

KG
11365
57

A.57

Meridian Circle
1864 Oct 10th to
1864 Nov. 4th

Sold by T. Groom & Co., Stationers, India Building, 82 State St., Boston.

KG-11365, 57

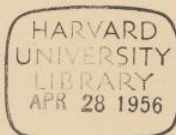
21 21 21

40°	9.9238	0.1515
30	9.7614	0.0625
20	9.5611	0.0270
10	9.2463	0.0066

Instrumental Corrections 0.074

	<u>114</u> Oct 10	<u>115</u> Oct 11-26	<u>116</u> Oct 31- Nov 4
	0.268	0.309	0.282
	0.023	0.023	0.023
	9.4281		
	8.3617		
45°	0.298	0.339	+0.312
40°	+0.255	0.269	0.266
30	+0.181	0.205	0.189
20	+0.122	0.137	0.127
10	+0.070	0.077	0.072
0	+0.023	0.023	+0.023
-10	-0.024	-0.037	-0.026
-20	-0.073	-0.088	-0.078
-30	-0.129	-0.153	-0.137

KG-11865.57



1864 Oct 10th M W

J.H.S.

next page

ρ Capricorni	A. Mrs. May sp	δ Cephei	46 Cephei B	α Cygni
13.4		15.3	23.6	57.5-
17.6		24.1	36.3	57.0
20.3	395-	29.4	45.0	0.6
24.3	459	37.6	57.3	59
27.7	555-	44.7	7.8	10.4
103.3		151.1	170.0	125.4
			230.0	
20 21 20.66 20 22		20 27 30.22 20 30	46.00 20	37 1.08
9.68				36 50.66

1864 Oct 10th Mm

Cygni		6 hrs Maj SP	32 Vulpecular	0 hrs Maj SP	61 Cygni pre
480		54.4	52.0	20.2	53.5
526		2.5	56.4	29.1	58.5
53.8		11.3	59.3	38.6	1.8
0.2		17.6	3.5	45.6	6.5
4.3		27.2	7.2	53.7	10.6
160.9		113.0	178.4	189.4	130.9
280.9		53.0	298.4		10.9
20 40 56.18	20 45	10.60	20 48 59.68	20 58 37.88	21.1 2.96
			49.12		0 52.39

61 Cygni foll	3 Cygni	a Cephei	1 Draconit sp	B. Aquarii
55.1	14.9	18.8	21 16 53.8	31.7
0.0	19.5	27.0	17 16.6	33.6
3.3	22.4	32.5	43.0	38.1
8.1	26.8	40.6	18 1.5	41.9
12.2	30.5	47.7	29.6	45.2
78.7	114.1	166.6	144.5	192.5
18.7				
11.56				
21 1 37.4	21 7 22.82	21 15 33.32	21 17 40.90	21 24 38.50
	12.23			27.67

1864 Oct 10th Mm

β Cephei	γ 15-64 SP	γ Capricorni	ϵ Pegasi	δ Capricorni
47.0	27.4	40.9	37.9	39.6
58.9	37.3	44.9	41.9	43.7
6.4	48.0	47.7	44.5	46.4
17.2	55.7	51.6	48.3	50.3
27.1	6.9	55.0	51.5	53.8
156.6	175.3	240.1	224.1	233.8
36.6	235.3			
21 27 7.32	21 30 47.06	21 32 48.02	21 37 44.82 34.11	21 39 46.78

next page

ν Im Maj	16 Pyasi	α Aquarii	δ Aquarii	κ Piscum
177	59.3	53.8	7.3	39
246	3.7	59.6	1.5	9.8
320	6.7	2.3	4.4	12.4
370	10.6	6.0	8.2	16.2
449	14.4	9.2	11.8	19.3
156.2	94.7	132.9	33.2	63.6
	34.7	12.9		
21 41 31.24	21 47 6.94	21 59 2.58	23 16 6.64	23 20 12.72
	46 56.26	58 51.76		20 1.81

1864 Oct 10th M W

39 Cephei H			i Picinum		Polaris			x Cassiopeia		y Picinum	
23	26	28.2		5.7	1	6	10.8		22.9		21.0
	27	31.9		9.6		8	44.9		32.9		25.1
	28	16.3		12.2		10	33.4		39.8		27.8
	29	18.6		15.9		13	3.4		49.5		31.6
	30	13.1		19.2		15	15.5		58.1		34.9
		108.1		62.6			108.0		203.2		140.4
23	28	21.62	23	33	12.52	1	10	45.60	1	16	40.64
					1.62			46.03			
										1	24
											28.08
											17.16

next page

ν Persei	ν Perseus	τ Ceti	χ Ceti	β Andromedae
46.0	29.9	53.2	2.7	16.3
51.8	33.9	57.2	6.7	20.3
53.8	36.5	58.8	9.4	23.2
1.2	40.1	37	13.0	27.1
6.1	43.5	7.2	16.4	30.7
160.9	183.9	184.1	48.2	117.6
		301.1		
1 30 32.18	1 34 36.78	1 38 00.22	1 43 9.64	1 47 23.52
	26.77			12.70

1864 Oct 10th J.M.M.

50 Cassiopeae	a Piccinu foll	a Aritis	Polaris sp
57.7	9.2	39.1	
4.0	13.1	43.3	13 8 50.1
12.2	15.8	46.3	10 22.1
24.3	19.5	50.2	13 5.6
34.6	22.8	53.8	15 47.2
126.8	80.4	292.7	
66.8			
1 52 13.36	1 55 16.08	1 59 46.53	
		35.61	

18°35'21"4 8.39126

4.30.7
 - 217.3 7.4
 - 12.3 9.8
 - 159.2 6.4
 - 436.4 10.8
 8.6

End

20	21	-0.06	+10.92	-10.76	+16
	37	+0.30	10.72	10.78	-06
	49	+0.17	10.73	10.79	-06
21	1	+0.24	10.81	10.80	+01
	7	+0.20	10.74	10.80	-01
	24	-0.01	10.88	10.82	+06
	38	+0.07	10.78	10.83	-05
	47	+0.15	10.83	10.86	-01
	59	+0.02	10.84	10.85	-01
23	20	+0.03	10.94	10.92	+02
	33	+0.10	11.00	10.93	+07
1	24	+0.09	11.01	11.03	-02
	34	+0.05	11.06	11.04	+02
	47	+0.12	10.94	11.05	-11
2	0	+0.14	11.07	11.06	+01
~~22~~			+ 10.888		
22	41				
Per. Rate			+ .054	10.7	+ .038
July			+ .052		
			+ .053		

1864 Oct 11th Illr

16	Pezasi	a	Aquarii	1	Pezasi	8	Aquarii	30	Camel H
	0.6		57.1		49.1		48.6	22	13 270
	4.7		0.9		53.3		52.5		54.4
	7.7		3.5		56.3		55.2	14	26.1
	12.0		7.2		0.3		58.9		48.5
	15.5		10.5		4.1		2.2	15	21.6
	40.5		79.2		163.1		217.4		177.6
					283.1		277.4		
21	47 8.10	21	57 3.84	22	0 56.62	22	9 55.48	22	14 23.52
	46 51.25		58 57.74				43.24		

next page

σ Aquarii	η Aquarii	ζ Pegasi	γ Pegasi	ξ Pegasi
360	31.4	502	460	3.3
40.0	35.2	540	503	7.2
42.8	37.8	566	535	10.1
46.5	41.6	03	577	13.6
49.7	44.8	3.6	1.6	17.0
215.0	190.8	164.7	209.1	51.2
		284.7	269.1	
22 23 43.00	22 28 38.16	22 34 56.94	22 36 53.82	22 40 10.24
	25.98	44.75		

64 Oct 1st MIM

5 Aquarii	a Pisc Austr	B Piscinn	a Regasi	39 Cygni
350	16.6	6.8	8.4	
390	21.0	10.5	12.4	
41.6	24.0	13.1	15.1	23 28 16.4
45.6	28.2	16.9	18.8	29 17.4
49.1	32.2	20.3	22.4	30 13.2
210.3	122.0	67.6	77.1	
22 47 42.06	22 50 24.40 11.96	22 57 13.52	22 58 15.42 3.43	

next page

I Scyllptons

$\checkmark$ Piscum	Ra XXIII 192	w Piscum	2 Ceti	a Andromedae
6.9	573	29.2	55.5	30.6
10.6	35	33.3	59.6	33.1
13.4	65	35.7	2.5	37.9
16.9	108	39.6	6.3	42.1
20.2	145	42.9	9.7	46.0
68.0	94.6	180.7	133.6	141.9
	34.6		13.6	
23 33 13.60	23 42 6.92	23 52 36.14	23 57 2.72	oh 1 ^m 38.38
1.62		24.01		26.41

864 Oct 11th Mm

γ Pegasi	δ Piscum	ϵ Piscum	Polaris
236	47.4	3.0	1 6 6.8
276	57.2	6.9	8 43.8
303	54.0	9.4	10 33.0
342	57.7	13.2	12 59.0
37.5	12	16.5	15 14.9
153.2	211.5	49.0	157.5
	271.3		
02 6 ^h 30.64	0 41 54.30	0 56 9.80	1 10 43.50
18.58		55 57.67	46.07

End

21	47	+0.12	12.02	-12.09	-07	
	59	+0.02	12.12	12.10	+02	✓
22	10	-0.02	12.22	12.11	+11	
	29	+0.02	12.20	12.13	+07	
	35	+0.07	12.26	12.13	+13	
	50	-0.16	12.28	12.15	+13	✓
	58	+0.10	12.09	12.15	-06	✓
23	53	+0.05	12.03	12.19	-16	
23	52	+0.06	12.19	12.20	-01	
0	1	+0.19	12.16	12.21	-05	✓
	6	+0.10	12.16	12.22	-06	✓
	56	+0.06	12.19	12.26	-07	
23	4		12.160		±070	
		Rate Per.	0.052			
		Toll	0.056			
			0.054			

23 11 17.838 (39)

1864 Oct 16th Mm // Oct 17th Mm

748

745

Polaris	sp	a Lyrae	S Lyrae	S Sagittarii	S Aquilae	2
13	5	48.6	32.5	17.1	10.7	25.0
	8	(0.7)	37.6	21.7	10.0	29.0
			40.9	24.8	13.1	31.6
	12	18.0	45.7	29.2	17.2	35.6
	14	57.3	49.8	33.2	20.8	38.9
			206.5	126.0		160.1
1	10	46.36	18 32 41.30	18 45 25.20	18 47	18 59 32.08
			21.61	5.43		12.06

19.3

(18.0)

18.8

20.9

19.67

next page

25 Camel Hsp	in Aquilae	γ Aquilae	156 Camel B	(3) Aquilae
0.7	41.6	3.6	19 43 23.7	54.2
26.3	45.7	7.5	57.2	58.0
35.2	48.3	10.1	44 35.1	0.7
15.4	52.1	13.9	45 2.2	4.3
46.0	55.3	17.2	42.9	7.6
143.6	243.0	52.3	161.1	124.8
				4.8
18.2 52.72	19.11 48.60	19 40 10.48	19 44 32.22	19 49 0.96
	28.62	50.51		20.98

1864 Oct 18th M M

TAS

61 Cygni pre	61 Cygni fall	3 Cygni	Arg + 2° 43 32	Arg + 1° 44 65	4
2.8	4.2	24.2	15.1	10.3	
7.7	9.1	28.7	18.8	14.0	
11.0	12.6	31.8	21.5	16.6	
15.8	17.3	36.0	26.0	20.3	
19.4	21.6	39.7	28.5	23.6	
57.2	64.7	160.4	108.9	84.9	
	1.50				
21 1 12.19	12.94 21 . 7	32.08	21 11 21.78	22 15 16.96	
0 52.24		12.21			

next page

Arg + 10	44.69	1	Draconis 30	3	Aquarii	gr. 1564 sp	γ Capricorni
	22.5		—		41.1	370	50.4
	26.5		27.0		44.9	469	54.3
	29.0		53.5		47.6	57.6	57.0
	32.7		11.9		51.2	5.1	0.9
	35.4		39.8		54.5	16.7	4.3
	146.6				239.3	163.3	166.9
						283.3	120.9
							286.9
21	16	29.32	21	17	51.20	21	24.47.86
					27.51	21	30 56.66
						21	32 57.38

 δ 81°54'45".7 9.14824

A		47.36
B	54.03	24.03
C	54.36	2.14
D	50.99	20.91
E	51.44	48.36
	54	

1864 Oct 17th 11th m

748

Arg + 0° 4770	2 Pegasi	8 Capricorni	u hrs Maj sp	Arg + 0° 4790
31.1	47.2	48.8	276	33.2
34.9	57.1	530	342	36.4
37.5	539	536	41.5	39.6
41.3	576	593	46.6	43.3
44.5	5.9	2.9	54.3	46.9
169.3	210.7	219.6	204.2	199.9
	270.7	279.6		
21 35 37.86	21 37 54.14	21 39 55.92	21 41 40.84	21 45 39.98
	34.02			

16	Pesari	Arg + 1° 45.60	Arg + 0° 48.06	a Aquarii	Arg + 1° 45.84
	8.7	1.0	19.9	5.1	1.2
	13.1	4.9	23.6	8.9	5.1
	16.0	7.5	26.2	11.6	7.7
	19.9	11.2	29.9	15.2	11.5
	23.7	14.5	33.2	18.5	14.6
	81.11	39.1	132.8	69.3	40.1
21	47 16.28	21 48 7.02	21 53 26.56	21 59 12.06	22 0 8.02
	66 57.16			58 51.67	

1864 Oct 17th M

ϵ Pegasi	Arg + 2°	γ Aquarii	σ Aquarii	η Pegasi
57.2	31.9	55.1	44.2	54.1
1.4	35.7	58.0	48.4	58.5
4.3	38.4	1.7	50.8	1.5
8.4	42.0	5.3	54.6	5.7
12.0	45.5	8.7	57.9	9.5
83.3	193.6	129.8	255.6	129.2
23.3		9.8		9.2
22 1 4.66	22 2 38.7	22 14 1.96	22 23 51.72	22 37 1.84

next page

3 Pegasi	5 Aquarii	34 Cephei H	a Pict. Ans	a Vir. Maj SP
11.2	43.2		24.5	25.9
15.7	47.1		29.1	32.9
17.8	49.9		32.2	40.8
21.5	53.7	48.6	36.4	46.5
24.9	57.0	13.9	40.3	54.8
90.5	250.9		162.5	200.9

22 40 18.10 22 47 50.18 22 48 23.06 22 50 32.50 22 53 40.48
 11.89

9.11903 82° 26' 30" 7
 A 23.24 50.66
 B 22.89 28.71

1864 Oct 17th MEM

J Seulp

B Piscum	a Regasi	Pi XXIII. 192	Red 6 202	w Piscum	
14.9	16.4	7.2	26.5	37.3	3
18.7	20.4	11.6	43.7	41.1	
21.3	23.2	14.5	55.5	43.9	2
24.9	26.4	18.7	12.0	47.7	
28.3	30.4	22.4	26.2	50.9	
108.1	117.3	74.6	163.9	220.9	
			283.9		
22 57 21.62	22 58 23.46	23 42 14.88	23 45 56.78	28 52 44.16	2
	3.38			24.00	

309 Cygni 43	2 Cete	a Andromedae	y Pegasi	5 Lyræ Min 1950
	3.6	38.7	31.7	0 10 50.7
	7.7	43.1	35.7	11 39.1
23 53 49.2	10.7	46.1	38.4	12 51.8
54 41.9	14.3	50.2	42.2	13 45.4
55-27.9	17.7	53.9	45.6	15 5.6
	53.7	232.0	193.6	172.6
23 53 52.60	23 57 10.74	0 1 46.40	0 6 38.72	0 12 46.52
		26.39	18.57	

88° 37' 26" 8.84817

A 40.0 - 146.97
 B - 23.84
 C + 2.12
 52.38 - 134.52
 52.94 - 47.96
 52.97 + 4.27

1864 Oct 18th Jm Mm

THS

+

Phoenix	12 Ceti	Bradley 48	B Ceti	S Piscium	m
49.3	23.7	24.6	3.1	53.2	
54.5	27.6	51.8	7.2	59.6	
58.1	30.2	10.3	10.0	2.1	
3.1	33.9	35.7	13.9	5.9	
7.6	37.3	58.6	17.3	9.2	
172.6	152.7	181.0	51.5	132.4	
		61.0		12.4	
0 19 58.52	0 23 30.54	0 30 12.20	0 37 10.30	0 42 24.8	
	10.16		49.83		

next page

8 cl

<i>n</i>	<i>Andromedae</i>	43	<i>Cepheus</i>	<i>E Piscium</i>	<i>Polaris</i>	214	<i>Camel</i>	<i>BSP</i>
	296			11.1	1	6	15.2	1 18 51.0
-	34.2	0	50 57.3	16.0		8	54.2	19 30.9
	37.6		51 24.9	17.7		10	41.3	20 19.2
	42.4		52 12.2	21.3		13	11.3	52.4
	46.4		53.7	24.6		15	23.3	21 39.9
	190.2			89.7			165.3	193.4
0	49 38.04	0	51 28.70	0 56 17.94	1	10 53.06	1 20 14.68	
				57.69		46.29		

85°31'55" 1.10844

A	28.17	125.53
B	30	42.40
C	26	38.6
D	<u>29.05</u>	37.75

864 Oct 17^m 1117^mDecl 5^h 45^m

Polaris

30.4
34.5-
37.2
40.9
44.3
187.3

Decl faint

Arg +11° 218

5.6
8.8
12.2
16.8
18.9
67.3

Decl faint Decl

Arg +11° 236 Arg +11° 245

13.5-

23.9
27.3

49.5-
52.9

12^h 10^m

a Arctus

0.5-
4.7
7.7
11.5-
15.0
39.4

1 24 37.46
17.21

1 35-12.26

1 42

1 45-

2 07.84
1 59 35.68

End

α Lyrae	18 32	+0.28	+19.97	-20.00	-03	✓	
β —	45	+0.23	20.00	20.02	-02		
γ Aquila	59	+0.10	20.06	20.03	+03		
ω —	19 11	+0.08	20.06	20.04	+02		
ν —	40	+0.08	20.03	20.07	-04	✓	
ρ —	19	+0.06	20.04	20.08	-04	✓	
α Cygni	21 1	+0.27	20.22	20.15	+07		
ξ —	7	+0.23	20.10	20.16	-06		
β Aquarii	24	-0.01	20.34	20.17	+17		
ϵ Cygni	38	+0.07	20.19	20.19	00		
η —	47	+0.17	20.29	20.20	+09		
α Aquarii	59	+0.02	20.41	20.28	+13	✓	
α Pictoris	22 50	-0.16	20.45	20.26	+19	✓	
α Cygni	58	+0.10	20.18	20.27	-09	✓	
ω Pictoris	23 52	+0.06	20.24	20.32	-08		
α Andromedae	0 1	+0.19	20.20	20.33	-13	✓	
γ Cygni	6	+0.10	20.25	20.33	-08	✓	21.7 +002
η Cygni	23	0.00	20.38	20.35	+03		
ρ —	37	-0.08	20.39	20.36	+03		
ϵ Pictoris	56	+0.06	20.34	20.38	-04		
η —	1 24	+0.05	20.30	20.41	-11		
α Pictoris	2 0	+0.16	20.36	20.44	-08	✓	20 +001
δ —	22 8		+20.217 (12)		+067		
Rate prod			+0.056				
folly			0.061				
			+0.059				

19 20 39.987 3

23 39 39.692 (6)

464 Oct 18 M.M.

741

61 Cygni pre	61 Cygni fall	3 Cygni	1 Draconis	13 Aquarii
4.2	5.7	25.7	6.0	
9.2	10.6	30.2	28.5	
12.4	13.9	33.2	54.6	
17.1	18.6	37.3	13.2	52.6
21.2	22.8	41.1	41.2	53.9
64.1	71.6	167.5	143.5	
21 1 ^{mut} 13.57	21 7 ^{1.50} 33.50	21 17 52.70	21 24 49.20	
1 52.21	12.49		27.49	

11 11.70
 11 2.40
 49.20
 49.20

Encl

$$\begin{array}{rcl} 21 & 1 & +0.27 \quad +21.63 \\ & 8 & +0.20 \quad 21.57 \\ \hline & 25 & -0.01 \quad 21.70 \\ 21 & 11 & +21.623 \end{array}$$

1864 Oct 19 JLL m

THS

a Lyrae

b Lyrae

3 Aquilae

w Aquilae

s Aquilae

	19.9	27.9	44.6	57.4
40.3	24.5	31.9	48.5	1.2
43.6	27.6	34.5	57.2	3.9
48.5	32.0	38.4	57.9	7.6
52.6	33.7	41.7	58.0	10.9
	139.9	174.4	257.2	81.0
				21.0

18	32	44.08	18	44	27.98	18	59	34.88	18	12	51.44	19	19	21.20
		21.57		45	5.38			12.02			28.56			18 41.29

0.10742

A	44.07	8.53
B	17	4.33
C	43.99	0.39
D	44.07	3.77
E		8.71

next page

6 Vulpeculae		3 Cygni		Comp 3 Cygni		L Sagittarii		γ Aquilae	
20.5		31.6		33.7		44.8		6.5	
24.7		36.7		38.1		49.0		10.4	
27.6		39.0		41.1		51.9		13.1	
31.7		43.1		45.3		56.0		16.7	
35.3		46.8		48.9		59.6		20.1	
139.8		197.2		207.1		261.3		66.8	
19 23 27.96	19 25 39.44	18 25 41.42	19 20 52.26	19 40 13.36					
			29.16	39 52.62					

1864 Oct 19th Ill W

748

1864 photo

56	Camul	Bsp	B	Aquilar	λ	hrs	min	ρ	Aquilar	α	Capricorni	
19	43	26.7		57.0	19	53	7.7		179		261	
	44	0.0		0.9	20	2	22.8		220		299	
	44	381		3.6					246		327	
	45	459		7.3					287		363	
		45.4		10.6		5	18.7		319		398	
		146.1		79.4					125.1		165.0	
				19.4								
19	44	35.02	19	49	3.88			20	8	25.02	20	10 33.00
				48	40.94							10 9.86

α^2 Capricorni

20 11 38

18	32	+0.28	22.79	-22.89	-10
44		0.23	22.83	22.90	-07
59		0.10	22.96	22.92	+04
19	12	0.08	22.96	22.94	+02
19		+0.04	22.95	22.95	.00
29		-0.12	22.98	22.96	+02
40		+0.08	22.97	22.97	.00
49		+0.06	23.00	22.99	+01
20	10	-0.05	23.09	23.01	+08
19	19		+22.968		+034 1.04
Per R			0.040		
for.			0.093		
			0.076		

1864 Oct 20th M M1864 Oct 21st M M

748

1864pha

Polaris SP			w Aquilae		S Aquilae		6 Vulpeculae			h Sagittarii				
13	6	56.3		46.8		1.8		24.8		49.0				
	9	9.5		52.8		5.5		29.2		53.3				
	11	36.2		53.4		8.3		32.0		56.4				
	13	24.7		59.2		11.9		36.0		63				
	16	3.8		2.5		15.1		39.7		3.9				
		130.5		218.7		42.6		161.7		163.1				
				278.7						283.1				
13	11	26.10	19	11	55.74	19	19	8.52	19	24	32.34	19	28	56.62
1	10	46.60			28.54		18	41.26						29.12

γ Aquilae	156 Camel Bp	β Aquilae	γ Sagittae	λ Urs Min B
10.7	19	43	32.6	1.2
14.8		44	5.1	5.2
17.4			44.3	8.0
21.1		45	10.3	11.5
24.3			30.7	14.8
58.3			143.0	40.7
				62.3

19	40	17.66	19	44	40.60	19	49	8.14	19	53	12.46
		50.44					48	40.91			

1864 Oct 21st 11th M

THS

5 Argutae	14 Capricorni	22 Capricorni	22 Regasi	3 Regasi
22.1	303	54.2	1.2	185-
26.1	342	58.2	5.7	22.3
28.8	369	0.8	8.6	150
32.6	406	4.6	12.7	28.5
36.0	440	80	16.7	32.1
145.6	186.0	125.8	44.9	126.7
		5.8		
20 8 29.12	20 10 37.20	20 11 1.16	22 37 8.98	22 40 25.34
	9.83	10 33.77		

next page

<i>S Aquarii</i>	<i>a Psc Ant</i>	<i>β Psc Ant</i>	<i>a Psc</i>	<i>γ Psc</i>
57.2	31.6	22.0	23.7	31.6
57.2	36.3	26.0	27.7	35.6
57.1	39.2	28.5	30.4	38.5
0.9	43.6	32.3	34.2	41.9
4.3	47.3	35.7	37.6	45.2
166.7	198.0	144.5	153.6	192.8
286.7				
22 4) 57.34	22 50 39.60	22 57 28.90	22 58 30.72	23 10 38.56
	11.84		3.34	11.01

864 Oct 21st Mm

THS

δ Aquaris	κ Piscum	Polaris (altitude)
14.0	22.5	1 6 24.1
18.1	26.4	9 1.3
20.9	29.2	10 49.7
24.9	32.7	13 17.4
28.4	35.8	15 30.4
106.3	146.6	122.9
23 16 21.26	23 20 29.32	1 11 0.58
	1.75	10 46.54

End

19	17	+08	+27.28	-27.25	+03
	19	+04	27.30	27.26	+04
	28	-12	27.38	27.27	+11
	40	+08	27.30	27.29	+01
	49	+06	27.29	27.31	-02
20	10	-05	27.32	27.34	-02
	11	-05	27.34	27.34	00
22	50	-16	27.60	27.58	+02
	58	+10	27.48	27.60	-12
23	10	+04	27.59	27.61	-02
	20	+03	27.60	27.63	-13

20 55 + 27.407 ±.034 104.

Per R
204

+ 0.094
0.089
+ 0.092

1864 Oct 23^d III m1864 Oct 24th III m

FAS

Polaris SP

13 7 3.0

9 16.8

11 47.8

13 33.4

16 12.9

113.9

34.78

13 11 58.78

10 46.15

a Lyrae

460

57.0

546-

57.1

3.3

213.9

18 32 51.78

21.45

β Lyrae

38.3

42.7

46.6

18 45 38.65

5.27

25 Canis M

16.4

41.6

10.7

30.9

1.4

101.0

19 3 8.20

0.07747

A 38.64 7.96

M 56 4.04

C 56 0.36

D 56 3.51

E 56 8.13

End

$$\begin{array}{r} 1832 + 0.28 \quad 38.61 \\ 45 \quad 0.23 \quad 38.61 \\ \hline 1838 \quad 38.610 \end{array}$$

1864 Oct 25th - MUM

THS

α Lyrae	β Lyrae	γ Aquilae	π Sagittarii	β Cygni
47.7	32.2	40.2	11.7	43.9
52.6	36.8	44.2	16.0	48.2
56.0	39.9	46.8	18.7	51.1
0.8	44.3	50.6	22.6	55.3
4.9	48.2	54.0	26.2	59.1
162.0	201.4	235.8	95.2	257.6
282.0				
18 32 56.40	18 45 40.28	18 59 47.16	19 2 19.04	19 25 51.52
21.43	5.25	11.91		

Comp B Cygni	L Sagittarii	γ Aquilae	156 Camel SP	B Aquilae
	57.1	18.7	19 43 41.3	15.1
50.4	1.3	22.6	44 15.0	
53.4	4.2	25.3	52.4	15.7
57.5	8.2	29.0	45 19.8	19.4
1.2	12.0	32.4	46 0.3	22.8
	82.8	128.0	128.8	-
	22.8			
19 25	19 29 4.56	19 40 25.60	19 44 49.76	19 49 16.01
	28 29.05	39 50.37		68 50.84

A 16.06 6.74
 B .01 3.39
 C 15.99 0.37

864 Oct 23rd Mm
 548

1864pha

Mrs Min	p Aquilar	1a Capneconi	2a Capneconi	Gr 1418 SP
19 53 31.9	30.2	38.0	2.2	20 14 46.7
56 53.3	34.1	42.2	6.2	15 28.3-
59 13.4	36.8	44.9	8.9	16 13.4
20 2 26.5-	40.6	48.6	12.6	49.0
5 21.4	44.0	52.1	16.0	17 38.0
146.5	185.7	225.8	45.9	177.6
				57.6
19 57 29.30	20 8 37.14	20 10 45.16	20 11 9.18	20 16 11.52
		9.76	10 33.70	

next page

o Mrs. May	p. Capricornii	A Mrs. May	46 Cephei B	* spec. a. Daffodil
	37.9	48.3	47.3	17.6
29.9	41.9	56.2	59.8	21.7
37.7	44.7	5.4	8.2	24.4
43.0	48.5	11.3	20.4	28.2
51.0	52.0	21.2	30.9	31.6
	225.0	142.4	166.6	123.5
		22.4	46.6	
20 19	20 21 45.00 9.42	20 23 4.48	20 31 9.32	20 33 24.70

64 Oct 25th Illm

THS

Delphinus		a Cygni		S Aquarii		a Piscis Aur		B Linc. Maj ^{sp}	
50.5-		15.7		58.3		39.7		2.0	
57.6		21.0		24		44.1		8.5-	
57.2		24.9		5.0		47.2		15.1	
1.1		30.0		5.9		57.4		19.9	
4.5-		34.7		12.3		55.2		27.0	
167.9		126.3		86.9		237.6		72.5	
287.9				26.9					
20 34 57.58	20 37 25.26	22 48 5.38	22 50 47.52	22 54 14.50					
	136 50.26		11.78						

SP	α Ursa Major	β Pscium	α Regasi	γ Pscium	κ Pscium
	41.5	30.2	31.8	39.7	30.5
	48.7	34.1	35.7	43.5	34.4
	56.7	36.6	38.5	46.3	36.9
	2.0	40.3	42.3	50.1	40.7
	10.5	43.5	45.6	53.2	43.9
	159.4	184.7	193.9	232.8	186.4
	279.4				
22	53-55.88	22 57 36.94	22 58 38.78	23 10 46.56	23 20 37.28
			3.30	10.77	1.72

1864 Oct 25th 11th m

748

Ceti		a Andromedae		γ Pyxasi		Polaris		Polaris sp	
19.0		54.0		469		1 6 33.7		13 7 74	
23.0		58.4		57.9		9 6.7		9 16.1	
25.8		1.2		53.7		10 56.3		11 488	
29.7		5.5-		57.5-		13 28.3		13 33.7	
33.1		9.3		0.8		15 39.9		16 14.3	
130.6		128.4		209.8		166.9		120.3	
		8.4							
23 57 26.12	0	2 1.6.8	5 6	53.96		1 11 59.38	13	11 3606	
		1 26.35		18.56		10 45.85		10 45.73	

18 32	+0.28	+ 35.25	-35.28	-03
45	+0.23	35.26	35.29	-03
59	+0.10	35.35	35.30	+05
19 29	-0.11	35.40	35.33	+07
40	+0.08	35.31	35.34	-03
49	+0.06	35.23	35.35	-12
20 11	-0.05	35.35	35.37	-03
12	-0.05	35.43	35.38	+05
21	-0.08	35.50	35.38	+12
37	+0.34	35.34	35.40	-06
22 50	-0.16	35.58	35.53	+05
58	+0.10	35.58	35.53	+04
23 10	+0.04	35.63	35.55	+08
20	+0.03	35.59	35.56	+03
0 2	+0.19	35.52	35.61	-09
6	+0.10	35.52	35.61	-09

21 4 (16) +35.428 ±.053 1.67

Bright
 only
 +0.069
 +0.052
 +0.060

1864 Oct 26th M. J. M.
F.H.S.

1864ph

a Lynce		3 Aquilar		11 Sagittarii		18 Aquilar		19 Sagittarii				
	48.8		41.4				10.9		58.1			
	53.9		45.4		12.9		15.0		2.6			
	57.3		48.2		17.1		17.6		5.3			
	2.0		51.9		19.9		21.2		9.5			
	6.2		53.3				24.5		13.2			
	168.2		242.2				89.2		88.9			
	288.2								28.9			
18	32	57.64	1859	48.44	19	2	19	19	17.84	19	29	5.78
		21.41		16.89				18	41.18		28	29.03

next page

λ Aquilae	156 Camel B	λ Aquilae	λ Vir Min	ρ Aquilae
25.1	19 43 41.9	10.5	19 53 32.9	31.4
23.9	44 16.0	14.5	56 56.9	35.4
26.6	54.4	17.1	59 14.3	38.2
50.4	45 22.0	20.8	20 2 27.7	42.0
33.7	46 1.0	24.6	5 20.4	45.3
134.7	135.3	86.9	152.2	19 2.3
19 40 26.94	19 44 51.06	19 49 17.38	19 59 30.44	20 8 38.46
39 50.35		49 40.82	1.	

1864 Oct 26th Mm

748

1 a Capricorni	2 a Capricorni	yr	1418	sp	a Mrs Maj's 10	3 Capricorni	2
39.4	3.3	20	14	47.1	244	38.9	
43.5	7.5		15	28.7	31.1	43.2	
46.2	10.0		16	15.1	38.7	46.0	
50.0	13.8			50.3	44.5	49.9	
53.2	17.2		17	39.7	52.3	53.2	
232.3	51.8			180.9	191.0	231.2	
				60.9			
20 10 46.46	20 11 10.36	20 16	12.18	20 19 38.20	20 21 46.24		2
9.74	10 33.68				9.40		

	A hrs Maj 30		3 Regasi		2 Regasi		3 Regasi		3 hrs Maj	
		49.4		145		10.4		27.6		3.8
		57.4		184		14.8		31.5		9.4
		64		21.0		17.9		34.2		16.0
		13.0		24.7		22.1		38.0		21.1
		22.5		28.2		25.9		41.3		28.2
		148.7		106.8		91.1		172.6		78.5
		28.7								
20	23	5.74	22	35-21.36	22	37	18.22	22	40	34.52
				34 44.60					22	54 15.70

1864 Oct 25th 11^h AM
 548

α Urs Major	β Piscium	α Regni	γ Piscium	ϵ' Aquarii
42.7	31.2	32.9	41.0	27.2
49.9	33.0	36.9	44.7	27.2
57.8	37.8	39.6	49.5	30.1
3.1	41.4	43.3	51.2	34.0
11.9	44.7	46.7	54.4	37.6
165.4	190.1	199.4	238.8	
285.4				
22 55-57.08	22 57 38.02	22 58 39.88 3.29	23 10 47.76 10.97	23 16

next page

K Piscum				a Andromedae				y Pegasi				S Piscum				u Andromedae			
				3	1.7														

1864 Oct 26th Illm

43 Cephei H

Polaris

O Cete

			1	6	32.8			48.0
0	5-1	6.8		9	13.1			57.9
		40.4		10	58.0			54.6
	52.	30.0		13	28.9			58.2
	53	11.1		15	42.2			1.5
					175.0			21 4.2
								27 4.2
0	51	45.36	/	11	41.00	1	17	54.84
				10	45.66			17.80

85°31'58"3 1.10553

51 45.55 - 1 25.55
 46.59 - 43.41
 44.76 + 3.86
 44.56 + 37.76
 1 27.34

End

18	32	+0.28	36.57	-36.56	-05
	59	-0.10	36.65	36.59	+06
19	19	+0.04	36.70	36.55	+15
	29	-0.12	36.63	36.62	+01
	40	+0.08	36.67	36.63	+04
	49	+0.06	36.62	36.62	-02
20	10	-0.05	36.67	36.66	+01
	11	-0.05	36.63	36.66	-03
	21	-0.08	36.76	36.67	+09
22	35	+0.07	36.83	36.80	+03
	58	+0.10	36.69	36.83	-14
23	10	+0.04	36.83	36.84	-01
	20	+0.03	36.90	36.85	+05
0	1	+0.19	36.84	36.89	-05
	6	+0.10	36.74	36.90	-16
1	18	+0.02	37.02	36.96	+06
	21	32			+053 106
24	21	22			+36.731
		Rate Per.			+0.054
		Jolly			+0.064
					0.059

1864 Oct 31st Mm

TAS

Polaris SP

13	7	11.5
	9	23.1
	11	55.3
	13	39.7
	16	19.6
		149.2

Ricorda, little dim

1864 Nov 1st Mm

P Aquilae

40.6
44.7
47.3
51.2
54.7
238.5

1a Capricorni

48.5
52.5
55.3
59.1
2.5
217.9

2a Capricorni

12.7
16.6
19.3
23.1
26.6
98.3

20 8 47.70

20 10 55.18
9.6520 11 19.66
33.59

ni	x Cygni		o Ursae Maj sp		p Capricorni		d Ursae Maj sp		46 Cephei B	
2,7		57.8		34.0		48.3		58.9		57.7
6,6		5.0		40.8		52.4		6.4		10.2
9,3		8.3		48.4		53.2		15.8		18.9
3,1		13.1		53.9		58.9		22.3		30.8
6,6		17.5		2.1		2.5		31.8		41.4
3		103.7		179.2		217.3		135.7		159.0
		43.7		239.2		277.3		75.7		99.0
16	20	18 8.74	20	19 47.84	20	21 55.46	20	23 15.14	20	31 19.88
59						9.31				

1864 Nov 1st Ill m
748

Puc a Delphini			a Delphini			a Cygni			6 Ins Maj SP			61 Cygni pr		
	28.3			1.0			26.2			31.1			28.4	
	32.3			5.0			31.5			38.9			33.2	
	35.0			7.7			35.2			47.9			36.7	
	38.7			11.6			40.5			53.9			41.1	
	42.2			14.9			45.2			3.2			45.4	
	176.5			40.2			178.6			175.0			184.8	
										235.0				
20	33	35.30	20	34	8.04	20	37	35.72	20	45	47.0	21	137.72	
							36	50.07				0	51.92	

next page

61 Cygni fall	Br 48	8 Pucum	Br 74	M Andromedae
	0 29 50.4	21.3		5.7
348	30 17.7	25.2		0.2
38.1	30 35.7	28.0	21.9	3.7
42.7	31 1.4	31.6	52.8	8.4
46.9	31 23.7	34.9	195-	12.3
	128.9	141.0		30.0
	248.9			
0 30 49.78	0 42 28.20	0 43	0 50 6.00	

by hand 0.9125

$$\begin{array}{r}
 A - 57.48 \quad 25.02 \\
 B - 27.64 \quad \quad 16 \\
 C + 2.46 \quad \quad \frac{24.36}{24.85}
 \end{array}$$

1864 Nov 1st M M

FAS

* for Olytia Oct 17

43 Aphni H			2 Piscum			Polaris			8 Ceti		
					37.0	1	6	46.3		57.3	13.6
0	37	16.7			40.9		9	22.7		1.2	19.5
		50.8			43.4		11	75		4.0	22.1
52	373				47.3		13	38.1		7.5	23.7
53	209				50.6		15	48.8		10.8	29.1
					219.2			163.4		80.8	112.0
										20.8	
0	51	54.59	0	56	43.84	•1	11	20.68	1	18	4.16
				55	57.67		11	44.99			17.80
											1 25-22.40

55 32 0.1 1.10858

55.34 -1 25.56

55.89 - 42.41

54.66 + 3.86

54.46 37.76

next page

* for Clytia Oct 17 * for Clytia Oct 11 * for Clytia Oct 10th

v. Pussir

x Citi

21.2	31.0	268	396 43.6	38.0
27.0	35.1	306	46.0	41.8
31.0	37.7	332	49.5	44.7
36.5	41.6	369	53.3	48.4
41.5	45.0	407		57.7
157.2	190.4	168.2	232.0	224.6

1 30 31.44 1.35 38.08 1 41 33.64 46.40 1 43 44.92

1864 Nov 1st Mm

FHS

x for Echo & Oct 23 x for Echo

50 Cassiopeae

a Picinn

a Arctis

435	59.0	27.2	44.5	1	14.3
474	3.1	39.4	48.5		18.5
499	5.6	48.3	59.0		21.4
53.4	9.5	54.9	54.8		23.4
56.7	12.7	10.7	57.9		29.0
250.9	89.9	185.5			108.6
	29.9	125.5			
1 47 50.18	1 51 5.98	1 52 49.10	1 55	2 0 21.72	
				1 59 35.80	

57.30	57.44
57.30	57.44
57.24	
57.28	57.43

End

<i>a Draconis</i> SP	<i>Polaris</i>	312
	13	7
190	9	17.3
27.8	11	250
340	13	56.4
430	16	44.9
		25.5
		169.1

2	1	13	11	35.82
			10	44.91

20	10	-04	45.89	-45.97-08
	11	-04	46.03	45.97+06
	21	-07	46.08	45.97+11
	37	+31	45.96	45.99-03
21	1	+24	46.04	46.01+03
0	56	+06	46.23	46.23 00
1	17	-02	46.34	46.24 +10
2	0	+14	46.06	46.28-22
22	19		+46.079	±0.74
<i>Row R</i>			+0.065	
<i>Jolly</i>			+0.042	
			+0.054	

1864 Nov 1 at M^W
 748
 for Echo & Oct 25 x for Echo

		50 Cassiopeae		a Piscinae		a Arctus	
				one fall			
435		59.0		44.5	1	14.3	
474		3.1			48.5	18.5	
499		5.6		59.0		21.4	
53.4		9.5			54.8	25.4	
56.7		12.7		57.9		29.0	
250.9		89.9				108.6	
		29.9					
1 47 50.18	1 51	5.98	1 52	49.10	1 55	2 0 21.72	
						1 59 35.80	

57.30 57.44
 57.30 57.42
 57.24
 57.28 57.43

<i>a Draconis</i> SP	<i>Polaris</i>	SP
	13	7
190	9	17.3
27.8	11	25.0
340	13	56.4
430	16	44.9
		25.5
		169.1

2 1

13	11	35.82
	10	44.91

20	10	-04	45.89	-45.97-08
	11	-04	46.03	45.97+06
	21	-07	46.08	45.97+11
	37	+31	45.96	45.99-03
21	1	+24	46.04	46.01+03
0	56	+06	46.23	46.23 00
1	17	-02	46.34	46.24 +10
2	0	+14	46.06	46.28 -22
22	9		+46.079	±0.74

<i>Polaris</i>	+0.065
<i>Jolly</i>	+0.042
	+0.054

1864 Nov 2d LHM
548

<i>a Aquilae</i>			<i>B Aquilae</i>			<i>2 Pers Min B</i>			<i>P Aquilae</i>			<i>1a Capricorn</i>			<i>2</i>		
			20.8			19	53	36.0	41.6			49.7					
			24.9				57	34	45.7			53.7					
			27.5				59	19.4	48.4			56.4					
1.7			31.2			20	2	34.7	52.2			60					
5.2			34.3						53.5			3.6					
			138.7						243.4			163.4					
												283.4					
19	44	58.37	19	47	27.74				20	8	48.68	20	10.56.68				
		11.55		48	40.71								9.63				

A 58.46 - 6.74

B 58.28 - 3.42

next page

2a Capricorn	Gr 1418 SP	0 hrs Maj SP	Capricorn	A hrs Maj SP
13.7	20 14 39.7	35.6	49.3	05-
17.6	15 42.8	42.0	53.4	8.5-
20.4	16 29.0	49.6	56.1	17.5-
24.0	17 2.5	55.1	0.0	23.7
27.6	52.3	3.2	3.4	33.3
103.3	186.4	185.5	162.2	83.5
	126.4	245.5	282.2	
20 11 20.66	20 16 25.28	20 19 49.10	20 21 56.44	20 22 16.70
33.57			9.29	

1864 Nov 2^d M/M

748

* for Chytra Nov 1

a Delphinus	2 Piscum	Polaris	0 Cete	
20	37.8	1 ^h 6 ^m 40.8	38.2	16.6
60	41.7	9 193	4.7	20.2
8.8	44.6	<u>12</u> <u>34</u>	8.4	23.0
12.4	48.1	13 344	11.8	26.8
15.9	51.5	15 504		30.2
45.1	223.7		85.1	116.8
			25.1	
20 34 9.02	0 56 44.74	1 11 18.30	1 18 5.02	1 25 23.36
	55 57.19	10 44.83	17 17.80	

16095

-4 31.2	19.7
-2 17.6	16.8
+ 12.3	19.0
+1 59.7	17.7
+4 26.9	<u>18.3</u>

End

19	44	+06	+46.88	46.99	-11
	49	+05	47.08	46.99	+09
20	10	-04	47.01	47.00	+01
	11	-04	47.05	47.00	+05
	21	-07	47.08	47.01	+07
0	56	+06	47.11	47.20	-09
1	17	-02	47.20	47.21	-01
21	30		+47.059		±.056 1069
Reck			+0.042		
Joly			+0.049		
			+0.041		

1864 Nov 3^d Ill m
THS

γ Aquilar	δ Aquilar	α Aquilar	β Aquilar	λ Vers Min B
52.7	22.2	52.5	21.7	19 53 345
56.6	26.1	56.4	25.7	56 58.0
59.4	28.8	59.0	28.3	
3.2	32.5	2.8	32.0	20 2 27.0
6.6	35.7	6.0	35.3	5 23.2
178.7	145.3	176.7	143.0	
298.7				
18 59 59.74	19 19 29.06	19 44 59.34	19 49 28.60	19 59 31.73
11.77	21.06	11.53	48 40.69	

88°54'41" 1.72129

A 32.44 - 550.76
10 29.03 297.97

12 32.81 234.81
6 32.03 + 558.13

<i>Sagittae</i>	1 a Capricorni	2 a Capricorni	Gr 1418 SP	γ Cyg
42.6	50.6	14.6		1.9
46.6	57.6	18.6	20 15 43.6	6.9
49.4	57.4	21.3	16 30.3	10.4
53.1	1.2	25.0	17 4.0	15.1
56.6	45.1	28.4		19.4
268.3	168.3	107.9		53.7
	268.3			
20 8 49.66	20 10 57.66	20 11 24.58		20 18 10.74
	9.61	10 33.55		

1864 Nov 3^d M M

THS

0 hrs May sp	p Capricorni	A hrs May sp	46 Cephei B	a Delphini
36.4	30.2	1.3	39.0	2.9
43.1	24.5	9.5	11.4	7.0
50.7	57.1	18.5	20.3	9.7
36.2	1.0	24.8	32.2	13.5
4.5	4.5	34.1	42.8	16.9
190.9	167.3	88.2	165.7	50.0
250.9	287.3		105.7	
20 19 50.18	20 21 57.26	20 23 17.64	20 31 21.14	20 34 10.05
	9.27			

next page

<i>a Cygni</i>	<i>Ar +10 4386</i>	<i>32 Vulpec</i>	<i>* full 32 V</i>	<i>76 Draconis</i>
28.0	46.6	28.8	56.4	7.7
33.6	52.5	33.2	5.8	36.9
37.4	55.2	36.2	3.8	53.1
42.4	58.9	40.3	6.0	21.4
47.1	2.2	44.0	11.7	46.3
188.5	217.4	182.5	80.7	165.4
			20.7	285.4
20 37.37.70	20 46 55.48	20 49 36.50	20 50 4.14	20 52 57.0
36 50.02		48 48.65		

1864 Nov 3rd Ill M.

745

Arg + 1° 44.07	5 ² Wrs May 5 th	61 Cygni Jan	61 Cygni Feb	Arg + 1° 44.32
4.2	59.0	30.2	31.7	57.4
8.1	7.5	35.1	36.6	57.2
10.7	17.4	38.5	40.0	56.9
14.4	24.2	43.2	44.7	5.4
17.7	34.4	47.3	48.6	3.8
55.1	142.5	194.3	201.8	165.7
	82.5			
20.53 - 11.02	20 39 16.50	21 139.66	40.36	20 2 57.14
		0 51.87		

next page

	dry + 2° 43 11	dry + 1° 44 45	Arg + 1° 44 49	Arg + 1° 44 50	Arg + 1° 44 61
2					
4	50.2	35.0	29.6		0.1
2	54.0	38.8	33.4	47.2	3.9
9	56.7	41.6	36.0	49.9	6.5
4	04	45.3	39.7	53.6	10.2
8	3.7	48.6	43.0	56.8	13.6
7	105.0	209.3	181.7		34.3
4	21 3° 57.00	21 6 41.86	21 8 36.34	21 8	21 13 6.86

59.10
50.20
24
12

1864 Nov 3^d M¹¹WTHS 1stN

Arg + 1° 4466 - Comp of pue

Arg + 1° 4467

1 D raconis SP

B Aquarii

37.8 38.3

8.0

85

42.1 42.2

12.0

21 17 58.0

12.3

44.2 44.7

14.6

18 24.0

15.0

48.0 48.6

18.3

18 42.9

18.7

51.2 51.8

21.6

19 10.5

22.0

223.3 225.6

76.5

21 15 44.66

21 15 45.12

21 16 14.90

21 18 22.01

21 25 75.30

24 27.25

0.85172

44.50

.60

.54

45.02

44.13

14.90

14.90

B 22.03 124.03

14.94

C 21.86 - 2.14

14.92

D 22.00 - 20.90

14.84

E 22.15 - 48.35

End

18	59	+ .09	48.06	-47.94 +.12
19	18	+ .04	48.04	47.96 +.08
	44	+ .06	47.87	47.98 -.11
	49	+ .05	47.96	47.99 -.03
20	10	- .04	48.01	48.01 .00
	11	- .04	47.99	48.01 .00
	21	- .07	48.12	48.02 +.10
	32	+ .31	47.99	48.03 -.04
	49	+ .17	48.02	48.04 -.02
21	1	+ .25	47.99	48.05 -.06
	24	- .01	48.04	48.07 -.03
20 13			+48.008	±.047 106
P ₁₀ R			0.042	
Zolly			0.060	
			0.057	

1864 Nov 4th Ill M
JH9

46 Cephæus	a Cygni	γ Pegasi	δ Aquarii	a Pisc Austr	
0.9	29.6	40.3	12.2	53.7	
13.5	34.9	44.2	16.2	58.2	
22.0	38.7	47.0	18.9	1.1	
34.0	43.9	54.7	22.8	5.4	
44.9	48.6	57.1	26.2	9.1	
115.3	195.6	236.3	96.3	127.5	
				7.5	
20 31 23.06	20 37 39.12	22 40 47.26	22 48 19.26	22 51 11.50	
	36 50.00			51 11.64	

next page

Arg + 2° 4595	Arg + 1° 4676	a Regasi	Arg + 2° 4608	Arg + 2° 4609
34.6	358	45.6	44.7	53.1
38.5	395	49.7	48.4	57.1
41.1	421	52.4	51.1	59.6
44.8	457	56.2	55.0	3.3
48.2	49.0	59.6	58.0	6.6
	211.9	263.5	257.2	179.7
22 55 41.44	22 57 42.38	22 58 52.70 3.19	23 0 57.44	23 0 59.94

1864 Nov 4th All m

FHS

Arg + 1° 4684	Arg + 1 4686	Arg + 1° 4687	Arg + 2° 4684	Arg + 1 4646
7.5	297	124	40	31.2
11.6	335	16.2	80	34.7
13.9	362	18.8	10.6	37.5
17.6	39.9	22.5	14.3	41.2
21.1	431	25.8	17.7	44.5
71.7	182.4	99.7	54.6	189.1
23 2 11.34	23 2 36.48	23 3 19.14	23 5 10.92	23 7 37.82

next page

γ Pscium	β Aquarii	Arg + 2 4663	Arg + 2° 4664	κ Pscium
536	359	7.2	25.6	444
275	400	11.0	29.5	483
0.2	428	13.7	32.0	508
40	468	17.3	35.6	546
7.2	504	20.6	39.0	579
122.5	21 57.9	69.8	161.7	256.0
2.5				
23 11 0.50	23 16 43.18	23 18 13.96	23 18 32.34	23 20 51.20
10 10.87				1.62

1864 Nov 4th Elm

748

♂ Sculptoris

202 Camel	39 Cephei A	c Rucina	Pi 23 192	Arg + 20 47 23
23	27 1.6	442	363	570
30.7	28 6.6	480	406	57.9
57.2	52.5	52.7	43.7	57.6
15.5	29 52.2	54.4	47.9	1.3
43.2	30 47.0	57.6	57.7	4.6
	157.9	254.9	220.2	167.4
23 - 22 54.88	23 28 55.58	23 33 50.98	23 42 44.04	23 43 57.88
		1.46		

01° 51' 54" 8 0.84923

A 54.59 +23.89
 C 55.07 -2.13
 D 54.72 20.78
 E 55.12 48.08

57.91 6.69
 51.04 3.79
 57.00 0.30
 50.92 2.92
 51.03 1.83

next page

Arg +1° 4786	Arg +2° 4725	Arg +1° 4792	Arg +2° 4731	Arg +2 4732
56.1	47.0	53.9	23.6	47.7
59.9	50.8	57.9	27.6	57.6
2.5	53.6	5.3	30.2	54.2
6.3	57.2	4.0	33.8	57.9
9.5	5.4	7.3	37.1	1.1
134.3	209.0	122.4	152.3	212.5

23 45-286 23 45-5380 23 ⁴⁷/₄₆ 0.68 23 49 20.46 23 49 24.50

1864 Nov 4th Ill W
FHS

Arg + 2° 47 34	Arg + 2° 47 39	w Picinn	2 Ceti	a Andromeda	Ar
34.9?	12.7	6.6	32.9		
38.7	16.6	10.6	36.9		
41.3	19.3	13.2	39.7		
46.0	22.9	16.9	43.6	19.7	
48.4	26.3	20.2	47.0	23.3	
208.3	97.8	67.5	200.1		
23 50 41.66	23 52 19.56	23 53 13.50	23 57 40.02	0 2 15.60	
		52 23.89		1 26.28	

41.29?
 .620
 .84
 .61
 .71
 41.66

0.0554

A 15.73 7.57
 B 15.86 3.84

End

+

α Arg + 0°	8	γ Pegasi	12 Ceti
16.8		0.9	529
20.7		5.0	568
23.3		7.6	594
27.0		11.4	3.2
30.3		14.8	6.4
118.1		39.7	178.7
0 3 23.62	5 7 7.94	0 23 59.74	12.00
	6 18.48	10.09	

α Lygini	20 37	+0.31	49.63	49.65	-0.2
α Pic. Austr.	22 50	-0.14	49.72	49.59	+13
(3) α Pegasi	58	+0.10	49.61	49.60	+01
γ Picmini	23 10	+0.04	49.67	49.61	+06
κ —	20	+0.03	49.61	49.62	-01
ι —	32	+0.05	49.57	49.63	-06
ω —	52	+0.05	49.66	49.65	+01
α Antares	0 1	+0.18	49.70	49.66	+04
(2) γ Pegasi	6	+0.09	49.55	49.67	-12
12 Ceti	23	0.00	49.65	49.69	-04
	23 17		49.617		± 0.015 10.6
Rate	Pier		+0.060		-01
"	Tolly		0.068		
			0.064		

1864phae.proj...573

1864phae.proj...573

	126th	plate	char	plate	γ line	r line	β line	α line
1864 Sept. 30	-.11	.00						
Oct. 7	-.13		-13					
10					-02	+02	-11	+01
11			-07					
17	+03	+03	-07		-11			-08
26				+06				
Nov. 1			00	+10				-22
2			-09	-01				
4	-04							
10	00	00						+05
11					00	+03	-12	+11
14	+01	+14			+10	+10	-12	-09
16	+10	+04	-10	+10	+04	+17		+02
19	-01						+07	-04
23	+05	+11	-07	+07				-16
25		-08			~~+04~~	+05		00
29			00		+04			
30	+02	00	-03	+09	+13	00	-02	
Dec 5		+13						
8				+07	-05	+04	+02	-06
9	-21		+11		+01			-05
14				-01	+04			+03
20	-09			+04	+04	00	-07	-13
30	+12	+08	+05					-13
Jan 3						-11		-17
4								
11		+15						
12			+04					-04
16		+11	+02					
18			+16	thin	+03	00		-02

