

1888-1890, p. 1, 132.

KG
11366
v. 348

1688pba, p. 132

1898phae. 1352.

March 15, 1898. (Tuesday)

9 30 Hatch Correction = +3 sec. (Hatch is slow)
 S. Bancro. Phot. T. H. Obs.
 8 36 +19.6
 10 00

1 24
 Index above.

I

10 30 00 124.0 ^{53.0} _{var. dis} 71.0
 53.5 74.0
 124.8 145.0 -0.67

51.9 - (0.61)
 31 20 124.3 75.4
 53.0 75.9 -0.55
 128.9 151.3

Index below.

145.0
 34 05 220.9 75.9
 142.7 76.3 -0.53
 219.0 152.2

144.2 - (0.52)

35 48 220.0 75.8
 4 11 16 142.9 77.1
 15 32 49 220.0 152.9 -0.52

M = -0.56

+3
 15 32 52
 -9 51.4

15 41.5 = +0.2372

Mar. 15, 1898.

II

$$\begin{array}{rcl}
 10 & 37 & 48 \\
 & 142.8 \\
 & 221.2 \\
 & 143.2 \\
 & 119.8 \\
 & \begin{array}{r} 78.4 \\ 766 \\ \hline 155.0 \end{array} \\
 & -0.48 \\
 \end{array}$$

$$\begin{array}{rcl}
 & 144.0 \\
 39 & 00 & 220.3 \\
 & 76.3 \\
 & 144.1 \\
 & 219.3 \\
 & 220.2 \\
 & \begin{array}{r} 75.2 \\ \hline 151.5 \end{array} \\
 & -0.55 \\
 & -(0.52)
 \end{array}$$

Index right and above

$$\begin{array}{rcl}
 & 235.0 \\
 42 & 00 & 308.2 \\
 & 73.2 \\
 & 233.0 \\
 & 77.4 \\
 & \hline 150.6 \\
 & -0.56 \\
 & 310.4
 \end{array}$$

$$\begin{array}{rcl}
 & 234.9 \\
 & -(0.56)
 \end{array}$$

$$\begin{array}{rcl}
 43 & 28 & 310.4 \\
 4162 & 16 & 234.3 \\
 15 & 40 & 34.310.2 \\
 & \hline 15 & 40 & 37 \\
 & -9 & 51.4 \\
 & \hline 15 & 49.2 & = +0.2425
 \end{array}$$

$$M = -0.54$$

Mar. 15, 1898.

III

235.9

10 49 40 308.1

232.3

309.0

722.

76.7

148.9

-0.60

235.0

53 24 307.3

235.0

307.2

309.8

72.3

72.2

144.5

-0.68

-(0.64)

Index left and below.

325.1

57 00 39.1

325.1

36.5

37.8

74.0

72.7

146.7

-0.64

-(0.66)

325.2

58 40 37.9

72.7

72.6

145.3

-0.67

M = -0.65

4 (218 44.324.2

15 54 41.2 36.8

+ 3

10 54 44

-9 51.4

+6 3.3

+0.2523

Mar. 15, 1898

IV

325.6

11 00 24 35.2

69.6.

325.8

69.8.

-0.79.

35.6

139.4.

326.3

-(0.76).

01 40 36.7

70.4.

325.0

71.4.

-0.74.

36.4

141.8.

Index right and above

55.0

03 52 126.6

71.6.

56.0

72.3.

-0.70.

128.3

143.9.

56.9

-(0.74).

05 12 126.0

69.1.

4 11 8 56.9

70.1.

-0.79.

16 02 47 127.0

139.2.

M = -0.75.

+3

16 02 50

-9 51.4

+6 11.4

+0.2579.

Mar. 15, 1898.

V

$$\begin{array}{rcl}
 & 55.0 & \\
 11 & 08 & 32 \quad 125.1 \quad 70.1 \\
 & 55.9 & \underline{69.4} \\
 & 125.3 & 139.5 - 0.78
 \end{array}$$

-(0.82)

$$\begin{array}{rcl}
 & 57.7 & \\
 10 & 00 & 126.5 \quad 68.8 \\
 & 57.9 & \underline{67.1} \\
 & 125.8 & 135.9 - 0.86
 \end{array}$$

Index left and below.

$$\begin{array}{rcl}
 & 145.87 & \\
 12 & 12 & 217.3 \quad 71.6 \\
 & 145.2 & \underline{71.0} \\
 & 216.2 & 142.6 - 0.72
 \end{array}$$

-(0.70)

$$\begin{array}{rcl}
 & 144.0 & \\
 14 & 16 & 218.0 \quad 74.0 \\
 \hline
 4 & 45 & 0 - 144.9 \quad \underline{70.1} \\
 16 & 11 & 15 - 218.0 \quad 144.1 - 0.69 \\
 & + 3 & 215.0 \\
 \hline
 16 & 11 & 18 \\
 - 9 & 51.4 & \\
 + 6 & 19.9 & + 0.2638
 \end{array}$$

M = -0.76

Mar. 15, 1898.

VI

$$\begin{array}{r}
 11 \quad 17 \quad 40 \quad 215.8 \quad 68.5 \\
 147.0 \quad 692. \\
 216.7 \quad 138.2 \quad -0.81.
 \end{array}$$

$$\begin{array}{r}
 144.9 \quad -(0.75). \\
 20 \quad 00 \quad 218.1 \quad 73.2. \\
 145.8 \quad 71.0. \\
 216.8 \quad 144.2. \quad -0.69.
 \end{array}$$

Index right and above.

$$\begin{array}{r}
 237.8 \\
 24 \quad 36 \quad 305.0 \quad 67.2. \\
 237.0 \quad 681. \\
 305.1 \quad 135.3. \quad -0.87.
 \end{array}$$

$$238.3 \quad -(0.86).$$

$$\begin{array}{r}
 26 \quad 16 \quad 306.0 \quad 67.7. \\
 488 \quad 32.237.8 \quad 67.9. \quad -0.86. \\
 16 \quad 22 \quad 08.305.7 \quad 135.6.
 \end{array}$$

$$M = -0.80.$$

$$\begin{array}{r}
 16 \quad 22 \quad 11 \\
 -9 \quad 51.4 \\
 +6 \quad 30.8. \quad +0.2714.
 \end{array}$$

Mar. 15, 1898.

VII

$$\begin{array}{rcl}
 & 239.2 & \\
 11 & 35 & 12 \quad 305.9 \quad 66.7 \text{ c} \\
 & 239.8 & \underline{64.9 \text{ c}} \quad -0.95 \text{ c} \\
 & 304.7 & 131.6 \text{ c}
 \end{array}$$

$$\begin{array}{rcl}
 & 239.3 & \\
 36 & 48 & 304.7 \quad 65.4 \text{ c} \\
 & 239.8 & \underline{65.8 \text{ c}} \quad -0.95 \text{ c} \\
 & 305.6 & 131.2 \text{ c}
 \end{array}$$

- (0.95) c

Index left and below.

$$\begin{array}{rcl}
 & 329.6 & \\
 39 & 56 & 35.2 \quad 65.6 \text{ c} \\
 & 328.8 & \underline{66.5 \text{ c}} \quad -0.94 \text{ c} \\
 & 35.6^3 & 132.1 \text{ c}
 \end{array}$$

$$328.0 \quad -(0.92) \text{ c}$$

$$\begin{array}{rcl}
 42 & 04 & 35.2 \quad 67.2 \text{ c} \\
 \hline
 16 & 38 & 30. \quad 328.6 \quad \underline{66.2 \text{ c}} \quad -0.91 \text{ c} \\
 & & 34.8 \quad 133.4 \text{ c}
 \end{array}$$

$M = -0.94 \text{ c}$

$$\begin{array}{rcl}
 & 16 & 38 & 33 \\
 & \hline
 & 16 & 38 & 33 \\
 & -9 & 51.4 & \\
 & \hline
 & +6 & 47.2 \text{ c} & +0.2827 \text{ c}
 \end{array}$$

Mar. 15, 1898.

VIII

$$\begin{array}{r}
 11 \quad 45 \quad 12 \quad 329.2 \\
 \quad \quad \quad 36.4 \quad 67.2 - \\
 \quad \quad \quad 328.9 \quad \underline{65.4} - \\
 \quad \quad \quad 34.3 \quad 132.6 - \quad -0.92 -
 \end{array}$$

$$\begin{array}{r}
 \quad \quad \quad 327.1 \quad - (0.89) - \\
 46 \quad 48 \quad 34.8 \quad 67.7 - \\
 \quad \quad \quad 328.1 \quad \underline{67.9} - \\
 \quad \quad \quad 36.8^0 \quad 135.6 - \quad -0.86 -
 \end{array}$$

Index right and above

$$\begin{array}{r}
 \quad \quad \quad 58.3 \\
 50 \quad 56 \quad 121.9 \quad 63.6 - \\
 \quad \quad \quad 56.8 \quad \underline{67.7} - \\
 \quad \quad \quad 124.5 \quad 131.3 - \quad -0.95 -
 \end{array}$$

$$58.0 \quad - (0.95) -$$

$$\begin{array}{r}
 53 \quad 32 \quad 125.0 \quad 67.0 - \\
 \underline{4196 \quad 28} \quad 59.55 \quad \underline{64.3} - \\
 16 \quad 49 \quad 07 \quad 123.8 \quad 131.3 - \quad -0.95 -
 \end{array}$$

$$M = -0.92 -$$

$$\begin{array}{r}
 16 \quad 49 \quad 10 \\
 -9 \quad 51.4 \\
 +6 \quad 57.8 = \quad -0.2832 - \\
 \quad \quad \quad -0.2902 -
 \end{array}$$

Mar. 15, 1898

IX

$$\begin{array}{rcl}
 & 61.0 & \\
 12 \quad 07 \quad 20 & 123.1 & 62.1 \\
 & 59.4 & \underline{63.3} \\
 & 122.7 & 125.4 \quad -1.08
 \end{array}$$

$$\begin{array}{rcl}
 & 58.9 & - (1.06) \\
 08 \quad 52 & 123.0 & 64.1 \\
 & 60.5^0 & \underline{62.7} \\
 & 122.7 & 126.8 \quad -1.05
 \end{array}$$

Index left and below

$$\begin{array}{rcl}
 & 148.0 & \\
 11 \quad 28 & 212.0 & 64.0 \\
 & 147.7 & \underline{64.4} \\
 & 212.1 & 128.4 \quad -1.01
 \end{array}$$

- (0.99)

$$\begin{array}{rcl}
 & 148.6 & \\
 13 \quad 12 & 213.0 & 64.4 \\
 \hline
 4(40 \quad 52) & 147.9 & \underline{65.8} \\
 17 \quad 10 \quad 13 & 213.7 & 130.2 \quad -0.97 \\
 & & M = -1.02 \\
 & +3 & \\
 17 \quad 10 \quad 16 & & \\
 -9 \quad 51.4 & & \\
 \hline
 +7 \quad 18.9 & +0.3048
 \end{array}$$

Mar. 15, 1898.

X

$$\begin{array}{r}
 149.0 \\
 12 \quad 14 \quad 44 \quad 215.3 \quad 66.3 \text{ -} \\
 146.7 \quad 66.3 \text{ -} \\
 213.0 \quad 132.6 \text{ -} \quad -0.92 \text{ -}
 \end{array}$$

$$\begin{array}{r}
 148.3 \\
 17 \quad 12 \quad 213.6 \\
 211.6 \quad 65.5 \text{ -} \\
 149.4 \quad 64.3 \text{ -} \\
 213.7 \quad 129.8 \text{ -} \quad -0.98 \text{ -}
 \end{array}$$

- (0.95) -

Index right and above.

$$\begin{array}{r}
 242.5 \quad 59.8 \text{ -} \\
 19 \quad 40 \quad 302.3 \quad 60.8 \text{ -} \\
 240.8 \quad 63.3 \text{ -} \\
 304.1 \quad 124.1 \text{ -} \\
 123.1 \quad -1.13 \text{ -}
 \end{array}$$

$$241.0 \quad - (1.12) -$$

$$\begin{array}{r}
 21 \quad 20 \quad 304.2 \quad 63.2 \text{ -} \\
 4(72 \quad 56) \quad 241.6 \quad 60.6 \text{ -} \\
 17 \quad 18 \quad 14 \quad 302.2 \quad 123.8 \text{ -} \quad -1.11 \text{ -}
 \end{array}$$

$$M = -1.04 -$$

$$\begin{array}{r}
 17 \quad 18 \quad 17 \\
 -9 \quad 51.4 \\
 +7 \quad 26.9 \text{ -} = \\
 +0.3103 \text{ -}
 \end{array}$$

Haze steadily increasing during observations
 Settings ~~to~~ difficult in last two groups and
 especially so in the last group
 Stopped by increasing cloudiness

$$12 \quad 45 \text{ Hatch Correction} = +3 \text{ sec. (Hatch is slow.)}$$

March 17, 1895. (Thursday)

o Watch Correction = -3 sec. (Watch is fast.)

R Canis Majoris

Phot. T.

St. Obs.

γ 13 -16.0

γ 16 Telescope diaphragmed down to 9.5 in.

03

SD -15° 1774 (9.1) compared with SD -15° 1766 (8.0)

Index left and above.

151.6 < 8.0 magn. dis. 61.9'

26 213.5 63.4'

150.6 125.3' + 1.08'

214.0

151.0 60.8' (+1.11)'

211.8 61.3'

151.1 122.1' + 1.14'

212.4

Index right and below

244.4 53.7'

298.1 58.4'

242.4 112.1' + 1.37'

301.3

300.8

(+1.37)'

243.0 56.8'

299.8 55.4'

243.7 112.2' + 1.37'

299.1

Mean +1.24'

Mar. 17, 1898.

Same again.

7

37

242.0

299.9

245.9

300.1

57.9'

54.2'

112.8' + 1.37'

244.0

300.7

243.5

299.2

56.7'

55.7'

112.4' + 1.36'

(+1.36)'

Index left and above.

³
333.3

32.0

³
332.5

30.8

58.7'

58.3'

117.0' + 1.26'

³
334.4

30.2

333.1

30.8

56.8'

57.7'

114.5' + 1.31'

(+1.28)'

7

43

7

40.0

5

12

40.0

Mean + 1.32'

Mar. 17, 1898

Var. compared with S.D. -15° 1774 (9.1)
 Index left and below.

		81.3	var. dis.	20.5	I
7	48	20	101.8	20.0	
		81.0		40.5 - 3.74	
		101.0			

		81.2		20.1	(-3.70)
52	04	101.3		21.8	
		80.7		41.9 - 3.67	
		102.5			

Index right and above

		168.4		26.3
54	08	194.7		22.4
		170.2		48.7 - 3.33
		192.6		

		170.8		21.7	(-3.38)
55	20	192.5		25.0	
	9	52	168.8	46.7 - 3.42	

7	52	28	193.8
5		-3	

Mean -3.54

12	52.4	25
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-9	35.2
----	------

+3	17.2
----	------

Mar. 17, 1898.

II

		169.0	25.2'
7	59 20	194.2	<u>22.9'</u>
		170.0	48.1' - 3.36'
		192.9	

		169.9	22.7'	(-3.38)'
8	00 52	192.6	<u>24.8'</u>	
		168.9	47.5' - 3.39'	
		193.7		

Index left and below.

		260.3	23.7'
03	04	284.0	<u>19.4'</u>
		262.1	43.1' - 3.60'
		281.5	

		262.1	20.2'	(-3.60)'
05	12	282.3	<u>23.2'</u>	
	7 58'	260.0	43.4' - 3.59'	
8	02 07	283.2		
5	-3			
13	02.1 04'			
-9	35.2			
+3	26.9			

Mean - 3.49

Mar. 17, 1895

III

8	07	00	258.3	24.6'
			252.9	<u>18.9'</u>
			263.2	43.5' - 3.58'
			282.1	

			262.8	18.6'	(-3.64)'
08	08		281.4	<u>22.7'</u>	
			260.3	41.3' - 3.70'	
			283.0		

Index right and above.

			350.0	24.5'
10	28		14.5	<u>21.5'</u>
			351.0	46.0' - 3.46'
			12.5	

			350.5	22.2'	(-3.54)'
11	52		<u>12.7</u>	<u>24.5'</u>	
			13.1	46.7' - 3.42'	
36	58		349.0		
8	09	22'	13.5		
5		-3			

13	09.3	19'
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-9	35.2
----	------

+3	34.1
----	------

Mean ~~35.4~~
-3.54'

Mar. 17, 1898.

IV

		350.0	23.4'
8	14 48	13.4	<u>23.1'</u>
		349.9	46.5' - 3.43'
		13.0	

		350.5	22.3'	$(-3.44)'$
16	28	<u>12.8</u>	<u>23.7'</u>	
		350.4	46.0' - 3.46'	
		14.1		

Index left and below.

		80.0	23.4'
18	40	103.4	<u>21.5'</u>
		81.3	44.9' - 3.51'
		102.8	

		81.4	19.5'	$(-3.60)'$
19	52	100.9	<u>21.8'</u>	
27	168	80.2	41.3' - 3.70'	

8	17	27	102.0
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5	-3		
---	----	--	--

10	14	24	
----	----	----	--

13	174	24	
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-9	35.2		
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+3	42.2		
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Mean - 3.52'

Mar. 17, 1898.

IV

		80.3	22.7'
8	24 40	103.0	<u>21.3'</u>
		81.9	44.0' - 3.56'
		103.2	

		81.2	19.9'	(-3.62)'
26	00	101.1	<u>21.8'</u>	
		81.5	41.7' - 3.68'	
		103.3		

Index right and above.

		170.0	23.7'
28	00	193.7	<u>23.2'</u>
		169.8	46.9' - 3.41'
		193.0	

		170.4	22.0'	(-3.44)'
29	36	192.4	<u>23.7'</u>	
27	76	168.4	45.7' - 3.47'	
8	27 04'	192.1		Mean - 3.53'
5	-03			
13	27.0 1'			
		-9	35.2	
		+3	51.5	

Mar. 17. 1898

VI

8	31	32	168.9	24.3'
			193.2	<u>22.4'</u>
			170.0	46.7' - 3.42'
			192.4	

			170.9	21.8'	(-3.43)'
33	00		192.4	<u>24.6'</u>	
			168.4	46.4' - 3.44'	
			192.0		

Index left and below.

			260.2	22.6'
36	32		282.5	<u>20.2'</u>
			261.8	42.8' - 3.62'
			282.0	

			260.9	21.8'	(-3.60)
38	00		282.7	<u>21.9'</u>	
35			260.7	43.7' - 3.57'	
18	64		282.4		

8	34	46'			Mean -3.52'
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5		-3			
---	--	----	--	--	--

13	34.7	43'			
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-9	35.2				
----	------	--	--	--	--

+3	59.5				
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Mar. 17, 1898.

VII

			260.6	22.4'
8	41	04	283.0	<u>21.2'</u>
			260.7	43.6' - 3.58'
			281.9	

			261.8	20.0'	(-3.66)'
42	28		281.8	<u>20.4'</u>	
			262.0	40.4' - 3.75'	
			282.4		

Index right and above

			350.0	23.9'
45	08		13.9	<u>23.2'</u>
			349.8	47.1' - 3.40'
			13.0	

			349.5	23.2'	(-3.42)'
46	52		12.4	<u>23.1'</u>	
14	92		350.2	46.3' - 3.44'	
8	43	53	13.3		
5		-3			

Mean - 3.54

13 - 43.5 50

-9 35.2

+4 8.6

Mar. 17, 1898.

VIII

8	54	12	349.4	24.7'
			14.1	21.7'
			350.5	46.4' - 3.44'
			12.2	

			350.4	22.0'	(-3.46)'
55	44	12.4		23.3'	
			350.2	45.3' - 3.49'	
			13.3 ⁵		

Index left and below.

			80.9	22.0'
			102.9	21.0'
58	56		103.4	43.0' - 3.61'
			81.4	
			102.2	

			81.4	21.7'	(-3.60)'
9	01	20	103.1	21.6'	
	28	132	81.3	43.3' - 3.59'	
8	57	33	102.9		
5		-3			

Mean - 3.53'

13	57.5	30
-9	35.2	
+4	22.3	

Mar. 17, 1898.

IX

			81.1	21.5'
9	10	08	102.6	<u>20.2'</u>
			82.0	41.7' - 3.65'
			102.2	

			81.5 ³	20.3'	(-3.66)'
11	28		101.6	<u>22.2'</u>	
			80.7	42.5' - 3.63'	
			102.9		

Index right and above

			168.6 ⁴	24.1'
14	12		192.4	<u>23.4'</u>
			169.9	47.5' - 3.39'
			193.3	

			169.6	23.5'	(-3.40)'
16	32		193.1	<u>23.8'</u>	
11	60		169.2	47.3' - 3.40'	
9	13	00'	193.0		Mean - 3.53'
5		-03			

14	12	57'
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-9	35.2
----	------

-8.8

+4	37.8
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Mar. 17, 1898.

X

9	29	48	169.0	25.1'	
			194.1	22.7'	
			140.0		
			169.9	47.8' - 3.37'	
			192.7		

			169.8 ³	23.7'	(-3.35)'
31	36		193.0	23.6'	
			169.4		
			176.3	47.3' - 3.40'	
			193.0		

Index left and below.

			260.3	21.1'	
33	36		281.4	20.2'	
			260.9	41.3' - 3.70'	
			281.1		

			261.7	20.3'	(-3.70)'
36	00		282.0	21.1'	
9	120		261.0	41.4' - 3.69'	
9	32	45	282.1		
5		-03			

Mean - 3.54

14	32.7	42'
-9	35.2	
+4	57.5	

Mar. 17, 1898.

XI

9	37	56	260.7	22.2'
			282.9	<u>21.2'</u>
			261.2	43.4' - 3.59'
			282.4	

			261.1	20.8'	(-3.60)'
39	16		281.9	<u>22.0'</u>	
			260.9	42.8' - 3.62'	
			282.9		

Index right and above.

			350.7	21.7'
42	16		12.4	<u>22.5'</u>
			351.0	44.2' - 3.55'
			13.5	

			350.2	22.8'	(-3.54)'
			314.5		
45	28		14.8	<u>21.7'</u>	
			13.0	44.5' - 3.53'	

			351.0		Mean - 3.57'
9	41	20	12.5		
5			-03		
14	41.3	17			
-9	35.2				
+5	06.1				

Mar. 17, 1898.

XII

		350.5	22.3'
9	49 20	12.8	<u>22.3'</u>
		350.9	44.6' - 3.53'
		13.2	

		350.0	23.0'	$(-3.51)'$
50	56	13.0	<u>22.3'</u>	
		350.3	45.3' - 3.49'	
		12.6		

Index left and below.

		80.2	22.8'
53	12	103.0	<u>20.8'</u>
		80.9	43.6' - 3.58'
		101.7	

		80.7	21.7'	$(-3.59)'$
55	08	102.4	<u>21.4'</u>	
7	96	81.0	43.1' - 3.60'	
9	52 09	102.8 ⁴		
5	-03			
14	52.106'			

Mean - 3.55'

-9 35.2
+5 16.9

Mar. 17, 1898.

XIII

		81.45	22.2'
9	56 40	103.7	<u>20.3'</u>
		81.4	42.5' - 3.63
		102.0	

		81.3	20.5'	(-3.62)'
58	16	101.65	<u>22.2'</u>	
		80.3	42.7' - 3.62	
		102.5		

Index right and above.

		169.3	24.4'
10	03 20	193.7	<u>24.6'</u>
		169.0	49.0' - 3.32
		193.6	

		169.1	24.3'	(-3.34)'
	04 56	193.4	<u>23.6'</u>	
	1 132	169.7	47.9' - 3.37	
10	00 48'	193.3		Mean - 3.48'
5	23			

15	00.5	45'
----	------	-----

-9	35.2
+5	25.6

Mar. 17, 1895

XIV

			170.5	21.7'
10	10	40	192.5	<u>24.0'</u>
			169.4	45.7' - 3.47
			193.4	

			169.8	24.9'	(-3.43)'
12	20		194.1	<u>22.5'</u>	
			170.5	47.4' - 3.39	
			193.0		

Index left and below.

			260.9	21.4'
+			281.9	<u>20.6'</u>
14	48		282.3	42.0' - 3.66
			260.8	
			281.4	

(-3.66)'

			261.3	20.3'
16	24		281.6	<u>21.6'</u>
			260.4	41.9' - 3.67
10	13	43'	282.0	
5		-03		

Mean - 3.54'

15	13.7	40'
----	------	-----

-9 35.2

+5 35.5

Mar. 17, 1898.

XV

		261.0	21.7'	
10	22	40	282.7	<u>20.2'</u>
		261.8	41.9'	-3.67
		282.0		

		262.2	19.6'	(-3.70)'	
24	20	281.8 ⁸	<u>20.6'</u>		
		261.3	40.2'		-3.73
		281.9			

Index right and above.

		350.0	22.7'	
26	44	12.7	<u>23.2'</u>	
		349.5	45.9'	-3.46
		13.0		

		349.5	23.6'	(-3.44)
28	44	13.0	<u>23.4'</u>	
20	148	350.0	47.0'	-3.41

10	25	37	13.4	
----	----	----	------	--

5	03			
---	----	--	--	--

15	25.6	34		
----	------	----	--	--

-9	35.2			
----	------	--	--	--

+5	50.4			
----	------	--	--	--

Mean - 3.57'

Mar 17, 1898.

XVI

10	41	32	350.4	22.7'
			13.8'	<u>22.5'</u>
			350.5	45.2' - 3.50'
			13.0	

			349.9	22.6'	(-3.48)'
42	45		12.5	<u>23.2'</u>	
			350.0	45.8' - 3.47'	
			349.9		
			13.4 ²		

Index left.

			81.5	20.6'
45	40		102.6 ⁴	<u>21.0'</u>
			81.5	41.6' - 3.68'
			102.5	

			82.0	20.6'	(-3.70)'
44	20		102.6	<u>20.2'</u>	
15	140		82.1	40.8' - 3.72'	
10	44	20'	102.3		

5	-03
15	44.3 (7)
-9	35.2
+6	9.1

Mean -3.59'

Mar. 17, 1898.

XVIII

			81.5	20.5'
10	50	24	102.0	<u>20.8'</u>
			81.4 ⁵	41.3' - 3.70'
			102.3	

			81.5	21.1'	(-3.69)'
52	00		102.6	<u>20.5'</u>	
			81.4	41.6' - 3.68'	
			101.9		

Index right.

			169.5	
54			192.8	23.8'
54	56		193.3	<u>22.7'</u>
			170.0	46.5' - 3.43'
			192.7	

			170.0	23.0'	(-3.42)'
56	20		193.7	<u>23.7'</u>	
12	100		169.0	46.7' - 3.42'	
10	53	25'	192.7		

5		-03
15	53.4	27'

-9	35.2
+6	18.2

Mean - 3.56'

Mar. 17, 1895.

SD-15° 1774 (9.1), compared with SD-15° 1766 (5.0)
Index above

11	02	330.4	60.8'
		$\frac{1}{2}$ magn. dis.	59.8'
		332.6	120.6' + 1.18'
		32.4	

331.1	61.1'	(+1.18)'
32.2	60.0'	
332.0	121.1' + 1.17'	
32.0		

Index below.

66.8	49.4'
116.2	55.1'
61.8	104.5' + 1.55'
64.0	
119.1	
118.2	

(+1.48)'

11	12	119.2	55.4'
11	07.0	63.0	55.0'
5		118.0	110.4' + 1.41'
16	07.0	118.0	

Mean +1.33'

Mar. 17, 1898.

Same again.

		64.0	56.0'
11	14	120.0	<u>56.3'</u>
		63.9	112.3' + 1.36'
		120.2	

	63.3	55.3'	(+ 1.37)'
	118.6	<u>56.4'</u>	
	64.0	111.7' + 1.38'	
	120.4		

Index above

	152.0	58.4'
	211.1	<u>60.8'</u>
	152.0	119.2' + 1.21'
	212.8	

		152.2	60.9'	(+ 1.18)'
11	22	213.1	<u>60.4'</u>	
11	18.0	152.6	121.3' + 1.16'	
5		213.0		Mean + 1.25'
16	18.0			

In all the groups this evening except the last two on variable and the last two on stars, observed accidentally with eye stop off. When this was found out, put on eye stop ~~stop~~ and observed the last four groups.

30 Watch correction = 3.00 (2.5 this last)

March 18, 1898 (Friday)

6 45 Watch Correction = -6 sec (Watch is fast.)
 B Persei. Phot V. H. Obs.

Index right and above Comp. Star = ω Persei

352.0 β dis 29.5'
 21.5 36.5'
 348.0 66.0' - 2.64'
 24.5

59 00 348.5 37.0' (-2.62)'
 25.5 30.6'
 351.6 67.6' - 2.59'
 22.2

Index left and below.

7 02 44 81.3 30.8'
 112.1 34.1'
 80.2 64.9' - 2.68'
 114.3

80.4 33.0' (-2.72)'
 05 16 113.4 29.8'
 3 80 82.9 62.8' - 2.76'

7 01 05' 112.4
 5 -06 111.7

Mean - 2.67'

12 00 59

Mar. 15, 1898

R Canis Majoris.

Phot. T.

H. Obs

7 13 -16.0

7 14

Comp Star = $SD - 15^{\circ} 14' 44'' (9.1)$

01 Telescope diaphragmed down to 9.5 in.

0 02

-16.1 Circle Readings

7 19

Chron. Time

Index left and below

I

260.4

23.3'

7 21 16 283.7

27.8'

257.7

51.1' - 3.23'

285.5

258.3

28.0'

(-3.20)'

22 40 286.3

24.2'

259.8

52.2' - 3.17'

284.0

Index right and above

349.0

26.4'

25 08 15.4

29.1'

348.3

55.5' - 3.04'

17.4

348.5

29.5'

(-3.03)'

26 48 18.0

26.4'

15 52 348.6

55.9' 3.02'

7 23 54.5

-6.1 18.0

12 23.9 52.5

12 51.5

227.2

Mean - 3.12'

Mar. 18, 1898

II

γ 31 08 $\begin{array}{r} 349.7 \\ 15.8 \\ \hline 16.0 \end{array}$ $\begin{array}{r} 26.1' \\ 28.2' \\ \hline 54.3' - 3.09' \end{array}$
 $\begin{array}{r} 349.0 \\ 17.2 \end{array}$

32 48 $\begin{array}{r} 349.4 \\ 17.0 \\ \hline 349.0 \\ 16.0 \end{array}$ $\begin{array}{r} 27.6' \\ 27.0' \\ \hline 54.6' - 3.07' \end{array}$ $(-3.08)'$

Index left and below.

36 56 $\begin{array}{r} 79.1 \\ 105.3 \\ \hline 78.72 \\ 106.3 \end{array}$ $\begin{array}{r} 26.2' \\ 27.5' \\ \hline 53.7' - 3.11' \end{array}$

$\begin{array}{r} 38 40 \\ 19 32 \\ \hline 7 34 53 \end{array}$ $\begin{array}{r} 79.7 \\ 106.4 \\ 80.0 \\ 105.2 \\ \hline -6. \end{array}$ $\begin{array}{r} 26.7' \\ 25.2' \\ \hline 51.9' - 3.20' \end{array}$ $(-3.16)'$

$\begin{array}{r} 12 34.2 47. \\ 12 51.1 \\ \hline -0 16.3 \end{array}$

Mean $-3.12'$

Mar. 15, 1898.

III

γ 42 04 80.0 25.7'
 105.7 27.3'
 79.3 53.0' - 3.14'
 106.6

44 00 78.5 27.2' (-3.16)'
 106.0 25.1'
 79.9 52.3' - 3.17'
 105.0

Index right and above.

46 20 167.8⁸ 28.9'
 196.7 31.1'
 165.5 60.0' - 2.86'
 196.6

 165.4 31.2' (-2.86)'
 48 56 196.6 28.7'
 21 20 167.8⁷ 59.9' - 2.86'
 7 Kr 20. 196.4

12 Kr 2 14. -6.
 12 51.1
 -8 5.9

Mean - 3.01'

Mar. 15, 1898.

IV

		165.8°	28.0'
γ	52 56	196.0	<u>30.0'</u>
		166.3	58.0' - 2.94'
		196.3	

		165.4	32.3'	(-2.88)'
55	12	197.7	<u>29.1'</u>	
		167.8	61.4' - 2.81'	
		197.9		

Index left and

		259.0	25.7'
58	52	284.7	<u>28.4'</u>
		258.0	54.1' - 3.10'
		286.4	

		258.8	27.6'	(-3.08)'
8	00 52	286.4	<u>27.2'</u>	
	227 52	258.8	54.8' - 3.07'	
7	56 52	286.0		

Mean - 2.98'

12	56.9	52.5
12	51.1	
+0	5.2	

Mar. 18, 1898.

V

8 03 25 258.0 28.2'
 256.2 27.9'
 258.1 56.1' - 3.01'
 256.0

258.5
~~259.0~~ 28.0' (-3.04)'
 05 40 258.8 26.9'
 259.0 54.9' - 3.07'
 255.9

Index right and above.

347.2 29.1'
 08 20 16.4³ 29.4'
 348.0 58.5' - 2.92'
 17.4

347.4 29.6' (-2.92)'
 11 40 00 17.0 28.9'
 2A 2A 347.4 58.5' - 2.92'
 2 7 7.5 16.3
 13 7.0 1.5
 12 51.1
 +0 15.9 ✓

Mean - 2.98'

Last settings somewhat difficult through light cloud.

Mar. 18, 1898

VI

8 20 12 346.7 30.1'
 16.8 29.5'
 347.5 59.6' - 2.87'
 17.0

22 16 347.8 28.6' (-2.92)'
 16.3 28.6'
 347.9 57.2' - 2.97'
 16.5

Index left and below

75.86 26.7'
 25 04 105.3 25.7'
 79.5 52.4' - 3.17'
 105.2

79.2 26.8' (-3.17)'
 75.6 25.4'
 26 44 106.0 52.2' - 3.17'
 14 16 80.3
 2 23 38.7 105.7
 -6.

Mean - 3.04

13 23.5 28.7
 12 51.1
 +0 32.5

8 30 Clouds. Stars difficult

Mar. 18, 1898

VII

		80.1	25.1'
8	32	16	105.2
		79.7	25.3'
		105.0	50.4' - 3.25'

		79.4	25.9'	(-3.24)'
34	24	105.3	24.8'	
		79.4	50.7' - 3.24'	
		104.2		

Index right and above.

		169.5	26.3'
		170.0	
38	12	195.8	29.8'
		167.0	56.1' - 3.01'
		196.8	

		167.1	29.3'	(-3.02)'
40	08	196.4	26.5'	
145	0	169.0	55.8' - 3.02'	
2	36	15. 195.5		Mean - 3.13'
		-6		

13	36.2	9.
12	41.1	
40	45.1	

In above group images somewhat faint but growing brighter

Mar. 18, 1898.

VIII

8 43 20 168.9 26.8'
 195.7 29.9'
 167.0 56.7' - 2.99'
 196.9

44 52 168.2 29.3' (-2.99)'
 197.5 27.4'
 169.0 56.7' - 2.99'
 196.4

Index left and below

260.8 23.9'
 47 52 284.0 25.1'
 259.3 49.0' - 3.32'
 284.4

260.0 25.2' (-3.28)'
 49 28 285.2 25.6'
~~49~~ 260.1 50.8' - 3.24'
 25 32 285.7

Mean - 3.14'

2 46 23.
~~7.~~
 13 46.3 16.
 12 51.1
 40 55.2

Mar. 18, 1898

IX

		260.3	24.1'
8	53	16 284.4	24.0'
		260.2	<u>48.1' - 3.36'</u>
		284.2	

		260.3	24.1'	(-3.34)'
54	52	284.3 ⁴	24.7'	
		260.3	<u>48.8' - 3.33'</u>	
		285.0		

Index right and above.

		349.7	25.3'
58	28	15.0	26.1'
		349.7	<u>51.4' - 3.21'</u>
		15.8	

		349.0	26.2'	(-3.16)'
9	00	24 15.2	26.3'	
		227 0 348.2	<u>53.5' - 3.12'</u>	
9 ^a	56	15.5		

		7
18	56.6	32.0
12	51.1	
11	50.0	
+1	50.0	

Clouds thick

Mean - 3.25'

Mar. 15, 1898

X

$$\begin{array}{r}
 9 \quad 14 \overset{3}{40} \quad 347.8 \quad 26.5' \\
 \quad \quad 14.3 \quad \underline{24.4'} \\
 \quad \quad 350.6 \quad 50.9' - 3.24' \\
 \quad \quad 15.0
 \end{array}$$

$$\begin{array}{r}
 15 \quad 08 \quad 349.9 \quad 24.6' \quad (-3.26)' \\
 \quad \quad 15.5 \quad \underline{24.0'} \\
 \quad \quad 350.2 \quad 49.6' - 3.29' \\
 \quad \quad 14.5^2
 \end{array}$$

Index left and below.

$$\begin{array}{r}
 81.3 \quad 22.6' \\
 18 \quad 20 \quad 103.9 \quad \underline{22.1'} \\
 \quad \quad 81.2 \quad 44.7' - 3.52' \\
 \quad \quad 103.3
 \end{array}$$

$$\begin{array}{r}
 81.2 \quad 22.0' \quad (-3.52)' \\
 20 \quad 08 \quad 103.4^2 \quad \underline{22.6'} \\
 67 \quad 16. \quad \underline{80.9} \quad 44.6' - 3.53'
 \end{array}$$

$$\begin{array}{r}
 9 \quad 16 \quad 89.5 \quad 81.0 \\
 \quad \quad -7 \quad 103.6
 \end{array}$$

Mean - 3.39'

$$\begin{array}{r}
 18 \quad 16.7 \quad 82.5 \\
 12 \quad 51.1 \\
 +1 \quad 25.6 \checkmark
 \end{array}$$

Mar. 18, 1898.

XI

	51.4	21.7'
9 22 04	103.1	<u>22.3'</u>
	51.0	44.0' - 3.56'
	103.3	

	51.2	22.5'	(-3.54)'
24 20	103.7	<u>22.1'</u>	
	51.1	44.6' - 3.53'	
	103.2		

Index right and above.

	169.9	23.5'
27 52	193.4	<u>25.8'</u>
	169.0	49.3' - 3.30'
	194.8	

	168.8	26.2'	(-3.29)'
30 12	195.0	<u>23.5'</u>	
104 22	170.4	49.7' - 3.25'	
9 26	194.1		
	-7.		

14	26.0	0.
12	51.1	
41	34.9	

Mean - 3.42'

Mar. 18, 1895

XII

$$\begin{array}{r}
 9 \quad 32 \quad 16 \quad 170.8 \quad 23.2' \\
 194.0 \quad 25.3' \\
 169.2 \quad 48.5' - 3.34' \\
 194.5
 \end{array}$$

$$\begin{array}{r}
 34 \quad 20 \quad 169.2 \quad 25.8' \quad (-3.33)' \\
 168.8 \\
 195.0 \quad 23.2' \\
 170.86 \quad 49.0' - 3.37' \\
 193.5
 \end{array}$$

Index left and below

$$\begin{array}{r}
 38 \quad 12 \quad 261.6 \quad 21.4' \\
 283.0 \quad 23.4' \\
 261.0 \quad 44.8' - 3.52' \\
 284.4
 \end{array}$$

$$\begin{array}{r}
 40 \quad 20 \quad 261.0 \quad 23.4' \quad (-3.53)' \\
 284.4 \quad 21.0' \\
 1K \quad 2 \quad 262.0 \quad 44.4' - 3.54' \\
 9 \quad 36 \quad 17.5' \quad 283.20
 \end{array}$$

$$\begin{array}{r}
 1K \quad 36.2 \quad 10.0 \\
 12 \quad 51.1 \\
 +1 \quad 45.1
 \end{array}$$

Mean - 3.43'

Mar. 15, 1898.

XIII

9 46 48

261.7	21.3'
283.0	<u>22.0'</u>
261.0	43.3' - 3.59'
283.0	

49 00

261.0	22.7'	(-3.57)'
283.7	<u>21.5'</u>	
261.5	44.2' - 3.55'	
283.0		

Index right and above.

51 20

350.9	22.0'
12.9	
13.0	<u>24.0'</u>
350.1	46.0' - 3.46'
14.1	

52 44

350.5	24.2'	(-3.44)'
14.7	<u>22.8'</u>	
199 52	350.9	47.0' - 3.41'

9 49 52

13.8	
7.	
14 49.2 51.	13.7

12 51.1

11 55.7

Mean - 3.50'

Mar. 18, 1895

XIV

$\begin{array}{r} 9 \\ \times 1 \end{array} \begin{array}{r} 55 \\ 32 \end{array} \begin{array}{r} 350.3 \\ 13.4 \\ 351.0 \\ 14.0 \end{array} \begin{array}{r} 23.1' \\ 23.0' \\ 46.1' - 3.45' \end{array}$

$\begin{array}{r} 58 \\ 04 \end{array} \begin{array}{r} 350.9 \\ 13.8 \\ 351.0 \\ 14.0 \end{array} \begin{array}{r} 22.9' \\ 23.0' \\ 45.9' - 3.46' \end{array} \quad (-3.46)'$

Index left and below
clouds.

Stopped by clouds

Troubled more or less by varying cloud
throughout the evening

10. 30 Watch Correction = ± 7 sec (Watch rose

March 19, 1898. (Saturday)

15 Watch correction = -4 sec. (Watch is fast.)

R Canis Majoris.

Phot. T

St. Obs

7 13 $\neq -16.0$

7 35

Telescope diaphragmed down to 95 in

0 25

Comp. Star = $\delta\delta -15^\circ 14' 44'' (9.1)$.

0 25

-16.1 Circle Readings

7 43

Chron. Time.

Index left and below

I

40 Clouds

~~82.8~~ \leftarrow var. dis 20.2'

5 24 20 103.0 22.0'

81.4⁵

42.2' - 3.65'

103.5

81.1

22.1'

(-3.62)'

25 56 103.2

21.0'

82.0

43.1' - 3.60'

103.0

Index right and above.

170.8

22.3'

27 52 193.1

25.8'

169.3

48.1' - 3.36'

195.1

169.3

24.5'

(-3.38)'

29 16 193.8

22.8'

8 25 144 170.7

47.3' - 3.40'

5 26 51 193.5

Mean - 3.50'

Mar. 19, 1898.

- 8 30 clouds again.
Stars faint. Images seen to vary during observation
- 8 35 all cloudy again in this region
- 8 45 All thickly cloudy again. No chance for
any further work.

Posted to here.

March 21, 1895. (Monday)

- $\frac{7}{8}$ 30 Watch correction = - 5 sec. (Watch is fast)
 7 0 Cloudy
 7 30 Cloudy.
 8 0 A little clearer, but still too cloudy for β Persei
 8 30 Too cloudy.
 9 00 Cloudy.
 9 35 Too cloudy.

Printed by
mistake

Printed to here.

*Omitted by
mistake*

March 24, 1895. (Thursday)

30 Watch Correction = -23 sec. (Watch is fast)
Sancric. Phot. T H. Obs.

8	36	+19.6
7	16	
1	20	
10	40	

00 Rather cloudy but will try for Sancric.

02 Clouds thick

Index left and above.

240.6 \angle Var. dis 64.9'

305.5 54.4'

clouds 119.3' -1.21'

~~244.0~~

245.2

Clouds thicker

299.6

(-1.26)'

247.9 50.8'

06 36 298.7 63.7'

241.1 114.5' -1.31'

304.8

Index right and below

330.8 65.0'

10 12 35.8 54.4'

20 100 335.3 119.4' -1.21'

29.7

Mar. 24, 1898.

7	20	100	337.0	51.4'	(-1.26)'
	12	12	28.4	63.9'	

7	32	112	330.3	115.3' - 1.30'
---	----	-----	-------	----------------

7	08	25	34.2
---	----	----	------

Mean - 1.26'

5		-23	
12	08.1	05	

21	30.4	✓	333.0	60.0'
----	------	---	-------	-------

-9	22.3	50.3905	
----	------	---------	--

7	16	16	33.0	52.6'
---	----	----	------	-------

II

Clouds thicker 112.6' - 1.36'

336.4

29.0

(-1.34)'

336.3 51.8'

19 12 28.1 62.3'

330.9 113.1' - 1.32'

33.2

Index left and above

60.6 63.4'

23 00 124.0 63.0'

66.0 126.4' - 1.05'

129.0

64.1 64.9'

(-1.04)'

~~26 08 118.7 62.0'~~

26 36 129.0 126.9' - 1.04'

4 64 Clouds thick

7 24 16 61.2

Mean - 1.19'

5		-23	
12	20.9	53	123.2

26	30.8	✓	
----	------	---	--

Mar. 24, 1898

III

γ 33 24 122.4 $\frac{54.0}{61.4'}$
 $\frac{64.7}{115.4' - 1.29'}$
 118.7

34 56 $\frac{64.7}{119.7}$ $\frac{55.0}{60.6'}$
 $\frac{62.0}{115.6' - 1.29'}$
 Stars faint
 122.6

(-1.29)'

Index right and below
 Stars gone.

γ 38 Clouds thick

40 04 149.9 $\frac{64.3}{58.7'}$
~~40~~ 04 Clouds thicker Stars gone. $\frac{123.0}{154.0} - 1.13'$
 212.7

153.7 $\frac{57.3}{64.4'}$ (-1.14)
~~205.~~
 44 04 211.0 $\frac{121.7}{150.6} - 1.16'$

151 58 Clouds thicker

Mean -1.22

γ 38 07 215.0

5 -23

12 37.7 44'
 21 30.4

Mar. 24/895

IV

7 51 20 $\overset{8}{157.4}$ $62.3''$
 214.1 $\underline{58.7''}$
 153.3 $121.0'' - 1.17''$
 212.0

53 20 152.1 $59.8''$ $(-1.14)''$
 211.9 $\underline{63.5''}$
 Stars fainter $123.3'' - 1.12''$
 " gone.
 150.4
 213.9

Index left and above

~~211.6~~

Stars faint.

" gone

~~242.8~~ $60.1''$ ~~304.7~~ $\underline{53.1''}$

8 05 00 302.9
 246.8^0
 299.1

 $113.2'' - 1.34''$ ~~244.6~~ $(-1.25)''$

Stars very faint

Clouds thick, Stars gone.

 $57.6''$ $\underline{63.8''}$ $16 12 302.2$ $122.4'' - 1.16''$ ~~124.5~~ 241.2 305.0 ~~245.52~~ ~~303.6~~ ~~304.8~~ $01 28$ ~~23~~

Stars very faint

 $13 4.1''$ ~~$24 30.4''$~~ ~~$-2 29.3'' = 0.534''$~~ Mean $-1.20''$

Mar. 24, 1898.

Telescope reversed

V

0^h 53^m +19.4 Circle readings

9 33 Sid Time

In above reading, prism is run out a little to meet comp. star but the run is quite short.

Index left and below.

V

331.8

60.2'

Blond thicker

60.0'

9 24 20

32.0

120.2' - 1.19'

332.9

32.9

332.5

60.1'

(-1.16)'

27 12

32.6

63.4'

330.7

123.5' - 1.12'

34.1

Index right and above.

62.4

58.5'

30 08

120.9

64.0'

62.1

122.5' - 1.14'

59.8

123.8

(-1.12)'

Blond thicker

60.0

60.5'

31 52

120.5

64.2'

32 92

59.0

1K 26.0

21 30.5

124.7' - 1.09'

28 23

123.2

-2 2.5 = 0.2344

9 28 22

14 28 01'

Mean = 1.14'

Mar. 24, 1898

9 35 Clouds thicker.

Stars gone.

VI

9 45 Clouds thick again

58.0

65.7'

Clouds thick again

61.7'

9 51 40 123.7

127.4' - 1.03'

Clouds thick

60.5

Clouds thicker

122.2

(-1.04)'

62.1

61.9'

54 12 124.0

64.2'

Stars gone

125.1' - ~~1.04~~ - 1.06'

60.0

124.2

Index left and below
Clouds thick

148.4

67.4'

58 24 215.8

65.1'

Clouds thick

132.5' - 0.93'

149.1

Stars gone.

214.2

67.2'

(-0.92)'

147.9

Stars gone.

14 56.2' 66.2'

10 01 48 215.1

21 30.8' 133.4' - 0.91'

9 274 124

-6 38.2' = -0.2737'

5 56 31

149.4

14 57 02

Stars gone

Mar. 24, 1898

10 10 Stopped by clouds. Troubled throughout evening by clouds

10 15 Watch correction = -22 Sec (Watch is fast)

March 25, 1898. (Friday)

A & D 958

6 41 01.5
42 01.5

Bond 394

6 41 00.0
42 00.0

Dis. Jup II Phot. R. H. Obs. Frost rec.
Compared with Sat. following Jupiter = Sat. IV.
The following times & angles rechecked.

Chron Cor 2 = 2 sec's.

6 52 14.6
- 02
6 52 12.6

54 28.4
- 02
54 26.4

55 36.4
- 02
55 34.4

56 46.4
- 02
56 44.4

52	30	134.0	
53	04	107.1	241.1
	34	92.9	136.1
	46	100.0	239.0
54	05	132.9	
	19	106.1	239.0
	32	106.5	134.3
	57	106.3	240.5
55	14	134.0	
	28	105.7	239.7
	41	105.4	136.1
56	00	105.6	241.5
	14	131.9	
	34	100.1	242.0
	59	107.9	132.3
57	16	109.0	240.2

Mar. 25, 1895.

6 57 58¹⁶
 02
6 57 56¹⁵

59 02¹
 02
59 00¹

7 00 05¹
 02¹¹
7 00 03¹

01 16¹
 02
01 14¹

02 30¹
 02
02 28¹

03 59¹
 02
03 57¹

57
~~57~~
 58

59

00

01

02

03

04

04

35

51

06

20

40

54

09

25

40

56

13

30

50

07

24

44

01

17

41

03

24

45

00

11

35

130.0

247.0

132.0

247.0

136.0

241.9

133.0

241.1

132.2

241.0

132.0

236.9

131.2

239.0

136.2

238.0

135.7

235.7

136.5

235.9

137.8

237.0

142.0

141.2

230.8

6

7

2

9

10

Mar. 25, 1898.

7 04 58 ^{ny}	05	00	142.5
05 18 ^{ny}		30	237.0
32 ^{ny}		34	139.0
48 ^{ny}		50	236.8
06 12 ^{ny}	06	05 14	142.2 ^{fact}
30 ^{ny}		32	231.8
46 ^{ny}		48	142.0
07 06 ^{ny}	07	08	232.6 ^{fact}
32 ^{ny}		34	147.0
48 ^{ny}		00	23
08 27 ^{ny}	08	00	224.0
44 ^{ny}		29	153.5
		46	219.2

Sat. has now disappeared entirely behind the limb of Jupiter.

Sat. throughout observations ^{very} close to limb of Jupiter. ~~The~~ Making observations throughout difficult. Settings somewhat uncertain, and especially so, towards the last, when it came in contact with the limb, and finally disappeared behind the limb, before theoretical time of disappearance.

Mar. 25, 1898.

Limit of Visibility.

7	11	56	162.7
7	12	18	151.9
7	12	56	216.5
7	13	10	162.7
7	13	23	511.2
7	13	42	564.1
7	13	42	531.8
7	13	42	217.1

A and D 958

7	22	01.5
	23	01.5

73 394

7	22	00.0
	23	00.0

Parkhurst's Comp Stars for
U Aurigae

H. Ols.

5	31	+31.3
8	19	
2	48	

3	18	+32.0	Circle readings
48	55		Sid. Time

Mar. 25, 1895.

Parkhurst's Comp. Stars for Aurigae. Phot. T. H. Olw
 Star b compared with +32° 1062 (8.6)
 Index left and below.

$$\begin{array}{rcl}
 358.3 & \text{Comp. dis.} & 17.6' \\
 +3.4 & & 17.0' \\
 \hline
 27 \quad 15.9 & & 34.6' + 4.09' \\
 358.0 & & \\
 15.0 & &
 \end{array}$$

(+4.17)'

$$\begin{array}{rcl}
 357.9 & & 17.0' \\
 14.9 & & 15.2' \\
 \hline
 358.8 & & 32.2' + 4.25' \\
 14.9 & & \\
 +3.8 & &
 \end{array}$$

Index right and above.

$$\begin{array}{rcl}
 87.0 & & 18.7' \\
 105.7 & & 19.6' \\
 \hline
 86.4 & & 38.3' + 3.86' \\
 105.8 & &
 \end{array}$$

$$\begin{array}{rcl}
 84.9 & & 21.2' \\
 \hline
 85.0 & & 19.8' \\
 36 \quad 106.1 & & 41.0' + 3.71' \\
 86.2 & & \\
 106.0 & &
 \end{array}$$

(+3.78)'

Mean +3.98'

Mar. 25, 1898.

Star m compared with $+32^\circ 1062 (5.6)$
 Index right and above.

87.0 Comp. dis.

8	40	108.2	19.3'
8	41	106.3	<u>19.3'</u>
		87.0	38.6' + 3.85'
		108.2	
		106.3	

87.0	19.4'	$(-3.80)'$
106.4	<u>20.9'</u>	
86.1	40.3' + 3.75'	
107.0		

Index left and below

175.0	16.8'
194.8	<u>17.3'</u>
175.0	34.1' + 4.12'
177.0	
194.3	

8	49	177.76	15.9'	(-3.1)
		193.7	<u>17.1'</u>	$(+4.16)'$
		178.7	33.0' + 4.19'	
		195.8		

Mean + 3.98'

Mar. 25, 1895.

Comp. Stars for V Bauri.

H. Obs.

8	18	+17.0
9	36	
1	18	

A & D 958

9	20	01.7
	21	01.7

Bond 394

9	20 00.0
	21 00.0

Mar. 25, 1898.

Re. Jup. II. Phot. R. H. Obs. Frost. Rec.
 Compared with most remote of sat on following
 side = Lat IV. ^{Times & angles rechecked} Chron. Corr. = - 2 sec.

9	40	13 \pm	9	40	15 \pm	Suspected	
	23		9	40	25	seen	
41	15		41	17		151.2	
	35			37		222.2	
	54			56		144.7	
42	06		42	08		230.1	
	18			20		138.8	
	33			35		236.3	
	47			49		138.0	
43	02		43	04		234.3	
				20		140.0	
	28			30		134.0	
	40			42		237.0	
	57			59		133.0	
44	12		44	14		242.9	
				28		137.0	
44	54		44	104.0		241.0	1
-02			45	05	105.4	134.7	
44	52		20	104.7		240.1	#
			36			135.3	
46	06		53	104.0		239.3	
02			46	10	107.8	132.2	2
46	04		29	105.9		237.2	
			43			240.0	

Mar. 25, 1898.

$$\begin{array}{r}
 9 \ 47 \ 41 \quad 9 \checkmark \\
 \underline{\quad \quad 02 \quad} \\
 9 \ 47 \ 39 \quad \checkmark
 \end{array}$$

$$\begin{array}{r}
 49 \ 22 \quad \checkmark \\
 \underline{\quad \quad 02 \quad} \\
 49 \ 20 \quad \checkmark
 \end{array}$$

$$\begin{array}{r}
 50 \ 48 \quad \checkmark \\
 \underline{\quad \quad 02 \quad} \\
 50 \ 46 \quad \checkmark
 \end{array}$$

$$\begin{array}{r}
 51 \ 04 \quad \checkmark \\
 \underline{\quad \quad 02 \quad} \\
 51 \ 02 \quad \checkmark
 \end{array}$$

$$\begin{array}{r}
 54 \ 27 \quad \checkmark \\
 \underline{\quad \quad 02 \quad} \\
 54 \ 25 \quad \checkmark
 \end{array}$$

$$\begin{array}{r}
 56 \ 07 \quad \checkmark \\
 \underline{\quad \quad 02 \quad} \\
 56 \ 05 \quad \checkmark
 \end{array}$$

$$\begin{array}{r}
 47 \quad 04 \quad 136.5 \\
 22 \quad 102.6 \quad 239.1 \quad 3 \\
 48 \quad 00 \quad 101.4 \quad 136.6 \\
 18 \quad 102.0 \quad 238.0 \quad \# \\
 \hline
 46 \quad 133.0
 \end{array}$$

$$\begin{array}{r}
 49 \quad 02 \quad 106.2 \quad 239.2 \quad 4 \\
 38 \quad 100.1 \quad 137.0 \\
 50 \quad 04 \quad 108.2 \quad 237.1 \quad \# \\
 18 \quad 138.5
 \end{array}$$

$$\begin{array}{r}
 35 \quad 96.3 \quad 234.8 \\
 51 \quad 02 \quad 102.0 \quad 134.2 \quad \checkmark \\
 18 \quad 99.2 \quad 236.2 \quad \# \\
 39 \quad 136.3
 \end{array}$$

$$\begin{array}{r}
 54 \quad 102.7 \quad 238.0 \quad 6 \\
 52 \quad 12 \quad 103.8 \quad 135.2 \\
 30 \quad 103.2 \quad 239.0 \quad \# \\
 54 \quad 02 \quad 135.2
 \end{array}$$

$$\begin{array}{r}
 16 \quad 101.8 \quad 237.0 \quad 7 \\
 36 \quad 102.9 \quad 135.1 \\
 54 \quad 102.4 \quad 238.0 \quad \# \\
 55 \quad 20 \quad 132.0
 \end{array}$$

$$\begin{array}{r}
 55 \quad 40 \quad 104.1 \quad 134.1 \\
 56 \quad 104.1 \quad 238.2 \quad 2 \\
 56 \quad 14 \quad 102.4 \quad 135.0 \\
 39 \quad 103.2 \quad 237.4 \quad \#
 \end{array}$$

Mar. 25, 1898

Limit of Visibility

9 58 04	9 57	17	1645
02	58	48	155.8
9 58 02		28	445 209.0
		42	45.0 162.8
			44.8 207.8

Sat. reappeared on limb of Jupiter. It was suspected ~~was~~ some 10 sec. before it was marked as seen. It was impossible to equalize it immediately, but equalizations were obtained as soon as possible.

A and D 958

10	09	02.0
	10	02.0

Bond 394

10	09	00.0
	10	00.0

V Cancri Comp. Stars.

8	18	+17.5
10	48	
2	30	

H. Obs.

Mar. 25, 1895.

Comp. Stars for U Cancer.

H. Ols.

10 36 l 6 l'
 l' 2.5 m
 m 3 n
 n 3 o'
 o' 5.5 o
 o 4.5 p
 ~~p 4 q~~
 p 6 q
 q 5 r
 r 5 s
 ~~s 5 t~~
 s 4 t
 t 3 u
 11 oo u 6 w

For diagram of above stars see
 Book 96 page 93.

March 26, 1898 (Saturday)

6 30 Watch Correction -18 sec. (Watch is fast)
R Canis Majoris. Phot. T. H. Obs.

7	13	$-16^{\circ}.0$	
7	23	Telescope diaphragmed to 9.5 inches	
0	10	Comp. Star $= -15^{\circ} 17' 44'' (9.1)$	
0	10	$-16^{\circ}.2$	Circle Readings.
7	26		Sidereal Time.

Index left and below.

6	59	20	172.6	27.6'	I
			200.2	27.2'	
			173.2	54.8' - 3.07'	
			200.4		

7	02	04	172.9	27.3'	(-3.09)'
			200.2	26.6'	
			172.5	53.9' - 3.11'	
			200.0		
			199.1		

Index right and above.

			263.0	29.1'	
04	44		292.1	30.3'	
			262.1	59.4' - 2.88'	
			292.4		

(-2.88)'

			261.0	31.1'	
06	36		292.1	28.5'	
11	104		262.0	59.6' - 2.87'	
7	03	15	290.5		
12	02.9	53			
11	42.3				
50	20				

mean - 2.85'

Mar. 26, 1898.

II

7 09 08 262.0 30.0'
 292.0 29.6'
 261.5 59.6' - 2.87'
 291.4

12 08 261.9 30.1' (-2.90)'
 292.0 28.2'
 262.9 58.3' - 2.93'
 291.1

Index left and below.

15 32 354.2 24.8'
 19.0 25.5'
 353.8 50.3' - 3.26'
 19.3

353.3 (-3.21)'
 +5.5 26.1'

19 00 19.4 26.4'
 15 48 353.6 52.5' - 3.16'

7 13 57 20.0
 5 -18

Mean - 3.06'

12 13.6 39
 11 42.3
 +0 31.3

Mar. 26, 1898

III

7 22 28 352.1 28.0'
 20.1 23.4'
~~354.8~~ 51.4' - 3.21'
 18.2

24 16 354.2 24.0' (-3.24)'
 18.2 26.0'
 353.2 50.0' - 3.27'
 19.2

Index right and above.

27 00 81.0 30.2'
 111.2 27.0'
 82.9 57.2' - 2.97'
 109.9

83.0 (-3.02)'
~~109.~~ 27.0'

29 04 110.0 27.4'
 22 48 82.2 54.4' - 3.08'

7 25 42' 110.0
 5 -18 109.6

Mean - 3.13'

12 25.4 24'
 11 42.3
 10 43.1

Mar. 26, 1898.

IV

7 32 24 79.8 30.5'
 110.3 25.8'
 83.2 56.3' - 3.00'
 109.0

33 56 83.9 25.0' (-3.06)'
 108.9 28.4'
 82.0 53.4' - 3.12'
 110.4

Index left and below.

37 48 172.7 28.1'
 200.8₆ 24.4'
 174.8 52.5' - 3.16'
 199.0

39 52 175.5 23.1' (-3.22)'
 198.6 26.6'
 21 180 173.5 49.7' - 3.28'
 7 36 00' 200.6
 5 -18 200.1

Mean - 3.14'

12 35.7 42'
 -11 42.3
 +0 53.4

Mar. 26, 1898.

V

$\begin{array}{r} 171.8 \\ 173.5 \\ 199.9 \\ 174.6 \\ 198.1 \end{array}$
 $\begin{array}{r} 26.4' \\ 23.5' \\ \hline 49.9' - 3.28' \end{array}$

 $(-3.32)'$

$\begin{array}{r} 175.3 \\ 198.1 \\ 174.0 \\ 199.2 \end{array}$
 $\begin{array}{r} 22.8' \\ 25.2' \\ \hline 48.0' - 3.36' \end{array}$

Index right and above.

$\begin{array}{r} 263.2 \\ 50 \quad 56 \quad 291.2 \\ 263.3 \\ 289.3 \end{array}$
 $\begin{array}{r} 28.0' \\ 26.0' \\ \hline 54.0' - 3.10' \end{array}$

264.4

24.6'

 $(-3.15)'$

53 12 289.0

33 156 262.9

7 48 54' 289.9

5 -18

$\begin{array}{r} 27.0' \\ \hline 51.6' - 3.20' \end{array}$

Mean - 3.24'

$\begin{array}{r} 12 \quad 48.6 \quad 36' \\ -11 \quad 42.3 \\ \hline +1 \quad 06.3 \end{array}$

In above group troubled by clouds

Mar. 26, 1898.

VI

8 05 32 263.7 25.3'
 289.0 24.0'
 264.6 49.3' - 3.30'
 288.6

07 20 265.0 23.4' (-3.32)'
 288.4 25.1'
 264.9 48.5' - 3.34'
 290.0

Index left and below.

355.3 22.8'
 10 44 18.2 23.0'
 355.0 45.8' - 3.47'
 18.0

354.5 23.4' (-3.46)'
 13 20 17.9 23.0'
 35 116 355.4 46.4' - 3.44'

8 09 14' 18.4
 5- -18

13 08.9 56'
 -11 42.3
 +1 26.6

Mean - 3.39'

Mar. 26, 1898.

~~5~~ ~~15~~ ~~20~~ ~~18.~~
 5 16 00 17.5
 356.0
 17.4

21.5'
21.4'
 43.2' - 3.60'

VII

(-3.59)'

356.0
 19 00 17.3
 356.0
 18.3

21.3'
22.3'
 43.6' - 3.58'

Index right and above.

83.0
 22 24 108.7
 84.0
 107.9

25.7'
23.9'
 49.6' - 3.29'

84.4

24.0'

(-3.32)'

23 56 108.4

24.2'

0 50 84.3

48.2' - 3.35'

8 20 20' 108.5

5 -18

Mean -3.46'

13 20.0 02'

-11 42.3

+1 37.7

Mar. 26, 1898.

	83.5	24.8'
8 27 52	108.6	<u>24.3'</u>
	84.3	49.1' - 3.31'
	108.6	

VIII

	84.1	24.9'	(-3.32)'
29 32	109.0	<u>23.7'</u>	
	84.3	48.6' - 3.33'	
	108.0		

Index left and below.

	176.2	20.8'
33 24	197.0	<u>20.4'</u>
	176.1	41.2' - 3.70'
	196.5	

	176.1	21.1'	(-3.70)'
35 00	197.2	<u>20.3'</u>	
4 108	177.1	41.4' - 3.69'	
8 31 27	197.4		

5 -18

13	31.209'
-11	42.3
+1	48.9

Mean - 3.51'

Mar. 26, 1898.

5 39 44 174.3
 197.2
 176.0
 197.2

22.9'
21.2'
 44.1' - 3.55'

IX

41 28 175.8
 197.0
 176.0
 197.0

21.2'
21.0'
 42.2' - 3.65'

(-3.60)'

Index right and above.

45 40 265.9
 288.1
 265.4
 287.8

22.2'
22.4'
 44.6' - 3.53'

47 28 265.4
 287.7
 12 140 264.4
 8 43 35 288.5

22.3'
24.1'
 46.4' - 3.44'

(-3.48)'

5 -18
 13 43.3 17'
-11 42.3
 +2 1.0

Mean - 3.54'

Mar. 26, 1898

8 56 56 264.9
 288.0
~~264.9~~
 288.0

23.1'
23.1'
 46.2' - 3.45'

X

59 20 266.0
 287.1
 267.2
 288.4

21.1'
21.2'
 42.3' - 3.64'

(-3.54)'

Index left and below

9 05 40 353.2
 19.4
 353.1
 17.2

24.2'
22.1'
 46.3' - 3.44'

Stars faint

(-3.56)'

356.1
 08 36 17.4

21.3'
20.4'
 41.7' - 3.68'

8 152 Stars faint

9 02 38' 357.0
 5 -18 17.4

Mean - 3.55'

14 02.3 20'

-11 42.3
 +32 20.0

Mar. 26, 1895.

~~35.4.4~~⁶XI~~7 23 00 18.1~~

9 25 Stars faint

26 " extremely faint

30 " gone.

35.7.1

Stars gone.

Troubled more or less all the evening
by clouds.

10 00 Watch correction = - 18 sec (Watch is fast.)

March 31, 1898. (Thursday)

7 0 Watch Correction = 0.

Comp. Stars for U Cancri.

H. Obs.

5 18 +17.5

8 48

0 30

5 00 Too high

J. A. Parkhurst's Comp. Stars for
S Urs. Min.

H. Obs.

15 49 +18.2

9 9

6 40

March 31, 1898.

Comp. Stars. for S Urs. Min. Phot. T. H. Obs.

Star m compared with DM + $78^{\circ} 57.8$ (8.3)
Index above.

$$\begin{array}{r}
 166.3 \\
 187.0 \\
 \hline
 196.1 \\
 167.1 \\
 187.5
 \end{array}
 \begin{array}{l}
 \text{Comp. dis.} \\
 20.7 \\
 \frac{20.8}{41.1} + 3.71^{\circ}
 \end{array}$$

$$\begin{array}{r}
 166.7 \\
 187.7 \\
 166.8 \\
 187.0
 \end{array}
 \begin{array}{l}
 21.0 \\
 (+3.70)^{\circ} \\
 \frac{20.2}{41.2} + 3.70^{\circ}
 \end{array}$$

Index below.

$$\begin{array}{r}
 258.0 \\
 257.5 \\
 277.3 \\
 257.0 \\
 277.1
 \end{array}
 \begin{array}{l}
 19.8 \\
 \frac{20.1}{39.9} + 3.77^{\circ}
 \end{array}$$

$$\begin{array}{r}
 257.4 \\
 277.5 \\
 257.5 \\
 277.6
 \end{array}
 \begin{array}{l}
 20.1 \\
 (+3.77)^{\circ} \\
 \frac{19.8}{39.9} + 3.77^{\circ}
 \end{array}$$

Mean + 3.74[✓]

Mar. 31, 1898,

Star b compared with DM. +75° 515 (8.3)
Index below.

$$\begin{array}{rcl}
 247.0 & \leftarrow \text{Comp. dis} & \\
 287.5 & 40.5 & \\
 249.4 & & \\
 286.1 & \frac{36.7}{77.2} + 2.28 &
 \end{array}$$

$$\begin{array}{rcl}
 249.5 & 37.0 & \\
 286.5 & & (+2.28)^2
 \end{array}$$

$$\begin{array}{rcl}
 247.6 & 40.6 & \\
 288.2 & \frac{77.6}{77.6} + 2.27 &
 \end{array}$$

Index above.

$$\begin{array}{rcl}
 335.2 & 43.1 & \\
 18.3 & & \\
 338.1 & 34.9 & \\
 17.0 & \frac{42.0}{42.0} + 2.14 &
 \end{array}$$

$$\begin{array}{rcl}
 337.3 & 40.7 & \\
 18.0 & & (+2.11)^2 \\
 336.0 & 43.1 & \\
 19.1 & \frac{42.2}{42.2} + 2.08 &
 \end{array}$$

Mean + 2.20

Mar. 31, 1898.

Star d compared with DM + 78° 57' 18" (8.3)
Index above

$$\begin{array}{r}
 338.1 \\
 17.1 \\
 337.0 \\
 18.0 \\
 \hline
 20.0 + 2.19'
 \end{array}
 \begin{array}{l}
 \text{Comp. dis.} \\
 39.0 \\
 41.0
 \end{array}$$

$$\begin{array}{r}
 338.0 \\
 18.6 \\
 337.1 \\
 17.1 \\
 \hline
 20.6 + 2.18'
 \end{array}
 \begin{array}{l}
 40.6 \\
 (+2.18)'
 \end{array}$$

Index below.

$$\begin{array}{r}
 69.4 \\
 106.5 \\
 69.4 \\
 106.2 \\
 \hline
 73.9 + 2.38'
 \end{array}
 \begin{array}{l}
 37.1 \\
 36.2
 \end{array}$$

$$\begin{array}{r}
 67.7 \\
 106.7 \\
 69.6 \\
 105.1 \\
 \hline
 74.5 + 2.36'
 \end{array}
 \begin{array}{l}
 39.0 \\
 (+2.37)'
 \end{array}$$

Mean + 2.25'

Mar. 31, 1895.

Star l compared with DM + γ^8 518 (5.3)
Index below.

$$\begin{array}{r}
 74.7 \text{ - Comp. dis} \\
 98.7 \quad 24.0 \\
 74.6 \\
 100.0 \quad \frac{25.4}{49.4} + 3.30'
 \end{array}$$

$$\begin{array}{r}
 74.0 \quad 26.2 \\
 100.2 \quad (+3.30)' \\
 75.4 \quad \frac{23.4}{49.6} + 3.29' \\
 98.8
 \end{array}$$

Index above.

$$\begin{array}{r}
 165.4^5 \\
 190.6 \quad 25.1 \\
 164.6 \quad 25.3 \\
 189.9 \quad \frac{50.4}{50.4} + 3.25'
 \end{array}$$

$$\begin{array}{r}
 164.4 \quad 25.4 \\
 28 \quad 189.5 \quad (+3.25)' \\
 164.5 \\
 189.6 \quad \frac{25.1}{50.5} + 3.25'
 \end{array}$$

Mean + 3.28'

Mar. 31, 1895.

Comp Stars for V Cancri. Phot. T. H. Obs.

8	18	+17.5
10	28	
2	10	

10

00 Moon too near.

Selection and Revision of
Comp. Stars for R Leonis H. Obs.

9	39	+12.5
10	44	
1	05	

10

10W 5x

x 3 y

y 4.5 x

x 5 x

x 4.5 β

Mar. 31, 1898.

Star β compared with α .
Index right and above.

67.1 < Comp. dis

10

37

108.0

40.9

65.1

109.0

 $\frac{43.9}{23.9} + 2.08$

66.0

108.9

42.9

 $(+2.08)$

66.5

107.7

 $\frac{40.9}{23.8} + 2.08$

Index left and below

158.8²

199.3

41.1

~~156.2~~

155.5

197.9

 $\frac{42.1}{23.2} + 2.10$

157.1

41.5

 $(+2.12)$

10

45 198.6

158.1

198.4

 $\frac{40.3}{21.6} + 2.14$

Mean + 2.10

Mar. 31, 1898

Star α compared with μ
Index above152.0 _{comp des}10 53 203.0 $\sqrt{1.0}$

153.4

204.7 $\frac{\sqrt{1.3}}{102.3} + 1.60'$

153.0

203.4 $\sqrt{0.8}$

(+1.64)'

154.1

203.1 $\frac{49.6}{99.8} + 1.67'$

Index below

243.0

259.6 $\sqrt{6.6}$

242.4

290.7 $\frac{42.3}{94.9} + 1.79'$

244.0

290.7 $\sqrt{6.7}$

(+1.81)'

244.2

290.6 $\frac{86.4}{93.1} + 1.83'$

Mean +1.72'

April 1, 1898. (Friday)

~~Mar. 31, 1898~~

7 0 Watch Correction = +6 sec. (Watch is slow.)
 R Canis Majoris Phot. T. H. Obs.
 7 13 -16.0 Telescope diaphragmed to 9.5 inches
 8 07
 0 54 Comp. Star = $-15^{\circ} 17' 4'' (9.1)$
 20 59 -16.1 = Circle Readings
 8 15 = Sidereal Time.

Index right and above.

7 22 32 38.1 \angle Van. dis. 25.2' I
 63.3 21.9'
 40.7 47.1' - 3.40'
 62.6

41.0 22.0' (-3.44)'
 24 20 63.0 23.7'
 39.6 45.7' - 3.47'
 63.3

Index left and below.

131.4 22.4'
 27 32 153.8 19.2'
 132.8 41.6' - 3.68'
 152.0
 151.6

131.4 20.0' (-3.66)'

29 16 151.7 22.6'
 23 45.0 130.3 42.6' - 3.68'
 25 55
 5 +6
 12 26 01 152.9

Mean - 3.55'

Apr. 1, 1898.

7	31	00	130.2	23.2'	<u>II</u>
			153.4	<u>20.2'</u>	
			131.7	43.4' - 3.59'	
			157.9		

			131.7	20.6'	(-3.62)'
32	20		152.3	<u>21.4'</u>	
			130.9	42.0' - 3.66'	
			152.3		

Index right and above.

			221.2	22.9'
34	40		244.1	<u>21.4'</u>
			221.6	44.3' - 3.54'
			243.0	

			221.3	21.0'	(-3.56)'
36	00		242.3	<u>22.6'</u>	
13	60		221.0	43.6' - 3.58'	
7	34	30	243.6		
5		+6			
12	33	36			

Mean - 3.59'

Apr. 1, 1898.

Santhiac

Phot. T.

H. Obs.

9	28
8	37

-28.1

Telescope diaphragmed to 9.5 in.

-0	50
----	----

23	38
----	----

-25.9

Circle Readings

9	05
---	----

Sidereal Time

Index above

I

5	15	32	49.0
			5.1 ² Var. dis
			5.3
			48.8 ²

43.9'

42.9'

86.8' - 2.00'

17	24	47.7
		4.0
		48.8

42.6'

(-1.99)'

44.8'

87.4' - 1.98'

Index below.

20	08	93.2
		142.6
		94.6
		142.2

49.4'

47.6'

97.0' - 1.73'

22	20	94.7 ²
		140.0

45.8'

(-1.78)'

46.8'

92.6' - 1.84'

7	5	24	93.5
1	2	51	
5		+6	140.3
13	15	57	
14	10	33	
0	51	36	

Mean -1.88'

Apr. 1, 1895.

8	25	56	92.4	48.8'	<u>II</u>
			141.42	47.4'	
			93.3	96.2' - 1.75'	
			140.37		

28	16	93.5	47.6'	(-1.75)'
		141.1	48.6'	
		93.1	96.2' - 1.75'	
		141.7		

Index above.

30	44	185.0	45.0'
		230.0	45.3'
		184.5	90.3' - 1.91'
		229.8	

		184.7	45.2'	(-1.90)'
		229.9	45.5'	

32	20	184.5	90.7' - 1.90'
35	136	230.0	
8	29	184.5	
5	19	230.0	
	+6		

Mean -1.82'

813	29	25
-14	10	33
-0	41	08

Apr. 1, 1895.

8	36	32	184.4	45.6'	III
			230.0	45.2'	
			185.2	90.8' - 1.89'	
			230.4		

			185.5	44.5'	(-1.91)'
38	36		230.0	45.0'	
			185.5	99.5'	
			230.5	89.5' - 1.93'	

Index below.

			272.1	49.2'
42	36		321.3	46.3'
			278.7	95.5' - 1.77'
			320.0	

			274.1	45.6'	(-1.78)'
45	12		319.7	48.8'	
			273.1	94.4' - 1.80'	
8	40	44	321.9		

5		+7
13	40	51
14	10	33
-0	29	42

Mean - 1.84'

Apr. 1, 1898.

IV

8	47	52	271.7	51.2'
			322.9	<u>47.8'</u>
			273.4	99.0' - 1.68'
			321.2	

50	12	273.7	47.4'	(-1.69)'
		321.1	<u>50.8'</u>	
		272.2	98.2' - 1.70'	
		323.0		

Index above

		4.0	46.0'
53	24	50.0	<u>46.3'</u>
		3.7	92.3' - 1.85'
		50.0	

		3.2	46.4'	(-1.86)'
		49.6	<u>45.3'</u>	
	55	32	91.7' - 1.87'	
	5	120		
5	51	45'		
5		+7		

Mean - 1.78'

13	51	52'
-14	10	33
-0	18	41'

Apr. 1, 1895.

IV

8	57	12	3.6	45.4'
			49.0	46.3'
			3.0	91.7' - 1.57'
			49.3	

58	32	51.6	3.0	48.6'	(-1.80)'
		<u>2.9</u>		48.7'	
		3.4		97.3' - 1.72'	
		51.6			

Index below.

9	00	24	91.3	51.2'
			142.5	50.3'
			92.5	101.5' - 1.62'
			142.8	

			92.4	49.4'	(-1.65)'
	01	40	141.5	49.6'	
	36	108	92.06	99.0' - 1.65'	
8	59	27	141.4		Mean - 1.72'
5			+7		
13	59	34			
14	10	33			
*0	10	59			

Apr. 1, 1898.

VI

9	03	08	92.5	49.9'
			142.4	<u>50.1'</u>
			91.2	100.0' - 1.66'
			141.3	

			93.0	48.1'	(-1.69)'
05	00		141.1	<u>49.4'</u>	
			92.7	97.5' - 1.72'	
			142.1		

Index above.

			183.4	49.3'
08	00		232.7	<u>46.5'</u>
			183.9	95.8' - 1.76'
			230.4	

			183.2	48.4'	(-1.76)'
10	04		231.6	<u>47.5'</u>	
26	12		184.8	95.9' - 1.76'	

9	06	33	230.7
5		+7	232.3

Mean - 1.72'

14	06	40
-14	10	33
-0	03	53

Apr. 1, 1895

VII

		184.8	48.2'
9	12	44	233.0
		183.2	48.3'
		231.5	96.5' - 1.74'

		183.1	48.3'	(-1.75)'
14	32	231.4	47.5'	
		184.8	95.8' - 1.76'	
		231.3		

Index below.

		272.1	
		321.4	49.6'
18	04	321.7	49.4'
		272.0	99.0' - 1.68'
		321.4	

(-1.68)'

		272.5	48.7'
19	12	321.5	50.1'
23	92	272.1	98.8' - 1.69'
9	16	08	322.8 ²
5		+7	

Mean - 1.72'

14	16	15
-14	10	33
+0	05	42

Apr. 1, 1898.

VIII

9	23	28	271.9	51.1'
			323.0	48.6'
			273.3	99.7' - 1.66'
			321.9	

			273.0	47.3'	(-1.70)'
25	08		320.3	49.8'	
			273.5	97.1' - 1.73'	
			322.5		

Indep. above.

			3.4	45.7'
			4.5	48.0'
28	52		49.1	93.7' - 1.82'
			2.3	
			50.3	

			2.7	48.3'	(-1.79)'
30	16		51.0	47.4'	
26	104		2.2	95.7' - 1.76'	
9	26	56'	49.6		

Mean -1.74'

5		+7
14	24	03
-14	10	33
+0	16	30

Apr. 1, 1898.

IX

9	32	16	2.3	47.7'
			50.0	46.2'
			4.0	93.9' - 1.51'
			50.2	

			4.2	46.9'	(-1.54)'
33	00		51.1	44.3'	
			4.1	91.2' - 1.58'	
			48.4		

Index below

			91.1	50.9'
34	40		142.8 ⁰	51.2'
			91.9	102.1' - 1.61'
			143.1	

			93.0	50.3'	(-1.63)'
35	48		143.3	50.1'	
14	104		92.0	100.4' - 1.65'	
9	33	56	142.1		

5		+8
---	--	----

14	34	04
----	----	----

-14	10	33
-----	----	----

+0	23	31
----	----	----

Mean -1.74'

Apr. 1, 1895.

X

9 37 04 92.0
141.4
91.9
141.9

49.4'
50.0'
99.4' - 1.67'

39 20 91.2
141.7
92.0
141.0

50.5' (-1.67)'
49.0'
99.5' - 1.67'

Index above.

42 25 183.6
185.0
231.0
183.2
232.0

47.4'
48.8'
96.2' - 1.70'

44 25 183.3
231.2
2 80 183.1
9 40 50' 231.0
5 +08

48.8' (-1.74)'
47.9'
96.7' - 1.74'

Mean - 1.70'

14 40 58' Comp. Star in above measurement
-14 10 33 precedes var. 1 m 39 sec and is 2' of arc north
+0 30 25 of it. Ball comp. star x.

∴ C. S. = Cordoba Sme. - 20° 7347 (A.7)

Comp. Star follows Cordoba General Catalogue
412969 (7.0) 2½ sec. and is about 10' north of it

Magn of Comp. Star = 8.5

Apr. 1, 1898.

Reap. of Jupiter I. Phot. R. H. Obs. Frost. Rec.
 Compared with nearer of two Sat. (both fairly
 close together) on preceding side = Sat. III

Chron correction = - 11 secs. *these times are clocked*

9 59 12	9	59	23	82.2
38			49	117.5
50	10	00	01	73.2
58			09	119.0
10 00 06			17	73.0
16			27	120.0
24			35	69.2
31			42	125.3
41			52	69.0
53		01	04	125.0
01 03			14	68.3
12			23	126.2
22			33	66.9
33			44	128.0
55		02	06	64.1
02 05			16	131.0
			24	63.7
02 41			38	67.7
- 11			49	72.1
02 30		03	00	69.9
				133.2

Apr. 1, 1898.

10 03 30⁺ 10
 - 11
10 03 19⁺

04 28⁺

- 11

04 17⁺

05 59⁺

- 11⁺

05 48⁺

07 03⁺

- 11⁺

06 52⁺

08 12⁺

- 11⁺

08 01⁺

10 11⁺

- 11⁺

10 00⁺

03

12

60.7

24

74.2

134.9

34

70.0

61.0

52

72.1

131.0

04

10

61.2

21

71.6

132.8

32

70.0

63.0

47

70.8

133.0

05

38

63.8

52

71.7

135.5

06

06

75.2

58.6

20

73.4

133.8

34

62.0

~~46~~~~62.0~~

52

72.0

134.0

07

14

76.1

58.1

32

74.0

134.2

48

62.2

08

04

72.8

136.0

18

73.3

60.2

39

73.6

133.5

09

25

59.0

10

01

77.0

136.0

14

76.5

58.5

52

76.8

135.0

Apr. 1, 1898

10	11	02	62.4	
10 11 22 ^x	15	71.3	134.0	2
-11	26	720	61.0	
10 11 11 ^x	47	71.6	133.0	

Limit of Visibility

10	12	46	81.2
10 13 11	13	00	81.8
-11	21	32.7	79.2
10 13 00	38	82.2	11.9

Sat. reappeared quite close to limb of Jupiter, and nearer than almanac indicated, so that a small amount of time was necessitated in order to adjust comp. sat. Sat. thought to be seen some 10 or 15 sec before first reading. Before taking eclipse cap had been put over object glass, and ~~was~~ had been used in observation of S. Antares. It was forgotten to remove the cap on setting on Jupiter until it was too late, so that eclipse was taken with object glass diaphragmed down to 9.5 inches aperture.

Apr. 1, 1898.

A & D 958

10	25	10.7
	26	10.8

B 394

10	25	00.0
	26	00.0

Did not have time to take comparison of
chronometer before eclipse, on account of
time needed on δ Antliae.

11 00 Watch Correction = +8 sec. (Watch is slow)

 δ Antliae

W. Obs.

9	27	-28.1
11	30	
2	03	

 β Lyras

W. Obs.

18	46	+33.2
11	46	
-17	0	
5	0	

Comp. of Chron.

B 394.

A & D. 958.

12	03	00.0
12	04	00.0

12	03	11.0
12	04	11.0

Apr. 1, 1898.

Recap. Jup. II. Phot. R. W. de Winter

Comp. with Sat. on same side
equals Sat. I.

Chron Cor = - 11 secs. " Angles. "

12	16	35	12	16	46	Acum.
		53	17		04	169.0
		17 04			15	204.0
		08			19	170.2
		15			26	205.8
		21			32	160.0
		27			38	203.0
		32			43	161.0
		40			51	206.2
		52	18		03	161.3
		58			09	206.0
18		04			15	154.0
		14			25	212.0
		21			32	153.8
		30			41	217.0
		39			50	153.0
		47			58	219.0
		57	19		08	149.9
19		03			14	218.1
		09			20	146.1
		16			27	217.7

Apr. 1, 1898.

12 19 25 ⁺	12	19	36	146.9	
35 ⁺			46	223.0	
44 ⁺			55	144.2	
56 ⁺		20	07	225.5	
			13	144.0	→
20 27 ⁺		22	79.0	223.0	
-11 ⁺		33	75.8	144.2	1
20 16 ⁺		40	77.4	220.0	
		51		144.5	
21 04 ⁺	21	01	77.4	221.9	
-11 ⁺		09	81.7	142.1	2
20 53 ⁺		14	79.6	223.8	
		23		143.2	
21 36 ⁺		32	80.0	223.2	
-11 ⁺		40	81.2	141.0	3
21 25 ⁺		47	80.6	222.2	
		54		142.4	
22 13 ⁺	22	04	79.8	222.2	
-11 ⁺		22	82.5	141.2	K
22 02 ⁺		31	81.2	223.7	
		40		143.0	
22 58 ⁺	23	54	78.1	221.1	
-11 ⁺		02	77.0	145.0	✓
22 47 ⁺		14	77.6	222.0	
		30		145.1	
23 46 ⁺		42	74.2	219.3	
-11 ⁺		50	73.1	145.6	6
23 35 ⁺	24	00	74.6	220.7	

April. 1, 1898.

12 24 24	12	24	09	145.0	
<u>-11</u>			21	77.2	222.2
12 24 13			28	78.6	143.7
			39	77.8	222.2
			48		144.0
25 03			58	78.0	222.0
<u>-11</u>			25	09	77.8
24 52			17	77.9	221.8

Limit of Visibility.

26 14	12	25	50	173.0
<u>-11</u>			59	21.9
26 03			26	20
			45	22.7

Seeing pretty good. Sat.
rechecked somewhat differently
from place indicated in almanac,
necessitating readjustment of comp.
sat. and so causing a little
delay in first setting.
Obs. eclipse taken with full aperture

Comp. of Chron.

B 394.	A. + B. 958.
12 42 00.0	12 42 11.0
12 43 00.0	12 43 11.0

Apr. 1. 1892.

Photometer I was returned to day from the Clarks. with the new arrangement for adjusting the emergent pencils. The double image prism has been enclosed in an elliptical cylinder (which has been pivoted at the extremities of the major axis of the ellipse)

The pivots work in an exterior clamp collar which latter can be rotated on the tube. By this rotation the double image prism can be rotated on the line of sight, and a screw at right angles to the plane of the pivots

April 4, 1898. (Monday)

6 30 Watch Correction = -7 sec. (Watch is fast.)
 R Canis Majoris. Phot. T. H. obs

7 13 -16.0

8 00 Telescope diaphragmed down to 9.5 inches.

0 47

7 0 cloudy

7 ¹⁵~~25~~ More cloudy.

7 30 Still cloudy.

7 13 -16.0

9 08

1 55

0

1 55

9 11

-16.1 = Circle Readings.

= Sidereal Time

Setting on var. and comp. star when brought together.

Comp. Star = -15° 1774 (9.1)

Apr. 4, 1895.

clouds.

Index right and above.

I

282.5 < Var. dis. 28.4'

310.9 24.6'

284.4 53.0' - 3.14'

309.0

283.4

26.2'

(-3.12)'

09 28 309.6

27.5'

283.5

53.7' - 3.11'

311.0

Index left and below.

13.2

26.6'

12 00 39.8

26.0'

14.0

52.6' - 3.16'

40.0

14.7

(-3.20)'

~~38.7~~

24.6'

18 48 39.3

26.1'

K2 16 13.5

50.7' - 3.24'

8 10 34.7

-7.

13 10.4 27.3

13 49.4

-0 39.0

Mean -3.16

Apr. 4, 1898.

II

8 17 48 $\begin{matrix} 22.2 \\ 141.6 \\ 13.4 \\ 38.1 \end{matrix}$ $\frac{1}{2}$ ct

~~11.0~~
Stars gone.
Clouds

8 35 44 $\begin{matrix} 13.0 & 26.8' \\ 39.5 & 30.2' \\ 11.0 & 57.0' - 2.98' \\ 40.2 \end{matrix}$

37 56 $\begin{matrix} 13.0 & 26.4' & (-3.06)' \\ 39.4 & 26.7' \\ 12.5 & 53.1' - 3.14' \\ 39.2 \end{matrix}$

Index right and above

40 00 $\begin{matrix} 101.1 & 30.4' \\ 132.5 & 29.5' \\ 102.9 & 59.9' - 2.86' \\ 132.4 \end{matrix}$

41 24 $\begin{matrix} 2.85 \\ 103.0 & 28.7' & (-2.86)' \\ 131.4 & 31.5' \\ 100.5 & 60.2' - 2.85' \end{matrix}$

13 32.6 39. $\frac{1}{2}$ 132.3
13 49.4
-0

Mean - 2.96'

Apr. 4, 1898.

III

8	45	32	101.0	31.9'	
			132.9	28.2'	
			102.7	60.1' - 2.86'	
			130.9	-	

47	52	102.0	30.1'	(-2.84)'
		^{2.1} 131.5	31.0'	
		101.1	61.1' - 2.82'	
		132.1		

Index left and below.

52	08	192.30	30.9'
		222.9	27.6'
		193.7	58.5' - 2.92'
		221.3	

54	16	192.7	29.3'	(-2.89)'
		222.0	30.6'	
199	42	192.6	59.9' - 2.86'	
2	49	⁵⁷ 223.2		

13	49.2	50.
13	49.4	
+ 0	0.2	

Mean - 2.86'

9 10 Clouds

Took off diaphragm Full aperture

Apr. 4, 1898.

IV

9	32	40	12.8	26.3'
			39.1	26.6'
			13.7	52.9' - 3.14'
			13.1	
			39.7	

(-3.14)

			13.2	26.1'
35	04		39.3	27.1'
			13.0	53.2' - 3.13'
			40.1	

Index right and above.

			102.7	27.3'
38	05		130.0	28.5'
			101.8	55.8' - 3.02'
			130.5 ³	

101.0

Clouds

Stopped by clouds

9 45 Watch correction = -7 sec (Watch is fast.)

April 6 1898. (Wednesday)

0 Watch correction = -9 sec. (Watch is fast.)

R. Canis Majoris.

Phot. T.

H. Obs.

7 13 -16.0

8 36 Telescope diaphragmed down to 9.5 inches.

1 23 Comp. Star = -15° 17' 4" (9.1)

1 28 -16.0 = Circle Readings.

8 43 = Sidereal Time.

Setting on Var. and Comp. Star when brought together
Index left and below.

16.0 var. dis.

I

7 35 00 37.6 21.6 ✓

14.7

35.3 $\frac{23.6}{85.2}$ ✓

3.50 ✓

15.4 22.7 ✓

(3.55) ✓

36 48 38.1

15.5 $\frac{20.6}{36.1}$ ✓

3.59 ✓

Index right and above.

105.7

23.2 ✓

42 44 128.9

105.4

$\frac{23.1}{46.3}$ ✓

3.44 ✓

128.5

104.3

25.4 ✓

3.42 ✓

129.7

106.0

$\frac{22.1}{47.5}$ ✓

3.39 ✓

128.1

47.5 ✓

mean 3.42 ✓

46 12
39 104
40 11
5 -9
12 40

Apr. 6, 1895.

II

7 45.52 106.0 22.6 ✓
 128.6
 104.4 28.4 ✓
 128.8 47.8 ✓ 3.41 ✓

51 00 104.9 23.7 ✓
 128.6
 106.1 22.3 ✓
 128.4 46.0 ✓ 3.46 ✓

(3.44) ✓

Index left and below.

54 08 196.5 21.7 ✓
 218.2
 196.1 22.5 ✓
 218.1 43.7 ✓ 3.57 ✓

56 08 195.4 23.3 ✓
 218.9 (3.54) ✓

9 68 197.0
 7 52 32 217.9 21.2 ✓
 5 09 218.2 44.5 ✓ 3.53 ✓
 12 52 23

mean 3.50 ✓

Clouds.

Apr. 6, 1898.

III

8 06 40 196.7 21.9 ✓
 218.6
 196.4 22.0 ✓
 218.4 $\frac{43.9}{43.9}$ ✓ 3.56 ✓

05 28 196.3 21.7 ✓ (3.60) ✓
 218.0
 196.4 20.2 ✓
 217.2 $\frac{42.5}{42.5}$ ✓ 3.63 ✓

Index right and above.

12 40 286.4 21.4 ✓
 307.8
~~286.0~~
 285.8 22.5 ✓
 308.3 $\frac{43.7}{43.7}$ ✓ 3.56 ✓

14 56 285.5 22.2 ✓ (3.52) ✓
 308.3

0 164 285.2 22.9 ✓
 8 10 41 308.1 $\frac{43.7}{43.7}$ ✓ 3.57 ✓
 5 -09 Mean 3.56 ✓

13 10 32 clouds.

Apr. 6, 1898.

IV

8 23 52 286.6 21.0 ✓
 307.6
 285.3 23.3 ✓
 308.6 $\frac{23.3}{44.3}$ ✓ 3.54 ✓

26 20 285.7 22.6 ✓
 308.3 (3.52) ✓
 285.0 22.5 ✓
 307.5 $\frac{22.5}{42.1}$ ✓ 3.50 ✓

Index left and below.

14.0
 16.8
 34.0 20.0 ✓
 29 20 36.5
 15.4 22.2 ✓
 37.6 $\frac{22.2}{42.2}$ ✓ 3.65 ✓

31 40 15.8 21.2 ✓ (3.64) ✓
 29 132 37.0
 15.7 21.5 ✓
 8 27 48 37.8² $\frac{21.5}{42.7}$ ✓ 3.62 ✓
 5 -09
 13 27 39
 mean 3.52 ✓

Apr. 6, 1898.

S Anthiae.

Phot. T.

H. Obs.

9	27	-28.9	
9	51	Telescope diaphragmed down to 9.5 in.	
0	24		
0	34	-28.9	Circle Readings
9	59	=	Sidereal Time.

} Var. and Comp
Star, together

Comp. star α (sec p. 100) joined with A. G. C. Vol. 14. 72969 (7)

Index left.

8 45 2.9 7.0 dis.
48.8 2 clouds 45.9^v
4.4
3.6
50.2 $\frac{46.6}{92.5}$ ^v 1.25^v

3.5 45.2^v
49.3
3.9 $\frac{46.2}{92.0}$ ^v 1.26^v
50.1

(1.26)^v

Index right.

91.2 50.6^v
141.8
91.5 $\frac{51.5}{102.1}$ ^v 1.61^v
143.0

91.8 51.0^v
142.5
91.8 $\frac{49.9}{100.9}$ ^v 1.63^v
141.7

(1.62)^v

Apr. 6, 1895.

Same again.

8 55 91.2
142.3⁰ 50.2[✓]

~~90.3~~

91.4 50.2[✓]
142.2 101.6[✓]

162[✓]

91.3 50.7[✓]
142.0

(161)[✓]

90.7 51.5[✓]
142.2 102.2[✓]

160[✓]

Index left.

184.8 45.6[✓]

230.4

184.1 47.5[✓]
231.6 93.1[✓]

163[✓]

184.9 46.8[✓]

(164)[✓]

9 03 231.3

8 59.0 184.8 45.7[✓]

5 230.5 92.1[✓]

166[✓]

13 59.0

mean 162[✓]

Apr. 6, 1895

Same again.

9 08 184.2 Kr. 2 ✓
 230.0
 184.0 46.7 ✓
 230.7 92.5 ✓ 1.25 ✓

184.4
 231.3 46.9 ✓ (1.25) ✓
 184.1 46.0 ✓
 230.1 92.9 ✓ 1.25 ✓

Index right.

271.0 r. 2.0 ✓
 323.0
 272.3 44.6 ✓
 320.9 100.6 ✓ 1.64 ✓

273.0 49.1 ✓ (1.64) ✓
 322.1

9 120 274.0 44.3 ✓
 322.3 97.4 ✓ 1.7 ✓

9 30 Clouds thick mean 1.76 ✓

Apr. 6, 1895

M.P. 441

Phot. R.

H. Obs.

3	31	+62.8		
11	6	7	38	+62.3 Circle Readings
7	35	11	10	Sidereal Time

Index right and above.

9 59 158.1
 212.1 \leftarrow var. dis. $\sqrt{4.0} \checkmark$
 155.4 $\sqrt{7.2} \checkmark$
 213.2 $\frac{111.2}{\sqrt{7.2}} \checkmark$ 1.36 \checkmark

154.0
~~212.8~~ $\sqrt{9.0} \checkmark$ (1.36) \checkmark
 213.0
 158.0 $\sqrt{4.5} \checkmark$
 212.5 $\frac{113.5}{\sqrt{4.5}} \checkmark$ 1.34 \checkmark

Index left and below.

248.2
 302.2 $\sqrt{4.0} \checkmark$
~~244~~
 245.7 $\sqrt{4.0} \checkmark$
 303.7 $\frac{112.0}{\sqrt{4.0}} \checkmark$ 1.37 \checkmark

10 04 246.5 $\sqrt{7.5} \checkmark$ 1.36 \checkmark
 10 01.5 304.0
 10 01.5 247.5 $\sqrt{4.3} \checkmark$
 5 01.5 301.65 $\frac{111.2}{\sqrt{4.3}} \checkmark$ 1.36 \checkmark
 15

Mean 1.37 \checkmark

Apr. 6, 1898.

Same again

10

05

246.1 $\sqrt{55.0}^{\checkmark}$

301.1

245.2 $\sqrt{6.2}^{\checkmark}$ 301.4 $\frac{114.2}{114.2}^{\checkmark}$ 1.39 \checkmark 245.9 $\sqrt{7.1}^{\checkmark}$

303.0

(1.39) \checkmark 247.0 $\sqrt{4.3}^{\checkmark}$ 301.3 $\frac{111.4}{111.4}^{\checkmark}$ 1.39 \checkmark

Index right and above.

337.4 $\sqrt{4.1}^{\checkmark}$

31.35

337.0 $\sqrt{5.1}^{\checkmark}$ 32.1 $\frac{109.2}{109.2}^{\checkmark}$ 1.48 \checkmark 335.6 $\sqrt{6.2}^{\checkmark}$

31.8

(1.42) \checkmark 337.5 $\sqrt{4.4}^{\checkmark}$ 31.9 $\frac{110.6}{110.6}^{\checkmark}$ 1.40 \checkmark mean = 1.40 \checkmark

10 12

10 09.0

5

15 09.0

Apr. 6, 1895.

Stancari,

Phot. T.

H. Obs.

7	8	36
	11	36
<hr/>		
	3	00

+19.6

3 06

11 43

+19.4 Circle Reading	} Setting or Var.
Sidereal Time	

Index left and below.

269.2 var. dis.

10 42 12 327.8² ✓

269.6

325.8

$$\frac{26.2}{114.2} \checkmark$$
1.32[✓]

269.4

56.6[✓]

43 40 326.0

269.0

324.2

326.6

$$\frac{27.6}{114.2} \checkmark$$
1.32[✓]

Index right and above.

358.7

46 16 54.6³55.6[✓]

0.0

53.8

$$\frac{53.8}{109.4} \checkmark$$
1.43[✓]

0.0

44 20 54.0

54.0[✓](1.43)[✓]

18 88 359.8

44 52 359.8

5 -07 55.4

15 44 45 55.4

$$\frac{55.6}{109.6} \checkmark$$
1.43[✓]mean 1.32[✓]

Apr. 6, 1895.

II

10 48 40 359.0
53.8 $\sqrt{K.A.}$ ✓

359.0
53.8 $\frac{\sqrt{K.A.}}{109.6}$ ✓

1.43 ✓

49 44 54.4 358.5
54.3 $\sqrt{V.6}$ ✓

(1.41) ✓

358.5
54.3 $\frac{\sqrt{V.2}}{111.4}$ ✓

1.39 ✓

Index left and below

51 16 88.5
145.7 $\sqrt{7.2}$ ✓

88.8
146.4 $\frac{\sqrt{7.6}}{118.2}$ ✓

1.31 ✓

52 28 88.0
146.2 $\sqrt{A.2}$ ✓

(1.30) ✓

0 128 88.4
10 50 32 145.8 $\frac{\sqrt{7.4}}{115.6}$ ✓

1.29 ✓

5 27
15 50 25

Mean 1.36 ✓

Apr. 6, 1898

III

10 53 56 $\begin{array}{r} 87.7 \\ 146.4 \\ \hline 88.0 \\ 87.8 \\ 146.2 \end{array}$ $\begin{array}{r} \sqrt{A.7} \\ \hline 117.5 \end{array}$ $\begin{array}{r} 1.26 \end{array}$

55 12 $\begin{array}{r} 88.5 \\ 147.7 \\ \hline 88.5 \\ 147.0 \end{array}$ $\begin{array}{r} \sqrt{A.5} \\ \hline 117.7 \end{array}$ $\begin{array}{r} (1.24) \end{array}$

Index right and above

58 08 $\begin{array}{r} 180.8^2 \\ 235.40 \\ \hline 181.1 \\ 235.2 \end{array}$ $\begin{array}{r} \sqrt{K.2} \\ \hline 106.9 \end{array}$ $\begin{array}{r} 1.88 \end{array}$

59 36 $\begin{array}{r} 181.3 \\ 235.1 \\ \hline 180.8 \\ 235.4 \end{array}$ $\begin{array}{r} \sqrt{3.4} \\ \hline 106.4 \end{array}$ $\begin{array}{r} (1.84) \end{array}$

25 112 $\begin{array}{r} 180.8 \\ 235.4 \end{array}$ $\begin{array}{r} \sqrt{K.6} \\ \hline 106.4 \end{array}$ $\begin{array}{r} 1.85 \end{array}$

10 56 43 $\begin{array}{r} 180.8 \\ 235.4 \end{array}$ $\begin{array}{r} \sqrt{K.6} \\ \hline 106.4 \end{array}$ $\begin{array}{r} 1.85 \end{array}$

5 $\begin{array}{r} -07 \\ 15 \end{array}$ $\begin{array}{r} 56 \\ 36 \end{array}$ $\begin{array}{r} 1.34 \end{array}$

11 00 Watch correction = -7 sec (Watch is fast)

April 7, 1895. (Thursday.)

7 0 Watch Correction = -12 sec. (Watch is fast)

R Canis Majoris.

Phot. T.

H. Obs.

7 13 -16.0

8 25 Telescope diaphragmed down to 9.5 inches

1 12 Comp. Star = -150 1774 (91)

1 15 -16.1 Circle Readings

8 29 Sidereal Time

Index left and below.

14.9 $\frac{1}{2}$ vander

23.1'

I

7 12 40 35.0

20.2'

16.3'

43.3' - 3.59'

36.2

16.9

20.5'

(-3.55)'

14 08 37.4

24.4'

14.9

44.9' - 3.51'

39.3

Index right and above

105.3

23.4'

16 48 125.7

21.6'

106.2

45.0' - 3.51'

127.8

106.8

20.5'

(-3.52)'

107.2

18 08 127.3

23.8'

7 21 44 104.5

44.3' - 3.51'

5 15 26 128.3

12 15 14 128.3

Mean - 3.54'

Apr. 7, 1895.

II

7	24	16	104.7	24.2'
			128.9	<u>22.1'</u>
			106.3	46.3' - 3.44'
			128.4	

			105.4	23.3'	(-3.42)'
26	08		128.7	<u>24.1'</u>	
			104.9	47.4' - 3.39'	
			129.0		

Index left and below

			197.9 ²	21.6'
28	40		218.8	<u>20.8'</u>
			197.3	42.4' - 3.64'
			218.1	

(-3.64)'

			197.1	21.3'
29	56		218.4	<u>21.2'</u>
7	27	120	196.8	42.5' - 3.63'
	27	15		
5		-12	197.0	
12	27	03	218.2	

Mean - 3.53'

Apr. 7, 1898.

III

7	41	00	195.9	22.1'	
			218.0	<u>20.4'</u>	
			194.6	42.5' - 3.63'	
			218.0		

			194.0	21.1'	(-3.60)'
42	56		218.1	<u>22.9'</u>	
			196.3	44.0' - 3.56'	
			219.2		

Index right and ~~to~~ above.

			285.2	23.8'	
46	32		309.0	<u>22.3'</u>	
			285.4	46.1' - 3.45'	
			307.7		

			285.7	21.6'	(-3.49)'
48	08		307.3	<u>23.0'</u>	
			17 96' 286.0	44.6' - 3.53'	

7	44	39'	309.0		
---	----	-----	-------	--	--

5		-12			
---	--	-----	--	--	--

12	44	27			
----	----	----	--	--	--

Mean - 3.54'

Apr. 7, 1898.

IV

7	53	44	285.5	23.3'
			309.5	<u>21.6'</u>
			285.7	44.9' - 3.51'
			307.3	

			285.9	21.8'	(-3.51)'
57	20		307.7	<u>23.1'</u>	
			285.6	44.9' - 3.51'	
			308.7		

Index left and below.

			15.5	21.3'
			37.0	<u>21.7'</u>
59	48		36.5	43.0' - 3.61'
			15.4	
			36.9	
			37.1	

(-3.61)'

			16.0	20.1'
8	01	12	36.1	<u>22.8'</u>
	30	124	15.1	42.9' - 3.61'
7	58	01	37.9	
5		12		
12	57	49		

Mean - 3.56'

Apr. 7, 1898

V

8 03 48 15.4 21.5[>]
 36.9 21.4[>]
 15.8 42.9[>] - 3.61[>]
 37.2

05 32 16.2 20.9[>] (-3.62)[>]
 37.1 21.8[>]
 15.4 42.7[>] - 3.62[>]
 37.2

Index right and above.

08 12 104.7 24.0[>]
 128.7 23.1[>]
 105.0 47.1[>] - 3.40[>]
 128.1

10 40 105.8 22.0[>] (-3.44)[>]
 26 132 127.8 23.3[>]
 8 07 03 105.0 45.3[>] - 3.49[>]
 5 -12 128.3 Mean -3.53[>]
 13 06 57

Apr. 7, 1898.

VI

			104.5	23.2'	
8	23	52	127.7	<u>22.3'</u>	
			105.7	45.5' - 3.48'	
			128.0		

			105.6	22.2'	(-3.46)'
26	32		127.8	<u>24.0'</u>	
			104.1	46.2' - 3.45'	
			128.1		

Index left and below.

			196.3	21.8'	
29	12		218.1	<u>27.0'</u>	
			196.5	42.8' - 3.62'	
			217.5		

			196.1	22.0'	(-3.61)'
30	56		218.1	<u>21.1'</u>	
28	152		197.0	43.1' - 3.60'	
8	27	38'	218.1		
5		12			
13	27	26'			

Mean - 3.54'

Apr. 7, 1898.

VII

8	32	48	196.7	21.5'
			218.2	<u>20.9'</u>
			197.1	42.4' - 3.64'
			218.0	

			196.6	21.4'	(-3.63)'
34	20		218.0	<u>21.4'</u>	
			196.7	42.8' - 3.62'	
			218.8		

Index right and above.

			30	
			285.8	22.2'
37	28		308.0	<u>24.7'</u>
			284.9	45.9' - 3.46'
			308.6	

			285.0	22.6'	(-3.50)'
--	--	--	-------	-------	----------

	40	12	307.6	<u>21.7'</u>	
	23	108	286.0	44.3' - 3.54'	

8	36	12	307.7	
---	----	----	-------	--

5		-12		
---	--	-----	--	--

13	36	00		
----	----	----	--	--

Mean -3.56'

Apr. 7, 1898

VIII

5 55 32 286.0
 305.1
 285.4
 307.6

22.1'
22.2'
 44.3' - 3.54'

285.5
~~306.~~
 57 52 307.1
 285.2
 308.4

21.6' (-3.53)
23.2'
 44.8' - 3.52'

Index left and below:

~~105.4~~~~38.0~~~~105.4~~

14.2

23.1'

9 01 36 37.3
~~106.~~
 38.2

21.8'
44.9' - 3.51'

15.6

21.6'

(-3.58)'

04 20 37.2

20.4'

37 140 16.7

42.0' - 3.66'

8 59 50' 36.6

Mean - 3.56'

5 -12

13 59 38

Apr. 7, 1898.

IX

9 06 16 16.1 20.7'
 36.5 21.1'
 16.1 41.8' - 3.67'
 37.2

07 36 16.1 21.8' (-3.63)'
 37.9 21.6'
 15.7 43.4' - 3.59'
 37.3

Index right and above.

09 36 106.0 23.0'
 129.0 23.7'
 104.5 46.7' - 3.42'
 128.2

11 16 105.2 23.1' (-3.41)'
 128.3 24.0'
 33 104 104.8 47.1' - 3.40'
 9 08 41' 128.8 Mean -3.52'
 5 -13
 14 08 28

Cap taken off Full aperture.

Apr. 7, 1898.

X

9 17 04 105.5 22.4'
 128.2 24.2'
 104.4⁶ 46.6' - 3.43'
~~129.0~~
 128.8

(-3.44)'

18 44 105.1 23.2'
 128.3 22.8'
 105.2 46.0' - 3.46'
 128.0

Index left and below

20 52 197.0 20.9'
 217.9 21.3'
 196.6 42.2' - 3.65'
 217.9

(-3.64)'

22 08 197.1 20.9'
 218.0 21.5'
 37 108 196.7 42.4' - 3.64'
 9 19 42' 218.2
 5 -13
 14 19 29'

Mean -3.54'

Apr. 7, 1898.

XI

9	24 04	197.0	21.4'	
		218.4	<u>22.0'</u>	
		196.1	43.4' - 3.59'	
		218.1		

25	16	196.5	21.8'	(-3.60)'
		218.3	<u>20.9'</u>	
		197.1	42.7' - 3.62'	
		218.0		

Index right and above.

		285.6		
		307.5	22.4'	
27	40	308.0	<u>22.2'</u>	
		286.1	44.6' - 3.53'	
		308.3		

		285.4	23.2'	(-3.49)'
29	36	308.6	<u>22.9'</u>	
25	96	285.7	46.1' - 3.45'	
9	26 39	308.6		Mean - 3.54'
5	-12			
14	26 26			

Apr. 7, 1898.

XII

		286.1	22.0'
9	33 12	308.1	<u>22.2'</u>
		286.0	44.2' - 3.53'
		308.2	

		285.5	21.5'	(-3.54)'
35	12	307.3	<u>23.1'</u>	
		285.3	44.6' - 3.53'	
		308.4		

Index left and below

		15.9	
		16.1	20.9'
38	32	37.4 ⁰	<u>20.7'</u>
		16.3	41.6' - 3.65'
		37.0	

		16.8		(-3.68)'
		17.0	20.3'	
40	16	37.1	<u>21.2'</u>	
26	72	15.9	41.5' - 3.69'	

9	36	48'	37.1
5		-13	

14	36	35
----	----	----

Mean - 3.61'

Apr. 7, 1898.

XIII

		15.5	21.8'
9	43 40	37.3	<u>20.3'</u>
		16.7	42.1' - 3.65'
		36.8	
		37.0	

		15.9	21.1'	(-3.66)'
45	00	38.0	<u>20.9'</u>	
		16.8 ²	42.0' - 3.66'	
		37.1		

Index right and above.

		105.9	21.8'
49	20	127.7	<u>23.0'</u>
		105.3	44.8' - 3.52'
		128.3	

(-3.50)'

		105.8 ²	22.9'
51	24	128.1	<u>22.5'</u>
28	84	105.5	45.4' - 3.49'

Mean - 3.55'

9	47	21'	128.0
5		-12	
14	47	08	

Apr. 7, 1898.

XIV

9 57 32 105.7
 128.9
 104.9
 129.87

23.2'
24.8'
 48.0' - 3.36'

59 32 106.0
 128.7
 105.5
 129.1

22.7'
23.6'
 46.3' - 3.44' (-3.40)'

Index left and below.

~~194~~
 10 02 24 196.0
 217.3
 196.2
 218.3

21.3'
22.1'
 43.4' - 3.59'

04 16 196.5
 218.0

21.5'
20.5'

(-3.62)'

22 104 196.5

42.0' - 3.66'

10 00 56 217.0

Mean - 3.51'

5 - 12

15 00 48

Apr. 7, 1898.

XV

		196.2	21.0'
10	05 48	217.2	<u>21.2'</u>
		196.6	42.2' - 3.65'
		217.8	

		196.4	22.3'	(-3.60)'
07	00	218.7	<u>21.9'</u>	
		196.6	44.2' - 3.55'	
		218.6		

Index right

		285.6	22.4'
09	08	308.0	<u>22.7'</u>
		285.0	45.1' - 3.50'
		307.7	

(-3.51)'

		285.4	22.6'
10	52	308.0	<u>22.1'</u>
31	108	286.0	44.7' - 3.52'

10	08	12'	308.1
5		-13	

Mean - 3.56'

15	07	59
----	----	----

Apr. 7, 1895

See p. 143.

 β Lyrae.

Phot. H.

H. Obs.

18 46

+33.2

11 31

Telescope diaphragm to 9.5 inches

7 15

4 45

5 0

+33.5 Circle Reading,

11 50

Sidereal Time

Index above and left.

163.2 \leftarrow vander 49.5'213.2

10 34 12

162.5

54.1'
103.9' - 1.56'

216.6

161.0

56.0'

(-1.50)'

36 48

217.0

53.0'

162.6

109.0' - 1.44'

215.6

Index right and below

251.0

53.0'

39 20

304.0

54.3'

251.92

107.3' - 1.48'

306.4

251.4

55.3'

(-1.48)'

41 56

306.7

52.6'

152 16

251.8

107.9' - 1.47'

32 0

304.4

15 37 51

Mean -1.49'

Apr. 7, 1898

II

10 44 12 252.5 51.6'
 304.1 51.8'
 252.2 103.4' - 1.57'
 304.0

46 36 252.5 52.4' (-1.56)'
 304.9 51.8'
 252.8 104.2' - 1.55'
 304.6

Index left and above

48 28 344.0 50.2'
 34.2 53.4'
~~341.3~~ 103.6' - 1.57'
 342.3
 35.7

~~341.7~~ (-1.58)'
 342.0 53.1'

52 52 35.1 50.1'
~~20 128~~ 343.8 103.2' - 1.58'
 30 128 33.9

10 48 52
 5 -13
 15 47 49

Mean -1.57'

Apr. 7, 1898.

III

		344.1	118.4'
10	54 56	32.5	<u>54.2'</u>
		341.3	102.6' - 1.59'
		35.5	

		340.7	54.3'	(-1.55)'
56	44	35.0	<u>51.6'</u>	
		342.4	105.9' - 1.51'	
		34.0		

Index right and below

		73.1	50.9'
58	56	<u>124.0</u>	<u>53.5'</u>
		71.7	104.4' - 1.55'
		125.2	

(-1.54)'

		72.7	52.3'
11	01 08	125.0	<u>53.2'</u>
	29 164	72.1	105.5' - 1.52'
10	57 56	125.3	
5	1	-13	
15	57 43		

Mean -1.54'

11 00 Watch Correction = -13 sec. (Watch is fast)
 The above was not an obs. of β Lyrae, but
 of a double star about $1\frac{1}{2}$ fields of finder
 following, and $\frac{1}{2}$ field north.

April 8, 1895. (Friday)

0 Watch correction = -16 sec. (Watch is fast.)

R Canis Majoris.

Phot. T.

H. Obs.

7 13 -16.0

8 36 Telescope diaphragmed down to 9.5 inches.

1 23 Comp. Star = -15° 17' 4" (9.1)

1 21 -16.0 Circle Readings } Var and Comp

8 41 Sidereal Time. } Star together

Index left and below.

15.1 - var. dis. 23.0'

38.1 21.0'

16.9 44.0' - 3.56'

37.9

16.3° 21.3' (-3.56)'

23 20 37.3 22.8'

15.9 44.1' - 3.55'

38.7

Index right and above.

104.1 24.9'

25 48 129.0 23.0'

105.0 47.9' - 3.37'

128.0

105.6 22.4' (-3.39)'

27 28 128.0 24.6'

104.4 47.0' - 3.41'

129.0

Mean - 3.48'

Apr. 5, 1898.

II

		104.6	24.4'
7	35 40	129.0	<u>22.2'</u>
		105.3	46.6' - 3.43'
		127.5	

		105.6	22.3'	(-3.40)'
37	44	127.9	<u>25.4'</u>	
		104.0	47.7' - 3.38'	
		129.4		

Index left and below.

		196.0	23.0'
40	16	219.0	<u>22.5'</u>
		194.8	45.5' - 3.48'
		196.5	
		219.0	

(-3.52)'

		196.9	21.6'
42	25	218.45	<u>22.1'</u>
34	128	196.2	43.7' - 3.57'
7	39 02	218.3	
5	-16		
12	38 46		

Mean - 3.46'

Apr. 8, 1898.

III

γ 45 32 196.1 22.9'
 219.0 21.3'
 197.1 44.2' - 3.55'
 218.4

196.7 21.3' (-3.54)
~~217.6~~ 23.1'
 45 28 218.0 44.4' - 3.54'
 195.49
 219.80

Index right and above.

285.5 23.8'
 52 00 309.3 22.1'
 285.9 45.9' - 3.46'
 308.0

286.0 22.2' (-3.44)

53 56 308.2 24.3'
 38 116 285.5 46.5' - 3.43'

γ 49 59' 309.8 Mean - 3.49'

5 -16

12 49 43

Apr. 8, 1898.

IV

7	56	32	285.1	24.6'
			309.7	<u>22.4'</u>
			285.7	47.0' - 3.41'
			308.1	

			286.4	21.7'	(-3.43)'
59	00		308.1	<u>24.4'</u>	
			285.3	46.1' - 3.45'	
			309.7		

Index left and below

			14.2	23.1'
8	02	28	37.7	<u>21.3'</u>
			16.0	44.4' - 3.54'
			37.3	

			15.7	21.6'	(-3.53)'
04	32		37.3	<u>23.2'</u>	
1	92		15.0	44.8' - 3.52'	

8	00	38	38.8 ²		Mean - 3.48'
5		-16			
13	00	22			

Apr. 8, 1895.

V

8 09 52 15.7 22.5'
 38.2 21.5'
 16.6 44.0' - 3.56'
~~37.7~~
 38.1

12 32 16.3 21.2' (-3.57)'
 37.5 22.3'
 15.8 43.5' - 3.58'
 38.1

Index right and above.

104.5 24.5'
 15 00 129.0 23.4'
 105.5 47.9' - 3.37'
 128.9

17 12 105.6 23.8' (-3.37)'
~~16 28~~ 129.0 24.1'
 13 96 104.9 47.9' - 3.37'
 8 13 39' 129.0 Mean - 3.47'
 5 -16
 13 13 23'

Apr. 8, 1898.

VII

		105.0	23.9'
8	23 32	128.9	<u>23.7'</u>
		105.3	47.6' - 3.35'
		129.0	

		105.4	23.5'	(-3.36)'
25	32	128.9	<u>24.8'</u>	
		105.1	48.3' - 3.35'	
		129.9		

Index left and below.

		196.54	23.0'
27	48	219.64	<u>21.2'</u>
		197.7	44.2' - 3.55'
		218.9	

		197.5	20.9'	(-3.57)'
31	12	218.4	<u>22.4'</u>	
26	124	197.0	43.3' - 3.59'	
8	27 01'	196.7		
5	-16	219.4'		
13	26 45'			

Mean - 3.46'

Apr. 5, 1898

VII

8	35	56	196.9	22.1'
			219.0	21.8'
			197.0	43.9' - 3.56'
			218.8	

37	16	197.0	21.5'	(-3.57)'
		218.85	22.1'	
		197.0	43.6' - 3.55'	
		219.1		

Index right and above

		285.3	23.3'
		304.4	23.4'
40	04	308.6	46.7' - 3.42'
		285.2	
		308.6	

(-3.42)'

		285.3	23.1'
42	20	308.4	23.6'
34	96	285.3	46.7' - 3.42'
8	38	54' 308.89	
5		-16	
13	38	38'	

Mean -3.50'

Apr. 5, 1895.

VIII

			285.2	23.8'
8	44	32	309.0	<u>22.2'</u>
			285.9	46.0' - 3.46'
			308.1	

			285.4	23.0'	(-3.44)'
46	12		308.4	<u>23.7'</u>	
			285.8	46.7' - 3.42'	
			309.5		

Index left and below

			15.9	22.4'
49	56		38.8 ³	<u>21.2'</u>
			16.6 ⁴	43.6' - 3.58'
			37.6	

			16.7	21.1'	(-3.58)'
53	00		37.8	<u>22.2'</u>	
32	100		16.0	43.3' - 3.59'	
8	48	25'	38.2		Mean - 3.51'
5		-16			
13	48	09'			

Apr. 5, 1895.

$\frac{5}{55} 32$
 15.0^3
 38.2
 16.2^0
 37.8^6

$22.9^>$
 $21.6^>$
 $44.5^> - 3.53^>$

IX

$57 40$
 16.0
 37.6
 16.0
 38.0

$21.6^>$
 $22.0^>$
 $43.6^> - 3.58^>$
 $(-3.56)^>$

Index right and above.

$9 00 32$
 105.6
 128.8
 105.0
 129.0

$23.2^>$
 $24.0^>$
 $47.2^> - 3.40^>$

$02 04$
 105.3
 129.0
 $34 108$
 105.2
 $8 58 57^>$
 128.2^4
 $5 -16$
 $13 58 41^>$

$23.7^>$
 $23.2^>$
 $46.9^> - 3.41^>$
 $(-3.40)^>$

Mean $-3.45^>$

Apr. 8, 1895.

X

		105.2	
		129.0	23.5'
9	05 32	128.7	<u>23.8'</u>
		105.1	47.3' - 3.40'
		128.9	

		105.4	23.9'	(-3.39)'
07	16	129.3	<u>23.7'</u>	
		104.3	47.6' - 3.38'	
		105.0		
		128.7		

Index left and below.

		196.5	21.1'
11	08	217.9	<u>22.2'</u>
		196.5	43.3' - 3.59'
		218.7	

		197.0	22.0'	(-3.57)'
12	40	219.0	<u>22.2'</u>	
35	96	196.7	44.2' - 3.55'	
9	09 09	218.9		
5	-16			
14	08 53			Mean - 3.48'

Apr. 5, 1898.

9	17	52	196.0	22.4'
			218.4	22.8'
			196.1	45.2' - 3.50'
			195.9	
			218.7	

XI

(-3.51)'

19	56	196.0	22.7'
		218.7	22.1'
		196.2	44.8' - 3.52'
		218.3	

Index right and above

22	40	286.0	23.1'
		309.1	23.7'
		285.5	46.8' - 3.42'
		309.2	

285.7	22.7'	(-3.44)'
-------	-------	----------

24	16	308.4	23.2'
2	164	285.8	45.9' - 3.46'

9	21	11	309.2 ⁰
---	----	----	--------------------

Mean -3.45'

5	-16
14	20
55	

Apr. 8, 1898.

XII

9	29	16	286.0	22.5'
			308.5	<u>23.0'</u>
			286.0	45.5' - 3.48'
			309.0	

			285.6	23.1'	(-3.47)'
31	32		308.7	<u>22.9'</u>	
			286.0	46.0' - 3.46'	
			308.9		

Index left and below.

			16.1	21.8'
34	44		37.9	<u>21.9'</u>
			15.5	43.7' - 3.57'
			37.4	

			15.6	22.1'	(-3.56)'
36	32		37.7	<u>21.8'</u>	
10	124		16.0	43.9' - 3.56'	Mean - 3.52'
9	33	01'	15.7		
5		-16	37.5		
14	32	45'			

Cap taken off Full aperture

Apr. 8, 1895.

XIII

9	42	20	15.2	22.1'
			37.3	21.9'
			16.0	44.0' - 3.56'
			15.8	
			37.7	

(-3.58)'

44	28		15.9	21.5'
			37.4	21.8'
			15.4	43.3' - 3.59'
			37.2	

Index right and above.

			105.55	23.5'
47	20		129.0	23.5'
			105.75	47.0' - 3.41'
			129.0	

			105.1	24.0'	(-3.42)'
--	--	--	-------	-------	----------

49	24		129.1	22.7'
22	92		106.0	46.7' - 3.42'
9	45	53'	129.0	
5		-16	128.7	
14	45	37		

Mean - 3.50'

Apr. 5, 1895.

XIV

9 51 48 105.0 23.6'
 128.6 24.1'
 105.6³ 47.7' - 3.38'
 129.4

53 12 105.5 23.8' (-3.39)'
 129.3 23.3'
 105.6 47.1' - 3.40'
 128.9

Index left and below.

56 12 196.0 21.4'
 217.4 21.2'
 196.0 42.6' - 3.63'
 217.2

58 04 196.0 22.3' (-3.64)'
 218.3 20.0'
 18 76 197.0 42.3' - 3.64'

9 54 49' 217.0

5 -16

14 54 33'

Mean - 3.52'

Apr. 8, 1898.

XV

		196.4	21.3'
10	01 40	217.7	<u>21.6'</u>
		197.0	42.9' - 3.61'
		196.6	
		<u>218.2</u>	

		196.4	(-3.60)'
		217.5	21.9'
03	32	218.3	<u>21.4'</u>
		196.6	43.3' - 3.59'
		218.0	

Index right and above.

		285.8	21.6'
05	40	307.5	<u>22.0'</u>
		285.2	43.6' - 3.58'
		307.2	

		285.4	22.1'	(-3.54)'
07	44	307.5	<u>23.1'</u>	
16	156	285.3	45.2' - 3.50'	
10	04 39'	308.3 ⁴		
5	-16			
15	04 23'			

Mean - 3.57'

Posted to here.

Apr. 8, 1895.

Phot. H.

H. Obs.

 β Lyrae.

18 46

+33°.2

11 50

Telescope diaphragm to 9.5 in.

6 56

5 04

5 12

+33°.2 Circle Readings

11 58

Sidereal time.

Index left and above.

268.0 \leftarrow radius

I

10 40 36 289.1 21.1 \checkmark 266.9 240 \checkmark 350 \checkmark 290.59 $\frac{240}{45.1}$ \checkmark 350 \checkmark

267.0

23.9 \checkmark

42 40 290.9

351 \checkmark

268.0

267.9

 $\frac{21.1}{45.0}$ \checkmark

289.0

Index right and below

358.1

20.6 \checkmark

46 12 18.7

359 \checkmark

357.0

 $\frac{22.2}{43.4}$ \checkmark

19.8

355 \checkmark

357.0

356.9

24.0 \checkmark 351 \checkmark

48 40 21.0

172 2 358.0

 $\frac{21.0}{45.0}$ \checkmark

10 44 32 19.0

45.0 \checkmark mean 352 \checkmark

14 44 16

Apr. 5, 1895.

II

11 54 24 358.5
19.2 20.7^v
356.4 * 23.9^v 353^v
20.3 48.6^v

55 56 356.5 23.0^v 354^v
19.5 21.2^v 355^v
357.8 48.2^v
19.0

Index left and above

58 36 88.1 21.0^v
109.1 351^v
86.4
87.0 24.0^v
111.0 45.0^v

342^v

11 01 12 86.7 24.5^v
230 2 111.2 68
88.0

10 57 32 109.8 344^v
-16 110.0 21.2^v
46.3^v

15 57 16 109.8

mean

~~mean~~351^v

Apr. 8, 1898.

11 04 24 88.3
109.3 21.0^v
86.5 24.6^v 3.4A^v
111.1 40.6^v

III

06 08 86.7 24.7^v
111.4 3.49^v
88.5 20.7^v
109.2 40.4^v

3.4A^v

Index right and below.

179.0
199.0 19.4^v
10 08 195.5 3.5A^v
177.3 23.7^v
201.0 43.5^v

3.55^v

13 48 177.0 23.4^v
200.8 3.52^v
34 24 178.5 21.0^v
11 8 37 199.5 44.2^v
-16.0

16 2 21.0^vmean 3.52^v

11 20 Watch Correction = -16 sec. (Watch is fast)

Apr. 5, 1898.

A & D 958

11 38 06.6

39 06.6

93 394

11 38 00.0

39 00.0

Chron. correction = -7 sec.

Peap. of Jup. I. Phot. R. H. Obs. Frost. Rec.
 compared with Sat on ~~the~~ preceding side = Sat III

Limit of Visibility

11 48 04	11 47	27	89.0
----------	-------	----	------

07

48

08

13.6 102.6

15.2 87.5

11 47 57

50

14.4 103.0

11 54 48 11

52

55

seen

56

53

03

80.7

53 14

21

112.0

21

28

82.0

27

34

113.3

31

38

76.5

39

46

115.0

45

52

73.7

51

58

120.0

57

54

04

71.7

54 04

11

122.0

10

17

70.8

16

23

122.0

Apr. 8, 1895.

11 54 23 11

29

36

42

48

54

55 01

08

14

21

28

35

43

49

56

56 00

56 28

-07

56 21

56 56

07

56 49

54

30

36

43

49

55

55

02

08

15

21

28

35

42

50

56

56

03

10

18

24

32

37

45

52

00

06

57

69.9

124.1

68.1

124.9

67.5

125.7

64.0

125.9

63.5

128.0

62.9

129.5

61.0

130.0

61.0

133.9 →

61.8

70.1 131.9

70.3 60.7

70.2 131.0

59.7

70.1 132.5

70.3 60.7

71.7 131.0

Apr. 8, 1895.

$$\begin{array}{r} 11\ 57\ 36^* \\ -07 \\ \hline 11\ 57\ 29 \end{array}$$

$$\begin{array}{r} 58\ 12^* \\ -07 \\ \hline 58\ 05^* \end{array}$$

$$\begin{array}{r} 58\ 52^* \\ -07 \\ \hline 58\ 45^* \end{array}$$

$$\begin{array}{r} 59\ 34^* \\ -07 \\ \hline 59\ 27^* \end{array}$$

$$\begin{array}{r} 12\ 01\ 50^* \\ -07 \\ \hline 12\ 01\ 43^* \end{array}$$

$$\begin{array}{r} 07\ 27^* \\ -07 \\ \hline 02\ 20^* \end{array}$$

57

5-8

5-9

12

01

02

24

31

40

48

55

04

20

27

33

38

48

55

00

06

16

23

42

54

39

47

54

02

10

23

31

45

68.3

71.3

69.8

70.3

71.2

70.8

70.6

68.1

69.4

70.7

72.3

71.3

70.0

69.7

69.8

71.7

71.5

71.6

60.9

129.2

59.9

130.2

61.9

132.2

59.7

130.9

59.4

130.0

61.7

129.8

59.0

129.7

59.7

132.0

59.0

129.0

61.0

130.7

61.1

132.8

60.3

131.8

3

4

5

6

7

8

Apr. 8, 1895

Seeing pretty good

A & D 958

12	15	6.7
	16	6.7

B 394

12	15	00.0
	16	00.0

April 9, 1898. (Saturday)

7 0 Watch Correction = -18 sec. (Watch is fast)
Comp. Stars for R Leonis. H. Obs.

9	39	+12.5
8	51	
0	48	
11	12	

7 37 w 5.5 x
x 2.5 y
y 4.5 x
x 4.5 x
x 3.5 β

See next page for photometric measurements

Apr. 9, 1895.

Star β compared with α .
Index right and above.

188.0

~~230.0~~ < Comp. des

40.3'

54 228.3

40.6'

186.7

80.9' + 2.17'

227.3

187.4

39.9'

(+2.16)'

227.3

41.9'

187.1

81.8' + 2.14'

229.0

Index left and below.

276.3

42.9'

319.2

44.9'

274.6

87.8' + 1.97'

319.5

274.9

43.6'

(+1.98)'

5 04 318.5

43.9'

275.3

87.5' + 1.98'

319.2

Mean + 2.07'

Apr. 9, 1895

Star α compared with u .
 Index left and above.

5 09 271.8° Comp. dis $51.0'$
 322.8 $50.8'$
 271.2 $101.8' + 1.61'$
 322.0

271.7 $52.0'$ $(+1.62)'$
 323.7 $49.2'$
 272.5 $101.2' + 1.63'$
 321.7

Index right and below

2.8 $47.9'$
 50.7 $50.0'$
 1.0 $97.9' + 1.71'$
 51.0

5 17 2.1 $48.3'$ $(+1.73)'$
 50.4 $47.9'$
 2.1 $96.2' + 1.75'$
 50.0

Mean $+ 1.68'$

Apr. 9, 1898.

Comp. Stars for S Cassiope.

Phot. T

H. Obs

1	12	+72.0
10	00	
8	48	

Star u compared with x
Index left and above.

9. 14

13.5	Comp dis	25.5'
39.0		23.7'
11.9		49.2' + 3.31'
35.6		

13.5	25.6'	(+3.32)'
39.1	22.9'	
15.0	48.5' + 3.34'	
37.9		

Index right and below

100.8	32.1'
132.9	25.6'
102.9	57.7' + 2.95'
128.5	

104.0	25.7'	(+3.01)'
129.7	29.0'	
100.	54.7' + 3.07'	

101.3

130.3

Mean + 3.16'

Apr. 9, 1895

Stars compared with α .
Index right and below.

9	27	95.9	comp. dis.	34.9'
		133.5		38.3'
		97.5		73.2' + 2.40'
		135.8		

98.0	37.2'	(+2.35)'
135.2	39.2'	
97.2	76.4' + 2.30'	
136.4		

Index left and above.

188.0	35.1'
223.1	35.5'
188.4	70.6' + 2.49'
223.9	

9	32	191.1	31.9'	(+2.56)'
		223.0	34.7'	
		191.0	66.6' + 2.62'	
		225.7		Mean + 2.46'

Apr. 9, 1898

Star ν compared with α
Index left and above

9	39	187.0	41.6'
		228.6	39.0'
		187.2	80.6' + 2.15'
		226.2	

188.5	39.5'	(+2.23)'
228.0	37.8'	
189.3	77.3' + 2.28'	
227.1		

Index right and below.

276.4	
314.7	39.6'
316.0	42.7'
275.7	82.3' + 2.13'
318.4	

9	46	276.0	42.6'	(+2.12)'
		318.6	40.4'	
		277.0	83.0' + 2.11'	
		317.4		

Mean + 2.15'

Apr. 9, 1898

Star x compared with c.
Index right and below

9	51	13.3	27.1'
		40.4	27.2'
		12.8	<u>54.3'</u> + 3.09'
		40.0	

13.1	26.9'	(+3.12)'
40.0	26.2'	
12.8	53.1' + 3.14'	
39.0		

Index left and above.

103.2	28.2'
131.4	30.9'
102.7	<u>59.1'</u> + 2.89'
133.6	

102.0	32.3'	(+2.84)'
57 134.3	29.8'	
102.0	62.1' + 2.78'	
131.8		

Mean + 2.95'

Apr. 9, 1895.

β Lyrae.		Phot. H.	H. Obs.
18	46	+33.2	
11	38	Telescope diaphragmed to 9.5 inches	
7	08		
4	52		
5	14	+33.0	Circle Readings
11	59		Sidereal Time

Index ~~left~~ and aboveI

10	35 05	110.7	24.2"	
		85.5	23.6"	
		109.1	47.2"	3.37"

		85.2	24.0"	3.36"
37	16	109.2		
		85.7	23.5"	3.39"
		109.2	47.5"	

Index ~~right~~ and below

40 ²	12	175.8	23.0"	
		195.8	23.7"	3.42"
		175.3	46.7"	
		199.0		3.42"

		175.6	24.1"	3.43"
46	48	199.7	22.4"	
10	20	176.6	46.5"	-3.40"
10	40	199.0		

Apr 9, 1898

$$\begin{array}{r}
 10 \quad 48 \quad 36 \quad 175.7 \quad 2 \\
 199.8 \\
 175.3 \\
 \times 199.7 \\
 \hline
 23.5' \\
 24.8' \\
 \hline
 47.9' \quad 3.37'
 \end{array}$$

$$\begin{array}{r}
 51 \quad 00 \quad 175.6 \\
 199.6 \\
 175.6 \\
 \times 199.7 \\
 \hline
 24.0' \\
 24.1' \\
 \hline
 48.1' \quad 3.36'
 \end{array}$$

Index above

$$\begin{array}{r}
 265.1 \\
 266.0 \\
 265.7 \\
 11 \quad 01 \quad 56 \quad 289.4 \\
 265.2 \\
 289.4 \\
 \hline
 23.7' \\
 24.2' \\
 \hline
 47.9' \quad 3.37'
 \end{array}$$

$$\begin{array}{r}
 04 \quad 12 \quad 265.2 \\
 22 \checkmark \quad 289.0 \\
 10 \quad 56 \quad 26. \checkmark 265.6 \\
 \quad \quad \quad -12 \quad \checkmark 289.7 \\
 \hline
 15 \quad 56 \quad 2. \checkmark \\
 \hline
 23.8' \\
 24.1' \\
 \hline
 47.9' \quad 3.37' \\
 - 3.36'
 \end{array}$$

Apr. 9, 1895

11 07 00 265.0 24.3'
 289.3
 265.0 24.4'
 289.4 $\frac{46.7}{-3.33}$

III

08 52 266.0 23.7'
 289.7
 265.7 23.1'
 288.8 $\frac{46.8}{-3.42}$

- 3.36

Index below,

12 16 356.0 23.1'
 19.1
 355.0 24.6'
 19.6 $\frac{47.7}{3.36}$

355.1 24.6' 3.36

14 16 19.7
 42 24 356.0
 11 10 36. 18.8
 -12. 47.4' 3.39'
 16 10 12. 3.36

Troubled throughout measures on β Lyrae by clouds
 Especially in last two groups and most of all
 in middle group. Images part of the time very faint.

11 20 Watch correction - 18 sec. (Watch is fast)

April 11, 1898. (Monday)

7 0 Watch correction = - 1 sec. (Watch is fast.)

Comp. Stars for R Leonis.

⊗

It. Obs.

9	39	+12.5
<u>8</u>	<u>59</u>	
0	40	
11	20	

7 34 ~~10 6 5~~ 10 4.5 y

~~x~~ ~~y~~ y 2.5 x

~~y~~ ~~x~~ x 4 x

~~x~~ ~~x~~ x 4 x

~~x~~ ~~β~~ x 5 β

~~18~~

Comp. Stars for V Cancri.

Phot. T.

It. Ob.

8	18	+17.5
<u>9</u>	<u>26</u>	
1	08	

8 18

9 30

91 12

Apr. 11, 1898.

Comp. Stars for V. Bancroft

H. Obs.

8

10 l 5.5 l'

l' 2.5 m

m 3 n

n 3 o'

o' 3 o

o 5 p

p 4.5 q

q 4 r

~~r 4 s~~

r 4.5 s

s 5.5 t

t 3 u

8

30 u 5 w

~~See next page for measurements~~

9

20 Stopped by clouds

April 12, 1898. (Tuesday)

11

00 Watch Correction = 0

S. Bancroft.

Phot. T.

H. Obs.

8 36

+19.6

13 06

4

35

+19.94 Circle Readings

4 30

13

12

Sidereal Time

Index

254.3

12

30 Practically cloudy all the time. Utterly impossible to make measurement

April 13, 1898. (Wednesday)

00 Watch Correction = + 1 sec. (Watch is slow.)
R Canis Majoris.

Phot. T.

H. Obs.

7	13	-16.0
9	00	
1	47	

40 Cloudy. var. invisible

50 Thickly cloudy everywhere. No chance for work

April 16, 1898. (Saturday)

7 00 Watch Correction = +2 sec. (Watch is slow.)

Σ 1138

Phot. H.

H. Obs.

7

40

-14°4

9

30

1

50

Sky a little clearer. Will try for
Compr. Stars for S Cassiope.

1

12

+72.0

9

37

8

25

Sky clearer again in this region. Will try for

β Persei

Phot. V. H. Obs.

Watch Correction at

April 16, 1895

I

Index left

7 59 28 259.0 β dis. 33.7'
 292.7 37.3'
 258.3 71.0' - 2.47'
 295.6

8 01 52 256.9 36.6' (-2.46)'
 293.5 35.5'
 258.4 72.1' - 2.44'
 294.4 ^{3.9}

Index right

06 00 348.0 34.8'
 22.8 36.5'
 347.8 71.3' - 2.46'
 24.3

09 00 348.8 33.2' (-2.51)'
 22.0 35.2'
 15 50 347.8 68.4' - 2.56'
 8 04 05' 23.0

Mean - 2.48'

13 04.1 07 Some clouds. Stars rather faint

-9 89.7

+3 54.4

April 16, 1898

8	12	28	347.6	34.9'	<u>II</u>
			22.5	<u>34.4'</u>	
			348.6	69.3' - 2.53'	
			23.0		

			347.7	34.5'	(-2.54)'
15	36		22.2	<u>34.6'</u>	
			348.1	69.1' - 2.54'	
			² 27.7		

Index left
Clouds thick.

			47. 76.8	35.2'
24	48		112.0	<u>33.0'</u>
			79.1	68.2' - 2.57'
			112.1	

			79.2	32.1'	(-2.62)'
27	16		111.3	<u>33.4'</u>	
38	128		79.1	65.5' - 2.66'	

8	20	02	112.5	
---	----	----	-------	--

5		+02		
---	--	-----	--	--

13	20.1	04		
----	------	----	--	--

-9	97
+4	10.4

Mean - 2.58'

Apr. 16, 1895

III

8	30	28	79.9	32.3'
			112.2	34.5'
			77.7	66.8' - 2.61'
			112.2	

33	12	77.0	34.9'	(-2.58)'
		111.9	33.4'	
		78.0	68.3' - 2.56'	
		111.4		

Index right

37	00	169.0	34.0'
		203.0	32.5'
		169.4	66.5' - 2.62'
		201.9	

~~169.2~~
~~168.8~~

(-2.59)'

39	32	203.0	34.3'
19	72	168.7	68.5' - 2.56'
8	35	03	203.0

Mean - 2.58'

5 +03

13 35.1 06

-9 09.7

+14 25.4

Apr. 16, 1898

IV

		168.9	33.5'
8	45 40	202.4	<u>34.8'</u>
		168.0	68.3' - 2.56'
		202.8	

		168.6	33.9'	(-2.59)'
49	12	202.5	<u>32.8'</u>	
		169.7	66.7' - 2.62'	
		202.5		

Index left

		258.6	34.9'
53	20	293.5	<u>32.6'</u>
		259.2	67.5' - 2.59'
		291.8	

		259.3	32.4'	(-2.60)'
--	--	-------	-------	----------

	56	00	291.7	<u>34.5'</u>
	3	72	258.1	66.9' - 2.61'
8	51	03	292.6	

Mean - 2.60'

5		+03
---	--	-----

13	51.1	06	B now very low. Nothing farther possible. It is doubtful whether any of the measurements on B tonight are of very much value as region was somewhat low at beginning and observations were taken through more or less cloud throughout.
-9	09.7		
+4	41.4		

Apr. 16, 1898

Comp. Stars for S. Cassiope. Phot. T. H. Obs.

1	12	+ 72.0
10	56	
9	44	

Star u compared with x.
Index above.

12.0	27.8'
16 39.8	24.4'
14.0	52.2' + 3.17'
38.4	

14.7	23.0'	(+3.17)'
37.7	29.3'	
11.0	52.3' + 3.17'	
40.3		

Index below

99.7	34.3'
133.0	28.0'
101.0	61.3
129.0	61.3 + 2.81'

99.9	31.2'	(+2.86)'
22 131.1	27.7'	
102.0	58.9' + 2.90'	
129.7		

Mean + 3.02'

Apr. 16, 1895.

Stars compared with α .
Index light and below.

99.8° Comp. dis 38.0'

27 137.0 36.8'

98.9 74.5' + 2.35 ✓

135.7

+ 2.32 ✓

96.8

39.2'

~~+ 2.32~~

136.0

37.2'

98.1

76.4' + 2.30 ✓

135.3

Index left and above.

187.7 36.2'

223.9 34.3'

190.7 70.5' + 2.49 ✓

188.7

223.0

+ 2.51 ✓

190.6

34.3'

33 224.9

34.9'

189.0

69.2' + 2.53 ✓

223.9

same + 2.42 ✓

Apr. 16, 1898.

Star μ compared with α .
Index above.

9 37 $\begin{array}{r} 184.0 \\ 228.2 \\ \hline 184.3 \\ 188.0 \\ 228.1 \end{array}$ $\begin{array}{r} 44.2' \\ 40.1' \\ \hline 84.3' \end{array}$ $+2.07$ ✓

$+2.15$ ✓

$\begin{array}{r} 187.0 \\ 226.1 \\ \hline 187.2 \\ 227.0 \end{array}$ $\begin{array}{r} 39.1' \\ 39.8' \\ \hline 78.9' \end{array}$ $+2.23$ ✓

Index below

$\begin{array}{r} 273.1 \\ 316.0 \\ \hline 273.8 \\ 320.0 \end{array}$ $\begin{array}{r} 42.9' \\ 46.2' \\ \hline 89.1' \end{array}$ $+1.94$ ✓

$+2.00$ ✓

9 42 $\begin{array}{r} 276.1 \\ 317.8 \\ \hline 275.5 \\ 318.7^3 \end{array}$ $\begin{array}{r} 41.7' \\ 42.5' \\ \hline 84.2' \end{array}$ $+2.07$ ✓
means $+2.02$ ✓

Apr. 16, 1895.

Star x compared with c.
Index right and below.

9 48 $\begin{array}{r} 192.5 \\ 222.2 \\ 193.0 \\ 222.0 \end{array}$ $\begin{array}{l} \text{comp. dis.} \\ 29.4' \\ 28.0' \\ 57.4' \end{array}$ $+2.96^{\checkmark}$

$\begin{array}{r} 194.5 \\ 222.3 \\ 192.5 \\ 222.4 \end{array}$ $\begin{array}{r} 26.5' \\ 29.6' \\ 56.1' \end{array}$ $(+2.92^{\checkmark})$ 30.1^{\checkmark}

Index left and above

$\begin{array}{r} 280.7 \\ 311.5 \\ 282.9 \\ 311.2 \end{array}$ $\begin{array}{r} 31.1' \\ 28.3' \\ 59.4' \end{array}$ $+2.22^{\checkmark}$

 $+2.22^{\checkmark}$

9 54 $\begin{array}{r} 281.2 \\ 311.5 \\ 279.7 \\ 310.5 \end{array}$ $\begin{array}{r} 30.6' \\ 30.8' \\ 61.4' \end{array}$ $+2.21^{\checkmark}$

mean $+2.91^{\checkmark}$

Apr. 16, 1895

Comp. Stars for V Bauri

H. Obs.

5	18	+17.5
---	----	-------

12	00
----	----

3	42
---	----

10

20 Clouds.

10

30 m 3.55'

0' 40

 β Lyrae.

Phot. H.

H. Obs.

18	46
----	----

+33.2

12	31
----	----

6	15
---	----

5	45
---	----

Abandoned too cloudy.

Apr. 16, 1898.

Comp. Stars for R Leonis.

H. Obs

9	39	+12.5
112	49	
3	10	

11 15 W 5.5 y
 y 2 x
 x 4.5 x

11 00 Watch Correction = +4 sec. (Watch is slow)

April 18, 1898. (Monday)

7

00 Watch correction = + 7 sec. (Watch is slow.)
Comp. Stars for R Leonis.

H. Obs.

9	39	+ 12.5
9	22	
0	17	

7

30 w 5.5 y
y 2.5 x
x 4 x

J. A. Parkhurst's Comp. Stars for
S Urs. Min. Phot. T.

H. Obs.

15	49	+ 78.2
9	49	
6	00	

See next page for measurements.

Apr. 18, 1898.

J. A. Parkhurst's Comp. Stars for S Urs. Min. Phot. ϕ
 Star b compared with DM + 78° 518 (5.3)
 Index above.

71. Obs.

$$\begin{array}{r} 94.8 \text{ Comp. dis.} \\ 07 \ 140.2 \quad 45.4' \\ 97.3 \\ 136.5 \quad \frac{39.2'}{24.5'} + 2.06' \end{array}$$

$$\begin{array}{r} 96.2 \quad 40.0' \\ 136.2 \quad (+2.06)' \\ 94.0 \quad 44.2' \\ 138.2 \quad \frac{44.2'}{24.2'} + 2.07' \end{array}$$

Index below.

$$\begin{array}{r} 186.0 \quad 41.0' \\ 227.0 \\ 187.3 \\ 226.2 \quad \frac{34.9'}{79.9'} + 2.20' \end{array}$$

$$\begin{array}{r} 188.1 \quad 37.9' \\ 13 \ 226.0 \quad (+2.20)' \\ 185.9 \quad 42.1' \\ 228.0 \quad \frac{42.1'}{40.0'} + 2.19' \end{array} \quad \text{Mean} + 2.13'$$

Apr. 18, 1898.

Star m. compared with DM. + 78° 515(8.3)
Index below

$$\begin{array}{rcl}
 & 197.1 & \text{Comp. dis.} \\
 8 \quad 16 & 216.4 & 19.3' \\
 & 196.8 & \\
 & 217.3 & \frac{20.5'}{39.8'} + 3.75'
 \end{array}$$

$$\begin{array}{rcl}
 & 197.0 & 20.2' \\
 & 217.4 & 20.1' \\
 & 197.3 & \cancel{19.1} \\
 & 217.4 & \frac{39.8'}{40.3'} + 3.75'
 \end{array}
 \quad (+3.76)'$$

Index above.

$$\begin{array}{rcl}
 & 286.0 & 21.2' \\
 & 307.8 & \\
 & 286.0 & 21.2' \\
 & 307.2 & \frac{42.4'}{43.0'} + 3.61'
 \end{array}$$

$$\begin{array}{rcl}
 & 285.0 & 22.2' \\
 8 \quad 23 & 307.2 & \\
 & 285.2 & 21.9' \\
 & 307.1 & \frac{43.1'}{44.1'} + 3.55'
 \end{array}
 \quad (+3.58)'$$

Mean + 3.67'

Apr. 18, 1898.

Star d compared DM + 78° 518 (8.3)
Index above.277.7 *Confid.*

26 315.6 37.9'

277.0

316.7 39.7'

 $\frac{39.7'}{77.6'} + 2.27'$

276.7 40.0'

316.7

(+2.27)'

278.2

315.8 $\frac{37.6'}{77.6'} + 2.27'$

Index below.

~~9.0~~

8.6

35.2'

44.4

7.6

32.1'

45.7

 $\frac{32.1'}{73.9'} + 2.38'$

8.1

7.8

37.2'

(+2.39)'

33

45.0

8.8

36.0'

44.8

 $\frac{36.0'}{73.2'} + 2.40'$

mean + 2.33

Apr. 15, 1895

Star l compared with DM + 75° 515 (5.3)
Index below.

$$\begin{array}{rcl}
 & 15.5 & \text{Compr. dis} \\
 8 \quad 36 & 37.5 & 22.0' \\
 & 14.2 & \\
 & 38.9 & \frac{44.7'}{46.7'} + 3.42'
 \end{array}$$

$$\begin{array}{rcl}
 & 13.1 & 26.7' \\
 & 39.8 & (+3.38)' \\
 & 16.0 & \\
 & 37.5 & \frac{21.5'}{48.2'} + 3.35'
 \end{array}$$

Index above.

$$\begin{array}{rcl}
 & 104.8^6 & 25.2' \\
 & 130.4 & \\
 & 102.4 & 22.2' \\
 & 131.2 & \frac{54.6'}{54.6'} + 3.07'
 \end{array}$$

$$\begin{array}{rcl}
 8 \quad 42 & 102.4 & 29.6' \\
 & 132.0 & (+3.04)' \\
 & 105.2 & \\
 & 131.5 & \frac{26.3'}{55.9'} + 3.02'
 \end{array}$$

Mean + 3.21'

Apr. 18, 1898.

DM. +75° 518(8.3) compared with DM +75° 510(7.2)

Index left

~~330.0~~

79.5 < 7.2 div.

02 150.4 70.9'

87.2

147.2 $\frac{60.0'}{130.9'} + 0.96'$

86.4

148.3 61.9'

(±0.90)'

79.6

153.8 $\frac{74.2'}{136.1'} + 0.85'$

Index right

171.8 71.6'

243.4

176.8 52.9'

235.7 $\frac{52.9'}{130.5'} + 0.97'$

177.9 52.2'

08 236.7 (±0.98)'

172.2

244.0 $\frac{70.1'}{124.9'} 1.00'$

242.3

Mean ±0.94'

Apr. 15, 1898.

DM + $78^{\circ} 519(9.0)$ compared with Parkhurst's H.
Index above.

$$\begin{array}{r}
 90.3 \text{ } 519 \text{ dis.} \\
 16 \quad 142.4 \quad \sqrt{2.1} \\
 90.0 \\
 142.9 \quad \frac{\sqrt{2.9}}{105.0} + 1.54
 \end{array}$$

$$\begin{array}{r}
 90.0 \quad \sqrt{2.4} \\
 142.4 \quad (\bar{x} 1.54)
 \end{array}$$

$$\begin{array}{r}
 90.0 \quad \sqrt{2.2} \\
 142.2 \quad \frac{104.6}{104.6} + 1.54
 \end{array}$$

Index below.

$$\begin{array}{r}
 183.1 \quad 49.9 \\
 233.0 \\
 182.8 \quad 47.6 \\
 230.4 \quad \frac{97.5}{97.5} + 1.72
 \end{array}$$

$$\begin{array}{r}
 182.0 \quad 49.7 \\
 21 \quad 231.7 \quad (\bar{x} 1.72)
 \end{array}$$

$$\begin{array}{r}
 183.7 \quad 42.2 \\
 231.9 \quad \frac{97.9}{97.9} + 1.71
 \end{array}$$

Mean $\bar{x} 1.63$

Apr. 15, 1898.

Comp. Stars for U Cancri. Phot. T. H. Obs.

8	18	+17.3
---	----	-------

11	26	
----	----	--

3	08	
---	----	--

Stars compared with c.

Index left

112.2	9.3'
-------	------

10	02	121.5	c. dis.	8.9'
----	----	-------	---------	------

112.2	18.2'	+5.50'
-------	-------	--------

120.1	
-------	--

112.2	8.1'	(+5.56)'
-------	------	----------

120.3	9.0'
-------	------

112.1	17.1'	+5.63'
-------	-------	--------

121.1	
-------	--

Index right.

201.5	8.5'
-------	------

210.3	7.6'
-------	------

203.1	16.1'	+5.76'
-------	-------	--------

202.4	
-------	--

210.0	
-------	--

202.0	8.6'	(+5.75)'
-------	------	----------

10	17	210.6	7.7'
----	----	-------	------

202.6	16.3'	+5.74'
-------	-------	--------

210.3	
-------	--

Mean +5.66'

Apr. 15, 1898

Star o' compared with c
Index right and below

10	20	198.2 c. dis.	17.9'
		216.1	<u>17.4'</u>
		198.8	35.3' + 4.04'
		216.2	

198.4	17.8'	(+ 4.00)'
216.2	<u>19.0'</u>	
197.5	36.8' + 3.95'	
216.8		

Index left and above.

287.7	
286.7	
307.6	
287.0	19.2'
306.2	<u>20.0'</u>
286.7	39.2' + 3.81'
306.7	

10	29	287.3	18.9'	(+ 3.86)'
		306.2	<u>18.8'</u>	
		286.4	37.7' + 3.90'	
		305.2		Mean + 3.93'

Apr. 15, 1898.

 β Lyrae.

Phot. H.

H. Obs.

18 46 +33.2

12 36 Telescope diaphragmed to 9.5 inches

6 10 6^h 0^m +33.2 = Circle Readings

5 50 12 45 = Sidereal Time

10 40 Hatch Correction = +8 sec. (Hatch is slow)

Index below.

177.4 β dis.

10 45 36

195.6

12.2^v

176.9

19.1^v

196.0

37.3^v3.92^v

176.9

19.1^v

48 28 196.0

(3.92)^v

176.9

12.3^v

195.2

37.4^v3.92^v

Index above.

267.6

286.0

12.2^v

51 00 285.8

267.0

19.6^v

286.6

37.6^v3.49^v

266.4

19.7^v(3.46)^v

53 08 286.1

266.8

19.0^v3.44^v

285.8

34.7^v3.49^v

Apr. 18, 1895.

10 56 12 267.3
 256.0 11.7 ✓ II
 267.4 ✓
 256.1 $\frac{11.7}{37.4}$ ✓ 3.92 ✓
 267.4^3
 58 20 255.5 11.5 ✓ (3.94) ✓
 267.5 ✓
 255.9 $\frac{11.1}{36.6}$ ✓ 3.96 ✓

Index below.

11 00 00 357.6
 15.0^3 77.7 ✓
 357.3 ✓
 15.78 $\frac{11.5}{36.2}$ ✓ $\neq 3.99$ ✓
 357.3
 04 20 16.0 11.7 ✓ (3.97) ✓
 32 52 354.4 $\frac{11.2}{36.9}$ ✓
 10 59 15.6 3.95 ✓
 ✓ 2. ✓
 14 59 51.
 4392.667 ✓
 4395.132
 $+ 3.535$ ✓

Apr. 18, 1898.

III

$$\begin{array}{r}
 11 \quad 06 \quad 56 \quad 357.7 \\
 \quad \quad \quad 15.5 \\
 \quad \quad \quad 357.4 \\
 \quad \quad \quad 15.8 \\
 \hline
 \quad \quad \quad 36.2 \quad 3.99
 \end{array}$$

$$\begin{array}{r}
 08 \quad 36 \quad 357.6 \\
 \quad \quad \quad 16.0 \\
 \quad \quad \quad 357.5 \\
 \quad \quad \quad 15.2 \\
 \hline
 \quad \quad \quad 36.2 \quad 4.01
 \end{array}$$

(4.00)

Index above.

$$\begin{array}{r}
 11 \quad 56 \quad 87.2 \\
 \quad \quad \quad 105.5 \\
 \quad \quad \quad 86.7 \\
 \quad \quad \quad 106.1 \\
 \hline
 \quad \quad \quad 37.7 \quad 3.90
 \end{array}$$

$$\begin{array}{r}
 13 \quad 52 \quad 86.7 \\
 \quad \quad \quad 106.6 \\
 \hline
 11 \quad 10 \quad 20 \quad 87.2 \\
 \quad \quad \quad +2.105.3 \\
 \hline
 16 \quad 10 \quad 20 \quad 86.7 \\
 \quad \quad \quad +3.92.674 \\
 \quad \quad \quad +3.92.132 \\
 \hline
 \quad \quad \quad +3.542
 \end{array}$$

(3.49)

3.94

11 20 Watch Correction = +5 sec (Watch is slow)

Troubled by clouds during obs. Reject.

April 21, 1898. (Thursday)

7 00 Hatch Correction = +4 sec. (Hatch is slow.)

R Canis Majoris.

Phot. T.

H. Obs.

7 13

-16.0

Telescope diaphragmed to 9.5 in

9 30

2

20

-16.1

= Circle Readings

2 17

9

37

= Sidereal Time.

Index left and below

Twilight strong. Observations difficult.

I

14.5

var dis.

22.9'

37.4

19.4'

16.2

42.3' - 3.64'

35.6

16.3

19.1'

(-3.68)'

24 32 35.4

21.6'

15.0

40.7' - 3.73'

36.6

Index right and above.

103.0

26.8'

26 56 129.8

23.1'

103.5

49.9' - 3.28'

126.9

104.5

23.7'

(-3.34)'

28 40 128.2

23.5'

21 136 103.9

47.2' - 3.40'

15 25 49' 127.4

12 25.9 53

-14 47.5

-2 21.9'

Mean - 3.51'

Apr. 21, 1895.

II

7 36 40
 103.0 25.0'
 128.0 24.3'
 103.5 49.3' - 3.30'
 127.8

38 36
 104.2 23.6' (-3.32)'
 127.8 25.0'
 103.1 48.6' - 3.33'
 128.1

Index left and below:

42 52
 197.0 21.0'
 218.0 20.9'
 197.0 41.9' - 3.67'
 217.9

44 24
 196.9 20.4' (-3.65)'
 217.3 22.1'
 0 152 196.0 42.5' - 3.63'

7 40 38' 218.1
 5 +014

Mean - 3.48'

12 40.7 42'
 -14 47.5
 -2 07.1'

7
 5
 12
 -14
 +1

Apr. 21, 1898.

III

7	48	48	195.0	23.7'	
			218.7	<u>21.0'</u>	
			196.0	44.7' - 3.52'	
			217.0		

			196.5	21.0'	(-3.54)'
50	48		217.2 ⁵	<u>23.0'</u>	
			195.1	44.0' - 3.56'	
			218.1		

Index right and above.

			283.1	24.9'	
54	20		308.0	<u>22.8'</u>	
			285.1	47.7' - 3.38'	
			307.9		

			285.0	23.4'	(-3.36)'
--	--	--	-------	-------	----------

57	20		308.4	<u>24.8'</u>	
9	136		283.9	48.2' - 3.35'	
7	52	49'	284.2		
5		+04	309.0		

Mean - 3.45'

12	52.9	53'
----	------	-----

-14	47.8
-----	------

+1	54.9'
----	-------

Apr. 21, 1898

IV

8 03 56 285.7 23.0'
 308.7 22.0'
 285.5 45.0' - 3.51'
 307.5

04 52 286.2 22.1' (-3.46)'
 308.3 24.6'
 284.7 46.7' - 3.42'
 309.3

Index left and below.

07 28 15.5 22.5'
 38.0 20.6'
 16.9 43.1' - 3.60'
 37.2

11 40 16.1 23.1' (-3.54)'
 39.2 22.6'
 25 176 15.9 45.7' - 3.47'
 8 06 59 38.5
 5 04

Mean - 3.50

13 07.0 03'
 -14 47.8
 -1 40.8

Apr. 21, 1898

V

		14.9	24.3'
18	14 05	39.2	<u>22.8'</u>
		16.3	47.1' - 3.40'
		15.7	
		38.8	

		15.2	22.2'	(-3.42)'
16	00	37.4	<u>24.0'</u>	
		15.0	46.2' - 3.45'	
		39.0		

Index right and above.

		102.1	
		127.	26.4'
18	48	128.5	<u>24.8'</u>
		105.0	51.2' - 3.22'
		129.8	

		104.2	23.9'	(-3.27)'
21	08	128.1	<u>25.1'</u>	
29	64	103.9	49.0' - 3.32'	
8	17	31' 129.0		Mean - 3.34'
5		04		
13	17.6	35'		
-14	47.8			
-1	30.2'			

Apr. 21, 1895.

VI

		103.0	26.1'	
8	23	36	129.1	<u>24.6'</u>
			104.7	50.7' - 3.24'
			129.3	

		104.3	24.7'	(-3.22)'
25	16		<u>26.7'</u>	
			129.0	51.4' - 3.21'
			102.5	
			129.2	

Index left and below.

		195.2	22.8'
27	44	218.0	<u>22.6'</u>
		194.7	45.4' - 3.49'
		217.3	

		195.1	22.4'	(-3.46)
29	52	217.5	<u>24.1'</u>	
24	148	193.9	46.5' - 3.43'	
8	26	37	218.0	
5		+04		Mean -3.34'

13	26.7	41'
-14	47.8	
-1	21.1'	

Apr. 21, 1898

VII

		194.0	
		220.0	24.8'
8	34 04	218.8	<u>23.1'</u>
		195.3	47.9' - 3.37'
		218.4	

		194.8	23.3'	(-3.39)'
36	00	218.1	<u>23.6'</u>	
		194.5	46.9' - 3.41'	
		218.1		

Index right and above

		285.9	23.1'
39	04	309.0	<u>25.4'</u>
		284.6	48.5' - 3.34'
		300.0	

		284.5	24.8'	(-3.32)
41	04	309.3	<u>24.8'</u>	
30	12	284.4	49.6' - 3.29'	
8	37 33'	309.2		
5	+04			

Mean - 3.36'

13	37.6 37'
-14	47.8
-1	10.2'

Apr. 21, 1898.

VIII

$\begin{array}{r} 284.5 \\ 45 \quad 05 \quad 309.8^2 \\ 284.0 \\ 309.0 \end{array}$
 $\begin{array}{r} 24.7' \\ \underline{25.0'} \\ 49.7' - 3.28' \end{array}$

$\begin{array}{r} 283.7 \\ 46 \quad 16 \quad 309.3 \\ 283.8 \\ 309.9 \end{array}$
 $\begin{array}{r} 25.6' \\ \underline{26.1'} \\ 51.7' - 3.20' \end{array}$
 $(-3.24)'$

Index left

$\begin{array}{r} 14.2 \\ 49 \quad 36 \quad 39.3 \\ 15.0 \\ 39.1 \end{array}$
 $\begin{array}{r} 25.1' \\ \underline{24.1'} \\ 49.2' - 3.31' \end{array}$

$\begin{array}{r} 14.4 \\ 51 \quad 04 \quad 39.1 \\ 31 \quad 64 \quad 14.1 \end{array}$
 $\begin{array}{r} 24.7' \\ \underline{25.2'} \\ 49.9' - 3.28' \end{array}$
 $(-3.30)'$

$\begin{array}{r} 48 \quad 01' \quad 39.3 \\ 5 \quad +04 \end{array}$
 $\text{Mean } -3.27'$

13 148.1 05'

-14 47.8

-0 59.7

Apr. 21, 1895

IX

8 54 52 13.9 25.1'
 39.0 25.0'
 14.1 50.1' - 3.27'
 39.1

54 28 14.8 24.3' (-3.28')
 39.1 25.4'
~~14.0~~ 49.7' - 3.28'
 13.8
 39.2

Index right

9 01 16 102.1 27.8'
 129.9 27.1'
 103.1 54.9' - 3.07'
 130.2

102.0 27.8' (-3.04')
 03 24 129.8 28.1'
~~15~~ ~~14~~ 120 102.4 55.9' - 3.02'

35 120 130.5

Mean - 3.16'

8 59 15'

5 104

13 59.3 19'

~~14~~ 48.8~~0~~ 48.5

Apr. 21, 1895.

X

9 10 24 104.4
~~+31.5~~ 27.6'
 132.0 29.9'
 101.9 57.5 - 2.96'
 131.5

13 32 102.4 28.4' (-2.90)'
 130.8 32.2'
 100.7 60.6' - 2.84'
 132.9

Index left on

~~194.5~~
 194.0 26.8'
 17 32 220.8 27.1'
 193.0 53.9' - 3.11'
 220.1

19 20 192.7 27.5' (-3.06)'
 220.2 28.4'
 19 108 193.0 55.9' - 3.02'
 9 15 12 192.6
 5 +04 221.0
 14 15.3 16'
 -14 47.8
 -0 32.5'

Mean - 2.95'

Took off diaphragm. Full aperture.

Apr. 21, 1895.

XI

9	28	24	192.0	29.3'
			271.3	28.0'
			192.3	57.3' - 2.96'
			220.3	

			192.0	28.6'	(2.96)'
32	00		220.7	29.1'	
			192.1	57.7' - 2.95'	
			221.2		

Index right

			282.0	29.8'
36	40		311.5	30.7'
			282.0	60.5' - 2.84'
			312.7	

			281.0	30.5'	(-2.83)'
39	36		311.5	30.6'	
15	100		280.9	61.1' - 2.82'	

9	34	10	311.5
---	----	----	-------

5		+04
14	34.2	14
-14	47.8	
-0	13.6	

Mean - 2.90'

9	45	Watch Correction = +4 sec (Watch is slow)	
---	----	---	--

4	40	-16.1	Circle Readings
---	----	-------	-----------------

11	58	Sidereal Time.
----	----	----------------

Last setting extremely difficult and somewhat uncertain

Apr. 21, 1895

S Anthias

H. Obs.

9	27	-28.°1
12	00	
2	33	

Abandoned as Photometer is not in good working order.

In all the previous settings to night on R Canis Majoris, troubled constantly by looseness of solder about reading circle. This did not vitiate the readings proper, but constantly necessitated holding the reading circle up manually against light, in order to see stars distinctly. This probably ^{perhaps} made readings ^{slightly} more color as the eye and hand got very tired.

 β Lyrae

Phot. H.

H. Obs.

18	46	133.2
12	08	
	22	
6	38	
5	22	

Telescope diaphragmed down to 9.5 inches

Cap with slot in it over double image prism

Apr. 21, 1895

 β Lyrae.

Phot. H.

H. Obs.

Index above

I~~75.8~~75.3 β dis

20.7 ✓

10 24 12

96.0

22.3 ✓

74.5

43.0 ✓

-3.61 ✓

~~97.5~~

96.5

(-3.54) ✓

74.4

22.6 ✓

27 05

97.0

23.0 ✓

74.0

45.6 ✓

-3.48 ✓

~~97.4~~~~96.9~~

97.0

Index below.

164.9

22.6 ✓

3.1 36

187.5

22.5 ✓

164.6

45.1 ✓

-3.50 ✓

187.1

164.8

21.9 ✓

(-3.50) ✓

34 05

186.7

23.1 ✓

36 64

163.7

45.0 ✓

-3.51 ✓

10 29 16

186.8

5 104

15 29 20

4401.6453

4395.132

6.513

Experimental, with cap on Mean - 3.52 ✓
double image prism.

Took off cap from double image prism

Apr. 21, 1898.

		163.7	24.2 [✓]	II III
10	36 44	187.9	21.9 [✓]	
		165.0	46.1 [✓] - 3.45 [✓]	
		186.9		

		164.8	22.2 [✓]	(-3.46) [✓]
35	12	187.0	23.5 [✓]	
		163.9	45.7 [✓] - 3.47 [✓]	
		187.4		

Index above.

		253.3	24.0 [✓]
39	48	277.3	21.6 [✓]
		254.7	45.6 [✓] - 3.45 [✓]
		276.3	

		254.2	22.5 [✓]	(-3.46) [✓]
		276.	24.0 [✓]	
41	36	276.7	46.5 [✓] - 3.43 [✓]	

34	140	253.0
10	39 05	277.0
5	+04	

Mean - 3.46[✓]

Groups 2, 3, 4, ^{taken} with no cap on double image prism, but O. S. diaphragmed down to 9.5 inches and power 135.

Groups 2, 3, 4, are the regular groups in the usual way, and the ones to be used. The others are experimental.

Apr. 21, 1898

III

10 43 32 253.3
 277.4
 255.1
 275.8

24.1 ✓
 20.7 ✓
 44.8 ✓ - 3.52

255.3
 44 52 276.2
 253.7
 277.9

20.9 ✓
 24.2 ✓
 45.1 ✓ - 3.50

(-3.51)

Index below

47 32 342.7
 7.2
 344.3
 6.7

24.5 ✓
 22.4 ✓
 46.9 ✓ - 3.41

49 20 344.9
 5.3
 23 136 344.4
 10 46 19 7.1
 5 104
 15 116 13

20.4 ✓
 22.7 ✓
 43.1 ✓ - 3.60

(-3.50)

Mean - 3.50

4401.6570
 -4395.137
 5
 6.520

Apr. 21, 1898.

IV

10	56	08	344.1	22.9 ✓	
			7.0	<u>20.3</u> ✓	
			345.4	43.2 ✓	360'
			5.7		

57	32		344.9	70.7 ✓	(3,59)'
			+5.6	<u>72.9</u> ✓	
			344.7	43.6 ✓	3,54'
			7.6		

Index above

			72.3	25.5	
			94.8		
			74.5	22.1 ✓	
11	01	48	96.6	<u>24.9</u> ✓	
			72.1	47.0 ✓	3,81'
			97.0		

			73.2	24.8 ✓	(3,80)'
03	48		98.0	<u>22.8</u> ✓	
37	136		73.5	49.6 ✓	3,34'
10	59	49	96.3		3,50'

5 +04

15 59 53

4401.6666

395.132

6435

Apr. 21, 1898.

Higher lower eyepiece. now on.

V

11	14	20	67.0	26.1 ✓	
			93.1	22.4 ✓	
			68.7	48.5 ✓	3.34
			91.1		

(3.40)

16	16	69.2	21.0 ✓	
		90.2	24.7 ✓	
		67.0	45.7 ✓	3.47
		66.8		
		91.5		

Index below

18	24	159.1	20.9 ✓	
		180.0	22.1 ✓	
		158.9	42.0 ✓	3.66
		180.0		

3.64

19	48	159.1	20.9 ✓	
		180.0	22.0 ✓	
27	108	158.7	42.9 ✓	3.61
11	17	180.7		
+5	+04			

3.50

Mean 3.52

16 17 21
 4401.6788
 +395.132
 6.547

Groups 5 and 6 experimental with higher power, but as the trial did not come down to meet the eyepiece by as much as $\frac{1}{4}$ inch, and the field was also not clear, it was considered unsafe to use them.

Apr. 21, 1898

11	21	20	158.6	22.5 [✓]	
			181.1	20.7 [✓]	
			159.3	43.2 [✓]	360 [°]
			180.0		

VI

22	32	159.7	20.1 [✓]	
		179.8	21.9 [✓]	
		158.3	42.0 [✓]	366 [°]
		180.2		

(363)[°]

Index above.

24	32	247.9	24.1 [✓]	
		272.0	18.4 [✓]	
		251.6	42.5 [✓]	363 [°]
		270.0		

		251.0	19.2 [✓]	359 [°]
26	04	270.2	24.9 [✓]	
13	108	246.8	44.1 [✓]	355 [°]
11	23	42	271.7	361 [°]
5		+04		

16	23	46
4401.6838		
+395.132		
6.051		

11 30 Watch Correction = +4sec (Watch is fast)

Posted to here.

15880000, 2004, 1352