KG
11365
604

1911phae.proj..605W

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KG-11365.604

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1911phae.proj..60sw

Mar. 9. 1911. (Thursday)

Nova Lacertae.

22 1d +0'.5
30 30
+0 12

Abandoned. Sky pretty cloudy.
Nova not found.

7 20

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1911phae.proj..66W

Mar. 10. 1911. (Friday).

R Z Cassiop.

2	34	+69.0
6	44	
74	10	

For results, see fol. pages.

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1911phae.proj..605w

Mar. 10, 1911

R. Z. Cassiop

I

Index Above A.

245.4 ✓ variables dis.

~~286~~

286.6 41.2

74.5 27.9

100.4 67.1 −2.68

7.22.40

251.1 27.9 −2.76

279.0

65.4 41.6

107.0 69.5 −2.72

Index Below B.

153.4 45.2

198.6 33.4

338.6 78.6 −2.24

12.0

~~160.~~ −2.22

159.9 32.9

192.8

331.5 46.7

18.2 79.6 −2.21

7.28.40

11 20.

7 27 40.

+7 +1 17.

12 26 57.

9106.7147

−2.39

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1911phae.proj..66w

Mar 10 1911

Sous

II

Index Below B

7.34.45

151.7 49.0
200.7
340.8 31.3
12.1 A 0.3 -2.19

160.1 32.
192.6 -2.24 ~~-2.40~~
334.5 44.5 -2.20 ~~-2.61~~
19.0 97.0

Index ~~Above~~ A.

67.2 34.7
105.9
250.0 29.1
279.1 67.2 -2.52

73.3 26.3 -2.66
99.6
246.8 37.2
284.0 63. -2.73

7.41.15
76 0.
7 34 0.
+ 1 15.
12 39 15.
9106. 272

-2.45 ~~-2.53~~

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1911phae.proj..609w

Mar. 10 1911

Same again

III

Index Above A

66.4

-37.2

103.6

252.8 26.4

279.2 62.8 -2.73

73.7 24.4 -2.74

98.1

245.6 34.6 -2.75

284.2 63.6

Index Below B

335.5 42.4

17.9 24.1

162.0 70.5 -2.49

190.1

~~311.8~~

341.8 27.6 -2.60

9.4

158.0 36.5 -2.71

194.5 64.1

-2.67

7.46.0

7.52.15

9 d N.

7 49 A.

+5 +1 15.

12 50 23.

9106. 53 50

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1911phae.proj..60dw

Mar. 10, 1911

Same Again

IV

Index Below B

7.57.55

336.5
17.5 41.0
164.2 26.1
67.1
190.3 -2.60

341.4 29.0 -2.VA
10.4
156.5 39.8
68.8 -2.VV
196.3

Index Above A.

245.4 36.7
282.1
75.0 23.8
60.V -2.AK
98.8

252.8 24.6 -2.A6
277.4
69.2 34.V
V9.1 -2.A9
~~104~~
103.7

-2.72

8.4.5
20.V
A 10.V
+V +11 IV.V
132 IV.V
9106.V432V

1911phae.proj..609w

Mar 10 1911

Same Again V

Index Above A

8.9.20

245.3 34.6
283.9 23.1
74.7 61.7 -2.80
97.8

-2.89

253.5 24.1
277.6
70.3 32.8 / 6.9 -2.90
103.1

Index Below B.

156.8 34.0
194.8
343.4 26.8 / 64.8 -2.68
10.2

-2.69

162.3 26.8
189.1
337.4 37.6 / 64.4 -2.90
15.0

-2.79

8.15.55

2√ 1√.
8 12 34.
+√ +1 1√.
13 13 √3.
9106.√√13

P. A. 205°5 Var. B

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1911phae.proj..60dw

Mar. 10, 1911.

Double Star

V	33	−2.7
A	0	
+2	27	

Abandoned - came up cloudy

W's watch used four times
Watch 1m 15s slow

L. A. P.

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1911phae.proj..609w

Mear. 11. 1911. (Saturday).

Nova Lacertae

72	1d	+5'.5
30	43	
+d	2'	

For remarks. see fol. page.

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1911phae.proj..60w

Mar 11 1911

Under Above A

80.9 ∠ comp. star dis

7.22.0

175.0 94.1 ✓

274.0 67.6 ✓

341.6 161.7 ✓ +0.3 ✓✓

91.5 +0.3 ✓✓

165.6 74.1 ✓

266.0 72.0 ✓

351.0 71.9 ✓ +0.4 ✓✓

Under ~~Below~~ B.

352.2 90.8 ✓

83.0

188.1 61.3 ✓

249.4 71.2.1 ✓ +0.73 ✓

9.9 62.1 ✓ +0.74 ✓

7.28.30

70 30. ✓

7 27 17. ✓

+7 +1 27. ✓

12 26 40. ✓

9107.71.46 ✓

72.0

173.5 89.5 ✓

263.0 171.6 ✓ +0.74 ✓

linear 0.46 ✓

2.57 ✓

9.03

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1911phae.proj..605w

Mar. 11. 1911.

Double Star (near list) = Ber. Cat. 1781.
P.A 70° Dist. 86 Mags 6·3 7·3

3 29 +63.V
7 13
+3 44

For meats. see fol. pages.

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1911phae.proj..60Sw

March 11 1911

Under ~~Left~~ + ~~Above~~

4.2 ✓
70.8 ✓ S, prec. + brtr dis
66.6 ✓
192.3 ✓2.6 ✓
244.9 119.2 ✓ 1.21 ✓

7.46.30

11.5 ✓1.7 ✓ 1.23 ✓
63.2 6 ✓.4 ✓
185.2 117.✓ ✓ 1.2✓ ✓
251.0

Under ~~Right~~ + ~~Above~~

276.0 62.0 ✓
338.0 ~~44.4~~ ✓
106.0 106.4 ✓ 1.49 ✓
150.8

1.✓0

285.9 47.0 ✓
332.9
98.5 ✓9.2 ✓
157.7 106.2 ✓ 1.✓1 ✓

7.54.20
100 ✓0. ✓
7 ✓0 2✓. ✓
+✓ +1 2✓. ✓
12 ✓1 ✓0. ✓
·9107. ✓360 ✓

1.36 ✓

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1911phae.proj..609

Mar. 11. 1911

Same Again

Under Right + Above

277.0
338.5 61.5
115.9 37.1
153.0 94.6 1.69

7.57.40

284.3 49.1 1.52
333.4
96.8 63.5
160.3 112.6 1.36

Under Left + Below

185.9 64.6
250.5
14.6 47.4
62.4 112.4 1.36

193.7 47.9 1.36
241.6
5.4 64.4
69.8 112.3 1.36

1.44

8.5.25
3
0 1 32
+1 2
13 2 7
9107.43

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1911phae.proj..60w

Mar 11 1911

Same Again

Index Left + Below

8.9.50

186.3 64.✓
250.8
11.8 ✓1.2 ✓
11✓.7 ✓ 1.29 ✓
63.0

163.3 41.3 ✓ 0.97 ✓
244.6
5.1 64.9 ✓
146.2 ✓ 0.65 ✓
70.0

Index Right + Above

97.4 62.6 ✓
160.0
286.4 ✓✓1 ✓
331.5 107 ✓ 1.57 ✓

16 probably.

8 ~~46.45~~
.26 3✓ ✓
& 13 14 ✓
+✓ +1 2✓ ✓
13 14 ✓3 ✓
9107.✓✓19 ✓

104.0 48.0 ✓ 1.40
152.0
275.6 6✓.7 ✓
341.3 113.7 ✓ 1.33 ✓

1.48 ✓
Gen. Mean 1.33 ✓

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1911phae.proj..609

Mar. 11, 1911.

Double Star (new list) = Ber. Cat. 1731.
P.A. 233° Twist 44' Mags 6.9 7.4

3 24 +27.3
7 v-A
+4 3 K

For results, see following pages.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..60

Mar 11 1911

Index Rejet

8.28.50

3.1
73.7 n. fol. + birth dis.
175.3 70.6
263.5 44.2 / 114.4 0.40

353.0 44.0 0.42
78.0
182.0 71.3 / 156.3 0.45
253.3

Index left

270.5
346.4 75.9
84.0 46.1 / 162.0 0.34
170.1

267.3 41.9 0.42
349.2
92.5 72.4 / 154.3 0.49
164.9

8-35.50
6448.
+ 3220.
+1 25.
13334
9107 6 2

0.42

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1911phae.proj..609w

Mar. 11. 1911
Same Again
Index Right

8.38.15

271.0
343.0 72.0
87.2 42.0
169.2 14.0 0.50

266.5 42.7 0.49
349.2
92.2 72.3
164.5 14.5 0.44

Index Left

185.0 64.0
253.0
356.0 42.7
81.7 13.7 0.50

175.0 47.0 0.45
262.0
2.0 72.2
74.2 19.2 0.40

0.47

8.43.15
41 30.
4 48 45
+ 1 25
13 42 10
9107.5709

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1911phae.proj..60w

Mar. 11. 1911

Same Again

Index Right

182.8
255.5 72.7
355.0 72.4
83.4 161.1 0.36

174.8 89.8
263.8
3.0 69.2 0.42
72.2

Index left

92.0 73.1
165.1
267.6 74.7
352.3 187.4 0.42

82.6 0.36
175.0 92.4
273.6
345.0 71.4 163.8 0.31

0.39

8.45.35

8.50.25
96 0.
44 0.
12 25
13 49 25
9107.760

0.38
Gen. mean 0.42

W's watch used for times.
Watch 1m 25s slow.

L. P. P.

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1911phae.proj..60sw

Mar. 13. 1911. (Monday).

Nova Lacertae.

22	10	+V1.V
30	V4	
+8	36	

For means, see next page.

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1911phae.proj..60mw

Mar. 13, 1911

Index Below B.

351.8 ✓ comp. star dis.
85.6 93.8 ✓
183.3 69.7 ✓
253.0 163. ✓ 0.31

358.3 76.7 ✓ 0.24 ✓
75.0
174.0 94.0 ✓
268.0 170.7 ✓ 0.17

Index Above A.

267.8 83.7 ✓
351.5
95.6 66.6 ✓
162.2 150.3 ✓ 0.✓7

275.3 68.✓ ✓ 0.✓2
343.8 87.2 ✓
84.0 155✓.7 ✓ 0.46
171.2

7 12.50

7.20.15
33 ✓ ✓
7 16 32. ✓
+✓ +1 32. ✓
12 18 4. ✓
9109.✓126 ✓

0.38 ✓
8.✓7 ✓
8.9 ✓ ✓

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1911phae.proj..605w

Mar. 13. 1911.

Double Star (new list) = Bu. Cat. 372.

P. A. 332° Dist 5.″49 Mags 7.0 7.2

0 3v +70.7
7 27
+6 v2

Abandoned.

Double Star (new list.) = Bu. Cat. 1731.

P. A. 233° Dist 44″ Mags 6.9 7.4

3 24 +27.3
7 40
+4 16

For remarks, see next two pages.

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1911phae.proj..603w

Mar 13 1911

Under Left

266.9 Δ3.9
350.8

92.9 71.1
164.0 15 5.0 0.44

272.8 70.0 0.46
342.8 Δ6.5
84.0 15 6.5 0.45
170.5

Under Right

175.6 Δ4.5
264.1
0.5 74.8 0.32
75.3

181.9 72.7 0.32
254.6
353.1 Δ9.9
83.0 16 2.6 0.33

8.10.5
13 5.5
Δ 6 32.5
+5 +1 32.5
13 Δ 4.5
9109.5 473 0.39

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1911phae.proj..60w

Mar. 13 1911

Same Again

~~Under Below~~

8.20.35

173.8
263.2 Δ9.4
1.1 71.6 / 161.0 0.36
72.7

0.40

183.7 72.4
256.1
355.4 Δ4.7 / 157.1 0.44
80.1

~~Under Above~~

85.5 Δ2.5
168.0
272.8 69.2 / 157.7 0.54
342.0

0.50

93.0 64.0
161.0
263.0 ΔΔ.4 / 156.4 0.45
351.4

0.45

Gen. Mean 0.42

8.25.50

6 25
Δ 23 12.
+5 +1 32
13 24 44.
9109.5588

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1911phde.proj.: 0054

Lucar. 13. 1911.

Double Star (Arow list) = Bu. Cat. 1701.

P. A. 70° Dist 46" Mags 6.3. 7.3

3	29	+6 3.5
4	12	
+4	43	

For meads. see fol. pages.

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1911phae.proj..605w

Dec 13 1911

Judey Left.

13.3 ∠ S. prec. + Brit dis.

8.38.10

66.4 √3.1 ✓

187.6 62.3 ✓

249.9 115.4 ✓ 1.29 ✓

1.30 ✓

9.2 √6.2 ✓

67.4 √6.7 ✓

192.2 114.9 ✓ 1.31 ✓

248.9

Judey Right

281.4 √3.√ ✓

334.9

98.4 √9.6 ✓

158.0 113.1 ✓ 1.3√ ✓

1.36 ✓

279.1 √4.3 ✓

337.4

101.5 √4.2 ✓

155.7 112.√ ✓ 1.36 ✓

1.33 ✓

8.43.35 ✓

+1 4√ ✓

+ 40 √2. ✓

+√ +1 32. ✓

13 42 24. ✓

9109. √911 ✓

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1911phae.proj.. 60dw

Mar. 13 1911

Same Again

Index Right

8.45.50

281.0
338.3 ~7.3
100.7 ~7.1
157.8 114.4 1.32

281.3 ~3.9 1.34
335.2
99.1 ~4.~ / 112.4 1.36
157.6

Index ~~Left~~

189.6 ~7.2
246.8
10.0 ~4.~ / 115.7 1.29
68.5

1.24

187.3 61.6
248.9
8.4 ~5.4 / 120.4 1.10
67.2

8.51.0
96 ~0.
4 44 2~.
~ +1 32.
13 49 ~7.
9109.~764

1.29

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1911phae.proj..605w

Mar 13 1911

Same Again

Index Left

187.1

249.5 62.4

9.0 60.0 / 122.4 1.14

69.0

1.20

189.1 √4.3

247.4 √4.6 / 116.9 1.26

9.4

68.0

Index Right

100.8 √6.4

157.2

280.5 √9.9 / 116.3 1.27

340.4

1.24

97.0 61.9

158.9

281.0 √7.4 / 119.3 1.21

338.4

1.22

Gen. mean 1.24

8.52.50

8.57.30

10 20.

4 √√ 10.

+√ +1 32.

13 √6 42.

9109. √4 10

W's watch used for times

Watch 1m 32s slow.

L. A. P.

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1911phae.proj..60dw

May 14. 1911. (Tuesday).

Double Star (new list) = Bu. Cat. 2883. AB, E.

V	33	−2.7
7	10	
+1	37	

For mounts, see next page.

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1911phae.proj..609w

Mar 14 1911

7.26.45

Index Right & Above

113.8 — S. prec. + brtr dis.
145.0 31.2 ✓
292.3 33.2 ✓
325.5 64.4 ✓ 2.70 ✓

2.76 ✓

114.4 31.2 ✓
145.6
293.6 30.1 ✓
323.7 61.3 ✓ 2.41 ✓

Index Left + Below

204.1 31.5 ✓
235.6
23.5 29.5 ✓
53.0 61.0 ✓ 2.42 ✓

203.1 30.9 ✓ 2.41 ✓
234.0
23.4 30.6 ✓
54.0 61.5 ✓ 2.40 ✓

7.34.5
60 √0. ✓
7 30 √0. ✓
+√ +1 11. ✓
12 32 1. ✓
9110. √ 222 ✓

W's watch used for Times. 2.74 ✓
Watch 1m 11s slow.

Stopped by clouds.
Much through more or less clouds.

L. A. A.

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1911phae.proj..60dw

Mar. 15. 1911 (Wednesday).

Double Star (new list) = Bu. Cat. 2103.

P. A 321° Dist. 58" Mags 6.2 7.2

4 9 +4V.9

7 9

+3 0

6 V8

+2 49

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1911phae.proj..609w

Mar. 15 1911

	Index Left + Below		
	101.4	⌊ S. fol. + brtr dis.	
7.19.15	156.0	√4.6	
	292.0	33.√	
	325.5	ΔΔ.1	1.96
	112.0	33.7	1.94
	145.7		
	280.1	√√.9	
	336.0	89.6	1.92
	Index Right + Above		
	11.0	√9.6	
	70.6		
	203.0	32.8	
	235.8	92.4	1.8√
	23.6	29.8	1.88
7.24.40	53.4		
	189.0	60.√	
	249.5	90.3	1.91

1.91

The above is not an obs. of Bu. Cat. 2103. The above star had the right P. A. but the distance was too large and the diff. of magn. too great. It was found after the meast that the Dec. circle was about 1° wrong. The right star double star was then found and observed on the fol. pages.

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1911phae.proj..60aw

Mar. 15. 1911.

Double Star (~~new~~ new list) = Bu. Cat. 2103,
Fr. obs. Tebbutt 1906 Phot. R. 1 frame c

P. A. 321° Dist. 5.4" Mags. 6.2, 7.2 c

For remarks see fol. pages.

The double observed on fol. pages is the correct (above) double.

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1911phae.proj..609

Mar 15 1911

P.A

I

Index Right

10.4
65.9 ← S. fol. + birth dia.
176.5
261.9 140.9 0.70

355.9 16.1 0.7
82.0 2.2
192.4 136.9 0.40
245.2

Index left

282.0 4.0
336.0
83.2 49.3
172.5 143.3 0.71

268.4 2.2 0.43
350.6
104.4 49.3
153.7 131.1 0.9

7.48.25

7.54.0
2 2
7 11 12
+ 10 0
12 12 2
9111.361

0.79

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1911phae.proj..60new

Mar. 15. 1911

Same Again

Quad Left.

II

282.6 ∨1.6 ∨

334.2

86.1 Δ7.9 ∨

174.0 139.∨ ∨ 0.7Δ ∨

0.Δ2 ∨

266.3 Δ∨.7 ∨

352.0

104.0 ∨0.4 ∨

154.4 136.1 ∨ 0.Δ∨ ∨

Quad A 10∨2

193.6 ∨0.4 ∨

244.0

336.9 ΔΚ.Δ ∨

81.7 13∨.2 ∨ 0.Δ7 ∨

178.7 Δ3.1 ∨ 0.Δ6

261.8

11.0 ∨3.4 ∨

64.4 136.∨ ∨ 0.ΔΔ ∨

0.ΔΚ ∨

7.58.15

8.3.45

2 0. ∨

Δ 1 0. ∨

+∨ +0 ∨0. ∨

131 ∨0. ∨

9111.∨430 ∨

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1911phae.proj..60w

Near 15 1911

Same Again

~~Rudder Above~~ III

192.5 ✓4.7✓
247.2
359.6 76.✓ ✓
76.1 131.2✓ 0.9✓✓

184.4 73.2✓ 0.9✓✓
257.6 ✓4.2✓
9.0 131.4✓ 0.9✓✓
67.2

Rudder Below

100.8 ✓7.4✓
158.6
269.0 4 3.4✓
352.4 141.2✓ 0.7✓✓

86.7 4✓.2✓ 0.7✓✓
171.9
279.0 ✓7.7✓
336.7 142.9 0.72✓

0.24✓

8.13.0

8.17.50
30 ✓0.✓
4 1✓ 2✓.✓
+✓ +0 ✓0.✓
13 16 1✓.✓
9111.✓✓29✓

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1911phae.proj..600w

Mar 15 1911

Same Again

Index Below

IV

8.21.30

100.6
158.0 ▽7.4
267.5
346.3 ▽8.8 / 136.2 0.0▽

86.9 ▲1.6 0.06
168.5
281.3 ▽4.4 / 136.0 0.06
335.7

~~Index Below~~

12.0 ▽6.2
68.2
175.5 ▲▽.6 / 141.4 0.7▽
261.1

359.0 ▲3.2 0.7▲
82.8
+8 193.0 ▽3.▽ / 137.3 0.03
246.5

8.26.35
▲ ▽.
▲ 24 2.
+▽ to ▽0.
13 24 ▽2.
9111. ▽▽▲9

0.02

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1911phae.proj..60w

Mar 15 1911

Same Again

V

Index Above

12·0
64·1 √2.1√
180·1 Δ1.9 √
262·0 13 4.0 √ 0.90 √

8·30·50

1.0
78·0 77.0 √ 0.94 √
192·0 √3.√ √
245·5 13 0.√ √ 0.97 √

Index Below

279·5
337·1 √7.6 √
91·0 77.6 √
168·6 13 √.2 √ 0.87

271·0 Δ1.√ √ 0.87
352·5
101·6 √3.6 √
155·2 13 √.1 √ 0.87 √

8·35·20

6 10. √
Δ 33 √. √
+√ +0 √0. √
13 33 √√. √
9111.√6√2 √

W's watch used for times
Watch 50ˢ slow.

0.90 √
Gem. mean 0.84 √

L. P. A.

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1911phae.proj. 60w

Mar. 16. 1911. (Thursday).

Astro Lecture.

22 1A +V1.V

31B 2

+2 44

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1911phae.proj..60

March 16 1911

Just Below

172.0 Comp. star dis.

8.20.5 265.3

2.3

71.5

#

185.7

255.4

357.6

82.8

Above observations very difficult in clouds.
Cloud became so thick, that group
could not be completed.

W's watch used for times
Watch 29s slow

L. P. P.

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1911phae.proj. 60fw

Mar. 17. 1911. (Friday).

Z Draconis.

11	46	+73,0
7	14	
-K	32	
+7	2A	

For results see Fol. Pages.

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1911phae.proj..60w

~~Obs~~ Mar. 17. 1911

Index Above A

345.2 ± 2.4 ✓ Comp. Star dist.

7.31.30

10.0

157.0 ±0.5 ✓

6 ✓3 ✓ +2.67

197.5

336.7 3 ✓3 ✓ +2.76 ✓

12.0

162.3 24.6 ✓

✓9.9 ✓ +2.46 ✓

186.9

Index Below B.

253.8 26.7 ✓

280.5

62.8 ±0.6 ✓

103.4 67.3 ✓ +2.60 ✓

248.0 3 ✓.9 ✓ +2.✓6 ✓

286.9

69.5 30.4 ✓

99.9 69.3 ✓ +2.✓3 ✓

Mean +2.66 ✓

7.38.50

10 20. ✓

7 3✓ 10. ✓

+✓ +10. ✓

12 3✓ 20. ✓

9113. ✓24✓ ✓

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1911phae.proj..60fw

Mar. 17, 1911

Index Below

252.8

7.42.5 279.0

63.1

104.4

245.0

287.0

70.2

101.4

Index Above

Clouds!

Stopped by clouds.
Preceding measurements rather difficult.
Variable rather faint in first group.

W's watch used for times
Watch 10^s slow.

L. P. P.

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1911phae.proj..60N

Mar. 20. 1911. (Monday).

Nova Lacertae. H. obs. Lick 36 cm. Phot. R. (One prism).

22	1d	+V1.V
31	3d	
+9	20	

For remarks, see fol. page.

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1911phae.proj. 60fw

Mar. 20. 1911.

Quebec Aborn

264.5

7.37.40 350.4

95.1

160.6

274.7

340.5

81.2

173.1

Quebec Balon

~~18~~ 179.8

263.0

Stopped by clouds.

Ws watch used for times

Watch 55s fast

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1911phae.proj..605w

Mar. 21. 1911. (Tuesday).

Nova Lacertae. 4. obs. Talbotts rec.
Phot. R. (1 prism).

22	1A	+ V 1. V
31	22	
79	K	

For remts. see fol. page.

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1911phae.proj..60cw

Mar. 21 1911

Under Below B.

5.3 ← comp. star dis.

7.14.40

72.1 66.8 "
174.0 ±7.7 "
261.7 1±4.5 " +0.49 "

354.5 ±9.4 " +0.46 "
83.9
185.8 68.2 "
254.6 1±8.2 +0.42 "

Under Above A.

277.7 60.5 "
338.2
83.7 90.3 "
174.0 1±0.8 " +0.56 "

264.8 93.0 " +0.50 "
357.8
98.0 63.5 "
161.5 1±6.5 " +0.45 "

7.21.0
3± 40. "
7 17 ±0. "
±5 -1 17 "
12 16 33 "
9117. ±11.5 "

+0.48 "
8.57 "
9.05 "

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1911phae.proj..609W

Mar. 21. 1911.

Double Star (near last) = Bu. Cat. 6134.

12	1V	+27.7
7	VV	
-4	20	
+7	40	

Not easily found. Abandoned.

Double Star 7.99

P. A. 343° Dist. 41." mag. 7.0, 7.5

14	V6	+V4.3
4	17	
-6	39	
+V	21	

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1911phae.proj..60cw

Mar 21 1911

Index Right + Above

278.1
339.0 ⌐ S. fol. + Brtr dis.
8.10.50 60.9
87.5 Δ 0.1
167.6 141.0 0.7

269.5 74.0 0.77
347.5
99.0 61.2 13 9.2 0.79
160.2

Index Left + Below

184.0 69.4
253.4
357.0 Δ 0.0
77.0 139.4 0.79

177.5 Δ 4.0 0.69
261.5
10.6 Δ 4.2
65.8 139.2 0.79

8.17.0
27 50.
Δ 13 58.
+ 5 -1 12.
13 12 38
9117.5504

0.73

1911phae.proj..605w

Mar. 21. 1911.

Double Star (new list) = Bu. Cat 2883 AB, D.
~~2883 AB + D.~~ H. Ob. Gibbetts rec.
Phot. R. 1 per min.

√	32	-2.7
£	42	
+3	10	

P.A. 84° Dist. 13" Exp. 4.0, 7.5

For results, see next page.

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1911phae.proj..60cw

Mar 21 1911

Index Left & Below 18.8

8.37.30

56.6 ← prec. + bitt dis
204.2 37.6 ✓
232.0 27.6 ✓ 2.66 ✓
6 5.6 ✓

25.1 26.6 ✓ 2.74 ✓
51.9 ✓
201.0 36.6 ✓ 2.61 ✓
235.6 61.4 ✓

Index Right + Above

293.0 31.3 ✓
324.3
113.3 30.3 ✓ 2.60 ✓
143.6 61.6 ✓

294.5 2 6.5 ✓ 2.64 ✓
323.0
112.7 30.9 ✓
143.6 5 9.4 ✓ 2.66 ✓

8.43.45
£1 15. ✓
£ 40 34. ✓
+5 -1 17. ✓
13 39 21. ✓
9117. 5690 ✓

2.79 ✓

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1911phae.proj..609w

Mar. 21. 1911.

Double Star (new list) = Bu. Cat. 2883 AB, E.
Wr. ob. Zebrette rec.
Phot. R. (1 prism)
√ 33 −27

P.A. 61° Dist. 4.2". Mags. 4.0, 6.3

For remarks, see fol. page.

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1911phae.proj..60cw

Mar 21 1911

Index Right + Above

8.46.35

292.7
323.1
113.6
145.0

30.4
31.4
61.8
2.79

292.6
325.5
113.5
143.3

32.9
29.8
62.7
2.76

2.78

Index Left + Below

203.2
233.1
22.5
54.0

29.9
31.5
61.4
2.81

202.6
235.0
24.5
53.8

32.4
29.3
61.7
2.80

2.80

2.79

8.51.15

97 v 0.
& 48 v v.
tv -1 17.
13 47 38

9117.v 7 47

W's watch used for Times
Watch 1m 17s fast

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1911phae.proj..609w

Mar. 21, 1911.

Dis. Jup. I. Phot. R. (1 prism.).
H. ob. Abbotts rec.
Compared with sat. near sat. I and also near Jup. and a little south prec. sat. I. = Sat II.

B+C. 1182.			B. 394.		
10	0	16.0	10	1	0.0
10	1	16.0	10	2	0.0

For meats see fol. page.

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1911phae.proj..60cw

Mar. 21. 1911.

10	37	58	87.5
	38	21	165.0
	~~41~~	~~41~~	~~8.6~~
	39	3	92.8
	39	33	164.7
	40	00	93.0
	40	22	165.1
	40	56	88.1
	41	11	clouds

Stopped by clouds ~~to~~ nearly 2 minutes before theoret. time of beg. Hence the above of no value.

L. P. P.

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1911phae.proj..609w

Mar. 23, 1911. (Thursday)

Nova Lacertae.
Wr. obs. Talbotts rec.
Phot. R. 1-prism.

22	1A	+V1.5
31	3A	
+9	20	

For means. see next page.

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1911phae.proj..606w

Mar. 23rd 1911.

Index R. B.

Index R & B. A. — C.R. Dec.

185.4 — 71.1

h m s
7 35.20 — 256.5 — A2.V

357.3 — 1V3.6 — +0.V0

79.8

+0.V2

175.8 — AV.2

261.0

5.0 — 66.8

71.8 — 1V2.0 — +0.V4

Index L + A. B.

96.7 — 63.1

159.8

265.0 — A3.2

348.2 — 1463 — +0.6V

+0.V8

85.8 — 87.4

h m s
7 43 50 — 173.2 — 67.2

79 10. V — 276.1 — 1V4.6 — +0.49

7 39 35. V — 343.3

+V -1 VA.

12 37 37 V

9118 V361 V

+0.V7 V

A.V7 V

9.64 V

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1911phae.proj..60w

Mar. 23. 1911.

Double Star (special list) =
= Bu 1829 Phot. R. 1 prism.
W. obs. Tebbutt rec.

3	43	+24.1
4	13	
+4	30	

C. a. 308 Dist. 87" Mags 6.3 7.2

~~+0.5~~
~~63.7~~

~~4 – 5~~
~~8 08 55~~

For means. see next page.

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1911phae.proj..60cw

Lunar. 23. 1911.

b. a. 308 Dist. 87" Mags. 6.3 7.2

	Index	R. A.
		10.3
		3.4
8h 03m 55s	9s	3.7
		178.6
		56.0
		358.6
		79.6
		163.9
		244.7
		286.0
		334.9
		85.1
		171.1
		265.5
8h 12m 0s		351.9
		102.0
		157.0

Reject above. Errors in reading circle by rec.
Perhaps also wrong star.

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1911phae.proj..60w

Mar. 23. 1911.

Double Star (special list) =

= Bu. 2124

Phot. R. 1 prelim. H. obs. Tebbutt rec.

4	14	+1.5
4	34	
+4	24	

R.A. 155 · Dist. 103 Magn. 7.0 ~~7.5~~ 7.2

For meanto, see fol. page.

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1911phae.proj..60dw

Mar. 23, 1911.

Under R. + B. 170.0 ?

~~85.7~~ 17.0 ← N. P. + bstr. dè.

~~82647~~ ~~173.0~~ 268.5 98 ✓

353.8

85.9 92.1

190.6

169.4 +0.20

174.2

266.8 92.6 +0.18

853.0

89.1 96.1

185.7 +0.16

171.3

77.6 104.1

181.7

262.4 95.6

358.0 199.7 +0.38

166.3

82.0 93.0 +0.34

175.0

257.0 103. ✓

0.5 196. ✓ +0.31

163. ✓

+0.26

2 m 3

8 3 4 25

1 1 2 ✓

8 30 36. ✓

+✓ -1 ✓8. ✓

13 28 38 ✓

9119. ✓61 ✓ ✓

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1911phae.proj..60

Mar. 23. 1911.

Double Star (special list) =

= Bu. 22 AV

W. obs. Tebbetts rec. 1 prism (Phot. R.)

4	32.3	+0.4
~~4~~	~~VA.~~	
~~54~~	~~28~~	

P. A 172 Dist 78" Mags 7.0 7.2

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1911phae.proj. 60cm

Mar. 23. 1911.

Index L.a.

84.0 ← Nr. + Intr. dis.

8 43 55

177.0 93.0 ✓

266.4 Δ 2.1 ✓

348.5 171.1 ✓ −0.09 ✓

87.1 Δ 3.4 ✓ −0.0 ✓

170.5

260.8 96.3 ✓

357.1 179.7 ✓ −0.01 ✓

350.5 97.4 ✓

87.9

178.9 Δ 3.1 ✓

262.0 1Δ 0.1 ✓ +0.01 ✓

179.1 ✓

358.3 Δ 3.6 ✓ +0.01 ✓

h m s

8 50 30

81.9

170.2 96.4 ✓

267.0 1Δ 0.4 ✓ +0.01 ✓

179.6 ✓

94 2 ✓

Δ 47 12. ✓

tr −1 1 Δ, ✓

13 45 14. ✓ −0.02 ✓

9 11 9. 7 30 ✓

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1911phae.proj..60

Mar. 23. 1911.

Double Star (special list) =
= Bu. 3298
W. obs. Tebbetts rec. Phot. R. 1 prism.

6	14	+13.5
10	3	
+3	49	

P.a. 44 Dist. 73 Mags. 6.5 7.0

W watch used for times
Watch 1m 58s fast.

For remarks. see next page.

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1911phae.proj. 60fw

Mar. 23. 1911.

269.8
Clouds.

L. P. C.

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1911phae.proj..60

Mar. 24. 1911. (Friday)

Double Star =
= Bu. 1449
Phot. R. 1 prima. Sr. obs. Talbotto rec.
P. A 308.° Dist 87." Mags 6.3. 7.2

3 43 +24.1
7 34
+3 √1

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1911phae.proj..60w

Mar 24 1911

Index Right + Above

258.8
2.0
7.5
1926

~~1.14.35~~

Index Right + Above

188.9 — 62.3 — S. F. Lo.
251.2

7.17.0 — 3.2 — 77.3 — 0.7∠
80.5 — 139.6

0.7

181.0 — 60.3
261.3 — 62.2
8.5 — 142.5 — 0.7∠
70.7

Index ~~Left + Below~~

101.5 — 75.5
156.0
274.2 — 74.0
348.2 — 148.5 — 1.01

98.0 — 67.4 — 1.10
165.4
283.6 — 73.4
337.0 — 120.8 — 1.1∠

0.92

7.21.40
30 40.
7 19 20.
+ -17.
12 19 3.
9120. 132

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1911phae.proj..66R

Mar. 24. 1911.

Double Star =

= Bu. Cat. 1439

W. obs. Tebbutt rec. Phot. R., 1 pr. cam.

P.A. 38° Dist 123" mags 6.2. 6.3

3 3A +27.6

7 49

+4 11

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1911phae.proj. 66ew

Mar 24 1911

Index Left / Below

T. 31.5

268.0
352.0 ✓ S. prec. dis.
78.8 ∠4.0 ✓
176.0 97.2 / 181.2 / 17∠.∠ ✓ +0.02 ✓

268.0 ∠3.0 ✓ −0.12 ✓
351.0
88.6 ∠2.✓ ✓
171.1 16✓.✓ ✓ −0.27 ✓

Index Right ~~Room~~

178.6
263.3 ∠4.7 ✓
352.0 91.0 ✓
83.0 17✓.7 ✓ −0.0∠ ✓

176.1
265.0 ∠∠.9 ✓ −0.06 ✓
354.5
84.0 ∠9.✓ ✓ / 17∠.∠ ✓ −0.03 ✓

7.37.10
∠ 1✓ ✓
7 34 ∠ ✓
+✓ −17. ✓
1233 ✓1. ✓
9120.✓23✓ ✓

−0.09 ✓

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1911phae.proj..60w

Mar. 24. 1911.

Double Star =

= Ben. Cat. 17 v v

W. obs. Tebbutt rec. Phot. R. 1 prism.

P.A. 35°. Dist 71" Mags 7.5 7.0

3 2A +23.0

2 7

+4 39

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1911phae.proj..60cw

Mar 24 1911

Index Left + Bloom

358.6
80.0 ← S. prec. dis.
183.2 Δ1.4 ✓
261.4 7Δ2 / 19.6 ✓ −0.39 ✓

−0.36 ✓

2.0 76.6 ✓
78.6 Δ6.1 ✓
177.0 / 162.7 ✓ −0.33 ✓
263.1

Index Right + ~~Below~~ Below

268.7 Δ1.2 ✓
350.5
92.0 7Δ.6 ✓
167.6 / 167.4 ✓ −0.43 ✓

272.0 Δ0.0 ✓ −0.33 ✓
352.0
84.6 Δ7.9 ✓
172.5 / 167.9 ✓ −0.23 ✓

−0.34 ✓

7.52.20
9Δ2Δ ✓
7 49 12. ✓
+v −17. ✓
12 4Δ ΔΔ. ✓
9120.Δ339"

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1911phae.proj..605N

Mar. 24. 1911.

Double Star =

= Bu. Cat. 27 V

Phot. R. 1 prism. Yr. obs. Tebbetts 24c.

P. A. 294° Dist 7.5" Mags. 6.2. 7.2.

V	24	+39.2
A	24	
+3	0	

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1911phae.proj..60sw

Year 24 1911

Index Right

8.5.20

192.3
247.5 √fol. + brtr dis.
√√.2 √
13.7 √8.3 √
64.0 10 √.√ √ 1.√2 √

195.6 49.4 √ −1.√1 √
245.0
11.0 √7.0 √ / 106.4 √ −1.√0 √
68.0

Index Left

98.5 60.√ √
159.0
280.0 √6.2 √ / 116.7 √ −1.27 √
336.2

99.0 √9.0 √ −1.24 √
158.0
281.9 √6.1 √ / 11√.1 √ −1.30 √
338.0

−1.40 √

8.10.45

16 √. √
∂ ∂ 2. √
+√ −12. √
137 4√ √
9120.√471 √

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1911phae.proj..60

Mear. 24. 1911.

Double Star. =

Bu. Cat. 2963

Phot. R. 1 prim. W. obs. Sabbatts sec.

P. A. 166° dist 94" Mags 6.5 · 7.0

V	42	+24.6
A	39	
2	V 7	

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1911phae.proj..60

Mar 24 1911

Below
3.2 ← 69.8 ✓
73.0
184.9 68.7 ✓
253.6 134.7 ✓

L. P. + Coast. Sig.

8.18.40

0.80 ✓

-0.77 ✓

4.8 70.1 ✓
74.9
184.4 71.6 ✓
256.0 141.7 ✓

-0.74 ✓

Judy Above
273.9 71.7 ✓
345.6
87.4 +0.3 ✓
167.7 152.0 ✓

-0.54 ✓

274.0 70.0 ✓
349.0
93.6 73.7 ✓
167.3 144.7 ✓

-0.57 ✓

-0.60 ✓

8.24.5
42 45 ✓
+ 21 22 ✓
+V -17 ✓
13 21 5 ✓
9120.5564 ✓

-0.67

Wis watch used for times
Watch 17 s fast.

L. A. P.

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1911phae.proj..609w

Mar. 25. 1911. (Saturday).

Double Star (special list) =
= Bu 1163 W. obs. Lebanon rec.
Phot. R. 1 prism.
P.A. 204° Dist 103" Mags 6.1 7.1
2 10 +V 6.6
7 34
+V 24

For wants, see next page.

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1911phae.proj..605w

Mar 25 1911

Index ~~Left & Above~~

271.5 ← m. fol. + bitidis
343.8 72.3
93.8 68.0
161.8 140.3 0.77

7.16.20

277.6 65.9 0.78
343.5
92.4 73.4
165.8 139.3 0.79

Index ~~Right~~ + Below

183.2 74.4
257.6
7.0 67.5
74.5 141.9 0.74

185.9 66.9 0.79
232.8
4.5 69.6
74.1 136.5 0.44

7.22.0
34 20.
7 19 10.
+5 -36.
12 18 34

0.78

9121.5/29

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1911phae.proj..605w

Mar. 25. 1911.

Double Star =
= Bru. 1193.
Abst. R. 1 precim. W. obs. Talbotts rec.

P. A. 200° Dist 63" Mags 6.1.6.5
2 12 +√96
7 √2
+√ 40

For means. see fol. page.

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1911phae.proj..60Sw

Mar 25 1911

Index Right + Below

176.7 mF0l + Brtr dis.
263.4 Δ6.7 v
355.7 Δ6.3 v
82.0 173.0 v 0.13 v

178.2 Δ7.7 v 0.14 v
262.9
356.5 Δ7.3 v
83.8 172.0 v 0.11 v

Index Left + Above

~~265.1 267.8~~
~~352.8 355.5~~
84.5 Δ7.7 v
173.0 Δ&T v / 176.2 0.07 v

266.5 Δ6.7 v 0.06 v
353.0
82.5 90.0 v
172.05 176.7 v 0.06 v

7.35.15
6330. v
7314 v
+v −36.
12319. v
9121. v216 v

0.10 v

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1911phae.proj..60sw

Mar. 25. 1911.

Double Star =

= Ber. Cat. 1500

Phot. R. 1 prism. Yr. obs. Tebbetts rec.

P. A. 229° Dist 74° Mags 6.7. 7.3

2	√3	+√9.3
2	7	
+√	14	

For remarks. see fol. page.

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1911phae.proj..0054

Sept 25 1911

Index ~~Right~~ ~~Left~~ + Above

~~7.49.30~~ 7.46.10	273.2	273.0	n. fol. + brtr dis
	344.2	351.7	71.0
	88.5	95.5	76.4 / 147.4	0.63
	164.9	163.3	
	271.9	276.5	74.2
	346.1		70.8 / 145.0	0.67
	92.7		
	163.5		

Index Right + Below

188.3	63.6	
251.9	73.0 / 136.6	0.74
3.8		
+7		
76.8		

0.60

7.52.10	180.9	
9 20	~~260.0~~ 79.1	
7 49 10	260.0	
+v -36	8.5	62.3 / 141.4	0.75
1248 34	70.8	
9121.5337		

0.72

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1911phae.proj..60sw

Mar. 25. 1911.

~~Double Star~~
~~Bu Cat. 2963 16h 2m~~

~~V 42 +24.6~~
~~A 2V~~
~~+2 43~~
~~P.A. 110° Dist 118" Mags 7.0 7.1~~
~~3 14 +62.4~~
~~A 2V~~
~~+V 11~~

Clouds in this region.

Double Star =
= Bu Cat. 2963
Phot. R. 1 frame, Fr. obs, Tebbutt acc.
V 42 +24.6
A 32
+2 V0
P.A. 166° Dist 94° Mags 6.5 · 7.0

For meast. see fol. page.

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1911phae.proj.0054

Mar. 25 1911

8.10.25

Index Right + Below

185.3 n. + birth dis.
257.0 71.7 ✓
3.0 21.0 ✓
74.0 142.7 ✓ 0.72 ✓

185.0 69.8 ✓ 0.66 ✓
254.8 79.2 ✓
359.1 149.0 ✓ 0.59 ✓
78.3

Index Left + Above

94.1 68.4 ✓
162.6
274.9 68.1 ✓
343.0 136.5 ✓ 0.44 ✓

954 70.5 ✓ 0.76 ✓
165.9
271.4 73.6 ✓
345.0 144.1 ✓ 0.69

8.16.0
26 25.5 ✓
+ 13 12.1 ✓
+v -36.1 ✓
13 12 36 ✓
9121.5 v 04 ✓

0.71 ✓

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1911phae.proj..609w

Mar. 25. 1911.

Double Star =
= Bu. Cat. 3229.
Phot. R. 1 prism. Yr. obs. Gibbetts Hill.
P. A 178° Dist 117" Mags 7.0 7.5
6 A +2K.0
A 47
+2 39

For remarks, see fol. page.

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1911phae.proj..605w

Mar. 25, 1911

Index left + Above

	268.7	← N. + Brit. dia.
	~~354.0~~	
	355.5	± 6.4 ✓
8.24.10	87.9	± 2.6 ✓
	170.5	169.4 ✓ 0.20 ✓
	270.0	
		79.4 ✓ 0.26 ✓
	349.4	
	87.3	± 3.4 ✓
	171.1	163.2 ✓ 0.32 ✓

Index Right + Below

	179.0	
	259.6	± 0.6 ✓
	359.5	± 1.✓ ✓
	81.0	162.1 ✓ 0.34 ✓
	177.0	
	263.0	± 6.0 ✓ 0.26 ✓
	357.0	± 3.9 ✓
	80.9	169.9 ✓ 0.19 ✓

8.29.50

✓4 0. ✓

± 27 0. ✓

+✓ -36. ✓

13 26 24. ✓

9121.✓600 ✓

W's watch used for times

Watch 36^s fast.

0.26 ✓

Y. P. P.

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1911phae.proj..605w

Mar. 28. 1911. (Tuesday).

Double Star =
= Bu. Cat. 2093. A B, C.

P.A. 42°. Dist 56" magn 7.5 · 8.0

3		
4	10	+31.4
7	√0	
+3	40	

For means, see fol. page.

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1911phae.proj..60

Mar 28 1911

Index Right ~~+ Bottom~~

96.0 ← S. prec. + bitt. dis.

7.16.35

163.7 67.7

282.8

335.5 √2.7 / 120.4 1.14

100.3 √7.1 1.11

157.4

275.4 70.1 / 127.2 1.04

345.5

~~Index Left + Bottom~~

5.3 67.7

73.0

191.0 √7.9 / 12√.6 1.07

248.9

10.9 √7.6 1.10

68.5

186.2 6√.4 / 123.4 1.12

252.0

1.10

7.22.15

38 √0.

7 19 2√.

+√ +16.

12 19 41.

9 124. √137

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1911phae.proj..605W

Mar. 20. 1911.

Double Star (special list) =
= Bon. Cat. 2093, A B, D.

P.A. 313° Dist 127" Mags 7.5 8.5

For measts. see fol. pages.

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1911phae.proj..60sw

Mar 28 1911

Index	Above	
15.4	S. ~~Fol.~~ + bits dis	
64.9	49.✓	
203.0	32.✓	
235.5	Δ 2.0 ✓	2.14 ✓
24.0	33.4 ✓	2.16 ✓
57.4	24.7 ✓	
197.0	79.1	2.22 ✓
242.5	7	
Index	Below	
283.6	47.6 ✓	
331.2		
112.0	33.4 ✓	
145.4	Δ 1.0 ✓	2.17 ✓
294.3	31.1 ✓	2.24 ✓
325.4		
107.8	42.2 ✓	
153.0	76.3 ✓	2.31 ✓

7.25.45

7.31.0
✓6 42.✓
7 ✓ 28 22. ✓
+✓ +16. ✓
(2 28 38.
9124. ✓198 ✓

2.21 ✓

Stopped by clouds!

W's watch used for times
Watch 16s slow.

L. P. P.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..60sw

Mar. 30. 1911 (Thursday)

Double Star =
= Ber. 3A11.

P. A. 318° Dist 90" Mags 6.2 7.2

6	√9	+1.6
A	0	
+1	1	

For measts. see fol. pages.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj. 60Sw

Mar 30 1911

7.18.45

Index Right + Below

~~267.3~~
276.3 — S. for. + bith dis.
342.0 6v.7
~~100.0~~
159.5 v9 v
12v.2 1.0R

282.3 vf.2 1.11
340.5
97.1 63.9
161.0 122.1 1.14

Index Left + Above

186.1
253.8 67.7
5.0 6v.9
70.9 133.6 0.90

189.0 66.7 0.94
255.7
6.0 63.3
69.3 130.0 0.92

1.02

7.24.50
K3 3v.
7 21 Kf.
fr -1 6.
12 20 K2.
9126.v1Kf

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..609w

Mar. 30. 1911.

Double Star =
Bu. Cat. 3342

P.A. 150° Dist 67" Magn 6.0,
6 24 +0.5
A 17
+1 5 3

For remarks. see fol. page.

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1911phae.proj. 60Sw

Mar 30 1911

Index Left + Above

95.8
162.0 ~ n. prec. + with dia
279.1 66.2
341.0 61.9
128.1 1.02

97.1 61.1 1.06
158.2
277.8 63.2
341.0 124.3 1.10

Index Right + Below

7.9 62.7
73.6
186.7 62
249.2 124.2 1.02

55 67.5 0.99
73.0
187.5 63.2
250.7 130.7 0.96

1.02

7.35.50

7.41.45
77 30
7 30 40
+ 6
12 37 42
9126, 262

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..609

Mar. 30. 1911.

Double Star =
Bu. Cat. 3240

P. A. 310° Dist 90" Mags 6.3 7.0

6 9 +11.A

A 32

+2 23

For remarks, see fol. page.

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1911phae.proj...60

Mar. 30 1911

Index Right + Below

275.5
346.5 ← S. Jol. + brit dis.
91.7 71.0
167.6 75.9
146.9 0.64

7.51.10

271.2 74.2 0.64
346.0
94.0 72.0
166.0 146.2 0.64

Index ~~Left + Below~~

176.5 73.7
260.2
~~4~~.8 70.1
74.9 143.8 0.50

182.0 75.0 0.54
257.0
2.2 74.8
77.0 149.8 0.52

7.57.5
8 15,
7 54 8,
+ 6 1
12 53 2.
9126.536

0.59

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1911phae.proj..609w

Mar. 30. 1911.

Double Star =
Bu. Cat. ~~3235~~ 3294.

~~6 9 +14.5~~
P.A 44° / Dist 73" Mags 6.5 7.0
6 14 +13.5
8 42
72 34

For measts. see fol. page.

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1911phae.proj..609

Mar. 30 1911

Index Right + Above

8.6.30

274.0 — S. proc + Bitt dis.
348.0
93.0 74.0
168.0 75.0
149.0 0.59

274.5
347.0 72.5 0.52
91.0 77.0
168.0 149.5 0.58

Index ~~Left~~ + Below

181.7
257.0 75.3
2.0
76.0 74.0
149.3 0.59

183.3
254.0 70.7 0.66
4.7
75.7 71.0
141.7 0.74

0.62

8.12.5
18 35
2 9 18
+5 -1 6
13 2 12
9126.5 473

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1911phae.proj..605w

Mar. 30. 1911.

Double Star =
Bu. Cat. 3229.

P. A. 178° Dist 117" Mags 7.0 7.5
6 h +24.0
9 2
+2 √4

For measts. see fol. pages.

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1911phae.proj.0099

Mar. 30 1911

Index Left and Above

8.21.10

89.7 R. + bitri dio.
170.0 R 0.3
269.8
349.0 79.2 / 79.5 0.39

90.6
171.0 R 0.4 0.40
270.5 77.8 / 77.2 0.42
348.3

Index Right + Below

0.0
76.0 76.0
178.8 R 1.7
260.5 76.1 / 77.7 0.43

357.5 R 4.2
81.7 0.40
183.5 76.1
259.6 160.3 0.38

0.40

8.30.0
V 10.
R 2V 35.
+V -1 6.
13 24 29.
9126. VVR6

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1911phae.proj..609w

Mar. 30, 1911.

Double Star =
= Bur Cat. 3731.

P. A. 53° Dist 124" Mags 7.0 7.2

6 √3 +14.4

9 22

+2 29

For remarks. see fol. page.

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1911phae.proj.0036

~~Dear. 30. 1911~~

~~Judex~~ Right + ~~A~~Dom

8.40.35

267.5
355.8 ← S. prec dis.
83.0 ~~82.3~~
175.4 ~~92.K~~
120.7 +0.01

263.1 179.3
359.0 ~~9r.9~~ +0.02
83.5 ~~92.r~~
176.0 ~~1A A K~~ 179.6 +0.16

~~Judex left + Below~~

355.3 ~~1774~~
82.7 ~~2644~~
177.8 27.4
264.4 26.6
174.0 −0.11

355.4
79.5 24.1 −0.11
175.6
265.8 90.2
174.3 −0.11

8.48.30
9 r.
& 24 32.
tr −1 6.
13 43 26.
9126.r9/10

W's watch used for times −0.02
Watch 1m 6s fast.

L. A. P.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..605w

Mar. 31. 1911. (Friday).

Sky pretty cloudy.
Work abandoned.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.0030

Apr. 1. 1911. (Saturday)

Double Star =
Bu. Cat. 323 V.

P.A. 198° Dist 1.70" Mags 7 7.5
6 9 +14.V
4 4
71 V V

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1911phae.proj..605w

Apr. 1 1911

Index Left + Above

264.9 — w. fol. + brtr dis.
342.2 773 ✓
93.0 61.1 ✓
158.1 142.4 ✓ 0.73 ✓

273.6 ✓ 7.9 ✓ 0.72 ✓
331.5
85.0 Δ 0.0 ✓
165.0 137.9 ✓ 0.42 ✓

Index Right + Below

Clouds

175.5 ✓ 7.9 ✓
251.4 61.4 ✓
1.1
62.5 137.3 ✓ 0.43 ✓

185.5 ✓ 9.6 ✓ 0.72 ✓
245.1
349.5 Δ 2 ✓ ✓
72.0 142.1 ✓ 0.73 ✓

7.10.50

7.17.20

27 10. ✓
7 14 ✓ ✓
+r -47 ✓
12 13 18 ✓
9124. ✓092. ✓

0.74 ✓

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1911phae.proj.:60w

Apr. 1. 1911.

Double Star =
Ber. Cat. 16 V - 2

P.A. 110° Dist 118" Mags 7.0 . 7.1
3 14 +62 4
2 19
+V V

1911phae.proj..605w

Apr. 1 1911

Index Right + Above

159.6 ← S. pole dia.
265.5 105.9
1.0 66.1
67.1 172.0 −0.1

180.0 64.1 −0.10
248.5 104.1
337.3 176.6 −0.06
85.4

Index Left + Below

70.6 106.0
176.6 74.0
264.5 180.0 0.00
338.5

83.4 74.1
161.5 +0.04
248.0 110
358.5 184.6
171.4 +0.16

−0.01

7.23.55

7.34.45
40
7 29 20.
−47.
12 28 33
9128. 19.

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1911phae.proj..600w

Apr. 1. 1911.

Double Star =
Bu. Cat. 2116.

P.A. 160° Dist 99" Mags 7.0 7.3

4	13	+VV.3
2	34	
+4	21	

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1911phae.proj..605W

Apr. 1 1911

Index Below

346.0 ← n. prec. dis.
78.2 92.2
169.3 84.1
253.4 176.3 0.07

356.6 74.0 0.12
70.6
165.0 97.0
262.0 171.0 0.17

Index Above

255.8 94.3
350.1
81.0 84.0
165.0 172.3 0.03

266.6 74.3 0.10
340.9
77.3 96.1
173.4 170.4 0.14

0.11

7.41.50

7.47.30
9 20.
7 44 40.
+r -47.
12 43 53
9124.530

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1911phae.proj..60sw

Apr. 1. 1911.

Double Star =
Bu. Cat. ~~ν 41~~

~~10 19 +3.7~~

P. A. 64° Dist 212" Mags 7.0 . 7.0
10 19 +2.9
A ν 2
-1 27
+10 33

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..60w

Apr. 1 1911

8.6.15

Index Above

~~169.0~~ 263.7 ~~84.4~~ ~S. prec. dis.
~~257.8~~ 342.5 ~~80.0~~
75.0 78.4 v
169.8 94.2 v
173.6 v −0.12 v

256.5 94.v v −0.0 v v
351.0 ~~−0.02~~
77.0 86.4 v
163.8 181.3 v
174.7 v +0.02 v

Index Below

173.9 83.v v
257.4
342.0 96.7 v
78.7 180.2 v
179.4 v +0.00 v

166.1
262.0 95.9 v 0.00 v
352.2 83.4 v
75.6 179.3 v −0.01 v

8.11.20

17 35. v
4 4 48. v
+v −47. v
13 4 1 v
912 4. v 47 2 v

−0.02 v

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1911phae.proj.. 60fw

Apr. 1. 1911.

Double Star =
Bu. Cat. 4458

60°
P.A. ~~2369~~ Dist. 133" Mags 6 · 7.

2	4	−19.6
9	9	
+7	5	

Burnham's P. A. is 180° wrong. This is proved by examination of the sky — also by the S.D. — also by Burnham's 2d vol. Probably a typographical, or some sort of error in Burnham's 1st. Vol.

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1911phae.proj..60w

Apr. 1. 1911

Index Right + Above

81.0 ← S. prec. dia.
164.0 Δ 3.0
267.6 74.4
342.0 107.4 +0.43

8.27.0

84.2 77.4 −0.30
162.0
254.4 93.0 171.4 −0.17
347.4

Index Left + Below

348.5 Δ 3.
72.0
174.9 71.1
250.0 1 Δ.6 −0.41

353.5 Δ 1.
75.0
166.7 91.3 172.4 −0.14
258.0

8.33.10
0 10.
Δ 30
+ −47.
13 29 1Δ
9124.620

−0.29

1911phae.proj. 600w

Apr. 1. 1911.

Double Star =
Ber. Cat. ~~+303~~ +41A.

~~+0 0 17.6~~
P. A. 64° Dist 2.12" Mags 6.4

10 19 +2.9'
9 3~~4~~
~~0 4 0~~
~~+11 20~~
~~4~~
-0 4
+11 15

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1911phae.proj..60w

Apr. 1. 1911

~~Index Below~~

~~352.0~~
~~2573~~
~~8 54 30~~ ~~73.2~~ ~~3495~~
~~171.6 352.5~~
~~258.9 74.0~~

Index Below

352.0 ✓ S. Prec. dis
75.9 ✓ Δ3.9 ✓
172.1 Δ7.1 ✓
257.2 169.9 ✓ 0.21 ✓

8.58.0 352.5
~~74.0~~

348.0 Δ5.2 ✓ 0.18 ✓
73.2
170.2 Δ6.7 ✓
256.9 171.9 ✓ 0.15 ✓

Index Abm

260.2 Δ6.0 ✓
346.2
82.3 Δ4.7 ✓
167.0 170.7 ✓ 0.17 ✓

264.5 79.9 ✓ 0.14 ✓
344.4
74.0 94.6 ✓
168.0 173.9 ✓ 0.11 ✓

0.16 ✓

9.3.20
1 20. ✓
9 Δ 40. ✓
tir -47. ✓
13 ✓9 ✓3 ✓
9128. ✓ΔΔ32 ✓

W's watch used for times
Watch 47s fast

L. P. A.

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1911phae.proj..60sw

Apr. 3. 1911 (Monday).

Double Star =
α Boo. V V 3 7 ††

P. A. 88° Dist 288" Mags 5.2 7.2

10	3A	+46.7
A	16	
−2	22	
+9	3A	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..60w

Apr. 3 1911

Under Right.

	184.6		fol. + 5th dis.
7.16.10	236.2	√1.6	
	15.6	40.4	
	56.0	92.0	1.46
	191.0	47.0	1.41
	236.0		
	9.4	√0.9	
	60.3	9√.9	1.76

Under ~~Left~~

	97.2	√3.1	
	150.3		
	278.0	√√.7	
	333.7	10 2.4	1.4√
	93.0	√6.√	1.40
7.20.50	149.5		
	275.4	√6.1	
	331.5	11 2.6	1.36

1.60

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1911phae.proj..60cw

Apr. 3. 1911.

Double Star =
Bu. Cat. √4 N.

[106°]
P. A. (286)° Dist 208" Mags 7.0 7.5

10 19 +34.7
α 26

−1 √3
+10 7

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1911phae.proj..60w

Apr. 3. 1911

Under Left

262.0 ~~35#.4~~ proc. dis
345.7 ~~70.4~~
76.2 ~~61.6~~ Δ3.7 v
173.5 ~~263.1~~ 97.3 v
Δ 1.0 v
179.0 v +0.02 v

251.0
358.2 107.2 v +0.10 v
84.7 Δ 2.7 v
167.4 17Δ 9.9 v +0.19 v
17 0.1 v
Under Right

342.5 ~~173.5~~ 97.4 v
79.9 ~~253.0~~ Δ 0.8 v
173.2 ~~341.5~~ 17Δ.2 v −0.03 v
254.0 ~~8~~

353.0 79.1 v +0.02 v
7.40.0 72.1
161.8 10 ∓.0 v
266.0 124.1 +0.08 v
17 ∓.9 v

+0.06 v

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1911phae.proj..60

Apr. 3. 1911.

Double Star =
Bu. Cat. V 699.

P.A. 72° Dist 1.34" Mags 6.2 7.0

11	7	+36.4
2	46	
−2	21	
+9	39	

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1911phae.proj..609w

Apr. 3 1911

Index Right + Below

349.6
7.49.5 70.4 5. pair. + 6th dia
180.5 40.4
247.0 66.7 / 147.3 0.63

358.0 71.0 0.72
69.0 42.2 / 159.2 0.40
168.8
257.0

Index left + Above

263.5
339.3 76.1 / 164.7 0.60
88.4
161.1

264.0
7.56.15 341.0 77.0 0.70
80.9 41.6 / 162.5 0.41

0.71

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1911phae.proj..665w

Apr. 3. 1911.

Double Star =
Bu. Cat. ~~6434.~~ 12691.

~~13 10 +67.8~~
(173?)
P.A 353° Dist 100" Mags 6.7 7.3
23 √6 +69.0
33 1
+9 √

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1911phae.proj..605w

Oppz. 3. 1911

Index Left + Above

8.14.50

354.9	✓S. dis		
69.4	74.5 ✓		
182.1	63.9 ✓	0.41 ✓	
246.0	~~18~~4.4 ✓	~~0.41~~	
356.0	71.6 ✓	0.60 ✓	~~0.45~~
67.6			
170.5	47.5 ✓		
258.0	159.1 ✓	0.40 ✓	

Index Right + Below

264.7		
337.5	72.8 ✓	
88.0		
158.9	70.9 ✓	
	143.7 ✓	0.70 ✓

8.22.5

266.8			
336.4	69.6 ✓		0.57 ✓
78.5			
165.8	87.3 ✓		
	156.9 ✓	0.44 ✓	

0.52 ~~0.48~~

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1911phae.proj.:60w

Apr. 3. 1911.

Double Star =
Bu. Cat. 3311.

P. A. 321° Dist 134" Mags 7.0 7.5

6 16 +V9.A

9 31

+3 1V

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1911phae.proj..609w

Apr. 3 1911

Index Left Below

8.40.45

70.5 5 fol. ~~1'to~~ dis.
171.0 100
267.0
343.6 766 / 177.1 0.0

82.4 21.1 0.04
163.5
253.7 97.1 / 17 A. 2 0.03
350.8

Index Right Above

344.7
80.0 95.3
173.7 77.2 / 173.1 0.13
251.5

357.1 74.
71.6 0.19
8.47.55
167.5 92.0
259.5 166.5 0.2

0.12

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1911phae.proj..005w

Apr. 3. 1911.

Double Star =
Bu. Cat. 6434.

P. A. 297° Dist 179" Mags 5.9 6.3

13 10 +67.A

9 √A

−3 1/2

+A 4A

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1911phae.proj..605w

Apr. 3 1911

Index Right Ascension

	260.6	s. fol. dis.	
9.1.45	347.0	86.4	
	86.7	7[illegible].2	
	161.9	161.6	0.3
	266.0	71.0	0.30
	337.0		
	78.7	86.8	
	165.5	157.8	0.42

Index step + Below

174.2		
249.5	75.3	
355.4	74.4	
69.8	149.7	0.52
		0.52
173.4		
9.8.45 252.3	78.9	
357.0	76.3	
73.3	155.2	0.47
		0.45

Wis watch used for times
Watch 1[m] 25[s] fast.

L. P. A.

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1911phae.proj.0056

Apr. 6. 1911. (Thursday).

Double Star =
Ber. Cat. ~~6457~~ 4711.

13	10	+67.2
2	20	
-4	50	
+7	10	

P. A 249 Dist. 34 Mags 6 7

2	35	+19.9
2	20	
	-15	
11	45	

Sky becoming thickly cloudy.
Abandoned.

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1911phae.proj..605w

Apr. 7. 1911. (Friday).

Double Star =
= Bu. Cat. 39 v 4.

P.A. 68° Dist 28" Mags 4.8 6.6
7 12 −23,
+ 20
+1 8

For. means, see fol. page.

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1911phae.proj.0058

Apr. 7. 1911

7h2.25 ~~Clouds~~

Index Right + Above

266.2 ✓ prec S. + brtr dis

338.4 72.2 ✓

91.5 63.0 ✓

154.5 135.2 ✓ 0.47 ✓

290.0 61.4 ✓ 0.44 ✓

331.4 ✓

82.5 77.2 ✓ 0.40 ✓

159.7 138.6

Index Left + Below

170.8 79.6 ✓

250.4 ✓

5.0 ✓ ✓ ✓ ✓

63.5 138.1 ✓ 0.41 ✓

178.5 64.8 ✓ 0.43 ✓

243.3

354.0 71.6 ✓

~~660~~ 136.4 ✓ 0.45 ✓

65.6

0.44 ✓

7.42.30

✓4 ✓✓ ✓

7 27 20. ✓

+✓ -2 40. ✓

12 24 40. ✓

9135.

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1911phae.proj..605w

Apr. 7. 1911.

Double Star. =
= Bu. Cat. 3317

6 15 −24.9
9 v
+12 v0

Cloudy, Abandoned.

Ws watch used for times
Watch 2 ms 48s fast

L. P. P.

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1911phae.proj..605w

Apr. 10. 1911. (Monday).

Double Star =
Bu. Cat. ~~7124.~~ 2093.

P.A. 42 Dist. 56" mags 7.5 8.0
4 10 +31.4
2 40
+4 30

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1911phae.proj..605W

Apr. 10 1911

Index Left + Above

7.15.10

178.0 — S. prec. dis.
248.0 70.0
6.2 53.3
59.5 123.3 1.12

185.6 72.4 1.12
238.10
356.7 71.0
67.7 ~~157~~ 123.4 1.12

Index Right + Below

88.6 67.6
156.2
275.0
330.5 123.1 1.13

~~95~~ 94.8 97.8 1.12
152.6
269.0 66.6
335.6 124.4 1.10

7.21.15
38 27

7 18 12
+ -44.
12 17 28.
9137.

1.12

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1911phae.proj. 605w

Apr. 10. 1911.

Double Star =
= Bu. Cat, 2093

P. A. 313° Dist 127" Mags 7.5 8.5

For means see next page.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..605w

Apr. 10 1911

Index Barlow

98.2 ~~48.8~~ v. fol. both.
147.0
286.1 31.1 v
317.2 79.9 v 2.20 v

104.1 36.7 v 2.10 v
140.8
277.0 49.6 v
326.6 46.3 v 2.01 v

Index Aborn

9.3 46.2 v
55.5
198.5 31.4 v
229.9 77.6 v 2.27 v

117.1 33.0 v 2.22 v
150.1
189.5 48.0 v
237.5 41.0 v 2.17 v

2.16 v

7.24.15

7.29.15

√3 30 v
7 26 Kr. v
+r -44. v
12 26 1 v
9137.

1911phae.proj..605w

Apr. 10 1911

Double Star =
Ber. Cat. 3317 (1st pair)
P. A. 3° Dist .63" Mags 8.5 9.5

For means, see next page.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..60

April 10 1911

Under Right & Below

7.58.50

271.0 ← S. + Girta dis
332.5 61.V
85.3 7V.V
160.8 137.0 0.43

265.8 72.2
338.0 63.0
90.4 135.2 0.47
153.4

Under Left & Above

184.1 V6.4
240.5 74.3
355.7 130.7 0.96
70.0

177.6 72.0 1.00
249.6
5.0 VV.0
60.0 127.0 1.04

8.4.30
3 20
4 1 40.
+V -44.
13 0 V6.
9137.

0.92

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.. 60sw

April 10 1911

Double Star =
Sev. Cat. 3317 (2 d. pairs)
P. A. 242° Dist 300" Mags 6 8.5

For results, see next page.

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1911phae.proj..609

Apr. 10 1911

Index Right + Above

170.4 ← 11. fol. dis
250.9 80.✓
342.4 92.6✓
81.0 179.1✓ −0.02✓

7.48.40

163.5 99.0✓ +0.04✓
262.5
352.5 89.9✓
78.4 188.9✓ +0.09✓
17✓.1

Index Left + Below

77.4 89.8✓
167.2
244.6 114.9✓
359.5 202.7✓
157✓.3 +0.47✓

67.0 110.4✓ +0.46✓
177.4
255.0 92.6✓
347.6 203.0✓ +0.44✓
157.0

+0.25✓

7.54.0
240.✓
7 ✓1 20.✓
+✓ −44.✓
12 ✓0 36.✓
9137.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj. 60f

Apr. 10. 1911.

Double Star =
= Bu. Cat. 3A √3.

P.A. 87° Dist. 108″ mags 6.2 7.0

7	4	+2√.9
19	4√	
+12	41	

For means, see next page.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..605w

April 10 1911

Under Right & Above

77.4 Free. dia.

8·20·25

168·0 90.6

270·5 6 V. 3

335·8 11 V. 9 0.46

87·5 67.7 0.V0

155·2

260·9 24.2 151.9 0.V4

345·1

Under Left & Below

350·0

75·1 2 V. 1

181·5 6 2.V

244·0 147.6 0.62

358·0 64.0 0.62

62·0

170·8 244.4 144.4 0.61

~~256·0~~

255·2

8·25·0

4V 2V.

8 22 42.

+V -44.

13 21 V4.

9137.

0. V6

1911phae.proj.:60sw

Apr. 10. 1911.

Double Star =
Bu. Cat. 3472.

P. A. 40° Dist. 8". Mags 7.4 7.4

7 6 +22.4
10 0
+2 √4

For masks, see next page.

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1911phae.proj..60sw

Apr. 10 1911

Under Left

168.8 S. prec. dia

8.37.0 259.0 90.7

350.5 79.9

70.4 170.1 0.19

170.0 20.7 0.18

250.7

347.0 90.4 0.17

77.4 171.1

Under Right

78.5 27.5

166.0

261.7 24.7 0.15

346.4 172.2

79.0 27.0 0.12

166.0

257.0 22.0 0.09

345.0 175.0

0.15

844.50

1 50.

20 40 55.

+5 -44.

13 40 11.

9137.

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1911phae.proj. 605w

Apr. 10. 1911.

Double Star =
Bess. Cat. 4711.

P. A. 249° Dist. 13.4" Mags 6 7

α	3 V	+19.9
10	2 V	
+1	V 0	

For results, see next page.

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1911phae.proj..60W

April 10 1911

Index Right & Above

9.0.0

7.9 n. for. dis.
60.2 √2.3 √
183.0 61.0 √
244.0 113.3 √ 1.34 √

4.5 √4.9 √ 1.31 √
63.4
186.5 √7.0 √
243.5 111.9 √ 1.24 √

Index Left + Below

276.8 √4.7 √
331.5
20.8 63.2 √
154.0 117.9 √ 1.24 √

1.24 √

275.0
~~330.0~~ √4.0 √
333.0 √6.2 √
96.5 111.2 √ 1.32 √
152.7

1.30 √

9
8.5.40
√.40 √
9 2 √0. √
+√ -44. √
14 2 6 √
9137.

W's watch used for times
Watch 44s fast.

L. P. P.

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1911phae.proj..60w

Apr. 11. 1911. (Tuesday)

Double Star =
= Bu. Cat. 6434

P.A. 297° Dist 1.79" Mags 5.9 6.3

13	10	+67.A
A	49	
−4	21	
+7	39	

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1911phae.proj..60w

April 11 1911

Index Left + Below

174.3 S. for. dis.

7.19.40

2505 } 6.0 v
357.0 } 1.5 v
68.5 147.5 v 0.62 v

172.2 7+.4 v 0.5+ v
251.0
355.0 7-.4 v
67.8 (5 1.6 v 0.54 v

Index Right + Above

85.2 76.6 v
161.8
263.0 79.2 v
342.8 156.8 v 0.4 v

82.8 0.4 v
7.24.40
162.5 79.7 v
263.3 76.7 v
340.0 156.4 v 0.8 v

0.52 v

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1911phae.proj..60w

Apr. 11. 1911.

Double Star =
Ber. Cat. 3472

P.A 40°. Dist 8" Mags 7.4 7.4

7 6 +22.4
9 4
72 2

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1911phae.proj..60sw

April 11 1911

Index Right

	75.4	S. prec. dia	
7.39.50	169.0	93.6 v	
	262.0	91.6 v	
	343.6	17 v.2 v	0.09 v
	83.8	~~6 d.3~~	0.19 v
	157.1	73.3 v	
	256.4	91.6 v	
	348.0	16 4.9 v	0.29 v

Index Left

346.5	89.0 v	
75.5		
167.3	87.7 v	
255.0	17 6.7 v	0.06 v
356.0		0.12 v
7.46.35 71.5	7 v.v v	
167.5	89.v v	
257.0	16 v.6 v	0.29 v
		0.12 v

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1911phae.proj..60w

Apr. 11. 1911.

Double Star =

Bu. Cat. 4001.

P.A. 326° Dist 1.14" Mags 7.0 7.3

7 17 +V6.7

9 30

+2 13

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1911phae.proj..605w

Apr. 11 1911

Index Left + Below

	249.2	S. for. dis.	
8.0.20	350.0	100.8 ✓	
	81.5	81.7 ✓	
	163.0	182.3 ✓	
		177.7 ✓	+0.04 ✓
	261.0		
	345.8	84.8 ✓	0.00 ✓
	71.7	93.8 ✓	−0.03 ✓
	165.5	178.6 ✓	~~+0.03~~

Index Right + Below

	166.2	94.3 ✓	
	260.5		
	353.8	72.2 ✓	
	71.0	171.7 ✓	−0.16 ✓
	175.5		−0.23
8.6.35	251.0	75.5 ✓	
	349.0	173.9 ✓	
	97.9	164.4 ✓	−0.30 ✓

~~−0.23~~ ✓

−0.12

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1911phae.proj.60fw

Apr. 11. 1911.

Double Star =
Bu. Cat. 4702.

P.A 157° Dist 45" Mags 6.5 7.0

α 34 +19.9

9 49

+1 1V

1911phae.proj..609w

April 11 1911

Index Left + Above

	72.8	
8.28.0	166.0	n. prec. dis
	260.1	93.2 v
	346.3	86.2 v
		179.4 v 0.01 v
	77.0	91.4 v 0.06 v
	168.4	
	261.4	92.6 v
	344.0	174.0 v 0.11 v

Index Right + Below

	348.8	83.6 v
	72.4	
	170.6	
	255.5	84.9 v
		168.5 v 0.22 v
	345.6	90.0 v 0.20 v
8.34.40	75.6	
	173.9	98.3 v
	253.7	168.3 v 0.19 v

-0.13 v

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1911phae.proj..60fw

Nov. 11. 1915.

Bu. Cat. 4707 A. D.
P. A. 241° Dist 93" Mags 6.5 8.0

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1911phae.proj..60W

Apr 11 1911

Under Right + Above

8,38,30

88·3 } S. prec. + bith dis.
158·0 } 69.7 ✓
270·4 } 67.4 ✓
337·8 137.1 ✓ 0.03 ✓

87·3 } 69.6 ✓ 0.02 ✓
156·9 }
267·4 } 68.7 ✓ 0.01 ✓
336·1 } 136.3 ✓

Under left + Below

356·0 } 68.5 ✓
64·8 }
177·4 } 69.4 ✓
246·8 } 137.9 ✓ 0.01 ✓

8·45·0

359·6 } 75.2 ✓ 0.74 ✓
74·8 }
178·8 } 70.6 ✓
~~248·~~ 145.8 ✓ 0.66 ✓
249·4

0.72 ✓

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1911phae.proj..60w

Apr. 11. 1911.

Double. Star =
Bu. Cat. 4710.

P.A. 44° Dist 82" Mag's 6.5 8.0

2	3V	+20,0
10	24	
+1	49	

Ws watch used for times
Watch 1m fast.

L. P. P.

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1911phae.proj..60w

Apr. 12, 1911. (Wednesday)

Double Star =
= Bu. Cat. 4710. A.D.

P.A. 44° Dist 82" Mags 6.5 8.0
Δ 32 +20.2

Δ	V V
+0	2 3

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1911phae.proj. 60dw

April 12 1911

Under Left + Below

7.28.15

15.3
47.3 ~~S. proc. + Intruder~~ 6.0
~~48.3~~
195.9 32.0 ✓
229.5 33.6 ✓
66.6 ✓ 2.66 ✓

14.9 37.1 ✓
52.0 29.5 ✓
197.2 66.6 ✓ 2.62 ✓
226.7

Under Right + ~~Above~~

288.4
315.4 27.0 ✓
113.6 25.6 ✓
139.2 ✓ 3.16 ✓

7.34.10

285.6 2.94 ✓
320.6 35.0 ✓
108.0 26.6 ✓
134.6 61.6 ✓ 2.40 ✓

2.41 ✓

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1911phae.proj..609

Apr. 12. 1911.

~~Double Star~~

~~Bu. Cat. 4705 4699 4705 L.C.~~

~~to 19 +34.7~~

~~P.A. 72° Dist 134 Mags 6.2 7.0~~

11 7 +36.4

9 27

−1 40

+10 20

9 32

−1 3 5

+10 2 5

Double Bu. Cat. 4705 A.C.

L 34 +19.9

9 40

+1 6

P.A 157° Dist 45" Mag's 6.5 7.0

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1911phae.proj..60fw

April 12 1911

Index Right + Below

347.0 ~~n.prec.~~ + bistr dis

8.10.15

76.1 $\Delta 9.1$

170.8 $\Delta 6.$

257.3 $173.6 - 0.0\Delta$

348.2 $\Delta 6.2$ -0.11

74.4 $\Delta 6.6$

167.8 172.8 -0.14

254.4

Index ~~Left~~ + Above

~~258.3~~

348.2 $\Delta 9.9$

76.0 92.7

168.7 182.6 $+0.0$

177.4

259.5 $+0.02$

8.18.0

348.0 $\Delta 8.$

78.9 90.6

169.5 179.1 -0.02

-0.04

~~-0.06~~

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1911phae.proj..60W

Apr. 12. 1911.

Double Star =
= Bu. Cat. 4705 A.D.

P. A. 241°, Dist. 93.″ Mags. 6.5, A.0

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1911phae.proj..60w

Apr. 12 1911

Index Rigid + Above

86.0 S. preac + Brit ds

8.23.10

158.1 72.1 v

267.5 64.6 v 0.76 v

336.1 140.7 v ~~0.64~~

84.0 74.0 v 0.66 v

162.0 72.4 v

266.2 146.4 v 0.57 v

338.6

Index ~~Left~~ Below

358.0 69.9 v

67.9 71.0 v

176.9 140.9 v 0.76 v

247.9

357.3 69.4 v 0.74 v

8.29.40

66.7

177.4 69.8 v

247.2 139.2 v 0.79 v

0.72 v

~~0.69~~

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1911phae.proj..60w

Apr. 12. 1911.

Double Star =
= Ber. Cat. 4710. A. C.
P. A 342° Dist. 63" Mag's 6.5 7.0

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1911phae.proj. 666w

April 12 1911

Index Right + Below

8.38.40

274.8	← S.T-ol.+bitr-dis.		
332.8	√2.0 √		
92.2	60.2 √		
152.4	112.2 √	1.23 √	
			1.27 √
275.0	√2.0 √		
333.0			
94.6	√6.2 √		
151.4	114.2 √	1.31 √	

Index ~~right~~ + Above

185.0	√6.0 √	
241.0		
4.0	√√.4 √	
59.4	111.4 √	1.39 √

8.45.25

184.1	√9.√ √		1.31 √
243.6			
2.4	√2.6. √		
61.0	112.1 √	1.23 √	

1.29 √

W's watch used for times
Watch 1m 18s fast.

L. P. R.

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1911phae.proj..60

Apr. 13. 1911. (Thursday).

Double Star =
= Ber. Cat. √699

P.A. 72° Dist 13.4" Mags 6.2 7.0

11	7	+36.4
2	√6	
−2	11	
+9	49	

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1911phae.proj..60w

Apr. 13 1911

Index Right + Below

7.20.10

174.4 s. prac. + brit. dis
248.7 } 4.3
356.0 } 4.5
70.5 144 0.60

176.5
250.0 } 3.5 0.61
355.5 } 4.0
69.5 147.5 0.62

~~Index left + Above~~

86.7
158.8 } 72.1
262.4 } 74.9
341.3 146.0 0.56

7.26.10

88.7
159.3 } 70.6 0.65
268.8 } 71.1
~~338.0~~
~~337.9~~ 141.7 0.74
339.9

0.63

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..609w

Apr. 13. 1911.

Double Star =
= Bu. Cat. 4710. AD.

P.A 44° Dist 8.2" Mags 6.5 8.0

£	3 ✓	+20.0
9	31	
+0	✓6	

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1911phae.proj..666w

Apr. 13 1911

Judy ~~Left~~ + ~~Below~~

7.56.40

15.5
48.6 ← S. preceit bitt dis
196.8 33.1 v
227.6 30.8 v
63.9 v 2.72 v

17.1
48.5 31.4 v 2.70 v
196.1 33.1 v
64.5 v 2.69 v
~~229.7~~
229.2

Judy ~~Right~~ + ~~Above~~

284.5
319.4 34.9 v
113.1 22.3 v
135.4 v 7.2 v 2.97 v

8.3.0

289.2 24.1 v 2.79 v
317.3
102.9 34.7 v
141.6 66.4 v 2.61 v

2.74 v

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1911phae.proj..609w

Apr. 13. 1911.

Double Star =
= Bu. Cat. 4710, A C.

P. A 342°. Dist 63 Mags 6.5 7.0

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.0000

Apr. 13 1911

Under Right + Below

8.6.40

272.6
334.0 ← 5, fol. + bits dis
90.8 61.4 ✓
153.0 62.2 ✓
123.6 ✓ 1.15 ✓

273.5 ✓7.7 ✓ 1.16 ✓
331.2 61.4 ✓
91.4 119.1 ✓ 1.21 ✓
152.8

Under ~~Left~~ + ~~Above~~

184.4 ✓6.2 ✓
240.6
2.0 60.0 ✓
62.0 116.2 ✓ 1.24 ✓

8.13.0

184.8 ✓6.7 ✓ 1.32 ✓
241.5
4.5 ✓✓.✓ ✓
60.0 112.2 ✓ 1.37 ✓

1.24 ✓

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..60sw

Apr. 13. 1911.

Double Star =
= Bu. Cat. 4159

P. A ~~26°~~ 174° Dist. 65 Mags 7.0 7.0

7 32. +42.7

10 0

+2 2A

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..60Sw

Apr. 13 1911

Index Left + Above

8.28.20

169.5
258.6 89.1 ✓
348.6 91.7 ✓
70.3 178.8 ✓ 0.17 ✓

173.0 90 ✓ 0.12 ✓
253.5 94.5 ✓
344.0 176.0 ✓ 0.02 ✓
~~80.0~~ 79.5

Index Below + Right

78.4
166.5 88.1 ✓
261.0 91.5 ✓
342.4 169.5 ✓ 0.20 ✓

8.35.15

83.0
163.5 80.5 ✓ 0.16 ✓
256.1 93.4 ✓
350.0 174.4 ✓ 0.11 ✓

0.14 ✓

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..609w

Apr. 13, 1911.

Double Star =
= Bu. Cat. 4286.

P.A. 83°. Dist 77. Mags 6 3. 7-0

7	47	+31.9
10	26	
+2	41	
+2	46	

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1911phae.proj.0054

Apr. 13. 1911

Judy Right + Above

8.54.20

88.0 ← Prec. dis
156.0 68.0 ✓
266.5 73.4 ✓
339.5 141.0 ✓ 0.7 ✓

86.0 72.6 ✓ 0.24 ✓
158.6 60.0 ✓ 0.92 ✓
271.8 132.6 ✓
331.8

Judy Left + Below

0.0 62.5 ✓
62.5 71.0 ✓
173.5 70.8 ✓
243.3 134.3 ✓ 0.89 ✓

8.59.20

353.4 76.0 ✓ 0.26 ✓
69.4 61.6 ✓
182.0 137.6 ✓ 0.82 ✓

0.82 ✓

W's Watch used for time
Watch 1m 38s fast

L. P. P.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..609w

Apr. 15. 1911 (Saturday)

Double Star =
= Bon. Cat. ♈ 699.

11	7	+ 36.4
9	A	
− 2	0	
+ 10	0	

P. A. 72° Dist. 134" Mag. 6.2, 7.0

For results see next page.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.0004

April 15, 1911

Index left + above

259.3

7-22-18 345.0 < S Prec. + Btr. Dis.

86.1 82.7 ✓

155.0 64.9 ✓ 0.49 ✓

154.6

268.4 68.0 ✓ 0.53 ✓

336.4 82.2 ✓

81.5 150.2 ✓ 0.57 ✓

163.7

Index right + below

175.0 78.0 ✓

253.0 64.1 ✓

0.2 142.1 ✓ 0.73 ✓

64.3

182.0 67.0 ✓ 0.64 ✓

7-27-30 247.0

49 40. 352.0 82.0 ✓ 0.63 ✓

7 24 50 74.0 147.0

0.60 ✓

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1911phae.proj..605w

Apr. 15. 1911.

Double Star =
= Bse. Cat. 6443.

13	10	+67.8
9	26	
4	44	
4.8	16	

P. A. 297°. Dist. 179." Mags. 7.9, 6.3

For meastn. see next page.

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1911phae.proj.:60w

April 15, 1911

Index right + above

7-41-30

266.0
338.0 < S fol. + Bta. D.
78.0 72.0 ✓
165.0 ~~27.0~~ ✓
159.0 ✓ 0.40 ✓

258.7 ~~45.8~~ ✓ 0.44 ✓
344.5 ✓
87.5 ~~69.3~~ ✓
156.8 155.1 ✓ 0.42 ✓

Index left + below

172.5 ~~40.1~~ ✓
252.6
348.0 ~~45.0~~ ✓
73.0 165.1 ✓ 0.28 ✓

170.2 ~~46.0~~ ✓ 0.39 ✓

7-47-10
~~40.40~~ ✓
7 44 20. ✓

256.2
355.1 ~~67.8~~ ✓
62.9 153.8 ✓ 0.50 ✓

0.42 ✓

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1911phae.proj..60w

Apr. 17. 1911.

Double Star =
Bu. Cat. 4711.

P. A. 249.° Dist. 13F." Mags. 6, 7.

A	3V	+199
9	43	
+1	A	

For means, see next page.

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1911phae.proj..600w

April 5, 1911

Index left + below

8-1-0

279.1		
326.6	N fol + Butt Dia.	
92.0	47.5	
154.2	62.0	
	109.5	1.43
271.6	63.1	1.33
334.7	55.2	
94.2	118.3	1.23
149.4		
188.6	51.3	
239.9	66.5	
359.0	117.8	1.24
65.5		

Index right + above

179.0	69.2	1.09
248.2		
1.4	62.9	
64.3	132.1	0.94

8-7-10

2 10.

4 4

1.21

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1911phae.proj..60w

Hyd. N. 1911.

Double Star =
Ben. Cat. 4286.

P. A. 83.° Dist. 77." Mags, 6.3, 7.0

7/10	4V	+31.9
	3	
+2	1 4	

For means, see next page.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..60fw

April 15, 1911.

Index right + above

8-16-20

272.8	Brea + Betr Dis.	
334.9	62.1 ✓	
83.3	77.6 ✓	
160.9	139.7 ✓	0.78 ✓
266.4	72.0 ✓	0.77 ✓
338.4	68.7 ✓	
88.2	140.7 ✓	0.76 ✓
156.9		

Index left + below

182.0	63.9 ✓	
245.9		
352.6	79.4 ✓	
72.0	143.3 ✓	0.71 ✓
173.4	76.6 ✓	0.76 ✓
250.0		
1.5	61.2 ✓	
62.7	137.8 ✓	0.82 ✓

8-21-5[illegible]

30 10.0

A 19 ✓

0.76 ✓

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1911phae.proj..60sw

Apr. 17. 1911.

Double Star =
Ber. Cat. ~~3872~~. 3AV3.

~~P. A. 40°. Dist.~~

P. A. 47°, Dist. 10.2" Mags. 6.2, 7.0

7	4	+2V.9
10	12	
+3	14	

For means, see next page.

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1911phae.proj..60Nw

April 15, 1911.

Index left + below

	177.0		
8-34-30	247.0	Rec. Dis.	
	352.9	70.0 ✓	
	71.1	2 4.2 ✓	
		1K 4.2 ✓	0.61 ✓
	173.0	74.4 ✓	0.62 ✓
	251.4	6 2.7 ✓	
	~~360~~.6	1K 1.1 ✓	0.7 ✓ ✓
	63.3		

Index right + above

90.0	65.0 ✓	
155.0		
260.3	42.1 ✓	
342.4	1K 7.1 ✓	0.63 ✓
81.5	46.0 ✓	0.60 ✓
8-39-50 167.5		
7K 20. ✓	272.2 63.6 ✓	
4 37 10. ✓	335.8 1K 9.6 ✓	0.64 ✓

0.64 ✓

Is watch used for times,
Watch 2m 19s fast.

L. A. P.

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1911phae.proj..609w

Apr. 17. 1911.

7 10 Cloudy.
7 30 "
7 50 "
8 20 Sky thickly cloudy. No stars visible.

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1911phae.proj.:66w

Apr. 18. 1916 (Tuesday).

Double Star =
Ber. Cat. 39 ♈ 4.

7	12	−23.1
9	13	
+2	1	

P. A. 64. Dist. 2.2" mag. 4.2, 6.6

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1911phae.proj..609w

April 18, 1911

Index right + above.

95.0

7-19-35 150.3 ⌐S prec. + Bstr Dis.

276.0 √√.3 ✓

326.9 √0.9 ✓

106.2 ✓ 1.√1 ✓

94.5

151.5 √7.0 ✓ 1.47 ✓

277.6 √2.4 ✓

109.4 ✓ 1.43 ✓

330.0

Index left + below

4.3

59.5 √√.2 ✓

184.6 √√.7 ✓

110.9 ✓ 1.40 ✓

240.3

4.2 1.36 ✓

7-24-10 61.6 √7.4 ✓

183.5 √7.√ ✓

241.0 114.9 ✓ 1.31 ✓

1.42 ✓

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1911phae.proj.:66w

Apr. 18. 1911.

Double Star =
Bu. Cat. 4472.

α	δ	
4	33	−19.6
9		
+1	29	

P. A. 60° Dist. 133. Mags. 6, 7.

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1911phae.proj..605w

April 18, 1911.

Index left + below

358.0
66.5 } Spec. + Retr Dia.
171.3 66.5 ✓
254.5 43.2 ✓
1.7 ✓ 0.5 4 ✓

354.2 79.9 ✓ 0.5 2 ✓
74.1
176.9 73.5 ✓
250.4 3.4 ✓ 0.5 1 ✓

Index right + above

268.4 66.6 ✓
335.0
78.4 43.6 ✓
162.0 0.2 ✓ 0.5 7 ✓

259.5 43.5 ✓ 0.5 4 ✓
343.0
88.0 69.5 ✓
157.5 3.0 ✓ 0.5 2 ✓

0.5 3 ✓

7-35-50

7-41-20

77 10. ✓
3 4 3 5. ✓

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1911phae.proj.66w

Apr. 18, 1911.

Double Star =
Bu. Cat. 3811.

6	√9	+1.6
9	∜9	
+2	√0	

P. A. 314° Dist. 90" Mags. 6.2, 7.2

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1911phae.proj..605w

April 18, 1911

Index above

180.5 < 5 fol. + Btr Dis.

7-53-10

243.0

358.8 62.√ ✓

61.9 63.1 ✓

125.6 ✓ 1.07 ✓

180.2 62.2 ✓ 1.03 ✓

245.4

359.0 64.√ ✓

63.5 127.7 ✓ 0.99 ✓

Index below

Assume 89.0 ~~59.0~~ 67.2 ✓

156.2

274.0 57.√ ✓

331.5 124.7 ✓ 1.09 ✓

89.5 66.√ ✓ 1.07 ✓

8-0-20 156.0

271.8 60.2 ✓

332.0 126.7 ✓ 1.0√ ✓

1.0√ ✓

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.60cm

Apr. 14. 1911.

Double Star =
Ber. Cat. 3731.

6	√3	+14.4
10	11	
+3	1.4	

R.A. √3° Dist. 124.4 Exps. 7.0, 7.2

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1911phae.proj..609w

April 18, 1911

Index right + above

8-13-0

263.5 \ S prec. Dis.
345.0 ∂1.5 ✓
74.5 ∂2.0 ✓
166.5 173.5 ✓ 0.12 ✓

262.1 ∂2.1 ✓ 0.16 ✓
344.2
76.4 ∂2.1 ✓
164.5 170.2 ✓ 0.19 ✓

Index left. + below

169.9
258.9 ∂9.0 ✓
346.0 91.0 ✓
77.0 180.0 ✓ 0.00 ✓

8-20-20

172.5 ∂7.0 ✓ 0.03 ✓
257.5
346.0 91.6 ✓
77.6 176.6 ✓ 0.06 ✓

0.10 ✓

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1911phae.proj.0000

Apr. 14. 1911.

Double Star =
= Bu. Cat. 5418.

10	19	+2.9
10	29	
+0	10	

P. A. 64° Dist. 212″. Magn. 7, 7

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1911phae.proj..609w

April 18, 1911.

Index left + below

	176.5		
8-36-40	253.0	S prec. Dec.	
	349.2	76.5 ✓	
	76.1	Δ 6.9 ✓	
		163.4	0.32 ✓
	173.0	Δ 4.0 ✓	0.32 ✓
	257.0		
	354.0	28.6 ✓	
	72.6	162.6 ✓	0.33 ✓

Index right + above

82.9	Δ 5.1 ✓	
168.0		
259.8	91.2 ✓	
351.0	176.3 ✓	0.07 ✓
77.0	93.1 ✓	0.06 ✓
8-44-25 170.1		
261.4	Δ 3.2 ✓	
345.5	176.9 ✓	0.06 ✓

0.19 ✓

We watch used for times.
Watch 10 sec. fast.

L. P. P.

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1911phae.proj..ocow

Apr. 21. 1911. (Friday).

Double Star =
Bu. Cat. 3974.

P.A. 68° Dist 28"

7 12 −23.1
9 28
+2 16

For measts. see fol. page.

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1911phae.proj..60w

Apr. 21 1911

Index Right + Below

271.4 (S proc. + both dis

7.21.5 331.4 60.0 ✓

95.3 √√.3 ✓

150.6 11 √.3 ✓ 1.30 ✓

277.0 √3.4 ✓ 1.41 ✓

330.4

97.8 √2.2 ✓ 10 √.6 ✓ 1.√2 ✓

Clouds 150.0

Index Left + Below

186.4 √6.1 ✓

242.5

7.2 √2.√ ✓

59.7 10 8.6 ✓ 1.4√ ✓

186.6 √2.9 ✓ 1.4√ ✓

7.26.0 239.5

6.0 √√.6 ✓

61.6 10 8.√ ✓ 1.4√ ✓

1.43 ✓

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj.:0054

Apr. 21. 1911.

Double Star =
Bre. Cat. V A 06.

P.A. 77° Dist 9" Mags 5.5 7.5

11 25 − 23,9
9 44
−1 37
+10 23

Abandoned,

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1911phae.proj..60w

Apr 21 1911

Double Star =
Ben. Cat. ~~6134~~ 4711

P. A 249° Dist. 134" Mags 6 7
A 3V +19.9
10 3
+1 2A

For results, see fol. page.

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1911phae.proj.:0054

Apr. 21 1911

Index left + Below

272.1 } n. fol. + both dis
337.5 } 6 r. ✓
96.9 } r 4.1 ✓
151.0 } 119. r ✓ 1.20 ✓

7.5 4.30

278.5 r 0. r ✓ 1.2 r ✓
329.0
88.4 } 67.7 ✓
156.1 } 11 8.2 ✓ 1.23 ✓

Index Right + Above

180.6 } 61.9 ✓
242.5 }
2.7 } r 6.6 ✓
59.3 } 11 8. r ✓ 1.23 ✓

187.3 r 7.6 ✓ 1.2 ✓

8+0.0

244.9 }
4.0 } r 9.6 ✓
63.6 } 117. ✓ 1.2 r ✓

1.23 ✓

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1911phae.proj..605w

Apr. 21. 1911.

Double Star =
Bac Cat. 4159.

P.A. 178° Dist 65" Mags 7.0 7.0

7	32	+42.7
10	21	
+2	49	

For results, see fol. page.

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1911phae.proj..0069

Apr. 21. 1911

Index Right + Below

8.12.0

343.5	{ n. dia		
84.0		100.5	
172.5		43	
256.0		144.0	+0.04
		176.0	
346.0			
74.0		28.0	+0.18
161.4		106.8	
268.2		194.8	+0.28
		162.2	

Index Left + Below

254.0	101.0	
355.0		
79.0	44.5	
163.5	145.5	
	174.5	+0.10

8.16.30

238.8	43.6	+0.12
342.4		
70.6	106.7	
177.3	190.3	
	169.7	+0.20

+0.16

W's watch used for trains
Watch 1m 15s fast.

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..60sw

Mar. 21, 1911.

Double Star =
Bu. Cat. 4286.

7	44.	+31.9
16	37	
+2	√3	

Cloudy.

L. A. P.

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1911phae.proj..60W

Apr. 24. 1911. (Monday).

Double Star =
Bu. 3954.

P.A 68° Dist 28"
7 12 −23.1
lg 46
7 34

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..605w

Apr 24 1914

Index Left + Below

7.24.45

3.6 + ∞
62.3 [S. P. + bitri dis.
√4.7
186.8 √7.√
244.3 116.2 1.24

7.0 √4.2 1.37
61.2 √4.1
187.8 10 4.3 1.46
241.9

Index Right + Above

276.7 √2.6
329.3
95.9 √6.√
152.4 109.1 1.44

7.30.25

276.3 1.40
331.8 √5.√
95.0 √6.4
151.8 112.3 1.36

1.34

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..600w

Apr. 24. 1911.

Double Star =
Gr. Cat. 3731

P. A. 53° Dist 124" Mags 7.0 7.2

6	V-3	+14.4
10	1	
+3	2	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..605w

Apr 24 1911

Index Right

7.41.10

262.1 } S. Prec. with dis.
344.6 } 2.5
74.6 90.0
172.6 2 0.5
179.5 +0.01

256.8
352.2 95.4 −0.02
84.0 92.0
166.0 177.4 −0.05

Index left

173.8
254.0 20.2
348.1 91.2
79.3 171.4 −0.16

7.46.35

168.8
259.0 90.2 −0.18
350.8
70.7 79.9
170.1 −0.19

−0.10

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1911phae.proj..60dw

Apr. 24. 1911.

Double Star =
Bu. Cat. 30 Ψ 3.

P. A. 87. Dist. 10.8 Mags 6.2 7.0

7	4	+2 v. 9
10	13	
+3	9	

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..605w

Apr. 24 1911

Index Left + Below

178.4 [prec. dec

7.54.30 246.5 68.1

355.5 72.7

73.2 141.8 0.66

176.4 70.6 0.61

252.0

356.2 70.2

71.4 140.8 0.56

Index Right + Above

87.4

158.6 71.2

265.7 71.8

340.5 142.0 0.65

86.9 76.1 0.72

7.58.30 163.0

275.0 62.5

337.5 138.6 0.60

0.66

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1911phae.proj..60w

Apr. 24. 1911.

Double Stars =
Bu. Cat. 42 A6.

P. A. 83° Dist 77" Mags 6,3 7,0
7 40 +31.9
10 28
+2 K3

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1911phae.proj..605w

Apr. 24 1911

Index Right + Below

90.8 (prec. + both dia.

8.7.0

156.2 6 V. 4

266.4

341.2 74.2

140.2 0.77

88.0

160.0 72.0 0.44

273.0 V 8.0

331.0 130.0 0.9 A

Index left + Below

3.0 V 8.6

61.6

177.4 71.1

248.5 129.7 0.99

3.4 62.6 1.02

8.12.5 66.0

183.0 63.V

246.5 126.1 1.06

0.9 V

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Apr. 24. 1911.

Double Star =
Bur. Cat. V 41A

P.A. 64° Dist. 2 1/2" mags. 7. 7.

10	19	+2.9
10	49	
+0	30	

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Index left + Below

8.32.15

355.3	S. prec. dis		
73.5	9 8.2		
171.3	8 6.2		
257.5	16 4.4	0.30	
346.4	92.8		0.18
79.32			
170.0	8 4.0		
254.0	176.8	0.06	

Index Right + Above

266.3	8 0.3		
346.6			
82.0	8 1.9		
163.9	162.2	0.34	
			0.33
264.4	8 1.6		
346.0			
83.6	8 1.4		
165.0	163.0	0.32	
			0.26

8 38.0

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Double Star =
Bu. Cat. 4179

P.A. 178° Dist 65 Mags 7.0 7.0

7 32 +42.7
11 10
+3 30

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Index Right + Below

8 53.0

169.0
264.6 [h. dis
349.3 94.6
74.5 1 0.0
179.2 +0.02

171.0
257.0 86.0 +0.06
341.7 99.6
81.3 1 5.6 +0.11

Index ~~Left~~ + Above

76.2
174.1 97.9
262.3 86.7
349.0 1 4.6
17 5.4 +0.09

8 57.15

75.0 +0.16
168.9 93.9
253.0 94.2
351.2 19 2.1
16 7.9 +0.23

+0.11

W's watch used for times
Watch 2m 11s fast

L. A. A.

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