 41
4 23.0	+ 0.077	+ 1.003	307 59

No.	Star	Magn.	No. from observing list	L 1870 Fraction of day
101	56 Orionis	5.8	97	5 ^h 45 ^m 41 ^s
102	Weisse 5 ^h 1187	6.3	98	.239 47 14
103	Weisse 5 ^h 1197	7.0	99	.241 48 2
104	Weisse 5 ^h 1282	7.2	100	.242 51 11
105	59 Orionis	6.5	101	.244 51 39
106	60 Orionis	5.7	102	.245 52 9
107	Weisse 5 ^h 1403	7.4	$\kappa(17)$	.247 55 33
108	66 Orionis	6.0	103	.249 58 6
109	Weisse 5 ^h 1482	7.0	104	.249 5 58 41
110	Weisse 5 ^h 1586 } 9 }	6.5	105	.251 6 2 11
111	Weisse 6 ^h 19	7.5	$\kappa(18)$	.252 3 1
112	Weisse 6 ^h 181	7.5	$\kappa(19)$	.255 7 51
113	Weisse 6 ^h 218	7.0	106	.256 8 55
114	Lalande 11947	6.5	107	.256 9 11
115	Lalande 11961	7.0	108	.257 9 39
116	Weisse 6 ^h 400	7.0	109	.260 14 38
117	Weisse 6 ^h 439	7.5	(20)	.261 15 52
118	B.A.C. 2057	var 7.5?	(21)	.261 16 27
119	Lalande 12226	7.3	1(22)	.262 17 0
120	Lalande 12300	6.9	111	.263 19 0

S 1870	tand	secd	Setting
+ 1° 50.2	+0.032	+1.000	310° 32'
3 12.8	+0.056	+1.002	309 9
0 56.8	+0.017	+1.000	311 25
1 12.2	+0.021	+1.000	311 10
1 49.3	+0.032	+1.000	310 33
0 31.9	+0.009	+1.000	311 50
1 40.9	+0.029	+1.000	310 41
4 9.5	+0.073	+1.002	308 12
0 37.2	+0.011	+1.000	311 45
2 31.5	+0.044	+1.001	309 51
2 53.8	+0.051	+1.001	309 28
2 19.7	+0.041	+1.001	310 2
4 19.5	+0.076	+1.003	308 2
1 12.4	+0.021	+1.000	311 10
1 7.3	+0.020	+1.000	311 15
2 19.9	+0.041	+1.001	310 2
4 16.6	+0.075	+1.002	308 6
3 49.7	+0.067	+1.002	308 32
2 44.2	+0.048	+1.001	309 38
2 20.9	+0.041	+1.001	310 1

No.	Star	Magn.	No. from observing list	α 1870 Fraction of day
121	Weisse 6 ^h 537	7.5	K(23)	6 ^h 19 ^m 10 ^s .263
122	Sealande 12316	6.1	112	20 31 .264
123	77 Orionis	5.9	113	20 34 .264
124	Sealande 12385	7.1	114	21 31 .265
125	Sealande 12426	6.8	115	22 27 .266
126	12 Monocerotis	7.0	116	25 25 .268
127	Sealande 12596	7.5	117	27 20 .269
128	Sealande 12637	6.6	118	28 35 .269
129	Arg. Zones + 4° 1335	7.5	119	29 6 .270
130	Sealande 12723	7.5	121	31 7 .271
131	Sealande 12754	6.8	122	31 54 .272
132	Weisse 6 ^h 942	7.5	123	31 55 .272
133	B. A. C. 2189	6.5	124	34 25 .274
134	Weisse 6 ^h 1041	7.3	125	35 15 .275
135	Weisse 6 ^h 1074	7.0	126	36 18 .275
136	Sealande 12940	6.4	127	36 47 .275
137	18 Monocerotis	4.9	128	41 4 .278
138	Weisse 6 ^h 1268	7.0	129	42 21 .279
139	Weisse 6 ^h 1345?	7.0	130	44 50 .281
140	Sealande 13222	7.0	131	44 53 .281

S	1870	$\tan S$	$\sec S$	Setting
+	$0^{\circ} 52.9$	$+0.015$	$+1.000$	$312^{\circ} 29'$
2	59.4	$+0.052$	$+1.001$	$309 23$
0	22.5	$+0.007$	$+1.000$	$312 0$
2	0.0	$+0.035$	$+1.001$	$310 22$
2	43.9	$+0.048$	$+1.001$	$309 38$
4	56.0	$+0.086$	$+1.004$	$307 26$
3	0.0	$+0.052$	$+1.001$	$309 22$
0	59.3	$+0.017$	$+1.000$	$311 23$
4	36.6	$+0.081$	$+1.003$	$307 46$
2	22.7	$+0.042$	$+1.001$	$309 59$
1	43.6	$+0.030$	$+1.000$	$310 39$
4	49.1	$+0.084$	$+1.004$	$307 33$
0	36.3	$+0.011$	$+1.000$	$311 46$
3	22.4	$+0.059$	$+1.002$	$309 0$
3	9.5	$+0.055$	$+1.002$	$309 13$
4	3.4	$+0.071$	$+1.002$	$308 19$
2	33.3	$+0.045$	$+1.001$	$309 49$
1	8.6	$+0.020$	$+1.000$	$311 14$
2	48.0	$+0.049$	$+1.001$	$309 34$
3	11.8	$+0.056$	$+1.001$	$309 10$

No.	Star	Magn.	No. from observing list	2 1870 Fraction of day
141	Weisse 6 ^h 1575	6.9	132	6 ^h 52 ^m 7 ^s .286
142	Weisse 6 ^h 1734 <i>Arg. Z. +1° 1663</i>	7.5	133	56 47 .290
143	Lalande 13695	6.8	134	6 57 36 .290
144	Weisse 7 ^h 77	7.0	135	7 4 23 .294
145	B. A. C. 2373	6.0	136	7 31 .297
146	24 Monocerotis	7.2	137	8 41 .298
147	Weisse 7 ^h 350	6.5	K138	12 36 .300
148	Weisse 7 ^h 389	7.5	K139	13 51 .301
149	Weisse 7 ^h 390	7.5	K140	13 55 .301
150	B. A. C. 2433	7.0	141	15 23 .302
151	Weisse 7 ^h 448	7.0	142	15 46 .302
152	Weisse 7 ^h 700	7.3	143	23 43 .307
153	Lalande 14666	7.4	144	25 15 .309
154	S ¹ Can. Min.	5.8	145	25 22 .309
155	S ² Can. Min.	6.5	146	26 24 .310
156	S ³ Can. Min.	7.1	147	27 28 .310
157	Weisse 7 ^h 829	7.1	148	27 58 .311
158	Weisse 7 ^h 834	7.3	149	28 7 .311
159	Weisse 7 ^h 927	7.5	150	30 57 .313
160	Weisse 7 ^h 957	7.3	151	31 50 .313

δ 1870	$\tan \delta$	$\sec \delta$	Setting
+3° 46.6	+0.066	+1.002	308° 36'
2 37.8	+0.046	+1.001	309 44
1 41.1	+0.029	+1.000	310 41
3 23.8	+0.059	+1.002	308 58
3 20.0	+0.058	+1.002	309 2
0 4.2	+0.001	+1.000	312 18
2 57.9	+0.052	+1.001	309 24
0 38.3	+0.011	+1.000	311 44
3 49.5	+0.067	+1.002	308 33
0 26.8	+0.008	+1.000	311 53
0 56.9	+0.017	+1.000	311 25
2 31.8	+0.044	+1.001	309 50
3 0.0	+0.052	+1.001	309 22
2 11.6	+0.038	+1.001	310 10
3 33.5	+0.062	+1.002	308 49
3 39.0	+0.064	+1.002	308 43
3 0.0	+0.052	+1.001	309 22
4 43.2	+0.083	+1.003	307 39
2 12.9	+0.039	+1.001	310 9
0 48.5	+0.014	+1.000	311 34

No.	Star	Magn.	No. from observing list	2 1870 Fraction of day
161	Weisse 7 ^h 1045	7.0	152	7 ^h 34 ^m 46 ^s .316
162	Weisse 7 ^h 1095	6.5	153	36 26 .317
163	Weisse 7 ^h 1122	7.2	154	37 22 .318
164	Weisse 7 ^h 1187	7.4	155	39 52 .319
165	Weisse 7 ^h 1241	7.1	156	42 8 .321
166	Lealande 15271	7.1	157	43 59 .322
167	Weisse 7 ^h 1289	7.5	158	44 0 .322
168	Lealande 15286	6.5	159	44 15 .322
169	Σ Can. Min.	5.7	160	44 59 .323
170	Weisse 7 ^h 1324	7.5	161	45 20 .323
170(4)	Weisse 7 ^h 1339			45 55
171	Lealande 15475	7.0	162	49 34 .326
172	Weisse 7 ^h 1473	6.5	163	50 36 .327
173	Weisse 7 ^h 1506	7.5	165	7 51 44 .327
174	Weisse 8 ^h 46	7.5	166	8 3 54 .336
175	Weisse 8 ^h 181	7.0		8 46 .339
176	Weisse 8 ^h 185	7.5	167	9 3 .340
177	Weisse 8 ^h 228	7.0	168	10 28 .341
178	Weisse 8 ^h 241	7.5	169	10 54 .341
179	B.A.C. 2791	6.7	170	13 0 .343
180	Lealande 16397	7.5	P171	15 27 .344

δ 1870	$\tan \delta$	$\sec \delta$	Setting
+3° 56.0	+0.069	+1.002	308° 26'
0 30.3	+0.009	+1.000	311 52
2 42.9	+0.047	+1.001	309 39
2 10.5	+0.038	+1.001	310 12
4 37.9	+0.081	+1.003	307 44
4 46.8	+0.084	+1.004	307 35
3 36.6	+0.063	+1.002	308 46
0 23.9	+0.007	+1.000	311 58
2 5.6	+0.036	+1.001	310 17
3 36.9	+0.063	+1.002	308 45
3 41.9	+0.065	+1.002	
4 48.9	+0.084	+1.004	307 33
1 29.9	+0.026	+1.000	310 52
3 17.4	+0.057	+1.002	309 5
3 19.8	+0.058	+1.002	309 2
3 13.7	+0.056	+1.001	309 8
3 11.0	+0.056	+1.001	309 11
4 36.3	+0.081	+1.003	307 46
1 33.5	+0.027	+1.000	310 49
4 20.7	+0.076	+1.003	308 1
2 33.4	+0.045	+1.001	309 49

No.	Star	Magn.	No. from Assuring list	2 1870 Fraction of day
181	Lealande 16463	7.5	172	8 ^h 17 ^m 6 ^s .346
182	Weisse 8 ^h 466	6.5	173	18 52 .347
183	Weisse 8 ^h 475	7.5	174	19 6 .347
184	Weisse 8 ^h 547	7.4	175	21 53 .348
185	Weisse 8 ^h 577	7.0	176	23 8 .349
186	Weisse 8 ^h 580	7.3	177	23 20 .349
187	Weisse 8 ^h 711	7.3	178	28 30 .353
188	Weisse 8 ^h 713	7.0	179	28 39 .353
189	Lealande 17007	7.3	180	31 40 .355
190	Weisse 8 ^h 855	7.2	182	33 34 .357
191	η Hydrae	5.0	183	36 25 .358
192	Weisse 8 ^h 947	7.5	184	37 10 .359
193	Weisse 8 ^h 982	7.4	185	38 45 .360
194	Weisse 8 ^h 1005	7.3	186	39 39 .361
195	Weisse 8 ^h 1054	7.5	187	41 28 .362
196	Weisse 8 ^h 1061	7.3	188	41 47 .362
197	Weisse 8 ^h 1086	7.5	189	42 54 .363
198	Weisse 8 ^h 1100	7.5	190	43 9 .363
199	Weisse 8 ^h 1263	7.0	191	49 47 .367
200	Arg. Zones +1° 2210	7.5	192	50 33 .368

δ 1870	$\tan \delta$	$\sec \delta$	Setting
+ 0° 28.8	+0.008	+1.000	311° 53'
2 33.0	+0.045	+1.001	309 49
1 59.1	+0.035	+1.000	310 23
1 41.4	+0.029	+1.000	310 41
0 41.4	+0.012	+1.000	311 41
0 27.2	+0.008	+1.000	311 52
0 50.0	+0.015	+1.000	311 32
3 11.3	+0.056	+1.001	309 11
1 8.7	+0.020	+1.000	311 13
2 23.3	+0.042	+1.001	309 59
3 52.3	+0.068	+1.002	308 30
4 48.5	+0.084	+1.004	307 34
0 42.0	+0.012	+1.000	311 40
1 7.1	+0.020	+1.000	311 15
3 3.9	+0.053	+1.001	309 18
3 2.3	+0.053	+1.001	309 20
1 57.6	+0.034	+1.000	310 25
2 51.0	+0.050	+1.001	309 31
4 44.5	+0.083	+1.003	307 38
1 2.0	+0.018	+1.000	311 20

No.	Star	Magn.	No. from observing list	α 1870 Fraction of day
201	Weisse 8 ^h 1309	7.5	193	8 ^h 51 ^m 27 ^s .369
202	Weisse 8 ^h 1401	7.5	194	55 13 .372
203	Weisse 8 ^h 1406	6.2	195	8 55 20 .372
204	Weisse 8 ^h 1511	7.3	198	9 0 31 .375
205	Sealande 18134	7.4	199	4 49 .378
206	B.A.C. 3133	7.2	200	5 25 .379
207	Weisse 9 ^h 143	7.5	202	8 26 .380
208	Weisse 9 ^h 175	6.8	203	10 0 .382
209	Weisse 9 ^h 188	7.5	204	10 30 .382
210	Weisse 9 ^h 199	7.3	205	10 54 .382
211	Weisse 9 ^h 264			13 47 .384
212	Weisse 9 ^h 268	7.5	206	13 57 .384
213	Weisse 9 ^h 273?	7.2	207	14 24 .385
214	Weisse 9 ^h 334	7.5	208	16 54 .387
215	Weisse 9 ^h 501	7.2	209	24 21 .392
216	Weisse 9 ^h 513	7.2	210	24 49 .392
217	B.A.C. 3258	6.2	211	26 0 .393
218	Weisse 9 ^h 666	7.2	212	31 1 .397
219	Weisse 9 ^h 764	7.2	213	35 45 .399
220	Weisse 9 ^h 788	7.5	214	36 43 .400

S	1870	$\tan \delta$	$\sec \delta$	Setting
+	$2^{\circ} 2'.7$	$+0.036$	$+1.001$	$310^{\circ} 19'$
3	10.8	$+0.055$	$+1.001$	$309 11$
0	2.0	$+0.001$	$+1.000$	$312 20$
3	5.2	$+0.054$	$+1.001$	$309 17$
0	49.7	$+0.014$	$+1.000$	$311 32$
4	25.0	$+0.077$	$+1.002$	$307 57$
2	36.8	$+0.046$	$+1.001$	$309 45$
1	16.9	$+0.022$	$+1.000$	$311 5$
2	29.4	$+0.043$	$+1.001$	$309 53$
1	6.2	$+0.019$	$+1.000$	$311 16$
0	49.3	$+0.014$	$+1.000$	$311 33$
0	43.2	$+0.013$	$+1.000$	$311 39$
3	30.3	$+0.061$	$+1.002$	$308 52$
2	57.3	$+0.052$	$+1.001$	$309 25$
3	40.0	$+0.064$	$+1.002$	$308 42$
2	1.8	$+0.035$	$+1.001$	$310 20$
2	27.1	$+0.043$	$+1.001$	$309 55$
2	16.8	$+0.040$	$+1.001$	$310 5$
0	17.8	$+0.005$	$+1.000$	$312 4$
3	13.4	$+0.056$	$+1.002$	$309 9$

No.	Star	Magn.	No. from observing list	1870 Fraction of a day
221	Weisse $9^h 809$	7.5	215	$9^h 37^m 52^s$.401
222	B. A. C. 3339	5.6	216	39 41 .403
223	Weisse $9^h 970$	7.0	218	45 31 .406
224	Weisse $9^h 1015$	7.4	219	47 54 .408
225	Weisse $9^h 1057$	7.5	220	50 4 .409
226	12 Sextantis	6.5	221	52 59 .411
227	Weisse $9^h 1208$	7.5	222	56 53 .414
228	13 Sextantis	6.5	223	9 57 24 .415
229	Weisse $9^h 1289$	7.5	224	10 0 53 .417
230	Weisse $9^h 1314$	7.0	226	2 0 .418
231	Weisse $10^h 78$	7.5	227	6 30 .421
232	Weisse $10^h 313$	7.5	231	19 16 .430
233	Weisse $10^h 346$	7.5	233	20 47 .431
234	B. A. C. 3785	7.5	250	10 57 17 .456
235	ρ^3 Leonis	6.0	251	11 0 18 .458
236	75 Leonis	5.5	254	10 36 .466
237	76 Leonis	6.5	255	12 15 .467
238	B. A. C. 3873	6.2	256	16 40 .470
239	79 Leonis	6.0	257	17 13 .470
240	82 Leonis	7.3	258	18 59 .474

δ 1870	$\tan \delta$	$\sec \delta$	Setting
+ 3° 56.6	+0.069	+1.002	308° 26'
2 23.0	+0.042	+1.001	309 59
0 41.0	+0.012	+1.000	311 41
1 33.4	+0.027	+1.000	310 49
4 51.5	+0.085	+1.004	307 31
4 0.1	+0.070	+1.002	308 22
4 35.8	+0.080	+1.003	307 46
3 50.0	+0.067	+1.002	308 32
1 33.0	+0.027	+1.000	310 49
1 47.9	+0.031	+1.000	310 34
3 42.6	+0.065	+1.002	308 40
3 34.5	+0.062	+1.002	308 48
4 13.1	+0.074	+1.003	308 9
4 20.7	+0.076	+1.003	308 1
2 40.3	+0.047	+1.001	309 42
2 43.8	+0.048	+1.001	309 38
2 22.6	+0.041	+1.001	310 0
0 50.2	+0.015	+1.000	311 32
2 7.1	+0.037	+1.001	310 15
4 1.0	+0.070	+1.002	308 21

No.	Star	Magn.	No. from observing list	2 1870 Fraction of a day
241	80 Leonis	7.0	259	11 ^h 19 ^m 10 ^s
242	83 Leonis*	7.5	260	.472 20 11
243	Weisse 11 ^h 448	7.2	262	.472 26 56
244	89 Leonis	6.2	263	.477 27 45
245	Weisse 11 ^h 498	7.5	264	.478 29 34
246	Weisse 11 ^h 868	7.3	271	.479 51 35
	Weisse 11 ^h 559 (follows Crateris)			.494 32 48
	B. A. C. 3962	4.5	265	33 44
	Weisse 11 ^h 609	7.5	267	35 46

*83 Leonis seems to be W. XI 331
W. XI 330 precedes it 25" north

Additional stars entered
on following pages.

S 1870 tan δ sec δ Setting

+ 4° 34.3	+ 0.080	+ 1.003	307° 38'
3 43.3	+ 0.065	+ 1.002	308 39
3 14.1	+ 0.056	+ 1.002	309 8
3 47.7	+ 0.066	+ 1.002	308 34
4 1.1	+ 0.070	+ 1.002	308 21
1 35.6	+ 0.028	+ 1.000	310 47
- 12 27	- .22	+ 1.024	
+ 1 40	+ .03	+ 1.000	
+ 3 13	+ .06	+ 1.002	

(Data with instrument in air plane
depending on date)

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List of stars
generally of nearly the same
declination as some in the
preceding lists, and therefore
observed at the same time.

(Stars with asterisks are also in
preceding list.)

No.	Star	Fraction ^d of a day
1	Arg. Zones +62° 107	0 ^h 27 ^m 4 ^s
2	Arg. Zones +62° 109	.019 27 40 .019
3	Weisse (2 ^d cat.) 0 ^h 1008	39 16 .027
4	Weisse (2 ^d cat.) 0 ^h 1057	41 36 .028
5	Weisse (2 ^d cat.) 0 ^h 1062	42 0 .029
6	Weisse (1 st cat.) 0 ^h 956	55 16 .038
7	Lalande 3023	1 ^h 32 16 .064
8	Weisse (1 st cat.) 1 ^h 753	42 56 .072
9	Weisse (2 ^d cat.) 1 ^h 1172 Lalande 3772 Arg. Z +2° 322	50 36 (.077) 55 44 56 20
10	Lalande 4150	2 ^h 8 16 .089
11	Arg. Zones +66° 214	18 44 .096
12	Arg. Zones +66° 215	19 15 .097

δ	$\tan \delta$	$\sec \delta$
+ 62° 11'	+ 1.897	+ 2.143
+ 62° 16'	+ 1.902	+ 2.149
+ 23 35	+ 0.437	+ 1.091
+ 40 25	+ 0.851	+ 1.313
+ 40 22	+ 0.850	+ 1.312
+ 7 14	+ 0.127	+ 1.008
+ 40 1	+ 0.840	+ 1.306
- 11 21	- 0.201	+ 1.020
+ 22 58	+ 0.424	+ 1.086
+ 2 9	+ 0.037	+ 1.001
+ 2 9	+ 0.037	+ 1.001
+ 33 42	+ 0.667	+ 1.202
+ 66 50	+ 2.337	+ 2.542
+ 66 49	+ 2.336	+ 2.540

No.	Star	α Fraction of day		
		h	m	s
13	Oeltgen A 1609	2	24	48 .100
14	Oeltgen A 1619		25	24 .101
	Arg. Zones + $16^{\circ} 52' 8''$ 20.6.5		29	0
15	Weisse 2 ⁿ 083		34	8 .108
	B. A. C. 938 93. <i>Beti</i>		53	16
16	B. A. C. 1010	3	55	28
	Arg. Zones + $23^{\circ} 51'$		9	8 .132
17	Arg. Zones + $23^{\circ} 51' 9''$		38	2
			38	24 .152
18	B. A. C. 1161		38	32 .152
19	Arg. Zones + $23^{\circ} 52'$ 23 Tauri		38	24 .152
			38	29
20	Arg. Zones + $23^{\circ} 52' 8''$		39	12 .152
21	B. A. C. 1164		39	28 .152
22	Rumker 1080		58	24 .166

δ		$\tan \delta$	$\sec \delta$
-15	43	-0.281	+1.039
-15	51	-0.284	+1.040
103	40	-4.113	-4.232
-15	1	-0.268	+1.035
-40	50	-0.860	+1.322
+3	49	+0.067	+1.002
-9	16	-0.163	+1.013
+23	33	+0.435	+1.090
+23	47	+0.441	+1.093
+23	32	+0.435	+1.090
+23	46	+0.440	+1.092
+23	32	+0.435	+1.091
+23	35	+0.437	+1.091
+23	42	+0.439	+1.092
+28	34	+0.544	1.139

No.	Star	α Fraction of day h m s		
23	Weisse (2 ^d est.) 3 ^h 12 ^m 88 ^s Σ 546	4 ^h	0	40
24	Weisse 4 ^h 41 ^m 8 ^s	.	19	19
25	Weisse 4 ^h 42 ^m 8 ^s	.	20	56
26	Rumker 1249	.	21	20
27	Arg. Lones +66° 36' Weisse 4 ^h 87 ^m 8 ^s Weisse 4 ^h 88 ^m 6 ^s	.	34	16
28	Weisse 4 ^h 91 ^m 2 ^s	.	41	16
29	*Weisse 4 ^h 93 ^m 6 ^s	.	41	57
30	*Lalande 9207	.	42	8
31	*Lalande 9261	.	43	12
32	Lalande 9258	.	44	4
		.	47	12
		.	49	16
		.	51	36

δ	$\tan \delta$	$\sec \delta$
$+19 \quad 23$	$+0.352$	$+1.060$
$+18 \quad 48$	$+0.340$	$+1.060$
$+14 \quad 27$	$+0.258$	$+1.033$
$+14 \quad 32$	$+0.259$	$+1.033$
$+22 \quad 41$	$+0.418$	$+1.084$
$+66 \quad 12$	$+2.268$	$+2.478$
$+3 \quad 257$	$+0.017$	$+1.000$
$+30 \quad 2751$	$+0.015$	$+1.000$
$+6 \quad 43$	$+0.118$	$+1.007$
$+0 \quad 56$	$+0.016$	$+1.000$
$+1 \quad 21$	$+0.024$	$+1.000$
$+1 \quad 25$	$+0.025$	$+1.000$
$+60 \quad 14$	$+1.748$	$+2.014$

No.	Star		Fraction of day		
			h	m	s
33	B. A. C. 1592		5	2	0
			.210		
34	Z 546		11	8	
			.216		
35	* Weiss 5 ^h 259		13	4	
			.217		
36	* Weiss 5 ^h 291		14	4	
	B. A. C. 1657		.218		
			14	49	
37	* Weiss 5 ^h 303		14	28	
	Weiss 5 315		.218		
			15	1	
38	* Weiss 5 ^h 343		16	0	
			.219		
39	* Lealande 10133		17	52	
			.221		
40(a)	Weiss 5 ^h 414	7.0	19	7	
			.222		
40(b)	γ^2 Orionis	5.3	20	1	
			.222		
41	Weiss (2 ^d cat.) 5 ^h 510		19	0	
			.222		
42	Celtis A 3978		1	22	16
			.224		

δ	$\tan \delta$	$\sec \delta$	
— 8 50	— 0.155	+ 1.012	
+ 46 50	+ 1.066	+ 1.462	
+ 2 24	+ 0.042	+ 1.001	
+ 2 48	+ 0.049	+ 1.001	
— 0 33	— 0.010	+ 1.000	
+ 3 52	+ 0.068	+ 1.002	
— 0 31	— 0.010	+ 1.000	
+ 3 26	+ 0.060	+ 1.001	
+ 2 14	+ 0.039	+ 1.001	
+ 0 23.9	+ 0.007	+ 1.000	311° 58'
+ 2 59.4	+ 0.052	+ 1.001	309 23
+ 34 25	+ 0.685	+ 1.212	
— 20 55	+ 0.382	+ 1.071	

No.	Star	α Fraction of day h m s		
43	* Weiss 5 ^h 543	5	23	28
	Weiss (2 ^d cat.) 5 ^h 681	.225		
	m ² Orionis	24	39	
44	Arg. Zones -1° 973	27	26	
		29	52	
		.229		
45	* w Orionis	32	20	
		.231		
46	* Weiss 5 ^h 854	34	16	
		.232		
47	B.A.C. 1822	38	56	
		.235		
48	* Weiss 5 ^h 1008	40	36	
		.236		
49	* Arg. Zones +3° 1041	41	24	
		.237		
50	* Weiss 5 ^h 1043	42	8	
	Weiss 5 ^h 1289	.238		
		51	28	
51	* Weiss 5 ^h 1403	55	32	
		.247		
52	* Weiss 6 ^h 19	6 ^h	3	0
		.252		

δ		$\tan \delta$	$\sec \delta$
0	1		
+4	6	+0.072	+1.002
+32	11	+0.629	+1.181
+3	41	+0.064	+1.002
-1	19	-0.023	+1.000
+4	2	+0.071	+1.002
+0	16	+0.005	+1.000
-22	28	-0.413	+1.082
+4	2	+0.071	+1.002
+3	52	+0.067	+1.002
+0	41	+0.012	+1.000
+1	49	+0.032	+1.000
+1	41	+0.029	+1.000
+2	54	+0.051	+1.001

No.	Star	α Fraction of day $\frac{h}{m}{s}$		
53	* Weisse 6 ^h 181	6	7	52
		.255		
54	* Weisse 6 ^h 439	15		52
	Weisse 6 ^h 445	.261	16	5
55	* B.A.C. 2057	16		28
		.262		
56	* Lealande 12226	17		0
	n ¹ Puppis	.262	28	3
	n ² Puppis	28		4
	B.A.C. 2599	43		30
57	B.A.C. 4339	12 ^h	48	0
	B.A.C. 4345	.034	49	49
	Weisse (2 ^d catalogue) 465	13	24	30
	Weisse (2 ^d catalogue) 470	24		35
58	Hq. Jones + 76 528	14 ^h	29	0
	Weisse (2 ^d catalogue) 710	.103	34	30
	Weisse (2 ^d cat.) 550	26		16
59	B.A.C. 1592	15 ^h	2	0
	Leal. 36450	.126		
		19	24	43
60	Weisse 22 ^h 223	22	12	12
		.425		
61	B.A.C. 8073	23	3	48
		.460		
62	Weisse 23 ^h 253	23	13	36
63	Rember 11133	23	18	12
		.467		

δ		$\tan \delta$	$\sec \delta$
+ 2 20		+ 0.041	+ 1.001
+ 4 47		+ 0.075	+ 1.002
+ 3 50		+ 0.067	+ 1.002
+ 3 50		+ 0.067	+ 1.002
+ 2 44		+ 0.048	+ 1.001
- 23 11		- 0.428	+ 1.088
- 23 11		- 0.428	+ 1.088
- 24 35		- 0.457	+ 1.100
+ 84 8		+ 9.731	+ 9.783
+ 39 2		+ 0.810	+ 1.286
+ 24 55		+ 0.460	+ 1.102
+ 24 55		+ 0.460	+ 1.102
+ 76 20		+ 4.113	+ 4.232
+ 16 59		+ 0.310	+ 1.046
+ 43 57		+ 0.960	+ 1.390
~~- 8 50~~		~~- 0.155~~	~~+ 1.042~~
+ 36 0½		+ 0.727	+ 1.236
- 8 28		- 0.149	+ 1.011
- 6 40		- 0.117	+ 1.007
- 11 32		- 0.204	+ 1.021
+ 22 45		+ 0.419	+ 1.084

always

afew

$$\begin{array}{r}
 7.213 \\
 1.534 \\
 \hline
 28853 \\
 21609 \\
 108195 \\
 \hline
 1106
 \end{array}$$

$$\begin{array}{r}
 10.843 \\
 2.083 \\
 \hline
 32529 \\
 86744 \\
 21686 \\
 \hline
 2259
 \end{array}$$

$$\begin{array}{r}
 42.1 \\
 49.6 \\
 \hline
 91.7 \\
 22.57 \\
 \hline
 69.11 \\
 34.56
 \end{array}$$

$$\begin{array}{r}
 1.056 \\
 7.213 \\
 \hline
 13468 \\
 2072 \\
 7252 \\
 \hline
 7473 \\
 81.90 \\
 \hline
 89.37 \\
 22.34
 \end{array}$$

$$\begin{array}{r}
 7.258 \\
 1414 \\
 \hline
 101612 \\
 101612 \\
 \hline
 1026
 \end{array}$$

$$\begin{array}{r}
 10.15064 \\
 0.86082 \\
 \hline
 4.01146
 \end{array}$$

$$\begin{array}{r}
 25.90 \\
 10.26 \\
 \hline
 15.64 \\
 3.91
 \end{array}$$

100890ae,proj. 352S