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Thurs. Oct 7, 1920

VI

Lick Obs 15" Eq. HSKRoc

G.M.T. Cont: from book 203.

Means

P. A=140

12.52.50

	5.8		
	56.8	51.0	
	188.4	46.9	
	235.3	97.9	-1.71
	3.4		
	51.8	48.4	-1.64
	180.2	54.9	
	235.1	103.3	1.58

PA=0 Mean -2.02

100.2		
135.3	35.1	
277.3	40.4	
317.7	75.5	-2.33
98.2		
137.7	39.5	2.40
284.2	32.0	
316.2	71.5	2.46

2
IX.5-7.00

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1920phae.proj..629c

Oct. 7, 1920

~~VII~~

Uranus

PA = 0

13.9.10	99.8		
	139.2	39.4	
	277.2	42.1	
	319.3	81.5	-2.15
	98.8		
	138.9	40.1	-2.19
	277.2	38.6	
	315.8	78.7	-2.23

PA = 180

Mean -2.02

	188.8		
	230.4	41.6	
	4.4	51.1	
	55.5	92.7	-1.84
	186.6		
	233.7	47.1	-1.86
	10.2	44.7	
13.13.20	54.9	91.8	-1.87

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1920phae.proj..629C

Oct. 7, 1920

VIII

	Uranus			
	PA = 180			
13.38.0	185.4			
	235.2	49.8		
	10.6	43.2		
	53.8	93.0	-1.83	
	187.6			
	231.4	43.8		-1.86
	6.2	47.1		
	53.3	90.9	-1.89	
	PA = 0			mean -2.03
	279.2			
	316.6	37.4		
	101.2	39.2		
	140.4	96.6	-2.30	
	277.6			
	317.6	40.0		-2.20
	98.0	43.0		
13,42.20	141.0	83.0	-2.11	

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1920phae.proj..629C

Oct. 7, 1920

IX

	Micrms		
	P/A = 0		
13.54.50	277.6		
	311.2	33.6	
	101.4	34.6	
	136.0	68.2	-2.57
	279.6		6
	320.8	41.2	-2.30
	99.2	40.8	
	140.0	82.0	-2.14
	P/A = 180		mean -1.99
	3.3		
	54.8	51.5	398
	183.6	49.0	
	232.6	100.5	-1.64
	8.8		
	53.2	44.4	-1.64
	183.6	56.2	
13.59.0	239.8	100.6	-1.64

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Oct. 7, 1920

X

2 runs
PA = 180

14.09.0	8.6		
	49.2	40.6	
	188.4	38.0	
	226.4	78.6	-2.24

Somethin wrong here

	4.7		
	56.4	51.7	
	188.7	44.1	
	232.8	95.8	-1.76

2.10
.06
Mean = 2.15

Perhaps shifted to reject this ray

PA = 0

	102.6		
	135.3	32.7	
	277.2	39.8	
	317.0	72.5	-2.43

	100.0		
	137.6	37.6	-2.28
	277.2	44.4	
14.13.30	321.6	82.0	-2.14

PA 180

	190.8		
	230.8	40.0	
	6.4	43.4	
	49.8	83.4	2.10

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1920phae.proj..629c

Oct 7, 1920

XL

	Uranus			
14.19.45	P.A. = 40			
	188.7			
	231.2	42.5		
	6.2	50.7		
	56.9	93.2	-1.83	
	188.8			
	237.1	48.3	-1.82	
	6.1	46.1		
	52.2	94.4	-1.80	
	PA = 0			1.99
	280.4			
	316.9	36.5		
	99.8	41.2		
	141.0	77.7	-2.26	
	282.6			
	318.6	36.0	-2.16	
	97.7	49.1		
	136.8	85.1	-2.05	
14.23.30				

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1920phae.proj..629C

Friday Oct. 8, 1920

I

L.C. Obs 15" Eq H.S.K., Rec

G.M.T.	Means		
	PA = 20		
11.53.20	97.2		
	143.6	46.4	
	285.3	30.7	
	316.0	77.1	-2.28
	101.2		
	135.1	33.9	-2.35
	281.3	38.7	
	320.0	72.6	-2.42
	PA = 200		Mean -2.00
	182.1		
	233.2	51.1	
	10.6	44.6	
	55.2	95.7	-1.76
	184.0		
	233.1	49.1	-1.66
	2.8	55.4	
	~~58.2~~	104.5	-1.55
11.57.0			

Same comp as last night

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1920phae.proj..629C

8

Oct. 8, 1920

II

12.00.10

Uranus
PA = 100

183.2		
238.6	55.4	
9.2	43.4	
52.6	98.8	-1.69

186.6		
231.4	44.8	-1.82
10.0	43.8	
53.8	88.6	-1.95

PA = 20 2.12

276.2		
320.2	~~44~~ 44.0	
103.8	29.4	2.40
133.2	~~76~~ 73.4	~~2.73~~

284.6		
314.8	30.2	2.42
97.9	41.8	
139.7	72.0	2.44

12.4.00

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1920phae.proj..629C

Oct 8, 1920

III

Iranus

PA = 20

12.23.20

279.2		
324.4	45.2	
105.2	28.6	
133.8	73.8	-2.38

284.4		
314.6	30.2	-2.48
100.8	35.0	
138.8	65.2	-2.57

PA = 200 2.06

3.7		
59.2	55.5	
188.3	41.9	
230.2	96.4	-1.75

-1.65

2.2		
55.2	53.0	
182.1	51.5	
233.6	104.5	-1.55

12.27.0

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1920phae.proj..629c

Oct. 8. 1920

Mamo

PA = 200

12.40.30	4.6		
	56.4	51.8	
	184.7	50.3	
	235.0	102.1	-1.61
	10.0		
	62.3	52.3	-1.56
	182.3	54.3	
	236.6	106.6	-1.50

PA = 20

Mean -1.94

	103.2		
	142.4	39.2	
	282.4	35.1	
	317.5	74.3	-2.37
	100.6		
	136.4	35.8	2.31
	279.0	42.3	
	321.3	78.1	-2.25
12.45.10			

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1920phae.proj..629C

Oct. 8, 1920

V

Uranus

PA = 20

12.47.30	103.2		
	136.6	33.4	
	277.8	42.6	
	320.4	76.0	-2.32
	101.2		
	136.2	35.0	-2.34
	280.8	39.6	
	320.4	74.6	-2.36

PA = 200 mean -1.99

	186.8		
	232.7	45.9	
	4.2	52.0	
	56.2	97.9	-1.71
	189.2		
	237.1	47.9	-1.64
	2.2	55.9	
	58.1	103.8	-1.56

12.52.0

Watch 7 minutes slow at 9.00 o'clock.

Nova Region 2 5th Magn O.K.

13 05 Hazy in patches

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1920phae.proj..629c

Oct 8, 1920

VI

VI

Quamus

13.10.40 PA = 200

189.4		
231.6	42.2	
5.8	51.9	
57.7	94.1	-1.81
185.0		
237.8	52.8	-1.74
7.0	46.4	
53.4	99.2	-1.68

PA = 20 Mean -2.02

278.9		
321.2	42.3	
101.3	34.5	
135.8	77.8	-2.26
280.2		-2.31
316.6	36.4	
101.7	38.1	
139.8	74.5	-2.36

13.14.45

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1920phae.proj..629C

Oct. 8 1920

VII

Uranus

PA = 20

13.30.0

277.6
320.2
104.6
135.8

42.6
31.2
73.8 -2.38

281.2
317.2
100.6
137.4

36.0
36.8
72.8 -2.42

-2.40

Mean -2.03

PA = 200

3.4
55.8
183.8
233.2

52.4
49.4
101.8 -1.61

6.6
53.0
184.2
235.8

46.4
51.6
98.0 -1.71

-1.66

13.33.30

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1920phae.proj..629c

Oct 8, 1920

VIII

Uranus

PA = 200

~~+3, 50, 30~~ ~~290.1~~

13. 55. 40 10.8

52.2 41.4

184.2 55.6

239.8 97.0 -1.73

6.2

52.8 46.6 -1.72

183.7 50.9

234.6 97.5 -1.72

Mean -1.92

PA = 20

101.2

142.8 41.6

283.2 36.0

319.2 77.6 -2.27

96.8

139.2 42.4 -2.12

276.7 45.3

322.0 87.7 1.98

13. 59. 10

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1920phae.proj..629C

Oct, 8, 1920

IX

	Means			
	PA = 20			Sm. 2,8
M. 2.40	102,7	35.5		PA = 196 A
	138,2	~~50~~		
	281.4	38,0		
	319,4	73.5	-2,39	
	99,6			
	137,2	37,6	-2.30	
	278,8	41.4		
	320,2	79.0	-2,22	
	PA = 200			Mean -2.07
	190.4			
	232,3	41.9		
	10.6	43,8		
	54,4	85.7	-2,03	
	181.6			
	234,4	52,8	-1,84	
	7,2	47.8		
	55,0	100.6	-1,64	

14.6.30

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1920phae.proj..629C

Saturday Oct 9, 1920

I

	LC 6b	15" Eq.		ASKRa
G.M.T.	Means			
11.32.30	PA=200			
	188.8			
	230.7	41.9		
	1.0	58.2		
	59.2	100.1	-1.65	
	180.6			
	239.2	58.6		-1.57
	10.6	48.2		
	58.8	106.8	-1.49	
	PA=20			Mean -1.96
	285.8			
	316.2	30.4		
	98.7	43.4		
	142.1	73.8	-2.38	
	275.8			
	316.8	41.0		2.34
	103.3	35.1		
	138.4	76.1	-2.31	
11.36.20				

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1920phae.proj..629C

Oct. 9, 1920

II

	2 nami~~x~~			
	PA = 20			
11.39.0	285.2			Same comp. obs. as last night
	320.6	35.4		
	102.2	36.4		
	138.6	71.8	-2.45	
	280.6			
	323.2	42.6	-2.40	
	104.4	32.6		
	137.0	75.2	-2.34	
	PA = 200		mean -2.40	
Retaken below	12.6			
	50.2	37.6		
	185.0	50.8		
	235.8	88.4	1.96	
	7.2			
	54.0	46.8	~~-1.85~~	
	183.6	49.7		
	233.3	96.5	-1.74	
11.42.50			-1.66	
11.45.0	4.8			
	55.8	51.0		
	184.4	52.0		
11.46.20	236.4	103.0	-1.58	

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1920phae.proj..629c

Oct 9, 1920

III

Uranus

PA = 200

11.47.40

5".1

57.8	52.7	
189.2	46.6	
235.8	99.3	−1.67

4.8

57.8	53.0	−1.65
184.6	48.0	
232.6	101.0	−1.63

PA = 20 Mean = −2.02

100.6		
139.2	38.6	
283.6	32.2	
315.8	70.8	−2.46

104.2		
139.6	35.4	−2.40
281.6	40.2	
321.8	75.6	−2.33

11.51.40

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1920phae.proj..629C

Oct 9, 1920

IV

	Uranus		
	PA = 20		
12.03.20	101.6		
	142.2	40.6	
	287.6	28.3	
	315.9	68.9	-2.58
	102.3		
	134.7	32.4	-2.52
	280.2	38.6	
	318.8	71.0	-2.47
	PA = 200		Mean -2.09
	185.2		
	234.8	49.6	
	38	50.4	
	54.2	100.0	-1.66
	187.2		
	233.0	45.8	-1.66
	4.8	53.8	
12.07.20	58.6	99.6	-1.67

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1920phae.proj..629C

OD 9.1920

V

Uranus

PA = 200

12.27.0	1d 3.0		
	236.0	53.0	
	8.6	54.0	
	52.6	107.0	-1.49
	187.7		
	232.8	45.1	-1.62
	5.6	50.6	
	56.2	95.7	-1.76
			-2.00
		mean	-1.62

PA = 20

	~~276.6~~		
	~~325.3~~	48.7	
see below	101.2	38.0	
	139.2	86.7	-2.00
	281.2		
	317.4	36.2	-2.22
	99.8	36.0	
	135.8	72.2	-2.43
12.30.40			
12.34 40	278.8		
	319.8	41.0	-2.38
	102.8	34.4	
12.35.40	136.2	75.4	-2.33

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1920phae.proj..629C

Oct 9, 1920

VI

Uranus

P/A = 20

12.36.20 285.0

315.9 30.9

95.2 46.6

141.8 77.5 -2.27

275.7

323.4 47.7 -2.26

103.8 30.0

133.8 77.7 -2.26

PA = 200 mean -1.98

6.2

57.2 51.0

188.8 43.4

232.2 94.4 -1.80

8.6

55.2 46.6 1.71

181.6 55.0

236.6 101.6 -1.62

12.40.0

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1920phae.proj..629c

Oct 9, 1920

VII

Mamus

PA = 200

12. 5 4.0 3.3

58.4 55.1

186.3 44.9

231.2 100.0 -1.66

9.8

56.4 46.6 -1.68

183.2 52.1

235.3 98.7 -1.69

PA = 0 2.11

102.2

140.2 38.0

284.8 31.1

315.9 69.1 -2.54

104.3

132.8 28.5 -2.54

280.2 40.4

12.5 8.15 320.6 68.9 -2.54

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1920phae.proj..629C

Oct 9, 1920

VIII

Uranus

13.15.55 PA = 20

102,8		
139,2	36.4	
283.8	30.8	
314,6	67.2	-2.60
102,2		
137.4	35.2	-2.42
277,2	43.6	
320.8	78,8	-2.23

PA = 200 Mean -2,00

~~187,0~~		
~~230,2~~	~~43,2~~	
~~359,4~~		
~~56,6~~		
~~57.0~~		
180.1		
236,4	56.3	
7.7	48.9	
56,6	105,2	-1,53
189,6		
232.4	42.8	-1.59
2,4	59.2	
61,6	102,0	-1.61

13.22.10

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1920phae.proj..629C

Oct. 9, 1920

IX

Uranus

PA = 200

13.41.20	186.1		
	229.6	43.5	
	5.1	49.7	
	54.8	93.2	-1.83
	188.2		
	231.4	43.2	-1.81
	6.2	51.6	
	57.8	94.8	-1.79

PA = 20

Mean -2.15

	276.4		
	322.7	46.3	
	106.6	26.5	
	133.1	72.8	-2.42
	284.8		
	314.2	29.4	2.49
	99.2	38.9	
13.45.50	138.1	68.3	-2.56

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1920phae.proj..629C

Oct 9, 1920

X

	Means			
	PA = 20			
13.48.0	276.4			
	318.0	41.6		
	101.2	348		
	136.0	76.4	-2.30	
	283.2			
	317.7	34.5		-2.28
	99.2	42.9		
	142.1	77.4	-2.27	
	PA = 200			Mean -1.96
	186.8			
	234.2	47.4		
	2.1	54.7		
	56.8	102.1	-1.61	
	183.6			
	232.8	49.2		1.63
	4.0	51.0		
	55.0	100.2	1.65	
13.52.10				

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1920phae.proj..629

Oct 9, 1920

XI

Uranus

PA = 200

13.54.10

184.2		
237.2	53.2	
5.8	48.0	
53.8	101.2	-1.63

184.2		
236.2	52.0	-1.64
6.3	47.9	
54.2	99.9	-1.66

PA = 20

Mean -1.96

276.6		
318.1	41.5	
101.2	35.2	
136.4	76.7	-2.29

282.2		
318.4	36.2	-2.28
100.2	41.6	
141.8	77.8	-2.26

13.58.10

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1920phae.proj..629C

Oct 9, 1920

XII

Uranus

PA −20

14.7.20	278.0		
	319.1		
	103.2	41.1	
	137.4	34.2	
		75.3	−2.34
	280.2		
	316.1	35.9	−2.38
	103.8	36.4	
	140.2	72.3	2.43

PA = 200 mean −2.17

	4.6		
	54.8	50.2	
	192.1	38.2	
	230.3	88.4	−1.96
	7.1		
	52.7	45.6	−1.96
	189.2	43.0	
14.10.50	232.2	88.6	−1.95

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1920phae.proj..629c

Monday Oct. 11, 1920

I

GMT	L.C. Obs	15" Eq.		H&K Red
	Quasars			
	PA = 210			
11.48.40	8.5			
	51.3	42.8		
	182.2	57.0		
	239.2	99.8	-1.66	
	358.4			
	57.8	59.4	-1.53	
	184.4	515		
	235.9	110.9	-1.40	
	PA = 30			mean -1.94
	103.6			
	137.0	33.4		
	279.2	42.6		
	321.8	76.6	-2.30	
	99.0			
	139.6	40.6	-2.34	
	284.6	33.6		
	318.2	74.2	-2.37	
11.52.30				

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1920phae.proj..629C

Oct. 11, 1920

II

	Uranus			
	PA = 30			
11 58.50	103.0			
	134.8	31.8		
	279.2	44.0		
	323.2	75.8	-2.32	
	97.8			
	139.4	41.6	-2.36	
	285.4	31.4		
	316.8	73.0	-2.41	
	PA = 210			mean = -1.94
	189.2			
	232.8	43.6		
	0.3	58.9		
	59.2	102.5	-1.60	
	181.0			
	238.6	57.6	-1.53	
	4.4	50.7		
12.2.50	55.1	108.3	-1.46	

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1920phae.proj..629c

Oct. 11, 1920

III

Mamus

PA ~ 210

12.16.40

185.0
229.8 44.8
359.8 62.8
62.6 107.6 -1.47

183.2 -1.54
238.3 55.1
8.3 47.3
55.6 102.4 -1.60

PA ~ 30 -1.95
mean 2.00

283.6
312.2 28.6
98.7 42.0
140.7 70.6 -2.49

279.8
322.9 43.1 -2.36
102.6 36.2
138.8 79.3 -2.22

12.20.30

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1920phae.proj..629C

Oct 11, 1920

IV

	Imanis			
	PA=30			
12.36.20	284.8			
	318.6	33.8		
	101.4	37.8		
	139.2	71.6	-2.45	
	277.0			
	321.6	44.6	-2.36	
	105.3	32.4		
	137.7	77.0	-2.28	
	PA=210			mean = -1.96
	8.4			
	55.5	47.1		
	183.6	51.7		
	235.3	98.8	-1.69	
	3.3			
	57.2	53.9	-1.55	
	184.3	56.3		
12.40.20	240.6	110.2	-1.41	

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1920phae.proj..629c

Oct 11, 1920

V B

	Grams		
	P/A = 210		
12.5 - 5.0	358.6		
	57.8	59.2	
	185.2	51.1	
	236.3	110.3	-1.41
	11.1		
	55.2	44.1	-1.62
	185.1	48.5	
	233.6	92.6	-1.84
	P/A = 30		mean = 2.10
	103.2		
	134.0	30.8	
	280.8	38.4	
	319.2	69.2	-2.53
	102.3		
	134.7	32.4	-2.59
	~~319.8~~	33.3	
	284.0	65.7	-2.65
1259.40	317.3		

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1920phae.proj..629C

Oct. 11, 1920

VI

	Grams			
	PA = 30			
13.1.20	102.6			
	138.8	36.2		
	279.9	37.0		
	316.9	73.2	-2.40	
	103.6			
	137.6	34.0		2.54
	284.8	31.2		
	316.0	65.2	-2.67	
	PA = 210			Mean -2.10
	187.6			
	235.8	48.2		
	4.4	53.4		
	57.8	101.6	-1.62	
	184.8			
	237.2	52.4		-1.66
	6.6	46.4		
13.5.10	53.0	98.8	-1.69	

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1920phae.proj..629c

Oct. 11, 1920

VII

	zeros			
	PA. 210			
	186.0			
13.8.10	232.7	46.7		
	3.0	53.0		
	56.0	99.7	-1.66	
	184.3			
	235.4	51.1	-1.62	
	4.4	52.2		
	56.6	103.3	-1.58	
	PA. 30		mean =	2.04
	283.1			
	315.6	32.5		
	101.4	35.4		
	136.8	67.9	-2.58	
	178.9			
	320.0	41.1	-2.46	
	102.9	33.7		
	136.6	74.8	-2.30	
13.12.30				

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1920phae.proj..629C

Oct 11, 1920

VIII

Uranus

PA = 30

13.23.10 284.3

313.3 29.0

100.8 37.2

138.0 66.2 -2.64

280.4

321.4 41.0 -2.46

102.4 36.4

138.8 77.4 -2.27

PA = 210 mean = 2.00

7.8

53.3 45.5

183.2 52.2

235.4 97.7 -1.71

358.7

58.7 60.0 -1.53

184.8 52.8

237.6 112.8 -1.35

13.27.20

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1920phae.proj..629c

Oct 11, 1920

II

Arcturus

13.32.20 PA-210

6.0

52.2 46.2

185.5 49.3

234.8 95.5 -1.77

3.2

56.3 53.1 -1.70

185.5 48.5

234.0 101.6 -1.62

Mean = -2.00

PA-30

106.0

136.3 30.3

277.7 45.3

323.0 75.6 -2.33

102.6

139.0 36.4 -2.30

279.2 40.8

320.0 77.2 -2.28

13.36.30

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1920phae.proj..629C

Oct 11, 1920

☿

Uranus

PA = 30

PA 211 A

Sm. 3.7

13.44.30

102.2			
138.9	36.7		
280.6	37.8		
318.4	74.5	-2.36	
104.0			
136.6	32.6		-2.38
280.6	40.6		
321.2	73.2	-2.40	

PA = 210

mean = -2.07

183.6			
232.7	49.1		
9.7	43.0		
52.7	92.1	-1.86	
184.2			
229.3	45.1		-1.76
1.6	55.2		
56.8	100.3	-1.65	

13.48.10

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1920phae.proj..629c

Rec'd Oct 13, 1920

LC Obs. 15" Eq.

(11) Parthenope

Phot T.

G.M.T.

PA = 160

12.0.20

91.6		
149.7		
276.0	58.1	
320.2	44.2	
	102.3	+1.60
100.2		
143.2	43.0	+1.56
267.9	62.1	
330.0	105.1	+1.53

PA = 340

mean = +1.18 ~~+1.68~~

175.4		
248.6	73.2	
0.4	60.4	
60.8	133.6	+0.90
175.6		
243.3	67.7	+0.80
353.6	76.2	
69.8	143.9	+0.70

12.04.15

Sm. = 5.3

R.A. = 3:35.2 S.T. = 20 45

Dec. = -5.3

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1920phae.proj..629C

Oct. 13, 1920

II

(111) Parthenope

PA = 340

12.11.0	170.8		
	246.6	75.8	
	2.6	62.6	
	65.2	138.4	+0.81
	174.4		
	245.6	71.2	+0.78
	356.3	70.5	
	66.8	141.7	+0.74

PA = 160 mean = +1.25

	270.4		
	331.4	61.0	
	101.2	37.6	
	138.8	98.6	+1.69
	278.2		
	320.4	42.2	+1.72
	97.0	54.0	
12.15.0	151.0	96.2	+1.75

a = star b = asteroid

12.10.30	a 2 b
12.16.30	a 1 b

Star a = dim star close by.

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1920phae.proj..629c

Oct 13, 1920

III

(11) Parthenope

PA = 160

12.28.30	276.6			
	321.7	45.1		
	93.2	50.6		
	143.8	95.7	+1.76	
	271.1			
	327.3	56.2		+1.67
	96.1	47.1		
	143.2	103.3	+1.58	

PA = 340

mean ~~+0.84~~ +1.34

	175.4			
	241.4	66.0		
	354.4	68.9		
	63.3	134.9	+0.88	
	174.2			
	239.6	65.4		~~+1.48~~
	0.2	60.4		~~+0.98~~
12.33.10	60.6	125.8	+1.07	+0.98

12.33.10 a1 b

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Oct 13, 1920

(III) Parthenope

PA = 340

12.36.0	178.2		
	240.0	61.8	
	357.2	70.9	
	68.1	132.7	+0.92
	177.4		
	243.2	55.8	+1.06
	0.0	63.3	
	63.3	119.1	+1.21

PA = 160 mean = + 1.42

	278.4		
	322.4	44.0	
	93.6	50.2	
	143.8	94.2	+1.80
	273.4		
	327.6	54.2	+1.77
	99.3	42.3	
12.40.0	141.6	96.5	1.74

12.40.10 a o b

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1920phae.proj..629c

Oct. 13, 1920

V

(11) Parthenope

PA = 160

12.48.30	277.4		
	322.4	45.0	
	95.2	55.8	
	151.0	100.8	+1.64
	271.6		
	327.4	55.8	+1.69
	100.0	41.0	
	141.0	96.8	+1.74

PA - 340

Mean = +1.30

	1.6		
	60.6	59.0	
	171.6	73.2	
	244.8	132.2	+0.93
	355.4		
	66.6	71.2	+0.92
	176.2	61.8	
12.52.45	238.0	133.0	+0.92

a | b

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1920phae.proj..629C

Oct. 13, 1920

VI

(11) Parthenope

PA = 340

12.5 9.50

357.0		
63.7	66.7	
176.7	69.9	
246.6	136.6	+0.84

353.4		
58.4	65.0	+0.94
177.8	62.0	
239.8	127.0	+1.04

PA = 160

mean = +1.28

96.3		
145.3	49.0	
278.0	46.6	
324.6	95.6	+1.77

97.4		
149.7	52.3	+1.62
274.2	55.2	
329.4	107.5	1.48

13.0 3.50

13.0 3.10 a o b

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1920phae.proj..629c

Oct. 13, 1920

VII

(11) Parthenope

PA = 160

13.10.45	92.2		
	151.1	58.9	
	276.8	44.4	
	321.2	103.3	+1.58
	97.3		
	143.7	46.4	+1.65
	272.4	51.0	
	323.4	97.4	+1.72

PA = 340 Mean = +1.28

	~~95.8~~		
	~~163.4~~		
	359.6	61.2	
	60.8	69.4	
	175.3	130.6	+0.97
	244.7		
	351.4		+0.91
	65.8	94.4	
	179.3	62.0	
13.15.40	241.3	136.4	+0.85
13.16.00	61 a		

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Oct 13, 1920

~~II~~ VIII

(1) Parallactic

PA = 340

13.23.30	355.2		
	61.4	66.2	
	175.8	67.5	
	243.3	133.7	+0.90
	354.6		
	68.8	74.2	+0.82
	174.7	67.9	
	242.6	142.1	+0.73

PA = 160 Mean + 1.32

	98.3		
	144.4	46.1	
	278.4	41.2	
	319.6	87.3	+1.94
	96		
	98.8		
	144.7	47.9	+1.83
	276.7	51.5	
13.28.0	328.2	99.4	+167

13.28.40 a o b

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Oct 13, 1920

IX

(11) Parthenope

PA = 160

13.43.15	95.0		
	146.0	51.0	
	278.8	43.6	
	322.4	94.6	+1.79
	99.3		
	141.4	42.1	+1.74
	272.2	56.0	
	328.2	98.1	+1.70

PA = 040 Mean = +1.35

	180.8		
	240.4	59.6	
	353.6	74.8	
	68.4	134.4	+0.89
	178.5		
	245.6	67.1	0.96
	358.0	60.4	
13.47.10	58.4	127.5	1.03

13.47.40 a o b

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Oct 13, 1920

X

(11) Parthenope

PA = 340

13 5 5.50 177.2
240.0 62.8
355.1 66.1
61.2 128.9 +1.00

175.4
241.2 65.8 +1.04
1.0 58.8
59.8 124.6 +1.09

PA = 160 mean = +1.38

275.4
326.6 51.2
99.2 45.8
145.0 97.0 +1.73

273.8
323.8 50.0 +1.72
100.0 48.4
148.4 98.4 +1.70

13.59.30

14 0.0 a o b

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Oct 13, 1920

XL

(11) Parthenope

PA = 160

14.8.0	274,2		
	327,2	53,0	
	93,3	49,4	
	142,7	102,4	+1,60
	275,6		
	323,8	48,2	+1,70
	97,5	46,7	
	144,2	94,9	+1,79

PA = 340 mean = +1.31

	2,2		
	56,4	54,2	
	172,4	77,4	
	249,8	131,6	+0,95
	350,0		
	63,4	73,4	0,92
	179,3	61,3	
14.12.0	240,6	134,7	0,88

a | b

14,12,30

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Oct 13, 1920

14. SS Aurigae 060547

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Wed. Oct 20, 1920

Acclb 15-"5 Sq. H.S.K. Rec

G.M.T. (11) Parthenope

	PA=B	0 20	−5−5	Photometer R.
19.53.45	136.2	20 30	Amp. standard,	I
	175.2	3 50		
	325.4	39.0		
	350.4	25.0		
		64.0	+2.71	
	141.2			
	175.4	34.2		
	316.6	36.8	+2.59	
	353.4	71.0	+2.47	
	PA = A		Mean =	+2.52
	47.6			
	83.8	36.2		
	226.4	39.4		
	265.8	75.6	+2.33	
	~~49~~			
	49.2			
	85.3	36.1	+2.45	
	230.2	32.0		
19.58.30	262.2	68.1	+2.57	

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1920phae.proj..629C

Wed. Oct. 20, 1920

II

(11) Parthenope

20, 17, 50 P.A. = A

48.4		
83.4	35.0	
229.8	35.0	
264.8	70.0	+2.51

49.2		
86.2	37.0	+2.48
230.1	34.6	
264.7	71.6	+2.45

PA = B

mean +2.42

316.4		
353.3	36.9	
138.4	36.4	
174.8	73.3	+2.40

318.2		
351.4	33.2	+2.37
134.4	42.1	
20.21.50 176.5	75.3	2.34

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1920phae.proj..629C

52

Oct. 20, 1920

III

(11) Parthenope

PA = B

20.34.10	315.3		
	354.4	39.1	
	136.3	42.5	
	178.8	81.6	+2.15
	318.2		
	354.2	36.0	2.18
	132.1	43.1	
	175.2	79.1	+2.22

PA = A

mean = 2.33

	228.6		
	265.2	36.6	
	48.3	39.5	
	87.8	76.1	+ 2.31
	~~22~~ 9.8		
	263.6	33.8	
	48.7	~~32.4~~ 35.5	2.48
	~~79.0~~	~~64.3~~	
20.38.20	81.1		
		66.2	+2.64

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1920phae.proj..629C

Oct. 20, 1920

IV

(11) Parthenope

20.42.5 PA = A

~~277.2~~ 47.2
~~294.3~~ 85.1 X 37.9
230.6 30.0
260.6 67.9 + 2.58

45.2
84.3 39.1 +2.50
231.2 33.2
264.4 72.3 +2.43

PA = B mean = +2.63

319.0
351.4 32.4
140.4 28.8
169.2 61.2 2.81

319.4
350.4 31.0 2.76
138.2 33.0
171.2 64.0 2.71

20.47.30

Obs not to be held
Clouds
Phot. out of order

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1920phae.proj..629c

Thu. Oct 22, 1920

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

G.M.T.	Oct. 220	Parthenope	Plate I
11-36-0	277.8	0 20	−5.8
	328.7	20 40	Comp dist I
	90.8	3 60 ε	
	142.2	50.9	
		51.4	
		102.3	+1.60
	273.2		
	326.6	53 6	+1.64
	98.8	46 0	
	144.8	99 6	+1.67
	P.9.40		Mean +1.28
	356.7		
	64.4	67 7	
	181.0	61 7	
	242.7	129.4	+0.99
	256.6		+0.92
	64.8	68.2	
	176.6	68 2	
11-40-35	244.8	136 4	+0.85

11-38-18 Mean G.M.T

Comp X = −5°.

Wrong star measured for Parthenope

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1920phae.proj..629C

Oct 22–1920.

250
R.A. ~~40~~ Parthenope

11-56-30 ~~36.4~~ comp + dis

285.5	28.9	
314.4	26.5	
104.2	56.4	+ 300
131.9		

287.6	27.2	+ 296
314.8	31.5	
101.2	58.7	+ 291
132.7		

70
R.A. ~~220~~

5.8	43.8	
49.6	38.7	
188.7	82.5	+ 8212
227.4		

13.0	33.7	+ 218
46.7	44.8	
186.6	78.5	+ 224
231.4		

12-01-05
117 31
11 58 48 G.M.T.

Comp + = 5.64

Mean = + 257
217
974

217

This is certainly Parthenope

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1920phae.proj..629C

Oct. 22–1920

Parthenope

12-17-17

Pa. 70

7.7	45.0 ✓	
52.7	47.2 ✓	
186.6	92.2 ✓	+ 186 ✓
233.8		
		+ 188 ✓
6.4	47.9 ✓	
54.3	42.6 ✓	
188.0	90.5 ✓	+ 190 ✓
230.6		

Pa. 250

104.6	25.2 ✓	
129.8	26.5 ✓	
287.4	51.7 ✓	+ 320 ✓
313.9		
		3.10 ✓
101.7	33.3 ✓	
135.0	23.4 ✓	
289.6	56.7 ✓	+ 299 ✓
312.0		

Mean = + 2.49 ✓

7.17

9.66

12-17-45

9 57

12 14 58

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1920phae.proj..629C

Oct. 22. – 1920

Pencils readjusted before beginning this group.

III

P Cl. 250 Parthenope.

~~12-12-12~~ ~~7.7~~ ✓

12-30-40

300.0	25.2		
325.2	28.9 ✓	+ 3.10 ✓	
119.8	54.1 ✓		
148.7		+ 3.10	
297.0	27.7 ✓		
324.7	26.6 ✓	+ 3.09 ✓	
118.8	54.3 ✓		
145.4			

P.G. 70

Mean = +2.64

217

981

21.8	38.9 ✓		
60.7	38.4 ✓	✓	
205.4	77.3	+ 2.28	
243.8			
		+ 2.18	
22.2	39.2 ✓		
61.4	44.4 ✓	+ 2.09 ✓	
199.8	83.6 ✓		
244.2			

12-30-55

6 35

12 23 18

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1920phae.proj..629c

Oct. 22—1920

	R.A. 70	Parthenope IV	
12-47-15	26.6	40.2	
	66.8	39.4	+2.21
	204.8	79.6	
	244.2		
			+2.06
	20.0	40.8	
	60.8	42.4	+2.10
	202.4	83.2	
	244.8		
	R.A. 250		Mean = +2.64 mean
	119.8	25.8	17
	145.6	28.4	981
	297.6	54.2	+3.09
	326.0		
			3.12
	118.4	26.4	
	149.8	26.6	3.14
	298.2	53.0	+~~.075~~
12-50-55	3248		
	10		
12 49 05			

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1920phae..proj..629C

Oct 22 - 1920

		Parthenope		V
	P 62.50			
B-4-45	118.4	29.4		
	147.8	25.5	3.07	
	298.4	+54.9	+~~2.86~~	
	323.9			
			3.07	
			~~2.96~~	
	122.6	24.8		
	147.4	30.1		
	295.4	54.9	+3.07	
	325.5			
			.60	
	P 70		σ_{Mean} = ±2.~~54~~	
	197.4	45.8	21	
	243.2	39.6	9.77	
	20.4	85.4	+1.04	
	60.0			
			2.13	
	205.2	36.0		
	241.2	43.0		
	18.6	79.0	+2.22	
13-08-47	61.6			
1306 ~~46~~				

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1920phae.proj..629C

Oct. 22, 1920.

	P.A. 70	Parthenope	VII
13-16-50	199.6	44.1	
	243.7	37.4	+2.15
	23.2	+81.5	
	60.6		
			+2.14
	204.0	39.2	
	243.2	43.0	
	19.8	+82.2	2.13
	~~65.8~~		
	62.8		62
	P.G. 250		Mean = +2.~~14~~
	297.4	26.2	217
	323.6	26.3	979
	121.0	+52.5	+3.16
	147.3		
			3.09
	298.4	27.0	
	325.4	29.0	
	118.8	+56.0	+3.02
13-21-35	147.8		
25			
13 19 12			

Focus = 51 S.P.R. = 6.0 R.A. = 249A
Pencil Screw = 0

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1920phae..proj..629C

Oct. 22, 1920.

VIII

	P. 9. 256		
13-33-20	297.7	29.5	
	327.2	27.0	
	120.0	756.5	+3.00
	147.0		
			+3.12
	301.4	25.0	
	326.4	25.6	
	120.2	+50.6	+3.24
	145.8		
	P. Q. 70.	Mean =	+2.56
	17.1	47.9	7.87
	65.0	40.4	9.73
	201.2	88.3	+1.96
	241.6		
			+2.00
	20.4	39.2	
	59.6	46.0	
	198.6	85.2	2.05
13-38-25	244.6		

13 35 43 52

9A

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1920phae.proj..629c

Oct. 22, 1920

P.A. 70 — VIII

13-46-15	16.0	50.6	
	66.6	35.3	
	207.9	+85.9	+2.03
	243.2		
			+2.02
	20.0	42.6	
	62.6	43.6	
	200.0	+86.2	+2.02
	243.6		

P.A. 250 — Mean = +2.61

	119.7	25.3	2.17
	145.0	27.0	9.78
	298.4	+52.3	+3.17
	325.4		
			3.20
	121.1	25.6	
	146.7	25.6	
	297.4	51.2	+3.22
13-51-5	323.0		

9) 20

13 48 40

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1920phae.proj..629C

Oct. 22-1920

IX

P.a. 250

14-1-55

116.6	32.2	
148.8	25.6	
301.0	+57.8	+2.94
326.6		

3.04

119.9	25.7	
145.6	27.3	
298.2	+53.0	+3.14
325.5		

P.a. 70

Mean = +2.56

2.17

9.73

198.6	46.4	
245.0	39.8	+2.02
21.8	+86.2	
61.6		

2.09

200.2	39.2	
239.4	41.9	
20.7	81.1	+2.16
62.6		

4

12-6-50

8 45

14 4 22

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1920phae.proj..629C

Oct 22–1920

X

	P.A.		
14-14-35	200.0	45.6	
	245.6	44.2	
	20.6	+89.8	+1.92
	64.8		
			+1.99
	202.8	40.2	
	243.0	44.3	
	20.6	+84.5	+2.06
	64.9		
	P.G. 25°0	σ Mean =	+2.54
	299.8	26.8	2.17
	326.6	29.4	9.71
	120.6	+56.2	+3.01
	140.0		
			+3.10
	297.2	24.6	
	323.8	27.2	
	119.2	51.8	+3.19
14-19-40	146.4		
1s			
14 17			

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1920phae.proj..629C

Oct. 22, 1920

(11) Parthenope

	P.G. 25°0		XI
14-30-0	298.0	26.8	
	324.8	29.6	305
	107.4	56.4	+~~2.63~~
	147.0		
			+ 3.09 ✓
	298.8	26.7	
	325.5	25.4	
	119.2	52.1	+ 3.18
	144.6		
	P.G. 70		Mean = + 2.56
	~~17.6~~		~~2.17~~
	18.8	45.8	+ 2.03 ~~(2.27)~~
	64.6	39.9	
	202.7	85.7	2.73
	242.6		✓
			+ 2.02
	23.0	41.4	~~203~~
	64.4	44.8	
	201.4	86.2	+ 2.02 ✓
14 -35-35	246.2		
14 32 48			

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1920phae.proj..629c

Saturday Oct 23, 1920

L.L. Obs. 15" Equ T H S & Rey

G.M.T. (1) Parallactic

PA = 70 Comp. star Dis.

11.26.30	197.4		
	244.8	47.4	
	24.6	36.0	
	60.6	83.4	+2.10
	207.4		
	241.3	33.9	+2.09
	14.6	50.0	
	64.6	83.9	+2.08

PA = 250 Means ~~2.6~~ 2.72, 2.17, 9.89

	300.0		
	324.8	24.8	
	123.8	23.8	
	147.6	48.6	+3.33
	301.4		
	323.7	22.3	+3.35
	122.2	25.6	
11.31.20	147.8	47.9	+3.37

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1920phae.proj..629C

Oct. 23, 1920

II

(11) Parthenope

PA = 250

11.35.0	297.6			
	324.3	26.7		
	120.4	23.3		
	143.7	50.0	+3.27	
	299.0			
	323.3	24.3	+3.24	
	119.6	27.0		
	146.6	51.3	+3.22	

PA = 70

	20.0			
	66.3	46.3		
	203.8	37.8		
	241.6	84.1	+2.08	
	21.4			
	62.4	41.0	+2.77	
	203.8	36.8		
11.40.0	240.6	77.8	+2.26	

mean = +2.70
7.17
9.87

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1920phae.proj..629C

Oct. 23, 1920

III

(11) Parthenope

PA = 70

11. 51. 50	24.6		
	66.0	41.4	
	201.8	39.0	
	240.8	80.4	+2.18
	21.8		
	59.8	38.0	+2.22
	204.2	40.0	
	244.2	78.0	+2.25

PA = 250

	119.4		
	149.6	30.2	
	298.4	26.7	
	325.1	56.9	+2.98 ~~+2.65~~
	119.8		
	147.8	28.0	+3.00
	298.2	27.8	
11. 56. 50	326.0	55.8	+3.02

mean +2.61
7.17
9.78

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1920phae.proj..629C

Oct 23, 1920.

IR

(11) Parthenope

PA, = 270

12,7.0	118.8		
	148.2	29.4	
	298.6	24.0	
	322.6	53.4	+3,12
	122.8		
	144.2	21.4	+3.17
	297.4	29.8	
	327.2	51.2	+3.22

PA = 70

mean = +2.62
7.17
9.79

	201.4		
	248.6	47.2	
	22.6	42.0	
	64.6	89.2	+1,94
	199.8		
	239.6	39.8	+2.06
	21.6	41.2	
12,12,10	62.8	81.0	+2,17

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1920phae.proj..629C

70

Oct. 23, 1920

V

(11) Parthenope

PA = 70

12.20.20	199.4		
	243.3	43.9	
	23.3	36.3	
	59.6	80.2	+2.19
	207.4?	wrongly read?	
	240.8	33.4	+2.33
	22.6	37.6	
	60.2	71.0	+2.47

PA - 250

	298.6		
	323.3	24.7	
	118.2	28.0	
	146.2	52.7	+3.15
	298.3		
	324.3	26.0	+3.14
	121.6	27.0	
12	25.0 148.6	53.0	+3.14

Mean +2.74
2.17
9.91

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1920phae.proj..629C

Oct 23, 1920

VI

(11) Parthenope

12 28 .0 PA = 250

296.6		
325.2	28.6	
121.8	23.1	
144.9	51.7	+3.20

298.4		
324.4	26.0	+3.11
117.7	30.0	
147.7	56.0	+3.02

PA = 70

mean = + 2.60
7.17
9.77

19.4		
67.6	48.2	
204.2	35.2	
239.4	83.4	+2.10

21.8		
62.6	40.8	+2.08
200.4	43.8	
12 32 40 244.2	84.6	+2.06

~~43.8~~

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1920phae.proj..6296

72

Oct 23, 1920

VII

(1) Parthenope

PA = 70

12,47.40	18.8		
	63.8	45.0	
	200.6	42.7	
	243.3	87.7	+1.98
	20.2		
	60.6	40.4	+2.05
	201.3	42.0	
	243.3	82.4	+2.12

PA = 250

mean = +2.62

7.17

9.79

	120.6		
	145.0	24.4	
	300.2	25.2	
	325.4	49.6	+3.29
	122.2		
	146.6	24.4	+3.18
	296.2	30.0	
12.52.20	326.2	54.4	+3.08

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1920phae.proj..629C

Oct. 23, 1920

VIII

(11) Parthenope

PA. 250

13.00.15 118.6
147.6 29.0
298.4 26.8
325.2 55.8 +3.02

120.6
144.0 23.4 +3.16
299.2 25.9
325.1 49.3 +3.30

PA -70

mean = +2.59
7.17
9.76

199.2
247.4 48.2
21.8 39.4
61.2 87.6 1.98

202.4
238.8 36.4 +2.02
19.8 48.8
13.5.0 68.6 85.2 2.05

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1920phae.proj..6296

74

Oct, 23, 1920

IX

Cl Parthenope

P/A = 70

13.20.40

198.8
245°.0 46.2
22.2 42.2
64.4 88.4 +1.96

202.8
240.2 37.4 +2.02
18.2 46.2
64.4 83.6 +2.09

P/A = 250

Mean = +2.69
7.17
9.86

299.8
326.0 26.2
120.2 22.7
142.9 48.9 +3.32

301.2
324.3 23.1 +3.36
121.6 24.4
146.0 47.5 +3.39

13.25.20

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1920phae.proj..629C

Oct 23, 1920 X

41) Parthenope

PA = 250

13.28.0

298.4		
327.8	29.4	
120.4	22.9	
143.3	52.3	+3.17

300.6		
323.3	22.7	+3.22
118.8	27.4	
146.2	50.1	+3.27

PA = 70

20.2		
62.2	42.0	
199.8	136.0	
245.8	88.0	+1.97

20.8		
63.6	42.8	+2.02
201.6	41.0	
242.6	83.8	+2.08

13.32.50

mean = 2.62
7.17
9.79

Sm. 8.8
PA = 71.4

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1920phae.proj..629G

Oct 20, 1920

X7

(41) Parthenope

PA = 70

13.49.15	18.9			
	62.0	43.1		
	199.8	43.2		
	243.0	86.3	+2.01	
	19.8			
	64.6	44.8		+1.94
	201.4	47.0		
	248.4	91.8	+1.87	

PA 250

	119.1			
	145.8	26.7		
	299.4	28.2		
	327.6	54.9	+3.07	
	117.8			
	143.1	25.3		+3.16
	299.7	25.5		
13.53.50	325.2	50.8	+3.24	

mean = +2.55

7.17

9.72

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1920phae.proj..629c

Oct 23, 1920 XII

(11) Parthenope

PA = 250

13,5-7,20	117.1		
	146.4	29,3	
	301,2	21,5	
	322,7	50,8	+3,24
	120,2		
	145,3	25,1	+3,26
	298,9	24,8	
	323,7	49,9	+3,28

PA = 70

mean = +2.65

7,17

9,82

	200,2		
	247,0	46,8	
	21,8	40,0	
	61,8	86,8	+2,00
	202,9		
	240,2	37,3	+2,04
	18,3	46,8	
14,02,40	65,1	84,1	+2,08

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1920phae.proj..629C

78

Oct 23, 1920

XIII

(11) Parthenope

PA = 70

14. 9. 30

201.1			
243.8	42.7		
22.6	38.0		
60.6	80.7	+2.17	
202.6			
241.2	38.6	+2.12	
19.8	45 3		
65.1	83.9	+2.08	

PA = 250

mean = 2.68
7.17
9.85

298.4			
327.8	29.4		
121.2	22.4		
143.6	51.8	+3.19	
299.8			
322.8	23.0	+3.23	
119.7	27.1		
146.8	50.1	+3.27	

14.14.20

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1920phae.proj..629c

Oct 23, 1920 XIV

(11) Parthenope

PA. 250

14.23.10

298.6			
324.8	26.2		
121.8	23.0		
144.8	49.2	+3.31	
299.8			
323.7	23.9	+3.16	
116.9	32.5		
149.4	56.4	+3.00	

PA 20

~~16.6~~			
19.6			
64.2	44.6		
201.6	39.8		
241.4	84.4	+2.07	
24.4			
59.6	35.2	+2.10	
199.6	47.1		
246.7	82.3	+2.13	

mean = +2.63
7.17
9.80

14.28.30

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1920phae.proj..629C

Oct 23, 1920

XV

(11) Parthenope

PA = 70

14, 33 .50

19.6		
65.0	45.4	
202.6	38.4	
241.0	83.8	+2.08

18.9		
63.2	44.3	+2.06
202.8	41.0	
243.8	85.3	+2.04

PA = 250

Mean = +2.072

7.17

9.89

119.9		
147.0	27.1	
302.2	22.9	
325.1	50.0	+3.27

121.2		
143.6	22.4	+3.38
299.0	23.0	
322.0	45.4	+3.49

14.38 20

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1920phae.proj..6296

Oct 23, 1920

XVI

(11) Parthenope

PA = 250

14.46.50	119.0		
	143.8	24.8	
	299.0	27.8	
	326.8	52.6	+3,16
	119.8		
	144.0	24.2	3.25
	299.9	24.3	
	324.2	48.5	+3.34

PA = 70 mean = 2.72

7.17

9.89

	200.0		
	244.2	44.2	
	21.0	37.9	
	58.9	82.1	+2,13
	205.8		
	238.8	33.0	2.20
	18.8	44.8	
14.51.30	63.6	77.8	2,26

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1920phae.proj..629c

Saturday Oct. 30, 1920

Mon. Nov. 8 - 1920

G.M.T. Lobb 15" ℰ Eg. H.S.K. Rec.

Parthenope Plot

0 -5 -5.6

Not certain of identific. of asteroid
Will look it up again directly.

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1920phae.proj..6296

Nov. 8, 1920

I

G.M.T.

12	~~Uranus~~ PA = 50	☆ 221611		
H. 45. 15	117.6	Comp. star = star at 2211 − 12.3		(1855)
	147.4	29.8		
	292.3	40.1		
	332.4	69.9	− 2.51	
	~~PA = 140~~			
	109.3		− 2.47	
	154.4	45.1		
	299.4	27.2		
	326.6	72.3	− 2.43	
	PA = 230		mean =	− 1.96
	198.6			
	247.8	49.2		
	13.2	56.2		
	69.4	105.4	− 1.53	
	192.8			
	255.2	62.4	− 1.46	
	14.6	48.7		
12 H. 50. 30	63.3	111.1	− 1.39	

1300 Too cloudy to continue

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1920phae.proj..629c

84

2765

Wed Mar 16-1921

G.M.T. Eclb 15" Eq. HK Rec

13.35	γ Cephei	003179	est 6 var 14th of 21 7 50 w 79.8	
	S Cass	011272	Est. 14.0	
	Z Cephei	021281	Est. 14.0	
	RR Cephei	023080	Est. 13.4	
	T Camelop	043065	Est. 9.4	5 inch
	S Camelop	053068	Est 8.8	5 inch
14 30	R Coronae	154428	Est 8.9	5 inch

see next page for photom. measures.

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1920phae.proj...629C

2765

Mar. 16-1920

G.M.T. R Coronae 15h 42m 28s Phot.

PA = 150°

G.M.T.			
14.40.25	50.8	Comp star dis.	Comp * = the 7.2 near by.
	92.1	41.3	
	232.8	44.9	
	277.7	86.2	+2.02
	50.8		+201
	92.1	41.3	
	235.5	45.7	
	281.2	87.0	+200

PA = 330°

mean = +1.42

7.2

8.6

~~310~~			
~~128.4~~		Variable dis	
195.7		109.5	
305.2		106.8	
20.8		216.3	
127.6		360.0	
		143.7	+070
	198.4		78
	311.4	113.0	+08~~7~~
	17.2	111.5	
14.45.30	128.7	224.5	+087
		360.0	
14 42 57		135.5	

Spr. 6.2

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1920phae.proj..629c

~~Thurs~~ Friday March 18, 1921

✓

S. M.T. L. Cols 15" Elgin H.S.K. Ra

15.3 R Coronae 15 44 28 Est 9.1 ½"

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1920phae..proj..629C

Monday April 25, 1921

G.M.T. L.C.Obs 15" Eq. H5K Roc

10.10.0 SS Cygni 213843 Est 8.2

~~15226~~

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1920phae.proj..629c

Tuesday April 26, 1921

L.C Obs 15h Eq. H & R Re

15 25,30 SS Cygni 21 38 43 East 8.2

15 26 B Lyrae 18 43 30 ext f 5, 0.5 p.
N.E.

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1920phae..proj..629C

Tuesday May 17, 1921

G.M.T.	L.C. 66 U Cephei PA = 200	15" Eq. 0538) Diff T	N5K Rec.
14.24.50	~~1.4~~ Radius		
	1.6		
	60.4	58.8	
	176.2	69.8	
	246.0	128.6	−1.01
	357.8		
	65.8	68.0	−0.90
	174.6	71.5	
	246.1	139.5	−0.78
	PA = 20		mean = −0.16
	68.4		~~.11~~
	172.8	104.4	~~.25~~
	248.6	106.9	.14
	355.5	211.3	
		360.0	
		148.7	+0.60
	71.8		
	171.8	100.0	
	248.3	108.9	+0.58
14.28.12	357.2	208.9	
		360.0	
		151.1	+0.55

14 26 31
+23

14 26 54 GMT

2 38 27.602
27.662

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1920phae.proj..629C

May 17, 1921

2,

	U Cephei			
	~~PA = 20~~			
14.29.0	67.4			
	173.0	105.6		
	244.2	114.4		
	358.6	220.0		
	~~69.6~~	360.0		
		140.0	+0.77	
	69.6			
	171.6	102.0		
	251.5	105.4	+0.64	
	356.9	207.4		
		360.0		
		152.6	+ 0.52	~~+.10~~
	PA=200		mean =	−0.02
	175.4			~~+.41~~
	246.7	71.3		~~+.39~~
	0.7	63.1		+.68
	63.8	134.4	−0.89	
	174.0			
	245.6	71.6	−0.82	
	357.8	69.6		
	67.4	141.2	−0.75	

14.32.11

14 30 6' 3''6
2

14 30 5''9

2827.605
2827.662

0.057

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1920phae.proj..629C

May 17, 1921

4 Cephei

2	PA=200			3.
4.35.29	178.2			
	246.6	68.4		
	357.2	67.0		
	64.2	135.4	− 0.87	
	176.7			
	248.2	71.5	− 0.84	
	358.7	66.4		
	65.2	137.9	− 0.82	
				+10
	PA=20		mean = − 0.08	~~+11~~
	243.6			~~+33~~
	353.6	110.0		+.02
	66.8	105.6		
	172.4	215.6		
		360 0		
		144.4	+ 0.69	
	252.0			
	357.8	105.8		
	69.9	108.9		
14.38.21	178.8	214.7	+0.68	
1350		360.0		
14 06 55				
22				
		145.3	+ 0.67	
14 37 17				
2282).603				
27.662				
~~0.006~~				
0.052				

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1920phae.proj..629c

May 17, 1921

4 Cephei

PA = 20

14.40.0	246.6			4,
	358.8	112.2		
	67.8	111.0		
	178.8	223.2		
		360.0		
		136.8	+ 0.84	
	249.0			
	357.2	108.2		
	67.0	111.8	+ 0.80	
	178.8	220.0		
		360.0		
		140.0	+ 0.77	f.10
	PA = 200		mean =	−0.02
	357.4			~~f.44~~
	66.8	69.4		~~f.39~~
	174.2	66.2		f.05
	240.4	135.6	− 0.86	
	355.8			
	68.6	72.8	− 0.84	
	177.6	65.2		
14 43.35	242.8	138.0	− 0.81	

141

14 ~~44~~ 46

27

14 42 09

22827 612

27 602

0.010

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1920phae.proj..629C

May 17, 1921

5.

4 Cephei

PA = 200

14.48.15	355.8		
	66.6	70.8	
	177.0	67.8	
	244.8	138.6	−0.80
	352.8		
	71.2	78.4	−0.60
	174.8	80.0	
	254.8	158.4	−0.41

f.10

Mean = +0.14

~~f.44~~

~~f.55~~

~~796~~

f.24

PA 20

	64.9		
	182.6	117.7	
	244.8	111.8	
	356.6	229.5	
		360.0	
		130.5	+0.97
	68.6		
	180.4	111.8	
	245.2	109.2	
14.52.33	354.4	221.0	+0.88
		360.0	
		139.0	+0.79

14 50 24
20

~~14 50 44~~

2282).619
27.662
0.043

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1920phae.proj..629C

May 17, 1921

μ Cephei

6.

PA = 20

14.56.40

64.9
175.8 110.9
243.2 120.0
3.2

230.9
360.0

129.1 +1.00

66.6
180.2 113.6
249.8 114.6 +0.97
364.4

228.2
360.0

131.8 + 0.94 mean = ±0.97

PA = 200

$10
mean = ±0.27
~~£.41~~
~~£.68~~
£.37

167.8
249.4 81.6
350.0 83.3 -
73.3 164.9 ±0.29

170.4
247.6 77.2 -±0.43
354.8 73.2 -
68.0 150.4 ±0.57

£ Casimer that the £10* was used as a comp * instead of the £41 as used.

14.59.50
16 30
14 58 15
1915.11.44.5
14 58 34
22827.624 - 0.038
2 5663

3451 Fwd
Ballon 103
15.12.0

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1920phae.proj..629C

Sat. June 4 – 1921

L.C. Obs. 15" E Eq.

14.0 Nova Cygni III. 19 53 53
13 45
6 10 E

Est of Nova Est 9.0 in 5 inch

~~X S W~~ Comp. with W & β

(78) 4 (81) 5 (84) 5 (91) 1 (87) 6 (Southern 94) 1 (northern 94)
3 (96) ~~4 (98)~~ β 2 (97) 1 β 3 γ 4 α
The 96 is a double star of fair separation & might look brighter in a small telescope
Above estimates made with 5 inch
U X Cygni 20 50 30 Est 10.1

(10.0) 2 (99) 5 (104) 6 (110) 2 (11.3) 5 (116) 2 (128) 4 (125)

6 (121) 2 (123) 8 (118)

Meteor at 15.16 G.M.T. Shot thru field of 15"
Mag 9.

Var. Est 11.8

R R Aquil 19 52 02
15 30
4 22 E -2.0

Est on Var = 10.0
(87) 5 (91) 3 (93) 8 (104) 4 (105) 3 (106) 5 (114) 4 (118) 4 (119)
2 (121) 0 (122) ~~8 (127)~~ (12.7 (barely seen)
2 (120) 7 (127)

D 5.32

Clear circle of 15"

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1920phae.proj..629C

Tues. June 7, 1921

G.M.T. L.C Obs 15" Eq. H.S.K.

Winnecke Comet found in predicted place 21h30" +28°
Mag est 9.0.

14.52. S.S Cygni 213843 Est 11.9

Instr. Rest of Instr Phot R.

15.35 43 Suspected } Obs. in Phot. R
35.47 Seen }

36.9	362.2	448	896
.25	317.4	524	1048
.41	369.8	650	1310
.54	304.8	674	1348
37.03	372.2	700	1400
.20	302.2	699	1398
.32	372.1	761	1522
.44	296.0	828	1656
.56	378.8	800	1600
38.05	298.8	818	1636
.17	20.6	820	1640
.30	298.6	786	1572
.40	17.2	817	1634
.55	295.5	901	
39.04	25.6	~~870~~	1733
.17	298.6	832	
.28	21.8	~~824~~	
.40	299.4	794	1614

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1920phae.proj..629C

June 7, 1921

15ᵐ 39,50	18,8	~~f1.6~~	
,40.0	296,2	f2.0	
.08	18,2	~~f1.2~~	
,14	301.0	f3.0	
.23	24.0	~~f1.6~~	166.8
.33	297.0	f3.8	
.43	20,8	~~f1.0~~	
.52	295,8	f0.8	
41. 01	26,6	~~f0.8~~	170.8
,11	296.8	f0.0	
,22	16.8	~~f0.9~~	
,42	295.9	f1.0	
.53	16,9	~~f1.1~~	159.8
42.02	302.0	f8.8	
,11	20.8	~~f2.8~~	
,22	298,0	f0.9	
.39	18.9	~~f6.3~~	156.2
,57	302,6	f5.3	
43.07	17,9		
L.V			
43.20	355,2	35.2	
.34	320,0		
.49	354.0	33.6	
15ᵐ 43.59	320.4	68.8	

Photos lodged except Jan Eclipses

Ball 103
15 50 00

Fred 3K5-1
15ᵐ 50 7.5

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1920phae.proj..629C

Friday, ~~A~~. September, 9, 1921.

15" Eq.

G.M.T.	L.C. Obs.	2 Obj.	235°215°	L.C. Jr. Rec.
13-21-31				
	P.A. 120			Plate I
	180.0	< var. dis.		
	278.6	98.6		
	358.8	94.2		
	93.0	1928	+0.24	
	184.8	167.2		
	277.4	926	+0.10	
	4.7	85.3		
	90.0	1779	−0.04	
		~~18~~	~~+~~	
	P.A. 300			
	3.2	< comp. + dis.	Mean +0.38	
	86.3	83.1	8.92.	
	193.8	649		
	258.7	148.0	+0.61	9 30
	13.2		+0.66	
	84.8	71.6		
	191.6	108		
13-28-0	262.4	142.4	+0.73	
13 24 46				

at 14 9:18 A meteor magn. 8 shot thru the field of the 5" finder.

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1920phae.proj..629C

Sept. 9, 1921.

II

P.A. 300

13-38-0 10.8 < comp * dec
86.3 75.5−
183.2 826
265.8 1581 +042

+055−

10.0
87.4 77.4
193.2 674
260.6 1448 +068

P.A. 120 Mean = +0.58
8.92
9.50

98.6
177.4 788
282.4 674
349.8 146.2 +065−

+060

101.2
174.3 73.1
278.8 774
13-42-55 356.2 150.5 +056

13 42 55

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1920phae.proj.629C

100

Sept. 9, 1921.

	P.A. 120			111
13-48-50	98.8	77.0		
	175.8	79.3		
	278.7	156.3	+ 0.45	
	358.0			
	104.4	68.2	+0.48	
	172.6	84.9		
	273.3	153.1	+ 0.51	
	358.2			
	P.A. 300			Mean = +. 0.50
	186.6	80.4		81.92
	267.0	69.0		
	11.8	149.4	+ 0.59	9.42
	80.8			
	191.1	73.1	+0.52	
	264.2	83.4		
	3.2			
13-53-22	86.6	156.5	+ 0.45	
13 51 06				

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1920phae.proj..629C

Sept. 9, 1921

IV

P.A. 300

13-5930- 190.8 75.6
266.6 f 1.5
7.2 157.1 + 0.44
f 8.7

+ 0.38

184.7 f 0.0
264.7 f 2.7
2.6 162.7 + 0.33
f 5.3

P.A. 120 Mean = + 0.50
274.4 f 0.4 f.92
354.8 75.2 9.4²
98.0 155.6 + 0.47
173.2

0.62

284.8 66.5
351.3 74.0
103.0 140.5 + 0.76
14-3-45 177.0

14 01 38

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1920phae.proj.629C

Sept. 9, 1921

V

P.A. 120

14-8 -40 2f 3.4 68.9
35 2.3 74.0
9f.2 142.9 + 0.72
172'.2

2f 4.3 67.9 + 0.66
35 2.2 f0.7
9f.0 148.6 + 0.60
17f.7

P.A. 300 Mean + 0.65

f.8 74.8 f.92
f3.6 73.1 9.57
16.7 148.5 + 0.60
260.4

12.f 68.9 +0.64
f1.7 75.6
18f.8 144.5 + 0.68
14-13-35 264.4

1'

14 11 0f

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1920phae.proj..629C

Sept. 9, 1921.

VI

	P.A. 300		
14-16 -20	6.6	72.2	
	78.8	67.4	
	192.6	139.6	+ 0.78
	260.0		
	9.8	68.6	0.72
	78.4	77.2	
	190.0	145.8	+ 0.66
	267.2		
			Mean + 0.54
	P.A. 120		8.92
	93.3	83.4	9.46
	176.7	75.0	
	280.0	158.4	+ 0.41
	355.0		
	101.0	81.3	0.35
	182.3	83.3	
	274.4	164.6	+ 0.29
14-21 -33	357.7		
14 18 56			

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1920phae.proj..629

Sept. 9, 1921

P.θ. 120

14-32-50

99.2	77.0		VII
176.2	72.2		
281.0	149.2	+0.59	
353.2			
103.4	65.0	+0.60	
168.4	73.2		
277.5	138.2	+0.81	
350.7			

P.θ. 300

Mean +0.62

8.92

9.54

187.4	76.4		
263.8	70.2		
11.6	146.6	+0.64	
81.8			
192.8	74.9	0.64	
267.7	72.2		
10.0	147.1	+0.63	
82.2			

14-37-0

14 34 50

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1920phae.proj..629C

Sept. 9, 1921

P.A. 300

14-44-44	188.6	74.4		VIII
	263.0	76.8		
	7.8	151.2	+0.55	
	84.6			

	190.8	71.7	0.72	
	262.0	64.3		
	14.0	135.5	+0.87	
	78.3			

P.A. 120

			Mean	~~0.57~~
	278.8	70.2		0.64
	349.0	86.9		8.92
	93.3	157.1	+0.44	9.56
	180.2			

	277.0	82.8	0.42	
	359.8	75.7		
	99.8	158.5	+0.41	
14-49-1	175.5			

14 46 52 Pa Arf = 122 A
δ fr. = 4.2

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1920phae.proj.629c

Wednesday October 12 1921

2 C. Obs. 15 Bohlin's Variable
with telescope 13
62
57
47

Suspected var. is 9 mag. 11
more or less

No other conspicuous stars in
vicinity which is not in the BD.

14:27 S S Puiga 060547 Est 11.8 –

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1920phae.proj..629c

Tuesday Dec 20 1921

Slabs 15 inch Eq. FTC Rec.

G.M.T. 4 Cephei 005381. I

~~+2~~ P. A. 200

12. 28 25	177.2	Var dis.		
	2776	100.4		
	0.0	940		
	940	194.4		
		165.6	+ 027	
	1772			
	2790	101.8		
	06	890	+ 0.24	
	896	190.8		
		169.2	+ 020	
	P. A. 20		Mean = 0.51	
	261.6			841
	3736	1120		8.92
	743	115.1		
	1894	227.1		
		1329	+ 092	
	2596		+ 078	
	3710	111.4		
	852	1020		
12 33 25	1872	2134	064	
61 50		146.6	+	
12 30 55				

23044.522

K 4.542

-6.020

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1920phae.proj..629c

Dec 20 1921

II

	Pa. 20			
12:35 55	187.4	Comp * dio.		
	264.0	766		
	130	638		
	768	1404	077	
	1944			
	2556	612	+090	
	142	662		
	804	1274	103	
	Pa 200		Mean = 0.70	
	2740		841	
	3398	858	9.11.11	
	998	716		
	1714	157.4	043	
	2852		+0.49	
	3303	651		
	888	860		
12 40 35	1748	151.1	055	
30				
12 38 15				
23044.526				
44.542				
0.016				

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1920phae.proj..629C

Dec 20 1921.

	PA 200			III
12. 44 8	2740			
	3060	820		
	98.8	711		
	1699	153.1	051	
	2824		052	
	3017	693		
	927	848		
	1770	153.6	052	
	PA 20		Mean =	074
	62			841
	806	79.4		9.15
	1950	632		
	2582	1326	-092	
	~~40~~			
	159		-096	
	786	627		
	1920	666		
12 48.10	2586	129.3	099	

12 46 09

23044.532

44 542

0.010

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1920phae.proj..629C

Dec 20 - 1921.

	Pa 20			IV
12 32 55	9.2			
	828	736		
	1893	707		
	2600	1443	069	
	116			
	806	690	074	
	1882	698		
	2580	1388	080	
			Mean = +069	
	Pa. 200			841
	955			910
	1752	797		
	2830	677		
	3507	1474	063	
	1050		-064	
	1738	688		
	2806	772		
12 56 48	3578	1460	065	

12 54 48
23044.538
44.542
0.004

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1920phae.proj..629C

Dec 20 1921.

	Pel 2nd			I
13.13 30	1130			
	1748	748		
	2874	644		
	3510	1892	079	
	1041		065	
	1774	733		
	2783	800		
	3583	1533	051	
			Mean =	076
				841
				917
	PQ 20			
	1888			
	2626	738		
	142	642		
	784	1380	081	
	1947			
	2542	595	088	
	98	714		
13 17 5	812	1309	096	
13 15 18				
23044.552				
44.542				
+0.010				

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1920phae.proj..629C

Dec. 20/1921

	PA 20		
13·47:10	1926		
	2600	674	
	156	614	
	770	1288	+1.00
	1984		+0.98
	2604	620	
	118	688	
	801	1308	+0.96
			Mean = 0.78
	PA 200		84.1
	278.2		91.9
	355 8	776	
	1028	674	
	1782	1450	+0.67
	2782		
	3487	705	-0.58
	960	840	
18 57 5	1800	1549	+0.49

13 49 of
23044.576
46.142
0.034

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1920phae.proj..629C

Dec 20 1921

Pa 200

14:6.3 2766
3586 820
982 784
1716 1554 0,47

2802
3504 702 052
936 802
1788 1504 057

Pa 20 Mean = 079
~~9.60~~ 841
796 700 9.20
1958 580
2538 1280 1.02

214
733 519 106
1906 724
14 9:45 2630 1243 110
15 48
14 07 54
23044.589
44.542
+0.047

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1920phae.proj..629C

Dec 20 1921

	pa. 20		
14 : 14.25	7.2		
	811	739	
	193.0	65.2	
	2582	139.1	079
	44		064
	859	810	
	192.0	728	
	2648	1540	049
			0.58
			mean 060
	pa 200		841
	986		9.00
	1762	776	8.99
	2798	720	
	3318	1496	058
			2
	1010		054
	1768	758	
	2766	808	
14 17 45	3574	1566	045

14 16 05

23044.594

44.542

10.052

Troubled by clouds in this group —

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1920phae.proj..629C

Dec 20 1921

δ Aq 20

14:20 25	92.6		
	1780	804	
	2831	675	
	3566	1479	062
	162.6		064
	1682	656	
	2777	805	
	3582	1461	065

Pa 20

Mean = 071
841
9.1$_N$2

	183.3		
	2684	851	
	18.2	378	
	755	1424	073
	198.9		
	2576	587	078
	45	785	
14 24 15	83.0	1372	083

14 22 25

23044.599
44.542
+0057

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1920phae.proj..629C

Dec 21 1921

Pa 20

14·3·815

1904
2630 726
122 694
756 1860 086

1972
2518 606
48 706
804 1862 085

Pa 200

Stars have disappeared in
clouds —

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1920phae.proj..629C

Fri. Dec. 30/1921.

Lb-Obs. 2 Cephei 00°38' L.B.-Jr. Rec.

G.M.T. P.A. 200

11-25-1

143.2 Comp. * clos.

240.1 969

312.4 1120

64.4 2089 −0.55

1511

143.2 102.6 −0.52

245.8 102.4

320.4 205.0

62.8 155.0 −0.48

P.A. 20 −0.14

237.4 84.4 8.41

321.8 91.4 +0.04 8.23

53.8 175.8

145.2

+0.17

239.8 83.8

323.6 824

60.8 766.2 +0.26

11-28-56 143.2

13 57

11 25 58

2305.4476

54572

−.036

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1920phae.proj..629C

Dec 30 - 1921

	P.A.			
11-30-15	244.0	78.8		II
	322.8	79.6		
	62.4	158.4	+0.41	
	142.0			
			+0.44	
	246.6	73.0		
	319.6	82.0		
	57.8	155.0	+0.48	
	139.8			
	P.A. 200	839	Mean +0.15	
	327.9	~~914~~		8.41
	51.8	99.2		8.56
	140.0	183.1		
	239.2	176.9	+- 0.96	
	315.4	105.4	-0.14	
	60.8	85.6		
	150.4	191.0		
11-34-55	236.0	169.0	-021	

11 32 35

230 54.4681

.512

= 0.031

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1920phae..proj..629C

Dec. 30, 1921

Phot. I.

	P. A. 200			
11-35-59	327.4	93.7		III
	61.1	103.6		
	137.2	197.3		
	240.6	162.7	− 0.33	
	320.0	102.0	− 0.24	
	422.0	85.6		
	149.8	187.6		
	235.4	172.4	− 0.14	
	PA. 20		Mean + 0.18	
	64.9	72.5		8.41
	137.4	77.8		8.59
	241.4	150.3	+ 0.57	
	319.2			
			+ 0.60	
	64.8	75.0		
	139.8	71.6		
	246.1	146.6	+ 0.64	
11-39-47	317.7			

11 37 53

23054.484
.912
−.028

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1920phae.proj..629C

Dec. 30, 1921

	P.A. 120		
11. 45. 17	64.0	~~75.4~~ ~~135.4~~	IV
	149.4	58 1H	
	237.2	~~216.8~~	
	316.6	156.8	+ 0.44
	67.9	78.1	+ 0.46
	141.0	77.2	
	248.0	155.3	+ 0.47
	315.2		
	P.A. 200		Mean. +0.32
	155.2	86.4	0.41
	231.6	93.6	873
	324.8	180.0	+0.0.0
	417.4		
			+ 0.17
	151.8	81.2	
	233.0	82.0	
	331.4	163.2	+ 0.34
11. 49. 1	413.4		

11 4) 99

230544. ~~98~~ 491

.512

-.021

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1920phae.proj..629c

Dec. 30, 1921

P.A 200

11-53-42 147.2 & 6.5
233.7 & 0.0
330.6 166.5 ± 0.25
410.6

± 0.38

151.0 & 2.0
233.0 & 0.8
337.4 152.8 ± 0.52
408.2

P.A 20 Mean = ± 0.60

250.8 61.2 8.41
312.0 & 5.3 9.01
55.5 146.5 ± 0.64
140.8

± 0.80

246.8 67.6
314.4 63.0
64.6 130.6 ± 0.97
11-57-36 132.6

Error of watch used = 30 sec. fast.

11 55 39
23054.497
.372
= .015

P.A = 14.0 | S.P.R. 3.6

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1920phae.proj.629C

~~Dec.~~ e. 30 – 1921

P.A. 20

14-33-44 73.8 62.5
136.3 86.0
235.8 148.5 +0.60
321.8

+0.48

58.9 93.9
152.8 66.6
246.0 160.7 +0.37
312.8

P.A. 200

158.4 69.6 Mean +0.40
228.0 94.0 84
320.4 163.6 +0.31 .81
414.4

+0.40 31

147.0 95.6
242.6 ~~96~~ 98.2
330.2 193.8 +0.~~40~~ 31
14-38-19 408.4

12 03
14 36 02
52
14 35 10
2305 4.60A
572
4.096

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1920phae.proj..629C

Dec. 30, 1921.

P=4200

14. 40 5,4	158.0	74.8	VII
	232.8	101.2	
	318.8	176.0	+0,08
	420.0		
			+0,06
	143.3	96.7	
	240.0	80,4	
	329.8	177.1	+0,05
	416.2		
	PA 20		Mean = 0.31
	247.7	69.5	±,41
	317.2	82.7	0,72
	63.3	153.2	+0.51
	146.0		
			+0,56
	244.4	77.8	
	322.2	69,9	
	68.7	147.7	+0.62
14, 44-51	138.6		

14 42 52
14 42 00
23054. 612

512

+.100

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1920phae.proj..629C

Dec. 30, 1921

P.A. 20

14. 46.20 263.2 64.0 VIII
317.2 98.2
58.4 162.2 +0.34
146.6

+0.38

242.2 82.0
324.2 75.4
63.0 157.4 +0.43
138.4

PA. 200 Mean 0.22

334.4 78.8 8.41
413.2 93.5 8.63
149.8 172.3 +0.14
243.3

+0.06

321.8 99.0
320.8 81.8
157.6 180.8 −0.02
14-50-4 236.4 −179.2

14 48 12
14 47 20
2305 4616
512
+.104

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1920phae.proj..629C

Dec. 30, 1921.

	P.A. 200		
14-52-5	327.4	δ 9.4	IV
	416.8	δ 7.0	
	152.2	176.4	+0.07
	239.2		
			+0.02
	325.5	94.3	
	419.8	δ 7.4	
	147.4	181.7	−0.03
	234.8	178.3	
	P.A. −20	Mean	+0.19
	66.6	76.2	δ.41
	142.8	δ 4.2	δ.60
	240.2	160.4	+0.37
	324.4		
			+0.36
	64.8	δ 3.6	
	148.4	78.0	
	245.0	167.6	+0.35
14.56-15	323.0		

14 54 10
14 53 18
23054.619
.572
+.107

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1920phae.proj..629C

Dec. 30, 1921

PA 20

14-58-40	59.0	91.6	
	150.6	93.2	
	233.6	184.8	−0.09
	326.8	175.2	
	54.0	98.8	−0.04
	152.8	81.4	
	244.0	180.2	−0.00
	325.4	179.8	

PA 200

	150.6	87.6	
	238.2	104.7	
	320.8	192.3	
	425.5	167.7	−0.23
	147.8	100.0	−02
	247.8	93.8	
	328.2	193.8	
15-2 53	422.0	166.2	−0.26

Mean −0.1

.45

.27

15 00 46

23054.625

512

+.113

52 sec. fast by 10 o'cl.

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1920phae.proj.0296

Dec. 30, 1921

P. A. 200

15-5 35	147.2	93.0		XI
	240.2	102.8		
	389.8	195.8	− 0.30	
	422.6	164.2		
			− 0.32	
	141.6	102.0		
	243.6	95.4		
	326.8	197.4		
	422.2	162.6	− 0.33	

P. A. 20

	237.2	94.6	
	331.8	103.9	
	53.3	198.5	
	157.2	161.5	− 0.35
			− 0.32
	235.5	97.5	
	333.0	98.0	
	58.4	195.5	
15-9 33	146.4	174.5	− 0.10

15 7 34

23054.630

512

.118

Mean = − 0.27

8.41

8.14

(Error of watch at 15 o'clock = 52 seconds fast.)

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1920phae.proj..629C

$2^2 3^2 0^2$

Sat. May 27/1922

L.C.Obs. 11 Serp. 160210 L.C.-J.Rec.

13-46-0 M(12.3) 50 5 P3N Var. 13.1
L'2L 6M'
M2M M'30

all about should be mad
below m m' etc

R Leonis 094211 in 5" Sphaera
est 10.0

1 H 00

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1920phae.proj.6290

Wed. May 31/1922

15" E Eq. RCClb. ATC Roc

a Ursae Cephei Plot T. 0031

13. 41 15 7.7 Comp * dis. → Pa 200

787 710

1826 852

2678 15-62 + 0.48

00 048

898 898

1921 631

2552 15-29 + 0.52

Sub B Pa 20

1002

1722 720 Mean = 042

2697 870 841

3572 15-95 + 0.39 883

1806 Var dis

2666 860 036

3502 1110

13:46:05 1012 1970

1630 + 032

Key in door of west balcony broken.

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1920phae.proj..629C

May 31 – 1922

P

~~B 9 20~~

~~B d B~~

~~B a 20~~

II

13 49 20

172.2 Vandis			
2780	1058		
3372	937		
4509	1995		
	160.5	+0.37	
1782			
2722	940	+0.38	
3520	1060		
980	2000		
~~B 9 20~~	160.0	+0.32	
~~B d B~~		~~B a 20~~	
2512			+0.52
3708	1196		8.41
878	922		8.93
1800	2118		
	492	+0.57	
2606			
3636	1030		
777	1150	+0.66	
1927	2180		
	1420	+0.73	

13 53 33

13 51 26

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1920phae.proj..629C

May 31–1922

Pa. 200

13 59 28	258.6			III
	3712	112.6		
	842	1042		
	1884	2168		
		1432	+ 0.71	
	260.2			
	3672	1070	+ 074	
	77.7	1123		
	1900	2193		
		1407	+ 076	

Pa. 20

3484			
1010	~~526~~	Mean	+0.68
1700	112.6		8.41
2734	1034		9.09
	2160	+ 0.69	
	1440		
3540			
927	98.7	+ 0.61	
1674	1090		
14:03 32 276.4	2077		
	1523	+ 0.53	

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1920phae.proj..629C

May 81 – 1922

	PQ 20			IV
14 10.16	275.1	Comp * Dif.		
	3502	751		
	933	803		
	1736	1554	+047	
	2730		052	
	3548	818		
	109	689		
	1698	1507	+056	
	PQ 200		Means	056
	146			841
	791	645		897
	1756	870		
	2626	1515	+055	
	27		+060	
	874	852		
	1926	616		
14:15 06	2342	1468	+064	

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1920phae.proj..629C

May 31 - 1922

V

	Pa 2nd			
14:21:13	11 4			
	744	630		
	1802	819		
	2621	1449	+0.68	
	7.7		065-	
	85-8	781		
	1900	696		
	2596	1477	062	
	PQ 20			040
	980			2.41
	1698	718		281
	2646	962		
	3608	1680	+0.23	
	936			
	1770	834	+016	
	2700	914		
14.25 10	3614	1748	010	

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1920phae.proj..629C

May 21 – 1922

14 31 55	δ Aq 20		
	89.2		
	1780	888	
	2751	751	
	3502	1639	+0.30
	972		032
	1720	748	
	2726	872	
	3598	1620	+0.34
	80a.200.		Mean .050
	1972		841
	2548	576	891
	58	834	
	89.2	1410	+075
	1854		+067
	2672	818	
	96	173	
14 35 35	769	1491	+059

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1920phae.proj..629C

May 31 / 1922.

	Pa 20d			
14: 43'5	1942			
	2514	572		
	50	799		
	849	1371	083	
	1872		+0,38	
	2662	790		
	61	835		
	896	1625	+0.34	
	Pa 2d		mean = 047	
			841	
			888	
	2822			
	3562	740		
	914	832		
	1746	1572	+.043	
	2730		+036	
	3598	868		
	976	770		
14: 47'30	1746	1638	+031	

Ext. 11-8

14: 54'00 ♃ ♄ Cygni 213843 –

Clock broken during last

15 00 Civil Watch 9½ hrs = 272 set by Bond

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1920phae.proj..629c

Mon. July 10/1922

15" ℰ ♀ = 2 P.J. Rec.

PC Cls

U Cephei

S.M.T. 00 53 #1 Phot T.

24 53
15 53
9 00 ℰ P.A. 200

13-34-47	149.4	Var. Dis.
	257.6	108.2
	321.1	118.9
	50.0	
		227.1
		132.9 +0.92
	141.8	122.6
	264.4	96.9 +0.84
	337.1	219.5
	74.0	140.5 +0.76

46.67
46.468
0.09

	P.A. 20	Mean = +0.67
	247.0	96.7 8.41
	343.7	115.0 9.08
	55.7	211.7
	170.7	148.3 0.61

23 246.567
246 46.5
6.10 3 9
30

	239.2	100.8 0.58
	340.0	99.4
	65.6	200.2 0.38
13-38-5	165.0	159.8
13 36 -26		

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1920phae.proj..629C

July, 10, 1922.

II

P.A. 20

13-40-0	247.0	91.0	
	338.0	99.9	
	65.1	190.9	
	165.0	169.1	+ 0.20
	237.3	102.7	+ 0.24
	340.0	92.8	
	69.2	195.5	
	162.0	164.5	+ 0.29

P.A. 200

Mean = +0.51
8.41
8.92

333.3	106.3	
73.3	119.9	
145.6	226.2	
265.6	138.8	+ 0.90
326.2	178	+ 0.78
83.0	96.0	
158.0	213.8	
13-43-40 254.0	146.2	+ 0.[illegible]

13 41 50
23246.5)0.89
55.46
0.1088
2

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1920phae.proj..629C

July 10, 1922.

P. Cl. 200

13.49 20	30.6	102.4	
	73.0	112.4	
	148.4	214.8	
	260.8	145.2	+ 0.67
			+ 0.68
	328.2	118.5	
	76.7	97.3	
	157.1	215.8	
	254.4	144.2	+ 0.67

P. Cl. 20

Mean = + 0.40

8.41

8.81

70.6	82.4	
153.0	96.0	
244.4	178.4	- 0.03
340.4		
65.2	98.8	+ 0.12
164.0	95.4	
245.2	194.2	
13-53-20 340.6	165.8	+ 0.27

13 53 20

23266. 577

66.46

0.1158

0.109

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1920phae.proj..629C

July. 10, 1922

P. A. 204

13-5-7-38	66.2	90.8	
	157.0	88.1	
	248.2	88.9	
	336.3	177.9	− 0.02
			−0.08
	68.0	88.2	
	156.2	88.2	
	253.0	172.4	− 0.14
	337.2		

P.Θ. 200 Mean = +0.15

	154.0	100.0	.41
	254.0	99.0	56
	333.8	299.0	
	72.8	199.0	
360		161.0	+ 0.36
	150.8	105.0	0.38
	255.8	96.0	
	330.0	201.0	
14-1-46	56.0	159.0	+ 040
360			

13 59 42

23 266.5851
66.4673

0.1216
0.1121

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1920phae.proj..629c

July 10, 1922

Pa. 200 V

14-7-16	160.4	90,0	
	250.4	193.8	
	336.0	~~243.8~~	
	69.8	138	
	~~360~~	1762	+ 0.07
	156.8	93,1	+ 0.12
	249.9	952	
	334.2	~~245.3~~	
	69.4	1717	+ 0.16
	~~360~~		

Pa. 20

Mean = − 0.13

	249.8	86.8	
	336.6	70,6	
	79.8	15-7.4	− 0.43
	150.4		
			− 0.38
	256.0	82.4	
	338.4	80.0	
	72.6	162.4	− 0.33
14-10-57	152.6		

14 09 08

23246. 58 ~~86~~

46.46H

0.~~128~~ ~~17~~ 129

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1920phae.proj..629C

July 10-1922

VI

P.9. 26

14-16-27

250.9	87.1		
338.0	70.0		
88.2	157.1	− 0.44	
148.2			
		− 0.38	
253.7	104.5		
338.2	78.8		
69.4	183.3	− 0.32	
148.2			

P.9 200

Mean = − 0.22

339.7	90.5		8.41
69.2	84.8		8.63
163.4	175.3	− 0.09	8.19
248.2			
		− 0.07	
342.4	81.4		
63.8	96.0		
155.5	177.4	− 0.05	

14-19-59 251.5

Too many obs here to continue further.

14 18 13

23246.5960

~~0.1345~~

0.1280

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1920phae.proj..629C

Saturday July 15 1922

Globe. 15" E" Eq. L.S.C. Rec.

U Cephei

G.M.T. 005 38' Phot T

	Pa. 200			I.
13, 41 40	176.2	Var, dis		
	277.2	1010		
	357.0	1026		
	89.6	2036	+0.41	
		1564		
	177.7			
	269 0	913	+0.34	
	350 0	1010		
	91.0	1923		
	Pa. 20	167.7	+0.23	
	264.4		Mean = −0.04	841
	360 4	960		837
	955	792		
	1747	1752	−.009	
	2871			
	3497	626	−0.42	
	101.7	791		
13 45 12	180 8	1417	−0.74	

13 43 26

2325-1.5718

51.45-39

+0.418

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1920phae.proj..629C

July 15 - 1922

Pa 20

13 47 55	278 9	Var + dis		II
	3533	744		
	958	850		
	1808	1594	− 0.39	
	2760		− 0.26	
	3578	818		
	904	916		
	182.0	1734	− 0.13	

Pa 200

	986	Cent + dis	Mean	− 0.02
	1794	808		8.11
	2770	830		8.39
	3600	1638	+ 031	
	979			
	1772	793	+ 0.23	
	2682	928		
13:51/30	3610	1721	+ 015	

13 49 42
23 25 1.5762
1.4599
0.122

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1920phae.proj..629C

July 15 - 1922

Pa 200

13:54 18 87.0 Comp + ch

187 8.	1008
275 5	815
3570	1823
	177.7

— 0.04

962	3
1794	882
2677	967
3644	~~1859~~
	179.9

— 500

Pa 20,

~~1687~~

2844	vanish
3500	656
91.2	875
1787	1531

— 051

2812	
3534	722
1013	765
1778	1487

— 056

— 060

13:58 09

13 56 14

2325 1.580

4539

0.127

Mean — 029

841

812

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1920phae.proj. 629C

July 15/1922

Pa 20

14 00 05	2850		IV
	3532	682	
	955	835	
	1790	1517	— 0.5 K
	2784		— 0.64
	3492	708	
	998	712	
	1710	1420	— 0.73

Pa 200

	98		Mean = — 0.38
	840	742	8.41
	1828	932	8.03
	2760	1674	— 0.24
	3571		
	~~8899~~	~~328~~	— 0.13
	1888	928	
14 04.50	2768	880	
		1808	
14 02 52		1792	002

23257.5753

4539

.1314

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1920phae.proj..629C

July 15 - 1922

Pa. 200

14:08.21

	00.2		
	888	886	
	1855	801	
	2656	1687	-021

8.2

86 0	778	-0.26
1851	857	
2708	1635	.031

Pa. 20

94.0		
1772	832	
2840	611	
3451	1443	-069

Mean = 841 / 044 / 797

	1030		063
	1720	690	
	2743	812	
14 12.55	3555	1502	-057

Fold spread there all except Jupiter satellites

14 10 38

23251.5907
4539
0.137

14 10 Meteor 5th mag. shot Thru field

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1920phae.proj..629c

(Mount) July 31-1922

L.C. Obs 15" E Eq F.T.C. Roc

163172 Phot T.

B.M.T.

14.4.08 Pa 30

763 Comp * dis

1016 253

2550 279

2829 532 +

758

1032 274

2562 254

2816 528 +

Pa 210

1664

1962 298

3366 415

3781 713 +

1622

2028 406

3398 438

3736 844 +

14 45 50

Obsd Dec = +73.4

Sep = 4.18

P.a. = 205.0

Comp * = * following 2m + 19' North = magn

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1920phae.proj..629c

Wednesday Sept 13 - 1922

L.C. obs. 15" E. Equatorial F.N.C. Rec

Alcor. Phot. I.

R.A. 220 I

12: 18 55	428	Alcor dis	
	726	298	
	2249	227	
	2476	525	-3,16
	444		
	689	245	-3,12
	2204	298	
	2502	543	-3,09
	R.A. 40		Mean = -3.41
	138.8		
	1574	186	
	3168	216	
	3384	402	-3,76
	137.2		
	1574	202	-3.70
	2128	220	
12: 24: 25	3348	422	-3.65

12 21 40

23311.515

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1920phae.proj..629C

Sept 18/22

II

P. 9-40

12:30.47 134.9
1575 2.26 —
3142 274
3416 500 -3.27

137.4
1560 186 -3.53
1386 210
1596 396 -3.79

P. A. 220 Mean = -3.35

412
707 295
2230 222
2452 517 -3.20

452 -3.17
687 235
2260 296
12 35 50 2556 531 -3.14

37
12 33 18
23 11. 565

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1920phae.proj..629C

Sept. 13 - 1922.

	Pa. 220			
12. 41 29: 26.	444			III
	722	278		
	2247	227		
	2474	505	-3.25	
	476		-336	
	684	208		
	2244	252		
	2496	460	-3.46	
	Pa. 40		Mean = 348	
	316.1			
	3366	205		
	1320	268		
	1588	473	-3.40	
	3192			
	3388	196	-360	
	1382	196		
12 46.35	1578	392	3.81	
01				
12 44 00				
23311.531				

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1920phae.proj..629C

Sept. 18 - 1922

P.G 40 IV.

12:49.46

316 4		
337 5	211	
1347	269	
1616	480	-3.36

~~337~~ 340

317.1		
3387	216	
1369	249	
1618	465	-3.43

P.G. 220 Mean = -346

446		
718	272	
2274	198	
2472	470	-3.41

483		
673	190	-351
2269	239	
2508	429	-361

12 54.16

02

12 52 01

23311.536

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1920phae.proj..629C

Sept-13-1922

P. 9 220

12 58.02 45 5
72 5 270
2272 226
2498 496 -329

472 -334
672 200
2258 274
2532 474 -339

P. 9. 40 Mean = 343

1358
1594 236
3148 219
3367 455 348

1382 -332
1580 198
3157 241
13 03.17 3398 439 356

121 19
13 00 00
23311.542

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1920phae.proj..629C

Sept. 13 - 1922

	8° Q 40			
13:8 45	1367			VI
	1597	230	~~-1.98~~	
	3168	189	3.67	
	3357	419		
	1357		-349	
	1598	241		
	3152	251		
	3403	492	-3.31	
	8° Q 220		Mean = -347	
	2276			
	2510	234		
	438	250		
	688	484	-334	
	2276		-344	
	2460	184		
	438	266		
13:13 34	698	444	-35.4	
19				
13 " 10				
23311.5469				

Nicol prism cleaned at the end of this group.

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1920phae.proj..629c

Sept-13-1922

	PA 220			
13:22:31	3406			VII
	3642	236		
	1592	226		
	1818	462	-345	
	3400		-348	
	3600	200		
	1571	251		
	1828	451	350	
	PA 40		Mean = -338	
	66.6			
	943	277		
	2486	223		
	2709	500	-327	
	678		-327	
	898	220		
	2468	280		
13. 2644	2748	500	-327	

13 24 38

2331/558

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1920phae.proj..629C

Sept 13 - 1922

Pa. 40

13:33:16	67.1			VIII
	958	287		
	2456	233		
	2689	520	-3.18	
	694		-330	
	902	208		
	2463	261		
	2724	469	-3.41	
	P.Q 220		Mean = - 324	
	1548			
	1836	282		
	3386	240		
	3626	522	-3.17	
	1304		319	
	1784	280		
	3382	234		
13:37.55	3616	514	-3.21	

13 35 36
23311.566

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1920phae.proj..629C

Sept 13 1922

	Pq 220			IX
13:40:15	1564			
	1826	262		
	3342	256		
	3598	518	-319	
	1613			
	1806	193	-324	
	3357	303		
	3660	496	-329	
	Pq 40		Mean = 3.33	
	2469			
	2718	249		
	706	206		
	912	455	348	
	2495			
	2694	199	-342	
	668	282		
13:45:14	950	481	.336	
5 29				
13 42 44				
23311.572				

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1920phae.proj..629C

Sept. 13 - 1922.

	Pg. 40			X
13:50:54	682			
	948	266		
	2484	224		
	2708	490	-3.32	
	694		-333	
	902	208		
	2462	276		
	2738	484	-334	
	Pg 220		Mean - 347	
	1569			
	1810	241		
	3396	222		
	3618	463	3.44	
				3.5 2
	1618			
	1802	184		360
	3404	238		
13:55 24	3642	422	365	
	18			
13 53 09				
23311.578				

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1920phae.proj..629c

158

Sept. 13 - 1922

Pa 220 XI

13 - 58:38

1562		
1868	306	
3372	228	
3600	534	-312

1588		-321
1828	240	
3366	254	
3620	494	-330

Pa 40 Mean = 330

2456		
2718	262	
680	222	
902	484	334

2492		338
2716	224	
692	246	
938	470	-341

14. 02 40

14 00 39

23311.584

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1920phae.proj..629C

Sept 13/22

14	PQ40			XII
13:05:53	2462			
	2722	260		
	713	205		
	918	465	-343	
	2508		-345	
	2707	199		
	682	258		
	940	457	-347	
	DQ220		Mean -342	
	3352			
	3640	288		
	1612	194		
	1806	482	335	
	3405		-338	
	3600	195		
14	1564	272		
13-1023	1836	467	-342	
16				
14 of 08				
23 31 1.589				

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1920phae.proj..629C

Sept 13 - 1922

Pa 220 XIII

14 17 15	3348		
	3668	320	
	1586	212	
	1798	532	-313
	3409		-329
	3618	209	
	1580	252	
	1832	461	345
	Pa. 40		Mean = 334
	684		
	932	248	
	2492	212	
	2704	460	346
	692		338
	922	230	
	2464	264	
14:21:25	2728	494	330

14 19 20
23311 597

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1920phae.proj..629C

Sept 13 - 1922

XIV

	P Q 40		
14:30 10	630		
	982	352	
	2482	226	
	2708	578	-294
	672		- 307
	930	258	
	2466	258	
	2724	516	-320
	Q A 220		Mean = 321
	1574		
	1840	266	
	3380	234	327
	3614	500	~~-286~~
	1604		
	1798	194	- 336
	3379	276	
14:34 84	3649	464	- 344

14 32 22

23311.606

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1920phae.proj..629c

Sept 13 - 1922

XV

	Pa 220		
14;38.07	1568		
	1838	270	
	3402	206	
	3608	476	-338
	1606		-360
	1780	174	
	3412	217	
	3629	391	-382
	Pa 40		Mean = -330
	2419		
	2732	263	
	669	297	
	966	560	-302
	2420		-300
	2700	280	
	681	287	
14:42:43	968	567	-299

16 60 25
23311.612

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1920phae.proj..629C

Sept-13/22

	P Q 40			XVI
14:47 40	2416			
	2736	320		
	689	229		
	918	549	-307	
	3468		-308	
	2710	242		
	664	298		
	962	540	-310	
	P.Q. 20		Mean = -328	
	3369			
	3650	281		
	1602	196		
	1798	477	-338	
	3411			
	3618	207	-347	
	1589	233		
14 53 02	1822	440	-356	
14 50 21				
2 33 41.619				

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1920phae.proj..629c

Saturday Sept 16 - 1922.

L.C. obs 15" E. Equatorial I.S.C Rec.

alcor. 132155 Phot I.

P. A. 220 I

12:23 48

	3382		
	3616	234	
	1602	202	
	1804	436	-358
	3400		
	3599	199	-362
	1602	220	
	1822	419	-367
	P.A. 40		Mean = -353
	678		
	936	258	
	2474	208	
	2682	466	-343
	688		-344
	916	228	
	2488	234	
12 28 18	2722	462	-345
06			

12 26 03

23314.517

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1920phae.proj..629C

Sept 16 - 1922

PG 40

12.32.05

	682		II
	908	256	
	2448	260	
	2708	516	-8.20
	687		319
	933	246	
	2462	274	
	2736	520	318

PG 220

Mean = -332

	1588		
	1802	214	
	3388	234	
	3622	448	352
	1568		
	1808	240	-3.46
	3392	234	
12 36.25	3626	474	339

12 36 15

23314.524

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1920phae.proj..629C

Sept 16 - 1922

III

12:37	PG 220		
	1606		
	1826	220	
	3406	206	
	3612	426	-3.63
	1604		
	1808	204	-358
	3402	242	
	3644	446	-353
	PG 40		Mean = -342
	2464		
	2730	266	
	698	242	
	940	508	-324
	2464		
	2720	256	-326
	698	240	
12:42.0±	938	491	-329

12 40 18

2 3314.528

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1920phae.proj..629C

Sept -16/22

	Pa 40			
6 12:55 10	2468			IV
	2728	260		
	688	234		
	922	494	-330	
	2438		-320	
	2730	292		
	697	250		
	947	542	-309	
	S.A 200		Mean = -334	
	3402			
	3628	226		
	1392	226		
	1818	452	-350	
	3410			
	3218	208	-348	
	1572	250		
13 0 35	1822	438	-347	
12 58 22				
23 16 560				

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1920phae.proj..629C

Sept. 16 - 1922

P.A 220 V

13. 10 22

3408
3616 208
1584 230
1814 438 -357

3388
3619 231 -352
1588 224
1812 455 348

P.A 40 Mean = -3.30

698
930 232
2452 266
2718 478 328

3.18

664
978 314
2488 282
2720 546 308
287

13: 14-26

13 12 24
2331 4.550

1920phae.proj..629c

Sept. 16. 1922

VI

	P Q 40		
3:36.52	684		
	948	264	
	2470	245	
	2715	509	-324
	694		
	936	242	-324
	2466	262	
	2728	504	-325
	P Q. 220		Mean = -328
	1558		
	1836	278	
	3402	204	
	3606	482	-335
	1580		-332
	1840	260	
	3390	236	
13 41 17	3626	496	-329
9			
13 39 4			
23316.569			

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1920phae.proj..629c

Sept 16 - 1922

VII

PA 220			
1590			
1806	216		
3338	320		
3658	3-36	-3.11	
1344		-304	
1858	314		
3352	256		
3608	570	-298	
PA 40		Mean -. ~~314~~	-304
2444			
2754	310		
678	264		
942	574	-296	
2474			
2734	260	-305	
695	270		
965	530	-314	

13 58

14:09 06

Done Tried to be cutting off

Reject above pairs

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1920phae.proj..629C

Sept 16-1922

	Pg 40			XIII
14: 12:41	2494			
	2702	208		
	691	247		
	938	455	-348	
	2504		342	
	2702	198		
	693	280		
	973	478	337	
	Pg 220		Mean = -340	
	3369			
	3648	279		
	1592	216		
	1808	495	329	
	3392		337	
	3618	226		
	1616	236		
14: 16 53	1852	462	345	

14 14 47
2331 4.594

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1920phae.proj..629c

Sept 16 - 1922

	Pa 220			IX
14: 18 43	3378			
	3638	260		
	1600	200		
	1800	460	-3.46	
	3406			
	3604	198	-3.58	
	1600	212		
	1812	410	-371	
	Pa 40		Mean = -345	
	704			
	902	198		
	2462	270		
	2732	468	-342	
	666		-332	
	930	264		
	2471	249		
14: 23 68	2720	513	-322	
1				
14 21 68				
23314.598				

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1920phae.proj..629C

Sept 16 - 1922

X

14.2851 Pg 40

692		
942	250	
2481	317	
3798	567	-2.99

677		316
928	251	
2488	236	
2724	487	333

Pg 220 Mean = -337

1572		
1840	268	
3408	190	
3598	458	347

1604		358
1802	198	
3393	215	
3608	413	-370

14 32 51

14 30 51

2331 4605

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1920phae.proj..629C

Sept 16-1922

	P.a 220			XI
14:48:30	1560			
	1810	250		
	3398	250		
	3648	300	-327	
	1592			
	1823	231	-230	
	3380	258		
	3638	489	-332	
	Ta. 40		Mean = - 332	
	2478			
	2710	232		
	686	234		
	920	466	-343	
	2488		-333	
	2748	260		
	668	261		
14:52 14	929	521	-323	

14 50 22

23314.618

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1920phae.proj..629C

Monday Oct. 30/22

15" E. Equatorial

L.L. obs. U. Cephei 00 53 81 — L.L.L.Bgc. Phot F.

P.9.20

11 32 50	220 4	Var. dist.		
	264	410		I
	172	712		
	884	1122	-137	
	200 2			
	278 8	786	-121	
	238	478		
	811	1264	-105	
	P.9.200		Mean = -122	
	3036			
	3584	448		
	1168	644		
	1812	1092	-144	
	2980			
	3530	550	124	
	1118	722		
11:39:22	1840	1272	104	

See next page

Reject above group — Black spot on Nicol birthed.

- Beeswax removed from inside of eyepiece —

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1920phae.proj..629c

Oct 30 - 1922

U. Cephei

	Pa 200			#
11:45:29	740			I
	1322	582		
	2582	446		
	3028	1028	-159	
	788		-158	
	1274	486		
	2577	533		
	3130	1039	-156	
				841
	Pa 20		Mean = -158	683
	1677			
	2210	533		
	3502	406		
	3908	939	-181	
	1709			
	2175	466	-159	
	3424	656		
11:49:11	4080	1122	-137	
11:47:20				

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1920phae.proj..629c

Oct 20 - 1922

	Pa 20			
11 55' 10	1670			~~III~~ II
	2247	577		
	3468	570		
	4028	1147	-131	
	1622			
	2198	576	-136	
	3498	530		
	4028	1106	-140	
				841
	Pa 200		Mean - =	139
				702
	2326			
	3108	582		
	792	580		
	1372	1162	128	
	2372			
	3153	581	-142	
	844	456		
11 58 43	1300	1037	157	
113 53				
11 56 56				
	Sk Cygni 213843 Est 9.8			
12-05	Observed in 12"			

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1920phae.proj..629c

Oct 30 - 1922

	P 9200			
12:10 42	2532			III
	3080	548		
	820	466		
	1286	1014	-162	
	2530			
	3048	518	-162	
	798	300		
	1298	1018	-161	
				841
	P a 20		Mean = -	139
	3404			702
	4106	702		
	1668	558		
	2226	1260	-106	
	~~2226~~			
	3470		-116	
	4048	578		
	1622	586		
12:14 40	2208	1164	-127	
82				
24 25 22				
12 12 41				

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1920phae.proj..029c

Oct 30 – 1922

	Pa 20			IV
12:24:00	3452			
	4022	570		
	1616	626		
	2242	1196	-120	
	3440			
	4032	592	-118	
	1586	622		
	2208	1214	-116	
				841
	Pa 200		Mean =	-128
	730			713
	1312	582		
	2536	543		
	3079	1125	136	
	792			
	1324	532	-138	
	2033	576		
12 27 33	3188	1102	141	
11 55				
12 25 58				

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1920phae.proj..629c

Oct 30 - 1922.

	PQ 200			
12 43 43	71.8			I
	1298	580		
	2550	378		
	3128	1158	-12.9	
	893		-1.48	
	1322	489		
	2577	505		
	3082	994	-167	
				841
	PQ 20		Mean = -	141
				700
	1692			
	2156	464		
	3455	585		
	4040	1049	-154	
	1530			
	2214	684	-134	
	3522	540		
12: 47 40	4062	1224	-114	
12 45 42				

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1920phae.proj..629C

Oct 30 - 1922

	Pa 20			
12 56,00	1550			VI
	2280	730		
	3422	646		
	4068	1376	082	
	1611		084	
	2302	691		
	3416	662		
	4078	1353	087	~~III~~
				841
	Pa 200		Mean c	111
				730
	2544			
	3138	594		
	777	567		
	1344	1161	128	
	2530			
	3108	578	138	
	809	499		
13 00 25	1308	1077	147	
12 58 12				

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1920phae.proj..629c

Oct 20 - 1922

3	PA 200			VII
1ʰ 20ᵐ 46ˢ	2564			
	3156	592		
	818	466		
	1284	1058	-152	
	2528		-141	
	3118	590		
	750	362		
	1322	1152	130	
				841
	PA 20		Mean = —	122
	3476			719
	4064	588		
	1628	644		
	2272	1232	112	
	3428			
	4133	705	102	
	1670	622		
3				
1ʰ 24ᵐ 38ˢ	2292	1327	092	
1ʰ 22ᵐ 42ˢ				

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1920phae.proj..629C

Oct 20 - 1922

VIII

3
12 34 31

PA 20

3284
4088 804
1572 712
2284 1516 −054

3374
4036 662 082
1636 582
2218 1244 110

841
Mean = −082
759

PA 200

707
1368 661
2322 700
3222 1361 083−

684
1508 824
2358 560 083
3118 1384 081

3
12 38 18
12 36 24

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1920phae.proj..629c

Oct 30 / 22

3
1h - 44 30

PA 200

710		
1384	674	
2514	688	
3202	1362	-085
746		094
1368	622	
2509	655	
3164	1277	103

PA 20

1606		
2260	654	
3382	731	
4133	1405	076
1470		062
2334	864	
3418	688	
4116	1552	047

IX

841
078
763

Mean = -

3
1h 48·15
3
1h 46·22

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Oct 20/22.

4	Pa 20			X
12:02:23	1544			
	2278	734		
	3387	700		
	4087	1434	−071	
	1610			
	2274	664	072	
	3396	754		
	4150	1418	074	
				841
	Pa 200		Mean = −0	072
	2466			769
	3142	676		
	656	777		
	1433	1453	067	
	2453			
	3255	802	073	
4	728	390		
12:05:30	1318	1392	079	
~~4 03 36~~				
13				
1404 06				

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Oct 30/22

Pa 200

14 13 00	2506			XI
	3166	660		
	638	798		
	1436	1458	-066	
	2484			
	3238	754	-072	
	733	650		
	1383	1404	-077	
				841
Pa 20			Mean =	065
	3406			776
	4030	624		
	1508	876		
	2384	1500	-058	
	3390		-058	
	4142	752		
	1538	1552		
14 16 38	2310	1504	-057	
14 14 49				

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Oct 30/22

	9920			XII
14 25:45	3022			
	4068	746		
	1451	937		
	2388	1683	−022	
	3259		−017	
	4209	950		
	1540	788		
	2328	1738	−012	
	9920s		mean = −	841
	640			032
	1464	824		809
	2430	850		
	3280	1674	−024	
	707			
	1400	693	−046	
	2438	750		
14 29 43	3188	1443	−069	
14 27 44				

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188

Oct 30 - /22

XIII

	PA 20			
14 33 38	666			
	1361	695		
	2422	776		
	3198	1471	063	
	616		047	
	1490	874		
	2448	762		
	3210	1636	-031	
				841
	9a 20		mean = -	032
	1036			809
	2252	716		
	3298	1008		
	4206	1724	-014	
	1492		-018	
	2480	988		
	3398	702		
14 37 40	4090	1690	-021	
14 35 49				

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Oct 30 / 22

XIV

1H 45 Cs watch 29s fast by relay

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Thursday Nov 9 - 1922

Globo U Cephei 00 53.81 F. Rec.

	Pa 20		Phot I.
13 46 30	1548	Var. 8	
	2356	808	
	3376	722	
	4098	1530	052
	1558		-052
	2330	772	
	3368	762	
	4130	1534	-051
	Pa 200		
	2449		
	3248	799	Mean = -046
	625	833	795
	1458	1632	032
	2468		039
	3256	788	
	658	770	
13 50 50	1428	1558	046
13 48 40			

Region too cloudy; sky all covered by clouds.

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Tues. Sept 4/1923

FCCh. 15" E Eq. FCJr Rec
aavso Plot #1
R Scuti 18h20.5

- Var. with 7.1 Var the brighter

12-57-7	17.8
	8.7
	20.2
12-58-3	17.8

7.1 with * just south of Var 7.1 the brighter.

13-0-37	24.6
	24.0
	25.4
13-1-54	25.8

6.1 with 6.7 6.1 the Brighter.

~~13-4-~~	7.0
13-6-50	7.2
	8.8
~~13-~~	8.4

Wrong region

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1920phae.proj..629c

Sept. 4, 1923.

Corso Plot # 1

R. Scuti 184205

Var. with the 7.1 Var. ~~dis~~ brighter.

~~13 20 15~~ 20.6
20.2
13-23-55 19.0
18.8
19.9

(6.22) 61 = -6°.4922 (6.8)
(6.27) Comp = 6.5 = -6°.4923 (8.1)
6.1 with ~~6.7~~ its companion
6.1 = the brighter

21.6
13-27-05 21.4
21.0
20.6
21.2

8.0 with 8.6
8.0 the bright

15.6
13-28-50 13.8
14.4
16.0
15.0

7.6 with D. M. * due South
DM * = -5°.4737 (9.3)
9.9
7.6 the brighter.

25.8
13-31-55 25.2
24.7
26.4
25.5

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1920phae.proj..629c

Sept. 4, 1923

Comparison Plate #1

U Cephei 00 53 81

Var. with 8.1

16.0
18.7
16.0
16.0
16.7

13 - 52 - 23

Var. Brighter

Var. with 10.3

28.7
27.8
28.4
29.4
28.6

13 - 54 - 45

Var. Brighter.

8.1 with 8.4

7.0
8.9
9.4
7.7
8.3

13 - 58 - 40

8.1 = Brighter

8.1 with 10.3

21.7
19.7
20.4
20.0
20.4

14 - 0 - 50

8.1 = Brighter

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Sept. 4, 1923.

aavso. ~~Phot~~ #1

Var. with 10.2 Var. Brighter.

14-3-43

25.5
27.5
26.6
23.8
25.8

Var with 8.4 = Var brighter

these stars are about as far apart as can be conviently measured in 15" glass.

14-6-53

20.0
19.2
19.0
19.2
19.4

Var. with F.4.

14-24-0

20.0
19.8
21.0
22.0
20.7

Var. with 10.2

14-26-50

27.0
26.2
24.8
26.0
26.0

8.1 with 10.3

14-28-27

19.2
17.8
15.4
19.0
17.8

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1920phae.proj..629C

Sept. 4, 1923

AAVSO PHOT. NO. I

f.1 with f.4

	7.0
14.30-10	6.7
	7.2
	7.4
	7.1

Var. with 10.3

	29.0
14-31-55	28.8
	29.2
	29.4
	29.1

Var. with f.1

	20.0
14-33-25	20.4
	18.0
	18.2
	19.2

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1920phae..proj..629C

Thurs Sept 6/23

F.C.Jr. 15" ℰ 29. F.C.Jr Rec

aavso Plot #1

N Cap. Region 005-381

1830

6 2 3 E

5 37

Var. with 10.2 ✓

28.4 Var. Brighter

12-35-59 26.8

26.0

25.8

25.8

Var. with 10.3 ✓

28.6 Var. Brighter

12-38-20 26.8

26.8

26.4

27.2

Var. with 8.1 ✓

21.0 Var. Brighter

12-40-35 19.5

18.0

18.0

19.1

Var. with 8.4 ✓

19.8 Var. Brighter

12-42-25 19.6

19.0

19.8

19.5

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1920phae.proj..629c

Sept. 6, 1923

AAVSO Phot. #I

8.4 with 8.1 ✓

	6.0	8.1 = Brighter
-12-43-50	6.1	
	5.7	
	5.8	
	5.9	

8.1 with 10.3 ✓

	24.4	8.1 = Brighter
-12-45-49	24.2	
	24.8	
	24.4	
	24.5	

10.3 with 8.4 ✓

	26.6	8.4 = Brighter
12-48-25	27.0	
	25.0	
	24.7	
	25.8	

8.4 with 8.5 ✓

	1.6	8.4 = Brighter
12-52-12	1.4	
	1.8	
	1.4	
	1.6	

8.1 with 10.3

	20.8	8.1 = Brighter
13-2-0	22.2	
	20.4	
	20.4	
	20.9	

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1920phae.proj..629C

Sept 6, 1923

AAVSO PHOT. #I

	f. ~~5~~ 4 with f. 4	
	6.7	8.1 = Brighter
13 – 3 – 15	6.4	
	6.8	
	6.2	
	6.5	
	8.4 with 10.3	
	21.8	8.4 = Brighter
13 – 4 – 55	25.8	
	24.2	
	22.4	
	23.6	
	8.4 with 8.5	
	1.2	8.4 = Brighter
13 – 6 – 25	1.4	
	1.2	
	1.1	
	1.2	
	Var. with 10.3	
	27.4	Var. Brighter
13 – 8 – 15	28.0	
	27.7	
	27.5	
	27.6	
	Var. with 8.4	
	13.4	Var. Brighter
13 – 9 – 45	19.0	
	18.8	
	16.5	
	16.9	

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1920phae.proj..629c

Sept. 6, 1923

AAVSO PHOT. NO. I

Var. with f.1

20.0

+3-11-30 17.2

15.4

15.9

17.1

Var. with 10.2

29.8

13-13-15 28.9

28.8

28.0

28.9

Var. Brighter

Var. = Brighter

X Cas 01495 & add Chart #1

Hagen chart & prior not.

~~Chart~~ given used (see Bound vol of Charts Ser. IV - V

A with B

24.4

13-47-59 25.2

22.9

25.8

24.6

A = H2 = 7.1 H.P.

(all letters small letters)

B = H13 = 9.2 H.P.

~~B~~ A with C

29.6

13-49-59 28.4

28.8

29.0

29.0

C = H36 + 0.1 H.P

Brighter & plus Recorded first.

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1920phae.proj..629C

Sept. 6, 1923

AAVSO PHOT NO. I

	A with D	A = H 2 = 7.1 H.P.
	31.2	D = H 5 = 10.2 HP
13-51-25	30.4	
	30.8	
	32.2	
	30.9	
	A with E	E = H 4 = 10.8 HP
	32.2	
13-54-20	32.1	
	32.2	
	32.0	
	32.1	
	A with F	F = H 3 4 = 11.1 HP
	30.8	
13-55-35	30.6	
	30.8	
	31.4	
	30.9	
	A with L	L = H 5 7 = 11.2 HP
	31.2	
13-57-15	32.2	
	31.8	
	32.6	
	32.0	
	A with M	M = H 5 6 = 11.2 HP
	32.4	
13-58-35	33.2	
	33.0	
	32.8	
	32.8	

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Sept. 6, 1923.
AAVSO Phot No. I

A with Var.

	29.0
13-59-55	29.2
	29.6
	29.4
	29.3

A with G ϑ = H 55 = 11.2 HP.

	32.1
14-0-50	31.2
	30.8
	31.0
	31.3

A ~~Var~~ with H H = H7 δ = 12.5 HP.

	35.4
14-2-30	35.6
	35.5
	35.6
	35.5

A with K K = H 80 = 12.7 HP.

	35.8
14-4-0	35.0
	35.8
	34.8
	35.3

A with N N = H 91 = 11.4 HP.

	34.2
14-5-50	34.4
	34.0
	34.0
	34.2

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1920phae.proj..629C

Sept. 6, 1923

AAVSO PHOT. NO. I

B with N — N = +61 = 11.4 H.P.

	24.6
14-7-25	24.8
	24.6
	24.4
	24.6

B With O — O = +46 = 10.6 H.P.

	21.4
14-8-20	22.4
	22.2
	22.0
	22.0

B with P — P = +64 = 11.5 H.P.

	27.6
14-9-10	27.7
	27.4
	27.8
	27.6

B with Q — Q = +4~~5~~[20] = 9.6 H.P.

	19.4
14-10-30	18.0
	18.6
	18.2
	18.6

B with R — R = +43 = 10.6 H.P.

	25.8
14-11-30	25.6
	25.5
	25.8
	25.7

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1920phae.proj..629c

Sept. 6, 1923.

AAVSO PHOT NO. I

B with S

21.1
14-12-35 20.4
20.0
19.8
20.3

S = H24 = 97 H.P.

B with Var.

17.6
14-14-25 17.7
15.8
17.2
17.1

with

1X 30

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1920phae.proj.629C

Friday October 5 - 1923.

Lbbs. U Cephei 005-381 GFC rec.
P.a

12;

Sky all cloudy

Impossible to get any observations.

P.A.

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1920phae.proj..629c

Saturday Oct 20 - 1923

15" E Eq

L C obs

F. F. C. rec.

	γ Cephei	005381		
	Pha 20			
12 9.01	19.9.2	Vaudis		
	2604	612		
	14.6	600		
	746	121.2	-117	
			130	
	1993			
	2530	537		
	20.2	553		
	755	1090	-144	
			844	
	Pa 20.		Mean = -166	
	2970			
	3402	432		
	1172	450		
	1622	882	-19.6	
			-203	
	2980			
	3407	427		
	119.2	407		
12 12 40	1599	83.4	210	

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1920phae.proj..629C

Oct 20 – 1923.

	PA 20°		
12:37.25	2944		
	3366	422	
	121.2	392	
	1604	814	21,5
	2950		214
	3352	402	
	1204	422	
	1626	824	212
			~~840~~
	PA 200		Mean = 167
	185		~~645~~
	809	624	674
	1992	526	
	2518	1150	130
	152		
	766	614	120
	1975	631	
12 40.58	2606	1245.	110

Var at Max.

Due on Oct 19 – 24 – 29 etc.

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1920phae.proj..629c

Oct 20 - 1923

A.A.V.80 Phtms Kodak wedge

U Cephei

41.1
12:47:40 428 var mik 10:3
41.2 var the brighter
408
163-9
414

263 var mik 8,1
12 49 40 278
270
258
1069
267

10.2 + 81
Too far apart

197
12 53 10 200 10.2 mik a star midway between
222 10.2 + 81 = * X 10.2 brighter
194
813
203

B9.2
12:55 25 406 * mik 81 - 81 brighter
398
400
1596
399

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Oct 20/23

	5.8	8.1 with 8.4 8.1 brighter
12 57 25	5.8	
	6.1	
	6.8	
	24.5	
	6.1	
	8.6	8.4 + 8.5 8.4 brighter
12 59 35	10.0	
	7.8	
	6.8	
	33.2	
	8.3	
	9.3	10.2 with 9.9 9.9 brighter
13 01 38	10.0	
	10.4	
	8.8	
	38.5	
	9.6	
	18.0	9.0 with 9.5 9.0 brighter
13 05 25	18.2	
	18.4	
	18.5	
	65.1	
	16.2	
	14.2	9.0 with 9.2 9.0 brighter
13 07 35	12.8	
	15.2	
	15.8	
	18.9	
	14.8	

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Oct 20/23

	304	86 with y. 86 brighter
13-11 20	298	
	305	
	309	
	1216	
	304	
		77 with y 77 brighter
	408	
13; 15-19	404	
	406	
	405	
	1623	
	405	
	32.4	var 8.1
13 18 40	273	
	262	
	274	
	1133	
	283	

(81) 3 (84) 4 (85)

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