KG
1,365
596

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KG 11365.596

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KG 11365.596

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May 20. 1909 (Thursday).

α Herculis (region of) +33°2871
Old. b. s. compared with new provisional b.s

17	12	+33.2
11	42	W. Obs. Rowe Ref. Phot T
5	30	
6	30	9.5" cap used

Index Above A. I

252.4 Old. b. s. dis.
318.6 66.2 ✓
79.8
129.4 49.6 ✓ / 115.8 ✓ −1.29 ✓

261.7
309.0 47.3 ✓ −1.28 ✓
71.5
140.6 69.1 ✓ / 116.4 ✓ −1.27 ✓

Index Below B.

154.9
232.7 77.8 ✓
348.6
40.7 52.1 ✓ / 129.9 ✓ −0.98 ✓

168.9
219.5 50.6 ✓ −1.01 ✓
335.9
522 76.3 ✓ / 126.9 ✓ −1.04 ✓
Mean −1.14 ✓

8 0 10

8 8 45

	α	$\surd\surd$ ✓
α	α	2α ✓
$+\surd$		$-\alpha$ ✓
13	4	20 ✓

$\alpha 447. \surd 446$ ✓

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1909phae.proj..597W

May 20, 1909

Same Again II

Index Below B.

157.1
228.9 71.8 ✓
348.9
39.8 ✓ 0.9 ✓ / 122.7 ✓ −1.13 ✓

168.3 ✓ 1.8 ✓ −1.10 ✓
220.1

8 15 10

337.9
51.8 ✓ 73.9 ✓ / 125.7 ✓ −1.07 ✓

Index Above A.

72.0 66.3 ✓
138.3
262.4
308.0 ✓ 45.6 ✓ / 111.9 ✓ −1.37 ✓

81.2 42.7 ✓ −1.30 ✓
129.9
251.5
320.5 ✓ 69.0 ✓ / 117.7 ✓ −1.24 ✓
mean −1.20 ✓

8 22 5 ✓
37 15. ✓
2 12 32. ✓
+5 −2. ✓
13 12 30. ✓

2447.5 ✓ 46 ✓

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1909phae.proj..597W

May 20, 1909.

Same Again III

Index Above A.

70.8
141.1 70.3
261.4
309.7 48.3 / 11.6 −1.22

80.0
130.5 50.5 −1.22
251.9
320.4 68.5 / 119.0 −1.21

Index Below B.

337.9
51.5 73.6
168.0
221.0 53.0 / 126.6 −1.05

346.1
39.0 52.9 −1.04
160.0
231.0 71.0 / 123.9 −1.11

Mean −1.15
Gen. " −1.16

8 30 25

8 37 5
67 30.
33 45.
− 8.
13 33 37.
2447.56

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1909phae.proj...597W

May 20, 1909.

μ Herculis compared with Ald. b S.
μ Also Rowe Rec. Phot. T. 9.5 in cap. used
Ald. b L. Color $\frac{2}{3}$ in Phot

Index Left B.

176.6 ≤ Var Dir
218.1 41.5 v

3.9
28.2 $\frac{24.3\ v}{6\ v.A\ v}$ − 2.6 v v

182.2 22.7 v − 2.64 v
210.9

0.1 $\frac{37.8\ v}{66.v}$ − 2.62 v
37.9

Index Right A.

85.9 37.3 v
123.2

271.4 $\frac{27.3\ v}{64.6\ v}$ − 2.69 v
298.7

91.4 26.0 v − 2.70 v
117.4

265.7 $\frac{37.9\ v}{63.9\ v}$ − 2.72 v
303.6

Mean − 2.67 v

8 46 40

8 54 5
100 4v. v
8 v0 22. v
4v −8. S.T. 13 11
13 v0 14. H. A −4 5
44 v. v76v+ v Dec +32.7

P.A. 314.0 Vernier B
Sprocket − 10.5 B − 9.5 B
Troubled by clouds by light cloud.

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1909phae.proj..597W

May 20, 1909.

The Old b. S. for α Hercules is probably variable and the New provisional b. S. was selected a short time since in order to see if the Old b. S. was variable. Comparisons between the two on different nights already show a variability of 0.2 of a magnitude and in order to determine with certainty which of these two above mentioned stars is the variable, a second provisional b. S. has been selected tonight with which to compare the first provisional b. S. This second provisional b. S. precedes the first provisional b. S. by about 18 secs and is about 12".2 south of it. It is also a little fainter than the first provisional b. S. These two stars will now be measured together photometrically.

+32° 2886.

First new provisional b. S. compared with second new provisional b. S.

Wdbs Rowe Rec Phot T.

9.5 in cap used.

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1909phae.proj..597W

May. 20, 1909.

9 31 10

Index above A.

245.9	First approximal G.S. Dis	
326.1	80.2	
75.2		
135.2	60.0 / 140.2	−0.77
255.3	62.1	−0.78
317.4		
68.2		
145.3	77.1 / 139.2	−0.79

Index Below B.

149.8	88.2	
238.0		
342.8		
46.4	63.6 / 151.8	−0.74
162.6	60.0	−0.72
227.6		
329.5		
58.8	89.3 / 154.3	−0.49

Mean −0.69

9 40 5

71 14

9 37 38.

+7 −8.

14 37 30.

8447.6080 S.T. 13 58

H.A. −3 22

Dec +32.1

P.A. 202.0 Vernier B

Sprocket. −7.5A, −6.5B, −6.0 la

Troubled in above group by light cloud

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1909phae.proj..597W

May 20, 1909

B + b	11 82		B 394		
9	59	59.5	10	0	0.0
10	0	59.5	10	1	0.0

Reap. Jup. II, Phot W. to Obs Rouse Rec.
An attempt was made to compare with Sat III photometrically.

10	19	5	Through clouds. Suspected
	"	38	More cloudy
10	24	0	Still cloudy at this region
	"	"	Sat I very faint

It has been more or less hazy the whole evening with tendency to increasing cloudiness but a few minutes before theoretical time of reappearance, it grew progressively decidedly more cloudy. The photometer, however, was kept on for a few minutes after theoretical time of reappearance but nothing could be done photometrically. Then Phot. was taken off but it was still so cloudy that Sat II could not be seen.

10 32 At the present time it has suddenly grown

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1909phae.proj...597W

May 20, 1909

somewhat clear so that Sat. II is seen but of course at full brightness. Sat. II reappeared quite close to Sat. I.

W's watch used for times, except eclipse. Watch 7 secs fast.

L. P. P.

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1909phae.proj..597W

May 24, 1909 (Monday)

w Herculis (region of)
+33°2871
Old b.S. compared with First new provisional b.S.

17	12	+33.2
11	32	W. Obs. Hour Rec. Phot T.
5	20	
6	40	9.5 in cap. used.

Index above A.

253.1	← Old b.S. Obs.	
319.8	66.7	
80.5		
131.4	0.9 / 117.6	−1.2
261.0		
309.4	48.4	−1.27
71.4		
138.5	67.1 / 115.5	−1.29

Index Below. B.

156.3		
233.5	77.2	
346.9		
42.3	55.4 / 132.6	−0.92
170.1	52.2	−1.01
222.3		
339.2	72.2 / 124.4	−1.10
51.4		

mean 1.14

7 56 0

8 3 15

	119	15.
7	59	34.
+5		0.
12	59	34.

445.5414

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1909phae.proj...597W

May 24, 1909.

Same Again II

Index Below B.

8 5 50

156.4
280.4
348.2
44.1 — 74.0 / 129.9 — −0.94

167.9
221.5
339.2
53.8 — 76.6 / 128.2 — −1.02

Index Above A.

73.5
187.3
262.3
307.6 — 63.8 / 109.1 — −1.44

83.8
128.6
248.7
322.0 — 73.3 / 112.1 — −1.23

Mean −1.17
Gen. " −1.16

8 11 30

17 20.
∠ ∠ 40.
+√ 0.
13 ∠ 40.
∠45√1.√477

1909phae.proj..597W

May 24, 1909.

In two previous groups, greatly troubled throughout by clouds. All possible care exercised but the results are not considered necessarily over critical and probably should not have more than one half weight. Consequently weight one-half.

It might be said additionally ~~said~~ that the measurements were made through varying clouds throughout

Watch stopped during observations so that no watch correction will be ~~thereof~~ necessary.

E. P. P.

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1909phae_proj..597W

May 25, 1909 (Tuesday).

α Herculis (region of)
Old b.s. +33°2871 compared with new provisional b.s.

17 12 +33.2
12/5 2/10
6 50

W. Obs. Power Ree. Phot T.
9.5 cm cap used.

Index Above A.
252.0 < Old b.s. Obs.
320.4 68.4 v
78.7
131.2 v 2. v / 120.9 v −1.17 v

261.6 46.6 v −1.24 v
308.2
70.9
139.1 68.2 v / 114.4 v −1.31 v

Index Below B.
157.0
230.9 73.9 v
349.4
40.1 v 0.7 v / 124.6 v −1.09 v

167.5 v 3.4 v −1.01 v
228.9
336.0
54.9 78.9 v / 132.3 v −0.93 v
Mean −1.12 v

8 16 15

8 24 20
40 30 v
20 10 v
+v +1 2. v
13 21 20. v
4 v 2. v v 6 v − v

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1909phae.proj..597W

May 25, 1909.

Same Again #

Index Below. B.

157.2
231.6 7.4 v

350.3
40.8 ~~v 0.5~~ / 12 4.9 v −1.09 v

170.2
221.9 v 1.7 v −1.04 v

337.4
54.7 77.3 v / 129.0 v −1.00 v

Index Above. A.

68.8
138.6 69.8 v

264.3
308.1 43.8 v / 113.6 v −1.34 v

81.8
131.3 49.5 v −1.28 v

250.7
320.0 69.3 v / 118.8 v −1.22 v

mean −1.16 v

Gen. " −1.14 v

8 27 8

8 33 50

60 v 0. v

2 30 2 v. v

+v +1 2. v

13 31 27. v

2 4 v 2. v 6 3 v − v

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1909phae-proj..597W

May 25, 1909.

U Cephei

0 50 +81.2

13 15 W. Obs. Rough Rec Phot T

12 25 . 95 m caps used

Region thoroughly identified

Index left B. I

582 ← Var. Dis

8 50 40 150.0 91.2 v

251.8

317.7 66.9 v / 157.7 v −0.43 v

70.3

8 52 50 140.2 69.9 v −0.41 v

239.9

329.5 89.6 v / 159.5 v −0.39 v

Index Right A.

321.6 106.5 v

8 55 25 68.1

158.8

231.6 72.8 v / 179.3 v −0.01 v

336.8

8 57 10 53.2 76.4 v −0.05 v

144.2

243.2 99.0 v / 175.4 v −0.09

Mean −0.23 v

16 v v

A v4 1. v

+v +1 2. v

13 vv 3. v

A4v2.v799 v

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1909phae.proj..597W

May 25, 1909.

Same Again II.

Index Right A.

	321.6	107.2 v	
9 0 10	68.8		
	152.2	22.7 v	
	234.9	129.9 v	+0.19 v
		170.1 v	
	336.3		
9 2 15	54.8	72.5 v	+0.14 v
	141.9		
	248.2	106.3 v	
		142.6 v	+0.09 v
		175.2 v	

Index Left. B.

	231.0	104.5 v	
9 5 5	335.5		
	65.0	20.4 v	
	145.4	124.9 v	+0.09 v
		175.1 v	
	246.0		
	327.5	81.5 v	
9 6 40			+0.07 v
	54.2		
	155.3	101.1 v	
		102.6 v	
		177.4 v	+0.05 v
		Mean	+0.10 v

14 10. v

9 3 32. v

+v +1 2. v

14 4 34. v

.24v 2. v 26v +v

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1909phae_proj...597M

May 25. 1909.

Same Again. III

Index Left B.

9 9 0	237.1		
	334.3	97.2 v	
	63.8		
	144.6	80.8 v	−0.04 v
		177.0 v	
9 11 10	243.2		
	328.4	85.2 v	+0.10 v
	51.2		
	159.4	108.2 v	
		193.4 v	+0.25 v
		166.6 v	

Index Right A.

9 13 50	138.3		
	250.3	112.0 v	
	332.6		
	58.0	85.4 v	
		197.4 v	+0.33 v
		162.6 v	
9 16 20	149.1		
	239.9	90.8 v	+0.40 v
	317.8		
	71.8	114.0 v	
		204.8 v	+0.47 v
		157.2 v	

Mean +0.25 v

9 16 20 v

−0 20. v

9 12 35. v

+5 +1 2. v

14 13 37. v

84 v − 2. v 92 8 v

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1909phae.proj..597W

May 25, 1909

Same Again. IV

Index Bright A.

	139.8		
9 18 35	252.5	112.7	
	332.4		
	59.7	127.3	+0.32
		200.0	
		160.0	
	150.0		
9 20 35	240.3	90.3	+0.43
	319.6		
	74.6	115.0	+0.48
		205.3	
		154.7	

Index Left B.

	48.0		
9 23 0	162.2	114.2	
	241.9		
	329.0	127.1	+0.41
		201.3	
		154.7	
	61.0		
9 25 20	149.8	128.8	+0.40
	228.7		
	341.0	112.3	+0.38
		201.1	
		159.9	

Mean +0.42

	27	30.
9	21	52.
+5	+1	2.
14	22	54.

24 52.5992

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1909phae.proj..597W

May 25, 1909

Same Again. I

Index Left. B.

	48.5		
9 27 25	163.4	114.9 v	
	242.1		
	331.8	89.7 v	+0.47 v
		204.6 v	
	60.8	144.4 v	
9 29 40	152.0	91.2 v	+0.41 v
	227.3		
	344.8	117.5 v	
		208.7 v	+0.44 v
		141.3 v	

Index Right. A.

	314.6		
9 32 30	72.6	118.0 v	
	143.0		
	244.7	101.7 v	
		219.7 v	+0.77 v
		140.3 v	
	324.8		
9 36 10	65.0	100.2 v	+0.40 v
	134.2		
	256.8	122.6 v	
		222.8 v	+0.43 v
		137.2 v	

Mean +0.66 v

12 v 4 v. v
9 31 26. v
+v +1 2. v
14 32 28. v
48 v 2.60 v 9 v

1909phae.proj..597W

May 25, 1909

ζ Herculis (region of). +32° 2886

First New provisional δS compared with second new δ.S.

17	12	+33.2
14	17	U. Obs. Bruce Rec. Phot. T
2	55	9.5 in cap used.
9	5	

Index Above A.

247.4
324.9 ← First Provisional δS. Obs
75.4 77.8 v
137.6 62.2 v
139.7 v −0.7 v

257.8
317.2 59.4 v −0.2 v

66.1
143.1 77.0 v
136.4 v −0.4 v

Index Below B.

151.6 22.2 v
240.4
342.7 62.7 v
45.4 151.1 v −0.5 v

163.0 64.9 v −0.2 v
227.9
330.4
603 29.9 v
154.2 v −0.4 v

Mean −0.6 v

9 55 0

10 2 5
117 v.1 v
9 v4 32. v
v +1 2. v
14 v9 34. v
24v2. 62.7 v

1909phae_proj...597W

May. 25, 1909

S.

W Hrculis compared with old b.s.
W. Obs. Bowdoin Phot T. 9.5 m cap used.

10 9 40

Index Left B.

174.7	Var. Dis.	
218.4	43.7	
3.6		
28.5	24.9 / 68.6	−2.8
182.4		
209.1	26.7	−2.6
357.3		
27.6	36.3 / 63.0	−2.7

Index Right A.

85.2		
124.3	39.1	
272.8		
297.6	24.8 / 63.9	−2.72
93.0	24.3	−2.71
117.3		
265.4		
305.4	40.0 / 64.3	−2.70

Mean −2.68

10 15 50

2	30.
10 12	45.
+1	2.
15 13	47.

S.T. 14 49
H.A −2 26
Dec +32.6
P.A 313.7 Vernier B
Sprocket. −10.5, −9.56
Ws watch used for times Watch 1 min 2 secs. slow.

L. P. P.

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1909phae.proj..597W

May 26, 1909 (Wednesday)

ω Herculis (region of)
Variable compared with Old B.S.

17	12	+33.2
12	12	W Obs. Bouw Rec. Phot T.
5	0	
7	0	9.5" in cap. used

Index Left. B.

355.0		Var Dvs
34.6	39.6 v	
175.3		
217.2	41.9 v	
	41.5 v	−2.1 v

352.1		
36.5	44.4 v	−2.0 v
174.6		
216.5	41.9 v	
	46.3 v	−2.0 v

Index Right. A.

270.2	31.2 v	
302.0		
87.0		
122.0	35.0 v	
	66.2 v	−2.6 v

268.4	34.2 v	
302.6		−2.2 v
86.4		
121.2	34.8 v	
	69.0 v	−2.4 v

Mean = −2.33 v

7 56 15

8 3 5

	119	20. v
7	59	40. v
+v.		−12. v
	12 v9	22.

12 v9 22.
45 v3. v413 v

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1909phae.proj..597W

May 26, 1909.

Same Again II

Index Right. A.

8 4 55

268.9
302.3 33.4″

87.6
120.9 33.3″ / 66.7″ −2.62″

269.0
304.8 35.0″ −2.54″

87.6
122.0 34.4″ / 69.4″ −2.53″

Index Left. B.

175.4
217.1 41.7″

353.4
35.1 41.7″ / 43.4″ −2.10″

8 10 30

175.5
217.6 42.1″ −2.10″

354.8
35.7 40.9″ / 43.0″ −2.11″

Mean −2.34″

Gen. " −2.34″

1″ 2.5″
2 7 42.″
+5″ −10″

13 7 24.″

24″ 3.5″ 46″

1909phae.proj..597W

May 26, 1909

ν Herculis (region of)
Obd b.S. +33° 2871 compared with First provisional b.S.
N. Obs Bruce Rec. Phot T. 9.5 M ocular used.

Index Above A.

	71.6 ← Obd b.S. Obs	
8 17 35	136.0	6K.4 v
	263.8	4K.3 v
	308.1	10 2.7 v −1.4 v v
	81.7	K6.A v −1.K3 v
	128.5	
	254.5	6 3.7 v
	318.2	110 v v −1.K1 v

Index Below = B.

	338.1	
	51.6	7 3 v v
	169.9	v 0 v v
	220.4	12 K.0 v −1.11 v
	351.3	v 0.7 v −1.12 v
	42.8	
	159.6	12.3 v
	231.9	12 3.0 v −1.13 v

Mean − 1.2A v

8	24	10	
	41	Kv.	v
A	20	v 2.	v
+v		−1A.	
13	20	34.	v

A4v 3. vv 60 v

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1909phae..proj...597W

May 26, 1909

ν Herculis (region of) +32° 2886.
First provisional b.s. compared with second provisional b.s.
W Obs. Rows Rec. Phot. T. 9.5m cap used.

Index Below B.

333.9	First provisional b.s. Obs.	
61.0	27.1 v	
165.1		
227.1	62.0 v / 149.1 v	−0.79 v
342.0	63.4 v	−0.60 v
45.4		
152.6		
237.5	84.9 v / 148.3 v	−0.61 v

Index Above. A.

243.8	81.7 v	
325.5		
76.2		
133.7	57.5 v / 139.2 v	−0.79 v
254.8	61.5 v	−0.75 v
316.3		
64.4		
146.0	81.6 v / 143.1 v	−0.71 v

Mean −0.68 v

8 29 15

8 36 35

6 5 5 0. v
8 32 5 5. v
+5 −14. v
13 32 37. v
84 5 3. 5 6 43 v

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1909phae.proj..597W

May 26, 1909.

ω Herculis (region of)
Ald b.s. compared with First provisional b.s.
+38° 2871

Index. Above A.

73.0 ← Ald b.s. Dec.
141.6 68.6 ✓
261.9 46.7 ✓
308.6 11 ✓.3 ✓ −1.30 ✓

8 53 5

83.4 44.8 ✓ −1.30 ✓
128.2
250.4 69.7 ✓
320.1 11 4.✓ ✓ −1.31 ✓

Index Below B.

335.6 77.2 ✓
52.8
170.0 ✓0.2 ✓
220.2 12 7.4 ✓ −1.03 ✓

351.1 ✓0.✓ ✓ −1.08 ✓
41.6
157.2 72.4 ✓
229.6 122.9 ✓ −1.13 ✓
mean −1.19 ✓

9 0 40

11 3 4✓. ✓
8 ✓6 ✓2. ✓
+✓ −18. ✓
13 ✓6 34. ✓
44✓3. ✓8 16 ✓

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1909phae.proj..597W

May 26. 1909.

Same Again.

Index Below B.

336.6
51.9 } v.3 v

171.3
221.5 v0.2 v / 12v.v v -1.07 v

351.4
40.5 49.1 v -1.13 v

161.0
235.8 } 0.8 v / 11.9 v -1.19 v

Index Above A.

251.3
321.2 69.9 v

82.7
127.8 45.1 v / 11v.0 v -1.30 v

264.5
308.2 43.7 v -1.32 v

70.9
140.2 69.3 v / 113.0 v -1.35 v

Mean -1.22 v

9 9 0

9 15 20

24 20. v

9 12 10. v

+v -A.

1K 11 v2.

0443.v916

In last two groups on Old 6.S+ First provisional 6.S. the sky was clear + there was no twilight and these groups are considered good.

In first group on the same pair, however,

over

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1909phae.proj..597W

May 26, 1909.

(said group being on page 241) the observer was troubled by clouds & strong twilight so that observations were difficult. This group not considered of much value.
Weight of this group 1/4.

S.T. 13 57
H.A. -3 20
Dec +32.4
P.A. 38.9 Vernier B
Sprocket -7.5 A, -6.5 B, -6.0 6

L. A. P.

W's watch used for times
Watch 18 secs fast.

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1909phae.proj..597W

May 31, 1909 (Monday).

α Herculis (region of)
Var. compared with old B.S.

17 12 +33.2
12 27 W. dbs. Rowa Rec. Plot I.
4 45
7 15 9.5 in caps used.

Index left B.

177.5 ← Var dis
214.6 37.1 ✓
357.0
33.5 36.5 ✓
7 3.6 ✓ −2.39 ✓

176.8 34.0 ✓ −2.32 ✓
214.8
355.6 40.5 ✓
36.1 7 4.5 ✓ −2.24 ✓

Index Right A.

84.2 39.4 ✓
124.0
268.0 37.0 ✓
305.0 7 6.4 ✓ −2.29 ✓

85.8 37.4 ✓ −2.29 ✓
123.6
267.7 39.0 ✓
306.7 7 6.4 ✓ −2.29 ✓
Mean −2.30 ✓

8 3 30

8 10 25
13 √√. ✓
6 √4. ✓
+√ +42.
13 7 40.
4+√4. √470 ✓

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1909phae.proj..597W

May 31, 1909.

Same Again II

Index Right A.

85.1	40.1	
125.2		
266.6	32.2	
304.8	72.3	−2.25
868	37.9	−2.24
124.7		
266.9	38.6	
305.5	76.5	−2.30

Index left. B.

357.4	36.6	
34.0		
178.7	35.3	
214.0	71.9	−2.44
357.8	35.0	−2.43
32.8		
177.5	37.6	
215.1	72.6	−2.42

Mean −2.36

8 11 48

8 18 20

30 0.

A 15 0.

+5 +42.

13 15 42.

A4 5A.5 26

1909phae.proj...597W

May 31, 1909

ν Herculis (region of)
+33°2877
Add b.S. compared with First new provisional b.S.
ν Ab. Rowe. Rec. Phot. T. 9.5in. cap used.

Index Above A.

253.6	← Add b.S. Drs		I
318.5	64.9 ν		
81.2			
128.2	47.0 ν / 111.9 ν	−1.37 ν	
265.0	44.6 ν	−1.34 ν	
309.6			
68.8			
139.5	70.7 ν / 115.3 ν	−1.30 ν	

Index Below B.

157.4	75.5 ν		
232.9			
350.0			
40.2	50.2 ν / 125.7 ν	−1.07 ν	
170.6	50.4 ν	−1.02 ν	
221.0			
338.5			
52.7	74.2 ν / 124.6	−1.09 ν	

8 35 5

8 40 55

76 0. ν
A 32 0. ν
+ν +42. ν
13 32 42. ν
A4νA. ν6A6 ν

Mean −1.21 ν

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1909phae.proj..597W

May 31. 1909.

Same Again II

Index Below B.

159.5
229.5 70.0
350.2
40.4 $\frac{\sqrt{0.2}}{120.2}$ −1.19

171.8 √0.2 −1.14
222.0
337.4 $\frac{74.7}{124.9}$ −1.09
52.1

Index Above A.

72.4 64.2
141.2
262.2 $\frac{43.2}{112.6}$ −1.36
306.0

83.0 46.1 −1.32
129.1
252.1 $\frac{6K.\sqrt{}}{110.6}$ −1.40
316.6

Mean −1.26
Gen. " −1.24

8 42 55

8 50 5
93 0.
A 46 30.
+√ +42.
13 47 12.
A.√A.√744

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1909phae.proj..597W

May 31, 1909

W Herculis (region of) +32° 2886
First new provisional b.S compared with Second b.S.
Index Above A.

248.9 ← First b.S Dis.
9 7 20 324.6 77.7 ✓
73.0
135.8 62.8 / 13 A.5 — 0.20

258.4 55.6 — 0.20
314.0
64.4
146.8 82.4 / 13 A.0 — 0.21

Index Below B.

151.1
241.2 90.1
341.5
48.9 67.4 / 157.5 — 0.43

163.2 60.0 — 0.49
228.2
332.9
59.0 86.1 / 151.1 — 0.55
mean — 0.64

9 15 20
22 40.
9 11 20. S.T 13 14
+5 +K2. H.A. -3 2
14 12 2. Dec +32.2
A4-A.5917 P.A. 201.7 Termen B
Sprocket -7.5 A. -6.5 B. -6.0 C
Ws watch used 2 times.
Watch, 42 revs. above.

L. P. P.

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1909phae.proj..597W

June 1. 1909. (Tuesday.)

u Hercules.

17	12	+33.2
12	20	
-4	+2	
7	4	

For results, see fol. pages.

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1909phae.proj...597W

June 1. 1909.

Var. compared with Old. Comp. Ster.
Index left. B. 9v cop. Phot. I.
H. Obs. H. S. Hegarty rec.

	3v4.3		
7.57 22	32.0	33.7v	v Herc. dis.
	178.0		
	215.0	37.0v / 70.7v	−2.48v
	357.0	35.5v	−2.44v
	32.5		
	177.7		
	215.1	37.4v / 72.9v	−2.41v

Index right. A.

	269.2		
	303.1	33.9v	
	85.8		
	121.0	35.2v / 69.1v	−2.15v
	269.0	31.3v	−2.15v
	300.3		
	85.0		
	122.4	37.4v / 68.7v	−2.35v

Mean −2.29v

812 0
9 22.v
4 41.v
+v 0 v
13 4 41.v
4459.v449v

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1909phae.proj..597W

+33° 2871 June 1, 1909.

Old Comp. Star with 1st provis. C. S.

Index above. A. 9" cap. Phot. S.

71.8 W. obs. Hegarty rec.

8 21 20 137.2 6 v. K v old. C.S. dis.

265.0 K 2.1 v

307.1 10 7. v v −1.K A v

82.2 K 6.K v −1.K1 v

128.6

250.1

317.0 66.9 v / 113.3 v −1.3K v

Index below. B.

341.8 70.K v

52.2

169.0 v 1.K v

220.4 121.0 v −1.1v v

350.5 KA.1 v −1.19 v

38.6

160.2 70.2 v

230.4 110.3 v −1.23 v

Mean −1.30 v

8 35 50

v7 10. v

A · 2A 3v. v

+v 0. v

13 2A 3v. v

£Kv9. v61v+ v

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1909phae.proj...597W

+32° 2886 June 1, 1909.

1st provis C. S. with 2d provis C. S. ~~+32° 2~~

Index below B. 9" asst. Nat. I.

151.5 W. obs. Hagerty rec.

239.5 ~~22.0~~ 1st. provis. C. S. dis.

8h 42m 40s

343.8 60.0

43.8 140.0 −0.61

162.5 60.7 −0.02

223.2

329.0 90.0

59.0 150.7 −0.06

Index above A.

72.0 65.4

137.4

240.7 24.7

325.4 150.1 −0.07

76.4

134.0 57.6 −0.64

242.8

328.8 86.0 −0.70

143.6 Mean −0.61

8h 53m 35s

96 15

22 42 2.

+2 0.

13 42 2.

S. T. = 14h 12m

22h 59.07s N. A. = −2 02

Dec. = +32.0

R. A. = 22.2

Sprocket = −7.04

" = −6.03

" = −6.0 C

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1909phae.proj..597W

June 1, 1909

Double Star (Star List) = Burnham's Cat. #916.

Index left and below. Full Ap. Phot. ☆

197.4 ☆ obs. Hegarty rec.

10 1 50 246.2 ☆ ☆ South Pol. 4 bkt. dia.

18.0

66.0 ☆ ☆ −1.7☆

198.0 ☆ −1.7☆

245.7

19.0

68.1 ☆ ☆ −1.7☆

Index right and above.

107.3

156.5 ☆ ☆

290.9

336.0 ☆ ☆ −1.8☆

109.0 ☆ −1.7☆

155.0

287.2

336.5 ☆ ☆ −1.7☆

10 12 0

13 ☆ ☆

10 6 ☆☆ ☆

+☆ 0. ☆

☆ 6 ☆☆ ☆

Mean −1.76 ☆

#☆9.629# ☆ P.A. 350° Dist. 4☆" Mag. ☆.1, 7.0

Watch correction zero.

L. A. P.

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1909phae.proj...597W

June 2, 1909 (Wednesday)

α Herculis 9.v cap. Phot. I.

17	12	+33,2
12	v6	
-4	16	
7	44	

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1909phae.proj..597W

June 2, 1909.

Var. comp. with old Comp. Star.

Index left. B.

357.0	36.5 ←	✕ Hare. Leo.
33.5		
182.4	24.2	
210.6	64.7	−2.69
0.0	29.0	−2.56
29.0		
175.6	43.4	
219.0	72.4	−2.43

Index right. A.

268.8	33.7	
302.5		
90.3	27.9	
118.2	61.6	−2.40
272.0	26.0	−2.74
298.0		
84.6	38.5	
123.1	64.5	−2.69

Mean − 2.65

8 13 20

8. 25 40

39 0.

19 30.

2 42

13 22 12.

460. 70

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1909phae.proj..597W

+33°2871 June 2, 1909.

Old Comp. Star compared with 1st provis. Comp. S.

Index above. A.

253.2 ← 64.6 ✓ Old C. S. Lio.

8 39 50 317.8

81.7 47.3 ✓

129.0 111.9 ✓ −1.37 ✓

263.6 44.9 ✓ −1.34 ✓

308.5

68.4 69.6 ✓

138.0 114.5 ✓ −1.31 ✓

Index below. B.

161.2 65.2 ✓

227.0

351.0 46.0 ✓

37.0 111.2 ✓ −1.32 ✓

171.5 ✓ 0.0 ✓ −1.12 ✓

221.5

339.0

49.4 70.4 ✓ 120.4 ✓ −1.12 ✓

Mean −1.31 ✓

8 50 50

90 40. ✓

2 45 20. ✓

+5 2 42. ✓

13 42 2. ✓

2460. −7.0 ✓

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1909phae.proj..597W

+32° 2886 June 2, 1909.

1st provis. ☆ Star compared with 2nd provis. ☆ Star.

Index above. A.

64.4 ← 1st provis. C. S. Dec'.
144.4 +0.0 v
255.0
311.7 +6.7 v / 136.7 v −0.04 v

72.5 62.7 v −0.72 v
135.2
242.1 +5.9 v / 197.6 v −0.60 v
328.0

Index below. B.

331.0 90.4 v
61.4
162.6 63.2 v / 154.2 v −0.49 v
226.4

341.4 66.6 v −0.49 v
48.0
150.3 +7.7 v / 154.3 v −0.49 v
238.0

Mean −0.60 v

9 8 20

9 20 50

	29	10. v
9	14	35. v
+v	2	42. v
14	17	17 v

+460. v 9 v 3 v

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1909phae.proj..597W

June 2, 1909

S. T. = $14^h\ 31^m$
H. A. = $-2^h\ 44^m$
P. A. = 203.1
Dec = +32.1
Sprocket
"
"

W's watch used for times.
Watch $2^m\ 42^s$ slow

L. P. P.

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1909phae.proj..597W

June 3, 1909 (Thursday)

Prod. 3451 B. 394.

7 4 43.5 = 7 ν 0.0
ν 43.6 = 6 0.0

8 17 19.5 Dmn. Pos. Ang. 30° very faint
the above observation through much cloud, and rather uncertain.
8 28 20 Pos. Ang. 330° Dmn. Mag. 8
8 39 8.5 Dmn. Pos. Ang 70° Mag. 8.5
the last observation pretty good.
9 1 24 Dmn. Pos. Ang. 100° Mag 8.9
the last observation pretty good.
9 10 6 Dmn. Pos. Ang. 150° Mag. 9
the last observation rather approximate. sky rather hazy at time of last immersion.

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1909phae.proj..597W

June 3. 1909.

Fr. 3451.			B. 394.		
10	31	17.0	10	31	0.0
10	32	17.0	10	32	0.0

In obs. in eclipse, 1 inch Eye Piece, power 270 used. Much troubled by low altitude (Moon at −22°) and clouds.

L. P. P.

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1909phae.proj..597M

June 7. 1909. (Monday.)

7 20 All Cloudy.

8 0 " "

8 45 " "

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1909phae.proj..597W

June 2. 1909. (Tuesday).

u	Hercules.	N. obs. Hegarty rec.
17	12	+33.2
12	√3	
-4	19	
7	41	

For measts. see fol. pages.

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1909phae.proj..597M

June 8, 1909

Var. compared with old Comp. Star.

Index left.

			354.8
8	2	30	34.7
			176.2
			215.3
			356.2
			34.0
			172.8
			217.2

Index right.

			266.5
			304.7
			85.4
			123.4
			268.3
8.	12	50	303.0
			84.1
			124.8

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1909phae.proj..597W

+33°2871 June 8, 1909.

Old Comp. Star compared with 1st new Provis Comp. Star

Index above:

253.8

8 19 25 319.7

82.5

127.4

263.4

309.6

67.4

138.0

Index below

156.4

231.0

348.8

39.5

170.4

8 28 35 220.8

337.5

52.6

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1909phae.proj..597W

June 8. 1908.

R Z Draconis. Obs. Hagarty rec. Phot I.

18	22	+√8.7
14	15	
−4	7	
+7	√3	

For measts. see fol. pages.

Comp. Star = the regular Comp. Star =
= +√8° 1806 (8.7)

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1909phae.proj..597W

June 8, 1909.

~~Sam~~

Index left. B.

164.0	63.5 ✓	Comp. Star dec.
227.5		
350.0	48.0 ✓	
38.0	111.5 ✓	+1.3A
170.1	49.8 ✓	+1.2A
219.9		
338.3	71.0 ✓	
49.3	120.8	+1.1A

Index right A.

84.2	41.6 ✓	
125.8		
254.3	66.1 ✓	
320.4	107.7 ✓	+1.47
71.2	65.4 ✓	+1.46
136.6		
263.9	43.4 ✓	
307.3	104.8 ✓	+1.4V

mean +1.37

9 14 30

9 23 52

3A 22. ✓

9 19 11. ✓

~~+V~~ 2 16. ✓

14 21 27.

~~A466.V+6V+~~ ✓

A466.V902 ✓

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1909phae.proj..597M

June 8, 1909.

Same again.

Under right. A.

9 29 50

255.6
314.8 59.2
83.7
125.2 41.5 / 100.7 +1.64

264.4
306.8 42.4 +1.55
72.8
138.5 65.7 / 102.1 +1.46

Under left. B.

163.0
235.0 72.0
352.0
38.3 46.3 / 114.3 +1.23

173.4
217.5 44.1 +1.27
337.2
47.6 70.4 / 114.5 +1.31

Mean +1.41

9 39 40
69 30.
9 34 45.
+5 2 16.
18 37 31
2466.6090

1909phae.proj..597W

June 8, 1909.

Same again.

Index left. B.

9 46 15

356.9
36.5 39.6 ✓
160.0
232.4 72.4 ✓ 112.0 ✓ +1.37

336.2 72.8 ✓ +1.29
49.0
172.6 46.4 ✓
219.0 119.2 ✓ +1.21

Index right A.

251.7 63.6 ✓
315.3
83.7 41.3 ✓
125.0 104.9 ✓ +1.✓✓

264.8 43.6 ✓ +1.46
308.4
73.2 67.6 ✓
140.8 111.2 +1.39

Mean +1.32 ✓

9 54 50
100 ✓✓.0
9 ✓0 24. ✓
✓✓ 2 16. ✓
1✓✓2 44.
2466.6199 ✓

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1909phae.proj..597W

June 8, 1909.

Same again.

Index right. A.

249.0		
320.0	71.0	
83.5	42.6	
126.1	113.6	+1.34
263.2	42.0	+1.32
306.0		
70.8	67.2	
138.3	110.3	+1.41

Index left. B.

156.8		
229.2	72.4	
353.0		
98.7	114.1	+1.23
173.0		
218.9	45.9	+1.26
340.0		
49.2	69.2	
	113.1	+1.30

Means +1.32

10 7 40

	7	45.
10	3	52.
45	2	16.
15	6	4.

4466.6293

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1909phae.proj..597W

June 8, 1909.

Same again

Ondex left. B.

161.7		
228.7	67.0	
350.4	44.6	
39.0	111.6	+1.29
173.4	43.6	+1.32
217.0		
341.0	68.7	
49.7	112.3	+1.36

Ondex right. A.

73.9	64.8	
138.7		
265.0	42.7	
307.7	107.5	+1.42
85.0	42.8	+1.46
127.8.		
252.0	66.0	
318.0	108.8	+1.45

Mean +1.39

10 10 10

10 17 5

27 15

10 13 34

+5 2 16

15 15 55

2466.6360

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1909phae.proj..597W

June, 8, 1909

S. T. = $15^h\ 50^m$
H. A. = $-2^h\ 32^m$
Dec. = +58.2
P. A. = 261.6
Sprocket = -7.5 b - 6.5 C.

W's watch used for times.
watch $2^m\ 16^s$ slow.

L. P. P.

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1909phae.proj..597W

June 11. 1909. (Friday).

α Herculis. W. obs. Hegarty rac.
17 12 +33.2 g.v cap. Phot.
13 v

−4 7
7 v3

For means, see fol. pages.

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1909phae.proj..597W

+33° 2871

June 11, 1909.

Old Comp. Star compared with Postprovis Comp. Star.

Index above.

8 15 15

253.4 ← old C.S. des.
318.4 6√.0"
82.5
130.4 47.9 / 112.9 √" −1.3√"

362.4 47.4" −1.30"
309.8
71.4 70.√ "
141.9 117.9" −1.2K"

Index below.

153.0 41.K"
234.4
351.2 42.7 "
39.9 130.1 " 0.9A"

170.3 √2.3" −1.04"
222.6
341.4 71.A "
53.2 124.1 1.10"
mean −1.17"

8 24 50
K 0 √."
A 20 2."
+√ +26."
13 20 2A."
A469.√√√9"

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1909phae.proj...597W

June 11. 1909.

+32° 2886

1st. prov. C. S. with 2d prov. C. S.

Index below

8 30 0

332.0		
59.3	27.3	
163.0		
223.2	60.2 / 147.5	−0.62
343.0	64.0	−0.59
47.0		
152.0		
239.0	87.0 / 151.0	−0.56

Index above.

248.6		
326.3	77.7	
75.2		
131.5	56.3 / 134.0	−0.90
257.0	56.2	−0.86
313.2		
64.8		
146.4	81.6 / 137.8	−0.82

Mean −0.72

8 36 50

− 66 50.

8 33 27.

+ 26.

13 33 51.

8469.5652

1909phae.proj..597W

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1909phae.proj...597W

June 11. 1909.

R Z Draconis. W. ob. Hagerty rec. Phot. T.

1h	22	+V4.7
14	20	
-4	2	
+7	V4	

For means. see fol. pages.

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1909phae.proj..597W

June 11, 1909

Index left B. I

165.0
226.9 61.9
352.5
34.8 42.3 / 104.2 +1.√√

173.8 44.2 +1.√2
218.0
343.9 62.6 / 106.8 +1.49
46.5

Index right A.

71.8 59.4
131.2
265.5 42.3 / 101.7 +1.61
307.8

83.7 43.9 +1.48
127.6
250.7 69.7 / 113.6 +1.34
320.4

+1.√0

8 56 0

9 4 50

√0.

9 0 2√. ✓
+√ +26. ✓
14 0 √1. ✓
48 69. √48 39. ✓

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1909phae.proj...597W

June 11, 1909.

Same again

Under night A. II

9 10 20

74.0
136.8 62.8
264.3
306.6 42.3 / 10 V.1 +1.V3

84.6
127.7 43.1 +1.4A
252.7
318.6 6V.9 / 109.0 +1.44

Under left B.

343.3
45.5 62.2
176.8
216.7 39.9 / 102.1 +1.61

353.6
37.7 4K1 +1V3
164.2
228.5 6K.3 / 10A.K +1.4V

+1.V0

9 19 5
29 2V.
9 14 K2.
+V +26.
74 1V A.
2469.V930A

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1909phae.proj..597W

June 11, 1909

Same again

Index left B. III

340.8		
48.6	87.8	
173.6	42.1	
215.7	109.9	+1.42
356.0		
36.9	40.9	+1.38
157.6		
229.7	72.1	+1.35
	113.0	

Index right A.

251.7	67.9	
317.6		
83.5	42.0	
125.5	107.9	+1.47
263.7	43.3	+1.43
307.0		
70.0	64.0	
138.0	111.3	+1.39
		+1.40

9 24 50

9 32 30

57 20.

9 28 40.

+7 +26.

14 29 6.

469.6036

1909phae.proj..597W

June 11, 1909

Same again

Ondes right. A. IV

9 48 45

252.8
317.5 64.7
83.6 43.6
127.0 10 8.1 +1.46

265.2 42.0 +1.46
307.2
69.5 66.2
135.7 10 8.2 +1.46

Ondes left B.

160.5
230.6 70.1
353.2
36.1 42.9 (1 3 0 +1.35

175.1 44.7 +1.36
219.8
339.7 67.3
47.0 11 2.0 +1.37

+1.41

9 57 50
10 6 3√. ✓
9 √3 12. ✓
+√ +26. ✓
+14 √3 44. ✓
2469.6206 ✓

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1909phae.proj..597W

June 11, 1909

Same again

Index left B. V

161.0	62.3	
229.3		
356.8	40.3	
37.1	102.6	+1.45

173.8	43.2	+1.43
217.0		
340.7	67.3	
48.0	110.5	+1.41

Index right A.

69.0	69.6	
138.6		
264.3	45.7	
310.0	115.3	+1.30

82.8	53.5	+1.26
126.3		
253.8	65.4	
319.2	118.9	+1.22

+1.34

10 9 40

10 45.5

10 22.5

+5 +26.5

15 5 48.5

469.6291

10 1 5

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1909phae.proj..597W

June 11, 1909

Same again

Index right A. VI.

68.8
136.7 67.9
264.2
306.6 42.4
110.3 +1.41

81.3
125.8 44.5 +1.40
252.5
319.5 67.0
111.5 +1.38

Index left B.

342.9
47.9 65.0
174.5
217.0 42.5
107.5 +1.42

351.8 +1.42
36.0 44.2
161.6
229.4 67.8
112.0 +1.37

+1.41

10 12 50

10 21 50
34 40.5
10 17 20.5
+5 +26.5
15 17 46.5
469.637 K

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1909phae.proj..597W

June 11, 1909

Poz. A = 81.0°
Region thoroughly identified

Watch 26 secs. slow.

L. P. P.

7
8

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1909phae.proj..597W

June 12. 1909 (Saturday).

Region of $\frac{17}{17}$ Herculis. 12 +33.2 W. obs. Hagarty rec.

Clouds and twilight.

17	12	
13	9	
−4	3	
+7	√7	

7.35 Cloudy.

8.0 0 Sky still cloudy. Twilight also strong.

For means, see pp. 70 and 71.

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1909phae.proj..597W

+33° 2871 June 12, 1909.

Old comp. Star with 1st provis Comp Star.

Index above.

69.1
140.3 71.2"
264.3
307.6 K3.3" / 114.1" −1.31"

82.7 47.0" −1.2"
129.7
246.4 73.1" / 120.1" −1.19"
319.5

Index below

~~338~~ 337.3
51.3 71.0"
70.1
217.0 K6.9" / 120.9" −1.17"

351.0 49.0" −1.10"
40.0
155.0 72.0" / 127.0" −1.04"
233.0

Mean −1.18"

8 26 40

8 36 10
62 50.1"
A 31 25.1"
+1" +17.1"
13 31 42.2"
2470.1"637"

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1909phae.proj...597W

+32° 2886 June 12, 1909.

1st provis Comp. Star compared with 2nd provis Comp Star

Index below

8 43 0

151.6
238.3 Δ6.7 ν
344.0 ν Δ.7 ν
42.7 14 ν.4 ν −0.67 ν

164.7 ν Δ.3 ν −0.64 ν
223.0
329.4 Δ9.Δ ν
59.3 14Δ.1 ν −0.61 ν

Index above

65.0 Δ1.4 ν
146.4
255.8 ν7.2 ν
313.0 13 Δ.6 ν −0.Δ0 ν

75.9 ν7.7 ν −0.77
133.6
242.6 ΔΚ.2 ν
326.8 141.9 −0.74 ν

Mean −0.70 ν

8 51 50
94 ν0. ν
Δ 47 2ν. ν
+ν +17. ν
13 47 42.
Δ470.ν74Δ ν

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1909phae.proj..597W

June 12, 1909.

R I Draconis. W. obs. Hagerty rec.
Phot. I.

18	22	+Δ7
14	44	
−3	38 ✓	
+Δ	22	

For meests, see fol. pages.

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1909phae.proj..597W

June 12, 1909.

Index left B. I

164.6
238.0 73.4
353.9
34.8 40.9
114.3 +1.32

171.4 47.6 +1.33
219.0
343.0
49.0 66.0
113.6 +1.34

Index right A.

73.0 63.2
136.2
263.4
305.2 41.2
105.0 +1.24

84.8 39.7 +1.24
124.5
252.2
316.8 64.6
104.3 +1.22

Mean +1.44

9 12 20

9 15 55
2A 1

9 14 2
+ +17
14 14 2

470.293

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1909phae.proj..597W

June 12, 1909

Same again

Index right A. II

9 21 35

69.4
135.1 65.7″
263.3
305.8 42.5″ / 108.2″ +1.46″

183.4
125.0 41.6″ +1.49″
253.8
318.0 64.2″ / 107.8″ +1.52″

Index left B.

341.3 66.4″
47.7
174.2
217.6 43.4″ / 109.8″ +1.42″

354.6
35.4 40.8″ +1.42″
162.4
230.9 68.5″ / 109.3″ +1.43″

Mean +1.46″

9 31 5
52 40.″
9 26 20.″
+5″ +17.″
14 26 37.″
470.60 18″

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1909phae.proj..597W

June 12, 1909.

Same again

Index left. B. III

9 37 55

345.0
47.0 62.0
174.3
215.4 41.1
103.1 ±1.0

352.8
37.4 44.6 ±1.2
161.8
226.0 64.2
102.2 ±1.4

Index right A.

252.0
317.4 65.4
82.7
126.6 43.9
109.9 ±1.4

263.1 42.9 ±1.4
306.0
72.5 62.2
10 0.1 ±1.3
~~350~~ 134.7

Mean ±1.0

9 47 20
2 0 1.0

9 42 30.
+0 +17.
14 42 0.0
2470. 6131

1909phae.proj..597W

June 12, 1909

Same again

Index right A.
IV.

254.3
314.7 60.4″

82.8
125.4 42.6″
103.0″ +1.√2″

264.5
306.2 41.7″ +1.√2″

73.9
135.3 61.4″
103.1″ +1.√2″

Index left B.

163.0
327.7 64.7″

352.5
34.7 42.2″
106.9″ +1.49″

175.4
217.2 41.8″ +1.42″

342.1
49.5 67.4″
107.2″ +1.42″

Mean +1.√3″

9 54 20

10 3 10
117 30.″
9 √2 42″
+√ +17″
14 √9 2,″
2470.6243″

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1909phaeproj..597W

June 12, 1909

Same again

10 6 40

Index left B. V

163.9
220.5
353.3
36.7 — 43.4 / 100.0 — +1.66

174.3
218.4
343.5
40.4 — 44.1 / 101.0 — +1.64

Index right
73.0
137.5
263.5
307.5 — 44.0 / 101.0 — +1.63

83.3
128.0
252.2
317.9 — 64.7 / 110.2 — +1.41

+1.54

10 15 50
— 22 30.
10 11 17.
+17.
11 32.
44 0.6330

1909phae.proj..597W

June 12, 1909

St. = 16^h 0^m
H.A = -2^h 22^m
Dec. = +72.2
P.A. ~~261.8~~ = 261.8
Sprocket = -8.5 B
-7.5 C

W's watch 17^s slow

Night rather poor throughout. Troubled by clouds, haze and murky atmosphere

L. P. P.

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1909phae.proj..597W

June 14. 1909. (Monday)

7 15 Sky cloudy.

7 30 " "

8 0 Sky some clearer.

Region of ν Herculis.

17 12 +33.2

13 ν1

-3 21

+4 39

P. A = 22.2° Region thoroughly identified

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1909phae.proj..597W

June 14, 1909

Var. Compared with Old Comp. Star.

Index left

	351.3		
8 11 5	38.1	46.8	
	174.0		
	214.7	40.7 / 87.5	−1.92
	353.3	41.7	−2.02
	35.0		
	178.2		
	220.8	42.6 / 84.3	−2.07

Index right

	261.0		
	310.9	49.9	
	80.2		
	126.7	46.5 / 96.4	−1.75
	261.0	48.9	−1.71
	309.9		
	79.4		
	130.0	50.6 / 99.5	−1.67

Mean −1.86

8 20 10

31 15

8 15 30

15 −10

13 15 20

8472.5 5 2K

1909phae.proj...597W

+33°2871 June 14, 1909

Old Comp. Star compared with 1st provis Comp. Star.

Index above.

8 27 40

70.8 64.6 v
139.4
263.8 41.6 v
305.4 110.2 v −1.41 v

81.3 64.6 v −1.3v v
129.9
251.0 66.4
317.8 111.0 v −1.29 v

Index below

338.5 72.2 v
50.7
168.8 v 0.3 v
219.1 122.v −1.14 v

351.8 49.2 v −1.12 v
41.0
155.9 73.3 v
231.2 124.v −1.10 v

Mean −1.24 v

8 35 5
62 45. v
α 31 22. v
δv −10. v
13 31 12. v

α 472.v633 v

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1909phae.proj..597W

+32° 2886 June 14, 1909.

1st provis Comp. Stars compared with 2nd provis Comp. Star.

Index below

8 43 58

149.8 ∆V.0 v
234.8
342.0 63.∆ v
45.8 1∆∆.∆ v −0.60 v

165.2 V9.∆ v −0.62 v
325.0
332.7 ∆7.3 v
60.0 147.1 v −0.63 v

Index above

65.5 ∆V.6 v
151.1
258.2 VV.2 v
313.4 140.∆ v −0.76 v

74.7 V∆.9 v −0.7∆ v
133.6
243.9 79.7 v
323.6 13∆.6 v −0.∆0 v

Mean −0.70 v

8.53 15
97 13. v
∆ 4∆ 36. v
+V −10. v
13 4∆ 26. v
∆472.V7V3 v

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1909phae.proj...597W

June 14. 1909.

R Z Draconis.

18	22	+V∆.7
14	V6	
-3	26	
∆	34	

For results, see fol. pages.

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1909phae.proj..597W

June 14, 1909.

Under left B.

9 15 57	327.0	Comp. star dis.
	41.8	∨4.2 ∨
	174.8	40.1 ∨
	214.9	94.9 +1.79 ∨
	355.2	40.6 ∨ +1.74 ∨
	35.8	
	166.0	∨2.0 ∨
	324.0	92.6 +1.69 ∨

Under right. A.

	267.0	32.0 ∨
	305.0	
	74.9	∨9.9 ∨
	134.8	97.9 +1.71 ∨
	255.6	61.2 ∨ +1.69 ∨
	317.4	
	85.2	37.2 ∨
	123.0	99.6 +1.67 ∨

mean +1.72 ∨

9	30	45	
	46	42. ∨	
9	23	21. ∨	
∨		-10. ∨	
14	23	11. ∨	

4472. ∨994 ∨

Troubled by clouds and also delayed by same in above group

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1909phae.proj...597W

June 14, 1909.

Same again

Double right A.

266.0
305.0 39.0 v

72.4
135.6 63.2 v
102.2 v +1.60 v

254.0
316.9 62.9 v +1.61 v

84.5
123.0 38.5 v
101.5 v +1.62 v

Double left B.

163.9
328.2 64.3 v

355.5
33.4 37.9 v
102.2 +1.60 v

175.6
215.8 40.2 v +1.56 v

339.8
45.8 66.0 v
106.2 v +1.51 v

Mean +1.54 v

9 35 40

9 45 45
A1 25 v
9 40 42. v
+5 -10.
14 40 32. v
A472.611 v -

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1909phae.proj..597W

June 14, 1909

Same again

Index left B.

9 50 10

159.8
225.3
353.5
34.0

175.8
217.2
Clouds.

Stopped by clouds.

W's watch 10s fast

L. A. R.

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1909phae.proj..597W

June IV. 1909 (Tuesday).

	B. + C. 1182.		B. 394	
7	44	30.0	7 49	0.0
	49	30.0	50	0.0

Rapp. of Jup. I. Phot. W., Wobs., Hegaty Recorder. Comp. with mean of 2 Sats. (before calibrat.) on fol. side = Sat II

					Limit of visibility		
		8	17	11	31.0		205.0
13	17	47.	17	35	26.6		236.0
		+25.	18	8.5	24.4	+3.0	207.9
13	18	10.	18	4.5			234.5

13	22	24.8	21	59.5			Seen
	22	54.	22	26.5	64.0	+1.0	193.0
	23	17.	22	50	68.4	+0.4	257.0
	23	26.	23	1.5	70.4	+0.7	186.2
	23	34.	23	12.5	77.9	+0.5	259.0
	23	51.	23	26	74.9	+0.4	181.1
	24	2.	23	37.5	80.4	+0.4	260.0
	24	26.	24	1.5	85.9	+0.2	179.2
	24	34.	24	13	86.6	+0.1	265.1
	24	51.	24	26	87.5	+0.1	178.5
	25	2.	24	37	90.5	0.0	266.0

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1909phae.proj..597W

June 15. 1909.

13	25	16.8		24	51.5	91.5 −0.1	175.5
	25	33		25	-8	90.9 0.0	267.0
	25	46		25	21.5	90.4 0.0	-176.1
	25	59.		25	34		266.5
				25	44.5	91.3	175.0
13	26	5.		25	57	91.0	266.3
		+25.		26	11.5	91.2 0.0	175.0
13	26	30.		26	25.5		266.0
				26	42.5	91.3	176.7
13	27	2.		26	55	92.2	268.0
		+25.		27	9	91.4 −0.1	175.8
13	27	27.		27	22.5		268.0
				27	36	92.7	176.4
13	27	55.		27	48	91.7	269.1
		+26.		28	3.5	92.2 −0.1	176.2
13	28.	21.		28	14		267.9
				28	31	91.5	176.5
13	28	51.		28	42.5	92.5	268.0
		+26.		28	57.5	92.0 −0.1	175.5
13	29	17.		29	13.5		268.0
				29	26.5	91.1	176.4
13	29	46.		29	39	93.0	267.5
		+26.		29	53	92.0 −0.1	175.0
13	30	12.		30	6.5		268.0
				30	21.5	92.5	176.2
13	30	54.		30	32	90.4	269.0
		+26.		31	13.5	91.6 −0.1	177.1
13	31	24.					

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1909phae_proj..597W

June 15. 1909.

	8	31	27		267.5
		31	42	100.2	166.8
13 33 12,		31	56	91.0	267.0
+26.		34	21.5	96.6 −0.2	176.5
13 33 38.		34	47		267.5
		35	7.5	101.0	167.0
13 35 28.		35	16.5	90.9	268.0
+26.		35	32	96.0 −0.2	177.2
13 35 54.		35	56.5		268.1

6 7 A

B. t. C. 1142.

A 46 ~~36~~ 32.7
47 ~~37~~ 32.7

B. 394

A 47 0.0
48 0.0

Slight delay in beginning observations of eclipse proper, owing to fact that sat., reappeared in a different position than anticipated, ~~and also~~, ~~[illegible]~~ for reading setting circle also slipping in its holder.

Seeing fairly good.

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1909phae.proj..597W

June 17. 1909.

α Herculis. W. obs. Hagarty rec.
17 12 +33.2 9" Fcap. Phot. I.

For measts. see fol. pages.

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1909phae.proj..597W

+33° 2871 June 15, 1909.

Old comp. Star compared with 1st provis Comp. Star.

Index above. A.

250.1	Old C. S. Dis.	
321.5	71.4	
82.2	47.1	
129.3	118.5	−1.23
257.6	71.0	−1.20
308.6		
70.7	69.5	
140.2	120.5	−1.18

Index below B.

155.7	76.7	
232.4		
352.6	77.5	
38.3	122.4	−1.14
171.2	46.3	−1.13
217.5		
337.1	77.1	
54.2	123.4	−1.12

Mean −1.16

9 12 25

9 21 10

33 35.

9 16 48.

+ 1 4.

14 17 12.

48 53. 9 7

1909phae.proj..597W

+32° 2886 June 15, 1909

1st provis Comp. Star compared with 2nd provis Comp. Star.

Index below B.

	333.7	1st provis C.S. Lw.
9 25 30	56.5	Δ2.4 v
	166.4	
	Δ25.0	√2.6 v
		141.4 v −0.7 v
	347.0	
	44.8	√7.2 v −0.66 v
	146.5	
	239.0	92.5 v
		1√0.3 v −0.√7 v

Index above A.

	240.6	
Reject. Reading wrong.	326.0	Δ√.4 v
	27.3	
	135.0	107.7

	257.1	
	312.0	√4.9 v
	61.2	
	149.9	ΔΔ.7 v
		143.6 v −0.7 v

9 33 20		
	√Δ	√0. v
9	29	2√. v
+√	1	4. v
14	30	29. v

mean −0.6Δ v

P. A = 23.2 Vernier B.

Δ473.6046 v Region thoroughly identified

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June 15, 1909
R Z Draconis. W. obs. Hagarty rec.
18 22 +72 9 1/2 cap. Plat. I.

For measte, see fol. pages.

1909phae.proj..597W

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1909phae.proj..597W

June 15, 1909

R. Z. Draconis H. Obs. Hogarty rec'r

B. Index left gr. of Plat V.

163.5 ← C.N. dis. I

9 55 40 228.0 6K.v

351.6

34.0 42.K v / 106.9 v +1.K9 v

175.7

217.6 41.9 v +1.v6 v

345.0 v9.K v / 101.3 v +1.62 v

44.4

Index right A.

77.0

135.0 v8.0 v

266.4

305.5 39.1 v / 97.1 +1.73 v

85.8

123.9 38.1 v +1.73 v

256.0

315.1 v9.1 / 97.2 +1.73 v

Mean +1.64 v

10	5	20	
	1	0.	v
10	0	30.	v
+v	1	4.	v
1v	1	34.	v

2473.6261 v

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1909phae.proj..597W

June 15, 1909

Same again.

Index right A. II.

	71.9	
10 8 40	138.8	66.9″
	266.0	
	304.0	38.0″
		104.9″ +1.74″
	86.6	38.1″ +1.61″
	124.7	
	255.5	61.0″
	316.5	99.1 +1.62″

Index left B.

	343.8	
	42.8	59.0″
	176.0	
	214.4	38.4″
		97.4″ +1.72″
	356.0	
	32.4	36.4″ +1.76″
	165.6	
	223.4	57.8″
		94.2″ +1.80″

10	18	5
	26	44.″
10	13	22.″
+1	1	4.″
1	14	26.″

A 473.63 = 0″ P. A = 81.°8 Vernier B. Mean +1.62″

W's watch 1m 4s slow

L. P. A.

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1909phae.proj..597W

June 16. 1909. (Wednesday)

u Herculis. H.C.O. Hegarty rec.

17 12 +33.2 9.5"-cap. Phot. 5

13 30

-3 42

A 10

For reacts. see fol. pages.

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1909phae.proj..597W

June 16, 1909

Var. compared with old Comp. Star

Index left B.

8 3 40

173.2 +6.7 v
219.9
353.0 +5.0 v
38.0 91.7 v −1.47 v

173.6 +2.9 v −1.4K v
216.5
350.3 −0.7 v
41.0 93.6 v −1.42 v

Index right A.

81.9 +1.7 v
123.6
264.0 +4.6 v
308.6 42.3 v −2.01 v

81.4 +6.2 v −2.0K v
127.6
265.2 3.4K v
303.6 4.6 v −2.06 v

Mean −1.9K v

8 11 20

−1 v 0. v
+ 7 30. v
+v +30. v
13 + 0. v
+F74. v−F72 v

1909phae.proj..597W

+33° 2871. June 16, 1909

Old Comp. Star compared with 1st provis Comp. Star.

Index above. A.

	251.4	
8 18 10	319.0	67.6 ✓
	81.9	
	127.4	45.5 ✓ / 113.1 ✓ — −1.35 ✓
	262.6	45.5 ✓ — −1.26 ✓
	308.1	
	67.3	
	143.0	75.7 ✓ / 121.2 ✓ — −1.17 ✓

Index below B.

	157.8	
	230.7	72.9 ✓
	347.1	
	42.4	55.3 ✓ / 128.2 ✓ — −1.02 ✓
	169.5	49.2 ✓ — −1.06 ✓
	218.7	
	338.3	75.5 ✓
	53.8	/ 124.7 ✓ — −1.09 ✓

Mean −1.16 ✓

8 26 40

	44	50. ✓
A	22	25. ✓
+5		+30. ✓
	13 22	55.

A474.55 75 +5

Old Comp. Star color 2 in Photometer.

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1909phae.proj...597W

+32° 2886

June 16, 1909

1st provis Comp. Star compared with 2d provis Comp. Star.

Index below B.

8 35 5

331.3
56.3 +2.0
165.0 60.0 / 145.0 −0.66
225.5 (225.5)

344.0
43.5 +9.0 −0.70
151.5
234.0 42.0 / 142.0 −0.73

Index above A,

243.6
325.3 +1.7
74.6
133.2 +4.6 / 140.3 −0.77

254.6
312.8 +4.2 −0.72
62.0
149.5 47.0 / 145.7 −0.66

Mean −0.71

8435
7210.
4395.
+ +30.
1339 3.

R.A. = 2

A47K.+692 P. A. = 23.0° Vernier B.

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1909phae.proj..597W

June 16. 1909.

R I Draconis

1h 22 +74.7

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1909phae.proj...597W

June 16, 1909

R 2. Praesepis

Index left B. C. St. Leo. I

9 7 50

164.7 ⟵ 67.7 v
232.4
351.9 43.4 v
35.3 111.1 v +1.39 v

172.5 47.4 v +1.36 v
217.9
340.4 69.1 v
48.5 113.5 v +1.34 v

Index right A.

71.7 66.5 v
138.2
263.7 47.1 v
308.8 111.6 v +1.32 v

83.8 43.0 v +1.36 v
126.8
249.5 70.4 v
319.9 113.4 v +1.34 v

Mean +1.36 v

9 15 30
23 20. v
9 11 40. v
+v +30. v
14 12 10. v
2474. v 912 v

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1909phae.proj..597W

June 16, 1909

R. 2. Draconis

Index right A. II

9 19 0

69.0
142.3 73.3 ✓
264.6
307.9 43.3 ✓ / 116.6 ✓ +1.27 ✓

83.0
126.8 43.8 ✓ +1.32 ✓
253.0
320.9 67.9 ✓ / 111.7 ✓ +1.38

Index left B.

340.7
49.3 68.6 ✓
173.8
217.4 43.6 ✓ / 112.2 ✓ +1.37 ✓

352.6
36.4 43.8 ✓ +1.38 ✓
161.3
229.3 68.0 ✓ / 111.8 ✓ +1.38 ✓

mean +1.37 ✓

9.270

K 6 0. ✓
9 23 0. ✓
+v +30. ✓
14 23 30. ✓

2474. v996 ✓

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1909phae.proj..597W

June 16, 1909

Same again

Order left B. ~~III~~

9 32 25

340.3
47.5 67.2 ✓
172.4 46.1 ✓
218.5 113.3 ✓ +1.34 ✓

351.8 −0.2 ✓ +1.24 ✓
42.0
161.2 64.1 ✓
229.3 112.3 ✓ +1.23 ✓

Order right A.

249.0
320.0 71.0 ✓
82.5 43.5 ✓
126.0 114.5 ✓ +1.31 ✓

263.5 45.0 ✓ +1.32 ✓
308.5
69.0 69.4 ✓
138.4 114.4 ✓ +1.32 ✓

Mean +1.30 ✓

9 41 35

74 0. ✓
9 37 0. ✓
+5 +30. ✓
14 37 30. ✓
247 4.6094 ✓

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1909phae.proj..597W

June 16, 1909

Same again. ~~Index~~

Index right A. ~~IV~~

249.7
321.4 71.7 ✓

82.7
126.9 44.2 ✓
11 ✓.9 ✓ +1.24 ✓

263.9
308.4 44.✓ ✓ +1.32 ✓

69.8
138.2 68.4 ✓
11 2.9 ✓ +1.3✓ ✓

Index left B.

159.8
229.9 70.1 ✓

351.3
37.5 46.2 ✓
11 6.3 ✓ +1.27 ✓

174.0
219.0 44.✓.0 ✓ +1.34 ✓

342.0
47.9 6✓.9 ✓
15 0.9 ✓ +1.40 ✓

Mean +1.33 ✓

947 0

9 55 40
102 40. ✓
9 ✓1 20. ✓
+✓ +30. ✓
14 ✓1 ✓0. ✓
6474.6193 ✓

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1909phae.proj...597W

June 16, 1909

Same again.

Ondex left B. V.

164.4
225.7 61.3 ✓
353.7
47.5 ~~v 3 A~~ / 11 v. 1 ✓ +1.30 ✓

10 41.0

174.0 v 2.6 ✓ +1.30 ✓
226.6
343.5 62 A ✓
46.3 ~~11 v K~~ ✓ +1.29 ✓

Ondex right A.

72.7
136.6 63.9 ✓
264.0 ~~K K.6~~ ✓
308.6 ~~10 A. v~~ ✓ +1. ~~K~~ v ✓

82.0 ~~K~~ 6.6 ✓ +1.~~K~~2 ✓
128.6
253.0 ~~6 v.~~ 2 ✓
318.2 ~~1 1 1. A~~ ✓ +1.30 ✓

Mean +1.36 ✓

10 14 55

19 v. ✓
10 9 32. ✓
+v +30.
~~K~~ 10 2. ✓
A474.6319 ✓

W° watch used for times.
Watch 30 secs. slow.

L. P. P.

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1909phae.proj..597W

June 17, 1909. (Thursday).

Solar Eclipse, W. ob. Hegarty rec.

6	36	All cloudy especially in west.
6	46	Sky thickly cloudy in west. Sun invisible
6	51	" " " " " " "
6	54	" " " " " " "
6	55	" " " " " " "
6	56	" " " " " " "
6	59	" " " " " " "
7	0	" " " " " " "
7	5	" " " " " " "
7	10	" " " " " " "
7	15	" " " " " " "
7	20	" " " " " " "
7	25	" " " " " " "

The sun has now set, so that it is no use to try any longer. The theoretical time of first contact was $6^h\ 54.5^m$ Eastern time. Ot

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1909phae.proj...597W

June 17. 1909.

began to grow thickly cloudy all about the western horizon before 6h P. M. But the dome, however, was opened before 6h 30m P. M, and a systematic watch was kept for the sun and the eclipse. The sun was totally obscured by thick banks of clouds which also overspread the whole sky for a long time before theoretical time of first contact; so that the sun was totally invisible from 6h 30m P. M. up to the time the sun set. Hence the eclipse could not be observed.

W's watch would have been used for times. Watch 11s slow.

8 45 Sky densely cloudy everywhere. Evidently no chance for anything tonight.

L. P. P.

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1909phae.proj..597W

June 14, 1909. (Friday)

Jupiter's Sats.

Comparisons of Sat. I with Sat. II.

Phot. I.

Mobs. Hegarty rec.

For measts. see fol. pages.

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1909phae.proj...597W

June 18, 1909

Index right and above. ✓.

245.2 ← Sat. II dis.

8 15 50

333.2 $\pm 2.0^{v}$

62.5

151.0 $\frac{\pm 2.5^{v}}{176.5^{v}}$ $+0.06^{v}$

239.8 $\pm 9.2^{v}$ -0.02^{v}

329.0

55.5 $\frac{96.5^{v}}{12\sqrt{.7}}$ 174.3^{v} -0.11^{v}

1520 $(1\sqrt{2.0})$

Index left and below B.

146.4

244.1 97.7^{v}

326.7

61.8 $\frac{95.1^{v}}{192.8^{v}}$ -0.24^{v}

167.2^{v}

149.0 91.0^{v} -0.20^{v}

240.0

326.5

63.5 $\frac{97.0^{v}}{182.0^{v}}$

172.0^{v} $-0.1\sqrt{}^{v}$

Mean -0.11^{v}

8 25 20

41 10.^{v}

$\pm$ 20 3$\sqrt{}^{v}$

$+\sqrt{}$ $+20.^{v}$

13 20 $\sqrt{}\sqrt{}^{v}$

$\pm 476.\sqrt{}\sqrt{}62^{v}$

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1909phae.proj..597W

June 18, 1909.

8 29 20

Index left and below A.

144.6
244.20 99.6 v
329.3
60.6 91.3
190.9 −0.20 v
169.1

146.6 97.3 v −0.21 v
243.9
326.7 94.3 v
61.0 191.6 v
165.4 −0.22 v

Index right and above A.

60.2 Δv.1 v
145.3
242.8 78.6
321.4 163.7 +0.31 v

57.5 91.v v +0.14 v
149.0
239.1 Δ9.v v
328.6 121.0 v
179.0 v −0.02 v

Mean −0.04 v

8 38 40
6Δ 0. v
Δ 34 0. v
+v +20. v
13 34 20. v

Δ476. v 6v v+ v

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1909phae.proj...597W

June 18, 1909.

~~Dexter~~

Index right hand above 4.

8 44 30

60.0
147.0 87.0 v
239.0
330.0 91.0 v
174.0 v +0.04 v
~~142.0 v~~

56.5
150.0 93.5 v −0.06 v
236.0
331.3 95.3 v
174.8 v −0.17 v
~~171.2~~

Index left hand below B.

326.4
60.1 93.7 v
151.2
241.2 90.0 v
173.7 v −0.07 v
176.3 v

327.0
60.6 93.6 v −0.16 v
146.3
~~204.8~~ 99.5 v
193.1 v −0.2 v
166.9 v

8 53 35
94 5. v
4 49 2. v
+v +20. v
13 49 22. v
4476.6760 v

mean −0.11 v

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1909phae.proj..597W

June 12, 1909.

R Z Draconis.

1h	22	+v8.7
1v	17	
−3	v	
+h	vv	

For meanto, see fol. pages.

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1909phae.proj..597W

June 18, 1909.

Ondex left B. I.

162.2
231.0 68.8 ✓
350.5
39.5 49.0 ✓ / 117.8 ✓ +1.2K ✓

~~194.3 171.~~
171.3 47.6 ✓ +1.19 ✓
218.9
335.6 74.9 ✓ / 122.5 ✓ +1.14 ✓

Ondex right

84.0 43.4 ✓
127.4
253.6 63.6 ✓ / 107.0 ✓ +1.49 ✓

71.0 66.0 ✓ +1.4A ✓
137.0
266.2 41.4 ✓ / 107.4 ✓ +1.4A ✓
~~266.0~~ 307.6

Mean +1.3K ✓

9 31 35

9 40 40
72 15. ✓
9 36 8. ✓
+r +20. ✓
14 36 28. ✓
8476.6086 ✓

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1909phae.proj..597W

June 18, 1909

Same again

Index right A. II

85.0
125.5 40.√ v
252.0 66.0 v
318.0 106.√ v +1.√0 v

71.0 66.4 v +1.4A v
137.4
266.0 41.6 v
307.6 104.0 v +1.46 v

Index left. B.

341.0
50.5 69.√ v
173.6
217.2 43.6 v
113.1 +1.3√ v

352.5 43.A v +1.36 v
36.3
161.6 6A.√ v
229.5 112.3 v +1.36 v

Mean +1.42 v

9 47 0

9 54 50
101 √0. v
9 √0 √√. v
+√ +20. v
1K √1 1√. v
A476.6 +A2 v

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1909phae.proj...597W

June 18, 1909

Same again

Index left. B. III

339.6
49.5 69.9 v
174.6
218.7 44.1 v / 114.0 v +1.33 v

353.2
38.8 45.6 v +1.34 v
163.0
230.0 67.0 v / 112.6 v +1.36 v

Index right A.

251.9
317.6 65.7 v
24.6
124.0 39.4 v / 105.1 v +1.53 v
~~265.5~~

265.5 42.6 v +1.56 v
308.1
74.5 60.7 v / 103.3 v +1.54 v

Mean +1.54 v

9 59 50

10 7 50
12 7 40. v
10 3 50. v
+ v +20. v
v 4 10. v
A 476.6279 v

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1909phae.proj..597W

June 18, 1909

Same again

Index right A. III

10 11 55

2552.2
319.4 67.2 ✓
84.0
265.9 41.9 ✓ 109.1 ✓ +1.44 ✓

265.0 43.1 ✓ +1.49 ✓
308.1
173.1 61.9 ✓ 105.0 ✓ +1.54 ✓
135.0

Index left B.

160.6
231.7 71.1 ✓
352.0
35.9 43.9 ✓ 115.0 ✓ +1.30 ✓

174.4 44.6 ✓ +1.36 ✓
219.0
341.9 65.5 ✓ 110.1 ✓ +1.42 ✓
47.4

Mean +1.42 ✓

10 20 35
32 30. ✓
10 16 15. ✓
+5 +20.
15 16 35.

A 476.636 5 + ✓

1909phae.proj..597

July 18, 1909

Same again

Index left. B. V.

10 23 5

162.4
232.0 69.6 v
357.5
36.6 39.1 v / 108.7 v +1.4 v v

175.0 44.5 v v +1.42 v
219.5
341.2 66.2 v
47.4 110.7 v +1.40 v

Index right. A.

76.0
134.7 58.7 v
266.8
324.6 37.8 v / 96.5 v +1.74 v

74.5
124.3 49.8 v +1.59 v
255.1
314.4 59.3 v / 109.1 v +1.44

10 29 50 v
v 2 v v
10 26 28.5 v
+v +20. v
v 26 48.5 v
4476.6437 v

P. A = 262.7°

Mean +1.50 v

W'k watch 20s slow

Altitudes high. Observations somewhat difficult.

L. A. P.

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1909phae.proj..597W

June. 19. 1909 (Saturday).

Jupiter's Sats.

10	40	+9.7
13	37	
+2	57	

Wobs. Hegarty rec. Phot. Wo

Sat. I compared with Sat II.

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1909phae.proj..597W

June 19, 1909

8 2 20

Index left and below B,
268.0 ← 22.2 ✓ Stt. I dis.
356.2
86.3 22.7 ✓
175.0 176.9 ✓ −0.06 ✓

267.3 90.7 ✓ −0.0 ✓
358.0
88.9 27.1 ✓
176.0 177.2 ✓ −0.04 ✓

Index right A,
180.3 22.2 ✓
263.1
0.4
83.6 23.2 ✓ 166.0 ✓ −0.27 ✓

179.4 24.2 ✓ −0.26 ✓
264.2
1.0 21.9 ✓
82.9 166.7 ✓ −0.25 ✓

mean −0.16 ✓

8 12 10
− 14 30. ✓
2 7 15. ✓
+v +20. ✓
13 7 35. ✓
2477. v469 ✓

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1909phae.proj..597W

June 19, 1909

Same again

Index right and above. A.

180.6
262.0 Δ1.4 ✓
1.0
83.8 Δ2.4 / 164.2 ✓ −0.30 ✓

181.6 Δ2.0 ✓ −0.31 ✓
263.6
1.2
82.6 Δ1.4 / 163.4 ✓ −0.32 ✓

Index left and below B.

88.8 Δ6.2 ✓
175.0
268.6
357.4 Δ8.8 / 177.0 ✓ −0.09 ✓

88.8 Δ9.2 ✓ −0.04 ✓
178.6
269.2
356.0 Δ6.8 / 176.6 ✓ −0.06 ✓

−0.20 ✓

8 28 45
47 1√ ✓
Δ 2.3 3Δ ✓
+√ +20. ✓
13 23 √Δ ✓
Δ47 8.7 √√Δ3 ✓

Clouds.

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1909phae.proj..597W

June 19, 1909

Same again

~~88.0~~ Index left and below B.

8 3320

88.0
175.5 87.5
268.1
355.8 87.7 / 175.2 −0.09

88.0
176.0 88.0 −0.06
268.0
358.0 90.0 / 178.0 −0.04

Index right and above A.

358.4
84.2 86.2
179.2
263.8 84.6 / 170.4 −0.12

1.6
83.4 81.8 −0.22
178.9
264.0 85.1 / 166.9 −0.25

Mean −0.14

8 41 50
− 7 10.
8 37 33.
+ 20.
13 37 53.
8476.5 − 640

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1909phae.proj..597W

June 19, 1909

Same again

Index right and above A.

8 46 50

358.7 ±4.2"
82.9
179.3 ±6.2"
265.5 17.04" −0.12"

0.4 ±2.1" −0.20"
82.5
178.5 ±6.7" 6.8 −0.21"
265.2 Clouds pretty thick. Sats. pretty dim.

Index left and below B.

268.8 ±7.2"
356.0
84.5 90.5"
175.0 177.7" −0.04"

268.4
354.1 Clouds thick −0.04"
84.9 ±7.7"
176.7 91.8" 177.5" −0.05"

Mean −0.12"

92 30
10 9 20."
9 "4 40."
+" +20."
14 "" 0."
±47 8.7 62 1"

W's watch used for times; watch 20s slow

L. A. P.

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1909phae.proj..597w

June 22. 1909 (Tuesday)

ν Herculis 5. obs. Hegarty rec.
Phot. I. 9" cap.

17	12	+33.2
13	4.2	
-3	2.4	
2	36	

For meets. see fol. pages.

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1909phae.proj..597W

June 22, 1909

Var. compared with old Comp Star

Index left B.

355.1
34.5 39.4 ✓

178.0
216.0 38.0 ✓
77.4 ✓ −2.27 ✓

355.3
34.6 39.3 ✓ −2.36

185.8
218.4 32.6 ✓
71.9 ✓ −2.44 ✓

Index right A.

265.2
305.6 40.4 ✓

87.5
123.6 36.1 ✓
76.5 ✓ −2.30

265.9
304.6 38.7 ✓ −2.24 ✓

85.7
124.8 39.1 ✓
77.4 ✓ −2.26

Mean −2.32 ✓

8.1 5

8 7 50
A. V. ✓
A 4 24. ✓
+V +25. ✓
13 4 V3. ✓
A4 20 9. V4V0 ✓

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1909phae.proj..597W

+33° 2871

June 22, 1909

Old comp. star compared with 1st provis comp. Star.

Index above A.

70.3
147.9 77.6
262.2
308.0 46.2 / 123.8 −1.12

83.6
129.9 46.3 −1.13
243.8
319.6 75.8 / 122.1 −1.14

Index below

339.8
57.4 77.6
171.8
219.8 48.0 / 125.6 −1.07

348.0
39.4 51.4 −1.04
156.6
233.7 77.1 / 124.5 −1.01

Mean −1.02

8. 15 50

8. 23 50
39 40.
+ 19 50.
+5 +25.
1320 15.
+440.5555

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1909phae.proj..597W

+82° 2886 June 22, 1909

1st Pavvis Comp. Star compared with 2nd Pavvis Comp. Star—

Index below B.

8.29 30

334.4
55.8 21.4 v
165.8
227.4 61.6 / 143.0 v −0.71 v

344.8 62.0 v −0.62 v
46.8
152.8
237.3 84.5 / 146.5 v −0.6 4 v

Index above A.

243.5 84.1 v
329.6
77.0
133.7 56.7 / 140.8 v −0.76 v

257.7 55.8 v −0.72 v
313.5
63.2
146.6 83.4 / 139.2 v −0.79 v

8.365

6v 3v. v
2 32 42. v
+v +2v. v
13 33 13. v
2420.v647 v

P.A = 23.0° Vernier B.

Mean ~~−0.75 v~~
−0.73 v

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1909phae.proj...597

June 22. 1909.
R Z Draconis. H. obs. Hegarty fec.
Phot. I.

α	22	$+V$ 8.7
V	A	
−3	14.	
A	46	

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1909phae.proj..597W

June 22, 1909

R. 2. Draconis

Order left

345.2	60.1	C. S. Leo.
45.3		
172.7	4v.3	
218.0	10v.4	+1v.3
350.0		
38.7	48.7	+1.47
160.2		
222.0	61.8	+1.41

Order right

255.5	v4.8	
314.3		
84.5		
125.4	40.9	+1.66
261.6	4v.3	+1v.8
306.9		
74.1	60.8	
134.9	106.1	+1.v1

Mean +1.v3

8 58 5

9. 6 10

4 1v.

9 .2 6.

+v +2v.

14 .2 31.

48.0

4 9.v8v1

1909phae.proj..597w

June 22, 1909

Same again

Ondeaught A.

250.6
306.0 55.4
85.0
128.5 43.5 92.9 +1.62

262.7
310.0 47.3 +1.67
72.3
125.0 52.7 100.0 +1.66

Onde left B.

160.2
229.5 69.3
353.2
36.5 43.3 112.6 +1.36
171.0
219.5 48.5 +1.39
344.0
45.6 61.6 110.1 +1.42

9.8 4 0

9.15 35
24 1.5

9 12 21
4.5 +2.5
14 12 33.
20.
24 9.5 9 21

P A = 81.3 Vernier B. Mean +1.53

Troubled more or less throughout evening by light cloud and murky atmosphere.

W's watch used for times. watch 25 2 slow

L. A. P.

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1909phae.proj..597W

June 23, 1909. (Wednesday)

α Herculis. 7. obs. Leander McCormick Observatory, 9.4" refr. Phot. 5.

17	12	+33.2
14	7	
−3	V−	
4	VV	

For waste, see fol. pages.

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1909phae.proj...597w

June 23. 1909.
Var. with old C.S.
Index left B.

	353.6	Var. dec.
8h 1m 35sec	34.9	+1.3 v
	175.4	+0.6 v
	216.0	+1.9 v
		−2.1+ v

	354.9	+0.0 v
	34.9	−2.16 v
	175.4	+0.2 v
	216.2	+0.2 v
		−2.17 v

Index right A.

	267.2	
	305.6	38.4 v
	86.5	
	122.4	35.9
		73.3
		−2.37 v

	268.4	
	303.4	35.0 v
	88.4	−2.42 v
	124.5	36.1
		71.1
		−2.47 v

Mean − 2.29 v

8h 12m 30sec
14 v. "
+ 7 2. "
+v +30. "
13-7 − 32. "
+0.1. v +69 v

1909phae.proj..597W

+33° 2871 June 23 1909

Old C. S. compared with ~~at~~ prov. C. S.

Index above C.S.

252.5	← 6 v.	Old C. S. dis.
321.0		
81.5		
128.0	46.5 v / 11 v. 0 v	−1.30 v
266.4	43.8 v	−1.26 v
310.2		
65.0	7 v. 6 v / 119.4 v	−1.21 v
140.6		
Index below B.		
160.0		
232.0	72.0 v	
350.8		
40.0	49.2 v / 121.2 v	−1.17 v
170.9	v 0.6 v	−1.12 v
221.5		
339.2	74.v v / 12v.1 v	−1.04 v
53.7		

Mean −1.19 v

8h 23m 45sec

8h 30m 0s

v 3	4v. v	
26	v2. v	
+v	+30. v	
13 27	22. v	

2421. v 607 v

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1909phae:proj...597W

June 23. 1909.

Double Star (New List) = Brunhans' Cat. 7V 7V.
W. obs. Corcoran rec,
Phot. W.

16	3	-19.8
1V	42	
-0	21	
+11	39	

For means see next page.

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1909phae.proj..597W

June 23. 1909.

Index Right A.

$9^h 36^m 50^{sec}$

94.1
169.5 75.4
277.7 69.8
347.5 167.2 0.67

96.7 70.6 0.70
167.1 71.8
277.4 142.2 0.73
349.2

Index Left B.

1.2 82.8
84.0
182.5 75.5
257.0 157.3 0.43

$9^h 43^m 20^{sec}$
20 10.
9 40 57.
+V +30.
1440 357.
4441.611V+

5.1 73.9 0.42
79.0
184.0 74.9
262.9 152.8 0.52

mean 0.59

Ho's Watch used for times.
Watch 30 secs. slow.

L. P. A.

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1909phae.proj...597W

June 24. 1909. (Thursday)

Double Star (new list) = Bernhard's Cat. 2916.
12 V0 +33.2 Hook. Cincinnati
14 21 Phot. W.
-4 29
+7 31

Pos. Ang. 355' Dist. 45" Magn.

Index Left & below
199.9 44.6 ✓
244.5
20.6 45.4 ✓
66.0 90.0 ✓ 1.91 ✓

8h 12m 10m ~~8h 12~~

200.5 45.0 ✓ 1.91 ✓
245.5
20.0 45.1 ✓
65.1 90.1 ✓ 1.91 ✓

Index Right & above
107.7 ~~49.2~~ ✓
156.9 ~~46.2~~ 45.4 ✓ 1.77 ✓
~~259.3~~ 289.3
335.5 1.76 ✓

108.5 ~~48.2~~ 47.9 ✓ 1.75 ✓
156.7 96.18
~~288.2~~ 289.6
~~357.8~~ ~~357.5~~ 337.5

Mean 1.84 ✓

8h 19m 40m
31 V0. ✓
A 1V VV, ✓
+V +32 ✓
13 16 27. ✓
RA 2. VV 31 ✓

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1909phae.proj..597W

June 24. 1909.

U Sagittae. Ref. obs. Corcoran rec,
Plot. I.

19	12	+19.3
16	11	
−4	1	
7	9	

For means, see fol. pages.

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1900phae.proj..597W

April 24 1908

Index Reflr B. Var. dec. I.

142.8 103.4

$9^h\ 2^m\ 0^m$ 246.2

338.3 75.2

53.5 178.6 −0.03

158.0 75.2 +0.06

233.2

318 0 112 0

70.0 187.2 +0.14

Index Reflr 177.8 A.

69.2

141.1 71.9

233.5 107.0

340.5 178.9 −0.02

55.5 100.0 −0.04

156.0 77.1

248.1 177.6 −0.01

~~326.0~~ 325.2

Mean +0.01

$9^h\ 11^{min}\ 40^s$

13 40.

9 6 00

+32.

147 22.

1909phae.proj..597W

June 24 1909

Index Right A.

II

67.5
141.5 74.0
230.1
343.5 113.4
147.4
172.6

+0.14

53.0
161.0 108.0

+0.14

246.1
325.3 79.2
147.2
172.4

+0.14

Index Left B.

314.8
74.0 119.2
151.0
234.5 83.5
202.7
167.3

+0.43

331.0
61.0 90.0

+0.49

136.3
255.0 114.7
204.7
151.3

+0.55

9h 14m 30sec

9h 22m 30sec
37 0.
9 14 30.
+ +32.
14 19 2.
4482.596

Mean +0.32

1909phae.proj..597W

June 24, 1909

Index Left B.

314.5		
75.0	120.0	
149.8		
239.1	89.3 / 209.4 / 1 0.2	+0.07
330.6		
62.5	91.9	+0.02
135.0		
254.2	119.2 / 211.1 / 1 42.9	+0.60

Index Right A.

225.2	118.0	
343.7		
62.7		
147.9	85.2 / 203.7 / 1 56.3	+0.05
243.9		
330.9	87.0	+0.04
44.2		
163.2	119.0 / 206.0 / 1 54.0	+0.00

Mean +0.03

h m ss
9 25 35

h m ss
9 33 5

0 40.

9 29 20.

+32.

1 29 52.

1 42.60 41

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1909phae.proj..597W

June 24 1909

Index Right A.

~~IV~~

225.2
345.0 119.8
57.6 91.9
149.5 211.7 +0.61
146.3

241.7 91.0 +0.79
332.7
46.4 112.6
165.0 209.6 +0.77
120.6

Index Left B.

132.0 127.8
259.8
325.3 100.9
66.2 228.7 +0.9
131.3

146.7 99.3 +0.9
246.0
310.1 126.9
77.0 226.2 +0.9
133.8

mean +0.76

9h 35m 20sec.

9h 43m 30sec

78 v0.
9 39 2v.
tv +32.
14 39 v7.
4482.6111

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1909phae.proj..597W

June 24 1909

Index Left B.

~~130.0~~ 145.3

~~257.6~~ 244.5 99.2

310.8

79.9 129.1 +0.94

220.3

131.7

130.1

259.2 129.1 +0.97

322.8

64.5 101.7 +1.00

230.8

Index Right A. 129.2

44.4 122.9

167.3 95.3

237.1 218.2 141.8 +0.74

~~331.0~~ 332.4

+0.75

57.0 95.0

152.0

224.0 124.5 141.5 +0.76

219.5

~~348.54~~ ~~348.4~~ 348.5

Mean +0.46

$9^h 47^m 50^{sec}$

$9^h 56^m 5^{sec}$

103 VV. V

9 V1 V4. V

+V +32. V

14 V2 30. V

~~4442,~~ 619 4 V P. A. 313.5

W's watch used for times; watch = 32 seconds slow

L. A. P.

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1909phae.proj..597W

June 25. 1909. (Friday).

Susp. Var near U Ophei. H. ob. Theobald Corcoran
Phot. 4.

24h	v0m	+0.1
14	v6	
-9	v4	
+2	6	
15	1	
-9	49	
+2	11	

For results, see next page.

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1909phae.proj..597W

June 2V. 1909.

Index right. A.

-151.2
-241.3 90.1 ✓
-344.0 63.6 ✓
-47.6 1V3.7 ✓ −0.V0 ✓

-162.6 67.2 ✓ −0.V1 ✓
-229.8
-332.1 A V.6 ✓
-57.7 1V2.A ✓ −0V2 ✓

Index left. B.

-61.9
-153.7 91.A ✓
-252.4 6V.0 ✓
-317.4 1V6.A −0.44 ✓

-61.4 AA.4 ✓ −0.V1 ✓
-149.8
-254.3 61.4 ✓
-315.7 149.A ✓ −0.V2 ✓

Mean −0.V1 ✓

9 15 5

9 38 10
V3 1V. ✓
9 26 3A. ✓
+V +2A. ✓
14 27 6. ✓
A4A3.6022 ✓

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1909phae.proj..597W

June 25. 1909.

Double Star 10012

20	A	+6.2
16	26	
−3	42	
+A	1A	

Abandoned.

No watch used for times.
Watch 24m slow.

L. A. P.

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1909phae.proj...597W

June 26. 1909. (Saturday).

ν Serpentis.

18	12	−IV.9
14	49	
−3	23	
8	37	

Abandoned for the present.
Too low, with the twilight and moonlight.

Double Star (new list) = Bernehem Cat. 1446.

17	39	−13.3
14	49	
−2	50	
+9	10	

For means, see next page.

The two components practically about equal in brightness, but south prec. component assumed to be (possibly) very slightly the brtr.

Pos. Ang. 25° Dist. 14." Mags. 7.0, 7.1.

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1909phae.proj..597W

June 26. 1909.

Index Below + Left — South proc. Lim.

353.8 ← 97.2

91.0

180.0 Δ3.3

263.3 100.0 +0.01

179.9

358.0 Δ0.4 +0.03

83.4

173.0 97.0

270.0 177.6 +0.0

Index Right and Clear

263.0

0.2 97.2

92.5

172.5 Δ0.0 177.2 −0.0

269.5 Δ6.0 +0.02

355.5

81.0 92.1

179.1 104.1 +0.0Δ

179.9

Mean +0.02

8h 36m 30s

8h 50m 20s

Δ6 √0.

Δ43 2√.

+√ +2Δ.

13 43 √3.

Δ4Δ7. √721

∴ South proc. component is the 5th. by above means.
Region rather low. - troubled also by twilight and moonlight. Observations rather difficult.

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1909phae.proj..5974

June 26. 1909.

Fourth Type Star +V 9° 2 A 10.

2K	2	+5 2.3
1V	V4	
-2	2.	
+3	V2.	

Color 6 in photometer.

Full aps. used.

For means. see next page.

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1909phae.proj..597W

June 26/1909

Index Left and Above B.

239.2 ← Fourth Type Lies.

$9^h 29^m 50^{sec}$

332.0 92.8
65.8
143.8 78.0 / 170.8 −0.17

251.0 68.2 −0.24
319.5
56.8 94.7 / 63.2 −0.32
151.5

Index Right and Below A.

141.8 106.2
248.0
335.5 78.2 / 184.7 / 173.3 +0.09
54.0

154.7 78.1 +0.04
232.8
324.0 101.1 / 179.2 −0.02
65.1

Mean −0.10

$9^h 39^m 20^{sec}$

69 10.
9 34 35.
+2.2
14 35 3.
2484.6076

P. A. 261°. Region thoroughly identified.

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1909phae.proj...597W

June 26, 1909.

Double Star (new list) = Burnham's Cat. 900 v.

10	v9	-4.2
16	49	
-2	10	
9	v0	

P. A. 207° Dist. 36" mag. v.A, 7.4

For means, see next page.

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1909phae.proj..597W

June 26, 1909

Index Left and Below

285.3 ← North pol. dis. and both. dis.

339.6 ✓4.3 ✓

106.4

160.0 ✓3.6 ✓ / 107.9 ✓ 1.47 ✓

284.9 ✓4.✓ ✓ 1.46 ✓

339.4

106.0 ✓3.4 ✓

159.8 ✓ / 10 4.3 ✓ 1.46 ✓

Index Right and Above

194.7 ✓4.6 ✓

249.3

16.0 ✓3.6 ✓

69.0 ✓ / 10 7.6 ✓ 1.47 ✓

196.0

247.9 ✓1.9 ✓ 1.✓0 ✓

16.0

69.5 ✓3.✓ ✓ / 10✓.4 ✓ 1.✓3 ✓

Mean 1.4✓ ✓

10h 20m 0sec

10h 28m 0sec

4✓ 0. ✓

10 2✓ 0. ✓

+✓ +2✓. ✓

1✓ 2✓ 2✓. ✓

✓✓✓✓.6✓20 ✓ W's watch used for times; watch = 28 secs. slow

L. A. P.

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1909phae.proj...597W

June 24. 1909 (Thursday).

S W. Cygni. W. obs. Corcoran rec.

20	9	+46.3
14	42	
−6	−27	
6	33	

Abandoned

R X Hercules.

18	16	+12.0
14	07	
−3	19	
4	41	

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1909phae.proj..597W

June 28 1909

8h 32m 40sec.

Index Left B. Var. dec.

I

257.0
311.8 ∨4.8∨
86.6
123.4 36.8∨ / 91.6∨ = 1.87∨

268.4 36.∨∨ = 1.86∨
304.9
78.5 ∨∨.∨∨
134.0 92.0∨ = 1.86∨

Index Right A.

173.1 39.2∨
212.3
344.5 ∨4.∨∨
43.0 97.7∨ = 1.71∨

163.0 ∨4.0∨ = 1.67∨
221.0
351.0 43.2∨
34.2 101.2∨ = 1.63∨

Mean = 1.76∨

8h 40m 20sec.
73 0.∨
A 36 30∨
+∨ +26.∨
13 36 ∨6.
A4A6.∨673∨

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1909phae.proj...597W

Index June 28, 1909

Index Right A.

II.

$8^h 44^m 15^{sec}$

174.5
217.5
346.5
45.0 — 43.0 — 101.5 — −1.62

164.9
223.8
359.9
34.0 — 34.1 — 93.0 — −1.83

Index Left B.

267.0
304.9
76.6
131.5 — 37.9 — 93.0 — −1.64

255.1
311.6
88.2
121.6 — 33.4 — 89.9 — −1.92

Mean −1.80

$8^h 52^m 55^{sec}$

97 10.
8 48 35.
+5 +26.
13 49 1.
8486.575

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1909phae.proj..597W

June 28 1909

Index Left. B.

III

$8^h 56^m 5^{sec}$.

268.4	35.1		
303.5			
78.7	1.9		
130.6	27.0		-2.00

Uncertain about reversal of wires taken.

~~256.8~~	268.5	34.1	-1.97
~~310.7~~	302.6		
~~88.2~~	78.0	0.0	
~~122.4~~	133.0	29.1	-1.94

Index Right A

168.0	6.4		
224.4			
357.0	37.8		
34.8	29.2		-1.80

178.5	36.4		-1.86
214.9			
348.0	3.4		
41.4	29.4		-1.92

Mean -1.9

$9^h 5^m 50^{sec}$

1	1
9	0
+1	+26.
1.4	1 24

4486. 4483

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1909phae.proj...597W

June 28, 1909

Index Right A.

IV

$9^h\ 11^m\ 20^{sec}$

169.0
224.4 ✓✓.4 ✓
354.8
30.4 35.6 ✓ / 91.0 ✓ −1.89 ✓

178.5 34.7 ✓
213.2 −1.92 ✓
346.4 ✓4.✓
40.9 ∠9.2 −1.94 ✓

Index Left B.

74.8 60.1 ✓
134.9
273.3
305.7 32.4 ✓ / 92.✓ −1.8✓ ✓

86.0 3✓.2 ✓ −1.91 ✓
121.2
258.6 ✓2.4 ✓ / ∠8.0 −1.97 ✓
311.4

Mean −1.92 ✓

$9^h\ 18^m\ 30^{sec}$

29 ✓0. ✓
9 14 ✓✓. ✓
✓ +26. ✓
14 ✓ 21. ✓
∠46. ✓940 ✓

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1909phae.proj..597W

June 28, 1909

Index Left B. V

Uncertain about ~~79.6~~ 269.3
9h 29m 5 plus ~~131.0~~ 301.8 32 √ √
Paragraph of images rotation. 78.0
132.5 √4.√ √ / Δ7.0 √ = 2.00 √

258.6 √0.4 √ = 2.07 √
309.0
89.4 31.4 √
120.8 / Δ1.0 √ = 2.14 √

Index Right. A.
177.7 37.4 √
215.5
347.8 √4.2 √
~~40.5~~ 42.0 / 92.0 √ = 1.96 √

~~169.0~~ 169.0 √2.0 √ = 1.96 √
221.0
358.8 33.0 √
31.8 / Δ5.0 √ = 2.05 √

Mean = 2.02 √

9h 38m 55sec.
6Δ 0. √
9 34 0. √
+√ +26. √
14 34 26. P. A. = 331.3
Δ486.6072 √ S. T. = 16h 27.1m
H. A. = 2h 3m
Dec. +12.0
Sprocket. Not read as chain has been slipping cogs.
Region thoroughly identified.

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1909phae.proj...597W

June 28, 1909

Air saturated with moisture; Hydrograph reads 100%
Observations begun in twilight; Moon also pretty bright.

From the fact that the moon was bright, the twilight strong at the beginning, the air full of moisture and that observer was troubled more or less throughout by clouds, the observations were rather difficult.

The images were at times rather dim at equalization. All possible care, however, was exercised.

W's watch used for times = 26 secs. slow

L. P. P.

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1909phae.proj..597W

June 29. 1909 (Tuesday)

U Cephei. Abandoned, for present,

Double Star (new list) = Burnham's Cat. # 668

1h	4m	+33.2	Plot. Fr.
14	36		
−4	9.		
+7	v1.		

P. A. = 150° Dist. = 45" Magn. = 3.0, 6.5

For measts. see next page.

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1900phae.proj...597W

June 29 1909

Index Right

213.0		North prec. + Intr. dec.
232.3	19.3	
33.4	17.6	
51.0	36.9	3.9v

$8^h 6^m 40^{sec}$

β Lyrae

213.5	17.9	3.90
231.4		
32.1	20.8	
52.9	38.7	3.84

Index Left

~~122~~ 123.1		
~~142~~.2	141.9	18.8
	302.5	
	322.0	19.5 / 38.3 3.86

122.5	19.3	3.89
141.8		
303.3	18.0	
321.3	37.3	3.92

Mean 3.90
7.74
3.88

$8^h 14^m 45^{sec}$

2/ 2v. v
α 10 42. v
+v +26. v
7/3 11 α
α Aql.

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1909phae.proj..597W

June 29. 1909

Double Star (new list) = Burnham's Cat. 9222,
K. Ob. Corcoran rec.

19 1V +26.4 Phot. V, 1

1V 13

−4 2

+7 V8

P. A. V°, Dist. 55.", Mags. 6.2, 6.2

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1909phae.proj...597W

June 29, 1909

Index Left & Below

$8^h 34^m 0^{sec}$

356.5 ← South Prec. comp. dis.
89.0 92.5
177.7 89.6
267.3 1Δ 2.1 +0.04
1779

353.0 +0.2
88.8 95.2
176.3 90.9
267.2 1Δ 6.7 +0.13
173.3

Index Right + Above

268.6
359.3 90.7
85.0 95.7
180.7 1Δ 6.4 +0.12
173.6

265.6 91.4 +0.4
357.0
87.0 91.0
178.0 1Δ 2.4 +0.5
177.6

Mean +0.2

$8^h 42^m 30^{sec}$

76 30.
Δ 3Δ N.
N +26.
13 3Δ 41.
Δ47.

∴ South prec. comp. is slightly ftr. by above means.

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1909phae.proj..597W

June 29. 1909.

Double Star (new list) = Burnham's Cat. 9 V V 9.

19 39 +37.K
1 V V 3
−3 V 6
+8 K

Abandoned for U Cephei.

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1909phae.proj..597W

June 29, 1909

~~Under~~

U Ophei. Fr. obs. Corcoran rec.
Phot. T. Full Ap.

24		
8	V0	+81,2
16	1	
−8	49	
+3	11	

Quite cloudy in this region.

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1909phae.proj..597W

June 29, 1909

Index Rft & Below B.

72.9 } Clouds. Not certain about
141.0 } reversal of images.

~~10h 9m 30sec.~~

Clouds

233.1 ← Var. dis.

10h 15m 0sec

332.5 99.4 v

70.5 68.2 v

138.7 167.6 v −0.24 v

247.7 71.3 v −0.20 v

319.0

56.7 99.5 v

156.2 170.8 v −0.17 v

Index Right & Above A.

143.3 101.1 v

10h 21m 10sec.

244.4

338.3

56.0 77.7 v −0.02 v

36 10. v

10 18 v. v

+v +26. v

1v 1R 31. v

Held up by clouds.

Mean −0.11 v

R487.6379 v

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1909phae.proj..597W

June 29, 1909

Index Right & Above A little clearer.

160.6 ← 70.2 ✓ Var. dia.

230.8

324.5 100.2 ✓

64.7 170.4 ✓ −0.1A ✓

10h 32m 40sec.

145.3 99.1 ✓ −0.2 ✓

244.4

340.0 68.5 ✓

48.5 167.6 ✓ −0.2K ✓

Index Left & Below B.

77.0 ✓6.4 ✓

133.4

238.5 92.0 ✓

330.5 142.4 ✓ −0.6 ✓

59.9 82.8 ✓ −0.6 ✓

148.7

258.1 ✓3.6 ✓

311.7 142.4 ✓ −0.7 ✓

Mean −0.4K ✓

10h 38m 50sec

71 30. ✓

10 3✓ K✓. ✓

t✓ +26 ✓

1✓ 36 11. ✓

K47. 6✓01 ✓

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1909phae.proj..597W

June 29 1909

Index Left + Below B.

Vars. Lev.

$10^h\ 41^m\ 15^{sec}$.

77.4 ~~+4.6~~ v

132.0

240.1 +0.6 v

328.7 143.2 v −0.7 v

60.6 +3.4 v −0.7 v

144.0

258.6 +3.9 v

312.5 137.3 v −0.43 v

Index Right + Above. A.

343.4

45.3 61.9 v

154.2 +6.2 v −0.61 v

240.4 146.1 v ~~−0.59~~

329.9 90.5 v −0.56 v

60.4

164.9 61.4 v

226.3 151.9 v −0.54 v

−0.62 v

$10^h\ 47^m\ 5^{sec}$.

+0 20. v

10 44 10. v

+v · +26. v

v 44 36. v P. A. = 17.3

+407.6 v 60 v

Continually troubled by clouds during observations of α Cephei. Observations much of the time quite difficult.

W's watch used for time = 26 secs. slow.

L. P. P.

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1909phae.proj..597W

June 30. 1909. (Wednesday).

Double Star (new list) = Burnham's Cat. #862.
W. obs. Corcoran rec.
Phot. W.

1h	46	+33.2
14	√3	
−3	√3	
4	7	

P. A. = 150° Dist = 45" Images 3.0, 6.2

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1909phae.proj..597M

June 30, 1909

Index Right

$8^h 12^m 10^{sec}$

31.9 } 20.4 t; foreg. + bottr. dis.
52.3

213.3 } 17.5 ✓
230.8 } 37.9 ✓ 3.89 ✓

33.2 } 17.8 ✓ 3.88 ✓
51.0

212.1 } 20.2 ✓
232.3 } 38.0 ✓ 3.88 ✓

Index Left

302.3 } 19.4 ✓
321.7

122.9 } 18.6 ✓
141.5 } 38.0 ✓ 3.88 ✓

$8^h 21^m 38^{sec}$

303.0 } 19.2 ✓ 3.86 ✓
322.2

122.3 } 19.4 ✓
141.7 } 38.6 ✓ 3.89 ✓

33 44. ✓
A 16 r 4. ✓
+r · +23. ✓
13 17 17. ✓
AAAA. rr 37 ✓

Mean 3.87 ✓

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1909phae.proj..597W

June 30. 1909.

Double Star (near list) = Burnham's Cat. #916

1h	V 0	+33,8
1V	33	
−3	17	
+A	16 3	

P.A. = 350 Dist. = 45" Magn. V, 0, 6, 8

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1909phae.proj..597W

June 30, 1909

$9^h 47^m 5^{sec}$.

d index Left + Below

197.0		S. fol. + botr. dis.
245.7	48.7	
19.2	46.0	
65.2	94.7	1.79
199.5	46.0	1.80
245.5		
18.1	48.1	
66.2	94.1	1.81

d index Right + Alone

108.0		
157.7	49.7	
289.0	46.0	
335.0	95.7	1.76
109.5	47.2	1.78
154.7		
288.8	49.4	
338.2	94.6	1.79

Mean 1.79

$8^h 54^m 35^{sec}$

101	40.	
2 √0	√0.	
+√	+23.	
13 √1	13.	

2488. √7792

1909phae.proj...599W

June 30. 1909.

Fourth Type Star +6d° 617.

10	3v	+6d.2
16	0	
+v	2v	

Color 6 in photometer

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1909phae.proj..597W

June 30, 1909

Index Left + Above B.

$9^h 21^m 20^{sec}$

268.0 ← 4th type diz.
303.6 35.6 ✓
92.5 24.7 ✓
117.2 60.3 ✓ −2.4 ✓

274.0 24.7 ✓ −2.0 ✓
298.7
84.9 38.1 ✓
123.0 62.8 ✓ −2.76 ✓

Index Right + Below A.

172.1 180.2 31.0 ✓
218.0 211.2
0.7 354.2 42.7 ✓
29.5 36.9 73.7 ✓ −2.39

182.5 174.9 40.9 ✓ −2.44
209.9 215.8
359.8 0.3 29.5 ✓
29.2 29.8 70.4 ✓ −2.49 ✓

Mean −2.62 ✓

$9^h 38^m 35^{sec}$
√9 √√. ✓
9 29 √8. ✓
+√ +23. ✓
14 30 21. ✓
4488.6045 − ✓

P. A. = 241.2

Something wrong with one setting in one of the last two sets, so these sets retaken.

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1909phae.proj...597W

June 30, 1909.

Fourth Type Star +34° 4V 00.

21 3V +34.8 W. obs. Corcoran 20a.
16 V0 Phot. I.

-4 4V
+7 1V

Color 4 in the Photometer

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1909phae.proj..597W

June 30, 1909

Index Left & Above B.

$10^h 12^m 50^{sec}$

85.2 ← 4th Type dia.
123.7 38.5 ✓
272.0 29.2 ✓
301.2 67.7 ✓ −2.59 ✓

90.0 31.9 ✓ −2.54 ✓
121.9
266.5 38.4 ✓
305.0 70.4 ✓ −2.49 ✓

Index Right & Below A.

355.5 40.5 ✓
36.0
177.8 33.3 ✓
211.1 73.8 ✓ −2.38 ✓

359.7 35.8 ✓ −2.36 ✓
35.5
176.6 39.3 ✓
215.9 75.1 ✓ −2.34 ✓

Mean −2.45 ✓

$10^h 21^m 10^{sec}$

34 0. ✓
10 17 0. ✓
+5 +23. ✓
15 17 23. ✓

AKAR. 6371 ✓

P. A. 252.

Wire watch used for time = 23 seconds slow.

L. A. P.

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1909phae.proj..597W

July 1. 1909. (Thursday).

7 15 Cloudy, and showery.

9 0 Still somewhat cloudy – but clearer than hitherto.

Double Star (new list) = Burnham's Cat. 9 V V 9.

19	39	+37.4
16	0	
−3	39	
+4	21	

Cloudy again.

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1909phae.proj..597W

July 2. 1909. (Friday).

7 0 Cloudy.

7 30 "

8 0 "

8 20 "

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1909phae.proj..597W

July 3. 1909 (Saturday.).

Double Star (new list) = Burnham's Cat. 9 v v 9.

19 · 34.9 +37.0

1v 2

−4 37

+7 23

P. A. 122° Dist 59." Mags. 7.0, 7.v

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1909phae.proj..597W

July 3. 1909

Index Right.

$8^h\ 10^m\ 5^{sec}$

3.9 ← N. prec. + bottr. Lis.

82.0] 78.1

184.0

258.6] 74.6

1 rev 2.7 0.92

4.0] 76.2 0.49

80.2

182.7] 79.5

262.2 1 rev 5.7 0.46

Index Left

272.8] 74.9

347.7

95.2] 71.8

167.0 1 46.7 0.64

275.0] 74.4 0.59

349.4

94.3] 77.2

171.5 1 1.6 0.54

Mean 0.54

$8^h\ 16^m\ 0^{sec}$

26 5.1

13 2.1

13 13 20.1

491.5509

1909phae.proj..597W

July 3. 1909.

Fourth Type. +46° 1817 K. obs. Corcoran rac.
Phot. I.

12 38 +46.2
16 22
+3 44

Color 5 in Photometer

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1909phae.proj..597M

July 3, 1909

Index Left B.

$9^h 27^m 45^{sec}$

275.0 — 21.7 — Fourth Type Leo.
296.7
97.1 — 15.6
112.7 — 37.3 — −3.92

279.1 — 15.1 — −3.90
294.2
93.5 — 22.9
116.4 — 38.0 — −3.44

Index Right A.

181.4 — 27.2
209.2
7.4 — 17.6
25.0 — 44.4 — −3.49

186.2 — 17.6 — −3.52
203.8
2.5 — 26.0
29.3 — 44.4 — −3.54

$9^h 35^m 30^{sec}$
63 15
9 31 32
+ 12
1K 31 56 P.A. 260°
2491.60 −3.71

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1909phae.proj...597W

July 3. 1909.
Fourth Paper -16° Fz Pz. W. obs. Corcoran ref.
Phot. I. Hall 4b.

18.	√8	-16.4
17	2	
-1	√6	
+10	4	

Color 5 with Ordinary eyepiece.

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1909phae.proj..597W

July 3, 1909

Index Left & Above B.

258.6 ← 4th type dis.

$10^h 19^m 35^{sec.}$

312.5 √3.9 ✓

82.0 44.1 ✓

126.1 90.0 ✓ −1.71 ✓

265.6 44.4 ✓ −1.66 ✓

310.0

76.0 √7.1 ✓

133.1 101.√ ✓ −1.62 ✓

Index Right + Below A.

166.5

226.2 √9.7 ✓

349.5

41.0 √1.√ ✓

111.2 ✓ −1.39 ✓

170.0 √0.3 ✓ −1.40 ✓

220.3 60.0 ✓

345.5 110.3 ✓ −1.41 ✓

~~46.0~~ 45.5

$10^h 27^m 35^{sec.}$

47 10. ✓

16 23 35. ✓

+√ · +12. ✓

1√ 23 √3. ✓

2491.6416 ✓

P.A. 297.5

Mean −1.√3 ✓

Watch used for times 18 secs. slow

L. P. P.

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1909phae.proj...597W

July 6. 1909 (Tuesday).

7 1v Twilight strong.

7 4v Clouds + twilight.

Double Star (new list) = Burnham's Cat. 9 22v,
H. obs. Corcoran rec.
19 1v +26.4 Phot. 4v.

8.00 Still cloudy

8.30 " "

8.50 Sky thickly clouded everywhere. Evidently no chance for anything to-night.

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1909phae.proj..597W

July 7. 1909. (Wednesday).

S W Cygni. H. obs. Corcoran rec.
Phot. I.

20 9 +46.3
14 7
-5 12
+6 4.8

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1909phae.proj...597W

July 7, 1909

Index Left D. — Comp. Star Dec.

$8^h\ 58^m\ 20^{ss}$

259.5 46.9 ✓
306.4

89.2 30.3 ✓
119.5 77.2 ✓ +2.2 ✓

273.5 25.6 ✓ +2.3 ✓
299.1

78.5 47.7 ✓
126.2 73.3 ✓ +2.0 ✓

Index Right A.

171.4 ✓0.2 ✓
222.2

0.5
31.3 30.8 ✓ / 1.6 ✓ +2.1 ✓

178.9 35.7 ✓ +2.4 ✓
~~214.8~~ 214.6

351.5 46.8 ✓ / 2.5 ✓ +2.2 ✓
38.3

Mean +2.2 ✓

$9^h\ 4^m\ 50^{ss}$

123 10. ✓
9 1 35. ✓
+5 +2. ✓
14 1 43. ✓
2 49 ✓. ✓2 45 ✓ ✓

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1909phae.proj..597W

July 7 1909

Index Right A.

170.4
221.5 51.1
359.5
32.9 334 / 84.5 +2.06

179.9 30.9 +2.14
210.8
350.3 44.3 / 79.2 +2.22
38.6

Index Left B.

80.5 49.7
130.2
270.7 30.2 / 79.9 +2.20
300.9

91.1 29.5 +2.28
120.6
264.0 45.0 / 74.5 +2.36
309.0

Mean +2.21

9h 14m 50sec.

22 50.
9 11 25.
+5 +A.
14 11 33.

A495. 5914

1909phae.proj..597W

July 7, 1909
Index Left 2-

$9^h 18^m 35^s$

84.1
126.2
273.7
301.7

92.2

Electric light went out. This group could not be completed.

Fixed light and went on, on next page.

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1909phae.proj..597W

July 7, 1909

$9^h 29^m 35^{sec}$.

Index Left B.

260.0
310.4 50.4 v

92.0
119.4 27.4 v
77.0 v +2.26 v

271.9
300.5 28.6 v +2.28 v

81.2
129.0 47.8 v
76.4 v +2.30 v

Index Right A.

173.0
218.8 45.8 v

0.5
30.0 29.5 v
7 v.3 v +2.34 v

180.2
210.5 30.3 v +2.34 v

353.5
38.5 45.0 v
7 v.3 v +2.34 v

Mean +2.31 v

$9^h 38^m 0^{sec}$.

67 3v. v
9 33 4A. v
+v . +A. v
14 33 v6. v
249v.6060A v

1909phae.proj..597M

July 7, 1909

Under Right A.

9h 41m 10sec.

171.0
220.0 49.0
1.5
31.4 29.9 / 78.9 +2.23

180.0
211.0 31.0 +2.25
352.8 46.6
39.4 77.6 +2.27

Under Left B.

81.0 47.6
128.6
273.0 28 / 76.1 +2.31

9h 49m 50sec.

92.1 29.3 +2.30
121.4
261.5 40.0
309.5 77.3 +2.24

Mean +2.26

91 0.
9 4 30.
+ +
14 4 30.
24 9. 6 1 0

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1909phae.proj..597W

July 7, 1909

$9^h\ 54^m\ 10^{sec}$

Index Left. B.

83.7 44.4 ✓
128.1
273.1 26.1 ✓
299.2 70.5 ✓ +2.49 ✓

91.2 28.3 ✓ +2.48 ✓
119.5
263.6 42.8 ✓
306.4 71.1 ✓ +2.47 ✓

Index Right A.

353.0 47.6 ✓
40.6
181.5 28.2 ✓
209.7 75.4 ✓ +2.32 ✓

1.8 28.7 ✓ +2.32 ✓
30.5
171.5 47.1 ✓
218.6 75.4 ✓ +2.32 ✓

$10^h\ 2^m\ 45^{sec}$

116 ✓✓. ✓
9 ✓a 2a. ✓
+✓ · +a. ✓
14 ✓a 36. ✓
a49✓.6240 ✓

P. A. 283.0

Mean +2.40 ✓

Region of S.W. Cygni thoroughly identified.

W'z watch used for times 8 secs slow.

E. P. A.

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1909phae.proj..597M

July 8. 1909 (Thursday)

Re. Jups. I. Phot. W. obs., Corcoran rec.

10	∨0	+0.6
14	∨6	
+4	6	

B. + C. 1182.

0	1	6.∨
	-2	6.6

B. 394.

0	- 1	0.0
	- 2	0.0

See next page.

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1909phae.proj..597W

July 8, 1909

8	37	0	clouds
	37	12	Jupiter about invisible
	37	57	Jupiter dim.
	38	25	Suspected
	38	40	Seen
	38	42	Sats. invisible
	39	14	Jupiter gone
	39	38	Jupiter invisible
	39	53	" "
	40	33	Jupiter practically invisible
	41	31	Sats. invisible
	41	44	Jupiter invisible
	42	29	Jupiter faintly seen but sats
	43	3	Jupiter invisible
	43	34	" "
	44	9	" "
	44	45	" "
	45	10	" "

B & C. 1102.

8	49	1.0
	50	1.0

B. 394.

8	49	0.0
	50	0.0

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1909phae.proj..597W

July 8, 1909

Continually troubled by heavy clouds for some time before theoretical time of reappearance. These clouds also lasted through time of eclipse and grew heavier and more extensive later.

Nothing could be obtained in the way of settings during eclipse time. Jupiter also rather low

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1909phae.proj..597W

~~June~~ July 9. 1909 (Friday).

Double Star (new list) = Burnham's Cat. #916.

1h	v0	+33.4
1v	23	
−3	27	
+4	33	

Abandoned.

Double Star (new list) = Burnham's Cat. ##68.
1h 46 +33.2 Phot. Fr.

P.A = 150 Dist = 46" Mags. 3.0, 6.v

For results, see next page.

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1909phae.proj...597W

July 9, 1909

Index Right

29.5 ← N. prec. + botr. dis.

$8^h 8^m 50^{sec}$ 54.8 21.3 ✓

211.5

233.0 $\frac{21.5}{46.4}$ ✓ 3.42 ✓

31.6 21.3 ✓ 3.41 ✓

52.9

209.4 $\frac{21.8}{47.1}$ ✓ 3.40 ✓

235.2

Index Left

300.3 23.1 ✓

323.8

121.7 $\frac{21.5}{44.0}$ ✓ 3.41 ✓

143.2

301.5 21.2 ✓ 3.42 ✓

322.7

120.0 $\frac{23.4}{44.6}$ ✓ 3.43 ✓

143.4

Mean 3.46 ✓

$8^h 15^m 50^{sec}$

24 40

8 12 20

+5 −1

13 12 19

The above double is β Lyrae.

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1909phae.proj..597W

July 9. 1909.

U Cephei. Yr. obs. Corcoran rec.
Phot. I.

24		
0	V 0	+0.2
16	3	
-8	47	
+3	13	

Full Aperture used.

For means. see fol. pages.

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1900phae.proj...597W

July 9, 1909

$8^h 55^m 25^{sec}$

Index Right + Above A.

I

326.0
63.7 97.7
131.6 122.2
259.8 225.9 +0.49
134.1

313.0 127.3 +0.41
80.3
150.8 90.7
241.5 218.0 142.0 +0.73

Index Left + Below B.

241.0 22.6
329.6
46.7 117.9
164.6 206.5 153.5 +0.51

227.9 116.3 +0.44
344.2
64.7 82.8
147.5 199.1 160.9 +0.36

Mean +0.62

$9^h 2^m 45^{sec}$
11 22 10.
9 5.
-1.
13 59 14.
449.5227

1909phae.proj..597W

July 9, 1909

Index Left + Below B.

II

$9^h\ 5^m\ 40^{sec.}$

243.1
329.0 86.9
48.3
166.0 117.7
203.6 +0.45

228.0 156.4 +0.40
344.3 116.3
61.8 77.5
199.0
144.5 161.0 +0.36

Index Right + Above A.

151.6 44.6
240.2
316.1 120.4
209.0
76.5 161.0 +0.56

+0.50

138.1 116.4
254.5
333.6 79.0
202.4 +0.43
59.6 157.6

Mean +0.45

$9^h\ 12^m\ 0^{sec.}$
17 40.
9 44 50.
+5 − 1.
14 44 49.
44 49.5 + 9.5 −

1909phae.proj...597W

July 9, 1909

Index Right & Above A.

$9^h 16^m 10^{sec}$

155.0 +1.5
236.5
319.1 11.1
74.2 196.6 +0.32
163.4

137.1 114.8 +0.30
251.9
334.0 79.9
194.7 +0.28
53.9 16.3

Index Left & Below B.

69.5
143.2 73.7
229.6 112.5
342.1 186.2 +0.12
173.8

49.8 109.2 +0.0
159.0
250.4 70.0
320.4 179.2 −0.02

Mean +0.18

$9^h 22^m 55^{sec}$
39 5.
9 19 32.
+5 −1.
14 19 31.
+497.5969

1909phae.proj..597W

July 9, 1909

Index Left & Below B.

IV

$9^h 26^m 45^{sec.}$

71.1
141.3 70.2 ✓
233.4 103.7 ✓
337.1 173.9 ✓ −0.11 ✓

52.1 105.5 ✓ −0.13 ✓
157.6
251.8 66.4 ✓ −0.15 ✓
318.2 171.9 ✓

Index Right & Above A.

343.8 66.9 ✓
50.7
142.0 107.5 ✓
249.5 174.4 ✓ −0.11 ✓

321.8 105.7 ✓ −0.06 ✓
67.5
159.0 73.9 ✓
232.9 179.6 ✓ −0.01 ✓

Mean −0.10 ✓

$9^h 35^m 40^{sec.}$
62 25. ✓
9 31 12. ✓
4 ✓ −1. ✓
14 31 11. ✓
8497.60 ✓ −0 ✓

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1900phae.proj...597W

July 9, 1909

Index Right + Above A.

V

$9^h 42^m 0^{sec.}$

342.3
48.6 66.3 ✓
145.3
244.6 99.3 ✓ / 16 ✓.6 ✓ −0,27 ✓

326.4
65.0 98.6 ✓
163.6 6 ✓.6 ✓ / 164.2 ✓ −0.30 ✓
229.2

Index Left + B above B.

255.9
316.5 60.6 ✓
54.2 9 ✓.9 ✓
153.1 1 ✓ 9. ✓ ✓ −0,39 ✓

237.4 94.4 ✓ −0,44 ✓
331.8
75.6 ✓9.✓ ✓
135.1 1 ✓ 3.9 ✓ −0,✓−0 ✓

$9^h 49^m 15^{sec.}$
91 1✓. ✓
94✓ 36. ✓
✓ −1. ✓
1✓ 4✓ 3✓. ✓
8497.61✓−0 ✓

Mean −0,36 ✓

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1909phae.proj..597W

July 9, 1909

9h 54m 10sec.

Index Left + Below B.

VI

256.4
314.5 } 58.1
58.0
152.4 } 94.4 / 1.2 = 78.7 — 0.63

241.2
333.5 } 92.3
77.7
132.8 } 54.1 / 147.4 — 0.63

Index Right + above A.

164.0
226.5 } 62.5
326.6
62.9 } 96.3 / 1.2 = 80.2 — 0.40

10h 1m 35sec.

149.5
240.7 } 91.2 — 0.44
343.8
47.0 } 63.2 / 1.4 = 45.1 — 0.49

11.5 4.5
9.7 2.2
-1.
14.7 1.7

Mean — 0.51

+49°.623 P. A. = 15.0

We watch used for times = 1 sec. fast

L. A. P.

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1909phae.proj..597W

July 10. 1909. (Saturday).

Double Star (new list) = Burnham's List. #916.
W. ob. Corcoran rec.

18	v0.	+33.2
N	39	
−3	11	
+8	49	

For meats. see next page.

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1909phae.proj..597W

July 10, 1909
Index Right + Alone

8h 35m 20sec.

287.2 ← S. fol + Intr. dis.
336.1 48.9 ✓
109.9 45.3 ✓
155.2 94.2 ✓ 1.40 ✓

289.2 45.0 ✓ 1.43 ✓
335.0
110.3 46.2 ✓
156.5 92.0 ✓ 1.46 ✓

Index Left + Alone

198.3 47.9 ✓
246.2
18.0 47.6 ✓
65.6 95.5 ✓ 1.77 ✓

200.3 46.2 ✓ 1.74 ✓
246.5
18.2 48.0 ✓
66.2 94.2 ✓ 1.40 ✓

8h 42m 20sec.
77 40. ✓
A 38 N 0. ✓
N -6. ✓
13 38 44.
A 49 A. N 6 A 6 ✓

Mean 1,40 ✓

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1909phae.proj..597W

July 10. 1909.

Z Draconis. D. obs. Corcoran rec.

11	47	+73.0	Phot. D.
16	29		
+4	42		

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1909phae.proj..597W

July 10, 1909

$9^h 23^m 10^{sec}$

Index Above A.

93.1 ——— Comp. Star Dis.

117.9 24.8 ✓

279.0

297.4 18.4 ✓ / 43.2 ✓ +3.60 ✓

96.0 19.9 ✓ +3.46 ✓

115.9

273.0 29.0 ✓

302.0 48.9 ✓ +3.32 ✓

Index Below B.

1.0 33.7 ✓

34.7

184.0 25.0 ✓

209.0 58.7 ✓ +2.91 ✓

Light clouds

9.0 18.9 ✓ +3.01 ✓

27.9

177.8 34.9 ✓

212.7 53.8 ✓ +3.11 ✓

Mean +3.24 ✓

$9^h 32^m 0^{sec}$

✓✓ 10. ✓

9 27 35 ✓

+✓ −6. ✓

14 27 29. ✓

249.6024 ✓

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1909phae.proj...597W

July 10, 1909

~~9h 58m 10sec~~ 9h 45m 15sec

Under Below B.

~~358~~ 185.6
~~87.6~~ 210.4 24.8 ✓
353.6 34.6 ✓
28.2 59.4 ✓ +2.48 ✓

174.3 44.1 ✓ +2.66 ✓
218.4
1.6 27.9 ✓
29.5 72.0 ✓ +2.44 ✓

Under Alive A.

92.0 27.5 ✓
117.5
267.5 34.0 ✓
305.5 63.5 ✓ +2.73 ✓

86.5 37.5 ✓ +2.67 ✓
124.0
273.5 29.5 ✓
303.0 67.0 ✓ +2.61 ✓

Mean +2.66 ✓

9h 53m 50sec ✓
99 ✓
9 49 ~~32~~ ✓
+✓ −6. ✓
14 49 26. ✓
249.6177 ✓

1909phae.proj..597W

July 10, 1909.
Index Above
~~90.3~~ 91.0
123.0

$10^h 10^m 0^{sec}$

Observations of Z Draconis difficult throughout. At the first the variable was extremely faint and the sky a little hazy. The sky progressively grew more cloudy. Last setting in 2nd group somewhat uncertain. Although all possible care was exercised the observations are not considered ~~quite~~ as critical as under more favorable circumstances, the clouds being decidedly troublesome.
These two groups ½ wt.

W's watch used for times. = 6 secs. fast

L. P. A.

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1909phae.proj...599W

July 12, 1909 (Monday)

Double Star (new list) = Burnham's Cat. 9222

19 1V +26.4

19 17 +26.0
1V VV

−3 22
A 3A

P. A. = 5 Dist. = 55" Magn. 6.2 6.3

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1909phae.proj..597W

July 12, 1909

Index Below

	352.8 ←	South. + brtr. dis.	
8h 29m 5sec	91.1	90.3 ✓	
	176.0		
	267.8	91.8 ✓	
		190.1 ✓	0.19 ✓
		169.9 ✓	
	355.5		
	87.8	92.3 ✓	0.21 ✓
	172.0	99.7 ✓	
	271.7	192.0 ✓	
		160.0 ✓	0.23 ✓

Index alone

264.0		
359.3	95.3 ✓	
87.0		
178.8	91.8 ✓	
	187.1 ✓	
	173.9 ✓	0.13 ✓
268.5		
358.6	90.1 ✓	0.08 ✓
86.9		
179.0	92.1 ✓	
	182.2 ✓	
	177.8 ✓	0.04 ✓

mean 0.14 ✓

∴ The southern component turns out to be the fainter by meggts. to right.

In fact, the southern comp. looks a little ftr. to the eye to-night, but the southern comp. was assumed to be slightly the brtr. for the moment in order to keep the Pos. Ang. of the book being meggts.

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1900phae.proj..597

July 12. 1909

U Scuti. H. obs. Corcoran Reg. Phot. I.

1d	√1	−13.0
16	40	
−2.	11	
+9	49	
17	17	
−1	34	
10	26	

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1909phae.proj..597W

July 12, 1909

Index above

C. S. Lis.

149.3 ← 90.9 ✓

$9^h 53^m 20^{sec}$ 240.2

346.0 63.4 ✓

49.4 ✓ 14.3 ✓ +0.49 ✓

164.0 6✓.0 ✓ +0.47

$9^h 55^m 15^{sec}$ 229.0

330.2 91.3 ✓

61.5 ✓ 14.3 ✓ +0.47 ✓

Index Below

66.6

$9^h 58^m 15^{sec}$. 144.0 77.4 ✓

256.0. ✓9.0 ✓

315.0 136.4 ✓ +0.47 ✓

78.5 ✓7.2 ✓ +0.90 ✓

$10^h 3^m 40^{sec}$ 135.7

250.5 74.7 ✓

325.2 ✓ 131.9 ✓ +0.94 ✓

mean +0.60

	116	60
9	58	30
+5	·	−14
14	58	16

Region identified.

Wire watch used for time = 14 secs. fast.

✓

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1909phae.proj...597W

July 12. 1909.

In the preceding group on U Serpentis observer was greatly troubled with southern scud and clouds throughout. Observer had continually to wait in order to see objects sufficiently to make equalizations; and objects frequently pretty dim at equalizations. Group somewhat uncertain and 1 1/3 wt.

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1909phae.proj..597W

July 13. 1909. (Tuesday).

Double Star (new list) = Burnham's Cat. 9 v v 9.

19 39 +37.4

1 v − 39

− 4	0
+ 4	0

P. A 122 Dist 59" Magn.

For results, see fol. page.

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1909phae..proj...597W

July 13, 1909

Index Right

$8^h 21^m 45^{sec}$.

1.8 ← 0.4 ✓ t. pr. dec.
82.2
185.1 7.9 ✓
261.0 1 ✓ 6.3 ✓ 0.4 ✓ ✓

7.1 71.6 ✓ 0 ✓ 0 ✓
78.7
182.8 0.4 ✓ / 1 ✓ 2.0 ✓ 0 ✓ 4 ✓
263.2

Index Left

272.2
352.1 79.9 ✓
98.3
169.5 71.2 ✓ / 1 ✓ 1.1 ✓ 0 ✓ ✓ ✓

$8^h 27^m 50^{sec}$

273.0 7 ✓ 2 ✓ 0 ✓ 4 ✓
348.2
92.6 77.4 ✓
170.0 1 ✓ 2.6 ✓ 0 ✓ 2 ✓

Mean 0 ✓ 2 ✓

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1909phae.proj..597W

July 13. 1909

V Serpentis. W. obs. Corcoran ref.
Phot. I.

18	12	−1V.9
16	18	
−1	V4	
+10	6	

For results, see fol. pages.

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1909phae_proj...597W

July 13 1909

Index Left B. Comp. Star Dec. I

67.5 76.2
143.7
258.5 [illegible]
313.3 131.0 +0.96

77.4 [illegible] +0.9[illegible]
133.0
246.0 [illegible]
326.5 136.1 +0.[illegible]

Index Right A.

331.5 [illegible]7.1
58.6
167.0 [illegible]9.6
226.6 146.7 +0.6[illegible]

348.0 [illegible]7.4 +0.6[illegible]
45.4
150.8 [illegible]
239.3 14[illegible].9 +0.66

Mean +0.7[illegible]

$9^h 17^m 50^{sec}$

$9^h 25^m 20^{sec}$

43 10.
9 21 3[illegible].
+[illegible] -10.
14 21 2[illegible],

[illegible]01.[illegible]9[illegible]2

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1909phae.proj..597W

July 13, 1909

II

$9^h\ 28^m\ 20^{sec}$

Index Right. A.

334.0 +6.✓
360.5
165.5 ✓9.0✓
224.5 14✓.✓ +0.66✓

347.5 ✓9.0✓ +0.69✓
46.5
155.0 +3.✓ +0.72✓
238.5 142.✓

Index Left. B.

248.0 7✓.0✓
323.0
79.5
135.2 ✓✓.7✓ +0.96✓
130.7

259.5 ✓2.2✓ +0.9K✓
311.7
64.0 +0.0✓
144.0 132.2✓ +0.93✓

Mean +0.82✓

$9^h\ 36^m\ 20^{sec}$.

64 40.✓
9 32 20.✓
+✓ · −10.✓
14 32 10.✓
+✓01.60✓7✓

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1909phae_proj...597W

July 13, 1909

Index Left B. III

9h 39m 50sec.

250.0
323.0 73.0 ✓
79.8 ✓ 0.2 ✓
150.6 123.2 ✓ +1.11 ✓

259.6 ✓3.4 ✓ +1.03 ✓
313.0
67.3 71.1 ✓
145.4 131.✓ ✓ +0.9✓ ✓

Index Right A.

155.0 ✓2.✓ ✓
237.5
349.5 ✓✓.2 ✓
45.3 132.3 ✓ +0.21 ✓

167.3 ✓6.9 ✓ +0.20 ✓
224.2
334.6 ✓2.9 ✓
57.5 139.2 ✓ +0.72 ✓

Mean +0.92 ✓

9h 46m 50sec.
α6 40. ✓
9 43 20. ✓
+✓ -10. ✓
14 43 10.
α✓01.6133 ✓

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1909phot.proj...599W

July 13, 1909

Index Right A.

~~158.4~~

~~235.0~~

Clouds

~~9h 52m 35sec~~

10h 16m 55sec

168.6			IV
221.6	v 3.0 v		
338.4	74.6 v		
53.0	127.6 v	+1.03 v	
154.9			
235.4	80.5 v		+1.00 v
349.2			
39.8	v 0.6 v		
	131.1 v	+0.96 v	

Index Left B.

70.0		
141.7	71.7 v	
259.0		
312.5	v 3.5 v	
	12 v 2 v	+1.02 v
79.0		
130.6	v 1.6 v	+1.02 v
249.0		
322.0	73.0 v	
	72.6 v	+1.09 v

Mean +1.04 v

10h 23m 35sec

40 30. v

10 20 1 v. v

+v −10. v

1 v 20 v. v

.8 v 0 1.6 390 v

1909phae.proj..597W

July 13, 1909

Index Left B.

10h 25m 50sec

67.0		V
139.5	72.5	
261.0		
311.4	50.4 / 122.9	+1.13
80.0		
131.0	51.0	+1.12
250.0		
323.0	73.0 / 124.0	+1.11

Index Right A.

335.0		
56.0	81.0	
172.7		
221.1	48.4 / 129.4	+0.99
352.2		
41.8	49.6	+1.06
161.0		
234.2	73.2 / 122.6	+1.13

Mean +1.09

10h 34m 20sec.

60 10.

10 30 V.

+V −10.

1V 29 VV.

A−01.64V−7

1909phae.proj..597W

July 13, 1909

Index Right A.

$10^h 41^m 20^{sec}$.

340.0			VI
52.5	72.0		
172.0	0.0		
222.0	122.0	+1.15	
351.0			
40.2	49.2		+1.16
161.3			
233.0	71.7	+1.17	
Index Left B.			
251.5			
324.5	73.0		
81.0			
129.6	48.6	+1.16	
261.6			
310.6	49.0		+1.21
73.0			
141.0	68.0	+1.26	
	117.0		

Mean +1.184

$10^h 49^m 0^{sec}$

90 20.

10 40 10.

+0 −10.

1 40 0.

A 01.6 63

1909phae.proj..597W

July 13, 1909

$10^h 53^m 40^{sec}$

Index Left. B.

251.5		VII
322.5	71.0	
81.5	69.0	
130.5	120.0	+1.19
261.5		
312.0	50.5	+1.17
69.7		
141.0	71.3 / 121.6	+1.15

Index Right A.

160.5		
232.0	71.5	
350.0	70.6	
40.6	122.1	+1.14
171.8		
223.4	51.6	+1.12
340.0		
52.4	72.4 / 124.0	+1.11

Mean +1.14

$11^h 2^m 45^{sec}$

116	2	
10	12.1	
+	−10.1	
1	2.1	

$\Delta = 0.66$ P. A. = 340.8

W'a watch used for time, watch 10 secs fast.

Troubled more or less by clouds and haze in vicinity of V. Serpentis.

L. P. P.

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