KG
11365
616

15-inch

Jun 14 1911 — Oct 12-1916

KG 11365.616

KG 11365.616

HARVARD
UNIVERSITY
LIBRARY
JUL 2 1956

This column always used for East. M. Time

~~Mon~~
Tues. Sept 19-1916

L.C.Clk 15'' E. Eq. F.S.B. Rec.

L. C watch 1m 4sec fast

Uranus Phot T ~~Pos~~

same Comp * as on 16th & 17th = 7.19

21 15 -17.0
19 00
2 15 -17.0

7in cap not on as occasional

P.a. 270

6 57 50 141.6
197.4
318.6
22.4

55.8
63.8
119.6 -1.20

P.a. 90

238.2
282.2
55.3
7 2 15 100.4

44.0
45.1
89.1 -1.94

-1.300
1.835
-3135
-1.567
-157
719
5.62

7 2 30 237.8
281.6
51.4
104.6

43.8
53.2
97.0 -1.73

P.a. 270

321.6
25.4
145.7
7 05 00 192.6
7 00 44

63.8
46.9
110.7 -1.40

21126.501

Sept. 19th 1916

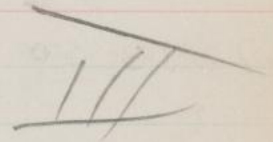
Uranus D 7.19

		P.A. 270		
7 12 20	325.3			
	18.8	53.5 ✓		II
	136.4	66.4 ✓		
	202.8	119.9 ✓	−1.19 ✓	
		P.A. 90		
	55.2	54.6 ✓		
	109.8	44.1 ✓		
	237.7	98.7 ✓	−1.69 ✓	
7 14 30	281.8			
				−174.5 ✓
				−1.225 ✓
7 14 52	56.3	47.1 ✓		−297.0
	103.4	47.1 ✓		−1.485
	237.7			7.19 ✓
	284.8	94.2 ✓	−1.80 ✓	5.71 ✓
		P.A. 270		
	138.2	68.2 ✓		
	206.4	48.7 ✓		
	324.7			
7 16 00 17 40	13.4	116.9	−1.26 ✓	
7 14 25				
7 13 15				
21126.509				

Sept 19th 1916

Uranus with 6.93 = −16.5740 (6A)

P.G. ~~270~~ 300



7 20 05 ~~296.3~~ ~~Uranus comp.~~ * dia.

46.6 ~~0.3~~

103.6 57.0 ✓

233.3 58.9 ✓ $\bar{\ast}$ 1.28 ✓

292.2 115.9 ✓

P.G. ~~90~~ 120

~~P~~ 143.8 59.5 ✓

203.3 72.6 ✓

311.6 132.1 ✓ $\bar{\ast}$ 0.94 ✓

7 ~~19~~ 24 30 24.2

− * 1.24

7 24 45 143.6 64.2 ✓ − * 0.90 ✓

207.8 71.8 ✓

313.9 136.0 ✓ $\bar{\ast}$ 0.86 − * 1.07 ✓

25.7 6.93 ✓

5.86

P.G. 300

233.2 56.8 ✓

290.0 62.9 ✓

48.7 119.7 ✓ $\bar{\ast}$ 1.20 ✓

7 28 50 111.6

18 10

7 24 32

7 23 22

21126.516

Spec. 5.6

P.G. 295 A

H.G.

S. J.

Sept. 19th 1916

Uran. and 7.19

P.G. ~~266~~ 270

IV

7 33 50	148.2	Uran. dia.	
	197.1	48.9 ✓	
	322.4	5~~4~~9.43 ✓	
	21.7	108.2 ✓	∓1.46 ✓

P.G 90

	237.7	48.5 ✓	
	286.2	42.2 ✓	
	58.6	90.7 ✓	∓1.90 ✓
7 35 50	100.8		

				−1.30 ✓
				−1.860 ✓
7 36 10	241.6	38.8 ✓		3.16 ✓
	280.4	54.8 ✓		−1.58 ✓
	54.8			7.19 ✓
	109.6	93.6 ✓	∓1.82 ✓	5.61 ✓

P.G. 270

	320.9	67.5 ✓	
	28.4	55.1 ✓	
	143.0	122.6 ✓	∓1.14 ✓
7 38 40	198.1		

24 30

7 36 08

7 34 58

21126524

Spr 5.5

P.G. 266 /

Sept. 19th 1916

Uranus δ 6.93

		P. a.	300	
7 43 40	226.0			
	297.3	71.3 ✓		V
	57.8	55.2 ✓		
	113.0	126.5 ✓	−1.05 ✓	
		P. a.	120	
	318.6	65.0 ✓		
	23.6	71.4 ✓		
	137.0	136.4 ✓	−0.85 ✓	
7 46 15	208.4			
				−1.185 ✓
				−0.880 ✓
7 46.25	319.2	63.0 ✓		2065 ✓
	22.2	70.3 ✓		−1.03 ✓
	139.3	133.3 ✓	−0.91 ✓	6.93 ✓
	209.6			5.90
		P. a.	300	
	57.7	51.5 ✓		
	109.2	62.9 ✓		
	230.1	114.4 ✓	−1.32 ✓	
7 48.30	293.0			

2450
7 46 12
7 45 02
21126,581

Sept. 19th 1916

Eunomia

Phot. T

22 35 +10.1
~~49 55~~
20 03
2.32 Σ
9.28 +10.1

~~[illegible]~~

Cap not in as assumed

~~8 1 10~~ ~~11.8~~ Eunomia
~~192.2~~ ~~comp ★~~ dis.

P.G. 200

8 2 10 325.6 ~~+80.4~~
12.2 46.6 ✓
158.3 33.5 ✓
191.8 80.1 ✓ $\overline{\star}$ 2.19

P.G. 20

58.2 51.2 ✓
109.4 30.3 ✓
~~250.6~~ 81.5 ✓ $\overline{\star}$ 2.18
8 7 20 280.9

−2.06
−2.39
−2.22

8 8 30
8 ~~7~~ ~~49~~ 249.6
~~108.8~~ 26.3 ✓
275.9 40.9 ✓
62.8 67.2 ✓ $\overline{\star}$ 2.60
103.7

29 10
8 07 18
8 06 08

P.G. 200

21' 26.546 326.6
17.6 51.0 ✓
~~150~~ 38.4 ✓
154.4 89.4 ✓ $\overline{\star}$ 1.93
8 11 10 192.8

~~Reject~~

Do not use above as comp ★ is too faint.

Sept. 19th 1916

Eunomia with 8.17 = +9°5075 (8.1)

P. G. 200

8 27 25 ~~330.0~~ ~~261~~

56.1 comp★ dis I

148.6 92.5 ✓

239.2 86.1 ✓

325.3 178.6 ✓ + 0.0 3 ✓

P. G. 20

57.2 86.1 ✓

237.3 ~~37.3~~

322.0 93 3 ✓ − 006

8 29 20 59.3 ~~179.4~~ ~~+ 0.01~~

183.4
176.6

−0.07

+.010 +0.09

−.012

−.001 +0.01

817 8.187

8.16 8.146

8 29 30 139.7 107.2 ✓

246.9 81.7 ✓

331.0 188.9 ✓

527 171.1 ✓ −.017

P. G. 200,

~~323.0~~

61.9 82.8 ✓

144.7 88.2 ✓

234.8 171.0 ✓ +017

8 32 10 323.0

33 25

8 29 41

7 55

8 28 31

21126.562

556

0.006

R Scuti 184205 HG. = 5.2 H.E.B

Sept. 19th 1916

Eunomia

		P.G. zero		
8 41. 30	59.6 ✓			II.
	149.2	87.6 ✓		
	234.2	95.1		
	329.3	182.7 ✓	−0.05 ✓	
		177.3		
		P.G. 20		
	154.2	82.1 ✓		
	236.3	101.4 ✓		
	319.8			
8 44 30	61.2	183.5 ✓		
		176.5 ✓	−0.06 ✓	
				+0.030 ✓
8 44 40	142.8			−0.115 ✓
	246.3	103.5 ✓		~~+.5~~
	330.4	85.4 ✓		−0.085 ✓
	55.8	188.9 ✓	−0.17 ✓	−0.04 ✓
		171.1		8.17 ✓
		P.G. zero		8.13 ✓
	242.0	83.2 ✓		
	325.2	90.7 ✓		
	56.9			
8 46 15	147.6	173.9 ✓	+0.11 ✓	

16 55
8 45 14
8 43 04
21126.572
556
016

Sept. ~~1~~9^a^ 1916

Emmanuel

P. A. zero

9. 30 231.2
331.2 100.0 ✓
61.3 84.9 ✓
1~~2~~46.2 184.9 ✓
175.1 ✓ — 0.09 ✓

P. A. 20

320.4
52.0 95.6 ✓
142.0 100.2 ✓
242.2 195.8 ✓
9 2 50 164.2 ✓ — 0.30 ✓

9 37 ω 321.7 96.9 ✓
58.6 87.5 ✓
154.2 184.4 ✓
241.7 185.86 ✓ — 0.08
~~— 0.27~~

+ 0.065
— 0.205
— 0.11
8.17
8.06

P. A. 200

63.8 71.0 ✓
134.8 97.4 ✓
231.4 168.4 ✓
9 05 ω 32~~8~~.8 + 0.22 ✓

+ 0.065
— 0.190
—.125
— 0.06
8.17
8.11

11 20
9 02 50
9 01 40
21126 585
.556
.029

Sept. 19th 1916

[illegible]

P.G. 200

9 10 10	58.4	91.8 ✓		IV.
	150.2	84.6 ✓		
	242.4	176.4 ✓	+0.07 ✓	
	327.0			

P.G. 200

	151.8	85.2 ✓		
	237.0	101.3 ✓		
	322.3	186.5 ✓		
	63.6			
9 12 40		173.5 ✓	− 0.12 ✓	
				+0.135 ✓
				−0.075
9 13 00	147.6			~~0.002~~
	243.5	95.9 ✓		~~8.17~~
	329.6	82.6 ✓		8.17
	52.2	178.5 ✓	−0.03	
			~~−0.16~~	.060
		~~171.5~~		

P.G. 200

				0.03
				8.17
				8.14
	240.2	83.9 ✓		
	324.1	85.5 ✓		
	58.3	169.4 ✓		
9 15 00	143.8		+ 0.20 ✓	

10 50
9 12 42
9 11 32

21126.592
.556
.036

Sept. 19ª 1916

[illegible]

V

		P.G. 200		
9 28 30	238.4			
	327.4	89.0 ✓		
	62.3	75.0 ✓		
	137.3	164.0 ✓	+0.30 ✓	
		P.G. 20		
	329.8	183.8 ✓		
	53.6			
	144.6	99.6 ✓		
9 31 15	244.2	183.4 ✓		
		176.6 ✓	− 0.06 ✓	+0.31 ✓
				−0.06 ✓
9 31 25	319.6	101.8 ✓		+0.12 ✓
	61.4	81.3 ✓		8.17
	153.5			
	234.8	183.1 ✓	− 0.06 ✓	~~8.29~~
		176.9		8.29
		P.G. 200		
	67.0	71.0 ✓		
	138.0			
	235.3	92.3 ✓		
9 34 20	327.6	163.3 ✓	+0.32 ✓	

5 30

9 31 22

9 40 R Scale [illegible] 5.4 F.E.B.

9 36 12

21026.604

6 56

Sept. 19th 1916

[illegible]

P. A. 200

9 44 40 62.5
143.8 81.3
244.2 81.2
325.4 162.5 + 0.33 VI

P. A. 20

157.0
238.2 81.2
322.4 94.7
9 46 50 57.1 175.9 +0.08

+0.315
+0.080
0.395
0.198
+0.20
8.17
8.37

9 47 10 147.8
243.8 96.0
33$\overset{3}{7}$.6 80.0
53.6 176.0 0.08

P. A. 200

239.4 81.2
320.6 82.7
58.7
9 49 30 141.4 163.9 +0.30

28 10
9 47 02
9 45 52

21.26.615
5.56
.059

Sept. 19th 1916

[illegible]

P.C. 200

9 54 05	239.6	87.2 ✓	VII
	326.8	67.4 ✓	
	67.0		
	134.4	154.6 ✓ + 0.49 ✓	

P.C. 20

	335.8	✓	
	49.8	74.0 ✓	
	150.1	91.1 ✓	
9 57 20	241.2	165.1 + 0.28 ✓	
			+ 0.41 ✓
9 58 30	328.8	✓	+ 0.31 ✓
	53.8	87.0 ✓	+ 0.36 ✓
	156.2	75.2 ✓	✓ + 8.17 ✓
	231.4	162.2 + 0.34	8.53 ✓

P.C. 200

	63.9	69.1 ✓	
	133.0	93.6 ✓	
	239.2	162.7 ✓ + 0.33 ✓	
	~~83~~		
9 59 00	332.8		
25 55			
9 56 29			
9 55 19			
21126.622			
.556			
.066			

Sept. 19th 1916

Eunomia.

P.G. 200

10 3 10	60.8			
	144.2	83.4 ✓		VIII
	239.6	83.7 ✓		
	323.3	167.1 ✓	+0.24 ✓	

P.G. 20

	153.6	86.2 ✓		
	233.8	96.8 ✓		
	322.6			
10 5 20	59.4	177.0 ✓	+ 0.06 ✓	
				+0.275 ✓
10 5 05	146.7	100.1 ✓		+0.050 ✓
	246.8	77.6 ✓		0.325 ✓
	331.8			0.16 ✓
	49.4	177.7 ✓	+0.04 ✓	8.17 ✓
				8.33 ✓

P.G. 200

	245.0	75.4 ✓	
	320.4	88.1 ✓	
	57.6	163.5 ✓	+0.31 ✓
10 8 20	145.7		
21 35			

10 05 24
10 04 14
21126.628
558
.072

Sept. 19th 1916

[illegible]

		P. A. 200		IX
10 11 45	240.7	87.1 ✓		
	327.8	79.1 ✓		
	60.2			
	139.3	166.2 ✓	+0.26 ✓	
		P. A. 20		
	33~~4~~3.6	76.0 ✓		
	~~4~~ 49.6	81.5 ✓		
	153.2		✓	
10 14.00	~~2~~234.7	157.5 ✓	+0.43	
				+0.325 ✓
10 14 20	327.8	83.0 ✓		+0.352 ✓
	50.8	82.8 ✓		0.675
	153.6		✓	
	236.4	165.8 ✓	+ 0.27	+0.34 ✓
				8.17 ✓
		P. A. 200		8.51 ✓
	68.8	63.4 ✓		
	132.2	9~~6~~6.1 ✓		
	234.6		✓	
10 16 00	330.7	159.5 ✓	+ 0.39	

16 05
10 14 01
10 12 57
21126.63 ✓
556
.078

Sept. 19th 1916

Eunomia

P.A. - 200

10 19 00 57.4 89.0 ✓ X.
146.4 88.7 ✓
238.8
3827.5 177.7 ✓ +0.04 ✓

P.A. 20

152.7 90.6 ✓
243.3 77.1 ✓
331.5
10 23.25 48.6 167.7 ✓ + 0.23 ✓

+0.17 ✓
10 23 40 154.2 77.9 ✓ +0.25 ✓
232.1 87.7 ✓ +0.21 ✓
328.7 8.17 ✓
57.4 165.6 ✓ +0.27 ✓ 8.38

P.A. 200

238.3 89.7 ✓
328.0 74.2 ✓
62.2
10 26 00 136.4 163.9 ✓ + 0.30 ✓
12 05

10 23 01
10 21 51
21126.640
536
.084

Sp. 8.2
P.A 204.0
H.A. 0.07 W
Dec. - 9.8
S.T. 2$\overset{2}{3}$ 36

Sept. 19th 1916

1 Sand light

Uranus + 7.19

P. A. 270

10 36 50 74.8
125.4 50.6 ✓
260.4 46.8 ✓
307.2 97.4 ✓ −1.72 ✓

P. A. 90

162.7
219.4 56.7 ✓
342.2 60.2 ✓
10 41 20 42.4 116.9 ✓ −1.26 ✓

10 42 00 160.0
223.2 63.2 ✓
336.3 64.5 ✓
40.8 127.7 ✓ −1.03 ✓

−1.645 ✓
−1.145 ✓
2.790
1.395 ✓
−1.40 ✓
7.19 ✓
5.79

P. A. 270

257.8
303.3 45.5 ✓
73.2 58.0 ✓
10.44.30 131.2 103.5 ✓ −1.57 ✓

4 40

10 41 10

21126 653

Sept. 19th 1916

Uranus δ 6.93

P. A. 300

10 48 40 152.8 ✓

231.7 78.9 ✓

328.6 71.8

40.4 150.7 ✓ -0.56 ✓

P. A. 120

254.7 ✓

302.7 48.0 ✓

73.4 55.4

128.8 103.4 ✓ -1.57 ✓

10 51 30

-0.605 ✓

-1.485

---

2 ✓

-1.04 ✓

6.93

5.89

10 51 40 252.4 ✓

309.3 56.9 ✓

73.4 53.8 ✓

127.2 110.7 ✓ -1.40

P. A. 300

336.0 ✓

39.6 63.6 ✓

151.6 82.6 ✓

234.2 146.2 ✓ -0.65

10 53 00

---

4 50

10 51 12

10 50 02

2 1126.660

Sept. 19ª 1916
Uranus + 6.93

		P.a. 300		
11 0 30	330.3			7ª Cap.
	43.7	73.4 ✓		
	163.3	61.3 ✓		
	224.6	134.7 ✓	−0.88 ✓	
		P.a 120		
	80.8	46.4 ✓		
	127.2	67.6 ✓		
	248.8			
11 2 45	316.4	114.0 ✓	−1.33 ✓	
				−0.875 ✓
				−1.310 ✓
11 3 00	73.5			2185 ✓
	135.7	62.2 ✓		−1.09 ✓
	254.8	53.6 ✓		693 ✓
	308.4	115.8 ✓	−1.29 ✓	5.84
		P.a 300		
	162.2	65.4 ✓		
	227.6	69.8 ✓		
11 6 05	333.0			
	42.8	135.2 ✓	−0.87 ✓	

12 20
11 03 05
11 01 55
2 1126.66 f

Sept. 19th 1916

Uranus + 7.19

P.G. 270

11 9 50 79.0 47.7 ✓
126.7 48.1 ✓
257.2
305.3 95.8 ✓ −1.76 ✓

P.G. 90

166.2 57.8 ✓
224.0 57.8 ✓
344.6
42.4 115.6 ✓ −1.29 ✓
11 12 40

~~1.25~~

11 13 00 166.2 64.4 ✓ −1.80
220.6 61.2 ✓ −1.80
343.6
44.8 125.6 ✓ −1.07 ✓ 3.140

−1.50
7.19
~~5.62~~
5.69

P.G. 270

261.2 40.3 ✓
301.5 51.0 ✓
79.7 −1.88 ✓
130.7 91.3 ✓ ~~2.16~~

11 14 30
10 00

11 12 30
11 11 20
2112 6.674
11 30

SS Cygni (12") 213843

est 11.3 Pl.
est 11.3 HEB

−1318
(370) −7738
Red.
Plotted

Wed. Sept 20, 1916

LC Ob 15" E. Eq. T.E.S.B. Rec

Cs watch = 1m 49s fast at 6:40

U Cephei

I

00 53 fl.

19 00

5 53 E +81.8

6 07 P.C. 200

7 9 40 240.2 comp * dis.

320.1 79.9 ✓

74.7 37.5 ✓

132.2 137.4 ✓ +0.83 ✓

P.C. 20

332.2 67.4 ✓

39.6 85.4 ✓

152.8 152.8 ✓ +0.52 ✓

7 11 20 238.2

+0.965 ✓

+0.450 ✓

1415

0.708

+0.~~66~~ 71

8.41

~~9.07~~

9.12

7 11 25 326.6 80.2 ✓ ✓

46.8 79.9 ✓

155.8 160.1 ✓ +0.38

235.7

P.C. 200

76.6 53.2 ✓ ✓

129.8 71.3 ✓

243.4 124.5 ✓ +1.10

~~7 14 45~~ 314.7

17 10

7 9 59 = 21127.507

Sept. 20th 1916

P.G. 200

7 17 50	72.4	✓		
	137.7	65.3 ✓		Π
	246.8	63.0 ✓	✓	
	309.8	128.3	+ 1.01	

P.G. 20

	154.7	✓		
	228.4	73.7 ✓		
	330.4	77.8 ✓	✓	
7 20 40	48.2	151.5	+0.55	

				+0.535 ✓
7 20 50	152.7	85.1 ✓		~~+0.495~~
	237.8	70.9 ✓		0.505
	334.4	156.0	+0.46 ✓	1440
	45.3			+0.720 ✓
				8.41 ✓
				9.13 ✓

P.G. 200

	250.8	✓		
	312.4	61.6 ✓		
		74.1 ✓	✓	
7 2~~4~~3 15	66.7	135.7	+ 0.86	
	140.6			

2 35
7 20 39
1 04
7 18 50

27.513
27.514
−.001

Sept 20th 1916

P.G. 200

~~7 26 15 240.8~~ ~~Tel.~~

7 27 40 243.6 78.6 ✓
322.2 54.8 ✓
74.7 133.4 ✓ +0.91 ✓
129.5

P.G. 20

332.2 74.1 ✓
46.3 92.9
145.4 167.0 +0.25
238.3 ~~+0.63~~

7 30 30

+0.965 ✓
33
+ 0.~~57~~0

7 30 40 327.2 85.5 ✓ 1.565
52.7 73.1 ✓ 6
156.5 158.6 ✓ +0.48 +0.~~7~~52
229.6 8.41
9.06

P.G. 200

75.5 54.7 ✓
130.2 73.4 ✓
^{2}41.3 128.1 ✓ +1.02
7 33.00 314.7
1 50

7 30 28
1 49
7 28 39
27 520
514
+ 006

Sept. 20th 1916

P.C. 200

~~IV~~

7 35 45 69.4 67.0 ✓
136.4 62.9 ✓
250.8 129.9 ✓ +0.9~~9~~^{8} ✓
313.7

P.C. 20

156.7 71.7 ✓
228.4 9~~8~~3.2 ✓
320.4 ~~154.9~~ +0.~~48~~^{29} ✓
7 38 20 53.6 164.9 ✓

+0.94 ✓
+0.~~42~~^{34}
136 ✓

7 38 40 146.9 85.9 ✓
232.8 73.9 ✓
335.7 159.8 ✓ +0.38 ✓
49.6

+0.68^{4}
8.41
9.0~~4~~$_{5}$

P.C. 200

~~3~~^{2}51.0 59.8 ✓
310.8 74.4 ✓
66.4 134.2 ✓ +0.89 ✓
7 41.00 140.8

33 45
7 38 26
1 49
7 36 37
27.526
514
+0.12

Sept. 20^a 1916

P.G. 200

7 43 50	237.8	81.8 ✓		V
	319.6	52.1 ✓		
	78.8	✓		
	130.9	133.9	+0.90 ✓	

P.G. 20

	327.2	81.5 ✓		
	48.7	81.5 ✓		
	152.2	✓		
		163.0	+0.32 ✓	
7 46.40	233.7			+0.985 ✓
				+0.315 ✓
7 46.50	325.4	✓		1.300 ✓
	55.5 ✓	90.1 ✓		+0.650 ✓
	~~143.4~~	73.5 ✓	✓	8.41 ✓
	154.2	163.6 ✓	0.31	9.06
	227.7			

P.G. 200

	74.2	54.4 ✓	
	128.6	71.4 ✓	
	246.4	✓	✓
7 49 45	317.8	125.8	+1.07

27 05

7 46 46

1 49

7 44 57

27.531

.514

+017

Sept. 20th 1916

VI

P. a. 200

~~70.1~~

7 54.00	70.1			
	134.4	64.3 ✓		
	246.4	64.4 ✓		
	310.8	128.7 ✓	+1.00 ✓	

P. a. 20

	154.5	73.8 ✓		
	228.3	86.0 ✓		
	324.8			
7 56. 50	50.8	159.8 ✓	+0.38 ✓	
				+1.02 ✓
				+0.44 ✓
				1.46 ✓
7. 57. 10	151.6	82.6 ✓		0.73 ✓
	234.2	71.2 ✓	✓	+8.41
	334.6			
	45.8	153.8 ✓	+0.50	9.14

P. a. 200

	252.2	57.4 ✓	
	309.6	69.7 ✓	
	67.9		
7 59 35	137.8	127.1 ✓	+1.04 ✓

27 35

7 56 54

1 09

7 55 5

27.538

574

+.026

Sept 20th 1916

		P. A. 200		
8 3 50	237.7	82.7 ✓		
	320.4	57.4 ✓		VII
	73.2			
	130.6	140.1 ✓	+0.77 ✓	
		P. A. 20		
	33~~6~~3.6	71.8 ✓		
	45.4	74.3 ✓		
	156.0		✓	
8 06 00 ~~00~~	230.3	146.1 ✓	+0.60	
				+0.78 ✓
				+0.45 ✓
8 06 10	334.8			123 ✓
	53.2	78.4 ✓		0.615 ✓
	147.7	88.3 ✓	✓	+0.62 ✓
	236.0	166.7 ✓	+0.25	841 ✓ ✓
		P. A. 200		9.03
	63.1	73.7 ✓		
	136.8	65.4 ✓		
	248.4		✓	
8 9 30	313.8	139.1 ✓	+0.79	

8 9 30
25 30
8 06 22
1 49
8 4 33

27.545
514
+.031

Sept. 20th 1916

B's watch used from this time on,
B's watch 7 sec fast

P. A. 200

8 12 00 75.5
131.6 56.1 ✓
240.0 77.4
317.4 133.5 +0.91 ✓

VIII

P. A. 20

146.6 90.2 ✓
236.8 68.2 ✓
337.4
8 14 40 45.6 158.4 ✓ +0.41 ✓

8 14 50 155.0 70.3 ✓
225.3 980.6
322.6 1~~8~~6 0.9 ✓ +0.~~87~~3
53.2

+0.9~~00~~10
+0.~~3~~485
1410
0.705
+0.~~44~~6
8.41
~~9.12~~
9.05

P. A. 200

242.2 76.6 ✓
318.8 56.5 ✓
75.3
8 17 5 131.8 133.1 ✓ +0.9~~4~~ ✓
18 35
8 14 39
7
8 14 32

27.532
5.14
+.038

Sept. 20th 1916

		P. G. 200		
8 23 35	246.2	65.5 ✓		IX
	311.7	72.4 ✓		
	66.0			
	138.4	137.9 ✓	+ 0.82 ✓	
		P. G. 20		
	330.2			
	~~488.0~~	7~~5~~7.8		
	48.0	75.3 ✓	✓	
	158.0	153.1 ✓	+ 0.55	
8 26 30	233.3			+ 0.905 ✓
				+ 0.575 ✓
8 26 50	338.0	64.7 ✓		1470
	42.7	84.8 ✓	✓	0.735
	148.0	149.5 ✓	+ 0.58	+ 0.74 ✓
	232.8			841
				9.15
		P. G. 200		
	68.8	69.1 ✓		
	13~~8~~7.9	60.2 ✓	✓	
	250.0	129.3 ✓	+ 0.99	
8 29 20	310.2			

26 15

8 26 34

7

8 26 27

27.560

514

+.046

1916phae.proj..617O

Sept. 20th 1916

P. G. 200

8 35 45	66.0	70.6		I
	136.6	66.1		
	246.0	136.7		
	312.1		+0.84	

P. G. 20

	150.4	78.0		
	228.4	84.8		
	327.2			
8 38 10	52.0	162.8	+0.33	
				+0.830
				+0.445
				1275
8 38' 30	149.6	84.4		+0.64
	234.0	66.2		8.41
	340.6	150.6	+0.56	
	46.8			9.05

P. G. 200

	245.2	69.0	
	314.2	68.6	
	69.6		
8 41. 10	138.2	137.6	+0.82

33 35

8 38 24

7

8 38 17

27.567

514

+.053

Sept. 20th 1916

P. G. 200

XI.

8 53 50 242.0 77.8
319.8 61.9
70.3 139.7 +0.78
132.2

P. G. 20

333.6 724
46.0 84.8
150.0 157.2 +0.43
8 56 20 234.8

+0.660
+0.435
1095
~~0.747~~

8 56 30 325.7 87.3
53.0 69.8
156.6 157.1 +0.44 +0.55
226.4 8.41
8.96

P. G. 200

32
74.4 62.2
135.4 89.7
232.2 151.9 +0.54
8 59 30 321.9

26 10
8 56 32
8 56 25
27.581
514
+.067

Sept 20th 1916

P. A. 200

XII

9 03 00 60.0 ✓
144.0 84.0 ✓
244.8 68.8 ✓
313.4 152.8 ✓ +0.52 ✓

P. A. 20

152.0 ✓
227.7 75.7 ✓
326.2 88.4 ✓
9 10 40 54.6 164.1 ✓ +0.30

58
0.~~600~~
0.365
0.965
+0.467
8.44 ✓
~~8.62~~
8.8~~7~~8 ✓

9 10 50 150.7 85.1 ✓
235.8 72.2 ✓
337.0 157.3 ✓ +0.43 ✓
49.2

P. A. 200

243.0 68.2 ✓
311.2 79.1 ✓
64.7 147.3 ✓ +0.683 ✓
9 13 25 143.8

37 55
9 09 29
9 09 22

27.590
5.14
+.076

Sept: 20$^{\text{th}}$ 1916

P.G. 200

9 16 10 242.8 <comp* 80.6

323.4 67.9

69.8

137.7 148.5 +0.60

XIII

P.G. 20

49.6 <Vardis ~~63.4~~

153.0 ~~85.2~~

240.6

9 18 53 325.8 148.6

103.4

85.2

188.6

~~+0.60~~ +0.16

171.4

~~+0.73~~

~~+0.47~~

~~+0.66~~

~~8.47~~

~~9.01~~

9 19 15 55.8 88.8

144.6 93.4

231.4

324.8 ~~182.2~~ ~~+0.34~~

+0.16

182.2

171.8

+0.73

+0.16

0.89

0.44

8.41

~~8.85~~

P.G. 200

252.4 <comp* 59.0

313.4

63.0 78.9

9 21 35 141.9 135.9 +0.86

35 50

9 18 58

9 18 51

27.597

514

+.083

Sept 20th 1916

		P. C. 200		
9 25 45	239.3	✓		
	322.4	83.1 ✓		XIV
	68.4	69.5 ✓	✓	
	137.9	152.6 ✓	+0.52	
		P. C. 20		
	326.6	✓		
	53.3	86.7 ✓		
	139.6	100.6 ✓		
9 28 20	240.2	187.3 ✓	✓	
		172.7	−0.14	
				✓
9 28 40	322.0	✓		+0.435
	58.2	96.2 ✓		−0.090 ✓
	144.8	85.9 ✓		0.345 ✓
	230.7	182.1 ✓	✓	+0.17 ✓
		177.9	−0.04	5.61 ✓
		P. C. 200		5.58
	~~137.4~~	✓		
	243.3	73.5 ✓		
	316.8	88.2	✓	
9 31 20	57.6	161.7 ✓	+0.35	
>	145.8			

34 5

9 28 31

9 28 24

27.603

514

+.089

Sept. 20th 1916

P. G. 200

XV

9 34 40 235.0

323.3 88.3 ✓

62.2 ✓ 76.2 ✓

138.4 164.5 ✓ +0.29 ✓

P. G 20

324.8 87.4 ✓

152.2 99.0 ✓

142.8 186.4 ✓

9 36 10 241.8 173.6 ✓ −0.12 ✓

~~+0.~~ ✓

+0.13

+0.23

~~0.18~~

9 36 20 319.6 100.5 ✓

60.1 98.1 ✓

142.8 198.6 ✓ .105

240.9 161.4 ✓ −0.35 ✓ −0.05

.24

P. G. 200 +.36

60.6 81.2 ✓

141.8 100.4 ✓

229.6 181.6 ✓

9 37 45 330.0 178.4 ✓ −0.03 ✓

24 55

9 36 14

9 36 7

27.608

514

+.094

Sept. 20 1916

P. G. 200

9 41 55	58.0			XVI
	145.8	87.8		
	236.8	82.0		
	318.8	169.8	+ 0.19	

P. G. 20

	141.2			
	238.6	97.4		
	326.7	86.7		
9 44 35	53.4	184.1		
		175.9	−0.08	
				+ 0.16
9 44 50	144.0	923		− 0 28
	236.3	113.2		− 0.06
	313.4	205.5	− 0. 49	841
	66.6	154.5		~~8.47~~
				8 35 −

P. G. 200

	~~324.~~		
	61.4	82.2	
	1436	90.8	
	232.0		
9 48 20	322.8	173.0	+ 0.13

19 20

9 44 50

9 44 43

27.614

514

+.100

Sept. 20th 1916

		P. G. 200		~~XVII~~
9 54 ~~15~~	~~227.4~~	(var. dis.)		
20 →	327.2			
	56.0	88.8 ✓		
	147.2	84.8 ✓		
	232.0	173.6 ✓	∓0.12 ✓	
		P. G. 20		
	61.8	77.4 ✓		
	139.2	64.8 ✓		
	247.6			
	312.4	142.2 ✓	∓0.73 ✓	
9 57 30				−0.210 ✓ ∓0.645 ✓
9 57 50	62.0	75.4 ✓		−0.43 ✓
	137.4	75.2 ✓		8.41
	241.6			7.98
	316.8	150.6 ✓	∓0.56 ✓	
		P. G. 200		
	144.4	85.0 ✓		
	229.4	79.4 ✓		
	332.4	164.4 ✓	−0.30 ✓	
9 10.00 00	51.8			

29 40

9 57 25

9 57 18

27.623

514

+.109

Sept. 20th 1916

P.G. - 200

10 7 05 153.8 var. dis

228.4 74.6 ✓

326.4 88.4

54.8 163.0 ✓ ∓ 0.32 ✓

XVIII

P.G. 20

248.2 61.6 ✓

309.8 82.3 ✓

57.7

10 9 25 140.0 143.9 ✓ ∓ 0.72 0 ✓

− ∓ 0.39

− ∓ 0.68

1 0 7

10 9 45 242.2 76.4 ✓

318.6 69.2 ✓

65.2

134.4 145.6 ✓ ∓ 0.66 ✓

∓ 0.54 ✓

8.41 ✓

~~8.45~~ ✓

7.87

P. G. 200

331.0 77.4 ✓

48.4 78.4 ✓

153.6

10 11 50 232.0 155.8 ✓ ∓ 0.46 ✓

38 05

10 9 31

10 9 24

27.631

514

+0.117

Sept. 20 1916

P.G. 200

XIX

10 25 N 333.3
50.2 76.9✓
155.5 71.3✓
226.8 148.2✓ −0.61✓

P.G. 20

69.2 63.8✓
133.0 70.7✓
242.7 134.5✓ −0.89✓
10 27 40 313.4

−0620✓
−0.875✓
1495✓
−0.747
−0.75✓
8.41✓
7.66

10 27 55 61.9
138.2 76.3✓
249.2 59.4✓
308.6 135.7✓ −0.86✓

P.G. 200

151.0 77.2✓
228.2 70.0✓
335.2 147.2✓ −0.63✓
10.30 10 45.2
31 00
10 27 45
10 27 38
27.644
574
4130

Sept. 20 1916

P.G. - 200

10 41 20	163.0			XX.
	219.2	56.2 ✓		
	330.4	83.8 ✓		
	54.2	140.0 ✓	-0.77 ✓	

P.G. 20

	256.0	48.4 ✓		
	304.4	70.5 ✓		
	67.2			
10 44.00	137.7	118.9 ✓	-1.22 ✓	
				-0.88 ✓
10 45 00	247.2	67.6 ✓		-1.15 ✓
	314.8	57.4 ✓		2.03 ✓
	73.2			-1.02 ✓
	130.6	125.0 ✓	-1.08 ✓	841 ✓
				87.39

P.G. 200

	344.2	60.9 ✓		
	45.1	68.8 ✓		
	158.2			
10 47 15	227.0	129.7 ✓	-0.99 ✓	~~370~~

17 35
10 44 24
10 44 17
27.656
.514
+.142

Spr. 3.7
P.a. 197.5 A
H.a 147 E.
Dec. +81.5
S.T. 23 05

Sept 20, 1916

S. S Aug. 0605 ⁊c>

S.7. 23 15
11 00 Sei. 11.8 Oct 47.6
N. 64 8 2

SS Cygni 21 38 ⁊c 3
23 18
1 ~~20~~ est 11.0 L.C.
1108 40 w " 11.2 Ft. E.B.

L.P. (2) – (1320)
(320) – (8050)

Thurs. Sept 21, 1916

L.O. Obs 15" E. Eq. F.E.B. Rec

B's watch 15 sec slow at 7.00 P.M.

Uranus Plot T.

21 15 − 17.0
19 22
1 53
10 07

7 in. Cap.

Comp ✱ = −16′ s & 40 (6t)

P.G. 120

7 14.20 154.2 Uran. dia
229.7 75.5 ✓
344.4 54.9 ✓
39.3 130.4 ✓ − 0.97 ✓

P.G. 300

~~261.2~~
~~266.4~~ 392 ✓ − 0.89 ✓
300.4 59.9 ✓ − 01.61 ✓
73.7 99.1 ✓ − 1.68 ✓ 2.50 ✓
7 17 10 133.6 − 1.25 ✓
7.03 ✓
5.78

✓

7 17 20 252.2 60.8 ✓
313.0 44.2
77.4 105.0 ✓ − 1.54 ✓
121.6

28 40
7 17 10
7 17 25

P.G. 120

21 1 28.512 340.2 65.1 ✓ ✓
45.3 73.1 ✓ − 0.81
154.2 138.2 ✓ Sp. 4.8
7 19 50 227.3 P.G. 116 A
S.7 16 33

Sept. 21st 1916

P. G. 120

7 29 00	330.2	79.2 ✓		Π
	49.4	62.6 ✓		
	159.6	141.8 ✓	−0.74 ✓	
	222.2			

P. G $\overset{3}{\cancel{1}}20$

	80.0	41.4 ✓		
	121.4	58.7 ✓		
	251.2	100.1 ✓	−1.65 ✓	
7 32 10	309.9			
				−1.745 ✓
7 32 25	77.7	57.5 ✓		−0.800 ✓
	129.2	41.3 ✓		2545
	259.0	92.8	−1.84 ✓	−1.27 ✓
	300.3			703 ✓
				5.76

P. G 120

	164.8	58.5 ✓	
	223.3	77.2 ✓	
	332.2	135.7 ✓	−0.86 ✓
7 35 15	49.4		

8 50

7 32 12

7 32 27

21128.522

Sept. 21 1916

P.G. 120

III.

7 44 5 152.2
230.4 78.2
337.2 62.5
35.7 140.7 -0.76

P.G. 300

260.6
300.8 40.2
75.7 54.5
7.46 25 130.2 94.7 -1.79

-0.855
-1.800
2655

7 46 40 253.0
303.6 50.6
80.4 43.5
123.9 94.1 -1.81

-1.33
703
5.70

P.G. 120

338.4
40.3 61.9
158.0 69.4
227.4 131.3 -0.975

~~7 49. [illegible]~~
25 10
7 46 18
46 33
7 50

21128.533

R Scuti est ~~fg~~ = 5.5 N.E. Ll

R Scuti est fg = 5.6 FEW

R Coronae est f.g.

Sept. 21 1916

P. G. 120

7 56 55	331.6			IV
	44.2	72.6 ✓		
	158.4	65.6 ✓		
	224.0	138.2 ✓	−0.81 ✓	

P. G 300

	83.0	40.2 ✓		
	123.2	47.6 ✓		
	257.2			
7 59. 45	304.8	87.8 ✓	−1.97 ✓	
				−0.715 ✓
				−1.895 ✓
8 0 5	74.8	52.4 ✓		2.610
	127.2	41.1 ✓		1.305
	261.1			−1.30 ✓
	302.2	93.5 ✓	−1.82 ✓	7 03
				5.73

P. G. 120

	156.8	~~9.5~~	
	225.3	68.5 ✓	
	330.8	79.0 ✓	
8 2 45	49.8	147.5 ✓	−0.62 ✓
39 30			
7 59 52			
8 00 07			

21 1 28. 542

Sept. 21 1916

		P.G. 120		
8 1~~5~~2 30	158.4	70.8 ✓		V
	2~~3~~27.2	63.6 ✓		
	338.8	✓	✓	
	42.4	134.4	−0.89	
		P.G. 300		
	257.6	44.6 ✓		
	302.2	49.2 ✓		
	77.4	✓	✓	
	126.6	93.8	−1.81	
~~9~~8. 14 55				−0.90 ✓
				−1.92 ✓
~~9~~8 15 10	257.0	45.2 ✓		−1.41 ✓
	302.2	40.4 ✓		7.03 ✓
	83.0	✓	✓	5.62
	123.4	85.6	−2.03	
		P.G. 120		
	337.4	64.3 ✓		
	41.7	69.2 ✓		
	155.2		✓	
8 17 30	224.4	133.5 ✓	−0.91	
20 05				
8 15 01				
8 15 16				
21128.552				

Sept. 21 1916

P. G. 120

VI.

8 26 10 323.8
50.5 76.7 ✓
166.4 49.2 ✓
215.6 125.9 ✓ − 1.07 ✓

P. G. 300

84.4 36.6 ✓
121.0 54.0 ✓
254.2 90.6 ✓ − 1.90 ✓
8 29. 15 ~~15~~ 308.2

− 1.01 ✓ 3
− 1.98
~~269~~ 2
~~1.345~~
~~703~~
~~5.69~~
~~5.71~~

8 29 25 72.2 60.8 ✓
133.0 43.0 ✓
257.8 103.8 ✓ − 1.56 ✓
~~12~~
300.8

P. G. 120

161.4 58.9 ✓
220.3 72.6 ✓
333.0 131.5 ✓ − 0.95 ✓
8 31 40 45.6

36 30
8 29 08
8 29 23

2112 f. 562

274 −
1.37 −
7.03 −
5.66

Sept. 21 1916

		P.G. 120		
8 44 40	156.4			VII
	227.2	70.8		
	334.8	70.5	✓	
	45.3	141.3	−0.75	
		P.G. 300		
	261.3			
	304.4	43.1		
	78.2	54.0	✓	
8 45 50	132.2	97.1	−1.73	✓
				−0.795
				−1.765
				2560
8 46 5	255.6	49.6		−1,280
	305.2	44.8	✓	703
	79.4	94.4	−1.80	5.75
	124.2			
		P.G. 120		
	338.8			
	43.4	64.6		
	155.6	72.0	✓	
8 48 20	227.6	136.6	−0.84	

25 55
f 46 29
f 46 44
21128.574

Sept. 21 1916

P.G. 120

8 54 30	332.4			VIII
	45.2	72.8 ✓		
	158.1	67.3 ✓		
	225.4	140.1 ✓	−0.77 ✓	

P.G. 300

	80.2	40.6 ✓		
	120.8	47.3 ✓		
	255.2			
8 56 30	302.5	87.9 ✓	−1.97 ✓	
				− 0.866 ✓
				−1.865 ✓
8 56 50	78.4	53.8 ✓		−1.36 ✓
	132.2	41.9 ✓		7 03 ✓
	258.4	95.7 ✓	−1.76 ✓	5.67 ✓
	300.3			

P.G. 120

	162.2	63.2 ✓	
	225.4	68.4 ✓	
	335.3	131.6 ✓	−0.95 ✓
8 58 50	43.7		

26 40

8 56 40

8 56 55

21128 581

Sept. 21 1916

		P.C. 120		
9 5 53	156.6	70.6 ✓		
	227.2			IX
	341.6	58.6 ✓		
	40.2	129.2	-1.00 ✓	
		P.C. 300		
	257.5	42.5 ✓		
	300.0	51.0 ✓		
	75.8			
	126.8	93.5 ✓	-1.82 ✓	
9 8 15				-0.86 ✓
				-1.83 ✓
9 8 30	249.6	53.2 ✓		2.69 ✓
	302.8			-1.34
	79.7	39.5 ✓	-1.84 ✓	7.03 ✓
	119.2	92.7		5.69
		P.C. 120		
	338.1	64.1 ✓		
	42.2	78.4 ✓		
	148.8			
9 10 50	227.2	142.5 ✓	-0.72 ✓	
33 25				
9 0F 21				
9 0F 36				
2 1128.590				

Sept. 21 1916

Telescope Rev.

$\overline{\underline{X}}$.

P. G. 120

9 15 40 79.4 49.4 ✓
128.8 43.2 ✓
257.0 92.6 ✓ − 1.84 ✓
~~298.8~~
300.2

P. G. 300

156.7 68.9 ✓
225.6 55.5 ✓
340.9 − 1.10 ✓
9 ~~24~~ 19 20 36.4 1~~9~~24.4 ✓ ~~1.55~~

−1.735 —
− 1.095 ✓
2830 ✓
1.415 —
703
~~5.62~~
4.61

9 ~~24~~ 19 40 → 167.4 52.6 ✓
220.0 72.1 ✓
380.7 124.7 ✓ −1.09 ✓
42.8

P. G. 120

252.8 57.8 ✓
310.6 43.2 ✓
80.4 101.0 ✓ − 1.63 ✓
9 22 20 123.6

37 00
9 19 15
9 19 30
2112 ℓ 597

Sept. 21 1916

P.G. 120

9 35 15	260.2	41.6 ✓		XI
	301.8	50.6 ✓		
	77.8			
	128.4	92.2 ✓	-1.86 ✓	

P.G. 300

	331.6	78.5 ✓		
	50.1	61.9		
	162.3			
9 37 40	224.2	140.4	-0.77 ✓	1.875 ✓
				~~1.97~~
				-0.77 ✓
9 37 50	336.1	66.7 ✓		~~2.74~~
	42.8			~~1.87~~
	154.3	73.7 ✓	✓	~~705~~
	228.0	140.4 ✓	-0.77	~~5.61~~

P.G. 120

				2.605 ✓
				1.30 ✓
				2.05 ✓
				5.75 ✓
	75.6	42.1 ✓		
	127.7	42.0 ✓		
	261.8	84.1 ✓	1.81 ~~2.08~~	
9.40 15	303.8			

31 00
9ʰ 37 45
9 38 00
211 ~ 8.609
9 50 m

Too cloudy to continue for the present.

Sept. 21 1916

P.G. 120

XII

9 50
10 01 25 82.2
127.8 45.2 reject. possibly some cloud here
251.2 56.6
307.8 101.8 −1.61

P.G. 300

158.6 68.2 ✓
226.8 65.4 ✓
333.4
38.8 133.6 ✓ −0.90 ✓
10 3 45

~~−1.765~~
~~−0.825~~
~~2.590~~
~~−1.295~~
~~7.03~~
~~5.73~~

10 3 35 162.3 62.3 ✓
224.6 79.0 ✓ ✓
328.4
47.4 141.3 ✓ −0.75

P.G. 120

258.2 46.4 ✓
304.6 43.2 ✓
78.2
10 6 10 121.4 89.6 ✓ −1.92 ✓

0.825 ✓
1.870 ✓
2.695 ✓
1.35
5.03
5.68

10 11 45 259.8 44.2
25 35 304.0 49.2
10 06 24 76.8 93.4 −1.82 ✓
10 06 39
21128.630 ~~130~~ 126.0

Sept. 21 1916

P. G. 120

XIII

10 15 35	257.2	46.6 ✓		
	303.8	46.5 ✓		
	78.8	93.1 ✓	−1.83 ✓	
	125.3			

P. G. 300

	329.8	70.2 ✓		
	40.0	69.6 ✓		
	158.4	139.8 ✓	−0.78 ✓	
10 18 10	228.0			✓
				−1.815 ✓
				3
				−0.745
				2550
10 18 25	R325.2	78.8 ✓		−1.275 ✓
	44.0	65.2 ✓		7.03 ✓
	160.0	144.0 ✓	−0.69 ✓	56.75
	225.2			

P. G. 120

	78.0	45.0 ✓	
	123.0	49.3 ✓	
	256.7	94.3 ✓	−1.80 ✓
10 21 00±	306.0		

33 10

10 18 18

10 18 33

21:28.638

Sept. 21 1916

P.G. 120

XIV

10 25 10 75.8 52.2

128.0 41.5

260.3

301.8 93.7 −1.82

P.G. 300

158.6 67.8

226.4 75.0

327.5

10 28 15 42.5 142.8 −0.72

−1.910

−0.755

2665

10 28 35 155.8

226.6 70.8 −1 33

336.4 68.2 7.03

44.6 139.0 −0.79 5.70

P.G. 120

260.6 39.4

300.0 47.5

75.8

10 31 10 123.3 86.9 −200

33 10

10 28 18

10 28 33

21128.645

Sept 21 – 1916

XV

P. a. 120

10 44 25	257.4			
	306.2	48.8 ✓		
	79.3	42.7 ✓		
	122.0	91.5 ✓	−1.87 ✓	

P. a. 300

	331.0	73.8 ✓		
	44.8	72.4 ✓		
	153.6	146.2 ✓	−0.65 ✓	
10 47 00	226.0			
				−1.895 ✓
				−0.655 ✓
10 47 55	330.0			2.550
	46.2	76.2 ✓		1275
	157.8	69.4 ✓		−1.28 ✓
	227.2	145.6 ✓	−0.66 ✓	703
				575

P. a. 120

	80.2	40.4 ✓	
	120.6	49.2 ✓	
	~~253.9~~ 256.8	89.6 ✓	−1.92 ✓
10 49 50	366.0		

28 30
10 47 08
10 47 23
21 11 28.658

Sept. 21 1916

P. G. 120

11 00 15 74.4 51.6 XVI
126.0 42.0
258.8
300.8 93.6 −1.82
Too cldy here. Clouds

P. G. 300

11 10 all cldy.

Tried for SS Cygni but
cldr settled in over whole
sky

9 00 R Coronae fg. = c2, 2d = 6.0 LC

P. G. 120

2 − 1322
240 − 8298

Fri. Sept 22, 1916

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

Uranus Phot T.

Cs watch used
= 28s fast

21 15 −16.A 7" Cap
19 10
2 5 E
9 55 Same comp ✱ as
last night.

P.a. 310 I

7 01 45 257.8 < Uranus
303.6 45.8 ✓
73.4 56.4 ✓ 0 ✓
129.8 102.2 ✓ − 1.68

P.a. 130
331.6 ✓
50.0 78.4 ✓
159.4 59.4 ✓ ✓
7 05 40 218.8 137.8 − 082

−1.735 ✓
0825
2.5 6 95

7 06 05 331.8 ✓
75.3 ✓
47.1 61.8 ✓ ✓ mean 1.29
137.1 ✓ − 0.83
7.03
160.4
222.2 Magn 5.7 57

Pa. 310

84.0 ✓
41.0 ✓ ✓
22 40
125.0 50.6 ✓
7 05 40
−28 253.6 91.6 − 187
7 05 12
304.2
7 09 10
2 129. 503

Pa. 306.5 A

Sept 22, 1916

B's watch used
20 sec slow P.A. 310

II

7 19 15 (20 written above 19)
80.4 — 44.9 ✓
125.3 — 54.2 ✓
253.0 — 99.1 ✓ — −1.68 ✓
307.2

P.A. 130
153.4 — 72.6 ✓
226.0 — 65.4 ✓
338.2 — 138.6 ✓ — −0.80 ✓
7 22 25 — 43.6

−1.625
−0.825 ✓
2.55
−1.22
7.03
~~5.76~~
5.81 ✓

7 22 45 — 163.6 — 58.2 ✓
221.8 — ~~76~~67.9 ✓ — 0.85 ✓ ~~1.06~~
334.3
52.2 — ~~126.1~~ 136.1 ✓

PA 310
80.4 — 45.6 ✓
126.0 — 57.8 ✓
252.4 — 103.4 ✓ — −1.57 ✓
7 25 5 — 310.2

1.625
0.825
2.450
1.22
7.03
5.81

10 30
7 30
7 22 38
7 22 58
21129.516

SS Cygni 213843 (12") est 11.1 LC.
11.2 Brand

60

Sept 22, 1916

	PA 310			III
7 36 10	79.4	5 45.9 ✓		
	3 175.3	42.1 ✓		
	257.7	~~88.0~~		
	299.8	98.0 ✓	~~-1.97~~ 1.71 ✓	
	PA 130			
	161.0	60.6 ✓	256 ~~1.28~~	
	221.6	75.7 ✓		
	332.6	136.3 ✓	-0.85 ✓	1.815 ✓ ~~-1.945~~ ~~-2.08~~
7 39 55	48.3			-0.830
7 40 5	156.8	71.1 ✓		~~2.915~~
	227.9	67.0 ✓		~~1.457~~
	337.4	138.1 ✓	-0.81 ✓	~~-1.46~~
	44.4			~~7.03~~ ~~5.57~~
	PA 310	✓	273 1.365 1.32	
	263.0	35.4		2.645
	298.4	5 44.5 ✓		1.32
	76.3		1.92 ✓	7.03
7 42 30	130.8	8~~7~~9.9 ✓	~~2.20~~	~~5.67~~
38 40				5.71 ✓

7 39 40
7 40 00

21129.520

Sept 22, 1916

		P.a. 310		IV
7 48 30	254.4			
	305.0	50.6 ✓		
	80.4	44.6 ✓		
	125.0	95.2 ✓	−1.78 ✓	
		P.a. 130		
			253	
	335.0	77.7 ✓	1.265	
	52.7	63.4 ✓		
	158.4			
7 50 58	219.8	141.1 ✓	−0.75 ✓	✓
				−1 765
				−0.715 ✓
7 51 0	340.4	64.2 ✓		2480 ✓
	44.6	80.7 ✓		−1,240 ✓
	151.4	144.9 ✓	−0.68 ✓	703 ✓
	233.1			5.79
		P.a. 310		
			243	
	73.2	57.4 ✓	1.215	
	130.6	39.0 ✓	1.24	
	262.4	96.4 ✓	−1.75 ✓	
7 53 30	301.4			

3 50

7 50 58

7 51 16

21129.535

Sept. 22nd 1916

P.G. 310

~~8 01 55~~ 82.1 45.9

8 3 5 → 128.0 V

25~~0~~8.4 56.8

307.2 102.7 − 1.59

P.G. 130

154.4 77.0 237

231.4 1.185

339.4

8 ~~7~~6 45 42.0 626

139.6 − 0.78 − 1.615

T3 − 0.805

8 7 05 160.4 59.8 24420

220.2 7~~6~~7.2 0.83 − 1.261

334.4 ~~1.04~~ 7.03

51.6 ~~127.0~~ ~~5.77~~

137.0 5.82

P.G. 310

254.4 57.0 247

311.4 1.231

436 1.21

8 9 55 80.6

26 50 124.2 100.6 − 1.64

8 06 42

8 07 02

2.1129.547

8 20 R Scuti (f.g.) 184205 est 5.7 Le

8 34 est 5.4

Sept 22-1916

VI

P.a. 310

8 23 00	258.6			
	301.3	42.7		
	76.6	50.4		
	127.0	93.1	-1.83	

Pa 130

	330.2		1.30	
	47.3	77.1		
	162.4	62.9		
8 25 30	225.3	140.0	-0.77	
				-1.705
				-0.760
				2465
8 25 45	333.9	62.9		1.23
	36.8	78.1		7.03
	~~53.9~~ 157.7	141.0	-0.75	5.80
	229.8			

P.a. 310

	72.4		233 1.165
	133.2	60.8	1.23
	260.8	42.2	
8 28 35	303.0	103.0	-1.58

22 50

f 25 42

f 26 02

21129.560

Sept 22-1916

VII

	P.a 360		
8 49 55	82.8		
	127.0	44.2 ✓	
	253.0	53.2 ✓	
	306.2	97.4 ✓	−1.72 ✓
	P.a 130		
	156.6	70.6 ✓	
	227.2	57.82 ✓	
	339.6	127.8 ✓	−1.03 ✓
8 52 50	36.8		
8 53 05	162.2	60.3 ✓	
	222.5	74.6 ✓	
	331.8	134.9 ✓	−0.88 ✓
	46.4		
	P.a 310		
	254.2	52.8 ✓	
	307.0	42.6 ✓	
	80.2	95.4 ✓	−1.77 ✓
8 55 30	122.8		
11 20			
8 52 50			
8 53 10			
21129.~~59~~ 578			

−1.745 ✓
− 0.955 ✓
2.700 ✓
1.35 ✓
7.03 ✓
5.68

Sept. 22 1916

P. A. 350

8 58 40	257.6	43.7 ✓		VIII
	301.3	49.2 ✓		
	77.8			
	127.0	92.9 ✓	−1.84 ✓	

P.A. 130

	332.6	78.4 ✓		
	51.0	63.7 ✓		
	161.1			
9 01 40	224.8	142.1 ✓	−0.73 ✓	
				−1.87 ✓
				−0.65 ✓
9 02 00	335.8	69.1 ✓		−2.52 ✓
	44.9	81.0 ✓		−1.26 ✓
	152.8			7.03 ✓
	233.8	150.1 ✓	−0.57 ✓	5.77

P. A. 310

	75.8	50.9 ✓		
	126.7	39.6 ✓		
	260.8			
9 5 00	300.4	90.5 ✓	−1.90 ✓	2 −1324
7 20				128 −8426
9 01 50				
9 02 10				
21129.585				

Sept. 22 1916
Telescope reversed

		P.A. 310	
9 14 00	329.0		
	39.4	70.4	
	152.6	79.4	
	232.0	149.8	−0.58
		P.A. 130	
	73.2	59.1	
	132.3	48.1	
	255.6	107.2	−1.48
9.17 50	303.7		
9 18 00	80.3		Clouds
	121.2	40.9	
	252.7	55.5	
	308.2	96.4	−1.75
		P.A. 310	
	150.7		
	230.0		

stopped by clouds

9 22 Sky all cloudy 2

Reject above group
clouds too troublesome and
images very faint ~~at~~ at times.

Sat. Sept 23-1916

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

Uranus plot T-

7 03 Clds.
7 10 all cldy
7 30 all cldy
8 30 all cldy

21132

Mon Sept. 25 1916

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

B's watch med = 10s fast at 7:02

RY Sagittarii 19 10 33
19 10 − 33 ~
19 27
0 17 W   0 28 W
−33.4
est s 1, 2 t   19:35
7 03 var. faint, but surely seen

U Bootis 14 49 18
19 49
5 00 +18.1

sec. 10.6   +18.2
H.G. 5 08 W
S.T. 19 58

Z Bootis 14 01 13
20 01
6 W   +13

sec 9.5   Dec +14.2
H.G. 6 00 W
S.T. 20 02

R. Bootis 14 32 27
20 02
5 30 W

sec 11.4   +27.3
H.G. 5 32 W   S.T. 20 07

Sept. 25th 1916

R. Herculis 16 01 18
20 17
4 16 +18

+18.8

d 5 var. 14.8 ± H.A. 4 17 W
var certainly seen S.T. 18 20
although faint

2. Cor. 15 ~~4~~5 2 29
20 10
4 ~~7~~18 +29.5

(est) var. certainly S.T. 20 16
seen at 13.9 dec + 29.5
d 2 $\overset{e}{f}$ 3 f. 5 h 3 g 7 k H.A. ~~29.5~~ 4 23 W
old not. used e = map var.

W. Hercl. 16 31 37
20 22
3 57 +37

est 13.4 +37.~~4~~6
H.A. 3 52 W
S.T. 20 24

16 47 15 S. Hercul. +1~~8~~5.3
20 25 H.A. 3 38 W
3 38 W +15.1 est 11.8 S.T. 20 28

R.V. Herc. 16 56 31
20 28 +31.4
3 32 W 3 32 W

est 10.2 20 30

Sept. 2~~4~~5 1916

R. T. Her. 17 06 27
20 32
3 26

sst 13.6

+27.4
3 25 W
20 33

Z. Oph. 17 14 01
20 34
3 20 W

+ 1.7
3 21 W
20 ~~7~~36

sst. 11.6

R. U Oph 17 28 09
20 38
3 10 W

+ 9.6
3 12 W
20 40

sst 13.4

(new chart needed)

Sept. 27th 1916

η Cephei 0 p 3 81

		P.A. zero		
8 12 40	72.7	comp * dis.		Phot. T.
	136.4	63.7✓		Field open.
	246.8	62.4✓		
	309.2	126.1✓	+1.06✓	✓
		P.A. zero		
	157.8	66.8✓		
	226.6	89.2✓		
	318.2			
8 15 30	47.4	156.0✓	+0.46✓	
				+1.035✓
				+0.470✓
8 16 00	152.2	89.4✓		1.505✓
	241.6	65.5✓		+0.75✓
	336.7	154.9✓	+0.48✓	8.41✓
	42.2			9.16
		P.A. zero		
	249.4	61.4✓		
	310.8	67.1✓		
	68.7			
	135.8	128.5✓	+1.01✓	

8 18 05

22 15

8 15 39

8 15 29

32

211~~39~~.552

500

[illegible] 5.2

Sept. 2~~7~~5 1916

P.G. 200

8 21 40	247.2	70.2 ✓		
	317.4	51.5 ✓		II
	76.8	121.7 ✓	+ 1.16 ✓	
	128.3			

P.G. 20

	331.8	73.8 ✓		
	45.6	87.0 ✓		
	149.4	160.8 ✓	+ 0.37 ✓	
8 23 50	236.4			
				+ 1.140 ✓
				+ 0375 ✓
8 24 00	326.1	85.6 ✓		1515 ✓
	57.7	74.5 ✓		0.757
	153.1	160.1 ✓	+ 0.~~14~~38 ✓	+ 0.76 ✓
	227.6			841 ✓ ✓
				9.17

p.a. 200.

	78.7	48.8 ✓	
	127.5	74.6 ✓	
	244.0	123.4 ✓	+ 1.12 ✓
8 26 15	318.6		

15 45

8 23 56

8 23 46

21132 558

Sept 25 1916

P. a. zero

8 32 30	71.2	63.1 ✓		III
	134.3	63.0 ✓		
	247.8	126.1 ✓	+1.06 ✓	
	310.8			

P. a. 20

	157.8	72.4 ✓		
	224.2	87.0 ✓		
	322.6	159.4 ✓	+0.39 ✓	
8 34 30	49.6			

				+1.095 ✓
8 34 50	148.4	91.0 ✓		+0.345 ✓
	239.4	73.3 ✓		1.44 ✓
	332.2			+07 2 ✓
	45.5	164.3 ✓	+0.30 ✓	844
				913 ✓

P. a. zero

	250.2		
	309.2	59.0 ✓	
	67.9	64.0 ✓	
		123.0 ✓	+113 ✓
8 36 50	131.8		

18 40
8 34 40
8 34 30
21137.566

8 40 R. Scuti J.E.B.
est 5.6 (mag.) field glass
est 5.6 " L.C.
R Coronae [illegible]. = 5.9 L.C.

Sept. 2~~7~~5 1916

		P. C. 200		
8 41 50	242.4	58.5		~~10~~
	310.9	63.8		
	76.0			
	~~2~~129.8	122.3	+ 1.14	
		P. C. 200		
	330.3	67.6		
	37.9	87.0		
	150.7	154.6	+ 0.49	
8 44 05	237.7			
				+ 1.09
				+ 0.42
8 44 15	322.0	91.2		1.51
	53.2	70.5		+ 0.76
	154.8			8.41
	225.3	161.7	+ 0.35	9.17
		P. C. 200		
	79.7	47.5		
	127.2	79.5		
	240.3	127.0	+ 1.04	
8 46 25	319.8			
16 35				
8 44 09				
8 43 57				
21132.572				

Sept. 25 1916

		P. G. 202		
8 55 15	63.8	76.2 ✓		V
	140.0	69.6 ✓		
	244.7			
	314.3	145.8 ✓	+ 0.66 ✓	
		P. G. 20		
	152.7	77.0 ✓		
	229.7	94.9 ✓		
	317.7			
8 57 45	52.6	171.9 ✓	+ 0.15 ✓	
				+ 0.690 ✓
				+ 0.215 ✓
8 58 00	148.2	92.8 ✓		0.905 ✓
	241.0	72.5 ✓		+ 0.45 ✓
	331.3			8.41 ✓
	43.8	165.3 ✓	+ 0.28 ✓	8.86
		P. G. 200		
	247.5	69.3 ✓		
	316.8	73.5 ✓		
	66.9			
9 00 05	140.4	142.8 ✓	+ 0.72 ✓	
31 45				
8 57 46				
8 57 36				
2421132.582				

Sept. 25th 1916

P.A. 200

9 02 15 236.4 ~~cont + dis.~~ < Vandis 86.5 ✓
322.9 104.0 ✓
136.4 190.5 ✓
240.4 169.5 ✓ + 0.20 ✓

VI

P.A. 20

47.8 Vandis 100.4 ✓
148.2 81.5 ✓
237.7 ✓
9 04 35 319.2 181.9 ✓ + 0.03 ✓
178.1

~~+ 0.335~~
~~+ 0.125~~
~~460~~
~~+ 0.23~~
~~8.41~~
~~8.64~~

9 04 50 151.4 < Vandis 96.8 ✓
148.2 93.6 ✓
234.4 ✓
328.0 190.4 ✓ + 0.20 ✓
169.6

P.A. 200

134.4 < Vandis 108.6 ✓
243.0 95.9 ✓
328.1 204.5 ✓
9 06 55 64.0 155.5 ✓ + 047 ✓

~~+ 0.135~~
~~+ 0.125~~
~~500~~
~~8.41~~
~~8.41~~

18 30
9 04 38
9 04 28

21132.586

Sept. 25th 1916

		P.G. 200		
9 10 50	144.8	< var. disp.		VII
	235.8	91.0 ✓		
	318.2	111.4 ✓		
	69.6	202.4 ✓	+ 0.43 ✓	
		157.6 ✓		
		P.G. 20		
	232.2	90.0 ✓		
	322.2	85.7 ✓		
	58.7			
9 13 30	144.4	175.7 ✓	−0.08 ✓	
9 13 45	243.3	73.5 ✓		+0 380 ✓
	316.8	98.7 ✓		−0.115 ✓
	53.0		− 0.15 ✓	0.265 ✓
	151.7	172.2 ✓		+0.13 ✓
				8.41 ✓
				8.54 ✓
		P.G. 200		
	324.0	109.6 ✓		
	73.6	87.6 ✓		
	1483.6			
9 16 50	231.2	197.2 ✓		
10 55		162.8 ✓	+ 0.33 ✓	

9 13 44
9 13 34
21132.593

1916phae.proj..617O

Sept. 25th 1916

P. G. 200

9 21 20 329.2 Vardes
63.7 94.5
137.7 96.7
234.4 191.2
168.8 + 0.21

P. G. 20

57.4 88.6
148.0 73.6
243.0 162.2 ∓ 0.34
9 24 20 316.6

9 24 10 67.7
143.4 75.7
239.8 79.8
319.6 155.5 ∓ 0.47

+0.130
-0.405
~~0.535~~
-0.275
-0.138
-0.14
~~0.41~~
0.27

P. G 200

141.1 98.1
239.2 84.3
331.7 182.4
9 26 25 56.0 + 0.05
177.6

15 55
9 23 59
9 23 49
21132.600

Sept. 25th 1916

		P.C. 200		
9 30 40	148.4	81.2 ✓		TX
	229.6	96.4 ✓		
	329.6	177.6 ✓	−0.05 ✓	
	66.0			
		P.C. 20		
	240.2	79.0 ✓		
	319.2	74.0 ✓		
	62.4	153.0 ✓	−0.52	
9 33 50	136.4			
				−0.06 ✓
9 34 00	242.2	64.8 ✓		−0.53 ✓
	307.0	87.0		−0.30 ✓
	52.0	151.8 ✓	−0.54 ✓	8.41 ✓
	139.0			8.11
		P.C. 200		
	328.0	99.3		
	67.5	76.9		
	152.1	176.2	−0.07	
9 36 00	229.0			
18 30				
9 33 38				
9 33 28				
21132.606				

Sept. 25 1916

		P. A. 200		
9 42 20	334.6	75.6 ✓		X.
	49.6	94.6 ✓		
	139.2	169.6 ✓	− 0.20 ✓	
	233.8			
		P. A 20		
	59.6	79.7 ✓		
	139.3	59.4 ✓		
	250.4	139.1 ✓		
9 44 45	309.8		− 0.79 ✓	
				−~~+~~ 0.245 ✓
				−~~+~~ 0.720 ✓
9 45 00±	62.3			0.965 ✓
	137.6	75.3 ✓		− 0.48 ✓
	244.7	70.9 ✓	✓	841 ✓
	315.6	146.2	− 0.65	7.93
		P. A. 200		
	143.6	88.8 ✓		
	232.4	76.2 ✓		
	333.6	165.0	− 0.29 ✓	
9 47 10	49.8			
19 15				
9 44 44				
9 44 34				
21132.615				

Sept. 25th 1916.

P.G. 200

XI.

~~10~~ 9 59 00
153.2
224.2
327.0
56.1

71.0 ✓
89.1 ✓
160.1 ✓

− 0.38 ✓

P.G. 200

247.7
310.2
68.6
133.4
10 01 50

62.5 ✓
64.8 ✓
127.3 ✓

− 1.04 ✓

− 0.445
− 0.915
− 1.360
− 0.68
8.41
7.73

− 0.44 ✓
− 1.02 ✓
− 0.73 ✓
8.41 ✓
7.68 ✓

10 02 10
248.2
304.2
62.3
135.4

~~6~~5 66.0 ✓
73.1 ✓
129.1

− 1.00
~~− 0.79~~

P.G. 200

330.4
54.4
150.7
10 05 0± 279.8

84.0 ✓
69.1 ✓
153.1 ✓

0.57 ✓

8 00
10 02 00
10 01 50

21132.626

Sept. 25th 1916

P.G. 200

10 16 25 334.2 ✓

47.7 73.5 ✓ XII

154.0 72.3

226.3 145.8 ✓ −0.66 ✓

P.G. 20

66.3 ✓

137.4 71.1 ✓

247.0 61.6 ✓

10 19 05 308.6 132.7 ✓ −0.92

−0.62 ✓

10 19 20 72.9 ✓ −0.96 ✓

131.0 58.1 ✓ 158

247.7 70.6 ✓ 0.79 ✓

318.3 128.7 −1.00 ✓ 8.41 ✓

7.62

P.G. 200.

150.6 80.4 ✓

231.0 69.1 ✓

334.7 149.5 ✓ − 0.58 ✓

10 21 20 43.8

36 10

10 19 02

10 18 52

21 32.638

10 35 S.S. Cygni 21 38 43 12in

est 10.6 L.C. ~~10.2~~

est 10.4 7.5 13. 10.0

corr Sept 27th, since 10.0 ★ considered as 10.4 by mistake.

Sept. 25th 1916

		P.G.	200	
10 38 30	161.8	56.8 ✓		XIII
	218.6	86.0 ✓		
	330.7			
	56.7	142.8 ✓	−0.72 ✓	
		P.G.	70	
	253.8	47.4 ✓		
	301.2	~~88 28~~ 84.4 ✓		
	~~330.4~~			
10 41. 00	38.6	~~135.6~~ ✓	−0.94 ✓	−0.825 ✓
		131.8		−0.88 ✓
				−0.85 ✓
10 41 10	143.0			8.41 ✓
	226.2	~~83 2~~		7.56
		~~5.1~~		
	310.3	84.1 ✓		
	75.4	53.4 ✓	−0.82 ✓	
	128.8	137.5		
		P.G. 200		
	~~[illegible]~~			
		~~77~~		
	342.2	59.6 ✓		
	41.8			
	~~5 .4~~	72.8 ✓		
	153.6	132.4	−0.93 ✓	
10 51 0±	226.4			

11 40

10 42 55

10 42 45

21 32.655

Sept. 25th 1916

		P.A. 200		
10 57 10	338.6	71.8 ✓		XIV
	50.4	62.8 ✓		
	161.8	134.6 ✓	−0.88 ✓	
	224.6			
		P.A. 200		
	74.6	50.8 ✓		
	125.4	52.5 ✓		
	255.8	103.3 ✓	−1.58 ✓	
	308.3			
10 59 50				
				−0.865 ✓
11 00 00	71.8	60.9 ✓		−1.540 ✓
	132.7	45.7 ✓		2.405 ✓
	254.7	106.6 ✓	−1.50 ✓	−1.20 ✓
	300.4			8.41 ✓
				7.21
		P.A. 200		
	161.6	58.2 ✓		
	219.8	78.0 ✓		
	335.6	136.2 ✓	0.85 ✓	
11 02 10	53.6			

39 10

10 59 48

10 59 38

21132.667

Spr. 3.8

P.A. ~~XI~~ 195.6

S.T. 23 40

Sept. 25th 1916

S.S. Aurig. 6 05 07

11 10 : est 13.6

SS Cygni 213843 12" Polar

est 10.7' L.C.

11 15 est 10.7' F.E.B.

see note page 82

16 — 1340

224 — 8650

Tues. Sept. 26, 1916

L.C. Ob. 15" E.Eq. F.E.B. Rec.

R Can Ven 13 34 40 ✓
19 47
6 13 W +40.0 +40.0
H.A. 6.08 W
S.T. 19 53

7 12 sec 9.0

S. Serp. 15 17 14
20 00
4 43 W ✓ +14.8
4 43 W
20 01

sec. 9.4

S. Cor. 15 17 31
20 02
4 45 ✓ +31.8
4 47 W
20 05

sec. 13.2

R. Serp. 15 46 15.
20 06
4 20 W +15.6
4 22 W
✓ 20 08

sec. 11.5

X Cor. 15 45 36
20 10
4 25 W ✓ +36.6
4 27 W
20 12

sec. 13.5

Sept. 26^{a} 1916.

~~T~~
~~T~~
Torch

V. Cor. 15 46 39
20 12
4 26
+39.9
4 27 W
20 13
est 10.1
var gen'l Red

U. Sep. 16 02 10
20 15
4 13 W
+10.6
4 13 W
20 16
set 9.2

S.S. Her. 16 28 07
20 17
3 49 W
+7.4
3 52 W
20 21
est 11.8

S.S. Oph. 16 52 02
20 22
3 30 W
3 30 W
-2.4
20 23
est 9.0

T ~~R~~ Ophi 16 28 15 est
20 28
40 -15.8
-15.8
3 58 W
20 27
est 13.1

Sept. 26th 1916.

S. Oph. 16 28 16
20 28
4 00 W
Est. 13.3
Region clear
seeing poor
var. thought to be certainly seen

✓ −16.8
4 0 W
20 30

W. Oph. 16 16 07
20 31
4 15 W
Est. ~~P 2 q~~ R p 2,2 q 13^{m}

✓ −7.3
4 17 W
20 34

R Oph. 17 02 15
20 35
3 33 W
est. 13.3

✓ −15.6
3~~2~~ 34 W
20 37

Z Oph. 17 14 01
20 38
3 24 W
est. $\boxed{11.7}$
~~d 4 e' 7 f~~
d 4 e' | e' 3 f' | f' 4 g' | g' 3 f

R. Scuti
8 04 Est 5.6 f. glass T.E.B. Obs.

Sept. 26th 1916.

R.S. Oph. 17 44 06
20 47 — -6.6
sec 11.3 — 3 03 W ✓ — 3 03 W
20 49

R.S Herc. 17 17 23
20 53 — +23.2
sec 12.1 — 3 33 W. ✓ — 3 34 W
20 52

8 10

R.T. Oph 17 57.11
20 53 — +11.4
sec. a 10 var. if var. is seen. — 3 02 W ✓ — 3 03 W
20 55

Y Drac. 09 31 78
21 00 — +78.4
sec. 13.2 — 11 29 W +78.5 ✓ — 11 32 W
21 05

T. Urs. Min 13 32 73 ✓
21 07 — +74.2
7 35 W. +73.9 — 7 38 W
sec. 11.6 — 21 10

Sept. 26th 1916.

U. Urs. Min 14 15 67
21 11
Est 8.9 finder 6 56 W +67.2 ✓
+67.4
6 58 W
21 14

S. Boötis 14 19 54
21 15
est 12.0 6 56 W +54.2 ✓
+54.4
6 58 W
21:17

S Urs Min 15 33 78
21 19
Est 10.1 5 46 W +78.7 ✓
+78.9
5 46 W
21 20

R. Drac. 16 32 66
21 22
Est. $\overset{2}{1}$1.8 4 53 W +66.9 ✓
+67.3
4 53 W
21 25

V. Drac 17 56 54
21 ~~26~~ 30
Est 11.7 3 3$\overset{5}{4}$ W +55.0 ✓
+5$\overset{5}{\cancel{8}}$.1
3 34 W
21 32

Sept. 26th 1916.

T. Drac. 175458
21 32
3 35 ~~58~~ W +58.2

+58.4
3 42 W
21 35

Est.
T Ŧ 10.3
suspicion var south prec. = 11.5.

RY Her. 175519
21 37
3 42 W +19.5

+19.6
3 44 W
21 40

Est. 10.2

T. Her. 180531
21 40
3 35 W. +31.0

+31.4
3 38 W
21 44

Est 12.6

RY Oph. 180103
21 45
3 34 W +03.5

+3.8
3 34 W
21 47

Est 8.1 in finder

T. Serp. 182306
21 48
3 25 W +6.0

+6.5
3 26 W
21 50

Est 12.9

Sept. 26. 1916.

S. V Scu. 18 22 24
21 50 +25.0
3 28 W +24.8 ✓ 3 32 W
sec 13.7 21 53

R Capr. 20 05 14
21 52 −14.4
1 57 W − 14.6 1 52 W
sec 11.1 ✓ 21 58

Z Aqu. 20 09 06
22 02 −6.4
1 53 W −6.5 ✓ 1 53 W
sec 11.8 22 04

W. Capr. 20 08 22
21 57 −22.2
1 57 W −22.3 1 52 W
0 2, 2p. ✓ 22 01

R U Capr. 20 26 22 ✓
22 05 −21.7
1 39 W −22.5 1 42 W
sec 11.4 22 08

Sept. 26th 1916.

Y Ceph. 21 28 14
22 10
0 42 W -14.4 ✓

-13.9
0 43 W
22 12

sat
9.5 N ~~14.39~~

U Ceph. 20 42 15
22 14
1 32 W $\overline{*}$15.2 ✓

-14.8
1 3$\overset{2}{4}$ W
22 16

~~sat~~
sat. < 13.8

T Aqui. 20 44 05
22 17
1 33 W -5.5 ✓

-5.4
1 36 W
22 21

sat 9.4

Y Aqui 20 39 05
22 22 ✓

sat. 9.5 var.

~~20 40~~
~~22 24~~
~~1 44~~

W. Aqui 20 41 04
22 28
1 47

-4.2
1 47 W
22 28

sat 13.7

Sept 26th 1916

R. R Cap. 20 58 27
2230
1 34 W −27.5 ✓
est. f 21 g

−27.2
1 35 W
22 32

V Cap. 21 01 24
22 33
1 32 W −24.3 ✓
est. 10.0

−24.2
1 34 W
22 37

X Cap. 21 02 21
22 38
1 36 W −21.8
est 12.3

−21.5
1 37 W
22 40

T. Cap. 21 16 15
22 40
1 24 W − 15.5 ✓
est 12.8

−15.4
1 24 W
22 42

+45 —1385
8650

R S. Aquar. 21 05 04
22 42
1 37 W −4
est 11.9

−4.3
1 38 W
22 45

10 04 Clouds.
10 25 Too cloudy to continue with advantage

Wed. Sept 27, 1916

15" E. Eq.

L.C. Obs. F.E.B. Rec.

B's watch
30 sec. slow Too lazy for regular variables

Uranus

21 15 −16.8 phot T
P.G. 160 19 50 7th Cap.

1 25
~~224.8~~ 10 35

7 28 45 336.8 Uran. dia.
46.4 69.6 ✓
154.8 81.9 ✓
236.7 151.5 ✓ − 0.55 ✓

P.A. 340

81.7 ✓ − 1.985 ✓
125.8 44.1 ✓ − 0.610 ✓
259.2 42.6 ✓ − 200 ✓ 2.595 ✓
7 31 50 301.8 86.7 ✓ 1.298
~~1.30~~
~~1.25~~
7.03
5.738

7 32 15 88.8 ✓
121.7 32.9 ✓
254.8 54.9 ✓
309.7 87.8 ✓ − 1.97 ✓ Reject above see note below

7 35
7 31 59
7 32 29 P.A. 160 ✓ − 0.67 ✓
21134. 154.8 76.2 * ~~1.4~~
231.0 69.1 same comp * as last
337.7 145.3 time this 7.03
7 34.45 46.8 Focus on above poor

Sept. 27th 1916

Full apert.

P.A 160

Images much better II.

7 ~~46~~ 52 00	156.2		
	226.0	69.8	
	327.8	76.9	
	44.7	146.7	− 0.64

P.A. 340

	253.6	60.6	
	314.2	44.5	
	81.8	105.1	− 1.53
7 54 35	126.3		

− 0.64
− 1.57
2.28
− 1.14
7.03
5.89

7 54 50	255.4	48.4	
	3083.8	5~~4~~1.8	− 1.65
	75.8	~~90.2~~	− ~~1.91~~
	127.6	100.2	

P.C. 160

	332.7	70.5	
	43.2	6~~8~~9.0	
	158.6	~~141.5~~	− ~~0.9~~ 5
7 56.50	227.6	139.5	0.78
18 15			

−0.71 =
−1.55
1.15
7.03
5.88

7 54 34
7 55 04
2 1134.538

R Coronae F.G. = 6.1 F.E.B.
— — F.G. = 6.0 L.C.

Sept 27, 1916

P.a. 160

III

8 12 40	338.8			
	38.8	60.0 ✓		
	155.7	79.0 ✓		
	234.7	139.0 ✓	−0.79 ✓	

P.a. 340

	~~3~~78.8	50.3 ✓		
	129.1	53.4 ✓		
δ	258.7	✓		
λ 14 45	312.1	103.7	−1.57 ✓	

δ				
λ 15 00	79.7	42.7 ✓		−0.59 ✓
	122.4	59.2 ✓		−1.59 ✓
	250.6	✓	−1.61 ✓	1.09
	309.8	101.9		7.03 ✓
				5.92 ✓

P.a. 160

	151.4	✓	
	234.6	83.2 ✓	
δ	329.8	76.2 ✓	✓
λ 16 45	46.0	159.4	−0.39

9 10
δ 14 48
δ 15 18
21134.552

Sept. 27 1916

		P.G.	~~340~~ 160	
8 29 50	155.2	74.6 ✓		IV
	229.8	81.0 ✓		
	327.8			
	48.8	155.6 ✓	−0.47 ✓	
		P.G.	340	
	252.8	58.4 ✓		
	311.2	47.0 ✓		
	79.7			
8 32 30	126.7	105.4 ✓	−1.53 ✓	
				−0.62 ✓
				−1.56 ✓
8 32 40	254.2			1.10 ✓
	307.7	53.5 ✓		7.03 ✓
	77.8	49.4 ✓		5.93
	127.2	102.9	−1.59 ✓	
		P.G.	160	
	332.2	76.4 ✓		
	48.6	63.2 ✓		
	158.2	~~146.5~~		
8 35 30	~~228.3~~	139.6 ✓	−0.78 ✓	
	221.4			

10 30

8 32 38

8 33 08

21134.565

Sept 27 1916

		P.G. 160		
8 51 30	339.8	70.4 ✓		V
	58.2	73.0 ✓		
	155.2			
	228.2	143.4 ✓	−0.71 ✓	
		P.G. 340		
	79.6	47.1 ✓		
	126.7	49 54.5		
	255.3		74	
8 53 50	305.8	98.6 6	−1.~~69~~	
				−0.505 −1.745
8 54 10	82.6	40.6		2.25
	123.2	55.8		1.12 7.03
	251.6	96.4	−1.75	5.91
	307.4			
		P.G. 160		
	152.8	79.9		
	232.7	84.4		
	326.4	164.3	−0.30	
8 56 15	~~55.5~~			
15 45	50.8			
F 53 56				
F 54 06				
21134.579				

Sept. 27th 1916

Telescope Rev.

		P.G. 160		
9 ~~03 20~~ 04 20	258.8			VI
	310.0	51.2 ✓		
	77.7	51.9 ✓	✓	
	129.6	103.1 ✓	−1.58	
		P.G. 340		
	328.8	81.4 ✓		
	50.2	74.9 ✓	✓	
	156.3	156.3 ✓	−0.45	
9 8 45	231.2			
				−1.575
				−0.410
9 8 55	330.4	73.8 ✓		1.985
	44.2	86.8 ✓	✓	0.99
	149.0	160.6 ✓	−0.37	7.03
	235.8			6.04
		P.G. 160		
	78.3	51.5 ✓		
	129.8	52.2 ✓	✓	
	255.2	103.7 ✓	−1.57	
9 10 55	307.4			
31 55				
9 07 59				
9 08 09.				
21134.589				

Sp. 3.4
P.G. 151.0 A

Sept 27 - 1916

P. a. 160

VII

9 16 55 80.6 44.6 ✓

125.2 52.1 ✓

255.3 96.7 ✓ -1.74 ✓

307.4

P. a. 340

154.6 75.2 ✓

229.8 78.9 ✓

329.9 154.1 ✓ -0.50 ✓

9 19 20 48.8

-1.620

-0.545

2.165

1.08

2.03

5.95

9 19 30 154.8 78.6 ✓

233.4 70.8 ✓

329.4 149.4 ✓ -0.59 ✓

40.2

P. a. 160

254.7 55.5 ✓

310.2 51.0 ✓

78.8 106.5 ✓ -1.5~~7~~0 ✓

9 21 40 129.8

37 25

9 19 21

9 19 31

21134.597

Sept 27, 1916

		P.G. 160		
9 34 10	251.8	55.6 ✓		VIII
	307.4	44.4 ✓		
	80.4	100.0 ✓		
	124.8		−1.66 ✓	
		P.G. 340		
	~~339.8~~	68.6 ✓		
	335.8	703 ✓		
	44.4	✓		
	157.3	138.9	−0.80 ✓	
9 37 00	227.6			−1.695 ✓
				−0.750 ✓
9 38 10	340.8	68.4 ✓		2.445
	49.2	75.2 ✓		1.22
	158.3	✓		7.03
	233.5	143.6	−0.70 ✓	5.81
		P.G. 160		
	81.6	44.8 ✓		
	$1\overset{2}{8}6.4$			
	253.3	52.3 ✓		
9 39 10	305.6	97.1 ✓	−1.73 ✓	

21 34 $.6^{10}$

Sept 27 - 1916

		P. G. 160		IX
9 43 40	~~5~~79.2	46.1 ✓		
	125.3	55.8 ✓		
	253.6	101.9 ✓	−1.65 ✓	
	309.4			
		P. G. 340		
	15~~4~~5.~~2~~6	76.2 ✓		
	231.8	71.0 ✓		
	333.6	✓		
9 46 30	44.6	147.2	−0.63 ✓	
				−1620 ✓
				−0.630 ✓
9 46 45	160.8	67.0 ✓		225 ✓
	227.8	80.4 ✓		−1.12~~4~~ ✓
	330.0	✓	✓	7.03 ✓
	50.4	147.4	−0.63	5.91 ✓
		P. G. 160		
	253.0	55.8 ✓		
	308.8	45.3 ✓		
	79.7	✓		
9 49 00	125.0	101.1	−1.63 ✓	

21134.616

Sept 27 1916

		P.a. 160		
10 3 40	253.3	54.9 ✓		X R
	308.2	51.1 ✓		
	74.8	✓		
	125.9	106.0	−1.51 ✓	
		P.a. 340		
	331.4	74.0 ✓		
	45.4	65.0 ✓		
	162.2	✓		
10 ~~11~~ 6 15	~~230.4~~	139.0	−0.79 ✓	
	227.2			−1.505 ✓
				−0.700 ✓
10 ~~11~~ 6 30	335.2	✓		2.205 ✓
	43.4	68.2 ✓		−1.10
	154.4	79.9 ✓		7.03 ✓
	234.3	148.1 ✓	−0.61 ✓	5.93 ✓
		P.a. 160		
	251.6	58.6 ✓		
	310.2	48.0 ✓		
	78.8	✓		
10 9 35	126.8	106.6	−1.50 ✓	

26 ~~8~~
00
10 06 30
10 07 00
21134.631

Sept 27, 1916

		P.G. 160 ✓		XI
10 18 05	253.6	58.2		
	311.8	50.2 ✓		
	78.6			
	128.8	108.4 ✓	−1.45 ✓	
		P.G. 340		
	334.2	70.6 ✓		
	44.8	72.4 ✓		
	155.4			
10 20 40	227.8	143.0	−0.71	
				−1.575
10 20 50	332.2	✓		−0.600
		76.2		2.175
	48.4	78.0 ✓		1.09
	156.6			7.03
	234.6	154.2 ✓	−0.49	5.92
		P.G. 160		
	78.2	✓		
	124.8	46.6 ✓		
	255.0	51.8 ✓		
10 22 55	306.8	98.4	−1.70 ✓	

130

10 20 38
10 21 08

21134.640

Sept. 27th 1916

		P.G. 160		
10 32 55	79.6	42.7 ✓		XII.
	122.3	54.6 ✓		
	256.2			
	310.8	97.3 ✓	-1.72	
		P.G. 340		
	153.6	78.8 ✓		
	232.4	72.2 ✓		
	332.2	151.0 ✓	-0.56	
10 35 20	44.4			73
				-1.640
				-0685
10 35 35	158.8	68.5 ✓		2~~4~~45
	227.3	70.8 ✓		-1.147
	333.0	139.3 ✓	-0.79	21 -1.~~15~~
	43.8			703
		P.G. 160		~~5.88~~
	251.6	56.8 ✓		5.82
	308.4	3~~4~~9.8		
	82.0		1.74	
10.37 30	121.8	1~~0~~6.6 9	~~-1.50~~	

Sept 27 – 1916

		P.G. 160		
10 43 05	7 4 258.6			XIII
	308.4	51.0 ✓		
	77.7	49.7 ✓		
	127.4	100.7 ✓	−1.64 ✓	
		P.G. 340		
	236.8	71.9 ✓		
	48.7	64.2 ✓		
	162.4			
10 45 45	226.6	136.1 ✓	−0.85 ✓	
				−1.60
10 46 10	335.5	71.9 ✓		−0.725
	47.4	77.0 ✓		2325
	157.8	148.9 ✓	−0.60 ✓	1.16
	234.8			7.03
				587
		P.G. 160		
	77.6	50.2 ✓		
	127.8	53.9 ✓		
	256.2			
10 48 15	310.1	104.1 ✓	−1.58 ✓	

1385

− 208 − 8858

Thur Sept 28-1916

L.C. Obs. 15" Eq.

6 52 Cs watch = 16s fast

Uranus Phot I

21 15 - 16.8

comp * = same as last night

P.a 165°

7 02 50 158.6 < mean dis. I

228.2 69.6

330.2 82.2

52.4 157.8 - 0.54

P.a. 348°

250.0

308.2 58.2

81.6 43.6

125.2 101.8 -1.61

-0.60

256.8 -1.64

304.8 48.0 -1.12

788 51.2 7.03

130.0 99.2 -1.68 5.91

P.a. 160

336.7

50.4 73.7

153.0 71.8

7 10 40 226.8 145.5 - .066

7 06 45

7 06 29

21135.504

Sept 28-1916

		Pa. 160		II
7 16 58	337.6			
	46.8	69.2		
	159.6	67.0		
	225.6	136.2	− 0.85	
		Pa. 360		
	78.4			
	131.8	53.4		
	252.8	51.9		
	304.7	105.3	− 1.53	
				−0.66
			− 1.63	−1.63
	81.3			229
	122.2	40.9		1.14
	252.7	56.1		7.03
	308.8	97.0	− 1.73	5.89
		Pa. 160		
	153.6			
	232.4	78.8		
	329.8	77.2		
7 23 20	47.0	156.0	− 0.46	
10				
7 20 05				
7 19 49				
21135.574				

Sept 28 – 1916

P.a. 160

III

7 36 45 160.4
232.6 72.2
327.8 79.8
47.6 152.0 – 0.54

P.a. 340

256.2
307.3 51.1
82.4 42.0
124.4 93.1 – 1.83

260.8 – 0.615
302.6 41.8 – 1.820
77.7 52.1 2.435
129.8 93.9 – 1.81
1.22
7.03
5.81

P.a. 160

330.4
50.2 79.8
162.0 64.4
7 43 30 226.4 144.2 – 0.69

15

7 40 08
7 39 52
21135.528

~~Sept~~ 28 – 1916

P.a. 160 IV

7 51 15 338.1
46.4 68.3
156.6 74.0
230.6 142.3 – 0.73

P.a. 340

81.6
127.2 45.6
256.0 52.2
308.2 97.8 – 1.71

– 0.72
– 1.65
2.37
1.18
80.8
128.2 47.4 1.18
254.2 55.4 7.03
309.6 102.8 – 159 5.85

P.a. 340

154.6
231.4 76.8
336.4 66.4
7 57 35 42.8 143.2 – 0.71

7 54 25
7 5 11 9
2 11 35 ÷ 5 37

Sept 28 - 1916

~~Sep~~ P.a. 160 V

8 12 25	167.4			
	222.6	55.2		
	332.6	75.2		
	47.8	130.4	−0.97	

P.a. 340

	252.2			
	306.8	54.6		
	82.0	41.3		
	123.3	95.9	−1.76	
				−0.815
	260.2			−1.770
	302.8	42.6		2.585
	82.4	52.4		1.29 7.03
	1~~4~~34.8	95.0	−1.78	5.74

P.a. 160

	327.6			
	49.6	82.0		
	163.0	63.6		
8 20 w	226.6	145.6	−0.66	

8 16 12

21135 ? 5 −3

Sept 28 – 1916

B's watch was 30 sec slow.

PA. 160

VI

8 27 20 330.2
48.4
151.7
231.2

78.2
79.5
157.7 − 0.43

PA. 340

80.6
131.4
260.6
308.9

50.8
48.3
99.1 − 1.68

83.3
125.4
253.6
308.2

42.1
54.6
96.7 − 1.74

~~11~~

− 0.475
− 1.710
2185
− 1.09
7.03
5.94

PA 160

152.6
230.6
332.2
~~43.8~~
47.2

78.0
75.0
~~71.6~~
~~149.6~~
153.0 − 0.52

8 32 10
19 30
8 29 45
8 30 15
21 1 35.362

Sept 28 - 1916

		P.a. 160		VII
8 37 30	158.8	71.2 ✓		
	230.0	78.8 ✓		
	330.6	150.0 ✓		
	49.4		− 0.58	
		P.a. 340		
	255.2	53.6 ✓		
	308.8	49.9 ✓		
	79.8			
	129.7	103.5 ✓	−1.57	
				− 0.605
	254.2			−1.605
	309.8	55.6 ✓		−1.10
	82.2	45.0 ✓		7.03
	127.2	100.6 ✓	− 1.64	5.93
		P.a. 160		
	330.2	85.1 ✓		
	55.3	62.3 ✓		
	161.86	147.4 ✓	− 0.63	
8 42 30	223.9			
8 40 00				
30				
21 35 57 0				
8 45 00		Sel. R. Scuti 5.6 mag f.g.		

J.E.B. obs.

Sept 28 1916

Telescope Rev.

VIII

		P.a. 160		
8 51 45	83.0			
	126.7	43.7		
	255.2	56.2		
	311.4	99.9	−1.66	
		P.a. 340		
	154.8	81.4		
	236.2	70.2		
	334.6	151.6	− 0.54	
	~~148.~~ 44.8			
				− 1.595
				− ~~1~~0.59
	157.7	69.5		2 1 8 5
	227.2	77.1		−1.09
	333.7			7 03
	50.8	146.6	−0.64	5.94
		P.a. 160		
	252.6			
	314.0	61.4		
	80.6	43.8		
8 57 00	124.4	105.2	−1.53	

8 54 22

8 55 $\overset{5}{0}$2

21135.580

Sept. 28th 1916

P.C. 160

IX

9 9 20

257.2
310.0
82.2
129.4

52.8
47.2
100.0

−1.66

P.C. 340

331.6
47.2
158.6
234.4

75.6
75.8
151.4

− 0.55

− 1.65
− 0.56
221
− 1.10
703
5.93

333.3
48.0
157.2
232.7

74.7
75.5
150.2

−0.57

P.C. 160

80.2
127.2
253.6
307.2

47.0
53.6
100.6

−1.64

9 14 30
23 50
9 11 55
9 12 25
21135.592

Sept. 28th 1916

P.G. 160

9 26 00

84.2 41.0
125.2
254.0 58.3
312.3 99.3 −1.67

X

P.G 340

156.6 80.5
237.1
331.8 69.8
41.6 150.3 −0.57

−1.615
−0.575
2.190
−1.10
703
65.93

159.8
228.4 68.6
326.0 81.2 −0.58
~~57.8~~ 149.8
47.2

P.G. 160

251.6 60.1
311.7 44.0
82.0
9 30 45 126.0 104.1 −1.56

9 28 22
9 28 52
.603

Sept 28 – 1916

P.G. 160

XI

9 52 am	255.8	54.8 ✓	
	310.6	50.2 ✓	
	77.8		
	128.0	105.0 ✓	−1.54

P.G. 340

	333.3	73.3 ✓	
	46.6	79.7 ✓	
	155.5		
	235.2	153.0 ✓	−0.52

− 1.605
− 0.475
2080
−1.04
703
−5.99

	328.4	83.8 ✓	
	52.2	73.8 ✓	
	159.8		
	233.6	157.6 ✓	−0.43

P.G 160

	80.6	46.6 ✓	
	127.2	53.0 ✓	
	256.2	99.6 ✓	−1.67
9 56 45	309.2		

9 54 22
9 54 52

6^{22}

Sept. 28th 1916

		P.G. 160		
10 5 40	78.1			XII
	122.6	44.5 ✓		
	252.4	57.8 ✓		
	310.2	102.3 ✓	− 1.60	
		P.G. 340		
	157.2			
	230.0	72.8 ✓		
	335.6	70.3 ✓		
	45.9	143.1 ✓	− 0.71	
				− 1.64
				− 0.72
	158.4			236
	224.2	65.8 ✓		− 1.18
	330.6	762 ✓		703
	46.8	142.0 ✓	− 0.73	* 5.85
		P.G. 160		
	254.2			
	309.8	55.6 ✓		
	82.8	43.4 ✓		
10 11 00	126.2	99.0 ✓	− 1.68	
10 08 20				
10 08 50				
21135.631				

Sept 28 – 1916

P.A. 160

XIII

10 16 45 258.4
310.9 52.5
78.0 50.4
128.4 102.9 – 1.59

P.A. 340

333.6
48.0 74.4
261.6 61.7
223.3 136.1 – 0.85

–1.675
–0.765
2440
–1.22
7.03
5.81

339.0
41.2 62.2
150.6 82.4
233.0 144.6 – 0.68

P.A. 160

80.4
127.6 47.2
260.2 48.7
95.9 – 1.76
10 22 45 308.9

10 19 45
10 20 15
21135.639

[illegible]

Sept. 28th 1916

		P.G. 160		
10 29 20	83.1			XIV
	124.2	41.1		
	253.7	57.3		
	311.0	98.4	−1.70	
		P.G. 340		
	153.4			
	231.8	78.4		
	334.2	70.6	−0.59	
	44.8	149.0		
				−1.59
				−0.74
	158.0	64.8		2.33
	222.8	69.4		−1.16
	336.0	134.2	−0.89	7.03
	45.4			5.87
		P.G. 160		
	250.6	64.1		
	314.7	43.2		
	81.4			
10 33 25	124.6	107.3	−1.48	
10 31 22				
10 31 52				
35.64)				

1916phae.proj..617O

Sept 28 - 1916

o Ceti Phot R.

26
~~22~~ 14 -3.6

23 24

2 50 E

9 10

P.A. 100

~~10 46 00~~ ~~183.8~~

10 47.00 157.8 var. dis.

180.7 28.9

335.3 27.3 -3.01

2.6 56.2

P.A. 2~~7~~80

64.6

94.4 29.8

242.2 30.1

272.3 59.9 -2.86

-2.950

-2.875

2.91

9.19

6.28

65.0

93.1 28.1

242.8 31.0

273.8 59.1 -2.89

L. P.

P.A. 100

660

331.4 31.2

362.6 28.0

154.6

10 53 10 182.6 59.2 -2.89

1385

240-9098

+35 sh made at

Exchange; no abrighton

& Sandusal

= 1420

Mon. Oct. 2—1916

L.O. Obs. 15" Eq. F.E.B. Rec

205204 Minis Car Algol Var. + 4°.4584

ci a = 15 2
slow at 6:30

20 54 + 3.7
19 54
1 0 2

Plot T

✱a = Comp ✱
= +4°.4585 (8.0)

P.a. ~~180~~ 0

) 6.0 129.2 ← Comp ✱ dis
239.2 110.0
313.2 114.6
67.8 224.6 −0.87
136.4

T

P.a. & 180
55.6
136.4 80.8
236.6 72.6
) 12.5 309.2 153.4 +0.51

−0.625
+0.545
−0.080
−0.04

) 13.0 60.6
131.6 71.0
235.8 78.6
314.4 149.6 +0.58

P.a. ~~180~~ 0
138.6
235.5 96.9
319.6 103.2
) 16.6 62.8 200.1 −0.38
8.1 159.9

) 12.0
) 12.2
11.39

Oct. 2, 1916

Same Again. II

P.a. ~~180~~ 0

> 22.4	139.8			
	236.6	95.8		
	311.5	112.3		
	63.8	208.1		
	P.a. 180	151.9	−0.54	
	237.4			
	322.6	85.2		
	62.2	76.4		
7 26.8	138.6	161.6	+0.35	
7 27.4	239.2		ǂ	
	314.6	75.4		−0.500
	60.2	84.4		+0.365
	144.6	159.8	+0.38	.145
				−0.07
	P.a. ~~180~~ 0			
	316.8			
	67.7	110.9		
> 30.6	137.4	93.3		
	230.7	204.2		
		155.8	−0.46	

27.2
} 26.8
} 27.0

P.a. = 182.0 A
Sfr = 4.5

Oct. 2, 1916

Uranus   Plot T.

21 15 −16.8
20 32
0 43 E

P.a. ~~170~~ 0

I

7 42.7   ~~52.6~~
180.2 < Uranus dis
237.7   57.5 ✓
356.3   51.4 ✓
47.7   108.9 ✓ − 1.44

P.a. ~~350~~ 180
~~323.0~~
84.0   63.8 ✓
147.8   72.0 ✓
254.0   135.8 ✓ −0.86
326.0

−1.43
−0.86
2.29
−1.145
6.83
~~5.7~~
5.69

84.8 ✓
154.7   69.9
260.2   65.8 ✓
326.0   135.7 ✓ — 0.86

P.a. 0 ~~P.a. 90~~

179.9 ✓
231.6   51.7
352.7   58.1 ✓
8 ~~50.3~~   50.8   109.8 ✓ − 1.42

#7 46.5   21 13 9   5 33   +0.153

Oct. 2, 1916

B watch used = 50s slow

8 01.1

P. A. ~~170~~ 0

177.4		
236.6	59.2 ✓	
353.7	54.1 ✓	
47.8	113.3 ✓	−1.34

II

P. A. ~~350~~ 180

263.6		
329.2	65.6 ✓	
80.4	72.9 ✓	
153.3	138.5 ✓	− 0.80

−1.275
−0.720
1.99
−1.00
6.83
5.83

254.8		
327.7	72.9 ✓	
78.8	73.9 ✓	
152.7	146.8 ✓	−0.64

P. A. ~~350~~ 0 ~~170~~

354.6		
55.9	61.3 ✓	
178.8	57.8 ✓	
236.6	119.1 ✓	−1.21

8 6.0
8 3.6
8 4.4
211 39.544
8 10.164

R Cor. [illegible] f.g 5.9 ~~T.E.B.~~
R. [illegible] [illegible] f.g 5.9 T.E.B.

Oct. 2 1916

		P. G. ~~170~~ 0		
8 17.1	353.6	5 ✓		III.
	53.3	~~4~~9.7		
	181.3	~~7~~53.9 ✓		
	235.2	183.6 ✓	~~1.57~~	
			1.34	
		P. G. ~~300~~ 180		
	80.2	6		
	146.8	~~8~~66		
	253.9	80.3	−0.64	
	334.2	146.9	~~0.25~~	
				−1.240
				−0.545
	75.3	✓		1.590
	150.0	74.7 ✓		0.795
	257.6	8~~8~~1.6	− 0.45	683
	339.2	156.3		6.03
		P. G. ~~170~~ 0		
	180.6	63.6 ✓		1.240
	244.2	58.8 ✓		0.545
	354.8	122.4 ✓	− 0.114	1.785
f 23.0	53.6			0.89
				683
f 20.0				5.94
~~f 20.8~~				

211 39.556
.176

Oct 2 – 1916

P.a. ~~170~~ 0

IV

8 32.6

17.6.8
237.4 60.6 ✓
352.6 63.0 ✓
55.6 123.6 ✓ –1.11 ✓

P.a ~~350~~ 180

258.8 68.6 ✓
327.4 71.5 ✓
79.2
150.7 140.1 ✓ –0.77 ✓

– 1.045 ✓
– 0.670 ✓
1.715 ✓
– 0.86~~6~~7
6.83
5.97

255.6 78.0 ✓
333.6 72.2 ✓
79.6
151.8 150.2 ✓ –0.57 ✓

P.a ~~170~~ 0

351.0
57.8 66.8 ✓
172.2 69.2 ✓
8 41.0
241.4 136.0 ✓ – 0.98 ✓

736
8 36.8 6
8 37.0
2 11 39.5 68
0.4 88

Oct 2 1916

Telescope Rev.

V

		P. A. 180		
8 58.9	356.8	✓		
	52.2	55.4 ✓		
	181.7	56.7 ✓		
	238.4	112.1	−1.37	
		P. A. 0		
	75.6	✓		
	154.2	78.6 ✓		
	250.6	84.6 ✓		
	335.2	163.2	−0.32	
				−1.51
		✓		−0.36
	75.8	78.1 ✓		1.87
	153.9	81.0 ✓		0.9835
	256.6			683
	337.6	159.1	−0.40	5.89
		P. A. 180		
	182.3	57.1 ✓		
	233.4	49.3 ✓		
	359.3			
9 04.0	48.6	100.4 ✓	−165	

9 01.4
9 02.2
21139.585
0.205

1916phae.proj..617G

Oct 2 - 1916

P.a. 180

VI

9 15.2

181.4
234.8
357.8
49.9

53.4 ✓
52.1 ✓
105.5 ✓ -1.52 ✓

P.a. 0

80.6
149.8
253.7
333.3

69.2 ✓
79.6 ✓
148.8 ✓ -0.60 ✓

-1.500 ✓
-0.645 ✓
2145
-1.07 ✓
6.83 ✓
5.76 ✓

80.1
150.7
256.8
330.4

70.6 ✓
73.6 ✓
1442 ✓ -0.69 ✓

P.a. 180

182.2
234.6
355.2
50.0

52.4 ✓
54.8 ✓
107.2 ✓ -1.48 ✓

9 20.4
35.6
9 17.8
9 18.6
21139.597
.217

Oct. 2 1916

P.G. 180

9 37.5 | 177.2 | 60.0 ✓ | | VII
237.2 | 53.7 ✓
355.5 | 113.7 ✓ | −1.33
49.2

P.G. 0

255.5 | 76.9 ✓
332.4 | 72.6 ✓
74.8 | 149.5 ✓ | −0.58
147.4

−1.425 ✓
−0.468 ✓
1.888 ✓
0.944 ✓
683
5.89 ✓

257.4 | 73.9 ✓
331.5 | 88.4 ✓
72.0 | 162.3 ✓ | −0.34 ✓
160.4

P.G. 180

352.8 | 50.0 ✓
46.8 | 55.7 ✓
177.7 | 105.7 ✓ | −1.52
9 4~~1~~2.9 | 233.4

9 40.2
9 41.0
21139.612
232

New Prism

Ease up Photo circle

Oct 2 1916

		P.G. 180		VIII
9 51.5	359.4	51.8 ✓		
	51.2	52.6 ✓		
	181.8			
	234.4	104.4 ✓	−1.55 ✓	
		P.G. 0		
	82.2	62.2 ✓		
	144.4	69.0 ✓		
	261.4			
	330.4	131.2 ✓	−0.95 ✓	
				−1.50 ✓
				−0.82 ✓
	80.2			2 3 2
	155.2	75.0 ✓		−1.16 ✓
	259.8	69.4 ✓		1.83
	329.2	144.4 ✓	−0.69 ✓	5.67
		P.G. 180		
	184.2	52.6 ✓		
	236.8	56.0 ✓		
	355.4		−1.45 ✓	
9 57.0	51.4	108.6 ✓		
8.5				

9 54.2
9 55.0
2 1139.622
.242

Oct 2 - 1916

P.a. 180 IX

10 14.2 177.2 57.5 ✓
234.7 53.8 ✓
357.4
57.2 111.3 ✓ −1.39 ✓

P.a. 0

261.2 73.0 ✓
334.2 64.9 ✓
~~86.2~~
81.2 137.9 ✓ −0.82 ✓
146.1

−1.29 ✓
−0.78 ✓
2.07
−1.04 ✓
6.83
5.79 ✓

~~P~~

262.3 67.7 ✓
330.6 74.2 ✓
78.2
152.4 141.9 −0.74 ✓

P.a. 180

356.7 59.3 ✓
52.0 60.6
177.8
238.4 119.9 −1.19 ✓

x'
10 19.6
148
10 17.4
10 18.2
2 11 39.637
0.257

Oct. 2 – 1916

		P.a. 180		X
10 24.5	355.6			
		59.2 ✓		
	54.8	54.4 ✓		
	181.2			
	235.6	113.6 ✓	−1.34	
		P.a. 0		
	80.0	66.8 ✓		
	146.8	70.5 ✓		
	259.4			
	329.9	137.3 ✓	− 0.83	
				−1.305
				− 0.825
	83.2	62.6 ✓		2.130
	145.8	75.0 ✓		−1.06
	256.4		− 0.82	6.83
	331.4	137.6 ✓		5.77
		P.a. 180		
	179.6	56.2 ✓		
	235.8	60.2 ✓		
	355.1			
10 29.2	55.3	116.4 ✓	−1.27	
137				
10 26.8				
10 27.6				
21139.644				
264				

Oct 2 - 1916

— —
208 - 218

f Miss Cannons New Algol

2054 + 3.7 Phot T.
2 3 3 x
2 40 w

P.a. 190

III

10 44.5 57.7 109.0 comp * dim.
166.7 92.4
248.4
340.8 201.4 — 0.41
158.6
P.a. 10

~~247.4~~
346.2 ~~180.2~~ ~~179.8~~
66.0 ~~185.0~~ 85.0
161.8 164.8 +0.29
246.8

— 0.405
+ 0.295
— 0.11 0

345.2 ~~89.5~~ 79.5
64.7 ~~44.4~~ 84.4
164.8 163.9 + 0.30 — 0.055
249.2

P.a. 190

~~+0.279~~ 61.6 Spr W = 4.5
164.2 102.6 P.a. 1x89.0A
10 52.5 245.4 98.4 Dec + 5.2
10 48.5 201.0 H.a. 3 12 W
10 49 3 343.8 159.0 — 0.40 ST 23 x 56
21 [illegible] 6 59

Phot T repaired today by Mr Bodin, i.e. circle readjusted therefore nicols prism altered.

Tues. Oct. 3 1916

Chron. 3424 used Miss Cannon Var. Algol.

Var = +4°.4584		P.G. 10		Phot T.
9 50.3	0.6		comp ★ dir.	
	74.4	73.8		L.C.W.
	179.2	82.6		
	261.8	156.4	+0.45	F.E.B. Rec.
		P.G. 190		
	72.8	109.8 ✓		
	182.6	89.4 ✓		
	267.2			
	356.6	199.2		
		160.8	−0.37	
	79.2	97.1 ✓		+0.43
	176.3	103.4		−0.38
	258.8	200.5		0.05
	362.2	159.5	−0.39	+0.02
		P.G. 10		
	184.0			
	258.8	74.8		
	355.5	83.4		
9 55.3	78.9	158.2	+0.41	

Comp ★ = +4.4585 (80)

9 52.8
21140.620

Frod. 3424 = 2^s fast at 9:39

P.G. 9.5
Spr 4.5

Oct 3rd 1916

Phot R.
15'' E. Eq.

L.C. Obs
F.E.B. Rec

G.M.T.	Time h m s	~~Setting~~	Dis Jup I	
	10 1 34	217.8	Comp with nearer Sat on same side =	
5 245	52	299.8	82.0 Sat II	
10 02 1 -2 ~~10~~ 15 01 59	2 10	219.9	80.9	
	25	300.8	162.9	+ 0.32
	38	214.8		
237	53	303.6	88.8	
15 2 59	3 6	218.7	84.5	
15 2 57			173.3	+ 0.13
	20	303.2		
	34	215.3		
213	47	301.4	86.1	
15 03 53	59	212.4	90.9	
15 03 51			177.0	+ 0.06
	4 13	303.3		
	25	216.4	readjusted images.	
198	45	308.6	92.2	
15 4 50 15 4 48	59	210.2	98.7	
	5 9	308.9	199.9 169.1	− 0.20
	23	207.7		
181	37	305.5	97.8	
15 05 45 15 05 43	55	212.3	94.5	
	6 6	306.8	192.3 167.7	− 0.23
	23	214.7		
218	43	305.8	91.1	
15 06 54 15 06 57	7 7	213.4	89.6	
	25	303.0	180.7 179.3	− 0.01
~~15 07 88~~	38	209.8		
~~50~~ 15 07 57	52	302.7	92.9	92.9 85.8 178.7 + 0.03
~~06~~ 2 1 15 07 55	8 3	214.0	~~88.7~~ 181.6	0.03

63-271

Oct. 3, 1916

15	08	13	10	8	15	299.8	85.8	
		25			27	213.4	~~86.4~~	~~+0.14~~
		36			38	299.1	85.7	0.16
		47			49	212.2	87.5	0.09
		58		9	00	301.2	89.0	0.04
	09	13			15	218.4	82.8	0.25
		26			28	297.0	78.6	0.43
		37			39	216.8	80.2	0.37
		48			50	299.0	82.2	0.30
	10	01	10		03	220.7	78.3	0.45
		13			15	292.8	72.1	0.69
		25			27	224.2	68.6	0.83
		34			36	290.3	66.1	0.93
		44			46	227.7	62.6	1.08
		55			57	283.7	56.0	1.37
	11	04		11	06	235.2	48.5	1.73
		14			16	278.6	43.4	1.97
		26			28	240.3	38.3	2.30
		37			39	268.0	22.7	3.04
		48			50	246.4	21.6	+3.60
15	11	58	10	12	00	gone		
				12	30	243.4		20.9
					45	264.3		
15	12	59		~~13~~	~~00~~	~~90~~		$\frac{21.2}{42.1}$ + 3.65
15	12	57		13	16	246.0		
			10	13	26	267.2		

L.V.

~~Bo~~ Flash = 2 secs ~~fast~~ at 10:33

Wed. Oct. 4, 1916

L.C. Obs. 15" E. Eq. Phot R.
H.S.B. Rec

Reap. Jup. III.
Comp. with Sat

Prod. 3424 = 6 faint at 8:34

No. 3424 @ 8.53 Sat. already appeared at 8.53 when observer looked into telescope sat. III already faintly visible and close to limb of Jupiter only other sat. available for possible comparison is Jup. IV, and that is too far off.

Sat. I + II not seen. Observations made through considerable clouds and not of much value.

see next page

16-287

Ft Dav Wed. Oct. 4th 1916

205-204

Chron. #3425 used. Miss Cannon Calcd Var.

var. = + 4.4584 P.C. 10 Plate T.

9 33.1 180.8 comp * dis

261.4 80.6 ✓ L.C. Obs

354.8 84.4 ✓ F.E.B. Rec

79.2 165.0 ✓ + 0.29

P.A. 190

266.2 189.0 ✓

355.2 106.9 ✓

76.0 195.9 ✓

182.9. 164.1 ✓ − 0.30 + 0.415

− 0.365

260.2 101.2 ✓ + 0.050

361.4 101.1 ✓ + 0.025

76.3 202.3 ✓ − 0.43

177.4 157.7 ✓

P.A 10

4.4 71.2 ✓

75.6 80.7 ✓

~~184.8~~ 178.8 157.9 ✓ + 0.54

9 38.6 259.5

11.7

9 35.8

9 35.7

21.41.6 of

Sp. 4.5

P.A. 9.0

Dec. +5°.2

H.A. 2 17 W

S.T. 23

Thurs. Oct. 5, 1916

L.C. Obs. 15ⁱⁿ E. Eq.

~~ci watch~~ used correct 205204 +4° 4584

L.C. Jr. Rec.
Phot T.

~~6 59.5~~ P.A. 10
6 57.5 73.2 ∠ comp * dis Decl Axis East of Pier.
182.8 109.6
96.1
205.7 − 0.49
154.3

~~P.A.~~
259.4
355.5
~~5.4~~

P.A. 190
~~5.4~~
~~177.8~~ − 178.8
~~262.2~~ − 260.0 81.2 − 0.48
~~4.4~~ − 4.2 71.0 + 0.53
~~179.4~~ − 175.2 152.2 + 0.53 + 0.05
+ 0.02
~~P.A.~~

180.8
253.8 73.0
358.6 80.0
178.6 153.2 + 0.53

P.A. 10
74.8
180.8 107.0
260.0 97.4
357.4 204.4
155.6 − 0.47

707.2
7 2 4

Oct. 5, 1916

I

~~B's watch~~
~~18 sec fast~~
~~at 7.30 P.M.~~
Chron. No. 342X (F.)

Eunomia Phot I.
22 22 + 8.4
20 22
2 0 E
F.E.B. obs.

comp. * = + 8°.4870 (28) approx. position 22h 19m.9
See Oct. 10th ob. for magn of +8.4870 = 8.00 + 8°.2 (1855)

		P.G. 20		
~~7 33 15s~~	~~77.3~~	✓		
7 33.8	179.4	74.8 ✓	comp. * dis.	
	254.2	65.4 ✓		
	6.8	140.2 ✓	+ 0.77	
	72.2			
		P.G. 200		
	89.5	✓		
	169.2	79.7 ✓		
	260.2	982 ✓		+ 0.71
	358.4	177.9	+0.04	+ 0.09
				+ 0.40 8.40
	81.3	✓		
	173.2	91.9 ✓		
	269.9	80.4 ✓	+ 0.14	
	350.3	172.3		
21 11 42.525 ✓		P.G. 20		
.520 −.005	4.6	✓		
	73.3	68.7 ✓		
	179.9	77.5		
7 39.2 36.5	257.4	146.2 ✓	+ 0.65	

Oct 5th 1916

II

		P.A. 20		
7 45 20	359.4	79.2 ✓		
	78.6	66.5 ✓		
	186.2			
	252.7	145.7 ✓	+ 0.66	
		P.A. 200.		
	259.3	98.1 ✓		
	357.4	74.1 ✓		
	90.4			
7 48 55	164.5	172.2 ✓	+ 0.175	
				~~+ 0.705~~
				~~+ 165~~
7 49. 10	268.4	80.6 ✓		+ 0.705
	349.~~4~~0	89.9 ✓		+ 0.165
	84.4	170.5 ✓	+ 0.18	0.870
	174.3			+ 0.435
				+ 0.44
		P.A. 20		8.44
	188.2	65.1 ✓		
	253.3	76.3 ✓		
	~~123~~ 0.4			
	76.7	141.4 ✓	+ 0.75	
7 52 5				

35 30

7 48 52

-9

7 48 41

21142.534

+.014

Good 3424
see
9th faint

Oct. 5th 1916

P.G. 20

7 58 01	182.8			///
	256.6	73.8 ✓		
	3.3	73.9 ✓		
	77.2	147.7 ✓	+ 0.62	

P.G. 200

	81.4	✓		
	172.2	90.8		
	271.5	83.9 ✓		
8 00 45	355.4	174.7 ✓	+ 0.08	
				+ 0.705
8 00 58	89.4	✓		+ 0.125
	169.6	80.2		0.830
	262.8	91.9 ✓		+ 0.42
	354.7	172.1 ✓	+ 0.15	. 8.42

P.G. 20

	358.7	✓	
	76.2	77.5 ✓	
	188.8	61.8	
8 03.00	250.6	139.3 ✓	+ .079

2 44
8 00 41
8 00 32
21142.542
+.022

Oct 5th 1916.

		P.G. 20		IV
8 11 25	9.8	63.0 ✓		
	72.8	66.6 ✓		
	186.0	✓		
	252.6	129.6	+ 0.99	
		P.G. 200		
	263.3	91.9 ✓		
	355.2	74.0		
	92.3	✓	+ 0.27	
8 13 50	166.3	165.9	~~- 0.66~~	
				+ 0.970
8 14 05	271.4	77.4 ✓		+ 0.245
	348.8	90.8 ✓		+ 1.215
	83.6	168.2 ✓	+ 0.22	+ 0.607
	174.4			+ 0.61
				F.61
		P.G. 20		
	184.3	68.0 ✓		
	252.3	63.3 ✓		
	6.0	✓		
8 16 25	69.3	131.3	+ 0.95	

15 45
8 13 56
8 13 47
21142.557
+.031

8.35 R Scuti 184205 est fq 5.5 ~~F.S.~~ F.S. B.C.B.

Too poor to observe R Coronae

Oct. 5th 1916.

I.

P.G. 20

8 22 40
190.8
248.7
0.4
71.8

57.9 ✓
71.4 ✓
129.3 ✓ +0.99

P.G 200

~~165.8~~ 270.7
349.2
88.3
8 25 30 ~~170.0~~
169.0

78.5 ✓
80.7 ✓
159.2 ✓ +0.40

+1.015
+0.440
1.455
+0.73
0.73

8 25 55
265.5
353.8
93.3
160.0

88.3 ✓
66.7 ✓
155.0 ✓ +0.48

P.G. 20

184.8
251.9
8.8
~~8 28 10~~ 68.6

67.1 ✓
59.8 ✓
126.9 ✓ +1.04

22 15
8 25 34
8 25 25
2114 2,559
4.039

Oct. 5th 1916

VI

P.G. 20

8 3~~1~~9 ~~38~~22 189.2
250.3
1.7
73.2

61.1 ✓
71.5 ✓
132.6 ✓ + 0.92

P.G. 200

+0.62

85.6
172.2
273.3
8 42 05 349.8

86.6 ✓
76.5 ✓
163.1 ✓ +0.32

+ 0.975
+ 0.415
1.390
+ 0.695
+ 0.70
0.70

8 42 25 95.8
161.6
264.6
352.2

65.8 ✓
87.6 ✓
153.4 ✓ + 0.~~57~~51

P.G. 20

+0.77

7.3
69.3
8 187.7
8 4[illegible] 55 253.2

62.0 ✓
65.5 ✓
127.5 ✓ + 1.03

8 52

8 42 13
8 42 04

2I142.571
+.051

Oct. 5, 1916

P. a. 20

VII

8 55 40 | 5.3 | 69.1 ✓
74.4 | 63.7 ✓
188.5 | 132.8 ✓ | + 0.92
252.2

P. a. 200

272.2 | 72.6 ✓
344.8 | 78.5 ✓
86.1 ?
8 58 25 | 164.6 | ~~141.1~~ ✓ | ~~+ 0.75~~
151.1 | + 0.55

+ 0.965
+ 0.510
1.475

8 58 35 | 266.8 | 80.6 ✓
347.4 | 75.0 ✓
90.2
165.2 | 155.6 ✓ | + 0.47

0 738
+ 0.74
f.74

P. a. 20

186.8 | 62.6 ✓
249.4 | 64.9 ✓
6.6 | 127.5 ✓ | + 1.03
9 01 05 | 71.5

33 45

8 58 26
8 58 17
21142.582
.062

Oct. 5th 1916

		P.A. 20		
9 $0\overset{7}{\cancel{7}}$ 40	189.2	62.1 ✓		VIII
	251.3	62.5 ✓		
	7.7			
	70.2	124.6 ✓	+ 1.09	
		P.A. 200		
	$9\overset{2}{4}.3$	73.9 ✓		
	166.2	87.8 ✓		
	267.3			
9 10 00	355.1	161.7 ✓	+ 0.35	
				+ 1.105
				+ 0.485
9 10 20	90.3	79.1 ✓		1.590
	169.4	68.8 ✓		+ 0.795
	278.4			
	347.2	147.9 ✓	+ 0.62	+ 0.80
				p.po
		P.A. 20		
	9.2	58.2 ✓		
	67.4	65.2 ✓		
	188.8	123.4 ✓	+ 1.12	
9 13 20	254.0			

1 20

9 10 20

9 10 11

21142.590

070

Oct 5, 1916

IX

		P.A. 20		
9 23 5	5.0			
	74.4	69.4 ✓		
	191.7	58.7 ✓		
	250.4	128.1 ✓	+1.02	
		P.A. 200		
	272.3	77.0 ✓		
	349.3	77.6 ✓		
	89.2			
9 26 ~~6~~	166.8	154.6 ✓	+0.49	
				+1.090
				+0.565
9 26 10	270.8			1.655
	349.2	78.4 ✓		+0.83
	95.0	68.3 ✓		8.83
	163.3	146.7 ✓	+0.64	
		P.A. 20		
	187.3	63.9 ✓		
	251.2	57.6 ✓		
	10.2			
9 28 40	67.8	121.5 ✓	+1.16	

23 55
9 25 59
9 25 50
21142.601
4.081

Position for observing becoming increasingly more difficult

Sp. 4.0
P.A. 16 A.
Dec. +8.4
H.A. 0 28 W

Oct. 5, 1916

Telescope Reversed

P. G. 20 H.a. Now W.

X

9 41 40	271.8	73.0 ✓	
	344.8	86.1 ✓	
	83.9		
	170.0	159.1 ✓	+0.40

P. G. 200

	1.8	72.6 ✓	
	74.4	62.9 ✓	
	186.3	135.5 ✓	+0.87
9 44 20	249.2		

~~+ 0.6~~
+ 0.36
+ 0.92
128
+ 0.63
8.63

9 44 40	7.7	64.1 ✓	
	71.8	66.2 ✓	
	188.0	130.3 ✓	+0.97
	254.2		

P. G. 20

	88.6	85.2 ✓	
	173.8	78.2 ✓	
	269.4	163.4 ✓	+0.32
9 47 10	347.6		

17 30
9 44 28
9 44 19
21142.614
+ .094

Oct. 5, 1916

P.a 20

XI

9 53 5 90.2 80.0 ✓
170.2 81.4 ✓
267.6 161.4 ✓ +0.35
349.0

P.a. 200

186.8 66.5 ✓
253.3 66.0 ✓
6.2 132.5 ✓ +0.93
9 57 55 72.2

+0.355
9 58 10 187.6 66.1 ✓ +0.875
253.7 71.5 ✓ 1230
0.3
71.8 137.6 ✓ +0.82 +0.615
562

P.a. 20

265.2 80.1 ✓
345.3 81.1 ✓
89.2 161.2 ✓ +0.36
10 00 30 170.3

---

31 40
9 57 55
9 57 46
2114262 624
+.104

Oct. 5, 1916

		P.a. 20		
10 07 00	270.2	75.7 ✓		XII
	345.9	86.9 ✓		
	87.7			
	174.6	162.6 ✓	+0 33	
		Pa. 200.		
	0.3	73.3 ✓		
	73.6	86.9 ✓		
	186.4			
10 09 35	253.3	140.2 ✓	+ 0.77	
				+ 0 320
				+ 0.775
10 09 50	1.4	70.6 ✓		1 095
	72.0	69.2 ✓		+ 0.55
	185.0			0.55
	254.2	139.8 ✓	0.78	
		Pa. 20°		
	86.4	85.4 ✓		
	171.8	78.2 ✓		
	270.2			
90 11 55	348.4	163.6 ✓	+0.31	
38 20				
10 09 30				
10 09 21				
21142.631				
+.111				

Oct. 5th 1916

Record for work B.

		P.G. 20		
10 27 15	92.2	78.6 ✓		XIII
	170.8	86.1 ✓		
	264.6	164.7 ✓	+0.29	
	350.7			
		P.G 200		
	186.4	68.4 ✓		
	254.8	71.4 ✓		
	0.3	139.8 ✓	+0.78	
10 29 40	71.7			
				+0 275
				+0.760
10 29 55	181.8	72.2 ✓		1035
	254.0	69.3 ✓		+0.52
	4.0	141.5 ✓	+0.74	f.52
	73.3			
		P.C. 20.		
	265.2	86.2 ✓		
	351.4	80.2 ✓		
	90.4	166.4 ✓	+0.26	
10 32 25	170.6			

39 15

10 29 49

10 29 40

21142.646

+.126

Oct. 5th 1916.

		Pa 20°		
10 35 30	270.0	80.6 ✓		XIV
	350.6			
	85.5	87.5 ✓		
	173.0	168.1 ✓	+ 0.22	
		Pa 200		
	7.3	64.9 ✓		
	72.2	71.1 ✓		
	183.6			
10 37 55	254.7	136.0 ✓	+ 0.86	
				+ 0.24
				+ 0.71
10 38 15	- 0.2	76.0 ✓		0.95
	76.2	74.6 ✓		+ 0.48
	183.7			8.48
	258.3	150.6 ✓	+ 0.56	
		Pa 20		
	86.0	88.3 ✓		
	174.3	77.8 ✓		
	270.4			
10 40 40	348.2	166.1 ✓	+ 0.26	

32 20

10 38 05
10 37 56

21142.651
~~+131~~
+.004

Oct 5th 1916

P.A. 20°

XV

49 50
10 ~~50~~ ~~50~~ 86.0 83.0 ✓
169.0 82.2 ✓
267.6 165.2 ✓ + 0.28
349.8

P.A. 200°

181.7 74.3 ✓
256.0 73.8 ✓
4.0 148.1 ✓ + 0.61
10 53 5 77.8

+ 0.165
+ 0.565
+ 0.365
f. 96

10 53 20 182.2 ✓
258.2 76.0
4.1 76.7 ✓
80.8 152.7 ✓ + 0.52

P.A. 20°

81.6 96.6 ✓
178.2 ~~91.3~~
6.0
26~~7.8~~ ✓
10 50 55 ~~355.6~~ 81.0
347.0 177.6 ✓ + 0.05

7 10
10 51 48
10 51 39
21142.661
- 647
.014

272 - 559

Oct. 5. 1916

		P.A. 20°		
11 01 55	86.6			XVI
	~~147.~~	85.9 ✓		
	172.5	85.4 ✓		
	266.8	171.3 ✓	+0.16	
	352.2			
		P.A. 200°		
	184.2	70.8 ✓		
	255.0	67.4 ✓		
	4.3			
11 04 45	71.7	138.2 ✓	+0.81	
				+0.215 ✓
				+0.780 ✓
11 05 00	186.8	68.0 ✓		0.995
	254.8	73.3 ✓		0.497
	3.0	141.3 ✓	+0.75	+0.50
	76.3			8.50
		P.A. 20°		
	266.4	83.6 ✓		
	350.0	82.0 ✓		
	89.8	165.6 ✓	+0.27	
11 07 20	171.8			

19 00

11 04 45

11 04 36

21142.670

.667

.023

Sun. Oct. 8. 196

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

+4°.4584 (20 5 20.4)
20 07
0 45 E + 5.2

Comp * +4°.4585 (8.0) Decl ~~Tel~~ phot axis West of Pier. T

Chrod 3424 = 3^2 fast at 7:00 | P. A. 10

6 59 25   192.4   ✓comp * dis.
249.6   57.2 ✓
5.4   68.2 ✓   I
73.6   125.4 ✓   +1.08 ✓

P. A. 190

267.8   83.0 ✓
350.8   69.7 ✓
98.6
7 2 10   168.3   152.7 ✓   +0.52 ✓

+0.960
+0.5$\overset{7}{6}$5
~~+0.762~~
+0.77

7 2 25   274.2   68.6 ✓
342.8   78.8 ✓
94.0   147.4 ✓   +0.63 ✓
172.8

P. A. 10

7 02 07
21145.501   4.8   71.8 ✓
76.6   64.9 ✓
188.8
7 4 40   253.7   136.7 ✓   +0.84 ✓
7 02 40

Oct. 8 – 1916

II

P. a. 10

7 15 25	4.6	63.2 ✓	
	67.8	67.3 ✓	
	184.4	130.5 ✓	+0.97
	251.7		

P. a. 190

	92.8	74.9 ✓	
	167.7	83.2 ✓	
	266.2	158.1 ✓	+ 0.42
7 18 00	349.4		

+1.025
+0.440
+0.732

7 18 20	92.8	76.6 ✓	
	169.4	79.4 ✓	
	271.8	156.0 ✓	+ 0.46
	351.2		

P. 10

	191.7	59.2 ✓	
	250.9	65.9 ✓	
	6.9	125.1 ✓	+1.08
7 20 25	72.8		

32 10
7 18 02
7 17 59
21145.512

Oct 8 1916

P.G. 10

7 36 35	179.8	77.9 ✓		III
	257.7	60.5 ✓		
	11.2	138.4 ✓	+0.81	
	71.7			

P.G. 190

	266.4	87.3 ✓		
	353.7	71.3 ✓		
	95.3	158.6 ✓		
7 39 05	166.6		+0.41	
				0.845
				+0.440
7 39 17	270.3	70.9 ✓		+0.642
	351.2	84.4 ✓	+0.47	
	84.8	155.3 ✓		
	169.2			

P.G 10

	8.3	62.5 ✓		
	70.8	72.5 ✓		
	184.7	135.0 ✓	+0.88	
7 41 45	257.2			
36 42				
7 39 10				
7 39 07				
2 11 45 ÷ 527				

Oct. 8 – 1916

		P. G. 10		
7 52 03	0.0	78.1 ✓		IV
	78.1	69.5 ✓		
	187.2	147.6 ✓	+0.62	
	256.7			
		P. G. 190		
	91.7	76.7 ✓		
	168.4	70.8		
	270.4		+0.62	
7 54 55	341.2	147.5	~~+0.82~~	
				+0.665
				+0.43
7 55 10	87.3	82.3		+0.54
	169.6	84.8		
	269.4			
	354.2	167.1 ✓	+0.24	
		P. G. 10		
	186.8	69.0 ✓		
	255.8	74.4 ✓		
	2.3			
7 57 20	76.7	143.4 ✓	+0.71	

19 28

7 54 52 8:10 Est R. Leonis 5.6 f.g. 7.5.B

7 54 49 Est R. Com. not seen

21140. 538 due to clouds. 7.5.B

Oct. 8 – 1916

		Pa. 10		V
x0 ^{8} 12 55	183.8			
	256.3	72.5		
	3.4	73.2		
	76.6	145.7	+0.66	
		P.G. 198		
	~~354.2~~			
		~~97.2~~		
	88.4			
	169.8	81.4		
~~8 15 25~~	265.7	86.3		
8 16 45	352.0	167.7	+0.23	+0.610
				+0.235
8 17 02				+0.42
	89.2	80.5		
	169.7	86.9		
	288.2			
	355.1	167.4	+0.24	
		P.G. 10		
	~~256.2~~	~~56~~		
	1.8			
	79.6	77.8		
8 19 27	182.0	73.0		
	255.0	150.8	+ 0.56	
26 09				
8 16 32				
8 16 29				
21145.553				

Oct 8 - 1916

		P. A. 10		
8 36 40	357.8 81.3 182.2 261.4	83.5 79.2 162.7	+ 0.33	VI
		P. A. 190		
8 39 20	85.8 170.8 270.2 356.2	85.0 86.0 171.0	+ 0.17	
8 39 30	85.9 172.2 270.3 357.2	86.3 86.9 173.2	+ 0.13	+ 0.365 + 0.150 0.515 + 0.26
		P. A. 10		
8 41 30	180.8 260.2 358.0 77.7	79.4 79.7 159.1	+ 0.40	

8 41 30
37 00
8 39 15
8 39 12

21145.569

Oct. 8th 1916

P. G. 10

8 44 43 179.8 ✓ — VII

259.2 79.4 ✓

359.8 77.8 ✓

77.6 157.2 ✓ +0.43

P. G. 190

264.8 91.9 ✓

356.7 92.2 ✓

85.0 184.1 ✓

8 47 10 177.2 175.9 ✓ −0.08

+0.44
−0.08
+0.20

8 47 30 263.0 91.8 ✓

354.8 87.0 ✓

85.8 178.8 ✓ +0.02

172.8

P. G. 10

0.4 reject 74.0

74.4 80.4 ← Clouds

179.8 (visit) 154.4 ~~+ 0.49~~

~~8 50 40~~ 260.2

use last set instead of 4th, fewer clds (?) in this one.

8 57 5 356.2 83.6 ✓

79.8 72.8 ✓ 2/3 wt. only

185.8 156.4 ✓ + 0.45

8 57 40 258.6

8 47 42 (31, 03) 8 47 43 21145.575

120 – 679

Oct. 8th 1916

P.C. 10

VIII

9 0~~7~~6 40 359.8
78.7 78.9
182.0 80.0
262.0 158.9 + 0.40

P.C. 190

75.0 Clouds
~~178.0~~ ~~103.0~~ + 0.14
173.7 98.7
266.4 86.9
9 11 50 353.3 185.6
174.4 − 0.11

18 30
9 09 15
9 09 12
~~9 12 05~~
21145.590

93.6
158.2 Clouds

Clds stopped finishing of group.

P.C. 10
above only 1/2 weight, on acct of clds.

9 18 Too cloudy to continue

Sp. 4.5
P.A. 190. a
H.A.
Dec.
S.T. 22 35

Tues. Oct. 10 - 1916

L.C. Obs. 15" Eq. ~~F.B. Rec~~

205 204 + 4.4584
20 17
0 35 E + 5.0

Plot T.

Ci watch used = 32 fast at 7:00

P.a. 190 Decl Axis to W. of Pier

L.C. Rec.

I

6 55.0
266.7 < comp + dis.
355.2 88.5
86.3 90.4
176.7 178.9 + 0.02

P.a. 10
353.8
82.0 88.2
177.2 85.6
262.8 173.8 + 0.12

356.2
+ 0.175
79.7 83.5
− 0.040
178.4 84.2
+ 0.135
262.6 167.7 + 0.23 + 0.07

P.a. 190
84.7
174.0 89.3
261.8 95.9
7 00.5 357.7 185.2
115.5 174.8 − 0.10
6 57.8
6 57.3
21 47.498
2 126

Oct. 10 - 1916

P.a. 190

> 6.0 82.4 II

178.8 96.4

265.6 85.8

351.4 182.2

171.8 — 0.16

P.a. 10

181.0

263.7 82.7

355.9 88.3

84.2 171.0 + 0.17

−0.165

+0.145

−0.01

177.4

263.3 85.9

354.4 87.8

82.2 173.7 +0.12

P.a. 190

262.8

354.4 91.6

84.4 89.6

> 11.8 174.0 181.2

178 170.8 − 0.17

> 8.9

> 8.4

21147.506

65.372

2134

Oct. 10—1916

Pa 190

III

7 24.3

262.2
355.8
84.7
176.7

93.6
92.0
185.6
174.4 — 0.11

Pa 10

358.3
80.2
180.7
263.0

81.9
82.3
164.2 +0.30

−0.07
+0.24
+0.08

354.6
83.6
180.4
261.6

89.0
81.2
170.2 +0.18

P.a 190

83.8
179.2
266.8
352.9

95.4
86.1
181.5
178.5 — 0.03

7 29.7

7 27.0
7 26.5
21147.518
45.372
2.146

renew bulletins

Oct. 10—1916

Prod. 3432

3.5 see fact — Comp * for Eunomia. Plot T.

22 22 +8.4

21 12

1 10 5 +8.4

L.C. Clk

F.E.B. Rec.

Dist +8°4870 (7.8) with +8°4874 (5.8) = 5.82

P. a. 70

7 50 00

21.6 <	— #5.8 diff. = Comp * dis.		
54.7	33.1		
201.1	37.6		
238.7	70.7	+ 2.48	

P. a 250

107.0	46.6	
153.6	46.5	
285.1	93.1	+ 1.83
331.6		

+2.480
+1.895
4.375
+2.19
5.82
8.01

106.2	43.3	
149.5	45.1	
287.6	88.4	+ 1.96
332.7		

P. a 70

203.7	33.7	
237.4	37.1	
20.3	70.8	+ 2.48
57.4		

7 54 55
7 52 28

Oct. 10^{a} 1916

+8.4870 with +8.4874 again

I

P.A. 70

7 59 10 202.2 35.0
237.2 37.6
19.8 72.6 + 2.42
57.4

P.A. 250

287.7 44.3
332.0 44.6
104.2 88.9
148.8 + 1.94

+ 2.320
+ 2.015
4335
+ 2.167

289.7 43.1
332.8 40.6
104.2 83.7 + 2.09
144.8

+ 2.17
+ 2.19
+ 2.18
582

P.A. 70

23.8 40.6
64.4 38.6
198.8 79.2
8 4 25 237.4

magn of +8.4870 = 8.00
+2.22

3 35
8 01 24
8 01 20

δp 9.4
P.A. 68.5 a

Oct. 10 - 1916

+ 4.4584 again

IV

8 23 20 175.2 P.a 10
266.3 191.1 comp * dis
0.2 80.2 ✓
80.4 171.3 ✓ + 0.16

P.a. 190

261.1 91.3 ✓
352.4 93.4 ✓
80.8 184.7 ✓
8 25 ~~25~~ 50 174.2 175.3 ✓ − 0.09

+ 0.165
− 0.155
+ .010
− .005

8 26 5 262.2 96.4 ✓
358.6 95.5 ✓
84.3
179.8 191.9 ✓ − 0.22
188.1 ✓

P.a. 10

359.4 82.9 ✓
82.3 88.3 ✓
171.5 171.2 ✓ + 0.17
8 28 20 259.8

23 35
8 25 54
8 25 50
21147.560
21145.372
2.188

Oct. 10 – 1916

~~Same again~~ ~~V~~

u Cephei Phot T.

00 5 3 | +8 1.8
22 13
2 40 E P.a. 20

8 54 40 14.6 ← var. dis.
68.8 54.2 ✓
184.2 72.1 ✓ I
256.3 126.3 ✓ – 1.06

P.a. 200

92.8 73.9 ✓ – 0.77
166.7 80.8 ✓
268.0 ✓
8 52 50 348.8 154.7 – 0.48

– 0.980
– 0.56
– 0.77
8.41
7.64

8 57 00 90.2 ✓
169.7 79.5 ✓
276.8 67.4 ✓ – 0.64
344.2 146.9

27 35 P.a. 20
8 56 54 – 0.77
8 56 50 187.7 65.7 ✓
21147.581 253.4
47.456 67.9 ✓
+ 0.125 3.3 ✓
8 59 05 71.2 133.6 – 0.90

Oct. 10 — 1916

U Cephei again

9 ~~12~~ 7 40 186.6 64.6 ✓ P.G. 20 II

257.2 63.2 ✓

8.0

71.2 127.8 ✓ — 1.03 ✓

P.G 200

277.6 65.1 ✓ — 0.88

342.7 76.4 ✓

90.4 ✓ ✓

9 10 05 166.8 141.5 — 0.74

— 1.105 ✓

— 0.730 ✓

9 10 15 273.7 74.7 ✓ 1.835

348.4 68.1 ✓ — 0.92

95.7 ✓ 8.41

163.8 142.8 — 0.72 ✓ 7.49

P.G. 20

13.2 ✓ — 0.95

66.7 53.5

184.6 67.2 ✓

9 12 25 257.8 120.7 ✓ — 1.18 ✓

0 25

9 10 06

9 10 02

21147.590

47 45 6

0.134

Oct. 10th 1916

U Cephei – again

P.A. 20

9 23 15 6.4 64.8 ✓
71.2 57.7 ✓
190.5
248.2 122.5 ✓ −1.14

𝍸

P.A. 200

99.2 68.1 ✓ −0.96
167.3 71.0 ✓
272.7
9 25 30 343.7 139.1 ✓ −0.79

−1.185
−0.795
1.980
−0.990
8.41
7.42

9 25 40 92.4 76.3 ✓
168.7 62.4 ✓
279.4
341.8 138.7 ✓ −0.80

P.A. 20

−1.02
192.2 55.5 ✓
247.7 62.8 ✓
7.0
9 27 35 69.8 118.3 ✓ −1.23

22 00
9 25 30
9 25 26

21147.601
47.456
+0.145

Oct. 10th 1916

U. Cephei - again

P. A 20

IV

9 37 50 190.6 56.1 ✓
246.7 49.8 ✓
~~30.~~
13.2 105.9 ✓ - 1.51
63.0

P. A 200

279.2 60.4 ✓ - 1.22
339.6 71.7 ✓
91.6
9 39 55 163.3 132.1 ✓ - 0.94

- 1.430 ✓
- 0.880
2.310
1.16
8.41
7.25

9 40 10 274.4 71.6 ✓
346.0 65.4 ✓
96.2 ✓ - 0.83
161.6 137.0

P. A. 20

- 1.09
12.0 50.8 ✓
62.8 62.2 ✓
187.2 ✓ - 1.35
9 42 20 249.4 113.0
0 15
9 40 04
9 40 00
21147.611
47.456
+0.155

Oct. 10th 1916

N. Cephei - again

P.A. 20

V

9 54 10	6.9		
	67.8	60.9 ✓	
	193.8	50.2 ✓	
	244.0	111.1 ✓	-1.39

P.A. 200

	101.7	61.5 ✓	
	163.2	62.4 ✓	
	277.7		
9 56 30	340.1	123.9 ✓	-1.11

9 56 40	94.6		
	163.6	69.0 ✓	
	278.2	61.6 ✓	
	339.8	130.6 ✓	-0.97

- 1.38
- 1.04
2 4 2
- 1.21
8.41
7.20

P.A. 20.

	192.2	54.9 ✓	
	247.1	57.0 ✓	
	10.4		
9 58 55	67.4	111.9 ✓	-1.37

26 15
9 56 34
9 56 30
21147 622
47 456
+0.166

Oct. 10th 1916

U. Cephei – again

		P.A. 20		
10 11 40	192.2	53.9 ✓		VI
	246.1	55.2 ✓		
	11.1			
	66.3	109.1 ✓	−1.44	
		P.A. 200		
	279.8	57.8 ✓		
	337.6	63.6 ✓		
	98.8			
10 13 50	162.4	121.4 ✓	−1.16	
				−1570
				−1.045
10 14 05	277.2	69.2 ✓		2615
	346.4	63.0 ✓		−1.307
	100.6	132.2 ✓	−0.93	
	163.6			−1.31
				841
		P.A. 20		7.10
	16.2	48.2 ✓		
	64.4	49.9 ✓		
	193.4			
10 16 15	243.3	98.1 ✓	−1.70	

15 50

10 13 58

10 13 54

21147.635

47.456

+0.179

Oct. 10th 1916

U. Cephei

		P. A. 20		
10 38 50	13.7	49.6		VIII
	63.3	46.3		
	197.4	95.9	−1.76	
	243.7			
		P. A. 200		
	103.3			
	158.8	55.5		
		62.7		
	275.7			
10 40 55	338.4	118.2	−1.23	
				−1750
				−1.255
				3.005
10 41 10	99.0	61.2		
	160.2	54.9		−1.50
	283.3		−1.28	
	338.2	116.1		8.41
				6.91
		P. A. 20		
	195.8	44.2		
	240.0	52.5		
	11.3	96.7	−1.74	
10 43 25	63.8			
4 20				
10 41 05				
10 41 01				
21147.653				
47.456				
+0.197				

Oct. 10th 1916

N. Cephei

P. A. 20

VIII

10 53 40	194.0	50.1		
	244.1	47.7		
	15.5	97.8	-1.71	
	63.2			

P. A. 200

	283.3	57.1		
	334.4	59.8		
	97.5			
10 56 45	157.3	110.9	-1.40	
				-1.735
				-1.335
10 56 20	278.0	61.0		-1.535
	339.0	55.3		-1.54
	102.4	116.3	-1.27	8.41
	157.7			6.87

P. A. 20.

	16.4	45.2		
	61.6	50.6		
	194.8	95.8	-1.76	
10 58 35	245.4			

24 40
10 56 10
10 56 06
21(4).664
4) 456
+0.208

Oct. 10 1916

H. Cephei —

P.a. 20

11 7 15 15.5 50.3 IX
65.8 44.7
197.7 95.0: −1.78
242.4

P.a. 200

100.2 54.6
154.8 54.2
282.2
11 9 50 336.4 108.8 −1.45

−1.75
−1.42
3 17
−1.58
8.41
6.83

11 10 10 99.2 60.1
159.3 51.1
284.2 111.2 −1.39
335.3

P.a 20

197.8 45.0
242.8 52.4
12.2 97.4 −1.72
11 12 10 64.6

39 25
11 09 51
11 09 47
21147.674
47.456
+0.218

Sp. 3.7
P.a. 95 A
S.T. 0 46
Ha. 0:8 E
Decl = +81.4

Oct. 10 – 1916

SU Tauri 054319
00 53
4 5 0 2 +19 0
5 10

11 27 Sat. 9.7

Redness = x^2 or a slight tinge of red seen after a long view.

Dis Jup I. Plot R
L. C. Obs

Comp. with mean of three F. & B. Rec
sat. on same side = Sat. II 15'' E. Eq.

Flod 3424 = 0 m 4.2 s fast at 11:30

				Δ Mag	O–C
11 50 48	304.4		11 51 16		
			5 –4		
51 10	36.6	92.2	16 51 12	+0.03	–873 s
27	306.0	86.2			
		178.4			
38	32.2				
53	303.8				
52 06	37.4	93.6	11 52 14		
			16 52 10	–0.01	–815 s
21	305.4	86.9			
		180.5			
35	32.3	179.5			
49	304.6				
53 00	32.8	88.2	11 53 08		
15	305.4	91.7	16 53 04	0.00	–761
		179.9			
28	37.1				
43	302.8				
57	34.2	91.4	11 54 04		
		90.7			
54 10	301.6	182.1	16 54 00	–0.04	–705 s
		179.9			

Oct. 16 – 1916

11 54 27	32.3				
41	307.2				
57	35.4	88.2	11 55 02		
55 11	306.6	82.2	16 54 58	+0.18	-647^{2}
[illegible] 18	29.8	170.4			
35	305.4				
48	31.5	86.1	11 55 55		
56 2	306.9	845	16 55 51	+0.18	-594
14	31.4	170.6			
29	304.8				
44	29.8	85.0	11 56 49		
57	308.9	831	16 56 45	+0.22	-540
57 7	32.0	168.1			
20	307.0				
36	35.8	88.8	11 57 42		
49	306.4	891	16 57 38	+0.04	-487
58 02	35.5	177.9			
17	300.0				
30	32.3	92.3	11 58 38		
43	305.0	86.4	16 58 34	+0.02	-420
59 03	31.4	178.7			
18	302.5				
30	31.1	88.6	11 59 36		
42	303.8	874	16 59 32	+0.06	-37^{3}
55	31.2	176.0			
12 00 06	309.7				
17	32.2	82.5	12 00 24 17 00 20	+0.10	-325
30	300.0	921			
		174.6			

Oct 10 – 1916

12 00 43	32.1					
52	303.2					
01 4	30.4		87.2	12 01 10		
14	302.1		90.2	17 01 06	+0.05	-279
29	32.3		177.4			
42	305.8					
53	30.8	85.0 80.3 165.3	85.0 ✓ ~~80.9~~	17 01 44	+ 0.19	241
02 4	309.9		80.9 ✓	01 54	0.35	231
15	31.2		80.3 ✓	02 06	0.37	219
24	306.8		83.4 ✓	02 16	0.25	209
35	28.6		81.2 ✓	02 26	0.33	199
46	308.8		79.2 ~~80.8~~ ✓	02 36	0.41	189
52	25.3		76.5 ~~83.5~~ ✓	02 47	0.52	178
03 5	309.9		75.4 ~~84.6~~	02 56	0.56	169
17	25.0		73.1 ✓	03 07	0.57	158
30	310.8		74.2 ✓	03 20	0.61	145
38	23.2		72.4 ✓	03 30	0.68	135
50	311.8		71.4 ✓	03 40	0.72	125
04 00	21.1		69.3 ✓	03 51	0.80	114
13	311.9		69.2 ✓	04 02	0.81	103
25	20.2		68.3 ✓	04 15	0.84	90
34	320.1		60.1 ✓	04 26	1.19	79
45	16.8		56.7 ✓	04 36	1.34	69
56	321.2		55.6 ✓	04 46	1.39	59
05 7	16.1		54.9 ✓	04 58	1.42	47
16	322.4		53.7 ✓	05 08	1.48	37
26	16.3		47.9 ✓	05 17	1.76	28
36	326.4		43.9 ✓	05 27	1.98	-18

323 – 1002
1 – 1 ee

Oct. 10 – 1916

12	5	44	10.0	43.6 ✓	17 05 36	+1.99	-9^{2}
	5	55±	327.8	42.2 ✓	05 46	2.07	+1
	6	05	7.3	39.5 ✓	05 56	2.22	11
		12±	328.2	39.1 ✓	06 04	2.25	19
		20	5.1	369 ✓	06 12	2.38	27
		28	337.0	28.1 ✓	06 20	3.01	35
		37	2.2	25.2 ✓	06 28	3.25	43
		45	338.4	23.8 ✓	06 37	+3.38	52
	6	50 *	—	gone	17 06 46	gone	+61
	7	14	339.2				
		26	2.1	L.V. 22.9 21.8 44.7	17 07 26	+3.52	+101
		35	338.2				
		45	0.0				

Fwd. 3424 = 4.$\overset{2}{2}$ fast at 12:12

(Have look at shutter.)

Wed. Oct. 11-1916

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

Eunomia. 22 22 +8.4 Plt T
20 22
2 0 2 +8.4

Comp * = +8.4870(7.8)=8.00

c/watch used
= 1st face at 8.00 on P.A90

I

6.56 30 83.3 ∠comp * dis:
173.6 90.3
263.3 86.3
349.6 176.6 +0.06
P.A. 250

11.6 ~~349.8~~
70.0 ~~83.9 11.6~~ 58.4
184.0 68.8
252.8 127.2 +1.04

+0.140
+0.995
+057
8.00

6.3 66.4
72.7 65.0
186.4 131.4 +0.95 mag 8.57
251.4

R P.A90
87.8
167.8 80.0
265.1 88.4
7 5 40 353.4 48.475 168.4 +022
10 2421148.500

Oct. 11, 1916

Eunomia.

P.a. 70 II

× ×

7 12 0 86.0
175.2 89.2
268.4 81.1
349.5 170.3 + 0.18

P.a. 250

189.6
248.7 59.1
64 66.9
73.3 126.0 + 1.06

+ 0.115
+ 0.990
183.8
254.0 70.2 + 0.55
8.8 62.4 8.00
71.2 132.6 + 0.92 Magn. 8.55

P.a. 70

271.7
345.6 73.9
78.8 ~~80.0~~ 78.8 93.4
7 17 10 172.2 177.3 + 0.05

9 10

7 14 35
7 13 35

21 14 8.510
8.475
+0.035

Oct 11 - 1916

		P.a. 70		III
72240	262.8			
	351.8	89.0		
	89.8	78.8		
	168.6	167.8	+ 0.23	
		P.a. 250		
	9.3			
	71.6	62.3		
	183.3	70.9		
	254.2	133.2	+ 0.91	
				+ 0.240
				+ 1.045
	4.3			1.245
	70.4	66.1		+ 0.64
	193.6	54.6		8.00
	248.2	120.7	+ 1.18	8.64
			magn	
		P.a. 70		
	91.4			
	168.7	77.3		
	265.6	89.2		
72730	354.8	166.5	+ 0.25	

72730
10 10
72505
72605
21148.517
.475
+ 0.042

Oct. 11th 1916

Eunomia

Prod 3424
used from ~~now on~~
= 8.5 ~~sec~~ sec ~~at~~ face 8.00

P. a. 70

IV

7 32 45 85.5
172.2 86.7
271.5 81.8
353.3 168.5 + 0.22

P. a. 250

193.5
248.2 547
55.8 68.4
7 35 15 74.2 123.1 +1.13

+ 0.260
+ 1.065
1.325
+ 0.66
8.00
8.66

*

7 35 25 182.2
255.8 73.6
14.2 55.6
69.8 129.2 + 1.00

P. a. 70

274.0
346.2 72.2
85.2 92.0
7 37 27 177.2 164.2 + 0.30

20 52
7 35 13
7 35 5
21148.524
475
+.049

Oct 11th 1916

Em ——

		P.G. 70		
7 45 25	268.4			V
	355.4	87.0		
	93.3	73.9		
	167.2	160.9	+0.36	
		P.G. 250		
	12.6	54.2		
	66.8	66.5		
	186.3			
7 47 30	252.8	120.7	+1.18	
				+0.360
				+1.175
				1.535
7 47 35	6.6	67.8		
	74.4	53.3		+0.77
	192.7	121.1	+1.17	8.00
	246.0			8.77
		P.G. 70		
	90.8	75.5		
	166.3	85.6		
	265.2	161.1	+0.36	
7 49 50	350.8			

30 20
7 47 35
7 47 27

21148.533
475
.058

Oct. 11th 1916

		P.G. 70		
8 4 36	85.7			
	170.8	85.1 ✓		VI.
	273.2	70.6 ✓		
	343.8	155.7 ✓	+0.46	
		P.G. 250		
	195.6	50.6 ✓		
	246.2	54.8 ✓		
	12.6	✓		
8 6 40	67.4	105.4	+1.53	
				+0.505
				+1.500
8 6 55	191.0	60.6 ✓		+1.00
	251.6	47.1 ✓		8.00
	~~60~~ 16.7			
	6~~7~~3.8	107.7 ✓	+1.47	9.00
		P.G. 70		
	275.9	69.8 ✓		
	345.7	81.6 ✓		
	88.0			
8 9 10	169.2	151.4 ✓	+0.55	

27 21
8 06 50
8 06 42
21148.547
475
+0.072

Oct. 11th 1916

		P.a. 70		
8 12 10	269.2			VII
	348.8	79.6		
	90.5	76.5		
	167.0	156.1	+ 046	
		P.a. 250		
	14.1			
	68.4	54.3		
	188.3	63.9		
	252.2	118.2	+ 1.23	
				+ 0.495
	118			+ 1.380
	70.8	59.0		1.875
	196.8	46.0		0.94
	242.8	105.0	+ 1.53	8.00
				8.94
		P.a. 90		
	95.6			
	163.3	67.7		
	265.8	84.4		
8 17 0	350.2	152.1	+ 0.53	

9 10
8 14 35
8 14 27
21148.557
218.475
0.076

Oct. 11 – 1916

		P. a. 70		
8 2$\overset{6}{7}$ 35	87.4			VIII
	168.3	80.9 ✓		
	270.4	76.4 ✓		
	346.8	157.3 ✓	+0.43	
		P. a. 250		
	191.7	54.6 ✓		
	246.3	58.0 ✓		
	8.8			
8 28.25	66.8	112.6 ✓	+1.36	
				+ 0.3$\overset{7}{8}$5
				+ 1.200
8 28 35	181.8	69.9 ✓		1.5$\overset{7}{8}$5
	251.7	57.3 ✓		+0.79
	11.0			8.00
	68.3	127.2 ✓	+1.04	8.79
		P. a. 70		
	268.3	75.9 ✓		
	344.2	87.2 ✓		
	86.4		+0.32	
8 30 40	~~176.2~~	163.1 ✓		
	173.6			
34 15				
8 28 34				
8 28 26				
21, 48. 561				
0.086				

Oct 11 1916

		P.a. 70		
8 35 00	268.3	85.5		IX
	353.8	77.6		
	89.8			
	167.4	163.1	+0.32	
		P.a. 250		
	11.0	55.8		
	66.8	61.8		
	188.2	117.6		
8 37 25	250.0		+1.25	
				+0.245
				+1.150
8 37 35	3.8	68.9		1.395
	72.7	57.5		0.697
	193.0			
	250.5	126.4	+1.05	+0.70
				8.00
		P.a. 70		8.70
	91.0			
	168.3	77.3		
	262.3	93.7		
8 39 30	356.0	171.0	0.17	
29 30				
8 37 22				
8 37 14				
21148.567				
+.092				

Oct. 11-1916

		P.a. 70		
8 45 35	81.8	88.2		
	170.0	81.0		
	269.0			
	350.0	169.2	+ 0.20	
		P.a. 250		
	189.6	56.0		
	245.6	64.5		
	8.7			
8 47 40	73.2	120.5	+ 1.18	
				+0.235
				+1.120
8 47 50	183.8	69.9		1.355
	253.7	56.1		0.677
	12.2			+ 0.68
	68.3	126.0	+ 1.06	8.00
				8.68
		P.a. 70		
	269.8	76.8		
	346.6	88.9		
	83.3			
8 49 55	172.2	165.7	+ 0.27	
31 00				
8 47 45				
8 47 37				
211 48.575				
+.100				

Oct. 11–1916

		P. a. 70		
8 58 25	264.4			XI
	356.4	92.0		
	86.2	82.4		
	168.6	174.4	+ 0.11	
		P. a. 250		
	10.8	59.8		
	70.6	66.6		
	184.8			
8 58 27	257.4	126.4	+ 1.05	
				+ 0.135
				+ 1.050
8 58 40	6.3			1.185
	75.8	69.5		
	193.2	57.0		+ 0.59 8 00
	250.2	126.5	+ 1.05	8.59
		P. a. 70		
	87.6	83.2		
	170.8	88.1		
	267.2			
9 00 45	355.3	171.3	+ 0.16	
34 17				
8 58 34				
8 58 26				
21148.582				
+.10~~8~~7				

Oct 11th 1916

		P. A. 70		
9 05 30	78.7			
	179.0	100.3 ✓		XII
	269.1	80.7 ✓		
	349.8	181.0 ✓	∓ 0.02	
		179.0 ✓		
		P. A. 250		
	191.8	58.4 ✓		
	250.2	71.8 ✓		
	3.0			
9 7 35	74.8	130.2 ✓	+ 0.97	
				+ 0.00
				+ 0.97
9 7 45	185.8	66.4 ✓		+ 0.48
	252.2	63.8 ✓		8 00
	74.8			
	71.6	130.2 ✓	+ 0.97	8.48
		P. A. 70		
	266.3	83.3 ✓		
	349.6	95.6 ✓		
	77.2			
9 9 45	~~175.2~~	178.9 ✓	+ 0.02	
30 35	172.8			

9 07 39
9 07 31
21148.589
→ +.124

Sp. 8.0
P. A. 70.0
Dsc. +8.4
H. A. 0 28 W

Oct 11-1916

		Pa. 70		
9 15 00	262.6	96.4 ✓		XIII
	35~~9~~9.0	79.4 ✓		
	87.2			
	166.6	175.8 ✓	+ 0.08	
		Pa. 250		
		✓		
	7.8	65.4		
	73.2	70.3 ✓		
	182.8	✓		
9 17 00	25~~8~~3.1	135.7	+ 0.86	
				+ 0.080
9 17 12	7.8	69.0 ✓		+ 0.915
	76.8	61.~~8~~5 ✓		.995
	188.7	130.5 ✓	+ 0.97	+ 0.50
	250.2			8.00
		Pa. 70		8.50
	85.7	82.1 ✓		
	167.8	9~~8~~3.6		
	260.8		+ 0.08	
9 19 5	354.4	1~~5~~5.7	~~+ 0.27~~	
		7		

28 17

9 17 08
9 16 57

2 1148.595
.120

198

Oct. 11 1916

Trod. 3×24

7.5 sec fast at 9.44

Dis. of ♃ Sat. II
comp. with nearest sat. in same side = Sat. III

L.C.Ob.
F.E.B. Rec.
Phot R. 15'' Eq.

~~9 21~~	~~35~~	~~209.6~~					
9 26	57	128.4					
27	16	204.8	76.4				
	30	127.4	80.8			O-C	Δ magn.
	41	208.2	157.2	9.27 21			
				14 27 13		-721	+0.43
	56	124.4					
28	7	207.7	83.3				
				9 28 14			
	20	128.2	75.3	14 28 6		-.668	0.41
	34	203.5	158.6				
	56	125.2					
29	10	206.6	81.4	9 29 19			
	24	129.6	77.2	14 29 11		-603	0.41
			158.6				
	36	206.8					
	51	123.8					
30	4	208.8	85.0	9 30 10			
	16	125.8	84.4	14 30 02		-552	0.20
			169.4				
	29	210.2					
	42	126.0					
	54	207.8	81.8				
31	11	128.1	78.6	9 31 00		-.502	0.37
			160.4	14 30 52			
	31	206.7					
	45	124.2					
	59	210.2	86.0	9 32 06			
32	14	122.4	87.8	14 31 58		-436	0.12
			173.8				
	24	210.2					
	36	124.4					
	46	207.9	83.5	9 32 52		-390	0.24
	58	124.8	83.6	14 32 44			
			167.1				

Oct. 11th 1916

9 33 9	208.4				
24	125.0				
33	207.2	82.2	9 33 38		
44	127.7	79.3	$\overset{a}{14}$ 33 30	−344	0.35
53	207.0	161.5			
34 03	123.8				
17	205.2	81.4	9 34 22		
27	125.9	79.3	14 34 14	300	0.37
39	205.2	160.7			
51	129.0				
35 01	204.3	75.3	9 35 06		
10	128.2	81.9	$\overset{a}{14}$ 34 58	256	0.43
22	210.1	157.2			
32	129.8				
41	205.2	75.4	9 35 48		
52	129.4	80.6	14 35 40	−214	0.46
36 8	210.0	156.0			
19	125.2				
29	208.8	83.6			
40	126.9	79.5	9 36 35	−167	0.32
52	206.4	163.1	14 36 27		
37 02	125.8				
14	207.2	81.4	14 37 00	134	0.33
26	130.4	76.8	12	122	0.50
41	206.9	76.5	26	108	0.52
57	133.3	73.6	38	96	0.61
38 01	205.0	71.7	48	86	0.71
14	135.0	70.0	14 38 00	−74	0.77

Oct. 11th 1916

9	38	23	200.0	65.0	1~~4~~ 38	10	−64	+0.98
		35	134.9	65.1		21	53	0.97
		44	201.0	66.1		32	42	0.93
		53	138.2	62.8		40	34	1.07
	39	02	197.9	59.7		50	24	1.21
		11	139.0	58.9		58	16	1.24
		20	196.0	57.0	39	08	−6	1.33
		31	142.1	53.9		18	+4	1.47
		39	192.0	49.9		27	13	1.66
		52	145.0	47.0		38	24	1.81
	40	01	185.8	40.8		48	34	2.15
		10	149.8	36.0		58	44	244
		20	183.4	33.6	40	07	53	2.60
		30	$1\overset{5}{4}7.0$	26.4		17	63	3.15
		45	180.0	23.0		30	76	3.46
9	40	50	gone		14 40	42	+88	

9 41	~~12~~	~~182.2~~	
	30	152.6	L.V.
	46	185.0	
	55	152.6	
9 42	11	182.9	

32.4
30.3
62.7

9 41 50
14 41 42 +148
276

Almanac G.M.T. of Dis = 14:39:14

Frod 3424 = 7.$\overset{2}{5}$ fast at 9:44

Setting rather difficult due to nearness to Jupiter.

Oct. 11 – 1916

Eunomia. resumed

22 22 +8.4 XIV
23 32
1 10w phot T.

P.C. ~~70~~ 250

9 59 14 91.4 74.4 ✓
165.8 83.3 ✓
265.3
348.6 157.7 ✓ + 0.43

P.C. ~~250~~ 70

179.4 76.2 ✓ + 0.39
255.6 66.4 ✓ + 0.81
6.2 + 0.50^5
10 00 24 72.6 142.6 ✓ + 0.72 8.00
8.50$_5$

10 00 40 184.6 66.9 ✓
257.5 76.8 ✓
~~7~~359.2 ~~155.7~~ + 0.80
76.0 143.7 ✓

P.C. 250

266.0 84.6 ✓
350.6 77.0 ✓
87.7 161.6 ✓ + 0.35
10 4 05 164.7
10 01 06 2114f.626 +0.024
4 23

Oct. 11—1916

		Pa. 250		XV
10 17 12	272.6			
	344.8	72.2		
	86.6	85.9		
	172.5	158.1	+0.42	
		Pa. 70		
	2.8			
	75.6	72.8		
	~~175.4~~	64.8		
	187.0	137.6	+0.82	
10 20 10	257.8			0.435
				+0.780
10 20 25	8.6	64.0		1.215
	72.6	77.6		+0.61
	180.2			8.00
	257.8	141.6	+0.74	8.61
		Pa. 250		
	86.4			
	173.8	87.4		
		69.0		
	273.2			
10 22 45	342.2	156.4	+0.45	
32				
10 20 08				
21148.639				
.602				
.037				

Oct 11-1916

Pa 250

XVI

10 34 00 93.6 70.1 ✓
163.7 81.1 ✓
268.2 151.2 ✓ +0.55
349.3

Pa 70

181.8 68.4 ✓
250.2 64.9 ✓
7.2
10 36 33 72.1 133.3 ✓ +0.91

+0575
0.955
1530
+0.765
8.76

10 36 40 187.4 ✓
60.9
248.3 67.8 ✓
5.0 128.7 ✓ +1.00
72.8

Pa 250

275.5 67.1 ✓
342.6 81.4 ✓
86.2 148.5 ✓ +0.60
10 39 20 167.6

26 33

10 36 38

21148.651
.602
.049

Oct. 11 - 1916

P.a. 70 250

XVII

6
10 4~~5~~ 00 273.8 74.5 ✓
348.3 68.4 ✓
94.9
163.3 142.9 ✓ + 0.72

P.a. 70

7.4
68.3 60.9 ✓
183.8 72.1 ✓
10 48 20 255.9 133.0 ✓ + 0.92

+ 0.67
+ 0.99
1 66

10 48 30 8.8 66.4 ✓
75.2 59.8 ✓
186.4 + 1.06
246.2 126.2 ✓

+ 0.83
8.00
8.83

P.a. 250

95.6 70.0 ✓
165.6 77.8 ✓
269.4
10 50 45 347.2 147.8 ✓ + 0.62

33 35

10 48 24

2 1148.658
602
056

Oct 11-1916

P.a. 250 XVIII

11 2 35 88.4 81.0 ✓
169.4 66.5 ✓
276.8 147.5 ✓ +0.62 ✓
343.3

P.a. 70

187.2 62.3 ✓
249.5 67.5 ✓
7.7
11 5 3 75.2 129.8 ✓ +0.98 ✓

+0.705 ✓
+0.960 ✓
1665 ✓
0.83 ✓
8.00
8.83

11 5 20 177.3 76.3 ✓
253.6 55.6 ✓
13.6
69.2 131.9 ✓ +0.94 ✓

P.a 250

270.4 74.4 ✓
344.8 65.0 ✓
97.7 139.4 ✓ +0.79 ✓
11 7 30 162.7

20 28
11 05 07

21148.670
.602
.068

Oct 11 1916

P.G. 250

11 12 10	276.7			XIX
	341.4	64.7 ✓		
	87.7	81.3 ✓		
	169.0	146.0 ✓	+0.65	

P.G. 70

	6.8			
	78.8	72.0 ✓		
	192.2	56.9 ✓		
11 15 10	249.1	128.9 ✓	+ 1.00	
				+0.695
				+1.040
11 15 25	13.6	55.2 ✓		+0.87
	65.8	70.1 ✓		8.00
	182.1	125.3 ✓	+1.08	8.87
	252.2			

P.G. 250

	92.2	76.8 ✓	
	169.0	64.7 ✓	
	277.6		
11 17 40	342.3	141.5 ✓	+0.74

20 25

11 15 06

21148.677

602

075

Oct. 11-1916

		P.a. 250		XX
11 23 45	96.4	62.4 ✓		
	158.8	74.7 ✓		
	273.3			
	348.0	137.1 ✓	+0.83	
		P.a. 70		
	179.3	77.1 ✓		
	256.4	59.2 ✓		
	11.0			
11 26 25	70.2	136.3	+0.85	
				+0.790
				+0.965
11 26 45	188.6			1755
	247.3	58.7 ✓		
	5.7	66.3 ✓		0.877
	72.0	125.0 ✓	+1.08	+0.88
				800
		P.a. 250		8.88
	277.4	63.3 ✓		
	340.7	77.9 ✓		
	89.9			
11 30 00	167.8	141.2 ✓	+0.75	
26 55				
11 26 44				

21148.685
.602
.083

Oct. 11 - 1916

XXI

P. a. 250

11 38 40	272.4			
	349.2	76.8 ✓		
	94.8	66.2 ✓		
	161.0	143.0 ✓	+ 0.71	

P. a. 70

	12.4			
	70.8	58.4 ✓		
	182.4	75.6 ✓		
11 41 05	258.0	134.0 ✓	+ 0.90	
				+ 0.615
				+ 0.950
11 41 15	6.2	68.8 ✓		1565
	75.0	59.9 ✓		+ 0.78
	187.5	128.7 ✓	+ 1.00	8 [illegible]
	247.4			8.78

P. a 250

	~~163.3~~			
	273.6	69.0 ✓		
	342.6	83.8 ✓		
	~~85.5~~	152.8 ✓	+ 0.52	
11 4~~4~~5 00	89.2			
→	173.0			

6 10

11 41 32

21 11 48.695

602

.093

1427–1429

Oct - 11 - 1916

Pa. 250

XXII

11 57 55 — 265.8 — 82.2 ✓
348.0 — 70.4 ✓
92.4 — ✓
162.8 — 152.6 — + 0.52

Pa. 70

~~67.2~~ 187.8 — 60.2 ✓
248.0 — 73.6
3.8
11 54 50 — 77.4 — 133.8 — + 0.90 ~~+ 1.11~~

+ 0.53 ✓
+ 0.~~89~~ 79

11 55 60 — 180.0 — 81.8 ✓
261.8 — 60.0 ✓
8.6
68.6 — 141.8 ✓ + 0.68

~~1.42~~
1.32
~~0.71~~
~~8.60~~
8.71

Pa. 250

0.66

272.4 — 71.1 ✓ — 8.00
343.5 — .2 — 8.66
88.0 — 80.8 ✓
11 57 10 — ~~170.2~~ — 151.9 ✓ + 0.54
168.8

18 55

11 54 44

21148.705
602
.103

Thur. Oct. 12 1916

15" E. Eq.

Chron. ~~Clock~~ L.C. Obs. Phot T. F.E.B. Rec

Frod. 342K +4°.4584 205 204

= 11s fast at 7:00 20 20

0 32 E +5.0

Dec'l axis to West of Pier.

P.a 190

6 46 5 181.4 ← var. dis.

257.3 75.9 ✓ I

353.7 89.7

83.4 165.6 −0.27

P.a 10

260.8 95.2 ✓

356.0 89.5 ✓

85.8 184.7 ✓

6 49 5 175.3 +0.09

175.3

−0.265
+0.160
−0.105
−0.05

49 15 263.7 89.3 ✓

353.0 102.8 ✓

74.4 192.1 ✓ +0.23

177.2 167.9 ✓

P.a 190

355.6 86.1 ✓

81.7 81.0 ✓

175.8 167.1 ✓

6 57 35 256.8 −0.24

6 49 00 21149.492

Oct 12 – 1916

+4° 4584 again

		P.a. 190		II
7 01 25	358.8			
	77.8	79.0 ✓		
	174.2	88.0 ✓		
	262.2	167.0 ✓	– 0.25	
		P.a. ~~40~~10		
	80.4	96.0 ✓		
	176.4	88.0 ✓		
	263.8			
7 4 35	351.8	184.0 ✓		
		176.0 ✓	+ 0.08	– 0.250
				+ 0.105
7 4 45	83.0	91.2 ✓		– 0.145
	174.2	95.4 ✓		– 0.07
	260.0	186.6 ✓	✓ + 0.13	
	355.4	173.4		
		P.a. 190		
	173.8	90.0 ✓		
	263.8	77.0 ✓		
	1.8	167.0 ✓	– 0.25	
7 6 55	78.8			
17 40				

7 04 25
7 04 14
21149.503

Spr 4.5
P.a. 189 A
H.a. 0 8 W
Decl +5°.2
ΔT. 20 57

Oct. 12 - 1916

Uranus Phot. T.

21 15 - 17.0 7th Cap.

21 08

0 > E

Dec. axis west of pier

P.a. 210

7 34 50 13.4

65.2 51.8 ← Uran. dia.

188.8 64.8

253.6 116.6 -1.27

1

P.a. 30

100.0 63.2

163.2 63.0

279.4 126.2 -1.06

7 37 20 342.4

-1.28

-0.91

2.19

7 37 30 99.4 63.2 -1.10

162.6 77.6 683

269.8 140.8 -0.76 5.73

347.4

P.a. 210

188.8 64.4

253.2 51.0

13.3 115.4 -1.29

7 39 30 64.3

7 37 10 7 37 07 21149.526

Oct. 12-1916

P. G. 210

II

7 53 14

14.8
64.8
191.2
249.3

500
581
1081 -1.46

P. G. 30

94.6
164.3
276.3
340.8

697
645
1342 -0.89

5
7 5~~8~~ 40

-1.430
-0.885
2.315
1.157
-1.16
6.83
5.67

5
7 5~~8~~ 50

99.2
162.8
273.2
344.2

636
710
1346 -0.88

P. G. 210

192.2
251.7
14.7
65.8

595
511
1106 -1.40

5
7 5~~8~~ 5
27 49
7 55 42
7 55 31

21149.539

Oct. 12 - 1916

		P.G. 210		
8 01 25	195.6	49.2 ✓		
	244.8	53.9 ✓		卌
	9.4	103.1 ✓	-1.58	
	63.3			
		P.G. 30		
	278.0	63.8 ✓		
	341.8	60.4 ✓		
	103.3	124.2 ✓	-1.10	
8 03 25	163.7			
				-1.425 ✓
8 03 45	280.2	61.6 ✓		-0.990 ✓
	341.8	73.4 ✓		2.415 ✓
	90.8	135.0 ✓	-0.88	1.207 ✓
	164.2			-1.21 ✓
		P.G. 210		6.83 ✓
				5.62
	5.5	65.3 ✓		
	70.8	51.0 ✓		
	194.7	116.3 ✓	-1.27	
8 05 40	245.7			
14 15				
8 03 34				
8 03 23				
2421149.44				

Oct. 12 - 1916

		P. A. 210		
8 8 30	14.8			IV
	60.2	45.4. ✓		
	195.0	51.6 ✓		
	246.6	97.0 ✓	−1.73	
		P. A. 30		
	94.6	69.8 ✓		
	164.4	62.6 ✓		
	278.4	132.4 ✓		
8 10 50	341.0		−0.93	
				−1.59 ✓
				−0.93 ✓
8 11 00	101.8	60.4 ✓		2.52 ✓
	162.2	71.9 ✓		−1.26 ✓
	273.3	132.3 ✓		6.83 ✓
	345.2		−0.93	5.57
		P. A. 210		
	192.7	58.7 ✓		
	251.4	50.0 ✓		
	14.6	108.7 ✓	−1.45	
8 12 50	64.6			
3 10				
8 10 48				
8 10 37				
21149.549				

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P.G. 210

V

8 19 10   197.5   47.3 ✓
244.8   56.4 ✓
9.8   103.7 ✓   -1.57
66.2

P.G. 30

272.8   71.6 ✓
344.4   69.6 ✓
98.4   141.2 ✓   -0.75
8 21 10   168.0

-1 515 ✓
-0.770 ✓
2.285
1.142
-1.14 ✓
6.83 ✓
5.69

8 21 20   276.2   65.6 ✓
341.8   73.4 ✓
91.4   139.0 ✓   -0.79
164.8

P.G. 210

10.4   57.4 ✓
67.8   50.8
196.0   108.2 ✓   -1.46
8 23 5   246.8

4 45
8 21 11
8 21 00
21149.556

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		P.C. 210		
8 26 40	14.4			
	66.2	51.8 ✓		VI
	190.0	56.0 ✓		
	246.0	107.8 ✓	−1.47	
		P.C. 30		
	93.6	73.2 ✓		
	166.8	65.3 ✓		
	275.3	138.5 ✓	−0.80	
8 28 43	340.6			✓
				−1 525
				−0.8~~4~~60
8 28 55	97.9	65.1 ✓		23~~6~~85
	163.0	67.5 ✓		1.18
	275.3	132.6 ✓	−0.92	−1.19 ✓
	342.8			6.83 ✓
				5.64 ✓
		P.C. 210		
	193.6	54.2 ✓		
	247.8	49.0 ✓		
	13.0	103.2 ✓	−1.58	
8 30 45	62.0			
35 03				
8 28 46				
8 28 35				
2~~11~~49.562				

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		P.G. 230		
8 33 55	196.2	✓		VII
	246.2	50.0		
	11.4	56.6 ✓		
	68.0	106.6 ✓	− 1.50	
		P.G. 30		
	274.2	65.6 ✓		
	339.8	64.8 ✓		
	97.4			
8 36 00	162.2	130.4 ✓	− 0.97	
				− 1.42 ✓
				− 0.88 ✓
8 36 10	276.7	64.1 ✓		2 3 0 ✓
	340.8	75.0 ✓		− 1.15 ✓
	89.8	139.1 ✓	− 0.79	6.83 ✓
	164.8			5.68 ✓
		P.G. 210		
	9.2	59.6 ✓		
	68.8	53.9 ✓		
	192.8			
8 38 00	246.7	113.5 ✓	− 1.34	

24 05

8 36 01 cldz nearby

8 35 50

21149.567

9 30 Too cldy to continue

C

11.0

11 2 B