KG
11365
563

40

KG11365.563

KG 11365.563

HARVARD
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Sept. 21, 1903 (Monday)

#

SS Cygni Plot T. W.C.B.

21 34 +42.5
19 30
2 04
9 56

Campbell's watch used tonight

Above < comp * dis

338.2
) 24.0 369.8 31.6
152.2 45.2
197.4 76.8 +2.29
332.8
373.6 40.8 +2.34
158.0 32.4
1~~8~~90.4 73.2 +2.40

Below mean = +2.40
242.4 8.93
285.3 11.33
68.8 42.9
97.5 28.7
71.6 +.245

+2.46
7 33.0 247.8
278.1 30.3
64.0 40.7
7 28.5 104.7 71.0 +2.47
12 28.5 P.A. 237.3 VmB Eff. T. = 19:50
6379 H.A. −1:49 East Spect. ∠ 2.5 B
Dec ~~+42~~. 6 North 3.~~6~~4 C

Sept. 21, 1903

185905 V Aquilae

Pilot T.
Walb.
9.5" cap

18 54 -6.0
20 14
1 20

Above <comp #dis

48.4

8 06.7 122.6 74.2

220.3 85.4

305.7 159.6 +0.39

39.5

125.7 86.2 +0.34

226.0 77.9

303.89 164.1 +0.30

Below mean = +0.39

317.8

33.1 75.3

134.2 81.6

215.8 156.9 +0.44

313.4 +0.44

8 13.5 34.2 80.8

20.2 135.0 76.6

8 10.1 211.6 157.4 +0.43

13 10.1 G.M.T.

6379.

Sept. 21, 1903.

Same Over

Below

312.1

8 15.4 32.1 80.0

133.4 80.5

213.9 160.5 + 0.37

312.6 + 0.36

34.7 82.1

134.4 78.8

213.2 160.9 + 0.36

Above Mean + 0.34

~~222.9~~

304.9 82.0

42.4 80.1

122.5 162.1 + 0.34

223.2 + 0.32

8 21.8 305.2 82.0

8 18.6 42.3 81.8

124.1 163.8 + 0.31

13 18.6

6379

P.A. 297.5 Var B

H.A. + 1.44 West

Dec. * -5.7 South

S.T. 20:41

Sp. Wl. = 3.5 B
= 4.5 C

Sept 21, 1903

044068 — Camelop.

Wells

28 39 +68.0 9.5" cap

Plot T.

21 00

7 39

4 21

L.O.G.

133.2 < comp ☆ dis

8 59.0 214.5 81.3

320.6 69.3

29.9 150.6 + 0.56

+0.52

137.5

208.6 71.1

311.8 83.8

35.6 154.9 + 0.48

R.O.B. mean = + 0.51

049.2

118.3 69.1

220.1 85.9

306.0 155.0 + 0.48

+0.520

45.4

9 06.0 126.5 81.1

12 5.0 226.2 71.5

9 02.5 297.7 152.6 + 0.52

14 2.59 M.T.

6379.

Sept 21, 1903

ROB.

50.0

9 8.0 119.8 — 69.8

221.9 — 84.7

306.6 — 154.5 + 0.49

43.6 — + 0.50

127.0 — 83.4

228.8 — 69.3

298.1 — 152.7 + 0.52

LOA. — Mean = + 0.52

318.4

29.1 — 70.7

133.3 — 82.4

215.7 — 153.1 + 0.51

313.8

9 15.0 34.6 — 80.8 + 0.54

23.0 [illegible] 138.9 — 68.9

9 11.5 207.28 — 149.7 + 0.58

14 11.5 G.M.T. — Final Mean = + 0.52

6379. P.A. = 79.0 Ver B

HA = −7:08 East

Dec. = +67.7 North

S.T. = 21:34

Sp.Wh. = B 4.5

= C 5.5

Sept. 21, 1903

9 25 Co's watch = 2s slow

V Aquilae again Wells

9.5 cap. Plate T.

~~III~~

18 54 −6.0
22 10
3 16

Above

229.2 < comp ✱ dis

10 3.0 298.2 69.0

42.8 80.4

123.2 149.4 +0.59

222.4

304.0 81.6 +0.62

54.6 65.0

116.6 146.6 +0.64

Below Mean = +0.61

141.1

208.1 67.0

311.2 83.3

34.5 ~~170.3~~ +0.57

150.3

133.5 +0.60

10 9.0 212.7 79.2

15 60 N.M. 319.3 68.4

6379. 27.7 147.6 +0.62

Sept. 21, 1903.

Same Obs

IV

Below

142.1

10 10.6 208.7 66.6

312.0 83.4

35.4 150.0 +0.58

131.6 +0.58

214.4 82.8

322.5 67.1

27.6 149.9 +0.58

Above

Mean = +0.56

49.0

117.9 68.9

221.4 82.8

304.2 151.7 +0.54

43.3 +0.53

10 18.0 126.2 82.9

15 14.3 229.3 70.0

6379. 299.3 152.9 +0.52

Final Mean = +0.58

P.A. = 2975 VwB

H.A. = +3.44 West

Dec. = −5.4 South

S.T. = 22:42

S'ph'l. = { 3.5 B
4.5 C

Var. as seen in finder certainly fainter than when observed photometrically first of evening. Should call it 5.5 grades fainter than the comp ☆.

Sept. 21, 1903

χ Cygni Zet Obs.
Plot T.

19 45 +32.6
22 50
3 05

Lfa.

134.2 < comp * dis
10 47.0 210.6 76.4
324.7 59.2
23.9 135.6 + 0.86

+ 0.86

141.2
204.1 62.9
316.8 73.3
~~29.8~~ 30.1 136.2 + 0.85
RfB. mean = + 0.90

46.5
121.1 74.6
234.2 59.2
293.4 133.8 + 0.90

+ 0.94
54.7
10 53.0 111.9 57.2
15 50.0 am.t. 227.4 72.3
6379. 300.0 129.5 + 0.99

Sept 21, 1903

Same Obser

R&B

47.1

10 54.8 121.3 74.2

235.3 58.5

293.8 132.7 + 0.92

55.7

112.2 56.5 + 0.94

226.8 74.9

301.7 131.4 + 0.95

Lta.

317.2 Mean = + 0.92

29.8 72.6

142.8 59.8

207.6 132.4 + 0.93

324.7 + 0.90

~~10~~ 11 01.0 23.8 59.1

11 5.8 134.3 75.9

10 57.9 210.2 135.0 + 0.88

15 57.9 G.M.T. Final Mean = + 0.91

6379 P.A. 240 Var B 8.11

HA 3:33 West Magn = 9.02

Dec. +32.9 North

S.T. = 23:20

Spht { 2.5 a

11 07 3.5 B

4.1 C

Sept. 21. 1903.

B. & C. 1182.	Ballou 103.
13 23 49.9	13 24 0.0
24 49.9	25 0.0

Re Jup. I Phot R.
W. Obs.
Colson Recorder.
Compared with sat. on preceding side = = Sat. III.

Limit of Visibility

13 45 25 114.2
13 45 40 35 28.8 143.0
+ 04 44 28.3 114.8
13 45 44 57 28.6 143.1

47 41 47 37 Seen

47 47 43 35.9 112.3
54 51 46.7 148.2
48 04 48 00 50.3 101.5

Sept 21. 1903.

13 48	15	13 48	11	52.3 ✓	151.8	
	23 x		19	57.5 ✓	99.5	
	33 ✓		29	62.0 ✓	157.0	
	42 x		38	66.5 ✓	95.0	
	50 x		46	71.3 ✓	161.5	
	59 x		56	74.3 ✓	90.2	
49	07 x	49	04	79.7 ✓	164.5	
	17 x		14	80.4 ✓	84.8	
	25 x		22	78.7 ✓	165.2	
	49 x		46	79.2 ✓	86.5	
	59 x		56	78.7 ✓	165.7	
50	11 x	50	08	82.8 ✓	87.0	
			17	85.8 ✓ →		
	28 x		25	=	→ 169.8	
	39 x		36	84.0 ✓	84.0	
13	48 x		45		168.0 →	
			55		84.0	
51	08	51	04	85.2 x	169.2	
13 51	11 x S.M.T.		13	86.7 x	82.5	1
			22	86.0 x	169.2	
			36		81.2	
51	51		46	86.8 x	169.0	
13 51	54 S.M.T.		56	85.5 x	83.5	2
		52	06	86.2 x	169.0	
			18		81.5	
52	36		30	88.3 x	169.8	
	+ 2		42	90.2	80.8	3
13 52	38 S.M.T.		54	89.2	171.0	
		53	04		82.0	

Sept. 21. 1903.

53 24	13 53	13	87.7x	169.7	
13 53 26x Em.T.		36	87.3x	82.6	4
		45	87.5x	169.9	
		55		83.0	
	~~54~~	~~11~~	87.5x	+	
54 ~~30~~ 3	54	29	85.5x	170.5	5
13 54 32x Em.T.		42	86.5x	84.0	
		52		169.5	
	55	05		83.2	
55 29		17	86.4	169.6	6
13 55 31x E.M.T.		38	86.1	83.7	
	55	55	86.2	169.8	
	57	29		81.0	
57 51x		43	89.2	170.2	7
13 1x 57 52 E.M.T.	58	01	87.4	83.0	
		11	88.3	170.4	
		23		83.0	
58 43x		36	87.2	170.2	8
13 1 58 44x E.M.T.		46	86.9	83.3	
	59	06	87.0	170.2	

Jupiter I reappeared rather close to limb of planet. This, combined with the fact that the seeing was somewhat blurry, especially at times, rendered observations a little difficult. Observations taken however somewhat slowly and with extream care.

Sept. 21. 1903.

Ballou 103.

14	12	2.7	14	12	0.0
	13	2.7		13	0.0

L. P. P.

Sept. 22, 1903 (Tuesday)

7 04 C's watch = 10^s fast
C's watch used tonight
SS Cygni udb

21 34 + 42.6 Phot
19 30
2 04
9 56

above
159.5 < comp * dis ✓
7 220 187.2 27.7
334.4 39.1
13.5 66.8 + 2.61
151.1 + 2.56
193.2 42.1
339.1 28.0
367.1 70.1 + 2.50
Below mean = + 2.52
68.1 8.93
98.3 30.2 11.45
243.3 38.6
281.9 68.8 + 2.55

+ 2.48
7 29.4 62.3
7 25.7 104.5 47.2
7 12 25.59 M.T. 247.2 30.4
277.6 72.6 + 2.42
6380.518

Sept. 22/1903

P.A. 237.7 Var B | Sp. wh. { 1.5 B
H.A. -1:48 East | 2.4 C
Dec. +42.6 |
S.T. = 19:51

In running [illegible] up tracks of Phot. T. the chain slipped a little on sprocket wheel. This will probably make readings of same a little from before.

7 40 What seems to be a fairly bright auroral arch noticed in north. Altitude of centre of arch = ¼ height of Pole Star. Arch under Pole Star.

7 50 Arch now rather faint.

V Aquilae Phot T.
9.5" cap used. WCB

18 54 -6.0
20 14
1 20

(OVER)

Sept 22, 1903

V Aquilae

Above

45.8 <comp ☆ dis

8 9.2 120.3 74.5

221.9 82.0

303.9 156.5 + 0.45

41.5 +0.39

124.7 83.2

224.4 79.6

304.0 162.8 +0.33

Below mean = + 0.40

314.6

34.9 80.3

132.5 82.5

215.0 162.8 + 0.33

314.1

8 17.0 34.7 80.6 + 0.42

26.2 134.5 73.0

8 13.1 207.5 153.6 + 0.50

13 12.9 G.M.T.

6380.551

Sept 22, 1903

Same Obsr

Below
316.1
8 19.0 31.7 75.6
134.2 81.0
215.2 156.6 + 0.45

311.1 +0.44
35.0 83.9
1~~4~~39.7 74.3
2~~1~~4.0 158.2 +0.42
Mean = +0.38
Above
222.7
~~27~~ 303.2 80.5
41.5 82.3
123.8 162.8 +0.33

227.5 +0.33
8 26.5 307.5 80.0
45.5 41.1 82.6
8 22.8 ~~122.8~~ 123.7 162.6 +0.33
13 22.6 G.M.T. Final Mean = +0.39
6380.55~~8~~ 7

P.A. = 297.4 v.B
H.A. = +1:54 West
Dec. = -5.5 South
S.T. = 20:50
Sp. Wh. { = 2.5 B
= 3.5 C

As seen in finder, w. would confirm photometric measure. The star seems to be certainly brighter in finder than at last obs. last night. Star seemed little redder than last night. (over)

Sept. 22, 1903.

Before measuring V Aquilae & after measuring S & S Cygni W. set up the ~~to~~ adjusting screws of Phot. ~~thereby~~ the chains which run ~~the~~ achromatic prisms more taut. It is thought that now chain will not skip pins on sprocket wheel.

044068 – Camelop. Wells Plot.
9.5" Cap.

2 8 39 +68.0
21 29
7 10
4 50

L & O.
132.8 ∠ comp * dis
9 17.8 213.3
318.0 80.5
26.6 68.6 +0.59
149.1
139.6
207.7 68.1 +0.59
311.0 81.3
32.3 149.4 +0.59
R & B. Mean = +0.54
48.5
118.9 70.4
218.9 86.0
304.9 156.4 +0.45
42.7
9 24.5 125.8 83.1 +0.49
42.3 227.9 69.0
9 21.2x
14 21.0x 296.9 152.1 +0.53
6380.598x

Sept 22, 1903

ROB

51.2

9 26.6 116.8 65.6

222.0 83.7

305.7 149.3 + 0.59

44.8 + 0.60

126.3 81.5

231.2 67.3

298.5 148.8 + 0.60

L.O.C. Mean - +0.53

316.4

28.7 72.3

131.3 84.2

215.5 156.5 + 0.45

~~310.9~~

310.9 + 0.46

9 33.0 35.2 84.3

59.6 137.3 71.3

9 29.8 208.6 155.6 + 0.47

14 29.6 9.M.T. Final Mean = +0.54

6380.604

P.A. = 79.2 Var B.

H.A. = -6.47 East.

Dec. = +67.6 North.

S.T. = 21.5 H

Sp. wh. = { 3.5 B.
4.5 C.

Sept 22, 1903

η Aquilae Resumed revolv.

Phot I.

III

9."5 cap

18 5~~4~~ -6.0

22 14

3 20

Above ∠ comp ★ dis

230.3

10 3.6 299.7 68.9

44.9 79.6

124.5 148.5 +0.60

222.3

304.6 82.3 +0.55

47.8 71.3

119.1 153.6 +0.50

Below mean = +0.53

139.9

206.2 66.3

310.7 84.7

35.4 151.0 +0.56

135.0 +0.51

10 10.6 214.8 82.8

14.2 315.8 73.3

10 7.1 ~~24.2~~ 156.1 +0.46

15 ×6.9 G.M.T. 29.1

6 380. 637

Sept 22, 1903

Same Ovar IV

Below

135.8

10 13.0 208.6 72.8

310.2 83.3

33.5 156.1 + 0.46 ✓

131.2 + 0.45 ✓

212.8 81.6

315.2 75.4

20.6 157.0 + 0.44 ✓

Above mean = + 0.46

48.5

120.2 71.7

221.1 84.8

305.9 156.5 + 0.45 ✓

43.3

10 20.0 123.5 80.2 + 0.46 ✓

33.0 224.6 74.6

10 16.5 299.2 154.8 + 0.48 ✓

15 16.39 M.T.

6380.636

Sept. 22, 1903

V

above
~~349.7~~
10 26.6 118.0 68.3
221.1 83.1
304.2 151.4 + 0.55

~~44.2~~
123.3 79.1 + 0.56
226.0 71.8
297.8 150.9 + 0.56

Below Mean = + 0.58
318.8
28.8 70.0
133.1 82.3
215.4 152.3 + 0.53

312.8
10 32.4 32.1 79.3 + 0.59
59.0 + 141.0 67.0
10 29.5 + 208.8 146.3 + 0.65
15 29.3 G.M.T. Final Magn = + 0.52.
6380.645 P.A. 117.6 Var. in finder looks a little
~~S.T.~~ 22:54 fainter ~~than the~~ ~~with respect~~
H.A. + 3:58 West. relatively to the comparison
Dec. ~~3.44~~ 5°.4 star than the first of the
Spect. { 2.5 B ~~evening~~, which accords
3.5 C with phot. measurements

Sept 22 1903

Meas. considered good although the different groups vary a little more among themselves than usual, from the fact that the region is a little low, but more especially because the emergent pencils give a little trouble -

u Herculis

17 1 2 +33.2 Phot I.
23 12 Wells.
6 00

9.5 cap.

Low auroral arch in North under pole star. The arch is rather
1043 brighter than the first of evening. No streamers noticed at present time. Altitude of arch 1/6 that of pole star.

over

Sept. 22, 1903

α Herculis

I

Above

249.1 < var

10 58.0 279.1 30.0

62.4 39.8

102.2 69.8 — 2.51

243.1 — 2.48

283.7 40.6

66.7 31.0

97.7 71.6 — 2.45

Below Mean = — 2.52

159.0

188.5 29.5

333.8 37.0

370.8 66.5 — 2.62

154.3 — 2.56

11 04.0 193.7 39.4

122.0 338.0 30.4

11 01.0ˣ 368.4 69.8 — 2.51

16 00.8ˣ G.M.T.

6380.667ˣ

Sept 22, 1903

Same again II

Below

108.7

11 5.6 188.7 30.0

333.6 38.6

12.2 68.6 – 2.55

152.8 –2.56

192.3 39.5

338.6 29.0

367.6 68.5 ~~x~~ – 2.56

above Mean = ~~x~~ – 2.56

68.2

98.7 30.5

243.6 39.5

283.1 70.0 – 2.51

63.8 – 2.55

11 11.8 101.8 38.0

11 8.7 248.6 29.7

16 8.5 278.3 67.7 – 2.59

6380.672* Final Mean = – 2.54

P.A. 310.1 Var B.

HA. + 6:20 West

Dec. + 33.4 North.

S.T. 23; 31

Sp. Wh. { 0.5 a.
1.5 B.
2.1 C.

~~Tuesday~~ Sept 22, 1903.

U Geminorum

Phot J.

W. Obs.
Colson Recorder

7 48 + 24.0
13 56

~~6 08~~
5 52

7 48
2 53

4 55
7 5

U Geminorum very faint.
12 45 Too faint to measure with photometer.
Lr.

L. P. P.

Sept 23, 1903 (Wednesday)

SS Cygni   W.C.Ols
Eliot T.

21 34 +42.6
19 34
2 00
10 00

C's watch used on this.

above

7 27.5 339.8 ← comp * dis.
365.2   25.4
152.6   41.5
194.1   66.9 + 2.61

354.6   +2.64
370.4   35.8
158.8   29.6
188.4   65.4 + 2.66
Below   mean = +2.66
242.8   8.93
281.9   11.59
69.5   39.1
96.8   27.3
66.4 + 2.63

246.8   +2.68
7 38.5 276.3   29.5
66.0   68.0   34.3
7 33.0
12 32.8 M.T. 102.3   63.8 + 2.72
6381.523

OVER

Sept 23, 1903

P.A. 237.5 Var B S.T. 20:03
H.A. = 1:34 East. Sp. Wh. {1.5 B.
Dec. +42.6 {2.4 C.

B&C 1182 Bell 103
7 55 37.5 7 55 0.0
7 56 37.5 7 56 0.0
Com watch = 14s fast 7:54

Jupiter.

23 14 −6.6
20 24
2 50
9 10

Rap. Sat I. Wdks. Phot R.
Campbell Rec

Compared with nearest Sat. on preceding side = Sat. II

~~Limit of Visibility~~
~~S 13 31 91.9~~
~~49 152.2~~
~~14 11 0~~

(over)

Sept 23, 1903

Limit of Visibility

	8 14 26		105.2
8 14 44	38	43.6	148.8
−42	47	44.8	104.2
8 14 02ˣ	15 05	44.2	149.0

	~~#6~~	
16 58 ✓	17 41	seen
17 20 ✓	18 03	98.0
35 ✓	18	156.0
43 ✓	26	94.2
53 ✓	36	161.0
18 02 ✓	45	85.5
19 ✓	19 02	168.0
28 ✓	11	79.9
38 ✓	21	169.2
48 ✓	31	80.2
58 ✓	41	172.0
19 8 ✓	51	78.9
18 ✓	20 01	169.8
29 ✓	12	79.0
40 ✓	23	173.5
57	40	77.0
20 9 ✓	52	173.4
19 ✓	21 02	77.5
32	15	175.0

#33 100.9 77.0

#50 177.9

Sept. 23, 1903.

100.9 x
105.0 x
8 22 02 x 8 22 05 103.0 x 75.0 1
- 44 x 42 180.0
8 21 18 x 53 103.7 x 74.2
~~08~~ ~~176.5~~
107.0 x 2
8 23 23 x 23 17 105.4 x 177.9
44 34 73.5
8 22 39 x 48 180.5
57 73.9
8 24 13 x 24 07 107.0 180.9 3
106.8
44 18 106.9 73.8
8 23 29 x 30 180.6
47 73.2
8 25 09 x 25 01 107.5 180.7 4
44 14 109.0 73.0
108.2
8 24 25 x 34 182.0
58 72.1
8 26 16 x 26 12 110.3 x 182.4
- 45 21 110.4 x 72.2 5
8 25 31 x 34 110.4 x 182.6
42 72.5
57 111.0 x 183.5 6
8 27 05 x 27 09 111.4 x 71.3
45 ~~Reject~~ ~~22~~ ~~111.2~~ ~~184.1~~
8 26 20 x 33 182.7

Sept 23, 1903.

	8 28 ~~15~~ 23		72.2	
8 28 38 x	34	111.8 x	184.0	7
~~5~~ 45 x	42	111.0 x	71.5	
8 27 53 x	53	111.4 x	182.5	
	29 03	x	70.6	
8 29 22 x	16	110.8	181.4	
45	28	111.8 x	71.2	8
8 28 37 x	41	111.3	183.0	
	53		70.3	
8 30 10 x	30 06	113.5 x	183.8	9
46	15	111.4 x	72.2	
8 29 15 x	26	112.4	183.6	
	36		72.3	
8 30 56 x	48	111.1 x	183.4	
46	31 02	111.1 x	71.9	10
8 30 10 x	16	111.1 x	183.0	

Sky now a little clearer than at time of beginning the eclipse. When limit of visibility was taken sky was considerably hazy. The same was also the case in the early settings of the eclipse. ~~Sky progress~~ ~~this haze~~ On account of haze Sat reappeared a little late. Sky progressively growing clearer during eclipse. On account of haze & also from the fact that Sat. reappeared rather close to limb of Jupiter, settings a little difficult.

(OVER)

Sept 23, 1903

BOC 118 2 — Ball 103

8 37 47.5 8 37 0.0

8 38 47.5 8 38 0.0

044068 — Camelop. wlbs Phot T.

28 39 +68.0

21 29

7 10

8 07 Sky too cloudy; abandoned

182836 T Lyrae wlb

18 27 +36.9 Phot T.

22 07

3 40

22 10 +36.4

3 37

18 33

18 25 +37.0

22 13

3 48

Sept 23, 1903.

T Lyrae

C's watch used

~~Left~~ Above   Comp. ✱ = +36. 3170 (8.3)

120.6   ∠ comp ✱ dis

10 10.2   225.5   104.9

~~10~~   307.7   90.7

38.4   195.6

126.4   164.4   — 0.30

216.2

301.7   85.5   — 0.24

45.2   103.5

189.0

Below   171.0   — 0.17

~~[illegible]~~ 0.

31.3   Mean = — 0.37

134.9   103.6

198.0   111.9

309.9   215.5   — 0.68

144.5

36.9   — 0.50

10 18.8   129.1   92.2

~~10~~ 14.5   210.4   1050

15 14.3   315.4   197.2   — 0.31

6381.   162.8

Sept. 23, 1903

Same Again

Below

30.9

10 21.0 133.1 102.2

219.4 92.0

~~310~~ 311.4 194.2

165.8 − 0.27

36.0 − 0.32

129.4 93.4

211.4 106.0

317.4 199.4 − 0.37

160.6

Above mean = − 0.34

299.8

46.4 106.6

127.5 91.2

218.7 197.8 − 0.33

162.2

308.0 − 0.36

10 30.0 42.2 94.2

10 25.5 120.0 106.6

15 25.39 226.6 200.8 − 0.40

6381.642 M.T. 159.2

P.A. 358.4 ~~[illegible]~~ Final Mean = − 0.36

H.A. 4 : 28 West

Dec. +37.0 North

S.T. 22 : 55

Sp. wh. { 25 B
3.3 C
1.5 a

Sept 23, 1903

Put Rumford Phot on large telescope The artificial light still red, but not as red as before. ~~light~~ artificial images are brighter ~~enabling~~ enabeling brighter stars to be
11 00 taken. The × reflected image from the front surface of the glass is a little brighter ~~and~~ little sharper and possibly redder than the other image.

Night rather poor; somewhat better earlier part of evening than latter part, haze has been steadily increasing & growing thicker.

Posted
Ledgered
Plotted

Sept 24, 1903. (Thursday)

C's watch used tonight

S. δ Cygni

W.C.B.
plot 1.

21 34 +42.5
19 34
10 00

Above
155.5 <comps
ꝑ 7 22.0 189.2 33.7
335.6 36.8
372.4 70.5 +2.49
1545
+2.56
193.2 38.7
339.2 27.6
366.8 66.3 +2.63
Below Mean = +2.59
8.93
71.0 11.52
97.8 26.8
244.0 38.0
282.0 64.8 +2.68

65.6 +2.62
7 30.6 104.4 38.8
7 26.3 247.9 29.2
12 25.9 277.1 68.0 +2.57
6382.518

Sh. wk. = {0.5 a, 1.5 b, 2.2 c

S.T. = 19:58 Dec +42.4
H.A. = -1:39 P.A. 237.5 Vert.

Sept. 24, 1903

X Persei W.C.Obs.
Clot T.

27 3 45 +31.5
20 45
7 00
5 00

9.5″ cap.

8 10 C's watch = 25^s fast
Above
334.8 < vardis
8 46.0 12.6 37.8
157.8 30.4
188.2 68.2 — 2.57
338.7
367.3 28.6 — 2.58
153.3 39.1
192.4 67.7 — 2.59
Below mean = — 2.53
241.7
281.3 39.6
67.2 29.8
97.0 69.4 — 2.53

247.8
8 54.0 277.8 — 2.48
30.0
8 50.0 62.8 42.0
13 49.6 104.2 72.0 — 2.44
6382.576

Sept 24, 1903

Same again.

Below

240.9

8 58.0 284.3 — 43.4✓

63.7 — 34.5✓

98.2 — 77.9✓ — 2.26✓

— 2.36✓

248.3

278.3 — 30.5✓

63.2 — 40.9✓

104.1 — 71.4✓ — 2.46✓

Above — Mean = — 2.47✓

154.4

193.0 — 38.6✓

338.6 — 28.6✓

367.2 — 67.2✓ — 2.60✓

159.4 — — 2.58✓

9 05.0 186.9 — 27.5✓

12.30 332.1 — 40.7✓

9 01.5 372.8 — 68.2✓ — 2.57✓

~~14~~ 14 G.M.T. — Final Mean = — 2.50✓

6382.584✓

Pa. = 57.8 for B.

Ha. = -6.12 East

Dec. = +30.2 North

S.T. = 21.35

Sp.Wh. = δ = 1.5 a

= 0.5 B

+0.1 d

Sept. 24, 1903.

ρ Cassiop. Wells
23 47 +56.8 Plot T.
21 57 9" cap.
1 50
10 10

~~Left~~ PB.
56.5 < verdis
9 40.4 105.7 49.2
237.3 51.9
289.2 101.1 —1.63

54.3 —1.58
107.8 52.7
228.2 51.9
290.1 104.6 —1.54
~~329.1~~
Right PA. Mean = —1.64
329.1
18.4 49.3
147.7 48.4
196.1 97.7 —1.71

329.5 —1.71
9 49.0 18.9 49.4
11.4 147.5 48.6
9 45.7 196.1 98.0 —1.71
14 45.4 PA 301.0 ~~BA~~B δ T̄ = 22:17
6382.615 RA —1:31 Sp wh of B 4.5
Dec. +56.1 C 5.5

Sept. 24 1903

Ball 103	Bond ~~B~~ 236
10 07 05	22 32 39.3
10 08 05	22 33 39.5

Reap. Jup II. Wells Phot R
Campbell Rec.

Comp. with nearer ~~of 8~~ ~~slight~~ a little northern of 2 stars on ~~Sust~~ preceding side = Star ~~III~~.

Limit of Visibility.

22 41 36x
12 25 41 x
10 15 55 G.M.T

22 41	16		118.0
	30	35.0x	153.0
	41	34.8x x	117.1
	57	34.9	151.9

10 18 19x	44	01	seen
~~18~~ 25x		07	115.0
36x		18	162.0
46x		28	106.3
59		41	158.9
19 08x		50	100.1
28x	45	10	167.2
39x		21	97.9
57x		39	171.5
20 09x		51	95.2
22	46	04	175.1

Sept. 24, 1903.

10 20 35	22 46	17		91.0	
46		28		176.7	
57		39		91.5	
21 8		50		179.8	
18	47	00		91.4	
30		12		181.0	
		22		91.3	
22 47 39		32	88.7	180.0	1
12 25 42		44	88.6	91.8	
10 21 57		59	88.6	180.4	
	48	07		92.1	
22 48 30		28	87.7	179.8	2
12 25 42		38	87.2	92.5	
10 ~~47~~ 22 48		48	87.4	179.7	
		59		92.6	
22 49 26	49	13	86.4	179.0	3
12 25 43		25	86.4	92.8	
10 23 43	50	07	86.4	179.2	
		26		90.0	
22 50 40		35	89.3	179.3	
12 25 43		48	90.6	90.1	4
10 24 57		58	90.0	180.7	
	51	08		89.3	
22 51 36		26	88.8	179.1	5
12 25 43		42	89.9	90.0	
10 25 53	52	8	89.4	179.9	

Sept 24, 1903

22 53 22	22 5~~2~~3	03		90.8	
12 25 43		16	88.9	179.7	6
10 27 39		30	91.2	89.5	
		H1	90.0	180.7	
		52		90.8	
22 54 17 x	54	05	88.5	179.3	7
12 25 44		30	87.2	91.7	
10 28 33 x		H1	87.8	178.9	
		55		90.9	
22 56 19 x	55	06	88.3	179.2	8
12 25 44		21	89.0	90.0	
10 30 35 x	55	53	88.6	179.0	

Ball 103	Bond 236
10 32 00	22 57 44.0
33 00	58 44.3

Seeing rather blurry; Sat. reappeared rather close to limb of Jupiter, the two causes probably caused Satellite to be seen a little late at reappearance. On account of blurry seeing, limb of Jupiter & Sats. somewhat ~~rather~~ poorly defined.

Sept 24, 1903.

o Ceti   Wells
Phot. 20

26 12 — 3.6
23 12
3 00
9 00

Right ~~above~~
275.4   Var dis
10 51.0   348.5   73.1
84.7   84.3   — 0.43
172.0   157.4
266.7   — 0.45
348.0   81.3
91.4   74.0
165.4   155.3   — 0.47   mean = — 0.48
Left ~~Below~~
182.1
245.6   70.5
354.9   84.2
79.1   154.7   — 0.48

1747
10 59.0   257.0   82.3   — 0.50
10 50.0   359.6   70.3
15 54.6   69.9   152.6   — 0.52
6382.663

Sept 24, 1903

Same again

Left II

180.0
11 01.0 250.3 70.3
354.5 82.1
46.6 152.4 − 0.53

140.8 − 0.45
259.6 88.8
359.2 71.6
70.8 160.4 − 0.37

Right Mean = − 0.44
89.5
160.9 71.4
261.3 88.7
350.0 160.1 − 0.38

81.8 − 0.37
11 07.2 170.0 88.2
11 4.1 268.2 72.8
16 3.79 m 341.0 161.0 − 0.36
6382,669

Pa = 143.3 Vnp.
Ha. = 2:37 East
11 15 Dec = −3.9 South
S.T. = 23:36
Spch. =

Seeing quite blurry, making obs. somewhat difficult.

Sept 24, 1903

u Gemini plot T. W. Obs.

7 48 + 24.0
2 08
5 40
6 20

7 48
3 13
4 35
7 25

~~15~~ ~~Var. fain seen but seeing poor~~

Variable fairly steadily seen but
15 35 faint; seeing poor. Variable
probably all of 3/4 to a magn. <
than star n but seeing too
poor for good estimate.

Sept. 25, 1903 (Friday)

C's watch = 18s fast at 4:00

C's watch used tonight

S S Cygni W Ob.
Phot. T.

21 34 +42.5
19 40
1 54
10 06

Above
160.0 < comp * obs.
7 16.8 188.0 28.0
334.2 35.6
369.8 63.6 + 2.73
154.7 + 2.72
191.5 36.8
340.6 27.1
367.7 63.9 + 2.72
Below Mean = + 2.70
66.6 8.93
104.6 11.63
38.0
248.3 28.7
277.0 66.7 + 2.62
70.8
7 25.4 97.7 26.9 + 2.68
42.2 243.2 36.3
7 21.1 2 ~~78.9~~ 279.5 63.2 + 2.76
12 20.8
63 8 3.5 15

Sept. 25, 1903.

P.a. 237.4 for B | S.T. = 19.59
H.a. −1:41 | Sp. wh. = { 0.5 a. / 21.5 B. / 2.1 c.
Dec. +42.4

R Cassiopeiae wells. Plot T

23 52 +49.8
20 37
3 15
8 45 comp ✶ star m =
= +51° 3750

above
338.5 < comp ✶ obs
8 35.8 11.4 33.9
152.2 42.6
194.8 75.5 + 2.33
333.6
14.9 41.3 +2.38
157.8 31.2
189.0 72.5 + 2.43
Below Mean = + 2.29
245.4
280.5 35.1
61.1 47.0
108.1 82.1 + 2.13
240.0
8 43.8 284.2 44.2 +2.20
8 49.8 66.4 33.6
13 29.5
6383.5 100.0 77.8 + 2.26

Sept 25, 1903

Dawe Over

Below

247.1

8 46.2 278.9 31.8^r

62.2 44.4^r

106.6 76.2^r + 2.31^r

240.4 +2.27^r

286.1 45.7^r

~~X~~67.7 33.1^r

100.8 78.8^r + 2.23^r

Above Mean = +2.32^r

157.0

189.1 32.1^r

331.6 44.5^r

16.1 76.6^r + 2.30^r

149.2 + 2.36^r

8 53.4 195.2 46.0^r

99.6 341.0 26.6^r

8 49.8^x 367.6 72.6^r + 2.42^r

13 49.6^x Final Mean = + 2.30^r

6383.576^x P.a. = ~~21~~ 14.4 Ver. B.

Ha = −2:24 East

Dec = +50.2 North

S.T. = 21:29

25p Wh. = −0.5 B.

+0.5 C.

Sept. 25, 1903

McAfee

W Obs

24
8 30 +81.1 Phot +
21 50
3 00
9 00

Bond 236 used on McAfee only. I

Above

313.8 < comp ✱ dis

21 54 25 33.8 80.0
139.3 66.4
205.7 146.4 +0.65
322.0

+0.60

55 53 26.2 64.2
128.6 87.2
215.8 151.4 +0.55

Below

mean = +0.61

223.0
58 14 303.6 80.6
52.1 65.1
117.2 145.7 +0.66

+0.62

230.6
21 59 58 295.5 64.9
28 30 140.6 84.3
21 57 08 124.9 149.2 +0.59
7 28 19
14 28 49 G.M.T.

6383.6034
6383.2887
+0.3147

Sept. 25, 1903

Below II

220.1
22 03 30 305.6 85.5
48.4 69.0
117.4 154.5 + 0.49

228.6 + 0.46
05 12 297.5 68.9
39.8 88.5
128.3 157.4 + 0.43

Above mean = + 0.44

129.1
07 57 218.~~0~~ 2 89.1
318.1 69.5
27.6 158.6 + 0.41

140.4 + 0.41
22 09 49 209.1 68.7
26 28 309.0 89.8
22 06 37 38.8 158.5 + 0.41
7 28 21
14 38 16 G.M.T.
6383.6099$^{\times}$
.2887
0.3212

Sept. 25, 1903

III

Above
126.2
22 11 35 218.8 — 92.6
318.7 — 70.8
29.5 — 163.4 +0.32

137.6
13 17 210.9 — 73.3 +0.28
307.8 — 94.2
42.0 — 167.5 +0.24
Below — mean = +0.24
36.3
15 49 131.0 — 94.7
224.5 — 75.3
299.8 — 170.0 +0.19

+0.20
50.1
22 18 04 121.8 — 71.7
18 45 216.0 — 97.4
22 14 41 ~~312.5~~ — 169.1 +0.20
7 28 22 313.4
14 46 19 G.M.T.
6383.6155
.2887
0.3288

Sept. 25,

IV

Below
35.9
22 21 15 130.9 95.0
223.2 77.8
303.0 172.8 +0.14

4~~7~~6.5 +0.08
23 34 123.5 77.0
212.5 102.1
314.6 179.1 +0.02

Above Mean = −0.00
304.5
26 38 43.0 98.5
132.0 82.1
214.1 180.6 −0.01
179.4

312.6 −0.08
22 28 20 34.5 81.9
19 47 120.6 105.3
22 24 57 226.2 187.2
7 28 24 172.8 −0.14
14 56 33 G.M.T.
6383.622~~7~~6
6383.2887
0.3339

Sept 25, 1903.

V

Above
301.9
22 30 39 45.4 — 103.5 ✓
131.1 — 84.5 ✓
215.6 — 188.0
172.0 — 0.15 ✓

312.1
32 24 35.6 — 83.5 ✓ — 0.18 ✓
1[illegible]9.5 — 107.2 ✓
226.7 — 190.7 ✓ — 0.20 ✓
Below — 169.3 ✓
~~Mean~~ = − ~~0.19~~ 0.20
31.8
35 28 136.2 — 104.4 ✓
220.2 — 86.7 ✓
306.9 — 191.1 ✓
168.9 ✓ — 0.21 ✓

43.1
22 37 28 127.7 — 84.6 ✓
15 59 209.8 — 108.0 ✓ — 0.22 ✓
22 34 00 317.8 — 192.6 ✓
7 28 26 — 167.4 ✓ — 0.24
15 05 34 G.M.T.
6383.6289ˣ
.2887
0.3402

Sept. 25, 1903.

VI

Below

31.8
22 40 17 137.6 105.8
218.1 88.8
306.9 194.6
165.4 − 0.28

39.0
42 17 129.0 90.0 − 0.33
206.7 110.2
316.9 200.2
159.8 − 0.38
Above ~~mean~~ − 0.38
298.2
45 06 350.3 112.1
128.6 90.0
218.6 202.1 − 0.42
157.9

308.3
22 47 23 338.8 90.5 − 0.44
6 117.7 112.9
15 03
22 43 46 230.~~4~~6 203.4
7 28 27 156.6 − 0.45
45 15 19 G.M.T.
6383.6356 P.A. 147.Var B
6383 2887 ~~H.A.~~ − 7.58 East
0.3469 Dec +80.8 North
S.T. = 22:57
Sp. Wl. { 3.5 B
4.5 C

Sept. 25, 1903.

(200747) R X Cygni Wrds.
Plot T.

20 6 +47.8 9.5" cap.
23 16
3 10

Comp * = +47° 3037 (6.4)

C's watch used
Above < comp * dis.

239.2
10 57.2 289.2 50.0
51.4 64.0
115.4 114.0 +1.33
228.3 1.32
297.0 68.7
60.5 46.4
106.9 115.1 +1.30
Below mean = +1.34±
157.2
200.0 48.8
319.9 64.8
24.7 113.6 +1.34

139.7 +1.34
11 05.0 207.0 67.3
123.2 330.4 46.1
11 01.6 16.5 113.4 +1.34
16 01.3
6383.667

Sept. 25, 1903

Same Over

Below
151.1
11 7.0 199.8 48.7
320.1 62.7
22.8 111.4 + 1.39
+ 1.38

141.3
205.4 64.1
330.3 47.5
17.8 111.6 + 1.38
Above Mean = + 1.31
60.4
107.3 46.9
229.8 70.2
300.0 117.1 + 1.26

48.6 + 1.24
11 12.4 117.2 68.6
19.4 238.4 49.6
11 9.7 288.0 118.2 + 123
16 9.4 G.M.T.
6383.673 P.a. = 358.0 Ver B
H.a. = + 3:37 West
11 20 Dec. = + 47.8 North
S.T. = 23:45
Sp. wh. = { −0.5 a
+0.5 B
+1.1 C

Sept. 25, 1903

Ball Co 3
11 25 00
26 00

Bond 23 C.
23 53 39.5
54 39.0

L. P. P.

Sept 26, 1903 (Sat.)

7 05 C's watch used & = 32^s fast.

SS Cygni   wells.

Phot T.

− 1. 50

10 10

Above <comp * dis

340.3

7 21.2 365.6   25.3

157.7   31.9

189.6   57.2 + 2.97

336.0

372.7   36.7 + 2.86

160.0   26.6

186.6   63.3 + 2.74

Below   mean = +2.81

249.8   8.93

275.4   25.6   11.74

66.0   38.0

104.0   63.6 + 2.73

243.2   + 2.76

7 29.8 279.7   36.5

72.2   25.0

7 25.6 97.2   61.5 + 2.80

12 25.1 G.M.T.

6384.517

P.a. 237.5 for B | S.T. 20:07

H.a. 1:32 East | Spark 0.5 ap.

Dec. +42.4 North | 1.5

2.1 C.

Sept 26, 1903.

β Persei w Obs
Phot. T.
6" cap.

27 00 + 40.4
21 05
5 55
6 05

Above Girardis
165.1
θ 48.3 184.1 19.0
342.9 19.7
362.6 38.7 − 3.84
163.2 − 3.82
184.2 21.0
343.2 18.7
361.9 39.7 − 3.79
Below mean = − 3.89
75.0
92.0 17.0
252.5 20.0
272.5 37.0 − 3.94

76.2 − 3.96
θ 55.5 93.2 17.0
254.7 19.5
272.2 36.5 − 3.97

Sept 26, 1903.

Same Over

II

Below

9005 ~~8 3~~	72.6		
	95.0	22.4	
	251.5	23.7	
	275.2	46.1	−3.45
			−3.44
	71.2		
	95.0	23.8	
	252.6	22.7	
	275.3	46.5	−3.43

Above Mean = −3.61

	342.6		
	362.8	20.2	
	163.2	20.0	
	183.2	40.2	−3.76
			−3.78
	344.0		
9 07.3	364.2	20.2	
	162.7	19.5	
	182.2	39.7	−3.79

Sept. 26, 1903.

III

Above
343.4
9 19.3 362.5 19.1
163.7 19.6
183.3 38.7 — 3.84

343.5 — 3.80
~~362.8~~ 363.0 19.5
164.2 20.7
184.9 40.2 — 3.76
Below Mean = ~~3.79~~ -3.80
253.2
271.9 18.7
74.7 20.1
94.8 38.8 — 3.84

251.5
9 27.0 273.3 21.8 — 3.80
74.9 18.~~9~~3
93.~~8~~2 40.~~7~~1 — 3.76

R.a. = 3.84 Ver B
H.a. = -4:57
Dec. = +39.8
S.T. = 22:05
Sp. wh. δ = -4.5 B
δ = -3.5 C

Sept. 26, 1903

R Cassiop. [illegible]

2 3 52 +49.8 Phot. T.

2 2 12

1 40

10 20

Comp. Star = m = +v1° 37v0

Above

150.2 < comp ✱ dis

9 47.0 194.2 44.0

339.3 31.7

11.0 75.7 + 2.32

156.6

188.2 31.6 + 2.29

329.6 46.1

15.~~4~~7 77.7 + 2.26

Below Mean = +2.31

6~~4~~3.2

107.0 43.8

244.0 32.9

279.9 76.7 + 2.29

69.3 + 2.33

9 57.0 1000.0 30.7

9 52.0 240.5 43.5

14 51.57 M.T. 244.~~7~~0 74.2 + 2.37

6384.619

P.A. 195.2 ~~V~~ B S.T. = 22:36

HA. −1:11.8 East Splvl = { −0.5 B

Dec. +50.2 North +0.5 C

Sept 26, 1903.

altitude ~~X~~ high; ~~so much so that~~ exceptional care was taken with this group. Rather unadvisable to take a second group on account of high alt.

RX Cygni. Plate T. WCBs.

20 9 +46.3 9.5 cap used.
23 15
3 6

Above
57.4 ∠comp ✱ dis
10 50.0 110.2 52.8
227.9 67.1
295.0 119.9 + 1.19
53.3
114.0 60.7 + 1.29
237.1 50.5
287.6 111.2 + 1.39
Below Mean = + 1.28
328.4
19.3 50.9
139.1 67.4
206.5 118.3 + 1.23
319.8
10 57.4 24.2 64.4 + 1.26
10 53.7 148.8 50.0
10 53.2 192.8 114.4 + 1.32
6384.662

Sept 26, 1903
Same Over

Below
326.3
10 59.0 18.6 52.3 :
139.8 67.2
207.0 119.5 +1.20

320.6 +1.24
23.9 63.3 :
146.7 53.3
200.0 116.6 +1.27

Above Mean = +1.23
236.5
289.9 53.4
50.6 64.5
115.1 117.9 +1.24

227.9 +1.22
11 06.0 295.9 68.0
12 5.0 57.1 51.2 +1.21
11 02.5 ~~104.5~~ 108.3 119.2
16 20 G.M.T. Final Mean +1.26
638H.668 P.A. 357 mB S.T. 23:44
H.A. 3:37 West Sp. wh. { −0.5 a
Dec. + ~~18.0~~ North { +0.5 B
+1.1 C.

Sept. 28, 1903 (Monday)

7 05 B watch used T = 3s fast

SrSr Cygni W. Obs. Phot. T.

21 34 +42.6
19 50
1 44
10 16

Above
comp * obs
161.1
7 18.8 185.6 24.5
338.0 31.4
369.4 55.9 + 3.02
154.8 +.294
191.3 36.5
340.1 23.7
363.8 60.2 + 2.85
Below mean + 2.84
66.6 8.93
101.1 34.5 11.77
247.0 28.0
275.0 62.5 + 2.77

70.5 +2.75
7 30.5 97.5 27.0
7 24.6 243.5 36.7
7 12 24.6 GMT 280.2 63.7 + 2.73
6386.517 P.A. 237.4 Var B | H.A. -1h 24 | Dec. +42.5
S.T. = 20:14 | Spark of 0.5 = a, 1.5 = b, 6.21

Sept. 28, 1903

R Cassiop   WCb
phot T.

2 3 5 2 +49.8
2 1 07
2 45
9 15

Above
149.2 ∠comp ✶ dis
8 32.0 195.4
335.0
369.3 clouds
156.2 stars gone.
clouds

Below

Clouds thick & covering the
9 30 whole sky, with no prospect
of clearing

Sept. 29. 1903. (Tuesday).

W's watch used for times to right. Watch 32 secs. fast.

R. Cassiop. Phot. J. W. obs.

23 52 +49.8
20 22
3 30
8 30

Above — Comp. star = m = +51° 37 50

151.2 — 42.0
7 52 00 — 193.2
338.9 — 29.3
8.2 — 71.3 +2.46

157.5 — 30.8 — +2.32
188.3
331.0 — 45.4
16.4 — 76.2 +2.31

Below
60.5 — 45.7
106.2
246.4 — 32.7
279.1 — 78.4 +2.24

67.0 — 31.6 — +2.24
8 02 40 — 98.6
7 54 20 — 239.8 — 46.5
~~2~~5 - 32 — 286.3 — 78.1 +2.25
12 56 48 G.M.T. — mean +2.31
6387540

Sept. 29, 1903.

Same again

60.7 43.1 ✓

8 05 55 103.8

246.5 31.8 ✓

278.3 74.9 ✓ +2.35 ✓

66.7 34.5 ✓ +2.26 ✓

100.2

239.9 46.1 ✓

286.0 80.6 ✓ +2.18 ✓

Above

331.0 39.0 ✓

10.0

156.5 33.0 ✓

189.5 72.0 ✓ +2.44 ✓

337.6 31.3 ✓ +2.41 ✓

8 15 45 8.9

8 10 50 150.8 42.5 ✓

13 10 12 ✓ G.M.T. 193.3 73.8 ✓ +2.36 ✓

6387.549 ✓

mean +2.34 ✓

Gen. mean +2.32 ✓

S.T. 21h 17m.

H.A − 2h 35m

Dec + 50.4°

Sprocket ~~P.A.~~ − 0.5 B + 0.5 C

P.A. 14.0 tow B

Sept. 29, 1903.

Nova Persei Phot. J. W. obs.

3 h 24 m +43.6

22 5

-5 19

6 41

left & above

70.3 < Comp star dis.

9 24 30 93.7 ~~94.3~~ 23.4

253.1 19.6

272.7 43.0 +3.61

72.3 19.4 +3.54

91.7

250.5 26.5

277.0 45.9 +3.46

Right & below

340.4 26.1

6.5

162.1 20.0

182.1 46.1 3.45

343.1 20.8 +3.42

9 37 10 3.9

61 40 158.8 26.4 +3.407

9 30 50 185.2 47.2

14 30 12 G.M.T.

6387. mean +3.48

7.25

10.73

Sept. 29, 1903.

Same again

341.4

9 40 30 6.3 24.9 ✓

161.6 20.5 ✓

182.1 45.4 ✓ +3.49 ✓

343.3 21.0 ✓ +3.43 ✓

4.3

158.3 26.9 ✓

185.2 47.9 ✓ +3.37 ✓

left + above

249.5 26.1 ✓

275.6

71.9 19.8 ✓

91.7 45.9 ✓ +3.46 ✓

253.0 20.0 ✓ +3.50 ✓

9 50 10 273.0

9 45 20 69.4 24.3 ✓

14 44 48 93.7 44.3 ✓ +3.54 ✓

6387-

mean +3.46 ✓

Gen. mean +3.47 ✓

7.25

10.72

S.T. 22h ~~45~~ 46m

H.A. −4h 36m

Dec. +42.9°

P.A. 76.2

Sprocket. −1.5B −0.5C

Sept. 29, 1903.
X Cygni
19 45 + 32.6°
23 5
3 20.

left & above
130.7 < Comp Star dis
10 34 35 224.1
311.3 103.4
34.4 83.1
186.5 173.5 −0.12

131.4 83.9 −0.14
215.3
300.2 103.9
44.1 187.8 172.2 −0.15

right & below
29.9 104.3
134.2
222.4 81.2
303.6 185.5 174.5 −0.10

42.7 80.5 −0.08
10 42 35 123.2 103.4
10 38 35 211.7 183.9 176.1 −0.07 mean −0.11
15 38 03.9 m.t.
6 3 87. 315.1

Sept. 29, 1903.

Same again

33.5   100.7
10 45 15   134.2
222.8   81.2
304.0   181.9   178.1   −0.03

−0.06

41.4   82.8
124.2
211.1   102.7
313.8   185.5   174.5   −0.10

Left & above

301.7   103.2
44.9
129.4   88.0
217.4   191.2   168.8   −0.22

−0.20

310.1   84.7
10 54 30   34.8
99 45   120.3   104.9
10 48 52+   225.2   189.6   17°.4   −0.18

15 48 20+ G.M.T.   mean −0.13

6387.   Gen mean −0.12

S.T. 23h ~~48~~ 49m

H.A. 4h 5m

Dec +32.8°

P.A 240 Vert B

Sprocket 2.5 B

3.5 C

Sept 29, 1903

M M Cygni Phot T. W. obs

21h34m + 42.3

23 54

2h20m

abandoned

S. S Cygni

24 00 +42.3

21 35

2 25

Sept 29, 1903

left & above

69.7
11 24 00 96.4 26.7
243.3 39.6
282.9 66.3 +2.63

63.8 37.8 +2.64
101.6
247.4 27.9
275.3 65.7 +2.65

right & below

338.8 28.6
7.4
152.3 40.7
193.0 69.3 +2.53

331.7 41.2 +2.52
11 39 20 ~~13.~~ 12.9
63 20 158.3 29.1
11 31 40 187.4 70.3 +2.50
16 31 8
6.387

8
2.59
8.93
11.57

mean +2.58

Above group one-half weight. Altitude high & a little difficulty experienced in getting hole of emergent pencils easily. The images better & more easily seen in 2d group than in first group. Images easily seen & measured for 2d Group. SS Cygni is certainly a little brighter to-night than last night to the eye. Variable faintly seen also in finder

Sept. 29, 1903

338.4
11 55 10 8.2 30.0
154.8
191.4 37.3
67.3 +2.60

335.5 37.0
12.5 +2.61
157.6 29.5
187.1 66.5 +2.62

left r above

247.7 28.4
276.1
64.1 35.7
99.8 64.1 +2.71

244.6 36.8 +2.71
12 05 20 281.~~3~~4
12 00 15 68.6 27.2
~~17~~ 16 59 43 G.M.T. 95.8 64.0 +2.71
6387.

mean +2.66
8.93
11.59

S.T. 1 h 6 m
H.A. 3 h 28 m
Dec. + 43.6°
P.A. 56.8 [illegible] B
Sprocket 0.5 A
1.5 B
2.1 C

L. P. P.

Sept. 30, 1903 (Wednesday)

Reset B236

Bond 236 Ball 103
6 22 01.3 6 22 05
6 23 01.5 6 23 05

6 25 C's watch = 25s fast.

U Cephei W Obs.
24 50 +81.1 Phot T.
19 25
5 25 Bond 236 used for times
6 35 on U cephei.

I

Above
132.4
6 47 42 211.5 79.1
323.6 <comp. * dis 57.1
20.7 136.2 + 0.85
141.1 + 0.81
49 35 202.4 61.3
313.0 79.1
32.1 140.4 + 0.77 Mean = + 0.72
Below
41.2
52 30 125.4 84.2
231.4 62.2
293.6 146.4 + 0.65
50.7
6 54 44 114.9 6388. 4937 64.2 +0.62
4 31 2200 84.5
6 51 08 304.5 148.7 + 0.60
5 - 06
11 51 GMT

Sept. 30, 1903

II

Below
40.4
6 56 48 124.7 84.3
231.8 641
295.9 148.4 + 0.61

51.5
6 58 36 113.1 61.6 + 0.65
221.8 825
304.3 1441 + 0.69

Above Mean = + 0.71
313.6
7 00 58 31.8 782 ✓
142.3 61.1 ✓
203.4 139.3 + 0.79

324.2
7 02 58 23.3 59.1 ✓ + 0.77
239 40 130.2 82.1 ✓
6 59 55 212.3 141.2 ✓ + 0.75
5 − 7
11 59 48
6388 = 4999

Sept. 30, 1903

III

Above
315.7
7 08 38 3~~7~~3.3 77.6
139.7 65.2
204.9 142.8 + 0.72

322.9 + 0.73
10 50 24.4 61.5
131.3 80.1
211.4 141.6 + 0.74

Mean = +0.70

Below
221.1
13 58 304.3 82.2
50.8 63.7
114.5 145.9 + 0.66

232.2 + 0.66
7 16 11 296.2 64.0
9 37 42.1 81.3
7 12 24 123.4 145.3 + 0.67
5 - 9
12 12 15
6388. 5084

Sept 30, 1903.

IV

Below

220.8

7 28 42 302.6 81.8

49.6 65.1

114.7 146.9 + 0.64

+0.68

230.2

31 14 293.7 63.5

43.2 79.5

122.7 143.0 + 0.71

Above Mean +0.71

132.3

33 54 212.3 80.0

321.6 61.3

22.9 141.3 + 0.75

141.2 + 0.74

7 36 10 204.9 63.7

10 ~~20~~ 313.9 78.0

00

7 32 30 31.9 141.7 + 0.74

12

5 − 8

12 32 18

6388. 5224

Sept 30, 1903.

V

	Above		
	131.8		
7 44 40	212.3	80.5	
	322.2	61.2	
	23.4	141.7	+ 0.74
	139.6		+ 0.74
47 53	204.4	64.8	
	313.4	78.4	
	31.8	143.2	+ 0.73
	Below		Mean = +0.70
	42.4		
51 18	124.4	82.0	
	230.1	64.8	
	294.9	146.8	+ 0.64
			+0.65
	51.2		
7 53 41	114.6	63.4	
37 32	221.7	82.5	
7 49 23	304.2	145.9	+ 0.66
5 15			
12 49 08			
6388.5341			

Sept. 30, 1903.

VII

Below

45.0

8 02 28 121.3 76.3

229.1 65.7

294.8 142.0 +0.73

49.7 +0.71

05 12 1~~7~~44.9 65.2

222.7 79.2

301.9 144.4 +0.69

Above mean = +0.72

313.2

08 10 33.6 80.4

1~~4~~39.6 63.9

203.5 144.3 +0.69

8

321.0

~~9~~ 09 50 25.6 64.6 +0.72

25 40 133.1 76.9

8 06 25 210.0 141.5 +0.74

5 18

13 6 7

63 ~~[illegible]~~ 5459

Sept 30, 1903

VII

Above
314.8
8 16 48 31.7 76.9
140.0 62.6
202.6 139.5 +0.78

319.8 +0.77
19 18 24.0 64.2
133.8 76.4
210.2 140.6 +0.76

Below Mean = +0.72
223.2
8 22 37 303.2 80.0
51.4 63.9
115.3 143.9 +0.70

230.4
8 24 30 295.4 65.0 +0.68
83 13 42.9 80.0
8 20 48 122.9 145.0 +0.67
5 20
13 20 28
6388.5560

Sept. 30, 1903.

VIII

Below
224.6
905 35 302.1   77.5
51.4   62.7
114.1   140.2 + 077

231.8   + 0.74
07 22 295.5   63.7
42.9   80.0
122.9   143.7 + 070
Above   Mean = + 0.64
140.0
10 15 204.2   64.2
311.2   85.5
36.7   149.7 + 0.58

129.0   + 0.54
9 11 58 214.2   85.2
35 10 318.0   68.0
9 08 48 26.0   153.2 + 0.51
5 27
14 8 21
63 88 5592

Sept 30, 1903

IX

Above

137.1
9 14 16 207.2 70.1
308.6 87.9
36.5 158.0 + 0.42

128.4 + 0.42
16 12 218.7 90.3
347.4 67.7
25.1 158.0 + 0.42

Below Mean = + 0.40

51.5
18 30 ± 118.5 67.0
216.2 90.0
306.2 157.0 + 0.44

36.4 + 0.38
9 20 22 129.0 92.6
29 20 226.0 70.9
9 17 20± 296.9 163.5 + 0.31
5 – 29
14 16 51
6388.5950
.2741
.3209

Sept. 30, 1903

X

Below

49.8

9 22 04 118.0 68.2

214.9 93.2

308.1 161.4 +0.35

37.5 +0.32

23 36 128.0 90.5

224.8 74.0

298.8 164.5 +0.29

Above Mean = +0.27

316.4

26 00 28.6 72.2

125.2 94.5

219.7 166.7 +0.25

305.6 +0.22

9 27 48 39.5 93.9

19 28 134.7 75.2

9 24 52 209.9 169.1 +0.20

5 - 30

~~9~~ 24 12

14

6388.6001

.2744

.3260

Sept. 30, 1903

XI

Above

314.5

9 29 44 29.2 — 74.7

123.5 — 96.2

219.7 — 170.9 + 0.17

304.2 — +0.15

31 16 40.0 — 95.8

133.4 — 77.5

210.9 — 173.3 +0.13

7

Below — Mean = +0.10

213.3

33 55 308.5 — 95.2

43.3 — 77.8

121.1 — 173.0 +0.13

221.7 — +0.06

9 36 00 304.5 — 82.8

130 55 34.1 — 98.2

9 32 44 132.3 — 181.0

5 31 — 179.0 −0.02

14 32 13

6388, 6057ˣ

.2741

.3316

Sept. 30, 1903

	Below	XII
	213.1	
9 37 48	314 2	101.1
	43.2	79.6
	122.8	180.7
		179.3 − 0.01
	222.1	
39 32	303.5	81.4 −0.02
	33.2	100.0
	133.2	181.4
		178.6 − 0.03
	Above	mean = ~~4~~ − 0.12
	130.2	
41 48	216.1	85.9
	399.6	105.4
	45.0	191.3
		168.7 − 0.21
	120.0	
9 43 39	224.8	104.8 − 0.21
2 47	310.0	86.4
9 40 42	36.4	191.2
5 − 32		168.8 − 0.21
14 40 10		
6388.6112		
.2741		
.3371		

Sept 30, 1903

XIII

Above
129.0
9 47 57 216.9 87.9
300.0 104.6
44.6 192.5
1675 -0.24

121.3
49 25 225.8 1045 -0.24
309.1 87.5
36.6 192.0
1680 -0.23
Mean = -0.26

Below
33,0
51 25 136.3 103.3
216.7 90.0
306.7 193.3 -0.25
166.7

41.4
9 52 45 127.5 861 -0.27
1 32 208.4 1091
9 50 23 317.5 1952
1648 -0.29
5 34
14 49 49
6388.6180+
2741
.3439

P.A. = 194.5
H.A. = 2:12 East
S.T. = 22:42
Dec = +81.1 North
Sp. Wh. {3.5 B
{4.5 C

Sept. 30, 1903

Bond 236				Ball 103		
9	56	34.5		9	56	00
9	57	34.6		9	57	00

Reap. Jup I. W Obs. Eliot R
Campbell Rec
Compared with nearest of three
Sats. on preceding side = Sat. II.

10	11	49	10	12	26	seen
		53			30	278.8
	12	05			42	321.0
		15			52	267.0
		22			59	332.6
		31		13	08	261.2
		43			20	337.2
		51			28	258.2
		59			36	341.0
	13	08			45	251.9
		16			53	343.7
		23		14	00	251.9
		32			09	345.0
		44			21	247.5
	14	02			39	345.5
		11			48	245.7
		20			57	346.7

Sept. 30, 1903

10 14 29 x 10	15	06		245.5	
37 x		14		348.2	
45 x		22		245.0	
54 x		31		350.1	
		45		242.1	
10 15 58 x		54	109.0	351.1	1
38 x	16	02	111.5	240.3	
10 15 20 x		12	110.2	351.8	
		21		241.1	
10 16 36 x		30	111.9	353.0	2
38 x		42	113.2	240.6	
10 15 58 x		51	112.6	353.8	
	17	01		242.0	
10 17 20 x		09	108.0	350.0	3
38 x		30	113.1	238.9	
10 16 42 x		39	110.6	352.0	
		50		236.8	
	~~18~~	~~02~~		~~35[illegible]~~	4
10 18 12 x	18	11	117.1	353.9	
−38 x		19	110.2	241.2	
10 17 34 x		28	113.6	351.4	
		36		240.3	
10 18 50 x		44	110.9	351.2	5
38 x		54	108.3	241.7	
10 18 12 x	19	04	109.6	350.0	

Sept. 30, 1903

	10 19 14		240.8	6
10 19 53 x	26	110.0	350.8	
38	20 21	113.1	240.2	
10 19 15 x	30	111.6	353.3	
	39		242.0	7
10 20 52 x	48	109.6	351.6	
38 x	56	108.8	242.1	
10 20 14 x	21 04	109.2	350.9	
	11		240.2	8
10 21 25 x	20	110.6	350.8	
38 x	29	110.4	241.4	
10 20 47 x	41	110.5	351.8	

Limit of visibility

	22 11		279.1
10 22 49 x	26	32.4	311.5
− 39 x	40	31.8	280.0
10 22 10 x	22 58	32.1	311.8

~~[illegible]~~ Phot P.

Bond 236	Ball 103
10 24 39.0	10 24 00
10 25 39.0	25 00

Seeing fairly good. Observer got a little hurried as prism would not meet the image of comparison satellite; it was, however that this was due to the fact that the phot. was Phot W & not Phot R, the phot. taken off quickly and prism changed to make

Sept 30, 1903.

This change was made very close to time of reappearance but change was ~~fx~~ made before satellite reappeared, so that the first and latter settings were obtained satisfactorily.

There was not time to take Limit of Visibility before eclipse, so that it was taken afterwards.

Led. Plot. Posted to here.

Oct. 2. 1903. (Friday.)

R Cassiop. Phot. T. W. obs.

23 52 +49°.8
21 22
2 30
9 30

Above
332.6 <comp ✱ dis
8 36.7 373.7 41.1 ✓
155.4 30.7 ✓
186.1 71.8 + 2.45 ✓
338.0
369.9 31.9 ✓ + 2.34 ✓
147.4 46.9 ✓
194.3 78.8 + 2.23 ✓
Below Mean = + 2.25 ✓
237.5
287.1 49.6 ✓
65.2 33.5 ✓
98.7 83.1 ✓ + 2.10 ✓

244.3 + 2.16 ✓
8 45.0 276.2 31.9 ✓
81.7 58.4 47.6 ✓
8 40.8 106.0 79.5 ✓ + 2.21 ✓
13 40.0 ✓ G.M.T.

October 2, 1903

Same Oven

Below

238.4
8 47.0 286.1 47.7 ✓
66.7 32.2 ✓
98.9 79.9 ✓ + 2.20 ✓

245.6 + 2.22 ✓
278.4 32.8 ✓
59.4 45.5 ✓
104.9 78.3 ✓ + 2.25 ✓

Above Mean = + 2.30 ✓
331.3
347.2 40.9 ✓
155.5 32.6 ✓
188.1 73.5 ✓ + 2.39 ✓
338.4
8 54.6 369.3 30.9 ✓ + 2.38 ✓
150.2 43.2 ✓
101.6
8 50.8 193.4 74.1 ✓ +2.37 ✓
13 60.0 ✓ G.M.T.
6390

P.a. 15.0 Ver. B.
Ha. − 1.58 East.
Dec + 50.2 North
S.T. = 21:55
Sp. wh. { − 0.5 B.
+ 0.5 C.

Oct. 2, 1903.

9 30 C's watch used & 50^s fast.

u Herculis wth
Phot T.
9.5" cap.

17 13 + 33.2
22 38
5 25

Above
245.2 < var dis
9 49.0 279.8 34.6
64.8 36.2
101.0 70.8 − 2.48
242.2
280.9 38.7 − 2.45
65.9 34.0
~~1~~ 99.9 72.7 − 2.42
Below Mean = − 2.52
156.8
189.9 33.1
335.2 34.0
369.2 67.1 − 2.60

155.5
9 56.2 189.9 34.4 − 2.60
10 5 2 335.7 33.1
9 52.6 368.8 67.5 − 2.59
14 51.8 G.M.T.
6390.

Oct. 2, 1903

Same Over

Below
155.5
9 58.0 189.8 34.3 ✓
334.7 35.1 ✓
369.8 69.4 ✓ − 2.53

155.9
190.1 342 ✓ − 2.60
337.6 31.4 ✓
369.0 65.6 ✓ − 2.66

Above Mean = − 2.50
65.8
98.9 33.1 ✓
243.0 41.1 ✓
284.1 74.2 − 2.37

61.7
10 04.6 100.9 39.2 ✓ − 2.39
10 01.3 245.6 33.7 ✓
15 00.5 G.M.T. 279.5^{3} 73.9 ✓ − 2.41
6390

P.A. = 310.1 Ver B.
H.A. = ~~5.3~~ 5.52 West
Dec = + 33.4 North
S.T. = 23:05
Spirh = { 0.5 B
1.5 C

Oct. 2, 1903

δ' δ'. Cygni [illegible]
Pluot T.

21 34 + 43.5
23 34
2 00

Left
< comp ✶ dis
65.6
11 33.0 98.8 33.2
249.1 25.8
274.9 59.0 + 2.90
69.5
96.2 26.7 + 2.78
243.2 39.1
282.3 65.8 + 2.65
Right Mean = + 2.76
335.4 8.93
371.2 35.8 11.69
159.7 27.0
186.7 62.8 + 2.76

339.1
~~11~~ 43.0 366.3 + 2.74
11 ~~3 8.0~~ 154.2 27.2
16 37.2 ~~180~~ 36.5
6390. 190.7 63.7 + 2.73

P.a. 237.2 Very B S.T. = 0ʰ44
11 50 R.a. + 3ʰ06 Vast Shwh { 0.5 a
Dec. + 36 Nazl 1.5 B
2.1 C

Oct. 3, 1903. (Saturday)

7 00 C's watch used and ~~equals~~ is 5s slow.

R Cassiop 2 w. obs.
Phot T.

23 52 +49.8
20 45
3 07
8 53

Above

333.1 < comp. * dis.

7 55.4 374.8 41.7

156.0 32.9

188.9 74.6 + 2.36

~~338.9~~ 148.5

~~368.0~~ 195.2 46.7 + 2.32

~~1~~ 338.6 30.7

~~1~~ 369.3 77.4 + 2.27

Below mean = + 2.27

67.4

99.2 31.8

239.3 46.7

286.0 78.5 + 2.24

61.1 + 2.22

8 06.6 107.7 46.6

122.0 245.7 32.9

8 01.0 278.6 79.5 + 2.21

13 1.1 G.M.T.

6391.

Oct. 3, 1903.

Same Obser

Below
66.5
8 08.4 100.0 33.5
239.4 47.3
286.7 80.8 + 2.17

59.8 + 2.18
106.8 47.0
244.3 33.0
277.3 80.0 + 2.19
Above Mean = + 2.24
338.9
366.2 27.3
147.8 47.4
195.2 74.7 + 2.36

329.6 + 2.30
8 16.2 374.9 45.3
8 12.3 156.3 33.6
13 12.4 9. M.T. 189.9 78.9 + 2.23
6391. Final Mean = + 2.26

Pa 14.5 Ver B
HA −2:32
Dec +50.3
S.T. 21:21
Splch { −0.5 B
{ +0.5 C

Oct 3, 1903.

04 40 68 – Camelop wdb
9.5" cap Pluot T.

28 40 +6 ~~8~~ ~~8~~
21 40
6 55
5 05

L.O.A.
132,4 < comp * dis
9 00.4 211,4 79.0
318,7 71,2
29,9 150,2 + 0.57
137.0
209.3 72,3 +0.53
312.1 82,1
34.2 154.4 + 0.49
R.O.B. Mean = +0.52
41.7
124.5 82,8
227.1 72.3
299.4 155.1 + 0.48

49,3 +0.52
9 06.8 117,3 68.0
9 3.6 222,5 82.3
14 3.7 G.M.T. 304,8 150.3 +0.57
6391.

Oct 3, 1903

Same Over

R O B

43.4

9 08.5 123.1 79.7

226.6 70.9

297.5 150.6 + 0.56

~~8~~48.5 + 0.56

118.7 70.2

221.8 80.6

302.4 150.8 + 0.56

L.O.A. Mean = + 0.50

316.6

27.7 71.1

129.6 86.7

216.3 157.8 + 0.42

9 15.1 310.4 + 0.43

23.6 350 84.6

9 11.8 137.5 72.3

14 11.9 G.M.T. 209.38 156.9 + 0.44

6391.

R.a = 7 9.7 Ver B

H.a = – 6.23 East

Dec = + 67.6 North

S.T. = 22.20

Sperl = { 2.5 a

3.5 B

4.2 C

Oct. 3, 1903.

U Sagittae 20 Obs
Plot 7

~~19 20 + 20.0~~
19 12 + 19.3 9.5" cap
22 55
3 43

Above
242.2 < var dis.
10 11 30 282.9 40.7:
57.6 50.5
108.1 91.2 − 1.88
234.3
13 00 289.6 55.3: − 1.86
63.2 37.4
100.6 92.7 − 1.84
Below Mean = − 1.96
154.1
15 05 191.0 36.9:
329.0 47.1:
376.1 84.0 − 2.08

148.2
10 16 40 197.5 49.3 − 2.06
16 15 334.7 36.6
10 14 4 371.3 85.9 − 2.03
*5 + 3
15 14 7 G.M.T.
6391.6348
6390.5708
1.0640

Oct. 3, 1903

Same Area

Below
154.9
10 18 40 193.1 38.2
329.1 48.7
377.8 86.9 — 2.00

147.7 — 2.00
20 00 196.3 48.6
335.0 38.0
373.0 86.6 — 2.01

Above Mean = — 1.94
64.3
22 20 102.9 38.6
235.0 53.6
288.6 92.2 — 1.86

56.0 — 1.88
10 24 30 107.7 51.7
5 30 242.6 39.2
10 21 22 281.8 90.9 — 1.89
5 + 3 Final Mean = — 1.95
15 21 25 9 P. a. = 310.5 Var B
M.T. 6391.6399 H. A. = 4:17 West
63905708 Dec. = + 19.7 North
1.5691 S.T. = 23: 32
Spwl. { 0.5 a
1.5 B
2.1 C

Oct 3, 1903.

o Ceti wells
phot w

26 12   −3.6
23 52
2 20
9 40

2 18   −4.5
0 00
2 18
9 43

Right
Lvardis
255.9
11 1~~9~~4.0   34~~5~~4.6   88.7
80.8   77.9
158.7   166.6   −025
260.8
339.9   79.1   −0.25
76.6   88.4
165.0   167.5   −024
mean = −028
Left
345.4
74.6   89.2
173.1   73.9
247.0   163.1   −0.32
352.6
11 20.0   69.7   77.1
11 17.0   167.6   86.1   −0.32
16 17.07 M.T.   253.7   163.2   −0.32
6391.

Oct. 3, 1903

Same Over

Left

346.6

11 22.0 73.7 87.1

144.9 71.0

245.9 158.1 — 0.42

351.4 — 0.36

66.5 75.1

165.5 88.6

254.1 163.7 — 0.31

Right Mean = — 0.31

255.5

345.8 90.3

82.8 74.7

157.5 165.0 — 0.29

260.8

11 28.0 338.6 77.8 — 0.26

11 25.0 75.0 90.3

16 25.0 9 M.T. 165.3 168.1 — 0.22

6391. Final M = −0.30

PA. = 356.5 Ver B 9.19

HA = ~~3~~ −1:37 East Magn = 8.89

~~Dec~~ = −3.3 ~~South~~

S.T. = 0:35

Ledg. Plot. Posted

11 40 C's watch = 2s slow

Oct. 6, 1903 (Tuesday)

Wolfs' New Nova

W Obs
~~Plot I~~
p

20 15 +37.2
20 40
0 25

20 12
20 54
0 42

20 12 37.6
20 42
0 30

20 9 +36.4
20 59
50

18 33 +38.7
20 53
2 20

W's ~~Notoop~~ spectrum.
The so-called Nova seems to have at times a very faint continuous spectrum, but there also seems to be a tendency to monochromatic spectrum which is a little more pronounced than the continuous spectrum, and this tendency is more evident than in the case of the faint star preceding and a little south of the (9.1) magn near the Nova. Moon at the full, sky very bright, and probably not quite clear, so that observation extremely difficult and somewhat uncertain.

Oct. 6, 1903.

Prof E.C. Pickering's Note on spectrum
Spectrum of + 37°.3875 well seen
that of Wolfs var. very faint
probably not monochromatic
like that of a nebula but much
shorter than that of an ordinary
star. Spectrum very faint. E.C.
Pickering observer.

9 00 Cs watch = 24s fast.

Meas of Nova W.Obs.
Plate R.

Above Comp * = +37.3875 (9.1)
145.3 < Comp * dis = (9.1) + 37°.3875
9 08.0 233.1 57.8
~~3~~65.8 37.4
43.2 95.2 +1.78
185.1 +1.80
222.8 37.7
358.0 55.9
53.9 93.6 +1.82
Below mean = +1.80
87.4
137.5 50.1
274.5 40.7
316.2 90.8 +1.89
95.5
9 19.0 135.5 40.0 +1.86
9 13.5 2~~7~~68.3 53.1
14 13.1 321.4 93.1 +1.83
6394.592

Oct. 6, 1903.

Star x comp with +37°3875 (9.1)
W.Obs. Phot. R.

Above
86.7 < comp * dia.
9 26.0 144.8 58.1
273.0 46.2
319.2 104.3 +1.55

91.7 +1.54
136.5 44.8
264.7 60.4
325.1 105.2 +1.53
Below Mean = +1.52
357.1
55.4 58.3
181.8 46.9
228.7 105.2 +1.53

+1.59

2.8
9 38.0 149.7 46.9
173.4 60.8
9 32.0 23~~4.8~~ ~~108.6~~ +1.47
14 31.69 M.T. 107.7
6394.606 Readings on star x

P.A. = 51.2 Var B
~~H.A. = +2:43 West~~
Dec. = ~~+37.4 North~~
S.T. = 22:58
~~S.p.th.~~

measurements throughout difficult on account of faintness of stars measured, very bright moonlight and probably slight fog in the air.
Some light cloud in air

Oct. 6, 1903.

X Cygni wdb phot T.

19 45 +32.6
23 20
3 35

19 51 + 34.6
29 31
Above 3 40

58.1
~~[illegible]~~ 108.6 < var dis 50.5
10 322 231.4 648
296.2 115.3 −1.30
50.9
115.0 64.1 −1.28
237.1 53.1
290.2 117.4 −1.25
Below mean = −1.28
321.0
24.0 63.0
147.8 50.8
198.6 113.8 −1.33

327.1 −1.29
10 37.4 19.9 52.8
10 34.8 140.3 64.5
15 34.4 204.8 117.3 −1.25
6394.

Oct. 6, 1903

Stame Over

Below
321.6
10 38.8 24.2 62.6
147.6 50.7
198.3 113.3 − 1.34

326.1
20.0 53.9 − 1.29
141.2 64.1
205.3 118.0 − 1.24
Above
231.2 Mean = − 1.28
294.0 62.8
57.3 51.5
108.8 114.3 − 1.32

236.1
10 45.0 290.1 54.0 − 1.28
83.8 50.3 63.3
10 41.9 113.6 ~~10~~
15 41.5 G.M.T. 117.3 − 1.25
6394. Final M = − 1.28
PA = 24.3 per B 8.11
S.T. = 0:01 Magn = 6.83
10 50 H.A. = 4:16 west
Dec = + 32.8 North
Spwh = 2.5 B
3.5 C

Oct. 13. 1903 (Tuesday).

Wolf's Star. Walb- Phot R.

20 9 + 36.4
22 56
2 47

C's watch used & 10s slow at 9:25

Left * of B Meas * X

0.9 < comp * dis

9 30.0 54.3 53.4
184.2 45.4
229.6 98.8 + 1.69

4.2 + 1.60

52.1 47.9
176.3 58.5
234.8 106.4 + 1.50

Right of a. mean = + 1.47

267.6
328.6 61.0
88.8 50.4
139.2 111.4 + 1.39

271.1 + 1.34

9 35.0 323.1 52.0
9 32.5 85.4 63.2
14 32.7 G.M.T. 148.6 115.2 + 1.30

6401.606

Oct. 13, 1903

Same Chair

Right & Above

266.2
9 37.0 328.7 62.5
94.1 46.5
140.6 109.0 + 1.44

273.6 + 1.44
321.9 48.3
83.5 60.2
143.7 108.5 + 1.45

Left & Below Mean = + 1.54

177.1
233.1 56.0
5.8 44.8
50.6 100.8 + 1.64

181.2
9 42.0 227.3 46.1 + 1.66
0.7 53.2
9 39.5x 53.9 99.3 + 1.67
5 +.2x

14 39.7x
6401.611

Oct. 13, 1903

Var with comp *. (

Lt Above

181.1 <comp * dis

9 44.0 229.8 48.7✓

6.5 39.3✓

45.8 88.0✓ + 1.97✓

18~~8~~5.2 +1.92✓

226.8 41.6✓

1.2 49.6✓

50.8 91.2✓ + 1.88✓

~~RTT~~3 mean = + ~~1.8~~ 1.92✓

92.5

140.1 47.6✓

275.7 43.1✓

318.8 90.7✓ + 1.90✓

96.0 + 1.92✓

9 49.6 134.9 38.9✓

13.4 270.7 49.6✓

9 46.7 320.3 88.5✓ + 1.95✓

14 46.8 G.M.T.

6401.616

Oct. 13, 1903

Same Ovar

R.f.P³.

90.0
9 51.4 140.1 50.1
274.4 41.7
316.1 91.8 +1.87
+1.90

95.8
137.0 41.2
280.3 48.5
318.8 89.7 +1.92

L&A. Mean = +1.91

4.7
50.2 45.5
184.1 42.2
226.3 87.7 +1.98

5.6 +1.92
9 57.6 49.4 43.8
180.1 47.7
9 54.5 227.8 91.5 +1.87
14 54.7 G.M.T.
6401.622

P.A. 46.4 Var B
H.A. 3:31 West
Dec. +37.5 North
S.T. = 23:43

Obs. of both var. & * x rather difficult from fact that sky is not perfectly clear, and that the stars are some little distance off from the meridian, and also some fog in the air. The glare of the electric

Oct. 13, 1903.

lights on the atmospheric conditions
makes the field seem somewhat
bright, and the stars measured
somewhat faint.

20 : 12 + 37.5
23 57
3 : 45

Star x has a very perceptible
continuous spectrum, as to regards
the variable, the character of the
spectrum is a little more difficult.
It would seem that perhaps
it has a continuous spectrum, but
10 45 of this, can not be quite so certain
There are however two maxima
of light resembling points of light
and a little separated from each
other which are both in the spectrum
plane, The one nearest the less
refrangible end of the spectrum
being a little the brighter of the two.
At times it almost seems as if there
was a third maximum of light near
the more refrangible end of the spectrum.
But of this can not be quite so certain
as in the case of the other two.
The spectrum of variable in general
is rather faint although the two maxima
of light are certainly seen.

Oct. 13, 1903

Uz Cygni   W.Obs.
Phot T.

21 58 +44.0
24 28
2 30

On account of fog & rather poor atmospheric conditions
11 12 it is impossible to measure variable tonight. Var. very faint, seen and only at intervals at ~~equal~~ equalization in photometer.

— Camelop
044068   W.Obs.
Phot T.
〃
9.5 cap 4 39 +68.0
1 59
3 40
8 20

Oct. 13, 1903

Left — Camelop

I

314.1 < comp * dis

11 38.4 31.7 77.6

138.9 66.9

205.6 144.3 + 0.69

322.3 + 0.64

25.8 63.5

128.4 85.2

213.6 148.7 + 0.60

Right Mean = + 0.56

228.7

299.8 71.1

40.0 86.5

126.5 157.6 + 0.43

220.8 + 0.48

11 44.0 305.0 84.2

11 41.2 49.2 68.7

16 41.4 117.9 152.9 + 0.52

PA = 259.0

Ha. = 3:13 East

Dec = +67.4

11 50 S.T. = 1:26

Spwh = { 2 v a
3 v B
4 2 C

Oct. 14, 1903 (Wednesday)

R Cassiop

WCB
Phot T.

23 52 + 49.8
20 52
3 00
9 00

7 10 C's watch used tonight = 2 fast.

Above

154.3 < comp * do

7 46.6 190.1 35.8
340.0 26.6
366.6 62.4 + 2.77
157.0
187.1 30.1 + 2.69
335.3 36.7
372.0 66.8 + 2.61
Below Mean = + 2.70
64.3
101.2 36.9
249.8 27.6
277.4 64.5 + 2.69

7 55.6 69.5 + 2.71
102.2 95.7 26.2
7 51.1 243.0 37.4
12 51.19 280.4 63.6 + 2.73
6402.535 MT

Oct. 14. 1903

Below
65.1
8 11.0 100.1 35.0 ✓
247.3 27.4 ✓
2744.7 62.4 ✓ + 2.77 ✓

69.1 + 2.78 ✓
95.2 26.1 ✓
244.6 35.8 ✓
280.4 61.9 ✓ + 2.79 ✓

Above Mean = + 2.78 ✓

334.8
370.6 35.8 ✓
158.8 27.3 ✓
186.1 63.1 + 2.74 ✓

339.9 + 2.77 ✓
8 18.0 364.6 24.7
29.0 153.6 36.9 ✓
8 14.5 190.5 61.6 ✓ + 2.80 ✓
13 14.5 G.M.T. Final Mean = + 2.74
6402.552

P.a. - 138 Var. B.
H.a. - 1:48 East.
Dec. + 30.3 North
S.T. 22:04
Sp. wh. { - 0.5 B
{ + 0.5 C

altitude very high and observations rather difficult on account of high altitude and proximity of adjacent star which is ~~some~~ somewhat brighter than the variable, but extreme care exercised and obs. considered good

Oct. 14, 1903

RX Cygni W.Obs.
9.5 cap. Blcot T.
20 9 +46.4
23 9
3 0

Above
237.1 < comp *dis
9 36.4 288.1 50.0
51.2 60.2
111.4 110.2 +1.41

227.7 +1.35
295.5 67.8
59.1 47.9
107.0 115.7 +1.29
Below mean = +1.37
150.0
199.0 49.0
320.3 60.4
320.7 109.4 +1.43

140.2 +1.39
9 42.8 204.2 64.0
327.3 48.8
79.2 316.1 112.8 +1.35
9 39.6
14 39.6 G.M.T.

Oct 14, 1903

II

Below

150.0

9 44.8 200.4 | 50.4"

320.2 | 59.8"

20.0 | 110.2" + 1.41"

138.8 | +1.42"

198.8 | 60.0"

326.7 | 49.5"

16.2 | 109.5" +1.43"

Above | Mean = + 1.40"

60.0

108.6 | 48.6"

229.8 | 66.0"

295.8 | 114.6" +1.31"

+1.38"

51.8

9 50.5 109.6 | 57.8"

237.0 | 50.6"

9 47.6 287.~~4~~6 | 108.4 +1.45"

14 47.6 G.M.T. | Final M = +1.38"

P.A. = 357.8 Vert B

H.A. = 3:33 West

Dec = +47.9 North

S.T. = 23:39

Spect. = { −0.5 B
+0.5 B
+1.1 C

Oct. 14, 1903.

U U Cygni

wObs.
Phot I.

21 34 +43.6
24 04
2 30

Rt Above
57.4 < comp * dis.
10 27.8 109.6 55.2 ✓
227.5 69.4 ✓
296.9 124.6 ✓ + 1.09 ✓

47.9 + 1.12 ✓
113.7 65.8 ✓
233.1 56.7 ✓
289.8 122.5 ✓ + 1.14 ✓
L B. Mean = + 1.08 ✓
323.8
20.5 56,7 ✓
136.3 70,3 ✓
206.6 127.0 ✓ + 1.04 ✓

317.0 + 1.05 ✓
10 35.6 29.0 72.0 ✓
634 145.6 54.0 ✓
10 31.7 199.6 126.0 ✓ + 1.06 ✓
15 31.7 G.M.T.
~~63~~ 6402.647 ✓

Oct 14, 1903

Same Over

Lt Below

324.9

10 38.0 ~~79~~.20.6 55.7

135.0 73.3

208.3 129.0 +1.00″

316.0 +1.03″

26.9 70.9

145.0 55.3

200.3 126.2 +1.06″

Rt Above Mean = +1.07″

235.3

291.9 56.6

47.6 66.7

114.3 123.3 +1.12″

+1.11″

229.6

10 45.0 297.~~8~~3 67.7

8 3.0 53.5 56.4

10 41.5 109.9 124.1 +1.10″

15 41.5 9 M.T. Final Mean = +1.08″

6402.654 P.a. = 334.3 Var. B.

H.a. = +3:00 West

Dec = +43.3 North

S.T. = ~~1~~ 0:33

St Wh = { = 2.5 B
= 3.5 C

Oct. 14, 1903.

$\delta^1 \delta^2$ Cygni wds plot T.

LAA.

244.0 ∠ comp ☆ dis

11 01.5 281.5 37.5

66.0 29.3

95.3 66.8 + 2.61

248.5 + 2.68

278.6 30.1

64.8 33.2

98.0 63.3 + 2.74

Mean = + 2.59

PAB.

155.3

192.8 37.5

336.1 32.2

368.3 69.7 + 2.52

157.4 + 2.50

11 011.4 188.4 31.0

11 06.4 334.4 39.9

16 06.4 GMT 374.3 70.9 + 2.48

6407.

Oct. 14, 1903

Same Pair II

P.O.B.

153.8

11 13.5 192.3 38.5

336.1 32.1

368.2 70.6 + 2.49

156.4 + 2.49

18~~8~~9.6 33.2

334.0 37.4

371.4 70.6 + 2.49

L & A Mean = + 2.66

65.6

97.8 32.2

249.0 27.6

276.6 59.8 + 2.87

69.5 + 2.82

11 23.0 96.1 27.6

16 18.2 245.1 35.1

~~28.~~ 280.2 62.7 + 2.76

6 40.2 ~~279.8~~ ~~Final m = + 2.62~~

~~0.93~~

11.55

~~P.a.~~

~~H.a.~~

~~Dec~~

11

Oct. 14, 1903

III

~~P.A.~~

65.9

11 30.4 97.2 31.3

246.5 33.1

279.6 64.4 + 270

66.5 + 266

96.8 30.3

243.4 36.2

~~28~~ 279.6 66.5 + 262

P.O.B. Mean = 2 58

332.7

10.8 38.1

156.5 32.7

189.2 70.8 + 2.48

334.1 + 2.50

11 40.0 368.8 31.7

153.8 37.9

191.4 69.6 + 2.52

11 35.2

261

16 35.29 M.T. P.a. = 236.7 ~~vert~~ , 893

Ha = +3.48 West 11.54

Dec. = +43.3 North

S.T. = 1:27

Sp. wh. = { 0.5 B

1.5 C

Oct. 14, 1903.

Seeing blurry; observation a little difficult, but measurements
11 50 considered good.

L. P.

Oct. 15, 1903 (Thursday)

7 05 Cè watch ~~vid~~ = 5s fast

U Cephei ~~vid~~
Phot T.

24 50 +81.1
21 40
3 10
8 50

Bond 236 — 7 56 38.6

Bond 394 — 7. 57 0.0

above

205.3 < ~~comp~~ var ✱ dis

8 02.46 322.2 — 116.9 < comp ✱ dis — 63.1

129.4 — 83.5

212.9 — 146.6 +0.64

309.9

06 06 336 — 83.7 +0.58

137.7 — 69.6

207.3 — 153.3 +0.57

Below — Mean = +0.55

227.6

10 21 294.9 — 67.3

43.9 — 82.3

126.2 — 149.6 +0.58

Oct. 15, 1903.
continued

219.0 +0.52
8 12 45 304.3 85.3
31 58 48.1 70.3
8 08 00 118.4 155.6 +0.47
5 00
13 8.0 G.M.T. II
6403.5472
6403.2303 Below
0.2169 25.2

8 15 30 298.7 73.5
39.0 89.0
128.0 162.5 +0.33

219.0 +0.36
17 53 305.7 86.7
48.0 72.6
120.6 159.3 +0.39
Above
134.1 Mean = +0.25
20 52 201.3 77.2
304.1 97.7
41.8 174.9 +0.09

122.7
8 22 58 222.2 99.5 +0.14
77 13 311.6 70.8
8 19 18 32.4 170.3 +0.18
5 -2 6403.5551
13 19 16 G.M.T. 6403.2303
0.3248

Oct. 15, 1903.

III

Above
132.2
8 26 00 214.7 82.5
305.3 98.0
43.3 180.5
179.5 − 0.01

122.8 − 0.02
28 34 221.1 98.3
312.2 82.6
34.8 180.9 − 0.02
Below 179.1 mean = − 0.05
41.9
33 17 125.3 83.4
213.0 99.0
312.0 182.4
177.6 − 0.05

33.3
8 35 35 132.9 99.6 − 0.08
3 26 220.0 86.8
8 30 52 306.8 186.4
5 − 4 173.6 − 0.12
13 30 48 G.M.T.
Q 6403.5631
03.2303
0.3328

Oct. 15, 1903

IV

Below

38.1
8 H 12 127.0 88.9
209.6 104.6
314.2 193.5
166.5 — 0.25

33.6
H 3 38 134.4 100.8 — 0.22
216.9 89.7
306.6 190.5
169.5 — 0.20

Above

mean = — 0.36

307.1
H 6 46 38.1 91.0
117.2 110.4
227.6 201.4
158.6 — 0.41

296.2
H 9 30 47.8 111.6
21 06 123.6 98.5 — 0.50
8 45 16 222.1 210.1
5 — 6 149.9 — 0.58
13 45 10 G.M.T.
6403.5730
03.2303
0.3427

Oct. 15, 1903

V

Above

307.2

8 51 28 39.8 92.6

116.9 113.1

230.0 205.7

154.3 −0.49

296.0

53 09 50.0 114.0 −0.54

123.7 97.4

221.1 211.4

148.6 −0.60

Below

Mean = −0.52

207.0

56 16 319.2 112.2

38.5 91.2

129.7 203.4 −0.45

156.6

216.0

8 58 00 380.4 94.4 −0.49

25.0 113.1

18 53 ~~[illegible]~~

8 54 43 207.5

5 −7 138.1 152.5 −0.53

13 54 36+ G.M.T.

6403.5796+ P.A. = 194.2 Var B

03.2303 H.A. = −1.57

0.3493 Dec. = +80.6

S.T. = 22.57

δ'/o Wh = {3.5 B, 4.5 C}

Obs. very labored and made with much difficulty through clouds which were varying somewhat. Last group

Oct. 15, 1903.

somewhat clearer. In last group however observers eye was considerably tired owing to the difficulty experienced particularly in the first four groups.

Bond 236
9 14 10.4

Bond 394
9 14 0.0

R Cassiop Wells

23 52 +49.8
23 12
40

11 20

Too cloudy

χ Cygni Wells
Plot T.

19 45 +32.6
23 58
4 13

19 41 + 33.4
23 59
4 18

B' watch used

Oct. 15, 1903
χ Cygni

Above
62.5 <rar dis
10 21.0 102.7 40.2
242.9 35.5
278.4 75.7 — 2.32

66.1
98.8 32.7 — 2.36
241.8 40.7
282.5 73.4 — 2.40

Below Mean = — 2.28
330.0
14.6 44.6
154.5 36.5
191.0 81.1 — 2.16

335.7 — 2.19
10 27.8 10.0 34.3
8.8 149.9 44.9
10 24.4 194.8 79.2 — 2.22
15 24.3 G.M.T.
6403.

Oct. 15, 1903

Same Area

Below
332.8
10 30.4 15.8 43.0
155.1 35.2
190.3 78.2 — 2.25

335.0
10.3 35.3 — 2.19
148.8 46.8
195.6 82.1 — 2.13

Above Mean = — 2.28
241.3
284.8 43.5
66.4 30.9
97.3 74.4 — 2.36

247.0 — 2.38
10 36.2 278.8 31.8
60.7 41.1
10 33.3 101.8 72.9 — 2.41
15 33.2 G.M.T.
6403

R.A. = 24.0 Ver B
H.A. = 4:43 West
Dec. = + 32.8 North
S.T. = 0:29
Split = { 2.5 B
3.5 C

Oct. 15, 1903

R Cassiop.

23 52 +49.8
24 42
0 50

11 10 Tried R Cassiop. again but
sky too hazy to do anything with
it photometrically.

Ledgered, Plotted, Posted.

Oct. 19, 1903. (Monday)

B 236 Bond 394

7 05 43.0 7 06 0.5

Reap. Jup II Wills Phot R.
Campbell Rec.
Compared with ~~the other & mor remote~~
Limit of visibility.

7 18 6
+ 13
7 18 19

7 17	39		189.0
	59	29.0	218.0
18	16	28.3	189.9
	29	28.6	218.2

7 23 45 ✓	7 23	34	seen
56 ✓		45	186.5
24 07 ✓		56	223.9
19 ✓	24	08	181.0
28 ✓		17	227.1
39 ✓		28	177.0
47 ✓		36	230.6
59 ✓		48	172.5
25 09 ✓		58	236.1
21 ✓	25	10	169.9
31 ✓		20	237.0
46 ✓		35	168.8
57		46	239.9

Satellite on same fol. side = Sat III

Oct. 19, 1903.

7 26 07	25 57		168.0	
17	26 07		240.1	
41	31		166.1	
52	42		242.5	
	54	78.6	164.6	
27 14 + 10	27 09	82.0	243.2	1
27 24	20	80.3	163.0	
	32		245.0	
27 58	44	81.7	163.5	
+ 10	51	78.6	245.2	2
28 08	28 03	80.2	163.2	
	14		241.8	
	23		163.8	
28 38 10	32	80.1 79.1	243.9	3
28 48	42	79.6	164.0	
	53		243.1	
	29 06	78.5	164.0	
29 22 +09	16	79.7	242.5	
	24	79.1	163.5	4
29 31	41		243.2	
	53	78.3	163.7	
30 07 + 9	30 02	81.6	242.0	
30 16	12	80.0	162.3	5
	20		243.9	
	29		163.8	
30 55 9	47	78.4 80.4	242.2	6
31 04	57	79.4	163.5	
	31 28		243.9	

Oct. 19, 1903

	7	32 07		162.2	
7 32 29		26	80.8	243.0	7
8		39	79.7	164.0	
7 32 37		50	80.2	243.7	
		33 26		163.7	
33 48		38	78.9	242.6	8
8		56	79.6	163.1	
7 33 56		34 13	79.2	242.7	

Bond 236
7 35 52.8
36 53.0

Bond 394
7 36 0.0
37 0.0

C's watch = 07^s fast at 7:38

Seeing variable; some of the time fairly good, at other times somewhat blurry.

R Cassiop. wdb.
phot +

23 52 +48.6
21 57
1 55
10 65

C's watch used from now on.

Over

Oct. 19, 1903.

R Cassiop.
see prev. page

Above
152'.4
f 03.6 191.8 40.4 ✓
338.8 29.1 ✓
367.9 69.5 ✓ + 2.52 ✓

+2.52 ✓

156.1
186.8 30.7 ✓
334.3 38.6 ✓
372.9 69.3 ✓ + 2.53 ✓
Below mean = + 2.62 ✓
63.8
102.1 38.3 ✓
248.8 25.8 ✓
274.6 64.1 ✓ + 2.71 ✓

+2.72 ✓

71.5
8 12.0 96.4 24.9 ✓
15.6 243.1 38.3 ✓
8 07.8 281.4 63.2 ✓ + 2.74 ✓
13 7.7 ✓9 M.T.

P.A. = 194.7 Var β
H.A. = -1.33 East
Dec. = +50.2 North
S.T. = 22:22
Sp. Wh. = { -0.5 β.
+0.5 C.

Oct. 19 1903
~~[illegible]~~

Wolfs Star   Wells
20 9 +36.3 ~~Phot X.~~
23 19   W.
3 10

Above
185.1 < comp ✱ dis
9 27.8 219.2   34.1 ✓
358.2   48.6 ✓
46.8   82.7 ✓ + 2.1~~1~~^{2}
177.9
~~tttt~~ 226.0   481 ✓ + 2.11 ✓
6.3   35.1 ✓
41.4   83.2 ✓ + 2.10 ✓
Below   Mean = + 2.1^{3} ✓
95.8
132.2   36.4 ✓
270.6   44.0 ✓
314.6   80.4 ✓ + 2.18 ✓

91.7   + 2.16 ✓
135.8   44.1
9 36.4 273.6   38.0 ✓
642 311.6   82.1 ✓ + 2.1^{3} ✓
9 32.1
1 32.0 ✓ G.M.T.

Oct. 19, 1903

Same Over

Below

96.1

9 39.2 132.0 35.9

269.9 44.2

314.1 80.1 + 2.19

91.3 + 2.21

131.6 42.3

274.7 36.5

311.2 78.8 + 2.23

Above Mean = + 2.20

3.3

41.6 38.3

180.8 44.2

225.0 82.5 + 2.12

2.4 + 2.18

9 48.4 45.4 43.0

87.6 184.9 35.3

9 43.8 220.2 78.3 + 2.25

12 43.7

Oct. 19, 1903

III

Above

4.6
9 53.6 41.6 37.0"
180.7 43.5"
224.2 80.5" + 2.18"

0.0 + 2.18"
44.2 44.2"
184.6 36.7"
221.3 80.9" + 2.17"

Below Mean = + 2.18"

274.1
313.3 39.2"
91.8 42.1"
133.9 81.3" + 2.16"

271.1
10 01.4 314.7 43.6" + 2.18"
115.0 94.2 36.4"
9 57.5 130.6 80.0" + 2.19"
14 57.4

Final Mean = + 2.17"

P.A = 2~~6~~37.0 VerB
HA = + 3:53 West
Dec = 37.4 North.
S.T. = 0:10

~~The collar which~~ The adapting tube which holds the photometer ~~rotates~~ ~~a bit~~ slowly upon ~~Ap~~ trial in its bearings. This accounts for the fact that P.A. does not read the same as the ~~last time~~. Will set screws by daylight.

Oct, 19, 1903

Looked at Spectrum of Variable. There is perhaps a very faint continuous spectrum but cannot be absolutely certain of it. There are however two maxima of light as seen the night of last examination. Sometimes one is a little brighter and than the other, but on the average the one near the less refrangible end of the spectrum seems a little the brighter of the two. Cannot be sure whether there is any elongation to these maxima. At times observer has a slight suspicion of a third very faint maximum of light nearer the more refrangible end of spectrum than the other two, but of this cannot be at all certain.

o Ceti

W.C.B.
Phot w.

2 12 -3.6
0 52

1 20
10 40

Oct. 19, 1903

o Ceti

Left

156.1 ∠ var dis

11 01.2   252.0   95.9 ✓

342.3   80.9 ✓

63.2   176.8 ✓ − 0.06 ✓

161.5   − 0.02 ✓

245.1   83.6 ✓

333.5   97.5 ✓ + 0.02 ✓

71.0   181.1 ✓

178.9 ✓

Mean = + 0.04 ✓

Right

63.6

161.4   97.8 ✓

249.0   85.3 ✓

334.3   183.1 ✓

176.9 ✓ + 0.06 ✓

70.0

11 09.2   156.5   86.5 ✓ + 0.11 ✓

10.4   240.9   101.8 ✓

11 5.2   342.7   188.3 ✓ ✓

16 5.1 G.M.T.   171.7 ✓ + 0.16

Oct. 19, 1903

Right Same Ovar

63.1

11 11.0 159.6 96.5 ✓

249.0 86.8 ✓

335.8 183.3 ✓

176.7 ✓ + 0.06 ✓

69.8

156.7 86.9 ✓ + 0.08 ✓

244.3 98.5 ✓

342.8 185.4 ✓

174.6 ✓ + 0.10 ✓

Left mean = + 0.03 ✓

333.8

70.7 96.9 ✓

161.4 81.5 ✓

242.9 178.4 ✓ + 0.03 ✓

340.8 − 0.02 ✓

11 18.4 64.5 83.7 ✓

29.4 154.4 96.0 ✓

11 14.7 250.4 179.7 ✓ − 0.01 ✓

16 19.6

Final M = + 0.04 ✓

9.19 ✓

9.23 ✓

P.A. = 5.5 V.W.

H.A. = − 0:47 East.

11 25 Dec. = − 3.8 South.

S.T. = 1:29

Oct. 20, 1903 (Tuesday)

R Cassiop Wells
Plot T.

23 52 +49.8
21 22
2 30
9 30

20 C's ~~watch~~ used on about u cephei. ~~R Cass~~. = 14s fast

above

333.6 < comp ★ dis.

7 24.2 15.4 41.8
158.2 28.0
186.2 69.8 + 2.57
339.7
366.4 26.7 + 2.58
153.1 39.1
192.2 65.8 + 2.65

Below mean = + 2.58

242.3
282.0 39.7
68.7 27.7
96.4 67.4 + 2.59

246.9 + 2.59
7 30.8 275.7 28.8
+2 27.6 64.5 38.7
~~+7~~ 27.4 103.2 67.5 + 2.59
12

Oct. 29, 1903.

P.A. = 194.5 Var B.
Ha. = -2:13 East
Dec. = +50.3 North
S.T. = 21:43

S'p.Wh. {-0.5 B / +0.5 C}

U Cephei Wells Eliot

24 50 +81.1
21 50
3 00
9 00

B 236 Bond 394
7 42 00 7 42 00

Above
129.3 ∠ comp * dis.
7 44 19 218.6 89.3
318.4 68.0
26.4 157.3 +0.43
136.2
47 00 206.5 60.3 +0.50
308.1 89.5
37.6 149.8 +0.38
Below mean = +0.48
404
49 10 120.3 84.9
228.1 70.7
298.8 155.6 +0.47
49.2
7 50 55 116.2 67.0 +0.46
31 24 217.1 89.2
7 47 51 306.3 156.2 +0.45

6408.5332
6408.2258
+0.3074

Oct. 20, 1903

~~II~~

Below
41.8
7 52 20 126.3 — 845
226.2 — 737
299.9 — 158 2 + 0.42

46.8 — +0.38
54 20 117.2 — 70.4
216.2 — 92 2
308.4 — 162.6 +0 33
Above — mean = +0.24
303.4
57 10 43.0 — 99.6
134.0 — 74 4
208.4 — 174 0 + 0.11

313.7
7 59 03 ~~#~~30.5 — 76.8 + 0.10
22 53 122.2 — 99.0
7 55 43 221.2 — 175.8 +0.08
5 - 3
12 55 40

6408.5387
6408.2258
+ 0.3129

Oct 20, 1903

III

Above

303.8

8 01 17 40.3 96.5

133.1 78.7

211.8 175.2 + 0.09

315.4 + 0.06

03 07 32.3 76.9

120.4 102.1

222.5 179.0 + 0.02

Below Mean = + 0.02

214.4

06 00 310.3 95.9

46.7 76.2

122.9 172.1 + 0.15

224.0 + − 0.01

8.08 10 303.5 79.5

18 34 33.8 109.6

8 04 38 133.4 189.1

5 − 5 170.9 − 0.17

13 4 33

6408. 5448ˣ

6408. 2858

+ 0.3 × 290

Oct. 20, 1903

IV

Below

212.3
8 11 00 313.9 101.6
44.3 78.5
122.8 180.1
179.9 - 0.00

222.~~4~~0
13 17 303.6 81.6 -0.05
31.3 103.6
134.9 185.2 - 0.10
174.8

mean = -0.16

Above

129.2
16 00 216.9 87.7
299.6 107.3
46.9 195.0
165.0 - 0.29

116.4
8 18 12 224.7 108.3 -0.26
18 29 311.3 84.2
A 14 42 35.~~3~~5 192.5
5 -7 167.5 -0.24
13 14 35

6408.551 A
6408.2258

+0.3~~2~~^{3}60

Oct. 20, 1903

V

Above
126.3
8 20 50 218.4 — 92.1
297.8 — 109.5
47.3 — 201.6 — 0.41
158.4

116.3 — 0.30
23 05 216.3 — 100.0
306.6 — 90.6
37.2 — 190.6 — 0.20
169.4

Mean = — 0.30

Below
39.0
26 13 127.6 — 88.6
208.7 — 107.3
316.0 — 195.9
164.1 — 0.30

29.8
8 29 05 136.3 — 106.5 — 0.31
217.8 — 96.5
19 08 308.3 — 197.0
163.0 — 0.32

8 24 47
5 - 9
13 24 38

6408.5587
6408.2258
+ 0.3329

PA = 195.5 Var B
HA = -1.58 East
Dec = +8.6 North
S.T. = 22:58
Sp. wh. f. 3.5 B
4.5 C

Oct. 20, 1903

Bond 2~~9~~36 Bond 394
8 42 12.6 8 42 0.0
8 43 13.0 8 43 0.0

Doubtful Var. +28°.707 wells
4 44 +27.7 Phot T.
0 04
4 40
above 7 20

49.3 < comp * dis
10 09.0 113.0 63.7
221.2 84.3
305.5 148.0 +0.61
43.0
122.1 79.1 +0.63
229.4 67.2
296.6 146.3 +0.65
Below Mean = +0.66
321.7
24.2 62.5
132.3 81.0
213.3 143.5 +0.70

313.2 +0.68
10 16.4 33.6 80.4
25.4 140.7 65.5
10 12.7 206.2 145.9 +0.66
10 12.5 GMT.

Oct. 20, 1903

Same Over

Below

320.2
10 19.0 24.2 64.0
133.3 80.9
214.2 144.9 +0.68

314.1 +0.71
32.1 78.0
141.0 63.5
204.5 141.5 +0.74

Above Mean = +0.68

229.0
296.0 67.0
43.3 78.4
121.7 145.4 +0.67

220.9 +0.64
10 25.0 304.3 83.4
44.0 50.2 64.8
10 22.0 115.0 148.2 +0.61
15 21.8 P.A. = 37.5 Var B
H.A. -4:07 East
Dec. +27.6 North
S.T. = 0:39
Spec. {a 2.5
B 3.5
C 4.1

Oct 20, 1903

X Persei   W.O.bs.
Phot. T.

3 45   +31.5   9"5 cap
0 50
2 55
9 05

Above
156.2   < var. dis
10 50.0   191.7   35.5
332.3   40.3
12.6   75.8 — 2.32
152.5
193.6   41.1 — 2.36
336.3   31.9
368.2   73.0 — 2.41
Below   Mean = — 2.37
65.7
99.2   33.5
241.9   40.7
282.6   74.2 — 2.37

62.6   — 2.38
10 57.6   102.7   40.1
246.4   33.4
10 53.8   279.8   73.5 — 2.39
15 53.6

Oct 20, 1903

Same Ovar

Below
66.0
10 59.6 99.9 33.9
241.4 42.3
283.7 76.2 — 2.31

68.4 — 2.38
103.4 40.0
246.2 32.0
278.2 72.0 — 2.44

Above Mean = — 2.39
334.3
372.6 38.3
157.3 36.3
193.6 74.6 — 2.36

338.0 — 2.40
11 07.4 368.8 30.8
127.0 152.3 41.7
10 03.5 ✓ 194.0 72.5 — 2.43
16 03.5 G.M.T.
Pa = 38.5 Ver β
Ha. = — 2:28 East
11 18 Dec = +30.2 North
S.T = 1:22
Spwh = δ — 1.5 β φ — 0.5 α

Oct. 20, 1903

The altitude of the telescope being rather high, the prisms with the carriage carrying them ran a little hard up track of photometer. In doing so ~~the~~ one or two of the links of the chain skipped the cogs on the
11 20 sprocket wheel, so that reading of sprocket will possibly be slightly [illegible] than last time but probably not much —

L. P. P.

Oct. 21, 1903 ☿ (Wednesday)

7 05 C's watch used = 22s fast

R Cassiop. W Obs. Phot T.

2 3 52 +49.A
2 1 22
2 30
9 30

above
153.1 ∠ comp * dis

7 17.6 192.4 39.3
337.6 30.5
368.1 69.8 +2.52

158.4 +2.53
188.4 30.0
333.3 39.0
372.3 69.0 +2.54

Below Mean = +2.56
62.8
100.9 38.1
244.2 28.4
276.6 66.5 +2.62

69.3 +2.60
7 29.6 97.1 27.8
47.2 243.2 39.6
7 23.6 282.8 67.4 +2.59

12 23.2 A.M. T. R.A. 194 Per B Dec = +50.3 Sp Wh {−0.5 B. / +0.5 C.}
6409.516 H.A. − 2:09 East S.T. = 21:46

Oct 21, 1903.

u Herculis wobs.
95" cap used.
Phot T.

17 ~~14~~ +33.2
22 24
5 10

Above
249.2 < radii
8 25.0 277.6 28.4
63.0 38.1
102.1 66.5 − 2.62

244.4 − 2.62
283.2 38.8
67.4 28.0
95.4 66.8 − 2.61
Below mean = − 2.67
160.5
187.0 26.5
332.9 37.8
370.7 64.3 − 2.70

154.9
~~8~~ 32.0 191.6 36.7 − 2.72
55.0 340.4 26.4
8 27.5 366.~~4~~8 63.1 − 2.74
13 27.1 G.M.T.
6409.

Oct 21, 1903.

Same Ovar.

Below

160.2

8 34.2 186.4 26.2

335.0 36.7

371.7 62.9 - 275

152.1 - 268

192.5 40.4

339.3 26.6

365.9 67.0 - 261

Above Mean = - 268

68.9

95.3 26.4

244.1 38.7

282.8 65.1 - 267

63.0 - 268

8 40.2 100.7 37.7

744 250.0 27.1

8 37.2 277.1 64.8 - 268

13 36.8 G.M.T.

6409

PA = 311.0 VarB

Ha = 5:28 West

Dec = +33.2 North

S.T. = 22:59

Spwh = { 0.5 B.
1.5 C.

Oct. 21, 1903

β Persei

Wells.
9''.5 cap.

3 27 0 + 40.0
23 20
3 40
8 20

Phot T.

Exp. on β Per. with Phot T.

Meas. of our group with object glass diaphramed to 9''.5 and shade glass ~~abt~~ absorbing approx. 2 magns held in hand between eyepiece and eye.

Above
344.0
9 25.8 359.9 15.9
160.3 24.7
185.0 40.6 — 3.74

341.6
363.4 21.8 — 3.80
165.0 16.5
181.5 38.3 — 3.86

Mean = − 3.72

Below
74.5
91.4 16.9
251.2 23.0
274.2 39.9 — 3.77

over − 3.64

Oct 21 1903

continued from p 161

71.0
9 40.0 96.6 25.6
253.9 19.1
273.0 44.7 — 35.2

These measurements are not considered particullary accurate owing to the fact that the shade glass was held between the eyepiece and the eye and much ~~f~~ trouble was experienced as it was supposed there would be from the fact ~~that~~ ~~inn~~convergent pencils and the images could not be easily got hold of. The main purpose of the experiment was to see the effect on the images at equalization of diaphraming the object to 9.5 inches which reduced the light by about one magn. and of ~~the~~ reducing the light about two magns. more by means of a shade glass properly placed. The resulting reduction in light of images would seem to be quite satisfactory, if the shade glass was
9 50 properly placed.

Oct. 21, 1903

χ Cygni w Obs
Plot T.

19 45 +32.6
24 35
4 50

Above
249.7
10 30.6 277.0 27.3
66.5 31.5
98.0 58.8 — 2.91
246.1 — 2.92
279.7 33.6
70.4 24.5
94.9 58.1 — 2.93
Below Mean = —2.76
1~~8~~58.8
187.7 28.9
332.1 38.5
370.6 67.4 — 259

154.2
10 37.6 192.0 37.8 — 259
82 337.2 29.8
10 34.1 367.0 67.6 — 259
15 33.7 G.M.T.
6409.

Oct. 21, 1903

Same Over

Below
159.1
10 39.6 188.2 29.1 :
332.2 38.3
370.5 67.4 — 2.59

155.9 — 2.63
192.4 36.5
338.2 28.7
366.9 65.2 — 2.67
Above mean = — 2.74
70.2
95.7 25.5
244.8 34.4
279.2 59.9 — 2.86

66.2 — 2.85
10 46.8 98.7 32.5 :
86.4 248.7 28.2
10 43.2 276.9 60.7 — 2.84
15 42.8 G.M.T.

2.75
8.11
5.36 magn.

6409.
pa = 24.6 Ver B
Ha = 5.17 ~~West~~
Dec = +32 8
S.T. = 1:06
Sp Wh = 1.5 a
2.5 B
3.1 C

Oct 21/1903

Nova Gem. no Obs.

6 36 +29.0
1 16
5 20
6 40

Region not very high & faint
stars a little hazy & dim will wait
11 10 on Nova Gem. until another night

L. P. P.

Oct. 22, 1903 (Thursday)

7 00m C's watch ~~used~~ - 32s fast
R Cassiop ~~Wdb~~
~~Phot~~ T.

23 52 +49.8
21 22
2 30
9 30

Above
330.1
7 23.5 371.0 40.9
156.6 28.0
184.6 68.9 + 2.54

336.7 + 2.5~~9~~8
364.3 27.6
152.2 38.7
190.9 66.3 + 2.63
Below mean = + 2.58
240.4
281.~~4~~0 40.6
66.5 28.7
95.2 69.3 + 2.53

245.9 + 2.58
7 33.5 276.1 30.2
7 28.5 63.8 36.2
12 28.0 GMT 100.~~3~~0 66.4 + 2.63
6410.519

Oct. 22, 190~~2~~3

P.A. 194.3 Van B
H.A. -2:00 East
Dec + 50.3

S.T. = 21:53
Splwh = {−1.5 a
−0.5 B
+0.4 C}

Bond 236
7 43 56.5
44 56.7

Bond 394
7 44 00
45 00

Dis. Jup IV Phot R. W. Obs
Campbell Rec.

Comp. with nearer ~~*~~ to Jupiter of two Sats. on preceding side = Sat II.

	7	58	06		251.8		
7 58 40			27	83.0	334.8	1	
00			51	79.9	252.2	+ 0.3	
7 58 40 E.M.T.		59	14	81.4	332.1		← Readjusted images slightly
			35		254.0		
8 1 08		~~Reject~~	~~57~~		~~330.8~~		
00	8	00	22	77.8	331.8	~~+ 0.5~~	
8 1 08 E.M.T.		~~Reject~~	~~38~~		~~251.8~~		
		~~Reject 01~~	~~06~~		~~237.0~~	2	
		02	08	77.5	255.0		
			25	77.6	332.5	+ 0.5	
			43		251.3		
8 03 10			59	81.5	333.0	+ 0.3	
− 1		03	19	83.8	251.4	3	
8 03 9 E.M.T.			39	82.6	335.2		

Oct. 22, 1903.

	8	0~~8~~4	05		252.2	
8 04 35			21	81.7	333.9	4
-1			38	84.7	252.8	
8 04 34		05	15	83.2	337.5	+ 0.3
			35		251.0	
8 06 14			58	83.5	334.5	√
-2		06	32	84.1	249.9	+ 0.2
8 06 12			51	83.8	334.0	
		07	09		251.9	
8 07 32			21	83.1	335.0	6
-2			42	86.4	247.8	
8 7 30			57	84.8	334.2	+ 0.2
		08	26		252.8	
8 08 58			51	82.7	335.~~2~~5	
-2		09	10	83.0	252.9	7 + 0.3
8 8 56			32	82.8	335.9	
			49		254.8	
8 10 21		10	08	79.2	334.0	
-3			34	79.6	255.4	8 + 0.4
8 10 18			54	79.4	335.0	
		11	04		255.5	
8 11 42			29	77.5	333.0	
-3			46	75.0	254.0	9 + 0.5
8 11 39 Reject.		~~12~~	~~20~~	76.2	~~329.0~~	
		12	28		329.0	
			43		256.2	
			59		329.5	

Oct. 22, 1903.

73.3 10
8 13 04 8ʰ 13 21 76.2 255.8 + 0.6
5 — 3 14 15 74.8 332.0 →
8 13 01 ~~44~~ 31 256.0
45 76.3 332.3
8 14 54 59 73.1 255.8 + 0.6
−4 15 23 74.7 328.9
8 14 50
Reject ~~42~~ ~~253.5~~
37 259.0
8 16 26 16 15 72.7 331.7 + 0.7
−4 36 71.8 259.0
8 16 22 58 72.4 330.8
17 13 258.0
8 19 00 # + 0.8
−5 47 72.0
65.0 330.0
8 18 55 68.5

Electric light ~~gave~~ out suddenly, found wire to be loose & resumed settings as soon as possible.

20 22 262.5
37 327.5
50 263.1
8 21 06 21 02 60.9 324.0
−5 13 56.3 267.2 + 1.3
8 21 01 21 58.6 323.5
31 269.3
8 21 47 42 51.7 321.0 + 1.6
−6 52 49.4 271.1
8 21 41 22 03 50.6 320.5
12 272.0
22 319.0

Oct. 22, 1903.

θ 22 27
− 6
θ 22 21

θ 23 20
−6
θ 23 14

θ 24 20
− 6
θ 24 14

θ 24 48
25 9
15
31
43
56
26 13
28
44
27 02
23
39
28 09
22
39

			47.0		
θ	22	32	46.1	272.0	+ 1.8
		43	46.6	318.1	
Reject		~~52~~		~~272.5~~	
	23	01		273.5	
		14	43.4	316.9	+20
		27	43.4	274.1	
			43.4		
		37		317.5	
		50		272.3	
	24	09	43.5	315.8	+2.2
		32	37.1	276.0	
			40.3		
		42.		313.1	
		54	35.7	277.1	+ 2.5
	25	15	33.6	312.8	+ 2.6
		21	31.0	279.2	+ 2.8
		37	30.7	310.2	+ 2.8
		50	29.0	279.5	+ 2.9
	26	03	27.3	308.5	+ 31
		20	29.0	281.2	+29
		35	28.6	310.2	+3.0
		51	25.6	281.6	+ 3.2
	27	09	22.4	307.2	+ 3.5
		30	20.1	284.8	+ 3.8
		46	17.9	304.9	+4.0
	28	16	16.8	287.0	+4.2
		29		303.8	
		46		not seen later	

Oct. 22, 1913

Limit of visibility

8 28 54 287.5
8 29 23 29 -11 14.5 302.0
-7 33 15.4 287.1 +4.4
8 29 16 E.M.T. 53 15.0 302.5

Bond 236			Bond 394		
8	32	08.2	8	32	0.0
	33	08.8		33	0.0

Seeing somewhat blurry especially in earlier part of eclipse. In latter part and especially after settings began

8 42 to show a definite diminution in light, seeing better and very good especially in the last part of eclipse

Very shortly after eclipse

~~9 00~~ sky became quite cloudy and continued quite cloudy up to the

10 00 present time. Now some clearer will try for T Cygni.

(over)

Oct. 22, 1903

T Cygni Wells

20 41 +33.4
24 15
3 34

10 10 sky too cloudy again

10 12 Clouds thick.

Above

247.2 ∠ varadis.

10 15.2 275.7 28.5
62.0 36.1
98.1 64.6 − 2.69

241.2

278.8 37.6 −2.70
67.5 26.2
93.7 63.8 −2.72

Below Mean = − 2.60

157.0

185.9 28.9
330.3 40.4
370.7 69.3 −2.53

150.9

10 22.8 191.9 41.0 −2.50
38.0 336.4 30.3
10 19.0 366.7 71.3 − 2.46
15 18.5 640.

Oct. 22, 1903

Same Over

Below

155.6
10 25.4 186.4 30.8"
331.3 40.2
371.5 71.0 — 2.47"

148.3 — 2.43"
190.3 42.0"
336.0 31.6"
367.6 73.6" — 2.39"
Above Mean = — 2.54"
67.3
93.5 26.2"
241.4 38.4"
279.8 64.6" — 2.69"

62.1
10 32.0 98.8 36.7" — 2.66"
57.4 246.3 29.4"
10 28.7 275.7 66.1" — 2.61"
15 28.2
6410.

P.a. = 5.0 Var B
H.a. = 4.10 West
Dec. = + 34.2 North.
S.T. = 0.53
Sp. Wh = { 0.5 a
1.5 B
2.1 C

Troubled a little by haze especially in second group, but extreme care exercised and observations considered good.

Oct. 22, 1903

B 236				β 394		
10	46	31.0		10	46	05
	47	31.2			47	00

Re Jup IV Phot. R. W. Obs.
Colson Rec.

23 5 −7.4
25 13
+2 8

Compared with nearer ~~of~~ to Jupiter of two Sats on preceding side = ~~Sat. II.~~
Limit of Visibility

Limit of Visibility.

11 24 32	11	24	05		91.9	
36			24	43.3	135.2	
11 23 56			40	44.0	91.0	+ 2.0
	11	24	59	43.6	135.0	

11 35 53	11	36	30		Seen	
36 10	11	36	47	31.1	98.0	+ 2.0
24		37	01	34.1	129.1	2.6
39			16	38.5	95.0	2.3
53			30	39.0	133.5	2.3
37 10			47	40.6	94.5	2.2
24		38	01	41.3	135.1	2.1
36			14	42.4	93.8	2.1

Oct. 22, 1903.

11 37 50	11	38	28	43.2	136.2	2.0
38 11			47	43.0	93.0	2.0
24		39	02	44.2	136.0	2.0
36			24	45.1	91.8	1.9
39 12			50	45.9	136.9	1.9
37		40	15	48.0	91.0	1.8
53			31		139.0	
			48		89.9	
11 41 14x		41	04	53.0:	142.9	1.4
38			18	58.0	86.0	
11 40 36x			47	55.5	144.0	
		42	05		85.1	
11 42 55			57	59.4	144.5	
- 38		43	13	60.1	85.0	1.2
11 42 17			24	59.8	145.1	
			41		82.5	
			55	63.9	146.4	
11 44 09		44	13	66.9	82.0	1.0
38			~~32~~	65.4		
11 43 31			44		148.9	
			59		80.2	
11 45 22		45	17	68.8	149.0	0.8
38			30	69.5	80.5	
11 44 44			44	69.2	~~149~~ 150.0	
		46	00		78.3	
11 46 29			14	72.7	151.0	
39			38	71.0	~~89.0~~ 79.0	
11 45 50		47	05	71.8	150.0	0.7
			20		78.2	

Oct. 22. 1903.

			75.0		
11 47 47	11 47	35	75.0	153.2	
-39		54	75.0	78.0	0.6
11 47 08	48	20		153.0	
		41		77.2	
			75.8		
11 49 07x		54	75.6	153.0	0.5
39 x	49~~54~~	11	75.7	77.2	
11 48 28x		32		152.8	
		45		77.3	
11 50 09x	50 ~~55~~	00	76.2	153.0	0.5
~~39~~		14	77.3	76.0	
11 ~~49 30~~ x		36	76.8	153.3	
		56		78.0	
11 51 19	51	10	74.9	152.9	0.6
39		27	75.5	77.0	
11 50 40		44	75.2	152.5 →	
	> 52	00		76.0	
		15	78.0	154.0	0.5,
11 52 36		~~34~~	75.0	~~77.1~~	1
39	52	56	76.5	77.0	
11 51 57	53	14		152.0	
		31		~~78.~~ 77.0	
11 53 53		45	76.2	153.2	0.5
39	54	03	76.1	78.1	2
11 53 14		14	76.2	154.2	
		29		75.5	0.5
11 54 58		51	77.6	153.1	3
40	55	06	75.3	~~76.2~~ 77.2	
11 54 18		24	76.4	152.5	

Oct 22, 1903

11 57 24	11	57	00		78.0		
40			15	75.1	153.1	4	
11 56 44			32	77.3	77.2		0.5
			51	76.2	154.5		—
		58	07		75.5		
11 58 34			25	77.0	152.5		
40			39	75.2	77.0	5	0.5
11 57 54		59	06	76.1	152.2		—
			24		77.1		
11 59 49 40			35	75.9	153.0		
11 59 09	12	00	01	75.4	77.1	6	0.6
			16	75.6	152.5		—
			32		77.0		
12 00 57			47	75.5	152.5	7	
40		01	07	76.5	76.0		0.5
12 00 17			21	76.0	152.5		
			33		77.5		
12 01 51			44	75.5	153.0	8	
-41			56	76.6	76.8		+0.5
12 01 10		02	10	76.0	153.4		—

~~Sat reappeared~~ ~~One of the ghosts of Jup., visible in the field, was~~

Sat IV reappeared a little ~~on the~~ over the edge of one of the ghosts of ~~of~~ Jup. - visible in the ~~field~~. ~~As~~ the sat reappeared on top of the

Oct 22. 1903.

ghost the comparison spot was also put on the ghost to match it. ~~Probably~~ Owing to the fact that spot IV was superimposed upon the ghost it probably was seen a little late on reappearance The ghost, however, is not particularly bright, although perfectly ~~visible~~ visible. Sky a little hazy during eclipse and Jup. somewhat low making all the spots a little faint. Seeing pretty steady. Extreme care exercised and observations considered good.

	B.236			B.394	
12	23	43.4	12	23	0.0
	24	43.5		24	0.0

Oct. 24, 1903 (Saturday)

7 05 C's watch = 45^{s} fast.

7 35 Continually troubled by clouds

T Lyrae wcdb.

18 27 +36.3
22 00
3 33

7 40 Cloudy

u Herculis wcdb.
9.5" cap

17 13 +33.2
22 13
5 00

clouds
8 00 Var. now invisible in the finder

(over)

clearer

cloudier.

8 12 clouds again

Oct. 24 1903.

u Herculis

above

243.5 < vardis

8 36.0 273.3 29.8

167.2 Rejected ~~37.5~~

99.7 and supplanted 67.3 - 2.60 by last set, see below

- 2.90

241.7

276.2 34.5

67.4 25.2

92.6 59.7 - 2.87

Below mean = ~~2.76~~ 2.84

1559

183.5 27.6

3324 35.1

367.5 62.7 - 2.76

- 2.78

152.3 35.7

8 44.0 188.0 26.0

336.8 61.7 - 2.80 clds thick; stars gone.

8 40.0 362.8

5 - .8

13 39.2 64.6

6412. 91.8 24.2

2426 34.0

2766 58.2 - 2.93

When the first set was taken observation

Oct. 24, 1903.

~~was so difficult that they considered at the time more uncertain than the later settings~~

P.a. 309.9 Ver β.
~~H.a. +6.12 West~~
Dec. +33.4
S.T. = 23.27
Sp. wh. = { −0.5 a.
+0.5 β.
+1.1 C.

μ Cephei Wells
9.5" cap.

21 39 +58.1
23 39
2 00

Above
327.7 < vardis
9 27.3 18.2 50.5
152.8 35.1
187.9 85.6 − 2.03
331.0 Hazy; clds thick.
365.8 34.8 − 2.04
146.9 50.3
197.2 clds thick. 85.1 − 2.05
Below
Mean = −2.10
240.4
284.8 44.4
59.9 clds 37.1
81.5 − 2.15
97.0 −2.17

Oct. 24, 1903
Same, continued.

243.3
9 38.4 276.7 33.4
65.7 57.9 46.8
9 32.8 103.2 ~~79.4~~ — 2.19
14 32.0 80.2
Mean = — 2.10

Same Over

Below
232.5
9 44.4 282.6 50.1
59.5 37.1
96.6 87.2 — 1.99
242.2
280.9 — 2.04
56.8 38.7
102.1 45.3
84.0 — 2.08
Above
mean = — 2.12
147.9
190.6 42.7
330.6 36.6
367.3 79.3 — 2.22

152.2
9 51.6 187.5 35.3 — 2.20
9 48.0 327.8 44.8
14 47.2 G.M.T. 372.6 80.1 — 2.19
6412. P.a. = 353.4 Var B. S.T. = 0:19
Ha. > 2:38 Final Mean = — 2.11
Dec. = +58.8
Spect. = { 2.5 B
1.5 C

Oct. 24 1903

R X Cygni Wells

20 9 +46.3

24 42

4 33

Clouds, stars gone

Above

~~244.4~~ comp + dis

10 26.5 ~~244.0~~ ~~4 6~~

~~50.6~~ ~~5 2~~

~~107.8~~ see p. 185 ~~106.8 + 1.49~~

227.8

292.5 64.7 + 1.36

56.55 49.5

105.0 114.2 + 1.32

Below mean = +1.33

145.8

192.8 47.0

316.2 68.2

24.4 115.2 + 1.30

133.9 + 1.26

10 37.1 202.0 68.1

63.6 324.3 51.0

10 31.8 ~~17.~~ 15.3 119.1 + 1.21

15 31.0 G.M.T.

6412.647

Oct. 24 1903

Same Orar

Below
144.1
10 40.0 192.2 48.1
316.6 67.2
423.8 115.3 + 1.30

134.1 + 1.23
203.4 69.3
324.8 52.1
16.9 121.4 + 1.16
Above mean = + 1.26
55.5
103.6 48.1
223.4 71.0
294.4 119.1 + 1.21

46.9 + 1.30
10 47.0 110.2 63.3
235.6 48.3
10 43.5 ~~284.3~~ 111.6 + 1.38
15 42.8 283.9
64.12.

~~Pa =~~
~~Ha =~~
~~Dec =~~
~~S.T. =~~
~~S.Pow. =~~

Oct. 24 1903

~~VIII~~

Above
56.3
101.5 45.2
225.9 (66.1
292.0 111.3 + 1.39

Supplants 1st set in (~~1st~~ econ)

Ob. made ~~through~~ variable haze. First set retaken and ~~supplanted~~ by above last set of all as in the last of this ~~last~~ set, sky was ~~Below~~ quite clear and faint stars were visible in the field in the first ~~two~~ settings of this last set, ~~although~~

11 05 some more haze, yet by ~~by~~ careful watching ~~settings~~ were got when images were steady.

P.A. = 348.0
H.A. = 5.19
Dec. = +48 2

11 10 S.T. = 1:29
Sp.Wh = { -0.5 B
+0.5 C

Oct 26, 1903. (Monday)

7 0 Cs watch used & = 19 fast

R Cassiop. W Obs
Plot T.

23 52 +49.8
21 42
2 10
9 50

Oil Dome

Above
335.6 ∠comp * dis
7 19.6 16.5 40.9
157.6 34.4
192.0 75.3 + 2.34
340.6
12.3 31.7 + 2.41
156.9 39.0
195.9 70.7 + 2.48
Below mean = + 2.46
244.2
284.6 40.4
70.3 30.5
100.8 70.9 + 2.48
240.3 + 2.51
7 29.8 280.5 30.2
66.9 38.9
7 24.7 105.8 69.1 + 2.54
5 3
12 24.4 | P.A. = 194.0 B | Dec = +50.2 | Sp. wd. { −1.5 a
6414.517 | H.A. = −1:46 | S.T. = 22:07 | −0.5 B
+0.2 C

Oct. 26, 1903.

T Persei Wells.
Phot ?

26 08 +57.2
22 28
3 40
δ 20

A

Above
323.1 <var dis
δ 300 30.2 67.1
147.8 54.4
202.2 121.5 −1.16
330.4 −1.16
25.1 54.7
141.8 67.0
208.8 121.7 −1.16
Below Mean = −1.19
234.3
299.3 65.0
58.5 54.3
112.8 119.3 −1.21

B

239.8 −1.22
δ 36.6 294.3 54.5
δ 33.3 53.1 64.2
5 −.3 117.3 118.7 −1.22
13 33.0 R.W.T.
6444.5646

Oct. 26, 1903

S Ursae Ovar

Below

232.8

8 39.0 300.0 67.2" B

58.4 55.0

113.4 122.2" −1.14"

239.5 −1.16"

293.8 54.3"

51.4 66.1"

117.5 120.4" −1.18"

Above Mean = −1.14"

141.1

209.8 68.7" A

328.5 54.5"

23.0 123.2" −1.12"

146.5 −1.13"

8. 46.0 204.4 57.9"

323.6 64.2"

8 42.5 ~~28.4~~ 122.1" −1.14"

13 42.2 G.M.T. 27.8 Final Mean = −1.16"

6414.5709

P.A. = 339.1 Var B. Comp* = 9.73

H.A. = −2:48 East Magn = 8.57

Dec. +57.3 North

S.T. = 23;26

Sp. Wh. = −1.5 B. −0.5 C.

The greatest care exercised in these settings, region thoroughly identified before putting plate on and

Oct. 26, 1903.

also afterwards. As it has been somewhat cold today and also tonight the prism carriage ran up the track rather hard and as a consequence the links of the chain ~~carrying~~ running the carriage skipped some three cogs on the sprocket wheel, so that s/wh. reading may be slightly different from what it used to be. Seeing pretty good.

Experiments on β Persei WCLs.
Phot. T.

27 00 +40.0 9"50 ap.
23 50
3 10
8 50

Above
343.4
9 27.0 362.5
162.8
183.6
344.1
32.8 358.9
161.8
185.4
Below
253.6
34.8 270.4
73.1
94.7

(over)

19.1
20.8
39.9 - 3.77

14.8 - 3.90
20.6
35.4 - 4.04

Mean = - 3.87

16.8
21.6
38.4 - 3.86

- 3.84

Oct 26, 1903

Continued

251.1
9 36.4 273.4
131.0 74.7
9 32.8. 91.~~8~~6
5 — 3
14 32.5 9 m.t.
6x14

22.3
16.9
39.2 — 3.81

Mean = —

P.A. = 239.0 Ver B
H.A. = −2:49 East
Dec. = +39.8
S.T. = 24:12
Sp. Wh. = { −5.5 B, −4.5 C

Bond 236
9 44 4.0
45 4.0
46 4.2

B 394
9 44 0.0
45 0.0
46 0.0

Rep. of Jup II Phot R. W.Obs.
Campbell Rec.
Compared with Satellite
on preceding side = Sat I

Oct. 26, 1903.

Limit of Visibility

		9	54	37		104.8
9 55 00 − 6 9 54 54				52.	19.4	123.9
			. 55	06	18.5	10~~4~~5.5
					19.0	
				23		124.0
10 00 16	✓	10	00	23		seen
25	✓			32		100.0
31	✓			38		133.0
41	✓			48		96.4
49	✓			56		144.1
59	✓		01	06		89.0
01 8	✓			15		143.0
16	✓			23		87.0
26	✓			33		145.1
33	✓			40		84.2
45	✓			52		147.0
53	✓		02	00		83.6
02 00	✓			07		147.2
9	✓			16		78.5
21				28		148.8
	✓	Reject		~~49~~		~~79.5~~
49	✓			57		78.8
03 3			03	11		135.0
	✓			~~22~~		~~7~~
~~27~~				35		77.5
				~~48~~		~~133.8~~

moved comp. sat. slightly in field.

Oct. 26, 1903

10 04 03	10 04	01	78.0	155.5	
-8		13	81.7	74.7	1
10 03 55			79.8		
		23		156.4	
		36		74.0	
4 59		53	82.0	156.0	2
-8	05	06	80.0	75.0	
4 51			81.0		
		21		155.0	
		34		74.7	
		~~49~~		~~154.0~~ Reject	3

Images got to one side of field.

06 22	06	~~05~~	81.3		
-8		22	80.8	156.0	
06 14		33	81.0	74.2	
		~~48~~		155.0	
		57		74.2	
07 14	07	06	82.3	156.5	4
-8		20	82.4	73.2	
07 06			82.4		
		35		155.6	
		~~44~~		74.0	
		55	81.5	155.5	
08 08	08	19	79.0	75.0	5
-9			80.2		
07 59		33		154.0	
		57		75.0	
	09	18	80.1	155.1	
09 42			80.8		
-9			80.4		
09 33					

Oct. 26, 1903

10 10 05 74.6 6
27 155.4
11 00 76.0
11 19 09 80.4 156.4 7
-9 26 82.2 74.2
11 10 40 81.3 156.4
53 74.4
12 34 12 ~~00~~ 18 80.6 155.0
-10 37 82.3 73.8 8
12 24 81.4 156.1
13 ~~03~~ 30 ~~155.0~~

Bond 236
10 15 10.0
16 10.2

Bond 394
10 15 0.0
16 0.0

Delayed a very little by Sat. reappearing in a slightly different place from where it was expected, ~~Seeing so that~~ observer became a little hurried on this account. Seeing fairly good ~~but~~ a little blurry.

SS Cygni Wells

10 50 21 34 +43.5 Pleot T.
25 24
3 50

(over)

Oct. 26, 1903

S^t Cygni.

Lt Above

	230.0	< comp ✱ dis	
10 58.7	294.3	64.3	
	56.0	50.7	
–	106.7	115.0	+ 1.30
	238.8		+1.31
	288.9	50.1	
	48.9	64.0	
	112.9	114.1	+ 1.32

Rt Below

Mean = + 1.28

	138.6		
	206.6	64.0	
	327.3	52.8	
	20.1	120.8	+ 1.18
	147.4	50.8	+ 1.24
11 04.8	198.2	64.0	
123.5	[illegible]2$\overset{3}{\cancel{8}}$.0	114.8	+ 1.31
11 01.8	[illegible]27.0		
5 – .3			
16 01.5 G.M.T.			
6414.			

Oct 26 1903
Same Star

ROB.
139.0
11 06.0 207.1 68.1
326.6 53.1
19.7 121.2 +1.17

146.9 +1.19
198.8 51.9
319.8 67.5
27.3 119.4 +1.21

Mean = +1.29

LOA.
51.2
113.8 62.6
238.3 48.5
286.8 111.1 +1.39

57.6 +1.39
11 13.0 105.1 47.5
19.0 230.9 63.5
11 9.5 294.4 111.0 +1.39
16 9.2 G.M.T.
641st. PA 572 Var B
HA +4:07
Dec +43.6
ST = 1:48
11 18 Sp Wh # −1.5 a
−0.5 B
+0.2 C

Final Mean [illegible]1.28
8.93
Magn = 10.21

LOP

Oct. 27, 1903 (Tuesday)

7 04 C's watch = 8^s fast.

β Persei Obs.

Phot T.

27 0 +40.0
22 15
4 45
7 15

9.5 cap.

Eyp. on β Persei with Shade glass No 1.

Above

336.8 < var. dis

7 51.0 358.8 22.0
162.6 15.2
177.8 37.2 − 3.93
341.9
355.8 13.9 − 3.96
158.1 21.8
179.9 35.7 − 4.02
Mean = − 3.93

Below

248.0
270.0 22.0
72.4 14.3
86.7 36.3 − 3.98
252.0 − 3.90
8 01.2 268.2 16.2
7 56.1 67.7 22.9
12 56.8 R.M.T 90.X 39.1 − 3.82
64.15.

Images bright enough to be well seen and perhaps full bright enough. edge of field also very well seen.

Oct. 27, 1903

β Persei

Exp on β Persei Phot T. Wells with full aperture and shade glass No 2.

Above
249.9
A 33.0 273.1 23.2
69.3 18.0
87.3 41.2 — 3.70
252.6
271.8 19.2 — 3.73
69.3 20.9
90.2 40.1 — 3.76

Below Mean = — 3.80
160.7
179.9 29.2
342.3 12.7
355.0 41.9 — 3.67

163.7 — 3.88
8 42.0 178.5 14.8
338.9 19.9
375 358.8 34.7 — 4.09
13 37.4 G.M.T.
6415. PA = 58.3 VnB
H.A. = 3:37 East Spwl. { — 6.5 B
Dec = +40.0 North — 5.5 d
S.T. = 23:23

(OVER)

Oct 27, 1903

Images considerably fainter than in preceding group but ~~quite~~ rather well seen; the field itself pretty well seen edge of field little more indefinite but fairly well seen, but everything considerably fainter than in preceding group.

u Herculis Wells

17 13 +33.2 9.5" cap.

23 43

6 30

Above

67.0 < Var dis

Oil Dome

9 13.0 94.1 27.1

241.6 37.2

278.8 64.3 − 2.70

61.9

101.4 39.5 − 2.62

241.9 29.5

271.4 69.0 − 2.56

Below Mean = − 2.64

337.1

365.9 28.8

150.5 39.3

189.8 68.1 − 2.57

331.0

9 22.0 366.1 35.1 − 2.65

35.0 155.4 28.4

9 17.5 183.8 63.5 − 2.73

14 17.4 G.M.T.

6×15.

Oct. 27, 1903

P.A. 130.8
~~Ha~~. 6:48
~~Dec~~. +33.4
S.T. = 0:04

S'p wh. { −1.5 a
−0.5 B
+0.1 C

Stars disappeared in clouds so that images could not be exactly set in P.A. & Dist. but P.A. very close and S'p wh. quite nearly right.

Region rather low, and some cloud in this region. ~~Clots~~ Scattered clouds rising
9 30 in N.W. The obs. throughout difficult especially on account of cloud, at some times images somewhat better seen than at others. Group ½ weight.
Founds afterwards that Var. was accidentally meas. with S'light no 2 in which partly accounts for faintness ~~good~~ of images and diff to see them

S T. Cygni W. Obs.

Phot T.

21 34 +42.6
24 14
2 40

(over)

Oct. 27, 1903

~~S H Cygni~~, Wells
Pilot T.

X Cygni.
19 45 +32.6
24 35
450

Above
70.7 <var dis.
10 05.0 94.8 24.1"
246.4 33.5"
279.9 57.6" −2.95"
67.0
97.3 30.3" −3.00"
250.0 24.8"
274.8 55.1" −3.05"
Below Mean = −2.86"
333.6
371.0 37.4"
159.5 27.1"
186.6 64.5" −2.69"

339.5 −2.72"
10 12.4 366.6 27.1"
17.4 154.7 36.1"
190.8 63.2" −2.74"
10 08.7*
15 8.6* G.M.T.
6H15.

Oct 27/1903.

Same Over

Below

335.6

10 14.4 370.9 35.3

159.2 26.2

185.4 61.5 — 2.80

— 2.76

340.3

366.6 26.3

154.2 37.6

191.8 63.9 — 2.72

Above Mean = — 2.88

245.9

278.0 32.1

69.6 24.7

94.3 56.8 — 2.98

— 3.00

250.2

10 21.2 275.3 25.1

35.6

10 17.8 66.8 31.1

15 17.7 im.t. 97.9 56.2 — 3.01

6H15.

2.87

8.11

5.24

P.A. = 242 Ver B

H.A. = +5.13

Dec. = 32.8

S.T. = 1:02

Spwh $\left\{\begin{array}{l}0.5\ B\\ 1.5\ C\end{array}\right.$

Oct. 2~~8~~ 7, 1903

SS Cygni w Ob.

Plot T.

21 34 + 42 6
25 09
3 35

Lt Above
574.0 L comp * dis.
10 38.8 110.0 56.0
241.1 45.2
286.3 101.2 + 1.63
58.6
105.3 46.7 + 1.60
234.4 56.7
291.1 103.4 + 1.57
Rt Below Mean = + 1.57
324.8
23.3 58.5
148.6 46.8
195.4 105.3 + 1.53

330.5
10 44.0 16.4 45.9 + 1.54
10 41.0 144.4 58.2
15 40.9 9hm T 202.6 104.1 + 1.56
6415.

Oct. 27, 1903.

Same Over

ROB

3247

10 45.8 21.0 56.3

1504 43.8

1942 100.1 +1.66

3291 +1.62

16.5 47.4

146.2 55.6

201.8 103.0 +1.58

Above mean = +1.60

235.7

294.3 58.6

61.0 45.5

106.5 104.1 +1.56

241.0 +1.58

10 51.0 285.5 44.5

10 48.4 56.3 58.0

15 48.3 109.3 102.5 +1.60

6415.

P. A. 56.9 Vic B.

H.A. 3:49 West

Dec +43.6 North

S.T. = 1:32

Sp wh f -1.5 B
-0.5 C

1.58
8.93
10.51

Oil Dome

Oct 28, 1903 (Wednesday)

7 00 C's watch = 6s fast.

R Cassiop W.Obs.
Pliot T.

23 52 +49.8
21 52

2 00
10 00

Above

150.4 ∠comp ✶dis

7 13.4 194.7 44.3 :
335.8 31.9 +2.31
367.7 76.2
157.8 +2.34
188.0 30.2
331.~~7~~3 44.4
375.7 74.6 +2.36
Below Mean = +2.47
243.1
281.8 38.7
69.2 27.2
96.4 : 65.9 +2.65
7.8
24~~8.~~
+2.60
7 25.4 277.8 30.0
64.8 38.4
7 19.4 102.7 68.4 +2.56
12 19.3x
6 416.513x

PA = 195.5 Ver. B
HA = −1h42 East
Dec = +50.2 North

S.T. = 22:12
S.P. Wh. = { −2.5 B
−1.5 C

Oct. 28, 1903.

Altitude very high but extreme care exercised.

A few links of the chain running over the sprocket wheel skipped the Sp. Wh. last night and one or two tonight as it was running up the track, which probably

7 37 account for the slight difference in ~~tot~~ Sp. Wh. reading of tonight and Monday night. The P.A. however agrees exactly.

β Persei W.Ob.

27 0 +40.0
22 50
4 10
7 50

9.5″ exp.

Exp. on β Persei Phot. 1, Shade No. 1 used.

Above
338.9 < vardis.
8 17.4 362.2 23.3″
164.3 16.6
180.9 39.9 — 3.77″
340.8
356.6 15.8″ — 3.86″
162.0 21.0″
183.0 36.8″ — 3.95″
Below
249.3 22.9″
272.2 15.3″
73.6 38.2″ — 3.87″
88.9

over

Oct. 28, 1903.

Same continued.

8 254.4 -3.91

~~1~~ 28.4 269.3 14.9

45.8 70.9 21.9

8 22.9 92.8 36.8 - 3.95

13 22.8 G.M.T. Mean = -3.88

6h16.558

Same again.

2 ~~B~~ 0 +40.0

2 3 3 V -

3 2 V -

8 3 V -

Eff. on β Persei, Phot T., W.Ob.
Full aperture, shade No. 2 used

Above

340.0 < var. dis

9 3.6 360.3 20.3

161.9 15.7

177.6 36.0 - 4.00

341.6

357.6 16.0 - 3.96

160.0 21.1

181.1 37.1 - 3.93

Below

248.9

270.7 21.8

71.5 14.2

85.7 36.0 - 4.00

Oct. 28, 1903

Same Continued

251.0
9 13.6 269.4
9 9.6 40.3
5 ~~0~~ .1 ~~88.8~~
~~14~~ 9.5 92m T. 89.1
6416. 590ª

184
18.8
37.2

- 3.96
- 3.93
Mean = - 3.96

P.a. for B 238.5
Ha = - 2:58
Dec + 39.8
S.T. = 8:02
Sp inth = { - 6.5 B
- 5.5 C

S.P. Cygni Wells
21 34 +42.6 Phot T
24 14
2 40

Lf above < comp ⋆ dist.
240.1
9 39.8 290.7
66.0
101.3
243.2
283.1
58.4
108.4

50.6
35.3
85.9 + 203
+ 198
39.9
50.0
89.9 + 192

(over)

Oct. 28, 1903

Same Continued.

RO Below

Mean = + 1.90*

1458

8.93

Magn = 10.83

199.5

53.7

332.7

40.0

9 50.0 372.4

93.7 +1.82

89.8

9 44.9

14 44.8

9 6446615

Meas. made through approaching rather homogeneous cloud. Last two settings extremely difficult and a little uncertain. Cloud thicker at that time and stars

9 55 extremely faint. Impossible to get a fourth set.

P.A. 237.0 Vert β

H.A. + 2h 57 West

Dec. +43.5

S.T. = 0 37

Spread = { −1.5 β
{ −0.5 α

P.A. very close, but Spr. wh. not quite set before clouds became to thick
10 00 to see images. Spreading however very close & region throughly identifead. L.W.

clouds now everywhere and
10 05 getting over into the east. clouds so thick and steadily coming it is impossible to do [illegible]

Oct 29, 1903 (Thursday)

6 55 C's watch = 20s slow.

R R Lyrae wells
19 21 +42.5 Phot.
22 01
2 40

Bond 236
7 35 53.5
36 53.5

Ball 103
7 36 0.0
7 37 0.0

Above
Bond 236 used on this star.
156.3 < var dis
I

7 39 43 192.0 35.7 ✓
332.8 44.7 ✓
17.5 80.4 ✓ — 2.18 ✓
152.2

41 52 195.2 430 ✓ — 2.23 ✓
337.9 $\overset{3}{\cancel{4}}41$ ✓
12.0 77.1 ✓ — 2.28 ✓

Below
Mean = −2.34 ✓
70.6 9.29 ✓
45 26 100.2 29.6 ✓ 6.95 ✓
244.0 41.5 ✓
285.5 71.1 ✓ — 2.47 ✓

64.6
7 47 28 104.0 39.4 ✓ — 2.46 ✓
174 29 248.0 32.4 ✓
7 43 37 289.4 71.8 ✓ — 2.45 ✓
5 +5
12 43 42 GMT.

Oct. 29, 1903.

II

Below
68.2
8 12 42 100.8
242.1
285.7

32.6 ✓
43.6 ✓
76.2 ✓ — 2.31 ✓

65.8
14 54 104.0
248.0
281.4

— 2.38 ✓
38.2 ✓
33.4 ✓
71.6 ✓ — 2.45 ✓

Mean = — 2.31 ✓
9.29
Magn = 6.98 ✓

Above
337.9
17 15 12.6
151.4
196.6

34.7 ✓
45.2 ✓ — 2.20 ✓
79.9

— 2.24 ✓

333.3
8 19 53 15.3
24 54 155.8
8 16 14 191.2
5 0
13 16 14 G.M.T.

42.0 ✓
35.4 ✓
77.4 ✓ — 2.27 ✓

Oct 29, 1903

III

Above

337.4
8 39 00   13.5   36.1 ✓
150.6   45.4 ✓
196.0   81.5 ✓ — 2.15 ✓

332.8
41 06   16.6   43.8 ✓   −2.20 ✓
157.0   34.5 ✓
191.5   78.3 ✓ − 2.25 ✓

Below

Mean = − 2.26 ✓
9.29 ✓
7.03 ✓

242.0
44 07   287.0   45.0 ✓
69.6   31.5 ✓
101.1   76.5 ✓ — 2.30 ✓

247.0   − 2.33 ✓
8 46 20   282.6   35.6 ✓
170 33   65.5   38.9 ✓
8 42 38   104.4   74.5 ✓ − 2.36 ✓
5 − 4
13 42 34 G.M.T.

Oct. 29, 1903.

IV

Below
241.6
9 09 30 286.4 44.8 ✓
68.6 31.8 ✓
100.4 76.6 ✓ − 2.30 ✓

247.5
11 15 282.1 34.6 ✓ − 2.30 ✓
63.7 41.5 ✓
105.2 76.1 ✓ −2.31 ✓

Above Mean = − 2.14 ✓
149.2 9.29 ✓
14 04 197.~~8~~5 48.3 ✓ Magn = 7.15 ✓
335.2 39.5 ✓
14.7 87.8 ✓ − 1.97 ✓

153.8 − 1.99 ✓
9. 16 24 193.0 39.2 ✓
31 13 331.~~8~~0 47.2 ✓
9 12 48 18.~~7~~2 86.4 ✓ − 2.01 ✓
5 − 8
14 12 40 PA 347 Var B
6417. HA. + 4:40 West
Dec. + 43.1 North
N. T. 0:04
Spwh. − 0.5 B
+ 0.5 C

Oct 29, 1903.

u Herculis W.C.L.

17 13 +33.0 Phot T.

24 23 9.5" cap

7 10

Cs' watch used now

Above

68.7 < var dis

9 44.5 97.7 29.0

245.2 39.2

284.4 68.2 — 2.57

— 2.60

64.3

102.8 38.5

250.4 27.8

278.2 66.3 — 2.63

Below Mean = — 2.64

340.7

368.9 28.2

155.9 35.5

191.4 63.7 — 2.73

333.8 — 2.68

9 52.2 372.6 39.8

967 160.2 26.5

9 48.4 186.7 66.3 — 2.63

14 48.7

P.a. 131.0 Var B

H.a. 7:27

Dec. 33.5

δT = 0.40

Spwh = { −1.5 B.
−0.5 C.

(over)

Oct 29, 1903.

Region very low sky a little hazy in
this vicinity but ~~stars~~ well seen
10 00 and observations considered good.
Sky generally now pretty clear
Region too low for another group. to be
sattisfactorily taken.

SS Cygni W.C.B.
Phot T.

21 34 +42.6
25 00
3 26
~~8~~

Bond 236
10 20 19.0
21 19.0

Ball 103
10 20 00.0
21 00.0

C's watch used nowton.

see next pages

Oct 29, 1903

Lt Above

244.8 < conf * dis

10 31.4 283.6 38.8

68.8 29.7

98.5 68.5 + 2.56

246.6 + 2.58

278.6 32.0

65.4 37.1 + 2.54

102.5 6~~7~~9.1 ~~+~~ ~~2.60~~

Rt Below Mean = + 2.4~~7~~6

153.7 8.93

193.5 41.8 11.39

338.8 30.7

369.5 72.5 + 2.43

158.1 + 2.36

~~10 41.8~~ 199.4 Reject ~~32.3~~

332.5 ~~44.8~~

17.3 as there 77.1 + 2.2

was some uncertainty about last setting. another set taken.

153.4

10 49.6 196.8 43.4

10 39.5 337.5 33.7 This set to be retained.

15 [illegible] 11.2 77.1 + 2.28

6 417. pa = 236.0 Ver B. S T = ~~#~~ 1:40

Ha = 3:59 West Spirl = { −1.5 B

Dec = +036 North −0.5 C

Oct. 29, 1903.

044068 — Camelop. W.Ob.
phot.
9.5" cap.

4 40 +67.8
1 50
2 50
9 10

Left

313.1 { comp. * dis

11 13.6 32.7 79.6 ✓

140.2 66.4 ✓

206.6 146.0 ✓ +0.65 ✓

320.8

26.3 65.5 ✓ +0.64 ✓

133.6 81.5 ✓

215.1 147.0 ✓ +0.63 ✓

Right Mean = +0.66

232.5

298.0 65.5 ✓

45.8 79.2 ✓

125.0 144.7 ✓ +0.68 ✓

224.6 +0.67

11 20.4 306.1 81.5 ✓

11 17.0 53.1 64.0 ✓

16 17.3 117.1 145.5 +0.66

6417. P.A. 260.1 Ver B. Dec. +67.2

11 28 H.a. — 2:33 East Sp. W. = { 0.5 a, 1.5 B, 2.1 c

S.T. = 2:09

Oct. ~~29~~ 30, 1903. (Friday)

Bond 236	Ball 103
5 37 58.5	5 38 00
38 58.7	39 0.0

U Cephei   W. Ab.
Phot T.

24 50 +8 11
20 35

4 15
7 45

5 45 Clouds.

5 52 Still cloudy

5 55 Clouds again.

6 00 Clouds rather thick

(over)

Oct. 30, 1903

U Cephei

Bond 236 used.

Above

~~130.~~9~~6~~ clouds. < comp ✱ dis.

~~6 13 ~~09~~ 45 214.9~~ clouds

~~320.6~~

~~26.1~~ Reject

~~139.9~~

~~6 19 20 206.0~~

~~311.9~~

~~37.5~~

~~Below~~ ~~mean = +~~

~~46.9~~

~~22 18~~ ~~121.1~~ reject

~~232.0~~ clouds

~~219~~ stars gone

Below I

232.8

6 29 20 294.3 61.5 ✓

48.2 74.1 ✓

122.3 135.6 ✓ + 0.86 ✓

224.6 + 0.84 ✓

6 31 22 302.2 77.6 ✓

54.6 60.1 ✓

11~~8~~4.7 137.7 ✓ + 0.82 ✓

Oct. 30, 1903

Mean = + 0.73
8.41
9.14

Above
138.6
6 35 40 209.3 — 70.7
310.8 — 73.8
24.6 — 144.5 + 0.68

~~14.6~~ 130.3 — + 0.62
6 37 35 214.6 — 84.3
6 33 57 319.4 — 67.0
6 33 29
5 − 8 26.4 — 151.3 + 0.55
11 33 21 G.M.T.

II.

Above
139.8
6 40 32 206.6 — 66.8
310.6 — 76.0
36.6 — 1$\overset{5}{4}$2.8 + 0.$\overset{5}{\cancel{7}}$2

130.7 — + 0.54
42 33 215.$\cancel{8}^{5}$ — 84.8
320.6 — 66.4
27.0 — 151.2 + 0.55

Below — Mean = + 0.$\cancel{70}^{62}$
54.4 — 8.41
45 26 114.5 — 9.03
225.0 — 60.1
304.1 — 79.1
43.7 — 139.2 + 0.79
6 47 34 122.4 — 78.7 + 0.76
16 05 232^{2} — 63.3
6 44 01 295.$\cancel{7}^{5}$ — 142.0 + 0.73
5 −10
11 43 51 G.M.T.

Oct. 30, 1903

Bond 236			Ball 103		
6	55	11.5	6	55	00
	56	11.6		56	00

6 57 C's watch = 18s slow ~~at 6:57~~

P.A. = ~~160~~ 195.7 Var B
H.A. = −3:07 East
Dec. = +80.8 North
S.T. = 21:49
Sp.Wh. = { 1.5 B
2.5 C.

Delayed by clouds in beginning observations; the theoretical time of middle of flat part of bottom of curve was 5:50 E.M.T. clouds continually passing during early attempts at observation When first of two full groups was really

7 03 begun sky apparently pretty clear, ~~altho~~ and ~~still more~~ certainly quite clear from examination of sky at end of second group. In other words from sharp watch kept, sky apparently pretty clear throughout observations and same considered good.

Oct. 30. 1903

u Herculis

17 13 +33 2
22 43
5 30

9.5" cap
W.C.B.
Phot T.

Above

249.1 < var dis. 29.7 ✓
δ 0.8 278.8 36.1 ✓
65.7 65.8 ✓ — 2.65 ✓
101.8

244.3 40.1 ✓ — 2.60 ✓
284.4 28.2 ✓
69.2 68.3 ✓ — 2.56 ✓
97.4

Mean = — 2.60 ✓

Below

159.9 ✓
187.8 27.9
334.9 37.6 ✓
12.5 65.5 ✓ — 2.66 ✓

154.2 ✓
δ 7.0 194.4 — 2.60
δ 3.9 40.2 ✓ ✓
338.9 29.1
13 42 GMT 368.0 69.3 ✓ — 2.53 ✓
6418.

Oct 30, 1903

Same Obser

Below

159.3

8 09.0 187.8 28.5 ✓

37.4 ✓

334.8 65.9 ✓ − 2.65 ✓

12.2

− 2.60 ✓

153.2

193.4 40.2 ✓

349.2 28.7 ✓

367.9 68.9 ✓ − 2.54 ✓

Above Mean = − 2.58 ✓

68.6

98.1 29.5 ✓

243.2 41.0 ✓

284.2 70.5 − 2.49 ✓

63.8 − 2.56 ✓

8 14.6 100.8 37.0 ✓

23.6

249.5 29.6 ✓

8 11.8 279.1 66.6 ✓ − 2.62 ✓

5 +.3 Final Mean = −2.59

13 12.1 G.M.T.

6418.

P.A. = 310.5 VnB

H.A. = +5:52 West

Dec. = +33.4 North.

S.T. = 23:07

Sp. Wh. { −1.5 B.

−0.5 V

See R. 141 for continuation of tonights' record

Ledgered. Plotted Posted.