KG
11365
623

199

15— [illegible]

KG 11365.623

KG 11365.623

HARVARD
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JUL 2 1956

Dec. 3, 1917

Continued from Book 198

| | | | | |
|---|---|---|---|---|
| | U Cephei | 005381 | Phot. T | |
| ~~Sr~~ | P.A. 20° | | | |
| 8:04.59 | 168.8 < var. dis. | | | I |
| | 214.6 | 45.8 | | |
| | 337.4 | 298.6 | | |
| | 38.8 | ~~344.4~~ | − 1.32 | |
| | | 114.4 | | |
| | 153.8 | | | |
| | 223.7 | 69.9 | − 1.25 | |
| | 343.6 | 50.8 | | |
| | 34.4 ~~read~~ | 120.7 | − 1.18 | |
| | P.A. 200° | | Mean − 1.34 | |
| | 234.6 | | Comp * = 8.41 | |
| | 305.8 | 51.2 | Magn 7.07 | |
| | 73.1 | 52.1 | | |
| | 125.2 | 103.3 | − 1.58 | |
| | | | − 1.43 | |
| | 245.4 | | | |
| | 311.6 | 66.2 | | |
| | 73.6 | 49.7 | 1.28 | |
| 8:09:23 | 123.3 | 116.1 | − | |
| 14 22 | | | | |
| 8 07 11 | | | | |
| 8 10 11 | | | | |

21566.549
.259
.290

Dec. 3, 1917.

U Cephei
PA 200°

II.

| | | | |
|---|---|---|---|
| 8:13:20 | 252.2 | | |
| | 304.0 | 51.8 | |
| | 72.6 | 49.1 | |
| | 121.7 | 100.9 | – 1.63 |
| | | | – 1.59 |
| | 250.8 | 56.2 | |
| | 307.0 | 48.0 | |
| | 71.8 | 104.2 | – 1.55 |
| | 119.8 | | |

PA 20°

Mean 1.48
8.41
6.93

| | | | |
|---|---|---|---|
| | 340.6 | 49.2 | |
| | 29.8 | 59.9 | – 1.44 |
| | 157.2 | 109.1 | |
| | 217.1 | | |
| | | | – 1.37 |
| | 338.7 | 623 | |
| | 41.0 | 527 | 1.30 |
| | 164.7 | 115.0 – | |
| 8:17:25 | 217.4 | | |

8:17:25
30:45
8:15:22
13:18:22
21766.55H
257
.295

Dec. 3, 1917

| | | | | |
|---|---|---|---|---|
| | U Cephei | | | |
| | PA 20° | | | |
| 8:30:24 | 333.2 | | | III. |
| | 36.8 | 63.6 | | |
| | 154.7 | 63.3 | | |
| | 220.0 | 128.9 | −1.00 | |
| | 334.4 | 60.1 | −1.11 | |
| | 34.5 | 58.6 | | |
| | 157.4 | ~~138.7~~ | | |
| | 216.0 | 118.7 | −1.22 | |
| | PA 200° | | mean = | −1.38 |
| | 76.2 | 45.2 | | 8.41 |
| | 121.4 | 49.6 | magn = | 7.03 |
| | 256.0 | 94.8 | −1.79 | |
| | 305.6 | | | |
| | 72.2 | | −1.66 | |
| | 126.4 | 54.2 | | |
| | 252.0 | 51.0 | −1.53 | |
| 8:34:25 | 303.0 | 105.2 | | |
| 8 32 24 | | PA. 196A | | |
| 13 35 24 | | Sp. 4.0 | | |
| 21566.567 | | | | |
| 259 | | | | |
| .308 | | | | |

Dec. 3, 1917

SU Draconis 113267 Phot T

150

~~982~~

I

11 32
1 50
9 42 E

PA 250°

8:~~7~~50:42 36.0 < comp* dis

795

133.5

246.6 67.6

314.2 147.1 + 0.63

+ 0.80

69.6

131.4 618

2~~3~~50.0 69.0

— 319.0 130.8 + 0.96

mean = + 0.71
894
9.65

PA 70°

— 149.0

238.1 891

337.0 63.4

40.4 152.5 + 0.53

152.8 + 0.62

223.0 652

332.2 77.8

143.0 + 0.71

8:55:40
106 22

50.0

8:56:11

66 581
66 041
0.532

533

8:53:11
3

215666581

Dec. 3, 1917

9 00 Frod 3424 → 3m slow by Bell

SU Draconis

| | PA 70° | | | |
|---|---|---|---|---|
| 9:05:13 | 148.2 | 79.0 | ✓ | II. |
| | 227.2 | | | |
| | 333.0 | 69.8 | | |
| | 42.8 | 148.8 | + 0.60 | |
| | 156.2 | 66.0 | ✓ | |
| | 222.2 | | + 0.66 | |
| | 332.1 | 76.3 | | |
| 9:07:29 | 48.4 | 142.3 | + 0.73 | |
| | PA 250° | | Mean = + 0.68 | |
| | | | | 8.94 |
| | 244.4 | | | 9.62 |
| | 316.2 | 71.8 | | |
| | 62.6 | 73.0 | | |
| | 135.6 | 144.8 | + 0.64 | |
| | 245.6 | | + 0.69 | |
| | 312.2 | 66.6 | | |
| | 64.4 | 75.2 | | |
| ~~8~~9:10:11 | 139.6 | 141.8 | + 0.74 | |

15 24
9 07 42
14 10 42
21566. 590
66 049

0.541 .542

6

1917phae.proj..624G

## Dec. 3, 1917

| | | | | |
|---|---|---|---|---|
| | SU Draconis | | | |
| | PA 250° | | | III. |
| 9:21:05 | 242.2 | 720 | | |
| | 314.2 | 63.6 | | |
| | 67.8 | 135.6 | + 0 8) | |
| | 131.4 | | | |
| | | | + 0.7) x | |
| | 245.4 | 662 | | |
| | 311.6 | 82.3 | | |
| | 60.7 | 148.5 | + 0.60 | |
| 9:23:18 | 143.0 | | | |
| | PA 70° | | Mean = + 0.57 | |
| 9:23:54 | 328.7 | 81.7 | | 8.94 |
| | 50.4 | 73.8 | | 9.51 |
| | 149.4 | 155.5 | + 0.47 | |
| | 223.2 | | | |
| | | | + 0.40 | |
| | 332.3 | | | |
| | 49.4 | 77.1 | | |
| | 147.8 | 85.4 | | |
| 9:25:49 | 233.2 | 162.5 | + 0.33 | |

14 06

9 23 32 Obs. diff on acct of cld + haze

14 26:32

21566.602

66.049

0.553

554

Dec. 3, 1917

| | | | | | |
|---|---|---|---|---|---|
| | SU. Draconis | | | | IIII |
| | PA 70° | | | | |
| 9; 3~~9~~4; 20 | 327.2 | 826 | ✓ | | |
| | 49.8 | | ✓ | | |
| | 153.3 | 830 | ✓ | | |
| | 236.3 | 165.6 | + 0.27 | | |
| | | | ✓ | + 0.24 | |
| | 330.2 | 81,4 | | | |
| | 51.6 | | ✓ | | |
| | 147.8 | 869 | | | |
| 9; ~~41~~36; 55 | 234.7 | 168.3 | ✓ | + 0.22 | |
| | PA 250° | | | | |
| 9; ~~42~~37; 24 | 65.0 | 70.2 | ✓ | mean = | + 0.40 |
| | 135.2 | | ✓ | | 8.94 |
| | 238.8 | 736 | | magn. | 9.36 |
| | 312.4 | 143.8 | ✓ + 0.70 | | |
| | 61.2 | | | | |
| | 136.8 | 75.6 | + 0.56 | | |
| | 239.3 | 82.3 | | | |
| 9; 39; 25 | 321.6 | 157.9 | + 0.42 | | |

28 04
9 37 01
14! 40 !01
21566.611
66.049
0.562
.563

Dec. 3, 1917

V

| | | | | |
|---|---|---|---|---|
| | S4 Draconis<br>PA 250° | | | |
| 9:47:42 | 54.0 | 87.6 ✓ | | |
| | 141.6 | 81.2 ✓ | | |
| | 241.0 | 168.8 ✓ | + 0.21 | |
| | 322.2 | | | |
| | | ✓ | + 0.16 | |
| | 62.6 | 79.6 ✓ | | |
| | 142.2 | 93.9 | | |
| | 234.4 | 173.5 | + 0.12 | |
| 9:49:50 | 328.3 | | | |
| | 70° | ✓ | Mean + 0.22 | |
| 9:50:39 | 238.8 < Vardis | 82.2 | | 8.94 |
| | 321.0 | | ✓ | 9.16 |
| | 48.0 | 100.4 | | |
| | 148.4 | 182.6 | + 0.05 | |
| | | 177.4 | | |
| | 230.8 | 181.4 | + 0.29 | |
| | 332.2 | 106.4 | | |
| | 45.8 | 207.8 | | |
| 9:53:33 | 152.2 | 152.2 | + 0.53 | |

~~4~~1, 44
9 50 26
9 14 53 26
21566.620
66.049
0.571
572

Dec. 3, 1917

SU Draconis — VI

PA 70° ✓

10:01:16 — 324.7 — 88.3 ✓
53.0 — 100.0 ✓
140.4 — 188.3
240.4 — 171.7 — 0.16

✓ − 0.18
318.1 — 102.7 ✓
60.8 — 87.5 ✓
145.7 — 190.2 ✓
10:03:26 — 233.2 — 169.8 — 0.19

✓
10:04:02 — 60.0 — 79.1 ✓ Mean = $-0.0\overset{1}{4}$
139.1 — 95.8 ✓ 8.94
231.2 — 174.9 ✓ + 0.09 magn $8.9\overset{3}{0}$
327.0

✓ + 0.16
55.9 — 91.3 ✓
147.2 — 76.6
240.6 — 167.9 + 0.23
10:06:01 — 317.2

PA 250A
Spr. 3.5

14 45
10 03 41
15 06 41
21566.629
66.049
0.580
581

Fri. Dec. 7, 1917

L Colb     15" Eq.     J.S.W. Rec

Phot T.

205 204

2405

3 100 + 3.8

I

PA 190°     (repair torch)

6:52:19     327.2 < Comp * dis

50.0     828

135.3     98.7

234.0     181.5

178.5     − 0.03

322.4     − 0.12

60.6     98.2

141.0     92.2

233.2     190.4

169.6     − 0.20

PA 10°     Mean = + 0.02

56.2

138.0     81.8

230.0     90.4

320.4     172.2     + 0.15

52.8     +0.17

145.8     93.0

239.7     76.9

6:57:50     316.6     169.9     + 0.19

11 0:09

6 55 04

1 56

6 57 0

2 1 5 7 0.495

68.000

2 495

· Dec. 7, 1917.

| | | | | |
|---|---|---|---|---|
| | PA 10° | | | |
| 6:58:10 | 62.7 | | | |
| | 137.4 | 74.7 | | II. |
| | 2$\overset{3}{8}$2.7 | ~~58.9~~ | | |
| | 323.6 | 90.0 | | |
| | | 164.7 | + 0.29 | |
| | 48.4 | | +0.18 | |
| | 146.2 | 97.8 | | |
| | 237.7 | 77.9 | | |
| | 315.6 | 175.7 | + 0.08 | |
| | PA 190° | | +0.08 | |
| | 142.7 | 90.9 | | |
| | 233.6 | 85.0 | | |
| | 324.7 | 175.9 | + 0.08 | |
| | 49.7 | | | |
| | | | −0.02 | |
| | 145.0 | 86.0 | | |
| | 231.0 | 100.6 | | |
| | 316.6 | 186.6 | − 0.13 | |
| 7:01:23 | 57.2 | 173.4 | | P.A. 189.4 |
| 119:33 | | | | Spr. 4.8 |
| 6 59 46 | | | | |
| 1 56 | | | | |
| 7 01 42 | | | | |
| 2157 0.502 | | | | |
| 68.000 | | | | |
| 2.502 | | | | |

Dec. 7, 1917

U Cephei 005381
0035
18 min E.

I.

PA 200°

~~7:23:03~~ ~~213.2~~

7:23:40 341.7 variable disc.
30.8 49.1
164.2
222.8 586
107.7 − 1.47

336.3 589 −1.44
35.2 50.8
161.4 109.7 −1.42
212.2

mean = −1.54
8.41
6.87

PA 20°
78.8 4
123.2 344
249.4 56.8
306.2 91.2 −1.63
101.2

−1.65

70.4
125.8 554
253.2 441 −167
7:27:52 297.3 995

:51:32
7 25 46
1 56
7 27 42

215 70.519
68 752
1763

Dec. 7 1917

PA 20°

| | | | | |
|---|---|---|---|---|
| 7:29:33 | 71.0 | | | II |
| | 122.8 | 51.8 ✓ | | |
| | 251.2 | 55.1 ✓ | | |
| | 306.3 | 106.9 ✓ | −1.49 | |
| | | ✓ | −1.64 | |
| | 72.4 | 49.8 ✓ | | |
| | 122.2 | 44.8 ✓ | | |
| | 254.4 | 94.6 ✓ | −1.79 | |
| | 299.2 | | | |
| | | | mean = −1.59 | |
| | 164.2 | 48.1 | | 8.41 |
| | 212.3 | 52.4 | | 6.82 |
| | 340.8 | 100.5 | −1.64 | 6.87 |
| | 33.2 | | | 6.84 |
| | | | −1.56 | |
| | 161.4 | 60.2 | | |
| | 221.6 | 49.2 | | |
| | 344.0 | 109.4 | −1.43 | |
| 7:34:12 | 33.2 | | | |

7) 63.45
6) 31 52
1 56
6) 33 48
7) 215) 0.531
68.752
1.779

P.A 195 A
Spr. 4.2

21570

Dec. 7, 191~~8~~7

| | | | |
|---|---|---|---|
| | o Ceti. | 021403 | Phot. R |
| | | 0104 | |
| | | 110 e | |
| | Index to left | | |
| 7:46:48 | 301.6 ∠ | Var dis | |
| | 317.2 | 15.6 ✓ | |
| | 123.2 | | |
| | 137.1 | 13.9 ✓ | |
| | | 29.5 ✓ | − 4.44 |
| | | ✓ | −4.39 |
| | 303.2 | 16.6 ✓ | |
| | 319.8 | 14.3 ✓ | |
| | 124.4 | 30.9 ✓ | − 4.34 |
| | 138.7 | | |
| | | | Mean = −4.40 |
| | | | 9.12 |
| | Index tonight | | 4.72 |
| | 213.2 | 14.6 ✓ | |
| | 227.8 | 15.4 ✓ | |
| | 32.2 | 30.0 ✓ | − 4.40 ✓ |
| | 47.6 | | |
| | | | 4.42 |
| | 212.8 | 14.8 ✓ | |
| | 227.6 | 14.8 ✓ | |
| | 32.4 | 29.6 ✓ | − 4.43 |
| 7:54:09 | 47.2 | | |
| 100:57 | | | |

watch used = 1:56 min. slow by bell.

Dec. 7, 1917

Nova Per No II 032343

0145

178

03 nova photographic
nova 4p
print used

y Persei 032043

est. 9.6

X SU Draconis 113267

0245

~~887~~

847 E, +67.5

P.a.70

9:37:56 317.4 comparison star disc

61.2

103.8

see next page

Dec. 7, 1917

S U Draconis

~~7ʰ~~
PA 70° — I

9ʰ 44ᵐ 53ˢ 232.2 < Var ~~comp~~ * dis

326.8 94.6
63.6 71.5 −
183.1 166.1 * 0.26

247.6 −* 0.32
319.3 71.7
58.4 88.7 −
147.1 160.4 * 0.37

PA 250° — mean = ~~1.008~~ −* 0.24
comp *
55.1 < Var dis 89.3 8.94
144.4 108.4 ~~9.02~~
223.7 197.7 − ~~9.18~~
334.1 162.3 * 0.34 8.70
−57

−* 0.16

51.2 100.9
152.1 77.6 +
241.2 178.5 * 0.03
9ʰ 49ᵐ 07ˢ 318.8

14 00
9 47 00
1 56

9 48 56
2 1570 6~~24~~17
70 011
0.606

Dec. 7, 1917

P.a. 250

II

9:55:36 331.6 <var. disc

46.2 74.6 ✓

141.2 94.1 ✓

235.3 168.7 ✓ — 0.21

−0.25

323.6 91.6 ✓

55.2 73.1 ✓ — 0.29

151.1 164.7 ✓

224.2

Mean −0.22

8.94

8.72

P.a. 70 ✓

58.6 <Var. dis 75.6 ✓

134.2 98.4 ✓ — 0.11

229.2 174.0

327.6

−0.20

✓

54.2 91.0 ✓

145.2 73.0 ✓

243.6 164.0 — 0.30

10:00:57 316.6

56 33

9 58 16

1 56

10 00 12

215 > 0.625

> 0.011

0.614

Dec. ~~8~~ 7, 1917

SU Draconis
PA 70°
~~III~~.

10:04:58 58.6 ∠ var. disc.
137.6 79.0 ✓
231.7 91.5 ✓
323.2 170.5 ✓ − 0.18

56.4 86.6 ✓ − 0.20
143.0 82.2 ✓
239.2 168.8 ✓ − 0.21
321.4

mean = − 0.10
8.94
8.84

PA. 250
145.2 826 ✓
227.8 95.1 ✓
323.1 177.7 ✓ − 0.04
58.2

140.6 946 ✓ − 0.01
233.2 86.3 ✓
322.3 180.9 ✓
10:09:33 48.6 179.1 + 0.02

14 31

10 07 16
1 56

10 09 12
2(5)0 631
0 1
70.~~342~~

.289
0.620

7
Dec. 13, 1917

SU Draconis

IV.

1
10:18:19 PA 250°
146.6 75.6 ✓ ✓
222.2 94.1
322.2 169.7 ✓ − 0.20
56.3

✓ − 0.18
140.0 96.2
236.2 74.6 ✓
332.6 170.8 ✓ − 0.17
47.2

PA 70 Vegar − 0.22
242.1 76.7 ✓ 8.94
318.8 94.3 ✓ 8.72
50.8 171.0 − 0.17
145.1

✓ −0.25
232.8 93.0
325.8 ~~70.2~~
66.2 ~~163.2~~
10:22:32 136.0 69.8 − 0.33
162.8

PA 250 A
Spr. 3.5

.10 20 24
1 56
10 22 20
2(5)70.640
70.011
.629

7

Dec 7, 1917

Eunomia (15) 950 + 9.8
410
540 E.

4 34 48
35 12 * a
" 21
" 59 * b
36 16 * b
37 09

4 37 42 star A
38 21 "
" 31 star B
" 52 "
39 20 star C
4 40 06 "

These better

star A in South part of field
stars B & C in north part of field.

Dec. = 9.2 +
R.A = 517 E
St = 441

Mon Dec. 10, 1917

LPdb 15" E Eq. JSW Rec

205 204 Phot I. Pa 190.

6 50 too cloudy

PA ~~190°~~ 10°

6:53:41 234.7 ∠ var. dist.

320.4 85.7

50.4 100.5

150.9 186.2

173.8 +0.12

230.2 +0.06

324.6 94.4

57.8 85.9

143.7 180.3

179.7 +0.01

PA 190°

316.4 106.8 mean = +0.08

53.2 84.0

146.8 190.8

230.8

~~[illegible]~~ 169.2 +0.20

324.8 94.9 +0.11

59.7 86.2

144.8 181.1

6 56:53 231.0 +0.02

34 178.9

6 55 :7

~~10~~ 2 4 21573 498

Dec. 19, 1917

| | | | | |
|---|---|---|---|---|
| | | ~~15" E Eq.~~ | | |
| | PA 190° | (205-204) | | |
| 70:01:09 | 324.6 | 94.6 | | II. |
| | 59.2 | 85.4 | | |
| | 144.4 | 180.0 | | |
| | 229.8 | ~~180.0~~ | 0.0—0 | |
| | 322.1 | 93.1 | –0.02 | |
| | 55.2 | 84.2 | | |
| | 146.6 | 177.3 | — 0.05 | |
| | 230.8 | ~~182.7~~ | | |
| | PA 10° | | Mean = –0.01 | |
| | 52.8 | 90.1 | | |
| | 142.9 | 90.0 | | |
| | 234.8 | 180.1 | 000 | |
| | 324.8 | 179.9 | | |
| | | | 000 | |
| | 55.3 | 93.5 | | |
| | 148.8 | 87.0 | | |
| | 233.2 | 180.5 | | |
| 7:05:04 | 320.2 | 179.5 | +0.01 | |

7 03 06
12 05 07

2(5) 3.503
71.436
2.067

PA. 10 A
Spu. 4.7

Dec. 10, 1917

U. Cephei 0053 81
0045

Phot T
I.

PA 20°
8 min E-

7:24:58 ~~30.7~~ 162.8 ∠ V ar dis ✓
214.2 51.4 ✓
337.2 54.2 ✓
31.4 105.6 — 1.52

— 1.31 ✓
154.6 67.2 ✓
221.8 57.0 ✓
340.2 124.2 — 1.10
37.2

mean = — 1.26
841
mean = 7.15

PA. 200° ✓
58.0 ✓
249.8 66.8 ✓
307.8 124.8 — 1.09
63.6
130.4

✓ — 1.20
247.2 65.0
312.2 49.2
73.6 114.2 — 1.32
7:27:04 122.8

12 2
7 26 01
12 28 02

2 15 73.559
73.781

— 0.222

Dec. 19, 1917

U Cephei 005381

PA 200°

II.

7:40:29 248.2 55.1 ✓
303.3 41.6
72.6 116.7 — 1.27 ✓
134.2

246.3 65.5 ✓ — 1.3
311.8 47.0
76.7 112.5 ✓ — 1.36 ✓
123.7

PA 20° Mean = $\bar{1}.38$
345.8 48.0 ✓ 841
33.8 59.1 magn = 703
157.2 107.1 ✓ — 1.49
216.3

331.2 70.6 ✓ — 1.44
41.8 40.0 ✓
167.7 110.6 ✓ — 1.40
7:44:23 207.7

) 42 26

(2 44 27

2(5) 3.531

23.741

– 0.210

Dec. 19, 1917

U Ophi    III

PA 200 ✓

7:55:16  339.8  54.0 ✓
83.8  60.5 ✓
161.7  114.5 ✓  − 1.31
222.2

✓  − 1.44
340.4  54.0 ✓
34.4  49.8 ✓
166.8  103.8  − 1.56
7:57:59  216.6

2 min 1 second slow

PA 200°  ✓  mean = − 1.42
7:58:41  74.2  46.2 ✓  8.41
120.4  61.4  magn = 6.99
249.8  107.6 ✓  − 1.47
311.2

− 1.40
69.6
133.0  63.4
51.0
252.1  114.4  − 1.32
7:59:14  308.1

31 10
7 5 04 40
12 59 49

δ 2 15 73.5442
0 0
23.751
− 0.199

Watch used = 2m, 1s slow by bell

Dec. 10, 1917.

| | | | | |
|---|---|---|---|---|
| | PA 200° | 4 Cephei | | |
| 8:09:28 | 77.7 | | | |
| | 118.6 | 46.9 | | II. |
| | 246.4 | 6 ~~4~~6.0 | | |
| | 312.4 | ~~86.9~~ | | |
| | | 106.9 | — 1.49 | |
| | | 5 | | |
| | 71.2 | ~~4~~9.6 ✓ | | |
| | 130.8 | 47.5 ✓ | — 1.49 | |
| | 256.3 | ~~97.1~~ | | |
| | ~~299.2~~ | 107.1 | — 1.49 | |
| — | 303.8 | | | |
| | PA 200° | ✓ | mean = −1.50 | |
| 8:12:54 | 168.0 | 43.6 | 8.41 | |
| | 211.6 | 60.2 ✓ | 6.91 | |
| | 339.6 | 103.8 ✓ | — 1.56 | |
| | 39.8 | | | |
| | | 6 | | |
| | 160.6 | ~~4~~24 ✓ | — 1.50 | |
| | 223.0 | 46.2 | | |
| | 344.4 | 1088.6 | — 1.45 | |
| 8:13:28 | 30.6 | | | |

8 11 28
13 13 29
2(5)73.558
23.751
0.140

Dec. 10, 1917

PA 20° | U. Cephei

8:30:06 160.2 ✓

217.1 56.9 ✓ IV

334.8 59.8

34.6 116.7 – 1.27

✓ – 1.30

158.4 61.8 ✓

220.2 51.5

8 339.8 113.3 ✓ – 1.34

7:31:42 31.3

8 PA 20° ✓ mean = – 1.31

7:32:11 249.7 58.1 8.41

302.8 66.2 ✓ mag 7.10

67.0 119.3 ✓ – 1.21

133.2

✓ – 1.32

246.0 4 60.6

306.6 48.7

~~83.4~~ 109.3 – 1.43

~~7:34:~~ 74.1

8 7:34:01 122.8

8 00

8 32 00

13 34 01

2073.565

33749

– 0176

Dec. 19, 1917

VI

| | | | |
|---|---|---|---|
| | PA 20° | U Cephei | |
| 8:54:21 | 256.1 | 48.8 | |
| | 304.9 | 53.8 | |
| | 70.2 | 102.6 | — 1.59 |
| | 124.0 | | |
| | 248.4 | 61.6 | — 1.49 |
| | 310.0 | | |
| | 75.8 | 49.7 | |
| 8:56:01 | 125.5 | 111.3 | — 1.39 |
| | PA 200° | clouds | |
| 8:57:08 | 346.5 | | Mean = −1.36 |
| | 34.0 | 47.5 | 8.41 |
| | 155.8 | 60.8 | Magn = 7.05 |
| | 216.6 | 108.3 | — 1.45 |
| | 332.0 | 71.6 | — 1.24 |
| | 43.6 | 55.7 | |
| | 162.2 | clouds | |
| 8:58:56 | 277.9 | 127.3 | — 1.04 |

26 26
8 56 36
13 58 37

2157) 3.583
3.741
0.158

9 00

Troubled by clouds in
above group

clouds over region

Dec. 19, 1917

| | | | | |
|---|---|---|---|---|
| | PA 200° | | | |
| 9 : $\overset{2}{5}$6:28 | 340.7 | 60.1 ✓ | | VII. |
| | 40.8 | 67.2 ✓ | | |
| | 153.2 | 127.3 ✓ | — 1.04 | |
| | 220.4 | | | |
| | | ✓ | — 0.97 | |
| | 333.0 | 67.7 | | |
| | 40.7 | 65.9 ✓ | | |
| | 155.9 | 133.6 ✓ | — 0.90 | |
| 9 : $\overset{2}{5}$7:01 | 221.8<br>5 9 | | | |
| | PA 20° | ✓ | Mean = −1.08 | |
| 9:27:42 | 71.7 | 54.3 ✓ | | 8.41 |
| | 126.0 | 57.6 | Magn = | 7.33 |
| | 253.2 | 111.9 ✓ | — 1.37 | |
| | 310.8 | | | |
| | | ✓ | — 1.18 | |
| | 63.2 | 70.6 ✓ | | |
| | 133.8 | 58.2 | | |
| | 252.7 | 128.8 ✓ | — 1.00 | |
| 9:29:08 | 310.9 | | | |

30 19

9 27 35

14 29 86

21573.603

72Δ741

0.1378

Dec. 19, 1917

U. Cephei

~~PA 20°~~ PA 20° ✓

~~VIII.~~

9:33:07 68.0 56.2 ✓
124.2 62.0 ✓
247.9 118.2 ✓ − 1.23
309.9

✓ − 1.07

60.4 71.2 ✓
131.6 61.9
250.2 133.1 ✓ − 0.91
9:34:26 312.1

PA 200° Mean − 1.18 22

9:35:01 164.0 51.6 ✓ mag = 8.41 ~~7.23~~ 7.19
215.6 62.3
335.6 113.9 ✓ − 1.33
37.9

✓ − 1.36

165.0 58.6
223.6 5~~48.4~~
341.2 ~~107~~.0 − ~~1.~~26
9:36:32 33.6 117.0

58.6
52.4
111.0 − 1.39

19 06
9 34 46
14 36 47
215) 3.608
73.741
0.133

Dec. 10, 1917

U. Cephei

IX

| | | | | |
|---|---|---|---|---|
| 9: | PA 200 | | ✓ | |
| 9:41:54 | 164.2 | 54.0 | ✓ | |
| | 218.2 | 63.1 | ✓ | |
| | 333.1 | 117.1 | ✓ | −1.26 |
| | 36.2 | | | |
| | | | ✓ | −1.20 |
| | 158.4 | 62.3 | ✓ | |
| | 220.7 | 60.4 | ✓ | |
| | 338.8 | 122.7 | | −1.13 |
| 9:43:19 | 39.2 | | | |
| | PA 20° | | ✓ | |
| 9:43:46 | 252.0 | 55.8 | ✓ | mean = −1.22 |
| | 307.8 | 73.1 | | 8.41 |
| | 60.8 | 128.9 | ✓ | −1.00 magn = 7.19 |
| | 133.9 | | | |
| | | | ✓ | −1.25 |
| | 250.0 | 56.9 | ✓ | |
| | 306.9 | 49.5 | | |
| | 78.7 | 106.4 | ✓ | −1.50 |
| 9:45:36 | 128.2 | | | |

14 35
9 43 39
14 45 40
2 15 73.615
73.741
0.126

Dec. 19, 1917

| | PA 20° | U Cephei | |
|---|---|---|---|
| 9:50:56 | 252.0 | | X |
| | 310.2 | 58.2 ✓ | |
| | 58.0 | 78.9 ✓ | |
| | 136.9 | 137.1 ✓ | − 083 |
| | | | − 1.01 |
| | 245.8 | 68.0 ✓ | |
| | 313.8 | 52.2 ✓ | |
| | 77.7 | 120.2 ✓ | − 1.19 |
| 9:53:12 | 129.9 | | |
| | | | Mean = −1.03 |
| 9:53:52 | 338.6 | 60.3 ✓ | 8.41 |
| | 38.9 | 68.5 ✓ | Mag 7.38 |
| | 156.2 | 128.8 ✓ | − 1.00 |
| | 224.7 | | |
| | | | − 1.05 |
| | 336.7 | 64.5 ✓ | |
| | 41.2 | 60.0 ✓ | |
| | 162.4 | 124.5 ✓ | − 1.10 |
| 9:55:08 | 222.4 | | |

13 08
9 53 17
14 55 18
21573.622
73.741
0.119

Pa. 16A
Shr. 39

Tues. Dec 11, 1917

LCM obs & Rec 15" Eq.

Eunomia (15) Phot T.

9 50 + 9.8
4 55
4 55 2

P.a. 10 Comp ✱

11 35.0 ~~221.2~~ Eunomia dis
334.6

46.2 71.6
156.2 65.6
221.8 137.2 — 0.83

340.2
41.4 61.2 — 0.80
152.4 78.8
231.2 140.0 — 077

P.a. 180 Mean = −1.08
67.2
128.7 61.5
252.2 54.1
306.3 115.6 —1.29

71.0
123.2 52.2 − 137
248.7 56.6
11 44.0 305.3 108.8 − 145

79.0
11 39.5 Obs. diff on account of low
16 39.9 altitude & poor seeing.
215 74.694

Dec. 11, 1917

Eunomia II

| | | | |
|---|---|---|---|
| | Pa. 180 | | |
| 11 50.0 | 65.0 | | |
| | 128.8 | 63.8 | |
| | 256.0 | 49.8 | |
| | 305.8 | 113.6 | — 1.34 |
| | | | |
| | 70.4 | | — 1.36 |
| | 124.4 | 54.0 | |
| | 248.4 | 58.0 | |
| | 306.4 | 112.0 | — 1.37 |
| | Pa. 10 | | Mean = -1.03 |
| | 150.0 | | |
| | 225.5 | 75.5 | |
| | 338.4 | 67.0 | |
| | 45.4 | 142.5 | - 0.72 |
| | | | |
| | 152.6 | | — 0.70 |
| | 222.7 | 70.1 | |
| | 329.8 | 75.1 | |
| | 44.9 | 145.2 | — 0.67 |
| 11 57.4 | | | |
| 11 53.7 | | | |
| 16 54.1 | | | |
| 21574.704 | | | |

12 00 Cs watch = 21 s slow by bell

Dec 11, 1917

Eunomia III

| | | | |
|---|---|---|---|
| | P.A. 10 | | |
| 12 17.0 | 149.0 | | |
| | 227.7 | 78.7 | |
| | 329.2 | 74.1 | |
| | 43.3 | 152.8 | − 0.52 |
| | 153.0 | | |
| | 227.0 | 74.0 | − 0.56 |
| | 330.4 | 74.0 | |
| | 44.4 | 148.0 | − 0.61 |
| | P.A. 150 | | Mean = − 0.81 |
| | 248.2 | | |
| | 310.3 | 62.1 | |
| | 69.2 | 64.0 | |
| | 133.2 | 126.1 | − 1.06 |
| | 247.4 | | |
| | 306.0 | 58.6 | − 1.06 |
| | 65.0 | 67.9 | |
| 12 25.0 | 132.9 | 126.5 | − 1.05 |
| 12 21.0 | | | |
| 17 21.4 | | | |
| 21574.723 | | | |

Dec. 11, 1917

Eunomia IV

P.A. 190

12 39.0 239.6

309.6 700

70.7 59.5

130.2 129.5

247.7

317.9 clouds

Images gone

all cloudy here

12 48 useless to continue

Comp ✱ +9° 2263 (9.5)

(1855) RA = $9^h$ 49.0 + 9° 18' ±

# Sat Dec 15, 1917

15" E. Eq. — L.C. Obs & Rec

Eunomia

~~VI~~ I

Phot T.

9 50 + 9.8
4 40
5 10 E + 9.8

PA. 180

11 10.4 175.2 Comp ★ dir.
200.4 25.2
357.4 19.8
378.2 45.0 + 3.57

178.0
198.4 20.4 + 3.48
354.9 25.9
380.8 46.3 + 3.44

PA ~~60~~ 320 mean = + 3.66
267.6 6.27
288.2 20.6 9.93
86.4 19.6
106.0 40.2 + 3.76

269.8
286.6 16.8 + 3.84
88.4 20.8
α 17.2 109.2 37.6 + 3.91
7.6
11 13.8
16 13.
21578.676

Comp ★ = + 9°.2269 (6 8) = 6 27
h m
(1855) RA = 9 50.2 + 9° 2' ±

Dec. 15, 1917

Eunomia II

Pa 320

11 25.2 267.2
287.0 198
86.6 190
105.6 388 + 384

~~+3.88~~

267.8
284.4 16.6
85.2 20.6
105.8 372 + 393

P.a 160

Mean = +3.69 74

357.8 627
377.8 200
~~7.1~~ 9.96
10.01
179.2 220
201.2 420 + 366

355.6 + 3.60

200.0 244
177.7 20.3
11 31.4 198.0 44.7 + 3.53
566

11 28.3
16 28.
21578.686

Dec. 15, 1917

Eunomia III

P.A 140

11 42.0 357.8

379.6 21.8

176.2 22.5

198.7 43.3 + 3.59

355.2 + 3.57

379.8 24.6

178.7 19.5

198.2 44.1 + 3.55

P.A. 320 mean = + 3.58

86.2 6.27

109.6 23.4 9.85

267.3 20.9

288.2 44.3 + 3.54

87.4 + 3.58

108.6 21.2

266.8 21.6

11 48.8 288.4 42.8 + 3.62

11 45.4

21578.698

Dec 15 1907

Eunomia

IV

Pa 320

11 56.4 84.6
107.7 23.3
266.3 20.9
287.2 442 + 3.55

88.4
109.4 21.0 + 3.55
265.6 23.2
288.8 442 + 3.55

Pa 140 Mean + 3.54
176.8 6.27
199.9 23.1 9.81
358.8 15.4
378.2 425 + 3.63

177.4 + 3.52
200.2 22.8
356.8 24.0
12 03.6 20.8 46.8 + 3.42
12 00.0
17 00.0
21578.708
12 00 β Prod = 3424 = 20s fast by bell

Dec. 15, 1917

Eunomia

V

P.a. 140

~~11 56.4 84.6~~

12 11.4 177.7

203.3

356.6

378.7

25.6
22.1
47.7 + 338

+ 344

178.7

198.8

355.2

20.7

20.1
25.3
45.4 + 349

P.a 320

mean + 350
6.27
977

87.7

108.2

263.6

288.8

20.5
25.2
45.7 + 347

86.6

108.8

269.6

12 18.6 289.9

22.2 + 355
20.3
42.5 + 363

12 15.0

10 14.7

2.578.719

omitted

by mistake

Dec. 15, 1907

Eunomia

VI

P.A. 320

12 26.5   84.8
109.6   24.8
265.6   25.6
291.2   50.4   + 3.25

85.2   + 3.38
109.0   23.8
267.4   21.4
288.8   45.2   + 3.50

P.A. 180   mean = + 3.32
6.27
9.59
354.6
21.0   264
178.4   232
201.6   49.6   + 3.29

356.3   + 3.26
21.2   249
173.8   262
12 33.5   200.0   51.1   + 3.23

12 30
21578.729

Dec. 15 1917

Eunomia VIII

Pa-160

C 2400 353.0
18.8 25.8
179.4 20.8
200.2 46.6 + 3.43

357.0 + 3.50
18.9 21.9
180.2 21.8
202.0 43.7 + 3.57

Pa-320 Mean = + 3.47
86.3 6.27
107.4 21.1 9.74
266.2 24.8
291.0 45.9 + 3.46

84.0
108.8 24.8 + 3.44
268.0 21.8
13 46.8 289.8 46.6 + 3.43

12434

215784/38

Pa. 320 A
Spr. 5.5

Sat. Dec 22, 1917

LCCB. 15" E. Eq.

7 07 SS Aurigae 060547 est <13.5

Eunomia (15) Plot T.

9 50 + 9.8
4 05 7
5 41 − 2

P.a 210

10 57.8 357.8 < comp A dis
19.6 27.8
170.4 334
203.8 61.2 + 2.81

349.6 + 2.78
23.6 340
174.0 .287
202.7 62.7 + 2.76

P.a. 30 Mean = + 2.89
87.8 6.72
114.6 26.8 9.61
263.2 29.0
292.2 55.8 + 3.02

82.2 + 3.00
114.7 32.5
266.6 24.4
10 58.6 291.0 56.9 + 2.98
10 55.2

21585.663

Dec. 27 1917

## Eunomia

II

Pa. 30

11 8.5 85.2

111.4

259.8

295.0

292

35.2

64.4 + 270

+ 272

79.3

117.2

266.8

292.0

37.9

25.2

63.1 + 275

Pa 210

Mean = + 270

67.2

9.42

175.6

201.0

347.7

28.6

25.4

40.9

66.3 + 263

+ 2.68

173.3

207.0

352.4

22.6

33.7

30.2

63.9 + 272

11 14.7

11 11.6

21585: 675

Comp ✶ = fol of 3 ✶✶ at 9 48 + 8.4° =
+ 8. 2289 = 6.72

Asteroid = 9 48.6 + 8° 40′ (1855) approx.

Dec. 22, 1917

Eunomia

P.a. 210 III

11 22.0

174.8
202.3 27.5
344.4 44.9
29.3 72.4 + 2 43

169.8 +2.42
208.2 38.4
350.4 34.2
24.6 72.6 +2.42

P.a. 30 Mean = + 2.55
265.2 6.72
291.7 26.5 9.27
79.8 38.4
118.2 64.9 + 2.68

260.6 +2.68
297.2 36.6
85.5 27.9
11 27.4 113.4 64.5 +2.69
94
11 24.7

21585.684

Dec. 22 - 1917

Eunomia.

IV

P.A. 30

" 372 264.6

293.8

~~1~~79.7 29.2

119.0 39.3

68.5 + 256

258.8

296.4 37.6 + 258

83.3 ~~29.6~~

113.4 30.1

67.7 + 259

P.A. 210 Mean = + 254

356.0 6.72

27.4 31.4

168.4 37.6 9.26

206.0 69.0 + 254

351.4 + 251

28.4 37.0

171.4 33.8

70.8 + 248

" 42.8 205.2

" 40.0.

21575 - 694

Dec. 22, 1917

Eunomia

P.a. 210 V

11 51.0 352.1
27.4 35.3
168.1 39.1
207.2 74.4 + 236

349.6 + 2.46
28.1 38.5
174.0 29.6
203.6 68.1 + 257

P.a 30 Mean = + 246
87.8 67 2
112.8 25.0 91 8
256.8 43.8
300.6 68.8 + 255

78.2 + 246
123.0 44.8
263.4 29.6
11 56.7 293.0 74.4 + 2.36
7.6
11 53.8

21585.704 Rope hole!!!

12 00 B 3×24 = $2.^s$ slow by Bell

Dec. 22, 1917

Eunomia

VI

Pa. 30

12 5.0 86.0
120.0 340
261.6 336
295.2 676 + 2.59

80.4 + 2.63
119.2 38.8
263.6 26.3
289.9 65.1 + 2.67

Pa 210 Mean = + 2.58
175.4 6.72
203.4 28.0 9.30
351.2 38.2
294 66.2 + 2.64
~~160~~

169.8 + 2.54
207.0 37.2
351.6 35.0
12 10.8 26.6 72.2 + 2.43
15.8
12 7.9 Had to push telescope by hand
making obs. diff.

21585 - 7.4

Dec. 22, 1917

Eunomia.

VII

P.A. 260

12 16.0 17.8
207.7 35.9
349.4 38.4
27.8 74.3 + 237

168.2 + 241
207.8 39.6
354.6 32.2
26.8 71.8 + 245

P.A. 30 Mean + 2.52
265.2 6.72
291.8 26.6 9.24
80.4 40.6
121.0 67.2 + 2.60

+ 2.64
262.6
293.6 31.0
84.4 33.8
12 22.0 118.2 64.8 + 2.68
12 19.0

21585.722

Dec. 22, 1917.

Eunomia. VIII

| | | | |
|---|---|---|---|
| | P.a. 30 | | |
| 12 46.7 | 265.6 | | |
| | 291.2 | 25.6 | |
| | 82.2 | 34.8 | |
| | 117.0 | 60.4 | +2.84 |
| | | | |
| | 260.0 | | +2.85 |
| | 295.0 | 35.0 | |
| | 87.2 | 25.0 | |
| | 112.2 | 60.0 | +2.86 |
| | | | |
| | P.a 210 | | mean = +2.74 |
| | 352.8 | | 6.72 |
| | 23.8 | 31.0 | 9.46 |
| | 170.2 | 36.4 | |
| | 206.6 | 67.4 | +2.59 |
| | | | |
| | 350.4 | | +2.62 |
| | 23.0 | 32.6 | |
| | 173.6 | 32.8 | |
| 13 52.7 | 206 4 | 65.4 | +2.66 |
| 9 9.4 | | | |
| (2 49.7 | | | |

2 1585.743

Vis. obs. ledged to here

P.a. = 206 4
Sh = 6.2

# Wed. Jan. 9, 1918.

21603

V Draconis

L.C. Obs. 15 in E.Eq.
J.S.W. Rcd.

175654
26 37

841 W+54.9

7:18:02 est. 10.5

T Draco.

175458

7:24:00 est. 9.2 R6

W Draco.

180565
2659

854 W+66.0

W Drac. = 11.7

X Drac. 180666

1

est. 13.6

7:28:48 SV Drac. 183149 est = 13.4
2702

831 W+49.2

Jan. 9, 1918

7:33:00 RW Lyrae 184243 est. 13.4
2705
828 W+43.5
Var, suspt. only

7:36:00 RU Lyrae 190941 est. 13.0
2709
800 W+41.2

7:37:40 U Draco. 190967 est. 12.6

7:40:19 TZ Cygni 191350 est. 9.9
2713
800 W+50.0

7:42:45 R Cygni 193449 est. 11.2 R6
2715
741 W+49.9

+50.5
734 West at 3:17 } = NGC 6826
2717
1943 +50.5
500
39.5

7:39:54 RT Cygni 194048 est. 9.0
2724
744 W+48.5

7:41:00 TU Cygni 194348 est. 13.7

Jan. 9, 1918

~~7:53.~~
7:57:00 X Cygni 194632 est. 8.0 R5
2726
740 W. + 32.6

7:59:30 Z Cygni 195849 est. 11.2 R5
2732
~~38~~
734 W + 50.0

8:00:00
8:02:00 SX Cygni 201130 est. 13.5
2735 suspt. only
724 W + 30.8

WX Cygni 201437 b
2738
724 W + 37.0
cloudy in this region

8:07:00 ST Cygni 202954 est.
2780
711 W + 54.5
u 3 vars. see 10 second map. 13.5th ~~Fh.~~

V Cygni 203847 est.
2744
706 W + 47.8
clouds in this region

8:15:00 too cloudy for this kind of work.

Jan. 9, 1918

8:31:00 too cloudy at present.

8:45:00 too cloudy to continue

17 - 17

Vis. Red.

Mon, Jan. 21, 1918

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

Eunomia

9 30 +7.5
4 15
5 15 2
6 45

P.A 180°
8:29:48 ~~147.8~~
149.8 <comp. star disc
237.1
321.7 87.3
59.8 98.1
185.4
174.6 −0.10

142.6
235.7 93.1 −0.12
321.6 95.0
56.6 188.1
171.9 −0.15

P.A 0° mean = +0.38
243.6 67.0
310.6 72.8
60.8 139.8 +0.78
133.6
216 15.559
+0.88

247.8 62.2
310.0 68.2
64.8 130.4 +0.97
8:25:46 133.0 Comp ★ = +7.0
+ 22 17

Jan. 21, 1918.

Eunomia.

II

| | | | |
|---|---|---|---|
| | PA 0° | | |
| 8:33:12 | 244.4 | | |
| | 303.2 | 58.8 | |
| | 67.0 | 65.2 | |
| | 132.2 | 124.0 | +1.11 |
| | | | |
| | 242.6 | | +1.10 |
| | 311.5 | 68.9 | |
| | 70.2 | 55.4 | |
| | 125.6 | 124.3 | +1.10 |
| | PA 180° | | Mean = +0.41 |
| | 325.1 | 89.6 | |
| | 54.7 | 104.0 | |
| | 138.4 | 193.6 | − 0.26 |
| | 242.4 | 166.4 | |
| | | | |
| | 312.8 | 108.6 | −0.28 |
| | 61.4 | 86.7 | |
| | 147.1 | 195.3 | |
| 8:39:08 | 233.8 | 164.7 | −0.29 |

8 36 10
8 37 50
26 15 = 56

Jan. 21, 1917

Eunomia

III.

| | | | |
|---|---|---|---|
| | PA 180° | | |
| 8:46:31 | 324.6 | 90.2 ✓ | |
| | 54.8 | 112.6 ✓ | |
| | 132.2 | 202.8 | |
| | 244.8 | 157.2 ✓ | −0.43 |
| | | | −0.44 |
| | 314.7 | 111.3 ✓ | |
| | 66.0 | 92.6 | |
| | 146.8 | 203.9 ✓ | |
| | 239.4 | 156.1 | − 0.46 |
| | PA 0°. | | mean +0.12 |
| | 65.2 | ✓ | |
| | 131.1 | 65.9 ✓ | |
| | 237.8 | 78.0 | |
| | 315.8 | 143.9 ✓ | + 0.70 |
| | | ✓ | |
| | 62.2 | 80.9 | +0.69 |
| | 143.1 | 64.0 | |
| 5 | 243.8 | 144.9 | +0.68 |
| 8:40:58 | 309.8 | | |

8 48 44
1 40
8 50 24
21615.576

Jan. 21, 1917.

Eunomia

IV

|  |  |  |  |
|---|---|---|---|
|  | PA 0° |  |  |
| 8:56:22 | 69.5 |  |  |
|  | 134.2 | 64.7 | time |
|  | 240.6 | 74.7 | 8:58:20 |
|  | 315.3 | 139.4 | + 0.79 |
|  |  |  | +0.83 |
|  | 63.3 | ~~7~~39 |  |
|  | 137.2 | 61.5 |  |
|  | 247.4 | 135.4 | + 0.87 |
|  | 308.9 |  |  |
|  | PA 180° |  | mean = +0.20 |
|  | 137.6 | 99.2 |  |
|  | 236.8 | 99.4 |  |
|  | 319.2 | 198.6 | − 0.35 |
|  | 58.6 | 161.4 |  |
|  | 134.8 | 101.6 | − 0.44 |
|  | 236.4 | 106.3 |  |
|  | 314.3 | 207.9 |  |
| 9:00:51 | 60.6 | 152.1 | − 0.53 |

73

8 57 36
1 40
9 00 16
9 00 watch used = 1m 40s slow by bell

2165=57.3

Jan. 21, 1917

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 1800 | | | V |
| 9;08;08 | 137.3 | | | |
| | 243.3 | 106.0 | | |
| | 318.8 | 100.4 | | |
| | 59.2 | 206.4 | | |
| | | 153.6 | − 0.50 | |
| | 147.4 | 924 | −0.55 | |
| | 239.8 | 119.1 | | |
| | 307.7 | 211.5 | | |
| | 66.8 | 148.5 | − 0.60 | |
| | Pa 0 | eunomia | dis | |
| | 308.4 | 117.8 | mean + 0.17 | |
| | 66.2 | 108.4 | | |
| | 134.6 | 226.2 | + 0.90 | |
| | 243.0 | 133.8 | | |
| | | | +090 | |
| | 312.8 | 1125 | | |
| | 65.3 | 1139 | | |
| | 131.6 | 226.4 | | |
| 9;12;26 | 245.5 | 1336 | +090 | |

9 10 17
9 11 57
21615 592

Jan 21, 1918

Eunomia. VI

|  | Pa 0 | ∠ comp * dis |  |
|---|---|---|---|
| 9:19:32 | 248.4 | 61.8 ✓ |  |
|  | 310.2 | 61.5 ✓ |  |
|  | 56.2 | 123.3 ✓ | + 1.12 |
|  | 137.7 |  |  |
|  |  | ✓ |  |
|  | 245.7 | 69.9 | + 1.04 |
|  | 315.6 | 61.6 |  |
|  | 67.1 | 131.5 ✓ | + 0.95 |
|  | 128.7 |  |  |
|  | PA 180° | ✓ | mean + 0.35 |
|  | 324.0 | 93.4 ✓ |  |
|  | 57.4 | 102.6 ✓ |  |
|  | 138.2 | 196.0 |  |
|  | 240.8 | 164.0 ✓ | − 0.30 |
|  | 315.4 | 1068 | − 0.34 |
|  | 62.2 | 93.3 |  |
|  | 145.6 | 20.01 |  |
| 9:23:32 | 238.9 | 159.9 | − 0.38 ? |

9 21 32 — [illegible], reject obs.

9 23 12

21615.599

Jan 21, 1918

Eunomia

VII

| | | | |
|---|---|---|---|
| | Pa. 180 | | |
| 9:34:28 | 321.2 | | |
| | 59.4 | 98.2 | |
| | 133.8 | 103.6 | |
| | 237.4 | 201.8 | |
| | | 138.2 | −0.42 |
| | 308.8 | 114.8 | −0.50 |
| | 63.6 | 96.0 | |
| | 140.8 | 210.8 | −0.59 |
| | 236.8 | 149.2 | |
| | Pa. 0 | | Mean = +0.11 |
| | 60.9 | 79.1 | |
| | 140.0 | 66.4 | |
| | 242.4 | 145.5 | +0.66 |
| | 308.8 | | |
| | 63.3 | 68.0 | +0.72 |
| | 131.3 | 71.3 | |
| | 245.5 | 139.3 | +0.79 |
| 9:39:07 | 316.8 | | |
| 13 35 | | | |
| 9 36 48 | | | |
| 9 38 28 | | | |
| 6/10 | | | |

Jan. 21, 1918

Eunomia

VIII

PA 0°

9:47:09 63.7 72.5
156.2 60.4
246.6 132.9 +0.92
307.0

+0.88

67.4 63.2
130.6 73.6 ~~.84~~
241.4 136.8 +0.84
315.0

PA 180° Mean +0.18

133.3 104.4
237.7 97.5
318.8 201.9
56.3 158.1 −0.42

137.3 98.3 −0.51
233.6 113.1
312.8 211.4
9:51:36 65.9 148.6 −0.60

9 49 22
9 52 02
6.9 Compt* = +7.2165 m (8.9)
9h 31.8 +7.2 ((8.5))

Jan. 21, 1917

Eunomia

PA 180° IX.

9: 58: 41 138.4 101.4 ✓
239.8 94.0 ✓
322.8 195.4 ✓
56.8 164.6 ✓ -0.29 ✓

✓
138.9 98.3 ✓ — 0.39
237.2 107.4 ✓
314.8 205.7 ✓
62.2 134.3 — 0.47

PA 0° Mean = +0.23

✓
243.7 66.9 ✓
310.6 66.8 ✓ ~~+1.11~~ 0.90
62.8 133.7
129.6

+ 085

✓
247.2 61.5 ✓
308.7 77.4
55.9 138.9 ✓ +080
10: 03: 12 133.3

21 53
10 00 56
10 02 36
(62)

PA 1A
Spr. 3.6

# Tues. Jan. 29, 1918

$216^{2}3$

15" E. Eq.

L.C. Obs

Wilson Rec.

S S Cygni 213843

27 5 8
6 20 W + 43.6

7:20 est. ~~7:20~~ 7.+ 10.1 next am. wrongly understood by Wilson

Corr. by L.C.

o Ceti 021403

~~27~~18
~~221~~ W
2 04 W

I

Phot R

7:36:41 Index below 20.7 sou. disc

| | | | |
|---|---|---|---|
| 20.7 evar. disc | | ✓ | |
| 55.2 | 34.5 | ✓ | |
| 201.6 | 31.7 | ✓ | |
| 233.3 | 66.2 | | — 264 |
| | | ✓ | — 282 |
| 20.2 | 31.6 | | |
| 51.8 | 25.5 | ✓ | |
| 205.3 | 57.1 | ✓ | — 297 |
| 230.8 | | | |

Mean = −2.78
9.19
6.41

Magn = 6.41

Index above

| | | | |
|---|---|---|---|
| 293.8 | 28.4 | ✓ | |
| 322.2 | 31.8 | ✓ | |
| 111.4 | 60.2 | ✓ | — 286 |
| 143.2 | | | 2.75 |

Jan 29, 1918

o Ceti Cont

| | | | |
|---|---|---|---|
| | 290.8 | 30.8 ✓ | |
| | 321.6 | 35.4 ✓ | |
| | 110.2 | 66.2 ✓ | −2.64 |
| 7:42:51 | 145.6 | | |

Eunomia Photog

9 31 +7.5
4 51
4 40 E

Jan 29, 1918

Eunomia

star 1
5:07:18
5:07:41 ~~star 3~~ "
5:07:43 star 3
5:07:46 star 2
5:07:58 "

5:08:02 star 4

5:08:11 star 3

5:08:53
~~5:53:00~~ star 4

5:11:11 star 1

---

5:11:46 "
:12:05 " 1
:12:01 " 3
:12:14 2
12:28 "
12:31 " 4
12:36 " 3

stars 1 + 2 in north side of field,
" 3 + 4 in south side.

13:27 star 4

star 3 not on the D.M.
star 4 " " " "

Jan 27, 1918

Star 4 is probably the Eunomia ?

PA. 20°

8:37:00 77.7 comp star disc I

121.4

259.8 43.7 ✓

294.4 34.6 ✓

78.3 ✓ + 2.25

82.2 ✓ +2.35

117.6 35.4 ✓

257.2 36.4 ✓

293.6 71.8 + 2.45

PA 90° Mean = +1.82

163.3 58.1 ✓

221.4 55.5 ✓

342.2 113.6 +1.34

37.7

+ 1.29

161.8 53.4 ✓

213.2 64.4 ✓

334.2 117.8 +1.24

8:43:00 38.6

8 40 00

8 41 30

Jan. 29, 1918

Eunomia ?

| | pa | w | | II |
|---|---|---|---|---|
| 8: ~~4~~5 4'22 | 157,2 | 65,1 ✓ | | |
| | 222,3 | 54,2 ✓ | | |
| | 340,2 | 119,3 ✓ | + 1,21 ✓ | |
| | 34,4 | | | |
| | 162,3 | 54,8 | + 1,28 ✓ | |
| | 216,9 | 58,1 ✓ | | |
| | 335,5 | 112,7 | + 1,36 ✓ | |
| | 33,6 | | | |
| | pa 200 | | mean = ~~+1,31~~ +1.86 | |
| | 258,2 | 40,0 ✓ | | |
| | 298,2 | 35,1 ✓ | | |
| | 84,3 | 75,1 ✓ | + 2,34 ✓ | |
| | 119,4 | | | |
| | | | 4<br>+ 2,34 | |
| | 260,6 | 33,0 ✓ | | |
| | 293,6 | 35,8 ✓ | | |
| | 82,4 | 68,8 ✓ | + 2,55 ✓ | |
| 9:00:04 | 118.2 | | | |

8 57 14

8 57 44

9 00 14

at 9:00 watch = 1 min + 30 seconds slow by Bell

Jan. 29, 1918

PA 20° Eunomia ?

III.

9ʰ07ᵐ49ˢ 259.2 ✓
297.2 38.0 ✓
83.3 31.1
116.4 69.1 ✓ +2.54 ✓

✓

259.6 37.2 ✓ +2.~~43~~ 3
296.8 ~~39.9~~ 38.8 ✓
80.2 ~~76.11~~ +2.30 2
119.0 76.0 ✓

PA 200° 4
338.2 60.0 ✓ mean +1.8~~3~~
38.2 56.3 ✓
159.3 116.3 ✓ +1.27 ✓
213.6

✓

339.4 59.0 ✓ +1.24
38.4 60.4 ✓
139.8 119.4 ✓ +1.21 ✓
9ʰ14ᵐ06ˢ 220.2

21 55
9 10 58
1 30
9 12 28

Comp ~~*~~ = +7°
(851) 9ʰ25ᵐ +7°43′

Jan. 27, 1918

| | | | | |
|---|---|---|---|---|
| | PA 200' | Eunomia ? | | IV |
| 9 : 22:01 | 336.8 | ✓ | | |
| | 38.6 | 61.8 ✓ | | |
| | 161.9 | 52.7 ✓ | ✓ | |
| | 214.6 | 114.5 +1.31 | | |
| | | | | |
| | 338.7 | 60.9 ✓ | +1.14 ✓ | |
| | 39.6 | 69.4 ✓ | | |
| | 153.2 | 130.3 +0.97 ✓ | | |
| | 222.6 | | | |
| | PA 20° | | mean = + 1.74 | |
| | 77.7 | 41.5 ✓ | | |
| | 119.2 | 35.2 ✓ | | |
| | 259.6 | 76.7 ✓ + | 2.30 | |
| | 294.8 | | | |
| | | | +2.3 ✓ | |
| | 83.2 | 32.4 ✓ | | |
| | 115.6 | 41.9 ✓ | | |
| | 254.4 | 74.3 ✓ | + 2.37 | |
| 9 ; 27:02 | 296.3 | | | |

9 0 3

9 24 32

9 26 02

Jan. 29, 1918

PA 20° Eunomia ?

9:42:09 79.1 ✓ V.

120.2 41.1 ✓

263.0 36.8 ✓

299.8 77.9 ✓ + 2.26

✓ ✓

83.3 35.1 + 2.28

118.4 41.1 ✓ ✓

257.2 76.2 ✓ + 2.31

298.3

PA 200° Mean + 1.75

✓ ~~1.68~~

160.0 60.2 ✓

220.2 53.8 ✓

342.8 114.0 ✓ + 1.33 ✓

36.6

1.22 ✓

✓

158.0 60.2 ✓

218.2 63.1 ✓

336.2 123.3 ✓ + 1.12

9:47:28 39.3

PA 18.4
Spr 3.3

9 ~~44~~ 37
44 48
9 46 18

Doubt about this being the asteroid, Eunomia.
I will try the other object, No 3.

Jan. 29. 1918

PA 40° Eunomia ~~(F)~~ I

9:54:01 147.8

223.6 75.8 ✓

337.2 59.8 ✓

39.0 135.6 ✓ +0.86 ✓

+0.78 ✓

151.7 70.0 ✓

221.7 73.2 ✓ +0.71 ✓

332.6 143.2

45.8

PA 220° ✓ Mean +1.40 ~~1.34~~

255.5 45.8 ✓

301.3 40.8 +2.01 ✓

83.2 86.6

124.0

+2.01 ✓

259.3 39.4 ✓

298.7 47.0 ✓ +2.01 ✓

74.7 86.4

9:59:13 121.7

13 14

9 56 37

9 58 07

2421623.

Jan, 29, 1918

| | | | | |
|---|---|---|---|---|
| | PA 220° | Eunomia II. | | |
| 10:17:21 | 253.8 | ✓ | | II. |
| | 300.6 | 46.8 ✓ | ✓ | |
| | 82.3 | 36.5 | | |
| | 118.8 | 83.3 ✓ | +2.10 | |
| | | ✓ | ✓ | |
| | 257.6 | 37.5 | +2.14 | |
| | 295.1 | 42.8 ✓ | ✓ | |
| | 77.6 | 80.3 ✓ | +2.19 | |
| | 120.4 | | | |
| | PA 40° | | Mean = +1.64 | |
| | | ✓ | | |
| | 335.8 | 67.4 ✓ | | |
| | 43.2 | 58.7 | ✓ | |
| | 155.5 | 126.1 ✓ | +1.06 | |
| | 214.2 | | | |
| | | ✓ | ✓ | |
| | 341.6 | 53.6 ✓ | +1.18 | |
| | 35.2 | 66.2 | ✓ | |
| | 156.2 | 119.8 ✓ | 1.20 | |
| 10:22:09 | 222.4 | | | |

39 36

1019 45

1021 15

21623.

Jan. 29, 1918.

PA 40° Eunomia. III

10:34.16 336.6 ✓

40.8 | 64.2 ✓

158.8 | 61.9 +1.06 ✓

220.7 | 126.1 ✓

✓ +0.94

337.2 | 60.2 + ~~1.44~~

37.4 | 77.0 ✓

151.0 | 137.2 ✓ +0.83 ✓

228.0

PA 220° Mean = ~~+.86~~ +1.62

75.2 | 46.2 ✓

121.4 | 30.0 ✓

263.1 | 76.2 ✓ + 2.31 ✓

293.1

+2.29 ✓

83.4 | 31.0 ✓ + 2.27 ✓

114.4 | 46.5

253.3 | 77.5 ✓

10:39.~~0~~16 297.8

13 32

10 36 46

10 38 16

21623

PA. 220 A

Str. 5.5

216 24

Fri Feb. 1, 1918

A.C. Ob. 15" E Eq.

Nova Per No. 2

032443 est

0404

0 40 w + 43.6

7 20 est 0 2, 3 p, see photos copy of chart with notation marked thereon.

UZ And 011041

est Var 10.9

0436

326

e 8 h

c 1 d

c 4 f

f 4 e

e 3 g

g 5 h

g 7 l

l 5 k

k 4 m

m 3 ~~n~~ o

o 5 n

n 6 p

p 1 q

q 4 r

r 6 s

s 4 t

t 1 u

u 3 w

w 2 x

x 4 t

Feb. 1, 1908

Expanded Region about N. Pole

in 6" Reflector

Could see star near 89°.3 readily.
should say ★ 1, 4 L.V.
this star called 1 on Plate 1, 71

Could also see ★2 used, should
say ★ 2 5 L.V.

9 00 susp ★ 20 on Plate 2, but not sure
of this; yet I feel fairly certain

U Persei 015354
$\frac{06\ \ 23}{4\ \ 40}$ est 10!

9 30 R Tauri 042209 est 12.3

S Tauri 042309 est < 14.0

U Ariet 030514 est < 13.8

21633

Fri. Feb. 8 - 1918

~~[illegible]~~ 15" E. Eq.

Nova Per No. 2
0324 43
05 14
1 50 W est 02.4p

7 45

R Androm 001838 est 13.8
05 38
5 20 W + 38.0

RR And 004533 est 13.7
05 45
5 0

RV Cas 004746 est 14.1

RX And 005840 est 11.4
05 49
4 51

U And ~~00~~ 010940 est 13.8
05 51
4 42

RZ Per 012350 est 10.9
05 56
4 33

RU And 013238 est 13.4

Y And 013338 est 13.6

Feb. 8 – 1908

W And 021143a est 13.1
0601
3 50 W

RR Per 022150 est 12 2
06 06
3 45 W

W Tauri 042215 est 11.5
06 12
1 50 + 15.8

R Ceti 022000 est 12.8
06 20
4 00
diff.

S Pisc 011208 est 11.9
06 23
5 11 W

U Pisc 011712 est 8 3
Var
06 27
5 10 + 12 3
see Yerkes Chart

21633

Feb. 8—1918.

R Pisc 012502 est 13.8
0629 diff
5 4 +24

9 00 S arietis 015912 est <13.7
0632
4 33

U arietis 030514 est 13.4
0635
3 30

X Ceti 031401 est 11.4
0636
3 22

RX Tauri 043208 est 12.9
0639
2 7

V Tauri 044617 est 13.8
0644
1 58 +174

R Orionis 045307 est 11.6
0647
1 54

Feb. 8 - 1918

T Tauri 041619 est 9.7
0700
2 44

V Orionis 050003 est 11.9
0702
2 2

T Orionis 053005a est 9.6
0707
1 37 W

SU Tauri 054319 est 9 4
07 10
1 27 + 19.0

W~~S~~ Aurigae 052036 est 12.4
0715
1 53 W

U Orion 054920 est 12.4
07 19
1 3 0

S Aurigae 052034 est 9.0
0722

Feb. 8–1918

√RR Tauri 053326 est 11.1

07 25

1 52 +26.0

Z Tauri 054615a est 9.6

RU Tauri 054615c est 11.2

07 27

1050 1 41 +15.8

Mon Feb. 11, 1918

H.C. Obs. 15" E. Eq. J.S.W. Obs.

Wolfs Object

7 12 + 37.0
4 20
2 52 E + 37.0

No object found in predicted place.

Eunomia
Not found.

V Cam Min
070109
627
034E+9.0

est. 13.6

R B Mon. 071201
ø 641
031E+1.5

Est. 13.6

Feb. 11, 1918

U. Cam[illegible] 073508
645
50E+8.6
est. 10.2

U. Puppis 075612 est 12.9
646
110E-12.6

U Cancri 083019 ~~X3~~ N
650
140E+19.3 $\nu^3$ N

S Gemin 073723
65~~7~~
40E+23.7
abandoned, too high.

S Hydrae 08~~4~~803 est 8.6
703
145E+3.4

W Cancri 090425 N5
706
158E+25.6 $n^5$ N

Feb. 11, 1918

R Leo Min 093934 est 7.7
709
230 ε + 35.0

R Leonis 094211 est 9.5
716
226 ε + 12.0

V Leonis 095421 est 9.7
718
236 ε + 21.7

Vi Led.

Wed. Feb. 13, 1918

C. Ob. 15" E Eq. JdW. Rec

Eunomia

9 5 10 +7.5 Phot T.
6 5 00
4~~3~~ 10 +7.0

I

PA 220°

7:40:9 68.4 comp star dis.

135.3 C.S. = south comp of double just North of Eunomia.

231.8 66.9 ✓

301.0 49.2 ✓ = +7°2102 (2.6)

116.1 +1.28 ~~5~~

✓

74.8 49.0 ✓ +1.34

123.8 61.4 ✓

247.9 110.4 +1.41

309.3 mean = +0.99

PA 40°

✓

151.0 78.6 ✓

229.6 69.2 ✓ +0.62

330.0 147.8

39.2 +0.64

✓

157.7 64.5 ✓ + ~~x~~ 0.65

222.2 81.6 ✓

324.6 146.1 ✓

7:44:01 46.2 740 29

7 42 05 21630 57

Feb. 13, 1918

| | | | | |
|---|---|---|---|---|
| - | PA 40° | Eunomia, | | II |
| 7:54:16 | 151.2 | ✓ | | |
| | 225.5 | 74.3 ✓ | | |
| | 338.7 | 59.1 ✓ | ✓ | |
| | 37.8 | 133.4 | +0.91 | |
| | | | | |
| | 161.7 | ✓ | +0.84 ✓ | |
| | 215.2 | 53.5 | | |
| | 322.4 | 87.4 ✓ | | |
| | 49.8 | 140.9 ✓ | +0.76 ✓ | |
| | | | | |
| | PA 220° | ✓ | | ~~+1.00~~ + 1.15 |
| | 244.8 | 63.4 ✓ | | |
| | 308.2 | 39.6 | ~~+1.35~~ +1.58 | |
| | 78.2 | 103.0 | +1.46 ✓ | |
| | 117.8 | | ~~+1.35~~ | |
| | | | | |
| | 251.7 | 50.0 ✓ | ✓ | |
| | 301.7 | 63.1 ✓ | +1.35 | |
| | 70.0 | 113.1 | | |
| 7:58:46 | 133.1 | | | |

7 56 31
1 36
7 54 55
2 16 38.5 37
[illegible]

watch used = $1^m 36^s$ fast by bell.

Feb. 13, 1918

Eunomia III

| | | | |
|---|---|---|---|
| | P.A. 220 | | |
| 8:07:21 | 246.0 | ✓ | |
| | 308.2 | 62.2 ✓ | |
| | 72.2 | 54.0 | |
| | 126.2 | 116.2 ✓ | +1.28 |
| | | ✓ | |
| | 253.3 | 48.4 ✓ | + 1.41 |
| | 301.7 | 56.6 ✓ | |
| | 70.8 | 105.0 ✓ | +1.54 |
| | 127.4 | | |
| | P.a. 40 | | Mean = +1.06 |
| | 130.8 | ✓ | |
| | 234.8 | 84.0 ✓ | |
| | 333.7 | 63.9 ✓ | +0.62 |
| | 37.6 | 147.9 | |
| | | ✓ | +0.70 |
| | 157.6 | 62.6 ✓ | |
| | 220.2 | 76.8 ✓ | |
| | 330.0 | 139.4 | +0.79 |
| 8:13:56 | 46.8 | | |
| 8:10:38 | | | |

21638.548

Feb. 13, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 40° | | | IV |
| 8:21:22 | 151.7 | ✓ | | |
| | 229.2 | 77.5 ✓ | | |
| | 328.8 | 75.6 ✓ | ✓ | |
| | 44.4 | 153.1 ✓ | +0.51 | |
| | | | ✓ | |
| | | | 60 | |
| | 157.6 | ✓ | + ~~0.58~~ | |
| | 226.0 | 68.4 ✓ | | |
| | 331.2 | 76.1 ✓ | ✓ | |
| | 47.3 | 144.5 | 0.68 | |
| | | | | +0.92 |
| | PA 220° | ✓ | | Mean = ~~1.11~~ |
| | 252.0 | 57.8 ✓ | | |
| | 309.8 | 54.5 ✓ | ✓ | |
| | 73.2 | 112.3 | 1.36 | |
| | 127.7 | | | |
| | | | ✓ | |
| | | ✓ | +1.24 | |
| | 253.1 | 53.2 ✓ | | |
| | 306.3 | 70.7 ✓ | ✓ | |
| | 67.7 | 123.9 ✓ | 1.11 | |
| 8:26:09 | 138.4 | | | |

47 31

ƒ 23 46

ƒ 22 10

2 (63ƒ.55)

Feb. 13, 1918

Eunomia

I.

PA 220°

8ʰ 33ᵐ 15ˢ 245.5
311.0 65.5
77.5 48.9
126.4 114.4 +1.32

~~+1.07~~

251.8 50.4 +1 28
302.2 67.1
65.1 ~~137.5~~ ~~40.82~~
132.2 117.5 +1.25

+1.00
Mean = ~~0.90~~

PA 40°

330.0 77.4
47.4 66.3
156.1 143.7 +0.70
222.4

+0.72

335.2 69.6
44.8 72.6
~~8ʰ~~ 153.6 142.2 +0.73
8ʰ 38ᵐ 26ˢ 226.2

3 41
11
8 35 50
8 34 14
21638.565

Feb. 13, 1918

Cemonia

VI

PA 40°

8:46:16 324.4
52.6 88.2 ✓
156.7 65.5 ✓
222.2 153.7 +0.50 ✓

+0.62 ✓
335.2
43.1 67.9 ✓
152.6 73.6 ✓
226.2 141.5 +0.74 ✓

PA 220°

Mean = 0.99 ✓

70.1 61.1 ✓
131.2 49.9 ✓
252.2 111.0 +1.39 ✓
302.1

+1.36 ✓
71.4 51.9 ✓
123.3 62.4 ✓
245.1 114.3 +1.32 ✓
8:50:02 307.5

8 48 09
1 36

8 46 33
2 16 38. 574

Feb. 13, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 220° | | | VII. |
| 9:01:16 | 71.4 | | | |
| | 131.2 | 59.8 ✓ | | |
| | 253.8 | 45.5 ✓ | ✓ | |
| | 299.3 | 165.3 ✓ | +1.53 | |
| | | ✓ | +1:51 ✓ | |
| | 76.2 | 50.0 ✓ | | |
| | 126.2 | 57.1 | ✓ | |
| | 250.1 | 107.1 | +1.49 | |
| | 307.2 | | | |
| | | | | +1.16 |
| | PA 40° | | | Mean ~~+1:20~~ |
| | 153.2 | ✓ | | |
| | 229.1 | 75.9 ✓ | | |
| | 333.3 | 66.7 ✓ | | |
| | 40.0 | 142.6 | +0.72 | |
| | | | +0.80 | |
| | 159.8 | +0.90 | 66.4 | |
| | 227.2 | 56.2 ✓ | 68.4 | |
| | 336.0 | 68.4 ✓ | | |
| 9:05:24 | 44.4 | 124.6 ✓ +1.09 | 134.8 | +0.88 |
| 9 03 20 | | | | |

21638.585

Feb. 13, 1918

Eunomia

VIII

PA 40°

| | | | |
|---|---|---|---|
| 9:15:49 | 151.8 | ✓ | |
| | 228.4 | 76.6 ✓ | |
| | 335.1 | 58.7 ✓ | ✓ |
| | 33.8 | 135.3 +0.87 | |
| | 160.6 | ✓ | ✓ |
| | 221.4 | 60.8 ✓ +0.86 | |
| | 328.8 | 76.0 ✓ | ✓ |
| | 44.8 | 136.8 +0.84 | |

PA 220°

Mean = 1.24 ✓

| | | | |
|---|---|---|---|
| | 252.2 | ✓ | |
| | 308.0 | 55.8 ✓ | |
| | 78.3 | 56.3 ✓ | ✓ |
| | 124.6 | 102.1 +1.61 | |
| | 255.8 | ✓ | +1.61 ✓ |
| | 301.5 | 45.7 ✓ | ✓ |
| | 68.8 | 56.0 ✓ | |
| 9:16:01 | 124.8 | 101.7 +1.61 | |

9 14 25

21638.592

Feb. 13, 1918

Eunomia

|  |  |  |  |  |
|---|---|---|---|---|
|  | PA 220° |  |  |  |
| 9:21:31 | 251.2 |  | ✓ | ~~IV~~ |
|  | 301.3 | 50.1 | ✓ |  |
|  | 76.8 | 44.6 | ✓ |  |
|  | 121.4 | 94.7 | +1.79 ✓ |  |
|  | 253.6 |  | +1.~~64~~ 59 ✓ |  |
|  | 305.6 | 52.0 | ✓ |  |
|  | 69.8 | 59.4 | ✓ |  |
|  | 129.2 | 111.4 | +1.39 ✓ |  |
|  | PA 40° |  |  | Mean = +1.2~~5~~ 2 |
|  | 329.4 |  | ✓ |  |
|  | 45.8 | 76.4 | ✓ |  |
|  | 158.6 | 64.5 | ✓ |  |
|  | 223.1 | 140.9 | +0.76 ✓ |  |
|  | 336.9 |  | +0.86 ✓ |  |
|  | 36.2 | 59.3 | ✓ |  |
|  | 153.3 | 72.2 | ✓ |  |
| 9:24:58 | 225.5 | 131.5 | +0.95 ✓ |  |
| 6 29 |  |  |  | Pe 434 |
| 9 23 14 |  |  |  | Shr 3.6 |

21638.599

Feb. 13, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 40° | | | |
| 9:33:31 | 330.0 | | ✓ | X |
| | 43.8 | 73.8 ✓ | | |
| | 161.6 | 59.8 ✓ | | |
| | 221.4 | 133.6 +0.90 | ✓ | |
| | | | ✓ | |
| | 332.8 | ✓ | +0.84 | |
| | 44.4 | 71.6 ✓ | | |
| | 153.6 | 68.4 ✓ | | |
| | 222.0 | 140.0 +0.77 ✓ | | |
| | PA 220° | | Mean | = 1.25 ✓ |
| | 70.6 | ✓ | | |
| | 126.2 | 55.6 ✓ | | |
| | 256.3 | 39.3 ✓ | ✓ | |
| | 295.6 | 94.9 +1.79 | | |
| | | | ✓ | |
| | 72.7 | ✓ | +1.66 | |
| | 121.2 | 48.5 ✓ | | |
| | 247.7 | 56.1 ✓ | ✓ | |
| 9:38:22 | 303.8 | 104.6 | +1.54 | |

11 53
9 35 56
9 34 20

21638-607

Feb. 13, 1918

Eunomia

|  |  |  |  |
|---|---|---|---|
|  | PA 220° |  | XI |
| 9:46:51 | 69.1 | ✓ |  |
|  | 126.8 | 57.7 ✓ |  |
|  | 256.2 | 43.0 ✓ |  |
|  | 299.2 | 100.7 +1.64 ✓ |  |
|  |  |  | ✓ |
|  | 77.2 | +1.58 ✓ |  |
|  | 127.9 | 50.7 ✓ |  |
|  | 247.9 | 55.2 ✓ ✓ |  |
|  | 303.1 | 105.9 +1.51 | ✓ |
|  | PA 40° |  | Mean = +1.25 |
|  | 153.9 | ✓ |  |
|  | 227.2 | 73.3 ✓ |  |
|  | 332.3 | 64.7 ✓ ✓ |  |
|  | 37.0 | 138.0 +0.81 |  |
|  | 162.8 | +0.92 ✓ |  |
|  | 217.9 | 55.1 ✓ |  |
|  | 328.2 | 72.7 ✓ ✓ |  |
| 9:51:24 | 40.9 | 127.8 +1.03 |  |

98 15
9 49 08
1 36
9 47 32
2463t. 617

Feb. 13, 1918

Eunomia

XII

| | PA 40° | | |
|---|---|---|---|
| 10:01:04 | 147.2 | | ✓ |
| | 228.2 | 81.0 | ✓ |
| | 334.1 | 64.7 | ✓ |
| | 38.8 | 145.7 | +0.66 ✓ |
| | | | |
| | 155.6 | | +0.72 ✓ |
| | 218.6 | 63.0 | ✓ |
| | 329.7 | 76.7 | ✓ |
| | 46.4 | 139.7 | ±0.78 ✓ |
| | PA 220° | | |
| | 254.4 | | ✓ |
| | 305.2 | 50.8 | ✓ |
| | 77.8 | 44.3 | ✓ |
| | 122.1 | 95.1 | +1.78 ✓ |
| | | | |
| | 253.8 | | +1.62 ✓ |
| | 305.2 | 51.4 | ✓ |
| | 72.4 | 56.4 | ✓ |
| 10:05:08 | 128.8 | 107.8 | +1.47 ✓ |

✓ Mean = +1.17

10 03 06
 1 36

10 01 30

2163F.626

Feb. 13, 1918

Eunomia

XIII

| | | | |
|---|---|---|---|
| | PA 220° | | |
| 10:10:26 | 250.4 | | ✓ |
| | 305.2 | 54.8 | |
| | 72.7 | 54.3 ✓ | ✓ |
| | 127.0 | 109.1 ✓ | +1.44 |
| | | | ✓ |
| | 252.9 | | +1.48 |
| | 304.8 | 51.9 ✓ | |
| | 71.4 | 53.4 ✓ | ✓ |
| | 124.8 | 105.3 | +1.53 |
| | PA 40° | | Mean = +1.09 |
| | ~~326.4~~ | | |
| | 328.2 | ✓ | |
| | 42.8 | 74.6 ✓ | ✓ |
| | 161.3 | 62.1 | +0.84 |
| | 223.4 | 136.7 ✓ | |
| | | | ✓ |
| | 330.2 | | +0.70 |
| | 38.8 | 68.6 ✓ | |
| | 152.3 | 82.3 ✓ | ✓ |
| 10:16:17 | 234.6 | 150.9 | +0.56 |

10 13 22
1 36

10 11 46

21638.633

Feb. 13, 1908

Eunomia.

XIV

P.a. 40

10:22:01 327.2
43.1 75.9
156.6
225.2 68.6
144.5 +0.68

333.8 0.72
40.6 66.8
154.0 73.2
227.2 140.0 +0.77

P.a. 220°

Mean = 1.04

73.1
126.3 53.2
249.8 54.5
304.3 107.7 +1.47

72.6
132.3 59.7 +1.35
249.6 58.7
10:25:42 308.3 118.4 +1.23

P.a. 2.75 A
Sh. 3.8

10:25:42
7 43
10 23 12
1 36
10 22 16
216 38. 640

21640

Fri. Feb. 15, 1918

L.C.Obs.

15" E. Eq.

8 00 Somewhat clearer; cldy early evening.

Nova Per. 032443
0614
2 50 w +43.3

8 30 Nova appears to be slightly brighter than on last occasion
est n 6, o o, 6 p.

Y Cephei 003179 est 13.5
0637
6 6 w +79.5

S Cas 011272
0642
5 30 +72.1

Cloudy

9 00 Too cldy

Mon. Feb. 18, 1918

---

L.C.M. 15" E. Eq.

R Ceti 022000

05 20

30 . w

~~L 5 m~~

7:20 l 5m 6m' 5n 4o 8p 6q 6r

ST ~~H~~ and U not seen

Var Not Seen.

m' 2(14) 7(15) 2(17) 5(20)

~~(14) 20~~

~~(15) 10~~

Phot T

stars & wc

Feb. 18, 1918

Start with M.

PA 80°

PA 81A
Spr. 11.8

7:42:38 48.4 star L disc
153.8
242.2 105.4
320.4 98.2
203.6
196.4 ~~0.45~~ 0.07

58.5
143.1 84.6 +0.16
225.2 108.4
333.6 193.0
167.0 ~~0.25~~

PA 260°

~~120.6~~ L* m dis
~~253.0~~ ~~72.4~~ +0.89
75.2 42.0
117.2 34.4
252.2 96.4 +1.75
306.6

68.3 +1.62
121.8 53.5
252.2 53.3
7:49:08 305.5 106.8 +149

7:45:23
watch 42
seconds
~~slow~~
fast

not certain of identification; moon bright; considerable haze; observation very difficult; clouds prevented checking of size.

Feb. 18, 1918

Nova Per. No II

032443

8 30 n 3, $\overset{2}{\cancel{3}}$o

Miss ~~Mackay's~~ Mackie's Var.

6 30 + 22.2
6 40
0 10 + 22.2

a 3, 3 b R = 6

a = Dm + 22°.141$\overset{3}{\cancel{2}}$ (9.5)
b = Dm + 22°.1423 (9.5)

8 40 too cloudy to continue

Wed. Feb. 20, 1918

15'' E. Eq.

A.C.M.

Eunomia Phot T.

9 20 + 7.0
5 10
4 10 E

| | | |
|---|---|---|
| 7:14:11 | star a | 65 |
| " 15:16 | " b | 2 |
| 18 | " c | 4 |
| 22 | d | 12 |
| 34 | e | |

| | | |
|---|---|---|
| 49 | a | |
| 7:16: | ~~b~~ | |
| | ~~c~~ | |
| | ~~d~~ | b south of a, c north of b; d south of b; e same ~~de~~ as c |
| | ~~e~~ | |
| 7 15 49 | a | 64 |
| 16:53 | b | 2 |
| 55 | c | 3 |
| 58 | d | 14 |
| 17:12 | e | |

Feb. 20, 1918

Eunomia

I

| | | | | |
|---|---|---|---|---|
| 4 | PA 320° | | | |
| 7:30:49 | 333.8 | comp star disc ✓ | | |
| | 36.0 | 60.2 ✓ | | |
| | 163.3 | 52.8 ✓ | | |
| | 216.1 | 113.0 ✓ | +1.35 ✓ | |
| | 344.0 | ✓ | +1.44 ✓ | |
| | 33.3 | 49.3 ✓ | | |
| | 160.0 | 56.1 ✓ | ✓ | |
| | 216.1 | 105.4 | +1.53 | ✓ |
| | | | | +1.82 |
| | PA 146° | | | Mean = ~~1.77~~ |
| | 79.3 | ✓ | | 8.91 |
| | 118.2 | 37.9 ✓ | | |
| | 260.2 | 38.6 | ✓ | |
| | 298.8 | 76.5 | +2.30 | |
| | 81.4 | ✓ | +2.21 ✓ | |
| | 117.8 | 36.4 ✓ | | |
| | 260.4 | 46.0 ✓ | ✓ | |
| 7:44:38 | 306.4 | 82.4 ✓ | +2.12 | |

) 42 44

46

7 41 58

529

800 watch = +46s fast by Bell

Feb. 20, 1918

Eunomia

7:50:28 PA 140°

II

80.4 ✓
116.2 35.8 ✓
262.3 32.5 ✓ ✓
294.8 68.3 +2.56

✓
+2.56

84.7 ✓
116.4 31.7 ✓
262.2 36.8 ✓
299.0 68.5 ✓ 2.56

PA 320°

Mean = +1.96 ✓
9.05

160.2 ✓
218.4 58.2 ✓
340.7 54.0 ✓ ✓
34.7 112.2 +1.37

✓
+1.36

163.3 ✓
215.4 52.1 ✓
335.5 61.1 ✓
7:55:19 36.6 113.2 +1.34

5 47
7 52 54
46
7 52 08
.536

PA 317a
Spr. 5.9

Feb. 20, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 320° | | | |
| 8:04:46 | 157.6 | | ✓ | III. |
| | 217.4 | 59.8 ✓ | | |
| | 348.3 | 43.9 ✓ | ✓ | |
| | 32.2 | 103.7 + 157 | | |
| | | | +1.66 ✓ | |
| | 166.1 | | ✓ | |
| | 213.7 | 47.6 ✓ | | |
| | 342.4 | 48.4 | ✓ | |
| | 30.8 | 96.0 +176 | | |
| | PA 140° | | | Mean = 2.09 |
| | 259.3 | | ✓ | 9.12 |
| | 297.2 | 37.9 ✓ | | |
| | 82.7 | 35.7 ✓ | ✓ | |
| | 118.4 | 73.6 ✓ +2 39 | | |
| | 262.2 | | ✓ +2.52 ✓ | |
| | 294.9 | 32.7 ✓ | | |
| | 83.0 | 33.4 ✓ | ✓ | |
| 8:08:36 | 116.4 | 66.1 ✓ +2.64 | | |
| 8:06:41 | | | | |
| -46 | | | | |
| 8 05 55 | | | | |
| 544 | | | | |

Feb. 20, 1918

Eunomia.

IV

| | PA 140° | | |
|---|---|---|---|
| 8:17:22 | 260.4 | | |
| | 298.4 | 38.0 ✓ | |
| | 63.8 | 34.6 ✓ | |
| | 118.4 | 72.6 | +2.42 ✓ |
| | | | 32 |
| | 259.7 | | ✓+2.28 |
| | 296.8 | 37.1 ✓ | |
| | 78.7 | 41.7 ✓ | |
| | 120.4 | 78.8 | ✓+2.23 ✓ |
| | PA 320° | | Mean + 2.07 |
| | | | 9.66 |
| | 343.2 | ✓ | |
| | 32.7 | 49.5 ✓ | |
| | 169.6 | 41.0 | ✓ |
| | 210.6 | 90.5 | ✓+1.90 |
| | | | 1.82 ✓ |
| | 347.1 | ✓ | |
| | 28.4 | 41.3 ✓ | |
| | 159.4 | 55.5 ✓ | |
| 8:22:15 | 214.9 | 96.8 | +1.74 ✓ |

39 37

8 19 48
46

8 19 2
55.5

Feb. 20, 1918

Eunomia

PA 320°

8:23:09 343.1 ✓ ꟷ

35.2 52.1 ✓

167.8 45.6 ✓

213.4 97.7 +1.71 ✓

347.2 ✓ +1.73 ✓

31.8 44.6 ✓

164.4 51.8 ✓

216.2 96.4 +1.75 ✓

PA 140°

80.1 ✓

118.8 38.7 ✓ Mean = 2.14 ✓

259.8 34.2 ✓ 9.23

294.0 72.9 +2.41 ✓

+2.567 ✓

84.8 ✓

114.7 29.9 ✓

261.4 34.5 ✓

8:26:37 295.9 64.4 +2.70 ✓

9 46

8 24 53

46

8 24 7

33

Feb, 29, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 140° | | | |
| 8;36;31 | 78.2 | ✓ | | VI |
| | 116.4 | 38.2 ✓ | | |
| | 263.8 | 32.4 ✓ | ✓ | |
| | 296.2 | 70.6 | +2.49 | |
| | 81.3 | ✓ | +2.46 ✓ | |
| | 118.4 | 37.1 ✓ | | |
| | 261.4 | 35.5 | +2.42 ✓ | |
| | 296.9 | 72.6 ✓ | | |
| | PA 320° | | | ✓ Mean = +2.19 |
| | 164.4 | ✓ | | 9.26 |
| | 211.3 | 46.9 | | |
| | 346.9 | 42.9 | 1.92 ✓ | |
| | 29.8 | 89.8 | + ~~1.66~~ | |
| | 165.6 | ✓ | +1.88 ✓ | |
| | 209.4 | 43.8 ✓ | | |
| | 340.6 | 49.2 | | |
| 8;40;32 | 29.8 | 93.0 ✓ | 1.83 ✓ | |

8 38 32
46
8 37 46
568

Comp ~~t~~ = + 8°.21,72 (7.3) = 7.09

Feb 20, 1918

Eunomia

VII

Pa 140

8: 48 18 163.2 ✓
215.8 526 ✓
348.9 373 ✓ ✓
26.2 89.9 +1.92

✓
164.8 ✓ +1.90
208.7 43.9 ✓
343.9 47.0 ✓ ✓
30.9 90.9 +1.89

Pa 320

✓
Mean = +2.20
9.29

263.0 ✓
300.6 37.6 ✓
84.9 30.7 ✓
115.6 68.3 +2.56 ✓

✓
262.2 ✓ +2.51
297.3 35.1 ✓
80.4 36.4 ✓
8: 52:44 116.8 71.5 +2.46

8 50 31
46

8 49 45
.576

Feb. 20, 1918

Eunomia

PA 320°

8:56:17 261.2 VIII
297.2 36.0 ✓ ✓
82.8 32.4
115.2 68.4 ±2.56 ✓

263.8 ✓ +2.48 ✓
297.0 33.2 ✓
79.3 40.5 ✓
119.8 73.7 +2.39 ✓

PA 140° Mean = +2.17 ✓
9.26

343.7 ✓
37.7 54.0 ✓
171.0 39.1
210.1 93.1 +1.83 ✓

348.2 ✓ +1.86 ✓
30.0 41.8
165.4 48.8 ✓ ✓
8:59:58 214.2 90.6 ✓ +1.90

6 15
8 58 08
46

8 57 22
.581

Feb. 20, 1918

Eunomia

PA 140°

9:10:01 344.8 ✓ IX
33.0 48.2 ✓
167.4 41.4
208.8 89.6 +1.92 ✓

✓
347.7 ✓ 1.88
30.4 42.7 ✓
165.2 50.6 ✓
215.8 93.3 ✓ +1.83 ✓

PA 320° Mean = +2.22 ✓
9.21
81.3 ✓
114.4 33.1 ✓
263.2 31.9 ✓
295.1 65.0 +2.68 ✓

✓
85.0 +2.55
114.8 29.8 ✓ ✓
257.8 43.0
9:14:11 300.8 72.8 ✓ 2.42 ✓

9 12 06
46

9 11 20
5 91

Feb. 20, 1918

Eunomia

|  |  |  |  |  |
|---|---|---|---|---|
|  | PA 320° |  |  |  |
| 9:17:00 | 82.2 |  | ✓ | I. |
|  | 119.6 | 37.4 |  |  |
|  | 261.2 | 38.2 ✓ |  |  |
|  | 299.4 | 75.6 | +2.33 ✓ |  |
|  |  |  | ✓ |  |
|  | 80.9 |  | ✓ +2.33 |  |
|  | 118.9 | 38.0 |  |  |
|  | 261.0 | 37.6 ✓ |  |  |
|  | 298.6 | 75.6 | +2.33 ✓ |  |
|  | PA 140° |  |  | Mean = 2.02 ✓ |
|  | 162.4 | ✓ |  | 9.11 |
|  | 215.4 | 53.0 ✓ |  |  |
|  | 348.8 | 45.6 |  |  |
|  | 34.4 | 98.6 ✓ | +1.69 ✓ |  |
|  |  |  | ✓ |  |
|  | 168.6 |  | +1.71 |  |
|  | 211.6 | 43.0 ✓ |  |  |
|  | 339.8 | 54.1 ✓ |  |  |
| 9:21:17 | 33.9 | 97.1 ✓ | 1.73 ✓ |  |

9 19 08
9 18 22
.596

Feb. 20, 1918

Eunomia

| | PA 140° | | | | |
|---|---|---|---|---|---|
| 9:25:31 | 162.8 | | ✓ | | XI |
| | 214.4 | 51.6 | ✓ | | |
| | 343.8 | 50.2 ✓ | | ✓ | |
| | 34.0 | 101.8 | +1.61 | | |
| | | | | | |
| | 166.2 | ✓ | +1.66 ✓ | | |
| | 216.3 | 50.1 ✓ | | | |
| | 345.4 | 47.9 | ✓ | | |
| | 33.3 | 98.0 ✓ | +1.71 | | |
| | | | | ✓ | |
| | PA 320° | | Mean = 1.94 | | |
| | 257.7 | ✓ | 9.03 | | |
| | 300.7 | 43.0 ✓ | | | |
| | 81.4 | 38.6 | ✓ | | |
| | 120.0 | 81.6 ✓ | +2.15 ✓ | | |
| | | | | | |
| | 260.3 | ✓ | ✓ | | |
| | 297.2 | 36.9 ✓ | +2.21 | | |
| | 80.5 | 40.7 ✓ | ✓ | | |
| 9:29:16 | 121.2 | 77.6 | +2.27 | | |

9 27 24
46

9 26 38
.602

Feb. 20, 1918

Eunomia

PA 320°

9:40:13 259.8 ✓ XII.
301.0 41.2 ✓
84.8 36.6 ✓
121.4 77.8 +2.26 ✓

261.4 ✓ +2.27 ✓
298.9 37.5 ✓
78.4 39.5
117.9 77.0 ✓ +2.28 ✓

PA 140° Mean = 1.92 ✓
342.2 ✓ 9.01
34.9 52.7 ✓
168.6 47.3 ✓
215.9 100.0 ✓ 1.66 ✓

343.0 ✓ +1.58 ✓
34.9 51.9 ✓
160.2 54.7
9:44:31 214.9 106.6 ✓ +1.50 ✓

9 42 22
46
9 41 36
.612

Feb. 20, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 140° | | | |
| 9:53:21 | 337.2 | | ✓ | XIII |
| | 86.4 | 59.2 | | |
| | 168.8 | 44.4 | 57 ✓ | |
| | 213.2 | 103.6 | +1.~~34~~ | |
| | | | 48 | |
| | 347.1 | ✓ | +1.~~56~~ | |
| | 37.4 | 50.3 ✓ | | |
| | 159.5 | 61.1 | | |
| | 220.6 | 111.4 | +1.39 | |
| | | | | 80 |
| | PA 320° | | | Mean = +1.~~74~~ |
| | 80.4 | | ✓ | 889 |
| | 118.8 | 38.4 | ✓ | |
| | 964.2 | 38.0 | ✓ | |
| | ~~299.9~~ | | ✓ | |
| | 302.2 | 76.4 | +2.30 | |
| | | | ✓ | |
| | 80.0 | | ✓ +2.13 | |
| | 123.3 | 43.3 | ✓ | |
| | 261.3 | 44.9 | ✓ | |
| 9:57:41 | 306.2 | 88.2 | +1.96 | |

9 55 31

45

9 54 45

622

Feb. 20, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 320° | | | |
| 10:01:44 | 76.8 | | | XIV |
| | 121.0 | 44.2 ✓ | | |
| | 261.9 | 38.7 ✓ | | |
| | 306.6 | 82.9 ✓ | 2.11 ✓ | |
| | 79.5 | ✓ | +2.08 ✓ | |
| | 118.2 | 38.7 ✓ | | |
| | 256.3 | 46.1 | ✓ | |
| | 302.4 | 84.8 ✓ | +2.06 | |
| | PA 140° | | | Mean = 1.74 ✓ |
| | 160.4 | ✓ | | 8.83 |
| | 217.7 | 57.3 ✓ | | |
| | 344.3 | 52.5 ✓ | | |
| | 36.8 | 109.8 | +1.42 ✓ | |
| | 163.6 | ✓ | +1.41 ✓ | |
| | 216.4 | 52.8 ✓ | | |
| | 340.2 | 57.8 | | |
| 10:05:36 | 38.0 | 110.6 ✓ | +1.40 ✓ | |
| 10 03 40 | | | | |
| (627) | | | Pettit Ledgered | PA 320 A<br>Sp. 5.6 |

Thurs Feb 21, 1918

15" E Eq

~~L.C.Ob~~

Wolf Nova in Monoc

(6) k ~~l~~ = ~~*~~ -6°.2107  7 20 −5.5
(18) m = -6.2117  5 20
(19) n = -6.2118  2 00 E

Plot T.

7 20 ~~kl 6 Nova m 5 Nova 5 m~~
→ k(6) 6 Nova, m(18) 2 Nova 5 n(19)

P.a. 260

7 36.0  146.2  < comp * dis = * k(6) = -6°.2107 [illegible]
233.3  87.1
318.4  98.4
56.8  185.5
145.8  174.5  − 0.10
237.7  91.9  − 0.08
321.6  90.6
52.2  182.5
177.5  − 0.05

P.a. 80

246.2  mean = + 0.34
315.6  69.4
67.6  70.8
138.4  140.2  + 0.77
243.0
310.8  67.8  + 0.76
60.2  73.5
133.7  141.3  + 0.75

7 42.8
7 39.4

Feb. 21, 1918

Nova Monoc II

| | | | |
|---|---|---|---|
| | P.a. 80 | | |
| δ 20.0 | 246.8 | | |
| | 316.0 | 69.2 | |
| | 62.1 | 75.1 | |
| | 137.2 | 144.3 | +0.69 |
| | | | |
| | 245.2 | 64.6 | +0.74 |
| | 309.8 | | |
| | 62.6 | 75.0 | |
| | 137.6 | 139.6 | +0.78 |
| | P.a. 260 | | mean = +0.34 |
| | 322.6 | | |
| | 51.6 | 89.0 | |
| | 143.6 | 91.1 | |
| | 234.7 | 180.1 | |
| | | 179.9 | 000 |
| | 322.4 | | |
| | 57.8 | 95.4 | −0.06 |
| | 144.7 | 90.7 | |
| δ 26.4 | 235.4 | 186.1 | |
| | | 173.9 | −0.11 |
| δ 23.2 | | | |

Feb. 21, 1918

Nova Monoc

Ests of comp A.

tr $\overset{2}{a}$ 2 $\overset{7}{a'}$ 6 $\overset{3}{b'}$ $\overset{5}{c}$ 3 $\overset{4}{b'}$ 4 $\overset{6}{d}$ 3 $\overset{9}{f}$ 6 $\overset{8}{e}$ 4 $\overset{15}{e'}$ 5 $\overset{10}{e''}$ 4 $\overset{13}{e'''}$ 3 8

$\overset{13}{e}$ 3 7 $\overset{11}{g}$ 4 ~~h~~ $\overset{14}{h}$ 3 $\overset{16}{k}$ ~~4 l~~ 2 $\overset{18}{m}$ 3 $\overset{17}{l''}$

$\overset{17}{l}$ 6 $\overset{19}{n}$ 4 $\overset{25}{n'}$ 8 $\overset{20}{o}$ — in 4" finder of

15"

Nos. assigned by H.S.L. Feb 23, 1918

III

p.a. 260

9 37.0 317.6

60.4 102.8

141.3 89.3

230.6 192.1 — 0.23

167.9

324.3

54.4 90.1 — 0.12

143.6 90.7

234.3 180.8 — 0.02

179.2

p.a. 80 mean = +0.26

64.2

132.6 68.4

239.6 78.4

318.0 146.8 + 0.64

61.3 + 0.64

136.4 75.1

243.2 71.5

9 49.8 314.7 146.6 + 0.64

p.a. = 83 A

Sp = 4.0

Tues. Feb. 26, 1918

15 in.

L.C. Obs. Wind SW.

Nova Persei no. 2 .0324

7 10 00 est. m 5, 20

nova Monoc (Wolfs) 072206
342
140 E

(2) 4 (7) 1 (3) 5 (5) 3 (4) 4 (6) 3 (9) 5 (8)

4″ (4) 6 (15) 3 (10) 4 (13) 5 (11) 4 (14) 4 (16)

finder (16) 2 (18) 4 (17) 5 (19) ~~4 (20) 4 (21)~~

(~~21~~ 19) 3 (22) 4 (20) 5 (25) 2 (21) 3 (~~21~~ 24) 4 (26)

15″ 5 (27) 2 (28) 6 (29) ~~4 (31)~~ 2 (30) 4 (33) 6 (32)

E. Eq. (16) 2 nova 5 (19)

Feb. 26, 1918

Nova Monoc

~~*~~ No. 16 with Nova

| | | | | |
|---|---|---|---|---|
| | PA 80° | | | |
| | 70.7 | | | |
| 7:34:29 | ~~70.7~~ | < No 16 dis. | | |
| | 128.3 | 57.6 ✓ | | |
| | 252.8 | 54.4 ✓ | | |
| | 307.2 | 112.0 | +1.37 ✓ | |
| | | | ✓ | |
| | 70.7 | ✓ | +1.24 | |
| | 129.4 | 58.7 ✓ | | |
| | 247.6 | 65.6 ✓ | ✓ | |
| | 313.2 | 124.3 | +1.10 | |
| | PA 260° | | | Mean = +0.49 ✓ |
| | 136.2 | ✓ | | |
| | 237.2 | 101.0 ✓ | | |
| | 318.6 | 92.9 ✓ | | |
| | 351.5 | 193.9 ✓ | | |
| | | 166.1 | −0.26 ✓ | |
| | 142.2 | ✓ | | |
| | 232.7 | 90.5 ✓ | −0.26 ✓ | |
| | 314.6 | 103.2 ✓ | | |
| 8 00 00± | 57.8 | 193.7 ✓ | ✓ | |
| ) 58 14 | | 166.3 | −0.26 | |

Nova fainter

Feb. 26, 1918

Nova Monoc. Comp ☆s

PA 210° star (16) with star (17)

813 32 60.8 ∠ star (17) disc

133.9 73.1

234.4 86.2

320.6 159.3 + 0.39

52.4

141.5 89.1 + 0.34

239.6 76.2

315.8 165.3 + 0.28

PA 30° Mean = −0.24

135.1

237.7 102.6

306.9 117.1

64.0 219.7

140.3 − 0.77

128.8

247.2 118.4 − 0.82

317.4 105.8

8',17:04 63.2 224.2

8',15 18 135.8 − 0.86 PA = 30 ±

Sep = 2.4

(16) brighter

Feb. 26, 1918

Comp * for Nova Monoc

PA 260° star (17) with (25)

8:26:46 257.2 < 17 disc.
299.2 42.0
80.0 40.2
120.2 82.2 +2.13

256.4 +2.08
296.4 40.0
74.4 46.2
120.6 86.2 +2.02

PA 80° Mean = +1.54
~~37.4~~
~~158.8~~
297.2 68.4
335.2 60.4
35.6 128.8 100

164.0 0.99
221.8 57.8
330.4 72.2
8 33 16 42.6 130.0 0.98
8 30 31

(25) fainter

PA = 82.4
Sep. = 3.2

Feb. 26, 1918

PA 370° star (~~23~~ 17) with (14)

8:44:09 322.2 ∠ (14) disc.

55.6 93.4

138.8 99.9

238.7 193.3

166.7 −0.25

322.6

56.8 94.2 −0.16

143.2 89.7

232.9 184.1

175.9 −0.08

PA 90°

Mean = +0.56

69.9

123.4 525

250.2 58.6

308.8 112.1 +187

65.6 +1.29

133.6 68.0

253.9 51.4

8:49:21 305.3 119.4 +121

8:46:15

(17) fainter

PA = 85A

Spr. = 8.1

Feb 26, 1918

| | PA 330° | star (14) | with (3) | |
|---|---|---|---|---|
| 8:58:02 | 145.6 | < no. 3 disc | | |
| | 232.2 | 86.6 | | |
| | 315.6 | 105.7 | | |
| | 61.3 | 192.3 | | |
| | | 167.7 | −0.23 | |
| | 142.8 | | | |
| | 240.0 | 97.2 | −0.26 | |
| | 317.6 | 88.8 | | |
| | 56.4 | 186.0 | | |
| | | 164.0 | −0.30 | |
| | PA 150° | | | Mean = +.66 |
| | 252.2 | | | |
| | 302.8 | 50.6 | | |
| | 74.8 | 50.6 | | |
| | 123.4 | 101.2 | +1.63 | |
| | 253.2 | | +1.57 | |
| | 304.0 | 50.8 | | |
| | 73.2 | 55.4 | | |
| 9:03:47 | 128.6 | 106.2 | +1.51 | |
| 9:01 | | | | PA = 125A |
| | | No 14 fainter | | Spr = 11.4 |

watch 56 secs. slow

Reject, observed confused after reversal, see next page

Feb. 26, 1918

N σ 14 with 3

PA 150°

9 10 47  251.6  ∠(3) disc

313.4  61.8

67.7  68.9

136.6  130.7+0.96

Rejected star too distant

243.2  +0.96

313.4  70.2

68.3  60.9

129.2  131.1  +0.96

PA 330°  +0.38

322.6

58.3  95.7

142.2  97.5

239.7  193.2

166.8 −0.25

324.2

57.2  93.0  −0.20

142.8  94.4

9:14:46  237.2  187.4

172.6 −0.14

3 brighter

PA = 331.4
Spr = 11.2

Feb. 26, 1908

PA 330° (14) with 4)

9 17:21 315.4 ∠ (4) dis

61.2 105.8

135.8 101.1

236.9 206.9

153.1 −0.51

Rejected

~~stars too distant~~

310.6 −0.52

62.6 112.0

142.0 95.2

237.2 207.2

152.8 −0.52

PA 150°

Mean = + 0.13

67.8

135.4 67.6

243.6 72.1

315.7 139.7 +0.78

64.4 +0.78

137.7 73.3

244.8 67.0

9:21:01 311.8 140.3 +0.77

9:19:11

No 14 fainter

PA = 146.4

Spr = 11.7

Feb. 26, 1918

PA 250° (17) with (25')

9:44:28 242.2 ∠(17) disc.

316.3 74.1

61.4 70.2

131.6 144.3 +0.69

244.2 +0.70

311.6 67.4

59.1 75.7

134.8 143.1 +0.71

PA 70° Mean = +0.36

317.7

55.4 97.7

151.6 76.2

227.8 173.9 0.11

331.6 .02 ~~0.2~~

51.6 80.0

133.7 104.3

9:48:31 238.0 184.3

9:46:30 175.7 −0.08

PA = 67 13

Spr. = 2.7

Feb. 26, 1918

PA 80° nova with (16)

10h 00m 21s 329.6 ∠ (16) dist

49.6 80.0

145.3 91.5

236.8 171.5 +0.16

320.6 +0.10

56.8 96.2

148.7 81.1

229.8 177.3 +0.05

PA 260° Mean = +0.46

60.6

134.5 73.9

242.7 66.9

309.6 140.8 0.76

61.7 +0.82

133.3 71.6

246.8 63.6

10 05 00 ± 310.4 135.2 +0.87

10h 02m 26s

PA = 262A

Spr. = 4.0

(Wed) Feb. 27 1918

15" E. Eq.

L.C.Mz Rec JSW

Nova Monoc

07 22 06
5 47
1 35 E

7:09:30

15"

$\overset{17}{k}$ 1 nova 5 $\overset{19}{n}$

(1 ~~4~~) 5(16) 4(18) 3(17) ~~6(19)~~ 6(19) 1(25') 6(22)

1(20) ~~5(21)~~ 3(23) 2(21) 4(24) 3(26) ~~4(27)~~

3(28) 2(27) 3(33') 5(29) 6(30) ~~5~~ 3(31) 4(34')

6(32)

((34') 4(33) 2(32)) (32) 4(35) 3(36) 6(37)

stars 33 & 34 not well suited for visual sequence; too distant from Nova.

4" finder

~~A 4 A' 4 B~~

$\overset{2}{a}$ 3 $\overset{3}{b}$ 4 $\overset{7}{a'}$, 5 $\overset{5}{c}$ 4 $\overset{4}{b'}$ 3 $\overset{6}{d}$ 3 $\overset{9}{f}$ 4 $\overset{8}{e}$ 3 $\overset{15}{e'}$ 4 $\overset{10}{e^2}$ 5 $\overset{13}{e^3}$

6 $\overset{11}{g}$ 4 $\overset{14}{h}$ 5 $\overset{16}{k}$ 3 $\overset{18}{m}$ 3 $\overset{17}{l}$ 5 $\overset{19}{n}$

Feb. 27, 1918

Nova with * 16

PA 260°
7:41:52 324.8 ✓
42.9 78.1 ✓
143.3 92.3 ✓
235.6 170.4 +0.18

318.4 ✓
58.6 100.2 ✓ +.02
147.7 86.7 ✓
234.4 186.9 ✓
173.1 −0.13

PA 80° Mean = +0.38
68.4 ✓
128.8 60.4 ✓
239.8 78.8 ✓
318.6 139.2 +0.79

58.8 ✓ +0.74
134.8 76.0 ✓
246.6 65.8 ✓
> 312.4 143.8 ✓ 0.70
8:46:22
7:48:52

V.a. = 84A
Spr. = 4.0

7:30:00 Clouds pretty well over whole sky.

7:59:00 all clouds; hopeless to continue

# Sun. March 3, 1918

15" E Eq.

L.C. Obs. L.C. Jr Rec

7-29-0 ~~128.2~~ P.a. 80 * dis

252.2 Lcor Nova Monoc. with * (17)

310.8 0722 -4.8

61.4 6 22 58.6 I

131.4 1 00 E 700

~~P.a.~~ 80 128.6 +1.01

248.4

312.2 63.8 +1.11

72.2 55.6

127.8 119.4. +1.21

P.a. 260 mean = +0.60

328.8

53.3 84.5

142.2 90.4

232.6 174.9 + 0.09

~~P.a. 80~~

326.1 +0.08

56.6 90.5

149.2 85.6

7-35-0 234.8 176.1 +0.07 P.a. = 261 A

7 32.0 Spr = 4.0

7 25 est 4" finder (17) 4.2 (19)

March 3, 1918.

* 16 with ~~#~~ * 17

P.a. 38

7-43-0 72.6 < * 16 dis

130.4 57.8

241.4 74.9

316.3 132.7 +0.92

♊

+0.86

59.6

136.3 76.7

249.2 62.2

311.4 138.9 +0.80

Mean = +0.37

P.a. 210

147.7

232.8 85.1

314.6 106.0 -0.21

60.6 191.1

168.9

-0.12

148.8

242.0 101.2

332.8 80.0

7-47.5 528 181.2 -0.02

178.8

16 brighter

P.a. = 206 A

δm = 2.4

March 3, 1908

* 25' with * 17

P.a 250

7-56-0 58.8 < * 17 dis.

141.6 83.1

247.6 65.2

312.8 148.3 + 0.61

67.6 + 0.70

129.8 62.2

240.6 77.2

317.8 139.4 + 0.79

P.a. 70 mean = + 0.25

139.5

243.8 104.3

325.6 92.1

57.7 196.4 − 0.31

163.6

147.6 − 0.20

237.2 89.6

324.3 94.5

8-1-0 58.8 184.1 − 0.08

175.9

* 25 is fainter than * 17

P.A. 68 A

Spr = 2.0

March 3, 1918

*25' with *x

|  |  |  |  |  |
|---|---|---|---|---|
|  | Pa 120 |  |  |  |
| 8-18-0 | 136.6 | <25' dis |  |  |
|  | 240.6 | 104.0 |  |  |
|  | 310.2 | 108 2 |  | IV |
|  | 68.4 | 212 2 |  |  |
|  |  | 147.8 | -0.62 |  |
|  | 136.8 |  | -0.56 |  |
|  | 247.4 | 110.6 |  |  |
|  | 321.3 | 95.3 |  |  |
|  | 56.6 | 205.9 |  |  |
|  |  | 154.1 | -0.50 |  |
|  | Pa 300 | Mean = | -0.10 |  |
|  | 242.2 |  |  |  |
|  | 315.6 | 73.4 |  |  |
|  | 55.3 | 88.1 |  |  |
|  | 143.6 | 161.5 | +0.35 |  |
|  |  |  | $\overset{+}{*}$ 0.36 |  |
|  | 231.2 |  |  |  |
|  | 322.2 | 91.0 |  |  |
|  | 64.4 | 70.0 |  |  |
| 8-15-.2 | 134.4 | 161.0 | +0.36 |  |

*x is brighter than *25'.

P.A. 305.4
Spr = 4.2

Mar. 3, 1918

* x with * 14

P.a. 250

8–22–.2 151.9 * 14 abs [illegible] brighter
228.4 76.5
320.6 96.2
56.8 172.7 + 0.14

144.8 + 0.23
233.6 88.8
329.3 74.3
43.6 163.1 + 0.32

Pa 70 Mean = + 0.7°
~~[illegible]~~

253.8
307.2 53.4
64.6 65.6
136.2 119.0 + 1.21

247.7 + 1.18
313.7 64.0
72.2 57.8
8–27–0 130.0 121.8 + 1.15

P.a. 69A
fr. = 5.A

Mar 3 '98

*14 with γ

P. A. 138

8 – 39 – 4 325.8 *14 dis. γ is brighter.

49.4 83.6

157.6 66.6

224.2 150.2 + 0.57

337.7 + 0.65

42.6 64.9

157.2 77.2

228.4 142.1 + 0.73

P. A. 310

Mean = + 0.90

71.4

131.6 60.2

246.4 62.8

309.2 123.0 + 1.13

+ 1.16

73.7

130.4 56.7

237.2 63.2

8 – 44 2 300.4 119.9 + 1.19

P. A. 305.4

Spr. = 6.8

Mar. 3, 1918

* 7 with * 3

P.a-10

8-53-8 174.3 < * 3 dbs & brighter
202.5 25.2
358.8 18.4
17.2 46.6 +3.43

176.8 +3.40
201.4 24.6
356.3 23.5
19.8 48.1 +3.36

Pa. 190 Mean = +3.67
269.4
296.4 27.0
~~[illegible]~~ 11.5
90.4 38.5 +3.85
105.9

273.7 +3.94
291.4 17.7
87.6 17.6
8-59-0 103.2 35.3 +404

Pa. = 191A
Spr. = 8.2

March 3/918

* 3 with * 8

P. A. 250

9-6-0 72.2 ∠ * 3 dis 8 brighter.

128.9 56.7

251.4 50.8

302.2 107.5 + 1.48

78.3 + 1.58

125.3 47.0

252.4 52.4

304.8 99.4 + 1.67

P. A. 70 Mean = +1.18

151.2

228.8 77.6

332.8 62.0

34.8 139.6 + 0.78

+ 0.78

159.7

217.9 58.2

327.4 81.3

9-40-2 48.7 139.5 + 0.78

P. A. = 784
Spr = 7.2

Mar. 3, 1918

×16 with 21

P.q. 260

9-18-4 335.9 < × 16 disk is brighter

37.2 61.3

156.5 71.3

227.8 1326 + 0.92

332.5

42.2 69.7 + 0.98

162.6 57.8

220.4 127.5 + 1.03

P.q. 80 Mean = + 1.34

81.7

119.6 47.9

254.4 50.5

304.9 98.4 + 1.70

74.7 + 1.71

124.4 49.7

253.6 47.9

9-26-0 301.5 97.6 + 1.72

P.q. = 80 A

Sp. = 5.8

Mar. 3, 1926

* 16 with 28

P.a. 90

9-32-0 81.7 < *16 decid brighter
117.6 35.9
258.3 39.9
298.2 75.8 + 2.32

71.6 + 2.17
123.3 57.7
261.2 34.4
295.6 86.1 + 2.02

P.a. 270 mean = +1.90
164.3
211.4 47.1
338.9 58.3
38.2 105.4 + 1.53

169.4 + 1.64
214.4 52.0
344.3 44.0
9-37-7 28.3 96.0 + 1.76

P.a. = 269.4
Spr. = 5.5.

March 3, 1918.

Nova with *C6

P.A. 260

9-39-0 151.2 *16 div

230.0 78.8

329.6 78.3

47.9 157.1 +0.44.

147.5 +0.36

235.1 87.6

324.4 77.8

47.2 165.4 +0.28

P.A. 80 mean = +0.66

251.4

305.3 53.9

67.7 63.7

131.4 127.6 + 1.03

+0.97

243.8

314.7 70.9

65.6 62.6

9-43-0 128.2 133.5 +0.91

P.A. = 83 A

Spr. = 40

(Wed) Mar 6, 1918

15" E Eq.

JSW. Rec.

Nova Monoc

PA 80° 072206

7:34:11 332.2 ∠*16 dis | Nova with *17⁶ phot T.

322.4 90.2 ✓

60.8 82.9 ✓

143.7 173.1 +0.13 ✓

241.3

327.4 86.1 ✓ +0.10 ✓

56.8 90.4 ✓ ✓

147.2 176.5 +0.06 ✓

PA 260° Mean = +0.68 ✓

~~302.0~~

69.8 ✓

132.2 62.4 ✓

251.1 56.5 ✓

307.6 118.9 +1.22 ✓

71.4

127.7 56.3 ✓ +1.26 ✓

253.2 58.2 ✓

311.4 114.5 ✓ +131

7:39:57

7:36:56

PA = 262 A

Spr = 4.0

Mar. 6, 1918

*16 with *21

| | | | | |
|---|---|---|---|---|
| | ~~PA~~ 80° | | | |
| 7:46:34 | 336.6 | | | |
| | 43.3 | 66.7 | | |
| | 150.4 | 80.2 | | |
| | 230.6 | 146.9 | +0.64 | |
| | 327.7 | | | |
| | 50.8 | 83.1 | +0.61 | |
| | 156.4 | 66.9 | | |
| | 223.3 | 150.0 | +0.58 | |
| | PA 260° | | | Mean = +1.34 |
| | 78.3 | | | |
| | 119.8 | 41.5 | | |
| | 251.6 | 47.2 | | |
| | 298.8 | 88.7 | +1.95 | |
| | 76.3 | | +2.06 | |
| | 116.6 | 40.3 | | |
| | 260.6 | 40.2 | | |
| 7:51:52 | 300.8 | 80.5 | +2.18 | |
| 7:48:58 | | | | |

1 min 8 secs. slow by bell.

too cloudy for no. 28

PA = 260A

Spr = 5.8

Mar. 6, 1918

*3 with y

| | PA 10° | star 3 dist | | |
|---|---|---|---|---|
| 8:06:42 | 270.4 | ✓ | | |
| | 286.2 | 15.8 ✓ | | |
| | 91.4 | 10.8 ✓ | | |
| | 102.2 | 26.6 | +4.67 ✓ | |
| | | | | |
| | 272.1 | ✓ | +4.60 ✓ | |
| | 285.6 | 13.5 ✓ | | |
| | 90.4 | 14.8 ✓ | / | |
| | 105.2 | 28.3 | +4.53 | |
| | | | | |
| | PA 190° | | | Mean = +3.96 ✓ |
| | 353.3 | ✓ | | |
| | 17.2 | 23.9 ✓ | | |
| | 177.3 | 22.9 ✓ | | |
| | 200.2 | 46.8 | +3.42 ✓ | |
| | | | | |
| | 356.8 | ✓ | +3.33 ✓ | |
| | 20.4 | 23.6 ✓ | | |
| | 175.2 | 27.0 ✓ | | |
| 8:11:52 | 202.2 | 50.6 | +3.24 | |

PA = 190 A
Spr = 8.2

Mar. 6, 1918

* η with 8

| | | | |
|---|---|---|---|
| | PA 140° | 8 disc. | |
| 8:15:18 | 161.6 | | |
| | 215.6 | 54.0 | |
| | 342.4 | 51.8 | |
| | 24.2 | 165.8 | +1.52 |
| | | | |
| | 165.8 | | +1.56 |
| | 213.7 | 47.9 | |
| | 343.2 | 54.8 | |
| | 38.0 | 102.7 | 1.54 |
| | PA 320° | | |

too cloudy to continue
reject above half group for incompleteness; fear clouds may have troubled.

Fri Mar. 8, 1918

15" Eq.

FCL Obs. JSW. Obs.

PA 80° Nova Monoc Phot T.

7:23:09 69.2 072206

128.4 Nova with * 16 disc.

243.2 59.2

309.8 66.6

125.8 + 1.07

66.2

128.3 62.1 +1.24

256.4 48.5

304.9 110.6 + 1.46

PA 260° Mean = 0.61

151.2

228.8 77.6

316.2 95.2

51.4 172.8 + 0.14

137.4 −0.02

234.8 97.4

322.6 92.4

7:28:01 55.0 189.8

170.2 − 0.19

PA = 262 A
Sep. = 3.9

Mar. 8, 1918

7:34:30 too cloudy to observe star 16 with star 28.

7:47:00 too cloudy to continue.

Mon. Mar. 11, 1918

LC Obs 15" E. Eq. J.S.W. Rec

Nova Monoc 072206 phot T.

07 22 – 6.0
06 45
0 37 E

PA 80° Nova with * 16

7:17:05 149.7 < no 16 disc.
232.4 82.7
315.5 106.9
62.4 189.6
170.4 –0.18

?

139.4
241.8 102.4 –0.12
328.2 81.4
49.6 183.8
176.2 –0.07

PA 260°

Mean = +0.56

255.3
303.2 47.9
68.5 62.9
131.4 110.8 +1.46

+1.24

243.3
312.8 69.5
70.4 56.2
126.6 125.7 +1.07

PA = 262A
Spr. = 4.0

7:21:31

Mar. 11, 1918

* 16 with * 28

PA 270°

7:26:31 62.4 ∠*16 disc
117.6 35.2
263.2 29.9
293.1 65.1 +2.67

85.7 +2.70
115.2 29.5
259.8 34.4
294.2 63.9 +2.72

PA 90° Mean = +2.02
156.7
219.4 62.7
344.6 48.7
33.3 111.4 +1.39

165.9 +1.~~44~~ 33
217.2 51.3
330.2 65.0
7:31:31 35.2 116.3 +~~1.50~~ 1.27
7:28:46

PA = 89A
Spr. = 5.6

Mar. 11, 1918

*16 with 30

|  |  |  |  |  |
|---|---|---|---|---|
|  | PA 90° |  |  |  |
| 7:35:04 | 171.4 | L*16 disc. |  |  |
|  | 206.0 | 34.6 |  |  |
|  | 344.8 | 30.1 |  |  |
|  | 14.9 | 64.7 | +2.69 |  |
|  |  |  |  |  |
|  | 161.2 |  | +2.~~20~~ 49 |  |
|  | 206.3 | 45.1 |  |  |
|  | 343.8 | 3 53.0 |  |  |
|  | 16.8 | ~~98.1~~ | ~~+1.70~~ |  |
|  |  | 78.1 | +2.29 |  |
|  | PA 270° |  |  | Mean = ~~+2.58~~ + 2.72 |
| 7:40:28 | 268.2 |  |  |  |
|  | 289.6 | 21.4 |  |  |
|  | 81.0 | 34.2 |  |  |
|  | 115.2 | 55.6 | 3.03 |  |
|  |  |  |  |  |
|  | 267.4 |  | +2.96 |  |
|  | 296.2 | 28.8 |  |  |
|  | 84.0 | 30.4 |  |  |
| 7:42:22 | 114.4 | 59.2 | +2.89 |  |

PA = 270 A
Sep. = 3.3

Mar. 11, 1918

* 17 with × 25'

PA 250°

7:56:28 318.3 ∠* 17 disc

58.0 99.7

134.6 99.0

233.6 198.7

161.3 −0.36

330.7

56.2 85.5 −0.24

136.4 101.4

237.8 186.9

173.1 −0.13

PA 70° Mean = +0.33

63.8

134.7 70.9

248.6 56.6

315.2 127.5 + 1.03

65.5 +.90

136.8 71.3

245.4 69.0

8:01:32 314.4 140.3 + 0.77

PA = 67.4

Spr. = 2.8

Mar: 11, 1918

✱ 17 with 25

| | | | | |
|---|---|---|---|---|
| | PA 80° | | | |
| 8:04:11 | 79.8 ∠✱17 div. | | | |
| | 124.6 | 44.8 | | |
| | 257.6 | 42.4 | | |
| | 300.0 | 87.2 +1.99 | | |
| | 76.3 | | +2.04 | |
| | 120.4 | 44.1 | | |
| | 255.8 | 40.0 | | |
| | 295.8 | 84.1 +2.08 | | |
| | PA 260° | | | Mean = +1.59 |
| | 156.6 | | | |
| | 221.2 | 64.6 | | |
| | 340.6 | 55.0 | | |
| | 35.6 | 119.6 +1.20 | | |
| | 161.7 | | + 1.14 | |
| | 218.6 | 56.9 | | |
| | 330.8 | 68.6 | | |
| 8:09:01 | 39.4 | 125.5 =+1.07 | | |
| 8:06:21 | | | | |

PA = 261.4
Sp. = 3.5

Mar. 11, 1918

star 25' with X

~~X 17 with X 25~~

PA 130°

8:19:47 316.4 ∠* X dis.

58.4

132.8 102.0

245.2 92.4

194.4

165.6 − 0.27

312.2

67.8 115.4 − 0.49

138.2 101.6

239.8 217.0

143.0 − 0.71

PA 310° Mean = +0.20

62.8

130.4 67.6

236.4 78.0

314.4 145.6 + 0.68

66.2 + 0.89

133.8 67.6

8

244.6 65.9

7;24;21 310.5 123.5 + 1.12

PA = —

Sp. = 4.0

Mar 11, 1918

✱ X with 14

PA 250

8:29:46 71.4 ∠✱ 14 disc.

125.2 53.8

251.7 53.9

305.6 107.7 + 1.47

72.6 +1.52

128.2 55.6

252.9 47.5

300.4 103.1 +1.58

PA 70°

Mean = +0.87

147.2

226.0 78.8

323.0 88.8

51.8 167.6 0.24

154.0 +0.22

235.2 81.2

325.7 87.5

8:33:31 53.2 168.7 +0.21

PA = 68A

Sp. = 5.5

Mar. 11, 1918

✱14 with y

| | | | |
|---|---|---|---|
| | PA120° | | |
| 8:35:31 | 282.9 | ∠✱ 14 disc. | |
| | 297.2 | 443 | |
| | 75.2 | 524 | |
| | 127.6 | 96.7 +1.74 | |
| | | | |
| | 255.6 | | +1.86 |
| | 298.2 | 42.6 | |
| | 77.5 | 44.5 | |
| | 122.0 | 87.1 + 1.99 | |
| | | | |
| | PA300° | | Mean = +1.18 |
| | 331.2 | | |
| | 43.3 | 72.1 | |
| | 149.0 | 79.3 | |
| | 228.3 | 151.4 + 0.55 | |
| | | | |
| | 329.8 | | +.49 |
| | 51.8 | 82.0 | |
| | 148.4 | 75.5 | |
| 8:41:01 | 323.9 | 157.5 0.43 | |

PA = 122A
Spr. = 65

Mar. 11, 1918

* y with × 3

| | | | | |
|---|---|---|---|---|
| | PA 190° | | | |
| 7:42:45 | 89.7 | ∠×3 dis. | | |
| | 105.2 | 15.5 | | |
| | 272.0 | 19.2 | | |
| | 291.2 | 34.7 | 4.09 | |
| | | | | |
| | 88.8 | | 3.94 | |
| | 116.6 | 27.8 | | |
| | 271.7 | 11.6 | | |
| | 283.3 | 39.4 | +3.80 | |
| | | | | |
| | PA 10° | | | Mean = +3.51 |
| | 177.6 | | | |
| | 204.2 | 27.6 | | |
| | 357.3 | 28.3 | | |
| | 19.6 | 55.9 | +3.02 | |
| | | | | |
| | 171.7 | | +3.08 | |
| | 203.8 | 32.1 | | |
| | 357.7 | 20.9 | | |
| 8:470 | 18.6 | 53.0 | +3.14 | |

PA = 120.4
Spr. = 8.2

Mar. 11, 1918

y with ✱ 8

PA 140°

8:50:08 347.3 ∠ ✱ 8 disc

29.6 42.3

165.7 43.6

209.3 85.9 +2.03

348.2 +1.92

32.8 44.6

165.0 49.2

214.2 93.8 +1.81

PA 328 Mean = +2.66

82.4

110.2 27.8

265.3 24.5

289.8 52.3 +3.17

58.7 +3.40

111.6 22.9

268.4 19.6

8:54:42 288.2 42.5 +3.63

PA = 315 λ

Spr. = 78

Mar. 11, 1918

16 with Nova

PA 260°

9:06:42 76.3 ← 16 disc
128.7 52.4
251.0 54.6
305.6 107.0 +1.49

68.2 +1.46
127.5 59.3
253.5 58.1
303.6 169.4 +1.43

PA 80° Mean = +0.73
148.6
232.8 84.2
320.6 98.2
58.8 182.4
177.6 -0.05

144.8
234.4 89.6 0.00
327.0 87.6
9:10:58 54.6 177.2 +0.05

PA = 82.4
Sp. = 3.9

Mar. 11, 1918

Comparison ✱ for Nova Monoc

(19) 3 (20) 3 (22) 4 (21) 3 (24) 4 (26) 4 (27)
5 (28) 8 (29) 3 (30) 6 (31) 5 (32) 6 (35) 5 (36)

~~34~~ (31) 4 (34') 4 (32)

9:24:00 cloudy in the regions
~~too~~ cloudy to continue

Fri Mar. 15, 1918

15" E Eq.

LCCB

Rd JSW.

Phot T.

Nova Monoc.

072206

0902

PA 80°  1 40 w − 6.0

9:29:05  330.4 ∠ ★ 16 disc.

42.7

150.4  72.3

229.6  79.2

151.5 +0.55

322.6

52.5  89.9  +0.28

143.2  90.0

233.2  179.9 +0.00

PA 260°

Mean = 8.87
+0.75
9.62

67.7

119.8  52.1

242.6  64.0

306.6  116.1  1.28

64.4  +1.22

131.0  66.6

244.4  65.2

9:32:02  309.6  121.8  1.15

PA = 262A

Spr = 4.0

visual estimate = 9.6 in 4in finder

Mar. 15, 918

S Pyxidis 090024
932
32 W − 25.0

9:44:30 est. 9.1 R3

X Hydrae
093014
934
4 W − 14.0

est 12.2

9:46:30 RR Hydrae
094023

est 9.4

9:50:30 Y Hydra
094622

est 7.0 in finder R8

9:55:00

V Hydrae
104620

est 8.0 R8

Mar 15, 1918

R Comae

115919
947
212 E, +19.3

est 13.5

seeing very poor; impossible
to see faint stars.

SU Virginis

120012
953
207 E + 12.9

est 11.6

T Virginis

120905
955
214 E − 5.5

est 11.3

R Corvi

121418
955
219 E − 18.3 est 10.4

2 19 E
−18.3
9 59
12 18

at 10:07 = 2:13 E −18.4
90
108.4

2 13
12 20

NGC 4361

Mar. 15, 1918

10:21:00 SS Virginis 121001
est. 9.2

Y Virginis 122803 est 12.8

R Virginis 123307
10:26:00 est. 9.4

U Virginis 124606
1024 ?
10:30:00 232E+ est 12.4

R U Virginis
124204
1045 ?
10:31:30 227 E est. 10.0α

V Virginis 132202
1022
10:33:30 300 E − 2.6 est. 12.0

R Hydrae
10:36:30 132422
300 E − 29.8 est. 9.5

S Virginis
10:38:00 132706
1027
300 E − 6.7 est 8.6

Mar 15, 1918

RR Virginis

135908

1029

10:43:00 330 E - 8.7

if seen = 13.3

Z Bootis

140113

1033

10:45:00 328 E + 14.0 est 11.8

Z Virginis

140512

1035

10:47:30 330 E -12.8 est. 11.9

RS Virginis

142205

1035

10:51:00 344 E + 5.2 est. 11.6

R Coronae

154428

1042

10:54:40 502 E + 28.5 est. 8.9

10:55:00

(2x) (2x) LC

Sat Mar 16, 1918

15" E Eq.

L.C.Obs

Eunomia Phot T.

8 48 + 6.5
6 48
PA 230° 2 00 2

7:16:24 143.8 ∠comp ✱ disc
226.4
322.0 82.6
49.0 87.0
169.6 +0.20

139.4
236.8 97.4 +0.09
323.3 83.9
47.2 181.3
178.9 −0.02

PA 50° Mean = +0.72
249.8
297.7 47.9
68.2 57.9
126.1 105.8 +1.52

244.0 +1.96
310.0 66.0
70.8 53.4
7:21:30 124.2 119.4 +1.21
7:18:37 $2\overset{16}{\cancel{00}}9$ $51^3$

Mar. 16, 1918

Eunomia

II

| | | | |
|---|---|---|---|
| | PA 50° | | |
| 7:34:01 | 248.5 | | |
| | 302.0 | 53.5 | |
| | 62.2 | 68.2 | |
| | 130.4 | 121.7 | +1.16 |
| | | | |
| | 244.6 | | |
| | 307.4 | 62.8 | +1.16 |
| | 63.6 | 59.2 | |
| | 122.8 | 122.0 | 1.15 |
| | PA 230° | | |
| | 327.6 | | |
| | 48.4 | 80.8 | |
| | 142.2 | 89.4 | |
| | 231.6 | 170.2 | +0.14 |
| | | | |
| | 323.3 | | +0.16 |
| | 55.8 | 92.5 | |
| | 149.6 | 81.2 | |
| 7:37:57 | 230.8 | 173.7 | +0.12 |
| 7:35:59 | | | |

Mean = 0.66

21669.525

Mar 16, 1918

Eunomia

III.

| | | | | |
|---|---|---|---|---|
| | PA 230° | | | |
| 7:44:02 | 322.6 | | | |
| | 49.6 | 87.0 | | |
| | 142.6 | 86.8 | | |
| | 229.4 | 173.8 | +0.12 | |
| | 323.8 | | | |
| | 49.0 | 85.2 | +0.16 | |
| | 144.4 | 84.8 | | |
| | 229.2 | 170.0 | +0.19 | |
| | PA 50° | | | Mean =+0.68 |
| | 67.4 | | | |
| | 120.8 | 53.4 | | |
| | 244.4 | 61.0 | | |
| | 305.4 | 114.4 | 1.32 | |
| | 62.5 | | | |
| | 128.9 | 66.4 | +1.2$\overset{2}{1}$ | |
| | 244.8 | 56.8 | | |
| 7:48:43 | 301.6 | 123.2 | 1.12 | |
| 7:46:22 | | | | |

watch 30 sec. slow at 8:00 by bell

21669.533

Mar 16, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 50° | | | IV. |
| 7:57:28 | ~~125.4~~ | | | |
| | 246.4 | | | |
| | 302.2 | 55.8 | | |
| | 63.2 | 62.6 | | |
| | 125.8 | 118.4 +1.23 | | |
| | 241.2 | | | |
| | 308.3 | 67.1 | +1.06 | |
| | 66.0 | 67.4 | | |
| | 133.4 | 134.5 +0.89 | | |
| | PA 230° | | | Mean = .58 |
| | 327.0 | | | |
| | 49.8 | 82.8 | | |
| | 143.8 | 89.2 | | |
| | 233.0 | 172.0 +0.15 | | |
| | 320.0 | | | |
| | 50.8 | 90.8 | +0.11 | |
| | 144.8 | 85.6 | | |
| 8:01:12 | 230.4 | 176.4 | 0.07 | |
| 7:59:20 | | | | |
| 21669.54 2 | | | | |

Mar 16, 1918

Eunomia

~~IV.~~
V

PA 230°

8:07:04 320.4
49.1 88.7
147.2 83.3
230.5 172.0 +0.15

317.8
46.3 88.5 +0.19
151.2 79.2
230.4 167.7 +0.23

PA 50° mean = +0.66
66.5
129.7 63.2
242.7 62.8
305.5 126.0 +1.06

63.6
129.2 65.6 +1.12
248.8 55.5
8:11:17 304.3 121.1 +1.17

8 09 10
8 09 40

21669.549

Mar 16, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 50° | | | VI |
| 8:15:31 | 68.4 | | | |
| | 122.2 | 53.8 | | |
| | 243.7 | 63.6 | | |
| | 307.3 | 117.4 1.25 | | |
| | | | | |
| | 62.6 | | | |
| | 129.8 | 67.2 | +1.20 | |
| | 249.2 | 54.4 | | |
| | 303.6 | 121.6 +1.16 | | |
| | PA 230° | | Mean | = +0.58 |
| | 145.2 | | | |
| | 230.6 | 85.4 | | |
| | 320.8 | 97.5 | | |
| | 58.3 | 182.9 | | |
| | | 177.1 −0.05 | | |
| | | | | |
| | 143.7 | | | |
| | 232.4 | 88.7 | | |
| | 320.2 | 93.1 −0.04 | | |
| 8:19:41 | 53.3 | 181.8 | | |
| | | 178.2 −0.03 | | |

n74

Mar 16, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 230° | | | XII |
| 8:27:22 | 137.4 | | | |
| | 228.2 | 90.8 | | |
| | 321.8 | 86.2 | | |
| | 48.6 | 177.0 | +0.06 | |
| | 146.2 | | | |
| | 231.7 | 85.5 | +0.10 | |
| | 325.4 | 86.8 | | |
| | 52.2 | 172.3 | 0.14 | |
| | PA 50° | | | Mean +0.57 |
| | 248.2 | | | |
| | 302.8 | 54.6 | | |
| | 61.3 | 72.7 | | |
| | 134.0 | 127.3 | 1.04 | |
| | 242.2 | | | |
| | 305.2 | 63.0 | +1.04 | |
| | 65.0 | 63.4 | | |
| 8:31:27 | 128.4 | 126.4 | 1.05 | |

8 29 24
8 29 54
21669 :56 2

Mar. 16, 918

Eunomia

VIII

| | | | |
|---|---|---|---|
| | P.a. 30° | | |
| 8:37:04 | 247.3 | ✓ | |
| | 308.7 | 61.4 ✓ | |
| | 69.2 | 73.4 ✓ | ✓ |
| | 133.6 | 134.8 | +0.88 |
| | 241.4 | ✓ | ✓ |
| | 311.4 | 70.0 | +0.91 |
| | 65.8 | 61.9 ✓ | |
| | 127.7 | 131.9 ✓ | 0.94 ✓ |
| | PA 230° | | |
| | 319.5 | | |
| | 51.4 | 91.9 ✓ | |
| | 131.2 | 101.0 ✓ | |
| | 232.2 | 192.9 ✓ | ✓ |
| | | 167.1 | −0.24 |
| | 323.2 | ✓ | |
| | 54.8 | 91.6 ✓ | −0.12 ✓ |
| | 143.6 | 88.9 ✓ | |
| 8:41:31 | 232.5 | 180.5 ✓ | |
| | | 179.5 ✓ | −0.01 ✓ |

Mean = +0.40 ✓

ρ 3918

ρ 3948

.569

Mar 16, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 230° | | | IX |
| 8:46:32 | 312.2 | | | |
| | 52.2 | 106.0 | | |
| | 140.8 | 92.2 | | |
| | 233.0 | 192.2 | | |
| | | 167.8 | −0.23 | |
| | | | | |
| | 320.0 | | | |
| | 52.2 | 92.2 | −0.08 | |
| | 146.2 | 83.5 | | |
| | 229.7 | 175.7 | +0.08 | |
| | PA 50° | | | Mean = +0.40 |
| | 60.4 | | | |
| | 128.8 | 68.4 | | |
| | 239.7 | 70.9 | | |
| | 310.6 | 139.3 | +0.79 | |
| | | | | |
| | 60.4 | | | |
| | 128.4 | 68.0 | +0.88 | |
| | 243.6 | 62.4 | | |
| 8:51:34 | 306.0 | 130.4 | +0.97 | |
| 98 06 | | | | |
| 8 49 03 | | | | |
| 5 76 | | | | |

Mar 16, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 50° | | | ✗ |
| 9:00:01 | 58.8 | ✓ | | |
| | 130.4 | 71.6 ✓ | | |
| | 240.7 | 69.9 ✓ | | |
| | 310.6 | 141.5 ✓ +0.68 | | |
| | | | | |
| | 57.4 | ✓ | | |
| | 130.3 | 72.9 ✓ | +0.76 | |
| | 247.2 | 63.4 ✓ | | |
| | 310.6 | 136.3 +0.85 | | |
| | PA 230° | | | Mean = +0.34 |
| | 146.1 | ✓ | | |
| | 230.6 | 84.5 ✓ | | |
| | 313.3 | 100.9 ✓ | | |
| | 54.2 | 185.4 ✓ | | |
| | | 174.6 −0.10 | | |
| | 139.2 | ✓ | | |
| | 232.7 | 93.5 ✓ | | |
| | 322.2 | 91.6 ✓ −0.10 | | |
| 9:04:41 | 53.8 | 185.1 ✓ | | |
| 9 02 21 | | 174.9 −0.09 | | |
| .585 | | | | |

Mar 16, 1916

Eunomia

| | | | | |
|---|---|---|---|---|
| | PA 230° | | | XI |
| 9:13:40 | 145.6 | | | |
| | 227.4 | 81.8 | | |
| | 313.0 | 107.4 | | |
| | 60.4 | 189.2 | | |
| | | 170.8 −0.17 | | |
| | 146.2 | | | |
| | 232.8 | 86.6 | −0.07 | |
| | 314.6 | 91.8 | | |
| | 46.4 | 178.4 +0.03 | | |
| | PA 50° | | | Mean = +0.46 |
| | 248.2 | | | |
| | 309.8 | 61.6 | | |
| | 63.3 | 67.9 | | |
| | 131.2 | 129.5 +0.99 | | |
| | 245.4 | | | |
| | 313.6 | 68.2 | +0.86 | |
| | 38.8 | 73.4 | | |
| 9:18:16 | 132.2 | 141.6 +0.74 | | |
| 11 56 | | | | |
| 9 15 58 | | | | |
| .594 | | | | |

Mar 16, 1918
Telescope Reversed.
Eunomia

PA 50°

XII

9:28:29 313.0
59.8 106.8 ✓
138.5 94.8 ✓
233.3 201.6 ✓
158.4 -0.41

317.5
55.5 98.0
144.2 85.1 -0.24 ✓
229.3 183.1 ✓
176.9 -0.06

PA 230°

Mean = +0.34

64.4 ✓
122.4 58.0 ✓
237.2 73.2 ✓
310.4 131.2 +0.95

61.7 ✓
131.6 69.9 +0.93 ✓
249.2 63.2 ✓
9:33:02 312.4 133.1 0.91
6 31
9 30 46

.605

Mar 16, 1918

PA 230°

9:41:32 60.8

126.4 65.6

243.4 67.1

310.5 132.7 0.92

XIII.

63.2

130.2 67.0 +0.98

248.0 59.8

307.8 126.8 1.05

PA 50°

Mean = +0.44

142.2

232.7 90.5

313.2 98.9

52.1 189.4

170.6 −0.18

142.8

231.0 88.2

320.6 92.4 −0.10

9:46:02 53.0 180.6

7 34

179.4 −0.01

9 43 47

.614

Mar 16, 1918

|  |  |  |  |  |
|---|---|---|---|---|
|  | PA 50° |  |  |  |
| 9:52:28 | 142.5 |  |  | XIV |
|  | 231.3 | 88.8 |  |  |
|  | 314.4 | 98.4 |  |  |
|  | 52.8 | 187.2 |  |  |
|  |  | 172.8 -0.14 |  |  |
|  | 141.2 |  |  |  |
|  | 234.4 | 93.2 | +0.04 |  |
|  | 322.8 | 83.4 |  |  |
|  | 46.2 | 176.6 +0.06 |  |  |
|  | PA 230° |  |  | Mean = +0.50 |
|  | 249.8 |  |  |  |
|  | 306.0 | 56.2 |  |  |
|  | 58.8 | 70.0 |  |  |
|  | 128.8 | 126.2 1.06 |  |  |
|  | 246.7 |  | +1.04 |  |
|  | 315.3 | 68.6 |  |  |
|  | 66.0 | 59.5 |  |  |
| 9:57:16 | 125.5 | 128.1 +1.02 |  |  |
| 9 44 |  |  |  |  |
| 9 54 52 |  |  |  |  |
| 622 |  |  |  |  |

Mar 16, 1918

| | | | | |
|---|---|---|---|---|
| | PA 230° | | | |
| 10:05:24 | 247.6 | | | XV |
| | 307.3 | 59.7 | | |
| | 61.5 | 66.1 | | |
| | 177.6 | 125.8 +1.07 | | |
| | 246.8 | | +1.16 | |
| | 306.2 | 59.4 | | |
| | 63.9 | 57.9 | | |
| | 123.8 | 117.3 +1.25 | | |
| | PA 30° | | | Mean +0.58 |
| | 321.8 | | | |
| | 45.4 | 83.6 | | |
| | 137.9 | 93.9 | | |
| | 231.8 | 177.5 +0.03 | | |
| | 316.6 | | | |
| | 53.8 | 97.2 | +0.01 | |
| | 146.6 | 84.6 | | |
| 10:10:02 | 231.2 | 181.8 | | |
| | | 178.2 −0.03 | | |

15 26
10 07 43
.631

Mar 16, 1918

| | | | | |
|---|---|---|---|---|
| | PA 30° | | | |
| 10:13:47 | 317.6 | | | XVI |
| | 48.8 | 91.2 | | |
| | 144.8 | 82.8 | | |
| | 227.6 | 174.0 | +0.11 | |
| | 318.0 | | | |
| | 46.7 | 88.7 | +0.18 | |
| | 145.8 | 78.8 | | |
| (?) | 224.6 | 167.5 | +0.24 | |
| | PA 230° | | | Mean = +0.69 |
| | 66.3 | | | |
| | 122.6 | 56.3 | | |
| | 246.2 | 66.6 | | |
| | 312.8 | 122.9 | +1.13 | |
| | 65.6 | | | |
| | 127.2 | 61.6 | +1.20 | |
| | 230.2 | 55.3 | | |
| 10:20:02 | 305.5 | 116.9 | 1.26 | |
| - 35 49 | | | | |
| 10 17 54 | | | | |
| .637 | | | | |

Mar 16, 1918

PA 230°

10:24:47 68.2
120.7 52.5
248.3 57.5
305.8 110.0 1.42

XVII.

64.0
128.8 64.8 +1.32
250.4 54.0
304.4 118.8 1.22

PA 50°

mean = +0.76

146.6
235.4 88.8
325.3 85.5
50.8 174.3 +0.11

147.9
231.4 83.5 +0.20
323.6 80.8
10:29:14 44.4 164.3 +0.30
14 01
10 27 00
546

PA = 45 A
Sp = 3.3

Comp ✱ = +8°2137 (8.8)

Mon Mar. 18, 1918

15" E Eq.

L.C. Ob. J.S.W. Ob.

Nova Per. No 2.
032443
0717
353

7:25:00 σ 2 Nova 4 p

Y Persei 032043 est 9.4
7:29:30 R Persei 032335 est. 10.3

X Ceti 031401
729
7:36:00 415 −1.5 est 9.0

S Cephei 213678
3138
1002 W+78.2 est 12.7 R7
7:51:30 variable does not appear quite so red as when brighter

V Cass 230759
3130
7:55:00 843 W+58.5 est. 9.7

Z Cass 233956
3153
7:58:00 814 W+56.0 est 13.2

Mar 18, 1918

R R Cass

233063
3155
8:01:30 805 W + 53.0 est 11.8

R Cass 235350
3
8:04:00 806 W + 50.8 est. 6. 4 in finder

Cloudy in this region

W Androm 021143 a
832 ~~W +~~
8:38:00 621 W + 43 a est 11.7

ζ Cephei 021281
837
8:41:30 625 W + 810

clouds in this region

DM + 3.1381 (red star) 0639°3

6 36 + 4.0
8 47
9:04:45 2 11 W est a 5, 2 b = 11th ±
~~est 8.5 2 b~~

R = 6

a = + 3.1380 (9.5)

b = faint star not in DM

Mar. 18, 1918

Dm + 50.920 0403 51

4 4 + .080
9 14
5 10

9 ; 22:00 a 6, 4 b *b = +50.922 (9.7)

R = 7

Index to East Phot R

Compared with star a = +50.921 (9.3)

9 ; 26:04 356.3 ∠ star a disc
75.2 58.9
184.4 58.2
242.6 117.1 +1.26

4.3
60.6 56.3 +1.22
186.4 64.0
250.4 ~~index~~ 120.3 +1.19
Index to West

Mean = +1.22

273.2
338.2 65.0
98.4 59.9
158.3 124.9 +1.09

L.

282.7
328.7 46.0 +1.22
91.6 67.1
9 ; 33 ; 31 158.7 113.1 +1.35

2167

Mar. 18, 1918

T Camel.
043065
936
9:42:00 506 W+66.0 est 9.2
hazy region.

X Camel. 043274
940
9:44:31 508 W+75.5 est 8.2

~~R~~ R
S Camel 053068
943
9:46:45 413 W+68.7 est 8.9

SS aurigae 060547
945
9:52:40 340 W+47.8 est. 13.0

f: more or less haze and cloud in the region

10:00:00 too cloudy to continue to advantage.

(16) (40) L.C.

21678

# Tues Mar. 19, 1918.

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

7 20 R Tauri 042209 est 8.9

S Tauri 042309 est < 13.3
0713
2 50 w + 9.8

Nova Gem II 064922 est
0729
0 40 w + 22.5

Cannot identify with chart at hand.

041619 ~~est~~ T Tauri . est 9.+
0742
3 26 + 19.3

V Tauri 044617 est 11.5
07 55
3 09 w + 17.4

~~W Tauri~~
Z Tauri 054615a est 11.2
0758
2 12 W + 15.8

RU Tauri 054615c est 12.0

RS Tauri 054615b est 8.9

Low R Monoc 063308 est 11.5
0803
Near moon, diff.

Mar. 19, 1918.

RS Gemini 065530 est 9.9
08 10
1 15 w

R Orionis 045307 est 10.9
of 13
3 20 w +8.0

U Aurigae 053531 est 12.0
of 15
2 40

Z Aurigae 055353 ~~est~~ Plot R.
Index to West.
8 45.0 265.2 < comp ★ dis
337.3
-90.7 (Too cloudy. 72.1
152.0 61.3
133.4 +0.91
Index to East
~~241.4~~ mean = + 0.96
359.2 64.2
63.4 64.2
128.4 + 1.01
177.4
8 54.6 241.6

8 49.8

Comp ★ = the 10.6 close to Z.

Mar. 19, 1908

RR Tauri 053326 Phot R.

0533 +26.0
0903
3 30 W

Var 3x x = *0 frequence.

9 02 Var Too faint in moonlight & haze for Phot.

Sat. Mar. 23, 1918

15" E. Eq.

L.C. Obs. 1 Red J.S.W.

Eunomia Phot T

Sd 4h +6.6
7 30
1 18 E

| | | *1 | *2 | *3 |
|---|---|---|---|---|
| 7:53:38 | star 1 | 7 54 02 | 7 54 08 | 7 54 34 |
| 54:04 | star 2 | | | |
| " 13 | " 2 | | | |
| " 14 | " 3 | | | |
| " 26 | " 1 | | | |
| " 34 | " 3 | | | |

| | | *1 | *2 | *3 |
|---|---|---|---|---|
| 7:55:04 | star 1 | 7 55 20 | 7 55 26 | 7 55 55 |
| " :16 | " 2 | | | |
| " 36 | 1 | | | |
| | ~~" 2~~ | | | |
| " 42 | " 2 | | | |
| " 43 | " 3 | | | |
| 56:07 | " 3 | | | |

stars 1 & 3 in southern part of field; star 2 in northern; star 3 assumed to be Eunomia.

Mar. 23, 1918

Eunomia

PA 340°
7:49:10 71.1 ∠comp. star disc.
120.5 49.4
258.6 48.0
291.6 97.4 +1.72

76.3 +1.89
110.0 33.7
251.3 50.9
302.2 84.6 +2.06

PA 160° Mean = +1.32
144.7
220.4 75.7
331.1 69.1
40.2 144.8 0.68

155.4 +0.77
222.2 66.8
332.4 72.0
7:54:05 44.4 138.8 0.80

103 15
) 51 38
.537

PA = 160.5A
Spr = 4.6

Mar 23, 1918

| | | | | |
|---|---|---|---|---|
| | PA 160° | | | II |
| 8:02:57 | 153.3 | | | |
| | 220.0 | 66.7 | | |
| | 323.3 | 80.3 | | |
| | 43.6 | 147.0 | +0.63 | |
| | 149.0 | | +0.74 | |
| | 227.2 | 78.2 | | |
| | 335.5 | 58.1 | | |
| | 33.6 | 136.3 | +0.85 | |
| | PA 340° | | | Mean = +1.32 |
| | 254.8 | | | |
| | 297.6 | 42.8 | | |
| | 72.2 | 48.0 | | |
| | 120.2 | 90.8 | +1.89 | |
| | 253.6 | | +1.90 | |
| | 303.0 | 49.4 | | |
| | 73.6 | 41.0 | | |
| 8:07:38 | 114.6 | 90.4 | 1.90 | |
| 8:05:18 | | | | |
| 546 | | | | |

Mar. 23, 1918

| | | | | |
|---|---|---|---|---|
| | P/A 346° | | | |
| 8:16:43 | 256.6 | | | IV |
| | 298.3 | 41.7 | | |
| | 70.2 | 55.2 | | |
| | 123.4 | 96.9 | +1.73 | |
| | | | | |
| | 245.2 | | | |
| | 304.9 | 59.7 | +1.67 | |
| | 73.4 | 42.4 | | |
| | 115.8 | 102.1 | +1.61 | |
| | PA 160° | | | Mean = +1.13 |
| | 335.8 | | | |
| | 38.4 | 62.6 | | |
| | 146.6 | 83.8 | | |
| | 230.4 | 146.4 | +0.65 | |
| | | | | |
| | 324.4 | | +0.59 | |
| | 46.7 | 82.3 | | |
| | 154.6 | 69.8 | | |
| 8:22:34 | 224.4 | 152.1 | +0.53 | |
| 8 19 38 | | | | |

Mar 23, 1918

PA 160° IV.

8:30:28 328.2
40.6 72.4
147.4 79.0
226.4 151.4 +0.55

325.4
44.8 79.4 +0.61
153.4 65.8
219.2 145.2 +0.67

PA 340° Mean = +1.24

70.2
118.4 48.2
253.3 43.5
296.8 91.7 +1.87

73.4 +1.87
115.4 42.0
248.4 49.6
8:35:57 298.0 91.6 +1.87

6 25
8 33 12
.765

Comp ✶ = +8°.2136 (8,7)

Mar. 23, 1908

| | | | | |
|---|---|---|---|---|
| | PA 340° | | | V |
| 8:58:01 | 71.5 | | | |
| | 117.8 | 46.3 | | |
| | 257.2 | 40.2 | | |
| | 297.4 | 86.5 | +2.01 | |
| | | | | |
| | 70.6 | | | |
| | 120.4 | 49.8 | +1.88 | |
| | 253.8 | 48.4 | | |
| | 300.2 | 98.2 | 1.75 | |
| | PA 160° | | | Mean = +1.38 |
| | 156.8 | | | |
| | 217.4 | 60.6 | | |
| | 332.4 | 76.4 | | |
| | 42.8 | 131.0 | +0.96 | |
| | | | | |
| | 153.8 | | | |
| | 227.4 | 73.6 | +0.88 | |
| | 335.2 | 65.4 | | |
| 9:03:22 | 40.6 | 139.0 | 0.79 | |
| 1 23 | | | | |
| 9 00 42 | | | | |
| .585 | | | | |

Spr.

Watch = 5.4 sec. slow at 9:00 by Bell

Mar 23, 1918

| | | | | |
|---|---|---|---|---|
| | PA 160° | | | VI |
| 9:18:58 | 152.2 | | | |
| | 220.8 | 68.6 | | |
| | 327.2 | 75.2 | | |
| | 42.4 | 143.8 +0.76 | | |
| | 152.0 | | | |
| | 220.6 | 68.6 +0.80 | | |
| | 333.6 | 65.2 | | |
| | 38.8 | 133.8 +0.90 | | |
| | PA 340° | | | Mean = +1.37 |
| | 257.2 | | | |
| | 295.8 | 38.6 | | |
| | 71.6 | 49.0 | | |
| | 120.6 | 87.6 +1.98 | | |
| | 249.2 | | +1.94 | |
| | 300.4 | 51.2 | | |
| | 76.6 | 39.2 | | |
| 9:24:03 | 115.8 | 90.4 1.90 | | |
| 9 21 30 | | | | |
| .599 | | | | |

Mar 23, 1918

Telescope reversed to other side of Pier.

9:49:31 * 1
39 " 2
5~~601~~ ~~2~~
02 " 3

9:51:04 * 1
14 " 2
37 " 3

Decl. +8.2
9:53:30 ML 1.7 West

9:57:44 * 1 — * 1 9 57 58
54 " 2
58:13 " 1 — * 2 9 58 06
17 " 2
17 3 — * 3 9 59 30
42 3

9:59:09 * 1 — * 1 9 59 20
11 " 2
30 1 — * 2 59 26
42 2
42 3 — * 3 59 50
59 3

10:02:51 1 — * 1 10 03 10
3:11 2 — * 2 10 03 19
27 ← 27 2
29 3 — * 3 10 03 43
1
03:59 3

Pt.

Mar. 23, 1918

|  |  |  |  |
|---|---|---|---|
|  |  |  | VII |
|  | PA 340° |  |  |
| 9:53:10 | ~~222.8~~<br>~~46.8~~ |  |  |
|  | 149.2 | ~~84~~ |  |
|  | 222.8 | 73.6 |  |
|  | 330.2 | 64.2 |  |
|  | 34.4 | 137.8 +0.82 |  |
|  | 151.4 |  |  |
|  | 217.2 | 65.8 +0.84 |  |
|  | 330.6 | 69.4 |  |
|  | 40.0 | 135.2 +0.87 |  |
|  | PA 160° |  | Mean = +1.52 |
|  | 254.2 |  |  |
|  | 294.2 | 40.0 |  |
|  | 72.2 | 43.2 |  |
|  | 115.4 | 83.2 +2.10 |  |
|  | 254.6 |  |  |
|  | 294.2 | 39.6 +2.20 |  |
|  | 78.5 | 37.0 |  |
| 9:58:26 | 115.5 | 76.6 2.30 |  |
| 11 36 |  |  |  |
| 9 55 48 |  |  |  |

6:22

Mar 23, 1918

VIII

|  |  |  |  |  |
|---|---|---|---|---|
|  | PA 160° |  |  |  |
| 10:05:54 | 253.2 |  |  |  |
|  | 295.2 | 42.0 |  |  |
|  | 79.3 | 34.5 |  |  |
|  | 113.8 | 76.5 +2.30 |  |  |
|  | 256.5 |  | +2.30 |  |
|  | 291.0 | 34.5 |  |  |
|  | 74.0 | 41.6 |  |  |
|  | 115.6 | 76.1 +2.31 |  |  |
|  | PA 340° |  |  | Mean = +1.58 |
|  | 151.3 |  |  |  |
|  | 221.6 | 70.3 |  |  |
|  | 329.2 | 70.0 |  |  |
|  | 39.2 | 140.3 | 0.77 |  |
|  | 156.6 |  |  |  |
|  | 216.4 | 59.8 | +0.87 |  |
|  | 326.2 | 70.4 |  |  |
| 10:12:06 | 36.6 | 130.2 | 0.97 |  |
| 18 |  |  |  |  |
| 10 9:0 |  |  |  |  |

632

Mar 23, 1918

| | | | |
|---|---|---|---|
| | PA 340° | | |
| 10:17:32 | 150.8 | | IX |
| | 215.6 | 64.8 | |
| | 331.8 | 63.6 | |
| | 35.4 | 128.4 +1.01 | |
| | | | |
| | 151.2 | | |
| | 218.4 | 67.2 +0.90 | |
| | 330.4 | 71.4 | |
| | 41.8 | 138.6 +0.80 | |
| | PA 160° | | Mean = +1.64 |
| | 77.8 | | |
| | 114.4 | 36.6 | |
| | 252.2 | 40.4 | |
| | 292.6 | 77.0 +2.28 | |
| | | | |
| | 78.2 | | |
| | 112.0 | 33.8 +2.39 | |
| | 257.4 | 36.4 | PA = 159.4 |
| 10:23:21 | 293.8 | 70.2 +2.50 | Spr = 4.8 |
| 10:20:26 | | | |
| 640 | | | |

Moon not far distant from this region; observation very difficult on account of glare and there appears to be some trouble with prisms.

Sun. Mar. 24, 1918

F.C.Ob. 15" Eq. F.C.Jr. Rec.

P.A. 160 * dis.

7-28-30 65.3 cont Eunomia. Phot T.

123.8 8 48 + 6.6

249.2 7 35

296.8 1 13 Σ

58.5

47.6

106.1 + 1.51

68.8

119.3 50 5 + 1.55

248.7 52 1

300.8 102.6 + 1.59

P.A. 340 mean = + 1.62

~~208.8~~

339.6 +

274.6 58.0

154.8 54 0

208.8 102.0 + 1.61

342.1 + 1.68

27.7 45.6

158.2 50.6 P.A. =

7-33-50 208.8 96.2 + 175 Dist. =

2 20

7 31 10

1 15

7 32 25

522

Same comp. star as on night.

Pencils readjusted before beginning observations.

Mar. 24. 1918.

Eunomia.

P.a. 340 II

Sky Cloudy

7-41-0
~~7-46-3~~

336.6
31.6 55.0
156.4 59.4
215.8 114.4 +1.32

333.8 +1.34
29.9 56.1
158.2 56.2
214.4 112.3 +1.36

P.a. 160 mean = +1.44

70.9
121.4 50.5
241.2 57.1
298.3 107.6 +1.47

67.1 +1.54
118.8 51.7
249.2 50.8
7-50-40 300.0 102.5 +1.60

7 48 22
1 15
7 49 37
5 35

Mar. 24-28.

Eunomia

|  |  |  |  |  |
|---|---|---|---|---|
|  | P.a. 160 |  |  | III |
| 7-56-40 | 70.8 |  |  |  |
|  | 120.2 | 49.4 |  |  |
|  | 251.6 | 46.6 |  |  |
|  | 298.2 | 96.0 | +1.75 |  |
|  |  |  |  |  |
|  | 68.7 |  | +1.62 |  |
|  | 124.2 | 55.5 |  |  |
|  | 247.8 | 51.0 |  |  |
|  | 298.8 | 106.5 | +1.50 |  |
|  | P.a. 340 |  | mean = | +1.47 |
|  | 157.4 |  |  |  |
|  | 215.5 | 58.1 |  |  |
|  | 333.6 | 57.0 |  |  |
|  | 30.6 | 115.1 | +1.30 |  |
|  |  |  |  |  |
|  | 158.7 |  | +1.32 |  |
|  | 212.8 | 54.1 |  |  |
| 8 | 333.1 | 59.1 |  |  |
| ~~8-4:20~~ | 32.2 | 113.2 | +1.34 |  |

7 59 00

8 00 15

8 00 Watch used = 1^m 15^s slow

March 24, 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | P.a. 340 | | | IV |
| 8:17:30 | 157.4 | | | |
| | 210.6 | 532 | | |
| | 333.3 | 60.4 | | |
| | 33.7 | 113.6 | + 1.34 | |
| | 156.2 | | +1.28 | |
| | 216.2 | 60.0 | | |
| | 333 8 | 594 | | |
| | 33.2 | 1194 | +1.21 | |
| | P.a. 160 | | mean = + 1.43 | |
| | 242.6 | | | |
| | 299.2 | 56 6 | | |
| | 713 | 47.6 | | |
| | 118 .9 | 104.2 | + 1.55 | |
| | 252.2 | | +1.58 | |
| | 300.4 | 482 | | |
| | 66.6 | 537 | | |
| 8:22:20 | 120.3 | 1019 | + 1.61 | |
| 39 50 | | | | |
| 8 19 55 | | | | |
| 1 15 | | | | |
| 8 21 10 | | | | |
| .556 | | | | |

March 24 1918

Eunomia

| | | | | |
|---|---|---|---|---|
| | pa 160 | | | V |
| 8-31-50 | 244.6 | | | |
| | 298.1 | 53.5 | | |
| | 65.2 | 57.6 | | |
| | 122.8 | 111.1 | + 1.39 | |
| | | | | |
| | 248.7 | | + 1.42 | |
| | 301.2 | 52.5 | | |
| | 68.3 | 56.5 | | |
| | 124.8 | 109.0 | + 1.44 | |
| | | | | |
| | Pa 340 | | mean = + 1.36 | |
| | 333.9 | | | |
| | 32.4 | 58.5 | | |
| | 158.4 | 57.8 | | |
| | 216.2 | 116.3 | + 1.27 | |
| | | | | |
| | 337.8 | | + 1.31 | |
| | 37.7 | 59.9 | | |
| | 159.2 | 53.0 | | Pa = 333.4 |
| 8-36-0 | 212.2 | 112.9 | + 1.35 | Sp = 5.2 |

7 50
8 33 55
1 15
8 35 10
~~56~~

Too cloudy to continue

Mar. 24, 1918

adjustment of Pencils

Reading as pilot was used last evening

P.a. 333A Spr. 5.2 Pencil screw 8
~~P.a. 153 A 5.2~~
Pencil screw at 9 = a still finer adjustment
P.a. ~~3~~ 153 A Spr 5.2 Pencil screw 9 appears to be equally good as when P.a. is at 333A.

P.a. 63 A Spr 5.2 Pencil screw 10 appears OK

| | | | | |
|---|---|---|---|---|
| Spr. 0 | P.a. 0 | Pencil screw 2 | 3.5 | |
| 0 | 90 | 5 | | |
| 0 | 180 | 3 | | |
| 0 | 270 | 4 | | carriage interfere |

| | | | | |
|---|---|---|---|---|
| Spr 2.5 | P.a. 270 | 5.5 | 5 | carriage interfere |
| 2.5 | 180 | | 4 | carriage interfere |
| 2.5 | 90 | | 7 | No interfer |
| 2.5 | 0 | | 6 | No interfer |

| | P.a. | Pencil screw | | carriage |
|---|---|---|---|---|
| Spr 5 | 0 | 9 8 | 8.0 | No ~~interfer~~ interfer |
| 5 | 90 | | | None |
| 5 | 180 | 7 | | Interfer |
| 5 | 270 | 8 | | Interfer |

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|  | p.a. | Pencil Screen |  | Carnegie |
|---|---|---|---|---|
| Sfr. 7.5 | 270 | 10 |  | Interfere |
| 7.5 | 0 | 11 |  | Nointerfer |
| 7.5 | 90 | 11 | 10.8 | None |
| 7.5 | 180 | 11 |  | None |
| Sfr 10 | 180 | 13 |  | None |
| 10 | 270 | 13 |  | ~~interfere~~ |
| 10 | 0 | 13 | 13.2 | None |
| 10 | 90 | 14 |  | little |

Sfr 12.5 180° Pencils cannot be brought together in the position of ~~previous~~ (12.5")

# ~~Fr~~ Tues. Mar 26, 1918

15" E Eq.

L.C. Obs & Rec.

Eunomia

8 48 +6.6
8 08
0 40 E

P.a. 330 — Same comp ★ as on 23 & 24th of Mar

I

> 56.7 150.2 < comp ★ dis
204.0 53.8
330.2 53.3
25.5
109.1 +1.44

150.4
208.8 58.4 +1.34
328.8 60.0
28.8 118.4 +1.23

P.a. 150
245.5 mean = +1.58
294.7 49.2
63.4 45.0
108.4 94.2 +1.80

244.8 +1.82
292.6 47.8
64.8 46.6
8 05.0 111.4 92.4 +1.85
121.7
8 00.8
8 00.1
21679.542
8 00 Ci watch med = $40^s$ fast by Bell

Mar. 26, 1908

Eunomia

PA 150 II

8 10.8 242.2
289.4 47.2
65.2 45.6
110.8 92.8 +1.84

249.2 +1.83
290.8 41.6
62.2 52.0
114.2 93.6 +1.82

PA 330 Mean = +1.58
324.2
25.7 61.5
149.8 56.0
205.8 117.5 +1.25

327.7 +1.33
20.4 52.7
146.6 57.6
8 18.0 204.2 110.3 +1.41
8 14.4
8 13.7

21679.~~578~~ 551

Mar. 26 1918

Eunomia

P.a. 330 III

8 320 325.3
26.3 61.0
147.7 61.5
208.2 122.5 + 1.14

329.9 + 1.16
25.3 55.4
143.6 65.2
208.8 120.6 + 1.18

P.a. 150 Mean = + 1.43
56.4
114.4 58.0
243.3 43.5
286.8 101.5 + 1.62

64.4 + 1.70
113.1 48.7
242.2 46.8
8 39.0 289.0 95.5 + 1.77
11.6
8 35.5
8 34.8
21679.566

Mar. 26, 1918

Eunomia

Pa 150 IV.

8 450 63.3
112.8 49.5
243.0 48.6
291.6 98.1 + 1.70

+ 1.68

66.0
114.6 48.6
238.6 51.4
290.0 100.0 + 1.66

Pa 330 Mean = + 1.34

141.4
211.8 70.4
326.6 61.5
28.1 131.9 + 0.94

146.4
207.2 60.8 + 1.00
324.1 64.7
8 52.0 28.8 125.5 + 1.07

97.0
8 48.5
8 47.8
21657.9.575

March 26, 1918

Eunomia

V

| | | | |
|---|---|---|---|
| | PA 330 | | |
| 9 02.4 | 139.8 | | |
| | 213.3 | 73.5 | |
| | 323.3 | 65.3 | |
| | 28.6 | 138.8 | +0.80 |
| | 147.4 | | |
| | 209.4 | 62.0 | +0.88 |
| | 323.3 | 68.3 | |
| | 31.6 | 130.3 | +0.97 |
| | PA 150 | | Mean = +1.22 |
| | 242.4 | | |
| | 289.8 | 47.4 | |
| | 64.4 | 56.0 | |
| | 120.4 | 103.4 | +1.57 |
| | 243.0 | | |
| | 294.4 | 51.4 | +1.56 |
| | 62.2 | 52.6 | |
| 9 10.0 | 114.8 | 104.0 | +1.56 |
| 9 06.2 | | | |
| 9 05.5 | | | |
| 21679.587 | | | |

March 26, 1918

Eunomia

|  |  |  |  |
|---|---|---|---|
|  | P.A. 150 |  | VI |
| 9 16.0 | 238.3 |  |  |
|  | 290.8 | 52.5 |  |
|  | 65.5 | 49.7 |  |
|  | 115.2 | 102.2 | + 1.60 |
|  |  |  | + 1.66 |
|  | 242.8 |  |  |
|  | 292.4 | 49.6 |  |
|  | 63.3 | 47.7 |  |
|  | 111.0 | 97.3 | + 1.72 |
|  | P.A. 330 |  | Mean = + 1 24 |
|  | 324.6 |  |  |
|  | 30.8 | 66.2 |  |
|  | 149.4 | 59.3 |  |
|  | 208.7 | 125.5 | + 1.07 |
|  | 325.9 |  | + 1.02 |
|  | 28.8 | 62.9 |  |
|  | 144.6 | 67.8 |  |
| 9 24.0 | 212.4 | 130.7 | + 097 |

9 20.0
9 19.3

21679.597

March 26. 1918

Eunomia

P.A 330 VII

9 30.0 320.2
33.2 ~~8~~730
145.4 706
216.0 1436 + 0.70

322.2 + 0.82
32.0 678
147.3 635
210.8 1313 + 0.95

P.A 150 Mean = + ~~0~~1.24
60.7
110.8 501
239.6 526
292.2 1027 + 1.59

61.3 + 1.66
113.2 579
241.6 450
9 37.0 286.6 969 + 1.73

9 33.5
9 32.8
21679.606

March 26 1918

Eunomia

VIII

|  |  |  |  |
|---|---|---|---|
|  | P.a. 150 |  |  |
| 9 43.0 | 64.9 |  |  |
|  | 114.8 | 49.9 |  |
|  | 242.0 | 48.8 |  |
|  | 290.8 | 98.7 | + 1.69 |
|  |  |  | + 1.70 |
|  | + 61.4 |  |  |
|  | 114.0 | 52.6 |  |
|  | 244.0 | 44.9 |  |
|  | 288.9 | 97.5 | + 1.72 |
|  | P.a 330 |  | Mean = + 1.32 |
|  | 146.0 |  |  |
|  | 207.8 | 61.8 |  |
|  | 320.4 | 68.4 |  |
|  | 28.8 | 130.2 | + 0.97 |
|  | 142.8 |  | + 0.94 |
|  | 210.8 | 68.0 |  |
|  | 324.7 | 65.2 |  |
| 9 49.0 | 29.9 | 133.2 | + 0.91 |
| 9 46.0 |  |  |  |
| 9 45.3 |  |  |  |
| 21679.615 |  |  |  |

Troubled by clouds in star group

March 26, 1918.

Eunomia.

P.a. 150 IX

1000 cloudy.

10 10 Too poor to continue.

P.a = 328 A

Spr = 62

Pencil Screw = 3

P.a. 330 Moon +

photos developed Mar 27 1918