KG
11365
620

196

15-inch

KG 11365.620

KG 11365.620

HARVARD
UNIVERSITY
LIBRARY
JUL 2 1956

Wed. Mar 28—1917

L.C. Obs. 15" Eq.

7 15 est U Gem 074922
14.0

7 18 SS Aurigae 060547
est < 14.2 or x = N

Comet A Sider. Time 8-12
1917 decl. + 17.4
hour angle 6-14

7 36 Est. Comet easily 3 grades brighter than α or = 5.7 in H.G.

Tail quite well marked in 15" both with high & low power eyepieces.

~~*~~ Camelop
Olcott's suspect. Phot T.
04 45 + 74.0
08 25
3 40 W

7 53 est 4" finder j 4, α 2, 3 β

9.6
9.8
9.9
9.8

7 55 est 15" j 4, α 2, 2 β

963
9.72
9.97
280

Focus in Phot T on Susp = 4-26
Best focus with Susp & Comp* in field = ~~7~~6-73

Mar. 28-1917

C's watch used
= correct at 8:00

Pluto T

Comp with bright Star just
North of +74° = +74°.229 6.23

P.a. 270

8 5:0 30.4 < Comp ★ dis
50.4 20.0
209.7 17.9
227.6 37.9 + 3.89

32.4
49.8 17.4 + 3.84
206.3 21.4
227.7 39.8 + 3.78

P.a. 90

mean = + 3.79
6.23
10.02

119.8
141.7 21.9
298.2 19.2
317.4 41.1 + 3.71

121.4 + 3.74
142.3 20.9
297.4 19.0
8 12.0 316.4 39.9 + 3.77
17.0

8 8.5

Pa. 91 A
Sfr 12.8

Mar. 28 - 1917

Phot I.

β with bright star.

P.a. 90

δ 14.0 119.4 <β di.

136.8 17.4

298.7 19.9

318.6 37.3 + 3.92

119.6 + 3.90

137.8 18.2

299.8 19.8

319.6 38.0 + 3.88

P.a. 270 mean = + 3.94

209.6 6.23

227.2 17.6 10.17

32.3 17.5

49.8 35.1 + 4.06

209.2 + 3.98

228.3 19.1

30.7 20.5

δ 21.1 51.2 39.6 + 3.79

351

δ 17.6

P.a. = 273 A

δρ = 9.1

∴ from above obs [illegible] = 0.15 mags brighter than β.

Mar. 28-1917

Phot T

α with (~~g~~ light ~~star~~) 6.23
clouds.

P.a. 290

δ 35.5 205.2 ∠ 6.23 dis
230.4 25.2
29.4 22.6
50.0 47.8 + 3.37

206.9 + 3.42
227.9 21.0
29.3 24.9
54.2 45.9 + 3.46

P.a 110

297.7 mean = + 3.36
6.23
319.6 24.9 9.59
166.8 25.4
142.2 50.3 + 3.26

294.2
321.4 27.2 + 3.31
119.0 20.9
δ 42.2 139.9 48.1 + 3.36
77.7
δ 38.8

Pa 109A
Sfr = 10.7

Mar. 2~~8~~–1917

Phot T

γ with 6.23

Pa. 80

8 51.0 293.8 < 6.23 dis
322.5 28.7
117.2 27.0
144.2 55.7 + 3.03

293.7 + 2.98
321.4 27.7
115.7 30.5
146.2 58.2 + 2.93

Pa 260 mean + 3.00
6.23
9.23

26.2
53.6 27.4
204.8 27.9
232.7 55.3 + 3.04

24.4 + 3.01
56.2 31.8
206.3 25.1
8 58.0 231.4 56.9 + 2.98
8 54.5

Pa = 257 A
Sep = 9.3

γ = 9.2
α = 9.6
β = 10.2
Sup = 10.0

Mar. 28 – 1917.

Titan   Phot. T.

Comp with α

see hand made chart

P.a. 140

9 20.0   181.0   ∠ Titan dis

255.8   74.8

356.2   87.1

83.3   161.9   − 0.35

178.4   − 0.38

259.7   81.3

3.3   76.6

79.9   157.9   − 0.42

P.a. 320   mean = − 0.73

101.7

~~157.4~~   59.7

161.4   67.1

278.4   126.8   − 1.05

345.5

− 1.08

99.8

160.4   60.6

277.8   63.8

124.4   − 1.10

341.6

pa = 325 A

Spr = 5.0

9 27.0

9 23.5

Mar 28 — 1917

Japetus
Too faint to ident -
somewhat uncertain

~~L~~ C Abs Neptune - Phot T.

8 16 +20.0
P.a. 350 Comp * = h = +19.°
10 00.0 181.6 < Nept. dis.
2600
78.4
5.1 68.3
73.4 146.7 — 0.64 I

187.3 — 0.72
251.2 63.9
2.9 74.5
77.4 138.4 — 0.81
P.a. 170
271.4 mean = −0.77
343.9 72.5
97.7 64.6
162.3 ~~117.1~~ — 0.83
137.1
277.7 —.082
341.2 63.5
91.9 75.1
10 07.0 167.0 138.6 — 080 P.a. 165 A
10 03.5 8fr 4.5

Focus = 5-95

Mar. 28–1917

Neptune II

p.a. ~~350~~ 170

10 37.0 277.4
343.3 65.9
96.7 68.1
164.8 134.0 — 0.90

277.2 —0.95
338.8 61.6
93.8 67.2
161.0 128.8 — 1.00

p.a. ~~170~~ 350 Mean — 0.90
3.4
77.3 73.9
189.8 60.2
250.0 134.1 — 0.89

2.2 — 0.84
71.4 69.2
180.4 70.5
10 42.6 250.9 139.7 — 0.78
79.6
10 39.8

Mar 28 — 1917

Neptune III

	PA 350		
10 47.2	3.2		
	75.3	72.1	
	189.8	64.0	
	253.8	136 1	— 0.85
	7.8		— 086
	73.2	65.4	
	188.3	69.4	
	257.7	134.8	— 0.88
	PA 170		mean = −0.96
	96.3		
	162.4	66.1	
	280.7	57.8	
	338.5	123.9	— 1.11
			— 1.06
	101.4		
	161.3	59.9	
	274.3	68.1	
10 53.2	342.4	128.0	— 1.02
10 50.2			

Sky rather thinly cloudy
but obs. considered very good

8/13/17

Thurs. March 29-1917

L.C. Obs 15" Eq.

7 20 .512 U Gemin. 074922 est 13.9 LC

7 25 .516 SS Auriga 060547 est 13.2 LC

8 00 .540 — — — est 13.1 LC

8 00 .540 — — — — 13.0 miss Harvard

8 02 .542 — — — — 13.0 F.S.B.

Plot R comp with 10.8
just North of Var.

P.a. 180

I

8 11 20 (*) 119.2 ← comp * dis
(*) 158.7
299.8
~~336.8~~
~~334.4~~
~~299.8~~

39.5 ✓
34.6
74.1 ✓ + 2.37

114.8
157.2
299.4
340.0

✓ + 2.24

42.4 ✓
40.6 ✓
83.0 ✓ + 2.11

P.a. 0.0

24.2
65.7
209.4
242.2

41.5 ✓
32.8 ✓
74.3 ✓ + 2.37

+ 2.32
~~10~~. 79
13.11

27.7
62.2
209.4
247.2

34.5 ✓
37.8 ✓
72.3 ✓ + 2.43

+ 2.40

8 18.00

L.C. watch at 9.00 bell
2m 30sec fast March 29 1917

8 27 Clouds

St St Aurigae Cont. II

P.A. 80

8 54 set. 13.0 Clear now

8 55 50 204.2. 48.0

252.2 33.9

29.4 81.9 2.14

63.3

50
2.~~45~~

~~211.2~~

~~242.8~~ ~~31.6~~

~~30.1~~ ~~28.5~~ 2.86

~~58.6~~ ~~60.1~~

P.A 0

299.4 40.8

340.2

99.8 Clouds

Reject above partial group obs too uncertain in cloudy conditions.

Speak about telephone in Dome

Mar. 29 - 1917

S. S. Aurigae.

060547

9 14 .592 sec. 12.9 l e

9 47 } 615 sec 12.9 l e
11 3 } .649 est 12.8 Z e & H.S.B. search

Too much glare from Moon
and haze to use Photo.

Miss Woods 13 39 26 (algol)

10 ~~13~~ 08 629 ~~54~~ Var, 4 t alt low

Dec. − 26.4
H.A. 2 47 E
S.T. 10 50

~~Dec. − 26.4~~
~~H.A. 10 50~~
~~S.T. 9 13~~

10 37 649 p* 2, 5 r

10 51 659 l 6, 10, 4 p

11 22 .681 ~~l 5, 2~~ k 0, 5 l

11 25 683 m 1, 1 k, 3 l Miss Woods

11 31 687 h 1, 3 m 4 k.

11 48 .699 g 4, 1 h, 5 m in 6" W. Eq.

2131 4

Fri Mar. 30 - 1917

15" E Eq.

Comet a 1917 L.C. Obs & Rec

7 23 f Aurig 2, 4 ι Aurig = 4.9 F.g.

Comet appears quite star-like in field glass & is quite near the 6.4 est considered very good.

In 15-inch tail considerably longer than on previous occasion.

7 47 SS Aurigae 060547 est 11.2

7 52 U Gem 074922 est <13.5

SS Aurigae 060547 Plot R

see next page.

Mar. 30—1917

SS Aurigae with ~~the~~ 10.79
I

Plot R

P.a. 160

8 15.0   192.2 < comp star obs
269.2   77.0
13.2   65.1
78.3   142.1   + 0.73

195.2 ✓   0.78
265.2   70.0
5.2   66.6
71.8   136.6   + 0.84

P.a. 340   mean = + 0.55
92.6   10.79
182.0   89.4   11.34
286.8   74.5
361.3   163.9   + 0.30

94.6   + 0.32
181.6   87.0
282.7   74.5
357.2   161.5   + 0.35

8 22.6
37.6
8 18.8
21318.

Mar. 30 – 1917

Neptune Plot T.

RA 350

δ 53.3 ~~252.8~~ < ~~Comp 180~~

~~365.0~~ ~~Vandi~~

5.0 < Nept dis

75.2

181.2 70.2

72.1

253.3 142.3 — 0.73

37 −0.68

77.7 74.0

188.4 73.0

257.4 147.0 — 0.63

P.a. 170 Mean = −0.76

97.8

159.8 62.0

273.2 71.4

344.6 133.4 — 0.91

94.2 −0.85

167.6 73.2

275.6 65.8

9 01.0 341.4 139.0 — 0.79

11 43

8 57.2

21 31 8.571

Cs watch used = correct at 9:00

Mar. 30—1907

Neptune again

II

	P.a. 170		
9 23.0	99.4		
	163.9	64.5	
	277.7	64.0	
	341.7	128.5	− 1.01
	94.6		− 0.90
	163.7	69.1	
	273.6	70.0	
	343.6	139.1	− 0.79
			mean = −0.84
	P.a. 350		
	188.8		
	251.8	63.0	
	1.4	76.4	
	77.8	139.4	− 079
	187.2		− 0.7~~5~~4
	246.4	69.2	
	0.6	74.8	
9 28.2	75.4	144.0	− 0.69
112			
9 25.6			
21318.601			

Mar 30–1917

	P.a 350		III
9 51.0	185.2		
	253.6	68.4	
	4.8	66 6	
	71.4	135.0	— 0.88
	189 2		— 0.86
	252.2	63.0	
	5.0	73.7	
	73.7	136 7	— 0.84
	P.a 170		Mean = — 0.99
	279.0		
	340.0	61.0	
	100.4	60.4	
	160.8	121.4	— 1.16
	280.2		— 1.12
	339.8	59 6	
	98.0	65 3	
9 56.4	163.3	124.9	— 109
7.4			
9 53.7			
21318.621			

Mar. 30—1917

IV

Neptune

10 34 0 P.a. 170

271.6 69.1 ✓

340.7

102.2 59.4 ✓

161.6 128.5 — 1.01

278.6 60.6 ✓ —1.00

339.2

97.1 69.5 ✓

164.6 130.1 — 0.98

P.a. 350 mean —0.86

0.2 77.6 ✓

77.8

188.8 64.0 ✓ — 0.74

252.8 141.6

— 0.71

7.9 70.0

77.9

181.8 74.9

256.7 144.9 — 0.68

10 38 30

10 36 15

21318.650

Mar. 30 1917

P.A. 350 Fr. Roder Obs. V

Superimposed

10 49 187.4

258.1 70.7

5.2 69.2

74.4 139.9 −0.78

185.2 −0.77

255.4 70.2

2.8 70.5

73.3 140.7 −0.76

P.A. 170 Mean −0.88

277.6

339.8 62.2

102.2 60.2

162.4 122.4 −1.14

3

278.4 −0.99

1

344.4 66.a

94.4 70.8

165.2 136.9 −0.84

10 55

10 52

21318.661

21 318

Mar. 30 - 1917.

11 00 SS Aurigae again II est = 11.2

11 07.0 286.6 pa 160

354.8 68.2

94.4 85.4

179.8 153.6 + 0.51

288.2 0.71

350.4 62.2

106.0 71.0

177.0 133.2 + 0.91

pa. 340 mean = + 0.78

196.2 10.79

260.0 638 11.57

10.2 726

82.0 1364 + 0.85

187.2 + 0.84

~~275.2~~ 77.4

264.6 59.2

20.0 136.6 + 0.84

11 16.0 79.2

230

11 11.5 Above group very diff.

213 18.

21322

Tues. April 3 - 1917

L.C.C.

Comet a 1917 est β Aurigae + Comet

7 02 = 3.1 eye est.

Comet easily detected with naked eye in twilight.

7 13 Tail extends straight up from horizon to a distance of some 2 degrees.

7 14 est comet β Auriga / Comet = 2.8

7 42 SS Aurigae 060547 est 12.9

7 50 U Gemini 074922 est 13.8
diff in moonlight
but var surely seen.

Neptune 08 30 + 20.0

Phot I.

see next page.

April 3 - 1917

L.C.Ofs

Neptune Fr. Rodés Rec.

1

$8^h 7^m 45^s$ Pa. 350

10.2 57.7 ✓
67.9
180.4 79.8 ✓
259.2
137.5 — 0.83

3.4 71.8 ✓ -0.93
75.2 5 ~~45.7~~
190.7
246.4 127.5 — 1.03

mean = -0.92

Pa: 170

103.3
159.8 56.5
269.5 78.1
347.6 134.6 -0.88

93.7 -0.92
165.3 71.6
278.7 59.5
338.2 131.1 -0.96

$8^h 13^m 20$.

Focus = 5 - 0

~~6.5~~
8 $\overset{1}{20}$ 32

altitude high & observations difficult.

April 3 - 1917

Focus = 5 - 95

8h 45m 45s P.a. 170 — II Fr Rodes Reca

95.3
165.6 ✓
274.2 70.3 ✓
341.4 67.2 ✓
137.5 — 0.82

98.5 — 0.93
162.6 64.1 ✓
275.5 62.8 ✓
338.3 126.9 ✓ — 1.04

P.a. 350 — mean = -0.82

189.2 60.6
249.8 77.7
356.8 — 0.81
.74.5 138.3

— 0.72
180.1 83.3
263.4
4.0 63.6 — 0.64
67.6 146.9

8h 50 50
96 35
8 48 18 Fr. Rodés watch =

April 3 - 1917 L.C.Ob.

III Rodés Recor

9h 3m 30s P.a. 350

188.8 ✓

251.7 62.9 ✓

6.4 69.8 ✓

76.2 132.7 — 0.92

182.6 72.1 ✓ —0.83

254.7 ✓

4.8 69.4

74.2 141.5 — 0.74

P.a 170 — 0.95

280.4 58.8 ✓

339.2

96.2 68.0 ✓

164.2 126.8 — 1.05

275.6 67.6 — 1.07

343.2

97.4 67.3

164.7 124.9 — 1.09

9 7 30

9 5 30

April 3 - 1917

Th. Rodes Ob.
LCRoe

	Pa. 170		IV
9 120	95.4		
	168.2	72.8	
	262.3	85.1	
		157.9	— 0.43
	347.4		
	92.2		— 0.46
	172.2	80.0	
	266.8	75.0	
	341.8	155.0	— 0.48
	Pa 350		
			Mean — 0.86
	194.6		
	250.0	55.4	
	7.4	60.8	
	68.2	116.2	— 1.28
	188.0		— 1.25
	246.6	58.6	
	9.6	60.2	
9 21.4	69.8	118.8	— 1.22
33.4			
9 16.7			

April 3-1917

V Fr. Rodés Ra

9h 25 10

P.a. 350		
184.2	70.2 ✓	
254.4	✓	
0.0	71.2	
71.2	141.4 ✓	— 0.75
184.0	71.5 ✓	— 0.74
255.5	✓	
3.6	71.3	
74.9	1428 ✓	— 0.72
P.a. 170		mean = — 0.93
277.2	63.8 ✓	
341.0	✓	
96.8	608	
157.6	1246 ✓	— 1.09
279.7	63.7	— 1.12
343.4		
99.2	58.6	
157.8	1223	— 1.14

9h 30 0
25 10
9 27 35

P.a 170°
Spr 4.5

April 3-1917

Ra 14 05 X Cygni 194632 est 6.7 Finder
15 00
4 46. +32.6 R = 6

14 10 SS Cygni 213843 est 11.4
15 08
6 30 R = 2

Wolfs Comet, ~~Co~~ b (1916)

19 24.7 +5 6
-1.2 -14
19 23.5 +4 52 approx 1855 Pos.

19 32 +5.0
15 12
4 20 E

Comet found very close to computed place. Appears as a small hazy object with not much of a condensed nucleus. Should estimate it as 2 mags fainter than ~~any~~ the faintest Dm star in region = 12.5 ±
14 55
Not a conspicuous object

2/3/22

April X3-1917

15 1° R aquilae 190108 est 9.8 R7
16 05
2 56 E +8.0

R Oph 170215 est 10.4 R 4
16 12
0 52 E -15.9

Z Oph 171401 est 7.8 Finder
16 18 R 3
0 56 +1.5

RU Oph 172809 barely visible = 14th
16 20
1 8 E +9.5

RT Oph 175111 est 10.2 R4
16 24
1 27 +11.0

~~RY Her 1755~~

RY Oph 181103 est 10.5
16 34 R 3
1 37 E +3.7

T Serp 182306 est 12.5
16 38 R 3
1 45 E +6.0

21322

April 3 - 1917

ST Sagitt. 185512 = < 13.3
1643
2 12 E - 129

W Aquilae 191007 est 13.5
1650
2 20 E - 7.~~4~~

* d = 10.4

T Sagitt 191017 est 9.8 R 5

R Sagitt. 191019 est 7.7 R ~~4~~ 4

S Sagitt 191319 est 10.6 R 3
Ci Var near S = 11.5 R 2
RW Sagitt 190819 est 9.9 R 4
RX Sagitt 190818 est 12.1 R 2

I Sagitt 191321 est 130 R 3

RY Sagitt 191033 star is surely
seen to vary at times
of no. 23 var.

alt. very low
1618 R Scuti 18X205 est 5.4
1720
1 22 E - 6.0

2/3 23

tu Wed. April 4-1917.

L.C. Obs & Roe.

Comet a 1917

7 15 eye est 4 > β Arietis = 2.3

Pos considerably off from predicted place given in H. B.

~~SS Au~~

7 43 SS Aurigae 060547 est 13.2

7 50 U Gemini 074922 est 13.8
very diff & moonlight & haze

Neptune Phot T.
8 30 +19.8

C's watch used =

2 1 3 8 3

April 4-1917

Neptune

I

P.a. 170

8 4.6 278.2 < Nept. dis

335.3 57.1

98.2 65.7

163.9 122.8 — 1.13

279.4 — 1.10

342.6 63.2

101.2 62.1

163.3 125.3 — 1.08

P.a. 350 mean = −0.88

4.8

78.7 73.9

177.9 72.9

255.8 146.8 — 0.64

6.8 — 0.67

77.0 70.7

182.0 72.8

8 10.0 254.8 143.5 — 0.70

8 7.3

April 4-1917

Neptune

	P.a. 350		II
δ 36.2	6.6		
	67.8	61.2	
	188.3	65.0	
	253.3	126.2	−1.06
	4.2		−1.06
	70.6	66.4	
	191.3	60.4	
	251.7	126.8	−1.05
	P.a. 170		mean = −0.94
	96.3		
	162.2	65.9	
	275.3	70.3	
	345.6	136.2	−0.85
	96.4		0.81
	162.4	66.0	
	271.4	74.0	
δ 41.8	345.4	140.0	−0.77
δ 39.0			

April 4—1917

III

	P.a. 170		
9 10.0	92.2		
	168.6	76.4	
	276.9	62.5	
	339.4	138.9	— 080
	101.8		— 078
	166.3	64.5	
	270.9	75.9	
	346.8	140.4	— 0.77
	P.a. 350		mean = — 0.90
	(8)7.1		
	254.2	67.1	
	7.3	60.9	
	68.2	128.0	— 1.02
	191.8		— 1.02
	256.2	64.4	
	5.9	641	
9 15.0	70.0	128.5	— 101
9 12.5			

April 4-1917

IV

P.a. 350
9 36.6 187.2
251.2 64.0
11.4 58.4
69.8 122.4 — 1.14

191.4 — 1.14
248.9 57.5
5.4 64.4
69.8 121.9 — 1.15

P.a. 170 Mean = — 1.04
274.8
341.8 67.0
98.2 63.8
162.0 130.8 — 0.96

278.0
339.3 61.3 — 0.93
92.3 72.5
9 42.0 164.8 133.8 — 0.90
9 39.3

1000 Cs watch = 10s fast by relay

april 4-1917

V

	P.a. 170		
10 14.0	~~4.3~~		
	272.8		
	345.4	72.6	
	99.8	64.8	
	164.6	137.4	— 0.83
	274.3		0.80
	344.4	70.1	
	94.2	69.8	
	164.0	139.9	— . 0.78
	P.a. 350		mean = - 0.96
	5.2		
	74.7	69.5	
	190.3	54.9	
	245.2	124.4	— 1.10
	9.2		- 111
	68.3	59.1	
	185.2	64.1	
10 20.0	249.3	123.2	— 112
10 17.0			

P.a. 350°
Spr 4.3

21328

Monday, April 9, 1917

15" E. Eq.

L. C. Obr. J. B. Doherty. Rec

New Comet not seen in Western sky with unaided eye. Sky fairly clear in this region. Jupiter well seen and

7,10 also alpha arietes seen.

7.33 U Gemin. 074922 est = 13.9

08 42

0 53 w + 22,0

SS Aurigae 060547 est = < 14.0

0905

30 w + 47,5

7 40 stars w & x well seen

stars y & z not seen.

Seeing poor on acct of high wind.

S Tauri 042309 est = 11.2 R = 2

913

4 50 w + 10.0

R Tauri 042209 est = 9.7 R = 4

W Tauri 042215 est = 12.2 R = 6

5.3 w + 15.8

T Tauri 041619 est = 10.2 R = 3

5,12 w + 19.3

Star g = 13.0

21328

April, 9, 1917.

RX Tauri 043208 est = r 5 Var 14.5th
5,0 w + 8.2

V Tauri 044617 est = 10.3 R 2
4,55 w + 17

V Orionis 050003 est = var 3 alpha
4,47 w + 4,0 14th

R.R Tauri 053326 est = var = n
956
4.23 w + 26.3
12.5th

U Aurigae 053531 est = h 1 var.
1006
4.31 w + 32,0
13.8th

Sky somewhat cloudy

9 30 ~~9.30~~, sky too cloudy to continue to advantage.

Vi Ob L.

2-3-30

Wednesday, April, 11, 1917.

16" C. Eq.

L.C. Obs. J.B. Doherty Rec.

7.44 U Geminorum 074922 est=13.8
917
7.28w

Y Persei 032043 est=9.4 R=6
921
6.07w +438

R Persei 032335 est = $1\overset{3}{8}.0$
926
6.03w

R Orionis 045307 est = 9.8 R=3
930
4.37w +8.0

S Orionis 052404 est=11.0 R=4
933
4.9w − 4.8

8.00 T Orionis 053005a est= 9.5 R=3
938
4.08w − 5.5

Variable is surely brighter than on last previous occasion.

Z Tauri 054615a est = 13.8
946
4.00w +15.8

21330

April, 11, 1917.

RU Tauri 054615c est = [illegible]

R Monoc 063308 est = 11.5
950
3.17w + 8.8

Separation between var. and nebula still strongly suspected.

W Monoc 064707 est = 10.1 R = 5
953
3.06w − 6.5

Y Cephei 003179 est = r5 not seen
957
9.26w + 79.8

S Cassiop. 011272 est = 10.6 R = 4
1005
8.~~65~~ 53w + 72.0

RZ Persei 012350 est = 9.8 R = 4
1008
8.45w + 50.3

U Persei 015354 est = 10.0 R = 3
1011
8.18w + 54.3

RR Cephei 023080 est = 11.3 R = 3

T Cephei 021281 est = 13.6
1015
8.83w + 81.0

observation very difficult and somewhat uncertain.

April, 11, 1917

W Persei 024356 est = 9.8 R = 5
1023
7.40 w + 56.6

T Camel 043065 est = 8.8 R = 4
1025
5.55 w + 66.0

X Camel 043274 est = 10.3 R = 2

Olcotts map = α 4, 2/3

R Aurigae 050953 est = 11.6 R = 4
1032
5.23 w + 53.5

9.00 S Camel 053068 est = 9.0 R = 4
1035
5.05 west + 68.7

S Lyncis 063558 est = 13.6
1039
4.4 w + 58.0

RS Gemin 065530 est = 12.1 R = 3
10.45
3.50 w + 30.7

SU Tauri 054319 est = 9.4 R = 3
1047
5.05 w + 19.0

T Gemin 074323 est = 9.3 R = 2
1050
3.07 w + 23.9

21330

April, 11, 1917

V Gemin 071713 est = 9.7 R=3
1057
3.40 w + 13.3

S Can. Min. 072708 est = 11.7 R=4
1058
3.31 w + 8.5

V Monoc 061702 est =
1107
4.50 w − 2.1

9.30 Too low in haze.

April 66 to date. est Vars.

2/333

Saturday, April, 14, 1917.

15" C. Eq.

J. C. Obs. J. B. Doherty Rec.

7.28 U Gemin 074922 mt = 13.7
907
1.18 m +22.0

R Coronae 9/54428
924
6.20 e. +28.8

C's watch
wed = 1m 20s
slow at 8.00

Phot. T.
Comp. with the 7.2 (f) 7.1A

P.A. 330

7:55:0 93.8 < Var dis.
162.7 68.9
270.7 75.5
346.2 144.6 — 0.69

92.5 — 0.79
165.8 73.3
279.4 61.0
340.4 134.3 — 0.89

P.A. 150 Mean = 0.72
187.3 7.18
255.4 68.1 Mag. 6.46
0.5 78.3
78.8 146.4 — 0.65

[illegible]

180.4 — 0.64
261.5 81.1
6.8 66.2
8:00:00 73.0 147.3 — 0.63

S.T. = 9:57
P.a. = 150A
Spr. = 6.4
Focus = 5—95
Dec = +28.5
Ha = 6:44 E

April, 14, 1917.

8.18 SS Aurigae 060547 est = 4 3,2 g
1005
4.00 w +47.5 14.8th

V Monoc 061702 est = 12.3 R = 4
10.10
3.53 w − 2.1

U Puppis 075612 est = w ✗ 7 var
10.14
2.18 w −12.6 14.5th

V Can Min 070109 est = t3 N
10.18
3.17 w +9.0 < 14.5

T Hydrae 085008 est = 9.8 R = 2
10.25
1.35 w −8.8

Z Puppis 072820 est = 11.8 R = 5
10.30
3.02 w −20.5

X Puppis 072820a est = 8.9

S Pyxidis 090024 est = 12.5 R = 3
10.33
1.33 w −25.0

T Can Min 072811 est = 8 3 Var if seen 14.5th
10.36
3.08 w +11.9

April, 14, 1917.

9.00 U Orionis 054920 est = 10.5 R=6
10.45
4.55 w +20.0

X Aurigae 060450 est = 7.8 R=2
1048
4.44 w +50.0

9.06 U Lyncis 063159 est = 14.5
10.50
4.19 w +59.9

The 137 close to Var = magn 12.2
May this not be a variable, since
it appears brighter than on last
occasion, yet rated as faint = 13.7.

(14) (80) Var x est Apr

Monday, April, 16, 1917.

15" E. Eq.

L. C. Obs. J. B. D. Recorder.

7.49 U Gemin. 074922 est = 13.9
916
1.27 w

Observed thru gaps in clouds.

8.00 Sky all cloudy

9.00 Sky all cloudy, no prospect of clearing.

21336

Tuesday, April, 17, 1917

L. C. Obs. J. B. D. Rec.

7.35 U Gemin. 074922 est = 13.8

Thin cloud in region, difficult to observe.

R Coronae 154428 est =

9 36
6 0 8
5 5 2 + 28.5

P. A. 33° Phot T.

7,45 276,6 ∠ Var dis

340,2 636

~~8~~7.2 851

173.3 148.7 — 0.60

274.4 —0.70

344.6 702

96.2 681

164.3 138.3 —0.81

P. A. 150° Mean = —0.56

2.2 718

76.1 739 —6.62

177.2 879

265.1 161.8 — 0.35

[illegible] to [illegible]

—0.42

0.0 Troubled by clouds in last

83.2 half of group.

7 188.2 832

~~8~~.49 258.6 704

8 30 153.6 — 0.50

all cloudy too poor to continue

Patriots' Day

Thursday, April, 19, 1917.

L. C. Obs. J. B. D. Rec.

7.33 U. Gemini. 074922 est = 13.8
935
1.46 w+

R Coronae 154428 ~~est~~
~~946~~944
6.0 est

Phot. T.
P. A. = 330°

7:42:0 272.4 < var dis
341.6 69.2
83.3 861
169.4 155.3 − 0.47
271.6 − 0.46
347.6 76.0
86.8 804
167.2 156.4 − 0.45
P. A = 150°
356.6 mean = − 0.39
79.6 83.0 7.18
181.8 801 6.79
261.9 163.1 − 0.32
S. T. = 10.04
0.6 − 0.32 H. a. 6.21
79.8 79.2 Dec. +28.5
176.2 844 P. a = 150A
7 ~~8~~.43:0 260.6 163.6 − 0.31 Sfr. = 6.4
7 43.5 Focus 5-95

2/338

April 19-1917

8.00, X Camelop 043274 Est = 9.4

Finder

10 02

5 30 W +70.0

Olcott's Susp nearby, Est = α 3,3 β

Finder.

Olcott's Susp Plot T.

~~8.07~~ P.A. = 90°

8.07 297.8 < Comp * dis. clouds.

321.0

300.6 23.2

318.9 18.3

5.1 +3.69

123.4 41.5

138.2 +3.76

296.6 14.8

320.7 24.1

38.9 +3.83

P.A = 270°

Mean +3.44

205.1 6 23

234.8 29.7 9.67

27.2 23.0

50.2 52.7 +3.15

209.2 +3.12 Focus = 5-97

232.4 23.2 Pa. = 271 A

22.6 30.8 Sfr. = 12.4

8.13 53.4 54.0 +3.10 Ha. = 5.39

α = 4 2 β S.T. = 10.25

Dec +74.4

April, 19, 1917.

Same again

II

P. a. = 270°

8.33 205.6 { Comp. dis

234.2 28.6

26.6 20.4

47.0 49.0 + 3.32

208.4 + 3.22

231.4 23.0

20.8 30.2

51.0 53.2 + 3.13

P. a. = 90°

301.2 Mean = +3.44

318.2 17.0 6.23

116.1 22.7 ~~79~~

138.8 39.7 + 3.79 9.67

295.4 + 3.65

320.6 25.2

117.7 19.7

8.38 137.4 44.9 + 3.51

17

8 35.5

Same Comp ✱ used as on Mar. 28th.

S S Aurigae 060547 est = 13.3

8.49 1050

4 45 W + 47.5

Sky very poor, no faint stars seen.

April, 19 — 1917.

X Gemini, 064030 est = 8.3 R=3
11,00
4.20 w + 30.8

~~Vhe~~ ($1\overset{*}{3}.4$) 2 ($1\overset{*}{2}.9$)

9.00 R Lyncis 065356 est = 8.5 R=4
1107
4.14 w + 55.5

Z Aurigae 05535$\overset{3}{8}$ est = 11.4 R=5
11.10
5.17 w + 53.5

V Aurigae 061647 est = 12.0 R=3
11.16
5.00 w + 47.0

V Leonis 095421 est = 12.1 R=2
11 24
1.30 w + 21.7

R Ursae Maj. 103769 est = 12.8 R=2
11.27
~~.05~~
.50 w + 69.5

Y Draconis 093178 est = 9.6 R=3
11.37
2.06 w + 78.5

R. S Ursae Mag. 123459 est = 9.7 R=4
11.38
0.56 C + 59.5

2 3 38.

April. 19 — 1917.

T Ursae Min. 133273 est = 11.2 R = 4
11.52
1.40 C
10.20 + 73.9

U Urs. Min. 141567 est = 12,5 R = 4
11 55
2,20 C + 67,2
9,40

9,52 R Camelop 142584 est = 8.8 R = 2
12 00
Repair hand-light. 2,25 C
9,35 + 84,5

Photo ledgered
Vis. "

21342

Monday, April 23, 1917.

15" C. Eq.

L. C. Obs. J. B. D. Rec.

7.30 U Gemin. 074922 est = 13.9

Clouds Observed thru gap in clouds.

8.40 Too cloudy to continue to advantage.

2 1 3 4 3

Tuesday, April, 24, 1917.

15" E. Eq.

L. C. Obs. J. B. W. Rec.

7.37 U Gemini 074922 est = 11.6

8 16 R Coronae 154428 est = 8.0 in finder

Phot T.

P.A. = 330°

8.12 79.3 ∠ Var. dis.

176.0 96.7

255.8 105.5

361.3 202.2

157.8 + 0.43

76.8

189.8 113.0 +0.~~8~~59

258.7 105.6

218.6

364.3 141.4 + 0.75

P.A. = 150°

165.4 mean = +0.56

275.5 110.1 7.18

343.8 107.9 7.74

91.7 218.0

142.0 + 0.73

171.4 + 0.54

272.4 101.0 P.A = 150 A

350.8 97.0 Spr = 6.4

8.15 87.8 198.0 + 0.38 Focus = 5 - 95

8 13.5 162.0

21343. Troubled somewhat by clouds in close comp & in estimate.

21343

April, 24, 1917.

Same one again.
Too cloudy to continue to this.

8.47 U Gemin. 074922 est= 11.5
Observed thru gap in clouds

Olcott's susp. near X Camel.
043474 ~~est~~

9 00 Too cloudy. 6.50w Pho T.
P.a = 270°

9.12 24.4 < comp * dis
49.5 25.1
207.2 25.2
232.4 50.3 + 3.26

27.3
48.8 21.5 + 3.29.
206.8 27.4
234.2 48.9 + 3.32
P.a = 90°
mean + 3.48
116.7 6.23
141.0 24.3 9.71
299.8 20.0
319.8 44.7 + 3.52

9.35 Too cloudy to continue.

121.4 + 3.68
137.9 16.5
297.4 22.4
319.8 38.9 + 3.83

P.a = 270
fpr = 12.4
Focus = 5-95

9.16
9.14

2,344.

Wednesday, April, 25, 1917.

L. C. Obs. 15" Eq. J. B. D. Rec.

R Coronae 154428

Phot T.
P. A = 330°

7.32 179.2 ∠ y Comp. dis.
262.6 83.4
5.1 66.6
71.7 150.0 + 0.58

193.8 + 0.61
254.2 60.4
355.9 86.5
82.4 146.9 +0.64
P. A = 150° mean = + 0.72
267.8 7.18
349.4 81.6 7.90
101.4 60.2
161.6 141.8 + 0.74

276.7 + 0.84
336.6 59.9
97.4 71.9
7.35 169.3 131.8 +0.94
7.335

P. A = 330
Sp = 6.4
Focus = 5.95

1 213x5

April 25 – 1917

7.47 U Gemin 074922 est = 9.2 R = 0

Frod. 3424 used | Antigone 10 14 + 20.5
10 24
0 10 w + 20.5

Phot T.

8.10 00 268.8 < Comp. * dis. P.A = 100°

349.8 81.0

91.2 82.1 I

173.3 163.1 + 0.32

268.2 + 0.30

349.4 81.2

86.6 84.4

171.0 165.6 + 0.27

P.A = 280°

351.0 mean = + 0.20

84.8 93.8

177.2 81.7

258.9 175.5 + 0.08

358.0

87.1 89.1 + 0.11

181.2 83.6

8:15:20 264.8 172.7 + 0.14

25 20

8 12 40
19

8 12 21

21344.5 50

april 25-1917

Pa. 280° Same again. II

8:25:20	356.2		
	77.7	81.5	
	176.4	88.4	
	264.8	169.9	+ 0.19
	358.1		+ 0.06
	86.2	88.1	
	170.3	95.0	
	265.3	183.1	
		176.9	− 0.06

Pa. 100° mean = + 0.12

	83.4		
	173.1	89.7	
	266.8	80.4	
	347.2	170.1	+ 0.19
	89.2		
	171.3	82.1	+ 0.18
	263.1	89.1	
8:31:50	352.2	171.2	+ 0.17

8 28 35
19
8 28 16

213444.561

April 25 – 1917.

	P.A. = 100° Same again			III
8:43:45	83.2			
	179.4	96.2		
	268.8	89.0		
	357.8	185.2		
		174.8	− 0.10	
	86.6			
	176.9	90.3	− 0.08	
	264.6	92.8		
	357.4	183.1	− 0.06	
	P.A = 280°	176.9		
	168.4		Mean =	−0.16
	265.8	97.4		
	350.4	93.4		
	83.8	190.8	− 0.20	
		169.2		
	172.6		− 0.24	
	268.6	96.0		
	353.2	98.6		
8:48:25	91.8	194.6		
12 10		165.4	− 0.27	
8 46 05				
19				
8 45 46	Troubled by clouds in above group.			
21344574				

P.A = 280A
Spr = 5.7
Focus = 5–93

900 F 34.24 = 19s fast by bell.

April, 25—1917.

Same again IV

9,10 Too cloudy to continue at present.

9,12. Too cloudy to continue to advantage.

Burbeck R Cor. chart

Comp star for antigone = +19.2360 (9.5)

Vis & Photo ledgered to here

Monday, April, 30, 1917.

L. C. Obs. J. B. D. Rec

R Coronae 154428

Phot T.

8:07:0 191.4 ∢ Comp * dis. P.A = 330°
243.4 52.0
16.6 39.0
55.6 91.0 + 1.89

199.2
235.8 36.6 + 2.02
15.2 44.5
59.7 81.1 + 2.16
P.A = 150° mean = +2.13
289.2 7.18
326.8 37.6
107.3 41.1 mag = 9.31
148.4 78.7 + 2.23

292.4 + 2.26
330.2 37.8
109.6 38.8
8:11:0 148.4 76.6 + 2.30

8 09.0 Observations difficult on account of fog and clouds, extreme care used and considered fairly good.

~~Thur~~ Wednesday, May 2, 1917.

L. C. Obs. J. B. D. Rec.

R Coronae 154428

Phot T

P. a = ~~150~~° 330°

8; 20.24 209.8 < comp ✗ dir

232.8 230

26.8 25.6 3

52.4 48.6 + 3 ~~4~~ 3

P. a = 150°

~~+ 3. 39~~

~~300.1~~ 296.2

315.4 19.2

117.5 26.9

8; 23.5 144.4 46.1 + 3 45

40
3. 38
~~2~~ 1.
3 4 ~~4~~
3 42

see next page for 343

second half of group.

3.36

Repair lock on east door.

May 2 - 1917

Same again.

P.a=150°

8:24:2 295.0

322.1 27.1

117.4 19.4

136.8 46.5 + 3.43

P.a=330°

25.6 + 3.40

48.2 Cloudy 22.6

205.3 25.5

8:27.5 230.8 48.1 + 3.36

Mean + 3.40

7.18

10.58

Obs. taken thru clouds

May, 2, 1917.

Same again. R Cor.

II

P.A = 330°

8:34.0	206.1		✓	
	227.7	21.6	✓	
	26.3	27.1		
	53.4	48.7	✓	+ 3.33
	205.5			+ 3.2~~6~~ 8
	234.0	28.5		
	26.1	22.7		
	48.8	51.2		+ 3.22
	P.A = 150°			
	117.6			mean + 3.24~~8~~ 1
	140.4	22.8		Σ 18
	298.3	21.0		10.58
	319.3	43.8		+ 3.57
	118.2			+ 3.56
	142.6	24.4		
	~~838.8~~	20.8		
	~~172.6~~	45.2		+ 3.50
	297.7			
8:41.0	318.5			

Troubled by clds, but extreme care used, and obs. considered good.

21351

May 2 - 1917

antigone
10 14 +20.5
12 14
20

Phot T.

Impossible to measure Antigone. It is not seen in Phot. and moon is very bright, and doubtless some haze left in sky.

947

approx Pos of antigone =
10 31 + 19.6 (1855)

RT Herc 1706 27 est = 11.4 R=2
12 56
4 10
7 50 +27.2

R. S. Herc ~~est~~
171723
1302
4.15
7.45 + 23.0

10.26 SF Cygni 21 38 43 est = 11.7
13 03
8 35
3 25 +43.6

Too cloudy and moon bright to continue

Too cloudy in this region
Var. seen with difficulty.

$2^h\,35^m\,12^s$

Thursday, May, 3, 1917.

15" E. Eq.

L.C. Obs. J.B.D. Rec.

R Coronae.

10.05 154428 est = 11.5

Phot T.

10:9:20 210.8 ∠ Comp. ✱ dis. P.A = 330°
227.8 17.0
27.4 19.7
47.1 36.7 +3.96

208.8 +3.79
230.4 21.6
25.4 21.2
46.6 42.8 +3.62

P. A = 150°
298.0 mean = +3.93
315.4 17.4 7.18
120.5 16.3 11.11
136.8 33.7 +4.15

301.0 +4.07
317.8 16.8
121.4 19.4
10;14:0 140.8 36.2 +3.99
23 20
1011 40

½ wt.

Obs. made thru considerable cloud

May, 3, 1917.

P.A.=150° Same again

10. 20	300.4				
	317.9	17.5			
	122.1	16.7			
	138.8	34.2			
			+4.11		
	301.4				
	316.2	13.8		+4.20	
	119.6	17.6			
	137.2	31.4	+4.30		
	P.A.=330°				
	28.4				mean = +4.16
	47.1	18.7			7.18
	211.6	16.8			11.34
	228.4	35.5	+4.03		
	29.8			+4.11	
	46.9	17.1			
	212.0	15.9	+4.19		
10.26 10 23	227.9	33.0			

Less troubled by clouds in above group and this one considered the better.

May, 3 1917.

10.44 U. Gemin., 074922 ab. 10.2

Star b (9.0) just prec. and N of d (9.3) = L. C.
J. O. D. confirms L. C.'s obs. of above,
that b is brighter than d

21356

Monday, May, 7. 1917

10" E. Eq.

L. C. Obs. J. B. D. Rec.

8.00 R. Coronae 164428 est=12.9

Due to cloudy conditions, obs. very difficult and at first somewhat uncertain, but by waiting for intervals of better conditions it is thought that this estimate is fairly good.

9.05 Sky all cloudy. Useless to continue observations to advantage.

Fri. May 11, 1917

2' 3 W

P. C. Obz. 15" E. Eq. J.B.D. Rec

R Coronae 15 44 28
11 17
4 27
7 33 +28.5

) 5 3 clouds over region.

8, 10 est = 13.0 J. B. D. Rec.
Obs. made thru gaps in clouds but care used and obs. considered good.

S. S. Aurigae 060547 est = 13.8
11.45
5.40 w
+47.5

8. 20 U. Gemini 074922 est = 13.8

star b = a1, 4$\overset{d}{8}$ (a = 8.5 d = 9.3)
star b has a faint companion close by.

Antigone

10 37 +19.0
12 00
1 23 W

May. 11, 1917.

Antigonae I

P.a = 130 Phot T.

9:03:25	301.2 <	Comp. ✱ dis.	
	313.0	11.8	
	123.8	11.4	
	135.2	23.2	+ 497
	,		
	303.2	✓	+ 488
	314.2	11.0	
	123.0	14.2 ✓	
	137.2	25.2	+ 479
	P.a = 310		
	~~27.7~~ 30.8		Mean = + 482
	43.0	12.2	
	214.3	10.9	
	225.2	23.1	+ 498
	31.8		+ 476
	44.4	12.6	
	211.2	15.6	
9: 09 10	226.8	28.2	+ 454
9 06 18			
21360.587			

May, 11, 1917.

antigone again

	P.a = 310°			II
9 20 14	30.2		✓	
	45.9	15.7	✓	
	213.8	12.4	✓	
	226.2	28.1	+ 4.55	
	30.4		✓	+448
	44.2	13.8	✓	
	213.2	16.2	✓	
	229.4	30.0	+4.40	
	P.a = 130°			
	120.5		✓	
	135.0	14.5	Mean + 4.64 ✓	
	303.3	10.5	✓	
	313.8	25.0	✓ +4.80	
	124.2		✓	+4.80
	135.7	11.5	~~+6.50~~	
	301.4	13.5		
9.25.56	314.9	25.0	+ 480	
6 10				
9 23 05				

21360.599

May, 11, 1917.

Antigone again.

III

9:33:27 122.2 P.a = 130°
136.3 14.1 ✓
300.4 12.4 ✓
312.8 26.5 ✓ +4.67 ✓

124.3 4.74
135.8 11.5 ✓
300.0 13.3 ✓
313.3 24.8 ✓ +4.82 ✓

P.a = 310°

211.5 ✓ Mean = 4.65
226.9 15.4 ✓
32.5 12.5
44.0 27.9 ✓ + ~~4.56~~
6
464

213.7 11.8 4.56
225.5 ~~12.2~~
29.2 17.0
9:38.51 46.2 ~~29.2~~ +4.46
28.8

78
12 18
9 36 09

608
21360.~~56~~7

21360

May 11, 1917.

P.a = 310° IV

9:49:47	28.8			
	42.7	13.9 ✓		
	213.3	12.5 ✓		
	225.8	36.4 2 ✓	~~+3.98~~	+4.68
	30.7	✓		+4.64
	43.9	13.2 ✓		
	212.4	14.2 ✓		
	226.6	27.4 ✓	+4.60 ✓	
	P.a = 130°			
	122.2			mean = +4.7½
	136.3	14.1 ✓		
	302.2	10.9 ✓		
	313.1	25.0 ✓	+4.80	
	~~125.0~~ 124.2			4.78
	135.9			
9.55:42	300.8	11.7		
105 29	314.7	13.9		
9 52 44		25.6	+476	

21360.620

10 00 Frod 3424 = 8^s slow by Bell

May 11, 1917

V

10	P.a = 130°		
~~9~~ 05 14	121.6		
	136.0	14.4	
	303.8	9.1	
	312.9	23.5	+ 4.94
	125.5		+4.98
	134.9	9.4	
	300.9	13.3	
	314.2	22.7	+ 5.01
	P.a = 310°		
	212.0		+ 4.80
	227.2	15.2	
	28.8	14.1	
	42.9	29.3	+ 4.45
	214.8		+ 4.61
	225.8	11.0	
	30.4	14.4	7
10 10 41	44.8	25.4	+4.47
15 55			
10 7 58			

2 1 360.631

May, 13, 1917.

VI

	P.A = 316°			
10:19:40	213.4		✓	
	224.8	11.4		
	31.8	11.5 ✓	✓	
	43.3	22.9	+ 4.99 ✓	
	216.2		✓	+ 4.92
	226.8	10.6	✓	
	30.0	13.9	✓	
	43.9	24.5	+ 4.85 ✓	
	P.A = 130°			
	302.4		✓	mean = + 5.02
	314.4	12.0	✓	
	124.2	~~9.6~~	9.6 ✓	
	133.8	.6	21.6	+ 5.12
	303.8			5.01
	314.4	10.6		
	123.3	13.3		
10 25 46	136.6	23.9	+ 4.90	
10 22 43				
21360.641				

May 11, 1917.

VII

P. A = 130°

10.34:46 300.4
314.0 13.6
124.4 10.3
134.7 23.9 +4.90

303.0 +5.02
315.0 Clouds 12.0
124.7 9.3
134.0 21.3

10:38:10 P. A = 310° clouds +5.15

~~249~~ Clouds. Mean +4.91

~~10.~~
10.48:17. 29.2
43.4 14.2
213.9 11.3
225.2 25.5 + 4.76
13.9

31.4 +4.80
43.3 11.9
212.4 12.8
10 50 39 225.2 24.7 +4.83
12.4

17 1 52 Above group taken thru clouds
10 42 58 and not considered full wt.

21360.655

May, 11, 1917.

VIII

P. a = 310°

10 57 18 28.7
45.4 16.7 ✓
213.8 10.8 ✓
224.6 27.5 ✓ + 4.59 ✓

+ 4.67 ✓

30.9
44.1 13.2 ✓
~~211.1~~ 213.8 12.4 ✓
~~228.7~~ 226.2 25.6 ✓ + 4.75 ✓

P a = 130° ~~4~~

mean = 4.74 ✓

120.9 ✓
136.6 15.7 ✓
303.1 9.9 ✓ + 4.75 ✓
313.0 25.6

+ 4.80 ✓

124.7 ✓
135.5 10.8 ✓ + 4.85 ✓
301.4 13.7 ✓
11 03 48 315.1 24.5

11 00 33

21360. 667

May, 11, 1917.

IX

P. a = 130°

11 07 25 122.1
136.2 14.1 ✓
302.8 11.4 ✓
314.2 25.5 ✓ + 4.76

1~~25.0~~ ~~8.8~~ 123.8 4.75
1~~33.8~~ 134.9 11.1 ✓
300.2 14.6 ✓
314.8 25.7 ✓ + 4.74

P. a = 310

211.2 ✓
226.9 15.7 ✓
31.8 12.6 ✓
44.4 28.3 ✓ + 4.53 + 4.59

212.4 ✓ + 4.44
225.2 12.8 ✓
28.2 17.9 ✓ 4.35
11 14 11 46.1 30.7

21 36

11 10 48

21360.674

May 11, 1917.

P.a = ~~320~~ 310° X

11 20 22 212.8
226.4 13.6 ✓
30.2 14.0 ✓
4~~4~~4.2 27.6 ✓ +4.59 ✓

212.6 +4.59
226.9 14.3 ✓
29.9 13.3 ✓
43.2 27.6 ✓ +4.59 ✓
P.a = 130

+4.59

301.0
316.6 15.6 ✓
122.8 11.1 ✓
133.9 26.7 ✓ +4.66 ✓

301.4 +4.59
314.9 13.5 ✓
122.7 15.0 ✓
11 24 52 137.7 28.5 ✓ +4.52 ✓

11 22 37 Obs. increasingly difficult towards the dark! Little use
21360.683 to continue further on account of poor conditions.

P.a = 126A
Sp = 5.2
Focus = 5-94
Dec. = +19.2
H.A. = 4.27w

11 37 SS Cygni est = 11.8 R = 2

S.T. = 3.04

2/363

Monday, May, 14, 1917.

L. C. Obs. 15" C. Eq. J. B. D. Ru.

R Coronae 154428 < 11.8

8 00 Too cloudy at present

SS Aurigae 060547

< 12.0

8 30 all cloudy here

9 25 All cloudy — hopeless for any work to be done.

R Cor. Bor 154428

10 22 est 13.0 (12.6) 4, 1 (13.1)

Clearer here

Too cloudy for U Gem & SS Aurig

SS Cygni 213843

10 28 14 10 est 11.8

7 28

4 32

U Gem 074922

14 19

6 30 W

10 40 all thick in west & NW

2 1364

Tuesday, May 15, 1917

16" C. Eq.

L. C. Obs. J. B. D Rec.

8.02 R Coronae 154428 est = 13.1

8.09 U Gemin. 074922 est = 13.5
Twilight rather strong yet.

8.08 Star b = a2, 5d

SS Aurigae 060547
8.16 If seen ~~son~~ × 2 var
Twilight quite perceptible.

Antigone
10 37 +19.0
12 09
1 32 W +19.0

Phot T.

Comp ★ = same as on prev. night.

New Plate needed

May, 15, 1917.

Antigone

P.a = 100°

I

8. 38 42 — 34.2 < Comp * dis.
42.5 — 8 3
214.7 — 11.7
226.4 — 20.0 — +5″.29

30.4 ✓ — +5″.13
43.3 — 12.9 ✓
214.4 — 10.3 ✓
224.7 — 23.2 — +4.97

P.a = 240

123.2 ✓ — Mean +5″.12
133.7 — 10.5 ✓
301.9 — 10.9 ✓
312.8 — 21.4 — +5″.14

122.2 — 5″.12
135.1 — ~~13.1~~ 12.9
8 44 56 — 304.4 — 8.9
98 — 313.3 — 21.8 — +5″.10
8 41 49
8 42 49

21364.572

May 15 – 1917

II

P.a = 280°

8 $\overset{5}{\text{XI}}$ 26 121.6 ✓
134.1 12.5 ✓
302.2 11.2 ✓ ✓
312.4 23.7 +4.92

122.2 ✓ +4.88 ✓
136.4 14.2 ✓
302.3 10.3 ✓ ✓
312.6 24.5 + 4.85

P.a = 100° mean +4.93 ✓

214.3 ✓
226.1 11.8 ✓ + 4.92 ✓
31.1 11.9 ✓
43.0 23.7

+4.98 ✓

214.2 ✓
226.7 12.5 ✓ ✓
32.5 9.9 ✓ +5.04
8 57 07 42.4 22.4

8 54 16
8 55 16
21364.580

9 00 Flod 3427^{4} = 1^{m} slow by Bell.

May 15-1917.

III

P.A = 100°

9 04 37 214.2

226.1 11.9 ✓ ✓

29.4 15.0 ✓ ✓

44.4 26.9 +4.64

P.A = 280° +4.70

300.2 ✓

315.4 15.2 ✓

9 06 54 124.1 10.3 ✓ ✓

134.4 25.5 +4.76

Clouds.

mean = +4.77

P.A = 280°

9 09 48 302.6 ✓

314.6 12.0 ✓

124.7 11.2 ✓

135.9 23.2 ✓ +4.97

P.A = 100°

30.2 +4.8✓

46.4 16.2 ✓

214.6 10.0 ✓ ✓

9 ~~06~~ 11 18 224.6 26.2 ✓ +4.70

32 3) Above group only ½ mt. Troubled by clouds thru-out.

9 08 09

9 09 09

21364.590

May 15-1919.

IV

P.A = ~~280~~ 100°

9 19 30 31.0 ✓
44.4 13.4
212.1 16.0 ✓ ✓
228.1 29.4 + 4.45

28.2 ✓ + 4.38
46.8 18.6 ✓
214.4 12.5 ✓ ✓
226.9 31.1 + 4.32

P.A = 280°
123.2 ✓
132.8 9.6 ✓ mean = + 4.61
301.8 13.1 ✓
314.9 22.7 + 5.01 ✓

122.2 ✓ + 4.84
136.4 14.2 ✓
302.4 12.5 ✓ ✓
9 24 57 314.9 26.7 + 4.66

2)

Troubled by clouds in above group

9 22 14
9 23 14

21368.599

May 15-1917

	P.a=280°			
9 30 54	122.7	✓		$\boxed{V}$
	135.2	12.5 ✓		
	301.4	11.9		
	313.3	24.4 ✓+4.86 ✓		
			+ 4.89 ✓	
	123.7	✓		
	136.0	12.3 ✓		
	302.8	11.4 ✓ ✓		
	314.2	23.7 + 4.92		
	P.a= 100°		mean + 4.82 ✓	
	214.4	✓		
	226.9	12.5 ✓		
	~~28.4~~ 28.8	14.2 ✓		
	43.0	26.7 + 4.66 ✓		
			+4.74 ✓	
	213.5	✓		
	228.0	14.5 ✓		
	32.2	10.2 ✓ ✓		
9 36 28	42.4	24.7 + 4.83		

9 33 41

9 34 41

Troubled by cloud on this Obs.

21364.608

May 15 - 1917

VI

9 40 Clouds.
~~10~~ P.a = 100°
9 58 20 211.4 ✓
224.0 12.6 ✓
29.3 15.5 ✓ ✓
44.8 28.1 + 4.55

212.6 ✓ ✓
225.4 12.8 ✓ + 4.70
31.1 11.6 ✓ ✓
42.7 24.4 +4.86
P.a = 280°
304.1 ✓ mean +4.78 ✓
315.2 11.1 ✓
120.5 13.9 ✓ ✓
134.4 25.0 +4.80

300.9 ✓ +4.86 ✓
314.2 13.3 ✓
122.7 10.4 ✓ ✓
10 03 22 133.1 23.7 +4.92
1 42
10 00 51 Troubled by clouds, Obs. somewhat
10 01 51 uncertain.
21364.626

May 15 – 1917.

VII

10 9 12 18	P. a = 280°		
	304.0		✓
	314.2	10.2	✓
	122.6	13.6	✓
	136.2 22.6	23.8 +	4.91 ✓
	301.0		+ 4.84
	313.6	12.6 ✓	✓
	~~1~~23.2	12.8	✓
	136.0 23.2	25.4 ✓	+ 4.77
	P. a = 100°		+ 4.77
	31.7		✓
	43.8	12.1	✓
	212.0	14.0	✓
	226.0	26.1 ✓	+ 4.71 ✓
	29.9		+ 4.70
	44.0	14.1 ✓	✓
10	213.7	12.1 ✓	+ 4.70 ✓
9 16 55	225.8	26.2	

10
9 14 36
10 15 36

Conditions in above groups better than in preceding ones.

21364 636

May 15 – 1917.

VIII

	P.a = 100°			
10 23 57	30.2	✓		
	43.1	12.9 ✓		
	213.0	13.4 ✓	✓	
	226.4	26.3	+4.69	
	29.8	✓	+4.64	
	~~45.1~~ 43.8	14.0 ✓		
	213.9	13.5	✓	
	227.4	27.5 ✓	+4.59	
	P.a = 280°			
	122.4	✓	+4.72	
	134.0	11.6 ✓		
	300.4	14.0 ✓	✓	
	314.4	25.6 ✓	+4.75	
	121.2		+4.60	
	135.2	14.0 ✓ ✓		
10	304.0	10.5 ✓	✓	
9 28 12	314.5	24.5	+4.85	
10 12 09				
9 26 64				
10 27 0✓				
21364644				

May 15.1917.

IX

P.a=280°

103422 122.8 ✓
135.4 12.6 ✓
301.2 13.7 ✓ ✓
314.9 26.3 +4.69

120.8 ✓ +468
135.5 14.7 ✓
302.4 11.8
314.2 26.5 + 4.67 ✓

P.a=100°
213.3 ✓ Mean +472
225.1 11.8 ✓
31.2 12.5 ✓
43.7 24.3 ✓ +4.86

211.6 ✓ +475
225.8 14.2 ✓
31.9 12.9
103938 44.8 27.1 ✓ + 4.64 ✓

16 00

10 37 00

10 38 00

2136 4.6 $\frac{5}{10}$

May 15 – 1917

X

P.A=100°

10
~~9~~ 45 02 213.8 ✓
225.2 11.4 ✓
31.0 12.2 ✓ ✓
43.2 23.6 + 4.93
Clouds.

212.4
225.8 13.4 ✓ +4 9 2
33.0 10.4 ✓ ✓
43.4 23.8 +4.91

P.A=280°

304.4 ✓ +5.08
313.9 9.5 ✓
122.2 10.5 ✓ ✓
132.7 20.0 +5.29

301.4 ✓ 5.24
312.8 11.4 ✓
124.4 9.5 ✓ +5.19 ✓
10 50 07 133.9 20.9
95 09

10 47 34
10 48 34

21364.659

May 15-1917

XI

P.A.=280°

10 55 clouds.

Too cloudy to continue on this region

P.A. = 285 A
Apr = 5.5
Dec = +18.9
H.A. = 4.08 w
S.T. = 14.46

11 02 SS ~~Syngi~~ Cygni. 21 38+43

21 38
14 50
6 48
5 12

ext = 11.6

Wednesday, May, 16 1917.

15" C. Eq.

S. C. Obs. J. B. D.

8.02 R Coronae 154428 est = 13.3
Susp Var n. p. of R Cor = 13.6

8 00 At 8 o'clock Frod. 3424 = 58 seconds
slow by the bell.

8 14 SS Aurigae 060547 est = x5 var.
Obs. difficult on account of
twilight and faintness.

8.17 U Gemin. 074922 est = 13.9
star b = a 2, 5 d

see next page for Antigone

New Plate

May, 16 1917.

Antigone

Phot T.

I

P.a. = 130°

8 40 38 97.3 < Comp. * dis.

160.7 ✓

275.8 634 ✓

334.6 58.8 ✓

122.2 ✓ + 1.14 ✓

103.2 ✓ + 1.16 ✓

160.4 57.2 ✓

279.8 64.0 ✓

343.8 121.2 + 1.17 ✓

P.a. = 310°

188.8 ✓ mean = +1.14

253.0 64.2 ✓

9.4 57.2

66.6 121.4 ✓ + 1.16 ✓

188.4 ✓ + 1.13 ✓

245.8 57.4 ✓

1.4 66.8 ✓ ✓

8 47 00 68.2 124.2 + 1.10

8 43 49

8 44 47

21365.573

May 16, 1917

	P.A = 310°			II
8 56 34	185.6 ✓			
	249.6	64.0 ✓		
	4.4	62.5 ✓		
	66.9	126.5	+1.05 ✓	
	191.0 ✓		+1.10 ✓	
	248.7	57.7 ✓		
	6.2	64.2 ✓		
	70.4	121.9	+1.15 ✓	
	P.A = 130°		mean =	+1.26 ✓
	279.4 ✓			
	337.9	58.5 ✓		
	104.2	52.4 ✓		
	156.6	110.9	+1.40 ✓	
	281.8 ✓		+1.42 ✓	
	331.8	50.0 ✓		
	99.7	58.7 ✓		
9 03 24	158.4	108.7	+1.46 ✓	

11 9 58

8 59 59
9 00 57

365 SP4

Obs. difficult on account of haze.

-1365

May 1~~7~~6 1917.

III

ꝗ P.a.=130°

9 09 49 282.2 ✓
334.8 52.6 ✓
101.1 60.1 ✓
161.2 112.7 +1.36

P.a=310°

ꝗ 7.1 +1.40
65.0 57.9
189.2 51.0
9.14 25 240.2 108.9 +1.44
24 14
9 12 07
59 ✓

Impossible to continue on account of haze. Settings in about half-groups somewhat uncertain.

Dec = +18
H.A = 3.0 w
P.a = 308 A
Spr = 4.6
S.T. = 1.45

ꝗ 9.57 SS Cygni 213843 est = 11.8

TZ Cygni 191350 est = 10.9 R=3
1400
513e
6.47 +15.0

10.06 U Lyrae 191637 est = 11.4 R=7
1402
514
6.46 + 37.7

May 16, 1917

10.09 R Cygni 193449 est = 13.5
1405
5.29
6.31 + 50.0

10.14 RT Cygni 194048 est = 8.0 R=4
1410
5.30
6.30 + 48.5

10.17 TU Cygni 194348 est = 13.3

10.21 χ Cygni 194632 est = 9.1 R=5
1413
5.33
6.27 + 32.5

Z Cygni 195849 est = 12.5 ?
1417
5.41
6.19 + 49.8

Considerable haze in this region
10.31 Conditions too poor to continue.

Thursday, May, 17, 1917

15" E. Eq.

L. C. Obs. J. B. D. Rec.

8 00 Frod 3424 = 57^s slow by Bell.

R Coronae 154428 est = 13.3

8.02 Susp. var = 13.6

8.17 U Gemin. 074922 est = 13.9

Comp. * b with d. Phot. R.

8 09 48 187.4 *b dis P.A. = 290°
273.4 86.0 ✓
4.4 83.1 ✓ est = star b = a 4, 3 d
87.5 169.1 ✓ − 0.20

182.2
281.0 98.8 ✓ − 0.18
12.0 72.0 ✓
84.0 170.8 ✓ − 0.17

P.A. = 110°

94.4 Mean = − 0.10
183.4 89.0 ✓
272.6 92.0 ✓
364.6 181.0 ✓ + 0.02
179.0

90.8 − 0.03
186.6 ~~[illegible]~~ 95.8 ✓
281.0 79.8 ✓
8 15 39 360.8 175.6 ✓ − 0.08

8 23 SS Aurigae 060547 est = X5 var.

May. 17, 1917.

	P.a = 50° Antigone		Phot T.	
8.35 55	100.2	* Comp. dis.		I
	153.2	53.0 ✓		
	287.2	49.4 ✓		
	336.6	102.4 ✓	+1.60	
	105.5		+1.62	
	150.6	45.1 ✓		
	281.2	55.2 ✓		
	336.4	100.3 ✓	+1.65	
	P.a = 230°			
	189.4		mean = +1.60	
	246.8	57.4		
	17.2	47.2		
	64.4	104.6	+ 1.54	
	195.7		+ 1.58	
	246.2	50.5		
	11.8	51.4		
8 40 48	63.2	101.9 +	1.61	P.a = 229A
76 43				Sp = 4.9
8 38 22				
8 39 19				

see plate I 2687 for identification of Comp ~~star~~. = +

21366.569

May, 17, 1917.

II

h

9 49 18 P.a.=230°

193.2
239.4 46.2 ✓
12.2 53.1 ✓
65.3 99.3 +1.67 ✓

194.2 ✓ +1.72 ✓
247.6 53.4 ✓
15.7 42.0 ✓
57.7 95.4 +1.77 ✓

P.a.=50°

290.0 ✓
335.0 45.0 ✓ mean = +1.71
105.2 50.2 ✓
155.4 95.2 +1.78 ✓

284.0 ✓ +1.70 ✓
337.2 53.2 ✓
104.4 48.9 ✓
153.3 102.1 ✓ +1.61 ✓

h
9 53 56

h ~~14~~
9 51 37
9 52 34

21366.578

May 17 – 1917.

III

P. a. = 50°

903 21 285.2

329.0 43.8 ✓

103.3 50.3 ✓

153.6 94.1 +1.81

283.6 +1.77

330.2 46.6 ✓

103.2 50.6 ✓

153.8 97.2 +1.73

P. a. = 230°

193.6 ✓

243.8 50.2 Mean = 1.64

~~51~~9.9 55.3

65.2 105.5 ✓ +1.52

189.8 1.52

250.0 60.2

150.4 45.0

9 09 15 60.4 105.2 +1.53

9 06 18

9 07 15

21366.588

May 17 – 1917

IV

P.A. = 230°

9 10 17 193.9 ✓
242.8 48.9 ✓
8.4 58.2 ✓
66.6 107.1 +1.49

188.8 ✓ +1.47
247.7 58.9 ✓
14.8 49.6 ✓
64.4 108.5 +1.45

P.A. = 50°

289.4 ✓ mean +1.56
332.2 42.8 ✓
102.2 53.3
155.5 96.1 +1.73

279.0 ✓ +1.64
337.0 58.0 ✓
104.7 47.1
9 14 48 151.8 105.1 +1.53

9 12 32
9 13 29

21366.592

May 17-1917.

V

P.a.=50°

92238 289.6 ✓
332.3 42.7 ✓
106.4 45.3 ✓ ✓
151.7 88.0 +1.97

283.8 +1.89 ✓
334.2 50.4 ✓
106.7 43.7 ✓ ✓
~~149.4~~ 94.1 +1.81
130.4

P.a.=230° mean = +1.76 ✓

16.4 ✓
60.8 44.4 ✓
187.5 58.3 ✓ ✓
~~250.4~~ 102.7 +1.59
245.8

+1.63 ✓

10.8 ✓
64.0 53.2 ✓
194.0 46.2 ✓ ✓
92702 240.2 99.4 +1.67

9 40
92450
92547
21366.601

5p

May, 17, 1917.

VI

P.a = 230°

9 32 46 13.0 ✓
58.4 45.4 ✓
190.8 64.7 ✓ ✓
245.5 100.1 +1.65 ✓

+1.64 ✓
10.9 ✓
63.4 52.5 ✓
~~196.6~~ 193.8 48.4 ✓ ✓
242.2 100.9 +1.63 ✓

P.a = 50° mean = +1.79 ✓
110.8 ✓
148.4 37.6 ✓
281.3 ~~54.1~~ 50.1 ✓ ✓
~~330.4~~ 87.7 +1.98 ✓
331.4

+1.94 ✓
103.6 ✓
150.0 46.4 ✓
288.8 44.3 ✓ ✓
9 38 57 333.1 90.7 +1.90

9 35 52
9 36 49
21366.609

May 17 - 1917

VII

P.a = 50°

9 45 00   107.6   ✓
152.4   44.8 ✓
286.8   44.4 ✓   ✓
331.2   89.2 +1.94

100.0 ✓   +1.90 ✓
151.5   51.5 ✓
289.4   40.8 ✓
330.2   92.3   ✓   ✓

P.a = 230°   +1.85   mean = +1.82

196.0   ✓
240.8   44.8 ✓
12.7   51.0 ✓   ✓
63.7   95.8 +1.76

188.9   ✓   +1.73 ✓
243.8   54.9 ✓
20.4   43.4 ✓   ✓
9,5036   63.8   98.3 +1.70

9 47 48
9 48 45

21366.617

(o)

May 17-1917

P.a. = 230°

VIII

95717 195.3
239.8 44.5 ✓
12.8 51.6 ✓
64.4 96.1 ✓ + 1.75 ✓

192.0 ✓ +1.73 ✓
246.7 54.7 ✓
15.4 43.0 ✓
58.4 97.7 ✓ +1.71 ✓
P.a. = 50°
291.8 mean = +1.84 ✓
334.4 42.6 ✓
104.8 47.2 ✓
152.0 89.8 ✓ +1.92 ✓

285.3 ✓
334.2 48.9 ✓ +1.94
150.9 39.9 ✓
10 04 56 150.8 88.8 ✓ +1.95 /

2 13
10 01 06
10 02 03

21366.626

May 17 – 1917

P. A. = 50° IX

10 12 57 288.8 ✓
330.0 41.2 ✓
102.8 46.4 ✓ ✓
149.2 87.6 +1.98

288.9 ✓ +2.09
332.2 43.3 ✓
109.4 36.6 ✓
146.0 79.9 +2.20 ✓

P. A. = 230° Mean = +1.95
18.8 ✓
~~56.8~~ 58.8 40.0 ✓
192.7 52.1 ✓
244.8 92.1 +1.86 ✓

1.81

12.7
63.6 50.9 ✓
197.8 44.8 ✓ ✓
10 18 45 242.6 95.7 ✓ +1.76

10 15 51
10 16 48

2(366.63)

May, 17, 1917,

	P.A. = 230°			X
10 24 10	15.2	✓		
	60.4	45.2 ✓		
	195.5	50.3 ✓	+1.77 ✓	
	245.8	95.5		✓
			1.70	
	11.6	✓	+ ~~1.68~~	
	61.5	49.9 ✓		
	192.2	51.5 ✓	✓	
	243.7	101.44	+1.62	
	P.A. = 50°			
	104.7	✓	mean + 1.77	
	147.4	42.7 49.8		
	284.6	~~50.0~~	5	
	334.4	92.~~7~~ 5	+1.8~~7~~	
			+ 1.84 ✓	
	102.7	✓		
	152.4	49.7 ✓		
	288.6	43.2 ✓		
10 29 57	~~328.8~~	92.19 ✓	+ 1.84 ✓	
14 07	331.8			
10 27 04				
10 28 01				
21366.644				

May, 17, 1917

XI

P.a. = 50°

10 36 56 106.8 ✓
150.4 43.6 ✓
282.2 52.2 ✓
334.4 95.8 + 1.76 ✓

101.8 ✓ +1.70 ✓
159.0 57.2 ✓
289.7 43.6 ✓
333.3 100.8 +1.64 ✓

P.a. = 250°
196.4 ✓
243.6 47.2 ✓ mean = +1.69 ✓
8.8 56.6 ✓
65.4 103.8 ✓ +1.56 ✓

191.0 ✓ + 1.68 ✓
246.2 55.2 ✓
18.2 39.6 ✓ ✓
10 42 18 57.8 94.8 ✓ +1.79

10 39 37
10 40 34

21366.653

May 17-1917

P,A, = 230° XII

10 47 22 195,8

241,4 45,6 ✓

12.9 47,3 1.84

60,2 ~~102,9~~ ~~+1,59~~

92,9

+1,68

192,4 ✓

249,4 57,0 ✓

13.6 48,2 ✓

61,8 105,2 ✓ + 1,53 ✓

P,A, = 50°

279,0 ✓ mean = +1.67

332,2 43,2 ✓

102,2 50,7 ✓

152.9 93,9 + 1,81 ✓

+1,66 ✓

271,3 ✓

343,3 62,0 ✓

107,0 43,8 ✓ + 1,52 ✓

10 52 48 150,8 105,8

107,0

10 50 05

10 51 02

21366.660

May 17 - 1917

XIII

P. a. = 50°

10 59 15 279.9
331.2 51.3 ✓
100.8 52.9 ✓
153.7 ~~104~~ 104.2 ✓ + 1.5⁵

279.4 + 1.5⁴
337.0 57.6 ✓
103.2 48.0 ✓
151.2 105.6 ✓ + 1.5²

P. a. = 230°
12.4 ✓ mean + 1.58
59.8 47.4 ✓
192.2 53.6
245.8 101.0 ✓ + 1.65

9.8 + 1.62
64.6 54.8
192.2 47.8
11 05 12 240.0 102.6 + 1.59

11 03 14
11 04 11

P.A. = 226 A
fu = 4.6
Dec = + 18.8
H.A. = 4.2 ~~E~~ w
S.T. = 15.06

21366.669 Last group somewhat diff on acct of low alt. & haze

11 14 SS Cygni 2138+43 est = 11.8

21368

Saturday May 19 – 1917

16" E. Eq.

L.C. Obs. J.B.D. Rec.

8.12. R Coronae 154428 est = 13.4
Susp. var. = 13.5

~~8.19~~ U Gemin. 074922 est = star ⅔ a4,2d
8.19.28 90.4 * b dis. Phot T. est = 13.9
190.2 99.8 P.A. = 290°
282.2 75.5
357.7 175.3 −0.09

98.2 −0.08
184.0 85.8
278.2 91.0
369.2 176.8 −0.06
P.A. = 110°
~~86.4~~
187.3 Mean −0.2X
277.2 89.9
12.4 70.9
83.3 160.8 −0.37

199.7 −0.40
275.2 75.5
8.3 81.5
82454 89.8 157.0 −0.46

May 19 1917

8 31 SS Aurigae 060547 est = 14.2

Antigone

Phot. R. 10 31 + 19.0

12 47

P.A. = 2 10

8 Sky too poor to attempt photometric obs of Antigone.

X Camelop 043274 est = 8.2

8.03 The 8.7 is 0.5 brighter than the 8.5. The 9.5 probably too faint 13 02 / 8 30

8.06 Olcotts susp nearly = 9.7

Too hazy to use photometer to advantage.

10.31 SS Cygni 213843 = 11.7

13 28

8 10

9.23 Too cloudy 3 50 + 43.5

var. nearly at L.V.

Water

Sun May 20 - 1917.

15" E Eq.

L C Obs & Rec

8 28 SS Aurigae 0605 47 est < 12.8

Sky poor.

8 32 U Gemini 0749 22 est < 12.8

8 34 * b = a 2, 4 d

R Coronae 1544 28 est 13.4

8 40 susp var near R = 13.5

21374 Friday, May 25, 1917

16" C. Eq.

L. C. Obs. & J. B. D. Rec.

8.35 R Coronae 154428

~~8.20~~ Clouds. R Coronae at least fainter than 12.th magn.

8.47 Sky clearer, R Cor = est. 13.4

~~susp~~. var. nearby = 13.6

9.05 S. S. Aurigae 060547 est = 12.7

Region low, obs. difficult, but var. surely seen & fainter than the 12.4

U Geminorum 074922

Comp. * b = a 2, 4 d

9.29 S. S. Cygni 213843 est = 11.6

9.33 S. S. Aurigae 060547 est = 12.7

Confirming previous obs.

9.48 V Leonis 095421 est = 9.7 R = 4

W Leonis 104814 est = 13.8

1420

3.32w +14.2

S Leonis 110506

1423

3.18w + 6.8

10.00 Sky too cloudy to continue to advantage

Saturday, May, 26 1917,

16" E. Eq.

L. C. Obs. J. B. D.

U. Geminorum 07 4922

8 10 20 266.6 ~~Comp +~~ star ~~a~~ b, dis. P.A = 140°
373.6 107.0 ✓
96.1 90.3 ✓ Phot. R. star b with stand
186.4 197.3 ✓ + 0.33
162.7

281.2 ✓ + 0.18
358.8 77.6
85.8 103.4
189.2 181.0 + 0.02
179.0
P.A. = 320°

~~269.6~~ mean = − 0.04
8.4 ✓ var. dis
99.2 90.8 ✓
196.6 72.2 ✓ $\overset{-}{*}$ 0.32
268.8 163.0

17.2 ✓ $\overset{-}{*}$ 0.27 var. dis
91.4 74.2 ✓
184.2 94.5 ✓ $\overset{-}{*}$ 0.22
8 18 36 278.7 168.7
184

Obs. diff. on account of twilight

Reject above, use next group only.

May 26, 1917.

2 1 3 1 5 =1

P.A.=140° U. Gemin. II

8 28 12 94.8 star b dis.

187.8 93.0 ✓ star b: est = a 3, 2 d

284.2 74 .2 ✓ − 0.24

358.4 167.2 ✓ U. Gemin. est = 13.0

96.3 ✓

187.7 91.4 −0.12

277.4 88.8

366.2 180.2

P.A. 320° 179.8 + 0.00

7.4

90.4 83.0 ✓ Mean = −0.28

196.3 75.1 ✓

271.4 158.1 ✓ −0.42

15.6 ✓

88.4 72.8 ✓ −0.44

188.8 82.6

8 32 56 271.4 155.4 ✓ − 0.47

8.40 SS. Aurigae 060547 est = 10.9

8.51 R Coronae 154428 est = 13.3

13 20

224

9 36 + 28 2

Susp. var. nearby = 13.7, and barely seen.

21313

May. 26, 1916

8.57 R Comae 115919 est=10.2 R=3

$\frac{1337}{1.38w + 19.5}$

9.58 SS Cygnae 213843 est=11.8

Too cloudy to continue to advantage.

2 1 3 7 9

Wed. May 30, 1917

Decoration Day

L.C. Obs. 15" E. Eq.

8 00 Twilight very strong.

R Cor. 15ʰ 44ᵐ 28 est (13.1) 4 Var
12 50
2 54 E

8 17

8 47 U Gemin 07 49 22 est < 13.5 Phot R.
Star b with d 13 09
5 20 W

P.A. 260 Index Left

8 27.0	268.8	(~~Var~~ * d ~~b~~ dis	est b = a 5, 1 d 9.0 9.1 9.05
	374.4	105.6	
	95.6	92.2	
	187.8	197.8	− 0.34
		162.2	
	281.2		− 0.17
	364.4	83.2	
	94.4	96.8	
	191.2	180.0	0.00

Index Right

Mean = − 0.11

	190.4	< * ~~b~~ d dis	
	283.3	92.9	
	0.3	88.5	
	88.8	181.4	
		178.6	− 0.03
	186.3		
	280.4	94.1	− 0.05
	2.6	89.8	est b = 8.95 a 4, 2 d
8 35.0	92.4	183.9	
		176.1	− 0.07	~~d~~ 8.46

May 30-1917

8 51 SS Aurigae 060547 est 12.4

SS Aurigae apparently at its short maximum.

Antigone

10 38 +19.0

1348 Plot R.

310

Antigone close to +18°.2422 (8.3)

9 10 slightly fol & same dec,

Approx Pos. 10h 49m +18°.25' (1855)

This star used as a comp ★.

Index Below P.a. 20

9 15.0 300.4 < comp ★ (brighter) dis.

342.2 41.8

107.7 55.1

162.8 96.9 +1.73

297.7

341.4 43.7 +1.64

107.8 60.2

168.0 103.9 +1.56

Index above p.a. = 300°

Mean = +1.83

207.2

2(37) 9.597 251.4 44.2

28.4 40.4

68.8 84.6 +2.06

205.8

254.6 48.8 +2.02

30.0 38.8

9 23.0 68.8 87.6 +1.98

9 19.0

May 30, 1917

Antigone cont.

II

Above

9 29.4 207.4
250.4 43.0
27.6 39.0
66.6 82.0 + 2.14

+ 2.16

208.2
250.2 42.0
25.9 38.5
64.4 80.5 + 2.18

Below mean = + 2.03
111.9
164.4 52.5
301.2 37.7
338.9 90.2 + 1.91

111.2
163.3 52.1 + 1.90
299.8 39.0
9 37.0 338.8 91.1 + 1.88
9 33.2

2137 9.606

Cs watch used = 4 sec. slow at 10:00 by bell. (Bell)

May 30-1917

III

Below

9 44.0 ~~103.8~~
113.8
163.2 49.4
299.8 41.0
340.8 90.4 + 1.90

114.7 +1.92
164.4 49.7
302.0 39.2
341.2 88.9 + 1.94

Above Mean = +1.99
25.4
63.2 37.8
204.6 46.6
251.2 84.4 + 2.07

28.8
67.7 38.9 + 2.06
205.2 46.1
9 51 55 251.3 85.0 + 2.05
9 5 55
9 47 58

21379.67

May 30-1917

IV

	above			
9 57 48	22.8		✓	
	68.0	45.2 ✓		
	207.2	44.2 ✓		
	251.4	89.4	+1.93 ✓	
	31.0		✓	+ 2.00
	70.0	39.0 ✓		
	206.4	45.8 ✓		
	252.2	84.8	+2.06 ✓	
	Below			mean = +1'.88
	300.7		✓	
	340.2	39.5 ✓		
	111.4	56.7 ✓		
	168.1	96.2	+ 1.75	
	302.2		✓	1.76
	341.8	39.6 ✓		
	112.8	55.6 ✓		
10 03 50	168.4	95.2	+178	

10 00 49

-21 379.6~~34~~ 26

May 30 - 1917

	Below			V
10 11 57	300.3	✓		
	340.7	40.4 ✓		
	110.8	59.0 ✓	✓	
	169.8	99.4	+1.67	
	300.2	✓		+1.72 ✓
	340.4	40.2 ✓		
	112.2	55.8 ✓	✓	
	~~164.9~~	96.0	+ 1.76	
	168.0			
	Above		mean = +1.86 ✓	
	210.3	✓		
	251.1	40.8 ✓		
	27.2	43.6 ✓	✓	
	70.8	84.4	+2.07	
	207.7	✓	+ 2.01 ✓	
	254.0	46.3		
	27.8	42.4 ✓	✓ +1.95 ✓	
10 18 02	70.2	88.7		

10 18 02
9 59
10 15 00
21379.635

May 30 - 1917.

	Above		VI
10 26 12	209.0	✓	
	251.9	42.9 ✓	
	28.8	44.5 ✓	✓
	73.3	87.4	+1.98
	208.2	✓	$+2.0\overset{0}{\cancel{7}}$
	253.2	45.0 ✓	
	31.0	40.8 ✓	
	71.8	85.8	+2.03 ✓
			+ 1.8[illegible] R
	Below	✓	
	112.0	53.9 ✓	
	165.9	45.6 ✓	
	299.2	99.5 ✓	+1.67 ✓
	344.8		
	110.9	✓	+1.61
	170.8	59.9 ✓	
	298.8	44.5 ✓	✓
10 37 33	343.3	104.4 ✓	+1.55
3 45	93.3		
10 31 52			
21379.647			

May 30 – 1917

VII

Below

10 38 56 108.8 ✓
168.2 59.4 ✓
296.8 47.6 ✓
344.4 107.0 ✓ + 1.49 ✓

✓

110.8 ✓ 1.5~~4~~3
168.8 58.0 ✓
297.2 45.7 ✓
342.9 103.7 + 1.57 ✓

above mean + 1.76

30.0 ✓
69.8 39.8
206.6 44.4 ✓ ✓
251.0 84.2 ✓ + 2.07

28.2 + 1.98
69.9 41.7 ✓
204.0 48.8 ✓
10 45 20 252.8 90.5 ✓ + 1.90 ✓

4 ~~36~~ 16 Region becoming too low &
10 42 08 Obs. too uncertain to continue.

21379.654

10 53 SS Cyg. 21 38 43 & δ = 11.7
15 38
600 E

8/38

Thurs. May 31, 1917

15" E Eq.

L.C.Ab.

R Cor. 154428 est 13.5
or (13.1) 4 R.Cor

8 35

Diff on acct of clouds

SS Cygni 213843
1358
740
420

est 11.7

9 07 Very faint in clouds.

Observer's headache too severe to continue.

21393

Wed. June 13, 1917

15" Eq.

8.41 R Cor. 15 44 28 est = 13.6
14 00
1 44 E
10 16

Obs. somewhat difficult on account of brightness of sky.

8.46 SS Cygni 213843. est = 11.8
1429
7.09 E.

21398

Mon. June 18, 1917

L.C. Obs.   15" E. Eq.   L.C. Rec.

Antigone
10 38 +19.0
10 52 +18.5
14 34
3 42 W

Object seen on May 30 for Antigone was not the asteroid.

21 38 43 SS Cygni

9 27   est 8.1 L.C.
est 8.2 Bu.

R Coronae 15 44 28
15 34
0 10

9 37   (13.1) 6, 1 ft star near (13.1) L.C.

(13.1) 5, 2 ft star near (13.1) Bu

ft star near 13.1 we will call x, see 20 ~~sec~~ in. enlarge. #

V Librae 14 34 17
15 46
1 12

9 57 est 11.9 L.C.
est. 11.7 Bu

June 18, 1917

R ~~T~~ Librae 15 00 18
16 00
1 00 -18.5
est 9.3 l.C.
est 9.5 Bu

T Librae 15 05 19
16 05
1 0 -19.6
est (12.0) 3, 5 k' l.C.
est 11.9 Bu

Z Librae 15 06 05
16 08
l' = 11.8 1 2w -5.0
est 12.~~2~~0 l.C
est 11.7 Bu

S Librae 15 15 20 est 10.0
16 18
1 03 -20.0

RS Librae 15 18 22 est 9.5
16 23
1 5 -22.6

RU Librae 15 27 14 est 10.6
16 34
1 7w

June 18 - 1917

X Librae 15 30 20 est 12.7
16 38
1 8 - 20.8

W Librae 15 32 15 est 12.8
16 43
1 11 - 15.8

U Librae 15 36 20 est. 12.6
16 49
1 13 - 20.9

Z Librae 15 40 20
16 51
1 11 - 20.8

Sky becoming too poor here.

X Coronae 15 45 36 est 13.6
16 58
1 13 + 36.8

Z Coronae 15 52 29 est 13.3
17 08
1 16 + 29.9

R Herc 16 01 18 est < 13.3
17 01
1 10 + 18.6

11 15 Too cloudy to continue.

Thur. June 1$\overset{9}{8}$ – 1917

L.C. Obs. 15" Σ. Eq.

Antigone.

11 8 +16.2
14 28
3 20 W

8 45 Cannot find Antigone.

R Leo Min 093934 est 11.5
14 52
5 13 W +34.9

R Leonis 094211 est 6.7
14 57
5 15 +11.9

V Leonis 095421 est 9.8
15 01
5 07 +21.7

W Leonis 104814 est < 13.5
15 03
4 15 W +14.2

(4!13 W ? +14.6 15!06) = Neb. cluster.

9 15 all cloudy. Hopeless.

JD 21400

Wed. June 20, 1917.

L.C. Obs 15" E Eq. J.B.D. Rec.

8.10 Twilight still strong.

8.30 X Urs Maj 083350 Est. =13.0
1419
5 46 w +58.0

W Cancri 090425 est = 12.9
1440
5.36 w +26.0

Y Drac. 093178 est = 12.6
1446
5.15 w + 78.0

R ~~S~~ Urs. Maj. 103769 est = 11.8 R=3
1450
4.13 w +69.0

S Leonis 110506 est = 11.1 R=2
1453
3.48 w + 6.0

Clean out groove of dome,

R Comae 115919 est = 9.3 R=3
1502
3.03 w +19.5

T Urs. Maj. 123160
1505
2.34 w +16.0

T Virg. 120905 est =12.9 R=2
1509
3.0 w − 5.2

June, 20, 1917.

2148

R Corvi 121418 est=12.3 R=4
1511
2.57w — 18.7

Y Virg 122803 est=12.9
1513
2.45w — 3.9

RV Virg. 130212 est=11.5 R=4
1515
2.13w — 12.6

V Virg. 132202 est = 13.2
1518
~~2.~~1.56w — 2.4

R Hydrae 132422

F. G. est = 4.9 J. B. D.
F. G. est = 4.8 L. C.

9.16 RS Virg. 132706 est = 11.5 R=4
1527
2.00

R R Virg. 135908 est = ~~11.4~~ 11.3 R=3
1529
1.30w — 8.8

Z Virg 140512 est=11.4 R=3
1533
1.28w — 12.8

Z Librae 154020 est =12.5
1540
— 20.8

2'40

June, 20, 1917.

R R Libræ 155018 est = 13.6
10 C. – 11.0

R Libræ 154715 est = 11.6 R = 4
5 C. – 16.3

R. Z. Scorpii 155823 est = 8.8 R = 4
1545
0.13 C – 23.3

Z, Scorpii 160021 est =
1547
0.13 C – 21.4
x 4, 5 y see Yerkes chart.

X Scorpii 160221 est = 12.3 R = 5
1550
0.12 C. – 21.2

W Scorpii 160519 est = 9.5 var.
1551
0.14 C – 19.9

RX Scorpii 160524 est = 13.2
0.11 C. – 24.6

R Scorpii 161122 a est = 14.0 susp. only.

S Scorpii 161122 b est = 10.5
0.14 C. – 22.7

W. Oph. 161607 est = x 5 var.
1601
0.15 C – 7.5

June - 20, 1917.

V Oph. 162112 est 9.8 R = 6
16.06
0.15 E - 12.2

10.02 Y Scorpii 162319 est = 12.0
1610
0.13 E - 18.5

T Oph. 162815 est = 12.2
1614
0.14 E. - 15.8

S Oph. 162816 est = w 3 var
see Yerkes chart.

RR Oph. 164319 est = 15, var.
1631
0.12 E - 19.3

SS Oph. 165202 est = 12.8
1642
0.10 E - 2.0

R Oph. 170215 est = 13.2
1646
0.16 E - 16.0

SS Cygni 213843 est = 8.2
1650
4.48 E + 43.3

June 20, 1917

Phot R. SS Cygni.

P.A. = 60° Comp with 10.9

10 4657 298.2 Var. dis. near the 9.6.

339.2 41.0 ✓

~~111.8 49.4 ✓~~

~~161.2 90.4 ✓ * 1.90 ✓~~

~~300.0 ✓ − 1.98~~

~~339.2 39.2 ✓~~

~~117.8 45.4~~

~~163.2 84.6 ✓ * 2.06 ✓~~

~~P.A. = 180°~~

~~208.8~~ Mean = − 2.09

~~250.7 41.9~~ 10.90

~~29.8 39.8~~ 8.8

~~69.6 81.7~~ − 2.14 ✓

209.7 − 2.20 ✓

252.4 42.7

32.2 35.4

10 5258 67.6 78.1 − 225 ✓

see next page for meas
with Phot T.

Reject above group with Phot R.

June 20, 1917.

Phot T. II

P.A. = 60° comp with ✳ e = 8.9

11 08 15 96.6 var. dis.

161.4 ✓

273.0 64.8 ✓

345.9 72.9 ✓

137.7 − 0.82

91.7 ✓

167.7 76.0 − 0.72

273.6 73.6 ✓

347.2 149.6 − 0.62

P.A. = 240°

261.4 comp ✳ dis. mean = − 0.51

353.2 91.8 ✓ 8.90

80.4 101.7 8.4

182.1

193.65 − 0.25

166.5

252.6 ✓

357.8 105.2 − 0.30

86.0 93.7 ✓

11 14 02 179.8 199.0

161.0 − 0.36

11, 27 R Coronae 154428 est = 13.6 P.A. = 238a

susp. var. near R invis. fr = 6,4

x 5, I, m Focus = 5 — 95

2h 40'

Thurs. June 21–1917

L.C.Ob. 15" E. Eq. J.B.D. Rec.

9.40 T Urs Maj. 123160 est=12.8
15–56
3 25 W

S Urs. Maj. 123961 est=9.7

RS Urs. Maj. 123459 est=10.0

9.48 T Urs. Min. 133273 est=9.3 R=4
1604
2.32 W +73.9

U Urs. Min. 141567 est=10.2 R=3
1610
1.55 W +67.5

S Bootis 141954 est=11.7 R=3
1612
1.53 W +54.0

R Camel 142584 est=12.1
1615
1.50 W +84.5

S Urs. Min. 153378 est= 9.9 R=6
1620
0.47 W +79.0

10.14 T Drac 175458 est= T=12.1 R=7
Comp.= 11.2 R=2 1624
1.30 E +58.2

June, 21, 1917.

V Drac. 175654 est=11.2 R=3
1630
1.26 E +55.1

X Drac. 180666 m < 13.5
W Drac. 180565 est=~~10.9~~ 9.9
1631
1.34 E. +66.0 ~~R~~ <

U Drac 190967 est=13.0
1640
2.29 E +67.3

R Cygni 193449 est=12.2 R=6
1642
2.52 E
9.8 + ~~15.0~~
50.0

+50.1
16.44
2.57
19.41

RT Cygni ~~194348~~ 194048 est=7.9 R=3
1647
2.56 E
9.04 +48.5

TU. Cygni 194348 est=13.6

χ Cygni 194632 est=10.9 R=7
1651
2.55
9.65 +32.6

June, 21, 1917.

Z Cygni 195849 est = 7.8 R=6
1658
3.00 E.
9.00 +49.9

S Cygni 200357 est = 14.1
1703
3.00
9.00 +57.7

ST Cygni 202954 est = 10.9 R=4
1705
3.24
8.36 +54.0

V Cygni 203847 est = 10.9 R=8
1708
3.30 E
8.30 +47.8

10.58 RZ Cygni 204846 est = 11.1 R=5
1711
3.37 E. ~~+8.23~~
8.23 +47.2

June 21, 1917

SS Cygni 213843 est = 8.2

1715
7.23
7.37 +43.3

P.A. = 240°
Phot T.
11 05 47 72.4 Comp. * dis
188.6 116.2 ✓
258.8 99.5 ✓
356.3 215.7 ✓ − 0.69
144.3

82.6 ✓ −0.62
179.8 97.2 ✓
252.4 111.3
363.7 208.15 − 0.55
1.5 1.5

P.A. = 60° Comp. * dis
341.7
102.0 120.3 Mean = −0.66
172.8 97.9 8.90
270.7 218.2 8.2
141.8 − 0.74

348.7
94.7 106.0 −0.73
160.6 111.4
11 10 52 272.0 217.4
142.6 − 0.72

June to date
79 vis est.
32 photom setts.

P.A = 56.a
Spr. = 6.1
Dec = 43.2
H.a = 4.7 E
Focus = 5.95

Fri. June 22 – 1917

L.C. Ob. 15" E. Eq. J.B.D. Rea

Antigone.

~~1~~1 8 + 16 2
14 48
3 40 W

8.47 Antigone too faint to measure in photom.
It appears only as a faint star (12.5th) in
ordinary eye-piece.

R T. Herc 170627 est = 12.5
1506
2.00 E + 27.5

8.59 R S Herc. 171723 est = 9.4 R = 3
1515
2.02 E + 23.0

R U Oph. 172809 est = 10.6 R = 3
1520
2.08 E -
9.52 + 9.7

R T Oph. 175111 est = 11.9 R = 4
1523
2.28 + 11.0
9.32

R Y Herc. 175519 est = 13.8
1525
2.25 E
9.35 + 19.5

2'40D

June, 22 – 1917.

W Lyrae 181136 est = 12.7
1531
2.40C
9.20 + 36.6

SV Herc. 182224 est = 13.9
1534
2.48
9.12E + 24.9

Very difficult. Susp. only.

SV Drac 183149 est = 12.1
1540
2.51C
9.9 + 49.3

RZ Herc 183225 est = 11.9 R = 3
1544
2.48
9.12E + 26.0

RY Lyrae 184134 est = 14.0
1547
2.54
9.06E + 34.6

RW Lyrae 184243 est = 13.5
1552
2.50C
9.10 + 43.5

RX Lyrae 185032 est = ns
1556
2.54
9.06E + 32.9
X 5, n

June, 22, ~~1~~ 1917

Z Lyrae 185634 est = 14.5
1602
2.54
9.06 C + 34.8

RT Lyrae 185737 est = 14.2
1607
2.50 C
9.10 + 37.4

Var. surely seen.

16.00 V Lyrae 190529 est = 14.0
1611
2.54
9.06 C + 29.2

S Lyrae 190925 est = 10.2 R = 5
1619
2.50 C.
9.10 + 25.5

RS Lyrae 190933a est = 14.0
1627
2.42 C
9.18 + 33.0

RU Lyrae 190941 est = p3 n
1629
2.40
9.20 C + 41.1

RY Oph. 181103 est = 10.7 R = 4
1633
1.38
10.22 C + 3.6

June 22 — 1917.

T Serp. 182306 est=10.7 R=4
1637
1.46E
10.14 + 6.1

R Aquil 190108 est=6.3 (in finder)
1641 R=6
2.20
9.40E + 8.1

~~T~~ Z Cygni 191350 est=10.9 R=3
1644
2.29
9.31E + 50.0

U Lyrae 191637 est=10.9 R=7
1648
2.28
9.32E + 37.7

TY Cygni 192928 est=12.9 R=3
1651
2.38
9.22E + 28.1

10.34 RT Aqui 193311 est=10.7 R=4
1655
2.38
9.22E + 11.6

RV Aqui 193509 est=9.5 R=4
~~16~~
17.00
2.35
9.25E + 9.5

June 22 - 1917.

S Aqui 200715a est = 9.8 R=2
1703
3.04
8.56 E + 15.0

R U Aquil 200812 est = 12.8
1705
3.03
8.57 E + 12.7

RS Cygni 200938 est = 6.8 R 8
1709
3.00
9.00 E + 38.0

SX Cygni 201130 est = 13.3
1711
3.00
9.00 E + 30.8

10.58 WX Cygni 201437b est = 11.9 R=7
1717
3.00
9.00 E + 37.0

Repair hand-light

June 22 - 1917

I

11:0² Phot T. SS Cygni 213843 est 8.2 in finder

P.A. 17 22

11 07 42 287.2 Var * dis. 4 16 ε

331.1 7 44

11.12 Impossible to measure on account of clouds. Useless to continue.

32 - 111

— 32

21405

Mon. June 25, 1917.

L.C. Ob 15" E Eq.

8: ~~35~~ 40 R Cor Bor 15 44 28 est 12.2
15 04
0 40 E +28.5

R is surely brighter ~~tonight~~.

T Camelop 043065 est 8.5
15 20 R5
10 50 W +65.9

X Camelop 043274 est 9.0 R4
+75.5

Olcotts Suf = 9.9

S Camelop 053068 est 8.8 R4
15 30
10 00

V Camelop 054974 ~~est~~ 11.0 R4
15 32
9 43 +74.0

U Lyncis 063159 est 12.8
15 36
9 05 +59.8

S Lyncis 063558 + 58.8 est 12.1
9 00 15 39
9 04 +58.0

4 05

June 25-1917

R Lyncis 065355 est (0.) R4
15 43
8 50 +55.5

T Cass 24 001755 est 72 R7
15 50
8 27 2
3 33 ~~2~~ +55.2

Y Cephei 24 003179 est 20 var, 14th
15 55
8 36
3 24 +79.5

9 30 X And. 001046 est 122
16 00
3 50 +46.4

U Cass 004047 est 97 R 5
16 04
3 24 +47.7

RV Cass 004746
16 07
3 20 +46.9

Too low - no shutter

June 25 - 1917

S Cass 011272 est 12.6
1612
30 +72.0

U. Persei 015354 est 11.2
1616
2 23 +54.3

Z Cephei 021281 est 13.5
1620
2 08 +81.2

Clear at 10.12

9 50 Cldy

9 55 SS Cygni 213843 est 8.5
1623
5 15
6 45

Lunar Halo seen low in West

Moon about 5° S of W point. Brighter mock moon about 20° off to due North same elevation above horizon. Fainter mock moon same dist off to South & same elevation. Branches seen going upwards from moon & two mock moon

9 55 - 10 05

LCOk

J 1405

June 25 – 1917

RR Cephei 023080 est 13.2
1647
2 17

U Cygni 201647 est 7.0 Finder
1653 R 7
3 23 +47.6
8 37

X Cephei 210382 est 10.6 R4
1700
4 03
7 57 +82.6

T Cephei 210868 est 9.3 R 6
1703
4 05
7 55

S Cephei 213678 est 9.4 R 9
$17\overset{07}{12}$
$4\ 2\overset{9}{8}$
7 38 +78.2

S Lacertae 222439 est 12.0 R 4
1709
5 15
6 45 +39.8

June 25-1917

R Lacertae 223841 est 9.7 R4
17 14
5 24
6 36 +41.9

r Cass 230759 est 11.9 R 4
17 17
5 50
6 10 +59.0

Z And 232848 est 10.7 R 3
17 21
6 07
5 53 +48.3

Z Cass 233956 est <13.8
17 23
6 16
5 44 +56.0

RR Cass 235053 est <12.8
1727 Haze?
6 23
5 37 +53.2

R Cass 235350 est 10.7
17 33 +50.8 R 7
6 20
5 40

2 1 40 5

June 25 – 1917

Y Cass 2 35 +55.5 est 9.7 R7

17 34

6 26

5 36 +55.0

R Coronae 15 44 28 est 12.8

17 37

1 53 W +28.2

11 15 No further minima tonight

30 – 141

21407 Wed. June 27-1917

EC Obs Roc 15-9 E Eq.

8 35 R Cor. 15 44 28 est 12.5
1 15 10 R 1
0 34 E

U Herc. 16 21 19 est 10.3 RX
15 18
1 3 E

S S Herc. 16 28 07 est 10.0
15 22 R 4
1 6 E

W Herc 16 31 37 est 12.8
15 26 R 3
1 05 + 37.5

S Herc 16 47 15 est 12.4
15 29 R 4
1 08 + 15.1

RV Herc 16 56 31 est 14.0
15 32
1 24 E + 31.2

Z Ophiuchi 17 14 01 est 9.0
15 37
1 37 E + 1.5

22407

June 27 - 1917

T Herc 180531 est 8.3

9 00 15 39 R 4

2 26 +31.0

X Aquilae 194604 est 10.8

15 46 R 4

4 0 +4.0

SY Aquil 200212 est 11.6

15 50 R 5

4 12 +12.6

R Delph 201008 est 14.2

15 53

2. 4 17 +8.8

Z Delph 202817 est 10.6

15 58 R 4

4 30 +17.0

Y Delph 203611 est 13.8

16 01 if seen

4 35 +11.0

9 30 V Delph 204318 est 11.5

16 06 R 4

4 37 +18.9

33407

June 27-1917

X Delph 205017 est 13.0
16 10
4 40 +17.3 susp Var? = 12.2

R Vulpec 205923 est 9.2 RX
16 14
4 45 +23.4

TW Cygni 210129 est 10.5 RX
16 17
4 44 +29.2

9 42 SS Cygni 213843 est 9.1 R1
16 20
5 18 E +43.3

R Equulei 210812 est 14.0
16 23
4 45 +12.4

RR Peg 214024 est 14.0 susp only
16 27
5 13 +24.6

RT Peg 215934 est 11.2 RX
16 32
5 27 +34.6

1000 RV Peg 222129 est 11.0 R3
16 36
5 45 +29.9

21407

June 27-1917.

ST Sagitt 185513 est <13.5
1640
215 E -12.9

W Aquilae 191007 est 10.4
1656
214 E -7.3
Prof Fleming's Var = 10.2
Var? near the 9.9 = 10.5

R Sagitt 191019 = 8.6 R 5
1703
272 E -19.2

S Sagitt 191319 = <13.5
C's Var near S Sagitt 191419 = <13.5

RW Sagitt 190819 = 10.2 R 4

RX Sagitt 190818 = 9.5 R 4

T Sagitt 191017 = 11.3 R ~~4~~ 2

Z Sagitt 191321 = 11.3 R 3

RR Aquil 195202 if seen = 13.5 Var.
1716
236 E - 2.5
RS Aquil 195308 est <13.5
1721

June 27-1917

81407

R Capric 200514 est 9.6 R5

1725

2 40 E - 14.6

Z Aquilae 200906 est 13.3

1725

2 44 E - 6.5

10 55 R Scuti 184205 est F.G = 58

T Aquarii 204405 est 8.6 R4

1734

3 10 E - 5.5

Y Aquarii 203905 est 10.5 R3

11 50 W Aquarii 204104 est 13.0

(41) - (182)

Vis. Red. to here

4°

Sat. June 30, 1917

L.C. Obs. 15" E. Eq. P. D. Rec.

9 ~~18~~ 17 SS Cygni 21 38 43 est. = ~~9.1~~ 10.4

Juno (3) $20^h\ 39.^m2\ -3°\ 14'$
Boz (185-5)

20 40 -5°.5
16 23
4 17 -5.5
7 43

(S.T. 16:40 = 9:54 E.S.T.)

10 00 clds

10 20 cldy

see next page

June 30, 1917
Juno (3)

P.a. = 230 I

10.28.34 265.8 < comp ★ obs
298.4 326
88.1 255
113.6 58.1 + 2.93

267.3 +290
295.0 277
87.2 320
119.2 59.7 + 287

P.a. = 50
354.0 mean = + 2.86
27.7 33.7 6.33
177.4 27.6 magn = 9.19
205.0 61.3 + 281

356.9 +282
25.2 28.3
175.1 32.7
10.32.55 207.8 61.0 + 282

10 30 44
10 32 46 Comp ★ = − 3° 5018 (6.8) = 6.33

add 2^{min} to times beginning with Group I.

10 45 clds, sky nearly all covered with clouds.

Thurs. July 5 – 1917

L.C. Obs. 15" Eq. L.C. Jr. Rec

R Cor Bor

8 20 Cloudy

9 45 Too cloudy for observations.

Ests of Redness
plotted to here

21426

Mon. July 16, 1917

L.C. Ob. 15-inch Equat.
Rec = Phil Doherty

8.33 213843 SS Cygni est. = 11.5
1618
520 + 43.3

181136 W Lyrae est. = 11.6 R=4
1625
1 46
10 14 + 36.6

182224 S ~~D~~ V. Herc. est. 13.8
1632
150

183225 RZ Herc. est. = 9.4 R4
16 37
15 55 E

184134 RY Lyrae est. = 14.0
1641
2 00

July 14 1917

~~Saturday~~

~~R.Y. Lyrae 184134~~

RW Lyrae 184243 est. = 13.5 R3
1646
156

RX Lyrae 185032 est. = 12.8 R3

Z Lyrae 185634 est. = 14.5

RT Lyrae 185737 est. = 11.7

V Lyrae 190529 est. = 12.9 R3

S Lyrae 190925 est. = 10.3 R4

RS Lyrae 190933 est. = 14.5

RU Lyrae 190941 est. = 13.5

9.28 U Lyrae 191637 est. = 10.8
Clouds R7

July 16, 1917

9.42 R Scuti 184205 F.G. est = 6.0

10 00 Sky cloudy.

R Coronae

Spectra.

10.25 Too Cloudy to continue.

(15)-(15) July

Sun. July 22, 1917

L.C. Obs 15" E. Eq. L.C. Jr. Rec

R Comae 115919 est. 9.8

8.55 1655

456 w +19.3

S.U. Virg 120012 est. 10.6

T. Can Ven 122532 est. 12.6

Y. Virg 122803 est. 1$\overset{3}{2}$.2

R. Virg 123307 est. 9.3

U Virg 124606 est. 9.0

R.U. Virg 124204 est. 13.3

R.V. Virg 130212 est. 11.0

V. Virg 132202 est. 10.1 ?

S. Virg 132706 est. 12.0

R.R. Virg 135908 est 12.2

Z Virg 140512 est. 11.2

21432

July 22, 1917.

Z. Bootis 140113 est. 9.6

9.37 V. Labrae 143417 est. 11.8

FT Librae 150018 est. 12.4

T. Librae 159519 est. 12.5

Y. Librae 150605 est. 8.5

S Librae 151520 est. 7.7

RS. Librae 151822 est. 7.7

R.V. Librae 152714 ast. 13.5

X Librae 153020 est 13.5

10.05 RY Sagitt 191033 est 10.5

(22)-(37)

2 4 35

Wed. July 25 - 1917

L.C. Ob. 15" E Eq

8 13 SS Cygni 2138 43 est 10.2 L

8 24 — — — Miss Raymond. 10.5 (S.R.)

Phot T.

P.A. = 60°

8 30.0 231.0 variable dis.

327.1 96.1

42.0 116.0

158.0 212.1

147.9 +0.62

230.6

338.4 107.8 +0.62

44.0 164.4

158.4 222.2 +0.82

133.8

P.A. = 240

69.6 comp * dis. Mean ~~+0.~~ 84

132.8 63.2 = +0.79 3

251.8 65.9 8.99

317.7 129.1 +1.00 ~~9.69~~

~~9.14~~

68.4 +0.96 9.77

137.7 69.3

253.3 63.1

8 35.5 316.4 132.4 +0.93

8 40 all cloudy P.a. 235.6

9 20 All cloudy. Sp = 7.0

H.A. 4:26 E

Above phot. affected by clds. Dec. +43.3

S.T. = 17:12

21 h 36

Thursday July 26, 1917

~~DD S.C. Obr. B.D. Rec.~~

L.20 P¹ S¹ Cygni 213843 est.=10.~~2~~2 r

see ✳ below

phot. T (10.0) 2, 2 (10.4)

✳ In obs. of last night the 10.0 star used for a comp. star was called 10.4, therefore making our ests too faint. LC. should read ~~9.0~~ 9.4

Miss Raymonds should read 10.1

Phot T. S.C. Obr.

P.A. = 240

L.31.20 70.2 compan. star dir.

132.7 62.5

255.8 48.0

303.8 110.5 +1.41

76.2 +1.20

132.6 56.4

246.2 73.7 +0.98

319.9 130.1

P. A. = 60 +0.90

159.0 893

231.8 72.8 9.83

339.4 70.0 +0.72

49.4 142.8

P.a = 57.4

ℓ 34.15
ℓ 33.05 157.6 +0.61 ℓfr. = 6.1

230.7 73.1

332.2 80.5

153.6 +0.50

L.37.10 52.7

July 26, 1917

ℓC Ok

154428 R Coronae Phot T

P. A. = 1.50

~~1.59.20~~ ~~34.4~~

8.55.00 174.2 < comp ☆ dis.

217.3 43.1

349.0 432

32.2 86.3 + 2.01

171.0 + 1.88

217.0 46.0

344.2 502

34.4 96.2 + 1.75

P. A = 3.30

mean = + 2.11

268.7 7.18

300.2 31.5 magn = 9.39

78.6 46.9

135.5 78.4 + 2.24

262.6 2.34

300.4 378

85.8 344

9.00.45 120.2 72.2 + 2.43

55 45

8 5.7 52

5.6 42

~~9.00~~ C's watch = 1^m 10^s fast by kll.

P. A. = 330.A

8 p.m. = 6.3

July 26 - 1917.

Juno (3) 20 20 -4.5 Phot T

Comp * = - 4° 5126 (9.0)

20 20 -3.5
17 50
2 30 Σ

P.A. = 280

~~4~~9.42.10 243.7 Juno disc. I
322.4 78.7
58.9 85.2
144.1 163.9 - 0.30

244.6 — 0.24
323.2 78.6
56.4 91.3
147.7 169.9 - 0.19
P.A. = 100

Mean = + 0.06 ~~0.30~~

63.0 < comp * dis
146.2 83.2
241.6 8~~7~~6.2
327.8 1~~7~~69.4 + 0.20 ~~0.18~~
66.6

145.2 78.6 + 0.36
~~153.0~~ 73.9
247.7 152.5 + 0.53
9.47.00 321.6

9 10
9 44 35
1 10
9 43 25 2421436.613

July 26–1917

Juno again. II

	P.A. 100		
9.55.50	57.4 ∠ comp ✱ dir		
	144.4	86.7	
	239.2	92.8	
	332.0	179.5	+ 0.01
	56.4		
	150.0	93.6	+ 0.08
	242.2	77.9	
	320.1	171.5	+ 0.16
	P.A. 280		mean = ~~+0.12~~ −0.04
	149.0 comp. ✱ dir ~~Var dir~~		
	237.9	88.9 ✓	
	319.4	106.4 ✓	
	65.8	195.3 ✓	∓ 0.29
		164.7	
	150.6		∓ 0.15
	243.6	93.0 ✓	
	324.6	87.6 ✓	
9.59.25	52.2	180.6 ✓	∓ 0.01
		179.4	

9 57 38
1 10
9 56 28
1436.622

July 26 – 1917.

III

P.A. 280

10.1~~8~~6.40 236.4 < Juno.

324.7 88.3

68.7 74.9

143.6 163.2 − 0.32

241.4

318.4 77.0 − 0.26

56.4 91.8

148.2 168.8 − 0.21

P. A. = 100

325.2 < Juno dis. Mean = −0.02

56.6 91.4

145.8 93.8

~~10.20.00~~ 239.6 185.2

174.8 + 0.10

330.4

63.2 92.8

144.6 94.4 + 0.22

10.21.15 239.0 197.2

162.8 + 0.33

37.55

10 18 58

1 10

10 17 48

1436.631

July 26-1917

Juno IV

	PA 100		
10.31.55	323.6		
	62.8	99.2	
	149.9	90.5	
	240.4	189.7	
		170.3	+0.18
	328.2		
	54.8	86.6	+0.10
	147.2	94.6	
	241.8	181.2	
		178.8	+0.02
	PA = 280		
			−0.10
	55.3		
	149.2	93.9	
	247.3	70.6	
	317.9	164.5	−0.29
	63.8		
	138.5	74.7	−0.30
	238.8	89.1	
10.35.30	327.9	163.8	−0.31
10 33 42			
10 32 32			
14 36.648			

Phot placed in proper position
∴ P.a 280 becomes 210
and P.a 100 becomes 30

July 26 – 1917

Juno V

10.44.30 P.A. ~~280~~ 210

~~60~~

50.8
142.8 920
237.9 819
319.8 1739 − 0.11

64.0 − 0.24
141.2 77.2
241.6 82.7
324.3 159.9 − 0.38

P.a. ~~100~~ 30 mean = − 0.16

142.2
241.0 98.8
329.2 85.0
54.2 183.8
176.2 + 0.07
150.4
234.6 84.2 − 0.08
327.7 83.7
10.49.25 51.4 167.9 − 0.23

3 55
10 46 58
10 45 48
1436.657

July 26 - 1917

VI

	P.a. 30		
11.1.00	145.0		
	235.2	90.2	
	324.6	99.0	
	63.6	1892	
		1708	+0.17
	144.4		
	241.2	968	+0.04
	334.3	78.7	
	53.0	175.5	-0.08
	P.a. 210		mean = -0.14
	233.2		
	330.2	97.0	
	66.0	68.6	
	134.6	165.6	- 0.27
	250.6		
	321.6	71.0	- 0.31
	56.2	90.6	
11.6.20	146.8	161.6	-0.35
7 20			
11 03 40	Repair clock rope.		
11 02 30			
2421436.668			

P.a. = 209 A
Sfr. = 7.5
Ha = 0'38 E
Dec - 48
S.T. = 19.41

21437

Friday July 27, 1917

L. C. Obs. 15" Equat. A. F. D. Ree.

9.21 SS Cygni 213843 est. = 10.3

Juno (3) Phot T.
P.A. = 180 Same comp ✱ as last
9.57.25 Clouds night = −4°5726 (9.0)
9.58.00 57.4 ← Juno dir.
147.2 89.5
249.3 70.9 $\overline{I}$
320.2 160.4 −0.37

61.4 −0.18
142.0 80.6
233.7 100.5
334.2 181.1 +0.02
178.9
P.A. = 0
Clouds
−0.16

159.2
234.6 75.4
327.2 92.9
60.1 168.3 −0.22

147.7 −0.14
241.2 93.5
332.7 83.1
10.2.35 55.8 176.6 −0.06

~~35~~
10 0 18 Troubled somewhat by clds in above group.
10 0. ~~48~~ 51
2143?.626 at 10.00 Cs watch = ~~3a~~ 3s slow (by Tell)

July 27 - 1917

Juno II

	P.A. 0		
10.20.40.	158.9		
	231.8	72.9	
	320.6	97.1	
	57.7	170.0	− 0.19
	143.6		− 0.12
	245.5	101.9	
	336.3	75.4	
	51.7	177.3	− 0.05
	P.A. 180		mean = − 0.07
	241.2		
	341.2	100.0	
	Clouds		
	60.2	89.0	
	149.2	189.0	+ 0.17
		176.0	
	241.7		
	319.4	77.7	− 0.02
	57.5	91.2	
10.25.30	148.7	168.9	− 0.21

10 23 05 More troubled by clds in No II group
10 23 38
21437.642

July 27-1917

Juno III

P.a. 180

10.31.15 240.4
335.2 94.8
67.2 75.1
142.3 169.9 — 0.19

244.6
319.7 75.1 −0.2~~4~~8
61.2 86.0
147.2 161.1 — 0.36

Pa 0 − 0.14

333.3
49.6 76.3
143.4 97.3
240.7 173.6 — 0.12

323.2
60.1 96.9 −0.01
143.9 88.3
10.35.30 232.2 185.2
174.8 +0.10

10 33 22 5

10 33 5~~2~~ 5

Less troubled by clouds in Group III

21437.650

July 27-1917

Juno IV

pa. 0

10.40.20 333.3
52.4 79.1
144.8 96.1
240.9 175.2 — 0.09

328.8 — 0.08
58.9 90.1
151.2 85.4
236.6 175.5 — 0.08

pa. 180 Mean = — 0.16

60.0
145.5 85.5
244.0 76.8
320.8 162.3 — 0.34

61.2 — 0.24
143.3 82.1
239.2 90.9
10.44.30 330.1 173.0 — 0.13

10 42 25
10 42 58
214 37.655

July 27 - 1917

V

Juno

P.a. = 180

10.49.20	58.8		
	149.2	90.4	
	244.2	76.5	
	320.7	166.9	− 0.25
	65.6		− 0.22
	146.2	80.6	
	238.4	88.9	
	327.3	169.5	− 0.20

P.a. = 0 Mean = −0.21

	152.4		
	231.7	79.3	
	327.4	88.4	
	55.8	167.7	− 0.23
	146.3		
	238.3	92.0	− 0.20
	332.8	79.4	
10.54.15	52.2	171.4	− 0.16

3 35

10 51 48

10 52 ~~28~~ 31

21437.662

11 00 Cs watch = 33s slow by bell

July 27 – 1917

Juno VI

	P.a. 0		
11.1.20	152.2		
	238.3	86.1	
	329.8	87.4	
	57.2	173.5	−0.12
	148.9		−0.20
	240.4	91.5	
	336.6	74.2	
	50.8	165.7	−0.27
	P.a. 180		Mean = −0.16
	242.8		
	324.4	81.6	
	56.4	92.4	
	148.8	174.0	−0.11
	237.4		−0.13
	332.8	95.4	
	68.0	76.8	
11.6.00	~~235.4~~ 144.8	172.2	−0.15

7 20
11 03 40
11 04 13
21437.669

July 27-1917

Juno VII

P.a. 180

11.12.55 243.0
319.8 76.8
58.2 89.1
147.3 165.9 — 0.27

238.6 — 0.28
329.9 91.3
68.2 74.0
142.2 165.3 — 0.28

P.a. 0 mean = −0.19

334.8
51.1 ~~47.4~~ 76.3
146.2 95.6
241.8 171.9 — 0.16

326.4 — 0.10
62.2 95.8
153.3 81.1
11.17.25 234.4 176.9 — 0.06

10 20
11 15 10
11 15 43
21437.678

July 27-1917

Juno VIII

P.a. 0

11.24.50 328.9
48.9 80.0
143.3 98.7
242.0 178.7 − 0.02

328.4 −0.08
59.2 90.8
152.2 812
233.4 1720 − 0.15

P.a. 180 mean = − 0.14

63.7
139.7 76.0
240.7 869
327.6 1629 − 032

55.3
148.7 93.4 − 0.20
244.4 81.5
11.2825 325.9 1749 − 0.09
11 26 38
11 27 11

21437.685

July 27-1917

Juno IX

P.A. 180

11.37.20	60.4		
	144.8	84.4	
	239.3	89.3	
	328.6	173.7	− 0.12
	58.3		
	147.4	89.1	− 0.18
	245.3	77.7	
	323.0	166.8	− 0.25

P.A. 0 mean = − 0.16

	153.6		
	232.9	79.3	
	326.4	90.3	
	56.7	169.6	− 0.20
	148.2		
	239.4	91.2	− 0.14
	331.9	83.9	
11.42.55	55.8	175.1	− 0.09

15
1140 08
11 40 41
21 4 37,696

July 27-1917

Juno

P.a. 0 X

11.47.25 151.6
235.8 842
327.6 890
56.6 173.2 − 0.13

5
150.4 − 0.18
237.2 868
330.0 839
53.9 170.7 − 0.17

2 2
P.a. 180 mean = − 0.19

244.6
320.2 75.6
56.2 934
149.6 169.0 − 0.21

239.2 PA 178A
327.4 88.2 −0.28 Spa. 4.8
66.6 73.4
11.52.40 140.0 161.6 − 0.35

11 50 02
11 50 35
21437.702

Beginning with 4th group, no further trouble from clouds.

21 4 318 Saturday July 28 1917

~~N. C. Obs. 15" Equat.~~ C. T. P. Rec.

8. 14 ,5' ,5' Cygni 213843 est. = 10.7

Juno (3) Phot. I.

20 20 − 3½ 3.5

8:23:05 P. A. 139

243.3 Juno dir. I

322.2 78.9

62.6 77.8

140.4 156.7 − 0.44

242.4 − 0.35

322.2 79.8

58.2 86.6

144.8 166.4 − 0.26

PA 310

mean = −0.20

325.2

60.4 95.2

146.9 87.5

234.4 182.7 + 0.05

177.3

333.6 − 0.06

53.6 80.0

148.2 91.2

8.27.00 239.4 171.2 − 0.17

8 24 02

Same comp ☆ as last night

= −4.° 5/26 (9.0)

21438^{558}

July ~~27~~ 28, 1917.

PA. 310 Juno II

S. 32.25

323.2 < Juno dis.
57.1 93.9
152.2 84.6
236.8 178.5 − 0.03

331.0 −0.03
52.6 81.6
145.5 96.9
242.4 178.5 − 0.03

PA. 130 mean = −0.16

142.2 < comp ☆ dis
243.0 100.8
323.0 95.8
58.8 196.6
163.4 −0.32

142.4
240.6 98.2 −0.28
327.3 94.0
61.3 192.2
167.8 −0.23

S. 36.20
f 34 22

21438.565

July 28-1917

III

8 P.a =

8.44.35 141.9

240.2 comp. stars dim.

8 45 ~~Clouds~~

8 47 Sky all cldy

P.A. = 135 A

d pr. = 4.8

9.00 all cloudy with no prospect of clearing.

Monday July 30, 1917

L. C. Ob. 15 Equat. P. D. Rec.

20 20 − 3.5 ~~Juno~~ (3)

~~plot T~~

P. A = 0 see note page 194

~~8.39.20~~ ~~119.8~~ ~~Juno~~ dis

8.32.50 154.8 Juno dis

229.2 74.4 T

339.2 64.4

43.6 138.8 −0.80

159.3 −0.68

229.2 69.9

333.6 81.0

54.6 150.9 − 0.56.

P. A. = 180

251.6 Mean = − 0.82

318.6 67.0

74.6 56.4

131.0 123.6 — 1.11

255.6 − 0.95

316.5 62.9

69.4 76.1

8.37.30 145.5 139.0 − 0.79

20

8 35 10 Comp ★ = −.

Had to use a new comp ★ tonight; the other too distant.

July 30 - 1917

II

	P.a. 1A		
8.41.50	254.0		
	312.2	58.2	
	79.8	52.4	
	132.2	110.6	– 1.40
	253.6		– 1.12
	317.8	64.2	
	69.4	72.2	
	141.6	136.4	– 0.85
	Pa. 0		
			mean – 0.85
	334.0		
	48.8	74.8	
	158.7	66.9	
	225.6	141.7	– 0.74
	338.4		
	53.0	74.6	– 0.58
	157.2	83.2	
8.45.30	234.4	157.8	– 0.42
8 43 40			

July 30, – 1917

Pa. 0 Juno III

8.50.20 332.2
46.8 74.6
158.2 69.2
227.4 143.8 – 0.70

341.4
44.2 62.8 – 0.70
155.8 81.4
237.2 144.2 – 0.69

P.a. 180 Mean = – 0.76
~~137.2~~
249.4
321.6 72.2
72.8 60.8
133.6 133.0 – 0.92

254.2
318.8 64.6 – 0.82
68.2 77.6
8.54.30 145.8 143.2 – 0.71

8 52 25

8 58 SS Cygni 21 38 43
~~est~~ in 12" Polar = 11.5
9 00 Ci (watch read = 45s fast of bell

July 30 1917

P.a. 180 IV

9.02 30 251.2
321.6 ~~1~~70.4
76.4 ~~1~~56.2
132.6 126.6 − 1.05

253.8
313.8 600 − 0.96
68.8 748
143.6 134.8 − 0.88

P.a. 0 mean = − 0.94.

332.2
48.9 76.7
159.2 68.4
227.6 145.1 − 0.67

342.2 − 0.92
41.4 59.2
163.5 62.5 − 1.16
6
9.0~~5~~.15 226.0 121.7 Troubled by clouds in this group.

9 04 22

I do not consider this last group at all good. L.C.

9 10 Sky all cloudy

Tuesday July 31, 1917

S.C. Ob. 15" 6th quad. Phot. T — P.T.D.Ame

Juno (3) 2020-3.6

P.A. = 10

8.42.10 68.6 comp. star dir.

130.8 67.2

255.3 53.5

308.8 120.7 + 1.18

78.2

126.7 48.5 + 1.28

249.7 63.6

313.3 112.1 + 1.37

P.A. = 190

158.4 Mean = +1.06

228.6 70.2

341.6 61.7

43.3 131.9 + 0.94

162.3

233.3 71.0 + 0.85

339.7 69.9

8.46.35 49.6 140.9 + 0.76

8 44 22

8 43 44

572

21441.~~614~~ Object observed last night for Juno not Juno.

I am sure of it tonight, though

E.C.

July 31, 1917.

3

8.58.45± Juno (3) P. A. = 190 II

156.3

232.0 75.7

346.0 57.3

43.3 133.0 + 0.92

~~[illegible]~~

164.7 +1.06

217.6 52.9

341.4 66.4

47.8 119.3 +1.21

P. A. = 10

mean = +1.12

247.4

315.6 68.2

74.5 51.8

126.3 120.0 +1.19

258.5

310.3 51.8 +1.18

62.7 69.5

8.58.00 132.2 121.3 +1.16

11 45

8 55 52

8 55 14

21441.580

9 00 C. watch = 38 fast at 9.00 by light.

July 31 - 1917

Ra=10 Juno III

9.04.10 254.0
312.7 58.7
75.8 49.6
125.4 108.3 +1.46

256.2
307.7 51.5 +1.42
73.2 60.1
133.3 111.6 +1.38

Ra=190 mean = +1.26

336.4
48.2 71.8
164.4 54.4
218.8 126.2 +1.06

345.7
39.4 53.7 +1.10
159.4 69.2
9.08.40 228.6 122.9 +1.13
9 06 25
9 05 47
21441.587

July 31–1917

IV

P. A 1908 unr

9.18.35 336.2
45.0 68.8
163.8 54.8
218.6 123.6 +1.11

347.6
38.8 51.2 +1.11
157.2 72.4
229.6 123.6 +1.11

PA 10
66.6 Mean = +1.12
136.2 69.6
258.4 50.2
308.6 119.8 +1.20

76.3
127.2 50.9 +1.14
244.2 74.1
9.22.35 316.3 125.0 +1.08

9 20 35
9 19 57

Comp ✱ = −5°.5253 (6.8) }
21441.597 Approx Position = 20h 15.9m −5° 40′ } ?

It looks as though Juno had been measured with −5°.5245 (8.0) instead of with −5.5253 as first supposed.

July 31-1917

Juno V

Pa 10

9.30.25 65.6
134.7 69.1
260.0 45.3
305.3 114.4 +1.32

75.4
131.0 55.6 +1.29
250.4 61.4
311.8 117.0 +1.26

Pa 190 mean = +1.16

158.8
228.8 70.0
345.3 58.7
-44.0 128.7 +1.00

165.6 +1.04
218.8 53.2
336.2 72.2
9.34.40 42.4 125.4 +1.08

9 32 32
9 31 54
21441.606

July 31, 1917

Juno

Pa. 180 VI

9.42.15 159.6

231.4 71.8

345.5 53.5

39.0 125.3 + 1.08

165.2 + 1.02

223.3 58.1

335.3 72.9

48.2 131.0 + 0.96

Pa. 10 Mean = + 1.12

251.3

316.2 64.9

77.4 57.6

129.0 116.5 + 1.27

253.6

307.2 53.6 + 1.23

68.2 66.6

9.46.30 134.8 120.2 + 1.19

9 44 22

9 43 44

21441.614

July 31, 1917

	P. A. = 10	Juno		VIII
9.51.20	250.0			
	314.0	64.0		
	76.4	48.8		
	125.2	112.8	+ 1.35	
	248.4		1.26	
	316.8	68.4		
	78.8	53.0		
	121.8	121.4	+ 1.16	
	P. A. = 190		Mean = + 1.12	
	334.8			
	48.7	73.9		
	169.8	51.2		
	221.0	125.1	+ 1.08	
	334.2			
	40.7	66.5	+ 0.97	
	157.7	69.1		
9.55.30	226.8	135.6	+ 0.86	
9 53 25				
9 52 47				
21441.620				

July 31 – 1917

Juno

VIII

	P.A. 190		
10.04 00	336.0		
	45.0	69.0 ✓	
	167.2	52.4 ✓	
	219.6	121.4 ✓	+ 1.16
	344.8	✓	+ 1.20
	38.8	54.0 ✓	
	159.8	63.5 ✓	
	223.3	117.5 ✓	+ 1.25
	P.A. 10		Mean = + 1.30
	70.0	✓	
	134.2	64.2 ✓	
	256.4	49.4 ✓	
	305.8 ✓	113.6	+ 1.34
	76.2	✓	+ 1.40
	124.7	48.5	
	253.2	59.4 ✓	
10.08.10	312.6	107.9	+ 1.47

1006 05
1005 25

2144162~~8~~

202.

July 31-1917
Juno

	Pa 10			IX
10.14.05	68.8			
	131.5	62.7		
	257.4	50.4		
	307.8	113.1	+1.35	
	77.2		+1.32	
	128.6	57.4		
	254.0	64.4		
	318.4	115.8	+1.29	
	Pa 190		mean = +1.20	
	158.2			
	226.8	68.6		
	343.3	59.9		
	43.2	128.5	+1.01	
	164.7			
	221.2	56.5	+1.08	
	341.0	65.6		
10.18.05	46.6	122.1	+114	
10 16 05				
10 15 27				
21441.635				

July 31-1917

Juno

	P.a. 190		X	
10.25.50	162.2			
	221.4	59.2		
	344.8	55.2		
	40.0	114.4	+1.32	
	163.8		+1.27	
	216.8	53.0		
	338.8	65.6		
	44.4	118.6	+1.22	
	P.a. 10	mean	+1.28	
	252.0			
	315.2	63.2		
	74.7	52.2	P.A. = 5.0 A	
	126.9	115.4	+1.29	lpr. = 7.8
	257.2			
	307.1	49.9	+1.30	
	68.2	64.7		
10.29.55	132.9	114.6	+1.31	

10 27 52

10.27 14

21441.644

Saturday, August 4, 1917

S. C. Obs 15" Equat. P. T. D. Rec.

Juno (3) 20 20 −3.5

P. A = 29 Phot T.

9.34.25 339.2 Juno dir.

43.6 64.4

160.4 63.2

223.6 127.6 −1.03 I

344.3 −1.08

37.4 53.1

153.6 70.0

223.6 123.1 −1.13

P. A = 200

Mean = −1.23

70.6

126.8 56.2

255.0 54.8

309.8 111.0 −1.39

75.7

128.4 52.7 −1.38

250.4 59.2

9.40.05 389.6 111.9 −1.37

9 3) 15

9 39.2 Comp ★ = −5°.5226 (9.1)

1855 Pos = 20 11.9 −5° 46'

21445.610

Aug. 4. 1917

P.a. 200 $\overline{\underline{II}}$

9.45.10 69.0
130.8 61.8
255.2 54.6
309.8 116.4 $\overline{*}$ 1.27

76.9 − 1.32
124.4 47.5
247.2 65.0
312.2 112.5 $\overline{*}$ 1.36

P.a. 20 mean = * −1.18
160.4
220.2 59.8
334.2 71.6
215.8 131.4 $\overline{*}$ 0.95

160.6
227.8 67.2 $\overline{*}$ 1.04
345.3 55.1
9.49.50 40.4 122.3 $\overline{*}$ 1.14

9 47 30

9.49.5

2144561.8

August 4 - 1917

Juno

P.a. 20 III

9
~~10~~.56.15 163.4
226.8 63.4
336.4 69.8
46.2 133.2 - 0.91

156.6
229.4 72.8 - 0.91
339.3 60.7
40.0 133.5 - 0.91

P.a. 200 mean - 1.08

253.8
308.9 55.1
68.2 64.2
132.4 119.3 - 1.21

248.4
316.2 67.8 - 1.26
73.6 47.1
10.01.20 120.7 114.9 - 1.31

117 35
- 9 58 48
10 [illegible]0. 8
21445.626
10 50 C's watch = 2m 0s slow of Bell

August 4, 1917
Juno

P.A. 200 IV

10.12.20 254.7
313.2 58.5
71.2 58.8
130.0 117.3 — 1.25

251.4
307.8 56.4 — 1.28
71.7 58.1
129.8 114.5 — 1.31

P.A. 20 mean = — 1.15

345.5
45.3 59.8
154.0 71.1
225.1 130.9 — 0.96

335.2
43.6 68.4 — 1.02
160.7 57.1
10.16.30 217.8 125.5 — 1.07

10 14 25
10 16.4
21445.636

August 4, 1917.

Juno

	P.a. 20			V
10.22.35	338.6			
	43.7	65.1		
	160.1	69.7		
	229.8	134.8	— 0.88	
	340.1			
	46.2	66.1	— 0.96	
	162.6	60.6		
	223.2	126.7	— 1.05	
	P.a. 200		Mean = −1.02	
	74.0			
	129.2	55.2		
	251.3	65.5		
	316.8	120.7	— 1.18	
	67.2			
	136.2	69.0	— 1.09	
	250.4	59.8		
10.26.55	310.2	128.8	— 1.00	

10 24 45

10 26.8

21445.644

August 4-1917

Juno

VII

	Pa 200		
10.33.00	72.5		
	128.8	56.3	
	249.0	66.2	
	315.2	122.5	— 1.14
	70.4		
	136.2	65.8	—1.14
	254.6	57.0	
	311.6	122.8	— 1.13
	Pa 20		mean = —1.04
	164.6		
	217.4	52.8	
	330.8	77.8	
	~~48.6~~	130.6	—0.97
	153.2		
	231.0	77.8	— 0.94
	343.6	57.4	
10.37.15	41.0	133.2	—0.91
10 34 08			
10 36.1			
21445.650			

Aug ~~1~~ 4, 1917

Juno

VIII

	P.a. 20		
10.43.20	160.6		
	247.4	76.8	
	341.6	62.8	
	44.4	139.6	−0.78
	156.4		−0.91
	226.3	69.9	
	340.0	57.2	
	37.2	127.1	−1.04
	P.a. 200	Mean = −1.10	
	251.8		
	305.0	53.2	
	71.7	57.9	
	128.6	111.1	−1.39
	251.8		
	314.6	62.8	−1.28
	75.0	58.6	
10.47.15	133.6	121.4	−116
10 44 18			
10 46.3			
21445.657			

Aug. 4 – 1917

Juno.

Pa 200 VIII

10.52.50 249.8

311.8 62.0

73.2 57.8

131.0 119.8 − 1.20

252.8 −1.28

307.6 54.8

71.2 58.2

129.4 113.0 −1.35

Pa 20 Mean = −1.15

~~3~~4~~3~~3.6 ~~6~~59.3

42.9 73.0

154.4 132.3 − 0.92

227.4

337.4

40.8 63.4 −1.02

~~8~~

60.5

162.8 123.9 − 1.11

10.57.00 223.3

9 50

10 56 55

10 56.9

21 44 45.665

S T. = 20h 6m

P A = 17.0 A

Spr. = 4.5

Dec. = −5.1

H A = 0.3 East

Sunday August 5, 1917

S. d. Obs. 15. Equat. P. T. D. Rec

P.A. = 10 ~~[illegible]~~ Phot. T. 1

s. 19.40 [redacted] see page 214

> 60.2 < ~~[illegible]~~ dis.

140.6 80.4

250.4 62.4

312.8 142.8 — 0.72

73.3 — 0.82

131.8 58.5

241.4 74.0

315.4 132.5 * — 0.93

P.A. = 190

Mean = — 0.83

154.6

229.4 74.8

336.2 69.6

45.8 144.4 — 0.67

160.8

221.6 60.8 — 0.84

335.7 67.7

s. 23.55 43.4 128.5 — 1.01

s 21.48

P.A. = 5.0 A

Sfr. = 2.3

H.A. = 2:34 E

S.T. 17:36

Dec. — 5.7

August 5, 1917

	~~Time (3)~~		II
	P.A. 180		
8.22.25	162.2		
	226.3	64.1	
	334.6	67.6	
	42.2	131.7	− 0.94
	157.4		
	221.6	64.2	− 086
	330.8	75.0	
	45.8	139.2	− 0.79
	PA 10		
			Mean = −081
	241.6		
	318.0	76.4	
	65.8	8	
	131.4	65.6	
		142.0	− 0.73
	249.8		
	314.0	64.2	− 0.76
	59.4	75.2	
8.32.25	134.6	139.4	− 0.79
8.30.25			

Same Comp star as last night.

August 5, 1917.

~~Juno ([illegible])~~ III

	P. A. = 10		
8.37.50	243.8		
	313.3	69.5	
	65.5	67.3	
	132.8	136.8	— 0.84
	251.8		
	310.6	58.8	— 0.88
	64.4	73.6	
	138.0	132.4	— 0.93
	P. A = 190		
			Mean = — 0.82
	333.6		
	50.2	76.6	
	163.3	59.1	
	222.4	135.7	— 0.86
	337.4		
	47.8	70.4	— 0.75
	155.8	76.4	
8.41.40	232.2	146.8	— 0.64
8 39 45			

These not on Juno

see next pages

August 5, 1917,

Juno (3) I ~~IV~~

P. A. = 150

54 25 78.4

127.2 Juno dis.

254.2 48.8

312.2 58.0

106.8 — 149

70.7

132.8 62.1 — 1.39

258.2 53.6

311.8 115.7 — 129

P. A. = 330 Mean = −1.22

165.3

222.7 57.4

342.7 65.7

48.4 123.1 — 113

157.8

231.8 74.0 — 104

343.3 57.1

58 40 40.4 131.1 — 0.96

---

56 32 Same Comp ★ as last night

55 17

21446.580

9 00 Cs Watch = 1m 15s fast by bell

Aug. 5 – 1917

Juno

Pa. 330 II

9.08.45 344.6
45.6 61.0
154.4 65.4
222.8 126.4 – 1.05

341.4
49.8 68.4 – 0.96
159.8 66.4
226.2 134.8 – 0.88

Pa 150 mean = – 1.18

75.6
129.8 54.2
253.8 59.6
313.4 113.8 – 1.33

71.2
132.8 61.6 – 1.40
254.8 45.8
9.~~4~~13.05 304.6 107.4 – 148

PA 146.4
Sep. 3.2
Dec. – 5.7
R.A 147.7
S.T = 18.23

21 50
9 10 55
9 09 40

21446.590

Aug. 5 – 1917
Juno

	P.A. 150			~~#V~~ III
9.21.05	72.1			
	128.8	56.7		
	244.7	631		
	310.8	119.8	— 1.20	
	43.0			
	131.6	57.3	— 1.21	
	253.4	604		
	313.8	118.7	— 1.22	
	P.A. 330		Mean = — 1.08	
	158.0			
	220.4	62.4		
	336.3	717		
	48.0	134.1	— 0.89	
	163.3			
	226.6	63.3	— 0.96	
	341.2	638		
9 25 45 —	45.0	1271.	— 104	

~~9.20.45~~
9 23 25 —
9 22 10
21446.599

Aug. 5, 1917

Juno

	Pa 330		IV
7 9.3~~1~~.40	142.2		
	220.0	57.8	
	340.6	64.7	
	45.3	122.5	— 1.14
	159.0		
	225.0	66.0	— 1.05
	338.2	65.1	
	43.3	131.1	— 0.96

Pa 150   mean = 1.18

	254.0		
	307.7	53.7	
	74.6	6 ~~2~~07	
	135.3	114.4	— 1.32
	255.2		
	314.4	59.2	— 1.30
	72.4	56.4	
9.41.25	128.8	115.6	— 1.29
9 39 32			
9 38 17			

21446.610

Aug. 5, 1917.

Juno

V

P.A. = 150

9.46.05 255.7
313.6 57.9
75.0 51.6
126.6 109.5 — 1.43

254.2
312.8 58.6 — 1.32
72.7 60.3
133.0 118.9 — 1.22

P.A. = 330. mean = −1.19

341.0
46.2 65.2
164.6 55.0
219.6 120.2 — 1.19

336.0
44.4 68.4 — 1.06
161.4 63.8
9.50.25 225.2 132.2 — 093

9 48 15
9 47 00
21446.616

Aug. 5, 1917

Juno.

VI

P.A. = 330

9.57.10	341.6		
	42.8	61.2	
	159.9	63.7	
	223.6	124.9	— 1.09
	342.3		
	41.8	59.5	— 1.14
	164.6	60.4	
	225.0	119.9	— 1.19
	PA = 150		
	73.3		mean = — 1.23
	127.6	54.3	
	251.8	59.8	
	311.6	114.1	— 1.32
	74.0		
	132.8	58.8	— 1.32
	251.2	55.1	
10.01.55	306.3	113.9	— 1.33
9 59 32			
9 58 17			

21446.624

see new book No 197