1894phae.proj..524w

KG
11365
523

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1894phac.proj..524w

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1894phae.proj...524W

KG 11365.523

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1894phae.proj..524W

Apr. 9. 1894.

Nu. Pc 441 = +62° 796 Sr. obs.

3 29 +62.2
9 10
+ ✓ K1

9 20
✓ ✓ 1

Index to left

A 6 311.1 91.1 ✓
K2.2
301.1 112.0 ✓
✓3.1 ~~201.1~~ + ~~16~~ ✓
203.1 −0.44
156.9

Index to right

36.2 99.4 ✓
136.0
30.0 113.1 ✓
212.9 ✓ + ~~14~~ ✓
K3.1 147.1 −0.69

~~207~~ 26.9 109.9 ✓
~~K3.0~~ 136.8
31.0 110.1 ✓
2200 + ~~12~~ ✓
K1.1 140.0 −0.77

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1894phae.proj..524W

April 9, 1894.

Index to left.

116.7	114.1 ✓1	
233.8		
126.4	102.4 ✓1	
229.2	217.9 ✓1 + 4.3 ✓	
	142.1	-0.79

123.7	102.1 ✓1	
225.8		
119.9	112.5 ✓1	
232.4	216 ✓1 + 4.3	
	145.4	-0.67

Index to right.

211.0	110.1 ✓1	
321.1		
218.4	94.1 ✓1	
316.5	202 ✓1 + 4.5 ✓	
	151.8	-0.54

~~Var = +62° 59 3 } bottom finder~~
~~Var 2 = +62° 59 9 } + Large Sel.~~

Var = +62° 59 3 } in finder
Var 2 = +62° 59 9 }

Var = +62° 59 3 } in Large Sel.
Var 2 = +62° 59 9 }

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1894phae.proj...524w

April 9, 1894.

Much troubled by clouds in latter part of prec. photometric measurements. Sky pretty clear at time of relative estimates

Comp. of Chron.

Bond 3924			B. + C. 1182		
9	4	00.0	9	2	37.2
9	5	00.0	9	3	37.2

Re. Jupr. I.

9 +12 5-4 W. M. T.
8 12

9 20 06
9 21 06 C. M. T.
9 4 00 = B 3924
17 06
9 2 37 = B+C 1182
9 19 43 = {time of Ed. by B+C 1182}

Re. Jupr. I. W obs Waite rec.
~~compared watches~~

9 23 53 False alarm.
34 00 Sat. seen.
Region very low: Jupr. boiling violently, and reshaping region of Sat.

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1894phae.proj..524W

April 9, 1894.

Sat. not certainly seen until some 14 m. after theoretical time of reappearance. Just. very close to horizon.

Chron. Comp.

B. 394. B + C. 1182.

9 42 00.0 = 9 40 37.2

9 43 00.0 = 9 41 37.2

Faint Variables. H. Obs.

Too cloudy for faint Variables

Photometric measurements of bright double stars. W. Obs.

~~R.A. 8h 8~~ ~~8.9~~

Σ 1143.

~~α~~ 1h 0m −4.9

11 35m

+3 35m

Clouds. Index to right + above

28.0

~~+0.9~~ 164.2

Clouds 40.0

158.9

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1894phae.proj...524W

April 9 1894

Slope to left + below

		128.2	Measurements made
		247.0	with difficulty +
h	m	117.5	through clouds
10	46	255.0	Stopped by clouds.

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1894phae.proj..524W

Afw. 17. 1894.

Dr. Hodge Louis. Fr. Ob.

Series 17 X.

5 5 2 +20.0

9 3 5

+3 -3

7	3A	1162	–	3.28	
			–	3.10	9.68 4.19
			–	3.30	
		1163	–	3.40	
			–	3.47	10.37 4.49
			–	3.50	
		1165	–	4.51	
			–	4.67	13.88 6.01
			–	4.70	
		1173	–	2.91	
			–	3.10	9.16 3.97
			–	3.15	
		1180	–	3.00	
			–	2.95	8.93 3.87
			–	2.98	

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1894phae.proj...524w

Apr. 17, 1894.

1182	3.77		
	3.88	11.50	4.98
	3.85		
1184	2.50		
	2.57	7.70	3.33
	2.63		
1194	2.88		
	2.80	8.45	3.66
	2.77		
1206	2.75		
	2.83	8.48	3.67
	2.90		
1207	3.01		
	3.25	9.54	4.13
	3.28		
1224	3.00		
	2.85	8.81	3.81
	2.96		
1226	2.85		
	2.88	8.43	3.65
	2.70		

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1894phae.proj..524W

April 17, 1894.

1228	2.80		
	2.75	8.17	3.54
	2.62		
1243	3.10		
	3.33	9.73	4.21
	3.30		
1248	2.80		
	2.91	8.68	3.76
	2.97		
1250	3.25		
	3.35	9.80	4.24
	3.20		
1256	4.38		
	4.51	13.32	5.77
	4.43		
1272	3.16		
	3.00	9.13	3.95
	2.97		
1284	2.25		
	2.45	7.10	3.07
	2.40		

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1894phae.proj...524w

April 17, 1894.

1290	2.51		
	2.42	7.30	3.16
	2.37		
1294	2.32		
	2.42	7.22	3.13
	2.48		
1295	2.55		
	2.77	8.14	3.52
	2.82		

M. P. 441. Str. Obs.

3 29 +62.2
11 110
+7 +81

Index to left

9-24 310.8 < 112.2 V^ Comp. star Dec.
63.0
313.3 109.2 V^
62.5 221.4 V^ ~~+1.0~~ V
138.6 -0.50

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1894phae.proj..524W

April 17, 1894.

Index to right.

45.0 — 10 5.0 ✓
150.0

40.0 — 118.8 ✓
158.8 — 223.8 ✓ ~~+1~~ ✓
136.2 — −0.85

39.9 — 115.1 ✓
155.0

48.0 — 100.2 ✓
148.8 — 215.9 ✓ ~~+3~~ ✓
144.1 — −0.69

Index to left

133.7 — 109.3 ✓
243.0

127.0 — 118.4 ✓
245.4 — 227.7 ✓ ~~+1~~ ✓
132.3 — −0.93

128.0 — 118.5 ✓
246.5

131.9 — 110.2 ✓
242.1 — 224.7 ✓ ~~+1~~ ✓
136.3 — −0.95

Index to right.

227.0 — 104.8 ✓
331.8

222.8 — 113.4 ✓
336.2 — 218.2 ✓ ~~+3~~ ✓
141.8 — −0.94

Mean = −0.88

9 4
9 33.0

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1894phae.proj...524W

April 17, 1894

Dun. Tredyffrin Town. Gr. Ds.
Series 17[3].
6 3 +19.9
11 ✓✓
7✓ 23

10 0	1418	3.78		
		3.79		
		3.80	11.37	4.92
	1432	3.10		
		3.40	9.79	4.24
		3.29		
	1467	2.80		
		3.08	9.00	3.90
		3.12		
	1489	2.27		
		2.20	6.72	2.91
		2.25		
	1491	2.40		
		2.39	7.21	3.12
		2.42		

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1894phae.proj..524W

April 17, 1894.

1494	2.22		
	2.20	6.67	2.89
	2.25		
1503	2.27		
	2.11	6.58	2.85
	2.20		
1504	2.00		
	2.00	6.02	2.61
	2.02		
1509	3.12	Star bright.	
	3.10	estimate 8.6	
	3.04	9.26	4.01
1520	2.11		
	2.19	6.45	2.79
	2.15		
1523	2.49		
	2.27	7.23	3.13
	2.47		
1530	2.07		
	2.05	6.18	2.68
	2.06		

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1894phae.proj..524W

April 17, 1894

1531	2.70		
	2.70	8.15	3.53
	2.75		
1535	2.48		
	2.40	7.31	3.17
	2.43		
1538	2.01		
	2.00	6.07	2.63
	2.06		
1547	2.29		
	2.19	6.60	2.85
	2.12		
1552	4.07		
	4.13	12.40	5.37
	4.20		
1659	3.80		
	3.89	11.59	5.02
	3.90		
1684	3.16	Southern, and brighter	
10 V	3.19	component, measured.	
	3.28	9.63	4.17

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1894phae.proj..524W

April 23. 1894.

Dur. Tredyr Tower. Fr. Sr.

+19°

Series 17 4.

6 13 +20.0

11 0

+4 47

& Kr	1305	4.17		
		4.10	12.67	5.49
		4.40		
	1308	3.60		
		4.10	11.67	5.05
		3.97		
	1313	4.62		
		4.70	14.02	6.07
		4.70		
	1331	3.50		
		3.59	10.97	4.75
		3.88		
	1341	3.32		
		3.87	10.79	4.67
		3.60		

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1894phae.proj..524W

April 23, 1894.

1351	2.98		
	3.18	9.35	4.05
	3.19		
1358	2.90		
	2.62	8.41	3.64
	2.89		
1362	2.10		
	2.20	6.51	2.82
	2.21		
1365	3.01		
	3.30	9.31	4.03
	3.00		
1367	3.50		
	3.22	10.14	4.39
	3.42		
1368	2.99		
	2.82	8.49	3.68
	2.68		
1372	2.59		
	2.50	7.68	3.33
	2.59		

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1894phae.proj..524W

April 23, 1894

1387	4.78		
	4.80	14.26	6.17
	4.68		
1392	2.95		
	3.29	9.64	4.17
	3.40		
~~1403~~	~~2.90~~	~~2.84~~	
	~~3.16~~	~~3.05~~	
	~~3.03~~	~~3.19~~	
~~1405~~	~~2.81~~	~~3.50~~	
	~~2.80~~	~~3.24~~	
	~~2.85~~	~~3.42~~	
~~1408~~	~~3.92~~		
	~~3.95~~		
	~~3.81~~		
1403	2.42		
	2.60	7.62	3.30
	2.60		
1405	2.40		
	2.41	7.31	3.17
	2.50		

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1894phae.proj..524W

April 23, 1894.

1408	2.99		
	3.03	9.22	3.99
	3.20		
1416	2.83		
	3.09	8.99	3.89
	3.07		
1418	3.93		
	4.06	11.79	5.10
	3.80		
1419	2.19		
	2.22	6.54	2.83
	2.13		
1428	3.30		
	3.32	9.82	4.25
	3.20		
1432	3.90		
	3.99	11.82	5.12
	3.93		
1435	3.31		
	3.50	10.41	4.51
	3.60		

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1894phae.proj..524W

April 23, 1894.

1436	2.69		
	2.99	8.35	3.62
	2.67		
1437	3.30		
	2.90	9.00	3.90
	2.80		
1440	2.28		
	2.01	6.44	2.79
	2.15		
1441	3.50		
	3.38	10.28	4.45
	3.40		
1444	2.41		
	2.70	7.69	3.33
	2.58		
1452	2.40		
	2.45	7.34	3.18
	2.49		
1453	3.10		
	3.07	9.27	4.01
	3.10		

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1894phae.proj..524W

April 23, 1894.

	1455⁻	2.80		
		2.51	8.21	3.55⁻
		2.90		
	1465	2.40		
		2.09	6.99	3.03
		2.50		
10	31 1467.	3.35		
		3.21	9.66	4.18
		3.10		

After finishing above mins, noticed that the sky was not perfectly clear. No definite clouds noticed in region of zone, although sky somewhat cloudy in other parts.

Gr. obs.

Σ 1245
8 29 +7.1
13 13
+4 44

Index to Right and below.

308.8
64.9 116.1^
313.7
57.8 104.1^
219.8^ −0.78 +1.2
139.8

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1894phae.proj..524W

April 23, 1894

Index to left and above.

36.7		
154.0	117.3^	
33.0		
159.8	126.8^	
	244.1^	~~+0.1~~
	118.9	− 1.28
35.6		
161.3	126.3^	
36.9		
155.8	119.0^	
	245.3^	~~+0.7~~
	114.7	− 1.31

Index to right and below.

310.1	129.8	
240.8	111.0^	
125.0		
250.6	125.6^	
	236.6^	~~+0.9~~
122.7	123.4	− 1.12
248.0	125.3^	
131.9		
242.3	110.4^	
	235.7^	~~+0.9~~
	124.3	− 1.10

Index to left and above.

221.8		
338.8	117.0^	
212.7		
344.2	131.5^	
	248.5^	~~+0.6~~
	111.5	− 1.38

11

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1894phae.proj..524W

Apr. 27. 1894.

Error chron. +14^{s}.8

7 Read. Lyb. I. Gr. obs. Jacobson
Proc. Prof. R. Comp. with sat
prec. = sat. II.

7^{h}		57	305^{s}.		160.2	48.9	
	37	13	7	37	16.2	209.1	line of vis. 744.6
		20	7	37	1	167.0	41.3 186.2
		35				208.3	90.2
7^{h}	39	55	7	39	40	false alarm.	
	40	30	7	40	15	susp.	
		42			27	seen.	
	~~39~~	50			35	169.9	
	41	2			47	211.0	
		13			58	167.2	
	41	23		41	8	214.6	
		30			15	161.2	
		39			24	221.0	
		46			31	162.0	
		53			38	226.0	
		4			49	157.0.	
	42	12			57	219.9	
		19		42	4	156.0	
		27			12	220.0	
		35			20	154.0	
		40			25	228.8	
		49			34	152.3	
		59			44	227.0	
	43	7			52	150.3	

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1894phae.proj..524w

April 25, 1894

7h 43m	15	7	43	00	226.0			
	22			7	146.0			
	32			17	223.8			
	39			24	151.2			
	47			32	227.0			
43	57		307s		147.2			
44	8	7	44.	16.8	225.2	78.0		747.8
	~~+7~~	7	44.	2	~~139.1~~		1	187.0
	27				148.0	79.4		
	34				227.4	157.4		
	40		206s		146.2			
	47	7	44	51.5	238.1	91.9		755.4
	55	7	44	37.	148.0		2	188.8
45	4				223.1	75.1		
	10		83s		145.7	167.0		
	17	7	45	20.8	225.0	79.3		747.7
	23	7	45	6	149.5		3	186.9
	33				227.5	78.0		
	42		232s.		145.8	157.3		
	51	7	45	58.0	226.0	80.2		744.0
46	5	7	45	43	144.2		4	186.0
	14				228.0	83.8		
	25		157s		148.0	164.0		
	35	7	46	39.2	226.9	78.9		749.7
	44	7	46	24	147.0		5	187.4
	53				227.8	80.8		
	2		261s		146.0	159.7		
47	15	7	47	5.2	225.5	79.5	6	742.2
	27	7	46	50	144.9	80.9		185.6
	37				225.8	160.4		
	46		269s		146.0			

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1894phae.proj..524w

April 25, 1894

7h

58 7 48 7.2 230.2 84.2 749.3
15. 7 47 52 143.1 187.3
30 230.0 86.9 171.1
40 275s 143.1
52 227.2 84.1 738.7
51 6 7h50m 6.3 141.2 184.7
~~29~~ 7 49 51 86.0 170.1
57 227.2

Sec is pretty good, especially considering the rather low altitudes. Lat. results are rather close to limb of planet.

B. + C. 1142.

δ	5	17.1	
	6	17.1	
	7	17.1	

B. 394

δ	5	2.3 ~~0.0~~
	6	2.3 ~~0.0~~
	7	2.3 ~~0.0~~

Variable Stars.

R Persei.

3 20 +3v.2
11 v
+7 kv

or w.

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1894phae.proj..524W

April 25, 1894.

R. Perrine. Lr. Lb.

3 2K +3V,0
11 7
+7 K3

Clouds and too low.

J Lewis W obr.

11 27 +3.9
11 20
- 0 7

11 27
11 25
- 0 2

11 35 +3.1
11 37
+ 0 2

So much cloud it is impossible to identify region.

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1894phae.proj.:524w

April 25, 1894.

R. Serpentis N. obs.

15	40	+16.0
11	50	
−3	50	

15	40	
11	55	
−3	45	

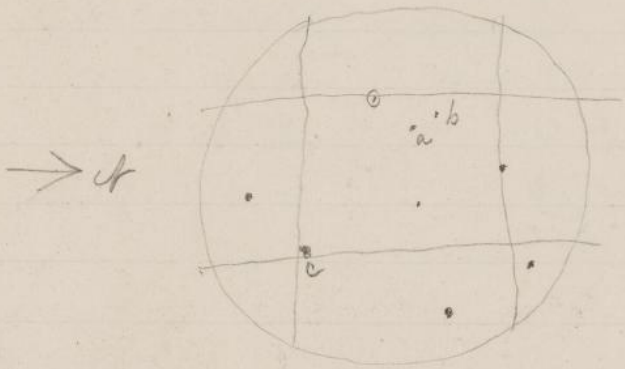
There is a faint star on chart in position 15 h. 43 m. 24 s. R. A. & dec. +15° 32'. Taking this as a reference star the variable should precede it by some 38 s. and be ~~2 thirds 3 m.~~ 2' to 3' north of it.

There is a star in about this position with other faint stars near it. Assuming this to be the variable, there is a faint star preceding it 7.5 s., 1' south of it; there is another star preceding it 5 s. about 3' south of it. Call the first of these two, star A, and second, star B, and call the 1st and principal reference star mentioned star C.

O-Gri

1894phae.proj..524W

April 25, 1894



10h 9m If the star assumed to be the variable is such it is equal to star b, est. 13.0 ~~10h 9m.~~

Sky hazy.

T. Herculis N. Obs.

18 6 +31.3

12 40

−5 26

10-20 Star bright est. 9.5 mag.

R Cygni N. Obs.

19 34 +49.9

13

−6 34

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1894phae.proj...524w

April 25, 1894.

19. 30 +51. 0

13

−6.30

Variable rather bright; as near as can be determined through the haze it is equal to a star which follows it 114 s, 3' south Pc: 8 et: 10.2. This comparison star turns out to be R in Reed's notation. which is 2 (+K9° 3068) in final notation.

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1894phae.proj..524W

April 26, 1894.

Cloudy first of the evening.

D.M. Wedge gone W. obs.

~~6~~ Series 17$\overset{5}{\cancel{4}}$.

6 20 +20.2
10 52
+ 4 32

A 20	1387	4.70		
		4.58	13.88	6.01
		4.60		
	1408	~~3.00~~ 3.60		
		3.45	10.62	4.60
		3.57		
	1416	2.98		
		3.33	9.51	4.12
		3.20		
	1418	3.92		
		4.20	12.12	5.25
		4.00		

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1894phae.proj...524W

April 26, 1894

1419	2.49		
	2.39	7.28	3.15
	2.40		
1428	3.07		
	3.20	9.57	4.14
	3.30.		
1432	4.05.		
	3.80.	11.74.	5.08
	3.89.		
1435	3.68		
	3.39	10.55	4.57
	3.48		
1436	3.07		
	3.02	9.06	3.92
	2.97		
1437	3.49		
	3.60	10.48	4.53
	3.39		
1440	~~3.38~~	2.74	
	~~3.30~~	2.83	8.27 3.58
	~~3.14~~	2.70	

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1894phae.proj..524W

April 26, 1894.

1441	3.40		
	3.60	10.53	4.56
	3.53		
1444	3.29		
	3.38	9.96	4.31
	3.29		
1452	3.19		
	3.03	9.21	3.99
	2.99		
1453	3.41		
	3.30	10.12	4.38
	3.41		
1455	3.03		
	2.88	9.09	3.94
	3.18		
1465	2.77		
	2.99	8.75	3.79
	2.99		
1467	3.53		
	3.64	10.68	4.62
	3.51		

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1894phae.proj..524w

April 26, 1894

1489	2.48		
	2.40	7.52	3.26
	2.64		
1491	3.27		
	3.14	9.32	4.04
	~~2.89~~ 2.91		
1494	2.60		
	2.70	7.92	3.43
	2.62		
1503	2.97	Has a fainter compan-	
	3.03	ion south following.	
	2.98	8.98	3.89
1504	2.50		
	2.58	7.65	3.31
	2.57		
1509	3.68		
	3.74	11.25	4.87
	3.83		
1520	2.60		
	2.69	7.89	3.42
	2.60		

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1894phae.proj..524W

April 26, 1894

1523	2.67		
	2.68	8.15	3.53
	2.80		
1530	2.80		
	2.50	7.90	3.42
	2.60		
1531	3.29		
	3.10	9.60	4.16
	3.21		
1535	3.11		
	2.87	8.76	3.79
	2.78		
1538	2.40		
	2.31	7.21	3.12
	2.50		
1547	2.82		
	2.79	8.25	3.57
	2.64		
1552	4.78		
	5.00	14.90	6.45
	5.12		

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1894phae.proj..524W

April 26, 1894

1600 3.72

10 22 3.90 ~~58~~ 5.01

3.96

Region getting a little low at last of series, but sky seems to be all right as regards clearness, although there is a little haze pretty close to horizon.

Variable Stars.

~~R. Leonis~~

4407 R Leonis W. Alt.

12 18 −19.4

13 55

\+ 1 37

12 18

12 57

\+ 0 39

There is a faint star at alt. 12h 12m 3s R.A. and at −18° 27' dec. Call this star x. It is close to the variable, and just north preceding it. There is another star on chart at 12h 12m 49s R.A.

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April 26, 1894

and −18° 21′ dec. This is Reed's star M. Star x is also one of Reed's stars, but he has given it no letter.

~~x to var., var one m~~.

x 2 var, var. 1 m. in large tel.

10 vv Est. 10.7

On further explanation of these comparison stars, see my book "Comparison Stars for Variables" foot of page 46

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1894phae.proj..524W

Nov. 27. 1894.

Cloudy.

Too cloudy for Gale's New Comet.

Δt 30

Still cloudy.

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1894phae.proj..524W

Apr. 30. 1894.

Gale's Comet. Gr. No.

7	+0	-19.0
9	∨∨	
+2	1∨	

Too cloudy.

10	3∨
+2	∨2

Large area of sky swept over but comet not found. No stars visible, sky too cloudy and growing worse.

Clouds growing thicker still.

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1894phae.proj..524w

May 5. 1894.

7 10 Cloudy.

7 40 Still cloudy.

8 0 " "

8 15 A little clearer.

8 30 More cloudy.

8 45 Growing thick, and steadily worse.

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1894phae.proj..524W

38 Posted to Lere.

May 7, 1894

Nova Aurigæ. Gr. obs.

5	23	~~330.0~~	+32.0
11	17		
+V	V.4		

Index Above

8 10

225.7		∠ fol. + rostbow dis.	
325.8		100.1^	
227.1		94.1^	
~~330.2~~	325.2	194.2^ +1.7 V	
		161.8	-0.35

Index below.

315.0		10 V.0^	
60.0			
318.8		100.2^	
59.0		20 V.2^	+1.V V -0.48
		154.8	
314.0		103.9^	
57.9			
316.0		10 K.K^	
60.4		20 A.3^	+1.V V -0.54
		151.7	

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1894phae.proj..524W

May 7, 1894.

Index above.

48.0
147.8 99.8^

48.0
148.8 100.8^

200.6^ +1.6 -0.41
158.4

47.5
149.0 101.5^

49.7
148.1 98.4^

199.9^ +1.6
160.1 0.38

Index below.

135.0
239.0 104.0^

135.8
238.0 102.2^

206.2^ +1.6
153.8 0.50

~~Adopted~~

8 35
8 32 30

A 37 (11 mags star) 4 Nova

Measurements difficult, owing to twilight, and rather close proximity of new moon

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1894phae.proj..524W

May 7, 1894.

D.M. Wedge Zone. W. obs.

Series 176.

~~+19°~~
+22°

7 59
12 6
+ 4 7

& √3 · 1937 3.10
2.88 8.90 3.85
2.92

1945 3.18
3.14 9.43 4.08
3.11

1946 2.86
2.80 8.49 3.68
2.83

1957 3.09
3.04 9.23 4.00
3.10

1969 2.71
2.78 8.24 3.57
2.75

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1894phae.proj..524W

May 7, 1894.

1970	2.70	Following, and brighter,	
	2.68	component measured.	
	2.74	8,12	3.52
~~1977~~	~~2.08~~	~~Star rather faint.~~	
	~~2.09~~		
	~~2.12~~		
~~1978~~			
1977	2.30		
	2.19	6.59	2.85
	2.10		
1978	2.69		
	2.64	7.90	3.42
	2.57		
1979	4.09		
	4.08	12.29	5.32
	4.12		
1988	3.60		
	3.69	11.07	4.79
	3.78		
1990	3.71		
	3.71	11.22	4.87
	3.80		

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1894phae.proj..524W

May 7, 1894.

1991	4.20		
	4.09	12.39	5.36
	4.10		
1994	3.01		
	3.00	9.08	3.93
	3.07		
2001	2.98		
	2.92	8.87	3.84
	2.97		
2005	2.41		
	2.60	7.50	3.25
	2.49		
2009	3.29	a faint companion	
	3.27	preceding 4.5 s.	0.5' north
	3.30	9.86	4.27
2013	2.63		
	2.68	7.98	3.46
	2.67		
2018	2.31		
	2.28	7.06	3.06
	2.47		

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1894phae.proj..524W

May 7, 1894.

2019	3.08		
	2.99	9.09	3.94
	3.02		
2026	4.77		
	4.83	14.24	6.17
	4.64		
2069	5.51		
	5.51	16.61	7.19
	5.59		
2083	4.68		
	4.70	13.99	6.06
	4.61		
2114	4.55		
	4.60	13.55	5.87
	4.40		
2119	~~4.20~~		
	4.90	Star slightly orange	
	4.99	veiled.	
	5.05	14.94	6.47
	~~5.05~~		
10 3 2131	4.23		
	4.28	12.69	5.49
	4.18		

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1894phae.proj..524W

May 7, 1894

Circumpolar Variables. Gr. 8h.

I Urs. Maj.

12 3.3 + 60.4

13 45

+ 1 12

2.5 T, T 2.5 t.

10 50 Est. 12.4

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1894phae.proj..524w

May 8, 1894.

D. M. Wedge Zone. Special. W. Obs.

+9°

5 36
11 6
+5 30

~~+9°~~ +10.0

Series 176.

7 09	917	3.40		
		3.51	10.51	4.33
		3.60		
	923	3.00		
		3.25	9.55	4.14
		3.30		
	934	3.30		
		3.21	9.68	4.19
		3.17		
	943	3.22		
		3.30	9.87	4.27
		3.35		
	947	3.51		
		3.60	10.79	4.67
		3.68		

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1894phae.proj..524W

May 8, 1894.

952	3.65,		
	3.81	11.18	4.84
	3.72		
999	3.40		
	3.32	10.25	4.44
	3.53		
1011	3.24		
	3.12	9.36	4.05
	3.00		
1023	4.60		
	4.72	13.98	6.05
	4.66		
1332	4.65		
	4.40	13.47	5.83
	4.42		
~~1333~~	~~5.70~~	Wrong star.	
1335	4.40		
	4.53	13.47	5.83
	4.54		
1336	3.48		
	3.41	10.23	4.43
	3.34		

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1894phae.proj..524w

May 8, 1894.

R. Persei. N. obs.

3 24 +35.0
11 57
+ 8 33

T. Leonis. N. obs.

11 28 +4.0
12 @2
+ 34

11 28
12 5-
+ 37

There is a little triangle of stars ~~brighter than the other~~ adjacent to the variable on chart, and brighter than the other stars immediately round about. The following one of the triangle is close beside the variable. The variable is seen at intervals, but is extremely faint; probably rendered a little fainter by close proximity of star above mentioned. There is a curving line of faint stars on chart

(over)

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1894phae.proj..524W

May 8, 1894.

a little following and north of variable. This curving line of stars seems to agree approximately with the chart, although not quite accurately. The southernmost of this line of stars is on chart in position 11 h 31 m. 11 s. R. A., and + 4° 12' dec. This star is thought to be sun, and is a last equal to the variable, as nearly as can be determined

9 17 Est. 14.5

There is some nebulosity, which is troublesome. It is impossible to see this comparison star well enough to sight to locate it.

R. Conn. W. obs.

12 16 −18.5
12 48
+0.32

Troubled by clouds,
There is a star a little north, preceding the variable, and close to it. This star and stars like it will have

1894phae.proj.:524w

May 8, 1894.

to be comparison stars, although the intival is rather large, but there is nothing to insert between them

bc 2 vds, var 5m a
8 st. 9.3

a is the star above mentioned close beside the variable. a is a provisional notation, and bc is new last notation. bc is D. M.
−18° 33′ 3

Location of star a. Position

0 21 2.5
45.0
0 25 7.5

13 29 43.4
30 4 3
30 16.0
31 4.1

1st int. set

star	a	13	29	43.4
star	a	13	30	4.3
"	bc	13	30	16.0
"	bc	13	31	4.1

13 31 54.7
32 7.9
32 19.5
33 7.4

2d int. set

a	13	31	54.7
a	13	32	7.9
bc	13	32	19.5
bc	13	33	7.4

Order of preceding transits star a, star a, star bc, star bc. Bottle in northern leaf.

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1894phae.proj..524W

May 8, 1894.

~~R. Scorpii.~~ W. obs.

R., S., & T. Scorpii.

16 6 −22.2
13 44
− 2 22

16 5 −24.0
13 48
− 2 17

Neither R. nor S. Scorpii are visible to-night. Sky fairly clear, although not exceptionally so. Altitude rather low.

14	10	46.1	Star 4144
	11	0.2	" a
	11	14.3	" a
	11	29.0	" 4144

~~46.1~~
~~+ 21.6~~

+ Order in preceding transits, 4144, star a, star a, 4144, both in northern half. Second series of transits stopped by cloud, but first series is good. Star a is a faint star, hitherto is about the faintest which can be

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1894phae.proj.524w

May 8, 1894.

seen to-night in this neighborhood.
It is perhaps 13 ~~th~~ magnitude.
R. & S. Scorpii are probably at
least a magnitude fainter than
this. They are not even suspected.
R. & S. Scorpii probably fainter
than 14.0. ~~Alt.~~ Scorpii is in the
center of a rather bright nebula.
The nucleus is rather bright,
but no star, as such, can be
distinguished in the center of
10 57 the nebula.
Star 4144 is S.D. −22°
4144. Magnitude 9.2.

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1894phae.proj..524W

May 9, 1894.

D M. Wedge Zone. Special 9° W. obs.

5 36 +10.0
10 57
+5 21

Series 17

5 36
11 14
+5 38

7 √3 917 3.40
3.32 10.03 4.34
3.31

923 3.15
3.27 9.71 4.20
3.29

934 3.32
3.22 9.72 4.21
3.18

943 3.20
3.35 9.93 4.30
3.38

947 3.21
3.49 10.10 4.37
3.40

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1894phae.proj...524W

May 9, 1894.

952	3.60		
	3.77	11.18	4.84
	3.81		
999	3.40		
	3.52	10.52	4.55
	3.60		
1011	3.18		
	3.10	9.37	4.06
	3.09		
1023	4.51		
	4.60	13.83	5.99
	4.72		
1332	4.61		
	4.40	13.51	5.85
	~~4.54~~ 4.50		
1335	4.29		
	4.49	13.28	5.75
	4.50		
A V2 1336	3.53		
	3.71	9.91	4.29
	3.67		

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1894phae.proj..524W

May 9, 1894.

R. Geminorum. W. obs.

7 0 +22.1
12 26
+ 5 26

h 1.5 R, R 1.5 k. Large tel.

9 19 h 1.5 R, R 1.5 k. Finder
Est. 8.5

h and K in very fair rotation.

T Can. Min. W. obs.

7 24 +13.0
12 48
+ 5 24

Clouds.
Moon too bright, clouds, and re
gion rather low.

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1894phae.proj..524W

May 9, 1894.

T. Geminorum N. obs.

7 40 +23.5
13 0
+5 20

Moon too bright.

T. Virginis N. obs.

12 08 −5.2
13 08
+.1 0

12 08
13 11
+1 03

Variable thought to be seen, although not absolutely sure of it. There is a faint star on chart at 12 h. 7 m. 26 s. R. a., −5° 14' dec. This star also thought to be seen at intervals, but both this, and the variable, if seen, are very faint Variable is equal to this star in brightness. Allowing for moonlight, variable is probably fainter than 14.1. Comparison star not well enough, or steadily (over

10 0

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1894phae.proj..524W

May 9, 1894

enough seen for transits in order to locate it.

R. Bygn. W. ole.

19 | 33 +49.9
14 | 37
— 4 54

19 33
14 40
— 4 53
5

19 33
13 40
— 5 53

m 2 var., var 2.5 n. Large tel.
m 2 var, var 2 n. Finder
10 30 Oct. 8.8
m & n are in last final notation

S. D. -21° 4483 W. ole.

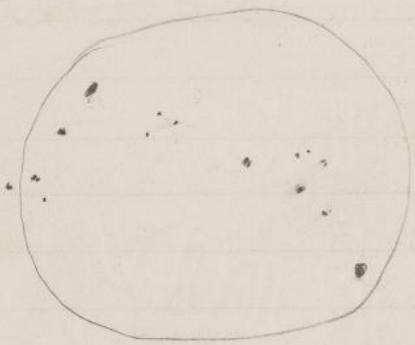
16 57 -21.2
14 5
— 2 52

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1894phae.proj..524W

May 9, 1894.

16 57
14 6
— 2 51



Region identified; the line of four stars, of which the star in question should be one does not show very well. It almost looks as if the star in question was missing or faint. There are one or two faint stars about in position, but it would hardly seem as if they would be S. D stars. Spectroscope put on, no planetary nebula seen; nothing but stellar spectra.

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1894phae.proj..524W

May 10, 1894. Sky hazy.

~~d~~ Σ 1245, P VIII 108. W. Olz.

8 29 +7.1
11 20
+2 51

Index above.

7 51

338.9
35.8 56.9^
332.0
40.8 68.8^
125.7^ −1.07 ~~+3.1~~ ✓

Index below.

60.0
132.0 72.0^
70.0
122.5 52.5^
124.5^ −1.10 ~~+3.1~~ ✓

70.9
126.8 55.9^
60.2
133.2 73.0^
128.9^ −1.00 ~~+3.0~~ ✓

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1894phae.proj..524W

May 10, 1894.

Index above.

151.0

225.1 74.1^

156.7

215.8 59.1^

133.2^ −0.91 ~~+1.9~~

~~+62.0~~ 159.0

218.0 59,0^

148.2

223.2 75.0^

134.0^ −0.90 ~~+1.9~~

Index below.

241.0

310.3 69.3^

247.1

8 16 ~~304.6~~ 306.6 59.5^

128.8^ −1.00 ~~+3.0~~

R. Corvi. W. obs.

12 17 −19.5

12 15

− 0 02

12 17

12 17

0.0

It was remarked on p. 48, in connection with comparison of

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May 10, 1894.

R. Covi, that there did not seem to be any good star to insert between star k (in last final notation) and a star close to the variable, which two stars were used in the comparison of variable on that day. However, to-night the star on chart at 12 h. 12 m. 40 s. R.A. & -18° 31' seems to be a good star to insert between them, and divide the interval which is large. ~~This latter star has also been used by Rad.~~ Call this latter star b, ~~and the~~

15
9 7

k is 11 var., var. 1 ~~a~~ b.
Est 9.v

Wedge measurements of stars k, a & b. (Star a is the star close inside the variable).

k.	2.57		
	2.60	7.67	3.32
	2.50		
b	~~1.94~~		
	2.21		
	2.22	6.81	2.9v
	2.38		

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1894phae.proj..524W

May 10, 1894.

a. 1.82
2.01 6.03 2.61
2.20

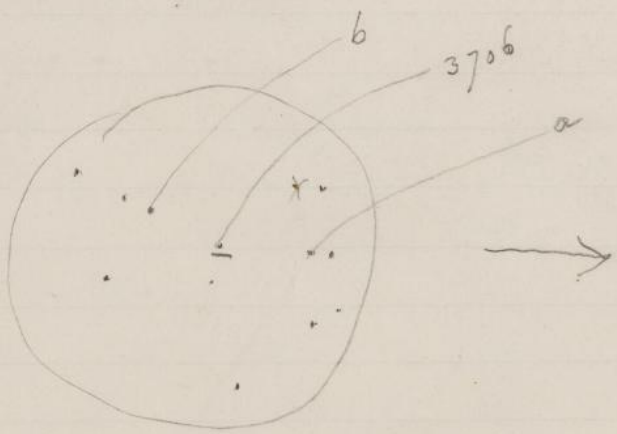
Star a seems to be rather faint to-night. 2

Star b estimated as 4 brighter than a, and star c estimated as 4 brighter than b.

Relative estimates of special wedge zones cases which are discordant.

δ m. +19° 3706.

18 28 +20.3
13 10
5 18



a 2 (3706), (3706) 2.5b

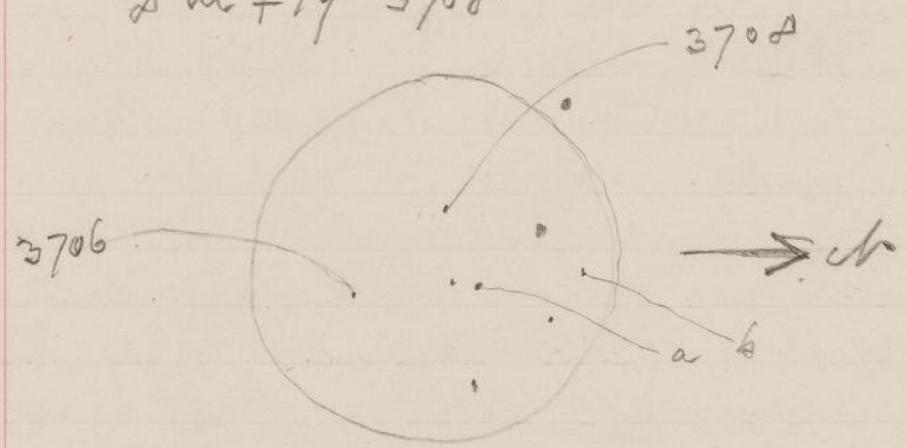
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1894phae.proj..524W

May 10, 1894.

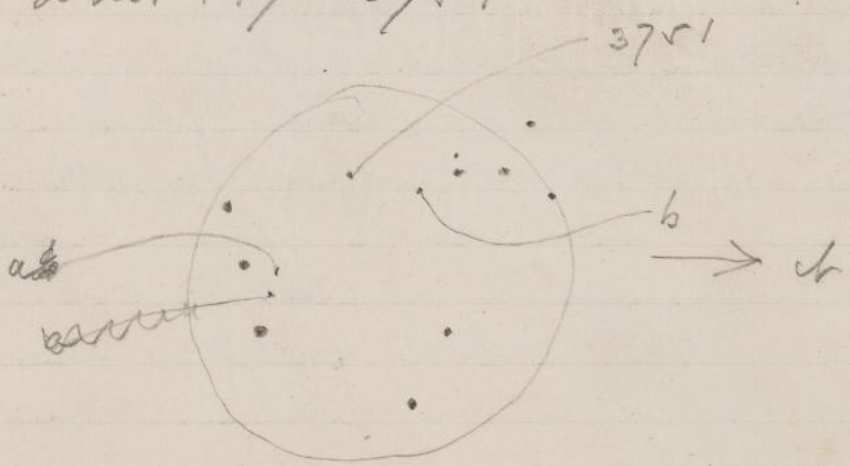
Relative estimates of special wedge zone cases which are discordant. H. Ds.

Dm +19° 3704



a 2.r (3704), (3704) 2.r b

Dm. +19° 37r1



a 2 (37r1), (37r1) 2.r b

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1894phae.proj..524W

May 10, 1894.

S D. −21° ~~4483~~ 4483. N. ole.

16 56 −21.2
14 0
— 2 56

S D. −21° 4483, is a planetary nebula. Its spectrum is fairly monochromatic, with probably a rather short and faint continuous spectrum through center. It looks round in the spectroscope, with the exception of slight elongation in the direction of the spectrum. It does not show any gradation of disk with No. 1, ~~micrometer~~ ring micrometer eye-piece but shows a very perceptible disk with No 2. Gundlach eye-piece. The light is rather brightest in the center, fading off toward the edges. It also shows perceptible disk with No. 2 ring micrometer eye-piece, also with the wire micrometer eye-piece, but it is rather the most strongly marked with No. 2 ring micrometer and Gundlach eye-pieces.

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1894phae.proj..524W

May 11, 1894.

Cloudy.

9 0 Sky now a little clear

Σ 1062 19 Syn. W. obs.

∓7	13	+55.5
12	35	
+5	22	

Index to right. ~~and above.~~

337.0 ∠ Btr + southern dis appears.
40.0 63.0^
339.7
39.5 59.8^
122.8^ −1.13 ~~+3.1~~ ✓

Index to left.

69.0
128.5 59.5^
63.3
131.7 68.4^
127.9^ −1.02 ~~+3.0~~ ✓

64.1
129.1 65.0^
66.0 64.2^
130.2 129.2^ −1.00 ~~+3.0~~ ✓

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1894phae.proj..524W

May 11, 1894.

Index to right.

153.0		
220.3	67.3^	
156.2		
219.1	62.9^	
	130.2^	−097 ~~+3.0~~
154.0		
221.1	67.1^	
154.0		
222.0	68.0^	
	135.1^	−087 ~~+2.9~~

Index to left.

245.7		
313.0	67.3^	
242.5		
310.0	67.5^	
	134.8^	−088 ~~+2.9~~

9 28

D m. Wedge zone. M. de.

7	53	+20.0
13	10	
+ 5	17	Series 17

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1894phae.proj..524W

May 11, 1894.

9 3d	1937	2.95		
		3.10	9.20	3.98
		3.15		
	1945	3.13		
		3.00	9.15	3.96
		3.02		
	1946	2.87		
		3.00	8.93	3.88
		3.08		
	1957	2.96		
		2.95	8.81	3.81
		2.90		
	1969	2.60		
		2.55	7.72	3.34
		2.57		
	1970	2.71		
		2.77	8.43	3.65
		2.95		
	1977	2.30		
		2.50	7.17	3.10
		2.37		

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1894phae.proj..524W

May 11, 1894.

1978	2.61		
	2.70	7.98	3.46
	2.67		
1979	4.11		
	4.15	12.53	5.42
	4.27		
1988	3.90		
	3.85	11.52	4.99
	3.77		
1990	3.74		
	3.70	11.26	4.88
	3.82		
1991	4.12		
	4.17	12.56	5.44
	4.27		
1994	3.00		
	3.10	9.32	4.04
	3.22		
2001	3.11		
	3.08	9.39	4.07
	3.20		

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1894phae.proj..524W

May 11, 1894.

2005	2.55		
	2.62	7.80	3.38
	2.63		
2009	3.37		
	3.40	10.23	4.43
	3.46		
2013	2.60		
	2.67	7.99	3.46
	2.72		
2018	2.38		
	2.55	7.26	3.14
	2.33		
2019	2.99		
	2.90	8.76	3.79
	2.87		
2026	4.62		
	4.74	14.21	6.15
	4.85		
2069	5.50		
	5.65	16.76	7.26
	5.61		

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1894phae.proj..524W

May 11, 1894.

2083	4.70		
	4.58	13.90	6.02
	4.62		
2114.	4.49		
	4.67	13.93	6.03
	4.77		
2119	5.10		
	5.07	15.33	6.64
	5.16		
~~10 61~~			
~~+6 +~~ 2131	4.25		
	4.15	12.80	5.54
	4.40		

Σ 1065 20 Syn. W. obs

713 + 50.4
1415
+702

Index below. B.

322.1
52.0 < 3 following and northern
89.9^/1 dis. of pairs.

328.0
49.5 81.5^

171.4^ ~~+2.2~~ v .0.16

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1894phae.proj..524W

May 11, 1894.

Index above. A.

57.0
141.1 · 84.1^

52.3
144.0 91.7^
175.8^ −0.08 ~~+2.1~~ ✓

54.0
145.0 91.0^

52.8
140.0 87.2^
178.2^ −0.03 ~~+2.0~~ ✓

Index below. B.

148.8
226.2 77.4^

142.0
232.0 90.0^
167.4^ ~~−0.24~~ ~~+2.2~~ ✓

142.0
234.0 92.0^

147.8
229.0 81.2^
173.2^ −0.13 ~~+2.1~~ ✓

Index above. A.

239.2
317.0 77.8^

229.7
322.4 92.7^
170.5^ −0.18 +2.2

10 57

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1894phae.proj..524W

Posted to here.

May 12, 1894.

D M. Wedge gone. Special. W. ole.

Series ~~179~~ 180.

7 06 +10.0
12 0
+4 5 4

	1564	3.25		
Δ	30	3.40	10.07	4.36
		3.42		
	1565	2.47		
		2.50	7.55	3.27
		2.58		
	1586	4.80		
		4.93	14.68	6.36
		4.95		
	1706	3.43		
		3.55	10.58	4.58
		3.60		
	1718	3.19		
		3.29	9.68	4.19
		3.20		

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1894phae.proj..524W

May 12, 1894.

1723	4.01		
	4.10	12.17	5.27
	4.06		
2506	4.30		
	4.18	12.70	5.50
	4.22		
2516	3.41.		
	3.47	10.38	4.49
	3.50		
2525	2.80		
	2.97	8.55	3.70
	2.78		

9 cf.

D.M. Wedge Zone. Special. W. obs.

Series 18

20
7 +2 +20.0
13 15
+ 5 5 5

9 41	1684	4.25		
		4.30	12.92	5.59
		4.37		

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1894phae.proj..524W

May 12, 1894.

1687	2.60		
	2.65	7.80	3.37
	2.55		
1708	3.61		
	3.67	11.18	4.84
	3.90		
1726	2.95		
	2.80	8.56	3.71
	2.81		
1743	5.60		
	5.75	17.13	7.42
	5.78		
1739	3.65		
	3.50	10.67	4.62
	3.52		
2056	2.20		
	2.27	6.62	2.87
	2.15		
2061	2.30		
	2.33	7.03	3.04
	2.40		

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1894phae.proj..524w

May 12, 1894.

2069	4.92		
	5.00	15.00	6.50
	5.08		
2119	4.30		
	4.40	13.05	5.65
	4.35		
2122	2.30		
	2.20	6.77	2.93
	2.27		
2123	2.10		
	2.21	6.49	2.81
	2.18		
2218	4.80		
	4.85	14.58	6.31
	4.93		
2192	2.60		
	2.80	7.94	3.44
	2.54		
2220	2.50		
	2.53	7.60	3.29
	2.57		

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1894phae.proj..524w

May 12, 1894.

	2385	3.20		
		3.32	9.90	4.29
		3.38		
	2399	2.60		
		2.80	8.07	3.49
		2.67		
10	36	2401	3.60	
		3.71	11.09	4.80
		3.78		

Σ 1495 H VIII. W. obs.

10 52 +59.6
14 17
+3 25

night and
Index, above.

345.9 < Preceding, centrum & bright star
31.0 45.1^
344.7
35.0 50.3^
95.4^ ~~+5.8 v~~
-1.77

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1894phae.proj..524W

May 12, 1894.

Index left and below

72.9
128.0 55.1^
72.2
120.0 47.8^
102.9^ 1.59 +3.6 ✓

73.8
121.7 47.9^
69.3
126.2 56.9^
104.8^ 1.54 +3.5 ✓

Index right and above.

160.7
213.0 52.3^
164.6
215.2 50.6^ 1.59
102.9^ +3.6 ✓

162.0
212.3 50.3^
162.0
210.1 48.1^
98.4^ 1.7 ~~3.7~~ ✓

Index left and below.

252.0
307.1 55.1^
256.1
302.4 46.3^ 1.62
101.4^ ~~+3.6~~ ✓

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1894phae.proj..524w

May 16. 1894.

Students here May 14. 15. and tonight.
Showed them the Moon and Saturn. H.

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1894phae.proj..524W

May 24. 1894.

Variable Stars.

T. Canis Minoris N. obs.

7.241 +13.0

12 5

+4 41

Twilight and clouds. Too low.

T. Geminorum. N. obs.

7 40 +23.5

12 8

+4 28

12 16

+4 36

Twilight still too strong.

R. Bonae Ber. N. obs.

11 57 +19.6

12 30

+0 33

Too high.

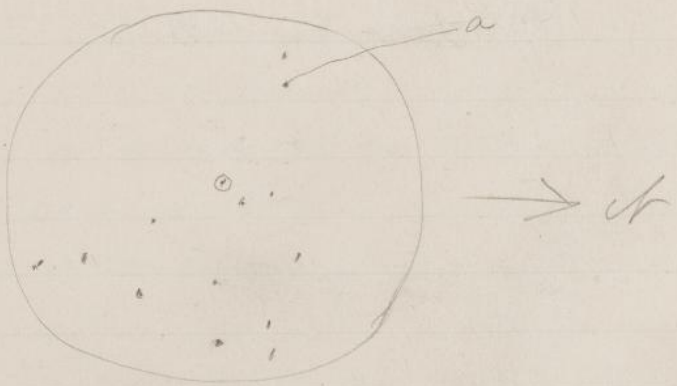
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1894phae.proj..524w

May 21, 1894.

R. Serpentis W. obs.

15	50	+16.1
12	34	
— 3	16	
12	37	
— 3	13	



From comparison with the chart, it would seem that the variable ought to be one of the three stars forming a bit like triangle in center of the diagram, and probably the one indicated. At times this seems to have possibly a slight tinge of red, but of this one cannot be certain. Assuming that the star indicated is the variable, we have variable equals star a

8 56 8 st. 12.5.

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1894phae.proj..524W

May 21, 1894.

It would seem as if this was the variable, as the same star on p. 26 of this book was thought then to be the variable, and equal to star b on that page. The variable is certainly a little brighter than b to-night

R. Coronae Bor. W. obs.

11 53 +20.2

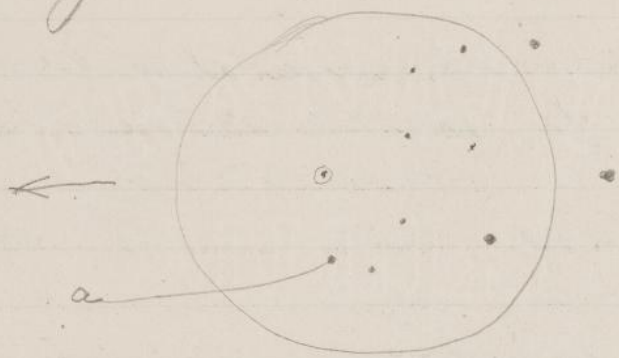
T. Geminorum. W. obs.

8	40	+23.5
13	30	
+4	50	
13	33	
+4	53	+24.8
7	36	
13	35	
+5	59	

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1894phae.proj..524w

May 21, 1894.



The configuration on chart is not quite complete about variable, and does not quite correspond apparently with sky! The star indicated in the diagram ~~is~~ seems to be most probably the variable and if so it is about equal to star a in diagram.

9 46 Str. 10.2, region rather low, and with somewhat mountainous. Seems to be some cloud in this region also.

U.
~~Ab~~ Leonis. Pr. obs.

10 21 +15.4
14 5
+ 3 44
14 10
+ 3 49

10 14 +15.7
14 14
+ 4 0

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1894phae.proj..524W

May 21, 1894.

Moon up, and sky becoming too bright for faint variables.

Σ 1495 W. obs.

	10	52	+59.6
	14	35	
+	3	43	
	14	36	
+	3	44	
	14	38	
+	3	46	

abandoned

Σ 1627. P. XII 32 & 33. W. obs.

	12	12	−3.2
	14	43	
+	2	31	

Index above.

141.2 < Fainter, and southern disappears.
230.2 49.0 ^
136.2 99.6 ^ +1.2 ✓
235.8 184.6 ^ +1.9
171.4 −0.16

1894phae.proj...524W

May 21, 1894.

Index below.

224.8
333.5 — 108.7
231.8 — 5
327.0 — 95.2 — 203.9 — 156.1 — −0.416 — +1.5

230.2 — 91.2
322.0
225.7 — 105.1
330.8 — 196.9 — 163.1 — +1.7 — −0.32

Index above.

314.8
59.1 — 10K.3
319.0 — 93.A
52.8 — 194.1 — 161.9 — +1.7 — −0.34

325.0
55.2 — 90.2
312.0 — 104.1
60.1 — 194.3 — 161.7 — +1.7 — −0.3

Index below.

44.3
147.3 — 103.0
51.0 — 91.2
142.2 — 165.8 — +1.7

Seeing rather unsteady. Images blurry at times.

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1894phae.proj..524W

May 22, 1894.

D. M. Wedge Zone Special. W. 61.

Series 18X.[2] +9°

7	16	1564	3.35	
			3.51	10.36 4.49
			3.50	
		1565	2.40	
			2.37	7.19 3.11
			2.42	
		1586	4.90	
			4.99	14.99 6.49
			5.10	
		1706	3.55	
			3.72	11.07 4.79
			3.80	
		1718	3.20	
			3.11	9.53 4.13
			3.22	
		1723	4.25	
			4.20	12.67 5.49
			4.22	

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1894phae.proj..524W

May 22, 1894.

	2506	4.03		
		4.10	12.25	5.30
		4.12		
	2516	3.50		
		3.63	10.83	4.69
		3.70		
7	V7	2525	2.91	
		3.02	9.03	3.91
		3.10		

D m. Medge zone Special. M. do.
+19°.
Series 18[3]2.

A	10	1684	4.30	
		4.49	13.24	5.73
		4.45		
		1687	2.59	
		2.50	7.55	3.27
		2.46		
		1708	3.71	
		3.90	11.53	4.99
		3.92		

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1894phae.proj..524W

May 22, 1894.

1726	2.80		
	2.90	8.69	3.76
	2.99		
1743	5.75		
	5.83	17.68	7.65
	6.10		
1739	3.70		
	3.77	11.18	4.84
	3.71		
2056	2.20		
	2.10	6.33	2.74
	2.03		
2061	2.37		
	2.50	7.46	3.23
	2.59		
2069	4.80		
	4.77	14.42	6.24
	4.85		
2119.	4.60		
	4.30	13.34	5.78
	4.44		

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1894phae.proj..524W

May 22, 1894.

2122	2.27		
	2.50	7.25	3.14
	2.48		
2123	2.00		
	1.95	6.05	2.62
	2.10		
2218	4.90		
	4.97	14.88	6.44
	5.01		
2192	2.50		
	2.55	7.63	3.30
	2.58		
2220	2.40		
	2.35	7.22	3.13
	2.47		
2385	3.51		
	3.62	10.50	4.55
	3.37		
2399	2.52		
	2.62	7.69	3.33
	2.55		

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1894phae.proj..524W

May 22, 1894.

9 4 2401 3.40
3.35 10.27 4.45
3.52

Variable Star.
N. Lyncis W. obs.

10	21	+15.3
13	28	
+ 3	7	
14	5	Blonde.
+ 3	44	

Somewhat clearer.

More cloudy again.

All cloudy in region of variable

There are two faint stars on chart at about 10 h. 16 m. 41 s. R. A. and Dec. +14° 45' & 46'. On account of haze still in sky these are about the faintest stars which can be seen in this vicinity. Variable not seen. It would seem as if the variable must be

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1894phae.proj..524W

May 22, 1894.

½ a mag. to a magnitude fainter than the three stars, and so must be at
10 22 least fainter than 13.0.

S.
R. Scorpii. W. obs.

16 6 −21.9
14 38
−1 28

16 5 −24.0
14 45
−1 20

S. Scorpii suspected at times, and thought to be equal to a faint star 7 s. following, S D. 41 44, 1.5' north of it. If seen, it must
10 53 be as faint as 13.8, perhaps, allowing for moon-light and any slight haze.

R. Scorpii. W. obs.
R. There is a faint star in about the position of R. Scorpii. If this is R., it is equal to a star which precedes 41 44. 1.5 s.

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1894phae.proj..524W

May 22, 1894.

and is 4.8' north of it

10 57 Est. mag. of R. 13.0

Est. is somewhat uncertain, owing to moonlight, and possibly some remaining haze.

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1894phae.proj..524W

May 24. 1894.

γ Ophiuchi.

Phot. R.

17 9 +1.4
14 10
−3 9

Comparison made with 10.7 mag. star
prec. 3.7 north.

Index above.

	1A7.0	< var. dis.	6.0^
9h 49m 12s	191.0		
	1A7.2		7.4^
	191.0		11.4^ +4.4v

Index below.

	276.0	
	2A1.1	7.1^
9 77 7	277.3	
	2A1.3	6.0^
		11.1^ +4.6v
	277.3	
	2A1.4	6.1^
9 7A 70	277.7	
	2A1.0	7.3^
		11.4^ +4.1v

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1894phae.proj..524W

Prey 2d. 1894.
Index above.

			1Δv.2	v.7^
			190.9	
10	7	30	1Δv.0	
			191.2	6.2^ / 11.9^ + 4.4v
			1Δv.0	6.0^
			191.0	
10	13	3d	1Δv.1	6.0^
			191.0	12.0^ + 4.4v

Observations made with much difficulty through cloud. Images almost invisible at equalization. yet settings thought to be pretty good.
Clouds prevented any further observations as images became wholly invisible.

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1894phae.proj..524W

May 29, 1894.

Cloudy first of the evening

R. Aphondri. W. obs.

17 9 +1.4
13 50
− 3 19

Index below

h. m ~~Rgs.~~ 275.2 6.0 ^
9 23 ~~28~~ 281.2
275.1 V.A ^
280.9 11.A ^ A.4

Index about Clouds.

9 29 1 ~~6.~~+ 5.7 K.A ^
~~9 28 40~~ 10.5
5.9 V.1 ^
11.0 9.9 ^ +A.A ^

~~K~~7 5.1 6.1 ^
9 31 ~~26~~ 11.2
5.8 V.K ^
11.2 11.V ^ +A.V ^

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1894phae.proj..524W

May 29, 1894.

Index below.

Clouds.

9 36 16
~~9 35 55~~

96.0 ∨.0 ^
101.0

95.9
101.0 ∨.1 ^ / 10.1 ^ +A.1 ∨

~~49~~
9 38 ~~28~~

95.9 ∨.4 ^
101.3

96.0 ∨.0 ^ / 10.4 ^ +A.? ∨
101.0

Index above

9 ~~4~~ 1 ∨
~~9 40 54~~

185.0 6.3 ^
191.3

185.0 6.2 ^ / ~~6.2~~ ^ ~~+A.~~ +A.3 ∨
191.2
12.5

9 ~~44~~ 1
~~9 43 40~~

185.0 6.3 ^
191.3

185.0 6.0 ^ / 12.3 ^ +A.3 ∨
191.0

Index below Clouds.

~~37~~
9 48 ~~16~~

275.9 ∨.1 ^
281.0

275.7 ∨.4 ^ / 10.∨ ^ +A.? ∨
281.1

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1894phae.proj..524w

May 29, 1894.

Clouds.

h	m.	3d			
10	7	~~+7~~	275.0	6.v^	
			281.5		
			275.0	6.4^	
			281.4	12.9^	+4.2v

Index above

			5.0	6.0^
10	10	~~34~~	11.0	
			5.0	6.1^
			11.1	12.1^ +4.4v

10	14	14	4.9	6.1^
~~10~~	~~13~~	~~53~~	11.0	
			5.0	6.3^
			11.3	12.4^ +4.3v

Index below. Clouds

		~~54~~	95.8	v.2^
10	22	~~27~~	101.0	
			~~94.5~~ 94.9	
			101.8	6.9^ 12.1^ +4.4v

		v4	95.1	6.4^
10	26	~~33~~	101.9	
			95.2	v.4^
			101.0	12.6^ +4.3v

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1894phae.proj..524W

May 29, 1894.

Index above

10 h 3 m 44 s	185.0	6.1 ^
~~52 54~~	+90.8 191.1	
~~10 53 23~~	185.0	
	191.1	6.1 ^ / 12.2 ^ + 4.4 v
	185.0	6.2 ^
10 56 ~~27~~ 48	191.2	
	185.0	6.3 ^ / 12.5 ^ + 4.3 v
	191.3	

Index below

10 h 9 m 16 s	~~275.~~ 274.9	7.1 ^
~~10 58 55~~	282.0	
	275.0	7.0 ^ / 14.1 ^ + 4.1 v
	282.0	

Much troubled by clouds throughout observations. Obs. partly through clouds.
Used Inv. Jacobson's watch.
Watch 21 secs. slow.
Add 21 secs. to all of the above times.

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1894phae.proj...524W

June 1, 1894.

Σ 2166

17 22 +11.5 W. obs.
13² 56
— 3 26
4

Σ 341 W. obs.

17 28 +9.7
13 0
— 4 28

Index to left.

251.8 < brighter dis.
302.5 +0.7
251.9
300.0 48.1
98.8 −1.69 +3.7

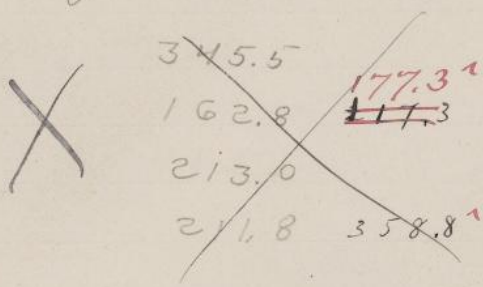
Index to right.

346.1
330.6 44.5
344.0
29.3 45.3
89.8 −1.92 +3.9

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1894phae.proj..524W

June 1, 1894.



345.5
162.8
213.0
211.8

177.3 ^
~~117.3~~
358.8 ^

Cloudy.

Index to left.

249.0
302.8 53.8 ^
252.6
304.7 52.1 ^
105.9 ^ −1.5−1 ~~+3.5~~ ^

251.8
304.2 52.4 ^
253.9
301.7 47.8 ^
100.2 ^ −1.65 ~~+3.7~~ ^ ~~+3.6~~

Index to right

344.1
30.9 46.8 ^
345.1
29.0 43.9 ^
90.7 ^ −1.90 ~~+3.9~~ ^

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1894phae.proj..524w

June 1, 1894.

M. P. 441. Ph. obs.

3 29 +62.2
13 34
+ 10 5

Index ~~left~~ read below

131.6
242.9 < Companion star dis.
135.0 111.3 ^
243.0 104.0 ^
219.3 ^ +~~t~~ ✓
140.7 -0.76

Index above.

224.0 109.6 ^
8 54 52 333.6
222.0 110.4 ^
332.4 220.0 ^ +~~t~~ ✓ -0.77
1400

223.3 109.7 ^
8 58 8 333.0
223.0 109.4 ^
332.8 219.✓ ^ +~~t~~ ✓
140.5 -0.76

Index below.

~~310.0~~ 314.5
9 2 47 62.8 104.3 ^
309.9 116.1 ^
66.0 224.4 ^ +~~t~~ ✓
135.6 -0.86

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June 1, 1894.

9 6 15

311.1 114.9^
66.0 111.0^
313.0 225.9^ +1.1✓
64.0 134.1 -0.89

Index above.

~~41.0~~ 43.2
151.0 107.8^
44.0 107.0^
151.0 214.8^ +1.3✓
145.2 -0.67

9 14 —
9 01 22

Mr. Jacobs watch used in the above comparisons. Watch 8 seconds fast; therefore subtract 8 seconds from the above times.

M. Ogburn W. ds.

17 9 +1.4
14 32
— 2 37

Index below.

9 44 43

95.5 6.3^
101.8
96.0 5.0^
101.0 11.3^ +0.5✓

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Index above,

~~185.8~~
~~190.7~~
~~185.9~~
~~190.7~~

~~9 48~~

185.0
9 50 1 191.0 6.0^

185.5
191.0 5.5^ / 11.5^ + 6.5v

185.2
9 51 50 191.0 5.8^

185.5
191.0 5.5^ / 11.3^ + 6.5v

Index below,

~~276.2~~ 274.9
9 54 53 281.5 6.6^

275.3
281.9 6.6^ / 13.2^ + 6.2v

275.0
9 56 50 281.3 6.3^

275.2
281.4 6.2^ / 12.5^ + 6.3v

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Index above.

9	59	8	6.0 10.7	4.7^
			~~5.9~~ 5.0 11.0	6.0^ 10.7^ + 4.7v
10	1	23	5.3 10.8	5.5^
			5.0 11.1	6.1^ 11.6^ + 4.5v

Index below.

10	3	4	95.1 101.2	6.1^
			95.3 101.0	5.7^ 11.2^ + 4.5v
10	5	48	95.8 ~~100.~~ 101.1	5.3^
			95.6 101.7	6.1^ 11.2^ + 4.5v

Index above

10	7	46	5.2 11.0	5.8^
			5.0 10.9	5.9^ 11.7^ + 4.8v

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June 1, 1894.

		5.2	V. A ^
10	9	55 11.0	
		4.9	6.2 ^ / 12.0 ^ + A. V ^
		~~10.0~~ 11.1	

Index below.

		95.0	6. V ^
10	14	34 101.5	
		95.2	6.4 ^ / 12.9 ^ + A. 2 ^
		101.6	

		95.8	V. 1 ^
10	16	24 100.9	
		96.0	V. 1 ^ / 10.2 ^ + A. A ^
		101.1	

Index above.

		185.0	6.0 ^
10	18	35 191.0	
		185.6	V. 4 ^ / 11.4 ^ + A. V ^
		191.0	

		185.0	6.0 ^
10	20	14 191.0	
		185.4	V. 6 ^ / 11.6 ^ + A. V ^
		191.0	

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1894phae.proj..524W

June 1, 1894.

Index below.

10 2$\frac{2}{3}$	57	275.7	V. 3 ^
		281.0	
		276.0	V. 9 ^
		280.9	10. 2 ^ + A. A v
10 25	22	275.5	V. V ^
		281.0	
		275.7	V. 8 ^
		281.5	11. 3 ^ + A. V v

Index above.

10 29	59	5.5	V. V ^
		11.0	
		6.0	V. 1 ^
		10.1	9. 6 ^ + A. 9 v
10 32	20	5.3	V. 9 ^
		11.2	
		5.2	V. V ^
		10.7	11. V ^ + A. V v

Index below

10 34	15	96.0	V. 7 ^
		100.7	
		96.2	V. 1 ^
		100.3	8. 8 ^ + A. A v

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1894phae.proj...524W

June 1, 1894.

		96.0	
10	35	34	101.0 v.0 ^
		96.0	
		101.1	v.1 ^ / 10.1 ^ + A.A v

Index above.

		185.0	6.2 ^
10	37	19	191.2
		185.5	v.7 ^ / 11.9 ^ + A.4 v
		191.2	

		185.2	6.v ^
10	38	47	191.7
		185.0	6.0 ^ / 12.v ^ + A.3 v
		191.0	

Index below.

		276.0	v.0 ^
10	41	30	281.0
		275.4	v.6 ^ / 10.6 ^ + A.) v
		281.0	

		275.8	v.2 ^
10	43	11	281.0
		275.8	v.4 ^ / 10.6 ^ + A.) v
		281.2	

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1894phae.proj..524W

June 1, 1894.

Index above.

			5.0	
10	45	5	11.1	6.1 ^
			4.8	
			11.0	6.2 ^ / 12.3 ^ +A.3 v
			5.0	
			10.2	.2 ^
10	46	35	6.0	
			+0.0 10.7	4.7 ^ / 9.9 ^ +A.8 v

Index below.

			96.0	
10	49	6	101.0	.0 ^
			96.0	
			101.2	.2 ^ / 10.2 ^ +A.8 v
			95.6	
10	50	38	101.1	.5 ^
			95.5	.6 ^ / 11.1 ^ +A.6 v
			101.1	

Index above

			185.0	
10	52	16	191.0	6.0 ^
			185.1	.9 ^ / 11.9 ^ +A.4 v
			191.0	

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1894phae.proj..524W

June 1, 1894

		185.1		6.0 ^
10	53	54	~~190.5~~ 191.1	
			185.0	v.9 ^
			190.9	11.9 ^ + 4.4 v

Index below.

			275.1	v.9 ^
10	56	53	281.0	
			275.0	
			281.8	6.8 ^ / 12.7 ^ + 4.3 v
			275.5	v.7 ^
10	58	36	281.2	
			275.7	v.9 ^
			281.6	11.6 ^ + 4.4 v

Index above.

			5.3	v.8 ^
11	0	9	11.1	
			5.2	4.8 ^
			10.0	10.6 ^ + 4.7 v
			7.0	3.0 ^
11	2	33	10.0	
			5.9	v.1 ^
			11.0	4.1 ^

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1894phae.proj..524W

June 1, 1894.

Index below.

			95.8	v.4^
11	4	32	101.2	
			96.0	v.2^
			101.2	10.6^ +4.7v
			95.8	v.2^
11	6	2	101.0	
			96.0	v.0^
			101.0	10.2^ +4.2v

Index above.

			185.8	v.2^
11	8	7	191.0	
			185.4	v.9^
			191.3	11.1^ +4.6v
			185.2	v.v^
11	9	33	190.7	
			185.0	v.7^
			190.7	11.2^ +4.6v

Index below.

			275.8	v.7^
11	11	47	280.5	
			275.8	v.3^
			281.1	10.0^ +4.2v

Jacobus's watch, which is 9 seconds fast by a comparison at end.

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1894phae.proj..524W

June 4, 1894.

Σ 2202. 61 Ophiuchi. W. obs.

17 38 +2.6
13 7
— 4 31

~~Index to right~~

3 \ 5.9
5 / 9.0
31 \ 6.9
~~5~~ / 3.0

Index to right.

316.1 < Following
57.8 101.7^
318.0
55.7 97.7^
199.4^ ~~+1.6~~ 0.37
160.6

Index to left.

47.5
148.2 100.7^
42.3
148.2 105.9^
206.6^ ~~+1.5~~ 0.51
153.4
43.0
149.0 106.0^
98.2^
48.0 ~~102.1~~
204.2^
146.2 ~~208.1~~ ~~+1.5~~ 0.46
155.8

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June 4, 1894.

Index to right.

142.2		
235.0	92.8^	
138.0		−0.20
236.0	98.0^	
	190.8^	~~+1.8~~ v
138.2	192	
237.8	99.6^	
139.0		
236.1	97.1^	0.32
	196.7^	~~71.7~~ v
Index to left.	163.3	
234.0		
325.8	91.8^	
224.6		0.31
329.0	104.4^	
	196.2^	~~+1.7~~ v
	163.8	

34' 53 Ophiuchi. W. obs.

17	29	+9.7
13	40	
− 3	49	

Index to left.

72.0	< brighter dis.	
120.0	48.0^	
71.9	52.1^	−1.65
124.0	100.1^	~~+1.7~~ v

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1894phae.proj..524W

June 4, 1894.

Index to right.

166.0		
212.7	46.7^	
165.9		
210.4	44.5^	−1.88
	91.2^	~~+3.9~~ v
164.3		
209.0	44.7^	
162.5		
212.2	49.7^	−1.80
	94.4^	~~+3.8~~ v

Index to left.

250.5		
302.0	51.5^	
253.8		−1.73
299.2	45.4^	
	96.9^	~~+3.7~~ v
254.5		
299.7	45.2^	
254.2		
302.0	47.8^	−1.83
	93.0^	~~+3.8~~ v

Index to right.

345.7		
30.9	45.2^	
343.9		−1.94
27.8	43.9^	
	89.1^	~~+3.9~~ v

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1894phae.proj..524W

June 4, 1894.

M. Ophiuchi. W. obs.

17.9 +1.4
14.1
−3.8

Index below

h.	m.	s.			
8	59	4	92.7	10.6^	
			103.1		
8	54	47^	93.5	8.5^	
			102.0	18.9^	+7.4^

Index above.

			184.0		
9	0	46	194.0	10.0^	
9	0	29^	182.5	10.7^	
			193.2	20.7^	+7.2^
			183.1		
9	1	54	194.0	10.9^	
9	1	37^	183.1	10.1^	
			193.2	21.0^	+7.2^

Index below

			274.5	8.2^	
9	3	42	282.7		
9	3	25^	273.5	10.0^	
			283.5	18.2^	+7.5^

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June 4, 1894.

		273.4	9.4^	
9 5	1	282.8		
9 4	44^	274.0	6.3^	
		282.3	17.7^	+7.6^

Index above.

		3.9	9.1^	
9 8	53	13.0		
9 4	36^	3.2	9.8^	
		13.0	12.9^	+7.4^
		3.2	10.1^	
9 10	22	13.3		
9 10	"^	3.2	9.8^	
		13.0	19.9^	+7.3^

Index below.

		94.0	4.9^	
9 12	0	102.9		
9 11	43^	93.0	10.1^	
		103.1	19.0^	+7.4^
		94.0	9.0^	
9 13	22	103.0		
9 13	"^	94.7	8.4^	
		103.1	17.4^	+7.6^

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1894phae.proj..524W

June 4, 1894.

Index above.

			184.0		
				4.9^	
9	15	13	192.9		
9	14	56.^	184.0	9.0^	
			193.0	17.9^	+7.5^.
			184.0		
				9.0^	
9	16	44	193.0		
9	16	29.^	184.0	9.0^	
			193.0	14.0^	+7.5^

Index below.

			274.0		
				9.8^	
9	19	4	283.8		
9	18	47.^	273.2	9.8^	
			283.0	19.6^	+7.3^
			274.0		
				9.5^	
9	20	46	283.5		
9	20	29.^	274.2	4.4^	
			283.0	14.3^	+7.5^

Index above.

			3.0		
				10.1^	
9	25	2	13.1		
9	24	57.^	2.9	10.3^	
			13.2	20.4^	+7.2^

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1894phae.proj..524W

June 4, 1894.

			3.2	10.0^
9	26	13	13.2	
9	27	46.^	3.5	9.5^
			13.0	19.5^ +7.3^
			Index below.	
			94.1	4.9^
9	27	46	103.0	
9	27	29.^	93.9	9.1^
			103.0	14.0^ +7.5^
			93.5	
9	29	15	103.0	9.5^
9	29	44.^	~~94.8~~ 94.0	
			102.6	4.6^
				14.1^ +7.5^
			Index above.	
			184.0	
9	32	19	193.0	9.0^
9	32	32.^	183.6	
			192.8	9.2^
				14.2^ +7.5^
			184.0	
9	33	34	193.0	9.0^
9	33	17.^	184.0	4.2^
			192.2	17.2^ +7.6^

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1894phae.proj..524W

June 4, 1894

Index below.

			274.2	4.5^
9	35	49	282.7	
9	35	32.^	273.6	9.3^
			282.9	(7.4^ +7.5^)
			273.8	9.2^
9	37	38	283.0	
9	37	21.^	274.8	7.4^
			282.2	(6.6^ +7.7^)

Index above.

			4.0	4.7^
9	41	44	12.7	
9	41	27.^	4.0	9.0^
			13.0	(7.7^ +7.6^)
			4.0	9.0^
9	43	31	13.0	
9	43	14.^	4.0	9.0^
			13.0	(4.0^ +7.5^)

Index below

			94.0	9.0^
9	46	31	103.0	
9	46	14.^	94.0	9.0^
			103.0	(4.0^ +7.5^)

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1894phae.proj...524W

June 4, 1894.

			94.1	2.9^
9	47	48	103.0	
9	47	31.^	95.0	7.0^
			102.0	14.9^ +7.8^

Index above.

			183.3	10.0^
9	51	25	193.3	
9	51	8^	184.0	9.0^
			193.0	19.0^ +7.4^

			183.0	10.2^
9	53	32	193.2	
9	53	14.^	184.0	9.0^
			193.0	19.2^ +7.4^

Index below

			~~275.0~~	
~~9~~	~~58~~	~~+8~~	~~282.9~~	Blonde.
			275.0	6.7^
10	19	36	281.7	
10	19	19.^	274.9	7.1^
			282.0	13.2^ +8.1^

			274.8	7.9^
10	21	3	282.7	
10	20	46.^	274.3	7.7^
			282.0	15.6^ +7.8^

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1894phae.proj..524W

June 4, 1894.

Index above.

			4.2	4.0^
10	22	59	12.2	
10	22	42^	4.3	7.4^
			12.1	15.4^ +7.8^
			4.2	7.9^
10	24	22	12.1	
10	24	57^	4.0	8.5^
			12.5	16.4^ +7.7^

Index below.

			94.4	8.7^
10	25	49	103.1	
10	25	32^	95.1	7.0^
			102.1	15.7^ +7.8^
			94.7	8.3^
10	27	24	103.0	
10	27	7^	94.0	8.8^
			102.8	17.1^ +7.6^

Index above

~~10~~	~~29~~	~~4~~	184.0	8.8^
10	29	4	192.8	
10	29	47^	185.0	7.0^
			192.0	15.8^ +7.8^

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June 4, 1894.

			185.0	7.1"	
10	31	1	192.1		
10	30	44."	184.3	4.7"	
			193.0	14.8"	+7.8"

Index below.

			274.8	7.4"	
10	32	35	282.2		
10	32	14."	275.0	7.0"	
			282.0	14.4"	+8.0"

			274.8	7.6"	
10	34	1	282.4		
10	33	44."	274.9	7.4"	
			282.3	14.8"	+7.9"

Index above

			4.8	7.2"	
10	35	34	12.0		
10	35	17."	5.0	7.0"	
			12.0	14.2"	+8.0"

			4.2	4.3"	
10	36	56	12.5		
10	36	39."	4.8	7.8"	
			12.1	14.6"	+7.8"

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1894phae.proj..524W

June 4, 1894.

Index below.

			94.7	4.1"
10	38	14	102.8	
10	37	57."	95.0	7.1"
			102.1	15.2" + 7.9"
			95.1	6.9"
10	39	25	102.0	
10	39	04."	95.2	7.6"
			102.8	15.5" + 8.0"

Index above.

			184.9	4.1"
10	41	2	193.0	
10	40	57."	185.0	7.3"
			192.3	15.4" + 7.9"
			184.4	7.7"
10	42	28	192.1	
10	42	11."	184.9	7.3"
			192.2	15.0" + 7.9"

Index below.

			274.9	6.9"
10	44	20	281.8	
10	44	3."	275.0	6.1"
			281.1	13.0" + 8.2"

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1894phae.proj..524W

June 4, 1894.

			275.0	7.0^	
10	45	30	282.0		
10	K5	13.^	274.3	7.7^	
			282.0	14.7^	+8.0^

Index above.

			4.3	7.7^	
10	47	13	12.0		
10	K6	6.^	4.8	7.2^	
			12.0	14.9^	+7.9^

			4.7	7.3^	
10	48	23	12.0		
10	K4	6.^	5.0	7.0^	
			12.0	14.3^	+8.0^

Index below.

			94.4	8.3^	
10	51	46	102.7		
10	V1	29.^	96.0	6.6^	
			102.6	14.9^	+7.9^

			94.9	7.9^	
10	53	14	102.8		
10	V2	7.^	94.8	7.9^	
			102.7	15.4^	+7.8^

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1894phae.proj..524W

June 4, 1894.

Index above.

			184.2	4.4^
10	55	3	193.0	
10	54	46.^	185.1	7.5^
			192.6	16.3^ +7.7^
			184.8	7.4^
10	56	49	192.2	
10	56	32.^	184.7	7.6^
			192.3	15.6^ +7.9^

Index below.

			275.1	
10	58	12	282.2	7.1^
10	57	55.^	275.5	6.5^
			282.0	13.6^ +8.1^
			275.2	6.8^
10	59	53	282.0	
10	59	36.^	275.0	7.8^
			282.8	14.6^ +8.0^

Index above.

			4.3	7.7^
11	3	36	12.0	
11	3	19.^	4.9	7.1^
			12.0	14.8^ +7.9^

Troubled more or less, especially in latter part of series, by light

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1894phae.proj..524W

June 6. 1894.

clouds and haze. A part of the settings made through the same.

Jacobsen's watch, which is 17 s. fast, used in above. Therefore subtract 17 s. from above times.

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1894phae.proj..524W

June 5, 1894

Σ 2202 61 Ophiuchi N. clo.

17 38 +2.6
13 28
— 4 10

Partly cloudy.

Index above.

319.6 < following & fainter dis.
51.1

314.9
59.0

Index below.

~~+3.0~~ Clouds.
41.1

Became completely cloudy and remained so.

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1894phae.proj..524W

June 7, 1894.

Blondes.

Σ 2276 P. ~~XVII~~ 362. W. obs.
Blondes.

18 0 +12.0
13 51
— 4 9

Index to left

317.0 < Preceding & fainter dis.
54.0 97.0 ^
314.0 103.3 ^
57.3 200.3 ^ ~~+1.6~~ ✓
1597 — 0.39

Index to right.

48.0
148.2 100.2 ^
49.5 94.4 ^
143.9 194.6 ^ ~~+1.7~~ ✓
1654 — 0.28

49.9
146.6 96.7 ^
48.3 97.5 ^
145.8 194.2 ^ ~~+1.7~~ ✓
1658 — 0.27

Index to left.

137.2
238.9 101.7 ^
140.0 95.2 ^
235.2 196.9 ^ — 032 ~~+1.7~~ ✓
1631

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1894phae.proj..524W

June 7, 1894.

138.0			
235.0		97.0^	
136.0		102.3^	
~~242~~	238.3	199.3^	~~11.6~~ ✓
		1607	0.37

Index to right.

227.3			
330.0		102.7^	
231.9		94.3^	
326.2		197.0^	~~11.7~~ ✓
		1630	
		~~Clouds.~~	0.32

Stopped by clouds.

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1894phae.proj...524w

June 9, 1894.

Cloudy.

δ Cephei W. ole.

22 25 +57.8

13 27

− 8 58

13 30

− 8 55

Index to right

354.8

8 18 35 22.2 27.4^

352.1

26.0 33.9^

61.3^ +4.4v

Index to left.

81.2

8 20 4 116.3 35.1^

84.1

112.0 27.9^

63.0^ +4.7v

83.1

8 21 43 110.8 27.7^

78.0 38.0^

116.0 65.7^ +4.7v

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1894phae.proj..524W

June 9, 1894.

Index to right.

		170.6		
			33.5	
8	23	41	204.1	
			172.5	
			29.1	
			201.6	62.6 + 4.4
			173.4	
			28.4	
8	25	37	201.8	
			170.9	
			37.0	
			207.9	65.4 + 4.7

Index to left.

		260.3		
			32.7	
8	27	35	293.0	
			262.3	
			28.7	
			291.0	61.4 + 4.4

Clouds thick.

		261.7		
			29.5	
8	32	35	291.2	
			260.0	
			33.0	
			293.0	62.5 + 4.4

Index to right.

		352.1		
			37.3	
9	41	35	29.4	
			351.1	
			34.9	
			26.0	72.2 + 4.4

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1894phae.proj..524W

June 9, 1894.

Sky thickly cloudy. Impossible to continue. Settings all difficult on account of cloud, and some of them extremely so, and a little uncertain.

Jacobson's watch, which is 6 seconds slow, used in above. Thumfore acid 6 s. to above time.

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1894phae.proj..524W

June 11. 1894

7 30 Cloudy.

8 0 "

8 20 "

9 0 Still cloudy.

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1894phae.proj...524W

June 13, 1894.

Σ 2202 61 Ophiuchi. W. obs.

17 38 +2.6
13 36
— 4 2
13 38
— 4 0

Index right and above.

319.9 < following and fainter dis.
55.0 95.1 ^
313.0
58.8 10 5.4 ^ / 200.9 ^ ~~+1.6~~ ✓ 0.40
159.1

Index left and below.

43.0
151.0 102.0 ↑
52.3 49.7 ^
142.0 197.7 ↑ ~~+1.7~~ ✓ 0.32
162.3

51.6 90.4 ↑
142.0
44.0 107.2 ↑
151.2 197.6 ↑ ~~+1.7~~ ✓
162.4 0.33

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1894phae.proj..524W

June 13, 1894.

Index right and above.

132.0	102.9 ^		
240.9			
139.0	97.3 ^		0.46
234.3	204.2 ^		~~+1.5~~ ✓
	165.8		
139.1	92.9 ^		
232.0	107.v ^		
134.5	200.6 ^		0.39
	159.6		~~+1.6~~ ✓
~~243.3~~	~~242.0~~		

Index left and below.

222.1	111.v ^		
333.6			
236.0	83.0 ^		0.27
319.0	194.v ^		~~+1.7~~ ✓
	160.5		

Seeing very blurry at times.

Σ 2280 100 Herculis W. obs.

18 3 +26.1
14 12
−3 51.

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1894phae.proj..524W

June 13, 1894.

Index to right. A.

322.0
53.2 < Northern nic.

91.2 ↑
322.7 44.3 ↑
51.0 179.5 ↑ ~~+2.0~~ 0.01

Index to left. B.

53.0 47.3 ↑
140.3

49.0 92.4 ↑
141.8 140.1 ↑ ~~+2.0~~ 0.00
179.9

49.5 91.6 ↑
141.1

52.2 44.0 ↑
140.2 179.6 ↑ ~~+2.0~~ 0.01

Index to right. A.

143.0 44.0 ↑
231.0

142.6 90.4 ↑
233.0 134.4 ↑ ~~+2.0~~ 0.03

143.4 49.4 ↑
232.8

139.9 90.4 ↑
230.3 179.8 ↑ ~~+2.0~~ 0.00

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1894phae.proj..524W

June 13, 1894.

Index to Aft. B.

236.0 +2.9 1
318.9
230.0 91.4 1 0.11
321.4 174.3 1 ~~+2.1~~

Estimates of the faintest Comp. Star for Variables which can be seen on any good night.

53 R. Ursa Maj. W. obs.

10 34 +69.8
14 43
+4 9

~~9 10~~ 9 1.5 var; var. 2.5 n.
On large tel.; too faint for finder. ~~Abs. 0.11~~

9 11 Est. 10.4.
Comp. star w seen pretty steadily, but with some difficulty at first. It is about on the limit of visibility to-night, but perhaps a star 1 or 2 tenths of a mag. fainter could be seen.
Comp. star is seen with moderate ease, although it is pretty faint in moonlight. Abs. 0.11

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1894phae.proj..524W

June 13, 1894.

T. Ursa Maj. W. obs.

12	33	+60.4
15	5	
+ 2	32	

Comp. star s very easily seen. Star supposed to be t also seen. If the star assumed as comp. star t is the right one, probably a star 2 tenths of a mag. fainter could be seen, although t is pretty faint in moonlight. v 2 var.; var. 2 fr. in longitud., two faint for finder. Abs. 0.0v

9 51 Est. 11.2

S. Ursa Maj. W. obs.

12 37 +62.0

Comp. star s seen. Comp. star t not certainly seen, although it is possibly glimpsed at intervals. Star s is pretty faint, but pretty steadily seen. Probably a star at least 1 tenth of a mag. fainter than this could be seen, and perhaps 2 tenths fainter.

Abs. 0.0v

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1894phae.proj..524W

June 13, 1894.

f 1 var.; var. 2 g. dec finder
f 1.5 var; var 1.5 g in large tel.

10 9 8st. 8.8

δ Böötis W. obs.

14	18	+54.6.
15	51	
+ 1	33	

Comp Star o easily seen, and star f easily seen. Star g thought to be certainly glimpsed, but not steadily seen. Probably a star at least 2-tenths mag. fainter than star f could be seen. Abs. 0.03

R. Canum. W. obs.

14	40	+84.1
16	8	
+ 1	28	

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1894phae.proj..524W

June 13, 1894.

Star l easily sum. Star m easily sum. Star n easily sum. Star o ~~suspected but not steadily~~ sum, but is about as faint as can be seen to-night. Variable equals m; in large telescope, too faint for finder. Abs. 0.11

10 40 Est. 12.8

R. Draconis W. obs.

16 26 +67.4.
16 30
+ 0 4

Star r easily sum. Star s pretty steadily sum. Star t sum at intervals, but not steadily... Probably a star 2 tenths of a mag. fainter than star s could be pretty steadily seen.

var. = r. in large tel., too faint for finder. Abs. 0.03

11 0 Est 12.6

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1894phae.proj..524W

June 14, 1894.

Σ 2342. 55 Tauri. Pon. B. Wolk.

18 29 +4.9
14 20 P.A. 15° Dist. 0.4
−4 9

Index to right.

172.2
201.9 < Brighter dis. 29.7^
176.3
199.0 22.7^ 3.16
52.4^ ~~15.2~~ ✓

Index to left.

85.2
109.0 23.8^
81.9 29.7^ 3.12
111.6 53.5^ ~~+5.1~~ ✓

82.0
113.1 31.1^ 2.98
85.0 25.8^
110.8 56.9^ ~~+5.0~~ ✓

Index to right.

175.1
199.0 23.9^ 3.09
172.7 30.3^
203.0 54.2^ ~~+5.1~~ ✓

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1894phae.proj..524W

June 14, 1894.

172.2		
203.3	31.1 ^	
172.8	27.3 ^	2.92
200.1	58.4 ^	~~+4.9~~ ✓

Index to left.

265.9		
287.0	23.1 ^	
262.0	30.9 ^	3.10
292.9	54.0 ^	~~+5.1~~ ✓

Observations difficult. Companion ~~star~~ rather faint. Moon bright and sky not perfectly clear. This seems to be the double star wanted, but companion seems to be rather fainter than was expected. The distance of companion seems to about agree with Struve; position angle is about 0°.

Experiments to determine how faint companion stars for circumpolar variables can be seen on a given night.

S by gri W. ole.

20	8	+57.1
14	51	
5	17	

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1894phae.proj..524W

June 14, 1894.

Comp. star m thought to be seen at intervals, but not steadily, or with absolute certainty.

m 3. Abs. 0.14

var. not seen; probably at least as faint as star n; probably

9 21 fainter than 12.5.

ϑ Cephei. W. ole.

21 6 +67.7

15 14

— 5 48

15 28

— 5 38

Sky getting pretty thick.

Star n seen, & star o possibly suspected.

n 4.

Too thick to continue this work.

Σ 48'. P XIX. 320, 321. W. ole.

19 46 +20.0

15 57

— 3 51

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1894phae.proj..524w

June 14, 1894.

Index above. A.

315.0 < Southern, following & fainter dis.
56.6 101.6^

318.2 94.8^

53.0 196.4^ ~~11.7~~ 0.31
163.6

Index below. B

50.0

146.0 96.0^

46.2 100.8^

147.0 196.8^ ~~11.7~~
163.2 0.32

46.0

147.7 101.7^

50.7 92.5^

143.2 194.2^ ~~11.7~~ 0.27
163.8

Index above. A

140.3

234.1 93.8^

136.3 101.9^

238.2 195.7^ ~~11.7~~ 0.30
164.3

138.1

237.2 99.1^

140.0 95.0^

235.0 194.1^ ~~11.7~~ 0.27
165.9

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1894phae.proj..524W

June 14, 1894.

Index below. B.

232.0		
322.0	90.0^	
225.8	100.2^	
326.0	190.2^	~~+1.8~~ v
	169.8	0.19

Σ 2594. 57 Aquilae Wolf.

19 48 −8.6
16 16
−3 32

This is the only double found in this region and seems to be probably the right one. Position angle 190°, distance 35″.

Index below

41.0		
155.2	114.2^	
43.0	110.0^	
153.0	224.2^	~~+1.1~~ v
	135.8	0.86

Index ~~below~~ above

131.2		
242.0	110.8^	
127.2	115.2^	
244.4	226.0^	~~+1.1~~ v 0.90
	134.0	

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1894phae.proj...524w

June 14, 1894.

131.0		
241.5	110.5 ^	
132.2	108.7 ^	
240.9	219.2 ^	~~11.2~~ v
	1408	0.76

Index below

222.0		
330.4	108.4 ^	
220.2	115.9 ^	
336.1	224.3 ^	~~11.1~~ v
	1347	0.88

221.0		
334.6	113.6 ^	
220.3	110.0 ^	
330.3	223.6 ^	~~11.2~~ v
	1364	0.85

Index above.

310.1		
64.1	114.0 ^	
307.8	116.9 ^	
64.7	230.9 ^	~~11.6~~ v
	1291	1.00

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1894phae.proj..524W

Posted to here.

June 15, 1894.

Σ 2280 100 Hercules. W. obs.

18. 3 +26.1
14 9
−3 54

Index to left. B.

142.9		
230.1	87.2^	Southern dis.
139.1	95.9^	
235.0	183.1^	~~+1.9~~ ✓
	176.9	0.06

Index to right. A.

231.0		
322.3	91.3^	
232.2	89.8^	0.02
322.0	181.1^	~~+2.0~~ ✓
	178.9	
232.8		
322.0	89.2^,	
232.1	90.9^ ✓	0.00
323.0	180.1^ ✓	~~+2.0~~ ✓
	179.9	

Index to left. B.

321.0		
53.0	92.0^	
322.0	89.5^	0.03
51.5	181.5^	~~+2.0~~ ✓
	178.5	

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1894phae.proj..524W

June 15, 1894.

323.1		
49.0	85.9^	
318.8	93.4^	0.01
52.2	179.3^	~~+2.0~~ ✓

Index to right. A.

53.0		
144.9	91.9^	
54.1	86.9^	0.02
141.0	178.8^	~~+2.0~~ ✓

Σ 2264. 95 Hercules. W. obs.

17	56	+21.6
14	35	
− 3	21	

Index to right. A.

53.9		
141.0	< Preceding dis. 87.1^	
49.0	98.2^	0.10
147.2	185.3^	~~+1.9~~ ✓
	184.7	

Index to left. B.

137.0		
236.0	99.0^	
143.2	86.8^	0.11
230.0	185.8^	41.9 ✓
	174.2	

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1894phae.proj..524W

June 15, 1894.

142.2		
232.0	~~89.8~~ ~~89.0~~	
134.1	101.7	
235.8	~~190.7~~ 191.5	~~+1.8~~
	168.0	0.22

Index to right. A.

230.0		
325.0	95.0	
234.0	87.8	0.05
321.8	182.8	~~+1.9~~
	177.2	

235.1		
320.0	84.9	
227.1	99.0	0.07
326.1	183.9	+1.9
	176.1	

Index to left. B.

315.3		
59.0	103.7	
323.1	87.1	0.20
50.2	190.8	~~+1.8~~
	169.2	

~~Σ 2486~~ ~~6 Bygni B.~~

Σ 43' β Bygni W. ds.

19 26 +27.7

14 53

− 4 33

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1894phae.proj..524w

June 15, 1894.

Index to left.

27.3 ≤ following and fainter dis.

169.0 141.7^

26.9 139.2^

166.1 280.9^ ~~0.2~~ ✓

79.1 2.22

Index to right.

118.0

256.0 138.0^ 2.11

118.0 139.0^

~~257.0~~ 277.0^ ~~0.1~~ ✓

80.0

119.0

257.0 138.0^

117.3 139.5^

~~256.8~~ 277.5^ ~~0.1~~ ✓ 2.12

80.5

Index to left.

208.9

348.8 139.9^

206.7 142.1^ ~~0.3~~ ✓

~~348.8 281.8~~ ~~0.2~~ 2.25

282.0^

80.0

206.7

346.1 139.4^

208.7 137.4^

346.1 276.8^ ~~0.1~~ ✓ 2.10

~~83~~ 82

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1894phae.proj..524W

June 15, 1894.

Index to right.

295.0
78.4 143.4^
296.1 141.1^
77.2. 284.5^ ~~0.3~~ ✓
75.5 2.33

Σ 2580 17 ~~Σ~~ Cygni. Wolf.

19 42 +33.5
15 10
— 4 32

Index above.

266.0 < Brighter disappears.
289.0 23.0^
265.8 25.3^
291.1 48.3^ 3.35 ~~+5.3~~ ✓

Index below.

354.0
17.1 23.1^
354.0 26.0^
20.0 49.1^ 3.31 ~~+5.3~~ ✓

354.2
19.0 24.8^
354.2 24.3^
18.5 49.1^ 331 ~~+5.3~~ ✓

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1894phae.proj...524w

June 15, 1894.

Index above.

84.9			
112.0	27.1		
84.8	23.2		
108.0	50.3	~~+5.3~~ ✓	3.26

85.7			
109.0	23.3		
85.9	23.6		
108.9	46.3	~~+5.4~~ ✓	3.44

Index below.

174.0			
201.9	27.9		
174.0	27.9		
201.9	55.8	~~+5.0~~ ✓	3.02

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1894phae.proj..524W

June 16, 1894.

Σ 2379. 5 Aquilae. W. obs.

18 40 −1.1
14 16
− 4 24

Index to left and below

162.0 < Brighter star.
212.3 50.3^
165.6 55.1^
220.7 105.4^ ~~+3.5~~ ✓ 1.53

Index right and above.

249.0
305.8 56.8^
252.8 50.0^
302.8 106.8^ ~~+3.5~~ ✓ 1.49

251.4
305.0 53.6^
247.0 65.0^
312.0 118.6^ ~~+3.2~~ ✓ 1.22

Index left and below.

336.3
32.8 56.5^
344.5 46.3^
30.8 102.8^ ~~+3.6~~ ✓ 1.59

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1894phae.proj..524w

June 16, 1894.

343.1			
30.7	47.6^		
341.0	53.0^		
34.0	106.6^	~~+3.4~~ ✓	1.64

Index right and above.

66.1			
127.0	60.9^		
69.3	56.7^		
126.0	117.6^	~~+0.2~~ ✓	1.25

Σ 39' β Lyrae. W. obs.

18	45	+33.2
14	45	
−4	0	

Index above.

86.0	< Brightness.		
109.0	23.0^		
88.0	20.0^		
108.0	43.0^	+5.6 ✓	

Index below.

178.0			
197.0	19.0^		
176.3	24.4^		
200.7	43.4^	+5.6 ✓	

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1894phae.proj..524W

June 16, 1894.

176.0		
199.1	23.1^	
179.2	17.8^	
197.0	40.9^	+5.7v

Index above.

268.2		
287.5	19.3^	
266.1	23.2^	
289.3	42.5^	+5.6v

265.9		
289.0	23.1^	
269.3	18.7^	
288.0	41.8^	+5.7v

Index below.

0.0		
15.9	15.9^	
358.2		
19.0	20.8^	
	36.7^	+6.0v

Σ 38' ζ Lyrae. W. obs.

18 41 +37.5
15 3 :
3 38

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1894phae.proj..524W

June 10, 1894.

Index right and below.

35.0 Fainter
154.2 119.2^ ~~Brighter~~ disappears.

33.2 124.8^

158.0 244.0^ ~~+07~~ˇ

116.9 1.28

Index left and above.

122.9

254.8 131.9^

127.8 115.2^

243.0 247.1^ ~~+0.6~~ˇ

112.9 1.35

126.7

249.0 122.3^ 1.42

123.2 127.8^

251.0 250.1^ ~~+0.6~~ˇ

109.9

Index right and below.

217.3

340.2 122.9^ 1.23

219.3 118.7^

338.0 241.6^ ~~+0.8~~ˇ

118.4

221.0

probably a mistake in recording. ~~2~~ 3 38.0 117.0^

215.7 125.2^ 1.24

340.9 242.2^ ~~+0.8~~ˇ

117.8

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1894phae.proj..524W

June 16, 1894.

Index left and above.

306.7
69.2 122.5^ 1.07
313.2 111.6^
64.8 234.1^ +0.9 v
125.9

Σ 2417 θ Serpentis N. ole.

18 50 +4.0
15 18

−3 32

Index below.

324.8 < Preceding obs. 88.0^
52.8
329.7
47.2 77.5^ 1
165.5^ 1 ~~+3.3^~~ 1
−0.27

Index above.

60.8
135.3 74.5^ 1
55.0
142.0 87.0^ 1 −0.35
161.5^ 1 ~~+2.4^~~ 1

53.0
142.2 89.2^ 1
56.5
133.8 77.3^ 1 −0.25
166.5^ 1 ~~+2.3^~~ 1

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1894phae.proj..524W

June 16, 1894.

Index below.

149.6		
225.1	75.5	
144.1		
228.8	84.7	−0.32
	160.2	+2.4
144.1		
230.0	85.9	
148.0		
231.2	83.2	−0.20
	169.1	+2.2

Index above.

243.0		
317.5	74.5	
235.8		
321.0	85.2	−0.39
	159.7	+2.4

Σ 2424 11 Aquilae. W. obs.

18	53	+13.5
15	30	
− 3	23	

Index left and below.

268.2	< Brighter dis.	
287.7	19.5	
271.3	13.8	
285.1	33.3	+17

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1894phae.proj..524W

June 16, 1894.

Index right and above.

0.0			
28.0	28.0		
359.2	19.5		
18.7	47.5	3.39	~~+5.4~~ ✓

358.9			
16.4	17.5		
359.0	17.1		
16.1	34.6	4.09	~~+6.1~~ ✓

Index left and below.

88.0			
106.2	18.2		
86.0	23.6		
109.0	41.2	3.70	~~+5.1~~ ✓

85.0			
108.0	23.0		
90.0	17.0		
107.0	40.0	3.77	~~+5.8~~ ✓

Index right and above.

179.0			
178.2	19.2		
177.0	22.3		
199.3	~~42.5~~ 41.5	3.69	~~+5.7~~ ✓ ~~+5.6~~

Companion star faint, and growing fainter.

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1894phae.proj..524W

Posted to here

June 21, 1894.

Expts. to see how faint Comp. stars can be seen in connection with circumpolar variables.

R. Ursa Maj. W. obs.

10 32 +69.3
15 40
+ 5 8

y 1.5. Abs. 0.1K

T. Ursa Maj. W. obs.

12 33 +60.4
15 54
+ 3 21

Abs. 0.0v

x 2. y glimpsed at intervals.

S. Ursa Maj. W. obs.

12 34 +61.8
16 5
+ 3 31

a glimpsed at intervals; possibly v glimpsed; t 3.5. Abs. 0.0A

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1894phae.proj..524W

June 21, 1894.

S. Böötis. W. obs.

14	16	+54.5
16	17	
+ 2	1	

r sum.
r 2.5 Abs. 0.03
s pretty steadily seen, mainly by indirect vision, but at limit of visibility.

R. Camelop. W. obs.

14	40	+84.1
16	32	
+1	58	

v 2. Abs. 0.11
r suspected at intervals, but not certainly or steadily seen.
Moon rising, and about 3° above horizon.

R. Draconis W. obs.

16	26	+67.4
16	47	
+ 0	21	

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1894phae.proj..524W

June 21, 1894.

u 2.5 Abs. 0.03
w possibly glimpsed at intervals, but not certainly seen.

δ Cygni. W. ole.

20.8 +57.2
17 8
−3 0

ε 2.5 Abs. 0.05
t certainly seen at intervals, but not quite steadily.

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1894phae.proj..524W

June 22, 1894.

Σ 2379 5 Aquilae. W. ole.

18 40 # −1.1
14 30
−4 10

Index below

153.5 < Brighter dis.
213.0 +59.5^
159.0 56.2^
215.2 +105.7^ 1.29^
.....

Index above.

252.9
302.0 49.1^ 1.43
247.1 60.2^ ~~1.65~~
307.3 109.3^ ~~+3.4~~ ✓

247.0
309.9 62.9^
250.0 52.2^
302.2 115.1^ 1.30 ~~+3.3~~ ✓

Index below.

343.0
34.0 51.0^
336.6 62.4^
39.0 113.4^ 1.34 ~~+3.3~~ ✓

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1894phae.proj..524W

June 22, 1894.

336.3			
41.2	64.9 ^		
343.7	53.3 ^		
37.0	118.2 ^	1.23	~~+3.2~~ ✓

Index above.

72.7			
124.0	51.3 ^		
67.6	60.8 ^		
128.4	112.1 ^	1.34	~~+3.4~~ ✓

Σ 2417 θ Serpentis W. Ols.

18 50 +4.0
15 8
— 3 42

Index right and above.

231.0			
326.0	95.0 ^	< Preceding disappears.	
237.9	80.4 ^		
318.3	175.4 ^		+2.1 ✓

Index left and below.

329.8			
43.8	74.0 ^		
320.0	95.6 ^		
55.0	169.0 ^		+2.2 ✓

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1894phae.proj..524W

June 22, 1894.

319.0

abandoned. Reject above
observations.

M. P. 441 W. obs.

	3	29	+62.2
	15	39	
+	12	10	
	15	47	
+	12	18	

Region low, clouds coming up;
star could not be found; abandoned.

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1894phae.proj..524W

June 22, 1894.

Σ2417 0 · Serpentis. W. ole.

18	50	+4.0
16	4	
— 2	46	

Index below.

319.9		
56.0	Preceding dia.	96.1 ^ ^
327.2		
47.1	Clouds.	799 ^ ^
		— 008 176.0 ^ ~~12.1~~ ^

Index above.

57.0		
133.5		76.5 ^ ^
48.3		
140.0		91.7 ^ ^
		— 022 168.2 ^ ~~12.2~~ ^
50.0		
145.0		95.0 ^ ^
59.0		
135.8		76.8 ^ ^
		— 016 171.8 ^ ~~12.2~~ ^

Index below.

144.3		
228.6		84.3 ^ ^
138.1		
238.0		99.9 ^ ^
		+008 184.2 ^ ~~11.9~~ ^
		675.8

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1894phae.proj..524W

June 22, 1894.

137.1
236.0 98.9 ^ ^
143.9
229.8 85.9 ^ ^
184.8 ^ ^ ~~+19~~ ^ ^
+0.09 ~~175.2~~

Index above. ~~Clouds~~ Thick.

239.1
317.0 77.9 ^ ^
229.9
323.0 93.1 ^ ^
171.0 ^ ~~+3.2~~ ^ ^
-0.17

Σ 2727 γ Delphini. Wedge.

20 41 +15.6
17 0
-3 41

Index right and above.

160.0 ^
212.0 52.0 ^ < Following and brighter star.
150.0 78.0 ^
228.0 130.0 ^ ~~+30.0~~ v 0.98

Index left and below.

242.9 70.9 ^
313.8
249.1 52.3 ^ 1.12
301.4 123.2 ^ ~~+31~~ v

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1894phae.proj..524w

June 22, 1894.

255.2			
300.2	45.0^		
242.0	71.3^		1.27
313.3	116.3^	~~+3.2~~ v	

Index right and above.

329.8			
45.0	75.2^		
342.2	49.7^		
31.9	124.9^	~~+3.1~~ v	1.09

341.2			
32.0	50.8^		
330.0	74.9^		
44.9	125.7^	+3.1 v	1.07

Index left and below.

56.0			
133.6	77.6^		
72.2	48.7^ ~~47.7~~		
120.9	~~125.3~~ 126.3^	~~+3.1~~ v	1.06

All the observations

Electric light in connection with photometer R would not work this evening. all the readings made by the aid of a bull's-eye lantern

Troubled all the last of the evening by clouds. Observations largely through clouds.

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1894phae.proj..524W

June 23. 1894.

7	30	Cloudy.
8	0	"
8	30	Still cloudy.
9	45	" "

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1894phae.proj...524w

June 27, 1894.

Σ 2417 θ Serpentis. W. obs.

18	50	+ 4.0
14	45	
− 4	5	
14	53	
= 3	57	Cloudy.

Index below.

326.0
52.0 Preceding disappears. 86.0 ^ ^

333.6
44.0 70.4 ^ ^
−0.45 156.4 ^ ^ ~~+2.5~~ ^

Index above.

60.0
135.9 75.9 ^ ^
56.1
140.0 83.9 ^ ^
−0.32 159.8 ^ ^ ~~+2.4~~ ^ ^

54.1
141.5 87.4 ^ ^
58.2
135.0 76.8 ^ ^
−0.30 164.2 ^ ^ ~~+2.3~~ ^ ^

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1894phae.proj..524W

June 27, 1894.

Index below.

151.8 74.3 ^ ^

226.1

145.5

232.9 87.4 ^ ^

−0.35 161.7 ^ ^ ~~+2.3~~ ^ ^

144.7

232.1 87.4 ^ ^

157.0

224.2 67.2 ^ ^

−0.49 154.6 ^ ^ ~~+2.3~~ ^ ^

Index above.

244.5

308.9 64.4 ^ ^

232.8

321.7 89.1 ^ ^

−0.51 153.5 ^ ^ ~~+2.5~~ ^ ^

Σ 43' β Bygni. W. obs.

19h 26 +27.7

15 35

— 3 51

Index left and below

343.0

30.0 < Brighter dis appears. 47.0

351.8 30.5

22.3 77.5 ~~+4.5~~ 2.27

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1894phae.proj..524W

June 27, 1894.

Index right and above.

77.9			
119.1	41.2		
73.0	49.8		
122.8	91.0	~~1.9~~ ✓	1.89

73.1			
122.4	49.3		
77.0	41.3	blonde	
118.3	90.6	~~1.9~~ ✓	1.90

Index left and below.

166.8			
206.5	39.7		
164.3	47.0		
211.3	86.7	~~1.8~~ ✓	2.00

162.0			
212.0	50.0		
168.2	38.7		
206.9	88.7	~~1.9~~ ✓	1.95

Index right and above.

256.7			
299.0	42.3		
251.0	52.5		
303.5	94.8	~~1.8~~ ✓	1.79

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1894phae.proj..524W

June 27, 1894.

Σ 2585. 3 Sagittae. W. olc.

19 43 +18.8
15 58
— 3 4 5

Index right and above.
178.0
197.0 < Brighter star.
174.0
200.0
Clouds.

Index left and below.
266.0
289.0
269.0
287.1
Clouds.

Abandoned on account of clouds.

Σ 2727 γ Delphini. W. olc.

20 41 +15.6
16 50
— 3 5 1

Entirely cloudy, no stars visible

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1894phae.proj..524W

June 28, 1894.

Σ 2417 θ Serpentis. Wolz.

18	50	+4.0
15	8	
−3	42	

Cloudy.

Index above.

233.0 Seeing rather poor. Images glaring.
322.0 < Preceding dis. 89.0^ 1
237.8
318.0 80.2^ 1
−0.20 169.2^ 1 +2.2^ 1

Index below.

329.8
46.0 76.2^ 1
319.1
56.0 96.9^ 1
−0.13 173.1^ 1 ~~+2.1^ 1~~

319.0
59.1 100.1^ 1
329.2
43.5 74.3^ 1
−0.11 174.4^ 1 ~~+2.1^ 1~~

Index above.

59.0
136.0 77.0^ 1
53.2
145.1 91.9^ 1
−0.21 169.9^ 1 +2.2^ 1

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1894phae.proj..524W

June 28, 1894.

52.2
143.0 90.8
60.0
134.2 74.2
−0.2 165.0 +2.3

Index below.

153.0
226.9 73.9
143.0
235.0 92.0
−0.2 165.9 +2.3
5

Σ 2379 β Aquilae. W. obs.

18 40 −1.1
15 28
− 3 12

Index below.

157.5
220.0 < Brighter star. 62.5
165.9 44.8 1.48
210.7 107.3 ~~+3.0~~

Index above.

253.5
300.1 46.6
250.0 58.9
308.9 105.5 1.52 ~~+3.5~~

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1894phae.proj..524w

June 28, 1874.

246.0
300.8 54.8
246.2 61.5 1.27
307.7 116.3 ~~+3.3~~ ✓

Index below.

336.2
39.8 blende 63.6 1.40
342.0 47.1
29.1 110.7 ~~+3.4~~ ✓

341.0
28.5 47.5 1.49
337.4 59.6
37.0 107.1 ~~+3.5~~ ✓

Index above.

67.0
131.0 64.0 1.12
70.0 59.2
129.2 123.2 ~~+3.1~~ ✓

Σ 43' β Cygni. N. obs.

19 26 +27.7
15 43
— 3 43

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1894phae.proj..524W

June 28, 1894.

Index right and above.

74.9 < Purple and bright ais.

121.0	46.1		
78.0	41.0		
119.0	87.1	~~+4.0~~ ✓	.99

Blonds.

Index left and below.

168.6			
207.2	38.6		
165.4	42.6		2.16
208.0	81.2	~~+4.2~~ ✓	

Blonds.

168.1			
209.1	41.0		
170.0	38.6		
208.6	79.6	~~+4.2~~ ✓	2.21

Index right and above.

258.0			
305.0	47.0		
255.0	53.0		
308.0	100.0	~~+3.7~~ ✓	1.66

255.5			
307.0	51.5		
259.4	43.6		
303.0	95.1	~~+3.8~~ ✓	1.78

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1894phae.proj..524W

June 28, 1894.

Index left and below.

350.0

24.0	34.0		
344.0	46.0		
30.0	80.0	~~+42~~ ✓	2.19

Σ 2580 17χ Cygni W. obs.

19	41	+33.5
15	58	
−3	~~43~~	

Index below.

175.0 Reading & Brighter disappear.

200.2	25.2		
177.3	21.6		
198.9	46.8	~~45.4~~ ✓	3.42

Index above.

266.0 Clouds.

~~294~~ 287.8	21.8		
263.0	27.0		
290.0	48.8	~~45~~ ✓	3.33

264.9			
294.2	29.3		
267.0	24.6		
291.6	53.9	~~45.1~~ ✓	3.11

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1894phae.proj..524W

June 28, 1894.

Index below.

353.8
21.2 27.4
354.0 28.2
22.2 55.6 3.03 ~~+5.0~~ ✓

354.0
20.8 26.8
357.2 21.8
19.0 48.6 3.33 ~~+3.3~~ ✓

Index above.

81.6
115.4 33.8
82.0 30.3
112.3 64.1 2.71 ~~+4.7~~ ✓

Troubled by clouds and bad seeing.

Σ 2594. 57 Aquilae. W. obs.

19 48 −8.6
16 20
−3 28

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1894phae.proj...524w

June 28, 1894.

Index above.

237.2.			
313.0	75.8	< northern & brighter one.	
245.0	63.3		
308.3	139.1	~~+2.8~~ ✓	0.79

Index below.

333.0			
42.5	69.5		
329.0	78.9		
47.9	148.4	+2.6 ✓	0.61
~~326.~~			

326.0			
53.8	87.8		
334.0	67.0		
41.0	154.8	~~+2.5~~ ✓	0.48

Index above.

65.8			
132.0	66.2		
56.7	85.2		
141.9	151.4	~~+2.5~~ ✓	0.54

55.1			
138.0	82.9		
64.0	66.2		
130.2	149.1	~~+2.6~~ ✓	0.59

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1894phae.proj..524W

June 28, 1894.

Index below.

155.8			
219.0	63.2		
153.0	74.8		
227.8	138.0	+2.8 ✓	0.A1.

Σ 2637 0 Sagittae W. ole.

20	4	+20.5
16	43	
−3	21	

Clouds thick. No stars visible.

Sky completely cloudy.

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1894phae.proj.:524W

Posted to here.

July 2, 1894.

Σ 2417 θ Serpentis. N. obs.

18	50	+4.0
15	10	
−3	40	

Index above.

230.0		
322.2	< Preceding diam/pairs	92.2 ^ 1
238.1		
319.1		81.0 ^ 1
	−0.13	173.2 ^ 1 +2.1 ^

Index below.

327.0		
49.6		82.6 ^ 1
323.0		
53.3		90.3 ^ 1
	−0.13	172.9 ^ 1 +2.1 ^
319.0		
55.0		96.0 ^ 1
331.0		
48.8		~~77.8~~ ^ 1
	−0.12	173.8 ^ 1 ~~+2.1~~ ^

Index above.

63.0		
135.5		72.5 ^ 1
52.0		
143.2		91.2 ^ 1
	−0.31	163.7 ^ 1 ~~+2.0~~ ^

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1894phae.proj..524W

July 2, 1874.

51.3
143.8 92.5
60.0
137.0 77.0
−0.20 169.5 ~~+2.3~~

Index below.

152.0
224.7 72.7
141.0
~~#~~ 233.1 92.1
−0.29 164.8 ~~+2.3~~

Σ 2585 3 Sagittae. W. ole.

19 43 +18.8
15 32
4 11

Index below

268.8
285.8 17.8 < Bright disappears.
261.0 31.5
292.5 49.3 3.30 ~~40.3~~

Index above.

359.3
21.2 21.9
358.0 20.5
18.5 41.4 3.64 ~~1.6.6~~

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1894phae.proj...524W

July 2, 1894.

358.1			
17.5	19.4		
355.2	22.8		
18.0	42.2	~~15,6~~ ✓	3.65

Index below.

~~80.0~~ 84.8			
111.0	26.2		
89.9	14.3		
104.2	39.5	~~15.8~~ ✓	3.79

88.9			
107.4	18.5		
84.0	25.0		
109.0	43.5	~~15.6~~ ✓	3.54

Index above.

174.0			
202.0	28.0		
179.8	17.2		
197.0	45.2	[illegible] ✓	3.50

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1894phae.proj..524W

July 2, 1894.

Experiments to see how faint comp. stars can be seen in connection with circumpolar variables.

γ Cephei. W. ols.

21 6 +67.8
16 10
— 4 56

Star t, which is the faintest comparison star is about 12.6 magnitude.

δ Cephei W. ole.

21 37 +78.4
16 30
— 5 7

~~Alt.~~ Alt. 53.8 | Z.D. = 46.2
Atm. 0.11

Star t faintly suspected at intervals.

Star s pretty easily seen.
s 2.

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1894phae.proj..524W

July 2, 1894.

R Cassiopeiae. W. obs.

23 51 + 49.7
16 43
— 7 8

Clouds.

Sky so cloudy that observations of the above character have to be abandoned.

No clouds noticed when faint star for δ Lyrae was taken, although cannot tell certainly whether any were present.

Σ 2758 61 Cygni. W. obs.

21 1 + 38.1
17 15
— 3 46
17 25
— 3 36

Cloudy

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1894phae.proj..524W

Posted to here.

July 3. 1894.

~~Σ 2379, 5 Aquilae Phot. R. D. No.~~

~~1A 40 −1.°1~~

abandoned

Σ 2342 55 Tau. Pon B. W. obs.

18	29	+4.8
15	18	
3	11	

Position angle 10°, dist. 25", mag. 5.3 & 8.5

Index right and below

83.0			
112.0	< northern & brighter one.	29.0	
83.0		27.8	2.98
110.8		56.8	~~15.0~~ ✓

Index left and above.

173.0			
201.1		28.1	
172.8		29.5	
202.3		57.6	~~15.0~~ ✓ 2.95

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1894phae.proj..524W

July 3, 1894.

174.3			
201.7	27.4		
173.3	28.1		
202.0	56.1	~~+1.0~~ ✓	3.02

Index right and below.

266.1			
289.9	23.8		
263.7	27.0		
290.7	50.8	~~+1.9~~ ✓	3.24

265.0			
291.0	26.0		
265.9	22.1		
288.0	48.1	~~+1.4~~ ✓	3.36

Index left and above.

353.8			
21.9	28.1		
353.0	29.5		
22.5	57.6	~~+1.0~~ ✓	2.95

Σ 2420 σ Draconis N. obs.

18	49	+59.2
15	37	
−3	12	

Too light.

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1894phae.proj..524W

July 3, 1894.

Σ 48' P ~~XIX~~ 320, 321 N. ole.

19 48 20.0
15 42
— 4 6

Position angle 150°, dist. 40",
Mag. 6.5 & 6.8

Index above A

53.7
144.0 < northern and brighter disappears.
90.3
58.0 81.2
139.2 171.5 — 0.16 ~~+2.2~~ ✓

Index below. B.

148.0
226.6 78.6
141.9 90.2
232.1 168.8 — 0.21 ~~+2.2~~ ✓

141.5
232.9 91.4
149.0 78.0
227.0 169.4 — 0.20 ~~+2.2~~ ✓

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1894phae.proj..524w

July 3, 1894.

Index above. A.

239.8		
317.0	77.2	
229.1	97.7	
326.8	184.9	~~11.9~~ ✓
	175.1	+0.09

232.0		
322.8	90.8	
240.0	76.1	−0.25
316.1	166.9	~~12.2~~ ✓

Index below. B.

329.8		
48.6	78.8	
323.0	92.0	0.17
55.0	170.8	~~12.2~~ ✓

Σ 2727 γ Delphini N. ole.

20	41	+15.6
15	55	
− 4	46	

Mag. 4.0 & 5.0, dist. 10″
Position angle 275°

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1894phae.proj..524W

July 3, 1894.

Index above.

237.3			
36.2	58.9	Following & brighter disc.	
329.8	71.7		
41.5	130.6	~~+3.0~~ ✓	0.97

Index below.

59.0			
134.7	75.7		
67.0	59.1		
126.1	134.8	~~+2.9~~ ✓	0.88

68.9			
129.1	60.2		
55.8	79.5		
135.3	139.7	~~+2.8~~ ✓	0.74

Index above.

155.1			
224.6	69.5		
159.1	57.9		
217.0	127.4	~~+3.0~~ ✓	1.03

161.1			
217.9	56.8		
151.0	75.9		
226.9	132.7	~~+2.9~~ ✓	0.92

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1894phae.proj..524W

July 3, 1894.

Index below.

239.4		
313.0	73.6	1.00
249.5	55.6	
305.1	129.2	~~73.6~~ ✓

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1894phae.proj..524W

July ☆ 5, 1894.

Σ 2594. 57 Aquilae. W. olz.

19	48	−8.6
15	10	
− 4	38	Abandoned.

Σ 2637 θ Sagittae. W. olz.

20	4	+20.5
15	15	
− 4	49	

6 lords.

15	20
− 4	44

☆ Position angle 330°, dist. 10″, mag. 6.2 & 8.5

Index above.

347.0	<	Brighter dis.
25.0		38.0
345.0		46.0
31.0		84.0

2.08 ~~+41~~

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1894phae.proj...524w

July 5, 1894.

Index below.

75.0			
118.8	43.8		
82.0	43.0		
125.0	86.8	2.00	~~+4.0~~ ✓
80.0			
125.0	45.0		
73.0	46.0		
119.0	91.0	1.89	~~+5.9~~ ✓

Index above.

163.4			
212.3	48.9		
168.0	38.0		
206.0	86.9	2.00	~~+4.0~~ ✓
168.5			
206.0	37.5		
165.0	48.0		
213.0	85.5	2.04	~~+4.0~~ ✓

Index below.

254.7			
300.7	46.0		
259.2	34.8		
294.0	80.8	2.17	~~+4.7~~ ✓

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1894phae.proj..524W

July 5, 1894.

Σ 27 27 γ Delphini. Wolz.

20 41 +15.6
15 45
−4 56

Position angle 275°, dist 10″
mag. 4.0 & 5.2

Index right and above

333.7
46.2 < Brighter star.
336.2 60.8
37.0 133.3

0.91
~~+2.9~~ ✓

Index left and below.

71.0
126.2 55.2
59.2 74.8
134.8 130.0

0.94
~~+3.0~~ ✓

60.0
132.2 72.2
69.3 54.5
123.8 126.7

~~+3.0~~ ✓ 1.05

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1894phae.proj..524w

July 5, 1894.

O rotis right and above.

160.8		
216.2	55.4	
151.0	73.0	1.01
224.0	128.4	~~+3.0~~ ✓

150.9		
224.0	73.1	
157.2	59.8	0.94
217.0	132.1	~~+2.9~~ ✓

O rotis left and below.

249.1		
307.0	57.9	
237.7	78.0	0.96
315.7	135.9	~~+2.9~~ ✓

Σ 2758 61 Cygni N. obs.

21 1. + 38.1
16 1
— 5 0

Position angle 125°, dist 15″,
mag. 5.2 & 6.0

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1894phae.proj..524W

July 5, 1894.

Index below.

335.2			
41.2	66.0		
327.5	81.3		
48.8	147.3	−0.63	~~+2.6~~ ✓

Index above.

54.9			
136.0	81.1		
62.9	66.2		
129.1	147.3	−0.63	~~+2.6~~ ✓

65.0			
128.0	63.0		
57.0	79.9		
136.9	142.9	−0.72	~~+2.7~~ ✓

Index below.

147.3			
226.3	79.0		
152.8	68.0		
220.8	147.0	−0.63	~~+2.6~~ ✓

153.8			
221.0	67.2		
148.8	78.2		
227.0	145.4	−0.67	~~+2.7~~ ✓

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1894phae.proj..524W

July 5, 1894.

Index above.

239.0		
318.0	79.0	
246.3	60.7	
307.0	139.7	-0.7A ~~+2.8~~ ✓

Experiments to see how faint comp. stars can be seen in connection with circumpolar variables.

R. Cassiop. W. obs.

23	51	+49.7
16	28	
-7	23	

Comparison star α seen rather steadily; β suspected at intervals, but not steadily seen
Star γ seen. Star ζ seen
α 1 but difficult. Abt. 0.3A

9 35

ζ 3.

Alt. 24.6
Z.D. = 65.4

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1894phae.proj..524W

July 5, 1894

γ Bootis. W. ole.

0 18 +55.9
16 48
+ 16 30

Alt. 2r°r { Zd = 64°r
Ab. 0,3r

9 56 t 3

δ Bootis. W. ole.

1 10 +72.1
17 8
+ 15 58

Ab. 0,2r
Alt. ~~27°~~ 32°,1
Zd = r7°,9

x pretty certainly seen at intervals
y ~~not~~ possibly suspected

10 5 w. 3
~~p t variable; variable 3 q~~
variable = p.

10 9 Ost. 11.5

δ Persei. W. ole.

2 8 +57.2
17 20
+ 15 12

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1894phae.proj..524w

July 5, 1894.

9 2 Alt. 18.°7 | 2δ = 71.°3
n ~~26~~ 3 2 6 measured at intervals Ab. 0.°7

10

R. Aurigae. Nicolz.

5 3 + 53.0
17 38
+ 12 35 Too low.

R. Ursa Maj. Nicolz.

~~+0~~ 33 +69.5
18 53
+ ~~8~~ 2 ~~0~~

~~+ 3~~
10 48.

~~+0~~ ~~37~~
~~+8~~

H.A = T - (R.A.)

18 4
8 25
9 43

90
69.5
20.5

15.

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1894phae.proj..524W

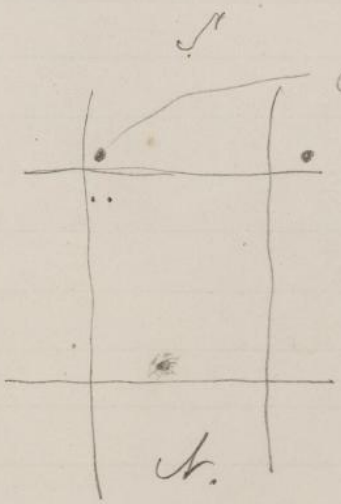
July 5, 1894

18 20 32.1
20 58.3

21 25.4
21 53.6

22 16.7
22 43.4

Comet follows star by
, and is 10.0' north of it.
Bright in middle, surrounded by
nebulosity; nucleus 8.5 mag.



The above turns out to be a variable

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1894phae.proj...524w

July 7. 1894.

h 0	Cloudy.
h 15	"
h 30	"
8 45	Still cloudy, with no prospect of clearing. Too cloudy for work.

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1894phae.proj..524W

July 9 1894.

Σ 2487 η Lyrae. W. obs.

19	10	+38.0
15	23	
−3	47	

Σ 48' P ~~XIX~~ 320, 321. W. obs.

19	48	+20.0
15	28	
−4	20	

Position angle 150° dist 40", mag. 6.6 & 6.8.

~~Index above.~~

~~56.8~~

~~140.8~~ <

~~53.2~~

~~142.0~~

Index ~~below~~ above

54.0 < Brighter dist.

141.0

60.1

135.1

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1894phae.proj...524w

July 9, 1894.

Index below.

148.9
226.9
140.5
234.0

141.5
234.8
148.0
226.8

Index above.

240.0

Abandoned.

Σ 48' P XIX 320, 321. Nicole.
19 48 +20°.0
Position angle 150°, dist. 40", mag. 6.6 6.8
Index above. A.

240.2
315.9 < Brighter dis. 75.7
233.1 88.9
322.0 164.6 0.29

Index below. B.

323.9
50.3 86.4
329.0 79.9
48.9 166.3 026

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1894phae.proj..524W

July 9, 1894.

328.0			
47.0	79.0		
322.7	89.3		
52.0	168.3	0.22	~~+2.2~~ ✓

Index above. A.

51.0			
145.1	94.1		
58.0	79.8		
137.8	173.9	0.11	~~+2.1~~ ✓

55.0			
136.8	81.8		
51.7	92.2		
143.9	174.0	0.11	~~+2.1~~ ✓

Index below. B.

147.0			
233.0	86.0		
149.9	77.1		
227.0	163.1	0.32	~~+2.3~~ ✓

Σ 2727 γ Delphini W. de.

20 41 +15.6
16 0
— 4 ~~41~~

Position angle 275°; dist. 10"; mag. 4.2 & 5.1

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1894phae.proj...524w

July 9, 1894.

Index below.

247.0			
307.0	60.0		
238.8	73.9		
312.7	133.9	~~12.9~~ ✓	0.96

Index above.

332.0			
43.0	71.0		
336.7	61.2		
37.9	132.2	~~12.9~~ ✓	0.93

338.0			
38.0	60.0		
329.0	75.8		
44.8	135.8	~~12.9~~ ✓	0.96

Index below.

58.8			
141.0	82.2		
70.0	56.2		
126.2	138.4	~~12.8~~ ✓	0.81

70.0			
124.3	54.3		
55.0	85.5		
140.5	139.8	~~12.8~~ ✓	0.78

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1894phae.proj..524W

July 9, 1894.

Index above.

148.9		
221.3	72.4	
160.0	56.7	1.00
216.7	129.1	+3.0

Experiments to see how faint comp. stars can be seen in connection with circumpolar variables.

R. Ursa Maj. N. obs.

10 33 +69.5
16 37
+ 6 4

No. 9.16
Z.D. = 72.5

x 1.5

9 25 y thought to be suspected at intervals.

T Ursa Maj. N. obs.

12 33 +60.4
16 53
+ 4 20

No. 9.11
Z.D. = 69.5

w 2.5

9 44 x faintly seen at intervals

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1894phae.proj..524w

July 9, 1894.

S Nua Maj. W. obs.
Obs. 0.11.

ii suspected at times, but not certainly
9 52 sun; t 2. Z.D. = 44.4

R. Camelop. W. obs.

14	40	+84.1	
17	21		
+ 2	41		Z.D. = 43.2 Obs. 0.11

10 8 g 2.5; R sun at intervals.

R Draconis. W. obs.

16	26	+67.4	
17	3.4		
+ 1	8		

Z.D. = 27.7

p 3 var; var 1 g. in large tel.
Obs. 0.03. ~~Obs. 0.00~~

10 18 Est 12.0

10 24 w probably identified. w. 2.

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1894phae.proj..524W

July 9, 1894.

S leyaii W. obs.

20 8 +57.1
17 56
— 2 12

r 1 var.; var. 1 s.

10 38 8 rt. ~~+3.8~~ 14.0 Abs. 0.0 2
Z.D. = 2F.A

10 39 t seen, but not quite steadily; s 3.

S. lepkei W. obs.

21 37 +~~8~~7 8.3
18 7
— 3 30

10 46 r seen; s seen; t suspected.
Abs. 0.0 A

10 58 t seen at intervals; s 2.5 Z.D. = F0.4

Moon now about 1° above western horizon

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1894phae.proj..524W

July 10, 1894.

α	0	Cloudy.
α	1v	"
α	30	"
α	4v	"
9	0	"

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1894phae.proj..524W

July 11, 1894.

~~Σ 27 27 Y D~~

Σ 2758 61 Cygni N. obs.

21. 1 +38.1
15 34
- 5 27

Position angle 130°; dist. 15"; mag. 5.2 & 6.0

Index below.

334.0
38.2 Brighter obs.
330.1 64.2 72.0
42.1 136.2 −0.85 ~~+2.4~~ ✓

Index above.

58.3
134.0 75.7
64.3 66.2
130.5 141.9 −0.74 ~~+2.7~~ ✓

67.0
129.9 62.9
58.5 77.5
136.0 140.4 −0.77 ~~+2.8~~ ✓

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1894phae.proj..524W

July 11, 1894.

0.85	0.74		
0.75	0.77		
0.70	0.73		
.232			
0.77	0.75		
	0.76		

Index below.

146.0			
224.0	78.0		
157.7	63.2		
220.9	141.2	-0.75	~~+2.7~~ ✓

158.0			
222.0	64.0		
148.0	79.8		
227.8	143.8	-0.70	+2.7 ✓

Index above.

236.8			
317.2	80.4		
248.0	62.0		
310.0	142.4	-0.73	+2.7 ✓

Σ 11^{II} · 1 Pegasi W. obs.

21	16	+19.2
15	58	
− 5	18	

Position angle 325° ; dist 35" ; mag 4.5 & 8.5

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1894phae.proj..524W

July 11, 1894.

Index above.

1.7< Brighter disappears.

13.0	11.3		
1.0	14.0		
15.0	25.3	4.78	~~+6.8~~ ✓

Index below.

91.0			
103.9	12.9		
91.8	11.8		
103.6	24.7	4.83	~~+6.8~~ ✓

92.0			
104.0	12.0		
91.2	13.7		
104.9	25.7	4.74	~~+6.7~~ ✓

Index above.

182.0			
194.9	12.9		
180.0	14.1		
194.1	27.0	4.63	~~+6.6~~ ✓

181.0			
195.9	14.9		
180.0	14.0		
194.0	28.9	4.48	~~+6.5~~ ✓

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1894phae.proj..524w

July 11, 1894.

Index below.

4.78	4.03		
4.63	4.74		
4.48	4.92		
189	249		
4.63	4.83		
4.73			
	272.1		
	284.0	11.9	
	271.9	11.8	4.92
	283.7	23.7	~~7.69~~ ✓

Obs^ns through more or less clouds.

Σ 56' . 3 Pegasi. N. obs.

21 31 +6.0

16 22

— 5 9

Position angle 350°; dist 35"; mag. 5.8 & 7.3

Index right & below.

	246.0		
	308.9	62.9	< Brighter dis.
	253.0	49.2	
	302.2	112.1	1.37 ~~1.34~~ ✓

Index left & above.

	339.0		
	37.0	58.0	
	336.1	62.9	
	39.0	120.9	1.17 ~~1.32~~ ✓

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1894phae.proj..524W

July 11, 1894.

337.7			
36.6	58.9		
339.1	56.9		
36.0	115.8	1.29	+3.3 ✓

Images right and below.

71.0			
128.0	57.0		
70.1	57.1		
127.2	114.1	1.32	+3.3 ✓

66.1			
126.8	60.7		
68.5	58.3	1.21	
126.8	119.0	~	+3.2 ✓

Images left and above.

158.8			
217.0	58.2		
158.0	59.0		
217.0	117.2	1.25	+3.3 ✓

Observations through some clouds.

1.37	1.17
1.32	1.29
1.21	1.25
1.30	71
	1.24

(1.27)

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1894phae.proj..524W

July 11, 1894

Examination of faint stars near the field, as delineated on sheet entitled "a Request to astronomers."

Stopped by clouds.

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1894phae.proj..524W

July 12, 1894.

8 0 Cloudy

9 0 Still cloudy.

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1894phae.proj..524W

July 13, 1894.

Cloudy.

Experiments on faint stars near the pole. W. obr.

1 20 +88.7
16 17
— 9 3

Σ 2894. ℘ ~~XXII~~ 65. W. obr.

2 2 13 +37.1
1 7 55
— 4 18

Position angle 195°; dist. 10"; mag. 6.5 & 8.5.

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1894phae.proj..524W

July 13, 1894.

Index left and above.

77.4		
117.0	39.6	Bright star disappears.
77.0	38.9	
115.9	78.5	+4.2 ✓

Index right and below.

169.1		
206.1	37.0	
169.2	36.8	
206.0	73.8	+4.4 ✓

170.8		
206.0	35.2	
171.0	34.0	
205.0	69.2	+4.5 ✓

Index left and above.

260.0		
301.1	41.1	
259.1	35.9	
295.0	77.0	+4.3 ✓

260.0		
295.0	35.0	
260.6	34.3	
294.9	69.3	+4.5 ✓

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1894phae.proj..524w

July 13, 1894.

Index right and below.

2.24	2.38	351.0		
2.28	2.53	25.7	34.7	
2.53	2.53	350.1	33.9	
.105	.146	24.0	68.6	+4.6 ✓
2.35	2.49			

2.42

Σ 29 22 8 Lacertae W. ds.

22 30 +39.0

18 17

−4 13

Position angle 190°; dist. 20″; mag. 6.0 & 6.6

Index to right.

332.1 < Brighter ds.

52.8	80.7		
333.8	68.9	0.58	
42.7	149.6		~~72.6~~ ✓

Index to left.

65.5			
129.0	63.5		
62.0	73.0	0.84	
135.0	136.5		~~72.8~~ ✓

54.6			
137.0	82.4	0.49	
60.0	72.2		
132.2	154.6		+~~2.5~~ ✓

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1894phae.proj..524W

July 13, 1894.

Index to right.

153.2

220.6 67.4

155.0 64.9

219.9 132.3 0.93 ~~1.9~~ ✓

152.2 Clouds.

219.9 67.7

152.0 70.7 0.81

222.7 138.4 ~~1.8~~ ✓

Index to left.

244.0 0.72

313.8 69.8

242.2 72.7

314.9 142.5 ~~1.7~~ ✓

Observations jointly thro' clouds on this last star.

0.58	0.84
0.93	0.49
0.81	0.72
232	205
0.77	0.68

0.72

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Posted to here.

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