1883phae.proj.11138

KG
11366
v.409

Fundamental Stars.
Circle Readings.

From Feb. 8, 1883 to Mar. 27, 1883

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A 34

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1883phae.proj.1413B

Feb. 8, 1883

β Arietis

1 48 9

+20 14

	RB	B	R
0 2	30.8	3 44.5	44.5
	28.8	46.5	44.5
	25.9	40.0	39.7
	27.8	42.4	43.0
	11 33	104	117
2	28.32	3 42.60	42.92

C = #17 92.5

γ Andromedæ

1 56 41 ~~2 0 33~~

+41 46

	RB	B
30 1	0.0	2 7.1
	59.4	6.7
	55.8	3.7
	54.1	1.0
	22 9 3	185
30	57.32	32 4.62

ε Persei

2 57 17

+53 3

	BR	R	B
10 4	16.4	15 0 26.4	~~36.2~~
	17.2	26.4	26.3
	12.3	21.3	21.6
	10.4	19.2	19.6
	56 3	133	137
14	14.08	15 23.32	23.42

15 0	26.4
	26.4
	21.3
	19.2

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1883phae.proj.1413B

Feb, 8, 1883

ζ Arietis

2 0 33

+22 57 31

		⊕R		R		B		
20	2	49	3	26.7		26.6		
		4.2		27.2		26.8		
		5.8		22.6		22.1		
		2.4		24.6		24.4		
		116		211		199		
	22	2.90		25.28		24.98		

C = 17 92.5

β Urs. Min. L.C.

14 51 0

+105 22

		RB		B		B	⊕	B
55	3	0.8	2	51.7	29.8	2.9		14.6
		7.8		57.7	35.2	8.2		46.5
		1.1		51.3	30.1	2.9		41.1
		54.6		44.9	23.3	55.7		34.9
		43		2056	1184	197		1651
	58	1.08	52	51.40	29.60	4.92	51	41.28

ζ Aurigæ

4 49 19

+32 59

		RB		B		R		
15	3	4.1	4	31.6		31.8		
		3.4		31.3		32.0		
		58.2		27.0		26.2		
		58.2		26.4		26.5		
		39		363		365		
	18	0.98	19	29.08		29.12		

Chf.

		R	B		B			
50	0	26.4	1	14.9				
		24.5		~~14.0~~				
		21.1		36.5				
		19.3		33.9				

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T. 21.8.1883

C = 17 92,5

β Eridani

5 2 3

−5 14

		BR	R	B
×	30 0	31.4	2 55.1	55.2
		25.0	47.3	47.2
		21.8	45.3	45.4
		27.9	51.6	51.0
		10.64	39.3	39.1
	30	26.60	32 49.82	49.78

α Aurigæ

5 7 59

+45 52

		RB
	20 4	27.0
		26.2
		22.4
		20.0
		95.6
	24	23.90

δ Orionis

5 25 59

−0 23

		RB
	35 4	32.1
		26.4
		24.9
		29.3
		112.7
	39	28.18

α Leporis

5 27 32

−17 54

		RB		
	100	58.1	−1.9	56.2
		50.7	−9.3	41.4
		47.5	−12.5	45.0
		55.2	−4.8	50.4
				193.0
			10	48.25

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Feb. 8, 1883

C = 17 92.5

β Orionis

5⁻ 8 5⁻2

−8 20

	RD	R
35⁻2	37.8	37.1
	~~28.8~~	29.2
	~~24.3~~	27.1
	~~31.5~~	~~31.7~~
	49	5⁻1
37	31.22	31.28

$A_3 \sim C$

γ Orionis

5 18 48

+6 15

		R	B
0	3	20.4	21.4
		17.6	18.4
		14.5	14.9
		21.1	21.0
		336	360
	3	18.40	19.00

one extra tap among A_{+1}

ι Orionis

~~29~~ 2.10

5⁻ ~~3.0~~ ~~1.4~~

~~= 5⁻ 1.5~~ 5⁻9

RB

15⁻	0	22.0
		15.3
		12.2
		17.7
		672
	15	16.80

ε Orionis

5⁻ 3 0 1.4

−1 17

		RB	R
30	4	19.8	19.4
		15.0	14.6
		12.3	11.3
		17.2	18.0
		643	633
		16.08	
$AC^{34} \sim e$			34 15.82

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1883phae.proj.1413B

Feb 8 1883

α Columbæ

5h 35m 23s

−34° 8′

BR	R	B
30.9	43.3	43.0
Hel	38.9	37.1
24.5	37.8	37.4
31.2	43.8	43.7
1127	438	12
− 28.18	40.95	40.30

K Orionis

5h 42m 10s

−9° 43′

	BR	R	B
55	3 49.8	0 11.3	11.0
	42.6	2.0	2.1
	41.1	59.1	59.3
	45.2	5.7	~~4.6~~ 5.3
	1787	181	177
58	44.68	0 4.52	4.92

μ Geminor.

6h 15m 49s

+22° 34′

BB
40 3 51.2
49.3
44.2
48.2
1929
43 48.22

A 4 TC

Perhaps rej 1st ~~tol.~~ wire

γ Geminor.

6h 30m 54s

+16° 30′

	RB	B	R
45	1 49.2	3 12.1	12.5
	44.8	7.2	6.9
	39.3	2.6	2.1
	44.4	8.0	8.8
	1777	299	303
46	44.42	48 7.98	7.56

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1883phae.proj.1413B

Feb. 8, 1883 $\quad$ C = 17 $\quad$ 92,5

α Orionis
5 48 47
+7 23

		RB		B
50	3	29,8	4	49,5
		27,8		47,0
		22,3		42,1
		28,3		48,5
		1082		1871
	53	2705	54	46,75

δ Urs. Min L.C.
18 10 21
+93 23

		BB		B
55	0	26,0		17,7
		25,9		16,8
		19,9		12,2
		16,4		8,3
		882		550
	55	22,05		13,75

A_{6_1} to 3_2

r² Urs. Maj
15 20 52
+72 15

		RB		B	R
0	3	57,0	4	16,0	15,9
		56,9		18,1	17,4
		50,0		11,5	11,7
		45,8		7,9	8,2
		2067		535	532
	3	51,68	4	13,38	13,30

α Cor. Bor
15 29 49
+27 7

		RB	B	R
10	0	32,3	46,1	46,0
		30,9	44,8	45,3
		26,5	39,7	40,1
		28,5	43,6	42,7
		1182	142	141
	10	29,55	43,55	43,52

A_6 to C

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1883phae.proj.1413B

8

Feb 8, 1883

α Serpentis

15h 38m 27s

+6° 48'

BR RB

30 0 14.7 15.1
11.6 11,0
6,0 4.6 6,1
11.2 13,8
465 460
30 1162 1150

A + 5 α C

α Scorpii

16h 2 3 1 0
−26° 2 10

RB

20 4 42.9
39.6
36.2
42.1
1608
24 40.20

Lon − 1

C = 17 92,5

δ Scorpii

15h 53m 21s

−22° 17'

BR RB

30 2 9.8 3 28.8 28.4
3.9 22,3 28,2
0.6 19,2 20,1
6,4 26.4 25.5
207 967 972
32 518 33 2418 2430

η Draconis

16h 22m 23s

+61° 47'

RB B

30 2 8.1 27.3
8.0 26,6
25 20.7
8,9 18,1
175 929
32 438 2322

1 −
1

1883phae.proj.1413B

Feb. 8. 1883

β^1 Scorpii

15 58 34

−19 29

		RB		B
40	4	6.7	0	35.4
		0,5		27.6
		56,9		24.0
		4,5		32,5
		86		1195
	44	2,15	44	29.88

C = 17 92,5

δ Ophiuchi

16 8 9

−3 23

	BR	R	B
35	43,1	1 0,8	0.3
	27,2	53.7	54.1
	22,8	49.3	54.0
	29,3	56.7	56.3
	1114	2205	207
39	27.85	40 5 5,12	55.18

ν Herculis

16 38 51

+39 9

		RB		B	R
5	3	30.9	4	44.0	44.6
		31.2		44,6	44.5
		24.3		37,2	37.2
		23.4		37,0	37.4
		1098		1630	1637
	8	27,45	9	40,75	40,92

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1883phae.proj.1413B

Feb. 8/9. 1883 C = 17 81.8

⊙

21 32 14
−14 37

	RB		RB
−1	30.8	5 4	33.2
	22.8		25.9
	19.0		23.5
	24.7		29.4
	993		1120
?	24.82	9	28.00

Both limbs in R.A. + δ
Seeing pretty good.

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1883phae.proj.1413B

Feb. 9/10, 1883 $\odot$ $c = 17\ 81.9$

21 36 12
−14 17

B B
15 2 4.4
59.0
55.5
3.1
20
17 0.50

Both limbs in R.A.
Upper " " δ
Seeing very bad.

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1883phae.proj.1413B

Feb. 11, 1883
Z Hrs. 2 min
15 48 16
+78 9

		RB	RB	RB
5	4	16.3	32.8	56.1
		20.4	37.1	1.2
		9.8	26.8	50.0
		6.0	23.0	46.0
		525	1197	2133
	9	13.12	29.92	53.32

c = 17 81.8
δ Scorpii
15 53 21
−22 17

		RB	B	R
30	2	24.0	3 31.5	32.4
		18.2	27.1	32.7
		13.4	22.1	22.0
		19.4	26.9	27.7
		750	276	298
	32	18.75	33 26.90	27.45

ζ Scorpii
16 22 10
−26 10

		RB
20	4	44.5
		41.6
		37.0
		43.2
		1663
	24	41.58

lost A−1

η Draconis
16 22 23
+61 47

		RB	B
30	2	11.82	30.5
		12.3	31.0
		5.5	24.5
		1.8	20.5
		314	1065
	32	7.85	26.62

A−1 2 + C

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Feb. 11: 1883

β¹ Scorpii

16 58 34

−19 29

BR		R	B
40	4269	33.8	33.0
	240	26.8	26.5
	237	21.2	21.2
	233	29.6	28.4
	949	1114	1091
44	23.72	27.85	27.28

c = 17 81.8

δ Ophiuchi

16 8 9

−3 23

BR		R	B
35	4429	2.8	2.6
	352	56.6	57.5
	336	52.3	57.6
	384	57.7	57.8
	1544	294	295
39	38.60	41.57.35	57.38

A Draconis

16 28 13

+69 1

RB		B	
15	1	36.0	2 10.0
		38.4	13.0
		29.2	4.4
		26.5	0.8
		1301	282
16		32.52	17 7.05

lost A −1

ζ Ophiuchi

16 30 39

−10 20

RB		B	R
35	0	36.0	1 33.3 53.6
		28.4	45.2 46.1
		28.9	42.1 43.0
		29.3	47.2 47.7
		1176	1878 1904
35	29.40	36	46.95 47.60

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Feb. 11, 1883

3 Hercules

16 38 57

+39 9

	BR		R	B
~~5~~				
5	2 53	4	50.2	50.1
	25-6		51.8	51.4
	19.1		44.1	44.5
	17.8		42.9	43.2
	8 78		290	292
8	21.95	9	47.25	47.30

C = 17 81.8

2 Lyrae.

18 32 57

+40 38

	BR		R	R
35	1 27.6	~~B~~	~~53.3~~	53.8
	25-9	2	~~54.5~~	55.2
	21.8		~~49.2~~	47.8
	19.8		~~46.5~~	46.7
	9 51			2035
36	23.78		37	50.88

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Feb. 11/12, 1883

⊙

21 44 5

−13 38

	RB		RB
35	2 43.2	10 0	58.5
	35.6		50.2
	31.4		45.2
	39.1		54.1
	1493		2080
37	37.32	10	5200

c = 17 86.9

β Arietis

1 48 9

+20 14

	RB	B	R
30	2 29.6	3 52.5	52.8
	26.8	510	50.2
	22.2	471	45.3
	25.7	483	~~50.2~~ 48.8
	1043	1969	1971
32	26.08	33 49.22	49.28

Both limbs ☉ R.A. + δ

Last +1 of 2nd limb

Seeing moderately good.

β Urs. Mi L.C.

14 51 0

+105 22

	RB	RB	RB
55	3 7.2	2 50.5	69
	13.7	56.2	12.8
	7.4	49.7	7.2
	0.2	43.8	59.9
	285	2002	268
58	7.12	57 50.05	670

α Ceti

2 56 δ

+3 38

	BR	R	B
35	−3 247	4 51.3	51.3
	2.0	49.0	49.5
	17.3	45.0	44.8
	23.0	49.7	45.8
	860	1950	1954
38	2.50	39 48.75	48.85

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1883phae.proj.14138

Feb. 12, 1883

γ Androm.

1 56 41

+41 46

	BR	R	B
30	0 47,8	11.3	10,5
	47,8	9.1	9,6
	40,6	4,3	4,4
	39,8	4,2	3,0
	1740	289	275
30	43.50	7.22	6,88

C = 17 86.9

α Arietis

2 0 33

+22 54

		RB	B	R
20	2	10,5	33,6	31,8
		9.9	32,4	31,7
		3.5	25.3	25.6
		7,0	28,2	28,7
		309	375	378
22		7.72 (23)	29.38	29.45

α Camelop.

4 42 25

+64 8

		RB	RB	RB
5	3	50,5	4 54,0	0 61
		54,4	55,9	4,8
		45,7	48,5	9,5
		42,2	45,1	56,7
		1928	2035	171
	8	48,20	9 50,88	10 4,28

α Aurigæ

4 49 19

	BR	R	B
	15-3 14	4 22,5	23,3
	0 6	23,1	22,4
	13,3	26,1	16,6
	56,3	17,0	16,5
	2316	787	791
	17 57,90	19 19,68	19,78

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Feb. 12. 1883 C = 17 86.9
E Wms. Mn. L.C
16 4 58 00

	RB		B		B		B		B
30	3	30.9	3	13.8	2	57.0	3	10.2	2 26.0
		32.3		14.7		57.9		11.2	26.3
		27.8		10.8		54.0		7.5	22.1
		21.8		5.0		48.2		1.8	17.0
		1128		443		2171		307	914
	33	28.20	33	11.08	32	54.28	33	7.68	32 22.85

γ Orionis
5 18 48
+6 15

	RB		B		R
0	1	56.13	18.8		19.0
		54.2	15.5		16.1
		48.3	10.6		10.5
		54.6	17.0		17.7
		2132	219		236
	1	5330	3 1548		1590

δ Orionis
5 25 39
-0 23

35	4	262
		21.0
		18.1
		22.3
		876
	39	21.90

Lon A-11

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1883phae.proj.1413B

β Eridani

5 23 −5 14

	RB	B	R
30 0	35.2	20.3	59.5
	29.1	54.1	52.8
	23.7	49.5	48.9
	30.2	55.2	54.6
	1182	2191	2158
	30 29.55	31 54.78	53.95

α Aurigæ

5 7

	BR	B	R
25 0	33	54.2	53.9
	0.4	52.1	53.4
	56.3	46.4	45.9
	54.8	46.1	45.2
	2351	1988	1984
	24 58.75	25 49.70	49.60

$L_{01} - L_{41}$

ι Orionis

α Columbæ

5 35 23 −34 8

	RB	RB	R	B
20 1	33.6	20.1 33.62	40.0	39.2
	27.4	27.4	33.9	35.0
	25.6	25.6	33.0	33.2
	31.9	31.9	38.1	38.9
		1185	1450	1463
		21 29.62	22 36.25	36.58

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1883phae.proj.1413B

Feb. 12, 1883

K ~~Drac~~. Orionis

5 42 10

−9 43

	RB	
55 3	49.8	~~30 2~~
	43.2	
	40.0	
	43.9	
	1769	
58	4422	

C=17 86.9

4 Drac. L.C.

17 54 41

+107 48

	RB	B
30 2	25.6	1 52.9
	28.0	56.8
	23.2	49.7
	18.3	45.0
	951	2044
32	23.78	31 51.10

μ Geminor.

6 15 29

+22 34

	RB	B
40 2	25.9	3 50.9
	25.1	49.5
	16.1	43.0
	21.9	46.2
	910	1896
42	22.75	43 47.40

S Bootis

15 10 44

+33 46

	R
30 2	22.6
	30.4
	14.2
	14.7
	822
32	20.55

A. 2 ve

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1883phae.proj.1413B

Feb. 12, 1883

α Orionis

δ −48 47

+7 23

	BR	R	B
50 3	25.7	4 57.0	57.0
	23.8	56.81	55.2
	18.5	50.2	49.2
	25.8	56.0	56.0
	9 3 8	193	174
53	23.45 54	54.82	~~53.10~~ 54.35

C = 17 86.9

δ Urs. Min.

6 10 21

+93 23

	RB	B
55 0	46.9	0 19.1
	46.4	18.3
	41.9	15.0
	39.0	11.6
	1742	640
55	43.55	1600

~~α~~ June Maj

15 20 ~~52~~

+7 21 5

AR

A−1

α Serpentis

15 ~~8~~ ~~27~~

+6 48

R

25 3 444

40.8

35.7

40.9

1618

28 40.45

1883phae.proj.1413B

Feb. 12

B Ursa Min
1R 4 8 16
+7 8 9

R

1R

1 R
1 4$_0$ to 6$_0$

B1 Scorpii
15 58 54
−19 29

R
40 4 12.8
5.1
1.6
8.3
2.78
44 6.95

α Lyrae
18 32 57
+38 41

	R		B
35 1	37.4	2	58.5
	36.9		57.7
	28.1		49.9
	28.1		49.3
	1305		2154
36	32.62	37	53.85

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1883phae.proj.1413B

h Draconis

h Herculis

1638+1

+39 9

R

5 8 343

33.6

35.7

24.7

1283

8 32.08

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1883phae.proj.1413B

Feb 12-13, 1883

⊙ 21 47 59 — 13 18

α 242,3 50 1 2,1

24,5 52,8

30,0 48,2

35-4 55.9

1422 2190

17 35 55 50 54.75

C =

1

γ Androm

1 56 41

+41 46

R.A. only

B. Clds.

Both limbs in R.A. & δ

Seeing very bad indeed!

β Persei

3 4 6 44

+40 32

R RR

AR

Mirae Mir

β 4 16

101 51

RR

RA

A 21-4

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1883phae.proj.1413B

δ Persei RR
3 34 37
+47 24
5-0 2 32.5
3.14
3.6.6
24.8
1253
52 31.32

α Tauri RR
3 40 29
+23 44
30 2 8.6
6 3
8.91
4.2
182
32 4.55

γ Eridani
B 5-232
-13 57
RR
5- 1 23.0
14.9
11.4
30.8
801
6 20.02

η Draconis L.C.
16 22 23
+61 8 13
BB B
5 2 34.1 34.5
38.8 38.5
38.7 38.0
30.3 30.4
1419 1414
7 35.48 35.35

A 5 + C,

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1883phae.proj.1413B

Feb. 13, 1883

α Tauri

4 29 10

+16 16

BB

0 1	40.6	
	35.3	
	29.8	
	35.3	
	1410	
1	35.25	

C = 17 86.0

α Camelop.

4 42 25

+66 8

BB B

10 0	6.6	6.9
	5.9	6.8
	0.3	0.5
	57.1	57.5
	99	117
10	2.48	2.92

β Eridani

5 2 3

−5 14

BB

30 0	35.8	
	26.8	
	25.2	
	32.2	
	1220	
30	30.50	

α Aurigæ

5 7 59

+45 52

RB

20 4	34.6	
	34.8	
	29.2	
	26.8	
	1254	
24	31.85	

lost A−1

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1883phae.proj.1413B

ι Aurigæ

4 49 19
+32 39

		BB	B
15	3	11.5	11.7
		9.8	9.9
		4.8	5.0
		5.0	5.2
		311	318
	18	7.78	7.95

ε Urs. Min. 1. c.

16 58 0
+97 46

		BB	B	B
30	3	23.5	4.9	2 29.5
		25.9	5.3	30.2
		22.6	2.3	27.1
		15.4	55.9	20.9
		874	84	1077
	33	21.85	2.10	32 2692

A

β Orionis

5 8 52
−8 20

		RB	B	R
35	1	54.4	2 47.1	47.4
		45.4	39.3	38.8
		43.6	37.4	37.2
		48.9	41.1	42.3
		1923	1649	1657
	36	48.08	37 41.22	41.42

γ Orionis

5 ~~55~~ 18 48
+6 15

		RB	B
0	2	3.0	56.0
		58.8	53.5
		54.0	47.6
		1.7	55.0
		2375	2123
	1	59.38	53.08

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1883phae.proj.1413B

Feb. 13. 1883

C=17 85.0

δ Orionis

δ⁻ 25 59

−0 23

RB

35 4 34.5
49.2
44.9
50.1
1787
39 44.68

α Leporis

δ⁻ 17 32

−17 54

RB

10 0 1,5⁻
52.2
49.0
58.2
2209
9 55.22

α Columbæ

δ⁻ 35 23

−34 8

RB

50 2 43.2
38.6
37.3
43.3
1624
52 40.60

R Orionis

δ⁻ 4 2 10

−8

BR 10x3 RB

5 5 34 37 0 8.7 8.0
34.7 58.1 8.7
32.0 55.1 55.2
37.2 2.1 1.5
1471 40 134
58 36.78 0 1.00 33.5

A3 + C

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1883phae.proj.1413B

Feb. 13, 1883

ζ Orionis
5⁻ 29 40
−5⁻ 5⁻9

		RB	B
15	0	22.0	1 47.0
		14.1	40.0
		10.3	36.8
		16.9	41.7
		633	1655
	15	15,82	16 41,38

ε Orionis
5⁻ 34 39
−2 0

		RB	B
15	1	44.2	
		37.2	
		34.4	
		40.0	
		1558	
	16	38.95	

δ Orionis
5⁻ 4 47
+7 23

		BR	R	B
50	3	288	4 49.8	49.8
		256	46.3	46.2
		187	40.2	41.8
		263	47.1	47.3
		994	1834	1851
	53	24,85	54 45.85	46.28

δ Ursae Min
6 10 21
+93 23

		AB	R
55	0	51.9	20.8
		53.9	19.8
		47.1	14.7
		43.3	12.2
		1962	675
	55	49.05	16.88

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1883phae.proj.1413B

Feb. 13, 1883 — e = 17 85.0

μ Geminor — χ Draconis

6 15 29

+22 34

B R	R B	B R	B B
55 0 20.8 40	2 26.0	3 46.1 46.4	0 0 12.9
19.8	24.0	44.5 44.5	15.2
	16.1	37.1 37.7	8.5
	21.2	41.2 42.6	3.2
	873	1689 1712	398
	42 21,82	43 42,22 42,80	0 9.95

β Monocerotis

14 51 01

+7438

B R

B

40	1	19.8	19.5
		17.8	18.0
		10.5	10.3
		7.6	7.6
		557	554
41		13.92	13.85

A_4 + e

β Bootis

14 57 29

+40 52

R B

25	2	36.1
		33.3
		28.1
		26.4
		1239
27		30.98

Middle w + fil.

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1883phae.proj.1413B

γ Geminor.

6 30 54

+16 30

		RB	B
215	1	49.0	3 16.8
		44.1	11.1
		38.0	5.5
		42.9	10.8
		1740	442
	46	43.50	48 11.05

2 Cam. Maj.

6 39 +7

−16 23

		RB	B	R
45	4	2.6	0 25.8	26.0
		55.5	14.5	17.0
		51.6	14.5	15.0
		68.9	229	23.2
		2286	807	812
	48	57.15	50 20.18	20.30

48 Ν Bootis

15 5 31

10 2 42

		BR
35	3	30.5
		31.1
		26.4
		19.8
		1078
	36	26.95

A

ν² Ursæ Maj.

15 20 52

+72 16

		BB
0	4	18.4
		18.5
		10.6
		6.6
		541
	4	13.52

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1883phae.proj.1413B

Feb. 13, 1883

α Cor. Bor.

15 29 41

+27 7

	BR	B	
10 0	41.6	2 1.2	
	41.9	59.1	
	35.6	52.1	
	39.1	54.1	
	1622	2265	
10	40.55	11 56.62	

C=17 85.0

α Serpentis

15 38 27

+6 46

	RB	B	R
25 3	52.80	7.7	7.4
	48.3	2.5	2.8
	42.1	56.1	~~57.7~~ 56.7
	46.9	7.7	3.8
	1901	3100	107
28	47.52	30 7.50	2.68

3rd 4th + 5th taps of 1st δ
coincide with R.A. taps

β' Scorpii

15 58 34

−19 29

	RB	B	R
40 4	9.4	0 37.9	38.7
	0.8	28.9	28.6
	52.0	23.9	23.8
	3.1	31.1	31.3
	103	1218	1224
44	2.58	45 30.45	30.60

δ Ophiuchi

16 8 9

−3 23

	BR	B	R
35 4	32.6	40 1.04.0	4.1
	31.3	~~55.5~~ 61	55.1
	29.9	50.6	50.5
	26.7	~~57.6~~ 57.0	~~55.4~~ 58.0
	1245	270	277
39	31.12	40 56.75	56.92

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1883phae.proj.1413B

ζ Ursae Min

15 ~~53 21~~ 48 16

+78 9

	B	B
10 0	1.0	
	0.9	
	52.8	
	49.4	
	2241	
9	56.02	

δ Scorpii

15 53 21

-22 17

	B	R	B
30 2	4.0	28.4	28.3
	58.1	20.3	21.2
	52.7	17.2	17.1
	58.1	22.3	21.6
	2304	882	882
31	57.60	33 22.05	22.05

η Draconis

16 22 23

+61 47

	R	B	B
30.1	29.0	2 17.1	
	25.2	14.5	
	19.0	7.9	
	16.2	5.2	
	894	447	
31	22.35	32 11.18	

A+1 3 8C

β Herculis

16 25 8

+21 45

	R	B	R
30 2	32.1	2 33.9	33.8
	30.2	31.5	30.7
	21.0	22.8	22.8
	24.2	25.6	~~28.3~~ 26.6
	1075	1138	1139
32	26.44	33 28.45	28.48

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1883phae.proj.1413B

Feb 13, 1883

ζ Ophiuchi

16 30 09

−10 20

	BR	R	B
35	0 37,1	56.0	55.0
	25,2	44.0	44.9
	22,7	41.5	41,4
	28,5	47.6	46.8
	11 35	1891	1881
35	28,38	36 47.28	47,02

C = 17 85.0

α Lyrae

18 32 57

+38 41

	BB	R
35	3 0,3	0.6
	58,9	58.7
	50,4	51.3
	50,0	50.8
	2196	2214
37	54,90	55,35

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Feb. 16/17. 1883

⊙ 22 3 33

−11 5 5

BB

35 2 30.6

21.4

22,2

28.0

10 22

37 25,55

c = 17 84.3

α Persei

3 15 56

BB +49 26

50 1 32.0

30.0

35.5

33.1

13 06

51 32,65

Both limbs in R.A

Lower limb in δ

Seeing pretty good.

α Tauri

4 29 10

+16 16

RB

0 1 33.9

26.8

31.0

34.5

12 54

1 31,35

A_5 & foll

α Camelop.

4 42 26

+66 8

RB BB BB

5 3 43,3 4 12.9 43.1

46.7 15.9 46.2

47.7 16.6 46.5

42.0 10.4 41.2

17 97 5 58 17 70

8 44.92 9 13.95 44,25

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1883phae.proj.1413B

Feb. 17, 1883

δ^2 Urs. Min L.C.

15 20 52 +10 7 45

BB

30 3 51.0
55.0
56.2
51.0
2132
33 5330

C = 17 84,3

ε Eridani

3 27 23 -9 51

BB

5 3 28.6
20.6
26.9
31.1
1072
8 2680

lost 1st 3 W

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1883phae.proj.1413B

Feb. 16 1883

β Persei

3 15 +6

+49 26

R	R	R
55 2 0,7	1 35,0	50 1 36,9
1,2	40,2	36,7
36	38,8	37,7
1,63	30,8	32,9
58	1448	1442
57 1,45	56 36,20	51 36,05

5 fois.

α Scorpii

16 22 16

−26 10

25 0 52,3

45,4

43,2

51,7

1926

25 48,15

Last 1 rot. W

Rej 1 mt. tap

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1883phae.proj.1413B

Feb. 18, 1883

δ₂ Herculis

3 20 –2

10 7 45 –

C = 17 82,5

δ Ophiuchi

16 8 9

–3 23

BB

35	4	3,6	40	1	1,8
		8,9			55,2
		5,7			52.3
		0,9			58,9
		2 3 3			2 2 8 2
	34	5,82		40	57,05

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1883phae.proj.1413B

Feb. 18/19, 1883

⊙

22 11 16
−11 13

RB RB

10	2	46.5	45	1	0.7
		38.0			53.4
		36.2			49.0
		41.0			55.8
		1617			2189
	12	40.42		45	54.72

Both limbs in R.A. + S
Seeing quite unsteady

c = 17 84.0
α Camelop.
4 42 28
+66 8

BB

5	3	55.2	
		59.5	
		54.7	
		48.2	
		2176	
	8	54.40	

∓ c = 17 85.0 for this
& succeeding #s

β Eridani
5 2 3
−5 14

RB B

30	0	43.7	1	46.7	
		38.0		41.4	
		36.9		39.8	
		42.4		45.2	
		1610		1731	
	30	40.25	31	43.28	

α Aurigæ
5 7 59
+45 52

RB

20	4	26.2	
		27.6	
		22.6	
		20.9	
		973	
	24	24.32	

Lost A−1

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1003phae.proj.14113B

Feb. 19. 1883

ι Aurigæ

4 49 19

+32 59

BB

15 4 28.7

30.2

25.4

24.8

1091

19 27.28

C = 17 δ 5.0

ε Urs. Min. L.C.

16 58 00

+77 46

RB RB B

30 2 56.0 2 17.0 9.0

59.9 20.4 12.9

57.0 17.5 11.0

60.0 11.5 3.1

2229 664 360

32 55.72 32 16.60 9.00

A

β Orionis

5 8 52

−8 20

RB B

35 1 44.9 2 36.0

38.1 28.5

37.0 29.4

41.7 32.4

1617 1263

36 40.42 37 31.58

β Tauri

5 18 50

+28 30

RB B

45 1 23.7 2 41.1

25.0 42.7

20.0 38.4

21.0 39.1

897 1613

46 22.42 47 40.32

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1883phae.proj.1413B

Feb. 19. 1883

δ Orionis

5 25 59

−0 23

		RB
35	41	36.8
		32.7
		31.7
		34.9
		1361
	39	34.02

c = 17 85.0

α Leporis

6 −27 25 32

−17 54

		RB	B
10	0	2.8	1 30.8
		56.0	25.0
		53.5	23.9
		2.5	31.5
		2348	1112
	9	58.70	11 2780

ω Draconis. L.C.

17 37 38

+111 11

		RB	B	B
5	4	12.8	3 49.2	12.4
		18.5	55.9	19.1
		18.7	54.9	17.3
		9.4	46.9	8.8
		594	2069	576
	9	14.85	8 51.72	14.40

K Orionis

5 42 10

−9 43

		RB	B
55	3	42.2	0 9.2
		36.1	0.8
		35.4	1.6
		39.9	6.2
		1536	178
	58	38.40	0 4.45

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1992phee.proj.14138

Feb. 19, 1883

ε Orionis

5h 30 14

−1 17

	RB		B
30 2	59.2	4	18.1
	55.5		14.9
	52.0		13.0
	57.9		17.6
	2246		636
32	56.15	34	15.90

c = 17 85.0

ζ Orionis

5h 34 39

−2 0

	RB
15 1	33.4
	28.8
	26.5
	32.2
	1209
16	30.22

φ' Dracon, L. C.

17 44 1

+107 48

	RB		B
30 2	5.0	1	41.0
	10.7		47.2
	6.9		43.1
	1.2		37.2
	238		1685
32	5.95	31	42.12

α Orionis

5h 48 47

+7 23

	RB		B
50 3	27.0	4	53.3
	26.0		53.8
	22.4		47.9
	28.8		55.1
	1042		2101
53	26.05	54	52.52

A Lost 1st W.

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1883phae.proj.1413B

Feb. 19. 1883 $c = 17$ 83.9

δ Urs. Min. L.C. 1 — μ Geminor

18 10 21 — 6 15 29

+ 9 3 23 — + 22 34

		BB	B	B	B		BB
5 5	1	4.5	58.9	50.2	16.1	40 3	45.8
		7.4	1.5	54.4	17.8		46.0
		5.5	59.4	50.1	16.0		41.0
		59.8	54.5	46.4	10.5		44.0
		172	2343	2011	604		1768
	56	4.30	55 58.58	50.28	15.10	43	44.20

$A_{9.0}$ $t_{1.0}$

α Cam Maj.

6 39 57

−16 33

		BB
35	0	33.9
		26.7
		25.4
		34.8
		1208
	35	30.20

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1883phae.proj.14138

χ Draconis L.C.

18 23 10

+107 19

	BB		B
0 1	25.2	0	5.2
	30.1		10.0
	26.0		6.1
	19.4		9.9
	100 7		21 2
1	25.18	0	5.30

γ Geminor

6 30 54

+16 30

	BB
45 3	12.4
	9.3
	6.1
	10.0
	378
48	9.45

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1883phae.proj.1413B

Feb. 19/20. 1883

⊙

22 15 6

−10 5 1

RB

30	1	39.0	20	4 31.2
		32.0		25.5
		28.2		21.5
		33.7		25.9
		132.9		104.1
	31	33.22	24	26.02

Both limbs in δ - R.A.

Seeing very poor.

C = 17 86.0

α Scorpii

16 22 10

BB −26 10

25	1	4.1		
		0.9		
		55.9		
		4.4		
		5 3		
	126	1.32		

η Herculis

16 38 51

+39 9

BB

5	3	28.8		
		30.6		
		23.4		
		23.8		
		1066		
	8	2665		

α Camelop. L.C.

4 42 25

+113 51

BB

25	3	49.6		
		55.1		
		51.0		
		45.8		
		2015		
	28	5038		

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1883phae.proj.14138

Feb. 20, 1883
β Herculis
16 25 8
+21 45
BB

30	3	~~2'6~~	26.9
			28.1
			19.4
			23.5
			979
		33	24,48

A_2 & C

C = 17 86.0
ζ Ophiuchi
16 30 39
−10 20
BB

35	1		57.4
			50.9
			47.3
			53.2
			2088
		36	52,20

A_3 & C

ε Ursæ Minoris
16 58 0
+82 14
BB B B

0	4	24.6	35.4	0	18.8
		32.9	43.9		24.2
		22.7	33.2		15.5
		20,0	31.0		13.9
		1002	1435		724
	4	25,05	35,88	5	18,10

A

ζ Herculis
17 9 16
+14 32
BB

45	1		31.1
			29.5
			21.4
			28.0
			1100
		46	27,50

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1883phae.proj.1413B

Feb. 20, 1883

β Dracon.

17 27 45

+52 24

BB

50 4 8.0

10,9

5.0

2.3

262

54 6.55

c=17 86.0

α Ophiuchi

17 29 27

+12 39

BB

35 4 15.4

14,3

7,2

13,1

500.

39 12,50

Sol A+1

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1883phae.proj.1413B

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1883phae.proj.1413B

Feb. 20/21. 1883
C = 17 91.5
⊙

22 18 55
−10 30
BB

25 (?) 4 ~~35.~~ 35.5
30.3
27.1
31.4
1243
29? 31,08

Both limbs in R.A.
Upper " " δ

~~C = 17 91.~~
C = 17 90,3
2 Tauri
4 29 10
+16 16
BB

0 1 35.3
32.1
27.0
32.1
1265
1 31,62

A, + C

ε Urs. Min L.C.
~~4~~ 16 58 00
+77 46
BB B

30 3 13.0 2 24.9
16.2 27.4
11.7 22.7
6.4 17.8
473 928
33 11,82 32 23,20

A, + C

β Eridani
5 2 3
−5 14
BB

30 1 49.3
44.4
39.7
47.1
1805
31 45,12

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1883phae.proj.1413B

Feb. 21, 1883

C = 17 90.3

α Camelop.

4 42 28

+66 8

BB

5⁻ 4 55.0

58.9

57.9

48.2

2140

9 53,50

α Aurigæ

4 49 19

+32 59

BB

15⁻ 3 4.1

4.1

57.7

59.9

58

18 1,45

β Orionis

5⁻ 8 5⁻ 2

−8 20

BB

35 2 48.9

41.7

38.5

44.0

1931

37 43,28

β Tauri

5⁻ 18 50

+28 30

BB

45⁻ 1 31.0

31.5

24.4

27.1

1140

46 28,50

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1883phae.proj.1413B

Feb, 21. 1883

α Leporis

5⁻ 27 32

−17 54

BB

10 0 11.2

4.6

0.1

10.6

265

10 6.62

c = 17 90.3

ε Orionis

5⁻ 30 14

−1 17

BB

30 3 7.2

3.6

58.5⁻

5.7

150

33 3.75⁻

φ' Draconis L.C.

17 44 1

+107 48

BB

30 1 40.9

46.3

39.5⁻

35.3

1620

31 4050

A_{5_2} & A_{1_0}

α Orionis

5⁻ 4 & 47

+7 23

BB

5⁻0 4 45.8

44.5⁻

39.4

46.9

1766

54 44.15

A_2 + C

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1883phae.proj.14138

Feb. 21, 1883 C = 17 90.3

ζ Orionis

5 34 39
−2 0

BB

15 1 46.2
36.3
30.2
37.9
144 6
16 36.15

K Orionis

5 42 10
−9 43

BB

5 5 3 44.0
38.4
34.7
41.2
158 3
58 39.58

Lost A−1

δ Urs. Min. L.C.

18 10 21
+93 23

BB B

55 0 52.8 0 17.0
54.7 18.7
48.9 13.0
46.7 10.2
203 1 58 9
55 50.78 14.72

A

μ Geminor

6 15 29
+22 34

BB

45 2 31.2
30.7
23.4
28.9
114 2
47 28.55

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1883phae.proj.14138

Feb. 21. 1883

ϰ Draconis L.C.

18 23 10

+107 19

		BB		B
0	1	27.8	0	17.8
		32.4		21.4
		25.5		15.2
		21.3		11.1
		107 0		65 5
	1	26.75	0	16.38

C = 17 90.3

ϑ Geminor

6 30 54

+16 30

		BB
45	3	26.4
		23.4
		17.1
		23.0
		89 9
	48	22.48

A-1 3 + C

Extra tap fold A_5-

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1883phae.proj.1413B

2 Cam. Maj.,
6 39 5-7
−16 33
BB
5 0 0 20.6
13.5
8.5
19.5
6 21
50 15.52

Rej. 1 not S

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1883phae.proj.1413B

Feb. 21/22. 1883

C = 17 86.3

B' Scorpii

16 58 34

-19 29

⊙

22 22 44

-10 8

B B

#5 2 44.9

38.1

33.9

39.2

1561

7 39.02

B B

45 0 36.9

30.0

25.5

35.4

1278

45 31.95

Both limbs in R.A

Upper " " ♂

Seeing very fine.

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1883phae.proj.1413B

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1883phae.proj.1413B

Feb. 22/23, 1883

⊙ C=17 86.3

22 26 32

−9 46

BB

15	0	20.2	45 2	11.4
		12.9		5.6
		9.4		0.1
		15.5		6.0
		580		231
		18 14.50		47 5.78

Both limbs in ☉
Preceding " " R. A.
Seeing very poor.

C=17 87.2
~~C=17 86.3~~

β Arietis

1 48 9

+20 14

BB

0	3	49.4	
		48.6	
		41.4	
		47.9	
		1873	
	3	46.82	

ε Urs. Min L.C.

16 ~~58 00~~

+97 46

BB

30	3	17.8	
		21.0	
		15.4	
		11.4	
		656	
	33	16.40	

β Eridani

5 2 3

−5 14

BB

30	1	46.4	
		42.1	
		35.9	
		43.8	
		1682	
	31	42.05	

A 70 to 30
Rej 1st ☉

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1883phae.proj.14138

Feb. 23, 1883

2 Camelop.

4 42 25

+66 8

BB

10 0 5.3

7.2

5 9.5

3 8.5

10 5

10 2.62

C = 17 87.2

L Auriga

~~ε Urs. Min~~

4 49 19

+32 5 9

BB

15 4 29.3

31.2

24.0

26.1

11 06

19 27.65

α Auriga

5 7 59

+45 5 2

BB

20 4 24.0

25.9

19.0

18.9

8 7 8

24 21.95

β Tauri

5 18 50

+28 30

BB

45 1 33.0

33.3

24.7

29.0

12 0 0

46 30.00

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1883phae.proj.1413B

Feb. 23, 1883

δ Orionis

5 25 59
−0 23

BB

35 4 36.8
33.4
28.3
35.4
1339
39 33.48

α = 17 87.2

α Leponis

5 27 32
−17. 54

BB

15 1 43.3
39.1
33.5
40.2
1561
16 39.02

ω Draconis L.C.

17 37 38
+111 11

BB

5 5 3 42.3
37.4
33.1
38.5
5 3 39.9
44.8
41.2
34.7
1606
8 40.15

K Orionis

5 42 10
−9 43

BB

5 5 3 42.3
37.4
33.1
38.5
1513
58 37.82

A

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1003phae.proj.14138

α Orionis

5h 29m 40s

−5° 5′9

BB

15° 1′ 24,3

20,9

18,0

25,3

8 8 5

16 22,12

α Columbæ

5h 35m 23s

−34° 8′

BB

5h 3′ 39,9

44,8

41,2 R.A

34,7

circle reading lost

α Orionis

5h 48m 47s

+7° 23′

BB

50 4′ 51,8

54,2

45,1

52,4

2035

54 50,88

δ Urs. Min. L.C.

18h 10m 21s

+93° 23′

BB BB

55 0′ 58,3 47,5

1,8 50,4

55,7 44,5

54,3 42,0

2301 1844

55 57,52 46,10

A 80 to 20

1883phae.proj.1413B

Feb. 23. 1883

μ Geminor.

6 15 29

+22 34

BB

40 3 51.5

53.4

44.0

48.3

18 7 2

43 46.80

c = 17 87.2

× Dracon. L. C.

18 23 10

+107 19

BB

0 0 24.9

29.8

22.5

17.7

9 4 9

0 23.72

A_{9_0} to 1_0 Rej. 1st & 5

51 Cephei

6 44 42

+87 13

BB

5 0 17.6

19.2

11.5

10.5

5 8 8

5 14.70

A_{2_0} to 8_0

ε Com. Maj.

6 53 59

−28 49

BB

0 4 27.5

25.9

19.6

27.2

10 0 2

4 25.05

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1992phee.proj.14138

δ Geminiorum

6 30 54
+16 30

BB

4 5 3 22.8
20.2
11.9
17.4
723
48 18.08

α Com. Maj.

6 39 57
−16 33

BB

0 30.3
23.3
17.5
27.4
985
0 24.62

δ Com. Maj.

7 3 36
−26 12

BB

25 3 48.0
45.0
38.9
47.5
1794
28 44.85

α Scorpii

16 22 16
−26 10

BB

20 4 33.5
29.8
23.6
31.4
1183
24 29.58

over 2 pages.

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1992phae.proj.1413B

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Feb. 23. 1883

β Herculis

16 25 8

+21 45

BB

30 3 30,2
29.9
18.9
23,3
1023

87.2

C = 17 ~~90~~

ζ Ophiuchi

16 30 39

−10 20

BB

35 0 37.3
28.7
20.5
30,2
1200

last A+1

ε Urs. Min U.C.

16 58 00

+82 14

BB B

5 0 2,1 0 29,8
5.6 35.0
53.5 22.0
52.7 21.2
2339 1080
4 58,48 5 27,00

η Ophiuchi

17 3 27

−15 34

BB

50 0 1.6
53,8
45.8
55,7
2169
50 54,22

A_2, to T_2

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1000phae.proj.14130

Feb. 23, 1883
η Herculis
16 38 51
+39 9

BB

5⁻	3	42.0
		40,9
		32,1
		33.2
		1482

C = 17 87.2
α Camel. L. C.
4 42 25
+113 51

BB

25	4	6.6
		8,3
		3,5⁻
		58,4
		168

ζ' Herculis
17 9 16
+14 32

BB

45	1	36.2
		31,4
		21.7
		28,2
		117.5
	46	29,38

β Dracon.
17 27 45
+52 24

BB

55	0	28.8
		27,5
		18.5
		17,3
		921
	55	23.02

Rej. 1st 5

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1883phae.proj.1413B

Feb. 23/24. 1883
C = 17 84.1

①

22 30 20
−9 24

BB

20 3 45.4
37.7
32.2
35.6
1509
23 37.72

α Camelop

4 42 25
R +66 05

10 0 7.2
8.5
5.8
58.1
136
10 3.40

Both limbs in R.A
A2 & foll of 2nd limbs
Upper limb in δ
Seeing very bad.

β Eridani

5 2 3
−5 14

B BR

30 31 48.7 47.8
41.4 41.3
36.0 36.2
44.3 44.3
1699 1696
31 42.48 42.40

α Aurigæ

5 7 59
+45 52

RB

20 4 29.0
29.9
22.4
21.8
1031
24 25.78

lost A−1

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1883phae.proj.14138

Feb. 24, 1883

C = 17 84.1

ι Aurigæ

4 49 19

+32 59

		RB	B	R
15	3	12.9	25.9	26.4
		13.1	26.5	26.6
		4.7	17.9	18.2
		6.4	20.0	19.7
		37.1	90.3	90.9
	18	9.28	19 22.58	22.72

ε Urs. Min L.C.

16 58 0

+97 46

		BB	B
30	2	59.4	32.0
		3.1	34.6
		56.5	29.0
		52.0	23.8
		2310	1194
	32	57.75	29.85

A_{80} to 2_0

β Orionis

5 8 52

−8 20

		RB	B	R
35	1	46.0	2 33.5	33.4
		37.7	25.8	26.2
		32.8	21.3	21.8
		39.9	28.1	28.6
		1564	1087	1100
	36	39.10	37 27.18	27.50

ζ Orionis

5 18 48

+6 15

		R
0	2	3.2
		1.1
		3.9
		2.8
		10
	2	0.25

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1883phae.proj.1413B

~~Sept~~ Feb. 24 1883

ζ Orionis

5 25 59
− 0 23
R

Δ R

ι Orionis

5 29 90
− 5 59
R

15 0 48,0
423
361
43.0
1694
15 42,35

δ Urs. Min L.C.

18 10 21
+93 23
BB

55 0 50.8
52.8
45.7
43.7
1930
55 48,25

μ Geminor.

6 15 29
+22 34
RB B R

40 2 33.0 4 49 4.8
31.6 47 3,8
22.5 50 55,0
28.8 1,7 1,2
1159 57 48
42 28.98 44 1,42 1,20

Rej 2nd δ
Δ 9,0 to 1,0

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1883phae.proj.1413B

Feb. 24, 1883

K Orionis

5 42 10

−9 43

	R
55 3	50.7
	44.3
	39.3
	46.8
	18.1
58	45.28

c = 17 84.1

α Orionis

5 48 47

+7 23

	BR	R	B
52 3	34.8	4 57.1	57.2
	32.6	55.2	55.9
	25.1	47.8	47.8
	33.4	56.8	56.4
	125.9	216.9	217.3
53	31.48	54 54.22	54.32

γ Geminor.

6 30 54

+16 30

	BR	R	P
40 1	59.4	3 14.0	14.7
	56.4	10.2	10.3
	45.8	3.2	3.3
	55.2	10.2	10.2
	219.2	37.6	38.5
46	54.80	48 9.40	9.62

α Can. Maj.

6 39 58

−16 33

	RB	B
45 4	18.7	0 26.0
	13.5	18.5
	7.9	13.2
	17.8	23.9
	57.9	81.6
49	14.48	50 20.40

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1883phae.proj.1413B

Feb. 24 1883

51 Cephei
6 44 42
+87 13

R. A.
B. Obs.

c = 17 84.1

ε Can. Maj
6 53 59
−28 49

B R R

0	3	16	4 4 39.6	390
		12	6 ~~37.2~~ 36.8	372
		9	0 31.7	316
		17	0 40.0	397
		5	50 28 5	275
	3	13	75 4 37.12	36.88

B Can. Min
7 20 48
+8 31

B B

45	1	26.0	
		23.2	
		16.2	
		24.9	
		9	23
	46	23.08	

α^2 Geminor.
7 27 3
+32 9

B B

5	4	38.9	
		39.7	
		31.7	
		34.5	
		14	48
	9	36.20	

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δ Can. Maj

7 3 36

−26 12

RB

25 2 36.2
31.4
26.2
36.6
1304
27 32.60

δ Draconis L.G

19 12 32

+11 2 33

BB

45 2 34.9
37.6
34.3
29.3
1361
47 34.02

β Geminor

7 38 5

+28 19

BB

55 3 57.7
58.2
49.1
53.4
2184
58 54.60

lost last 3 W
Clouds,

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1883phae.proj.1413B

76

Feb. 25 1883

ζ Ophiuchi

16 8 9

−3 23

RB

4 44.0
41.3
36.5
44.2
16 6 0

4 41.50

α Scorpii

16 22 10

−26 10

RB

20 4 53.7
53.9
47.9
55.6
21 1 1

24 52.78

lost A−1

A Draconis

16 28 13

+69 01

RB

15 2 33.1
36.9
28.1
26.8
12 4 9

17 31.22

A− 25 wires

ζ Ophiuchi

16 30 39

−10 20

RB B R

35 0 35.2 45.2 45.6
28.3 ~~37.2~~ 38.8 38.2
25.0 35.4 35.2
32.0 41.36 42.3
12 0 5 10 13

35 30.12 36 40.25 40.32

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1883phae.proj.1413B

Feb. 25, 1883

C-17 84.1

η Draconis
16 22 23
+61 47

RB
95
2 ~~104~~
10.7
5.0
2.1
2.76
2 6.90

A
~~A 25 wts~~

β Herculis
16 25 8
+21 45

BR
30 3 33.0
33.2
25.9
31.0
12 31
33 30.78
Sum 151 W

η Herculis
16 38 51
+39 9

RB BB
1 45.4 5 3 27.4
39.2 29.4
35.4 21.3
41.3 22.8
100.9
3 25.22

α Camelop. L. C.
4 42 25
+11 3 51

RB B B
25 4 36.2 3.3 3 37.4
41.2 7.8 42.0
38.5 5.1 38.5
31.4 58.9 38.1
147 3 151 151 0
29 36.82 37.5 28 37.75

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1883phae.proj.1413B

Feb. 25, 1883

ε Urs. Min

16 58 00

+82 14

		BR	BR
0	4	15.1	36.4
		21.5	40.7
		13.5	32.7
		11.4	31.3
		61.5	141.1
	4	15.38	35.28

C = 17 84.1

η Ophiuchi

17 3 27

−15 34

		RB	B	R
20	0	10.1	29.6	~~30.8~~ 29.7
		3.8	23.9	23.8
		69.9	19.9	20.4
		9.9	~~28~~	29.7
		23.7	22.2	23.6
	20	5.92	21 25.55	25.90

α Ophiuchi

17 29 27

+12 39

		RB	B	R
35	2	50.4	4 14.0	14.7
		48.9	12.9	12.8
		40.4	5.5	5.8
		48.0	12.2	13.0
		187.7	44.6	46.3
	37	46.92	39 11.15	11.58

ω Draconis

17 37 38

+68 49

		BR	B
25	4	3.2	0 24.3
		6.6	27.1
		5.91	17.4
		5.78	17.5
		6.7	86.3
	29	1.68	30 21.58

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1883phae.proj.1413B

Feb. 25, 1883

21 Herculis

17 9 16

+14 33

		R	B
45	0	39.6	39.5
	1	35.7	36.3
	3	28.7	28.9
	20	36.6	35.9
	22	20.6	20.6
45	1055	35.15	35.15

c = 17 84.1

β Dracon.

17 27 45

+52 24

		R	B
50	4	0.2	37.2
		2.2	39.1
		55.8	33.1
		56.0	31.8
		2342	1412
54		58.55	35.30

φ' Dracon.

17 44 1

+72 12

		B	B
5	1	49.4	
		50.5	
		41.0	
		40.1	
		1810	
6		45.25	

γ Dracon.

17 53 52

+51 31

		R	B
45	2	19.0	32.1
		20.8	34.+
		14.2	23.5
		12.6	26.2
		666	1206
47		16.65	30.15

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1883phae.proj.1413B

Feb. 26, 1883 C=17 89.2

α Canis Min.
4 42 25
+66 8
RBB
5 4 54.0
57.8
49.4
47.0
2082
9 520.5

α Aurigæ
4 49 19
+32 59
BB
15 4 24.1
26.0
17.2
20.9
882
19 22.05

β Orionis
5 8 52
−8 20
BB
35 1 28.9
22.1
17.1
23.9
920
36 23.00

β Tauri
5 18 50
+28 30
BB
45 2 48.4
49.4
40.5
44.9
1832
47 458.0

5 taps of wrong # preced.

Rej. 1st δ, if there was any.

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1883phae.proj.14138

Feb. 26, 1883 C=17 89.2

ε Ursæ Min. L.C.

16 58 00

+97 46

BB B

30 3 4.8 2 25.9

8.3 29.0

3.0 23.0

56.2 18.8

143 967

33 3.58 32 24.18

β Eridani

5 2 3

−5 14

BB

30 0 39.2

33.3

28.6

36.6

1377

30 34.42

A

α Leporis

5 27 32

−17 54

BB

5 4 54.0

55.0

48.0

58.4

2764

9 54.10

ε Orionis

5 30 14

−1 17

BB

30 4 22.4

19.9

14.0

21.2

775

34 19.38

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1883phae.proj.1413B

Feb. 26, 1883

α Columba

5h 35m 23s

−34° 8′

	RB		B	
20	1 34.5	2	46.2	
	31.1		42.3	
	27.1		38.2	
	35.7		47.4	
	1284		1741	
	21 3210	22	4352	

C=17 89.2

μ Geminor

6h 15m 29s

+22° 34′

	RB		B	
40	2 30.1	3	44.8	
	30.1		45.6	
	20.6		36.1	
	26.8		41.2	
	1076		1677	
	42 26.90	43	41.92	

α Can. Maj.

6h 39m 57s

−16° 33′

	RB		B	
45	4 5.3	0	30.8	
	1.5		25.3	
	53.9		19.0	
	5.0		30.7	
	57		1058	
	49 142	50	2645	

δ Scorpii

15h 53m 21s

−22° 17′

	BB	
30	3 37.0	
	33.2	
	26.0	
	32.8	
	1290	
	33 3225	

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1883phae.proj.14138

χ Dracon. L.C.

18 23 10
+107 19

RB B B B

0	1	8.1	0	45.6	12.5	4	54.7
		13.7		51.4	17.8		1.4
		4.2		41.8	8.2		52.8
		2.0		39.0	5.8		49.8
		28.0		177.8	44.3		218.7
	1	7.00	0	44.45	11.08	5	54.68

γ Geminor

6 30 54
+16 30

RB B

45	2	3.0	3	11.8
		59.3		8.8
		50.7		0.5
		59.6		8.4
		232.6		29.5
	46	58.15	48	7.38

β¹ Scorpii

15 58 34
−19 29

BR R B

40	4	20.3	0	35.0	35.1
		14.6		28.8	28.4
		8.7		21.8	21.5
		18.0		31.2	30.8
		61.6		116.8	115.8
	44	154.0	45	29.20	28.95

δ Ophiuchi

16 8 9
−3 23

RB B R

35	4	43.1	1	0.1	0.7
		38.8		54.4	~~55.1~~ 54.6
		32.0		48.5	47.4
		38.7		55.2	56.1
		152.6		217.2	218.8
	39	38.15	41	54.30	54.70

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1883phae.proj.1413B

η Dracon.

16 22 23
+61 47

		RB	B
30	2	14.0	25.0
		13.0	24.2
		4.8	16.4
		4.0	15.2
		35.8	80.8
	32	8.95	20.20

A_9 + foll

β Herculis

16 25 8
+21 45

		BB
3		41.5
		41.8
		30.8
		36.4
		150.5
	3	37.62

A_{-1}

η Herculis

16 38 51
+39 9

		RB		B
5	3	58.8	4	51.9
		58.5		53.7
		49.2		43.1
		50.8		44.3
		217.3		193.0
	8	54.32	6	48.25

α Camelop. L. C.

4 41 25
+11 3 51

		RB		B		B		B
30	0	10.1	4	39.7	0.0	3	43.7	
		12.4		43.0	3.0		47.4	
		5.8		38.3	58.1		42.4	
		2.2		32.9	52.8		36.3	
		30.5		153.9	233.9		169.8	
	30	7.62	29	38.48	58.48	28	42.45	

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A Draconis
16 28 13
+69 01
BB
15 2 41,0
43,1
32,4
32,3
1488
17 37.20

A5 + fold.

ζ Ophiuchi
16 30 39
−10 20
BB
35 1 39.2
51,0
46,2
52,7
1891
36 47.28

A4 + fold.

ε Ursæ Minoris
16 58 00
+82 14
RB B
0 4 48.8 59,2
56,7 7,2
43,0 54,5
40,7 51,0
1892 2315
4 47.30 57.98

0 40,2
46,2
33,2
32,2
1518
5 37.95

5 0 40.2
46,2
33.2
32,2

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1883phae.proj.1413B

Feb, 26, 1883

η Ophiuchi

17 3 27

−15 34

		RB	B	R
50	0	7.0	36.8	37.4
		59.1	29.7	30.2
		50.7	21.6	22.2
		2.0	31.9	~~33.0~~ 32.8
		2388	1200	1226
49		59.70	51 3000	30.65

c = 17 89.2

α' Herculis

17 9 16

+14 32

		BR	R	B
45	0	9.8	41.3	40.8
		49	37.2	37.9
		54.6	27.0	27.0
		3'0	34.2	33.6
		12'3	1397	1393
45		308	46 3492	3462

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1883phae.proj.1413B

β Draconis

17 27 45

+52 24

		R	B
50	4	12.0	4,8
		14,3	J4,2
		6.5	4,0
		4,3	4,8
		371	1906
		54	9,28	47,65

α Ophiuchi

17 29 27

+12 39

	B	R	
35	3	0,3	4 1,7
		J8,7	18.4
		47,9	7,3
		J4,3	13.8
		2207	592
37	55,18	39	14,80

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Feb. 26/27. 1883

⊙ C=17 81.7

22 41 39

−8 16

	RB		RB
15 1	45.2	− 0	20
	38.1		54.5
	30.9		46.5
	33 6		52.7
	1478		2157
16	3695		53.92

~~C=17~~

C=17 86.0

α Arietis

2 0 33

+22 54

	RB	B
20 2	16.4	3 36.8
	15.6	36.2
	5.0	25.5
	9.7	29.5
	46.7	1280
22	1168	23 3200

Both limbs in δ & R.A.

Seeing very unsteady —

α Ceti

2 56 δ

+3 38

	RB	B
35 3	46.2	45.6
	42.7	49.0
	33.5	40.5
	40.4	47.5
	1628	1898
38	4070	39 4745

α Persei

3 15 56

+49

	BR	R	B
50 0	32.9	1 53.2	52.1
	32.3	51.4	52.1
	23.5	44.0	43.5
	23.5	42.5	42.9
	1122	1911	1904
50	28.051	47.78	47.60

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1883phae.proj.1413B

β Ursæ Min L.C.

14 5 1 0

+10 5 22

		RB		B		B		B		B		B
55	3	14.0	3	3.3	2	48.6		13.5	1	59.0		43.0
		17.9		6.2		42.0		16.9		1.3		45.4
		8.7		57.0		33.0		7.2		52.0		36.3
		2.9		51.4		27.6		2.7		47.9		32.0
		435		2379		1512		403		2202		1567
58		10.88	58	59.48	57	37.80		10.08	56	55.05		39.18

ε Eridani

3 27 23

−9 51

		RB		B
5	2	26.2	3	24.4
		17.8		17.1
		11.2		10.2
		16.8		15.3
		720		670
7		18.00	8	16.75

δ Persei

3 34 33

+47 24

		BB
50	2	20.2
		19.5
		11.1
		11.4
		622
52		15.55

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Feb. 27. 1883

η Tauri

3 40 29

+23 44

		RB	B	R
30	2	26.0	3 37.9	37.6
		25.8	38.0	38.2
		15.1	27.0	27.4
		17.6	~~26.5~~ 30.0	30.7
		84 5	132 9	133 9
32		21,2	33	33.22 33,48

c=17 86,0

ζ Persei

3 46 44

+31 32

		RB
40	4	45.8
		45.3
		35.9
		35.9
		162 9
	44	40,72

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γ¹ Eridani

3 52 32

−13 57

BB

5 2 40.6

34.1

25.5

35.0

1352

7 33.80

η Draconis L.C.

16 22 23

+118 13

RB B B

5 3 57.8 3 28.0 47.1

1.7 30.2 49.0

55.2 24.8 42.8

57.2 20.3 38.6

2259 1033 1775

8 56.48 8 2582 44.38

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Feb. 28 1883

B Persei

2 5 1 0

10 52 ~

R R

55 1 55.8 42.9

2.4 46.2

53.5 36.4

49.5 83.5

224.2 159.0

56 56.05 39.75

A+1

ζ Persei

2 56 17

+53 03

R

15 0 15.0

14.6

5.8

6.8

42.2

15 10.55

Sort A+1

δ Persei

3 34 33

+47 24

R

50 2 26.0

25.8

16.4

17.7

85.9

52 21.48

π Tauri

3 40 29

+23 44

R

30 2 20.0

20.4

9.3

14.5

64.2

32 16.05

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α Persei

3 15 56
+49 26

R

50 0 31,3
30,5
22,4
23,4
1080

50 27.00

ε Eridani

3 27 23
−9 51

R

5 22 70
18,4
13,5
19,8
790

7 19.75

ζ Persei

3 46 44
+31 32

R

40 4 54,8
55,0
45,6
47,8
2032

44 50.80

η Eridani

3 52 32
−13 51

R

5 01 30,4
25,6
17,1
27,8
1013

6 25.32

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Feb. 28 1883

α Leonis

42233

11813

R R

5 2 49 2 271

50,0 320

44,8 260

40,2 21,3

1609 1064

7 45,22 7 26,60

ε Urs. Min L.C.

16 58 00 -

+97 46

BB

30 3 8,3

10,1

2,4

58,8

196

33 4,90

γ Orionis

5 18 48

+6 15

BB

0 3 21.6

19,8

12,0

19,6

730

3 18,25

δ Orionis

5 25 59

-0 23

BB

40 2 52,0

45,0

40,0

46,4

1834

42 45,85

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1883phae.proj.1413B

β Eridani

5 2 3
−5 14

BB

30 0 34.2
27.4
19.8
28.2
1096
30 27.40

β Orionis

5 8 52
−8 20

BB

35 2 47.9
39.7
34.5
40.5
1626
37 40.65

ε Orionis

5 30 14
−1 17

RB B R

30 3 7.0 425 24.8
1.7 201 20.8
55.0 141 14.80
2.0 000 20.1
57 792 797
33 142 34 19.80 19.92

α Columbæ

5 35 23
−34 8

RB B

20 1 24.3 3 48.3
18.3 42.3
14.8 38.7
21.9 44.9
793 1742
21 19.82 23 43.30

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Feb. 28, 1883

ω Draconis L.C.

17 37 38

+111 11

RB

5 3 37.9
40.1
36.5
30.1
8 14.46
36.15

A 25 W

Lon 51 34 W

κ Orionis

5 42 10

−9 43

RB

55 3 49.5
43.2
37.8
42.3
1728
58 43.20

δ Ursa Min L.C.

18 10 ~~29~~ 21

+93 23

BB B

40 0 44.8 26.0
44.9 26.4
38.9 19.0
37.2 17.3
1658 887
40 41.45 22.18

A_{7_1} to 2_2

μ Geminor

6 15 29

+22 34

RB B

40 2 44.0 3 52.3
42.2 53.4
32.8 42.3
37.7 46.5
1567 1945
42 39.18 43 48.62

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1883phae.proj.14138

φ Draconis L.C
17 44 1 +107 48

		RB	B
30	2	27,2	1561
		31,8	1,3
		23,9	51,2
		20,0	49,0
		1029	2176
	32	25,72	31 5440

ζ Orionis
5 48 47 +7 23

		RB	B
50	3	34,1	4 54,1
		32,9	54,5
		24,0	44,0
		31,8	51,4
		1228	2040
	53	3070	54 5100

χ Draconis
6 23 10 +107 19

		BB
0	0	24,1
		26,0
		18,5
		15,5
		841
	25	4202 102

γ Geminor
6 30 54 +16 30

		BR	R
45	2	64	3 29,5
		1,3	16,1
		52,8	8,1
		0,8	15,4
		13	691
	47	0,32	48 17,28

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1883phae.proj.1413B

Feb. 28, 1883

α Cam. Maj.

6 39 57

−16 33

		RB		B
45	4	17.4	0	30.0
		10.9		21.8
		5.1		16.2
		14.5		26.4
		47.9		94.4
49		11.98	50	23.60

C = 17 860

δ Ophiuchi

16 8 9

−3 23

		BB
40	0	57.0
		48.4
		44.3
		52.5
		202.2
40		50.55

ζ Ophiuchi

16 30 39

−10 20

		RB		B
35	0	53.3	1	53.0
		45.1		45.0
		38.8		39.0
		47.9		47.5
		185.1		184.5
35		46.28	36	46.12

η Herculis

16 38 51

+39 9

		BB
10	0	7.9
		6.2
		57.8
		0.9
		12.8
10		3.20

Rej 1st ½ tap

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1883phae.proj.1413B

η Draconis

16 22 23
+61 47

		RB	B		B	B
30	1	3,0	36.0	2	21.4	35,1
		58.9	32.4		18,3	34,6
		54,3?	25.0		9.8	25.5
		53,2	26,9		11,9	26,3
		2294	1203		614	1215
		30 57.35?	31 00.05		32 15.35	30 38

ζ Draconis

16 28 13
+69 01

		RB
15	2	31.0
		33,0
		22,2
		22,9
		1091
		17 27.28

α Camelop. L.C.

4 42 25
+113 51

		RB	B	B
30	0	3.0	4 31,2	4,4
		3,2	33,3	5,1
		57,5	28,6	1,4
		55,4	25,2	58,8
		2391	1183	97
		29 59.78	29.58	2.42

ε Ursae Min.

16 58 00
+82 14

		BB
0	4	45.8
		52,1
		39,9
		38,9
		1767
		4 44.18

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Feb. 28 1883

η Ophiuchi

17 3 27

−15 34

		RB	B	R
50	0	48.2	1 34.6	35.0
		30.5	27.1	27.7
		24.5	21.3	20.9
		35.2	31.6	32.3
		1384	1146	1157
	50	34.60	51 28.65	28.92

α' Herculis

17 9 16

+14 32

		RB	B	R
45	0	14.8	1 38.9	39.6
		8.3	34.5	33.5
		59.8	25.5	25.0
		8.4	33.9	34.3
		313	1320	1324
	45	7.82	46 33.00	33.10

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1883phae.proj.1413B

β Draconis
17 27 45
+52 24

	B	R
50	4 224	0 398
	213	84
	140	29.2
	143	31.7
	723	1391
54	18.08	55 34.78

α Ophiuchi
17 29 27
+12 39

	B	R
	21.2	
35	3 ~~36.5~~	
	19.0	
	9.6	
	16.4	
	66 2	
38	16.55	

Rej 1st + 5
last tap of 1st + 5 coincides
with R.A tap.

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1883phae.proj.1413B

Feb. 28-9

~~Feb~~ Mar. 1, 1883 C=

⊙ C=17 86.0

22 49 9

-7 31

	RB		RB
30	1 43.3	0 4	39.0
	36.1		32.9
	36.0		28.9
	38.4		33.2
	147.8		134.0
	31 36.95		4 33.50

Both limbs in δ & R.A.
Last 1st & w. 2nd limb
Seeing very good.

ζ Persei

3 46 44

45 0

	R
40	45 59
	57.0
	48.1
	51.1
	212.1
	44 53.02

J. Eridani

3 42 32

-13 51

	R
5	1 21.1
	14.6
	07.5
	17.9
	61.1
	6 15.28

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1883phae.proj.1413B

T-Eb, 29 obs C=178

δ Persei

3 34 33
+47 24
R

50 2 350
351
270
270
1241
52 3 102

h Tauri

3 40 29
+23 44
R

30 2 21.3
20.4
10.9
16.1
690
32 17.25

η Draconis L.C.

16h 22 23
+118 13
RB B

5 3 37.4 15.0
44.4 20.8
42.5 19.6
36.0 13.0
1603 684
8 40.08 17.10

α Tauri

4 29 10
+16 16
RB B

0 0 19.0 1 41.0
14.0 38.0
6.0 29.5
13.3 36.5
523 1450
0 13.08 1 36.25

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1883phae.proj.1413B

Mar. 1, 1883

ζ Orionis

5h 34m 39s

−2 0

BB

15 1 34.4
31.3
24.5
31.1
12 13
16 30 32

C = 17 87.4

φ' Draco, L.C.

17h 44m 1s

+107 48

BB

30 1 45.2
53.2
44.9
40.2
18 35
31 45 88

A 25 w

Ch. failed on some.

μ Geminor.

6 15 29

+22 34

BB

40 3 50.5
51.1
42.0
47.5
19 11
43 47.78

× Draconis L.C.

18 23 10

+107 19

BB

0 0 12.0
17.5
9.1
5.0
4 36
0 10.90

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1883phae.proj.14138

α Orionis
5 48 47
+7 23

BB

40	4	55.2	
		55.0	
		47.3	
		54.9	
		27 24	
	44	53.10	

δ Urs. Min L.C.
18 10 21
+93 23

BB B

55	0	59.2	49.1
		2.8	52.1
		56.0	46.0
		53.1	42.9
		231	1901
	55	57.78	47.52

A_{80} to 2_0

γ Geminor
6 30 54
+16 30

BB

45	3	20.6
		18.3
		10.5
		17.4
		668
	48	1670

α Can. Min
7 39 17
+5 33

BR R

45	4	23.8	0	34.6
		19.5		30.0
		14.1		24.6
		22.8		34.1
		806		1233
	49	20.15	50	30.82

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1883phae.proj.1413B

Mar 1883
51 Nº Ephm
6 44 42
8/13

R

AR

50 Draconis
6 50 F

104 42

R R

35 2 15.2 471
20.4 52.8
12.6 45.8
8.2 40.2
566 1854
37 14.15 46.48

Agate to 70

δ Draconis
7 12 32
+ 12 33

R R

45 3 166 14.2
21.4 9.7
18.2 5.2
11.3 59.1
675 1.82
48 16.88 4.55

B Can Min
7 20 48
+ 8 31

R

45 0 31.4
29.2
23.1
25.3
1130
45 28.25

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1883phae.proj.14138

ξ Can Maj

6 55 59

−28 49

0 4 41.8

41.6

37.0

44.0

1646

4 46.15

J Can. Maj.

7 3 36

−26 12

40 2 30.5

27.2

22.8

31.1

1116

42 27.90

λ Leon

9 27 3

+32 9

R

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1883phae.proj.1413B

Mar ½, 1883

⊙ C=17 87.6

22 52 54

-7 8

RB

			RB					RB	B	R
5	4	01	40	1	52.0	0	3	37.1	3 58.0	58.0
		56.5			47.3			37.4	58.9	58.2
		53.9			43.6			34.9	57.0	57.8
		57.5			47.1			41.0	2.0	2.7
		2280			1900			1504	359	367
9		57.00	41		47.50	3		37.60	3 58.98	59.18

β Arietis

1 48 9

+20 14

Both limbs in ♂ + R.A.

Seeing pretty fair -

α Persei

3 15 56

+45 26

R

50	1	40.3	
		43.1	
		45.1	
		40.6	
		169	
51		42.28	

δ Persei

3 34 33

+47 24

R

50	2	17.8	
		18	
		19.8	
		17.2	
		73.6	
52		18.40	

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1000phae.proj.14113b

Mar. 2, 1883

γ Androm.

1 56 41

+41 46

		RB		B
30	0	58.8	2	7.0
		0.4		7.9
		58.5		6.0
		57.3		5.0
		2350		259
8	30	58.75	32	6.48

C = 17 87.6

α Arietis

2 0 33

+2 2 54

		RB		B
20	2	10.2	3	27.9
		13.2		29.9
		8.2		26.1
		13.0		30.1
		446		1140
22		11.15	23	28.50

λ Tauri

3 40 29

+23 44

R

30	2	27.7
		~~28~~
		27.8
		31.5
		1158
32		28.95

γ Persei

~~45 1 36~~

346 44

+3 1 32

R

45	1	36
		4.9
		3.0
		4.1
		156
46		3.90

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1883phae.proj.1413B

Mar 2 1883

γ Eridani

3 5 2 32

−13 51

R

5 1 249

1&3

19.6

31.3

9 4.1

6 23.52

h Dropodis

4 22 23

118 13

R

ζ Orionis

5 29 40

−5 59

BB

15 1 53.4

49.8

51.0

56.0

2102

16 52.55

α Columbæ

5 35 23

−34 8

As often

R. A. only — clouds

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1992phae.proj.14138

β Tauri

5 18 50

+28 30

BB

45 2 44.2
45.8
44.9
47.2
1821
47 45.52

α Leporis

5 27 32

-17 54

BB

10 1 27.8
21.6
24.9
34.7
1090
11 27.25

δ Ursa. Min. L.C.

18 10 21

+9 3 23

BB

55 0 10.2
17.1
17.1
11.9
563
55 14.08

μ Geminor.

6 15 29

+22 34

BB

40 3 48.0
51.3
49.2
51.6
2001
43 50.02

A_{80} to 2_0

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1883phae.proj.1413B

Mar. 2. 1883

× Dracon. L.C.

18 23 10

+107 19

BB B

0 1 18.0 0 7.8

26.9 15.6

26.4 15.0

19.8 8.8

91 47.2

1 22.78 0 11.80

A 25

γ Geminor

6 30 54

+16 30

BB

45 3 6.0

5.1

3.7

9.5

243

48 6.08

50 Dracon. L.C.

18 50 8

+104 42

BB

35 1 49.5

57.8

58.2

50.1

2156

36 53.90

A 7/2 b 2, 1

ε Can. Maj.

6 53 59

−28 49

BB

0 4 37.5

39.4

41.1

46.7

1647

4 41.18

A 5 1 foll.

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1883phae.proj.1413B

2 Can. Maj.

6 39 57
−16 33

BB

50	0	26.7
		22.3
		22.6
		32.6
		104 2
	50	26.05

51 Cephei

6 44 42
+87 13

BB

5	0	5.8
		11.9
		10.5
		5.6
		33 8
	5	8.45

δ Can. Maj.

7 3 36
−26 12

BB

25	3	36.2
		34.7
		35.6
		42.6
		149 1
	28	37.28

δ Draco. L.C.

19 12 32
+112 33

BB B

45	3	26.1	2 18.2
		34.5	25.5
		37.2	28.1
		29.5	19.9
		127 3	91 7
	48	31.82	47 22.92

A 25

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1883phae.proj.1413B

Mar. 2, 1883

β Can. Min.
7 20 48
+8 31
BB

45	1	28.1
		28.5
		27.4
		33.0
		1170
46		29.25

α^2 Geminor
7 27 3
+32 9
BB

5	4	35.4
		39.7
		38.7
		38.5
		1523
9		38.08

Gr. 1374
7 46 10
+74 13
BB

0	4	55.1
		1.3
		59.1
		52.9
		2284
4	5	7.10

A 25

15 Argus
8 2 31
−23 58
BB

10	4	32.8
		31.1
		31.8
		39.0
		1347
14		33.65

Rej. 1 pr. ∴ δ

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1883phae.proj.1413B

Mar. 2, 1883 C = 1786.0

α Can. Min.

7 33 7

+5 32

BB

45 1 18.8
17.9
16.5
23.9
771
19.28

β Geminor

7 38 5

+28 19

BB

55 4 46.1
50,2
46.9
49.5
1927
48.18

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1883phae.proj.1413B

Mar. 2/3, 1883

⊙ C = 17 86.0

22 56 38

−6 45

	BB		BB
45	0 24.4	15	3 58.9
	19.5		55.9
	17.0		50.9
	21.1		55.4
	82.0		221.1
45	20.50	18	55.28

Both limbs in δ
1st " limb in R. A.
Seeing very bad indeed.

δ Orionis

5 25 59

RR −0 23

25	4 40.2	
	39.4	
	37.0	
	42.1	
	158.7	
29	39.68	

ι Orionis

5 29 40 −5 59

R

15	0 33.6	
	~~32.2~~	30.3
	~~19.1~~	27.0
	34.2	
	125.1	
15	31.28	

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1883phae.proj.14138

Mars 1880

β Eridani

5 – 2 3

– 5 – 14

R

30 @ 36.4

32.5

28.7

36.5

1345

30 33.62

α Aurigae

5 – 55 59

+45 – 52

R

20 4 45.7

49.4

45.4

43.8

1843

24 46.08

α Columbae

5 35 23 –34 8

RB B R

20 1 29.4 2 44.8 44.3

27.8 42.9 43.9

27.2 42.7 43.1

33.9 49.8 49.8

1183 1797 1811

21 29.58 22 44.92 45.28

K Orionis

5 42 10

RB – 9 43

55 3 44.3

41.0

38.4

44.0

1677

58 41.92

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1883phae.proj.1413B

Mar. 3, 1883

φ¹ Dracon. L.C.

17 44 1

+107 48

		RB	B
30	1	44.1	30.0
		51.8	37.2
		46.6	31.5
		42.6	28.4
		1851	1274
	31	4628	31 31.85

α Orionis

4 48 47

+7 23

		RB	B
50	3	26.3	4 48.4
		28.6	49.8
		22.7	44.5
		29.5	57.1
		1071	1938
	53	2678	54 48.45

α Can. Maj.

6 39 57

-16 33

		RB	B
45	4	9.6	0 30.0
		8.4	26.2
		1.1	20.1
		10.7	30.2
		298	1065
	49	7.45	50 26.62

h m

1 7 10 L C

0

Tried stars
near sun-court
find none
Prob. work during
Bby clear

1883phae.proj.1413B

μ Geminor
6 15 29
+22 34

RB

40 2 31.5
34.0
25.7
30.0
1212
42 3030

γ Geminor
6 30 54
+16 30

RB

15 1 49.0
49.8
41.0
47.1
1869
16 46.72

ε Lyncis
18 32 57
+38 41

R

20 2 1.5
2.0
5.5
5.1
2291
26 57.28

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1883phae.proj.14138

Mar 4 1883

①

23 0 21
−6 22
R

50 4 50.2
44.1
38.4
42.9
1761
54 44.02

@ = μ Geminum

6 15 29
+22 34
R

40 2 53 6
54.2
42.8
49.2
1998
42 49.95

22
Swingbod

2 Can Maj

6 09 57
−16 33
R

45 4 18.1
15.2
6.7
14.9
549
49 13.72

5-1 N Ceph.

6 44 42
87 13
R

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1000phae.proj.14138

χ Draconis

6 23 10

+70 19

R R

0 1 25,0 0 12,4
31,7 15,2
2,8 8,3
14,6 3,3
96 1 42 2
1 24,02 0 10,55

ζ Geminorum

+16 30

R

4 5 1 5-8
56,0
45,7
5-2,5
2130
46 53,25

ε Ursae Minoris

16 58 00

+82 14

RB R B

5 0 6,5 36,0
10,5 41,2
57,2 27,2
57,1 26,9
113 1313
5 2,82 32,82

η Ophiuchi

17 3 27

-15 34

RB B R

5 0 0 20,0 1 39,4 39,3
13,0 32,7 32,9
5,2 24,9 34,8
14,5 33,8 34,2
527 1308 1312
50 13,18 57 32,70 32,80

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1883phae.proj.1413B

Mar. 4, 1883

α Herculis

17 9 16

+14 32

BB

45 1 46.5
43.4
32.2
38.6
1607
46 40.18

C=17 81.7

β Dracon.

17 27 45

+52 24

BR

50 4 15.2
15.8
6.6
5.8
434
54 10.85

γ Dracon.

17 53 52

+51 81

BB

45 3 50.5
53.4
42.9
39.0
1858
48 46.45

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1883phae.proj.1413B

α Ophiuchi

17 29 27

+12 39

	BR	R
3.5	3 1.8	4 26.7
	54.2	24.6
	47.8	12.4
	54.7	20.1
	2235	838
38	55.88	39 20.95

φ' Draconis

17 44 1

+72 12

	RB	B
5 0	52.0	1 17.0
	54.4	18.8
	42.8	7.8
	39.6	5.2
	1888	488
5	47.20	6 12.20

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1883phae.proj.1413B

Mar. 4/5, 1883

⊙ C=17 82,8

23 4 4

−5 59

RB RB

0 0	50	30 2	54,8
	54.2		50.2
	49.7		41.8
	56.1		45,3
	2300		1921
59	5750	32	48.02

Both limbs in δ & R.A.
Lost A+1, 2nd limb
Seeing rather poor.

β Arietis

1 48 9

+20 14

BB

0 3	59.2	
	57.3	
	46.2	
	52.0	
	2147	
3	53,68	

γ Orionis

5 18 48

+6 15

BB

0 3	22.4	
	20,0	
	10,4	
	18.1	
	709	
3	17.72	

α Leporis

5 27 32

−17 54

BB

10 1	24.1	
	16,0	
	8.9	
	19,5	
	685	
11	17,12	

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1883phae.proj.1413B

γ Andromedae
1 57 41
+41 46

BB

30 2 14.7
13.0
1.9
2.4
320
32 8.00

α Arietis
2 0 33
+22 54

BB

20 3 37.1
37.0
25.9
29.8
1298
23 32.45

α Columbae
5 35 23
-34 8

BB

20 2 45.5
39.6
36.0
42.2
1633
22 4.082

κ Orionis
5 42 10
-9 43

BB

0 0 15.1
5.5
59.8
6.9
273
0 6.82

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1883phae.proj.1413B

Mar. 5, 1883

φ' Dracon. L.C.

17 44 1

+107 48

BB

30 1 43.4

47.5

38.6

34.8

1643

31 41.08

A_{5_0} to 1_0 + A_{+1}

C=17 82.8

ζ Orionis

5 48 47

+7 23

BB

. 55 0 2.1

57.5

46.8

57.3

2257

54 56.42

Lost 1st & 11 W.

χ Dracon. L.C.

& 18 23 10

+107 19

RB RB RB RB RB

0 1 40.0 17.2 0 44.4 22.0 6.8

44.2 21.1 48.3 25.9 10.5

34.0 11.0 37.9 14.6 59.9

29.3 7.2 33.9 11.5 56.2

1475 565 1645 740 334

1 36.88 14.12 0 41.12 18.50 3.35

γ Geminos

6 30 54

+16 30

RB B

45 2 0.0 3 19.9

56.2 16.4

45.6 6.5

52.1 12.0

2638 548

46 53.45 45 13.70

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1883phae.proj.1413B

δ Urs. Min.
18 10 21
+93 23

BB B

0 1. 0,8 0 28.2
1.2 28.0
54.2 21.9 ?
51.8 18.9
2280 970
0 57.00 0 24.25?

μ Geminor
6 15 29
+22 34

RB B

40 2 48.8 3 54.2
48.8 54.7
37.2 43.5
43.1 48.4
1779 2008
42 44.48 43 50.20

α Can. Maj.
6 39 57
-16 33

RB B R

45 4 16,4 0 38.8
11,5 30.8
3.6 23.6
13.0 33.9
445 1066
44 11,12 50 26.65

51 Cephei
6 14 42
+87 13

RB

5 0 20.8
22.9
14.2
11.9
698
5 17.45

A2₀ to 7₀

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1883phae.proj.1413B

50 Draco n. L. C.

18 50 8

+104 42

		RB	B
35	2	50.82	28.8
		55.6	33.7
		46.0	24.5
		41.4	20.4
		1938	1074
37		48.45	37.26.85

E Can. Maj.

6 53 54

-28 49

		RB	B
0	3	28.1	4 31.0
		27.1	30.1
		17.5	20.9
		25.3	28.2
		980	1102
	3	24.50	4 27.55

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1993phae.proj.1413B

δ Can. Maj.
7 3 36
−26 12

RB

25	3	39.1	
		35.4	
		26.4	
		35.1	
		1360	
	28	34.00	

δ Dracon. L.C.
19 12 32
+112 33

RB RB RB

45	3	44.9	25.6	42.2
		48.5	29.6	45.4
		41.5	22.4	38.3
		36.8	17.6	34.7
		1717	952	1606
	48	42.92	23.80	40.15

Chf –

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1883phae.proj.1413B

Mar. 6/7, 1883

⊙ C=107 82.8

23 11 29

−5 13

BB

10 2 54.7

50.2

41.3

48.5

1947

12 48.68

BB

45 1 27.0

20.9

12.5

19.4

798

46 19.95

C=17 82.8

γ Andromeda

1 56 41

+41 46

BB

30 1 7.1

5.9

55.5

57.2

57

31 1.42

Both limbs in δ

1st " limb in R.A.

Seeing very good.

δ Dracon. L.C.

19 12 32

+112 33

BB

45 2 30.3

35.9

28.4

24.2

1188

47 29.70

β Cam. Min

7 20 48

+8 31

BB

45 1 33.4

31.1

21.1

29.4

1150

46 28.75

A 25

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1900phae.proj.14139

C = 17 87.4

K Orionis

5 42 10

−9 43

BB

55	3	53.4
		48.4
		40.1
		48.2
		1901
58		47.52

φ' Dracon. L.C.

17 44 1

+107 48

BB

30	1	38.0
		44.6
		34.0
		32.0
		1486
31		37.15

A_2 & foll

last digit of δ is uncertain

α² Geminor.

7 27 3

+32 9

BB

5	4	47.5
		50.1
		40.0
		41.3
		1789
9		44.72

α Cam. Min.

7 33 7

+5 32

BB

45	1	33.2
		31.8
		20.5
		30.1
		1156
46		28.90

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1883phae.proj.1413B

Mar. 7. 1883

β Geminor

7 38 5

+28 19

BB

55 4 56.8

59.0

46.5

51.2

2135

59 53,38

ε=17 87.4

ε Dracon. L.C.

19 48 34

+110 2

BB BB

15 4 9.4 3 8.87

15.9 14.5

6.8 4,8

2.0 0,7

341 287

14 852 18 7,18

A 25-

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1992phao.proj.14132

15 Argus

8 2 31

−23 58

BB

10 4 29.2

25.6

16.4

25.5

9 6 7

14 24.18

β Dracon.

17 27 45

+52 24

BB

55° 0 35.2

34.9

23.8

25.1

11 9 0

55 29.75

Seeing extremely bad, star even went out entirely & I lost it. Almost impossible to observe

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1883phae.proj.1413B

Mar. 7/8. 1883

⊙ C = 17 87.4

23 15 11
-4 49

BB

20 1 56.3
49.7
41.5
47.4
1949
21 48.72

Both limbs in R.A
Last A_{+1} 1st ″ limb
Lower limbs in δ
Seeing very poor

α Leporis

5 27 32
-17 54

BB

10 1 19.5⁻
12.2
3.1
14.5⁻
493
11 12.32

w Draconis L.C.

17 37 38
+111 11

BB

5⁻ 3 42.0
45.9
39.1
34.0
1610
8 40.25

A 25⁻

K Orionis

5 42 10
-9 43

BB

0 0 8.1
59.8
51.8
0.0
2397
59 59.52

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1883phae.proj.14138

ε Orionis
5 30 14
−1 17
BB
30 4. 20.9
16.1
7.3
14.9
592
34 14.80
A 4 foll

ζ Orionis
5 34 39
−2 0
BB
15 2 59.9
55.6
45.8
53.5
2148
17 53.70

λ Orionis
5 48 47
+7 23
BB
50 4 54.0
53.5
41.8
49.6
1989
54 49.72

δ Urs. Min. L.C.
18 10 21
+93 23
BB B
55 0 24.9 0 19.1
26.9 20.5
17.1 11.2
15.2 9.8
841 606
55 21.02 55 15.15

A 25

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1883phae.proj.1413B

Mar. 8, 1883

δ Draconis C,

19 12 32

+112 33

BB

45 2 36.0

39.9

32.6

27.1

1356

47 33.90

A 8.0 to 1.0

Lost 7/2

e = 17 87.4

ΔB Com. Mus.

7 20 48

+8 31

BB

45 1 34.4

30.0

21.0

29.0

1144

46 28.60

Lost A-1, 3

Clouds

β Geminor

7 38 5

+28 19

BB

55 4 50.9

51.1

40.3

43.9

1862

59 4655

ζ' Herculis

17 9 16

+14 32

BB

45 1 37.1

32.3

20.5

29.1

1190

46 29.75

Seeing so bad almost impossible to observe

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α^2 Geminor
7 27 3
+32 9
BB
5 4 46.0
46.2
36.5
38.7
16 7 4
9 41.85

Lost 4th & 5th taps of 5
Clouds

α Cam. Min
7 33 7
+5 32
BB
45 1 23.1
20,2
10.1
19,5
7 2 9
46 18,22

β Dracon,
17 27 45
+52 24
BB
50 4 17.6
17.4
7.4
8.2
5 0 6
54 12.65

Lost A-1

α Ophiuchi
17 29 27
+12 39
BB
35 4 24.1
21.6
10.2
17.0
7 2 9
39 18,22

Lost 1st & 3 W

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1883phae.proj.1413B

ω Dracon. ~~L.C~~

~~17 5 37~~

17 37 38 +68 49

BB

35	0	32.3
		33.7
		20.0
		20.8
		106.8
	35	26.70

γ Dracon.

17 53 52 +51 31

BB

15	3	43.0
		43.0
		31.8
		31.1
		148.9
	18	37.22

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Mar. 8/9, 1883
C = 17 87.4

⊙

23 18. 52

BB BB

25 1 7.0 55 4 35.5
0.8 30.1
52.6 21.1
59.3 26.9
2397 1136
25 5992 59 28.40

Both limbs in δ
1st limb in R. A.
Seeing moderate -

γ Androm.

1 56 41
+41 46

BB

30 2 29.5
28.9
17.2
19.1
947
32 2368

Lost Aq - bad seeing

α Persei

3 15 56
+49 26

BB

50 1 46.8
47.2
37.9
36.9
1688
51 4220

γ2 Urs. Maj. LC,

8 15 20 52
+107 45

B. R.A. only
lost δ

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α ~~Cet~~ Arietis

2 0 33

+22 54

BB

20 3 49.6

48.2

37.0

42.1

1769

23 44.22

α Ceti

2 56 8

+3 38

BB

40 0 4.32

59.0

48.6

58.6

2304

39 59.60

Lost 1 not 11 W

Rej. taps between R.A. & δ

ε Eridani

3 27 23

−9 51

BB

5 3 40.3

33.2

26.0

33.6

1331

8 33.28

δ Persei

3 04 33

+47 24

BB

50 3 37.8

38.8

28.6

29.0

1342

53 33.55

A 9 + fol.

~~Seem~~ So faint

~~that~~ obs. of δ is bad.

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1883phae.proj.1413B

Mar. 9, 1883

η Tauri

3 40 29

+23 44

BB

30 3 40.3
41.8
29.7
34.2
1460
33 3650

C=1787.4

ζ Persei

3 46 44

+31 32

BB

45 1 2.4
1.3
50.9
54.2
2288
45 57.20

α Camelop.

4 42 25

+66 8

BB

10 0 8.2
12.0
0.6
58.5
193
10 4.82

ι Aurigæ

4 49 19

+32 59

BB

15 4 28.0
29.8
17.6
19.6
950
19 23.75

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1963phae.proj.1413B

γ' Eridani

3 52 32

−13 51

BB

5 2 46.6
39.8
31.4
42.5
1603
40.08

ℓ Tauri

4 29 10

+16 16

BB

0 1 42.8
39.4
29.0
35.0
1462
36.55

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1883phae.proj.1413B

Mar. 11. 1883

γ Dracon.

17 53 52

+51 31

B B

45 3 41.9

44.1

33.8

33.2

1530

48 38,25

Last 1 ms ⁴ W.

C=17 87.4

α Lyrae

18 32 57

+38 41

B B

35 2 59.1

0.9

46.0

50.5

2185

37 5462

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1999phae.proj.14139

σ Sagittarii

18 47 57

-26 26

BB

40 2 5.9

2.5

53.0

1.9

33

42 0.82

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1883phae.proj.1413B

Mar. 11/12, 1883

⊙ C = 17 87.4

23 29 54

−3 15

	BB		BB
15 0	33.2	45 3	58.3
	28.0		54.3
	20.0		45.5
	26.2		51.9
	1074		2100
15	26,85	48	52,50

Both limbs in ☌
Pos.ⁿ in R. A.
Seeing moderately good.

β Arietis

1 48 9

+20 14

	BB
0 4	3.6
	2.9
	52.9
	58.3
	2377
3	59.42

φ' Dracon.

17 44 1

+72 12

	BB
5 1	39.0
	41.2
	29.1
	28.2
	1375
6	34,38

γ Dracon.

17 53 52

+51 31

	BB	B
45 3	36.2	36.1
	39.2	39.1
	29.8	29.5
	28.6	28.4
	1338	1331
48	33,45	33,28

A 2⁵

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1883phae.proj.1413B

γ Androm

1 57 41

+41 46

BB

30	2	19.1	
		19.8	
		10.1	
		11.3	
		603	
	32	15.08	

α Arietis

2 0 33

+22 54

BB

20	3	27.9	
		29.0	
		18.0	
		22.9	
		97.8	
	23	24.45	

η Serpentis

18 15 13

−2 56

BB

10	2	58.4	
		54.0	
		46.5	
		53.1	
		2120	
	12	53.00	

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Mar. 13, 1883

α Orionis

5 48 47

+7 23

BB

20 4 57.8
58.4
48.3
57.9
2224
24 55,60

c=17 89.2

δ Urs. Min. 4, c,

18 10 21

+93 23

BB B

55 0 51.8 0 17.0
56.3 21.1
48.5 12.4
46.2 9.9
2028 604
55 50,70 55 15,10

+ 25

γ Geminor

6 30 54

+16 30

BB

45 3 19.5
17.5
8.1
15.5
606
48 15,15

α Can. Maj.

6 39 57

−16 33

BB

50 39.5
35.1
27.0
38.3
1399
50 34,98

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1883phae.proj.1413B

μ Geminor
6 15 29
+22 34
BB

40 3 53.0
54.8
44.2
49.0
2010
43 5.025

χ Draconis L.C.
18 23 10
+107 19
BB

0 0 20.0
26.2
16.4
13.1
757
0 18.92

51 Cephei
6 44 42
+87 13
BB

5 0 16.2
21.3
10.1
9.5
571
5 14.28

A

ε Cam. Maj.
6 53 59
-28 49
BB

0 4 37.1
37.5
29.8
38.4
142 8
4 35.70

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1883phae.proj.1413B

Mar. 13. 1883

δ Cam Maj;

7 3 36

−26 12

BB

25 3 38.6
36.7
29.3
38.2
1428
28 35.70

δ Draco. L.C.

197 12 32

+71 2 33

BB

45 2 25.4
30.8
24.4
19.8
1004
47 25.10

A 25

In hero Nu, Chandler's
Use some equa. &
observations on sheet

α Can. Min.

7 33 7

+5 32

BB

45 1 35.1
34.4
24.4
34.2
1281
46 32.02

β Geminor

7 38 5

+28 19

BB

5 4 53.6
56.0
46.2
50.5
2063
9 51.54

Lost 1 M. 2 w.

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1883phae.proj.1413B

β Can. Mini.
7 20 48
+8 31

BB

45 1 31.1
29.9
20.9
29.0
1109
46 27.72

In here, also, Mrs. Chandler has some comet observations on sheet.

α² Geminor
7 27 3
+32 9

BB

5 4 42.0
44.5
35.1
37.2
1588
9 39.70

Last tap of 5 rather long.

Gr. 1374
7 46 10
+74 13

BB

15 2 58.2
4.8
56.7 A 25
51.9 R.A only

ε Draconis L.C.
19 48 34
+110 2

BB

15 2 58.2
4.8
56.7
51.9
2316
19 57.90

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1883phae.proj.1413B

Mar. 13, 1883

15 Argus

8 20 31

−23 58

BB

10 4 30.1
28.7
20.2
28.9
1079
14 26.98

η Ophiuchi

17 3 27

−15 34

BB

5 0 1 37.9
32.0
22.7
34.0
1266
51 31.65

β Draco.

17 27 45

+52 24

BB

~~55~~ 52 0 21.4
21.7
11.1
13.0
672
55 1680

Lost A_{-1}

Seeing bad

α Ophiuchi

17 29 27

+12 39

BB

35 4 17.0
15.8
4.8
11.9
495
39 12.38

A_{-1}

Seeing bad.

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1883phae.proj.1413B

2' Herculis
17 9 16
+14 32
BB
45 1 45.2
42.7
30.6
39.3
1578
46 39.45

Gr. 966 L.C.
5 24 5
+10 5 2
BB
15 2 32.2
37.2
25.4
22.2
1170
17 29.25
A 25

γ Dracon.
17 53 5 2
+5 1 31
BB
45 3 43.3
46.4
35.5
34.6
1598
48 39.95

γ Serpentis
18 15 13
−2 5 6
BB
10 3 10.9
5.5
57.3
5.0
187
13 4.68

Lost 1st 1 4 W.

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1883phae.proj.1413B

ζ Lyrae

18 32 57
+38 41

BB

35 3 6.7
7.0
55.2
58.9
7 8
38 1.95

σ Sagittarii

18 49 57
−26 26

BB

40 2 8.3
2.5
55.3
4.4
1 0 5
42 2.62

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1883phae.proj.1413B

Mar. 13/14, 1883

⊙ C=17 91.3

23 37 14
-2 28

		BB		BB
0	0	30.5	25 4	29.1
		25.5		24.6
		16.6		15.6
		25.8		24.4
		98.4		93.7
		0 24.60		24 23.42

δ Urs. Min L.C.

18 10 21
+93 23

		BB
55	0	11.2
		15.9
		9.4
		5.4
		41.9
		55 10.48

Both limbs in ⊙
1st & 2nd limb in R. A.
Seeing ~~pretty fair~~ good.

A 5 to 1

γ Geminor

6 30 54
+16 30

		BB
45	3	20.6
		17.8
		10.3
		18.8
		67.5
		48 16.88

α Can. Maj.

6 39 57
-16 33

		BB
50	0	35.7
		30.6
		24.3
		37.3
		127.9
		50 31.98

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1883phae.proj.1413B

μ Geminor
6 15 29
+22 34
BB

40	3	44.9
		45.5
		36.5
		42.9
		169 8
	43	4245

× Dracon. L.C.
18 23 10
+107 19
BB

0	0	11.2
		16.8
		9.7
		5.8
		435
	0	10.88

51. Cephei U.C.
6 44 42
+87 13
BB

5	0	12.2
		17.8
		8.0
		6.8
		448
	5	11.20

ε Can. Maj
6 53 59
-28 49
BB

0	4	40.5
		40.8
		34.2
		44.2
		1597
	4	39.92

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1883phae.proj.1413B

Mar. 14 ~~13~~, 1883

δ Cam. Maj

7 3 36

-26 12

		BB
25	3	46.2
		45.1
		38.0
		48.2
		1781
	28	44.52

C=17 91.3

δ Dracon, L.C.

19 12 32

+112 33

	BB	BB
45	3 23.4	2 17.0
	30.5	23.3
	25.9	19.3
	20.4	13.1
	10 02	727
48	25.05	47 18.18

A 25 w.

α Cam. Min

7 33 7

+5 32

	BB
45 1	28.8
	28.7
	19.3
	29.5
	1063
46	26.58

β Geminor

7 38 5

+28 19

	BB
5	4 51.3
	53.9
	44.5
	49.2
	1989
9	49.72

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β Can. Min.
7 20 48
+8 31
BB
45 1 34.8
33.0
25.3
34.5
1276
46 31.90

α² Geminor
7 27 3
+32 9
BB
5 4 42.1
45.8
37.0
39.5
1644
9 41.10

I think the last taps of R.A was at least a tenth too soon.
0.s1

Gr. 1374
7 46 10
+74 13

R. A
A 25 w

ε Dracon. L.C.
19 48 34
+110 2
BB
15 2 48.3
56.4
49.9
44.1
1987
17 49.68
A 25 w.

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1883phae.proj.1413B

Mar. 14, 1883

15 Argus

8 2 31

-23 58

BB

10 4 44.5

42.5

36.6

45.1

16 8 7

14 42.8

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Mar. 14/15. 1883

⊙ C=17 91.3

23 40 54

−2 4

BB		BB	
35 1	54.4	5 0	48.7
	50.2		43.9
	45.4		39.8
	53.9		48.4
	2039		1808
36	5098	5	45,20

Both limbs ∴ δ
1st " ∴ R. A.
Seeing good.

β Arietis

1 48 9

+20 14

BB		
0 3	48.9	3
	47.5	
	44.4	
	51.4	
	1922	
3	48,05	

β Urs. Min. L.C.

14 51 0

+105 22

BB		
55 2	0.9	
	7.1	
	5.9	
	0.7	
	146	
57	3,65	

C = 17 91.3

α Ceti.

~~α Persei~~

2 56 8

+3 38

BB		
35 4	51.8	5
	51.2	
	51.0	
	58.1	
	2121	
39	5 3,02	

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1883phae.proj.1413B

γ Androm.
1 56 41
+41 46
BB

30	2	18.2
		19.3
		15.8
		16.7
		700
32		17.50

α Arietis
2 0 33
+22 54
BB

20	3	25.1
		27.4
		23.0
		27.1
		1026
23		25.65

C=17 94.7
α Persei
3 15 57
+49 26
BB

50	1	40.3
		43.0
		40.5
		39.8
		1636
51		4090

γ² Urs. Min. C
15 20 52
+107 45
BB

30	4	12.1
		21.2
		18.0
		12.8
		641
34		1602

Middle 19 w

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1883phae.proj.1413B

Mar. 15, 1883

δ Persei

3 34 33

+47 24

BB

50 3 40.6

44.0

40.8

39.7

1651

53 41.28

C=17 94.7

η Tauri

3 40 29

+23 44

BB

30 3 34.5

36.8

32.5

36.3

1401

33 35.02

Lost 1 Mst 2 W.

α Tauri

4 29 10

+16 16

BB

0 1 42.0

39.9

35.8

41.7

1594

1 39.85

α Camel.

4 42 25

+66 8

BB

5 4 50.7

57.2

51.3

48.2

2074

9 51.85

4 25 W.

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1883phae.proj.1413B

ζ Persei
3 46 44
+31 32

BB

45 1 3,5
5,0
0,6
2.7
118
46 295

γ¹ Eridani
3 52 32
−13 51

BB

5 2 42,3
38,3
35,5
46,0
1621
4 4052

ι Aurigæ
4 49 09
+32 59

BB

15 4 25.8
28.4
23,3
24.9
1024
19 2560

ε Urs. Min. L. C.
16 58 00
+97 46

R. A. 25° W.

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1883phae.proj.1413B

Mar. 15, 1883
β Eridani
5 2 3
−5 14

BB

30 1 52.5
47.6
44.5
52.4
1970
31 49.25

C=17 94.7
β Orionis
5 8 52
−8 20

BB

35 2 39.8
33.7
32.8
39.2
1455
37 36.38

α Ophiuchi
17 29 27
+12 39

BB

35 4 15.0
15.8
6.5
13.4
507
39 12.68

ω Dracon.
17 37 38
+68 49

BB

30 0 13.5
20.6
9.9
9.5
535
30 13.38

25

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1883phae.proj.1413B

η Ophiuchi
17 3 27
-15 34

BB

50 1 30.8
25.6
20.8
31.7
108.9
51 27.22

α' Herculis
17 9 16
+14 32

BB

45 1 39.1
37.2
28.5
37.1
141.9
46 35.48

Seeing bad this morning

φ' Dracon.
17 44 1
+72 12

BB

5 1 38.5
45.0
33.5
31.1
148.1
6 37.02

γ Dracon.
17 53 52
+51 31

BB

45 3 41.4
48.4
38.5
36.1
164.4
48 41.10

25

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1883phae.proj.1413B

May. 15, 1883

α Lyrae

18 32 57

+38 41

BB

35	3	1,4	
		5,4	
		52,8	
		55,0	
		2346	
	37	58,65	

c=17 94.7

σ Sagittarii

18 47 57

-26 26

BB

40	2	2,4	
		59,5	
		50,5	
		59,5	
		2319	
	41	57,98	

Seeing rather bad

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1883phae.proj.1413B

ζ Aquilæ
19 00 00
+13 42
BB
35 / 31.4
29.5
17.6
25.6
10 4 1
36 26.02

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1883phae.proj.14138

Mar. 15/16. 1883

⊙ C=17 89.1

23 44 33

−1 40

C=17. 89.0

β Arietis

1 48 9

+20 14

		BB		BB	BB
40	0	57.4	10 4	21.2	0 3 55.3
		52.5		20.0	56.3
		45.2		12.7	46.8
		53.0		18.5	51.8
		2081		724	2102
	40	5202	14	18.10	3 52.55

Both limbs in δ
1rst limb in R. A.
Seeing very poor.

Lost 1rst limb 3 W.
Star very faint.

β Urs. Min. L.C.

14h 51 0

+105 22

		BB
55	2	13.1
		19.0
		10.2
		6.0
		483
	57	1.2.08

γ Persei

2 56 17

+53 3

		BB
15	0.	47.8
		49.4
		40.4
		40.2
		1778
	15	44.45

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1893phae.proj.1413B

Mar. 16. 1888

C=17 89.0

γ Androm.

1 56 41

+41 36

BB

30 2 25.5
26.5
18.2
18.8
89 0
32 22.25

α Arietis

2 0 33

+22 54

BB

20 3 30.7
33.9
23.0
27.8
11 54
23 28.85

α Persei

3 15 54

+49 24

BB

50 1 46.6
49.3
40.4
40.2
17 55
51 43.88

γ² Urs. Min. 4, C

15 20 52

+107 45

BB

30 4 ~~2.9~~ ~~8.0~~
16.4
6.5
2.2
33 0
34 8.25

A 25 W

Rej 1 rs + 5

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1883phae.proj.1413B

Mar. 16, 1883

η Tauri
3 40 29
+23 44
BB

30	3	37.8
		42.1
		30.2
		34.0
		1441
	33	36.02

ζ Persei
3 46 44
+31 32
BB

45	1	9.8
		11.3
		1.4
		3.8
		263
	46	6.58

α Camelop.
4 42 19
+66 08
BB

5	4	56.9
		0.4
		49.1
		48.0
		2144
	9	53.60

A 25

ι Aurigæ
4 49 19
+32 59
BB

15	4	29.3
		31.5
		20.5
		22.2
		1035
	19	25.88

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1993phae.proj.1413B

γ' Eridani

3 52 32

−13 51

BB

5	2	59.2
		55.9
		47.6
		57.3
		2200
	7	55.00

δ Tauri

4 29 10

+16 16

BB

0	1	38.1
		36.6
		26.1
		32.0
		1328
	1	33.20

δ star very faint
Last two taps of δ are somewhat uncertain

ε Urs. Min. L.C.

16 58 00

+97 46

BB BB BB

30	3	27.9	3	11.9	2 31.9
		31.3		14.9	34.4
		21.4		5.3	26.0
		18.5		2.4	22.4
		991		345	1147
	33	24.78	33	9.62	32 28.68

A lost 1 Mt. 11 W

β Eridani

5 23

−5 14

BB

30	1	58.8
		54.2
		46.1
		52.8
		219
	31	52.98

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1883phae.proj.1413B

β Orionis

5 8 5·2

−8 20

BB

35 2 49.2

42.8

36.2

41.8

1700

37 4250

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1883phae.proj.14138

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1883phae.proj.1413B

Mar. 16/17, 1883

⊙ C = 17 89.0

23 48 12

−1 17

	BB		BB
45 4	27.1	15 3	19.8
	24.4		15.8
	16.3		7.0
	22.5		13.9
	9 0 3		5 6 5
49	22.58	18	14.12

Both limbs in δ
1rst limb in R.A.
Sent A+1
Seeing very fine -

δ Can. Maj.

7 3 38

−26 12

BB

25 3 46.8
45.6
39.4
49.2
18 1 0
28 45.25

C = 17 88.6

5 1 Cephei

6 44 42

+87 13

BB

5 0 11.1
17.0
6.9
5.4
4 0 4
5 10.10

Middle 17 W.

δ Dracon. L. C.

19 12 32

+112 33

BB

45 2 6.2
13.4
9.0
2.7
3 1 3
47 7.82

A-1 3 & foll.
Rej. 1rst δ

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1883phae.proj.14138

Mar. 17, 1883

50 Dracon. L.C.

18 50 8

+104 42

BB

35 1 53.54

1.1

52.1

48.4

2150

36 53.75

A_{60} to 1_0

C = 17 88.6

E Can. Maj.

6 53 89

−28 49

BB

0 4 47.0

47.7

41.9

50.3

1869

4 46.72

β Can. Min.

7 20 48

+8 31

BB

45 1 30.4

30.1

21.1

30.2

1118

46 27.95

α^2 Geminor

7 27 3

+32 9

BB

5 4 45.7

48.9

40.5

42.6

1777

9 44.42

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1883phae.proj.1413B

Mar. 17. 1883

α Can. Min.

7 33 7

+5° 32

BB

45 1 32.9

32.5

24.2

33.6

1232

46 3080

C = 1788.6

β Geminos

7 38 5

+28 19

BB

55 4 49.2

53.7

43.3

47.5

1937

59 4842

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1000phae.proj.14138

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1883phae.proj.1413B

Mar. 20/21. 1883

⊙ C=17 88.6

0 2 47

+0 18

BB BB

— 4 48.8 40 3 36.8

46.5 34.8

40.5 27.2

46.1 33.3

1819 1321

? 45.48 43 33.02

1rst limb in R.A.

Both " " 5

Seeing quite poor.

C=17 90.4

β Arietis

1 48 9

+20 14

BB

0 4 58.0 3

59.0

50.1

56.0

2231

4 55.78

A 4 & foll.

α Camelop. L.C.

4 42 25

+13 51

BB

25 3 59.3

4.6

58.2

53.2

2353

28 58.82

ε Urs. Min.

α Cam

16 58 00

+82 14

BB

0 4 26.4 47.8

35.5 57.0

21.3 42.89

19.8 40.8

1030 1885

4 25.75 47.12

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1000phae.proj.14139

Mar. 21, 1883

γ Androm

1 56 41

+41 46

BB

30 2 21.2
22.8
14.8
15.1
7 3 9
32 18.48

c = 17 90.4

ζ Arietis

2 0 33

+22 52

BB

20 3 36.0
38.8
29.1
33.8
13 7 7
23 34.42

Lost 1st ½ 2 w.

η Ophiuchi

17 3 27

−15 34

BB

50 1 34.9
30.4
22.3
31.9
11 9 5
51 29.88

α, Herculis

17 9 16

+14 32

BB

45 1 33.0
31.2
19.7
27.5
11 1 4
46 27.85

Seeing bad.

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1883phae.proj.1413B

Mar. 21. 1883

Gr. 966 L.C.

5 24 5

+10 5 2

BB B

15 3 41.6 2 34.5

48.9 41.3

37.1 29.4

32.2 24.8

1598 1300

18 39.95 17 32.50

A

C=17 90.4

α Ophiuchi

17 29 27

+12 39

BB

35 4 15.5

15.7

4.5

11.5

472

39 1180

γ Dracon.

17 53 52

+51 31

BB

45 3 46.7

50.8

39.5

37.5

1745

48 43.62

22 H. Cam. L.C.

6 5 57

+110 38

BB

40 2 42.6

46.9

39.5

33.5

1625

42 40.62

Lost A4

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1992phae.proj.14138

ω Dracon.
17 37 38
+68 49

		BB
30	1	29.3
		34.8
		20.9
		21.1
		1061
31		26,52

φ' Dracon.
17 44 1
+72 12

		BB
5	1	57.3
		0.3
		47.0
		45.9
		2105
6		52,62

δ Urs. Min.
18 10 21
+86 37

		BB
40	2	42.7
		46.4
		34.1
		31.9
		1551
42		38.78

η Serpentis
18 15 13
−2 56

		BB
10	3	11.2
		7,5
		58.2
		6.1
		230
13		5,75

A 4, to 9,

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1883phae.proj.1413B

Mar. 21, 1883

C = 17 90.4

α Lyrae

18 32 57

+38 41

BB

35 3 7.2
9.5
57.0
58.9
1126
38 3.15

σ Sagittarii

18 47 57

-26 26

BB

40 2 5.8
1.9
52.6
0.8
11
42 028

β Cygni

19 25 58

+27 43

BB

35 0 29.9
30.7
17.2
22.3
1001
35 25.02

γ Aquilæ

19 40 40

+10 20

BB

55 3 11.5
10.2
58.8
5.5
260
58 6.50

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1993phae.proj.14138

λ Aquilæ

19 00 00

−6 3

BB

20 0 49.9
44.9
35.2
43.2
1732
20 4330

δ Draconis

19 12 32

+67 27

BB

50 1 47.8
50.8
38.5
37.3
1744
51 43.60

Take mean of 1rst two
5 taps.

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1883phae.proj.1413B

Mar. 21/22, 1880

⊙ C=17 87.8

0 6 25

+0 42

BB

15	3	56.1	50	2 14.2
		52.8		8.8
		42.1		0.5
		48.3		6.2
		1993		297
	18	49.82	52	7.42

Both limbs in δ
1st " " R.A.
Seeing very unsteady—

α Persei

3 15 56

+49 26

BB

50	0	35.0
		36.5
		27.8
		27.5
		1268
	50	31.70

C=17 87.8

γ Andromedæ

1 56 41

+41 46

BB

30	2	——
		12.3
		4.0
		4.4

δ Persei

3 34 33

+47 24

BB

50	2	22.5
		23.6
		13.5
		13.8
		734
	52	1835

Sost A-1

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1993phae.proj.14138

α Arietis

2 0 33

+22 52

BB

20 3 30.9

31.8

22.3

25.9

1109

23 27.72

α Ceti

2 56 8

+3 38

BB

35 4 52.4

52.1

44.0

51.2

1997

39 49.92

Rej. A 8

η Tauri

3 40 29

+23 44

BB

30 3 38.9

42.0

29.7

33.9

1445

33 36.12

C=17 878

ζ Persei

3 46 44

+31 32

BB

45 1 12.0

12.0

1.3

4.8

301

46 7.52

Lost A from
A +1 4 to A 8

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1883phae.proj.1413B

Mar. 22. 1883
C=17 90.5

α Tauri
4 29 10
+16 16
BB
0 1 37.9
12.0
1.3
4.8
560
1 1H00

C=17 90.5

α Camelop.
4 42 25
+66 8
BB
10 0 8.7
12.8
1.2
59.5
222
10 5.55

β Eridani
5 2 3
-5 14
BB
30 1 57.8
53.3
44.5
51.9
2075
31 51.88

α Aurigæ
5 7 59
+45 52
BB
20 4 35.4
39.3
28.5
27.8
1310
24 32.75

Lost 4-1

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1883phae.proj.14138

Mar. 22, 1883

ζ Aurigæ

4 49 19
+32 59

BB

15	4	29.0	
		32.2	
		20.3	
		22.5	
		104 0	
	19	26.00	

ε Urs. Min L.C.

16 58 00
+97 46

BB B B

30	3	31.4	3	14.8	2 31.2
		36.0		19.1	35.2
		26.6		9.4	26.2
		21.5		5.4	22.0
		1155		487	1146
	33	28.88	33	12.18	32 28.65

Lost A_{60} 4_2 and 4_1

Take 2nd laps for $A_{1/2}$

β Orionis

5 8 52
-8 20

BB

35	2	50.9
		44.4
		37.7
		44.3
		177 3
	34	44.32

δ Orionis

5 18 48
+6 15

BB

0	3	21.1
		21.9
		10.0
		18.6
		71 6
	3	17.90

A_7 + foll

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1883phae.proj.1413B

May. 22, 1883

ℓ Leporis

5 27 32

-17 54

BB

10	0	12,2
		6.3
		59.0
		9.5
		270
	10	6,75

C=17 90,5

ε Orionis

5 30 14

-1 17

BB

30	3	16.0
		13.4
		4.4
		11,2
		450
	33	11,25

ε Can. Maj.

6 53 59

-28 49

BB

0	4	42.0
		42,1
		32.9
		42,3
		1593
	4	39,82

δ Can. Maj.

7 3 36

-26 12

BB

25	3	46,2
		44,5
		36,4
		45.8
		1729
	28	43,22

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1883phae.proj.1413B

ζ Orionis
5 34 39
-2 0

		BB
15	1	46.3
		43.8
		33.6
		41.5
		1652
	16	4130

κ Orionis
5 42 10
-9 43

		BB
0	0	9.0
		2.4
		54.2
		1.8
		74
	0	185

δ Draco. L.C.
19 12 32
+112 33

		BB
45	2	14.1
		20.4
		13.0
		8.2
		557
	47	1392

β Cam. Min.
7 20 48
+8 31

		BB
45	1	39.1
		37.8
		27.6
		36.4
		1409
	46	3522

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1883phae.proj.1413B

Mar. 22, 1883

α^2 Geminor

7 27 3

+32 9

BB

5	4	45.8
		47.1
		37.5
		40.5
		1709
9		42.72

C=17 90.5

α Can. Min.

7 33 7

+5 32

BB

45	1	35.1
		34.5
		23.3
		32.5
		1254
46		3135

ϵ Draconis C.

19 48 34

+110 02

BB

15	2	50.8
		56.9
		47.7
		42.1
		1975
17		49.38

15 Argus

8 2 31

-23 58

BB

10	4	43.3
		41.3
		33.3
		41.3
		1592
14		39.80

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1883phae.proj.14138

β Geminor
7 38 5
+28 19
BB
5 5 41 48.2
50.1
39.1
42.5
1799
59 44.98

Gr. 1374
7 46 10
+74 13
BB
15 2 50.8
56.9
47.7
42.1
R. A. Early
A₁₀ to 9₀

K Cephei per.
20 12 48
+102 38
BB
40 0 39.4
44.2
35.0
31.5
1501
40 37.52

Gr. 3241 L.C.
20h 30 30
+107 52
BB
25 2 30.8
37.9
27.3
24.2
1202
27 3005

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1883phae.proj.1413B

Mar. 23, 1883

β Orionis

5 8 52

−8 20

BB

35 2 41.3
35.3
27.1
33.9
1376
37 34.40

Lost 1 rot + "

C = 17 90.5⁻

β Tauri

5⁻ 18 50

+28 30

BB

45 2 50.1
54.1
41.7
44.7
1906
47 47.65

ζ Orionis

5⁻ 34 39

−2 0

BB

15⁻ 1 38.9
35.9
25.6
34.1
1345
16 33.62

51 Cephei

6 46 42

+87 13

A_{3_2} to 9_0.

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1883phae.proj.14138

δ Orionis

5h 25m 59s
−0° 23′

BB

40	0	58.8	
		54.2	
		45.2	
		53.6	
		2118	
	40	52.95	

ε Orionis

5h 29m 40s
−5° 59′

BB

15	1	58.4	
		55.1	
		45.2	
		52.8	
		2115	
	16	52.88	

50 Dracon. L.C.

18h 50m 8s
+10° 4′ 42″

BB

35	1	58.5	
		5.6	
		55.8	
		51.5	
		2314	
	36	57.85	

A 25 W.

ε Can. Maj.

6h 53m 59s
−28° 49′

BB

0	4	42.0	
		42.3	
		34.0	
		42.3	
		1606	
	4	40.15	

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1883phae.proj.1413B

Mar. 23, 1883

δ Can. Maj

7 3 36

-26 12

BB

25	3	46.3	
		45.0	
		36.8	
		45.5	
		1736	
28		43,40	

C=1790.5

δ Dracon, L, C,

19 12 32

+112 33

BB

45	2	13,3	
		19.4	
		11.7	
		6.8	
		512	
47		12,50	

15 Argus

8 2 31

-23 58

BB

10	4	37.4	
		35.1	
		27.0	
		35.0	
		1345	
14		33,62	

α Ophiuchi

17 29 27

+12 39

BB

35	4	25.9	
		24.7	
		13.2	
		20.9	
		847	
39		21,18	

Lost 1 Mst 11 4 w

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1883phae.proj.1413B

ε Draconis
19 48 34
+110 2
BB
15 2 51.2
56.9
49.1
43.6
2008
17 50.20

Gr. 1374
7 46 10
+74 13

A10 to 9.0

ω Draconis
17 37 38
+68 49
BB
30 0 30.0
33.1
19.8
20.2
1031
30 25.78

Lost A+1

φ' Draconis
17 44 1
+72 12
BB
5 1 58.8
0.2
47.0
46.1
2116
6 52.90

Lost 1st W.

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1883phae.proj.1413B

Mar. 23, 1883
γ Draconis
17 53 52
+51 31
BB

45	3	42.5	
		45.5	
		35.0	
		33.5	
		15 6 5	
	48	39.12	

C=17 90.5
δ Ursæ Minoris
18 10 21
+86 37
BB

40	2	43.0	
		46.5	
		34.8	
		32.2	
		15 6 5	
	42	39.12	

A 62 to 9.0
Star very faint

σ Sagittarii
18 47 57
-26 26
BB

40	2	13.8	
		9.2	
		0.6	
		9.7	
		3 3 3	
	42	8.32	

ζ Aquilæ
19 00 00
+13 42
BB

35	1	40.3	
		36.6	
		24.9	
		33.1	
		13 4 9	
	36	33.72	

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1883phae.proj.1413B

η Serpentis

18 15 13

−2 56

BB

10 3 14.9
9.9
1.5
8.2
34 5
13 8.62

α Lyrae

18 32 57

+38 41

BB

30 3 7.5
9.5
57.9
59.4
14 3
33 3.58

δ Draconis

19 12 32

+67 27

BB

50 1 50.2
51.8
39.5
~~39.8~~
39.8
18 1 3
51 45.32

β Cygni

19 25 58

+27 43

BB

35 0 32.4
32.4
19.5
25.4
10 9 7
35 27.42

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1883phae.proj.1413B

Mar. 23, 1883 C=17 90.5

γ Aquila

1940 40

+10 20

BB

55 3 10.1

7.6

56.2

4.3

1 8 2

58 4,55

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1883phae.proj.1413B

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1883phae.proj.1413B

Mar. 23, 24, 1883

⊙ C=17 88.9

0 13 41

+1 29.

BB

0 3	53.2	30 2 45.0
	50.9	42.9
	40.5	31.8
	48.2	40.0
	19 2 8	15 9 7
3	48.20	32 39.92

Both limbs in δ

1st " " R.A.

Seeing very good.

γ Andromedæ

1 56 41

+41 46

BB

30 2	23,4
	23,2
	16,2
	15,9
	7 8 7
32	19.48

β Tauri

5 18 50

+28 30

BB

45 2	51.8
	53.4
	41.3
	46.1
	19 2 6
47	48.15

α Leporis

5 27 32

−17 52

BB

10 0	9.9
	4.4
	56.2
	8.5
	19 0
10	4.75

3

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C = 17 88.9

α Arietis

2 0 33

+22 54

BB

20 3 39.0
40.3
29.7
35.3
14 43

23 36.08

C = 17 89.9

α Aurigæ

5 7 59

+45 52

BB

25 0 48.2
50.1
38.9
40.8
17 80

25 44.50

ε Orionis

5 30 14

-1 17

BB

30 3 15.8
12.5
2.9
11.5
4 27

33 10.68

K Orionis

5 42 10

-9 43

BB

0 0 16.0
10.2
1.5
10.0
3 77

0 9.42

Extra Cap between
A_1 + A_2

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Mar. 24, 1883

2 Orionis

5 48 47

+7 23

BB

50 4 52.0
53.6
42.9
50.7
1992
54 49.80

C=17 89.9

E Can. Maj.

6 53 09

-28 49

BB

0 4 47.4
48.5
38.9
47.2
1820
4 45.50

β Can. Min

7 20 48

+8 31

BB

45 1 36.1
35.3
24.2
33.7
1293
46 32.32

α² Geminor

7 27 3

+32 9

BB

5 4 42.3
45.5
34.5
37.3
1596
9 39.90

Rej. 4th & 5 taf.

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1003phae.proj.14138

δ Cam. Maj.

7 3 36

-26 12

BB

25	3	47.1
		45.2
		36.8
		46.0
		17 5 1
	28	43.78

δ Draco. L.C.

19 12 32

+112 33

BB

45	2	8.6
		15.7
		7.9
		2.9
		3 5 1
	47	8.78

α Cam. Min

7 33 7

+5 32

BB

45	1	32.1
		32.2
		20.5
		30.8
		11 5 6
	46	28.90

β Geminor

7 38 ~~5 28. 1374~~

+28 19 ~~7 46 10~~

~~+74 13~~

BB

55	4	53.0
		55.8
		44.7
		49.0
		2025
	59	50.62

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Mar. 24. 1883

Sr. 1374

7 46 10

+74 13

R. A. only

4 9 w.

C-1789,9

ε Dracon. h.C.,

19 48 34

+110 2

BB

15 3 3.3

9.2

59.5

55.1

71

18 1,78

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1000phae.proj.14139

15 Argus
8 20 31
-23 58
BB

10 4 38.9
36.3
27.1
36.6
13 8 9
14 34.72

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1883phae.proj.1413B

Mar 24-25 C = 17 [illegible]

☉

0 1 7 19

+1 53

R

5 3 6.9
5.2
5 6.7
4.2
1 3.0
8 3.25

R

40 1 4.17
4.06
2.57
3.88
1 5.08
11 37.70

Pr. limit in RA for ☉

Living room board

ε Leporis

5 R 7 3 c

-17 54

R

10 1 7.2
3.3
5 6.8
6.6
1.39

Lost A+1 11 3.48

ε Orionis

5 30 14

-1 17

R

30 3 17.8
16.2
9.9
16.4
6.03

33 1 5.08

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1992phae.proj.14138

Mar

~~24~~ 25 C = 17 87.8

β Tauri

5 - 18 52

+28 30

R

45 1 31.2
35.6
24.4
28.4
11 99
46 29.98

J Orionis

5 - 25 - 79

- 0 23

R

35 4 39.1
38.1
32.3
38.3
14 78
39 36.95

β Orionis

5 30 39

- 2 0

R

15 25 23
50.8
43.8
50.3
19 72
17 49.30

κ Orionis

5 - 42 10

- 9 43

R

55 3 58.8
55.4
49.6
55.6
21 94
58 54.85

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1883phae.proj.1413B

Mar
~~Sept~~ 25, 1883

2 Orionis
5 4 47
+7 23

C = 17 8 7.7
σ Sagittarii
18 47 57 -26 26
BB
40 2 10.0
8.4
59.9
10.4
287
42 7.18

β Cygni
19 25 58
+27 43
BB
35 0 25.1
27.9
14.8
21.4
892
35 22,30

γ Aquilæ
19 40 40
+10 20
BB
55 3 5.7
6.2
55,5
4.4
11.8
58 2,95

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1992phae.proj.14128

Mar. 25, 1883

α Aquilæ

19 00 00

−5 3

BB

20 0 51.9
48.9
39.2
48.3
1883
20 47.08

δ Draconis

19 12 32

+67 27

BB

50 1 44.8
48.8
37.3
37.6
1685
51 42.12

α Aquilæ

19 45 2

+8 34

BB

40 4 10.8
10.8
1.4
10.2
332
44 8.30

β Aquilæ

19 49 32

+6 7

BB

10 0 50.0
49.0
38.8
50.8
1886
10 47.15

Lost 1 mst 11 2 W,

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1883phae.proj.1413B

25

Mar. 26, 1883

⊙ C=17 90.4

0 20 57

+2 16

BB BB

15	1	57.5	45	0	44.8
		57.0			43.6
		40.6			34.5
		49.5			43.8
		1926			1667
	16	48.15		45	41.68

α Can. Min

6 39 57

-16 33

BB

50	0	31.6
		28.4
		22.3
		35.5
		1178
	50	29.45

Both limbs in δ
1st " limb in R.A.
Seeing poor

δ Can. Maj.

7 3 36

-26 12

BB

25	3	46.8
		45.5
		42.4
		51.1
		1858
	28	46.45

β Can. Min

7 20 48

+8 31

BB

45	1	29.8
		29.3
		25.6
		32.1
		1168
	46	29.20

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1883phae.proj.14138

Mar. 26, 1883

51 Cephei

6 44 42

+87 13

BB

5 0 10.1
17.2
10.8
8.0
46.1
5 11,52

A 2, 4 9,0

C=1.7904

ε Can. Maj.

6 53 89

−28 49

BB

0 4 43.5
44.2
42.2
50.9
18.08
4 45,20

α^2 Geminor.

7 27 3

+32 9

BB

5 4 42.0
46.3
40.9
42.0
17.12
9 42.80

α Can. Min

7 33 7

+28 19

BB

45 1 29.3
30.0
23.3
32.9
11.55
46 28,88

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1883phae.proj.1413B

Mar. 26, 1883

β Geminor

7 38 5

+28 19

BB

55 4 57.0

1.1

54.0

57.8

2299

59 57.48

Rej 1 pos 5

C=17 90.4

Gr. 1374

7 46 10

+74 13

BB

0 4 55.1

2.2

54.3

51.0

2226

4 55.65

Middle 19 w. of ♄.

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Mar. 27. 1883

δ Aquilæ

19 40 40

+10 20

BB

55 3 5.1

6.3

57.2

5.4

14.0

58 3,50

c = 1790.4

ζ Aquilæ

19 45 2

+8 34

BB

40 4 9.8

11.1

2.6

10.9

34.4

44 8,60

β Aquilæ

19 49 32

+6 7

BB

10 0 42.8

11.1

2.6

10.9

67.4

11 1.85

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Sun = 29 obs.
Stars = 667 "

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