

KG
11366
v. 413

*Fundamental Stars.
Circle Readings
From Nov. 28 1883 to Mar. 31 1884.*

A38

Nov. 28 1883

C=81.5

①

16 17 9

- 21 21

R

P

5-5-2

42.3

3549.2

24.6

49.9

22.8

38.8

36.3

1.1

1260

2190

57

31.50

39 54.75

Born Lincoln Tadd A
 Seeing very poor.

C=81.5

B r 2777

21 7 49

+ 77 39

P

P

P

250

52.9

39.821.4

38.6

25.7

6.2

P

20455.5

42.0

7 Lacertan

22 26 28

+ 49 41

P

P

P

20

3

41.2

16.2

36.7

28.1

2.6

23.2

α Pegasi

22 58 56

+ 14 35

P

P

254

36.3

3 23.4

20.2

6.8

16.2

2.9

30.1

16.3

1028

494

29

25.70

28

12.35

6.1

Nov, 28.

74 Cygni
21 3215

+39.53

P

10 1 11.2 0 11.6

54.0 54.917² Cygni
21 42 28

+48 46

P

153 317

17.2

Lost A, b, f.

0 Cass
0 38 13
+47 3925 0 59.9⁰ 34.8⁰ 5.9
43.6 19.1 49.6B. Androm.
1 3 11
+35=00 4 31.7³ 58.3
15.8 48.6

d, b, f.

Nov. 28, 1883

E case

143-59

+ 63.6

P

P

P

P

554 29.4 353.8 29.1 7.2 10354.3 31.8 15.8 255.1

14.940.98.057.8

d.f.f.

R50 Case

145328

+ 71957

P

P

P

10354.3 31.8 15.8 255.1

38.115.80.039.8

d.b.f

M. M. May

134252

+ 4954

P

P

100

41.7

31.0

28.1

17.2

24.9

14.7

28.8

18.0

1235

809

10

30.88

20.22

A₂ + c.

Nov. 28

C = 81.5

y Androm

Q Arietes

1 5.6 43

2 0 35

+ 41 46

+ 22 54

P P P

P P

15.3 36.1 257.0 27.2

5.4 33.2 341.8

19.7 41.1 11.9

42.0 29.9

36.7 25.2

47.8 36.3

1797 1332

44.92 33.30

Nov 30 1883 C = 81.5

Ø Persix

1 36 20

50 6

P P

5-5-2 53.6

47.2

E Cass

1 45 59

54 63 6

P P

55 4 21.9

4.0

chf

lost ~~2~~ A, + some of A
 3 Strokes for S

α Arietis

20 33 + 2254

P P

5-3 43.5

30 1

23.8

36.1

1335

8 3338

Lost A, 123 A₂

55 Cass

2 5 18

+ 65 58

P P

5-1 24.5

17.5

very faint

Some wires doubtful

Nov. 30.

C = 81.5

50 Cass

y Androm.

1 53 28

1 56 43

+ 71 51

+ 41 46

PP

PP

10 342.5

45 2 25.9

30.1

12.8

23.8

7.2

28.0

14.2

1244

601

13 31.10

47 15.02

Lost A₁ 1234 A₃₄

2 Bootis

14 10 16

+ 19 48

PP

15 1 23.8

9.1

3.1

14.9

509

16 12.72

Lost A

+1

Dec. 11843 C = 81.5

Bandrum

8 Cassiopeia

1	3	11
+	35	- 0

1	18	9
+	59	37

P	P
0 425.0	3 39.7
13.1	27.7
6.8	21.9
15.2	29.8

601	1191
4 15.02	3 29.78

P	P
252 18.0	131.1
4.8	17.2
59.9	13.1
4.3	17.0

270	784
27 6.75	26 19.60

De

Dec 2 C = 825

Corr

0.4538

160 J

R

55 4567

42.0

398

432

1817

59 4542

B Anelis

~~50 0 197~~ 1 489

RR 12014

500 197

35

584

106

722

50 3.05

C = 50 779

η mro mag

13 42 5-n

P

P

10 1 30.3 0 40.0

15.1

231

10.1

195

14.0

23.5

695

1061

11 17.38 10 26.52

α Bootis

14 10 16

19 48

P

15 23 3.0 1 16.9

18.0

0.7

10.1

53.1

21.0

4.1

821

148

17 20.52 16 3.70

Dec 2 $C = 82.5^\circ$ $C = 82.5^\circ$

J Androm

1 56 41

+41 4.6_R

15 3 39.9

25.8

20.3

26.8

112.8

18 28.20

2 Ariels

240 33

+22 57_R

5-4 57.9

43.7

34.1

49.6

189.3

9 47.32

$$\begin{array}{r}
 \text{DEC } 3 \text{ } 1883 \\
 C_1 = 77.9 \\
 \textcircled{1} \quad 16 \ 3 \ 8 \ 4 \ 4 \\
 - \quad 2 \ 2 \ 8
 \end{array}$$

$$\begin{array}{r}
 C = 74.5 \\
 3 \text{ Cephei} \\
 2 \ 1 \ 2 \ 7 \ 8 \\
 + \quad 7 \ 0 \ 3 \\
 \text{P} \quad \text{P} \\
 0 \ 1 \ 2 \ 1 \ 8 \ 11 \ 2 \\
 \hline \hline
 0, \ 0 \ 50.2
 \end{array}$$

Saying too bad for

$$\begin{array}{r}
 A_3 \text{ } \text{C} \quad \text{b.f.}
 \end{array}$$

$$\begin{array}{r}
 20 \text{ Cephei} \\
 2 \ 2 \ 1 \ 2 \ 7 \\
 + \quad 6 \ 2 \ 1 \ 3
 \end{array}$$

$$\begin{array}{r}
 \text{P} \quad \text{P} \quad \text{P} \\
 5.0 \ 2 \ 4.1 \ 34.1 \ 1.6 \\
 \hline \hline
 43.8 \quad 13.4 \ 40.2
 \end{array}$$

$$\begin{array}{r}
 3 \text{ Lacertal} \\
 2 \ 2 \ 1 \ 8 \ 5 \\
 5 \ 1 \ 3 \ 9
 \end{array}$$

$$\begin{array}{r}
 \text{P} \\
 2 \ 5 \ 1 \ 5 \ 2 \ 0 \ 31.9 \\
 \hline \hline
 43.8 \quad 10.2
 \end{array}$$

d.b.f.

Dec. 3

74 Cygni
21 32 15-
+ 39 53

P P
10 0 43.2 6.6

20.4 44.0

π^2 Cygni
21 42 28
+ 48 46

P P P
15 3 26.8 239.1 24.2

5.3 17.9 3.3

A₁ 2tc b.f.

b.f.

B Androm.

1 3 11
+ 35-0

P P
04 36 8 3 52.4

15.1 31.0

B Trianguli

~~2~~ 2 35
+ 34 26

P 2
35- 34.3 39.0

40.2 15.8

lost A₁ d.b.f.

Dec 3 C = 74.5

55-Card

25-18

+65-58

θ Persi

2 36 13

+ 48 44

^P
5-134.6

13.8

^P ^P
8.90 41.0

47.9 20.0

^P ^P ^P
201 1.0 39.0 3.2

38.4 16.1 40.2

d. b. f.

η Bootes

13 49 3

+ 19 0

^P ^P

50 21.8 0 44.1

3.5 24.3

55.2 16.9

7.1 27.0

276 109.3

50 6.90 4 27.32

Dec 8 C = 74.5

T Perseid

2 45 58

+ 52 17

$$\begin{array}{r} 45 \\ 15-3 \end{array} \begin{array}{c} P \\ 10.0 \end{array} \begin{array}{c} P \\ 230.9 \end{array} \begin{array}{c} P \\ 47.3 \end{array}$$

$$\begin{array}{r} 49.0 \end{array} \begin{array}{r} 10.9 \end{array} \begin{array}{r} 47.3 \end{array}$$
C = sure 15
C = 50 65.3

M Mrs Maj

13 42 52

+ 49 54

$$\begin{array}{r} P \\ 101 \end{array} \begin{array}{c} P \\ 9.6 \end{array} \begin{array}{c} P \\ 0 \end{array} \begin{array}{c} P \\ 371 \end{array}$$

$$\begin{array}{r} 47.8 \end{array} \begin{array}{r} 21.2 \end{array}$$

$$\begin{array}{r} 42.2 \end{array} \begin{array}{r} 153 \end{array}$$

$$\begin{array}{r} 47.0 \end{array} \begin{array}{r} 20.1 \end{array}$$

$$\begin{array}{r} 2006 \end{array} \begin{array}{r} 937 \end{array}$$

$$\begin{array}{r} 11 \end{array} \begin{array}{r} 50.15 \end{array} \begin{array}{r} 10 \end{array} \begin{array}{r} 2342 \end{array}$$

Ag TC

²
Dec 4 1883 C=54 8.2

C=745

Π^2 Cygni

16 43 5

21 42 28

- 22 16

+ 48 46

P

P

P

P

P

0 3 19.4 30 4 43.8

15 3 38.8 239.5 37.1

1.0

23.0

54.6

19.4

8.6

32.8

236

1190

3 590

34 29.75

17.0

19.9

7.2

7 Lacerta

22 26 29

+ 49 41

P

P

15 3 48.4 257.8

29.5

38.8

10 Lacerta

22 34 0

+ 380 26

42.0

P

352 ~~30.2~~ 14.4

20.2

52.9

d.f.

Dec H.
 20 Ceph
 22 1 27
 + 62 13
 P P
 50 142.1 17.9
 — —
 21.9 56.9

b. f.

C = 54 8.2
 3 Lacerta
 22 18 57
 + 51 39
 P P
 25 110.1 033.8
 — —
 47.2 12.8

a. f.

Plate set -180° in error.

Took out plate.

Mr. Clark made 4 steel set screws
 for plate, the brass ones having broken.
 Adjusted for rectascency.
 Plate set correct.

^Z
Dec 6 1883 C = 2492.8

η Pegasi
22 37 34
+ 29 36 34

θ Androm.
22 56 32
+ 41 42

$\overset{P}{25} \overset{P}{3} \overset{P}{1.1} 2 \overset{P}{9.0}$
41.2 48.3

$\overset{P}{20} \overset{P}{3} \overset{P}{8.2} \overset{P}{48.0} \overset{P}{23.8}$
48.0 25

d.b.f.

b.f.

ϕ Persic.

1 36 26

+ 50 60

$\overset{P}{5-5} \overset{P}{3} \overset{P}{22.3} \overset{P}{9.0}$
5.2 52.0

d.f. A₁

θ Persei

2 36 13

+ 48 44

$\overset{P}{20} \overset{P}{1} \overset{P}{26.3} \overset{P}{49.4} \overset{P}{23.8}$
7.9 30.5 5.5

d.b.f.

Dec. 6, 1883

C = 2492.8

 π Cephei

2 3 4 11

+74 45'

P P P P

20 016.0 2.815434.018.1

57.0	43.7	17.1	55.0
------	------	------	------

d. b. f.

Br 3077

2 3 7 31

+56 31

P

30 3 43.9 14.9² 49.8

257.3	335.4	24.9
-------	-------	------

d. b. f.

41 Arietis

2 43 6

+26 47

P P

15 3 24.2 38.6

4.2	37.4
-----	------

b. f.

 π Persei

2 45 58

+52 17

P P P

453 ~~60~~ 36.0 254.0 34.6

20.9	37.2	18.3
------	------	------

b. f.

Dec. 6 1883

2 Virgins C = 2452.8

13 18 5-8

-1033

2 Bootis

C = 2497.6

1410 16

+1948

RR

15-3

91

537

461

587

2276

18 5690

	P	P
35-2	34.8	23.7

14.1	2.8
------	-----

10.6	5-8.5
------	-------

23.0	10.2
------	------

825	352
-----	-----

37	2062	36	8.80
----	------	----	------

DEC 7 1883

C 24 97.6

16 58 11

- 22 36

p

25 0 15.4

57.8

53.2

6.7

131

25 328

50 Cass.

53 17

+ 71 50

PP

10 419.0

57.5

49.0

54.2

2297

13 57.42

upper limb S
 2nd limb RA
 Seeing very fine

lost A₁

Decp

C = 2497.6

Y Androm

15-6 41

+ 41 46

PP

15-3 3.8

50.0

43.6

50.7

2081

17 52.02

2 Arietis

20 33

+ 22 52

PP

5-4 10.8

58.1

50.2

2.0

11

9 0.28

Lost Most of A

Dec 9 C = 24 96.7

γ Musmaj
13 42 52
+ 49 54

P P
10 2 19.9 134.2
6.2 21.2
4.0 18.0
8.1 22.4

382 958

12 9.55 11 23.95

α Bootis
124 10 16
+ 19 48

P P
152 59.1 155.5
44.8 41.0
39.3 35.8
50.4 46.9

1936 1792

17 48.40 16 44.80

Dec. 9

E Bootis

14 39 49

+ 27 35"

P P

30 1 30.8⁰ 38.0

17.1 24.0

11.2 17.9

21.4 28.6

805 1085

31 2012 30 27.12

Z
Dec 10 1883

$$C = 24 \ 96.7$$

①

$$\begin{array}{r} 17 \ 9 \ 20 \\ - 22 \ 56 \end{array}$$

Clouds

$$\begin{array}{r} \phi \text{ Persei} \\ 1 \ 3 \ 6 \ 20 \\ + 50. \ 6 \\ \hline 55 \ 3 \ 18.9 \ 6.8 \\ \hline 50. \\ 4.9 \ 50.8 \end{array}$$

A-1, 6.f,

η Persei
24210

$$+55 \ 24$$

		P	P	P
40	0	59.1	31.0	0.3
		44.0	15.8	44.8

τ Persei

$$2 \ 45 \ 58$$

$$+52 \ 17$$

	P	P	P
45-3	29.0	25-0.2	26.1
	14.4	35.0	11.6

Dec. 10 1883

θ Persiæ
2 36 13

+48 44

ρ ρ ρ
20 1 11.9 0 33.1 16.1

—
35.0 17.1 59.8

μ Ceti
2 38 37

+9 37

ρ ρ
25 2 21.9 1 31.4

—
2.2 11.2

γ Persiæ
2 56 20

+53 3

ρ ρ ρ
0 2 31.3 6.0 4 39.4

—
16.0 50.2 24.1

α Virginis
13 18 58
— 10 33

ρ ρ
35 2 30.7 1 47.8
12.2 28.2
10.0 26.8
22.2 39.9

751 1427
37 18.78 36 35.68

Dec 10 1883 C = 2496.7

Y Mus Maj

13 42 52

+ 49 54

P P

10 2 7.1 22.5

56.4 11.0

53.3 8.1

57.5 13.1

2343 547

12 5858 11 13.68

2 Boobis

14 10 16

+ 19 48

P P

15 3 4.8 2 7.8

52.0 54.5

46.1 48.9

57.8 0.7

2207 2319

17 55.18 17 57.98

30

Z

DEC 11 1883

C = 96.7

①

C = 96.7

17 13 44

- 23 2

R

P

45-3 56.1 20.0 20.9

36.8

3.0

35.2

58.2

47.2

11.0

1773

331

48 44.32

20 8.28

Both limbs in T & R.A.

Sine bod.

B Cass

0 2 56

+ 58 30

PP

30 4 7.1

53.0

49.9

58.0

2300

33 57.50

8 doubtful

2 Cass

0 33 5.2

+ 55 5.4

PP

10 1 29.0

17.7

12.9

17.5

771

11 19.28

0 Cass

0 38 13.

+ 47 39

PP

25 0 240

10.3

5.4

11.2

50.9

12.72

lost 25 4 12 rej A 5

+1

DEC 11/1883 C = 2496.7

Y Pegasus

0 711

+1432 PP

30 1 37.2

22.3

15.8

28.3

1036

31 25.90

J Cass

0 3 28

+5315

PP

50 0 3.0

30.4

45.0

57.3

2097

49 52.42

Y Androm

7 5641

+4146

P

P

15-41 4.8 3 28.6

53.0 17.0

47.9 11.1

53.9 18.1

2196 748

18 54.90 18 18.70

d.b.f.

2 Arietis

20 35

+2254

P

P

10 0 25.9 54 13.0

12.7

0.8

5.0

55.3

16.9

611

605

152

10 15.12

54 380

d.b.f.

DEC 11 1883 C = 24 96.7

B Trianguli
2 2 3 5-

+ 3426

P

35 3 27.6

7.5

55- case

2 5- 18

+ 65.58

P

P

5-1

37.0

10.8

20.6

53.9

H_2 etc d.f.

d.f.

Dec 11 C - 24 96.7

M Mrs May

13 42 52

+ 49 54

PP

10.1 31.8

18.9

14.0

19.1

838

11 2095

a Boots

14 10 16

+ 19 48

P, P

15-1 5-1.8

37.2

30.8

41.4

1612

16 4030

3 strokes for

Z

Dec 12 1883

C = 96.7

①

17 18 9

- 23, 6

R P

20 3 36.2 25.0 6.5

17.6 46.1

12.4 43.0

26.1 56.3

923 2119

23 23.08 25 52.98

10 Lacerta

22 34 1

+ 38 P²⁶

P P P

35.3 24.2 238.0 17.5

7.0 20.5 0.0

Born in Lincoln Co. R. I.
Reg. 1st to I. L. L.
Lungs bad

411 H. C. G. P. H.

23 42 19

+ 67 9

P P P

55- 1 2.00 35.0 8.8

47.1 19.9 52.6

a. f. f.

B. A. R. i. t. i.

1 48 9

+ 20 14

P. P.

⁵⁰ 10 0 10.1

57.0

48.9

2.1

2381

49 59.52

Dec. 12, 1883

C = 24 96.7

Cephei

Br 3077

22 45 31

23 7 31

+65 35

+56 31

	P	P	P
30 0	21.1	25.4	46.3
	21.2		29.0
	<u>3.1</u>	<u>29.3</u>	<u>9.9</u>

	P	P	P
30 3	35.7	12.9	43.2
	19.0	54.8	26.2

d & f.

50 Cass

1 53 17

+ 71 50

PP

10 4 24.8

14.5

7.6

12.1

59 0

14 14.75

Y Androm

1 56 41

+41.46

PP

15 3 15.1

13.2

57.5

3.9

1397

18 34.92

A 37C

DEC. 12 1883 C = 2496.7

L ^{.24.967} ~~Archis~~

2 0 33

+ 22 54

PP

10 0 7.8 3.

57.0

48.8

0.2

2338

9 58.45

L ~~Virginis~~

13 18 58

- 10 33

P P

35.2 36.9 134.3

16.5 13.9

13.4 10.2

25.2 23.1

920 815

37 23.00 36 2038

E ~~Borley~~

143549

+ 27 35

RR

30 1 2 12

7.2

0.7

11.2

403

31 10.08

Dr C12

C = 250.0

✓ Bootis

141016

+1948

LR

11-3

80

534

474

578

2246

17 56.15

2 Bootis

142716

+3850

LR

15-1

16.8

310

248

332

1098

16 27.45

2
DEC 13

0 $C = 25 - 0.00$
17 22 34

- 2 3 10

RR

RP

5-3-1 49.0 25.4 28.9
29.9 8.2
26.1 6.1
39.1 20.5
1441 637

56 36.02 29 15.92

Both limbs in 5+
Q, R. Seeing very
unsteady.

7 Lacerta
22 26 28
+ 49 41
PP

20 357.0

43.4

Br 3077

23 7 31

+ 5-6 31

P₅

P

P

30 3 58.4 14.0 236.0

39.3 57.8 20.0

41 H Aphi

23 42 19

+ 67 9

P

P

P

5-5-0 48.1 27.7 ~~58.2~~ 2.0

28.2 12.4 45.4

d.b.f.

d.b.f.

DEC 13

10 Lacertae

2 2 3 4 1
+ 3 8 26

P P

35 212.0

1.9

54.0

2.8

i Cephei

2 2 4 5 31

+ 6 5 35

P

P

P

30.0 16.1 25.4 5.7 6 26.0

0.3 43.0 9.9A 2345
-1

φ Persia

1-3 6-20

+ 50.6

P

P

P

55 3 50.0 27.8 51.9

35.1 12.0 50.5

Lost A, b.f.

χ Androm

1 5 6 43

+ 41 46

P

P

15 3 46.2 11.8

34.3 59.8

29.0 55.5

35.8 1.0

1453 81

18 3632 202

d.b. f
Lost A, 1

Dec 13 C = 23° 0.00
 2 Arietis 3 Trianguli
 20 35 22 35
 + 22 55 + 34 26

	P		P
10	0 27.2	5	4 26.8
	15.1		15.6
	8.1		9.1
	20.3		21.2
	70.9		72.7
10	17.68	9	18.18
	6 f		

	P		P
3	5-4 13.1		12.5
	—		
	5-41.8		54.0
	6 f		

DEC 13

5-5- Cass

25- 19

+ 65- 5-8

P P P

5-1 47.3 32.5 17.4

<u>31.8</u>	<u>17.2</u>	<u>1.5</u>
-------------	-------------	------------

d f f

DEC. 15 1883

C = 25 0100

①

 $d = 25^{\circ} 0.00$

17 31 24

- 23 17

PP

0 4 37.0 72.1

18.8 73.0

15.2 73.9

27.0

980

4 24.50

M. Pegasi

22 37 31

+ 29 37

PP

25 2 20.2

5.2

58.8

9.2

334

27 8.35

Seeing bad.
 Both limbs in RR.
 Lower limb in S
 D. B. P.

2 Books

R

15 3 42

461

372

482

1957

18 48.92

Dec 15 1883 C 25 0.00

Y Cass

0 4938

+60 5

~~11~~

P

P

0	0	26.1	55	449.2	66
		11.2		33.7	51.1
		4.4		21.0	48.1
		8.9		32.6	50.3
		506		1365	2861
0		1265	59	34.12	54.02

 λ Mune King

134252

+45.12

12R

10	2	31.7
		11.6
		8.2
		12.2
		677
12		1692

$$(1) \quad Q = 4 - 0.0$$

$$17 \quad 35 -$$

$$- 23 -$$

$$W \quad 4 \quad 47 \quad R \quad R$$

$$250 \quad 197$$

$$202 \quad 15.2$$

$$310 \quad 28.1$$

$$1240 \quad 472$$

$$24 \quad 3.100 \quad 11.80$$

Both Curves in \int

A₁ for 2nd limit & R is
 Honey. being bad.

Dec 18 1883 $\epsilon = 25^\circ$ 0.00

ϕ Persia

1 36 20

+ 50 6

PP

55 45.7

—
43.2

ϵ Cass.

1 45 59

+ 63 6

PP

55 4 4.1

—
40.5

$A_2 + c$

Dec. 18.

5-0 Cass
 1 5-3 17
 + 7 1 5-0

Ra
 list A, 23

Star very faint +
 several wires doubtful
 DBP

L Aries
 20 33 + 22 5-4
 Ra

D.B.P.
 cloudy

list A₆+9

Dec 20 1883

①

C = 24 85.6

17 53 34

-23 27

R

P

10 41

3.0 45.0 31.9

40.9

11.1

32.8

3.1

47.8

16.0

1845

621

14

46.12 45 15.52

Lost first w. 2nd
limb.

DEC 21 1883

C = 24 85.6

2 Cases

0 Cases

0 33 52

0 38 12

+ 55 54

+ 47 39

PP

PP

10 0 31.2

25 1 35.1

6.8

10.1

Ag A₋₁

B. Weiss

1 418 9

+ 20 14

45 4 36.2

19.4

9.5

21.1

862

49 21.55

Lost A₁ 123

50 Cases

15317 + 7150

PP

10 4

21.3

14.1

16.9

Seiring bad

Dec 21

y Cass.

0 49 38

+ 60 5-

PP

0 0 28.8

11.3

4.0

8.9

530

0 13.25

C = 24 85.6

φ Persia

1 36 20

+ 50 6

PP

55-3 17.1

54.0Lost A₁

y Androm

+ 1 56 41

+ 41.46

PP

15 3 1.7

44.4

34.4

42.2

1827

18 45.68

C = 24 86.5

η Mrs May

14 42 52

+ 49 54

PP

10 1 40.8

22.1

15.9

21.2

1000

11 25.00

nj first 5

Dec 21 1883

 $C = 24 \ 85.6$ α Bootis

14 10 16

+ 19 48

PP

15 3 2.4

44.8

34.2

45.2

1266

18 31.65

54

2

DEC 22 1883

C = 24 85.6

①

$$\begin{array}{r} 18 \ 2 \ 27 \\ - 23 \ 27 \\ \hline \end{array}$$

PP

10 4 17.0

55.0

46.2

59.7

237.4

13

59.48

Lost A, 23 first limb
+ 1
Lower limb in 5 +

Both in R.A.

Seeing bad

D.B.P.

C = 24 85.6

Bx 3077

23 7 31

+ 56 31

P P

30 3 33.1 2 53.5

$$\begin{array}{r} 7.2 \\ \hline \end{array} \quad \begin{array}{r} 29.4 \\ \hline \end{array}$$

A, 5 + C
+ 1

J Persei

2 36 13

+ 48 44

P 0 P P

20 1 30.7 54.1 23.1

$$\begin{array}{r} 3.4 \quad 28.0 \quad 56.2 \end{array}$$

41 Arctis

2 43 6

+ 26 47

P

15 3 7.5

39.8

6.7

DEC 22

 π Pegasi

23 14 51

+ 23 6

P P

55 3 48.5 243.2

21.0 16.1

4 Cora

23 19 38

+ 61 38

P P

25 1 42.0 0 54.5

17.0 29.7Lost A₁ τ Persei

2 45 58

+ 52 17

P P P

45 3 38.5 0.1 2 24.5

13.9 36.1 59.0 γ Persei

2 56 20

+ 53 3

P

0 1 38.0

11.9

A-1 345

56

DSC22

 $\alpha = 24 \text{ } 85.5$ $\alpha \text{ Bort}$

1410.16

7548

R

15 3

2.3

430

304

424

1

1781

18

44.52

DEC. 23

$$\begin{array}{r} 18613 \\ -2327 \end{array}$$
~~50 1 178~~

$$\begin{array}{r} 10 \quad 3 \quad 2 \quad 50 \\ 597 \end{array}$$

$$\begin{array}{r} 597 \\ 542 \end{array}$$

$$\begin{array}{r} 542 \\ 1 \end{array}$$

$$\begin{array}{r} 161 \\ 350 \end{array}$$

$$\begin{array}{r} 161 \\ 350 \end{array}$$

$$\begin{array}{r} 161 \\ 350 \end{array}$$

¹³ ^{8.75}
 Hyperbolic in ✓
 using very bad

1st limit at 2 × e

2nd limit at 2 × e

Dr

Z

$\text{D} 10.26 \quad 1883$
 $C = 25.00$

$\text{O} \quad 18 \quad 20 \quad 13$

$- \quad 23 \quad 22$

R

P

5-4	41.6	401	23.7
	20.4		2.2
	11.7		52.8
	27.8		8.9
	1015		276
9	2538	41	6.90

$C = 25.00$

L. Lyrae

$18 \quad 32 \quad 57$

$+ \quad 38 \quad 41$

P

P

25-0	6.3	203	56.7
	50.8		42.7
	41.2		32.1
	48.9		39.0
	2072		1705
24	51.80	23	42.62

Dec 26 1883 C = 25 0.00

Br 3077
23 7 31

+ 56 31

PP

30 3 7.2

42.2

T Pegasi

23 14 57

+ 23 6

PP

55. 2 42.9

16.1Lost A₁ + (A₃?)
+1 (4?)

DEC 28 1883

C = 25 0.00

18 29 5

- 23 17

R

P

0 4 35.0 35 111.6

13.5

49.2

4.7

42.3

20.0

58.1

732

2212

4 18.30

36 55.30

Baritis

1 48 9

+ 20 14

PP

5-0 0 1.7

45.0

33.2

46.5

1864

49 46.60

Seeing not good

L Bootis

Y Bootis

PP

15- 2 0.6

43.4

31.3

45.0

1803

16 45.08

PP

15- 0 47.9

32.2

20.4

29.5

1300

15 32.50

Dec 28

C = 25 0.00

4 Androm

1 5 6 41

+ 41 46

PP

15 3 5.1

49.9

40.1

47.4

2025

17 50.62

2 Antel's

2 0 33

+ 22 54

PP

5 4 34.0

19.1

8.3

20.1

815

9 20.38

A 2 4C

+1

E Bootis

PP

30 0 32.8

17.1

5.1

16.9

719

30 17.98

2

Dec 29

C = 25 0.00

① 18 3 3 3 1

- 23 14

P P

0 1 17.8

55.9

47.0

1.3

20

Seeing good

i Androm

2 3 32 24

+ 212 37

P

P

252

55.8

6.0

30.8

39.4

δ Cass.

1 18 9

59 37

P

2 5 2 27.5

12.1

41.0

10.7

543

27 13.58
b.f.

φ Persi

1 36 20

+ 50 6

P

P

P

55.4

20.9

35.6

4.5

59.0

34.5

41.2

d.b.f.

DEC 29

 $C = 25^{\circ} 0.00$

41 H Cephei

23 42. 19

+67 9

P

P

P

5-5-0 47.8 23.6 50.4 54.9

25.7

0.0

32.0

Y Cass

0 49 39

+60 5

P

0 0 31.4 50.4 37.0

17.8

22.0

8.0

14.1

13.8

19.9

9.30

54 23.25

H₂ 2 + c

J Persei

2 36.13

+48 44

P

P

P

20 1 20.0 0 56.2 29.8

55.0

30.0

4.5

 π Persei

2 45 58

+52 17

P

P

P

453 19.0 257.9 26.6

56.5

34.9

3.4

d. b. f.

d. b. f.

Dec 29 1883

γ Persei

2 56 20

+ 53 3

p

p

p

0 2 17.1 45.7 / 27.0

54.222.03.9A 240
71

Jan. 2 1884 C = 25 0.00

M Boots

13 49 3

+ 19.0

P P

5 1 27.8 0 27.4

7.8 8.1

58.2 58.3

10.3 10.5

441 443

6 11.02 5 11.08

α Draconis

14 1 9

+ 64 57

P P

10 01.4 54 29.0

46.5 14.2

36.5 3.9

41.8 8.2

1862 553

10 46.55 9 13.82

A₄ + C

Jan 2 1884

L Bootis

14 1016

+19 048

15- 2 2341 572

8.1 341

514 208

4.0 36.5

299 1426

17 748 16 3565

Ave

70

Zone 2

Jan 3 1884

C = 25. 0.00

① 18 55 38
- 22 50

y Cass

0 30 27

+ 53 15

P P

50 0 5.4 45 4 31.0 51.8

35 2 56.1 35 4 17.0
34.0 57.2
23.1 46.4
39.3 3.0

1525

36

37 38.12

39 0.90

d.b.f.

y Cass

0 49 38

+ 60 5

P

P

0 0 27.1 55 4 58.2

13.1

39.9

3.3

31.0

9.1

35.0

526

1591

0 13.15

59 39.78

d.b.f.

y H Camel

3 47 10

+ 60 46

P

P

15 4 28.0 3 48.4

5.9

26.2

A/C

d.b.f.

Jan 3

$$C = 25 \quad 0.00$$

d Cass

0 38 52

+ 55 54

P P

10 141.0 0 32.8

25.8 18.0

17.1 7.9

23.0 14.0

1069

11 26.72

727

d. ~~X~~ f. 10 18.8

O Cass

0 38 13

+ 47 39

P P P

25 1 22, 15.0 0 37.2

57.0 39.9 11.6

d. b. f.

C Persei

40 10

+ 47 24

P P P

40 1 19.8 0 46.8 20.8

24.6 21.1 53.8

A, + C d. f.

Found $C = ?$ (26.0)

(δ Tauri)

416 11

+ 17 16

P

45 3 23.0

56.5

b. f.

72

Jan 3 1884

C = 26 0.00

y Mrs. Maj

1 3 42 52

+ 49 54

p p

18 1 27.9

10.2

0.7

7.8

466

11 11.65

A₊₁ 2^{TC}
 very bad seeing

C = 25 0.00

2 Draconis

14 19

+ 64 57

p p

5 4 50.7

34.5

22.4

28.1

757

9 18.92

A₊₁ 3^{TC}
 +1

Jan 3 1984 C = 25-0.00
(Lootis)
14 10 16
+ 1948

P P
15-3 14.7

5-7.2

45.8

59.4

2371

17 59.28

Jan H 1884

C = 250.00

① 19 0 2
- 22 44

Q

P

30	1	36.4	0	3	16.9
		14.3			54.8
		5.1			44.5
		19.9			58.2
		757			1744
31		18.92		2	43.60

B Arietis

1 49 9
+ 20 14
P P

45-4 58.4
41.0
28.4
43.4
1712
49 42.80

3 strokes for 5

 α Arietis

20 33
+ 22 54
P P

10 0 12.3
57.5
43.2
57.0
2300
9 57.50

Jan 4 1884 c = 25 0.00

50 Cass

15-3 17

+ 7150

PP

10 4 16.8

2.9

49.8

56.0

55

14 138

Y Androm

15-6 41

+ 4146

PP

15-3 1.4

46.0

34.2

42.2

1838

17 45.95

Lost A, Sing ray bad

Jan 5 1884/3

C = 25 0.00

U Persii

1 30 48

+ 48 2

P P

0 2 23.9

54.2

B Arietis

1 48 9

+ 20 14

P P

50 0 58.7

34.5

22.0

33.7

14.39

50 35.98

Lost one w of A
one false strokeA 3 + C right first
+ Seeingbad α Arietis

20 33 + 2254

P P

5-4 17.0

0.4

49.0

59.5

59

9 1.48

T Persii

2 45 5-8

5-2 17

P P

45 3 32.8

6.5

Jan 5 1884 C-25 0.00

50 Cass
153 17
+71 50
PP

10 427.2
12.1
0.9
4.0

442

14 1105

~~Y Androm~~
156 41
+41 46
PP

15-4 11.1
54.1
43.8
49.4

2184

18 54.60

Jan 6 1884

C = 250.00

Mrs May
 131 4252
 + 4954
 PP

10 1 25.4
 6.8
 57.2
 5.0
 344
 11 8.60

2 Booth's
 141016
 + 1948
 PP

152 12.1
~~51~~ 51.2
 41.2
 52.9
 2174
 16 54.35

A, 3 + C Seeing bad

Jan 7 1884
 C = 25 0.00
 19 13 11

- 22 23

PP

10 1 43.0

16.8

9.1

22.1

930

19 23.25

Both limbs in R.A.
 Lower limb in S
 Lost A of 2nd limb
 Seeing + good.

γ Cassiop
 0 49 38

+ 60 5

PP

0 0 11.4

54.1

42.8

48.2

1565

59 39.12

γ Androm.

1 5-6 41

+ 41 41

PP

15 4 14.9

56.5

45.4

52.3

2291

18 57.28

2 Arctis

2 0 33

+ 22 54

PP

5 4 24.5

6.7

55.1

7.2

335

9 8.38

Jan 7

C = 25 0.00

3 Aries

50 Cass.

1 489

153 17

+ 20 14

+ 71 50

PP

PP

10 1 52.5

50 4 26.2

30.1

9.2

18.8

58.0

32.9

1.9

13 43

353

11 33.58

54 8.82

lost A₁
 ref first strutsford

Jan 9 1884 c = 25 0.00

 β Arietis

1489 + 2014

PP

45.4 45.2

29.0

17.5

31.5

1232

49

30.80

 $A_{+1} A_{89} A_{-1}$ γ Androm

15641

+ 417 416

PP

153 5.1

49.7

36.2

46.4

1994

17 49.85

 $A_{+1} A_{123678} A_{-1} 2345$

Jan 9
2 Arctis

2033

+ 2234

P P

54 18.5

3.0

52.0

5.0

185

9 462

7 2
Jan 10 1884
C = 25 0.00
19 26 16
- 21 58

R	P
45 1 2.1	15 2 32.8
40.4	11.5
32.0	4.2
46.2	18.9
180.7	67.4
45 45.18	17 16.85

Swing very poor.

B Cassiop
0 2 56
+ 58 30

PP
35. 0 3.5
47.9
—
44.9

0 Cass
0 38 12
+ 47 39

P	P
25 1 36.8	0 37.2
—	—
13.1	12.2

W. f.

Y Cass
~~0 0 14.2 0 49 38~~
+ 60 5

P	P
0 0 14.2 55 4	38.0 15.0
—	—
51.1	16.1 52.2

Lost first m

Jan 10 C = 25 0.00

g Cass

0 30 38

+ 53 15

	P	P	P
500	8.0	45.4	18.0
			356.0
		55.2	33.9
44.8			

b f

α Cass

0 33 52

+ 55 54

	P	P	P
10	38.0	2.9	0 35.4
	15.9	41.0	12.3

b.f.

δ Persei

3 34 36

+ 47 25

	P	P
400	0 10.8	35.4
		36.7
	46.1	15.0

b.f. lost A₁

γ Persei

3 37 15

+ 42 12

	P	P
500	2 50.8	24.9
		150.5
	26.4	0.4
		25.5

d.b.f.

Jan 10 1884 C = 25 0.00

E Persii

3 50 0

+ 39 40

P P

20 4 55.3 16.0

32.0 52.9

Jan 14 C = 25 0.00

0 19 43 34
- 21 19

	P	R
52	4.0	354 0.5
	420	39.2
	32.3	30.4
	348.8	46.5
	1871	1766
6	4678	38 44.15

S Carr
1 189
+ 59 37

	P	P	P
25	249.7	22.5	361
	35.8	7.7	21.5
	25.7	58.4	11.3
	31.9	4.0	18.0
	1431	326	869
27	35.78	8.15 ²⁶	21.72

Seeing very good
Both limbs in S + R.A.

Jan 15 1884
 C = 25 0.00

① 19 4752

- 21.8

R

P

551 9.1 252 34.5

56.8

11.0

39.0

2.4

53.1

18.7

2180

666

55

54.50

27

16.65

Seeing very bad

Jan 16 1884 C = 25 0.00

19 52.10

— 20 57

R

P

40 4 54.4 15-1 19.0

30.7 55.2

22.3 47.2

35.1 59.9

1425 13

44 35.62

160.32

Seeing bad

Lost A₁, 2nd limb

E C_{add}

1 45 59

+ 63 6

P

P

P

5-5-4 58.2 37.1 15.2

— — —

31.5 10.0 47.9

Jan 16 1884
 $C = 25-0.00$

α Arietis

20 34

P + 2254

10 0 2,1

43,2

31,5

439

1807

9 45,18

A 36C

+1
 6.f.

β Trianguli

22 36

P + 3426

35-3 5:7.0

40,4

29,2

364

1630

38 40,75

d. b. f.

Z Z

Jan. 17 1884

C = 25-0,00

① 19 56 26

- 20 45

R

P

30 3 18.0 0 443.1

55.6 19.8

47.2 11.4

0.6 24.4

14 987

33 0.35 4 24.68

S Cass

1 18 9 +59 37

P

25 28.1

41.3

Seeing very good indeed

b.f. A₁

P Puser

1 36 20

+ 50 6

P

P

P

5-5-4 24.2 3 49.7 14.0

59.2 25.4 49.1

d.b.f.

Jan 17 1884

v Persic

130 49

+ 482

P P P

0 3 13.3² 32.3 5.9

46.0

5.0

37.9

d.b.f.

43 Cass

1 3 3 411

+ 67 27

P P P

35-3 29.5-5.1 37.8

5.0

40.0

13.9

d.b.f.

96

Jan 18 1884

C = 25.00

① 20 0 42
- 20 33

C = 25 0.00

Y Cass
0 49 38
+ 60 5
PP

0 0 32.4

15.9

5.0

12.3

656

0 16.40

1st limb in RA.
A+1'23 A₁₂₃₄ A₋₁

50 Cassiop

1 5-3 17

+ 71 50

PP

10 4 2 6.9

13.6

1.6

6.7

488

14 122.0
Lost A₋₁

Y Androm

1 5-6 41

+ 41 46

PP

15 4 10.1

55.4

44.0

52.3

22.18

18 55.45

Jan 18 1884

C = 250.00

Perseus

13620

+ 506

PP

553 31.1

6.0

B Arietis

1489

+ 2014

P. Observed

R. A.

Lost A₁, A₅

one stroke before rattle.

α Arietis

2033

+ 2254

PP

5416.1

1.0

49.1

3.6

598

9 2.45

22^{*}
Jan 21 1884 C = 25-0.00

5 Cassiop
1 18 9
+59 37

5 Persic
2 36 13
+48 44

	P	P	P
25-3	1.5	227.6	49.5
	43.1	8.2	30.8
	33.1	59.0	19.4
	37.2	4.1	23.8
	17.49	395	1235
27	43.72	27 9.88	26 30.88

	P	P
20 1	41.7	7.1
	<u> </u>	<u> </u>
	13.1	39.0

Lost A₁

4 Camel.

4 38 16

+56 33

P P

30 2 27.0 5.1

59.9 37.5

— —

10 Camel.

4 53.1

+60 16

P P

45-4 47.3 4.0

21.3 38.3

d. b. f.
lost first 2 w.

d. b. f.

Jan, 21 1884

 τ Persii

2 45 58

+ 52 17

P

P

2

P

45 3 37.7

3.2

40.0

10.836.712.8

d. b. f.

 γ Persii

2 56 20

+ 5-3' 3"

P

P

P

0 2

40.4

6.5

44.1

12.238.616.0

d. b. f.

 η Aurigae

4 58 19

+ 41 4

P

P

P

0 113.0

0 0

23.4

55.4

59.5

45.054.231.9

d. f.

Jan 22 1884 C = 25 0.00

5 Cassiop

1189

+59 37

P P

25 2 40.4 15.2

21.7 56.8

11.0 45.6

16.1 50.8

892 2284

27 2230 5710

4 Persii

23613

+48 44

P P

40 1 31.8 3.9

3.8 36.1

d.b.f.

Lost A₁

Jan 22 1884 C = 25 0.00

T Persii

2 45 58

+5217

P P P

45 3 37.5 2.8² 33.1

12.1 36.2 64

d. b. f.

Y Persii

25620

+53 3

P P

0 2 6.2 142.2

37.9 141.5

b. f. A45E

Zone 2
Jan 26 1884
C = 25 0.00
20 34 23
- 18 44

$$C = 25^{\circ} 0.00$$

y Androm
1 56 43
+ 41 43

pp
30 1 46.9

P P P
15 4 19.2 3 46.7 6.2

23.6

14.9

29.2

1146

29.65

52.0 17.2 38.9

Both limbs in R.A.
Lower limb in 5
Lost A, 2, 3 first limb
D, B, P

b.f.

M Aurigar
4 58 19
+ 41 4

P P P
0 0 48.6 17.2 55 4 58.0
21.4 50.1 31.1

2 2 Aurigar
5 8^m 2
+ 45 52

P P
10 3 21.0 2 31.6 3.2
34.5 3.7 32.5

A₃ + c. b.f.

? A_{4/3} cc

d. b.f.

Jan 26 1884

2 Persei

3 15 58

+ 49 27

P

P

35 3 41.7 2 50.0

16.9

25.1

A₃ to d. b. f.

5 Persei

3 34 36

+ 47 25

P P

P

40 0 49,222,235 4463

21.854,4

20.4

d. b. f.

5 19 7

+ 62 58

P

P

5 2 28.9

8.2

1.6

41.9

b. f.

RR RR RR RR RR
 w 4 250 208 185 143 100
 107 60 46 20 589
 557 550 527 452 443
 30 588 561 522 48?

Jan 27 (Hy)

 $\alpha = 2500$

Pellini

1 30 45

+482

R

0 2 488

327

19.8

28.9

1302

2 32.55

Feb 1 1884 C-25 0,00

①

20 59 6
-17 7

U Persei
13048
+482

55-0 18.0
59.5
59.0
5.1

PP
0 26.8
51.0
49.4
48.0

216
55 5.40

2152
1 53.80

A₅ to rej. previous wires
first limb in RA

Lost A₁

Feb. 1 1884

C = 250,000

E. Cass

1 45.59

+ 63.6

PP

5-5-347.9

32.2

Lost A, 1
+1

y Androm

13-641

+ 41.46

PP

15-3 2.2

45.9

45.7

43.7

1975

17 49.38

^{zone} Feb 2 1884 ²

Q 21 370
- 16 50

C = 25-0,00

E Cass.

145.57

+63.6

PP

55-4 5.7

49.3

49.9

44.3

2092

58 52.30

B Tauri

5-18 5-0

+28 30

PP

PP

35-0 9.0 30 3 52.2

47.6

34.8

Lost some wires
after A₅

Feb 2 1884

50 Cassiop

1 53 17

+ 71 50

P P

10 437.4

21.4

19.1

14.2

9.21

14 23.02

Y Androm.

1 56 41

+ 41 46

P P

15-3 0.2

43.5

42.8

39.7

186.2

17 46.55

Zone

Feb 9 1884 C=25 6.4

27 Lynce
 7 5 9 39
 + 5 1 5 1

P
 15-0 0.0

 461

Br 11 47
 8 4 48
 + 76 6

P P P
 55-4 52.3 32.2 12.2

 39.1 19.1 59.0

A₃+C

40 Lynce
 9 1 3 55
 + 34 53
 R.A.

Feb 9

111

0 Ursae Maj

4 20 32

+ 61 6

P

P

55 41 26.0 215

— —

12.2 50.0

 σ^2 Urs Maj

9 0 16

+ 67 36

PP

25 41 19.1

—

8.7

A₃ to

Feb 10 1884

C = 25 9.2

19 Camel

5-318

+796

R
Nov α Aurigae

5-83

+4753

A₈₉ A₋₁

B Tami

5-1854

#130

AR

Began Observations for
Spring Equinox, Feb. 15.
Before these observations the
wires were cleaned, the Collima-
tors were adjusted and the Pivots
oiled.

Feb. 15 1884 C = 25 18.8

β Arietis

1 4 8 9

+ 20 14

P

P

50 0 49.8 45 4 38.1
 32.4 23.8
 36.1 25.9
 35.4 25.9
 1537 1137
 50 38.42 49 28.42

γ Androm.

1 56 41

+ 41 46

P

P

15 4 13.2 3 4.7
 58.4 48.9
 34.2 53.8
 57.1 47.2
 119 2146
 19 298 17 5365

Feb 15 1884

 α Arietis

2 0 33

+ 22 54

	ρ		ρ
10	0	36.1	5-429.9

22.0	16.1
------	------

24.4	18.9
------	------

23.5	18.0
------	------

1060	829
------	-----

10	26.50	9	2072
----	-------	---	------

 α Ceti

256 8

+3 38

	ρ		ρ
251	31.9	0	59.2

13.2	40.9
------	------

19.0	46.4
------	------

20.8	77.0 ?
------	--------

849	2235
-----	------

26	2122	25
----	------	----

zone

Feb 16 1884

C = 25 18.8

(1) 21 54 50
- 12 42

PP

3-4 37.0

14.4

20.3

20.7

9 24

23 10

Both limbs in R.A.

Lower limb in 5

C = 18.8

u Aurigae

55 25

+ 38 20

R

40 43 08

—

18.2

—

A

6.3 Aurigae

7

3

37

+ 39 31

506

P observes

R.A.

A.T.C.

(7 Geminae)
7 11 22
+ 16 41 5
P P

20 0 32.6 15 44 0.8

16.8

26.0

b. f.

Feb/6 1884 C = 25 18.8

Aurigae

5 + 3

+45 13

R

10 2 408

25.7

25.7

22.1

1163

12 29.08

o Aurigae

5- 36 30

+49 46

rej 5

A₂+C

19 Lynx & ~~Gemini~~

7 13 19

+ 33-30

P

P

P

35- 0 59.8 12.1 30 454.8

48.8

1.2

44.4

b. f.

Gr 1308

7 18 42

+ 68 42

P

P P

20 417.0 348.4 10.2

8.3

40.0

0.6

d. b. f.

Feb 16 1884

Or 13741

7 469

+7413

P

P

P

50 2 50.4 27.9 51.0

 39.8 17.3 53.7

d, X, f,

 (X Geminorum)

7 56 20

+ 28 7

P

P

55 3 32.1 29.5

 20.0 16.2

d, f,

Feb 18 1884

27 Lyrae

7 59 39

+ 57 50

p

p

15 0 40, 10 422.8

<u>30.2</u>	<u>13.4</u>
-------------	-------------

dXf.

Zone

2

Feb. 20

$$C = 25 \times 18.8$$

4¹ C Persu

4 0 10

+ 47 24

P P

40.1 5.4 0 48.1

 53.0 15.1

α Tauri

4 29 12

+ 16 16

P P

45.3 46.5 2 36.8

~~28.5~~ 28.5 17.2

31.2 21.4

32.2 21.9

138 4 973

48 34.60 47 24.32

reg' 2nd & 3rd

22 H Camel

6 5 57

+ 69 21

P P

410 357.7 3 30.0

 486.8 25.5

63 Auriga

7 3 36

+ 39 31

P P

30 41 42.1 16.8

 30.7 5.9
def. A₆ etc

d f f

Feb 20 1884

E Aurigar

4 53 0

+ 43 39

P

251 11.5

0.2

M Aurigar

4 58 18

+ 4 14

P

P

P

0 1 6.3 0 16.2 3.4

54.9 26.4 52.9

19 Lyncis Seg.

7 13 19

+ 55 30

P

P

P

35 1 7.9 0 37.2 15.0

57.2 26.4 4.0

d, b f.

Gr 1308

7 18 41

+ 68 42

P

P

20 3 ~~34.8~~ 21.9

43.1
34.8 13.0

List A, d, b f.

4 Feb 20 1884

(3 Can, Min

7 20 48

+ 8 31

ϕ^2 Gemma

7 27 3

+ 32.9

30 3 ρ 45.6 2 ρ 50.0

32.2

32.8 36.9

37.9

1570

33 - 32 39.25

55-1 ρ 52.0 0.0

38.4 44.1

~~42.5~~ 46.8

39.0 43.8

1735 1947

56 43.38 48.68

2 Canellors

164225

11351

RR

15-2 41.0

29.1

34.8

22.8

12.7

17 31.92

A, Last Wini
+1

Feb 21 8861 c = 18.8

(α Cen, Mir)
 7 33 7
 + 5 32
 P P

30 3 47.2 253.6

30.1 36.7

35.1 41.2

36.2 42.2

1486 1737

33 37.15 32 43.42

(β Cen
 7 38 5
 + 28 19
 P P

45 2 20.2 24.9

4.8 10.7

8.0 13.0

5.2 10.9

382 595

47 9.55 46 14.88

~~Zone~~ Z

Feb 21 1884

C = 18.8

0

~~22 17 59~~
~~- 10 35~~

Too

Benietis

1 489

p + 2014 p

50 1 52.1 45 4.52.7

34.8

34.5

35.2

36.1

34.5

37.9

1566

1612

51 39.15

X 49 40.30

J Persen

2 5-6 17

53 3

RR

0 1 356

253

311

219

1179

1 29.48

A₁
-1

J Persen

3 15-56

+49 26

RR

35-2 10.6

526

595

520

2347

36

58.68

A₁ 2C

Feb 21/884
 y Androm

1 5 6 4 1 1 X
 + 4 1 4 6 X
 P P

15 420.2 3 10.1

2.2 52.7

5.1 56.0

0.9 51.7

284 ~~2305~~

19 7.10 17 57.62

α Arctis

2 0 33

+ 22 54

P P

10 0 33.0 54 45.0

15.11 29.2

17.9 31.2

17.0 30.6

830 1360

10 20.75 9 34.00

5 Persei

3 84 33

+ 47 24

RR

35 4 41.6

24.9

29.2

23.6

119.3

39 29.82 X

Rij 1511-✓

y Persei

3 46 44

+ 31 32

RR

30 2 137

58.1

59.8

56.2

X

478

32 1.95

Rij 1511-✓

Feb. 21

Munich $\alpha = 25^{\text{h}} 7^{\text{m}} 6.88^{\text{s}}$

16 15 0

8 2 14

50

RR RR RR RR RR

50	3	19.7	45	32.0	102	20
		10.5	55.6	22.2	55.8	52.6
		9.7	55.3	22.3	55.7	51.2
		2.0	46.8	13.6	53.6	43.8
		41.9	22.25	9.01	21.33	20.96
53		10.48	55.62	22.52	0.82	52.40

B Duce.

172745

+52 24

Opinion

172827

+12 39

- 57.0

33.1

39.2

31.8

15.51

- 38.78

25 0 30.5

12.8

12.2

14.1

6.6

25 17.40

n. Opikiani

117 3 27

-15 34

RR

35 2 4 24

21.2

25.3

25.0

1169

37 29.22

-1

2. Drocini

15 53.52

+51 31

R

30 4 48.2

338

36.1

30.6

1487

34 37.18

Revised ✓

x. Mercator's

17 9 16

7 14 32

RR

30 2 4 8.2

30.3

31.3

31.0

1408

32 35.20

6 x C

R. Lynce

18 32.57

+38.41

RR

20 4 57.6

42.8

44.2

40.0

1846

24 46.15

Feb 21

$$C = 25.688$$

$$C = 25.168$$

x Aquarius

19 45-2 081

7834

RR

30 0

11.1

53.1

52.0

56.8

1730

29 48.25

A-1

Feb 22 1884

① C=21.2
 22 21 48
 -10 13

Y Androm.
 1 56 41
 +41 46

	R		P
0	1	43.6	30 3 3.8
		22.3	42.0
		27.0	49.0
		28.2	50.6
		1211	2054
1		3028	32 51.35

	P	P
15-4	8.8	3 4.8
	55.1	50.0
	58.1	52.9
	52.3	47.8
	2343	2155
18	58.58	17 53.88

Seeing very bad indeed.
 Both limbs in J and R. A.

2 Persi
 3 15-56
 + 49 26
 P P
 35-3 13.0 2 44.1
 0.2 31.0
 6.0 36.4
 57.9 28.1
 171 1396
 38 42.8 37 34.90
 A₅ + C

Feb 22 1884

A. Mitis

2033

+2254

P

P

3-4

40.9

20.9

26.0

6.5

30.1

8.7

29.8

9.8

1268

459

9 31.70

11.48

C = 25-21.2

Y ~~Perrin~~

2 56.17

+53.3

P

P

P

0 2

38.1

25.6

182.8

25.0

50.8

19.9

29.2

56.9

23.8

22.1

50.0

16.4

1144

2233

929

2

28.60

155.82

23.22

1/24 Feb. 23

C = 21.2

2.4

~~24~~ RR 183257
 73841

20 4151

10

48

58.7

236

24 5.90

A₂ & c

TS 24

① 22 29 24
- 9 24

7 Persin
2 56 17
+ 133

RR
45 4 447
210
265
1162 240

49

29.05

Long fair
Long limb in ✓
II limb in RR

RR
0 2 32.0
150
168
101
739
2 18.48

8 Persin
3 46 44
+ 31 32
RR

30 2 215
66
52
32

369

32 9.22

4 2 2

2 D was
4 2 23
+ 118 13

RR RR
55 0 10.2 1 127
57.6 66
28 123
50.3 188

09

364

55 0.22

56 9.10

✓ Persia

3 15-56
+49 26

RR

3-3 347
190
215
14.0
892
38 22.30

★ 4 ✓
T1

2 Tami

3 4029
+23 44

RR

20 3 344
171
183
172
870
23 21.75

✓ Tami

42910
+16 16
RR

45-3 54.8
341
354
36.7
1608
48 40.20

Feb 25 1884

① C = 25 - 21.2

22 33 11

-9 7

PP
55 0 32.0

5.9

11.1

9.9

589

55 14.72

Both limbs in R.A.

Lower limb in S

lost A, 45 + A, of 1st limb.

③ Arctis

1 489

+ 20 14

P

P

50 0 54.0 45.4 43.4

33.2

25.1

36.1

27.3

36.4

28.0

1597

1238

50 39.92

49

30.95

J Persia

3 34 33

+ 47 24

P

P

40 0 44.2 17.7

27.3 59.2

30.9 1.1

24.2 55.2

1266 132

40 31.65 3.30

M Tauri

3 40 29

+ 23.44

P

P

20 0 46.0 3.5

28.8 47.3

30.1 48.1

28.2 47.1

1331 2060

20 33.28 51.50

Feb. 25 - 1884

C = 21.5

2 Quicks

20 33

+ 22 54

Y Androm

156 41

+ 41 46

	P		P
15	420.8	3	10.9

4.7 53.3

6.9 55.8

0.8 48.8

332 2288

19 8.30 17 57.20

	P		P
10	0	38.1	54 43.1

21.7 29.0

21.5 29.6

21.4 29.8

1027 1335

10 25.68 9 33.38

5 Persic

346 44

+ 3132

P P

30 3 22.1 10.4

6.8 53.9

7.5 55.4

4.1 51.8

405 2315

33 1012 57.88

Zone

Z

Feb 27 1884

C = 21.6

22 40 44

-8 22

R

R P

10 0 48.4 40 1 44.8

24.7

20.8

28.8

27.2

28.7

26.4

1306

1192

10 32.65

41 29.80

Both limbs in RA +5
 lost A, 2nd limb
 Seeing extraordinary good

27 Lyncis

7 59 39

+5-150

P

P

45- 0 15.8 10 41 39.8

51.6

80.0

X

d.b.f.

B Quilis

1 48 9

20 14

P

P

50 0 53.4 45-450.2

32.8

32.7

37.5

36.1

39.4

38.2

1631

1572

50

40.78

49 39.30

31 Lyncis

8 14 49

+43 34

P

P

P

30 2 17.0 1 56.9 12A

6.0

44.9

0.4

X

lost A, 1

Feb. 27 1884

y Androm

1 36 41

+ 41 46

P

153 12.9

57.9

111

55.8

~~27~~

18 192

A 4+5
-1

i Orionis

5-29 40

-5-39

P

0 41 12.2

52.6

57.5

55.8

11

4 0.28

Tel. 28 c = 21.6

Lophoceros

1.7 2927

+12 39

R/R

30 3 14.1

14.2

16.7

16.7

17

33 0.42

2.2 Dec

17 13 52

+11 3

R/R

35 0 34.4

17.8

20.0

12.0

845

35 2.12

2 Lynd
1832 J
738 41
RR

20 4 36.1
170
187
12.2
840
24 2100

Feb 29 1884

①
 22 48 15
 - 7 37

P
 552 13.2
 45.6
 52.1
 49.0
 2199

56 54.98

lower limb in 5

A, 2345 + A, to 6 2nd limb
+1

L Orionis

5-4847

+733

PP

40 1 8.0

46.0

48.1

48.2

2103

40 52.58

rej last stroke for 5

H Gemmae

645-4

+346

P Pobserved RA

lost A, A, 2

rej first 2w

15 Lyncis

6479

+5834

PP

300 42.2

25.0

Feb. 29

M. Geminaurum

6 15- 29

+ 22 34

PP

30 0 9.8

5-2.0

5-0.3

47.3

2194

29 54.85

Y. Geminaurum

6 30 54

+ 16 30

PP

30 H 28.8

8.0

8.0

6.5

513

34 12.82

B. Can. Min

7 20 48

+ 8 31

PP

30 2 57.3

35.3

37.2

36.9

1667

32 41.68

L² Geminaurum

7 27 3

+ 32 9

PP

5-5-1 6.8

46.8

45.4

41.3

2003

55 50.08

Feb. 29 1884 C = 21.6

2 Can Min.

7 33'7

+ 5 32

3 Geminorum

7 38 5

+ 28 19

PP

30 2 55.4

33.9

36.4

35.3

1610

32 40.25

PP

45-1 18.5

57.0

58.2

53.8

75

46 18.5

Zone Z

Mar. 1 1884

① $C > 21.6$ 22 51 60

- 7 14

2 Camel

41 412 25

+ 668

PP

0 2 37.2

12.2

18.4

15.1

829

2 20.72

Both limbs in Q

lower limb in S

PP

55-2 30.4

10.2

13.5

3.6

~~77~~

57 1442

5 Aurigae

5-49 53

+ 54 16

P

P

P

45-4 37.3

11.6

3

43.2

21.955.428.0

b.f.

+

Mar 1 1884

γ Aurigae
 215.8 19
 +411 4

19 H Camel.
 5-3 17
 +79 6

P P
 0 0 33.5 11.8
 ———
 16.0 55.8

P P
 0 0 43.1 360.554389
 ———
 28.3 19.8 24.3

X

X

lost A₁

B Dwen
 1722.8
 +52 26

RR
 — 27.0
 7.2
 10.9
 28
 479
 — 1198

Lost A₁

20 pm.
 1725.36
 +1239

RR
 25- 127.4
 10.2
 6.2
 5.2
 490
 26- 1225

Mani C = 25 216

2 Duro

1753 32

151 31

RR

to RV

1.2e
30

RR

2 Persin

3 1556

+4926

RR

35 4 17

448

450

38.7

1902

39 47.55

Man 2

2 Audum

15641

+4140

RR

153 57.6

32.6

40.0

32.0

1674

18 41.85

2.2e
77

2 Tami RR

2 Persin

3 3433

+4724
2344

RR

20 0 242

5.2

4.2

3.8

374

20 9.35

2.1e

2 Antis

2 0 23

+22 54

RR

10 0

83.1

13.2

13.0

13.2

725

10

18.12

2 Persei

2 56 17

RR

3

0 1 388

200

200

144

932

11 2330

+1 2345

3 Persei

7 46 14

+31 32

2 Camels

4 42 25

+66 0 8

RR

30 3

74

49.0

46

46.2

2112

32

5280

RR

55 2 308

172

178

78

736

57 1840

152

Man 20 = 17.3

i Aug 20

4 49 15
- 132 59
RR

5 1 50.9
344
328
28.2
1463
6 36.58

2 Aug 20

4 58 40
57 46

RR
- 308 20 0 289
215 114
157 13.3
138 8.7
975

24.38 57.3
- Reg middle 20 14.32
New lat in 320000

51 Corphi

6 44 42
+ 87 13

RR RR

50 2 130 55
152 483
185 497
467 40.9
2394 2044
51 59.85 51.10

5 Can Maj

3 36
- 26 12
RR

15 1096
461
452
50.0
2149
15 53.72

2 Aug 57

5-7 59
+45 52

RR
10 3 128

51-2

561

488

2329

12 58.22

2 Can May
6 35 57

-16 33

RR

25 2 58

338

36.5

35.2

1676

27 41.90

2 Jan

7 27 3

+32 9

RR

55 1 578

376

400

360

1714

56 4285

A320

71

2 Can May

7 33 7

+5 32

RR

30 3 358

132

161

17.2

823

33 2058

A320

154

Zone

Mar 3 1873

① = 2 17.3

Blau.

7 38 5

+28 19

RR

45 2 31 5

12.2

14.3

10.0

680

47 17.00

156

Zone Z

March 3 1884

①

$$C = 25.17.2$$

$$\begin{array}{r} 22\ 59\ 27 \\ -6\ 27 \\ \hline \end{array}$$

2 Orions

$$5-48\ 47$$

$$+7\ 43$$

R

P

$$\begin{array}{r} 15\ 1\ 41.0\ 45\ 2\ 58.5 \\ 15.0\ 33.8 \\ 19.2\ 37.4 \\ 18.0\ 35.8 \\ 932\ 1655 \\ 16\ 23.30\ 47\ 41.38 \end{array}$$

R/R

$$\begin{array}{r} 40\ 2\ 6.3 \\ 46.2 \\ 47.7 \\ 48.8 \end{array}$$

$$2090$$

$$41\ 52.25$$

Both limbs in $\delta + \alpha$
Seeing very bad.

27 Lyncis

$$7\ 59\ 39$$

$$+5\ 1\ 51$$

P

$$15\ 0\ 28.7$$

$$\overline{13.9}$$

X

31 Lyncis

$$8\ 14\ 49$$

$$+4\ 3\ 37$$

P

P

$$30\ 2\ 13.3\ 137.2$$

$$\overline{57.2}\ \overline{19.3}$$

X

lost first two,
a, b, f,

Mar. 3.

22 H Camel.

6 5- 5-7

+ 69 21

	P	P	P
40	444.8	350.8	39.6

<u> </u>	<u> </u>	<u> </u>
31.7	37.8	24.2

X

5 Mus. Min

6 10 21

+ 93 23

	P	P
40	311.6	317.9

<u> </u>	<u> </u>
57.2	2.0

59.1	5.0
------	-----

491	55.8
-----	------

2370	207
------	-----

42	59.25	43	5.18
----	-------	----	------

A ₆₂	to 10
-----------------	-------

X

0 Mus. maj

8 2032

+ 61 6

	P	P	P
55-41	44.3	29.9	6.3

<u> </u>	<u> </u>	<u> </u>
30.1	16.2	52.6

X
d. b. f.

Gr 1450

8 2518

+ 38 25

	P	P
40	028.1	35458.8

<u> </u>	<u> </u>
11.2	44.2

X
d b f A 3tc
+1

Mars 1894

c = 17.3

2 Apr.
1892.7

+1235

25 0 228

0.8

0.9

1.0

255

25 6.38

A, 2c

~~35~~2 leg. qu.
2037.26
+445.2

RR

~~35~~

RR 10 3 57.8

~~35 15.7~~

38.2

413

35.7

1730

13 43.25

2 Dec.

17 53 52

+573.1

35 1

+7

48.8

51.4

43.0

2119

35 52.98

2 Cyg. qu.

2041.27

+333.2

RR

30 3 31.8

110

130

9.0

648

33 16.20

✓ Lyne

1832 B7

+3541

RR

25 0 21.8

26

22

57.2

238

25 595

✓ Bygrin

20 H 1

+38 53

RR

10 2 35.2

137

161

11.3

763

12 19.08

✓ Cephei

21 1565

+625

RR

RR

554 495

50.3

27.0

26.8

33.6

32.8

23.8

24.1

1343

1340

59 3358

3350

✓ 42Q

160

Mar 3
4

$$\textcircled{1} \quad e = 17.3$$

$$\begin{array}{r} 23 \ 3 \ 1 \ 0 \\ -6 \ 5 \end{array}$$

R

P

$$50 \ 3 \ 28.7 \quad 20.4 \ 42.9$$

$$2.1$$

$$16.9$$

$$8.5$$

$$23.1$$

$$7.3$$

$$21.8$$

$$466$$

$$1047$$

$$53 \ 11.65$$

$$24 \ 26.18$$

Both limbs in δ & R.A.

Seeing pretty fair

i Aurigar

$$4 \ 49 \ 19$$

$$+32 \ 59$$

P

P

$$5- \ 1 \ 57.5$$

$$0 \ 38.4$$

$$39.0$$

$$19.2$$

$$39.5$$

$$20.0$$

$$34.9$$

$$15.0$$

$$1709$$

$$926$$

$$6 \ 42.72$$

$$5 \ 23.15$$

Mercury

$$21.49$$

$$\begin{array}{r} -15 \ 18 \ 19 \\ -15 \ 19 \end{array}$$

10 Camel

$$4 \ 53 \ 0$$

$$+60 \ 16$$

P

P

P

$$45- \ 450.2 \ 2.0 \ 34.9$$

$$36.5 \ 47.8 \ 26.9$$

+

Zone Z

161

Mar. 4

x Tami

$$\begin{array}{r} 42516 \\ +1616 \\ \hline \end{array}$$

RR

$$\begin{array}{r} 15-2 \quad 68 \\ 43.0 \\ 44.0 \\ 44.0 \\ 196.8 \\ 17 \quad 49.20 \end{array}$$
 η Aurigae
$$\begin{array}{r} 4158 \quad 18 \\ +41 \quad 4 \\ \hline \end{array}$$

P

$$\begin{array}{r} 0 \quad 1 \quad 19.8 \quad 0 \quad 35.2 \quad 6.0 \\ \hline 3.2 \quad 19.2 \quad 49.9 \end{array}$$

X

C = 17.3

x Camel

$$\begin{array}{r} +668 \\ 44225 \\ +668 \end{array}$$

	P	P	P
53-2	24.8	7.7	36.9
	7.0	49.5	19.2
	9.9	51.3	20.4
	59.9	41.8	11.3
	416	21.03	878
57	10.40	52.58	56 21.95

Gr 1308

7 18 411

+68 412

	P	P	P
20 41	12.6	349.4	23.0
	58.9	36.9	9.41

d/b.f.

X

Mar 4
 2^{nd} Gemini

7 273
 +329

$C = 17.3$

2^{nd} Can. Min.

7 33.7
 +532

	P	P
552	2010	18.0
	2.9	0.0
	3.8	0.4
	59.4	55.8
	261	142
57	6.52	56 3.55

	P	P
3041	60	254.0
	45.5	34.0
	49.4	37.2
	49.8	37.0
	2107	162.2
33	52.68	32 40.55

Joyqui

20 181
 +3953

MSD

May. 4

(3) Gemini row

7 3 8.5

+ 28.19

P

P

452 30.2 18.2

12.2 0.1

15.0 0.9

10.2 57.2

676

164

47

16.90

X 46 4.10

B 22000

17 2765

+ 5224

~~40 2558.0~~

Rij ✓

Mar. 5 - 1884

① C = 25 0.0

236 52

- 5 41

	R	P
30	1 25.9	0 1 30.2
	2.2	5.0
	2.4	10.3
	5.1	10.0
	356	555

31 8.90

7 13.88

Both limbs in $\delta + \alpha$
 Seeing pretty fair

Mar. 6 1884

$$C = 20.1$$

$$C = 25.0$$

B Eridani

2 3 10 35

5 2 3

- 5 18

- 5 14

Q

P

P P

5 2 5.7 35 3 11.0

15 4 10.2 3 9.2

44.0 47.5

49.0 48.0

45.3 50.0

53.6 52.2

48.0 51.2

56.2 54.5

2030 2197

6 50.75 37 54.92

2290 2239

Both limbs in O & R

18 57.25 17 55.98

Seeing very fine indeed

A, & c, for 1st limb

A 2 & c. for 2nd limb

+1

B Tauri

5 18 50

+ 28 30

P

P

35 0 7.8 30 3 59.1

50.1 43.6

52.2 45.1

50.2 43.8

2203 1916

34 55.08 33 47.90

Mar, 6 1884

2 Aurigan

5- 7 59

+45- 52

P

10 3 12.2

5-7.8

5-9.8

5-2.5

23

12 0.58

3 Orion's

5- 8 52

- 8 20

P

20 4 5-2.0 358.4

29.2 36.0

33.3 39.9

34.8 41.3

149 3 1756

24 37.32 23 43.90

168

Zone

Z

Mar 10 1884

① C = 26.0

23 25 20

- 3 4 4

Mercury
~~22240~~
 12 13

	R	P
30 3	29.8	0 4 40.0
	7.3	7.8
	12.9	23.8
	15.2	14.9
	652	865
33	16.30	4 21.62

Both limbs in J & R.A.
 Seeing pretty fair.

Persei
 2 52 17
 R 713 3

0 1 36.2

21.1

250

17.2

995

1 24.88

+

Persei
 8 15-16
 45 26

353 582

425

452

357

1876
 38 46.90

Rij 15.5

A 320

Mar 10 1884 C-25 26.0

 γ Androm.

15-6 41

+ 41 46

P

P

15-41 21.4³ 3 5.2

5.0 19.8

8.2 22.2

1.7 16.2

363 9 34

19 9.08 18 23.35

 α Aurigae

20 33

+ 22 54

P

P

10 0 36.8 54 38.0

19.6 20.8

22.2 24.1

21.5 23.7

1001 1066

10 25.02 9 26.65

 δ Persae

+ 3 34 33

+ 47 24

P

P

40 0 41.3 35-4 46.5

24.2 31.0

30.5 36.9

23.1 29.0

1191 1434

40 29.78 39 35.85

 γ Tauri

3 40 29

+ 23 44

P

P

20 0 25.1 36.2

8.2 21.3

11.4 24.9

9.1 22.0

5381 1044

20 13.45 26.10

A₊ 4+ C

Mar. 10 1884 C = 25 26.0

S Persi

3 46 44
+ 31 32

P P

30 3 18.1 27.7

3.2 52.4

6.7 55.3

1.8 51.1

298 2265

33 7.45 32 56.62

α Camel

H 42 25

+ 66 8

P P P

5-5-1 51.9 24.7 12.1

37.4 10.1 57.9

40.8 14.1 1.1

31.2 4.4 51.0

1613

533 21

lost A₄₁

B Eridani

5-2-3

-5-14

P

P

15-4 13.2 2 59.5

50.1 36.4

57.2 43.0

58.6 44.5

23 91 18 34

18 59.78 17 45.85

1

α Aurigar

5-7-59

+ 45 52

P

15-3 3.8

48.3

52.1

45.0

2092

17 52.30

230

Mar. 10 1884

C = 26.0

i Aurigar

+ 4 44 19

+ 32 59

P P

51 42.5 0 48.4

25.3 32.4

27.9 33.7

25.0 30.9

1207 1454

6 30.18 5 36.35

E Mus. Min.

4 58 00

+ 97 46

P P

200 20.1 31.4

7.1 17.9

12.1 24.4

0.8 11.9

401 856

20 10.02 21.40

A 4₂ TC

Borionis

5 8 52

- 8 20

P

P

20 4 26.2 3 53.4

2.2 29.9

9.8 36.2

10.2 36.0

484 1555

A, TC 24 1210 23 38.88

B Tauri

5 18 30

+ 28 30

P

P

35 0 11.2 30 4 6.2

54.2 52.0

57.1 53.3

55.3 51.9

2378 2254

34 59.45 33 56.35

Mar 10. 1884

 δ Orionis

5-25-5-9

-023

p

p

253 15.5 2 33.6

53.9 11.0

59.8 18.2

0.0 18.8

92 816

28 230 27 20.40

 α Serris

3-27-32

-17 5-4

p

p

58 3 45.0 2 28.6

27.9 6.7

33.2 12.1

36.0 16.0

1421 634

58 35.52 57 15.85

 α Aquila

18 45.2

18 34

R

30 124

5.2

8.2

9.1

B Cygni
 1925 18
 727 43
 R

20 2 1 8.8
 4.1
 7.8
 3.6

Ch/?

2 Aquilae
 1844 40
 410 20

210 4 3.4
 46.3
 49.7
 48.0

March, 11 1884

①

23 29 0

- 3 21

R

P

5-4

52.0

40 1 6.8

30.9

46.3

38.7

52.0

38.7

52.3

1603

2174

9 40.08

40 54.35

Both limbs in δ

A, 1st limb

all the wires 2nd limb

Faint, but image
distinct.

176

Zone Z

March 12 1884

C = 26.0

23 32 40
 - 2 57

η Leonis
 10 0 57
 + 17 20
 P
 45-0 40.8

18.8

X

μ Urs Maj
 10 15 21
 + 42 5

P P
 0 1 0.1 0 8.3
 46.2 55.6
 52.0 0.0
 44.2 52.2
 20 25 23 6 2

1 5062 0 59.75

9 H Draconis
 10 25 6
 + 76 18

P P P P
 45-2 57.0 36.8 3.0 49.0
 51.0 30.2 56.0 42.0

X

Mar 12
 20
 10 28
 +12 32
 P P

30 3 8.7 211.5

521 54.1

56.4 59.3

58.3 0.2

2355 2451

32 ~~58.88~~ 32 1.28

C = 26.0

λ *ms* May
 10 10 2
 +43 30

P

35-0 53.0

—

43.0

P

19.9

—

9.3

X

lost A₊1

March 13 1884

① $c = 25 \ 26.0$

$$\begin{array}{r} 23 \ 36 \ 20 \\ - \ 2 \ 34 \end{array}$$

R P

202 41.7 503 37.1

22.8 17.9

28.7 26.9

30.0 26.1

1232 1080

22 30.80 53 27.00

Seeing very fair.
 Both limbs in J + R, a,
 lost A 1 1st limb
 " A⁷, 12 2nd limb
 +,

180

Zone

Z

Mar 15 1884 C = 25-26.0

(2 Orionis)

5-48 47

+ 7 23

PP

401 1.8

45.3

50.8

51.9

2098

40 52.45

224 Camel

6 5-57

+ 69 22

P

P

P

P

40 4 34.9 16.1 3 53.0 35.0

27.9

9.2

46.1 27.9

X

b.f.

Apr. 1308

+ 718 41

+ 68 42

P

P

P

20 4 9.1 386.1 12.9

3.3

30.4

6.8

d.b.f.

X

24 Lynx

7 33 6

+ 58 59

P

5-1 42.9

34.5

b.f. lost A₁

March 15 1884

E Geminorum

6 36 44

+ 25 15

P

P

P

50 0 59.1 016.2 45.4

49.4

57.6

35.3

X

d.b.f.

19 Lynceis Seg.

7 13 19

+ 55 30

P

P

35 0 45.7 3.4

38.1

55.1

X

d.b.f.

i Mrs. Maj

8 5-1 12

+ 48 30

P

P

P

35 1/5.4 0 43.1 10.4

57.0

34.2

21.0

X
d.b.f.

10 Mrs. Maj

8 5-3 2

+ 42 15

P

P

P

50 1 27.2 0 49.0 19.9

17.8

39.2

10.4

X
d.b.f.

Morrison 1884

Krus' Maj.

8 55-38 + 47 37

ρ ρ ρ
 25-4 3.6 3 35.2 2 36.1

$\overline{56.2}$ $\overline{27.2}$ $\overline{37.9}$

+

zone Z

Mar 16/1894 $\odot = 250$

①

23 47 11

- 1 22

9

25	8	R	R
		158	3.0
		170	46.3
		27	50.1
		22	49.9
		177	2093

28 4.42 27 52.32

Butte lines in J. K. H.
 from δ_{+1} I and δ_{+1} in II

2 Surveys

5-7 59

+45 52

R

10 3 7.2

54.7

586

521

2330

1/2 58.25

Corr
 5 45 38
 760 J

0 0 R

58

11.1

3.3

399

0 998 X

lost δ_{+1} & δ_{-1}

B T and

5-16 50

+24 30

R

30 3 566

45.1

49.2

46.7

45.9

1869

Reg 15 J 33 4 6.72

2 Tauri

45 29 10

+16 16

45-3 500

32.2

37.6

38.4

1585

39.62

X

1 Aurigae

4 45 15

+32 58

R

5-0 26.6

138

161

12.8

X

693

1732

Rj 1575

5 Orionis

5-15 59

-0 23

R

25 2 15.6

56.1

25

3.7

179

40 27 4.48

1 Orionis

5 23 40

-5 59

R

0 4 4.1

46.1

51.5

52.1

21 38

3 53.45

86

Mar 16 1884 @

 γ Orionis

5-3435

-20

R

50 147

561

12

33

153

5 382

 γ Orionis
 5-4214
 -543

March 17 1884
 C = 25.5

①

23 50 57

- 0 59

R

P

45 3 2.0 15 3 36.7

43.5 36.8

47.2 42.8

48.7 42.9

2014 1792

47 50.35 18 44.80

2 Aquina

1945 2

+8 34

R

30 1 188

2.1

4.4

6.0

3.13

31 7.82

Both limbs in J+R.A.
 Hazy - but seeing steady.

2 Lepus

2, 15 48

+6 2 1

h u
 23 17
 -6.54

53-439.5

25.2

31.0

23.0

119.0

59 29.75

Ag 20

March 17 1884

2 logyri
 120 18 1
 +39 53
 R

2 logyri
 20 07 26
 744 52

10 2 7.3
 52.3
 55.2
 50.2
 2250

" A₃ 56.25
 & C

10 3 51.7 R
 376
 40.2
 34.2
~~44.8~~ 1637
 13 40.92

Zone Z

March 18 1884

Q C = 35.0

23 5-4-36

- 0 35

R P

20 4 15.4 55 0 17.5

56.5 57.2

1.8 3.0

2.2 3.2

159 211

24 3.98 55 5.28

Bore Limb of Sun R & R

Sout. of for I and 4, 1, 2 for II

C = 25 35.0

B Cassiop

0 2 56

+ 58 30

P P

35 0 9.2 30 4 39.2

57.3 24.9

1.1 32.9

52.0 24.1

2396 1211

34 59.90 34 30.28

Sunrise

4 45 15

+ 32 59

5-0 550

425

452

40.9

1834

5 45.85

Sunrise

5-2 3

- 5-14

15-3 583

377

467

472

1898

18 47.45

Agac

March 18

y Cassiop C = 30.0

0 49 38

+ 60 5

P P

P

0 0 28.9 6.9 55.4 31.4

15.4 54.1 17.9

23.8 0.9 27.2

14.5 52.0 17.0

826 2339 935

0 2065 59 58.48 59 2338

2 Tami

429 10

+ 16 16

R

45 345.2

31.7

343

36.0

1502

48 37.55

2 Arigel

5- 759

+ 45 52

R

10 3 6.1

528

57.5

49.8

2262

12 56.55

2 ~~Ar~~ Orion

5- 48 47

+ 7 23

PP

401 3.8

47.2

52.8

54.0

2178

0 54.45

192

Mar. 18 1884

19 Lyncis seq
 + 7 13 19
 + 55 30

P P
 35-0 35.4 30 45.9 1
 — —
 29.0 54.2

d. b. f. best A,
 7,

i Mrs Maj

8 5-1 11

+ 48 30

P P

35-1 9.0 39.5

—
 1.3 32.0

d. b. f.

March 18 1884

C = 35.0

10 Mrs Maj

8 53 2

+42 14

P P

50, 22.0 047.0

 13.1 38.0

d. b. f.

26 Mrs Maj

8 53- 38

+47 37

P P P

25-41 4.0 3 22, 1257.6

 57.0 157.2 50.0

d. b. f.

21

March ~~17~~ 1884

① C = 35,00

~~23 58 14~~

~~0 11~~

0 5 31

+ 0 35

R

P

10	2	52.5	40	356.1
		32.6		34.6
		37.6		42.0
		37.8		42.1

3 strokes for 2nd δ
 1st limb in R.A.
 Both limbs in δ

196

Zone Z

March 22 1884

C = 35.0

22 9 10

+ 0 5-9

PP

45 4 37.8

20.1

26.4

27.5

11.18

49 27.95

Both limbs in R.A.

lower limb in S

1st limb A 789 A-1

Y Androm

1 56 41

+ 41 46

PP

15 3 12.0

55.2

7.8

59.7

147

18 13.68

~~2 Can. Maj~~~~35 2 54.5~~~~35.4~~~~45.0~~~~48.7~~~~20 0 47.2~~

rej chf.

March 22 1884

8 Lyncis
 6 26 59
 + 61 34

C - 35.0

6 30 33
 + 39 29

P P P
 30 14.0 20.5 3.1
58.0
 — 14.6 57.0

P P
 35.1 14.4 41.1 0
6.4 33.2

Ch. f ?
 b. f.

b. f.

51 Cephei
 6 44 42
 + 87 13

8 Gemmae
 6 57 10

+ 20 44

20 P P
 20 10.9 15.4 38.5
52.5
 57.2

P P P P
 20 2 17.2 12.5 6.1 2.2
 9.1 4.3 58.0 52.2
 16.0 10.9 4.7 0.1
 4.2 59.3 52.8 49.1
 465 270 16 56
 P2 11.62 6.75 0.40 1.40

Δ_{50} to ρ_0

March 22/1884 C = 35.0

63 Aurigae

7 3 36

39 31

P

P

35.0 10.7 30 4 0.1

4.5

55.8

b f

19 Lyncis Seg.

7 13 19

+ 53.30

P

P

P

35.0 47.0 6.7 30 4 50.2

42.2

2.1

46.9

b f

(2 Can. Min.)

7 3 3 7

+ 5.32

P

P

30 3 57.9 2 46.3

39.5 31.2

47.0 38.3

51.1 40.0

19.25 15.58

33 48.12 32 38.95

b. f.

(3 Geminorum)

7 38 5

+ 28.19

P

P

35.1 41.0 7.4

29.3 57.2

35.0 7.8

31.3 57.6

13.66 40

36 34.15 1.00

March 22 1884

C = 35.0

(B Canis Min
 7 20 48
 + 8 31
 P P)

Δ^2 Geminae
 7 27 3
 + 32 9
 P P

30 3 52.1 252.7

55 2 12.0 117.2

36.1 370

59.3 41.2

45.0 45.0

5.1 10.0

46.4 46.5

1.9 6.1

179.6 181.2

18.3 375

33 44.90 b. f. 32 45.30

57 4.58 b. f. 56 9.38

v Mus. maj
 9 42 40
 + 59 35
 P

30 0 50.0 34.9 10.2

Δ Mus. maj
 10 10 2
 + 4.3 30
 P P

35 1 21.0 0 7.2

45.0 30.6 5.2

15.1 0.8

d. f. f.

ab. f.

Mar. 22 1884 C = 35.0

μ ~~#~~ Mrs. Maj

10 15 21

42 5

P

0 1 0.4 0 16.8

2

54.2 10.1

(2 Syriacae)

1945-2

+8 34

R

300 388

209

259

29.4

1170

30 29.25

2 Corphi

21 1548

+ 625-

R

0 U 284 417.6

173 3.7

230 13.2

132 2.9

819 374

00 2048 4 9.35-

~~May 24 1884~~
 ①
~~0 16 26~~
~~+ 4 1 46~~

C = 357.0

Cancri

8 39 37

+ 29 11

PP

50 3 28.4

24.1

A, 3 TC,
 +1

Mrs. Maj.

10 10 2

+ 43 30

P P P

35- 1 15.0 0 42.9 16.2

9.6

37.4 10.7

d b.f.

Mrs. Maj.

10 15-21

+ 42 5

P

0 1 0.8

55.5

lost A,

Zone Z

203

March 24, 1884

X Mus Maj

853- 38

+47 37

P

P

253 58.2 28.5

— —
55.4 25.4h
9 24^m

see zone

50 3 20.0

—
17.2lost A₋₁ d.b.f.

30 H Camel

10 15-411

+66 9

P

P

0 1 12.1 0 5-5.0

— —
9.8 47.4

31 Leonis min

10 21 6

+37 18

P

45-217.2 143.7

— —
12.6 38.9A₇₈₉ A₋₁d.b.f. A₇₁ 3 +c

Mar 24 1883 @ = 35.2

36 MS. Maj

10 237

+ 56.35

P

P

30 124.5

61.0

21.7

212

9 H. Dracon.

10 256

+ 76.18

P

P

415.2 27.5 16.1

24.7 14.2

8 April

19 40 40

+ 10 20

R

40 4

12.8

58.2

4.8

5.1

209

46.50 44 52.2

8 April

19 45.2

+ 5.34

R

30

1 18

46.5

31

55.1

2168

30 54.20

$$c = 35.0$$

$$\begin{array}{r} \text{Lyrac} \\ 183257 \\ + 3841 \\ \hline \end{array}$$

$$\begin{array}{r} R \\ 25 \quad 0 \quad 77 \\ 57.2 \\ 30 \\ 56.4 \\ 43 \end{array}$$

$$25 \quad 108$$

$$\begin{array}{r} \text{BCygni} \\ 192558 \\ + 743 \\ \hline R \end{array}$$

$$\begin{array}{r} 20 \quad 2 \quad 280 \\ 148 \\ 230 \\ 196 \\ 854 \end{array}$$

$$22 \quad 2135$$

$$\begin{array}{r} \text{Cygni} \\ 21756 \\ + 2945 \\ \hline \end{array}$$

$$\begin{array}{r} R \\ 53.5 \\ 467 \\ 53.0 \\ 55.1 \end{array}$$

$$2083$$

$$4-208$$

$$A678 \text{ & } c$$

$$\begin{array}{r} \text{Cygni} \\ 217548 \\ + 625 \\ \hline R \end{array}$$

$$\begin{array}{r} 0 \quad 0 \quad 230 \\ 97 \\ 186 \\ 87 \\ 600 \end{array}$$

$$0 \quad 15.00$$

206

Mar 24

Mercury
 0^h 6^m
 -1° 12'

B Cass

0 2 56

+58 3

P

P

35° 0 19.9 30 4 30.9

5.2

17.8

15.9

28.2

5.9

19.1

469

960

35 11.72 34 24.00

Zone Z

Mar 25-1884 C-350

$$\begin{array}{r}
 0 \quad 20 \quad 4 \\
 + 2 \quad 10 \\
 \hline
 45 \quad 3 \quad 32.6
 \end{array}$$

2 Tauri

$$\begin{array}{r}
 4 \quad 29 \quad 10 \\
 + 16 \quad 16 \\
 \hline
 453 \quad 326.2 \\
 18.2 \\
 188 \\
 29.6 \\
 992 \\
 48 \quad 2480
 \end{array}$$

$$\begin{array}{r}
 \{ Orion \\
 5 \quad 30 \quad 14 \\
 - 17 \\
 R
 \end{array}$$

$$\begin{array}{r}
 0 \quad 4 \quad 55.2 \\
 38.8 \\
 57.8 \\
 57.1 \\
 1969 \\
 4 \quad 49.22
 \end{array}$$

$$\begin{array}{r}
 \{ Orion \\
 5 \quad 34 \quad 39 \\
 - 20 \\
 R
 \end{array}$$

$$\begin{array}{r}
 0 \quad 38 \\
 45.8 \\
 59.8 \\
 59.1 \\
 2305 \\
 4 \quad 57.62
 \end{array}$$

✓ *Supra*

44919

+3259

R

5 1 401

301

395

336

1433

6 3582

✓ *Orion*

5-4-19

-023

R

25 3

67

497

47

63

48

28 120

✓ *Cam. Maj*

6 5-3 59

-2849

P

P

50 2 5.2 15.8

48.8 59.0

2.8 12.3

4.7 14.8

15 419

52 0.38 51 10.48

✓ *Can. Maj*

7 3 36

-2612

P

P

15-1 13.3 0 13.1

54.7 52.2

9.1 8.6

11.4 11.0

285 269

16 7.12 15 6.72

March 25-1884 C-25 35.0

22 Geminorum

7 27 3
+ 32 9

P P

5-5 A' 36.3 A' 10.1

24.4 47.8

35.0 58.3

29.8 53.8

1255 2200

56 3138 56 55.00

A₊ 34C

2 Can. Min.

7 33 7
+ 5 32

P P

30. 3 53.1 2 49.5

40.3 35.1

53.1 47.2

53.1 47.5

2016 1793

33 5040 32 44.82

Mar 25

B Gemmer

7 38 5-

+28 19

P P

45 2 15.1 112.9

3.2 2.1

14.0 13.1

8.3 7.6

406 357

47 10.15 46 8.92

Mar 28 C = 30.0
 0 30 59
 + 3 20

R		P	
25-3	35.7	55-4	34.2
	19.2		77.1
	28.6		27.3
	27.9		26.8
	1114		1054
28	27.85	59	26.35

i Aug 10
 4 45 15
 - 132 59
 R

5- 1 6.8
 55.8
 1.8
 56.8
 112
 6 0.30

lost A₁, 2nd limb
 1st limb A₂ to.
 Sunny very good

March 29 1882 LC = 30.0

$$\begin{array}{r} 0 \quad 34 \quad 37 \\ + 344 \\ \hline \end{array}$$

$$\begin{array}{r} 15 \text{ Lyncis} \\ 6 \quad 47 \quad 9 \\ + 58 \quad 34 \\ \hline PP \end{array}$$

$$\begin{array}{r} 30 \quad 0 \quad 27.4 \\ \hline \end{array}$$

$$\hline 23.1$$

A3tc.

$$\begin{array}{r} 19 \text{ Lyncis} \\ 7 \quad 13 \quad 19 \\ + 55 \quad 30 \\ \hline PP \end{array}$$

$$\begin{array}{r} 30 \quad 4 \quad 49.7 \\ \hline \end{array}$$

$$\hline 47.0$$

$$\begin{array}{r} \rho \text{ Geminae} \\ 7 \quad 21 \quad 35 \\ + 32 \quad 1 \\ \hline PP \end{array}$$

$$\begin{array}{r} 0 \quad 3 \quad 33.0 \\ \hline \end{array}$$

$$\hline 28.3$$

March 29

C = 30.0

y Geminorum

6 5 7 10

+ 20 44

PP

20 0 3.2

~~54.1~~

54.9

63 Aurigan

7 3 36

+ 39 31

PP

30 4 3.1

58.92²⁰ Geminorum

7 27 7

+ 32 9

PP

55 0 51.8

45.1

24 Lynx

7 33

+ 58

PP

5 0 59.4

56.1

216

Mar 30 / H4 @ = 30.0

B Cass

0 2 5-6

+ 5-8 30

P

P

35 0 0.8 30.4 43.0

43.1 25.0

48.2 32.0

38.7 22.5

1908 1225

34 47.70 34 30.62

A 3+C

TI

218

Zone Z

Mar 31 1884

\odot 0 41 34 C = 30.0
 + 4 31

	R		P
15	350.7	45	445.0
	33.6		26.7
	39.3		31.8
	37.8		32.8
	161.4		136.3

18 40.35

49 34.08

Both limbs in \odot + R.A.,
 Image very good but
 rather unsteady.

Orion's
 5-4847
 + 7 2 3
 R
 40 2 9.6
 51.9
 56.1
 57.2
 23 48
 41 58.70

L²⁰ Geminae

7 2 73

+ 32 9

P P

55 2 18.2 128.0

4.5 11.0

7.1 16.6

2.4 11.8

322

674

57 8.05 b.f. 56 16.85

Cam Min.

7 33 7

+ 5 32

P P

30 3 51.7 254.2

33.1 36.0

40.5 42.2

40.7 42.8

1660

1752

33 41.50 b.f. 32 43.80

March 31 1884

M Geminor

6 15 29

+ 22 34

P

P

30 1 14.8 0 6.9

1.0 52.8

3.4 54.7

1.0 53.2

202 2276

31 5.05 29 56.90

Y Geminor

6 30 54

+ 16 30

P

P

35 0 45.4 30 441.7

25.9 23.2

31.0 26.7

30.4 27.1

1327 1207

35 33.18 34 30.18

b. f.

B Geminor

7 38 5

+ 28 19

P

P

45 2 22.5 290

7.0 14.0

11.0 19.0

7.1 14.7

476 767

47 1190 1. f. 119.18

X Geminor

7 56 19

+ 28 7

P

P

55 3 29.4 2 53.0 31.1

20.0 44.1 20.3

a. b. f.

220

Mar 31 1884 C = 30.0

27 Lyncis

7 59 39

451 51

P

15 0 34.1

26.2

9 24 30

+5216 All Zone Book

P P

50 3 27.5 - 4.0

19.0 56

lost A, d.b.f

lost first win

30 H. Mus. May

10 15 40

+66 10

P P

5-5-1 18.8 2.2

11.0 54.0

A 75C

2 Lyncis al

19 40 44

40 20

R

40 4 34

443

452

480

2052

43 51.30

Mar. 31 1884 C = 30.0

λ Mrs. Maj

10 10 2
+ 43 30

$$\begin{array}{r} \text{P} \quad \text{P} \quad \text{P} \quad \text{P} \\ 35 \text{ } 17.7 \quad 0 \quad 55.4 \quad 29.2 \quad 39.10.5 \\ \hline 6.2 \quad 43.5 \quad 80 \quad 59.2 \end{array}$$

μ Mrs. Maj

10 15 21

+ 42 5

$$\begin{array}{r} \text{P} \quad \text{P} \\ 0 \quad 1 \quad 0.9 \quad 0 \quad 37.5 \\ \hline 5.9 \quad 26.3 \end{array}$$

a. b. b.

a. b. f.

α Aymélie

19 45 2

+ 8 54

30 124.2

5.2

5.2

9.1

477

31 119.2

