KG
11366
v.417

Fundamental and Zone Stars
Circle Readings.
From Oct. 14. 1885 to Feb. 2. 1886

A 43

Thursday Nov. 6	7^h P.M. (M.T.) Ballou slow 354	$\overset{5'}{1.0}$
Saturday Nov. 7	12 M. (M.T.) " "	0.0
Sunday 8	9 A.M. " fast	1.0
Monday 9	8 A.M. " "	1.8
"	~~P~~ 6 P.M. ———	2.2
Tuesday 10	9 A.M.	2.7
10	8 P.M.	3.0
11	8 P.M.	4.3
12	6 "	5.3
14	9 A.M.	8.3
15	8 P.M.	9.0

3½
18

37
1.2

~~Oc~~ Oct 14 1885 ✓

~~2 Cygni~~
~~20 5 2 54~~
~~+44 0 43~~

o₁ Cygni
20 10 1
+46 24

γ ~~Cygni~~
~~20 18 D~~
~~+35 54~~

40 11 28
3,1
11,4
9,3
36 6
41 9.15

Du
20 28 11
+75 24 8 5,4

~~Cephei~~
Θ ~~Delphini~~
~~20 27 38~~
~~+62 36~~

~~B D~~ 2 73 Draco ✓
20 32 37
+74 33

10 4 53,2
45,0
54,7
57,6

30 0 56,8
49,1
56,6
52,0
214,5
30 53.62

Oct 14 1885

α Cygni   f   b

20 37 31   20 42 58   20 45 55

+44 53   +52 34   +50 21

10 2 12.2   25 0 10.2 10.0   40 2 49.2
2.6   0.6 0.2   41.2
11.1   9.8 9.7   50.8
9.3   6.3 6.9   47.8
12 8.80   26.9 26.8   42 47.25
25 8.97 8.93

D.M. (9.3 free 21ˢ)   D.M. (8.7) (m. 34ˢ / D.M. (8.8)

21 4 12   21 12 30   21 15 15

+53 6   +52 1   +50 3

9.2 m. 55 1 40.9   0 0 50.8   (9.4) 0 2 8.4
9.4 32.4   (8.8) 42.0   0.2
41.6   51.1   10.4
38.2   48.2   6.2

9.2 A-1 Reg. S.
9.4 A-1

certainly in
my 8 in field

✓

D Cygni
20 52 54
+40 44

20 0 35.0
23.7
34.3
31.7
20 31.18

DM 9.0
20 56 12
+55 3

9.3 M.
9.0
55 44 30
34.7
43.3
40.0

9.3 on A+1
9.0 on A
Regarden

DM 8.7
~~21 57 8~~ 21 2 13
~~+50 52~~
+53 5.4

8.9
8.9
10 0 10.1
1.6
10.7
8.1

free = A+1
M = A, 1 2 3 no S

DM 9.4 free 21^s
21 22 29
+49 58

9.4 0 4 41
55.0
6.1
1.8

A+1

DM 9.5 fol 2^s
~~21~~ 23 43
+52 25

9.3
9.1
35 2 3.4
53.2
36
0.8

Foll on A+1
9.1 on A 1 to 5 no S

DM (8.7)
21 27 31
+54 27

9.0
8.6
30 ~~4~~ 35.7
27.5
37.3
34.1

8.6 on A 5 to 9
M. 9.0 on A, 1 4 5 no S

Oct 14

Dm
21 30 48
+54 8

Dm
21 ~~32~~ 18
+52 48

Dm
21 37 53
+50 17

21 40 58 8.6
+53 56

50 4 28.4
21.8
8.6) 30.3
26.8

10 4 27.4
19.0
9.4) 28.2
24.7

40 4 8.4 9.8
0.2 8.5
7.2) 10.8
7.2

5 0 34.9
25.0
34.0
31.1

A, 1 to 5

A -1

8.5 m A+1
Ma A -1 200

20 Capri

~~22 32~~
~~+62 14~~

Dm ~~8.9~~ ~~[illegible]~~ 9.2
22 3~~4 47~~ 15
~~+57 44~~
+50 53

Dm 9.1 full
22 8 51
+51 56

9.5 5 1 53.1
43.3
54.2
50.1

9.6 5 1 2.3
9.4 53.2
3.0
0.2

A+1 23 41 A 1 to 5

94 m A+1
M 9.6 on A nord

#?

Dm free 6.5 9.1	Dm 5.4	D 8.3	last 3 #5 Dm 8.9
21 45 15	20 48 20	21 51 25	21 53 23
+53 47	+53 12	+52 19	+50 17
8.6 9.3 104 17.4 8.7 18.6 16.4	9.6 45 3 52.4 44.0 54.7 56.6	8.4 40 41 6.0 7.8 18.0 14.3	8.5 8.9 40 3 36.6 28.2 38.7 35.7
8.6 A3 A9 9.3 A1 A9	A11 1 to 5	A7 1 to 5 A1 5	8.9 A+1 m 8.5 A6 A9 20.5

Dm 9.0 mid.	Dm 7.5	S Localiae ✓	✓ S Localiae
22 13 12	22 15 30	22 15 4	22 26 35
+51 54	+51 14	+51 40	+49 42
not seen	45 2 7.3 59.1 7.0 9.3 6.2	25 0 17.0 6.7 16.7 13.3 25 13.42	20 3 25 53.2 4.1 0.8 23 0.15

Oct 14 ✓

10 So center

22 34 8

+38 28

35 1 5'23
4'21
4'95
4'97

36 47.90

Oct 17 1885

✓
ψ Cygni
19 52 35
+52 9

55 2 21.0
11.7
21.5
20.1
57 18.58

DM
9.2
19 57 20
+5 0 38

9.1 20 4 35.8
9.6 27.7
38.8
36.1

9.1 on A_{+1} 2345
9.6 on A_{-1} 2345 mod

DM (8.6)
20 4 43
+5 12 1

(8.4) 40 0 50.6
40.9
50.4
48.1

✓
ζ Cygni
20 8 7
+39 54

20 1 39
53.7
1.6
1.2
21 0.10

✓
θ Cephei
20 27 38
+62 07

25 2 54.3
45.1
55.1
51.2
27 51.~~44~~ 42

✓
β Delphini
2032 11
+14 12

Ave

Du (8.7 m 18s) Du (9.4 foll 11s) Du 9.3

20 10 5 20 12 47 20 13 44

+54 48 +51 24 +51 38

15 0 19.0 35 3 38.8 9.3 250 28.0

8.0 31.2 9.6 18.0

17.2 41.7 27.7

8.1 15.7 9.2 37.7 24.7

2nd pm.

Du 9.0 foll 4s.2 Du Du 8.4

9.0 20 42 4.9

20 34 27 20 ~~39 25~~ +52 42

+51 8 +51 54

88 5 2 53.1 8.9 20 0 54

not Seen 9.1 44.2 56.0

54.1 56.1

52.0 3.7

24.12

20/ 0.300

88 on A+1 A+1

9.1 on A-1

Ly or don.

Oct 17

b 40 250

20 45 55
+52 21

40 2 50.7
42.7
51.0
49.6
193.5
42 48.38

A+1
Too late mini stone

a

20 45 56
+45 41

20 3 19.3
11.3
21.4
18.6
70.6
23 17.65

A−1

α Cygni

~~20 52 52~~
~~+44 44~~

pm (87)
2~~0~~1 12 30
+52 1

9.0) 0 4 9.7
7.8) 2.6
11.3
9.6

9.0 on A+1
7.8 on A−1 Nov

pm sd (freq 8'), pm (9.3 freq 8/4)

2~~0~~1 15 27
+52 57

8.4) 5.0 15.4
5.1
15.4
13.0

A+1

21 22 30
+49 58

9.1) 0 4 9.4
0.6
10.3
8.2

✓

Σ 87

20 57 4

+50 52

5 3 40.9

9.1 32.6

42.3

39.9

foll α +1

set m.

61 Cygni

21 14.6

+38 12

50 3 30.6

22.6

29.6

30.6

53 28.35

Σ (freci 5) 9.3

21 4 12

+45 30.6

55 1 16.2

6.3

16.4

13.2

α +1 Rei 15 S

✓

β Cephei

21 27 10

+70 4

0 1 11.0

3.7

11.0

7.0

1 8.18

✓

74 Cygni

20 32 2

+39 54

10 0 17.3

6.4

14.6

15.3

10 13.40

✓

π2 Cygni

21 42 34

+48 47

15 2 30.4

21.3

31.0

29.1

17 27.95

Oct 17 ✓

14 Pegasi	Rad 2404	~~Rad 2407~~ Du 75 D21
21 47 52	21 50 1	21 53 52
+25 23	+95 32	+ 19 44

AR	30 4 2.6	15 4 49.4
	56.1	46.7
	7.8	53.2
	0.7	49.8

Du
Rod 2407
21 58 25
9 2 9

Dun 79 228
22 3 15
100 20

ζ Cephei
22 6 53
+57 39

25 1 16 3
7 2
15 8
5 40

26 10.82
+2.50
13.32
130

Oct 17

29 H Camell	32 H Camelop	DM 85-382
22 12 47	22 22 18	22 22 37
+85 10	+85 31	+85 38
55 1 15.0	25 1 2 9.0	30 4 0.7
7.2	2.21	08.3
18.3	8.20	8.7
13.9	4.0	0.1
	A 20 to 80	A 80 to 90
	δ frees med-star	

Oct 11 1885 —

Gr 1368
19 46 29
+ 102 13
50 3 16.5
12.4
22.6
15.6

Du 79648
15 52 20
+ 79 9
55 0 33.1
28.1
34.2
31.5

Sch 1213
20 20 58
+ 88 10

55 0 16.3
11.4
17.0
14.0

Gr 1431
20 25 29
+ 87 21

40 4 25.0
18.6
28.7
22.5

B Durchm
20 32 11
+ 41 2

AR

7.0 to 2.0
Lost - some time

40 1 10

o¹ ~~Cephei~~ Cygni

20 10 1
+46 24

40 1 38.8
27.7
38.3
36.2
41 35.25

κ Cephei

20 12 45
+77 22

40 3 33.4
27.6
34.0
30.2
12 55
43 31.38

Σ 22 12

20 16 2 +84 19

45 0 35.6
36.2
36.6
33.6

A 40 5 60

α Delphini
20 34 19
+15 31

A.R.

α Cygni
20 37 31
+44 53

10 1 52.1
42.3
52.1
49.7
19 62
11 49.05

b
20 45 ~~56~~
~~+49 41~~
+50 21

40 2 50.6
41.7
52.8
49.8
19 49
42 48.72
A+1 A 1 23

a
20 45 56
+49 41

20 3 19.7
11.2
21.3
18.3
70 5
23 19.62
A 234

Oct 18

76 Draco   61, Cygni   B 477

20 52 51   21 1 46   2, 748

82 6   +38 11   +77 39

55 3 32.64 12.0   50 2 51.7   2 50 53.8
30.7 9.8   43.7   47.0
37.8 16.3   51.6   54.7
33.6 12.1   51.6   49.5
137 50.2   1986   2050
58 33.42 59 12.55   52 49.65   25 51.25
39.13

Cep 3548   Bradley Draco +75°

21 22 23   ~~2,12 7 40~~   ~~21 32 48~~

+86 34   ~~+70 4~~   100 20

30 2 0.0
64.3
2.8
58.3

A 40 60

✓

Schroed	a Cephei	Rod 5228
21 11 60	21 15 52	21 18 9
+60 33	+62 6	+60 45
30 2 34.1	55 3 25.3	20 0 33.8
30.7	17.2	29.7
35.2	27.6	36.0
33.6	23.9	32.5
	94.0	
	58 23.50	A_{40} t 60

Oct 19 1885

π Pegasi
22 4 52
+32 07

AR

ζ Cephei

22 6 13
+57 38

25 1 10.7
8.0
8.6
5.8

26 1
26 6.52

Dm 88
22 15 40
+9 1 33

30 24 4.5
37.2
46.9
42.0

Dm 18° 731

22 ~~58~~ 30
+18 44

15 3 10.8
6.7
13.0
9.7

Dm +8 703

22 47 42
+8 23 2

30 2 12.2 2 58.5
7.1 57.2
13.8 0.8
9.1 56.6

Dm 81° 775

22 23 46
+81 10

40 4 23.7
20.8
26.7
22.3

10 Lacertae

22 34 8
+38 28

+35 2 11.4
2.0
15.6
9.1

33.1
37 8.28

π Pegasi

22 37 39
+29 38

B 1508

22 50 30 +44 46

15 4 44.4
38.6
46.4
41.6

36 Pb Capri

22 55 17
+83 44

20 1 45.7
40.7
48.1
43.6

A_{20} E_{10}

Oct 19 1885

α Pegasi

22 59 4
+14 35
35 44.5
34.6
42.9
45.3
17 5 3   39   43.82

A₋₁ 234,1 —

π Cephei

23 4 17
+74 47
2h5 − 3 46,4   4 ~~4~~32,2
38,2   25,7
46,3   33,1
41,2   28,8
1719   1198
~~48~~ 42.98   ~~29~~ 29.80
18   19
19 46.80

Br. 3077

23 7 48
+56 33
30 2 7.4
5.77
7.6
4.9
176
32 4.40

✓

τ Pegasi

23 14.59
+23 7

55 2 35.2
28.8
35.2
40.1

14 53
57 36.32

35 H Cephei

23 27 50
+1 86 40
25 02 48

18.7
27.1
22.4

✓

γ Cephei

23 34
+76 34

50 15.6 / 1 83
17.8 / 5.1
14.4 / 5.6
10.8 / 4.0

18.6 / 21.0
5 14.65 / 1 5.25

50.60

Oct 20 1885

✓

Dun 7 p 660
20 8 5
+79 20

40 4 35.9
33.0
35.2
36.1

x Cephi
20 12 45
+77° 22

40 3 32.4
27.2
34.6
29.2
1234
43 30.85

D7
20 17 31
+52 43
9.4
fue 25

Sort A20 to A30

75 Draconis
20 3 5 24
+81 2

00 3 10.9
8.7
15.7
10.0

Sch 529
20 38 56
+86 52

10 4 52.8
49.0
58.7
51.1

Rad 4796
20 40 28
+83 14

50 1 57.7
53.0
0.2
55.7

9.0 to 5.2

~~9.0 to 5.0~~

~~6.0 to~~ 9.0

6.0 to 9.0

✓

[illegible] 6: 32 60 (8!) θ Cephei

20 15 7 20 26 20 ~~20 40~~ 20 25 38

+35 52 +54 11 ~~+54 6~~ +62 37

20 0 50.6
41.1
49.6
50.0
191.3
20 47.82

b ~~40 2 50~~

~~20 45 55~~ a D = D 90°.294

+50 21 20 45 56 20 49 52

~~+49 41~~ 100 13

d
20 45 11
+51 29
35 0 25.8
21.0
32.1
28.1
1 11 10
35 27.75

50 4 10.0
5.8
16.6
8.8

70 ÷ 20

Oct 31 1885 ✓ ✓ ✓

α Cygni
20 52 54
+40 44

20 0 29.1
18.0
28.7
26.8
102.6 20 25.65

A A+1

61 Cygni
21 01 46
+38 12

50 2 52.4
44.1
52.3
52.4
201.2
52 50.30

B 2777
21 7 48
+77 39

25 0 26
56.3
3.4
59.7
2.0
25 0.50

A+1

✓ ✓

Gr 3548
21 22 23
+86 34

30 15 9.7
53.7
2.6
57.3

A+10 to 6.0

74 Cygni
21 32 22
+39 54

10 0 6.7
56.1
5.6
5.0
134
10 3.35

π² Cygni
21 42 34
+48 47

15 2 28.2
18.8
29.8
26.0
102.8
17 25.70

δ Cet
12 58
21 8 43
+10 42

20 3 47.1
45.3
52.0
47.1

A 40 to 30 ∠ A -1

ι Cephei
21 15 50
+62 6

55 3 32.8
28.9
35.1
30.8
122.6
58 30.65

Rod. 5228
21 18 4
+10 45

20 0 34.1
31.2
37.3
33.1

Rej last obs.
Sev last 3 obs
A 50 to 9.0

Dun 9.0
21 50 43
+13 5

55 2 16.7
7.9
19.7
14.9
8.7

A+1

Dun 8.5
21 52 13
50 50

8.4
9.0
10 1 16.0
7.1
18.6
15.1

8.4 on A
9.0 on A -1 not

Rod. 2407
21 58 25
52 9

55 1 22.8
22.3
23.1
25.7

A 70 to 9.0

Oct 20 1885 (Hell 6^s)

Dm 8.5
22 3 41
+5 1 43

15 4 16.0
8.6
9.2) 19.1
15.7

~~Dm +8.8 4~~ ~~13 10~~
~~22 4 16~~
~~+8 8 16~~
40

(m 15^s Bori)
Dm 9.0
22 8 30
+5 3 17

4 14.7
6.7
8.5 17.4
8.8 14.0

8.5 m A+1
8.8 m A-1 Regardin

Dm 9.4 (m 36^s)
22 20 40
49 59

0 2 55.6
47.0
9.5 67.6
8.9 54.3

9.5 m A+1
8.9 m A-1 no δ

Dm (9,0) middle	Dm 6,5	Dm 9,2
22 13 12	22 15 43	22 18 14
+51 54	+50 21	+54 50
5 2 11,1	3 54 54,3	
9.1 26	68) 46,0	5 1 58,0
128	57,3	9.0) 49,6
100	53,7	59,8
	A +1 ☆	56,7

Oct 22 Morning

α Ursæ Maj.
11 56 38
+62 22

Took off the magnet arm after this star. Oiled pivots. Balanced tel-escope.

Observation after the dome changes

γ Ursæ Maj
11 47 45
+54 21

Oct 26 1885

w. Dm 20 34 30 +30 40
10 1 36.9
26.1
(84) 32.0
32.6

A+1 ?

~~[illegible]~~ free

~~2 Cygni~~
~~20 52 52~~

Dm
54
20 39 18 +31 42
5 36.1
56.3
(83) ~~2.2~~
3.2

pm

A+1 2

Dm
20 42 30
+52 42
20 0 20.0
(84) 11.2
10.0
10.2

A+1 2

2 Cygni
20 52 54
+44 44

20 0 33.0
34.4
34.3
34.8
136.5
20 34.12

6 Cygni
21 1 46
+38 12

50 4 2.6
54.2
57.4
0.6
234.8
54 58.70

Br. 2777
+21 [illegible] 42
+33 40

25 0 11.8
6.3
8.2
7.0
33.3
25 8.32

δ ~~+35 0 30~~ α

20 45 11 +20 45 56
+51 29 +49 41

\\ \\

~~+50 21~~

21.0 20.0 ~~21.0~~
~~11.2~~ ~~17.0~~
11.2
~~11.2~~

35 03 64 20 3 17.4
27.2 8.6
33.1 14.8
36.3 14.6
133.0 55.4
35 / 33.25 23 / 13.85
A_2 to Ue A_2 sec A_{-1}

Du (87)
21 12 30
+5~~0~~2 0

Du 8.0 (see 5.0)
21 15 27
+52 57

85
87) 0 1 24
54.0
59.8
59.6

(B) 5 0 56
55.6
1.6
0.8

mon A+1
follow A-1 now

A -1

Oct 26

74 Cygni π^2 Cygni ~~[illegible]~~ Dm (54)

2, 32 22 2 / 42 34 21 50 30
+39 54 +48 47 +52 32

15 3 16.6 30 1 28.7
17.6 18.7
13.4 8.7) 25.1
13.6 24.0
5 1 2
18 12.80

A 50 to E 0

several faint stars
Too ft to dis.

Dm 22 8 55 (82) Dm (22) Dm
+51 45 22 15 30 22 18 41
+51 14 +50 28

8!) 15 0 34.0 7.3 45 2 43.5 35 0 52.7
22.2 35.2 9.3 43.2
28.8 41.7 50.4
27.2 41.6 49.7

A+1 A A+1?

Dec 85

20 Cephei

21 52 13
~~+60~~ 50

22 1 32

+62 13

50 1 34.7
25.2
32.0
29.0
120.9
30.22

A_{30} = 7.0
51

~~ζ Cephei~~

Dec 88 free

~~22 6 13~~ 22 3 41

~~+17 39~~ +57 43

9.0
9.2

10 3 37.0
25.7
34.2
33.6

8.0 on A_{-1}
9.2 on A_{-1} 34.5 [illegible]
wrong stars

Dec (7.4) m 36 51

22 20 23

+50 7

8.9 55 0 51.5
9.3 41.2
47.9
47.7

8.5 on A_{-1}

9.3 on A_{-1}
Sam J Ryorden

7 Lacertae

22 26 35

+45 42

20 2 56.8 3 52.6
47.8 44.6
54.4 50.7
53.3 50.0
21 2 3 19 7 9
22 53.08 23 49.48
A_{+1} A

5640

10 Lacertae

35 2 11

22 34 8
+38 28

35 2 06 00
5 2 05 57.8
~~55.9~~ 56.0
~~58.4~~ 58.1

Oct 26 1885

i Cephei
22 45 37
+65 36

25 3 58.8 4 56.6
52.6 50.1
57.5 54.7
56.1 53.0
225.0 214.4
28 56.25 29 53.60
A+1 A

57.35

o Androm
22 56 10
+41 43

20 1 3 26.6 2 38.7
24.8 28.8
30.0 36.2
32.2 35.1
113.6 136.8
21 30.90 22 34.20
A +1

65.80

~~π Cephei~~
~~23 4 17~~
~~+74 47~~

B 3177
23 7 48
+56 32

15 4 32

Sont

4 Lacer
20 15 47
+61 40

0 35.3 1 39.8
23.6 29.1
32.1 36.0
29.6 34.6
120.6 139.5
0 30.15 1 34.88
A

64.73

~~i Androm~~
~~23 32 33~~
~~+42 38~~

35 4 48　　45 3 46

α Pegai　　π Cephi

22 59 4　　23 4 13

+14 35　　+77 44

15 8 8 2.8　　4 45.8

52.6　　39.2

56.8　　44.2

55.4　　41.6

227.6　　170.8

18 56.90　　19 42.70

45.80

γ Cephe

23 34 42

+77 00

50 37.4　　1 25.9

31.3　　25.8

34.7　　25.7

32.9　　25.1

163　　1035

~~50~~ 5 34.08　　~~51~~ 6 25.88

51.80

Oct 27

α Delphini ι Cygni Dm 9.0 m 88

20 34 20 20 33 31 20 39 31

+15 31 +44 53 +15 36

25 1 27.6

30 3 16.7 10 1 58.6 9.3 18.0

3.2 58.7 26.7

9.2 54.8 24.7

10.0 54.5 fill A +1

m A 34.5 m 57.7 my

Cly

Dm ν Cygni

20 52 54

+40 44

8.9 50 3 15.0 20 0 29.6

15.7 17.0

14.0 1 25.5

12.6 25.6

Cly

Dec 29	d	a
20 42 35	20 45 11	20 ~~456~~ 45 56
+13 56	+51 29	+49 41

Oct 2m	350 27.5	20 3 15.0
	17.6	10.3
	25.8	10.2
	25.2	16.0

Oct 20/7

foll 6s

Dm 6.5 Dm 8.8 Dm 5.4 m36s

22 15 43 22 17 32 22 20 43

50 21 52 2 ~~48~~ 00

6.7) 40 0 24.1 0 1 21.1 0 1 23.7

5 37 9.2) 11.6 9.5) 15.4

1.0 19.5 23.1

58.6 17.4 21.1

A+1 A+1 A+1 2345

Axc

Dm ~~8.1 m14s~~

~~22 33 29~~ n Regain ↑ Regain

~~+52 36~~ 22 37 35 22 41 2

+29 38 +22 58

25 2 20.6 5 1 29.2

9.0 11.6

17.1 24.7

19.0 29.0

6 57 10 15

27 16.42 6 25.38

~~Pl~~ 90

^{20} 3 10

δ Locatio

Du 85

~~22 24 57~~ 22 26 35 22 ~~3~~ ^{31} 14

~~+53 9~~ +49 42 +54 7

20 2 40,7 3 42,7 1=87 35 1 6,3
3,21 34,2 2=90 56,6
40,0 41,8 3=92 4,7
38,0 40,0 2,6

15 08 15 87 ,4

22 37.70 23 39.68

61.98 ,3

.2

.1

First directly on A_5 deg S
2nd on A+1
3rd on A-1
Reg or direct same setting

ι Capri

22 45 57
+16 5 36

25 33,2 4 36,8
37,1 30,2
37,6 35,9
33,7 33,2
14 06 13 61
28 35.15 29 34.02

Du

22 48 15
+15 20 1
55 4 30,0
22,2
29,7
87 25,1
8,5

M stars on A-1 no S
free on A-1

Du

22 50 1D
+45 58
89 0 4 15,4
D,1
15,1
13,8
A-1

M. Star

5887

Oct 27

DM 9.2
22 59 15
+5 30.2
0 0 6.4
(8.7) 5.6
3.8
2.0

A

DM
22 56 11
+53 58
(8.4) 0 3 1.3
52.4
59.7
58.8

A-1

π Cephei
23 41 7
+74 47
15 4 33.2
26.7
32.2
28.7

120.8
19 30.20

DM
23 21 52
+54 45
9.5 10 0 28.0
17.0
9.0 24.8
23.7

DM
23 25 40
44 59
(8.8) 0 2 20.4
14.6
22.6
21.2

A+1

DM
23 28 59
+51 12
45 4 33.8
25.7
(8.7) 34.1
32.4

A+1

9.5 on A-1
9.0 on A-1 34.5 No. 5

Bz, 3077 Dm (5.2)

23 Dm

23h 2m 53

~~+58~~ 29 23 A 1

30 2 31.4 29.0 30 2 47.0 +53 45 ~~10 4 7.3~~

24.7 18.9 (9.2) 37.3 (8.9) 10 4 7.3

32.9 26.7 44.7 5.92

31.3 25.3 44.0 9.3 5.9

122.8 99.9 A+1 5.7

32 30.70 24.98 A free from A_{+1} & A

54.28 pr Dorree A_{-1}, 1205

Dm 9.5 Dm 8.0 Dm 6.5 Dm 7.7

23 31 7 23 31 59 23 38 43 23 40 3

~~+52~~ 46 ~~+50~~ 33 ~~+55~~ 8 ~~52 05~~

25 3 10.4 50 44.5 5 51 1.2

7.7 5.16

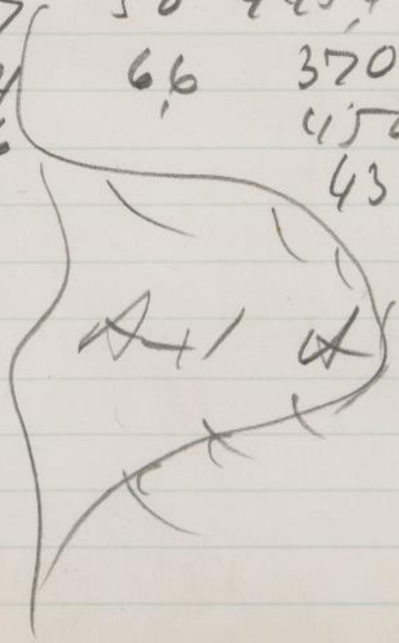
Not seen 8.6 10.4 6.6 37.0 8.1 6.6

7.6 45.0 5.86

Anif.? seen 43.7

#?

A+1



A+1

Oct 27

(87) Dm	D — (8.8)	Dm 9.0
23 43 46	23 45 45	28 50 14
+5 7 25	+5 2 25	+5 32 2
35 0 45.3	35 2 18.7	45 0 27.4
35.6	2.8	16.0
8.9 44.0	16.6	24.0
41.4	15.2	23.0
A +1	A +1	A +1
		pattern A –1 and free on A +1

γ Pegasi
0 7 22
+14 33

30 1 4.6
49.7
56.3
3.8
23.44
3D 58.60

p^2 8,5 α Androm β Cas

28 53 52

+52 5

55 0 43,2

8,7

33,8

42,7

40,4

~~Free on A_{+1}~~

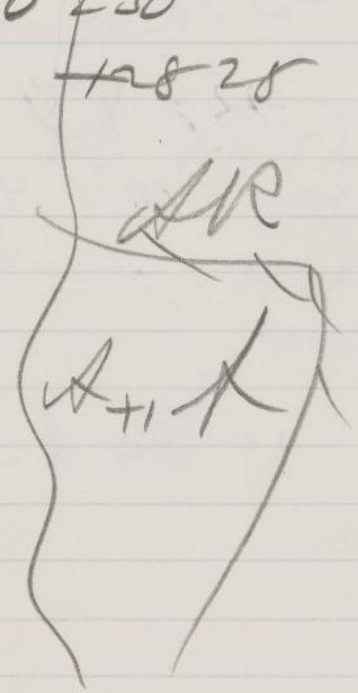
~~M on A_{-1} poor~~

A_{+1} A_{-1}

α Androm

0 2 30

+28 28



0 3 6

+58 31

30 42,3

20,7

28,6

26,3

$A^{10\ 4,9}_{34\ 26,22}$ δ α ☉

Sort A_{-1} 5

Oct 13d 1885

κ Cephei	γ Cygni	DM 54 Foll.
20 12 35	20 18 6	20 28 12
+77 22	+39 54	+52 48
35 1 56.6	10 1 48.8	15 0 32.1
48.8	37.6	27.8
51.0	41.2	33.2
50.8	43.8	33.1
36 51.80	171 4 11 42.85	
A -1 5	Aq A -1	A -1

DM	DM
20 39 4 (7.5)	20 42 35 (7.5)
52 11	53 56
50 1 55.0	5 1 16.2
45.8	5.8
57.6	10.8
57.8	11.1

73 Draco	Dra 85	α Cygni
20 32 57	20 35 29	20 57 31
+74 34	+70 52	+44 13
30 0 52.7	10 1 44.2	10 2 58.1
45.1	35.6	48.1
47.7	40.2	53.7
47.0	42.0	55.8
19 2 5	Δ -1	21 77
30 48.12		12 54.42

35 2 30

20 45 11	20 45 56
51 21	+49 41
35 1 22.4	
13.4	
20.0	
20.0	

Nov 21

κ Capri

20 12 35 +77 22

35 1 40.8

35.1

35.2

35.8

14 69

36 36.72

γ Cygni

20 ~~1~~06

+39 54

10 1 37.4

40.6

42.8

47.6

A A−1 18 1 4

11 45.35

Dm 9.0 m, 285

+20 39 31

+52 36

Dm

20 42 30

+52 42

25 1 10.0

5.8

11.2

12.2

20 02 58

15.2

19.7

8.4 21.2

R_{+1} Rey A_{+1}, 45

A 1 m 5

Dra 8.1   Dra 9.2 Mi.   Dra 9.0

20 27 45   20 33 6   20 36 20

+54 6   +52 53   +52 55

90 50 2 16.2   5 3 41.2

8.2   8.1   8.8   33.0

12.0   36.6

13.0   38.1

~~9.0~~ or A+1 ~~f~~

9.0 or A+1 mo

A+1

~~Dra~~ 35 0 34

20 45 11   20 45 56

+51 29   +49 41

35 0   ~~1~~ ~~5.6~~ 33.6   20 5 26.7

~~10.6~~ 25.0   19.0

~~11.2~~ 29.6   23.8

~~15.0~~ 30.2   25.1

11 8 4   94.6

35   29.60   23   23.65

A1 to 5   ~~A~~ -1

Nov
~~Oct~~ 4

D— (6.8)
20 47 20
+11 55

D— 8,6
2049 2
+50 9

50 3 10,6
16,
5,0
7,2
(8,5)

A —1

D— 9.0 foll 15ˢ
20 51 25
+55 4 2

0 1 45,2
36,6
40,3
42,3
5,5

A ±?

Br. 2777
21 7 42 +77 40
2 5 0 — 58,8
49,7
50,7
50,3
20 6 5
25 51.62

α Cephei
21 15 50
+62 6
55 4 33,6
25,3
29,6
30,8
1193
A —1 59 29.82

61¹ Cygni

21 14.6

+38 12

50. 3 20.4
12.1
14.6
19.1

66.2

53 16.55

D

21 44.2
+53 17

45 1 0.8

8.6

50.0
54.8
55.8

Nov 11 1885

Du 50 m.
20 38 31
+10 36

30 0 57 12 37.8
42.7
47.9
48.1

Du
20 51 25
+5 4.2
0 1 37.0
28.8
32.7
9.3 35.6

A 1 2 3 - 6 7 8 ? A -1 2 3 4 5

Dec 55 ~~Dec~~ Dec 5,8

22 42 36 20 45 11 20 47 20

53 56 ok 51 29 +51 55

~~5 0~~ 23.6 47.6

5 0 23.6 1.2 4.0

16.2 1.8 35 0 38.0 41.6 51 24.6

15.8 44.7 ~~34.6~~ 40.2 17.2

$A_1 \varpi_5$ 21.6 21.6 ~~35.0~~ 44.5 20.9

45.9 22.7

$A_1 \bar{\omega} 5$

$A_{6 \angle 0}$ A_{+1} $A A_{-1}$

Nov 9

α Cygni

20 37 31
+44 53

Dr 7,9

20 35 4
+52 11

~~Dr~~

20 45 11
+57 25

10 2 4 13,3
37
90
50

25.0
12 ~~+6.25?~~
8.75

3 5 - 0 34.0
24.7
31.6
30.8

Clouds.

A+1 A, 1 2 3 4
2345

ω

ω Piscium
23 53 27
+6 14

α Androm
0 2 30
+28 28

β Cass
0 3 6
+58 31

A R,

A R
A+1 A

~~D~~

~~2 45 56~~
~~45 41~~

~~Dm, (8.5)~~

~~22 56 11~~

~~4 53 18~~

~~0 2 2 8.4~~
~~18.6~~
~~8.3 25.5~~
~~26.0~~

~~θ Pegasi~~

~~23 26 41~~

~~+18 30~~

4 26 Draco

1265 1
~~126 15~~
101 45

Nov 10

20 45 11
+51 29
35 0 40,8
33,1
36,8
38,3

Clouds

20 45 56
+49 41

20 3 15,6
7,7
12,1
13,0

A-1 5

s Cygni

20 52 ~~55~~ 58
+40 44

20 0 45,0
34,7
35,0
41,0
15 9 7
20 39,92

61, Cygni
21 01 47
+38 11

Nov 11 1885

DM
20 42 35
+13 58

50.0 23.6
16.2
19.8
21.6

A_1 u A_5

Aimy
20 45 11
57 29

35 0 47.6
40.2
44.5
45.9

1 18 2
44.55
A_6 35 < @

DM
20 47 20
+51 15

5 1 24.6
17.2
(8) 20.9
22.7

A_{+1} A A_{-1}

DM 88 [illegible]
22 ~~17 32~~
+51 20

α Cabi
22 15 51
+62 6

55 3 43.9
37.2
41.0
42.6

41.18

4 38.2
31.8
36.8
37.1

35.98
54.80

Du
20 51 25
54 2

0 1 33.0
28.8
32.7
35.6
9.3

~~A~~ ,123 67?
A -,2345

Du 8.5
21 2 13
53 54

5 3 19.8
13.1
17.2
18.6

A +1

B2 2777
21 746
77 110

20 4 57.6 25 1 13.3
54.0 9.0
54.0 10.0
55.1 11.2
24 55.18 10.88

~~44~~30
A

Du 8.1
22 18 41
~~+50 7~~

Du 9.0
22 24 56
~~+53 9~~

▷ Lacaille

222636
+49 42

20 3 58.2 ~~4~~ 51.3
50.6 45.4
56.1 51.1
57.7 51.6
22.6 199.4
55.65 49.85
+54.20

A+1 A

Nov 11 1885

Dm (8.9)
22 31 14
54 27

35 1 56.7
8.9) 48.0
54.0
53.2

M. A A ?
Last standard -1 5 20 S

Dm 8.2
22 33 56
54 15

45 1 20.8
8.4) 13.6
17.8
21.0

A

η Pegasi
22 37 40
+29 38

25 1 46.3
37.0
41.2
46.7

17 1 2
26 47.80
2

Dm 5.2
22 53 59
+52 22

25 4 37.0
34.3
9.3 35.0
36.7
?

A -1

Dm 9.0
22 56 9
+51 47

10 4 35.8
30.1
9.2 36.0
36.0

A -1

~~β Pegasi~~
~~22 58 15~~
~~+27 28~~

λ Pegasi Dm 9.3 Dm 8.8

22 41 2	22 48 45	22 50 16
+22 58	52 8	+49 58
50 1 3 3.5	50 3 8.0	9.4 0 3 13.3
25.2	9.0) 2.8	47.6
28.4	6.7	52.8
35.0	7.6	53.2
1224		
57 30.60		
6		

avg [illegible] avg bright star A_{-1} 2345

π Cephei Br. 3077 Dm 7.0

23 4 16	23 7 41	23 19 49
+74 46	+56 32	52 19
4 13.3	4 50.0	40 3 17.2
17.4	44.7	74 10.2
11.6	48.1	15.2
9.4	47.0	45.9
41.7	189.8	
4 10.42	4 49.45	

A 32 C

A_{+1}, A_1 [illegible]

Nov 1 δR

m.

~~Dm 9.4~~	~~Dm 9.5~~	~~Dr 9.0~~ l	~~Andm~~
~~23 24 35~~	~~22 23 25~~	~~23 27 11~~	~~23 32 33~~
~~+49 57~~	~~+50 52~~	~~+52 23~~	~~+42 38~~

Clouds

M 9.4
9.1

35 3 27.0
20.2
24.3
26.2

preceding A_{+1} 22 45
following A_{-1} 20 5

Dm 7.7	Dm 8.9	Dm 8.5
23 40 3	23 44 23	23 52 46
50 5	54 25	55 15
55 0 46.7	35 1 19.1	45 0 26.0
35.1	10.7	16.2
45.9	15.1	20.4
8.8) 45.9	9.0) 26.7	8.4) 22.0
A+1 A	~~A~~-1	A+1 A, 8.5

Sunny clear

σR

Dm 81   Dm 5.0   Dm 6.5

23 31 8 2   23 34 6   23 38 43

+51 59   +51 19   +55 8

δ 0 14 41
38.0
(81) 42.0
43.2

9.0 | 40 14 6.7 ~~40~~ 1 50 4 32.2
35.3
45.1
45.6

25.7
30.3
31.6

A_{+1} A

A_{+1}

m1   5.0

Dm 9.0   Dm   α

23 54 29   23 56 55
50 4   +52 57

10 1 0.8
53.2
58.4
59.0

A_{+1} A_{-1}

Nov 11 1885

α Androm	β Cass	4 H Draco
0 2 29	0 3 6	0 6 50
+28 28	+58 31	101 45

AR

3	56.1	30 43 58	20 1 22.8
	48.4	32.7	19.7
	53.4	37.3	20.1
	54.0	37.7	20.0
	21.9		

A+1, A, ut

A

14.75

A 6 ~ e A + 1

8.96

21 22.40

33 5.29.8 34 3 6.88

4 3.9.0

Nov 2 1885

θ Cephei
20 27 40
+62 37

β Delphini
20 32 12
+14 12

73 Draconis
20 33 0
+74 34

25 2 55.0 44
47.4 56.8
52.3 1.2
51.6 1.9
206.3 244.3
27 51.58 61.08
69.50

A_{+1} A

30 1 40.0
57.7
58.9

~~A_{-1} 45~~
Aize

30 1 44
57.7
~~59.4~~
59.4
240.5
31 60.12

A_{-1} 45

Den
20 49 2
+50 9

A 50 3 39.6
30.2
35.8
36.3

A_{-1} 345

ν Cygni
20 52 55
+40 43

20 0 34.7
24.0
29.0
31.1
118.8
20 29.70

61, Cygni
20 1 47
+38 11

50 3 1.0
53.6
55.9
1.0
231.5
53 57.88

Dn

90 Ameun

Lleggu

20 37 30

+44 52

20 ~~42~~30 20 45 55

~~50 36~~ +50 21

5242

25 4 52,0 40 3 50

426

8,0 57,1

473

1,8

487

8,8

77

43 1.92

B₂ 2773

26 7 46

+77 44 0

201 13,2

8,6

9,3

9,0

40,1

21 10,02

Rej 15 ✓

Nov 15 1885

73 Draconis α Cygni

20 32 57 20 37 31 20

+74 34 +44 53

30 1 41.8 10 2 7.0
37.8 57.0
35.9 06
40.3 4.0

163.8 8.6
40.95
31 12 2.15

A_{50} to 90

γ Cass δ Andr 21 Cass

0 30 38 0 33 14 0 38 10

+53 16 +30 14 +74 22

35 to 40

~~2 45 11~~

~~+55 29~~

~~5 0 51.8~~
~~42.1~~
~~46.8~~
~~49.1~~

Cloudy.

2 45 55
+52 21

40 4 51
5.9
1.8
3.7
7.5
44 1.88
√? A −1 1235

α Cygni

20 52 52

+40 44

20 1 35.3
24.3
29.1
31.8
120.5
21 30.15
√ −1

Nov 16 1885

73 Draco	ε Cygni	τ Cygni
20 32 57	20 37 31	20 42 57
+74 34	+44 52	+36 5
AR		
A_1, ω b_0	11 2 56,3	5 5 41 04
	57,3	42,0
	58,3	42,1
	2,6	49,1
	45	18 3 6
	13 1.12	59 45.90

1 [illegible]

2h 45 55
+49 41

2h 2 10.8 10.0
1.3 1.4
3.6 4.2
6.7 6.1
22.4 21.7
22 5.60 5.42

3 2 [illegible]

2h 49 40
+27 35

AR

A.

Nov 17/85

73 Draconis
20 32 57
+74 04

30 0 84   2 163
596   81
559   76
1 2   96
2494   41.6
30   2.35   32 10.40

α Cygni
20 38 31
+44 53

10 2 49
542
556
599
2346
11 58.65

ε Cygni
20 41 34
+34 34

30 1 452
341
305
423
1571
31 39.28

61, Cygni
21 1 46
+38 12

50 2 574
480
484
546
2084
52 52.10

Br. 2777
21 7 43
+77 40

204 577   251 190
577   122
508   123
526   132
128   167
24 53.20   26 14.18

Auwers

+44 41

31 5 59.8   2 36.1
55.0   27.0
52.7   30.1
54.8   31.7
17.3   124.9
31 54.32   32 31.22

α Cygni

20 52 54 +44 43

20 0 47.6
35.6
38.7
42.7
164.6
20 41.15

Dun   Dun 5.4   Dun 8.5

21 15 15   2~~1~~ 50 30   2~~1~~ 52 13
+53 3   +52 32   +50 50

9.0)   55 4 26.9   9.5)   30 1 11.1   10 1 50.7
17.6   9.8   8.8)   40.2
20.9   13.2   44.3
23.3   16.2   46.6

A+1

A+1 A Rig 89   A-1

Nov 7 1885

Drm (free 8s) ~~5 32~~ Drm 9.5 Free. Drm 8.8

22 3 16 22 8 51 22 17 32

+50 53 +51 55 +52 0

9.5) 16 1 30.1 9.5 5 2 50.3 9.0 0 1 56.2

free 20.0 9.3) 40.8 ~~9.0~~ 8.7) 36.7

23.6 43.8 38.8

26.1 46.3 41.7

A+5 A-1 A+1 A-1 345

~~R~~ Pegasi

9.3 no ✓

m ± on A+1 no ✓ free on A-1

Drm 9.3 (p2 6s) (8.8) m 5s ?

22 32 15 22 33 53 n Pegasi

+53 40 +52 31 22 37 30

+25 38

20 4 30.2 8.9) 35 0 52.4 25 1 40.8

9.2) 15.3 42.3 28.8

22.8 45.7 31.6

21.8 48.4 38.2

194

26 34.85

A+1 ? A 20 to 7.0 ?

~~Dm 9,1~~
~~22 18 40~~
~~+50 28~~

~~Dm~~ (5,4 pm 15^{5})
~~22 20 23~~
~~+50 4~~

2#?
Dm 9,0
22 24 56
+53 9

Allen 90 / 9,5
50 3 1 0,4
1,3
4,7
2,8

~~A+~~ m#m k-1
foll 9,7 [illegible] 23 45? 20ʃ

λ Pegasi
22 41 2
+12 2 58

Dm 9,4
22 45 25
+49 59

~~Dm 8,5~~
~~22 48 15~~
~~+52 1~~

5 1 30,9
19,9
21,6
30,1
10 25
6 25.62

9,5
9,3

0 2 21,4
12,7
16,0
18,0

m, [illegible]

free A+1

Nov 17

Dm 5,2	Dm 8,5	Dm
22 53 59	22 56 11	22 57 10
+52 22	+53 58	+53 30

40 4	30,0	0 2	22,8	30 0	0,9
	21,0		13,0		5,8
9,4	23,6	8,4	15,1	8,6	5,7
	26,7		15,2		5,6!

Dm 9,0	Dm 9,4	Dm 9,5
23 18 1	23 21 35	23 23 25
+53 55	+49 57	+50 32

5 2	38,8	93	55 41 3,7
	30,5	9,4	4,7
	33,1		8,6
	35,8		10,2

Only a [illegible] # seen

Regarded foll # no V
A+1

Reg
A-1

π Cephei Bu 3077

Dm 9.2

23 41 17
+74 47

23 7 48
+56 33

23 12 43
+53 29

15 3 34.9
27.8
28.7
29.0
120.4
18 30.10
Ri 2m 30.10

30 2 35.2 33.08
29.1 21.6
32.8 25.5
35.1 27.2
16.2 25.1
32 34.05 33 26.28

9.0
9.2

35 0 6.0
16.0
18.4
1.3

A+1 A
2041

9.0 in A+1
9.2 foll in A+1 m s

Dm 8.5

232540
+45 59

Dm 9.0

23 27 11
+52 23

Dm 23 35 57
+52 46

95 Dm 7.5
23 31 59
+52 8

0 2 17.9
88

8.9
9.1

35 3 29.1
18.7
21.6
25.1

8.0
9.6

50 3 27.8
19.1
22.3
24.6

Foll # in A+1
1st of 3 # s on A-1 m s

2nd m s pr
1st s m d

A+1

Du. Nov 17

23 34 10
+15 05

55 1 31,6
21,8
5,2) 26,2
28,3

A–1?

Du 5,4

23 39 50
49 57

5,6) 5 3 22,4
12,8
17,5
20,2

A_{-1}

41 ℔ Ceti

23 12 28
-16 11

50 4 48,3
43,6
45,8
47,0
257
54 46 42

55 0 37,1
30,0
32,2
33,6
129
55 33.22

α Andr β Cas

0 2 30 0 3 6

+28 28 +58 32

30 4 24.5
15.1
18.3
20.0

78.3
34 19.58

A+1 A

A 2 < ☉

Nov 28 1885

Dun.	Dun	Dun
21 52 13	22 3 42	22 8 29
+50 50	+51 43	+53 17
9.0) 45 0 13.8	8.6) 15 1 1.6	9.0 8.9) 40 4 20.4
1.3	49.2	9.0
5.8	46.7	6.2
3.6	51.0	11.4
A +1	A +1	Reg ordin 15th ord +1, a A -1 good on A -1

Dun 9.3	Dun 9.1	Dun (9.4)
22 32 15	22 33 28	22 47 25
+53 40	+52 36	+49 59
9.0 9.4) 0 41.6	9.3) 25 2 20.6	Only an 8.0 Mag in field
27.3	7.2	
24.0	4.3	
29.7	9.6	
A +1	A -1 34 5	

Dm

22 1824
+54 56

Dm 9.4 M 15s

22 20 23
52 .7

Dm 9.0, 28s ?

22 24 50
+53 9

5 1 26.4
9.2) 14.3
11.2
17.0

9.2) 55 0 41.6
36.1
34.7
39.0

50 23.4.2
21.8
9.2) 18.9
25.0

A +345 A -1

A -1

A -1

Dm (8.5)

22 48 15
+52 1

Dm 9.0

22 54 15
+53 2

Dm

~~22 56 9~~
~~+51 48~~

Dm (8.9)

22 57 9
+53 30

9.0 M 1 0 0 20.0
8.7 7.0
4.6
9.4

55 4 7.8
9.0 57.0
53.6
58.8

9.0) 30 0 58.3
45.6
42.6
47.8

9.0 on A -1 w S

A -1

A 41

8.7 on A -1

M. H

[illegible]

τ Cephei	Bu 3077	Dm 5.4
23 41 13	23 7 42	23 05 32
+74 46	+56 32	+53 0

15 4 37.6
28.0
23.6
26.2
35.4
19 28.85

30 3 12.4
55.7
57.6
3.1
25.28
33 3.20

0 2 18.0
6.2
9.6 3.9
8.7

H_5 — ☾

Δ −1 .3045

Dm (9.0) ([illegible])	Dm 8.5	Dm 8.1	Dm
23 27 11	23 28 59	23 31 52	23 33 48
+52 23	+51 12	+51 59	+54 36

9.2 35 46.8
55.1
8.8 51.6
58.9

50 0 43.3
31.2
29.8
34.2

8.5 0 15 7.2
45.0
42.6
45.8

25 1 52.9
41.0
9.3 38.8
44.2

9.2 on Δ +1

8.8 on Δ −1 Regardless

Δ −1

Δ +1

Δ −1 [illegible]

Dun 8,0 Dun 8,1 free Dun (8,8 free, 12,5)

23 18 0 23 21 47 23 23 3

+53 55 +54 15 +57 47

par 5 33 37 5 1 37

93 21,3 41,4

18,8 9,1 38,9

24,6 43,4

A-1 345

A-1 1224

~~Dun~~ 8,0 Dun 9,4 free 25' Dunlop (8,9) Dun (8,0)

(9,4)

~~23 34 11~~ 23 39 ~~58~~ 23 44 23 23 50 14

~~+50 55~~ +49 57 +54 25 53 22

351 31,6

18,7

86 16,0

21,0

Too fnt

to obs.

2 or 1-2m

dim

A+1 A A-1

Nov 28 1885

Do (85)
23 5 24.6
+55 16

do (83)
23 54 28
52 55

do (80)
23 56 55
+52 51

85)
45 4 34
50.5
48.2
53.6

9.0
(9.3 following)

~~5 2~~
~~5 2~~

5 2 26.3
13.8
11.4
16.6

A_5 to A_9

88)
10 1 11.6
58.6
56.0
1.2

A_{-1}

$(A+1\ A\ A-1)^2$,

ζ Cas
0 32 31
+53 15
45 3 55.8
44.0
41.8
47.0
286
48 47.15

~~δ Andro~~
~~0 33 7~~
~~+30 14~~
~~AR~~
~~A_+ A 45~~

α Cas
0 33 56
+55 52
10 0 29.3
16.1
13.9
18.8
381
10 19.52

2 Andr

0 2 24

+28 26

no δ

A +1 A, w5

B Cas

0 2 39

+58 31

30 4 20,7

7,7

5,8

10,1

443

34 11.08

A A₋₁ 2 34 5

4 H Draco

12 6 45

+10 14 5

10 0 59,9

51,6

50,0

50,1

116

10 52.90

A 5 < ©

o Cas

0 38 16

+47 39

25 0 5,1

5,7

4,6

5,0

22 0 4

25 55.10

Y Andr

0 41 11

+23 38

25 0 44,5

31,1

28,2

39,2

14 3 0

25 35.75

No. 29 1885

β Cephei

21 27 8

+70 3

0 1 51

55.2

49.7

54.1

2241

1 56.02

74 Cygni

21 32 18

+35 54

10 1 27.0

15.0

10.6

18.7

313

A 8 ∠ © 11 17.82

π² Cygni

21 42 30

+48 47

15 2 34

52.0

48.6

54.7

187

17 54.68

π Pegasi

22 4 32

+32 37

25 2 54.7

42.6

38.6

48.7

24.6

A 27 46.15

+1 32 ©

ξ Cephei

22 6 45

+57 38

25 1 33.0

24.0

17.0

23.4

14.4

A + ∠ A 26 23.60

Do (80)

22 8 55

+51 45

15 0 4.6

57.8

50.1

55.5

8.1

A + ∠ A ∠ A

16 Pegasi

21 47 47

+25 25

40 0 49.3

35.6

02.5

42.1

159.2

40 39.80

Dm 9.0

21 50 42

+53° 5′

8.6

8.9

ζ Cephei

22 01 28

+62 14

55 2 39.9

28.2

26.4

31.2

Foll Steyn A +1

p 2 Hor A −1, no. √

50 1 06

48.4

45.0

49.7

203.7

51 50.92

Dm 9.1

22 18 41

+30 28

9.2

9.5

30 4 14.6

4.2

2.2

7.7

2 ~~Dm~~ Lacertae

22 26 31

+49 41

20 24 44.8

33.2

31.2

36.7

259

22 36.48

Dm 8.9

22 3 14

+35 27

30 4 28.3

16.6

8.9

14.0

12.7

3rd #

9:20 am A −1

Foll Hor A −1, 2345 no √

Nov 29 Ch. 14s

Dm 9.1 — Dm (9.3) — Dm (9.2)

22 33 29 — 22 40 45 — 22 53 59

+52 36 — +52 8 — +52 22

25 1 35.8 — 50 3 27.4 — 35 0 09.2

26.7 — 13.0 — 21.3

9.0 — 24.3 — (9.2) 14.6 — 25.8

25.3 — 19.8 — 32.3

#?

A+1 A-1 — A+1 A-1 — A+1 2345

Dm (7.0) — Dm 5.5 (faceps)

~~23 3 40~~ — 23 19 50 — 23 21 47

~~23 7 42~~ — 52 19 — 54 55

~~A 6 32~~

40 3 26.7 — 10 1 55.9

(7.0) 14.0 — 42.2

12.6 — 40.5

17.8 — 46.1

A+1 — A+1

(Tint II A+ 345 no δ:)

Dm (20   Dm 23|32d of 45 ~~54~~   Dm

22 56 5   23 54 7   ~~23 98²~~

+51 47   +52 18   ~~+53 00~~

10 4 24.2   40 2 10.0

13.2   5.8

10.6   9.2)   5.0

16.0   0.7

A +1   A+1 A-1

sometimes gone

Dm (20 fol 12s   Dm (25   Dm (20

20 23 3   23 31 7   21 34 6

+51 47   +52 46   +51 19

10 4 40.5   15 0 35.8   40 2 18.6

29.3   26.6   5.4

27.8   75   25.8   9.1)   5.8

33.0   Since   30.1   10.4

A   A   A+1 A-1

Dec. 2 1885

SR

Dm

~~Dm~~ Br 3077

Dm (9.5)

23 5 47
+52 17

23 7 4
+56 32

23 21 44
+55 13

9.2
9.6 foll

40 2 58.0
44.7
41.0
46.7

30 3 29.4
16.4
12.3
19.2

9.6 50 10.5
52.8
48.8
54.2

9.2 on A-1

9.6 on A-1 nos

A-1 4 5

#?

4, Helcysphis

Dm (8.8 foll 9.6)

Dm (90)

23 42 23
+67 10

23 45 49
+52 29

23 50 14
+53 22

55 0 18.4
8.0
8.1
7.7

9.6
8.6

30 3 15.8
18
57.1
3.9

8.8
9.2

35 4 15.6
4.4
1.0
7.0

Adop

9.6 on A+1 Rig S
8.6 on A

8.8 on A
9.2 on A-1
Rig order

De 9.5 Dm 8.5 Dm 9.0

23 23 25 23 3 10.7 23 34 06
+50 32 +5 24 6 +5 1 19

two
[illegible] star
seen

15 1 11.3 40 1 58.4
57.1 45.0
(74) 3.2 (99) 42.6
59.0 47.2

A ?
[illegible] sum

A+1 A

Dm (9.0) Dm (8.0) ~~Dm~~ Dm (9.0)
B [illegible]

23 53 51 0 1 34 ~~02 0~~ 0 7 59
55 1 3 3 0 +53 5
~~57~~ +53 6 ~~+58~~ 31

81 3.0
90 50.5 50 4 52.0 30 3 54.8 30 11.08
9.2) 46.7 ~~8~~ 44.6 41.6 55.0
52.0 83) 36.9 38.2 9.0) 52.5
43.8 43.4 57.1
180
33 44.50

[illegible] on A+1
Foll [illegible] A+1 [illegible]

A+1

Dec 2

	Dra	η Coro	ν Coro
	0 13 11	0 30 32	0 32 17
	+54 56	+53 16	+55 54
86	5 0 23.9	45 3 33.0	10 0 6.9
88	11.3	21.0	53.0
	6.2	17.7	49.6
	13.3	23.7	54.2
		154	2237
		48 23.85	9 55.92

8.8 no S,
Bottom A-1

24 Cas		ζ Andr		γ Cas	
0 38 3		0 41 12		0 48 45	
+44 22		+23 38		+60 6	
3 18	424,8	25 0	521	55	4428
6,8	14,7		383		2,97
0,3	5,7		831		2,56
4,7	11,9		45,1		327
300	591		1686		1308
3 17.50	4 14.78		25 42.15		59 32.70

Dec 31 1885

30 0 40

Auwers

~~20 40 11~~

+51 29

Auwers

25 49 56

+49 41

DM (9.4)

23 9 32

+53 0

0 2 26.0

13.8

9.3) 9.9

16.2

A_{-1} (δ?)

DM 7.9

23 32 0

+52 8

DM 8.0

23 34 10

50 5

DM 7.7

23 40 3

+50 5

~~Not seen~~

55 0 54.9

9.0) 41.5

35.8

43.3

8.0) 55 0 34.4

21.7

19.8

24.8

$A_{+1}A$ A_{-1}

A_{+1}

Dm 9.5 Dm (9.1 Dm (5.5

23 21 14 ~~23 22 35~~ 23 20 25
+55 13 ~~+54 37~~ +50 32

50 0 49.7
35.6
9.2) 32.8
39.0

30 4 36.4
24.4
9.7) 22.5
27.0

#?

A 2 ee

A_{+1} 2 3 4 5

Dm 8.8 full

3 45 49
+52 29

Dm 9.0
23 53 51
+55 1

α Andm
0 2 24
+28 27

β Cass
0 3 01
+58 31

80 2 42.6
30.2
8.6) 26.3
33.2

8.0 0 05 31
8.3 41.2
37.3
43.1

AR
A_{+1} A_{+1},45

30 4 24.0
11.2
8.3
13.1
56.6
34 14.15

No other stars seen

A motion A_{+1} A A_{-1}

Bell on A_{-1} no

Drac
4 46 Draco
12 6 44
+78 15
20 1 23.7
15.6
13.7
13.8
668
21 16.70

Sge

~~β Cas 75~~
~~0 13 11~~
~~+59 56~~

ζ Cas
0 30 32
+53 16

45 3 44.1
32.3
18.9
35.3
1406
48 35.15

γ Cas
0 49 44
+60 6

α Cas

0 33 5 D

+55 54

21 Cas

0 38 3

+74 22

ζ Andr

0 41 12

+23 38

5 4 17,4
6,2
2,2
8,9
,1

347
9 8.68

δ 2

Dec. 6 1885

α Capri

~~55 4 2~~
21 15 47
+6 25
55 4 22.3
12.3
8.2
4.0
568
59 14.20

β Capri

21 27 8
+70 3
0 1 22.6
13.3
6.0
12.4
543
1 13.58

74 Cygni

21 32 18
+39 54
10 0 23.8
11.7
5.0
14.8
553
10 13.82

DM 8.1

23 31 5 $^{-2}$
51 5 9
0 2 50.8
39.1
35.2
41.3
8.5
A+1

DM 9.2

23 33 18
+52 36
25 1 56.4
44.2
41.9
47.6
9.4
A-1

DM 8.7

23 43 46
+51 25
35 1 3.7
52.2
49.9
55.0
8.5
A+1
#?
Mostly are seen

DM 9.0

23 50 14
+53 22
45 0 31.1
19.0
7.2 16.1
21.6
A+1
Many stars seen
2 stars +6 above

DM.
23 53 32
+53 00

9.4) 0 21 12.2
1.3
57.6
3.6

~~Schoenfeld~~ DM (9.4)
232134
+49 57
Not seen

DM (9.5)
23 23 25
+52 32
Not seen

A-1

DM (8.5)
20 53 50
+50 5

55 0 34.3
21.6
8.6) 19.7
25.2

DM (9.0)
20 54 29
+50 7

0 1 47.8
36.2
9.3) 33.3
38.7

DM
0 1 34
+53 6

8.0 55 0 56.4
8.4 full 45.2
41.3
47.9

B	Cor	
0	3	0
+58		31

A+1

A89
A-1

8.0 on A-1
8.4 on A-1 nos
No other stars seen

Dec. 6
γ Pegasi
0 7 16
+14 32

30 1 26.3
10.2
5.7
19.6
6 18
31 15.45

δ
0 30 30
+30 0

0 1 58.3
9.0 47.0
44.8
50.2

α ~~Andr~~ Cass
0 33 56
+55 54

10 0 43.0
30.2
26.5
32.9
1326
33.15
A₁₁ A

A A – 1
A = broken wire

ο Cas	ζ Andr	γ Cas
0 38 15	0 41 11	0 48 43
+47 39	+23 38	+60 5
25 0 5.5	25 0 33.7	55 4 0.8
51.7	22.6	50.6
47.7	16.9	47.3
54.9	29.1	52.3
198	102.3	110
25 54.95	25 25.58	59 52.75

Dec 7 1885

Dm 23 19 48 (7.0)
+52 7 9

40 3 25.8
13.7
7.0) 8.8
15.0

A_{+1}

Dm 5.4
23 21 35
+49 5.7

9.9) 5 22 8.8
16.4
12.7
19.1

A

Dm 5.5 m
23 23 25
52 32

30 02 54
11.6
9.7) 5.3
13.0

A_{-1}

Dm (9.0)
23 50 14
53 22

9.3) 35 3 46.0
34.6
29.0
35.6

A_H A_{-1}

Dm 8.5
23 53 50
+50 5

50 3 19.9
8.0
8.4) 2.6
5.3

A_{50} to 90

Dm 9.0
23 54 29
+50 7

55 1 29.3
16.1
8.8) 11.9
17.7

A_{-1} 45

Dm (7.9 ~~Dm~~. ι Ceph Dm 8.7

23 32.0 22 ~~34~~ 10 23 34 36 23 43 46

~~+52 20.8~~ +76 59 +51 25

+52 .8

50 3 17.0 5 1 16.0 35 1 12.7

5.2 ~~59.6~~ 4.8 59.2

1.0) 59.6 56.1 8.7) 54.6

5.8 2.0 1.6

18 9

6 4.72

A +1 A A -1 A5 c and A -1 A+1

Dm 8.0 β Cas Dm 8.4

0 1 34 0 3 00 0 8 12

+55 36 +58 31 +54 17

0 4 11.5 40 4 6.2

0.2 53.6

8.5) 53.8 8.2) 44.1

0.8 54.1

A -1 A+1

Dec 7 1885

Dm 9t foll	α Cas	δ Cas
0 *30 2 +51 41	0 33 56 +55 52	0 38 16 +47 39
20 0 52.9 39.1 34.8 46.0	10 0 20.1 5.8 6.1 6.0	25 0 48 50.1 42.1 50.6
	32.0	76
	10 8.00	25 51.90

9.7)

M.H

A_{+1} 1–3 A_{-1}

ζ Andr	γ Cas	43 H Ceph
0 41 11	0 49 43	0 53 5
+23 38	+60 5	+85 38
35 0 38,8	55 4 10,0	25 2 28,8
24,3	57,4	19,4
17,6	51,3	9,3
30,1	56,1	15,0
110,8	234,8	70,5
35 27.70	59 58.70	27 17.62

Dec 7

β Andr	υ. Pisc	D
1 3 14	1 5 16	1 12 35
+35 0	+29 28	+51 28

0 3 47.7
33.5
26.0
35.6
232
3 37.73

35 0 40.8
25.8
20.0
29.1
115.7
35 28.92

9.1
8.2

30 3 55.8
43.5
36.6
40.0

8.0 on A+1
9.1 on A−1 Rey order

Dec 8 1885

α Cephei	π Pegasi	ζ Cephei	3 Lacertae
21 15	22 4 12	22 6 49	22 18 59
+62°	+32 37	+57 38	+51 39

A 7 ~ e

A +1,113 ~ e

A 5 ~ e

A 6 ~ e

Dec. 10 1885

Morning   n Ursa Maj

Polaris   ~~134 55~~

1 16 14   ~~7 49 54~~

~~+88~~ 41

A_{20} to 1_0

A_{+1} 4 ~~4~~ 2 – 1

Dec. 11

α Cephei	β Aquarii	β Cephei
21 ~~18 43~~ 15 48	21 25 27	21 27 16
~~+51 17~~ +62 6	−6 5	+70 4

AR A R

A

74 Cygni	ε Pegasi	δ [illegible]	π² Cygni
21 32 18	21 38 29	21 40 18	21 42 21
+39 54	+9 21	+16 39	+48 46

A5 α C A11

A

Dec 11/1885

16 Pegasi	~~α Aquarii~~	20 Cephei
21,4747	~~21,5952~~	22,128
+25 23	~~−0 53~~	+62 13

$A_{+1}\ A\ A_{-1}$ $\qquad$ $A_{+1}\ A\ A_{-1}$

Dec 12 1885

Dm 8.2	η Pegasi	λ Pegasi
22 33 29	22 37 34	22 40 37
+52 36	+29 37	+22 58
25 1 57.6	25 1 50.6	5 1 30.6
46.3	36.7	18.2
41.2	31.4	4.6
49.2	42.6	29.2

(9.0)

A-1

The only star seen here photographically?

ι Capr
22 45 33
+6 35

25 4 5.9
5.9
54.9
50.6
56.0

A 42 C

δ Aquarii
22 48 32
−16 26

A 42 C

Dm 8.2
~~22 53 8~~
+52 22.2

89 35 42.8
9.2
17.7
13.2
20.7

D (8.5)
22 56 11
+53 58

0 23 26
20.8
16.8
23.9

P 2 st on A+1
foll st A+1 1234 2005
A very ft st follows
8.9 above

A

Dec 12 1885

π Cephei
231 12
+7 44 5

Br 3077
23 7 42
+16 32

T Pegasi
23 14 54
+23 6

31 2 20.8
8.2
3.6
11.1
43.7
32 14.57

55 2 13.0
5.9
12.1
6.7
25.17
57 2.92

Dun 8.0
23 43 20
+50 33

25 3 14.8
3.7
0.6
6.7

8.3

A?

Dun 8.0
23 34 10
+10 5

55 2 19.4
6.7
4.1
1.0

8.9

A₋₁

D
11 32 8
+13 3

9.7
9.6

Rig

Mon A+1
Foll m A₋₁ 12 5

D^m ~~22 22 34~~ 23 2 25 24
~~+15 4 07~~

25 15 2?
38 0
9.0) 34 7
41 7

st. Rej 2nd station
st very f. star fall 25

4 Ceti

23 15 41
+6 13 9

25 D 30 1
15 8
12 4
18 7
77 0
25 19.25

Polaris
1 16 14
+88 41
20 4 121
37
58 4
37
179
24 4.48
A_5 < [illegible]

D^m
2 8 57
+55 11
50 1 328
16 9
14 7
22 1
A_{+1}, A_{-1}

ξ^2 Ceti
2 22 20
+7 56
5 2 24 4
8 0
5 1
20 4
58 9
7 14.72

Dec 12 1885

36 ψ Cas	μ Arietis	θ Persei
2 27 2	2 32 14	2 36 17
+72 19	+21 28	+48 44
4 50 1 11.0	35 2 10.2	15 4 56.8
59.7	57.2	45.6
53.1	50.3	41.2
58.4	3.1	48.1
242.2	240.8	31.7
46 0.55	37 0.20	19 47.92

T Pers	47 H Ceph
2 46 2	2 50 43
+52 17	+78 18
45 2 5.6	5 2 38.0
56.2	30.8
52.6	23.0
59.2	28.7
237.6	121.5
46 59.40	7 30.38

Dec. 14 Morning

α Draconis	α Bootis	β Ursae Minoris
14 1 15	14 10 22	14 51 13
+64 56	+19 47	+74 38

Dec 15/1885

~~7 L Cephei~~
~~22 16 31~~
~~+49 41~~

j Cephei
(22^h) 23 34 36
+76 59
5 1 10,3
58,6
51,0
57,6
2375
6 59.38
A_{20} e

41 H Cephei
23 42 22
+67 12
50 42 5,4
15,1
10,0
15,0
465 5
52 16.38

B Cass
0 2 59
+58 31
1 3 14
+ 3 50
0 3 32,0
19,0
13,5
23,1
876
3 21.90

B Andromeda

Dra 9,5 Bright
1 13 28
+53 3
9,4
9,7
55 457,4
45,6
40,6
48,0

9,4 on A_{-1} 789
9,7 on A_{-1}

Rejorden

Polaris
1 16 14
+88 41
20 4 56,0
56,7
49,9
54,7
273
23 56.82
A_{42} to 5,

φ Pegasi

23 46 35

+18 29

35 0 64

47.7

42.9

56.8

21 38

35 53.45

Dm ~~Mag 8~~

~~23 54 28 5.3~~

+52 55

ι Andromedae

h m s

0 2 24

+38 27

Dm 9.0

1 26 53

+51 37

no star in field

seen

Dm ~~Zone~~ 9.4

1 29 31

+54 33

25 4 0.1

(9.3)

47.3

42.8

49.0

A+1 A, 45

Rejt. 111

The only star

in the field

φ Pegasi

1 36 24

+50 6

55 35 1.8

38.1

36.5

42.1

16 85

58 42.12

Dec 16 1885

3 Lacertæ
22 18 59
+51 39
25 0 52
52.1
46.8
53.0
171
25 54.28

ν Lacertæ
22 26 31
+49 41
22 2476
34.8
29.8
36.7
1489
22 37.22

η Pegasi
22 37 34
+29 34
25 24.0
45.2
44.2
55.3
2127
26 53.18

Dm
23 32 0.
+52 33
(8.0) 25 37.2
56.3
57.6
58.1

ch 11 4, 65

β Cass
0 3 0
+58 30
30 3 35.9
26.3
21.8
28.3
363
33 29.08

i Cephei

22 45 33

~~25 4~~ +65 35

25 4 12,6
2 2
5 50
1.8

25 4 6
29 2.90

Dm

23 21 57
+51 49

10 3 16 8
4.4
96 58.7
9.3 2.1

96 on A_{+1} 45 20 S

93 on A_{+1}

Dm 07 59
+53 5

0 23 73
24,9
20,0
25,2

Pr. # on A_{+1} S follows all wires
Foll # 9.7 on A_{-1} 12 wo S

Dm
0 30 2
+51 41

9,3 0 15 61
43,8
40,2
46,7

A_{-1}

Dm
0 34 7
+53 5

91 55 3 56,7
9,5 46,2
41,2
46,7

foll # on A_{-1}
pr. # on A_{-1} 40 S

Dec 16 1885

Dm (8.6)
0 41 3
+5 2 15

4+0 14.1
18
8.4) 56.1
3.7

The avg star
seen Sun

Dm (8.0)
0 42 38
+52 11

Not-seen
Sun

Dm (8.5)
0 45 59
+51 12

8.6) 50 2 35.9
25.2
21.3
28.6

A+1 A-1

Dm
1 12 38
+5 1 28

30 2 55.8
9.2) 13.4
38.2
45.4

A+1

Dm
1 13 28
+5 3 3

55 4 48.6
9.8) 38.8
33.2
41.0

foll A.1

Polaris
1 16 14
+88 41

20 4 9.4
59.1
54.1
19.6
2402
24 0.05

Asole %

Dra 8.5	Dra 8.0	B Andr
0 50 6	0 52 20	1 3 14 0
+50 42	54 55	+35 0
20 4 5.9	10 2 53.3	0 6 38.7
55	40.9	28.6
45.7	35.9	21.1
57.7	43.7	31.0
		119.4
		3 29.85

A_{-1} 2045

d +1

Dra	Dra	φ Pers
1 26 53	1 29 31	1 26 24
+51 37	+54 33	+50 6
30 1 12.7	35 0 38.6	55 2 56.7
01	28.2	45.1
56.0	48	41.0
26	28.9	48.2
8.0	8.4	310
		57 47.75

#?

Dec 16

Dun (9.5)
1 48 48
+51 54

Dun (8.9)
1 55 58
+52 18

Dun
2 1 6
+55 16

10 0 43.1
31.2
26.4
33.2
(9.7)

(8.9) 45 4 14.2
3.7
58.6
6.0

(9.2) 45 12.3.2
10.3
5.2
13.0

A−1

A_{+1} A_{-1}

The only star seen
[illegible]

A_{+1} 2−5
A 2−7
A_{-1} 2−5

~~Cr. 8616~~
~~5 24 19~~
~~+74 58~~

3 Tauri
8 30 43
+21 4

o Aurigae ~~[illegible]~~
~~5 26 15~~ ~~17~~
~~+49 47~~

0 0 11.6
58.0
50.7
4.7

diff!

2450
~~4082~~
61.25

~~8~~ ~~0~~ 1.25
42 22 48.35

Dr

2 6 17
+53 27

30 4 44.8
33.8
27.9
31.3

A+1

do

2 9 5
+55 16

50 13.2
21.0
16.1
24.0

A+1, A-1

β Tauri

5 18 37
+28 31

30 3 59.8
46.2
40.0
52.3
198.3

42 33 49.58

[illegible]

5 49 2
+20 9

55 0 17.2
1.2
55.2
9.2
262.8
65.70

6⁴ [illegible]

55 0 5.70

56 5.70

~~ω Draco~~

~~17 38 38~~
~~+68 48~~

~~ψ Draco~~

~~17 44 20~~
~~+72 12~~
~~102 48~~

α Aurigæ

5 5 14.5
+37 12

50 2 51.8
40.4
33.7
42.7
168.6

5 2 42.15
42 22 48.35
30 6.20

Dec 16/1885 O.R.

α Orionis
6 0 57
+14 47

15 2 44.6
28.6
23.1
36.2
132.5
265.0
17 33.12

22 H Camelop
6 | 6 | 4
65 | 21 | 30

A.R.

λ Gem
6 0 53
+22 32

30 2 03.0
21.2
14.1
26.7
95.0
32 ~~19.00~~
23.75

[illegible]

18 5 44

+53 23

40	3	1 20	3	58
		1 8		5 49
		5 56		4 53
		1 2		5 10
		1 06		2 50
		43 2.65		42 56.25

A 7. 5 6 1 0

Dec 19 1885

Dm
0 1 34
+53 6

57 0 32.1
18.4
8.2 12.1
20.0

B Cass
0 3 0
+58 31

30 4 25.5
16.1
9.2
10.2
72.4
A 72.0
34 18.10

Dm
0 8 12
+54 17

40 4 16.2
1.6
8.5 52.2
3.6

A +1

Dm
0 30 2
+57 41

56 40 15.4
9.7 fine 43.2
37.4
45.0

9.0 on A -1
5.7 on A -1
4x = 1.5
no. S fupoll ≠
Rej 3rd stone

Dm
0 50 6
+50 42

20 3 51.6
38.8
32.4
41.0

A ✻ x 1^2;
+1
ft comp. follows

Dm
0 52 23
+54 55

5 13.12

Dm
0 54 14
+55 14

50 45 3 15.0
9.8 1.6
54.9
2.7

A +1

9.0 on A +1, < A -1'
9.8 on A -1 2 3 5
2nd S pr.

Cox	Dr	Dr	Dr
0 33 55	0 41 3	0 42 38	0 45 59
+55 54	+52 15	+52 11	+51 12
10 0 52.7	30 0 19.8	20 0 45.0	52 2 28.6
38.6	⑧ 5.0	36.2	14.2
32.6	5.6	29.1	9.3
40.2	6.9	38.1	17.2
164.3			
10 41.08			
α ⊙	α +1	☆	α +1

Dec 20 1885

ψ i Andm	γ Cephei	ι Pegasi
23 32 27	23 34 07	23 46 36
+42 38	+76 59	+18 29
25 2 27.0	5 1 27.0	35 0 20.5
12.2	15.0	2.3
4.6	4.7	54.4
13.8	12.3	9.7
57.6	59.0	26.9
Exp 2 e	Exp 5 e	35 6.72
+1 27 14.40	6 14.75	

Dec 2 28 34
+55 7
55 0 45.6
30.0
9.3) 22.6
30.6

Ex 1

~~Of Pegasi~~
~~2 26 20~~
~~+14 8 44~~

Dec (9.2)
2 39 38
+51 1 1

0 27.8
9.4) 52.7
46.2
foc #1 53.6

Rig 1st shutter

Ex 1

J Andr Do Do Do

1 56 4 9 2 1 6 2h 17 2 9 5

+41 47 +55 16 +53 27 +55 16

30 3 45.8 seen

30.6

23.3

32.8

13.25

33 33.12

A 5

8.9 35 0 14.0 9.2 45 12 29

55.2 8.2

53.0 8.5 1.0

0.0 8.7

A-1 9.2 on A-1

only one star seen

8.5 on A-1 1345

no 5

~~41 Aurig~~ T Persei 47 H Cephei J Persei

~~2 43 44~~ 2 46 5 2 50 5.9 2 56 26

~~+26 41~~ +52 17 +78 18 +53 3

45 2 35.2 5 2 27.8 0 1 25.0

24.0 17.1 8.7

17.3 8.2 1.0

24.8 3.8 9.8

10.53 57.0 44.5

47 26.32 7 14.25 1 11.12

Dec 20 1885

β Persei — Dm 8.7 [illegible] 8.7

30 35 — 3 35 44 — 3 40 0
+40 30 — +50 15 — +52 0

30 3 44.0 — 5 3 ~~39.7~~
28.8 — ~~25.8~~
20.8 — ~~20.6~~
30.8 — ~~26.7~~
124.4
33 31.10

Dm 8.5 — Dm foll β. — [illegible]

4 5 29 — 4 11 25 — 5 5 32
+50 55 — +45 58 — +38 21

8.8 — 5 3 35.7 — 8.7 — 5 0 22.4 — 40 4 25.8
9.2 — 25.7 — 8.4 — 7.0 — 11.6
20.6 — 1.6 — 1.8
26.7 — 8.8 — 11.8
510
44 12.75

1st 2nd [illegible]

8.8 on Δ+1

9.2 on Δ−1
2 others [illegible] follow

[illegible] Δ
follow Δ+1

9.0 ~~[illegible]~~ precedes

Feb 10d

52 — 50 (2x2) ~~110~~

3 50 6 — 3 52 41 — 3 56 30 — 3 58 19

+51 57 — +52 32 — +52 48 — +50 28

5 1 20.8 — 30 2 10.4 — 150 24.6 — 35 1 27.7

6.3 — 54.3 — 7.4 — 12.9

8.1) 58.8 — 8.7) 48.7 — 85 8.9 — 1.7 — 8.9) 6.7

17.0 — 55.2 — 8.7 — 14.8

A+1 — A+1 — A+1 — A−1

β Tauri — Cu. 966 — β Tauri — Very thin ~~[illegible]~~

5 18 59 — 5 24 20 — 5 30 45 — ~~5 5 15~~ 5 49 5.0 — 55 0 17

+28 30 — +74 58 — +21 5 — ~~+[illegible]~~ +20 9

30 4 11.8 — 5 2 57.3 — 0 0 16.2 — 55 0 17.0 17.2 — 1 25.4

55.6 — 37.0 — 57.9 — 57.7 58.4 — 11.8

47.4 — 28.0 — 49.6 — 48.5 49.1 — 2.6

59.1 — 32.5 — 3.1 — 66 — 4.4 4.1 — 16.8

2339 — 1488 — 2468 — May — 2486 84 — 606

33 58.48 — 7 37.20 — 0 1.70 — 2.15 2.10 — 56 15.15

55 2.12

Record

ν Orionis η Gem

6 05 9 6 7 54

+14 47 +22 32

Dec @ 24 11h5

~~π~~ Cephei
23 41 5
+77 46
15 3 17
58
46.3
53.4
21 52
18 53.80

Br 3077
23 74 5
+56 32
30 2 35.6
24.6
15.7
29.2
1051
32 26.28

4 Cas
23 15 44
+61 39
25 0 20.6
7.8
8.7
12.1
41 2
25 10.30

D 9.3 (m 3 5)

23 54 28
+52 55
5 2 81
57.2
50.2
0.8
9.4)
free

A −1 23 45
(m = 9.0)

α Andom

0 2 27
+28 27

AR

~~A~~ +1 A 1h 05

B Cas

0 3 3
+58 31
30 4 15.1
5.3
0.9
9.2
305
34 7.62

Dun (9.0 focus)

23 23.3
+51 47

10 4 31.8
26.0
(9.1) 19.0
30.7
(foc)

A-1

i Andr

23 32 30
+42 38

A.R.

γ Cephei

23 34 35

~~D~~ D 0

5-1 D.2
5-5.8
4~~9~~.8
5.9.1
28.5.4
~~5~~ 58.85

Dun (9.1)

0 30 32
+51 41

Dun (9.0)

0 34 7
+53 5

Dun (8.6)

0 41 3
+52 15

Dun (9.0)

0 42 36
+52 11

Certainty

no star in the field

9.0	55 1 22.7	4 50 6.8	4 54 54.0
9.6	11.4	56.1	43.3
	15.8	51.4	38.2
	16.0	59.6	42.7

9.0 on A

9.6 on A-1 no ∫

Rej wires preceding A

and the first 3 strokes of ∫

Trc 24

Dm 9.0 (MPl^s)
0 54 14
+55 14

9.0 45 2 35.8
9.6 28.5
24.7
32.2

9.0 on A
9.6 on A-1 no S
9

Dm 9.5
1 48 48
+51 53

(9.6) 52 41.1
30.2
25.4
34.1

A+1
A-1

3rd # (8.9)
Dm
1 55 58
+52 18

(8.6) 40 3 33.6
22.8
19.1
26.2

A+1
A-1

Dm (9.3) (foll 95)
2 28 34
+55 7

8.8 55 0 43.8
9.2 32.6
9.4 26.4
35.1

M. # on A+1 Rej S (near wires)
2nd # on A-1 no S
3rd # on A-1 (S near wires)

Dm (9.2 Bru)
2 35 38
+51 1 1

9.2 0 15 2.6
9.3 41.6
36.6
45.8

Rej or Dm
2nd # on A+1 ?
1st # on A ?

Dm 9.2) Dm 9.2 (2nd & 3rd) Dm 8.5

2 1 6 2 6 17 2 8 57

+55 16 +53 27 +55 11

45 1 37.2 30 2 18.8 50 1 41.4

26.0 7.9 28.9

21.0 9.3 2.3 8.6) 24.8

9.2) 29.2 9.0 11.6 34.2

9.7

~~A+1~~

A–1 18' # m A

A 8 45

+1

A

2nd # on A–, 45 no S A–1

3rd # on A–, 45 no S

τ Per 15 ~~Per~~ ι Per

no 8

2 56 11 ~~3 02 6~~ 3 02 9

+53 2 ~~+40 30~~ +49 9 9

0 1 15.0 50 4 12.0

29 0.5

18.2 56.6

6.1 50

222 141

1 5.55 54 3.52

Dec 24 1885

α Persei
3 15 30
+49 26

35 2 34.6
26.1
21.6
29.8
115.1
37 28.78

δ. Persei
3 34 27
+47 24

35 4 23.2
12.4
6.0
16.1
39 57.7
39 14.42

Lott 3 ##
Dm 9.2
3 39 38
+51 1

0 3 ~~40~~
(8.7) 421

A_2 to A_9

Magstanden

Dm (9.2)
3 56 30
+52 48

(9.9) 10 4 13.8
44.0
35.0
47.0

A+1
A ~~A~~
A_{-1} 12

~~Dm~~
2 Mi 7 50

3 59 40
85 14

AR

Dm Mi
4 5 29
+50 55

not seen

Dm (8,7) Dm foll Dm

8 p.m.

3. 40 1 3 50 16 3 51 11 3 52 41
+50 0 +51 18 +5 23,7 ~~+5 23,2~~
52 32

8 3 47,2 25 2 50,6 30 1 44,0
38,0 38,2 51,7
38,0 34,4 46,6
(52) 41,7 42,0 55,0

A+1

A-1 A+1

A-1

foll

Dm (8,0)

4 11 29
49 58

8,6 55 4 43,4
33,2
29,6
37,1

The only star
seen [illegible]

Dec 28

Dm 1 26 53
+51 37

8.8
6.6

15 3 30.4
28.3
9.0
18.4

Bright as
A-1

no Sf preceed #

The only stars in
unfinished Survey,
except a faint 9.5 which
follows the last star about 18s

Dm
1 48 48
+51 54

(9.7) 5 – 3 35.0
23.0
13.7
25.2

3rd #

A-1

Rig 15s S

Dm (8.9)
1 55 58
+52 18

5 – 2 0.8
42.8
(9.1) 35.7
48.2

A-1

The only
star seen

ι Cas
2 19 17
+66 52

10 2 6.0
56.0
45.0
53.6
2206
12 55.15

9.0
9.1
8.8

Dm 8.3
2 28 34
+55 7

55 3 26.7
14.6
3.8
15.0

1st +1 on A

2 foll # 1/2 on A-1, no S

θ Per
2 06 20
+48 45

20 0 24.8
10.1
59.7
11.2
45.8

28 11.45
0

DM 9.2
2 1 6
+55 16

8.0 45 1 16.0
1.7
52.6
2.6

A +1

DM
2 6 17
+53 27

9.6
8.9

9.6 on A +1
2nd # on A, to 5 and 5

DM 9.5
2 9 5
+55 16

8 0 2 16.6
3.1
53.2
4.0

9.0

45 1 6.0
5.8
4.7
52.1

A

DM 9.2
2 39 35
+51 1

0 1 15.8
2.1
5.7
2.7

Mid. # on A +1
Foll # on A -1
[illegible]

τ Persei
2 46 9
+52 17

45 2 7.2
3.8
4.6
54.8
23.04
47 57.60

47 H Cephei
2 50 17
+78 58

5 2 23.1
14.0
1.3
8.8
48.2
7 12.05

Dec 28

γ Pers	θ Pers	β Pers
2 56 30	2 37 50	3 0 43
+53 3	+38 24	+40 31

AR	40 1 15.4	30 3 45.0
	1.2	31.6
	50.4	21.6
	3.2	33.9
	102	1321
	41 2.55	33 33.02

48 Nebulae & Pem Do Do

3 5 52	3 16 9	3 56 30	3 58 19
+47 19	+45 27	+52 48	+50 28

45 1 25.6
14.3
1.4
11.1

5 24
46 13.10

35 3 41
50.2
41.9
52.4

208.6
38 52.15

Dec 29 1883

γ Persei	β Persei	α Persei
2 46 11	3 0 26	3 15 50
+53 2	+40 30	+49 26
0 21 7,8	30 4 0,9	35 23 6,0
4,6	48,5	22,7
56,6	39,7	15,6
54,1	51,0	24,7
24,1	20,01	99,0
2 6.02	34 50.02	37 24.75

Dm fac 16	Dm 8,8	Dm (5,2)
3 51 11	3 52 41	3 56 30
+52 37	+52 32	+52 48
25 0 28,7	30 2 9,2	10 4 16
(8,6) 14,8	(8,8) 54,7	49,6
6,6	47,1	(9,0) 42,3
15,8	56,4	50,8
A +(	A	A +7

S Penn Dr Lost 43 Dr

87

3 34 27
+47 24

3 39 44
+50 19

3 40 1
+50 0

35 4 39.8
28.3
18.5
29.8
116.4
39 29.10

40 3 47.0
34.7
27.6
33.3
A +1
86

6 4 2.4
50.1
42.5
81.0
A -1
89

Un [illegible]

Dr 9.0 Dr 85 Dr 9.0 (force 3)

3 58 19
+42 28

4 05 29
+50 55

4 11 29
+49 18

35 0 20.9
8.0
58.8
8.1
91

5 34.6
33.3
27.0
35.0
86

5 14.06
26.7
20.3
28.6

Primum A +1
foretton A

foretton A we
M. Hon A -1 ho5

S = regardin

A
Chf

End of name
Observat
~~ions~~
tions

Pl C 29

13 Tauri

5 18 46 +28 30

3 5 0 +2 10

5,6

56,6

11,7

349

35 8.72

A₋₁ 2 2 e

G. 966

5 2349 +2457

5 3 223

10,6

1,7

8,9

435

8 10.88

ζ Tauri

5 3032

+21 4

0 1 220

6,3

57,3

13,8

394

9.85

A A₋₁

b. Aurigae

5 43 15

+39 7

5 5 3 13
58.1
35.2
49.1
20 77
58 51.92

55 0 17

Menkalin

5 49 2

+20 9

55 0 17.3 17.6 24.9
6.9
0.6 0.9 8.7
51.3 57.8 0.0
8.9 8.0 16.3
499
55 12.48

θ Aurigae

5 51 36

+37 12

50 2 42.0
21.9
20.6
30.6
12 21
52 30.52

A 1132 c

Dec 30 1885

Anon (d)	Anon (a)	ζ Persei
3 41 44	3 42 38	3 46 54
−25 43	−24 14	+31 32

45 1 12.8 54.7 50.2 9.0

30″ 15′ 2′

Semi Parlolo

30 3 0.9 47.2 40.1 51.9

δ Tauri	ε Tauri
4 16 19	4 21 54
+17 16	+18 55

Above A ~~+~~1

γ Eridani	λ Tauri	Gr. 750
3 52 40	3 57 2	4048
−13 50	+15 40	+85 18

Jan 5 1886

Peri

8 ~~16 39~~

3 5 , 15

~~17, 32~~

+35 27

AR

Jan 6 1886

α Persei 3 17 52 +49 26

ε Eridani 3 27 15 −9 52

[illegible] 3 41 44 −25 43

AR

50 4 47.8
29.6
25.7
42.6
54 36.42

45 0 ~~22~~ 0 45.4
~~43~~ 28.5
~~40~~ 25.8
~~58~~ 42.1
14.18
45 35.45

β Tauri 5 19 3 +28 30

Lu 966 5 24 27 +24 58

α Leporis 5 27 41 −17 54

30 4 25.2
13.4
7.2
18.4
34 16.05

5 2 29.9
17.3
9.2
25.8
7 20.55

5 5 25.8
38.3
35.6
53.0
57 46.52

[illegible]

3 42 38

−24 14

45 0 ~~4 57 ~~ 15 2 3 22

~~285~~

~~288~~

1.50

10.1

26.7

17 8.40 21.00

A—1

β Orionis

5 9 2

−8 20

20 4 2 50

5.2

1.0

16.1

24 11.82

ζ Tauri

5 30 48

+21 04

0 0 2 7.0

1.4

3.7

17.1

0 14.80

ζ Leporis

5 41 46

−14 52

55 0 4 1.0

2.1

16.1

3 × 3.2

55 28.85

7

5-5 0 17

[illegible]

5 49 5

+20 9

55 0 20 5 20 3

7.0 6.7

58.6 58.5

10.4 11.1

9.12 9.15

#2

θ Aurigæ

5 51 ±

~~+37 12~~

55 0 20 4

6.5

17.8

11.1

no other star

seen then

Jan 7 1885

ε Eridani
3 27 32
−9 51

50 4 23.4
4.0
56.1
13.2
54 9.18

δ Persei
3 34 46
+47 25

40 0 40.0
25.8
17.8
26.8
40 2 17.60
32e

~~57 Camelop~~
~~3 50 16~~
~~+70 59~~

ζ Persei
3 46 51
+31 33
30 1 58.1
43.8
34.7
45.3
31 45.48

ε Persei
3 50 16
+39 40

20 4 22.7
9.2
59.6
8.6
24 10.28

ζ Tau
5 30 48

+21 4
0 0 35.7
19.3
8.4
23.1
0 21.62

~~Arietis~~ ~~Almach~~ ~~9 H Camelop~~

~~3 4x 44~~ ~~3 42 38~~ ~~3 42 20~~

~~−25 43~~ ~~−24 14~~ ~~+60 46~~

~~45 0 5 14~~ ~~57.4~~
~~02.1~~ ~~52.6~~
~~26.4~~ ~~27.0~~
~~43.8~~ ~~44.0~~

55 0 17

0 Aurigae ~~× Orionis~~ Revollier

5 38 01 ~~5 42 2~~ 5 49 +

+49 46 ~~−9 43~~ +20 9

15 4 31.6
18.1
9.8
16.8
19 19.08

73

55 0 11.4 1 38.7
54.2 20.6
43.6 9.6
59.3 25.8
54 57.12 56 23.68

A 5.7 mag 1m in AU = 4'
on A−1

Jan 14

3 41 44 $^{45\ 0\ 5!}$
−25 43

3 42 38
−24 14

946 Cancri
3 47 20
+60 46

45 0 58.2 57.7
35.8 36.0
27.8 27.4
45.8 45.1
167.6 163.62
45 41.90 41.~~80~~ 55

45 2 29.1
17.7
57.8
14.6
48.92
47 ~~42.30~~ 12.30
−1

15 3 38.8
20.1
13.7
26.9
18 24.12

B Tauri
5 19 3
+28 30

Lu 966
5 24 27
+74 58

α Leporis
5 27 41
−17 55

ι Orionis
5 29 50
−5 59

30 4 49.7
52.8
39.0
54.1

5 2 42.1
26.2
11.4
21.5

57 2 45.3
22.1
10.2
33.1
57 27.68

0 3 12.4
49.7
38.1
57.2
$\frac{3}{2}$ 54.35

γ Eridani

3 52 41

−13 49

45 2 30,2
7,4
58,6
18,0
47 13.55

γ Tauri

3 57 4

+15 40

20 4 19,3
0,8
50,1
8,6
24 4.70

δ Eridani

4 6 16

→ 8

10 2 1,7
38,1
26,2
44,7
12 27.68

55 1 17

η Leporis

5 4 146

−14 52

55 0 22,5
57,5
42,7
8,4
55 4.28

nova

5 49 8

+20 9

(7.3)

55 1 14,4 14,6
53,6 56,4
40,1 40,8
58,9 59,1
57.25 57.72

θ Aurigae

~~5 51 15~~

~~+37 12~~ 12

50 3 47,8
31,2
18,0
25,7

Jan 1~~7~~ 1885

7 H Camel
3 19 49
+59 33

30 2 34.8
21.8
5.3
22.0

f Tauri
3 24 33
+12 33

30 1 35.4
22.5
7.2
28.9
31 24.45

ε Eridani
3 27 32
−9 51

50 4 30.2
10.8
59.3
20.3
54 15.15

γ Eridani
3 52 41
−13 50

50 3 33.7
14.0
3.6
25.2
53 19.12

ε Leporis
5 0 37
−22 32

30 4 30.3
12.2
2.4
21.0
34 16.48

β Eridani
5 ~~2 13~~
−5 ~~14~~

~~0 0~~

δ Pers   [illegible]   [illegible]

45 0 5 1

3 3,46   3 4,44   3 42 38

+47 24   −25 43   −24 14

35 41 34,1   45 0 56 35,66   15 2 1,2

21,9   37,8 37,6   41,8

9,9   27,2 27,7   30,8

49,1 49,0   52,6

22,3

17,04 187,04   1864

45 42,60   ~~46.10~~   ~~36~~.60

42.60   17

1976 Camelop   β Orionis   β Tauri   Gr 966

5 34 5   5 5 2   5 13   5 24 27

+79 6   −8 20   +28 30   +74 58

0 0 24,6

12,2 14,7   30 4 15,8   5 2 22,4 3 15,0

~~24~~ 0,4   3,0   10,2 4,4

~~26~~ 11,5   49,6   57,0 50,4

5,4   6,1 0,8

Jan 17 1886

55 1 14

~~5 8~~ ζ Tauri	ζ Leporis	Nova
5 30 48	5 41 46	5 45 8
+21 4	−14 52	~~19 20~~ +20 9
0 0 20.5	55 0 32.8	55 1 3.6 3.6
3.6	12.1	47.6 47.9
50.0	1.6	34.8 35.0
6.1	3.7	53.4 53.2
	55 12.55	49.85 49.92

~~[illegible]~~

55 127.2

67) 12.2

58.8

16.6

13.70

R# 85

A+, A

Falo # A 6 L ©

Jan 29

ε Eridani
~~50 4 2 7.6~~ 3 27 32
−9 51
50 4 2 46
8.5
5.6
17.8
54 13.12

δ Persei
3 34 46
+47 25
3 54 3 6.9
26.1
14.4
26.8

~~i Aurigae~~
~~4 45 37~~
+32 59

ε Ursae Maj
16 + 7 47
57 46

AR

A₆ v @ A +1

1596 Camelop
5 34 +
+ 756
0 0 31.0
20.1
6.1
16.1

β Aurigae
h m s
5 52
−8 20
20 3 49.7
~~28.8~~
19.9
37.6
23 33.00

3 41 56	3 43 5	γ Eridan
−25 13	−26 41	3 52 41
		−13 50

15 0 50.5	40 4 11.1	50 3 40.7
31.1	55.6	21.2
24.0	46.7	12.7
42.6	5.0	33.8
15 37.12	~~44 14.60~~ 43 59.60	53 27.10

Lost some [illegible] Lost [illegible]
~~[illegible]~~ after above?
~~[illegible]~~
Going my bed.

β Tauri	α Lepus	ζ Tauri	ζ Lepus
5 15 3	5 27 41	5 30 18	5 4 14 3
+28 30	−17 55	+21 4	−14 52
30 4 35.4	55 2 33.6	0 0 16.8	55 0 25.9
25.9	12.8	1.0	4.6
15.7	3.8	47.4	56.2
30.0	24.9	8.8	15.8
	57 18.78		55 10.62

Jan 23 5 0 17
58 Nova
5 48 2
20 9

5 5 0 14.2 13.8 1 31.6
57.3 57.2 13.8
43.9 43.8 1.3
7.4 2.6 2.0 15.5
59.50 59.20 16.65

δ Aur 26 15 0 50

γ Eridani

3 41 56
−25 13

3 43 5
−26 41

~~3 52 41~~
3 52 41
−13 50

15 0 54.4 53.8
32.8 33.6
24.0 24.2
44.1 44.1
15 38.82 38.92

40 3 23.8
6.1
56.1
16.1
43 10.52

50 34 6.8
27.6
18.2
37.6
53 32.55

Jan 26 1886

η ~~Ophiuchi~~ 6h 7 50
~~17 3 47~~ ~~85~~ 4 19 48
~~−15 35~~

o¹ Eridani
4 6 15
−7 8

53 Eridani
4 32 55
−14 32

50 1 57
55.6
43.6
51.3

10 3 11.3
50.7
41.5
59.6
55.65
13
12

35 0 17.8
56.6
47.2
8.0
35 5 24.0

α Leporis
5 27 39
−17 54

η Tau
5 30 46
+21 4

o Aurigae
4 36 59
+49 46

Nova
5 4 92
+20 9

30 0 21.0
4.9
51.6
7.9

15 4 38.2
26.1
16.4
25.6

55 0 16.1
5.7
45.7
3.3
50.55

~~β Orionis~~
~~ι Aurigae~~
5 ~~5 39~~
~~+58~~ 21

β Orionis
5 9 0
− 8 20

40 0 8.2
47.1
37.4
55.9
40 52.15

~~β Tauri~~
~~5 19 1~~
~~+28 31~~

Lu 966
5 24 21
+74 58

5 ~~2 31.8~~
3 39.4
29.1
15.8
24.3

θ Aurigae
5 51 53
+37 12
20 3 3.6
50.5
38.2
56.2

15.0 1 41.8
58.2 25.1
45.3 12.2
3.2 30.1
0.42 27.30

α 430 e

Feb. 1 1886

T²

2 45 49
−21 29

30 13 68
17.7
8.0
26.2
31 22.18

η Eridani & Ceti

2 30 49
−9 21

25 0 16.5
55.0
46.0
5.0
25 0.72

2 56 16
+3 58

25 14.60
29.7
15.0
38.0
26 33.18

β Persei

3 0 41
+40 30

30 4 40.2
28.8
15.1
28.6

Anonym (e)/

3 41 56
−25 13

15 0 14.9
56.6
47.0
7.1
15 1.55

(e)/

3 46 5
−26 41

40 4 22.6
5.8
56.1
17.0
44 10.38

γ Eridani

3 52 40
−13 50

20 3 34.3
16.4
6.1
27.6
23 21.10

A_1, A, to A_5 — A_5 vc

48 H Cephei	ι Persei	ε Eridani
3 5 46	3 16 7	3 27 51
+77 19	+49 27	−9 51
4 5 1 26.6	3 5 2 38.9	5 0 4 25.8
16.1	25.1	16.6
0.7	15.7	56.6
12.2	26.0	15.2
		54 ~~13.05~~
		10.10

Feb 2 1886

ε Eridani	δ Persei	α Aurig	
3 27 31	3 34 44	3 41 44	
−9 51	+47 25	−25 43	
50 4 58.9	35 4 33.9	45 0 40.2	40.0
39.1	21.2	20.2	20.6
29.1	9.4	11.0	12.0
48.2	22.1	32.1	31.4

45 0 51

34 2 38
-24 14

1885qhae.proj..142IR