KG
11365
571

KG 11365.5 71

KG 11365.571

HARVARD
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MAY 8 1956

Oct. 26. 1904.

B. + C. 1182.
11 47 59.5
48 59.7

B. 394.
11 49 00
50 00

Reappearance of Jup. II Phot R
W. obs, Hill lec. Compared with sat on preceding side equals sat. I.

Limit of Visibility.

			12	20	15		23.2	102.8 ~~20~~
12	20	56.			43	24.8.3 / 24.2	~~24.2~~	126.0	3.3
	+1	2.						
12	21	58.	Corr. 7.	21	02		25.1	101.8
					46		~~37.4~~	126.9
				~~22~~ 27	6 sec			
12	28	24		27	21		52.4	87.5	1.5
	28	38			35		52.9	141.9	1.5
	28	52			49		56.9	89.0	1.3
	29	10		28	7		66.1	145.9	0.9

wire came out

	29	34			31	70.0	79.8	0.8
	29	47			44	70.8	149.8	0.7
	29	57			54	72.2	79.0	0.7
	30	8		29	05	74.2	151.2	0.6

Oct. 26. 1904.

12 30 23.	12^h 29	20	79.7:	77.0	0.4
30 35.		35	80.5:	156.7	0.4
30 54.		51	80.8:	76.2	0.4
31 9.	30	06	81.1:	157.0	0.3
31 23.		20	81.4:	75.9	0.3
31 52.		49		157.3	
	31	16	81.5:	75.0	
12 31 42.		34	81.2:	156.5	0.3
+1 3					
12 32 45. Cor. T.		49	162.7: 81.4:	74.8	
	32	08		156.0	
		28	81.1:	73.9	
12 33 10		59	81.7:	15~~7~~5.0	0.3
+1 3.					
12 34 13. Cor. T.	33	31	162.8:	73.5	
		43	81.4:	155.2	
	34	07	81.8:	71.4	
12 34 3~~2~~3		26	79.9:	153.2	
+1 3					
12 35 36. Cor. T.		42	161.7:	74.1	0.4
		55	80.8:	154.0	
	35	11	81.6:	73.5	
		33	81.1:	155.1	
12 35 26		47	162.7:	73.1	0.3
+1 3.					
12 36 29		~~01~~	81.4:	~~153.5~~	
		15		154.2	
	36	34		73.2	
			80.3:		
12 36 51		45	79.6:	153.5	
+1 3.		52	159.9:	73.9	0.4
12 37 54.			80.0:		

Oct. 26. 1904.

12 37 48
+1 3
12 38 51. Cor. T.

~~12 38 62~~
12 39 2
+1 3
12 40 5 Cor. T.

12 41 40
+1 4.
12 42 44. Cor. T.

37 8
22
38
53
38 17
44
57
39 08
21
38
54
42 55
~~43 5~~
44 12

81.0'
80.3'
161.3'
80.6'

80.0'
81.6'
161.6'
80.8'

80.3'
80.3'
160.6'
80.3'

153.5
73.0
154.0 0.4"
74.2
154.5
73.1
153.1 0.4"
72.9
154.5
73.5
153.8 0.4"
73.5
153.8

Seeing somewhat blurry.
Sat reappeared on top of ghost of Jup. and also rather near the limb. It also reappeared in a somewhat different place from that indicated in the almanac For these various reasons and especially on account of the troublesome ghost of Jup. which was rather bright not many settings could be obtained during actual time of variation.

Oct. 26. 1904.

B+.C. 11A2				B. 394.		
13	2	√√.0		13	4	0.0
	3	√√.2			√	0.0

Oct. 2$\overset{7}{8}$. 1904. (Thursday).

B.+C. 1182.			B. 394.		
7	49	13.9	7	50	0.0
	50	14.1		51	0.0

Reap. Jup. ~~IV~~ I Phot R. W Obs.

mean of two before eclipse Campbell Rec

Comp. with sats. on Pol side =

Sat. ~~IV~~ II

Limit of visibility

	8 15 09		191.$\overset{2}{7}$	
8 15 48	35	26.7	218.9	
+45		26.1		
8 16 33	16 04	52.8	193.0	+3.1
	23	26.4	219.1	
20 38	8 19 53		seen	
21 1	20 16	50.5	178.0	+1.6
21 20	35	49.7	228.5	+1.7
21 44	59	57.2	178.8	+1.3
22 9	21 24	63.4	236.0	+1.0
22 19	34	66.4	172.6	+0.9
22 35	50	72.0	239.0	+0.7
22 51	22 06	74.0	167.0	+0.6
23 9	24	76.8	241.0	+0.5
23 23	38	80.8	164.2	+0.4
23 46	23 01		245.0	
	20	81.8	162.8	
8 24 5	42	85.0	244.6	
+45		166.8		+0.3
8 24 50		83.4		

Oct. 27, 1904

	8 .24	27		164.0		
		52		249.0		
	25	07	84.1	163.0		
8 25 38		29	82.1	247.1	2	
+45						
8 26 23		44	166 2 83.1	163.9		+0.3
	26	10		246.0		
		24	79.2	165.9		
8 26 40		40	81.1	245.1	3	
+45		52	160.3	166.3		+0.4
8 27 33			80.2			
	27	15		247.4		
		32	82.7	164.0		
8 27 59	:+	54	81.3	246.7	4	
+45						
8 28 44	28	08	164.0	163.8		+0.3
			82.0			
		22		245.1		
	29	~~46~~ 12	85.2	16~~3~~2.0		
8 29 38		~~12~~ 32	83.2	247.2	5	
+45			168.4			
		43	84.2	164.3		+0.2
8 30 23						
	30	04		247.5		
		16	82.2	163.9		
8 31 37		30	90.8	246.1	6	
+45	32	~~14~~ 15	173.0	159.0		+0.1
8 32 22			86.5			
	33	~~23~~ 26		249.8		
		44	85.0	164.0		
8 34 16	34	08	84.7	249.0	7	
+45						
8 35 1		26	169.7	163.5		+0.2
		45	84.8	248.2		

Oct. 27, 1904

8 35 34
+44
8 36 18

8 35 00
21
45
36 09

87.1 : 162.0
85.2 : 249.1
172.3 : 163.7
86.2 : 248.9

(A) +0.1

B 394
8 39 00
40 0.0

B&C 11A2
8 37 15.6
38 15.6

Seeing very blurry, but somewhat steadier at times. Sat. reap. very close to limb of Jupiter. ~~By waiting for fairly good intervals~~ Observer took settings rather slowly, waiting for intervals of fairly good seeing. Seeing at all times however ~~rather poor~~

Note. There is undoubtedly an error of 1 minute between Chron. Comparisons before and after eclipse. As W. compared with extra care, an error of 1 min. has been assumed in 11A2 at the end.

Oct. 27. 1904.

Ceraski's New Var. Gr. As. Phot. T.

27 33 +47.8
23 40
3 53
2 7

~~9~~
~~9~~
9 16 40

Index right & above.
115.8 C. St. dis.
~~181.0~~ 183.3 67.5 ✓
300.1 52.5 ✓
352.6 120.0 ✓ +1.19 ✓

123.9 54.1 ✓ +1.16 ✓
178.0
292.6 68.1 +1.14 ✓
0.7 122.2

Index left & below.
24.6
96.7 72.1 ✓
212.5 52.8 ✓
265.3 124.9 ✓ +1.09 ✓

34.9 52.8 ✓ +1.10 ✓
9 29 40 87.7
46 20. ✓ 203.3 71.2 ✓
9 23 10. ✓ 274.5 124.0 ✓ +1.11 ✓ mean +1.13 ✓
+5 +39. ✓
14 23 49. ✓

Oct. 27, 1904.

~~0 20 28~~ S. T. 0^h 20.5^m
~~−2 57~~ H. A. -2^h 57^m
~~+46.5~~ Dec. +46.5
P. A. 179.5 Var. B.
~~−2.5 B −1.5 C~~ Sprocket −2.5 B
" −1.5 C

Seeing somewhat troublesome. Air sharp and cold.

β Cygni. Gr. obs. Phot. R.

21 34 +42.5
24 35
+3 1

Index left & above. B

296.5 ← 69.3 Var. dis.
10 0 10 5.8
104.6 91.4
196.0 160.7 −0.37

285.3 90.4 −0.36
15.7
113.9 71.3
185.2 161.7 −0.35

Oct. 27. 1904.

Index right & below. A ~~Oct. 27~~

206.6
273.7 67.1 ✓
16.8 89.6 ✓
106.4 156.7 ✓ −0.44 ✓

195.8 89.2 ✓ −0.44 ✓
285.0
26.1 68.2 ✓
94.3 157.4 ✓ −0.43 ✓
mean − 0.40 ✓

10 09 10
9 20 ✓
10 4 40. ✓
+5 +39. ✓
15 5 19. ✓

Same again A
206.1 67.9 ✓
10 13 30 274.0
14.4 91.9 ✓
106.3 159.8 ✓ −0.38 ✓

196.5 88.7 ✓ −0.42 ✓
285.2
27.6 67.1 ✓
94.7 155.8 ✓ −0.46 ✓

Index left and above. B
115.7 71.5 ✓
187.2
285.3 91.2 ✓
16.5 162.7 ✓ −0.33 ✓

Oct. 27, 1904.

10 22 10 | 103.8
35 40. ✓ | 197.5 93.7 ✓ | −0.32 ✓
10 17 50. ✓ | 295.9 70.7 ✓
+5 +39. ✓ | 6.6 164.4 ✓ −0.30 ✓
15 18 29. ✓ | mean −0.37 ✓
Gen mean −0.38 ✓

S.T. 1 08.0~~55~~
H.A +3h 27m.5
Dec +42°.9
P.A. 59.5 Vern. B.
Sprocket −4.5 A
" −3.5 B
" −2.9 C

In last group some clouds during latter part of group, but the density of the clouds was such that the stars did not seem to be much different.

10 35 ~~10 35~~. Stopped by clouds.
Thick clouds now practically overspreading the entire sky.

W's watch used for times tonight.
Watch 39.5 slow.

Oct 28, 1904 (Friday)

Cerasky's New Var +46°740 (9.5)

27.33 +47°.3 W. Obs. Phot. J.

7 2 0 1

5 32

Right & above

294.4 ∠ C.S. dis

7h 26m op 6.2 71.8 ✓

121.6 57.5 ✓

179.1 129.3 ✓ +0.99 ✓

304.2 +0.99 ✓

358.2 54.0 ✓

111.8 75.4 ✓

187.2 129.4 ✓ +0.99 ✓

Left & below

205.2

276.3 71.1 ✓

32.3 55.9 ✓

88.2 127.0 ✓ +1.04 ✓

214.6 +1.04

7 35 00 266.8 52.8 ✓

6 1 0. ✓ 23.3 74.9 ✓ +1.03 ✓

7 30 30. ✓ 98.2 127.7 ✓

+5 +42. ✓

12 31 12 ✓

mean +1.02 ✓

Oct 28, 1904

Same again

206.5

$7^{h}38^{m}00$ 276.4 69.9

32.7 54.6

87.3 124.5 +1.10

214.0

268.7 54.7 +1.0~~5~~6

23.6 73.1

96.7 127.8 +1.03

Ringed & above

112.7

186.5 73.8

303.8 53.0

356.8 126.8 +1.05

+1.04

120.4

7 49 20 179.5 59.1

5 40. 296.2 68.0 +1.04

7 43 40. 4.2 127.1

+5 +42.

mean +1.0~~6~~5

12 44 22. P.A. 358.9 Vern. B. Gen. mean +1.04

H.A. $-4^{h}37^{m}$

Dec. +46.6

S.T. $22^{h}43^{m}$

S prods −2.5 B

" −1.5 C

Seeing a little blurry, but extreme care exercised and observations considered good

Oct 28, 1904

18 44 08 S Scuti W. Obs. Orbit. T.

22 52 − 8°.1
18h.43m
4 09 W

Right & Above A
27.3 ∠ Var. dis
8 1650 91.0 63.7 ✓
202.0 77.3 ✓
229.3 141.0 ✓ −0.75 ✓

221.3 −0.82 ✓
96.1 73.8 ✓
210.0 61.2 ✓
271.2 135.0 ✓ −0.88 ✓

Left Below. B
300.7
0.7 60.0 ✓
111.7 77.0 ✓
188.7 137.0 ✓ −0.83 ✓

293.4 −0.80 ✓
8.4 75.0 ✓
8 2500
41 √0. ✓ 116.8 64.9 ✓
20 √5. ✓ 181.7 139.9 ✓ −0.78
+v +K2. ✓
13 21 37. ✓ P.A. = 103.7 Vern. B mean −0.81 ✓
H.A. = +4h 31m
Dec. = −8°.1 S prob. = −1.5 A
S.T. = 23h 18m " " = −0.5 B
= +0.1 C

Oct 28, 1904

As Region of S Sculptoris rather low, sky, however, clear, and seeing pretty good. As, however, the object glass at end of first group was about down to top of lowest small shutter and the group already taken ran well, a second group was omitted.

χ Cygni.

23 34 Phot. Y. w. Obs.
19 43 +32.3
3 51W

R S Capricorni (210116)

23 36 w. Obs. Phot. Y.
20 58 −17°.8
2 38W

See Obs above. B

100.4 C. S. dis.
902 45 199.7 99.3
288.0 85.3
13.3 184.6 175.4 −0.09
175.4

106.4 87.0
193.4 −0.10
280.2 99.5
19.7 186.5 173.5 −0.12

Oct 28, 1904

Right & below A

24.2
97.1 72.9"
195.8 89.2"
285.0 167.1" +0.34"

16.8
104.5 87.7" +0.32"
202.8 ~~77.3~~ 76.8"
~~228.6~~ ~~165.0~~ 164.5" +0.29"
~~280.1~~
279.6

9 11 30
14 15
9 7 2.
+5 +42.
14 7 50.

Mean +0.1~~3~~1"

P.A. = 149.0 Vern. B
H.A. = +3h03
S.T. = ~~3h 03~~ 0h 8m
Dec = −17.°1
S fracts. = −4.5 A
" −3.5 B
" −2.9 C

ψ Cygni.
2 4 10
20 58 432.3
3 12 W
24 12 24 18
19 43 41
4 29 W 437

W. Obs. Eliot T.

Oct 28, 1904
χ. Cygni   Lo. obs. Phot. ~~B~~. J.

Left & above   B
289.8   ∠   C.S dis
9 44 30   12.2   82.4 ✓
161.9   98.1 ✓
180.5 ✓
200.0   179.5 ✓   −0.01 ✓

283.0   0.00 ✓
20.7   97.7 ✓
109.8   81.4 ✓
191.2   179.1 ✓   + 0.02 ✓

Right & below.   A
203.6
278.1   74.5 ✓
13.7   94.3 ✓
108.0   168.8 ✓   + 0.21 ✓

~~191.8~~
~~9 54 00~~   ~~277.8~~   ~~86.0~~   ~~0.31~~
~~9 48 30.~~   ~~24.6~~   ~~72.3~~   Reject. See note below.
~~9 49 15.~~   ~~97.1~~   ~~158.5~~   ~~+0.41~~
~~+5 +42.~~   ~~+0.16~~
~~14 49 57.~~

The above last set had some trouble with it. There was some misunderstanding or doubt in the recorder's mind about one of the settings which he spoke about shortly after, so that the single set at the top of p. 20 was taken to replace it.

Oct 28, 1904

Same again A

204.9 73.7 ✓

95800 278.6

12.1

97.3 ✓

109.4 171.0 ✓ +0.17 ✓

~~194.4~~

191.4 97.1 ✓ +0.18 ✓

288.5

24.3 73.2 ✓

97.5 170.3 ✓ +0.18 ✓

Left & above B

100.9 100.37 ✓

201.2

289.0 83.2 ✓

12.2 183.5 ✓ −0.06 ✓

176.5 ✓

108.8 −0.03 ✓

100700 191.6 ~~2~~ ~~1~~82.8 ✓

5 0. ✓ 282.2 97.1 ✓

10 2 30. ✓ 19.3 179.9 ✓ 0.00 ✓

+5 +42. ✓

15 3 12. ✓

mean + 0.08 ✓

Oct 28, 1904

X Cygni corr. See note at bottom

Right & below. of p. 18.

18.0

10 20 50 — 103.9 — 85.9 — +0.28

~~20 5 20~~ — 202.9 — 76.1

~~10 2 40~~ — 279.0 — 162.0 — +0.34 — mean +0.14

9 55 58. P.A. = 205.4 Var. B. Gen mean +0.11

+5 +42. H.A. = +5h27

14 56 40. Dec. = +32.2 (Sid. watch

S.T. = 0h55m (~~Clock~~ stopped.) so that this

Strock. = −2.5 B Sid. Time was not correct.)

" −1.5 C

S 3 Cygni. W. obs. Phot. T.

~~21~~ ~~21 55~~
25 25
21 34 +42.5
3 51

Under left. B

296.9 ← Var. dis.

10 43 20 — 2.8 — 65.9

108.0 — 83.8

191.8 — 149.7 — −0.58

289.4 — −0.57

13.0 — 83.6

116.0 — 67.3

183.3 — 150.9 — −0.56

Oct 28, 004

Finder right A

207.5 63.7 ✓

271.2

21.3 81.4 ✓

102.7 145.1 ✓ −0.67 ✓

10

9 51 40 197.9 −0.64 ✓

9 5 0. ✓ 279.8 81.9 ✓

10 47 30. ✓ 28.7 65.7 ✓

+5 +42. ✓ 94.4 147.6 ✓ −0.62 ✓

15 48 12. ✓ mean −0.60 ✓

P.A. 238.5 Vern. B

R.A. +4h03

Dec +43.0

S.T. 1h 44m

Sprock. −4.5 A

" " −3.5 B

" " −2.9 C

Sr's watch used for times to-night.
Watch 42. secs. slow.

(Saturday) Oct 29, 1904

Ceraskis new Var. +46°740 (9.5)

2733 +47°.3 20 Obs. O best J

2210

523 ~~W~~ E

Right & above

296.8 ∠ C.S. dis

73510 5.3 68.5 ✓

122.3 55.8 ✓

178.1 124.3 ✓ +1.10 ✓

305.2 +1.08 ✓

358.2 53.0 ✓

112.2 73.3 ✓

185.5 126.3 ✓ +1.06 ✓

Left & below.

203.4

278.2 74.8 ✓

32.6 54.7 ✓

87.3 129.5 ✓ +0.99 ✓

213.1 +0.99 ✓

74400 267.9 54.8 ✓

7 9 10. ✓ 21.8 74.5 ✓

7 39 35. ✓ 96.3 129.3 ✓ +0.99 ✓

+5 45. ✓

29d 12h 40.3 ✓

Mean +1.04 ✓

2 20 41.

~~1 59.3~~

15h 59.3 ✓ = 0d.666 ✓

Oct 29, 1904

Same again.

204.2
84620 276.8. 72.6 ✓
33.0 54.4 ✓
87.4 127.0 ✓ +1.04 ✓

212.2
268.0 55.8 ✓ +1.02 ✓
22.8 73.3 ✓
96.1 129.1 ✓ +1.00 ✓

Right above.
113.6
187.1 73.5 ✓
302.2 56.1 ✓
358.3 129.6 ✓ +0.99 ✓

122.1
80530 179.2 57.1 ✓ +1.02 ✓
111 50. 295.0 70.2 ✓
7 55 55. ✓ 5.2 127.3 ✓ +1.04 ✓
+5 +45. ✓
$12^h 56^m 40^s$ = O.C. 358.6 Vern B mean 1.02 ✓
= $29^d 12^h. 56.7^m$ H.A. $-4^m 16$ Gen. mean 1.03 ✓
22 20 41. Dec. +46.7
$16^h 15.7$ = S.T. $23^h 05^m$
= 0.678 ✓ S fords. −2.5 B
" −1.5 C

Oct 29, 1904

182836 η Lyrae 9.5'' caf.

W. Obs. Phot. J.

23 18
18 32 +38°.7

4 46 W

Left & above B

203.7 ∠ var. dis.

8 43 50 276.9 73.2 ✓

18.8 83.2 ✓

102.0 156.4 ✓ −0.45 ✓

197.8

285.0 87.2 ✓ −0.44 ✓

23.3 71.0 ✓

94.3 158.2 ✓ −0.42 ✓

Right & below. A

114.0 b

186.6 72.6 ✓

281.7 95.3 ✓

17.0 167.9 ✓ −0.23

~~17.0~~

104.2 90.1 −0.26 ✓

8 53 30 194.3

9 7 20. ✓ 293.7 74.1

8 48 40 ✓ 7.8 164.1 −0.30

+5 +48.

13 49 28. ✓

mean 0.35 ✓

Oct 29, 1904.

Same again A

112.2.
& 5545 188.0 75.8 ✓
286.3 87.7 ✓
14.0 163.5 ✓ — 0.31

106.9
193.2 86.3 ✓ — 0.35 ✓
294.8 73.2 ✓
8.0 159.5 ✓ — 0.39

Left & Above. B
23.6 73.8 ✓
97.4
196.6 89.4 ✓
286.0 163.2 ✓ — 0.32 ✓

15.3 — 0.34 ✓
9h 04 00 103.6 88.3 ✓
17 59 45. ✓ 205.1 72.4 ✓
& 59 52. ✓ 277.5 160.7 ✓ — 0.37
+5 +48. ✓
14 0 40. ✓ P.A. = 359.6 Vern B Mean — 0.34 ✓
H.A. = +5h 30 Gen Mean — 0.34 ✓
Dec = +36.5
S.T. = 0h 02
Spread — 3.5 A
" = — 2.5 B
" — — 1.9 C

Oct 29, 1904
SS Cygni
24 20 W. Obs. Plot. J.
21 34 +42,5
2 46

Index left B
9 40 35 291.0 ∠ Var. dis.
3.3 72.3✓
103.8 86.6✓
190.4 158.9✓ −0.40✓

284.2
9.5 85.3✓ −0.46✓
111.0 67.1✓
178.1 152.4✓ −0.53✓

Right A
193.1
275.6 82.5✓
24.7 63.7✓
88.4 146.2✓ −0.65✓

203.0 −0.60✓
9 47 20 269.3 66.3✓
8 7 55.✓ 14.1 85.3✓ −0.54
9 43 58.✓ 99.4 151.6✓
+5 +48.✓
14 44 46. mean −0.53✓

Oct 27, 1904.

Same again, A

193.4

9 49 30± 275.9 82.5 ✓

24.7 65.5 ✓

90.2 148.0 ✓ −0.61 ✓

201.9

268.0 66.1 ✓ −0.59 ✓

14.7 84.2 ✓

98.9 150.3 ✓ −0.57 ✓

~~[illegible]~~ B

101.0

190.5 89.5 ✓

192.0 69.5 ✓

1.5 159.0 ✓ −0.40 ✓

111.6 −0.43

9 56 35 180.4 68.8 ✓

106 ✓ 282.8 86.9 ✓

9 53 2. ✓ 9.7 155.7 ✓ −0.46 ✓

+5 +42. ✓ Mean 0.51 ✓

14 53 50. P. A. −59.5 Vern B Gen. mean 0.52 ✓

R. A. = 4 3m 12

Dec. = 42.°9

S. T. = 0h 54m

S from k = −4.5 A

" = −3.5 B

" = −2.9 C

W's watch used for times to right. Watch 40 secs. slow

Oct 31, 1904 (Monday)

Cerastkis new Var. + 46° 740 (9.5)

22 33 +47°.3 20. obs. Pulsb. Y.

22 34

4 59

Right & above

112.1 ∠ C. S. dis.

75250 179.9 67.8 ✓

299.1 56.0 ✓

355.1 123.8 ✓ +1.11 ✓

+1.02 ✓

~~1.16~~

117.0

179.2 57.2 ✓

292.0 69.0 ✓ +1.06 ✓

1.0 126.2 ✓ ~~1.21~~

Left & below.

200.1

92.7 72.6 ✓

207.2 586.8 ✓

264.0 ~~494.0~~ ~~159.4~~ ~~0.39~~ +0.99 ✓

129.4 ✓ +1.00 ✓

27.5

80420 81.2 53.7 ✓

117 10. ✓ 198.7 74.2 ✓

7 √2 3√. ✓ 272.9 127.9 ✓ +1.02 ✓

+√ +√2. ✓ mean +1.0~~8~~4 ✓

12 √9.633 ✓

9 √1.

3 6.6 = 0.131 ✓

Oct 31, 1904.

~~Same again~~ Reject.

~~21.4~~

80700 ~~91.5~~ ~~70.1~~

~~208.8~~ ~~52.9~~

~~261.7~~ ~~123.0~~ 1.13

As seeing was rather blurry and observation somewhat labored especially for rather a faint star and also as ~~there was a~~ observer was anxious to observe another object finishing second group was abandoned. 4th reading in 3rd set was undoubtedly read wrongly and should have been 264.0 instead of 294.0

R.A. 179.5 Vern B

H.A. -4h02m

Dec. +46.7

S.T. 23h17m

Sprock. = -2.5 B

" = -1.5 C

This is manifest from a similar reading in second group & also from an additional ~~error~~ setting made after the discovery of this error, which made it perfectly evident~~ly~~ that the 6 was taken for a 9.

200036 - Cygni.

23 41

19 50 +36.6

3 51 W

W. Obs. Phot.

Oct 31, 1904

Index above A

211.2 < C.S. dis.

90125

258.9 47.7 ✓

26.3 56.9 ✓

83.2 104.6 ✓ +1.54 ✓

~~205.9~~ 213.3 44.9 ✓ +1.60 ✓

~~264.7~~ 258.2 55.1 ✓

~~271.0~~ 27.2 100.0 ✓

~~79.9~~ 82.3 +1.66

Below B

112.6

177.0 64.4 ✓

302.7 45.5 ✓

348.2 109.9 ✓ +1.42 ✓

121.7 +1.42 ✓

169.2 47.5 ✓

294.9 61.9 ✓

356.8 109.4 ✓ +1.43 ✓

9 1355

15 20 ✓

9 7 40. ✓

+5 +52. ✓

14 8 32. ✓

mean +1.51 ✓

Oct 31, 1904.

Same gain B

115.3
9 17 30 176.8 61.5
302.2 47.5
349.7 109.0 +1.44

+1.44

122.0
168.1 46.1
293.2 63.5
356.7 109.6 +1.43

Above A
25.5 58.4
~~84.6~~ 83.9
214.2 43.6
257.8 102.0 +1.61

1.6 ~~4~~ 3

33.4
9 26 45 76.2 42.8
44 14. 206.6 57.6
9 22 2. 264.2 100.4 +1.65
+5 +52.
14 23 6. R. A. 354.8 Vern. B
H. A. 4e 37 W
Dec. 36°.4
S. T. - 6h 39m
Sfrock = -4.5 A
" = -3.5 B
" = -2.9 C

mean +1.54
Gen. mean +1.52

Oct 31, 1904.

S S Cygni

24 43 W. Obs. Plat I.

21 34 +42.5

309W

Seffl & above

289.8 ← var dis.

95645 7.2

100.4

Stars gone clouds

Too cloudy for this region

abandoned

o Ceti

$2^h 12^m$ $-3^\circ.5$

+ 16

56^m E

Stopped by clds.

Clouds everywhere

impossible to get Variable

W's watch used for times to-night.

Watch 58. secs. slow.

Nov. 1, 1904 (Tuesday)
~~Oct. 31, 1904~~

Ceraski's Var. +46°4740 (9.5)
+42°.3 20.cls. S lot. T.

27 33
22 38
4 55 W

Right & above. Interrupted by Clouds ~~[illegible]~~

287.1 ∠ C.S. dis
75550 0.8 73.7 ✓
117.1 57.3 ✓
174.4 131.0 ✓ +0.96 ✓

295.8
353.6 57.8 ✓ +0.94 ✓
105.9 75.3 ✓
181.2 133.1 ✓ +0.91 ✓

Left & below.
199.3
273.6 74.3 ✓
30.8 50.8 ✓
81.6 125.1 ✓ +1.08 ✓

207.7 +1.09 ✓
80740 261.8 64.1 ✓
2 40. ✓ 20.0 70.3 ✓
A 1 20. ✓ 90.3 124.4 ✓ +1.10 ✓
+5 +1 2. ✓ O.C. = 179.5 Vern. B mean +1.02 ✓
13 2.4 ~~22~~ ✓ H.C. = −3h 58m ~~Troubled by clds. in~~
31 6 14. Dec. = +46.6. ~~above group.~~
6 F.A.K = S.T. = 23h 19m Troubled more or less by
= 0.283 ✓ Sprock = −2.5 B clds throughout group
1.4 −1.5 C

~~Oct~~ Nov 1, 1904

182836 Y Sagittae
23 39
18 3 2
507 W

38.7
Too cloudy. Abandoned,

060521 +21°1146 (doubtful Var)
6 06 +22°.5
0 06
600

Above ? A
287.1 Var dis

9 16 40 41.3 82.2 ✓
105.8 76.4 ✓
182.2 158.6 ✓ −0.41 ✓
~~182.2~~

287.9 −0.37 ✓
2.7 74.8 ✓
100.2 87.8 ✓
188.0 162.6 ✓ −0.33 ✓

Below. B
188.3
279.3 91.0 ✓
20.2 72.5 ✓
92.7 163.5 ✓ −0.31 ✓

199.0
9 24 20 270.7 71.7 ✓ −0.33 ✓
41 0. ✓ 11.4 89.9 ✓
9 20 30. ✓ 101.3 161.6 ✓ −0.35 ✓
+5 +1 2. ✓
14 21 32. ✓

mean −0.35 ✓

Nov. 1, 1904

Same Again B

190.7

9 27 30 278.1 87.4 ✓

17.7 73.4 ✓

91.1 160.8 ✓ −0.37 ✓

196.8

269.6 72.8 ✓ −0.34 ✓

10.9 90.7 ✓

101.6 163.5 ✓ −0.31 ✓

Above A

97.3

190.2 92.9 ✓

280.5 70.7 ✓

1.2 163.6 ✓ −0.31 ✓

108.0 −0.31 ✓

9 34 40 181.2 73.2 ✓

62 10 ✓ 281.5 90.4 ✓

9 31 5. ✓ 11.9 163 6 ✓ −0.31 ✓

+5 +1 2. ✓ mean −0.32 ✓

14 32 7. ✓ Gen Mean −0.34 ✓

P.A. 27.5 Vern B

H.A. −5h 23m

Dec. +21°.9

S.T. 6h 43m

Sprocks −3.5 A

" −2.5 B

" −1.9 C

Nov. 1, 1904
~~Oct 3~~

T Lyrae   with
Plot T.

18 32
~~23 18~~   + 38.7
24 48
~~1 30~~   9.5 cap
6 16

Above   A
17.3   < Var dis
10 00.0   87.6   70.3
191.6   87.4
279.0   157.7 — 0.43
11.6
97.4   85.8   — 0.43
199.8   71.7
271.5   157.5 — 0.43
Below   B   Mean = — 0.38
288.6
362.1   73.5
99.0   91.3
190.3   164.8 — 0.29

280.0   — 0.34
10 07.8   368.0   88.0
7.8   108.3   71.9
10 3.9   180.2   159.9 — 0.38
+5 +1.0
15 4.9

Nov. 1, 1904

Below B Same Axes

287.2

10 9.6 362.2 75.0

101.2 89.0

190.2 164.0 — 0.30

241.4 89.0 — 0.36

370.4 68.9

108.3

147.2 157.9 — 0.42

Above A mean = — 0.40

199.6

269.4 69.8

10.2 86.9

97.1 156.7

— 0.43 4

191.5

10 17.6 279.8 88.3 — 0.43

27.2 20.2 69.8

10 13.6 90.0 158.1 — 0.42

+5 +1.0

15 14.6

Final Mean = -0.39

Pa. 359.5 Va B

S.T. 1:23

Ha. 6:53 West

Dec. +36.3 North

Sp.Wt. = -3.5 a, -2.5 B -1.9 C

Nov. 1, 1904

61 Cygni Wells
Phot I

21 34 +42.5
25 25
3 51

~~Left~~ β

< Var dis.

290.2
10 35.0 35~~8.6~~9.4 69.2 ✓
101.8 85.5 ✓
187.3 154.7 ✓ − 0.48 ✓

281.2
371.0 89.8 ✓ − 0.44 ✓
109.6 69.4 ✓ − 0.40 ✓
179.0 159.2

Right. A Mean = − 0.49 ✓

201.8
267.8 66.0 ✓
11.2 85.1 ✓
96.3 151.1 ✓ − 0.55 ✓

− 0.54 ✓
191.4 85.9 ✓
10 42.6 277.3 65.9 ✓
77.6 22.0 151.8 ✓ − 0.54 ✓
87.9

10 38.8 ✓
+5 +1.0 ✓
15 39.8 ✓

Nov. 1, 1904.

Steve Over

Right A

201.1
10 44.4 269.6 68.5
10.8 86.0
96.8 154.5 — 0.49

189.1
276.9 87.8 (— 0.48)
22.1 66.9
89.0 154.7 — 0.48

Left B Mean — 0.47
111.5
178.9 67.4
279.8 91.1
370.9 158.5 — 0.41

98.2
10 51.8 180.9 82.7 (— 0.46)
96.2 290.2 70.2
10 48.1 360.4 152.9 — 0.52
~~tr~~ +1.0 Final Mean = 0.48
10 49.1 P.A. 58.5 V n B 8.93
H.A. ~~8~~ + 4:16 west 8.45
Dec. +42.8 North
S.T. 1:57 H's watch used for times
11 00 Sp.Wh. — 45 a to-night. Watch 1m 2s slow.
— 35 b
— 29 d

Nov. 2, 1904 (Wednesday)

Ceraski's Var +46°740 (9.5)

27 33 +47°.3

22 20 W. Obs. Phot. Y

5 13 E

Right & above.

7 27 30 292.3 ∠ C. S. dis

359.5 67.2 ✓

119.0 50.3 ✓

169.3 117.5 ✓ + 1.25 ✓

298.1

351.3 53.2 ✓ + 1.16 ✓

106.0 73.1 ✓

179.1 126.3 ✓ + 1.06 ✓

Left & Below Mean = + 1.1~~8~~9 ✓

200.7

267.2 66.5 ✓

29.5 48.4 ✓

77.9 114.9 ✓ + 1.31 ✓

208.5

7 39.5 259.1 50.6 ✓ + 1.22

67.0 ✓ 17.6 72.7 ✓

7 33.5 ✓ 90.3 123.3 + 1.12

+5 +0.9 ✓

12 34.4 ✓

2 37. ✓

9 57.4 ✓ = 0.415 ✓

Nov. 2, 1904.

Same over

II

L&B.

200.6

7 42.5 268.6 68.0 ✓

27.8 54.4 ✓

82.2 122.4 ✓ +1.14 ✓

209.6 +1.18 ✓

~~250~~ 260.5 50.9 ✓

19.8 68.4 ✓

88.2 119.3 ✓ +1.21 ✓

Right & Above Mean = +1.15 ✓

~~109.9~~

~~298.6~~

299.5

352.6 53.1 ✓

107.7 70.9 ✓

178.6 124.0 ✓ +1.11 ✓

291.2 +1.12 ✓

7 53.2 361.3 70.1 ✓

9 5.7 ✓ 117.8 53.4 ✓

7 47.8 ✓ 171.2 123.5 ✓ +1.12 ✓

+5 +0.9 ✓

12 48.7

2 37. ✓

10 11.7 = 0.852 ✓

Nov. 2, 1904.

III

R & A

300.6
8 01.2 351.2 50.6 ✓
107.9 72.3 ✓
180.~~1~~2 122.9 ✓ + 1.13 ✓

289.1 + 1.10
360.6 71.5 ✓
117.2 53.6 ✓
170.8 125.1 ✓ + 1.08 ✓

L & B mean = + 1.12 ✓

209.8
261.1 51.3 ✓
18.2 70.9 ✓
89.1 122.2 ✓ + 1.14 ✓

+ 1.14 ✓
200.6 69.8 ✓
A 09.4~~25~~ 270.4 53.0 ✓
10.6 ✓ 28.3 122.8 ✓ + 1.13 ✓
8 5.3 ✓ 81.3
+5 +0.9 ✓
13 6.2 ✓
2 37. ✓
10 29.2 ✓ =
= 0.437 ✓

~~P.A. 179.8 Ver B~~
~~S.T. 23.16~~
~~Dec +46.4~~
~~HA − 4.0 East~~
Sp.Wh.

Nov. 2, 1904.

~~ROB.~~ ~~IV~~

199.8
8 19.4 268.4 68.6✓
27.7 53.2✓
80.9 121.8✓ + 1.15✓

207.0 +1.10✓
261.8 54.8✓
18.8 72.2✓
91.0 127.0✓ + 1.04✓

Mean = +1.10✓

ROA.
107.7
178.3 70.6✓
299.0 52.1✓
351.3 122.7✓ + 1.13✓

116.8 +1.09✓
8 30.5 172.0 55.2✓
49.9✓ 288.5 71.6✓
8 25.0✓ 360.1 126.8✓ +1.05✓
+5 +0.9✓
13 25.9✓
2 37.✓
10 48.9✓ = 0.451✓

Nov. 2, 1904.

V

RDA.

109.0
8 44.2 180.0 71.0 ✓
298.8 53.0 ✓
351.8 124.0 ✓ + 1.11 ✓

115.8 56.3 ✓ + 1.06 ✓
172.1 71.8 ✓
289.1 128.1 ✓ + 1.02 ✓
360.9
413. Mean = + 1.06 ✓

19.0
90.9 71.9 ✓
207.2 53.0 ✓
260.2 124.9 ✓ + 1.09 ✓

28.5 + 1.07 ✓
8 56.7 82.2 53.7 ✓
100.9 ✓ 198.0 72.8 ✓
5 50.4 ✓ 270.8 126.5 ✓ + 1.05 ✓
+5 +0.9 ✓
13 51.3 ✓
2 37. ✓
11 14.3 ✓ = 0.468 ✓

Nov. 2, 1904

L. & B. VI

9 04.4 19.9
90.9
207.4

P.A. 178.7 Vern. B.
R.A. – $3^h 04^m$
Dec. +46°.7
S.T. $0^h 13^m$
S prods. = –2.5 B
" = –1.5 C
" =

Sky fairly clear during observations For the most of the time the stars as seen over the telescope through the shutter with the naked eye seem to be about at normal brightness. There was, however, during the observations a slight variable haze causing the images to be at times a little dimmer than at others. This haze, however, was so uniform that it did not make the images vary relatively at all but only caused the observations to be a little more difficult at some times than at other times ~~the~~ A ~~5~~ 6th group was started but then the haze had become rather more

Nov. 2, 1904
~~Oct~~

pronounced, so that further observations had to be discontinued. Observations considered good throughout, although as ~~at~~ previously mentioned at times somewhat difficult. The greatest possible care exercised and settings made very slowly.

26° 1117 ~~Var~~

$6^{h}02$ +26°.0 $5^{h}58$ 26°.7
6 34 0 40
5 28 5 18

Abandoned. Cloud too thick in this region to identify stars

γ Cygni. 9½' in Caf.
24 50 33°.4 W. dis. Eliot. Y.
20 41
4 09

Soft d above β

95830

220.0 < Var dis.
249.0 29.0´
36.6 35.8´
72.4 64.8´ +2.68´

217.1 (−2.68)´
255.8 38.7´
41.4 26.3´
67.7 65.0´ −2.68´

Nov. 2, 1904.

+ Object below · A

130.1

159.6 29.5′

304.2 41.6′

345.8 71.1′ −2.47′

125.3 (−2.53)′

100540 164.9 39.6′

F 10. 311.3 28.0′

10 2 v. ~~338.9~~ 339.3 67.6′ −2.59′

+v +v6.

1v 3 1.

mean −2.60′

P. A. = 187.5 Vern B

H. A. = $+4^h\ 31^m$

Dec. = 33.7

S. T. = $1^h\ 15^m$

S frock = −3.5 B

" = −2.5 C 9½ in Caf.

SS Cygni.

25 16

34

21 43 +42.5 20 Obs. Phot. Y.

3 42 W

Nov. 2, 1904

(S S Cygni)

Left & above. B

110.0 ∠ var dis.

10 20 30 179.2 69.2′

280.3 90.2″

10.5 159.4° −0.39°

~~[illegible]~~

98.2

190.1 91.9° −0.35

289.7 71.6

1.3 163.5 −0.31°

Right & below A

11.3

98.0 86.7

202.0 64.2

266.2 150.9 −0.56°

23.0 −0.56

16 30 00 87.5 64.5

50 30.″ 192.0 86.2

10 25 15.″ 278.2 150.7 −0.56°

45 +56.″

15 26 11.″

mean −0.46

Nov. 2, 1904.

Same again A

13.3

103240 98.9 85.6°

202.0 65.4°

267.4 151.0° −0.56°

20.9

87.9 67.0° −0.52

190.3 88.0°

278.3 155.0° −0.48°

Left above. B

280.0

10.7 90.7°

108.9 71.8° Clouds.

180.7 162.5° −0.33

289.5 −0.36

104930 1.0 71.5

42 10. 101.5 87.5

10 41 5. 189.0 159.0 −0.40

+5 +56.

15 42 1. R.A. = 58.0 Vern B mean −0.44

H.A. +4h 17m Gen mean −0.45

Dec. +42.9 4.93

S.T. = 1h 58 4.45

Strock = −4.5 A

" −3.5 B

" −7.9 C

Tro's watch used for times to-night. Watch 56. secs. slow.

Nov. 3. 1904. (Thursday)

T Cygni. Gr. obs. Phot. I.

20 41 +33.4

9.5" cap

Index left and above β

220.0 ← Var. dis.

8 59 45 248.6 28.6 ✓

38.7 33.1 ✓

71.8 61.7 ✓ – 2.80 ✓

(–2.73 ✓)

215.2

253.5 38.3 ✓

41.3 27.2 ✓

68.5 65.5 ✓ – 2.66 ✓

Nov. 3, 1904

Right and below A

130.4
160.4
305.6
343.3

30.0
37.7
67.7 — 2.59

125.8
165.4
309.4
340.2

97 6 25
17 7 5 70
8 6 7 65.
9 8 5.
+5 +45.
14 8 50.

39.6 (— 2.54)
30.8
70.4 — 2.49
Mean = — 2.64

P.A. 189.0 Ver B
S.T. 12:31
Dec. + 33.6 North
H.a. + 3:48 West
Sp. wh. { — 3.5 B
— 2.5 C

μ Cephei work
21 39 + 58.1 Phot T.
24 49 9.5 cap.
3 10

Over for measures.

Nov. 3, 1904.

μ Cephei

Above α

124.1 ⟨var dis

9 45.2   165.8   41.7✓

302.0   42.1✓

344.1   83.8✓ — 2.08✓

125.6   — 2.12✓

164.2   38.6✓

302.8   42.4✓ — 2.17✓

345.2   81.0✓

Below β   Mean = −2.02✓

31.2

77.0   45.8✓

213.4   44.6✓

258.0   90.4✓ — 1.90✓

33.9   — 1.92✓

9 52.2   76.2   42.3✓

97.4✓   211.~~8~~2   46.2✓

9 48.7✓   257.4   88.5✓ — 1.95✓

+5 + 0.8✓

14 49.5✓

Nov. 3, 1904.

Below B Same again

31.2
9 54.0 78.0 46.8 ✓
211.6 45.8 ✓
257.4 92.6 ✓ — 1.84 ✓

36.0
76.6 40.6 ✓ — 1.92 ✓
210.4 46.5 ✓
256.9 87.1 ✓ ~~2~~ 1.99 ✓
Above A
302.2 mean = −1.97 ✓
345.8 43.6 ✓
123.8 42.4 ✓
166.2 86.0 ✓ −2.02 ✓

304.0 − 2.02 ✓
10 00.4 345.2 41.2 ✓
19 54.4 ✓ 121.6 45.2 ✓
9 57.2 ✓ 166.8 86.4 ✓ − 2.01 ✓
+5 +0.8 ✓ Gen. mean −2.00 ✓
14 58.0 ✓

P.a. = 355.5 Ver B
Ha. = 3:32 West
Dec. = +58.3 North
S.T. = 1;12
Sp. Wl. = { −6.5 B
−5.5 α

Nov. 3, 1904.

SS Cygni Wlb
Phot T

21 34 +42.5
25 14
3 40

Left B

106.3 ⟨Var dis
10 14.2 181.0 74.7 ✓
280.8 87.5 ✓
368.3 162.2 ✓ − 0.34 ✓

99.5 89.6 ✓ − 0.29 ✓
189.1 77.5 ✓
286.3 167.1 ✓ − 0.24 ✓
363.8

Right A Mean = − 0.38 ✓

18.3
190.7 72.4 ✓
190.9 85.8 ✓
276.7 158.2 ✓ − 0.42 ✓

11.3 ✓ − 0.46 ✓
10 23.8 97.3 86.0
38.0 ✓ 200.8 68.5 ✓
10 19.0 ✓ 269.3 154.5 ✓ − 0.49
+5 +0.8 ✓
15 19.8 ✓

Nov. 3, 1904

Same Over

Right A

21.2

10 26.0 87.0 65.8

188.9 89.5

278.4 155.3 − 0.47

10.8

98.9 88.1 − 0.46

200.0 68.3

268.3 156.4 − 0.45

Left B Mean = − 0.35

287.8

362.2 74.4

97.2 93.1

190.3 167.5 − 0.24

278.7

10 34.2 371.3 92.6 − 0.24

60.2 106.3 74.4

10 30.1 ~~170.~~ ~~166.0~~ − 0.25

tr +0.2 180.4 167.0

tr 30.9

Final mean − 0.36

P.A. 58.0 Var B 8.93

H.A. +4:06 West 8.57

Dec. +42.8 North / Sp. Wh. −4.5 A

Sid. T. 1:47 −3.5 B

Over −2.9 C

Nov. 3, 1904.

Night rather hazy; the sky has more or less of a foggy condition accompanied by some light cloud which however is pretty uniform in density. ~~The~~ no stars except a very few bright ones, visible near the horizon and ~~stars~~ higher up somewhat dim. Near zenith stars fairly bright. As before mentioned this condition is quite uniform, and Observations considered good throughout

Wk watch used for times.
Watch assumed to be 45. secs. slow ~~from~~
by interpolating between Nov. 2. + Nov. 5.

Sat Nov. 5, 1904

Ceraski's Var.
Ceraski's New Var. 155.1904 Wells.
Phot T.

Right & above
A
303.4 ← C. V. dir.
~~2 Var. dir.~~
4
20730 347.~~7~~2 43.8 ✓
126.5 33.4 ✓
159.9 77.2 ✓ + 2.28 ✓

308.8 + 2.26 ✓
1030 340.3 31.5 ✓
119.5 46.7 ✓
166.2 78.2 ✓ + 2.25 ✓

Left & below. B Mean = + 2.29
215.7
7-14-20 263.0 47.3 ✓
39.8 28.6 ✓
68.4 75.9 ✓ + 2.32 ✓

218.5
71740 250.0 31.5 ✓ + 2.32 ✓
32.3 44.0 ✓
76.3 75.5 ✓ + 2.33 ✓

5010 ✓
7 12 32 ✓
+5 +22 ✓
12 12.95 ✓
12 10
d
+0 2.9 +.002

Nov 5, 1904

Samagami B. II

212.2 44.1

72220 256.3

39.7 31.9

71.6 76.0 +2.32

217.3 34.1 +2.27

2500 251.4

32.0 44.9

76.9 79.0 +2.22

Right & above. A

117.1 52.9

73040 170.20

303.8 40.2 52.9

344.0 93.1 40.2

93.1 +1.83

123.2 41.0 +1.82

7 37 00 164.2 53.5

11 5 0 298.0

7 28 45 ~~352.0~~ 351.5 94.5 94.5 +1.80

+5 +22 mean +2.05

12 29.1

12 10

+0 19.1 = d .013

Nov. 5, 1904

R of a A III

115.2
7 41 40 173.2 58.0
302.8 43.4
346.2 101.4 +1.62

121.6 45.4 +1.58
45 10 167.0
295.6 59.2
354.8 104.6 +1.54

L of B B Mean +1.60
26.5
49 00 84.4 57.9
214.0 42.8
256.8 100.7 +1.64

31.3 45.3 +1.62
7 52 20 76.6 45.3
188 10 205.6 57.3 57.3
262.9 102.6 102.6 + ~~H~~ +1.59
7 47 2
+5 +22.
12 47.4 ~~20.~~
12 10
+0 37.4 = ^{d}.026

Nov. 5, 1904.

IV

LθB B

24.3 60.5

7 56 42 84.8 60.5

212.1 43.6 43.6

255.4 104.1 104.1 +1.56

32.6 44.8

8 00 10 77.4 +1.52

203.3 62.9

266.2 107.7 +1.47

RθA A ~~mean +1.43~~

292.9 64.8

8 04 20 357.7

117.3 50.9 +1.29

168.2 115.7 ~~+1.52~~

+1.23

298.6 50.6 ~~+1.3[illegible]~~

8 08 00 349.2

9 12. 108.6 70.6

8 2 18. 179.2 121.2 +1.17

+5 +22. mean ~~+1.43~~ +1.38

13 2.7 ~~40.~~

12 10

+0 52.7 = .037

Nov. 5 1904

R.D.A. A V

291.4 65.7 ✓
8 12 22 357.1
116.8 ✓
169.8 53.0
118.7 ✓ +1.22

300.4 51.0 ✓ +1.17
16 30 351.2
107.4 72.3 ✓
179.7 ✓
123.3 +1.12

L.D.B. B

~~202.5~~ 64.0 ✓
20 20 266.5 ~~64.0~~
30.0 ✓
79.8 49.8
113.8 ✓ +1.33

208.4 50.8 ✓ +1.26
8 23 00 259.2
7 2 12. 20.6 68.8 ✓
✓ 89.4 119.6 ✓ +1.20

8 18 3. ✓
+5 +22. ✓
13 18.4 ~~25~~ ✓
12 10
+1 8.5 = .087 ✓

Mean +1.22

Nov. 5, 1904

LOVB ꓭ VI

200.5
8 30 20 267.~~6~~3 66.8 ✓
29.6 60.2 ✓
89.8 127.0 ✓ + 1.04

209.1 + 1.12
33 20 260.2 51.1 ✓
20.5 68.3 ✓
88.8 119.4 ✓ + 1.21

ROVB. A

Mean = + 1.04

107.6
36 30 179.9 72.3 ✓
296.3 57.9 ✓ + 0.97
354.2 130.2

115.~~8~~4 + 0.96
8 40 00 173.9 58.5 ✓
287.9 72.7 ✓
140 10. 360.6 ✓ 131.2 ✓ + 0.95

6 35 2. ✓
+5 +22. ✓
13 35.4 ~~24.~~ ✓
12 10
+1 25.4 = .059 ✓

Nov. 5, 1904

VII

RA. A

108.4
8 4700 179.8 71.4
298 60.4
354.2 131.8 + 0.94

112.2
5024 174.6 62.4 + 0.92
288.8 71.8
360.6 134.2 + 0.89

~~Dt~~ B. B Mean = + 1.04

22.0
5410 86.1 64.1
206.7 56.4
263.1 120.5 + 1.18

29.0
8 5740 82.5 53.5 + 1.17
209 14. 199.2 67.8
8 52 18. 267.0 121.3 + 1.16
+5 +22.
13 52.7 PA. 179.5 Ver B
12 10 Ha. – 2.58 East
+1 42.7 = Dec 46.4 North
= .072 S.T. ~~12.20~~ 0.20
SpWh § – 2.5 B
– 1.5 C

Nov. 5, 1904.
Seeing a little blurry
and images a little fuzzy
and Obs. considered good

0 Cete   wObs
Plot w

2 12   −3.6
0 32
1 40
10 30

Left
71.3 < comp. dis
9 31.6   153.8   82.5 ✓
256.3   69.4 ✓
325.7   151.9 ✓ + 0.54 ✓
76.0
14~~6~~7.2   71.2 ✓ + 0.49 ✓
248.7   85.5 ✓
334.2   156.7 ✓ + 0.44 ✓
Right   Mean = +0.44 ✓
338.0
63.0   85.0 ✓
162.5   73.4 ✓
235.9   158.4 ✓ +0.41 ✓

343.5   +0.38 ✓
9 40.6   56.5   73.0 ✓
2.2   156.3   88.5 ✓
9 36.1   244.8   161.5 ✓ + 0.35 ✓
+5 +0.4
14 36.5

Nov. 5, 1904

Same Over

Right

336.4
9 42.8 65.2 88.8
161.4 74.6
236.0 163.4 + 0.3~~X~~2

342.4
54.5 72.1 +0.32
151.9 90.8
242.7 162.9 +0.32
~~Left~~ Mean = +0.41
245.4
329.5 84.1
71.9 69.1
141.0 153.2 +0.51

+0.50
251.6
9 50.0 320.~~7~~8 69.2
92.8 63.6 84.4
9 46.4 148.~~5~~0 153.6 +0.50
tr +0.4
14 46.8 ~~P.A. — 1/2~~

0.42
9.19
9.61

HA — 1:06
Dec. ~~3 04~~ −3.4
S'T. = 1:11

Gen. mean +0.42
9.19
~~8.77~~
9.61

Nov. 5, 1904.

SS Cygni

W Obs
Phot T.

21 34 +42.5
25 14
3 40

LDA.

B

106.6 < Var dis
107.0 181.7 75.1 ✓
274.9 97.0 ✓
371.9 172.1 ✓ — 0.15'

94.6
194.2 99.6 ✓ — 0.13'
287.1 74.7 ✓
361.8 174.3 ✓ — 0.11'

RDB

Mean = -0.16'

19.6
91.4 71.8 ✓
183.3 99.0 ✓ — 0.17'
282.3 170.8 ✓

6.4 — 0.20'
10 14.6 102.5 96.1 ✓
198.1 71.3 ✓
269.4 167.4 ✓ — 0.24'

A

21.6
10 10.8
+5 +0.4
15 11.2

Nov. 5, 1904.

Same again.

R t B.

18.3

10 16.7 90.9 72.6 A

183.3 100.5

283.8 173.1 — 0.13'

~~4~~ 5.2

103.8 98.6 — 0.10

195.4 77.0

~~269.~~ 175.6 — 0.08'

272.4

L t a. Mean = — 0.0~~6~~4'

286.8

363.6 76.8

92.9 103.4 — 0.00'

196.3 180.2

179.8 B

+ 0.02'

271.5

10 23.3 345.2 103.7

40.0 105.7 78.2

10 20.0 183.9 181.9 + 0.03'

15 +0.4 178.1

15 20.4

Nov. 5, 1904

Same again. III

275.8

10 29 .2 ~~.15~~ 14.6 98.8

104.2 80.6 B

184.8 179.4 −0.01′

283.8

4.8 81.0 +0.04′

92.9 103.6

296.5 184.6 +0.09

175.4

Finder right

183.4

283.0 99.6

14.9 78.5 A

93.4 178.1 −0.03′

~~93.4~~

196.2 −0.06′

10 37 .2 ~~45~~ ~~272.4~~ 272.7 76.5

67.0 4.4 98.6

10 33.5 103.0 175.1 −0.09′

+5 +0.4 Mean −0.01′

15 33.9

S.A. = 56.5 Vern B

H.A. = +4h 20m

Dec. = +43°.0

S.T. = 2h 02m

Sprock. −4.5 A

" −3.5 B

" −2.9 C

Nov. 5, 1904.

Troubled by clouds in first group.

W's watch used for times to-night.
Watch 22. secs. slow.

Nov. 7. 1904. (Monday)

044528 Doubtful Var.
Phot. J. W. obs.
Barss rec.

28
~~4~~ 42 +28.3
23 8

~~5 42~~
~~6 118~~
5 34
6 26

8 6.5

Index below.

22.3 C.S. dio.
83.0 60.7
199.9 72.3
279.2 133.0 +0.92

12.0 81.8 +0.84
93.8
205.1 59.2
264.3 141.0 +0.75

Index above.

297.5 54.8
352.3
106.9 74.3
181.2 129.1 +1.00

Nov. 7. 1904.

287.3
~~4~~0
2.9 75.6 +0.95
115.6 58.2
173.8 133.8 +0.90
mean +0.90

8 23.3 ~~8 23.3~~
29.8
8 14.9
+5 −0.2
13 14.7

P.A. 216.6

S. T. 0h 0m
H. A. −4h 46m
Decl. +28.5
Sprocket −1.5 B.
" −0.5 C.

N5. 1904 Ceraski, Phot. T. W. obs,
Barse rec.

27 33 +47.3
24 10
3 23
8 37

Nov. 7. 1904.

Index right + above

108.2 ← C. S. dev.
~~17.0~~ 179.2 71.0
9 2 45
297.1 54.3
351.4 125.3 +1.08

~~118°~~
~~171.4~~
~~290°~~ +1.10

289.8
9 13 15 358.1 68.3
116.0 54.5
170.5 122.8 +1.13

Index left + below.

207.9 53.3
9 22 30 261.2
19.9 68.9
88.8 122.2 +1.15

~~208°~~ +1.16
~~9 25 30~~ ~~212°~~

28.5 53.4
9 28 30 81.9 +1.18
199.7 67.2
266.9 120.6 mean +1.13

67 0
9 16 45
+5 -14
14 165 ~~31~~
4 56
9 205 = 0.390

Nov. 7. 1904.

21.4 65.2

9 32 32 86.6

210.0 50.3

260.3 115.5 +1.29

29.5 50.1 +1.26

9 39 0 79.6

~~199.9~~ 200.4 68.5

268.9 118.6 +1.22

Index right & above.

293.1 64.3

9 46 2 357.4

116.1 54.1

170.2 118.4 +1.23

298.5 52.5 +1.20

9 51 15 351.0

16 8 49. 108.8 68.0 +1.18

9 42 12. 176.0 120.5

+5 -14.

14 420 ~~58.~~

4 56.

9 46.0 = 0.407

Mean +1.23

Nov. 7. 1904.
Index right + above.

	291.6	66.1	
9 58 20	357.7		
	~~118.1~~ 117.5	52.2	
	169.7	118.3	+1.23
	300.8	49.7	(+1.26)
10 5 38	350.5		
	110.0	65.7	
	175.7	115.4	+1.29

Index left + below.

	201.0	64.0	
10 11 53	265.0		
	29.1	51.2	
	80.3	115.2	+1.30
	208.2	50.5	(+1.30)
10 16 15	258.7		
32 6	22.2	65.1	
10 8 2.	87.3	115.6	+1.29

+5 −14.

15 7.8 48.
4 56.
10 11.8 = 0.425

Mean +1.28

Nov. 7, 1904.
Index left + below.

200.6
10 22 40 265.1 64.5 ✓
29.5 50.1 ✓
79.6 114.6 ✓ +1.31 ✓

208.0 51.3 ✓
10 28. 10 259.3 +1.25 ✓
19.9 68.6 ✓
88.5 119.9 ✓ +1.19 ✓

Index right + above.

108.4
10 35 46 179.3 70.9 ✓
297.5 53.9 ✓
351.4 124.8 ✓ +1.09 ✓

115.7 56.6 ✓ +1.07 ✓
10 40 5 172.3 70.1 ✓
126.7 ✓
~~289.8~~ 288.9 +1.05 ✓
359.8

126 41 ✓
10 31 40. ✓
45 −14. ✓
15 31.4 ~~26.~~ ✓
4 56.

mean +1.16 ✓

0.441 ✓ = 10 35.4

S. T. 2^h 10^m
H. A. −1 10
Dec. +46.5°
P. A. 358.5
Sprocket −2.5 B
" −1.5 C

W's watch used for times to-night. Watch 14. secs. fast.

Nov. 8. 1904. (Tuesday)

15. 1904 Persei Graske
Phot. J. W. do. Base rec,

27 33 +47.3
21 18
-6 15
5 45

Index right & above

6 3 0
108.3 ∠ C. S. dia.
177.1 68.8 ✓
296.8 53.8 ✓
349.8 122.6 ✓ +1.14 ✓

6 7 40
117.1 73.9 ✓ +1.08 ✓
191.8
291.0 54.4 ✓
345.4 128.3 ✓ +1.01 ✓

Index left & below.

6.12 25
19.2
~~87.9~~ 87.0 67.8 ✓
207.1 49.9 ✓
257.0 117.7 ✓ +1.24 ✓

6.16 45
39 50
6 9 58.

6 9 58
+5 -18
11 9.7~~40~~
8 19
9 507 = 0.410

28.6
~~76.7~~
78.0
148.5

49.4 ✓
69.0 ✓
118.4 ✓ +1.23 ✓

+1.24 ✓

Mean +1.16 ✓

Nov. 8. 1904.

267.5

Same again

20.0
6 23 50 87.4 67.4 ✓
209.3 48.3 ✓
257.6 115.7 ✓ +1.29 ✓ ✓

26.9 50.9 ✓
6 27 40 77.8 +1.24 ✓
199.0 68.7 ✓ +1.20 ✓
267.7 119.6 ✓ ~~0.99~~

Index right & above.

291.1 65.1 ✓
6 32 42 356.2
116.0 52.3 ✓
168.3 117.4 ✓ +1.25 ✓

297.7 51.7 ✓ +1.20 ✓
6 37 49 349.4
121 59 107.0 70.4 ✓
6 30 30. 177.4 122.1 ✓ +1.14 ✓
45 -18. mean +1.22 ✓
11 30.1 ~~+2~~

Same again.

$\frac{1}{10} \frac{19}{11.2}$ = 0.424 286.9
6 45 52 358.0 71.1 ✓
115.5
169.7 54.2 ✓
125.3 ✓ +1.08 ✓

Nov. 8. 1904.

296.1 54.0 ✓ +1.07 ✓
6 58 35 350.1
187.0 72.1 ✓
179.1 126.1 ✓ +1.06 ✓

Index left & below.

198.7
6 57 55 268.5 69.8 ✓
28.0 52.0 ✓
80.0 121.8 ✓ +1.15 ✓

206.5
259.4 52.9 ✓ +1.16 ✓
7 5.55
20.9 67.9 ✓
88.8 120.8 ✓ +1.18 ✓ mean +1.12 ✓

220 17
6 55 4
+5 -18
11 54.8 ~~56~~
1 19
10 35.8 = 0.442

Same again

196.6
7 13 30 269.8 73.2 ✓
27.2 53.0 ✓
80.2 126.2 ✓ +1.06 ✓

207.1 53.3 ✓ +1.08 ✓
7 18 50 260.4
18.0 71.5 ✓
89.5 124.8 ✓ +1.09 ✓

Index right & ~~below~~ above.

187.0
7 25 5 178.8 71.8 ✓
296.3 54.2 ✓
250.5 126.0 ✓ +1.06 ✓

Nov. 8. 1904.

7 29 55

27 20

7 21 50.

+5 -18.

12 21 32.

12 21.5 ~~32~~

1 19.

11 2.5 = 0.460

115.0

169.6 54.6 +1.06

288.0

359.0 71.0

125.6 +1.07 mean +1.07

Same again

7-35-5

105.6

179.5 73.9

296.0 54.9

350.9 128.8 +1.00

115.5 55.0 1.02

7 39 0

170.5

287.4 71.4

358.8 126.4 +1.05

Wedge left & below.

17.9 70.7

7 47 35

8.8.4

205.8 53.8

259.6 124.5 +1.10

25.5 56.7 +1.06

7-52-0

82.2

17 3 40

197.6 71.4

7 43 25.

269.0 128.1 +1.02

+5 -18.

12 43.1 ~~7~~

mean +1.04

1 19.

11 24.1 = 0.475

Nov. 8. 1904.

Same again

18.1
8 7 30 90.0 71.9ᵛ
205.5
260.0 54.5ᵛ
126.4ᵛ +1.05ᵛ

27.0 53.9ᵛ
8 11 38 80.9 +1.04ᵛ
196.5
269.5 73.0ᵛ
126.9ᵛ +1.04ᵛ

Index right & above.

288.1 72.3ᵛ
8 18 35 360.4
114.1
170.5 56.4ᵛ
128.7ᵛ +1.00ᵛ

296.9 54.1ᵛ +1.00ᵛ
351.0
105.0 72.5ᵛ
179.5 126.6ᵛ +1.01ᵛ

mean +1.02ᵛ

8	24	30
6	2	33
8	15	38.
+5		−18.
13	15.3	~~20.~~
1	19	
11	56.3	= 0.497

S. T. 0ʰ 14ᵐ.
H. A. −3 1
Dec. +46.5
P. A. 358.5
Sprocket −2.5 B.
" −1.5 C

Nov. 8. 1904.
SS Cygni.
21 34 + 42.5 Phot. 7.
24 23 W. obs. Baxter rec.
+2 49

Index left & above B

9-5-0

197.0 ← C. S. dir.
271.1 74.1 ✓
32.7
76.5 43.8 ✓
117.9 ✓ +1.24 ✓

206.5
260.7 54.2 ✓ +1.18 ✓
17.2
86.6 69.4 ✓
123.6 ✓ +1.11 ✓

Right & below. A
105.9 74.1 ✓
180.0
292.5 56.6 ✓
349.1 130.7 ✓ +0.96 ✓

116.2 52.7 ✓ +0.96 ✓
168.9
283.0
1.0 78.0 ✓
130.7 ✓ +0.96 ✓
mean +1.07 ✓

9 13 30
18 30. ✓
9 9 15. ✓
+5 −18. ✓
14 8 57. ✓

Nov. 8, 1904.

Same again R+B. A

9 15.0 ±

106.0 74.0✓
180.0
293.5 55.1✓
348.6 129.1✓ +1.00✓

114.0 56.6✓ +0.96✓
170.6
282.5 76.6✓
359.1 133.2✓ +0.91✓

L+A. B.

15.0 70.5✓
85.5
206.4 55.2✓
261.6 125.7✓ +1.07✓

26.0 53.0✓ +1.07
79.0
195.8 72.7✓
268.5 125.7✓ +1.07✓

mean +1.02✓
Corr. mean +1.04✓

9 22 50
37 50.✓
9 18 55.✓
+5 -18.✓
14 18 37.✓

S. T. 0h 53m
H. A. +3 11
Dec. +43°.0
P. A. 58°.5
Sprocket -4.5 A.
" -3.5 B
" -2.9 C

W's watch used for times to-night.
Watch 18. secs. fast.

Nov. 9. 1904. (Wednesday)

χ Cygni. Phot. J. H. obs. Baxenrees

19 45 +32.6
22 50
3 5

Index left + above.

211.3 ← 43.0 ✓ C. S. dis.
254.3
26.0 54.0 ✓
80.0 97.0 ✓ −1.73 ✓

205.0 56.0 ✓ −1.78 ✓
261.0
34.2 36.8 ✓
71.0 92.8 ✓ −1.84 ✓

Index right + below.

122.2 43.0 ✓
165.2
292.0 60.6 ✓
352.6 103.6 ✓ −1.57 ✓

112.6 62.4 ✓ −1.56 ✓
175.0
302.0 41.5 ✓
343.5 103.9 ✓ −1.56 ✓

mean −1.67 ✓

74750.

8025
108 15. ✓
7 54 8. ✓
+5 −27. ✓
12 53 41 ✓

Nov 9 1904.

Same again.

121.9		
166.0	44.1	
295.0	59.0	
354.0	103.1	−1.58

8 6 0

111.2	62.8	−1.57
174.0		
383.0	41.1	
344.1	103.9	−1.56

Index left + above.

33.3	39.2	
72.5		
204.0	57.3	
261.3	96.5	−1.74

25.9	51.1	−1.80
77.0		
212.2	41.3	
253.5	92.4	−1.85

Mean −1.68

Gen. mean −1.68

8.10

Magn. 6.42

8	17	0
	23	0.
8	11	30.
5		−27.
13	11	3.

S. T. 0h 2.5m

H. A. 4h 12.5m

Dec +32°.2

P. A. 27.3

Sprocket −2.5 B −1.5 b

"

"

Nov 9 1904

182836 T Lyrae Phot T W obs
Barss rec

$18^h\ 32^m\ +38^{\circ}.7$
24 35
+6 3

Abandoned, region too low, sky too hazy.

Doubtful var. +26°1117

6h. 2 +26.0
1 5
−4 57
7 3

6 6 +25.3
1 15
4 51
7. .9

Abandoned.

Nov. 9. 1904.

060521 Doubt. Var., Plat. I.
Tr. ds. Barse vac,

6 3 +21.9
1 23
4 40
7 20

6 6 +22.5
1 25
4 41
7 19

Index right & above of

279.5 ← Var. dis'
10 2 30 6.0
108.8 86.5
176.8 68.0
154.5 −0.49

~~2~~88.4 70.4 −0.41
358.8
96.4 92.1
188.5 162.5 −0.33

B

185.5
281.0 95.5
12.4 79.4 −0.09
176.9

Nov. 9. 1904.

91.8

196.7

272.5 75.8

6.4 93.5

99.9 169.3

−0.14

−0.20

Mean −0.28

10 10 45

13 15

10 6 38.

+5 −27.

15 6 11.

S. T.	1h	47m
H. A.	−4	22
Dec		+22°.0
P. a	206.5	Ver B.
Sprocket		−3.5 a
"		−2.5 B
"		−1.9 b

S S Cygni. Phot. Tr. W. obs.
Bassa vac.

21 34 +42.5
25 55
+4 21

Nov. 9. 1904.

Index left & above B

23.4 < C. S. dis.

1032 5 81.8 58.4 ✓

208.9 48.0 ✓

256.9 106.4 ✓ +1.50 ✓

30.6 46.0 ✓ +1.52 ✓

76.6

203.0 58.5 ✓

261.5 104.5 ✓ +1.55 ✓

A

288.7 64.8 ✓

353.5

120.0 47.2 ✓

167.2 112.0 ✓ +1.37 ✓

298.0 49.0 ✓ +1.36 ✓

10 43 10 347.6 63.7 ✓

7 5 15. ✓ 111.8 112.7 ✓

10 37 38. ✓ ~~176.0~~ 175.5 +1.36 ✓

+5 -27. ✓

15 39 11. ✓

mean +1.44 ✓

8.93 ✓

10.37 ✓

S. T. 2h 20.5m

H. A. +4 35.5

Dec. +43.0

P. A. 238.5 Ver B.

Sprocket -4.5 A

Nov. 9. 1904.

Sprocket -3.5 B
" -2.9 b.

W's watch used for times to-night.
Watch 27. secs. fast.

Nov 10 1904 (Thursday).

155-1904 Persei Var. (Mme Ceraski) Phot. T.
W. obs Barss rec.

27 33 +47.3
23 5
−4 28
12 0
7 32

7 38 cloud, too thick to find var. at present time
Index right & above

108.6
7 56 0 176.6
Clouds thick

Tried throughout evening to get observations of above var.
It was however impossible to get more than two or three settings on account of clouds.
Clouds now thick every where
$9^h.0^m$ no chance for anything further.

Nov. 11 1904 (Friday).

~~0~~

0 34 9 30 X Persei Wobs. Bass. rec. Phott J.

27
~~7~~ 45 + 31.4 9.5 in. cap.
23 5
— 4 40
7 20

Index left & above B

~~308.8~~ 30.7 (Var. dis. Reject. See note p. 95) 126.5 31.2 ✓
7 38 15 ~~339.5~~ 157.7 42.6 ✓
~~129.6~~ ~~33.3~~ p. 302.0 73.8 ✓
~~162.9~~ ~~64.0~~ 344.6 -2.38 ✓

303.0 41.6 ✓ -2.38 ✓
344.6
126.2 32.2 ✓
158.4 73.8 ✓ -2.38 ✓

A

218.0 32.5 ✓
250.5
31.7 41.3 ✓
73.0 73.8 ✓ -2.38 ✓

-2.45 ✓

216.7 37.7 ✓
7 50 45 254.4 32.0 ✓
8 9 0. ✓ 36.9 69.7 ✓ -2.52 ✓
7 44 30. ✓ 68.9 mean -2.42 ✓
+5 -35. ✓
12 43 55. ✓

Nov 11 1904

Same again A

7 56 5

217.5 } 34.0 ✓
251.5
32.5 39.3 ✓
71.8 73.3 ✓ −2.40 ✓

213.2 39.8 ✓
253.0 −2.38 ✓
34.2 34.6 ✓
68.8 74.4 ✓ −2.36 ✓

B

126.0 33.0 ✓
159.0
301.7 40.5 ✓
342.2 73.5 ✓ −2.39 ✓

121.4 43.1 ✓ −2.39 ✓
164.5
306.6 30.6 ✓
337.2 73.7 ✓ −2.39 ✓

8 9 50

	5	55. ✓
8	2	58. ✓
+5		−35. ✓
13	2	23. ✓

mean −2.38 ✓

S. T. 0h 15m Gen. mean −2.40 ✓
H.A. −3 35
Dec +30.9
P.A. 60.0 Ver. B
Sprocket −6.5 A
" = 5.5 B

Nov 11 1904

Sprocket - 4.9 C

044528 Doubt var. Phot I
W obs. Bass. rec.

4 39 + 29.2
0 39
-4 0

Index ~~###~~ & above ~~☆~~ A

26.1 ← C. V. ho.
9 11 48 84.0 57.9
194.4
269.9 73.3
131.2 +0.95

18.5
88.6 70.1 +0.98
204.1
262.5 58.4
128.5 +1.01

☆ B

294.5 56.9
351.4
104.2 78.6
182.8 135.5 +0.87

283.1 80.9 ~~+0.87~~ +0.84
92025 4.0
115.2 57.5
172.7 138.4 +0.81 mean +0.91
over.

3 2 5
9 16 2
15 -35
14 15 27

Nov 11 1904.

P. A 218.0
S. T 1^h 1^m
H. A −3 45
Dec +28.5
Sprocket
" −15 B
" −05 C

S S Cygni.
21 34 +42.5 Phot. T.
2v 9 Wobs- Bass rec-
+3 3v

Index left & above B

218.1 C. S. dis.
9 37 45 255.4 45.3
35.2 31.2
67.~~7~~0 77.1 +2.22

217.5 36.0 +2.34
251.5
32.4 39.4
71.8 73.4 +2.40

Nov 11 1904

A

121.8 41.7
163.5
305.8 32.0 +2.39
337.8 73.7

+2.32

126.7 32.2
~~157.6~~ 157.9
299.4 46.1 +2.25
345.5 78.3

mean +2.33

+2.33
8.93
11.26

94820
86 5.
9 43 2.
45 -35.
1442 27.

S. T. 1h 37m
H. A. +3 52.5
Dec +43.0
P. A. 239.5
Sprocket -4.5 a
" -3.5 B
-2.9 C

In first set on X Persei much trouble was experienced with pencils and focus, so that conditions were bettered and set retaken. In first set also difficulty experienced in getting hold of the light from ~~from~~ star and stars drifting to edge of field. Telescope balanced by added weight on eye end and set retaken. First set rejected.

W's watch used for times to-night. Watch 35. secs. fast.

Nov. 12, 1904. (Saturday.)

Reap. Jup. I. Wc obs. B~~avas~~ rec.
Eclipse taken with No. 1. Ring mic. Eye-piece. Power 103.

(Est. Time) 6h ~~38 10~~
6 ~~23 59~~ not seen
Corrected Value. 6h ~~38~~ -45 not seen
6h 39m 12s. = 3 9 -26 not seen
6 39 42 = 6h 39m ~~4 0~~ -56 seen
6 39 54 = 4 0 - 8 brighter
4 0 20 brighter still
4 0 36 brighter still

B. & C. 1182.			B. 394.		
7	0	16.5	7	0	0.0
	1	16.6		1	0.0
	2	16.7		2	0.0

W. had not sufficient time to take comparison before eclipse. so took 3 comparisons for rate as well as error, at end.

Assuming rate given by these comps., we have the above ~~corrections~~ values for the last "not seen" and the first seen.

Nov 12 1904

054130 Doubtful Var. Phot I. Wols. Bausrec

~~5 31 +31.30~~

29
~~5~~ 31 +31.3
23 0

6 31
5 29

abandoned for the present to low

(Chi) ~~X~~ Cygni. Phot. I. Wols. Bauss rec.

19 45 +32.5
23 10

+3 25

Index left & above

215.5 35.1 ✓
7 36 55 250.6
30.4 45.6 ✓
76.0 80.7 ✓ −2.17 ✓

−2.14 ✓

209.8 47.5 ✓
257.3 35.3 ✓
36.2 82.8 ✓ −2.11 ✓
~~72.0~~ 71.5

Nov 12 1904

125.4 36.3 ✓
161.7
298.3 48.5 ✓
346.8 84.8 ✓ −2.06 ✓

120.0 49.6 ✓ −2.04 ✓
169.6
304.3 36.3 ✓
340.6 85.9 ✓ −2.03 ✓
mean −2.09 ✓

7 46 5
83 0 ✓
7 41 30. ✓
+5 −38.
12 40 52. ✓

7 50 15

Same again

125.5 35.0 ✓
160.5
299.9 46.6 ✓
346.5 81.6 ✓ −2.15 ✓

119.5 47.7 ✓ −2.08 ✓
167.2
304.0 38.8 ✓
342.8 86.5 ✓ −2.01 ✓

Left + above.

34.0 36.0 ✓
70.0
210.0 44.0 ✓
254.0 80.0 ✓ −2.19 ✓

−2.19 ✓

29.8 45.7 ✓
75.5 34.6 ✓
215.5 80.3 ✓ −2.19 ✓
mean −2.14
Gen. mean −2.12

159 50
11 0 5. ✓
7 55 2. ✓
+5 −38. ✓
12 54 24. ✓

Nov 12 1904

250.1

S. T.	$23^h\ 50.5^m$
H. A.	+ 4 3
Dec	+ 32°.2
P. A.	26.0 Ver. B.
Sprocket	− 2.5 B
"	− 1.5 C

S S Cygn~~ae~~i Phot

21.34 + 42.5 Wobs. Baus rec

$$\begin{array}{r} 21\,34 \\ 24\,3 \\ \hline +2\,29 \end{array}$$

Nov 12 1904.

Index left & above B

~~214.2~~ ~~41.3~~ | 33.4 37.7✓
~~255.5~~ | 71.1
~~37.5~~ ~~18.7~~ | 219.3 27.5✓
~~56.2~~ | 246.8 65.2 +2.67✓

8 33 18

1st set retaken. One reading evidently recorded wrongly.

C. S. dis. ⟶ 218.5 30.3✓ (+2.60)✓
248.8
31.4 39.3✓
70.7 69.6✓ +2.52✓

A

123.0 39.4✓
162.4
309.2 29.5✓
338.7 68.9✓ +2.54✓

128.3 29.5✓ (+2.51✓)
157.8
301.0 41.3✓
342.3 70.8✓ +2.48✓
mean. +2.56✓

8 46 35
7 9 45.✓
6 39 52.✓
+5 −38.✓
13 39 14.✓

S. T. 1h 1m
H. A. +3 20
Dec. +43°0
P. A. 59.0 Ver. B
Sprocket −45 A
" −35 B
" −29 C

Nov 12 1904

T. Cygni Phot T. Wols Pass rec.
9.5 in cap

20 40 +33.4
25 78
+4 28

Index left & above β

93420

33.0
71.1 38.1 ✓
218.8 27.3 ✓
246.1 65.4 ✓ −2.66 ✓

39.3
66.8 27.5 ✓ −2.62 ✓
213.0 40.0 ✓
253.0 67.5 ✓ −2.59 ✓

A

303.8 ~~30.4~~
342.8 39.0 ✓
126.8 32.1 ✓
158.9 71.1 ✓ −2.47 ✓

−2.54 ✓

~~308.0~~ 300.9 42.1 ✓
343.0
131.5 25.1 ✓
156.6 67.2 ✓ −2.60 ✓

mean −2.58 ✓

94850
83 10. ✓
9 41 35. ✓
+5 −38. ✓
14 40 57. ✓

(over)

Nov 12 1904

P. A.	188.5 Ver B
S. T	$1^h\ 35.5^m$
H. A	$+4^h\ 51^m$
Dec	$+33^\circ.5$
Sprocket	−3.5 B
"	−2.5 C

Observations somewhat difficult especialy in latter part of group on T Cygni, on account of increasing Cloud & haze but all possible) care exercised.

W's watch used for times to-night.
Watch 38. secs. fast.

Nov 14 1904 (Monday)
Wobs Barss rec

+51° 762
033451 ^ Doubt. Var. Phot. I.

27
~~3~~ 46 + 50.2
23 42
−4 4
7 56

27 56 +50.6
23 47
−4 9
7 51

Index right & above A

C. v. dis.

81910

11.1 80.7✓
91.8
181.9 102.4✓
284.3 183.1✓ −0.06✓
3 176.9✓

3.5
101.3 97.8✓ −0.06✓
190.0 84.8✓
274.8 182.6✓ −0.05✓
177.4✓

Nov 14 1904

~~Same again~~
Index left & below B

279.7
5.0 85.3 ✓
98.6 100.3 ✓
198.9 185.6 ✓
174.4 ✓ −0.11 ✓

271.2
10.3 99.1 ✓ −0.08 ✓
101.3 84.0 ✓
185.3 183.1 ✓ −0.06 ✓
176.9 ✓ mean −0.07 ✓

8 38 30
8 49 40 ✓
4 24 50 ✓
+5 −27 ✓
13 24 23 ✓

Same again
two sets B

~~282.4~~
~~4.0~~
91.1 103.8 ✓
194.9
281.5 82.6 ✓
4.1 186.4 ✓
173.6 ✓ −0.12 ✓

~~8 35 20~~

8 37 30

~~101.0~~
101.0 83.5 ✓ −0.12 ✓
184.5
271.0 102.4 ✓
13.4 185.9 ✓
174.1 ✓ −0.11 ✓

Nov 14 1904

Index right ~~a~~ above A.

3.3
101.4 98.1
194.0 79.8
293.8 177.9 +0.04

11.2 80.0 -0.02
91.2
180.8 104.0
284.8 184.0
176.0 -0.08
mean -0.07
Gen. mean -0.07

8 4850
85 80
8 42 70
+5 -27
13 42 43

S.T 0h 52.5m
H.A ~~+9 10.5~~ -2 44.5
Dec +51.0
P.A 356.2 Ver B
Sprocket -1.5 a
" -0.5 B
" +0.1 b

S.S Cygni Phot J

.2134 +42.57 W. obs. Bass rec
2510
+3 36

over.

Nov 14 1904.

Index left & above B

92950

36.5 33.7 ✓
78.2 26.8 ✓
60.5 ✓ +2.84 ✓
~~247.5~~ 219.2
246.0

(+2.90 ✓)

39.9
~~43.7~~ 67.0
216.8 27.1 ✓
30.6 ✓
247.4 57.7 ✓ +2.95 ✓

Index right & below A

304.5 36.0 ✓
340.5
131.8 24.7
60.7 +2.84 ✓
156.5

(+2.84 ✓)

311.0 24.8
335.8
124.6 35.4
60.2 +2.85 ✓
160.0

Mean +2.87 ✓
8.93 ✓
11.80 ✓

94420
7370 ✓
93665 ✓
+5 −27 ✓
143638 ✓

(over) ✓

Nov 14 1904

S. T.	1h	46m
H. A.	4	5
Dec.	43°.0	
P. A.	239.0 Ver B.	
Sprocket.	-4.5 A.	
"	-3.5 B	
"	-2.9 C.	

W's watch used for time to-night. Watch 27 seconds fast

Nov 15 1904 (Tuesday)

X Persei Phot J. Wafs. Ver Barss
Index left & above B

27
~~3~~ 45 +31.4
23 30
4 15
7 45

Var. dis.

307.5 31.0 ✓
338.5 41.1 ✓
121.9 72.1 ✓ −2.44 ✓
163.0

75410

302.5 40.3 ✓ −2.44 ✓
342.8
125.8 32.0 ✓
157.8 72.3 ✓ −2.43 ✓

A

217.4 32.6 ✓
250.0
32.0 41.0 ✓
73.0 73.6 ✓ −2.39 ✓

−2.44 ✓

213.5 39.9 ✓
253.4 30.3 ✓
38.5 70.2 ✓ −2.50 ✓
68.8 mean −2.44 ✓

8-7-5
15 61 15 ✓
7 60 38 ✓
−21 ✓
+5
13 00 17 ✓

(Over)

Nov 15 1904

S. T. 0h 16m
H. A. -3 35
Dec +30°.9
P. A 240.5 Var. B
Sprocket -6.5 a
" -5.5 B.
" -4.9 b.

Full apeture used as moonlight was rather bright & comp. star somewhat faint.

Doubt Var +26° 1117 Phot I
Wolo Bass Vec

30
b 2 +26.0
25 7
4 55.
7 5

Abandoned sky to bright

Nov 15 1904

860521 Doubt Var Phot J
W. obs. Bauss vec

6 6 +22.5
1 25
4 41
12
7 19

Index right & above A

274.0 ← var. dis.

9 41 20

9.0 95.0
105.9 72.2
178.1 167.2 −0.24

287.0 73.5 −0.28
0.5
97.4 89.6
187.0 163.1 −0.32

B

185.5 95.1
280.6
15.0 75.0
−90.0 170.1 −0.19

200.0 72.8 −0.19
272.8
3.9 97.1
701.0 169.9 −0.19 mean −0.24

9 50 20
9 1 40
9 45 50
+5 −21
14 45 29 (over)

Nov 15 1904

S. T. 1^h 52.5^m
H. A. −4 15
~~Dec~~ +22°.0
P. A 206.5 Ver B
Sprocket −3.5 a
" −2.5 B
" −1.9 b

S. S. Cygni Phot T
.2134 | V +42.5 Wols Bassrec
26 3
+4 29
Index left & above B
215.5 ↙ Star
102020 250.3 comp dis.
~~39.0~~ 40.2 34.8 ✓
62.9 22.7 ✓
57.5 ✓ +2.96 ✓

221.0
244.5 23.5 ✓ +2.97 ✓
34.6 33.4 ✓
68.0 56.9 ✓ +2.92 ✓
A
123.0 36.2 ✓
159.2 29.8 ✓ +2.64 ✓
310.0 66.0 ✓
339.8 Over

Nov 15 1904

128.4 26.2 ✓ +26.8 ✓
154.6
303.3 37.7 ✓ +27.2 ✓
341.0 63.9 ✓

mean +28.2 ✓
8.93 ✓
11.7 ✓

10 41 0
61 20 ✓
10 30 40 ✓
+5 -21 ✓
15 30 19

S. T. 2h 48m
H. a +5 6
Dec. +43°.0
P. a. 239.0 Ver. B
Sprocket -4.5 a
" -3.5 B
" -2.9 b

Observations on SS Cygni rather difficult on account of rather bright moonlight faintness of object & a little haze. Extreme care however exercised

W's watch used for times to-night.
Watch 21. secs. fast.

Nov 16 1904 (Wednesday)
Ceraski var + 46° 740
2733 + 47°.3 Phot J. W. obs Barss rec
2215
5 18
6 42

6.20 Clouds

6.23 Clouds thick in this region.

6.32 Clouds thick all over the sky

7.0 Sky all cloudy

7 30 Sky thickly clouded
No stars visible!

8.0 Sky thickly cloudes no stars. visibly.

Dome was open & phot. was nearly ajusted on the variable (wh. fatter was seen) but thick clouds came imediatley preventing any measurements!

Nov. 17 1904. (Thursday).

W. obs.) Baro rec

045443 ε Aurigae. Phot I.

28
~~4~~ 52 +43.6 ~~15~~ 7 Cap.
23 27
-5 25
6 35

7 in. cap used.

23 50

6 35
27
6 58

Clouds in this region

8.0 Sky still cloudy in this region.

Index right & above ~~4~~

224.50 ← var dis
16.0 240.6 15.5
42.0
59.5 17.5
33.0 -4.19

223.5
243.3 19.8 -4.22
45.2 12.3
57.5 32.1 -4.25

Nov. 17 1904.

Index left + below. B

135.0 15.3 ✓
150.3
313.3 18.9 ✓
332.2 34.2 ✓ −4.11 ✓

133.2 −4.12 ✓
152.8 19.6 ✓
315.5 14.4 ✓
329.9 34.0 ✓ −4.13 ✓

8 24 30
40 30. ✓
20 15. ✓
+5 −14. ✓
13 20 1. ✓

Index left + below. mean −4.17 ✓

Same again ^ B

135.2 14.4 ✓
149.6
313.4 18.3 ✓
331.7 32.7 ✓ −4.21 ✓

8 26 40

133.5 −4.18 ✓
153.2 19.7 ✓
316.1 13.9 ✓
330.0 33.6 ✓ −4.15 ✓

Index right + above. A

45.1 13.5 ✓
58.6
222.7 19.8 ✓
242.5 33.3 −4.17 ✓

Nov. 17 1904.

8 37. 20
64 0. ✓
δ 32 0. ✓
tv -14. ✓
13 31 46. ✓

42.7
68.1
225.5
240.3

17.4 ✓
14.8 ✓
32.2 ✓

-4.21 ✓
-4.25 ✓
Mean -4.20 ✓
Gen. Mean -4.18 ✓

S. T. 0h 54m
H. a -4 3
Dec +44.1
P. a. 358.3 Ver. B.
Sprocket -8.5 a
" -7.5 B
" -6.9 C.

Although observer was troubled by light clouds, before beginning observations causing some delay, he waited until the sky was quite clear, befor starting observation

Nov. 17 1904.

V. Cephei Phot J. W. obs Bass rec

23 50 +82°.4 (Cap 9.5)

25 38 Comp. Star = +82° 748 (7.0)

+1 48

Index ~~left~~. B

Clouds

282.5 var. dis

1.8 79.3

9 5 0 50 109.3 65.7

175.0 145.0 −0.67

292.8 63.5 −0.64

355.5

98.5 85.1

183.6 148.6 −0.60

Index right. A

193.8 76.2

270.0 62.0

22.5 138.2 −0.81

~~93.2~~ 84.5

~~84.5~~ −0.81

201.6 59.8

261.4 78.6

13.6 138.4 −0.81

92.2

10-5-50

116 40.

9 58 20.

+5 −14.

14 58 6.

mean −0.72

Nov. 17 1904.

Same again Index right. A

10 8 30

192.4
271.2 ← Var dis
21.3 78.8 ✓
83.0 61.7 ✓
140.5 ✓ −0.76 ✓

201.5 61.1 ✓
262.6 −0.74 ✓
11.5 81.3 ✓
92.8 142.4 ✓ −0.73 ✓

Index left. B.
107.8 67.7 ✓
175.5
283.4 79.0 ✓
2.4 146.7 ✓ −0.64 ✓

100.0 82.9 ✓ −0.66 ✓
182.9
292.2 62.0 ✓
354.2 144.9 ✓ −0.68 ✓
mean −0.70 ✓
Gen. mean −0.71 ✓

18 19 20
27 50. ✓
10 13 55. ✓
+5 −14. ✓
15 13 41. ✓

S. T. 2h 38m
H. A. +2 35
Dec +82°.2
P. A. 143.7 Ver. B
Sprocket −2.5 B
" −1.5 C

Nov. 17 1904.

W's watch used for times to-night.
Watch 14 seconds fast

Nov 18 1904 (Friday)

χ ~~[illegible]~~ Cygni — Phot. I. Wolb. Bass rec
(cap 9.5)

19 405 +32.6
23 40
+3 55

Index left & above

33.6 ✓ var. dis
71.3 37.7 ✓
2 18.4 30.2 ✓
248.6 67.9 ✓ −2.58 ✓

7 49 50

39.0 27.3 ✓ −2.60 ✓
66.3
212.6 39.1 ✓
251.7 66.4 ✓ −2.63 ✓

Index right & below.

303.9 36.4 ✓
340.3
129.5 27.5 ✓
157.0 63.9 ✓ −2.72 ✓

308.5 28.5 ✓ −2.67 ✓
337.0
123.0 38.2 ✓
161.2 66.7 ✓ −2.62 ✓

mean −2.64 ✓

7 59 50

109 40. ✓
7 54 50. ✓
+5 −7. ✓
12 54 43. ✓

Nov 18 1904

Same again Index right & below.

Vec

8 1 50

308.5
341.4 37.9✓
127.6 28.6✓
156.2 66.5✓ −2.62✓

308.4 28.9✓ −2.62✓
337.3
123.5 37.5✓
161.0 66.4✓ −2.63✓

Index left & above

31.0
71.5 40.5✓
219.0 28.0✓
247.0 68.5✓ −2.56✓

38.5 27.9✓ −2.61✓
66.4
213.8 37.6✓
251.4 65.5✓ −2.66✓

8 11 55

	13	45.✓
8	6	52.✓
+5		−7.✓
13	6	45.✓

mean −2.62✓

Gen. mean −2.63✓

8.10
5.47

S. T. 0h 31.5

H. A. +4 42

Dec 32°.2

P. A. 26.5 Ver B

Sprocket −2.5 B

" −1.5 C

Nov 18 1904

o Ceti. Phot W. Wols. Bass rec

2 1 2 -3° 6
0 √ √
-1 1 7
10 4 3

Index right

~~100.0~~ 9.0
9 4 0 97.0 ← Var. dis:
177.4 88.0
281.0 103.6
191.6
168.4 +0.22 √

0.9
100.8 99.9 √ +0.20 √
186.3
276.0 89.7 √
189.6 √
170.4 √ +0.12 √

280.8
5.5 84.7
97.3 97.7
195.0 182.4
177.6 +0.05 √

273.0
9 1 7 0 14.0 101.0 +0.04 √
. 21 0 √ 105.6 80.4
9 10 30. √ 186.6 181.4
+5 -7. √ 178.6 +0.03 √
14 10 23. √

Mean +0.12 √
9.19 √
Magn. 9.31 √

Nov 18, 1904.
S. T. 1h 27m
H. A. -0h 50
Dec. -3°.1

V Cephei Phot. J. Wobs. Bassrec
(Cap 9.5)
23 50 +82°.4
2√ 3√
+1 4√

Index left
~~282.5 206~~
~~3.1~~ var dis
~~99.7 244~~
~~184.1 165.0~~

285.3 75.1
8.4
110.6 62.8
173.4 137.9 -0.82

281.4 220
3.4
110.0 61.0
171.0 143.0 -0.71

(-0.76)

93615

Index right.
198.6 64.6
263.2
11.7 226
94.3 147.2 -0.63

Nov 18 1904

9 46 45
43 0. ✓
9. 41 30. ✓
+5 -7. ✓
14 41 23. ✓

~~191.1~~
~~272.1~~

22.2 61.2 ✓ (-0.68 ✓
83.4
191.2 81.7 ✓
272.9 142.9 ✓ -0.72 ✓

mean -0.72 ✓

S. T 2h 9m
H. a +2 11
Dec. +82°.0
P. a 143.6 VerB.
Sprocket -2.5 B
" -1.5 C.

W's watch used for time tonight, watch 7 seconds fast

Nov 19 1904 (Saturday)

W. obs. Bussvec
Phot J. (9.5) cap.

J. Cygni
20 40 +33.4
23 40
~~43~~ 0

Index left & above B

217.5 var. dis.
247.0
34.7 29.5 ✓
69.2 34.5 ✓
64.0 ✓ −2.71 ✓

7 41 20

215.0 36.0 ✓ −2.74 ✓
251.0
39.4 26.6 ✓
66.0 62.6 ✓ −2.76 ✓

Index right & below A

128.8 29.6 ✓
158.4
304.0 37.5 ✓
341.5 67.1 ✓ −2.60 ✓

124

124.7 37.3 ✓ −2.60 ✓
162.0
307.8 29.7 ✓
337.5 67.0 ✓ −2.61 ✓

7 49 30
9 0 50. ✓
7 45 25. ✓
+5 −5. ✓
12 45 20. ✓

mean −2.67 ✓

Nov 19 1904

S. T	0^h	3^m
H. A	+3	22
Dec	+33°.4	
P. A	187.6 Rev. B	
Sprocket	−3.5 B	
"	−2.5 C	

B. + C. 1182.			B. 394.		
8	10	11.0	8	10	0.
	11	11.1		11	0.

Reappearance of Jup. I. W. obs. Bass rec. Eclipse taken with one of the ordinary eye pieces.

Corrected. East. Time.		
$8^h\ 35^m\ 3^s$ =	$8^h\ 3^m\ 4\text{-}9^s$	false alarm
8 35 7. =	35-12	suspected
8 35 15. =	35-16	seen
	35-24	brighter
	35-37	brighter still
	36-2	quite bright

∴ Correction for $8^h\ 35^m\ 12^s$ is − 9 secs.
" " " 8 35 16. " −9. "
" " " 8 35 24. " −9. "

As it was concluded to take

Nov 19 1904

-the eclipse with one of the ordinary eye pieces, observer decided to use a 1/4 eye piece.

B.+C. 11 8 2.			B. 394.	
δ	44	8.5	δ 44	0.0
	45	8.6	45	0.0

Observer used a 1/4 eye piece as the moon was very near Jup. (within a couple of degrees) and the sky pretty bright With the 1/4 in. eye piece, (power 1080) the sky about Jup. looked quite dark & the reappearance was very satisfactory obtained,

Seeing fairly good.

060521 Doubt. Var. +21° 1146 ~~11 46~~.
Phot J. Wobs. Bass Va

+22.5

6 6
1 33
-4 33
7 27

Nov. 19 1904

Index right & above A

279.7 ↙ var dis

9 35.0 6.1 86.4

103.6

179.5 73.9

160.3 -0.38

285.0

359.5 74.5 -0.42

160.0 81.0

181.0 155.5 -0.47

B Retaken.

~~187.0 91.0~~

278.0 ~~2[illegible]~~

~~13.9 66.1~~

~~80.0 157!~~ ~~0.44~~

Reject.

~~192.9 79.7~~

~~272.6~~

~~6.6 91.2~~

~~99.8 170.9~~ ~~0.17~~

15.0 84.0

99.0

192.3 81.2

273.5 165.2 -0.28

14.0 77.0 (-0.24)

91.0

187.5 92.5

280.0 169.5 -0.20

mean -0.33

9 42 50

7 7 50.

9 38 55.

+5 -5

14 38 50.

For two sets immediately above, seeing extremely bad. As seeing became better, these two sets were retaken.

Nov 19 1904

Same again B

9 45 20

186.0
279.0 93.0 ✓
15.0
91.0 76.0 ✓
169.0 ✓ −0.21 ✓

194.2
272.3 78.1 ✓ −0.20 ✓
6.0
98.4 92.4 ✓
170.5 ✓ −0.18 ✓

mean −0.

A

101.6
180.8 79.2 ✓
286.0
359.5 73.5 ✓
152.7 ✓ −0.52 ✓

104.0
179.0 75.0 ✓ −0.50 ✓
283.7
4.0 80.3 ✓
155.3 ✓ −0.47 ✓

mean −0.35 ✓

9 53.0
9 8 20 ✓
9 49 10 ✓
+5 −5. ✓
14 49 5. ✓

S. T 2h 21m Final mean −0.35 ✓
H. A −3 42
Dec +22.0
P. a 207.6 Ver B.
Sprocket −3.5 a
−2.5 B
−1.9 C

W's watch used for time to-night. Watch 5 secs fast.

Nov 21 1904 (Monday)

~~Wols - Barss rec~~
~~044528 Doubt Var +28°707 Phot J.~~

Rather cloudy 1st of the evening

044528 Doubt Var. +28 707
Barss rec W-obs
Phot J.

~~28~~
~~4~~ 32 +28.3
1 .23
-3 9
8 51

Left & above A
star

200.0 comp. dis.

93440

263.0 63.0
+16.0 74.0
90.0 137.0 +0.83

195.0 75.5 +0.86
270.5
22.3 59.2
81.5 134.7 +0.88

B

112.0 62.2
174.2
283.0 81.0
4.0 143.2 +0.71

Nov 21 1904

W. obs. Barss rec
Phot J.

9 43 40
78 20. ✓
9 39 10. ✓
+5 +5. ✓
14 39 15. ✓

94945

103.0 78.8 ✓ +0.74 ✓
181.8 61.4 ✓
293.1 140.2 ✓ +0.77 ✓
354.5

mean. +0.80 ✓

Same again B

112.0 63.0 ✓
175.0
284.2 80.5 ✓
4.7 143.5 ✓ +0.70 ✓

104.2 79.8 ✓ +0.78 ✓
184.0
294.1 60.8 ✓
354.5 140.2 ✓ +0.77 ✓

A

24.4 56.6 ✓
81.0
195.3 75.9 ✓
271.2 132.5 ✓ +0.97 ✓

10 3 15
113 0. ✓
9 56 30. ✓
+5 +5. ✓
14 56 35. ✓

15.0 75.0 ✓ +0.90 ✓
90.0
204.4 59.7 ✓
264.1 134.7 ✓ +0.88 ✓

mean +0.82 ✓
Gen. mean +0.81 ✓

Nov 21 1904.

S. T. 2h 36m
~~H. A.~~ -2 14
~~Dec~~ +28°.3
P. A 37.6 Ver. B
Sprocket -1.5 B
" -0.5 C

(mu)
μ Cephei W. obs Bassoval
(9.5) cap Phot T.
458.1

21 39
26 50
+5 11

Left & above B

18 40 30

122.9 Var. dis
164.0 41.1✓
302.1 41.9✓
344.0 83.0✓ -2.11✓

122.0 42.6✓ -2.08✓
164.6
303.2 42.0✓
345.2 84.6✓ -2.06✓

Nov 21 1904

A

33.4 40.7
74.1
211.2 45.8
257.0 86.5 −2.01

31.4 44.4
75.8 −2.02
213.0 40.9
253.9 85.3 −2.04

mean −2.05

10 49 15
89 45.
10 44 52.
+5 +5.
15 44 57.

S. T 3^h 16^m
H A +5 31
Dec +58°.2
P. A 176.5 Ver. B3
Sprocket −6.5 B
" −5.5 C

W's watch used for times to-night.
Watch 5 secs. slow.

Nov. 23. 1904. (Wednesday).

7h: 10m Cloudy

7.30 "

8.0 "

8.45 " With no prospect of clearing.

Nov. 25. 1904 (Friday)

(32 Cassiop.)
Barr's Suspected Var. Ast. T. Y. obs.
Comp. Star = + 63° 156 (7.2) Carter rec.
(9.5 inch cap.)

~~2 5~~
x 2 +64.2
0 6
-0 56
11 x

I

Index right.

Susp. Var. dis.

- 218.0
8-31-9 - 248.07 30.7
- 34.02 41.2
- ~~74.07~~ 75.04 71.9 -2.44

- 210.09 43.3 (-2.47)
8-33.45 - ~~254.08~~ 254.02 26.9
- ~~72.02~~ 41.01 70.2 -2.50
- 68.0

Index left.

- 126.07
8-40.50 - 160.9 33.3
- 301.06 40.7
- 342.03 74.0 -2.38

- 121.85 43.8 -2.40
8 42:20 - 165.03 29.1
- 307.04 72.9 -2.41
- 336.05 Mean -2.44

14 8 4.
8 37 1.
+5 +28
13 37 29

Nov. 25. 1904. Friday

~~[illegible]~~

Same again.

II

" 128.02 32.1

8.47.0 " 160.03

" 301.07 39.8

" 341.05 71.9 −2.44

(−2.39)

" 123.02 43.1

8.49.25 " 166.03 32.2

" 305.07 75.3 −2.34 B

" 337.09

Index right.

" 34.0 39.0

8.53.20 " 73.0

" 217.4 30.4 A

" 247.04 69.4 −2.53

(−2.52)

" 40.02 26.1

8.56:0 " 66.03 44.1

" 209.9 70.2 −2.50

" 253.01

205 45.

8 51 26.

+5 +28.

13 51 54.

mean −2.46

8

~~8~~

Nov. 25. 1904 Friday

~~[illegible]~~

Same again.

III

" 32.08 40.3
8.59.59 " 73.01
" 217.06 28.2
" 245.08 68.5 −2.56

(−2.44) A

" 40.05 27.3
9.2.10 " 67.08 48.4
" 207.06 75.7 −2.32
" 256.0

Index left.

" 299.0 42.8
9.7.0 " 341.08 31.6
" 126.08 74.4 −2.36
" 158.04

B

−2.37

" 307.04 31.1
9.10.5 " 338.05 42.8
19 14. " 121.04 73.9 −2.38
9 4 48. " 164 02
+5 +28
14 5 16

mean −2.40

Nov. 25. 1904

Same again.

ʰ	″	302.0		IV	
9 17.30	″	341.07	39.7		
	″	125.03	31.5		
	″	156.08	71.2	−2.47	
				(−2.46)	ⓑ
	″	308.0			
9.20.35	″	337.05	29.5		
	″	121.05	42.6		
			72.1	−2.44	
	″	164.01			
		Index right			
	″	212.01	38.2		
9 27.5	″	250.03	26.8		
	″	39.08	65.0	−2.68	A
	″	66.04			
				(−2.62)	
	″	217.05	28.4		
9.31.0	″	245.09	39.7		
96 10.	″	33.06	68.1	−2.57	
9 24 2.	″	73.03			
+5 +28.				mean −2.54	
14 24 30.					

Nov. 25, 1904. Friday

Index Right. Same again.

V

9.37.25
" 32.05
" ~~75.~~ 74.07
" 217.04
" 245.02

42.2
27.8
70.0
−2.51.

(−2.46)

A

9.41.0
" 39.04
" 68.05
" 208.07
" 252.07

29.1
44.0
73.1
−2.41

Index Left.

9.48.0
" 303.05
" 243.08
" 126.0
" 159.0

40.3
33.0
73.3
−2.40

B

(−2.36)

9.52.20
" 306.01
" 338.03
" 120.05
" 164.0

32.2
43.5
75.7
−2.32

17 8 45.
9 44 41.
+5 +28.
14 45 9.

mean −2.41

Nov. 25. 1904. Friday

Same again. Index left.

VI

" 307.02

10.9.45 " 339.0 31.8

" 120.1 42.0

" 162.1 73.8 -2.38

(-2.36) B

" 302.0 43.6

10.13.15 " 345.06

" 124.02 32.0

" 156.02 75.6 -2.33

Index right.

" 210.08 41.4

10.19.49 " 252.02

" 97.05 30.5

" 68.0 71.9 -2.44 A

(-2.47)

" 217.05 28.7

10.22.15 " 246.02

" 92.07 41.6

" 74.03 70.3 -2.50

Mean -2.42

10.22.15
6 5 4
10 16 16.
+5 +28.
15 16 44

Nov. 25. 1904 Friday

S. T.	3 h. 8 m.
H. A.	+2 h. 1 m.
Dec.	+63.09
P. A.	353.05
Sprocket	−4.05 B.
"	−3.05 C.

W's watch used for times to right.
Watch 2.5 secs. slow.

In recording previous observations, the recorder, in reading the tenths of a division on the circle, put a zero before the tenths when the tenth was a significant figure, as this was his first night at recording and he did not fully understand it. When W. noticed it at the end, he questioned him about all the settings, and he said he made that error and that the zeros preceding the significant figure tenths, should be eliminated. W.

Nov. 26. 1904 (Saturday)

χ Cygni. Phot. J. Sw. obs.
Carter rec. 9.5 in cap.

19 45 · +32.6
24 0
+4 15

Index left and above

Var. dis.

	" 42.0	21.6 ✓	
7.46.0	" 69.6		
	" 219.1	23.2 ✓	
	" 242.3	44.8 ✓	– 3.52 ✓
	" 38.5	26.3 ✓	– 3.48 ✓
	" 64.8		
	" 221.9	19.9 ✓	
	" 241.8	46.2 ✓	– 3.45 ✓

Index right + below.

	" 310.0	22.5 ✓	
	" 332.5		
	" 128.4	24.2 ✓	
	" 152.6	46.7 ✓	– 3.42 ✓
	" 307.5	29.3 ✓	– 3.34 ✓
7.54.90	" 396.8		
	" 131.4	20.8 ✓	
	" 152.2	50.1 ✓	– 3.27 ✓

mean – 3.41 ✓

7.54.90
100 30 ✓
+7 50 15. ✓
+29. ✓
12 50 44. ✓

Nov. 26 · 1904

Same again.

" 310.3 23.6 ✓

7.57.45 " 333.9

" 136.8 20.0 ✓

" 156.8 43.6 ✓ −3.58 ✓

" 307.2 29.2 ✓ −3.48 ✓

" 336.4

" 134.1 18.5 ✓

" 152.6 47.7 ✓ −3.38 ✓

Index left & above.

" 221.6 18.7 ✓

" 240.3

" 38.0 26.8 ✓

" 64.8 45.5 ✓ −3.48 ✓

~~Index left & above~~

" 217.0 27.0 ✓ −3.44 ✓

8.7.30 " 244.0

" 42.1 19.9 ✓

" 62.0 46.9 ✓ −3.41 ✓

✓ ✓ ✓

8 2 32. ✓

+5 +29. ✓

13 3 1. ✓

mean −3.46 ✓

Final mean −3.44 ✓

8.10

" S.T. 1h. 0m. mag. 4.66 ✓

" H.A. +5h 10m.

" Dec. +32.1

P.A. 26.5

Sprocket − 2.5 B − 1.5 C

Nov. 26. 1904

044528 = Howitt. Vars + 28° 707 Phot. 7.
Tr. obs. Carter rec.

4 32 +28.3
1 16
-3 14
8 46

Index Above A

C. S. Leo.

8.49.55

200.1 66.7
261.8
12.0 79.3
91.9 146.0 0.75

194.5 76.5
271.0 (+0.82)
23.4 57.3
80.7 133.8 0.90

~~105.8 68.0~~
~~173.8~~
~~203.9 61.7~~
~~5.0 129.7~~

Rej. Seeing
extremely bad
and obs. uncertain

~~101.9 80.4~~
~~182.9~~
~~290.6 63.0~~
~~353.6~~

B Seeing much better. Retaken.

103.1
177.8 74.7
291.9 62.1
354.0 136.8 0.84

110.0 62.3 (+0.77)
172.3
281.8 81.4
3.2 143.7 0.70

Mean + 0.80

9.0.45
110 40
9 55 20.
+5 +29.
14 55 49.

Nov. 26. 1904.

S. T. 2 h. 2 m.
H. A. -2 h. 45 m
Dec. +28.5
P. A. 218.0
Sprocket -[illegible]5 A - 1.5 B - 0.7 C

060521 Doubt Var. +21° 1146 W. Obs.
Phot T. Carter Rec.

6 6 + 22.5
2 20
-3 46
8 14

Index above A
C. S. dis.

3.0
9.51.30 96.0 93.0 ✓
179.2 1033 ✓
282.5 196.3 ✓
163.7 ✓ -0.31 ✓

1.0 101.5 ✓
102.5 -0.26 ✓
187.6 89.4
277.0 190.9 ✓
169.1 ✓ -0.20 ✓

Nov. 26 1904

278.0	88.6	B
6.6		
90.5	101.0	
191.5	189.0	
	171.0	-0.17
270.4	103.6	
14.0		-0.18
97.5	86.6	
184.1	190.2	
	169.8	-0.19

mean -0.22

10.1.30

11	3	0
9	56	30.
+5		+29.
14	56	59

S. T. 2 h. 50 m.
H. A. -3h 18m
Dec. +22.0
P. A. 208.0
Sprocket. -2.5 A -2.5 B -1.9 C.

W's watch used for times to-night.
Watch 29. secs. slow.

Nov. 26. 1904.

Reap. of Jup. I   W. Orbs. Carter. Rec.
Reap. taken with $\frac{1}{2}$ in eyepiece as seeing was quite poor.
Troubled by clouds.

Corrected East. Time				
$10^h\ 30^m\ 46^s$. =	10	30	8	~~Suspected.~~ Really seen
10 30 56. =		30	18	Seen better.
10 31 3. =		30	25	Bright
		30	38	" Still
		30	45	quite Bright
		31	2	Brighter Still
		31	15	Much Brighter.

B. + C. 1182.

11	4	15.2
	5	15.0
	6	14.8

B. 394.

11	5	0.0
	6	0.0
	7	0.0

~~W~~

Eclipse could not be taken photometrically owing to clouds. As ~~it to they~~ atmospheric conditions became sufficiently good, suddenly, to take it visually, this was done.
Rate of chron. determined from 3 comparisons.
∴ correction for first and second times = + 38. secs.

Nov. 27, 1904. (Sunday.)

Reappearance of Jupiter II Phot. R: W., obs., Hill rec. Compared with more following of two sats on preceding side. ~~equals~~ sat I.

B.+C. 1162.			B. 394.		
11	20	24.4	11	21	0.0
	21	24.5		22	0.0
	22	24.5		23	0.0

Limit of visibility

	12	4	36	22.1'	109.0	
12 5 20.' +36		5	07	25.5'	131.1	
12 5 56.' Cor. T.			38	47.6' 23.8'	~~106.~~ 106.5	+3.4
			59		132.0	

Corrected times

12	9	8	12	8	~~32~~	Seen		
	9	15		8	39	42.0'	98.0	+2.1"
	9	31			55	47.6'	140.0	+1.8"
	9	46		9	10	55.6'	92.4	+1.4"
	9	56			20	57.0'	148.0	+1.3"
	10	8			32	63.1'	91.0	+1.1"
	10	19			43	67.9'	154.1	+0.9"
	10	32			56	69.0'	86.2	+0.8"
12	10	42		10	06	76.2'	155.2	+0.5"

Nov. 27. 1904.

Corrected times

12 10 56 ✓	12	10	20	76.5	79.0	+0.5 ✓
12 11 12 ✓			36	76.1	155.5	+0.5 ✓
12 11 49 ✓		11	13	77.6	79.4	+0.5 ✓
12 12 2 ✓			26		157.0	
			42	76.6	79.9	
12 12 3 ✓			54	81.9	156.5	
+36 ✓				158.5		
12 12 39 ✓ Cor. T.		12	11	79.2	77.2	1 +0.4 ✓
			25		159.1	1
			41		76.8	
12 12 58 ✓				83.0		
+36 ✓			58	82.3	159.8	
12 13 34 Cor. T.		13	03	165.3	77.4	2 +0.3 ✓
			16	82.6	159.7	2
			43		77.2	
		14	03	84.7		
12 14 18 ✓			13	84.4	161.9	3
+36 ✓				169.1		
12 14 54 ✓ Cor. T.			31	84.6	79.1	+0.2 ✓
			43		163.5	3
			57		76.0	
12 15 18 ✓				83.6		
+36 ✓		15	12	81.1	159.6	4
12 15 54 ✓ Cor. T.			24	164.7	78.0	+0.3 ✓
			38	82.4	159.1	4
			57	81.4	81.0	
12 16 30 ✓						
+36 ✓		16	15	82.1	162.4	✓
12 17 6. ✓ Cor. T.			46	163.5	79.7	+0.3 ✓
				81.8		
✓		17	03		161.8	5
12 17 50			17		78.6	
+36 ✓			46		158.9	
12 18 26. ✓ Cor. T.						

Nov. 27. 1904.

80.3
12 18 01 80.4 79.4 +0.4 ✓6
160.7
16 80.4 159.8 6
45 77.2
19 02 81.9 159.1
80.3
19 162.2 78.7 +0.3 ✓7
34 81.1 159.0 7
23 47 78.3
24 04 82.2 160.5
84.8
30 167.0 77.2 +0.2 ✓8
83.5
25 18 162.0

12 19 10 ✓
+36
12 19 46 Cor. T.

12 24 25 ✓
+36.
12 25 1 Cor. T.

Seeing rather blurry, causing ~~t~~ some delay in early settings. These early settings had to be and were taken somewhat slowly in order to make them as accurate as possible. The other settings also taken rather slowly and carefully in order to make them as accurate as possible.

B. + C. 1182.
13 4 24.5
5 24.5

B. 394.
13 5 0.0
6 0.0

Nov. 28. 1904 (Monday)

W Delphini. Phot. T. W. Ortz. Carter Rec.

20 h. 31 m. + 17.8° I
24 15
+3 44

A Index Above Comp. Star dis.

7.57.30
121.4
161.6 40.2
307.2 29.9
337.1 70.1 +2.50

8.1.45
126.5 27.5 +2.52
154.0
301.2 41.2
342.4 68.7 +2.55

B Index below

8.5.25
34.5 36.3
70.8
217.7 26.7
244.4 63.0 +2.75

8.9.55
42.0 21.9 +2.80
63.9
211.2 38.6
249.8 60.5 +2.84

14 35
8 3 39.
+5 +32.
13 4 11.

6813.5445
6813.5048 = Harvd. Time Univ. Lt. Eq. applied.
+.0397

mean +2.66
9.31
11.97

New Value of Fund. Ep. and new value (9.31) of comp. star used

Nov. 28. 1904.
B Index below.

II

	213.5	35.1	
8.17.30	248.6		
	38.7	26.3	
	65.0	61.4	+2.81
	216.0	30.2	+2.70
8.22.0	246.2		
	32.5	37.0	
	69.5	67.2	+2.60

A Index above

	121.2	41.8	
8.27.20	163.0		
	306.0	29.7	
	335.7	71.5	+2.46
	126.2	29.6	+2.48
8.35.10	155.8		
	301.0	40.5	
	341.5	70.1	+2.50

mean +2.59
9.31
11.90

10 2 0
8 25 30.
+5 +32.
13 26 2.
6813.5597
6813.5048
+.0549

Nov. 28. 1904.

A Index above. III

118.8 41.2
8.39.28 160.0
306.0 30.0
336.0 71.2 +2.47

124.7 31.5 +2.42
8.43.10 156.2
299.5 42.8
342.3 74.3 +2.37

B Index below

33.1 37.6
8.48.0 70.7
216.3 29.5
245.8 67.1 +2.60

39.8 +2.64
8.53.30 65.0 25.2
18 4 18 210.5 39.7
8 46 4 250.2 64.9 +2.68
+5 +32

13 46 36.
6813.5740
6813.5048
+.0692

mean +2.53
9.31
11.84

Nov. 28, 1904.

B Index below

IV

29.8
8.56.15 71.5 41.7
215.5 32.6
248.1 74.3 +2.37

36.8 +2.36
9.0.25 66.8 30.0
209.9 45.1
255.0 75.1 +2.34

A Index above
299.8 49.3
9.5.30 349.1
120.1 42.0
162.1 91.3 +1.88

302.5 39.6 +1.96
~~8~~ 9.7.50 342.1
10 0 119.4 45.5
9 2 30. 164.9 85.1 +2.05
+5 +32.
14 3 2.
6813.5854
6813.5048
+.0806

mean +2.16
9.31
11.47

Nov. 28. 1904.

A Index above

V

298.0
9.22.15 350.0 52.0 ✓
121.9
163.8 41.9 ✓
93.9 ✓ +1.81 ✓

297.5
9.25.15 342.0 44.5 ✓ +1.75 ✓
112.5
168.0 55.5 ✓
100.0 ✓ +1.66 ✓

B Index below

206.8 50.6 ✓
9.32.55 257.4
31.0 40.1 ✓
71.1 90.7 ✓ +1.90 ✓

211.9 41.7 ✓ +1.81 ✓
9.37.10 ~~252.6~~ 253.6
23.3 55.7 ✓
79.0 97.4 ✓ +1.72 ✓

11 7 35.
9 29 24. ✓
+5 +32. ✓
14 29 56. ✓
6813.6041 ✓
6813.5048 ✓
+.0993 ✓ ✓

mean +1.78 ✓
9.31 ✓
11.09 ✓

Nov. 28 1904.

Index Below β

VI

202.4
9.43.45 261.5 59.1
31.5
72.0 40.5
99.6 +1.67

209.8
9.48.25 257.5 47.7 +1.61
20.5
77.3 56.8
104.5 +1.55

Index above α
289.0 63.5
9.57.10 352.5
115.0 52.8
167.8 116.3 +1.27

295.8 52.2 +1.24
10.4.25 248.0
288.5 67.0
355.5 119.2 +1.21

213 45
9 53 26
+5 +32
14 53 58
6813.6208
6813.5048
+.1160

mean +1.42
9.31
10.73

S. T 3 h. 2 m.
H. A. +6 h. 25 m
He. C. +17.5°
P. A 348.0
Sprocket – 0.5B + 0.5C

W's watch used for times to-night

Watch 32 s. slow

Nov. 30. 1904. (Wenesday)

U W. Cygni ~~2~~ Phot. T. W. obs.
~~20 h 20 m + 42.9~~
Carter rec.

20 20 +42.9
24 27
+4 7

Sky too cloudy for this Variable

R. R. Lyrae Phot. T. W. Obs
Carter Rec.

19 h. 19 m. +43.1
24 39
+5 20

For measurement see next page.

Nov. 30. 1904
Index left and Above B

122.1 ← Vari dis:
8·32·0 ~~160·6~~ 161·1 39.0°
298·3
347·0 48.7°
87.7 −1.98°

115·6 51.4°
8·35·10 167·0 −1.90′
301·0 42.2′
349·2 93.6 −1.82°

~~212·2~~
clouds thick A
211·9 38.6′
8·58·30 250·5
26·5 49.8′
·76·3 88.4° −1.96′

−1.98″
9·0·30 206·9 50.1°
~~257·2~~ 257·0 36.2°
33 12 5 70 33·0 86.3 −2.01′
8 46 32 69·2
+5 +36
13 47 8

mean −1.94′

Nov. 30. 1904
Same again

212.9
9.2.30 251.4 38.5
28.0
75.0 $\frac{47.0}{85.5}$ −2.04

205.2 51.2 −1.98
9.6.50 256.4
31.1 $\frac{39.1}{90.3}$
70.2 −1.91
Index Left & Above
122.1
9.10.30 161.6 39.5
296.2
Clouds thick

Stopped by clouds

S. T. 2 h 37 m
H. A. +7 h 11 m
Dec. +42.1°
P. A. 38.0°
Sprocket. −3.5 A −2.5 B −1.9 C

As clouds came up again suddenly the images could not be set exactly but were nearly so.

W's watch used for times tonight Watch 36 sec. slow.

Dec. 1. 1904. (Thursday)

Z Persei Phot. T. W. Oertz
Martin Rec.

2h. 33 m +42.2'
9 24
−2 0

Comp. Star = +41° 507 (9.0)

2 24
0 35
1 49
10 11

Index Left + Above B

305.0 ∠ Comp. Star dis.

8.24.10 337.7 327 I
129.7 22.7
152.4 55.4 +30.4

310.4 310.4 +31.0

8.28.10 333.9 23.5
126.8 28.9
155.7 52.4 +31.7

Dec. 1. 1904

Index Right & Below A

215.8 28.2 ✓
8.35.25 244.0
42.0 22.4 ✓
64.4 50.6 ✓ +3.24 ✓

+3.26 ✓

218.0 22.8 ✓
8.38.40 240.8 27.2 ✓
126.25 ✓ ~~37.9~~ 38.6 50.0 ✓ +3.27 ✓
31 36. ✓ 65.8 mean +3.18
+5 +40. ✓
13 32 16. ✓

Same again. A

216.9 25.9 ✓
8.50.30 242.8 II
43.4 18.8 ✓
62.2 44.7 ✓ +3.52 ✓

219.7 20.6 ✓ +3.44 ✓
8.54.0 240.3
38.4 27.7 ✓
66.1 48.3 ✓ +3.35 ✓

Dec. 1. 1904

B

8.58.10	127.4	26.1 ✓	
	153.5		
	310.0	21.0 ✓	
	331.0	47.1 ✓	+3.40 ✓
	129.7	24.1 ✓	+3.34 ✓
9.2.0	153.8		
22 4 40. ✓ 8 56 10. ✓ +5 +40 ✓ 13 56 50. ✓	307.8	25.6 ✓	
	333.4	49.7 ✓	+3.28 ✓

Same again. B mean +3.39

9.5.50	126.5	28.5 ✓	III
	155.0		
	311.5	19.4 ✓	
	330.9	47.9 ✓	+3.37 ✓
	131.5	19.8 ✓	(+3.46 ✓)
9.9.0	151.3		
	309.2	24.3 ✓	
	333.5	44.1 ✓	+3.55 ✓

Th Dec. 1. 1904

A

214.2 26.0 ✓

9.23.30 240.2

39.5 22.0 ✓

61.5 48.0 ✓ +3.36 ✓

220.0 17.9 ✓ +3.46

9.28.10 237.9

66 30. ✓

9 16 38. ✓ 39.5 25.0 ✓

+5 +40. ✓ 64.5

14 17 18. ✓ 42.9 ✓ +3.61

mean +3.47 ✓

S. T. 2h 38m

H. A. −0h 1m

Dec. 41.9

P. A. 197.0 Ver. B.

Sprocket −2.5 B

" −1.5 L

0 Cote'

Phot W. W. Obs.

Carter Rec.

Abandoned as cat-gut string to Phot. is broken.

Dec. 1. 1904

060521 Doubt. Var. +21°1146
Phot. T. W. Orbs
Carter Ree

6h 6m +22°.5
3 30
−2 36
9 24

Index Above A
Var. dis.

273.8 ←
10.39.20 7.0 93.2
106.9 70.6
176.9 163.8 −0.31

281.9 74.1 −0.24
356.0
91.3 97.7
189.0 171.8 −0.16

Index Below B
184.0 95.9
279.9
13.0 73.0
86.0 168.9 −0.21

193.9 73.6 −0.20
10.46.5 267.5
3.2 95.8
99.0 169.4 −0.20

Mean −0.22

8 5 25.
10 21 21.
+5 +40.
15 22 1.

Dec. 1. 1904

S.T. 3h 50m
H.A. -2h 19m.
Dec. +21°.9
P.A. 207'5
Sprocket -3.5A - 2.5B - 1.9 C

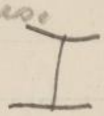
W's watch used for times to-night
Watch 40 seconds slow

Dec. 2. 1904. Friday

S. W. Cygni
Phot. T. W. Obs.
Carter Rec.

20 9 +46·3
24 23
+4 14

Index Left. Below B.
Comp. Star disc



10·0
7·43·40 89·3 79.3 ✓
197·5 67.5 ✓
265·0 146.8 ✓ +0.64 ✓

14·8 68.6 ✓ +0.59 ✓
7·52·0 83·4
190·0 83.0 ✓
279·0 151.6 ✓ +0.54 ✓

Index Right. Above A

281·0 80.2 ✓
1·2
7·56·20 106·0 66.1 ✓
172·1 146.3 ✓ +0.65 ✓

288·5 66.3 ✓ +0.64 ✓
7·58·45 354·8
209105 ✓ 100·0 80.9 ✓
7 52 41 ✓ 180·9 147.2 ✓ +0.63 ✓
+5 +41 ✓
12 53 22 ✓
6817.5371 ✓

Mean +0.62 ✓

Dec. 2. 1904

A

II

8.1.0
278.0
1.5 83.5
105.9
175.6 69.7 / 153.2 +0.51

8.3.35
287.8 67.8 +0.52
355.6
96.8
181.9 85.1 / 152.9 +0.52

Index left + Below B

8.7.30
188.7 83.3
272.0
14.7
85.0 70.3 / 153.6 +0.50

8.10.40
196.0 70.3 +0.48
266.3
8.0
94.3 86.3 / 156.6 +0.45

mean +0.50

21 105
8 5 41
5 +41

136 22

6817.5461

Dec 2. 1904

β

III

185.0
8.13.40 272.9 87.9✓
13.8 70.2✓
84.0 158.1✓ +0.42✓

196.0 71.2✓ +0.42✓
8.16.25 267.2
7.5 87.5✓
95.0 158.7✓ +0.41✓

Index Right + Above A

96.2 87.0✓
8.19.25 183.2
286.5 72.5✓
359.0 159.5✓ +0.39✓

101.8 74.9✓ +0.36✓
8.22.10 176.7
275.8 88.4✓
~~45~~ 4.2 163.3✓ +0.32✓

+0.39✓
Mean ~~+0.40~~

70100✓
17 55✓
8/5 +41✓
13 18 36✓
6817.5546✓

Dec. 2. 1904

L. A

IV

96·0
8·26·0 184·5 88.5 ✓
283·5 73.4 ✓
356·9 161.9 ✓ +0.34 ✓

101·7 +0.30 ✓
8·29·25 ~~178·6~~ 178·9 77.2 ✓
275·0 88.8 ✓
9·8 166.0 ✓ +0.27 ✓

Index Left · Below B

5·8 90.2 ✓
8·38·10 96·0
191·8 77.2 ✓
269·0 167.4 ✓ +0.24 ✓

12·6 +0.22 ✓
8·35·40 90·0 ~~89·8~~ 77.4 ✓
128 75. ✓ 185·5 92.0 ✓
8 32 19. ✓ 277·5 169.4 ✓ +0.20 ✓
+5 +41. ✓
13 33 0. ✓
6817.5646 ✓

Mean +0.26 ✓

Dec. 2. 1904

B

V

3.8
8.40 0 ~~97.2~~ 96.8 93.0 ✓
193.4 76.6 ✓
270.0 169.6 ✓ +0.20 ✓

11.0 +0.18 ✓
8.43.10 88.3 77.3 ✓
184.0 93.4 ✓
277.4 170.7 ✓ +0.17 ✓

Index Right + Above A

275.0 92.0 ✓
8.46.45 7.0.
98.6 78.6 ✓
177.2 170.6 ✓ +0.18 ✓

281.8 76.4 ✓ +0.17 ✓
8.51.0 358.2

180 55. ✓ 92.0 95.0 ✓
8 45 14 ✓ 187.0 171.4 ✓ +0.16 ✓
+5 +41. ✓

13 45 55 ✓ Mean +0.18 ✓
6817.5 735 + ✓

S.T. 2h 2m
H.A. +5h 54m
Dec. +45°.6
P.A. 282.5
Sprocket −1.5A − 0.5B + 0.2C

Troubled somewhat by clouds + haze especially in early part of above series.

Dec. 2. 1904

Z Draconis

~~Phot~~ T. W. Oaks
Carter Rec.

11 47 +73.0
9 5
−8 42
3 18

297.5 ← Comp. Star dir.
10.34.50 345.5 48.0 ✓
109.0 62.0 ✓
171.0 110.0 ✓ +1.42 ✓

289.0 61.3 ✓ +1.43 ✓
10.38.0 350.3
117.1 47.7 ✓
164.8 109.0 ✓ +1.44 ✓

203.9 52.1 ✓
10.44.10 256.0
20.7 59.5 ✓
80.2 111.6 ✓ +1.38 ✓

199.8 59.7 ✓ +1.43 ✓
10.47.25 259.5
16 45. 26.5 47.6 ✓
10 41 26. ✓ 74.1 107.3 ✓ +1.48 ✓
+5 +41. ✓
15 42 7. ✓

Mean +1.43 ✓

Dec. 2. 1904.

S. T. 3h 56m
H.A. -7h47m
Dec. +73.0
P.A. ~~381.5~~ 351.5
Sprocket +0.5 B. +1.2 C

W's watch used for times tonight
Watch 41 seconds slow.

Dec. 3. 1904. (Saturday)

Phot. T. W. Obs

W. Del. Phini

Carter Recorder

20 31 +17.8
25 5
+4 34

Sky pretty cloudy & two much so to do anything with above variable

X Cygni

W. Obs Phot. T.
Carter Rec.

19 45 +32.6
25 10
+5 25

For meas'ts. of X Cygni, see two fol. pages.

174

Dec. 3 1904

Index left & above

42.5 ← Var. dis. B

8.29.30 59.2 16.7 Full aperture used.

218.6 23.8

242.4 40.5 −3.74

37.6 24.8 −3.71

8.32.0 ~~62.0~~ 62.4

220.6 16.8

237.4 41.6 −3.68

Index right & below A

310.6

8.36.10 ~~331.0~~ 330.2 19.6

127.0

150.5 23.5

43.1 −3.60

307.5 24.1 −3.59

8.39.0 331.6

136 40. ✓ 129.5 19.4

8 34 10. ✓ 43.5 −3.58

+5 +40. ✓ 148.9 mean −3.65

13 34 50. ✓

Dec. 3. 1904

Index right + below A

310.2
8.45.25 329.5 19.3
127.5 24.3
151.8 43.6 −3.58

307.0 25.3
8.47.35 332.3 −3.50
Clouds thick
128.8 21.7
150.5 47.0 −3.41

Index left + above. B

218.0 23.1
8.54.0 241.1 ~~239.6~~ 17.1
~~8.58.0~~ 41.2 40.2 −3.76
58.3

220.5 18.5 −3.76
8.58.30 239.0
20 5 30 38.8 21.9 −3.75
8 51 22 60.7 40.4 mean −3.63
+5 +40. Gen. mean −3.64
13 52 2. 8.10
mean 4.46

S.T. 2h 16m
H.A. 6h 27m
Dec. +32.2
P.A. 25.2
Sprocket. −2.5 B. −1.5 A

over

Dec 3. 1904

In last group on χ Cygni it troubled somewhat by cloud but this cloud was homogeneous in character and extreme care was exercised so that second group is considered first-class.

In first group sky pretty clear

Dec. 3. 1904

o Ceti

Phot ~~W~~ R. W. Obs
Leavitt Rec

2 12 −3.5
2 47
+0 35

Index left.

162.2 ← Var. dis.
9.58.0 248.2 86.0
340.8 95.7
76.5 181.7
178.3 +0.03

158.0 101.1
259.1 +0.04
345.8 81.9
67.7 183.0
177.0 +0.06

77.5 820
159.5
249.3 96.6
345.9 178.6 −0.03

~~68.5~~ +0.02
~~166.0~~ ~~164.5~~ ~~164.5~~ mean = +0.03
~~69.2~~ 9.19
magn. = 9.22

247.7 99.3 W's Watch used for times tonight.
347.0 Watch 40 seconds slow
75.5 83.9 Sky becoming more
159.4 183.2 cloudy.
176.8
+0.06

10.13.10
11 10.
10 5 35.
+5 +40.
15 6 15.
6416 629

Dec. 6, 1904. Tuesday.

Phot-T. W. Clk
Cath. Dec.

Z Draconis

11 45 +72.0
0 45
-11 0
13 0

Index left

C. S. dis.

291.5
7.53.50 349.0 57.5
116.3 46.7
163.0 104.2 +1.55

I

295.9 46.6 +1.52
7.58.25 342.5
110.2 60.8
171.0 107.4 +1.48

Index Right

200.0 60.6
8.5.50 260.6
27.3 45.7
73.0 106.3 +1.50

+1.53

208.0 45.8
8.9.30 259.8
20.4 58.1 +1.56
78.8 103.9

7 35
8 1 54.
+5 +48
13 2 42. = 6821.5436
6821.4945
+0.0491

mean +1.52

Dec 6. 1904

Same again.

201.0 56.3 ✓
8.16.30 257.3 II
23.1 48.4 ✓
71.5 104.7 ✓ +1.58 ✓

206.6 45.4 ✓ +1.56 ✓
8.20.35 252.0
21.0 57.3 ✓
78.3 102.7 ✓ +1.59 ✓

Index left

112.5 56.8 ✓
8.26.30 169.3
295.5 48.2 ✓
343.7 105.0 ✓ +1.58 ✓

+1.48 ✓

115.8 48.2 ✓
8.31.45 164.0 61.1 ✓
795 20 ✓ 288.7 109.3 ✓ +1.43 ✓
823 50. ✓ ~~350.5~~ 349.8 becomes +1.52 ✓
+5 +48. ✓
1324 38. ✓ = Same again.
= 6821.5507 ✓ 108.9 60.9 ✓ III
8.40.10 169.8
298.0 44.8 ✓
342.8 105.7 ✓ +1.52 ✓

Dec. 6. 1904.

8.45.50
116.0
164.6 48.6 ✓
288.0 62.4 ✓ +1.46 ✓
350.4 111.0 ✓ +1.39 ✓
Index Right

8.51.25
21.0
78.0 57.0 ✓
207.0 46.3 ✓
253.3 103.3 ✓ +1.58 ✓

8.55.20
28.5 +1.60 ✓
~~71.6~~ 71.8 43.3 ✓
200.9 58.6 ✓
259.5 101.9 ✓ +1.61 mean +1.53 ✓
Same again.

8 48 11. ✓
+5 +48. ✓
13 48 59. ✓ =
= 6 8 21. 5 7 5) ✓

9.7.45
17.5
79.5 62.0 ✓ IV.
205.8 49.2 ✓
255.0 111.2 ✓ +1.39

Dec. 6. 1904

26·0 +1.40

9·13·35 ~~71·9~~ 72·0 46.0 ✓

197·0 64.2 ✓

261·2 110.2 ✓ +1.41

286·5

S.T. 3h 36m

H.A. −8h 8m

Dec +73·0

P.A. 172·0

Sprocket. − 0.5 A + 0.5 B + 1.2 C

W's watch used for times to-night, watch 48. seconds slow.

Dec. 7. 1904. (Wednesday.)

78. 1901. (U & V Cygni) Phot. T. W. Orbs
Center Dec.

20 18 +42.5
24 45
+4 27

Index Left + Above B

I

8. 12. 15
26.0 ← C. S. dis.
73.1 47.1
196.5 64.5
261.0 111.6 +1.38

8. 15. 25
18.9 62.8 +1.36
~~82.5~~ 81.7 50.0
203.0 112.8 +1.35
253.0

Index Right + Below A

8. 20. 10
294.7 49.1
343.8
106.8 66.9
173.7 116.0 +1.28

8. 23. 10
287.5 64.2 ~~+1.32~~
~~353.2~~ 351.7 48.5
114.5 112.7 +1.36
163.0

71 0
8 17 45.
+5 +51.
13 18 36.

Mean +1.34

Dec. 7. 1904.

Same again. Index right & below. A

II

~~2960~~ 296.0

8·26·30 345.0 49.0 ✓

108.3 66.7 ✓

175.0 115.7 ✓ +1.29 ✓

287.8 63.3 ✓ +1.29 ✓

8·29·40 351.1 52.3 ✓

~~137.~~ 113.7 115.6 ✓ +1.29 ✓

166.0

Index left + Above B

202.6 52.6 ✓

8·34·30 285.2 67.3 ✓

14.4 119.9 ✓ +1.19 ✓

81.7

194.0 71.4 ✓ +1.17 ✓

8·37·25 265.4 50.5 ✓

12 8 5. ✓ 23.4 121.9 ✓ +1.15 ✓

8 32 1. ✓ 73.9

+5 +51. ✓ mean +1.23 ✓

13 32 52. ✓

Dec 7. 1904.

Index left + above. Same again B

III

202.2
8.44.0 256.5 54.3
17.0 67.0
84.0 121.3 +1.16

193.3 72.1 +1.12
8.47.30 265.4
22.8 52.7
75.5 124.8 +1.09

Index Right + Below A

111.5
8.55.0 166.5 55.0
285.4 67.1
352.5 122.1 +1.14

104.8 70.3 +1.11
8.58.10 175.1
292.2 55.1
347.3 125.4 +1.08

mean +1.12

204 40.
8 51 10.
+5 +51.

13 52 1.

Dec. 7. 1904.

Index right & below. A   Same again.

IV

110.0
9.4.25   165.7   55.7
282.0   72.5
354.5   128.2   +1.02

102.0   71.5   +1.00
9.6.50   173.5
291.3   58.3
349.6   129.8   +0.98

Index left & above, B

22.5   56.3
9.12.0   78.8
188.0   80.0
268.0   136.3   +0.85

11.5   75.9   +0.88
9.15.5   87.4
38 20.   200.7   58.0
9 9 35.   258.7   133.9   +0.90
+5 +51.
18 10 26.

mean +0.94

Dec. 7. 1904

Index left + above. B Same again.

V.

20.5
9.18.50 79.0 58.5
191.5 80.1
271.6 138.6 +0.80

12.3 +0.87
9.21.45 86.0 73.7
201.0 58.0
259.0 131.7 +0.94

Index Right + ~~Above~~ below. A

102.5
9.26.10 176.0 73.5
289.0 60.5
349.5 134.0 +0.90

107.5 60.9 +0.85
9.29.0 168.4
95 45. 279.8 78.4
9 23 56. 358.2 139.3 +0.79
+5 +51.
14 24 47.

mean +0.86

S.T. 2h. 59 m
H.A. 6h. 35 m.
Dec. + 42.7
P.A. 231.3
Bracket. −0.5 B + 0.5 L

Sky clear during preceding observation clouded up very soon after finishing.

The watch used for times tonight 51 sec slow

Dec. 8. 1904. (Thursday)

Phot T. W. Dibs
Carter Rec.

Z. Draconis

11 47 +73.0
1 5
−10 42
~~1 2 1 8~~
1 18

~~W~~ Variable to faint in haze & light cloud to do any thing with at present
More hazy than it was a few minutes ago.

Index Left. B

302.3 ← Comp. Star dis.

8.28.55 ~~334.5~~ 335.0 I
117.0 32.7'
160.9 43.9'
76.6' +2.30'

299.5 +2.32'
8.33.0 342.0 42.5'
123.3 32.5'
155.8 75.0' +2.35'

Dec 8 1904

Index-Right A

8.38 0 211.7
245.2 33.5'
29.5 41.0'
70.5 74.5' +2.36°

207.5 44.3' +2.31°
8 41.5 251.8
141 0 31.5 33.5'
4 35 15. 65.0 77.8 +2.26°
+5 +55.
13 36 10
mean +2.32°

same again

Index Right A

II

~~212.8~~ 212.8
8.46.25 ~~246.0~~ 246.8
26.4
71.8 34.5'
45.4'
79.9° +2.20°

204.4
8.49.0 252.0 47.6' +2.16°
31.0
66.1 35.1'
82.7° +2.12°

Dec. 8. 1904

Index left B

120.4
8.53.25 160.0 39.6°
296.2 45.6°
341.8 85.2° +2.05°

117.0 46.0° +2.07°
8.56.20 163.0
300.0 37.5°
337.5 83.5° +2.09° mean +2.12°

20 5 10. ✓
8 51 10. ✓
45 455. ✓

13 52 13 ✓
92.0

Same again. B

119.5 40.4°
159.9
294.5 51.5°
346.0 91.9° +1.86°

III

114.4 51.5° +1.86°
9.5.10 166.9
298.5 40.2°
338.7 91.7° +1.87°

Dec. 8. 1904

Index Right A

27.7 44.8
9.9.15 72.5
202.3 53.2
255.5 98.0 +1.71

22.2 53.4 +1.71
9.11.50 75.6
28 15.
207.5 42.5
9 7 4.
250.0 97.9 +1.71 mean + 1.78
+5 +55.
14 7 59.

Same again A

29.3
9.15.45 ~~68.5~~ 69.0 39.7 IV
201.0 55.9
256.9 95.6 +1.77

21.7 55.3 +1.72
9.18.0 : 77.0
206.0 43.6
249.6 98.9 +1.68

Dec. 8. 1904.

Index error for B

295.4
9.22.15 341.9 46.5.
[illegible]
112.4 54.7.
167.1 101.2. +1.63.

290.5 58.1. +1.64 ✓
9.25.10 348.6
21 10 ✓ 118.6 42.4. +1.64.
9 20 18. ✓ 161.0 100.5. mean +1.68 ✓
+5 +55. ✓
14 21 13 ✓

Same again B

298.5 44.4. V
9.28.0 342.9
112.0 55.5.
167.5 99.9. +1.66.

288.5 59.0. +1.59 ✓
9.30.30 347.5
116.0 46.5.
162.5 105.5. +1.52.

Dec. 8. 1904.

Index Right A

9.35.25

203.5 49.5
253.3 ~~48.8~~
19.0 58.0
77.0 107.8 ~~+1.14~~ +1.47

198.7
9.38.0
258.2 59.5 +1.50
131 55.
26.4 45.2
9 32 59.
71.6 104.7 +1.54 4
+5 +55.
mean +1.52
14 33 54

S T 3h 10m
H.A −8h 33m
Dec. 73.0
P.A 352.5
Sprocket −0.5A + 0.5B + 1.2C

Stopped to warm up after previous run

Dec 8. 1904

Same again.

Index Right + Above A

~~VI~~

~~17.5~~ 18.5

10 20 30 79.0 60.5 ✓

204.8 46.2 ✓

251.0 106.7 ✓ +1.49 ✓

25.5

10 24.0 ~~72.6~~ 73.1 47.6 ✓ +1.42 ✓

195.5 65.5 ✓

261.0 113.1 ✓ +1.35 ✓

Index left + below. B

293.8

10 29 10 342.5 48.7 ✓

105.8 64.7 ✓

170.5 113.4 ✓ +1.34 ✓

287.5

10 32 50 ~~351.5~~ 351.0 +1.36 ✓

106 30.

10 26 38 ✓ 116.0 63.5 ✓

+5 +55. ✓ 164.5 48.5 ✓

15 2) 33 112.0 ✓ +1.37 ✓

~~mean +1.139~~

mean +1.39 ✓

Dec. 8. 1904

Same again: B

VII

10·36·30 293·5
342·0 48.5
108·8 63.7
172·5 112.2 +1.37

286·5 63.8 +1.36
10·38·25 ~~251·0~~ 250·3
114·5 49.1
163·6 112.9 +1.35

Index Right & Above A

202·6
10·41·40 254·4 51.8
17·8 60.2
78·0 112.0 +1.37

~~195·4~~ 196·0 +1.36
10·44·50 ~~258·5~~ 259·0 63.0
24·2 49.3
73·5 112.3 +1.36

Mean +1.36

161 35
10 40 24
+5 +55
15 41 19

S.T 4h 17m
H.A −7h 25m
Dec. +73.0
P.A. 352·0
Sprockt − 0·5 A + 0·5 B + 1·2 C

Dec 8. 1904

Cleared suddenly about 7 o'clock

Barometer however low and rising. There was a remainder of light cloud more or less through-out evening sky gradually clearer somewhat clearer but even at last of evening sky was not prefectly clear. Seeing throught-out evening somewhat poor and observation somewhat difficult.

W's watch used for times tonight.
watch 55 seconds slow

Dec. 9. 1904 (Friday)

- Phot T. W. Obs
Carter Rec.

X Cygni

19 45 + 32.6
24 59
+5 14

9 ½ in cap.

Index left & Above
Var. dis. B

217.9 ← 23.4 ✓
7. 34. 55 241.3
243.3 14.2 ✓
257.5 37.6 ✓ −3.91 ✓

(−3.90 ✓)

220.5 15.5 ✓
236.0
238.7 22.6 ✓ −3.88 ✓
261.3 38.1 ✓

Index Right & Below A

~~138.7 13.7~~ 129.3 20.5 ✓
~~152.4~~ 149.8
~~308.0 17.4~~ 307.0 18.5 ✓
~~325.4 31.1~~ 325.5 39.0 ✓ −3.82 ✓

Reject.

~~132.0 17.2~~ 130.6 17.2 ✓ (−3.80)
~~149.2~~ 147.8
~~305.4 23.0~~ 306.2 22.5 ✓
~~328.4 40.2~~ 328.7 39.7 ✓ : −3.79 ✓

7. 43. 25
7 8 20. ✓
7 39 10. ✓
+5 +55. ✓
12 40 5. ✓
6824.528 ✓

mean −3.85 ✓

Dec. 9 1904

Same again A

7.46.40

138.5 12.9 | 128.2 22.7 ✓
151.4 | 150.9
309.8 15.8 | 309.0 15.5 ✓
325.6 28.7 | 324.5 38.2 ✓ −3.87 ✓

Reject.

131.5 16.1 | 131.5 16.2 ✓ (−3.86 ✓)
147.6 22.5 | 147.7
306.1 38.6 | 305.9 22.6 ✓
~~329.0~~ 328.6 | 328.5 38.8 ✓ −3.84 ✓

Index left taborg. B

35.5 23.8 ✓
59.3
220.1 16.9 ✓
237.0 40.7 ✓ −3.73 ✓

−3.76 ✓

41.6 15.9 ✓
57.5
217.2 23.8 ✓
241.0 39.7 ✓ −3.79 ✓

7.55.25
102 5. ✓
7 51 2. ✓
+5 +55. ✓
12 51 57. ✓
6824.536 ✓

Mean −3.81 ✓

S. T. 1h 56m Gen. mean −3.83 ✓
H. A. +6h 6.m 8.10 ✓
Dec. +32.1 Magn. 4.27 ✓
P.A. 205.5
Sprocket −2.5 B −1.5 C

Last 2 sets of first group and first 2 sets of second group not taken, as some reading was evidently read wrong by ~~apparently~~ evidently in the first and third original sets of those not taken.

Dec. 9. 1904.

Phot T W. Obs

W. W. Cygni

Carter Rec.

20 18 +42.5
26 28
+6 10

Index left & Above B

9.10.5

187.1 ← Comp. Star dis.
270.7 83.6
10.9 67.3
78.2 150.9 +0.56

+0.56

196.0 67.5
263.5 82.7
6.3 150.2 +0.57
89.0

Index Right & Below A

95.2 83.3
178.5 66.9
284.1 150.2 +0.57
351.0

+0.57

104.9 66.6
~~169.4~~ 171.5 83.7
276.8 150.3 +0.57
0.5

9.21 25
31 30
9 15 45
+5 +55
14 16 40

6
Mean +0.5~~7~~

Dec. 9. 1904
Same again

A

9.25.35 99.2 84.8
184.0
284.1 66.3
350.4 151.1 +0.55

105.0 66.8 +0.56
~~9 30 08~~ 171.8
279.5 83.0
2.5 149.8 +0.58

Index left B

~~9.35.10~~ 47
~~91.1~~ 92.0 87.3
194.5 67.6
262.1 154.9 +0.58

14.8 64.7 +0.52
9.39.0 79.5 85.5
64 35 186.0 150.2 +0.57
9 32 18 271.5
55 +55
14 33 13

mean +0.54
Gen. mean +0.56

S.T 3h 14m
H.A +6h 50m
Dec. +42.7
P.A. 50.5
Sprocket − 0.5 P + 0.5 t

Dec 9 1904.

Phot. T W. Obs
Carter Rec.

Z Draconis.

11 47 + 73.0
3 45

---

8 2
3 54

Index Right + Above

~~24.2~~ 205.0
10.27.30 ~~72.5~~ 254.0
19.4
75.0

200.5
257.5
23.5
72.5

Index Left + Below

116.5
163.0
288.6
348.2

107.4
~~170.0~~ 169.7
295.8
342.7

10.40. 0
67 30 ✓
10 33 45. ✓
+5 +55. ✓
15 34 40. ✓

Dec. 9. 1904.

S. T. 4h 20 m
H. A -7h 24m
Dec + 73.0
P. A. 171.5
Sprocket -0.5 A + 0.5 B + 1.2 C

Seeing in observations of Z Draconis rather poor & images much of the time pretty blurry.

W's watch used for times to-night
Watch 55. seconds slow

Dec. 13. 1904 (Tuesday)

~~Phot. T. W. Otts.~~
~~Carter Rec.~~
Phot. R. W. Oits
Carter Rec

Δ Ceti
2 12 −3.6
1 25
−0 47
11 13

In dex left.

172.5 ← Var. dis.
7. 50. 0 249.0 76.5
347.0 85.8
72.8 162.3 −0.34
Clouds

−0.38

166.0 83.0
249.0
352.5 74.7 −0.43
67.2 157.7

Index Right.

82.6
153.3 70.7
255.0 86.0
341.0 156.7 −0.44

−0.46

76.5 82.5
8. 5. 45 159.0 72.5 −0.48
115 45. 260.0 155.0
7 57 52. ~~332.0~~ 332.5
+5 −12.
12 57 40.
6828.540

mean −0.42
9.19
Magn. 8.77

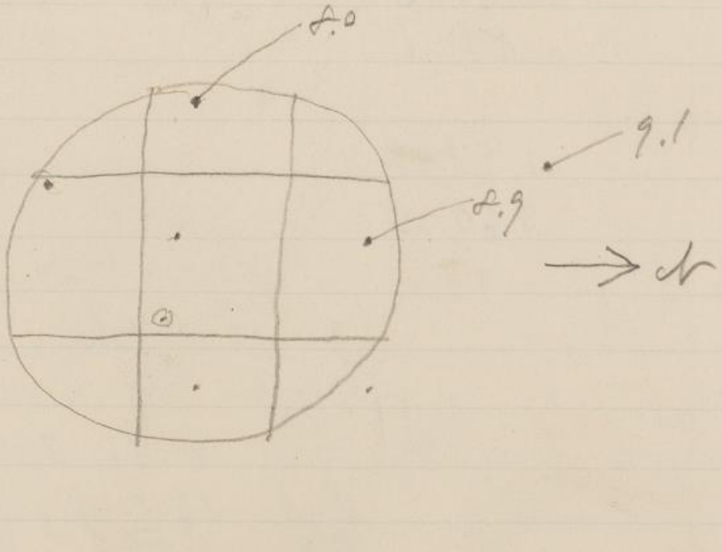
Dec. 13. 1904

S. T. 1 h 56 m
H. A. -0 h 22 m
Dec. -3.1

Region ~~safd~~ carefully identified. Troubled some-what by clouds & haze in measurement.

Y Camelop   Phot. T   W. Obs
Carter Rec

7. 20 +76.1
2 20
-5 0
~~6 57~~
7 0



Dec 13. 1904

Comp. Star = +76° 285 (9.5)

Index Above

300.0 < Comp. Star Dis.

9.22.5 339.2

105.7 39.2

163.2 57.5

96.7 +1.74

292.2

9.25.10 344.4 52.2

46.0

112.0 98.2 +1.70

158.0

Index Below

210.0

40.0

8.32.50 250.0

27.3 54.4

81.7 94.4 +1.80

198.0

9.38.0 260.5

S.T. 3h 33m

H.A. −4 0m

Dec +76.3

P.A. 165.0

Sprocket −1.5 B −0.5 C

Sky everywhere more or less cloudy

Observations on above variable made with very much difficulty on account of faintness of variable moonlight & clouds. Impossible to

Dec 13 1904

finish group

Observations not over 1/3 weight settings (especially the last) quite uncertian The readings corresponding to scedule at end of group a little uncertain but pretty near

060521 Doubtful Variable
Phot T. W. Ock
Carter Rec

6h 6m +22.5
3 48

−2 18
9 42

Over

Dec 13. 1904

Index Right + Above A

272.4 < Var. dis.

10.13.45 2.8 90.4 ✓

97.8 77.5 ✓

175.3 167.9 ✓ −0.23 ✓

281.5 79.5 ✓ −0.14 ✓

1.0

89.0 97.0 ✓

186.0 176.5 ✓ −0.06 ✓

Index Left + Below B

181.0

275.0 94.0 ✓

9.5 76.9 ✓

86.4 170.9 ✓ −0.17

190.9 76.4 ✓ −0.15

266.7

0.0 96.5 ✓

96.5 172.9 ✓ −0.13

mean −0.14 ✓

10.22.0		
35	45. ✓	
10	17	52. ✓
+5		−12. ✓
15	17	40 ✓

S.T. 4h 11m

H.A. − 1h 57m

Dec. + 21.9

P.A 208.4

Sprocket −3.5 A − 2.5 B − 1.9 C

Measurements made through clouds.

Dec 13. 1904

W's watch used for times to-night
Watch 12 secs. fast.

Dec. 14. 1904 (Wednesday)

U Sagittae Phot. T. H. obs.

19 13 +19.3
25 30
+6 17
Abandoned. Too low.

χ Cygni Phot. T. H. obs.

19 45 +32.6
25 53
+6 8
Full aperture used.

Index left + above B

8 10 10
40.8
55.7 14.9
218.2
239.5 $\frac{21.3}{36.2}$ −3.99

37.5 20.7 −3.94
58.2
220.3
237.4 $\frac{17.1}{37.8}$ −3.89

Dec. 14. 1904.
Index right & below. A

310.3 17.2 ✓
327.5
126.0
149.6 23.6 ✓
40.8 ✓ −3.72 ✓

306.0 24.2 ✓ −3.70 ✓
330.2
129.3 17.5 ✓
146.8 41.7 ✓ −3.68 ✓

mean −3.82 ✓
8.10 ✓
magn. 4.28 ✓

8 27 45
37 55. ✓
8 18 58. ✓
+5 −12. ✓
13 18 46. ✓
6829.555 ✓

S.T. 2^{h} 25^{m}
H.A. +6 35
Dec. +32°.0
P.A. 204.6
Sprocket −2.5 B
" −1.5 C

Dec. 14. 1904.

Z Draconis. Phot. T. W. obs.

11 44 +73.0
2 57
-8 47
3 13

Index left & ~~above~~, below. B

286.9 60.5✓ I
9 20 20 347.4
115.0 47.0✓
162.0 107.5✓ +1.48✓

296.0 44.8✓ +1.51✓
9 23 45 340.8
108.1 59.9✓
168.0 104.7✓ +1.54✓

Index right & above. A

197.8 59.1✓
9 29 25 256.9
24.9 47.6✓
72.5 106.7✓ +1.49✓

206.5 44.5✓ +1.57✓
9 33 35 251.0
1 07 5✓ 18.6 55.9✓
9 26 46.✓ 74.5 100.4✓ +1.65✓
+5 -12.✓
14 26 34✓= mean +1.54✓
=6829.6018✓

Dec. 14. 1904.

Same again.

Index right & above. A

II

198.2
9 37 55 258.0 59.8″
24.1
70.3 46.2″
106.0″ +1.551″

205.5 +1.554″
9 40 50 250.9 45.4″
17.4
75.3 57.9″
103.3″ +1.558″

Index left & below. B

109.1
9 46 25 168.4 59.3″
293.5
341.8 48.3″
107.6″ +1.497″

115.3
9 55 45 162.4 47.1″ +1.48″
180 55″ 288.7 59.6″
9 45 14″ 348.3 106.7″ +1.489″
+5 −12.″
14 45 2.″ =
=6829.6146″

mean +1.51″

Dec. 14. 1904.

Same again
Index left & below. B

III

9 56 30
109.2
168.9 59.7"
295.1
340.9 45.8"
105.5" +1.52"

9 59 50
115.4 45.3" +1.51"
160.7
~~2~~88.3 61.3"
349.6 106.6" +1.50"

Index right & above. A

10 8 50
19.5 56.3"
75.8
204.5 48.0"
252.5 104.3" +1.55"

25.5 45.1" +1.55"
70.6
198.9
258.3 59.4"
104.5" +1.55"

mean +1.53"

10 12 30
17 40."
10 4 25."
+5 -12."
15 4 13." =
=6829.6279"

Dec. 14. 1904.
Same again.
Index right + above. A

IV

188 56.1✓
10 16 55 74.9
205.4 46.4✓
251.8 102.5✓ +1.60✓

245.2
10 19 0 70.6 46.4✓ +1.56✓
198.5 58.7✓
257.2 105.1✓ +1.53✓

Index left + below. B
289.0 58.8✓
10 24 45 347.8
114.3 45.3✓
159.6 104.1✓ +1.56✓

294.3 47.6✓ +1.52✓
10 29 40 341.9
9 0 20✓ 109.4
10 22 35.✓ 168.8 59.4✓
+5 −12.✓ 107.0✓ +1.49✓
15 22 23.✓ =
=6829.6406✓

Mean +1.54✓

Dec. 14, 1904.

Same again.

Index left & below. B   V

289.2

10 32 25   348.0   58.8

115.5

162.0   46.5
105.3   +1.53

294.6   46.6   +1.52

10 35 5   341.2

109.2

168.5   59.3
105.9   +1.51

Index right & above. A

198.8

10 43 40   257.8   59.0

23.6

69.5   45.9
104.9   +1.54

204.2   48.7   +1.56

10 47 30   252.9

15 8 40   20.6

10 39 40   75.6   55.0
+5 −12   103.7   +1.57

15 39 28 =

=6829.6524

mean +1.54

Dec. 14, 1904.

S. T.	4h 40m
H. A.	−7 2
Dec.	+73°.0
P. A.	352.2
Sprocket	−0.5 A
"	+0.5 B
"	+1.1 C

W's watch used for times to right.
Watch 12 secs. fast.

Dec. 16. 1904. (Friday)

Phot T. W. Orls
Carter Rec.

R. R. Lyrae.
19 21 +42.5
25 30
+6 9

Full aperture used.
Index Left + Above B

296.0 ← 41.1 Var. dis. I
7.49.15 337.1
109.0 55.0
164.0 96.1 −1.76

291.9 53.7 −1.80
7.51.0 345.6
118.2 39.5
157.7 93.2 −1.83

Index Right + Above A

209.5
7.55.10 248.1 38.6
21.2 53.8
75.0 92.4 −1.85

198.0 53.5 −1.88
7.57.20 251.5
212 45. 29.9 37.1
7 53 11. 67.0 90.6 −1.90
+5 −15. − ~~1~~1.84
12 52 56.

Dec. 16. 1904

Same Again A

II

8.0.25
207.8
247.1 39.3 ✓
20.9
74.0 53.1 ✓ / 92.4 ✓ −1.85 ✓

8.3.30
199.7 55.9 ✓ −1.82 ✓
255.6
28.4 38.6 ✓ / 94.5 ✓ −1.80 ✓
67.0

In dist left + Above. B

8.7.50
116.3 42.7 ✓
~~158.1~~ ~~119~~ 159.0
291.0 55.7 ✓
346.7 98.4 ✓ −1.70 ✓

8.10.40
117.3 50.2 ✓ −1.77 ✓
167.5
297.0 42.5 ✓
339.5 92.7 ✓ −1.84 ✓

22 25.
8 5 36. ✓
+5 −15. ✓
13 5 21. ✓

mean −1.80 ✓

Dec. 16. 1904

Same Again B

III

8.14.50
118.5
159.0 40.5
290.8 55.7
346.5 96.2 −1.75

108.8 57.0 −1.72
8.18.45
165.8 41.4
297.6 98.4 −1.70
339.0.

Index Right + Below. A

21.8 52.5
8.22.0
74.3
207.9 39.1
247.0 91.6 −1.87

−1.86
28.1 39.6
8.25.10
67.7 52.7
80 45
202.0 92.3 −1.85
8 20 11.
~~255.9~~ 254.7
+5 −15.
13 19 56

mean −~~8~~1.79

Dec. 16. 1904

Same again A

IV

23.0
8. 29. 40 73.5 50.5 ✓
208.3
247.8 39.5 ✓
90.0 ✓ -1.91 ✓

-1.92 ✓

29.3
8. 32. 50 65.2 35.9 ✓
200.8 53.4 ✓
254.2 89.3 ✓ -1.93 ✓

Index left. + Same B

296.5
8. 36. 50 339.0 42.5 ✓
110.5 53.8 ✓
164.3 96.3 ✓ -1.75 ✓

-1.72 ✓

289.5 56.4 ✓
8. 40. 0 345.9
116.6 41.8 ✓
158.4 98.2 ✓ -1.70 ✓

Mean -1.82 ✓

139 20. ✓
8 34 50. ✓
+5 -15. ✓
13 34 35. ✓

Dec. 16. 1904.

Same again

B

V

8.46.40

298.2
339.5 41.3
110.2
165.0 54.8
96.1 −1.75

8.49.35

288.8
346.9 57.1 −1.72
117.5
158.5 41.0
98.1 −1.70

Index Right + Below A

8.53.5

207.0
248.6 41.6
20.9
74.8 53.6
95.2 −1.78

−1.84

8.56.5

201.8
~~254.0~~ 253.6 52.3
29.2 37.7 −1.91
66.9 ~~He~~ 90.0
mean −1.78

205 25.
8 51 21.
+5 −15.
13 51 6.

S.T 2h 59m
H A 7h 33m
Dec 42.3
P.A 216.5
Sprocket −3.5 A
−2.5 B
−1.9 C

For balance of observations this evening, see Book. 149.