KG
11365
622

198

15 = 1 inch

KG 11365.622

1917pnae.proj..623C

KG 11356.622

HARVARD
UNIVERSITY
LIBRARY
JUL 2 1956

Wed. Sept. 19, 1917

L. C. Ob. 15" E. Eq.

9 50 S Aquilae 200715a est 11.7

$\frac{21\ 32}{1\ 2^{5}\ W\ +15.0}$

Re-est of sequence

~~a 4 b 2 c d~~

$\overset{8.1}{a'}$ 3 $\overset{8.6}{c'}$ 3 $\overset{8.5}{b'}$ 2 $\overset{8.6}{d'}$ 4 (e' 9.0)* 4 (f 9.4) in 4" finder

(g 9.4) 1 (f 9.4) 4 e 5 g' 5 h 4 ~~k~~ l 3 k 4 m 5 n 4 o

* e' 9.0 = Northern of two stars near RW Sagittae

S Arietis $\overset{25}{04}$5912 est <13.5

$\frac{22\ 03}{3\ 5^{6}\ E\ +12.0}$

10 03

X And. 001046 est var m of only = 14th

$\frac{0\ 10\ \ 1\ 45}{25}$ $\frac{22\ 17}{1\ 53\ E\ +46.4}$ g 3 var.

T And 001726 est 13.8

$\frac{22\ 27}{1\ 50\ E\ +26.4}$

Clouds near by

U Cass 004047 est <d' 3 var — 14.5th

$\frac{22\ 30}{2\ 10\ E\ +47.5}$ very faint.

Sept 19. 1917

RW and 004132 est <14.2
22 35
206 ε +32.0

V and 004435 est 13.7
22 38
206 +34.8

U and .010940 est 10.6
2241
228 ε +40.0

UZ and 011041 est <14.2
2244
226 ε +41.2

W and 021143a est 11.7
22 49
3 ~~25~~ 22 +43.8

RR Persei 022150 est 11.0
10 50 2253 R 6
328 ε +50.8

(11) (81)

Ledgered to here

Fri Sept. 21, 1917

149^3 L.C. Obs. 15" Eq. L.C. Jr. Obs.

6 49 SS Cygni 213843 est 11.6

Iris Phot T.

19 30 −15.0

19 05

P.A 10 0 25 E

Comp ✱ = −15.

7-4-50 90.4 ∠ Comp ✱ dis. (1855) Pos = $19^h\ 27.1^m$ −15°.5

I

202.2 1118

277.0 94.0

371.0 205.8

154.2 − 0.49

~~P.A. 10~~

102.8 − 0.36

188.7 85.9

270.4 106.6

377.0 192.5

167.5 − 0.24

Pa 190 ~~P.A. 190~~ mean = − 0.31

1.8

109.4 107.6

188.0 90.0

278.0 197.6

162.4 − 0.33

~~P.A.~~

15.2 − 0.26

98.7 83.5 P.A. = 15A

178.4 106.0 Sp. = 1.6

189.5 − 0.18

7 10-0 284.4 170.5

7 07 25 21493.

Sept. 21, 1917

Iris.

	P.a. 190		II
7-18-0	284.2 < Iris dis.		
	363.2	79.0	
	103.4	90.3	
	193.7	169.3	— 0.20
	283.6		— 0.32
	372.8	89.2	
	111.4	68.2	
	179.6	157.4	— 0.43
	P.a. 10		Mean = -0.36
	198.4		
	269.2	70.8	
	11.8	88.1	
	99.9	158.9	— 0.40
	192.2		
	279.8	87.6	— 0.40
	18.0	71.8	
7-23-0	89.8	159.4	— 0.39
7 20.5	Clouds nearby		

21493.

Sept. 21, 1917

Iris.

P.a. 10 III

7

7 30 All cloudy, useless to continue

P.a. 190 Mean = 0.

(1, f 2)

7

21497

Tues. Sept. 25 - 1916

L.E.Obs.

15" Eq.

> 09 R Bootis 14 ~~25 39~~ 32 27 est 7.6 in 4"
R-3
19 32
5 00 +27.2

V Bootis 14 25 39 est 10.3
19 40
5 15 +39.0

R Urs Maj 10 37 69 est 8.0 in 4"
19 47
9 10 +69.3

> 15 R Coronae 15 44 28 est 13.6
19 44
4 00 +28.8

Y Drac 09 31 78 est <13.8
19 53
10 22 +78.5

S Bootis 14 19 54 est 13.6
19 59
5 40 +54.3

U Urs Min 14 15 67 est 9.0 | 4" finder
20 05
5 50 +67.2

V Cor Bor 15 46 39 est 9.3 R 8
20 09
4 23 W +39.9

Sept 25 1917

U Herc 162119 est 9.0
R 5
20 11
3 50 + 19.1

W Herc. 163137 est 8.0 in 4"
20 15
3 44 + 37.2

Z Oph. 171401 est 11.5
20 19
3 05 + 1.6

RY Oph. 181103 est 11.2
20 29
2 18 W
+ 3.7

8.00 R Camelop. 142584 est 9.2 in 4"
20 35
6 10 + 84.3

S Urs Min 153378 est 11.1
20 40
5 7 + 78.0

R Draconis 163266 est 9.1
20 45
4 13 + 66.9

Sept 25, 1917

W Lyrae 181136 est 8.4
2047
236 +36 6

V Drac 175654 est 14.0
2057
3 1 +54.9

T Drac 175458 est 10.0 R 7
+58.2

— Drac s.p. T = 11.7

W Drac 180565 est 13.5

X Drac 180666 est 12.8
2106
30 +66.0

V Lyrae 190529 est <13.8
2111
26 +29.8

RS Lyrae 190933a est 13.7
2117
28 +33 2

T Y Cygni 192928 est <13.8
2117
1 50 +28.2

Sept 25, 1917

χ Cygni 194632 est 12.9 R5

$\frac{21\ 22}{1\ 36\ +32.6}$

SY Aquilae 200212 est 13.0

$\frac{2127}{1\ 25\ +12.}$

~~RT~~ RU Aquilae 200812 est 13.8

$\frac{2130}{1\ 22\ +12.7}$ susp only.

Much < the 12.9

9 00 Z Delph. 202817 est <13.8

$\frac{2134}{1\ 6\ +17.0}$

Y Delph 203611 est <13.3

$\frac{2140}{1\ 4\ +11.0}$

sky poorer in this region.

V Delph 204318 est ~~<~~13.5

X Delph 205017 est 13.1

$\frac{2144}{0\ 56\ +17.3}$

TW Cygni 210129 est 13.6

$\frac{2147}{0\ 46\ +29.2}$

Sept. 25, 1917

Z Cygni 195849 est 12.7 (?), 3 y'
21 50
1 52 w +49.9

RZ Cygni 204846 est 11.2
21 55
1 07 +46.9
susp var near the 10.0 (see y Chart) = 11.3

Y Cephei 003179 est 9.8 RY
22 05
2 26 ε +79.4

S Cass 011272 est 13.8
22 12
3 00 ε +72.0

Z Cephei 021281 est 10.6 RY
22 16
3 56 ε +81.2

RR Cephei 023080 est <13.6
22 18
4 12 ε +81.0

RZ Per. 012350 est 11.8
22 23
3 00 +50.3

Y Persei 032043 est 8.4 in 4"
22 30
4 50 ε +43.8

Sept 25 – 1911

Nov. Per No 2. est. β 0 Nova
see Hagen Print.
Var quite faint, but not as faint
1000 as I have seen it before, for example
when it was last in the western sky.

T Camelop 043065 – est 11.>
22 40
5 50 ε +66.0

X Camelop 043274 est 8.3

10 15 Olcott's Susp Var. = f 3, 1 α = 9.5 –

Other regions too low in poor sky to
observe now to advantage.

(45) (127) L

Mon Oct 1 - 1917

L.O. Obs 15" Eq. Phot T

Iris.
19 30 − 15.0
19 55
0 25 w

8 40 Cannot find Iris.

PA 310 Uranus. Phot T
Comp ✱ = −16°.5895 (8.6)
8 56.0 155.2 < Uran dis
182.6 27.4
331.8 32.9
364.7 60.3 − 285

156.4 X̄ 2.76
189.6 33.2
332.8 32.0 −
364.8 65.2 ✱ 267

PA. 130 Mean = − 2.88
246.2
271.3 25.1
64.7 30.7 ✱ 302
55.8
95.4
247.4 − 3.00
275.4 28.0
66.0 28.8 − 2.98
56.8
9 02.0 94.8

9 00 10 sec slow = Ci watch

8 59.0 21 5 03.583
8 59.2

Oct 1-1917

Uranus.

II

	P.a. 30		
9 12.5	247.2		
	272.2	25.0	
	65.5	29.4	
	94.7	54.4	− 3.08
	247.8		− 316
	270.7	22.9	
	66.6	28.0	− 324
	94.6	50.9	
	P.a. 310		Mean = − 3.02
	335.5		
	363.3	27.8	
	154.8	31.8	
	186.6	59.6	− 2.87
	336.3		
	366.0	29.7	− 288
	155.8	29.4	
9 18.0	185.2	59.1	− 279

9 15.2
9 15.4
2150 3.594

Oct. 1, 1917

Uranus

P.a 360 III

9 22.2 335.8
362.2 26.4
152.6 32.4
185.0 58.8 — 291

— 284

333.3
367.6 34.3
156.3 28.3 — 276
184.6 62.6 ~~7~~

P.a. 30 Mean = — 290.

67.6
184.4 26.8
245.8 30.0
275.8 56.8 — 2.98

64.4 — 2.96
95.0 30.4
245.8 27.8 — 2.93
9 28.0 273.6 58.2

9 25.1
9 25.3
~~2447~~
2150 3.601

Oct. 1, 1917

Uranus.

IV

P.a. 130

9 ~~3~~ 41.5

69.0
97.8   28.8
246.8   28.0
274.8   56.8   − 2.98

65.9   − 2.97
97.8   31.9
247.9   25.5
273.4   57.4   − 2.96

P.a. 310   Mean = − 2.90

157.7
184.4   26.7
334.0   32.9
366.9   59.6   − 2.87

154.6   − 2.84
188.8   34.2
336.0   27.0
9 47.0   363.6   61.2   − 2.81

9 44.2
9 44.3
21503.614

Oct. 1, 1917

Uranus.

V

	P.a. 310		
10 00.8	156.2		
	185.6	29.4	
	336.0	35.3	
	366.3	64.7	− 269
			− 2.74
	151.8		
	187.0	35.2	
	335.8	26.4	
	362.2	61.6	− 280
	P.a. 130		Mean = − 2.86
	247.7		
	271.7	24.0	
	64.4	32.4	
	96.8	56.4	− 3.00
	245.3		− 2.98
	274.8	29.5	
	66.3	28.1	
10 06.2	94.4	57.6	− 2.95
10 03.5			
10 03.7			
21 50 3.62 8			

Oct. 1-1917

Uranus VI

	P.a 130		
10 12.0	247.4		
	273.6	26.2	
	66.8	30.9	
	97.7	57.1	— 2.97
	246.3		— 2.96
	276.3	30.0	
	67.6	27.4	
	94.0	57.4	— 2.96
	P.a 310		Mean = — 2.85
	337.7		
	364.4	26.7	
	154.2	36.0	
	190.2	62.7	— 2.76
	333.2		
	367.7	34.5	— 2.74
	155.8	29.2	
10 17.4	185.0	63.7	— 2.73
10 14.7			
10 14.9			
2			

21503.635

Oct. 1, 1917

Uranus

	Pa 310			VIII
10 274	336.4			
	364.4	28.0		
	152.2	36.4		
	188.4	64.4	— 270	
			— 272	
	334.7			
	365.5	30.8		
	154.4	32.2		
	186.6	63.0	— 275	
	P.a 130		Mean = −2.87	
	65.6			
	92.2	26.6		
	244.8	30.4		
	275.2	57.0	— 2.98	
	65.5		-3.04^{2}	
	95.0	29.5		
	247.2	25.2		
10 33.4	272.4	54.7	— 3.07	
10 30.4				
10 30.6				
21503.647				

Oct. 1, 1917

Uranus

	P.a 130			VIIII
10 42.0	68.6			
	94.8	26.2		
	245.4	28.6		
	274.0	54.8	— 3 07	
			— 3.04	
	66.8			
	96.8	30.0		
	246.4	25.8		
	272.2	55.8	— 3.02	
	P.a 310	Mean =	– 2.98	
	156.8			
	185.8	29.0		
	334.8	29.9		
	364.7	58.9	— 2.90	
	155.5		– 2.92	
	188.4	32.6		
	338.6	25.2		
10 47.8	363.8	57.8	– 2.94	
9.8				
10 44.9				
10 45.1				
21503.656				

Oct. 1 - 1917

Uranus

IX

P.a 310

10 50.4 158.0

188.4 30.4

335.3 31.1

366.4 61.5 - 2.80

156.4

189.0 32.6 - 2.88

338.4 24.9

363.3 57.5 - 2.96

P.a. 130 Mean = - 3.00

248.8

273.8 25.0

67.2 29.0

96.2 54.0 - 3.10

247.8 - 3.11

274.0 26.2

67.4 27.2

10 56.6 93.6 53.4 - 3.12

10 53.5

10 53.5

P.A. = 131 A

Sep = 7.8

21503.662

144 - 144 Setts

144 - 144

1 - 1

11 10 o Ceti 021403 at eye = 3.4

Tues Oct. 2, 1917

L.C. Ob. 15" E.Eq.

Uranus

Phot T.

21 30 -15.0
19 40
1 50 E

Pa 130 (Tel. pointed East) I

6 45.5 333.6 < Uranus dis.
367.6
156.2 34.0
188.6 32.4
66.4 -2.63

-2.63

333.7
364.8 31.1
152.8 35.2
188.0 66.3 - 2.63

Pa. 310 mean = ·2.78
67.2
98.8 31.6
248.4 26.2
274.6 57.8 - 2.94
~~68.8~~

-2.94

68.8
96.3 27.5
243.8 30.6
6 52.3 274.4 58.1 - 2.93
97.8
6 48.9

2 [illegible] 492

Oct. 2, 1917

Uranus

II

6 57.0 Pta .310

64.1

98.3 34.3

247.8 25.0

272.8 59.3 — 289

69.2 — 299

92.4 23.2

243.8 31.1

274.9 54.3 — 309

Pta 130 mean = -2.78

154.4

189.2 34.8

333.8 31.5

365.3 66.3 — 263

153.8 — 25~~4~~6

186.0 32.2

330.3 37.4

7 04.0 367.7 70.6 — 249

7 00.5

21504,500

7 00 Cs watch correct by Bell

Oct. 2 - 1917

Uranus.

III

PA 130

7 13.0 ~~147~~ 152.9

190.8 37.9

332.4 32.3

364.7 70.2 — 2.10

154.4 —2.54

185.8 31.4

331.8 36.2

368.0 67.6 — 2.59

PA 310 Mean = - 2.70

244.1

274.6 30.5

67.2 29.1

96.3 59.6 — 2.87

244.7

273.4 28.7 — 2.86

65.8 32.0

7 19.6 97.8 60.7 — 2.84

7 16.3

21504.511

Oct. 2 – 1917

Uranus

IV

P.a. 310

) 280 245.8

273.0 27.2

66.0 26.8

92.8 53.0 — 3.14

246.8 — 3.10

271.3 28.5

66.3 30.3

96.6 54.8 — 3.07

P.a. 130

Mean = − $2.\overset{8}{7}2$

333.2

367.3 34.1

153.6 33.0

186.6 67.1 — 2.60

334.2 — 2.54

369.2 35.0

157.0 35.6

) 34.0 186.6 70.6 — 2.49

) 31.0

21504.522

Oct. 2 – 1917

Uranus

	P.A. 130		V
) 4.00	329.8		
	364.6	34.8	
	154.4	33.3	
	187.7	68.1	— 2.57
	334.2		— 2.58
	365.5	31.3	
	153.6	36.4	
	190.0	67.7	— 2.59
	P.A. 310	Mean =	— 2.73
	63.8		
	96.8	33.0	
	245.3	27.5	
	272.8	60.5	— 2.84
	66.0		— 2.88
	95.2	29.2	
	244.7	29.1	
) 45.2	273.8	58.3	– 2.93
) 42.6			

21504.530

Oct. 2 - 1917

Uranus

VI

Pa 310

7 53.4 63.1

98.0 349

245.3 26.4

271.7 61.3 — 2.81

64.8 — 2.88

95.6 30.8

246.8 27.0

273.8 57.8 — 2.94

Pa. 130 Mean = — 2.75

154.9

190.2 35.3

334.6 32.6

367.2 67.9 — 2.59

154.7 — 2.62

186.3 31.6

331.8 34.4

7 58.8 366.2 66.0 — 2.64

7 56.1

21504.539

Oct. 2-1917

Uranus

VIII

	P.A. 130		
8 9.4	149.8		
	189.0	39.2	
	333.4	30.0	
	363.4	69.2	-2.53
			-2.60
	155.8		
	185.3	29.5	
	331.4	35.8	
	367.2	65.3	-2.67
	P.A. 310		Mean = -2.81
	246.2		
	276.2	30.0	
	65.8	29.4	
	95.2	59.4	-2.88
	247.8		
	272.4	24.6	-3.02
	67.2	28.0	
8 14.4	95.2	52.6	-3.16
23.8			
8 11.9			

21504.550

Oct. 2, 1917

Uranus

VIIII

P.a. 130 ~~310~~

8 32.5 331.4

365.0 336

154.7 31.7

186.4 65.3 — 267

335.0 — 268

365.5 305

153.8 34.0

187.8 64.5 — 269

P.a. 310 ~~130~~ Mean = − 2.82

66.4

94.6 28.2

246.2 25.2

271.4 53.4 — 312

66.4

94.6 28.2 — 2.96

243.7 33.5

8 37.8 277.2 61.7 — 2.80

8 35.2

21504,566

Oct. 2, 1917

Uranus

~~XX~~ ~~VIII~~

	p.a. 310 ~~+30~~		
f 23.3	244.8		
	272.2	27.4	
	64.7	27.5	
	92.2	54.9	— 3.07
			— 2.90
	244.6		
	273.6	29.0	
	64.4	34.4	
	98.8	63.4	— 2.73
	p.a 130 ~~360~~		Mean = — 2.76
	332.0		
	366.3	34.3	
	154.4	32.7	
	187.1	67.0	— 261
	334.1		— 263
	365.5	31.4	
	153.3	34.4	
f 29.7	187.7	65.8	— 265
f 26.5			

21504.560

Oct. 2 - 1917
Telescope reversed
Uranus
X

8 46			
	P.a 310		
8 49.5	154.4		
	189.0	34.6	
	334.7	27.7	
	362.4	62.3	— 277
	157.4		— 280
	183.8	26.4	
	331.3	34.0	
	365.3	60.4	— 284
	P.a 130		Mean = — 294
	245.4		
	273.4	28.0	
	66.4	26.9	
	93.3	54.9	— 3.07
	247.1		— 3.09
	272.4	25.3	
	67.4	28.6	
8 55.3	96.1	53.9	— 3.11
8 52.4			

21504.578

Oct. 2 - 1917

Uranus XI

	P.A. 130		
9 00.5	243.4		
	273.8	30.4	
	67.7	24.7	
	92.4	55.1	— 3.05
	247.8		— 3.02
	272.7	24.9	
	65.2	31.6	
	96.8	56.5	— 3.00
	P.A. 310		Mean = — 2.90
	335.2		
	367.0	31.8	
	153.9	28.9	
	182.8	60.7	— 2.84
	335.3		— 2.78
	364.7	29.4	
	153.4	34.5	
9 05.8	187.9	63.9	— 2.72
6.3			
9 03.2			

21504.585

Oct. 2, 1917

Uranus XII

P.a. 310

9 17.4 336.0
367.2 31.2
156.4 30.8
187.2 62.0 −2.79

−2.89

335.0
362.2 26.4
156.3 30.3
186.6 56.7 −2.99

P.a. 130 Mean = −2.87

64.2
96.8 32.6
246.0 29.3
275.3 61.9 −2.79

−2.85

64.4
95.6 31.2
246.4 27.4
9 23.0 273.8 58.6 −2.91
9 20.2

21504.59)

Oct. 2-1917

Uranus XIII

	P.a. 130		
9 30.2	62.1		
	97.0	34.9	
	245.2	27.2	
	272.4	62.1	− 2.78
			− 2.85
	67.7		
	95.3	27.6	
		30.8	
	244.4	58.4	− 2.92
	275.2		
	P.a. 310		Mean = − 2.86
	153.8		
	187.7	33.9	
	335.6	29.7	
	365.3	63.6	− 2.73
			− 2.86
	155.8		
	183.6	27.8	
	334.8	28.8	
9 35.5	363.6	56.6	− 2.99
9 32.8			
21504.606			

Oct. 2 — 1917

Uranus

	Pa 310		XIV
9 46.5	152.1		
	188.0	35.9	
	335.8	26.4	
	362.2	62.3	— 2.77
	154.0		— 2.77
	184.4	30.4	
	335.3	32.1	
	367.4	62.5	— 2.77
	Pa 130		Mean = — 2.90
	246.4		
	274.2	27.8	
	65.8	27.0	
	92.8	54.8	— 3.07
	246.3		— 3.04
	273.4	27.1	
	65.4	29.3	
9 52.2	94.7	56.4	— 3.00
9 49.4			

21504.617

Oct. 2 – 1917

Uranus

	Pa 130		XV
10 01.0	242.7		
	273.7	31.0	
	66.4	26.4	
	92.8	57.4	— 296
			— 298
	246.8		
	272.6	25.8	
	64.2	30.6	
	94.8	56.4	— 3.00
			Mean = — 2.89
	P.a 310		~~Uranus~~
	334.8		
	366.4	31.6	
	155.6	28.4	
	184.0	60.0	— 286
	334.4		— 2.80
	364.4	3.00	
	$15\overset{3}{8}.8$	33.6	
10 7.0.	187.4	63.6	— 2.73
10 6.0			
21584.629			

Oct. 2 — 1917

Uranus

P.a 310 XVI

10 18.0 333.2
367.2 36.0
155.4 28.6
188.0 62.6 — 2.76

3
3~~7~~6.3 — 2.74
365.6 29.3
153.6 34.4
188.0 63.7 — 2.73

P.a. 130 Mean = — 2.87
63.2
93.0 29.8
247.8 27.0
274.8 56.8 — 2.98

66.4 — 3.00
94.6 28.2
247.0 27.8
10 23.5 274.8 56.0 — 3.02
41.5
10 20.8

21504.640

Oct. 2 - 1917.

Uranus

XVII

P.a 130

10 36.0	63.3		
	93.8	30.5	
	247.6	27.0	
	274.6	57.5	— 2.96
			— 3.00
	67.4		
	93.9	26.5	
	245.2	29.1	
	274.3	55.6	— 3.04

P.a 310

mean = — 2.92

	152.8		
	187.4	34.6	
	335.4	26.6	
	362.0	61.2	— 2.81
			— 2.85
	155.6		
	183.6	28.0	
	333.6	31.2	— 2.89
10 42.0	364.8	59.2	
10 39.0			

21504.652

2)2 − 416
— — 1

P.A. = 310 A
Sfr = 8.2
Decl = − 15.6
H.A. 2.14 W
S.T. = 23.42
∴ R.a. 21.28

Wed - Oct. 3, 1917

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

Iris 7 Phot. I.

1930 −15.0
1950
0 20 W

Comp ✱ = −15°. 5444 ~~5767)~~ 6.0 ~~(7.8)~~ = 5.50
P.A. 320

6 56.6 250.2 (comp ✱ dir
268.2 18.0
76.3 10.3
86.6 28.3 + 4.53

253.9
266.6 12.7 + 4.42
73.0 18.4
91.4 31.1 + 4.32
P.A. 140 Mean = + 4.41
~~160~~ 5.50
9.9

341.4
358.3 16.9
164.6 11.8
176.4 28.7 + 4.50

343.9 + 4.40
357.7 13.8
162.2 17.6
7 02.5 179.8 31.4 + 4.30
6 119.1
59.6
7 00.4 21525.500
7 00 C's watch = 50s slow by Cl.

Oct. 3 - 1917

Iris.

II

	P.a. 140		
> 09.0	340.4		
	359.2	18.8	
	163.6	10.6	
	175.2	29.4	+ 4.45
	343.4		+ 4.34
	356.8	13.4	
	162.1	19.1	
	181.2	32.5	+ 4.22
	P.a. 320		Mean = + 4.35
	71.8		5.50
	90.8	19.0	9.85
	253.2	13.4	
	266.6	32.4	+ 4.23
	74.8		+ 4.36
	87.4	12.6	
	251.8	16.4	
> 14.7	268.2	29.0	+ 4.48
237			
> 11.8			
> 12.6			

21505 ÷ 509

Oct. 3, 1917

Iris

	P.a. 320			III
7 20.0	73.1			
	87.4	14.3		
	253.5	13.9		
	267.4	28.2	+ 454	
	744		+ 4.51	
	86.9	12.5		
	252.0	164		
	268.4	28.9	+ 4.48	
	PA 140		Mean = + 4.40	
	161.4		5.50	
	180.4	19.0	9.90	
	3444	13.0		
	357.4	32.0	+ 4.26	
	163.6		+ 430	
	177.0	13.4		
	342.2	17.4		
7 26.8	359.6	308	+ 435	
7 23.4				
7 24.2				

21505.57

Oct. 3, 1917

Iris. IV

P.a.160

) 36.6 163.0
180.0 17.0
343.4 14.2
357.6 31.2 +4.32

165.2 +4.43
177.6 12.4
343.0 15.8
358.8 28.2 +4.54

P.a.320 Mean = +4.50

5.50
10.00

252.5
268.8 16.3
74.7 12.1
86.8 28.4 +4.53

254.8 +4.56
266.9 12.1
74.4 15.4
) 42.6 89.8 27.5 +4.59

) 39.6
) 40.4
21505.528

Oct. 3 – 1917

Irus

P.a. 320 ~~IV~~ V

7 47.8 251.4 ✓
269.6 18.2 ✓
73.7 13.5 ✓
87.2 31.7 +4.28 ✓

~~31.5~~

253.6 ✓ +4.30 ✓
267.6 14.0 ✓
72.4 17.3 ✓
89.7 31.3 +4.31 ✓

P.a. 140 Mean = +4.36
5.50
9.86

342.9 ✓
358.5 15.6 ✓
163.7 14.1 ✓
177.8 29.7 +4.42 ✓

~~29.75~~

342.9 ✓ 4.42 ✓
356.4 13.5 ✓
162.6 16.3 ✓
178.9 29.8 +442 ✓

7
8 52.3
0.1
7 50.0
7 50.8
21 50.5. 535

Oct. 3 - 1917

Iris

VI

P.a. 180

8 1.9   342.2 ✓
358.4   16.2 ✓
165.7   13.1 ✓
178.8   29.3 ✓ + 4.45 ✓

+ 4.32 ✓

342.2 ✓
357.7   15.5 ✓
163.7   17.5 ✓
181.2   33.0 ✓ + 4.19 ✓

P.a 320   Mean = + 4.38 ✓
5.50
9.88

72.7 ✓
88.2   15.5 ✓
253.8   14.1 ✓
267.9   29.6 + 4.43 ✓

+ 4.445 ✓

74.4 ✓
87.4   13.0 ✓
252.1   16.2 ✓
8 6.4   268.3   29.2 + 4.46 ✓

8.3
8 4.2
8 5.0

21505.545

Oct. 3, 1917

Iris VII

	P.a. 320		
8hrs 17.9	70.6	✓	
	89.1	18.5 ✓	
	255.1	13.7 ✓	✓
	268.8	32.2	+ 4.25
			✓
	73.5	✓	+ 4.285
	88.0	14.5	
	252.3	16.6 ✓	✓
	268.9	31.1 ✓	+ 4.32
			✓
	P.a. 140		Mean = + 4.28
	164.2	✓	5.50
	181.0	16.8 ✓	9.78
	342.6	16.2 ✓	✓
	358.8	33.0	+ 4.19
			✓
	163.7		+ 4.28
	179.1	15.4 ✓	
	343.1	15.0 ✓	7 ✓
8 22.3	358.1	30.4	+ 4.3~~8~~
40.2			
8.20.1			
8 20.9			
21505.556			

Oct. 3, 1917

Iris ~~VIII~~.

	P.a. 140		
8 35.0	163.4	-	
	180.1	16.7 ✓	
	343.7	15.5 ✓	
	359.2	32.2 ✓	+ 4.25 ✓
			+ 4.245 ✓
	164.4	✓	
	178.7	14.3 ✓	
	341.8	18.0 ✓	
	359.8	32.3 ✓	+ 4.24 ✓
	P.a. 320		+ 4.2~~6~~5 ✓
	257.3		5.50
	270.2	18.9 ✓	9.75
	73.4	14.0 ✓	
	87.4	32.9 ✓	+ 4.20 ✓
	254.1	✓	+ 4.26 ✓
	267.2	13.1	
	72.8	18.1 ✓	
8 39.4	90.9	31.2 ✓	+ 4.32 ✓
8 37.2			
8 380			
21505.568			

Oct. 3, 1917

Iris IX

	P.a. 320		
8 52.6	251.6		
	269.9	18.3	
	72.4	15.4	
	87.8	33.7	+ 4.15
	252.2		+ 4.10
	268.3	16.1	
	71.1	19.1	
	90.2	35.2	+ 4.05
	P.a. 140		Mean + 4.16
	341.4		5.50 9.66
	358.7	17.3	
	164.2	14.7	
	178.9	32.0	+ 4.26
	341.8		+4.225
	358.9	17.1	45
	163.8	16.0	
8 57.6	179.8	33.1	+ 4.19

5.1
2.5
~~8 59~~
8 ~~55~~55:9
21(50): 581

Oct. 3, 1917

Iris X.

	P.a. 140		
~~8~~9 8.0	341.4		
	359.9	18.5	
	165.6	13.6	
	179.2	32.1 +	4.25
			+ 4.26
	342.7		
	358.9	16.2	
	164.6	15.6	
	180.2	31.8	+ 4.27
	P.a. 320		Mean + 4.18
	71.1		5.50
	90.1	19.0	9.68
	253.1	16.5	
	269.6	35.5	+ 4.03
	73.8		+ 4.09
	88.7	14.9	
	252.6	18.8	
9 12.7	271.4	33.7	+ 4.15
9 10.4			
9 11.2			
21505.591			

Oct. 3, 1917.

Iris XI.

	P.a. 320		
9 20.9	71.8		
	91.2	19.4	
	254.2	14.4	
	268.6	33.8	+ 4.14
			+ 4.165
	74.8		
	88.8	14.0	
	252.7	19.1	
	271.8	33.1	+ 4.19
	P.a. 140		Mean 4.175
	162.7		5.50
	181.7	19.0	9.675
	343.8	14.5	
	358.3	33.5	+ 4.16
			+ 4.185
	164.4		
	178.7	14.3	
	341.4	18.5	
9hrs 25.7	359.9	32.8	+ 4.21
9 23.3			
9 24.1			
21505.600			

Oct. 3, 1917

Iris XII.

	P.a. 140		
9 30.2	163.2		
	181.4	18.2	
	342.8	16.0	
	358.8	34.2	+ 4.11
			+ 4.20
	164.7		
	179.7	15.0	
	342.2	16.6	
	358.8	31.6	+ 4.29
	P.a. 320	Mean	+ 4.22
	252.4		550
	273.1	20.7	992
	73.6	14.2	
	87.8	34.9	+ 4.07
			4.235
	255.2		
	267.9	12.7	
	72.2	17.4	
9 35.3	89.6	30.1	+ 4.40
9 32.8			
9 33.6			
21505.607			

Oct. 3, 1917

Iris ~~XIII~~.

P.a. 320
9 ~~42.5~~ ~~250.8~~ 71.7
44.0 ↗ ~~273.3~~ 90.0 18.3 ✓
255.4 12.0 ✓
267.4 30.3 + 4.38 ✓

+ 4.31 ✓

74.6 ✓
88.1 13.5 ✓
252.2 18.8 ✓
271.0 32.3 + 4.24 ✓

P.a. 140 Mean + 4.38 ✓
5.50
163.8 ✓ 9.88
180.0 16.2 ✓
343.8 13.8
357.6 30.0 ✓ + 4.40 ✓

165.8 ✓ + 4.445 ✓
178.9 13.1 ✓
343.1 15.7
9 50.0± 358.8 28.8 ✓ + 4.49 ✓
9 47.0 P.a. 146 A Spt. 5 A
9 47.8 1/2 west only clouds nearby.
21505.617 Obs. too difficult to continue with advantage.
Region low. L.

Oct-3-1917

Uranus Phot T.
I

P.a. 310
10h. 11.2 249.4 21 28- 15.6 Uranus dis.
271.4 28.0 22 59
73.5 14.7 1 31 w
88.2 42.7 -3.62

-3.75

252.8
269.9 17.1
70.7 21.0
91.7 38.1 -3.88

P.a. 130 mean = -4.02
343.0
359.8 16.8
164.2 14.6
178.8 31.4 -4.30

343.6 -4.30
358.0 15.4
163.7 16.0
10 15.8 179.7 31.4 -4.30

wrong comp star used

reject.

Oct. 3, 1917.

Uranus Plot I. (Contd.)

	P.a. 130		
10 24.7	67.7		
	94.4	26.7	
	244.7	33.6	
	278.3	60.3	
	64.6		
	102.0	7.4	
			Clouds interfere. Useless to continue.
	P.a. 310		
		Jup	

208 — 624

1

Thurs Oct. 4, 1917

21 5 06

[illegible] 15"

15 44 28 R Cor Bor est 12.6
) 15 20 26 surely rising
4 40 W

R Sagitt 191019 est 12.8

S Sagitt 191319 est 10.6
– Sagitt G Var = 13.5
RY Sagitt 191033 est 9.6
2045
1 35 W – 337

RW Sag. 190819 est 9.6

RX Sag. 190818 est 12.1

Z Sagitt 191321 barely seen = 13.4

) 55 T Sagitt 191017 est 11.7

RR Aquil. 195202 est 13.5
2125
1 33 W – 2.5

RS Aquil. 195308 est <13.8
2128
1 35 W – 8.2

Oct. 4 1917

R Capric 200514 est 12.1

R Aquil 200906 est 10.1
2134
125 – 6.4

W Capric 200822 est 0 5 n
see y chart

RU Capric 202622 est 11.0

U Capric 204215 est 13.0

V Capric 210124 est 13.5
& 2 var

X Capric 210221 est var 3 n
est 13.4 [illegible]

Z Capric 210516 est 11.2

Y Capric 212814 est 13.5
2152
0 26

T Capric 211615 est 10.8
2153
0 37 w – 15.6

Oct. 4, 1917

W Aquarii ~~210~~ 204104 est = 131

Y Aquarii 203905 est 9'6 var 13th

~~R~~ T Aquarii 204405 est 10.9
2210
1 26 w – 5.5

RS Aquarii 210504 Est 10.2
2215
1 10 – 4.5

RR Aquarii 210903 est 10.3
2218
1 9 – 3.0

U Aquarii 215717 est 13.8
2220
0 23 w – 17.0

X Aquar. 221321 est 10.2

RT Aquarii 221722 est 10.6

S Aquarii 225120 est 13.5
2228
0 23 ε – 20.9

Oct. 4, 1917.

V Ceti 235209 est 14.0 barely seen
2232
1 20E −9.5

9 30 W Ceti 235715 est 13.3
2237
1 20E −15.6

S Ceti 000909 est 9.2
2302
1 07E −9.9

Z Ceti 010102 est 8.5
2305
0 56E −2.2

S Pisc 011208 est s 8 N
2312
2 00E +8.4

U Pisc 011712 est 12 N
2315
2 2 +12.2

R Pisc. 012502 est 9.5
2320
2 05E +2.4

S Arietis 015912 est 12.7
2325
2 34E +12.2

Oct 4, 1917

10 30 SS Aurigae 060547 est < 13.0

23 30

6 35 2 + 47.5

o Ceti 021403 ~~est~~ 3.4 v. eye

— -624 setts. pc

40 -41 vis. esti. pc

Ledgered to here

21509

Sun. Oct. 7, 1917

L.O. Obs. 15" E. Eq.

U Bootis 144918 est 10.1

> or

20 16

5 27 +18.1

S Serp. 151714 est 9.3

20 22

5 5 +14.5

S Cor 151731 est 12.3

R Cor 154428 est 12.4

20 27

4 43 + 28.8

X Cor. 154536 est 9.7

Z Cor 155229 est. 12.9

20 32

4 40

R Serp 154615 est 12.8

20 33

4 47

R Herc 160118 est 12.8

20 35

4 36 +8.6

RU Herc 160625 est 12.1

Oct. 7 - 1917

W Cor 161138 est 10.9
20 39
4 28 +38.5

u Serp 160210 est 13.5

SS Oph 165202 est 10.9
20 45
3 53 W −2.8

R Oph 170215 est 11.0
20 48
3 46 −15.5

RV Herc 165631 est 12.0
20 52
3 56 +31.1

SY Herc 165722 est a 1, 5 b
20 57 * in centre of chart
4 0 +22.6 8.8±

Prov. Not. see chart A

est of * marked ·← sf the SY Herc = b 1, 2 c
9.3±

Z Oph 171401 est [21
20 59
3 45 +1.6

21509

Oct 7, 1917

RT Herc 170627 est α 3 Var
2104 14th
358 +27.2

RU Oph 172809 est 14.th
2108 α 5 Var
340 +9.6

175711 RT Oph est α 7 Var
2112 14th
321 +11.0

SV Oph 175103 est var nuf
2114 α 3 Var
323 +3.0

~~TV Herc 18103~~1

S oo RY Oph 181103 est 12 6
2119
38 +3.7

V Herc 182224 est 11.0
2122
30 +24.7

T Serp 182306 est n 3, 3 s
t much > than adj. Ss.

Oct. 7 — 1917

RZ Herc 183225 est 12.0
2 1 29
2 5 7 + 26.8

ST Sag 185512 est 9.7
2 1 32
2 37 w − 12.9

RT aquilae 193311 est 13.7
2 1 39
2 6 + 11.5

TU aquil 192201 est no var
2 1 45 var close to *d making
2 23 + 1.9 est diff. 13th +

EFL Sag.

X aquilae 194604 est no var
2 1 48 14.5th
2 2 + 4.2

8 45 Clouds scattered over N. & S.

9 00 All cloudy

28 − 69 Ests
— 62 Setts.

2151 3

Thurs. Oct. 11, 1917

Obs. 15" E Eq.

8 10 R Cor Bor 154428 est 12.4 LC
21 34
5 40 +28.8
12.3 Bu

8 15 SS Cygni 213843 est 11.6 LC
est 11.7 Bu

9 00 V Drac 175654 est var suf = (134) 10 Var
22 36
4 40 +54.9

T Drac 175458 est 10.3 = T
est 11.7 = Comp. to T

T Urs Min 133273 est 12.8
22 42
9 10 +73.9

U Urs Min 141567 est 8.7
22 48
8 33 +67.5

S Bootis 141954 est 12.8
22 50
8 31 +54.2

S Urs Min 153378 est 10.3
22 54
7 21 W +78.9

Oct. 11, 1917.

X Draco. 180666 = 11.8

The (120) near W is = to 13.0 var 0.6 fainter.

W Draco 180565 = 13.6

$$\frac{22\ 59}{4\ 54}\ +66.0$$

RY Lyrae 184134 est — 11.6

$$\frac{23\ 06}{4\ 25}\ +34.6$$

RW Lyrae 184243 est — t 3 N

RX Lyrae 185032 est — 14.0

$$\frac{23\ 15}{4\ 25}$$

Z Lyrae 185634 est — 12.7

$$\frac{23\ 19}{4\ 23}\ +34.8$$

RT Lyrae 185737 est 12.9

$$\frac{23\ 25}{4\ 28}\ +37.4$$

V Lyrae 190529 est — < 14.5

B 3 N

$$\frac{23\ 28}{4\ 23}\ +29.8$$

Oct. 16 1917

15" Eq.

1000 RS Lyrae 190933 est 13.0

2333
424 +33.2

RU Lyrae 190941 Est 10.2

χ Cygni 194632 est 13.6

2346
400

Z Cygni 195849 est y' 3 var 14

2352
354 +49.9

RW Aquilae 200812 est ?

2353
347 W+12.7

1030 ST Aurigae 060547 est < 13

1032 o Ceti 021403 eye est 3.5

23— 92 Esto
— 624 Scto

Sat. Oct. 13 – 1917

2 15 15 L. Campbell. 15" E. Eq.

Iris. Pilot T.

19 39.5 –15 47

7 30 Cannot identify. Plate ~~to be~~
~~taken at first opportunity.~~

R Cor. 154428 est. = 12.2
21 14
5 30 +28.8

Cldy nearly

X And. 001046 est
21 30
2 40 E +46.2

7 45 All cloudy in west and rapidly
approaching the eastern sky

8 30 Clearer again.

X And. 001046 est q 3 Var 145th
22 20
1 50 E +46 2

Oct 13, 1917

004047 U Cass. i 3 n

2236

2 04 E +47.7

~~001838 R And~~

003179 Y Cephei Est. = 9.8

2231

2 00 +79.5

RW And 004132 est 12.4

2241

20 +32.1

9 02 T And 001726 est 13.8

2243

1 34 E +26.4

* V And 004435 ~~10~~ est 13.5

2247

1 57 +35.1

RR And 004533 est 11.5

2248

1 57

RV Cas 004746 est ~~10.8~~ 11.3

2257

1 56 +46.9

susp Var N of RV = 10.8

2,5,15.

Oct. 13, 1917

RX And 005840 est 12.2
2300
158 E +40.6

U And 010940 est 10.0
2302
2 7 +40.2

UZ And 011041 est <14.0

S Cassiop. 011272 est 14.2

RZ Per 012350 est 12.6
2315
208 E +50.3
R 6

013238 RU And est 10.8

013338 Y And est 12.4
2318
215 E +38.0

021143 W And est 12.2
2323
248 E +43.8

Oct 13, 1917

032043 y Persei 8.3 Finder.
2330
3 50 +43.8

032443 Nova Per II Est 9 2 Nova

060547 SS Aurigae <13.5
2335
9 55 630 +47.8 sky hazy low down

21 — 113 Ests
624 Sets

2 1517.

Mon. Oct. 15, 1917

L.C. Obs. 15" E. Eq. R.G. Ladd Rec.

Phot. T.

Uranus

R.A. 21 30 −15.0

S.T. 21 00

H.a. 0 30 E

H.a. = RA − S.T. if S.T. is greater H.a. is west.

P.a.

7.30 sky cloudy.

8.30 all cloudy – Useless to wait longer.

P.a.

Tues. Oct. 16, 1917

L.C.C.B. 15" Eq. R.G.L. Rec

Iris (7) Plate T.

1940 −15.5
20 20
0 ~~4~~0 w −15.5

PA 340

I

6.30.9 56.2 < comp * obs
111.6 55.4
234.3 46.5
280.8 101.9 +1.61

59.4
107.1 47.7 +1.66
236.2 50.7
286.9 98.4 +1.70

PA 160

144.7
195.6 50.9 mean = +1.59
324.7 53.1
188.8 104.0 +1.56

144.1
197.3 53.2 +1.52
322.2 53.8
16.0 107.0 +1.49

6.35.5
6.4
~~6 33.2~~
6 32.6 Comp * = −15°.5504 (8.0)

2421518.481

Oct. 16, 1917

Iris (7)

II

	PA 160		
6:44:7	143.7	54.6	
	198.3		
	326.4	53.6	
	19.8	108.2	+1.46
	148.4		+1.52
	198.2	49.8	
	327.7	53.7	
	21.4	103.5	+1.57
	PA 340		Mean = +1.51
	231.0		
	292.8	61.8	
	58.1	57.9	
	110.0	113.7	+1.33
	240.4		+1.50
	290.8	50.4	
	51.1	48.9	
6:49:12	110.0	99.3	+1.67

13 19
6 46 40
6 46.7
21578.491

7 00 Cs watch = 4s slow — by Bell

Oct 16 1917

Iris (7) III

PA 340

7:1:7 235.8
290.0 54.2
49.2 ~~50.8~~ 60.8
110.0
~~105.0~~ 115.0 + ~~1.54~~ 1.30

228.8 ~~+1.46~~ 1.34
292.1 63.3
57.0
105.0 48.0
111.3 + +1.39

PA 160 mean = +1.48 ~~+1.54~~
328.1
14.4 46.3
145.0
198.0 53.0
99.3 + 1.67

324.0 +1.61
19.6 55.6
148.8 ~~48~~ 48.6
7:5:40 197.4 104.2 + 1.55

} 3 24
} 3 28
21518.502

Oct 16 1917

Iris (7) IV

	P.A. 160			
7:16:50	324.8			
	117.7	52.9		
	145.0			
	199.7	547		
		107.6	+.147	
	323.2	59.1		
	22.3	~~300.9~~	+1.49	
	150.8			
	197.7	46.9		
		~~347.8~~		
	P.A 340	106.0	+1.51	
	55.8			mean = +1.34
	110.2	$\overset{5}{\cancel{4}}4.4$		
	230.4			
	292.4	62.0		
		116.4	+1.27	
	49.1			
	117.2	68.1	+1.20	
	235.3	543		
7:21:20	289.6	1224	+114	

7.19 0$\overset{5}{0}$

21518.513

Oct 16 1917

Iris (7)

V

	PA 340		
7:29:11	52.0		
	> 106.0	54.0 ✓	
	237.7		
	291.6	53.9 ✓	
		107.9	+1.47
	55.5		
	115.2	59.7 ✓	+1.38
	234.8	56.4 ✓	
	291.2	116.1	+128
	PA 160	Mean = +138	
	148.2		
	> 195.5	47.3	
	319.4	62.8	
	22.2	110.1	+1.42
			+139
	~~22.2~~		
	145.8		
	203.0	57.2	
	> 323.1	55.3	
7:34:35	184.4	112.5	+1.36
63 46			
> 31 53			

21518.522

Oct 16 1917

Iris (7)

VI

	P.A. 160				
7:46:15	149.7		✓		
	196.4	46.7	✓		
	321.2	60.0	✓		
	21.2	106.7		+1.49	
	143.2		✓	+1.47	
	199.3	56.1			
	323.7		✓		
	16.4	52.7			
		108.8	✓	+1.45	
	P.A. 340				mean = +1.40
	236.4		✓		
	290.6	54.2			
	48.1	~~7~~61.8	✓		
assumed	1~~1~~09.9	1~~2~~16.0	✓	+1.28	
	237.7			+1.~~[illegible]~~32	
	293.3	55.6			
	52.2	56.6			
7:50:51	108.8	112.2		+1.37	

7 48 33

21578.534

Oct 16 1917

Iris (7) VII

	PA 346			
8:00:4	238.0		✓	
	286.4	48.4		
	52.2		✓	
	112.2	60.0	✓	
		108.4		+1.45
	237.4		✓	+1.43
	292.2	54.8		
	55.1	55.6	✓	
	110.7	~~109.4~~	✓	
		110.4		+1.41
	PA 160			mean = +1.36
	324.7		✓	
	20.2	55.5	✓	
	143.7	56.9		
	200.6	1124	✓	+136
	319.8		✓	+128
	22.2	62.4	✓	
	144.7	57.5	✓	
8:4:58	202.2	1199		+119
8 02 31				
21578.544				

Oct 16 1917

Iris (7) VIII

	PA 160			
8!15 : 43	329.4		✓	
	20.7	51.3	✓	
	>144.8	56.2	✓	✓
	201.0	107.5	+ 1.48	
	323.8		✓	+ 1.55 ✓
	17.7	53.9	✓	
	>148.7			
	196.2	47.5	✓	
		101.4	+ 1.62 ✓	
	P.A. 340			
			mean	+ 1.48 ✓
	54.8		✓	
	110.0	55.2	✓	
	233.2	57.0	✓	
	290.2	112.2	+ 1.37 ✓	
				+ 1.40 ✓
	55.8		✓	
	113.3	57.5	✓	
	238.2	51.6	+ 1.44 ✓	
8:20:28	289.8	109.1	✓	
36 11				
8 18 06				
2 15 18.554				

Oct 16 1917

Iris (7) IX

	P.A. 340		
8 :30: 21	58.0	✓	
	106.8	48.8	
	232.4	55.6 ✓	
	288.0	104.4 ✓	+1.55
	51.0	✓	
	111.3	60.3 ✓	+148
	237.5	49.7 ✓	
	287.2	✓	
		110.0	+142
	PA 160		mean = +1.48
	150.4	✓	
	197.9	47.5 ✓	
	322.4	55.2 ✓	
	17.6	102.7	+1.59
	144.9		+1.48
	205.2	60.3	
	324.8	52.4	
8 : 3~~5~~4 : 54	17.2	112.7	+136

8 32 38

21518.565

Oct 16 1917

Iris (7) X

	P.A. 160		
8:48:46	148.8		✓
	196.8	48.0	
	324.0		✓
	14.9	50.9 ✓	✓
		98.9 ✓	+1.68 ✓ ✓
			172
			+ ~~1.75~~
	148.6		✓
	198.2	49.6 ✓	
	329.2	46.1	✓
	15.3	✓	+1.76
		95.7	
	P.A 340		Mean = +1.55
	243.0		✓
	287.4	44.4 ✓	
	49.6	65.1	✓
	114.7	109.5 ✓	+1.43
			✓
	231.6		✓ +1.38
	292.0	60.4 ✓	
	54.0	52.9	✓
8:53:43	106.9	113.3 ✓	+1.34

10229
8 51 14

2(518.57)

Oct 16 1917

Iris (7)

XI

	P.A 340			
9 : 4 : 23	238.2		✓	
	290.4	52.2		
	54.8		✓	
	106.2	51.4	✓	
		103.6	+1.57 ✓	
				✓
	231.7		✓	+1.56
	290.0	58.3	✓	
	60.4	46.6		✓
	107.0	104.9	✓ +1.54	
	PA 160			✓
	330.2		✓	+1.58
	17.2	47.0	✓	
	143.1	56.9	✓ +1.56 ✓	
	200.0	103.9		
				✓
	323.1		✓	+1.60
	154.6	52.5	✓	
	146.7	48.1	+1.64 ✓	
9 : 09 : 25	194.8	100.6 ✓		
13 48				
9 06 54				

21518.588

Oct 16 1917

Iris (7) XII

	P.A 160		
9:16:14	329.9	4	
	16.8	~~5~~6.9 ✓	
	147.5	50.0 ✓	
	197.5	96.9 ✓	+ 1.73 ✓
	325.1		+ 1.67 ✓
	17.2	52.1 ✓	
	147.4	50.0 ✓	
	197.4	102.1 ✓	+1.61 ✓
	PA 340		mean = +1.54
	54.2		
	105.8	51.6 ✓	
	231.8	60.8 ✓	
	292.6	112.4 ✓	+1.36
	53.4	7	+1.40
	110.8	5~~6~~.4 ✓	
	238.2	51.8 ✓	
9:21:01	290.0	109.2 ✓	+ 14 ✓

37 15
9 18 38
2(518.59)

P.a. 337 A
Sp 9.2

Observations becoming increasing difficult on account of low altitude. Iris lodged.

Oct. 16, 1917.

$2^{15}18$

S Pisc. $\overset{25}{011208}$ est = ~~x~~ 3 n
9 5-4 2340
1 32 ε + 8.4 R = < 14th

U Pisc. 011712 est α 2, 3 α'
2351 13th
1 26 ε + 12.4

R Pisc. 012502 est 9.3
1 24 ε 23550
1 30 ε + 2.4 R = 4 ~~th~~

S Arietis
015912 est 11.8
0002
~~158~~ ε + 12 R = 3
1 57 ε

R Ceti 022000 est 8.5
0007
213 ε ~~+~~ −0.8 R = 2

U. Ceti 022813 est = 8.7
0011
219 ε −13.6 R = 4

U. Arietis 030514 est = r.3 var
0014
~~265~~ R =
251 ε + 14.4

Oct 16 1917

X Ceti 031401 est=9.5
0022
2.52 E − 1.5 R = 4

S.S. Aurigae 060547 est = x3 var
0025 R =
10.30 5.40 E + 47.5

o Ceti 021403

eye est 3.6
10 40 " " 36 R.G. Ladd.

192 − 816 setts
10 − 123 ests.

21521

Fri. Oct. 19. 1917

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

R Coronae 154428 est 12.0
21. 44
6 0 W

7 40

SV Drac 183149 est 12.5 R 5
22 00
3 29 +49.2

TY Cygni 192928 est p 5, 2 q
22 05
2 36 W +28.2

p = star just s p T.Y.
q = star just s f TY.

The 12.4 is the brighter * of the two near present place of 12.4 (not the pt. image)

RV Aquilae 193509 est 13.5
22 16
2 41 W +9.5

The 11.7 equals (11.5) 2, 6 (12.2) in the proper order.

SY Aquil 200212 est 14.0 at k.V.
2226
2 24 W +12.6

Oct. 19 1917.

S Aquilae 200715a est 10.7

$$\frac{22\ 29}{2\ 22\ +15.0}$$

RU aquilae 200812 ~~est~~ = 13.5

The Var is the Southern of the two images ~~Southern~~ of ~~the~~ (12.9 o) and > the northern image we'll call this northern image t.

est seq. 2 2 9 3 t 5 s, s barely seen

quite ~~sure~~ all right for position

Z Delph 202817 est α 2 Var

$$\frac{22\ 43}{2\ 15\ +17.0}$$

8 30 All cloudy

202817

$$\frac{23\ 12}{2\ 44\ +170}$$

The 12.4 is certainly = to a 14.0 altho 13.4 & 12.9 appear to be allright

9 10 clds

Oct. 19, 1917.

20 36 11 y Delph.
23 26
2 50 +11.5

9 15 Too cloudy

8 – 13 1
– 816

Sat Oct. 20, 1917

2 5 2 2

L.C. Obs 15" E Eq R. G. Ladd Rec

6.45 Cloudy.

R Coronae 15 44 28
22 17
8-08 6 33 W est 12.1 LC
— 12.1 Sp

SV Herc. 18 22 24 est 10.4 Sp.
22 25 est 10.6 LC
4 3 +24.8 R. 4

R.Y. Oph 181103
2240 est 13.4 ~~7.4~~
4.29

R.T. Aquil 193311 est 13.8
2243
3.10 +11.5

X Aquil 194604 est var = * X
2247 ~~[illegible]~~ 14 th.
3.01 W +4.2

R.R. Aquilae 195202 est 13.2
2252
3.00 W — 2.6

new chart needed

Oct. 20, 1917

R.S. Aquil 195308 est < 13.8
2255
3.02 - 8.2

R. Capric 200514 est. 12.3
2258
2.53 W - 14.6 R = 5

W Capric 200822 est = < 13.0
2300
2.52 W - 22.3
sky hazy.

Z. Aquil 200906
2303 est 12.1
2.54 W - 6.4 R 4

R.W. Capric 202622 est 11.4
2306
2.40 W - 22.5 R 3

Y. Aqua 203905 est 13.1
2308
2.29 W - 5.8 R ——

Oct. 20, 1917

	T Aqua	204405 2313 2.27	est 10.4 R 3
9.00	W Aqua	204104	est = 12.8 R. .4
	R. S Aqua	210504 2316 ~~2.71~~ -4.5 2.11	est 10.1 R 4
	R. R. Aqua	210903 23 19 2.10 W - 3.3	est = 10.8 R. 3
	V. Peg.	215605 2320 1.24 W + 5.5	est. 9.0 R. 3
	S Dolph	203816 2328 2.50 W + 16.7	est 9.8 R. 5

Oct. 20, 1917

Y. Delph 203611 est = 13.8
2330 R = ———
2.54W + 11.6

T. Delph 204016 est = 13.8
2333 ~~R~~ = * α
~~2.47~~ W + 16.0
2.53

9.29 S S Auriga 060547 est = < 13.5
2340
6 25 I + 47.5

21 - 152 ests
— 816 Setts

L

21° – 2

Mon. Oct. 22, 1917.

L. C. Ob. 15" E, Eq.

8 37 U Drac. 190967 est 10.0 R 4
22 57
3 46 w +67.0

S Lyrae 190925 est 13.3
22 59
3 50 +25.6

T Z Cyg. 191350 est 10.5
23 05
3 33 +50.0 R. 4
New Chart
Susp Var ~~fol 2 min~~ fol Var = 9th mag.
look up. ! ! ! !

U Lyrae 191637 est 9.7 R 7
23 13
3 57 +37.7

W X Cyg. 201437 b est 10.8 R 6
23 16
3 2 +37.2

V Cyg 203847 est 11.0 R 8
23 20
9 00 2 42 +47.8

2 15 24

Oct. 22, 1917.

ST Cyg 202954 est 11.4

$\frac{23\ 29}{3\ 0}$ +54.3 R 4

V Delph 204318 est < 13.5

$\frac{2333}{250}$ +18.9

(11.5) 2 (11.7) 2 (11.6) 3 (11.8) 3 (12.0)

(12.0) 3 (12.1) 3 (12.4) 4 (12.5) 8 (12.6)
(12.6) 3 (12.7)

x not seen

12.6 + 12.7 are ~~too~~ given on chart
much too bright

RZ Cyg 204846 est 10.8

$\frac{23\ 42}{2\ 5\ 4}$ +47.2

mult Var mean = 10.8

look up on plates

X Delph 205017 est 12.6

$\frac{2350}{3\ 0}$ +17.3 mult Var 12.9

ests (12.4) 3 (12.8) 4 (13.3) 5 (13.8)

newly revised notation.

Oct. 22, 1917

T W Cyg. 210129 est 12.8
2356
255 +29.0

R Persei 032335 est 12.9
0110
213 ε +35:

Nova Per No. II 032443 30 Nova
0110
3 214 ε +43.6

x" Y Persei 032043 est 8.4
R 5

T Tauri 041619 est 10.2
0126 R 3
250 ε +19.3

R Tauri 042209 est 14.1
0127
255 +9.9

S Tauri 042309 est 14.3

W Tauri 042215 est 10.2

T Camelop 043065 est 12.9
0135
255 +65.8

Oct. 22 – 1907

X Camelop 043274 est 9.0
0145
247 + 75.5

11 28 – Camelop Olcotts unf
f 2.2 d. 7 B

V Tauri 044617 est 9 2
0149
257 E + 7.4

11 32 ✓

11 37 060547 S S Aurigae
0255
310 2
x 3 var diff

Dis. Jup I. 15^9 E. Eq.
Plot R.

L C Ob F. Bowie Rec

Rod 3424 used
Comp with Sat ~~III~~.

Corr. G.M.T.

16 47 40 2

16 47 42

~~11 47 02 86.8~~
11 47 19 17.8
33 88.4 70.6 ~~77.6~~
45 10.8 ~~78.2~~
11 48 01 89.0 72.8 ~~72~~ + 0.71 t* 0.41 – 508
1434

48 18 16.2 760
25 92.2 ~~824~~

Oct. 22, 1917

16 48 34	11	48	39	10.0	78.4	154.4	+0.19 +0.49 −454
16 48 36			49	88.4	~~77.5~~		
			59	10.9	84.1		0.15
16 49 28		49	8	95.0	~~83.4~~		
16 49 30			18	9.6		172.2	+0.15 * 400
			28	97.7	88.1		
			37	9.4	~~88.2~~		+0.03
16 49 52			46	90.2	~~80.8~~		+0.33 −376
16 49 54			57	12.7	~~77.5~~	162.8	
		50	6	94.7	82.0		
			17	3.3	~~91.4~~		
50 31			27	97.2	93.9	187.9	−0.45
16 50 33			36	6.1	~~91.1~~	172.1	−0.15 −337
			45	100.1	94.0		
			58	3.2	~~97.9~~		−0.19
51 08			55	92.8	89.6		+0.11 −300
16 51 10		51	15	9.2	~~83.6~~	174.4	
			23	94.0	84.8		
			35	12.3	~~81.7~~		+0.04
51 51			44	94.6	82.3		+0.34 −257
16 51 53			58	10.1	~~84.5~~	162.0	
	11	52	7	89.5	79.7		
			16	9.9	~~78.9~~		+0.07
52 30			25	90.2	80.3	160.8	+0.37 −218
16 52 32			35	10.9	~~79.3~~		
			43	91.4	80.5		
			53	5.8	~~85.6~~		

Oct. 22 1917

16 53 09	11	53	2	92.3	86.5				
16 53 11			16	8.8	~~83.5~~	172.8	0.14	−0.16	−179
16 53 31			24	95.1	86.3			−0.14	
42			34	9.2	859	171.8	0.16	−0.03	159
52			45	92.2	830	1660	0.27		148
54 00			54	12.8	79.4	158.8	0.40	+0.60	138
08		54	1	90.4	77.6	155.2	0.48	+0.48	130
17			11	18.2	722	144.4	0.69	+0.39	122
26			19	90.1	71.9	143.8	0.70	+0.60	113
35			29	20.1	70.0	140.0	0.71	+0.47	104
44			37	87.7	67.6	133.2	0.91	+0.61	95
54			48	19.9	67.8	135.6	0.86	0.56	86
55 03			57	84.0	64.1	128.2	1.02	0.72	76
12		55	5	20.2	63.8	127.6	1.03	0.73	67
22			15	83.3	63.1	126.2	1.06	0.76	58
32			25	21.1	622	1244	1.10	0.80	48
40			34	85.0	63.9	137.8	0.82	0.52	38
50			43	23.3	61.7	123.4	1.12	0.82	30
56 00			52	79.2	55.9	111.8	1.38	1.08	20
10	11	56	3	25.8	53.4	106.8	1.49	1.18	10
18			12	74.2	48.4	96.8	1.74	1.44	−00
27			21	34.0	40.2	80.4	2.18	1.88	+8
34			29	70.4	36.4	72.8	2.42	2.12	17
42			36	34.2	36.2	72.4	2.43	2.13	24
50			44	70.1	35.9	71.8	2.45	2.15	32
56			51	42.0	28.1	56.2	3.01	2.71	40
03			58	61.8	19.8	39.6	+3.79	3.49	46
									+53

Oct. 22-1917

	11	57	6	50.8	11.0	22.0	4.78 +5.08	+5.3
	11	57	12	gone				
				L. Q.				
		57	40	228.8				
16 57 57			52	240.1	11.3		+4.57	
16 57 59	11	58	01	229.3	12.9		+4.87	+10.9
	11	58	15	242.2	24.2			

Frodsham 3424 = 2.5^s slow by bell

24 — 176 ests
66 — 882 setts

Thurs Oct. 25 – 1917

15^{h} E. Eq.

SS aurigae 060547 L Cblls

8 50 est < 12.5

clouds nearby & moon bright

1 — 177

— 882

Fri Oct. 26, 1917

215 28

LCWb 15" 2Eq RSL Rec

7:00 Frod 3424 is 46^s slow by light

7:12 001755 T. Cass $\overset{24}{001755}$ est = 8.7
2140
2.37 E +55.2 R = 6

W. Cass $\overset{24}{004958}$ est 9.0
2148
3.01 E +58.0 R 7

R Androm $\overset{24}{001838}$ est 9.4
2151
2.27 E +38.0 R 5

X Cass 014958 est 11.5
2203
3.46 E + 58.8 R 6

U. Persei 015354 est 8.0
2207
3.46 E +20.3 R 5

Oct 26 1917

Dis Jup III Phot R LC Obs RGT Ae

Frodsham 3424 used

07 50 24	7 50:01	88.2		
46	5017	188.8	100.6	
12 51 10	5032	94.4	100.0	
	50:46	194.4	200.6 159.4	−0.39 + 0.07 − 436 s
	51:00	91.8		
51 20	51:14	194.3	102.5	
46	51:27	91.8	101.4	−0.46 0.00 − 380
12 52 06	51:37	193.2	203.9 156.1	
	51:51	88.8		
52 10	52.05	191.7	102.9	
46	52:17	96.0	95.8	
12 52 56	5229	191.8	198.7 161.3	−0.36 −0.10 − 330
	5239	86.9		
52 56	5250	197.2	110.3	
46	53 03	92.1	101.9	
12 53 42	53:13	194.0	212.2 147.8	−0.62 −0.16 − 284
	53:24	91.7		
	53:33	193.9	102.2	
53 38 46	53:43	89.2	101.6	
12 54 24	53:54	190.8	203.8 156.2	−0.45 +0.01 − 242
	54:04	92.8		
	54:17	195.8	103.0	
54 21 46	54:28	90.7	103.5 206.5	−0.51 −0.05 −199
12 55 07	54:38	194.2	153.5	
	54:50	90.4		
55 09	55:04	190.4	100.0 100.9	=151
46	55:15	90.4	200.9 159.1	−0.40 +0.06 41
12 55 55				

Oct 26, 1917

compared with mean of two sat. on opp. sides of Jupiter equals Jup. I

	7 55:27	191.3		Constant to here →			
	37	90.2					
7 55 53	47	188.8	98.6				
~~46~~	59	96.8	91.0				
12 56 39	56 10	187.8	189.6 170.4		−0.18	+0.28	−107
	22	95.8					
56 33	29	184.4	98.6				
46	37	96.2	90.6 189.2				
12 57 19	44	186.8	170.8		−0.17	+0.29	−67
	~~5~~ 55	98.4					
	57 05	180.9	82.5				
57 10 46	15	98.8	80.6 163.1		+0.32	+0.78	−30
12 57 56	25	179.4					
	33	96.9					
12 57 48	43	184.2	87.3				
~~46~~	53	98.0	87.1 174.4		+0.11	+0.57	+8
12 58 34	58 02	185.1					
	10	100.8					
	18	184.0	83.2				
58 25 46	28	100.0	77.2 160.4		+0.37	+0.83	+45
12 59 11	35	177.2					
	←→						
59 36	45	101.2	78.8	157.6	+0.43	0.89	+70
59 47	56	180.8	81.8	163.6	+0.31	0.77	+81
57	59 06	98.2	81.8	163.8	0.31	0.77	+91
13 00 06	16	180.8	80.0	160.0	0.38	0.84	+100
16	25	100.0	82.2	164.4	0.30	0.76	+110
24	34	182.2	82.4	164.8	0.29	0.75	+118
	43	99.8					

Oct. 26, 1917

		7 59			78.4	156.8	0.44	0.90	+1.30
8 13 00	36	~~8 0~~	57	178.2	78.3	156.6	0.45	0.91	+1.42
	48	8 0	08^{6}	99.9	79.2	158.4	0.41	0.87	1.50
	56		13	179.1	77.8	155.6	0.47	0.93	1.58
01	04		22	101.3	76.9	153.8	0.58	0.96	1.66
	12		30	178.2	74.4	148.8	0.60	1.06	1.76
	22		42	103.8	72.9	145.8	0.66	1.12	1.87
	33		52	176.7	71.8	143.6	0.70	1.16	1.96
	42	01	01	104.9	69.1	138.2	0.81	1.27	2.06
	52		10	174.0	67.2	134.4	0.89	1.35	2.16
02	02		21	106.8	65.3	$1\overset{3}{7}0.6$	0.97	1.43	2.26
	12		31	172.1	60.5	121.0	1.17	1.63	2.36
	22		41	111.6	60.6	121.2	1.17	1.63	2.46
	32		50	172.2	63.4	126.8	1.05	1.51	2.54
	40		57	108.8	62.3	124.6	1.10	1.56	2.63
	49	02	06	171.1	60.2	120.4	1.18	1.64	2.70
	56		13	110.9	57.9	115.8	1.29	1.75	2.78
03	04		22	168.8	54.0	108.0	1.46	1.92	2.86
	12		30	114.8	54.1	108.2	1.46	1.92	2.94
	$2\cancel{2}^{0}$		37	168.9	54.5	109.0	1.44	1.90	3.00
	26		44	114.4	53.8	107.6	1.47	1.93	3.08
	34		52	168.2	48.2	96.4	1.75	2.21	3.16
	42	03	$\overset{0}{8}0$	120.0	45.4	90.8	1.89	2.35	3.24
	50	3	07	165.4	45.5	91.0	1.89	2.35	3.31
	57		15	119.9	44.3	88.6	+1.95	2.44	3.39
04	05		23	164.2	42.8	85.6	2.03	2.49	3.46
	12		30	121.4	42.7	85.4	2.04	2.50	3.54
	20		39	164.5	40.2	80.4	2.18	2.64	3.63
	29		47	123.9	34.5	69.0	2.54	3.00	3.72
	38		56	158.4	32.3	64.6	2.69	+3.15	

Oct. 26, 1917

13 8 04 46	8	4 04	126.1	31.9	63.8	+ 2.72	3.38	+ 3.80
54		12	158.0	27.8	55.6	3.04	3.50	388
05 02		20	130.2	24.9	49.8	3.28	3.74	396
10		28	155.1	23.3	46.6	3.43	3.89	404
18		35	131.8	22.2	44.4	3.54	4.00	412
25		43	154.0	21.8	43.6	3.58	4.04	419
34		53	132.2	19.9	39.8	3.78	4.24	428
44		5 03	152.1	18.1	36.2	3.99	4.45	438
53		11	134.0	17.2	34.4	+ 4.10	4.56	447
06 00		18	151.2					454
13 06 15		29	gone					+ 469

~~6 10 388.8~~

	8 6 27 ~~6 12~~	315.1	Ph V
13 [illegible]	36	331.2	
13 03 28	45	318.0	
	52	334.0	

161
.160
321

+ 5.40

+ 4.25 4.71

Almanac Time of Dis = 12:58:26

R. Arietis 021024
2303 est 9.4
3.07 E + 24.2 R 5

R.R. Persei 022150 est 9.0
23 10
~~3.19~~ E + 50.8 R. 5
3.11

W. Persei 024356 est 8.9
2313 R 5
3.30 E + 56.6

Oct 26 1917

R. Triang 023133 est 8.0
2316 R 4
3.15 E +33.8

20" Enlarge ?

R. Aurigae 050953 est = 7.5
H-inch 2320 R = 5
5 49 E +53.5

S Aurigae 052034 est = 9.0
2324
5.56 E + 34.0 R .8

8.55 SS Aurigae 060547 est 12.3
clouds in this region

Oct. 26, 1917.

Reap. Jup III L.C. Obs A.G.L. Rec Phot R.
Compared with nearer of two sat. on opp sides of Jup equals Jup I

9 36 27 | 9 36 08 47.4
46 | 23 62.1
(14 37) 13 | 33 47.0
44 60.1

L.V. 14.7 / 13.9 / 28.6 +4.51 5.03 −1.98

~~47 51~~

~~14~~ 50 56	9 50	~~58~~ 10	~~seen~~ ~~susp~~ (strongly)					$-37\overset{2}{5}$
51 01	9 50	15	~~seen~~ (surely)					370
		27	43.3	16.7	33.4	+4.17	4.69	353
51 18		35	60.0	16.8	33.6	4.15	4.67	346
25		43	43.2	26.6	53.2	3.13	3.65	335
36		58	69.8	33.8	67.6	2.59	3.11	323
48	51	06	36.0	35.4	70.8	2.48	3.00	315
56		14	71.4	35.6	71.2	2.47	2.99	307
52 04		22	35.8	33.1	66.2	2.64	3.16	299
12		29	68.9	31.9	63.8	2.72	3.24	293
18		36	37.0	35.7	71.4	2.46	2.98	285
26		43	72.7	39.6	79.2	2.22	2.74	279
32		50	33.1	43.9	87.8	1.97	2.49	271
40		57	77.0	44.0	88.0	1.97	2.49	264
47	52	05	33.6	41.9	83.8	2.08	2.60	257
54		12	74.9	44.5	89.0	1.94	2.46	250
53 01		$1\overset{8}{3}$	38.4	44.4	88.8	1.95	2.47	243
08		26	74.8	48.8	97.6	1.72	2.24	235
16		34	$\overset{2}{3}6.0$					

Oct 26, 1917

14 53 24		42	73.4	47.4	94.8	1.79	2.31	−227
32	3	52	28.0	45.4	90.8	1.89	2.41	219
42	58	01	74.3	46.3	92.6	1.84	2.36	209
52		12	30.0	44.3	88.6	1.95	2.47	199
54 02		21	77.2	45.2	90.4	1.90	2.42	189
12		31	25.1	52.1	104.2	1.55	2.07	179
20		38	86.9	51.8	103.6	1.57	2.09	171
30		49	24.8	52.1	104.2	1.55	2.07	161
40	4	58	79.6	54.8	109.6	1.43	1.95	
54 48	59	05	36.0	53.6	107.2	1.48	2.00	151
54		12	79.8	53.8	107.6	1.47	1.99	143
55 02		21	24.4	55.4	110.8	1.40	1.92	137
10		28	81.1	56.7	113.4	1.34	1.86	129
18		37	22.2	58.9	117.8	1.24	1.76	121
27		45	84.4	62.2	124.4	1.10	1.62	113
35		53	24.0	60.4	120.8	1.18	1.70	104
44	55 ~~60~~	02	88.8	64.8	129.6	0.99	1.51	96
54		13	17.2	71.6	143.2	0.71	1.23	87
56 06		28	88.0	70.8	141.6	0.74	1.26	77
18		37	88.8	71.2	142.4	0.73	1.25	65
14 56 28		47	87.0	71.2	142.4	0.73	1.25	53
								−43
		57	13.3	~~74.7~~	~~149.4~~			
56 17	56	14	92.2	78.9	~~157.8~~			
46		23	141.2	~~78.0~~	~~156.0~~	160.5 + 0.37	0.89	− 8
14 57 03		35	95.8	81.6	~~163.2~~			
		45	9.9	~~85.9~~	171.8			
57 01		56	96.3	86.4	172.8	174.8 + 0.10	0.62	+ 36
46	57	08	10.4	~~85.9~~	171.8			
14 57 47								

Oct 26, '96 >

	16	98.8	88.4	178.8	
14 57 46	28	10.4	~~88.4~~	176	+81
46	42	96.8	~~88.4~~	178	
14 58 32	.52	10.9	88.1	178.2 174.5	+0.11
	58 00	90.0	~~90.2~~	180.4	0.63
14 58 26	12	8.8	89.2	178.4	+121
46	21	98.0	~~89.6~~	179.3 181.6 178.4	−003
14 59 12	30	8.4	924	168.8	0.49
	39	100.8	~~926~~		
14 59 03	48	8.2			
46	58	100.2	920		+158
~~15 00~~ 14 59 49	59 08	9.8	87.1		
	18	96.9	179.1		+0.02 0.54
	27	3.3	Contact		
59 42 46	39	98.8	95.5		+197
15 00 28	47	1.1	100.3		
	57	101.4	195.8 164.2		−0.30 0.22
	10.00:05	359.2			+233
10 00 18 46	13	103.2	104.0		
15 01 04	22	359.6	106.2 210.2		−0.58 −0.08
	32	105.8	149.8		
	41	0.0			
10 00 56 46	49	105.1	105.1		+271
15 01 42	01:03	2.2	105.8		
	11	108.0	210.9 140.1		−0.77 −0.25
	20	2.8			
10 01 34 46	27	108.2	105.4 103.2		+309
10 02 20	39	359.6	208.6		
	50	102.8	151.4		−0.55 −0.03

108

Oct. 26, 1907

	59	0.0			
10 02 14	02:09	102.6	102.0		
46	19	0.4	102.4		+349
15 03 00	29	102.8	204.4		
			155.6	−0.47	+0.05
	10:05:44	358.8			
	54	102.4	103.6		
10 06 00					
46	06 06	2.2 ~~2.2~~	103.0		+575
15 06 46			206.6		
	15	105.2	153.4	−0.51	+0.01
	23	359.8			
10 06 36	32	102.9	103.1		
46					+611
	41	2.8	100.1		
15 07 22			203.2		
	48	102.9	1568	−0.44	+0.08

Frodsham 3424 = 46 sec slow at

10.09 Almanac Time of Recp = 14:57:11

10.18 Too cloudy to continue with advantage

(12) − (189)

(188) − (107.0)

Sat. Oct. 27 - 1917

LCObs 15" E Eq. RGL Rec.

Uranus Plot I

21 30 - 15.5
21 5.5
0 25 w

P.A. 190

7.36:18 338.4 ~~7 1.6~~ ~~338.4~~ ✓
Uranus dis
364.8 26.4 ✓
163.1 24.8 ✓
187.9 - 51.2 ✓ - 3.22

✓
340.0 22.4
362.4 - 3.31
162.2 24.8 ✓
187.6 47.2 ✓ - 3.40

P.A 10

I

65.8 Mean = - 3.16
98.2 32.4 ✓
249.7 26.6 ✓
276.3 - 59.0 ✓ - 2.90

✓ - 3.00
71.2 26.7 ✓
97.9 27.6 ✓
249.1 54.3 ✓ - 3.09
7.40:51 276.7

7 38 34 Had to use a new comp ✱ ~~tonight~~

Comp ✱ = - 15.° 60 12 (8.5) or - 15. 60 14 (9.2)

21 5 29. 527

most likely the (8.5)

Oct 27 1916

Uranus II

PA 10

7:49:01 250.2 ✓
278.7 28.5 ✓
71.6 24.6 ✓
96.2 53.1 – 314 ✓

252.4 ✓ – 313 ✓
276.7 24.3 ✓
67.6 29.2 ✓
~~98.8~~ 53.5 ✓ – 312
96.8

P.A. 190 Mean – 3.135
340.2 ✓
363.6 23.4 ✓
156.8 30.1 ✓
186.9 53.5 ✓ – 312

338.6 – 314 ✓
367.2 ~~26~~ 28.6 ✓
160.4 23.6 ✓
7:53:34 184.0 52.2 ✓ – 317 ✓

7:51:17

21529.535

[32] 189 (1102)

PA. 116 a
Spr = 10.9

8.11 Thick scud, impossible to continue

JP
21532

Tues. Oct. 30, 1917

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

~~S S Cygni~~

9 20 S S Aurigae 060547 est 11.1 R1

at Maximum.

W Aurigae 052036 ~~est 8.9~~ (4") R6
00 25
4 55 +36.8

U Aurigae 053531 est 8.3 (4") R5
00 30
5 5 +31.9

Z Aurigae 055353 est 11.4 R0
0035
5 18 E +53.5

X Aurigae 060450 est 10.1 R3
00 40
5 24 +50.0

V Aurigae 061647 est ——
00 42
5 34 E +47.8

Can't identify.

1000 20" sec. enlargement needed

21532

Oct. 30, 1917

U Lyncis 063159 est 9.9 R 5

0051

5 40 +59.8

S Lyncis 063558 est 12.1

0055

5 40 +58.3

R Lyncis 065355 est <12.8

0058

5 55 +55.0

8 - 1917

— 1102

2 15 33

Wed. Oct. 31-1917

L.C.Elb 15" Eq.

SS Aurigae 060547

9 37 est 11.2 00 30
5 35 E +47.5

L.V. = 13.0

Sky poor, moon not far distant.

X Cephei 210382 est < 13th
00 37 too much haze & moon
3 34 W +82.7

S Cephei 213678 Est 9.5
00 40 R 9
3 04 W +78.2

X Pegasi 211614 est 9.2
2447 R 5
3 31 W +14.0

R Equulei 210812 est 11.7
2459
3 51 +12.5

T Pegasi 220412 est <12.5
10 ~~10~~ 05 25 02
2 58 +12.0
Clds nearby

Oct. 31—1917

y Pegasi 220613 est —

25 06

10 10 30 +138 Cldy

10 15 Too cldy & bright moon to continue

~~—10~~

~~6~~

6 — 203

— 1102

21534

Thurs Nov 1 1917

L.C. Obs   R.G.L. Rec.

R Coronae

6.40   154428   est 10.4
2135   R 2
5.51 W

Comp ✶ for Uranus = same as on the 27th of Oct.
Uranus   Phot T.

P.A. 10   21 15 – 15.5   =
6:54:53   73.2 < Uranus dis
96.1   22.9   I
251.0   28.4 ✓
279.4   51.3 ✓ – 3.22

68.7   ✓ – 3.23
97.3   28.6 ✓
254.0   22.3 ✓
276.3   50.9 ✓ – 3.24
PA 190

mean = – 3.26

162.2   2
185.1   24.9
343.4   24.8
368.2   47.7 – 3.38

156.7   ✓
186.2   29.5 ✓ – 3.30
341.3   21.9 ✓
6:59:04   363.2   51.4 ✓ – 3.21
6 56 57 $2421533^{4}.497$
6 55 48
Cs watch = 1m 10s fast ~~by~~ Bell

Nov. 1, 1917.

Uranus II

	PA 190		
7:10:22	341.2	✓	
	363.1	21.9 ✓	
	162.3	26.9 ✓	
	189.2	48.8	− 3.33
	340.4	✓	− 337
	366.8	26.4 ✓	
	165.4	20.9 ✓	− 3.40
	186.3	47.3	
	PA ~~190~~ 10		
	253.6	✓	Mean = −3.2^5
	275.1	21.5 ✓	
	71.6	28.5 ✓	− 3.27
	100.1	50.0	
	250.1	✓	— 3.1^3
	280.6	30.5 ✓	
	71.3	26.1 ✓	− 2.99
7:15:02	97.4	56.6	

$$\begin{array}{rrr} 7 & 15 & 02 \\ & 5 & 24 \\ \hline 7 & 12 & 42 \\ & 1 & 10 \\ \hline 7 & 11 & 32 \\ & & 4 \end{array}$$

242 1533.508

Nov. 1, 1917.

Uranus III

~~7: :02~~	PA 10		
7 21:02	251.6	✓	
	276.1	24.5 ✓	
	69.2	30.9 ✓	
	100.1	55.4 ✓	− 3.04 ✓
	250.2	✓	— 301 ✓
	282.2	32.0 ✓	
	72.4	24.8 ✓	
	97.2	56.8 ✓	− 2.98 ✓
	PA 190		
	163.7	✓	Mean − 3.23 ✓
	187.1	23.4 ✓	
	343.7	20.5 ✓	
	364.2	43.9 ✓	− 3.56 ✓
	163.8	✓	— 3.45 ✓
	185.7	21.9 ✓	
	340.8	26.5 ✓	
7:25:31	367.3	48.4	− 3.34 ✓
7 23 16			
7 22 06			

242153$\overset{4}{3}$.575 —

Nov. 1, 1917.

Uranus IV

5 PA 190

7.38 51 161.3 ✓

189.8 28.5 ✓

341.2 21.9 ✓

363.1 50.4 ✓ −3.25 ✓

−331 ✓

165.2 ✓

184.8 19.6 ✓ −337 ✓

340.0 28.2

368.2 47.8 ✓

PA 10 Mean = −3.~~33~~ 14

70.4 ✓

101.2 30.8 ✓

250.0 29.1

279.1 59.9 ✓ −286 ✓

−296 ✓

72.4 ✓

97.6 25.2 ✓ −3.07 ✓

249.2 29.6 ✓

7:43:28 378.8 54.8 ✓

) 40 40

) 39 30

4

2421533.528

Nov. 1, 1917

Uranus V

	PA 10		
7:57:00	68.0	✓	
	96.2	28.2 ✓	
	251.3	26.3 ✓	
	277.6	54.5 ✓	− 3.08 ✓
			2 ✓
			— 30~~8~~
	72.1	✓	
	97.3	25.2 ✓	
	248.8	32.0 ✓	
	280.8	57.2	− 2.97 ✓
	P.A 190		Mean = − 3.20 ✓
	338.7	✓	
	363.6	24.9 ✓	
	160.0	23.0 ✓	✓
	183.0	47.9	−337
			−338 ✓
	343.3	✓	
	364.8	21.5 ✓	
	162.8	25.8 ✓	
8:01:27	188.6	47.3	−340 ✓

) 59 14

) ~~58 04~~

) 57 56

2421534.540
f 80

C's Watch = 1^m 18^s fast by Bel

Nov. 1, 1917.

Uranus VI

	PA 190			
8:09:02	338.4	✓		
	367.2	28.8		
	164.6	~~18.2~~ ✓		
	187.8	23.2	✓	
		52.0 ✓	− 3.18	
			−3.33 ✓	
	343.6			
	364.9	21.3 ✓		
	164.2	24.2 ✓	✓	
	188.4	45.5 ✓	− 3.48	
	PA 10		Mean −3.12	
	249.6	✓		
	280.6	31.0 ✓		
	69.2	28.2	✓	
	97.4	59.2 ✓	−2.87	
		✓ R	−2.90	
	249.0	31.4		
	280.4	27.2 ✓		
	72.6	58.6 ✓	− 2.91	
8:14:13	99.8			

8:14:13
23 15
8 11 38

8 9 20

2421533.548

Nov. 1, 1917

Uranus. VII

	P.A. 10			
8:24:58	338.4	✓		
	361.2	22.8 ✓		
	152.9	31.1 ✓		
	184.0	53.9 ✓	−3.11 ✓	
	335.5	✓		−310 ✓
	362.8	27.3 ✓		
	155.1	26.7 ✓		
	181.8	54.0 ✓	−310 ✓	
	PA 190		Mean = −322 ✓	
	247.1	24.5 ✓		
	271.6	✓		
	69.0	21.7 ✓		
	90.7	46.2 ✓	−3.45 ✓	
	249.1	✓	−334 ✓	
	269.9	20.8 ✓		
	62.4	29.8 ✓		
8:29:48	92.2	50.6 ✓	−334 ✓	

23
8:37:~~08~~
26 05
8 ~~25:50~~

4
242153~~3~~.560

Nov. 1, 1917.

Uranus — VIII

	PA 190		
8:39:22	245.6	26.2 ✓	
	271.8		
	68.7	20.3 ✓	✓
	89.0	46.5 ✓	−3.43
			— 3.44 ✓
	250.4		
	270.7	20.3 ✓	✓
	66.0	25.8 ✓	−3.45
	91.8	46.1 ✓	
	PA 10		Umean = −3.24 ✓
	152.7	✓	
	186.2	33.5 ✓	
	337.2	24.1	
	361.3	57.6	−2.95 ✓
			— 3.03 ✓
	159.8		— 3.11 ✓
	181.4	21.6 ✓	
	331.9 ~~330.8~~	32.1	
~~8:44:12~~	~~364.2~~	53.7 ✓	
8:44:56	364.0		
4 18			
8 42 09			

2421536^{4}.571

Nov. 1, 1917.

Uranus IX

	PA 10		
8:55:25	153.2	✓	
	~~189.4~~	29.9 ✓	
	183.1	23.5	
	336.6	53.4 ✓	— 312 ✓
	360.1		
			— 312 ✓
	158.6	✓	
	181.9	23.3	
	329.8	30.0 ✓	
	359.8	53.3 ✓	— 3.13 ✓
	PA 190		Mean = — 318 ✓
	61.8	✓	
	93.1	31.3 ✓	
	250.3	21.8	
	272.1	53.1 ✓	— 3.14 ✓
			— 324 ✓
	68.2	✓	
	89.6	21.4 ✓	
	246.2	27.0	
9:00:24	273.2	48.4 ✓	— 3.34 ✓
8:57:49			
8:56:32			

2421534.581

Nov. 1, 1917.

Uranus II

~~9.~~	PA 190		
9:14:02	64.2	✓	
	93.0	27.8 ✓	
	249.5	21.3 ✓	
	270.8	49.1 ✓	−331 ✓
			✓
			− 330
	65.8		
	90.1	24.3 ✓	
	246.4	25.2 ✓	
	271.6	49.5 ✓	−3.29 ✓
	PA 10		Mean = −314 ✓
	332.2	✓	
	365.0	32.8	
	157.6	26.0 ✓	
	183.6	58.8 ✓	−291
			✓
			−298
	336.4	✓	
	359.7	23.5 ✓	
	155.2	32.0 ✓	
9:18:46	187.2	55.5 ✓	−304 ✓

9 16 24

9 15 06

2421534.594

Nov. 1, 1917.

XI

22nd Shelf

List Book

P

9:28:08 3

3

1

1

3

1

1

1

P.A 3.16

2

2

2

24

2

6

9:33:00 9

61 08

9 30 34 (it to continue.

9 29 16 PA

2421534.60 Spr 10.6

Dec −15.0

Ha 3:05 W

O.T. = ~~[illegible]~~ 0"35 —

Nov, 1, 1917.

Uranus XI

	PA 10		
9:28:08	335.2	✓	
	364.1	28.9 ✓	
	156.8	25.9	
	182.7	54.8 ✓	−3.07 ✓
			✓
	335.3	✓	− 304
	360.2	25.9	
	152.4	30.6 ✓	
	183.0	56.5 ✓	− 300 ✓
	P.A. 190		Mean = −3.16 ✓
	244.8	✓	
	274.6	29.8 ✓	
	68.0	20.8 ✓	
	88.8	50.6	−3.24 ✓
			✓
	246.6	✓	− 329
	268.7	22.1	
	64.8	26.4 ✓	✓
9:33:00	91.2	48.5 ✓	−334
61 08			

9 30 34 Observations becoming too difficult to continue.

9 29 16 PA 188a

2421534.60^d Sep 10.6

Dec −15.0

Ha 3:05 W

ρ T = ~~[illegible]~~ 0.″35

Nov. 1, 1917.

Y. Pegasi

9.40 220613 est 10.8

2442

2.36 R.

R.S. Pegasi

228714 est 12.9

R R Pegasi.

214024 est 9.2

2455

3.15 W + 24.9

R V Pegasi

222129 est 12.8

2458

2.37 W +29.9

R T Pegasi

215934 est 12.8

2504

3.05 W + 34.6

*π = 11.1

S. S. Aurigae

066547 est 11.3

10.14 ~~0219~~

0109 7 – 7 Vis

454 E 176 – 1278 Photo

Fri, Nov. 2, 1917

L.C.Ob 15" E. Eq. R.J.T. Rec.
Phot T

Uranus
21 30 −15.0

Same Comp ★ as on last night. I.

PA 190

6:42:28 242.4 ✓
272.6 30.2
70.2 19.8 ✓
~~88.8~~ 50.0 ✓ − 3.27 ✓
90.0

− 3.32 ✓

246.8 22.0 ✓
268.8 25.9 ✓
66.3 47.9 ✓ − 337 ✓
92.2

mean = − 3.04 ✓

PA 10

336.9 26.9 ✓
363.8 34.0 ✓
150.2 60.9 ✓ −283 ✓
184.2

− 276 ✓

331.2 35.1 ✓
366.3 29.2 ✓ −270 ✓
6 46.27 156.7 64.3 ✓
6.44.28 185.9
6 41 09
242 15 35.48 Seeing poor on account of heat waves in dome.

Nov. 2, 1917.

Uranus III

	PA 10		
6:52:44	336.2		
	361.3	25.1 ✓	
	154.2	31.5 ✓	
	185.7	56.6 ✓	— 299 ✓
			— 292 ✓
	335.5		
	365.2	29.7 ✓	
	156.2	30.2 ✓	
	186.4	59.9 ✓	— 286 ✓
	PA 190		Mean — 3.18
	67.2		
	91.8	24.6 ✓	
	250.4	22.3	−341
	272.7	46.9 ✓	~~261~~
	76.4	✓	−3.45
	87.4	17.0 ✓	
	244.5	28.3	
6:56:45	272.8	45.3 ✓	− 3.49

6:54:44
6 51 25
2421535.494

7.00 Ca watch = $3^{m}19^{sec}$ fast by bell

Nov 2 1917

Uranus. III

	PA 190		
7:08:47	68.4		
	89.3	20.9 ✓	
	249.8	19.4 ✓	
	269.2	40 3 ✓	— 375 ✓
	70.4		— 376 ✓
	87.2	16.8 ✓	
	246.6	23.4 ✓	
	270.0	40.2 ✓	— 3.76 ✓
	PA 10		Mean = — 3.27
	329.8		
	365.5	35.~~3~~7 ✓	
	155.6	26.2 ✓	
	181.8	61.9 ✓	—279 ✓
	334.8		— 278 ✓
	362.8	28.0 ✓	
	152.8	34.6 ✓	
7:13:15	187.4	62.6 ✓	—276 ✓

22 02

7 11 01

3 19

7 07 42

2421535.506

Nov 2 1917

Uranus IV.

	PA 10		
7:19:16	331.2		✓
	363.8	32.6	✓
	153.8	30.4	✓
	184.2	63.0 ✓	−275 ✓
			−277 ✓
	331.7		✓
	363.2	31.5	✓
	156.4	30.4	✓
	186.8	61.9 ✓	−279
	PA 190		mean = −3.06 ✓
	244.4		✓
	274.2	29.8	
	69.9	19.5 ✓	
	89.4	49.3 ✓	−330 ✓
			−336 ✓
	248.4		✓
	268.8	20.4	
	66.4	26.2 ✓	−343 ✓
7:23:46	92.6	46.6 ✓	

7 21 31
−3 19
7 18 12
2421535.512

Nov. 2, 1917.

Means.

	PA 190			V
7:30:55	242.6	✓		
	272.4	29.8 ✓		
	70.7	18.5 ✓		
	89.2	48.3	− 335 ✓	
	246.2		− 3.39 ✓	
	266.7	20.5 ✓ ✓		
	66.4	26.0	✓	
	92.4	46.5 ✓	− 343	
	PA 10		Mean = − 3.08	
	151.4			
	189.4	38.0 ✓		
	334.4	25.8		
	360.2	63.8 ✓	− 2.72	
	154.0		− 2.76	
	181.2	27.2 ✓		
	331.4	33.7 ✓		
7:35:37	365.1	60.9 ✓	− 2.83	

6 32
7 33 16
3 19
7 29 57

2421535.521

Focus improved before taking next group.

Nov 2 1917

Uranus

VI

PA 10

7:36 :16 153.8
183.0 29.2 ✓
336.1 25.1 ✓ ✓
361.2 54.3 ✓ -309

157.4 -304 ✓
183.9 26.5 ✓
334.4 29.8 ✓
364.2 56.3 ✓ -300 ✓

PA 190 Mean = -3.13 24

67.1 ✓
93.1 26.0 ✓
245.2 30.9 2 3.41 ✓
assumed. *286.1 6 56.9 4 ✓ - ~~298~~

-3,43 4

68.2 ✓
92.8 24.6 ✓
247.2 21.6 1
7:40 :17 268.8 46.2 ✓ -345

7 38 16
3 19
7 34 57
2421535.524

Nov. 2, 1917.

Uranus VIII

	P.A. 190		
7 49:12	70.4		
	89.4	19.0 ✓	
	246.7	23.2 ✓	
	269.9	42.2 ✓	— 365 ✓
			✓
			— 3.54
	68.8	✓	
	94.0	25.2 ✓	
	247.6	21.2 ✓	✓
	268.8	46.4	— 344
	PA 10		Mean = —331 ✓
	334.8	✓	
	365.2	30.4 ✓	
	155.3	26.8	
	182.1	57 2	— 297 ✓
			—308 ✓
	334.6	✓	
	362.6	28.0 ✓	
	157.4	24.0 ✓	✓
7:53:30	161.4	~~4~~2.0 ✓ 5	— 318
7 51 27			
7 48 02			
2421535.533			

8 00 watch med = 3^m 27^s fast by bell

Nov. 2, 1917.

Uranus VIII.

P.A. 10

8:14:02 332.4
364.6 32.2
152.6 29.0
181.6 61.2 —281

90
—2~~89~~

333.8
364.8 31.0
155.2 26.0
181.2 57.0 —298

PA 190 Mean = —3.1~~2~~ 5

~~272.2~~
246.1 25.7
271.8 20.8
67.4 46.5 —343
88.2

345.2 —340
270.1 24.9
67.0 23.1
8:19:38 90.1 48.0 —336

33 40
8 16 50
3 27
8 13 23
2421535.551

Nov 2 1917.

Uranus IX

	PA 190		
8:30: 06	244.7 ✓		
	272.6	27.9 ✓	
	68.7	20.5 ✓	
	89.2	48.4	−334 ✓
			✓ 2 −342
	248.6 ✓		
	269.1	20.5 ✓	
	66.4.	24.9 ✓	
	91.3	45.4	−349 ✓
	PA 10		mean = − 326 ✓
	155.2		
	183.1	27.9 ✓	
	336.2	26.4 ✓	
	362.6	54.3	−309 ✓
			✓ — 310
	156.7 ✓		
	180.2	23.5 ✓	
	334.1	30.0 ✓	✓
8:34:55	364.1	53.5	−312

8:32 :30 ~~44~~

8:29 ~~28~~ :03 ~~33~~

2421535.562

Nov. 2, 1917.

Uranus X

	PA 10		
8:42:33	155.6		
	185.8	30.2	
	335.4	27.7	
	363.1	57.9	— 294
			—296
	156.7		
	184.0	27.3	
	335.4	29.5	
	364.9	56.8	—298
	PA 190		
	~~8~~65.5		Mean = — 3.2$\overset{2}{8}$
	93.2	27.7	
	248.4	20.0	
	268.4	47.7	—338
			— 348
	71.0		
	90.6	19.6	
	245.8	24.0	
8:46:44	269.8	43.6	— 358
8:44:38			
8:41:11			
2421535.570			

Nov 2 1917

Uranus XI

PA 190

8:52:26 68.1 ✓
92.4 24.3 ✓
250.4 19.8 ✓
270.2 44.1 ✓ − 355 ✓

✓

70.8 ✓ − 3 ~~66~~ 42 ✓
90.2 19.4
241.6 ~~2~~ 3 0.4 ✓
272.0 4 ~~3~~ 9.8 ✓ − 3 ~~1~~ 2 8 ✓

PA 10 Mean = − 3 ~~40~~ 39

339.2 ✓
367.0 27.8 ✓
158.8 18.4 ✓ ✓
177.2 46.2 − 345

✓
340.6 ✓ − 336
362.2 21.6 ✓
155.2 28.1 ✓
8.57:09 183.3 49.7 − 328 ✓

9 35
8:54 48
3 27
8 51 21

2421535.577

Nov 2 1917

Uranus XII

	PA 10		
8:59:50	334.4		✓
	363.8	29.4 ✓	
	156.2	24.2 ✓	✓
	180.4	53.6 ✓	− 311
	339.0	✓	− 310 ✓
	362.0	23.0 ✓	
	151.7	31.3 ✓	
	183.0	54.3	− 309 ✓
	PA 190		Mean = − 316 ✓
	241.8	✓	
	273.0	31.2 ✓	
	71.4	18.6	
	90.0	49.8 ✓	−328 ✓
			✓
	247.6	✓	− 322
	268.2	20.6 ✓	
	64.4	31.6	✓
9:04:24	96.0	52.2 ✓	−317
9: 14			
9:02:07	PA = 188a		
8:58:32	Spr = 10.8		
	Focus = 25.0		

9.10 Vision too poor to continue

2421535.582

9.00 Watch = 3.35 m sec fast by bell.

2 15 35

Nov 2 1917

9.30 T Drac 175458
~~1754~~ 2435 est = 9.7
6~~81~~ 41 W+58.3 R 7

Var. near T = 11.7

V Drac 175654
est = 13.4
faint and difficult.

W. Drac. 180565 est = 13.5
2440
6.35 W+66.0

X Drac 180666 est = 11.3
R.Y. Lyrae 184134 est = 9.6
2448 R = 3
6.07 W+34.6

S Lyrae 190925 est 13.6
2452
5.43 W+25.5

R S Lyrae 190933a est 11.7

R.U. Lyrae 190941 est 10.2
R 3

Nov. 2, 1917

	RT Cygni	194048 2459 5.19 W + 48.5	est 9.2
10.00	TU. Cygni	194348	est 11.9
	χ Cygni	194632 2508 5.22 + 32.6	est 13.5
	Z Cygni	195849 2511 5.13 + 47.8	~~est~~
	Var. 3 y' w 5 var.		
	S Cygni	200357 2516 5.13 W + 57.7	est 11.0 R 3
10.20	SS Aurigae	060547 0120 4.45 E	est 11.4

~~Var = 11.4~~

15 – 22 Ests Nov.

192 – 147° setts to date.

2 / 5 / 3¼

Sat Nov 3 1917

L C Obs 15" E. Eq. R. G. L. Dec

7.45 T Urs. Min. 133273 est = 13.5
2252
9.20 W + 73.8

Var = star α

U Urs. Min 141567 est = 9.2
2257 R = 5
8.42 W + 67.5

S Bootis 141954 est = 11.5
2259 R = 2
8.40 W + 54.2

Double?

R Camelop 142584 est = 8.8
4" 2307 R = 4
8.42 W + 84.3

in 4"

8.00 S Urs. Min. 153378 est = 10.6
2310 R = 6.
7.37 W + 77.0

W Coronae 161138 est = 8.9
2312 R = 4
7.01 W + 38.5

Nov. 3, 1917.

W Herc 163137 est = 8.9
2316 R = 3
6.45 W + 37.5

R Drac 163266 est = 10.9
2318 R = 2
6.46 W + 66.5

RV Herc 165631 est = 10.0
2320 R = 2
6.24 W + 31.0

RT Herc 170627 est —
2323
6.17 W + 27.2
r 5 n

RS Herc 171723 est = 12.1
2327
6.10 W + 23.0
new chart needed

RY Herc 175519 est = 9.0
2330 R = 2
5.35 W + 19.5

T Herc 180531 est - 83
2333 R 3
5.28 W + 31.0 m 4!"

Nov 3 1917

TV Herc 181031 est =
2334
5.24 W + 31.8 P
Z 4.3 α

SV Herc 182224 est = 10.1
2337 R = 2
5.15 W + 24.6

RZ Herc 183225 est = 13.2
2338
5.06 W + 26.0

SV Drac 183149 est 12.5
2341 R 4
5.10 W + 49.2

RW Lyrae 184243 est =
2343
5.01 W + 43.5

t 5 N

RX Lyrae 185032 est =
2345
4.55 W + 32.8
X 3 var = 14.5 th

Nov 3 1917

Z Lyrae 185634 est=11.5
2349 R 4
4.53 W+34.8

RT Lyrae 185737 est=13.6

V Lyrae 190529 est=13,7
2353
4.48W+29.5

RT Aquil 193311 est=13.8
2358
4.25 W+11.6
x 5 var=13.8

RV Aquil 193509 est=13.8

X Aquil 194604 est=
2405
4.19W+4.2
x 5 var 14th

SY Aquil 200212 est=13.7
2408
4.06W+12.6

9.00 TV Aquil 200806 est=
2410 x 0 var
4.02 +6.0

Nov. 3, 1917.

Z Del Ph 202817 est = 14th
24'6
3.48 W + 17.0
var = α

9.13 SS Aurigae 060547 est 12.0

30 — 5-2 L
— 1470

2/15-3~~8~~9

Sun Nov. 4, 1917

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

SS Aurigae 060547 est = 12.8
0 1 20
4 45 E

10 17 est SS = (12.6) 2, 3 (12.4)

(10.8 near SS) 2 other 10.8 (9) 4(11.0) ~~6 (11.4)~~ 2(11.2)
3 (11.4) 1 (11.6) 8 (12.6) 4 (12.4) 5 (13.0) 3 (13.3)

The 12.4 appears decidedly fainter tonight than I have been wont to note it at any time previously i.e. from memory only.

U Gem 074922 est 10.1
0 1 35
10 30 6 14 E + 22.2 ?
5 46

d 2 b or (9.3) 2 (9.9)
11 00 est U = 10.0

Region low but I am sure that U Gem is brighter than normal.

All three SS Cygni type variables above normal ~~tonight~~.

3'-55
,470

21 5 38

Mon Nov. 5 – 1917

L.C.Clk. 15" E Eq. RGL Rec

18 55 12 ST Sagitt. est 10.3

6 17 21 30 R 4

2 35 W – 12

RX Sagitt 190818 est 13.5 ~~R~~

RW Sagitt 190819 est 9.4 R 4

R Sagitt 191019 est 11.5 R 4

S Sagitt 191319 est 10.0 R 4

Sagitt is Var = est 12.5

Z Sagitt 19132 est <13.5 =

W Aquil 191007 est 9.3 R 5

" 191007b est 10.2

T Sagitt 191017 est 11.3 R 3

R Coronae 154428 est. 10.3

21 54 R: 2

6 10 W + 28.5

X Coronae 154536 est = 9.8

21 57 R = 3

6.12 W + 31.6

Nov, 5. 1917.

215 38

V Coronae 154639 est: 8.2
2200 R: 7
6.14 W + 39.9

Z Coronae 155229 est: 13.5
2200 R.
6.08 + 29.5

R. Herc 160118 est: 9.8
2202 R: 4
6.01 W + 18.6

U Serp 160210 est 12.7
22

low and difficult

SS Herc 162807 est: 12.1
2207 R.
5.39 W + 6.8

S Coronae 151731 est: 11.4
2211 R. 5
6.54 W + 31.7

RU Herc 160625 est: 10.1
2215 R: 3
6.09 W + 25.3

7.00 U Herc 162119 est: 9.8
2217 R: 4
5.57 W + 19.2

S Herc 164715 est = 8.6
2220 R = 4
5.33 W + 15.1

Nov 5 1917

SY Herc 165722 2 est = #
2222 R =
5.25 W + 22.6
b 4, 0 c

RU Oph 172809 est = 12.6
2226 R = 2
4.58 W + 9.5

RT Oph 175111 est =
2229 R =
4.38 W + 11.0
var = ∞

T Serp 182306 est =
2231 R =
4.08 W + 6.2
in 5 var.

RR Aquil 195202 est 13.5
2235 R =
2.43 W #2.5

RS Aquil 195308 est 13.1
2

R Capri 200514 est 12.8
2243 R = 5
2.38 — 14.6

W Capr 200822 est =
2245 R :
2.37 — 22.3

0 5 N

Nov. 5, 1917.

RU Capr 202622 est =
2248 R =
2.32W − 22.0
abandoned

U. Capr 204215 est = 13.4
2253 R =
2.11W − 15.2

T Aquar 204405 est = 9.2
2256 R = 4
2.12W − 5.5

V Cap 210124 est =
2259 R
1.58 W − 24.3
t 3 W

X Cap 210221 est = 12.1
2310 R 3
2.08 − 21.8

Z Cap 210516 est = 12.7
2311 R 4
2.06W − 16.6

RR Aquar 210903 est = 12.3
2313 R = 4
2.04 W ± 3.3

T Capri 211615 est = 12.5
2316 R = 3
2.00 − 15.6

Nov. 5, 1917.

8.00 Y Capri 212814 est = 13.5
2316 R
1.48 − 14.4

U Aquar 215717 est = 13.7
2320 R
1.28 − 17.1

X Aquar 221321 est 13.0
2323 R
1.10 W − 21.4

RT Aquar 221722 est = 11.4
2325 R =
1.08 W − 226

S Aquar 225120 est =
2327 R :
0.36 W − 20.8
var 5 α = 14th

S Peg 231508 est
2330
0.15 W − 8.

R Aquar 233815 est 6.9
2331 R .5
.07 E − 16.2

in 4"

V Ceti 235209 est = 14.1
2333 R =
0.19 E − 9.5

Nov. 5, 1917.

W Ceti. 235715 est = 14.1
2336 R =
0.21 E − 15.2

Z Ceti 010102 est : 10.4
2353 R : 2
1.08 E − 2.0

S Pisc 011208 est =
115 E + 8.4 R =
var = x = 14th

U. Pisc 011712 est = 12.7
0005 R =
1.12 E + 12.3

R Pisc 012502 est : 10.2
0006 R 3
1.09 E + 2.4

S Ariet 015912 est 12.2
0008
1.51 E + 12.0

o Ceti 021403 est = 3.9
naked eye
R = 6

9.00 R Ceti 022000
0016 est : 8.0 in 4"
2.04 E − 0.6 R : 3

U Ariet 030514 est : 13.8
0020 R:
2.45 E + 14.4

Nov ~~4~~ 5 1917

x Ceti 031401 est = 9.6
0022 R = 3
2.52 E − 1.5

R Tauri 042209 est =
∞ 3 var

9.12 S~~T~~ Tauri 042309
0025 est − 13.8
3.58 E + 9.7

SS Aurigae 060547 est Var 12.9
0140
42⁵ E

10 30

(11.6) 3 11.8 6 (12.6) 6 (12.4) 3 (13.0) 2 (13.3)

U Gem 074922 est < 13.3

10 40

U Gem. misidentified
last night, Var not obs'd
as was thought to be the
case.

58 113
− 1470

21 40

Wed Nov. 7, 1917

15" E Eq.

L.C. Obs. Rec R.G.L.

6.25 S Pegasi 231508 est 11.2 ✓
21 45
1 30 E +8.4 R 4

Z Cass 233956 est 9.7
21 53 R 4
1 46 E +56.0

RR Cass 235053 est 12 3
21 58 R 3
1 52 E +53.2

R Cass 235350 est 13.2
R 5
2200
1 53 +50.5

Z Peg 235525 est = 8.9
2205
1.50 E +25.5 R = 3

SV Andr 235939 est : 13.7
2208 R -
1.51 E +39.0

Y Cass 235855 est - 12.3
R = 4

X Andr 001046 est : 14.5 th
2219 R =
1.51 E +46.4
no var

2 - 5 40"

Nov. 7, 1917

7.00	T Andr	001726 2222 1.55 E +26.2	est = 12.8 R = 2
	R W Andr	004132 2227 2.14 E +32.2	est = 10.1 R = 3
	V Andr	004435 2230 2.14 E +35.0	est = 11.7 R = 4
	R V Cass	004746 2232 2.15 E +46.7	est = 12.5 R = 3
	R X Andr	005840 2237 2.21 E +40.6	est = 12.3 R = 2
	U Andr	010940 2238 2.31 E +40.2	est = 10.2 R = 3
	U. Z Andr	011041 2240 2.30 E +41.3	est = 13.9 R =
	S Cass	011272 2308 2.04 E +72.1	est ~~15.0~~ 14.0
	Z Cephi	021281 2317 2.55 +81.2	est 12.6

Nov. 7, 1917.

8.00 RR Cephi 023080 est 12.2
2320 R 4
3,10 E + 80.8

Y Pers 032043 est = 8.8
2323 R 5
3,57 E + 43.8

Nova Per No 2 | 032443 est = 13.7

R Per 032335 est = 13.6

T. Tauri 041619 est = 10.3
2340
4.36 E + 19.3

W Tauri 042215 est = 11.6
2344 R = 4
4.38 E + 15.8

RX Tauri 043208 est = 9.0
2347
4.45 E + 08.0

V Tauri 044617 est = 9.7
2350 R = 3
4.56 E + 17.4

R Orion 045307 est = 13.0
2353
5.00 E + 8.00

Nov. 7, 1917.

I

	Index to the right	O Ati	021403	photo R
8:36:18	139.2	bar dis		
	151.3	12.1		
	320.2	9.6		
	329.8	21.7	− 5.11	
	138.7		− 5~~30~~25	
	150.6	11.9		
	321.7	7.2		
	328.9	19.1	− 539	
	Index to left			
	48.5		Mean	$-51\overset{6}{8}$
	60.2	11.7		919
	229.2	11.0		$40\overset{3}{9}$
	240.2	22.7	− 502	
	49.4		—	506
	59.8	10.4		
	228.3	11.4		
8:42:42	239.7	21.8	− 510	
8:39:30				
21540				

Nov. 7, 1917.

V Orionis 050003 est = 13.7
0100
400 E + 4.0

SU Tauri 054319 est = 9.6
0108 R = 2
4.35 E + 19.0

Z Tauri 054615 a est =
0114 R =
4.32 E + 15.8

r 2 N

RU Tauri 054615 c est = 11.9

10.06 SS Aurigae 060547 est = 13.8
0125 R =
4.40 E + 47.5

10.03 U Gemin 074922 est 12.1
0126
6.23 E + 22
region very low.

(33) (146)
(16) (1486)

Thurs. Nov. 8, 1917

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

U Cephei 005381 Phot T.

2148

305 E

	PA 20				
6:36:41	45.4	var dis	✓		I
	116.6	71.2	✓		
	225.5	6 ~~5~~8.3			
	293.8	139.5	✓	− 0~~77~~ 78	
	40.7	75.1		−.0~~8~~76	
	115.8	6 ~~5~~7.3			
	225.1	~~132.4~~		− 0~~8~~73	
6:38:38	292.4	142.4			
	PA 200				
6:39:19	140.2		✓	Mean	− 0.94
	199.8	59.6			8.41
	313.6	66.2	✓		
	379.8	125.8	✓	− 107 ✓	7.47
	141.6			− 111 ✓	
	199.8	58.8	✓		
	314.8	63.1	✓		
6:40:55	387.9	121.9	✓	− 115 ✓	

35 33

6 38 38

11 38 38

2 15 41.485

41.333

0.157

Nov 8 1917

U Cephei II

	200		
6:45:01	142.6		✓
	203.2	60.6	✓
	312.2	65.6	
	377.8	126.2	✓ — 1.06
	139.6		— 1.02
	204.6	65.0	✓
	314.1	651	✓
6:46:45	379.2	1301	✓ — 0.98
	PH 20	Mean =	— 1.00
6:47:36	229.6		✓ 841
	287.7	581	741
	39.8	735	✓
	113.3	131.6	✓ — 0.95
			— 0.98
	233.0		✓
	292.8	59.8	
	43.2	690	✓
6:49:51	112.2	128.8	✓ — 1.00

7 13
6 47 18
11 47 18 2
2)541.498
.333
.159

Nov. 8, 1917.

U. Cephei . III

	PA 20			
6:53:50	229.2			
	291.2	62.0 ✓		
	47.8	64.7 ✓		
	112.5	126.7 ✓	− 1.05	
			7	
	228.2	✓	− 1.06	
	295.2	67.0 ✓		
	48.1	58.7 ✓		
6:55:23	106.8	125.7 ✓	− 109	
				10 9
	PA 200		Mean =	−1.~~08~~
6:56:60	143.2	✓		8.41
	199.2	56.0		7.32
	320.7	56.7 ✓		
	17.4	112.7 ✓	− 1.36	
			2	
	143.3	✓	− 1.10	
	199.2	55.9 ✓		
	306.9	79.3	7	
6:58:01	26.2	135.2	− 0.83	

24 24
6 56 06
11 56 06
21541.497
41.333
> 00 ~~B~~ Plod 3424 = correct by bell
~~44~~ 164

Nov. 8, 1917.

U Cephei IV

	PA 200			
7:04:43	142.2			
	201.1	58.9 ✓		
	316.2	60.0 ✓		
	16.2	118.9 ✓	— 1.22	
			— 120	
	140.8			
	195.2	54.4 ✓		
	315.3	65.9 ✓		
	21.2	120.3 ✓	— 1.19	
	PA 20		Mean	117
	45.6			841
	113.6	68.0 ✓		7.24
	228.8	59.6 ✓		
	288.4	127.6 ✓	— 1.03	
	55.2		— 1.14	
	108.6	53.4 ✓		
	226.2	63.6 ✓	— 1.26	
7:09:48	289.8	117.0 ✓		

7:07:16 ✓

12 07 16

21541.505

.333

0.172

Nov. 8, 1917.

U Ophei V

	PA20			
7:21:35	53.4			
	106.6	53.2 ✓		
	226.8	60.6 ✓		
	287.4	113.8 ✓	— 133	
	52.5		— 132	
	111.6	59.1 ✓		
	231.2	56.2 ✓		
	287.4	115.3 ✓	— 130	
	PA200		Mean	= 126
	320.2			841
	25.6	65.4 ✓		715
	136.4	60.8 ✓		
	197.2	126.2 ✓	— 106	
	321.5		— 121	
	20.8	59.3 ✓		
	140.8	53.2 ✓		
7:25:42	194.0	112.5 ✓	— 136	

7 23 38
12 23 38

21541.517
.333
0.184

Nov. 8, 1917.

U Cephei VI

	PA 200		
7:32:21	321.6		
	19.2	57.6	
	140.0	57.4	
	197.4	115.0	— 130
	316.9		— 127
	~~1~~20.2	63.3	
	141.2	54.4	
	195.6	117.7	— 124
	PA 20		
	236.8		
	289.9	53.1	
	41.5	72.4	
~~Querie~~ ?	113.9	125.5	— 107 }
	27.2 2 ~~18.5~~		— 115
	291.3	64.1	
	50.8	54.4	
7 36:44	105.2	118.5	— 153

Mean 12~~7~~ 5

841

~~720~~

7.16

7 36:44

7 35 32

21541 - 524

333

0.191

Nov. 8, 1917.

U Cephei

VII

	PA 20			
7:39:36	227.7		✓	
	285.6	57.9	✓	
	49.4	61.4		
	110.8	119.3	✓	— 121
	228.9		✓	— 125
	287.8	58.9	✓	
	50.4	56.7		
	107.1	115.6	✓	— 129
	PA 200			Mean — 138
	145.6		✓	841
	193.7	48.1	✓	703
	324.8	54.4		
	19.2	102.5	✓	— 160
	140.4		✓	— 152
	198.2	57.8	✓	
	324.6	51.3	✓	
7:43:50	15.9	109.1		— 144

7 ~~8~~ 4 1 43

2,541.529

.333

196

Nov. 8, 1917.

U Cephei VIII

PA 200

8:04:30 139.4
190.6 51.2 ✓
322.6 57.2 ✓
19.8 108.4 ✓ — 145

144.6 — 152
191.6 47.0 ✓
321.6 55.6 ✓
17.2 102.6 ✓ — 159

PA 20 mean = — 158
52.4 ✓ 841
101.4 49.0 — 159 683
234.4 53.6 ✓
288.0 102.6 ✓

53.2 ✓ — 163
106.2 53.0
234.6 4~~5~~6.6 ✓
8:08:32 281.2 99.6 ✓ — 167
8:06 31
21541.547
333
7:50 clouds over region
0.214

Nov. 8, 1917.

U Ophi — IX

	PA 30			
8:14:38	48.1		✓	
	105.6	57.5	✓	
	231.0	55.1	✓	
	286.1	112.6	— 136	
	53.8		✓ — 152	
	105.1	51.3	✓	
	232.8	47.2	✓	
	280.0	98.5	— 169	
	PA 300		Mean =	—154
	327.8		✓	841
	10.7	42.9	✓	687
	138.6	52.4		
	195.0	95.3	✓ — 177	
	317.1		✓ —157	
	24.8	67.7	✓	
	148.0	43.4	✓	
8:19:56	191.4	112.1	— 137	
8:17:17				

21541.533
.333
220

Nov. 8, 1917.

U Cephei — X

	PA 200				
8:34:20	321.4		✓		
	16.8	55.4	✓		
	139.4	49.8	✓		
	189.2	105.2	✓	— 1.53	
	317.8		✓	— 1.39	
	23.3	65.5	✓		
	144.4	51.8			
	196.2		✓	— 1.25	
		117.3			
	PA 20			Mean = -1.42	
	229.2		✓	8.41	
	283.3	54.1		Magn = 6.99	
	52.2	57.8	✓		
	110.0	111.9	✓	— 1.37	
	229.8			1.44	
	288.0	58.2	✓		
	55.2	47.8	✓		166
8:38:21	103.0	106.0	✓	— 1.51	160 | 1646
8 36 20	PA 15a				
21541.567	Spr 4.2				

337
~~8 45~~ .234

Troubled by clouds in middle of group

8.45 Sky too hazy and cloudy to continue to advantage.

21545'

Monday Nov 12 1917

Ll Obs 15" E Eq RGL Rec

7.00 Z Oph 171401 est 12.7
2241 R
5.27

Region low but observation good.

RT Herc 170627 est 12.4
2248
5.42 W + 27.2

RY Oph 181103 est 11.1
2253 R 3
~~RY Oph.~~ 4.42 W + 3.7

R Aquil. 190108 est = 11.3
2256 R = 4
3.55 W + 8.0

Z Aquil 200906 est = 12.8
2300
2.51 W − 6.4

RU Cap 202622 est = 11.7
2306 R = 4
2.40 W − 22.5

Y Delph 203611 est = 12.5 ±
2310
2.35 W + 11.5

o 6 var

Nov. 12, 1917.

T Delph 204016 est
2315
2.35 W +16.0

∞ 6 var

W Aqua 204104 est 12.6
2317 R 3
2.36 W -4.4

~~203906~~

V Delph 204318 est = 14.0
2320
2.37 W +18.9

RS Aqua 210504 est = 10.0
2325 R = 4
2.20 W -4.5

R Equuler 210812 est = 10.2
2327 R = 4
2.19 W + 12.4

X Peg 211614 est = 9.2
2332
2.16 W +14.0

8.00 ~~n 3 n~~ r 3 n* 3 o 4 p, p 2 q ± 6 u 2 t, no *s as
[indicated on chart,

Nov 12 1917

θ o Ceti 021403 Phot R.
Vis. est 4.0

index to left

8:17:28 48.2
60.6 12.4
229.4 10.8
240.2 23.2 — 4.97

49.9 $-\overset{5}{\cancel{4}}03$
60.6 10.7
228.2 11.2
239.4 21.9 — 5.09

Index to right

320.4 Mean = — 4.94
32~~2~~9.9 ~~2~~9.5 9.19
137.9 14.3 4.25
152.2 23.8 —491

320.4 —485
331.8 11.4
138.4 13.7
8:22:40 152.1 25.1 —4.79

08
8 20 04
5 4 12
13 15 52
21545

9.00 Cs watch = 4m 12s fast by bell

Nov 12 1917

Error of Frod 3424 = 40 sec slow

Frodsham 3424 used — Plot T

+4°.45 AU — 205204

2435

3.843 W + 3.8 — T

PA 10

9:02:54 215.6 comp star dis

301.8 86.2 ✓

34.4 87.4 ✓

121.8 173.6 ✓ + 0.12

209.8 ✓ + 0.02

308.2 98.4

34.4 85.5 ✓

9:05:01 119.9 183.9 — 0.07

176.1

PA 190 — mean = + 0.06

9:06:23 127.7 ✓

210.8 83.1 ✓

305.4 89.2 ✓ + 0.14

34.6 172.3

126.8 ✓ + 0.10

214.2 93.4

306.6 83.0 ✓

9:08:41 29.6 176.4 ✓ + 0.07

22 59

9 05 45

14 06 25

21545.587

43.948

1639

Nov. 12, 1917.

	PA 190			II
9:12:25	130.0	✓		
	216.2	86.2 ✓		
	303.3	88.7 ✓		
	32.0	174.9 ✓	+ 0.09	
	121.6	✓		
	218.7	97.1	− 0.02	
	305.2	89.8 ✓		
9:14:41	35.0	186.9	− 0.13	
		173.1		
	PA 10		mean = + 0.13	
9:15:09	218.9	✓		
	296.3	77.4		
	36.6	91.6 ✓		
	128.2	169.0	+ 0.21	
	219.2	✓	+ 0.28	
	298.1	78.9 ✓		
	36.0	82.1 ✓		
9:17:06	118.1	161.0	+ 0.36	

19 21

9 14 50

14 15 30

21545.594

43.948

1.646

Nov. 12, 1917.

III

	PA 10		
9:23:29	217.2 ✓		
	299.1	81.9 ✓	
	29.4	96.6	
	126.0	178.5 ✓	+ 0.03
			+ 0.06
	213.6 ✓		
	301.8	88.2	
	34.6	87.3 ✓	
9:25:33	121.9	175.5 ✓	+ 0.08
	PA 190		mean = + 0.06
9:26:~~33~~ 09	307.1 ✓		
	27.9	80.8 ✓	
	117.3	99.8	
	217.1	180.6 ✓ 179.4	− 0.01
	307.6 ✓		+ 0.06
	31.4	83.8 ✓	
	124.6	88.8	
9:28:01	213.4	172.6	+ 0.14

15 | 161
64 | 171°

23 12
9 25 48
14 26 28
21545.601

P.A. 188a
Spr 5.0
est 12.7

9.40 U Gemin 074922
0117
6.32E+22

43.948
1653

Wed Nov. 14, 1917

S. Albrecht 15" Eq.

Phot T.

⊖

Eunomia 09

0942 +11.0
0652
2 50 E

Pa = 136 A
Sfr = 3 6

Pa 140

15 27.8 234.6 < Comp ~~A~~ dis

278.6 44.0
56.0 44.7
100.7 88.7 + 1.95

I

232.2 + 200
274.8 42.6
57.9 42.1
100.0 84.7 + 206

Pa 320

144.6 mean +1.96
189.3 44.7
324.6 42.6
367.2 87.3 + 1.99

144.9
190.4 45.5 + 1.92
323.6 46.6
15 35.0 370.2 92.1 + 1.86
628

15 31.4

21 5 47.~~8~~3 5.5

Nov. 14 – 1917

Eunomia II

	PA 320		
15 39.0	145.2		
	188.4	43.2	
	329.6	38.2	
	367.9	81.4	+ 2.15
	145.7		+ 2.09
	185.6	39.9	
	325.2	45.8	
	371.0	85.7	+ 2.03
	PA 140		Mean = + 2.12
	235.2		
	276.7	41.5	
	57.0 ~~52.0~~	37.8	
	94.8	79.3	+ 2.22
	235.8		+ 2.16
	277.2	41.4	
	56.7	42.1	
15 46.2 85.2	98.8	83.5	+ 2.09
15 42.6			
8 21 5 47.862			

Nov. 14, 1917

Eunomia

III

P.a. 140

15 50.9 233.4
279.7 46.3
59.8 39.4
99.2 85.7 + 2.03

238.7 + 2.10
276.4 37.7
56.6 43.4
100.0 81.1 + 2.16

P.a. 320 Mean +2.09

322.7
369.8 47.1
148.2 36.4
184.6 83.5 + 2.09

328.8 + 2.08
372.0 43.2
147.2 41.0
15 57.3 188.2 84.2 + 2.07

Δ 2

15 54.1

21547.871

Nov. 14 – 1917

Eunomia — IV

	p.a. 320		
16 03.0	326.4		
	367.4	41.0	
	150.2	34.6	
	184.8	75.6	+ 2.33
	329.0		+ 2.25
	369.4	40.4	
	145.6	40.4	
	186.0	80.8	+ 2.17
	p.a. 180		mean = + 2.26
	55.2		
	94.8	39.6	
	240.4	34.0	
	274.4	73.6	+ 2.39
			+ 2.28
	61.2		
	100.0	38.8	
	235.2	41.8	+ 2.16
16 9.9	277.0	80.6	
129			
16 6.4			
21 5 47.879			

Nov-14-1917

Eunomia I

Pa 140

16 14.7 57.2
100.2 43.0
239.2 37.1
276.3 80.1 + 2.17

+ 2.30
62.0
98.4 36.4
237.8 37.0
274.8 73.4 + 2.40

Pa 320 Mean = + 2.32

144.8
184.9 40.1
329.8 34.2
366.0 74.3
+ 2.37

150.6 + 2.33
183.8 33.2
324.4 43.6
16 21.2 368.0 76.8 + 2.29
35.9
16 18.0

21547.888

Nov. 14 - 1917

Eunomia

	Pa 320		VI
16 34.5	147.7		
	192.7	45.0	
	327.2	38.0	
	365.2	83.0	+ 2.11
	148.2		+ 2.12
	183.3	35.1	
	323.2	46.8	
	370.0	81.9	+ 2.14
	Pa 140		Mean = + 2.11
	235.5		
	281.4	45.9	
	58.4	39.8	
	98.2	85.7	+ 2.03
	237.2		
	276.2	39.0	+ 2.10
	56.6	41.5	
16 40.7	98.1	80.5	+ 2.18
16 37.6			

21547.901

Nov. 14 - 1917

Eunomia

	Pa. 140			VIII
16 46.0	236.4			
	276.6	40.2		
	58.0	41.8		
	99.8	82.0	+ 2.14	
	240.4			
	277.2	36.8	+ 2.04	
	53.4	52.4		
	105.8	89.2	+ 1.94	
	Pa 320		Mean = + 2.04	
	324.2			
	369.8	45.6		
	150.2	38.6		
	188.8	84.2	+ 2.07	
	330.0			
	369.9	39.9	+ 2.04	
	143.0	46.9		
16 52.8	189.9	86.8	+ 2.00	
98.8				
16 49.4				

21547.909

Nov. 14. 1917

17 00 Fl 3424 20 fast by bell

Eunomia

P.A. 320 VIII

16 58.0 322.2
14.2 52.0
147.3 38.7
186.0 90.7 + 1.90

329.2 + 1.99
369.8 40.6
145.5 43.3
188.8 83.9 + 2.08

P.A. 160 Mean = + 2.03
56.2
103.0 46.8
237.8 38.6
276.4 85.4 + 2.04

+ 2.06
60.0
98.8 38.8
238.8 45.4
17 5.8 284.2 84.2 + 2.07
12.3 8

17 01.9

21547.418

P.A. = 135.4
Sp = 6.2

Photos of Lodg

Comp ✱ = + 12° 2083 (8.3) 161
128 183.8

Thurs. Nov. 1~~5~~6, 1917.

LCW Diss of Jup 1 RSL Rec
Phot R.
15" E. Eq.

6:30	clouds		
6:32	clouds		
6:34	clouds		
6:34:40	165.8		
:49	clouds		
35:06	117.8		
:18	171.8	540	108.0
:29	115.6	562	112.4
:39	171.6	560	112.0
:49	122.2	49.4	98.8
36:00	170.0	47.8	95.6
:10	clouds		
'	Jup gone in clouds		
37:16	Sat 1 dis?		
:35	clouds		
38:07	no sign of sat		
:29	313.3		
:40	334.9	216	
:50	318.0	192	
6 38:58	337.2	40.8.	

Obs made thro considerable clouds
Jup I compared with the nearest satellite on same side = Sat III
Electric light signal out of order.
~~Frod 3424 used =~~

Ball 103 = 6 49 0.0 Frod 3424 = 6 49 19.0

Nov 16 1917

ZC Obs   o Ceti   Phot R.

	index to right			
9:32:28	37.2			
	50.6	13.4		
	320.0	10.4		
	230.4	23.8	−4.91	
			−501	
	39.6			
	50.5	10.9		
	219.8	10.8		
	230.6	21.7	−511	
	index to left		Mean	−514
	310.1			919
	320.2	10.1		405
	130.6	10.6		
	141.2	20.7	−5.22	
	309.8		−526	
	318.8	9.0		
	130.2	10.8		
9:37:28	141.0	19.8	−531	
9 56				
9 34 58				
21549.				

Photo Obs Rejected to here.

− 26 | 161
1864

Sat. Nov. 17, 1917

LC Obs. 15" E Eq.

		.205204	+4.4574	
		2217		Phot T.
		125 w +3.8		P.a. 188
				Spr 5.0
	P.a. 190			
6 23 15	226.3	< Var dis		I
	327 2	100.9		
	>49.3	99.5		
	148.8	200.4		
		159.6	+ 0.39	
	223.7			
	327.3	103.6	+ 0.30	
	>58.6	87.8		
	146.4	191.4		
	P.a. 10	168.6	+ 0.22	
	320.2		Mean =	+ 0.14
	>58.8	98.6		
	151.2	77.1		
	228.3	175.7	− 0.08	
	325.7		− 0.03	
	>54.8	89.1		
	141.0	92.0		
6 30 20	233.0	181.1	+ 0.02	
5 3 35		178.9		
6 26 48				
20				
6 26 28				
21550.4/60				
50.0/20				

Nov. 17 – 1917

LC Ob. 205204 RGL Rec

P.a. 10 II

6:36:06 61.1 comp. * dis
145.8 84.7
237.2 83.2
320.4 167.9 + 0.23

+ 0.23

53.5
144.2 90.7
238.3 77.1
6:37:59 315.4 167.8 + 0.23

P.a. 190 Mean + 0.~~20~~15

6:38:26 149.8
233.2 83.4
321.2 ~~8~~92.5
53.4 1~~6~~75.6 + 0.~~27~~08

+ 0.~~16~~07

141.2
236.2 95.0
330.2 81.6
6:40:15 51.8 176.6 + 0.06

32 46
6 38 12
20
6 37 52
215 50.485
50.820
−0.335

Nov. 17 – 1917

205 204

	P.a. 190			III
6:46:59	146.4		✓	
	231.1	84.7	✓	
	323.8	87.9		
	51.7	172.6 ✓	+ 0.14 ✓	
	145.2		✓ + 0.12 ✓	
	231.4	86.2	✓	
	325.3	88.5 ✓		
6:49:05	53.8	174.7	+ 0.10 ✓	
	P.a. 10			Mean = +0.19 ✓
6:49:44	234.4		✓	
	322.2	87.8	✓	
	62.4	75.0 ✓		
	137.4	162.8 ✓	+ 0.33 ✓	
	240.8		✓ + 0.26 ✓	
	318.6	77.8	✓	
	56.2	91.8 ✓		
6:51:49	148.0	169.6 ✓	+ 0.20 ✓	

6: 37 : 39
6 49 24
  - 20
6 49 04

7 00

H. 3424 19.5 secs. fast by bell.

21550.492
54820
- 0.328

Nov. 17, 1917.

205 204

	PA 10			IV
7:03:28	236.9			
	321.8	84.9		
	58.7	81.1		
	139.8	166.0	+ 0.27	
	239.2			+0.24
	322.8	83.6		
	59.2	85.0		
7:05:22	144.2	168.6	+ 0.21	
	Pa 190			Mean = + 0.12
7:05:59	321.6			
	53.5	91.9		
	146.3	92.9		
	239.2	184.8		
		173.2	— 0.13	
	327.1			— 0.01
	53.3	86.2		
	145.8	87.8		
7:07 49	232.6	174.0	+ 0.11	
158				
7 05 40				
7 05 20	focus	2 — 7		
21530.504				
52820				
-0316				

Nov. 17, 1917.

205204

V

	P.a. 190			
7:11:49	322.8			
	57.9	95.1 ✓		
	138.6	96.0 ✓		
	234.6	191.1 ✓		
		168.9 ✓	− 0.21	
	319.8			
	55.8	96.0 ✓		− 0.12
	147.6	85.5 ✓		
7:13:59	233.1	181.3 ✓		
		178.5 ✓	0.03	
	Pa 10			
7:14:39	56.4	✓		mean + 0.05°
	141.6	85.2 ✓		
	237.8	82.0 ✓		
	319.8	167.2	+ 0.24	
	56.7	✓		13
	144.0	87.3		+ 0.~~22~~
	232.2	9~~8~~1.4		
7:16:45	328.6	1~~8~~8.7	+ 0.~~2~~1 02	

~~7~~ 12

7 14 20

7 14 00

21550.510

50.820

a 310

Nov. 17, 1917.

205204 VI

Pa 10
7:24:47 53.3
148.7 95.4 ✓
234.9 84.0 ✓
318.9 179.4 ✓ +0.01

7
+0.18

60.2 ✓
137.9 77.7
234.8 84.8 ✓
7:26:45 319.6 162.5 ✓ +0.33

Pa 190

4
Mean = +0.0~~8~~

7:27:19 140.9 ✓
236.0 95.1
321.2 97.2 ✓
58.4 192.3 ✓
167.7 −0.23

141.1 −0.10
234.4 93.3 ✓
326.3 85.3 ✓
7:29:20 51.6 178.6 ✓ +0.03

8 11
7 27 03
7 26 43
21 15 50.579
5 2 F20
−0.301

Nov. 17, 1917.

205204

VIII

#	Pa 190		
7:37:14	148.0		
	229.8	81.8	
	320.2	94.2	
	54.4	176.8	+ 0.08
	148.4		
	234.1	85.7	− 0.02
	319.2	99.8	
7:39:23	59.0	185.5 174.5	— 0.11
	Pa 10		
7:39:54	230.8		Mean = + 0.01
	320.2	89.4	
	55.8	88.2	
	144.0	177.6	+ 0.05
	232.9		+ 0.04
	321.8	88.9	
	54.8	89.2	
7:41:55	144.0	178.1	+ 0.03

7:39:36
20

7 39 16

21550.527
50 820
0.293

Nov. 17, 1917.

205204

VIII

Pa 10

8:00:33 230.7
324.0 93.3
58.3 81.7
140.0 175.0 + 0.09

229.8 — 0.01
321.3 91.5
49.8 94.4
8:02:27 144.2 185.9
174.1 — 0.11

Pa 190

8:03:09 316.7 Mean — 0.04
56.6 99.9
142.8 88.0
230.8 187.9 — 0.15
172.1

325.6 — 0.06
48.8 83.2
138.1 95.7
8:04:48 233.8 178.9 + 0.02

8 10 57

8 62 44

8:02:24

21550 543
5 0.8 20
22

Nov. 17, 1917.

Jo 5204

IX

Pa 190
8:12:05 325.8
57.6 91.8
146.6 84.6
231.2 176.4 +0.07

323.3
2
51.6 88.3 +0.01
144.0 93.7
8:13:55 237.7 182.0
178.0 − 0.04

Pa 10
8:14:38 51.7 Mean +0.08
148.7 97.0
237.6 79.0
316.6 176.0 +0.08

56.6 +0.15
142.2 85.6
235.2 82.8
8:16:33 318.0 168.4 +0.22

11
8:14:18

8 13 58

21550.551
50.820
−0.269

Nov. 17, 1917.

20 5204

X

	Pa 10		
8; 42; 03	56.3		✓
	143.6	87.3	✓
	238.6	80.2	
	318.8	167.5	✓ + 0.24
	64.4		✓ + 0.25
	143.8	79.4	✓
	234.4	86.7	✓
8:43:56	321.1	166.1	✓ + 0.26
	Pa 190		mean + 0.0$\overset{8}{6}$
8:44:30	142.2		✓
	232.8	90.6	✓
	323.8	92.4	✓
	56.2	183.0	✓ − 0.06
		177.0	✓
	145.5		✓ # − 0.08
	232.4	86.9	✓
	320.6	98.4	
8:46:14	59.0	18$\overset{5}{7}$.3	− 0.1$\overset{0}{4}$
		174.7	

16 43

8 44 11

8 43 51

21550.572

50.820

0.248

Nov. 17, 1917

205204 XI

	Pa 190			
8:49:57	143.3	✓		
	230.7	87.4 ✓		
	327.2	88.4 ✓		
	55.6	175.8 ✓	+0.08	
				+0.06
	146.0	✓		
	230.8	84.8 ✓		
	319.6	93.0		
8:51:44	52.6	177.8 ✓	+ 0.04	
	Pa 10			
8:52:17	233.3	✓		Mean + 0.03
	327.8	94.5 ✓		
	58.2	87.4 ✓		
	145.6	181.9 ✓		
		178.1	− 0.03	
	338.4	✓		
	323.8	85.4 ✓		− 0.00
	52.6	93.4 ✓		
8:53:56	146.0	178.8	+ 0.02	

8 '7 54

8 51 58

8 51 38

21550.578
50.820

Nov 17 1917

205204 XII

	Pa 10		
9:01:44	234.2		
	317.7	83.5	
	57.4	86.8	
	144.2	170.3	+0.18
			+0.23
	235.8		
	316.8	81.0	
	58.6	84.2	
9:03:33	142.8	165.2	+0.28
	Pa 190		
9:04:10	324.4		Mean = +0.13
	53.6	89.2	
	143.8	86.6	
	230.4	175.8	+0.08
	324.4		+0.03
	52.8	88.4	
	141.4	92.6	
9:05:52	234.0	181.0	−0.02
15 19		179.0	
9:03 50			
9:03 30			

21550.586
0.820
−0.234

Nov. 17, 1917.

			205204	XIII
	Pa 190			
9:23:38	324.2			
	53.2	89.0		
	142.8	86.2		
	229.0	175.2	+ 0.07	
	325.8			+ 0.12
	50.1	84.3		
	141.8	88.4		
9:25:29	230.2	172.7	+ 0.14	
	Pa 10			
9:26:00	51.6			Mean + 0.05
	145.6	94.0		
	235.2	86.2		
	321.4	180.2	— 0.00	
		179.8		
	52.3			— 0.02
	143.0	90.7		
	233.7	91.3		
9:27:47	325.0			
22 54		182.0	— 0.04	
		178.0		
9:25:44				
9 25 24				

215 50.601
50.820
— 0 2 19

Nov. 17, 1917.

205204 XIV

	P.A. 10		
9:33:24	54.8		
	145.4	90.6	
	233.8	92.2	
	326.0	182.8	− 0.05
		177.2	
			+ 0.05
	53.8		
	143.6	89.8	
	237.8	82.2	
9:35:31	320.6	172.0	+ 0.15
	P.A. 190		mean = + 0.05
9 36 04	149.9		
	232.8	82.9~~8~~	
	318.8	94.5	
	53.3	177.4	+ 0.05
			+ 0.05
	146.8		
	234.9	88.1	
	324.4	89.4	
9:37:51	53.8	177.5	+0.05
22 50			

9:35:42
9:35:22
21556 608
528 20
~0.212

Nov. 17, 1917.

205204 XV

	P.A. 10			
9:45:37	145.8			
	231.0	85.2		
	324.2	88.6		
	52.8	173.8	+ 0.02	
	145.8			+ 0.09
	233.0	87.2		
	326.2	89.7		
9 47 41	55.9	176.9	+ 0.06	
	P.A. 190			
9:48:14	231.6			Mean + 0.10
	324.0	92.4		
	56.2	88.6		
	144.8	181.0	− 0.02	
		179.0		
	237.2			
	321.8	84.6		+ 0.10
	61.1	84.1		
9:50:04	145.2	168.7	+ 0.21	
31 36				
9 47.54				
9:47:34				
21550.616				
50.820				

Nov. 17, 1917.

205204 XVI

PA 10

9 54 48 240.0

314.8 74.8

53.3 86.9

140.2 171.7 +0.06

228.1 + 0.08

324.1 96.0

62.8 78.4

9 56 38 141.2 174.4 +0.11

PA 190

~~9 57 12~~ ~~54.0~~

~~140.4~~ Mean. + 0.11

~~239.0~~

9 59 : 14 321.8

54.0 92.2

154.0 78.8

232.8 171.0 + 0.17

326.8 +0.14

52.2 85.4

140.9 89.3

10:00:59 230.2 174.7 + 0.10

31 39

9 57 55 PA 190a

9 57 35 Spr 5.0

21550.624 - 0.196

Nov 17 1917

10:09 U Gemin 074922 est 14,2

0208

5,41 E +22

1 / 162

256 / 2120 Ledg to here.

Mon. Nov. 19, 1917

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

7 00 Sky all cloudy

7 15 Useless to wait longer

Mon. Nov. 26, '917

L C Obs 15" E. Eq. J.S.W. Rec.
Phot I.

205˘204

P.a. 190° I

6
~~7~~;56;56 145.2 < comp x dis.

233.0 87.8

318.6 97.2

35.8 18 5 0 − .009
17 5 0

137.7 − 0.08

235.1 97.4

³125.8 86.4

52.2 18 3.8 − 0.07
°17 6.2

Pa. 10 Mean = + 0.08

239.2

319.4 80.2

53.8 87.3

141.1 167.5 + 0.24

232.7 + 0.24

319.8 87.1

56.6 79.8

7:00:10 136.4 166.9 + 0.25

6 58 33
+ 12

6 58 45

2155 9.499
57.692

1.807

Nov. 26 – 1917

2
205 pav

II

P.a. 10°

7:05:30 239.6
320.4 80.8
56.4 84.6
141.0 165.4 + 0.28

+0.28

231.2
318.8 87.6
61.4 77.4
$\overset{3}{1}$28.8 165.0 +0.29

P.a. 190 Mean +0.14

325.1
52.6 87.5
136.2 97.4
233.6 184.9
175.1 −0.09

321.2 0.00
53.1 91.9
145.2 84.1
7:10:11 299.3 176.0 +0.08

15 40

7:07:50
08 02

21559.506
57.692
1.814

Nov. 26, 1917.

205204 III

	Pa 190°		
7:15:45	327.6	81.8 ✓	
	49.4	~~278.2~~	
	139.4	95.0 ✓	
	234.4	~~373.2~~	
		176.8	+ 0.06
			−0.05 ~~−0.10~~
	318.8		
	61.4	102.6	
	147.1	86.1	
	233.2	188.7	
		171.3	− 0.16
	Pa 10°		mean = +0.1$\overset{4}{2}$
	62.2		
	141.2	79.0	
	232.1	89.1	
	321.2	168.1	+ 022
			+ 034
	60.8		
	141.8	81.0	
	243.4	75.5	
7:20:18	318.9	156.5	+ 0.45

36 03

8 18 02

17 18 14

2155 9.572

57.692

0.820

Nov. 26, 1917

205204

IV

Pa 10°

7:35:08 63.2

148.8 85.6 ✓

237.8 83.4 ✓

321.2 169.0 ✓ + 0.21

56.9

138.6 81.7 + 0.30

237.6 76.4

314.0 158.1 + 0.40

Mean = + 0.07

149.8

232.4 82.6

317.6 100.8

58.4 183.4 — 0.06

1766

135.2

233.4 98.2 — 0.16

321.8 95.0

39

7:~~40~~:30 56.8 193.2

166.8 — 0.25

38

7 37 19

2 37 31

2155.0 526

57.692

1.834

P.A. = 189.4

Spr. = 4.9

Focus = 2-88

Nov. 26 - 1917

o Ceti 021403

00 20

1 54 E

Phot R.

index to right

7:53:02 306.4 < Var dis

317.6 11.2

130.0 8.8 — 5.29

138.8 20.0

307.6 — 5.32

317.5 9.9

128.5 9.6

138.1 19.5 — 5.35

~~Index to left.~~

index to left.

Mean — 5.13

9.19

Magn 4.06

218.8

229.8 11.0

38.0 12.1

50.1 23.1 — 4.98

317.6 — 4.94

229.2 11.6

37.7 12.3

7:59:54 50.0 23.9 — 4.90

56 21

56 40

21559.540

Flud 34 24 — ~~x~~ 12^s slow by Bell.

Nov. 26–1917

U Cephei

PA 20° 00.581 Blut T.

8:33:57 337.0 < Var Obs

I

33.6 5666

160.2 585

218.7 ~~125.1~~ — 1.30

115.1

— 1.36

340.0

35.6 556

160.0 546

214.6 110.2 — 1.41

PA 200° Mean = — 1.57

77.4 8.41

121.0 446 Magn 6.84

254.2 474

301.6 920 — 186

74.2 546 — 1.78

128.8

254.0 434

8:39:19 297.4 980 — 1.71

8 36 38

8 36 50

21559.567

~~59.445~~

0.122

58.784

0.783

Nov. 26, 1917

u ~~A~~ Cephei

	PA. 200°		005381	~~Pld~~
8:43:30	75.2			II.
	120.7	45.5		
	256.4	48.0		
	384.4	93.5	− 1.82	
	75.6		− 1.86	
	121.3	45.7		
	255.6	44.4		
	300.0	90.1	− 1.91	
	PA 20°		mean = 1.58	
	160.4		8.41	
	216.4	56.0	magn = 6.8^{3}	
	336.2	59.3		
	35.5	115.3	− 1.30	
	160.4		− 1.29	
	221.7	61.3		
	340.8	54.7		
8:47:28	35.5	116.0	− 1.28	

8 45 29
F 45 41
21559.574
~~.445~~
0.129
58.784
0.790

Pa. = 13A
Spr. = 3.8
Hours = 2-87

Nov. 26, 1917

SU Draconis
113267

Phot. I
I

11 3.5 +67.5
~~2 5~~
1 55
9 40 E +67 5

Pa > 0°

Comp ✱ = b (8.9)

9:29:00 143.2 < Comp ✱ dir
233.8 90.6
333.3 77.5
50.8 168.1 +0.23
2

4
154.7 +0.38
225.8 71.1
326.8 84.3
51.1 155.4 +0.47 ✓

(the angle has been 70° but now is 250°)

Pa. 250

234.2 Mean = +0.40
317.4 83.2 8.94
62.8 70.6 9.34 ✓
133.4 153.8 +0.50

241.4 +0.46
321.1 79.7
59.5 77.9 +0.43
9:34:12 137.4 157.6
6 3 1 2 6
9 31 3
9 31 48

2155 9.605
2445

Nov. 26, 1917.

8.4 Draconis

PA 220° 113267

II.

9:42:10 247.6 ∠ comp ✶ dis Comp ✶ = α

307.1 59.5

82.4 40.9

123.3 100.4 + 1.55

257.0 + 1.68

296.8 39.8

72.6 54.2

126.8 94.0 + 1.81

PA 40° Mean = + 1.42

332.2 7.94

43.4 71.2 9.36

165.3 48.9

214.2 120.1 + 1.19

339.8 + 1.16

355 55.7

154.4 66.8

9:47:05 221.2 122.5 + 1.14

9 15

9 44 38

9 44 50

2155 9.615

5 9.445

0.170

P.a .45A

δ pr. 6.3

Nov. 26 - 1916.

SU Drac.

	PA ~~13A~~ 70°	Comp. with * b		~~II~~
9:53:30	323.8			
	55.1	89.3		
	149.4	77.7		
	227.1	167.0	+ 0.25	
	333.8			
	47.1	73.3	+ 0.31	
	145.2	87.4		
	232.6	160.7	+ 0.37	
	PA 250°		mean = + 0 46	
	57.7		8 94	
	141.6	83.9	magn. 9 40	
	247.8	66 4		
	314.2	150.3	+ 0.57	
	67.4		+ 0.60	
	133.5	66.4		
8	240.7	80.2		
9:53:51	321.1	146.6	+ 0.62	
12 21				
9 56 10			PA. 250 A	
9 56 22			Spr. 3.6	
21559.622				
59.445				
0177				

Nov. 26 - 1916.

U Gemini 0749 22
02 39
5 - 10 E

10:09 est. 9.0
variable surely at maximum
moon bright; high wind
observation difficult.

1 / (163)
160 / (2280)

Tues. Nov. 27 – 1917

L.C.Mb 15" E. Eq.

205204 Phot T.

6 15 Too cloudy in S.W.

U Cephei ~~at~~ phot T.

005381

2300

1 53 E

P.a. 200

6 27 20 ~~31.4~~ < var dis

167.2 47.2

214.4 61.5

340.2 108.7 – 1.45

41.7

163.7 50.7 – 1.52

214.4 52.1

344.3 102.8 – 1.59

36.4

mean = – 1.60

P.a. 20 8.41

253.8 43.9 mag. 6.81

297.7 56.0

99.9 – 1.66

~~2~~ 71.4

127.4

254.2 – 1.67 P.a 19.5

303.2 49.0 8pr 3.8

50.0

74.0 < clouds

6 34 30 124.0 99.0 – 1.68

61 50

6 30 55 Obs. diff towards end, but care used.

21360.

Nov. 27 - 1917

6 38 Sky all covered with clouds.

6 45 Too cloudy to continue.

Plates [illegible]

— 163
16 2296

21566

Mon. Dec. 3 - 1917

L. Obs. 15" E. Eq.

200212 ~~SS~~ η Aquilae est 14 th
nearly at ~~at~~ L. V.

6 20 The 122 precedes the 117 & is slightly N of it. Same Dec as the 11.9.

RT (Herc 17062) est 11.1
2331
6 25 W +27.2

Region low & est diff.

RS Herc. 171723 est
Too low in haze.

V Draconis 175654 est 12.4 R 5
2341
5 45 W +55.0

~~T Drac 175458 est~~ 9.4 R 7
- Drac 175458 near T = 11.9

W Drac 180565 est. 13.2

X Drac 180666 est. 12.8
2346
5 40 W +66.0

Dec. 3, 1917

J. S W. rec'd

R. Z. Her. 183225 est 13.4
2350
518 W +260

S. Y Draconis 183149
2354
77
523 W + 49.2 est. 12.9

R Y Lyrae 184134
2358
517 W + 34.5 est 9.8

R T Lyrae 185737
2401
354 W + 37.5 est 13.5

Sky hazy in the west

U. Draconis 190967
2405
7:00 456 W + 67.3 est. 11.1

T Z Cygni 191350
2409
456 W + 50.0 est 11.0

Dec. 3, 1917

o Ceti 0021403 021403 Phot R
~~0019~~ 0021
~~2~~ 153 E -3.6

Inder to left
7:20:38 126.6 < Var dis
137.2 I
~~38.2~~ 10.6
307.2 10.5
317.7 21.1 -5.17

-5.22

~~138.~~
129.2
138.6 9.4
308.2 11.0
319.2 20.4 -5.25

Inder to right mean -5.24
39.3 9.19
48.4 9.1 3.95
220.6 8.5
329.1 17.6 -5.57

35.6
50.4 14.8 -5.27
..7 219.2 8.4
7:22:35 227.6 23.2 -4.97
43
7 24 22

Dec 3, 1917

o Ceti

Index to Right

II

7:30:20 37.7
49.8 12.1
217.7 11.7
229.4 23.8 -4.91

37.6
49.7 12.1 -4.95
218.2 10.8
229.0 22.9 -4.99

Index to Left

Mean = -5.00
Comp * = 9.19
4.19
3.95
mean magn = 4.07

307.3
317.1 9.8
127.2 11.9
139.1 21.7 -5.11

308.3 -5.06
318.2 9.9
126.3
7:36:57 139.1 12.8
33 38
22.7 -5.01

9 00 Watch used = 1m 45s slow by bell

130.2
134.0
130.4
134.1

R.V. 3.8
3.7
7.5 = 7.42

see
book
199
for continuation
of
Tonight's-Record.

Vis. ob. [illegible]