KG
11366
v.410

1883phae.proj.14148

Fundamental Stars -
Circle Readings.
From Mar. 28, 1883 to May 18, 1883

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1883phae.proj.1414B

Mar. 27/28. 1883

⊙ C=17 90.3

0 28 13

+3 3

BB BB

55 2 41.8 30 1 8.7

41.8 8.6

34.7 1.1

43.6 9.0

161 9 27 4

57 40,48 31 6,85

β Arietis

1 48 9

+20 14

BB

0 3 57.5

59.0

48.3

55.6

22 0 4

3 55,10

Both limbs in δ

1rst in R. A.

Seeing pretty good.

γ Androm

1 56 41

+41 46

BB

30 2 17.1

20.6

11.7

13.6

63 0

32 15,75

Lost last 2 w.

δ Arietis

2 0 33

+24 54

BB

20 3 29,5

32.2

22.5

29.5

11 37

23 28,42

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1883phae.proj.1414B

Mar. 28, 1883

C = 1790.3

α Tauri

4 29 10

+16 16

BB

0	1	40.0
		38.5
		32.0
		38.6
		1491
	1	37.28

α Camel.

4 42 25⁻

+66 8

BB

10	0	6.5⁻
		12.6
		3.9
		2.1
		251.
	10	6.28

β Eridani

5 2 3

−5⁻ 14

BB

30	1	48.7
		46.3
		40.2
		48.3
		1835⁻
	31	45.88

α Aurigæ

5 7 59

+45 52

BB

25	0	47.0
		49.8
		42.9
		44.6
		1843
	25	46.08

Think very much the # is double. As near as can estimate position angle is 10° + distance 2″ First noticed it when I observed ## on Mar. 22 or 24, I think the 22nd. Observation today, positions are. B

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1883phae.proj.1414B

Mar. 28, 1883

L Aurigæ

4 49 19

+32 59

BB

15 4 23.9

26.9

20.4

22.6

9 3.8

19 23,45

ε Urs. Min. L.C

16 58 07

+97 46

BB

30 2 25,3

30.8

24.8

21.8

10 2 7

32 25,68

A_{5_1} to 1_0

γ Orionis

5 18 48

+6 15

BB

0 3 16.1

17.8

10.1

19.0

6 3 0

3 15,75

δ Orionis

5 25 59

−0 23

BB

(40?)

10 1 5,2

2,4

57,5

4.8

9 9

11? 2,48

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1883phae.proj.1414B

Mar. 28, 1883

ζ Orionis

5 29 40

−5 59

BB

15 1 47.0
44.2
39.3
46.2
17 6 7
16 44.18

C = 17 90.3

α Columbæ

5 35 23

−34 8

BB

20 3 2.8
2.5
58.1
6.9
10 3
23 2.58

Gr. 1374

7 46 10

+74 13

R. A. only

Rej δ — Lost circle read.

15 Argus

δ 2 0 31

−23 58

BB

10 4 41.1
41.9
34.9
43.4
16 1 3
14 40.32

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1883phae.proj.1414B

K Orionis

5 42 10
−9 43

BB

0 0 13.0
8.5
3.5
10.6
3 5 6
0 8.90

δ Draconis L.C.

19 12 32
+112 33

BB

45 2 6.2
10 4.3
10.5
4.7
3 5 7
47 8.92

K Cephei jr. L.C.

20 12 48
+102 38

BB

40 0 18.9
25.9
17.9
15.0
7 7 7
40 19.42

Gr. 3241 L.C.

20 30 30
+107 52

BB

25 2 22.2
31.2
22.6
20.0
9 6 0
27 24.00

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1883phae.proj.1414B

Mar. 28, 1883

Br. 79 L.C.

20 52 51

+9 9 53

BB

25 0 44.6

50.5

41.8

39.2

1761

25 44.02

A 25 W.

C = 1790.3

w Draconis

17 37 38

+68 49

BB

30 0 24.0

29.9

17.6

17.8

893

30 22.32

A_2 & C

22 H. Camel. L.C.

6 5 57

+110 38

BB B

40 2 40.2 1 30.3

47.8 37.0

40.4 30.0

36.4 26.2

1648 1235

42 41.20 41 30.88

A 25 W.

δ Ursae Min.

18 10 21

+86 37

BB

40 2 38.5

44.4

33.5

31.9

1483

42 37.08

A_{5_2} to 9_0

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1883phae.proj.1414B

φ¹ Dracon.

17 44 1

+72 12

BB

5	1	51.1	
		55.8	
		43.1	
		43.7	
		19 3 7	
	6	48.42	

γ Dracon.

17 53 52

+51 31

BB

45	3	45.1	
		50.8	
		41.1	
		40.2	
		17 7 2	
	46	44.30	

η Serpentis

18 15 13

−2 56

BB

10	3	12.5	
		10.3	
		2.2	
		10.9	
		3 5 9	
	13	8.98	

α Lyrae

18 32 57

+38 41

BB

35	2	55.8	
		59.8	
		48.6	
		50.5	
		21 47	
	37	53.68	

A 2 & C

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1883phae.proj.1414B

8

Mar. 28, 1883

δ Draconis.

19 12 32

+67 27

BB

50 1 38.8

43.6

33.1

32.9

1484

51 37.10

C=17903.

β Cygni

19 25 58

+27 43

BB

35 0 19.5

21.9

9.1

15.4

659

35 16.48

Θ Aquilæ

20 5 14

−1 10

BB

25 2 28.1

24.7

16.6

25.1

945

27 2 3.62

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1883phae.proj.1414B

γ Aquilæ

19 40 4,0

+10 20

BB

55	3	15,0	
		15,0	
		4.6	
		13,0	
		4 7 6	
	58	11,90	

Lost A_{+1}

α Aquilæ

19 45 2

+8 34

BB

40	4	6,3
		5,4
		56,3
		4.8
		1 2 8
	44	3,20

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1883phae.proj.1414B

28

Mar 29. 1883 ☉

C = 17 93.3

O 31 51

+3 26

RB		RB	
30	4 32.4	5	2 9.6
	33 2		7.7
	24 1		59.7
	31 9		8.6
	10 16		2 5 6
34	2 5,40	7	6,40

Both limbs in δ + R.A.

Seeing very fine indeed.

C = 17 93.3

Perseï

3 46 44

+31 32

R

45	0	11.0
		13 3
		15 3
		7 3
		4 6 9
45		11,72

C = 17 93,9

+51 Aurigæ

4 49 19 +32 59

R

15	3	15 1
		2 0 1
		11,1
		12,9
		5 9 2
18		14,80

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1883phae.proj.1414B

Mar 29 C = 17 9 63

δ Persei

3 34 33

+47 24

R

50 3 40.8
45.0
36.2
36.8
1588
53 39.70

A
-1 34 J-

η Tauri

3 40 29

+6 44

R

30 8 17.2
21.3
11.8
16.9
67 2
33 16.80

β Orionis

5 8 52

-8 20

α A

α Aurigæ

5 2 B 5 7 59

+45 52

A R. on ξ

A

RB

35 2 43.5
39.7
34.3
41.2

A R B

43.88
40.2
34.2
41.2

A 6 C

1587
37 39.68

1594
39.85

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1883phae.proj.1414B

Mar 29 1880 C=17 939

β Tauri
5 - 1 + 50
~~+28~~ 30

		RB	B	R
45	1	28.8	2 500	49.3
		32.2	541	53.7
		21.5	43.5	44.6
		25.7	47	48.8
		1082	1954	1964
46		27.05	47 48.85	49.10

δ Orionis
5 25 39
-0 23

		RB	B
35	4	36.5	0 45.2
		35.8	43.0
		27.9	35.9
		35.9	44.3
		1361	1684
39		34.02	40 42.10

δ Can. Maj.
7 3 36
-26 12

		BB
25	3	45.5
		46.4
		39.6
		49.8
		1813
28		45.32

δ Dracon. L. C.
19 12 32
+112 33

		BB
45	2	5.4
		13.8
		9.3
		4.1
		326
47		8.15

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1883phae.proj.1414B

Mar. 29, 1883

α Leporis

5 27 32

−17 54

RB B

10	0	23.9	1	28.0
		20.3		24.8
		13.4		17.2
		24.9		28.4
		825		984
	10	20.62	11	24.60

ε Orionis

5 30 14

−1 17

RB B R

30	3	1.04	198	193
		59.5	197	183
		52.4	118	127
		0.0	190	193
		2329	703	696
	32	58.2234	17.58	17.40

β Can. Min.

7 20 48

+8 31

BB

45	1	40.9
		42.0
		34.1
		43.2
		1602
	46	40.05

α² Geminorum

7 27 3

+32 9

BB

5	4	42.1
		47.3
		40.1
		41.9
		1714
	9	42.85

Rej. 1rst 5

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Mar. 29, 1883

2 Cam. Trim

7 33.7

+5 32

BB

45 1 25.8
27.2
19.5
29.0
10 15
46 25,38

C = 17 93.9

β Geminor

7 38 5

+28 19

BB

55 4 45.9
50.6
43.8
46.9
18 7 2
59 46,80

15 Argus

8 2 31

-23 58

BB

15 2 39.0 10 4 33.0
48.0 32.9
42.0 26.0
36.6 36.3
1282
14 32,05

K Cephei for. L.C.

20 12 48

+10 2 38

BB

40 0 42.0
48.6
41.5
38.7
1708
40 42,70

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1883phae.proj.1414B

~~ε Draconis.~~
Gr. 1374
7 46 10
+74 13

A_{10} to 9_0

ε Dracon. L.C.
19 48 34
+110 2
BB
15 2 39.0
48.0
42.0
36.6
16 56
17 41.40

Gr. 3241 L.C.
20 30 30
+107 52
BB
25 2 37.8
47.2
38.1
36.3
15 94
27 39.85

Br 79 L.C.
20 52 51
+99 53
BB
25 0 47.4
53.1
45.0
42.8
18 83
25 47.08

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1883phae.proj.1414B

Mar. 29. 1883

ω Dracon.

17 37 38

+68 49

BB

30 0 26,8

33,7

20,4

20,5

101,4

30 25,35

C = 1793,9

φ' Dracon.

17 44 1

+72 12

BB

5 1 53,3

57,8

45,3

45,1

2015

6 50,38

δ Ursæ Min.

18 10 21

+86 37

BB

40 2 37,3

43,1

32,5

30,1

1430

42 35,75

η Serpentis

18 15 13

−2 57

BB

10 3 24,0

22,2

13,4

20,8

804

13 20,10

A_{32} log$_0$

Rej 1ste δ

Sdeing" bad a δ

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1883phae.proj.1414B

γ Dracon.
17 53 52
+51 31
BB

45	3	43.2
		48.2
		38.3
		37.5
		16 7 2
	48	41.80

22 H. Camel. L.C.
6 5 57
+110 38
BB

40	1	54.1
		1.1
		53.5
		48.7
		21 7 4
	41	54.35

α Lyræ
18 32 57
+38 41
BB

35	3	1.0
		6.1
		54.5
		55.8
		23 7 4
	38	59.35

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Mar. 30, 1883

α Lyrae

18 32 57

+38 41

BB

35 3 0.9

5.1

53.0

55.5

2345

38 58.62

Lost 1

C=1793.9

σ Sagittarii

18 40 57

−26 26

BB

40 2 3.0

1.6

53.0

2.7

03

42 0.08

β Cygni

19 25 58

+27 43

BB

35 0 23.5

25.9

13.8

18.7

819

35 20.48

γ Aquilæ

19 40 40

+10 20

BB

55 3 1.8

2.0

50.8

59.1

2337

57 58.42

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1883phae.proj.1414B

Mar. 30, 1883

λ Aquilæ

19 00 00

−5 3

		BB
20	0	40.3
		37.8
		28.9
		36.2
		14 3 2
	20	3 5.80

δ Draconis

19 12 32

+67 27

		BB
50	1	43.7
		48.6
		37.3
		36.5
		16 6 1
	51	4 1.52

α Aquilæ

19 45 2

+8 34

		BB
40	4	13.6
		13.3
		3.0
		11.0
		4 0 9
	44	1 0.22

β Aquilæ

19 49 32

+6 7

		BB
10	0	47.2
		46.0
		35.9
		45.1
		17 4 2
	10	43.55

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Mar. 30, 1883

θ Aquilæ

20 5 14

−1 10

BB

25 2 29.9

26.5

18.6

25.8

1008

27 25.20

C=17 93.9

α² Capricorni

20 11 31

−12 57

BB

10 1 13.6

8.8

59.2

11.1

11 3 27

A & doubtful

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1883phae.proj.1414B

Mar. 30/31, 1883

C = 17 93.9 ⊙

0 39 8

+4 13

BB BB

45	2	51.3	20	116.9
		52.3		16.5
		42.1		7.2
		50.9		15.2
		1966		558
47		49.15	21	13.95

Both limbs in δ. First in R.A.

Seeing good on 1st δ, poor on 2nd.

Last Pt. 2 w. of R.A.

γ Andron

1 56 41

+41 46

BB

30	2	20.1		
		20.5		
		8.2		
		11.1		
		599		
32		14.98		

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1883phae.proj.1414B

Mar. 31, 1883

α Arietis

2 0 33

+22 57

BB

20 3 39.0

39.8

21.4

32.5

1327

23 33.18

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1883phae.proj.1414B

April 1883
C = 17 88.5

⊕

0 42 46
+4 36

R R

55 1 46.9 25 05.5
47.0 5.7
39.3 5.1
46.5 5.4
L L L L
1797 147
56 44.92 25 3.68

C = 17 88.5

Perrine

3 15 57
+4 9 26
R

50 0 31 4
84.6
24.1
24.2
1203
50 30.08

Lamp of R.
Swing fair.

Aurigæ

4 49 11
+32 59
R

15 3 9.8
14.8
5.0
7.4
343
18 9.32

B Draconis

5 2 3
— 5 12
R

30 1 11.4
9.0
2.8
10.8
340
31 8.50

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1883phae.proj.1414B

C = 17 48,5

ζ Persei

3 34 33

+47 24

R

W 3 01

38

56,0

56,7

2366

22 59,15

δ Persei

3 46 44

+31 32

R

40 4 52,4

66,4

48,0

49,9

2071

44 51,78

γ Orionis

5 16 48

+6 15

R

30 2 52

7,8

58,7

8,6

203

32 5,08

ζ Orionis

5 25 19

−0 23

R

35 4 39,9

39,5

35,7

41,2

1563

39 39,08

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1883phae.proj.1414B

Apl. C = 17 18.5

ι Orionis

5 29 40

−5 59

R

15 0 40.6
38.8
32.1
39.1
15 0 6
15 37.65

β Orionis

5 34 39

−20

R

15 1 47.3
46.0
40.3
46.5
18 0 1
16 45.02

C = 17 90.8

η Serpentis

18 15 13

−2 56

BB

10 3 5.0
2.9
56.5
3.2
76
13 1.90

α Lyrae

18 32 57

+38 41

BB

35 3 0.3
41.4
54.8
56.3
2358
38 58.95

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1883phae.proj.1414B

π Orionis
5 42 10
−9 43
R
55 3 536
504
469
521
2030
5 8 5 0,75

ζ Orionis
5 − 41 47
+ 7 23
R

51 Cephei L.C.
6 44 42
+ 9 2 47

σ Sagittarii
18 47 57
−26 26
BB
40 2 0.1
58.4
50.0
59.6
2281
42 57.02

A_{9_0} to 7, and $6,6_0$
Star very faint

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Apr. 1, 1883
λ Aquilæ
19 00 00
−5 3
BB

20	0	40.7
		37.9
		28.7
		36.0
		143 3
	20	35,82

C=17 90.8
δ Draconis
19 12 32
+67 27
BB

50	1	45.2
		51.8
		40.4
		39,2
		1766
	51	44,15

α Aquilæ
19 45 2
+8 34
BB

40	2	58,5
		59.8
		49.7
		56.4
		2244
	42	56,10

B⊕ Aquilæ
19 49 32
+6 7
BB

10	0	46.9
		486.8
		36.2
		45.2
		1751
	10	43,78

Lost A+1

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1883phae.proj.14148

β Cygni

19 25 58
+27 43

BB

35	0	27.9
		31.7
		18.4
		23.1
		101 1
35		2528

γ Aquilæ

19 40 40
+10 20

BB

55	3	4.9
		6.0
		54.5
		2.0
		74
58		1,85

θ Aquilæ

20 5 14
−1 10

BB

25	2	30.7
		28.2
		19.5
		26.4
		1048
27		26,20

α² Capricorni

20 11 31
−12 52

BB

10	1	13.0
		8.2
		59.3
		10.1
		306
11		7.65

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1883phae.proj.1414B

Apr. 1, 1883

C=17 90,8

γ Cygni

20 18 1

+39 53

BB

25 0 34,4

37,8

25,1

28,0

1253

25 31,32

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1883phae.proj.1414B

Apr $\frac{1}{2}$, 1883

⊙ C = 17 89.7

0 46 25

+4 59

RBE RB

0	1	50.5	30	4 28.4
		51.4		30.2
		40.4		20.2
		49.5		27.8
		1918		1066
	1	47.95	34	26.65

Both limbs = δ + R.A.

Seeing moderately good

α Tauri

4 29 10

+16 16

BB

0	1	46.6
		45.4
		37.8
		43.5
		1733
	1	43.32

Lost A_{+1} Rej. 1st 11 W.

γ Orionis

5 18 48

+6 15

BB

0	3	19.4
		21.3
		14.3
		22.6
		776
	3	19.40

α Leporis

5 27 32

−17 54

BB

10	1	24.9
		22.0
		16.2
		25.9
		890
	11	22.25

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1883phae.proj.1414B

C=17 89.7
ι Aurigae
4 49 09
+32 59
BB

15	4	35.5
		40.8
		33.4
		32.5
		1422
	19	35.55

Lost last 2 sets
of 5 — seeing so bad
star went out,

C=17 90.5
α Aurigae
5 7 59
+45 52
BB

25	0	52.0
		55.0
		48.9
		48.4
		2043
	25	51.06

ε Orionis
5 20 14
-1 17
BB

30	4	20.6
		20.0
		14.8
		20.5
		759
	34	18.98

Lost 1st 3 w.
" "

α Can Min
7 33 7
+5 32
BB

45	1	28.9
		30.0
		22.4
		30.7
		1120
	46	28.00

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1883phae.proj.1414B

Apr. 2, 1883

β Seminor

7 38 5

+28 19

BB

55 4 49.3
53.7
47.0
48.4
1984
59 49.60

C=17 90.5

Gr 1374

7 46 10

+74 13

15 2 51.6
1.2
57.2
49.5

R.A.

A 25 45.

K Cephei L.C.

20 12 48

+102 38

BB

40 1 31.4
38.7
34.5
27.7
1323
41 33,08

Gr, 3241 L.C.

20 30 30

+107 52

BB

25 3 15.0
~~25~~ 25.3
18.1
13.0
714
28 17.85

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1883phae.proj.1414B

ε Draconis L.C.

19 48 34
+110 2

BB

15 2 51.6
1.2
57.2
49.5
21 95
17 54.88

15 Argus

8 0 31
-23 58

BB

10 4 35.9
33.9
31.1
38.5
13 94
14 34 85

Br. 79 L.C.

20 52 51
+99 53

BB

25 0 35.4
41.6
36.3
30.3
14 36
25 35.90

A 25 W.
extra tap + break
between R.A + δ

ζ Cephei L.C.

21 15 48
+117 65

BB

25 1 16.2
24.0
19.9
15.4
7 55
26 18.88

Ag 11 + C

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1883phae.proj.1414B

Apr. 2, 1883

α Hydræ
9 21 47
−8 9
BB

25 1 41.2
~~38.1~~
37.5
34.8
40.5
1540
26 38,50

ε = 17 90,5
× Draconis
18 23 10
+72 41
BB

35 3 7.9
13.5
3,2
0.2
248
38 6,20

A 25

σ Sagittarii
18 47 57
−26 26
BB

40 2 7.9
7.2
59.7
8.3
231
42 5.78

ζ Aquilæ
19 00 00
+13 42
BB

35 1 29.4
30.0
19.5
26,0
1049
36 26,22

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1883phae.proj.1414B

ζ Lyræ
18 ~~42~~ 57
+38 41
BB
35 3 4.4
9.5
59.8
0.3
1.40
38 3.50

51 Cephei L.C.
6 14 42
+82 47

A_{90} to 5.1.

δ Draconis
19 12 32
+67 27
BB
50 1 44.9
50.4
40.8
38.7
17 48
51 43.70

β Cygni
19 ~~25~~ 58
+27 43
BB
35 0 30.6
34.2
22.3
26.8
11 39
35 28.48

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1883phae.proj.1414B

Apr. 2. 1883

γ Aquilæ

19 40 40

+10 20

BB

55	3	3.0
		4.4
		54.1
		0.2
		1.7
	58	0.42

C=17 90.5

α Aquilæ

19 45 2

+8 34

BB

40	4	5.8
		6.8
		58.0
		4.2
		1 4 8
	44	3.70

α² Capricorni

20 11 31

−12 54

BB

10	1	21.4
		18.8
		8.1
		18.7
		6 7 0
	11	16.75

γ Cygni

20 18 1

+39 53

BB

25	0	35.9
		38.9
		26.9
		29.0
		13 0 7
	25	32.68

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1883phae.proj.1414B

c = 17 90.5

β Aquilæ

19 49 32

7 6 7

B B

10	0	56.5	
		56.8	
		47.3	
		56.0	
		216	
	10	54.15	

Last 3 w.

c = 17 91.7

θ Aquilæ

20 5 14

-1 10

B B

25	2	26.1	
		23.5	
		16.1	
		22.2	
		87 9	
	27	21.98	

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1883phae.proj.1414B

Apr. 2/3, 1883

⊙ C=17 91.6

O 5 50 3

+5 22

C=17 91.7

ζ Can. Min.

7 33 7

+5 32

	RB		RB
35 3	56.4	10 1	47.0
	58.5		45.7
	51.0		37.8
	59.8		46.4
	22 82		17 69
38	57.05	11	44.22

Rej δ.

Both limbs in δ - R.A.

Seeing moderately good

ε Dracon. L.C.

19 48 34

+110 2

	BB
15 2	33.2
	43.4
	40.9
	32.0
	149 5
17	37.38

15 Argns

δ ζ 31)

-23 58

	BB
10 4	37.9
	36.3
	33.6
	41.9
	149 7
14	37.42

Last leg of δ

prob. a little late

Clouds.

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1883phae.proj.1414B

Apr. 3, 1883

β Geminor.

7 38 5⁻
+28 19

BB

5⁻5⁻ 4 45.2
50.1
45.5⁻
46.3
18 7 1
59 46.78

Gr. 1374
7 46 10
+74 13

R.A
25⁻ W.

Bx. 79 L.C.
20 5[illegible] 5⁻1
+99 5⁻3

		BB		BB
25⁻	1	37.4	0	44.4
		43.5⁻		50.1
		39.9		45.5⁻
		384.6		40.1
		1544		1801
	26	38.60	25	45.02

A 25⁻

α Cephei L.C.
21 15⁻ 48
+117 5⁻5⁻

		BB
25⁻	1	34.3
		42.7
		41.5⁻
		33.7
		1522
	26	38.05

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1883phae.proj.1414B

Apr. 3, 1883

α Hydrae

9 21 47

−8 9

BB

25	1	37.3
		33.5
		32.3
		37.6
		1407
26		35.18

C = 17 91.7

χ Procoms

18 23 10

+72 41

RB

25	2	57.2
		3.1
		55.0
		52.3
		2276
27		56.90

$A_3 \sim C$

σ Sagittarii

18 47 57

−26 26

RR

40	2	23
		1.7
		55.6
		4.7
		43
42		1.08

~~A 90 4 4 2~~

ζ Aquilae

19 00 00

+13 42

RBXP RB R

35	0	11.9	33.0	33.1
		11.0	33.5	33.2
		1.4	23.5	23.7
		10.1	31.0	30.0
		34.4	11.0	11.0
35		8.60	36 82.75	33.00

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1883phae.proj.14148

α Lyrae
18 32 +7
+38 41
RR

35 2 58.2
3.2
56.1
+9.2
2347
37 58.68
A-1

51 Cephei L.C.
6 44 42
+93 47
RR RR RR

30 8 21.4 13.7 90
28.4 21.2 15.4
21.4 14.1 9.7
17.8 9.9 3.8
890 589 359
33 22.25 14.72 8.98

A 90 C 4 2

C=17 91.7

δ Dracon.
19 12 32
+67 27
BR BR B

50 1 30.8 1 45.6 45.4
37.7 52.5 51.5
31.9 42.4 42.1
24.7 41.2 40.5
1251 1817 1798
51 31.28 45.42 44.95

β Cygni
19 25 58
+27 40
BR BR B

30 6 59.5 0 21.9 24.9
4.6 28.1 28.1
55.1 17.5 16.8
59.0 22.4 22.4
2382 929 922
23.05
38 59.55 35 23.22

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1883phae.proj.1414B

Apr. 3, 1883

ζ Aquilae c=1793.1

19 40 40

+10 20

		RB	RB	R
55	1	53.8	3 0.2	59.7
		55.0	2.0	2.3
		46.1	52.2	52.8
		54.6	0.0	59.6
		2095	2344	2344
	56	52.38	58.60	58.60

ζ Aquilae

19 45 2

+1 34

		BR	BR	B
40	25	13	4 10.8	10.5
		52.3	12.2	14.4
		44.2	3.8	4.2
		52.2	11.3	10.6
		2000	381	347
	42	50.00	44 9.52	9.18

α² Capricorni

20 11 31

−12 52

		BB
10	1	11.0
		7.1
		0.0
		11.1
		292
	11	7.30

γ Cygni

20 18 1

+39 53

		BB
25	0	28.1
		32.2
		21.8
		24.0
		106.1
	25	26.52

Last A-71

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1883phae.proj.1414B

β Aquilae

19 49 32
+6 7

BR BR B

5	4	27.6	52.5	52.4
		29.8	54.8	53.2
		21.9	44.8	44.4
		29.6	53.3	53.3
		108.9	54	36
	9	27.22	~~51.50~~ 51.35	~~50.90~~

θ Aquilae

20 5 14
−1 10

BB

25	2	29.8
		28.4
		22.6
		29.2
		110.0
	27	27.50

α Equulei

21 59 45
−0 13

RR

10	0	38.4
		37.2
		31.8
		37.6
		145.3
10		36.32
		23.45

γ Cass.

0 49 38
+60 5

RB RB

10	2	22.0	3	6.1
		26.0		10.7
		21.1		5.0
		17.5		1.4
		86.6		23.2
	12	21.65	13	5.80

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1883phae.proj.1414B

Apr. 3/4, 1883

(h) C = 17 93.1

0 53 42

+5 45

RB RB

15 1 12.8 45 3 48.4

12.8 50.2

6.4 44.0

14.5 51.0

46.5 193.6

16 11.62 48 48.40

Both limbs in δ + R.A.

Seeing very fine indeed.

γ Andromedae

1 56 41

+41 46

RB B

30 0 5 9.5 16.1

5.6 21.9

52.4 8.5

58.1 11.9

Rej. 57.4

30 14.35

K Cephei pr. L.C.

20 12 48

+10 2 38

RB — — — — —

40 1 24.3 5.2 0 49.2 32.5 15.9 6.0

33.4 12.8 56.3 40.5 23.6 12.9

31.6 11.7 55.5 39.5 21.8 12.4

23.8 4.8 46.2 31.4 14.8 5.0

1131 345 2092 1439 761 363

41 28.28 8.62 40 52.30 35.98 19.02 9.08

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1883phae.proj.1414B

Apr. 4. 1883

Gr. 1374
7 46 10
+74 13
BB

0	4	54.7	
		1.4	
		59.3	
		51.1	
		2265	
	4	56.62	

15 Argus
8 2 31
−23 58

RB	B	R
10 3	23.4	39.7
	22.5	38.3
	20.7	38.2
	29.3	45.3
	959	1615
13	23.98	14 40.50 40.38

Gr 3241 L.C.
20 30 30
+107 52

RB	−	−	−	−
25 3	31.9	6.7	42.8	21.3	5.4
	42.2	16.9	52.2	31.0	14.2
	39.2	13.9	47.8	27.4	10.5
	32.3	7.1	42.9	21.2	5.8
	1456	446	1857	1009	361
28	36.40	11.15	46.42	25.22	9.02

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1883phae.proj.1414B

Apr. 4. 1883 C=17 93.1

Bo. 79 L.C.

20 52 51

+99 53

RB — — — — — — —

25	1	48.0	36.1	23.3	5.5	50.5	34.9	24.9	12.0
		54.3	42.4	29.4	10.9	55.5	40.3	30.2	18.2
		51.8	39.4	25.6	8.6	53.5	36.9	27.4	15.3
		45.6	32.8	20.1	2.3	47.6	31.5	21.9	9.2
		1997	1507	984	273	2071	1436	1044	547
26		49.92	37.68	24.60	6.82	51.78	35.90	26.10	13.68

θ Urs. Maj.

9 24 56

+52 13

		RB		RB	R
0	4	35.5	0	46.1	45.2
		40.1		48.7	49.2
		38.1		46.1	47.0
		35.0		45.2	44.3
		1487		1861	1857
	4	37.18	5	46.52	46.42

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1883phae.proj.1414B

α Cephei L.C.

21 15 48

+117 5 5

		RB		RB	RB	RB
25	2	27.0	1	43.0	13.0	0 5.73
		34.4		51.2	21.1	5.5
		37.5		53.1	22.5	6.5
		28.3		45.0	14.8	5.89
		127 2		1923	714	82
	27	31.80	26	48.08	17.85	25 2.05

α Hydrae

9 ~~21~~ 21 47

−8 9

		RB		RB
25	0	33.0	1	46.2
		28.6		41.7
		30.1		43.4
		35.0		48.4
		1267		1794
	25	31.68	26	44.85

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1883phae.proj.1414B

Apr. 6, 1883 S

γ Cass.

0 49 38

+60 S

	RXB		RB
10 2	27.6	3	37.2
	31.2		42.9
	32.0		40.3
	24.9		34.8
	1157		1552
12	28.92	13	38.80

c = 17 93.2

θ c = 17 93.2

1 01 01

+6 31

	RB		RB
30 0	29.7	0 3	16.7
	29.2		17.2
	24.7		15.0
	31.8		21.1
	1154		700
30	28.85	3	17.50

Both limbs in δ of R.A

Seeing very fine indeed.

ν Can Min

6 35 57

−16 33

	R
45 4	33.0
	31.2
	33.6
	39.6
	1374
49	34.35

S Can Maj

D 3 36

−26 12

	R
25 3	47.7
	46.9
	48.6
	54.2
	1974
28	49.35

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1883phae.prbj.1414B

95.6
C = 17 ~~93.2~~
α Gem.
6 15 29
+22 54

R

40 3 44.7
47.8
96.3
49.1
1879
43 46.198
Sept 1
11

δ Gem.
6 30 54
+6 30

R

45 1 590
586
588
1.7
2381
46 59.52

δ Dracon. L.C.
19 12 32
+112 33

R

45 2 52.1
0.8
4.7
54.1
2317
47 57.92

R

1 53.2
2.2
6.4
54.0
2358
46 58.95

β Cam. Min
7 20 48
+8 31

BB

45 1 25.1
25.7
26.4
30.5
1077
46 26.92

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1883phae.proj.1414B

Apr. 6. 1883 C = 17 95.6

ζ^2 Geminor.

7 27 3

+32 9

BB

5 4 35.8

41.3

41.2

38.8

1571

9 . 39,28

Rej. 2 Can. Min

7 33 7

Clouds — star too faint.

15 Argus

8 2 31

-23 58

BB

10 4 40.0

39.1

41.5

46.7

1673

14 41,82

K Cephei L.C.

20 12 48

+102 38

BB BB

40 1 16.0 0 4.2

23.4 11.2

25.8 13.7

17.0 4.8

822 339

41 20,55 40 8,48

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1883phae.proj.1414B

B Geminor

7 38 5⁻
+28 19

BB

55 4 47.2
64.4
60.2
60.9
2027
59 5 0.68

Sp. 1374
Reji. Sp. Clouds.

E Draco. L. C.

19 48 34
+110 02

BB

15⁻ 2 32.1
40.5
43.1
33.2
1489
17 37.22

Sp. 3241 L. C.

20 30 30
+107 5⁻2

BB BB

25 3 39.3 2 16.0
49.6 25.8
50.5⁻ 25.7
42.2 18.5⁻
1816 860
28 45.40 30 21.50

Br. 79 L. C.

20 5⁻2 5⁻1
+99 5⁻3

BB

25 0 38.5
44.6
45.1
37.7
1659
25 41.48

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1883phae.proj.1414B

Apr. 6, 1883
α Cephei L.C.
21 15 48
+117 55
BB

25 1 11.2
20.0
23.9
14.6
6 9 7
26 17.42

C=17 95.6
α Hydræ
9 21 47
−8 9
BB

25 1 37.5
34.1
37.1
40.2
1 4 8 9
26 37.22

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1883phae.proj.1414B

O Urs. Maj.
9 24 58
+52 13
BB
5 0 58.7
2,4
1.8
58.4
13
6 3.25

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1883phae.proj.1414B

Aug 18 @ C = 17 95.7

α Aurigae

5 7 59 +45 52

	R
20	4 42.8
	47.7
	45.3
	40.4
	176.5
24	44.12

β Tauri

5 18 50

+28 30

	R
45	1 32.4
	35.8
	29.8
	32.5
	130.8
46	32.70

β Orionis

5 34 39

−20

	R
15	1 47.2
	45.7
	43.4
	47.7
	184.0
16	46.00

κ Orionis

5 42 10

−9 43

	R
55	3 49.1
	45.4
	44.7
	48.4
	187.6
58	46.90

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1883phae.proj.1414B

δ Orionis

5 25 59
−0 23

R

35 4 39,8
38,9
37,0
41,2
1569

39 39,22

ε Orionis

5 29 40
−5 59

R

15 0 46,2
43,2
40,6
44,3
1743

15 43,58

α Orionis

5 4 47
+7 23

R

50 8 33,2
35,0
31,6
35,6
1354

53 33,85

Nr. 3241

8 30 30
10 5 2

R R

25 8 24,0 21,2
41,8 27,2
38,2 23,3
30,6 16,1
1386 838

28 34,65 27 20,95

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1883phae.proj.1414B

Aql 1RB
B279
8 52 51
9 9 53
R R

25	0	427	0 220
		49.4	28.6
		45.8	20.2
		38.2	17.8
		1761	936
25		44.02	25 2.340

α Cephei
9 13 48
11 7 55
R R

25	1	31.1	0 59.2
		39.5	8.2
		39.6	5.4
		31.2	5.8.8
		1414	136
26		35.35	25 3.40

χ Draconis
18 23 10
+72 41
BB R

35	3	148	14.4
		20.2	20.3
		129	13.2
		9.1.9	9.3
		578	572
38		14.45	14.30

α Lyrae
18 32 57
+38 41
BR B/R B

35	1	323	2 56	56.2
		37.8	1.6	1.0
		31.3	56.5	55.9
		30.3	54.4	54.6
		1317	291	277
36		3292	37 57.28	56.92

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1883phae.prOj.1414B

ζ Hydrae

9 21 47

−4 9

R

2 0 24.8
21.3
20.9
23.4
9 07
25 22.68

α Hydrae

9 24 6

+5 2 13

R

1 0 0.2
3.4
5 9.6
5 7.2
07
5 0.18

51 Cephei L.C.

6 44 42

+9 2 47

RB RB BB BB

30	3	4.4	~~5 9.1~~	2	25.2	20.9	40	1	2.8	2	9.8	10.6
		11.0	~~5.5~~		31.1	26.9			1.7		~~9.9~~ 9.7	9.9
		5.2	59.5		26.0	21.8			57.5		6.0	5.8
		9.8	55.3		21.2	16.6			5.2		13.2	13.7
		30.4	239.4		103.8	86.2			72		38.0	40.0
	33	7.60	59.85	32	25.95	21.55		41	1.80	42	9.50	10.00

α Sagittarii

18 47 57

−26 26

RB RB R

40	1	2.8	2	9.8	10.6								
		1.7		~~9.9~~ 9.7	9.9								
		57.5		6.0	5.8								
		5.2		13.2	13.7								
		72		38.0	40.0								
	41	1.80	42	9.50	10.00								

9 0 ± 20?

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Apr. 8, 1883

λ Aquilæ

19 00 00

-5

		RB	RB	R
~~15~~ ~~20~~	4	28.5	20 0 48.2	47.6
		27.9	45.0	45.8
		22.8	41.3	41.1
		28.2	47.1	46.6
		1074	216	211
	19	26.85	20 45.40	45.28

C=17 95.6

δ Draconis

19 12 32

+67

		RB	RB	R
	50	0	26.6	1399 39.6
			33.1	45.7 45.1
			23.7	38.1 38.3
			23.0	36.2 35.6
			1064	1599 1586
		50	26.60	51 39.98 39.65

α Aquilæ

19 45 2

+8 34

		BR	R	B
40	3	15.5	4 15.2	14.6
		15.7	15.2	15.0
		10.3	10.9	9.8
		17.7	17.0	16.3
		592	183	160
	43	14.80	44 14.58	14.00

β Aquilæ

19 49 32

+6 7

		RB	B	R
10	0	16.2	2.4	2.9
		16.3	~~5.3~~ 3.3	3.8
		10.6	3.3	57.6
		~~19.2~~	~~5.3~~	5.3
		19.	5.9	96
		623	99	
	10	15.58	11 2.48	2.40

Lost 1st 3 w

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β Cygni

19 25 58
+27 43

		BR	R	B
30	8	56.1	22.2	21.9
		59.0	~~24.1~~ 23.4	25.3
		54.1	~~18.0~~	16.9
		56.8	21.2	21.4
		2260	855	85 5
	33	56.50	35 21.	21.38

γ Aquilæ

19 40 40

		RB	RB	BR
55	2	0.4	3 6.0	6.1
		0.4	7.1	7.1
		54.0	0.1	1.1
		2.0	~~84~~ 85	7.1
		2368	~~213~~	~~218~~
	56	59.20	~~53.2~~	~~54.5~~
			207	214
			5.18	5.35

α² Capricorni

20 11 31
-12 54

		BB
10	1	14.8
		10.4
		6.0
		15.8
		470
	11	11.75

γ Cygni

20 18 1
+39 53

		BB
25	0	28.5
		32.2
		24.1
		26.0
		11 08
	25	27.70

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Apr. 8, 1883

ζ Cygni

20 37 26

+44 52

BB

25	1	44.0
		47.8
		41.1
		40.7
		17 36
	26	43.40

C = 17 95.6

ε Cygni

20 41 27

+33 32

BB

45	1	19.8
		22.5
		15.0
		16.7
		740
	46	18.50

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Apr. 8/9, 1883

γ Cass.

0 49 38

+60 5

		RB	B	R
10	2	44.9	3 36/	36.4
		49.1	419	41.0
		45.2	340	38.0
		41.4	330	33.0
		1806	1480	1484
	12	45,15	13 37,00	37,10

C=17 92,3

ο

1 11 59

+7 38

	RB	RB
20	3127 55	0 53.5
	11.4	51.2
	8.5	49.5
	16.9	58,5
	498	2127
23	1245	55 53,18

Both limbs ~ S & R ✓

Lost - 1st " 2 w. 1st " limb

Seeing moderately good

γ Orionis

5 18 48

+6 15

		BB
0	3	15.5
		18.0
		16.6
		22.7
		728
	3	18,20

α Leporis

5 27 32

-17 54

	BB
10	1 22,5
	18.7
	19.5
	27.6
	883
11	22,08

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γ Andromedæ

1 56 41
+41 46
BB

30	2	24.7	
		31.0	
		23.9	
		22.8	
		1024	
32		2560	

β Orionis

5 8 52
-8 20
BB

35	2	44.7	
		39.8	
		41.5	
		46.7	
		1727	
37		4318	

ε Orionis

5 30 14
-1 17
BB

30	4	20.5	
		20.5	
		21.2	
		24.2	
		864	
34		2160	

κ Orionis

5 42 10
-9 43
BB

0	0	9.0	
		5.5	
		6.6	
		10.3	
		314	
0		785	

A6 + C.

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Aper. 9. 1883

ζ Orionis

5 48 47

+7 23

BB

55	4	47.1
		49.2
		49.2
		52.6
		1981
59		49.52

C = 1792.3

Gr. 1374

7 46 10

+74 13

BB

0	4	48.8
		56.9
		56.0
		48.2
		2099
4		52.48

A_2 to g_0

K Cephei L.C.

20 12 48

+102 38

BB

40	0	11.9
		19.9
		21.5
		14.2
		675
40		16.88

A_{-1} 5 of C

Gr. 3241 L.C.

20 30 30

+107 52

BB

25	2	13.5
		22.0
		24.3
		17.1
		769
27		19.22

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1893phae.proj.1414B

ε Draconis L.C.

19 48 34

+110 2

BB

15	2	28.2
		38.0
		41.6
		31.8
		1396
	17	3490

15 Argus

8 [illegible] 31

−23 58

BB

10	4	47.2
		45.2
		48.8
		55.7
		1969
	14	49.22

A_{6_1} to 1_0 and A_{+1}

Br 79 L.C.

20 52 51

+99 53

BB	BB
41.1	~~25~~ 5.0
46.8	10.2
48.4	13.2
40.9	5.0
1772	334
44.30	8.35

25 0

α Cephei L.C.

21 15 48

+117 55

BB

25	1 13.5
	20.8
	26.8
	18.0
	791
26	19.78

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1883phae.proj.1414B

Apr. 9. 1883

α Hydrae

9h 21m 47s

−8° 9'

BB

25 1 52.2

47.4

52.4

56.9

2089

26 52,22

A, 5 + C

θ Urs. Maj.

9 24 26

+52 13

BB

5 0 59.7

2.5

4.0

1.5

77

6 1.92

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1883phae.proj.1414B

α Lyrae

18 32 57

+38 41

BB

35 2 57.5

3.0

0.5

59.7

07

38 0.18

Lost 1 to 4 W.

51 Cephei L.C.

6 44 42

+92 47

BB

30 2 54.4

1.6

59.9

55.2

2311

32 57.78

9₀ to 1₀ The taps for 9₀ and 8₀ were a little late. For 3₁ it was a little too soon. Lost 2₀ Star very faint.

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1883phae.proj.1414B

Apr. 9
10. 1883

⊙ C=17 92.3
1 15 40
+8

		BB		BB
0	0	38.7	30 3	51.1
		38.2		52.0
		37.7		51.0
		45.3		58.8
		1599		2129
	0	39.98	33	53.22

Both limbs in δ First in R.A.
Beautiful seeing.

C=17 92.3
β Eridani
5 2 3
−5 14

		BB
30	1	52.5
		47.8
		52.8
		57.5
		2106
	31	52.65

Lost Sg. Last tip of δ a little late - Star exceedingly faint.

δ Orionis
5 25 59
−0 23

		BB
40	0	55.1
		51.4
		58.4
		1.0
		2259
	40	56.48

ε Orionis
5 29 40
−5 59

		BB
15	1	48.2
		44.8
		50.2
		53.0
		1962
	16	49.05

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1883phae.proj.14148

β Orionis

5 8 52
−8 20

BB

~~40 8 35.0~~
35 2 40.8
35.0
41.1
45.0
1619
37 40.48

β Tauri

5 18 50
+28 50

BB

45 2 42.8
46.8
49.3
49.0
1879
47 4698

ζ Orionis

5 34 39
−2 0

BB

15 2 57.7
56.1
1.1
3.5
2384
17 59.60

κ Orionis

5 42 10
−9 43

BB

0 0 10.0
5.3
12.2
13.5
410
0 10.25

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1883phae.proj.1414B

Apr. 10, 1883
2 Orionis
5 48 47
+7 23
BB

50	4	44.8	
		47.3	
		53.2	
		53.3	
		1986	
	54	49.65	

C = 1792.3
μ Geminor.
6 15 29
+22 34
BB

40	3	45.7	
		49.6	
		55.1	
		55.0	
		2054	
	43	51.35	

C = 17 99.0
α Can. Maj.
6 39 57
−16 33
BB

45	4	20.4	
		17.8	
		27.2	
		33.5	
		989	
	49	24.72	

δ Can. Maj.
7 3 36
−26 12
BB

25	3	45.4	
		43.3	
		53.2	
		56.1	
		1980	
	28	49.50	

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1883phae.proj.14148

χ Dracon. L.C.
18 23 10
+107 19
BB BB

0	0	3.0	4	30.1
		12.9		40.7
		21.95		48.7
		11.1		39.2
		485		1587
	0	12.12	4	39.68

Lost 1 rsk 2 w.

C=17 92.3.

γ Geminor
6 30 54
+16 30
BB

45	3	5.8		
		3.8		
		12.0		
		14.3		
		359		
	48	8.98		

δ Dracon. L.C.
19 12 32
+112 33
BB

45	2	52.0		
		0.7		
		15.2		
		2.2		
		101		
	48	2.52		

25 45 2.6

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1883phae.proj.1414B

74

Aper. 11/12, 1883

C=17 93.4

γ Cass.

0 49·38

+60 S

RB

10 2 28.1

33.2

32.4

28.2

12 19

12 30.48

A+,1 doubtful.

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1883phae.proj.1414B

Aug 13 1883 C = 17 93.2

γ Draconis

6 25 10

107 19

RB

55 4 35.5

8.5

3.2

57.3

2375

59 59.38

A_6 + C

γ Geminor

6 30 54

+16 30

RB B

45 1 49.4 3 13.7

48.1 13.3

48.7 13.0

53.2 17.8

1994 578

46 49.85 48 14.45

δ Can. Maj.

7 3 36

-26 12

RB RB

25 2 36.0 3 50.5

34.4 49.2

38.1 51.4

44.7 58.3

1532 2097

27 38.30 28 52.42

δ Dracon, L.C.

19 12 32

+112 33

RB RB RB RB

45 3 4.5 2 45.1 11.2 1 43.5

13.2 57.2 20.3 52.4

17.6 58.5 24.0 53.3

8.5 48.7 14.5 48.9

438 2065 700 1979

48 10.95 47 51.62 17.50 46 49.48

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1883phae.proj.14148

C = 1793.2

α Can. Maj.

6 39 57.0

−16 33

		RB	RB
45	4	10.7	0 39.9
		8.2	36.6
		10.2	38.9
		18.8	47.4
		47.9	162.8
	49	11.98	50 40.70

ε Can Maj

6 53 5.9

−28 49.9

		RB	RB
0	3	29.6	4 41.7
		30.5	48.4
		32.6	44.6
		38.4	50.8
		131.1	180.7
	3	32.78	4 45.18

β Can. Min.

7 20 48

+8 31

		RB	RB
45	0	10.0	1 23.7
		9.2	33.9
		10.9	34.7
		16.4	39.9
		46.5	142.2
	45	11.62	46 35.55

α² Geminor

7 27 3

+32 9

		RB	RB
5	3	13.0	4 34.0
		16.1	38.5
		16.1	37.9
		16.2	37.5
		61.4	147.9
	8	15.35	9 36.98

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Apr. 13, 1883

α Can. Min

7 33 7

+5 32

BB

45 1 25.4
25.1
25.2
31.5
1072

46 26.80

C=1797.3

β Geminor

7 38 5

+28 19

BB

55 4 43.3
47.9
45.1
47.2
1835

59 45.84

α Hydræ

9 21 47

-8 9

BB

25 1 24.6
19.6
23.7
27.9
958

26 23.95

β Cephei L.C.

9 27 11

+109 57

BB

20 2 16.9
25.2
28.0
20.0
901

22 22.52

A_6 + C

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1883phae.proj.14148

Bs 79 L.C.
8 52 51
+99 53

		BB	BB
25⁻	1	20.6	0 36.9
		28.6	43.9
		30.7	44.9
		22.2	37.7
		1021	1634
		Δg_0 to 10^{26} 25.52	25 40.85

for last tap of 2nd δ take mean of last 2 taps, the 2nd of which is very long.

α Cephei L.C.
9 15⁻ 48
+117 55⁻

		BB	BB
25⁻	2	34.6	1 9.4
		43.1	17.8
		49.2	22.9
		39.3	14.3
		1662	644
		27 41.55	26 16.10

Lost 1 mod. 2 w.

ε Leonis
9 39 8
+24 19

		BB
55⁻	4	26.4
		31.5⁻
		31.3
		32.0
		1212
	59	30.30

79 Dracon. L.C.
9 51 24
+106 51

		BB
25	3	2.3
		12.1
		11.5⁻
		4.3
		302
	28	7.55

Lost 1 mod. 3 w.

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1883phae.proj.1414B

Apr. 13, 1883

α Leonis

10 2 4

+12 33

BB

45 0 41.4
43.0
40.8
47.6
1728
45 43.20

@ = 1793.3

λ Aquilæ

19 00 00

-5 3

BB

20 0 45.0
42.6
40.9
46.7
1752
20 43.80

A-1

α Aquilæ

19 45 2

+8 34

BB

40 4 3.5
4.6
1.9
9.0
1.90
44 4.75

β Aquilæ

19 49 32

+6 7

BB

5 4 30.2
32.2
29.3
35.2
1269
9 31.72

Star very faint from clouds. First half of A quite doubtful. Lost A_2

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1883phae.proj.14148

δ Draconis
19 12 32
+67 27
BB
50 1 40.7
47.2
43.2
40.7
1718
51 42.95

γ Aquilæ
19 40 40
+10 20
BB
55 3 0.4
1.0
57.4
4.0
28
58 0.70

θ Aquilæ
20 5 14
−1 10
BB
25 2 24.4
22.5
22.4
27.0
963
27 24.08
Lost A_1 4

α² Capricorni
20 11 31
−12 54
BB
10 1 12.5
8.3
6.8
16.7
443
11 11.08
Lost A8

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1883phae.proj.1414B

Apr. 13, 1883

β Cygni

20 48 1

+39 53

BB

25 0 26.0
29.5
24.1
25.3
10 49
25 26.22

α=17 93.3

α Cygni

20 37 26

+44 52

BB

25 0 34.1
38.4
32.3
33.1
13 79
25 34.48

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1993phae.proj.1414B

c=1793.3

ε Cygni

20 41 27

+33 32

BB

45 1 19.7
22.4
17.6
18.9
786
46 19.65

c=1797.8

γ Cass.

0 49 38

+60 5

BB

10 2 30.54
34.6
34.52
30.0
1292
12 32.30

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1883phae.proj.1414B

Apr. 13/14, 1883

⊙ C=17 97.8

1 30 23

+9 28

BB BB

30 3 16.7 5 1 30.0

16.3 30.7

14.4 30.2

21.8 37.0

6 9 2 12 7 9

33 17.30 6 31.98

Both limbs = δ, First = R.A.

Seeing good = R.A., poor on the δs.

β Orionis

5 8 52

-8 20

BB

35 2 42.5

48.2

43.2

45.9

1798

37 44.95

ε Orionis

5 30 14

-1 17

BB

30 4 20.0

18.8

22.8

25.0

866

34 21.65

ζ Orionis

5 34 39

-2 0

BB

15 3 1.2

59.4

3.1

5.5

92

18 2.30

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1883phae.proj.14148

β Tauri

5h 18m 50s

+28° 30'

BB

45 2 43.8

48.1

47.2

47.5

1866

47 4665

δ Orionis

5h 25m 59s

−0° 23'

BB

40 0 57.5

54.1

58.0

2.0

2316

40 57.90

A_6 + C−

C=17 97.8

K Orionis

5h 42m 10s

−9° 43'

BB

0 0 9.2

4.4

8.5

12.1

342

0 8.55

ζ Orionis

5h 48m 47s

+7° 23'

BB

50 4 46.3

47.8

49.2

53.0

1963

54 49.08

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1883phae.proj.1414B

Apr. 14. 1883

ψ Geminor c=1795.2

6 15 29

+22 34

BB

40 3 55.2
59.7
59.5
0.5
2349
43 58.72

Lost 1st " 3 w, and A_2

χ Dracon. L.C,

6 23 10

+107 19

BB

0 0 11.5
21.0
22.3
13.8
686
0 17.15

Lost 1st " 2 w and A_9 to A_5 Star exceeding faint.

ε Can. Maj:

6 53 59

-28 49

BB

0 4 38.9
40.5
44.3
48.4
1721
4 4302

Gm. 3241

~~0 7 52~~ 8 30 30

+35 0752

RR RR

25 3 36.7 25 21.37
44.4 24.5
45.3 22.2
40.1 19.7
1695 781
28 4238 27 1952

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γ Geminor

6 30 54

+16 30

BB

45 3 10.2
10.4
12.2
14.6
47.4
48 11.85

α Can. Maj.

6 39 54

−16 33

BB

50 0 31.0
26.6
30.2
38.2
12.60
50 31.50

Br. 79 L.C.

8 52 51

+99 53

RB RB RB RB RB RB

25 1 48.5 34.2 9.2 58.0 41.9 20.2
55.3 41.3 15.8 4.9 48.5 27.1
54.0 40.4 14.7 4.0 47.9 24.7
48.9 34.7 9.8 59.3 42.5 20.6
2067 1506 495 62 1808 926
26 51.68 37.65 12.38 1.55 45.20 23.15

α Cephei L.C.

9 15 48

+117 55

RB B B B

25 2 29.5 7.8 18.9 0.2
38.1 16.1 28.2 8.5
42.9 19.4 30.0 11.2
35.8 12.6 24.1 5.9
1463 559 1012 258
27 36.58 13.98 25.30 6.45

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Apr. 14, 1883

α Hydrae

9 21 47

−8 9

	RB	RB
25 0	15.5	1 40.4
	12.4	37.1
	14.0	39.3
	20.2	44.9
	621	1617
25	15,52	26 4042

C = 17 95.2

Θ Urs. Maj.

9 24 46

+57 13

	RB	RB
0 4	35.8	0 54.1
	41.8	580
	39.3	55.8
	37.5	55.9
	1544	2238
4	38.60	0 55.95

79 Draconis L.C.

9 51 24

+106 51

	BB	BB	BB
25 4	26.4	3 22.1	2 48.2
	37.0	31.7	58.0
	34.6	28.8	55.5
	29.8	24.8	51.3
	1278	1074	2130
29	31,95	28 2685	27 53,25

$A_{9_0}^{t_0}$ Lost last half of last 5

α Leonis

10 2 4

+12 33

	BB
45 0	45.3
	46.9
	43.8
	52.2
	1832
45	45.80

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1883phae.proj.1414B

β Cephei L.C.

9 27 11

+109 57

		RB	RB	RB
20	3	3.0	2 28.9	2 17.8
		12.0	38.1	26.1
		11.0	37.8	26.3
		6.9	32.8	21.2
		32.9	137.6	91.4
	23	8.22	22 34.40	22 22.85

ε Leonis

9 39 8

+24 19

		RB	BB
55	3	25.8	4 34.1
		31.0	40.0
		27.5	36.9
		32.2	40.9
		116.5	151.9
	58	29.12	59 37.98

ζ Leonis

10 10 6

+24 0

		BB
15	1	50.0
		55.0
		50.6
		56.3
		211.9
	16	52.98

γ' Leonis

10 13 27

+20 26

		BB
50	0	48.3
		51.0
		47.6
		53.9
		200.8
	50	50.20

Seeing so bad that for most the time could not distinguish γ' from γ²

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Apr. 14, 1883

ζ Ursæ Majoris

10 15 16

+42 6

BB

10	3	15,0	
		20,6	
		19.8	
		18.5	
		739	
	13	18.48	

A+1 5 +C.

ζ Bygmi

21 7 5 -6

+29 45

R

30	3	234	
		24	
		246	
		247.6	
		1034	
	33	2/58	

Ch.

DE
15
30

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ε Ophiuchi

2, ~ -4 δ, -
+62 R

10 8 19,0
23 8
21 4
18 9
8 31

13 2 78

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1883phae.proj.1414B

Sp 4/15

c = 17 56.4

O

1 84 4
+9 49 R
40 3 42.3
42.2
43.2
48.6
17 1/3
43 44.32

β Tauri
5- 10 52
+28 30 R
45- 1 38.2
41.5
44.7
48.4
1678
46 41.95

L Limit in J
Both in R.A.
being fair

κ Orionis
5- 6,2 10
-9 43
R
55- 3 58.5
55.2
1.8
4.7
0 2
59 0.05

α Orionis
5- 4 47
+7 23
R
50 8 35.7
37.0
40.7
43.8
1572
53 39.30
Lost 1

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1883phae.proj.1414B

ζ Orionis
5 43 9 − 20
R

~~15 1485~~

R
15 1485
49.1
51.6
55.6
2028
16 5070

i Orionis
5 29 40
−5 57

R
if
Rigel Knot near A,

α Leonis
6 15 29
+22 34
R

Fort, 1512 Hours

ε Canis Maj
6 89 J-D
−16 33
R
45 4 127
108
181
228
644
49 16.10

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1883phae.proj.1414B

Am 15 1880 C = 17 93,4

2 Cam. Maj.

~~0 3 32,5~~ 38 59

~~37 49~~

R

0 3 32,8
33,7
40,0
43,8
1503

3 37,58

5 Cam. Maj.

7 3 36

-26 52

R

21 2 31,4
32,6
39,4
43,0
1468

27 36,70

χ 2 Gem.

D 27 3

+3 29

R

5 3 18,3
21,8
28,2
29,6
939

8 23,48

β Gem.

738 5

+28 19

R

55 3 28,4
33,6
38,0
38,6
1370

58 34,25

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1883phae.proj.1414B

α Rocchi

7 12 32

11 23 R

	R	R	R
45	3167	210.2	1407
	253	20.3	506
	352	81.6	21
	267	19.6	496
	1099	817	2030

48 27.48 47 20.42 46 50.75

β Can. Min

7 20 8

+8 31

	R	
4	50	8.0
		7.0
		13.9
		17.2
		46.1

45 11.52

G. 13 H

7 46 10

+79 13

	R
0 4	163
	238
	264
	188
	853

4 21.32

γ Cass.

0 49 38

+60 5

	RB	RB
10 2	51.1	42.2
	55.2	47.4
	55.5	47.5
	51.3	43.2
	213	180 3

12 53.28 45.08

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1883phae.proj.1414B

Apr. 15/16 1883

C = 1792.0

1 37 46

+10 11

	RB		RB
500	50.2	20 3	20.0
	48.6		20.5
	48.4		21.5
	15.2		26.2
	2044		882
50	51.10	23	22.05

Both limbs ☉ - R.A.
Lost 1st 3 W of 2nd limb.
Seeing moderately good.

Gr. 3241 L.C.

8 30 30

+107 52

	BB		BB
25	3 33.3	2	30.1
	45.3		40.2
	49.0		43.5
	38.6		35.0
	1662		1488
28	41.55	27	37.20

α Cephei L.C.

9 15 48

+117 55

	RB		RB		RB
25	2 19.8	1	42.0	1	3.8
	28.0		50.3		12.1
	36.5		57.4		18.5
	35.5		48.0		10.0
	1198		1977		444
27	29.95	26	49.42	26	1.10

α Hydrae

9 21 47

-8 9

	RB		RB
25	0 29.4	1	56.8
	22.8		50.5
	32.0		0.9
	37.0		4.1
	1212		2323
25	30.30	26	58.08

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1883phae.proj.1414B

Apr. 16. 1883 ☉ = 17 92.0

Br. 79 L.C.

8 52 51

+99 53

		RB	RB	—	—	—	—	—
25	1	48.0	29.6	9,1	0 54,0	41.4	27.2	16,3
		54.9	35.9	15,4	59.7	47.4	33.1	21.9
		58.9	39.3	19,5	4,2	50,2	36.7	24.8
		50,5	31,2	11.0	55,1	43.2	28.7	18.0
		2133	1360	550	2330	1822	1257	810
	26	53,32	34,00	13,75	25 58,25	45.55	31,42	20,25

Θ Urs. Maj.

9 24 56

+52 13

		RB
0	4	32,1
		36,2
		40.8
		35,7
		1448
	4	36,20

β Cephei L.C.

9 27 11

+109 57

		RB	RB	—	—
20	3	4,0	24 15,6	13,5	1 56,4
		13,2	54,2	21.8	3,8
		18,5	59,3	28,0	10,1
		8,9	50,8	18,2	1,1
		446	2099	815	114
	23	11,15	22 52,48	20,38	22 2,85

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1883phae.proj.1414B

Apr. 16, 1883

ε Leonis

9 39 8

+24 19

RB RB

5 5 3	9.5	4	29.8
	11.2		33.0
	15.5		35.7
	18.0		38.0
	5 42		1365
58	13.55	59	34.12

C=17 92.0

79 Draconis L.C.

9 51 24

+10 51

RB RB RB RB

25	4	4.8	3	47.0	18.6	2	56.0
		14.4		57.0	28.5		5.0
		18.8		0.3	32.0		8.5
		8.7		51.4	22.5		59.5
		467		2157	1016		90
29		11.68	28	53.92	25.40		2.25

γ¹ Leonis

10 13 27

+20 26

BR BR

50	0	55.0	136
		56.3	14.8
		0.2	18.6
		2.6	21.6
		2341	686
50		58.52	17.15

μ Ursæ Majoris

10 15 16

+42 6

BR BR

10	2	6.6	31.90
		9.7	22.1
		15.3	28.0
		10.2	22.6
		418	917
12		10.45	13 22.92

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Apr. 16. 1883

ζ Leonis

10 2 4

+12 33

BB

45 0 47.2

46.5

48.7

55.2

1976

45 49.40

θ Leonis

10 10 6

+24

BR BR

15 1 5-96 3 126

3.2 140

4.8 154

8.7 218

163 701

17 4.08 18 17.52

γ Cass.

0 49 38

+60 5

RB RB

10 2 50.3 3 28.0

55.7 33.3

0.2 37.1

53.2 30.2

2194 1286

12 54.85 13 32.15

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1883phae.proj.1414B

Apr. 16/17. 1883

⊙ 1 41 28 C=17 93.8 α² Gem.

+10 32 7 27 3+32 9

	RB	RB		R
25 4	37.4	0 2 3.1	5 3	27.7
	37.5	1.0		21.6
	41.8	5.8		37.8
	45.1	10.6		34.8
	161.8	20.5		131.9
29	40.45	2 5.12	8	32.98

Both limbs in 5 of R. A.

Seeing moderately good. Seeing very bad

α Boötis

9 15 48

11 7 55

	R	R
1 26 0		5 24.3
	33.8	3.1
	46.3	14.2
	33.8	2.1
	139.9	13.7
1	34.98	1 3.42

α Hydrae

9 21 47

— 8 9

	R
25 0	54.9
	10.8
	59.8
	1.7
	227.2
25	56.80

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1883phae.proj.14148

2 Cam Min

7 33 +7 32

R

45-0 94
90
151
19.2
527
45 13.18

β Gem.

7 38 5

+28 19

R

5- 3 32.5
36.4
42.8
40.6
152.5
8 38.12

α Aurig

9 24 +6

+52 13

R

0 4 43.8
48.2
56.2
49.4
197.9
4 49.48

ε Leonis

9 39 8

+24 19

RK

55 4 25.7
28.8
32.7
34.0
121.2
59 30.30
A4 +C.

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1883phae.proj.1414B

Apr. 17, 1883

α Leonis

10 2 4

+12 33

BB

45 0 43.2

41.9

45.7

51.5

1823

45 45.58

C=17 93.8

ζ Leonis

10 10 6

+24 0

B. Lost A_5-A_8 and A_{-1}

β Cygni

19 25 58

+27 43

RB RB

30 3 58.0 0 17.0

3.3 21.3

3.0 18.9

3.8 22.4

81 7.96

34 2.02 35 19.90

γ Aquilæ

19 40 40

+10 20

BB BR

55 3 0.0 59.0

1.3 1.4

2.4 3.2

7.4 7.3

111 109

58 2.78 2.72

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Apr. 17, 1883

ζ Aquilæ

19 00 00

+13 42

BB

35	1	27.6	
		28.5	
		29.2	
		34.0	
		11 9 3	
	36	29.82	

δ Draconis.

19 12 32

+67 27

RB RB RB RB

50	0	10.0	32.5	1187	37.0
		18.0	40.6	25.6	44.2
		17.1	39.8	25.4	44.3
		13.5	36.2	21.7	40.4
		586	1491	914	1659
	50	1465	37.28	5122.85	41.48

α Aquilæ

19 45 2

+8 34

RB RB RB

40	2	55.9	45.2	4.7 ~~6.0~~
		56.4	6.46	5.5
		59.3	98.3	10.2
		4.2	137	13.3
		2358	348	337
	42	5895	44 8.70	8.42

β Aquilæ

19 49 32

+6 7

BB BR

10	0	38.3	37.8
		40.2	40.0
		40.5	41.0
		478	47.0
		1668	1658
	10	41.70	41.45

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Apr. 17. 1883

θ Aquilæ

20 5 14

−1 19

		RB	RB	R
25	1	17.5	28.2	27.5
		16.5	30.1	27.6
		19.4	30.9	31.7
		23.6	34.5	34.8
		77.0	07	16
	26	19.25	27 30.18	30.40

α² Capricorni

20 11 31

−12 54

		RB
10	0	3.0
		0.8
		3.1
		11.3
		18.2
	10	4.55

ε Cygni

20 41 27

+33 32

		BR	BR	B
40	45	38.8	23.7	24.1
		58.4	27.4	28.0
		58.9	27.7	28.2
		58.6	28.0	28.2
		230.2	26.8	28.5
	44	57.55	26.70	27.12

ζ Cygni

21 07 56

+29 45

		BB
30	3	17.1
		21.5
		21.8
		23.0
		83.4
	33	20.85

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1903phae.proj.14148

γ Cygni

20 48 1
+39 53

		B	R	B	R	B		
20	4	14.6	0	26.6	26.9			
		20.2		30.9	31.3			
		22.4		30.7	31.0			
		19.4		30.2	30.2			
		76.6		38.4	39.4			
24		19.15	25	29.60	29.85			

α Cygni

20 37 26
+44 52

		R	B	R	B	R		
25	0	24.2	1	44.2	43.7			
		27.8		45.3	48.4			
		28.5		49.5	49.7			
		26.9		47.0	47.0			
		107.4		290	288			
25		26.85	26	47.25	47.20			

α Cephei

21 15 48
+62 5

		B	B	B	B			
10	3	4.0	3	20.0				
		8.3		25.0				
		11.8		27.9				
		6.5		23.0				
		30.6		95.9				
13		7.65	13	23.98				

Lost A_{+1}

1 H. Draconis L.C.

21 20 19
+98 10

		B	B					
5	4	25.5						
		33.3						
		36.4						
		29.0						
		124.2						
9		31.05						

A_{4_1} to 1_0 and A_{+1}

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Apr. 17. 1883

β Aquarii

21 25 22

−6 5

BB

20	2	14.0
		10.6
		15.5
		19.2
		59 3
	22	14,82

C = 17 93.8

β Cephei

20 27 11

+70 3

BB

15	1	3.2
		10.2
		9.1
		4.8
		27 3
	16	6,82

$A_8 + C$

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1003phae.proj.14148

γ Cass

0 49 38

+60 5

RB – – –

10	2	13.0	3	3.2	3	30.8 51.3
		16.9		7.0		36.8 56.9
		22.5		11.3		40.4 1.2
		16.2		5.3		34.0 54.6
		686		268		1420 2240
	12	17.15	13	6.70		35.50 56.00

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1883phae.proj.1414B

Apr. 17/18. 1883

⊙ C = 17 95.5

1 45 11

+10 53

	RB		RB		BB
5 3	53.2	40 1	18.0	0 1	36.4
	54.1		16.8		33.8
	56		21.5		42.7
	22		26.8		43.5
	2261		831		1564
8	57.02	41	20.78	1	39.10

α Tauri

4 29 10

+16 16

Both limbs in δ of R.A.

Lost 1ms.1 4 W.

Seeing very fine indeed.

α Aurigæ

5 7 54

+45 52

	BB
25 0	42.0
	45.0
	54.0
	46.5
	187.5
25	46.88

γ Orionis

5 18 48

+6 15

	BB
0 3	11.0
	10.6
	20.9
	21.8
	64.3
3	16.08

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1883phae.proj.14148

Apr. 18, 1883

ι Aurigæ
4 49 19
+32 59

BB

15	4	24.5	
		28.3	
		34.3	
		30.0	
		1171	
	19	29.28	

C = 17 95.5

β Eridani
5 2 3
−5 14

BB

30	1	55.0	
		50.0	
		1.0	
		2.2	
		2282	
	31	57.05	

λ Leporis
5 27 32
−17 54

BB

10	1	24.0 (?)	
		15.9	
		27.5	
		31.9	
		9 9 3?	
	11	24.82?	

ε Orionis
5 30 14
−1 17

BB

30	4	20.1	
		17.2	
		28.1	
		27.9	
		9 3 3	
	34	2332	

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1883phae.proj.1414B

Apr. 18, 1883

ζ Orionis

5 34 39

-2 0

BB

15 2 58.5

56.1

6.5

6.2

7 3

18 1.82

C=17 95.5

K Orionis

5 42 10

-9 43

BB

0 0 3.5

56.3

8.4

8.2

16 4

0 4.10

χ Draconis L.C.

6 23 10

+107 19

BB

0 0 0.2

10.9

20.3

7.5

38 9

0 9.72

A 25

γ Geminorum

6 30 54

+16 30

BB

15 3 7.1

5.1

14.1

14.8

41 1

18 10.28

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1883phae.proj.14148

Apr, 18, 1883

ζ Orionis
5 48 47
+7 23
BB

10	4	48.2
		47.5
		56.8
		57.8
		2103
14		52.58

μ Geminis
6 15 29
+22 34
BB

40	3	45.0
		47.5
		55.4
		53.1
		2010
43		50.25

α Can. Maj.
6 39 50
-16 33
BB

50	0	31.3
		25.8
		38.5
		42.3
		1379
50		34.48

ε Can Maj.
6 53 59
-28 49
BB

0	4	46.2
		47.0
		57.3
		59.2
		2107
4		52.68

Clf at about 6 till 5

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1883phae.proj.1414B

Apar, 18, 1883
δ Can. Maj.
7 3 36
-26 12
BB

25	3	50.7	
		47.5	
		59.9	
		1.9	
		2200	
28		55.00	

C-17 95.5
δ Dracon. L.C.
-7 12 32
+112 33
BB

45	1	52.2	
		0.9	
		15.9	
		1.9	
		109	
47		2.72	

β Cephei
9 27 11
108 J/R

20	2	12.5	51.8
		23.1	28
		33.0	13.2
		20.8	1.0
		894	88
22		22.35	2.20

Σ Leonis
9 35 8
+24 19
R

55	3	17	
		8.8	
		13.2	
		12.2	
		329	
58		8.22	

A+1

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ε Hydrae

9 21 47

−8 9

K

25 · 1 417

3818

477

49.5

1779

26 44.48

α Hydrae

9 24 56

+5 2 13

380

94.2

5-16

44.4

1782

− 44.55

λ Aquilæ

19 00 00

−5 3

BB

20 0 38.2

35.8

38.3

44.9

1572

20 39.30

δ Draconis

19 12 32

+67 27

BB

50 1 35.5

43.1

42.9

40.4

1619

51 40.48

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1883phae.proj.1414B

Apr. 18, 1883

β Cygni

19 25 58

+27 43

BB

35 0 14.6

20.1

17.5

21.8

7 40

35 18.50

C = 17

γ Aquilæ

19 46 40

+10 20

BB

55 2 58.8

0.3

0.9

7.6

76

58 1.90

γ Cygni

20 18 1

+39 53

RB RB R

20 4 32.2 0 24.4 24.1

39.6 30.0 29.4

38.8 28.9 29.3

38.2 29.1 30.2

1488 1128 1130

24 37.20 25 28.20 28.25

α Cygni

20 37 26

+44 52

BB RB R

25 0 26.2 38.1 37.6

30.5 42.0 41.7

30.5 43.0 42.5

30.1 42.1 41.3

1178 1652 1631

25 29.45 26 41.30 40.78

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1883phae.proj.1414B

α Aquilæ
19 45 2
+8 34
BB

40 —
38,2
39.3
46.1

ε Draconis
19 48 34
+69 58
BR

20 0 49.1
56.1
55.8
52.2
2132
20 53.30

Lost A_3 Star very faint.

ε Cygni
20 41 27
+33 32
RB RB R

45 0 7.21 22.1 21.7
10.9 27.0 26.1
10.5 ~~25.1 24.8~~ 26.0
11.8 ~~26.0~~ 27.0
27.0
404 1012 1008
45 10.10 46 25.30 25.20

α Cephei
21 15 48
+62 5
BB

10 2 8.7
14.2
15.3
12.4
506
12 12.65

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1883phae.proj.1414B

β Aquarii

21h 25m 22s

−6° 5′

BB

20 | 1.1

0.1

2.2

8.4

11 8

21 | 2.95

β Equulei

C=17.995.

21h 27m 11s

+7° 0′

BB

15 | 4.2

13.0

8.9

7.4

3 3 5

16 | 8.38

A −1

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1003phae.proj.14148

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1883phae.proj.1414B

Sept. 18, 19, 1883

⊙ C = 17 99.6

1 48 54

+11 14

(45)?	RB		RB
15	2 29.8	20	0 13.9
	30.5		13.5
	32.9		16.0
	38.2		22.3
	13 14		6 57
	17? 32.85	20	16.42

Both limbs in ☌ ♂ R.A.
Seeing moderately good
Lost some wires of Pist limb

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1993phae.proj..1414B

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1883phae.proj.1414B

Aper. 20, 1883

Br 79. L.C.

8 52 51

+99 53

		BB	BB
25	0	38.0	19.8
		44.9	26.8
		46.0	28.5
		40.5	22.5
		169.4	97.6
	25	42.35	24.40

c = 17 99.6

α Cephei L.C.

9 15 48

+117 55

		BB	B
25	2	27.5	1 2.0
		37.3	11.7
		43.3	17.0
		35.2	10.1
		143.3	40.8
	27	35.82	26 10.20

Lost A-1

β Cephei L.C.

9 27 11

+109 57

		BB
20	2	11.0
		20.5
		22.9
		17.0
		71.4
	22	17.85

Lost 1 not 4 W.

ε Leonis

9 39 8

+24 19

		BB
55	4	25.7
		32.2
		30.5
		33.8
		122.2
	59	30.55

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1883phae.proj.1414B

α Hydrae
9 21 47
−8 9
BB

25	0	21,3	
		18,5	
		20,5	
		27.6	
		879	
	25	21,98	

Θ Urs. Maj.
9 24 36
+52 13
BB

	0	4	39.1
			46.9
			47.0
			44.4
			1774
		4	44.35

Lat A−1

79 Draconis L.C.
9 51 24
+106 51
BB B

25	4	23.8	2	58.1
		34.9		9.4
		36.4		9.4
		49.3		3.6
		1444		205
	29	36.10	28	5.12

α Leonis
10 2 4
+12 33
BB

45	0	45.6	
		47.5	
		45.1	
		52.9	
		1911	
	45	47.78	

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1883phae.proj.1414B

Apr. 20, 1883

ζ Leonis

10 10 6

+24 0

BB

15	1	49.5
		55.7
		52.6
		57.2
		2150
	16	53.75

C = 1799.6

γ' Leonis

10 13 27

+20 26

BB

50	0	48.0
		51.3
		49.8
		54.9
		2040
	50	5100

226 B. Cephei L.C.

10 30 13

+104 23

BB

55	1	20.0
		30.1
		28.9
		24.7
		1037
	56	2592

A & C –

ι Cephei L.C.

10 45 31

+114 25

BB B

55	1	34.0	8.7
		43.2	18.5
		46.2	20.9
		40.1	15.1
		1635	632
	56	40.88	55 15.80

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μ Urs. Maj.

10 15 16

+42 6

		BB
10	3	9.0
		14.3
		14.1
		13.3
		50.7
	13	12.68

Lost 1 not 1, 2 W.

9 H. Dracon.

10 25 7

+76 19

		BB	BB
55	4	44.9	0 6.9
		52.5	12.3
		50.3	10.7
		47.3	8.0
		1950	379
	59	48.75	0 9.48

A 25

γ Aquilæ

19 40 40

+10 20

		BB
55	2	57.2
		0.0
		55.8
		3.5
		2365
	57	59.12

α Aquilæ

19 45 2

+8 34

		BB
40	2	45.0
		47.0
		43.7
		51.6
		1873
	42	46.82

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1883phae.proj.1414B

Apr. 20, 1883

ε Draconis

19 48 34

+67 58

BB

20	0	36.5
		44.6
		37.8
		36.7
		1556
	20	3890

C=17 99.6

Θ Aquilæ

20 5 14

−1 10

BB

25	2	24.8
		23.5
		22.8
		29.7
		1008
	27	2520

α Cygni

20 37 26

+44 52

BB

25	0	26.0
		30.3
		25.0
		26.8
		1081
	25	2702

ε Cygni

20 41 27

+33 32

BB

45	1	14.0
		18.4
		12.2
		16.2
		608
	46	1520

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1003phae.proj.14148

α^2 Capricorni

20 11 31

−12 57

BB

10 1 14.8
12.2
9.0
21.0
570
11 14.25

Lost A_{+1}

γ Cygni

20 18 1

+39 53

BB

25 0 25.5
30.8
25.0
28.0
1093
25 27.32

ζ Cygni

21 7 56

+29 45

BB

30 3 17.0
22.2
17.3
21.3
778
33 19.45

α Cephei

21 15 48

+62 5

BB

10 2 0.4
5.6
1.5
1.2
87
12 2.18

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1883phae.proj.1414B

Apr. 20, 1883

1 H. Dracon. L.C.

21 20 19

+98 10

BB

5 4 27.9

35.0

31.7

28.4

1230

9 30.75

A 25 W.

C = 17 99.6

β Aquarii

21 25 22

-6 5

BB

20 1 6.0

3.7

1.3

9.4

204

21 5.10

γ Cass.

0 49 38

+60 5

BB BB

10 2 37.4 4 0.5

42.7 5.8

39.5 3.1

38.4 1.8

1580 112

12 39.50 14 2.80

Last lap of last δ is a little doubtful

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1883phae.proj.14148

β Cephei

21 27 11
+70 3

BB

15 1 8.2
15.5
7.6
7.8
391
16 9.78

A_3 + C.

ε Pegasi

21 68 25
+9 20

BB

55 2 17.0
16.8
13.1
22.9
698
57 17.45

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1883phae.proj.1414B

Apr. 20/21, 1883

⊙ C = 17 96.6
1 56 21
+11 55

⊙ Urs. Maj.
9 24 56
+52 13

		BB		BB			RB		RB
5	1	28.5	35.4	32.6	0	4	34.3	0	18.9
		30.9		36.9			40.2		22.6
		27.0		33.0			40.9		22.5
		35.0		39.3			37.8		22.0
		1214		1418			1532		860
	6	30.35	39	35.45		4	38.30	5	21.50

Both limbs in δ, 1 not in R.A.
Seeing pretty good.

Pol. d -1, 45

ξ Aquilae

1946 ~~+10 10~~ 2
~~+10 10~~ 8 34
R

40	8	47.2	
		47.8	
		47.2	
		53.9	
		1961	
	43	49.02	

ε Cygni

f041 27
+33 32

	R	
45	0	8.2
		12.1
		7.6
		11.7
		3196
	45	9.90

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1893phae.proj.1414B

β Cephei L.C.
9 27 11
+109 57

		RB	RB	RB	RB
20	3	7.0	2 41.3	10.9	568
		15.6	50.0	19.9	45
		17.9	51.5	21.4	66
		11.8	46.5	15.1	1.2
		523	1893	673	91
	23	13.08	2.2 47.32	16.82	2.28

ε Leonis
9 39 8
+24 19

		RB
55	4	21.0
		25.2
		25.2
		28.5
		999
	59	2498

A8 vC

β Cygni
20 7 56
+29 45

	R
30 1	2.7
	6.8
	3.8
	8.1
	214
31	5.35

ε Cephei
21 15 48
+62 5

	R	R
10	2 8.2	3 24.0
	13.7	30.1
	11.3	28.9
	10.0	26.6
	432	1096
12	10.80	13 27.40

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1883phae.proj.1414B

April 21 C = 17866

8h 22m

2 0 6
+12 14
R

45 1 18
20.7
18.2
25.6
8 3 3
46 2 9 82

Perhaps last + 1st L
Upper limb in S
Both limbs in R.A.
Lenses.

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1883phae.proj.1414B

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1883phae.proj.1414B

Apr. 24, 1883

ζ Cygni

20 7 56

+29 45

		RB		B
30	2	8.5	3	13.0
		11.5		17.5
		5.6		10.9
		10.1		15.0
		3 57		5 64
32		8.92	33	14.10

C=17 93.8

α Cephei

21 15 48

+62 5

		RB	RB	RB	RB	RB
10	2	0.0	40.0	3 6.1	25.5	44.1
		5.4	45.8	11.7	35.5	49.7
		58.8	39.8	6.8	25.5	44.3
		58.8	38.9	5.2	24.8	43.2
		30	1645	298	1113	1813
12		0,75	41,12	13 7,45	27.82	45,32

ε Pegasi

21 38 25

+9 20

		BB		BB
55	1	4.5	2	21.1
		4.7		21.5
		58.0		15.0
		7.3		24.9
		145		825
56		3.62	57	20.62

α Aquarii

21 59 45

−0 53

		BB		BB
55	4	30.9	0	49.2
		30.7		48.9
		25.3		44.2
		33.3		51.8
		1202		1941
59		30,05	0	48.52

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1883phae.proj.1414B

β Aquarii

21 25 22
−6 5

		RB		B
20	0	56.9	2	21.7
		55.3		19.9
		50.2		15.4
		58.0		23.0
		22 04		8 0 0
	20	55 10	22	20,00

β Cephei

21 27 11
+70 3

		RB		—		—
15	0	29.0	59.4	1	14.0	
		36.8	6.9		21.5	
		28.1	57.3		12.9	
		26.9	56.5		11.4	
		12 0 8	0 1		5 9 8	
	15	30,20	16	0,02	16	14.95

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1883phae.proj.1414B

Aqr. $\frac{24}{25}$. 1883

⊙ C = 17 93.6

2 11 21

+13 14

		RB	RB
45	2	14.8	15 4 46.3
		15.5	50.2
		9.1	42.4
		16.6	48.8
		560	1877
	47	14.00	19 4692

Both limbs in δ & R.A.
Seeing moderately good.

α Cephei L.C.

9 15 48

+47 55

		RB	RB	RB	RB
25	2	23.0	11.2	31.9	4.2
		33.0	20.9	41.2	13.9
		34.5	23.0	43.8	14.1
		27.9	15.5	36.3	8.7
		1184	706	1532	412
	27	29.60	17.65	38.30	10.30

β Cephei L.C.

9 27 11

+109 57

		RB	RB	RB	RB
20	3	13.3	2 50.9*	14.2	1.4
		23.0	9.3	23.5	10.2
		20.2	57.5	20.9	8.5
		15.8	54.2	17.0	4.2
		723	2229	756	243
	23	18.08	2255.72	18.90	6.08

ε Leonis

9 39 8

+24 19

		BR	BR
5-5	3	10.9	4 33.2
	1	15.3	37.2
		11.8	34.3
		17.0	39.1
		550	1438
	58	13.75	59 35.95

* Lost 5

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1883phae.proj.1414B

Apr. 25, 1883

α Hydræ

9 21 47

−8 9

		RB	B
25	0	22.0	142.9
		17.9	40,3
		17.8	40,2
		25.0	46,5
		82.7	169.9
	25	2065	26 4245

C = 17 23,6

θ Urs. Maj.

9 24 56

+52 13

		RB
0	4	34.9
		41,2
		37.8
		36.4
		1503
	4	37.58

79 Dracon. L.C.

9 51 24

+106 51

		RB	−	−	−	−
25	4	16.8	1.1	3 37,2	20.4	2 56,2
		26.9	10,5	46.6	30,0	5.1
		23.8	8,6	43.9	26.5	2.5
		18,4	3.7	39,5	22.8	57.8
		85 9	23 9	167 2	99 7	16
	29	21,48	5.98	28 41,80	24,92	28 0,40

α Leonis

10 24

+12 33

		B R	BR	BR
40	4	24,2	50.7	50.2
		266	51.2	50.4
		23,5	48,89	48,5
		81,0	56.1	56,5
			1053 2069	2046
	44	26,32	51,72	51,15

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1883phae.proj.1414B

April 25, 1883

ζ Leonis

10 10 6

+24 0

RB RB

15	1	54.5	3	12.8
		58.0		16.9
		53.7		13.1
		59.8		16.2
		2260		610
	16	56.50	18	15.25

C = 17 93.6

γ^1 Leonis

10 13 27

RB +20 26

50	0	51.5	
		53.0	
		50.0	
		56.6	
		2111	
	50	52.78	

226 B. Cephei L.C.

10 30 13

+104 23

BB BB

55	1	35.4	9.5
		43.2	18.0
		42.1	15.0
		37.9	11.9
		1586	544
	56	39.65	13.60

ζ Cephei L.C.

10 45 31

+164 25

RB RB RB RB

55	1	26.0	13.5	0	27.6	0	1.3
		34.4	20.5		35.1		8.6
		35.1	22.2		36.5		8.1
		30.3	17.0		30.8		4.8
		1258	732		1300		228
	56	31.45	18.30	55	32.50	55	5.70

A_{3_2} to 1_0 and A_{+1}

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1883phae.proj.1414B

~~γ¹ Leonis~~ μ Urs. Maj
10 15 16
+42 6

		RB		RB	R
10	1	56.5	8	13.1	13.3
		59.5		16.8	16.8
		57.0		14.9	15.4
		58.7		15.0	15.0
		2317		598	605
	11	57.92	13	14.95	15.12

9 H. Dracon.
10 25 7
+76 19

		BB	BB	BB
55	4	24.1	37.5	0 12.7
		31.6	44.9	17.2
		26.6	40.9	13.0
		24.5	37.3	11.5
		1068	1606	544
	59	26.70	40.15	0 13.60

Lost 1 no 11 2 w

α Aquilæ
19 45 2
+8 34

		RB
40	2	50.0
		52.4
		46.7
		55.7
		2048
	42	5120

E Dracon.
19 48 34
+69 58

		RB	RB
15	4	23.5	40.5
		32.4	49.8
		23.4	40.0
		21.9	38.9
		1012	1692
	19	25.30	42.30

Lost 4-1

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1883phae.proj.1414B

Apr. 25, 1883

C = 17 93.6

γ Cygni

20 18 1

+39 53

	BR	BRB	
46 4	7.0	26.3	26.4
	11.8	30.0	30.86
	5.0	23.5	22.5
	7.8	26.1	25.8
	3 1.6	25.9	25.3
50	7.90	26.48	26.42

α Cygni

20 37 26

+44 52

	RB	RB	R
25 0	35.8	51.3	51.5
	40.3	55.3	56.0
	33.0	47.8	48.2
	34.3	50.1	50.1
	14 34	45	58
25	35.85	26 51.12	51.45

ε Pegasi

21 38 25

+9 20

	BB
55 2	22.7
	23.2
	17.0
	26.1
	8 9 0
57	22.25

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1883phae.proj.1414B

ε Cygni

20 41 27

+33 32

		BR	B
45 0	3,3	22.8	22,3
	62	25.8	26.4
	5,0	18,9	19.3
	3,6	23,0	22,4
	121	105	104
45	3.02	22,62	22,60

ζ Cygni

21 7 56

+29 45

		RP	RP	R
30	2	16,6	3 23,1	23,0
		21.6	27,8	27,2
		13,5	20,5	21,3
		18.9	24,5	25,2
		706	959	967
	32	17,65	33 23,98	24,18

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1883phae.proj.1414B

Aper. $\frac{25}{26}$. 1883

⊙ C = 17 92.4

2 15 7

+13 34

		RB		RB
25	2	49.0	0 0	14.3
		49.3		14.2
		42.5		7.4
		51.8		16.0
		1926		519
	27	48.15	0	12.98

Both limbs in δ & R.A.
Seeing rather poor.

α Hydrae

9 21 47

−8 9

		BB
25	0	30.8
		24.9
		28.1
		33.1
		1169
	25	29.22

α Leonis

10 2 4

+12 33

		RB		RB
40	4	25.8	0	41.2
		27.5		41.7
		25.4		38.6
		31.2		46.2
		1099		1677
	44	27.48	45	41.92

ζ Leonis

10 10 6

+24 0

		BR	BR
15	2	9.7	20.6
		13.9	25.7
		11.1	22.8
		16.2	26.7
		509	958
	17	12.72	23.95

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1993phae.proj.1414B

θ Urs. Maj.
9 24 46
+52 13

		BB
0	4	44.2
		51.1
		48.5
		46.4
		1902
	4	47.55

ε Leonis
9 39 8
+24 19

		RB	RB	R
55	3	15.4	4 33.1	33.0
		19.5	33.8	37.7
		17.6	35.3	35.8
		21.0	~~36.3~~ ~~38.72~~ 37.7	38.2
		735	1439	1447
	58	18.38	59 35.98	36.18

ν¹ Leonis
10 13 27
+20 26

		RB
50	0	53.0
		54.4
		52.6
		57.5
		2175
	50	54.38

μ Urs. Maj.
10 15 16
+42 6

		RB	RB	R
10	1	54.3	8 11.7	11.8
		58.3	15.4	15.4
		57.5	15.1	15.2
		55.7	13.6	14.2
		2258	558	566
	11	56.45	13 13.95	14.15

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1883phae.proj.1414B

Apr. 26/27 1883

⊙ C=17 92.4

2 18 54

+13 53

RB RB

5 8 54,2 40 1 12,3

56,2 11.8

50.9 7.0

58.0 15,3

2193 464

8 54.82 41 11.60

Both limbs in δ + R.A.

Seeing pretty fair -

Lost 2 or 3 wires in middle of

2nd limb.

β Cephei

21 27 11

+70 3

BB

15 1 5.9

13.5

10.1

6.7

362

16 9.05

Ag 0 C -

ζ Cygni

21 7 56

+29 45

BB BB

30 2 16.4 3 20.8

21.0 25.8

20.1 22.8

20.9 25.9

784 953

32 19.60 33 23.82

ε Pegasi

21 38 25

+9 20

BB

55 1 8.5

8.5

8.5

15,3

408

56 10,20

Rej last δ

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1003phae.proj.14148

Apr. 27. 1883

C = 17 92.4

α Cephei

21 15 48

+62 5

		BB	BB
10	2	7.0	3 13.2
		12.1	18.8
		12.0	17.7
		9.0	14.1
		401	638
	12	10,02	13 15.95

β Aquarii

21 25 22

-6 5

		BB	BB
20	~~0~~	~~57.5~~	1 10.3
		~~54.1~~	7.8
		~~55.4~~	9.0
		~~2.2~~	15.1
			422
			21 10.55

α Aquarii

21 59 45

-0 53

		BB	BB
5(?)			
55	4	23.6	0 50.0
		23.0	48.1
		23.9	50.1
		29.3	55.7
		998	2039
	59?	24.95	0 50.98

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1883phae.proj.1414B

Apr. 27/28. 1883

⊙ C = # 17

2 22 41

+14 12

BB

50 0 39.4

39.8

38.7

44.7

1626

50 40.65

Middle 3 w and A-1 1235 of the 1st limb in R.A.

1st 3 tapes of δ on upper limb. A-1 5 is doubtful.

J. Lev.

10 B 27

+24 0

R 20 26

+0 56.0

58.7

54.1

0.8

2296

— 57.40

4 Lunes Ring

10 18 16

+4 20 6

R

10 3 12.8

17.5

16.2

15.7

625

13 15.62

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1883phae.proj.1414B

Am 29 c = 1790.9

α Leonis

10 2 9

12 33 R

450 404
424
387
454

1669

45 41.72

γ Leonis

10 10 6

24 0 R

15 - 2 501
09
521.2
0.7

2259

17 56.48

A6 α C

9 11 Dec C

10 25 7

+7 11 19 R R

407

5 5 4 508 00 138
453 195
443 145
187

1841 619

59 46.02 0 15.48

226 B Cε/μ

10 30 13

104 3R R

55 1 537 1 22.3
28 324
556 187
6.0 246

21 980

57 0.52 56 24.50

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1883phae.proj.1414B

Sh 29
B Nebula
10 54 41
+57 -1

15	56	
	45.8	
	49.4	
	47.8	
	21.26	
15	53.15	

α Nebula
10 56 43
+62 23
R R

50	4 53.4	55.1
	58.8	9.5
	57.6	8.0
	56.3	5.9
	22.61	28.8
54	56.52	56 7.20

ε Draconis
19 48 34
+69 57
BR BR

20	0 27.3	1 2.8
	34.2	8.7
	27.2	1.2
	26.8	1.8
	11.55	14.5
20	28.88	21 3.62

Θ Aquilae
20 5 14
-1 10
RR R

25	2 26.2	26.4
	25.1	25.8
	22.0	22.4
	28.9	29.2
	10.22	10.38
A	27 25.55	25.95
	-1	

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1883phae.proj.14148

Aper. 29, 1883
γ Aquilæ
19 40 40
+10 20
BB

55	3	1.0	4'
		4.2	1
		58.4	
		6.0	
		96	
	58	2,40	

Lost 1 1st 11 3 W.

C = 17 90.8
α Aquilæ
19 45 2
+8 34
BB

4,76	
45,3	
4,81	

α² Capricorni
20 11 31
−12 52
RB RB

5	4	58.2	0	13.3
		57.2		11.0
		52.5		5.9
		2.3		17.2
		2302		474
	9	57.55	10	11.85

γ Cygni
20 18 1
+39 53
BB

20	4	21.0
		27.5
		20.9
		22.2
		916
	24	2290

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1883phae.proj.1414B

Apr. 29. 1883

C = 17 90.8

α Cygni

20 37 26

+44 5-2

B R B B R B

25 0 20.6 52.7 52.1

26.4 57.8 57.5

18.7 50.6 50.6

20.4 51.7 51.7

8 B.R 21 23 21 19

25 21,52 53,08 52,98

ε Cygni

20 41 27

+33 32

R B R B

45 0 2.0 1 19.9

7.8 25.8

58.6 16.7

1.9 19.8

103 822

45 2,58 46 20,55

1 H. Dracon. L. C.

21 20 19

+98 10

B R

5 4 29.7

36.2

32.0

28.7

1266

9 31,65

β Aquarii

21 25 22

-6 5

R B

20 1 8.7

6.8

1.8

9.4

267

21 6.68

A 8, to 10

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1893phae.proj.1414B

Apr. 29, 1883

γ Cygni

21 h 57 s6
+29 45

		BR	BR	B
30	4	5'0	3 27.3	26.9
		2'2	0.5	32.2
		1'6.1	24.7	24.7
		0'.8	29.3	28.6
		2381	1128	1124
	31	59.52	33 28.20	28.10

α Cephei

21 15 48
+62 5

		RB	-	-	-
10	2	0.1	21.6	3 11.4	31.5
		6.0	27.6	17.5	34.6
		0.0	22.8	11.8	32.1
		59.0	20.5	10.1	30.5
		51	925	508	1327
	12	1.28	23.12	13 1.270	33.18

β Cephei

21 27 11
+70

		RB	RB	RB
15	0	20.9	50.0	1 17.1
		28.4	57.1	23.5
		18.2	47.5	15.8
		18.3	47.0	14.0
		858	2016	707
	15	2145	50.40	16 17.68

ε Pegasi

21 38 25
+9 20

		BB
55	2	21.0
		21.8
		15.5
		24.6
		829
	57	2072

Lost A+1

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1883phae.proj.1414B

Apr. 29, 1883 C=17 90.8

ζ Aquarii

21 59 45

+0 53

BB

55 4 19.8

19.3

13.8

21.4

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1992phae.proj.14148

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1883phae.proj.1414B

Apr. 29/30, 1883 C=

⊙ C=17 93.5
⊗2 30 17
+14 49

		RB		RB
10	2	29,4	40 4	51.6
		~~28.2~~		52.4
		25.6		47.9
		32.1		54.2
		1153		2061
	12	28,82	44	51,52

Both limbs in 5 of R.A—
Seeing pretty fair

β Cephei L.C.

		R		R
20	2	29.5	2	24
		40.2		12.5
		42.1		15.1
		34.7		6.8
		1469		468
	22	3672	22	1170

Chf.

ε Leonis
9 39 8
+24

		RB		RB
55	3	15.9	4	27.7
		19.9		32.8
		19.8		32.5
		21.9		34.0
		775		1270
	58	19.38	59	31.75

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1892phae.proj.14148

L.C.
Σ Phi C = 1793

9 15 48
+47 55

R R R

25.2	25.2	1	22.8	0	44.9	0	4 30.8
3	36.2		33.2		55.3		36.1
	42.3		39.4		0.0		8.3
	32.1		28.0		50.4		33.8
	1358		1239		2106		1380
27	33.95	26	30.98	25	52.65	4	34.50

θ Ursæ Majoris

R

Chf –

79 Dracon. L.C.
9 51 24
+106 51

BR BR BR

25-3	19.0	1.2	2 44.7
	30.2	11.8	55.1
	30.2	13.3	54.9
	33.1	5.7	48.2
	1125	320	2029
28	28.12	8.00	27 50.72

A_9 to A_5 and A_1 and A_{+1}

α Leonis
10 2 4
+12 33

BR BR

40	4	22.6	0 50.8 52.7
		23.7	52.8 52.5
		24.7	54.2 53.2
		29.0	59.6 59.3
		1000	2174 2177
44		25.00	45 54.35 54.42

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1883phae.proj.1414B

Apr. 30, 1883

ζ Leonis

10 10 6

+24 0

		RB		RB
15	1	49.9	3	14.9
		53.0		18.6
		52.5		18.9
		55.8		21.5
		2112		739
	16	52.80	18	18.48

γ' Leonis

10 13 27

+20 26

		RB		RB
50	0	52.0	2	12.3
		52.0		12.8
		53.8		14.2
		57.5		18.1
		2153		574
	50	53.82	52	14.35

226 B. Cephei L.C.

10 30 13

+104 23

		RB			—	—	—	—
55	2	39.8	25.5	1	51.8	31.9	20.4	3.9
		50.7	35.4		1.5	41.8	30.0	13.2
		51.2	36.2		1.9	42.0	30.4	14.0
		44.3	29.2		55.1	35.2	23.6	7.0
		1860	1263		2303	1509	1044	381
	57	46.50	31.5856		57.58	37.72	26.10	9.52

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1883phae.proj.14148

μ Urs. Maj.

10 15 16
+42 6

		RB		RB
10	2	20.8	3	15.2
		23.2		19.3
		26.2		19.89
		23.5		17.6
		937		720
	12	23.42	13	18.00

9 H. Dracon.

10 25 7
+76 19

		RB	RB	RB
55	3	58.3	4 19.9	33.3
		6.6	28.7	42.5
		6.1	26.9	40.3
		59.5	21.7	36.3
		105	972	1524
	59	2.62	24.30	38.10

ι Cephei L. C.

16 45 31
+114 25

		RB	—	—	—	—
55	1	29.8	0 56.8	34.1	10.7	4 51.0
		38.9	5.9	43.8	19.5	07
		44.0	11.9	47.5	24.1	39
		35.6	2.7	39.7	16.8	56.0
		1483	173	1651	711	2316
	56	37.08	56 4.32	55 41.28	17.78	54 57.90

β Urs. Maj.

10 54 41
+57 1

		RB	RB
15	1	46.4	2 6.8
		51.7	11.2
		52.1	12.5
		49.5	9.3
		1997	398
	16	49.92	17 9.95

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1883phae.proj.1414B

Apr. 30, 1883

2 hrs. May

~~3 hrs. May~~

10 ~~54 23~~ ~~54 40~~

~~+57 1~~ +62 23

C = 17 93.5

α Aquilæ

19 45 2

+8 34

		RB	RB	RB
50	4	41.9	0 38.0	55.1
		46.8	42.9	59.7
		46.8	42.5	0.7
		44.0	39.8	57.3
		1795	1632	2328
	54	44.88	55 40.80	58.20

		RB	RB
40	2	55.8	4 6.3
		57.7	9.0
		56.1	6.5
		2.4	13.3
		2320	351
	42	58.00	44 8.78

α Cygni

20 37 26

+44 52

		BB
25	0	24.8
		29.7
		24.1
		25.9
		1045
	25	26.12

ε Cygni

20 41 27

+33 32

		BR
45	1	20.7
		25.1
		21.0
		23.4
		902
	46	22.55

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1883phae.proj.14148

Apr. 30, 1883 C=17 93.5

ε Draconis
19 48 34
+69 58

		RB	RB	RB
15	4	45.5	0 40.8	1 1.2
		56.0	49.0	8.7
		49.8	42.2	1.7
		46.2	40.1	0.4
		1975	1721	120
	19	49.38	20 43.02	21 3.00

γ Cygni
20 18 1
+39 53

		BB
20	4	10.7
		17.5
		12.0
		12.9
		531
	24	13.28

A. Lost some of the wire got the 1st + last

α Cephei
21 15 48
+62 5

		RB	RB	RB	RB
10	2	4.9	27.2	3 2.5	28.0
		9.6	33.2	8.4	34.0
		7.0	29.5	4.5	31.1
		4.5	27.0	3.0	28.5
		260	1169	184	1216
	12	6.50	29.22	13 4.60	30.40

β Aquarii
21 25 22
−6 5

		RB
20	1	16.2
		14.2
		13.0
		19.1
		625
	21	15.62

Rej 2nd δ

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1883phae.proj.1414B

Apr. 30. 1883

β Cephei

21 27 11

+70 3

		RB		RB	RB
15	0	23.8	0	47.7	8.9
		31.4		55.1	16.7
		25.0		48.8	10.0
		23.3		46.3	8.2
		1035		1979	438
	15	25,88	15	49,48	10,95

C = 1793.5

ε Pegasi

21 38 25

+9 20

		BB
55	2	18.1
		18.9
		15.5
		23.4
		759
	57	18,98

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1883phae.proj.1414B

Apr. 30/31, 1883

⊙ C=17 94.8

2 34 6

+15 7

RB RB

50	4 22,1	+	44.0
	23.1		43.0
	19.4		41.2
	26.9		47.6
	91.5		1758
54	22.88	56	43.95

Both limbs in ⊙ r R.A.

Seeing moderately good.

C=17 94.8

γ Cygni

20 18 1

+39 53

BB

25	0	31.9
		38.1
		34.1
		35.2
		1393
25		34.82

C=17 96.5

α Cephei

21 18 48 +62 5

RB RB RB RB

10	2	9.2	46.3	23.5 39.3
		14.7	52.6	29.8 45.0
		13.3	51.5	28.3 43.8
		10.9	48.9	25.5 41.0
		481	1993	1071 1691
12		12.02	49.82	26.78 42.28

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1883phae.proj.1414B

C = 17 94.8

α Cygni

20 37 26

+44 52

RB RB R

25	0	35.2	46.4	46.8
		40.8	51.3	51.7
		37.0	48.8	48.2
		37.4	48.3	48.0
		1504	350	347
	25	37.60	26 48.75	48.68

ε Cygni

20 41 27

+33 32

RB RB R

45	0	50.8	24.4	25.0
		55.3	29.6	29.1
		51.2	25.2	25.1
		53.7	27.1	28.0
		2110	263	272
	45	52.75	46 26.58	26.80

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1883phae.proj.1414B

May 1/2

O

2 37 56

+15 25

C = 17 95.

May 2

2 Mydnw

2 21 47

+9

R

5 2 47.5

48.3

47.3

53.6

19.7

7 49.18

Lowell Obs

Both in R.A.

Rung good

B Mural Circ

10 54 42

+71

R

15 1 41.8

45.3

49.1

43.6

17.8

16 1 44.95

Lost A +1

R

25 0 27.1

21.6

30.4

33.0

11.3

25 25.08

2 Arsaq Circ

10 56 29

+62 23

R

55 0 44.2

48.9

52.3

46.4

19.8

55 47.95

Lost A 123

+

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1883phae.proj.1414B

δ Ursae Min
9 24 15
+52 13

5 0 17,7
20,4
25,1
21,0
8 42
5 21,05

Sol A 123
Ti

β Cephei
9 27 11
10 55 7

Rig δ
Ag to A1

χ Ursae Min
11 3 0
+45 8
R
10 0 27,8
31,3
84,9
30,1
17 41
10 43 52

A 2 α C

δ Leo
11 7 49
+21 10
R
5 3 18,3
20,2
7,6
23,6
8 37
8 20,92

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1883phae.proj.1414B

May 2 1883 C = 17 91,7

o Cephei

11 10 50

11 2 02

	R		R
4	16,8	3	18.0
	27,1		27,8
	34,5		34,1
	33,7		24,4
	102,5		104,3
5	25,62	7	26.08

λ Draconis

11 24 27

+69 59

	R
20	3,9
	10,4
	9,6
	6,3
	294
Rej 1	7.35

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1883phae.proj.1414B

γ Cephei

11 34 33

+60 3 1

R R

15 3 2 30 2 34.9

331 44.6

36.1 48.1

26.7 38.1

11 89 16 57

18 29.72 17 41.42

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1883phae.proj.1414B

May 2/3

c = 17.95

Hydrae

9 21 47

f R

2 4 1 4 5

+15 43

25 0 30.7

24.4

34.2

39.1

12 8 4

25 32.10

15 3 27.9

25.2

29.4

33.4

1162

18 29.05

Appr limb in ✓

Both limbs in R.A.

seeing good

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1883phae.proj.1414B

θ Ursae Majoris

9 7 4 50

7 42 13

R

0 4 43,2
+1,0
05
53,8
21 25
4 53,12

ε Leonis

9 3 6

+24 19

R

55 3 11,0
14,0
22,8
19,7
6,7 5
58 16,88

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1883phae.proj.1414B

May 6 1883

γ Cygni

21 7 56

+29 45

		RB		RB
30	2	4.4	3	19.0
		9.0		24.5
		6.6		22.5
		8.8		24.6
		288		906
	32	7.20	33	22.65

C=17 95.0

α Cephei

21 15 48

+62 5

		RB		RB		RB		RB
10	1	57.5	2	18.9	3	8.2		34.0
		3.0		24.8		14.4		40.4
		2.1		23.8		13.1		38.9
		58.7		20.6		10.1		35.8
		13		881		458		1491
	12	0.32		22.02	13	11.45		37.28

ε Pegasi

21 38 25

+9 20

		BB
55	2	13.4
		14.2
		13.6
		20.7
		619
	57	15.48

α Aquarii

21 59 45

−0 53

		BB
10	0	36.4
		36.2
		36.8
		42.2
		151.6
	10	37.90

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1893phae.proj.1414B

β Aquarii

21 25 22

−6 5

RB

20 0	59.0	
	57.9	
	57.9	
	4.1	
	2389	
20	59.72	

chf.

β Cephei

21 27 11

+70 3

RB RB RB RB

15 0	14.8	36.2	59.6	1	21.0
	22.9	44.3	7.8		28.3
	18.4	39.3	3.3		24.8
	15.8	36.7	0.1		21.4
	71.9	156.5	10.8		95.5
15	17.98	39.12	2.70	16	23.88

chf. on part.

η Pegasi

22 37 30

+29 36

BB

40 1	30.8
	35.4
	34.1
	35.0
	135.3
41	33.82

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1883phae.proj.1414B

May 6/7, 1883

⊙ C=17 95.0

2 57 11

+16 51

RB RB

10 0 14.1 40 2 39.0

12.8 38.3

15.0 42.3

20.3 45.8

6.22 16.54

10 15.55 42 41.35

Both limbs in 5 of R.A.

Seeing very good.

C=18 0.9

ε Leonis

9 39 8

+24 19

BB

55 4 31.0

35.6

38.4

38.3

14.33

59 35.82

8' Leonis

10 13 27

+20 26

R.A

Lost Ag & A-1

clouds.

ι Cephei L.C.

10 45 31

+14 25

BB

55. 1 10.0

18.6

29.9

18.8

7.73

56 19.32

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1883phae..proj..1414B

May 7. 1883

ζ Leonis

10 2 4

+12 33

BB

45 0 40.0

41.2

45.0

48.8

1750

45 43.75

C = 1809

ζ Leonis

10 10 6

+24 0

BB

15 3 13.9

19.0

21.8

22.5

772

18 19.30

β Urs. Maj.

10 52 48

+57 1

BB

15 2 59.6

2.5

10.0

3.9

160

17 14.00

Soot A1 and 2

α Urs. Maj.

10 56 23

+62 23

BB

0 1 32.2

35.5

43.0

35.6

1463

1 36.58

A-1

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1883phae.proj.1414B

May 7. 1883

× Urs. Maj

11 3 0

+45 8

BB

10	0	24.9
		27.0
		34.6
		29.4
		11.59
	10	28.98

δ Leonis

11 7 49

+21 10

BB

5	3	17.0
		20.3
		26.2
		26.1
		8 9 6
	8	22.40

β Ephi

21 0 7.11

+70 3

RR

15	1	0.2
		8.7
		10.3
		4.3
		2 3 5
	16	5.88

γ Pegasi

22 37 30

+29 36

BB

40	1	27.2
		32.6
		36.4
		35.5
		1 3 1 7
	41	32.92

A 1/2 C and A -1

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1993phae.proj.14148

ζ Cygni
21756
294 v
R R

30 1 23
6,3
10,3
10,2
291
31 7.28

α Cephei
21154 v
62 v
R

10 8 17.6
25.1
29,2
23.2
9 5 1
13 A 23,78
A2 Ae

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1883phae.proj.1414B

May 7/8. 1883

⊙ C=18 0.9

3 1 4

+17 8

RB RB

50	3	46,4	25 1	26.4
		46.9		25.4
		52.9		32.4
		54,2		33.6
		2004		1178
	53	50,10	26	29.45

ε Corvi

12 3 54

-21 57

BB

10	3	37.0
		35.9
		48.0
		48.7
		1696
	13	42,40

Both limbs in δ & R.A.-
Seeing exceedingly fine-

β Corvi

12 28 10

-22 45

BB

0	0	24.8
		21.5
		34.0
		35.9
		1162
	0	29.05

γ Virginis

12 35 40

-0 48

BB

5	1	4.9
		3.4
		15.0
		15,5
		388
	6	9.70

pr. #

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1883phae.proj.14148

May 8, 1883

4 H. Dracon.

12 6 43

+78 16

BB

0 2 34.5

44.9

52.5

41.3

1732

2 43.30

A 25 W

c = 18.0.9

δ Corvi

12 23 37

−15 50

BB

5 2 35.4

32.9

46.2

49.1

1636

7 40.90

21 Cass. L.C.

12 37 56

+10 5 39

BB

40 0 0.2

12.2

21.4

8.6

424

40 10.60

A 5 + C

γ Cass. L.C.

12 49 38

+119 55

BB

25 1 6.5

16.6

31.0

18.5

666

26 16.65

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1883phae.proj.1414B

May 9. 1883 C = 18 0.9

α Aquarii

21 5 9 41.5

− 0 5.3

		BB		BB
5	4	14.0	10 0	40.9
		15.5		42.4
		17.3		44.0
		21.9		49.0
		6 8.7		1763
	9	17.18	10	44.08

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1883phae.proj.1414B

May 9/10, 1883

⊙ $\alpha = 18\ 9.8$

Δ 3 8 57

+17 4 0

BB BB

50 3 29.0 20 2 40.8

31.7 42.3

34.6 46.2

36.6 48.0

131 9 177 3

53 32.98 22 44.32

1st limb in R.A. Both in δ

The δ taps of 2nd limb seemed to be a little slow.

Seeing quite poor -

α Leonis

10 2 4

+12 33

BB

45 0 42.8

45.0

47.8

51.7

187 3

45 46.82

μ Urs. Maj.

10 15 16

+42 6

BB

10 3 4.2

9.6

14.9

9.5

382

13 9.55

9 H. Dracon.

10 25 7

+76 19

BB

55 3 59.4

7.5

11.1

2.8

208

59 5.20

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1883phae.proj.1414B

ζ Leonis
10 10 6
+24 0
BB

15	3	7.0
		13.2
		16.1
		15.5
		518
18		12.95

γ' Leonis
10 13 27
+20 26
BB

50	0	52.5
		55.5
		57.9
		0.2
		2261
50		56.52

L Cephei L.C.
10 45 01
+114 25
BB

55	0	4.5
		14.7
		23.5
		12.5
		552
55		13.80

β Urs. Maj.
10 54 48
+57 1
BB

15	2	45.88
		50.3
		57.9
		51.0
		2050
17		51.25

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1883phae.proj.1414B

May 10, 1883

α Ursæ Maj.

10 56 23

+62 23

BB

55 0 42.1
47.0
53.1
46.8
1890
55 47.25

C = 1898

χ Ursæ Maj.

11 30 0

+45 8

BB

5 4 5.2
10.0
16.4
9.5
411
9 10.28

A3 δ C.

λ Draconis

11 24 27

+69 59

BB

20 0 5.4
11.0
15.3
9.0
407
20 10.18

γ Cephei L.C.

14 34 33

+103 1

BB

15 2 33.8
43.1
49.4
49.4
1757
17 43.92

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1883phae.proj.1414B

May 10, 1883

δ Leonis

11 7 49

+21 10

BB

5	1	57.5	
		1.0	
		5.5	
		5.6	
		96	
	6	240	

o Cephei L.C.

11 13 50

+112 32

BB

45	3	22.5	
		33.1	
		42.7	
		38.2	
		128 5	
	48	32.2	

β Leonis

11 43 1

+15 14

BB

0	3	10.3	
		10.2	
		14.3	
		18.5	
		53.3	
	3	133.2	

γ Urs. Maj.

11 47 35

+54 21

BB

55	2	43.9	
		49.5	
		54.4	
		49.8	
		197 6	
	57	49.40	

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1883phae.proj.1414B

May 11, 1883

δ Leonis

11 7 49

+21 10

B. Obs.

R.A. A_{+1} A_{789} A_{-1}

c = 18 0.8

γ Andron

1 56 41

+41 46

BB

30 2 24.2

29.3

31.5

Lost A_2.

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1883phae.proj.1414B

May 11/12, 1883

⊙ C=1805

3 16 41
+18 10

	BB	BB
50 0	43.0	20 3 40,8
	45.1	43.6
	47.5	46.5
	50.5	48.5
	186 1	179 4
50	46.52	23 44.85

Both limbs in δ 1 rot. in R.A.
Seeing pretty good—

ζ Leonis C=1799.2

10 10 6
+2 4 0

	BB
15 3	8,9
	15.0
	17.5
	17.9
	59 3
18	14,82

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1883phae.proj.1414B

May 12. 1883

γ Leonis

10 13 27

+29 26

BB

50 0 53.0

56.2

59.7

1.4

2303

50 57.58

C = 1799.2

μ Urs. Maj.

10 15 16

+42 6

BB

10 3 5.7

11.5

17.0

11.8

460

13 11.50

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1883phae.proj.1414B

May 13. 1883

ζ Cygni

21 7 56

+29 45

		RB		RB	R
30	2	4.8	3	17.4	17.4
		10.2		23.3	22.9
		9.3		22.2	22.3
		11.5		24.0	24.7
		358		69	73
32		8.95	33	21.72	21.82

C=17 99.2

α Cephei

21 15 48

+62 5

		RB	RB	RB	RB
10	2	1.6	40.1	3 20.2	31.2
		8.5	47.0	27.7	42.0
		10.0	47.7	28.2	44.0
		5.5	44.8	24.4	39.8
		256	1796	1005	1620
12		6.40	44.90	13 25.12	40.50

ε Pegasi

21 38 25

+9 20

		BR	BR	B
55	1	15.2	2 17.7	18.3
		70	20.0	19.5
		68	20.8	20.1
		13.7	27.7	26.7
		327	62	46
56		8.18	57 21.55	21.15

C=17 99.2

α Aquarii

21 59 45

−0 53

		RB	RB	R	R
5	4	18.5	0 38.3	37.9	38.4
		19.3	39.0	39.1	39.1
		20.5	43 39.7	39.7	39.2
		26.3	45.9	46.0	46.4
		846	1629	1627	1631
9		21.15	10 40.72	40.68	40.76

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1883phae.proj.1414B

β Aquarii
21 25 22
−6 5

		RB
20	0	51.3
		50.4
		52.3
		57.4
		2114
	20	52.85

Rej 2nd δ

β Cephei
21 27 11
+70 3

		RB	RB	RB	RB
15	0	16.4	38.4	6.0	18.5
		25.0	47.1	14.4	27.3
		24.1	44.2	12.0	25.5
		19.8	41.2	8.9	21.5
		853	1709	413	928
	15	21.32	42.72	16 10.32	23.20

C = 1797.4

η Pegasi
22 37 30
+29 36

		BB
40	1	32.3
		37.5
		37.0
		38.5
		1453
	41	36.32

ζ Piscis Aus.
22 51 9
−30 15

		BB
25	3	11.4
		12.7
		16.1
		22.7
		629
	28	1572

Lost A−1

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1883phae.proj.1414B

May 13, 1883

α Urs. Maj L.C.

22 56 24

+117 37

BB

40	3	40.8
		51.2
		55.1
		48.5
		1956
	43	48.90

A_{+1} 4321

C = 1797.4

α Pegasi

22 58 54

+14 34

BB

40	3	20.1
		22.0
		21.1
		27.5
		907

A_9 + C.

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1883phae.proj.1414B

May 13/14, 1883

⊙ C = 1797.4

3 24 32

+18 40

		RD		RB
20	1	42.2	50	3 58.5
		44.9		0.8
		46.0		1.6
		49.8		5.9
		1829		68
	21	45.72	54	1.70

Both limbs in δ & R.A.
Middle w. & foll. first limb
Seeing very bad.

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1883phae.proj.1414B

Aug 15
16

C=1797.5

δ 3 32 26
+19 8

RB	RB
5 0 3 29.4	25 0 41.4
33.8	43.3
34.0	44.3
36.7	47.0
1339	1760
53 33.48	25 44.00

Both limbs in δ & R.A.
Seeing

C=1791.9

γ Leonis
10 13 27
+20 26

BB
50 0 47.0
49.8
52.2
53.6
2026
50 50.65

226 B, Cephei L.C.
10 30 13
+104 23

BB
55 1 24.5
35.4
40.3
29.7
1299
56 32.48

ι Cephei L.C.
10 45 31
+114 25

BB	BB
55 0 57.2	0 21.0
7.6	31.2
16.8	39.1
4.9	28.1
265	1194
56 6.62	55 29.85

A 9° to 10°

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1883phae.proj.14148

May 16, 1883

c = 1791.9

μ Urs. Maj.

10 15 16

+42 6

BB

10 3 6.3

11.9

15.2

10.9

443

13 11,08

9 H. Dracon,

10 25 7

+76 19

BB

55 4 38.8

48.0

48.2

41.5

1765

59 44,12

β Urs. Maj

10 54 48

+57 1

BB

15 1 33,1

38.0

41.8

37,2

1501

16 37,52

α Urs. Maj;

10 56 23

+62 23

BB BB

55 0 21.2 0 57.9

26.3 3.3

30.5 7.8

24.9 1.9

1029 109

55 25,72 56 2,72

Lost 1 not 11 2 w.

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1883phae.proj.1414B

May 16, 1883 $C = 1791.9$

χ Urs. Maj.

11 3 0

+45 8

BB

5 4 15.5
21.4
23.6
19.0
79 5
9 19.88

δ Leonis

11 7 49

+21 10

BB

5 3 19.5
23.0
24.4
26.0
9 29
8 23.22

γ Cephei L.C.

11 34 33

+10 3 1

BB BB BB

15 3 46.0 2 49.0 2 15.5
56.6 58.6 25.2
0.1 2.7 29.5
51.0 53.1 19.6
21 37 22 34 8 48
18 53.42 17 55.85 17 22.45

A_0 W_0.

β Leonis

11 43 1

+15 14

BB

0 4 31.2
33.2
35.1
38.5
13 8 0
4 34.50

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1893phae.proj.1414B

O Cephei L.C.

14 13 50

+112 32

BB

45 3 15.1

25.2

22.5

22.0

8 4 8

48 21.20

λ Dracon.

11 24 27

+69 59

BB

15 4 50.1

58.6

0.2

53.5

2 2 2 4

19 5 5.60

Rej 1rst δ

γ Urs. Maj.

11 47 B5

+54 21

BB

55 1 24.2

31.4

33.4

29.0

11 8 0

56 29.50

ε Corvi

12 3 54

−21 57

BB

10 4 51.3

51.7

54.5

1 0.4

2 1 7 9

14 54.48

Rej 1rst " δ

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1883phae.proj.1414B

May 16, 1883

4 H. Draconis

12 6 43

+78 16

BB

0 2 48.9

58.9

57.8

52.3

2179

2 54.48

A2 ✝C.

C = 1791.9

δ Corvi

12 23 37

−15 50

RB RB R

5 2 46.0 3 589 58.9

45.9 588 59.2

48.1 19 2.7

55.8 8.4 8.3

1958 80 91

7 48.95 9 2.00 2.27

21 Cass. L.C.

12 37 56

+10 5 39

RB RB RB RB

40 0 40.2 4.9 4 48.9 369

51.5 16.6 0.6 415

53.3 16.5 0.8 415

46.1 10.5 54.4 418

1911 485 2247 1757

40 4778 12 12 44 56.18 43.92

ε Urs. Maj.

12 48 48

+56 36

RB

40 1 36.9

42.2

43.2

40.4

1627

41 40.68

A+1

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1883phae.proj.14148

β Corvi

12 28 10
−22 45

		RB	RB	R
0	0	13.5	1 39.5	39.0
		13.2	39.4	39.0
		15.6	41.5	42.0
		21.7	48.5	48.0
		6 40	16 79	16 80
	0	16.00	1 41.98	42.00

γ Virginis

12 35 40
−0 48

		RB
0	4	48.6
		50.8
		52.5
		56.5
		20 84
	4	52.10

foll # Rej: 2nd 5

γ Cass. L.C.

12 49 38
+11 9 55

		RB	RB	RB
25	2	13.1	128.9	10.2
		23.7	39.9	20.8
		28.8	43.9	24.8
		22.4	38.0	19.5
		8 80	15 07	7 53
	27	22.00	28 37.68	18.82

ε Virginis

12 56 17
+1 36

		RB	RB	R
40	1	18.9	2 43.5	42.8
		21.2	46.9	46.9
		20.9	45.4	46.1
		26.2	50.6	51.2
		8 72	18 64	18 70
	41	21.80	42 46.60	46.75

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1883phae.proj.1414B

May 16, 1883

c = 17 91.9

α Aquarii

21 59 45

−0 53

BB

10	0	32.8
		33.2
		32.9
		39.2
		1381
10		34.52

η Pegasi

22 07 30

+29 36

BB

40	1	33.3
		39.8
		38.0
		39.1
		1502
41		37.55

α Pegasi

22 58 54

+14 34

BB

40	1	54.0
		56.1
		53.0
		0.0
		2231
41		55.78

γ Cephei

23 34 30

+76 59

	R	R
15	4	0.0 26.1
		10.0 34.4
		5.4 30.0
		2.5 27.0
		17.9 11.8
19		4.48 29.45

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1000phae.proj.14148

May 16, 1883

ι Cephei

22 45 31

+65 35

BB

40 2 31.3

39.8

36.1

33.7

1409

42 35.22

α Piscis Aust.

22 51 9

−30 15

BB

25 4 24.0

27.4

28.7

35.0

1151

29 28.78

Lost 1st Mot. W.

ζ Tucanæ

0 21 9

+28 26

AR

A

BCoca, C−1791.9

0 25 6

~~+58 30~~ R

45 2 58.2 3 43.8

5.8 58.7

4.6 49.6

3.4 48.4

7 20 19 25

47 H_2 3.00 48 48.12

1883phae.proj.1414B

May 16, 1883 C=1

γ Cass. C=1798.0

0 49 38

+60 5

RB RB RB RB

10	2	27.0	14.9	42.6	4	0.3
		33.4	22.2	50.0		7.3
		32.1	20.6	49.0		6.1
		29.8	18.1	46.5		3.8
		1223	758	1881		175
	12	30.58	18.95	47.02	14	4.38

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1883phae.proj.1414B

May 16, 1883 C=1798.0

	BB	BB	BB
35 z	1.8	8.4	12.5
	12.0	18.0	23.0
	10.0	16.1	19.7
	6.4	12.7	16.9

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1883phae.proj.1414B

May 16/17, 1883

⊙ C=17 98.0

3 36 24 +19 22

RB RB

35 4 46.6 10 59.4

5.1 1.6

5.7 1.5

5.5 6.1

20.31 8.6

39 50.78 12 2.15

Both limbs in δ & R.A.

Seeing moderately good

9 H. Draconis.

10 25 7 +76 19

BB BB

55 4 37.6 0 6.9

47.7 14.9

49.7 19.8

42.4 10.5

17.74 5.21

59 44.35 0 13.02

A5 + C.

α Urs. Maj.

10 56 28

+62 23

BB

55 0 39.3

45.7

50.5

44.8

18.03

55 45.08

Lost 1 mst 11 3 W

ε Urs. Maj

11 3 0

+45 8

BB

10 0 23.0

27.9

32.7

28.5

11.21

10 28.02

Lost 1 mst 11 3 W.

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1003phae.proj.14148

May 17, 1883

ζ Cephei L.C.

10 45 31

+114 25

		BB
~~55~~		
55	0	8.6
		20.6
		30.1
		18.5
		778
	55	19.45

β Urs. Maj.

10 54 41

+57 1

		BB
15	1	35.9
		41.3
		46.6
		42.3
		1661
	16	41.52

δ Leonis

11 7 49

+21 10

		RB	RB
5	1	55.2	3 17.4
		59.5	22.2
		2.8	25.6
		4.7	26.7
		22	919
	7	0.55	8 22.98

ο Cephei L.C.

11 13 50

11 2 32

		RB	RB	RB	RB
45	4	6.4	3 36.7	11.6	2 42.5
		19.3	49.3	23.9	54.8
		29.1	58.9	33.0	4.0
		15.5	45.7	20.1	51.2
		703	1906	886	2125
	49	17.58	48 47.65	22.15	47 53.12

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1883phae.proj.1414B

May 17, 1883

λ Dracon.

11 24 27

+69 59

		RB	RB	RB	RB
15	4	17.0	4 48.0	0 5.0	33.6
		26.6	57.5	13.1	31.5
		30.0	0.8	15.7	34.2
		22.0	53.0	9.4	27.3
		95.6	2193	432	1166
	19	23.90	54.82	20 10.80	29.15

c = 1798.0

γ Cephei L.C.

18 34 33

+103 1

		RB	RB	RB	RB	RB
15	3	17.4	2 57.6	36.9	25.9	33
		28.6	8.6	48.0	37.3	244
		35.2	15.8	54.2	44.4	245
		24.1	4.0	43.1	31.9	MP
		1053	260	1822	1395	762
	18	26.32	6.50	74555	34.88	19.05

β Cass. L.C.

12 2 56

+121 30

		RB	RB	RB
50	3	16.2	2 40.1	1.1
		30.0	53.9	14.2
		40.0	3.5	24.2
		29.0	52.5	13.5
		1152	2100	530
	53	28.80	52 52.50	13.25

H H. Dracon.

12 6 43

+78 16

		BB
0	2	37.7
		47.5
		50.5
		43.5
		1792
	2	44.80

Rej 1st ½ hfs. A 40 to 90

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1993phae.proj.1414B

B Leo

~~γ Ursae Maj~~

11 43 1

+15 14

RB RB

0 3 7.5 4 29.3

8.3 30.6

13.5 36.9

17.4 39.2

46.7 137.0

3 1.68 4 34.25

γ Urs. Maj.

11 47 35

+54 21

RB RB RB

55 1 25.1 21.4 44.0

31.5 8.0 57.1

37.5 14.7 57.0

31.8 8.5 51.7

125.9 32.6 203.8

56 31.48 57 8.15 50.95

δ Corvi

12 23 37

-15 50

BB

5 2 41.8

41.1

49.3

55.8

188.0

7 47.00

β Corvi

12 28 10

-22 45

BB

0 0 15.8

14.5

22.7

27.0

80.0

0 20.00

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1883phae.proj.1414B

May 17, 1883

γ Virginis

12 35 40

−0 48

BB

4 52.5

55.1

59.5

3.1

2302

4 57.55

Jar. #

c = 1798.0

21 Cass. L.C.

12 37 56

+105 39

BB

35 4 48.0

1.5

6.5

56.9

2329

39 56.22

Ag & C.

δ Cass. L.C.

13 18 9

+120 23

BB

55 4 9.7

21.3

29.5

21.3

818

59 20.45

α Piscis

22 51 9

−30 [illegible]

R

25 3 19.1

22.2

25.7

32.7

997

28 24.92

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1883phae.prpj.1414B

γ Cass. L.C.
12 49 38
+119 55

		BB	BB
25	1	27.1	55.2
		38.8	6.5
		47.0	15.0
		38.6	6.6
		1515	233
	26	37.88	25 5.82

ε Virginis
12 56 17
+11 36

		BB
40	2	41.6
		45.3
		49.1
		53.0
		1890
	42	47.25

Lost 1 post. 3 w.

ζ Reg. ant.
2 58 54
+4 34

		R	R
40	1	508	
		506	
		52.5	
		0.3	
		2212	
	41	55.30	

ζ Ophei
23 34 33
+6 59

		R	R
		3 500.7	258
		9.8	35.8
		5.6	37.6
		4.3	4.6
		204	1418
	35	5.10	35.45

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1883phae.proj.1414B

May 17 1883

BCoz.

0 2 56

+58 39

R R

45 3 107 404

175 410

176 488

171 472

633 1844

48 15,82 46,10

α Andr.

0 2 19

+28 26

Sol - A - 1

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1883phae.proj.1414B

May 17, 1883

γ Cass.

0 49 38

+60 5

		RB	RB	RB	RB
10	2	23.1	48.1	3 21.4	48.1
		31.0	56.1	30.4	55.0
		33.3	58.1	32.7	0.5
		27.9	53.2	27.5	54.5
		11 53	21 55	11 20	22 01
	12	28.82	53.88	13 28.00	55.02

C = 17 98.0

C = 17 98.0

5 Cas.

1 18 9

+59 37

		BR	BR		
35	4	35.1	40	20.1	56.0 10.0
		42.9		26.6	3.1 17.1
		46.1		30.6	6.9 20.2
		43.2		26.1	1.6 15.9
		16 73		10 34	76 632
	39	41.82	40	25.85	1.90 15.80

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1883phae.proj.1414B

May 17/18, 1883

⊙ C = ~~18 0.8~~ 17 90.8

3 40 22

+19 35

Zero C. = 18 0.8
Set wrong by mistake.
found so at 6h 22m

C = 18 0,2

ζ Cephei L.C.

10 45 31

+114 25

RB		RB		BB		BB	
25	19,5	55	33.2	55	10,2	4	59.1
	25,0		40.5		21.4		11.6
	~~28 6~~		43.8		35.4		23.0
	30,8		45.4		21.5		10,0
	1039		1629		885		437
26	25,98	58	40,72	56	22,12	0	10,92

Both limb in S & R. A.
Seeing pretty good - Atmosphere
a little smoky -
Lost A+, first limb -

× Urs. Maj.

11 3 0

+45 8

BB	
10	0 3.2
	9.8
	17.0
	11.1
	41 1
10	10,28

δ Leonis

11 7 49

+21 10

BB	
5	3 9.0
	13.1
	19.5
	20.0
	61 6
8	15,40

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1000phae.proj.14148

May 18, 1883

C. β Urs. Maj.

10 54 41

+57 1

BB

15 1 26.8

32.3

42.6

35.2

13 6 9

16 34 22

C = 18 0.2

α Urs. Maj.

10 56 23

+62 23

BB BB

55 0 17.5 0 56.5

23.7 3.3

33.5 11.9

25.3 4.0

10 0 0 15 7

55 25 00 56 3.92

A +1.50 C Lost last tap of last 5

o Cephei L.C.

11 13 50

+112 32

BB

45 3 6.0

18.3

30.6

17.0

7 1 9

48 17.98

A

χ Dracon. ~~L.C.~~

11 24 27

+69 59

BB BB

15 3 42.4 4 47.6

53.1 57.5

59.2 3.1

50.5 56.2

20 5 2 22 4 4

18 51.30 19 56.10

A

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1883phae.proj.1414B

May 18, 1883

C = 180.2

γ Cephei L.C.

11 34 33
+103 1

BB

15	2	40.8
		53.3
		2.3
		49.7
		2061
	17	51.52

A

β Leonis

11 43 1
+15 14

BB

0	3	5.0
		6.2
		15.3
		18.6
		451
	3	11.28

4 H. Dracon.

12 6 43
+78 16

BB

0	2	34.2
		43.9
		48.7
		41.1
		1679
	2	41.98

A_{3_0} to 9_0

δ Corvi

12 23 37
-15 50

BB

5	2	43.1
		41.7
		53.2
		58.5
		1965
	7	49.12

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1000phae.proj.1414B

May 18, 1883

c = 180.2

γ Urs. Maj.

11 47 35

+54 21

BB

55	2	40.5	
		48.2	
		57.2	
		50.2	
		1961	
	57	49.02	

β Cass. L.C.

12 2 56

+121 30

BB BB

50	3	21.0	1	44.1
		36.0		58.0
		48.5		9.9
		35.9		58.5
		1414		2305
	53	35.35	51	57.62

β Corvi

12 28 10

-22 45

BB

0	0	17.5
		16.5
		25.6
		30.1
		897
	0	2242

γ Virginis

12 35 40

-0 48

BB

5	1	6.9
		6.9
		16.8
		19.1
		497
		1242

A_{+1} 5 ∂C.

foll. #

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1883phae.proj.1414B

May 18, 1883

γ Cass. L.C.

12 49 38

+119 55

BB

25 2 4,3

15,4

29,0

18,4

671

27 16,78

ε Virginis

12 56 17

+11 36

BB

40 2 28,9

33,0

40,2

42,5

1446

42 36,15

ζ Ursæ Maj. L.C.

22 56 24

+117 37

BB

40 3 43,2

54,7

2,6

53,3

2138

43 53,45

γ Cephei

23 34 33

+76 59

BB BB

15-4 54,0 0 26,0

5,5 34,2

4,1 35,6

59,2 29,9

28 1257

20 0,70 20 31,42

Rej. few taps before +1

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1893phae.proj.14148

δ Cass. L.C.

13 18 9

+120 23

		BB		BB
55	4	44.0	3	39.5
		57.5		52.3
		7.3		2.8
		57.8		52.7
		2266		2073
	59	56.65	58	51.82

Lost 1st " 3 w.

3 taps for last δ.

α Piscis Aust.

22 51 9

−30 15

		BB
25	3	9.0
		12.6
		18.3
		23.5
		634
	24	15.85

Lost A-1

γ Cass.

0 49 38

+60 5

		BB		BB
10	3	21.6	3	56.3
		29.9		4.8
		34.1		9.0
		28.9		4.0
		1145		141
	13	28.62	14	3.52

Lost 1st " tap of 2nd δ

δ Cass.

1 18 9

+59 37

		BB		BB
40	0	49.1	1	21.0
		55.7		27.4
		1.2		33.5
		55.6		27.6
		2216		1095
	40	55.40	41	27.38

~~Lost A+1 4 w.~~

3 taps for 2nd δ

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1993phae.proj.14148

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Slm 32
Astro 655

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1893phae.proj.14348

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