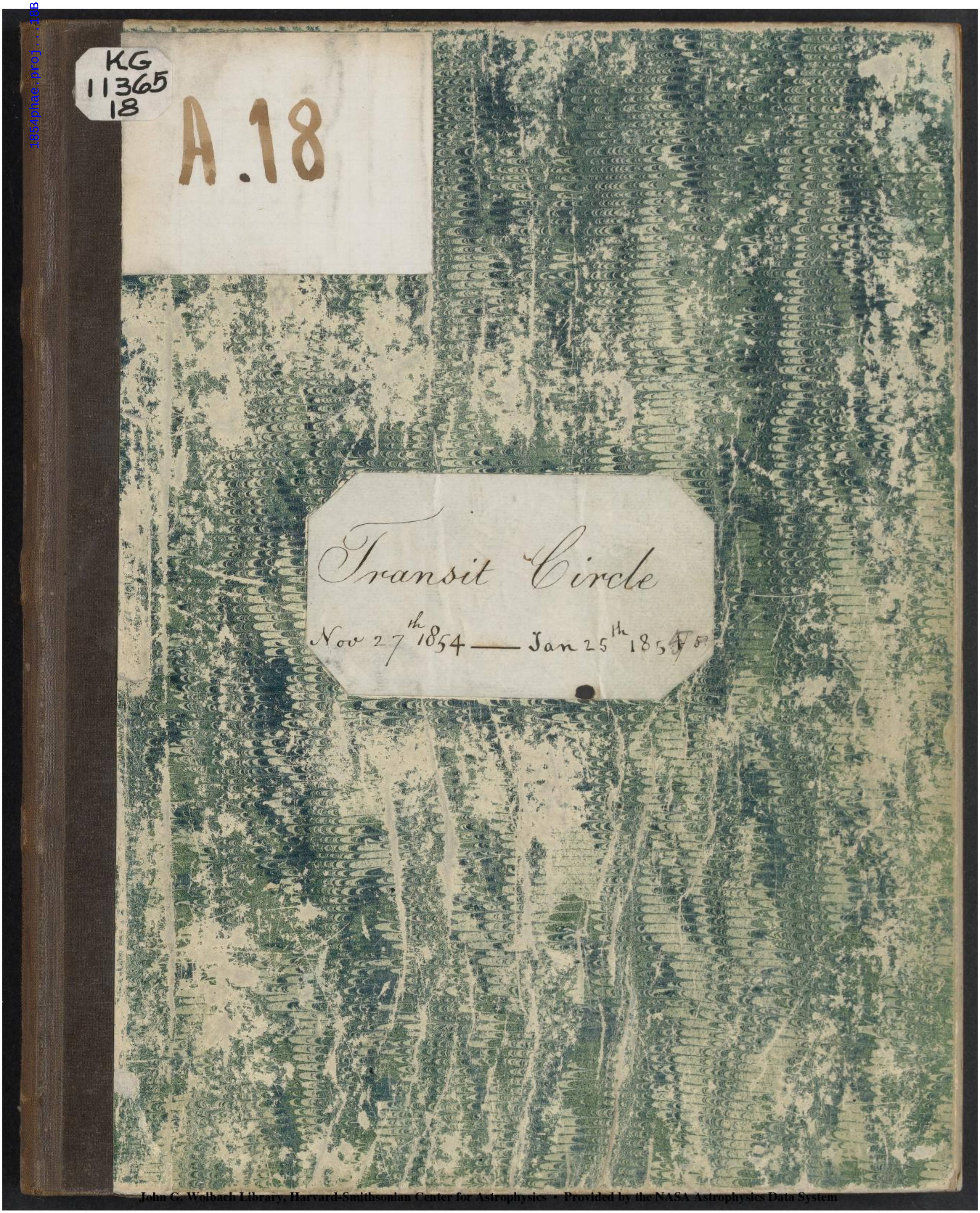
KG
11365
18

A.18



Transit Circle

Nov 27th 1854 — Jan 25th 185~~4~~5

KG 11365,18

Jan. 23. 1855. Polaris has not yet been observed since this book was begun.

KG 11365,18

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Intervals of the transit circle wires from observations of catalogue equatoreal stars. until March 2 1855

Ill.		East.		logarithms		logarithms		logarithms
Mean to	A*	+	41, 15	1, 6143698	A.B + 68, 69	1, 8368935	A.B.C + 82, 40	1,9159272
" "	B		27, 54	1, 4399639	B.C 41, 25	1, 6154240	B.C.D + 41, 28	1,6157397
" "	C		13, 71	1, 1370375	C.D + 13, 74	1, 1379867	CDE + 0, 02	8,3010300
" "	D	+	0, 03	1, 4771213	D.E − 13, 69	1, 1364034	DEF. − 41, 11	1,6139475
" "	E	−	13, 72	1, 1373541	E.F 41, 14	1, 6142643	EFG − 82, 47	1,9162960
" "	F		27, 42	1, 4380675	F G − 68, 75	1, 8372727		
" "	G	−	41, 33	1, 6162654				

	logarithms		logarithms		logarithms
A.B.C.D + 82, 43	1, 9160853	A.B.C.D.E + 68, 71	1, 8371099	A.B.C.D.E.F 41, 29	1, 6158449
B C D E. 27, 56	1, 4402792	B C D E F + 0, 14	9, 1461280	B C D E F G. − 41, 19	1, 6147918
C D E F. − 27, 40	1, 4377506	C D E F G − 68, 73	1, 8371463		
D E F G. 82, 44	1, 9161380				

* The sines of these quantities may be obtained by adding to their logarithms the constant.

5. 861 866

Azimuth of North mark = $\overset{s}{0}.643$ } From Chronometer expedition
" — — " South mark = 2.107 } of 1849 and 1851.

Both meridian marks are west of the meridian of the Transit Instrument

η Aquarii	ζ Pegasi	Moon.
$22^h, 27^m, 14^s,1$	$22^h, 33^m, 47^s,0$	$23^h, 16^m, 46^s,6$
27,8	0,9	1,2
41,5	15,0	15,7
THS 55,1	29,0	30,0
9,0	42,9	44,3
22,0	56,8	58,3
28,36,4	first wire lost.	12,8

206,7
+ 180
386,7 : 7
$22^h, 28^m, 55^s,24$

Spot. lost.	ι Cassiopeæ	B.A.C. 8285
$23^h\ 17^m\ 9^s,3$	$23^h\ 31\ 50,0$	$23^h\ 42^m\ 5^s,4$
" 23,5	32 3,3	1 19,3
" 37 5	" 17,3	33,3
" 52 0	" 31,1	47,5
18 6 2	" 45,0	1,4
" 20 8	" 58,7	15,7
	34 12,6	29,4

27 Piscium		α Andromedæ
23^h 50^m 35^s, 4		0^h 0^m 8^s, 4
49, 2		23, 9
3, 1		39, 7
16, 6	THS	59, 4
lost		11, 1
lost		26, 5
lost		42, 3

(289)

Nov $\frac{27}{28}$ 1854 Ill. east.

	β Leonis		γ Ursæ Majoris
	11^h „ 40^m „ 56^s,7		11^h „ 44 „ 59,8
	41 „ 11, 0		23,1
	„ 25,3		47,1
PSC	„ 39,3	PSC	10,4
	„ 54,0		34,2
	42 „ 7,9		58,0
	„ 22 2		21,9
	216,4		2545
+	60	—	180
	276,4 : 7		74,5 : 7
	11^h, 41^m „ 39^s,49		11^h „ 46^m „ 10^s „ 49

Nov 28th 1854 Ill East (290)

B.A.C 8285	27 Piscium	α Andromedæ
23^{h} 41 4,4	23^{h} 50^{m} 34,3	0^{h} 0^{m} 7^{s},9
18,1	48,0	23,3
32,1	1,8	38,8
45,3	15,5	54,3
0,2	29,3	9,9
14,2	43,0	25,9
28,2	57,1	41,3
142,5	229,0	201,4
+ 180	− 12.0	+ 180
322,5 : 7	109.0 : 7	381,4 : 7
23^{h} 41^{m} 46^{s},07	23^{h} 51^{m} 15^{s},59	0^{h} 0^{m} 54^{s},49

ov 28 cont. 1854 Ill. Last.

	Pegasi		Moons 1st Limb		Spot
	$0^h\ 5^m\ 4^s,7$		lost.		$0^h\ 8^m\ 34^s,9$
	18,5		lost.		48,9
	32,8		lost.		2,8
THS	47,1	T.H.S.	$0^h\ 8^m\ 16^s,4$	T.H.S	17,0
	1,2		$30^s,6$		31,3
	15,3		$44^s,5$		45,6
	29,6		58,8		59,8
	149,2				240,3
+	180			−	120
	329,2 :7				120,3 :7
	$0^h\ 5^m\ 47^s,03$				$0^h\ 9^m\ 17^s,19$

Nov 28, 1854 cont. Illum. East.

Spot	13 Ceti.	δ Piscium
$0^h\ 9^m\ 7^s,3$	$0^h\ 27^m\ 6,9$	$0^h\ 40^m\ 29^s,4$
20,8	20,4	43,0
35,4	34,3	56,9
T.H.S. 49,5	T.H.S. 48,1	T.H.S. 10,8
3,4	1,8	24,8
17,4	15,6	38,2
31,6	29,3	52,2
165,4	156,4	255,3
+ 180	+ 180,	− 180
345,4 : 7	336,4 : 7	75,3 : 7
$0^h\ 10^m\ 49,34$	$0^h\ 27^m\ 48^s,06$	$0^h\ 41^m\ 10^s,76$

Nov $\frac{30}{31}$ 1854 Ill East (293)

-.41
+.05
-.12

Bootis. Decl N = 19°.7'.36".8	Arcturus Decl. N = 19°.56'.31".2	β Ursæ minoris Decl N = 74°.44'.45".4
lost	$14^h\ 8^m\ 19^s.7$	lost
lost	34.2	lost
lost	48.7	lost
lost PSC	PSC 3.3	P.S.C. $14^h\ 51^m\ 8^s.2$ PSC
$13^h\ 48^m\ 2^s.1$	18.2	1.6
16.5	32.7	53.0
31.3	47.4	46.5

204.2
- 180
24.2 : 7
$14^h\ 9^m\ 3^s.47$
-.16
+.05
-.12

14.. 09..3.24
14.. 09..6.93
+ 2.31

For Catalogue stars see pp. 15-16-17-18

Dec 4/5 1854

−.53
−.04
−.09

Stars unsteady and faint

Arcturus.	β Ursae minoris. Decl = 74°. 44′. 44″.3	α Lyrae.
14h 8m 21,9	14h 49m 26s,4	18h 31m 11,3
36,3	18,9	29,0
51,0	P.S.C. 10,5	46,8
PSC 5,4	3,6	P.S.C. 4,1
20,3	55,0	21,9
34,8	48,0	39,1
49,6	1st wire lost.	46,8
219,2	162,4 sec D = 1.6143698 log C.T. = 0.5798691	209.0
− 180	− 156,4 2.1942389	− 180
39,2 : 7	+ 60 : 7	29,0 : 7
14h 9m 5s,60	14. 51. 11,0	18h 32m 4,14
−,21		31 59
−,04		
−.09		
14. 09. 5.26		
14. 09. 0.98		
+ 4,28		
+ 2.31		
4) + 1.97		
+ .49		

11

Dec $\frac{5}{6}$ 1854 Ill. East. (295)

—.55
—.05
—.07

D

Ursae Majoris Decl. N = $50^\circ, 2', 10''.9$	η Bootis	ε Bootis
lost	$13^h\ 47^m\ 6^s,5$	$14^h\ 37^m\ 55,7$
$13^h\ 41^m\ 9^s.4$	20,9	11,1
30.8	35.4	26,7
P.S.C 52.1	P.S.C 49.9	P.S.C 42,2
13.5	4.4	57.7
35.0	18,9	13,1
56.7	33.8	28,8
197.5 Sec. Decl = 0.1922589	169.8	235.3
+ 180 log Eq. I. 1st w. = 1.6143698	+ 180.	+ 60
− 64 07 1.8066287	349.8 : 7	295.3 : 7
$13^h\ 41^m\ 52^s.24$	$13^h\ 47^m\ 49^s.97$	14 38 42,19

Dec $\frac{6}{7}$ Ill. West.

− 53
− 06
− 07

Arcturus Decl. N. 19° 56′ 21″.4

14h 8m 22.3

37.0

51.5

P.S.C. 6.1

20.8

C. B

C. B

137.7 Sec Decl. 0.0268489

E.T 1.8368935

+ 73.07 1.8637424

210.77

− 180

30.77 : 7

$14^h\ 9^m$ 6.13

− .21

− .06

− .07

14h 09m 5.79

1.02

+ 4.77

13

Dec. $\frac{7}{8}$ Ill. West.

Arcturus Decl = 19°, 56′, 21″, 1
cloudy

14^{h} 8^{m} 37^{s}, 4
51, 8
P.S.C. 9, 6, 6
21, 0
35, 8
50, 5

203, 1 Sec Decl = 0.0268350
E.T. = 1.6162654
— 43, 96 1,6431004
' 59, 14
— 1 20
39, 14 :7
14^{h} 8^{m} 06^{s}, 52

December $\frac{8}{9}$ 1854

Stars very faint and unsteady 2-3 mag ino.

Arcturus

14^h 8^m $22^s.8$ -.51

37.6 -.08

52.1 -.06

P.S.C. 6.5

21.4

35.85

50.5

226.75

- 180

46.75 : 7

14^h 9^m 6^s 68

14^h 09^m 6.68

-.34

6.34

1.08

+ 5.26

+ 4.77 .49

+ 4.28 .49

ε Pegasi Dec 9°. 12' 39" N.

21, 36, 26.1

40.2

cloudy 13.72

8.0

cloudy 13.71

cloudy 27.54

cloudy 41.15

log 68,68 = 1.8368303

sec decl = 9.2043040

10.99 1.0411343

December 11, 1854

ζ Cygni

21, 6 2,3

18,3

33,8

49.9

5.6

21,3

37.1

168.3

348.3 : 7

21^h 6^m 49^s 76

21^h 6^m 44 10 AR

+ 5,66

α Cephei

21.13,14.8

11,2

40.3

9.7

38.9

8,1

37.9

187.3

120

67.3 : 7

21^h 15^m 9^s.61

21^h 15^m 4 41 AR

+ 5,20

α Aquarii

21^h 57^m 49^s.2

57.0

58 10.7

" 24.4

" 38.0

" 51.9

59 5.4

2906

1206 7

21^h 58^m 2 4.37

21 58 18 52 AR

+ 5.85

15
1854

Ill. (299) East

Catalogue Stars.

used in red. of Cat. Stars { a = -0.44 / b = 0.00 / c₁ = -0.12

rate + 0.5

Dec. 2 + 10..4 ζ Pegasi	+0..27 ~~1049.~~ 1068	~~1052~~ 1071	~~1057~~ 1077	~~1064~~ (1083)	~~1067~~ (1086)	~~1070.~~ (1090)
22..33..34.0	~~35..21.9~~	37..20.5	45.49.0	51..22.7	57..13.7	23..05..24.8
47.9 3.9	~~35.8~~	34.3 3.8	2.6 3.6	36.2 3.5	27.4 3.7	38.3 3.5
1.9 4.0	21.9	48.1 3.8	16.2 3.6	50.1 3.9	40.9 3.5	52.1 3.8
15.8 3.9	35.8 13.9	1.8 3.7	30.0 3.8	3.9 3.8	54.8 3.9	6.8 3.7
29.8 4.0	49.4 3.6	15.5 3.7	43.9 3.9	17.6 3.7	8.6 3.8	19.7 3.9
43.7 3.9	3.1 3.7	29.2 3.7 4.0	57.5 3.6 3.9	31.0 3.4 4.0	22.1 3.5 4.0	33.2 3.5
34..58.0 4.3	22..36..17.1 4.0	22..38..43.2	22..47..11.4	22..52..45.0	22..58..36.1	23..06..47.1 3.9
231.1	127.3	192.6	210.6	206.5	203.6	221.0
7) 111.1	68.69	7) 12.6		26.5	383.6	41.0
22..34..15.87	58.61	22..38..01.80	22..46..30.09	22..52..03.79	22..57..54.80	23..06..05.86
-.24	5) 178.61	a -.30				
-.12	22..35..35.72	b .00				
22..34..15.51	—	c -.12				
22..34..12.64		δt -2.87				
+ 2.87	- 3.29 sum ~~Clock corr.~~	- 3.29	- 3.29	-3.29	-3.29	-3.29
+ 2.88	~~rate~~	00	-.01	-.01	-.01	-.01
+ 2.85	22..35..32.43	22..37..58.51	22..46..26.79	22..52..00.49	22..57..51.50	23..06..02.56
+ 2.87 Ab. Abb.	-1.89	-1.91	-1.95	-1.98	-2.02	-2.06
at 22h..30m Cor. for Ann. Var.	-3.07	-3.06	-3.06	-3.09	-3.07	-3.07
- 2.87	22..35..27.47	22..37..53.54	22..46..21.78	22..51..55.42	22..57..46.41	23..05..57.43
22..34..12.64	AR. 1853.0					

The Corr. at the foot of each page have been applied ~~ARs. above~~. to the reduced ARs. above, for the results finally adopted.

Final Corr. by Cat. Stars +.07; to be added to above reduced ARs.

(300)

1854

Dec. 2

Ill East

Catalogue stars

(1092) ~~1072~~	(1094) 1074	1099 ~~1079~~	1104 ~~1083~~	(1106) ~~1085~~	(1113) ~~1090~~	(1116) ~~1093.~~
23..9..02.8	18..51.4	21..51.5	27..25.2	34..00.7	41..23.4	44..12.5
..16.8 4.0	4.7 3.3	5.4 3.9	38.8 3.6	13.7 3.0	37.2 3.8	26.8 4.3
30.1 3.3	18.7 4.0	19.2 3.8	52.6 3.8	27.8 4.1	50.8 3.6	39.9 3.1
43.8 3.7	32.4 3.7	32.9 3.7	6.4 3.8	41.4 3.6	4.5 3.7	53.8 3.9
57.7 3.9	46.2 3.8	46.6 3.7	20.1 3.7	55.0 3.6	18.3 3.8	7.6 3.8
11.4 3.7	59.9 3.7	0.6 4.0	33.9 3.8	8.9 3.9	32.0 3.7	21.3 3.7
23..10..25.0 3.6	23..20..13.8 3.9	23..23..14.4 3.8	23..28..47.7 3.8	23..35..23.0 4.1	23..42..46.0 4.0	23..45..35.3 4.0
187.6	227.1	170.6	224.7	170.5	212.2	197.2
307.6		230.6	44.7	290.5	32.2	377.2
23..09..43.94	23..19..32.44	23..22..32.94	23..28..06.39	23..34..41.50	23..42..04.60	23..44..53.89
−3.29	−3.29	−3.29	−3.29	−3.29	−3.29	−3.29
−.01	−.02	−.02	−.02	−.02	−.02	−.02
23..09..40.64	23..19..29.13	23..22..29.63	23..28..03.08	23..34..38.19	23..42..01.29	23..44..50.58
−2.08	−2.14	−2.16	−2.19	−2.23	−2.27	−2.28
−3.07	−3.09	−3.07	−3.07	−3.06	−3.08	−3.07
23..09..35.49	23..19..23.90	23..22..24.40	23..27..57.82	23..34..32.90	23..41..55.94	23..44..45.23

17/1854
Dec 2

(301)

Pll. East

Catalogue Stars

	1117 ~~1094~~		1119 ~~1096~~		1122 ~~1099~~		1		2		+14.22 γ Pegasi		(4)		7 ~~8~~	
E.	23..48..26.8		51..46.0		56..42.4		0..1..23.7				0..05..06.4		8..35.2		11..57.3	
	40.5	3.7	00.2	4.2	56.0	3.6			37.4	3.7	20.4	4.0	48.8	3.6	11.1	3.8
	54.0	3.5	13.8	3.6	57 10.0	4.0			51.0	3.6	34.7	4.3	2.3	3.5	24.8	3.7
	7.9	3.9	26.9	3.1	23.8	3.8			4.7	3.7	49.1	4.4	16.1	3.8	38.7	3.9
	21.7	3.8	41.8	4.9	37.7	3.9			18.6	3.9	3.1	4.0	29.9	3.8	52.3	3.6
	35.5	3.8	55.6	3.8	51.0	3.3			32.0	3.4	17.3	4.2	43.8	3.9	6.0	3.7
		3.6		4.1		3.4				4.2		4.4		3.6		
	23..49..49.1		23..53..9.7		23..58. 4.4		0..02..46.2				0..06..31.7		0..09..57.4		0..13..20.0	4.0
	235.5		194.0		225.3				213.6		162.7		233.5		210.2	
	55.5				165.3				33.6		342.7		113.5		270.2	
	23..49..07.93		23..52..27.~~8~~ .71		23..57..23.61		0..02..04.80				0..05..48.96		0..09..16.21		0..12..38.60	
											−.22					
											−.12					
											0..05..48.62					
											0..05..45.71					
											+0..02.91					
	−3.29		−3.29		−3.29		−3.29				−0.03		−3.29		−3.29	
	−.03		−.03		−.03		−.03				+0..02.88		−.03		−.03	
	23..49..04.61		23..52..24.39		23..57..20.29		0..02..01.48				−2.87		0..09..12.89		0..12..35.28	
Or. Ab. Er.	−2.31		−2.33		−2.36		−2.38				−0.03		−2.42		−2.44	
Cor. Sch. Var.	−3.07		−3.07		−3.07		−3.07				0..05..45.72		−3.07		−3.07	
	23..48..59.23		23..52..18.99		23..57..14.86		0..01..56.03						0..09..07.40		0..12..29.77	

AR. 1853.0

(302)

Ml. East.

Catalogue Stars.

clock running down

Dec 2 (11) ~~12~~		16 ~~17~~	β Ceti. −18..47
23..51.8		0..32..19.0	35..38.0
5.0	3.2	33.2	52.7
19.1	4.1	46.9	7.2
33.2	4.1	0.5	21.5
46.8	3.6	14.7	36.2
0.7	3.9	~~27.5~~ 28.0	50.4
0..25..14.5	3.8	0..33..~~30.7~~ 41.8	0..37..5.2
171.1		~~172.6~~ 183.6	211.2
231.1		3.6	151.2
0..24..39.01		0..33..00.51	0..36..21.60
			−.41
			−.12
			0..36..21.07
			0..36..18.18
			+ 2.89
−3.29		−3.29	−.04
−.04		−.04	+ 2.85
0..24..29.68		0..32..57.18	− 2.87
−2.51		− 2.56	− 0.04
−3.07		−3.07	0..36..18.16
0..24..24.10		0..32..51.55	AR 1853.0

19. Catalogue Stars Illum. West. Dec. 8th /54

~~re-obsd Dec~~		+10.	re-obsd. Dec. 9th	1071	1077
~~1048~~ (1067)		ζ Pegasi	~~1049~~	~~1052~~	~~1067~~
$22^h\,31^m\,57.7$		$33^m\,50^s.6$	——	$37^m\,22^s.9$	$45^m\,50^s.8$
32 11.5		4.2	——	36.6	4.9
" 26.2	Mid. w.	18.0	——	50.4	18.5
" 39.9		32.0	——	4.2	32.1
" 53.4		46.3	$35^m\,52^s.0$	17.9	46.0
33 7.2		0.0	5.2	31.7	59.8
$22^h\,33^m\,21.3$		1st wire lost	19.5	45.5	13.6
217 2		151.1		) 209.2	225.7
27 7.2		41.98		29.2	
22 .. 32 .. 39.60		6) 109.12		22 .. 38 .. 4.17	22 .. 46 .. 32.24
		22 .. 34 .. 18.18		a = −.34	
		−.28		b = −.06	
		−.07		$\frac{c}{2}$ = −.06	
		−.06		δt = −5.11	
−5.57		22 .. 34 .. 17.77	sum	−5.57	−5.57
00		12.57	rate	00	00
22 .. 32 .. 34.03		+ 5.20		22 .. 37 .. 58.60	22 .. 46 .. 26.67
−1.80		+ 5.01	~~Cor for ch. var.~~ Red. M. Ve.	−1.84	−1.89
−3.08		+ 5.11	~~AR 1853.0~~ Cor for ch. var.	−3.06	−3.06
22 .. 32 .. 29.15		+ 5.11		22 .. 37 .. 53.70	22 .. 46 .. 21.72
		at $22\frac{1}{2}^h$			
		−5.11			
		22 .. 34 .. 12.66			

1.61627
0.00674
1.62301
41.98

$a = -.51$
$b = -.08$
$c_2 = -.06$
} used in (304?) red. of cat. stars

rate $+0.25^s$

(1083) ~~1084~~	(1086) ~~1086~~	(1090) ~~1070~~	(1091)	re-obsd. Dec. 9th 1072	(1094)
51^m 24.5	57^m 15.5	23^h 5^m 27.8	7^m 36.7		19^m 6.9
38.6	29.5	40.7	50.6	—	20.8
52.2	43.2	54.3	4.0	— mid. w.	34.3
6.0	57.0	8.0	17.9	—	48.4
19.8	58, 10.8	21.9	31.9	—	2.7
33.4	24.3	35.4	45.8	10^m 14.0	15.9
47.1	58^m 38.1	49.1	59.2	27.2	1st wire ~~lost~~
221.6	218.4	237.2	~~226.1~~		129.0
41.6	398.4	57.2	~~126.1~~		41.33
22..52..05.94	22..57..56.91	23..06..08.17	23..08..18.01		87.17
					6) 207.67
					23..19..34.61

−5.57	−5.57	−5.57	−5.57	−5.57
00	00	−.01	−.01	−.01
22..52..00.37	22..57..51.34	23..06..02.59	23..08..12.43	23..19..29.03
−1.92	−1.95	−2.00	−2.01	−2.07
−3.09	−3.07	−3.07	−3.08	−3.09
22..51..55.36	22..57..46.32	23..05..57.52	23..08..07.34	23..19..23.87

2:1 W. [illegible] O. B. (305) Dec. 8th 1854

23 hours m s (1095)	~~1079~~ 1099		~~1083.~~	(1106) ~~1085~~	(1113) ~~1090~~	
19m, 13.4	21m, 53.6	26m, 54.4	27m, 26.8	34m, 2.3	41m, 25.4	
26.8	7.7	6.1	40.9	16.2	39.2	
40.0	21.8	~~26.~~	54.3	29.4	53.0	
53.8	35.2	~~26.8~~	8.5	43.2	6.6	
7.7	49.0		22.1	57.6	20.5	
21.2	2.9		36.[illegible]	10.9	34.3	
20m, 34.7	16.6		50.0	35m 24.7	48.0	
197.6	186.8		re-obs.	184.3	227.0	
377.6	246.8		Dec. 9th	304.3	47.0	
23.19.53.94	23..22..35.26			23..34..43.47	23..42..06.71	23..
-5.57	-5.57			-5.57	-5.57	
-01	-.01			-.01	-.01	
23..19..48.36	23..22..29.68			23..34..37.89	23..42..01.13	23.
-2.07	-2.09	Ap. Al. &c.		-2.16	-2.21	
-3.07	-3.07	Cor. for Abr. var		-3.08	-3.08	
23..19..43.22	23..22..24.52	Al. 1853.0		23..34..32.65	23..41..55.84	23

rejected

Final Corr. by Cat. Stars +0.10

Dec. 8th 1854 (306)

(1116) ~~1093~~	1117 ~~1094~~	1119 ~~1096~~	1122 ~~1099~~	0 hours 2 ~~(2)~~	+14. γ Pegasi time star	(4)
44m 14.7s	48m 27.7s	51m 48.3s	56m 44.1s	0h ~~58~~ 01m 25.3	5m 8.3s	8m 36.9s
~~26.4~~ 28.4	42.2	3.0s	58.25s	39.4	22.2s	51.0s
42.6	56.3	15.9	11.9	53.1	37.8	4.9
56.0	9.9	29.8	26.25	7.0	50.9	18.2
10.0	23.7	43.0	39.3	20.8	5.1	32.2
~~43.4~~ 23.5	37.0	57.0	53.0	34.5	19.3	45.9
37.0	50.8	11.0	7.2	48.2	33.8	59.4
~~230.1~~	247.6	208.0	240.0	228.3	177.4	248.5
212.2	67.6		180.0	48.3	357.4	128.5
392.2						
23..44..56.03	23..49..09.66	23..52..29.71	23..57..25.71	0..~~59~~ 01..06.90	0..05..51.06	0..09..18.36
					−.26	
					−.07	
					−.06	
					0..05.50.67	
−5.57	−5.57	−5.57	−5.57	−5.57	45.65	−5.57
−.01	−.01	−.01	−.01	−.02	+5.02	−.02
23..44..50.45	23..49..04.08	23..52..24.13	23..57..20.13	0..01..01.31	1	0..09..12.77
−2.23	−2.25	−2.27	−2.30	−2.32	+5.01	−2.37
−3.07	−3.07	−3.07	−3.07	−3.07	−5.11	−3.07
23..44..45.15	23..48..58.76	23..52..18.79	23..57..14.76	0..0[illegible]..55.92	−.02	0..09..07.33
					0..05..45.54	

Dec. 8th 1854

23 ~~4~~ 7 0h hour ~~(8)~~	(11) ~~12~~	16 ~~17~~	(307) −19. β Ceti.	
11m 59.3	23m 53s.7	32m 21s.0	35m 40s.2	
13.4	7.9	34.2	54.8	
27.0	20.8	48.9	9.3	
40.9	35.0	2.5	24.0	
54.8	48.9	16.6	38.3	
8.4	2.8	30.0	52.9	
22.0	16.4	43.9	7.3	
)225.8	185.5	197.1	226.8	
245.8	245.5	17.1	166.8	
0.12.40.83	0.24.35.07	0.33.2.44	0.36.23.83	
			−.47	
			−.04	
			−.06	
			0.36.23.26	
−5.57	−5.57	−5.57	18.13	
−.02	−.02	−.02	+5.13	
0.12.35.24	0.24.29.48	0.32.56.85	−2	
Pr.M.&c. −2.39	−2.46	−2.51	+5.11	Pr. M. &c.
~~0.12.~~ −3.07	−3.07	−3.07	−.5.11	Cor. for An. Var.
0.12.29.78	0.24.23.95	0.32.51.27	−.02	AR 1853.0
			0.36.18.13	

Ill. West (308)

Rate + 0.1 4 7 8

a −0.50 } used in
b −0.08 } red. of 24
c₂ −0.05 } Cat. Stars

Dec 9 (1067) ~~1048~~	+10 ζ Pegasi	1068 ~~1049~~	1071 ~~1052~~	~~1067~~	(1092) ~~1072~~
22..31..56.9		35..38.0	37..22.9	56..53.9	23..09..04.7
12.2	4.2	51.8	36.8	08.2	18.3
26.0	18.2	5.7	50.4	22.7	32.2
39.9	32.2	22..36..19.2	4.3	36.8	46.1
53.7	46.1	first three	17.9	50.9	59.9
7.3	22 35..0.0	wires lost	31.6	5.4	13.6
22..33..20.9			22..38..45.5	22..58..19.3	23..10..27.4
216.9	100.70	114.70	209.4	197.2	202.2
276.9	69.83	82.47	29.4	257.2	322.2
22..32..39.56	30.87	32.23	22..38..04.20	22..57..36.72	23..09..46.03
a −.33	5) 90.87	4) 152.23			
b −.06	22..34..18.17	22..35..38.06			
c −.05	a −.27				
δt₈ − 5.22	b −.07				
sum −5.66	c −.05	−5.66	−5.66	−5.66	−5.66
rate 00	22..34..17.78	00	00	00	00
22..32..33.90	22..34..12.56	22..35..32.40	22..37..58.54	22..57..31.08	23..09..40.37
Pr. eff. &c. −1.79	+5.22	−1.81	−1.83	−1.95	−2.02
Corr. the Var. −3.08	+5.22	−3.07	−3.06		−3.07
22..32..29.03	+5.22	22..35..27.52	22..37..53.65		23..09..35.28
1853.0	at 23h..00m				
	−5.22				
	22..34..12.56				

1.83727
0.00674
1.84401

Find Corr. by Cat. Stars +0.08

25. Decr 9th. Catalogue stars. Ill. (309) West

	(1094) ~~1074~~	1099 ~~1079~~	1104 ~~1083~~.	+5 ι Piscium.
	18..53.4	21..53.9	27..27.3	23..31..52.8
	7.2	8.3	41.0	6.8
	20.9	21.8	54.8	20.6
	34.7	35.2	8.3	34.4
	~~53.3~~ 48.3	49.4	22.7	48.2
	2.1	2.8	36.0	1.9
	23..20..15.9	23..23..16.3	23..28..50.0	23..33..15.7
	182.5	187.7	240.1	180.4
	242.5	247.7	60.1	240.4
	23..19..34.64	23..22..35.39	23..28..08.59	23..32..34.34
error	−5.66	−5.66	−5.66	−.31
rate	00	00	00	−.06
	23..19..28.98	23..22..29.78	23..28..02.93	−.05
M.Ab.&c.	−2.08	−2.09	−2.13	23..32..33.92
Cor. der Var.	−3.09	−3.07	−3.07	23..32..28.70
	23..19..23.81	23..22..24.57	23..27..57.73	+5.22
AR 1853.0				−5.22
				23..32..28.70

AR 1853.0

(312)

Dec 19th 1854 Ill. East

ζ Pegasi	−30° Formalhaut	+14 α Pegasi
$22^h 33^m 37^s.5$	$48^m 56^s.1$	$56^m 55^s.8$
" 51.3	" 12.0	57 10.0
34 " 5.2	" 28.0	" 23.9
W.C.B. " 18.9	P.S.C. " 43.9	P.S.C. " 38.1
33 " 33.1	" 59.8	" 52.3
" 46.8	49^m 15.8	58 06.8
35 1.4	" 31.7	58 " 21.0
194.2	247.3	207.9
134.2 : 7	307.3 : 7	267.9 : 7
$22^h 34^m 19^s.17$	22^h ~~50~~ $49^m 43^s.90$	$22^h 56^m 38^s.27$
~~$22^h 34^m$ 12.41~~	~~22^h 49 36.45~~	~~22^h 56 31.09~~
~~+6.76~~	~~+7.45~~	~~7.18~~
	−.59	−.23
	−.01	−.02
	−.17	−.15
	22..49..43.19	22..5~~7~~..37..~~8~~7
	22..49..36.53	22..5~~7~~ 31..15
	+6.66	+6.72
		+6.66
		+6.69

a −.48
b −.02
c −.15
} used in Red. of Cat. Stars 26

Weight
WCB 2
PSC 1

~~Mean +7.06~~

27

(311)

Dec. 20th 1854 Catalogue Stars Ill. East — (P.S.C. obs.) a −0.48 b −0.01 c −0.14 } used in Red. of Cat. Stars Ill. East

ζ Pegasi +10	α Pis Austr. −30	α Pegasi +14	α Andromedae +28..17	γ Pegasi
22h, 33m, 37s.8	22h, 48m, 56s.0	22h, 56m, 55s.4	0h, 0m, 28s.7	lost
" 51.3	49 11.5	57 9.8	" 43.9	lost
34 5.8	" 28.0	" 23.9	Mid w. 1 0.0	0h, 5m, 52s.6
" 19.3	" 44.0	" 38.1	" 15.9	6, 6.7
" 33.1	" 59.9	" 52.3	" 31.0	" 20.9
" 47.3	50 15.5	58 6.4	" 46.9	34.9
35 1.5	" 31.7	" 20.6	1st wire lost	
196.1	246.6	206.5	16 6.40 ~~15 7.4~~	115.1
136.1 : 7	306.6 : 7	266.5 7	46.73	
22h 34m 19.44	22h, 49m 43s.80	22h, 57m 38s.07	11 9.67 4 9.67	
~~22h 34 12.40~~	~~22h, 49 36.44~~	~~22h 57 31.08~~	0..00..59.95	
+ ~~7.04~~	+ ~~7.36~~	+ ~~7.00~~	−.14	
−.26	−.53	−.23	−.01	
−.01	00	−.01	−.16	
−.14	−.16	−.14	0..00..59.64	
22..34..19.03	22..49..43.11	22..57..37.69	0..00..52.93	
22..34 12.44	22..49..36.52	22..57..31.14	+ 6.71	
+ 6.59	6.59	+ 6.55	+ 6.55	
			+ 6.59	
− 6.61	− 6.61	− 6.61	+ 6.59	
22..34..12.42	22..49..36.50	22..57..31.08	244	
			+ 6.61	
			at 0h..00	
			− 6.61	
			0..00..53.03	

1.61437
0.05521
1.66958

639
449
537
47 2
34) 2082
61

(3/2)

Stars very unsteady and ill defined

Rat o.o

	12 Ceti		No ~~22~~ 2 (21)	No ~~28~~ 27	No ~~32~~ (31)	No ~~34~~ 33
	0h 22m 3s.4		lost	0h 49m 38s.1	0h 55m 47s.0	0h 59m 11s.5
	" 17.1		0h 37m 43	" 51.9	56 0.4	" 23.9
	" 30.9		" 31.9	50 5.7	" 14.0	" 38.6
	" 44.9	m. w. –	" 45.1	" 19.4	" 27.8	" 52.5
	" 58.8		" 59.2	" 32.9	" 41.8	m 6.5
	23 12.2		lost	" 46.8	" 55.2	" 19.9
	" 26.1		lost	51 0.7	57 " 9.1	" 33.5
	193 4		140.50	195.5	195.3	186.4
	313.4 :7		41.21	135.5		366.4
	~~0h " 22m " 44s.77~~		4)181.71			
	0 " 22 " 44.77		0 " 37 " 45.43	0 " 50 " 19.36	0 " 56 " 27.90	0 " 59 " 52.34
		a	-.32			
		b	-.01		See page 35.	
		c	-.14			
			-6.61			
		Summa	-7.08	-7.08	-7.08	-7.08
		rate	00	00	00	00
			0 " 37 " 38.35	0 " 50 " 12.28	0 " 56 " 20.82	0 " 59 " 45.26
Ab. Nt. &c.			-2.42	-2.49	-2.53	-2.55
Cor. for An Var.			-3.07	-3.07	-3.09	-3.07
AR 1853.0			0 " 37 " 32.86	0 " 50 " 06.72	0 " 56 " 15.20	0 " 59 " 39.64

Final Corr by Cat. Stars + 0.10

Dec 12 Ill. West.

α Cygni	β Aquarii	ε Pegasi
$20^h\ 35^m\ 34^s.5$	$21^h\ 23^m\ 18,1$	$21^h\ 36^m\ 25,9$
" 53,8	" 32.1	" 40,2
36 13,2	" 45.8	" 54,0
T.H.S. 32,6	P.S.C. 59.9	P.S.C. 8.0
" 51,8	24 13.4	37 21.9
37 11,2	" 27.2	" 35.7
" 30,7	" 41.0	" 49.7
227,8 7	237.5 180 417.5 : 7	235 4 ~~2~~55.4 : 7
$20^h\ 36^m\ 32^s.54$	$21^h\ 23^m\ 59^s,64$	$21^h\ 37^m\ 7^s,91$

$20,36,27^s,72$	$21^h,23,53,96$	$21^h\ 37^m\ 2^s,59$
$+\ 5^s,42$	$+\ 5^s,68$	5,32
	Mean $+\ 5^s,47$	

Dec $\frac{12}{13}$ 1854. Ill. West.

	Moon's II Limb	c Virginis	γ Virginis
	12^h 4^m $29^s.2$	12^m $22^s.0$	Lost.
	" 43.4	" 36.0	lost.
	" 57.3	" 49.8	34^m $9^s.5$
W.C.B.	5 11.5	13 3.6	23.1
	.. 25.5	. 17.8	36.9
	.. 39.6	.. 31.2	50.8
	.. 53.6	44.8	35^m 4.4
	260.1	205.2	124.7
	80.1 : 7	25.2 : 7	
	12^h 5^m $11^s.344$	12^h 13^m 3.60	

Dec $\frac{13}{14}$ 1854 Sll. West.

Moon's II Limb	Spica
12^h, 50^m $53^s.7$	13^h, 16^m $55^s.8$
51 7.4	17" 9.8
" 21.3	" 23.8
" 35.3	" 37.7
" 49.3	" 51.7
52 3.3	18" 5.6
52^m 17.4	18" 19.4
187 8	203 8
247.8 : 7	263.8 : 7
12" 51^m 35^s.41	13^h.16^m 37^s.69

33.

Dec 14/15 1854 M. W

(317).

12 Canum Venaticorum

β Corvi	γ Virginis	1st Star		α Virginis
$12^h\,26^m\,6^s.5$	$12^h\,33^m\,42^s.2$	$12\,,48^m\,24^s.1$	$12^h\,48^m\,25^s.3$	$13^h\,16^m\,55^s.8$
" 21,4	" 56,1	" 42.0	" 43,2	17 9.9
" 36.2	34 9,9	" 59.9	49 1,0	" 23,8
" 51,2	" 23,3	49 17.7	" 18,8	" 37.8
27^m 6,1	" 37.2	" 35,3	" 36,4	" 51.8
" 21,0	" 51,1	" 52.9	" 54,1	18 5.7
" 35.8	35 4,5	50 10.6	50^m 11,9	18 19.5
178 2	224.3	242.5	190" 7	204 3
358.2 :7	164.37	122,5 :7	130" 7 :7	264,3 7
$12^h\,26^m\,51^s.17$	$12^h\,34^m\,23^s.47$	$12^h\,49^m\,17^s.50$	$12^h\,49^m\,18^s.67$	$13^h\,17^m\,37^s.86$
26				
$26^m\,45^s,04$		$12^h\,49^m$	$12^h\,49^m\,13^s.07$	13, 17, 31,01
+ $6^s,13$			5.60	6.85

Arcturus

$14^h, 8^m$ " $22^s,9$

" 37.7

" 52.2

9 6,9

" 21,6

" 36.0

" 50.7

228 0

48,0 7

$14^h, 9^m$ " $6^s,86$

$14^h, 9^m$ 1^s 20

5 66

Dec 20.th 1854 Catalogue Stars - Ill. East - Stars very unsteady and ill defined

No ~~38~~ (37)	No ~~43~~ 42	No ~~45~~ (44)	No ~~47~~ 46	No 50
1. 7. 34.5	1^h, 14^m, 34^s.7	1^h 24^m.17^s.1	lost	1^h, 40^m, 58^s.6
" 48.3	" 48,3	" 30.67	1^h, 33. 3.7	41 12.2
8 2.2	15 2,2	" 44.8	" 17.2	" 26,0
" 16.0	" 15,9	" 58.0	lost	" 39.9
" 29.4	" 29.6	25 12.0	lost	" 53,9
" 43.0	43 43.0	" 26.0	lost	42 7.8
" 57.0	" 57.2	" 39.3	lost	" 21.3
230.4	230.9	227.9	~~1..33~~.. 20.9	219.7
110.4	110.9	407.9	41 .25	279.7
1..08..15.77	1..15..15.84	1..24..58.27	2) 62.15 1..33..31.07	1..41..39.96

Cont. from Page 28

	-7.08	-7.08	-7.08	-7.08	-7.08
	00	00	00	00	00
	1..08..08.69	1..15..08.76	1..24..51.19	1..33..23.99	1..41..32.88
Pr. abb. Vc.	-2.60	-2.64	-2.69	-2.74	-2.79
Ber. ch. Va.	-3.07	-3.08	-3.08	-3.08	-3.08
	1..08..03.02	1..15..03.04	1..24..45.42	1..33..18.17	1..41..27.01
	AR 1853.0				

Find Corr. by Cat. Stars +0.03

(PSC obs.) therm + 5° ti + 0°.5

β Arietis	No. ~~55~~ 54	No. ~~56~~ 55	No. ~~67~~ (66)	No. ~~70~~ (69)
~~1h, 46m, 0s.9~~	1h, 48m, 39s.6	1h, 53m 37s.3	2h 6m 35s.1	2h, 9m, 55.3
~~" 15.4~~	lost	lost	6m 48s.4	10 9.0
~~" 30.2~~	49m, 07s.0	lost	7 2.4	" 22.8
~~" 45.6~~	lost	54m, 18.3	" 16.1	" 36.2
~~" 59.3~~	" 34s.3	32.4	" 29.5	" 50.2
~~47 13.9~~	lost	46.2	" 43.2	11 3.9
~~" 28.8~~	lost	59.5	" 57.2	" 17.8
~~194.1~~	80.90	193.70	231.9	195.2
~~354.1:7~~	41.14	41.25	111.9	255.2
~~1h, 46m, 44.87~~ ?	122.04	152.45	2..07..15.99	2..10..36.46
	3) 62.04	57) 92.45		
	1..49..20.68	1..54..18.49	~~2..~~	
	-7.08	-7.08	-7.08	-7.08
	oo	oo	oo	oo
	1..49..13.60	1..54..11.41	2..07..08.91	2..10..29.38
	-2.82	-2.84	-2.91	-2.92
	-3.08	-3.08	-3.10	-3.12
	1..49..07.70	1..54..05.49	2..07..02.90	2..10..23.34

37.

(321)...

Dec 20th 1854 Ill. East. Catalogue Stars. Stars very unsteady and ill defined

No ~~55~~ 71	ζ Ceti	No ~~.~~ 76	No. ~~81~~ 79	γ Ceti	
23m. 47.8	2h, 19m 52.3s	23. 18.2 ~~22.8~~	.	2h, 35m 13.0s	
1.4	20, 6.3	" 41.4	26, 51.1	" 27.1	
15.2	" 20.1	lost	27 4.9	" 40.7	
28.9	" 34.0	24, 9.2	" lost	" 54.4	
42.7	" 48.1	" 23.0	mid w. - 32.4	36 8.2	
56.5	21 1.9	" 36.6	46.1	" 21.9	
1.0.2	" 15.9	. 50.8	59.9 13.9	" 35.8	
202.7	178 7	9.20 183.~~40~~	204.30	201 1	
	238.7 :7	13.71	13.71	380.1 :7	
2..14..28.96	2h, 20m 34.10s	175.49	194.59	2h, 35m 54.30	
~~-7.08~~		6) 55.49		~~2 35 47.33~~	
		2..24..09.25	2..27..32.43	+ ~~6.97~~	
				Mean for 20th Dec + 7.053s	
-7.08		-7.08	-7.08		
oo		oo	oo		
2..14..21.88		2..24..02.17	2..27..25.35		
-2.94		-2.99	-3.01		Ap. M. Ra
-3.07		-3.08	-3.08		Cor for Chr. Var.
2..14..15.87		2..23..56.10	2..27..19.26		M 1853.0

Therm +5°. to +0°.5. – P.S.C. obs.

Dec. 21st 1854 – W. C. B obs.

a = -.48
b = -.01
c = -.13
} used in red. of Cat. Stars

-30° 24′ Formalhaut.	+14° α Pegasi	ι Piscium
——	$22^h 56^m 55^s.7$	
$22^h 49^m 11^s.8$	57 9.7	
" 27.9	" 24.0	P.S.C
" 43.9	" 38.1	
" 59.7	5: 52.4	
15.6	58 6.4	
31.8	" 20.7	
190.7	207.0	
47.71	267.0 :7	
142.99	$22^h 57^m 38^s.14$	
6)262.99	-.23	
22.49.43.83	-01	
-53	-13	
ov -15	22.57.37.77	
22.49.43.15	22.57.~~26.57~~ 31.13	
22.49.36.51		
+6.64	+6.64	
-6.64	-6.64	
22.49.36.51	22.57.31.13	

1.61437
0.06423
1.67860

(324)

Catalogue Stars. W. C. B. obs. 21st Dec. 1854 Ill. East   Rate $0^s.0$

	No. ~~22~~ (21)	No. ~~28~~ 27	No. ~~32~~ (31)	No. ~~34~~ 33	No. ~~43~~ (42)	No. ~~45~~ (44)
	$0^h.37^m\,4^s.3$	$0^h.49^m.38^s.3$	$0^h.55.46.9$	$0\ 59\ 11^s.4$	$1^h.14^m.34^s.9$	$1^h.24.17^s.1$
	" 17.9	" 51.9	56 0.7	" ~~38~~ 25.5	" ~~43.6~~ 48.6	" 29.1
	" 31.9	50 5.7	" 14.2	" 39.0	15 2.1	" 45.0
	" 45.4	" 19.3	" 28.0	" 52.2	" 16.0	" 58.3
	" 59.2	" 33.1	" 41.8	$1^h.00^m$ 6.2	" 29.7	25 12.2
	38 12.9	" 46.9	" 55.3	" 20.1	" 43.3	" 26.0
	" 26.8	51 0.8	57 9.2	$1^h.0$ 34.3	" 57.2	" 39.9
	198.4	196.0	196.1 :7	1~~7~~88.7	231.8	227.6
	318.4 .7	136.0 :7		3~~7~~68.7 :7	111.8 :7	407.6 :7
	$0^h.37^m\,45^s.49$	$0^h.50^m\,19^s.43$	$0^h.56^m\,28^s.01$	$0^h.59^m$ ~~54.40~~ 52.67	$1^h.15^m$15.97	$1^h.24^m\,58^s.23$
a	−.32					
b	−.01					
c	−.13					
δt	−6.64					
sum	−7.10	−7.10	−7.10	−7.10	−7.10	−7.10
rate	00	00	00	00	00	00
	0..37..38.39	0..50..12.33	0..56..20.91	0..59..45.57.	1..15..08.87	1..24..51.13
Pr. Al. Ec.	−2.40	−2.42	−2.51	−2.53	−2.62	−2.68
	−3.07	−3.07	−3.09	−3.07	−3.08	−3.08
	0..37..32.92	0..50..06.84	0..56..15.81	0..59..39.97	1..15..03.17	1..24..45.37

Final Corr. by Cat. Stars + 0.03

(325)

Dec $\frac{24}{25}$ 1854 W. C. B. obs Ill. East

α Virginis

$13^h.16^m 57^s.8$
17 11.3
" 25.3
" 39.3
" 53.3
18 7.3
" 21.3

215.6

27 5.6 : 7

$13^h.17^m 39^s.37$

Dec 26th 1854. P. S. C. obs. Ill. East

i Piscium	29 Piscium
$23^h, 31^m, 54^s.7$	$23^h.53, 49^s.0$
32 $8^s.4$	54, 2.6
" 22.0	" 16.3
" 36.0	" 30.0
" 49.8	" 43.9
33 3.4	" 57.5
" 17.5	55 11.4
191 8	210.7
251. 8 : 7	
$23^h, 32^m$ $35^s.97$	$0^h, 54^m.$ $30^s.1$
23. 32 31.4	
+ $4^s.57$	

(326)

25th

33 Piscium	Moons 1st limb	Mountain	θ Piscium
lost	$0^h, 41^m, 48^s.0$	$0^h\ 42^m.\ 10^s.3$	$12^h.\ 0^m,\ 19^s.7$
"	42 2.0	" 24.2	" 33.6
"	" 16.0	" 38.3	" 47.2
"	" 29.9	" 52.3	1^m 1.0
"	" 44.0	43 6.4	" 15.0
$58^m, 29^s.0$	" 58.1	" 20.3	" 28.7
58 $42^s.9$	~~43~~ 12.3	" 34.6	" 42.8
	210.3	186.3	188.0
	$0^h, 42^m, 30^s.04$	366.3	8.0 :7
		$0^h, 42^m. 52^s.33$	$2^h. 0^m, 1^s.14$

(327)

Dec 30 1854 Ill. East. W. C. B obs.

a − 0,46
b + ,01
c − .07 } used in red. of Cat. Stars

α Arietis ×23	α τ Arietis lost.	17 Tauri		η Tauri
58m " 23s.3		3 . 35 . 39.8	3h. 38m. 7s.8	3h. 38m. 15s.7
" 38.3	3h. 12m. 13s.7	" 54.3	" 22.8	" 30.8
" 53.3	" 45.3	36 9.7	" 37.5	" 45.8
59 8.2	" 59.5	" 24.6	" 52.6	39 0.8
" 23.1	13 14.9	" 39.7	39 7.8	" 15.8
" 37.8	" 29.5	" 54.5	" 22.9	" 30.8
" 53.0	" 44.3	37 9.7	" 37.8	" 45.8
237.0	207.2	232.3	189 2	185.5
57.0		172.3.7	369.2	05.5
1.. 59.. 08.14		3h. 36m. 24s.61	3h. 38m. 52s.74	3h. 39m. 0s.79

−.16
+.01
−.07

1.. 59.. 07.92
1. 59.. 00. 00

+7.92

(328).

+16..

BAC		Moon. 1st Limb	ε Tauri	α Tauri
3.39.56.3	3.39.57.3	$4^h.1^m.29^s.8$	$4^h.19^m$ 34.3	4.27.1.8
40 11.2	40 12.2	" 45.0	" 48.6	" 16.3
" 26.0	" 27.2	2 0.1	20 3.4	" 30.6
" 41.1	" 42.1	" 15.2	" 17.6	" 44.9
" 56.1	" 57.2	" 30.1	" 32.4	" 59.1
41 11.2	41 12.2	" 45.1	" 46.7	28 13.3
" 26.0	" 27.2	3 0.6	21 1.0	" 28.0
227.9	235.4	165.9	184.0	194.0
287.9	295.4	105.9	124.0	314.0
$3^h.40^m 41^s.13$	$3^h.40^m.42^s.20$	$4^h.2^m.15^s.13$	$4^h.20^m.17^s.71$	$4^h.27^m.44^s.86$
				−.21
				+.01
				−.07
				4.27.44.59
				4.27.36.57
				+8.02

Dec $\frac{31}{32}$ 1854 W. C. B. obs. J.C. East.

ε Boötis

$14.38^m 0^s.0$
" 15.3
" 30.8
" 46.2
39 1.8
" 17.3
" 32.9

144.3

324.3

$14^h.38^m.46^s.33$

45.

1855 (329)

a −0.46
b +0.01
c −0.05
} used in Red. of Cat. Stars

January 1st 1855. Ill. East. W.C.B observer

γ Pegasi +14"	12 Ceti	No ~~2~~ (21)	~~28~~ 27	~~32~~ (31)
0h. 5m. 11s. 2	0h. 22m. 4s. 7	0h, 37m, 5s. 7	0h 49 39s. 3	0h 55, 48. 1
" 25. 3	" 18. 3	" 19. 2	" 52. 9	56 1. 8
" 39. 4	" 32. 2	" 32. 9	50 6. 8	" 15. 4
" 53. 5	" 45. 8	" 46. 7	" 20. 4	" 29. 1
6 7. 9	" 59. 8	38 0. 3	" 34. 1	" 43. 1
" 21. 9	23m 13. 3	" 14. 0	" 47. 9	" 56. 6
" 36. 4	" 27. 2	" 28. 0	51 2. 0	57 10. 7
19 ~~8~~5. 6	201 3	146 8	203. 4	204. 8
37 ~~8~~5, 6.7	321. 3s. 7	326s. 8	~~143~~ 143. 4s	0h. 56m, 29s. 26
~~0h. 5m. 54s. 09~~ ~~53. 66~~	0h. 22m. 45. 90	0h. 37m. 46. 69	0h. 50m. 20. 49	
0 " 5 " 53. 66		a −.81		
−22		b +.01		
+.01		c −.05		
−.05		δt −8.14		
0 " 05 " 53.40		Sum −8.49	−8.49	−8.49
0 " 05 " 45.30		rate −.01	−.01	−.01
+8.10		0 " 37 " 38.19	0 " 50 " 11.99	0 " 56 " 20.76
+8.16		Ab. &c. +0.78	+0.70	+0.67
+8.13		Cor for An. Var. −6.15	−6.15	−6.17
41		AR 1853.0 0 " 37 " 32.82	0 " 50 " 06.54	0 " 56 " 15.26
+8.14				
at 0h. 00				
−8.14				
0 " 05 " 45.26				

Final Corr. by Cat. Stars +0.10

Rate + 0.2 s

			−8°..56′	
33 ~~34~~	~~38~~ (37)	~~43~~ (42)	θ¹ Ceti 1st w. lost	(44 ~~45~~
0h 59m 12s.9	1h 7m 35s.7	1h 14m 35s.9	1h 16m 26s.7	24. 18.3
" 26.4	" 49.5	" 49.4	40.7	" 31.8
" 39.7	8 3.2	15 3.1	Mid. w. 54.6	" 45.8
" 53.9	" 16.8	" 16.9	8.6	" 59.5
1h 0m 8.0	" 30.8	" 30.8	22.5	25 13.2
" 21.7	" 44.2	" 44.4	36.5	" 26.9
" 36.3	" 58.3	" 58.2		" 40.9
198.9	238.5	238.7	189.6	239.4
378.9	118.5	118.7	41.65	419.4
0h 59m 54.13	1h 8m ~~31.31~~ 16.93	1h 15m ~~16.96~~ 16.96	147.95	1h 24m ~~25~~ 59s.49
			327.95	
			1..16.. ~~54.66~~ 54.66	
			−.36	
−8.49	−8.49	−8.49	00	−8.49
−.01	−.01	−.01	−.05	−.01
0..59..45.63	1..08..08.43	1..15..08.46	1..16..54.25	1..24..50.99
+0.65	+0.60	+0.56	1..16 46.06	+0.58
−6.15	−6.14	−6.16	+8.19	−6.16
0..59..40.13	1..08..02.89	1..15..02.86	−8.15	1..24..45.33
			1..16..46.10	

1.61437
0.00530
1.61967

47

(331)

January 1st 1855 ~~1854~~ Ill. East W. C. B obs.

	46 ~~47~~	50		~~55~~ 54	~~56~~ 55
	1 32m 51s.4	1h 41m 0s.3	~~46m 1s.8~~	1h 48m 54s.0	53m 39s.0
	33 5.0	" 13.9	~~" 16.4~~	49 7.9	" 52.3
	" 18.5	" 27.0	~~" 31.5~~	M.W. " 22.1	54 6.2
	" 32.2	" 41.0	~~" 44.0~~	" 35.8	" 19.8
	" 46.3	" 54.9	~~47 0.6~~	" 49.7	" 33.7
	" 59.6	42 8.7	~~" 15.3~~	50 2.9	" 47.3
	34 13.7	" 22.2	~~" 30.1~~	1st wire lost.	55 1.1
	226.7	168.0	~~139.7~~	172.40	199.4
	1h 33m 32.39	288.0	~~310.7~~	41.15	139.4
		1h 41m 21s.14	~~1h 46m 44s.39~~	131.25	1h 54m 19s.91
				1.. 49.. 21.88	
	−8.49	−8.49		−8.49	−8.49
	−.01	−.01		−.02	−.02
	1.. 33.. 23.89	1.. 41.. 32.64		1.. 49.. 13.37	1.. 54.. 11.40
Dr. Ab. Ec.	+0.46	+0.41		+0.37	+0.34
Cor Ch. Var.	−6.16	−6.15	Cor for Ch. Var.	−6.16	−6.16
	1.. 33.. 18.19	1.. 41.. 26.90	AR 1853.0	1.. 49.. 07.58	1.. 54.. 05.58

61 ~~62~~	(66) ~~67~~	(69) ~~70~~	71 ~~72~~	74 ~~75~~
2h 0m 41s.8	2h 6m 36s.1	9m 56s.7	13m 49s.0	17m 22s.0
" 56.0	" 49.8	10 10.1	14 2.8	" 36.0
1 9.3	7 3.3	" 24.0	" 16.1	" 50.0
" 23.3	" 17.1	" 37.9	" 30.0	18 3.9
" 37.2	" 31.0	" 51.7	" 43.9	" 17.2
" 51.1	" 44.6	11 5.2	" 57.8	" 30.9
2 4.5	" 58.5	" 19.2	15 11.6	" 44.9
223.2	240.4	204.8	211.2	204.9
163.2	120.4	264.8	2h. 14m ~~28.74~~	24.9
2h. 1m 23s.31	2h 7m 17s.20	2h 10m 37.~~77~~ 83	30.17	2h 18m 3s.56
−8.49	−8.49	−8.49	−8.49	−8.49
−.02	−.02	−.02	−.02	−.02
2..01..14.80	2..07..08.69	2..10..29.32	2..14..21.66	2..~~18~~ 17..55.05
+0.30	+0.26	+0.24	+0.22	+0.20
−6.15	−6.18	−6.20	−6.15	−6.17
2..01..08.95	2..07..02.77	2..10..23.36	2..14..15.73	2..17..49.08

49.

(333)

Jan. 1st 1855 Ill. Lash. W. C. B obs. Catalogue Stars +3.31

1st w. long	~~77~~ (76) 1st wire East	~~81~~ 79	~~84~~ 82	α Ceti
23m 44.2				
56.7	2 23m 45s.0	2h 26m 52.9	2 31m 34s.1	2h 54 9s.3
M.W. 10.6~~85~~	" 57.8	27 6.3	" 47.5	" 23.0
24.5	24 11.0 M.W.	" 20.1	32 1.6	" 37.1
38.0	" 24.9	" 33.9	" 15.1	" 50.5
52.0	" 38.7	" 47.6	" 28.9	55 4.8
	" 52.5	28 1.3	" 42.6	" 17.8
		" 15.3	" 56.4	55 31.8
226.90	229.90	177.4	226.2	174.3
41.15	41.15	237.4	106.2	354.3
8) 184.85	8) 188.75	2h. 27m 33s.91	2h. 32m 15s.17	2h. 54m 50.61
6) 64.85	6) 68.75			−.29
2.24.10.~~79~~ 81	2.24.11.46			+.01
Comp. ci (76)				−.05
				2.54.50.28
−8.49	−8.49	sum −8.49	−8.49	2.54.42.12
−.02	−.02	rate −.02	−.02	+8.16
2.24.02.30	2.24.02.95	2.27.25.40	2.32.06.66	−8.14
+0.16	+0.~~12~~ 0.16 Pr. Ab. &c.	+0.14	+0.12	2.54.42.14
−6.15	−6.15 Cor. for An. Var.	−6.16	−6.16	
2.23.56.31	AR. 1853.0	2.27.19.38	2.32.00.62	
	2.23.56.96			

	Moon 1st Limb	βi Geminorum	+28..29 β Tauri
5^{h}. 28^{m}. $23^{s}.3$	5 50^{m} $20^{s}.3$	6^{h}. 5^{m}. 31^{s}. 6	5^{h}. 16. 29.7
" 38.1	" 36.0	" 46 7	" 45.0
" 52.9	" 51.5	6 1. 4	17 0. 8
29. 7.6	51 7.4	" 16.3	" 16.3
" 22.2	" 23.0	" 31.2	" 32.0
" 37.0	" 38.7	" 46.0	" 47.5
" 52.0	" 54.7	7 1.2	18 3.2
233.1	231.6	6 170 4	174 5
53^{s}.1	+51.6	110.4	114.5
5^{h}. 28^{m}. 7.59	5^{h}. 51^{m} 7.37	6^{h}. 6^{m}. 1.5^{s}.77	5^{h}. 17^{m}. 16^{s}.36
			~~R 17. 8.18~~
			~~+ 8^{s}.18~~
			-.13
			+.01
~~-8.49~~	~~-8.49~~	~~-8.49~~	-.05
			5..17..16.19
			5..17..08.20
			+7.99

51

1855 Jan. 7/8
E.C. + 20.
Arcturus

14.. 08.. 25.4
40.1
54.8
W.C.B. 9.3
24.0
38.4
14.09.. 53.0
245.0
180
65.0
14.. 9..09.29
~~9 1.96~~
~~7.33~~
−.20
−.02
+.08
~~14.. 09.. 09.03~~
14.. 09.. 09.15
14.. 09.. 1.98
+ 7.17

(335)
Jan 8th 1855
Illum. −30. West.
α Pegasi + 14.
22h, ~~48~~ 56m " 55s.6
~~49~~ 57 9s.8
" 23.9
T. H. S. " 38.0
" 52.2
58 6.6
" 20.7
206.8
266.8
22h, 49m 38.11
~~R 49m 36.27~~
~~+ 1.84~~
−.23
−.02
+.08
~~22.. 49.. 37.94~~
22.. 57.. 37.94
22.. 57.. 30.91
+ 7.03
~~+ 7.~~
−.03
− 6.95
22.. 57.. 30.98

a −0.48
b −0.02
c +0.08
used in red. of Cat. Stars

~~0h" 37m" 4s.2~~
~~18.0~~
~~31.7~~
~~45.4~~
~~59.1~~
~~13.0~~
~~26.7~~

Clock error at
2h.. 30m
~~+ 6.87~~
+ 6.93

Jan 8th 1855 Catalogue Stars, Wm C. B. Observer Ill. West (336)

Rate $-0^s.2$

	No ~~22~~ (21)	No ~~28~~ 27	No ~~32~~ (31)	No ~~34~~ 33	No ~~38~~ (37)
	$0^h\ 37^m\ 4.2$	$49^m\ 38^s.1$	$0^h\ 55^m\ 46.7$	0 59. 11.2	$1^h\ 7^m\ 34^s.3$
	" 18.0	" 52.0	56^m 0.5	" 25.3	" 48.2
	" 31.7	50 5.6	" 14.1	" 38.9	8 2.0
	" 45.4	" 19.3	" 28.0	" 52.4	" 15.~~9~~8
	" 59.3	" 33.1	" 41.7	1^h 0 6.3	" 29.5
	38 13.0	" 46.8	" 56.3	" 20.1	" 43.2
	" 26.7	51 0.5	57 9.0	" 33.~~9~~8	" 56.9
	198.3	195.4	195.3	188.0	229.9
	~~368.3~~ 318.3	135.4	$0^h\ 56^m\ 27^s.90$	368.0	109.9
	$0^h\ 37^m$ ~~49.24~~ 47	$0^h\ 50^m\ 19.34$		$0^h\ 59^m\ 52^s.57$	$1^h\ 8^m\ 15^s.70$
	45.47				
a	-.32				
b	-.01				
c	+.08				
δt	-6.93				
sum	-7.~~20~~ .18	-7.~~20~~ .18	-7.~~20~~ .18	-7.~~20~~ .18	-7.~~20~~ .18
rate	-.02	-.01	-.01	-.01	-.01
	0..37..38.27	0..50..12.15	0..56..20.~~69~~ .71	0..59..~~45.36~~ 45.34	1..08..08.~~49~~ .51
Or. Abt. &c.	+0.86	+0.78	+0.75	+0.73	+0.68
Cat. Ch. Var.	-6.15	-6.15	-6.15	-6.15	-6.14
	0..37..32.98	0..50..06.78	0..56..15.31	0..59..39.96	1..08..03.05

Æ 1853.0

Final Corr. by Cat. Stars +0.03

(337)

Jan 8 1855. Catalogue Stars Illum. West. W. C. B observer.

	No ~~43~~ (42)	No ~~45~~ (44)	No ~~47~~ 46	No ~~50~~ 49	No 50
	h 14m.34s.6	24m.17.0	32m.49s.7	1h, 35m.45s.9	1h 40m.58s.4
	" 48.3	" 30.9 ~~43.9~~	33 3.7	" 59.9	41 12.5
	15 2.1	" 44.3	" 17.3	" 13.5	" 26.2
	" 15.9	" 58.3	" 31.2	~~[illegible]~~ " 28.0 M.W.	" 39.8
	" 29.5	25 12.1	" 44.9	~~doubtful which wires~~	" 53.6
	" 43.3	" 25.8	" 58.7	~~are lost and whether~~	41 7.3
	" 56.9	" 39.4	34 12.3	~~this is (50).~~	" 21.0
	230.6 ~~220.6~~	227.8 ~~210.8~~	217.8	147.3	218.8
	170.6 ~~109.6~~	" 3c. 407.8 ~~390.8~~ ?	1h.33m 31s.11	82.40	278.8
	1h, 15m, ~~15.66~~ 15.80	λ ~~55.~~		)229.70	1h. 41m 39.83
		1.. 24.. 58.26		4) 109.70	
				1.. 36.. 27.47	
error	−7.18	−7.18	−7.18	−7.18	−7.18
rate	−.01	−.01	−.01	−.01	−.01
	1.. 15.. 08.61	1.. 24.. 51.07	1.. 33.. 23.92	1.. 36.. 20.28	1.. 41.. 32.64
Pr. Ab. &c.	+0.64	+0.58	+0.53	+0.51	+0.48
Cor. An. Var.	−6.16	−6.16	−6.16	−6.14	−6.15
	1.. 15.. 03.09	1.. 24.. 45.49	1.. 33.. 18.29	1.. 36.. 14.65	1.. 41.. 26.97
1855.0 Ap.					

(338)

No ~~56~~ 55	No ~~62~~ 61	No ~~67~~ (66)	No ~~70~~ (69)	No ~~72~~ 71
$1^h.\ 53^m.\ 37^s.2$	$2^h.\ 0^m\ 40^s.9$	$2^h\ 6^m.\ 34^s.9$	$2.\ 9^m.\ 55^s.5$	$2^h\ 13^m.\ 47^s.8$
" 51.2	" 54.8	" 48.5	10 9.1	14 1.4
54 4.5	1 8.4	7 2.2	" 22.8	" 15.1
" 18.5	" 22.1	" 16.0	" 36.7 ~~" 22~~	" 29.0
" 32.2	" 35.9	29.9	" 50.4	" 42.8
" 46.0	" 49.7	43.7	11 4.2	" 56.3
" 59.6	2 3.2	" 57.2	" 17.6	15 10.1
249.2	215.0	232.4	196.3	202.5
129.2	155.0	112.4	256.3	$2^h.\ 14^m\ 28^s.93$
$1^h.\ 54^m.\ 18^s.46$	$2^h.\ 1^m\ 22^s.14$	$2^h.\ 7^m\ 16^s.06$	2„10„ 36.61	
−7.18	−7.18	−7.18	−7.18	−7.18
00	00	00	00	00
1„54„ 11.28	2„01„14.96	2„07„08.88	2„10„29.43	2„14„21.75
+ 0.41	+0.37	+0.33	+0.31	+ 0.29
−6.16	− 6.15	−6.18	−6.20	−6.15
1„54„05.53	2„01„09.18	2„07„03.03	2„10„23.54	2„14„15.89

55

January 8th 1855. Catalogue (339d.) Stars W. C. B. obser. Ill. West.

No ~~75. (76)~~	No ~~75 bis~~ (76)	No ~~83~~ ~~81~~ 79	No ~~84~~ 82	γ Ceti + 8
2h 23m 28s.2	23. 28.9	2h 26 51s.2	2h 31m 32s.6	2 35. 13.1
" 42.1	" 42.5	27 5.1	" 46.4	" 26.8
" 55.8	" 56.3	" 18.8	32 0.1	" 40.5
24 9.6	24 10.0	" 32.7	" 13.9	" 54.2
" 23.1	" 23.5	" 46.5	" 27.9	36 8.2
" 37.0	" 37.5	28 0.3	" 41.6	" 22.0
" 50.87	" 51.0	" 13.8	" 55.2	" 35.6
266.5	249.7	168 4	217.7	390 4
66.5	69.7	228.4	97.7	388.4
2h. 24m 9s.50	2h. 24m ~~19.96~~ 9s.96	2h, 27m 32s.63	2h 32m 13.96	2h, 35m ~~54.34~~ 54.34 ~~47.25~~
Corrit. to (76)				~~7.09~~
				-31
				-12
-7.18	-7.18	-7.18	-7.18	+.08
00	00	00	00	2..36..~~54.97~~ 54.09
2..24..02.32	2..24..02.78	2..27..25.45	2..32..06.78	2..35.. 47.22
Pr. Ab. &c. +0.16	+0.16	+0.14	+0.12	+6.87
Cor. ch. var. -6.15	-6.15	-6.16	-6.16	+7.00
2..23..56.83	2..23..56.79	2..27..19.48	2..32..00.74	+6.93
1853.0				at 2h 30m
				-6.93
				2..35..47.16

January 9/10 1855 Moon culmination Ill. West. P. S. C. Observer.

Moon's II Limb	δ Virginis	Spica −10	δ Ophiuchi −3	Antares
13h. 31m. 57.8	47m. 43.2	13h. 16m. 58.0	16h. 6m 9.1	16h. 19m. 50s.4
32 11.8	" 57.1	17. 12.0	" 23.0	20 6.0
" 25.6	48 10.9	" 25.9	" 36.8	" 21.3
" 39 6	" 24.4	" 39 6	" 50.4	" 3[illegible]. 2.
" 53.5	" 38.3	" 53.6	7 4.2	" 51.9
33 7.5	" 52.1	18 7.8	" 18.0	20 7 1
" 21.5	49 5.9	" 21.5	" 31.7	" 22.3
217.3	230.9	218.4	173.2	195 2
277.3	170.9	278.4	353.2	256.2
12h, 32m 39s.61	12h. 47m 24s.41	13h. 17m 39s.77	16h. 6m 50s.46	16h. 36.6

−,38 R 16h. 6m. 43.40

−,02

+.08

13..17..39.45

13..17..32.72

+6,73

7.06

−,34

−,02

+.08

16..06..50.18

16..06..43.34

+6.84

+6.73

+6.78

?

a = −.48

b = −,03

c = +08

57

January 12 1855 Ill. West (341) W. C. B observer.

α Cassiopeæ	β Ceti
0^h 31 9.2	0^h, 34^m 12.8
" 33.8	" 27.5
" 58.5	" 51.6
32 23.0	35. 16.3
" 47.2	" 40.8
33 11.7	36 5.0
" 36.0	" 29.3
219.4	173 3
159.4 :7	113.3.7
0^h, 32^m 22.77	0^h 35^m 16.19
R 32^m 16.59	
+ 6.18	

January 22d 1855. Catalogue (342) Stars & clock stars. Ill. West
+ 23.. W. C. B. observer.

				(84)	
θ' ~~Ceti~~	α Arietis		No ~~85~~ 83	No ~~88~~	No ~~91~~ 89
~~lost~~	1h. 58m. 23s.7		2h, 39m, 27s.3	41m, 37s.9	51m, 34s.7
~~lost~~	" 38.7		" 41.4	" 52.0	" 38.7
~~lost~~	" 53.7		" 55.0	42 6.0	" 52.3
W.C.B ~~lost~~	59 8.8		40 8.8	" 19.3	52 6.2
~~1h. 58m 29s.3.~~	" 23.3		" 22.9	" 33.0	. 19.9
~~38.7~~	" 38.2		" 36.3	" 46.8	" 33.6
~~53.7~~	" 53.2		" 50.1	43 0.4	" 48.2
	239.6		241.8	~~295~~ 195.4	223.6
	59.6		61.8	~~+65.4~~ 125+4	43.6
	1h 59m. 8s.51		2h. 40m 8.83	2h. 42m, 19.34	2h.. 52m.. ~~6.37~~ 6.23
	~~ℛ 1h. 58m. 59s.76~~	a	-.33		
	+ ~~8s.75~~	b	-.13		
	-.17	c	+.09		
	-.18		- 8.63		
	+.09	~~sum~~	-9.00	-9.00	-9.00
	1.. 59.. 08.25	rate	00	00	-.01
-.49 = a } used in	1.. 58.. 59.73	2.. 39..	59.43	2.. 42.. 10.34	2.. 51.. 57.22
-.18 = b } red. of	W.C.B. + 8.52	Pr. M. Ec.	+0.30	+0.29	+0.24
+.09 = c } Cat. Stars	+ 8.65	Cor. for An. Var.	-6.15	-6.15	-6.17
	O.S.C. + 8.67	2.. 39.. 53.98		2.. 42.. 04.48	2.. 51.. 51.29
Rate = + 0.15	+ 8.77	ℛ 1853.0			

S.M.S. + 8.52
3 ; 3
+ 8.63
at 2h.. 00
- 8.63
1.. 58.. 59.62

Final Cor. by Cat. Stars for W.C.B. 0.0

57.

January 22d 1855 (343). Catalogue stars. Ill. West

W. C. B. observ.

	No ~~94~~ 92	No ~~98~~ 96	No ~~109~~ (100)	No ~~108~~ 105	~~No 110~~ ~~9~~ 111
2h	55m 9s.1	2h 59. 38.9	3h. 6m. 2s.3	9m. 10s.1	3..13m. 13s.1
	" 23.2	" 52.8	" 16.8	" 24.0	26.9
	" 37.0	3h 0m 6.1	" 30.5	" 37.8	40.5
	" 50.8	" 20.1	" 44.3	" 51.6	54.3
	56 4.7	" 34.0	" 58.0	10 5.3	—
	" 18.4	" 47.3	7 11.8	" 19.2	—
	" 31.8	1m 1.2	" 25.4	" 32.7	—
	175 0	200 4	189.1	1~~8~~9 0.7	134.80
	355.0	140.4	309.1	3~~9~~6 0.7	~~88.69~~ (82.40)
	2h. 55m. 50s.71	3h. 0m. 20.06	3h. 6m. 44.16	3h 9 51.53	~~203.47~~ ~~216.20~~ 4) 217.20 3..13..54.30
	−9.00	−9.00	−9.00	−9.00	−9.00
	−.01	−.01	−.01	−.01	−.01
	2..55..41.70	3..00..11.05	3..06..35.15	3..09..42.52	3..13..45.29
Or. M. &c.	+0.21	+0.19	+0.15	+0.13	+0.11
Cor. for An. Var.	−6.17	−6.17	−6.15	−6.14	−6.14
	2..55..35.74	3..00..05.07	3..06..29.15	3..09..36.47	3..13..39.26

AR. 1853.0

3h. January 22d Catalogue 344 Stars Cont. Ill. West 3h.

W. C B obs.

No ~~15~~ (113)	No ~~118~~ 115	No ~~122~~ 119	No ~~123~~ 120	No ~~128~~ 123
3h. 15m. 36.7	26m. 22.0	3h 30m 58.8	3h. 37m. 44.9	43. 10.3
" 50.6	" 36.1	31 52.7	" 59.2	" 24.2
16 4.2	" 49.8	" 26.3	38 12.8	" 38.0
" 18.0	27. 3.7	" 40.6	" 26.4	" 51.7
" 31.6	" 17.6	" 53.9	" 40.2	44 5.7
" 46.2	" 31.1	32. 7.7	" 54.0	" 19.3
" 59.1	" 44.8	" 21.3	39 7.5	" 33.1
245.4	205.1	221.3	245.0	182.3
125.4	25.1	281.3	185.0	362.3
16m. 17.91	3h. 27m. 3.~~39~~ 59	3h. 31m. 40.19	3h. 38m. 26.43	3h. 43m. 51.76
-9.00	-9.00	-9.00	-9.00	-9.00
-.01	-.01	-.01	-.01	-.01
3..16..08.90	3..~~27~~ 26..54.58	3..31..31.18	3..38..17.42	3..43..42.95
+0.10	+0.04	+ 0.01 ~~0.00~~	- 0.02	-0.06
-6.16	-6.17	-6.15	-6.15	-6.15
3..16..02.84	3..26..48.45	3..31..25.04	3..38..11.25	3..43..36.55

January 22 1855 (345) Catalogue Stars cont'd Ill. West
W. C. B observer

	No ~~126~~ (125)	No ~~128~~ ~~129~~ 126	No ~~134~~ 131	No ~~135~~ (132)	No ~~137~~ (134)
	3h 46m 21s.8	3h 50m 20s.0	4h 0m 42.2	4h 4m 9s.9	4h 8m 30s.2
	" 35.3	" 33.8	" 56.1	" 24.0	M.W. " 43.9
	" 49.3	" 47.3	1m 9.8	" 37.2	" 57.7
	47 3.0	51 1.2	" 23.7	" 51.5	9 11.6
	" 16.9	" 15.0	" 37.8	5m 6.0	" 25.1
	" 30.5	" 28.8	" 51.0	" 18.7	2 first wires lost
	" 44.0	" 42.5	2 4.8	" 32.6	
	200.8	188 6	225 4	17~~8~~8.9	168.50
	2~~7~~0.8	.8.6	165.4	35~~8~~.9	68.75
	3h 47m ~~3.26~~	3h 51m 1s.23	4h 1m 23s.63	4h 4m ~~51.27~~	~~37.25~~
	.2.97			51.27	99.75
					219.75
					4 08 48.95
sum	-9.00	-9.00	-9.00	-9.00	-9.00
rate	-.01	-.01	-.01	-.01	-.01
	3 46 53.96	3 50 52.22	4 01 14.62	4 04 42.26	4 08 34.94
Cor. Ab. &c.	-0.06	-0.08	-0.14	-0.15	-0.17
Cor. for An. Va.	-6.17	-6.18	-6.16	-6.16	-6.15
	3 46 47.73	3 50 45.96	4 01 08.32	4 04 35.95	4 08 28.62

AR 1853.0

(346)

January 22 1855 Catalogue stars cont. Ill. west

W.C.B obs. P.S.C obs. 4^h

No ~~140~~ 139	No [illegible]	No ~~47~~ 146	No ~~156~~ 159	No (162)
4^h 13^m $3^s.7$	lost.	4^h 24 24.2	first wire lost 33 9.3	36. 43.7
" 17.8	lost.	" 38.2	" 23.7	" lost 57.5
" 31.5	lost	" 52.0	M.W. , 37.6	M.W. " 25.2
W.C.B. 45.2	P.S.C lost 27 23.7	25 5.6	, 51.1	" 38.7
" 58.9	37.3	" 19.3	34 4.9	. 52.7
14. 12.5	51.0	" 33.0	34 18.8	38 6.3
" 26.6		26 46.8	~~which wire lost~~	"
198.2		219.1	145.4	224.1
316.2		39.1	41.33	13.72
4^h. 13^m 45.17		4^h. 25^m 5.59	104.07	210.38
			6) 224.07	6) 150.38
			4..33..37.35	4..37..25.06
−9.00		−9.00	−9.00	−9.00
−.01		−.02	−.02	−.02
4..13..36.16		4..24..56.57	4..33..28.33	4..87..16.04
−0.20		−0.25	−0.29	−0.31
−6.18		−6.17	−6.17	−6.15
4..13..29.78		4..24..50.15	4..33..21.87	4..87..09.58

Found Cor. By Cat. Stars for P.S.C.

+ 0.02

63

January 22d Catalogue Stars (347) Ile West.

4 hours P. S. C. observed.

	No 169	No (173)	No 176	No 182	No (186)
	4h 40m 7s.1	42m 44s.5	46m 52s.1	50m 20s.0	53m 50s.9
	" 21.0	" 58.6	47 6.0	" 33.9	54 4s.8
	" 34.5	43 12.0	" 19.8	" 47.6	" 18s.3
	" 48.3	" 26.0	" 33.3	51 1.3	" 32s.2
	41 2.2	" 39.4	" 47.1	" 15.1	" 45.9
	" 15.5	" 53.2	48 1.0	" 28.8	" 59.8
	" 29.4	44 7.0	" 14.5	" 42.3	55 13.4
	158 0	240 7	173.8	189.0	225.3
	33 8	180 7	233.8	.9	5
	4h 40m 48s.29	4h 43m 25s 81	4h 47m 33s.40	4h 51m 1s.29	4h 54m 32s.19
sum	−9.00	−9.00	−9.00	−9.00	−9.00
rate	−.01	−.01	−.01	−.01	−.01
	4.40.39.28	4.43.16.80	4.47.22.39	4.50.52.28	4.54.23.18
Or. M. I. C.	−0.32	−0.34	−0.35	−0.36	−0.38
Cor fr. Ab. Var.	−6.16	−6.14	−6.15	−6.15	−6.16
	4.40.32.80	4.43.10.28	4.47.17.89	4.50.45.77	4.54.16.64
AR 1883.0					

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January 22d. Catalogue Stars cont. Ill. West
4 hours P. S. C. observer. −8° ~~+8~~.

No 189	No 193	No (196)	β Orionis	No 203
$57^m.22^s.7$	5^h $0^m.25^s.5$	5^h $3^m.44.8$	5^h $7^m.2^s.1$	$5^h.10^m.23^s.4$
" 36.8	" 39.32	" 58.8	" 16.1	" 37.2
" 50.4	" 52.9	4. 12.3	" 29.9	" 50.9
58 4.0	1 6.8	" 26.2	" 43.8	11. 4.8
" 17.8	" 20.5	" 40.0	" 57.7	" 18.3
" 31.4	" 34.1	" 53.7	8 11.6	" 32.1
" 45.2	" 47.9	5 7.3	" 25.5	" 45.9
208.3	226.9	243.1	186.7	212.6
28.3	46.9	183.1	306.7	32.6
$4^h.58^m4.04$	5^h.. 01^m.. 6.70	5^h. 4^m 26.16	5^h 7^m..43.~~96~~	$5^h.11^m$ 4.66
			.81	
			−.38	
			−.12	
			+.09	
			5..07..43.40	
−9.00	−9.00	−9.00	5..07..34.73	−9.00
−.01	−.01	−.01	+8.67	−.01
4..57..55.03	5..00..57.69	5..04..17.15	−8.63	5..10..55.65
−0.39	−0.40	−0.42	−.01	−0.44
−6.19	−6.18	−6.18	5..07.. ~~35.16~~	−6.18
4..57..48.45	5..00..51.11	5..04..10.55	34.76	5..10..49.03

65 (349

January 22d Catalogue Stars cont. Ill. west.
5 hours P. S. C. observer. 0° −1°

	No 207	No 208	δ Orionis	ε Orionis	No ~~218~~ 219
	$5^{h}\ 15^{m}\ 5^{s}.0$	$5^{h}\ 17^{m}\ 48^{s}.1$	$5^{h}\ 24^{m}\ 4^{s}.3$	$5^{h}\ 28^{m}\ 19^{s}.9$	$5^{h}\ 31^{m}\ 38.0$
	" 18.8	18. 2.0	" 18.3	" 33.8	" 51.9
	" 32.4	" 15.8	" 31.8	" 47.3	32 5.7
	" 46.2	" 29.5	" 45.7	29 1.0	" 19.4
	16 0.1	" 43.3	" 59.2	" 14.9	lost
	" 13.6	" 57.0	25 13.0	" 28.7	" 46.9
	" 27.3	19 10.7	26.8	" 42.2	33 0.6
	143.4	206.4	199.1	187.8	162.50
	323.4	$5^{h}\ 18^{m}\ 29^{s}.49$	359.1	7.8	~~102.5~~
	$5^{h}\ 15^{m}\ 46^{s}.20$		$5^{h}\ 24^{m}\ 45^{s}.59$	$5^{h}\ 29^{m}\ 1.10$	13.71
			−.33	−.34	176.21
			−.13	−.13	6)116.21
			+.09	+.09	5.32.19.37
			5.24.45.22	5.29.00.72	
corr	−9.00	−9.00	5.24.36.53	5.28.51.93	−9.00
rate	−.02	−.02	~~8.69~~	+8.79	−.02
	5.16.37.18	5.18.20.47	+8.69		5.32.10.35
Ab. Af. &c.	−0.46	−0.47	−8.63	−8.63	−0.53
Cor. for An. Var.	−6.18	−6.16	−.02	−.02	−6.16
	5.15.30.54	5.18.13.84	5.24.36.57	5.28.52.07	5.32.03.64

AR 1853.0

January 22d Catalogue Stars. cont. Ill. West.

5 hours P. S. C. observer.

No 223 ~~222~~	No 226 ~~227~~	No 232 (?)	No 236	No 244
5^h $35^m.26''.8$	5^h $40^m.46''.5$	5^h ~~lost~~	5^h $50^m.50''.7$	
" 40.9	41 . 0.3	$46^m.57.3$	51 . 4.5	
lost	" 13.9	47 11.1	" 18.1	
36 8.2	" 27.7	" 24.8	" 32.0	
lost	" 41.3	" 38.8	" 45.6	
" 35.8	" 55.1	~~47~~ " 52.1	" 59.4	
" ~~35~~ 49.2	42 8.8	48 6.0	52 13.0	
160.9	193.6	190.10	223.3	
.01	5^h 41^m 27.66	41.33	5^h 51^m 31.90	
160.89		6) 148.77		
5) 40.89				
5 .. 36 .. 08.18		5 .. 47 .. 24.80		
−9.00	−9.00	−9.00	−9.00	
−.02	−.02	−.02	−.02	
5 .. 35 .. 59.16	5 .. 41 .. 18.64	5 .. 47 .. 15.78	5 .. 51 .. 22.88	
−0.54	−0.55	−0.57	−0.58	
−6.15	−6.17	−6.17	−6.18	
5 .. 35 .. 52.47	5 .. 41 .. 11.92	5 .. 47 .. 09.04	5 .. 51 .. 16.12	

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January 22d 1855 Catalogue Stars Ill. West.

6 hours

	P. S. C obs		T. H. S.	
~~No 244~~	No 250	No ~~260~~ 259	No ~~280~~ 279	No 287
6h. 8m. 20s.0	6h 17m. 51s.3	6 22m. 22s.1	6 36m. 37s.0	6h. 40m 13.5
" 34.0	18 5.1	" 35.8	" 51.0	" ~~37.5~~ 27.5
" 47.7	" 18.8	" 49.7	37 4.4	" 41.0
9. 1.2	" 32.5	23. 3.3	" 18.3	" 54.8
" 15.0	" 46.3	" 17.1	" 31.1	41 8.6
" 29.0	19. 0.2	" 30.9	" 45.9	" 22.2
" 42.4	" 13.9	" 44.4	" 59.4	" 36.0
1893	1581	2033	2471	~~213.6~~ 203.6
49.3	238.1	33.3	127.1	~~393.6~~ 383.6
6h. 9m 1.33	6h. 18m 32.59	6h. 23m 3.33	6h, 37m 18.16	6h.40m ~~56.25~~ 54.60
(not in the Catalogue obsd. Ill. East)				
sum −9.00	−9.00	−9.00	−9.00	−9.00
rate −.03	−.03	−.03	−.03	−.03
6..08..52.30	6..18..23.56	6..22..54.30	6..37..09.13	6..40..45.77
Or. M.&c. −0.64	−0.67	−0.68	−0.71	−0.72
Corfect. Var. −6.15	−6.18	−6.15	−6.18	−6.16
6..08..45.51	6..18..16.71	6..22..47.47	6..37..02.24	6..40..38.89
AR 1855.0				

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January 22d Catalogue Stars cont. Ill. West
6 hours Tr H. S. observer.

No 295	No 306	No 311	No 326	No 328
6 47m 27s.0	52 16s.0	55 25s.0	7h 0m 53s.9	7 4. 34.0
" 41.1	" 29.9	" 38.9	1 7.9	" 48.0
" 54.9	" 43.9	" 52.6	" 21.6	5 1.7
48 8.7	" 57.3	56 6.4	" 35.3	" 15.1
" 22.3	53 11.3	" 20.1	" 49.1	" 29.0
" 36.0	" 25.2	" 33.8	2 2.6	" 42.7
" 49.8	53 38.7	" 47.7	" 16.5	" 56.5
299 8	~~422.6~~ 222.3	224 5	18 ~~7.9~~ 6.9	227.0
59.8	~~405.6~~ 402.3	44.5	24 6.9	107.0
6h. 48m. 8s.54	~~57~~	6.. 56.. 6.~~64~~ .36	7.. 1.. ~~35.33~~ 35.27	7.. 5.. 15.29
	6.. 52.. 57.47			
−9.00	−9.00	−9.00	−9.00	−9.00
−.03	−.03	−.03	−.03	−.03
6.. 47.. 59.51	6.. 52.. 48.44	6.. 55.. 57.33	7.. 01.. 26.24	7.. 05.. 06.26
−0.74	−0.75	−0.75	−0.76	−0.77
−6.17	−6.16	−6.17	−6.15	−6.18
6.. 47.. 52.60	6.. 52.. 41.53	6.. 55.. 50.41	7.. 01.. 19.83	7.. 04.. 59.86

for F. H. S.

Final Corr. by Cat: Stars +0.10

(353)

January 22d 1855 Catalogue Stars cont. Ill West
T. H. S. observer

7 hours

	No. 335	No 342	No 352	No 360	No. 363
	7m 20s.9	7 10,37.6	7 14,34.2	7 19m 2s.2	7 22m 59s.1
	" 34.7	" 51 5	" 48.2	" 16.1	23 13 3
	" 48.2	11 5.1	15 1.7	" 30.0	" 26.9
	8 2.0	" 18.8	" 15.3	" 43.7	" 40.8
	" 15.6	" 32.5	" 29.0	" 57.5	" 54.3
	" 29.6	" 46.1	" 43.0	20 11.0	24 8.0
	" 43.2	12 0.0	" 56.8	" 24.8	" 21.8
	194.2	191.6	228.2	185.3	2241
	14.2	131.6	128.2	305.9	284.1
	7..8.. ~~1.74~~ 2.03	7..11..18.80	7..15.. ~~6.89~~ 15.46	7..19..43.61	7..23..40.54 2
sum	−9.00	−9.00	−9.00	−9.00	−9.00
rate	−.03	−.03	−.03	−.03	−.03
	7..07..53.00	7..11..09.77	7..15..06.43	7..19..34.58	7..23..31.56
Pr. M. &c.	−0.77	−0.77	−0.78	−0.78	−0.78
Cor. for chr. Var.	−6.18	−6.17	−6.14	−6.16	−6.16
	7..07..46.05	7..11..02.83	7..14..59.51	7..19..27.64	7..23..24.62
AR 1853.0					

(354)

January 22d Catalogue Stars cont. Ill. West
7 hours T. H. S. Observer.

No 364		~~No 370~~ 371	No (376)	No (379)
7h ~~22~~ 23m 11s.6	7 25 . 15 . 3	7 26m 53s.2	7 . 30m 31s.0	lost
" 25.5	" 29.3	27 7.1	" 45s.0	lost.
" 39.2	" 42.9	" 20.8	" 58s.8	7. 35m 34s.5
" 53 1	" 56.7	" 34.8	31 12.3	" 48.2
24 6 8	26 10.5	" 48.3	" 26.0	36 2.1
" 20.4	" 24.1	28 2.2	" 39.8	" 15.8
" 33.9	" 38.0	" 15.8	" 53.4	" 29.5
190.5	216.8	182.2	266.3	130.10
370.5	396.8	242.2	46.3	68.75
7.. 23.. 52.93	7.. 25.. 56.69	7.. 27.. 34.60	7.. 31.. ~~11.47~~	61.35
			12.33	5) 241.35
				7.35.. 48.27
-9.00		-9.00	-9.00	-9.00
-.03		-.03	-.03	-.03
7.. 23.. 43.90		7.. 27.. 25.57	7.. 31.. 03.30	7.. 85.. 39.24
-0.78		-0.79	-0.79	-0.79
-6.16		-6.16	-6.18	-6.17
7.. 23.. 36.96		7.. 27.. 18.62	7.. 30.. 56.33	7.. 35.. 32.28

7'

(355)

January 22. 1855 Catalogue Stars cont. Ill. West

T. H. S. observer.

7 hours

	No (382)	~~No 389~~	No ~~397~~ 395	No ~~401~~ 399	No 407
	7. 39.4.8	7. 45.34.2	48m.32s.5	7 51.28.0	7h 59m.1s.9
	" 18.5	" 48.1	" 46.8	" 41.8	" 15.4
	" 32.3	46 1.7	49 0.0	" 55.7	" 29.1
	" 45.7	" 15.0	" 14.1	52 9.3	" 42.9
	" 59.6	" 29.0	" 28.1	" 23.1	" " 56.7
	40 13.2	" 43.2	" 41.8	" 36.9	8h 0m 10.0
	" 27.0	" 56.3	" 55.3	" 50.4	" 23.9
	201.8	227 5.	218.6	245.2 ~~250.3~~	179.9
	~~7.. 39.. 28.79~~	107.5	398.6	65.2 ~~70.3~~	299.9
	321.1	7.. 46.. 15.36	7.. 49.. 14.09	~~7.. 52.. 10.~~	7.. 59.. 42.84
	7.. 39.. 45.87			7.. 52.. 09.31	
		(Not in Cat. Star ~~[illegible]~~ Obsd. Ill. East)			
sum	− 9.00	− 9.00	− 9.00	− 9.00	− 9.00
rate	−.04	−.04	−.04	−.04	−.04
	7.. 39.. 36.83	7.. 46.. 06.32	7.. 49.. 05.05	7.. 52.. 00.27	7.. 59.. 33.80
Pr. N. &c.	− 0.79	− 0.80	− 0.80	− 0.80	− 0.80
Cor. for An. Var.	− 6.16	− 6.15	− 6.16	− 6.16	− 6.16
	7.. 39.. 29.88	7.. 45.. 59.37	7.. 48.. 58.09	7.. 51.. 53.31	7.. 59.. 26.84
	AR 1853.0				

January 22 1855 (356) Catalogue Stars cont. Ill. West
8 hours T. H. S. observ.

-23 .. 53 5 Argus	No. ~~417~~ 416	No. 423
—	8h. 5m. 53.8	17. 49s.8
—	6. 7 8	18. 3. 3
8h. 1m. 17s.2	" 21.3	" 17.0
" 32.2	" 35.0	" 30.7
" ~~37.0~~ 47.0	" 48.8	" 44.2
2 . 2.1	7 2.7	" 58.0
17.3	" 16.3	19 11.8
115.80	185.7	214.8
75.19	245.7	
~~68.25~~		
40.61		
~~47.05~~	8 .. 6 .. 35.10	8 .. 18 .. 30.69
5) 160.61 ~~.05~~		
8 .. 01 .. 32.12		
-.49		
-.08		
+.09		
8 .. 01 .. 31.64	-9.00	-9.00
8 .. 01 .. 23.08	-.04	-.04
+ 8.56	8 .. 06 .. 26.06	8 .. 18 .. 21.65
- 8.63	-0.80	-0.79
-.04	-6.14	-6.14
8 .. 01 .. 22.97	8 .. 06 .. 19.12	8 .. 18 .. 14.72

1.83727
0.03888
1.87615
7519

Operations for ascertaining the difference of Longitude between King's College Fredricton N. B. and Harvard-College Observatories.

1855 23^d January.

E. C fast sidereal time Cambridge app. 9^s

These chronom. were taken to Boston immediately after their comparison

W. C. B obs.

E C	— $2^h\ 58^m\ 0^s.0$	E C	— $2^h\ 50^m\ 0^s.0$
236	— $3^h\ 0^m\ 12^s.3$	312	— $2^h\ 50^m\ 59^s.0$

put back No 236 2 minutes. then:

E C	= $3^h\ 2^m\ 0^s.0$	E C	— $3^h\ 5^m\ 0^s.0$
236	= $3\ 2^m\ 12^s.4$	312	— $3^h\ 5^m\ 59^s.0$

— P. S. C —

E C	— $3^h\ 19^m\ 0^s.0$	E C	— $3^h\ 16^m\ 0^s.0$
236	— $3^h\ 19^m\ 12.5$	312	$3\ 16\ 59^s.0$

On return from Boston.

Compared as follows. — W. C. B —

E C	— $7^h\ 43^m\ 0^s.0$	E C	$7^h\ 45^m\ 0^s.0$
236	— $7^h\ 43^m\ 12^s.5$	312	$7^h\ 45^m\ 59^s.0$

8.83

— P. S. C —

E C	— $7^h\ 50^m\ 0^s$	E C	$7^h\ 46^m\ 0^s.0$
236	— $7^h\ 50^m\ 12^s.5$	312	$7^h\ 46^m\ 59^s.1$

January 23/24

— W. C. B —

E C.	$16^h\ 4^m\ 0^s.0$	E C	$16^m\ 5^m\ 0^s.0$
236	$16.\ 4^m\ 13.2$	312	$16\ 5^m\ 58^s.8$

Comp. in Boston 23^d January

P. S. C.

236 — $5^h.18^m\ 0^s.0$ — $5^h.19^m.0^s.0$ — $7^h.46^m\ 13^s.5$ — $7.\ 48^m\ 0^s.0$

312 — $5^h\ 18^m\ 46^s.5$ — $5^h.19.46^s.5$ — $7^h.\ 47\ 0^s.0$ — $7\ 48.46.5$

(357) 74

January 23d. 1855 — T. C. ill. West. T. H. S. obser.

Before comp. of chronometers,

+14°.23′ γ Pegasi	+6°.48′ δ Piscium	+7°.6′ ε Piscium	Moons I limb	θ′ Ceti
0h 5m 11s.4	0h 40m 36s.2	0h 54m 51s.5	1h 13m 7s.[illegible]	1. 16m 13s.1
" 25s.8	" 50.0	55 5.6	" 21.4	" 27.2
" 39s.5	41 4.0	7 19.3	" 35.2	" 41.0
" 54.2	" 17.8	" 33.4	" 49.7	" 54.9
6 8.3	" 31.4	" 47.3	14 3 6	17 8.9
" 22.5	" 45.3	56 1.0	" 17.8	" 22.8
" 36.4	" 59.1	" 14.8	" 31.7	" 36.6
198.1	243 8	172 9	166 5	294 5
378.1	123 8	232.9	346,5	384,5
0h 5m 54.01	0h 41m 17.69	0h 55m 33.27	1h 13m 49.50	1h 17m 54.93
Approx. m - .15				- 3.
0 5 53.86				1 17 54.63
45.11				45.89
8.75				8.74

15

January 23^d 1855 (359) Moon Culmination cont'd Il. West

T. H. S. Observer.

$+5^\circ 24'$ μ Piscium	$+4^\circ 45'$ ν Piscium
$1^h\ 22^m\ 2^s.0$	$1^h\ 33^m\ 20^s.2$
〃 16.0	〃 34.1
〃 29.8	〃 47.8
〃 43.8	34 1.7
〃 57.5	〃 15.5
23 11.3	〃 29.1
〃 24.8	〃 42.8
1852	191.2
305.2	211.
$1^h\ 22^m\ 43^s.60$	$1^h\ 34^m\ 1^s.60$

January 23d 1855 After comp. with chron. — Ill. West
W. C. B. obs.

$+28°29'$	$-0°25'$	$-17°56'$	$-1°18'$	$+7°23'$
β Tauri	δ Orionis	α Leporis	ε Orionis	α Orionis
lost 30.4	$5^h\ 24^m,\ 4^s.2$	lost.	$5^h,\ 28^m,\ 19^s.8$	$5^h.\ 46^m.\ 47.3$
$5^h\ 16^m.\ 46^s.3$	" 18.1	lost.	" 33.7	47. 1.2
17 1.5	" 31.8	$5^h,\ 26^m,\ 15^s.4$	" 47.2	" 15.1
" 17.3	" 45.4	" $30^s.0$	29. 1.0	" 29.0
" 32.7	" 59.2	" 44.5	" 14.8	" 42.8
" 48.3	25 12.9	" 58.8	" 28.5	" 56.7
18 3.9	" 26.6	27 13.3	" 42.1	48 10.5
180.4	198.2		187.1	202.6
120.4	318.2		7.1	$5^h,\ 47^m,\ 28^s.94$
5..17..17.20				
5.17..17.20	$5^h,\ 24^m\ 45^s.46$	5..26..29.99	$5^h\ 29^m.\ 1.01$	
			− .25	− .24
			5 29 0 76	5 47 28 70
			51 95	19 93
			8.81	8.77

Telegraphic correspondance between Harvard College observatory and King's college N.B.

23d January 1855

By J. C

At 8½ P.M. took chronometers No 236 and 312 into Boston and went with Mr Joseph Bond to the telegraph office:—

Telegraphed to Fredricton that at $5^h\ 46^m$ a series of signals would be given. They answered: they ~~understo~~ understood they were to begin by giving us the series

We returned word that we would begin at $5^h\ 54^m$ (as the appointed time had elapsed during their communication)

They they sent the following:

Is the 5^h 54 corrected sidereal time & how many signals do you mean to give & at what intervals

This last telegraph ~~[illegible]~~ coming at the time we were to begin sent the following capt

We begin

minutes –

Kingston

All right

you cons

before yo

Then

C) Look

~~Longit~~

Longit

F) Got

corrected sidereal time of Cambridge you gave us or six hours ten minutes ——

C) First signal given at 6.10 sidereal time Cambridge – the corrected time will be sent you tomorrow

F) Will you send corrected time for first signal by telegraph tomorrow

C) Yes

F) Send compliments and are much obliged – will trouble you one more evening the week.

We begin at 6^h. 10^m and give signals for ten ~~signals~~ minutes – at even minutes – sidereal time Cambridge

Kingston then replied

All right. We shall be fully prepared – send us whe

you consider your correct longitude & give us warn

before you commence first signal

Then followed:

C) Look out for first signal dots – have no time for ~~Longitude~~ Longitude — (N. Time was given at $10^m.21^s.5$ by number 236)

F) Got ten signals well – was it Six hours ten mi

corrected sidereal time of Cambridge you gave us or

six hours ten minutes ——

C) First signal given at 6.10 sidereal time Cambridge – the corrected time will be sent you tomorrow

F) Will you send corrected time for first signal by telegraph tomorrow

C) Yes

F) Send compliments and are much obliged – will trouble you one more evening this week.

---

the 26th January received from prof.
Toldervy the following telegraphic dispatch

Boston Jan 26 1855

To Prof. Bond.
Cambridge

Fredericton sidereal time of first signal
was 6 hours twenty eight minutes forty
ven seconds & sixty four hundredths
detail shall be furnished by letter after
nother trial which we propose tomorrow
night if convenient to you

J. B Toldervy

−.07
−.15
0..05..54.07
0..05..45.05
+9.02
~~+0.01~~
−9.07
0..05..45.07

Observed by T. H. S.

−.10
−.16
1..59..08.56
1..58..59.68
+8.88
−9.07
1..58..59.49

January 25th 1855 - Tr. East (362) W. C. B. obs.

0 hour + 14. Moon culmination 1 hour

γ Pegasi	α Cassiopeae	α Arietis +23	ζ² Ceti	Moon II
$0^h\ 5^m\ 12^s.1$	lost	$1^h\ 58^m\ 24^s.3$	lost.	? $2^h\ 53^m$ fog? 26.1
" 26.2	$0^h\ 31^m\ 36^s.6$	" 39.1	lost.	" 40.2
" 40.3	32 1.1	" 54.0	lost.	" 55.0
" 54.5	" 25.1	59 8.9	$2^h\ 20^m\ 36^s.1$	54 9.5
6 8.8	" 49.9	" 24.0	20 50.0	" 24.2
" 22.9	" 14.0	" 38.9	21 4.0 ?	" 38.6
" 37.1	" 38.7	" 53.8	21 18.1 ?	" 53.0
2019	165.4	243.0		
381.9		.63.		
$0^h\ 5^m\ 54^s.56$		$1^h\ 59^m\ 9.0$		
~~0 5 45 12~~		~~1 58 59.71~~		
~~+ 9.44~~		~~+ 9.29~~	~~+9.03~~	
−.25		−.18	+	
−.09		−.10		
−.15		−.16		
0..05..54.07		1..59..08.56		
0..05..45..05		1..58..59.68		
+9.02	Observed by T. H. S.	+8.88		
~~+ 0.01~~				
−9.06		−9.07		
0..05..45.01		1..58..59.49		

+9.03
+8.88
+8.96
+9.05
+9.33
+9.30
+8.95
.50
+9.07
at $2^h\ 00^m$

January 25th 1855

Ceti +3:0

2h. 35m. 15.4
" 29.1
" 42.8
" 56.5
36 10 2
" 23.9
" 37.9

215.8
395.8
2. 35 56.54
~~47.07~~
~~+9.47~~
-.32 2.. 35.. 55.99
-.08 2.. 35.. 47.03
-.15 + 8.96

2.. 35.. 55.99
- 9.07
2.. 35.. 46.92

a = -0.51
b = -0.10
c = -0.15
} used in Red. of Cat. Stars

Rate = +0.15s

Catalogue Stars Ill. East.
W. C. B obs.

	No ~~85~~ 83	not a Cat Star ~~No 88~~ 86(?)	No ~~91~~ 69
	2h. 39m. ~~34~~ 28. 0	2. 43. 16. 8	2h. 51m 25. 6
	" 47. 8	" 30. 4	, 39. 2
	" 56. ~~8~~ 1	" 44. 1	" 52. 9
	40 ~~59.2~~ 9. 2	" 57. 9	52, 6. 3
	40 23. 2	44 11. 8	" 20. 3
	" 36. ~~9~~ 8	~~45~~ 25. 4	" 34. 0
	, 50. 9	" 39. 2	" 48. 1
	24 6. 0 ~~245.7~~	2 ~~25~~ 29. 6	226 4
	6. 0 ~~65.7~~	~~435~~	. 46 4
	~~9.50~~	4 ~~5~~ 5. 6	2h. 52m 6.63
	2h. 40m ~~9.39~~ 9.57	2h. 43m 57.94	
	9. 43		
a	- .34		
b	- .07		
c	- .15		
	- 9.07		
sum	- 9.63	- 9.63	- 9.63
rate	00	00	- .01
	2.. 39.. 59. 80	2.. 43.. 48. 31	2.. 51.. 5~~6~~.99
Or. M. Sc.	+ 0.34	+ 0.32	+ 0.28
Cor. for An. Var.	- 6.15	- 6.17	- 6.17
AR 1853.0	2.. 39.. 53. 99	2.. 43.. 42. 46	2.. 51.. 51. 10

Final Corr. for W. C. B by Cat. Stars - 0.05

(364)

January 25th 1855 Catalogue Stars Ill. East
2 hours W. C. B obs. 111 3 hours

No ~~98~~ 96	No ~~103~~ (100)	No ~~108~~ 105	~~No 113~~ 111	No ~~118~~ 115
2. 59.39.7	3. 6m. 3.6	3 9m 10'.9	3 13m 13s.8	3. 26m. 23.1
" 53.3	" 17.5	" 24.6	" 27.5	" 36.8
3 0 7.0	" 30.9	" 38.1	" 41.1	" 50.6
" 20.8	" 44.8	" 52.0	" 54.8	27 4.2
" 34.5	" 58.7	10 5.8	14 8.8	" 17.9
" 48.2	7 12.4	" 19.3	" 22.4	" 31.8
1 2.1	" 26.3	" 33.4	" 36.2	" 45.6
205.~~7~~6	~~+894.2~~ 194.2	184.1	see bottom of column 204.6	210.0
145.6	314.2	364.1	384.6	30.0
3..00..20.80	3..06..~~27.74~~ 44.49	3..09..52.01	3..13..54.94	3..27..04.29
			No (113)	
			3.15 37.2	
			" 51.2	
			16 4.9	
			" 18.5	
			" 32.3	
-9.63	-9.63	-9.63	" 46.1	-9.63
-.01	-.01	-.01	17 0.0	-.01
3..00..11.16	3..06..35.25	3..09..42.37	~~200~~ 190.2	3..26..54.65
+0.23	+0.19	+0.17	130.2	+0.08
-6.19	-6.15	-6.18	3..16..18.60	-6.17
3..00..05.22	3..06..29.29	3..09..36.86		3..26..48.56

sum -9.63
rate -.01
3..16..08..96
Or. ett. &c. +0.14
Cor. for ch. Var. 6.16
AR 1853.0 3..16..02.94

111
3..13..54.94
sum -9.63
rate -.01
~~AR 1853~~ 3..13..45.30
Or. ett. &c. +0.15
Cor. for ch. Var. - 6.14
AR 1853.0 3..13..39.31

January 25th 1855 (365) Catalogue Stars Ill. East
3 hours W.C.B obs. 3 hours

	No ~~112~~ 119	No ~~123~~ 120	No ~~128~~ 123	No ~~128~~ (125)	No ~~129~~ 126
	3. 30 59.7	3 37 45.9	3 43. 11.2	3 46 22 5	3 50 20.6
	31 13.2	" 59.5	" 25.0	" 36.2	" 34.3
	" 26.9	38 13.1	" 38.8	" 49.8	" 48.1
	" 40.9	" 27.0	" 52.4	47 3.7	51 1.8
	" 54 6	" 40.9	44 6.2	" 17.3	" 15.4
	32 8.0	" 54.5	" 19.8	" 31.0	" 29.2
	" 22 1	39 8.3	" 33.8	" 44.8	" 43.1
	225.4	249 2	187 2	205.3	192.5
	285.4	189.2	367.2	25.3	12.5
	3..31..40.77	3..38..27.03	3..43..52.46	3..47..03.61	3..51..1.79
sum	−9.63	−9.63	−9.63	−9.63	−9.63
rate	−.01	−.01	−.01	−.01	−.01
	3..31..31.13	3..38..17.39	3..43..42.82	3..46..53.97	3..50..52.15
Pr.M.&c.	+0.05	+0.02	−0.01	−0.03	−0.05
Cor. for An. Var.	−6.15	−6.15	−6.15	−6.17	−6.18
	3..31..25.03	3..38..11.28	3..43..36.66	3..46..47.77	3..50..45.92
AR 1853.0					

January 25th 1855 (368) Catalogue Stars Ill. East.

4 hours W. C. B. Obs. 4 hours

No ~~134~~ 131	(132) No ~~135~~	No ~~137~~ 134	139 No ~~140~~	No 143
4^h 0^m $43^s.1$	2^m $10^s.5$	4 8^m $3^s.5$	4 13^m $4^s.8$	
" 56.7	" 24.4	" 17.1	" 18.0	
1 10.7	" 38.2	" 30.9	" 32.1	
" 24.3	" 52.0	" 44.7	" 45.8	
" 38.0	5 5.5	" 58.4	" 59.8	
" 51.7	" 19.3	9 12.9	14 19.2	
2 5.8	" 39.9	" 26.0	" 29.2	
230.3	183.2	192.5	200.9	
170.3	283.2	312.5	320.9	
4 .. 01 .. 24.33	4 .. 04 .. ~~31.89~~ 51.89	4 .. 08 .. 44.64	4 .. 13 .. 45.84	
−9.63	−9.63	−9.63	−9.63	
−.01	−.01	−.01	−.01	
4 .. 01 .. 14.69	4 .. 04 .. 42.25	4 .. 08 .. 35.00	4 .. 13 .. 36.20	
−0.10	−0.12	−0.14	−0.17	
−6.16	−6.16	−6.15	−6.18	
4 .. 01 .. 08.43	4 .. 04 .. 35.97	4 .. 08 .. 28.71	4 .. 13 .. 29.85	

(367)

January 25th 1855 Catalogue Stars Ill. East P.S.C. obs.

4 hours				4 hours
No ~~147~~ 146	No ~~152~~ 151	No 156	No 159 1st wire lost	No (162)
24m 30.9	27.56.6	29m.55.7	33. 10.9	36.44.8
" 44.6	28 10.4	M.W. 30 9.5	" 24.5	" 58.4
" 58.3	" 24.0	" 23.1	M.W. " 38.1	37 12.0
25 12.0	" 37.7	" 37.1	" 52.2	" 25.7
" 28.9	" 51.0	" 51.1	34 5.5	" 39.7
" 39.5	29 5.1	2 first wires	" 19.4	" 53.3
" 53.3	" 19.1	lost	4th ~~which~~ lost	38 7.1
24m 24.9	204.5	176.50	150.60	241.0
" 38.6	264.5	68.69	41.15	181.0
" 52.3	4..28..37.79	107.81	109.45	4..37..25.86
25 6.0		5) 47.81	6) 229.45	
" 19.9		4..30..09.56	4..33..38.24	
" 33 5				
" 47 3				
222.5	sum −9.63	−9.63	−9.63	−9.63
425	rate −.02	−.02	−.02	−.02
4h 25m 6.07	4..28..28.14	4..29..59.91	4..33..28.59	4..37..16.21
	M.P.R.&c. −0.24	−0.25	−0.27	−0.28
	Cor for Ch. Var. −6.14	−6.15	−6.17	−6.15
sum −9.63	4..28..21.76	4..29..53.54	4..33..22.15	4..37..09.78
rate −.02	AR 1853.0			
4..24..56.42				
M.P.R.&c −0.22				
Cor. for Ch. Var. −6.17				
4..24..50.03	AR 1853.0			

Final Corr. for P.S.C. by Cat. Stars

−0.07

(3183)

January 25th 1855 Catalogue Stars Ill. East.
4 hours P. S. C obs. 4 hours

No 169	No (173)	No 176	No 182	No (186)
4h 40m 7s.9	4 42m 45s.5	4 46 53.2	4 50m " 21s.0	4 53.52.0
" 21.6	" 59.1	47 6.7	" 34.8	54 5.5
" 35.1	43 12.9	" 20.3	" 48.5	" 19.2
" 49.0	" 26.6	" 34.1	51 1.9	" 32.9
41 2.8	" 40.2	" 47.9	" 15.8	" 46.6
" 16.2	" 54.0	48 1.4	" 29.4	55. 0.2
" 30.3	44 8.0	" 15.2	" 43.3	" 14.3
~~159.9~~ 162.9 342.9	246.3 186.3	178.8 238.8	194.7 14.7	170.7 230.7
4.. 40.. 48.99	4.. 43.. 26.61	4.. 47.. 34.11	4.. 51.. 02.10	4.. 54.. 32.96
−9.63	−9.63	−9.63	−9.63	−9.63
−.02	−.02	−.02	−.02	−.02
4.. 40.. 39.34	4.. 43.. 16.96	4.. 47. 24.46	4.. 50.. 52.45	4.. 54.. 23.31
−0.30	−0.31	−0.33	−0.34	−0.36
−6.16	−6.18	−6.15	−6.15	−6.16
4.. 40.. 32.88	4.. 43.. 10.47	4.. 47.. 17.98	4.. 50.. 45.96	4.. 54.. 16.79

8.7

(369)

January 25th 1855 Catalogue Stars Ill Last.

4 hours. not a Cat star P. S. C. obs. -8 5 hours

No 189	No ~~193~~	No(196)	Rigel	No 203
57m " 23.5s	4 59m. 18.1s	5h 3m. 45.7s	5h 7m. 2.8s	. 10 .24.6
" 37.2	~~2~~ ~~2~~.31.7	" 59.1	" 16.6	" 38.1
" 51 2	" 45.3	4 13.1	" 30.5	" 51.4
58 4.7	" 59.0	" 26.9	" 44.3	" 5.2
" 18.4	5h 0 12.7	" 40.5	" 58.2	" 19.1
" 32.3	" 26.4	" 54.3	8 12.1	" 32.9
. 45.9	" 40.2	5 8.2	" 26.1	" 47.1
213.2	233.4	247.8	190.6	218.4
33.2	413.4	187.8	310.6.	38.4
4.. 58.. 04.. 74	4..59..59.06	5..04.. ~~29.69~~ 26.83	5. 7m 44.37	5..11..05.49
			~~5h 7m 34.73~~	
			~~1 9.64~~	
			-.39	
			-.06	
-9.63	-9.63	-9.63	-.15	-9.63
-.02	-.02	-.02	5..07.. 43.77	-.02
4..57..55.09	4..59..49.41	5..04..~~16~~ 17.18	5..07.. 34.70	5..10..55.84
Os. M. &c.. -0.87	-0.38	-0.40	+9.07	-0.43
Cor. for An. Var. -6.19		-6.18	-9.07	-6.18
4..57..48.53	AR 1853.0	5..04..10.60	-.02	5..10..49.23
AR 1853.0			5..07..34.68	

(370)

January 25th 1855 Catalogue Stars Ill. East.

5 hours		P. S. C. obs.	−1.	5 hours
No. 207	No. 208	δ Orionis	ε Orionis	No. 218
lost.	17. 49. 2	lost.	28m. 20.7	not
lost.	18 2. 9	24m. 19.0	" 34.3	observed.
lost.	" 16. 8	" 32.7	" 48.0	
lost.	" 30. 3	" 46.5	29 1.8	
5h 16. 1. 0	" 44. 0	25 0.2	" 15.6	
" 14. 5	" 57.7	" 13.7	" 29.2	
" 28. 3	19 11. 6	" 27.6	" 43.0	
~~5" 16"~~ 4 3.80	212.5	139.70	192 6	
82.47		41.15	12.6	
21.33	5" 18" 30.36	98.55	5h 29 1.8.0	
3) 141.33		6) 278.55	~~5h 28 51.93~~	
5" 15" 27.11		5" 24" 46.42	~~+9.87~~	
		−.34	−.35	
		−.07	−.07	
−9.63	−9.63	−.15	−.15	
−.02	−.02	5" 24" 46.86	5" 29" 01.23	
5" 15" 37.46	5" 18" 20.71	5" 24" 36.51	5" 28" 51.91	
−0.45	−0.46	+9.35	+9.32	
−6.18	−6.16	−9.07	−9.07	
5" 15" 30.83	5" 18" 14.09	−.02	−.02	
		5" 24" 36.77	5" 28" 52.14	

~~1.61437~~

January 25 1855 Catalogue Stars Ill. East. (374?)
hours P. S. C obs 6 hours

No ~~227~~ 228	No 232 (?)	No (236)	No (237)	Notable Star ~~No 244~~
5 40m 47s.4	5h 46m 44s.6	5 50m 51s.7	5 57m 9s.4	6h 8m 21s.2
41 0.9	" 58.2	51 5.2	" 27.0	" 35.0
" 14.8	47 12.1	" 19.0	" 36.8	" 48.8
" 28.1	" 25.8	" 32.8	" 50.4	9 2.2
" 42.6	" 39.3	" 46.4	58 4.2	" 16.1
" 55.9	" 53.0	52 0.2	" 18.0	" 30.0
42 10.2	48 7.1	" 14.1	" 31.9	" 44.0
199.9	240.1	169.4	173.7	197.3
	180.1	229.4	353.7	17.3
5..41..28.56	5..47..25.73	5..51..32.77	5..57..50.53	6..09..02.47
				(Obsd. Jel. 20.) −9.63
				−.03
				6..08..52.81
				−0.63
sum −9.63	−9.63	−9.63	−9.63	−6.15
rate −.02	−.02	−.02	−.02	6..08..46.03
5..41..18.91	5..47..16.08	5..51..23.12	5..57..40.88	~~6..08..45.6~~ −0.63
Pr.M.&c. −0.55	−0.57	−0.58	−0.59	No 250
Car −6.17	−6.19	−6.18	−6.18	lost
5..41..12.19	5..47..09.32	5..51..16.36	5..57..34.11	18m 5s.8
Æ 1853.0				" 19.7
				" 33.3
				" 47.2
				19 0.9
				" 14.8
				121.70
				41.15
				80.55
				6) 200.55
				6..18..33.42
				−9.63
				−.03
				6..18..23.76
				Pr.M.&c. −0.66
				−6.18
				Æ 1853.0 6..18..16.92

January 25th 1855 (372) Catalogue Stars Ill. East
6 hours T. H. S. obs. 6 hours

No ~~2??~~ 265(?)	279 No ~~280~~	No 284	No 295	No 306
6 29m.52s.5	6 36m.38s.1	6 40m 17.6	6, 47m, 28s.0	6h.52m.17.0
30 5.9	" 51.9	Mid wire — 31.0	" 41.8	" 30.8
" 19.9	37 5.4	" 44.7	" 55.8	" 44.5
" 33.9	" 19.2	" 58.4	48 9.2	" 58.5
" 47.2	" 33.1	41 12.3	" 22.9	53 12.1
31 1.0	" 47.0	first 2 W. lost	" 36.7	" 25.8
" 15.0	38 0.7	"	50.9	" 39.7
175.4	~~24~~ 19 5.4	164.0 68.69	245.3	228.4
235.4	135.4	~~6..40~~. 95.31	65.3	408.4
6..30..33.63	6..37..~~09.34~~ 19.34	5) 155.31	6..48..09.33	6..52..58.34
-9.63	-9.63	6..40..31.06		
-.03	-.03			
6..30..23.97	6..37..09.68			
-0.70	-0.71			
-6.17	-6.18	-9.63	-9.63	-9.63
6..30..17.10	6..37..02.79	-.03	-.03	-.03
~~6..30..14.81~~		6..40..21.40	6..47..59.67	6..52..48.68
-0.70		-0.72 -6.16	-0.74	-0.75
	not used	6..40..14.52	-6.17	-6.16
	~~Sirius~~	No 287	6..47..52.76	6..52..41.77
	~~6h, 38 13.0~~	1st wire lost		
	~~" 27.3~~	6..40..28.10		
	~~" 41.8~~	41.80		
	~~" 56.0~~	Mid wire 55.60		
	~~39 10.8~~	9.50		
	~~" 24.7~~	23.00		
	~~" 39.1~~	41..37.10	Frac T. H. S.	
	~~212.7~~	195.10		
	~~392.7~~	41.15	Error Corr. by	
	~~6h. 38m 56.10~~	153.95		
	~~38 46 46~~	6) 333.95	Cat. Stars	
	~~+ 9.64~~	6..40..55.66		
		-9.63	0.0	
		-.03		
		6..40..46.00		
		-0.72		
		-6.16		
		Ne 1853.0 6..40..39.12		

January 25th 1855 Catalogue Stars Ill. East (373)

T. H. S. Obs.

6 hours 7 hours

	No ~~310~~ 311	No ~~XXX~~ 326	No ~~326~~ 328	No 3~~285~~ 335	No ~~340~~ 342
	55m 25.9	7h 0m 55.0s	7 4m 34.8s	7 7m 21.9	7 10 38.5
	″ 39.7	1 8.5	″ 48.7	″ 35.3	″ 52.3
	″ 53.2	″ 22.4	5 2.3	″ 49.1	11 6.1
	56 7.0	″ 36.1	″ 16.0	8 3.0	″ 19.9
	″ 20.8	″ 49.8	″ 29.8	″ 16.8	″ 33.8
	″ 34.7	2 3.5	″ 43.7	″ 30.4	″ 47.2
	″ 48.3	″ 17.5	″ 57.5	″ 44.4	12 1.1
	229.6	192.8	232.8	200.9	198.9 ~~200.9~~
	49.6	252.8	112.8	20.9	138.9
	6..56..07.09	7..01..36.11	7..05..16.11	7..08..02.99	7..11..19.84
rum	-9.63	-9.63	-9.63	-9.63	-9.63
rate	-.03	-.03	-.03	-.03	-.03
	6..55..57.43	7..01..26.45	7..05..06.45	7..07..53.33	7..11..10.18
Pr.M.&c.	-0.75	-0.76	-0.77	-0.77	-0.78
	-6.17	-6.15	-6.18	-6.18	-6.17
	6..55..50.51	7..01..19.54	7..04..59.50	7..07..46.38	7..11..03.23

(3785)

January 25th 1855 Catalogue Stars III East

7 hours T. H. S. observ. 7 hours

No 352	No 360	No 369	Castor ~~No 363~~	~~Castor~~ 371
7^h 14^m 35.1	19.3.8	23.0.3	25^m.17".9	lost
" 49.0	" 17.0	" 14.0	" 33.9	lost
15 2.5	" 30.9	" 27.7	" 50.0	lost
" 16.3	" 44.5	" 41.3	26 6.3	7 27.35.3
" 30.1	" 58.4	" 55.2	" 22.2	" 49.1
" 43.7	20.12.0	24 8.8	" 38.2	28 2.8
" 57.8	" 25.8	" 22.8	" 54.8	" 16.7
234.5	191.9	170.1	223.3	103.9
112.5	311.9	290.1	443.3	82.44
7..15..16.86	7..19..44.56	7..23..41.44	7^h.. 26^m.. 06.19	21.46
			~~7^h 25^m 21.45~~	4) 141.46
			not used	7..27..35.36
−9.68	−9.63	−9.63	~~−9.63~~	−9.63
−.03	−.03	−.03	~~−.03~~	−.03
7..15..06.70	7..19..34.90	7..23..31.78	~~7..25..56.53~~	7..27..25.70
−0.79	−0.79	−0.80	~~−0.80~~	−0.81
−6.14	−6.16	−6.16		−6.16
7..14..59.77	7..19..27.95	7..23..24.82		7..27..18.73

January 25th 1855 Catalogue (375) Stars Ill. East
7 hours T. H. S obs. hou

	No (376)	No (379)	No (382)	~~No 389~~	No 397
	7h. 30m. 32s.3	35m. 8s. 2	7. 39m. 5s. 6	45. 34. 8	49. 47. 4
	" 46. 0	" 21. 9	" 19. 1	" 48. 8	50. 1. 0
	" 59. 7	" 35. 7	" 32. 9	46. 2. 7	" 14. 8
	31 13. 3	" 49. 1	" 46. 7	" 16. 9	" 28. 7
	" 27. 0	36 3. 1	40 0. 9	" 30. 2	" 42. 4
	" 40. 8	" 16. 8	" 14. 9	" 43. 9	" 55. 9
	" 54. 9	" 30. 5	" 28. 0	" 57. 8	51 9. 8
	~~904.0~~ 274.0 94.0	165.3 345.3	146.9 326.9	~~244.5~~ 234.5 174.5	200.0
	7..31..13.43	7..35..49.33	7..39..46.70	7..46..16.36 (Not a Cat. Star obsd. Ill. W.)	7..50..28.57
Error	-9.63	-9.63	-9.63	-9.63	-9.63
rate	-.03	-.03	-.04	-.04	-.04
	7..31..03.77	7..35..39.67	7..39..37.03	7..46..06.69	7..50..18.90
Pr. M. &c.	-0.81	-0.81	-0.82	-0.82	-0.82
Cor. for chr. Var.	-6.18	-6.17	-6.16	-6.15	-6.17
	7..30..56.78	7..35..32.69	7..39..30.05	7..45..59.72	7..50..11.91

January 25th 1855 (3.76) Catalogue Stars Ill; East

7 hours	– 23..53	T. H. S obs	8 hours
No (401)	15 Argus		
52.28.7	8h. 0m. 47s.4		
" 42.2	1 . 3 0		
" 56.0	" 17.5		
53 9.2	" 32.8		
" 23.3	" 47.9		
" 37.0	lost		
" 51.0	lost		
247.4	148.60		
67.4	75.19		
7..53..09.68	5) 223.79		
	163.79		
	8..01.. 32.76	+43	
	–.59	+66	
	–.04	+53	
–9.63	–.16	+40	
–.04	8..01..32.05	+36	
7..52..59.96	8..01..23.06	15) 238	
–0.83	+8.99	~~+.5~~	
–6.16	–9.07	+.15	
7..52..52.97	–.04	Daily rate	
	8..01..22.94		

1.83727
0.03888
1.67615
75.19

86(?)
156(?)
(2) 232(?)
265(?)

Oers. Exp.
1855
Jan 22
" 25th
May 7th
" 23d
weight for wire