KQ
11365
744

1919phae.proj..745B

I.

G. R. Brooks.

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KG 11365.746

1919phae.proj...745B

? Doubtful observation

d Discordant observation rejected on later examination.

e Edge of plate

f Image extremely faint, near limit of visibility.

i Trails or elongated images.

k Poor plate.

q Poor image, good plate.

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All measures in this book are made in irregular order.
S.R.B. Feb. 24, 1919

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1919phae.proj..745B

14.

Tuesday, February 1919

10-30 S. Ursae Majoris

9 16786	l 1 r	10.74		
	r 1 m	11.30	11.02	-28 +28
9 17029	h 1 r	10.30		
	r 2 k	10.80	10.55	-25 +25
9 16793	l 2 r	10.84		
	r 1 m	11.30	11.07	-23 +23
9 17526	k h 2 + r	10.40		
	r 1 k	10.90	10.65	-25 +25
9 17811	m 1 r	11.50	11.93	
	Δ r 2 0	12.56	~~12.83~~	~~-53~~ -23 ~~+58~~ +28
9 16498	m 1 r	11.70		
	r 1 0	12.26	11.98	-28 +28
9 20170	l 1 r	10.74		
	r 1 m	11.30	11.02	-28 +28

11-30

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1919phae.proj..7451

Wednesday, February 12, 1919

9-10

9 15179	g 1 r	9.46	9.78	9 15522	e 2 r	10.84	11.07	−23
	r 1 h	10.10	−32 +32		r 1 m	11.30		+23
~~9 15290~~								
9 15300	f 1 r	8.92		9 18 316	e 1 r	10.74	10.97	−23
	r 0 g	9.36	9.46 −54 −10		r 2 m	11.20		+23
	r & 1 h	10.10	+64					
9 15356				9 13437	~~e~~ 3 r m 1 r	11.50	11.60	−10
	g 1 r	9.46			r 2 m r 1 m	11.70		+10
	r 1 h	10.10	9.78 −32 +32					
				9 15697	m 2 r	11.60		
9 17395	g 2 r	9.56			r 0 m	11.60	11.82	−22 −22
	r 1 h	10.10	9.83 −27 +27		r 1 0	12.26		+44
9 15357	g 1 r	9.46		9 18367	h 1 r	10.30	10.55	−25
	r 2 h	10.00	9.73 −267 +27		r 2 k	10.80		+25
9 18204	m 2 r	11.90		9 13477	e 1 r	10.74	10.97	−23
	r 1 0	12.26	12.03 −23 +23		r 2 m	11.20		+23
9 15476	h 2 r	10.40		9 15177	g 2 r	9.56	9.83	−27
	r 2 k	10.80	10.60 −20 +20		r 1 h	10.10		+27
9 18205	0 1 r	12.46	−09					
	r 1 f	12.54	12.55 +09					

10 −30

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1919phae.proj..745B

Wednesday, February 12, 1919

2-40

916781	l 1 or	10.84		916754	l 2 or	10.84	
	or 2 m	11.20	10.97 -23 +23		or 1 m	11.30	11.07 -23 +23
920375	g 2 or	9.56		933976	g 1 r	9.46	
	or 1 k	10.10	9.83 -27 +27		or 2 k	10.10	9.78 -32 +32
916537	m 2 or	11.60		934027	g 2 or	9.56	
	or 1 m	11.50	11.55 +05 -05		or 1 k	10.10	9.83 -27 +27
928818	l 3 or	10.94		934037	k 1 or	10.30	
	or 0 m	11.40	11.28 -34 +12		or 2 k	10.80	10.55 -25 +25
	or 1 m	11.50	+22				
						3-40	
				917293			
916544	m 1 or	11.70	-28		g 1 r	9.46	
	or 1 o	12.26	11.98 +28		r 1 k	10.10	9.78 -32 +32
928848	l 2 or	10.84					
Fogged	or 1 m	11.30	11.07 -23 +23				
916712	l 3 or	10.94					
	or 2 m	11.20	11.07 -13 +13				
932542	g 1 or	9.46					
	kr 1 k	10.30	9.88 -42 +42				
						3-40	

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1919phae..proj...7454

Thursday, February 13, 1919

9-30

AC 2336	m 1 v	11.50	AC 2689	f 1 v	9.12		0
	v 1 m	11.50	11.50 00 00	v 1 g	~~8.92~~ 9.26	9.09	−17 +17
AC 6105	l 2 v	10.84	AC 7217	l 1 v	10.74		
	r 1 m	11.30	11.07 −23 +23	r 1 m	11.30	11.02	−28 +28
AC 7403	l 1 v	10.74	AC 5571	m 1 v	11.50		
	r 2 m	11.20	10.97 −23 +23	r 1 m	11.50	11.50	00 00
AC 7415	g 1 v	9.46	AC 7392	g 1 v	9.46		−32
	r 1 h	10.10	9.78 +32 +32	r 1 h	10.10	9.78	+32
AC 3500	h 1 v	10.30	AC 5560	m 1 v	11.50		−25
	v 2 h	10.80	10.55 −25 +25	r 0 m	11.60	11.75	−15
				v 2 0	12.16		+41
AC 7436	g 1 v	9.46	−32 +32				
	r 1 h	10.10	9.78 AC 7385	g 1 v	~~9.46~~ 9.48	7	~~−42~~ −32 +32
				r 1 h	10.10		
AC 2121	g 1 v	9.46	−27				
	v 2 h	10.00	9.73 +27 AC 2265	l 2 v	10.84		−23
				r 1 m	~~9.68~~ 11.30	11.07	+23
AC 7344	g 2 v	9.56	−27 +27				
	r 1 h	10.10	9.83 AC 6050	h 1 v	10.30		−30
				r 1 k	10.90	10.60	+30

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1919phae.proj..745B

Thursday. February 13, 1919

RC3542	l 2 r	10.84		
	r 1 m	11.30	11.07	−23 +23
RC7381	g 2 r	9.56		
	k or h	10.20	10.15	−5 +5 +39
	or 1 k	10.54		
RC2259	l 1 r	10.74		−28
	r 1 m	11.30	11.02	+28
RC 5976	g 2 r	9.56		
	r 1 h	10.10	9.83	−27 +27
RC6029	< h n.s.			
badly fogged				
RC2068	g 2 r	9.56		
	g 3 h	9.90	9.73	−17 +17
RC2116	g 2 r	9.56		
	or 1 h	10.10	9.83	−27 +27

11-45

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1919phae.proj..7454

Friday, February 14, 1919

10-45

AC 1991	k 1 r	10.74		
	r 2 m	11.20	10.97	−23 +23
AC 2661	k 1 r	10.30		−30
	r 1 k	10.90	10.60	+30
AC 7471	g 2 r	9.56		
	r 2 k	10.00	9.78	−22 +22
AC 7475	g 2 r	9.56		
	r 1 k	10.10	9.83	−27 +27
AC 7440	f 2 r	9.22		
	r 1 g	9.26	9.24	−02 +02
AC 7459	g 1 r	9.46		
	r 1 k	10.10	9.78	−32 +32
AC 2820	g 2 r	9.56		
	r 1 k	10.10	9.83	−27 +27
AC 7444	g 1 r	9.46		
	r 2 k	10.10	9.78	−32 +32

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1919phae.proj..745B

Friday, February 14, 1919

RC5792	l 1 r	10.30		
	r 1 k	10.20	10.~~15~~ 60	+15 -30 -~~15~~ +30
RC3473	g 3 r	9.66		
	r 1 k	10.10	9.88	-22 +22
RC7395	l 1 r	10.74		
	r 2 m	11.20	10.97	-23 +23
RC2237	l 1 r	10.30		
	r 1 k	10.90	10.60	-30 +30
RC7580	l 2 r	10.40		
	r 1 k	10.90	10.65	-25 +25
RC5874	g 2 r	9.56		
	r 2 k	10.00	9.78	-22 +22
RC7554	l 1 r	10.30		
	r 2 k	10.80	10.55	-25 +25
RC7462	g 2 r	9.56		
	r 1 k	10.10	9.83	-27 +27

12-15

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February

Monday 17, 1919

9-30

RC 5897	g 1 r	9.46		-32
	r 1 h	10.10	9.78	+32
RC 7418	g 1 r	9.46		
	r 2 h	10.00	9.73	-27 +27
RC 2247	g 3 r	9.56		
	r 1 h	10.10	9.88	-22 +22
RC 7376	h 1 r	10.30		
	r 2 l	10.54	10.42	-12 +12
RC 2301	l 1 r	10.74		
	r 1 m	11.30	11.02	-28 +28
RC 2190	g 2 r	9.56		-27
	r 1 h	10.10	9.83	+27
RC 2340	m 1 r	11.50		
	r 1 m	11.50	11.50	00 00
RC 5669	m 1 r	11.50		
	r 1 m	11.50	11.50	00 00

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1919phae.proj..745B

Monday, February 17, 1919

AC 7452	g 1 v	9.46		−32
	v 1 h	10.10	9.78	+32
AC 5756	m 1 v	11.50		
	v 1 m	11.50	11.50	00
				00
AC 2629	h 1 v	10.74		
	v 1 m	11.30	11.02	−28
				+28
AC 2207	h 1 v	10.74		
	v 2 m	11.20	10.97	−23
				+23
AC 5819	g 2 v	9.56		
	v 1 h	10.10	9.83	−27
				+27
AC 2726	g 1 v	9.46		
	v 2 h	10.00	9.73	−27
				+27
AC 2681	g 2 v	9.56		
	v 1 h	10.10	9.83	−27
				+27
AC 3501	g 2 v	9.56		
	v 1 h	10.10	9.83	−27
				+27

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1919phae.proj..745

Monday, February 17, 1919

RC7530	g 2 v	9.56		
	v 1 h	10.10	9.83	−27 +27
RC5887	g 1 v	9.46		
	v 1 h	10.10	9.78	−32 +32
RC3537	l 2 v	10.84		
	v 1 m	11.30	11.07	−23 +23
RC5719	l 1 v	10.74		
	v 1 m	11.30	11.02	−28 +28
RC7538	h 1 v	10.30		
	v 1 l	10.54	10.42	−12 +12
RC5852	g 1 v	9.46		
	v 1 h	10.10	9.78	−32 +32
RC7342	l 1 v	10.74		
	v 2 m	11.20	10.97	−23 +23

11-00

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Monday. February 17, 1919

2-50

RC5960	g 1 v	9.46		
	v 1 h	10.10	9.78	−32 +32
RC7393	g 2 v	9.56		
	v 1 h	10.10	9.83	−27 +27
RC5994	g 1 v	9.46		
	v 1 l	10.54	10.00	−54 +54
RC7409	g 2 v	9.56		
	v 1 h	10.10	9.83	−27 +27
RC5876	g 1 v	9.46		
	v 2 h	10.40	9.93	−47 +47
RC6058	R 1 v	10.74		
	v 2 m	11.20	10.97	−23 +23
RC5930	g 2 v	9.56		
	v 2 h	10.00	9.78	−22 +22
Images double	RC7439 g 1 v	9.46		
	v 1 h	10.10	9.78	−32 +32

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1919phae.proj..7458

Monday, February 17, 1919

RC7332	h | v	10.30		
	v | l	10.54	10.42	−12 +12
RC7523	g 2 v	9.56		
	v | k	10.10	9.83	−27 +27
RC5673	l | v	10.74		
	v | m	11.30	11.02	−28 +28
RC7516	g 2 v	9.56		
	v | k	10.10	9.83	−27 +27
RC6135	l | v	10.74		
	v | m	11.30	11.02	−28 +28
RC7507	g 2 v	9.56		
	v | k	10.10	9.83	−27 +27
RC6073	l | v	10.74		
	v | m	11.30	11.02	−28 +28
RC7499	g 2 v	9.56		
	v | k	10.10	9.83	−27 +27

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Monday, February 17, 1919

RC 5963	g 2 V	9.56		−27
	V 1 h	10.10	9.83	+27
RC 7467	g 1 V	9.56		
	V 1 h	10.10	9.83	−27 +27
RC 7284	h 1 V	10.30		
	V 1 k	10.90	10.60	−30 +30
n.s.	MC 3264			
MC 5186	g 2 V	9.56		
	V 1 h	10.10	9.83	−27 +27
MC 3286	n 1 V	13.53		
	V 1 S	13.82	13.68	−15 +14
MC 5476	h 1 V	10.30		
	V 1 k	10.90	10.60	−30 +30
MC 5771	n 1 V	13.53		
	V 1 S	13.82	13.68	−15 +14

H-05

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February 18, Tuesday 1919

10-40 Direct Estimates of variable S. in Ursae Majoris.

9	16544	11.8
	17395	9.9
	16537	11.7
	16438	12.4
	17293	9.6
	20375	10.2
	15300	9.7
	34037	9.8
	18267	10.2

11-40

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Wednesday. February 19, 1918

9-10

2-40

9	34027	9.5		RC 5897	9.7
	20170	11.5		5960	9.8
	13477	10.8		5876	9.5
	33976	9.5		7409	9.9
	15177	9.7		7444	9.5
	15697	12.0		3537	10.9
	13437	11.1		2068	9.5
	32542	9.8		5887	9.7
	17536	10.9		7332	10.7
	18316	10.6		7393	9.9
	16793	10.9		7395	9.9
	15522	11.2		7516	10.2
Fogged. Im - double -	28848	11.1	~~Fogged. Im dble~~	2116	9.6
	18205	12.5		3501	10.2
	16712	11.2		7530	9.9
	18204	12.0		5673	11.5
	16786	11.0		2681	9.8
	15476	10.8		7462	9.5
	28818	11.5		2726	9.5
	16781	10.6		2259	10.8
	17029	10.2			
	15357	9.8			
	15179	9.6			
	16754	10.8			
	17811	12.4			
	15356	9.5			

3-40

10-10

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1919phae.proj..745

Thursday, February 20, 1918

9-30

			2-35		
QC	7523	10.4		QC 7452	9.5
	7459	9.5		5669	11.5
	7440	9.5		7392	9.9
	7284	10.5		2340	10.2 ~~11.5~~
	2265	10.8		7385	10.2
	7554	10.8		5963	9.9
+	2296	11.3		7499	9.8
	7580	11.0		7381	9.7
	2629	10.8		2190	10.0
	5819	9.8		6073	10.9
	7436	9.5		7217	11.5
	2207	10.7		7507	9.9
	7342	10.8		6105	11.0
	7415	9.7		5994	10.4
	5852	9.8		6135	11.5
	5792	10.6		7376	10.2
	7538	10.4		3473	10.4
	5930	9.7		6050	10.7
	2121	9.7		2247	10.8
	6058	10.9		7418	9.5
	5719	11.5		5976	9.8
	5756	11.5		2237	10.0
	7403	9.7		7344	10.6
	7467	9.8			
Images dble.	7439	9.5			

3-35

10-30

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Friday. February 21, 1919

9-00

RC	5571	11.5
	2820	10.5
	1991	10.6
	5560	11.5
	2661	9.5
	3542	11.6
	5874	9.8
	7471	9.8
	3500	10.7
	7475	9.7
	2689	9.8
	2301	11.5
RC	5771	13.0
	3286	13.5
	5476	10.2
	5186	9.8
	3264	12.3

10-00

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1919phae.proj..745

Tuesday. February 25, 1919

10-20

Pole

Scale m	m D 2340 1st	2nd - 2nd	P. C. 2nd
5	3.5		
6	3.6	4.0 ~~6.0~~	
mongator 8	~~5.7~~ 5.7	6.0	
9	6.2	6.0	
10	6.2	6.5	
11	6.8	7.0	
12	7.0	7.2	
13	~~6.8~~	8.0	
14		8.2	
15		8.7	
16		8.8	
17		9.5	
18		9.0	
19		7.5 8	
20		11.0	
23			
25			

11-10

practice

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1919phae.proj..745B

Tuesday, February 25, 1919

Pole

2.10

In D 2340

P. C.

Scale In

	1st	2nd		2344 In 23	
5	3.7 / 3.5			3.8 3.75	2.74
6	4.8 / 4.6	4.60	4.4	4.0 4.30	2.81
8	6.2 / 6.0	5.90	5.6	5.75	2.48
9	6.2 / 6.0	6.40	6.6	6.50	2.33
10	6.4 / 6.2	6.45	6.5	6.60 6.53	2.49
11	7.1 / 6.9	7.15	7.2	7.6 7.38	2.17
12	7.0 / 6.8	7.15	7.3	7.1 7.12	2.74
13			7.5 ~~8.4~~	8.0 7.75	2.55
14			8.0	8.0 8.00	2.65
15			7.5 ~~8.5~~	7.0 7.75	383
16			8.8	8.8 8.00	3.40
17			8.8	8.8 8.00	3.63
18			9.2 ~~7.8~~	8.6 8.90	3.16
19			8.6 ~~12.4~~	8.4 8.40	4.02
20					
23					
25					

Regular

re-Exam. Mar. 5, 1920 4 units.

re-Exam. Mar 5, 1920 $\frac{2}{8a}$ units.

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1919phae.proj..7459

Tuesday, February 25, 1919

In D 2341

Scale In	1st		2nd
1	6.7 6.5	1 1 6.60	6.5
2			7.5
3			7.4
4			7.0
5			7.8
6			8.8
7			8.5
8			9.2
9			9.8
10			m.s.

Reject

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1919phae.proj..745B

Tuesday, February 25, 1919

Nu D 2343

Scale Nr	1st		2nd
	5.6	0 1	
1	5.4	5.55	5.5
	6.0	0 0	
2	5.8	6.00	6.0
	6.8	0 0	
3	6.6	6.80	6.8
	7.0	1 1	
4	6.8	7.10	7.2
5			7.5
6			8.0
7			8.5
8			8.8
9			8.9
10			9.0
11			9.5
12			9.9

Reject:

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1919phae.proj..7458

Tuesday, February 25, 1919

Pole

In D2344

Scale In	1st		2nd		
5	3.8 3.6			2.7	3.75
6	4.0 3.8			3.7	3.85
10	4.7 6.5	6.60	6.5	5.85	6.22
11			7.6	6.85	
12			7.1	6.90	
13			8.0	7.5	7.75
14			8.0	7.8	7.90
15			7.0	8.2	7.60
16			8.8	8.8	8.80
17			8.8	8.6	8.70
18			8.6	9.2	8.90
19			8.4	9.4	8.90
				9.8	

2 2 5 1
h 32

6 5
2 1
4 4
2 3
1 1
6 6
0 0
1 1
3 3
5 5

Reject

4-00

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1919phae.proj..745B

Thursday, February 27, 1919

9-30 M.D. Series 17

M D 2344

Pole

Scale M	1st		2nd		2351 h-30 Mean	Diff.	Curve ~~Ma~~	Magn.
5	3.20 ~~3.5~~			2.7	2.95	3.54	~~3.50~~	~~7.45~~
6	3.7 3.5			3.7	3.70	3.41	3.40	7.10
10	6.2 6.0	6.20	6.2	5.85	6.02	3.00	2.76	8.98
11	7.0 6.8	7.00	7.0	6.85	6.92	2.63	2.80	9.70 ~~9.62~~
12			7.2	6.90	7.05	2.81	2.80	9.95
13			7.6	7.5	7.55	2.75	2.70	10.35
14			8.2	7.8	8.00	2.65	2.71	10.91
15			8.7	8.2	8.45	2.63	2.75	11.26
16			~~7.5~~ 8.8	8.8	8.80	2.60	2.78	11.58
17			8.8	8.6	8.70	2.93	2.76	11.46
18			9.5	9.2	9.35	2.71	2.82	12.17
19			~~8.2~~ 9.4	9.4				

Re-expam. Mar. 5, error of unit.

Re-expam. Mar. 5. wrong star measured.

Meas. Mar. 5, not to be used.

8	5.6	5.8	5.45		2.88	
9	6.0	6.2	6.10		2.73	
20		9.8	9.8		2.93	

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1919phae.proj..745

Thursday, February 27, 1919

~~M D~~ Series 17

M D 2346 K6 Alt. Cor. -.04

Scale M	1st	2nd	Curve	Magn.
1		7.5	2.70	10.20
2		7.6	2.70	10.30
3		7.8	2.70	10.50
4		8.0	2.71	10.71
5		8.8	2.75	11.55
6		9.0	2.79	11.79
7		9.1	2.80	11.90
8		9.2	2.80	12.00
9		9.5	2.84	12.34
10		9.9	2.89	12.79
11		Tf		
~~12~~				

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1919phae.proj..745B

Thursday, February 27, 1919

M D Series 17

M D 2347 K101 Alt. Corr. +.06

Scale M	1st.		2nd.	Curve	Magn.
1	5.6 5.4	01 5.55	5.5	2.86	8.41
2	6.6 6.4	01 6.55	6.5	2.71	9.26
3	6.4 6.2	22 6.20	6.0	2.73	8.93
4	7.2 7.0	22 7.00	6.8	2.70	9.70
5			7.7	2.70	10.40
6			8.0	2.72	10.72
7			8.4	2.75	11.15
8			8.9	2.79	11.69
9			9.0	2.79	11.79
10			m.s.		

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1919phae.proj..7458

Thursday, February 27, 1919

In D Series 17

In D 2348 K126 Obs. Corr. -.18

Scale In	1st		2nd.	Curve	Diagn.
	5.42				
1	5.0	5.40	5.4	2.90	8.30
	6.3	6 12			
2	6.1	5.15	6.0	2.74	8.89
3			7.5	2.70	10.20
4			7.8	2.71	10.51
5			7.8	2.71	10.51
6			8.5	2.75	11.25
7			8.9	2.79	11.69
8			9.2	2.80	12.00
9			10.0	2.90	12.90

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1919phae.proj..745B

Thursday, February 27, 1919

M D Series 17

M D 2349 K52 Clt. Cor. +.20

Scale M	1st		2nd	Curve	Magn.
1	6.7 6.5	11 6.60	6.5	2.71	9.31
2	7.0 6.8	01 6.95	6.9	2.70	9.65
3	7.2 7.0	01 7.15	7.1	2.70	9.85
4			7.5	2.70	10.20
5			7.8	2.71	10.51
6			8.2 ~~8.4~~	2.73	10.93
7			8.9	2.79	11.69
8			8.8	2.78	11.58
9			9.4	2.82	12.22
10			9.6	2.85	12.45
11			9.7	2.86	12.56
12			10.0	2.90	12.90
13					

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1919phae.proj..745

Thursday, February 27, 1919

Sun Series 17

Sun 2350 K 29 Alt. Corr. +.21

Scale Sun	1st		2nd	Curv	Magn.
1	4.7 4.5	4.55	4 5.4	3.14	7.69
2	5.4 5.2	5.45	5.5	2.89	8.34
3	6.7 6.5	6.70	6.7	2.71	9.41
4	7.0 6.8	6.90	6.8	2.70	9.60
5	~~5.2~~		7.8	2.71	10.51
6			8.2	2.73	10.93
7			8.4	2.75	11.25
8			8.9	2.79	11.69
9			9.6	2.84	12.44
10			9.8	2.88	12.68

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1919phae.proj..745B

Thursday, February 27, 1919

~~Mt~~ Series 17

~~Mt~~ 2351

Pole

Scale Mm.	1st	2nd		Curve	Magn.
5	2.7 2.5				
6	3.7 3.5			3.40	7.10
7	5.4 5.2	5.45	5.5	2.89	8.34
9	6.2 6.0	6.10	6.0	2.99	9.09
10	~~6.9~~ 6.1 ~~5.9~~	5.85	5.8	3.06	8.91
11	6.7 6.5	6.85	7.0	2.79	9.64
12	7.0 6.8	6.90	6.8	2.78	9.68
13			7.5	2.71	10.21
14			7.8	2.71	10.51
15			8.2	2.73	10.93
16			8.8	2.78	11.58
17			8.6	2.76	11.36
18			9.2	2.80	12.00
19			9.4	2.74	12.14
20			9.8	2.78	12.58

12-3 d

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1919phae.proj..745

Saturday, March 1, 1919

11-20

	9	18205	13.4
		34027	9.9
defect ~~crossing plate~~ measured		18204	12.3
		17811	12.8
		16754	10.9
		15697	12.0
		17526	10.9
	QC	2237	10.0 images elongated - ft.
		7523	10.1
~~n m.s.~~		3501	11.5
		7381	10.2
n.s. < h		2247	10.5
near edge		2340	11.5
	mC	5771	13.0
	9	34037	10.2 images elongated.

12-30

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1919phae.proj..745B

March 3, 1919

9-45

March 3, 1919

~~QC~~ ?	16754	11.0	+20
QC	2237	10.6	+08
QC	5771	13.3	±18
~~?~~	~~34027~~	9.8	~~-15~~
?	15697	12.3	±20
?	34037	10.2	±11
?	18204	13.3	±14

10-15

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1919phae.proj..7458

Thursday, March 6, 1919

9-20 ~~Mt~~ Series 17

Scale In Mt D 2340 Pole

2344 p. 36

	Sc 1		Sc 2		Mean	Diff.		
	3.7				3 3		13	8 3
5	3.5			3.2	3.29 3.45	3.04	3.20	6.65
	4.0	00			2 1		5	7.0 5
6	3.8	4.00	4.0	3.7	3.11 3.85	3.26	3.09	6.94
	6.0	1 1			00			7
8	5.8	5.90	5.8	5.90	2.33 5.90	2.33	2.57	8.43
	6.6	0 1			3 3		47	9.02
9	6.4	6.55	6.5	6.10	2.28 6.32	2.51	2.50	8.82
	6.7	1 0			4 3		5	9.20
10	6.5	6.75	6.8	6.10	2.27 6.42	2.60	2.49	8.91
	7.2	1 1			10			9.50
11	7.0	7.10	7.0	7.00	2.45 7.05	2.50	2.40	9.45
					3 3		7	10.17
12			7.8	7.20	2.66 7.50	2.96	2.38	9.88
					11			35
13			8.0	7.8	7.90	2.40	2.36 5	10.26
					00			
14			8.7	8.7	8.70	1.95	2.45	11.15
					00			
15			8.8	88	8.80	2.28	2.48	11.28
					00			
16			8.9	8.9	8.90	2.50	2.50	11.48
					2 2		48	.28
17			8.8	9.2	9.00	2.63	2.52	11.52
					1 1			7
18			9.2	9.4	9.30	2.76	2.59	11.89
					1 2		72	.52
19			9.5	9.8	9.65	2.77	2.80	12.45
20			9.8	a.s.	.	2.93	2.87	12.67

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1919phae.proj..745B

Thursday, March 6, 1919

~~In D~~ Series 17

In D 2341 K 124 ~~Pole~~ alt. con. -.19

	Scale In	Sc1		Sc2	Cw. ~~Diff~~	Magn
1		6.7 6.5	6.85	7.0	2.43	9.28
2				~~7.8~~ ~~8.2~~	2.35	10.55
3				8.4	2.36	10.76
4				7.2	2.40	9.60
5				8.8	2.48	11.28
6				8.5	2.40	10.90
7				9.1	2.59	11.69
8				9.8	2.87	12.67
9				9.2	2.59	11.79
10				n.s.		

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1919phae.proj..7451

Thursday, March 6, 1919

In D Series 17

In D 2243 1276 Corr. +.16

Scale In	Sc 1		Sc 2	Cw. ~~Diff.~~	Magn.
	6.0	00			
1	5.8	6.00	6.0	2.55	8.55
	6.2	00			
2	6.0	6.20	6.2	2.51	8.71
	7.0	00			
3	6.8	7.00	7.0	2.41	9.41
	7.7	2 1			
4	7.5	7.50	7.4	2.38	9.88
5	~~7.8~~		7.8	2.37	10.17
6			8.5	2.41	10.91
7			8.6	2.43	11.03
8			8.8	2.48	11.28
9			9.0	2.53	11.5/43
10			9.4	2.68	12.08
11			9.5	2.72	12.22
12			9.9	2.91	12.81
13			n.s.	.	

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1919phae.proj..745B

Thursday, March 6, 1919

In ~~D~~ Series 17

In D 2344

Pole

Scale In	Sc 1		Sc 2	Cw.	Magn.
5	3.2 3.0			3.28	6.48
6	3.7 3.5			3.13	6.83
8	6.0 5.8	1 1 5.90	5.8	2.57	8.48 7
9	6.2 6.0	1 1 6.10	6.0	2.53	8.63
10	6.2 6.0	1 1 6.10	6.0	2.53	8.63
11	7.0 6.8	0 0 7.00	7.0	2.41	9.41
12	7.2 7.0	0 0 7.20	7.2	2.40	9.60
13			7.8	2.46 3	10.16
14			8.7	2.45	11.15
15			8.8	2.49	11.29
16			8.9	2.50	11.40
17			9.2	2.60	11.80
18			9.4	2.68	12.08
19			~~8.5~~ 9.8	2.86	12.66
20			m.s.		

11 - 00

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1919phae.proj..745

Saturday March 8, 1919

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1919phae.proj..745B

Tuesday, March 18, 1919.

Scale R

NC 6294 100 + 39.5 P.C

	Sc 1		Sc 2	Diff.	Sc 1		Sc 2	Diff.
11-30								
Ref. Sqg.	1 2.8 2.5			4 5.20	8.7 8.6 8.5	8.57-1	8.5	-1.57
Carte Sqg.	2 4.3 4.0			3.88	8.4 8.2 9.8 9.9 10.1	9.90	9.8	-1.72
	3 5.1 4.8			3.63	9.5 9.8 10.3 10.2	10.23 +1	10.2	-1.50
	4 5.8 5.5			3.32	10.0 9.9		10.8	-1.68
	5 6.1 5.8			3.66			12.5	-2.74
	6 7.1 6.8			2.98			12.8	-2.72
	7 7.1 6.8			3.48			13.0	-2.42
	8 7.9 7.6			2.94			13.4	-2.76
	9 8.3 8.0	8.25	8.2	2.97			13.5	-2.28
	10 9.4 9.1	9.60	9.8	2.36				
	11 9.8 9.5	9.90	10.0	2.38 ~~1.48~~				
	12 10.1 9.8	10.30	10.5	2.69				
	13		11.0	2.08				
	14		11.5	1.91				
	15		11.8	12.65				2.20
	16		12.8	12.5				1.64
	17		~~13.0~~ 12.5	12.65 12.8				1.76
	18		12.6	12.80 13.0				1.94
	19		13.0	13.05 13.1				1.88
	20		13.5	13.60 13.7				1.78

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1919phae.proj..7451

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Tuesday, March 18, 1919

Scale R. In C 62.94 1 00 + 39.3 P.C.

	Sc 1	Sc 2		Cu.	Magn.	Sc 1	Sc 2	Cu.	Magn.
Var. neg. a	8.2 7.9			2.91	11.11	* ~~mrs.~~	~~12.7~~ 12.0		
	7.7					m.s.	~~13.5~~	~~-2.24~~	~~9.56~~
b	7.4			3.05	10.75	* ~~mrs.~~	~~11.8~~	~~-2.63~~	10.87 10.87
	7.8								
c	7.5			3.02	10.82		12.8	-2.66	11.14
	7.5								
d	7.2			3.10	10.60		13.4	-2.61	10.79
	8.8								
e	8.3			2.75	11.55				
	7.9	11							
f	7.6	8.00	8.1	297	10.97				
	9.8	21							
g	9.5	9.65	9.5	2.50	12.15				
	10.1	10							
h	9.8	10.05	10.0	2.40	12.45				
	9.3	33							
k	9.0	9.60	9.9	2.52	12.12				
l	7		11.5	2.04	13.54				
	10.1	34	10.8		2.				
m	9.8	10.45	~~11.0~~	2.29	13.74				
	10.2	21	5						
n	9.9	10.35	10.7	2.31	12.66				
o			10.8	2.20	13.00				
p			10.9	2.19	13.09				
q			11.8	1.98	13.78				
			12.35	12					
r			12.5	12.2	1.86	14.~~36~~	21		
			12.75	01					
s			12.8	12.7	1.80	14.~~60~~	55		
			12.90	01			6		
t			13.0	12.8	1.79	14.79			
			13.15	01			3		
u			13.2	~~12.7~~	1.78	14.98			
			13.35	12			11		
w			13.5	13.2	1.76	15.~~26~~			

1.15

Star a p.c. superposed. ~~*Original reading correct. 11. star near mistaken for P.C.~~

Star b p.c. Reading 13.5, magn. 10.87 is correct. A bright star near by was mistaken for star b at first.

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1919phae.proj..745B

Wednesday, March 19, 1919

Scale R Nr C 6873 100 +39.5 P.C.

9-30		Scl	Sc2	Diff.	Scl		Sc2	Diff.
Ref. Segs.	1	2.1 / 1.8		4.90	8.3 / 8.0	8.15 (12)	8.0	-1.15
Carte	2	4.8 / 4.5		3.38	9.7 / 9.4	9.75 (10)	9.8 on s. 11.9	-1.57
	3	4.8 / 4.5		3.93	10.0 / 9.7	10.00 (00)	10.0	-1.27
	4	5.4 / 5.1		3.72	10.2 / 9.9	10.20 (00)	10.2	-1.08
	5	6.8 / 6.5		2.96			11.9	-2.14
	6	6.8 / 6.5		3.28			12.0	-1.92
	7	7.1 / 6.8		3.48			12.5	-1.92
	8	8.1 / 7.8		2.74			12.1	-2.26
	9	8.7 / 8.4		2.52			13.2	-1.98
	10	9.2 / 8.9		2.76			13.9	-1.94
	11	9.7 / 9.4		2.58				
	12	10.0 / 9.7	Sc.2	2.99				
	13	11.1		2.08				
	14	11.5		1.91				
*	15	11.9 / ~~10.8~~		2.10 / ~~3.20~~				
~~used Sc1 by mistake~~	16	12.0		2.29				
	17	12.2	12.20 (00)	12.2	2.11			
	18	12.4	12.60 (22)	12.5	2.14			
	19	12.8	12.80 (00)	12.8	2.13			
	20	13.0	13.00 (00)	13.0	2.38			
	21	13.4	13.40 (00)	13.4	2.42			
	22	n.s.						

* Re-examined Mar. 21 diff. of unit.

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Cepheid 38:36

Wednesday, March 19, 1919

Scale R InC 6873 100 + 39.5 P.C

	Sc1	Sc2	Cw.	Magn	Sc1	Sc2	Cw.	Magn
Var. Sequ. a	8.1 / 7.8		2.82	10.92	*	12.35 ±1 / 12.2 12.5	-1.92	8.08 10.43 11.27 *
b	7.7 / 7.4		2.90	10.60	*	11.90 ±1 / 11.8 12.0	-1.87	8.13 10.03 10.77
c	7.8 / 7.5		2.88	10.68		12.90 ±1 / 12.8 13.0	-1.98	8.02 10.72 11.88
d	7.5 / 7.2		2.95	10.45	Scratch on plate	12.70 ±1 / 12.6 12.8	-1.96	8.04 10.74 11.68
e	8.8 / 8.5		2.66	11.46		13.30 ±1 / 13.2 13.4	-2.01	8.99 11.29 12.31
f	8.3 / 8.0		2.76	11.06				
g	9.3 / 9.0		2.55	11.85				
h	9.9 / 9.6		2.46	12.35				
k	9.8 / 9.5		2.47	12.27				
l		10.8	2.29	13.09				
m		10.4	2.36	12.76				
n		10.5	2.34	12.84				
o		11.0	2.27	13.27				
p		10.9	2.28	13.18				
q	+	11.7	2.22	13.92				
r		12.0 / 12.0 (12.00 ±2)	2.22	14.42				
s		12.2 / 12.4 (12.30 ±1)	2.23	14.53				
t		12.5 / 12.6 (12.55 ±0)	2.24	14.74				
u		12.9 / ~~13.5~~ 13.2 (13.05 ±2)	2.30	15.35				
w		13.9 / 13.5 (13.70 ±2)	2.41	16.11				

11-30

* W.S. measured ~~by. Star near measured.~~ * Read curve wrong.

* W.S. measured by. star near measured by mistake.

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1919phae.proj..745B

Thursday, March 20, 1919

Scale R 1-20 — Ref. Seq. Carte — M C 6890 — 0 59 +29.5 — P.C.

	Sc1	Sc2	Diff.	Sc1		Sc2	
	2.8			8.1			−1.10
1	2.5		4.20	7.8		7.7	m.s.
	5.3			9.6	1 1		
2	5.0		2.88	9.3	9.70	9.8	−1.52
	5.8			9.8	1 1		
3	5.5		2.93	9.5	9.90	10.0	−1.17
	5.8			10.1	2 2		
4	5.5		3.32	9.8	10.30	10.5	−1.18
	6.7						
5	6.4		3.06			11.7	−1.94
	7.3						
6	7.0		2.78			12.0	−1.92
	7.7						
7	7.4		2.88			12.0	−1.42
	7.9						
8	7.6		2.94			12.6	−1.76
	8.6						
9	8.3		2.62			13.5	−2.28
	9.3	1 2					
10	9.0	9.15	9.0 2.81				
	9.9	1 0					
11	9.6	9.95	10.0 2.33				
	10.2	4 4					
12	9.9	10.6	11.0 2.39				
	10.3	2 2					
13	10.0	10.50	10.7 2.58				
			11.5 1.91				
* 14	11.0	m.s.	~~9.5 3.61~~				
15			11.8 2.20				
16			12.0 2.29				
17			12.0 * 2.31				
		0 0					
18		12.50	12.5 12.5 2.24				
		2 1					
19		12.65	12.8 12.5 2.28				
		1 0					
20		12.75	12.7 12.8 2.63				
		1 0					
21		13.25	13.3 13.2 2.57				
		2 2					
22		13.70	13.5 13.9 2.70				

* Wrong star measured - Re-examined Mar. 21 -

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1919phae.proj..7458

Copied 38:36

Thursday, March 20, 1919

Scale R In C 6890 0 59 + 39.5 P.C.

		Sc 1	Sc 2		Cm. Magn.	Sc 1	Sc 2	Cm. Magn.	
Var. Seq.	a	8.1 7.8			2.82	10.92	* ~~12.2~~	−1.82	10.38
	b	7.9 7.6			2.84	10.84	* ~~11.4~~ 11.7	−1.74	9.96
	c	8.3 8.0			2.80	11.10	12.7	−1.90	10.80
	d	7.8 7.5			284	10.64	12.6	−1.89	10.71
	e	9.1 8.8			2.74	11.84	13.2	−1.99	11.21
	f	8.2 7.9			2.81	11.81			
	g	9.4 9.1			2.72	12.12			
	h	9.8 9.5			2.71	12.51			
	k	9.6 9.3			2.71	12.31			
	l	10.0 9.7			2.69	12.69			
	m	9.9 9.6			2.70	12.60			
	n	10.1 9.8			2.68	12.78			
	o	10.3 10.0			2.66	12.96			
	p		10.4		2.64	13.04			
	q		11.0		2.55	13.55			
	r	12.0 00	12.0	12.0	2.31	14.31			
	s	12.0 00	12.0	12.0	2.31	14.31			
	t	12.35 12	12.5	12.2	2.29	14.64			
	u	12.80 00	12.8	12.8	2.40	15.20			
	w	13.55 11	13.5	13.6	2.63	16.18			

3-10

* W.S. measured.

* W.S. Pr. star near measured by mistake.

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1919phae.proj..745B

Wednesday, April 2, 1919

Direct estimates of variable R. T. Anderson -

11-10	-	AC ~~5192~~ 11090	11.7	
	~	5132	< 11.5	m.s.
	~	1727		t.p.
	~	4562	12.0	
	~	703	< 12.0	fogged.

11-30

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1919phae.proj..745

Friday, April 4, 1919

R. T. Androm-

1-30	✓	AC 11125	11.2	
	✓	4989		t.p.
	✓	1792		m.s.
	✓	4596	12.1	
	✓	950	< 12.0	m.s.
	✓	5215	< 12.0	
	✓	673	< 12.0	
	✓	7722	< 12.2	
	✓	4269		tail pl. i.
	✓	7335	12.1	
	✓	638	12.0	
	✓	4228	12.1	
	✓	7304	12.0	i
	✓	4259	12.2	
	✓	7279	12.0	
	✓	4210	< 12.0	
	✓	506	12.0	
	✓	7257		m.s. fogged
	✓	4144	11.0	
	✓	505	< 12.0	
	✓	7176	11.3	
	✓	493	10.9	
	✓	7083	12.1	
	✓	5153	< 12.0	

2-40

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1919phae.proj..745B

Saturday, April 5, 1919 -

R. T. Anderson -

11-20

	QC 9010		m.s. p.ft.
✓	2936	12.4	
✓	7771	< 12.0	m.s.
✓	5831	< 12.2	m.s.
✓	2929	~~+12.8~~ 12.3	very ft.
✓	8865	< 11.5	m.s.
✓	2876	12.2	
✓	5795	12.3	
✓	8997	12.4	
✓	5787	12.3	
✓	2795		L
✓	8893	< 12.0	m.s.
✓	4472		m.s. fogged.
✓	1690		m.s.
✓	5139	< 12.0	m.s.
✓	1222	~~+12.0~~ 11.2	
✓	4440	< 12.2	
✓	1181	< 12.0	m.s.
✓	8000	12.2	
✓	4406	12.1	
✓	698	12.2	
✓	4373		m.s.
✓	7922		m.s.
✓	4330		ft. L

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1919phae.proj..745

Saturday April 5, 1919

R. T. Andrews -

✓ AC 684	11.4	
✓ 4321	< 12.2	~~f~~. n. s,
✓ 3310	11.3	
✓ 3296		n. s.
✓ 1154	12.4	
✓ 5291		n. s.
✓ 1852	12.2	~~f~~.
✓ 5067		n. s.
✓ 1053		L
✓ 5226	12.1	
✓ 1884	12.1	

12-50

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1919phae.proj..745B

Tuesday, April 8, 1919

R. L. Lindsay

11-45

✓ AC 1977	10.8	
✓ 3162	n.s.	E
✓ 6151	n s	i
✓ 2073	< 12.0	i
✓ 5455	½ n.s.	i
✓ 2045	12.3	scratched
✓ 8118	12.1	
✓ 5436	n.s.	images dbl.
✓ 8056	< 12.4	
✓ 8030	12.3	
✓ 1956	< 12.4	
✓ 5411	< 12.0	
✓ 8022	< 12.4	in. dbl.
✓ 5313	12.3	
✓ 2741	12.0	
✓ 5762	< 11.0	fogged
✓ 8878	# 12.2	
✓ 2711	12.1	
✓ 5713	12.3	
✓ 8809	12.2	
✓ 2342	< 12.0	n.s.
✓ 5655	12.2	
✓ 8747	< 12.0 n.s.	n.s. very ft. other stars
✓ 5624	12.3	

12-30

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1919phae.proj..7451

Tuesday, April 8, 1919

R. T. Cudnom -

1-30

✓	RC	2280	<12.0	crsy ft.
✓		8701	12.1	
✓		2225	<12.0	n.s.
✓		5547	<12.2	n.s.
✓		8669	<12.0	
✓		2194	n.s.	T.h. -
✓		5512	<12.0	"
✓		8625	12.0	
✓		2134	<12.0	n.s. images dbl.
✓		5487	<12.0	n.s.
✓		8255	12.1	
✓		3943	n.s.	images dbl.
✓		7060	12.1	
✓		6904	11.3	
✓		482	n.s.	fogged
✓		6857	12.1	
✓		7028	12.1	
✓		157	11.4	
✓		7008	12.0	
✓		69	t.p.	
✓		6845	12.1	
✓		48	<10.9	n.s.
✓		7007	11.4	
✓		3835	t.p.	

2-15

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1919phae.proj..745B

Wednesday, April 9, 1919

R. X. Anderson.

1-45

✓	@C 6753	11.1	
✓	7006	11.3	
✓	6730	11.4	
✓	3239	12.2	
✓	6952	12.0	
✓	6697	< 12.0	m.s
✓	3156	m.s	fogged
✓	6909	< 11.0	m.s.
✓	6682	12.0	
✓	3136	12.1	
✓	9091	t.f.	
✓	6621	12.0	
✓	3086	< 12.2	m.s.
✓	9079	~~ft.~~	
✓	6527	12.1	
✓	3079	12.1	
✓	9036	12.0	i
✓	2957	< 12.2	
✓	6488	< 11.0	m.s,
✓	6023	< 12.0	m.s.
✓	2942	12.3	
✓	5856	m.s.	hpl.

2-15

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1919phae..proj..745

Monday, April 14, 1919

R. X. Anderson.

1-15

✓	AC 13349	< 12.0	n.s.
✓	9692	12.2	
✓	16821	10.7	
✓	13320	< 12.0	
✓	10622	11.4	
✓	9660	< 12.0	
✓	13283	12.1	
✓	9605	< 11.0	n.s.
✓	15378	< 12.0	mi. dbl. elong. i
✓	9595	n.s.	
✓	16744	n.s.	mi. dbl.
✓	12897	< 12.0	n.s.
✓	15339	< 12.0	
✓	9242	12.2	
✓	16719	< 11.0	
✓	12877	12.5	
✓	14276	< 11.5	n.s.
✓	14829	< 12.0	n.s.
✓	9130	< 12.2	n.s.
✓	14190	< 11.0	n.s. fogged
✓	16584	< 11.0	n.s.
✓	12836	12.1	
✓	14763	< 12.0	n.s.
✓	9129	12.1	i

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1919phae.proj..745B

Monday. April 14, 1919

✓	QC 12218	< 12.0	n. S.
✓	16912	< 12.0	n. S.
✓	9760	12.1	i
✓	10577	11.2	
✓	12192	< 12.4	
✓	16873	11.0	
✓	10267	12.1	
✓	13287	< 11.5	
✓	~~14371~~		yellow -
✓	15515	< 12.0	n. S.
✓	12535	< 11.0	n. S.
✓	~~15880~~ 11800	< 12.0	n. S.
✓	14348	n. S.	i
✓	12505	< 12.0	n. S.
✓	15740	12.1	
✓	12066	12.3	
✓	15486	12.2	
✓	14343	12.2	
	~~15670~~	~~n. S.~~	yellow -

2-20

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1919phae.proj..745

Tuesday, April 15, 1919

R. X. Anchom.

1-20

✓	AC 12170	12.2	
✓	14772	n.s.	p
✓	16675	< 12.0	n.s.
✓	10020		5 images diff. to identify.
✓	13515	12.1	
✓	17061	12.0	
✓	10004	n.s.	fogged
✓	10975	< 11.0	n.s.
✓	13475	n.s.	yellow
✓	12259	12.3	
✓	17023	< 12.0	n.s.
✓	10937	n.s.	÷ dk. images
✓	9990	< 12.0	n.s.
✓	13384	12.3	
✓	16958	12.5	
✓	9962	< 12.0	n.s.
✓	10923	< 12.2	n.s.
✓	12238	12.4	
✓	9915	< 12.0	n.s. i
✓	10698	t.p.	
✓	9872	12.2	i
✓	11769		pl. smudged in region.
✓	10210	12.1	
✓	11316	< 12.2	n.s.

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1919phae.proj..745B

Tuesday, April 15, 1919

R. K. Lindsay.

✓	RC 17400	m.s	i p
✓	10171	12.2	
✓	11265	<12.0	m.s.
✓	13522	12.1	
✓	10111		3 images - diff. to identify.
✓	11254	12.4	
✓	12478	<12.0	m.s.
✓	10040	12.1	
✓	17393	<12.0	m.s.
✓	10032	m.s.	poor focus.
✓	11144	12.0	
✓	12288	12.3	
✓	11040	<12.0	i
✓	17254	11.2	
✓	11020	11.1	
✓	10985	<12.0	m.s.
✓	17146	10.9	fogged.
✓	21212	m.s.	
✓	16718	m. ε	ε
✓	12714	≈12.2	m.s.
✓	11981	11.0	
✓	14520	12.2	

2-40

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1919phae.proj..745

Friday, April 18, 1919

R.A. Androm.

1-30

✓ AC 9122	<12.2	m.s.
✓ 11781	11.0	
✓ 14622	12.2	
✓ 12773	11.0	
✓ 16307	<11.0	m.s
✓ 13729	<12.2	
✓ 12026	m.s.	i
✓ 14585	<12.2	m.s.
✓ 13677	11.2	
✓ 16220	<12.0	~~m.s.~~ f.
✓ 12758	12.4	
✓ 14551	t.p.	
✓ 11999	<11.0	m.s.
✓ 13554	>10.6	
✓ 16184	12.1	
✓ 11917	~~2~~ t.p.	
✓ 15573	<10.6	m.s.
✓ 12645	12.3	
✓ 14437	t.p.	
✓ 15533	<12.0	m.s.
✓ 12632	<12.0	m.s.
✓ 16029	12.4	
✓ 14425	t.p.	
✓ 11894	t.p.	

2-30

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1919phae.proj..745B

Monday, April 21, 1919

R. K. Anderson.

~~Plate~~

1-15

✓	AC 15983	12.3	
✓	15530	ft.	
✓	12587	<12.0	
✓	11864	t.p.	
✓	11750	ft.	
✓	16577	m.s.	
✓	14163	<12.0	m.s. stars ft.
✓	9123	<12.2	
✓	14697	>10.6	
✓	12795	10.9	
✓	14141	ft.	

1-30

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1919phae.proj..7458

Monday, April 21, 1919

R.A. Ruchrom -

1-40

Plate reversed -

✓ AC ~~9130~~ 9130 ~~<12.0~~	<12.0	n.s.
✓ 14190	n.s.	fogged
✓ 14829	<12.0	n.s.
✓ 14276	~~ft.~~	
✓ 12877	12.4	i
✓ 16719	~~n.s.~~ ~~ft.~~	stars ft.
✓ 9242	12.2	
✓ 15339	<12.0	n.s.
✓ 12897	<12.2	n.s.
✓ 16744	n.s.	images dbl.
✓ 9595	n.s.	stars ft.
✓ 15378	n.s.	i
✓ 9605	~~ft.~~	
✓ 13283	~~ft.~~	
✓ 9660	12.1	
✓ 10622	11.4	
✓ 13320	<11.0	n.s.
✓ 16831	11.0	
✓ 9692	12.1	
✓ 13349	~~ft.~~	

2-20

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1919phae.proj..745B

Wednesday, April 23, 1919

R. H. Rudkin.

1-30

Plate reversed -

✓	RC 7922	n.s.	t.p.
✓	7771	<12.0 ~~n.s~~	n.s
✓	7722	<12.0	n.s.
✓	7335	12.0	
✓	7304	n.s.	i
✓	7276	12.0	ft.
✓	7257	n.s.	t.p.
✓	7176	11.2	
✓	7085	12.4	
✓	7028	12.1	
✓	7008	12.0	i
✓	7007	12.0	i
✓	7006	11.3	
✓	6952	12.0	
✓	9079	<11.0	n.s.
✓	15983	12.4	
✓	8893	<12.0	n.s,
✓	9123	12.3	
✓	8747	n.s.	stars ft.
✓	15530	<12.0	n.s,
✓	9091	n.s,	5 images -
✓	12587	<12.0	n.s.
✓	8997	12.5	
✓	6488	<11.5	n.s.

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1919phae.proj..7459

Wednesday, April 23, 1919 -

R. X. Androm.
Plate reversed.

✓ AC 14697	> 10.6 ~~n.s.~~	
✓ 8809	12.1	
✓ 6527	12.1	
✓ 12795	11.1	
✓ 8865	< 11.5	n.s.
✓ 8030	12.5	
✓ 6621	12.0	
✓ 14163	< 12.0	n.s.
✓ 9010	n.s.	t.p.
✓ 8878	12.3	
✓ 6682	12.1	
✓ 8056	12.5	
✓ 6697	< 12.0	n.s.
✓ 14141	12.3	
✓ 8625	12.0	
✓ 11750	< 12.0	n.s.
✓ 6730	12.0	
✓ 8118	12.3	
✓ 6753	11.2	
✓ 8669	12.1	
✓ 6904	11.9	
✓ 16577	n.s.	stars ft.
✓ 8255	12.2	

2-45

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1919phae.proj..745B

Thursday, April 24, 1919

R. T. Androm:

9-45

Plate reversed -

	AC ~~14772~~	n.s.	~~t.p.~~ yellow.
✓	7883	n.s.	t.p.
✓	12170	12.2	
✓	6151	n.s.	sc. i
✓	16675	12.3	
✓	16220	12.1	i
✓	11316	<12.2	n.s.
✓	3156	n.s.	foggy
✓	12758	12.5	
✓	3239	12.2	
✓	14551	n.s.	t.p.
✓	3310	12.0	
✓	11999	~~ft.~~	
✓	6909	<12.0 ~~n.s.~~	stars ft.
✓	13554	>10.6 ~~<13.0~~	
✓	3835	n.s.	t.p.
✓	11917	n.s.	t.p.
✓	6857	12.1	
✓	15573	<10.9	n.s. ~~foggy~~ i
✓	4144	11.0	i
✓	16132	12.1	
✓	8701	12.1	
✓	4210	12.1	

10-45

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1919phae.proj..7451

Thursday, April 24, 1919

R. T. Leuchars.

2-30

Plate reversed.

✓ aC 11090	12.2'	
yellow ~~16184~~		
✓ 4228	12.1	
✓ 11864	m.s.	t.p.
✓ 12645	12.3	
✓ 6845	12.2	i
✓ 14437	∄. m.s.	t.p.
✓ 4259	12.1	
✓ 15533	<12.0	m.s.
✓ 4269	m.s.	i
✓ 12632	<12.0	m.s.
✓ 4321	<12.0	m.s.
✓ 16029	12.5	
✓ 48	m.s.	t.p.
✓ 14425	m.s.	t.p.
✓ 11894	m.s.	t.p.
✓ 64	t.p.	
✓ 2225	<11.5	m.s.
✓ 2280	<12.0	m.s.
✓ 16958	12.2	
✓ 9962	<12.0	m.s.
✓ 2342	<12.0	m.s.
✓ 10923	<12.0	m.s.
✓ 2711	12.1	

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1919phae.proj..745B

Thursday, April 24, 1919

R. T. Anderson.

Plate reversed

✓ RC 9122	<12.0	m.s.
✓ 2741	12.0	
✓ 2795	i	
✓ 11781	11.2	
✓ 12238	12.5	
✓ 2876	<12.0	m.s.
✓ 14622	12.2	
✓ 2929	<12.0	m.s.
✓ 12773	11.0	
✓ 9915	<12.0	m.s.
✓ 2936	12.5	i
✓ 16307	m.s.	t.p.
✓ 2942	12.4	
✓ 10698	m.s.	fogged
✓ 2957	<12.2	m.s.
✓ 13729	<12.2	m.s.
✓ 3079	12.2	
✓ 9872	12.2	
✓ 12026	m.s.	i
✓ 11769		defect.
✓ 14585	<12.2	~~m.s.~~ ft.
✓ 3086	<12.0	m.s.
✓ 13677	11.2	
✓ 10210	12.1	
✓ 3136	12.1	

3-30

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1919phae.proj..7454

Saturday, April 26, 1919

R.X. Cyclone.

9-45

Plate reversed

✓	AC 1977	11.2	
✓	950	<12.0	
	~~←~~	~~<12.0~~	
✓	1053	⊥	
✓	2045	12.4	
✓	12714	<12.2	m.s.
✓	1154	12.5	
✓	15486	12.3	
✓	2073	~~ft.~~	⊥
✓	1181	<12.0	m.s.
✓	11981	11.1	
✓	1690	m.s.	fogged
✓	14343	12.3	
✓	1727	m.s.	t.p.
✓	14520	12.3	
✓	2194	m.s.	t.p.
✓	1792	m.s.	t.p.
✓	10171	12.1	
✓	17400	m.s.	t.p.
✓	11265	<12.0 ~~m.s~~	m.s
✓	16584	<11.5	m.s.
✓	13522	12.1	
✓	10111	~~⊥~~	3 images
✓	11254	~~ft.~~	
✓	8000	12.3	

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1919phae.proj..745B

Saturday, April 26, 1919

R. X. Pendicon.

Plate reversed.

✓ RC 12478	< 12.2	n.s.
✓ 10040	12.1	
✓ 17393	< 12.0	n.s.
✓ 10032	n.s.	out of focus.
✓ 12836	12.1	
✓ 8022	12.5	
✓ 14763	< 12.0	n.s.
✓ 4330	< 11.0	i
✓ 10020		5 images.
✓ 4373	n.s.	t.p.
✓ 9129	12.3	i
✓ 4406	12.1	
✓ 4440	12.4	
✓ 11144	12.1	
✓ 4472	n.s.	t.p.
✓ 13515	12.1	
✓ 4562	12.1	
✓ 12218	< 12.0	n.s.
✓ 4596	12.2	
✓ 16912	< 12.0	n.s.
✓ 4989	n.s.	~~fogged~~ t.p.
✓ 17061	12.1	
✓ 5067	n.s.	t.p.
✓ 10004	n.s.	fogged

11-00

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1919phae.proj..745

Saturday, April 26, 1919

12.5 Andromm

Plate reserved

1-30

✓	RC 5762	n.s.	t.p.
✓	10937	n.s.	t.p.
✓	5787	12.4	
✓	5831	<12.2	n.s.
✓	10985	<12.0	n.s.
✓	5856	n.s.	t.p.
✓	9990	<12.0	n.s.
✓	6023	<12.0	n.s.
✓	482	n.s.	t.p.
✓	11800	<12.0	n.s.
✓	493	n.s.	t.p.
✓	17146	10.9	
✓	12192	<12.2	n.s.
✓	5296	n.s.	t.p.
✓	16873	11.3	
✓	5313	12.4	
✓	11040	<12.0	n.s.
✓	10267	12.1	
✓	13287	<11.5	n.s.
✓	5436	<12.0	n.s. images dbl.
✓	5455	12.2	i
✓	12259	12.3	
✓	5487	<12.0	n.s.
✓	17254	11.2	

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1919phae.proj..745B

Saturday April 26, 1919

R.A. - Condron =

Plate reversed - -

✓ QC 5512	<12.0	m.s. i
✓ 5547	<12.0	m.s.
✓ 17023	<12.0	m.s.
✓ 5655	12.2	
✓ 15515	<12.2	m.s.
✓ 11020	11.2	
✓ 5713	12.1	
✓ 12535	m.s.	t.p.
✓ 2134	m.s.	t.p. v. dbl.
✓ 9760	12.2	i
✓ 5153	<12.0	m.s.
✓ 10975	~~ft.~~	
✓ 5215	<12.2	m.s.
✓ 13384	12.4	
✓ 505	~~ft.~~	i
✓ 14348	i	
✓ 506	~~ft.~~	
✓ 12505	<12.0	m.s.
✓ 511	12.1	
✓ 18522	<12.0	m.s.
✓ 638	12.1	
✓ 21212	m.s.	t.p.
✓ 673.	<12.0	m.s.
✓ 15740	12.1	
✓ 684	12.1	sc. i

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1919phae.proj..745

Saturday, April 26, 1919

R. A. Androm-

Plate reversed-

✓	RC 1884	< 12.2	m.s.
✓	698	12.2	sci.
	~~16718~~		+59.6
✓	1886		mul. image.
✓	12066	12.4	
✓	703	12.4[3]	
✓	1956	< 12.0	m.s.
✓	10577	11.3	
✓	5226	11.4	
✓	12288	12.3	
✓	5291	m.s.	T.p.

2-40

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1919phae.proj..745B

Monday, April 28, 1919

R. T. Andrews.

1-10

✓	AC 19690	11.4	
✓	17891	<12.0	m.s.
✓	19209	<12.0	m.s.
✓	17867	m.s.	t.p.
✓	18153	10.9	
✓	19166	m.s.	t.p.
✓	18099	<12.2	m.s.
✓	19662	<11.5	m.s.
✓	17697	<12.0	m.s.
✓	18068	<12.2	m.s.
✓	20556	m.s.	i
✓	19567	11.4	
✓	18029	<13.1	m.s.
✓	20533	<12.2	m.s.
✓	19556	10.7	i
✓	18012	m.s.	t.p.
✓	20461	m.s.	~~t.p.~~ q.
✓	17953	<11.5	m.s.
✓	19474	12.2	i
✓	17927	11.4	
✓	19415	12.2	
✓	21117	<12.2	m.s.
✓	17895	<12.2	m.s.
✓	19116	<11.5	m.s. i

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1919phae.proj..745

Monday, April 28, 1919

R.X. Androm.

✓ AC 20992	12.3	
✓ 19375	10.8	
✓ 20392	12.3	
✓ 19061	11.0	i
✓ 20892	<12.0	m.s.
✓ 18926	<12.2	m.s.
✓ 20327	<12.0	m.s.
✓ 20784	12.0	
✓ 18633	m.s.	t.p.
✓ 20255	11.3	
✓ 18521	<11.0	m.s.
✓ 20768	11.1	
✓ 19930	m.s.	~~t.p.~~ g i
✓ 18489	12.4	i
✓ 20750	11.2	
✓ 18322	11.3	
✓ 19285	<10.6	m.s.
✓ 20672	<12.0	m.s.
✓ 19784	11.4	i
✓ 18245	>10.6	
✓ 20633	10.8	
✓ 19709	<10.6	m.s.
✓ 19256	11.2	
✓ 20596	m.s.	t.p.

2-10

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1919phae.proj..745B

Tuesday, April 29, 1919

R. L. Anderson.

Reversed plate.

9-20				
	✓	RC 19567	11.5	
	✓	20556	m.s.	i
	✓	18068	<12.2	m.s.
	✓	17697	<12.0	m.s.
	✓	19662	m.s.	g; stars m.s. in this region.
	✓	18099	<12.2	m.s.
	✓	19166	m.s.	g
Sun too bright.	✓	18153	11.2	
9-40	✓	17867	m.s.	t.f.
2-20	✓	19209	<12.0	m.s.
	✓	17891	<12.2	m.s.
	✓	19690	11.4	
	✓	21117	f 12.3	
	✓	19415	12.3	
	✓	17927	11.9	
	✓	19474	12.3	
	✓	17955	m.s.	g
	✓	20461	f	
	✓	18012	m.s.	fogged.
	✓	19556	11.0	i
	✓	20533	<12.0	
	✓	18029	<13.1	m.s.
	✓	20327	<12.0	m.s.
	✓	18926	<12.0	m.s.

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1919phae.proj..745

Tuesday, April 29, 1919

R. L. Anderson -

Plate reversed -

11.5 written by mistake	✓	AC 20892	~~<12.0~~ ~~11.5~~	m. s.
	✓	19061	11.4	
	✓	20392	12.2	
	✓	19375	11.1	
	✓	20992	12.1	
	✓	19116	m. s.	i
	✓	17895	f.	
	✓	20596	m. s.	t. p.
	✓	19256	11.2	
	✓	19709	m. s.	t. p.
	✓	20633	11.0	
	✓	18245	10.6	
	✓	19784	12.0	
	✓	20672	<12.0	m. s.
	✓	19285	m. s.	q
	✓	18322	12.1	
	✓	20750	11.5	
	✓	18439	12.4	
	✓	19930	m. s.	q
	✓	20768	11.0	
	✓	18521	m. s.	t. p.
	✓	20255	12.1	
	✓	18633	m. s.	t. p.
	✓	20784	12.1	i

3-20

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1919phae.proj..745B

Thursday, May 1, 1919

R. T. Anderson.

1-30

✓ I	14003	11.6 ~~+2.2~~ m.s.
✓	29524	11.3
✓	7560	12.3
✓	21753	11.3 ~~+2.0~~ m.s.
✓	4204	11.8 ~~+2.1~~ m.s.
✓	27996	11.9 ~~+2.2~~ m.s. per.
✓	3104	11.4
✓	25911	13.2
✓	2690	m.s. t.p.
✓	19626	11.4
✓	33393	11.2
✓ mC	6099	12.7
	~~2086~~	

2-00

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1919phae.proj..7459

Friday, May 2, 1919

R. T. Andrews.

9-15

✓	InC	2086	12.2	
✓		6890	11.5	
✓		6294	12.2	
✓		13462	12.4	
✓		15248	11.0	
✓		~~6890~~ 6837	12.0	out of focus.
✓		6873	12.2	
✓		~~6890~~	~~11.5~~	2 measures dup.
✓		6703	11.9	
	AC	3943	n.s.	in. dbl. 9-35

Date by watch

10-30

Plate removed

✓	AC	7060	12.1	
✓		5132	n.s.	q. class not seen.
✓		1222	12.0	
✓		157	11.4	
✓		9036	12.1	i
✓		5795	f.	~~out of focus~~
✓		3943	n.s.	in. dbl.
✓		5624	f.	
✓		5411	<12.0	n.s.
✓		11125	11.2	

10-45

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1919phae.proj..745B

Saturday, May 3, 1919

R.A. Random.
Plate reversed.

2-00

✓ I 33393	11.8	
✓ 19636	11.7	
✓ 27996	12.3	
✓ 2690	m.s.	t.f.
✓ 25911	13.2	
✓ 3104	11.7	
✓ 4304	11.8	
✓ 21753	11.7	
✓ 7560	12.3	
✓ 29524	11.8	
✓ 14003	12.3	
✓ mC 6703	11.9	
✓ 6890	11.9	
✓ 6873	12.3	
✓ 2086	12.3	e
✓ 6837	12.1	out of focus.
✓ 6294	11.8	
✓ 6099	12.7	
✓ 13462	12.6	
✓ 1524.8	11.2^3	

3-00

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1919phae.proj..7459

Tuesday, May 6, 1919

R. L. Andrews.

1-30

✓	AC 5933	12.2	
✓	7883	.	I.f.
✓	7276	12.2	
✓	5773	12.3	
✓	6053	12.2	i
✓	7009	.	~~f~~ i
✓	6063	< 12.2 ~~n.s.~~	n. s.
✓	511	12.2	

1-50

2.30

Plate reversed	AC 7009	.	i
✓	4391	12.2	
✓	7083	12.2	
✓	6063	< 12.2	n. s.
✓	21212	n. s.	~~f.f.~~ q.
✓	6053	12.2	i
✓	5773	12.3	

2.40

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1919phae.proj..745B

Tuesday, June 10, 1919

12-0

R. T. Anthon.

	✓AC 588	m.s.	t.p.
	✓AC 10745	m.s.	t.p.
reversed	✓AC 5933	12.2	
"	✓AC 588	m.s	t.p.
"	✓AC 10745	m.s.	t.p.

~~12-10~~

12.10

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1919phae.proj..7459

Tuesday, June 10, 1919

1-30

R. T. Andrews.

2nd. expm. - List of plates - diff - of .3 magn.

✓	AC.	1956	12.4	var. seen very ft -
✓		1222	11.3	i
✓		2225	< 12.0	i
✓		17927	11.4	
✓		16873	11.1	
✓		16831	10.8	
✓		13320	12.0	e not seen -
✓		16675	12.2	
✓		6904	11.2	i
✓		6488	< 11.5	n.s.
✓		16584	< 11.0	
✓		7007	11.4	i
✓		15573	< 10.6	i fogged
✓		6909	12.0	very faint -
✓		6730	~~+2.1~~ 11.4	
✓		5226	12.0	i
✓		3310	11.3	
✓		2929	< 12.2	n.s.
✓		1977	10.8	
✓		703	12.2	i
✓		684	12.1	
✓		11090	12.1	

< omitted prob. error Sept. 5, 1919

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1919phae.proj..745B

Tuesday, June 10, 1919

R. T. Anderson -

2nd - Expose -

✓	QC	19784	11.7	
✓		20255	12.1	e very faint -
✓		20750	11.5	
✓		19556	11.0	i
✓		18322	12.1	
✓		19375	~~11.2~~ 10.8	e ft. than g.
✓		19061	11.5	ft.
✓		18153	11.2	

2-30

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1919phae.proj..7458

Thursday, June 12, 1919

R. L. Androm -

1-15			2nd exps.	
✓	I	19636	11.3	
✓		33393	11.6	
✓		14003	11.8	out of focus -
✓		3104	11.4	
✓		21753	11.6	
✓		27996	12.3	acc.
✓		29524	11.6	
✓	InC	6890	11.8	
✓		6294	12.1	
✓		15248	11.2	

1-45

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1919phae.proj..745B

Tuesday, June 24, 1919

R. T. Crawford.

10-45

2nd. Expose.

✓	RC 18245	10.1[5]	var. 1d grade br. than d, br. star in Seq.
✓	13554	10.6	ft. comp. stars not seen. var 0d
✓	14697	10.7[3]	var 3d Dm

Est. made by Arg. method. 10-55

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1919phae.proj..7468

September 5, Thursday, 1919

R. T. Anderson.

1-00

✓ 933393	11.5	segg. poorly marked on plate in ink -
✓ RC 19784	11.5	elongated images -
✓ RC 13320	~~+1.0~~ 12.0	n. s. g crony ft. e not seen -

1.05

These three plates questioned in Calyx by Miss Leavitt - third exam'd

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1919phae.proj..745B

Monday 8
~~Friday~~ September 5, 1919

11-15 Series 668

mC 10897 Pole

mC 10902
+.86

Scale m

		Sc1		Sc2		Mean	Res.	Diff	Sc1	P.C.	Sc2		Mean	Res.	Diff	Sc
10	a	~~4.9~~ 4.8	±0 4.15	4.2	4.55	4.38	18	17	4.64		9.2	9.4	9.30	±1	-0.28	
11	b	4.6	±0 4.70	4.8	5.65	5.70	85	5	3.85		9.6	9.9	9.75	±1	-0.20	
12	c	~~5.3~~ 5.2 ~~4.8~~	±2 5.55	5.8	5.75	5.68	8	7	4.18		9.8		9.80	0	+0.06	
12	d	~~5.9~~ 6.0 5.8	0±1 6.05	6.1	6.10	6.08	3	2	4.22							
14	e	6.6 6.5	1±1 6.55	6.5	6.95	6.78	18	17	3.87							
15	f	~~6.9~~ 6.8	0±1 7.05	7.1	7.30	7.18	13	12	3.90							
16	g	~~7.1~~		7.1	7.5	7.30	2	2	4.10							
17	h			7.4	8.0	7.70	3	3	3.93							
18	k			7.8	8.6	8.20	4	4	3.86							
19	l			8.3	8.8	8.55	3	2	3.87							
20	m			8.8	8.7	8.75	0	1	3.98							
22	n			9.2	9.5	9.35	2	1	3.84							
25	o			~~9.8~~ 9.8	m.s.	9.80	0	·	4.07							
	p															
	q															
	r															
	s															
	t															
	u															
	w															

Reject P.C.

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1919phae.proj..7468

Monday 8
~~Saturday~~ September 6, 1919

Series 668
In C 10897

Diff. Images

Scale In	Diff Imag. Sc 1 g	Sc 2	h Sc 1	Sc 2	g Sc 1	Sc 2	h Sc 1	Sc 2	Means	Res.	Diff.
10					8.6	8.70	8.8		8.85	8.78	8 7	+0.24
11					8.9	8.95	9.0		9.00	8.98	3 2	+0.57
12					9.2	9.15	9.1			9.15	0 .	+0.71
13					9.5	9.65	9.2			9.65	0 .	+0.65
14												
15												

Reject

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1919phae.proj..745B

Monday, September 8, 1919 Colored 38.45

Series 668 × Serpentis

Scale In InC 10898 16 - 0.0 Cata con. 0.0

	Sc 1		Sc 2	Curve	Imagin.	Sc 1	P.C.	Sc 2	Curve	Imagin.
	2.67					7.7	10 1/2			
a	2.5					7.0	7.05	7.0		
b	3.84 / 3.2							7.9		
c	3.7 / 3.5 / 3.4							8.0		
d	4.7 / 4.0			4.70	8.90			8.7		
e	4.34 / 4.2	4.45	4.5	4.61	9.06			9.3	−0.31	8.99
f	4.87 / 4.3	4.75	4.8	4.50	9.25			9.6	−0.15	9.45
g	5.7 / 5.0	5.15	5.1	4.36	9.51					
h	5.8 / 5.4	5.70	5.7	4.19	9.89					
k	5.9 6.0 / 5.8	5.85	5.8	4.14	10.04					
l	6.67 / 6.5	6.75	6.9	3.96	10.76					
m	7.7 / 7.0	7.15	7.2	3.90	11.10					
n			7.5	3.87	11.37					
o			8.0	3.88	11.88					
p			7.8	3.87	11.67					
q			8.4	3.89	12.29					
r			8.8	3.90	12.70					
s			8.8 9	3.91	12.81					
t			9.0	3.92	12.92					
u			* 9.6 / 10.4	3.97	13.57					
w			t.f.							

Reject. P.C.

* wrongly recorded for 9.6

Sept. 15. Remember distinctly calling 4 tenths brighter than 10 on scale.

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1919phae.proj..7458

Monday, September 8, 1919

Series 668 × Serpentis

Scale In In C 10898

Diff - 7 images.

	Sc 1	Sc 2	Sc 1	Sc 2	Curve Magn.
a	6.0	6.80	6.2	6.0	
b	7.2	7.20 7.1	7.2	7.3	
c	6.7	6.80 6.5	6.7	6.5	
d	Sc 2	8.30	Sc 2		
e	8.5	8.55	8.6	+0.23 e	8.78 e
f		7.80	7.6		
g	9.2	9.25	9.3	+0.65	9.90
h	9.8	9.85	9.9	+0.87 e	10.72 e
k	9.9	9.95	10.0		

Reject

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1919phae.proj..745B

Monday, September 8, 1919

Series 668.

Scale 9m

9mC 10902

9mC10897 n.82

Pole

	Sc1		Sc2	Sc1	P.C	Sc2
	4.~~7~~	1 2				
10	4.3	4.5~~0~~	4.4			9.4
	5.~~4~~5	1 2				
11	~~5.3~~	5.6~~5~~	5.8			9.9
	~~5.6~~7	1 1				
12	~~7.0~~ m.s.	5.7~~5~~	5.8			
	4.2	1 1~~.8~~				
13	6.0	6.~~0~~ 1~~0~~	6.0			Reject P.C.
	6.89	1 0				
14	6.7	6.9~~8~~5	7.0			
	7.2	1 2 1				
15	7.0	7.~~2~~3 2	7.4			
16	~~7.5~~		7.5			
17	~~8.~~		8.0			
18			8.6			
19			8.8			
20			9.7			
22			9.5			
25			m.s.			

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1919phae.proj..7458

Monday, September 8, 1919

Series 668

Scale 1m — InC 10902

Diff. Images.

	g Sc 1	Sc 2	h Sc 1	Sc 2
10		8.85		8.8
11		9.00		9.0
12				
13				
14				
15				
16				
17				

Reject

2-15

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1919phae.proj..745B

Friday, September 12, 1919

11-20

Series 668

Scale 1m

	InC 10897 Sc1	P.C.	Sc2	InC 10902 +90 Mean	Res.	Diff.	Sc1	Pole Sc2	Sc1	Diff. images Sc2 Mean	Res.	Diff.
5	4.8 4.7 6	00 4.80	4.8	6.65 5.72	9 9	+0.77						
6	6.5 6.3	00 6.50	6.8	7.2 6.80	3 4	+0.31						
7	6.9 6.7	10 6.85	6.8	7.4 7.12	3 3	+0.19						
8			8.0	8.5 8.25	2 3	-0.02	7.2	7.35	7.5	8.00 7.68	3 4	+0.55
9			8.8	9.1 8.95	2 1	-0.12	8.2	8.35	8.5	8.55 8.45	0 2	+0.38
10			8.9	9.3 9.10	2 2	-0.08	8.4	8.45	8.5	8.80 8.62	2 2	+0.40
11			9.4	9.8 9.60	2 2	-0.05	8.6	8.75	8.9	9.20 8.98	2 2	+0.57
12			9.7	m.s. 9.70	0 -	+0.16	9.3	9.25	9.2	9.45 9.35	2 0	+0.51
13							9.8	9.75	9.7	9.75 9.75	0 0	+0.55
14												
15												
16												
17												
18												
19												
20												
22												
25												

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Friday, September 12, 1919 Copied 38:845

Series 66B × Serpentis

Inc. 10898 Alt. Con. 0.0 Diff. Images 16 - 0.10

Diff.	Scale Mag.	Scl T.C.	Scr	Curve	Magn.	Scl g	Scr	Scl h	Scr	Curve	Magn.
	a 5	7.0	0.26	7.26	6.9 6.76 6.0	11 6.80		6.7 6.5			
	b 6	7.8	0.05	7.85	7.0 6.8 6.2	01 6.95	7.2	6.9 6.7			
	c 7	8.0	0.01	8.01	6.9 6.7 6.7	10 6.95	6.5 8.7	7.0 6.8			
0.55	d 8	8.8	−0.08	8.73		8.5	12	8.10	8.0	0.46	8.56
0.38	e 9	9.1	−0.08	9.03		8.5	12	8.65	8.8	0.47	9.12
0.40	f 10	9.4 8.7	−0.02	9.38		8.7	22	8.90	9.1	0.49	9.39
0.57	g	9.6	+0.01	9.61		8.7	10	8.75	8.8	0.48	9.23
+0.51	h					9.3	00	9.30	9.3	0.51	9.81
0.55	k					9.8	11	9.90	10.0	0.58	10.48
	l										
	m										

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1919phae.proj..745B

Friday, September 12, 1919

Series 68

Scale Mn	Mn C 10902 Sc 1	P.C	Sc 2	Mn C 10897 p. 88	Diff. Images Sc 1 & Sc 2		Sc 1 & Sc 2	Pole
5	6.8 6.6	2 1 6.65	6.5 ~~7.4~~ m.s.					
6			7.2					
7			7.4					
8			8.5		8.10	00 8.00	8.1	
9			9.1		8.5	10 8.55	8.6	
10			9.3		8.8	00 8.80	8.8	
11			9.8		9.2	00 9.20	9.2	
12			m. s.		9.4	01 9.45	9.5	
13					9.7	10 9.75	9.8	
14								
15								
16								1-00
17								
18								
19								
20								
22								
23								

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1919phae.proj..7458

Monday, September 22, 1919

11-15 G M 10831

Scale 1m = X Serpentis

	Sc 1		Sc 2	~~Diff~~
a	~~6.7~~ 6.3	1 2 6.55	6.4	
b	7.0 ~~6.8~~	0 1 7.05	7.1	
c	7.2 7.0	0 0 7.20	7.2	
d			7.7	
e			8.3	
f			8.5	
g			8.7	
h			9.1	
k			9.3	
l			9.4	
m			9.5	
n			9.7	
o			~~9.8~~	
p			10.0	

S.W. Ophiuchi

	Sc 1	Sc 2	Diff.	
a	3	8.6	1.54	
b		8.5	1.38	
c		9.6	1.09	
c'		9.3 ~~9.6~~	1.16	1.72
d		9.6	2.07	0.86
e		9.8	1.87	1.87
f		9.8	2.20	1.87
g		9.9 ~~9.4~~	2.42	2.10
h		10.0 ~~9.1~~	2.52 m.s.	2.32
S.W.		8.2		

12-30

Plate rejected uncertainty about identification

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1919phae.proj..745B

Wednesday, September 24, 1919

1-45 10799 Series ~~668~~ 659

Scale 9m MC ~~10877~~ 01 MC10804 p.94 Pole

	Sc1	P.C.	Sc2	Mean	Diff.	Sc1	Sc2	Diff.	Sc1	Sc2	Mean	Diff.
5	~~5.8~~ 5.6 ~~8.7~~ m.s.	2 1 5.65	5.5	5.55	5.60 00	+0.89	5.2	5.0				
6	6.1 5.9	1 2 5.95	5.8	6.00	5.98 00	+1.12	5.9					
7	6.2 6.0	2 1 6.05	5.9	5.95	6.00 00	+1.31	5.9	5.8				
8			7.0	7.10	7.05 01	+1.18	6.6 6.4	6.8 2022 6.85	7.0 6.8	7.0	6.78	6.82 00	+1.41
9			8.1	8.0	8.05 10	+0.78	7.1 6.9	7.3 0202 7.08	7.1 6.9	6.8	7.45	7.26 2 1	+1.57
10			8.0	8.3	8.15 2 1	+0.97		8.0 00 8.00		8.0	7.85	7.92 1 1	+1.10
11			8.6	8.7	8.65 01	+0.90		8.5 1 1 8.40		8.3	8.05	8.22 2 2	+1.33
12			~~9.0~~ 8.5		9.00	+0.86		8.8 01 8.85		8.9	8.85	8.85 00	+1.01
13			9.7		9.70	+0.60		9.0 1 1 9.10		9.2	9.10	9.10 00	+1.20
14			9.8		9.80	+0.85		9.4 2 2 9.60		9.8	9.60	9.60 00	+1.05
15		m.s.						~~10.0~~ 9.8 0 1 9.95		~~10.0~~ 9.9	9.95	9.95 00	+1.13

Diff. images elongated.

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1919phae.proj..7458

Wednesday, September 24, 1919

10801 Series ~~668~~ 659 S. Ophiuchi

Alt. – 005

Scale Im	Im C ~~10 7 99 / 10 8 96~~ PC. Sc 1	PC. Sc 2	Sc 2	Curve	Imagn.	Sc 1	Sc 2	Diff	Sc 1	Sc 2	Curve	Imagn.
1	6.7 6.5	1 1 6.80	6.9	1.18	7.98	Sc 6.2 6.0	6.1	1 0 1 2 6.10	6.2 6.0	5.9		
2	6.8 6.6	0 0 6.80	6.8	1.18	7.98	6.2 6.0	6.0	1 0 1 2 1 2 6.00	6.3 6.1	6.0		
3	7.2 7.0	0 0 7.20	7.2 ~~6.9~~	1.10	8.30	6.6 6.4	1 1 1 0 6.8	2 4 6.68	6.6 6.4	6.8	1.60 e	8 ~~7.28~~ e
4	~~8.4~~		8.3	0.96	9.26		8.8	1 1 8.10		8.2	1.24	9.34
a			9.4	0.79	10.19		8.9	1 0 8.95		9.0	1.11	10.06
b			9.6	0.74	10.34		8.6	1 1 8.50		8.4	1.17	9.67
c			m.s				9.5	1 2 9.65		9.8	1.08	10.73

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1919phae.proj..745B

Wednesday, September 24, 1919

Series 659

Scale In

	MC 10804 Sc1	T.C	Sc2	MC10799 p.92	g Pole Sc1 g	Sc2	Diff.	h Sc1 + Sc2
	5.6	01						
5	5.4	5.55	5.5					
	6.0	00						
6	5.8	6.00	6.0					
	6.0	01						
7	5.8	5.95	5.9					
	7.2	11			6.7			
8	7.0	7.10	7.0		6.5	6.5	13 21 6.78	6.8 6.9
9			8.0			7.4	01 7.45	7.5
10			8.3			7.8	01 7.85	7.9
11			8.7			8.1	10 8.05	8.0
12			8.8			8.8	01 8.85	8.9
13			9.7			9.0	01 9.10	9.8
14			9.8			9.4	12 9.60	9.8
15			m.s.			9.9	10 9.95	10.0

3-15

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1919phae.proj..7459

Thursday, September 25, 1919

11-20

Series 663

Scale m

	mC 10842 Sc1	P.C.	mC 10842 Sc2	mC 10849 Sc1	mC 10849 Sc2	mC 10849 Mean	mC 10849 Diff.	g Pole Sc1	g Pole Sc2	g Pole Diff.	h Sc1	h Sc2	h Mean	h Diff.
5	5.7 5.5	00 5.70	5.7	5.55	10 5.62	+0.87								
6	6.6 6.4	21 6.45	6.3	6.10	12 6.28	+0.83								
7	6.8 6.6	00 6.80	6.8	6.55	11 6.68	+0.63								
8			7.8	7.7	01 7.75	+0.48	7.4	22 7.20		7.0	7.03	11 7.12	+1.11	
9			8.2	8.4	11 8.30	+0.53	8.0	01 8.10		8.2	7.60	32 7.85	+0.98	
10			8.5	8.7	11 8.60	+0.42	8.2	01 8.15		8.1	7.90	01 8.02	+1.00	
11			8.8	8.8	00 8.80	+0.75	8.8	01 8.75		8.7	8.55	20 8.65	+0.90	
12			9.2	9.4	11 9.30	+0.56	9.0	00 9.00		9.0	8.85	11 8.92	+0.94	
13			9.6	9.9	31 9.75	+0.55	9.6	22 9.40		9.7	9.50	01 9.45	+0.85	
14			10.0	n.s.	00 10.00	+0.65	9.8	00 9.80		9.8	9.70	01 9.75	+0.90	
15			n.s.	n.s.						n.s.	9.95	00 9.95	+1.13	

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1919phae.proj..745B

Thursday, September 25, 1919

Series ~~659~~ 663 Clbt. -004

Scale In In C 10844 g S.W. Aphinip

	Sc 1	T.C.	Sc 2	Curve	Imagn.	Sc 1	Sc 2		Sc 1	Sc 2	Curve	Imagn.
	7.2	00						10				
1	7.0	7.20	7.2	0.55	7.75	6.7	6.75		6.8			
	7.2	00						01				
2	7.0	7.20	7.2	0.55	7.75	6.8	6.75		6.7			
3			7.5	0.51	8.01	7.3	7.20	11	7.1		1.10	8.30
								00				
4			8.6	0.50	9.10	8.6	8.60		8.6		0.93	9.53
								22				
a			9.9	0.63	10.53	9.3	9.50		9.7		0.91	10.41
								11				
b			9.5	0.59	10.09	9.2	9.10		9.0		0.90	10.00
						8		11				
c			m.s.			9.2	9.90		10.0		0.97	10.87

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Thursday, September 25, 1919

Series 663

Scale In

	In C 10849 Sc 1	In C 10849 T.C.	In C 10849 Sc 2	In C 10842 p. 95	g Pole Sc 1	g Pole Sc 2	g Pole	h Sc 1	h Sc 2
5	5.6 5.4	01 5.55	5.5						
6	6.2 6.0	11 6.10	6.0 6.4						
7	6.7 6.5	12 6.55	6.4						
8			7.7		7.0 6.8	6.9	01 2 7.03		7.2
9			8.4			7.6	00 7.60		7.6
10			8.7			8.0	11 7.90		7.8
11			8.8			8.5	10 8.55		8.6
12			9.4			8.7	12 8.85		9.0
13			9.9			9.4	11 9.30		9.6
14			m.s.			9.7	00 9.70		9.7
15			m.s.			9.9	10 9.95		10.0

12-50

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1919phae.proj..745B

Monday, September 29, 1919

10-50

Series 664

Scale In

In C 10853

In C 10858 h.100

	Sc1	P.C.	Sc2		Mean	Diff	g Pole Sc1	Sc2		h Sc1	Sc2		Mean	Diff
5	5.8	5.80	5.8	6.45	6.12	+0.37	~~5.8~~							
6	6.10 6.8	7.00	7.0	6.95	6.98	+0.13								
7	7.2 7.0	7.25	7.3	7.5	7.38	−0.07								
8			8.0	7.8	7.90	+0.33	7.3	7.50		7.7	7.70		7.60	+0.63
9			8.4	8.7	8.55	+0.28	8.4	8.40		8.4	8.20		8.30	+0.53
10			9.0	9.2	9.10	−0.08	8.6	8.60		8.6	8.60		8.60	+0.42
11			9.6	10.0	9.80	−0.25	9.4	9.20		9.0	9.25		9.22	+0.33
12			9.8	10.0	9.90	−0.04	9.6	9.55		9.5	9.60		9.58	+0.28
13			10.0	m.s.	10.00	+0.30	9.8	9.85		9.9	10.00		9.92	+0.38
14			10.0		10.00	+0.65	9.9	9.95		10.0	f.		9.95	+0.70
15			10.0		10.00	+1.08	9.9			m.s.			9.90	+1.18

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1919phae.proj..7458

Monday, September 29, 1919

Series 664 Alt. -0.04 S.W. of Hinchi

Scale M. InC 10855

	Sc 1	P.C.	Sc 2	Curve	Magn.	Sc 1	Sc 2		Sc 1	Sc 2	Curve	Magn.
1			7.9	0.06	7.96		6.8	7.00		7.2		
2			7.7	0.08	7.78		7.2	7.10		7.0		
3			8.4	0.00	8.40		7.6	7.65	7.7		+0.67	8.32
4			9.0	-0.04	8.96		9.0	9.00	9.0		0.35	9.35
a			t f.	.			9.8	9.85	9.9		0.48	10.33
b			m. s.				9.5	9.40	9.3		0.35	9.75
c			m. s.				f.		f.			

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1919phae.proj..745B

Monday, September 29, 1919

Series 664

Scale 7m	InC 10858 Sc1	InC 10858 T.C.	InC 10858 Sc2	InC 10853 p.98	g Pole Sc1	g Pole Sc2	h Sc1	h Sc2
5	6.6 6.4	21 6.45	6.3					
6	6.9 6.7	10 6.95	7.0					
7			7.5					7.1
8	X		7.8		7.6	11 7.70		7.8
9			8.7		8.4	22 8.20		8.0
10			9.2		8.5	11 8.60		8.7
11			10.0		9.3	01 9.25		9.2
12			10.0		9.6	00 9.60		9.6
13			m.s.		10.0	00 10.00		10.0
14					~~f.s.~~			f
15								

12-05

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1919phae.proj...7459

Wednesday, October 1, 1919

Scale In	R In 1910		× Serpentis	S. W. Ophiuchi	
	Sc 1	Sc 2		Sc 1	Sc 2
a			1		
b			2		
c			3		
d			4		
e			a		
f		—	b		
g			c		
h			c'		
k			d		
l			e		
m			f		
n			g		
o			h		
p			S.W.		

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1919phae.proj..745B

Wednesday, October 1, 1919

Coffield 8:45

2-15

× Serpentis S.W. Aphuichi.

Scale 9m A 9m 1910 16 10 - 2.5 16 10 - 7.5

	Sc 1		Sc 2	Curve	Imagin.	f	Sc 1	Sc 2	Diff.
× Serpen.	7.0	01							
rac.	6.8	7.05	7.1	~~2.61~~					
	4.8	±1							
a	4.6	4.90	5.3	.	.				
	5.6	01							
b	5.4	5.55	5.5	2.55	8.10				
	5.5	±0							
c	5.3	5.55	5.6	2.55	8.10				
	6.4	11							
d	6.2	6.30	6.2	2.60	8.90				
	7.2	11							
e	7.0	7.10	7.0	2.61	9.71				
	7.2	00							
f	7.0	7.20	7.2	2.61	9.81				
g	~~7.4~~		7.4	2.61	10.01				
h			8.0	2.62	10.62				
k			8.3	2.62	10.92				
l			8.6	2.61	11.21				
m			8.7	2.61	11.31				
n			9.1	2.60	11.70				
o			9.8	2.55	12.35				
p			9.7	2.56	12.26				
	7.1	12	10.0	2.53	12.53				
S.W. Aph.	6.9	~~6.95~~	6.8	Diff.					
	5.2	±1							
1	5.0	5.35	5.5	2.50					
	5.2	01							
2	5.0	5.25	5.3	2.54					
	5.5	11							
3	5.3	5.60	5.7	2.59					
	6.5	±0							
4	6.3	6.55	6.6	2.66					
a	~~7.5~~		7.5	2.64					
b			7.4	2.48					
c			7.8	2.89					
c'			8.4	2.62					
d			8.2	2.26					
e			9.2	2.47					

f	8.9	2.77	
g	9.7	2.30	
h	9.5	2.82	
k	9.8	~~2.72~~	

3-25

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1919phae.proj...7454

Thursday, October 2, 1919

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9-00

× Serpentis S.W. Ophiuchi

Scale In | R In 10795 | 16 10 - 2.5 | 16 10 - 7.5

	Sc 1		Sc 2	Curve	Imagn.	Sc 1	Sc 2	Diff.
× Scale								
var.	m.s.		m.s.	.				
	6.2	3/5 3						
a	6.0	6.60	6.8	1.29	7.79			
	6.9	1/2						
b	6.7	6.75	6.6	1.30	8.05			
	7.0 8	00						
c	6.8	7.00	7.0	1.31	8.31			
d			7.5	1.36	8.86			
e			8.4	1.44	9.84			
f			8.5	1.46	9.96			
g			8.3	1.43	9.73			
h			8.7	1.49	10.19			
k			8.8	1.50	10.30			
l			9.4	1.70	11.10			
m			9.5	1.80	11.30			
n			9.8	2.05	11.85			
o			10.0	2.21	12.21			
p			m.s	.	.			
q			m.s	.	.			

S.W. Oph.

			8.2	Diff.		e	9.8	1.87
	6.5	1 0						
1	6.3	6.55	6.6	1.30		f	9.7	2.07
	6.5	1 0						
2	6.3	6.55	6.6	1.24		g	9.9	2.10
	6.9	00						
3	6.7	6.90	6.9	1.29		h	10.0	2.32
4			7.8	1.41		k	m.s	.
a			8.6	1.54				
b			8.4	1.48				
c			9.3	1.39				
c'			9.2	1.82				
d			9.1	1.36				

10-00

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1919phae.proj..745B

9-45

Friday, October 3, 1919 Capital 38:45

× Serpentis S. W. Ophiuchi

Scale 9m Q 9m 6165 16 10 −2.5 +0.2 16 10 − 7.5

	Sc 1		Sc 2	Curve	Magn.	Sc 1	Sc 2	Diff.
× Serp. Com.	m.s		m.s					
a	4.0 3.8	00 4.00	4.0	.		e	9.5	2.17
b	4.6 4.4	±2 4.80	5.0	2.96	7.76	f	9.1	2.57
c	5.1 4.9	±0 5.15	5.2	2.97	8.12	g	10.0	2.00
d	5.2 5.0	±1 5.30	5.4	2.97	8.27	h	9.9	2.42
e	6.2 6.0	00 6.20	6.2 ~~7.7~~	2.96	9.16	k	10.0	2.52
f	7.2 7.0	11 7.10	7.0	2.86	9.96			
g	6.8 6.6	01 6.85	6.9	2.90	9.75			
h			7.7	2.75	10.45			
k			7.5	2.79	10.29			
l			7.0	2.69	10.69			
m			8.9	2.52	11.42			
n			9.7	2.37	12.07			
o			9.8	2.34	12.14			
p			10.0	2.29	12.29			
q			9.8	2.34	12.14			
S.W.Oph.	7.2 7.0	01 7.15	7.1	Diff.				
1	4.6 4.4	±3 4.85	5.1	3.00				
2	5.0 4.8	01 5.05	5.1	2.74				
3	5.0 4.7	±1 5.15	5.3	3.04				
4	6.2 6.0	±1 6.35	6.5	2.86				
a	7.2 7.0	±1 7.30	7.4	2.84				
b	6.9 6.7	11 6.80	6.7 ~~7.0~~ m.s.	3.18				
c			8.2	2.49				
c'			8.4	2.62				
d			7.6	2.86				

10 −45

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1919phae.proj..7454

Tuesday, October 7, 1919

10-30

Series 668

Scale 2m | 2mC10897 | 2mC10902 p.108 | Pole

	Sc1	Sc2		Sc1	P.C.	Sc2		Mean	Diff.
5				5.1 4.9	5.15	5.2	6.90	6.02	+0.47
6				6.7 6.5	6.75	6.8	7.28	6.98	+0.13
7				6.7 6.5	6.85	7.0	7.6	7.22	+0.09
8				7.7		8.8	8.6	8.70	−0.47
9			Mean Diff.			9.0	9.4	9.20	−0.37
10	4.0 3.8	4.00	4.0 4.25 4.12 4.90			9.2 9.8	9.5	9.35	−0.33
11	4.7 4.5	4.50	4.3 5.40 4.95 4.60			10.0	9.8	9.80	−0.25
12	5.1 4.9	5.10	5.1 5.80 5.45 4.41			10.0	n.s.	10.0	−0.14
13	6.0 5.8	5.75	5.5 6.25 6.00 4.05			n.s.			
14	6.5 6.3	6.40	6.2 6.80 6.60 4.05						
15	7.1 6.9	7.05	7.0 7.20 7.12 3.96						
16	7.2 7.0	7.00	6.8 7.70 7.35 3.70						
17			7.55 7.6 7.5 8.00 7.78 3.63						
18			8.00 8.0 8.0 8.20 8.10 3.86						
19			8.25 8.2 8.3 8.60 8.42 3.82						
20			8.70 8.7 8.7 8.85 8.78 3.88						
22			9.10 9.1 9.2 9.45 9.28 3.74						
25			9.55 10.0 9.9 n.s. 9.95 3.92						

g Diff. h

	Sc1	Sc2		Sc1	Sc2			
8	7.8	7.75		7.7	8.05	7.90		+0.33
9	8.4	8.50		8.6	8.65	8.58		+0.25
10	8.5	8.60		8.7	8.75	8.68		+0.34
11	8.7	8.80		8.9	9.15	8.98		+0.57
12	9.2	9.20		9.2	9.55	9.38		+0.48
13	9.6	9.70		9.8	9.65	9.68		+0.62
14	10.0	9.95		9.9	n.s.	9.95		+0.20
15	f.			n.s.				

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1919phae.proj..745B

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Series 668 × Serpentis

Scale 9m Pic 10898 16-0.0 Con. 0.0

	Sc 1		Sc 2	Curve	Imagn.	Sc 1	Pic.	Sc 2	Curve	Imagn.
	2.6					6.9	1 1			
a	2.4					6.7	7.00	7.1	+0.12	7.12
b	3.2 3.0							8.0	−0.17	7.83 7.77
c	3.3 3.1							7.8	−0.10	7.70
d	3.7 3.5							8.8	−0.37	8.43
e	4.4 4.2	2 1 4.25	4.1	4.86	9.11			9.7 2	−0.39	8.81
f	4.7 4.5	1 1 4.60	4.5	4.72	9.32			9.5	−0.31	9.14 9
g	4.9 4.7	1 0 4.55	5.0	4.61	9.56			9.6	−0.30	9.30
h	6.0 5.8	2 1 5.85	5.7	4.33	10.18			9.8 n.s.	~~−0.24~~	~~9.56~~
k	6.0 5.8	1 1 6.10	6.2	4.25	10.35			n.s.		
l	6.6 6.4	1 1 6.50	6.4	4.11	10.61					
m	7.2 7.0	0 1 7.15	7.1	3.91	11.06					
n			8.0	3.77	11.77					
o			8.0	3.77	11.77					
p			7.7	3.79	11.49					
q			8.4	3.78	12.18					
r			8.6	3.79	12.39					
s			8.9	3.81	12.71					
t			9.0	3.81	12.81					
u			9.8	3.88	13.68					
w			n.s.							

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1919phae.proj..7451

Tuesday, October 7, 1919

Series 668 x Serpentis.

Scale In. In C 10798 com. 16 -0.0

	Sc 1	Sc 2	Diff. Sc 1 Sc 2	Curve Image	
					Line Through star.
a	5.8	6.10	6.4	.	
b	7.4	7.30	7.2	.	
c	6.9	6.85	6.8	.	
d	8.6	8.50	8.4	0.36	8.86
e	8.9	8.80	8.7	0.41	9.21
f	9.0	9.05	9.1	0.51	9.56
g	9.1	9.05	9.0	0.51	9.56
h	9.6	9.53	9.5	0.60	10.15
k	9.9	9.95	10.0	0.72	10.67

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1919phae.proj..745B

Tuesday, October 7, 1919
Series 668

Scale 9m

MC 10902

MC 10897 p.105

	Sc 1		Sc 2
5	2.2		
6	2.7		
7	2.8		
8	3.8		
9	4.3		
10	4.3 4.1	10 4.25	4.2
11	5.4 5.2	00 5.40	5.4
12	5.9 5.7	11 5.80	7 5.3
13	6.5 6.3	32 6.25	6.0
14	7.0 6.8	22 6.80	6.6
15	7.2 7.0	00 7.20	7.2
16		7.70 00	7.7
17		8.00 00	8.0
18		8.20 11	8.1
19		8.60 11	8.5
20		8.85 01	8.9
22		9.45 01	9.5
25		m.s.	m.s.

Pole

	Sc 1	P.C.	Sc 2
	6.9 6.7	00 6.90	6.9
			7.2
			7.6
			8.6
			9.4
			9.5
			9.8
			m.s.

g Diff. h

	Sc 1		Sc 2
8	8.1	10 8.05	8.0
9	8.6	01 8.65	8.7
10	8.7	10 8.75	8.8
11	9.0	21 9.15	9.3
12	9.4	21 9.55	9.7
13	9.5	12 9.65	9.8
14	m.s.		m.s.
15			

12-45

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1919phae..proj..745

10-15

Wednesday, October 8, 1919 Cepheid 38 Aql

~~Sa~~ + Serpentis S.W. Ophiuchi

Scale 1m A.R. 18154 16 10 -2.5 +5 57 0.0 16 10 -7.5

	Sc 1		Sc 2	Curve	Imag.	Sc 1	Sc 2	Diff.
a	5.97 5.9	10 5.95	6.0	1.80	7.75	f	9.9	1.77
b	6.6 6.4	01 6.55	6.5	1.81	8.36	g	10.0	2.00
c	6.9 6.8	10 6.85	6.8	1.82	8.67	h	9.9	2.42
d			7.3	1.85	9.15	k	m.s.	
e			7.9	1.89	9.79			
f			8.1	1.90	10.00			
g			8.2	1.91	10.21			
h			8.6	1.94	10.54			
k			8.7	1.95	10.65			
l			8.9	1.97	10.87			
m			9.3	2.04	11.34			
n			9.7	2.11	11.81			
o			9.9	2.16	12.06			
p			9.8	2.13	11.93			
q			m.s.					

S.W. Ophi

			Diff.
1	6.2 6.0	00 6.20	1.65
2	6.0 5.9	00 6.00	1.79
3	6.5 6.3	12 6.35	1.84
4	7.2 7.0	00 7.20	2.01 ~~1.84~~
a			1.84
b			2.08
c			1.79
c'			2.02
d			1.76
e			2.17

10-45

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1919phae.proj..745B

12-10

Wednesday, October 8, 1919 copied 98:47

× Serpentis

S. W. of Rhineki.

Scale 1m R.A. 12 25 5 16 10 – 25 16 10 – 7.5

	Sc 1		Sc 2	Curve	Imagn.	Sc 1	Sc 2	Diff.
	5.4	31						
a	5.2	5.55	5.7	,	.			
	6.4	01				f	9.5	2.17
b	6.2	6.45	6.5	1.90	8.35	g	9.7	2.30
	6.8	00						
c	6.6	6.80	6.8	1.91	8.71	h	10.0	2.32
	7.2	01				k	n.s.	.
d	7.0	7.25	7.3	1.92	9.17			
e			8.0	1.93	9.93			
f			8.2	1.95	10.15			
g			8.0	1.93	9.93			
h			8.6	1.99	10.59			
k			8.7	2.00	10.70			
l			9.0	2.04	11.04			
m			9.2	2.10	11.30			
n			9.4	2.16	11.56			
o			9.5	2.20	11.70			
p			9.6	2.22	11.82			
q			9.8	2.29	12.09			

S. W. of Rhineki.

				Diff.
	6.1	10		
1	5.9	6.05	6.0	1.80
	6.0	00		
2	5.8	6.00	6.0	1.79
	4.2	00		
3	6.0	6.20	6.2	1.99
	7.2	31		
4	7.0	7.35	7.5	1.86
a			8.3	2.04
b			7.9	1.98
c			8.7	1.99
c'			9.0	2.02
d			8.6	1.86
e			9.0	2.67

12-40

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1919phae..proj..745

Friday, October 10, 1919

10-45 Direct estimates of variable X Serpentis -

✓ All 2c plates	AC 17263	< 12.2	m.s.
	AC 347	i	m.s. mul-im.
✓	10582	< 11.2	m.s.
✓	19822	< 12.2	m.s.
✓	15382	< 12.2	m.s.
✓	337	i.	multiple images -
✓	17368	i	t.j.
✓	10591	12.2	
✓	19613	m.s.	fogged.
✓	15357	< 11.2	m.s.
	315	i	multiple im.
✓	19103	i	m.s.
✓	15319	< 11.2	m.s.
✓	243	< 12.2	m.s.
✓	19070	t.j.	fogged.
✓	10526	< 11.7	m.s.
✓	15298	< 10.4	i m.s.
✓	216	< 12.2	m.s.
✓	20256	< 9.4 7	m.s.
✓	1350	< 10.4 8	m.s.
✓	11601	< 12.2	m.s.
✓	1316	< 11.2	m.s.
✓	20168	< 10.8	m.s.
✓	1307	< 11.7	m.s.

12-0

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1919phae.proj..745B

Friday, October 10, 1919

2-00

Direct estimates x Serpentis

RC 16528	<11.8	m.s.
11594	-11.2	m.s.
1267	f.	
20148	<11.7	m.s.
933	<10.8	i m.s.
17724	<10.2	m.s.
11571	<12.2	m.s.
20109	<11.9	m.s.
11557	<12.2	m.s.
17687	<9.7	m.s.
867	t/p.	images dbl.
16434	-12.2	m.s.
11533	<12.2	m.s.
17682	<9.7	m.s.
20066	<9.7	m.s.
15459	<11.9	m.s.
16405	<12.2	m.s.
836	m.s.	dbl. images -
17581	<12.2	m.s.
20057	t/p.	i
11415	<11.2	m.s.
750	<11.2	m.s.
10816	<10.8	i
16314	<12.2	m.s.
747	f	i

3-05

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1919phae.proj..745

10-30

Saturday, October 11, 1919

Direct estimates. × Serpentis.

	AC	~~9571~~	T′	~~K~~
✓		6415	< 12.2	m.s.
✓		14042	< 10.8	m.s.
✓		5003	< 12.2	m.s.
		~~9521~~	T′	
✓		6399	< 12.2	m.s.
✓		14024	< 11.2	m.s.
		~~6340~~		

11-00

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1919phae.proj..745B

Wednesday, October 15, 1919

2-30 Direct estimates x-Serpentis

✓ RC 6340	12.2	
✓ 4895	10.8	i
✓ 9507	<10.8	m.s.
✓ 13998	m.s.	t/p.
✓ 9404	.	3 st-
✓ 4825	10.8	i
~~13758~~	.	l'
✓ 18966	m.s	t/p.
✓ 8658	m.s.	t/p.
✓ 6288	11.7	
✓ 4726	10.5	i
✓ 14998	<11.7	m.s.
✓ 7455	<12.2	m.s.
~~14966~~	~~<10.8~~	~~m.s. i~~ l'
✓ 7354	<11.9	m.s.
✓ 14245	<11.9	m.s.
✓ 10475	<11.7	m.s.
✓ 7333	m.s.	fogged.
✓ 6613	<11.7	m.s.
✓ 6570	<11.9	m.s.
✓ 10393	<11.9	m.s.

3-30

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1919phae.proj..745

Thursday, October 16, 1919

9-15 Direct estimates × Serpentis.

✓	AC 6749	m.s.	t/p. i
✓	2552	t.p.	
✓	7706	<11.2	m.s.
✓	17864	t.p.	
✓	12462	<11.9	m.s,
✓	15116	<12.2	m.s,
✓	7605	<11.7	m.s.
✓	2548	<12.8	m.s.
✓	7587	<9.7	fogged.
✓	15105	<11.2	< m.s.
✓	17853	m.s.	fogged
✓	12405	<10.4	m.s,
✓	7575	<10.8	m.s.
✓	2472	<10.2	m.s.
✓	7539	<10.8	m.s.
9Pc	~~2467~~	t.p.	
✓	15031	<11.7	m.s.
✓	17813	<16.4	m.s. images dbl.
✓	12372	t.p.	
✓	11763	<10.8	m.s.
✓	7521		Does not cover.
✓	2357	<10.8	m.s.
✓	6332	12.0	
✓	10441	11.7	

10-15

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1919phae.proj..745B

Thursday, October 16, 1919

11-30

Direct estimates × Serpentis.

✓ AC. 11714	<18.5	m.s.
✓ 1659	<10.8	m.s.
✓ 1705	<11.9	m.s.
✓ 5161	<10.4	m.s. fogged
✓ 17767	<10.4	m.s. fogged
✓ 1556	<9.7	2 images - m.s.
✓ 11694	<11.7	m.s.
✓ 16694	7 p.	i
✓ 20541	<11.2	m.s.
✓ 11685	<11.7	m.s.
✓ 16685		Does not come -
✓ 1473	<12.2	m.s. i
✓ 20451	<9.7	m.s. i
✓ 16663	<11.2	m.s.
✓ 1448	<11.9	m.s.
✓ 11675	<12.2	m.s.
✓ 20366	<11.9	m.s.
✓ 16582	7 p.	
✓ 1426	<11.2	m.s. fogged
✓ 20266		super. on AC 15024
✓ 1421	~ 12.1	
✓ 20315	<11.2	m.s.
✓ 14212	<10.8	fogged.
✓ 6530	12.2	

12-35

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1919phae.proj..745

Friday, October 17, 1919

9-45 Direct estimates × Serpentis

✓	AC 6269	<11.2	m.s.
✓	16171		Broken + cracked.
✓	2239	<11.9	m.s.
✓	10366	<11.9	m.s.
✓	1692		bad mean crack.
✓	4668	10.6	i
✓	18906	<11.2	m.s.
✓	13937	<12.2	m.s.
✓	3841	9.7	i
✓	6226	12.0	
✓	8628	<10.8	m.s.
✓	3830	9.7	
✓	18819	<11.7	m.s.
✓	13929	<11.9	m.s.
✓	3738	9.7	
✓	8605	<11.7	m.s.
✓	6162	12.0	
✓	3662	9.4	
✓	13876	<11.7	m.s.
✓	18807	<11.2	m.s.
✓	8569	+p.	fogged.
✓	6098	<11.9	m.s.
✓	18774	<12.2	m.s.
✓	13293	<9.7	m.s. i
✓	5998	11.5	i
✓	8558	<9.7	fogged

10-45

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1919phae.proj..745B

30
10-~~27~~

Saturday, October 18, 1919

Direct estimates × Serpentis

RC 13208	< 10.8	m.s.
8516	< 12.2	m.s.
5890	< 10.2	m.s.
13192	< 10.8	m.s.
3593	< 10.8	m.s.
15282	< 12.2	m.s. L
8482	~~< 12.2~~ < 11.9	m.s.
18570	< 12.2	m.s.
13180	< 10.8	m.s.
15267	< 11.~~8~~7	m.s.
3409	8.9	L
18496	< 11.8	m.s.
8455	< 11.9	m.s.
13162	< 12.2	m.s.
15256	< 11.9	m.s. L
2813	< 11.2	m.s.
18347	< 9.7	L foggy
13135	< 11.9	m.s.
2720	< 10.8	m.s.
15233	< 11.7	L m.s.
13112	< 12.2	m.s.
8341	t/h.	
2649	11.7	
15155	< 11.9	m.s. L
2621	< 12.2	m.s. L
15150	< 11.9	m.s.

11.30

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1919phae.proj..745

Saturday, October 18, 1919

1-30 Direct estimates × Serpentis

✓	AC 17900	< 11.9	m.s.
✓	13014	< 11.2	m.s.
✓	7737	< 11.2	m.s. L
✓	2613	< 10.8	m.s.
✓	15127	< 11.9	m.s. L
✓	5965	< 11.7	m.s.
✓	18699	< 12.8	m.s.
✓	9735		L
✓	14159	< 10.4	m.s.
✓	5134	< 10.4	m.s.
✓	14132	< 9.7	m.s.
✓	6512	< 11.2	m.s.
✓	9655	< 11.2	m.s.
✓	14117	< 11.9	m.s.
✓	9654	t/.	
✓	6462	< 10.8	m.s.
✓	14111	< 9.7	m.s.
✓	9606	< 11.2	m.s.
✓	5064	< 11.7	m.s.
✓	14062	< 10.4	m.s.
✓	19964	< 11.9	m.s.
✓	17559	< 10.4	m.s.
✓	10671	< 11.9	m.s.
✓	16227	< 12.2	m.s.
✓	17469	< 10.8	m.s.

2-20

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1919phae.proj..745B

Monday, October 20, 1919

11-20 Direct estimates — X Serpentis.

✓	RC 21757	<10.4	m.s.
✓	21485	t.p.	
✓	21449	t.p.	
✓	21675	<11.2	m.s.
✓	21420	<12.2	m.s.
✓	21648	<9.7	m.s.
	~~21461~~		f'
✓	21585	<10.4	m.s.
✓	21115	<11.9	m.s.
✓	21550	<10.8	m.s.
✓	21037	<9.4	m.s. foggish

11-40

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1919phae.proj..7458

Wednesday, October 22, 1919

10-30 Direct estimates × Serpentis

All B Rates ✓	B	16024	< 12.9	m.s. i
✓		33802	11.7	
✓		21221	< 12.9	m.s.
		13344	.	edge
—		27584	< ~~m.s.~~	~~ft.~~ m.s. no magn beyond 11
✓		8705	< 12.9	m.s.
				10-45
12-05 ✓	B	27615	< m	m.s.
✓		10020	< 12.9	m.s. i
✓		23868	< 12.2	m.s. fogged
✓		11027	< 11.9	m.s. i
✓		22692	< 12.9	m.s.
✓		36781	< 12.9	m.s.
✓		23098	< m	m.s.
		38641	.	edge
✓		41672	< 12.2	i edge m.s.
✓		21952	< 11.9	m.s.
✓		35887	12.8	
		13974	.	E
— ✓		41359	< ~~m~~ 13.6	E
				12-45

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1919phae.proj..745B

Saturday, October 25, 1919

11-30 Direct estimates × Serpentis

✓B	31803	9.4	
—	28115	~~13.6~~ ~~<12.9~~ <W.	i
✓	20417	<12.2	m.s.
— ✓	29851	<13.6	m.s.
✓	17648	<12.2	m.s.
✓	29396	<12.9	m.s.
✓	33651	11.0	
— ✓	27840	<13.6	i m.s.
✓	29185	<12.9	m.s.
✓	32090	9.7	
✓	23445	<12.2	m.s.
✓	31942	9.6	
—	23578	<W	m.s.

12-15

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1919phae.proj..7458

Monday, October 27, 1919

10-30

Direct estimates × Serpentis

✓	B 7576 ~~<10.8~~	<10.8	foggad.
	28405	.	two near edge.
	23959	:	edge
✓	8706	.	edge
✓	6200	.	edge
✓	7575	.	edge, foggad
✓	37412	<12.9	m.s.
— ✓	24984	<13.6	m.s.
—	16353	< nv	m.s.
— ✓	36571	13.2	
✓	15820	<12.8	m.s.
	11248	.	Does not cover -
✓	37397	<12.8	m.s.
✓	27116	<12.9	m.s.
✓	16437	<12.9	m.s.
✓	37428	<12.5	m.s.
—	19507	< nv	m.s.
✓	32396	9.4^5	
✓	29648	<12.8	m.s.
—	18884	< nv	m.s.
✓	33620	11.0	i
✓	16278	<10.8	edge m.s.
	38937	.	Does not cover -

11-30

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1919phae.proj..745B

Monday, October 27, 1919

2-08 Direct estimates X Serpentis.

B	27584		edge
✓	35647	<11.9	m.s.
✓	11898	<12.2	i m.s. fogged
✓	20495	<11.7	m.s. fl. strong yellow tint.
✓	34766	11.7	out of focus.
✓	10939	<12.2	m.s.
✓	20390	<11.9	m.s.
	~~14554~~		

2-10

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1919phae.proj..7458

Tuesday, October 28, 1919

10-20 Direct estimates × Serpentis

✓	I 1675	<12.2	m.s.
✓	23257	<12.9	m.s,
✓	1391	t.p.	fogged.
	23218	.	Σ
✓	1333	<12.2	m.s. fogged. i
	17371	.	Does not cover.
✓	8831	.	off edge
	14554	.	Does not cover —
	18444	.	edge
✓	8774	<12.5	m.s.
	15409	.	off.
✓	6580	<11.8	m.s.
✓	12957	.	off edge
✓	6494	<11.8	m.s.
✓	12941	t.p.	
	17002	.	edge
✓	31821	11.7	
✓	11215	<11.9	
—	18288	<or	m.s.
✓	30596	9.7[5]	images dbl.
✓	12610	t.p.	
✓	31785	11.8	
	11276	.	edge
	30590	.	off edge

11-20

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1919phae.proj..745B

Wednesday, October 29, 1919

12-45 Direct estimates - X Serpentis.

	I 10881	~~<11.9~~	Off edge -
	37867	.	Edge -
	15668	.	Off edge -
	31817	.	~~Off~~ Edge -
	16956	.	Does not cover -
✓	31879	11.5	i
	15405	.	Does not cover -
✓	6388	.	Edge -
	27132	.	Edge
✓	4083	<11.9	n. s. fogged.
✓	22667	<11.8	n. s.
	~~1833~~		among region -
	21310	.	Edge
✓	1712	<11.9	n. s.
	26626	.	Edge
✓	1576	<10.8	fogged n. s.
	25766	.	Edge -
✓	1484	<11.7	n. s.
—	24782	< m.	n. s. i
✓	769	<11.7	n. s. poor pl. out of focus.
✓	25104	<12.9	n. s. i

2-0

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1919phae.proj..7458

Thursday, October 30, 1919

10-15 Direct estimates × Serpentis

✓	I 8784	< 12.5	m.s.
✓	25765	< 12.8	m.s.
✓	8623	.	edge
✓	21081	< 12.9	m.s.
✓	6523	< 11.2	m.s. fogged.
	25492	.	edge
✓	4104	t.p.	
	21042	.	Does not coren -
	23205	.	Does not coren -
✓	3760	< 12.5	m.s.
	I 23398	.	edge
✓	B 15691	< 11.9	m.s.
✓	33184	10.7	i
✓	24845	< 11.9	m.s. i
✓	15699	< 11.7	images dbl.
✓	23126	< 12.9	m.s.
✓	43656	< 12.2	m.s. images dbl.
✓	27119	< 11.9	m.s. edge
✓	23359	< 11.9	m.s. i
	26001	.	Off edge -
	40354		Does not coren
✓	21938	< 10.9	m.s. mean edge
✓	15892	< 10.8	m.s. i
	20391	.	too mean edge

11-15

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1919phae.proj..745B

Thursday, October 30, 1919

1-20 Direct estimates X Serpentis

	B 16326	.	edge
	40241	.	Does not come
✓	7650	.	edge
✓	38965	<12.9	n.s.
✓	7577	.	Off edge
	13973	.	Does not come Edge of Plate
—	38817	<nv	n.s.
—	10021	<nv	n.s.
✓	36000	<11.2	n.s. near edge
—	14032	<nv	n.s.
✓	34922	12.0	g not seen edge of plate
✓	28251	<12.8	near edge
✓	16347	<11.9	n.s.
✓	33574	11.7	near edge
✓	16146	<11.9	n.s.
✓	33107	11.0	

2-05

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1919phae.proj..7458

Friday, October 31, 1919

11-45 Direct estimates X Serpentis.

✓ B ~~16069~~ 16069	<11.9	m.s.
31638	.	edge
✓ 15984	<12.8	m.s. images dbl.
✓ 30554	<12.5	m.s.
✓ 15938	<13.6	m.s.
29708	.	edge
15739	Z.p.	
✓ 43655	<11.9	m.s. images dbl.
✓ 15738	<10.8	m.s. poor image
✓ 43657	<11.7	m.s.
✓ 16977	<12.9	m.s. i
40346	.	i
✓ 16776	<11.9	i m.s.
~~40262~~		among bars.
16459	Z.p.	
✓ 40483	<12.8	m.s.
19843	.	edge
✓ 40071	<11.2	m.s. poor image
✓ 23323	<12.8	m.s.
✓ 37528	<12.9	m.s. i
22730	.	near edge poor image
✓ 9989	<11.9	m.s. i
✓ 36953	<11.9	m.s. i edge
✓ 9988	<12.9	m.s.

12-30

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1919phae.proj..745B

Friday, October 31, 1919

2-00 Direct estimates — X Serpentis.

	B 29998	.	edge
✓	5936	−11.9	n. s. i
	19372	.	edge
✓	17326	<11.9	n. s. i
	36783	.	edge
✓	7596	t. f.	out of focus.
✓	36658	<11.9	n. s.
	29187	.	near edge.
✓	6199	<11.9	n. s.
✓	27151	<11.9	n. s. near edge

2-30

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1919phae..proj..7453

Saturday, November 1, 1919

11-30 Direct estimates X Serpentis.

✓	B 36078	−11.9	m.s. near edge.	
✓	25113	<12.8	m.s. near edge.	
✓	33889	11.2	i	
	29651	.	too near edge	
	33847	.	off edge	
	29468	.	off edge	
✓	33694	11.4	i near edge	
	23960	.	near edge	
✓	32615	10.1	i very near edge – est. between g, k, i, ~~not~~ k m.s.	
	21056	.	too near edge	
	31914	.	too near edge	
✓	20497	<11.9	m.s.	
✓	B 17141	<11.9	m.s. i	
				12-00
1-00	− a 3855	<m.	m.s.	
✓	2633	.	off plate	
✓	9305	<12.8	m.s.	
✓	2272	<12.2	m.s.	make a plate.
−	5587	<x	m.s.	
−	7701	est between X & +15	.	no mag. for star on pl.
✓	7891	.	off plate.	
	~~11004~~			1-20

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1919phae.proj..745B

Monday, November 3, 1919

12-15 Direct estimates — I Serpentis -

	a 11004	.	Does not cover.
✓	8357	.	Does not cover.
/	8083	<12.9	n.s. images dbl.
✓	9304	.	Does not cover.
—	8650	< or.	n.s.
—	8914	< g?	n.s.
	9324	.	Does not cover.
✓	9325	<12.9	½ mean edge

12-45

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1919phae..proj..7451

Saturday, November 8, 1919

11-45

~~Direct~~ X Serpentis

Scale 9m

I 18288

	Sc 1	Sc 2
a	2.5	
b	2.8	
c	2.7	
d	3.5	
e	~~3.9~~ ~~4.2~~	
f	4.0	
g	4.3	
h	4.8	
k	5.0	
l	5.8	
m	6.2	
n	6.8	
o	7.0	
p	6.8	
q		7.5
r		7.7
s		7.3
t		
u		
w		

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1919phae.proj..745B

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10-20

Monday, November 10, 1919

× Serpentis

Scale 2m | I 18288 | P.C.

	Sc 1	Sc 2		Diff.	Curve	Magn.	Sc 1	Sc 2		Diff.	Curve	Magn.
	2.7							1 1				
a	2.5			4.78	4.83	7.53		7.50	7.6	-0.02	-0.12	7.38
	3.0							0 0				
b	2.8			5.00	4.93	7.93		8.40	8.4	-0.40	-0.21	8.19
	3.2							2 2				
c	3.0			4.94	5.00	8.20		8.40	8.6	-0.26	-0.21	8.19
	3.6							2 2				
d	3.4			5.18	5.09	8.69		8.95	9.1	-0.17	-0.26	8.69
	4.3							1 2				
e	4.1			5.09	5.15	9.45		10.15	10.0	-0.76	-0.35	9.80
	4.1							0 0				
f	3.9			5.57	5.14	9.24		10.00	10.0	-0.33	-0.33	9.67
	4.7	1 2						1 0				
g	4.3	4.55	4.4	5.15	5.15	9.70		9.85	9.8	-0.15	-0.32	9.53
	5.4	1 1						1 1				
h	4.7	5.30	5.2	4.95	5.11	10.41		10.00	10.2	+0.25	-0.33	9.67
	5.4	0 1										
k	5.2	5.35	5.3	5.08	5.10	10.45						
	6.0	2 2										
l	4.8	5.75	5.5	5.08	5.07	10.82						
	6.2	2 2										
m	6.0	6.00	5.8	5.20	5.01	11.01						
	7.1	2 2										
n	6.9	6.90	6.7	4.77	4.81	11.71						
	7.2	0 0										
o	7.0	7.20	7.2	4.74	4.71	11.91						
	7.2	0 0										
p	7.0	7.20	7.2	4.63	4.71	11.91						
		0 0										
q		7.50	7.5	4.72	4.61	12.11						
		1 1										
r		8.15	8.2	4.39	4.39	12.54						
		0 0										
s		8.50	8.5	4.26	4.30	12.80						
		0 0										
t		8.60	8.6	4.26	4.29	12.89						
		1 1										
u		9.30	9.2	4.32	4.22	13.52						
		2 1										
w		9.65	9.5									
		0 0										
x		9.90	9.9									
y												

Computed Magn. Curve

-0.12	7.38	12.38
-0.20	7.95	12.95
-0.22	8.28	13.28
-0.23	8.37	13.37
-0.29	9.01	14.01
-0.30	9.35	14.35
-0.32	9.58	14.58

11-30

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Thursday, November 13, 1919

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9-30

X Serpentis.

Scale 1m. B 16352 T.C

		Sc 1	Sc 2	Diff.	Curve	Imagn.	Sc 1	Sc 2	Diff.	Curve	Imagn.
	a	1.7 1.5		5.78			7.5	1.0 7.55	7.6	−0.07	−0.07	7.48
	c	2.2 2.0		5.80			8.1	8.10	8.1	−0.10	−0.12	7.98
	c	1.6 1.4		6.54			7.4	8.40	8.4	−0.26	−0.15	8.25
	d	3.2 3.0		5.58			1 2 8.90	9.0 7.7	8.8 9.8	7.6 m.s.	−0.12	−0.20	8.70 Two stars close together.
	e	3.7 3.5		5.69			9.9	9.85	9.8	−0.46	−0.30	9.55
	f	3.2 3.0		6.47					9.8	−0.13	−0.30	9.50
	g	3.7 3.5		6.00					9.9	−0.20	−0.30	9.60
	h	5.0 8 4.8 4	5.00	5.0	5.25	5.30	10.30		m.s.			
	k	5.1 4.9	5.05	5.0	5.38	5.30	10.35					
	l	5.9 5.7	5.55	5.2	5.28	5.28	10.83					
	m	6.0 5.8	5.90	5.8	5.30	5.26	11.16					
	n	6.7 6.5	6.50	6.3	5.17	5.20	11.70					
Computed Imagn.	o	6.8 6.6	6.80	6.8	5.14	5.15	11.95					
	p	6.7 6.5	6.65	6.6	5.18	5.18	11.83					
	q		7.20	7.2	7.2	5.02	5.07	12.27				
−0.17	r	7.33	7.48	12.	7.5	7.50	7.5	5.04	4.99	12.49		
−0.11	s	7.79	7.94	12.	8.1	7.90	7.7	4.86	4.83	12.73		
−0.17	t	8.38	13.53		8.5	8.55	8.6	4.31	4.53	13.08		
−0.25	u	9.00	14.15		9.4	9.25	9.1	4.37	.	.		
−0.28	w	9.27	14.42		9.6	9.55	9.5	.	.	.		
	y				m.s.	m.s.						

11 − 15

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10-20

Scale 1m B 41359 — Σ Serpentis. P.C.

	Sc 1	Sc 2	Diff	Curve	Magn.	Sc 1	Sc 2	Diff	Curve	Magn.
a	3.2 3.0		4.28			10 8.5	8.45 8.4	−0.97	−0.95	7.50
b	3.8 3.6		4.20			8.4	8.85 8.9	−0.85	−0.90	7.95
c	3.7 3.5		4.44			12 9.1	8.95 8.8	−0.81	−0.90	8.05
d	4.0 3.8		4.78			11 9.7	9.60 9.5	−0.82	−0.75	8.85
e	5.2 5.0	01 5.15	5.1 4.24	4 5.14	9.29	10.0	10.00 10.0	−0.61	−0.64	9.36
f	5.0 4.8	11 5.10	5.2 4.57	4 5.15	9.25					
g	5.2 5.0	21 5.35	5.5 4.35	4.30	9.65					
h	6.0 5.8	00 6.00	6.0 4.25	4.21	10.21					
k	6.9 6.7	32 6.65	6.4 3.78	4.14	10.79					
l	6.7 6.5	10 6.65	6.6 4.18	4.14	10.79					
m	7.2 7.0	01 7.15	7.1 4.05	4.11	11.26					
n			7.3 4.37	4.10	11.40					
o			7.7 4.24	4.10	11.80					
p			7.6 4.23	4.10	11.70					
q			8.4 3.82	4.10	12.50					
r		10 8.35	8.4 4.19	4.10	12.45					
s		10 8.65	8.6 4.11	4.10	12.75					
t		11 8.70	8.8 4.16	4.10	12.80					
u		11 9.50	9.4 4.12	4.10	13.60					
v		01 9.65	9.7 ,	4.10	13.75					
w		00 10.00	10.0 .	.	.					
x										
y										

Computed Magns.

−0.95	7.45	12.85
−0.95	7.40	12.80
−0.93	7.72	13.12
−0.93	7.77	13.17
−0.77	8.73	14.13
−0.73	8.92	14.32
−0.65	9.35	14.75

11-10

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1919phae.proj..7458

Tuesday, Noremba 18, 1919

X Serpentis

11-45

Scale RH3 R 7701

	Sc 1	Sc 2	Diff.	Curve	Image
a	B				
b	B				
c	B				
d	B				
e	B				
f	B				
g	B				
h	B				
k	B				
l	B				
m	1.1		10.10		
n	1.3		10.37		
o	2.1		9.84	9.82	11.92
p	2.0		9.83	9.85	11.85
q	2.4		9.82	9.77	12.17
r	2.9		9.64	9.67	12.57
s	3.2	B	9.56	9.58	12.78
t	3.4	~~4.7~~ B	9.46	9.51	12.91
u	4.1	~~4.6~~	9.52	9.26	13.36
w	4.5	~~4.4~~	9.35	9.10	13.60
x	5.3	5.55	3.8	8.55	8.63	14.18
y	6.3	6.30	6.3		8.30e	14.60e
z	6.4	6.53	6.7		8.20e	14.75e
α	~~8.2~~		7.5		7.89e	15.39e
β	~~8.0~~		8.9		7.52	16.42e
δ	~~9.4~~		9.4		7.52e	16.82e
γ	~~9.2~~		9.0		7.50e	16.50e
mm	4.3		~~4.9~~			

12-30

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1919phae.proj..745B

Wednesday, November 19, 1919

10-00

χ Scorpionis

Scale a H 3 α 8914

	Sc 1		Sc 2	Diff. Const. Magn.			
a	B						
b	B						
c	B						
d	B						
e	B						
f	B						
g	B						
h	B						
k	B						
l	B						
m	1.1			10.10			
n	1.7			9.97			
o	1.8			10.14			
p	1.7			10.13			
q	2.5			9.72	9.75	12.25	9.94	12.44
r	2.5		B	10.04	9.75	12.25	9.94	12.44
s	2.9		B	9.86	9.67	12.57	9.74	12.64
t	~~4.0~~ 3.7		~~4.0~~	9.16	9.42	13.12	9.27	12.97
u	5.1	5.15	5.2	8.47	8.80	13.95	8.38	13.53
w	6.0	6.25	6.5	7.60	8.33 c	14.58 e	7.67 e	13.87 e
x	6.4	6.70	7.0	7.40	8.27 16 e	14.86 e	7.42 e	14.12 e
y	~~8.5~~		8.2		7.69 e	15.89 e	6.80 e	15.00 e
z	~~9.1~~		8.6		7.59 e	16.19 e	6.69 e	15.29 e
α	f.		f					
β								
δ								
f								
m	8.0		7.7					

11-00

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1919phae.proj..7458

Tuesday, December 2, 1919

9-45

X Scopentis

Scale 1m B16353

	Sc 1	Sc 2
t		8.6
w		9.5
nr		9.8
of		m.s.
y		
z		
L		
B		
3		
f		

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1919phae.proj..745B

10-00

Tuesday, December 2, 1919

Direct estimates. - X Serpentis

B 16553	< 13.8	m.s.
14042	< 14.8	m.s. nr.s.
15938	< 13.8	m.s. i near edge
41854	# ~~14.8~~ 14.0	nr.s.
28115	~~< 14.4~~ 13.8	m.s. i nr.s.
36571	~~< 14.1~~ 12.9	~~n.s.~~
38817	~~< 14.1~~ < 13.8	m.s. nr.s.
27584	< 14.1	m.s.
27615	< 13.8	m.s.
23098	< 13.8	m.s near s
27840	< 13.8	m.s. dbl. images.
23578	< 13.8	m.s.
24981	< ~~13.8~~ 12.9	m.s. defect nr.s.
19507	< 13.8	m.s.
B 18884	< 13.8	m.s.
I 18288		

wrong star taken for X. 4.

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Tuesday, December 2, 1919

1-30 Direct estimates ~~I~~ Σ Safenties.

✓B 14032	< 13.8	m.s.
✓ 16353	< 13.8	m.s.
✓ 27584	< 14.1	m.s
✓ 15938	< 13.8	m.s. i
✓ 41059	~~< 15.0~~ < 14.8	~~m.s~~
✓ 28115	< 16.4	m.s. i
✓ 23578	< 13.8	m.s.
✓ 27840	< 14.8	m.s. dbl. images
✓ 23098	< 13.8	m.s. near edge
✓ 27615	< 14.1	m.s.
✓ 36571	12.9	
✓ 38817	< 14.8	m.s.
✓ 24984	< 13.6	m.s.
✓ 19507	< 14.1	m.s.
✓B 18884	< 14.1	m.s.
✓I 24782	< 14.8	m.s. i
✓I 18288	< 14.1	m.s.
✓B 10 ~~8~~ 9 21 ~~8 19~~	< 14.1	m.s.
✓a 7701	13.9	
✓a 5587	< 14.1	m.s.
✓ 8914	14.7	
✓ 8650	< 13.8	m.s.
✓ 3855	14.1	

2-30

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