

KE
11366
v. 411

Fundamental Stars.
Circle Readings.
From May 19, 1883 to Sept 9

A36

May ¹⁸/₁₉, 1883

① C = 18 1.3

3 44 21

+19 48

BB

BB

10 3 5.4 45 1 3.0

9.5

7.3

14.1

10.3

15.6

12.1

44 6

327

13 11.15

46 8.18

Both limbs in S & R.A.

A 5 & C of 2nd limb.

Seeing pretty fair.

Hazy -

2

May 21, 1883

x Dracon.

11 24 27

+69 59

BB

15 4 54.0

5.0

12.1

0.4

115

20 2.88

Lost A78nd A-1

C=18 1.4

x Cephei L.C

11 34 33

+103 1

BB BB

15 2 40.6 2 19.4

52.7 30.7

3.6 42.5

48.9 26.3

2058 1189

17 51.45 17 29.72

A.

May 21, 1883

 β Leonis

11 43 1

+15 14

BB

0 4 24.0

26.0

34.7

34.4

1191

4 29.78

Couldn't get any
illumination in the
telescope.

 $C=18.14$ γ Urs. Maj.

11 47 35

+52 21

BB

55 2 42.5

49.5

0.0

50.4

2024

57 50.60

4

May 24, 1883

C=18 1.4

2 Piscis Aust.

22 51 9

-30 15

B/B

25 3 14.9

19.2

24.2

29.1

874

28 21.85

Lost A,

2 Wrs. Maj. L.C.

22 56 24

+117 37

B/B

40 3 52.8

4.2

10.8

2.9

107

44 2.68

Ankura

0 2 19

+18 40

B/Cora

0 2 56

+158 30

R/R

AR 45 3 5.3 36.3

143 442

173 458

132 434

501 1717

48 12.52 42.92

to be

Lost A,

2 Cora Regani

0 2 56

0 7 11

14 32

R/R

40 4 24.2

28.5

30.6

34.8

1181

44 29.52

May 24, 1883

2 Pegasi

22 58 54

+14 34

RB

40 3

6.6

9.7

12.8

16.2

453

43

11.32

2 Cephei

23 34 33

+76 59

RB RB RB RB

15 4

45.4

56.50

12.6

28.2

57.0

8.0

22.0

36.9

56.5

8.0

22.7

38.7

51.2

2.4

16.2

31.9

2101

149

19

52.52

3.72

735

1357

4 X C

20 18.38

33.92

C=18 1.4

2 Cora

0 45 38

+60 5-

R R

10 2

22.8

48.3

31.5

56.3

35.7

00

30.0

55.8

1200

2204

12

3000

65.10

L.A.

C=18 $\frac{4.2}{2.4}$

6

May 25, 1883

C=18 4.2

B Urs. Maj.

10 54 41

+57 1

BB

15 1 41.2

47.5

58.2

48.0

1949

16 48.72

L Urs. Maj.

10 56 23

+62 23

BB

55 0 17.5

23.0

34.5

24.3

993

55 24.82

A 6 + C.

L Dracon.

11 24 27

+69 59

BB BB

15 3 42.5 4 45.0

52.9 55.5

1.1 3.4

49.3 51.8

2058 2157

18 51.45 19 53.92

γ Cephei L.C.

11 34 33

+103 1

BB BB

15 3 41.2 2 38.1

54.3 49.8

5.3 1.0

49.2 46.0

2100 1949

18 52.50 17 48.72

Lost 1st W.

May 25, 1883

X Urs. May-

11 3 0

+45 8

BB

10 0 20.4

24.3

33.8

27.1

1056

10 26.40

5 Leonis

11 7 49

+21 10

BB

5 3 12.2

16.4

24.2

23.3

761

8 19.02
Rej- 1st + 5

B Leonis

11 43 1

+15 14

BB

0 3 7.1

7.6

19.2

18.7

526

3 13.15

8 Urs. May-

11 47 35

+54 21

BB

55 2 35.4

42.2

53.1

44.0

1747

57 43.68

8

May 25, 1883

C = 18 4.2

e Corvi

12 3 54

-21 57

BB

10 4 55.6

55.6

8.5

11.0

19 07

14 47.68

A 5 + C.

Illumination very poor.

δ Corvi

12 23 37

-15 50

BB

5 3 52.7

54.3

6.8

7.9

17

8 0.42

e Virginis

12 56 17

+11 36

BB

40 2 32.6

37.0

47.4

46.0

16 30

42 40.75

δ Cass. L.C.

13 18 9

+120 23

BB

55 4 54.1 3 36.2

7.5 49.5

22.3 4.4

9.4 50.8

333 2009

0 8.32 58 50.22

May 25, 1883

β Corvi

12 28 10

-22 45

BB

0 1 40.1

40.5

52.1

52.9

1856

1 46.40

γ Virginis

12 35 40

-0 48

BB

5 1 2.2

4.0

15.8

14.6

366

6 9.15

per ff

γ Androm

1 56 41

+41 46

BB

30 2 13.7

19.2

28.5

21.4

828

32 20.70

Lost A_{+1}

Rej. last trip of A_{-1}

10

May 26, 1883

5 Leonis

11 7 49

+21 10

BB

5 3

11.5

15.2

25.0

21.2

729

8 18.22

C=18 1.6

1 Dracon.

11 24 27

+69 59

BB

BB

15 3 40.5 4 3.7

51.4 13.3

0.7 21.4

47.5 10.0

2001 484

18 50.02 19 12.10

Lost 4-1

8 Urs. Major

11 47 35

+54 21

BB

55 1 57.0

3.5

16.1

4.9

215

57 538

May 26, 1883
 Cephei L.C.

11 34 33
 +103 1

B/B B/B

15 3 27.1 29.5
 39.5 20.9
 51.6 34.8
 35.9 18.0
 154.1 83.2
 18 38.52 1720.80

β Leonis

11 43 1

+15 14

B/B

0 3 6.4
 6.8
 20.1
 17.2
 50.5
 3 12.62

May 27, 1883

C-18 1.6

2 Piscis Aust.

22 51 9

-30 15

B13

25 3 9.0

12.7

21.9

24.5

681

28 17.02

2 Uro. Maj.

22 56 24

+117 37

B13

40 3 48.8

1.0

10.6

0.1

05

44 0.12

2 Androm.

0 2 19

+28 26

2 Pegasus

0 7 11

+40 4

R

40 4309

3548

414

428

1512

44 3780

C1R

Lont h,

May 27, 1883

2 Pegasi

22 58 521

+14 34

B/B

40 2 5.9

9.4

15.1

16.1

465

42 11.62

γ Cephei

23 34 23

+76 59

BR BR BR BR

31.5 479 046 202

437 598 146 296

468 33 196 338

352 554 100 247

1612 2262 488 1083

4030 576.55 1220 2708

Sont X 1

γ Cass

04j 38

+60 5

R R

10 3 39.6 569

488 56

501 141

480 54

1925 220

13 48.12 14 5.50

14

May $\frac{27}{28}$ 1883① $\phi = 18 \ 5.5$

4 20 35

+21 29

RB

0 4 13.1

19.9

26.2

24.8

840

4 2100

Lower limb in 5

Following " " R.A.

Lost A, 12

Seeing pretty good.

16

June. 2, 1883
 B. Obs.
 λ & Urs. Maj.
 10 10 3
 +43 30

C = 50 26.7

B Urs. Maj.
 10 54 48
 +57 1

Ag + C

B. Obs.

δ Leonis
 11 7 55
 +21 10

γ Urs. Maj.
 11 12 11
 +33 44

B. Obs.

B. Obs.

June 22, 1883

2 Urs. Maj:
10 56 30
+ 62 33

4 Urs. Maj:
11 3 7
+ 45 8

Soot A₊
B. Cls.

B. Cls.

B Urs. Min.
14 51 3
+ 74 38

B Bootis
14 57 32
+ 40 52
BB

25 3 54.2
1.3

B Cls.

Rej 5.

Soot 1st 2 w.

Simultaneous ob-
servations on Meridi-
an Circle & Russian
Transit. My taps
are long ones.

10.0

3.4

89

29 222

A5 + C

June 4. 1883

B. Urs. Maj.
 10 54 41
 +57 1

B. Cls. A.R.

C=50 26.7
 2 Urs. Maj.
 10 56 23 46 2 23
 BB
 55 1 38.0
 44.9
 55.5
 45.1
 18 35
 56 45.88

A₊ 3 + c.

C=50 31.1
 B Corvi
 12 28 10
 -22 45

B. Cls. R.A.

γ Virginis seq.
 12 38
 -0 48
 BB
 5 2 59.2
 0.3
 13.6
 11.0
 241
 8 6.02

X Mrs. May.
11 30 445 8
BB

10 2 12.4
19.0
29.1
19.9
804

12 20.10

C=50 26.7
5 Leonis
11 7 49
+21 10

BB
10 0 0.5
6.0
14.4
11.3
322
10 8.05

η Mrs. May.
13 42 52
+49 521
BB

25 1 20.2
28.4
40.9
31.5
1210

26 30.25

Middle 5 w.
Simultaneous with R.A.

η Bootis
13 49 3.
+19 0
BB

20 0 45.5
48.8
0.9
58.1
2133

20 53.32

Middle 5 w.
same as preced.

June 4. 1883
 T Virginis

13 55 38

+2 7

BB

10 2 34.2

36.8

48.8

48.9

1687

12 42.18

A.

C = 50 31.1

γ Cephei

23 34 33

+76 59

BB

20 1 0.0

9.5

15.5

5.8

308

21 7.70

β Arietis

1 48 9

+20 14

BB

5 0 34.5

39.4

49.5

45.8

1692

5 42.30

γ Androm

1 56 41

+41 46

BB

30 4 4.0

11.4

21.9

12.9

502

34 12.55

β Cass.

0 2 56

+58 30

B/B

50 0 12.3

19.5

29.2

20.0

810

50 2025

A-1 2 + C

 γ Pegasi

0 7 11

+14 32

B/B

45 2 37.4

40.2

50.3

48.8

1767

47 44.8

22

June 5, 1883

C = 50 32.5

3 Urs. May^r,

10 54 41

+57 1

R.A.

2 Urs. May^r.

10 56 7

+62 23

BB

55 2 20.7

27.2

46.6

30.6

1251

57 31.28

A₊ 3 + c

7 Pegasi

22 37 30

+29 36

BB

40 3 11.1

18.8

30.3

23.9

841

43 21.02

1 Cephei

22 45 31

+65 35

BB

40 4 21.5

32.4

44.0

31.4

1293

44 32.32

June 5, 1883

x Urs. Maj;

11 3 0

+45 8

BB

10 2 7.0

13.3

31.0

16.8

681

12 17.02

C=50 32.5

5 Leonis

11 7 49

+

BB

10 0 0.5

6.1

21.2

14.2

420

10 10.50

L Piscis Aust.

22 51 9

-30 15-

BB

30 0 5.2

8.4

22.2

22.1

579

30 14.48

L Pegasi

22 58 52.1

+14 34

BB

40 4 52.4

57.1

8.8

6.1

44

45 1.10

24

 γ Cephei $C=5032.5$

23 34 33

+76 59

BB

20 2 2.6

12.6

22.4

10.5

78 481

22 12.02

A7 + C

28

June 12, 1883
B Arietis C=39 58.5

1 48 9

+20 14

BB

0 1 58.8

7.4

17.2

13.9

373

2 9.32

Lost last 2 taps of 5
Clouds -

30

July June $\frac{12}{13}$
 ① C = 39 66.5

5 26 25

+23 14

BB

45 2 43.5

53.8

3.0

0.0

2203

47 55.08

1st " limb in R.A.

Upper " " 5

Seeing pretty good.

Lost A-1, 234 clouds.

C = 39 63.4

① Y. Cass.

0 49 38

+60 5

BB

10 3 13.1

24.5

33.5

24.9

960

13 24.00

C = 39 65.0

2 Androm.

0 2 19

+28 26

B. Obs.

Lost A+1

β Arietis

1489

+20 14

BB

0 3 5.5

14.8

23.4

21.6

653

3 16.32

June 13, 1883

~~C~~
B Cass.

0 2 56

+38 30

BB

45 1 55.5

7.1

16.1

7.2

259

47 6.48

A₆ + C

C =

C = 39 65.0

γ Pegasi

0 7 11

+14 32

BB

40 4 11.1

18.1

28.2

27.7

851

44 21.28

A₃ + C.

γ Androm

1 56 41

+41 46

BB

30 1 41.4

51.0

59.2

52.9

2045

31 51.12

α Arietis

2 0 33

+22 52₁

BB

20 2 54.1

3.5

1.1

10.2

89

23 22.2

omitted 4th lap of 5

32

June $\frac{13}{14}$, 1883

① C = 39 63.4

5 30 34

+23 17

BB

15 1 30.8

41.0

49.2

48.1

1691

16 42.28

First limb in R.A.

Lower " " 5

Seeing quite poor.

E Urs. Maj.

12 48 48

+56 36

BB

40 1 17.9

26.4

38.1

30.8

11 32

41 28.30

8 Corvi

12 23 37

-15 50

BB

5 2 12.9

15.0

28.2

31.5

876

7 21.90

Lost last tap of 5

E Virgins

12 56 17

+11 36

BB

40 1 11.9

17.5

28.3

28.5

862

41 21.55

June 14, 1883
 β Corvi

12 28 10

-22 45

BB

0 0 12.0

15.9

27.6

29.8

853

0 21.32

C = 39 63.4

γ Virginis

12 35 40

-0 48

BB

0 4 34.2

39.3

50.2

50.4

1741

4 43.52

per. # lost A_{+1}

δ Cass. L.C.

13 18 9

+120 23

BB

55 3 53.0

7.9

23.1

10.1

341

59 8.52

η Urs. Maj.

13 42 52

+49 54

BB

20 3 3.2

11.9

25.0

17.4

575

23 14.38

A_3 TC

June 14, 1883
 η Bootis

13 49 3

+19 0

BB

15 2 41.0

46.1

57.2

56.5

1908

17 47.70

τ Virginis

13 55 38

+2 7

BB

5 4 47.1

52.6

4.5

5.4

2296

9 57.40

ε Cass. L.C.

14 19 26

+11 3 7

BB

10 2 55.8

10.1

25.3

11.9

431

13 10.78

A₆ + C.

ε = 39 63.4

γ Bootis

14 27 18

+38 50

BB

25 3 19.2

29.2

40.0

34.5

1229

28 30.72

June 14, 1883
 2 Dracon.

14 1 9
 +64 57

BB

20 1 40.5

51.2

2.0

53.1

2068

21 5170

2 Bootis

14 10 16

+19 48

BB

25 3 59.4

6.5

17.2

16.7

398

29 9.95

C=39 64.4

8 Cass.

0 49 38

+60 5

BB

10 3 15.5

27.7

34.5

28.1

1058

13 2645

5 Cass.

1 18 9

+59 37

BB

35 4 39.4

50.7

58.1

52.8

2010

39 50.25

A₅ + C

June ¹⁴/₁₅ 1883
 ① C = 39 64.4
 5 34 44

+23 20

BB

40 2 6.8

15.4

23.8

24.2

702

42 17.55

Both limbs in R.A.

Upper " " S

Seeing poor
 but a little better

2nd limb -

T Virginis

13 55 38

+2 7

BB

10 0 27.5

30.8

43.9

45.4

1476

10 36.90

5 Cass L.C.

13 18 9

+120 23

BB

55 4 34.4

49.1

3.1

52.0

1986

59 49.65

Lost A-1

2 Dracon.

14 1 9

+64 57

BB

20 1 56.0

7.2

16.9

9.0

291

22 7.28

June 15, 1883
 η Urs. Maj.
 13 42 52
 +49 521
 BB

20 3 18.2
 26.0
 38.5
 31.0
 1137

23 2842

η Bootis
 13 49 3
 +19 0
 BB

15 3 19.0
 22.3
 33.1
 33.9
 1083

18 2708

α Bootis
 14 10 16
 +19 48
 BB

25 4 56.4
 3.2
 13.0
 13.3
 259
 30 6.48

ε Cass. L.C.
 14 19 26
 +113 7
 BB

10 2 42.1
 56.0
 11.8
 57.8
 1677
 12 41.92

A7 + C

38

June 15, 1883
r Bootis

14 27 18

+38 50

BB

25 3 25.0

35.2

43.7

39.1

1430

28 35.00

c = 39 64.4
e Bootis

14 39 49

+27 35

BB

40 3 24.6

31.9

42.4

40.9

1398

43 34.95

5 Cass.

1 18 9

+59 37

BB

35 4 55.5

5.9

14.4

8.0

238

40 59.5

 β Arietis

1 48 9

+20 14

BB

0 3 11.6

20.8

28.4

28.4

892

3 22.30

Lost 1st W.

Rej. long lap previously.

June 15, 1883
 2² Librae $C=39\ 64.4$

14 44 20

-15 33

B/B

45 4 1.8

5.0

17.2

21.8

45.8

49 11.45

~~$C=39\ 64.4$~~

$C=V\text{Cass. } C=39\ 65.0$

0 49 38

+60 5

B/B

10 3 7.0

18.5

25.5

18.8

69.8

13 17.45

2 Arietis

2 0 33

+22 54

B/B

20 2 55.8

5.7

11.2

12.8

25.5

23 6.38

June $\frac{15}{16}$, 1883

① C = 39.65.0

5- 38.53

+23 22

BB

10 1 20.6

30.5

36.6

38.0

1257

11 31.42

Both limbs in R.A.

Lower " " 5

Lost Δ_{+1} 1st limbSeeing ^{very} poor, better on
2nd limb

♂ Cass. L.C.

13.18.9

+120 23

BB

55 41 25.3

41.5

53.0

42.5

16.23

59 40.58

β Corvi

12 28 10

-22 45

BB

0 0 55.6

56.7

9.8

13.1

15.2

1 3.80

June 16, 1883

 $\odot = 39\ 65.0$ γ Cass. L.C.

12 49 38

+119 55

BB

25 0 57.0

12.0

25.2

14.1

483

26 12.08

 ϵ Virginis

12 56 17

+11 36

BB

40 2 4.4

9.4

19.0

22.0

548

42 13.70

June 17, 1883

β $\epsilon = 39$ 65.0
 Cass.
 0 2 56
 + 58 00

BB

45 1 53.8

4.5

9.9

5.2

134

47 3.35

A-1

Last 1st tap. of 5

α $\epsilon = 39$ 65.0
 Androm.

0 2 19

+ 28 26

June 17. 1883

C = 39 65.1

V Cass.

0 49 38

+60 5

B/B

10 3 16.3

27.2

34.0

28.0

1055

13 26.34

44

June 20, 1883

C = 39 66.5

B Corvi

12 28 10

-22 45

BB

0 1 8.4

13.5

22.4

24.8

691

1 17.24

x Virginis

12 35 40

-0 48

BB

5 0 16.1

20.6

31.1

31.8

996

5 2490

foll. #

x Virginis

13 18 58

-10 33

BB

45 4 7.4

8.8

20.8

22.3

593

49 14.82

Lost 4 + 4
Reg 1st 5 taps.

June 20, 1883

E Mrs. Maj:

12 48 48

+56 36

BB

40 1 45.8

56.0

5.7

57.1

2246

41 56.15

E Virginia

12 56 17

+11 36

BB

40 1 41.8

48.8

55.8

57.1

2035

41 50.88

46

June 21. 1883

① C = 39 65.0

5- 59 40

+23 27

BB

30 3 23.6

34.7

40.1

39.6

1380

33 34.50

1st limb in R. A.Lost A₉ 2nd A₋₁ 5

Upper limb in S

Got 1st & 3rd laps.then put in a 11th

lap by estimation

Clouds. Seeing steadily.

B Arietis

1 48 9

+20 14

R. A. only

A₈₉ A₋₁ 2345

8 Androm.

1 56 41

+41 46

B/B

30 1 44.4

55.0

0.0

55.9

21 53

31 53.82

2 Arietis

2 0 33

+22 521

B/B

20 1 50.0

1.0

4.4

6.1

15

22 0.38

A + C,

48

June $\frac{21}{22}$, 1883

① C = 39 64.4

6 3 49

+23 27

BB

5 1 20.1

30.4

36.2

36.7

1234

6 30.85

1 Both limbs in R.A.

1 Lower " " 5

1 Got A_{+1} and A_1 of1st limb. Got A_{+1} 2nd etc1 of 2nd limb.

1 Seeing good - but clouds.

β Arietis

1 48 9

BB +20 14

0 2 32.6

40.2

48.4

48.0

1692

2 42.30

γ Urs. Maj.

13 42 82

+49 54

BB

20 3 51.0

0.5

13.0

3.7

82

24 2.05

γ Androm

1 56 41

+41 46

BB

30 1 36.1

45.4

53.6

48.5

1836

31 45.90

Rej. 1st 5

γ Bootis

13 49 3

+19 0

BB

15 3 25.1

29.8

40.8

39.3

1350

18 3375

δ Cass. h.c.

1 18 9

+59 37

BB

40 0 28.9

38.0

46.9

39.4

1532

40 38.30

$\alpha = 39 64.4$

α Arietis

20 33

+72 54

BB

20 2 56.8

6.5

12.8

12.8

289

23 7.22

June $\frac{22}{23}$ 1883

① C = 39 70.3

6 7 59

+23 26

BB

35 0 15.4

23.9

33.8

32.1

1052

35 26.30

Both limbs in R. A. Upper limb
in S. Seeing poor.

On the 5 the 4th lap was
considerably too early. Also
Rej. 5th lap & take 6th instead.

η Mrs. May.

13 42 32

+49 54

BB

20 3 41.5

49.4

3.4

53.0

2073

23 51.82

E Mrs. May, h.c.

12 48 48

+56 36

BB

40 2 16.1

24.0

38.8

27.7

1066

42 26.65

η Boots

13 49 3

+19 0

BB

15 3 16.0

19.5

32.7

29.6

978

18 24.45

$$C = 39 \ 70.3$$

C Virginis

12 56 17

+11 36

BB

40 1 52.8

58.1

10.3

8.9

10.1

42 2.52

$$C = 39 \ 69.5$$

5 Cass. L.C.

13 18 9

+120 23

BB

55 4 4.0

19.0

35.0

19.8

77.8

59
Sat A-1 19.45

T Virginis

13 55 38

+2 7

BB

5 4 47.5

51.8

4.8

2.4

2265

9 56.62

2 Dracon.

14 1 9

+64 57

BB

20 1 20.1

31.2

42.7

30.1

1241

21 31.02

Sat A-1, 3 + 4th laps of 5

June 24, 1883

 $C = 39 \ 69.4$ γ Cass.

0 49 38

+ 60 5

 $A_{+1} \ 345 \ A_{12}$ δ Cass.

1 18 9

+ 59 37

BB

40 0 15.2

24.4

34.9

25.6

1001

40 2502

 β Urs. Min. L.C.

2 51 0

+ 10 5 22

BB

55 1 54.2

10.7

19.8

7.1

318

57 7.95

 $C = 39 \ 69.4$ α Ceti

2 56 8

+ 3 38

 β Alb
Lost 1st w.
Reg. δ

June 24, 1883

x Androm

1 56 41

+41 46

B/B

30 1 15.3

23.5

33.3

27.2

99.3

31 24.82

x Arietis

2 0 33

+22 52.1

B/B

20 2 34.2

43.7

52.4

50.8

181.1

22 45.28

June ²⁴
25, 1883

① C = 39 71.37

6 16 18

+23 24

BB

35 2 34.6

45.8

53.5

51.0

1849

37 46.22

Both limbs in R.A.

Upper " " 5

Seeing pretty good.

γ Urs. Maj.

11 47 35

+54 21

BB

55 2 3.4

13.5

26.0

15.3

582

57 14.55

A₉ tap a little late.

λ Dracon.

11 24 27

+69 59

BB

15 3 48.0

0.49

10.5

57.5

2369

18 59.22

A₅ + C

ε Corvi

12 3 54

-21 57

BB

10 4 20.4

22.0

37.4

37.3

1171

14 29.28

Lost 4th tap 5

June 25, 1883

C = 39 71.7

x Cephei L.C.

11 34 33

+10 3 1

BB

15 2 34.8

50.0

3.5

45.2

1935

17 48.38

Soot +5

B Leonis

11 43 1

+15 14

BB

0 3 57.5

1.6

14.3

12.5

259

4 6.48

5 Corvi

12 23 37

-15 50

BB

5 2 55.2

57.2

13.7

13.5

96

8 240

y Urs. May:

13 42 52

+49 54

BB

20 3 37.9

46.2

59.4

50.0

1935

23 48.38

56

June 25, 1883
 η Bootis

13 49 3

+19 0

BB

15 3 5.5

9.5

22.0

19.2

562

18 1405

C = 39 71.7

T Virginis

13 55 38

+2 7

BB

10 0 26.3

29.9

44.2

42.9

1433

10 3582

 ι Cass. L.C.

14 19 26

+113 7

10 1 59.0

11.8

28.4

13.0

522

12 1305

 γ Bootis

14 27 18

+38 50

BB

25 3 2.1

11.0

23.0

15.4

515

28 1288

June 25, 1883
 α Dracon.

14 1 9
 +64 57

BB

20 1 29.8
 40.1
 50.5
 40.5
 1609
 21 40.22

α Bootis

14 10 16
 +14 48

BB

25 4 40.3
 47.2
 58.5
 56.4
 2024
 29 50.60

α^2 Libra

14 44 20
 -15 33

BB

45 4 23.2
 25.9
 40.6
 42.2
 1319
 49 32.98

β Urs. Min.

14 51 0
 +74 38

BB

35 4 47.9
 0.0
 11.8
 58.5
 2382
 39 59.55

58

June 25, 1883

B Bootis

14 57 29

+410 52

BB

25 1 26.0

—

—

—

48 H. Cephei L.C.

15 5 31

+10 2 42

BB

35 1 53.2

6.9

21.2

6.0

273

36 6.82

Lost 1st " W.

There seem to be quite a number
of extra breaks in the Chron. here.
Prob. due to weakness of current.
I switched off Russian Tran. circuit.

2 Serpentis

15 38 27 +6.48

BB

25 4 20.2

25.9

39.9

39.5

1255

29 31.38

2 Cor. Bor.

15 29 41

+27 7

BB

10 0 52.2

58.8

11.3

8.7

110

11 275

June 25, 1883

$$C = 39 \ 71.7$$

 β Librae

15 10 39

- 8 57

BB

10 3 33.0

34.0

49.7

46.9

1636

13 4090

 γ^2 Urs. Maj.

15 20 52

+ 72 15

BB

0 2 52.4

4.9

13.9

2.6

138

3 345

 γ Urs. Min.

15 48 16

+ 78 9

BB

5 3 26.2

40.6

50.2

38.4

1554

8 38.85

60

June ²⁷ 28, 1883

① C = 50 49.0

6 28 45

+23 17

RBI

RIB

10 4 54.2 15 0 40.9

5.5

51.2

11.3

56.8

11.1

56.9

22.1

205.8

14 55.25

15 51.45

E Covi C = 50 53.7

12 3 54

- #21 57

BB

10 3 41.0

44.8

57.0

58.9

2017

13 50.42

Lost A₁₁

Both limbs in S & R.A.
Lost some of last wires of
A & of A₁₁ 1st limb -
Lost A₁₁ 2 34 of 2nd limb.
Seeing very poor.

Sky very hazy
star faint

γ Virginis

12 35 40

-0 48

BB

0 4 59.7

6.2

16.0

14.8

367

5 9.18

pr. #

A₆ + C.

Sky hazy
stars faint

γ Urs. Maj.

13 42 52

+49 54

BB

20 3 16.0

27.0

38.1

28.0

1091

23 27.28

June 28, 1883
 δ Corvi

12 23 37

-15 50

BB

5-2 42.7

46.0

58.6

1.0

2083

7 52.08

Lost 1st 3w.

C = B 50 53.7

β Corvi

12 28 10

-22 45

BB

0 0 32.5

35.2

48.0

49.0

1647

0 41.18

Lost δ +1

η Bootis

13 49 3

+19 0

BB

15-2 47.3

53.6

4.0

1.0

2259

17 5648

T Virginis

13 58 38

+2 7

BB

5-4 47.5

51.8

3.6

3.4

2263

9 5658

Star faint

62

June $\frac{28}{29}$, 1883
 (2) $C = 50 \quad 53.7$

6 32 53 +23 14
 R13 R13
 W-28.1 15 3 26.2
 389 38.5
 458 44.8
 445 43.1
 1573 1526
 18 38.15

47 39.32

Both limbs in S & R.A.
 Seeing moderately good
 Collimation was accidental-
 ly disturbed & then reset
 between 1st limb & 1st S.

r^2 Urs. Maj
 15 20 52 +7215

B13
 0 2 28.0
 40.9
 49.3
 37.7
 1559
 2 38.98

$A_4 + C$

June 29, 1883

2 Cor. Bor.

15 29 41

+27 7

R.A. only
Lost some of A
& all but 1st of A-1

64

June ²⁹30, 1883

① C=50.53.9

6 37.2

+23 11

BB

50 1 29.8

40.6

50.1

47.3

1678

51 41.95

Both limbs in R.A.
Lost 1st 2nd limb.Upper limb in S
Clouds. Seeing poor.

Reg. T Virginis

13 55 38

Star too faint.

C=50.54.2

C Mrs. May.

12 48 48

+56 36

BB

40 2 35.9

46.5

58.2

49.2

1898

42 47.45

2 Dracon.

14 1 9

+64 57

BB

20 1 15.5

27.8

37.2

26.5

1070

21 26.75

June 30, 1883

C = 50 54.2

η Urs. Maj.

13 42 52

+49 54

BB

20 3 17.0

29.1

40.2

30.5

1168

23 25.20

η Bootis

13 49 3

+19 0

BB

15 2 38.5

44.3

54.9

53.1

1908

17 47.70

α Bootis

14 10 16

+19 48

BB

25 4 10.4

19.0

27.5

25.7

826

29 20.65

γ Bootis

14 27 18

+38 50

BB

25 3 56.3

7.6

18.1

10.1

321

29 8.02

Seeing very bad
star a big blur.

δ taps all seemed
to be slow, especially last one.

66

June 30 1883

J Audron.

1 56 61

+ 40 46
R 2

30 0 33

147

229

188

597

30 14.92

A

July 1

⊙
~~6 4 1 10~~

B New Min

14510

+7408

B Bootes

145729

+4052

RR

31-4 46.4

11.9

0.2

0.0

4.0 0.00

RR

25 157.2

17.7

18.9

11.7

355

27 888

2 New Min

15 20 52

+7215

RR.

30 2 41.7 14.2

57.2 28.2

4.9 26.3

55.8 27.7

2196 1064

32 5490 31 2660

2 Cor. Bor

15 28 41

+777

RR

10 094

19.1

27.2

26.8

825

10 2062

48 γ Caphei

15 - 5 31

102 42

RR RR

35 1 48.7 2 48.1

5.8

5.0

17.2

16.4

4.8

4.0

165

135

37 4.12 38 3.38

5 Brolos

15 - 10 44
+ 33 46

RR

30 2 544

26

126

8.7

163

33 4.08

C = 50 - 54.2

γ Cassio

0 49 38

+60 5-

RRB RRB RRB

10 3 43.5 12.0 2 27.4

54.6 23.6 38.5

2.8 30.5 46.0

56.4 24.5 40.1

2173 906 1520

13 54.32 22.65 12 38.00

β Arietis

1 48 9

+20 14

RRB

0 2 35.3

45.3

51.0

52.6

1842

2 46.05

70

July 1, 1883

x Androm

1 56 41

+41 46

BB

30 1 5.5

14.5

22.1

18.1

602

31 1505

x Arietis

2 0 33

+22 521

BB

20 2 14.9

25.5

31.1

32.9

10421

22 26.10

72

July $\frac{1}{2}$, 1883
 (C) C = 50 50.9
 6 45 18
 + 23 3

γ Cassiope.
 0 49 38
 + 60 5

	BB		BB		BB
55 4	42.1	30	0	15.1	10 3 43.6
	53.2			24.5	55.8
	0.6			32.5	3.8
	0.1			32.0	56.7
	2160			1041	2199
56	54.00	30	26.02		13 54.98

Both limbs in S
 1st limb in R. A and
 A-1 of 2nd limb in R. A.
 Seeing moderately good.

δ Arietis
 20 33
 + 22 54
 BB

20 2 8.4
 18.9
 25.2
 25.2
 777
 22 19.42

July 2, 1883

5 Cassiope

1 18 9

+59 37

B/B

35- 41 55.5

6.9

14.9

7.5

248

40 6.20

Lost 1st w.

8 Androm

1 56 41

+41 46

B/B

30 1 3.6

14.0

20.6

15.8

540

31 13.50

74

July $\frac{2}{3}$, 1883

① Q =

6 49 26

+22 58

RB

RB

0 4 10 30 4 30.1

11.7

42.2

18.1

49.4

16.6

45.9

47.4

167.6

4 11.85

34 41.90

Both limbs in S + R. A.

On 2nd limb lost some of
1st wire of A. Began again
at middle w.

Seeing pretty good.

12 Libra

14 44 20

-15 33

RB

50 0 16.0

17.7

33.0

33.9

1006

50 25.15

Reg. 2nd S

Hit telescope.

2 Bootis

14 10 16

+19 48

RB

25 4 13.0

20.4

31.1

28.7

93.2

29 23.30

3 Urs. Min

14 51 0

+74 38

RB

RB

RB

RB

40 0 20.4 4 55.9 32.2 17.5

33.0 9.4 45.9 29.9

43.5 18.8 54.0 40.9

30.9 6.9 43.0 28.2

1278 310 1751 1165

40 3.195 45 7.75 43.78 29.12

July 3, 1883

γ Bootis

14 27 18

+38 50

BR

25 2 42.7

53.0

2.9

54.8

2134

27 53.35

C = 50 56.0

ε Bootis

14 39 49

RB +27 35

40 3 25.1 2 34.3

34.5 43.5

44.1 54.2

39.9 49.0

1436 1810

43 35.90 42 45.25

β Bootis

14 57 29

+40 52

BR BR B

25 1 57.4 47.2 47.0

6.1 55.5 54.5

19.2 9.3 8.5

9.9 59.2 58.9

326 312 289

27 8.15 57.80 57.22

48 H. Cephæi L.C.

15 5 31

+10 2 42

RB RB RB RB

35 2 1.0 15.4 35.8 42.900

16.0 30.4 50.8 28.49

31.0 44.8 5.2 26.80

13.4 27.6 48.8 126

614 1182 2006 23.5

37 15.35 29.55 50.15 35 5.88

July 3, 1883
 β Libra
 15 10 39

-8 57
 RB RB R

10	4	11.9	2	518	52.3
		12.5		52.5	53.4
		28.5		9.0	9.8
		25.9		5.7	5.8
		788		390	13
14		19.70	12	59.75	0.32

$e = 50$ 56.0
 r^2 Urs. May?
 15 20 52

+72 15
 RB RB RB

0	3	17.3	241.8	20.7
		31.0	55.1	34.0
		39.4	4.5	42.6
		27.8	52.3	30.8
		1155	2137	1281
3		2888	25342	3202

2 Cor. Bor.

15 29 41

+27 7

R13 RB

10 0 50.5 126

58.4 206

99 310

6.1 278

49 920

11 122 2300

78

July $\frac{3}{4}$, 1883① $\odot = 50 \ 56.0$

6 53 34 +22 53

R13

R13

5- 4 15.5 = 35.4 56.4

28.3

8.5

38.1

16.5

32.3

13.5

1122

349

9 28.05

40 8.72

Both limbs in S.R.A
 Seeing pretty good

 $\odot = 50 \ 57.4$

2 Androm

1 46 41

4146

R13

30 2 9.0

194

300

20.8

792

32 19.80

 $A_{+1} \ 123$

July $\frac{4}{5}$, 1883

Q C = 50 54.4

6 57 41

RB +22 47 RB

10 4 34.7 415 0 25.2

45.2 34.7

54.8 45.9

52.5 42.5

1872 1483

14 46.80 45 37.08

Both limbs in S + R.A.
Lost 1st 3 w. 1st limb
Seeing remarkably fine.

Y Cass.

0 49 38 +60 5

RB RB RB

10 3 45.5 12.4 2 29.1

57.8 25.0 40.9

10.1 36.1 52.9

57.9 24.2 41.6

2313 977 1645

13 57.82 24.42 12 41.2

2 Arietis

20 33

+22 34

RB RB

20 3 20.3 2 1.9

31.2 12.2

41.2 22.8

36.5 18.5

1292 554

23 32.30 22 13.85

Coriops -

1 18 9

+59

37

BR BR BR

40 0 572 248 4.1
 80 358 14.8
 22.6 497 281
 8.7 357 150
 365 1460 620
 41 9.12 36.50 1550

Androm

1 56 41

+41 416

R13 R13

30 2 15.0 103.8
 25.4 13.4
 37.4 274
 27.5 15.5
 1053 581
 32 26.32 31 14.52

July $\frac{5}{6}$, 1883

① C = 50 57.4

7 1 48

+22 42

RB

RB

W. 0 40.1 50 1 27.3

49.5

36.2

21

49.1

50

43.3

20 87

1559

20 52.18

51 36.98

Both limbs in S & R.A.
Seeing very fine indeed.

E Mrs. May

12 48 48

+56 36

BB

40 1 29.4

39.3

56.5

41.3

1665

41 41.62

Sol 1st W.

x Bootis

14 27 18

+38 50

BB

25 2 37.5

46.3

3.3

51.3

1984

27 49.60

E Bootis

14 39 49

+27 35

BB

40 2 37.9

46.3

2.4

53.2

1998

42 49.95

ϵ Virginis

12 56 17

+11 36

BB

40 1 22.2

27.4

43.3

38.6

1315

41 32.88

 δ Virginis

13 18 58

-10 33

BB

45 4 9.0

11.0

32.4

25.8

782

49 19.55

 $A_5 = A_{+1} 5^\circ C$ α^2 Librae

14 44 20

-15 33

BB

45 1 21.6

23.5

42.5

40.5

1281

46 32.02

 β Urs. Min.

14 51 0

+74 38

BB

BB

40 0 15.6 4 25.5

28.2 39.2

44.1 52.4

26.5 35.8

1144 1529

40 2860 44 38.22

I think α^1 was taken
by mistake.

A

July 6, 1880

 β Bootis

14 57 29

+40 52

BB

25 0 47.0

53.3

13.5

58.9

2327

25 58.18

 $C=50$ 57.4

48 H. Cephei L.C.

15 5 31

+10 2 42

BB

BB

35 1 56.9 2 46.0

11.1

0.5

30.7

19.9

9.0

58.4

477

48

37 11.92

38 1.20

A

 α Cor. Bor.

15 29 41

+27 7

BB

10 0 9.7

17.9

33.1

25.0

857

10 21.42

 α Serpenti

15 38 27

+6 48

BB

25 3 39.1

45.1

3.7

58.2

20.61

28 51.52

$$C = 50 \ 57.4$$

β Libra

15 10 39

-8 57

BIB

10 3 5.0

5.6

27.2

20.0

578

13 1445

Soot A_{+1}

γ 2 Urs. Maj.

15 20 52

+72 15

BIB

BIB

0 3 28.1 2 18.2

41.5 31.4

55.9 46.0

38.5 28.8

1640 1244

3 4100 2 3110

A

γ Urs. Min

15 48 16

+78 9

BIB

BIB

5 4 11.3 3 17.2

28.4 33.3

43.1 47.4

23.9 29.5

1067 1274

9 26.68 8 31.85

A

δ Scorpii

15 53 21

-22 17

BIB

γ 30 2 29.2

31.9

52.0

46.8

1599

32 39.98

86

July 6, 1883
 β Scorpü

15 58 34

-19 29

BB

40 4 25.2

28.5

46.5

43.2

1434

4.4 35.85

Lost 1st w.

5 Ophiuchi

16 8 9

-3 23

BB

35 4 32.1

37.3

55.4

49.7

1745

39 43.62

C = 50 63.4

 β Arietis

1 48 9

+20 14

BB

0 2 25.1

34.7

48.0

40.8

1486

2 37.15

 $A_4 + C$

50 Cass.

1 53 17

+71 50

BB

25 1 43.8

56.9

8.7

55.0

2244

26 56.10

 $A_{+1} 3 + C.$

γ Cass.

0 49 38

+60 5

BB BB

10-3 24.0 2 17.5

35.9 28.8

48.6 42.5

35.9 29.0

1444 1178

13 36.10 12 29.45

Lost A_{-} $\delta^C = 50$ 57.4
Cass.

1 18 9

+59 37

BB BB

40 1 4.0 4 51.5

14.4 2.2

29.6 16.4

15.9 3.4

639 135

41 15.98 45 3.38

Lost A_{+} γ Androm

1 56 41

+41 46

BB

30 0 56.5

6.2

20.1

9.2

320

31 8.00

 δ Arctis

2 0 33

+22 54

BB

20 2 11.4

20.8

32.2

28.2

9 26

22 23.15

July $\frac{6}{7}$ 1883

① C = 50 63.4

7 5 54

+22 35

RB

RB

25 1 53.0 55 2 35.4

3.1

45.7

16.0

59.5

9.5

51.9

216

1925

27 540

57 48.12

E Virginis

12 56 17

+11 36

RB

40 1 23.4

29.1

45.1

39.3

1369

41 34.22

Both limbs in J + R.A.

A₂ + C on 1st limbA₆ + C " 2nd " "

Seeing rather poor.

B Mrs. Min.

14 51 0

+74 38

RB

RB

35 4 44.0 26.5

55.9 39.7

11.1 51.7

53.9 36.4

2249 1543

39 56.22 38.58

B Bootis

14 57 29

+40 52

RB

RB

25 1 56.4 0 37.7

3.5 44.6

22.2 2.3

8.5 49.5

306 1941

26 7.65 25 48.52

A-1

July 7, 1883

 α Bootis

14 10 16

+19 48

B

~~55 - 4 - 18.4 BB~~

25 4 14.9

22.1

37.1

31.0

1051

29 26.28

C = 50 63.4

 γ Bootis

14 27 18

+38 50

BB

25 2 43.5

55.2

9.1

57.2

2250

27 56.25

48 H. Cephei L.C.

15 5 01

+102 4.2

RB

35 1 43.9 2 5.9 25.2 49.1

58.3 20.4 40.7 4.1

17.5 39.2 59.5 23.0

56.5 17.8 38.3 1.3

2362 833 1637 175

36 59.05 37 2082 4092 438

5 Bootis

15 10 44

+33 46

RB

RB

30 2 53.8 1 37.3

0.0 44.7

17.5 0.7

6.1 50.0

174 1927

33 4.35 31 48.18

July 7, 1883

C = 50 63.4

r² Urs. Maj.15 20 52
+72 15

RB — — —

0	3	31.1	6.4	2	38.1	15.5
		45.1	18.7		49.5	28.3
		58.8	32.6		4.8	42.0
		41.1	15.7		48.2	25.4
		1761	734		2006	1112
3		4402	1835	2	50.5	27.80

2 Cor. Bor.

15 29 41
+27 7

RB RB

10	1	23.1	0	4.6
		31.5		14.1
		46.8		28.0
		37.9		20.3
		1393		670
11		3482	10	16.75

5 Scorp*i*15 53 21
-22 17

RB RB

30	3	42.1	2	21.0
		46.2		23.7
		6.0		44.3
		59.6		38.5
		2139		1275
33		5348	32	31.88

β' Scorp*i*15 58 34
-19 29

RB RB

45	0	30.5	4	26.5
		32.1		29.6
		50.2		47.1
		47.8		44.5
		1606		1477
45		4015	44	36.92

2 Serpentis
15 38 27

R13 +6 48
R13

25 41 53.8 3 344
59.7 410
17.2 549
13.0 541
237 1874
29 5.92 28 46.85

3 Urs. Min-
15 48 16

+78 9

R13 R13 R13 R13

5 4 13.8 3 59.6 29.8 6.4
30.3 16.4 45.2 21.3
43.5 31.0 59.3 36.8
26.1 11.0 41.8 17.8
1137 580 1761 823
9 28.42 9 14.50 44.02 20.58

5 Cephinchi
16 8 9

-3 23

R13 R13

40 0 50.1 4 33.8
54.4 39.5
11.8 56.2
6.5 51.5
28 1810
41 0.70 44 45.25

4 Draconis
16 22 23

+61 47

R13 R13 R13

30 1 35.0 0.1 0 18.0
47.3 11.1 29.0
3.0 28.5 45.5
46.7 11.5 29.2
1920 512 1217
31 48.00 1280 30 3042

92

July 7, 1883

 β Herculis

16 25 8

+21 45

RB

RB

30 2 59.9 1 46.6

9.2 55.9

24.2 10.5

15.0 1.6

1683 2346

32 42.08 31 58.65

94

July ⁸/₉, 1883

① C=50 63.4

7 14 6

+22 22

BB

BB

10 1 52.0 35 4 24.1

3.9

37.7

11.3

43.3

10.5

42.0

177

1471

12 4.42 39 36.78

Both limbs in δ 1st limb in R.A.Lost all after A_4 or A_5 Also got A_{-1} 5 of 2nd limb

Clouds - Seeing steady -

N Proclis

1345 3

+19 0

RR

11-3 357

487

587

577

20 4.8

18 51.20

C=50 63.4

E Urs. Maj.

12 48 48

+56 36

BB

BB

40 2 6.2 1 23.9

16.9

35.5

28.5

44.5

20.4

37.5

720

1414

42 18.00 41 35.35

Lost A_{-1}

E Bootis

14 39 49

+27 35

RB

40 3 46.8

56.7

4.5

3.4

2314

43 57.85

Reg. 2nd δ

C = 50 63.2

2 Virgo

13 18 58

-10 33

BB

45 4 6.3

9.8

23.0

23.8

629

49 15.72

Rej 1st 5.

2 Ursa Major

13 42 52

+49 52

RR

20 4 16.8

290

411

32.8

1197

24 29.92

Lennybad

2 Libra

14 44 20

-15 33

RB RB

50 0 14.4 8 49.8

18.2 55.1

29.8 4.7

34.3 9.1

967 2393

50 24.18 53 59.82

3 Urs. Minor

14 51 0

+74 38

RB RB RB RB

40 0 40.0 4 47.8 28.7 18.2

52.3 2.2 43.6 32.6

58.8 6.7 47.6 37.6

51.0 59.5 40.4 30.0

2021 2362 1603 1184

40 50.52 44 59.05 40.08 29.60

96

July 9, 1883

B Bootis

14 57 29

+40 52

RB RB

25 1 47.9 0 39.1

56.7 .47.8

5.8 57.0

0.9 52.4

2313 1963

26 57.82 25 49.08

C=50 63.2

3 Mrs. Min

15 48 16

+78 9

RB RB RB RB

5 4 30.0 4.3 3 47.4 28.2

47.6 22.0 3.5 45.0

50.5 26.1 8.6 49.3

43.8 18.3 2.1 42.5

1719 707 16 1650

9 42.98 17.68 0.40 841.25

Stopped observing on
acc't of bad seeing.

98

July $\frac{9}{10}$, 1883① C = 50 63.2
7 18 12

		+22	14	
45	2	RB		RB
		40.0	15 3	26.8
		52.0		38.0
		57.6		44.1
		57.7		44.2
		20.73		15.31
47		51.82	18	38.28

Both limbs in δ + RA.
 Lost A₊ 123 1st limb
 Seeing very bad.

E Bootis

14 39 49
+27 35

		BB
40	2	35.1
		44.7
		53.5
		51.5
		18.48
42		46.20

C = 50 63.2
E Wrs. Maj.
12 48 48

		+56	36
		BB	BB
40	2	32.0	1 25.65
		43.0	36.0
		53.1	46.2
		45.3	38.4
		17.34	14.61
42		43.35	41 36.52

Lost A₋r² Wrs. Maj.
15 20 52

		+72	15
		BB	BB
0	3	8.0	2 18.6
		22.0	31.6
		27.7	37.5
		18.8	29.2
		76.5	116.9
3		19.12	2 29.22

A

C = 50 66.3

L Virginis

13 18 58

-10 33

RB RB

50 0 18.8 4 0.6

19.5 3.4

34.2 16.8

36.2 18.5

1087 393

50 27.18 54 9.82

Y Bootis

14 27 18

+38 50

BB

25 2 44.4

55.8

3.0

58.1

2213

27 55.32

L Cor. Bor.

15 29 41

+27 7

BB

10 0 13.5

22.5

30.0

30.2

962

10 24.05

L Serpenti

15 38 27

+6 48

BB

25 3 44.6

51.7

1.1

4.5

2219

28 55.48

Lost A₊ 123

100

July 10, 1883

C=50 66.3

3 Urs. Min.

15 48 16

+78 9

BB BB

5 4 27.8 3 16.5

45.0 33.0

48.9 38.0

40.9 28.8

1626 1163

9 40.65 8 29.08

5 Scorpii

15 53 21

-22 17

BB

30 2 27.9

33.1

44.9

46.9

1528

32 38.20

C=50 66.3

2 Scorpii

16 22 10

-26 10

BB

50 4 57.0

6.0

15.5

18.4

369

55 9.22

C=50 69.6

3 Arietis

1 48 9

+20 14

BB

0 2 26.3

37.2

42.2

42.5

1482

2 37.05

A₋₁

July 10, 1883

 β Scorpii15 58 34
-19 29

BB

40 4 22.0
27.4
37.6
41.8
1288
44 3220 δ Ophiuchi16 8 9
-3 23

BB

35 4 32.0
38.5
47.5
51.0
1690
39 42.25 γ Androm.1 56 41
+41 46

BB

30 1 1.2
12.9
18.9
14.2
472
31 11.80 α Arietis2 0 33
+22 54

BB

20 2 7.1
18.4
24.0
24.5
740
22 18.50

102

July $\frac{10}{11}$, 1883

① C = 50 69.6

7 22 16

+22 6

BB

25 1 22.2

33.4

39.8

40.0

1354

26 33.85

1st limb A_{+1} and a few w. of A .Lower limb A & A_{-1} 2nd limb A and A_{-1}

Seeing steady - Cloudy.

2² Libra

14 44 20

-15 33

BB

45 4 3.8

7.3

20.9

23.6

556

49 13.90

E Mrs. Maj.

12 48 48

+56 36

BB

40 2 38.1

48.4

59.3

50.8

1966

42 49.15

Lost A_{-1}

B Mrs. Min.

14 51 0

+74 38

BB

BB

40 0 8.7 4 26.5

22.5 40.2

32.6 47.3

19.9 37.0

837 1510.

40 2092 44 37.75

A

July 11, 1883

2 Virginis

13 18 58

-10 33

RB

RB

50 0 14.3 4 1.1

14.8 4.0

30.5 19.1

31.0 19.0

906 432

50 22.65 54 10.80

E Bootis

14 39 49

+27 35

RB

40 2 39.3

47.5

58.1

55.8

2007

42 50.18

β Bootis

14 57 29

+40 52

RB

25 0 42.5

50.6

3.4

54.4

2109

25 52.72

48 H. Cephæi L.C.

15 5 31

+10 2 42

RB

35 2 30.6

46.1

59.8

44.1

1806

37 45.15

A.C.

July 11, 1883

 β Librae

15 10 39

-8 57

BB

10 3 2.5

1.9

19.2

16.5

401

13 10.02

 $\phi = 50.69.6$ γ^2 Urs. Maj.

15 20 52

+72 15

BB

BB

0 3 14.3 2 15.3

28.2 29.4

38.0 38.1

25.1 26.2

1056 1090

3 26.40 2 27.25

Lost A_1 γ Urs. Min.

15 48 16

+78 9

BB

5 4 17.1

35.1

43.2

30.2

1256

9 31.40

Reg. 2nd 5 A_{+1} 3 + C δ Scorpii

15 53 21

-22 17

BB

30 2 27.2

29.7

46.0

45.8

1487

32 37.18

2 Cor. Bor.

15 29 41

+27 7

BB

0.9

10 0

~~1.0~~

9.9

20.0

16.5

473

10 11.82

2 Serpenti

15 38 27

+6 48

BB

25 3 36.3

43.3

54.4

55.2

189 2

28 47.30

B' Scorpi

15 58 34

-19 29

BB

40

4 23.5

26.3

39.9

41.5

131 2

44 32.80

5 Ophiuchi

16 8 9

-3 23

BB

35 4 33.2

38.6

51.1

50.8

173 7

39 43.42

July 11, 1883
 2 Scorpii

16 22 10

-26 10

BB

25 0 -1.1

4.0

17.1

19.0

390

25 9.75?

5 Cass.

1 18 9

+59 37

BB

40 0 45.4

55.8

7.5

57.8

2265

40 56.62

2 Arietis

2 0 33

+22 54

BB

20 2 7.5

19.1

26.4

25.0

780

22 19.50

β Arietis

1 48 9

+ 20. 14

BB

0 2 24.3

34.0

43.0

40.0

1413

2 35.32

 γ Androm

1 56 41

+ 41 46

BB

30 0 59.0

10.2

18.2

11.5

389

31 9.72

July ¹¹/₁₂, 1883

⊙ C = 50 49.6

7 26 21

RB + 21 58
 U 3 50.8 30 41 47.4

3 2 59.9

11' 1 7.4

8' 0 4.4

131 2391

4 328 34 59.78

δ Virg C = 50 66.9

12 49 39

+ 4 2

BB

10 4 19.5

27.6

39.7

38.6

12 54

14 31.35

Both limbs in J + R.A.
 Lost A₁, & perhaps some
 wires of A on 1st limb.

Seeing very fine indeed.
 The collimation was wrong from
 having been measured on a wrong
 wire. C = 0 = 50 66.9

β Bootis

14 57 29

+ 40 52

BB

25 0 47.4

56.5

8.2

0.0

23 21

25 58.02

48 H. Cephæi L. C

15 5 31

+ 10 2 42

BB

35 1 48.4

3.3

15.5

1.2

84

37 210

July 12, 1883
 E Virginis

12 56 17

+11 36

BB

40 1 23.9

31.0

42.0

40.2

1371

41 34.28

2 Virginis

13 18 58

-10 33

BB

45 4 6.5

8.0

24.6

23.2

623

49 15.58

5 Bootis

15 10 44

+33 46

BB

30 1 40.0

48.6

59.5

52.9

2010

31 50.25

2 Cor. Bor.

15 29 41

+27 7

BB

10 0 11.9

21.3

30.4

27.4

910

10 22.75

June 12, 1883

C=50 66.9

2 Serpenti

15 38 27
+6 48

BB

25 3 39.5

46.8

59.5

59.1

2049

28 51.22

3 Urs. Min.

15 48 16
+78 9

BB

5 4 4.6

21.3

29.5

17.1

725

9 18.12

Lost A₋₁

δ Scarpia
15 53 21
-22 17

$A_6 + C$

Lost δ -
Clouds-

112

July 14, 1883

e Bootis

14 39 49

+27 35

BB

40 2 37.8

44.6

59.1

53.3

1948

412 48.70

C = 50 66.8

L² Libra

14 44 20

-15 33

BB

45 3 59.1

3.6

18.1

18.0

388

49 9.70

48 H. Cephæi L.C.

15 57 31

+102 42

RB RB RB

35 2 23.4
+ 48.1 35.2 56.5

37.3 50.0 11.6

53.1 70 27.5

35.2 48.0 8.5

1490 2002 441

37 37.25 50.05 11.02

5 Bootis

15 10 44

+33 416

RB RB RB

30 2 50.8 1 36.2

57.8 44.5

12.9 57.8

3.6 49.1

5.1 1876

33 12.8 31 4690

Reg. 1st 5

(B) Urs. Min.

14 51 0

+74 38

BB BB

40 0 13.2 4 17.2

24.2 29.8

37.8 41.2

23.0 27.5

982 1157

40 24.55 44 28.92

Lost A₊ 1nd A₋

(B) Bootis

14 57 29

+40 52

BB

25 0 40.2

47.2

2.3

51.9

2016

25 50.40

Lost A₊r² Urs. Maj.

15 20 52

+72 15

RB RB RB

0. 3 16.5 2 38.4 15.3

29.2 50.2 27.0

40.8 2.4 39.2

26.2 48.1 24.9

1127 1991 1064

3 28.18 2 49.78 2660

2 Serpentinis

15 38 27

+6 48

RB RB

25 4 31.0 3 29.5

37.5 35.8

51.5 49.5

50.2 48.0

1702 1628

29 42.55 28 40.70

July 14, 1883

C=50 66.8

3 Urs. Min.

5 Scorpii

15 48 16

15 53 21

+78 9

-22 17

R13 R13 R13

R13 R13

5 4 2.1 3 43.4 19.5

30 3 37.4 2 20.5

18.3 58.9 35.4

39.5 22.9

30.0 11.0 45.9

57.9 40.0

13.5 55.6 31.2

54.9 37.8

639 2289 1320

1897 1212

9 1598 8 57.22 33.00

33 47.42 32 30.30

3 Dracon.

3 Herculis

16 22 23

16 25 8

+61 47

+21 45

R13 R13

R13 R13

30 1 7.0 0 40.5

30 3 1.1 1 47.0

17.9 52.2

11.0 57.0

33.0 6.1

23.5 8.2

19.1 52.2

16.9 2.5

770 2110

525 2347

31 19.25 30 52.75

33 13.12 31 58.68

β' Scorpii

15 58 34

-19 29

R13

R13

45 0

36.3 4 21.76

37.8 24.6

53.7 40.1

53.9 39.5

1817 1258

45 45.12 49 31.45

 δ Ophiuchi

16 8 9

-3 23

R13

R13

40 0 44.4 4 28.5

48.5 33.3

3.0 46.5

1.1 45.0

2170 1533

40 54.25 44 38.32

Aug 25 1913

W.R. returns from his vacation
which began Aug 22

W.R. begins 9 quinox observations
on this date and also reads the circles
Mr. Brown having resigned and left his
observatory Aug 1

Aug 25 1883 @ = 50 75.2

β Draconis

17 27 45
+ 52 24

R

50 3 43.2

57.7

10.8

1.2

23 29

53 58.22

ψ Draconis

17 44.01

+ 72 12

R

5 0 58.9

16.5

26.5

16.1

58.0

6 14.50

δ Ursae Min

18 10 21

86.7

R

40 1 15.8

32.2

43.2

31.6

12.26

41 30.65

40.20

χ Draconis

18 23.0

+ 72 41

35 1 12.0

27.1

39.0

26.8

10.49

36 26.22

41.1

2 Dross.

17 53 52

+51 31

R

45 2 367

51.0

48

53.8

2063

47 51.58

22 No Comm

18 5-57

~~156~~ 37

110 38

40 0 817

56.8

72

49.9

1996

40 49.90

✓ Lyrae

18 32 57

~~138~~ 31

R

35 1 497

27

15.7

7.7

152

36 3.80

122

Aug 25 C = 50 452

57 Cephei

184442

9247

R

30

1

243

407

554

418

1622

31

4055

90+295

251-454

597

463

1809

4522

2

08

171

313

177

669

32

1672

150

312

413

319

1234

3085

i Aurigae

4 49 19

+82 59

R

15

4

41

178

266

209

692

19

1730

B Eridani

5-2 3

-5 14

30

0

51

121

222

230

629

30

1572

γ Aquarii

19 0 00

+13 42

R

350

873

45-5-

542

58'3

2003

35 50.08

γ Aquarii

5- 7 59

+41-52

20- 0

434

556

32

587

2209

25 55.22

γ Orionis

5- 14 48

+6 11

0

2 430

540

15

53

2238

2 55.95

124

Aug 25 @ = 10 45.2

J Orinus

5-25-19

- 23

40 0 16.8

23.5

33.5

36.1

109.9

40 27.48

Z Orinus

5-34-39

- 2 0

15 2 31.3

39.1

47.8

49.4

167.6

17 41.90

C = 10 77.9

u. Kern.

6 15.29

+22.31

40 2 26.6

35.7

46.8

46.1

159.2

42 39.80

K Orion

5-42 10

-9 43

55 4 342

415

561

57.2

1800

59 45.00

C = 50 75.2

x Orion

5-48 47

+723

50 4 217

330

398

42.0

1365

54 34.12

126

Aug 26 $c = 50$ 779

① 10 20 5-
+10 2 3

35	3	295	5	4	58
		391			140
		480			246
		490			251
		1660			695
38		41.50		9	17.38

Both lines in γ
I in R. of Midway fall.
Ding fair

B Bootis
14 57 29
+40 52

25	1	38
		128
		286
		182
		634
26		1585

γ Bootis
14 27 18
738 10

25	2	403
		508
		58
		55.3
		2117
27		5292

α Corion
15 49 41
7277

40	1	70
		168
		291
		236
		765
41		1912

E Bortle
143949
+2435-

B Mue Min
14510
+7438

40 3 450
530
58
19
2277
43 5692

35 4 381
522
18
501
2022
39 5055

C = 50 779
✓ Serpens
153827
+644

25 4 452
581
43
61
2287
29 5718

@ = 50 83,2
J
30 2 127
✓ Scorpius
155321
-2217
30 2 121
162
332
320
941
32 23,52

128

Aug 26 1883 @ = 50 83.2

J Ophiuchi

16 8 9

-3 2 3

R

40 0 2.8

260

41.2

40.0

1290

40 32.25

2 Draconis

16 22 25

+61.47

30 0 140

260

39.8

28.0

1078

30 26.95

A 2.345

2 Canis m

16 42 25

113 51

25 3 45.2

28

20.8

4.6

134

29 3.35

A 40.22

A 71

2 Ursae m

16 150

+52.14

0 4 38.7 3 56.4

57.2

15.0

8.2

25.8

34.1

11.6

218.2

48.8

4 54.55 4 122.0

20ph.
16 30 09
-10 20

2 Mercuris
16 38 51
+39 9

35 1 44.2
45.2
3.0
1.5
2139
36 53.48

5 4 0.7
12.2
24.7
15.2
528
9 13.20

20ph.
17 327
-1534

50 1 19.0
21.1
38.8
89.4
118.3
51 29.58

21 Mercuris
17 9 16
+41 32
45-0 431
50.0
14
59.7
2142
45 53.55

130

Aug 26 C = 50832

Σ Aurigae

5-1759

4552

β Tauri

5-1750

+2830

R

25 0

441

569

53

13

2276

25 5690

R

15 2

346

461

123

538

1888

Seeing bad

17 4720

Σ Orionis

C = 50832

5-4547

+723

50 4 213

312

416

438

1379

54 3448

\int Quia
 5-25-59
 -0 23

γ Quia
 5-34-39
 -2 0

R
 30- 4 100
 17.2
 28.7
 30.8
 86.7
 39 21.68

R
 15- 2 284
 35.1
 46.7
 48.2
 158.4
 17 39.60

132

Aug 27

0

 $C = 50$ ~~82~~
789

10 23 45

+10 2

n Name Aug $C = 50.7$ ~~6.3~~

13 42 52

+49 54

R

55- 4 23.6

34.0

44.2

46.0

R

20 3 339

478

591

578

1478

59 36.95

Upper limb in V
Thick R.T. λ_e II " " λ_e & C

Seeing good.

1926

23 48.15

Chf

J. Borris

14 27 18

+38 50

E Borris

143949

+27 35

23

25 3 39.7

54.0

37

58.2

2156

28 53.90

40 3 12.4

260

348

330

1062

 λ_e C 43 26.55

n Bortis
13 49 3
+190

x Bortis
141016
+19 48

15 2 150
246
346
352
1094

29 8 1-91
10.6
212
204
513

17 27.35

Chy
A32c.
Sout A 45

B Bortis
145729
+4052

Cor. Bn
152941
+27 7

25 1 425
53.2
53
581
2191
26 54.78

10 1 6.7
188
274
260
789
11 19.72

Aug 27 @ = 5076.3

✓ Serpentis

15-38 27
+6 48

25-4 324

43.2

53.8

56.0

18 54

29 46.35

Saphir

16 8 9

-323

35-4 23.8

32.8

44.3

46.9

147.8

36.95

39
Reg, 11-1

Top

16 30 39

-10 20

R

35-1 30.4

34.3

50.1

49.9

16 47

36 41.18

Mercurius

16 38 51

+39 9

R

5-3 56.2

91

19.9

14.7

39.9

9 9.98

h Dracois

16 22 23

+ 61 47

30 1 201

33.1

45.6

35.4

1342

31 33.55

B Neaulis

16 25-8

+ 21 45

30 2 42.4

54.6

30

28

2228

32 55.70

2 Orionis

5- 42 47

+ 7 23

C = 50 76.7

50 4 25.6

37.8

43.2

47.8

1544

54 38.60

C = 50 78.1

7 Rigel

6 30 54

+ 6 30

45- 2 50.8

0.2

6.0

9.6

6.6

48 1.65

136

Aug 27 1883 @ 5078.1

L Can. mag.

$$\begin{array}{r} 6 \quad 39.57 \\ -16.35 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \quad 4 \quad 56.4 \\ 4.7 \\ \hline \end{array}$$

13.1

19.4

33.6

50 8.40

L Sem.

$$\begin{array}{r} 7 \quad 27 \quad 3 \\ +3 \quad 29 \\ \hline \end{array}$$

5- 4 818

45.6

50.7

51.5

179.6

9 44.90

2 Gen Can M.

$$\begin{array}{r} 33.7 \\ + 5.32 \\ \hline \end{array}$$

$$\begin{array}{r} 45-1 \quad 6.1 \\ 16.1 \\ 23.6 \\ 28.7 \\ 74.2 \end{array}$$

416 18.55

B Gemma

$$\begin{array}{r} 38.5 \\ + 28.19 \\ \hline \end{array}$$

$$\begin{array}{r} 55-4 \quad 34.0 \\ 46.8 \\ 52.4 \\ 13.8 \\ 187.3 \\ 59 \quad 46.82 \end{array}$$

Aug 24 0 = 50 75.1

① 10 27.24
79 41

Ψ , Procoris
1744.1
+ 7212

35 1 23.8 45 1 368
32.1
356
442
428
53.2
57.1
189.9

5 0 39.2
85.6
1.8
54.3
210.9
5 52.72

Both limits \int 1407 46 47.48
36 35.18

I = A.R.
II = A.R. A₁

being moderate.

η Serpens

18 11 13
- 256

10 2 368

45.4

55.1

58.1

1954

12 48.85

χ Procoris
182310

772 41

35 2 154 340

83.5 50.0

41.2 57.1

38.0 49.0

126.5 190.1

37 31.62 47.52

P Doco
17 13 52
+ 57 31

45- 2 356

51.0

0.8

53.0

200.4

47 50.10

S Musae Mi
18 10 21
+ 16 37

40 1 491 45.2 397

52.34 56.2

14.8 100 32

51 1.9 55.6

162 05 2147

42 4.05 0.12 53.68

L Lynae
18 32 57
+ 13 84

35- 2 63

20.2

27.9

24.4

78.8

37 19.70

51 Caprea
18 44 42
+ 52 47

30 1 249 31.2 34.2

41.9 48.7 50.8

57.2 57.9 00

41.8 48.6 57.3

159.8 186.4 196.3

31 1 542 39.95 46.60 49.08

Aug 22 1883 e = 10 78.1

o Sagittarii

11 47 57
- 26 26

40 1 55.6

42

15.3

20.1

35.2

42 8.80

5 Aug Deco
~~7 Aug Deco~~

19 12 32

+ 13 42
67 27

415 0 47.2 45-4 53.1

3.2

11.0

11.6

19.8

3.6

10.0

5.6

33.9

46 1.40

50 8.48

1 Aug Deco

19 45 2

+ 8 34

40 3 24.5

36.6

46.0

48.8

156.2

43 39.05

B. Aug Deco

15 45 32

+ 6 7

10 0 9.3

19.3

28.1

32.9

89.6

10 22.40

β Cygni

19 25 58

1940

3. 4 3 2.2

46.8

54.0

57.8

204.8

34 5 120

 β Aquarii

19 40 40

770 20

55 2 214

31.8

40.1

43.1

1364

57 34.10

 β Aurigae

4 49 19

+32 59

45 3 10.6

22.8

28.2

26.4

88.3

48 2208

A 45-

 β Eridani

5- 2 3

-5- 14

30 0 4.2

11.1

19.1

21.8

56.2

30 14.05

A 23 45-
J?

142

Aug 21/110

2 Superior

5-7 19

74.5-52

10
Pami

5-1450

+28 30

25 0 504

23

9.7

5.2

76

26 1.90

45 2 467

46.0

55.7

54.7

2055

47 51.38

PS ~~Estadani~~ ~~Scunin~~

5-2 3 5-15-15
-5-14 -0 23

35 4 178

258

338

438

121 2

39 39.30

5-14-23
J? x e

x Orion's

5-45 17

+7 23

45 3 29.3

400

46.3

50.2

1658

48 41.45

A e

144

Aug 29 1883 C = 50 804

1740 ψ Draconis

1744 /

774 12

2 Draconis

1753 J

+51 31

5 0 464

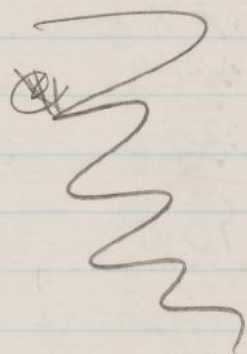
1.1

4.2

0.8

2325

5 58.12



11 Serpens

18 15 13

- 256

10 2 41.6

49.4

56.4

0.8

2082

12 52.05

18 Draconis

18 2310

+72 41

35 2078 0 574

22.2

12.6

26.1

16.7

20.8

11.8

76.9

38.5

37 19.22

36 9.62

2-7 Camel

18 5-57

7110 38

40	0	33.6	1	218
		518		358
		02		488
		50.3		39.0
		1959		1494
		4898		37.35

J. R. R. R.

18 10 21

7110 37

401	231	0	410	360	30.7
	401		12	529	47.2
	446		6.3	578	57.8
	37.8		59.7	52.2	45.2
	1456		23.22	1989	1749
	3640		58.05	49.72	43.72

A 670
30

2 Lyne

18 32 57

138 41

35	2	80
		21.2
		26.5
		25.0
		812
37		20.30

5-1 Cephei

18 48 42

92 17

30	1	26.9	32.2	373	165	286	385
		438	480	53.2	328	440	56.2
		58.2	63.0	04	407	52.2	2.0
		43.1	48.8	53.2	32.8	44.6	55.2
		1640	1840	2041	1223	1694	2119
31		41.09	46.00	51.02	30.58	42.35	52.98
		90	6.58				

Aug 29 C = 50 504

♂ Sagittarius
184 717
-26 46

♂ Aquarius
19 0 0
+13 42

40 1 554 16.5
8.7 32.8
13.8
20.0
32.9
42 8.22

35 0 509
59.1
6.0
11.1
7.1
35 1.78

♂ Aquarius
19 40 40
+10 20

♂ Aquarius
19 45 2
+13 4

55 2 219
32.2
38.3
43.0
1354
57 33.85

40 3 28.2
38.4
45.3
49.8
1617
43 40.42

✓ Procy.

19 12 32

67 27

20 0 45.0

2.2

8.2

11.0

5.4

21 1.35

B Cygni

15 25 58

727 43

30 4 38.9

51.9

15.8

57.4

2060

34 5 1.50

10 Aquila

15 45 32

+6

0 0 30

13.2

18.8

25.7

60.7

10 15.18

2 Tauri

4 29 10

+16 16

0 1 10.6

20.1

24.0

28.3

83.0

1 20.75

Aug. 29 @ - 50 524

C. Herring

4 49 15

+32 19

15 3 54.5

91

130

108

274

19 6.85

Chf.

B. Oring

5-8 52

-8 20

20 1 80

157

199

23.6

672

21 1680

Lat. 1

Chf.

R. Oring

5-42 10

-9 43

55 4 31.5

40.0

448

493

1656

59 41.40

L. Oring

5-8 54

+723

10 4 264

-399

412

46.1

1536

54 38.40

B Tami
5-1850
+2880

L' Ours
5-2940
-559

15-2 353
50.2
580
53.4
1919
17 47.98

Low-✓

Wit-telescope.

Aug 30 1880 C = 50 76.5

Σ Brilis
14 35 45
+ 17 35

B. Uranus
145.0
+ 74.35

40 2 58.5
11.7
18.1
18.2
46.5

43 11.62
A 320
+1

40 0 2 3 35 4 39 4 91
38.5 55.2 25.8
44.5 17. 313
38.3 52.5 24.0
1451 2111 902
40 36.28 151-5(?) 39 5278 2255
A 1220

Σ Cor. Br.
15 29 41
+ 27 7

10 1 12.0
22.9
19.4
30.1
11 9.44
11 23.60

Σ Serpens
15 38 27
+ 6 48

25-4 377
46.8
55.1
0.3
199.9
29 49.98

5 Bootis
15 10 44
+33 46

22 Ursa Major
15 20 52
+7 2 15

30 2 43.8
55.8
1.7
59.1
2204
32 55.10

0 2 20.1
3.5
41.6
34.0
1308
2 32.70

Reg 15 ✓

5 Ophiuchi
16 8 9

— 0 23
35 4 20.2
29.3
39.1
42.8
1314

44 20 39 32.85

2 Draco

30 1 26.2 32.8
41.7 46.1
50.1 55.3
42.6 48.2
1607 1824

31 40.18 45.60
20 20

Aug 30 1883 C=50 46.4

30m.

16 30 39

35 1 363
- 10 20

35 1 363
412
520
557
18 52

36 46.30

K. Heron's

16 28 51

+ 35 5

5 4 4.7
-
-
-
-

22 K Camel

18 51 7

+ 110 38

40 0 251
428
534
428
1641

40 41.02

5 K Camel

18 16 21

+ 86 27

40 1 16.2
33.3
38.2
31.7
11.94

41 29.85

ψ Draconis

17 44 1

+72 12

5 0 2.7

18.1

22.7

16.8

60.3

5 15.08

 γ Draconis

17 13 52

+51 31

15 2 35.1

49.2

56.9

52.1

19.33

17 48.32

 η Serpentis

18 15 13

-2 56

10 2 25.0

31.9

41.6

46.2

14.47

12 36.18

 χ Draconis

18 23 10

+72 41

25.1 27.2 1 0.7

43.1

16.2

47.9

41.3

42.2

15.9

16.04

54.1

A 36 40.10 36 13.52
52C

154

Aug 30 1883

Lynce

18 32 57

+38 41

35 208.2

219

276

282

839

37 2098

51 Cephei

18 44 42

+92 47

30 1 25.2 295 35.2 140 219

413 460 510 303 388

503 548 01 352 468

414 46.2 576 307 388

1580 1769 1979 1142 1463

31 39.50 44.22 49.48³² 28.55 36.58

B 5 Tauri

18 50

+28 30

152 346

444

523

52.6

1872

17 46.80

J. Orionis

5-25-59

-0 23

40 0 10.0

17.0

24.3

29.3

806

40 20.15

♂ Sagittari

1847 57

-26 26

~~297~~ 40 1 585

6.2

17.0

22.8

445

42 11.12

♂ Aquilae

1900 42

35 0 50.0

59.1

6.1

10.5

5.7

36 1.42

♂ Orionis

5-30 14

-11.4

30 2 49.8

55.8

4.2

9.2

1.0

33 0.25

♂ Orionis

05-34 37

-2.0

15-2 18.0

26.1

32.2

37.8

11.41

17 28.52

Aug 30 1883

K Orionis

5-42 10

-9 43

55 4 34.6

41.7

49.0

53.1

178.4

59 44.60

 α Orionis

5-42 47

+7 23

50 4 22.9

34.1

39.6

45.1

14.17

54 35.42

 β Can Min

7 20 48

+8 31

45 1 5.2

14.8

21.2

26.8

68.0

46 17.00

 α_2 Gen

7 2 73

+3 29

5-4 31.2

44.9

48.4

49.0

17.38

9 43.45

γ Gem
6 30 54
+16 30

45 2 21.1
30.2
35.2
39.1
12 56
47 31.40

α Can. Min
8 39 54
+16 30

15 4 13.6
1.6
9.2
16.1
20.5
20 5.12

α Can. Min
7 33 7
+15 32

45 1 7.0
16.2
21.9
28.8
73.9
46 18.48

β Gem C=50768
5 35 5
+28 19

55 4 24.0
37.3
41.8
48.7
146.8
59 36.70

Aug 30 / 1883 C=50 80.1

① 38 20
 10 34 41
~~18 58~~
 78 36

~~40.0~~
 40-0-49.0

56.3

4.8

98

2399

40 59.98

53.1 21.2

29.1

37.1

41.1

1285

56 32.12

Sept-1
~~Aug 31~~ HB C = 50 80.2

o Dwevo's
 17 07 38
 76 849

psi Dwevo
 17 44 1
 72 12

25 3 31.8
 419
 563
 478
 184.8
 28 46.20

5 0 52.4
 9.1
 14.8
 7.0
 233
 6 5.82

2 Lynce
 18 32 57
 +38

51 Cephei
 18 44 42
 +52 44

	RR	RR	RR	RR	RR	RR	RR
35 2	1.0	301	25.2	29.9	32.7	36.1	7.9
	16.0		42.8	47.1	50.1	53.8	25.3
	23.8		53.0	57.1	0.6	4.0	35.8
	28.4		42.6	47.1	50.2	53.1	25.1
	69.2		164.1	181.2	193.6	207.0	94.1
37	17.30	31	41.02	45.30	48.40	51.75	23.52
							29.12

2 DUCU
17 53 2
75 13 1

5 June (min)
18 10 21
86 37

45 2 304
45.8
56.9
49.7
180.8
47 45.20
Sagittarii

15 1 43.2 411 ¹³ ~~43.0~~
2.3 31.8
9.7 39.8
59.8 29.0
2350 1136
16 58.75 42 28.40

40 1 44.0
54.1
5.1
9.2
18 47 57
-26 26

γ Aquilae
1900
713 42

40 1 44.0
54.1
5.1
9.2
23 24
41 58.10

RR P

350 418 0 43.8
52.3 54.3
0.6 1.0
2.0 2.2
2167 2213
35 54.18 35 55.32]

Sept-1 1883. $e = 50.80.2$

J Draconis
19 1232
+67 27

	RR	P	RR
50 0	354	386	39.4
	55.3	57.1	57.3
	50	9.3	5.6
	551	555	55.1
	2178		
	5445	2205	
		55.12	

B legni
19 25 58
+27 43

	RR	P
30 4	28.0	28.5
	43.5	42.8
	50.6	49.1
	48.0	46.2
	1701	1666
	42.5	41.6

$e = 50.80.2$

Q uoris
5-34 35
-2 0

	RR
15 2	116
	21.3
	27.7
	31.8
	92.4
17	2310

$e = 50.80.2$

Q uoris
5-48 47

	RR
50 4	27.0
	40.7
	44.2
	46.1
	2.1
	22.31
54	55.78

2 Aquilae

19 40 40

H0 20

RR

p

55 2

21.4

22.4

33.6

33.7

40.9

42.1

42.4

43.0

138.3

141.5

34.58

35.30

2 Aquilae

15 45 2

+8 34

RR

p

40

3

24.8

25.6

36.8

36.9

46.6

45.7

48.0

47.5

156.2

153.7

39.05

38.92

C = 5078.5

u Gem.

6 15 25

- 2 34

RR

40 3

29.9

45.1

48.4

50.2

173.6

43

43.40

A₂C

2 Gem

6 30 34

H0 30

RR

15 2

55.7

6.5

10.7

14.2

27.1

18 678

Sept. 1 1883 C = 50 78.5

2 Ccm Mij

6 39 57

76 33

RR

50 0 1.0

7.8

15.4

32.2

567

50 14.18

Sep 2 1883 C = 50 71.9

①

10 45 35
+7 53

2. Mercurio
179 16
+14 32

50 40.0 35 4 316
500 418
565 498
10 53.9
1.0 1771

RR

450 418
572
5.6
6.3
2379
45 59.48

Both links 50 51.95 39 44.28
1st link +1
2nd link +1

Seingboch

DD roco

17 37 38
+68 49

25 4 38
318
488
312
137.6

29 34.410

41D roco
17 44 /
+7 12

RR

6-0 04
148
232
144
528
5 13.20

B Draco's

17 27 45

+52 24

50 4 304

461

570

48.3

1821

54 4552

26 pm

17 527

+12 39

30- 2 475-

582

48

7.6

2381

37 5952

γ Draco's

17 13 52

+51 31

RR

45- 2 264

506

22

53.2

2024

47 5060

A & C

22 71 Ceres

18 + 57

+110 38

40 0256

447

569

436

1699

40 42.48

✓ \odot M 2 $\odot = 30 \text{ y } 59$
 Venus Min

18 10 21

+86 37

RR RR

Ho 1 15.2 750 358 259
 322 247 532 428
 402 324 23 523
 312 230 522 417
 1188 876 2035 1627
 41 29.70 2190405088 4068

N Serpent

18 15 13

-256

10 2 127
 259
 350
 406
 1227
 12 30.68

CA 30570

5-Capri

18 44 42

+92 47

RR R R

30 1 193 228 269 329 2111 40 0 491
 353 398 436 482 278
 481 501 552 0'2 411
 352 393 393 490 18
 1379 1520 1650 1903 1688
 31 3448 3800 4125 4758³² 2720

o Sagittarii

18 47 57

-26 26

R

544
 86
 128
 29
 41 0.72

X Draco

$$\begin{array}{r} 18\ 23\ 10 \\ +\ 72\ 41 \\ \hline \end{array}$$

$$\begin{array}{r} 35-1\ 261 \\ 409 \\ 494 \\ 400 \\ 1564 \end{array}$$

36 39.10

2 Lyrae

$$\begin{array}{r} 183237 \\ +\ 3841 \\ \hline \end{array}$$

$$\begin{array}{r} 35\ 2\ 49 \\ 170 \\ 270 \\ 226 \\ 715 \end{array}$$

37 17.88

5 Aquilae

$$\begin{array}{r} 190\ 0 \\ +\ 113\ 42 \\ \hline \end{array}$$

$$\begin{array}{r} 30-2\ 111\ 350\ 471 \\ 248 \\ 41.6 \\ 28.8 \\ 55.6 \\ 0.8 \\ 28.7 \\ 199.2 \\ 35\ 49.80 \end{array}$$

5 Draconis

$$\begin{array}{r} 181232 \\ +\ 6727 \\ \hline \end{array}$$

$$\begin{array}{r} 500\ 418 \\ 57.6 \\ 5.0 \\ 58.2 \end{array}$$

2246

50 56.15

170

Sept. 2 1880

 α Leonis

10 24

+12 33

RR

45 0 14.3

23.3

32.2

34.2

1040

45 26.00

172

Sept 3 HBB C = 50 78.6

B. Anna King

① 10 45 12
+ 7 30

~~45.2~~ ~~15.6~~
~~79.7~~
30.0 ~~56.0~~
6.1

17.1

18.8

400

30 10.00

1st line at +, 1 at -

2nd " at at -

1 line 5

Sung up from

B. Scrymgeour

15-58 04-19 25

15 2 42.2
53.8
3.0
57.8

P
26.8

34.1

44.3

114.6

149.8

374.5

374.5

RRRd

26.0 26.2

32.3 32.7

44.0 43.1

47.3 47.7

149.6 149.7

374.0 374.2

2 June May,
10 156 23
+62 23

50-4 33.8

7.6

17.9

8.8

81

55 2025

5 Scapini
15 13 21

-22 7
RR

P

30 3 26.7 2 27.3

35.6 36.6

46.0 45.0

47.2 47.4

1555

33 3888 1563
3908

A 789 A-

5 Ophiuchi 1689 - 3-23 h Dloeo 16225147

Q = 50 486

C = 10822

RR RR P

RR

40 0 37.2 37.4 36.8

30 0 32.5

45.0 45.5 45.5

45.0

53.9 54.0 54.5

54.2

57.4 57.3 57.8

46.1

1935 1942 1946

1778

40 48.38 48.55 48.65

30 44.45

Sept 3 / 1880

C = 50 82.24 +

3 Hercules

16.258

RR 45 P

30	3	12.7	11.5
		26.0	26.9
		32.6	32.2
		31.1	30.8
		<u>1024</u>	<u>1014</u>
		2560	2536

lost in N-win

9 Ophiuchi

16 30 39

- 10 - 20

RR RR P

35	1	32.2	32.3	32.6	32.6
		38.6	38.7	39.0	39.0
		49.9	49.9	50.5	50.5
		51.8	51.6	51.0	51.0
		<u>1725</u>	<u>1725</u>	<u>1731</u>	<u>1731</u>
		4312	4288	4328	4328
		4312	4312		
		43.12			

4 Draconis

17-44-01

+ 72 12

RR P

5	0	3.3	4.3
		19.6	21.3
		26.0	23.8
		17.3	17.3
		<u>66.2</u>	<u>66.7</u>
		16.50	1.6.68

9 Draconis

17 53 52

+ 51 31

RR P

45	2	38.2	38.5
		53.8	55.8
		3.0	3.0
		54.9	54.9
		<u>1499</u>	<u>1522</u>
		3.79	3.80

η Herculis1638 51
+ 39 9 α Draconis17-37-38
+ 68-49

	RD	P
35-4	2.3	28
	17.8	18.5
	24.6	24.3
	19.4	19.7
	<u>641</u>	<u>65-3</u>
	1602	16,32

	RR	P
25-4	27.2	27.5
	46.7	47.0
	52.2	52.7
	42.8	43.7
	<u>1689</u>	<u>1709</u>
	4.22	4.27

22H Camel

18-5-57
+ 110 38
40.0 50.0
9.2
20.1
8.3
87.6
21.9

8 Mrs. Min

18 10 21
+ 86.37
R R
40.1 14.6 10.1 48.8/39.4 28.6
33.7 28.6 7.2 56.9 46.9
39.1 34.1 13.8 3.2 51.8
31.5 25.8 6.1 55.5 44.8
118.9 98.6 75.9 155.0 172.1
29.72 24.65 18.97 38.75 43.02

Sept 3 1883 $C = 50.82, 2$

η Serpentes

18 45 13

~~172 41~~

- 2 - 56

10 2 40.7

50.0

57.8

1.3

149.8

37.45

χ Draconis

18 23 10

~~172 41~~

PR

P

35.2 12.8

12.9

29.8

29.2

35.0

35.8

27.1

27.4

1047

1053

26.17

26.32

δ Cephei

18 44 42

~~192 47~~

30 1 23.4 26.0 33.7

41.7 43.6 52.0

49.8 51.9 0.0

41.3 44.0 51.6

1562 165.5 187.3

39.05 41.97 36.32

σ Sagittarii

18 47 5.7

~~26 26~~

40 1 55.6

15.2

15.2

19.9

95.9

23.97

A_{90} to A_{420}

\times Lyne
 $18-13257$
 $+3841$

$351 \quad 40.3$
 55.5
 1.6
 58.0

$\hline 1554$
 38.85

$13 R$ Lyne
 145.146
 $+4347$
 (300)

WR

A_{320}

-342
 \times Lyne W
 R/\bar{A} $C. \bar{E}$

$\bar{A} \bar{B}$ 1934 \bar{E}
 123

$13 R$ Lyne $C. \bar{E}$
 R/\bar{A}
 $+124$

$A_{45} - B$ D_{345} \bar{E}

Sept 3 1883
 5 Aquilae
 19 0 0
 +13 42

35.0 49.1

0.1

6.4

9.8

65.4

16.35

5 Deneb

19 12 32

+67 27

12 23

25 04 = RT

15.4 45.8

4.9

10.7

3.1

5

A

-1

B Cynos

RT (C2)

A B Deneb

B Cynos

19 30 14

49 57

(20 4)

A

49 57

42 23

7 34

352 26 = RT

U D uco
R. F.
C

B leg yni
19 25 5 +
+ 27 413
42 23

14 40

U 6789
WOU

y agular
19 40 40
+ 10 20

552 RR
25.3
38.0
43.8
46.8

#5-3 9
3 8.47

~ Aquila
19 45 2
28 3.4

RR
40 3 30.2
43.6
49.7
52.8

17 6 3
43 4 4.08

Sept 3 1883

Bazurli

19 49 32

6 7

~~100~~ 11.4

23.8

29.7

34.1

99.0

24.75

ψ Cygni

19 5236

+52 7

42 23

9 4 4

350 1 6

(10 1)

A

ψ Cygni

R.T.

A B₁₂₃

D E

Began observations on this date
with the Russian Transit = R.T.
to determine the relations between
the levels of the two instruments.

The same star will be observed on
such about as follows.

R.T. (A B₁₂₃) M.C. (A) R.T. (D₃₄₅ E₂)

The level of R.T. will be kept
as near zero as possible

Sum - 31870 c - 5082.2

i Augine

44919

+325-9

R/R

15 4 137 136
272 276
295 288
30.0 29.3
1004 993
19 2510 2482
2496

2 Augine

5-759

+4552

P P

1075-183
25 0 17.4 17.8 30.1 29.9 30.4 31.0
32.3 32.5 31.7 32.5
32.8 32.3 31.8 31.5
1126 1125 1114 1133
25 2815 2812 2785 2832
28.13 28.08

Seeing very bad

A & C

J 8 Orionis

5-2559

-023

R/R

40.0 20.2
26.9
30.7
30.7
1165
40 29.12

Σ Orionis

5-3014

-114

R

P

R

30 3

6.3 6.2
14.9 15.4
18.8 18.6
24.4 21.9
639 619

33 15.98

15.48

A, & C

2 Orionis
5-1521
+6 15

P P

RR

0 2

435	405	42.2	41.7
52.2	53.4	52.2	52.2
54.6	53.8	54.2	53.8
1.8	0.4	2.6	2.4

2141 148 11512 150 1

2 53.52 37.02 37.80 37.52

3 Orionis
5-3439
-20

R Orionis
5-4210
-5 43

RR RR P P

RR P P

15-2	23.9	23.3	230	227
	31.8	31.9	32.6	34.6
	34.6	35.0	34.8	35.2
	41.4	41.2	41.6	41.8
	1317	1314	1321	1343

17 32.92 32.85 33.02 33.58

63-429.1	265	288
36.8	370	37.8
39.9	405	42.2
46.0	46.2	48.6
15 1 8	1522	1543
59 3 2.98	3805	38.58

Sept 2 1880 @ -50 62

< Brown

5-4847
+723

> Can Min

6 3857
+633

	R		P	P		R	P	P	P	P	P	P	P
50	424.7	24.8	243	244	454	58.2	59.1	583	587				
	36.4	36.9	367	367		6.7	7.0	8.6	9.8				
	37.4	38.0	37.9	37.5		10.6	10.5	11.9	12.0				
	43.8	44.0	44.0	44.1		19.0	18.7	16.9	16.6				
	1423	1437	1449	1427		345	353	357	371				
54	35.58	35.92	36.22	35.67	50	8.62	8.82	8.92	9.28				
			35.93										

< Gen

7 273
+329

< Can Min

7.337
+5.32

	R		P	P		P	R	R					
5-4	28.2		278		45-1	24	40.4	51.6	52.2				
	42.3		429			134	4.2	4.7					
	43.1		41.9			165	5.2	5.2					
	44.6		44.2			202	13.6	13.0					
	1582		15.68			525	146	151					
9	39.55		39.20		46	13.12	45	3.65	3.78				

2 Cam. May

$$\begin{array}{r} 61359 \\ -2849 \\ \hline \end{array}$$

13 Cam Min

$$\begin{array}{r} 72048 \\ +831 \\ \hline \end{array}$$

			P	D		RRRR	PV
04	53.3	53.0	54.0	53.0	45-1	73 8.0	68 75
	4.6	3.8	4.6	5.0		18.7 18.7	19.0 18.8
	7.0	7.1	8.1	7.6		20.0 20.4	19.2 19.2
	14.6	14.6	13.4	14.5		27.0 27.1	27.0 27.8
	2595	2585	2601	2606		740 742	720 728
	6488	4462	6502	6515	46	18.50 18.55	18.00 18.20
	6473		6508			18.52	18.10

$$\begin{array}{r} 72 \\ +113 \\ \hline \end{array}$$

B. Geminon

7 38 5-

+ 28 19

R R P D

55-4	42.2	41.8	41.6	41.7
	56.8	56.4	56.5	56.5
	56.3	56.6	57.0	57.2
	58.8	59.0	0.6	59.5
	2141	2138	2157	2149
59	53.52	53.45	53.92	53.72
	53.48		53.82	

186

Sept-4/1880 C=50 82.3

10 52 50
+7 8

R R

2 Mercs May

10 58 23
+62 23

45.2 38.8 20.2 34.2

38 48.8 43.4
32.7 47.4
38.8 54.9
1991 1799

Rij ✓

47 49.78 22 44.98

lt-

1st L A A A-
2nd L A A-
Both ends in g
Seeing bad

2 Books

14 10 16

+19 48

2 Books

14 27 18

+38 50

-30 1 6

P P R

64 6.5 6.8

17.8 17.3 16.8

22.8 23.1 22.8

25.4 24.0 24.8

734 709 712

31? 1836 1772 1780

P P R

25.3 35.8 2 30.5 30.6

50.6 44.1 43.7

57.1 50.5 49.7

54.2 47.1 47.8

1577 1725 1718

28 4942 4312 4295

Sept 4 C = 50

K Mine May

13 42 52

+ 49.54

P P R

20 4 214 3 137 14.2

35.5 26.4 26.9

40.5 31.4 32.3

36.2 28.5 28.6

24 1336 100010 2.0
 83.4023 25.00 25.50

7 Boots

13 493

+ 19.0

RP P RP

15 3 138 231 23.7 138

263 309 31.7 263

328 380 36.0 328

362 410 41.2 362

18 1330 1326
 3325 3315

E Boots

14 39 49

+ 2736

P P R

403 40.0 399 40.2

55.2 560 54.0

0.4 0.7 59.2

59.2 59.5 59.0

2146 2159 2124

43 52.92 53.18 52.54

6305 52.54

B Mrs Miji

14 81 0

+ 7438

P P R

40 4.402 190 19.2

584 354 34.8

3.8 40.6 41.0

562 320 32.7

214.6 1270 127.7

44.54.65 463.75 311.72

188

Sept 1883

J. B. B. B.

15-10 44
+33 46

	P	P	P	R
30.2	45.5	1 293	292	29.4
	55.7	379	383	38.6
	14	455	461	46.2
	1.9	45.2	45.1	44.8
	22.48	1579	1587	159.0
32	56.20	3947	3967	39.75
		3957		

4² hrs Maj15 20 52
+72 15

	P	P	R
0	324.6	2 249	24.3
	39.7	39.6	38.7
	43.2	43.5	43.3
	35.6	37.2	37.0
	143.1	145.2	143.3
3	35.78	2	36.30 35.82

On the morning of Sept-5 (a.m.) adjust
the microscopes, both for focus and position
The

Sept 4 1883

✓ Cor. Bar

15 29 41

+ 7 7

P P R

10 2 5.7 54 6.2

15.7 15.5 15.6

+ 22.4 20.9 21.0

24.0 22.4 23.7

6.7.8 66.2 66.5

12 16.9 65.5 16.62

Sept. 5 1883

C = 5086.7

Draconin

Draconin

17 27 135

17 53 32

+ 6 49

+ 57 31

42 26

26 26

P

P

30	0	54.9	22.2	31.8
		50.8	28.7	28.7
		50.8	29.6	29.7
		51.4	33.6	34.0

1241

Reg

P P R

34.4	823	5.82	7.7
	3.5	17	3.0
	5.2	5.2	4.6
	12.7	12.7	12.0
296		27.6	27.3
38	7.40	37	6.40
			6.90
			6.82

Sept. 5/1883

5 hrs Min

18 10 21

+ 86 37

Q

R

25.3

4.0

57.0

1.5

55.5

3.8

58.3

7.4

15

167

23 23

28

4.18

58.08

7 Serpens

18 15 13

- 25 6

58-3

31.5

31.8

19.8

19.2

26.3

25.7

40.8

41.2

1188

1171

58

2970

29.28

A₂₀ to A₈₀

Sept 5 1883

Lyræ

18 32 57

+ 38 41

51 Cephei

18 44 42

+ 92 47

P R

20.3

20.2

19.6

14.1

13.8

15.4

16.2

24.6

25.4

75.0

75.0

79.3

18.85

23

19.8

RR RR

15.3 10.8 14.1

9.0 12.6

13.6 16.8

15.8 18.9

49.2 62.4

18 12.30 15.60

A₉₀ to 4,

S Draconis

R. T. (C. A.)

K Cygni

19 14 24

+ 53.9

A₄₅ B D E₁₂RR
RR

Sept 5, 1883
Sagittarius

18 4757
- 26 26

♄ Aquilar
19.0000

+13 42

P P R

- 25.3 319 234.0 33.1
116 214 21.2
258 268 27.7
424 450 45.4
1187 1272 1271
28 2968 273180 3178

P R

20 3 12.8 1 21.8
2.4 10.6
6.1 15.1
20.0 28.6
413 761
23 1032 21 19.02

K Cygni

Rc

♄ Cygni

P P R

20.1 20.6 0 65 4.8
12.3 546 57.7
14.0 58.8 58.8
2767 85 11.8
736 114 131
21 1840 20 2.85 3.28

Sept 5 1883 @ = 50 56 6
 y Aquilar 3 Aquilar

1940 40
 +10 20

19 49 32
 + 6 7

P R

40 4

105 10.4
 59.8 59.7

551 50.8

42.7

25 2.6

44.9

190 19.1

2.0

318 1518

2004

44 7.95 7.95

56 50.10

B Enilain

5 2 3

-5 14

P P R

15.2 50.1 1 43.2 42.4

40.2 30.7 31.0

42.3 33.6 34.8

56.4 49.0 48.1

1890 1565 1563

17 47.25 16 39.12 34.08

2 Aquilar

5-7 59

+45 52

P

- - 34.4

27.7

28.7

35.5

126 3

- 31.58

Sort A

Sept. 5-1883

4 Cygni

19 5236

+ 52 >

4 Cygni

R. T.

A. B. D. E.

RR

55 2 22.0

16.6

20.1

26.2

849

57 21.22

A₂ TC.

B Orion

5-8 52

-820

P R

20 3 340 34.3

227 22.0

266 26.1

390 39.2

1226 1216

23 3066 - 3040

Lost A₁

Perhaps 6 strokes for

B Tauri

5-1850

+45-2

P P R

30 4 21.4 3 5.9 6.1

145 59.3 59.3

163 0.4 0.7

27.5 10.4 10.2

79.5 2863 24.64

34 19.88 46.57 6.16

6.15

Sept 5 1883 $c = \overset{50}{\cancel{X}} 86.6$
 S Orionis E Orionis

5-25-69

-0 23

5-30 14

-1 17

R R

.25 2 9.8

58.5

12.8

17.3

28.4

27 7.10

P

R

20 0 N 6 14.9

3.7 3.8

6.5 6.8

19.9 21.0

45.7 46.5

20 1.142 11.62

2 Orion

5-48-47

+7 23

P

P

R

40 1 17.4 0 0.3 55.3

6.7 12.7 51.5

8.9 52.5 52.4

22.3 17.6 8.3

5.21 23.11 23.15

41 13.02 57.28 57.68

2 Can May

6 B 59

-28 49

R

50 0 38.7

28.9

32.8

49.1

149.5

50 37.38

Sept 5 1883

Ominis

5-3439

-20

K Ominis

5-4210

-943

	P		P	R
54	114	3	24	2.0
	594		514	52.2
	40		54.5	54.1
	18.6		9.5	9.8
	334		239.4	234.1
4	8.35		59.45	59.52
			5.945	

	P	P	R
45-0	540	0	2.5-1.6
	38.2	48.5	48.2
	416	52.9	52.8
	55.1	65	7.0
	1919	1304	229 6
45	47.98	5760	5740

Scan May

1/3 36

-2612

	R
104	490
	366
	427
	599
	1882
14	47.05

Scan May

2045

T8 31

	R
30	258.2
	428
	464
	1.8
	2042
32	51.05

Sept 5 1883 C=50 86.6

2 Orion

5-48 47
+7 23

2 Gem

7 27 3
+32 9

2 Can. Min

7 33 4
+5 32 R

410 1 15.2 0 0.3 59.3 120.0
67 504 51.5 118
79 52.5 52.4 134
22.3 7.6 8.3 241
23.1 23.1 69.3
57.8 57.8 41 17.32

30 2 51.2
42.8
44.6
0.8
1994
32 49.85

C=50 84.7

2 Lev.

9 38 8

+24 18

450 53.3
480
495
59.7
20.65

45 51.62

2 Ursae Min

10 15 16

+42 6

55-3 49.0
42.2
45.0
52.3
188.5

58 47.12

B. Gen

Oline May'

7 38.5 C=50 86.6 92416

C=50 82.7

P +2819

R

+5213

R

451

31.5 0 14.5 14.1

50 2 357

242 7.2 8.2

340

248 18.3 8.9

371

348 18.3 18.7

428

1153 1683 1699

1536

46 2882 454 2.12 42.47

52 3840

B. Uline May'

10 14 41

+571

P

47.9

41.8

45.4

50.4

1855

46.38

2 Uline May'

10 16.23

R +16223

(10 21)

401 41.4

36.0

38.2

43.5

1591

41 39.78

Sept. 6, 1883

C = 50.827

①

10 0 3

+ 6 24

 η Urs Maj

13 42 5/2

+ 49 54

20 4 5.3 55 0 0.5.2
 55.2 ~~14.5~~
 57.5 53.2
 14.5 56.0
 12.5 14.0
 12.8 5
 24 3.12 55 2.12

P R
 10.1 8.2 5.4 59.6
 1.2 52.1
 3.6 56.3
 10.5 3.3
 235 2313
 11 5.88 9 57.82

Particulars
 I R.A. = 21 A.A.,
 II " = A.A.
 Seeing good

S. Mrs Min

18.10 21

P — 18.6 37

58.2

00

4.6

40

— 1.00

 η Serpentes

18 15 13

R — 2 56

55.3 21.0

9.0

14.0

29.7

737

58 18.42

Sept 6 1883 C = 50.82.7 C = 50 90.1

η Bootis.

13 49 3
+ 19 0

~~8 hrs 11 min~~
22 74 ~~Bessel~~

~~18.10 21 18 5-5.7~~
~~86 35 + 110 38~~

lost 5

25 2 ^P 18.4 reject 2nd 8
18.0
23.1
23.5

830

27 20.75

lost A+1

X Draconis

18 23 10

+ 72 41

^P ^P

20 4 3.1 3 31.2

59.4 27.9

0.5 28.0

5.1 32.3

81 1188

24 2.02 23 29.70

X Cygnus

18 32 5.7

+ 38 41

^P ^R

20 3 16.8 15.0

10.9 10.6

12.5 11.3

20.6 20.3

608 572

23 15.20 14.30

Sept 6 1883 C = 50 90.1
 a Lyrae R T
 (CW)

B D₃₄₅

31 Cephin
 18 44 42
 + 92 47

	R	R	R
15 3	8.8	12.8	15.1
	5.0	10.8	14.2
15	10.7	14.1	19.2
	12.7	16.7	21.5
372	A₉₀ to H	544	700
18 9.30		1360	17.50

A₉₀ to 4

R Lyrae
 18 51 46
 + 43 47

Group A in RA

k Aquilar
 19 00 00
 - 5 - 3

P P R

5 21	556	462	45.8
	435	321	32.9
	455	360	37.0
	20	515	52.3
2091	1658	168.0	
6 52.28	41.45	42.00	

Sept 6 1883

♂ Sagittarii

18 47 57

- 26 26

P

25 3 44.7

33.8

39.0

56.1

1736

28 43.40

R T
R Lyrae (CW)

A B D E

♂ Draconis

19 12 32

+ 67 27

R T (CW)

C

K Cygni

19 14 24

+ 53 9

R T (CW)

B 2 3 4 5 D

Sept. 6. 1883 C = 50 90.1

K Cygni

19 14 24
+ 53 9

B Cygni

R R (C)

A in R A

θ Cygni

19 33 18
+ 49 57

A

γ Aquarii

19 40 40
+ 10 20

P	R
8.6	8.6
9.6	8.6
58.4	58.8
1.2	0.8
16.3	17.0
24.5	25.2
6.12	6.30

44

Sept 6 1883

B Cygni

19 25 58 + 27.43
P R

20 0 39.6 38.8

30.7 30.9

33.2 32.1

44.8 44.3

1483 1461

20 3708 36.52

B Cygni

R T

A B C D

L Aquilae

19 45-3

+ 834

P R

30 0 15.9 16.1

5.4 6.0

9.4 9.4

25.1 24.9

558 564

30 13.95 14.10

B Aquilae

19 49 32

+ 6-7

P

52 1 58.0

47.2

49.4

6.3

2209

53 55.22

Sept. 6 1883

4 Draconis

19 52 36

+ 52 7

C = 50 90.1

4 Draconis

R T

A B D E

A in R A

B Orionis

5-8 52

-8 20

B Tauri

5-18 50

+28 30

	P	R
25 3	32.4	33.0
	25.6	19.9
	24.0	23.2
	36.5	36.9
	<u>1 13.5</u>	<u>113.0</u>
23	28.37	28.25

	P	P	R
30 4	23.9	38.1	7.8
	16.0	0.4	0.8
	16.9	1.8	1.7
	28.0	12.2	12.7
	<u>84.8</u>	<u>22.5</u>	<u>23.0</u>
34	21.20	33 5.62	5.75

C = 50 90.1

β Eridani

6 - 2 3

- 5 4

2 androm

5 - 7 55

+ 45 52

P P R

15	2	48.1	1	52.0	51.3
		36.3		40.8	38.2
		39.5		42.0	42.2
		53.1		55.9	56.1
		1770		1907	1878
17		44.25		47.6	46.95

P

2 11.5

2.8

3.8

10.0

281

2 7.02

lost A₁

δ Orionis

5 - 25 59

- 0 33

P

20	0	56.0	0	6.5
		44.6		52.4
		46.9		55.2
		0.1		8.2
		2076		
20		5190		

ϵ Orionis

0. 4.5 8.4

52.4 53.0

55.0 55.2

8.6 9.2

0.5 1.8

0 0.12 0.45

A₃ + c₁

Sept 6 1883

C = 50 90.1

3 Orionis

5 34 35
- 2 0

P P R

4	9.6	2	58.6	58.4
	58.2		46.7	46.7
	1.3		50.1	49.0
	15.8		41	5.0
	24.9		219.5	219.1
4	6.22	2	54.87	57.28 54.55

R Orionis

5-42 10

-9 43

P P R

15.1	11.9	0.40	3.7
58.6	49.5	50.0	
2.5	58.6	53.2	
15.2	7.8	8.0	
28.2	23	49.2	34.9
16	7.05	17	58.72 58.72

Sept. 7 1883, C = 50 ~~501~~

(1)

11 3 40

+ 6 2
(45²)

15.1 ~~18~~ 2 29.9
28.0 17.5
25.0 21.4
2.194 ~~25.0~~ 37.0
36.0 1058

984 472 26.45
2.460

Boat lands in Port R. A.
Lost in fresh lumber
being back.

Sept 7 1883

& Boats

18 10 16
+ 19 48

P R

15 0 56.5 56.5
47.3 46.7
47.9 47.3
0.6 1.1
2123 2106
15 5308 5265

~~10 0 368~~
n. M. M. May
13 42 52

10 0 86.8
28.1
31.7
39.6
1362

10 34.05

2 Boats

1427 H
+ 3550

P P R

15 0 13.1 10 4 16.0 15.8
9.2 10.5 10.2
11.1 13.4 13.8
17.0 19.9 20.1
504 198 599
15 12.60 14.95 14.98

Sept 7 1883

2 Bolls
 143949
 +2735

3 Mrs Min

14510

+7438

	P	R
25 4	43.6	44.0
	35.9	35.9
	38.6	38.7
	49.7	50.2
	1678	1688
29	41.95	42.20

	P	P	P	P	P
25.2	22.2	0.7	23.1	26.7	21.5
	16.1	55.0	24.7	20.5	54.1
	17.5	57.9	22.1	27.3	57.7
	21.8	1.0	23.3	25.5	55.5
	776	2346		999	2352
27	19.40	58.65		24.98	58.80

A₃ to

1 y² Mrs Maj
 15 20 52
 +7215

L. Cor. Box.
 15 29 47
 +277

	P	P	P	R
454	37.2	20.3	5.8	5.8
	54.1	16.5	2.0	0.7
	57.5	18.3	3.1	2.4
	58.7	20.3	5.3	6.0
	2275	754	162	149
49	56.88	18.85	4.05	3.72

	P	P	R
55 2	50.2	1	43.1 43.6
	40.3		33.6 34.0
	42.2		35.0 35.2
	51.5		47.0 48.0
	1842		1587 1608
57	46.05	56	39.67 40.20

Sept 7 1883

B Bootis

14 57 29

40 52

8 Bootis

15 10 44

+ 33 46

P R

103 24.3 23.6

15.0 15.2

18.0 18.0

26.7 26.7

84.2 83.5

13 210.1 20.88

P P R

13.3 47.20 18.8 18.2

38.8 7.9 8.3

41.3 11.2 11.1

51.3 20.5 21.0

1788 5.84 158.6

18 44.70 14.60 14.65

A₃ + c

α Serpentis

13 38 27

+ 6 48

P P R

151 23.80 17.8 17.6

11.0 5.1 5.1

14.3 8.5 8.7

31.4 25.2 25.6

80.7 5.66 5.70

16 20.18 15 16.25 16.25

η Draconis

16 22 23

16 14 7 R

15 2 21.3

15.6

19.5

23.0

79.4

17 19.85

25.4

212

Sept - 9 (HBB)

C = 50

847
Kus11 10 52
+5-16

25	3	35.0	294
		32.2	25.4
		32.2	272
		36.1	313
		13.56	11.31
28	33.90	28.28	

30	1	4.42	0	2	16.1
		35.0			64
		07.1			8.2
		51.5			22.5
					5.32

16.87
31 42.18
Born Lutz in
II Lutz & Co
I " Lutz.
Sering fair.

51 Caper

154442

+9.44

153	15.2	17.5	24.0
	12.3	15.3	20.7
	15.2	17.8	24.0
	18.2	21.0	26.6
	60.9	61.6	95.3
18	15.22	15.40	23.82

18
90 to 41
90

13 R Lyne

18 57 46

+43 47
A

2 Lyrae

R Lyrae
C W

RT

AB DE

31

70 3 157

08

88

1.0

111

0.3

202

102

55.8

255

23 13.95

13 R Lyrae

1857 46

2 = +1 24

AB₃₄₅ DE₃₄₅ E

R Lyrae

1900

-53

5-1 402

288

324

467

1481

6 37.02

Sept 9 1883 C = 50 847

SD Wagon R.T.
15 12 52
+6737

R Cygnus
19 14 24
+539

~~A~~ C.

A

O Cygnus
McC.
19 3 318
+4157

DO.
RR
6.2.

Platymen
18 452 +634
30 0 156
56
71
238
521
30 1302
Chy.

K Cygni
15 1424

RT

A B DZ.
340

B Cygni
MC

20 0 45.8
38.7
35.8
51.6
175.9
20 43.98

DO
RR
CW

A B DZ
224 234

K Cygni
5-7.59
+45.52
No. J

A A
+1

B Cygni
5-8.52
-8.20

20 0 48.1
35.0
36.4
49.9

A B DZ 1694
20 42.35

216

Sept 9 1883 C-50 849

 β Tauri5-1850
+28 30 γ Orionis5-2558
-023 ϵ Orionis5-3014
-117

30 4 18.3

10.9

11.4

22.0

626

34 15.65

25 1 37.0

22.4

25.3

40.1

1248

26 3120

A30e

20 0 35.6

20.0

24.3

38.8

1187

20 29.68

 γ Orionis

5-3439

-20

 κ Orionis

5-4210

-9 43

 ρ Orionis

5-4847

+7 23

0 3 10.2

57.6

58.7

15.6

25.21

3 55.2

45 0 48.8

33.4

37.1

50.0

1693

45 42.32

40 1 5.1

55.7

55.7

11.7

10.2

41 2.55

α Gem.
6 30 54
+16 30

α Can Min
6 35 57
-16 33

30 3 37.3

158

166

31.2

1009
33 25,22

α 3 20

α Can Min

6 35 57

-16 33

35 1 41.7

28.4

25.5

47.1

147.1

36 36.78

β Gem
73.8 5
-28 15

45.1 20.4

13.0

12.1

24.0

69.5

46 17.38

Sum = 32
Stars = 646

1887phaseproj.14152