KG
11365
594

1909phae..proj..595W

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1909phae.proj..595W

KG 11365.594

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KG 11365.594

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1909phae.proj..595W

Jan. 27, 1909 (Wednesday)

I Clouds

5 27 -0.4

5 27 W Obs. Route Rec Phot W

0 0 9.5 in. cap used.

Index R+a

306.7

8 43 50 3203

126.7

140.3

306.7

320.3

126.4

140.5

Index L+B

216.6

231.4

37.1

Reject. Impossible to finish group.
Clouds all the time.

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1909phae.proj..595W

Jan. 28, 1909 (Thursday)

U Cephei

0	50	81.1
3	55	W. Obs. Rouse Rec. Phot. I.
3	5	9.5 in cap used.

Index R+a A. I

198.6 = Var Dia.

7 38 50

313.9 11v.3v

288

121.3 92.vv / 207.4v / 1v2.2v +0.v3v

2089

7 40 40

302.0 93.1v +0.v0v

21.6

133 3 111.7v / 204.8v / 1vv.2v +0.47v

Index L+B. B.

104.8 116.6v

7 43 35

221.4

295.5 99.vv / 216.1v / 143.9v +0.70v

35.0

115.9 92.3v +0.73v

214.2

283.5 121.2v / 219.vv / 140.vv

44.7 +0.76v

7 45 35

16 40v

7 42 10.v

+v -32.v

12 41 32.v

+33v.v29v

mean +0.62v / 4.41v / mean 9.03v

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1909phae.proj..595W

Jan. 28. 1909.

Same again. II

Index L+B. B.

7 49 10

103.8
225.4 121.6 v
296.4
31.8 95.4 v
217.8 v
143.0 v +0.71 v

7 50 50

117.5
211.0 93.5 v +0.62 v
282.8
43.1 120.3 v
213.4 v
146.2 v +0.6 v v

Index R+a. A.

7 53 20

222
129.4 107.2 v
212.4
298.2 85.8 v
193.0 v
167.0 v +0.2 v v

7 55 5

32.4 85.0 v
117.4 +0.29 v
200.5 112.3 v
312.8 197.3 v
162.7 v +0.33 v

20 8 2 v v

7 v 2 6. v

+v -3 8. v

12 v 1 2 8. v

8 33 v v 3 v 7 v

Mean +0.48 v
8.41 v
8.89 v

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1909phad.proj...595W

Jan 28, 1909.

Same Again III

Index R+a A.

26.7
127.6 100.9 v
210.4
311.6 101.2 v
202.1 v
157.9 v +0.42 v

33.8
121.2 87.4 v +0.40 v
201.6
313.9 112.3 v
199.7 v
160.3 v +0.32 v

Index L+B. B.

288.2
42.8 114.6 v
121.2
208.9 87.7 v
202.3 v
157.7 v +0.43 v

301.5
29.1 87.6 v +0.41 v
107.7
220.6 112.9 v
200.5 v
159.5 v +0.39 v

7 58 10

8 0 35

8 3 35

8 5 10

246 30 v

A 1 3A. v

+v -3A. v

13 1 0. v

A33 v. v 424 v

Mean +0.40 v
A.41 v
A.A1 v

1909phae.proj..595W

Jan. 28. 1909.

Same again IV

Index R+B. B.

287.9
42.4 114.✓ ✓

121.9
208.8 86.9 ✓
201.8 ✓ +0.41 ✓
1✓8.6 ✓

301.4
28.2 86.8 ✓ +0.43 ✓

104.3
221.0 116.7 ✓
203.✓ ✓
1✓6.✓ ✓ +0.4✓ ✓

Index R+a A.

8 14 0

203.8 103.1 ✓
306.9
34.6 77.7 ✓
112.3 180.8 ✓ +0.02 ✓
179.2 ✓

8 16 10

216.8
294.1 77.3 +0.03 ✓
22.1 104.9
127.0 182.2 +0.04 ✓
177.8

48 ✓✓. ✓
8 12 14. ✓
+✓ -38. ✓
13 11 36. ✓
8 33✓. ✓497 ✓

Mean +0.23 ✓
8.41 ✓
8.64 ✓

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1909phaa.proj..595W

Jan. 28, 1909.

Same again. V

Index R+a A.

8 19 20

203.7 102.7
306.4
361 76.5
112.6 179.2 −0.02

8 21 25

218.5 97.0 −0.07
293.5
27.2 94.6
125.8 173.6 −0.12

Index L+B. B.

8 24 10

112.7 103.6
216.3
306.3 77.7
24.0 181.3 +0.02
184.7

8 26 10

124.8 79.3 +0.04
204.1
293.8 103.2
37.0 182 +0.05
177.5

91 5
22 46.
+5 −38.
13 22 8.

mean −0.02
2.41
2.39

8 33 5 5 5 70

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1909phae.proj..595W

Jan 28, 1909

Same again VI

Index L+B B.

8 28 20

116.0
216.2 100.2
306.9
23.5 76.6 / 176.8 −0.06

8 30 10

127.9 77.3 −0.04
205.2
294.1
36.0 101.9 / 179.2 −0.02

Index R+a A.

8 32 10

27.4 91.9
119.3
221.2
291.0 69.8 / 161.7 −0.35

8 34 35

40.8 71.5 −0.32
112.3
209.9 98.2
303.1 168.7 −0.29

124 4

A 31 11.
+V −34.
13 30 33.

A 33 V. V 629

Mean −0.18
A.41
A.23

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1909phaa.proj..595W

Jan. 28, 1909.

Same again. VII

Index R+a. A.

30.4
120.9 90.5
225.2 63.1
288.3 157.6 −0.5 −0

42.5
8 42 25 108.0 65.5 −0.46
209.9
301.7 91.8 157.3 −0.43

Index L+B. B.

300.2
8 45 35 31.2 91.0
130.5
299.6 69.1 160.1 −0.32

312.7
19.4 66.7 −0.39
118.6
211.0 92.4 159.1 −0.40

Mean −0.42
A. 41
7.99

8 48 5
176 20
A 44 V.
+V −32.
13 43 27.
A 33 V. V 7.2

S.T. 5 39
H.A. 4 41
Dec +81.9
P.A. 197.2 Vernier B
Sprocket −4.5 B, −3.5 C

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1909phae.proj..595W

Jan. 28, 1909

ε Aurigæ

5	27	−0.4
6	27	Ub. Obs. Potsdam Rec. Phot + Ub.
1	0	9.5 m cap. used

Index Left B.

216.8		Southern + Brth Obs.
229.5	12.7 ✓	
36.9		
50.0	13.1 ✓	
	25.8 ✓	−4.73 ✓

9 44. 15

216.6		
230.4	13.8 ✓	−4.62 ✓
36.8		
50.0	13.2 ✓	
	27.0 ✓	−4.63 ✓

Index Right A.

126.1		
139.9	13.8 ✓	
306.7		
319.9	13.2 ✓	
	27.0 ✓	−4.63 ✓

126.6		
140.1	13.5 ✓	−4.61 ✓
306.5		
320.6	14.1 ✓	
	27.6 ✓	−4.59 ✓

Mean −4.64 ✓

9 50 30

94 45. ✓

9 47 22 ✓

+5 −38 ✓

14 46 44. ✓

633 5. 615 A ✓

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1909phae.proj..595W

Jan 28, 1909.

Same Again II

Index Right. A.

9 52 40

126.5
140.3 13.8
306.6
319.7 13.1 / 26.9 −4.64

126.7
139.9 13.2 −4.66
306.7
320.1 12.4 / 26.6 −4.69

Index Left. B.

36.4
50.0 13.6
216.7
229.8 13.1 / 26.7 −4.66

36.8
49.8 13.0 −4.66
216.7
230.2 13.5 / 26.5 −4.67

9 59 10
111 0.

9
−32.
14 17.
+33. 62 17

Mean − 4.66
Gen. " − 4.65

1909phae.proj..595W

Jan. 28, 1909.

Double Star (Comstock's List) No 35 = ο Persei

3 36 +33.6
7 6 W. Abs. Power Rec. Phot W.
3 30

P.A. 236° Dist. 20." Mags. 4.5, 9.6.

Index Right

10 22 0

218.1
231.4 13.3 ✓

36.8
49.8 13.0 ✓
26.3 ✓ ##4.69 ✓

216.7 13.7 ✓ ##4.79 ✓
230.4

38.5
48.8 10.3 ✓
24.0 ✓ ##4.69 ✓

Index left.

128.1 10.0 ✓
138.1

307.7
318.0 10.3 ✓
20.3 ✓ ##.26 ✓

127.4 11.4 ✓ ##.19 ✓
138.8

10 28 45
.0 45. ✓
10 2 22. ✓
+ -30. ✓
15 24 44. ✓

307.8 10.2 ✓
318.0 21.6 ✓ ##.12 ✓

Mean ##4.99 ✓

833 .6422 ✓ W's watch used for times

Watch 38 secs fast

L. P. P.

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1909phae.proj..595W

Feb. 1, 1909. (Monday)

δ Orionis.

5	27
4	17
1	10
10	50

−0.4

W dbs. Bouc Rec. Phot W
9.5 in cap. used.

Index R+a A₁ I

126.4 14.1 v
140.5
306.3
320.2 13.9 v
27.8 v −4.v v−v

126.9 13.3 v −4.v A v
140.2
306.4 13.9 v
320.3 27.2 v −4.62 v

Index L+B B

37.0 13.2 v
50.2
216.5 13.4 v
229.9 26.6 v −4.67 v

36.4 13.v v −4.64 v
49.9
216.2 13.9 v
230.1 27.4 v −4.60 v
Mean −4.61 v

7 52 40

8 4 15
116 vv. v
7 v A 2A. v
+v −43 v
12 v7 4v. v
A339. v −402 v

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1909phae.proj..595W

Feb 1, 1909.

Same Again. II

Index R+B B.

36.5
50.1 13.6
216.3 13.5
230.1 27.4 −4.60

36.5 13.7 −4.61
50.2
216.5 13.5
230.0 27.2 −4.62

Index R+a A.

306.5 13.6
320.1
126.5 13.4
139.9 27.0 −4.63

306.3 13.9 −4.60
320.2
126.4 13.8
140.2 27.7 −4.58

Mean −4.60

8 7 55

8 17 10
2 1
4 12 32.
+ −43.
13 11 49.
339. 499

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1909phae.proj..595W

Feb. 1, 1909

Same Again. III

Index R + a. A.

306.4
320.0 13.6ᵛ
126.5
140.1 13.6ᵛ / 27.2ᵛ −4.62ᵛ

306.3 13.5ᵛ −4.63ᵛ
319.8
126.4 13.6ᵛ
140.0 / 27.1ᵛ −4.64ᵛ

Index L + B B.

216.4 13.6ᵛ
230.0
36.4
49.9 13.5ᵛ / 27.1ᵛ −4.64ᵛ

216.6 13.5ᵛ −4.62ᵛ
230.1
36.5
50.3 13.8ᵛ / 27.3ᵛ −4.61ᵛ

Mean −4.62ᵛ
Gen. " −4.61ᵛ.

8 25 45

8 33 20.

vᵛ9 vᵛ1ᵛ
& 29 32.ᵛ
+vᵛ −43.ᵛ
13 28 49.ᵛ
& 339.ᵛ617ᵛ

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1909phae.proj..595W

Feb 1, 1909.

Fourth Type Star +59°2810

0	2	+ 58.3
6	17	Wolbs Bouw Bee. Phot T.
6	15	9.5 in cap used

Color 5 in Phot.

Index Right A.

9 27 5

215.4 ← Fourth Type Dis
292.8 77.4v
44.8
103.8 79.0v
136.4v −0.4v

224.7
285.6 60.9v −0.4v
38.0
114.2 76.2v
137.1v −0.3v

Index Left B.

121.1
202.6 81.5v
316.5
16.8 60.3v
141.8v −0.7v

132.0
197.5 65.5v −0.6v
304.4
27.0 42.6v
144.1v −0.6v

Mean −0.76v

9 33 10
60 14.1v
9 30 8.1v
+v −13.
14 29 25.1v
339.6038v

1909phae.proj..595W

Feb. 1, 1909.

S 7 6 40
HA + 6 43
Dec + 60.2
P.A. 78.5 Corner B
Sprocket. – 3.5 B, – 2.5 C.

Fourth Type Star – 1° 2312

9	32	– 0.5
6	52	
2	40	
9	20	

W. Obs. Power Rec. Phot. T.

Color 3 with ordinary eyepiece

Measts. on the next page.

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1909phae.proj..595W

Feb 1, 1909.

Tridy L+B B.

1358 ← Comp Standards

10 6 45

192.3 ~~6~~
323.2
6.7 $\frac{43.~~5~~}{100.0}$ +1.66

1420 43.9 +1.~~5~~9
185.9
316.0 $\frac{61.6}{10~~5~~.~~5~~}$
17.6 +1.~~5~~2

Tridy R+a A.

48.1 ~~5~~.2
703.3
232.9 $\frac{46.3}{101.~~5~~}$
279.2 +1.62

540 43.9 +1.64
97.9
228.0 $\frac{~~5~~6.0}{99.9}$
184.0 +1.66

Mean +1.62

10 13 35

20 20.
10 10 10.
+~~5~~ -43.
1~~5~~ 9 27.
+339.631~~5~~

S.T. 7 20
H.A -2 27
Dec -2.1
P.A 30.0 Vernier B
Sprocket. -3.5 B, -2.5 C.

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1909phae.proj..595W

Feb. 1. 1909.

W's watch used for times
Watch 43 secs. fast.

L. P. P.

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1909phae.proj..595W

Feb. 2, 1909 (Tuesday)

ξ Orionis

5	27	-0.4
4	22	
1	5	
10	55	

abandoned for

V Cephei

0	50	P1.2
4	25	
3	35	

W. Obs. Bouw Rec.

Phot. T

9.5 in cap used

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1909phae.proj...595W

Feb. 2, 1909

Index Above A.

197.3 ← Var. Dis.

7 28 40 — 313.5 — 116.2 v

34.3

118.1 — 43.4 v — 200.0 v — 160.0 v — +0.3 v

211.8

7 31 25 — 301.6 — 89.8 v — +0.4 v

18.0

130.0 — 112.0 v — 201.8 v — 178.2 v — +0.4 v

Index Below B.

105.5

7 34 55 — 120.4 v

225.9

298.6 — 91.7 v — 212.1 v — 147.9 v — +0.6 v

303

117.7

7 37 0 — 210.5 — 92.8 v — +0.6 v

285.5

44.8 — 119.3 v — 212.1 v — 147.9 v — +0.6 v

132 0 v

7 33 0 v

+v −4v. v

12 32 1v. v

Mean +0.v1 v

8340.v223 v

Continually troubled by clouds and stopped by clouds. Above groups ½ wt. Obs. very difficult.

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1909phae.proj..595W

Feb. 2, 1909

Same Again II
Index Below
101.7
223.9
298.2
31.6
Clouds.
Stopped by clouds.

7 40 5

W's watch used for times.
Watch 45 secs fast

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1909phae.proj..595W

Feb. 2. 1909.

B. + C. 1182.

11 29 48.v
11 30 48.4

Ballon 103.

~~B. 394.~~
11 30 0.0
11 31 0.0

Dis Jupe I Phot W. prec. node = Nat II
Comp. with next prec nat on same 2w. obs.

Campbell Rec.

12	0	53		182.0			
17	1	14 v	1	18	182.0	1	100.0 v
		+11. v		26	182.7		99.3 v
17	1	29. v		43	182.0		99.6 v -0.4 v
			2	0	182.9		
17	2	22 v		15	182.6	2	99.7 v
		+11. v		30	182.9		99.9 v
17	2	33. v		45	182.8		99.2 v -0.4 v
			3	7	183.0		
17	3	3 v. v		29	181.5	3	98 v v
		+11. v		42	182.1		100 v v
17	3	46.	4	3	182.6		99. v v -0.4 v
				28	182.8		
17	4	v 7. v		44	182.5		99.7 v
		+11 v	5	9	182.7		100.1 v
17	v	8. v		26	182.8		99.9 v -0.4 v
				51	182.9		
17	6	14. v	6	4	182.0		99.1 v
		+11. v		24	183.1		98.8 v
17	6	2 v. v		36	181.9		99.0 v -0.3 v
			7	47	183.2	6	99. v
17	8	27. v	8	21	182.7		98.6 v
		+11. v					99.6 v -0.3 v
17	8	38 v					

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1909phae.proj..595W

Feb. 2, 1909.

			12	8 42	8 3.5		
				59	18 2.1		
			9	16	8 2.6		
17	9	39.		32	18 2.0	99.4	
		+11		46	8 3.8	7 98.7	
17	9	50	10	3	18 2.5	99.0	−0.3
				26	8 3.2		
17	10	44		37	18 2.1	98.9	
		+11		49	8 3.4	8 99.8	
17	10	55	11	2	18 2.6	99.0	−0.3
			12	35	8 4.1		
17	13	2.		49	18 3.0	98.9	
		+11.	13	12	8 4.1	9 97.9	
17	13	13.		30	18 2.0	98.4	−0.3
				44	8 4.0		
17	14	23.	14	16	18 2.2	98.2	
		+11.		33	8 3.5	10 99.5	
17	14	34.		58	18 3.0	98.2	−0.3
			15	33	8 4.2		
17	16	12.	16	3	18 1.8	97.6	
		+10.		20	8 3.9	11 98.5	
17	16	22.		50	~~18 1.9~~ 18 2.4	98.0	−0.3
17	17	37.	17	27	8 5.5	93.0	−0.1
	17	54.		44	17 8.5	93.5	−0.1
	18	6		56	8 5.0	96.0	0.0
	18	16	18	6	17 5.0	87.9	+0.1
	18	28		18	8 7.1	87.7	+0.1

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1909phae.proj..595W

Feb 2, 1909.

17	18	43.[v]	12	18	33	174.4	42.4[v]	+0.3[v]
	18	54[v]			48	92.0	41.9[v]	+0.3[v]
	19	9.[v]			59	173.0	76.1[v]	+0.5[v]
	19	25[v]		19	15	96.9	69.9[v]	+0.4[v]
	19	41[v]			31	166.4	65.5[v]	+1.0[v]
	20	1[v]			51	101.3	59.7[v]	+1.2[v]
	20	16[v]		20	6	161.0	51.2[v]	+1.6[v]
	20	30[v]			20	109.4	45.3[v]	+1.9[v]
	20	44[v]			34	155.1	43.4[v]	+2.0[v]
	20	59[v]			49	111.7		
	21	15[v]		21	.5	not seen later		

L.V.

				21	30	112.1	45.1[v]	
17	22	16[v]		22	11	157.2	44.7[v]	
		10.[v]			30	112.3	44.9[v]	+1.9[v]
17	22	26.12		22	55	157.0		

Seeing blurry most of the time (at times however somewhat better) thus setting especially during actual observance were necessarily made slowly and with as much care as possible.

B. + C. 1102.

~~12~~		
12	37	50.0[v]
	38	50.0

Balloon 103.

~~12~~	~~37~~	~~0.0~~
12	38	0.0
	39	0.0

L. P. A.

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1909phae.proj..595W

Feb 3, 1909 (Wednesday)

I Orionis

5	27	-0.4
4	27	W. Obs. Poor Rec. Phot 20
1	0	
11	0	9.5 in cap. used

Index R+a A.

3064
3199 13.5

1265
1400 13.5 / 27.0 -4.63

3062
3198 13.6 -4.62

1262
1400 13.4 / 27.4 -4.60

Index L+B. B.

2162
2302 14.0

3064
4998 13.4 / 27.4 -4.60

2166
2299 13.3 -4.62

3633
4999 13.6 / 26.9 -4.64

mean -4.62

7 23 40

7 30 20

√F 0.
7 27 0.
+√ -41.
12 26 19.

P341. √1&3

1909phae.proj..595W

Feb 3, 1909.

Same Again. II

Index L+B B.

2163
2298 13.5
366
498 13.2 / 26.7 −4.66″

2167 13.2 −4.66″
2299
364 13.5 / 26.7
499 −4.66″

Index R+a A.

1263
1402 13.9
3065
3199 13.4 / 27.3 −4.61″

1265 13.7 −4.61″
1402
3063
3199 13.6 / 27.3 −4.61″

Mean −4.64″

7 33 20

7 41 15
74 35 ″
7 37 10 ″
+″ −41. ″
12 36 37. ″
23 41. ″ 2″ 4″

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1909phae.proj..595W

Feb. 3, 1909

Same Again. III

Index R to a A.

126.2
140.1 13.9

306.4
320.0 13.6 / 27.5 −4.59″

126.5
139.8 13.3 −4.62″

306.3
320.1 13.8 / 27.1 −4.64″

Index L to B B.

36.4
50.0 13.6

216.3
229.8 13.5 / 27.1 −4.64″

36.6
50.0 13.4 −4.64″

216.6
230.1 13.5 / 26.9 −4.64″

Mean −4.63″
Gen. " −4.63″

7 47 45

7 55 15

10 3 0.″
7 51 30.″
+ − −41.″
12 50 49.″
∠341. 53 53″

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1909phae..proj..595W

Feb. 3, 1909.

Fourth Type Star +34°56

0 29 +32.9
5 49 W. Obs. Roux Rec.
5 20 Phot T.

Index Above A.

306.7 ← Fourth Type Star

9 8–10

237 77.0 v
129.8 72.5 v
2023 149.5 v −0.5 v 2 v

308.8 69.6 v −0.5 v 6 v
18.4
125.2
208.8 142.4 v −0.5 v 3 v

Index Below B.

215.0 2 0.7 v
295.7
42.6 6 2.4 v
105.0 143.1 v −0.7 v

220.9 66.7 v −0.6 v v
287.6
34.0 142.7 v
116.7 149.4 v −0.5 v 9 v
Mean −0.60 v

9 15 30
23 40. v
9 11 50. v
+v −41. v
14 11 9.
2341.5911 v

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1909phae.proj..595W

Feb. 3, 1909.

S. T. 6 47
H. A +6 22
Dec 35.2
P. # 1580 Vanman B3
Spectra -6.5 B, -5.5 C

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1909phae.proj..595W

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1909phae.proj..595W

Feb. 3, 1909.

Double Star (Comstock's List) No 38 = 39 Tauri

3	3 9	+21.7
7	2 9	
3	3 0	

Abandoned.

Double Star (Comstock's List) No 220 = Arg. 540

23	8	+56.6
31	28	
8	20	

W. Ills Bowe Ree
Phot W.
P.A. 202° Dist 1.7

Index R+B

214.7			
233.3	18.6"		
34.7			
49.0	14.3"		
	32.9"	4.20"	
215.5			
230.4	14.9"		4.16"
33.1			
52.3	19.2"		
	34.1"	4.12"	

10 24 20

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1909phae.proj..595W

Feb 3, 1909

Friday 11a

123.8			
142.8	19.0 v		
305.2	14.A v		
320.0	~~31.A~~		
	33.A v	4.14 v	
125.6			
140.9	15.3 v		4.14 v
303.9	18.3 v		
322.2	33.6 v	4.1v v	
		mean 4.1v v	

10 30 5

v4 2v. v

10 27 12. v

+v -41. v

1v 26 31. v

A341.6434 v

W's watch used for times.
Watch 41 secs fast.

L. P. P.

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1909phae.proj..595W

Feb. 4. 1909. (Thursday).

δ Orionis. W. obs. W. rec.

Plot, W.

V 27	−0.4	
6 22		
+VV		

R. + A. A.

126.3		
	13.V	
139.A		
306.2		
319.9	13.7 / 27.2	−4.62

126.7		
	13.2	−4.64
139.9		
306.4		
319.A	13.4 / 26.6	−4.67

L. + B. B.

36.4		
	13.6	
V0.0		
216.V		
229.6	13.1 / 26.7	−4.66

36.4		
	13.4	−4.66
49.A		
216.V		
229.9	13.4 / 26.8	−4.6V

Mean −4.6V

9 23 A

9	43	30
	6 6	38.
9	33	19.
+V		−42.
14	32	37.

A342. 6060

His watch used for times.
Watch 42 secs. fast.

L. P. P.

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1909phae.proj..595W

Feb. 6. 1909 (Saturday)

δ Orionis.

5	27	-0.4
4	27	Ob. Obs. Rowe Ref. Phot 20.
1	0	
11	0	9.5 in caps. used.

7 23 35

Index R+a A.

3065
3198 13.3 v

1266
1401 13 v / 26 v -4.66 v

3065 13.v v -4.66 v
3200
1267
1399 13.2 v / 26.7 v -4.66 v

Index L+B B.
Clouds.

2170
2297 12.7 v

367
502 13.v v / 26.2 v -4.70 v

2167 13.0 v -4.67 v
2297
367
502 13.5 v / 26.v v -4.67 v

mean -4.67 v

7 33 40
v7 1v. v
7 2a 3a. v
v -42. v
12 27 v6. v
a34. v193 v

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1909phae.proj..595W

Feb 6, 1909.

Same Again. II

Index L+B B.

216.6		
229.6	13.0	
36.8	13.2	
50.0	26.2	−4.70

216.8		
229.7	12.9	−4.70
36.6	13.3	
49.9	26.2	−4.70

Index Rta A.

126.5	13.6	
140.1		
306.6	13.6	
320.2	27.2	−4.62

126.8	13.1	
139.9		−4.64
306.5	13.5	
320.0	26.6	−4.67

Mean −4.67

7 40 25

7 47 15

47 40.

7 43 50.

+5 −42.

12 43 8.

43 44. 300

1909phae.proj..595W

Feb. 6, 1909

Same Agaur. III

Tidey Lt A A.

7 54 0

126.7
140.0 13.3 ✓
306.8
319.8 13.0 ✓ / 26.3 ✓ −4.69 ✓

126.6 13.2 ✓ −4.68 ✓
139.8
306.6 13.3 ✓
319.9 26.5 ✓ −4.67 ✓

Tidey Lt B B.

36.7 13.4 ✓
50.1
217.0 12.6 ✓
229.6 26.0 ✓ −4.72 ✓

37.1 12.6 ✓ −4.72 ✓
49.7
216.8 13.4 ✓
230.2 26.0 ✓ −4.72 ✓

8 0 45
114 45 ✓
7 57 22 ✓
+5 −42 ✓
12 56 40 ✓
A 3444 ✓ 394 ✓

Mean −4.70 ✓
Gen. " −4.68 ✓

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1909phae.proj..595W

Feb 6, 1909.

Fourth Type Star +2° 1715

7	26	+ 3.6
5	46	Ub Obs Power Rec
1	40	Phot. T.
10	20	

Color 5 with ordinary eyepiece

Index R+A A.

8 39 0

2226 ← Comp Star Dis

2866 64.0 ✓

50.1

99.4 49.3 ✓

113.3 ✓ +1.34 ✓

231.5

281.5 ✓0.0 ✓ +1.29 ✓

417

109.5 67.8 ✓

117.8 ✓ +1.24 ✓

Index R+B B.

130.9 68.✓ ✓

199.4

3173

14.5 ✓7.2 ✓

12✓.7 ✓ +1.07 ✓

137.0

193.0 ✓6.0 ✓ +1.04 ✓

308.8 73.1 ✓

21.9 129.1 ✓ +1.00 ✓

mean +1.16 ✓

8 46 55

✓ ✓✓. ✓

42 ✓8. ✓

+✓ -42. ✓

13 42 16. ✓

+3444.✓710 ✓

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1909phae.proj..595W

Feb 6, 1909.

S. T. 6 16
H. A. -1 17
Dec. +1.8
P. A 206°.0 Vernier B
Sprocket. -4.5 B, -3.5 C

Double Star New list = Burnham's Cat. 4169.

7 31 -14.2
7 1
0 30
11 30

P.A. 305° dist. 7" Mags 7.2, 7.4

W Obs. Bonn Rec. Phot. W.

Measts on following page.

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1909phae.proj..595W

Feb. 6, 1909.

Index L+A

9 45 0

358.0 ← South Foll. + Belt Dis
88.3 90.3 v
184.2
263.8 79.6 v
169.9 v 0.19 v

3.5
82.6 79.1 v 0.24 v
180.7 25.0 v
265.7 164.1 v 0.30 v

Index R+B

267.1
354.6 87.5 v
93.7
172.8 79.1 v
166.6 v 0.25 v

273.2
352.2 79.0 v 0.20 v
86.7
179.0 92.3 v
171.3 v 0.16 v

Mean 0.22 v

9 54 35
99 35 v
9 49 48 v
+v −47 v
14 49 6 v
+344.617 v

∴ South fol. comp. is btr. by above means.

In measurement of above double seeing somewhat blurry especially at times. This blurriness combined with the closeness of components, rendered observations a little difficult.

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1909phae.proj..595W

Feb. 6, 1909.

Double Star (Comstock's List.) No 76 = 29 Monoc. A C.

8	4	-27
7	29	W. Obs Rowe Rec. Phot W.
0	35	
11	25	P.A. 245°. Dist 1.1 Mago

Index L+B

305.0 ← Kalh. Foll. + Brit Obs

321.8 16.8

125.3

140.7 $\frac{15.4}{32.2}$ K. 2 V

305.5

321.0 1 V. V K. 24 V

124.4

141.5 $\frac{17.1}{32.6}$ K. 22 V

Index R+a

215.6 1 V. 4

231.0

37.1

49.8 $\frac{12.7}{24.1}$ K. V V V

216.6 12.7 K. 60 V

229.3

36.1

50.5 $\frac{14.4}{27.1}$ K. 64 V

Mean K. 42 V

10 12 5

10 19 0

31 V. V

10 V 32. V

+V -K2. V

1V 14 V 0. V

A3 44. 63 V 3 V

1909phae.proj..595W

Feb 6, 1909.

Observations of above double difficult; moon bright, and practically at the full; seeing somewhat blurry, comparatively rather fault, and wind, at times, high and gusty.

W's watch used for times
Watch 47 secs. fast

L. P. P.

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1909phae.proj..595W

Feb 8, 1909 (Monday).

δ Orionis

5	27	-0.4
4	47	W. Obs Bouw Rec. Phot W.
0	40	9.5 m caps. used
11	20	

Index LtB B.

7 29 25

217.0 12.9 v
229.9
37.1 13.0 v
50.1 25.9 v -4.73 v

217.0 12.8 v -4.71 v
229.8
36.6 13.5 v
50.1 26.3 v -4.69 v

Index Rta A.

126.5 13.5 v
140.0
306.5 13.3 v
319.8 26.8 v -4.65 v

127.1 12.8 v -4.68 v
139.9
306.6 13.3 v
319.9 26.1 v -4.71 v

Mean -4.70 v

7 36 30
6 v vv. v
7 32 v8. v
+v -42.
12 32 16. v
f346. v224 v

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1909phae.proj..595W

Feb. 8, 1909.

Same Again II

Tidey RtA A.

1267
1400 13.3 v

3065
3200 13.5 v
26.8 v −4.65 v

1270
1395 12.5 v −4.69 v

3067
3201 13.4 v
25.9 v −4.73 v

Tidey LtB B.

37.2
50.1 12.9 v

217.1
229.9 12.8 v
25.7 v −4.74 v

37.1
50.1 13.0 v −4.72 v

216.8
229.9 13.1 v
26.1 v −4.71 v

Mean −4.70 v

Gen. " −4.70 v

7 38 50

7
8 .46 0

44 50. v
42 25. v
+5 −42. v
12 41 43. v

~~2346.5706~~ v
2346.5290 v

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1909phae.proj..595W

Feb 8, 1909

o Ceti

2 12 −3.6
5 27 W. Abs-Rowe Ree. Phot W.
3 15

Index L+B B.

21.6 ← Var. Dis.
65.4 43.8 v
2057
241.7 36.0 v
79.8 v −2.20 v

8 1 50

263 37.4 v −2.18 v
61.7
201.0 47.7 v
246.5 40.9 v −2.19 v

Index R+A A.

285.7 77.4 v
341.1
1147
152.5 37.2 v
93.2 v −1.83 v

293.8 39.4 v −1.82 v
333.2
107.4
161.4 47.0 v
93.4 v −1.82 v
Mean −2.00 v

8 9 5
60 77.1 v
2 7 20. v
+7 −42. v
13 4 46. v
2346.747 v

1909phae.proj..595W

Feb. 8 1908

8 11 50

Same again II

Index R+A A.

286.2
339.0 −2.4
114.2
1532. 39.0 / 91.4 −1.47

293.4
332.9 39.1 −1.46
106.2
159.2 −3.0 / 92.1 −1.41

Index L+B B.

200.6
248.1 47.1
24.7
61.8 37.1 / 46.6 −2.06

205.9
241.4 31.1 −2.04
17.2
65.2 48.6 / 43.1 −2.09

Mean −1.97
Sum. " −1.94

8 18 53

30 47
4 11 22.
+1 −42.
13 14 40.
£346.1−19

1909phae.proj..595W

Feb 8, 1909

Double Star (New List) = Burnham's Cat. No 2662

5 14 - 10.9
6 14 W. Obs. Bourke Phot W.
1 0 P.A. Dist

Index Below

8 43 55

270.4 ← Foll. + Brtr. Dec
356.4 Δ6.0 ✓
92.6 Δ2.6 ✓
175.2 16Δ.6 ✓ 0.22 ✓

267.8 Δ7.6 ✓ 0.16 ✓
355.4
89.0 Δ6.4 ✓
175.4 17Δ.0 ✓ 0.11 ✓

Index Above

182.3 Δ2.✓ ✓
264.8
3.2 Δ3.3 ✓
86.5 16✓.Δ ✓ 0.27 ✓

182.0 Δ4.2 ✓ 0.22 ✓
266.2
0.4 Δ6.3 ✓
86.7 17Δ.✓ ✓ 0.18 ✓
Tucan 0.19 ✓

8 50 25
9Δ 20. ✓
Δ 47 10. ✓
+✓ -42. ✓
13 46 2Δ. ✓
Δ346.✓739 ✓

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1909phae.proj..595w

Feb 8, 1909

B+C		1182	Ballou		103
9	4	14.2	9	4	0.0
9	5	14.0	9	5	0.0

Dis. Jup. III Phot. W.
W Obs. Rowe Rec.
Compared with brighter of two Sats. near each other on same preceding side of Jup. as Sat. III, - the comparison Sat. being slightly south of fainter of the two close Sats, and a little nearer Jup. = Sat II.

14 16 42 ✓	9	16	7		80.1	106.1 ✓	
-12. ✓		"	31	(1)	186.2		
14 16 30 ✓		"	55		81.5	105.6 ✓ / 105.6 ✓	-0.6 ✓
		17	17		186.5		
		"	40		81.0	105.4 ✓	
14 18 16. ✓		18	3	(2)	186.4		
-11. ✓		"	30		80.5	105.0 ✓ / 105.2 ✓	-0.6 ✓
14 18 5. ✓		"	50		185.5		
		20	34		80.7		
14 21 3 ✓		"	54	(3)	187.0	106.3 ✓	
-11. ✓		21	15		81.4	104.8 ✓ / 105.6 ✓	-0.6 ✓
14 20 52 ✓		"	28		186.2		
		"	48		81.5		
14 22 21. ✓				(4)			
-10.							
14 22 11 ✓							

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1909phae.proj..595W

Feb 8. 1909.

9	22	12	(4)	185.8	104.3	
	"	34		81.4	105.2	
	"	51		186.6	104.8	−0.6
	23	27		81.3	104.7	
	"	42	(5)	186.0	105.0	
	"	59		81.8	104.8	−0.6
	24	17		186.8		
	29	0		81.0		
	"	15		Clouds	106.0	
	"	25	(6)	187.0	104.4	
	"	54		81.4	105.2	−0.6
	30	11		186.8		
	"	37		81.7		
	31	0		185.9	104.2	
	"	16	(7)	82.3	103.7	−0.5
	"	29		185.0		
	"	47		81.3	104.1	
	32.	7		185.4	104.9	
	"	24	(8)	81.3	104.5	−0.6
	"	36		186.2		
	"	56		81.2	104.6	
	33	14		185.8	105.2	
	"	37	(9)	80.6	104.9	−0.6
	"	49		185.8		
	"	55		Clouds		
	34	16	(10)	82.0	103.2	
	35	3		185.2	104.5	−0.5
					103.8	

14 23 51.
−10.
14 23 41.

14 29 38.
−9.
14 29 29.

14 31 6.
−9.
14 30 57.

14 32 14.
−8.
14 32. 6.

14 33 24.
−8.
14 33 16.

14 34 4.
−8.
14 34 56.

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1909phae.proj..595W

Feb. 8, 1909.

			9	35	19	(10)	80.5	
				"	38		185.0	
14	35	59.		36	6		82.0 103.2	−0.5
14	36	16.		"	23		185.2 101.7	−0.4
14	37	33.		37	40		Clouds	
14	39	15.		39	22		83.5 101.3	−0.4
14	39	35.		"	42		184.8 103.8	−0.5
14	40	10.		40	25		81.0	
14	41	9		41	15		Clouds Sats invisible	
14	47	35		47	40		Clouds thick	
14	56	4		56	11		Clouds still thick	
14	56	4		56	11		Sats Invisible	
14	2	37	10	2	39		Jup. seen through clouds but no Sats. seen	
14	4	52	10	4	53		Brh. Sats seen through somewhat thynner clouds for a moments in Phot. but Jup. III not seen.	
14	11	32.	10	11	32		Clouds still thick Jupiter invisible	

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1900phae.proj..595W

Feb. 8, 1909

B+C	1182		Ballon	103	
10	15	59.0	10	16	0.0
10	16	58.5	10	17	0.0

Seems fairly good in settings which were actually taken but stopped by clouds.

W's watch used for times in settings befor eclipse.
Watch 42 secs. fast.

L. P. P.

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1909phae.proj..595W

Feb. 11, 1909. (Thursday).

5 drivers.

5	27
5	12
0	15
11	45

-0.4.

W. Alls. Rowe Ree Phot W
9.5 in cap used.

7 33 0

Index L+B B.

217.4
230.0 12.6 v
37.0
49.8 12.8 v
25.4 v -4.77 v

216.9
229.9 13.0 v -4.74 v
36.7
49.8 13.1 v
26.1 v -4.71 v

Index R+a A.

126.9
140.0 13.1 v
307.1
320.0 12.9 v
26.0 v -4.72 v

127.2
140.0 12.8 v -4.70 v
306.7
320.2 13.5 v
26.3 v -4.69 v
Mean -4.72 v

7 39 35
7 2 35. v
7 36 10. v
+v -47. v
12 35 31. v
£349. v247 v

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1900phae.proj...595W

Feb 16, 1909.

Same dg as II

Ind dy R+a A.

126.6
139.9 13.3 ✓
306.8
320.0 13.2 ✓ 26.5 ✓ ✓ −4.67 ✓

7 41 25

127.1
140.0 12.9 ✓ −4.67 ✓
306.6
320.2 13.6 ✓ 26.5 ✓ ✓ −4.67 ✓

Ind dy δ+B. B.

373
500 12.7 ✓
217.3
230.1 12.8 ✓ 25.5 ✓ ✓ −4.76 ✓

37.0
50.0 13.0 ✓ −4.72 ✓
216.8
230.3 13.5 ✓ 26.5 ✓ ✓ −4.67 ✓

7 48 20
89 45 ✓
7 44 52. ✓
+5 −47. ✓
12 44 5. ✓
δ349. 5307 ✓

Mean −4.70 ✓
Gen. " −4.71 ✓

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1909phae.proj..595W

Feb. 11, 1909.

B + C	1182		Ballou	103	
8	8	50.2	8	9	0.0
8	9	49.8	8	10	0.0
8	10	49.0	8	11	0.0
8	11	48.6	8	12	0.0
8	12	48.2	8	13	0.0

Obs. Jup. I. Phot. Ob. Ob. Bow Rec.
Compared with mean of two Sats. (to Jupiter) on foll. side = Sat. II.

8	18	4		356.8	mean.
	~~11~~	~~51~~	96.6	~~000~~	
	19	9		356.0	
	"	29	96.2	93.0	1
	"	41	−0.2	355.2	
	20	1		91.0	
	"	55	89.7	359.4	
	21	14	90.3	89.1	2
			90.0	0.0	

13h 19m 27s.
+12.
13 19 39.

13 21 26.
+12.
13 21 38

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1909phae.proj..595W

Feb 11, 1909.

8	21	38		358.8	
	"	57		89.1	
	22	18		357.7	
13 22 44.	"	40	92.3	90.0	3
+12.	"	51	91.8	358.0	
13 22 56	23	6	92.0 −0.1	89.8	
	"	26		358.1	
13 24 2	"	57	94.0	92.1	
+12.	24	14	90.6	359.0	4
13 24 14.	"	31	92.3 −0.1	89.6	
	"	52		358.2	
13 25 23	25	16	90.7	88.9	
+12.	26	34	90.7	358.5	
13 25 35.	"	51	90.7 0.0	89.2	
	27	21		358.0	
13 28 24.	"	41	91.0	89.0	
+12.	29	9	28.9	359.6	6
13 28 36	"	26	90.0 0.0	88.6	
	"	44		358.0	
13 30 18.	30	0	91.3	89.3	
+12.	"	27	91.4	358.6	7
13 30 30	31	1	91.4 −0.1	90.0	
	"	27		359.6	
13 31 57.	"	48	89.5	89.1	
+12.	32	7	90.5	358.3	8
13 32 9.	"	26	90.0 0.0	88.8	
	"	47		357.7	
13 33 18.	33	3	91.1	88.8	
+12.			89.3		9
13 33 30			90.2 0.0		

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1909phae.proj..595W

Feb 11, 1909

8	33	33				359.1	
	"	48				88.4	
	34	21				359.6	
13	34	✓2. ✓	"	33	29.1 ✓		88.7	10
		+12. ✓			90.3		
	35	21			29.7 ✓	0.0 ✓	358.1	
13	35 ✓	10. ✓	"	39			88.4	
	36	26					359.1	
13	36	46. ✓	"	41	90.9 ✓		90.0	11
		+12. ✓	"	51	29.✓		359.0	
13	36	✓2. ✓	37	6	29.7 ✓	0.0 ✓	87.5	
	"	22			28.2 ✓		358.4	
13	37	47. ✓	"	40	91.✓ ✓		87.2	12
		+12. ✓	"	56	90.2 ✓	0.0 ✓	357.5	
13	37	✓9. ✓	38	9			89.0.	
13	38	43. ✓	"	31	27.✓ ✓	+0.1 ✓	359.5	
13	39	1 ✓	38	49	23.9 ✓	+0.2 ✓	87.0	
13	39	12 ✓	39	6	22.9 ✓	0.0 ✓	3.1	
13	39	3✓ ✓	"	23	29.✓ ✓	0.0 ✓	92.0	
13	39	✓1. ✓	"	39	23.✓ ✓	+0.2 ✓	2.5	
13	40	2 ✓	"	56	79.✓ ✓	+0.4 ✓	86.8	
13	40	26 ✓	40	14	77.6 ✓	+0.✓ ✓	6.5	
13	40	32 ✓	"	26	76.✓ ✓	+0.✓ ✓	84.1	
13	40	✓0. ✓	"	38	70.✓ ✓	+0.2 ✓	7.6	
13	41	2. ✓	"	56	67.6 ✓	+0.9 ✓	78.1	
13	41	2✓. ✓	41	13	✓2.0 ✓	+1.3 ✓	10.5	
13	41	41. ✓	"	29	✓2.1 ✓	+1.6 ✓	68.5	
13	42	2. ✓	"	50			16.4	

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1909phae.proj..595W

Feb 11, 1909.

8	42	42	Not seen later	
		Limit of Visibility.		
	42	59		15.0
13 43 27.✓	43	14	✓4.✓ ✓	69,5
+12.✓	"	39	✓1.7 ✓3.1 ✓ +1.✓ ✓	15.0
13 43 39.✓	43	56		66.7

B+C 1182

8	50	47.5
8	51	47.2
8	52	46.9

Ballou 103

8	51	0.0
8	52	0.0
8	53	0.0

Seeing more a less blurry throughout. The atmospheric conditions were the best in the early part of the observations. As observations progressed, the sky gradually grew hazy and progressively cloudy. As it neared the time of variation, the haze and light cloud became quite thick so that observations became difficult. The settings, however, were taken slowly and with great care and, if the sky had been clear, more settings could have been obtained during the time of variation. Immediately after limit of Visibility the whole sky was thickly cloudy with no stars visible.

Several comparisons of the chronometer

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1909phae.proj..595W

Feb. 11, 1909.

were taken with Ballou 103 before the eclipse - as the chronometer had just been wound up and started and the first two comparisons seemed to vary a little. The chronometer, however, seemed to steady and the last comparison before the eclipse is considered the best one for reference at that time.

W's watch used for times in settings before eclipse.
Watch 47. secs. fast.

L. P. P.

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1909phae.proj...595W

Feb. 12, 1909. (Friday)

δ Orionis.

5	27	-0.4
5	2	W Obs. Power Rec. Phot W
0	25	
11	35	9.5 in cafe used

Clouds

Still cloudy

Index L+B B.

7 25

217.4

230.0 12.6 v

7 52 0

37.1

49.7 12.6 v / 2√2 v −4.79 v

217.1 12.7 v −4.76 v

229.8

36.9

50.0 13.1 v / 2√.8 v −4.73 v

Index R+a A.

127.3

140.1 12.8 v

306.6

320.0 13.4 v / 26.2 v −4.70 v

127.0

139.9 12.9 v −4.60 v

306.4

320.0 13.6 v / 26.5 v −4.67 v

mean −4.72 v

8 25 0

137 0. v

& & 30 v

+√ −42 v

13 7 42. v

6350. √470 v

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1909phae.proj..595W

Feb 12, 1909.

Same Again II

Index Rt A A.

127.3
140.1 12.8 v

306.5
319.9 13.4 v / 26.2 v −4.70 v

127.2
139.9 12.7 v −4.72 v

306.8
319.9 13.1 v / 25.8 v −4.73 v

Index Lt B B.

36.9
50.2 13.3 v

216.8
229.9 13.1 v / 26.4 v −4.68 v

37.3
50.1 12.8 v −4.70 v

216.9
230.2 13.3 v / 26.1 v −4.71 v

Mean −4.71 v
Gen. " −4.72 v

8 27 20

8 34 45

6 2 √ v
A 3 1 2. v
+√ −4A. v
13 30 14. v
A3√0. √626 v

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1909phae.proj..595W

Feb 12, 1909.

Double Star (Comstock's List) No 57 = 111 Tauri

5 19 +17 3
6 49 W Obs. Roma Rec Phot. W.
1 30 P.A 270° Dist. 1.4 Hago.

Index L + B

301.1 ← Foll. + Brts. Dec.
327.7 26.6 ✓
125.3
141.8 16.5 ✓
43.1 ✓ 3.60 ✓

9 13 5

304.3 19.3 ✓ 3.56 ✓
323.6
21.1 25.4 ✓
146.5 44.7 ✓ 3.52 ✓

Index R + a

211.6 25.4 ✓
237.0
34.4 17.2 ✓
52.2 43.2 ✓ 3.60 ✓

215.1 16.5 ✓ 3.62 ✓
231.6
35.2 23.6 ✓
58.8 39.6 ✓ 3.76

Mean 3.62 ✓

9 23 50
36 55.5 ✓
9 18 24.4 ✓
55 -44 ✓
14 17 40.1 ✓
23 50 9 17

Measurements difficult on account of clouds + haze

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1909phae.proj..595W

Feb. 12, 1909.

Double Star (Comstock's List) No 58 = 15 Gemini.

6 22 +20.9
7 22 W Obs. Powe Rec. Phot. W.
1 0 P.A 204° Dist 29."

Tidey Left

287.6 = North. Foll. + Brh Dis
339.8 ✓2.2✓
114.7
154.9 40.2✓ / 92.4✓ 1.8✓

9 45 25

294.0
334.1 40.1✓ 1.80✓
104.6
161.0 56.4✓ / 96.5✓ 1.74✓

Tidey Right.

195.0
250.5 ✓✓.✓
24.0
60.8 36.8✓ / 92.3✓ 1.8✓

204.4 37.7✓ 1.84✓
240.1
14.5
71.8 57.3✓ / 93.0✓ 1.83✓

Mean 1.82✓

9 53 20
9 8 47.✓
9 49 22.✓
+✓ -48.✓
14 48 34.✓
8350.6171✓

Remark on next page

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1909phae.proj..595W

Feb. 12, 1909

Observations very difficult on account of clouds through which ~~it~~ double was measured.

W's watch used for times.
Watch 48 secs. fast.

L. P. A.

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1909phae.proj..595W

Feb. 13, 1909 (Saturday)

δ Arionis I

5	27	−0.4
4	57	W. dbs. Prism Rec. Phot W
0	00	
11	30	9.5 in caps used

Index L+B B.

217.1 13.3
230.4
37.0 13.2
50.2 26.5 −4.67

216.9 13.3 −4.66
230.2
36.9 13.5
50.4 26.4 −4.65

Index R+a A.

126.6 13.6
140.2
306.5 13.6
320.1 27.2 −4.62

126.8 13.6 −4.60
140.4
306.4 14.0
320.4 27.6 −4.59

Mean −4.63

7 16 15

7 22 15

	34	30
7	19	15
+5		−5
12	18	24

18 35 5 / 24

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1909phae.proj..595N

Feb. 13, 1909.

Same Again. II

Index R+a. A.

7 24 40

126.8
140.3 13.5 v

306.6
320.4 13.8 v / 27.3 v — 4.61 v

126.7
140.3 13.6 v — 4.66 v

306.6
320.5 13.9 v / 27.5 v — 4.59 v

Index L+B. B.

36.9
50.3 13.4 v

217.1
230.4 13.3 v / 26.7 v — 4.66 v

37.2
50.3 13.1 v — 4.62 v

217.2
230.2 13.0 v / 26.1 v — 4.71 v

Mean — 4.64 v

7 30 20

v v 0. v

7 27 30 v

+v — v1. v

12 26 39. v

23 v1. v1 0 v t v

1909phae.proj..595W

Feb 13, 1909.

Same Again III

Index Lt B B.

37.1
50 3 13.2 v

7 35 50

217.1
280.1 13.0 v / 26.2 v −4.70 v

37.2
58.4 13.2 v −4.67 v

216.7
230.4 13.7 v / 26.9 v −4.64 v

Index Rta A.

306.5
320.4 13.9 v

126 6
140.5 13.9 v / 27.8 v −4.57 v

306.8
320.5 13.7 v −4.56 v

126.6
140.9 14.3 v / 28.0 v −4.57 v

7 40 48

76 30. v

7 38 15. v

+5 −5/. v

12 37 24. v

.83√/. √260 v

Mean −4.62 v

Gen. " −4.63 v

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1909phae.proj..595W

Feb. 13, 1909.

B+C 1182.			Ballou 103.		
7	56	6.6	7	56	0.0
7	57	6.5	7	57	0.0

Dia. Jup. II. Phot. W. W. Obs. Power Rec.
Compared with only Sat. on foll. side of Jupiter
= Sat. I.

	8	5	28			183.2
13 6 12.✓		"	48	Δ0.2✓		263.4 (1)
-6.✓		6	40	Δ1.1✓ / Δ0.6✓	+0.4✓	182.0
13 6 6.✓		"	52			263.1
		7	14			184.5
13 7 3✓.		"	24	79.✓		264.0
-✓.✓		"	44	77.7		184.8 (2)
13 7 30.✓		"	58	Δ0.6✓	+0.4✓	262.5
		8	14			184.0
13 4 36.✓		"	27	79.1✓		263.1 (3)
-✓.✓		"	44	Δ1.0 / Δ0.0✓	+0.4✓	182.8
13 4 31.✓		9	1			263.8

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1909phae.proj..595W

Feb. 13, 1909

			8	-9	40		182.0
13	10	1.		"	54	Δ1.2	263.2 (4)
		-5.		10	9	77.9	184.1
13	9	56.		"	22	79.6 +0.4	262.0
				"	38		184.0
13	11	0.		"	52	79.2	263.2 (5)
		-5.		11	8	79.1	184.0
13	10	55.		"	20	79.2 +0.4	263.1
				12	7		183.8
13	12	29.		"	21	79.5	263.3 (6)
		-5.		"	34	79.4	184.1
13	12	24.		"	54	79.4 +0.4	263.5
				13	10		184.2
13	13	33.		"	25	Δ0.0	264.2 (7)
		-5.		"	41	Δ0.3	183.5
13	13	28.		"	56	Δ0.2 +0.4	263.8
				15	28		183.2
13	15	55.		"	39	79.2	263.0 (8)
		-5.		16	7	78.3	184.2
13	15	50.		"	26	79.0 +0.4	262.5
				"	44		184.0
13	17	5.		"	57	79.5	263.5 (9)
		-5.		17	10	79.3	183.3
13	17	0.		"	28	79.4 +0.4	262.6
				"	43		183.2
13	18	12.		18	6	Δ0.3	263.5
		-4.		"	20	79.3	184.0 (10)
13	18	8		"	37	79.2 +0.4	263.3

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1909phae.proj..595W

Feb 13, 1909.

13 19 41.8		19	14		183.7
−4		"	29	74.3	262.0 (11)
13 19 37.		"	53	74.4	184.0
		20	8	+0.4	262.5
13 20 41.		"	23	74.3	185.0
−4		"	46	74.2	263.3
13 20 37.		21	1	+0.2	183.6 (12)
		"	14	74.2	261.8
13 21 41.		"	31		184.5
−4		"	45	77.0	261.5
13 21 37.		22	2	76.6	185.8 (13)
		"	21	+0.3	261.4
13 23 4.		"	39		183.8
−4		"	56	77.7	261.5
13 23 0.		23	10	74.0	184.5 (14)
		"	29	77.4	262.5
13 24 20.		24	1	+0.2	184.2
−4		"	21	77.4	261.6
13 24 24.		"	37	79.2	184.3 (15)
		"	51	74.3	263.5
13 25 29.		25	7	+0.4	185.0
−4		"	22	76.9	261.9
13 25 25.		"	37	74.5	184.0 (16)
		"	50	77.7	262.5
13 26 32.		26	8	+0.2	185.0
−4		"	25	77.6	262.6
13 26 28.		"	39	74.5	185.5 (17)
		"	57	77.0	262.0
				+0.2	

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Feb. 13, 1909.

			8	27	.10			186.4
13	27	30.		"	20	74.1		260.5 (1A)
		-4.		"	37	73.6		187.4
13	27	26.		"	52	73.A	+0.6	261.0
13	2A			28	9	71.	+0.7	188.6
13	2A	16.		"	20	72.1	+0.7	260.1
13	2A	33.		"	36	71.	+0.7	188.8
13	2A	49.		"	50	70.3	+0.A	259.5
13	29	1.		29	4	69.A	+0.A	189.2
13	29	20.		"	23	66.0	+0.9	259.0
13	29	33.		"	36	69.1	+1.2	193.8
13	29	50.		"	53	67.1	+1.4	252.1
13	30	7.		30	10	62A	+1.	197.0
13	30	1A.		"	21	49.6	+1.7	249.8
13	30	34.		"	37	47.1	+1.9	200.2
13	30	49.		"	52	34.A	+2.3	245.3
13	31	4.		31	7	30.6	+2.A	206.5
13	31	17.		"	20			237.1
13	31	51.		"	54			Not seen later

Limit of Visibility

			B	32	24			209.0
13	33	23		"	58	29.0		238.0
		-3.		33	25	26.7	+3.0	209.1
13	33	20.		34	44	26.A		237.8

Seeing on general pretty good and on general rather steady. The limb of Jupiter was a little quivering, however, and Sat. disappeared

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1909phae.proj..595W

Feb 13, 1909

moduately near the limb but eclipse considered good.

B+C	1182		Ballou	103	
8	44	2.0	8	44	0.0
8	45	1.6	8	45	0.0

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1909phae.proj..595W

Feb 13, 1909.

Double Star (New list) = Burnham's Cat No 1810

3 33 +28.4
4 3 W. Obs. Power Rec. Phot W.
3 30

P.A. 209° Dist 7" Mags. 6.8, 7.3
Index R+B
1.1 ← North, Foll, + Brh. Obs.

9 21 0

85.6 ~~4~~ 4.5 v
185.2
258.9 ~~2~~ 3.7 v / 1 v ~~4~~ 2 v 0.42 v

6.0 ~~7~~ 2.4 v 0.44 v
78.4
181.0 ~~4~~ 3.2 v
264.2 1 v ~~v~~ .6 v 0.47 v

Index L+a
273.0
353.7 ~~2~~ 0.7 v
96.4
171.5 ~~7~~ v. 1 v / 1 v ~~v~~. ~~4~~ v 0.46 v

32 0
9 ~~3~~ ~~35~~
~~v~~3 0. v
9 26 30. v
+~~v~~ -~~v~~ 1. v
14 ~~2v~~ 39 v
~~4~~ 3 ~~v~~ 1.60 11 v

276.8
~~346.0~~ 349.0 7.22 0. ~~v~~ 0 v
93.1
173.1 0. ~~v~~ 3 v ~~4~~ 0, 0 / 1 ~~v~~ 2, 2

Mean 0.47 v

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1909phae.proj..595W

Feb. 13, 1909.

δ Aurigæ

5 27 −0.4

7 27 W. Obs. Rough Rec. Phot W.
2 0 95 mi capsized

Index L+A B.

367
508 14.1 v

216.9 13.4 v
230.3 27.5 v −4.5 v

9 47 35

36.8
50.5 13.7 v −4.5 v

216.6 13.4 v
230.4 27.5 v −4.5 v

Index R+B A.

306.3 14.0 v
320.3
126.7 13.6 v
140.3 27.6 v −4.5 v

9 53 25

306.3 14.2 v −4.5 v
320.5
126.4 14.0 v
140.4 28.2 v −4.5 v

Mean −4.5 v

101 0.1 v
9 50 30. v
+v −51. v
14 49 39. v
83 51.6178 v

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1909phae.proj..595W

Feb. 13, 1909

Same Again - II

Index A+B A.

306.5		
320.4	13.9	
127.1		
140.2	13.1	
	27.0	-4.63

306.5		
320.4	13.9	-4.60
126.5		
140.3	13.8	
	27.7	-4.58

Index Δα B.

216.4		
230.6	14.2	
37.1		
50.3	13.2	
	27.4	-4.60

216.9		
230.4	13.5	-4.60
36.6		
50.6	14.0	
	27.5	-4.59

Means -4.60

q 56 0

10 1 0

117 0.

9 Δα 30.

+δ -δ 1.

14 δ7 39.

.Δ3δ1.6233

1909phae.proj..595M

Feb. 13, 1909

Same Again.

Index L+a B,

216.3
230.4 14.1 ✓
37.0
50.5 13.5 ✓ / 27.6 ✓ −4.9 ✓

216.8
230.4 13.6 ✓ −4.60 ✓
36.8
50.6 13.8 ✓ / 27.4 ✓ −4.60 ✓

Index R+B A.

126.6
140.5 13.9 ✓
306.4
320.3 13.9 ✓ / 27.8 ✓ −4.9 ✓

126.6
140.4 13.8 ✓ −4.6 ✓
306.4
320.7 14.3 ✓ / 28.1 ✓ −4.5 ✓

10 11 50

10 18 0

29 50. ✓
10 14 55. ✓
+5 −1. ✓
15 14 4. ✓
43 1.6342 ✓

Mean −4.52 ✓
Gen. " −4.9 ✓

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1909phae.proj..595W

Feb. 13, 1909.

Double Star (New list) = Burnham's Cat No 4169

7	31	-14.2
7	16	
0	15	
11	45	

Clouds.

Wb's watch used for times

Watch 51 secs. fast.

Z. P. P.

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1909phae.proj...595W

Feb. 17, 1909 (Wednesday)

δ Orionis

5 27 −0.4

5 27 W. Abs. Rough Rec Phot W.
0 0 9.5 in cap used

Index L+B, B.

37.0
50.4 13.4 ✓

7 28 0

217.1
230.0 12.9 ✓
26.3 ✓ −4.69 ✓

37.0
50.3 13.3 ✓ −4.70 ✓

217.5
230.4 12.9 ✓
26.2 ✓ −4.70 ✓

Index R.A. A.

306.8
320.1 13.3 ✓

127.1
140.9 13.8 ✓
27.1 ✓ −4.63 ✓

306.6
320.1 13.5 −4.62 ✓

126.9
140.7 13.8
27.3 −4.61 ✓

Mean −4.64 ✓

7 35 35
6 3 35 ✓
7 3 1 44 ✓
+5 +17 ✓
12 32 5 ✓
δ 35 5 223 ✓

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1909phae.proj..595W

Feb 17, 1909.

Same again II

Index R+a A.

306.5
320.5 14.0

127.0
140.2 13.2
27.2 -4.62

306.8
320.4 13.6 -4.62

126.9
140.5 13.6
27.2 -4.62

Index L+B B.

217.0
230.0 13.0

36.8
50.0 13.2
26.2 -4.70

216.8
230.1 13.3 -4.68

37.1
50.3 13.2
26.5 -4.67

Mean -4.65

7 38 55

7 46 0

42 24.

+17.

12 42 45.

A3.5290

1000phas-proj...595W

Feb. 17, 1909.

Same Again III

Index L+B B.

7 51 50

216.6
230.4 13.8v

369
50.5 13.6v
27.4v −4.60v

217.0
230.5 13.5v −4.62v

36.9
50.3 13.4v
26.9v −4.64v

Index R+a A.

126.5
140.4 13.9v

306.5 13.6v
320.1 27.5v −4.59v

126.7 13.6v −4.60v
140.3

306.4 13.6v
320.0 27.2v −4.62v

Mean −4.61v

~~Mean .. −4.63v~~

7 58 20

110 10.v

7 vv v.v

+v +17.v

12 vv 22.v

£3vv.v30v− Clouds now in this region but not during above observations.

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1909phae.proj..595W

Feb. 17, 1909.

Sky pretty clear again.

Same Again. IV

Index R+a A.

126.9
140.3 13.4 v

306.5
3200 13.5 v
26.9 v −4.64 v

127.0
140.4 13.4 v −4.62 v

306.3
3203 14.0 v
27.4 v −4.60 v

Index L+B. B.

366
50.4 13.8 v

217.2
230.1 12.9 v
26.7 v −4.66 v

37.0
50.2 13.2 v −4.64 v

216.5
230.5 14.0 v
27.2 −4.62 v

Mean −4.66 v

8 17 6

8 25 5

42 5. v
21 2. °
+5 +17. v
13 21 19. v
Δ3 5 5. 5 5 6 5 − v

1909phae.proj...595W

Feb. 17, 1909.

Same again. V

Index L+B 15.

8 52 5

365
504 13.9 v
217.1
230.0 12.9 v / 26.8 v −4.6 v v

37.2
50.4 13.2 v −4.6 v v
216.9
230.6 13.7 v / 26.9 v −4.6 v v

Index R+a 4.

3065
3203 13.8 v
126.8
140.1 13.3 v / 27.1 v −4.6 3 v

3068
3202 13.4 v −4.6 3 v
126.6
140.3 13.7 v / 27.1 v −4.6 3 v

Mean −4.6 v v

Gen. " −4.6 v v

8 58 25
110 30. v
4 v v 15. v
+v +17. v
13 v v 32. v
23 v v. v 4 0 3 v

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1909phae.proj..595W

Feb. 17, 1909.

R. U. Monocerotis.

6 50 -8.0

7 20 W. Obs. Rowe Ree. Phot T.

0 30

Index Rta A. I

430 ← Comp. Star Obs

9 33 45

108.4 65.4

231.5

277.8 46.3 / 111.7 +1.32

50.5 49.9 +1.36

100.4

224.0 63.7 / 113.6 +1.34

Index Lt B B.

308.3 72.1

20.4

139.0 56.8 / 129.9 +1.00

195.8

317.0 55.2 +0.98

12.2

125.7 76.3 / 131.5 +0.95

202.0

Mean +1.17

9 42 5

7 5 0.

9 3 7 5 5.

+5 +17.

14 30 12.

83 5. 609

1900phae.proj...595W

Feb. 17, 1909.

Same Again. II

Index L+B B.

9 45 50

308.3
20.8 } 2.5 v
137.4
189.4 5 2.0 v / 124.5 v +1.10 v

9 48 15

318.2 5 4.8 v +1.10 v
13.0
128.3 69.9 v
198.2 / 128.7 v +1.09 v

Index R+a A.

9 52 50

225.1 60.9 v
286.0
507 45.3 v
960 / 106.2 v +1.51 v

9 55 30

2320 44.6 v +1.52 v
276.6
44.0 60.5 v
104.5 / 105.1 v +1.53 v
Mean +1.31 v

202 25. v
9 5036. v
+5 +17.
14 50 53.
23 55. 6106 v

1909phae.proj..595W

Feb 17, 1909

Same Again. III

Index R to A.

	227.5		
9 59 40	284.1	+6.6	
	51.6		
	96.6	+5.0 / 101.6	+1.62
	233.1	43.7	+1.+7
10 2 50.	276.8		
	43.8		
	105.8	62.0 / 105.7	+1.+2

Index L to B B.

	129.6		
10 6 20	1983	68.7	
	320.3		
	12.4	+2.1 / 120.8	+1.18
	139.7		
	190.5	+0.8	+1.21
	312.2		
	19.4	67.2 / 118.0	+1.24

Mean +1.39

10.9 0

	17	+0.
10	4	28.
+7		+17.
17	4	47.

43+. 6284

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1900phae.proj..595W

Feb. 17, 1909

Samadgaon IV

Index R+B B.

	130.6		
10 11 50	200.0	69.4 ν	
	321.7		
	11.9	ν 0.2 ν	
	119.6 ν		+1.20 ν
	140.2		
10 14 40	188.0	47.8 ν	+1.26 ν
	310.8		
	17.6	66.8 ν	
	114.6 ν		+1.31 ν

Index R+A A.

	45.6		
10 18 20	105.0	ν 9.4 ν	
	234.3		
	275.9	41.6 ν	
	101.0 ν		+1.63 ν
	51.1		
	96.7	4 ν 6 ν	+1.68 ν
	2264		
	283.8	ν 7.4 ν	
	103.0 ν		+1. ν 2 ν

mean +1.43 ν

10 21 0

6 ν ν 0. ν

10 16 2 8. ν

+ν +17. ν

1 ν 16 4 ν. ν

8 3 ν ν. 6367 ν

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1909phae.proj..595W

Feb. 17, 1909.

Same Again. V

Index R+a A.

	46.5		
10 24 10	103.5	57.0	
	235.7		
	276.7	41.0	
		98.0	+1.71
	51.5		
10 26 35	99.4	47.9	+1.61
	226.6		
	284.6	58.0	
		105.9	+1.51

Index L+B B.

	312.8		
10 30 45	16.1	63.3	
	142.0		
	189.8	47.8	
		111.1	+1.39
	320.4		
	10.8	50.4	+1.35
	134.5		
	199.0	64.5	
		114.9	+1.31

mean +1.48

10 33 30

11 5 0.

10 28 45.

+5 +17.

15 29 2.

23 55.6 45 1

1909phae.proj..595W

Feb. 17, 1909

S T 8 42
H.A +1 52
Dec -7.1
P.A 60.2 Vernier B
Sprocket -5.5 B, -4.5 C

W's watch used for times.
Watch 17 secs. slow

Observations of R.U. Monocerotis quite difficult throughout. Sky hazy and object rather faint

L. P. P.

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1909phae.proj..595W

Feb. 18, 1909 (Thursday).

δ Orionis.

5	27	-0.4	
5	22	W. Obs. Pour Rec.	
0	5		
11	55	Phot 26.	
		95in cap. used	

Index L+B B.

217.0		
230.3	13.3 v.	
37.2		
50.1	12.9 v	
	26.2 v	-4.70 v

217.1		
230.0	12.9 v	-4.68 v
36.8		
50.5	13.7 v	
	26.6 v	-4.67 v

Index R+a A.

126.7		
140.1	13.4 v	
307.2		
320.0	12.8 v	
	26.2 v	-4.70 v

127.0		
140.0	13.0 v	-4.70 v
306.8		
320.1	13.3 v	
	26.3 v	-4.69 v

Mean -4.69 v

7 33 40

7 51 10

	4f	10. v
7	42	2v. v
+v		-23. v
12	42	2. v

$356.292 v

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1909phae.proj..595W

Feb 18, 1909

Same Again II

Index R+a A.

1266
1408 13.7 v
3067
3201 13.4 v
27.1 v −4.63 v

1266 13.6 v −4.62 v
1402
3067 13.6 v
3203 27.2 v −4.62 v

Index L+B B.

36.8 13.5 v
50.3
217.2 13.1 v
230.3 26.6 v −4.67 v

37.3 12.9 v −4.70 v
50.2
217.0 13.1 v
230.1 26.0 v −4.72 v

Mean −4.66 v

7 55 20

8 5 50
12 10. v
α 0 3.5 v
+v −23. v
13 0 12. v
α 3 v 6. v 4 1 α v

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1909phae.proj..595W

Feb. 18, 1909.

Same Again III

Indy Lt B B.

37.2
50.1 12.9 v

216.9
230.2 13.3 v / 26.2 v − 4.70 v

36.9 13.2 v
50.1 − 4.70 v

217.2
230.2 13.0 v / 26.2 v − 4.70 v

Indy Lt a A.

307.1 13.1 v
320.2

126.9
140.4 13.5 v / 26.6 v − 4.67

306.5 13.2 v − 4.63 v
320.3

126.6
140.4 13.8 v / 27.6 v − 4.59 v

Mean − 4.66 v
Sm. " − 4.67 v

8 8 10

[illegible] 13 45
21 55 v
a 10 52 v
+5 −23. v
13 10 35 v
.f356.5490 v

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1909phae.proj..595W

Feb. 18, 1909

R U. Monocerotis.

6	50	-8.0	I.
6	40	W. Abo Perua Rec	
0	10	Phot T	
11	50		

Index R+a A.

46.8 ← Comp Star Dus.

8 47 50

103.1
234.8
276.9 — 42.1 — 94.4 — +1.70

8 48 0

54.5
98.2 — 43.7 — +1.64
226.5
286.4 — 59.9 — 103.6 — +1.57

Index L+B B.

8 51 35

311.5
18.4 — 66.9
140.5
187.0 — 46.5 — 113.4 — +1.34

8 54 35
199 0.
8 49 45.
+5 -23.
13 49 22.
8 3 56.760

323.8
7.0 — 43.2 — +1.44
133.4
194.4 — 61.0 — 104.2 — +1.55

Mean +1.54

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1909phae.proj..595W

Feb. 18. 1909.

Same Again : II

Index R+B B.

312.4
158 63 K ✓

143.1
184.6 K1.5 ✓
10K.9 ✓ +1.5K

8 58 25

323.0
7.5 KK.5 ✓ +1.4K ✓

9 1 10

131.7
197.2 65.5 ✓
110.0 ✓ +1.K2 ✓

Index R+a A.

2262
286.1 59.9 ✓

9 6 15

543
98.0 K3.7 ✓
103.6 +1.57 ✓

234.8
277.9 K3.1 ✓ +1.57

444 60.6 ✓
105.0 103.7 ✓ +1.57 ✓

Mean +1.52 ✓

9 8 40
14 30. ✓

9 3 34. ✓
+5 -23. ✓
14 3 15. ✓

K3 5 6. 5 K 5 5 5 + ✓

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1909phae.proj..595W

Feb. 18, 1909.

Same Again III

Index R+a A.

9 13 5

2260
2860 60.0 v
516
976 46.0 v
106.0 v +1.v1 v

9 16 10

2350
2774 42.4 v +1.v4 v
438 61.1 v
1049
103.v v +1.v7 v

Index L+B B.

9 20 25

1290
1980 69.0 v
3200 49.7 v
9.7
112.7 +1.22 v

9 24 40

1389
1904 v1v v +1.20 v
3109
198 68.9 v
120.4 v +1.18 v

74 20 v
9 12 3v v
+v -23. v
14 12 12. v

Mean +1.37 v

a 3v 6. v 9v 9 v Not time for sprocket etc, region thoroughly identified. Must hurry to eclipse.

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1909phae.proj..595W

Feb 18, 1909.

B+C		1182	Ballou		103
10	2	1.6	10	2	0.0
10	3	1.1	10	3	0.0
10	4	0.6	10	4	0.0
10	5	0.0	10	5	0.0

Dis. Jups. I, Phot Br. W. Obs. Power Res. [to Jupiter]
Compared with nearest of three Sats. on
foll. side = Sat. II

10	11	23	90.2 ✓		179.2	
15 12 3 ✓	"	57			270.0	(1)
+2. ✓	12	14	90.3 ✓ / 90.6 ✓	0.0 ✓	178.5	
15 12 5. ✓	"	37			268.8	
	"	55	91.1 ✓		178.1	
15 13 27. ✓	13	12	92.2 ✓		269.2	
+2. ✓	"	32	89.6 ✓	0.0 ✓	180.0	(2)
15 13 29. ✓	14	10			268.2	
	15	37	91.3 ✓		178.5	
15 16 6 ✓	"	56			269.8	(3)
+2 ✓	16	13	92.1 ✓ / 91.7 ✓	−0.1 ✓	178.3	
15 16 8. ✓	"	36			270.4	

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1909phae..proj...595W

Feb. 18, 1909.

	10	17	16		178.3	
15 17 45.		"	37 49.7		268.0	(4)
+3.		"	54 49.8		179.5	
15 17 48.		18	12 49.2	0.0	268.3	
		"	39		179.1	
			49.4			
15 19 10.		19	1		267.5	
"		"	21 49.8		180.0	(5)
+3.			49.1	0.0		
15 19 13.		"	39		269.8	
		20	1		178.0	
			90.4			
15 20 29.		"	16		268.4	
+3.		"	43 49.9		179.1	(6)
15 20 32.		"	57 90.2	0.0	269.0	
		22	4		178.2	
			90.6			
15 22 31.		"	21		268.8	
+4.		"	37 49.9		178.1	(7)
15 22 35.			90.2	0.0		
		23	1		268.0	
		"	12		178.0	
			49.0			
15 23 34.		"	31		267.0	
+4.		"	48 49.5		180.0	(8)
15 23 42.			49.2	0.0		
		"	59		268.5	
		24	25		179.8	
			49.4			
15 24 51.		"	42		268.2	
+4.		"	57 49.2		178.8	(9)
15 24 55.			49.3	+0.1		
		25	19		267.0	
		26	8		180.0	
			46.6			
15 26 37.		"	20		266.6	
+5.		"	50 46.5		179.0	(10)
15 26 42.			46.6	+0.1		
		27	10		265.5	

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1909phae.proj..595W

Feb. 18, 1909.

			10	27	46	Δ V. 2	181.2
IV	2Δ	IV.		28	4	Δ V. Δ	266.4 (11)
		+V.		"	24	Δ V. V +0.2	181.2
IV	2Δ	20.		"	46		267.0
				29	6		180.8
IV	29	2Δ.		"	20	Δ V. Δ	266.6
		+V.		"	35	Δ V. 2 / Δ V. V +0.2	180.8 (12)
IV	29	33.		"	51		266.0
				30	5		181.5
IV	30	3Δ.		"	18	Δ 6. V	268.0
		+6.		"	49	Δ 7. V / Δ 7.0 +0.1	181.0 (13)
IV	30	44.		31	18		268.5
IV	31	40.		"	34	Δ 3.Δ +0.2	180.2 Δ 3.Δ
IV	31	V4.		"	52	Δ 2. V +0.3	264.0 Δ 1.6 / Δ 2.7 (14) +0.3
IV	32	10.	IV	32 V	4	Δ 1.6 +0.3	181.5
IV	32	31.		"	25	Δ 3.1 +0.3	263.1
IV	32	46.		"	40	Δ 3.0 +0.3	180.0
IV	33	0.		"	54	Δ 0.0 +0.4	263.0
IV	33	13.		33	7	Δ 0.0 +0.4	183.0
IV	33	27.		"	21	Δ 0.0 +0.4	263.0
IV	33	39.		"	33	7 7.1 +0.V	183.0
IV	33	V3.		"	47	7 3.0 +0.7	260.1
IV	34	V.		"	59	7 2.4 +0.7	187.1
IV	34	IV.		34	9	7 0.7 +0.7	259.5
IV	34	34.		"	28	6 3.1 +1.1	188.8
IV	34	4V.		"	39	V 4.Δ +1.4	251.9
IV	34	V7.		"	51	46.9 +1.Δ	197.1
IV	3V	10.		35	3	4V.0 +1.9	244.0

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1909phae.proj..595W

Feb. 18, 1909.

1ᵈ	3ᵐ	20.ᵛ	10	35	21	199.0
1ᵈ	3ᵐ	42.ᵛ		"	35	Not seen later

Limit of Visibilty.
Clouds.

200.0
247.2
204.5
253.5

Seeing, at times considerable portion of time during eclipse fairly good but a part of time quite blurry. Sat. disappeared near limb of Jupiter. This, together with blurry seeing at times and the limb of Jupiter overlapping Sat., caused settings during disappearance to be made rather slowly. It became somewhat cloudy immediately after last setting so that no more settings could be obtained and Obs. had to wait some time for limit of visibility. A little cloudy also, during limit of visibilty.

B+C		1182	Ballou 103		
10	48	50.5	10	49	0.0
10	49	49.9	10	50.	0.0
10	50	49.7	10	51.	0.0

U's watch used for times before eclipse.
Watch 23 secs. slow

L. P. P.

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1909phae.proj..595W

Feb. 20, 1909 (Saturday)

δ Chamis

5 27 −0.4
3 37 Wilbs. Rover Rec. Phot W
0 10 9.5 m cap used

Index L+B B.
372
50.0 12.8 v

Clouds
217.1 12.6 v
229.7 25.4 v −4.77 v

37.1 12.9 v −4.74 v
500 ~~498~~
216.9 13.1 v
230.0 26.0 v −4.72 v

Index R+a 4.
306.7 13.4 v
320.1
127.2 12.8 v
140.0 26.2 v −4.70 v

306.9 13.2 v −4.70 v
320.1
127.1 12.9 v
140.0 ~~139.9~~ 26.1 v −4.71 v
Mean −4.72 v

7 25 50

7 42 45
6 8 3 v
7 3 4 1 8 v
+v +19 v
12 34 37
8 3 v 8 . 5 2 4 0 v

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1909phae.proj..595W

Feb. 20. 1909

Same Again II

Friday R+a A.

306.9
320.2 13.3"

127.4
139.8 12.4" / 25.7" −4.74"

306.8
320.2 13.4" −4.72"

127.2
139.9 12.7" / 26.1" −4.71"

Friday L+B. B.

216.9
230.0 13.1"

37.1
50.0 12.9" / 26.0" −4.72"

216.8
230.2 13.4" −4.70" ~~−4.69"~~

37.0
50.2 13.2" / 26.6" −4.68"

Mean −4.71"

7 47 45

7 54 20
− 10 2 √"
7 √1 2."
+√ +19."
12 √1 21."
43√4.√37"

1909phae.prdj..595W

Feb 20, 1909.

Same Again. III

Index	B.	
216.7	~~14.5~~	
230.2	13.5 v	
37.3	12.7 v	
50.0	~~13.8~~ 26.2 v	−4.70
2172		
230.1	12.9	−4.71 v
37.2		
503	13.1 / 26.0	−4.72 v

8 21. 40

Index R+a A.

126.7		
140.1	13.4	
306.9		
320.0	13.1 / 26.5	−4.67
126.8		
139.7	12.9	−4.68 v
306.6		
320.0	13.4 / 26.3	−4.69 v

Mean − 4.70 v
Gen. " − 4.71 v

8 26 50

	42	30. v
2	24	15. v
+v		+19. v
13	24	34. v

A3rA. vv87 v

Seeing good.

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1909phae.proj...395W

Feb. 20, 1909

Double Star (New List) = Burnham's Cat. No 1810

3 33 +28.4
6 58 V. Obs. Rowe Ree. Phot V.
3 25 P.A 209° Dist. 7." Mags. 6.8, 7.3

Index R+B A.

359.2 ← North, Foll + Brh. Obs.
8 49 20 84.4 Δ7.2 ✓
188.0 71.1 ✓
259.1 1√6.3 ✓ 0.4√ ✓

8.2
78.3 70.1 ✓ 0.√0 ✓
181.6 Δ1.2 ✓
263.4 1√1.9 ✓ 0.√4 ✓

Index L+A B.

273.4 Δ1.1 ✓
354.5
96.7 73.3 ✓
170.0 1√4.4 0.49 ✓

278.9 71.4 ✓ 0.√0 ✓
350.3
91.8 Δ2.2 ✓
174.0 1√3.6 ✓ 0.√0 ✓

Mean 0.√0 ✓

9 0 5
109 2√ ✓
9 √4 42. ✓
+√ +19. ✓
14 √√ 1 ✓
Δ3√Δ.62 1√+ ✓

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1909phae.proj..595W

Feb. 20. 1909

Double Star (New List) = Burnham Cat. No. 5990

11 54 +7.13
7 54
4 0
8 0

W. Obs. Bouw. Rec. Phot. W.
P.A. 150° Dist. 34" Mags.
Clouds.

Index R+a N.
84.1 ← South Foll. & slightly Brtr. Dws.
9 55 55
182.9 99.8 ✓
277.7 72.3 ✓
350.0 171.1 ✓ 0.17 ✓

97.0 74.1 ✓ 0.15 ✓
171.1
264.0 99.2 ✓
3.2 173.3 ✓ 0.13 ✓

Index L+B. B.
175.7 97.7 ✓
273.4
7.8 71.2 ✓
79.0 168.9 ✓ 0.21 ✓

189.0 70.0 ✓ 0.20 ✓
259.0
354.6 100.4 ✓
95.0 170.4 ✓ 0.18 ✓

Mean 0.18 ✓

10 3 20

11.9 1.5 ✓
9 5.9 3.8 ✓
+5 +1.9 ✓
14 5.9 5.7 ✓
835.8. 62.50 ✓

The P.A. as given tonight is that of Burnham's Cat but it should really be changed by 180° as is

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1000phae.proj...595W

Feb. 20, 1909.

indicated by measts. of tonight and also of preceding night.

B+C 1182			Ballou 103		
10	20	52.5	10	21	0.0
10	21	51.9	10	22	0.0

Dro. Jup. II. Phot W. Wdo. Rous Rec.
Compared with nearer of two Sats. on foll side = Sat. I.

The comparison Sat. was about 1.5 times diameter of Jupiter from limb of Jupiter on foll side.

Measts on following page.

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1909phae.proj..595W

Feb. 20, 1909.

10	28	31			182.2	
	"	53	Δ1.4		264.0	1
	29	20	Δ1.6		183.5	
	"	31	Δ1.7	+0.3	265.1	
	"	59			184.0	
	31	3	Δ1.0		265.0	
	"	19	Δ3.7		182.1	2
	"	31	Δ2.4	+0.3	265.8	
	32	36			182.5	
	"	48	Δ2.1		265.0	
	33	4	Δ2.3		183.0	3
	"	19	Δ2.4	+0.3	265.3	
	"	37			183.4	
	"	52	Δ0.4		264.2	
	34	14	Δ2.2		183.0	4
	"	30	Δ1.1	+0.3	265.2	
	37	30			183.0	
	"	47	Δ2.7		265.7	
	38	11	Δ1.3		183.3	5
	"	24	Δ2.0	+0.3	264.6	
	"	52			183.5	
	39	6	Δ0.7		264.2	
	"	28	Δ1.4		183.0	6
	"	46	Δ2.0	+0.3	264.9	
	41	24			183.2	
	"	40	Δ0.2		264.0	
	"	58	Δ0.6		183.3	7
	42	9	Δ0.7	+0.4	263.9	

1	29	4.	
		+9.	
1	29	13.	
1	31	13.	
		+9.	
1	31	22.	
1	32	7.	
		+9.	
1	33	6.	
1	34	3.	
		+9.	
1	34	12.	
1	37	Δ.	
		+10.	
1	38	Δ.	
1	39	18.	
		+10.	
1	39	28.	
1	41	4Δ.	
		+10.	
1	41	Δ.	

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1900phaa.proj...595W

Feb 20. 1909

	10	43	29	Δ1.2 ✓	183.0	
1✓ 43 ✓4. ✓		"	43	79.3 ✓	264.2	
+10. ✓		~~44~~	~~2~~	Δ0.2 ✓ +0.4 ✓	~~183.5~~	Phot slipped
1✓ 44 4. ✓		45	7		184.1	Δ
		"	19		263.4	
		"	38	Δ0.2 ✓	183.6	
1✓ 47 26. ✓		"	52	Δ0.0 ✓	263.8	9
+14. ✓		49	2	Δ0.1 ✓ +0.4 ✓	184.0	
1✓ 47 37. ✓		"	13		264.0	
		"	33	Δ0.9 ✓	183.1	
1✓ 49 ✓2. ✓		"	45	Δ0.3 ✓	264.0	10
+11. ✓		50	7	Δ0.6 ✓ +0.4	183.2	
1✓ ✓0 9. ✓		"	25		263.5	
		"	47		183.6	
1✓ ✓1 35. ✓		51	1	79.4 ✓	263.0	
+11. ✓		52	8	79.2 ✓	183.0	11
1✓ ✓1 46. ✓		"	25	79.6 ✓ +0.4 ✓	262.8	
		"	47	Δ0.3 ✓	182.5	
1✓ ✓3 11. ✓		53	0	Δ0.1 ✓	262.8	
+11. ✓		"	17	Δ0.2 ✓ +0.4 ✓	182.9	12
1✓ ✓3 22. ✓		"	40		263.0	
		"	56	Δ0.0 ✓	184.0	
1✓ ✓4 38. ✓		54	19	Δ1.0 ✓	264.0	
+11. ✓		55	0	Δ0.5 ✓ +0.4 ✓	183.1	13
1✓ ✓4 49.		"	16		264.1	
		55	32	79.1 ✓	184.0	
1✓ ✓✓ ✓4. ✓		"	47	Δ0.3 ✓	263.1	
+12. ✓		56	0	79.7 ✓ +0.4 ✓	184.1	14
1✓ ✓6 6. ✓		"	17		264.4	

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1909phae.proj..595W

Feb. 20, 1909

		10	56	33			183.8	
15	57	0.	"	49	80.2		264.0	15
	+12.		57	10	78.8		185.0	
15	57	12.	"	28	79.5	+0.4	263.8	
		10	"	49			184.2	
15	58	20.	58	9	79.8		264.0	16
	+12.		"	32	80.9		183.3	
15	58	32.	"	48	80.4	+0.4	264.2	
		10	59	9			184.0	
15	59	34.	"	30	80.5		264.5	
	+12.	10	"	46	79.3		183.5	17
15	59	46.	0	5	79.9	+0.4	262.8	
		11	"	17			183.0	
16	0	42.	"	33	79.2		262.2	
	+12.		"	53	78.5		187.5	18
16	0	54.	1	5	76.4	+0.5	261.0	
			"	22			185.0	
16	1	42.	"	36	77.0		262.0	
	+12.		"	51	76.7		185.3	19
16	1	54.	2	12	76.8	+0.5	262.8	
			"	27			185.0	
16	3	1.	"	42	77.0		262.0	
	+12.		3	11	77.7		184.8	20
16	3	13.	"	44	77.4	+0.5	262.5	
16	4	2.	"	56	76.5	+0.5	184.8	
16	4	24.	4	12	74.4	+0.6	261.3	
16	4	36.	"	24	74.1	+0.6	186.9	
16	4	54.	"	41	72.2	+0.7	261.8	

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1909phae.proj...595W

Feb. 20, 1909

16	h	7	11	4	54	64.2	+0.4		188.8
16	h	12		5	5	66.5	+0.9		257.0
16	h	22		"	15	64.6	+1.0		190.5
16	h	41		"	28	61.5	+1.1		255.1
16	h	52		"	39	59.4	+1.2		193.6
16	6	2		"	49	60.0	+1.2		253.0
16	6	21	11	6	8	56.2	+1.4		193.0
16	6	32		"	19	49.2	+1.7		249.2
16	6	49		"	36	57.1	+1.4		200.0
16	7	2		"	49	38.9	+2.3		247.1
16	7	14		7	1	32.0	+2.7		208.2
16	7	27		"	14				240.2
16	7	37		"	22				Suspected
16	7	49	11	7	36				Not seen data

Limit of Visibility

			11	10	53	36.2			205.8
16	12	10.1	11	11	41	37.0			242.0
		+13.1	11	12	35	36.6	+2.4		205.5
16	12	23.1	11	13	32				242.5

Jup. II disappeared rather near limb of Jupiter. The seeing in general was pretty good but slightly troublesome as Sat. got near Jupiter during disappearance and also little troublesome in Limit of Visibility. The last two settings of the eclipse, a little uncertain.

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1909phae.proj..595W

Feb. 20, 1909

703 watch used for times before eclipse
Watch 19 secs slow

B+C 1182			Ballou 103		
11	26	45.2	11	27	0.0
11	27	45.1	11	28	0.0

K. P. P.

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1900phao.proj...595W

Feb. 22, 1909 (Monday)

D Cte.

2 12 -36
5 37 Ub Ab. Bon Rec. Phot Ub
3 25

Indy L+B B.
14.5 Var. dis.
71.0
201.3
243.5

7 21 5

239
65.6
1927
253.2

Index R+a A.
278.2
348.0
113.0
158.4

291.6
337.2
100.8
166.2

7 28 50

Mean -1.49

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1909phae.proj..595W

Feb. 22, 1909

Same Again II

Tides R+B A.

282.2		
346.9	64.7	
111.3		
156.4	45.1 / 109.8	−1.42
291.2	47.7	−1.44
336.9		
161.0		
163.2	62.2 / 107.9	−1.47

Tides L+B B.

192.6	59.8	
252.4		
21.1		
65.0	43.9 / 103.7	−1.57
200.2	46.1	−1.56
246.3		
14.0	52.0	
72.0	104.1	−1.56

Mean −1.50

7 30 10

7 38 30

62 40.

7 34 20.

+5 +6.

12 34 26.

2360.5239

1909phae.proj..595W

Feb 22, 1909

Σ Aurigae.

5	27	-0.4
6	17	Ub. dbs. Bouw Ree. Phot W.
0	50	9.5 in. cap. used.

Index L+B B.

217.2		
230.0	12.8 v	
36.9		
50.3	13.4 v	
	26.2 v	-4.70 v

7 55 20

217.0		
230.3	13.3 v	-4.70 v
37.2		
50.1	12.9 v	
	26.2 v	-4.70 v

Index R+A. A.

127.2		
140.4	13.2 v	
306.7		
319.8	13.1 v	
	26.3 v	-4.69 v

126.9		
140.8	13.1 v	-4.68 v
306.6		
320.6	13.4 v	
	26.5 v	-4.67 v

mean -4.69 v

8 2 15

117	3 v. v
7 v a	4 a. v
+v	+6. v
12 v a	v 4. v

a 360. v 4 09 v

1909phae.proj..595W

Feb 22, 1909.

Same again II

Tidex R+a A.

127.1	13.0 v	
140.1		
306.4	13.8 v	
320.2	26.8 v	−4.65 v
126.9	13.8 v	−4.66 v
140.3		
367.0	13.1 v	
320.1	26.5 v	−4.69 v

Tidex L+B B.

37.0		
50.1	13.1 v	
217.2	13.2 v	
230.4	26.3 v	−4.69 v
37.0	13.5 v	−4.66 v
50.5		
216.8	13.6 v	
230.4	27.1 v	−4.63 v

Mean −4.66 v

8 5 35

8 12 10

17 4.5 v

α α 2. v

+v +6. v

13 α .4. v

α 360.5479 v

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1909phas.proj..595W

Feb 22, 1909

Same again. III

Index L+B B.

8 18 40

36.9
50.5 13.6 v

217.5
230.2 12.7 v / 26.3 v −4.69 v

37.0 13.4 v −4.62 v
50.4

217.2
230.4 13.2 v / 26.6 v −4.67 v

Index R+a A.

306.8 13.3 v
320.1

126.7
140.0 13.3 v / 26.6 v −4.67 v

306.9 13.6 v −4.64 v
320.5

126.8
140.5 13.7 v / 27.3 v −4.71 v

Mean −4.66 v
Gen. " −4.67 v

8 25 5
43 47. v
8 21 √2. v
+√ +6. v
13 21 √8. v
8360. √√69 v

W's watch used for times.
Watch 6 secs slow

L. P. A.

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1909phae.proj..595W

Feb. 25, 1909 (Thursday).

R. Z. Draconis

18	22.	+58.7
29	57.	
11	35	

$\bar{o}$ Aurigæ.

5	27	-0.4
5.	57	
0	30	

W. Obs. Power Rec
Phot W.

9.5 in cap used

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1909phag.proj..595W

Feb. 25, 1909

Index Left I B.

7 30 10

217.1
2303 13.2 v
368
504 13.6
26.8 −4.6 v v

217.2
230.6 13.4 v −4.63 v
36.5
504 13.9 v
27.3 v −4.61 v

Index Right A.

127.0
140.2 13.2 v
306.8
320.0 13.2
26.4 v −4.68 v

1270
1399 12.9 v −4.66 v
306.4
320.4 14.0 v
26.9 v −4.64 v
mean −4.64 v

7 39 30
69 40. v

7 34 v0. v
+v +12. v
12 3v 2. v
A363.v243 v

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1909phae.proj.595W

Feb 25, 1909.

Same Again. II

Index Right. A_2

7 42 45.

127.0		
140.6	13.6	
306.6		
319.9	13.3 / 26.9	−4.64
127.3		
140.1	12.8	−4.67
306.6		
320.0	13.4 / 26.2	−4.70

Index Left. B

36.7		
50.0	13.3	
217.0		
229.9	12.9 / 26.2	−4.70
36.9		
50.2	13.3	−4.67
216.9		
230.5	13.6 / 26.9	−4.64

mean −4.67

7° 53 50

96 3√.

7 ♐ ♐ ♐.

+√ +12.

12 ♐ 30.

♐ 363.√336

1909phae.proj..595W

Feb. 25, 1909.

Same Again III

Index Left B.

8 7 5

365
504 13.9 v

217.0
2304 13.4 v
27.3 v −4.61 v

369 13.3 v
502 −4.64 v

217.1
230.5 13.4 v
26.7 v −4.66 v

Index Right A.

306.4
320.2 13.8 v

127.0
140.1 13.1 v
26.9 v −4.64 v

306.7
3201 13.4 v −4.64 v

127.1
140.5 13.4 v
26.8 v −4.62 v

Mean −4.64 v
Gen. " −4.62 v

8 15 20
22 2v. v
8 11 12. v
+v +12. v
13 11 24. v
A363. v 496 v

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1909phae.proj..595W

Feb 25, 1909.

Susp. Var. near U. Cephei

0 5D 812
7 30 W. Obs. Bruce Rec. Phot. I
6 40 9.5 in cap used

Index Above A.

366 ← Susp. Var. Dis.

115.0 [illegible]
2235
2871 63.6
142.0 −0.73

42.5
105.4 62.9 −0.62
213.3
297.5 [illegible] / 147.1 −0.63

Index Below B.

300.6
26.4 [illegible]
130.4
203.1 [illegible] / [illegible] −0.41

311.1
20.0 [illegible] −0.44
121.7
208.5 [illegible] / [illegible] −0.46

Mean −0.[illegible]6

8 57 80

9 6. 50
124 20.
9 2 10.
+V +12.
14 2 22.
[illegible]

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1909phae.proj..595W

Feb. 25, 1909

Same Again. II

Index Below 13.

300.3
29.1 ~~44.4~~ ✓
129.9
197.0 67.1 ✓
166.9 ✓ −0.46 ✓

310.5
18.1 67.6 ✓ −0.44 ✓
118.8
209.9 91.1 ✓
181.7 ✓ −0.41 ✓

Index Above A.

215.3
296.8 81.5 ✓ ✓
42.3
105.8 63.5 ✓ ✓
146.0 ✓ −0.67 ✓

223.3
288.4 65.1 ✓ −0.64 ✓

32.9
116.3 83.4 ✓
142.5 ✓ −0.60

Mean −0.54 ✓
Gen. " −0.55 ✓

9 9 40

9 18 0
27 40. ✓
9 13 50. ✓
+5 +12. ✓
14 14 2. ✓
2363. ~~55/14~~ ✓
.593

S.T. 8h 7m
H.A. +7 6
Dec +82.0
P.A 340.8 Vernier B
Sprocket > −2.5 B, −1.6 C.

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1909phae.proj.595W

Feb. 25, 1909

Double Star (New List) = Burnham's Cat. 7099

14 56 +54.3
3 46
6 10
5 50 W. Obs Power Res Phot. W
P.A. 343° Dist 41" Mags 7.0, 7.4

Index. R+a
282.0 South, Foll. + Brtr. Dis.
344.1 62.1 v
92.8 23.6 v
176.4 14 v.7 v 0.66 v

271.2 24.7 v
355.9 0.66 v
102.0 61.3 v
163.3 146.0 v 0.6 v v

Index L+B
194.5 v 2.2 v
253.3
1.1 20.9 v
82.0 139.7 v 0.7 v

182.8 0.7 v
262.3 79. v v
12.1
73.0 60.9 v
140.4 v 0.77 v
Mean 0.72 v

10 15 20
22 v0. v
10 11 2v. v
+v +12. v
1v 11 37. v
v 363.6 330 v

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1909phae.proj..595W

Feb. 25, 1909

W's watch used for times
Watch 12 secs. slow.

B. + C. 1182.			B. 394.		
11	46	3V.V	11	47	0.0
11	47	3V.V		42	0.0

Dis Instr. I Obs. W. Obs. Bonner Rec.
Comp. with nearer of two Sets. on fol. side = Set II

	12	15	38			2.2	
17 16 14.V		16	5	77.2 V		80.0	
-37.V		16	27	77.0		4.0	1
17 15 37 V		16	48	77.4 V	+0.1 V	81.0	
		17	16			5.5	
17 17 42. V		17	25	74.0 V		83.5	
-37.V		17	52	76.9		3.1	2
17 17 5.V		18	11	77.4 V	+0.1 V	80.0	
		18	59			3.9	
17 19 36. V		19	26	74.3 V		75.2	
-37.V		19	49	75.2		5.2	3
17 18 59 V		20	12	75.2 V	+0.6 V	81.0	
		20	44			7.2	
17 21 16. V		20	59	72.9 V		80.1	
-37.V		21	29	71.5 V		5.5	4
17 20 39 V		21	52	72.2	+0.7 V	80.0	

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1909phae.proj..595W

Feb. 27. 1909.

			12	22	27			8.2
17	23	7		22	45	71.3		79.5
		−37		23	22	0.4		7.2
17	22	30		23	53	70.9	+0.7	77.6
17	24	24		25	1	66.9	+0.9	9.2
17	24	57		25	34	67.7	+1.0	76.0
17	25	29		26	6	69.7	+0.9	10.5
17	25	50		26	27	71.1	+0.7	79.2
17	26	57		27	32	69.2	+0.9	8.1
17	27	27		28	4	67.7	+1.0	76.3
17	27	57		28	32	66.3	+1.4	15.8
17	28	13		28	50			67.1
17	28	30		29	15			

Sat. has dis. on limb of Jup.
Sat not seen

17	29	9		29	46			
17	29	28		30	5			
17	29	50		30	27			
17	30	21		30	55			
17	30	52		31	29			
17	31	17		31	34			
17	31	27		32	4			

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1909phae.proj..595W

Feb. 25. 1909.

B. + C. 1142.			B. 394.		
12	42	37.5	12	43	0.0
12	43	37.5		44	0.0

L. P. P.

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1909phae.proj..595W

Feb 26. 1909 (Friday)

δ Orionis I

5	27	-0.4
5	57	W Obs. Rowe Rec. Phot W.
0	30	9.5 in cap used

Index Left + 3 I B.

36.9 Southern Brt. Obs
50.0 13.1
217.1
230.2 13.1 / 26.2 -4.70

37.3 12.6 -4.72
49.9
217.0 13.2 / 25.8 -4.73
230.2

Index Right A.

306.6
320.3 13.7
127.0
140.3 13.3 / 27.0 -4.63

306.8 13.3 -4.62
320.1
126.5 13.9 / 27.2 -4.62
140.4

Mean -4.67

7 19 55

7 30 40

	50	35.
7	25	18.
+5		+14.
12	25	32.

2364. 5 178

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1909phae..proj..595W

Feb. 26, 1909

Same Again II

Index Right A.

306.8
320.4 13.6
127.0
140.1 13.1 / 26.7 — 4.66

306.9
320.2 13.3 — 4.66
126.7
140.2 13.5 / 26.8 — 4.65

Index Left. B.

216.9
230.1 13.2
37.0
50.1 13.1 / 26.3 — 4.69

216.9
230.1 13.2 — 4.68
36.8
50.2 13.4 / 26.6 — 4.67

Mean — 4.67

7 32 55

7 40 45

7 36 50.

+ 14

12 37 4.

£364.2.0

1909phae.proj..595W

Feb 26, 1909.

Same Again III

Index Left B.

216·8		
230·2	13.4 ✓	
37.0	13.1 ✓	
50.1	26.5 ✓	−4.67 ✓

216·8		
230·2	13.4 ✓	−4.66 ✓
36·8		
50·1	13.3 ✓	
	26.7 ✓	−4.66 ✓

Index Right A.

126·7		
140·1	13.4 ✓	
307.0	13.1 ✓	
320·1	26.5 ✓	−4.67 ✓

127.0	13.0 ✓	−4.66 ✓
140.0		
306·6		
320.4	13.8 ✓	
	26.8 ✓	−4.65 ✓

Mean −4.66 ✓

Gen. " −4.67 ✓

7 47 30

7 53 35 ✓

101 5 ✓

7 50 32. ✓

+5 +14. ✓

12 50 46. ✓

£36 4. 5 3 5 ✓

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1909phae.proj..595W

Feb. 26, 1909

R U. Monocerotis

6 50 -8.0

6 50 W. Abs Bouw Rec. Phot. T.

0 0

Index R+A A. I

217.4 ← Comp Star Dis

8 28 15 290.5 73.1 ✓

44.8

102.4 57.6 ✓

130.7 ✓ +0.96 ✓

228.2 52.5 ✓ +1.05 ✓

8 30 45 280.7

41.0 69.6 ✓

110.6 121 ✓ +1.14 ✓

Index L+B B.

119.9 47.5 ✓

8 35 25 207.4

313.0 65.2 ✓

18.2 152.7 ✓ +0.52 ✓

131.2 +0.56 ✓

195.8 64.6 ✓

3020 24.7 ✓

26.7 149.3 ✓ +0.59 ✓

Mean ± 0.80 ✓

8 38 50

133 15. ✓

433 19. ✓

57 +14. ✓ ✓

13 33 33.

236.4.56.0 ✓

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1909phae.proj..595W

Feb 26, 1909.

Same Again II

Index Dt B B.

	121.8		
8 43 30	208.6	86.8	
	312.5		
	15.1	62.6	
		149.4	+0.99
	130.6		
8 45 55	195.5	64.9	+0.98
	303.0		
	28.2	274.8	+0.97

Index R+a A.

	36.0		
8 50 35	110.9	74.9	
	226.7	115.8	
	282.9	56.2	
		131.1	+0.96
	46.3		
8 53 15	104.3	58.0	+0.94
	216.2		
	290.5	74.3	
		132.3	+0.93

Mean +0.96

193 17

8 48 19

+5 +14

13 48 33.

8 36 4.57 4

1909phae.proj...595W

Feb 26, 1909

Same Again III

Index R+α A.

8 57 30

397
1129 72.5 ✓
2255
2825 57.0 ✓
129.5 ✓ +0.99 ✓

9 0 40

46.4
1047 57.3 ✓ +0.94 ✓
2172
2927 75.5 ✓
133.0 ✓ +0.90 ✓

Index L+B B.

9 9 0

3037
251 21.4 ✓
1318
1982 66.4
147.0 +0.62 ✓

9 10 50

3113
218 69.7 ✓ +0.56 ✓
1241
2081 84.0 ✓
153.7 ✓ +0.50 ✓

mean +0.75 ✓

9 10 50
252 0 ✓
9 4 30 ✓
+5 +14. ✓
14 4 44. ✓
2364.5 ✓ 266

1909phae.proj..595W

Feb 26, 1909

Same Again IV

Index R+B B.

	302.7		
	26.0	33.3	
	131.3		
	198.5	67.2	
		100.5	0.57
	312.0		
	20.0	68.0	+0.52
	121.1		
	208.7	87.6	
		155.6	+0.47

Index R+a A.

	218.4		
	294.5	76.1	
	42.0		
	104.2	62.2	
		138.3	+0.81
	228.8		
	283.2	54.4	
			+0.86
	34.7		
	112.9	78.2	
		132.6	+0.92
			+0.69

9	15	15	
9	17	53	
9	21	20	
9	24	0	
		78 30.	
9	19	38.	
+5		+14.	
14	19	52.	
364.		971	

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1909phae.proj...595W

Feb. 26, 1909

Same again V

Index R+a A.

217.4
2950 77.6"
45.7
104.2 52.5" / 136.1" +0.45"

227.0
2820 55.0" +0.90"
360
112.1 76.1" / 131.1" +0.96"

9 29 55

9 33 35

Index L+B B.

Clouds right in this region

1235
2064 42.9
3120
20.0 640 / 150.9" +0.56"

130.9 65.2" +0.55"
196.1
302.2 46.4"
28.6 151.6" +0.54"
Mean +0.72"

9 38 20

9 41 20

143 10"
9 35 42"
+5 +14"
14 36 2.8 T 8 25
A364.60 A37.1 +1 33

Dec. −7.0

P.A. 60 9 Vernier B
Sprocket. −5.5 B, −4.5 C

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1909phae.proj..595W

Feb 26, 1909

W's watch used for times
Watch 14 secs slow

L. P. P.

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1909phae.proj...595W

Mar. 1, 1909. (Monday)

δ Arionis

5	27	-0.4
6	17	W. Obs. Bouw Rec Phot W.
0	50	9.5 in cap used

Index L+B B. I

37.2
50.3 13.1 v
217.0
230.2 13.2 v / 26.3 v -4.69 v

7 30 40

37.3 12.6 v -4.70 v
49.9
216.8 13.4 v
230.2 26.0 v -4.72 v

Index R+a A.

306.4 14.0 v
320.4
126.9 13.2 v
140.1 27.2 v -4.62 v

306.7 13.3 v -4.62 v
320.0
126.5 13.9 v
140.4 27.2 v -4.62 v
Mean -4.66 v

7 38 20
69 0. v
7 34 30. v
tr -30. v
12 34 0. v
£367.v236 v

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1909phae.proj..595W

Mar. 1, 1909.

Same Again. II

Index R+a A.

7 41 50

306.3	~~14.6~~	
320.1	13.6 ✓	
127.2	12.8 ✓	
140.0	26.4 ✓	−4.62 ✓
306.9	13.2 ✓	−4.66 ✓
320.1		
126.8	13.6 ✓	
140.4	26.8 ✓	−4.67 ✓

Index L+B. B.

216.6	13.7 ✓	
230.3		
37.4	12.8 ✓	
50.2	26.5 ✓	−4.67 ✓
217.3	12.7 ✓	−4.62 ✓
230.0		
36.8	13.5 ✓	
50.3	26.2 ✓	−4.70 ✓

Mean −4.67 ✓

7 47 55

89 45.✓

7 44 52.✓

+5 −30.✓

12 44 22.✓

α 367.✓ 309 ✓

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1909phae..proj..595W

Mar. 1, 1909

Same Again. III

Index Lft B B.

217.0
230.1 13.1 ✓
37.3
49.7 12.4 ✓ / 25.5 ✓ −4.76 ✓

217.1 13.3 ✓ −4.72 ✓
230.4
37.2 13.0 ✓ / 26.3 ✓ −4.69 ✓
50.2

Index Rt A. A.

127.3 13.0 ✓
140.3
307.0 13.1 ✓ / 26.1 ✓ −4.71 ✓
320.1

127.2 13.1 ✓ −4.67 ✓
140.3
306.6 13.9 / 27.0 −4.63 ✓
320.5

Mean. −4.70 ✓
Gen. " −4.64 ✓

8 5 15

8 11 35
16 ✓0. ✓
8 8 2✓. ✓
+✓ −30. ✓
13 7 ✓✓. ✓
4367. ✓4371 ✓

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1909phae.proj..595W

Mar. 1, 1909.

Fourth Type Star +59° 2810

0 2 +58.3

7 17 W Obs. Power Rec. Phot T

7 15 9.5 in cap used

Color 6 with ordinary eyepiece

Index

Stopped by clouds.

W's watch used for times

Watch 30 sec. fast.

L. P. P.

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1909phae.proj..595W

Mar. 5, 1909 (Friday)

Fourth Type Star +59° 2810

0 2 +583

6 22 W Obs. Bowe Ree Phot T.

6 20 9.6 in cap used

Color 6 in large telescope

Index Right A.

354 ← Susp Var Obs

7 26 20

114.1 74.7 v

223.5

284.0 60.5 v

139.2 v −0.79 v

43.8 60.8 v −0.76 v

104.6

214.5 60.7 v

295.2 141.5 v −0.74 v

Index Left B.

302.4

27.5 82.1 v

129.2 64.7 v

197.9 153.8 v −0.50 v

313.7 65.5 v −0.51 v

19.2

121.8 87.4 v

209.2 152.9 v −0.52 v

Mean −0.64 v

7 35 40

62 0. v

7 31 0. v

+v −34.

12 30 26. v

8371. v211 v

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1909phae.proj..595W

Mar. 5, 1909.

S.T. 6 52
H.A +6 54
Dec +60.1
P.A 78.3 Vernier B
Sprocket -4.5 A, -3.5 B, -3.0 C.

Σ Orionis

5	27	-0.4
6	57	
1	30	

W. Obs. Rowe Rec.

Phot. W

9.5 in cap used

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1909phae.proj..595W

Mar. 5, 1909.

Index Right A. I

7 56 40

126.8
140.1 13.3 v
3067
320.1 13.4 v
26.7 v -4.66 v

126.9 13.3 v -4.64 v
140.2
3066 13.2 v
320.4 27.1 v -4.63 v

Index Left B.

366 13.5 v
501
Clouds.
217.2 12.9 v
230.1 26.4 v -4.62 v

37.2 12.6 v
49.8 -4.70 v
216.9 13.3 v
230.2 25.9 v -4.73 v
mean -4.67 v

8 6 55
123 3 v v
2 1 42 v
+v -34 v
13 1 14 v
2 371. v 42 v + v

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1909phae.proj..595W

Mar 5, 1909

Same Again II

Index Left B.

370		
504	13.4 v	
217.4		
230.1	12.7 v	
	26.1 v	−4.71 v

37.2		
50.1	12.9 v	
		−4.72 v
217.1		
229.9	12.8 v	
	25.7 v	−4.74 v

Index Right A.

306.6		
320.2	13.6 v	
126.7		
140.2	13.5 v	
	27.1 v	−4.63 v

306.6		
320.4	13.8 v	
		−4.62 v
126.8		
140.4	13.6 v	
	27.4 v	−4.60 v

Mean −4.67 v

8 9 20

8 15 25

	24	47. v
Δ	12	22. v
+v		−34. v
	13 11	48. v
	Δ371.5	499 v

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1909phae.proj..595W

Mar 5, 1909.

Same Again III

Index Right A.

8 21 30

3066
320.1 13.5
127.1
140.2 13.1 / 26.6 −4.67

366.7 13.6 −4.64
320.3
126.6
140.4 13.8 / 27.4 −4.60

Index Left B.

217.1 13.2
230.3
37.2
49.7 12.5 / 25.7 −4.74

217.3 12.7 −4.72
230.0
36.7
50.3 13.6 / 26.3 −4.69

Mean −4.68
Gen. " −4.67

8 27 35

49 ✓
A 24 32. ✓
+✓ −3K. ✓
13 23 ✓A. ✓

A37/. ✓✓A3 ✓

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1909phae.proj..595M

Mar. 5, 1909.

Fourth Type Star +14° 1283

6 17 +14.8
8 17 26 Obs Boss Rec. Phot 17
2 0 9.5 in Cap used

Color 5 with a dynamy eyepiece

Index R+A A.

128.5 ← Fourth Type Star
200.4 71.9 v
308.9
17.7 68.2 v
140.7 v −0.76 v

129.9
201.7 71.8 v −0.76 v
308.7 69.1 v
17.8 140.9 v −0.76 v

Index L+B B.

41.6 66.2 v
107.8
222.7 65.1 v
287.8 131.3 v −0.92 v

41.1 66.6 v −0.92 v
107.7
224.9 67.7 v
289.6 134.3 v −0.89 v

Mean −0.84 v

9 17 25

9 25 0
42 25. v
9 21 12. v
+v −34. v
14 20 38. v
371.v976 v

Color 5 in photometer

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1909phae.proj..595W

Mar. 5, 1909.

S.T. 8 41
HA +2 20
Dec +15.3
P.A 23.1 Vernier B
Sprocket -9.5 A, -8.5 B, -8.0 C.

Fourth Type Star +38° 1539

16 27 +38.6
9 17
2 50 U Ms Bour Ree Phot T.

Color 5 with ordinary eyepiece
95" in cap used.

Index Above A.
613 ← Fourth Type disc
10 16 0 88.9 27.6"
2433
265.8 22.5" / 0.1" −3.27"

64.4 20.4" −3.2"
84.8

240.0 30.6" / 1.0" −3.23"
270.6

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1909phae.proj..595W

Mar 5, 1909.

Index Below B.

327.9
1.2 33.3 v

154.6
179.0 24.4 v
57.7 v — 2.9 v v

332.0
356.4 24.4 v — 2.90 v

146.6 3v.7 v
182.3 60.1 v — 2.46 v

Mean — 3.0A v

10 22 45

	3A	4v.	v
10	19	22.	v
+v		−34.	v
1v	1A	4A.	v

A371.6321 v

Color 5 in photometer

~~S~~	9	37
H.A.	+3	6

Dec. +38.9
P.A 191.7 Vernon B
Sprocket −7.4 A, −6.5 B, −6.0 C.

L. P. P.

Wis watch used for times
Watch 34 secs fast

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1909phae.proj..595W

Mar. 6, 1909. (Saturday)

δ Orionis

5	27	-0.4
6	27	W. Obs. Rowe Ref. Plot W.
1	0	9.5 in caps. used.

Index Right. A.

126.6		
140.3	13.7	
306.9		
320.5	13.6	
	27.3	-4.61

126.9	13.3	-4.62
140.2		
306.6		
320.4	13.8	
	27.1	-4.63

Index Left. B.

36.6		
50.2	13.6	
217.2		
229.7	12.5	
	26.1	-4.71

37.3		
50.0	12.7	-4.72
217.0		
230.2	13.2	
	25.9	-4.73

Mean -4.67

7 31 0

7 37 18
6 A 10.
7 34 V.
+V -34.
12 33 31.
8372.52 33

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1909phae.proj..595M

Mar. 6, 1909.

Same Again. II

Index Left. B.

36.8
505 13.7 v
2172
2301 12.9 v
26.6 v −4.67 v

372
503 13.1 v −4.66 v
2166
2303 13.7 v
26.8 v −4.67 v

Index Right A c

3065
320.4 13.9 v
1270
140.0 13.0 v
26.9 v −4.64 v

307.1
320.2 13.1 v −4.66 v
126.9
140.1 13.2 v
26.3 v −4.69 v

Mean −4.66 v

7 40 10

7 46 50

A7 0. v
7 43 30. v
+v −34. v
12 42 56. v
+372.5298 v

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1909phae.proj..595W

Mar 6, 1909.

Same Again. III

Index Right. A.

7 53 20

386.4
320.5 14.1 v
126.7
139.9 13.2 v
27.3 v −4.61 v

3065 13.9 v −4.60 v
328.4
126.7
140.3 13.6 v
27.5 v −4.59 v

Index left. B.

217.1
230.0 12.9 v
37.1
50.2 13.2 v
26.1 −4.71 v

217.1 13.1 v −4.70 v
230.2
37.0 13.3 v
50.3 26.4 v −4.68 v

8 0 40
114 0. v
7 57 0. v
+v −34. v
12 56 26. v
8372.5392 v

Mean −4.695 v
Gen. " −4.66 v

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1909phae.proj..595W

7 Mar 6, 1989

Fourth Type Star +20° 1715

7 26 +3.6

7 36 W. Obs. Rowe Lee. Phot T.

D 10

Index Lt B

3120 ← Comp. Star Dec

192

131.5

192.2

345.2

14.5

12[illegible]9

2934

8 36 10

Index R+a A.

2219

287.4 ← Comp. Star Dec.

50.5 65.5 v

102.6 52.1 v

117.6 v +1.2 v

230.8

280.2 49.4 v +1.2 v

40.9

109.0 64.1 v

117.5 v +1.2 v

8 42 40 Assumed.

8 45 15

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1909phae.proj..595W

Mar. 6, 1909.

Index bar B : B.

8 55 40

130.0
200.1 70.1 v
315.0
13.6 √2.6 v
128.7 v +1.00 v

8 58 15

135.7 √9.4 v +0.96 v
195.1
310.2 73.2 v
23.4 132.6 v +0.92
Mean +1.10 v

201 √0. v
Δ √0 - 2Δ. v
+√ -34. v
13 49 √4. v
Δ372. √763 v

Something apparently wrong in first half of previous group on previous page. This half retaken of the first half of this page.

S.T. 8 19
H.A. +0 46
Dec. +2.8
P.A. 26.4 Vernier B.
Sprocket -5.5 B, -4.5 C.

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1909phae.proj..595W

Mar. 6, 1909.

Fourth Type Star +68° 617

10	35	+68.2
8	55	W. Ab. Pour Rec. Phot T.
1	40	
10	20	

Color 5 with ordinary eyepiece.

Index L+B B.

323.4 ← Fourth Type Star
4.7 41.3
151.9
183.3 31.4 / 72.7 − 2.42

331.0 27.3 − 2.72

358.3
147.2 39.6 / 66.9 − 2.61

Index R+A A.

235.6 40.4
276.0
60.8
88.6 27.2 / 68.2 − 2.77

242.0
271.2 29.2 − 2.62
55.7 36.4 / 65.6 − 2.66
92.1

Mean − 2.77

9 49 30

9 55 30

	10	0.
9	2	30.
		−34.
14	1	6.

372.6193 Color 5 air Phot

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1909phae.proj...595W

Mar 6, 1909.

S.T. 9 13
H.A. -1 28
Dec. +67.2
P.F. 240'5 Vernier B.
Sprocket -6.5 B, -5.5 C

Double Star (New List) = Burnham's Cat 5303 A.C.
9 58 -17.5 | 11 Obs Rowe Ree Phot W=
9 28 | P.A 273° Dist 22" Hagp.
11 30 Index R+B

278.9 ← Foll+Brtr Dia
10 15 45. 347.3 69.4 ✓
99.3
168.8 69.7 ✓ 0.43 ✓
137.1 ✓

277.9 70.7 ✓ 0.40 ✓
348.6
97.7 69.2 ✓
166.9 139.9 ✓ 0.74 ✓

Index Dia
188.6 64.3 ✓
256.9
11.4 62.6 ✓
74.0 130.9 ✓ 0.96 ✓

192.0 63.9 ✓ 0.96 ✓
255.9
8.6 67.6 ✓
76.2 131.5 ✓ 0.95 ✓ Mean 0.82 ✓

10 21 35
37 20. ✓
10 12 40. ✓
+✓ -34. ✓
15 12 6. ✓ 372, 6376 ✓

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1909phae.proj..595W

Mar 6, 1909.

B.T.C. 1182			B 3947		
10	32	41.0	10	33	0.0
10	33	40.8	10	34	0.0
10	34	40.5	10	35	0.0

Resfes. Jup. I. Phot W. W. Obs. Rous Rec.
Compared with mean of two Sats. on the preceding side = Sat. II

Limit of Visibility.

			11	0	41	65.9		98.8
16	1	50.		1	38			164.7
		+21.		2	17	55.9		106.5
16	2	11	"		42	60.9	+1.2	162.4
16	7	1	11	6	40			Suspected
16	7	F	"		43			Seen
16	7	14	"		53	64.5	+1.0	103.5
16	7	20.		7	4	81.0	+0.3	168.0
16	7	46	"		24	98.8	-0.3	84.0
16	8	0.	"		38	101.6	-0.4	185.8
16	8	1	"		53	10.2.6	-0.5	84.2

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1909phae.proj...599W

Mar. 6, 1909

16	8	31	III	8	9	102.3	−0.5	186.8	
16	8	49		"	27	99.5	−0.4	84.5	
16	9	3		"	41	103.0	−0.5	184.0	
16	9	23		9	1	107.0	−0.7	81.0	
16	9	38		"	16	107.1	−0.7	188.0	
16	10	3		"	41	109.2	−0.7	80.9	
16	10	−3		10	13			190.1	
				10	28			78.1	
16	10	55		10	42	111.9		190.0	I
		+22.		11	8	108.2 / 110.0	−0.8	79.8	
16	11	17		11	23			188.0	
				11	38	108.5		79.0	
16	12	0.		11	56			187.5	II
		+22.		12	12	7	109.5 / 109.0	−0.7	80.5
16	12	22.		12	19			190.0	
				12	34	107.8		81.2	
16	12	56.		12	49	106.6		189.0	III
		+22.		13	0	107.2	−0.7	80.5	
16	13	18		13	21			187.1	
				13	34	105.0		81.2	
16	13	54.		13	49	107.7		186.2	IV
		+22.		14	1	106.4	−0.6	81.1	
16	14	16		14	10			188.8	
				14	34	105.9		81.1	
16	14	54.		14	51	105.7		187.0	V
		+22.		14	58	105.8	−0.6	80.3	
16	15	16		15	11			186.0	

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1909phae.proj..595W

Mar 6, 1909.

			11	15 15	23	105.7	81.5
16	15	32.		15 "	32	104.6	187.2
		+22.		15 "	42	105.2 −0.6	81.5
16	16	0.		15 "	55		186.1
				16 16	7	105.7	81.8
16	16	27.		16 "	24	104.7	187.0
		+22		16 "	33	105.2 −0.6	81.8
16	16	49.		16 "	45		186.5
				16 "	56	106.4	81.1
16	17	15.		17 17	6	106.1	187.5
		+22.		17 "	19	106.2 −0.6	80.9
16	17	37.		17 "	38		187.0

Although seeing in general was somewhat good, yet it was decidedly blurry at intervals. Sat. I reappeared pretty close to limb of Jupiter and limb of Jupiter throughout was fuzzy so that Obs. had to contend with this difficulty especially in early settings. This caused a little delay in first reading and also compelled three early readings to be taken somewhat slowly. Observations, also, made through light cloud but all possible care exercised.

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1909phae.proj..595W

Mar. 6, 1909.

W's watch used for times in observations before eclipse

Watch 34 secs. fast.

	B+C	1182		B. 394	
11	30	37.2	11	31	0.0
11	31	37.0	11	32	0.0

L. P. P.

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1909phae.proj..595W

Mar. 8. 1909. (Monday).

δ Orionis. Phot. H. 9.5" cap.
Hr. obs. H. rec.

5	27	−0.4
6	4/0	
+1	13	

For means, see next page.

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1909phae.proj...595W

Mean. D. 1909.

Index Right. A.

307.2	13.1	
320.3		
126.6	13.7	
140.3	26.8	−4.67
306.8	14.1	−4.62
320.4		
126.7	13.6	
140.3	27.7	−4.72

Index Left. B.

217.0	13.2	
230.2		
36.7	13.7	
50.2	26.9	−4.64
217.0	13.4	−4.64
230.4		
36.7	13.7	
50.2	26.9	−4.64

Mean −4.63

7 30 40

7 44 40

7 7 20.

7 37 40

+7 −37.

12 37 3.

837.7 + 27

1909phae.proj..595W

Mar. 2. 1909.

Double Star (New List) = Burnham's Cat
5303 A.C. Phot. Gr.
Gr. obs. Gr. rgc.

9	v2	-17.v
7	40	
-2	18	
9	42	

For means, see next page.

Clouds.

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1909phae.proj...595W

Mar. 2. 1909.

Index L + A.

2 44 20	192.9		
	2V 7.0	64.1 V	
	9.0		
	76.2	67.2 V	
		131.9 V	0.94 V
	191.2		
	2V 6.V	6V.3 V	0.92 V
	11.3	62.2 V	
	73.V	127.V V	1.03 V

Index R + B

	279.9		
	347.0	67.1 V	
	94.7	62.4 V	
	167.1	13V.V V	0.93 V
	272.V		0.93 V
	340.2	70.3 V	
	94.4		
	167.3	62.9 V	
		139.2 V	0.99 V

Mean 0.90 V

2 V-2 V	
102 2V. V	
2 V 112. V	
+V -37. V	
13 V0 3V V	
2394. V760 2 V	

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1909phae.proj..595W

Mar. 2. 1909.

Fourth Type Star +V 9° 2810.

Clouds.

9.V cap.
Phot. I. W. ob. W. rec.

0	2	+V 8.3
4	24	
4	22	

Color 6 in Photometer.

For means, see next page.

Clouds.

Clearer.

Quite clear in this region.

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1909phae.proj..595W

Ecuar. A. 1909.

Ludw. left. B

9 14 7

314.9 ← Resp. Var. Lev.

20.v 6v.6 v

122.6

209.0 $\frac{\text{A6.4}^{v}}{\text{1v2.0}^{v}}$ −0.v4 v

300.v A6.3 v −0.4A v

26.A

131.0 $\frac{\text{71.0}^{v}}{\text{1v7.3}^{v}}$ −0.43 v

209.0

Ludw. Right. A.

37.1

114.9 77.A v

22v.9

246.2 $\frac{\text{60.3}^{v}}{\text{13A.1}^{v}}$ −0.A1 v

40.2

102.0 61.A v −0.77 v

214.0

294.2 $\frac{\text{A0.2}^{v}}{\text{142.0}^{v}}$ −0.73 v

Mean −0.62 v

9 27 v0

41 v7. v

9 20 vA. v

+v −37. v

14 20 21. v

A374. v97v− v

1909phae.proj..595W

Mar. 4. 1909.

Double Star (New List) = Burnham's Cat 7099.
Phot. W. W. ds. W. rac.

14 ν6 +ν43

9 7

−ν 49

6 11

P. A. 343°
Dist. 41"
Mags. 7.1, 7.8

For results, see next page.

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1909phae.proj..595W

Mar. 2. 1909.

Index K + B.

192.0
2V4.0 62.0"
3.3
21.V 94.2" 0.77"
140.2"

141.1 20.1" 0.74"
261.2
10.1 62.7"
72.2 142.2" 0.72"

Index R. + A.

273.4
3V6.2 23.4"
103.6 60.4"
164.0 143.2" 0.70"

220.V 62.7" 0.67"
343.2
91.7
17V.9 24.2" 0.64"
146.9"

Mean 0.70"

10 3 2

10 19 20
22 22." V
10 11 11." V
+V −37." V
1V 10 34" V
2374.6323" V

W's watch used for times.
Watch 37 secs. fast.

L. P. P.

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1909phae.proj..595W

Mar. 11, 1909 (Thursday)

δ Arietis

5 27 −0.4
6 47
1 20

W. Obs. Bouw Rec Phot W
9.5 in cap. used

Index Left B.

216.5
230.5 14.0 v

37.1
49.9 12.8 v
26.8 v −4.6 v

217.4
230.0 12.6 v −4.66 v

36.5
50.3 13.8 v
26.4 v −4.6 v

Index Right A.

126.6
140.5 13.9 v

306.6 13.6 v
320.2 27.5 v −4.59 v

127.2
140.3 ~~13.1~~ v −4.62 v

306.6
320.4 13.8 v
26.9 v −4.64 v
Mean −4.64 v

7 31 10
v 4 30. v
7 27 15. v
+v −33. v
12 26 42 v
δ 377. v 106 v

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1909phae.proj..595W

Mar. 11, 1909

Same Again II

Index Right A.

7 34 5

126.3
140.0 — 13.7 v

306.6
320.0 — 13.4 v

27.1 v — −4.63 v

127.0
139.8 — 12.8 v — −4.66 v

3065
320.0 — 13.5 v

26.3 v — −4.69 v

Index Left - B.

~~361~~ 216.5
~~500~~ 230.3 — 13.8 v

~~217.2~~ 36.5
~~229.9~~ 50.4 — 13.9 v

27.7 v — −4.58 v

37.1 217.0
50.0 230.2 — 13.2 v — −4.60 v

21.7 36.5
230.2 50.3 — 13.8 v

27.0 v — −4.63 v

Mean − 4.63 v

Gen. " − 4.64 v

~~7 48 15~~
~~7 40 35~~

A 2 20. v

7 41 10. v

tr −33. v

12 40 37.

A 377. v 2 A 2 v

As seeing improved, last two sets are second groups retaken.

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1909phae.proj..595W

Mar. 11, 1909.

R. U. Monocerotis.

6	50	-8.0
7	30	W. obs. Boss Rec. Phot. T.
0	40	

Index Rta. A.

39.7 ← comp Sta Dis

111.2 71.√ v

224.4

283.6 √9.2 v

130.7 v +0.96 v

45.6

101.5 √√.9 v +1.01 v

221.9

292.1 70.2 v

126.1 v +1.06 v

Index Lt B. B.

302.5

24.1 α1.6 v

128.8

198.1 69.3 v

√30.9 v +0.√6 v

313.9 +0.64 v

15.1 61.2 v

123.8 α1.6 v

205.4 142.α v +0.72 v

Mean +0.82 v

8 11 20

8 19 0

30 20. v

α 1√ 10. v

+√ −33. v

13 14 37. v

α377.√√18 v

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1909phae.proj..595W

Mar. 11, 1909.

S.T. 7 -57
H.A+1 5
Dec -7.1
P.A. 602 Vernier B
Sprocket -6.5A. -5.5B, -5.0 C.

Double Star New List = Burnham's Cat. No. 6179

12	22	+45.5
8	57	
3	25	
8	35	W. Abs. Bowe Rec. Phot. 76.

P.A. 162° Dist. 10" Mags 7.0, 7.5,

Index R.A. A.
47 ← Northern + Brtn Dis.

~~9 36 45~~

82.7	72.0 v		
189.2			
258.3	69.1 v		
	147.1 v	0.63 v	
10.0			
80.0	70.0 v		0.64
182.9			
259.0	76.1 v		
	146.1 v	0.65 v	

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1909phae.proj..595W

Mar. 11, 1909

Index	L+B	B
272.0		
352.0	Δ 0.0 v	
94.3		
172.0	77.7 v	
	177.7 v	0.43 v
274.0		
352.7	Δ 7.7 v	0.40 v
92.0		
173.6	Δ 1.6 v	
	16 0.3 v	0.3Δ v

Mean 0.v-2 v

9 47 46

Δ4 30. v

9 42 1v. v

+v −33. v

14 Δ1 Δ2. v

Δ377.6123 v

Double Star (New List) = Burnham's Cat 6289

12	46	+19.8
9	36	
3	10	
8	58	

P. A. 201° Orat 16" Magn. 6.Δ, 7.2

W. Obs. Power Rec. Phot. W.

Meas to on foll page

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1909phae.proj..595W

Mar. 11. 1909.

Index R+A. A.

186.4 Wolfe, Foll + Brit Das

10 9 20

261.8 75.5 ✓

4.6

83.3 78.7 ✓ 0.50 ✓

15 4.1 ✓ ~~0.44 ✓~~

184.3 78.7 ✓ 0.47 ✓

263.0

3.1

81.3 78.2 ✓ 0.45 ✓

15 6.9 ✓

Index L+B B.

92.0 81.5 ✓

173.5

273.0 80.8 ✓

353.8 16 2.3 ✓ 0.35 ✓

92.0 81.4 ✓ 0.36 ✓

173.4

274.4 79.2 ✓

353.6 16 0.6 ✓ 0.37 ✓

Mean 0.42 ✓

10 17 55

27 15. ✓

10 13 30. ✓

+5 −33. ✓

15 13 5

A377.6341 ✓

Seeing very blurry. Observations very difficult. Troubled throughout evening, especially at times, by blurry seeing. Seeing more blurry last half of evening than first from the fact that there was much more wind and air gradually becoming colder. Barometer also rising after storm.

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1909phae.proj..595W

Mar. 11, 1909

W's watch used for times.
Watch 33 secs. fast.

L. A. P.

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1909phae.proj...595W

Mar. 12, 1909. (Friday)

δ Orionis.

5 27 -0.4
6 57 W. Obs. Roux Ree Phot W.
1 30 95 m cap used.

Index Right A. I

127.1
1398 12.7 ✓
7 21 20
306.6
320.2 13.6 ✓ / 26.3 ✓ -4.69 ✓

127.0 13.3 ✓ -4.66 ✓
140.3
306.3
320.1 13.2 ✓ / 27.1 ✓ -4.63 ✓

Index Left. B.

36.9 13.1 ✓
50.4
217.0 12.7 ✓
229.7 / 26.2 ✓ -4.70 ✓

37.2 12.8 ✓ -4.72 ✓
50.0
216.7 13.0 ✓
229.7 / 25.8 ✓ -4.73 ✓

Mean -4.69 ✓

7 27 40
49 0. ✓
7 24 30. ✓
+r -31. ✓
12 23 -9. ✓
2378. -167 ✓

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1909phae.proj..595W

Mar 12, 1909.

Same Again. II

Index Left B.

36.7
50.2 13.5 v
21.68
22.99 13.1 v / 26.6 v − 4.67 v

37.0
49.8 12.8 v − 4.70 v
21.67
22.99 13.2 v / 26.0 v − 4.72 v

Index Right A.

30.65
32.02 13.7 v
12.69
14.02 13.3 v / 27.0 v − 4.63 v

30.65 13.6 v − 4.62 v
32.01
12.66
14.02 13.6 v / 27.2 v − 4.62 v

Mean − 4.66 v
Gen. " − 4.68 v

7 30 5.

7 36 10
66 15. v
7 33 A. v
+v −31. v
12 32 37. v
A378. v226 v

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1909phae.proj..595W

Mar. 12, 1909.

R.A. Cassiop.

2	36	+69.0
7	26	Wdbs Bouw Rec Phot T
4	50	9.5 in cap used

7 48 Sky Cloudy. Variable practically gone
7 53 Variable occasionally seen but only for a moment.

9 0 Still Cloudy.

9. 15 Clouds thick everywhere. No chance for anything tonight

W's watch used for times
Watch 31 secs. fast.

L. P. P.

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1909phae.proj..595W

Mar. 15, 1909. (Monday)

B+C	1182		B 397		
6	58	20.7	6	58	0.0
6	59	20.8	6	59	0.0

all the
W's watch used for times throughout evening..
Watch 31 secs. fast.
After taking above comparison. W. concluded to use his watch for times on eclipse, as it was running excellently with no changing rate and by using said watch he would be able to begin observing Z Persei immediately after eclipse since chronometer had a losing rate, and if that were used a delay would be occasioned at end of eclipse in order to go down and get record comparison.
" Reapp. Jup I Phot W Wells Bowe Rec

Compared with Sat. on following side = Sat. II

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1909phae.proj...595M

Mar. 15. 1909

12	29	25	7	29	56				Suspected.
12	30	6	"	30	37				Seen
12	30	14		"	45	78.0	+0.5	185.0	
12	30	34		31	5	81.2	+0.3	263.0	
12	30	51		"	22	85.9	+0.2	181.8	
12	31	5		"	36	87.5	+0.1	267.7	
12	31	23		"	54	88.8	0.0	180.2	
12	31	40.		32	11	91.7	−0.1	269.0	
12	32	1		"	32	92.8	−0.1	177.3	
12	32	22		"	53	97.3	−0.3	270.1	
12	32	52		33	23	92.2	−0.3	172.8	
12	33	11		"	42			271.0	→
			33	"	57	100.1		173.1	
12	34	26.	34	34	22			273.2	I
		−31.	34	"	37	99.1		174.0	
12	33	55.	34	"	49	99.6	−0.4	273.1	
			35	35	0	98.5		173.5	
12	35	30.	35	"	18	101.2		272.0	II
		−31.	35	"	36	99.8	−0.4	172.3	
12	34	59.	36	36	5			273.5	
			36	"	31	97.5		173.3	
12	37	4.	36	"	58			270.8	
		−31.	37	37	17	97.3		173.8	III
12	36	33	37	"	31	97.4	−0.3	271.1	
			37	"	47	100.7		172.5	
12	38	8.	38	38	2			273.2	IV
		−31.	38	"	16	101.0	−0.4	173.0	
12	37	37.	38	"	28	100.8		274.0	
					~~40~~			~~1742~~	

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1909phae.proj..595W

Mar 15, 1909

			38	32	40			174.2
12	39	1.	38	32	55	98.9		273.1
		-31.	39	39	8	99.3		174.0 V
12	38	30	"	39	22	99.1	-0.3	273.3
			"	39	42			174.2
12	40	4.	40	40	3	98.8		273.0 VI
		-31.	"	40	30	100.		174.6
12	39	33	41	41	0	99.6	-0.4	273.0
			"	41	16			174.8
12	41	34.	"	41	26	98.4		273.2 VII
		-31.	"	41	41	98.3		174.9
12	41	3.	"	41	55	98.4	-0.3	273.2
			42	42	15			175.0
12	42	32	"	42	35	97.2		272.2 VIII
		-31.	"	42	44	96.9		175.2
12	42	7.	"	42	57	97.0	-0.3	272.1
					Limit of Visibility			1
			43	43	39			188.7
12	44	38.	44	44	42	71.3		260.0
		-31.	"	44	55	71.1		188.0
12	44	7.	45	45	14	71.2	+0.7	259.1

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1909phae.proj..595W

Mar. 15, 1909.

Seeing blurry a large part of the time. Sat. reappeared quite close to limb of Jupiter as Jupiter's limb was much blurry and overlapping place of Sat., the reappearance could not be taken as early as it otherwise would have been and continual delay was occasioned in making settings; although as many settings were obtained as possible.

Z. Persei

2	33	+421
7	43	
5	10	

W Obs. Power Rec. Phot T.

Means. on following page

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1909phae.proj..595W

Mar 15, 1909.

Index L to B. I

329.0 ← Comp. Star Dec.

8 5 55 0.0 31.0 v

156.3
175.1 18.8 v / 49.2 v +3.2 A v

335.7
356.6 20.9 v +3.19 v

& & 45 Assumed

148.7
181.8 33.1 v / √4.0 v +3.10 v

Index R to B A.

239.2
273.0 33.8 v

8 12 0

65.2
83.8 18.6 v / √2.4 v +3.17 v

246.4
266.8 21.4 v +3.06 v

8 14 50

57.8
93.8 36.0 v / √7.4 v +2.96 v

Mean +3.12 v

41 30 v
& 10 22. v
+√ −30. v
13 9 √2 v

23 A/. √4 A √ + v

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1909phae.proj...595W

Mar. 15, 1909

Same Again. II

Index R+B A.

~~234.7~~

~~273.0~~

~~8 18 15~~

61.8
87.2 25.4 v
8 19 35
235.6
274.2 38.6 v / 64.0 v +2.71 v

60.4
92.5 32.1 v +2.89 v
8 21 21
244.4
266.9 22.5 v / 54.6 v +3.07 v

Index Eta B.

331.0
356.2 25.2 v
8 24 25
144.5
186.9 42.4 v / 67.6 v +2.59 v

325.6
3.9 38.3 v +2.63 v
8 26 40
152.1
179.1 27.0 v / 65.3 v +2.67 v

Mean +2.76 v

9 2 1 v
4 23 0. v
+v −30. v
13 22 30. v

4 38 1. v v 72 v

1909phae.proj..595W

Mar. 15, 1909.

Same Again III

Index 2 + a B.

332.0
358.7 26.7 v
141.8
1865 44.7 v
71.4 v +2.46 v

8 30 25

3241
5.2 41.1 v +2.50 v

8 33 35

151.4
179.2 27.8 v
62.9 v +2.54 v

Index R + B. A.

233.9
275.7 41.8 v

8 36 20

61.5
87.3 25.8 v
67.6 v +2.59 v

242.5
273.2 30.7 v +2.52 v

8 39 0

54.6
96.0 41.4 v
72.7 v +2.44 v

Mean +2.51 v

139 10 v
2 34 44 v
+v −30. v
13 34 14 v
A3A1. 56++ v

1909phae.proj..695M

Mar. 15, 1909.

Same Again. IV

Index R+B. A.

8 43 30

233.6
275.2 41.6 ✓
59.9
90.1 30.2 ✓ / 71.8 ✓ +2.4 ✓ ✓

8 46 20

242.6
269.8 27.2 ✓ +2.43 ✓
51.3
97.2 45.9 ✓ / 73.1 ✓ +2.41 ✓

Index L+a B.

8 49 45

141.8
189.3 47.5 ✓ ✓
327.4
358.5 31.1 ✓ / 78.6 ✓ +2.24 ✓

8 51 45

150.6
182.8 32.2 ✓ +2.20 ✓
321.4
10.4 49.0 ✓ / 81.2 ✓ +2.16 ✓

mean +2.32 ✓

191 20. ✓
+ 47 50. ✓
+ ✓ -30. ✓
13 49 20. ✓

A321. ✓ 74 ✓ +

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1909phae.proj..595W

Mar 15, 1909

Same again IV

Index Lt a. B.

8 55 50

140.4
190.2 49.8 v
3266
2.6 36.0 v
A v A v +2.03 v

8 58 35

1484 33.7 v +2.06 v
182.1
3194
9.2 49.8 v
A3. v v +2.09 v

Index Rt B A.

9 1 50

51.5 48.4 v
999
241.3 31.7 v
273.0 A0.1 v +2.19 v

59.1 32.6 v +2.16 v
91.7
2300 49.6 v
279.6 A2.2 v +2.13 v

Mean +2.11 v

9. 4 5

240 20 v
9 0 v. v
+v −30. v

13 v9 3v. v
A3A. vA30 v

1909phae.proj..595W

Mar 15, 1909.

Same Again VI

Index R+B A.

47.2
100.0 √2.2 v
238.3
275.8 37.√ v
90.3 v +1.91 v

9 14 30

567 36.√ v
93.2 +1.93 v

9 17 30

228.0
280.1 √2.1 v
52.6 v +1.9√ v

Index Lta B.

317.5
13.0 √√.√ v

9 21 10

147.2
186.4 39.2 v
69.7 v +1.79 v

325.3
5.8 40.√ v +1.72 v

9 24 15

136.1
195.6 √9.√ v
100.0 v +1.66 v

77 2√. v
9 19 21. v
+√ −30. v
14 14 √1. v
2321.√964 v

Mean +1.82 v

ST 9 15
H.A+6 40
Dec. +42.2
P.A 16.3 Vernier B
Sprocket, −6.3A, −5.5B, −4.5C.

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1909phae.proj..595W

Mar. 15, 1909.

Double Star (New List) = Burnham's Cat = 6289

12 46 +19.8
9. 36 Wdbs. Four Rec.
2 50
-9 10 Phot. W.

P. A. 201° Dist .16" Mags.

Index Below

277.8 North Foll. + Brit. Lis.
354.0 76.2 ✓
92.0
173.6 81.6 ✓ / 1.7 ✓ 0.42 ✓

274.2
353.5 79.3 ✓ 0.50 ✓
96.3
167.3 71.0 ✓ / 1.0.3 ✓ 0.57 ✓

Index Above

183.3
260.0 76.7 ✓
4.9
81.4 76.5 ✓ / 1.3.2 ✓ 0.51 ✓

181.5
263.3 81.8 ✓ 0.44 ✓
3.0
81.8 78.8 ✓ / 1.0.8
160.0 ✓ 0.38 ✓ mean 0.47 ✓

10 14 0

10 20 0

3F 0. ✓
10 17 0 ✓
+✓ -29 ✓
1✓ 16 31. ✓

L. P. P.

F3 A1. 636✓ = Seeing very blurry in above group. Observations difficult, Ub's watch at end of evening 29 sec. fast

1909phae.proj..595W

Mar. 16, 1909 (Tuesday).

7 0 Too cloudy for any work.

7 30 Still too cloudy.

8 0 " " "

There is an eclipse of one of Jupiter's Sat. a little later. Opened Dome, turned on Jupiter but clouds so thick at present time that Sats at full brightness are pretty dims.

8 20 Jupiter dim. No Sats. visible.

8 25 Jupiter dim. No Sats visible in telescope.

Clouds steadily becoming thicker and with uniform density. Evidently no chance for eclipse tonight.

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1909phae.proj..595W

Mar 17, 1909. (Wednesday)

δ Orionis.

5 27 / 7 7 / 1 40 — −0.4

W. Obs. Power Rec. Shot W.
9.5 in. cap. used.

Index left. B.

7 20 10

216.7		
230.0	13.3″	
37.8		
49.9	12.9″	
	26.2″	−4.70″
217.3		
230.1	12.8″	−4.72″
37.8		
50.0	13.0″	
	25.8″	−4.73″

Index Right A.

126.4		
140.1	13.7″	
306.3		
320.0	13.7″	
	27.4″	−4.60″
126.7	13.1″	−4.62″
139.8		
306.4		
320.3	13.9″	
	27.0″	−4.63″
	Mean	−4.67″

7 27 50

	Fb	0.″
7	24	0.″
Fv		−29.″
12	23	31.″

Fb 3 b 3. v 164″

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1909phae.proj..595W

Mar. 17, 1909.

Same Again. II

Index Right A.

	126.3	
7 32 15	140.4	14.1 v
	306.4	13.6 v
	320.0	27.7 v −4.v4 v

	126.9	
	140.2	13.3 v −4.62 v
	306.7	13.3 v
	320.0	26.6 v −4.67 v

Index left. B.

	36.7	
	50.0	13.3 v
	217.3	12.9 v
	230.2	26.2 v −4.70 v

	37.1	
	49.8	12.7 v −4.72 v
	217.1	
	230.3	13.2 v
		25.9 v −4.73 v

Mean −4.67 v

Gen. " −4.67 v

7 40 0 (assumed).

7 2 4v. v

7 3 6 A. v

4v −29. v

12 3v 39. v

A 3A3. v 24 v

1909phae.proj..595W

Mar. 17, 1909

R.W. Tauri.

3	58	+27.2
8	8	
4	10	

Abandoned

R.U. Monocerotis.

6	50	-8.0
8	80	
1	40	

8 35 Variable seen + Region identified preliminary to observations but sky now cloudy.

W. Obs. Bour Rec. Phot. T.

Means. on foll. pages.

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1909phae.proj..595W

Mar. 17, 1909

Index R+a A. I

215.1 ← Comp Star Dsa

9 2 10

291.6 76.5
43.9
103.1 59.2 / 135.7 +0.46

226.4 80.0 +0.49
9 4 50 284.4
37.6 74.8 / 132.8 +0.92
112.4

Index L+B B.

123.5 82.9
9 8 30 206.4
314.2 59.4 / 142.3 +0.73
13.6

133.3 64.3 +0.74
9 10 40 197.6
303.6 76.8 / 141.1 +0.75
20.4

mean +0.82

9 10 40
− 26 10.
9 6 32.
+5 −29.
14 6 3.

+3283.582+

1909phae.proj..595W

Mar. 17, 1908

Same Again II

Index L to B B.

122.6
207.9 85.3 v
311.7
16.6 64.9 v
1v 0.2 v +0.v7 v

131.1
199.3 68.2 v +0.vv v
303.0
26.9 83.9 v
1v 2.1 v +0.v3 v

Index R to A A.

36.6
113.1 76.v v
226.0
284.6 v8.6 v
13 v.1 +0.87 v

46.9
104.1 v7.2 v +0.92 v
218.4
291.9 73.v v
130.7 v +0.96 v

Mean +0.74 v

9 15 20

9 18 10

9 21 45

9 24 5

79 20. v
9 19 v0. v
+v −29. v
14 19 21. v
83.v968 v

1909phae.proj...595M

Mar. 17, 1909.

Same Again III

Index Rta A.

9 28 15

40.1
111.9 71.8 v

225.9
281.2 55.3 v
127.1 v +1.04

45.4
106.2 59.8 v +1.02 v

9 30 20

220.7
290.6 69.9 v
129.7 v +0.99 v

Index Lt B. B.

305.6
25.7 280.1 v

9 36 45

132.6
193.8 61.3 v
141.8 v +0.7 v

313.4
20.3 66.9 v +0.66

122.3
185.4 63.1 v
150.0 +0.58 v

9 39 20

134 40. v
9 33 40. v
+v -29. v
14 33 11. v
283.6063 v

Mean +0.84

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1909phae.proj..595W

Mar. 17, 1909

Same Again. II

Index L to B. B.

3063.
27.9 21.6 ✓
1362
1962 60.0 ✓ / 181.6 ✓ +0.74 ✓

9 42 25

312.0
17.9 6√.9 ✓ +0.63 ✓
1202
207.2 27.0 ✓ / 1√2.9 ✓ +0.√2 ✓

9 44 45

Index R to A. A.

219.7
290.7 71.0 ✓
45.4
101.0 √√.6 ✓ / 126.6 ✓ +1.0√ ✓

9 48 25

227.8 √6.9 ✓ +1.02 ✓
284.7
37.5
110.0 72.√ / 129.4 +0.99 ✓

9 50 40

Mean +0.82 ✓

126 1√ ✓
9 46 34. ✓
+√ −29. ✓
14 46 √. ✓
8383.61√4 ✓

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1909phae.proj..595W

Mar. 17, 1909.

Same Again V

Index Rt A A.

217.1
294.0 76.9 v

45.5
101.6 56.1 v
133.0 v +0.92 v

224.5
284.5 60.0 v +0.44 v

35.6
111.8 76.2 v
136.2 v +0.45 v

Index Lt B B.

127.1
207.0 79.9 v

312.8
13.8 61.0 v
140.9 v +0.76 v

134.3
196.3 62.0 v +0.74

306.0
26.2 80.2 v
142.2 v +0.73 v

mean +0.41 v

9 54 0

9 55 58

9 58 50

10 0 55

229 40. v

9 57 25. v

+5 -29 v

14 56 56. v

2343.622 v

S.T. 10 0

H.A +3 7

Dec. -7.1

C.A. 60.2 Vernier B

Sprocket -6.5 A, -5.5 B, -5.0 6

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1909phae.proj..595W

Mar. 17, 1909

B	394		B+b	1182	
10	40	00	10	39	38.5
10	41	00	10	40	38.4

Reapp. Jup. II. W. dbs Rows Rec. Phot W.
Compared with mean of two Sats. (before eclipse) on same foll. side = Sat. I

15	59	17.✓	10	58	54				Suspected.
15	59	25.✓	10	59	2				Seen
15	59	37.✓	"	"	12	43.5✓	+2.0✓	24.0	
15	59	47.✓	"	"	24	48.2✓	+1.7✓	67.5	
15	59	59.✓		"	36	51.1✓	+1.6✓	19.3	
16	0	11✓	10	"	48	54.3✓	+1.5✓	70.4	
16	0	22✓	"	"	59	55.9✓	+1.4✓	16.1	
16	0	34✓	11	0	11	58.5✓	+1.3✓	72.0	
16	0	44✓	"	"	21	59.5✓	+1.2✓	13.3	
16	0	57✓		"	34	61.2✓	+1.1✓	73.0	
16	1	8✓		"	45	69.3✓	+0.8✓	11.8	
16	1	30✓	11	1	7	70.9✓	+0.7✓	81.1	
16	1	42✓		"	19	71.8✓	+0.7	10.2	
16	2	0✓		"	37.	75.2✓	+0.6✓	82.0	

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1909phae.proj...595W

Mar. 17, 1909.

16 2 13	II	-1	38	77.7	+0.5	6.8		
16 2 23		2	0	74.3	+0.4	82.5		
16 2 34		"	11	74.9	+0.4	4.2		
16 2 46		"	23			83.1		
		2"	39	76.2		4.9		
16 2 57.	II	2"	53	74.0		81.1	I	
+24		3 3	4	77.1	+0.5	4.5		
16 3 21		3 "	13			82.5		
		3 "	26	77.6		4.9		
16 3 44.		3 "	40	74.9		82.5	II	
+24.		3 "	54	74.2	+0.5	4.0		
16 4 12	II	4 4	13			82.9		
		4 "	33	77.7		5.1		
16 5 2.		4 "	46	76.2		82.8	III	
+24.	II	5 5	14	77.0	+0.5	4.8		
16 5 26.		5 "	37			81.0		
		5 "	56	77.6		5.5		
16 6 20.	II	6 6	10	75.5		83.1	IV	
+24.		6 "	28	76.6	+0.5	6.2		
16 6 44.		6 "	44			81.7		
	II	7 7	0	76.2		5.8		
16 7 25.		7 "	19	76.0		82.8	V	
+24.		7 "	34	76.1	+0.5	6.3		
16 7 49.		7 "	46			82.3		
	II	8 8	5	75.4		6.6		
16 8 35.		8 "	26	76.7		82.0	VI	
+24.		8 "	45	76.0	+0.5	5.8		
16 8 59.	II	9 9	3			82.5		

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1909phae.proj..595W

Mar. 17, 1909

			11	9 9	14	77.7 ✓	5.2	
16	9	36. ✓		9 "	27	77.2 ✓	82.9	VII
		+24 ✓		9 "	44	77.4 ✓ +0.5 ✓	5.3	
16	10	0. ✓		9 "	59		82.5	
			11	10 10	15	76.6 ✓	5.6	
16	10	35. ✓		10 "	26	77.2 ✓	82.2	VII
		+24 ✓		10 "	42	76.9 ✓ +0.5 ✓	5.3	
16	10	59. ✓		10 "	58		82.5	

Limit of Visibility

			11	11 11	56	36.1 ✓	27.0	
16	12	26. ✓	11	12 12	13	36.6 ✓	63.1	
		+24. ✓		12 "	35	36.4 ✓ +2.4 ✓	26.2	
16	12	50. ✓		13 13	8		62.8	

B	3	94	BTC	1182	
11	19	0.0	11	18	35.0
11	20	0.0	11	19	35.0

Although the limb of Jupiter was a little fuzzy, yet as Sat. reappeared a short distance from the limb, the seeing at this point was pretty good.

W's watch used everything except tonight eclipse.
Watch 29 secs. fast.

L. P. P.

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1909phae.proj..595W

Mar 18, 1909 (Thursday)

R. Z. Cassiop

2 36 +69.0
7 26 W. Abs. Rowe Rec. Phot T.
4 50 9.5 in cafe used

Left
Index above ~~A~~. I B.
228.5 Var. Dis.
7 36 20 283.0 ✓6.✓ ✓
50.5
94.5 ~~44.0~~ ✓ / 100✓ ✓ −1.64 ✓

235.6
7 38 30 278.1 42.✓ ✓ −1.62 ✓
42.1
102.0 ~~✓9.9~~ ✓ / 1024 ✓ −1.60 ✓

Rt
Index Below ~~A~~. A.
129.8
7 41 25 196.5 66.7 ✓
322.6
5.8 ~~43.2~~ ✓ / 109.9 ✓ −1.42 ✓

141.2
7 43 58 190.8 48.8 ✓ −1.36 ✓
160 ✓ ✓
7 40 1. ✓
+✓ −22. ✓
12 39 33. ✓
A 3844. ✓27✓ +✓

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1909phae.proj..595W

Mar. 18, 1909.

Same Again II

Index Below. ✱. A.

136.3
197.9 67.6 ✓
321.4
7.4 46.0 ✓
113.6 ✓ −1.3 ✓

7 51 10

139.5
190.9 51.4 ✓ −1.29 ✓
312.8
19.4 66.6 ✓
114.0 ✓ −1.2 ✓

Index Above. ✱. B.

40.6
106.5 65.9 ✓
233.7
275.3 41.6 ✓
107.5 ✓ −1.4 ✓

7 57 20

52.6
97.6 45.0 ✓ −1.50 ✓
324.5
285.4 60.9 ✓
105.9 ✓ −1.51 ✓

Mean − 1.40 ✓

7 59 50

222 5. ✓
7 55 31. ✓
+5 −20. ✓
12 55 3. ✓
✱3✱4.5 ✓ 3✱2 ✓

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1909phae.proj..595W

Mar. 18, 1909

Same Again III.

Index Above. R. B.

8 6 40

43.4
106.5 63.1
236.0
278.9 42.9 / 106.0 −1.1

8 9 20

52.5
96.8 44.3 −1.2
223.5
284.8 61.3 / 106 −1.2

Right Index Below. R. A.

8 12 35

312.1
16.8 64.7
141.5
187.7 46.2 / 110.9 −1.40

8 16 0

322.2
7.0 44.8 −1.42
131.6
195.3 63.7 / 104 −1.4

− 44 3
2 11 9.
+5 −24.
13 10 41.

Mean −1.47

230 4. ± 491

1909phae.proj..595W

Mar: 18. 1909.

Same Again IV

Index R+B A.

	313 2		
8 20 20	13.8	60.6 v	
	144.2		
	188.0	43.8 v	
		104.4 v	−1.77 v
	325.1		
8 23 25	4.8	39.7 v	−1.60 v
	133.8		
	194.0	60.2 v	
		99.9 v	−1.66 v

Index L+a B.

	226.5		
8 27 10	283.9	57.4 v	
	55.9		
	94.0	38.1 v	
		95.5 v	−1.77 v
	236.5		
8 29 20	274.3	37.8 v	−1.84 v
	48.4		
	101.2	52.8 v	
		90.6 v	−1.90 v

100 1 v. v

a 2 v 4. v

+v −2a. v

13 24 36. v

a 3 a 4. v v v a 7 v

Mean −1.72 v

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1909phae.proj...595W

Mar. 18, 1909.

Same Again V

Index R+A B.

8 34 0

228.3
280.8 −2.v

58.2
93.3 3v.1v / 47.6v −1.9v

8 36 15

237.1
272.5 3v.4v −1.9v

49.6
104.9 vv.3v / 90.7v −1.90v

Index R+B A.

8 39 0

137.0
192.2 vv.2v

326.5
1.8 3v.3v / 90.v −1.90v

8 41 46

147.7
183.6 3v.9v −1.92v

318.6
11.2 v2.6v / 44.vv −1.9v

131 0.v

437 4v.v

+v −24.v

13 37 17.v

438 4.v676v

Mean −1.93v

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1909phae.proj..595W

Mar. 18, 1909

Same Again VI

Index R+B A.

1403

8 48 0

189.1 44.2 ✓

327.0

2.2 32.2 ✓
42.0 ✓ −2.0 ✓

147.2 36.2 ✓ −2.0 ✓

8 50 30

183.4

322.4

10.3 47.9 ✓
42.1 ✓ −2.0 ✓

Index 2+a B.

52.1

95.5 43.4 ✓

240.7

271.0 30.3 ✓
73.7 ✓ −2.3 ✓

58.3 32.9 ✓ −2.3 ✓

8 57 0

91.2

232.1

276.0 43.9 ✓
76.2 ✓ −2.2 ✓

Mean −2.21 ✓

209 √√. ✓

2 √2 29. ✓

+√ −2. ✓

13 √2 1. ✓

2324. √77 ✓

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1909phae.proj..595W

Mar. 18. 1909.

Same again. FII

Index L+a. B.

51.5 44.6 ✓
96.1

2400
268.8 22.2 ✓ / 73.5 ✓ — 2.40 ✓

9 1 40

59.2
91.1 31.9 ✓ — 2.32 ✓

9 4 5

233.8 42.6 ✓
276.4 / 74.5 ✓ — 2.36 ✓

Index R+B A.

322.4 43.5 ✓
5.9

150.6 29.2 ✓
180.4 / 73.3 ✓ — 2.40 ✓

9 8 20

330.4
359.8 29.4 ✓ — 2.40 ✓

9 11 10

143.0
186.4 43.7 ✓ / 73.1 ✓ — 2.41 ✓

Mean — 2.39 ✓

2 ✓ 1 ✓. ✓

9 6 19. ✓

+ ✓ — 22. ✓

14 ✓ ✓ 51. ✓

2324. ✓ 274 ✓

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1909phae.proj..595W

Mar. 18, 1909

Same Again VIII

Index R+B A.

324.7
5.9 41.2 v
150.1
179.8 29.7 v
70.9 v -2.42 v

331.3
359.6 28.3 v -2.50 v
143.9
185.6 41.7 v
70.0 v -2.51 v

Index L+a B.

236.0
274.2 38.2 v
60.6
88.8 28.2 v
66.4 v -2.63 v

241.1
267.6 26.5 v -2.64 v
55.8
94.7 38.9 v
65.4 v -2.66 v

Mean -2.57 v

9 16 13

9 18 50

9 22 25

9 24 40

	A2	A1	
9	20	32.	v
+v		-24.	v
14	20	4.	v

A3A4. v 973 v

S.T. 9 29
H.A 6 47
Dec +69.7
P.A 28.0 Vermin B
Sprocket. -5.5 B, -4.5 b

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1909phae..proj..595W

Mar. 18, 1909.

Double Star (New list) = Burnham's Cat. 6474

13	18	+3.3
10	13'	Wh. Obs. Bowe Rec.
03	55	Phot. W.

P.A. 76° Dist 27" Mags.

Index Below

2.3 ← South, Prec. + Brtr Obs

18 21 45	82.7	Δ0.4 ✓	
	181.5		
	263.9	Δ2.4 ✓ / 162.2 ✓	0.33
	3.2		
	82.5	79.3 ✓	0.36 ✓
	182.7	Δ0.2 ✓	
	262.9	159.5 ✓	0.39

Index Above

	272.5		
	354.0	Δ1.5 ✓	
	91.2		
	175 5	Δ4.3 ✓ / 165.2 ✓	0.27 ✓
	273 1		
	354.0	Δ0.9 ✓	0.29 ✓
	91.3		
	173.9	Δ2.6 ✓ / 163.5 ✓	0.31 ✓

Mean 0.32 ✓

60	29	5
	✓0	✓0. ✓
10	2✓	2✓. ✓
+✓		−2Δ. ✓
1✓	24	✓7. ✓

Δ3Δ4.6424 ✓

Seeing somewhat blurry in above groups.

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1909phae.proj..595W

Mar. 18, 1909

W's watch used for times
Watch 28 secs. fast.

L. A. P.

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1909phae.proj..595W

Mar 20, 1909 (Saturday)

ζ Orionis

0	27	-0.4
7	32	W. Obs. Roma Rec. Phot W.
2	5	9.5 in cap used.

Index Right A.

306.8		
320.2	13.4	
127.2		
140.2	13.0 / 26.4	-4.62

306.8		
320.2	13.4	-4.65
126.3		
140.1	13.8 / 27.2	-4.62

Index Left B.

216.8		
230.0	13.2	
36.9		
50.0	13.1 / 26.3	-4.69

217.3		
230.0	12.7	-4.69
36.5		
50.1	13.6 / 26.3	-4.69

Mean -4.66

7 39 20

7 46 46

	46	1.
7	43	2.
+5		-27.
12	42	35.

α 3 α 6. 296

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1909phae.proj..595W

Mar. 20, 1909.

Same Again II

Index Left B.

217.0		
230.2	13.2	
37.3		
50.2	12.9	
	26.1	−4.71

216.8		
230.0	13.2	−4.67
36.6		
50.4	13.8	
	27.0	−4.63

Index Right A.

126.5		
140.3	13.8	
306.5		
320.2	13.7	
	27.5	−4.59

126.8		
140.1	13.3	−4.62
306.4		
320.0	13.6	
	26.9	−4.64

Mean − 4.64

Gen. " − 4.65

7 50 20

7 37 5

107 25

7 √3 42

+√ −27.

12 √3 1√.

2346. √369

1909phae.proj..595W

Mar. 20, 1909.

R. Z. Draconis.

18	22	+58.8
8	17	
10	5	
1	55	

Too low + seeing too poor
abandoned.

R. U. Monocerotis

6	50	-8 0
8	50	
2	0	

V. Obs. Book Rec.

Phot T.

Measts. on following pages.

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1909phae.proj..595M

Mar. 20, 1909.

Index R+a +.
35.8 ← Comp Star Dec
111.8 76.0 ✓
223.4
284.5 61.1 ✓ / 137.1 ✓ +0.23 ✓

448 ✓2.2 ✓ +0.24 ✓
103.0
216.4 77.6 ✓
294.0 / 13 ✓.2 ✓ +0.26 ✓

Index L+B B.
302.2
24.4 22.2 ✓
132.6
194.6 62.0 ✓ / 144.2 +0.69 ✓

315.5
15.9 60.4 ✓ +0.69 ✓
121.1
204.9 83.8 ✓ / 144.2 +0.69 ✓

Mean +0.76 ✓

9 1 30

9 11 35
. 13 ✓. ✓
9 6 32. ✓
+✓ −27. ✓
14 6 ✓. ✓
2326. ✓2376 ✓

S.T. 9 27
H.A + 2 34
Dec −7.0
P.A. 60.5 Vernier B
Sprocket. −6.5 B, −5.5 b

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1909phae.proj..595W

Mar 20, 1909

2. Persei.

2	33	+42.1
9	43	W. Obs. Roux Rec. Phot T
7	10	

Index L+A B.

305.0 ← Comp Star dec.

9 48 40

24.4	79.4	
132.9	63.3	
196.2	142.7	+0.72

314.1	63.9	+0.67
18.0		
121.2	143.9	
205.1	147.8	+0.62

Index R+B A.

215.4	77.6	
293.0		
42.8	59.8	
102.6	137.4	+0.43

226.2	57.5	+0.44
283.7		
34.6	70.2	
128	135.7	+0.46

mean +0.76

9 57 30

106 10.

9 53 5.

+5 -27.

14 52 32.

3846.619

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1909phae.proj..595M

Mar. 20, 1909.

S. T. 10 11
HA 7 33
Dec. + 42.2
P. A. 196.7 V over B
Sprocket. −5.5 B_3, −4.5 b

Double Star (New List) = Burnham's Cat 6474

13 18 +3.3
10 28 W. Ch. Bowe Rec.
2 50
9 10 Phot W.

P. A. 76° Dist 27" Mags

Index R+B
3.5 ← South Prec + Bite Dec.

10 24 50

83.3 79.4 V
182.5
262.0 79.5 V / 159.3 V 0.39"

1.6 80.4 V 0.34 V
82.0
183.0 80.2 V / 160.6 V 0.37 V

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1909phae.proj..595W

Mar. 20, 1909

Index Ltd

273.2			
352.0	79.8		
91.7			
173.6	81.9		
	160.7	0.37	
272.1			
353.5	81.4	0.37	
92.1			
171.5	79.4		
	160.8	0.37	

Mean 0.32

10 31 10

6 0.

10 28 0.

−27.

10 27 33.

α 346.6462

10's watch used for hours.
Watch 27 secs. fast.

L. P. P.

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1909phae.proj..595M

Mar. 21. 1909. (Sunday).

B. + C. 11842. B. 394.

12	16	√.2	12	16	0.0
	17	√.2		17	0.0

Dio. ~~Reap~~ Jup. IV. Phot. W. W. obs. Bowie rec.
Compared with Sat. on fol. side = Sat. II.

			12	36	18	{Reject		202.0
				40	44			252.5
			12	√√ 45	44	√8.8		195.2
17	46	41.		46 46	29	62.0		254.0 1
		-√.						
				47 47	2	60.4	+1.2	194.1
17	46	36.		47 "	28			256.1
				48 48	31	62.7		193.5
17	49	18.		48 "	57	64.0		256.2
		-4.						
				49 49	29	63.4	+1.0	192.4 2
17	49	14.		√0 50	16			256.8
				√0 "	42	62.6		191.5
17	√1	42.		√1 51	26	61.2		254.1
		-4.						
				√1 "	59	61.9	+1.1	192.0 3
17	√1	30.		√2 52	43			253.2
				√3 53	28	√7.7		194.9
17	√4	22.		√4 54	3	√2.2		252.6 4
		-4.						
				√4 "	39	√√.0	+1.4	198.0
17	√4	18.		√√ 55	17			250.2
				√6 56	1.	√√.√		197.5
				√6 "	28	√4.3		
						√4.9	+1.4	253.0

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1909phae.proj..595W

March 21, 1909.

17	√6	√6.√	12	√7	57	19			199.2	√	
		−4.		√7	"	56			251.5		
17	√6	√2.√		√8	58	24	49.0√		198.5		
17	√9	16√	"	√8	"	52	√0.0√		247.5	6	
		−4√	"	√9	59	25	49.√√	+1.7√	199.0		
17	√9	12.√	13	0	0	20			249.0		
18	1	20.√	"	1	1	~~15~~ 24	41.√√	+2.1√	201.0		
18	1	√9.√	"	2	2	3	39.3√	+2.2√	242.5		
18	2	22√	"	2	"	26	37.3√	+2.4√	203.2		
18	3	16√	"	3	3	20	3√.4√	+2.√√	240.5		
18	3	41√	"	3	"	45	32.9√	+2.6√	205.1		
18	4	7√	"	4	4	11	28.2√	+3.0√	238.0		
18	√	1√	"	√	5	5	26.3√	+3.2√	209.8		
18	√	49√	"	√	"	53			236.1		
18	√	√9√	"	6	6	3			Snaps.		
18	6	9√	"	6	6	13			Not certainly seen		

Limits of Iris.

			13	8	8	52	26.7√		208.8		
18	9	16√		9	9	14			235.5		
		−4.√		9	"	26	27.6√		209.0		
18	9	12.√		9	"	34	27.2√	+3.1√	236.6		

B. + C. 1162.

13	26	3.0	
	27	3.0	

B. 394.

13	26	0.0
	27	0.0

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1909phae.proj..595W

Mar 22, 1909. (Monday)

δ Ursae.

5 27 −0.4

7 27 W. Obs. Rouse Rec. Phot W
2 0 9.5 m cap. used.

~~Index Left.~~

216.6
230.2
37.2
~~Clouds~~
49.7

Index Left B

217.2 12.6″
229.8
37.0 13.3′
50.3 25.9″ −4.73″

216.5 13.7″ −4.69″
230.2
36.9 13.1″
50.0 26.8″ −4.65″

Index Right A.

306.3 14.1″
320.4
Clouds
126.7
139.6 12.9″ −4.63″
27.0″

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1909phae.proj..595W

Mar. 22. 1909

7 40 55

−70 1√. ✓

7 3√ 0. ✓

+√ −23. ✓

12 34 √5. ✓

A300. √242 ✓

3066
320.1 13.√ ✓ −4.63 ✓
1268
1403 13.√ ✓ / 27.0 ✓ −4.63

mean −4.66 ✓

Same again. II

Index Right A.

3066 13.6 ✓
320.2
blouds
127.1
140.5 13.4 ✓ / 27.0 ✓ −4.63 ✓

7 43. 53

306.6 13.2 ✓ −4.66 ✓
320.4
127.6
140.2 12.6 ✓ / 26.4 ✓ −4.62 ✓

Index Left. B.

216.9
230.1 13.2 ✓
37.3
50.1 12.8 ✓ / 26.0 ✓ −4.72 ✓

217.2
230.0 12.8 ✓ −4.69 ✓
36.5
50.4 13.9 ✓ / 26.7 ✓ −4.66 ✓

mean −4.68 ✓

Sun. −4.67 ✓

7 50 50

94 43. ✓

7 47 22. ✓

+√ −23. ✓

12 46 √9. ✓

A300 √326 ✓

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1909phae.proj..595M

Mar. 22, 1909.

R. U. Monocerotis

6	50	-8.0
8	13	W's Obs. Ronca Rec
1	25	Phot-T.

Sky quite cloudy.

8 48 Sky still quite thoroughly cloudy.

B 394 B+b 1182

8	54	0.0	8	54	26.0
8	55	0.0	8	55	26.0
8	56	0.0	8	56	25.8

Reap. Jup. I. Phot W. W. Obs. Ronca Rec. to limb of Jupiter Compared with mean of two Sats. (before eclipse) = Sat. II.

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1909phae.proj..595W

Mar 22. 1909.

	14	23	4.[11]	9	28	27			Suspected
		23	11.		"	34			Seen
		23	20.		"	51	−3.1	+1.	198.0
		23	44.		24	7	−7.1	+1.3	251.1
		23	56.		"	19	66.0	+0.9	194.0
		24	7.		"	30	73.0	+0.7	260.0
		24	21.		"	44	76.0	+0.	187.0
		24	34.		"	57	78.7	+0.4	263.8
		24	46.		25	9	81.9	+0.3	185.1
		24	52.		"	21	85.1	+0.2	267.0
		25	11.		"	34	87.6	+0.1	181.9
		25	34.		"	57	88.7	0.0	269.5
		25	45		26	8	88.2	+0.1	180.8
		26	1.		"	24	90.0	0.0	269.0
		26	17.		"	40	91.5	−0.1	178.2
		26	29.		"	52	91.1	0.0	269.7
		26	43.		27	6	89.9	0.0	178.6
		26	59.		"	22			268.5
					27	"	45			178.0
	14	28	5.		27	"	59	91.7		269.7	I
		−23.			28	28	11	90.9		179.2
	14	27	42.		28	"	24	91.3	0.0	270.1
					28	"	42	91.8		178.5
	14	29	9.		29	29	4	90.5		270.3	II
		−23.			29	"	19	91.2	0.0	178.2
	14	28	46.		29	"	32			268.7

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1909phae.proj..595W

Mar. 22, 1909.

			9	29 29	49			179.2
14	30	12.		30 30	2	89.8		269.0 III
		-23		30 "	18	90.2		179.4
14	29	49		30 "	39	90.3	0.0	270.2
				30 "	41			179.2
14	31	5.		30 "	55	89.8		269.0 IV
		-23,	8	31 31	17	89.8		179.2
14	30	42		31 "	28	89.8	0.0	269.0
				32 32	3			178.5
14	32	20.		32 "	15	90.6		269.1 V
		-23,		32 "	27	90.2		178.6
14	31	57		32 "	37	90.4	0.0	268.8
				32 "	48			179.3
14	33	10.		32 "	57	89.1		268.4 VI
		-22,9		33 33	12	91.7		178.4
14	32	48		33 "	43	90.4	0.0	270.1
				34 34	13			179.1
14	34	34.		34 "	24	89.7		268.8 VII
		-22,		34 "	45	90.7		178.0
14	34	12,		34 "	56	90.2	0.0	268.7
				35 35	15			178.7
14	35	42.		35 "	32	90.4		269.1 VIII
		-22.		35 "	50	89.2		179.5
14	35	20,9		36 36	9	89.2	0.0	268.7

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1909phae.proj..595W

Mar. 22. 1909.

Limit of Visibility

	9	36	51		199.8
14 37 36.v	9	37	32	42.3v	242.1
−22.1v	9	37	50	43.0v	199.5
14 37 14v	9	38	11	42.6v +2.0v	242.5

Seeing pretty good. Attitude rather high.

B 394 B+b 1182

9	43	0.0	9	43	21.5
9	44	0.0	9	44	21.5

R. U. Monocerotis −8.0

6	50
10	20
3	30

Abandoned. Too hazy

W. Clk. Rovis Rec. Phot T

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1909phae.proj..595W

Mar. 22, 1909.

Double Star (New list) = Burnham's Cat. No 3455

6 27 +22.2
10 37 Wdlo. Powr Ree Phot W.
4 10

P.A 243° Dist 53" Magn. 7.1 + 7.4

Index L+B

10 19 20

280.2 ← North, Folk. + Brtn. Obs.
348.3 68.1 v
87.0
178.6 91.6 v
159.7 v 0.39 v

267.0
358.8 91.8 v 0.34 v
98.1
170.7 72.6 v
164.4 v 0.30 v

Index R+a

187.5
258.6 71.1 v
356.8
88.3 91.5 v
162.6 v 0.33 v

178.2
267.6 89.4 v 0.34 v
6.0
78.5 72.5 v
161.9 v 0.34 v

mean 0.34 v

10 27 35
K6 vv. v
10 23 28. v
+v −23. v
1v 23 v. v #3##. 6411 v

Seeing blurry in above group. Observations rather
difficult, Observer waiting to get as good settings
as possible.

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1909phae.proj..595W

Mar. 22, 1909.

Troubled more or less throughout evening, especially at times by light cloud and blurry seeing. In observations of σ Orionis, troubled somewhat by light cloud but seeing pretty good by waiting for settings.

Viewing eclipse of Sat. I seeing pretty good and sky in region of Jupiter pretty clear.

Ub's watch used for times.
Watch 23 secs. fast.

L. P. P.

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