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KG
11365
810

Book 10.

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Book 10

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(K.D.H)

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Fainter comp stars marked on A 1839

March 5, 1897

Examination of later plates of region of Nova Aurigae.

14.90 Plate A 1962

13.98 t = .1 13.68 < 15.00

N n.s. < 14.08 - < 13.90

A 1839

13.98 t = .8 14.38

N n.s. < 14.78 [< 14.60] see page 6.

A 1831

13.80 13.98 t = .6

N n.s < 14.58 [< 14.40] see page 6

B 16022

11.75 11.97 11.19 m = .4 11.37

N n.s. < 11.59 < 12.15

B 15551

12.96 12.03 11.81 o = .1 < 11.91

N n.s < 12.13 < 13.06

B 16105

14.90 13.80 (13.98) t = .2 < 13.78

13.58 N n.s. < 14.18 < 14.00 < 15.10

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1897phae.proj..811F

March 5, 97.
Nova Normal

B 15786

12.96 ~~12.03~~ 11.81 v = .3 < 12.11
N n.s. < 12.33 < 13.26

B 16261

13.61 12.33 12.11 v = .1 < 12.21
N n.s. < 12.43 < 13.71

B 15785

12.96 12.03 11.81 ~~N~~ v = .2 < 12.01 < 13.16
N n.s. < 12.23

B 17256

Does not cover region.

B 15406

14.90 13.80 (13.98) 13.58 v = .2 < 13.98
N n.s. < 14.18 < 14.00 < 15.10

B 15550

12.96 12.03 11.81 v = .1 < 11.91
N n.s < 12.13 < 13.06

B 16323

12.65 11.76 11.54 n = .2 < 11.74
N n.s. < 11.96 < 12.85

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1897phae.proj..811F

Mar. 5, 97.

Measures of faint comp. stars for Nova Normae

r

a 1.839 Scale cut from C Plate used.

r	8.3	8.3
s	8.8	8.8
t	9.3	9.3
u	9.5	9.5
v	9.8	9.9
w	10.3	10.3

~~14.83~~ 14.61 W = .3 N. n. s ~~< 15.13~~ < 14.91 < 16.42 ✓

a 1831

r	8.8	8.8
s	9.3	9.3
t	9.7	9.6
u	9.9	9.8
v	10.3	10.2
w	10.7	10.7

~~14.83~~ 14.61 W = .1 N n.s. < 14.93 14.71 < 16.22 ✓

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1897phae.proj..811F

March 8, 1897.

Measures of Nova Normae. (Cont.)

10.31 B 13827 S/.

9.66 h = 4 < 10.05 < 10.71

N n.s.

B 14347 S/.

10.82 10.13 h = 2

N n.s. < 10.33 < 11.02

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1897phae.proj..811F

Nova Normae. March 9, 1897.

Estimates of prismatic companions of bright comparison stars for Nova Normae, as compared with faint comparison stars.

Plate B 14349

p.c.d.a	b 1 a	3.93					
	a 3 m	3.85					
			3.89 - 00	3.89	-6		
p.c.d.b	m 4 b	4.55					
	b 0 n	4.72				3.97 4.14 4.11	
	b 3 0	4.69				4.07	.10 .07 .04
		6	4.65 - 58	4.07	+12		
p.c.d.c	0 1 c	5.09	5.04 - 96	4.08	+13	H.13 4.03 H.08	.05 .05
	c 3 p	4.99					
p.c.d.d	0 4 d	5.39	5.29 - 1.34	3.95	00	4.05 3.85 3.95	.10 .10
	d 1 p	5.19					
p.c.d.e	p 2 e	5.49				3.77 3.77 3.77	.00 .00
	e 1 g	5.49	5.49 - 72	3.77	-18		
			476			25 - 24 = 5	
	f m p.c.		3.95 ± .10				

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1897phae.proj..811F

March 9, 1897 (Cont.)

Estimates of prism. comps. (Cont.)

Plate B 13350 ~~13350~~

p.c. of a

l 2 a	4.03						
a 2 m	3.95 / 3.99	3.99 - .00 = 3.99					-1

p.c. of b

m 3 b	4.45				3.87		
b 1 n	4.62				4.04		
		4.54 - .58	3.96	-4	3.96	.19	.08

p.c. of c

o 1 c	5.09				4.13		
c 3 p	4.99				4.03 / 4.08	.05	.05
		5.04 - .96	4.08	+8			

p.c. of d

p 2 d	5.49	5			4.15		
+d 2 g	5.89				4.05 / 4.10	.05	.05
		5.44 - 1.34	4.10	+10			

p.c. of e

p 4 e	5.69				3.97		
e o g	5.39				3.87		
e 4 k	5.44 / 1.72	5.57 - 1.72	3.85	-15	3.72 / 3.85	.12	.02 .13
			4.98	18-20 / 5			
			4.00 ± .08				

p.c. of f N.S.

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1897phae.proj..811F

March 9, 1897

Dist. of prism. comps. (Cont.)

Plate B14349

p.c.fa	h 2 a	4.03			
	a 2 m	3.95			
			3.99 − 00 = 3.99	−2	
p.c.f b	m 4 b	4.55			
	b o n	4.72			3.97 4.14 4.01
	b 4 0	4.59 / 186	4.62 − 58 = 4.04	+3	4.04 .07 .10 .03
p.c.g c	o 2 c	5.19			
	c 2 p	5.09	5.14 − 96	4.18 +17	4.23 4.13 / 4.18 .05 .05
p.c.g d	o 4 d	5.19			
	d o p	5.29			4.05 3.95 3.95
	d 3 g	5.19	5.32 −134	3.98 −3	3.98 .07 .03 .03
p.c.g e	p 3 e	5.59			
	e o g	5.59			3.87 3.87 3.82
	e 3 p	5.54	5.57 − 172	3.85 −16 / 504 20-21	3.85 .02 .02 .03
				4.01 ±08	

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1897phae.proj..811F

March 9, 1897

Dist. of prism. Comp. (Cont.)

Plate B 13350

p.c.fa	l 2 a	4.03			
	a 2 m	3.95	3.99 - 00	= 3.99	±3
p.c.f b	m 3 b	4.45			3.87, 3.94, 3.90 .03 .04
	b 2 n	4.52	4.48 - 58	= 3.90	-6
p.c.f e	n 4 e	5.12			4.16, 4.03, 3.93, 4.04 .12 .01 .11
	c o o	4.99			
	c 4 p	4.89			
		300	5.00 - 96	4.04	+8
p.c.f d	o 4 d	5.39			
	d o p	5.29			4.05, 3.95, 3.95, 3.98 .07 .03 .03
	d 3 q	5.89			
		532	5.32 - 134	398	+2
p.c.f e	q 1 e	5.89			3.97, 3.82, 3.90 .07 .08
	e 3 k	5.34			
		562	5.62 - 172	390	-6
				481	13-12 / 5
				396 ±.05	

3.95 ±.10
4.01 ±.08
4.00 ±.08
3.96 ±.05
3.98 ±.08

4.84 | 398
3.98 | 1.216
880
226
640
398
2420

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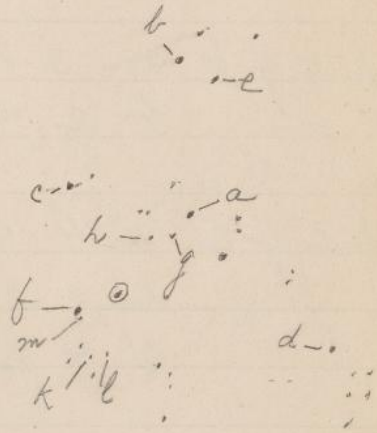
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May 4, 1897.

Meas. of new var. star in Agnarum
BD −14° 5960 21h 4m.8 −14° 59' 8.5 (Ca. C. Pickering M.P.)

Plate B 17913

a	6.0
b	6.4
c	6.9
d	7.2
e	7.5
f	7.9
g	8.3
h	8.7
k	9.0
l	9.5
m	9.8
var	7.7



9.00 8.95 = 8.98 .02 .03
8.80 ✓ 3 v 9.10 9.05 = 9.08 .02 .03
9.05 v / f 9.15

✓ B 10067

9.00 l 2 v 9.20 9.00 8.95 = 8.98 .02 .03
8.80
8.95 v 2 f 8.95 9.15

✓ B I 2486

8.42 d 3 v 8.72 8.70 = 8.71 .02 .01
8.70 v / l 8.80

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1897phae.proj..811F

May 4, 1897.

Meas. of new var. in

Cont.

√B 16399

8.80 e 1 v 8.90 8.85 = 8.88 .02 .03

8.85 v 3 f 9.15

√I 5257

8.80 e 1 v 8.90 8.85 = 8.88 .02 .03

8.85 v 3 f 9.15

√B 11210

8.80 e 2 v 9.00 8.95 = 8.98 .02 .03

8.95 v 2 f 9.15

√B 16586

8.80 e 2 b 9.00 8.95 = 8.98 .02 .03

8.95 b 2 f 9.15

√B 13714

8.12 c 4 v 8.52 8.42 8.40 = 8.45 .07 .03 .05

v 0 d 8.42

8.40 v 4 E 8.80

√B 13945

8.42 d 2 v 8.62 8.60 = 8.61 ? .01 .01

8.60 v 2 e 8.80

B 6044

9.15 f 1 v 9.25 9.20 = 9.22 .03 .02

9.20 f v 4 g 9.60

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1897phae.proj..811F

May 4, 1897

Meas. of new var. (Cont-

✓ B 17781

8.42 d 4 v 8.82 8.80 8.85 = 8.82 .00 .02 .03

v 0 e 8.80

8.85 v 3 f 9.15

✓ B 13316

8.42 d 2 v 8.62 8.60 = 8.61 .01 .01

8.60 v 2 e 8.80

✓ I 6752 Sp.

8.80 E 3 v 9.10 9.05 = 9.08 .02 .03

9.05 v 1 f 9.15

✓ B 17997

8.80 E 1 v 8.90 8.85 = 8.88 .02 .03

8.85 v 3 f 9.15

✓ B 10080 Sp.

8.75 v 4 f 9.15

E not on plate. On edge -

✓ I 1778

8.80 e 2 v 9.00 8.95 = 8.98 .02 .03

8.95 v 2 f 9.15

✓ B 17621 Plate does not cover region

✓ I 1801 8.82 8.80 8.75 = 8.79 .03 .01 .04

8.42 d 4 v 8.82 8.75

v 0 e 8.80 v 4 f 9.15

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Ulea of new Var. (Cont-

√B8476
8.42 d 4 v 8.82 8.70 = 8.76 .06 .06
8.70 v 1 E 8.80

√B 16663
8.80 E 2 v 9.00 9.05 = 9.02 .02 .03 On Edge of plate-
9.05 v 1 f 9.15

√B16650 does not Cover region

√B14173 Sf-
8.42 d 4 v 8.82 8.70 = 8.76 .06 .06
8.70 v 1 E 8.80
a Cl. A
b Cl. A5K
c Cl. K.
d Cl. A5F
e Cl. H
f Cl. E
Var. Cl. Mc.

√B10068
8.80 e 1 v 8.90 8.85 = 8.88 .02 .03
8.85 v 3 f 9.15

√B15830
8.80 e 1 v 8.90 8.85 = 8.88 .02 .03
8.85 v 3 f 9.15

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May 4, 1897

Meas of new var. (Cont.

B 6229 Sp- too poor.

B 6223 Sp- too poor-

B 4399 Sp- too poor-

3506 ✓ B ~~3560~~ 3506

8.80 e 3 v 9.10 8.95 = 9.02 .08 .07

8.95 v 2 f. 9.15

✓ B 4061

e 2 v 8.98 .02 .03

v 2 f

B 2970 Sp- too poor

✓ I 13282 Sp-

d 2 v 8.61 .01 .01

v 2 e

B 724 Sp. too poor

✓ I 14028 Sp-

8.42 d 3 v 8.72 8.70 = 8.71 .01 .01

8.70 v 1 e 8.80

✓ I 13087 Sp-

e 1 v 8.88 .02 .03

v 3 f

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Meas. of new Vals — (Cont.

I 1435 Sp. too poor.

I 1452 Sp. too poor.

I 1456 Sp. too poor.

✓ B 17344
e 2 v 8.98 .02 .03
v 2 f

I 13157 Sp. too poor.

✓ I 11776 Sp.
8.80 e 2 v 9.00 9.05 = 9.02 .02 .03
9.05 v 1 f. 9.15

✓ B 10246 Sp.
e 1 v 8.88 .02 .03
v 3 f

✓ B 10171 Sp.
e 2 v 8.98 .02 .03
v 2 f

✓ B 10165 Sp.
e 3 v 9.08 .02 .03
v 1 f

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May 4, 1897

Meas of new Var. Cont.

B 6045

a 6.5
b 6.9
c 7.2
d 7.5
e 7.89
f 8.2
g 8.8
h 9.2
K 9.5
l 9.9
m 10.3
var 8.3 9.25 9.10 = 9.18 .07 .08
9.15 ✓ f 1 v 9.25 9.30 = 9.28 .03 .02
9.30 v 3 g - 9.60

✓ B 10108 Sp-
e 2 v 9.02 .02 .03
v 1 f. on Edge of plate-

✓ B. 14580 Sp.
d 2 v 8.61 .01 .01
v 2 e

B 10561 Sp. too poor-

17319 B 17391 Sp. too poor

B. 17318 Sp- too poor-

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(Cont

Meas. of New Var.

I ~~I~~ B. 2120 too near edge of plate —

I ~~I~~ B. 2193

8.80 l 2 v 9.00
f N.S.

✓ I 4166

8.42 d 4 v 8.82 8.70 = 8.76 .06 .06
8.70 v 1 l. 8.80

I 4387 Sf — too poor —

✓ I 4902 Sf —
l 3 v 9.08 .02 .03
v 1 f —

✓ I 13119 Sf —
l 3 v 9.08 .02 .03
v 1 f —

✓ I 13526 Sf —
d 4 v 8.79 .03 .01 .04
v 0 l
v 4 f —

✓ B 16889
l 3 v 9.08 .02 .03
v 1 f

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1897phae.proj..811F

May 4, 1897 (Cont.

Meas. new var -

✓ B 13675
d 2 v 8.61 .01 .01
v 2 l

✓ B 15956
l 1 v 8.88 .02 .03
v 3 f

✓ I 13482 Sp -
8.42 d 4 v 8.82 8.80 = 8.81 .01 .01
v 0 l 8.80
f. n.s.

✓ B. 6547
8.42 d 5 v 8.92 8.80 8.85 = 8.86 .06 .06 .01
v 0 l 8.80
8.85 v 3 f 9.15

B 8199 Sp. too poor -

B 8257 Sp - too poor -

B 6228 Sp - too poor -

B 6190 does not cover region -

✓ B 11481 Sp -
l 1 v 8.88 .02 .03
v 3 f

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Cont.

Meas. New Val-

✓B 12330 Sp-
e 2 v 8.98 .02 .03
v 2 f-

✓B 8525
8.42 d 4 v 8.82 8.70 = 8.76 .06 .06
8.70 v 1 e 8.80

Measured twice.

B 8253. Sp- Too foot-

✓B 8534
8.42 d 5 v 8.92 8.80 8.75 = 8.82 .10 .02 .07
v 0 e 8.80
8.75 v 4 f 9.15

B 9772 Sp. on edge of plate-

I 2174
8.42 d 4 v 882 8.70 = 8.76 .06 .06
8.70 v 1 f-e 8.80

✓I 1346
8.42 d 3 v 8.72 8.60 = 8.66 .06 .06
8.60 v 2 e. 8.80

✓B 9833 Sp-
8.80 e 1 v 8.90
f n.s.

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1897phae.proj..811F

May 4, 1897

Meas. of new var. (Cont—

✓B 14376 Sp.

8.42 d 5 v 8.92 8.80 8.75 = 8.82 .10 .02 .07

v 0 e 8.80

8.75 v 4 f 9.15

B 2921 Sp- too poor—

B ~~2926~~ 2926 Sp- too poor—

I 1826 Sp. too poor—

I 1476 Sp- too poor—

✓I 1501 Sp-

8.80 e 1 v 8.90 8.85 = 8.88 .02 .03

8.85 v 3 f- 9.15

✓B 13848 Sp-

e 1 v 8.88 .02 .03

v 3 f-

✓B 17569

e 1 v 8.88 .02 .03

v 3 f.

✓I 1420 Sp-

8.70 v 1 e 8.80 8.70

d not on plate—

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1897phae.proj..811F

Cont-

Mean of new var.

I 1525 Sp. too poor

✓ I 1571
8.80 c 2 v 9.00
f n.s. on edge of plate -

✓ B 3018
8.42 d 4 v 8.82 8.70 = 8.76 .06 .06
8.70 v 1 c 8.80

✓ B 17221
c 2 v 8.98 .02 .03
v 2 f

B 16149
a 6.1
b 6.5
c 6.9
d 7.2
e 7.6
f 7.9
g 8.3
h 8.7
K 9.0
l 9.4
m 9.9
var. 7.4 ✓ 8.62 8.60 = 8.61 .01 .01
c 1 v 8.88 .02 .03
v 3 f

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1897phae.proj..811F

May 4. 1897

Cont

Meas. of new var -

√ I 4316

8.80 e 1 v 8.90 8.95 = 8.92 .02 .03

8.95 v 2 f. 9.15

√ I 2027

8.42 d 3 v 8.72 8.60 = 8.66 .06 .06

8.60 v 2 e 8.80

e may be effected by defect in plate -

√ I 1639

e 1 v 8.88 .02 .03

v 3 f

√ B 6021

e 3 v 9.08 .02 .03

v 1 f

√ I 6662

8.42 d 3 v 8.72 8.70 = 8.71 .01 .01

8.70 v 1 e - 8.80

√ I 4991

e 1 v 8.88 .02 .03

v 3 f

√ B 14935

d 4 v 8.76 .06 .06

v 1 e

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1897phae.proj..811F

Cont

Mean of new val.

✓ B 3121
e 1 v 8.88 .02 .03
v 3 f-

I 1623 Sp. too poor

✓ I 1764
8.70 v 1 e 8.80
d not on plate-

✓ I 1337 Sp-
8.42 d 4 v 8.82 8.80 8.75 = 8.79 .03 .01 .04
v 0 e 8.80
8.75 v 4 f - 9.15

I 1411 Sp- too poor-

✓ B 12589
8.42 d 4 v 8.82 8.70 = 8.76 .06 .06
8.70 v 1 e 8.80

? ✓ B 2891 Sp- too poor-

✓ B 3108
e 2 v 8.98 .02 .03
v 2 f-

B 3060 Sp. too poor-

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1897phae.proj..811F

May 4, 1897 (Cont

Meas = new var-

✓ B 3021
e 2v 8.98 .02 .03
v 2f

✓ I 13266 Sf-
d 4v 8.76 .06 .06
v 1e

✓ I 13270 Sf-
8.42 ~~d 3v~~ d 2v 8.62 8.50 = 8.56 .06 .06
8.50 ~~v 2e~~ v 3e 8.80

I 1656 Useless-

I 3777 Sf. ~~Useless~~-

I 5286 too poor-

I 1475 Sf- too poor

✓ B 17066
9.15 f 1v 9.25 9.20 = 9.22 .03 .02
9.20 v 4g 9.60

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1897phae.proj..811F

Means of new val-

Cont

B 16722

a 6.5
b 6.9
c 7.3
d 7.6
e 8.0
f 8.4
g 8.8
h 9.2
K 9.5
l 9.9
m 10.4
val 8.7

9.45 9.50 = 9.48 .03 .02
9.15 f 1 v 9.25 9.30 = 9.28 .03 .02
9.30 v 3 g - 9.60

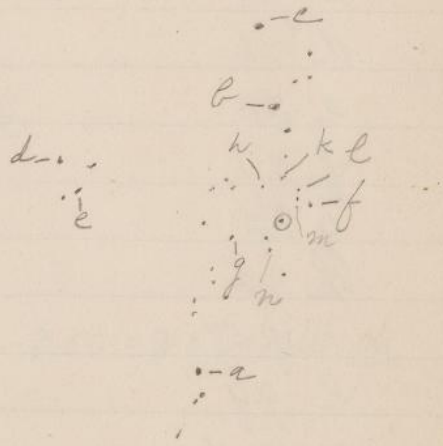
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1897phae.proj..811F

May 5, 1897.

Meas. of new var. star in Centaurus.
Sp. Type IV? Pec. Two bri. lines like ζ Puppis? No. 9122 on B 15613 →
(Oppolz. 1875) 13 29.5 −55° 48'. In pos. on B 4. p. 175.

Plate B 16268



a	5.8
b	6.2
c	6.8
d	7.3
e	7.8
f	8.2
g	8.5
h	8.9
k	9.3
l	9.8
m	10.1
n	10.5
var	7.6

9.08 d 3 v 9.36 v 2 l. 9.56

9.38 9.36 = 9.37 .01 .01 ✓
9.38 9.36 = 9.37 .01 .01 ✓

B 16088

9.08 d 5 v 9.58 9.56 9.61 = 9.58 + .00 .02 .03 ✓
v 0 l 9.56
9.61 v 4 f 10.01

11.58 B 9529.
↘ l 2 v 11.78 11.83 = 11.80 .02 .03 ✓
11.83 v 1 m. 11.93

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1897phae.proj..811F

May 5, 1895

Meas. of new var. in (Cut).

B 9642

11.93 m 2 v 12.13 12.18 = 12.16 .03 .02 ✓
12.18 v 1 n 12.28

B 13626

9.08 d 2 v 9.28 9.26 = 9.27 .01 .01 ✓
9.26 v 3 l 9.56

B 10859

9.08 d 4 v 9.48 9.46 = 9.47 ± .01 .01 ✓
9.46 v 1 l 9.56

B 9717

12.28 n = .3 12.58
v = .1 12.48 ✓

B 10885

9.08 d 4 v 9.48 9.46 = 9.47 .01 .01 ✓
9.46 v 1 l 9.56

B 3736

10.36 g 3 v 10.66 10.66 = 10.66 .00 .00 ✓
10.66 v 1 h 10.76

B 8256 Sp. too poor

B 8313

9.08 d = .1 - 9.18
v n.s. < 9.18 ✓

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1897phae.proj..811F

May 5 1897

(Cont.

New Var. Star in
B 16253

a 5.9
b 6.3
c 6.7
d 7.2
e 7.6
f 8.0
g 8.4
h 8.9
K 9.3
l 9.8
m 10.2
n 10.5
Var 7.7

9.28 9.36 = 9.32 .04 .04 ✓
9.08 d 3v 9.38 9.36 = 9.37 .01 .01
9.36 v 2 e. 9.56

B 8400 Sp.
9.08 d = .1 9.18
v n.s. < 9.18 ✓

B. 9150 poor plate.
11.58 l 2v 11.78 11.83 = 11.80 .02 .03 ✓
11.83 v 1 m 11.93

B 9152
11.16 K 2v 11.36 11.38 = 11.37 .01 .01 ✓
11.38 v 2 l 11.58

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1897phae.proj..811F

May 5 1897.

Cont.

New Star in

B 9266

11.16 K 2 v 11.36 11.36 = 11.37 .01 .01 ✓
11.38 v 2 l 11.58

B 7272 Sp. too poor —

B 7621

10.76 h=.2 10.96
v n.s. < 10.96 ✓

B 3573

10.01 f 1 v 10.11 10.16 = 10.14 .03 .02 ✓
10.16 v 2 g. 10.36

B 7622

11.16 K 1 v 11.26 11.28 = 11.27 .01 .01 ✓
11.28 v 3 l. 11.58

B 6495 Sp too poor — On edge of plate

B 5758 Sp — too poor —

B 5402

9.08 d 3 v 9.38 9.36 = 9.37 .01 .01 ✓
9.36 v 2 e 9.56

B 4968 Sp.

8.58 C = .3 ~~9~~ 8.88
v n.s. < 8.88

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1897phae.proj..811F

May 5, 1897 (Cont.

New Var in
B 5023 Sp. too poor.

B 5090 Sp.
8.58 C = .3 8.88
v n.S < 8.88 ✓

B 8321 Sp
9.08 d 4 v 9.48 9.46 = 9.47 .01 .01 ✓
9.46 v 1 e. 9.56

B 11659
9.08 d = .3 9.38
v n.S. < 9.38 ✓

B 15855
9.56 ~~9.71~~ e 1 v 9.66 ~~10.3~~ 9.71 = 9.68 .02 .03
~~10.31~~ v 3 f 10.01

B 11232
9.56 e 3 v 9.86 9.81 = 9.84 .02 .03
9.81 v 2 f 10.01

B 7572
9.08 d = .3 9.38
v n.S. < 9.38 ✓

B 3420
9.56 e 3 v 9.86 9.81 = 9.84 .02 .03
9.81 v 2 f 10.01

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1897phae.proj..811F

May 5, 1897

New Vals. in
B10925
a 6.5
b 6.9
c 7.3
d 7.8
e 8.3
f 8.8
g 9.2
h 9.5
K 9.9
l 10.2
m 10.6
n n3n

n beyond limiting scale.

val. 8.2 9.48 9.46 = 9.47 .01 .01 ✓
9.08 d 4 v 9.48 9.46 = 9.47 .01 .01
9.46 v 1 l 9.56

B 3477
10.01 f 3 v 10.31 ✓
g not on plate.

B 6428
10.76 h = .4 11.16
v n.s < 11.16 ✓

B 14074
9.08 d 3 v 9.38 9.36 = 9.37 .01 .01 ✓
9.36 v 2 l 9.56

B 3750
10.36 g 3 v 10.66 10.66 = 10.66 .00 .00 ✓
10.66 v 1 h 10.76

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1897phae.proj..811F

May 5, 1897 (Cont.

New Var in
B6509 Sp- broken

B 15544
9.56 e = .2 9.76
v n.s. < 9.76 ✓

B 16179
9.08 d 3v 9.38 9.46 = 9.42 .04 .04 ✓
9.46 v 1e 9.56

B 13449
8.58 d 4v 8.98 8.98 = 8.98 .00 .00 ✓
8.98 v 1d 9.08

B 13627
9.08 d 3v 9.38 9.36 = 9.37 .01 .01 ✓
9.36 v 2e 9.56

B 10815 Sp-
9.08 d = .1 9.18
v n.s < 9.18 ✓

B 12858
9.08 d 4v 9.48 9.46 = 9.47 .01 .01 ✓
9.46 v 1e 9.56

B 12859
9.08 d 5v
v 0e 9.56 9.58 9.56 9.61 = 9.58 .00 .02 .03 ✓
9.61 v 4f- 10.01

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1897phae.proj..811F

Cont.

New var. in
B 12887 Sp. too poor.

B 9422 Sp- too poor-

B 9484 Sp-
9.08 a = .3 9.38
v n.s. < 9.38 ✓

B 15613 Sp-
9.56 e / v 9.66 9.71 = 9.68 .02 03 ✓
9.71 v 3 f. 10.01
a Class A.
b Class A.
c Class A.
d Class A
e Class A ?
var R-

B 9641
a 6.0
b 6.5
c 6.9
d 7.4
e 7.9
f 8.4
g 8.7
h 9.1
K 9.5
l 9.9
m 10.2

n. 10.6
var. n.s < 12.28
12.28 n = .3 12.58
v n.s. < 12.58

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1897phae.proj..811F

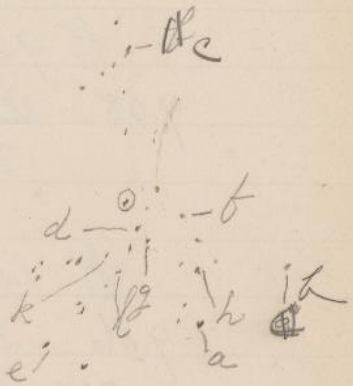
May 8, 1896

~~Cont~~

New var ~~star~~ in Capricornus.
Sp. Mc on A 2058 No. 81.
BD −17° 6181 20h 59m.2 −17° 0′ 8.2 (1855)

B 12551

a
b
c
d
e
f
g
h
k
l
var



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1897phae.proj..811F

May 10, 1897

Cont

New var. in

B 12551

a 5.7
b 6.1
c 6.4
d 7.0
e 7.5
f 8.0
g 8.4
h 8.8
K 9.3
l 9.8

√ var. 8.0 9.44 9.46 9.38 = 9.43 .01 .03 .05
8.94 e 1 v 9.04 9.06 = 9.05 .01 .01
9.06 v 4 f - 9.46

√ √ B 17913
8.52 d 4 v 8.92 8.84 = 8.88 .04 .04
8.84 v 1 e - 8.94

√ B 16722
8.94 e 1 v 9.04 9.06 = 9.05 .01 .01
9.06 v 4 f - 9.46

√ B 16149
8.52 d 3 v 8.82 8.74 = 8.78 .04 .04
9.74 v 2 e 8.94

√ B 6045
8.94 e 1 v 9.04 9.16 = 9.10 .06 .06
9.16 v 3 f 9.46

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1897phae.proj..811F

May 10, 1897

Cont-

New Variable in

✓ B 17569

8.94 e 3 v 9.24 9.26 = 9.25 .01 .01

9.26 v 2 f 9.46

✓ I 4166

8.94 e 2 v 9.14 9.26 = 9.20 .06 .06

9.26 v 2 f - 9.46

✓ I 5286

8.52 d 2 v 8.72 8.74 = 8.73 .01 .01

8.74 v 2 e. 8.94

✓ B 7814 Sp - too faint -

✓ B 7813 Sp -

8.00 c 4 v 8.40 8.32 = 8.36 .04 .04

8.32 v 2 d 8.52

✓ B 5187 Sp - too faint -

✓ B 3630 Sp - too faint -

✓ B 6571 Sp -

8.94 e 4 v 9.34 9.36 = 9.35 .01 .01

9.36 v 1 f 9.46

✓ B 7975 Sp -

8.00 c 4 v 8.40 8.42 = 8.41 .01 .01

8.42 v 1 d 8.52

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1897phae.proj..811F

New Variable iii

✓ B 12290 Sp -
8.94 e 1 v 9.04 9.06 = 9.05 .01 .01
9.06 v 4 f 9.46

✓ B 6191
8.94 e 4 v 9.34
f n.s.

✓ B 14580 Sp -
8.00 c 5 v 8.50 8.42 = 8.46 .04 .04
8.42 v 1 d 8.52

✓ B 10165 Sp -
8.52 d 4 v 8.92 ~~9.04~~ 8.84 = ~~8.98~~ 8.88 ~~.06~~ .04 ~~.06~~ .04
~~9.04~~ 8.84 v 1 e 8.94

✓ I 13282 Sp -
8.00 c 5 v 8.50 8.42 = 8.46 .04 .04
8.42 v 1 d 8.52

✓ I 13119 Sp -
8.00 c 5 v 8.50 8.42 = 8.46 .04 .04
8.42 v 1 d - 8.52

✓ B 16586
8.94 e 3 v 9.24 9.26 = 9.25 .01 .01
9.26 v 2 f 9.46

B 11210
✓ 8.94 e 3 v 9.24 9.26 = 9.25 .01 .01
9.26 v 2 f 9.46

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1897phae.proj..811F

May 10, 1897

(Cont.

New Variable in

✓ B 14935

8.52 d 2 v 8.72 8.64 = 8.68 .04 .04

~~9.24~~ 8.64 v 3 2 - 8.94

✓ B 12589

8.94 e 2 v 9.14 9.26 = 9.20 .06 .06

9.26 v 2 f - 9.46

✓ I 5257

8.52 d 3 v 8.82 8.74 = 8.78 .04 .04

8.74 v 2 e - 8.94 .

✓ B 16399

8.94 e 2 v 9.14 9.26 = 9.20 .06 .06

9.26 v 2 f - 9.46

✓ I 2486

8.52 d 2 v 8.72 8.74 = 8.73 .01 .01

8.74 v 2 e 8.94

✓ B 17066

on edge of plate -

✓ B 3108

8.52 d 3 v 8.82

e not on plate -

✓ B 13714

8.00 c 3 v 8.30 8.32 = 8.31 .01 .01

8.32 v 2 d - 8.52

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1897phae.proj..811F

New Variable in

✓ B 13945

8.52 d 3v 8.82 8.84 = 8.83 .01 .01

8.84 v 1 e - 8.94

B 10067

a 6.6
b 7.2
c 7.5
d 8.0
e 8.4
f 8.8
g 9.1
h 9.4
K 9.8
l 10.2

var = 7.8 8.30 8.32 = 8.31 .01 .01

✓ 8.52 d 4v 8.92 8.94 9.06 = 8.97 .05 .03 .09

v 0 e 8.94

9.06 v 4 f - 9.46

✓ B 3021

8.00 c 5v 8.50 8.52 = 8.51 .01 .01

v 0 d 8.52

e not on plate -

✓ B 6044 too poor -

✓ B 17781

8.94 e 2v 9.14 9.26 = 9.20 .06 .06

9.26 v 2 f - 9.46

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1897phae.proj..811F

May 10, 1897 (Cont-

New Variable in

✓ I 2027 too poor-

✓ B 2926 Sp- too poor-

✓ I 1826 Sp- too poor-

✓ I 1476 Sp- too poor-

✓ I 1501 Sp-

8.00 c 4 v 8.40 8.32 = 8.36 .04 .04

8.32 v 2 d 8.52

✓ B 13848 Sp-

8.00 c 4 v. 8.40 8.32 = 8.36 .04 .04

8.32 v 2 d. 8.52

✓ B 17319 Sp- too poor-

✓ B 17318 Sp- too poor

✓ B. 9833 Sp-

8.00 c 5 v 8.50 8.42 = 8.46 .04 .04

8.42 v 1 d 8.52

✓ I 6568 Useless-

✓ B 9772 Sp-

8.52 d 3 v 8.82 8.84 = 8.83 .01 .01

8.84 v 1 l 8.94

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1897phae.proj..811F

Cont=

New Variable in

✓B 12330 Sp-

8.52 d 1 v 8.62 8.64 = 8.63 .01 .01

8.64 v 3 e - 8.94

✓I 6715 Useless —

✓I 6725

8.00 c 5 v 8.50 8.42 = 8.46 .04 .04

8.42 v 1 d - 8.52

✓B 14173 Sp-

8.00 c 5 v 8.50 8.42 = 8.46 .04 .04

8.42 v 1 d - 8.52

✓B 16206

8.00 c 4 v 8.40 8.32 = 8.36 .04 .04

8.32 v 2 d - 8.52

✓B 4399 Sp. too poor

✓B 6223 Sp- too poor. Prism turned 90°

✓I 6752 Sp- too poor —

✓B 10246 Sp-

8.52 d 4 v 8.92 8.94 = 8.93 .01 .01

v 0 e 8.94

fi n.s-

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1897phae.proj..811F

May 10, 1897

(Cont-

New Variable in

√I 11776 Sp- too poor-

√I 13087 Sp. too poor-

√I 13157 Sp- too poor

√B 14376 Sp-

8.00 c 4 v 8.40 8.32 = 8.36 .04 .04

8.32 v 2 d - 8.52

a ~~2~~ 5 ~~4~~ 1

b K-

c K-

d ~~4~~

e ~~4~~

f ~~4~~

√B 3121

8.52 d 3 v 8.82

2 not on plate

√B 3018

8.00 c 5 v 8.50 8.42 = 8.46 .04 .04

8.42 v 1 d - 8.52

√B 17221

8.94 2 4 v 9.34 9.36 = 9.35 .01 .04

9.36 v 1 f - 9.46

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1897phae.proj..811F

Cont-

New Variable in

✓ I 4316

8.94 e 2 v 9.14 9.16 = 9.15 .01 .01

9.16 v 3 f - 9.46.

✓ I 1639

8.80 c 4 v 8.40 8.32 = 8.36 .04 .04

8.32 v 2 d 8.52

✓ B 6021

8.94 e 2 v 9.14 9.26 = 9.20 .06 .06

9.26 v 2 f - 9.46

✓ I 6662

8.00 c 4 v 8.40 8.32 = 8.36 .04 .04

8.32 v 2 d - 8.52

✓ I 4991

8.52 d 2 v 8.72 8.74 = 8.73 .01 .01

8.74 v 2 e 8.94

✓ B 8525

8.52 d 2 v 8.72 8.74 = 8.73 .01 .01

8.74 v 2 e - 8.94

✓ B 11481 Sp -

8.52 d 3 v 8.82 8.84 = 8.83 .01 .01

8.84 v 1 e - 8.94

✓ B 8534

8.00 c 5 v 8.50 8.52 8.54 = 8.52 .02 .00 .02

v 0 d 8.52

8.54 v 4 e - 8.94

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1897phae.proj..811F

May 10, 1897 (Cont

New Variable in
B 6552

a 6.4
b 6.9
c 7.2
d 7.6
e 8.0
f 8.6
g 8.9
h 9.3
K 9.7
l 10.2
var 8.3 9.24 9.16 = 9.20 .04 .04
8.94 e 3 v 9.24 9.26 = 9.25 .01 .01
9.26 v 2 f - 9.46

√ I 1623 Sp- too poor -

√ I 2174
8.52 d 3 v 8.82 8.84 = 8.83 .01 .01
8.84 v 1 e - 8.94

√ I 13266 Sp -
8.00 c 4 v 8.40 8.42 = 8.41 .01 .01
8.42 v 1 d 8.52

√ B 6547
8.94 e 3 v 9.24 9.26 = 9.25 .01 .01
9.26 v 2 f - 9.46

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1897phae.proj..811F

Cont-

New Variable in
I 13270 Sf-
8.00 c 4 v 8.40 8.42 = 8.41 .01 .01
8.42 v 1 d 8.52

B 6190
8.94 c 3 v 9.24 9.36 = 9.30 .06 .06
9.36 v 1 f- 9.46

I 3777 Sf- too poor-

I 4387 Sf- too poor-

I 4902 Sf-
8.00 c 6 v 8.60 8.52 8.54 = 8.55 .05 .03 .01
v 0 d 8.52
8.54 v 4 c 8.94

I 13526 Sf-
8.00 c 4 v 8.40 8.32 = 8.36 .04 .04
8.32 v 2 d - 8.52

I 13482 Sf- too poor-

B 4061
8.94 c 1 v 9.04 9.16 = 9.10 .06 .06
9.16 v 3 f- 9.46

B 17344
8.52 c 6 v 9.12 9.16 = 9.14 .02 .02
9.16 v 3 f 9.46
c not on plate-

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1897phae.proj..811F

May 10, 1897 (Cont

New Variable in
✓B 10171 Sp. too poor -

✓B 13316
8.00 c 5 v 8.50 8.42 = 8.46 .04 .04
8.42 v 1 d - 8.52

8.94 ✓B 17997
↘ e 3 v 9.24 9.26 = 9.25 .01 .01
9.26 v 2 f - 9.46

✓B 17621
8.94 e 4 v 9.34 9.36 = 9.35 .01 .01
9.36 v 1 f - 9.46

✓I 1801
8.00 c 5 v 8.50 8.42 = 8.46 .04 .04
8.42 v 1 d - 8.52

✓B 8476
8.00 c 6 v 8.60 8.52 8.54 = 8.55 .05 .03 .01
v o d 8.52
8.54 v 4 e - 8.94

✓B 16650
8.52 d 3 v 8.82 8.84 = 8.83 .01 .01
8.84 v 1 e 8.94

✓B 10068
8.52 d 4 v 8.92 8.94 9.06 = 8.97 .05 .03 .09
v o e - 8.94
9.06 v 4 f - 9.46

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1897phae.proj.:811F

Cont-

New Variable in

✓ B 15830

8.94 e 1 v 9.04 9.16 = 9.10 .06 .06

9.16 v 3 f - 9.46

✓ B 3506

8.00 c 4 v 8.40 8.32 = 8.36 .04 .04

8.32 v 2 d - 8.52

B 6020

a 5.7
b 6.3
c 6.6
d 7.2
e 7.6
f 8.2
g 8.5
h 8.9
K 9.4
l 10.0

vak- 7.7 9.04 8.96 = 9.00 .04 .04

8.52✓ d 3 v 8.82 8.84 = 8.83 .01 .01

8.84 v 1 e - 8.94

✓ I 1346

8.00 c 1 v 8.10 8.02 = 8.06 .04 .04

8.02 v 5 d - 8.52

✓ I 1778

8.00 c 4 v 8.40 8.32 = 8.36 .04 .04

8.32 v 2 d - 8.52

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1897phae.proj..811F

May 10, 1897 (Cont.

New Variable in

√B 13906

8.52 d 1 v 8.62 8.64 = 8.63 .01 .01
8.64 v 3 e - 8.94

√A 2058 Sp -

8.52 d 3 v 8.82 8.84 = 8.83 .01 .01
8.84 v 1 e - 8.94

√A 21 01

8.52 d 2 v 8.72 8.74 = 8.73 .01 .01
8.74 v 2 e - 8.94

√B 15956

8.52 d 2 v 8.72 8.74 = 8.73 .01 .01
8.74 v 2 e - 8.94

√B 13675

8.50 c 5 v 8.50 8.42 = 8.46 .04 .04
8.42 v 1 d - 8.52

√B 16889

8.94 e 2 v 9.14 9.26 = 9.20 .06 .06
9.26 v 2 f - 9.46

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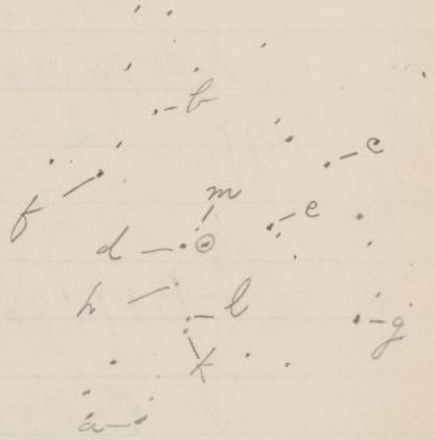
1897phae..prg..051F

May 13, 1897.

New Variable in Phoenix.

HA 2088 Marked by Dr L Stewart in Peru as "bright line (hydrogen?)."
Classified as Md and found to be variable
by M. Fleming. R.A. $0^h 24^m 23^s.8$ Dec -47° 6' 5" (1875).
R.A $0^h 25^m.6$ Dec. -46° 58' (1900).

Plate B 5706 ✓



a 6.5
b 6.9
c 7.3
d 7.7
e 8.0
f 8.3
g 8.6
h 8.9
k 9.3
l 9.7
m 10.1
var 8.8

11.14 11.09 = 11.12 .02 .03

1094 g 2 v 11.14 11.09 = 11.12 .02 .03
11.09 v 1 h — 11.19

✓ B 14270
11.61 K=.2 11.81
v n.s < 11.8

✓ B 4064
9.25 b 2 v 9.45 9.43 = 9.44 .01 .01
9.43 v 3 c 9.73

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1897phae.proj..811F

May 13, 1897 Cont.

New Variable in Phoenix -

✓ B 14371 Sp. on edge of plate.

✓ B 4022

9.25 b 3 v 9.55 9.63 = 9.59 .04 .04

9.63 v 1 c - 9.73

✓ B 14491

11.99 l = .1 12.09

v n.S < 12.1

✓ B 17796 too poor -

✓ B 3928

11.19 h 2 v 11.39 11.41 = 11.40 .01 .01

11.41 v 2 K - 11.61

✓ B 4509 Sp. too poor -

✓ B 12224 Sp. too poor

✓ B 4151

8.75 a 4 v 9.15 9.15 = 9.15 .00 .00

915 v 1 b 9.25 on edge -

✓ B. 10182 Sp. too poor

✓ B. 8437 Sp too poor

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Cont-

New Variable in Phoenix -

B 17014

a 6.8
b 7.4
c 7.9
d 8.3
e 8.5
f 8.9
g ~~9.4~~ 9.2
h 9.5
K 9.9
l 10.3
m 10.6
var. 7.3

9.25 9.15 = 9.20 .05 .05

8.75 ✓ a 5 v 9.25 9.25 9.33 = 9.28 .03 .03 .05

v o b 9.25

9.33 v 4 c - 9.73

✓ B 4101

9.25 b 1 v 9.35 9.33 = 9.34 .01 .01

9.33 v 4 c - 9.73

✓ B 12283 Sp - too poor -

✓ B 5794 Sp. too poor

✓ B 4381

9.25 b 3 v 9.55 9.53 = 9.54 .01 .01

9.53 v 2 c - 9.73

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1897phae.proj..811F

May 13, 1897 (Cont.

New Variable in Phoenix.

✓B 7082 Sp- too poor-

✓B 5628 Sp- too poor-

✓B 4021

10.11 d 3v 10.41 10.36 10.26 = 10.34 .07 .02 .08

v o e 10.36

10.26 v 4 f - 10.66

✓B 14470

11.99 l = .2 12.19

v n.s. < 12.2

✓B 6773

11.61 K = .1 11.71

v n.s. < 11.7

✓B 4617 Sp- too poor-

✓B 6812 Sp- too poor-

✓B 4549 Sp- too poor-

B 9778

9.25 b 2 v 9.45 9.53 = 9.49 .04 .04

9.53 v 2 c - 9.73

✓B 5816 Sp- too poor

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1897phae.proj..811F

Cont.

New Variable in Phoenix -

B 10007

a 7.4
b 7.9
c 8.4
d 8.7
e 8.9
f 9.2
g 9.5
h 9.7
K 10.2
l 10.5
m 10.9
var 8.0

9.35 9.33 = 9.34 .01 .01

9.25 ✓ b / v 9.35 9.33 = 9.34 .01 .01

9.33 v 4 c - 9.73

B 4134

8.75 a 3v 9.05 9.05 = 9.05 .00 .00

9.05 v 2b 9.25

B 8631 Sp. too poor -

B 12150

11.61 K = .2 11.81

v n.s < 11.8

B 4552 Sp - too poor -

B 12225 Sp - too poor -

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1897phae.proj..811F

May 13, 1897

Cont-

New Variable in Phoenix-

✓ B 18158
11.19 h 1 v 11.29
K n.s

✓ B 14241 too near edge of plate-

✓ B 12314
11.99 L = .1 12.09
v n.s. <12.1 plate poor-

✓ B 17882
11.19 h 1 v 11.29 11.31 = 11.30 .01 .01
11.31 v 3 K - 11.61

✓ B 4378
9.26 b 3 v 9.55 9.53 = 9.54 .01 .01
9.53 v 2 C - 9.73

✓ B 14879 Sp- too poor-

✓ B 8488
11.19 h 2 v 11.39 11.41 = 11.40 .01 .01
11.41 v 2 K 11.61

✓ B 14616
11.61 K = .3 11.91
v n.s. <11.9

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1897phae.proj..811F

Cont

New Variable in Phoenix -

✓ B 17845

11.19 h 2 v 11.39 11.41 = 11.40 .01 .01
11.41 v 2 K — 11.61

~~B~~ B 11649

a 7.3
b 7.8
c 8.3
d 8.7
e 9.0
f 9.2
g 9.4
h 9.6
K 10.0
l 10.4
m 10.8
var. 9.8 11.39 11.41 = 11.40 .01 .01

✓ 11.19 h 2 v 11.39 11.41 = 11.40 .01 .01
11.41 v 2 K 11.61

✓ A 2088 Sp.

9.25 b 3 v 9.55 9.53 = 9.54 .01 .01
9.53 v 2 c 9.73

a Cl H
b H
c A?
d ~~A~~ F?
e H?
var M d

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1897phae.proj..811F

May 4, 1897.

Exam. of susp. variables in cluster in Scorpius. (Vol. XXVI pt II Table XXVIII.

31 slight if any evidence of var.
55 no evid. of var.
113 no evid of var.
146 no evid of var.
216 no evid of var.
252 no evid. of var.
344 no evid of var.
166 slight if any evid of var.
36 no evid. of var.

The above stars have been examined on the following plates with the above results.

Pl. No	Date	Ef.
3842		
5407		
5833		
9405		
9482		
11421		
15824		
17444		

An independent examination of the spectra of the above stars has also been made on B9836 and B13829 and no evidence of var. in intensity found. The large differences ~~must be~~ are probably due to errors in measurement.

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1897phae..proj..811F

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1897phae.proj..811F

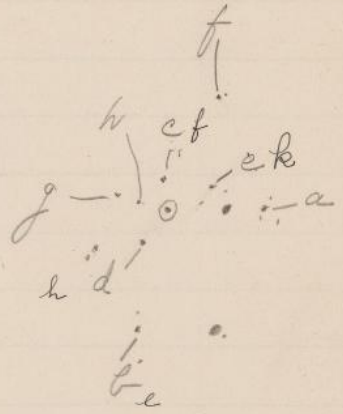
June

~~May~~ 7. 1897.

Meas. of new vdv. star in

DM +47° 4318 8.4 $23^h\ 48^m.1$ + 47° 49'.5 (1855) ~~Hf~~ Mc Sd m B 6947 No. 4471.

Plate I 9937.



a	6.7
b	7.1
c	7.5
d	7.9
e	8.2
f	8.7
g	9.0
h	9.4

vav. 7.4 = 9.36, 9.34, = 9.35 .01, .01,

9.04 9.09 ~~9.44~~ 9.16 = 9.10 06 01 06

8.64 ~~9.06~~ e & 4v = ~~9.46~~ , ~~9.44~~ , ~~9.46 = 9.45~~ = ~~.01~~ ; ~~.01~~ ~~.01~~ ;

9.09 ~~9.44~~ v 0 & f = ~~9.44~~ 9.09

9.16 ~~9.46~~ v 4 & h = ~~9.86~~ 9.56

I 13372

9.04 9.09 9.26 = 9.13 09 04 ~~.07~~ 13

8.64 ~~9.06~~ e & 4v = ~~9.46, 9.44, 9.56 = 9.49 .03, .05, .03,~~

9.09 ~~9.44~~ v 0 & f ~~9.44~~ 9.09

9.26 ~~9.56~~ v 3 & h ~~9.86~~ 9.56

B 1975

8.94 8.99 = 8.96 02 03

8.64 ~~9.06~~ e & 3v = ~~9.36, 9.34 = 9.35 .01, .01.~~

8.99 ~~9.34~~ v 1 & f ~~9.44~~ 9.09

BI 1857

9.39 9.46 = 9.42

9.09 ~~9.44~~ f & 3v = ~~9.44, 9.46 = 9.45 .01, .01~~ 03 04

9.46 ~~9.46~~ v 1 & h ~~9.86~~ 9.56

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1897phae.prgj..811F

June ~~May~~ 7, 1897
New Variable in

I 381 ✓

9.09 ~~9.44~~ f & 3r = ~~9.74, 9.76 = 9.75 .01, .01~~ 03 04
9.46 ~~9.76~~ r1 & h ~~9.86~~ 9.56

9.39 9.46 = 9.42

I 17548 ✓

8.64 ~~9.06~~ e & 3r = ~~9.36, 9.34 = 9.35 .01, .01~~
8.99 ~~9.37~~ r1 & f = ~~9.44~~ 9.09

8.94 8.99 = 8.96 02 03

I 13186 ✓

9.09 ~~9.44~~ f & 3r = ~~9.74, 9.76 = 9.75 .01, .01,~~ 03 04
9.46 ~~9.76~~ r1 & h = ~~9.86~~ 9.56

9.39 9.46 = 9.42

I 6908 ✓

8.64 ~~9.06~~ e & 3r = ~~9.36, 9.24 = 9.30 .06, .06~~ 02 03
8.89 ~~9.24~~ r2 & f ~~9.44~~ 9.09

8.94 8.89 = 8.92

I 2421 Sf. ✓
Too poor.

I 9074 ✓

9.09 ~~9.44~~ f & 1r ~~9.54, 9.56 = 9.55 .01, .01,~~
9.26 ~~9.56~~ r3 & h ~~9.86~~ 9.56

9.19 9.26 = 9.22 03 04

I 13503 Sf ✓
Too poor.

I 16625 ✓

8.64 ~~9.06~~ e & & 3r ~~9.36, 9.34 = 9.35 .01, .01~~
8.99 ~~9.34~~ r1 & f ~~9.44~~ 9.09

8.94 8.99 = 8.96 02 03

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1897phae.proj..811F

June 7, 1897.

Meur Variable in

I 6799 Sf. " ✓
Too poor " "

I 4366 " ✓
Too poor.

I 16843 Sf. " ✓
Too poor

I 16960 Sf. " ✓
Too poor.

I 6782 Sf. " ✓
Too poor.

I 7287 Sf " ✓
Too poor.

I 7376 Sf ✓

9.04 9.09 9.26 = 9.13 09 04 13

8.64 ~~9.06~~ e d 4 r = ~~9.46, 9.44, 9.56 = 9.49 .03, .05, .07~~

9.09 ~~9.44~~ r0 d b ~~9.44~~ 9.09

9.26 ~~9.56~~ r3 d h ~~9.86~~ 9.56

I 16972 Sf. ✓
Too poor "

I 9121 9.39 9.36 = 9.38 01 02 ✓

= ~~9.74, 9.66 = 9.70 .04, .04~~

9.09 ~~9.44~~
9.36 ~~9.66~~ f d 3 r 2 h ~~9.86~~ 9.56

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1897phae.prj..811F

June 7 1897.

New Variable

I 7309 Sf ✓ 8.94 8.99 = 8.96 02 03

8.64 ~~9.06~~ e ~~4~~ 3r = ~~9.36, 9.34 = 9.35 .01, .01~~

8.99 ~~9.34~~ r1 f ~~9.44~~ 9.09

I 16971 Sf. " ✓

Too poor

I 6732 Sf. " ✓

Too poor.

I 15237 ✓ 9.39 9.36 = 9.38 01 02

9.09 ~~9.44~~ f ~~4~~ 3r ~~9.74, 9.66 = 9.70 .04, .04~~

9.36 ~~9.66~~ r2 ~~4~~ h ~~9.86~~ 9.56

I 6822 Sf ✓ 9.04 9.09 9.16 = 9.10 06 01 06

8.64 ~~9.06~~ e ~~4~~ 4r ~~9.46, 9.44, 9.46 = 9.45 .01, .01 .01~~

9.09 ~~9.44~~ r0 f ~~9.44~~ 9.09

9.16 ~~9.46~~ r4 ~~4~~ h ~~9.86~~ 9.56

I 7348 Sf. ✓

Too poor. "

I 16984 Sf ✓

Too poor. "

I 7415 Sf ✓ 9.04 9.09 9.16 = 9.10 06 01 06

8.64 ~~9.06~~ e ~~4~~ 4r = ~~9.46, 9.44, 9.46 = 9.45 .01, .01, .01,~~

9.09 ~~9.44~~ r0 ~~4~~ f ~~9.44~~ 9.09

9.16 ~~9.46~~ r4 ~~4~~ h ~~9.86~~ 9.56

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1897phae.proj..811F

New Variable

I 168 ✓

9.09 ~~9.44~~ f ∆5r = ~~9.94, 9.86, 9.76 = 9.85~~ .09, .01, .09,
~~9.86~~ r0 ∆h ~~9.86~~ 9.56
9.51 ~~9.76~~ r5 ∆k ~~10.26~~ 10.01

9.50 9.56 9.51 = 9.52 02 04 01

I 1700b Sf ✓

9.09 ~~9.44~~ f ∆4r ~~9.84, 9.76 = 9.80 .04, .04~~ 01 02
9.46 ~~9.76~~ r1 ∆h ~~9.86~~ 9.56

9.49 9.46 = 9.48

I 17055 ✓

9.09 ~~9.44~~ f ∆2r ~~= 9.64, 9.66 = 9.65 .01, .01,~~
9.36 ~~9.66~~ r2 ∆h ~~9.86~~ 9.56

9.29 9.36 = 9.32 03 04

I 7658 Sf ✓

864 ~~9.06~~ e ∆4r ~~9.46, 9.44, 9.46 = 9.45 .01, .01, .01~~ 06
9.09 ~~9.44~~ r0 ∆f ~~9.44~~ 9.09
9.16 ~~9.46~~ r4 ∆h ~~9.86~~ 9.56

9.04 9.09 9.16 = 9.10 06 01

I 14137 Sf. " ✓
Too faint

I 7711 Sf. ✓
~~Too faint~~ On edge " "

I 7588 Sf. " ✓
Too faint

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1897phae.proj..811F

New Variable in

I 16807

9.09 ~~9.44~~ f d 2 r = ~~9.64, 9.66 = 9.65 .01 .01,~~ 9.29 9.36 = 9.32 03 04
9.36 ~~9.66~~ r 2 d h ~~9.86~~ 9.56

I 6893

a 6.6
b 7.0
c 7.4
d 7.8
e ~~8.4~~ 8.3
f 8.8
g 9.2
h 9.6
var. 7.3 = 9.36, 9.34 = 9.35 .01, .01

8.64 ~~9.06~~ e b 3 r = ~~9.36, 9.34 = 9.35 .01, .01~~ 8.94 8.99 = 8.96 02 03
8.99 ~~9.34~~ r 1 c f ~~9.44~~ 9.09

I 15756

Too poor. "

I 16749

9.09 ~~9.44~~ f d 1 r = ~~9.54, 9.56 = 9.55 .01 .01,~~ 9.19 9.26 = 9.22 03 04
9.26 ~~9.56~~ r 3 d h ~~9.86~~ 9.56

I 13745

9.09 ~~9.44~~ f d 2 r ~~9.64, 9.56 = 9.60 .04, .04~~ 9.29 9.26 = 9.28 01 02
9.26 ~~9.56~~ r 3 d h ~~9.86~~ 9.56

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1897phae.proj..811F

June 7, 1897.
New Variable in

I 17378 Sf 9.26 9.36 = 9.31 05 05
9.09 ~~9.44~~ f 82 r = ~~9.64, 9.66 = 9.65 .01 .01,~~
9.36 ~~9.66~~ r2 1h ~~9.86~~ 9.56

I 17335 Sf. "
Too poor.

I 21648 f. "
Too poor.

I 4477
9.09 9.39 9.46 = 9.42 03 04
~~9.44~~ f 83 r = ~~9.74, 9.76 = 9.75 .01, .01,~~
~~9.46~~
~~9.76~~ r1 1h ~~9.86~~ 9.56

I 11598
9.09 9.39 9.46 = 9.42 03 04
~~9.44~~ f 83 r = ~~9.74, 9.76 = 9.75 .01, .01,~~
~~9.46~~
~~9.76~~ r1 1h ~~9.86~~ 9.56

I 2637
9.09 9.39 9.36 = 9.38 01 02
~~9.44~~ f 83 r ~~9.74, 9.66 = 9.70 .04, .04~~
~~9.34~~
~~9.66~~ r2 1h ~~9.86~~ 9.56

I 17863
Too poor. "

I 423
9.09 ~~9.44~~ 9.39 9.46 = 9.42 03 04
9.46 ~~9.76~~ f 83 r ~~9.74, 9.76 = 9.75 .01 .01,~~
r1 1h ~~9.86~~ 9.56

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1897phae.proj..811F

June 7, 1897.
New Variable in

I 9015

a 6.7
b 7.1
c 7.5
d 8.0
e 8.5
f 8.9
g 9.3
h 9.8

9.36
var. 7.5 = 9.46, 9.44, ~~9.45 .01~~ 9.42 .04, .02, .06

8.64 ~~9.06~~ e b 3 r ~~9.36, 9.34 = 9.35 .01, .01,~~ 8.94 8.99 = 8.96 02 03
8.99 ~~9.34~~ r 1 f ~~9.44~~ 9.09

I 17235 S.J.
Too faint.

I 6906
Too near edge "

I 17299 9.49 9.56 9 8.61 = 9.55 06 01 06
9.09 ~~9.44~~ f d 4 r = ~~9.84, 9.86, 9.86 = 9.85 .01, .01, .01,~~
~~9.86~~ r 0 d h ~~9.86~~ 9.56
9 8.61 ~~9.86~~ r 4 d k ~~10.26~~ 10.01

I 4395
9.19 9.26 = 9.22 03 04
9.09 ~~9.44~~ f d 1 r ~~9.54, 9.56 9.55 .01, .01,~~
9.26 ~~9.56~~ f r 3 d h ~~9.86~~ 9.56

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1897phae.proj..811F

June 7, 1897
New Variable in

I 118 9.39 9.46 = 9.42 03 04
9.09 ~~9.44~~ f α 3 r ~~9.74, 9.76 = 9.75 .01, .01,~~
9.46 ~~9.76~~ r 1 α h ~~9.86~~ 9.56

I 15783 9.39 9.46 = 9.42 03 04
9.09 ~~9.44~~ f α 3 r ~~9.74, 9.76 = 9.75 .01 .01~~
9.46 ~~9.76~~ r 1 α h ~~9.86~~ 9.56

I 15895 9.39 9.46 = 9.42 03 04
9.09 ~~9.44~~ f α 3 r ~~9.74, 9.76 = 9.75 .01, .01,~~
9.46 ~~9.76~~ r 1 α h ~~9.86~~ 9.56

I 13291 9.29 9.26 = 9.28 01 02
9.09 ~~9.44~~ f α 2 r ~~= 9.64, 9.56 = 9.60 .04, .04~~
9.26 ~~9.56~~ r 3 α h ~~9.86~~ 9.56

I 13808 9.39 9.36 = 9.38 01 02
9.09 ~~9.44~~ f α 3 r ~~9.74, 9.66 = 9.70 .04, .04~~
9.36 ~~9.66~~ r 2 α h ~~9.86~~ 9.56

I B 3199 S
Tor Jour.

B 32595
Tor Jour. "

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1897phae.proj..811F

✓

B 1952 9.04 9.09 9.16 = 9.10 06 01 06

8.64 ~~9.06~~ e 4 v ~~9.46, 9.44, 9.46 = 9.45 .01, .01, .01,~~

9.09 ~~9.44~~ v 0 f ~~9.44~~ 9.09

9.16 ~~9.46~~ v 4 h ~~9.56~~ 9.56

✓

B 1920 Sf 8.94 8.99 = 8.96 02 03

8.64 ~~9.06~~ e 3 v ~~9.36, 9.34 = 9.35 .01, .01~~

8.99 ~~9.44~~ v 1 f ~~9.44~~ 9.09

✓

I 7234 Sf 8.94 8.99 = 8.96 02 03

8.64 ~~9.06~~ e 3 v ~~9.36, 9.34 = 9.35 .01, .01~~

8.99 ~~9.34~~ v 1 f ~~9.44~~ 9.09

✓

I 16522 8.94 8.89 = 8.92 02 03

8.64 ~~9.06~~ e 3 v ~~9.36, 9.24 = 9.30 .06, .06~~

8.89 ~~9.24~~ v 2 f ~~9.44~~ 9.09

✓

I 4536 9.49 9.46 = 9.48 01 02

9.09 ~~9.44~~ f 4 v ~~9.84 9.76 = 9.80 .04, .04~~

9.46 ~~9.76~~ v 1 h ~~9.86~~ 9.56

I 6669 Sf. ✓

To follow

✓

I 7360 Sf 9.04 8.99 = 9.02

8.64 ~~9.06~~ e 4 v ~~9.46, 9.34 = 9.40 .06, .06~~ 02 03

8.99 ~~9.34~~ v 1 f ~~9.44~~ 9.09

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1897phae.proj..811F

✓

I 7218 S

8.64 9.04 8.99 = 9.02 02 03
9.06 e 4r 9.46, 9.34 = 9.40 .06, .06
8.99 9.34 r1 f 9.44 9.09

✓

I 13584 S

8.64 8.94 8.99 = 8.96 02 03
9.06 e 3r = 9.36, 9.34 = 9.35 .01, .01
8.99 9.34 r1 f 9.44 9.09

✓

I r055 S

8.64 9.04 9.09 9.16 = 9.10 06 01 06
9.06 e 4r 9.46, 9.44, 9.46 = 9.45 .01, .01 .01,
9.44 r0 f 9.44 9.09
9.16 9.46 r4 h 9.86 9.56

✓

I 17205 S
Tot for 2

"

I 15856
Tot for r.

"

✓

I 16947 S

9.09 9.19 9.26 = 9.22 03 04
9.44 f 1r 9.54 9.56 = 9.55 .01 .01,
9.26 9.56 r3 h 9.86 9.56

a Cl. a
b : K
c a
d ?
var mc 5d

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1997phae.proj.811f

I 16234

a 7.7
b 8.0
c 8.3
d 8.7
e 9.0
f 9.4
g 9.8
h 10.2
var 8.3 = 9.36, 9.44 9.46 = 9.42 .06, .02, .04,

9.04 9.09 9.16 = 9.10 06 01 06

8.64 ~~9.06~~ ~~2 54 r~~ ~~9.46, 944, 9.46 = 9.45 .01, .01 .01~~

~~9.44~~ r0 of ~~9.44~~ 9.09

9.16 ~~9.46~~ r 4d h ~~9.86~~ 9.56

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1897phae.proj..811F

June 16, 1897.

Meas. of new var. in
Sp. Md on B 18415 No. 95-83. -8°1641 $6^h 50^m.3$ -8° 53' 8.0 (1855)

I 14321 ✓

a 5.4
b 5.9
c 6.2
d 6.6
e 6.9
f 7.3
g 7.7
h 8.4
k 8.7
l 9.3
var. 7.4

9.63 9.68

9.85 9.81 = 9.83 .02 .02
~~9.73, 9.68 = 9.70 .03, .02~~
~~9.98~~ 9.81

9.75 9.63 9.90 9.78

f 1 v ~~9.73, 9.78 = 9.76 .03, .02~~ .03 .02
v 2 g ~~9.98~~ 10.10

I 7911 ✓

9.23 9.11 9.65 9.53

e 3 v 9.85 9.90 = 9.88
~~9.41 9.53 = 9.47 .06 .06,~~
9.78
v 1 f ~~9.63~~

I 2926 ✓

8.83 8.77 8.93 8.81

d 1 v 8.93 8.93 8.93
~~8.81, 8.81 = 8.81 00 00~~
9.23
v 3 e ~~9.11~~

I 2777 ✓

8.83 8.77 9.03 8.91

d 3 v 9.13 9.03 = 9.08
~~9.01, 8.91 = 8.96 .05, .05,~~
9.23
v 2 e ~~9.11~~

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1897phae.proj.811F

Cont

June 16, 1897

Meas. 2 new vat in

I 129

8.08 8.28 8.23 = 8.26
7.96 b 2 v 8.16 8.11 = 8.14 .02, .03
8.33 8.43
8.11 v 2 c 8.37

B 14893

8.43 8.83 8.83 8.83 = 8.83
8.31 c 4 v = 8.71, 8.71, 8.71 = 8.71 oo oo oo
8.83 8.83
8.71 v o d 8.71
8.83 9.23
8.71 v 4 e 9.11

I 891

8.83 9.13 9.13 = 9.13
8.71 d 3 v 9.01, 9.01 = 9.01 oo oo
9.13 9.23
9.01 v 1 e 9.11

B 3039

10.10 10.30 10.35 = 10.32
9.98 g 2 v 10.18, 10.23 = 10.20 .02, .03,
10.35 10.55
10.23 v 2 h 10.43

I 616

9.70 9.80 9.90 = 9.88
9.63 f 1 v 9.73, 9.77 = 9.75 .02, .03, .03 .02
9.90 10.10
9.77 v 2 g 9.98

I 2170 Sp. too poor -

I 2450 too poor -

I 2449

9.70 9.85 9.89 = 9.82
9.63 f 1 v = 9.73, 9.68 = 9.70 .03, .02
9.80 10.10
9.68 v 3 g 9.98

I 2441 Sp

9.23 9.43 9.55 = 9.49
9.11 e 2 v 9.31, 9.43 = 9.37 .06, .06,
9.65 9.70
9.43 v 2 f 9.63

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1897phae.proj..811F

June 16, 1897

Cont-

Meas. of new Variable in

I 2390 Sp ✓

9.23 9.11 9.53 9.43

e 2 v = 9.31 9.43 = 9.37 .06, .06,

v 2 f 9.78 9.63

I 2392 Sp ✓

9.23 9.11 9.65 9.53

e 3 v 9.53 9.65 = 9.59

9.41, 9.53 = 9.47 .06 .06

v 1 f. 9.78 9.63

I 2343 Sp. too poor ✓

I 2440 too near edge of plate ✓

I 2264 Sp. too poor ✓

I 2236 ✓

9.23 9.11 9.65 9.53

e 3 v 9.53 9.65 = 9.59

9.41 9.53 = 9.47 .06, .06,

v 1 f 9.78 9.63 on edge of plate -

I 2895 ✓

8.83 8.71 9.13 9.01

d 4 v = 9.23 9.13 = 9.18

9.11, 9.01, = 9.06 .05, .05

v 1 e - 9.11

I 10307 ✓

9.23 9.11 9.55 9.43

e 3 v 9.53 9.55 = 9.54

9.41, 9.43 = 9.42 .01, .01,

v 2 f 9.78 9.63

B X 15014 ✓

8.83 8.71 9.03 8.91

d 3 v 9.13 9.03 = 9.08

9.01 8.91 = 8.96 .05, .05

v 2 e 9.23 9.11

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1897phae.prgj..811F

Cont

Means of new Variable in I 5759 ✓

a 5.3
b 5.9
c 6.3 9.03 9.03 = 9.03
~~8.71~~ d 6.7 = ~~8.91 8.91 = 8.91~~ ✓✓ ✓✓
~~8.91~~ e 7.1 ~~9.11~~ 9.03
f 7.7
g 8.0
h 8.4
K 8.6
l 9.3
Var. 6.9

~~8.83~~
~~8.71~~ d 3 v = ~~9.01, 8.91 = 8.96~~ .05, .05
~~9.03~~ 9.23
~~8.91~~ v 2 l ~~9.11~~

B 15245 S ✓

~~9.23~~
~~9.11~~ l 2 v = ~~9.31, 9.33 = 9.32~~ .01, .01,
~~9.45~~ 9.43 9.45 = 9.44
~~9.33~~ v 3 f ~~9.63~~ 9.75

B 18009 ✓

~~10.10~~
~~9.98~~ g 3 v ~~10.28 10.23 = 10.26~~ .02, .03
~~10.30~~ 10.40 10.35 = 10.38
~~10.23~~ v 2 h ~~10.43~~ 10.55

I 249 ✓

~~8.83~~
~~8.71~~ d 4 v ~~9.11 9.01 = 9.06~~ .05, .05
~~9.13~~ 9.23
~~9.01~~ v, l ~~9.11~~

I 692 S ✓

~~9.23~~
~~9.11~~ l 3 v ~~9.41 9.43 = 9.42~~ .01, .01,
~~9.65~~ 9.53 9.55 = 9.54
~~9.43~~ v 2 f ~~9.63~~ 9.75

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1897phae.proj..811F

June 16, 1897

(Cont-

Meas. of new Variable in

I 836 Sp

8.83 / 8.71 / 9.13 / 9.01 — d 4 v — 9.23 9.13 ✓ 9.18 — 9.11, 9.01 = 9.06 — .05, .05
9.23
v 1 e — 9.11

I 2207 Sp ✓

9.23 / 9.11 / 9.45 / 9.33 — e 1 v — 9.33 9.45 9.39 — 9.21, 9.33 = 9.27 — .06, .06,
9.75
v 3 f — 9.63

I 5612 ✓

8.83 / 8.71 / 9.13 / 9.01 — d 4 v — 9.23 9.13 = 9.18 — 9.11, 9.01 = 9.06 — .05, .05
9.23
v 1 e — 9.11

I 10465 ✓

8.83 / 8.71 / 8.93 / 8.81 — d 2 v — 9.03 8.93 = 8.98 — 8.91, 8.81, 8.86 — .05, .05
9.23
v 3 e — 9.11

I 16347 ✓

9.23 / 9.11 / 9.65 / 9.53 — e 4 v — 9.63 9.65 = 9.64 — 9.51, 9.53 = 9.52 — .01, .01,
9.75
v 1 f — 9.63

I 10241 ✓

9.23 / 9.11 / 9.55 / 9.43 — e 3 v — 9.53 9.55 = 9.54 — 9.41, 9.43 = 9.42 — .01, .01
9.75
v 2 f — 9.63

I 5448 ✓

8.83 / 8.71 / 9.03 / 8.91 — d 3 v — 9.13 9.03 = 9.08 — 9.01, 8.91 = 8.96 — .05, .05
9.23
v 2 e — 9.11

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1897phae.proj..811F

Cont—

Meas. of new Variable in

B 17687 ✓

8.83 / ~~8.71~~ / 9.13 / ~~9.01~~ — d 4 2 — ~~9.23 9.13 = 9.18~~ / ~~9.11, 9.01 = 9.06~~ .05, .05 — v 1 2 — 9.23 / ~~9.11~~

I 5536 ✓

a 5.2
b 5.8
c 6.1
~~8.71~~ d 6.5 — 9.23 9.13 = 9.18 / ~~9.11, 9.01 = 9.06~~ .05, .05
9.01 e 7.0 — ~~9.11~~ 9.13
f 7.6
g 7.9
h 8.3
K 8.6
l 9.3
var. 6.9

8.83 / ~~8.71~~ / 9.13 / ~~9.01~~ — d 5 v — 9.33 9.13 9.23 / ~~9.21, 9.01 = 9.11~~ .10, .10 — v 1 2 — 9.23 / ~~9.11~~

I 5045 ✓

8.83 / ~~8.71~~ / 9.03 / ~~8.91~~ — d 4 v — 9.23 9.03 = 9.13 / ~~9.11, 8.91 = 9.01~~ .10, .10 — v 2 2 — 9.23 / ~~9.11~~

✓

VB 18041

10.10 / ~~9.98~~ / 10.25 / ~~10.23~~ — g 2 v — 10.30 10.35 = 10.32 / ~~10.18, 10.23 = 10.20~~ .02, .03, — v 2 2 — 10.35 / ~~10.43~~

✓

I 3305

8.83 / ~~8.71~~ / 9.13 / ~~9.01~~ — d 5 v — 9.33 9.13 = 9.23 / ~~9.21, 9.01 = 9.11~~ 10, .10 — v 1 2 — 9.23 / ~~9.11~~

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1897phae.proj..811F

June 16, 1897

Cont.

Meas. New Variable in

B 10974 ✓

9.23 / 9.11 / 9.65 / 9.53 e 4 v — 9.63 9.65 = 9.64 / 9.51, 9.53 = 9.52 .01, .01 / 9.75 / 9.63 v 1 f

I 9871 ✓

8.83 / 8.71 / 8.93 / 8.81 d 3 v — 9.13 8.93 = 9.03 / 9.01, 8.81 = 8.91, 10, 10 / 9.23 / 9.11 v 3 e

B 10767 Sp. too poor ✓

I 5562 ✓

9.23 / 9.11 / 9.30 / 9.23 e 1 v — 9.33 9.35 = 9.34 / 9.21, 9.23 = 9.22 .01 .01, / 9.75 / 9.63 v 4 f

I 7533 Sp — too poor ✓

I 7969 ✓

9.23 / 9.11 / 9.65 / 9.53 e 5 v — 9.73 9.65 9.69 / 9.61, 9.53 = 9.57 .04, .04 / 9.75 / 9.63 v 1 f

B 10526 ✓

8.83 / 8.71 / 9.03 / 8.91 d 3 v — 9.13 9.03 = 9.08 05 05 / 9.01, 8.91 = 8.96 .05, .05 / 9.23 / 9.11 v 2 e

B 10638 Sp. too poor ✓

B 9043 Sp — too poor ✓

B 14929 ✓

8.43 / 8.31 / 8.73 / 8.61 c 3 v — 8.73 8.73 = 8.73 00 00 / 8.61, 8.61 = 8.61 00 00 / 8.83 / 8.71 v 1 d

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1897phae.proj..811F

Cont

Meas. New Variable in

B 14904 ✓

8.43 ~~8.31~~ c 4 v ~~8.71~~ 8.83 ~~8.71~~ 8.83 ~~8.61~~ 8.73 = ~~8.68~~ 8.80 .03, .03, .07

8.83 ~~8.71~~ v 0 d ~~8.71~~ 8.83

8.73 ~~8.61~~ v 5 e ~~9.11~~ 9.23

I 5423 ✓

a 5.5

b 6.1 8.73 8.73 = 8.73 00 00

~~8.31~~ c 6.5 ~~8.61, 8.61 = 8.61 00 00~~

~~8.61~~ d 6.9 ~~8.71~~ 8.73

e 7.3

f 7.8

g 8.2

h 8.5

K 8.8

l 9.3

~~m 6~~

var 6.8

8.83 ~~8.71~~ d 1 v ~~8.81, 8.71 = 8.76~~ 8.93 8.83 8.88 ✓ ✓ .05, .05

888 ~~8.71~~ v 4 e ~~9.11~~ 9.23

B 18415 ✓

8.83 ~~8.71~~ 8.93 ~~9.01, 8.81 = 8.91~~ 9.13 8.93 9.03 .10, .10

d 3 v

8.93 ~~8.84~~ v 3 e ~~9.11~~ 9.23

a ~~d~~ Sp. a

b Sp. a

c Sp. m

d Sp. Ulb.

e too faint —

var Sp. Ud

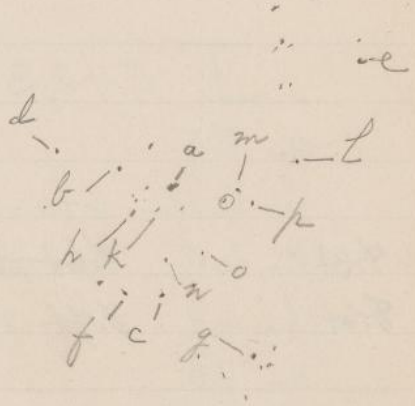
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1897phae.proj..811F

June 23, 1897.

Meas. of new var. star in
DM -25° 1766 R.A. 4ʰ 6.3ᵐ Dec. -25° 28' 92 (1875).
Sp. Md on plate B 18413 No. 9578.

Plate B 12482



	a	5.4	
	b	5.7	
	c	6.0	
	d	6.4	
	e	6.7	
	f	7.0	
	g	7.4	
	h	7.8	
	k	8.3	
	l	8.7	
	m	9.1	
11.24	n	9.4	11.64, 11.64 = 11.64 ∞ ∞
11.64	o	9.9	11.74
	p	10.3	
	var	9.8	

11.24 n 4 v = 11.64, 11.74, 11.74 = 11.71 .07, .03, .03,
11.74 v o 0 11.74
11.74 v 4 p 12.14

B 12620

11.24 n 3 v 11.54, 11.64 = 11.59 .05, .05,
11.64 v 1 0 11.74

B 10690

10.15 K 1 v 10.25, 10.20 = 10.22 .03, .04
10.20 v 3 l 10.50

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1897phae.proj..811F

Cont.

Meas. of var. star in

~~B~~ I 17053 ✓

9.27 g 1 v = 9.37, 9.37 = 9.37 00 00
9.37 v 3 h 9.67

I 2937 ✓

8.67 e 1 v 8.77, 8.75 = 8.76 .01, .01,
8.75 v 2 f - 8.95

B 14627 ✓

11.24 n = .2 11.44
~~V~~ v n.s. < 11.44

B 10673 ✓

10.50 l 2 v 10.70, 11.04 = 10.87 .17 .17,
11.04 v 2 n 11.24

B 17617 ✓

12.14 p = .4 12.54
v n.s < 12.54

B 4492 ✓

10.50 l = .3 = 10.80
v n.s < 10.80

B 18366 ✓

8.32 d 2 v = 8.52, 8.47 = 8.50 .02, .03
8.49 v 2 e 8.67

B 14797 ✓

11.74 o = .2 11.94
v n.s < 11.94

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1897phae.proj..811F

June 23, 1897. (Cont.

Meas. new Var. Stars in

B 15486 ✓

8.95 f = .3 = 9.25

v n.S < 9.25

I 14374 too poor. ✓

B 17209 ✓

11.24 n = .3 11.54

v n.S. < 11.54

B 17304 ✓

10.92 m = .1 11.02

v n.S. < 11.02

B 7009 Sp. too poor ✓

B 17802 ✓

10.15 K = .2 10.35

v n.S. < 10.35

B 4476 Sp. too poor. ✓

B 15077

12.14 ~~7.62~~ ~~K~~ = .2 ~~7.82~~, = 12.34, 12.24 = ✓

v = .1 ~~7.72~~

12.14 p1 v 12.24

v on limit of vis.

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1897phae.proj..811F

Meas. new val. Star in.

~~B 17209~~

~~n~~

~~v n.s~~

B 7171 ✓

9.27 g 2 v 9.47, 9.47 = 9.47 .. ..

9.47 v 2 k 9.67

B 17133 ✓

10.15 K = .3 10.45

v n.s. 10.45

B 4336 ✓

11.24 n = .2 11.44

v n.s. 11.44

~~B~~ 17271 ✓

12.14 p = .3 = 12.44

v = .1 = 12.34

12.14 p 2 v 12.34

v on limit of vis.

I 17283 ✓

7.87 c 3 v 8.17, 8.22, = 8.20 .03 .02,

8.22 v 1 d 8.32 .

I 2947 ✓

8.67 k 2 v 8.87, 8.77, = 8.82 .05, .05

8.77 v 2 f 8.95

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1897phae.proj..811F

June 23, 1897 (Cont

Meas. new val. in

B 12654 Sp. ✓

8.95 f = .2 = 9.15

v n.s. 9.15

B 16524 ✓

11.24 n = .1 11.34

v n.s. 11.34

B 14756 ✓

11.74 o = .2 11.94

v n.s. 11.94

B 11882 ✓

11.24 n = .1 11.34

v n.s. 11.34

B 16820 ✓

9.67 h = 3 9.97

v n.s. 9.97 on edge of plate

B 12243 Sp. ✓

10.15 K = .2 = 10.35

v n.s. 10.35

B 11935 ✓

12.14 p = .2 11.34

v n.s. 11.34

B 15281 ✓

9.67 h 3 v = 9.97, 10.05 = 10.01 .04, .04,

10.05 v, K 10.15

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1897phae.proj..811F

Cont

Meas. new var. in

B 14535

a 5.3
b 5.7
c 5.9
d 6.3
e 6.7
f 7.0
g 7.3
h 7.7
K 8.2
l 8.6
m 9.1
n 9.4
o 9.9
p 10.3 12.44 ✓
var. ~~n.s~~ 10.6
12.14 p = .4 12.54
v = .1 12.44

B 16995 ✓
11.74 0 2 v 11.94, 11.84, = 11.89 .05, .05
11.84 v 3 p. 12.14

I 16530 ✓
11.74 0 = .1 11.84
v n.s. 11.84

B16370 ✓
9.67 h = .3 9.97
v n.s 9.97 on edge of plate.

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1897phae.proj..811F

June 23, 1897 Cont

Meas. new var. in

B12369 Sp ✓

9.27 g = .4 9.67
v n.s ⟨9.67

B15377 ✓

9.67 h 3 v 9.97, 10.05 = 10.01 .04 .04,
10.05 v 1 K 10.15

B16466 ✓

10.15 K = .1 10.25
v n.s ⟨10.25

B17281 ✓

12.14 p = .2 12.34
v n.s. ⟨12.34

B14604 ✓

11.74 0 2 v 11.94, 11.94 = 11.94 00 00
11.94 v 2 p. 12.14

B15334 ✓

11.74 0 = .1 11.84
v n.s. ⟨11.84

*I 16772 ✓

11.24 ~~10.92~~ ~~K~~ 2 v ~~11.12~~ 11.44, 11.44 = 11.44 00 00
11.44 v 3 0 11.74

I 13867 ✓

10.92 u = .3 11.22
v n.s ⟨11.22

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1897phae.proj..811F

Meast. new Var. in

B 7191 Sp.

8.95 f 3v 9.25, 9.27 = 9.26 .01, .01,
9.27 v 0g 9.27
h n.s.

B 17415 Sp- ✓

10.15 K = .2 = 10.35
v n.s. 10.35

✓

B 8863 Sp- too poor

B 17739

10.92 m = .2 11.12 ✓
v n.s. 11.12

B 7197 Sp- ✓

9.27 g 2v 9.47
h n.s ~~9.47~~

I 15961 ✓

10.50 l = .3 = 10.80
v n.s. 10.80

B 18130 ✓

10.50 l = .3 10.80
v n.s. 10.80

B 17550 ✓

11.24 n = .2 11.44
v n.s- 11.44

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1897phae.proj..811F

June 23, 1897 (Cont.

Meas. new var. in

B 18473 ✓

a 5.7
b 6.2
7.87 c 6.4 = 8.17, 8.02 = 8.10 .07, .08,
8.02 d 7.0 8.32
e 7.4
f 7.6
g 7.9
h 8.3

~~j~~
k 8.8
l 9.1
m 9.5
n 9.8
o 10.3
p n.s.
var. 6.7

7.87 c 3v 8.17, 8.12 = 8.14 .03, .02
8.12 v 2d 8.32

B 14571 ✓

12.14 p = .2 12.34
v n.s. 12.34

B 8656 Sp. ✓

10.15 k = .2 10.35
v n.s. 10.35

B 5786 ✓

11.74 o = .1 11.84
v n.s. 11.84

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1897phae.proj..811F

Cont.

Meas. new var. ~~Var.~~

B 4259 Sp. too poor — ✓

I 16238 ✓

11.24 n = .1 = 11.34

v n.s. 11.34

I 2579 ✓

7.87 c 4v 8.27, 8.22, = 8.24 .03, .02

8.22 v 1 d. 8.32

✓

B 14947 Sp. too near edge of plate.

B 15661 ✓

9.67 h = .2 9.87

v n.s 9.87

B 12703 ✓

9.67 h 2v 9.87, 9.95 = 9.91 .04 .04,

9.95 v 2 K 10.15

I 13646 ✓

9.67 h = .2 9.87

v n.s. 9.87

B 10587 Sp. ✓

8.95 f = .4 9.35

v n.s. 9.35 ✓

B 4765 Sp. too poor —

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1897phae.proj..811F

June 23, 1897

Cont.

Meas. new Var. Star in
B 18413 Sp- ✓

a Class A
b " K
c " A
d " A?
Var " Ald.

8.32 d 2 v 8.52, 8.37 = 8.44 .08, .07
8.37 v 3 e .8.67

B 17894 ✓

a 6.0
b 6.7
c 7.0
d 7.4
e 7.7
f 8.0
g 8.3
h 8.7
K 9.1
l 9.4
m 9.8
n 10.2 11.24
o f.
p- f.
Var. n. s. ∠11.24
11.24 n = .4 = 11.64
v n. s. ∠11.64

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1897phae.proj..811F

Comb

Meas. new var stars

B 17643 ✓
10.50 l = .4 10.90
v n. S, < 10.90

B 8690 ✓
12.14 ~~p~~ = .2 12.34
v n S < 12.34

B 17498 ✓
10.92 m = .3 11.22
v n. S < 11.22

B 4637 ✓
10.15 K 3 v 10.45, 10.49 = 10.47 .02 .02,
10.49 v 1 l - 10.50

I 13800 ✓
10.92 m = .3 11.22
v n. S - < 11.22

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1897phae.proj..811F

July 12, 1897

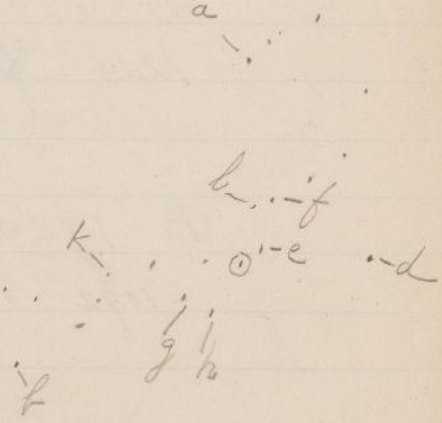
Meas. New Variable in Capricornus.

No. 9439 on B17404, Type IV. Var L.D.W. Susp. by Espin Rothera.

A.G.C. 27776 20h 11m.3 − 21° 37' 7".7 (1900) DM. −21°5672.

Plate B16809

a 6.5
b 6.8
c 7.3
d 7.8 = 9.39, 9.41 = 9.40 .01 .01,
9.29 ~~9.52~~ e 8.2 ~~9.62, 9.64 = 9.63 .01, .01~~
~~9.64~~ f 8.6 ~~9.94~~ 9.71
g 9.0
h 9.5
k 9.8
l 10.3
var 8.3



9.29 ~~9.52~~ d 1 v ~~9.62, 9.64, = 9.63 .01, .01,~~ = 9.39 .9.41 = 9.40 .01, .01,
9.41 ~~9.64~~ v 3 f ~~9.94~~ = 9.71 9.71

✓

B 2762

= 9.17, 9.09 = 9.13 .04, .04
~~9.30~~ 8.87 d 3 v = ~~9.60, 9.32 = 9.46~~
~~9.32~~ 9.09 v 2 l 9.29 ~~9.52~~

B 2761 ✓

8.87 d 1 v 8.97, 8.99 = 8.98 .01 .01
8.99 v 3 l − 9.29

B 17561 ✓

8.87 d 3 v 9.17, 9.09 = 9.13 .04, .04
9.09 v 2 l 9.29

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1897phae.proj..811F

Cont.

Meas. New Variable in

K 8148 ✓

8.87 d 3 v 9.17, 9.09 = 9.13 .04, .04

9.09 v 2 l 9.29

B 17592 ✓

9.29 l 1 v 9.39, 9.41 = 9.40 .01, .01,

9.41 v 3 f 9.71

B 14209 Sp- ✓

8.42 c 3 v 8.72, 8.77 = 8.74 .02 .03,

8.77 v 1 d - 8.87

B 15024 ✓

8.87 d 1 v 8.97, 8.89 = 8.93 .04, .04

8.89 v 4 l 9.29

B 14514 ✓

8.87 d 2 v 9.07, 8.99 = 9.03 .04, .04

8.99 v 3 l 9.29

B 16264 Sp. ✓

8.42 c 3 v 8.72, 8.67 = 8.70 .02, .03

8.67 v 2 d 8.87

B 16623 ✓

9.29 l 3 v 9.59, 9.61 = 9.60 .01, .01,

9.61 v 1 f 9.71

B 13871 Sp. ✓ too poor -

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1897phae.proj..811F

July 12, 1897

Cont.

Weis. New Variable in
B 13839 Sp- ✓
8.42 c 2 v = 8.62, 8.67 = 8.64 .02 .03,
8.67 v 2 d. 8.87

B 13509 ✓
8.87 d 2 v 9.07, 8.99, = 9.03 .04, 04
8.99 v 3 e. 9.29

~~B~~ B 13586 ✓
8.87 d 1 v 8.97, 8.99 = 8.98 .01, .01,
8.99 v 3 e - 9.29

B 13596 ✓
8.87 d 2 v 9.07, 9.09 = 9.08 .01, .01,
9.09 v 2 e 9.29

B 9795 ✓ Sp. too poor -

B 9890 ✓
8.87 d 4 v 9.27, 9.19 = 9.23 .04, .04
9.19 v 1 e 9.29

B 678 ✓ Sp. too poor -

B 9891 ✓
8.87 d 3 v 9.17, 9.09 = 9.13 .04, .04
9.09 v 2 e 9.29

B 10045 ✓
8.87 d 4 v 9.27, 9.19 = 9.23 .04, .04
9.19 v 1 e 9.29

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1897phae.proj..811F

Cont.

Meas. New Variable in

B 10449 ✓

8.87 d 2v 9.07, 9.09 = 9.08 .01 .01,
9.09 v 2e 9.29

B 12030 Sp - ✓

8.42 c 2v 8.62, 8.67 = 8.64 .02; .03
8.67 v 2d 8.87

B 12301 Sp - ✓

8.42 c 2v 8.62, 8.57 = 8.60 .02, .03
8.57 v 3d 8.87

B 12303 Sp - ✓

8.57 ~~8.87~~ v 3d ~~9.17~~ 8.87 8.57
c not on plate.

B 2770 ✓

8.87 d 2v 9.07, 8.99 = 9.03 .04, .04
8.99 v 3e 9.29

B 12304 Sp - ✓

8.57 ~~8.87~~ v 3d ~~9.17~~ 8.87 8.57
c not on plate.

B 9553 Sp. on edge of plate ✓

B 6567 Sp - ✓

8.42 c 3v 8.72, 8.67 = 8.70 .02, .03
8.67 v 2d 8.87

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1897phae.proj..811F

July 12, 1897 Cont.

Meas New Variable in

B 6583 Sp. ✓.

8.42 c 3 v 8.72, 8.77 = 8.74 .02 .03
8.77 v 2 d 8.87

✓

B 9242

a 6.7
b 7.0
c 7.4
8.87 d 7.9 8.97, 8.99 = 8.98 .01 .01,
8.99 e 8.3 9.29
f 8.7
g 9.1
h 9.5
K 9.8
l 10.2
var 8.0

8.87 d 2 v 9.07, 9.09 = 9.08 .01 .01
9.09 v 2 e 9.29

✓

B 8385 Sp.

8.42 c 2 v 8.62, 8.67 = 8.64 .02 .03,
8.67 v 2 d 8.87

B 3979 Sp. too poor. ✓

B 3408 Sp. too poor. ✓

B 2764 too poor. ✓

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1897phae.proj..811F

Cont—

Meas. New Variable in
B 2772 too poor—

B 2920 Sp. too poor—

B 3662 Sp. too poor

B 3719 Sp. too poor——

B 6143

9.29 e 3 v 9.59, 9.61 = 9.60 .01, .01
9.61 v 1 f - 9.71

B 3613

8.87 d 1 v 8.97, 8.89 = 8.93 .04, .04
8.89 v 4 e 9.29

B 4060

9.29 e 1 v 9.39, 9.41 = 9.40 .01, .01
9.41 v 3 f - 9.71

B 5267

8.87 d 3 v 9.17, 9.09 = 9.13 .04, .04
9.09 v 2 e 9.29

B 2969 Sp - too poor -

B 4071

8.87 d 4 v 9.27, 9.19 = 9.23 .04, .04
9.19 v 1 e 9.29

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1897phae.proj..811F

June 12, 1897 Cont.

Meas. New Variable in
B 4446 Sp. too poor ✓

B 5197 Sp. too poor ✓

B 4031 Sp. too poor ✓

B 2768 too poor ✓

B 2767 too poor ✓

B 2765 too poor ✓

B 3612 ✓
8.87 d 1 v 8.97, 8.89 = 8.93 .04, .04
8.89 v 4 e - 9.29

B 13671 ✓
9.29 e 2 v 9.49, 9.51 = 9.50 .01, .01,
9.51 v 2 f 9.71

B 2771 ✓
8.87 d 1 v 8.97, 8.99 = 8.98 .01 .01,
8.99 v 3 e 9.29

B 10972 ✓
9.71 f 1 v 9.81, 9.71, = 9.76 .05, .05
9.71 v 4 g 10.11

I 1568
8.42 c 3 v 8.72, 8.67 = 8.70 .02, .03
8.67 v 2 d 8.87

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1897phae.proj..811F

Meas. New Variable in

B 6144 ✓

8.87 d 1 v 8.97, 8.99 = 8.98 .01, .01
8.99 v 3 e 9.29

✓

B 13901

a 6.0
b 6.3
c 6.8
d 7.3
e 7.8
9.71 f 8.2 9.81, 9.81 = 9.81 ∞ ∞
9.81 g 8.6 10.11
h 9.2
K 9.5
l 9.9
var. 8.3

9.71 f 1 v = 9.81, 9.81 = 9.81 ∞ ∞
9.81 v 3 g 10.11

✓

K 8149

9.29 l 3 v 9.59, 9.51 = 9.55 .04, .04
9.51 v 2 f 9.71

✓

B 3698 Sf. too poor

✓

B 9543 Sf.

8.42 c 2 v 8.62, 8.67 = 8.64 .02 .03,
8.67 v 2 d 8.87

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1897phae.proj..811F

June 13, 1897

Cont.

Ueber. New Variable in

X 7209 ✓ ✓

8.87 d 2 v 9.07, 9.09 = 9.08 .01 .01,
9.09 v 2 e 9.29

X 7260 ✓

8.87 d 1 v 8.97, 8.99 = 8.98 .01 .01,
8.99 v 3 e 9.29

X 5371 ✓

8.42 c 5 v 8.92, 8.87, 8.79 = 8.86 .06, .01, .07
8.87 v 0 d 8.87
8.79 v 5 e 9.29

X 5412 ✓

8.87 d 1 v 8.97, 8.99 = 8.98 .01 .01,
8.99 v 3 e 9.29

X 5413 ✓

8.42 c 4 v 8.82, 8.77 = 8.80 .02, .03
8.77 v 1 d 8.87

X 5370 ✓

8.87 d 1 v 8.97, 8.89 = 8.93 .04, .04
8.89 v 4 e 9.29

X 7467 ✓

8.87 d 1 v 8.97 8.99 = 8.98 .01 .01,
8.99 v 3 e 9.29

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1897phae.proj..811F

Cont.

Meas. New Variable in
N 7468 ✓

8.87 d 2 v 9.07, 9.09 = 9.08 .01, .01
9.09 v 22 - 9.29

✓

B 7888

10.11 g 2 v 10.31, 10.39 = 10.35 .04, .04,
10.39 v 2 h 10.59

✓

B 8333

9.29 l 2 v 9.49, 9.51 = 9.50 .01 .01,
9.51 v 2 f 9.71

✓

B 8244 Sf - too poor -

✓

B 16645

a 7.0
b 7.3
c 7.6
d 7.9
e 8.3
9.71 f 8.8 9.81, 9.81 = 9.81 00 00
9.81 g 9.2 10.11
h 9.6
K 9.9
l 10.3
Vak - 8.9

9.71 f 1 v 9.81, 9.71 = 9.76 .05, .05
9.71 v 4 g 10.11

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1897phae.proj..811F

July 12, 1897

Meas New Variable in
B 4353

9.29 c1v 9.39, 9.41 = 9.40 = .01 .01,
9.41 v3f 9.71

✓

B 17404 Sf -
8.42 c3v 8.72, 8.77 = 8.74 . 02, .03,
8.77 v1d - 8.87

a Class A
b " ~~A5~~ A
c " A
d " E
e too faint
var Class ~~M~~ M

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1897phae.proj..811F

July 13, 1897

Meas. New Variable in Eridanus.
-DM -16°771 3ʰ57.7ᵐ -16° 8' (1855) Gp. Mc5d on B 1819 2 No. 9525.

Plate B 14570 ✓

a 6.6
b 7.0
8.88 c 7.4 9.~~28~~18, , 9.20 = 9.19 .01 .01
9.20 d 7.8 9.30
e 8.1
f 8.4
g 8.8
h 9.2
k 9.7
l 10.2
var. 7.87

9.30 d 1 v 9.40, 9.32 = 9.36 .04, .04
9.32 v 2 c 9.52

B 10691 ✓
8.43 b 2 v 8.63, 8.68, = 8.66 .03; 02,
8.68 v 2 c 8.88

B 17614 ✓
8.88 c 1 v 8.98, 9.00 = 8.99 .01 .01,
9.00 v 3 d 9.30

B 17270 ✓
8.43 b 2 v 8.63, 8.68 = 8.66 .03; 02,
8.68 v 2 c 8.88

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1897phae.proj..811F

July 13, 1897 (Cont.

Meas. New Variable in

B 14534 ✓

8.88 C 2 v 9.08, 9.10 = 9.09 .01 .01,

9.10 v 2 d 9.30

B 11881 ✓

8.88 C 1 v 8.98, 9.00 = 8.99 .01, .01,

9.00 v 3 d 9.30

✓

B 14436

8.88 C 2 v 9.08, 9.10 = 9.09, .01 .01,

9.10 v 2 d 9.30

I 2982 ✓

8.43 b 4 v = 8.83, 8.78 = 8.80 .03, .02

8.78 v 1 C 8.88

B 4258 Sp too poor ✓

B 17893 ✓

8.43 b 4 v 8.83, 8.78 = 8.80 .03, .02

8.78 v 1 C 8.88

B 1792 Sp. too poor ✓

✓

B 12727

8.88 C 3 v 9.18, 9.20 = 9.19 .01 .01,

9.20 v 1 d 9.30

B 14809 ✓ too near edge of plate -

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1897phae.proj..811F

July 13, 1897

Meas. New Variable in
B 17359 Sp – too poor –

B 10596 Sp.
8.43 b 3 v = 8.73, 8.78 = 8.76 .03 .02,
8.78 v, c 8.88

B 2431
8.43 b 3 v 8.73, 8.68 = 8.70 .03, .02
8.~~88~~ 68 v 2 c 8.88

B 14626
a 6.2
b 6.7
8.88 c 7.1 8.98, 8.90 8.94 = .04, .04
8.90 d 7.6 9.30
e 7.8
f 8.3
g 8.8
h 9.2
K 9.7
l 10.3
var 7.2
8.43 b 4 v 8.83, 8.78 = 8.80 .03, .02
8.78 v, c 8.88

I 2034
8.88 c 2 v 9.08, 9.00 = 9.04 .04, .04
9.00 v 3 d 9.30

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1897phae.proj..811F

July 13, 1897

Cont

Meas. New Variable in

B 18472 ✓

8.43 b 4 v 8.83, 8.78 = 8.80 .03, .02
8.78 v 1 c 8.88

I 544 Sp – too poor –

B 18186 ✓

8.01 a 4 v 8.41, 8.33 = 8.37 .03, .04
8.33 v 1 b 8.43

~~B 8703~~

B 8703 ✓

8.43 b 3 v 8.73, 8.68 = 8.70 .03, .02
8.68 v 2 c 8.88

B 17208 ✓

8.43 b 5 v 8.93, 8.88, 8.90 = 8.90 .03, .02 00
8.88 v 0 c 8.88
8.90 v 4 d 9.30

B 8689 ✓ too near edge of plate –

B 10579 ✓ Sp – too poor –

B 7073 ✓ Sp – too poor –

B 2297 ✓ Sp – ~~too~~ poor –

B 12752 ✓ Sp – too poor

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1897phae.proj..011F

Cond

Meas. New Variable in
B 4333 Sp - too poor -

B 17946 ✓
8.43 b 3 v 8.73, 8.68 = 8.70 .03, .02
8.68 v 2 c 8.88

B 2186 Sp. too poor - ✓

B 5730 ✓
8.43 b 4 v 8.83, 8.78 = 8.80 .03, .02
8.78 v 1 c 8.88

I 2948 ✓
8.43 b 4 v 8.83, 8.78 = 8.80 .03, .02
8.78 v 1 c 8.88

B 17801 ✓
8.43 b 4 v 8.83, 8.68 = 8.76 .07, .08
8.68 v 2 c 8.88

B 12250 ✓
8.43 b 5 v 8.93, 8.88, 8.90 = 8.90 .03, .02 00
8.88 v 0 c 8.88
8.90 v 4 d 9.30

I 427 ✓
8.88 c 2 v 8.90, 9.10 = 9.00 10, 10
9.10 v 2 d 9.30

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1897phae.proj..811F

July 13, 1897

(Ont

Meas. New Variable in

B 2239 ✓

8.43 b 3 v 8.73, 8.58, = 8.66 .07, .08
8.88 v 3 c 8.88

I 2968 ✓

8.43 b 4 v 8.83, 8.68 = 8.76 .07, .08
8.68 v 2 c 8.88

✓

B 18103

8.01 a 7.0 8.31, 8.33 = 8.32 .01 .01,
8.33 b 7.4 8.43
c 7.9
d 8.3
e 8.5
f 8.9
g 9.3
h 9.7
K 10.2
l n.S.
Var 7.3

8.01 a 3 v 8.31, 8.33 = 8.32 .01, .01,
8.33 v 1 b 8.43

✓

I 2581

8.43 b 4 v 8.83, 8.78 = 8.80 .03, .02
8.78 v 1 c 8.88 On edge of plate

I 604 ✓

8.43 b 5 v 8.93
c Not on plate

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1997phae.proj.811F

Cont—

Meas. New Variable in

B 2938 ✓

8.43 b 4 v 8.83, 8.68 = 8.76 .07, .08

8.68 v 2 c 8.88

✓

B 10674

8.43 b 3 v 8.73, 8.68 = 8.70, .03, .02

8.68 v 2 c 8.88

✓

B 11798 Sp. too poor

I 2580 ✓

8.88 c 1 v 8.98, 9.00 = 8.99 .01, 01

9.00 v 3 d 9.30

✓

B 5637 Sp. too poor —

✓

B 11975

8.88 c 3 v 9.18, 9.20 = 9.19 .01 .01,

9.~~30~~ 20 v 1 d 9.30

✓

B 18192

8.43 b 1 v 8.53, 8.48 = 8.50 .03, .02

8.48 v 4 c 8.88

Class 4.

a

b. " 7

c " 2

var. " due sd

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1897phae.proj..811F

July 13, 1897

Ont.

Meas. new Variable

B 11934 ✓

a 6.3
b 6.7
8.88 c 7.2 8.98, 9.00 = 8.99 .01 ; .01,
9.00 d 7.6 9.30
e 7.8
f 8.3
g 8.8
h 9.2
k 9.4
l 10.2
Vale 7.3

8.88 C 1 V 8.98, 9.00=8.99 .01 ,01
9.00 V 3 d 9.30

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1897phae.proj.811F

~~September~~ ~~August~~ ~~Bishop~~

October 6, 1897.

Meas. of new var. star in
Sp. ~~209~~ on A 2211 (Magellanic Cloud.) See H.C.O. Circ. 15, p.

Plate 17701

a 5.5
8.52 b 6.0

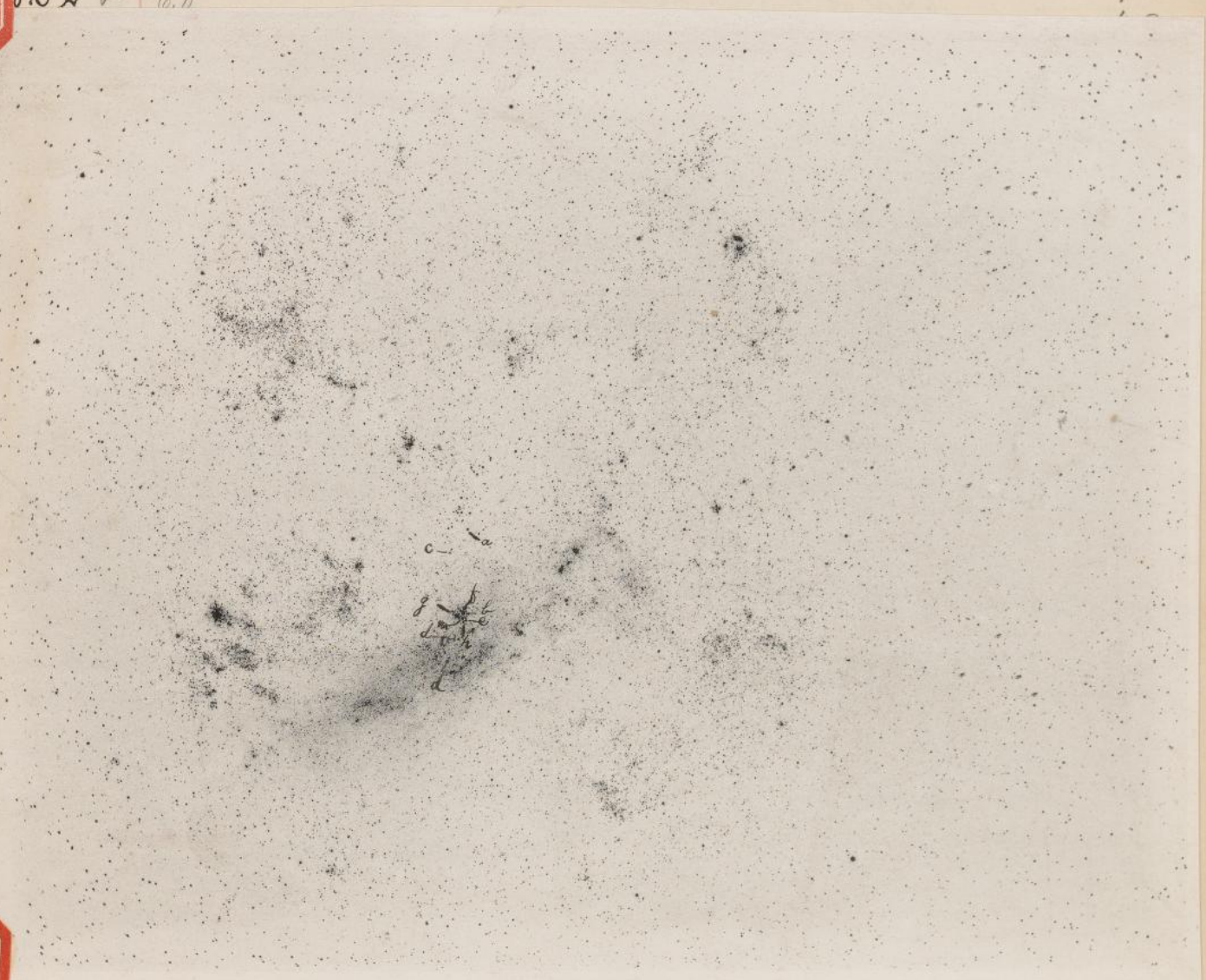


FIG. 2. LARGE MAGELLANIC CLOUD.

9.22 v 3 d 9.52

See page 111 Book 10

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1897phae.proj..811F

~~September August~~ October 6, 1897.

Meas. of new var. star in
Sp. ~~209~~ on A 2211 (Magellanic Cond.) See H.C.O. Circ. N.

Plate 17701

	a	5.5	
8.52	b	6.0	
9.07	c	6.6	9.07, 9.12, 9.12 = 9.10 .03, .02, .02,
8.52	d	7.0	
	e	7.5	
	f	8.0	
	g	8.5	
	h	8.8	
	var.	6.6	

8.52 b 5 v 9.02, 8.97 = 9.00 .02, .03,
8.97 v 1 c 9.07

B 12458 ✓
7.94 a 2 v = 8.14, 8.22 = 8.18 .04, .04,
8.22 v 3 b 8.52

B 5710 ✓
9.07 c 2 v = 9.27, 9.22 = 9.24 .03, .02
9.22 v 3 d 9.52

B 7092 ✓
9.07 c 2 v 9.27, 9.22 = 9.24 .03, .02
9.22 v 3 d 9.52

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1897phae.proj..811F

October 6, 1897

Cont

New Variable in

B 7043 ✓

8.52 b 5 v 9.02, 8.97 = 9.00 .02, .03

8.97 v 1 c 9.07

B 7135 ✓

9.07 c 3 v = 9.37, 9.32 = 9.34 .03, .02

9.32 v 2 d 9.52

B 5636 ✓

8.52 b 5 v = 9.02, 9.07, 9.12 = 9.07 .05 .00, .05,

9.07 v 0 c 9.07

9.12 v 4 d 9.52

B 7065 ✓

9.07 c 2 v 9.27, 9.22 = 9.24 .03, .02

9.22 v 3 d ~~9.47~~ 9.52

B 18129 ✓

8.52 b 1 v 8.62, 8.57 = 8.60 .02, .03

8.57 v 5 c 9.07

B 5720 ✓

9.07 c 2 v 9.27, 9.22 = 9.24 .03, .02

9.22 v 3 d 9.52

B 1223 ✓

too poor

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1897phae.proj..811F

October 6, 1897.

Cont.

New Variable in (Cont).

B 4502 ✓

7.94 a 4 v 8.34, 8.32 = 8.33 .01, .01
8.32 v 2 b 8.52

B 5814 ✓

8.52 b 5 v 9.02, 8.97 = 9.00 .02, .03
8.97 v 1 c 9.07

B 12108 Sp ✓
~~Sp~~ too poor.

B 7136 ✓

8.52 b 4 v 8.92, 8.97 = 8.94 .02 .03,
8.97 v 1 c 9.07

B 4598 ✓

7.94 a 5 v 8.44, 8.42 = 8.43 .01, .01
8.42 v 1 b 8.52

B 12107 Sp ✓
~~Sp~~. too poor.

B 5807 Sp
~~Sp~~. too poor.

B 7733 Sp. ✓
too poor

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1897phae.proj..811F

October 6, 1897.

Mean of new var. in (Cont.)

Plate B 4574 Dp. ✓
too poor

✓

Plate B 7133

8.52 t 4 v 8.92, 8.87 = 8.90 .02, .03
8.87 v 2 c 9.07

B 4732 ✓

8.52 t 2 v = 8.72, 8.77 = 8.74 .02, .03
8.77 v 3 c 9.07

B 7757 Dp. ✓
too faint.

B 4750 ✓
too poor.

B 5634 Dp. ✓
too poor.

B 7134 Dp. ✓

8.52 t 5 v 9.02, 8.97 = 9.00 .02, .03
8.97 v 1 c 9.07

B 18443 Dp ✓
too poor

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1897phae.prj..811F

October 6, 1897.

Meas. of new var. in (Cont.)

B 7063 ✓

8.52 b 6 v 9.12, 9.07, 9.02 = 9.07 .05, 00, .05
9.07 v 0 c 9.07
9.02 v 5 d 9.52

✓

B 12324

7.94 a 6.8 ~~8.45~~ 8.54
8.52 b 7.4 8.52, 8.47 8.54 = 8.51 .01 .04 .03,
9.07 c 8.0
d 8.5
e ~~8.9~~
f 9.3
g 9.8
h 10.1
var 7.4
7.94 a 5 v 8.44, 8.42 = 8.43 .01, .01
8.42 v 1 b 8.52

B 7739 Sp. ✓
two pairs.

B 4638 ✓

7.94 a 5 v 8.44, 8.42 = 8.43 .01, .01
8.42 v 1 b 8.52

B 8811 Sp. ✓
too poor

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1897phae.proj..811F

October 6, 1897. (Cont.)

Meas. of new var. in

B 4514 ✓
too poor

B 8672 ✓

9.07 c 3 v 9.37, 9.32 = 9.34 .03, .02
9.32 v 2 d 9.52

B 4573 Dp ✓
too poor.

B 7170 ✓
too poor

B 8794 (4x5) ✓
too poor

B 15163 Dp ✓

7.94 a 3 v 8.24, 8.22, = 8.23 .01, .01
8.22 v 3 f 8.52

B 5775 Dp ✓
too poor

B 8901 Dp. ✓
too poor.

B 15166 ✓

7.94 a 3 v 8.24, 8.32 = 8.28 .04, .04,
8.32 v 2 f 8.52

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1897phae.proj..811F

October 6, 1897.

(Cont.)

Meas. of new var. in.

B12077 Sp. ✓
too poor

B17858 ✓

7.94 a 6 v 8.54, 8.52, 8.47 = 8.51 = .03, .01, .04
8.62 v 0 b 8.52
8.47 b 6 c 9.07

B7139 ✓

9.07 c 2 v 9.27, 9.22 = 9.24 .03, .02
9.22 v 3 d 9.52

B4602 ✓

7.94 a 5 v 8.44, 8.42 = 8.43 .01, .01
8.42 v 1 b 8.52

B7744 Sp.
too poor.

B4606 ✓

7.94 a 4 v 8.34, 8.32 = 8.33 .01, .01
8.32 v 2 b 8.52

B15004 ✓

7.94 a 4 v 8.34, 8.32, 8.33 .01, .01
8.32 v 2 b 8.52

B14819 ✓

7.94 a 3 v 8.24, 8.22, = 8.23 .01, .01
8.22 v 3 b 8.52

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1897phae.proj..811F

October 6, 1897.

Neas. of nov. var. in (Cont).

Plate B10273

7.94 a 5.0
8.52 b 5.6 8.52
9.07 c 6.1 8.57, 8.52, 8.54. 8.54 .03, .02 oo
d 6.6
e 7.0
f 7.4
g 7.7
h 8.1
~~b~~ 8.

var. 5.6
8.52 b 1 v 8.62, 8.67 = 8.64 .02, .03,
8.67 v 4 c 9.07

B12527 ✓
7.94 a 2 v 8.14, 8.22 = 8.18 .04, .04,
8.22 v 3 b 8.52

B7096 ✓
8.52 b 4 v 8.92, 8.87 = 8.90 .02, .03
8.87 v 2 c 9.07

B17677 ✓
7.94 a 5 v 8.44, 8.42 = 8.43 .01, .01
8.42 v 1 b 8.52

B14823 ✓
7.94 a 3 v 8.24, 8.22 = 8.23 .01, .01
8.22 v 3 b 8.52

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1897phae.proj.:8111

Oct. 6, 1897.

Measure of nir var.

Plate B8872 ✓

9.07 c β^4 v 9.47, 9.42 = 9.44 .03, .02
9.42 v 1 d 9.52

B 4503 ✓

7.94 a 4 v 8.34, 8.32 = 8.33 .01, .01
8.32 v 2 b 8.52

✓

B 12705
~~B 12075~~

7.94 a 4 v 8.34, 8.32 = 8.33 .01, .01
8.32 v 2 b 8.52

B 7088 ✓

9.07 c 4 v 9.47, 9.42 = 9.44 .03, .02
9.42 v 1 d 9.52

B 8870 ✓

8.52 b 5 v 9.02, 8.97 = 9.00 .02, .03
8.97 v 1 c 9.07

B 5745 ✓

8.52 b 1 v 8.62, 8.57 = 8.60 .02, .03
8.57 v 5 c 9.07

18383 ✓

8.52 b 1 v 8.62, 8.67 = 8.64 .12, .03,
8.67 v 4 c 9.07

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1897phae.proj..811F

Oct 6, 1897.

Measure of new bars.

Plate B10267 ✓

7.94 a 4 r 8.34, 8.32 = 8.33 .01, .01,
8.32 r 2 f 8.52

B17101 ✓

7.94 a 5 r 8.44, 8.42 = 8.43 .01, .01
8.42 r 1 f 8.52

B15008 ✓

7.94 a 6.0 ~~7.94~~ 8.34
8.52 b 6.6 8.32, 8.34 = 8.33 .01, .01,
c 7.1
d 7.5
e 7.9
f 8.3
g 8.7
h 9.1
var. 6.4

~~a r~~

7.94 a 5 r 8.44, 8.42 = 8.43 .01, .01
8.42 r 1 f 8.52

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1897phae.proj.8115

Oct. 6, 1897.

Measure of new var. in

Plate A2207

8.52 b4r 8.92, 8.97 = 8.94 .02, .03,
8.97 r1c 9.07

A2209 Sp. ✓

7.94 a6r 8.54, 8.52, 8.67 8.58 .04, .06, .09,
8.52 r6b 8.52
8.67 r4c 9.07

a Sp. K
b E?
c G
d E?
e Too ft.
var. L

A2221 ✓

7.94 a4r 8.34, 8.32 = 8.33 .01, .01
8.32 r2b 8.52

A2209 ✓

8.52 b3r 8.82, 8.87 = 8.84 .02, .03,
8.87 r2c 9.07

A2210 Sp. ✓

7.94 a5r 8.44, 8.42 = 8.43 .01, .01
8.42 r1b 8.52

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1897phae.proj..811F

Oct. 6, 1897.

Measure of new var.

a 2227 Sp. ✓

7.94 a5r 8.44, 8.42 = 8.43 .01, .01
8.42 r1b 8.52

a 2226 Sp. ✓

8.52 b1r 8.62, 8.67, 8.64 .02, .03,
8.67 r4c 9.07

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1897phae.proj..811F

Oct. 18, 1897.

Measures of Neptune and Satellites

	Scale A	Corrected	Scale B		
a	4.2	4.5			
b	4.6	4.9			
c	5.0	5.3			
d	5.5	5.8			
e	5.9	6.2			
f	6.5	6.8			
g	7.2	7.5	~~7.0~~	7.7	Mean = 7.6
h			~~7.7~~	8.6	
k				9.1	
l				9.5	
m				9.8	
n				10.2	

Corr. 4.5

Neptune 4.2 7.68 7.70 = 7.69 .01 .01

Sat. 9.6 12.64 12.72 = 12.68 .04 .04

7.68 a 1 n 7.78 7.70 = 7.74 .04 .04

7.70 n 4 b 8.10

9 12.54 l 2 Sat 12.74 12.72 = 12.73 .01 .01

12.72 Sat 2 m 12.92

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1897phae.proj..811F

Oct. 18

Measure of Neptune (cont)

Scale A

		Corr.
a	4.2	4.5
b	4.6	4.9
c	5.1	5.4
d	5.7	6.0
e	6.3	6.6
f	6.8	7.1

Scale B

g	7.3	7.6	7.8
h			8.4
k			9.0
l			9.4
m			9.8
n			10.2

Mean = 7.7

	Corr. 4.5				
Nep.	4.2	7.68	7.70 = 7.69 ✓	.01	.01
Sat.	9.7	12.84	12.82 = 12.83 ✓	.01	.01

7.68 a 1 Nep 7.78 7.70 = 7.74 ✓ .04 .04

7.70 Nep 4 b 8.10

12.54 l 2 Sat 12.74 12.72 = 12.73 ✓ .01 .01

12.72 Sat 2 m 12.92

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1897phae.prpj..811F

Measure of Neptune (cont)

	Scale A	Corr.		
a	4.2	4.5		
b	4.6	4.9		
c	5.1	5.4		
d	5.7	6.0		
e	6.3	6.6		
f	6.8	7.1	Scale B	
g	7.3	7.6	7.8	Mean = 7.7
h			8.4	
k			8.9	
l			9.3	
m			9.7	
n			10.2	

		Corr.				
Nep.	4.3	4.6	7.78 7.80 = 7.79	.01	.01	
Sat.	9.7		12.84, 12.92, 12.84 = 12.90	.04	.02	.06

7.68 a 1 Nep. 7.78 7.80 = 7.79 .01 .01
7.80 Nep. 3 b 8.10

12.54 l 2 Sat 12.74 12.72 = 12.73 .01 .01
12.72 Sat 2 m 12.92

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1897phae.proj..811F

Oct. 18.

Measures of Neptune (cont)

	Scale A	Corr.		
a	4.2	4.5		
b	4.7	5.0		
c	5.2	5.5		
d	5.8	6.1		
e	6.3	6.6		
f	6.8	7.1	Scale B	
g	7.3	7.6	7.8	Mean = 7.7
h			8.3	
k			8.8	
l			9.3	
m			9.7	
n			10.1	

		Corr.				
Nep.	4.2	4.5	7.68	7.60 = 7.64	.04	.04
Sat.	9.16		~~12.94~~ 12.84	~~12.92~~ 12.82 = ~~12.94~~ 12.83	~~.01~~ .01	~~.01~~ .01

7.68 a1 Nep. 7.78 7.80 = 7.79 .01 .01

7.80 Nep 3 b 8.10

12.54 l.2 Sat 12.74 12.72 = 12.73 .01 .01

12.72 Sat 2 m 12.92

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1897phae.proj..811F

November 30, 1897.

Harv. 2 plates of stars inspected of variability by O.C. Wendell. See list dated.

BD +19°4628 21h 1m 51s +19° 50' 9.5 (1855).

Plates I 6879, 8907, 11264, 158, 7120, 9319, 9044, 4428, 7296, 11677, 9763, 8854, 7247, 6866, 7274, 6834, and #4254 have been examined and show no evidence of variation in this star. A star of about the 8th magnitude appears on I 4254. It precedes +19°4628 about 1.3m and is North about 6'. It does not appear on any of the other plates given above. Look up other plates of this object.

I 158
I 4254, '91, 9, 19
I 4428
I 6834
I 6866
I 6879
I 7120
I 7247
I 7274
I 8854
I 7296
I 8907
I 9044
I 9319
I 9763
I 11264
I 11677

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1897phae.proj..811F

November 30, 1897.

Exam. of plates of region of O.C. Wendell's ~~DM~~ suspected var.

~~DM~~ +9°647 4ʰ37ᵐ.7 +9°52' 9.5ᵐ (1855).

Plates I 9575, 10089, 10075, 7764, 7741, 7684, 5405, 5366, 5333, 5088, 5036, 5035, 4641, 4635, 4634 and 4546 have been examined and the star DM +9°647 does not appear on any of them. There may be some error in the DM position.

I 4546	'91	10	16
I 4634	"	10	28
I 4635	"	10	28
I 4641	"	10	28
I 5035	"	12	10
I 5036	"	12	10
I 5088	"	12	11
I 5333	'92	1	5
I 5366	"	1	8
I 5405	"	1	16
I 7684	"	12	16
I 7741	"	12	24
I 7764	"	12	28
I 10075	'93	11	26
I 10089	"	11	26
I 9575	"	10	2

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1997phac.proj : 81.1F

	h	m	s	°	′		
BD. +9° 647	4	37.7		+9°	52.0	9.5	✓
BD. +9° 2316	10	4.8		+9°	51.4	9.5	✓
BD. +9° 2795	13	3.3	37.1	+9°	55.5	9.5	✓
BD. +9° 2982	14	53	18.7	+9°	56.1	9.5	✓
BD. +9° 1144	6	5	49.9	+9	55.8	9.4	✓
BD. +9° 4080	19	15	29.4	+9	56.6	9.5	✓
BD. +9° 4140	19	25	20.7	+9	59.2	9.5	✓
BD +9° 251	1	52	6.0	+9	54.8	9.5	✓
BD. +19° 748	4	30	13.9	+19	50.1	9.5	✓
BD +19° 783	4	39	30.8	+19	59.6	9.5	✓
BD. +19° 1743	7	21	0.4	+19	55.6	7.0	✓ Looked up on Plates and given to Mrs F. Nov. 27, 1894.
BD +19° 4628	21	1	51.2	+19	50.1	9.5	✓
BD +19° 5016	22	44	57.2	+19	56.4	9.5	✓

BD +19 1041

Dec. 14, 1897.

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1097plae.proj : 8111F

Plates on which BD+9° 2795 h. 13 m. 33 s. 37.1 +9° 55'.5 9.5
has been marked.

I 3,496 Apr. 26, '91
I 3,565 May 10, '91
I 3,640 " 27, "
I 3659 June 1, "
I 6,264 May 16, 92
I 6,284 " 17, "
I 6,365 " 31, "
I 6,376 June 1, "
I 8,541 May 15, '93
I 8,561 " 20, "
I 10,588 Jan. 25, '94.
I 10,723 Feb. 26, "
I 10,824 Mar. 16, "

Plates examined show ~~trace of star~~ +9° 2795 ~~identical~~
B. 10 p. 129

I 10588 checked for identification of star.

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1997phae.proj..0111F

Plates on which B.D. +9°647 h 1h 37m.7 +9° 52'.0 9.5 has been marked.

I 4,576	Oct. 16, '91		
I 4,634	" 28, "		
I 4,635	" 28, "		
I 4,641	" 28, "		
I 5,035	Dec. 10, "	Plates examined show no ~~evidence of variability~~ trace of star +9°647. B 9 p 128.	
I 5,036	" 10, "		
I 5,088	" 11, "		
I 5,333	Jan 5, '92		
I 5,366	" 8, "	I 10089	right place marked, but no trace of star.
I 5,405	" 16, "	I 12434	
I 7,684	Dec. 16, '92	B 14022	
I 7,741	" 24, "	Look up later plates.	
I 7,764	" 28, "		
I 10,075	Nov. 26, '93.		
I 10,089	" 26, "		
I 9,575	Oct. 2, '93.	Check ident of +9°647.	

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1997plae.proj : 0111F

Plates on which B.D. +9° 2316 h 10 m 48 +9° 51.4 9.5 is marked

I 966 Apr. 5, '90
I 3356 May 26, '91
I 5061 Dec. 10, "
I 5062 " 10, "
I 5908 Mar. 19, '92.
I 5995 " 31, "
I 6040 Apr. 9, "
I 6055 " 11, "
I 6174 " 26, "
I 8271 Mar. 21, '93.
I 10,041 Nov. 24, "

Plates examined, Variability not confirmed, B 10 p. 133.

I 8271 checked for identification of star.

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1997phot..rpt..83I

List of plates for B.D.+9° 4040 — 19h 25m 20.7s +9° 59' 2" Magn. 9.5

I 1743 Aug. 29, '90
I 2093 Oct. 30, '90
I 3962 Aug. 8, '91
I 4147 Sept. 4, '91.
I 6828 Sept. 2, '92.
B 7832 June 8, '92
I 8753 July 11, '93
I 8782 " 14, "
I 8820 " 19, "
I 9003 " 30, "
B 9439 May 14, '93
I 9458 Sept. 12, '93
I 11377 Aug. 21, '94.

Plates examined show no evidence of variability, B10, p131

I 11377 checked for identifications of stars.

List of plates for B.D.+9° 4080

I 1743 Aug 29, '90
I 2093 Oct. 30, '90
I 3962 Aug. 8 '91
I 3975 " 10, "
I 4138 Sept. 3, '91
I 4147 " 4, "
I 4092 Oct. 21, "
I 6828 Sept. 2, '92
B 7832 June 8 '92
I 8753 July 11, '93.
I 8782 " 14, "
I 8820 " 19, "
I 8906 " 27, "
I 9003 " 30, "
I 9076 Aug. 4, "
B 9439 May 14, '93
I 11377 Aug. 21, '94.

Plates examined show no evidence of variability B10, p132.

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1997phac.proj...0112

Plates on which B.D.+19° 748 and B.D.+19° 783 have been marked.

I	519	Jan 20 1890	I 10,147	Dec. 10, '93.
	720	Mar. 3, '90	10,289	" 25, "
	2403	Dec. 2, '90	10,459	Jan. 19, '94.
	4643	Oct. 28, '91	10,513	" 20, "
	4644	" 28, "		
	5037	Dec. 10, "		
	5038	" 10, "		
	5090	Dec. 11, "		
	5091	" 11, "		
	5269	" 19, "		
	5294	" 30, "		
	5334	Jan. 5, '92.		
	5367	" 8, "		
	5406	" 16, "		
	5438	" 21, "		
	7685	Dec. 16, "		
	7701	" 20, "		
	7742	" 24, "		
	7765	" 28, "		
	9584	Oct. 5, '93.		

The above plates have been examined and show no evidence of variation in +19° 748 or in +19° 783. See B 10, p 136.

I 5334 checked for identification of stars.

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1997plnec.proj : 6111F

Plates on which B.D. +19° 1743 L. 7 21 nw 21.4 +19° 55'.6 7.0 has been marked.

I 893	Mar 27 '90	I 9997 ✓	Nov. 22, '93.
2238 ✓	Nov. 12, '90	10212 ✓	Dec. 19, "
2429 ✓	Dec. 4, '90	10328 ✓	" 28, "
2749	Jan. 8 '91	10559 ✓	Jan. 25, '94.
2797 ✓	Jan. 13, '91	12235 ✓	Feb. 11, '95
2944 ✓	Jan. 30, '91		
3067 ✓	Feb. 13, '91		
3148 ✓	Feb. 22, '91		
3217 ✓	Mar. 1, '91		
3385 ✓	Apr. 1, '91		
4937 ✓	Dec. 1, "		
5051 ✓	" 10, "		
5492 ✓	Jan. 31, '92.		
5496 ✓	Feb. 1, "		
5565 ✓	" 6, "		
5805 ✓	Mar. 6, "		
8055 ✓	Feb. 15, '93.		
8157 ✓	" 28, "		
8165 ✓	Mar. 2, "		
9874 ✓	Nov. 1, "		

Slight if any evidence of variation See B 10, p. 135.

I 10559 checked for identification of star.

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1997phot.prof...83H

Plates on which B.D. +19° 5016 22h 44m 57.2s +19° 56.4 9.5

I 1706 ✓ Aug. 27, '90
I H211 ✓ Sept. 10, '91
I H367 " 26, 91
I H538 ✓ Oct. 17, "
I H601 ✓ " 21, "
I 7151 ✓ Sept. 21, '92
I 7231 ✓ " 30, "
I 7371 ✓ Oct. 19, "
I 9071 ✓ Aug. 3, '93.
I 9427 ✓ Sept. 9, "
I 9850 ✓ Oct. 31, "
I 10,049 ✓ Nov. 25, "

Shows no evidence of variation. See B 10 p. 137.

I 10049 checked for identification of star.

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1997phot..prop..41B

Plates on which B.D. +9° 2982. 14h 53m 18.7s +9° 56.1' 9.
has been marked.

- I 1507 ✓ July 22, '90.
- I 1518 ✓ " 23, "
- I 5726 ✓ Feb. 17, '92.
- I 6306 ✓ May 18, '92.
- I 6382 ✓ June 1, "
- I 10919 ✓ Mar. 26, '94.

- 14549 Feb. 25, '96. B 6401 June 28, '91 -
- 17166 ✓ Jan. 19, '97. 16514 ✓ June 29, '96 -
- 1517 July 23, '90 18941 ✓ Apr. 12, '97.
- 787 Mar. 7, '94. 10629 ✓ Nov. 15, '93 -
- 15466 July 14, '96.

Examination shows no trace of any star image in the position given for +9° 2982 9s

Identification checked, I 10919.

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1897phaeo.proj : 811F

Suspected of Var.? in [redacted] O. C. Wendell.
Sept. 12, 1894.

BD +9° 251 1h 52.1m +9° 55' 9.5
+9° 4140 19 25.3 +9 59 9.5

BD. +9° 251

I 4738 ✓
~~2608~~ ✓
4345 ✓
4737 ✓
5134 ✓
7518 ✓
9908 ✓
10506 ✓
~~449~~ ✓
~~1798~~ ✓w
7526 ✓
10447 ✓

B 6738 ✓
10450

+9 4140

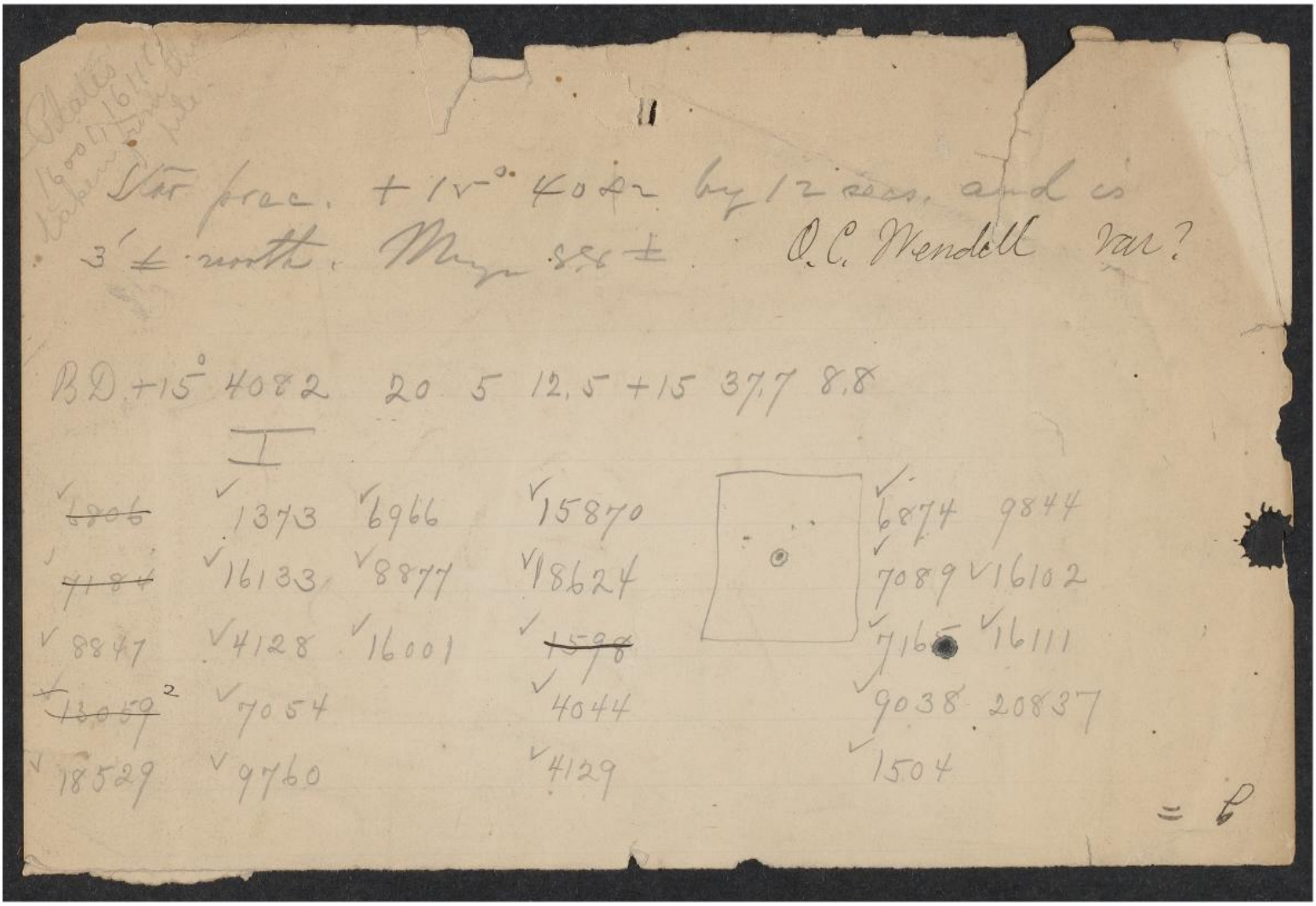
I ~~4138~~ not in it.
8900 missing
~~4447~~
~~8469~~
~~8820~~

B ~~9439~~
~~7832~~

I ~~8782~~
~~9003~~
~~9458~~
~~6828~~
~~3962~~
3975
~~11377~~
1743
~~2093~~

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1897phae.proj..811F



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1997phne.prd - 8/11/1

Plates on which BD +19° 4628 21 h 1 m 51.2 s +19° 50.1 9.5 is marked.

I 158 ✓	I 7246	I 11,677 ✓
3887	7247 ✓	
3984	7274 ✓	
H2557 ✓	7296 ✓	
H359	7281	
H428 ✓	7295	
H443	7425	
H803	8857 ✓	
H952	8907 ✓	
5314	8967	
6794	9044 ✓	
6834 ✓	9274	
6852	9319 ✓	
6866 ✓	9423	
6879 ✓	9761	
6921	9763 ✓	
7120 ✓	11264 ✓	
7138	11396	
7206	11589	

Many of these plates ~~are~~ have been taken away for something else - I will put them back when ~~they~~ Miss F is ready to examine.

D. P. W.

The plates checked off, have been looked up for BD +19° 4628 and also for extra object.

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1997phae.proj - 8C1F

Miss Stevens

[illegible] plates on which [illegible] 14 98 +58 46 [illegible]

has been marked.

E 36	5142	10442
67	5307	10673
1771	5607	10759
2101	5800	10844
2293	6030	10901
2560	6854	10932
2856	7571	11640
3186	7585	11641
3228	7628	11752
3262	7772	11766
3270	7823	11822
3308	8456	12185
3401	9280	12187
3541	9338	
3969	9546	
4267	9784	
4545	9808	
4554	9810	
4814	10202	
4945	10351	
5120	10352	

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1897phae.proj..811F

November 30, 1897.

Exam. of plates of regions of O. C. Wendell's susp. rais.
Dm +9° 2795 $13^h 33^m 37^s$ +9° 56' 95 (1855).

Plates: I 3496, 3565, 3640, 3659, 6264, 6284, 6365, 6376, 10824, 10723, 10588, 8561, and 8541, ~~6365~~, have been examined and the star Dm +9° 2795 does not appear on any of them. There may be some error in the Dm. position.

I 3496	'91	4	26
I 3565	"	5	10
I 3640	"	5	27
I 3659	"	6	1
I 6284	'92	5	16
I 6284	"	5	17
I 6365	"	5	31
I 6376	"	6	1
I 8541	'93	5	15
I 8561	"	"	20
I 10588	'94	1	25
I 10723	"	2	26
I 10824	"	3	16

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1897phae.proj..811F

November 30, 1897.

Exam. of plates of regions of O.C. Wendell's susp. vars.
BD +9° 1144 $6^h\ 5^m\ 49.9$ +9° 56' 9.4 (1855).

Plates I 5443, 5100, 3276, 3087 2658 464 395, 245, 170; 8003, 7790, 5099, 3107, 2666, 122, and 5376.
The star shows a variation of about 0,8 magn. on the last seven of these plates (8003, 7790, 5099, 3107, 2666, 122, and 5376.

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1897phae.proj..811F

November 30, 1897

Examn. of plates of regions of O.C. Wendell's susp. var's.
DM +9°4440 $19^h\ 25^m\ 21^s$ +9° 59' 9.5 (1855)

Plates I 1743, 2093, 3962, 4147, 6828, 7832, 8753, 8782, 8820, 9003, 9439, 9458 and 11377 examined and show no evidence of variation.

I	1743	'90	29
I	2093	"	30
I	3962	'91	8
I	4147	"	4
B	7832	'92	8
I	6828	"	2
I	8753	'93	11
I	8782	"	14
I	8820	"	19
I	9003	"	30
B	9439	"	14
I	9458	"	12
I	11377	'94	21

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1897phae.proj..811F

November 30, 1897.

2 fam. of plates of regions of O. C. Wendell's susp. var.
DM +9° 4080.

Plates I 1743, 2093, 3962, 3975, 4138, 4147, 4592, 6828, 7832, ~~7853, 76~~ 8753, 8782, ~~8820~~, 8956, 9003, 9076, 9439, and 11377 examined and show no evidence of variation in DM +9° 4080.

I 1743	'90	8	29
I 2093	"	10	30
I 3962	'91	8	8
I 3975	"	8	10
I 4138	"	9	3
I 4147	"	9	4
I 4592	"	10	21
B 7832	'92	6	8
I 6828	"	9	2
I 8753	'93	7	~~93~~ 11
B 9439	"	5	14
I 8782	"	7	14
I 8820	"	7	19
I 8956	"	7	27
I 9003	"	7	30
I 9076	"	8	4
I 11377	'94	8	21

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1897phae.proj..811F

November 30, 1897.

Exam. of plates of region of D.C. Wendell's susp. var's.
DM +9° 2316 $10^h\ 4.^m8$ +9° 51' 9.5 (1855.

Plates I 10041, 5908, 5062, 5061, 3356, 966, 8271, 6174, 6055, 6040, and 5995 examined. The star is very faint and does not appear on 10041, 5908, 5062, 5061, 3356 and 966 as they are not good enough to show faint stars. It appears on 8271, 6174, 6055, 6040, and 5995 but does not show any evidence of variation.

I	966	'90	4 5
I	3356	'91	3 26
I	5061	"	12 10
I	5062	"	12 10
I	5908	'92	3 19
I	5995	"	3 31
I	6040	"	4 9
I	6055	"	4 11
I	6174	"	4 26
I	8271	'93	3 21
I	10041	"	11 24

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1897phae.proj..811F

December 1, 1897.

Exam. of plates of regions of O. C. Wendell's susp. var's.
DM. +49°251 1h 52h 6m +49°55 (1855).

Plates I 5134, 4738, 4345, 3130, 2768, 2608, 1798, 467, 11604, 10071, 10451, 10450, 9908, 7526, 449 examined and show no apparent evidence of variation. Plates I 10556, 9497, 7518, 6738 and 5192 shows a variation of about 0.5 magn. Hazel Miss Leland make measures.

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1897phae.proj..811F

December 1, 1897

Examn. of plates of regions of O.C. Wendell's suspicions.
DM +19° 1743 $4^h 21^m 0^s$ +19° 56' 7.0 (855).

Plates I 9997, 12335, 9874, 8165, 8151, 8055, 5805, 5565, 10559, 10328, 10212, 5496, 5492, 4937, 2797, 5051, 3381, 3217, 3148, 3067, 2944, 2746, 2429, 893, & 2238, examined show slight if any evidence of variation. The comparison was difficult owing to the magnitude of the star.

I 893	'90	3	27
I 2238	"	11	12
I 2429	"	12	4
I 2749	'91	1	8
I 2797	"	1	12
I 2944	"	1	30
I 3067	"	2	13
I 3148	"	2	22
I 3217	"	3	1
I 3385	"	4	1
I 4937	"	12	1
I 5051	"	12	10
I 5492	'92	1	31
I 5496	"	2	1
I 5565	"	2	6
I 5805	"	3	6
I 8055	'93	2	15
I 8151	"	2	28
I 8165	'93	3	2
I 9874	"	11	1
I 9997	"	11	22
I 10212	"	12	19
I 10328	"	12	28
I 10559	'94	1	25
I 12335	'95	2	11

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1897phae.proj..811F

December 1, 1897.

Exam. of plates of regions of O.C. Wendell's susp. vars. BD +19° 748 and +19° 783.

Plates I 519, 720, 2403, 4643, 4644, 5037, 5038, 5090, 5091, 5269, 5294, 5334, 5367, 5406, 5438, 7685, 7701, 7742, 7765, 9584, 10147, 10289, 10459 and 10513 examined show no evidence of variation in BD +19° 748 or in +19° 783.

I	519	'90	1	20	I	9584	'93	10	5
I	720	"	3	3	I	10147	"	12	10
I	2403	"	12	2	I	10289	"	12	25
I	4643	'91	10	28	I	10459	'94	1	19
I	4644	"	10	28	I	10513	"	1	20
I	5037	"	12	10					
I	5038	"	12	10					
I	5090	"	12	11					
I	5091	"	12	11					
I	5269	"	12	19					
I	5294	"	12	30					
I	5334	'92	1	5					
I	5367	"	1	8					
I	5406	"	1	16					
I	5438	"	1	21					
I	7685	"	12	16					
I	7701	"	12	20					
I	7742	"	12	24					
I	7765	"	12	28					

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1897phae.proj..811F

December 3, 1897.

Exam. of plates of region of D.C. Wendell susp. var.
DM +19° 5016 $22^h 46^m 57^s$ +19° 56' 9".5

Plates I 9850, 10049, 9427, 9071, 7371, 7231, 7151, 4601, 4558, 4211, and 1706 examined. Show no evidence of variation in DM +19° 5016.

I	1706	'90	8 27
I	4211	'91	9 10
I	4367	"	9 26
I	4558	"	10 17
I	4601	"	10 21
I	7151	'92	9 21
I	7231	"	9 30
I	7371	"	10 19
I	9071	'93	8 3
I	9427	"	9 9
I	9850	"	10 31
I	10049	"	11 25

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1897phae.proj..811F

December 3, 1897.

Exam. of region of star susp. of var. &c.

DM. +9° 2982 $14^h 53^m 19^s$ +9° 56' 9.5 (1855)

Plates I 1507, 1518, 5726, 6306 6382, 10919, 14549, 17166, 1517, 10877, 15466, B 6401, 16514, and 18941 examined show no trace of any star image in the position given for +9° 2982.

I 1507	'90	7	22
I 1517	"	7	23
I 1518	"	7	23
B 6401	'91	6	23
I 5726	'92	2	17
I 6306	"	5	18
I 6382	"	6	1
B 10629	'93	11	15
I 10787	'94	3	7
I 10919	"	3	26
I 14549	'96	2	25
B I 16514	"	6	29
I 15466	"	7	14
I 17166	'97	1	19
B 18941	"	4	12

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1897phae.proj..811F

December 15, 1897.

Exam. of plates of region of Dm +19° 1041 8.8
RA 5h 34m 32.0 Dec. +19° 59.0 (1855)

Plates	
I 3063	Feb. 13, 1891
I 5640	" 15, 1892
I 5220	Dec. 17, 1891
I 7936	Jan. 21, 1893
I 10367	Jan. 2, 1894
I 14198	Jan. 1, 1896
I 17403	Feb. 24, 1897.
I 14718	Mar. 27. 1896
I 13966	Nov. 30, 1895.
I 17326	Feb. 13, 1897.
7965	Jan. 25, 1893.

The above plates have been examined and show no evidence of variation in Dm +19° 1041
On all of them it appears to be about 0.2 brighter than Dm +19° 1036 9.4, and 0.3 fainter than Dm +19° 1038 9.0
There is apparently an error in declination in the Dm position of +19° 1039 or in +19° 1014 and 1041.

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1897phae.proj..811F

December 29 1897

Meas. to determine separation of two components of μ^1 Scorpii.

Plate 8468 Pitts. & F. Rec.

c 648 8
656
b 743
751 8
743
c a = Hγ 782 9
Hβ 333
Hδ 1094 25

✓	8	80	15	38	10	7	105
✓	8	83	8	43	8	7	
✓	11	78	8	40	11	8	
✓	12	80	6	40	11	8	
	9.8		9.2		10.0		
	38		37	161	40		

115/12 = 9.6

8.3

μ^1 Scorpii

a 1 835 6
a 2 841
b 1 920 6
b 2 926
c 1 970 9
c 2 979 21

✓	6	74	6	44	9	7	μ^1 Scorpii
✓	9	80	8	45	7	7	
✓	7	80 107	8	44	8	8	= 8.1
	~~67~~	79.3		42.0	~~26~~		= 8.4
	19		22				
	8.1		8.4	133 294 420	9.1		47/8 = 5.2 = 9.1

79.3 87.5 42.0 50.8

19/2 = 9.5 24/65 = 7.2 39/37/40/116/12 = 9.4

7.0 a.g.c 10534. 27. ds. Pure

c, 650 8
555 15
507 10
658
570
Hγ 517

33.
110

780 4
689 8
638 4
788
697
646

40.

788 8
780 83
687 8
689 43
646 8
638

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1897phae..proj..811F

December 29 1897. a Ser 10534

Means to determine separation of two components of μ Serpentis

Plate X 8063

833	a_1	11						
922	b_1	8						
970	c_1	11		4471.8	84.0	87.5 −4.6	82.9	−1.1
844	a_2			4387.8	47.1	508 −27	48.1	+1.0
930	b_2		H_γ	4340.7				
981	c_2				131.1	138.3	7.3	

3003 / 44 — 73 / 6915 / 3850 — 1383 / .053 — 73 / 653 / 657 — 19

736	12	132103 / 4403	9.6 − 5 = 9.1	620 km	α 10534
828±	6		7.6 − 4 = 7.2	490 km	μ Serpentis
874	11				
748					
834					
885					

4388 : 9.1 = 300,000 : v

4388 : 72 = 300,000 : v

27 3000 / 264 / 90 — 144 / 67 — 216 / 176 / 400 — 144 / 49

10.0 9.7

μ Serpentis Mr. T. de Rien

267 / 264 / 30 — 144 / 610

561	6		650	7		657	7
473	4	204 / 176 / 280 — 144 / 264 / 160	[573][562]	8,9		650	40
421	7		570	8		570	8
567			657			562	44
481			[570][571]			578	8
424			518			570	

6 7 / 7.3 / 80 / 10 / 7.3

6 6 / 6 8 / 9 7

21 / 7.0

9.4 − 5 = 8.9

7.2 − 4 = 6.8

84

7.8 / 7.54 / 146 / 365 / 38 — 1883 / 1314 / 131.1 / 10558 / 780 / 650 / 650

72 / 6915 / 2850 — 1883 / .52

94 / 52 / 188 / 470 / 45

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1897phae.proj..811F

January 8, 1898.

Exam. of + 33° 3049 on Chart photographs.

Plates	Dates
I 6599	July 18, 1892
I ~~18970~~	~~Dec. 24, 1897~~ Sept. 18
I 15538	July 28, 1896
I 15435	July 9, 1896.
I 11105	May 14, 1894
I 9108	Aug. 8, 1893
I 8730	July. 10. 1893

On examination of the photographic image of + 33° 3049 mag. 7.4 on the above plates shows no evidence of variation in the magnitude of this object. As compared with other stars it is about 9.0 magnitude on all of these plates.

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1897phae.proj..811f

January 8, 1898.

Eform. of chart photographs to determine variation if any in star south following DM +9°583. (See note of W. M. Reid).

Plate	Date.
I. 4641	Oct. 28, 1891.
.5035-	Dec. 10, 1891
.5333	Jan. 5, 1892.
.5405	Jan. 16, 1892.
.7684	Dec. 16, 1892.
.10523	June 22, 1894
.16337	Oct. 26, 1896.
.16365-	Oct. 27, 1896.
.17146	Jan. 19, 1897.
.19028	Sept. 26, 1897.
.19965-	Jan. 5, 1898
.19966	Jan. 5, 1898

An examination of this object on the above plates shows slight, if any, variation in the star south following DM +9°583

I 2950, 10299, 516, 19166, 19918, 13877, 12396, 4860, 5202, 5350 + 7906. These additional plates were examined by M.F. Nov 8, 1900. No further evidence of variation found.

E. L.

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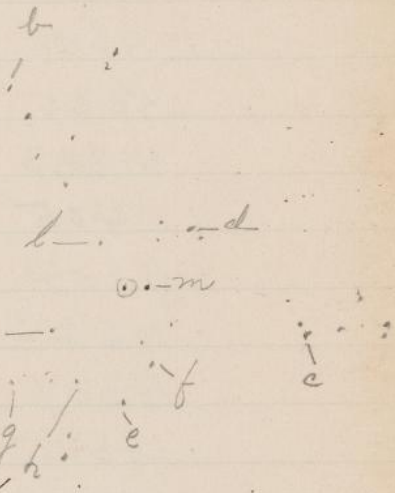
1897phae.proj..811F

January 31, 1898

Meds. of new var. stars in
Dp. Lyre IV. Rec'd in A 2023 No. 18, R.A. 20h 6.8m Dec. -44.8° 187

Plate B 13267.

a	6.7		
b	7.2		
c	7.5		
d	7.9		
e	8.0		
f	8.3		
10.15 g	8.5	10.25, 10.33 = 10.29 .04 .04	
10.33 h	8.8	10.53	
k	9.1		
l	9.4		
m	9.7		
var. i	8.6	10.15 g 1 v	10.25, 10.33 = 10.29 .04 04
		10.33 v 2 h	10.53



B 17695

9.02 c 2 v	9.22, 9.27 = 9.24 .02 .03	
9.27 v 1 d	9.37	

B 16148

10.15 g 2 v	10.35, 10.43 = 10.39 .04 .04	
10.43 v 1 h	10.53	

B 15959

10.15 g 2 v	10.35, 10.43 = 10.39 .04 .04	
10.43 v 1 h	10.53	

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1897phae.prj - 811F

(Cont.

Meas. new Var. in

B 15564 ✓

9.37 d 2 v 9.57, 9.45 = 9.51 .06, .06
9.45 v 1 e 9.55

B 15458 ✓

9.37 d 2 v 9.57, 9.35 = 9.46 11, 11
9.35 v 2 e 9.55

B 12469 ✓

9.37 d 3 v 9.67, 9.45 = 9.56 11, 11
9.45 v 1 e 9.55

B 16643 ✓

10.53 h 1 v 10.63, 10.65 = 10.64 .01, .01
10.65 v 2 K 10.85

B 10646 ✓

9.87 f 1 v 9.97, 9.95 = 9.96 .01, .01
9.95 v 2 g 10.15

B 11071 ✓

9.55 e 1 v 9.65, 9.67 = 9.66 .01 .01
9.67 v 2 f 9.87

B 19222 ✓

9.55 e 2 v 9.75, 9.67 = 9.71 .04, 04
9.67 v 2 f 9.87

B 15084 ✓

10.85 K 1 v 10.95, 10.95 = 10.95 00 00
10.95 v 2 e 11.15

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1897phae.proj..811f

January 31, 1898

Meas. of new Var in .

B 15049 ✓

10.85 K 2 v 11.05 10.95 = 11.00 .05, .05
10.95 v 2 l 11.15

B 13143 ✓

10.85 K 2 v 11.05, 10.95 = 11.00 .05, .05
10.95 v 2 l 11.15

B 13006 ✓

10.85 K 3 v 11.15, 11.05 = 11.10 .05 .05
11.05 v 1 l 11.15

B 13221 ✓

10.15 g 3 v 10.45, 10.43 = 10.44 .01, .01
10.43 v 1 l 10.53

B 17657 ✓

9.02 C 1 v 9.12, 9.17 = 9.14 .02, .03
9.17 v 2 d 9.37

B 16109 ✓

10.15 g 3 v 10.45, 10.53 = 10.49 .04 .04
10.53 v 0 l 10.53
K n.s.

B 17720 ✓

9.37 d 1 v 9.47, 9.35 = 9.41 .06 .06
9.35 v 2 l 9.55

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1897phas..fold..81L

Cont.

West of New York in

B 17728 ✓

8.72 b 3v 9.02, 8.92 = 8.97 .05, .05
8.92 v 1c 9.02

B 14831 ✓

10.53 h 3v 10.83, 10.85 = 10.84 .01 .01
10.85 v 0 K 10.85
l n.s.

B 14857 ✓

10.53 h 2v 10.73, 10.65 = 10.69 .04, .04
10.65 v 2 K 10.85

B 15895 ✓

10.15 g 2v 10.35, 10.43 = 10.39 .04 .04,
10.43 v 1 h 10.53

B 16297 ✓

10.15 g 3v 10.45, 10.43 = 10.44 .01, .01
10.43 v 1 h 10.53

B 16420 ✓

10.53 h 1v 10.63 10.63
K n.s

B 13268 ✓

10.15 g 3v 10.45, 10.53, 10.55 = 10.51 .06, .02, .04,
10.53 v 0 h 10.53
10.55 v 3 K 10.85

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January 31, 1898

Meas. New Var. in

B 4359 ✓

9.37 d 1 v 9.47, 9.45 = 9.46 .01, .01
9.45 v 1 e 9.55

B 5246 ✓

9.55 e & 2 v 9.75, 9.77 = 9.76 .01 .01
9.77 v 1 f 9.87

B 3580 ✓

11.15 & e = .2 11.35 11.4
v n.s

B 11690 Sp. too poor. ✓

B 11536 ✓

9.55 e = .2 9.75 9.75
v n.s.

B 6686 ✓

10.15 g = .1 10.25 10.2
v n.s

B 8393 Sp. too poor. ✓

B 8435 Sp. too poor. ✓

B 8434 Sp. too poor ✓

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1897phae.proj..811F

(Cont.

Meas. New Vak. in

B 5941 Plate too poor

B 5943 Too poor –

B 4006 Too poor –

B 3816 Sp. Too poor

B 3595 Sp. too poor

B 3629

10.85 K = .2 11.05 11.0

v n.s

B 3668 Sp. too poor –

B 3410 Sp. too poor

B 3640 Sp. too poor

B 3427 Sp. too poor

B 3579

g 10.53 h = .1 10.63 10.6

v n.s

B 5206 Sp. too poor

B 5204 Sp. too poor

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1897phae.proj..811F

January 31, 1898

Meas. New Var.

B 5049 Sp. too poor

B 5106 Sp. too poor

B 4355

9.37 d 2 v 9.57, 9.45 = 9.51 .06, .06
9.45 v 1 e 9.55

B 4352

c not on plate

9.27 v 1 d 9.37 9.27, 9.15 = 9.21 .06, .06
9.15 v 4 e 9.55

B 11489 Sp. too poor

B 11495 Sp. too poor

B 11328 Sp. too poor.

B 11124 Sp. too poor

B 6669 Sp. too poor

B 6167 too poor

B 8152 Sp. too poor

B 8019 Sp. too poor

B 7011 Sp. too poor

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Cont.

Meas New Var in

B9926

a 7.0
b 7.5
c 7.8
d 8.1
e 8.3
9.87 f 8.6 9.97, 9.95 = 9.96 .01 .01
9.95 g 8.9 10.15
h 9.3
K 9.6
l 9.9
m 10.3
var. 8.7
9.87 f 2 v 10.07, 10.05 = 10.06 .01 .01
10.05 v 1 g 10.15

B 11070

9.02 c 2 v 9.22, 9.27 = 9.24 .02 .03
9.27 v 1 d 9.37

B 11806

10.53 h 3 v 10.83, 10.85 = 10.84 .01 .01
10.85 v 0 K 10.85
l n.s

B 11700

10.16 g = 1 10.25 10.2
v n.s

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1897phae.proj..811F

January 31, 1897

Meas. Rev Vak in

B 11967 ✓

10.15 g 3 v 10.45, 10.53, 10.55 = 10.51 .06 .02, .04,
10.53 v 0 h 10.53
10.55 v 3 K 10.85

B 8717 ✓

10.15 g 3 v 10.45, 10.53, 10.55 = 10.51 .06 .02, .04,
10.53 v 0 h 10.53
10.55 v 3 K 10.85

B 10460 ✓

9.55 k 2 v 9.75, 9.67 = 9.71 .04, .04
9.67 v 2 f 9.87

B 10313 ✓

too near edge of plate.

B 9925 ✓

9.55 e 4 v 9.95, 9.87, 9.85 = 9.89 .06, .02, .04
9.87 v 0 f 9.87
9.85 v 3 g 10.15

B 9866 ✓

9.55 h 3 v 9.85, 9.77 = 9.81 .04, .04
9.77 v 1 f 9.87

B 9727 ✓

10.53 h 1 v 10.63, 10.65 = 10.64 .01 .01
10.65 v 2 K 10.85

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1897phae.proj..811F

Cont.

Meas. new var in

✓ B 9728 ✓

10.53 h 2 v 10.73, 10.75 = 10.74 .01 .01,
10.75 v 1 K 10.85

✓ B 11645 ✓

10.15 g 1 v 10.25, 10.33 = 10.29 .04 .04
10.33 v 2 L 10.53

✓ B 13100 ✓

10.85 K 2 v 11.05, 11.05 = 11.05 00 00
11.05 v 1 L 11.15

✓ B 6864 too poor ✓

✓ B 10645 ✓

9.55 L 2 v 9.75, 9.77 = 9.76 .01 .01
9.77 v 1 f 9.87

✓ B 6985 Sp. too poor ✓

✓ B 12510 ✓

9.37 d 1 v 9.47, 9.35 = 9.41, .06, .06
9.35 v 2 e 9.55

✓ B 15454 too poor ✓

✓ B 15590 ✓

9.37 d 3 v 9.67, 9.55, 9.57 = 9.60 .07, .05, .03
9.55 v 0 e 9.55
9.57 v 3 f 9.57

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1897phae.proj..811F

January 31, 1898 Cont.

Meas. new Vak – ie

B 15561 ✓

9.37 d 3 v 9.67, 9.53, 9.57 = 9.60 .07, .05 .03
9.55 v o e 9.55
9.57 v 3 f 9.87

B 15747 ✓

10.15 g 1 v 10.25, 10.33 = 10.29 .04 .04,
10.33 v 2 h 10.53

B 15789 ✓

10.15 g 2 v 10.35, 10.33 = 10.34 .01, .01
10.33 v 2 h 10.53

B 12270 Sp. too poor – ✓

B 12269 Sp. ✓

9.55 e = .3 9.85 9.85
v w.s

B 12194 ✓

10.15 g 2 v 10.35, 10.43 = 10.39 .04, .04,
10.43 v 1 h 10.53

B 12178 ✓

10.53 h 3 v 10.83, 10.85 = 10.84 .01 .01
10.85 v o K 10.85
l w.s.

B 12002 Sp. too poor – ✓

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Cont.

Ulea. New Vak -

✓ B 12048 Sp. too good - ✓

✓ B 12142 ✓

10.85 K 1 v 10.95, 10.95 = 10.95 00 00

10.95 v 2 l 11.15

✓ B 12176 ✓

10.85 K 2 v 11.05, 11.05, = 11.05 00 00

11.06 v 1 l 11.15

✓ B 17242 ✓

8.72 b 3 v 9.02, 8.92 = 8.97 .05, .05

8.92 v 1 c 9.02

✓ B 17492 ✓

9.55 l 3 v 9.85, 9.77 = 9.81 .04 .04

9.77 v 1 f 9.87

✓ B 14253 ✓

9.37 d 2 3 v 9.57, 9.45 = 10.51 .06, .06

9.45 v 1 l 9.55

✓ B 13899 ✓

9.55 l 2 v 9.75, 9.67 = 9.71 .04, .04

9.67 v 2 f 9.87

✓ B 13900 ✓

9.55 v l 1 v 9.65, 9.57 = 9.61 .04, .04

9.57 v 3 f 9.87

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1897phae.proj..811F

January 31, 1898

Cont.

Meas. new Vak. in ✓

✓ B 12923

10.53 h 1 v 10.63, 10.55 = 10.59 .04, .04
10.55 v 3 k 10.85

✓

✓ B 19225

9.37 d 1 v 9.47, 9.35 = 9.41 .06, .06
9.35 v 2 e 9.55

✓

✓ B 19095

9.02 e 2 v 9.22, 9.17 = 9.20 .02, .03
9.17 v 2 d 9.37

✓

✓ B 14404

9.02 c 1 v 9.12, 9.07 = 9.10 .02, .03
9.07 v 3 d 9.37

✓

✓ B 14510

9.55 e 3 v 9.85, 9.77 = 9.81 .04, .04
9.77 v 1 f 9.87

✓

✓ B 6166 too near edge of plate

✓

✓ B 6138

9.87 f 2 v 10.07, 10.05 = 10.06 .01 .01
10.05 v 1 g 10.15

✓

✓ B 6139

9.55 e 3 v 9.85, 9.77 = 9.81 .04, .04
9.77 v 1 f 9.87

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Uncat. New Var. ies

B 6682 too poor ✓

B 6675 Sf. too poor ✓

B 6595 ✓
9.87 f 2 v 10.07, 10.05 = 10.06 .01, .01
10.05 v 1 g 10.15

B 6172 too poor. ✓

B 8010 Sf. too poor ✓

B 9729 ✓
10.85 K 1 V 10.95, 10.85 = 10.90 .05, .05
10.85 V 3 L 11.15

B 9732 too poor. ✓

B 9601 Sf. too poor. ✓

B 9819 ✓
9.55 e 3 v 9.85, 9.77 = 9.81 .04, .04
9.77 v 1 f 9.87

B 9698 ✓
10.53 L 3 V 10.83, 10.75 = 10.79 .04, .04
10.75 V 1 K. 10.85 ✓

B 9600 Sf. too poor

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1897phae.proj..811F

January 31, 1897

Cont.

Meas New Vals in

B 16626 ✓

10.53 h 2 v 10.73, 10.75 = 10.74 .01 .01,
10.75 v 1 K 10.85

B 16905 ✓

10.15 g 2 v 10.35, 10.43 = 10.39 .04, .04
10.43 v 1 h 10.53

B 16658 ✓

10.53 h 2 v 10.73, 10.75 = 10.74 .01 .01,
10.75 v 1 K 10.85

B 16454 ✓

10.53 h 2 v 10.73, 10.75 = 10.74 .01 .01
10.75 v 1 K 10.85

B 17244 ✓

8.72 b 2 v 8.92, 9.82 = 9.87 = .05, .05
8.82 v 2 c 9.02

B 14503 ✓

9.55 e 2 v 9.75, 9.67, = 9.71 .04, .04
9.67 v 2 f 9.87

B 17082 ✓

9.55 e 1 v 9.65, 9.67 = 9.66 .01, .01
9.67 v 2 f 9.87

B 16901 ✓

10.15 g 2 v 10.35, 10.33 = 10.34 .01 .01
10.33 v 2 h 10.53

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1897phae.proj..811F

Meas. New Var. in

B 10461

a 7.5
b 7.9
c 8.2
9.37 d 8.5 9.47, 9.45 = 9.46 .01 .01
9.45 e 8.7 9.55
f 9.0
g 9.3
h 9.7
K 10.0
l 10.3
m 10.6
var. 8.6

9.37 d 2 v 9.57, 9.47 = 9.52 .05 .05 d6 d6
9.47 v 1 e 9.55

B 17151

9.55 e 2 v 9.75, 9.67 = 9.71 .04, .04
9.67 v 2 f 9.87

B 14299

9.02 c 2 v 9.22, 9.17 = 9.20 .02, .03
9.17 v 2 d 9.37

B 14095

9.55 e 2 v 9.75, 9.67 = 9.71 .04, .04
9.67 v 2 f 9.87

B 14550

9.05 e 3 v 9.85, 9.77, = 9.81 .04, .04
9.77 v 1 f 9.87

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1897phae.proj..811F

January 31, 1898

Meas. new Var. in

B 14402 ✓

9.02 C 2 v 9.22, 9.17 = 9.20 .02, .03
9.17 v 2 d 9.37

B 14403 ✓

9.02 C 3 v 9.32, 9.27, = 9.30 .02, .03
9.27 v 1 d 9.37

B 12885 ✓

9.87 f 3 v 10.17, 10.05 = 10.11 .06, .06
10.05 v 1 g 10.15

B 13894 ✓

9.37 d 1 v 9.47, 9.35 = 9.41 .06 .06
9.35 v 2 e 9.55

B 16584 ✓

10.53 h 1 v 10.63, 10.65 = 10.64 .01 .01
10.65 v 2 K 10.85

B 13548 ✓

9.37 d 1 v 9.47, 9.35 = 9.41 .06, .06
9.35 v 2 e 9.55

B 14508 ✓

9.55 e 1 v 9.65, 9.57 = 9.61 .04, .04
9.57 v 3 f 9.87

B 15086 ✓

10.85 K 1 v 10.95, 10.95 = 10.95 00 00
10.95 v 2 l 11.15

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1897phae.proj..811F

Cont

Meas. new Var. in

B15087 ✓

10.53 h 3 v 10.83, 10.75 = 10.79 .04, .04

10.75 v 1 K 10.85

B 18057 ✓

9.55 l 1 v 9.65, 9.57 = 9.61 .04, .04

9.57 v 3 f 9.87

B 18029 ✓

9.55 l 2 v 9.75, 9.77 = 9.76 .01 .01

9.77 v 1 f 9.87

B 17990 ✓

8.72 h 3 v 9.02, 8.92 = 8.97 .05 .05

8.92 v 1 c 9.02

B 17838 ✓

9.02 c 1 v 9.12, 9.17 = 9.14 .02 .03

9.17 v 2 d 9.37

B 17510 ✓

9.37 d 1 v 9.47, 9.35 = 9.41 .06, .06

9.35 v 2 e 9.50

B 17625 ✓

9.02 c 2 v 9.22, 9.17 = 9.20 .02, .03

9.17 v 2 d 9.37

B 13506 ✓

9.50 e 1 v 9.65, 9.57 = 9.61 .04 .04

9.57 v 3 f 9.87

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January 31, 1897

Meas. New Var. in

B 15088 ✓

10.53 h 3 v 10.83, 10.75, = 10.79 .04, .04
10.75 v 1 K 10.85

✓

B 17063 Sq.

9.56 2 1 v 9.65, 9.67 = 9.66 .01, .01
9.67 v 2 f 9.87

✓

B 5247 ✓

9.87 f 1 v 9.97, 9.95 = 9.96 .01, .01
9.95 v 2 g 10.15

✓

B 14830

10.53 h 3 v 10.83, 10.75 = 10.79 .04, .04
10.75 v 1 K 10.85

✓

B 13545

9.55 2 1 v 9.65, 9.57 = 9.61 .04, .04
9.57 v 3 f 9.87

✓

B 6640 Sq. too poor

✓

B 7422

10.53 h 2 v 10.73, 10.75, = 10.74 .01 .01,
10.75 v 1 K 10.85

✓

B 7445

10.15 g 2 v 10.35, 10.43 = 10.39 .04 .04,
10.43 v 1 h 10.53

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1897phae.proj..811F

B 18816 Broken and destroyed
B 18818 " " "
B 18819 " " "

A 2023 Sq-

8.72 b 3v 9.02, 8.92 = 8.97 .05, .05
8.92 v 1 c 9.02

B 11968

a 6.8
b 7.3
c 7.6
d 8.0
e 8.2
f 8.6
g 8.9
h 9.3 10.83, 10.75 = 10.79 .04, .04
K 9.7 10.85
l 10.0
m 10.3
var. 9.6

10.53 h 3 v 10.83, 10.75 = 10.79 .04, .04
10.75 v 1 K 10.85

B 3731

11.15 l 2 v 11.35, 11.27 = 11.31 .04, .04
11.27 v 2 m 11.47

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1897phae.proj..811F

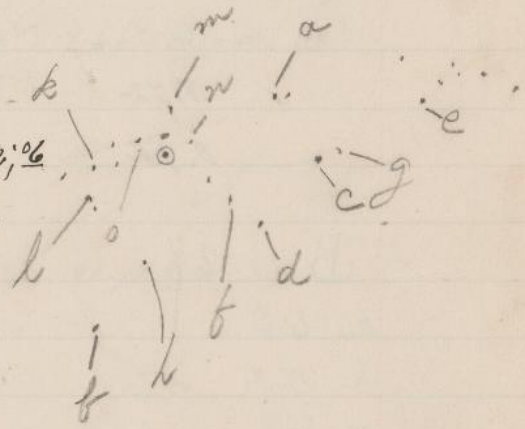
February 7, 1898.

New var. star in Puppis (L.D.W.)

Sp. Type IV m B10866 No. 4457 DM -22° 2160 8h 1.m2 -22° 30' (1855)

Plate B10903

	a	6.5		
	b	6.9		
	c	7.2		
	d	7.4		
	e	7.7		
9.76	f	8.0	10.06, 10.04, 9.96 = 10.02	.04, .02, .06
10.04	g	8.3	10.04	
9.96	h	8.7	10.36	
	k	9.0		
	l	9.4		
	m	9.6		
	n	10.0		
	o	10.4		
	var.	8.3	9.76 f 4 v	10.16, 10.04, 10.06 = 10.09 .07, .05 .03
			10.04 v 0 g	10.04
			10.06 v 3 h	10.36



B 20602 does not cover region

B 20603 " " "

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1897phae..prbj..811F

Cont.

New var. Star in Puppis

B 15078 ✓

11.18 m 2 v 11.38, 11.28 = 11.33 .05, .05
11.28 v 3 n 11.58

B 4909 ✓

11.18 m 4 v 11.58, 11.48 = 11.53 .05, .05
11.48 v 1 n 11.58

B 4975 ✓

11.18 m = .3 11.48 = 11.28
v = .2 1098 l 4 v 11.38, 11.28, 11.33 .05 .05
n n.s. 11.18 m 1 v
n n.s

B 7500 ✓

10.98 l 2 v 11.18, 10.98 = 11.08 10, 10
10.98 v 2 m 11.18

B 4907 ✓

11.18 m 1 v 11.28, 11.28 = 11.28 00 00
11.28 v 3 n 11.58

B 15156 ~~Sp.~~

10.36 n = .2 10.56 10.56
v n.s

B 8826 Sp. too poor ✓

B 4609 ✓

11.58 n = .3 11.88 11.78
v = .1

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1897phae.proj..811F

February 7, 1898 (Cont

New Var. Star in Puppis

B 15306

11.18 u 5v 11.68, 11.58 = 11.63 .05, .05
11.58 x v 0 2 w 11.58

B 10530

a 6.7
b 7.0
c 7.3
d 7.7
e 8.0
f 8.2
g 8.5
10.36 h 8.8 10.46, 10.46 = 10.46 00 00
10.46 K 9.1 10.66
l 9.4
m 9.6
n 10.0
o 10.4
Var. 8.9

10.36 h 2 v 10.56, 10.56 = 10.56 00 00
10.56 v 1 K 10.66

B 9180

B 11036 Sq.

10.04 g = .2 10.24 10.24
v n.s.

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1897phae.proj..811F

Ont.

New var. Star in Puppis

B 4974 ✓

11.18 m 3 v = 11.48 = 11.28 ✓

v = .2

n n.s.

B 1120 Sq. too poor

B 401 Sq. too poor ✓

B 416 Sq. too poor ✓

B 400. Sq. too poor ✓

B 7415 Sq. too poor ✓

B 13092 Sq. too poor ✓

B. 4908 Sq. too poor ✓

B 5827 Sq. too poor ✓

B 7257 Sq. too poor ✓

B 7237 Sq. too poor ✓

B 10947 ✓

9.76 ℓ 2 v 9.96, 9.84 = 9.90 .06, .06

9.84 v 2 g - 10.04

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1897phae.proj..811F

February 7, 1897 Cont.

New Vale. Stale in Puppis

B 10782 Sq. Sco Spec ✓

B 13013

a 6.6
b 6.9
c 7.2
d 7.5
e 7.7
f 7.9
10.04 g 8.1 10.24, 10.26 = 10.25 .01 .01
10.26 h 8.4 10.36
K 8.7
l 9.0
m 9.2
n 9.6
o 10.1
Vale- 8.3

10.04 g 2 v 10.24, 10.16 = 10.20 .04, .04
10.16 v 2 h 10.36

B 8926 ✓
9.76 f 3 v 10.06, 10.04, 10.06 = 10.05 .01, .01 .01
10.04 v 0 g 10.04
10.06 v 3 h 10.36

B 15263 Sq- ✓
10.04 g 2 v 10.24, 10.26 = 10.25 .01, .01
10.26 v 1 h 10.36

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1897phae.proj..811F

Cont.

New Vak. Star in Suppis.

B 15227
10.66 K = .2 = 10.88 ✓
v n.S on edge of plate

B 18237 too near edge of plate ✓

~~B 18236~~ B 18236 too near edge of plate ✓

B 18222 too near edge of plate ✓

B 18199 ✓
10.04 g 4 v 10.44, 10.36, 10.36 = 10.39 .05, .03 .03
10.36 v 0 h 10.36
10.36 v 3 K 10.66

B 18088 ✓
10.04 g 2 v 10.24, 10.26 = 10.25 .01 .01
10.26 v 1 h 10.36

B 18078 ✓
10.04 g 1 v 10.14, 10.16 = 10.15 .01, .01,
10.16 v 2 h 10.36

B 15599 Sp - ✓
10.04 g 1 v 10.14, 10.16 = 10.15 .01, .01,
10.16 v 2 h 10.36

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1897phae.proj..811F

February 7, 1898 (Cont.

New variable Star in Puppis

B 15307 ✓

10.66 K 3 v 10.96, 10.88 = 10.92 .04, .04
10.88 v 1 e 10.98

I 2152 ✓ too near edge of plate

I 2478 Sp ✓ too poor –

B 10866 Sp – ✓

9.26 d 1 v 9.36, 9.34 = 9.35 -01 .01
9.34 v 2 e 9.54

I 873

a 6.8
b 7.1
c 7.4
d 7.6
e 7.9
f 8.1
g 8.4
h 8.7
k 9.0
l 9.3
11.18 m 9.5 11.28, 11.28 = 11.28 00 00
11.28 n 9.9 11.58.
o 10.3
Var – 9.6 11.18 m 1 v 11.28, 11.28 = 11.28 00 00
11.28 v 3 n 11.58

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1897phae.proj..811F

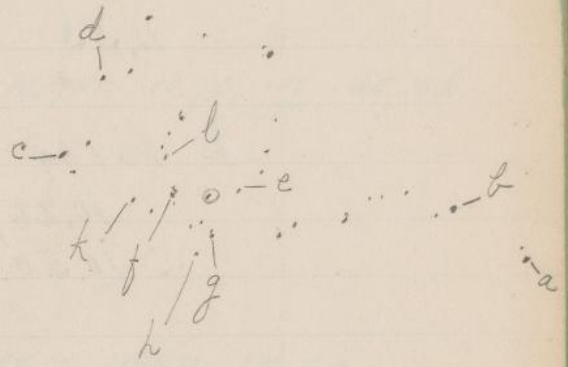
February 9, 1898

New variable Star in Centaurus.

Sp. Md? in A 2218 No. . R.A. $13^h\ 16^m.1$ Dec. $-61°\ 3'$ (1900)

Plate B 3543

a	6.6		
b	7.1		
c	7.5		
d	7.8		
10.70 e	8.2	10.80, 10.68 = 10.74 .06, .06	
10.68 f	8.7	10.8	
g	9.0		
h	9.3		
k	9.6		
l	9.9		
var.	8.3		



✓

10.70 e 1 v 10.80, 10.78 = 10.79 .01, .01

10.78 v 3 f 11.08

✓

B 1891b

10.22 d 4 v 10.62, 10.60 = 10.61 .01, .01

10.60 v 1 e 10.70

✓

B 1989z Sp.

10.22 d 3 v 10.52, 10.60 = 10.56 .04, .04

10.60 v 1 e 10.70

B 1986g Sp.

10.22 d 4 v 10.62, 10.60 = 10.61 .01, .01

10.60 v 1 e 10.70

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1897phae.proj..811F

February 9, 1898

Cont

Meas of
New Variable Star in Centaurus

B 9456 Sp. too poor ✓

B 9549 ✓
11.08 f 2 v 11.28, 11.33 = 11.30 .02 .03,
11.33 v 1 g 11.43

B 13794 Sp. ✓
10.22 ~~9.50~~ d 3 v 9.80 10.52, 10.50 = 10.51 .01, .01
10.50 v 2 e 10.70

B 19905 Sp. ✓
10.22 d 3 v 10.52, 10.60 = 10.56 .04 .04,
10.60 v 1 e 10.70

B 5091 Sp. too poor ✓

B 5095 Sp. too poor ✓

B 5282 Sp. too poor

B 5448 Sp. too poor

B 5458 Sp. too poor ✓

B 6495 Sp. too poor

B 7272 Sp. too poor ✓

B 12820 Sp. too poor ✓

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1897phae.proj..811F

Cont

Meas. of New Vak. Stak in Centaurus.

B 3481 ✓

10.70 2 1 v 10.80, 10.78 = 10.79 .01, .01
10.78 v 3 f 11.08

B 19988 ✓

10.22 d 4 v 10.62, 10.70, 10.78 = 10.70 .08 01, .08
10.70 v 0 2 10.70
10.78 v 3 f. 11.08

B 10885 ✓

10.70 2 1 v 10.80, 10.88 = 10.84 .04 .04,
10.88 v 2 f 11.08

B 13439 ✓

10.22 d 2 v 10.42, 10.50 = 10.46 .04, .04,
10.50 v 2 2 10.70

B 13085 Sq. ✓ too fast -

B 13438 Sq.

10.22 d 3 v 10.52, 10.50 = 10.51 .01, .01
10.50 v 2 2 10.70

B 9375 Sq. ✓

10.22 d 2 v 10.42, 10.50 = 10.46 .04 .04
10.50 v 2 2 10.70

B 7275 too fast -

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1897phae.proj..811F

February 9. 1898 (Cont-

Meas. New Var. Star in Centaurus.

B 19286

a 6.5
b 7.0
c 7.4
10.22 d 7.7 10.62, 10.60 = 10.61 .01, .01
10.60 e 8.2 10.70
f 8.5
g 8.8
h 9.1
K 9.5
l 9.9
Var 8.1

10.22 d 4 v 10.62, 10.60 = 10.61 .01, .01
10.60 v 1 e 10.70

✓

B 9328

10.70 e 2 v 10.90, 10.88 = 10.89 .01, .01
10.88 v 2 f 11.08

✓

B 11659 Sf. too poor—

✓

B 3397 Sf - too poor—

✓

B 8256 Sf - too poor—

B 13563

✓

10.70 e 3 v 11.00, 10.98 = 10.99 .01, .01
10.98 v 1 f 11.08

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1897phae.proj..811F

Cont.

Meas. New Var. Star in Cassiopeia —

B 11437 ✓

10.70 e1v 10.80, 10.88 = 10.84 .04, .04
10.88 v2f 11.08

B 18935 ✓

10.22 d4v 10.62, 10.60 = 10.61 .01, .01
10.60 v1e 10.70

B 11,134 ✓

10.70 e3v 11.00, 11.08, 11.13 = 11.07 .07 .01, .06,
11.08 v0f 11.08
11.13 v3g 11.43

B 10880 ✓

10.70 e3v 11.00, 11.08, 11.13 = 11.07 .07, .01, .06
11.08 v0f 11.08
11.13 v3g 11.43

B 3420 ✓

10.22 d3v 10.52, 10.50 = 10.51 .01 .01
10.50 v2e 10.70

B 9640 ✓

11.08 f1v 11.18, 11.23 = 11.20 .02 .03
11.23 v2g 11.43

B 9705 ✓

11.08 f1v 11.18, 11.23 = 11.20 .02 .03
11.23 v2g 11.43

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1897phae.proj..811F

February 9, 1898 (Cont.

Wess. New Var. Star in Centaurus

B 9706 ✓

10.70 e 3 v 11.00, 11.08, 11.13 = 11.07 .07 .01, .06,
11.08 v o f 11.08
11.13 v 3 g 11.43

B 10925 ✓

10.70 e 2 v 10.90, 10.88 = 10.89 .01, .01
10.88 v 2 f 11.08

B 19569 ✓

10.22 d 4 v 10.62, 10.60 = 10.61 .01, .01
10.60 v 1 e 10.70

B 15768 ✓

10.22 d 3 v 10.52, 10.50 = 10.51 .01, .01
10.50 v 2 e 10.70

B 13626 ✓

10.70 e 2 v 10.90, 10.88 = 10.89 .01, .01
10.88 v 2 f 11.08

B 11,111 ✓

10.70 e 3 v 11.00, 10.98 = 10.99 .01, .01
10.98 v 1 f 11.08

B 11,196 ✓

10.70 e 2 v 10.90, 10.98 = 10.94 .04 .04,
10.98 v 1 f 11.08

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1897phae.proj..811F

Cont.

Meas. New Var. in Cetaurus - State

B 16221

a 6.3
b 6.8
c 7.2
10.22 d 7.5 10.52, 10.60 = 10.56 .04 .04,
10.60 e 7.9 10.70
f 8.2
g 8.6
h 8.9
K 9.2
l 9.6
mab. 8.0 7.8

10.22 d 4 v 10.62, 10.60 = 10.61 .01, .01,
10.60 v 1 e 10.70

B 9151

10.70 e 1 v 10.80, 10.88 = 10.84 .04 .04,
10.88 v 2 f 11.08

new page 181

B 10934

10.70 e 3 v 11.00, 10.98 = 10.99 .01, .01
10.98 v 1 f 11.08

B 9364

10.70 e 2 v 10.90, 10.88 = 10.89 .01, .01
10.88 v 2 f 11.08

B 9152

10.22 d 5 v 10.72, 10.70, 10.78 = 10.73 .01, .03 .05,
10.70 v 0 e 10.70
10.78 v 3 f 11.08

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1897phae.proj..811F

February 9, 1898

Meas. New Var. Star in Ω Taurus

B 9329 ✓

10.22 d 4 v 10.62, 10.60 = 10.61 .01, .01
10.60 v 1 e 10.70

B 7622 ✓

10.70 e 1 v 10.80, 10.78 = 10.79 .01, .01
10.78 v 3 f 11.08

B 7623 ✓

10.70 e 2 v 10.90, 10.88 = 10.89 .01, .01
10.88 v 2 f 11.08

B 3480 ✓

10.22 d 4 v 10.62, 10.60 = 10.61 .01, .01
10.60 v 1 e 10.70

B 3418 ✓

10.22 d 3 v 10.52, 10.40 = 10.46 .06, .06
10.40 v 3 e 10.70

B 3419 ✓

10.22 d 3 v 10.52, 10.50 = 10.51 .01, .01
10.50 v 2 e 10.70

B 3347 ✓

10.22 d 4 v 10.62, 10.60 = 10.61 .01, .01
10.60 v 1 e 10.70

B 12993 ✓

10.70 e 1 v 10.80, 10.88 = 10.84 .04, .04
10.88 v 2 f 11.08

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1897phae.proj..811F

Cont

Meas. New Vat. Star in Cataurus.

B 8313 Sq. too poor - ✓

B 8262 Sq too poor - ✓

B 9399 ✓

10.22 d 3 v 10.52, 10.50 = 10.51 .01, .01

10.50 v 2 e 10.70

B 9642 ✓

10.22 d 5 v 10.72, 10.70, 10.78 = 10.73 .01 .03 .05

10.70 v 0 e 10.70

10.78 v 3 f 11.08

B 9641 ✓

10.22 d 5 v 10.72, 10.70, 10.78, = 10.73 .01, .03 .05,

10.70 v 0 e 10.70.

10.78 v 3 f 11.08

B 16089 ✓

10.22 d 4 v 10.62, 10.60 = 10.61 .01, .01

10.60 v 1 e 10.70

B 13627 ✓

on Edge of plate

10.70 e 0 v 10.70

d and f. not on plate

~~on Edge of plate~~

B 19827 ✓

10.22 d 5 v 10.72, 10.70, 10.78 = 10.73 .01 .03 .05

10.70 v 0 e 10.70

10.78 v 3 f 11.08

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1897phae.proj..811F

February 9, 1898 Cont

Meas. New Var. Star in Centaurus -

B 19628 ✓

10.22 d 3v 10.52, 10.50 = 10.51 .01 .01
10.50 v 2 e 10.70

B 19561 ✓

10.22 d 4v 10.62, 10.60 = 10.61 .01, .01
10.60 v 1 e 10.70

B 16253 ✓

10.22 d 3v 10.52, 10.50 = 10.51 .01, .01
10.50 v 2 e 10.70

B 8229 Sq. too poor - ✓

B 16268 ✓

10.22 d 4v 10.62, 10.60 = 10.61 .01, .01
10.60 v 1 e 10.70

See page 181

A 2218 Sq -

10.22 d 3v 10.52, 10.50 = 10.51 .01, .01
10.50 v 2 e 10.70

A Class A
B " B
C " E
D " a

J. Class a.
Is too faint
Var. Ms -

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1897phae.proj..811F

Cont.

Meas. New Vak. Stab in Cataulus —

B 13569

	a	5.7	
	b	6.2	
	c	6.6	
	d	7.0	
10.70	e	7.6	10.90, 10.88 = 10.89 .01 .01
10.88	f	8.0	11.08
	g	8.4	
	h	8.7	
	k	9.1	
	l	9.6	
	Vak.	7.8	

✓

10.70 e 3 v 11.00 10.98 = 10.99 .01, .01
10.98 v 1 f 11.08

B 10934

e 4 v
v 0 f
v 3 g

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1897phae.proj..811F

February 11, 1898

Meas: of new vdd. stars in Ara.

Sp. Md on B 19961. No. 10738 Approx. pos. 17h 45.7m -51° 40' (1900)

Plate B 13576

For Chart showing Comparison stars see M's Obs. book No. 4, p. 207.

a 5.3
b 5.6
c 6.2
d 6.6
e 6.9
f 7.3
g 7.6
h 7.9
k 8.2
l 8.6
m 9.0
n 9.3
s 9.7 = prism comp f "c"
~~10.0~~
~~10.3~~

Var. 9.9

~~12.59 12.61 = 12.60 01 01~~ Magn. 12.29
12.31, 12.29 = 12.30 .01 .01
~~12.39~~ ~~12.59 12.61 = 12.60 01 01~~
~~12.09 0 v~~ 12.29, 12.29 = 12.29 00 00
~~12.61~~ 12.29 v ~~1~~ 12.39 ~~12.71~~

B 5311

11.31 e 2 v 11.51, 11.51 = 11.51 00 00
11.51 v 2 n 11.71

B 20357

9.51 f 2 v 9.71, 9.71 = 9.71 00 00
9.71 v 1 g 9.81

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1897phae.proj..811F

Cont.

Meas. of new Vak Stak in

B 9409 ✓

9.51 f 1 v 9.61, 9.61 = 9.61 00 00
9.61 v 2 g 9.81

B 5963 ✓

10.19 h 1 v 10.29, 10.29 = 10.29 00 00
10.29 v 2 K 10.49

B 20491 ✓

9.81 g 2 v 10.01, 9.99 = 10.00 .01 .01
9.99 v 2 h 10.19

B 20425 ✓

9.81 g 1 v 9.91, 9.89 = 9.90 .01, .01
9.89 v 3 h 10.19

B 12260 Sp. ✓

9.81 g 2 v 10.01 10.01
v 2 n.s

B 11939 ✓

9.51 f 2 v 9.71, 9.71 = 9.71 00 00
9.71 v 1 g 9.81

B 11902 ✓

9.51 f 1 v 9.61, 9.61 = 9.61 00 00
9.61 v 2 g 9.81

B 11628 ✓

9.51 f 1 v 9.61, 9.61 = 9.61 00 00
9.61 v 2 g 9.81

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1897phae.proj..811F

February 11, 1898 (Cont.

Meas. of New Vab. Star in

B 11420 ✓

11.31 m 2 v 11.51, 11.51 = 11.51 00 00
11.51 v 2 n 11.71

B 19172 ✓

12.39° k 1 v 12.40, 12.51 = 12.46 .06, .05
12.51 v 2 k 12.71

B 19119 too poor — ✓

B 17833 ✓

11.31 m = .2 11.51 11.51
v n.s.

B 16544 ✓

10.19 h 2 v 10.39, 10.39 = 10.39 00 00
10.39 v 1 K 10.49

B 16364 ✓

9.81 g 2 v 10.01, 10.09 = 10.05 .04 .04,
10.09 v 1 h 10.19

B 16158 ✓

9.51 f 3 v 9.81, 9.71 = 9.76 .05, .05
9.71 v 1 g 9.81

B 14040 ✓

11.71 n = .2 11.91 11.91
v n.s.

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1897phae.proj..811F

Cont.

Ulexs. of New Val. Stak in

B 5311

a 5.5
b 5.8
c 6.3
d 6.7
e 7.1
f 7.4
g 7.7
h 8.1
K 8.4
l 8.8
11.31 m 9.2 11.41, 11.41 = 11.41 00 00
11.41 n 9.6 11.71
o ✗ N.S.
o ✗ 10.3
p ✗ 10.6
Val. 9.3

11.31 m l v 11.41, 11.51 = 11.46 .05 .05
11.51 v 2 n 11.71

B 14084 ✓

11.71 n = .3 12.01 12.01
v n.s

B 9599 Sq. ✓ too poor

B 9161

9.41 v 4 g 9.81 9.41 ✓
f on edge of plate

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1897phae.proj..811F

February 11, 1898

Cont

Ulcas. of New Vak. Star in

B9688 ✓

10.91 L 4 v 11.31, 10.21 = 10.26 .05, .05
10.21 v 1 u 11.31

B16449 ✓

9.81 g 2 v 10.01, 10.09 = 10.05 .04 .04
10.09 v 1 L 10.19

B 19112 ✓

11.71 n = .2 11.91 11.91
v n. s.

B 9402 ✓

9.51 f 3 v 9.81, 9.71 = 9.76 .05, .05
9.71 v 1 g - 9.81

B 10094 Sp. Doo Poor —

B 13836 Sp. ✓

9.81 g 2 v 10.01, 9.99 = 10.00 .01, .01
9.99 v 2 L 10.19

B 19938 ✓

9.51 f 1 v 9.61, 9.51 = 9.56 .05 .05
9.51 v 3 g 9.81

B 19927 Sp. ✓

9.51 f 3 v 9.81, 9.71 = 9.76 .05, .05
9.71 v 1 g 9.81

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1897phae.proj..811F

Cont.

Meas. of New Var Star in

B 2522 Sp. ✓

9.81 91 v 9.91, 9.99 = 9.95 .04, .04,
9.99 v2 2 10.19

B 9692 ✓

10.91 2 4 v 11.31, 11.31, 11.41 = 11.34 .03 .03 .07
11.31 v 0 m 11.31
11.41 v 3 n 11.71

B 13837 Sp- Too poor ✓

B 14582 Sp- Too poor ✓

B 13503 ✓

12.39 p = .3 12.69
v n.s
o n.s

B 3811 ✓

10.49 K 2 v 10.69, 10.81 = 10.75 .06 .06,
10.81 v 1 2 10.91

B 3744 ✓

10.91 2 2 v 11.11, 11.21 = 11.16 .05, .05
11.21 v 1 m 11.31

B 9690 ✓

10.91 2 2 v 11.11, 11.21 = 11.16 .05, .05
11.21 v 1 m 11.31

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1897phae.proj..811F

February 11, 1898 (Cont.

Meas. of New Vat. Stak in

B 3860 ✓

9.81 g 3 v 10.11, 10.09 = 10.10 .01; .01
10.09 v 1 L 10.19

B 3958 Sf — ✓ too poor

B 3956 Sf. ✓ too poor.

B 14495 ✓

11.31 m 1 v 11.41, 11.41 = 11.41 00 00
11.41 v 3 n 11.71

B 13994 ✓

11.71 n = .1 11.81 11.81
v n.s

B 13451 Sf — ✓ too poor

B 13445 Sf. ✓ too poor

B 9689 ✓

10.91 L 2 v 11.11, 11.11 = 11.11 00 00
11.11 v 2 m 11.31

B 13444 Sf. ✓ too poor

B 3810 ✓

10.49 K 2 v 10.69, 10.71 = 10.70 .01, .01
10.71 v 2 L 10.91

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1897phae.proj..811F

Cont.

Vicinity of New Var. Star in
B19961 Sq -

a Class 7
b " a
c " a
d " a 9.16 2 3 v 9.46, 9.51, 9.41 = 9.46 .00, .05, .05
e " H 9.51 v 0 f 9.51
f " H 9.41 v 4 g 9.81
g " 7
h too faint
var Old

B 11418

a 5.8
b 6.2
c 6.7
d 7.0
e 7.5
f 7.8
g 8.1
h 8.5
k 8.8
l 9.2
11.31 m 9.6 11.61, 11.61 = 11.61 00 00
11.61 n 10.0 11.71
o 10.3
o p 10.6
p q 11.0
var 9.9

11.31 m 3 v 11.61, 11.61 = 11.61 00 00
11.61 v 1 n 11.71

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1897phae.proj..811F

February 11, 1898 (Cont.

Meas. of New Vab. Stab in

B 19323 ✓

11.71 n=.2 11.91 11.91
v n.s

B 19962 Sp. ✓

9.51 f 1 v 9.61, 9.51 = 9.56 .05, .05
9.57 v 3 g 9.81

B 19483 ✓

11.71 n 3 v 12.01, 12.09 = 12.05 .04 .04
12.09 v 3 f° 12.39

B 20/1 35 Sp - ✓

9.16 f 1 v 9.26, 9.31 = 9.28 .02 .03
9.31 v 2 f 9.51

B 6107 on edge of plate. ✓

9.51 f 4 v 9.91, 9.71 = 9.81 10, 10
9.71 v 1 g 9.81

B 6776 Sp. Too poor. ✓

B 3782 ✓

10.91 f 2 v 11.11 11.11 = 11.11 00 00
11.11 v 2 m 11.31

B 3500 31 ✓

11.31 m=.2 11.51 11.51
v n.s.

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1897phae.proj..811F

Cont.

Meas. of new val. Stab in

B 3943 ✓

9.51 f 1 v 9.61, 9.51 = 9.56 .05, .05

9.51 v 3 g 9.81

B 3902 Sf. too poor ✓

B 6807 Sf. too poor ✓

B 13750 ✓

11.71 n=.4 12.11 12.11

v n.8

B 6768 Sf: too poor ✓

B 9283 ✓

9.51 f 2 v 9.71, 9.61 = 9.66 .05, .05

9.61 v 2 g 9.81

B 5574 ✓

11.71 n=.1 11.81 11.81

v n.3

B 61$\overset{3}{\times}$0 ✓

9.81 g 1 v 9.91, 9.89 = 9.90 .01, .01

9.89 v 3 h 10.19

B 5039 Sf too poor ✓

B 4004 Sf. too poor ✓

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1897phae.proj..811F

February 11, 18 (Cont.

Meas. of New Vak. Stak in

~~B~~ 4079 ✓

8.76 d 1 v 8.86, 8.86 = 8.86 00 00

8.86 v 3 e 9.16

B 4038 Sf. too poor. ✓

B 9839 Sf. too poor ✓

B 9838 Sf too poor ✓

B 9837 ✓

10.49 K = .3 10.79 10.79

v 2.8

B 9819 Sf. too poor ✓

See next page

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1897phae.proj..811F

Cont—

Meas. of New Var. Star in

B 17452

a 5.2
b 5.6
c 6.2
d 6.6
e 7.10
f 7.4
g 7.7
h 8.1
k 8.4
l 8.9
m 9.3
n 9.8
o N.S.

12.39 p 10.5 12.39, 12.41 = 12.40 .01, .01
12.41 p 10.8 12.71
Var. 10.5

12.39
v = 12.39 v 1 p° 12.39, 12.41 = 12.40 .01 .01
v = 3 12.41 v 3 p 12.71
o N.S

B 13571 11.41, 11.19 = 11.30 11, 11
10.91 l 5 v
11.19 v 2 p° 12.39

B13503 shows an object precisely a few seconds. B13570 is too faint to show it.

l 40
o 3 p =prin. comp. of "C"

The star o is probably variable since it does not appear on any of the plates showing the faintest comparison stars, see B 1917, B 5311 B 17452. It is seen only on BB 13571 and 13576.

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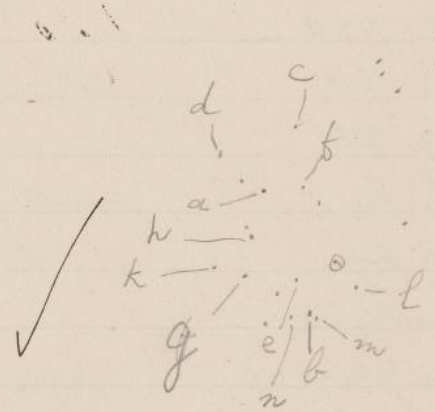
1897phae.proj..811F

February 12, 1898

Meas. of new var. star in Boötis (L.D.W.)
+14°.2760 R.A. 14h 1m.7 +13° 59' (1900)

Plate I 7954

	a	6.7	
	b	7.3	
	c	7.6	
	d	7.8	
	e	8.1	
	f	8.4	
	g	8.7	
	h	9.0	
	k	9.2	
12.60	l	9.6	13.00, 12.97 = 12.98 .02, .01
	m	9.9	
12.97	n	10.1	13.07
	var.	10.0	



12.60 m / v 13.00, 12.97 = 12.98 .02, .01
12.97 v / n 13.07

I 3620

10.50 c / v 10.60, 10.42 = 10.51, .09 .09
10.42 v 2 d 10.62

I 6396

12.60 l = .2 12.80 12.80
v n.S

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1897phae.proj.811F

Cont.

Meas. of new Var. Stars in Bootis

I 10,914 ✓
12.60 l 3 v 12.90, 12.87 = 12.88 .02, .01
12.87 v 1 a 13.07

I 8502 ✓
12.60 u = .1 12.70
v n.s

I 12878 ✓
11.97 l 2 v 12.17, 12.12 = 12.14 .03, .02
12.12 v 1 K 12.22

I 12955 Sp: too poor. ✓

I 12926 Sp too poor. ✓

I 979 ✓
11.97 l = .2 12.17 12.17
v n.s

I 17362 ✓
12.22 K = .1 12.32 12.32
v n.s

I 14922 ✓
11.30 f = .3 11.60 11.60
v n.s

I 12882 ✓
11.62 g 3 v 11.92, 11.97, 11.92 = 11.94 .02 .03 .02
11.97 v o h 11.97
11.9 w v 3 K 12.22

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1897phae.proj..8115

February 12, 1898 (Cont.

Meas. new vab. star in Bootis

I 10824

a 6.8
b 7.4
c 7.8
d 7.9
e 8.3
f 8.6
g 8.9
h 9.3
K 9.5
l 9.9
m ~~too faint~~ 10.6
n 10.2
vab. n.S.

13.07 n = .1 13.17 13.17
v n.S

I 11,061 Sp on edge of plate. ✓
10.12 b 1 v 10.22, 10.20 = 10.21 .01, .01
10.20 v 3 c 10.50

I 12919 Sp — ✓
10.62 d = .1 10.72 10.72
v n.S

I 14556 ✓
12.60 l 3 v 12.90, 12.87 = 12.88 .02, .01
12.87 v 2 n 13.07
m n.S

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1897phae.proj..811F

Continued

Ueast, new var Star in Boötes

I 10785
11.6z g=.2 11.8z ✓ 11.8z
v n.s

I 10784 ✓
10.6z d=.2 10.8z 10.8z
v n.s

I 6397 ✓
11.6z g=.2 11.8z 11.8z
v n.s

I 6377 ✓
11.6z g=.1 11.7z 11.7z
v n.s

I 6264 ✓
12.22 K=.2 12.4z 12.4z
v n.s

I 6434 too poor ✓

I 6014 Sp. too poor ✓

I 3535 Sp. too poor ✓

I 930 ✓
12.60 L=.2 12.80 12.80
v n.s

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1897phae.proj..811F

February 12, 1898 (Cont.

Ulen, New vak. Stak in Böötis.

I ~~3496~~

9.54 a 7.5 9.94, 10.02 = 9.98 .04 .04, I 3496
b 8.0 10.12
c 8.4
d 8.5
e 8.9
f 9.2
g 9.5
h 9.9
K 10.1
l 10.4
M n.8
n n.8
vak. 7.9

9.54 a 4 v 9.94, 10.02 = 9.98 .04 .04,
10.02 v i b 10.12

I 3660 too poor —

I 10,589
12.22 K = .2 12.42 12.42
v n.8

I 8561
12.60 l = .2 12.80 12.70
v = .1
M n.8

I 14514
12.60 l 3 v 12.90, 12.77 = 12.84 .06, .07
12.77 v 3 n 13.07
l 4 M.
M 2 n

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1897phae.proj..811F

Cont.

Meas. new var star in Böötis

I 8542 Sp. ✓
10.62 d=.3 10.92 10.92
v n.s

I 10724 ✓
12.22 K=.1 12.32 12.32
v n.s

I 10656 Sp too poor ✓

I 10613 Sp. too poor ✓

I 17171 ✓
12.60 l=.1 12.70 12.70
v n.s

I 15274 too poor ✓

I 15445 ✓
11.62 g=.1 11.72 11.72
v n.s

I 14906 ✓ See next page
11.62 g=.1 11.72 11.72
v n.s

I 1184 Sp. too poor ✓

I 1380 Sp. too poor ✓

B 549 Sp. too poor ✓

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1897phae.proj..811F

February 12, 1898 (Cont.

Plates now taken in Books

I 10793

a 7.0
b 7.6
c 8.0
d 8.1
e 8.6
f 8.8
g 9.2
h 9.5
K 9.9
l 10.3
m 10.6
n 10.9

var. n.s 13.07 | 13.07

13.07 n = .1 13.17 13.17

v n.s

The comparison star "n" is probably variable
It has been observed only on I 10793 and I 14504 I 17954.
Other plates show fainter stars but on them "n"
is not visible

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1897phae.proj..811F

February 18, 1898.

New var. ster in Cygnus (See L.D.N. No. 162)

No. 4296 or I 15219 Type P (known) +32°3522 19h 37m.1 +32° 23' (1900).

Plate I #4015 March 15, 1898

a 6.2
a 6.7
b 7.0
9.53 c 7.5 9.83, 9.88, 9.83 = 9.85 .02 .03, .04
9.88 d 7.5 9.88
e 8.2 10.23
f 8.5
g 8.9
h 9.2
k 9.6 9.88 9.52 e
var 7.8 9.88 d 1 v
10.03 9.68 10.03 v 2 v f 10.23 9.86 10.23

9.98 10.03 = 10.00 .02 .03
9.63 9.68 = 9.66 .03 .02
9.98 10.03 = 10.00 .02 .03

I 11379 c
9.18 8.93 9.18 & 2 v
9.33 8.98 9.33 v 2 v d

9.38 9.33 = 9.36 .02 .03
9.13 8.98 = 9.06 .07 .08
9.38 9.33 = 9.36 .02 .03
9.53 9.18 9.53

I 1660
9.18 8.93 9.18 c & 3 v
9.43 9.08 9.43 v 1 v d

9.48 9.43 = 9.46 .02 .03
9.23 9.08 = 9.16 .07 .08
9.48 9.43 = 9.46 .02 .03
9.53 9.18 9.53

I 9032 d
9.53 9.18 9.53
9.68 9.23 9.68 v 2 v e

9.63 9.68 = 9.66 .03 .02
9.28 9.33 = 9.30 .02 .03
9.63 9.68 = 9.66 .03 .02
9.88 9.88 9.53

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1897phae.proj..811F

March 15, 1898 (Cont.

Meas. new var. stars in Cygnus.

I 1541 ✓

8.93 8.48 8.88 8.63 — 8.93 8.88 — 1 v & 1 v — v 3 & c — 9.18 8.93 9.18

9.03 8.88 8.96 ✓07 08 — 8.58 8.63 8.60 02 03 — 9.03, 8.88 = 8.96 .07, .08

I 1539 ✓

9.18 8.98 9.43 9.08 — 9.18 9.43 — c & 2 v — v 1 d — 9.53 9.18 9.03

9.38 9.43 = 9.40 ✓02 03 — 9.13 9.08 = 9.10 03 02 — 9.38, 9.43 = 9.40 .02 .03

I 1430 ✓

9.53 9.18 — 9.53 — d & 3 v — v 1 & e — 9.78 9.43 9.78 — 9.88 9.53 9.88

9.83 9.78 = 9.80 03 02 — 9.48 9.43 = 9.46 02 03 — 9.83, 9.78 = 9.80 .03, .02

I 2011 ✓

9.83 9.78 — 9.88 — e & 3 v — v 1 & f — 10.13 9.78 10.13 — 10.18 — 10.13 — 10.23 9.88

9.83 9.78 = 9.80 03 02 — 10.18, 10.13 = 10.16 .02, .03

I 8961 ✓

9.18 9.43 — 9.53 9.78 — a & 3 v — v 1 & e — 9.53 9.43 9.78 — 9.88 9.53

9.48 9.43 = 9.46 ✓02 03 — 9.83, 9.78 = 9.80 .03, .02

I 9113 ✓

9.18 9.43 — 9.53 9.78 — d & 3 v — v 1 & e — 9.53 9.43 9.78 — 9.88 9.53

9.48 9.43 = 9.46 02 03 — 9.83, 9.78 = 9.80 .03, .02

I 9723 Sp. too poor ✓

I 9361 ✓

9.18 9.43 — 9.53 9.78 — d & 3 v — v 1 & e — 9.53 9.43 9.78 — 9.88 9.53

✓9.48 9.43 = 9.46 02 03 — 9.83, 9.78 = 9.80 .03, .02

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Cont.

Ulean. New var. Star in Cygnus.

✓ I 9112 d
9.18 9.53 C 3 v
9.43 9.78 v 1 e

9.48 ✓ 9.43 - 9.46 02 03
9.83, 9.78 - 9.80 .03, .02
9.88 9.53

✓ I 8848 d
9.18 9.53 C 4 v
9.88 v 0 e
9.58 9.93 v 3 f

9.58 9.53 9.58 - 9.56 02 03 02
9.93, 9.88, 9.93 - 9.91 .02, .03 .02
9.88 9.53
10.23 9.88

✓ I 7185 d
9.18 9.53 C 3 v
9.43 9.78 v 1 e

9.48 9.43 ✓ - 9.46 02 03
9.83, 9.78 - 9.80 .03, .02
9.88 9.53

✓ I 7005 d
9.18 9.53 C 3 v
9.43 9.78 v 1 e

9.48 9.43 - ✓ 9.46 02 03
9.83, 9.78 - 9.80 .03, .02
9.88 9.53

✓ I 4623 Sp. too poor

✓ I 4480 Sp. c
8.93 9.18 f 1 v
8.88 9.23 v 3 d

9.03 8.88 - ✓ 8.96 07 08
9.28, 9.23 - 9.26 .02, .03
9.53 9.18

✓ I 4241 Sp. c
8.93 9.18 f 1 v
8.88 9.23 v 3 d

9.03 8.88 - ✓ 8.96 07 08
9.28, 9.23 - 9.26 .02, .03
9.53 9.18

✓ I 4196 e
9.63 9.88 C 2 v
9.68 10.03 v 2 f

9.73 ✓ 9.68 - 9.70 03 02
9.90, 10.03 - 9.96 .06 .07
10.23 9.88

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1897phae.proj..811F

March 18, 1898

Cut.

Meas. new var. star in Cygnus.

I 18927

a 6.8
a 7.2
b 7.4
c 7.7
9.88 d 8.0 9.98, 10.03 = 10.00 .02, .03,
10.03 e 8.3 10.23
f 8.7
g 9.0
h 9.4
K 9.7
var. 8.1

~~9.63 9.68 = 9.66 03 02~~
~~9.98, 10.13 = 10.00 02, 03~~
~~9.53 9.88~~ e × 2 v
~~9.68 10.13~~ v 2 × f ~~10.13 9.88~~

I 4099 Sp.

~~8.68 8.83 = 8.76 08 07~~
~~9.13, 9.08 = 9.10 .03, .02~~
~~8.48 8.93~~ b × 2 v
~~8.83 9.08~~ v 1 × c ~~9.13 8.93~~

I 4006 Sp. too poor

I 3756

~~9.23 9.08 = 9.16 07 08~~
~~9.48, 9.43 = 9.46 .02, .03~~
~~8.93 9.18~~ c × 3 v
~~9.08 9.43~~ v 1 × d ~~9.53 9.68~~

I 3712 Sp.

~~8.58 8.63 8.60 02 03~~
~~9.03, 8.88 = 8.96 .07, .08~~
~~8.48~~ b × 2 v
~~8.93~~
~~8.63 8.88~~ v 3 × c ~~9.18 8.93~~

I 2528 Sp.

~~8.58 8.73 = 8.66 08 07~~
~~9.03, 8.98 = 9.00 03, 02~~
~~8.48 8.93~~ b × 2 v
~~8.73 8.98~~ v 2 × c ~~9.18 8.93~~

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Cont.

Meas. new var. Stars in Cygnus.

I 2413 d
9.18 9.55 & 2 v 9.88 9.43 = 9.40 02 03
9.43 9.78 v 1 c 9.88 9.53 9.73, 9.78 = 9.76 .03 .02

I 1978 Sf.
8.48 8.93 & 2 v 8.68 8.83 = 8.76 08 07
8.83 9.08 v 1 c 9.18 8.93 9.13, 9.08 9.10 .03, .02

I 2230 Sf
8.48 8.93 & 2 v 8.68 8.83 = 8.76 08 07
8.83 9.08 v 1 c 9.18 8.93 9.13, 9.08 = 9.10 .03, .02

I 2214 Sf. too poor

I 2274 d
9.18 9.53 & 1 v 9.28 9.33 = 9.30 02 03
9.33 9.68 v 2 c 9.88 9.53 9.63, 9.68 = 9.66 .03 .02

I 1748
8.48 8.93 & 1 v 8.58 8.83 = 8.70 12 13
8.83 9.08 v 1 c 9.18 8.93 9.03, 9.08 = 9.06 .03 .02

I 1755
8.48 8.93 & 1 v 8.58 8.83 = 8.70 12 13
8.83 9.08 v 1 c 9.18 8.93 9.03, 9.08 = 9.06 .03 .02

I 1819 Sf
8.48 8.93 & 1 v 8.58 8.73 = 8.66 08 07
8.73 8.98 v 2 c 9.18 8.93 9.03, 8.98 = 9.00 .03, .02

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March 15, 1898 (Cont.)

Meas. new var. Star in Cygnus

✓ I 5013 Sp

9.28 9.33 = 9.30 02 03
9.18 9.53 d 1 v 9.63 9.68 = 9.66 .03 .02
9.33 9.68 v 2 d 9.88 9.53

✓ I 6749 c

9.13 9.08 = 9.10 03 02 ✓
8.93 9.18 c 2 v 9.38 9.43 = 9.40 .02 .03
9.08 9.43 v 1 d 9.53 9.18

✓ I 6807 d

9.48 9.53 9.8✓8 = 9.53 05 05
9.18 9.53 d 3 v 9.83 9.88 9.93 = 9.88 .05 .05
9.88 v 0 d 9.88 9.53
9.58 9.93 v 3 d 10.23 9.88

✓ I 6830

9.63 9.68 = ✓9.66 03 02
9.53 9.88 e 1 v 9.98 10.03 = 10.00 .02 .03
9.68 10.03 v 2 e 10.23 9.88

✓ I 6979 d

9.48 9.43 = ✓9.46 02 03
9.18 9.53 d 3 v 9.83 9.78 = 9.80 .03 .02
9.43 9.78 v 1 e 9.88 9.53

✓ I 3998 Sp

8.58 8.73 = ✓8.66 08 07
8.48 8.93 2 v 9.03 8.98 = 9.00 .03 .02
8.73 8.98 v 2 b 9.18 8.93

✓ I 9990

9.63 ✓9.68 = 9.66 03 02
9.33 9.88 d 1 v 9.98 10.03 = 10.00 .02 .03
9.68 10.03 v 2 d 10.23 9.88

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1897phae.proj..811F

Meas. new var. star in Cygnus

I 3989 Sp. too poor ✓

I 3964 ✓

I 3838 Sp. too poor. ✓

I 3800 Sp. ✓

I 1431 Sp. ✓

I 1573 Sp. too poor ✓

I 1368 ✓

B 702 Missing ✓

I 16403d ✓

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1897phae.proj..811F

March 15, 1898 (Cont.

Meas. new var. Star in Cygnus.

✓ I 8822

~~9.48 9.43 = 9.46 02 03~~

~~9.18 9.53 d 3 v 9.83, 9.77 = 9.80 03, 02~~

~~9.43 9.76 v, d e 9.88 9.53~~

I 3757

a 9.4

a 6.8

b 7.1

9.53 c 7.4 9.73, 9.68 = 9.70 03, 02

9.68 d 7.6 9.88

e 8.2

f 8.5

g 8.8

h 9.2

K 9.5

✓ Var. 7.6

~~9.38 9.33 = 9.36 02 03~~

~~9.18 9.53 d 2 v 9.73, 9.68 = 9.70 03, 02~~

~~9.33 9.68 v 2 d e 9.88 9.53~~

✓ I 16386

~~9.38 9.33 = 9.36 02 03~~

~~9.18 9.53 d 2 v 9.73, 9.68 = 9.70 03, 02~~

~~9.33 9.68 v 2 d e 9.88 9.33~~

✓ I 1640

~~8.68 8.63 = 8.66 02 03~~

~~8.48 8.48 d a 2 v 8.68, 8.63 = 8.66 02, 03~~

~~8.63 8.63 v 3 d 1 8.93~~ 8.93

B 748 Sp. Too faint –

B 722 Sp. Too faint –

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1897phae.proj..811F

Cont

Ulea's new var Star in Cygnus

B715 Sp too poor ✓

~~B677~~ Sp too poor ✓

~~I~~ 11241 Sp. d

9.18 9.53 c 1 v

9.33 9.68 v 2 d e

9.28 9.33 = 9.30 02 03

9.63, 9.68 = 9.66 .03 .04

9.88 9.53

I 11224 Sp. d

9.18 9.53 c 1 v

9.33 9.68 v 2 d e

9.28 9.33 = 9.30 02 03

9.63, 9.68 = 9.66 .03 .04

9.88 9.53

I 9724 Sp. too poor ✓

I 15423 d

9.18 9.53 c 2 v

9.33 9.68 v 2 d e

9.88 9.33 = 9.36 02 03

9.73, 9.68 = 9.70 .03, .04

9.88 9.53

I 18883 c b

8.93 9.18 3 v

9.08 9.43 v 1 a

9.33 9.08 = 9.16 07 08

9.48, 9.43 = 9.46 .02 .03

9.53 9.18

I 1342 too poor ✓

I 1326 Sp. too poor ✓

I 1315 Sp. f

8.48 8.93 b c 1 v

8.73 8.98 v 2 b c

8.58 8.73 = 8.66 08 07

9.03, 8.98 = 9.00 .03, .04

9.18 8.93

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1897phae.proj..811F

March 15, 1898

Cont.

Meas. new var star in Eggnos.

I 1264 d 2 v

9.53 9.88 d 2 v

9.78 10.13 v 1 f

9.73 9.78 = 9.76 03 02

10.08 10.13 = 10.10 .02 .03

10.43 9.88

I 1219 Sf. too poor.

I 1202 Sf. too poor.

I 1217 f

9.88 10.43 f 1 v

10.03 10.35 v 2 g

9.98 10.03 = 10.00 02 03

10.33, 10.35 = 10.34 .01 .01

10.55 10.23

I 1868 d

9.18 9.53 d 2 v

9.33 9.68 v 2 e

9.38 9.33 = 9.36 02 03

9.73, 9.68 = 9.70 .03, .02

9.88 9.53

I 1335 Sf

8.48 8.93 f 1 v

8.73 8.98 v 2 e

8.58 8.73 = 8.66 08 07

9.03, 8.98 = 9.00 .03, .02

9.18 8.93

I 4149 d

9.18 9.53 d 3 v

9.43 9.78 v 1 e

9.48 9.43 = 9.46 02 03

9.83, 9.78 = 9.80 .03, .02

9.88 9.53

See next page

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1897phae.proj..811F

Cont.

Meas. new var. Stat Cygnus.

I 2160

a 7.0 ~~9.70~~

a 7.5

b 7.7

9.53 c 8.0 9.93, 9.88 = 9.90 .03, .02

9.88 d 8.4 9.88

e 8.7

f 9.0

g 9.4

h 9.8

K 10,2

✓ Var 8.4

~~9.18~~ ~~9.53~~ d c 3 v

~~9.43~~ ~~9.78~~ v 1 e

✓ ~~9.48 9.43 = 9.46 .02 .03~~

~~9.83, 9.78 = 9.80 .03, .02~~

~~9.88~~ ~~9.53~~

I 15219 Sp

~~2160~~

a class G

a class K

b " a

c " F

d " a

e " H

f " H?

Var " IIa

a 1 v

v 2 b

I

✓ I 15219 Sp

~~8.48~~ ~~8.93~~ a 1 v

~~8.73~~ ~~8.98~~ v 2 c

✓ ~~8.58 8.73 = 8.66 .08 .07~~

~~9.03, 8.98 = 9.00 .03, .02~~

~~9.18~~ ~~8.93~~

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March 16, 1898.

Exam. of plates to confirm variation, if any, in Dec. +33°2096 8.7.
Re Note of J. A. Dunne, March 15, 1898.

Pl.	Date
I 1209	May 22, 1890
I 306	Dec. 11, 1889
I 3462	April 24, 1891
I 6139	April 23, 1892
I 12343	Feb. 11, 1895
I 10579	Jan. 25, 1894
I 8413	April 18, 1893
I 15059	May 1, 1896
I 14906	April 15, 1896
I 17920	April 19, 1897
I 18082	May 8, 1897

The above plates have been examined and show slight, if any, evidence of variation.

M Fleming March 16, 1898

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1897phae.proj..811F

March 29, 1898.

Exam of plates taken with var. star apparatus.

10 38 · I 4015. Too poor to show any evid. of var.

· I 4014. Too poor to show any evid. of var.

· I 4042 Very good plate but nothing showing good evid. of var. found.

· I 20191 Too poor to show evid. of var.?

· I 20168 19.1 17.1 shows slight evid. of var?
" 16.1 20.6 shows slight evid. of var?

Defects due to cloud? *' · I ~~20106~~ 20105 13.4 14.8 shows slight var.
13.4 15.6 shows slight var.

*² · I 20082 25.1 21.3 shows slight var?

598 11 35 · I 20083 11.8 16.2 shows slight var?

*' These two stars have been examined on plates I 8494, I 12481, I 8446, I 6138, I 5697, I 17919, I 5839, I 14905, I 15058, I 10578, I 10488, I 795, and I 1207 and show no evidence of variation.

*² This star has been examined on plates I 2240, I 705, I 17415, I 14877, I 10377, I 8062, I 12476, I 17702, I 20089, I 12470, and I 14853 and show no evidence of variation.

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1897phae.proj.811F

March 30, 1898.

Exam. of plates taken with var. star apparatus.

I 20081. Expos. irreg. Not ex.

I 20172 Expos. irreg. No var. detected.

C 10958 No var. detected. Ex. irreg.

C 10972 No var. detected. Ex. irreg.

C 10973. No var. detected. Ex. Irreg.

C 10974. 12.0 10.1 Slight var. may be due to edge of plate?

C 10979. No var. detected. Expos irreg.

C 10986 24.5 15.4 Var? on edge of exposure

C 10991 No var. detected. Expos. irreg.

C 10992 No var detected. expos. irreg.

An examination of plates I 1116, I 8304, I 8303, I 8174 I 8205, I 8088, I 14204, I 14021, I 17413, I 17699, I 5713, I 10220 I 10849, I 5172, I 5655, I 5548, I 304, I 7811, I 20408 ~~and~~ I 10904 and I 14848 shows no evidence of variation. The difference in magnitude on C 10986 is probably due to the images being on the edge of the exposed portion of the plate. March 30, 1898.

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1897phae.proj..811F

March 31, 1898

Expan. of plates taken with var. star appar.

. 6 10995. No var. detected. Expos. irreg.

. 6 10996 No var. detected. Expos, very irreg.

. 6 10997. Noted. Expos. too irreg.

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1897phae.proj..811F

April 2, 1898.

Glass. of plates taken with var. star appar.

E. 4051. no var. found. Expos. irreg.

E 4052. no var. detected. expos. very irreg.

E 4055 no var detected. expos very irreg.

E 4056 no var detected. ex. fairly good

E 4057 no var. detected ex. irreg.

E 4062. no var. detected.

I 20252 no var. detected.

5 08. E 4063 not. ex. expos. too irreg.

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1897phae.proj..811F

April 4, 1898.

Exam. of plates taken with var. star appar.

. Plate I 10264 no var. detected. Exposs. very irreg.

. I 10281 no var. detected.

. E 4130 no var. detected Exposs. very irreg.

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1897phae.proj.811F

April 23, 1898.

Glan. of plates taken with var. star appar.

G 4258 9.7 12.9 var?

" 12.6 14.9 var.

" 18.8 9.2 var?

DM. +68° 1360 23h 7m.4 +68° 15'.4 9.1 magn. (1855)

Chart plates Series 18777, 21027, 1800, 2099, 21026, 18751, 11161, 9731, 16277, 13163, 18776, 13560, 18764, 9164, 11634, 11699, 9202, 9715, 13160, 16279, 18752, 9334, 9153, 9152 11843 15580N examined & show slight if any evidence of variation.

M. F. May, 9, 1898.

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1997phae.proj..81I

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1997phae.proj..81UF

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