

KG
11365
615

15-11-11

KG-11365.615

KG 11365.615



Tues. July 18, 1916

RCOb 15" E. Eq. H.E. Branch
Rec.

NH Drac. 113267

Pa. 70°

8.5240

198.4

303.6

~~58.8~~
15.8
122.2

192.4

301.7

27.4

116.4

Electric light -
friction.

105.2 ✓

106.4 ✓

2.116 ✓

148.4 ✓

109.3 ✓

89.0 ✓

198.3 ✓

161.7 ✓

+0.41 ✓

+0.38 ✓

+0.35 ✓

Pa. 250. 300.3

300.3

20.8

144.2

205.8

292.2

292.2

295.6

110.2

202.4

Mean = +0.18

2.94

80.8

91.6

171.9 - 0.15 ✓

172.1

93.4 ✓ - 0.02 ✓

92.2 ✓

185.6 ✓

174.4 + 0.11 ✓

8.59.40

11 50

8 55 55

21063.581

21063.893

0.688

63.58

63.553

-0.028

0.093

Cld nearby.

2

July 18-1916

RA 250

II

9

9 20 clouds

9 30

Too cloudy and useless
to wait longer.

RA 70

Mean = -

Wed. July 19, 1916

P.O. 15" E. H. B. Brasch Rec.

S. U. Drac 113267 Phot T.

P.C. 250 $\frac{1627}{455W}$ ~~8 30.20 106.8~~ ~~aver. dis.~~

I

8 30 50 209.8 comp. dis.

291.6 81.8

> 34.3 $\frac{48.5}{150.3}$

102.8 + 0.57

212.8 + 0.56

> 285.1 72.3

30.8 $\frac{78.4}{150.7}$

109.2 + 0.56

P. Q. 70

mean = +0.61

292.2 91.5

> 23.7 $\frac{56.6}{148.1}$

130.8 + 0.61

~~8 35.00~~ 187.4

+ 0.66

311.3

> 11.4 60.1

119.8 P.30

8 36.30 202.8 $\frac{143.1}{+0.71}$

8 33 40

$$\begin{array}{r}
 21064.565 \\
 \underline{214} \\
 0.351 \\
 \underline{148} \\
 0.417
 \end{array}$$

July 19th 1916

P.G. 70

8 44.30

303.4

15.6

126.8

190.8

72.2

~~84.0~~~~136.2~~

+ 0.85

+ 0.96

+ 0.90

311.6

9.8

122.4

197.0

58.2

73.4

131.8

P.G. 250

30.4

114.8

> 213.4

285.9

84.4

72.5

156.9

Mean + 0.64

+ 8.94

+ 9.58

+ 0.44

+ 0.30

+ 0.37

36.8

112.3

> 206.4

295.3

75.5

88.9

164.4

8 50 00

8 47 15

21064.574

64.214

0.360

64.148

0.426

July 19th 1916

P.C. 250

9 04.30 24.5

$$\begin{array}{r}
 111.6 \\
 \text{H} \quad 288 \\
 213.8 \\
 283.6
 \end{array}$$

$$\begin{array}{r}
 87.0 \\
 69.8 \\
 \hline
 156.8
 \end{array}$$

$$\begin{array}{r}
 + 0.44 \\
 + 0.35 \\
 \hline
 + 0.40
 \end{array}$$
711

$$\begin{array}{r}
 30.8 \\
 115.5 \\
 \rightarrow 207.8 \\
 294.2
 \end{array}$$

$$\begin{array}{r}
 74.7 \\
 86.4 \\
 \hline
 161.1
 \end{array}$$

P.C. 70

$$\begin{array}{r}
 303.6 \\
 15.6 \\
 184.7 \\
 187.3
 \end{array}$$

$$\begin{array}{r}
 72.0 \\
 62.6 \\
 \hline
 134.6
 \end{array}$$

$$\begin{array}{r}
 \text{Mean} + 0.51 \\
 8.94 \\
 \hline
 9.55
 \end{array}$$

$$\begin{array}{r}
 + 0.88 \\
 + 0.76
 \end{array}$$

$$\begin{array}{r}
 \hline
 + 0.82
 \end{array}$$

$$\begin{array}{r}
 308.4 \\
 11.8 \\
 \rightarrow 180.0 \\
 193.9
 \end{array}$$

$$\begin{array}{r}
 73.4 \\
 67.3
 \end{array}$$

9 10.05

193.9

$$\begin{array}{r}
 140.7
 \end{array}$$

9 07 18

21064.588

64.2140.370.14F

0.440

July 19th 1916

P.G. 70

9 18 40

306.8

372.9

127.5

191.4

86

861

63.9

~~140.0~~

130.0

+ 0.90

+ 0.91

IV

307.8

9.6

122.7

193.3

62.8

70.6

133.4

~~0.84~~

+ 0.94

P.G. 250

22.2

113.6

208.6

289.5

91.4

~~95.0~~

80.9

172.3

Mean ~~0.63~~ 0.48

Mean = +0.63

~~8.94~~

9.57

8.94

~~9.52~~

29.6

105.6

212.3

290.4

76.0

78.1

154.1

+ 0.14

+ 0.50

T 0.32

9.24 30

9 21 35

21064.599

64.214

0.385

0.451

July 19, 1916

P. a. 250

9 39 10 27.3
108.4
213.5
286.1

~~88.7~~
81.1
72.6
153.7

+ 0.50
+ 0.54
+
0.52

35.3
107.4
208.3
287.9

72.1
79.6
151.7

P. a. 70

125.5
191.0
306.2
12.5

65.5
66.3
131.8

Mian + 0.58
8.94
9.52

+ 0.94
+ 0.41
+
0.57

119.6
200.3
308.8

80.7
67.6

9 44.30 16.4

158.3

83.40

9 41.50

21064.612

64.214

0.398

0.464

July 19 1916

P.G. 70

10 10 35

126.4

192.5

308.1

~~49.0~~

4.9

66.1

56.8

122.9

+ 1.13

+ 1.04

+ 1.08

+ 1.07

131.3

187.0

301.5

12.8

58.7

71.3

+ 27.0

127.0

P.G. 250

207.4

288.3

38.0

107.6

80.9

69.6

150.5

Mean 0.82

8.94

9.76

+ 0.57

+ 0.52

+ 0.54

213.7

287.7

27.7

106.6

74.0

78.9

152.9

10 16 10

10 13 22

21064.634

5.48

21064.634

0486

Stars a little below center of
field in the above
group may be affected
thereby.

July 19th 1916Shifted sector & replaced
curves into center.

P. A. 250

10 26 20	204.8	90.0
	294.8	75.1
	31.6	
	106.7	<u>165.1</u>

VII

+ 0.28
+ 0.39
+ 0.34

212.2	80.2
> 292.4	749.3
30.8	
110.1	<u>159.5</u>

P. A. 70

124.8	73.8
198.6	58.2
308.4	<u>132.0</u>
326.6	

Mean + 0.59
8.94
9.53
+ 0.94
+ 0.74
+ 0.84

126.8	63.1
189.9	78.7
> 300.3	<u>141.8</u>
10 32 25	18.0

10 29 22
21064.645
148
214
0.497

July 19, 1966.

P. A. 20

10 39.00

124.6

70.7

VIII

195.3

~~310.2~~

309.6

10.4

60.8

+ 0.95

131.5

+ 0.71

+ 0.83

128.6

193.3

64.7

296.6

78.6

15.2

143.3

P. A. 250

Mean + 0.60

29.8

8.94

114.8

85.0

211.4

79.9

291.3

164.9

+ 0.29

+ 0.45

+ 0.38

35.0

103.8

68.8

203.7

87.1

290.8

155.9

10 45 30

10 42 15

21064.654

1.62

2.11

0.440

0.506

July 19, 1916.

P. a. 250

10 51.00 27.4

107.9

211.3

291.4

80.5

80.1

160.6

IX

+ 0.37

+ 0.38

+ 0.38

32.2

103.0

206.3

295.8

70.8

89.5

160.3

P. a. 70

304.8

18.8

132.7

189.2

74.0

56.5

130.5

Mean + 0.62

8.94

9.56

0.97

0.76

0.86

308.0

9.2

115.2 121.8

197.8 201.2

61.2

82.6

61.2

78.4

140.6

10 57.10

10 58.00

210.64 662

148

214

0.448

0.514

July 19, 1916

Pa. 20

X

11 07 10

302.4

16.8

125.9

194.7

74.4

68.8

143.2

+ 0.71

304.8

11.4

121.3

196.2

666

749

141.5

+ 0.74

+ 0.72

Pa. 250

212.6

293.7

32.8

98.8

811

660

147.1

+ 0.63

Mean = + 0.64

894

9.58

217.4

246.2

23.3

108.0

688

847

153.5

+ 0.51

+ 0.57

11 15 00

11 11 05

21064.674

168

244

0.460

0.526

July 19, 1916

PA 250

for XI

11 2310 205.8

295.2

89.4

31.1

74.1

105.2

163.5 + 0.31

210.0

+ 0.28

287.6

77.6

24.7

88.9

166.5 + 0.25

113.6

PA 70

Mean = +0.47

123.3

8.94

198.5

75.2

306.2

65.2

11.4

140.4 + 0.77

127.2

65.9

+ 0.66

193.1

84.9

294.2

150.8 + 0.56

19.1

11 3100

11 2705

21064.685

14.20.471

0.537

July 19, 1916

Pa 20

X 115

114420 114.4

201.6 87.2

300.2 750

157.2 1622 + 0.26

120.8

+ 0.27

195.2

74.4

909

212.9

1653

+ 0.28

23.8

Pa 250

Mean - + 0.06

894
9.00

19.8

112.4

986

207.3

896

296.9

1882

1718

- 0.16

28.2

839

112.1

103.7

- 0.15

198.3

1876

302.0

172.4

- 0.14

115050

114735

21064.700

44

514

0486

0.552

July 19, 1916

PA. 250

XIII

11 54 20

17.0
118.0

208.3

293.4

101.0

85.1

186.1173.9

- 0.11

28.3

112.6

202.0

301.3

84.3

99.3

183.6176.4

- 0.07

PA 70

Mean = + 0.08

294.2

26.4

120.4

192.3

92.6

75.9

168.5

+ 0.22

304.2

18.7

111.4

203.7

74.5

92.3

166.8

+ 0.24

+ 0.25

12 01 30

114.50

11 57 55

21064.707

14.20.493

0.559

July 19, 1916

Pa 70

XIV

12 06 15 295.5

23.2

121.3

200.8

87.7

79.5

167.2 + 0.24

298.6

13.3

110.8

208.0

747

+ 0.20

972

171.9

+ 0.15

Pa. 250

Mean = 000

200.2

301.5

24.8

109.8

101.3

850

186.3

173.7

- 0.12

204.5

295.6

16.1

119.3

91.1

103.2

194.3

165.7

- 0.20

- 0.27

12 14 10

12 10 12

21064.7

54.8

244

0.501

0.567

July 19, 1916

PQ 250

XV

12 19 20

202.2

302.3

23.0

113.0

100.1

90.0

190.1

169.9 - 0.19

208.2

298.2

16.4

118.3

PA 70

90.0

- 0.20

101.9

191.9

168.1

- 0.22

Mean = - 0.07

89.6

8.87

111.4

210.2

300.3

16.2

98.8

75.9

174.7 + 0.10

119.2

200.0

290.3

29.3

80.8

+ 0.06

99.0

179.8

+ 0.01.

12 2600

~~12~~ 25 20

12 22 40

21064.7245

21064.7245

0.510

0.576

PA 72.2

8.5

Refair light key record

Close 6" Down

Led. Plot.

Tuesday August 1, 1916.

L. C. Ober, 15" Eq.

J. O. R.

10 30

R of Sagitt 191033 est ³ S 4.2 t var
var faint barely seen

21078

Wed Aug. 2, 1916

LC Ob. 15^h 5^m 7.00 Per~~RR Virg.~~ 135700 est 13.5

RR Virg. 3 10 W - F. 8

Z Virg. 140512 est 9.1V Librae 143417 est 9.8X Librae 153020 est 13.2U Librae 153620 est 13.5Z Bootis 140113 est 13.8
(13.4) 4 VarRS Virg. 142205 est 9.5
~~142205~~U Bootis 144918 est 10.4Z Librae 154020 est 12.1R Librae 154715 est 11.1Z Scorpii 160021 est < 12.4R Z Scorpii 155823 est 9.7X Scorpii 160221 est 13.5

difficult

Aug. 2, 1916

W Scorpii 16 05 19 est 9.3 20

R X Scorpii 16 05 24 est 10.2

9 00 ~~R S~~ Scorpii 16 11 22 est 13.5

R Scorpii 16 11 22 est 13.5

W Oph. 16 16 07 est X³ 2y 14th

Y Scorpii 16 23 19 est 11.2

T Oph. 16 28 15 est n 5 var

S Oph. 16 28 16 est n 3 25
13.5th

RR Oph 16 43 19 est 13.0

SS Oph. 16 52 02 est 11.7

1952

25-1143

R Sagittae 2 00 9/16 Abandoned

Sky too poor & Observer's boil
too sore to make further

observing hardly worth while

Bd
10/1

J21087

Fri Aug 11, 1916

Alb

H.R. Branch Res
15" E. Eq.

S Libras 15-15-20 est.

17 35

Twilight too
strong

2 20W - 20.0

set 8:05

7:50 East

17:25 N.T.

9.2 set.

R. S. Libras 15-18 22

12.0 set

R. U. Libras 15-27 14

10.9 set.

T Can. Vsu. 12 25 32

10.6 set.

Y. Draconis 09 31 78

10.4 set.

18 12

9

8 41W + 70.3

R. Uro. Maj 10 37 69

11.8 set.

18 17

7.40 69

R. Can. Vsu. 13 44 40

9.9 set.

18 20

4.36

Aug 11th 1916

X Cor.	15 45 36
	18 28

9.0 M.T.

10.6 sec.	2 43
-----------	------

W. Cor. Bor.	16 11 38
	18 34 40
8.5 sec.	2 39 29

W. Herculis	16 31 37
	18 41
13.1 sec.	2 10

R.V. Herculis	15 16 16 58 31
	18 47
13.8 sec. var. strongly seen.	1.51

R. J. Oph.	17 51 11
	18 51.
sec. \angle 13.0	1.00

X S. S Cygni	21 38 43
	189 00
11.6 sec	2 38

X Peg	21 16 14
	19 04
10.5 sec.	2 12

11.4 8 (13.7) 2 (12.2) 4 (12.7) 0 12 5 (3.5)

13.7 = star queried by HCB Jr.

Aug 11, 1916.

R Rarentoe 22 38 41

19 18

12.7 sec

3 20 2 + 41.8

Z And. 23 28 48 ext

19 25

9.8 sec

4 02 + 48.3

S. J And. 23 33 35

19 30

8.8 sec

4 03

2 Cas.

23 39 56

10.4

19 32

4 07

R R Cas.

23 50 53

11.7 sec

19 38

4 12

R Cas

23 53 50

12.8

19 40

clashes off. region

4 13

10:10

Too elderly to cont. with adv.

20-1163

R.P.P.

Saturday August 12, 1916

L.C. Obsr. 15" Eq., J.O.O. Res

7 58

SS Cygni 213843 est 11.9

Clock used = 16" slow at 8:35

SA Draconis 113267

1A 02

Phot T.

630W + 675

8 28 20

P.A. 70

198.8 *var dis*

301.4

102.6

12.8

108.6

121.4

211.2

149.4

+ 0.59

24210 88.562

87.924

0.638

P.A. 250

296.6

Mean = - 0.02

16.2

79.6

89.4

124.4

68.3

8.92

8 32 50

87.30 35

23

192.7

147.9

- 0.62

8 31.0

P.A. 250

8 37 25

305.1

- 0.63

13.3

68.2

+ 0.66

119.2

78.5

+ 0.02

197.7

146.7

- 0.64

24210 88.569

87.920

0.645

P.A. 70

Mean =

10.0

116.6

+ 0.04

126.6

101.1

89.4

198.5

217.7

8.98

299.6

142.3

+ 0.73

8 40 50

Mean = 87.39.08
87.39.44

Aug. 12, 1916

8 44 80

P.A. 70	103.1	
16.7	107.9	
119.8	211.0	
192.7	149.0	+ 0.59
300.6		

III

8 47 15

P.A. 250	7 P. 0	Mean = -0.07
119.4	640	P. 94
197.4	142.0	P. 87
304.8		- 0.73
8.8		

8 45 38

11 15	24210 P. 574	+ 0.66
54	87.924	- 0.79
8 46 32	0.650	- 0.02
		89.8
		8.92

8 49 30

P.A. 250	65.9	
124.4	800	
190.3	145.9	- 0.66
299.4		
19.4		

IV

8 51 30

P.A. 70	110.5	+ 0.04
193.2	107.8	P. 94
303.7	218.3	P. 92
13.6	141.7	+ 0.74
121.4		

8 51 30

1 14	
8 52 44	
24210 P. 578	
87.924	
0.650	

Aug. 12, 1916.

P.A. 70

V

9 00 45

198.0

302.8

11.0

124.8

104.8

113.8

218.6

141.4

+0.75-

2421088.585
88.585

0001

P.A. 250

300.1

368.0

122.8

196.9

67.9

741

142.0

+0.01

894

895

-0.73

9 03 05

9 01 55

9 03 19

P.A. 250

9 05 20

308.4

9.8

120.5

202.8

61.4

823

143.7

-0.72

+0.62

-0.72

-0.05

8.94

8.89

P.A. 70

195.6

300.7

20.8

121.6

105.1

1008

205.9

154.1

+0.50

-0.10

894

8.84

9 07 50

9 06 35

1 32

9 08 07

2021088.589

88.585

0.005

Aug. 12, 1916

~~40~~ P. 9.70 VII

9 31 40 → 197.7
 300.6
 15.4
 124.8

102.9
109.4
 212.3
147.7 + 0.62

P. 9.250

299.8
 17.4
 118.3
 200.4

77.6
221
 159.7 + 0.12
 2.94
9.06 magn. - 0.39

9 34 25
 6 05
 9 33 02
 9 35 22

24210 ~~88.607~~
~~88.584~~
 0.023

P. 9.250 VIII

9 38 20 305.6
 14.2
 111.8
 200.3

68.6
88.5
 157.1 - 0.44

+ 0.63
 - 0.42
 + 0.10
 8.94
9.04

P. 9.70 + 0.10

15.0
 124.2
 196.8
 300.9

109.2
104.1
 213.3
146.7 + 0.64

9 41 20
 9 39 53
 9 42 23
 24210 ~~88.613~~
~~88.584~~
 0.029

Obs. becoming increasingly diff.

Aug. 12, 1916

Pa. 70

IX

9 54 0

16.2

119.3

103.1

197.3

110.8

308.1

213.9

146.1

+ 0.65

Pa. 250

120.3

+ 0.10

201.7

81.4

89.4

303.6

74.59.04~~9~~ 59 0

18.1

155.9

- 0.46

9 56 30

2421088.625

88.574

9 59 33

0.041

Pa. 250

+ 0.59

10 06 50

120.7

- 0.40

200.4

79.7

296.8

82.0

+ 0.10

18.8

161.7

- 0.35

9.04

Pa. 70

+ 0.09

194.0

89.4

300.3

106.3

9.03

16.0

101.4

10 09 40

117.4

207.7

+ 0.53

16 30

152.3

10 08 15

2421088.635

88.574

10 11 29

0.051

Aug. 12, 1916

PA 70

XI

10 16 05

187.3

803.6

16.9

126.2

116.3

109.3

225.6

134.4

+ 0.89

PA 250

2421088.646

88.584

0.056

112.4

199.8

302.1

18.1

87.4

76.0

163.4

+ 0.28

89.4

9.22

- 0.32

10 19 10

10 17 38

3 42

16 21 20

PA 250

XII

10 19 35

120.6

199.8

295.0

19.8

79.2

84.8

164.0

- 0.30

+ 0.84

- 0.31

+ 0.26

89.4

9.20

PA 70.

~~194.4~~

300.2

12.4

127.8

~~194.4~~

105.8

105.4

221.2

138.8

+ 0.25

194

9.19

+ 0.80

Revised.

10 22 40

10 24 40

15

10 24 56

10 24 56

2421088.642

88.584

0.056

Clock = 4^m 24^s slow at 10:40

PA 70

Sfr 3.5
each 16 inch
combined into
one group
with a 300

Repair Photometer Cord

Mon Aug. 14, 1916

R.C.D. Phot T on 15"

SS Cygni 21 38 43 T.O.O. Rec

$$\begin{array}{r} 09 \\ \text{Comp } \# - 443.4030 = 1.92 \end{array}$$

17 55

3 4 3 2 + 4 3 0 est 11.1

Phot T

P.A. ~~90~~ Comp $\# = \# C (2.5)$

P.A. 90

08 27 58

43.3

comp. star dis

95.8

52.5

233.6

40.5

274.1

930 +

P.A. 270

8 32 26

104.6

219.2

66.8

285.2

674

36.6

133.4

8 33 26

104.0

P.A.

207.2

294.3

35.2

104.8

88.1

68.6

156.7

P.A. 90

134.0

192.8

58.8

298.2

76.2

8 38 26

14.4

135.0 +

Dome cuts off

Aug. 14, 1916.

P.A.

II~~8 5426~~~~134.2~~~~198.6~~

P.A. 100

8 58 13

~~231.4~~~~273.2~~~~46.2~~~~91.2~~

P.A. 1280

Reject

Impossible to proceed
with Plot T.
setting to circulate

9 05

est 11.1

see next page
for meas. with Plot R.

Aug 14, 1916.

09 11 42 P.A. 280 Phot R. I
 200.4 < comp star dis
 298.4
 25.2
 114.3

$$\text{Comp}^* = * 10.9$$

P.A. 100

$$\begin{array}{r} 98.0 \\ 99.1 \\ \hline 187.1 \\ 172.9 \end{array}$$

- 0.13

123.4

204.3

297.2

25.1

20.9

87.9

168.8 + 0.21

9 16 24

9 16 49

115.2

205.5

301.5

23.3

90.3

81.8

172.1 + 0.13

+ 0.18

P.A. 280

30.6

104.4

202.8

294.4

73.8

91.6

165.4 + 0.28

- 0.13

+ 0.08

09 20 37
 25 32

09 16 23

21090.

$$\begin{array}{r} \text{Mean} = 10.19 \\ 10.91 \\ 10.09 \\ \hline 11.03 \\ 50 \end{array}$$

Procl 3424 used = correct all

Aug 14, 1916

P.A. 280

9 39 27

$$\begin{array}{r} 28.8 \\ 117.2 \end{array} \leftarrow \text{comp star dis}$$
II

205.3

28.4

298.2.8

+ 75

175.9

+ 0.08

P.A. 100

298.2

19.3

21.1

113.8

94.8

9 43 56

208.6

175.9

+ 0.08

9 44 39

300.7

+ 0.23

22.4

21.7

122.8

78.4

201.2

160.1 + 0.38

P.A. 280

~~II~~

206.7

300.2

93.5

27.7

84.3

9 49 20

112.0

177.8

+ 0.04

17 22

+ 0.08

+ 0.06

+ 0.23

+ 0.14 mean

10.9

11.04

9 44 20

21090.

Aug. 14, 1916

PA. 280

III

10 08 20

209.2 / comp star dis
295.3

24.6

119.8

95.2

181.3

178.7

- 0.02

PA. 100

114.2

207.6

292.2

10 11 26

20.4

93.4

88.2

181.6

178.4

- 0.03

PA 100

10 11 45

117.2

203.7

294.2

24.8

86.5

90.6

177.1

+ 0.01

+ 0.05

PA. 280

~~23.6~~

110.6

209.0

294.8

87.0

85.8

172.8

+ 0.14

- 0.02

+ 0.06

+ 0.01

+ 0.04

10.9

10.9

10 15 30

7 01

10 11 45

21090.

10^h 20 est 11.0

Aug. 14, 1916

P A 280

IV

10 51 11

28.8 / comp star dis

106.9	72.1	72.1	
206.0	82.7	83.7	
28.9.7	160.8	161.8	+ 0.35

P, A, 100

10 54 51

296.0			
20.8	84.8		
115.4	<u>82.4</u>		
197.8	167.2		+ 0.24

P A, 100

10 55 22

298.0			+ 0.23
22.4	84.4		
118.3	<u>84.1</u>		
202.4	168.5		+ 0.22

P A, 280

10 59 22

207.3			
291.2	83.9		
26.4	<u>85.2</u>		
111.6	169.1		+ 0.20

+ 0.35
+ 0.28
+ 0.26
+ 0.26

11^h 05^m est 10.8

10.90
<u>11.16</u>

Aug 14, 1916

P. A, 280

11 08 46

128.0 \angle comp star dis

205.3

77.3

296.6

1011

37.7

178.4

+ 0.03

V

P. A, 100

30.0

120.0

900

217.4

77.6

11 13 18

295.0

167.6

+ 0.24

P. A, 100

11 13 51

40.0

0.24

119.4

79.4

213.3

88.1

301.4

167.5 + 0.24

P. A, 280

1

300.4

+

30.6

90.2

128.0

828

11 17 24

210.8

1730 + 0.13

0.03

0.08

0.20

0.16

Last 2 groups at very high alt
and not considered as good as
first 3 groups.

1167
H32 - H933

11^A

21

Est = 10.8

Prod 3424 correct at 11.27

10.9

11.06

Tues. Aug. 15, 1916

P.C.U.B. 15" E eg. T.O.O. Per

7 51 S S Cygni 213 + 43 est 10.9
 $\begin{array}{r} 1748 \\ 350 \\ \hline 140 \end{array}$ E + 43.0

R W Aquilae 200715^B est 9.5
 $\begin{array}{r} 1752 \\ 215 \\ \hline \end{array}$

S Aquilae 200715^a est 10.5
 no brightish star seen in place indicated ^{today} by Mr. Burbeck.

S U Draconis 113267 est
 $\begin{array}{r} 1809 \\ 637 \\ \hline \end{array}$ Photo T
 Prod. 3424 = 2 $\frac{1}{2}$ ^{sec} fast at 7h 44^m

see next page for measures.

Aug. 15, 1916

Comp * near

P.A. 80 ~ SU Drac.

~~SE~~

08 17 43

116.6	9.2	
212.5	9.2	star dis
305.8	95.9	
25.0	79.2	
	175.1	+ 0.09

P.A. 260

199.8

305.0

15.3

138.2

105.2

122.9

228.1

131.9

- 0.94

8 22 06

191.4

319.8

23.2

128.8

128.4

- 1.00

105.6

234.0

126.0

- 10.6

P.A. 80

302.2

29.0

117.2

217.6

86.8

100.4

187.2

172.8

- 0.14

+ 0.09

- 0.02

* 1.00

p. 98

+ 0.49

- 0.51

82.4

* a = 94.5

08 25 24

5 13

08 21 44

Aberr not SU Drac
but a near. of the
8.9 + 9.2 (b & d)

Aug. 15/1916.

Stk Drac with 8.9h

~~#~~
I

P.A. 70

08 36 20

310.4 / comp star dis

18.8

6 A.4

137.1

56.5

193.6

1249 + 1.09

1.16

P.A. 250

212.8

296.8

32.2

123.1

840

909

1749 + 0.09

+1.12

P.A. 250

8 39 43

210.0

306.1

38.4

114.8

96.1

764

172.5 + 0.14

+0.12

+0.62

8.94

9.56

P.A. 70

320.2

14.4

131.6

198.8

54.2

672

121.4 + 1.16

08 42 45

28 48

08 39 36

21091.569

91.226

0.343

Aug. 15, 1916

08 53 28

Same again
P.A. 70

314.6

20.7

137.2

193.3

P.A. 250

36.0

118.6

209.2

306.1

8 56 29

P.A. 250

32.2

122.8

213.8

299.8

P.A. 70

139.6

194.7

311.6

21.8

again

6

561

561

122.2

+ 1.14

+ 1.08

+ 1.11

826

969

179.5

+ 0.01

+ 0.04

906

860

1766

+ 0.06

+ 0.58

8.94

mean

9.52

08 59 13

19 10

08 56 23

21091.581

226

0.355

Aug. 15-1916

P.A. 70

9 12 29

130.0

197.4

317.2

16.3

67.4

~~59.1~~

126.5

+ 1.05

Pa. 250

207.8

306.0

37.8

118.5

982

807

178.9

+ 0.02

1.03

9 15 22

P.A. 250

215.0

298.8

30.7

120.4

838

~~857~~

897

173.5

+ 0.08⁷

+ 0.12

+ 0.54⁵

8.94

margin 9.48⁷

P.A. 70

136.2

195.5

312.8

22.0

59.3

692

128.5

+ 1.01

9 18 33

12 24

9 15 28

- 2

9 15 20

21091.594

226

0.368

Aug 15, 1916

Pa. 70

IV

9 33 25

133.3

200.0

319.1

15.9

66.7

56.8

122.5 + 1.12

Pa. 250

210.8

304.6

38.4

112.1

93.6

73.7

167.3 + 0.24

Pa. 250

9 36 35

221.8

298.8

29.9

119.8

77.0

29.9

166.9 + 0.25

1.13

0.24

0.6A

89.4

209.62

Pa. 70

137.2

203.3

314.6

21.0

66.1

56.4

122.5 + 1.14

9 40 32

20 32

9 36 51

210 91.609

22.6

0.383

Aug. 15, 1916.

Pa. 70

V

9 44 44

134.9 565

191.4 612

314.4 117.7

15.6

+ 1.24

Pa. 250

220.0 818

301.8 869

34.9 168.7

121.8

+ 0.21

9 47 43

Pa. 250

+ 0.15

+ 1.17

210.6 942

304.8 812

35.4 175.4

116.6

+ 0.09

+ 0.66

P 94

Magn - 9.60

Pa. 70

~~7.4~~

140.6

198.0 574

312.8 670

19.8

124.4

+ 1.10

9 50 48

22 15

9 47 15

210.616

226

9 55

0.390

R Scuti

184205^{est} Δfg 6.15

Aug 15, 1916.

9 57 50

P. A. 70

134.9

200.6 657

316.6 593

15.9 125.0 + 1.08

VI

P. A. 250

+ 0.65

219.2

816

300.8

866

29.1

115.7 168.2 + 0.22

10 01 20

P. A. 250

+ 1.08

214.4 912

+ 0.23

305.6 762

0.66

41.2

167.4 + 0.24

8.96

117.4

mean

9.60

P. A. 70

319.8

+ 0.66

18.9

591

132.2

662

198.4

125.3

+ 1.08

10 04 24

3 34

10 01 11

91.625

226

0.399

Aug. 15, 1906

10 11 19 Pa. 70

$$\begin{array}{r}
 313.6 \\
 21.2 \quad 676 \\
 137.4 \quad 609 \\
 \hline
 198.3 \quad 128.5 + 1.01
 \end{array}$$

VII

Pa. 250

$$\begin{array}{r}
 38.8 \\
 122.2 \quad 834 \\
 210.8 \quad 932 \\
 \hline
 304.0 \quad 176.6 + 0.06
 \end{array}$$

+ 0.54

10 14 30 Pa. 250

$$\begin{array}{r}
 32.8 \\
 123.3 \quad 905 \\
 219.3 \quad 725 \\
 \hline
 291.8 \quad 163.0 + 0.32 \text{ Magn. } 9.50
 \end{array}$$

+ 0.93

+ 0.19

+ 0.56

2.9x

9.50

Pa. 70

$$\begin{array}{r}
 135.4 \quad 619 \\
 197.3 \quad 742 \\
 311.6 \\
 \hline
 251.8 \quad 136.1 + 0.45
 \end{array}$$

+ 0.58

10 17 33

13 22

10 14 27

91.635

226

0.409

Aug: 15, 1916

Pa 70

IX

10 44 20

137.3	655
202.8	
317.0	593
16.3	<u>124.8</u>

+ 1.09

Pa 250

+ 0.62

214.8	854
300.2	
34.2	864
120.6	<u>171.8</u>

+ 0.16

10 48 31 Pa 250

211.8	926
304.4	750
42.2	<u>167.6</u>
117.2	

+ 0.20

+ 0.24

Magn

+ 1.02

+ 0.20

+ 0.61

8.94

9.55

Pa 70

+ 0.59

318.2	6
20.7	<u>25</u>
130.8	692
200.0	<u>141.7</u>
	3

+ 0.94

~~+ 0.74~~

10 58 36

24 27

10 48 09

91.658

226

0.432

Aug. 15, 1916

P.Q. 70

X

11 00 09

309.7

27.6 779

143.3 54.8

198.1 132.7

+ 0.92

Pa. 250

47.1

+ 0.74

114.8 677

220.3 829

303.2 150.6

+ 0.56

+ 0.96

+ 0.46

1
10 03 12 P.Q. 250

35.5

120.4 849

219.8 765

296.3 161.4

+ 0.35

0.71

8.94

9.65

Pa. 70

+ 0.66

139.7

199.4 597

315.2 696

24.8 129.3

+ 0.99

11 06 14

9 35

11 03 12

91.669

- 226

91.443

Aug. 15, 1916

Pa 70

XI

11 15 44

$$\begin{array}{r}
 136.2 \\
 200.4 \quad 642 \\
 320.8 \quad \underline{600} \\
 20.8 \quad 124.2 \quad + 1.10
 \end{array}$$

Pa. 250

+ 0.74

$$\begin{array}{r}
 224.8 \\
 300.2 \quad 754 \\
 35.3 \quad \underline{851} \\
 120.4 \quad 160.5 \quad + 0.37
 \end{array}$$

+ 0.99

+ 0.43

+ 0.71

8.94

9.65

11 19 19

Pa. 250

$$\begin{array}{r}
 221.2 \\
 305.2 \quad 840 \\
 44.3 \quad \underline{705} \\
 114.8 \quad 154.5 \quad + 0.49
 \end{array}$$

Pa. 70

+ 0.68

11 22 11

$$\begin{array}{r}
 322.6 \\
 24.2 \quad 616 \\
 133.0 \quad 732 \\
 206.2 \quad \underline{134.8} \quad + 0.88
 \end{array}$$

27 14

11 19 05

91.680

226

0.454

Aug. 15, 1916

P.A. 70

XII

11 29 52

314.8

22.2 674

142.7 559

198.6 123.3

+ 1.12

P.A. 250

+ 0.77

41.3

118.8 77.5

220.8 80.5

301.3 158.0

+ 0.42

+ 1.06

+ 0.35

11 33 06

P.A. 250

35.8

121.3 85.5

223.7 79.6

303.3 165.1

+ 0.28

+ 1.70

8.94

9.64

P.A. 70

+ 0.64

143.6

200.3 56.7

312.8 72.0

24.8 128.7

+ 1.00

11 36 36

934

11 33 11

91.690

226

91.916

Aug. 15 - 1966

11 43 38

P.A. 70

134.7	719
206.6	625
319.7	<u>134.4</u>
22.2	

~~X III~~
~~+ 0.89~~
~~+ 1.32~~

P.A. 250

+ 0.74

225.2	726
297.8	760
38.2	<u>148.6</u>
114.2	

+ 0.60

~~+ 0.92~~
~~+ 1.19~~
~~+ 0.64~~

11 49 20

P.A. 250

228.4	744
302.8	709
44.3	<u>145.3</u>
115.2	

+ 0.67

~~0.78~~
~~8.94~~
~~9.72~~

P.A. 70

+ 0.81

320.8	
24.2	634
139.8	679
207.7	<u>131.3</u>

+ 0.95

11 52 23

25 21

11 48 27

21.300
226

0.474

Aug. 15, 1916

Pa. 70°

XIV

12 00 37

316.3

704

26.7

586

142.8

129.0

+ 1.00

201.4

Pa. 250°

42.2

720

114.2

742

224.6

146.2

+ 0.65

298.8

+ 1.00

+ 0.55

.78

8.94

9.72

12 04 52 Pa. 250°

41.5

773

118.8

791

225.5

156.4

+ 0.45

304.6

Pa. 70

142.8

605

203.3

679

316.8

128.4

+ 1.01

24.7

12 08 35

14 04

12 04 41

91.712

226

0.486

Aug 15, 1916

P.A. 70

XV

12 13 57

138.8

197.7 589

322.6 596

22.2 118.5

+ 1.23

P.A. 250

223.6

300.4 768

40.3 819

122.2 158.7

+ 0.41

+ 1.14²

+ 0.40

1.74⁶

8.94

9.70

12 18 04

P.A. 250

221.0

303.6 826

42.7 767

119.4 159.3

+ 0.39

P.A. 70

321.2

26.8 656

140.2 626

202.8 128.2

+ 1.02

12 21 48

23 49

12 17 56

91.721

.226

0.495

P.A. 68.2
Spr. 3.4

Aug. 15, 1916

Dis. Jup. II Phot R

L. Q. Clb
T. D. O. Rec.

+2

12	⁴¹ 40 0 2	296.2	Comp with Sat I
	40 2 9	215.6	on opp. side.
	4 6	298.8	832
	⁴⁸ 48 0 0	213.0	⁸⁶⁴ 169.6 + 0.20 17 41 51
	14	299.4	
	34	210.8	
	48	298.2	874
	⁴⁸ 48 0 5	215.8	⁸³⁸ 171.2 + 0.17 17 42 57
	2 0	298.6	
	34	215.2	
	⁵³ 53 0 5	297.3	821
	15	212.3	⁸⁷⁵ 169.6 + 0.20 17 43 57
	29	299.8	
	41	214.7	
	41	297.3	826
	54	213.6	⁸⁶⁷ 169.3 + 0.20
	⁴⁸ 48 11	300.3	17 44 48
	25	214.4	
	35	296.9	825
	54	213.8	⁸⁵⁸ 168.3 + 0.22 17 45 49
	+2	2	
	⁴⁶ 46 2 8	299.6	
	43	216.3	
	⁴⁸ 48 0 2	299.6	833
	15	211.7	⁸⁹⁵ 172.8 + 0.14
	27	301.2	17 46 06

Aug 15, 1966

7					
48	40	216.0			
8	58	301.2	85.2		
49	08	215.2	27.8		
	28	303.0	173.0	+ 0.13	17 48 03
	40	216.8			
	52	298.8	22.0		
49	04	212.8	23.2	+ 0.28	17 49 55
50	07	296.0	165.2		
	22	218.4			
	43	298.2	79.8		
	57	217.4	79.9		17 50 46
51	07	297.3	159.7	+ 0.39	
	19	216.3			
	36	293.0	76.7		
	48	222.2	70.8		17 51 37
	58	293.0	147.5	+ 0.62	
52	09	216.9			
	20	296.0	79.1		
	29	214.3	25.5		17 52 23
	40	299.8	164.6	+ 0.29	
	53	215.4			
53	07	296.0	20.6		17 53 14
	23	218.8	78.5		
	36	297.3	159.1	+ 0.40	
	48	218.4			
	59	296.0	77.6		17 54 05
54	12	215.5	79.5		
	27	295.0	107.1	+ 0.44	

Aug 15, 1916

54	38	217.8			
	49	296.0	78.2		
55	06	218.2	77.8		
	25	296.0	156.0	+ 0.46	17 54 59
	35	215.0			
	46	300.3	75.3		
56	0	214.4	81.6		
	13	296.0	156.9	+ 0.44	17 55 53
	24	216.2			
	33	298.0	81.8		
	42	215.6	82.4		
	51	298.0	164.2	+ 0.30	17 56 3)
57	07	218.2			
	18	296.0	77.8	0.47	17 57 11
	28	218.8	77.2	0.49	22
	38	294.0	75.2	0.57	32
	48	216.8	77.2	0.49	42
58	01	296.0	77.2	0.41	53
	14	213.6	82.4	0.29	58 07
	39	296.0	82.4	0.29	25
	53	215.1	80.9	0.35	45
59	02	297.2	82.1	0.30	57
	12	216.3	80.9	0.35	59 06
	24	299.0	82.7	0.28	17
	38	218.8	80.2	0.37	30
	47	295.0	76.2	0.53	43
	57	219.2	74.8	0.55	51
13 00	07	294.0	72.8	0.58	18 00 01

Aug 15, 1916

15	222.0	72.0	0.69	18 00 11
26	289.2	67.2	0.89	19
35	246.6	62.6	1.08	29
45	286.0	59.4	1.22	39
57	227.7	58.3	1.27	50
01 12	283.8	56.1	1.27	01 03
23	229.9	53.9	1.47	17
30	281.2	51.3	1.59	25
39	233.4	47.8	1.77	33
48	278.2	44.8	1.92	43
58	237.3	40.9	2.14	52
02 06	271.2	33.9	2.58	02 01
16	243.8	27.4	3.07	10
25	270.0	26.2	3.16	19
34	244.9	25.1	3.26	29
44	264.8	19.9 + 378		38
49	Gone			18 02 48 zone.
58	245.6			
03 13	266.4			
23	246.2			
13 03 33	265.2			

$$\begin{array}{r}
 \checkmark \\
 L \quad \textcircled{2} \quad 20.8 \\
 \quad \quad \quad 19.0 \\
 \quad \quad \quad \hline
 \quad \quad \quad 39.8 + 378 \\
 \quad \quad \quad \hline
 18 03 16
 \end{array}$$

H-1171
357-5290

13th 16^m

SS Cygni 2138 x 3 est 10.8

$$\begin{array}{r}
 23.08 \\
 \hline
 130
 \end{array}$$

Prod 3424 = 1.0² fast at 13:40

Wed. Aug 17, 1916

R.C. Cope 15° E 22

SS Cygni 21343

$$\begin{array}{r} 1753 \\ 345 \\ 815 \end{array}$$

757

est 11.0

McCabe 005381

Plot T.

1806

647

513 + 818

Prod 3x24 = 2² fact at 7:40

P.A. 20

P 1525 2042 < comp X dis

323 8

25.9

137.7

119.6

111.8

231.4

128.6

-1.01

P.A. 200

-0.25

318.2

71.4

29.6

153.6

+0.51

-0.94

136.2

+0.48

P 1912

218.2

+0.44

-0.25

+0.44

8.16

P 1945

313.4

80.0

33.4

19.8

+0.28

136.6

216.4

P.A. 20

26.6

134.4

202.8

107.8

117.6

+0.28

-0.63

134.6

-0.28

$$\begin{array}{r} 3717 \\ 1919 \\ 1917 \\ 2421092555 \\ 52.615 \\ -0.460 \end{array}$$

6
Aug 18/1916

	PA 20		
f 26 40	22.2		
	132.3	116.1	
	20 f. 4	<u>108.0</u>	
	316.4	224.1	
		<u>135.9</u>	- 0.86

	PA. 200		
	140.8		
	209.8	69.0	
	307.6	<u>82.2</u>	
f 30 20	29.8	151.2	+ 0.55

	PA. 200			
f 30 44	107.4		+ 0.62	- 0.82
	213.2	75.8		<u>+ 0.62</u>
	321.1	<u>64.8</u>		- 0.10
	29.9	144.6	+ 0.68	<u>f. 41</u>
				f. 31

	PA. 20		
	211.8		
	314.4	102.6	
	22.4	<u>118.2</u>	
f 33 55	140.6	220.8	
		<u>139.2</u>	- 0.79

139
f 30 25
f 30 23
<u>2421092.563</u>
<u>92.615</u>
- 0.052

6
Aug 1st 1916

Pa 20

$$\begin{array}{r}
 f \quad 36 \quad 15 \quad 206.8 \\
 317.4 \quad 110.6 \\
 29.8 \quad 108.6 \\
 138.4 \quad 219.2 \\
 \hline
 140.8 \quad -0.76
 \end{array}$$

Pa. 200

$$\begin{array}{r}
 322.2 \\
 25.3 \quad 63.1 \\
 137.2 \quad 714 \\
 f \quad 39 \quad 35 \quad 208.6 \quad 134.5 \quad +0.89
 \end{array}$$

Pa. 200

$$\begin{array}{r}
 f \quad 40 \quad 12 \quad 320.8 \\
 31.6 \quad 140.8 \\
 142.2 \quad 562 \\
 208.4 \quad 137.0 \quad +0.81
 \end{array}$$

-0.54
 $+0.85$
 $+0.16$
 8.41
 8.57

Pa 20

$$\begin{array}{r}
 37.4 \\
 132.2 \quad 94.8 \\
 213.6 \quad 102.7 \\
 f \quad 43 \quad 10 \quad 316.3 \quad 197.5 \\
 \hline
 162.5 \quad -0.33
 \end{array}$$

$$f \quad 39 \quad 12$$

$$f \quad 39 \quad 48$$

$$f \quad 39 \quad 46$$

$$2421092.569$$

$$92611$$

$$-0.046$$

Aug. 1⁶ 1916

P 47 30 P.A. 20
35.8
134.0
215.0
313.8

94.2
98.8
197.0
163.0

TV

- 0.32

P.A. 200

144.4
202.4
322.6
30.8

58.0
68.2
126.2 + 1.06

P 50 33

P.A. 200

141.2
208.4
323.7
29.2

67.2
65.5
132.7

+ 0.92

- 0.30

+ 0.99

+ 0.34
2.41
2.75

P.A. 20

219.6
310.0
33.8

90.4
103.6
194.0
166.0

- 0.27

P 54 00

3 03

P 50 46

P 50 43

2421092.577

~~Red 342~~

92.615
- 0.038

Aug 16, 1916

$$\begin{array}{r}
 \text{PA. 20} \\
 85825-213.4 \\
 316.8 \\
 36.6 \\
 132.0 \\
 \hline
 103.4 \\
 95.4 \\
 198.8 \\
 161.2 \\
 \hline
 -0.36
 \end{array}$$

V

$$\begin{array}{r}
 \text{PA. 200} \\
 327.4 \\
 24.4 \\
 141.6 \\
 90135-205.7 \\
 \hline
 \text{cldr nearby} \\
 57.0 \\
 641 \\
 121.1 \\
 \hline
 +1.17
 \end{array}$$

$$\begin{array}{r}
 \text{PA. 20} \\
 90202-323.8 \\
 32.8 \\
 147.8 \\
 207.7 \\
 \hline
 69.0 \\
 59.9 \\
 128.9 \\
 \hline
 +1.08 \\
 +1.08 \\
 78 \\
 +0.39 \\
 841 \\
 \hline
 8.80
 \end{array}$$

$$\begin{array}{r}
 \text{PA. 200} \\
 41.6 \\
 133.2 \\
 215.3 \\
 90530-317.0 \\
 \hline
 91.6 \\
 101.7 \\
 193.3 \\
 166.7 \\
 \hline
 -0.25
 \end{array}$$

$$\begin{array}{r}
 732 \\
 90153 \\
 90150
 \end{array}$$

$$\begin{array}{r}
 2421092.585 \\
 92615 \\
 \hline
 -0.030
 \end{array}$$

Troubled by cldr in this group.

Aug. 16, 1916

PA. 20
 9 12 15 34.4
 130.0 95.6
 222.8 822
 305.0 177.8 + 0.04

VL

PA. 200
 149.4 +
 204.4 55.0
 326.3 603
 9 15 35 26.6 115.3 + 1.30

PA. 200
 9 16 05 148.3 + 0.04
 206.8 58.5 + 1.34
 333.6 53.0 + 1.38
 26.6 111.5 + 1.38
 8.41
 9.10

PA. 20
 22.8
 310.0 81.2
 36.0 97.0
 9 19 10 133.0 178.2 + 0.03

1 - 117.2
 96 - 538.6

23 05
 9 15 46
 9 15 43

2421092.594

92.615

- 0.021

Sky becoming more cloudy, not
 safe to continue at present.

Frod 3424 = 3² fast at 9.39

Fri. Aug. 18, 1916

RC. Ob. 15" E. E. g.

A 03

SS Cygni 213843 est 10.9
 18 15
 3 23
 8 37

RM Aquilae 200812 est 10.5
 18 18
 1 50 E + 12.7
 110 10

R Delft 201008 est 9.7
 18 23
 1 47
 10 13 + 8.8

S X Cyg 201130 est 10.4
 18 26
 1 45
 10 15 + 30.8

W X Cyg 201437 est 11.7
 18 30
 2 10 Var Very Red
 9 50 + 37.0
 2014 37
 18 30
 1 44
 10 16

Z Delft 202817 est 10.0
 18 33
 1 55
 10 05 + 17.0

Aug 18-1916

J Delph 203611 ~~est~~ 12.8

S Delph 203416 est 10.5-

T Delph 204016 est 10.6

V Delph 204318 est < 13.5
so called 12.6 + 12.7 much fainter.
12.7 barely seen

R L Cygni 204416 est 13.5-

X Delph 205017 est 12.2
var sp = 12.8

UX Cyg 205030 est 11.3

better chart

R Vulpec 205923 est 9.0

FW Cyg 210129 est 12.0

R Equulei 210812 est 11.4

RR Pegasi 214024 est 12.9
new & better chart

19.02

2.38

9.22 + 24.6

V Pegasi 215605 est < 13.5
19.06
250 + 5.5-

9 00

Aug. 18, 1916

$$\begin{array}{r} \text{R T Pegasi } 215934 \text{ est } 11.4 \\ 1909 \\ \hline 250 + 34.6 \end{array}$$

$$\begin{array}{r} \text{RV Peg } 222129 \text{ est } 13.0 \\ 1914 \\ \hline 307 \\ 853 + 29.9 \end{array}$$

$$\begin{array}{r} \text{Slacetas } 222439 \text{ est } 12.3 \\ 1917 \\ \hline 307 \\ 853 + 39.8 \end{array}$$

$$\begin{array}{r} \text{T Pegasi } 220412 \text{ est } 11.8 \\ 1922 \\ \hline 242 \text{ E} + 120 \\ 918 \end{array}$$

$$\gamma \text{ Pegasi } 220613 \text{ est } 11.8$$

$$\begin{array}{r} \text{RS Pegasi } 220714 \text{ est } < 13.5 \text{ or sun only} \\ 1924 \\ \hline 243 \\ 917 + 140 \end{array}$$

$$\begin{array}{r} \text{RW Pegasi } 225914 \text{ est } 10.3 \\ 1929 \\ \hline 330 \\ 830 + 14.7 \end{array}$$

$$\begin{array}{r} \text{VV Pegasi } 231425 \text{ est } 8.7 \\ 1932 \\ \hline 342 \\ 842 + 25.8 \end{array}$$

Aug. 18, 1916

$$\begin{array}{r} \text{Z And } 2324 \text{ est } 9.7 \\ 1935 \\ \hline 353 \\ 807 + 48.3 \\ \hline \end{array}$$

$$\begin{array}{r} \text{ST And } 233835 \text{ est } 8.4 \\ 1937 \\ \hline 356 \\ 804 + 35.0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{Z Regasi } 235525 \text{ est } 10.7 \\ 1941 \\ \hline 414 \\ 746 + 25.4 \\ \hline \end{array}$$

$$\begin{array}{r} \gamma \text{ Cassio } 235855 \text{ est } 11.4 \\ 1944 \\ \hline 414 + 55.0 \\ 746 \\ \hline \end{array}$$

$$\begin{array}{r} \text{SV And } 235939 \text{ est } 10.7 \\ 1947 \\ \hline 412 \\ 748 + 39.5 \\ \hline \end{array}$$

$$\begin{array}{r} \text{R Regasi } 230110 \text{ est } 12.3 \\ 1951 \\ \hline 310 \\ 850 + 10.0 \\ \hline \end{array}$$

$$\begin{array}{r} \text{S Regasi } 231508 \text{ est } 11.0 \\ 2000 \\ \hline 315 \\ 845 + 8.4 \\ \hline \end{array}$$

Aug 18 - 1916

x And 001046 est 13.3

$$\begin{array}{r} 2003 \\ \hline 407 \\ 753 + 46.2 \end{array}$$

Ru And 004132 est 7.5

$$\begin{array}{r} 2006 \\ \hline 435 \\ 725 + 32.1 \end{array}$$

4" further

u And 010940 est 13.6

$$\begin{array}{r} 2015 \\ \hline 454 \\ 706 + 40.2 \end{array}$$

u Z And 011041 est 14.2

20 Var imp.

R Z Persei 012350 est 10.9

$$\begin{array}{r} 2020 \\ \hline 503 \\ 657 + 50.3 \end{array}$$

Ru And 013238 = 12.8

y And 013338 est 13.5

$$\begin{array}{r} 2023 \\ \hline 510 + 38.0 \end{array}$$

u Persei 015354 = 12.5

$$\begin{array}{r} 2028 \\ \hline 525 \\ 635 + 54.1 \end{array}$$

Aug 18, 1916

W And 021143 est 12.0
 $\begin{array}{r} 2031 \\ \hline 5 \quad 40 \\ 6 \quad 20 \end{array} + 43.8$

RR Persei 022150 est 13.0
 $\begin{array}{r} 2034 \\ \hline 5 \quad 47 \\ 6 \quad 13 \end{array} + 50.8$

R Trianguli 023133 est 11.5
 $\begin{array}{r} 2038 \\ \hline 5 \quad 53 \\ 6 \quad 07 \end{array} + 33.8$

10 35

10 50 SS Cygni (12" Polar) est 11.0

46-1218
 - 5386
 L.P.P.

Sun. Aug. 20. 1916

R.C. Alb. 15^h 2. 59.

S.S. Cygni. 21 34 x 3

21096

8 ov

est 10.6

21096 5

Or * x a var. ?

est (x) 3 (10.9) 1, 4 5 (y) 4 (11.7) 4 (12.1) 2 (3)

Z Boötes 140113 est 11.5

21096 5

$$\begin{array}{r} 18\ 30 \\ \hline 4\ 34\ 00 + 14.5 \\ \hline 29 \end{array}$$

Z Virg 140512 est 9.3

21096 5

$$\begin{array}{r} 18\ 37 \\ \hline 4\ 32 - 12.8 \end{array}$$

R.S. Virg 142205 est 9.5

$$\begin{array}{r} 18\ 43 \\ \hline 4\ 21 + 5.2 \end{array}$$

U Boötes 144918 est 10.2

$$\begin{array}{r} 18\ 49 \\ \hline 4\ 0 + 18.1 \end{array}$$
R. T. Librae 15^h 0018 est 10.0

21096 6

$$\begin{array}{r} 18\ 50 \\ \hline 3\ 50\ 00 - 18.5 \end{array}$$

Aug 20, 1916

21096

21096 6

$$\begin{array}{r} \text{T Librae } 150519 \text{ var } 3 \text{ h}' = 13 \text{ h} \\ 1853 \\ \hline 348 \end{array}$$

$$\begin{array}{r} \text{S Librae } 151520 \text{ est } 9.3 \\ 1856 \\ \hline 341 \text{ W} - 20.0 \end{array}$$

$$\begin{array}{r} \text{RJ Librae } 151822 \text{ est } 12.9 \\ 1858 \\ \hline 340 - 22.6 \end{array}$$

$$\begin{array}{r} \text{RU Librae } 152714 \text{ est } 12.6 \\ 1901 \\ \hline 334 - 14.9 \end{array}$$

$$\begin{array}{r} \text{X Librae } 153020 \text{ est } 13.0 \\ 1903 \\ \hline 333 - 20.8 \text{ unpony} \end{array}$$

$$\begin{array}{r} \text{U Librae } 153620 \text{ est } 13.3 \text{ open} \end{array}$$

$$\begin{array}{r} \text{Z Librae } 154020 \text{ est } 12.3 \end{array}$$

$$\begin{array}{r} \text{R Librae } 154715 \text{ est } 10.9 \\ 1813 \\ \hline 326 - 15.9 \end{array}$$

21096 6

$$\begin{array}{r} \text{RR Librae } 155018 \text{ est } 13.1 \\ 1916 \\ \hline 326 - 18.0 \end{array}$$

Aug. 20, 1916

21096 6

$$\begin{array}{r} \text{R Z Scorpii } \underline{155823} \text{ est } 9.2 \\ 19 \ 18 \\ \hline 3 \ 20 - 23.3 \end{array}$$

$$\begin{array}{r} \text{Z Scorpii } \underline{160021} \text{ est } 13.0 \text{th} \\ 74.34 \end{array}$$

$$\text{X Scorpii } \underline{160221} \text{ est } 13.2$$

$$\begin{array}{r} \text{Y Librae } \underline{150605} \text{ est } < 13.5 \\ l' = 12.0 \end{array}$$

$$\begin{array}{r} \text{Ry Sag. } \underline{191033} \text{ est } \phi 25.12 \\ 19 \ 33 \\ \hline 0 \ 23 - 33.6 \end{array} \quad 13 \text{th}$$

9 25

9 35

$$\text{SS Cygni } \underline{213843} \text{ est } 19.5 - (\phi'' \text{ Rev})$$

21096 6

$$\begin{array}{r} 21 - 1239 \\ - \quad 5386 \end{array}$$

R.P.P.

Neon. Aug. 21, 1916

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

U Cephæi .005351 Phot T.

AP 33

6 20

5 400

+81.8

20 = P. A.

8 18 10 215.9

comp. star dia.

311.6

48.7

129.8

95.7

981.1

186.8

173.2

+0.06

-0.13

I

200 = P. A.

326.2

36.3

143.6

8 20 45 219.7

70.1

76.1

146.2

+0.65

mag = 8.77

-0.08

+0.80

+0.36

8.41

8 21 05 326.7

34.6

148.2

212.4

67.9

64.2

132.1

+0.94

+0.80

+0.02

0.80

+0.41

8.41

H. f. 2

20 P. A.

50.0

134.6

215.6

8 22 40 312.4

84.6

96.8

181.4

178.6

-0.03

8 20 40

17

8 20 23

21097.556

97.600

-0.044

Aug 21 1916

Re 20

8 27 30 43.0
 > 138.0
 221.8
 313.2

200 P.A.

144.2
 > 214.6
 329.2
 32.8

8 30 00

8 30 15 142.2
 > 215.3
 330.2
 27.3

20 P.A.

225.2
 > 310.8
 44.3
 136.8

8 32 50
 0 35
 8 30 09
 17

8 29 52
 21097.562
 600
 - 0 038

9 85.0
 914

176.4
 186.4
 173.6

704
 63.6
 134.0

11.

+ 0.07
 - 0.12

+ 0.46
~~0.53~~

+ 0.90

~~0.11~~
 - 0.14

+ 0.97
 + 0.42
 8.41
 8.83

+ 1.08

74
 + 0.58

85.6
 92.5

158.1
 188.1
 171.9

+ 0.42
 - 0.16

+ 0.66

Aug. 21. 1916

P.A. 20

8 40 N⁻ 226.4
 309.8
 → 52.2
 131.3

83.4
 79.1
 1 2 5

+ 0.33

10

200 P.A.

338.8
 36.2
 → 158.3
 220.8
 8 43. N⁻ →

62.4
 62.5
 1249

+ 1.09

+ 0.33

+ 0.07

1.40

+ 0.70

P.41

9.11

8 43. 45⁻ 334.6
 42.6
 → 155.2
 213.6

68.0
 58.4
 1264

+ 1.05

20 P.A.

58.6
 132.8
 230.9
 8 46 10 319.4

74.2
 88.5
 162.7

+ 0.33

13 25⁻

8 43 21

17

8 43 04

2097.572

600

0.028

Aug 21, 1916

8 56 P ²⁵	PQ 20		
	60.8	75.4	
	136.2	78.0	
	237.8	<u>153.4</u>	+ 0.51
	315.8		

IV

9 00 35	200 P.A		+ 0.81
	160.2	52.8	
	213.0	70.9	
	333.7	<u>123.7</u>	+ 1.11
	448.6		

9 00 55	149.4		+ 1.00	+ 0.44
	222.7	74.3		+ 1.00
	340.4	59.4		+ 0.72
	39.8	<u>133.7</u>	+ 0.90	P. 41
				9.13

9 03 55	20. P. 9		
	239.4	73.4	+ 0.64
	312.8	87.4	
	52.2	<u>160.8</u>	+ 0.37
	142.6		

9 00	
2	
9 00 30	
17	
9 00 13	
21097.573	
600	
-0.017	

Aug 21, 1916

Pa 20

V

9 19 40

235.0

320.2

> 61.2

138.8

85.2

77.6

162.8

0.33

200 P.A

+ 0.76

340.1

> 34.8

136.0

9 22 20

221.8

54.7

65.8

120.5

1.18

9 22 40

335.5

> 41.2

160.9

321.5

68.7

60.6

128.3

1.06

0.33

1.12

1.45

0.72

8.41

20 P.A

62.9

141.7

234.8

78.8

61
84.0

+ 0.70

9.13

9 25 20

~~330.9~~

9 25 45

318.8

162.8

0.33

10 25

9 22 36

17

9 22 19

21097.599

600

21001

Aug 21, 1916.

P.G. 20

9 44 20 59.2
 145.2
 > 245.8
 322.2

86.0
 76.4
 162.4

0.33

VI

P.G. 200

9 47 15 168.2
 222.2
 > 334.7
 45.0

54.0
 70.3
 124.3

+ 0.72

0.35
 1.10
 1.45
 0.72
 8.41
 9.13

9 47 30 159.6
 228.8
 > 346.8
 41.8

69.2
 85.0
 124.2

1.10

P.G. 20

9 50 59 243.6
 315.9
 > 59.4
 147.8

72.3
 88.4
 160.7

+ 0.74

0.37

9 50 59
 30 04
 9 47 31
 17
 9 47 14
 21097.616
 600
 + 0.016

Aug. 21, 1916

VIII

10 08 20

P.A. 20

237.8

329.4

70.6

138.4

91.6

62.8

159.4 + 0.39

P.A. 200

346.7

+ 0.76

42.8

56.1

156.4

70.9

10 11 40

227.3

127.0 + 1.04

+ 0.44

+ 0.96

Mean

+ 0.70

10 12 05

338.3

49.8

71.5

165.5

62.7

228.2

132.2

+ 0.89

Mean = 8.41

9.11

P.A. 20

71.6

135.8

64.2

+ 0.69

237.0

90.2

10 14 50

327.2

154.4

+ 0.49

6 55-

10 11 44

17

10 11 27

21097.633

+ 0.033

Aug. 21, 1916

VIII

10 25 00

PA 20

65.2

146.0

80.8

247.8

70.2

318.0

151.0

+ 0.56

PA 200

169.2

220.6

57.4

350.4

62.4

428

113.8

+ 1.33

10 28 15

+ 0.94

+ 0.40

+ 0.16

+ 1.16

10 28 40

166.3

224.8

58.5

342.2

71.4

53.6

129.9

+ 0.98

Magn.

0.78

8.41

9.19

PA 20

241.2

~~331.6~~

326.6

85.4

~~75.3~~

82.0

66.6

167.6

+ 0.24

+ 0.61

10 33 40

148.6

35 35

10 28 54

17

10 28 37

21097.645

+ 0.045

Aug. 21, 1916

P.A. 20

IX

10 40 22 246.4

327.4

71.4

139.4

p 1.4

67.6

149.0

+ 0.57

P.A. 200

348.4

45.4

160.4

233.3

56.6

72.9

129.5

+ 0.99

3
10 44 45

10 44 15 333.2

50.6

164.0

223.3

H 7.4

59.3

106.7

+ 0.84

+ 0.57

+ 0.92

+ 0.75

8.41

- 9.16

P.A. 20

69.4

134.7

244.9

69.3

80.3

149.6

+ 0.58

10 47 30 325.2

155.2

10 43 58

17

10 43 41

21097.656

+ 0.056

Aug. 21, 1916

PA 20¹⁰

X

10	54	24	62.4		
			141.8	79.4	
			250.6	65.7	
			316.3	<u>145.1</u>	+0.67

PA 200

			164.6		+0.89
			221.6	57.0	
			345.4	66.6	
10	57	50	52.0	<u>123.5</u>	+1.11

10	58	20	161.6		+0.60
			232.2	70.6	+1.06
			347.4	58.6	+0.83
			46.0	<u>129.2</u>	8.41
					9.24

PA 20°

			253.0		+0.76
			316.3	63.3	
			62.0	89.0	
11	01	50	151.0	<u>152.3</u>	+0.53

			31	24
10	57	51		
			34	
			210.97	66.5
			+0.065	
11	10			

Obs. becoming increasingly
difficult and region more cloudy
No use to continue further

B. 3494 = 17² fast at 11:17

1239
160-55 46
H. P. P.

Tues. Aug. 22, 1916

R.C. Obs. 15" E. Eq. H. S. B. Res

Eumonia (15)

Waltham
Watch used

23 04 + 8.8

19 54

3 10 E + 8.8

Account*
Annual Magnitude = 10.70

100 P.A.

Comp. * = + 9.5750 (9.5)

10 01 59 256.3

air. disp.

approx 22 53 + 9° 38' (1850)

> 319.4

63.1

85.6

47.2 ✓

132.8

110.3 ✓

- 1.41

280 P.A.

- 2.00

9.2

26.6 ✓

> 35.8

280.6 ✓

> 180.6

167.2 ✓

- 2.60

10 05 00 221.2

- 2.51

10 05 04 4.4

- 1.43

44.2

39.8 ✓

> 185.8

32.9 ✓

218.7

72.7 ✓

- 2.42

100 P.A.

- 1.94

88.3

49.5 ✓

137.8

58.9 ✓

> 262.8

108.4 ✓

- 1.45

10 08 20 321.7

98.6 30

20 23

10 06 44

98.5 15

10 05 00

Aug. 22nd 1916

100 P.A.

Ennomia again.

10 16 40

84.3

52.3 ✓

136.6

45.4 ✓

266.4

97.7 ✓

311.8

- 1.71

280 P.A.

- 2.12

186.4

30.9 ✓

217.3

38.4 ✓

2.9

69.3 ✓

- 2.53

10 19. 10

41.3

1.66

2.62

4.28

10 19 25

185.2

34.4

mean = - 2.14

219.6

2.2

7.2

34.4 ✓

189.4

259.8 ✓

37.0

64.2 ✓

- 2.70

100 P.A.

266.4

46.2 ✓

- 2.16

2312.6

55.5 ✓

85.3

101.7 ✓

- 1.61

10 25 05

140.8

40 20

10 20 05

1 38

10 21 43

21098.654

640

1515

0.085

Aug 22 1916

P. A. 100

10 28 10 263.0
 318.2
 → 88.4
 135.8

55.2 ✓
 47.4 ✓

102.6 ✓

-1.59

111

P. A. 280

2.06

5.0
 → 389.7
 184.3
 217.8

34.7 ✓
 33.5 ✓
 68.2 ✓

-2.57

10 31 30

-1.77

-2.68
 +4.45

-2.22

10 32.00 5.2
 38.4
 → 188.1
 216.6

33.2 ✓
 28.5 ✓
 61.7 ✓

mean →

-2.80

P. A. 100

2.38

93.0
 138.8
 → 138.8
 268.6
 273.6
 311.8
 308.9

45.8 ✓
 34.3 ✓
 42.0
 88.8 ✓

-1.95

10 35 50

7 30
 10 31 52
 1 38

10 33 20

2109 P. 648

553
 +.093

Aug. 22, 1916

P.A. 100

IV

10 45 20

89.2

130.2

264.2

316.6

40.4

52.4

92.8 - 184

P.A. 280

183.2

219.7

2.2

10 49 30

35.3

35.9

27.1

63.0

2.30

- 2.75

10 50 15

182.2

217.4

3.0

31.2

29.2

28.8

58.0

2.84

mean

- 2.94

- 1.94

28.4

- 2.39

P.A. 100

266.4

315.3

93.7

130.6

48.9

36.9

85.8

- 2.48

- 2.03

10 54 00

39 05

10 49 46

1 38

10 51 24

21098.660

555

0.105

Aug 22, 1916

PA. 100

11 04 50

$$\begin{array}{r} 272.9 \\ 307.7 \\ 87.9 \\ \hline 135.0 \end{array}$$

34.8 ✓

47.1 ✓

$$\begin{array}{r} 47.1 \\ 81.9 \\ \hline \end{array}$$

- 2.14

PA 200

6.2

39.3

189.3

11 07 45 - 215.2

33.1 ✓

26.5 ✓

$$\begin{array}{r} 26.5 \\ 59.6 \\ \hline \end{array}$$

- 2.87

PA. 280

11 08 23

9.6

34.8

184.4

226.3

25.2 ✓

41.9 ✓

$$\begin{array}{r} 41.9 \\ 67.1 \\ \hline \end{array}$$

- 2.60

PA. 100

87.4

132.9

272.2

11 12 42

309.4

45.1 ✓

37.2 ✓

$$\begin{array}{r} 37.2 \\ 82.3 \\ \hline \end{array}$$

- 2.13

33 40

11 08 25

1 38

11 10 03

21098.674

.555

0.119

Aug 22, 1916

PG 100

VII

11 18 50

92.8

129.8

266.4

315.2

37.0 ✓

48.8 ✓

85.8 ✓

- 203

PG 280

180.4

220.4

2.8

11 23 50

32.9

40.0 ✓

24.1 ✓

64.1 ✓

- 2.71

2.34

PG 280

11 24 20

186.6

214.4

7.3

38.4

27.8 ✓

31.1 ✓

58.9 ✓

- 2.90

Mean - 2.41

$$\begin{array}{r} 2.02 \\ 2.80 \\ \hline 2.41 \end{array}$$

PG 100

266.8

315.2

93.6

132.2

48.4 ✓

38.6 ✓

87.0 ✓

- 2.45

- 2.00

11 29 00

16 00

11 24 00

1 38

11 25 38

21098.685

682

003

Aug 22, 1916

PA 100

VII

11 39 25

273.6

310.6

370 ✓

91.4

469 ✓

138.3

839 ✓

- 2.08

PA 280

3.2

36.6

334 ✓

186.6

336 ✓

11 43 40

220.2

77.0 ✓

- 2.28

11 44 15

f.p

38.4

29.6 ✓

2.43

~~188.0~~

382 ✓

184.0

67.8 ✓

- 2.58

222.2

PA 100

894

133.3

43.9 ✓

273.3

373 ✓

11 48 30

310.6

812

- 2.16

15 50

11 43 58

1 38

11 45 36

2109 A.699

682

0017

watch used - 1

38 slow at 12:05 - 12:33

112 - 56.58

PA = 101.6 A
Sfr. = 4.9

Mon Aug 28th 1916

L.C. obs.

F.S.B. Rec.

Emission (15)

2250 + 9.8

Watch = 40² fast
at 5:43

1942

- 308.6

852

I

P.C. 110

9 23 15 78.4

Corr. obs.

154.8

76.4 ✓

258.4

64.7 ✓

323.1

141.1 ✓ - 0.75 ✓

P.C. 290

175.2

62.2 ✓

237.4

69.9 ✓

349.7

132.1 ✓ - 0.94 ✓

9 26 00 59.6

- 1.06

9 26 10 165.6

75.2 ✓

240.8

44.7 ✓

1.5

119.9 ✓ - 1.19 ✓

46.2

P.C. 110

~~327.2~~

~~121.5~~

21104.601

24 45 88.7

68.1 ✓

9 26 11 152.8

80.7 ✓

9 25 27 252.6

148.8 ✓ - 0.60 ✓

9 29 20 333.3

0.091

Aug. 28th 1916

91

P. G. 110

9 43 40 75.5
 157.3
 > 263.7
 326.2

81.8 ✓
 62.5 ✓
 144.3 ✓

- 0.69 ✓

~~11~~

P. G. 290

2.4
 57.4
 > 173.2
 9 47 40 232.8

55.0 ✓
 59.6 ✓
 114.6 ✓

- 1.31 ✓

6
 - 0.95
 - 1.32 ✓
 = 1.04
 197
 0.98
 932
 2.34

9 47.50 359.4
 258.4
 > 178.8
 234.2

59.0 ✓
 55.4 ✓
 114.4 ✓

- 1.32 ✓

P. G. 110

149.2
 259.3
 327.0
 77.7
 9.52 20 158.3

67.7 ✓
 90.6
 138.3
 148.3

- 0.61

30 50
 9 47 42
 - 44
 9 46 58
 21104.616
 570
 0.106

Aug. 28th 19169 58 25⁹

P.C. 110

$$\begin{array}{r} 259.2 \\ 336.6 \\ \hline 876.9 \\ 157.7 \end{array}$$

$$\begin{array}{r} 77.4 \\ 64.8 \\ \hline 142.2 \end{array}$$

- 0.75

711

P.C. 290

$$\begin{array}{r} 50.6 \\ 184.2 \\ \hline 236.4 \\ 0.9 \\ \hline 57.6 \end{array}$$

$$\begin{array}{r} 52.2 \\ 56.7 \\ \hline 108.9 \end{array}$$

- 1.44

- 0.82

- 1.44

$$\begin{array}{r} 7.08 \\ 1.13 \\ \hline 9.32 \\ 8.19 \end{array}$$

10 02.10

$$\begin{array}{r} 170.9 \\ 235.8 \\ \hline 6.9 \\ \hline 53.9 \end{array}$$

$$\begin{array}{r} 61.9 \\ 47.0 \\ \hline 108.9 \end{array}$$

- 1.44

P.C. 110

$$\begin{array}{r} 91.0 \\ 147.2 \\ \hline 258.8 \\ 334.2 \end{array}$$

$$\begin{array}{r} 56.2 \\ 77.4 \\ \hline 133.6 \end{array}$$

- 0.90

10 05 30

12 53

10 03 14

47

$$\begin{array}{r} 10 02 27 \\ 21104.627 \\ \hline 520 \\ 0.117 \end{array}$$

$$\begin{array}{r} 10 55 15 \\ 10 59 33 \\ 50 \end{array}$$

$$\begin{array}{r} 11 00 05 \\ 01 \\ 11 02 40 \\ 03 25 \\ 04 \end{array}$$

Aug. 28-1916.

P.G. 110

10 ¹⁹ 18 05 93.2
 150.2
 255.5
 348.2

57.0 ✓
 82.7 ✓
 139.7 ✓

IV

-0.78 ✓

P.G. 290

10 21 30 175.8
 238.2
 2.7
 52.8

62.4 ✓
 50.1 ✓
 112.5 ✓

-0.79 ✓
 -1.40 ✓
 21.9 ✓
 +0.9 ✓
 -1.10
 9.32
 8.22

10 21 50 179.2
 233.0
 4.4
 39.2

53.8 ✓
 54.8 ✓
 108.6 ✓

-1.45 ✓

P.G. 110

10 25 25 255.5
 333.9
 387.0
 147.2

78.4 ✓
 60.2 ✓
 138.6 ✓

-0.80 ✓

7 50

10 21 58

48

10 21 10

21104.640

638

-0.130

+0.003

Spoc. 8.1

Dec. 10.1

Line T. 21.23

16.9. 10.27

Stopped to make
 identification
 sure before continuing
 further

Aug 28th 1916

P. G. 110

~~11 14 10~~ 326.8

11 24 45 262.6

339.8

97.7

160.0

P. G.

290

8.4

> 67.7

177.8

11 26 50

256.8

77.2 ✓

62.3 ✓

139.5 ✓

- 0.78 ✓

59.3 ✓

79.0 ✓

138.3 ✓

- 0.81 ✓

- 0.75 ✓

- 0.82 ✓

- 0.79 ✓

932

f.53

11 27 00

358.8

70.4

> 181.4

247.4

71.6 ✓

66.0 ✓

137.6 ✓

- 0.82 ✓

P. G. 110

97.8

159.4

> 265.5

345.4

11 29 15

27 50

11 26 58

54

11 26 04

21104.685

.637

0046

61.6 ✓

79.9 ✓

141.5 ✓

- 0.74 ✓

Aug 28th 1916

P.G. 110

VI

11 27 30	93.6	70.2 ✓	
	163.8	74.6 ✓	
	270.2	<u>144.8</u> ✓	
	344.8		- 0.68 ✓

P.G. 290

	182.8	67.6 ✓	-0.73 ✓
	250.4	66.6 ✓	-0.82 ✓
	3.8	<u>134.2</u> ✓	✓ - 0.89 - 15-5
11 40 20	70.84		0.78 ✓
			<u>9.32</u>
			2.54

11 40 30	178.4	79.1 ✓	
	257.5	61.8 ✓	
	1.8	<u>140.9</u> ✓	
	63.6		- 0.76 ✓

P.Q. 110

	271.4	66.3 ✓	
	337.7	73.4 ✓	
	97.4	<u>139.7</u> ✓	
11 43 30	170.8		- 0.78 ✓

1 50

11 40 25

55

11 39 30

21104.694

637

0.057

Aug. 28th 1916

P.A. 110

11 49 25	262.6	81.0	✓	VII
	343.6	58.6	✓	
>	99.8	139.6	✓	
	158.4	-0.78	✓	

P.A. 290

	55.5			-0.72	✓
	68.4	62.9	✓	-0.65	✓
	177.7	80.7	✓	-0.68	✓
11 52 15	258.4	143.6	✓	-0.70	✓
				9.32	
				8.64	

11 52 30	352.6	85.2	✓	
	77.8	63.4	✓	
>	182.8	148.6	✓	-0.60
	240.2			

P.A. 110

268.2	68.1	✓	
336.3	78.1	✓	
93.3	146.2	✓	-0.85
171.4			

11 55 20
 9 30

11 52 22

56
 11 51 20

21004.702

637
 0.065

Aug. 22 - 1955

Pa. 110

12 12 30 265.5

VIII

344.2 78.7 ✓

103.2 590 ✓

162.2 137.7 ✓ - 0.82 ✓

Pa 290

4.4

65.3

180.6

12 15 00

258.2

60.9 ✓

776 ✓

1385 ✓

- 0.80 ✓

- 0.78 ✓

0.82 ✓

- 0.80 ✓

9.52

d. 52

Pa 290

12 15 42

2.8

72.2

182.8

250.6

69.4 ✓

678 ✓

137.2 ✓

0.82

- 0.83 ✓

Pa 110

90.4

165.0

~~2630~~

270.8

74.6 ✓

670 ✓

141.6 ✓

- 0.74 ✓

12 19 00

3378

21 12

12 15 18

587

12 14 21

2104.718

637

0081

Revised later

abidder = +10.1

HA (2) 18 W

ST. = 23.6

Aug 28, 1916

12 33 20 $\overline{PA\ 110}$ $\overline{245.0}$ $\overline{7.3}$ $\overline{66.0}$ $\overline{126.0}$ $\overline{247.8}$ $\overline{58.7}$ $\overline{61.8}$ $\overline{120.5}$ $\overline{118}$ \overline{IX}

12 37 10 $\overline{PA\ 290}$ $\overline{28.2}$ $\overline{167.4}$ $\overline{272.7}$ $\overline{338.8}$ $\overline{79.2}$ $\overline{66.1}$ $\overline{145.3}$ $\overline{0.67}$ $\overline{-1.12}$ $\overline{-0.79}$ $\overline{-0.96}$ $\overline{9.32}$ $\overline{236}$

12 37 50 $\overline{PA\ 290}$ $\overline{98.3}$ $\overline{157.2}$ $\overline{266.6}$ $\overline{340.8}$ $\overline{58.9}$ $\overline{74.2}$ $\overline{133.1}$ $\overline{-0.79}$ $\overline{-0.91}$

12 41 20 $\overline{PA\ 110}$ $\overline{180.3}$ $\overline{252.9}$ $\overline{8.8}$ $\overline{620}$ $\overline{72.6}$ $\overline{53.2}$ $\overline{125.8}$ $\overline{-107}$

29 40
12 27 40
59
12 26 41
21104.727
637
+0.90

Aug. 28 - 1916

PA 110

X

12 5700

186.7

245.5

74

65.0

57.8 ✓

57.6 ✓

116.4 ✓

- 1.27 ✓

PA 290

265.3

337.3

99.4

12 5320

160.3

720 ✓

605 ✓

1325 ✓

- 0.93 ✓

- 1.20 ✓

- 0.92 ✓

- 1.06 ✓

9.32

8.26

12 5400

273.8

334.0

90.0

162.6

602 ✓

726 ✓

132.8 ✓

0.92

- 0.92 ✓

PA 110

14

63.6

185.3

246.2

62.2 ✓

60.9 ✓

123.1 ✓

- 1.13 ✓

12 5740

16 00

12 5400

1 1

12 5259

21104.745

637

0.108

Aug. 28 - 1916

13 06 42 Pa 110 XI

$$\begin{array}{r}
 124 \\
 62.0 \\
 123.2 \\
 \hline
 247.9
 \end{array}
 \quad
 \begin{array}{r}
 49.6 \\
 647 \\
 \hline
 1143
 \end{array}
 \quad
 \begin{array}{r}
 1.32 \\
 \hline
 \end{array}$$

13 10 00 Pa 290

$$\begin{array}{r}
 93.6 \\
 162.2 \\
 27.18 \\
 \hline
 337.4
 \end{array}
 \quad
 \begin{array}{r}
 68.6 \\
 656 \\
 \hline
 1342
 \end{array}
 \quad
 \begin{array}{r}
 -0.89 \\
 \hline
 \end{array}$$

13 10 37 Pa 290

$$\begin{array}{r}
 97.0 \\
 158.3 \\
 273.0 \\
 \hline
 342.2
 \end{array}
 \quad
 \begin{array}{r}
 61.3 \\
 692 \\
 \hline
 1305
 \end{array}
 \quad
 \begin{array}{r}
 -0.94 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 1.26 \\
 -0.93 \\
 \hline
 2.19 \\
 -1.10 \\
 \hline
 9.32 \\
 \hline
 822
 \end{array}$$

13 13 50 Pa 110

$$\begin{array}{r}
 185.6 \\
 251.2 \\
 10.8 \\
 \hline
 64.2
 \end{array}
 \quad
 \begin{array}{r}
 65.6 \\
 534 \\
 \hline
 1190
 \end{array}
 \quad
 \begin{array}{r}
 -1.21 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 13 \quad 10 \quad 09 \\
 13 \quad 10 \quad 18 \\
 \hline
 13 \quad 9 \quad 15 \\
 21104.756 \\
 637 \\
 \hline
 0.119
 \end{array}$$

Aug 28 - 1916

P.A. 110

XII

13 2100

186.3

245.0

58.7 ✓

8.6

57.7 ✓

66.3

116.4 ✓

- 1.27 ✓

P.A. 290

13

267.6

347.6

70.0 ✓

98.0

620 ✓

13 2600

160.0

1320 ✓

- 0.94 ✓

- 1.33 ✓

- 0.70 ✓

- 2.23 ✓

- 1.12 ✓

932

820

P.A. 290

13 2653

272.2

340.0

67.8 ✓

- 0.90

~~96.3~~

94.2

67.4 ✓

~~158.8~~ 161.6 135.2 ✓

- 0.87 ✓

P.A. 110

13

46

63.0

58.4 ✓

190.8

52.6 ✓

13 3000

243.4

111.0 ✓

- 1.39 ✓

23 53

13 25 58

- 1 3

13 20 55

21104767

764

0.003

Aug 28 - 1916

$$\begin{array}{r} 13 \quad 37 \quad 4) \\ \hline 1916 \\ 245.8 \\ \hline 8.3 \\ 65.3 \end{array}$$

$$\begin{array}{r} 54.2 \\ \hline 570 \\ \hline 1112 \end{array}$$

$$-1.39$$

$$\begin{array}{r} 13 \quad 42 \quad 00 \\ \hline 265.3 \\ 339.4 \\ \hline 93.6 \\ 161.6 \end{array}$$

$$\begin{array}{r} 74.1 \\ \hline 680 \\ \hline 1421 \end{array}$$

$$-0.73$$

$$\begin{array}{r} 13 \quad 42 \quad 30 \\ \hline 265.8 \\ 338.3 \\ \hline 98.3 \\ 162.2 \end{array}$$

$$\begin{array}{r} 172.5 \\ \hline 639 \\ \hline 1364 \end{array}$$

$$0.79$$

$$-1.42$$

$$\begin{array}{r} 079 \\ \hline 221 \\ \hline 1.10 \\ 4.32 \\ \hline 8.22 \end{array}$$

$$-0.85$$

$$\begin{array}{r} 13 \quad 46 \quad 00 \\ \hline 8 \quad 17 \\ 13 \quad 42 \quad 04 \\ \hline 1 \quad 4 \\ \hline 13 \quad 41 \quad 00 \\ 21104.778 \\ \hline 764 \\ \hline 0.14 \end{array}$$

$$\begin{array}{r} 12.2 \\ \hline 48.0 \\ \hline 51.1 \\ \hline 109.1 \end{array}$$

$$-1.44$$

Aug 28 1916

PA 110

~~XIV~~

13 57 12

9.2

61.0

188.0

248.3

57.8 ✓

60.3 ✓

112.1 ✓

- 1.37 ✓

PA 290

87.8

161.6

269.4

340.9

73.8 ✓

71.5 ✓

145.3 ✓

- 0.67 ✓

13 54 00

PA 290

13 54 52

98.3

158.7

265.5

344.4

60.4 ✓

78.9 ✓

139.3 ✓

0.73 ✓

- 0.79 ✓

- 1.38 ✓

0.73 ✓

- 1.06 ✓

9.32

2.26

PA 110

184.3

248.3

12.6

59.8

64.0 ✓

47.2 ✓

111.2 ✓

- 1.39 ✓

13 58 30

18 34

13 54 38

- 1 58

13 53 33

21104.887

768

0023P.A. = 108.0 A
87.8 = 7.5-

Aug. 28 - 1916

Pa. 110

14	26	30	184.2	63.5	✓
			2477	65.2	✓
			1.2	128.7	✓
			66.4		- 1.00

Pa 290

14	32	00	262.8	78.8	✓
			341.6	709	✓
			95.8	149.7	✓
			166.7		- 0.58

- 0.94 ✓
 0.58 ✓
 - 0.76 ✓
 9.32 ✓
 8.56 ✓

14	32	42	266.8	69.4	✓
			336.2	800	✓
			88.6	149.5	✓
			168.6		- 0.59 ✓

Pa. 110

357.8

14	35	20	67.4	69.6	✓
			147.2	65.0	✓
			252.2	134.6	✓
					- 0.88 ✓

Comp't used in all of above

= $Dm + 99.5137 (91) = 932$

Cs Watch = $1^m 10^s$ fast at 14.45

SS Cygni (8.7) in 12" Polar

632
 14 31 38
 - 1 9
 14 30 29
 20 1104.8134
 15 00
 49

Tues. Aug. 29-1916.

Ba.

used

Watch = Correct at 7:15

P.C. Obs.

15"

H.E.B. Rec

(15) Eunomia

Phot T.

~~For~~

22 45 ~~19.6~~

18 30 + 9.6

4 15 ~~2~~

7 40

P.C. 340

Not Eunomia

but 2 stars =
+ 9.5722 (46) with + 9.5134 (94)

7 53 30

268.6

subsidia.

348.8

75.2

> 82.3

91.9

174.2

~~147.1~~

167.1

- 0.24

2.2

P.C. 160

> 92.3

90.1

183.6

85.8

87 53 40

269.4

175.9

- 0.08

- 0.26

- 0.10

- 0.18

7 53 55

9.6

89.4

79.8

> 181.3

93.9

275.2

~~147.7~~

173.7

- 0.11

P.C. 340.

88.0

94.2

> 182.2

71.0

277.4

165.2

- 0.28

7 56 45

348.4

See next page
for Eunomia.

Aug. 29th 1916

Eumonia

P.G. 300

8 08³ 53-

17.6

Circ. Dis.

789.3

61.7 ✓

198.8

52.7 ✓

251.5

114.4 ✓

- 1.32 ✓

P.G. 120

110.4

57.0 ✓

167.4

71.1 ✓

280.3

128.1 ✓

- 1.02 ✓

8 6 45-

351.4

- 1.29 ✓

- 0.94 ✓

22.3 ✓

1.12 ✓

932 ✓

8.20 ✓

8 6 55-

94.2

80.1 ✓

174.3

56.0 ✓

288.2

136.1 ✓

- 0.85 ✓

344.2

P.G. 300

201.3

54.9 ✓

256.2

61.9 ✓

16.8

116.8 ✓

- 1.28 ✓

8.9.00

78.7

26 35

8 06 39

21105 546

524

0.022

Same comp. star as last night.

Aug. 29th 1916

P.A. 300

8 13 30

197.2

2683.2

20.4

70.6

66.0 ✓

50.2 ✓

116.2 ✓

- 1.28 ✓

71

P.A. 120

285.3

345.8

97.0

175.5

60.5 ✓

788.5 ✓

139.0 ✓

- 1.18 ✓

- 0.72 ✓

- 1.90 ✓

- 0.95 ✓

- 0.79 ✓

8 16 45

8 16 55

269.6

357.5

1076.6

165.4

87.9 ✓

58.8 ✓

146.7 ✓

- 0.64 ✓

9.32 ✓

0.95 ✓

2.37 ✓

P.A. 300

21.4

75.8

191.4

262.2

54.4 ✓

70.8 ✓

125.2 ✓

- 1.08 ✓

8 19 30

26 40

8 16 40

21105.553

524

0.029

Aug. 29th 1916

P. G. 300

8 23 20

24.8
86.6
201.3
253.7

61.8[✓]
62.4[✓]
124.2[✓]

- 1.10[✓]111

P. G. 120

8 26 50

~~174.8~~
297.3
353.6
104.2
178.8

56.3[✓]
74.6[✓]
130.9[✓]

- 0.96[✓]

- 1.02[✓]
- 0.86[✓]
- 0.94[✓]
9.32[✓]
8.38

8 28 00

286.5[✓]
3.2
114.7
178.3

76.7[✓]
63.6[✓]
140.3[✓]

- 0.77[✓]

P. G. 300

8 28 50

29.2
85.3
198.3
273.8

56.1[✓]
75.5[✓]
131.6[✓]

- 0.95[✓]

26 00

8 26 30

21105.560

524[✓]
0.036

Aug. 29th 1916

P. G. 300

8 32 10

24.4

63.4 ✓

87.8

61.1 ✓

206.2

124.5 ✓

267.3

- 1.10 ✓

IV

P. G. 120

~~117.2~~

177.2

288.8

8 35 10

355.8

60.0 ✓

71.0 ✓

131.0 ✓

- 0.96 ✓

- 1.12 ✓

- 0.84 ✓

- 1.96 ✓

- 0.98 ✓

9.32 ✓

R. 34 ✓

8 36 15

110.6

75.1 ✓

185.7

68.0 ✓

287.7

143.1 ✓

355.7

- 0.71 ✓

P. G. 300

204.2

61.1 ✓

265.3

61.7 ✓

29.1

122.8 ✓

- 1.13 ✓

8 38.30

22 05

8 35 31

21105.566

524

0.042

Aug 29th 1916

P. A. 300

8 44 15 198.3
271.8
27.1
83.9

73.5 ✓
56.8 ✓
130.3 ✓

- 0.97 ✓

V

P. A. 120

289.8
358.8
112.3
185.4

69.0 ✓
73.1 ✓
142.1 ✓

- 0.73 ✓

- 0.97 ✓
- 0.78 ✓
- 0.88 ✓
9.32 ✓
A. 44

8 46 30

8 46 50

284.8
3613
118.5
179.2

76.5 ✓
60.7 ✓
137.2 ✓

- 0.83 ✓

0.78 ✓

8 47 50

~~8 53 25~~~~25 25~~

P. A. 300

clads.

Cloudy

stars gone

8 46 21

2 11 05 574

524

.050

Aug 29th 1916

P.C. 300

9 23 50 265.0
 24 10 28.6
 85.5
 198.8
 271.2

56.9 ✓
 72.4 ✓
 129.3 ✓

- 0.99

VI.

P.C. 120

114.8
 184.6
 288.2

69.8 ✓
 65.0 ✓
 134.8 ✓

0.9 24
 9.32
 - 0.88 2.38

9 25 35 353.2

9 24 52
 601

9 28 55 119.7
 524 182.4
 .077 291.2

not full weight to this.

62.7 Stopped by clds.

P.C. 118.0 spr. 347 3.7

Impossible to continue account of
 cloudy. more uncertainty felt
 regarding results of to-night.

Obs somewhat hindered from
 last night's work, therefore
 possibly affecting the series
 of observations above.

2.913

Wed. Aug 30-1916

P.C. OB

H.E.B. Rec

15" shot T.

Pos watch

Eumonia

10" slow at 7:15

22 45
19 30

48 15

2 50

+9.3

8.40 H.G.

9.2 sec

18.30 Air Time

3.15

P.G. 180

7

7 38 10

296.6

and dis.

352.7

56.1 ✓

113.4

64.2 ✓

177.6

120.3 ✓

-1.19 ✓

P.G. 0

20.6

69.0 ✓

89.6

50.0 ✓

211.6

119.0 ✓

-1.21 ✓

7 41 20

261.6

-1.15⁴

-1.18

-1.16 ✓

-9.32

-8.16

7 41 40

27.2

58.3 ✓

85.5

63.9 ✓

205.3

122.2 ✓

-1.14 ✓

269.2

21106.529

P.G. 180

0.411

108.4

71.8 ✓

0.118

180.2

52.6 ✓

299.2

124.4 ✓

-1.10 ✓

7 44 40

351.8

40

Same comp. stem used as on

7 41 20

W. L. Cong. 30th - 1916.

P. Q. 180

7 53.15- 122.2
174.4
→ 286.6
357.3

$$\begin{array}{r} \sqrt{2.2} \\ 69.7 \\ \hline 121.9 \end{array}$$

- 1.15 ✓

71

P. G. O

75530	211.3
	269.3
	27.6
	85.5

$$\begin{array}{r} 58.0 \\ 57.9 \\ \hline 115.9 \end{array}$$
$$\begin{array}{r} - 1.26 \\ - 1.27 \\ \hline - 253 \\ \checkmark - 1.26 \checkmark \\ 9.32 \\ - 1.28 \\ \hline 8.06 \end{array}$$

755 SD	211.8
	258.2
	> 20.2
	90.8

$$\begin{array}{r} 46.4 \\ 70.6 \\ \hline 117.0 \end{array}$$
$$\begin{array}{r} 1.26 \\ - 1.26 \\ \hline \end{array} \checkmark$$

P.C. 180

291.6
358.4
124.6
7 58 40 169.4

$$\begin{array}{r} 66.8 \\ 44.8 \\ \hline 111.6 \end{array}$$

- 1.38 ✓

23 15

$$\begin{array}{r} 5549 \\ 56 \overline{) 5559} \end{array}$$

21106.539

$$\begin{array}{r} 524 \\ - 537 \\ \hline 015 \\ 002 \end{array}$$

Aug 30th 1916

P. A. 180

8 01 15 303.6
 350.7
 114.6
 174.8

47.1 ✓
 60.2 ✓
107.3 ✓

-1.48 ✓

111

P. A. 0

8 03 30

24.3
 85.1
 212.4
 257.8

60.8 ✓
 45.4 ✓
106.2 ✓

-1.54 ✓

-1.29 ✓
 -1.44 ✓
-1.386 ✓
 9.32
7.946

8 03 50

33.6
 81.2
 202.2
 267.1

47.6 ✓
 64.9 ✓
112.5 ✓

-1.35 ✓

P. A. 180

8 06 45

111.8
 182.9
 298.4
 351.8

71.1 ✓
 53.4 ✓
124.5 ✓

-1.10 ✓

15 20
 P 03 50
 8 04 50³
 21106.544
537
 .007

Aug 30th 1916

P. A. 180

8 12 30 120.4
171.2
291.5
358.0

50.8 ✓
66.5 ✓

117.3 ✓

- 1.25 ✓

IV

P. A. 0

~~258.6~~
31.2
79.8
202.8
265.8

48.6 ✓
63.0 ✓

111.6 ✓

- 1.38 ✓

- 1.24
- 1.32

- 2.56
- 1.28 ✓

9.32

8.04

8 15-30

8 15-50 19.9
89.7
214.1
260.6

69.8 ✓
46.5 ✓

116.3 ✓

- 1.27 ✓

P. A. 180

170.
301.3
350.6
110.9
179.8

49.3 ✓
68.9 ✓

118.2 ✓

- 1.23 ✓

8 18 40

22 30

8 15 38

8 15 44

21106.553

527

.016

Aug 30th 1916

8 20 45

292.8	P. C. 180	✓
358.6	65.8	✓
122.2	52.6	✓
174.8	118.4	✓

- 1.23 ✓

8 23 20

29.6	P. C. 0	✓
80.7	57.1	✓
200.3	66.6	✓
266.9	117.7	✓

- 1.24 ✓

- 1.34³

- 1.20

- 1.26 ✓

~~89~~ 32

8.06

8 23 40

20.2	66.8	✓
87.0	55.2	✓
208.0	122.0	✓
265.2		

- 1.15 ✓

P. C. 180

302.9	44.7	✓
347.6	64.9	✓
113.8	109.6	✓
178.7		

- 1.43 ✓

8 27 00

14 45

A 23 41

8 23 56

21106.558

537

.021

Aug #30 1916

		P.G. 180	
8 35-10	292.2	66.0 ✓	<u>VI</u>
	358.2	53.5 ✓	
	118.8	<u>119.5</u> ✓	
	172.3	-1.20 ✓	

		P.G. 0	
	² 89.2	55.1 ✓	
	84.3	67.0 ✓	
	203.7	<u>122.1</u> ✓	-1.14 ✓
8 37 55-	270.7		

8 38 10	20.0	73.0 ✓	-1.18 ✓
	93.0	52.7 ✓	-1.10 ✓
	211.6	<u>125.7</u> ✓	-2.28 ✓
	264.3	-1.07 ✓	-1.14 ✓
			932
			8.18

		P.G. 180	
	122.4	49.5 ✓	
	171.9	72.1 ✓	
	289.2	<u>121.6</u> ✓	-1.16 ✓
8 41 15	361.3		
32 30			
8 38 08			
8 38 20			
21106.568			
<u>537</u>			
.031			

Aug. 30 1916

P.G. 180

8 47 10

111.2
178.1
~~300.7~~
~~48.4~~
350.6

66.9 ✓
49.9 ✓
116.8 ✓

- 1.26 ✓

VII

P.G. 0

207.2
265.6
18.7
90.9

58.4 ✓
72.2 ✓
130.6 ✓

- 0.97 ✓

8 50 30

- 1.16 ✓
- 0.945 ✓

8 50 45

198.3
268.8
27.1
88.8

70.5 ✓
61.7 ✓
132.2 ✓

- 0.93 ✓

- 2.20 ✓
- 1.056 ✓
9.32
8.27
8.276

P.G. 180

296.2
352.2
111.4
~~108. -~~
182.2

56.0 ✓
70.8 ✓
126.8 ✓

- 1.05 ✓

8 53 00

1 25
P 50 21
P 50 37

21106.577

537
0.040

Aug. 30 1916

P. A. 180

9 06 50	292.3	68.0 ✓	
	360.3	53.5 ✓	
	120.2	<u>121.5</u> ✓	- 1.16 ✓
	173.7		

VIII

P. A. 0

	26.0	56.2 ✓	
	82.2	69.0 ✓	
	203.1	<u>125.2</u> ✓	- 1.08 ✓
9 10 20	272.1		

9 10 30	15.8	77.8 ✓	- 1.12 ✓
	94.6	60.3 ✓	- 0.94 ✓
	208.5	<u>138.1</u> ✓	- 20.6
	268.8		- 1.03
			9.32
			<u>8.29</u>

P. A. 180

	170.2	50.8 ✓	
	299.8	74.9 ✓	
	350.6	<u>125.7</u> ✓	
	109.2		- 1.07 ✓
9 13 10	184.1		
<u>0 50</u>			
9 10 12			
9 10 30			
9 10 22			
2 11 06.590			
<u>.537</u>			
0.053			

Aug 30 1916

P.G. 180

9 28 40

291.3

359.7

- 4

118.1

175.8

68.4 ✓

57.7 ✓

126.1 ✓

- 1.06 ✓

1.8

P.G. 0

~~76.6~~

208.3

266.7

16.4

9 25 55

97.8

58.4 ✓

~~84.4~~ ✓139.8 ✓

- 0.78 ✓

1.08 ✓

~~0.97~~ ✓

- 0.77 ✓

0.78

9 25 05

194.8

275.2

25.4

85.9

80.4 ✓

60.5 ✓

140.9 ✓

- 0.76 ✓

- 0.92 ✓

932

8.40

P.G. 180

~~351.2~~

120.4

172.2

285.4

358.3

57.8 ✓

~~82.9~~ ✓124.7 ✓- 6.88 ✓
1.09 ✓

9 28 00

19 40

9 24 55

19

9 25 14

21106.601

537

0064

Aug 30 1916

P.C. 180

9 33 15	114.2	64.1 ✓	
	178.3	61.0 ✓	
	357.7	125.1 ✓	-1.08 ✓
	358.7		

X

P.C. 0

9 30. 00	208.8	59.9 ✓	
	268.7	81.3 ✓	
	17.4	141.2 ✓	-0.70 ✓
	98.7		

9 30 15	197.2	78.5 ✓		-0.64 ✓
	275.7	68.9 ✓		-1.12 ✓
	21.1	147.4 ✓	-0.63 ✓	-0.69 ✓
	90.0			-1.81
				-0.90 ✓
				9.32
				8.42

P.C. 180

9 38 20	296.6	56.1 ✓	
	352.7	65.0 ✓	
	114.2	121.1 ✓	-1.17 ✓
	179.2		

23 50	
9 35 58	
14	
9 36 17	
21106.600	
537	
0.071	

Aug. 30 1916

9 46 30

288.4
354.2
119.4
171.8

P. G. 180

65.8 ✓
52.4 ✓
11.8:2 ✓

- 1.23 ✓

XT

9 51 00

255.6
84.0
198.8
269.7

P. G. 0

58.4 ✓
70.9 ✓
129.3 ✓

- 0.99 ✓

9 57. 25

17.0
92.2
29209.8
258.6

P.

75.2 ✓
48.8 ✓
124.0 ✓

- 1.11 ✓

- 1.11 ✓
- 1.05 ✓
- 1.08
9.32
8.24

P. G. 180

121.2 ✓
170.6 ✓
285.3 ✓
359.6 ✓
129.7 ✓

- 0.99 ✓

4
9 57. 10

3 05

9 50 46

20

9 51 06

21106.619

537

0.082

Aug 23 1916

P. a. 180

10. 01 50
 113.0
 180.5
 8298.8
 357.0

67.5 ✓
 522 ✓
 119.7 ✓

- 1.20 ✓

X 11

P. G. 0

209.8
 211.4
 14.2
 93.6

51.6 ✓
 79.4 ✓
 131.0 ✓

- 0.96 ✓

10 05 00

10 5 30
 198.6
 272.4
 28.9
 82.6

73.8 ✓
 53.7 ✓
 127.5 ✓

- 1.03 ✓

- 1.22
 - 1.00
 1.11
 9.32
 8.22
 8.21

P. G. 180

301.9
 352.2
 112.2
 180.2

50.3 ✓
 68.0 ✓
 138.3 ✓
 118.3

- 0.81 ✓
1.23 ✓

10 8 10
 20 30

10 5 08
 21

10 5 29

21106.628
 537
 0.091

Aug 30 1916

P. G. 180

10 15 25

291.2
355.5
123.6
175.0

64.3 ✓
51.4 ✓
115.7 ✓

- 1.29 ✓

XIII

P. G. 0

10 18 20

8
27.2
83.2
203.0
270.2

56.0 ✓
67.2 ✓
123.2 ✓

- 1.12 ✓

10 18 40

16.1
90.4
211.8
241.7

73.8 ✓
49.9 ✓
123.7 ✓

- 1.11 ✓

131⁰ ✓
- 1.12 ✓
1.22 ✓
9.32 ✓
8.10
F. 11

P. G. 180

10 21 05

122.3
171.2
291.8
357.2

48.9 ✓
65.4 ✓
118.3 ✓
4

- 1.36 ✓

33 30

10 18 22

22

10 18 44

21106.638

537

101

Aug 30 1916

P.G. 180

10 25 20

113.2

180.2

301.6

345.7

67.0 ✓

44.1 ✓

111.1 ✓

-1.39 ✓

XIV

P.G. 0

215.4

259.3

21.0

91.2

43.9 ✓

70.2 ✓

114.1 ✓

-1.32 ✓

10 28 40

10 28 50

203.3

271.2

28.4

82.7

67.9 ✓

54.3 ✓

122.2 ✓

-1.14 ✓

1.36
-1.23

1.30

9.32

8.02

P.G. 180

124.7

170.8

289.1

357.0

46.1 ✓

67.9 ✓

114.0 ✓

-1.33 ✓

10 32 10

35 50

10 28 45

23

10 29 08

21106.645

537

.108

Aug 30 1916

P.G. 180

10 38 30

116.8

171.4

300.3

354.6

54.6 ✓

54.3 ✓

108.9 ✓

- 1.44 ✓

XV

P.G. 0

215.4

259.1

23.8

89.7

43.7 ✓

65.9 ✓

109.6 ✓

- 1.43 ✓

10 41 40

10 41 55

205.8

267.7

28.9

79.2

61.9 ✓

50.3 ✓

112.2 ✓

- 1.37 ✓

30
- 1.25 ✓

- 1.40 ✓

- 1.32 ✓

9.32

8.00

7.97

P.G. 180

297.1

351.8

112.0

178.8

54.7 ✓

66.8 ✓

121.5 ✓

- 1.16 ✓

10 44 30

6 35

10 41 39

24

10 42 03

21106.654

537

.117

Aug 30 1916

P.G. 180

10 51 15

298.6

384.8

123.6

167.4

6 ✓

✓ 56.2

43.8 ✓

180.0 ✓

assumed as 364.8

43 ✓

- 1.46

XVI

P.G. 0

28.0

79.2

204.8

10 54 05

266.6

✓ 51.2

✓ 61.8

✓ 113.0

- 1.35 ✓

10 54 20

20.0

80.0

83.8

211.5

257.8

✓ 63.8

✓ 46.3

✓ 110.1

- 1.42 ✓

1.34

✓ 40

1.52

1.38

1.45

9.32

78.87

1.40 ✓

1.32 ✓

1.39 ✓

2.32 ✓

7.93 ✓

P.G. 180

123.6

167.8

292.8

360.0

✓ 44.2

✓ 57.2

✓ 111.4

- 1.39 ✓

10 57 30

17 15

10 54 19

25

10 54 44

21106.663

577

0.136

Aug 30 1916

P.G. 180

11. 01 25

117.4

177.2

302.2

353.8

59.8 ✓

57.6 ✓

111.4 ✓

-1.39 ✓

XVII

P.G. 0

211.4

262.2

20.4

91.5

50.8 ✓

71.1 ✓

121.9 ✓

-1.15 ✓

11 04 05

11 04 20

205.8

266.6

27.4

80.2

60.8 ✓

52.8 ✓

113.6 ✓

-1.34 ✓

1.29 ✓

1.24 ✓

1.26 ✓

9.32 ✓

8.06

P.G. 180

299.2

350.0

110.9

180.0

50.8 ✓

29.1 ✓

119.9 ✓

-1.19 ✓

11 07 25

17 15

11 04 19

25

11 04 44

21106.670

664

.006

Aug 30 1916

P.G. 180

11. 10 30	\$ 298.0	60.0 ✓	<u>XVIII</u>
	358.0	45.2 ✓	
	122.8	105.2 ✓	
	168.0	- 1.53 ✓	

P.G. 0

11 14 00	\$1.6	5 ✓	1.35 ✓
	75.7	44.1 ✓	
	208.0	58.8 ✓	
	200.8	102.9 ✓	

11 13 20	22.6	68.8 ✓	1.53 ✓
	91.4	52.9 ✓	
	209.7	121.7 ✓	
	262.6	- 1.16 ✓	

P.G. 180

11 15 55	120.6	45.6 ✓	- 1.53 ✓
12 45	172.2	59.6 ✓	
11 13 11	300.2	105.2 ✓	
26	359.8		

P.G. 200
Apr. 0.8

11 13 37
21106.676
664
0.013

Ps watch = 25² slow at 11 pm

L. to here.

1 - 1240
624 - 6282

Thurs. Aug. 31, 1946
 LCCB 12" Polar

SS Cygni 213743

A 10

Est P. 3

Sequence doesn't seem
 to be correct as regards
 the 8.0, 8.5, 9.4 & 9.6

Rest on a good night
 and have yellow light plate
 taken.

Seeing not very good.
 Dec'd index 0.4 too far N.

R.A. index

$$14a = 222 \text{ at } \begin{array}{r} 19 \quad 25 \text{ --- } 87 \\ 2 \quad 22 \\ \hline 21.47 \end{array}$$

21109.

Sat. Sept. 2, 1916

LCCb

15th Reg. H&B PerBs watch = 30th fast at 7:15-

Eumonia. (15) phot T.

2.2 4 5 + 9.6

18 35

4 10 E + 9.6

18.52 S.T.

Dec 9.9

R.A. 8.0

7th cap ure

7 46 45

350.2

P.A. 230.

7 47 20

117.4

comp. stan. dev.

184.2

66.8 ✓

298.4

63.2 ✓

± 1.6

130.0 ✓

+ 0.98 ✓

P.A. 50

34.8

66.9 ✓

91.7

41.4 ✓

216.4

108.3 ✓

+ 1.46 ✓

7 57 00

257.8

+ 0.99 ✓
+ 1.46 ✓

2 45 ✓

1.22 ✓

6.74 ✓

7.96 ✓

7 51 20

37.7

50.3 ✓

88.0

58.2 ✓

210.2

108.5 ✓

+ 1.45 ✓

268.4

P.A. 230

114.8

71.5 ✓

186.3

57.4 ✓

300.0

128.9 ✓

+ 1.00 ✓

7 54 10

357.4

21109.535
09452
0.083
+ 1.00 ✓
comp stan = stan 22^h 45^m
+ 9° 38' = 6.74

Sept 2nd 1916

P.C. 230

8 00 20 121.4
 178.6
 292.2
 6.2

57.2 ✓
 74.0 ✓

131.2 ✓

+ 0.95 ✓

T1
 new light for
 photo.

P.C. 50

8 0 35- 208.6
 270.1
 38.4
 84.9

61.5 ✓
 46.5 ✓
 108.0 ✓

+ 1.46 ✓

+ 0.91 ✓
 + 1.50 ✓
 + 2.41 ✓
 + 1.20 ✓
 6.74 ✓
 7.94

8 3 35- 216.9
 257.2
 27.8
 90.0

42.3 ✓
 62.2 ✓
 104.5 ✓

+ 1.55 ✓
 + 1.1

P.C. 230

288.2
 299.8
 124.6
 178.1

81.6 ✓
 53.5 ✓
 135.1 ✓

+ 0.87

8 6 45-
 8 14 35-

~~P.C. 50~~

8 73 739

8 3 39

8 3 09

21109.5-44

45.2

0.092

R. Cor. 154428

R. Scuti 184205

see. b 2 var. filter glass 8.12
 d 3 var. = 5.5

low arc arc in North 810

Sept. 2nd 1916

P. G. 230

8 14.00 302.2
 356.7
 115.2
 190.1 ✓

✓
 545 ✓
 74.9 ✓
 129.4 ✓ + 0.99 ✓

711

P. G. 50

24.2
 93.0
 217.4
 8 17 00 258.2

68.8 ✓
 40.8 ✓
 109.6 ✓ + 1.43 ✓

40.98 ✓
 + 1.40 ✓
 + 2.38 ✓
 1.19 ✓
 6.74 ✓
 7.93 ✓

8 17 25 37.3
 85.8
 208.2
 271.4

48.5 ✓
 63.2 ✓
 111.7 ✓ + 1.38 ✓

P. G. 230

112.2
 189.6
 299.2
 8 20 20 352.4

77.4 ✓
 53.2 ✓
 130.6 ✓ + 0.97 ✓

8 17 45

8 17 22

8 16 52

21109.553
 452
 0.101

Sept. 2nd 1916

P. G. 230

8 27 10

118.2
179.3
295.2
11.1

61.1 ✓

75.9 ✓

 137.0 ✓

+ 0.83 ✓

IV

P. G. 58

8 30 ¹⁵₄₅

207.8
266.2
33.6
85.2

58.4 ✓

51.6 ✓

 110.0 ✓

+ 1.42 ✓

8 30 40

216.7
262.2
287.8
94.2

45.5 ✓

66.4 ✓

 111.9 ✓

+ 1.37 ✓

* 0.88 ✓

+ 1.40 ✓

+ 2.28 ✓

+ 1.14 ✓

 6.74

 7.88

P. G. 230

8 33 25

290.4
5.8
183.8
180.2

75.4 ✓

56.4 ✓

 131.8 ✓

+ 0.94 ✓

90

P 30 22

P 49 52

21109.572
45.2
0.110

Sept. 2 1916

P.G. 230

8 35-40

298.2

358.1

111.0

190.2

59.9 ✓

79.2 ✓

139.1 ✓

+0.79 ✓

V

P.G. 50

208.6

~~217~~

273.8

36.2

84.9

65.2 ✓

48.7 ✓

113.9 ✓

+1.33 ✓

8 38 35

+0.80 ✓

+1.21 ✓

8 39 00

209.2

269.6

27.7

92.2

60.4 ✓

64.5 ✓

124.9 ✓

+1.09 ✓

20.1 ✓

10.8 ✓

6.74 ✓

7.74

P.G. 230

111.2

189.4

298.2

357.8

78.2 ✓

59.6 ✓

137.8 ✓

+0.82 ✓

8 42 20

155

8 38 39
8 38 09

Emission —

In finder of telescope int. = 8.0
at 43

21109.568

452

0.116

Sept. 2nd 1916

P. A. 230

8 ~~5-7~~ 20

119.6
180.8
293.1
6.8

61.2 ✓
73.7 ✓
134.9 ✓

+0.88 ✓

VI

P. A. 35

8 ~~5-4~~ 55

27.8
91.6
213.8
265.6

63.8 ✓
51.8 ✓
115.6 ✓

+1.29 ✓

8 ~~5-8~~ 20

35.6
86.2
208.2
272.6

50.6 ✓
64.4 ✓
115.0 ✓

+1.30 ✓

0.80 ✓
+1.30 ✓
1.050 ✓
6.74 ✓
7.79 ✓

8 ~~5-8~~ 15

P. A. 230

288.0
9.8
123.6
185.2

81.8 ✓
61.6 ✓
143.4 ✓

+0.71 ✓

8.0

8 58.00

20 15

8 55 04

8 54 34

8 59

 $\Sigma - \text{sec} = 8.0 \text{ in } 4^{\text{th}}$

21109.580

578

+ .002

Sept. 2nd 1916

P.A. 230

9 8 45

301.8
0.2
113.6
191.0

58.4 ✓
77.4 ✓
135.8 ✓

+0.86 ✓

VII

P.A. 50

9 11 50

205.6
269.2
32.2
89.9

63.6 ✓
57.7 ✓
121.3 ✓

+1.16 ✓

+0.86 ✓
+1.22 ✓

9 12 10

212.8
267.7
28.8
89.8

54.9 ✓
61.0 ✓
115.9 ✓

+1.28 ✓

208 ✓
104 ✓
6.74 ✓
7.78 ✓

P.A. 230

113.6
191.9
301.1
358.8

78.3 ✓
57.7 ✓
136.0 ✓

+0.86 ✓

9 15 05

7 50

9 11 54

9 11

21109.591

578

+0.013

9.15

Σ - m̄ = 8.0 in 4th

Sip. 2nd 1916

P. G. 360 230

9-25-00

184.2

183.3

294.6

-7.2

59.1 ✓

72.6 ✓

131.7 ✓

+ 0.94 ✓

VIII

P. G. 52

31.3

86.6

213.9

266.8

55.3 ✓

52.9 ✓

108.2 ✓

+ 1.46 ✓

9 27 50

9 28 15

33.9

87.8

213.9

268.8

53.9 ✓

54.9 ✓

108.8 ✓

+ 1.45 ✓

+ 0.96 ✓

+ 1.46 ✓

242 ✓

+ 121 ✓

6.74 ✓

7.95 ✓

P. G. 230

291.8

2.9

123.4

182.9

71.1 ✓

59.5 ✓

130.6 ✓

+ 0.97 ✓

9 34 05

32 10

9 28 02

9 27

9 21 09 602

578

0.24

9 30

Σ. - sel. = 8.2 in 4th

Sept. 2nd 1916

P.A. 230.

9 37 35 298.2
0.6
117.6
184.2

62.4 ✓
66.6 ✓
129.0 ✓
+ 1.00 ✓

1 X

P.A. 50

208.8
271.7
35.2
83.8

62.9 ✓
48.6 ✓
111.5 ✓
+ 1.38 ✓

9 40 20

+ 1.02 ✓
+ 1.45 ✓

9 40 40

215.6
265.3
30.3
86.3

49.7 ✓
56.0 ✓
105.7 ✓
+ 1.52 ✓

+ 2.47 ✓
+ 1.24 ✓
674 ✓
7.98 ✓

P.A. 230

115.9
183.1
297.2
357.6

67.2 ✓
60.4 ✓
127.6 ✓
+ 1.03 ✓

9 43 20
1 53

9 40 29

9 47

9 45

 $\Sigma - \text{cor} = 8.35 \text{ in } 4^{\text{th}}$

8.35

21109.611

578
.033

Sept. 2nd 1916

P. G. 230

9 52 24^h

1255.1
180.0
296.8
~~35.0~~
307.8

54.9 ✓
63.0 ✓

117.9 ✓

+1.24 ✓

X

P. G. 50

9 55 30

3
23.1
85.7
214.3
265.8

52.6 ✓
57.5 ✓

104.1 ✓

+1.56 ✓

9 55 50

35.8
83.3
214.8
266.2

47.5 ✓
50.4 ✓

97.9 ✓

+1.71 ✓

+1.13 ✓
+1.64 ✓

2.77 ✓
+1.38 ✓

6.74 ✓

8.12

P. G. 230

9 58 35

~~290.6~~
293.7
1.9
121.2
181.0

68.2 ✓
59.8 ✓

128.0 ✓

1.02 ✓

22 20

9 59

est Ennomia in 4" = 84

9 55 35

9 55 05

21109.622
578

.0441

Sept. 2nd 1916

P. C. 230

10 15 35	303.3	✓	
	357.6	✓	
	120.2	✓	
	180.1	✓	
	53.3	✓	
	59.9	✓	
	113.2	✓	+ 1.34 ✓

XI

P. C. 52

	209.8	✓	
	266.8	✓	
	80.6		
	35.4	✓	
10 19 05	82.8	✓	
	57.0	✓	
	47.4	✓	
	104.4	✓	+ 1.55 ✓

10 19 25	214.2	✓	
	260.8	✓	
	33.9	✓	
	87.2	✓	
	45.6	✓	
	53.3	✓	
	98.9	✓	+ 1.68 ✓

11.66	✓
+ 1.20	✓
+ 1.62	✓
2.88	✓
1.44	✓
6.74	✓
8.18	✓

P. C. 230

	117.1	✓	
	183.3	✓	
	300.3	✓	
10 22 05	354.2	✓	
36 10			
	66.2	✓	
	53.9	✓	
	120.1	✓	+ 1.19 ✓

10 19 02	
29	
10 18 33	10 23 -
21109.63P	
578	
.060	

Σ. sec = 8.4 in 4th

Sept. 2nd 1916

P.C. 230.

10 33 10

121.8

175.5

300.0

338.7

53.7 ✓

58.7 ✓

112.4 ✓

+ 1.36 ✓

X 11

P.C. 50

36.2

84.7

213.2

10 36 15

262.2

48.5 ✓

49.0 ✓

97.5 ✓+ 1.75² ✓

10 36 30

35.1

83.2

249.8

262.7

48.1 ✓

52.9 ✓

101.0 ✓

+ 1.63 ✓

+ 1.32 ✓

+ 1.68 ✓

3.00 ✓

+ 1.50 ✓

6.74 ✓

8.24 ✓

P.C. 230

297.2

352.1

122.2

10 39 20

179.6

58.9 ✓

57.4 ✓

116.3 ✓

+ 1.27 ✓

10 36 19

29

10 35 50

21109.650

578

072Σ. - 500 = 8.4 in 4th

Sept. 2 17.4⁶

P.G. 230

10 49 25

~~308.~~
 300.8
 356.4
 117.1
 180.4

55.6 ✓

63.3 ✓

 $\frac{118.9}{118.9} + 1.22$ ✓
XIII

P.G. 50

 210.4
 267.6
 34.3
 86.2

57.2 ✓

51.9 ✓

 $\frac{109.1}{109.1} + 1.44$ ✓

10 52 40

+1.13 ✓

+1.58 ✓

10 52 55

 215.9
 264.3
 37.4
 85.9

48.4 ✓

48.5 ✓

 $\frac{96.9}{96.9} + 1.73$ ✓

271 ✓

+1.36 ✓

6.7 ✓

8.10 ✓

P.G. 230

 118.0
 182.1
 298.2
 1.1

64.1 ✓

62.9 ✓

 $\frac{127.0}{127.0} + 1.04$ ✓

 10 53 20
135

10 52 34

 $\frac{29}{10 52 34} = 8.3$

 2107.661
 $\frac{578}{0.083}$

8.3

 $\frac{29}{10 52 34} = 8.3$ in 4^m

Sept. 2nd 1916

P.C. 230

11 9 15

121.3
179.4
295.8
~~261.3~~

58.1 ✓
65.5 ✓
123.6 ✓

+1.11 ✓

XIV

P.C. 50

11 12 15

31.8
88.3
213.5
263.9

56.5 ✓
50.4 ✓
106.9 ✓

+1.49 ✓

11 12 30

35.4
87.0
211.6
268.8

51.6 ✓
57.2 ✓
108.8 ✓

+1.45 ✓

+1.10 ✓
+1.47 ✓
25.7 ✓
+128 ✓
6.74 ✓
8.02

P.C. 230

11 14 55

296.3
~~255.2~~
122.2
178.8

68.9 ✓
55.6 ✓
124.5 ✓

+1.10 ✓

11 12 04
28
36
11 11

21109.675
578
0097

H. 15th Σ sec. = 8.2 in 4th

4.2

Sept. 2nd 1916

P.G. 230

11 20 30	300.6	59.2 ✓	
	359.8	71.5 ✓	
	117.2	<u>130.7</u> ✓	+0.96 ✓
	188.7		

XV

P.G. 320

	206.4	60.8 ✓	
	267.2	52.1 ✓	
	35.2	<u>112.9</u> ✓	+1.35 ✓
11 23 25	87.3		

+0.88 ✓
+1.31 ✓
<u>2.19</u> ✓
+0.9 ✓
+1.10 ✓
6.74 ✓
<u>7.84</u> ✓

11 23 35	207.6	61.6 ✓	
	207.6	54.9 ✓	
	369.2	<u>116.5</u> ✓	+1.27 ✓
	31.8		
	86.7		

P.G. 230

	112.0	75.5 ✓	
	187.5	63.6 ✓	
	296.2	<u>139.1</u> ✓	0.79 ✓
11 26.30	359.8		

120
11 23 30
28

11 23 02
21109.683
57.8
0.105

11.27

 $\Sigma \text{ set} = 8.2 \text{ in } 4^{\text{th}}$ ~~8.2~~

Sept 2nd 1915

P.C. 230

11 38 20 115.0
 180.4
 297.8
~~245.1~~

65.4 ✓
 67.3 ✓
 132.7 ✓ + 0.92 ✓

XV B

P.C. 50

11 41 25 29.6
 90.8
 211.9
 261.6

61.2 ✓
 49.7 ✓
 110.9 ✓ + 1.40 ✓

11 41 35³ 73.6
 86.4
 208.8
 265.8

52.8 ✓
 57.4 ✓
 110.2 ✓ + 1.41 ✓

+ 0.98 ✓
 + 1.40 ✓
 23.8 ✓
 + 11.9 ✓
 6.74 ✓
 7.93 ✓

P.C. 230

292.2
 358.8
 121.4
 181.6

66.6 ✓
 60.2 ✓
 126.8 ✓ + 1.05 ✓

11 44 50
 130

11 41 32
 27
 11 41 05

21109.695
 578
 117

Tel. received

Sept. 2nd 1916

P.C. 230

11 52.00
³
 \$6.0
 85.9
 206.4
 265.6

49.0 ✓
 59.2 ✓

 108.2 ✓ + 1.46 ✓

XVII

P.C. 50

295.2
 359.8
~~120.8~~
 121.0
 181.4

64.6 ✓
 60.4 ✓

 125.0 ✓ + 1.08 ✓

11 55.30

+ 1.44 ✓
 + 1.00

11 55.50
 299.2
 1.8
 115.3
 186.2

62.6 ✓
 70.9 ✓

 133.5 ✓ + 0.91 ✓

244 ✓
 + 1.22 ✓

 6.74 ✓
 7.96

P.C. 230

208.6
 264.4
 31.8
 85.9

55.8 ✓
 54.1 ✓

 109.9 ✓ + 1.42 ✓

11 58.50

130
 11 55.43
 11 55.18

21109.705
 705
 000

12.00

Σ. set. = 8.0 in 4^h

B₅ watch 25" fast at 12.00

Sept 2 1916

P.C. 230

12 08 15

211.4

261.9

~~34.6~~

31.3

88.0

$$\begin{array}{r}
 50.5 \checkmark \\
 56.7 \checkmark \\
 \hline
 107.2 \checkmark
 \end{array}$$

+1.48 ✓

XVIII

P.C. 52

111.0

186.6

300.1

358.0

$$\begin{array}{r}
 75.6 \checkmark \\
 57.9 \checkmark \\
 \hline
 133.5 \checkmark
 \end{array}$$

+0.91 ✓

12 11 45

$$\begin{array}{r}
 +1.45 \checkmark \\
 +0.93 \checkmark \\
 \hline
 238 \checkmark \\
 +119 \checkmark \\
 \hline
 6.74 \checkmark \\
 \hline
 7.93 \checkmark
 \end{array}$$
~~12 12 30~~~~125.2~~~~124.4~~

Dome inf.

174.9

12 13 40

301.3

21.9

115.2

186.0

$$\begin{array}{r}
 80.6 \checkmark \\
 70.8 \checkmark \\
 \hline
 151.4 \checkmark
 \end{array}$$

+0.95 ✓

P.C. 230

208.8

207.89

37.7

82.5

$$\begin{array}{r}
 65.1 \checkmark \\
 44.8 \checkmark \\
 \hline
 109.9 \checkmark
 \end{array}$$

+1.42 ✓

12 16 55

155

12 12 39

12 12 15

0.012

Sept. 2nd 1916

149

P.G. 230

12 24 30
214.2
259.8
35.5
88.0

45.6 ✓
52.5 ✓
98.1 ✓ + 1.70 ✓

XIX

P.G. 230

12 27 25
114.2
185.9
296.0
358.9

71.7 ✓
62.9 ✓
134.6 ✓ + 0.88 ✓

12 27 40
121.4
183.9
292.0
353.5

62.5 ✓
71.5 ✓
134.0 ✓ + 0.90 ✓

+ 1.58 ✓
+ 0.89 ✓
245 ✓
122 ✓
674 ✓
796 ✓

P.G. 230

12 30 35
34.6
87.8
209.0
266.3
130

53.2 ✓
57.3 ✓
110.5 ✓ + 1.41 ✓

12 27 32

12 27 08

21109.727
205
022

Sept. 2 1916

12 38 25

37.0

82.0

214.6

266.4

P.C. 230

45.0

51.8

96.8

+1.74

~~XX~~

P.C. 50

294.0

1.9

122.9

12 39 10

180.3

67.9

574

125.3

+1.08

12 39 25

298.8

358.0

110.9

184.0

59.2

73.1

132.3

+0.93

+1.64

+1.00

26.4

13.2

6.74

8.06

P.C. 230

211.1

266.0

34.0

12 42 N

83.9

54.9

49.9

104.8

+1.54

12 39 19

12 38 56

21109.735

205

030

Spro. 1.56 541

P.C.

2 - 1243

320 - 6602

Tues. Sept. 4th 1916

21111

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

S.S. Cygni 213843

* 745 est 9.6 F.C. Elh.
746 est 9.4 F.E.B. Ob.

W. Iherulic 163137

1913

242

sec. 13.8

R.V. Herc. 165631

1919

2.23

sec 10.1

γ Draconis 93178

1924

sec 11.8

953

U. Min 1332 73137 ~~327272~~

1935

sec 11.1 6.03

Sept 4th 1916

$$\begin{array}{r} \text{S. 20. Min} \quad 15.3378 \\ 19.39 \\ \hline \text{set } 9.4 \quad 4.06 \end{array}$$

Var. somewhat red

$$\begin{array}{r} \text{Z Cor.} \quad 15.5229 \\ 19.447 \\ \hline \text{set } \angle 13.8 \quad \cancel{35.2} \\ 35.5 \end{array}$$

$$\begin{array}{r} \text{R. J. Oph.} \quad 17.5111 \\ 20.08 \\ \hline \text{var } \angle 13.5 \quad 2.17 \end{array}$$

$$\begin{array}{r} \text{R. Y. Oph.} \quad 18.1103 \\ 20.12 \\ \hline \text{set } 8.0 \quad 2.01 \end{array}$$

$$\begin{array}{r} \text{J. Segb.} \quad 18.2306 \\ 20.15 \\ \hline \text{set } 12.2 \quad 1.52 \end{array}$$

Sept. 4th 1916

S.V. Incl. 18 22 24
 $\frac{20\ 22}{2\ w}$
 set 12.9

R. Z - Incl. 18 ~~2~~³ 2 25⁻
 $\frac{20\ 24}{1\ 42}$
 set 8.9

R. Y Lyrae 18 41 34
 $\frac{20\ 26}{1\ 45}$
 var. ~~14.0~~ \leftarrow 14.0

~~44~~ R. X Lyrae 18 50 32
 $\frac{20\ 30}{1\ 40}$
 43 N \leftarrow ~~14~~ ~~14~~

Z Lyrae 18 56 34
 $\frac{20\ 36}{1\ 40}$
 set 14.5 if seen

R. J. Lyrae 18 57 37
 $\frac{20\ 40}{1\ 47}$
 var. \leftarrow 13.7

R. W. Lyrae 18 42 43
 $\frac{20\ 42}{2\ w}$
 var \leftarrow 13.8

Sept 4th 1916

V. Lyrae 19 05 29

20 50

1 45

var 13.9

A S Lyrae 19 09 25

20 52

1 47S 3 N

J. Y Cygni 19 29 28

21 04

1 35

set 13.5

R J Aquil. 19 33 11

21 09

1 236

set 13.8

R. V Aquil 19 35 09

21 15

1 40

set 13.4

X Aquil 19 46 04

21 21

1 335

set 12.9

X Cygni 19 46 32

21 28

1 39

set 14.0

var very faint and
difficult but seems
thorough to be seen

10 20

23-1266
6602
P.P.

~~1/2~~

Thurs Sept. 7, 1916

R.C. Obs.

15" E. 22"

H.B. B. Rec

~~1/2~~
2421114

R Scorpii 16 11 22a

S.J. clock set
back 7 min.

P Scorpii 16 11 22h

18 55

244w -228

7 30

~~R~~ $\angle 13.3$ $\angle 13.0$

W. Oph.

16 16 07

18 55

2 39

~~S.J. clock~~
~~set~~

S.J. 18 58

set 12.3

H.C. 243 W

Dec. -7.2

Y Scorp.

16 23 19

19 00

2 37

Clock in region.

S. Oph

16 28 16

set $\angle 13.3$

J Oph.

16 28 15

19 06

2 38

~~set~~m 2 N

S.J. 19.07

H.C. 2.38

Dec. -17.0

S.J. 19 10

H.C. 2.42

Dec. 17.0

Sept 7th 1916

R.R. Ophi. 16 43 19

set 13.1

$$\begin{array}{r} 19\ 12 \\ \hline 2\ 29 \end{array}$$

S.J. 19 15

H.G. 23.1

Dec. - 19.2

S.S. Ophi. 16 52 02

set 9.0

$$\begin{array}{r} 19\ 15 \\ \hline 2\ 24 \end{array}$$

S.J. 19 17

H.G. 22.4 W

Dec. - 2.4

R. Ophi. 17 02 15

set 12.3

$$\begin{array}{r} 19\ 15 \\ \hline 2\ 17 \end{array}$$

S.J. 17 21

H.G. 21.9 W

- 15.6

S.J. Sagitt. 18 55 12

set 9.1

$$\begin{array}{r} 19\ 25 \\ \hline 0\ 30 \end{array}$$

S.J. 19 26

H.G. 23.3 W

Dec. - 18.3

R.K. Sagitt 19 08 18

$$\begin{array}{r} R.K. = 9.5 \\ \hline 19\ 29 \\ \hline 0\ 21 \end{array}$$

S.J.

H.G. &

Dec.

R = 8.5

R.W. = 9.4

~~S. Sagittarius~~~~Z Sagitt~~

* 12.5

Moon close by.

Sept. 7th 1916

157

J. Sagittae 19 10 17

see 11.5

W. Aquilae

19 10 07

19 40

0 30

see 10.6

var. mean = 9.7

S.J. 19 42

18.6 0.34W

Dir. - 6.8

Z Sagittae

19 13 21

19 45

0 32

see 10.9

SJ 1952

H.G. 0.40W

Dir. - 20.9

RR Aquilae

19 52 02

19 55

0 3

see 12.4

S.J. 19 55

18.6 0.04W

Dir. - 1.9

R.S. Aquilae

19 53 08

19 56

0 3

see < 13.3

S.J. 19 58

18.6 0.05W

Dir. - 7.8

R. Capri.

20 05 14

20 00

0 05

see 9.9

20 2

0.02E

-14.2

W. Capri.

20 08 22

20 04

04E

see 12.8

20 05

0.02E

-21.5

Sept 7th 1915

R. J. Capr. $\begin{array}{r} 20 \ 11 \ 21 \\ \hline 20 \ 06 \\ \hline 05 - E \end{array}$ $\begin{array}{r} 20 \ 06 \\ 0.03 E \\ -16.2 \end{array}$
 cat. 7.4
 var. quite red.

Z Aquil. $\begin{array}{r} 20 \ 09 \ 06 \\ \hline 20 \ 07 \\ \hline 02 - E \end{array}$ $\begin{array}{r} 20.9 \\ 0.1 W \\ -6.3 \end{array}$
 cat 10.3

Wright's Surf. Phot T.
 $\begin{array}{r} 448 \times 540 \\ 20 \ 12 \\ \hline 8 \ 36 E \\ 3 \ 24 \times 540 \end{array}$

gam. 5, 3 a, 5B

9 00

Clouds over whole sky

9 35

Heavy sand (clouds) coming
 in from the West South.

(25)(1291) $\begin{array}{r} 66.2 \\ \hline \end{array}$ P.P.P.

Mon. Sept 11, 1916

L.C. Obs. 15^h 22^m 9^s F.E.B. Rec.(15) Eumonia
Too near Moon

Olcott's Suspect Var.

04 31 74

B's watch

19 07

30 sec. slow.

9 31

P.A. 220

2 29[✓]comp. with α (9.3)

7 52 15

285.6

sus. f. var. dis.

14.1

88.5[✓]

94.5

105.3[✓]

199.8

193.8[✓]+ 0.26[✓]166.2[✓]

P.A. 40

14.8

89.0[✓]

103.8

66.3[✓]

204.4

155.3[✓]- 0.47[✓]

270.7

22.7

72.2[✓]

94.9

82.6[✓]

196.7

154.8[✓]- 0.48[✓]

279.3

P.A. 220

98.7

100.1[✓]

198.8

184.0[✓]+ 0.028[✓]

288.8

184.1[✓]

12.8

175.9[✓]

759 10

7 54 42

21118

Sept. 11th 1916

P.A. 90 270

8 8 15

285.2

6.9

109.2

189.8

susp. dis. comp. int (B.)

81.7 ✓

80.6 ✓

182.3 ✓

6

-0.34 ✓

P.A. 90

21.4

93.2

206.8

270.9

71.8 ✓

64.1 ✓

135.9 ✓

-0.86 ✓

-0.30 ✓

-0.90 ✓

-0.62 ✓

29.1

84.9

207.2

278.4

55.8 ✓

71.2 ✓

127.0 ✓

→ star dim. by clouds

-1.04 ✓

P.A. 270

109.7

192.0

> 285.2

9.4

82.3 ✓

84.2 ✓

166.5 ✓

-0.25 ✓

8 18 40

f 13

2111f. 5st

Sept 11^a 1916.

161

star & with B.

8 38 10

Move two trussers over
glue in prism & re-align.
to be looked into tomorrow

Eumonia (15)

$$\begin{array}{r} 22 \quad 34 \\ 20 \quad 30 \\ \hline 2 \quad 52 \end{array}$$

P.A. 50

9 10 30 357.2

9 11 10 119.8

179.7

300.4

356.4

comp star dis.

59.9[✓]56.40[✓]115.9[✓] + 1.28[✓]

P.A. 230

1.44

217.4

46.0[✓]

263.4

56.1[✓]+ 1.61[✓]

30.2

102.1[✓]+ 1.30[✓]+ 1.59[✓]

9 14 50 86.3

9 15 05 212.4

266.3

357.2

84.7

58.9[✓]49.5[✓]103.4[✓]+ 1.57[✓]28.9[✓]+ 1.44[✓]6.43[✓]7.87[✓]

P.A. 50

1.45

171.8

56.7[✓]

301.7

57.3[✓]

358.4

118.3

114.0[✓]+ 1.33[✓]

7 in cap in lens

9 18 10 175.6

comp. star = star at 22 36.5^h
= +10° 44' 05" (73) + 10° 12'

9 18 10 175.6

Sept. 11th 1916

Eunomia (cont.)

9 22 25-

297.9
355.5
117.8
176.0

57.6 ✓
58.2 ✓

115.8 ✓

+1.29 ✓

11

P. G. 230

9 25- 35¹⁵-

35.4
86.8
212.6
264.2

57.4 ✓
57.6 ✓

103.0 ✓

+1.58 ✓

9 25- 50

33.8
84.8
212.2
265.0

57.0 ✓
52.8 ✓

103.8 ✓

+1.56 ✓

+1.34 ✓
+1.57 ✓

2.91
+1.486
6.43

7.89

P. G. 50

122.2
175.8
301.4
358.8

53.6 ✓
57.4 ✓

111.0 ✓

+1.39 ✓

9 25⁸ 30
22 20

9 25⁸ 35¹⁵
1118.6 ✓
574

120

Sept. 11th 1916.

9 08⁷ 30 122.2
 176.6
 303.7
 357.6

54.4 ✓
 53.9 ✓
 108.3 ✓ + 1.46 ✓

III

P.C. 230

9 41 25 217.7
 259.6
 30.0
 88.3

41.9 ✓
 58.3 ✓
 100.2 ✓ + 1.65 ✓

+ 1.41 ✓
 + 1.60 ✓

9 41 40 211.8
 266.2
 36.1
 88.9

54.4 ✓
 49.8 ✓
 104.2 ✓ + 1.55 ✓

+ 1.50 ✓
 6.43 ✓
 7.93 ✓

P.C. 50

9 45 45 299.8
 357.7
 123.1
 175.6

59.9 ✓
 52.5 ✓
 112.4 ✓ + 1.36 ✓

1220
 9 41 35
 9 42 05

1118.612 ✓
 574
 .038

Sept. 11th 1916

9 50 45- 301.7
 359.8
 120.9
 174.9

58.1 ✓
 54.0 ✓
112.1 ✓

+ 1.37 ✓

IV

3
 87.7
 83.0
 207.1

P.A. 230 1.48

45.3 ✓
 57.7 ✓
103.0 ✓

+ 1.58 ✓

9 53 55- 3264.8

9 54.05- 29.8
 86.4
 214.2
 259.2

56.6 ✓
 45.0 ✓
101.6 ✓

+ 1.62 ✓

+ 1.48 ✓
 + 1.60 ✓
+ 1.54 ✓
 6.43 ✓
7.97 ✓

P.A. 50 1.60

123.2
 171.3
 301.2
 356.4

48.1 ✓
 55.2 ✓
103.3 ✓

+ x 1.58 ✓

9 57 00
 9 57 00
 1118.6201

B's watch 047

4x" slow

at 10.00 P.M.

Sept. 11^u 1916

10 5 30

125.3

173.7

302.6

356.4

48.4 ✓

53.8 ✓

102.2 ✓

+ 1.60 ✓

V

P.G. 230 1.66

218.6

260.4

29.2

85.1

41.8 ✓

55.9 ✓

97.7 ✓

+ 1.71 ✓

10 8 ²⁵~~30~~

+ 1.52 ✓

+ 1.74 ✓

10 8 40

214.5

263.3

36.6

82.8

48.8 ✓

46.2 ✓

95.0 ✓

+ 1.78 ✓

1.65 ✓

6.43 ✓

8.08 ✓

P.G. 52

1.66

305.6

358.7

123.0

175.2

53.1 ✓

52.2 ✓

105.3 ✓

+ 1.53 ✓

10 11 20

$$\begin{array}{r} 10 \quad 08 \quad 29 \\ 10 \quad 08 \quad 59 \\ \hline 1118.630 \end{array}$$

$$\begin{array}{r} 574 \\ \hline 0.058 \end{array}$$

$$\begin{array}{r} 574 \\ \hline 0.058 \end{array}$$

Sept. 11th 1916

10 20 25

300.6

357.7

124.6

172.8

57.1

488.2

$$\begin{array}{r} 115.3 \\ 105.3 \\ \hline \end{array}$$

+ 1.53

+ 1.30

VI

P.C. 230

41.2

83.9

214.4

262.0

42.7

47.6

$$\begin{array}{r} 90.3 \\ \hline \end{array}$$

+ 1.91

10 22 15

10 23 30

33.3

81.0

221.4

260.2

47.7

38.8

$$\begin{array}{r} 86.5 \\ \hline \end{array}$$

+ 2.01

1.50

1.48

+ 1.96

$$\begin{array}{r} 1.67 \\ \hline \end{array}$$

6.43

$$\begin{array}{r} 8.10 \\ \hline \end{array}$$

1.73

6.43

8.16

P.C. 50

123.3

172.4

298.8

357.6

49.1

58.8

$$\begin{array}{r} 107.9 \\ \hline \end{array}$$

+ 1.47

10 26 25

10 23 22

10 23 52

111 F. 642

574

0.678

Night of full moon

Sept. 11th 1916

167

10 31 ¹⁹00
 190.8
 178.8
 306.8
 352.7

59.0 ✓
 45.9 ✓
 104.9 ✓ +1.54 ✓

VII

P. G. 230 1.75

220.4
 257.2
 33.6
 10 34 20 85.2

36.8 ✓
 51.6 ✓
 88.4 ✓ +1.96 ✓

10 34 30 210.2
 263.9
 37.4
 ? * 784.9
 assumed

437 ✓
 347.5 ✓
 101.2 ✓
 41.2 ✓

1.66 ✓
 6.43 ✓
 F.09 ✓

+1.63 ✓
 +1.88 ✓

*
 +1.52
 +1.82
 +1.66
 +1.72
 6.43
 8.09
 +8.115

P. G. 50

1.70
1.56 ✓

305.3
 356.6
 119.2
 10 37.00 173.8

51.3 ✓
 54.6 ✓
 105.9 ✓ +1.57 ✓

10 34 50
 10 34 42
 1118.649 ✓
 574 ✓
 .075

* Due to the uncertainty of this assumption, the original record had better be held to, namely 84.9.

Sept. 11th 1916

10 43 05-

301.3

357.8

126.8

178.1

56.5 ✓

51.3 ✓

107.8 ✓

+ 1.47 ✓

VIII

P. a. 230

37.0⁰

82.2

211.9

264.9

45.2 ✓

53.0 ✓

98.2 ✓

+ 1.20 ✓

1.58

10 45- 45-

10 46 05-

31.9

91.8

247.3

258.9

59.9 ✓

41.6 ✓

101.5 ✓

+ 1.62 ✓

+ 1.41 ✓

+ 1.66 ✓

+ 1.54 ✓

6.43

7.97

P. a. 50

1.48

123.3

179.9

300.4

356.8

56.6 ✓

56.4 ✓

113.0 ✓

+ 1.35 ✓

10 48 40

10 45 54

1118.656

574

0823

Sept. 11th 1916

10 52 25

116.6

178.3

305.1

355.9

61.7 ✓

50.8 ✓

112.5 ✓

+1.36 ✓

IX

P. a. 230

218.2

258.3

32.8

10 55 50

87.6

40.1 ✓

54.8 ✓

94.9 ✓

+1.79 ✓

1.58

10 56 10

213.0

266.2

56.7

81.4

53.2 ✓

44.7 ✓

97.9 ✓

+1.71 ✓

+1.42 ✓

+1.75 ✓

+1.58 ✓

6.43 ✓

8.01

P. a. 50

1.60

304.0

355.8

120.0

175.2

51.8 ✓

55.2 ✓

107.0 ✓

+1.49 ✓

10 58 35

23 00

10 55 45

10 56 15

1118.668

574

.089

090

Sept. 11^a 191611. 05⁻
~~10~~ 10

297.8

359.7

122.2

176.6

61.9 ✓

54.4 ✓

116.3 ✓

+1.27 ✓

X

P.C. 230

1.158

38.7

83.9

211.2

264.1

45.2 ✓

52.9 ✓

98.1 ✓

+1.70 ✓

11 8 30

+1.33 ✓

+1.64 ✓

11 8 45

31.7

87.3

216.4

262.8

55.6 ✓

46.4 ✓

102.0 ✓

+1.51 ✓

+1.50 ✓

6.43 ✓

7.93 ✓

P.C. 58

1.50

122.2

177.0

299.8

352.4

54.8 ✓

56.6 ✓

111.4 ✓

+1.39 ✓

11 11 20

118.672

574

0.0989

11 30

SS Cygni 213843

12.4

P.C. = 11.2

f.e.B. = 10.9

Pa 50.2
Sp. 80.2(11) 1292
(192) 6794
2002

Tues Sept 12 - 1916

LP 662 15" E. eq. HEBB. Rec
(15) Eumonia

22 35
19 00

3 35 E + 10.2

Phot T.
7" Cap

Bis water
(see fast)
in 7. w PM.

Comp * = same as last
night.

P.A. 130

7 44 40

125.5

Comp dis (star)

177.2

51.7 ✓

1.5-9 ✓

302.8

5 & 1

+ 1.61

353.9

102.8 ✓

P.A. 2310

1.65

257.3

37.8

420 ✓

79.8

560 ✓

210.8

98.0 ✓

+ 1.71 ✓

7 48 10

266.8

15.4 ✓
+ 1.88 ✓

7 48 35

36.2

47.5 ✓

83.7

42.4 ✓

219.8

89.9 ✓

+ 1.92 ✓

262.2

36
3.42
+ 1.71
1.68
683
P. 12
F. 11

P.A. 130

1.71

127.4

45.0 ✓

1272.4

61.6 ✓

295.8

106.6 ✓

+ 1.50 ✓

2119.533 ✓
19461
0072

7 51 35

357.4

33
48 00
48 15

Sept. 12 1916
new battery cells

7 48 15 P.A. 130
120.8 ✓
174.7 ✓
307.4 ✓
354.2 ✓
53.9 ✓
46.8 ✓
100.7 ✓
+1.64 ✓
 π
340°
8.2

8 01 50 P.A. 310 1.70
~~214.8~~
34.2 ✓
79.8 ✓
212.2 ✓
262.4 ✓
45.6 ✓
50.2 ✓
95.8 ✓
← Clouds
+1.75 ✓
P.A. 340°
8.2

8 02 10 37.4 ✓
88.0 ✓
220.0 ✓
260.1 ✓
50.6 ✓
40.1 ✓
90.7 ✓
+1.90 ✓
+1.48 ✓
+1.81 ✓
1.66 ✓
6.43 ✓
8.09 ✓
sign very dim

P.A. 130
120.4 ✓
179.9 ✓
175.1 ✓
300.0 ✓
359.8 ✓
54.7 ✓
59.8 ✓
114.5 ✓
+1.31 ✓

8 05 45
8 01 49
8 01 43
2119.543 ✓
461 ✓
0.082

Considerably troubled by clouds
in this group.

8 10 00 Too Cloudy to continue at present
8 45 Hopelessly cloudy

(Wed) Sept 13 - 1916

173

P.C. Obs.

15" E Eq.

H.E.B. Rec.

B's watch = 15^h fast

(15) Ennomia

22 35 +10.2

18 55

3 40 E

Phot T

7^h Cef.

P.A. 20

8 20

7 9 15

117.2

185.0

301.6

358.6

comp* dis. (same, as last night)

67.8 ✓

57.0 ✓

124.8

+1.09 ✓

P.A. 200

1.55

221.0

~~286.2~~

261.3

40.2

86.4

40.3 ✓

46.2 ✓

86.5 ✓

+2.01 ✓

7 13 55

+1.04 ✓

+1.98 ✓

7 14 15

217.4

284.6

40.0

81.0

47.2 ✓

41.0 ✓

88.2 ✓

+1.98 ✓

+1.56 ✓

6.43 ✓

7.99 ✓

P.A. 20

1.57

304.4

358.8

116.8

182.4

54.4 ✓

65.6 ✓

120.0 ✓

+1.19 ✓

7 16 00

2120.50

Sept. 13th 1916

P. A. 20

7 21 20

299.8

362.6

125.0

179.6

62.8 ✓

54.6 ✓

117.4 ✓

+ 1.25 ✓

71

P. A. 220

1.61

41.3

83.8

219.2

264.7

42.5 ✓

45.5 ✓

88.0 ✓

+ 1.97 ✓

7 22³ 55+ 1.25 ✓
+ 2.00 ✓

7 24 10

39.2

86.8

224.6

262.8

47.6 ✓

38.2 ✓

85.8 ✓

+ 2.03 ✓

1.682 ✓
6.43
8.05

P. A. 20

1.64

125.8

175.8

297.0

4.4

50.0 ✓

67.4 ✓

117.4 ✓

+ 1.25 ✓

7 26 55

Cut this ^{think} focus changed slightly
to longer.

7	26	55
7	24	05
7	23	47

21120.577 ✓

474
<u>0.043</u>

Sept. 13th 1916

P.G. 20

7 33 25

125.5

180.0

306.2

201.8

54.5 ✓

55.6 ✓

110.1 ✓

+1.42 ✓

111

P.G. 200

1.70

223.8

260.2

37.7

736 10

89.3

36.4 ✓

51.6 ✓

88.0 ✓

+1.97 ✓

+1.40 ✓

+1.94 ✓

736 20

220.4

268.4

44.0

86.1

48.0 ✓

42.1 ✓

90.1 ✓

+1.91 ✓

334

1.67

+6.43 ✓

8.10

P.G. 20

308.9

312.0

357.6

119.8

182.2

48.7 ✓

62.4 ✓

111.1 ✓

+1.39 ✓

1.65

7 39 30

2 36 25

2 36 03

21120.525

474

0.051

Sept. 13²² 1916

P.G. 20

7 45 50

306.4

~~3~~ 6.2

128.2

180.6

59.8 ✓

52.4 ✓

112.2 ✓

+1.37 ✓

1.5

P.G. 200

45.8

~~48.0~~

83.5

216.2

269.1

37.7 ✓

52.9 ✓

90.6 ✓

+1.90 ✓

1.64

7 48 45

7 49 00

42.7

91.0

223.8

262.8

48.3 ✓

39.0 ✓

87.3 ✓

+1.99 ✓

1.44 ✓
 +1.94 ✓
1.69 ✓
 +6.43 ✓
8.12

P.G. 20

132.6

177.2

305.9

~~3~~ 6.8

44.6 ✓

60.9 ✓

105.5 ✓

+1.52 ✓

1.76

7 51 30

31 05
 } 48 46
 } 48 28

21120.537 ✓
474
 0.060

Sept. 13th 1916

7 59 15

125.8

186.6

310.2

359.4

P. C. 20

60.8 ✓

49.2 ✓

110.0 ✓

+1.42 ✓

V

P. a. 200

225.5

266.0

44.0

90.1

40.5 ✓

46.1 ✓

86.6 ✓

+2.01 ✓

1.72

8 01 50

+1.38 ✓

+2.08 ✓

8 2 05

227.1

267.4

40.6

87.4

40.3 ✓

40.8 ✓

81.1 ✓

+2.16 ✓

1.73 ✓

+6.43 ✓

8.16

P. C. 20

308.4

358.8

126.3

188.8

50.4 ✓

62.5 ✓

112.9 ✓

+1.35 ✓

1.76

8 4 45

7 55

F 01 59

F 01 41

21120.543

474

0.069

Sept. 13³ 1916

P. G. 20

8 14 50

301.4

7.6

128.8

183.0

66.2 ✓

54.2 ✓

120.4 ✓ + 1.18 ✓

VI

P. G. 200

47.3

~~50.4~~

85.2

220.7

268.8

37.9 ✓

48.1 ✓

86.0 ✓

+ 2.02 ✓

1.60

8 17 45-

+ 1.26 ✓

+ 1.98 ✓

8 18 05-

43.1

95.2

228.7

265.9

52.1 ✓

37.2 ✓

89.3 ✓

+ 1.93 ✓

1.62 ✓

+ 6.43

8.05

P. G. 20

313.0

357.8

126.6

193.0

46.8 ✓

66.4 ✓

113.2 ✓

+ 1.34 ✓

1.64

8 20 50

8 17 52

8 17 34

21120.554 ✓

474

0.080

Sept. 13th 1916

P.C. 20

8 32 05

368.4

28 5.8

128.6

183.7

57.4 ✓

55.1 ✓

112.5 ✓

+ 1.36 ✓

VII

P.C. 200

48.3

85.2

297.2

8 34 40

273.4

36.9 ✓

46.2 ✓

83.1 ✓

+ 2.10 ✓

~~1.82~~

1.73

+ 1.29 ✓

+ 2.00 ✓

1.64 ✓

+ 6.43 ✓

8.07 ✓

8 34 55

41.3

95.1

230.8

266.9

53.8 ✓

36.9 ✓

90.7 ✓

+ 1.90 ✓

P.C. 20

134.2

182.6

298.8

9.1

48.4 ✓

70.3 ✓

118.7 ✓

+ 1.22 ✓

1.56

8 37 40

19 20

8 34 50

8 34 32

21120.575 ✓

678

0.091

Sept. 13th 1916

P. C. 20

8 44 55

~~153.2~~
~~130.6~~
 192.0
 315.1
 2.4

71.4 ✓

47.3 ✓

118.7 ✓

+1.22 ✓

VIII

P. C. 200

228.8

268.7

43.0

8 47 50

97.4

39.9 ✓

54.4 ✓

94.3 ✓

+1.80 ✓

1.51

+1.22 ✓

+1.76 ✓

8 48 05

222.2

274.4

40.0

90.7

52.2 ✓

44.7 ✓

96.9 ✓

+1.73 ✓

29.8 ✓

1.49 ✓

+ 6.43 ✓

7.92

P. C. 20

314.0

81.4

124.9

196.2

47.4 ✓

71.3 ✓

118.7 ✓

+1.22 ✓

1.44

8 50 20

~~30~~ ~~20~~
~~47~~ ~~35~~
~~47~~ ~~17~~

21120.552.74

474

.100

Sept. 13th 1916

P. G. 20

8 54 05 305.5
 8.8
 133.8
 187.7

63.3

53.9

$$\frac{117.2}{\checkmark}$$
+1.25[✓]~~IX~~

P. G. 200

48.8
 89.4
 223.6

40.6[✓]52.7[✓]

$$\frac{95.3}{\checkmark}$$
+1.83[✓]

1.52

8 58 35 276.3

+1.28[✓]+1.74[✓]1.57[✓]643[✓]

$$\frac{7.94}{\checkmark}$$

8 58 50 43.4
 95.2
 226.4
 274.4

57.8[✓]48.0[✓]

$$\frac{99.8}{\checkmark}$$
+1.66[✓]

P. G. 20

133.2
 183.3
 305.9
 10.3

50.1[✓]64.4[✓]

$$\frac{114.5}{\checkmark}$$
+1.31[✓]

1.48

9 01 10
 32 40
 8 58 10
 2 57 52

21120.582[✓]
 67X
 .108

Sept. 13 1916

9x 8 15

125.7

193.6

313.0

10.6

P. a. 20

67.9 ✓

87.6 ✓

~~125.5~~

125.5 ✓

+ 1.07 ✓

2X

P. a. 200

48.6

91.2

222.6

276.7

42.6 ✓

54.1 ✓

96.7 ✓

+ 1.74 ✓

1.40

89 10 30

+ 1.12 ✓

+ 1.70 ✓

+ 1.41 ✓

6.43 ✓

7.84 ✓

89 11. 00

42.8

98.6

229.6

273.9

55.8 ✓

44.3 ✓

100.1 ✓

+ 1.65 ✓

P. a. 20

130.0

193.8

312.2

8.8

63.8 ✓

56.6 ✓

120.4 ✓

+ 1.18 ✓

1.42

9x 13. 15

9	10	20
9	10	50
9	10	32

21120.591 ✓

074

.117

Sept. 73 1916.

P. G. 20

9 22 50 123.1
 194.2
 311.0
 9.4

71.1 ✓
 58.4 ✓
 129.5 ✓ + 0.99 ✓

XI

P. G. 200

9 25 25 229.6
 271.0
 43.0
 98.6

41.4 ✓
 55.6 ✓
 97.0 ✓ + 1.73 ✓

1.36

9 25 40 224.2
 277.8
 57.0
 94.8

53.6 ✓
 43.8 ✓
 97.4 ✓ + 1.72 ✓

+ 1.10 ✓
 + 1.72 ✓
 282 ✓
 + 1.41 ✓
 6.43 ✓
 7.8 K

P. G. 20

~~12.0~~
 129.8
 195.3
 313.3

65.5 ✓
 58.1 ✓
 119.6 ✓ + 1.20 ✓

1.46

9 28 45 7.4

22 40
 9 25 40
 9 25 22
 21120.601
 601
 080

Sept 13 1916

P.C. 20

9 36 25 132.8
 191.4
 309.0
 9.8

✓
 59.6 ✓
 60.8 ✓
119.4 ✓ + 1.21 ✓

X11

P.C. 200

9 39. 00

226.3
 276.0
 51.0
 96.3

✓
 49.7 ✓
 45.3 ✓
95.0 ✓ + 1.78 ✓

1.50

9.39 15

229.7
 271.6
 41.8
 95.2

✓
 41.9 ✓
 53.4 ✓
95.3 ✓ + 1.77 ✓

+ 1.20 ✓
+ 1.78 ✓
 + 1.49
6.43
 7.92

P.C. 20

305.7
 12.2
 134.4
 187.7

✓
 66.5 ✓
 53.3 ✓
119.8 ✓ + 1.20 ✓

1.48

9 42 55
 36 35
 9 39 09
 9 38 57
 21120.610 ✓
601
 509

Sept. 13th 1916

		P.G. 20	
9 55 20	313.6	54.1 ✓	<u>X/11</u>
	7.7	68.3 ✓	
	126.8	<u>122.4</u> ✓ + 1.14 ✓	
	195.1		
		P.G. 200	1.43
	43.4	53.4 ✓	
	95.8	43.9 ✓	
	229.7	<u>97.3</u> ✓ + 1.72 ✓	
9 58 10	273.6		+ 1.24 ✓
			+ 1.72 ✓
			<u>1.48</u> ✓
			643 ✓
9 58 30	57.2	43.6 ✓	<u>7.91</u> ✓
	94.8	53.8 ✓	
	224.8	<u>97.4</u> ✓ + 1.72 ✓	
	278.6		
		P.G. 20	1.53
	128.7	66.3 ✓	
	195.0	47.3 ✓	
	317.6	<u>113.6</u> ✓ + 1.34 ✓	
	4.9		
10 00 45			
9 32 45			
to 58 11			
to 57 53			
21120.624 ✓			
601			
.023			
		Spa. 9.4	
		P.G. 200	

Sept. 13 1916

P.C. 20

10 N 50

131.8

55.4 ✓

187.2

64.9 ✓

307.2

12.1

120.3 ✓ +1.19 ✓

XIV

P.C. 200

228.2

56.1 ✓

284.3

43.5 ✓

48.8

99.6 ✓

92.3

+1.67 ✓

3
1.42

10 19 20

+1.18 ✓
+1.74 ✓

10 9 40

221.4

42.9 ✓

274.3

51.0 ✓

47.2

93.9 ✓

98.2

+1.81 ✓

+1.46 ✓
6.43 ✓
7.89 ✓

P.C. 20

302.2

67.8 ✓

10.0

53.6 ✓

133.3

121.4 ✓

186.9

+1.16 ✓

1.42

10 12 10

38 00
10 09 20
10 07 1221120.631 ✓
601
0.20
3

Sept. 13 1916

10 29 25

136.6
187.2
310.4
12.1

P.C. 20

50.6 ✓
61.7 ✓
112.3 ✓

+1.56 ✓

XVI

P.C. 200

223.3
277.6
52.2
91.0

54.3 ✓
38.8 ✓
93.1 ✓

+1.83 ✓

1.60

10 31 55

10 32 45

50.0
88.0
227.7
274.0

38.0 ✓
46.3 ✓
84.3 ✓

+2.07 ✓

1.34 ✓
+1.945 ✓
+1.04 ✓
= 643 ✓
8.07

P.C. 20

1.70

129.6
194.0
315.0
4.6

64.4 ✓
49.6 ✓
114.0 ✓

+1.35 ✓

10 35. 20

9 25
10 32 21
10 32 03

21120.647 ✓
601
046

Sept. 13 1916

P. a. 20

10 4⁴ 10

136.0

186.9

312.2

10.6

50.9 ✓

58.4 ✓

109.3 ✓

+1.43 ✓

XVII

P. a. 200

224.6

276.4

51.4

90.1

51.8 ✓

387 ✓

90.5 ✓

+1.90 ✓

+1.48 ✓

+1.94 ✓

10 47 10

10 47 20

231.4

273.6

447.8

93.2

42.2 ✓

45.4 ✓

87.6 ✓

+1.98 ✓

2.42 ✓

1.71 ✓

6.43 ✓

8.14

P. a. 20

312.6

12.0

138.9

184.3

59.4 ✓

45.4 ✓

104.8 ✓

+1.54 ✓

10 49 40

28 50

10 47 12

10 46 54

21126.65 ✓

601

057

10 56

SS Cygni 213243

ext 11.5 P.C.

ext < 10.9 P.C.

12" Plan

π
Sept. 13th 1916

		P.A. 20		
11. 02	25	321.7	42.7 ✓	<u>XVIII.</u>
		+ 4.4	66.1 ✓	
		129.4	108.8	
		195.5	+ 1.45 ✓	

		P.A. 200		
		50.3	45.9 ✓	
		90.2	40.9 ✓	
		227.4	86.8 ✓	
11 05 10		268.3	+ 2.00 ✓	+ 1.45 ✓
				+ 1.986

11 05 30		150.0	39.9 ✓	1.70 ✓
		90.3	50.1 ✓	6.43 ✓
		277.6	90.0 ✓	84.3
		277.7	+ 1.91 ✓	

		P.A. 20		
		124.9	65.8 ✓	
		190.7	43.0 ✓	
		2321.4	108.8 ✓	+ 1.45 ✓
		4.4		
11 8 00				
11 05 16				
11 04 58				

21120.670 ✓
601
069

1 - 1293
288 - 7114

(Thurs.) Sept 14, 1916.

P.C. Obs.

15" E. Eq.

H.E.B. Rec.

(30) Urania

22 10 - f. 5

19 03

3 07

8 53

- f. 5

B's watch.

35^h fast

Transit

~~7 17 21 7 18~~~~30 9~~~~34 4~~~~58 14~~~~24 14~~

7 18 06

4th Transit

18 22 50 12

23 02 3

05 15

20

7 18 31

43 12

46 3

17

19 07 3

16

7 19 19

8 31 57

12

32 03 3

06 16

22

3rd Transit assumed to be Urania

2 is S of 1, 3 S of 2 4 S of 3

5th S of 44th star is in Aquarii2nd Transit3rd J.

8 11 59

12 10 11

14 4

30 16

48 18

8 15 32

12

44 3

48 15

16 02 1.8

20

Sept. 14th 1916

3
 Parthenope (855) Phil. R

19 21
 22 50
 3 29

B. watch

35-sec fast Transits

17 28 27 × 1353
 29 20 >
 27 >
 30 28 T 61

Transit
 × 2 $\frac{m}{\Delta}$ = arc ~~then there is~~

19 57
 22 46
 21. 49

Spir. 14^a 1916.

(30) Mercur.

2.
 8 49 48 118
 55
 58 3
 50 12 15

(855) Parth.

8 52 47
 55 8

8 53 35 ~~46~~
 54 30 55
 36 6
 55 36 6.0

9 3 57 8
 59
 4 12 13

Second * = brightness of 3rd = Parth?

9 6 19 8
 27
 42 15

Work^{on} of act. abandoned
 due to uncertainty of
 identification

9 7 5 7
 12
 27 175

9 7 50 8
 58
 8 13 15

Sept. 14th 1916R. S. Aquarii 21 05 04

21 28

23^W - 4

9 30

sat. 11.4

0.18 W

- 4.4

21 23

2. Capri 21 05 16

21 25

20 W

sat. 9.9

0 23 W

- 16.5

- 16.7

21 27

R. Equulei 21 08 12

21 28

sat. 12.8

0 23

+ 12.4

20 W

21 30

R. R. Aquarii 21 09 03

21 31

sat. 11.0

0 23

21 W

- 3.3

21 31

X P. gani 21 16 14

21 32

sat. 9.9

0 23 W

16 W

+ 14.0

21 38

Sept. 14th 1916

195

T Capric 21 10 15
~~21 39~~
~~18 W~~
 see.

V Psgraei 21 58 05
~~21 40~~
~~16 E~~
 see. < 13.3

0 12 E
 +5.6
 21 44

U . Aquarii 21 57 17
~~21 45~~
~~+8 12 E~~
 see. 13.5 (if seen)
 0 08 E
 -17.3
 21 47

T Psgraei 22 04 12
~~21 48~~
 see. (abandoned) 16 E

Y Psgraei 22 06 13
~~22 00~~
~~8 E~~
 see. $y = 11.4$

Sept. 14th 1916

P S Psgani 22 07 14
 sat. 12.2

X Aquar. 22 13 21
 22 14
 sat. 8.3 1 W

0 2 W
 - 21.3
 22 15

R J Aquar. 22 17 22
 22 16
 sat. 12.0 1 S

0 2 W
 - 22.8
 22 18

~~R V. Psgani 22 21 29~~
 S Aquar. 22 57 20
 sat. 8.5 22 19
 0 30 S
 - 20.8 32 S
 22 21

P W Psgani 22 59 14
 22 21
 sat. 10.3 38 S
 0 34 S
 - 14.7
 22 24

Sept 14^a 1915

R Psg. 23 01 10

22 ~~35~~

sat. 12.2

44 E

0285
+ 10.71

32 E

22 31

S Psgani 23 15 08

22 32

sat. 11.8

43 E

040 E
+ 8.4

22 34

R Aquar. 23 38 15

22 35

sat 6.3 (in finch) 1 03 E

057 E
- 15.8

22 35

V Ceti 23 52 09

22 39

sat. 9.6

1 15 E

19 E
- 9.6

22 40

W Ceti 23 57 15

22 42

sat. 10.6

1 15 E

1 10 E

- 15.3

22 45

Sept 14-1916

21343 JJ Cygni 12^h 10^m

11 06

RR at 11.2
TEEB at 11.519 - 1312
- - 7114

p.p.p.

Stat. Sept 16, 1916

ACB

15" E. Eq.

H. E. B. Rec

Ph. R

Mania.

22 9 - A. 5-

19 9
30 - A. 5-

I

25
10
Bis watch
18²⁰⁰_h face

7 23 35.?
54.5

24 16

19 = asi.?

P. A. 150

7 40 25

41.8 comp. ^{*}cl.

116.8 75.0 ✓
224.4 65.8 ✓
290.2 140.8 ✓ + 0.76 ✓

P. A. 330

308.4

31.3

135.2

203.8

72.9 ✓

68.6 ✓

141.5 ✓ + 0.74 ✓

7 46 00

7 46 25

316.1

23.3

131.3

205.4

67.2 ✓

75.1 ✓

142.3 ✓ + 0.73 ✓

7 45 40

7 45 22

216.7

291.4

41.7

110.8

P. A. 150

74.7 ✓

69.1 ✓

143.8 ✓ + 0.70 ✓

7 49 50

0.730 ✓

0.7312

+ 0.732 ✓

+ 0.73

+ 0.74

+ 0.74

+ 0.74

Sept. 16th 1916

7 55 37

220.2
 293.3
 41.3
 110.2

P.A. 152

73.1 ✓
 68.9 ✓
 142.0 ✓ + 0.73 ✓

TT

7 59 48

131.3
 211.4
 312.2
 22.3

P.A. 330

80.1 ✓
 70.1 ✓
 150.2 ✓ + 0.57 ✓

+ 0.770 ✓
 + 0.605 ✓

8 0 35

128.8
 207.8
 313.0
 19.7

79.0 ✓
 67.7 ✓
 146.7 ✓ + 0.64 ✓

0.69 ✓

8 04 00

43.2
 111.8
 221.2
 296.7

P.A. 150

68.6 ✓
 69.5 ✓
 138.1 ✓ + 0.81 ✓

Sept. 16th 1916

P.G. 150

8 10 30

39.8

109.8

217.3

294.8

70.0 ✓

77.5 ✓

147.5 ✓

+ 0.52 ✓

~~IV~~ III

P.G. 330

~~26.4~~

129.6

207.2

311.0

23.3

77.5 ✓

72.3 ✓

149.9 ✓

+ 0.58 ✓

8 17 05

+ 0.520 ✓

8 17 30

129.2

205.3

310.8

20.0

76.1 ✓

69.2 ✓

145.3 ✓

0.67 ✓

+ 0.28 ✓

+ 0.625 ✓

+ 0.602 ✓

P.G. 150

36.4

114.2

217.7

292.8

76.8 ✓

75.1 ✓

151.9 ✓

0.54 ✓

0.57 ✓

8 21 00

Sept. 16th - 1916

P.A. 150

8 29 25

39.2

113.8

219.9

292.8

74.6 ✓

~~74.6~~ ✓

72.9

147.5 ✓

+ 0.62 ✓

IV

P.A. 330

8 3 2 55

310.2

22.3

129.6

207.7

72.1 ✓

78.1 ✓

150.2 ✓

+ 0.57 ✓

8 3.4 25

306.7

24.2

143.0

205.9

77.5 ✓

182.9 ✓

150.4 ✓

+ 0.87 ✓

$$\begin{array}{r} 0.655 \\ 0.570 \\ \hline 0.612 \end{array}$$

P.A. 150

8 38 20

~~293.6~~

38.4

111.3

220.2

291.4

5.2 ✓

72.9 ✓

71.2 ✓

144.9 ✓

+ 0.69 ✓

Sept. 16^R 1916

P.C. 158

8 47 30

41.4
109.8
220.6
294.1

68.4 ✓
73.5 ✓

141.9 ✓

+0.74 ✓

V

P.C. 330

~~22.3~~
123.6
207.6
311.2
22.2

84.0 ✓
71.0 ✓

155.0 ✓

+0.48 ✓

8 52 00

+0.685 ✓

+0.555 ✓

0.620 ✓

8 52 15

131.8
201.9
307.4
24.6

70.1 ✓
77.2 ✓

147.3 ✓

+0.63 ✓

P.C. 150

8 55 50

38.8
109.6
213.4
289.8

70.8 ✓
76.4 ✓

147.2 ✓

+0.63 ✓

1st FEB. R. Scuti 144205 at 3.5 RC
9 00 at 5A FEB

Sept. 16^a - 1913

P.C. 150

9 3 20
~~27.4~~
 110.2
 217.7
 291.3

72.8 ✓
 73.6 ✓
 146.4 ✓ + 0.65 ✓

VI

P.C. 330

9 7 00
 312.8
 23.6
 127.4
 202.3

70.8 ✓
 74.9 ✓
 145.7 ✓ + 0.65 ✓

+ 0.600 ✓
 + 0.580 ✓

9 7 20
 311.3
 33.3
 130.4
 202.2

82.0 ✓
 71.8 ✓
 153.8 ✓ + 0.50 ✓

+ 0.620 ✓

P.C. 150

9 10 20
 217.4
~~281.8~~
 290.2
 37.2
 109.4

72.8 ✓
 72.2 ✓
 145.0 ✓ + 0.67 ✓

Transit

9	15	37	24	49	19	40.5	24.5
	16	01			20	05	20
		21			21	25	
		23			28	28	3

Sept. 10th 1916

Lamiae

9 43 59.5

62 2.5 Phas ?

18 16

9 49 50 00

2.5

Uranus

9 49 35

59.5

19

21

4
25.5

19.5

2.

Uranus

20	17	
21	14	*17.0
	45	

The preceding VI groups are of ^{the} star -
 with its companion which follows by 3 secs.
 Not of Uranus.

Sept. 16^a 1916

Mars

Hana Lamp

P.A. 90

Phot. T

10 29 40

190.8

Comp X ~~dis~~

7 Cap m

313.6

122.8 ✓

8.2

129.6 ✓

137.8

252.4 ✓

- 1.47 ✓

107.6 ✓

P.A. 270

47.3 ~~44.1~~ ✓91.4 ~~46.9~~ ✓~~228.3~~

91.0 ✓

- 1.89 ✓

~~48.3~~

227.4

10 35 45

274.3

~~91.2~~

10 55 45

47.4

48.4 ✓

95.8

43.0 ✓

230.0

91.4 ✓

- 1.89 ✓

273.0

- 1.465 ✓

- 1.885 ✓

- 1.675 ✓

7.19 ✓

5.51 ✓

P.A. 90

Mars

138.2

50.4 ✓

188.6

59.7 ✓

311.3

109.1 ✓

- 1.44 ✓

10.0

10 39 0

20 20

10 35 05

18

10 34 47

21123.649

Comp * = the 7.19 at 21^h 13.2^m - 16^h 34^m (1255)
 = - 16^h 58^m 50 (75)

Sept. 10^a 1916

P.G. 90

10 44 50 133.8
 192.8
 312.3
 10.6

59.0 ✓

58.3 ✓

 117.3 ✓

- 1.25 ✓

II

P.G. 270

235.9

274.2

50.1

10 47 45 95.2

38.3 ✓

45.1 ✓

 83.4 ✓

- 2.10 ✓

10 47 50

232.2

275.8

52.6

94.2

43.6 ✓

41.6 ✓

 85.2 ✓

- 2.05 ✓

- 1.250 ✓

- 2.075 ✓

 3325 ✓

- 1.662 ✓

7.19

 5.53 ✓

P.G. 90

378.4

7.7

135.3

10 50 10 193.5

59.3 ✓

58.2 ✓

 117.5 ✓

- 1.25 ✓

30 35

10 47 39

18

10 47 21

21123.658

Sept. 16th 1916

P.A. 90

11 06 30

312.2

11.9

136.8

195.2

59.7 ✓

57.4 ✓

117.1 ✓- 1.26³III

P.A. 270

57.6

94.6

234.3

278.6

43.0 ✓

44.3 ✓

87.3 ✓

- 1.99 ✓

11 08 45

11 08 50

52.2

97.3

232.4

272.5

45.1 ✓

40.2 ✓

85.3 ✓

- 2.04 ✓

$$\begin{array}{r}
 5.5 \\
 -1.270 \\
 -2.0115 \\
 \hline
 3.285 \\
 -1.842 \\
 \hline
 7.19 \\
 \hline
 5.55
 \end{array}$$

P.A. 90

140.2

191.2

311.2

16.2

57.0 ✓

65.0 ✓

116.0 ✓

- 1.28 ✓

$$\begin{array}{r}
 1.251 \\
 2.015 \\
 \hline
 3.270 \\
 1.635 \\
 7.19 \\
 \hline
 5.55
 \end{array}$$

11 12 05

11 09 05

11 08 47

11.00

11.02

21123.673

S.S. Cygni 21 47 38.43

ent. 11.2 L.C.

ent. 11.2 7.5FB.

12"

Sept. 15^R 1916

P.G. 90

11 18 35- 133.8
 194.6
 317.4
 12.4

60.8 ✓
 55.0 ✓
 115.8 ✓ - 1.29 ✓

IV

P.G. 270

11 21 15-
~~11 15 21~~

239.8
 276.4
 52.2
 95.2

36.6 ✓
 43.0 ✓
 79.6 ✓ - 2.21 ✓

1.285 ✓
 - 2.145 ✓

11 21 30

235.6
 277.2
 53.0
 95.2

41.6 ✓
 42.2 ✓
 83.8 ✓ - 2.08 ✓

3830 ✓
 - 1715 ✓
 719 ✓
 547

P.G. 90

11 24 15

315.2
 8.4
 135.5
 198.2

53.2 ✓
 62.7 ✓
 115.9 ✓ - 1.28 ✓

5 35

11 21 24

1A

11 21 06

Spr.

21123.682

Sept 16, 1916

P.A. 90 270

11 46 15

52.0

45.9 ✓

97.9

37.8 ✓

237.8

83.7 ✓

275.6

- 209 ✓

V

P.A. 270 90

11 49 05

139.8

56.6 ✓

195.4

59.8 ✓

313.3

116.4 ✓

13.1

- 1.27 ✓

- 2060 ✓

- 1.205 ✓

11 49 20

140.2

57.0 ✓

197.2

65.2 ✓

313.6

122.2 ✓

18.8

- 1.14 ✓

3.26 ✓

- 1.632 ✓

7.19 ✓

5.56 ✓

P.A. 270

238.9

40.3 ✓

279.2

45.5 ✓

53.2

85.8 ✓

98.7

- 2.03 ✓

11 51 37

36 17

11 49 04

18

11 48 46

21123.701

P.A. 270.0

Spc. 4.0

S. 7. 2354

H.G. 238W

Sept 16^a 1916

Urania

Transit

12 0¹⁵12 5 20.5
44.5 ?6 4
7 3Object assumed for
Urania tonight
~~Not Urania.~~S. S. Aurigae 06 05-47
00 15

58 50 E

12 22

cut

10.8⁴

7.513

12 22

cut

10.8⁷

L.C

+47.6

P.A. 6.17 5 43 E

A.J. 0 22

S.7. 0 23

3 - 12¹⁵
176 - 7290

Sun. Sept 17, 1916

CC Ob 15" E eq. FFB Rec

Mars

7th Cap

21 15 -17.0

19 55

1 20

10 40

Be watch 40^{sec} Jan.Cap found not to
have been on during
P.A. 270 following groups.

8 02 45

318.2

No. dis.

Scans star

11.7

53.5

as last night.

139.3

54.5

193.8

108.0

1.46

P.A. 90

43.8

59.0

1.555

102.8

41.2

233.0

100.2

1.65

8 5 45

274.2

1.425
+ 1.690

8 5 58

55.6

40.0

95.6

57.1

225.3

97.1

1.73

282.4

3115
- 1.56
719
5.63angle of prism
alter to read 4

P.A. 270

1.560

8 05 02
211 24.545

134.2

60.4

194.6

50.9

320.4

110.9

1.39

11.3

1113

8 8 20

22 48
8 5 42

Sept. 17th 1916

P.G. 270

8 15 20

143.0

187.3

314.1

17.3

463 ✓

632 ✓

109.5 ✓ $\times 1.43$ TK

P.G. 90

1.58

229.8

278.0

49.2

8 18 20

98.1

48.2 ✓

48.9 ✓

97.1 ✓

 $\times 1.73$ 1.5-40
+14

#1.730

8 18 40 →

232.4

277.3

48.0

100.1

44.9 ✓

52.1 ✓

97.0 ✓

 $\times 1.73$

- 1.645-#

9.19

5.55

P.G. 270

1.69

324.2

14.8

142.2

191.7

50.6 ✓

49.5 ✓

100.1 ✓

 $\times 1.65$

8 21 15

32 40

8 18 10

8 17 30

21124.554

Sept. 17^a 1916

P.G. 270

8 36 45

319.8

14.2

~~138.2~~

186.1

191.3

54.4 ✓

55.2 ✓

109.6 ✓

- 1.43 ✓

111

P.G. 90

48.0

102.0

232.2

281.1

54.0 ✓

48.9 ✓

102.9 ✓

- 1.59 ✓

8 39 30

Fecunaltoneal

8 39 40

53.3

95.8

230.7

283.2

42.5 ✓

52.5 ✓

95.0 ✓

- 1.78 ✓

- 1.25 ✓

- 1.68 ✓

293.5

1.467

- 1.47 ✓

719

5.72 ✓

P.G. 270

132.7

197.8

317.8

18.2

65.1 ✓

60.4 ✓

125.5 ✓

- 1.07 ✓

8 42 25

32 20

P 39 40

F 39 00

21124569

Sept. 17th 1916

P. G. 270

8 45 53	1437.0	60.5✓	125.0✓ - 1.08✓
	197.5	64.5✓	
	313.3		
	17.8		

P. G. 90

8 47 00	237.4	44.8✓	92.1✓ - 1.86✓
	282.2	47.3✓	
	12.4		
	99.7		

8 47 20	285.6	38.6✓	307.0
	274.2	50.2✓	
	50.8		
	101.0	88.8✓	
			- 1.95✓
			7.19
			5.65✓

P. G. 270

8 50 15	314.7	65.5✓	118.5✓ - 1.23✓
	20.2	53.0✓	
	138.3		
	191.3		

30 30

8 47 38

8 46 58

21124.574

Sept. 17^a 1916

P.C. 270

8 57 50

320.2

13.8

136.0

198.8

53.6 ✓

62.8 ✓

116.4 ✓

-1.27 ✓

V

P.C. 90

44.8

108.0

235.2

281.4

63.2 ✓

46.2 ✓

109.4 ✓

-1.43 ✓

9 0 50

1.290 ✓

-1.565 ✓

9 1 10

452.2

104.6

237.8

283.8

52.4 ✓

46.0 ✓

98.4 ✓

-1.70 ✓

2.855 ✓

1.427 ✓

-1.43 ✓

7.19 ✓

5.76 ✓

P.C. 270

140.6

197.2

318.9

17.1

54.6 ✓

58.2 ✓

114.8 ✓

-1.31 ✓

9 04 00 ±

3 50

9 0 50

9 0 10

2 11 24.583

Sept. 17^a 1915

P. C. 270

9 14 50

142.2

195.8

313.3

21.1

$$\begin{array}{r}
 53.6 \checkmark \\
 67.8 \checkmark \\
 \hline
 121.4 \checkmark - 1.16 \checkmark
 \end{array}$$

✓

P. C. 90

9 16. 30

237.0

283.1

55.0

1006

$$\begin{array}{r}
 46.1 \checkmark \\
 45.6 \checkmark \\
 \hline
 91.7 \checkmark - 1.87 \checkmark
 \end{array}$$
- 1.22[✓]

9 16 50

237.7

281.5

53.0

104.2

$$\begin{array}{r}
 43.8 \checkmark \\
 51.2 \checkmark \\
 \hline
 95.0 \checkmark - 1.78 \checkmark
 \end{array}$$

- 1.825

3050

- 1585

1.52

7.19

5.67[✓]

P. C. 270

318.1

22.1

144.2

195.9

$$\begin{array}{r}
 64.0 \checkmark \\
 51.7 \checkmark \\
 \hline
 115.7 \checkmark - 1.29 \checkmark
 \end{array}$$

9 19 45

27 55

9 16 59

9 16 19

21124.594

Sept. 17th 1916

P.G. 270

9 22 50

320.0
17.7
139.3
198.857.7 ✓
59.5 ✓
117.2 ✓

-1.25 ✓

VII

P.G. 90

9 25 10

58.8
105.8
239.2
280.455.0 ✓
41.2 ✓
96.2 ✓

-1.75 ✓

9 25 30

54.8
99.2
230.4
286.644.4 ✓
56.2 ✓
100.6 ✓

-1.64 ✓

-1.175 ✓

-1.690 ✓

287.9

1.435 ✓

7.190 ✓

5.75 ✓

P.G. 270

9 29 00±

9 22 30
9 25 30
9 30 58134.8
200.1
322.1
21.265.3 ✓
59.1 ✓
124.4 ✓

-1.10 ✓

21124.601

R. Senti 184205 out H₂ = 5.6 ZC
out H₂ = 5.5 H₂B

Colour of Planets

9 40 JSCygni 2132113 out 12" = 11.3 ZC
11.3 H₂B

Sept 17-1916

Del. Railroad

P.C. 270

9 50 20

237.4

281.0

53.0

110.8

43.6 ✓

57.8 ✓

101.4 ✓

-1.52 ✓

VIII

P.C. 90

317.0

21.6

143.8

197.7

64.6 ✓

53.9 ✓

118.5 ✓

-1.23 ✓

9 58 50

-1.515 ✓

-1.275 ✓

2790 ✓

1395 ✓

-1.40 ✓

7.19 ✓

5.79 ✓

9 57 05

321.4

15.2

141.0

201.6

53.8 ✓

60.6 ✓

114.4 ✓

-1.32 ✓

P.C. 270

49.4

109.8

233.8

283.8

60.4 ✓

50.0 ✓

110.4 ✓

-1.41 ✓

9 56 45

11 00

9 52 45

40

9 52 05

21124.619

P.C. 2869.0

Sfr. 4.3

H.C. 0.13 W

S.7. 10 05

DTC -15 43

P.P.

2 - 1317

128 - 7418

1916phae.proj.,.616C