

KG
11366
075

Observing Book 22.

Southern.

M.E. O'Reilly.

KB11366, 075

Scale α

Scale A No Correction.

Scale B Reject readings brighter than 4.6 and fainter than 9.0.

Readings 4.6 to 7.0 Cor. 0.0

7.1 " ^{7.5} 8.0 " -0.1

7.6 " 8.0 " -0.2

8.1 " 8.5 " -0.3

8.6 " 9.0 " -0.4

Scale C No correction.

Scale β

Scale A Reject readings

Scale B Correction +0.8

Scale C No correction

This book examined for underlining. Corrections
entered in Sk's 27 and 34.
O. August 5, 1917 -

Observing Book. 22.

1 Measures of plates for Southern Regions.
Mostly Southern plates.

M. E. O'Keilly

1516phae.proj.10760

Although the measures in this book and in all my books were recorded in order of brightness, the stars were measured in as irregular order as possible, to obtain independent results.

Sept. 11, 1918.

KG 11366.675



Wednesday April 26, 1916.

Scale m.

B Series 97.

1:08

B 46183

C12.

23 + 15°.

PC

sc.1 sc.2

diff.

sc.2 Diff.

1 3.0 3.2

3.40

1.7 -1.10

2 3.1? 3.3?

3.69

8.1 -1.11

3 3.7 3.9

3.38

8.3 -1.02

4 3.8 4.0
4.6 w.s.

3.56

8.5 -0.94

5 4.1 4.3 4.2 4.25 10 3.59

8.6 -0.76

6 4.6 4.8 4.9 4.85 01 3.37

9.0 -0.78

edge. 8 t.f.

8.8 -0.20

9 5.5 5.7 5.6 5.65 10 3.36

9.8 -0.79

11 5.5 5.7 5.1 5.70 00 3.61

9.8 -0.49

12 6.0 6.2 6.1 6.15 01 3.46

f.

14 6.1 6.3 6.5 6.40 01 3.51

16 6.6 6.8 6.7 6.75 01 3.63

17 7.1 3.55

17a 7.5 3.58

18 defective

20 8.0 3.90

21 8.1 4.13

21a 8.5 4.15

23 8.6 4.41

24 9.1 9.1 9.10 00 4.34

26 9.2 9.3 9.25 01 4.41

27 9.6 9.7 9.65 01 4.36

28 9.7 9.6 9.65 00 4.16

29 f. f.

See list of stars to be omitted in measuring Aequora plates.

Wednesday April 26, 1916.

Scale m.

B Series 97.

Differ. Images.

	B 46 18 3				Differ. In	
	g		h			
	sc.1	sc.2	sc.1	sc.2	mean	Diff
1	5.6	5.8	5.3	5.5	5.65 \pm	0.95
2	t.p.		t.p.		.	.
3		t.p.	6.2	6.4	6.4 \pm	0.88
4		t.p.	6.5	6.7	6.7 \pm	0.86 0.84
5		t.p.	t.p.		.	.
6		t.p.	t.p.		.	.
on edge. 8		t.p.		t.p.	.	.
9		8.1 floor	8.3		8.20 \pm	0.81
11		t.p.	8.4?		8.4? \pm	0.91
12		t.p.	8.6? v.p. 8.4?		8.6? \pm	1.01
14		t.p.	8.6? t.p.		.	.
16		9.6	9.9		9.75 \pm	0.63
17		9.8	t.p.		9.8 \pm	0.85
18		f.				
20						

Wednesday April 26, 1916.

Scale m-

B series 97.

Copied 27: 198, 200, 202

B 46184

South Pole.

-90°.

alt. corr. -93

P.C.

	sc.1	sc.2	Curve	magn.	sc.1	Curve	magn.
a B.					7.2	.	.
b B.					8.1	-1.04	7.06
c B.					8.0	-1.07	6.93
d 3.6 3.8			3.49	7.29	8.2	-1.01	7.19
e t.p.			.	.	8.4	-0.97	7.43
f 4.1 4.3			3.47	7.77	8.8	-0.76	8.04
g 4.5 4.7			3.46	8.16	9.3	-0.70	8.60
h 4.6 ^{4.8} 4.9 ^{5.1}		4.85 ^{0.1}	3.45	8.30	9.3	-0.70	8.60
i 5.5 ^{5.7} 5.6		5.65 ^{10.3}	3.46	9.11	t.p.	.	.
j 5.9 ^{6.1} 6.0		6.05 ^{10.3}	3.49	9.54	9.4 ^{10.0}	-0.68	8.72
m 6.2 ^{6.4} 6.4		6.40 ^{00.3}	3.51	9.91	9.9 ^{10.0}	-0.51	9.39
n 6.4 ^{6.6} 6.6		6.60 ^{00.3}	3.54	10.14	±.		
o 6.7 ^{6.9} 7.1		7.00 ^{11.3}	3.60	10.60			
p 7.4			3.71	11.11			
q 7.7 ^{7.65} 7.6 ^{10.0}			3.79	11.44			
r 7.6 ^{7.60} 7.6 ^{10.0}			3.78	11.38			
s 7.9			3.89	11.79			
t 7.9			3.89	11.79			
u 8.1			3.96	12.06			
w 8.3			4.02	12.32			
x 8.1 ^{8.65} 8.6 ^{10.0}			4.15	12.80			
y 8.6 ^{8.68} 8.6 ^{10.0}			4.13	12.73			
z 8.9			4.25	13.15			
α 9.0			4.30	13.30			
β 9.2			4.38	13.58			
γ 9.6			4.53	14.13			
δ 9.1			4.34	13.44			
ε 9.1 ^{9.10} 9.1 ^{10.0}			4.34	13.44			

Remear. by O. Jan. 8/16
P.C.sc.2 for 9.5² poor

l 9.6

mv 10.1

No error of measurement
P.C. star l. Image
does not compare well
with scale, is larger
and not as dense as
scale.
Ident. correct.

	sc.2		
η	9.8 ^{9.80} 9.8 ⁰⁰	4.62	14.42
θ	9.8 ^{9.85} 9.8 ⁰¹	4.63	14.48
✓	±.		

Wednesday April 26, 1916.

Scale m.

B Series 97.

Copied 27:198.

B 46184 cont. South Pole.

Alt. Cor. -93

	g		h				
	sc.1	sc.2	sc.1	sc.2	mean	Curve	Magn.
a	+		5.3	5.5	5.5	a. 0.95	6.45
b	+		+				
c	6.4	6.6	6.3	6.5	6.55	0.89	7.44
d	6.3	6.5	6.6	6.8	6.65	0.88	7.53
e	6.9	7.1	+		7.1	a. 0.88	7.98
f		7.7	+		7.7	a. 0.87	8.57
g		7.9	+		7.9	a. 0.87	8.77
h		7.8	+		7.8	a. 0.87	8.67
i		8.4		8.3	8.35	0.86	9.21
j		8.4		8.6	8.50	0.85	9.35
k		8.7		8.7	8.70	0.85	9.55
l		+		9.1	9.1	a. 0.84	9.94
m		9.1		9.2	9.15	0.84	9.99
n		9.6		9.6	9.60	0.82	10.42
o		9.9		9.9	9.90	0.83	<u>10.73</u>
p		+		+			
q							
r							
s							
t							

Wednesday April 26, 1916.

Copied 1335:30

Scale m

B series 97.

B 46185			Carte		0 - 9.5		alt. corr + .06	
			An Magn		Differ. Cu Magn		PL Cu Magn	
sc.1	sc.2				g _{sc.1} h _{sc.2}			
1	5.86.0	5.8 5.90' ±	3.47	9.37	h _{sc.1} 8.8	0.84	9.64	h _{sc.1}
2	5.96.1	6.1 6.10' ±	3.49	9.59	9.19.10.00	0.83	9.93	10.0 - 0.48 <u>9.52</u>
3	5.96.1	5.9 6.00' ±	3.48	9.48	9.19.00.1	0.84	9.84	n.s.
4	6.16.9	1.0 6.95' ±	3.60	10.53	9.69.60.00	0.82	10.42	
5	6.26.4	6.2 6.30' ±	3.50	9.80	h _{sc.1} 9.1	0.83	9.93	
6	7.3		3.67	10.97	h _{sc.1} 9.9	0.82	<u>10.72</u>	
7	7.1		3.80	11.50	± ±			
8	7.3		3.67	10.97				
9	7.6		3.77	11.37				
10	7.1		3.80	11.50				
11	7.9		3.88	11.78				
12	8.1		3.95	12.05				
13	8.3		4.02	12.32				
14	8.4		4.06	12.46				
15	8.7		4.16	12.86				
16	8.8		4.22	13.02				
17	9.1		4.33	13.43				
18	9.19.25 ±		4.40	13.65				
19	9.19.70 ±		4.58	<u>14.28</u>				
20	9.99.9		4.65	<u>14.53</u>				

Wednesday April 26, 1916.

Copied B 35175

Scale m.

B series 91-

B 46186			Carte	0 0 - 23.5		Att. corr +.06	
sc.1 sc.2			ln Magn	Diff. ln Magn	ln Magn	P.C. ln Magn	
1 B.				g $\frac{h}{sc.1}$		sc.2	
				4.8 5.0	1.00	6.00	6.9
2 B.				5.1 5.3	0.97	6.27	6.1
3 B.				th. $\frac{sc.2}{7.1}$	0.88	7.98	sc.2 7.6
4 B. th.				th. 7.1	0.87	8.57	7.6 -1.14
5 5.1 5.9 5.1	5.80 12	3.47	9.27	8.8 8.8	0.84	9.64	9.1 -0.77
6 5.1 5.3 5.3	5.30 00	3.45	8.75	8.5 8.5	0.85	9.45	9.1 -0.52
7 6.0 6.2 6.2	6.20 00	3.50	9.70	9.5 9.5	0.83	10.13	9.38
8 7.0 7.2 7.0	7.10 12	3.63	10.73	9.9 9.9	0.82	10.72	
9 7.6		3.77	11.37	f f.			
10 7.9		3.88	11.78				
11 7.1		3.80	11.50				
12 7.9		3.88	11.78				
13 7.5 8.4		4.06	12.46				
14 8.4		4.06	12.46				
15 8.7		4.16	12.86				
16 8.8 8.8 8.8	8.80 00	4.22	13.02				
17 9.1 9.1 9.1	9.10 00	4.34	13.44				
18 9.1 9.1 9.1	9.10 00	4.34	13.44				
19 9.5 9.5 9.5	9.40 12	4.46	13.86				
20 9.9 9.9 9.9	9.90 00	4.65	14.55				

w. unit.

Wednesday April 26, 1916.

Lopid B357126

Scale m.

B Series 94.

B46187		Carte		0 0-405		Act. corr +.03	
sc.1 sc.2		Cu Magn		Diff. Imm. Cu Magn		P.C. Cu Magn	
				g h sc.2 sc.2		sc.2	
1	333.5	3.50	7.00	t.p.	t.p.	8.20	-1.03 7.17
2	434.5	3.47	7.97	t.p.	t.p.	8.1	-0.89 7.81
3	t.p.			t.p.	t.p.	9.2	-0.74 8.46
4	485.0 5.3 5.15 21	3.44	8.61	8.20 t.p.	0.86	9.06	9.4? n.p. -0.68 8.72
5	515.3 5.1 5.50 22	3.46	8.96	t.p.	t.p.	9.9	-0.52 <u>9.38</u>
6	596.1 6.21 6.15 20	3.50	9.65	9.2 ^{9.30} 9.4	0.83	10.13	f
7	636.5 6.5 6.50 00	3.53	10.03	9.9 ^{9.90} 9.9	0.82	<u>10.72</u>	
8	656.7 6.8 6.75 20	3.55	10.30	t.	t.		
9	7.1	3.63	10.73				
10	7.2	3.66	10.86				
11	7.8	3.84	11.64				
12	8.1 ^{8.10} 8.1 00	3.95	12.05				
13	8.1 ^{8.10} 8.1 00	3.95	12.05				
14	8.3 ^{8.30} 8.3 00	4.02	12.32				
15	9.3 ^{9.30} 9.3 00	4.40	13.70				

All images slightly out of focus?

Tuesday May 26, 1916.

Scale α Scale measures of a plates taken with Grating.

9⁵

A 11329

E6

14 40 - 45°.

P.C.

sc.A sc.B sc.C.

sc.A sc.B sc.C. sc.C.

Cu Magn

1

2.5

2.5

3.72 6.22^e

2

3.4

3.4

3.53 6.93

3

2.9 B.

2.9

3.64 6.54

4

3.1 B.

3.7

2.46 7.16

off plate.

5

.

.

.

6

3.9 4.3^R

3.9

3.40 7.36

7

4.6 4.3^R

4.6

3.20 7.80

8

5.4 5.2⁺

5.30

2.95 8.25

9

5.5 5.5

5.50

2.87 8.37

10

5.5 5.3

5.40

2.91 8.31

11

6.3 6.3

6.3

2.58 8.48

12

6.4 6.4

6.4

2.54 8.94

13

6.4 B.

6.4

2.54 8.94

14

7.3 7.3

7.30

2.20 9.50

15

6 6.9 7.9

6.90

2.35 9.25

16

7.2 7.1

7.10

2.26 9.36

17

B.

too nearly sup.

18

7.8 7.5 7.8

7.63

2.09 9.72

19

8.9 7.9 7.9

7.90

2.00 9.90

20

8.8 8.4 8.2

8.30

1.88 10.18

21

8.4 8.1 8.1

8.55

1.88 10.35

22

8.4 8.1 8.1

8.55

1.80 10.35

23

8.7 8.1 8.1

8.70

1.76 10.46

24

8.9 8.0 8.0

8.95

1.69 10.64

25

9.1 9.1 9.1

9.10

1.63 10.73

26

2.3?

9.5 9.8

9.65

1.47 11.12

Tuesday May 2, 1916.

Scale α Scale measures of a plates with grating

a 11329.

E6.

14 40-45°

P.C.

	sc.A	sc.B	sc.C.		sc.C.	Cr	Magn
	29 2.2?		2.2? \underline{a} ..		^{0.1} 18.3 11.1	1.34	11.44
	28 3.2		32 \underline{a} ..		^{0.8} 18.8? 18.8?	1.15	11.93
	29 3.1		31 \underline{a} ..		f.		
	30 4.0		40 \underline{a} ..		m.s.		
red?	31 4.0	B.	4.0 \underline{a} ..		m.s.		
	32 4.1	4.2 ^R	4.1 \underline{a} ..				
	33 4.1	4.2 ^R	4.1 \underline{a} ..				
	34 4.6	4.4 ^R	4.6 \underline{a} ..				
	35 4.6	4.4 ^R	4.6 \underline{a} ..				
	36 5.6	4.3 ^{5.6} w.s.	5.60 0 0.				
	37 5.2	5.5 5.5	5.35 $\underline{2}$ 1.				
	38 5.9	6.1 6.1	6.00 $\underline{1}$ 1.				
	39	6.1 6.1 B.	6.10 0 0.				
	40	6.1 6.7 ⁶ 7.9	⁸⁰ 6.72 $\underline{1}$ 1				
	41	7.2 7.1 ⁷ 8.3	7.20 $\underline{1}$ 1				
	42	8.4 8.2 ⁸ 9.1	8.15 0 1				
	43		⁸ 8.3 ⁸ 8.3 8.30 .. 00				
	44		⁸ 8.5 ⁸ 8.3 8.40 .. 00				
	45		⁹ 9.6 ⁹ 9.4 9.50 .. 11				
	46		¹⁰ 10.5 ¹⁰ 10.3 10.40 .. 11				
	47		¹⁰ 10.9 ¹¹ 10.0? ¹¹ 10.95? .. 10				
	48						

Tuesday May 2, 1916.

Scale α

Scale measures of a plates with grating

A 11329. E6 Cont 14 40 - 45°

Differ Images.

$$\begin{matrix} a & b & \frac{a+b}{2} & h \\ \text{sc.} & \text{sc.} & \text{sc.} & \text{sc.} \end{matrix}$$

	B.						A magn	
	1	B.	.	.	.	.	4.58	7.68
	2	3.1	B.	3.1	A . . . . .	.	
	3	B.	B.	B	. . . . .	.
	4	th.	th.	.	. . . . .	.
off pl.	5	.	.	.	. . . . .	.
	6	3.1	3.1	3.10	0 . . 0 . .	.	4.58	7.68
	7	3.2	3.4	3.30	1 . . 1 . .	.	4.58	7.88
	8	3.9	3.9	3.90	0 . . 0 . .	.	4.56	8.46
	9	3.3	3.0	3.15	1 . . 2 . .	.	4.58	7.73
Extreme edge	10	th.	th.	.	. . . . .	.	1	
	11	3.9 4.1 ^R	4.1 4.1 ^R	4.00	1 0 . 1 0 .	.	4.53	8.55
	12	4.5 4.4 ^R	4.5 4.3 ^R	4.50	0 1 . 0 2 .	.	4.49	8.99
	13	4.4 4.4 ^R	4.3 4.3 ^R	4.35	0 0 . 1 1 .	.	4.51	8.56
	14	4.9 5.1	4.7 5.2	4.98	1 1 . 3 2 .	.	4.39	9.37
	15	4.9 5.1	4.9 5.2	5.02	1 1 . 1 2 .	.	4.37	9.39
	16	5.1 5.3	4.8 4.9	5.00	1 3 . 3 1 .	.	4.38	9.58
	17	5.4 5.4	5.3 5.3	5.35	0 0 . 1 1 .	.	4.30	9.65
	18	5.1 5.5	5.9 5.9	5.75	1 3 . 1 1 .	.	4.16	9.91
	19	5.6 5.8	5.4 5.1	5.62	0 2 . 2 1 .	.	4.21	9.83
	20	5.9 6.1	6.1 6.1	6.03	1 1 . . 1 .	.	4.67	10.10
	21	6.9 6.9	6.6	6.75	. 1 . . 2 .	.	3.78	10.53
	22	6.1 B	6.4	6.25	. 1 . . 2 .	.	4.00	10.25
	23	6.3 B	6.1 B	6.20	. 1 . . 1 .	.	4.01	10.21
	24	6.8 7.1	6.8 6.2	6.72	. 4 4 . 1 5	.	3.80	10.52
	25	7.1 7.0 7.2	6.8 6.5	6.88	. 1 3 . 1 4	.	3.77	10.65
	26	7.9 7.7 7.9	8.1 7.9	7.90	. 2 0 . 0 2	.	3.41	11.31

Tuesday May 2, 1916.

Scale 2

Scale measures of a plates.

Q 11329

cont

Eb. Differ. Images.

H. g

h

	scA.	scB.	scC.	scA.	scB.	scC.	Cu	magn
27		8.48.2	⁸ 9.2	8.28.0	⁸ 9.1	8.12	3.35	11.47
28			⁸ 9.9		⁸ 9.9	8.90	3.03	11.93
29			⁸ 9.6		⁸ 9.5	8.55	3.18	11.73
30			⁹ 10.2		⁹ 10.6	9.40	2.80	12.20
31			⁹ 10.2		⁹ 10.1	9.15	2.92	12.07
32			⁹ 10.6		¹⁰ 11.1	9.85	2.58	12.43
33			⁹ 10.5		¹⁰ 11.3	9.90	2.55	12.45
34			¹⁰ 11.5		¹⁰ 11.3	10.40	2.30	12.70
35			¹⁰ 11.6		¹⁰ 11.5	10.55	2.22	12.77
¹⁰ 11.6			¹⁰ 11.6					
sup.								

Tuesday May 2, 1916.

Scale α Scale measures of A plates 26
~~9.20~~ Q 11329 cont Diffraction Images of P.C.

	sc.A.	sc.B.	sc.C.	sc.A.	sc.B.	sc.C.
Edge	1		t.h.		t.h.	
	2	8.1		8.2	8.15	
	3	8.1		t.h.	8.1	
	4	8.8		t.h.	8.8	
off pl.	5	.	.	.	.	.
	6	9.1		t.h.	9.1	
	7	10.1		10.1	10.10	
	8	.7		7.7	.7	
	9	m.s.		m.s.		
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					

11:30

Tuesday May 2, 1916.

Scale 2

Scale measures of A plates cont.

12:50

A 11378.

88

20
20-45°

P.C.*

sc.A. sc.B. sc.C.

sc.A. sc.B. sc.C.

mean

1

4.5

2

4.6
3.9

3

4.8

B.

4

3.9

4.0

3.9 ± 0

5

4.9

4.9

4.90°

6

6.1

5.9

6.00'1

7

4.7

4.7

4.70°

8

5.4

5.3

5.35°1

9

5.8

5.4

5.60°2

10

6.4

11

6.2

12

6.3

13

6.4

6.4

B.

14

7.0

7.1

7.05°1

15

7.3

7.4

7.40°1

16

7.2

7.3

7.25°1

17

8.0

8.1

8.05°1

18

8.2

8.3

8.25°1

19 1.0

8.2

8.2

20 B.

8.9

8.9

8.90°

21 1.2

9.2

9.2

9.20°

22 1.3

9.8

9.6

9.70°1

23 B.

10.7

10.5

10.60°1

24 2.6

11.0

11.0

11.0°

25 3.1

B.

n.s.

26 3.1

B.

* P.C. are peculiar. - 3 cornered shape. - poor.

Tuesday May 2, 1916.

Scales

Scale measures of A plates cont.
A 11378 cont. 88

	so A.	so B.	so C.	so C.
29	4.1			
38	4.1	B.		
29	4.5	4.3	4.5	
30	4.8	5.0	4.9 ^{±1}	
31	5.0	4.9	4.95 ^{±1}	
32	5.1	5.2	5.15 ^{±0}	
33	5.5	5.4	5.45 ^{±0}	
34		6.2	B.	
35		6.6	6.1	6.35 ^{±2}
36	1	6.9	7.0	6.95 ^{±0}
		7.4	7.3	7.35 ^{±1}
37		7.5	7.3	7.35 ^{±1}
		7.9	7.9	7.90 ^{±0}
38		8.2	8.1	8.15 ^{±1}
		8.5	8.4	8.30 ^{±1}
39		8.6	8.5	8.55 ^{±0}
40		9.0	8.5	8.55 ^{±0}
		9.1	8.8	8.75 ^{±0}
41		9.1	8.8	8.75 ^{±0}
42		9.9	9.9	9.00 ^{±1}
		10.1	9.9	9.00 ^{±1}
43		10.1	9.9	9.00 ^{±1}
		10.5	10.1	10.60 ^{±1}
44		10.5	10.1	10.60 ^{±1}
		10.9	10.1	10.80 ^{±1}
45		10.9	10.1	10.80 ^{±1}
		10.9	10.1	10.90 ^{±1}
46		10.9	10.1	10.90 ^{±1}
		10.9	10.1	10.90 ^{±1}
47		10.9	10.1	10.90 ^{±1}

Tuesday May 2, 1916.

Scale 2 Scale measures of a plates taken with grating
A 11378. cont. Diff. Imm.

h images Remeas. Oct. 15, 16	g			h			mean
	sc. A.	sc. B.	sc. C.	sc. A.	sc. B.	sc. C.	
1 1.48	1 1.9			+2 w.s?			1.55 ³⁴
2 2.8	2 1.2			2.8			2.8
3 2.1	3 2.1			1.5			1.80 ³³
No error in previous measure of 2. Prev. measure of 3 is poor. Stars 1, 2, 3, 4, 6, 7 are not near centre. Should they be rejected for distance?	4 1.2			1.2			1.20 ⁰⁰
	5 3.1			3.0			3.05 ¹⁰
	6 t.h.			t.h.			.
	7 t.h.			t.h.			.
	8 3.1			3.2			3.15 ¹⁰
	9 3.4			3.5			3.45 ⁰¹
	10 3.4			3.2			3.30 ¹¹
	11 3.7			3.9			3.80 ¹¹
	12 3.3			3.8			3.55 ³²
	13 3.2	B.		3.6			3.40 ²²
	14 4.1	4.1 4.1 ^{4.1}		4.2	4.2	4.20 ⁰⁰	4.15 ¹⁰⁰
	15 4.9	5.2	5.05 ¹²	5.2	5.1	5.15 ⁰¹	5.10 ^{05 05}
	16 4.2	4.2	4.2	4.2	B.		4.20 ⁰⁰
	17 5.3	5.2	5.25 ¹¹	5.1	5.1	5.10 ⁰⁰	5.18 ^{07 05}
	18 5.4	5.3	5.35 ⁰¹	5.2	5.3	5.25 ⁰¹	5.30 ^{05 05}
	19 6.4	6.3	B.	6.5	B.		6.40 ⁰⁰
	20 6.	6.9		6.9	7.00 ¹¹		6.93 ¹⁰
	21 6.6	6.6 ^{6.70} ¹¹		6.9	6.85 ¹⁰		6.78 ^{05 07}
	22	7.4 ^{7.35} ¹¹		def.	def.		7.35 ¹¹
	23	8.1 ^{8.15} ¹¹		8.4 ^{8.35} ¹¹	8.3		8.15 ^{10 10}
	24		8.4	8.5	8.3		8.35 ⁰¹
	25	9	8.9		8.9		8.90 ⁰⁰
	26		9.7		9.9		9.80 ¹¹

Tuesday May 2, 1916.

Scale x scale measures cont.

A 11378 cont=

	sc.C.	sc.C.
27	$\frac{10}{2.5}$	$\frac{10}{N.1} \quad 10.15^{0.1}$
28	$\frac{10}{2.2}$	$\frac{10}{N.3} \quad 10.25^{0.1}$
29	$\frac{10}{2.5}$	$\frac{10}{N.3} \quad 10.40^{1.2}$
30	7	7

Diff. Images for Pris. Comp.

	g	h
	sc.C.	sc.C.
1	$\frac{10}{N.4}$	$\frac{10}{N.4}$
2	$\frac{10}{N.7}$	$\frac{10}{N.6}$
3	7	7.
4		
5		
6		

Wednesday May 3, 1916.

Scale α Scale measured of a plate taken with Grating.

9:15

*A 11375

E8

20 -45°

P.C.

sc A. sc B. sc C.

sc A sc B. sc C. Mean

on extreme edge. 1 .

3.8?

3.8?

2

3.4?

3.4?

on edge 3 .

4.1?

4.1?

"

3.3

3.3

5

4.3

B.

4.3

on edge 6

5.5

5.6

5.55 ± 0

7

3.8

B.

3.8

8

4.9

4.8

4.85 ± 0

9

5.1

5.1

5.10 ± 0

10

5.8

5.8

5.80 ± 0

11

5.7

5.5

5.60 ± 0

12

6.1

6.1

13

5.8

5.8

B.

5.80 ± 0

14

6.7

7.1

6.85 ± 0

15

7.17 ± 0

8.2

7.10 ± 0

16

7.2

7.1

7.15 ± 0

17

7.4

7.1

7.55 ± 0

18

8.08

8.1

8.05 ± 0

19

9.1

20 B.

8.9

21 B.

9.2

22 B.

10.0

23 B.

11.0

24 1.9

1.

25 2.1

m.s.

26 2.2

* Sequence not in center.

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Wednesday May 3, 1916.

Scale \propto

Scale measures of a plaster cont.

A 11375

cont.

E 8 - 20 00-45.0

	sc. A.	sc. B.	sc. C.	Mean
27	3.1			3.1
28	3.1			3.1
29	3.8			3.8
30	4.1	4.0 ^{Ref.}		4.05 ⁷⁰
31	4.3	4.3 ^{Ref.}		4.30 ⁰⁰
32	4.8 ^{from}	4.9		4.85 ⁰¹
33	5.1	5.1		5.10 ⁰⁰
34	5.6	5.1		5.65 ⁰¹
35		6.5	B.	6.5
36		7.1 ^{7.0}	7.1	7.05 ⁰¹
37		7.5 ^{7.4}	7.3	7.35 ⁰¹
38		8.4 ^{8.1}	8.2	8.15 ¹⁰
39		8.4 ^{8.1}	8.3	8.20 ¹¹
40			8.8	8.90 ¹²
41			8.9	8.95 ¹⁰
42			9.2	9.20 ⁰⁰
43			10.4	10.40 ⁰⁰
44			10.6	10.50 ¹¹
45			+	.
46			+	.

Wednesday May 3, 1916.

Scale α .

Scale measures of a plates taken with Grating.

A 11375 and E8

Diff. Images.

	g			h			
	sc.A	sc.B	sc.C.	sc.A.	sc.B	sc.C.	Mean
edge.	1	t.p.		.		.	
	2	t.p.		.		.	
"	3	t.p.		.		.	
"	4	t.p.		.		.	
	5	3.1		3.1		3.10	00
	6	t.p.		.		.	
	7	t.p.		.		.	
	8	3.1		t.p.		3.1	a.
	9	3.1		3.2		3.15	10
	10	3.1		3.2		3.15	10
	11	t.p.		3.2		3.2	a.
	12	2.5		2.9		2.70	22
	13	t.p.		3.1		3.1	a.
	14	3.5		3.9		3.70	22
	15	^{4.9} 4.1 4.9	4.90 00	4.8		4.85	05 05
	16	3.6	B.	3.8		3.70	11
	17	5.1	5.1 5.10 00	5.1		5.10	00 00
	18	5.2	5.4 5.30 11	5.1		5.20	10 10
	19	6.3	B.	6.1		6.20	11
	20	^{7.170} 6.90 12	6.8	6.8		6.85	05 05
	21	^{7.0} 6.60 24	6.2	6.6		6.60	00 00
	22	^{7.4} 7.25 27	6.1	^{7.4} 7.5		7.32	07 08
	23	^{8.5} 8.45 10	7.4	^{8.0} 8.3		8.22	23 22
	24		8.6	⁸ 8.3		8.45	21
	25		8.9	⁹ 8.9		8.95	10
	26		¹⁰ 9.1	¹⁰ 9.1		10.10	00

Diff. Images are from.

Wednesday May 3, 1916.

Scale 2

Scale measures of a plate's cont
a 11375 - cont.

	sc C.	sc C. Mean
27	H. 9 def?	¹⁰ N. 1 10.1 . <u>a</u>
28	¹⁰ N. 4 11 w.s.	¹⁰ N. 3 10.35 0.1
29	m.s.	m.s.
30	m.s.	

10.30

Wednesday May 3, 1916.

Scale λ Scale measured of a plate taken with grating.

10:50

a 11369

Eq

22 40-45°

B.C.

sc. A sc. B sc. C.

sc. A sc. B sc. C.

edge.
off pl.

1

off pl.

2

2.7?

2.7?

3

4

3.9

B.

3.9

5

4.4

4.7

4.55 \pm 1

6

4.4

4.4

4.40 00

7

5.1

5.4

5.25 \pm 2

8

5.1

5.2

5.15 \pm 0

9

10

6.2

6.2

11

6.2

B.

6.2

12

6.9

6.9

6.9000

13

6.8

6.9

6.8501

14

6.9

6.9

7.6510

15

7.3

7.2

7.1502

16

8.4

8.9

8.0012

17

9

18

8

19

9

20

10

21

10

22

1.1

10

23

1.9

10

24

2.2

10

25

2.4

10

26

2.9

Wednesday May 3, 1916.

Scale & scale measures of a plates taken with grating.
 A 11369 cont. E9 22 40 - 45°

	sc.A	sc.B.	sc.C.	
27	2.9			2.9
28	3.8	B.		3.8
29	4.2	4.1 Rj.		4.2
30	4.2	4.1 Rj.		4.2
31	4.8	4.9		4.85 0.1
32	4.9	5.1		5.02 1.1
33	5.4	5.3		5.35 0.2
34		6.3	B.	6.3
35		7.1	7.0 7.1	7.05 1.0
36		7.3	7.2 7.1	7.15 0.2
37		8.2	7.9 7.8	7.85 1.0
38		8.4	8.1 8.4	8.25 1.2
39		8.9	8.5 8.6	8.55 1.0
40		9.1	9.2 9.4	9.30 1.1
41		9.6	9.7 9.7	9.65 0.1
42		9.7	10.1 10.1	9.90 2.2
43		10.1	10.2 10.2	10.15 1.0
44		m.s.	m.s.	
45				

Wednesday May 3, 1916.

Scale α Scale measures cont

a 11369 g			E 9 h			cont. Diff. Jm.
scA	scB	scC	scA	scB	scC	Mean
1	th.		.			.
2	edge.		.			.
3	off h.		.			.
4	2.5		2.8			2.65 12
5	th.		.	.		.
6	3.2		3.4	.		3.30 11
7	2.9		3.4	.		3.15 32
8	th.		.	.		.
9	1		.			.
10	th.		.			.
11	3.9	th. ^{Rej.}	3.9	th. ^{Rej.}		3.90 00
12	4.3	th. ^{Rej.}	4.7	th. ^{Rej.}		4.50 32
13	4.4	4.9 4.65 23	4.9	5.1 5.00 11		4.82 17 18
14	4.8	4.9 4.85 01	4.9	4.6 4.75 12		4.80 05 05
15	4.4	4.4 4.40 00	4.5	4.5 4.50 00		4.45 05 05
16	4.9	5.3 5.10 22	5.3	5.3 5.30 00		5.20 10 10
17	6.8		6.6			6.70 11
18	6.2	6.3	6.2			6.20 00
19	6.4	6.25 26	6.4	6.25 21		6.25 00 00
20	7.5	7.4 7.40 10	7.3	7.2 7.35 22		7.38 02 03
21	7.9	7.7 7.55 12	7.6	7.4 7.50 11		7.52 03 02
22	7.6	7.4 7.40 00	7.5	7.4 7.35 01		7.38 02 03
23		8 7.5		8 7.3		8.40 11
24		9 7.2		9 7.1		9.15 01
25		8 7.8		8 7.9		8.85 01
26		8 7.7		9 7.2		8.95 32

Wednesday May 3, 1916.

Scale & Sc Measures cont.

A 11369

E9

Diff. Images.

	scC.	scC.	Mean
27	$\frac{9}{10} 9.1$	$\frac{9}{10} 9.2$	9.15 ± 0
28	$\frac{10}{10} 10.1$	$\frac{10}{10} 10.1$	10.10 00
29	$\frac{10}{10} 10.1$	$\frac{10}{10} 10.1$	10.70 00
30	$\frac{10}{10} 10.1$	$\frac{10}{10} 10.8$	10.90 $0.1 \pm$
31	m.s.	m.s.	

Diff. Images of Pris. Comp.

	scA.	scB.	scC.
off fl 1		m.s.	m.s.
Edge 2		$\frac{8}{10} 9.1$	$\frac{9}{10} 9.1$
3		off fl	off fl
4		$\frac{10}{10} 10$	$\frac{10}{10} 10.1$
Edge 5		th. 11.0	th. 11.0 Edge
6		$\frac{10}{10} 10.4$	$\frac{10}{10} 10.5$
7		+	+
8			
9			
10			

Thursday May 4, 1916.

Corrid 13 27:15.6

Scale m

11:10

Sc. measures of a L 5' plates.

a L 299.

E 7. + South Pole.

Seq. for E 7.

Seq.	sc.1	sc.2	cu	magn
1	7.1 6.9	7.20 ^{±1} 7.3	0.23	7.43
2		7.2	0.23	7.43
3	6.9 6.7	7.00 ^{±1} 7.1	0.24	7.24
4		7.25 ⁰¹ 7.2	0.22	7.47
5		7.55 ⁰¹ 7.6	0.21	7.76
6	6.85 ⁰¹ 6.8	7.85 ¹⁰ 7.9	0.23	8.08
* 7	6.8 6.6	7.95 ¹⁰ 7.85 ²¹ 7.2	0.24	7.19
8		8.05 ⁰¹ 8.0	0.28	8.33
9		7.80 ¹¹ 7.9	0.23	8.03
10		8.30 ⁰⁰ 8.3	0.42	8.72
11		8.40 ⁰⁰ 8.4	0.49	8.89
12		8.30 ⁰⁰ 8.3	0.42	8.72
13		8.40 ¹¹ 8.5	0.49	8.89
14		8.55 ⁰¹ 8.6	0.60	9.15
15		8.65 ¹¹ 8.7	0.66	9.31
16		8.55 ¹⁰ 8.5	0.60	9.15
17		8.65 ⁰¹ 8.6	0.66	9.31
18		8.70 ^{±1} 8.6	0.70	9.40
19		8.85 ¹⁰ 8.9	0.80	9.65
20		9.15 ⁰¹ 9.2	1.07	10.22
21		9.30 ¹¹ 9.4	1.20	10.50
22		9.30 ⁰⁰ 9.3	1.20	10.50
23		9.30 ⁰⁰ 9.3	1.20	10.50
24		9.40 ⁰⁰ 9.4	1.30	10.70
25		9.55 ²⁰ 9.5	1.42	10.99

* wr. star marked +
meas. corrected. O. Oct. 23, 16.

* Pigeon track - identification very uncertain in region of ft. stars.

Thursday May 4, 1916

Copied B27:206

Scale m Sheet no 28 measures of a & 5' plates.
 AL 299. South Pole.

	sc.1	sc.2	sc.2	Diff	cu	magn
a	5.5 ^{5.45} _{5.3}	5.45 ¹⁰ _{5.4}		0.33	0.42	5.87
b	6.3 ^{6.25} _{6.1}	6.25 ¹⁰ _{6.2}		0.41	0.33	6.58
c	6.4 ^{6.50} _{6.2}	6.50 ¹¹ _{6.6}		0.38	0.29	6.79
d	6.8 ^{6.95} _{6.6}	6.95 ²¹ _{7.1}		0.21	0.24	7.19
e	7.1 ^{7.10} _{6.9}	7.10 ²² _{7.1}		0.23	0.23	7.33
f		7.65 ⁰¹ _{7.6}	7.7	0.09	0.21	7.86
g		7.85 ⁰¹ _{7.8}	7.9	0.25	0.23	8.08
h		8.20 ¹¹ _{8.3}	8.1	0.22	0.26	8.56
he		8.40 ⁰⁰ _{8.4}	8.4	0.53	0.49	8.89
l		8.60 ⁰⁰ _{8.6}	8.6	0.59	0.63	9.23
m		8.85 ²¹ _{8.8}	8.9	0.78	0.80	9.65
n		9.10 ⁰⁰ _{9.1}	9.1	0.66	1.00	10.10
o		9.20 ⁰⁰ _{9.2}	9.2	0.99	1.10	10.30
p		9.50 ¹¹ _{9.6}	9.4	1.13	1.38	10.88
q		9.40 ⁰⁰ _{9.4}	9.4	1.35	1.30	10.70
r						
s						
t		9.75 ⁰¹ _{9.8}	9.7	1.63	1.64	11.39
e'		8.55 ⁰¹ _{8.6}	8.5	0.22	0.22	7.82
l'		9.00 ¹¹ _{8.9}	9.1	0.99	0.60	9.15
u'					0.95	9.95

to
close }

almost
superfused

12.05

Saturday May 6, 1916.

Scale m

9:14

46060

B series 90.

C12

23 + 15°

Sheet no 19

P.C.

sc.1 sc.2

sc.1 sc.2

1 B.
2.5
2 2.3 4.49
3.3
3 3.1 3.98
3.7
4 3.5 3.86
3.8
5 3.6 4.04
4.0
6 3.8 B. 4.22

1.6 -1.00
7.1
8.5 from -1.22
8.8 -1.24
9.1 -1.26
9.2 -1.00
9.4 -0.80
f.

too far fr. centre?

8 t.f. + f.
5.1
9 4.9 5.1 5.10 00 3.91
11 5.5
10 5.3 5.5 5.50 00 3.81
5.7
12 5.5 5.8 5.75 10 3.86
6.3
14 6.1 6.1 6.20 11 3.71
6.6
16 6.4 6.8 6.70 11 3.68
7.1
17 6.9 7.2 7.15 10 3.50
17a 7.2 3.88
18 7.6 3.70
20 8.1 3.80
21 8.2 10 4.03
21a 8.7 8.65 8.6 4.00
23 9.2 9.15 9.1 3.86
12
24 9.3 9.45 9.6 3.99
10
26 9.9 9.85 9.8 3.81
27 f. f.
29 m.s. m.s.

See list of stars to be omitted in measuring Arquipa plates

Saturday May 6, 1916.

Scale m

B Series 90.

B 46060		C 12.		Differ Images.
g		h		
	sc.1	sc.2	sc.1	sc.2
1	5.6 5.4	5.70 ¹	5.8 5.6 5.4	0.90
2	6.4		6.6 w.s.	1.09
3	.		6.6 6.4	0.68
4	.		7.1 6.9	0.46
5		7.2 7.15 0.1	7.1	0.69
6		7.4	7.6	0.62
8		7.4	7.4	
9	7.4	7.4	8.4	0.61
11		8.9 8.80 11	8.1	0.51
12		9.5 9.35 12	9.2	0.26
14		10.0 10.0 20	10.0	- 0.09
16		m.s.	m.s.	
17				
18				

"g" images poor.

Saturday May 6, 1916.

Copied 13 35:30

Scale m.

B Series 90.

B 46061		Carte		0 -9.5°.		Alt. corr +.06	
sc.1	sc.2	Cu	magn	Diff. Inm.	Cu	magn	sc.2
1	5.9	5.8	5.95 12	3.99	9.94	9.4	9.56
2	5.9	5.9	6.00 11	3.98	9.98	9.4	9.60
3	5.9	5.9	6.00 12	3.98	9.98	9.6	9.78
4	6.9	6.9	7.00 11	3.83	10.83	±	±
5	6.5	6.5	6.50 00	3.90	10.40		
6	7.4			3.78	11.18		
7	7.7			3.75	11.45		
8	7.7			3.75	11.45		
9	7.8			3.74	11.54		
10	7.9			3.73	11.63		
11	8.1	8.2	8.1	3.71	11.81		
12	8.2			3.71	11.91		
13	8.7			3.70	12.40		
14	8.8			3.69	12.49		
15	9.1			3.67	12.77		
16	9.4			3.66	13.06		
17	9.5	9.60	9.7	3.65	13.25		
18	9.7	9.70	9.7	3.65	13.35		
19	10.0	10.00	10.0	3.64	13.64		
20	m.s.	m.s.					

Saturday May 6, 1916.

Copied B 25-126

Scale M.

B Series 90.

B 46063			Carte		0 0-40.5		alt. corr + .043			
			Cu Magn		Diff. Imm.		Cu Magn		P.C. Cu Magn	
sc.1	sc.2	sc.3			sc.1	sc.2			sc.3	
1	B	B			th	6.4	0.89	7.29	8.3	-1.11 7.19
2	4.1 4.6	4.2 4.25 10	4.28	8.53	7.4	0.62	8.02	9.4	-1.34 8.66	
3	4.4 5.1	4.6 4.60 00	4.22	8.82	7.9	0.50	8.40	9.9	-1.45 8.45	
4	4.9 6.1	5.3 5.20 11	4.11	9.31	8.1 8.70	0.32	9.02	m.s.		
5	5.9 7.0	6.1 6.10 00	3.96	10.06	9.4 9.56	0.13	9.68			
6	6.8 7.1	6.8 6.90 12	3.85	10.75	7.	m.s.				
7	6.9	7.0 7.05 10	3.82	10.87						
8	7.5		3.77	11.27						
9	7.5		3.77	11.27						
10	7.9		3.73	11.63						
11	8.2 8.20 00	8.2	3.71	11.91						
12	8.7 8.70 00	8.7	3.70	12.40						
13	8.8 8.75 01	8.8	3.70	12.45						
14	8.8 8.85 01	8.9	3.69	12.54						
15	9.1 9.70 00	9.1	3.65	14.35						
16										
17										
18										
19										
20										

Copied B34:100

B Series 90.

③ 46064

13 KS

0 46-740

Alt. corr - 29

Cu Magn Diff. Ion. Cu Magn Ce. Cu Magn

PC1 PC2 PC2

SC.2 SC.2

cc. 2

1	3.1 4.3			16.74 5.30 00	0.60	8.10	9.4	-1.34	8.06
2	4.1	4.2 4.25 10	4.28	8.53 8.3 8.3	0.40	8.70	9.8	-1.43	8.37
3	4.5 6.0	4.6 4.55 10	4.22	8.77 8.1 8.6 9.85 01	0.32	8.97	10.2	-1.50	8.70
4	5.8	6.1 6.05 01	3.97	10.02 9.8 9.9	0.06	9.91			
5	6.3 6.1	6.2 6.25 10	3.94	10.19 10.0 10.0	0.03	10.03			
6	6.5 7.2	6.5 6.50 00	3.91	10.41 m.s. m.s.					
7	7.0	7.1 7.15 01	3.81	10.96					
8		7.2	3.80	11.00					
9		7.8	3.74	11.54					
10		8.2	3.71	11.91					
1		8.6	3.70	12.30					
2		9.0 9.0	3.68	12.68					
3		9.2 9.0	3.67	12.77					
4		9.5 9.4	3.66	13.11					
5		10.0 9.9	3.64	13.59					

Saturday May 6, 1916.

Scale m-

B Series 9s.

B 46066		C1	1 +15° Differ Inn g	Pc.
sc.1			sc.1 sc.2 sc.1 sc.2	sc.2
1 B.			6.3 6.1 6.35 ¹⁰ 6.4 6.2	0.83 8.5 -1.32
2 B.			6.6 6.4 6.55 ⁰² 6.57 vt- 6.3	0.84 8.6 -1.21
3 B.			6.6 6.4 6.65 ⁰¹ 6.7 6.5	0.85 8.8 -1.30
4 B.			th th	9.6 -1.64
5 3.6 B.		4.73	th 1.8 0.53	9.7 -1.43
7a 4.8 +h.		4.06	9.3 9.30 ⁰⁰ 9.3 -0.02	m.s.
9 +h. 4.2		5.08	9.7 9.65 ¹⁰ 9.7 0.04	
11 5.37 inf- 5.31 ^{from} 5.30 ⁰⁰		4.39	+	
12 5.8 5.6 5.70 ¹¹		4.32	ms. ms.	
14 6.7 6.5 6.6 6.85 ¹⁰		3.97		
15 7.6		3.44		
16 7.9		3.30		
17 8.1		3.40		
18 8.65 ¹⁰ 8.1 8.6		3.29		
18a 8.570 ¹¹ 8.6 8.55 ⁰¹				
19 8.8 8.9		3.36		
20 9.30 ⁰⁰ 9.3 9.3		3.32		
21 9.65 ⁰¹ 9.6 9.7		3.24		
24 + +				
25 m.s. m.s.				
26				
27				
28				
29				

Images on this plate are hazy.

10:30

Tuesday May 9, 1916

Scale \times

A plates taken with Grating.

10:15

*

A 11415.

E7

17 20 - 45°

P.C.

sc. A sc. ^B sc. C.

sc. A sc. B sc. C.

1

1.8 floor

2

2.6

3

2.6

4

3.0 3.4
2.5 ~~4.0~~ B.

5 off pl.

off pl.

6

4.1 4.1 ^{Reg.}

7

4.3 4.2 ^{Reg.}

8

4.6 4.4 ^{Reg.}

9

4.4 4.3 ^{Reg.}

10 B

5.6 5.60 ⁰⁰
5.6

11

5.3 5.25 ⁰⁰
5.2

12

5.4 5.30 ¹²
5.2

13

5.1 5.65 ⁰⁰
5.6

14

6.5

15

6.1 B

16

6.1 B

17

sup. B.

18

7.27 ¹¹ 7.2 7.15 ¹⁰

19

nearly sup. sup.

20

7.97 ⁷ 7.5 7.60 ¹²

21

8.48 ¹ 8.1 8.10 ⁰⁰

22

(Too nearly sup.)

23

8.4

24

8.8

25

8.8

26

9.4

27

9.4

28

9.4

29

9.4

30

9.4

* new rich region. Ident. of P.C. sometimes difficult

Tuesday May 9, 1916.

Scale \propto a plates taken with Grating.
 A 11415 E 7 17 20 - 45°

	sc. A	sc. A. sc. B. sc. C
24	2.2?	89
28	1.9?	9.5
29	B.	9.1? nearly sup.
30	2.5	10.4
31	2.1	7. (sup?)
32	3.1	
33	3.1 B.	
34	4.1 4.1 Ry	7?
35	4.4 4.4 Ry	
36	4.9 4.75 ¹ / ₂ 4.6	
37	4.9 5.00 ¹ / ₂ 5.1	
38	5.5 5.55 ¹ / ₂ 5.6	
39	6.2 6.15 ¹ / ₂ 6.1	
40	5.9 6.00 ¹ / ₂ 6.1	
41	6.2 6.6 6.35 ² / ₃ 6.1?	
42	7.1 7.15 ¹ / ₂ 7.2	
43	7.6 7.4 8.1 7.40 00	
44	8.4 8.1 8.2 8.15 00	
45	8.8 8.4 8.4 8.40 00	
46	8.6 8.6 8.60 00	
47	9.2 9.2 9.20 00	
48	9.4 9.4 9.40 00	
49	9.4 9.2 9.30 12	
50	10.1 10.4 10.25 12	
51	10.6 10.6 10.60 00	

Selected
on plate
by J.S.L.

Tuesday May 9, 1916.

Scale α

A plates taken with Grating.

A 11415

E1

17

20-45°.

g

h Diff. Images.

sc A sc B sc C. sc A sc B sc C. Mean

	sc A	sc B	sc C	Mean
1	1.8			1.8

2	2.5		2.5	2.50
---	-----	--	-----	------

near edge

3	2.5			
---	-----	--	--	--

4	2.5		3.2	2.85
---	-----	--	-----	------

5 off pl.

6	2.9		3.1	3.00
---	-----	--	-----	------

near edge B
film not fr.

7	2.2?			
---	------	--	--	--

8	3.4		3.1	3.25
---	-----	--	-----	------

9	2.9		2.9	2.80
---	-----	--	-----	------

10	4.1		4.1	4.10
----	-----	--	-----	------

11	3.7		3.9	3.80
----	-----	--	-----	------

12	3.1		2.9	3.00
----	-----	--	-----	------

13	3.2	B.	2.8	3.00
----	-----	----	-----	------

14	4.4	4.2 ^{rej.}	4.3	4.35
----	-----	---------------------	-----	------

15	4.2	4.1 ^{rej.}	4.1	4.15
----	-----	---------------------	-----	------

16	4.2	4.1 ^{rej.}	4.4	4.30
----	-----	---------------------	-----	------

17	4.4	4.3 ^{rej.}	4.2	4.30
----	-----	---------------------	-----	------

18	5.2	5.3	5.25	5.1	5.3	5.20	5.22	03	02
----	-----	-----	------	-----	-----	------	------	----	----

19	4.7	4.5 ^{rej.}	def.?	5.2?	4.95?	3	2
----	-----	---------------------	-------	------	-------	---	---

20	5.6	5.4	5.50	5.1	5.2	5.15	5.32	19	19
----	-----	-----	------	-----	-----	------	------	----	----

21	5.8	6.1 ^{from}	5.95	5.6	5.4	5.50	5.72	23	22
----	-----	---------------------	------	-----	-----	------	------	----	----

22	6.2		5.6	5.9	5.75	5.98	22	23
----	-----	--	-----	-----	------	------	----	----

23	6.3	6.20	6.1	6.3	6.25	65	05
----	-----	------	-----	-----	------	----	----

24	6.4	6.40	6.4	6.2	B.	6.30	10	10
----	-----	------	-----	-----	----	------	----	----

25	6.6	6.65	6.9	6.4	6.25	6.1	6.45	20	20
----	-----	------	-----	-----	------	-----	------	----	----

26	t.f.		7.1?	7.3	7.20?	1	1
----	------	--	------	-----	-------	---	---

Tuesday May 9, 1916.

Scales A plates taken with Grating

	A 11415		cont.			
	g		h		mean	
	scB	scC	scB	scC		
21	1.3	7.2 7.30 ²¹	1.6	7.4 7.45 ⁰¹	7.38	08 07
28	8.1	7.8 7.85 ⁰¹	sup?	7.9	7.85	a.
29	1.3	7.2 7.25 ⁰¹	1.3	7.2 7.15 ⁰²	7.20	05 05
30	8.3	8.0 8.10 ¹²	8.4	8.1 7.95 ¹²	8.02	08 07
31	7.6	8.6	sup.	8.6	a.	
32		9.1	9.1	9.10	00	
33		9.1	9.4	9.25	12	
34	9.3	9.3	9.4	9.35	10	
35		10.4 ¹² rev.	10.2	10.30?	11	
36		10.7	10.8	10.75	10	
37		7	7			
38		m.s.		m.s.		

Wednesday May 10, 1916.

Sheet no 27

Scale m.

B Series 29.

9:48

B 44953

C8

15 + 15°

P.C.

sc. 1 sc. 2

1 B.

3 B

4 B

6a 3.1
3.4
3.2

8 3.6
3.4

9 3.6

11 3.6 B.

12 4.3
4.1 4.20 4.1

14 5.5 v.h.
5.3 5.50 5.5 v.h.

15 5.7
5.5 5.60 5.5

16 5.8
5.6 5.70 5.9

18 6.1
5.9 6.10 6.1 v.h.

21 1.2

22 1.6

25 8.4

25a 8.2

26 8.1 8.80 8.9

27 8.8 8.80 8.9

27a 9.4 9.3 9.3

28 9.8 9.50 9.9

29 4.4

30 n.s.

5.69

5.57

5.62

5.71

5.55

4.47

4.76

4.77

4.58

4.22

4.22

3.56

4.46

3.93

4.51

4.33

4.01

sc. 1 sc. 2

8.35 0.1

8.4 8.3

8.65 1.0

8.1 8.6

8.5 8.45 1.0

9.5 9.4

9.5 9.50 0.0

4.4

-1.15

-0.56

-1.33

-0.71

Wednesday May 10, 1916.

Copied B 34188

Scale m.

B Series 29.

B 44955		196 K	17 04-60.0	alt. corr -0.2
sc 1 sc 2		Ar Magn	P.C.	
1	5.3 5.1 5.35 ^{1.0} 5.4	4.90	10.25	m.s.
2	5.5 5.3 5.60 ^{0.0} 5.5	4.84	10.34	
3	6.6 6.6 6.75 ^{0.1} 6.1	4.43	11.18	
4	7.3	4.34	11.64	
5	7.4	4.34	11.74	
6	7.4	4.34	11.74	
7	7.5	4.32	11.82	
8	7.6	4.31	11.91	
9	7.7	4.29	11.99	
10	8.4 8.30 ^{1.1} 8.2	4.26	12.56	
11	8.3 8.25 ^{1.0} 8.4	4.26	12.61	
12	8.8 8.75 ^{0.1} 8.7	4.25	13.00	
13	9.1 9.15 ^{1.0} 9.2	4.25	13.40	
14	9.2 9.20 ^{0.0} 9.2	4.24	13.44	
15	9.5 9.50 ^{0.0} 9.5	4.24	13.74	

Wednesday May 10, 1916.

Copied B34: 116

Scale m-

B Series 29.

	B 44956	38 KS	17 05-276	Act. corr +.12
		Cu Magn	P.C.	Cu Magn
1	no 1 no 2		pc. 2 pc. 2	
2			8.65 ⁰¹ 8.7 -0.90	7.25
3	3.4			
4	3.21	5.82	9.22	
5	4.58 ¹⁰ 4.45	5.37	9.82	
6	4.7 4.85 ¹³¹ 5.149	5.16	10.01	
7	6.3 6.20 ¹² 6.1	4.54	10.74	
8	7.3	4.34	11.64	
9	7.5	4.32	11.82	
10	8.1	4.27	12.37	
11	8.4	4.25	12.65	
12	8.5	4.25	12.75	
13	8.5	4.25	12.75	
14	8.8 8.95 ²¹ 9.1	4.24	13.19	
15	8.9 9.65 ¹² 9.2	4.24	13.29	
16	9.7 ⁰⁰ 9.7	4.25	13.95	

Images from.

Wednesday May 10, 1916.

Copied B24:119

Scale m.

B series 29.

* B44957

41 KS

17 13-21.4

Alt. over +13

in magn.

P.C. in magn

sc.1 sc.2

sc.1 sc.2

sc.1	sc.2	41 KS	P.C.
1 3.2 ^{3.4}		5.82	9.22
2 3.9 ^{4.1}		5.55	9.65
3 4.2 ^{4.4}	t.h.	5.39	9.79
4 6.3 ^{6.5}	6.2 ^{6.35}	4.50	10.85
5 t.h.	6.2 ^{7.0}	4.55	10.75
6 7.1		4.37	11.47
7 7.1		4.37	11.47
8 7.4		4.34	11.74
9 7.2		4.36	11.56
10 8.9 ^{7.9000}		4.28	12.18
11 7.9 ^{8.2000}	7.9	4.28	12.18
12 8.2 ^{8.6501}	8.2	4.26	12.46
13 8.6 ^{9.1000}	8.6	4.25	12.90
14 9.1 ^{9.7521}	9.1	4.24	13.34
15 9.6 ^{9.9}	9.9	4.25	14.00

+

m.s.

w:unit

* Images very poor - Do not compare with scale.
Should plate be rejected?

Wednesday, May 10, 1916.

Scale M

B Series 29-

B449 58

C9

P.C.

ec. 1 sec

3	B.
3a	4 B.
5	H.
6	B.
6a	3.1
7	3.2
8	3.3
8a	3.1
9	3.8
9a	4.80° B.
12	5.1 5.40° 5.5
14	5.9 6.10° 6.1
15	6.6 6.80° 6.8
16	7.2
17	7.6
18	8.1
20	8.5
21	8.6 8.60° 8.6
22	9.4 9.35° 9.3
23	9.4 9.3 9.3
24	9.4 9.45° 9.5
25	± ±
27	± ns

ec. 2

19	8.00 ± 1	
19	8.40° 8.1	-0.76
8.4	8.4	-1.05
8.6	8.60° 8.6	-0.78
10		
8.7	8.65 8.6	-0.59
9.2	9.20° 9.2	-0.73
9.3	9.35° 9.4	-0.71
±	±	
±	±	

Thursday May 11, 1916.

Scale m

9:20

B 44 958

B series 29-

C9.

Sheet no 22

P.C.

	sc.1	sc.2	sc.3
3	B.		
3a	B.		
4	^{2.7} 2.5		5.12
5	4.1		
6	B.		
6a	^{3.2} 3.0		5.44
7	^{3.3} 3.1		5.74
8	^{3.6} 3.4		5.93
8a	^{3.9} 3.7	B.	5.78
9	^{4.8} 4.6	^{4.95} 5.1	5.14
12	^{5.4} 5.4	^{5.60} 5.6	4.97
14	^{6.3} 6.1	^{6.35} 6.4	4.44
15	^{6.9} 6.7	^{6.85} 6.8	4.28
16	7.5		4.10
17	7.5		4.33
18	8.2		4.21
20	8.6		4.16
21	^{8.80} 8.8	8.8	4.26
22	^{9.20} 9.2	9.2	4.20
23	^{9.30} 9.3	9.3	4.44
24	^{9.25} 9.3	^{9.40} 9.4	4.58
25	^{9.65} 9.6	^{9.70} 9.7	4.48
27	7.	7.	

	sc.2	sc.3
	^{8.00} 8.1	^{8.15} 7.9
	^{8.40} 8.4	^{8.50} 8.4
	^{8.60} 8.6	^{8.70} 8.6
	^{8.65} 8.7	^{8.80} 8.6
	^{9.20} 9.2	^{9.30} 9.2
	^{9.25} 9.2	^{9.35} 9.3
	7	7

Thursday May 11, 1916.

Cupid ²⁷ B341/42

Scale m.

B Series 29-

B44959

26

14 40-45°

Alt. corr - .23

Cu magn

Pl.

Cu magn

0

sc.1 sc.2

sc.2 sc.2

1

7.40⁰⁰
1.4 1.4

2

7.70⁰⁰
7.7 7.7

-0.80

6.90

3

7.75¹⁰
7.7 7.8

-0.80

6.85

4

8.1

-0.79

7.31

5 B

8.2

-0.78

7.42

6 B

8.5

-0.74

7.76

7 B

8.1

-0.71

7.99

8 B

9.2

-0.59

8.61

9

5.72

8.82

9.2

-0.59

8.61

10

5.71

8.91

9.5

-0.50

9.00

11

5.60

9.40

9.

12

5.60

9.40

13

5.44

9.79

14

5.20

10.30

15

5.47

9.72

16

5.20

10.30

17

5.00

10.35

18

5.20

10.30

19

5.07

10.47

20

5.07

10.47

21

4.78

10.88

22

4.83

10.83

23

4.84

10.79

24

4.74

10.89

25

4.70

10.95

26

4.32

11.32

Thursday May 11, 1916-

Scale m-

B series 29-

B 44 959

E6 cont

alt. corr - 1.23

Cu magn

sc. 2 sc. 2

27	7.5	4.20	11.72
28	7.8	4.17	11.97
29	7.8	4.17	11.97
30	8.1	4.16	12.26
31	8.2	4.15	12.35
32	8.3	4.13	12.43
33	8.6	4.14	12.74
34	8.7	4.15	12.85
35	8.8	4.16	12.96
36	^{9.20} 9.2 ^{9.2} 9.2	4.20	13.40
37	^{9.15} 9.2 ^{9.1} 9.1	4.19	13.34
38	^{9.40} 9.4 ^{9.4} 9.4	4.23	13.63
39	^{9.40} 9.4 ^{9.4} 9.4	4.23	13.63
40	^{9.55} 9.5 ^{9.6} 9.6	4.27	13.80
41	^{9.80} 9.8 ^{9.8} 9.8	4.33	14.13
42	+	+	

Thursday May 11, 1916.

Cepheid B 34:121

Scale m-

B Series 29

B449621

43 KS

18.13-18.5

Alt. corr +.12

Cu Magn

PC.

Cu Magn

sc1 sc2

sc1 sc2

1 B.

7.10⁰⁰
7.1

2 B.

8.20⁰⁰
8.2 -0.78

7.42

3 ^{3.1}
2.9

5.72

8.82

9.25⁰¹
9.2 9.3 -0.58

8.67

4 th. B.

9.70¹¹
9.6 9.8 -0.409.305 ^{4.3 4.35¹⁰}
4.4

5.44

9.79

ms. ms.

6 ^{4.6 4.85³³}
4.4 5.1

5.27

10.12

Imm. from.

7 ^{5.8 5.95³¹}
5.6 6.1

5.24

11.19

8 ^{7.15⁰¹}
7.2 7.1

4.26

11.41

9 ^{7.90⁰⁰}
7.9 7.9

4.17

12.07

10 ^{8.40¹¹}
8.5 8.3

4.14

12.54

11 ^{8.70⁰⁰}
8.7 8.1

4.14

12.84

12 ^{7.}
7.

13

Thursday May 11, 1916 -

Copied 45:112

Scale m.

B Series 29.

* B 44960		Trifid Neb.	17	56-23.0	alt. corr +.13
		En Magn	P.C.	En Magn	
±			sc2 sc2		
a			5.9 ^{6.00 ± 1} 6.1		
b			1.3 ^{7.20 ± 1} 1.1		
c			1.5 ^{7.55 ± 0} 1.6		
d	B.		8.5 ^{8.45 ± 0} 8.4	-0.75 7.70	ident difficult
e	B.		8.1	-0.79	7.31
f	B.		8.8	-0.69	8.11
g	^{3.4} 3.4	5.65	9.25 ±?		
h	^{4.1} 3.9 B.	5.51	9.61 8.4 sup?		
i	^{5.3} 5.1 ^{5.25} 5.2 ¹⁰	5.14	³⁹ 10.44		
l	^{5.4} 5.2 ^{5.45} 5.5 ⁰¹	5.07	10.52		
m	^{6.6} 6.4 ^{6.50} 6.4 ¹¹	4.55	11.05		
n	1.1	4.29	11.39		
o	1.6	4.20	11.80		
p	1.8	4.18	11.98		
q	8.4	4.14	12.54		
r	8.6	4.15	12.75		
s	8.6	4.15	12.75		
t	8.6	4.15	12.75		
u	8.9 8.90 ⁰⁰ 8.9	4.16	13.06		
w	9.5 9.40 ¹¹ 9.3	4.24	13.64		
x	9.5 9.50 ⁰⁰ 9.5	4.26	13.76		

± All images very much elongated. - poor

* measured out of order by mistake -

Thursday of May 11th, 1916

Scale m.

B series 29.

B 44 96 4

C10

19 + 15°.

PC.

sc.1 sc.2

sc.2 sc.2

7.55 ± 0

1

7.5 16

-0.71

2

8.15 ± 0

-0.74

3

8.00 ± 0

-0.66

4

8.35 ± 0

-0.51

6

B.

9.4?

-0.90

7

2.3
2.1

5.99

8.9

-0.61

8

3.2
3.0

B.

5.90

9.4

-0.30

Imm. elong.

9

t.p.

t.p.

7.

10

4.3
4.1

4.20

4.1

5.49

ms

11

4.6
4.4

4.60

4.6

5.44

12

5.3
5.2

5.25

5.2

5.24

Imm. very far

13

5.4
5.2

5.55

5.7

5.18

15

6.5
6.3

6.45

6.4

4.72

16

7.2

4.32

17

7.1

4.20

18

8.3

4.05

19

8.8

8.85

8.9

3.89

20

9.1

9.15

9.2

3.72

21

9.3

9.35

9.4

4.13

22

7.2

def?

def?

24

10.0

9.95

9.9

4.28

25

ms.

ms.

b

8.3

4.21

a

9.2

3.74

Friday May 12, 1916.

Scale & A plates taken with Grating.
9:10 A 11416 Eq.

	scA m ^B	scC	P.C.
46 pl			scA
1.			.
" 2.			.
" 3.			.
" 4.			44
" 5.			.
6			45
7			53
8			5.1 Q.
9			6.3
10			6.2 ⁴
11			6.3 64 B
12			6.9 7.1 7.00 ±1
13			6.9 7.4 7.15 ±2
14			8.1 ^{7.8} 8.1 7.95 ±1
15			7.6 ^{7.4} 7.4 7.40 ±0
16			8.5 ^{8.2} 8.4 8.30 ±1
17			9.4
18			9.0
19			9.6
20			10.4
21			10.1
22 1.3?			11.0
23 2.0?			±
24 2.1?			
25 2.4			ms m. s.
26 2.8			

Friday May 12, 1916.

Scale 2

A plates taken with 4 rating.

A 11416.

Eq

	Pos A	B	col.	
27	3.1			
28	3.9			
29	4.1			
30	4.1			
31	5.1			
32	5.2			
33	5.6	B.		
34		6.1		
35		6.9	6.9	6.90 00
36		7.7	7.4	7.55 12
37		8.0 7.8 8.6 8.2	7.6	7.70 12
38		8.1 7.6 8.5 8.7 8.3	8.4	8.30 11
39			8.5	8.40 11
40		9.1	9.1 9.1	9.10 00
41		9.6 9.6	9.6 9.6	9.60 00
42		7.	7. def?	
43.			ns. ns.	

Friday May 12, 1916.

Scale α A plates taken with Grating.
 A 11416 cont Eq Diff. μ m.

	g	L	h	
	sc A	sc B	sc C	sc A
off pl.	1 off pl.			Mean
2				
3				
4	2.1		2.4	2.25 \pm 2
5				
6	2.6		t.h.	2.6 \underline{a} .
7	2.7		2.8	2.75 \pm 0
75 mm from center	8 t.h.		t.h.	
70 " " "	9 t.h.		t.h.	
67 " " "	10 t.h.		t.h.	
11	3.3	B	3.1	B. 3.20 \pm 1
12	4.1	4.3 \overline{rej} .	4.3	4.1 \overline{rej} . 4.20 \pm 1
13	4.2	4.1 \overline{rej} .	4.3	4.2 \overline{rej} . 4.25 \pm 0.1
14	4.4	4.4 \overline{rej} .	4.5	4.4 \overline{rej} . 4.45 \pm 0.1
15	4.1	4.1 \overline{rej} .	4.3	4.1 \overline{rej} . 4.20 \pm 1
16	5.1	4.9 5.00 \pm 1	4.9	5.1 5.00 \pm 1 5.00 \pm 0
17	t.h.		scr.	
18	t.h.		6.1	B. 6.1 \underline{a} .
19	6.1 \overline{hor}	B.	6.4 6.40 \pm 0.0	6.4 6.25 \pm 15
20	t.h.	t.h.	t.h.	
21	t.h.	7.3	7.4	7.35 \pm 0
22	t.h.	7.3	t.h.	7.3 \underline{a} .
23		8.8	t.h.	8.8 \underline{a} .
24		9.4	9.1	9.25 \pm 1
25		9.1	9.1	9.10 \pm 0
26		9.4	9.2	9.30 \pm 1
27		9.8	9.9	9.85 \pm 0.1
28		11.0	11.0	11.00 \pm 0

Scale

a 11419

73

20 - 75°

Br.

sc A sc B sc C.

sc A sc B sc C.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

delay

measurement

plate foot

sc A sc B sc C

24

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

A 11419

73

Diff Images.

g

h

sc A sc B sc C. sc A sc B sc C.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

Delay

Measurement

Plate foot

Monday May 15, 1916.

Scale m.

B Series 81 (Second Half) Shut no 20

1.25

B 45942

C 11

21 +15°.

P.c.

sc.1 sc.2

sc.

1	B.	
2	^{3.4} 3.2	4.32
3	^{3.7} 3.5	3.97
4	^{3.7} 3.5	4.21
5	^{4.0} 3.8 B	4.30
6	^{4.6 4.60 00} 4.4 4.6	3.86
7	^{4.9 4.90 01} 4.7 5.1	3.83
8	^{4.9 5.00 11} 4.7 5.1	4.03
10	^{5.7 5.65 10} 5.5 5.6	3.80
12	^{6.0 6.05 01} 5.8 6.1	3.80
14	^{6.2 6.20 00} 6.0 6.2	3.77
15	^{6.4 6.35 01} 6.2 6.3	4.05
16	^{7.0 7.05 01} 6.8 7.1	3.65
17	^{7.0 7.05 01} 6.8 7.1	3.97
20	7.6	3.79
23	8.1	3.76
24	^{8.65 10} 8.1 8.6	3.75
25	^{8.65 01} 8.6 8.7	3.72
26	^{9.20 00} 9.2 9.2	3.70
27	^{9.20 01} 9.2 9.2	3.94
28	^{9.70 00} 9.7 9.7	3.69
29	^{9.80 00} 9.8 9.8	3.77
30	^{10.05 10} 10.1 10.0	3.92
31	7.	

8.2	-1.39
8.2	-1.12
8.8	-1.23
8.8	-0.89
9.4 ²	-0.90
9.4	-0.94
9.9	-1.07
7.	(close to bikalān)

All star

Monday May 15, 1916.

Scale m-

B Series 81-

	B 45942	C 11	21 + 15°
	g	h	
	sc.1 sc.2	sc.1 sc.2	
1	5.8 5.6 5.80 ⁰⁰	5.8 5.6 1.01	
2	tf.	6.1 5.9 0.98	
3	.	6.7 6.5 0.97	
4	.	tf.	
5	.	tf.	
6	tf.	7.6 0.74	
7	.	8.1 0.73	
8	tf.	8.1? ^{with} 0.93	
10	8.1? ^{with} 8.70 ⁰⁰	8.1 0.75	
12	.	9.3 0.55	
14	10.0 9.95 ⁰¹	9.9 0.02	
15	7.	7.	
16			
17			
18			
19			
20			

Monday May 15, 1916.

Copied 45:165

Scale m.

B series 81-

	B+5943	Ru Capric.	20 27 - 22.0	alt. corr + .07
		En Magn	Diff Im. En Magn	P.C. En Magn
	sc.1 sc.2		g h	sc.2
a	^{5.4} _{5.2} ^{5.1} _{5.0} 5.6	3.91	9.41 ^{8.65} _{8.1} 0.68	9.33 n.s.
c	^{5.9} _{5.7} ^{5.9} _{5.8} 5.9	3.88	9.78 ^{9.30} _{9.3} 0.53	9.83
f	^{5.8} _{5.6} ^{5.8} _{5.5} 5.9	3.89	9.74 ^{9.20} _{9.2} 0.54	9.74
d	^{6.0} _{5.8} ^{6.0} _{6.0} 6.0	3.87	9.87 ^{9.25} _{9.2} 0.54	9.79
b	^{6.4} _{6.2} ^{6.1} _{6.0} 6.6	3.82	10.32 ^{10.00} _{10.0} 0.33	<u>10.33</u>
e	^{6.7} _{6.5} ^{6.6} _{6.5} 6.6	3.81	10.46 m.s. m.s.	
h	^{7.1} _{6.9} ^{7.1} _{7.0} 7.2	3.79	10.94	
k	7.2	3.79	10.99	
l	7.3	3.78	11.08	
l'	7.3	3.78	11.08	
m	7.7	3.77	11.47	
m	8.1	3.78	11.88	
n	^{8.70} _{8.1} ^{8.70} _{8.1} 8.1	3.78	12.48	
o	^{8.85} _{8.8} ^{8.85} _{8.9} 8.9	3.78	12.63	
o'	^{9.15} _{9.2} ^{9.15} _{9.1} 9.1	3.79	12.94	
o''	^{9.30} _{9.4} ^{9.30} _{9.2} 9.2	3.79	13.09	
q	^{10.0} _{10.0} 10.0	3.80	<u>13.80</u>	
var	10.0	3.80	<u>13.80</u>	

"g" = dbl. not used in sequences.

Monday May 15, 1916⁶

Copied 1327:150

Scale m-

B series 8.1-

B 45944

E 7

17 20-45°

Ret. core - 21

Cu Magn

Diff. In.

Cu Magn

PC

Cu Magn

sc.1 sc.2 sc.2

sc.2 sc.2

sc.2

1	3.3 3.1		4.17	7.47	th.	5.9	0.99	6.89	8.1	-1.27	6.83
2	3.7 3.5		4.13	7.83	th. 6.7	6.3	0.97	7.37	8.3	-1.21	7.09
3	th.					th.			8.4	-1.19	7.21
4	3.8 3.6		4.11	7.91	th.				8.6	-1.16	7.44
5	3.8 3.6		4.11	7.91	th.				8.7	-1.14	7.56
6	4.1 3.9		4.07	8.17	th.				9.1	-1.07	8.03
7	4.3 4.1		4.05	8.35	th.				9.1	-1.07	8.03
8	th.					th.			9.4	-1.04	8.36
9	4.3 4.1	4.2 4.25 ¹⁰	4.06	8.36		7.2	0.89	8.09	9.3	-1.05	8.25
10	4.7 4.5	4.8 4.25 ¹⁰	4.00	8.75	th.				9.9	-1.02	8.88
11	4.9 4.7	4.8 4.5 ¹⁰	3.98	8.83		7.9	0.80	8.70	9.9	-1.02	8.88
12	4.7 4.5	4.3 4.5 ²²	4.03	8.53	th.				9.6	-1.03	8.57
13	4.3 th.					th.			9.9	-1.02	8.88
14	5.4 5.2	5.6 5.5 ¹¹	3.91	9.41		8.5	0.71	9.21			
15	5.3 5.1	5.4 5.35 ¹⁰	3.92	9.27		8.1	0.67	9.37			
16	5.4 5.2	5.5 5.45 ⁰¹	3.91	9.36		8.5	0.71	9.21			
17	5.5 5.3	5.6 5.55 ¹⁰	3.90	9.45		8.1	0.67	9.37			
18	5.4 5.2	5.1 5.55 ³¹	3.90	9.45		9.1	0.57	9.67			
19	5.8 5.6	5.9 5.85 ⁰¹	3.88	9.73		9.3	0.51	9.81			
20	5.9 5.7	5.9 5.90 ⁰⁰	3.88	9.78	th.						
21	6.0 5.8	6.1 6.05 ⁰¹	3.87	9.92		9.4	0.50	9.90			
22	6.6 6.4	6.5 6.55 ⁰¹	3.82	10.37		9.9?	0.36	10.26			
23	6.5 6.3	6.5 6.50 ⁰⁰	3.82	10.32	th.						
24	6.8 6.6	6.9 6.85 ⁰¹	3.80	10.65							
25	7.0 6.8	7.1 7.15 ⁰¹	3.80	10.85							
26		7.2	3.79	10.99							

not as centre

I images do not compare with scale.

monday may 15, 1915⁶

Scale m-

B series 81-

B 45944-

	202 sec.	λ	magn
27	1.4	3.78	11.18
28	1.2	3.79	10.99
29	1.4	3.78	11.18
30	1.9	3.77	11.67
31	8.1	3.78	11.88
32	8.2	3.78	11.98
33	8.2	3.78	11.98
34	8.6	3.78	12.38
35	8.8 ^{8.80⁰⁰} 8.8	3.78	12.58
36	9.7 ^{9.60¹¹} 9.5	3.79	13.39
37	9.6 ^{9.50¹¹} 9.4	3.79	13.29
38	9.7 ^{9.70⁰⁰} 9.7	3.79	<u>13.49</u>
39	7. 7		

Monday May 15, 1916

Copied 45:179

Scale m-

Series 81-

B45946			S. mucos		21	21-30.3	Alt. corr. +.06			
			ln	magn	Diff.	ln	magn	ln	magn	
	sc.1	sc.2								
x	3.7		4.13	7.83	7.25 ¹⁰	0.89	8.14	8.9	-1.10	7.80
a	4.7	4.65 ¹⁰	4.01	8.66	8.10 ⁰⁰	0.97	8.84	9.8	-1.03	8.77
b	4.8	4.85 ⁰¹	3.98	8.83	th	th		9.9	-1.02	8.88
c	6.4	6.25 ²¹	3.84	10.09	9.70 ⁰⁰	0.46	10.16	m.2		
d	6.5	6.45 ¹⁰	3.83	10.28	9.95 ¹⁰	0.44	10.39			
e	6.6	6.50 ¹¹	3.82	10.32						
f	6.8	6.85 ⁰¹	3.80	10.65						
f'			3.77	11.47						
g		7.7	3.78	11.98						
h		8.2	3.78	11.88						
i		8.1	3.78	12.18						
j		8.4	3.78	12.18						
k		8.75 ¹⁰	3.78	12.53						
k'		9.15 ⁰¹	3.79	13.94						
m		9.85 ¹⁰	3.80	13.65						
Var.		8.8	3.78	12.58						

Monday May 15, 1912⁶

Copied 45:181

Scale m -

B Series 81-

B 45947			R Gruis 21 42-474°			alt. corr + 01		
	sc.1	sc.2	sc.2	ln	magn	Diff. ln	ln	magn
				g	sc.2		sc.2	
a	3.8 3.6			4.11	7.91	4.1	0.90	8.00
b	4.1 3.9 4.15	1.0	4.2	4.07	8.22	4.1		9.2
c	5.1 4.9 5.20	1.1	5.3	3.94	9.14	8.1 0.1	0.67	9.37
d	5.2 5.0 5.80	0.0	5.8	3.88	9.68	9.4	0.50	9.90
e	5.8 5.6 5.95	3.1	6.1	3.87	9.82	9.5	0.47	9.97
f	6.3 6.1 6.30	0.0	6.3	3.84	10.14	10.1	0.30	10.40
g	7.0 6.8 7.05	0.1	7.1	3.80	10.55			
h			7.6	3.78	11.38			
h'			7.8	3.77	11.57			
k			8.3	3.78	12.08			
l		8.75 0.1	8.9	3.78	12.53			
l'		8.75 1.0	8.8	3.78	12.53			
l2		9.70 1.1	9.6	3.79	13.49			
m		10.0 0.0	10.0	3.80	13.80			
Var.			7.3	3.79	11.09			

66

Monday May 15, 1916.

Scale m.

B Series 81-

	B45948	C11-	21 +15°	
	sc.1 sc.2 sc.3		Diff. In.	PC
			g h	sc.2
1	^{3.2} 3.0	3.61	th 58 1.01	8.3 -1.49
2	^{3.2} 3.0	3.88	· 6.1 0.98	8.4 -1.32
3	^{3.6} 3.4	4.04	· 6.8 0.87	8.7 -1.03
4	^{3.7} 3.5	4.21	· 7.1 0.81	9.0 -1.09
5	^{3.8} ^{3.95} 3.6 4.1	4.35	· 7.5 0.80	9.4 -1.10
we wind 6	^{4.0} ^{4.1} 4.9 4.3	3.81	· 7.6 0.86	9.5 -1.04
7	^{4.7} ^{4.75} 4.5 4.8	4.08	· 7.9 0.93	9.9 -1.07
8	^{4.9} ^{4.9} 4.1 4.9	4.13	· 8.3 0.73	· too close to belt & lat
10	^{5.4} ^{5.1} 5.2 5.5	4.00	· 8.8 0.65	
12	^{5.8} ^{5.1} 5.6 5.9	4.00	· 9.4 0.45	
14	^{6.0} ^{6.05} 5.9 6.1	3.92	th 10.0 -0.03	
15	^{6.3} ^{6.1} 6.1 6.4	4.05		
16	^{7.1} ^{7.10} 6.9 7.1	3.60		
17	7.2	3.82		
20	7.6	3.79		
23	8.2	3.66		
24	8.6	3.80		
25	8.8 8.90 8.8	3.77		
26	9.3 9.30 9.3	3.60		
27	9.3 9.30 9.3	3.84		
28	9.5 9.60 9.5	3.79		
29	9.9 9.95 9.8	3.72		
30	10.1 10.05 10.0	3.92		
31	+			

Wednesday May 17, 1916.

Copied 45:187

Scale m

B Series 82

Sheet no 20

9:28

B 45950

J. Gruis

22 20 - 38.1

alt. corr + 04

Re

Magn

Diff. Im.

Re Magn

B.C.

Re

Magn

sc.1 sc.2 sc.3

diff. Im. sup.
on a?

a

4.4

4.6

4.6

4.6

3.53

8.13

8.4

8.4

0.43

8.83

±?

9.9

-1.35

8.55

9.9

-1.35

8.55

9.9

-1.35

8.55

b

4.6

4.6

4.6

4.6

3.53

8.13

8.4

8.4

0.43

8.83

±?

9.9

-1.35

8.55

9.9

-1.35

8.55

9.9

-1.35

8.55

c

5.4

5.4

5.4

5.4

3.44

8.94

9.2

9.1

0.41

9.56

9.9

-1.35

8.55

9.9

-1.35

8.55

9.9

-1.35

8.55

9.9

d

5.7

5.7

5.7

5.7

3.43

9.13

9.2

9.2

0.41

9.61

9.9

-1.35

8.55

9.9

-1.35

8.55

9.9

-1.35

8.55

9.9

d'

6.0

6.0

6.0

6.0

3.42

9.37

9.5

9.6

0.42

9.97

9.9

-1.35

8.55

9.9

-1.35

8.55

9.9

-1.35

8.55

9.9

e

6.5

6.5

6.5

6.5

3.41

9.91

±

±

9.9

9.9

-1.35

8.55

9.9

-1.35

8.55

9.9

-1.35

8.55

9.9

e'

7.2

7.2

7.2

7.2

3.43

10.63

10.63

10.63

10.63

10.63

10.63

10.63

10.63

10.63

10.63

10.63

10.63

10.63

10.63

10.63

f

7.24

7.24

7.24

7.24

3.45

10.85

10.85

10.85

10.85

10.85

10.85

10.85

10.85

10.85

10.85

10.85

10.85

10.85

10.85

10.85

g

7.9

7.9

7.9

7.9

3.50

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

h

7.9

7.9

7.9

7.9

3.50

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

11.40

i

8.3

8.3

8.3

8.3

3.57

11.84

11.84

11.84

11.84

11.84

11.84

11.84

11.84

11.84

11.84

11.84

11.84

11.84

11.84

11.84

j

8.7

8.7

8.7

8.7

3.70

12.45

12.45

12.45

12.45

12.45

12.45

12.45

12.45

12.45

12.45

12.45

12.45

12.45

12.45

12.45

k

9.6

9.6

9.6

9.6

3.99

13.54

13.54

13.54

13.54

13.54

13.54

13.54

13.54

13.54

13.54

13.54

13.54

13.54

13.54

13.54

l

10.0

10.0

10.0

10.0

4.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

m

10.0

10.0

10.0

10.0

4.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

n

10.0

10.0

10.0

10.0

4.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

14.16

Var. = 29 mm from center of fil.
a = 40

Wednesday May 17, 1916.

Copied 45:188

Scale m

B series 82.

B 45951			S Series		22 20 - 49.0		Alt. corr. -.01		
			cu	magn	diff. inv. cu	magn	pc.	cu	magn
	sc.1	sc.2	pc.2		g	h		sc.2	
a	4.3 4.1	4.30 4.3		360	7.90	7.45 ⁰¹ 7.5	0.47	7.92	9.65 -1.36 8.14
b	4.6 4.4	4.70 ¹¹ 4.8		353	8.23	7.55 ¹⁰ 7.6	0.46	8.01	9.6 -1.36 8.24
c	5.1 4.9	5.25 ¹² 5.4		347	8.72	8.35 ²⁰ 8.4	0.43	8.78	10.0 -1.35 8.65
d	5.3 5.1	5.45 ¹² 5.6		344	8.89	8.40 ⁰⁰ 8.4	0.43	8.83	n.s.
e	5.8 5.6	5.75 ⁰¹ 5.7		342	9.17	9.1	0.41	9.51	
e'	6.1 5.9	6.15 ¹⁰ 6.2		341	9.56	9.85 ²⁰ 9.7	0.43	10.28	
f	6.7 6.5	6.60 ¹¹ 6.5		341	10.01	±	±		
f'	6.9 6.7	6.85 ¹⁰ 6.8		342	10.27				
g	7.0 6.8	6.90 ¹² 6.8		342	10.32				
h		7.1		343	10.53				
k		7.9		350	11.40				
k'		7.9		350	11.40				
l		8.25 ¹¹ 8.4		357	11.87				
l'		8.55 ⁰¹ 8.5		364	12.19				
m		9.20 ⁰⁰ 9.2		385	13.05				
n		9.75 ²² 10.0		4.07	13.82				
o		±							

Var = 28 mm from center of pl
 e = 34 " " " " "

Wednesday May 17, 1916.

Scale m-

B Series 82.

	B 45954	C 12	23 + 15°
			O.C.
	sc.1 sc.2 sc.3		sc.2
1	B.		79-1.30
2	B.		84-1.41
3	t.p. t.p.		86-1.32
4	^{4.1} 3.9 ⁰⁰ 4.1	3.46	89-1.34
5	^{4.6} 3.9 ³² 4.5 ⁰¹	3.54	92-1.36
6	^{4.8} 4.6 ⁰¹ 4.9	3.37	98-1.58
8	t.p. t.p.		98-1.20
9	^{5.8} 5.6 ¹² 5.6	3.31	ms.
11	^{5.9} 5.5 ¹⁰ 5.8	3.46	
12	^{6.1} 5.9 ⁰⁰ 6.1	3.51	
14	^{6.6} 6.4 ⁰¹ 6.7	3.26	
16	^{7.1} 6.9 ⁰⁰ 7.1	3.28	
17	7.4	3.25	
18	7.9	3.40	
20	8.4	3.50	
21	8.6	3.63	
23	^{9.30} 9.2 ¹¹ 9.4	3.71	
24	^{9.65} 9.6 ⁰¹ 9.7	3.79	
26	^{9.85} 9.7 ¹⁰ 9.8	3.81	
27	± ±		
29	ms.		
17a	7.8	3.28	
21a	8.8	3.85	

Sequence not at center of plate. Precedes centre north.
See next page for Diff. Images.

70

Wednesday May 17, 1916.

Scale m.

B Series 82.

	B 45954		C 12	23 + 15°.
	g		h	
	sc. 1	sc. 2	sc. 1	sc. 2
1	6.3 6.1	6.20 ¹¹	6.1 6.59	0.40
2	6.3 6.1	6.40 ¹¹	6.5 6.3	0.59
3	t.f.		6.8 6.6	0.48
4	t.f.		7.4	0.16
5	t.f.		t.f.	
6	t.f.		7.8	0.42
8	t.f.		t.f.	
9	8.1	8.70 ¹¹	8.7	0.31
11	t.f.		8.8	0.54
12	9.6	9.50 ¹¹	9.4	0.11
14	10.0	9.95 ⁰¹ +0.0	9.9	-0.04
16	f.		f.	
17				
18				
20				
21				

edge

Wednesday May 17, 1916-

Copied 1334:31

Scale m.

B Series 82.

B 45 955			139 K	23 15-147	alt. corr + .06
sc.1	sc.2	sc.3	Cur	Magn Diff. In. Cur Magn	P.C. Cur Magn
				g h	sc.2
1	3.8	B	4.11	7.91 t.p. t.p.	9.0 -1.34 7.66
2	5.2 5.25 .01		3.46	8.71 t.p. 8.5 0.43	8.93 10.07 -1.35 <u>8.65</u>
3	5.8 5.85 .01		3.42	9.27 t.p. 9.1 0.41	9.51 m.s.
4	6.6 6.6 .00		3.41	10.01 t t	
5	1.2		3.43	10.63 m.s. m.s.	
6	1.4		3.44	10.84	
7	1.8		3.49	11.29	
8	1.9		3.50	11.40	
9	1.9		3.50	11.40	
10	8.5		3.63	12.13	
11	8.9 8.9 .00		3.74	12.64	
12	9.3 9.4 .00		3.90	13.25	
13	9.7 9.7 .01		4.07	<u>13.82</u>	
14	def. def				
15	m.s. m.s.				
16	m.s.				

Star 3 - 23 mm from center.

72

Wednesday May 17, 1916.

Copied 13 27:41

Scale m -

B series 82 -

B 45958		D1.		1 - 15°		Alt. arc 7.07
sc.1 sc.2		R. Magn		P.C. R. Magn		
1	B.			8.1	-1.33	7.37
2	B			9.1	-1.34	7.76
3	^{3.9} 3.1	3.69	7.59	9.1	-1.34	7.76
4	t.p.			9.21	-1.35	7.85
5	^{4.7 4.65 1.0} 4.5 4.6	3.53	8.18	9.4	-1.36	8.04
6	^{5.4 5.45 0.1} 5.2 5.5	3.45	8.90	10.0	-1.35	8.65
7	t.p. t.p.			9.5	-1.36	8.14
8	^{5.1 1.0} 5.1 t.p. 5.2	3.47	8.67	9.8	-1.35	8.45
9	^{5.1 5.15 1.0} 4.9 5.2	3.47	8.62	9.9	-1.35	8.55
10	^{5.1 5.15 1.0} 4.9 5.2	3.47	8.62	9.9	-1.35	8.55
11	^{6.1 6.00 1.1} 5.9 5.9	3.42	9.42	n.s.		
12	^{6.0 6.85 0.1} 5.8 5.9	3.42	9.37			
13	^{6.3 6.25 1.0} 6.1 6.2	3.41	9.66			
14	^{6.4 6.40 0.0} 6.2 6.4	3.40	9.80			
15	^{6.6 6.55 0.1} 6.4 6.5	3.41	9.96			
16	^{6.8 6.90 1.1} 6.6 7.0	3.42	10.32			
16a	7.1	3.43	10.53			
17	7.4	3.45	10.85			
18	7.6	3.47	11.07			
19	7.9	3.48	11.18			
20	8.1	3.54 3.54	11.64			
21	7.9	3.50	11.40			
22	8.4	3.60	12.00			
23	8.3	3.57	11.87			
24	8.6	3.66	12.26			
25	8.6	3.66	12.26			
26	8.7	3.68	12.38			

Wednesday May 17, 1916-

Scale m-

B Series 82.

B 45958

D1 cont-

Cu magn

	sc. 2	sc. 2		
27	8.9 ^{8.90}	8.9 ^{1.0}	3.75	12.65
28	8.9.1	9.2 ^{9.15}	3.84	12.99
29	9.3 ^{9.25}	9.2 ^{1.0}	3.87	13.12
30	9.3 ^{9.30}	9.3 ^{0.0}	3.90	13.20
31	9.5 ^{9.50}	9.5 ^{0.0}	3.96	13.46
32	9.8 ^{9.80}	9.8 ^{0.0}	4.08	13.88
33	f.	f.		

seen, but
fainter than 102

34 f.
35

Cloudy during measures.

74

Wednesday May 17, 1916

Copied 1327:4

Scale m.

Series 82

B45958		D1	Diff. Inv.		at corr. 0.7
g		h	lin	magn	
sc.1	sc.2	sc.1	sc.2		
1	7.0 6.8	t.f.	0.50	7.50 ✓	
2	t.f.	t.f.			
3	7.5 7.50 ⁰⁰	7.5	0.47	7.97 ✓	
4	t.f.	t.f.			
5	t.f.	7.7	0.45	8.15 ✓	
6	t.f.	8.5	0.43	8.93 ✓	
7	t.f.	7.8	0.44	8.24 ✓	
8	t.f.	t.f.			
9	8.4 8.40 ⁰⁰	8.4	0.43	8.83 ✓	
10	8.4 ^{hor} 8.50 ⁰¹	8.6	0.43	9.03 8.93	
11	9.1 9.00 ⁰¹	8.9	0.42	9.32 9.42	
12	t.f.	9.1	0.41	9.51 ✓	
13	9.4 9.25 ⁰¹	9.3	0.42	9.72 9.77	
14	9.4 9.45 ⁰¹	9.5	0.42	9.92 9.87	
15	9.6 9.65 ⁰¹	9.7	0.42	10.12 10.07	
16	10.0 9.95 ⁰¹	9.9	0.43	10.33 10.38	

d. P. H.
Jan 19, 1918

Wednesday May 17, 1916.

Scale m.

B Series 82.

Ⓑ 45959

71

4 - 150.

P.C.

sc.1 sc.2

sc.2

edge

1

2 +fr.

+fr.

3

4

5

6

7

8

9

10

11

12 4.8

#

13

14

15

16 5.20

Omit this plate.

17

18

Remark on plate cover: "Images too poor."

19

20

21

22

23

24

25

26

76

Wednesday May 17, 1916

Salem.

B Series 82.

	B 45960	C1	1 + 15°
			P.C.
	sc.1 sc.2 sc.2		sc.2
1	21 B.		8.4 -1.22
2	28 t.p.		8.7 -1.31
3	29 ^{3.6} 3.4	3.90	8.8 -1.30
4	30 . t.p.		t.p.
5	31 . 4.8	3.33	t.p.
	9 ^{5.9} 5.7 5.8 5.9	3.48	±.
	11 ^{6.3} 6.1 6.2 6.1	3.49	
	12 ^{6.6} 6.4 6.6 6.6	3.42	
14	7.2	3.42	
15	7.5	3.54	
16	7.7	3.50	
17	7.9	3.60	
18	8.3	3.64	
19	8.6	3.61	
20	8.8	3.82	
21	9.1	3.79	
24	9.5 ^{9.55} 9.6	4.03	
25	9.5 ^{9.55} 9.6	4.21	
26	9.7 ^{9.50} 9.9	4.22	
27	±. ±		
28	±. ±		
13a	^{6.4} 6.2 6.4 6.4 from	4.04	
7a	. t.p.		t.p.
18a	8.3		
21a	9.4	3.95	

Wednesday May 17, 1916.

Scale m.

B Series 82-

B 45960

C1 out. Diff. In.

	g		h		
	sc.1	sc.2	sc.1	sc.2	
1	6.4 6.2	6.50 ±1	6.6 6.4		0.68
2	6.6 6.4	6.60 ⁰⁰	6.6 6.4		0.79
3	6.9 6.7	6.75 ¹⁰	6.8 6.6		0.65
4		t.f.		t.f.	
5		t.f.		1.8 [?]	0.53
9		t.f.		8.1 ^{? v.f.}	0.58
11		t.f.		8.8	0.84
12		9.4 9.40 ⁰⁰		9.4	0.62
14		±		9.9	0.72
15		±		±	
16					
17					
18					
19					

78

Monday May 22, 1916.Sheet no 21.

Scale m

B Series 54-

12.51

* B 4 5 6 11

C~~10~~. C 11

21 + 15°

P.C.

pc.1 pc.2

pc.2

1	3	
2	3.3 ¹	3.78
	3.1 ¹	3.51
3	3	
4	3.6 3.4	4.31
5	4.7 4.5 4.70 ⁰⁰ 4.7	3.60
6	4.7 4.5 4.70 ⁰⁰ 4.7	3.76
7	5.1 4.9 5.15 ¹⁰ 5.2	3.68
8	5.2 5.0 5.40 ³² 5.6	3.63
10	5.7 5.5 5.70 ⁰⁰ 5.9	3.75
12	6.3 6.1 6.35 ¹⁰ 6.4	3.50
14	6.8 6.6 6.65 ³¹ 6.5	3.32
15	6.8 6.6 6.80 ⁰⁰ 6.8	3.60
16		3.50
17		3.32
20		3.39
23		3.26
24		3.50
25		3.47
26	9.6 ^{9.65⁰¹} 9.7	3.25
27	9.75 ¹⁰ 9.7 9.8	3.34
28	9.8 ^{9.85⁰⁰} 9.8 9.8	3.59
29	10.05 ⁰¹ 10.0 10.1	3.52
30	7 7	

def? n.f.

8.6 -1.52

9.2 -1.53

9.3 -1.39

9.8 -1.56

9.8 -1.34

7.

m.s.

* Secondary exposure, which is almost superposed on diff. im. h.

Monday May 22, 1916.

Scale m

B Series 54-

B 45611 cont. C 11		Differ. Inv.	
$\pm g$		$*h$	
sc.1	sc.2	sc.1	sc.2
1	6.3 ^{low}	0.57	
2	6.3	0.48	
3	7.1	0.57	
4	7.6	0.31	
5	7.1		
6	7.9?	0.56	
7	8.4	0.43	
8	8.1	0.33	
10	9.4	0.05	
12	9.9	-0.05	
14	7.		
15			
16			
17			
20			
23			

 $\pm g$ images very poor.

"
 h " image almost superposed on secondary exposure on plate.
 too close to measure.

Monday May 22, 1916.

Copied B34:90

Scale m.

B Series 54.

B 45612.		198 K	21	0	-60.	Alt. corr. - .08	
pc.1	sc.2	Cu Magn	Diff. Imm.	Cu Magn	P.C.	Cu Magn	
			$\frac{g}{sc.2}$ $\frac{h}{sc.2}$				
1	3.1 B	4.64	7.34	6.7 ^{6.75} 6.8 ^{1.0}	0.70	7.45	8.1 -1.46 7.24
2	5.2 ^{5.4} 5.3 ¹¹ 5.2	3.72	9.02	8.4 ^{8.40} 8.4 ^{0.0}	0.33	8.73	±
3	6.1 ^{6.3} 6.35 ^{1.0} 6.4	3.60	9.95	9.4 ^{9.40} 9.4 ^{0.0}	0.07	9.41	
4	6.3 ^{6.5} 6.45 ^{1.0} 6.4	3.59	10.04	9.7 ^{9.70} 9.7 ^{0.0}	-0.03	9.67	
5	6.5 ^{6.7} 6.65 ^{1.0} 6.6	3.58	10.23	9.7 ^{9.70} 9.7 ^{0.0}	-0.03	9.67	
6	7.4	3.53	10.93	ns ns.			
7	7.7	3.53	11.23				
8	7.8	3.52	11.32				
9	7.8	3.52	11.32				
10	8.1	3.52	11.62				
11	8.5	3.53	12.03				
12	8.6	3.53	12.13				
13	8.7 ^{8.70} 8.7 ^{0.0}	3.53	12.23				
14	8.9 ^{8.95} 9.0 ^{1.0}	3.55	12.50				
15	9.7 ^{9.70} 9.7 ^{0.0}	3.59	13.29				
16	10.0 ^{10.05} 10.1 ^{0.1}	3.62	13.67				

Monday, May 22, 1916.

Copied 1334:29

Scale m.

B series 54.

B 45613		137 K	21	11-14.8	alt corr 7.08
		cu magn	Diff. In cu magn	g h	sc. cu magn
1	sc.1 4.7 4.54 ¹⁰ 4.8	3.79	8.54	f.h. 8.1 0.40	8.50
2	5.8 ¹⁰ 5.8	3.66	9.46	9.4 ^{0.1} 9.3 0.10	9.45
3	6.4 ⁰⁰ 6.4	3.60	10.00	± 10.0 -0.10	<u>9.90</u>
4	7.2	3.54	10.74	m.s. m.c.	
5	7.4	3.53	10.93		
6	8.0	3.52	11.52		
7	8.4	3.53	11.93		
8	8.4	3.53	11.93		
9	8.8 ¹⁰ 8.8	3.54	12.39		
10	9.1 ⁰⁰ 9.1	3.59	<u>13.29</u>		
11	9.1 ⁰⁰ 9.1	3.59	<u>13.29</u>		
12	± ±				

Monday May 22, 1916 -

Copied B3453

Scale m-

B series 54.

B 45614		161 K		21 29 - 30°		Act. corr. + .06	
sc.1 sc.2		ln Magn	sc.2 sc.2	ln Magn	P.C. ln Magn	sc.2	
1	B.		g h				
			5.30 ⁰⁰				
2	4.7 ¹¹ 4.54.80 4.9	3.79	8.59	8.7 ⁰⁰ 8.7	1.00	6.30	7.4
	4.8 ²¹ rt.				0.25	8.95	7.
3	4.6 4.85 5.1	3.77	8.72	8.8 ²¹ 9.1	0.19	9.14	
	6.0 ⁰¹						
4	5.8 5.95 5.9	3.65	9.60	9.9 ⁰⁰ 9.9	-0.05	<u>9.85</u>	
5	7.1	3.54	10.64	mis m.			
6	7.0	3.55	10.55				
7	7.1	3.54	10.64				
8	7.7	3.52	11.22				
9	8.	.					
10	8.4	3.53	11.93				
	8.6 ⁰¹						
11	8.6 8.7	3.53	12.18				
	7.4 ⁰⁰						
12	9.4 9.4	3.58	12.98				
	7.5 ¹⁰						
13	9.5 9.6	3.59	13.14				
14	7. 7						
15	7. 7						

Images slightly elongated.

Monday May 22, 1916

Copied B 27:191

Scale m.

Series 54-

B 45615

73

20 -75°

alt. corr. -34

P.C.

dbl.	sc.1	sc.2	sc.3	lu	Magn	sc.1	sc.2	lu	Magn
1	.					8.57 9.27	poor	-1.46 -1.41	7.04 7.79
2						7.7		-1.47 _e	6.23
3						9.1		-1.42	7.68
4						8.7		-1.46	7.24
5	^{3.8} 3.6			3.96	7.76	9.2		-1.41	7.79
6	^{4.3} 4.1			3.87	8.17	9.2		-1.41	7.79
7	^{4.3} 4.1			3.87	8.17	9.2		-1.41	7.79
8	^{4.1} 3.9			3.90	8.00	9.3		-1.40	7.90
9	^{4.6} 4.4	B.		3.82	8.42	9.8		-1.35	8.45
10	^{4.4 4.30 1.1} 4.2 4.2			3.87	8.17	9.6		-1.38	8.22
11	^{4.8 2.1} 4.6 4.85	5.1		3.77	8.72	9.9		-1.44	8.46
12	^{4.8} 4.6 4.80	4.8		3.78	8.58	10.0		-1.33	8.67
13	^{5.4 0.1} 5.2 5.35	5.3		3.72	9.07	?			
14	^{5.3 1.1} 5.1 5.40	5.5		3.72	9.12	m.s.?			
15	^{5.7 1.0} 5.5 5.65	5.6		3.68	9.23				
16	^{5.7 1.0} 5.5 5.70	5.7		3.67	9.37				
17	^{6.0 0.1} 5.8 6.05	6.1		3.64	9.69				
18	^{6.3 1.0} 6.1 6.35	6.4		3.61	9.96				
19	^{6.3 1.2} 6.1 6.45	6.6		3.60	10.05				
20	^{6.7 1.0} 6.5 6.65	6.6		3.58	10.23				
21	^{7.1 1.0} 6.9 7.10	7.1		3.54	10.64				
22	^{7.1 1.0} 6.9 7.10	7.1		3.54	10.64				
23		7.2		3.54	10.74				
24		7.7		3.52	11.22				
25		7.9		3.52	11.42				
26		8.2		3.51	11.71				

Monday May 22, 1916-

Seahm.

B Series 54.

B 45615

73

20 -15°

Alt. corr -34

scz scz

21	8.1	3.51	11.61
21	8.4	3.52	11.92
29	8.6	3.53	12.13
30	8.7	3.53	12.23
31	9.19.10 ⁰⁰ 9.1	3.57	12.67
32	9.69.65 ⁰¹ 9.1	3.59	13.24
33	9.79.65 ¹⁰ 9.6	3.59	13.24
34	9.59.46 ¹⁰ 9.4	3.58	13.03
35	9.79.65 ¹⁰ 9.6	3.59	13.24
36	9.9	± 3.60	<u>13.50</u>
37	7.		

Monday May 22, 1916.

Copied 13 27:191

Scale m-

B Series 54

	B 45 6 15		fz	Differ. Low.		Att. corr. - .34
	g	h		ln	magn	
	sc. 1 sc. 2	sc. 1 sc. 2				
1	dbl	dbl				
2	.	tf.				
3	.	tf.				
4	.	tf.				
5	7.1 7.15 ¹⁰	12		0.61	7.76	
6	7.6 7.70 ¹¹	1.8		0.48	8.18	
7	7.4 7.50 ¹¹	1.6		0.53	8.03	
8	.	tf.				
9	.	8.1?		0.40	8.50	
10	8.1 8.00 ¹²	1.9		0.42	8.42	
11	8.1 <i>from</i>	tf.		0.40	8.50	
12	8.3 8.30 ⁰⁰	8.3		0.35	8.65	
13	8.5 8.55 ¹⁰	8.6		0.28	8.83	
14	8.9 9.00 ¹¹	9.1		0.17	9.17	
15	9.3 9.20 ¹¹	9.1		0.13	9.33	
16	9.2 9.15 ⁰¹	9.1		0.13	9.28	
17	9.3 9.35 ¹⁰	9.4		0.08	9.43	
18	10.0 9.90 ¹²	9.8		-0.07	9.83	
19	10.0 10.0 ⁰⁰	10.0		-0.10	9.90	
20	+	+				
21						
22						
23						
24						
25						
26						

Monday May 22, 1916

Lopid 13 34:77

Salem.

B Series 54

B 454 ⁶ 16		185 K.				alt. corr. +.02	
sc.1	sc.2	ln	magn	g h	ln	magn	P.C. ln magn
1	3.21 ^{4.4 4.5 4.6 2.1 2.0}	4.06	7.26	^{6.55 1.2} 6.7 6.4	0.75	7.30	86 -1.46 7.14
2	4.24 ^{4.3 4.8 4.6}	3.93	8.41	^{7.90 .0} 7.9 7.9	0.44	8.34	96 -1.39 8.21
3	5.9 ^{6.00 1.1} 6.1	3.54	7.54	^{9.45 .01} 9.4 9.5	0.04	9.49	n.s.
4	6.4 ^{6.55 2.1} 6.7	3.58	10.13	† †			
5	7.4	3.54	10.94				
6	7.7	3.53	11.23				
7	7.9	3.52	11.42				
8	8.21	3.52	11.72				
9	8.6	³ 3.54	12.13				
10	8.9	3.54	12.24				
11	9.1	3.56	12.66				
12	^{9.35 0.1} 9.4 9.3	3.58	12.93				
13	^{9.70 .00} 9.7 9.7	3.59	³ 12.29				
14	^{9.95 1.0} 9.9 10.0	3.62	13.57				
15	† †						

Monday May 22, 1916.

Scale m.

B Series 54.

	B 45 617	C 12	23 +15°	P.C.
	no. 1 acc?		Diff. In.	P.C.
			g h.	acc?
1	B.		th. 5.7 0.90	8.1 ^h -1.50
2			th. 5.9 1.09	8.2 ^h -1.31
3			th. 6.5 0.75	8.6 -1.32
4	^{3.6} 3.4	3.96	th. 7.1 0.46	9.1 -1.54
5	^{0.8} 3.6 B.	4.04	7.1 th. 0.74	9.1 -1.26
6	^{4.2} 4.0 4.25 ⁰¹ 4.3	3.97	th. 7.8 0.42	9.8 -1.58
edge	8 th. th.		th. th.	9.7? th. -1.10
9	th. 5.4	3.61	th. 8.1 0.31	
11	^{5.4} 5.2 5.45 ⁰¹ 5.5	3.86	th. 9.1 0.21	
12	^{5.5} 5.3 5.70 ³² 5.9	3.91	9.7 ^{9.70} 9.7 -0.09	
14	^{6.4} 6.8 6.30 ¹¹ 6.2	3.61	th. 10.0 -0.09	
16	^{6.8} 6.6 6.50 ⁰⁰ 6.8	3.58		
17	1.1	3.53		
18	1.6	3.70		
20	8.2	3.70		
21	^{5.40} 8.4 8.4	3.83		
23	^{9.25} 9.2 9.3	3.76		
24	^{7.75} 9.8 9.7	3.69		
26	^{9.75} 10.0 9.9	3.71		
27	th. th.			
29				
17a	7.4	3.68		

Thursday June 1, 1916.

Plotted Sheet no 15

Scale m.

B series 98.

9:40

B 46202

C₁

1 + 15°.

B.C.

	sc.1	sc.2	sc.2	Diff	sc.1	sc.2	Diff
1	3.2 3.0			3.98	8.6		-1.42
2	3.6 3.4			3.79	8.1		-1.31
3	3.2 3.0	B.		4.30	8.8		-1.36
4	4.5 4.3	4.40	4.3	3.56	9.3		-1.34
5	4.6 4.4	4.60	4.6	3.73	9.6		-1.27
9	5.8 5.6	5.75	5.1	3.59	?	or m.s.?	
11	6.1 5.9	6.10	6.1	3.59			
12	6.6 6.4	6.45	6.3	3.87			
14		7.3		3.32 2.85			
15		7.1		3.34			
16		7.8		3.40			
17		8.1		3.40			
18		8.3		3.64			
19		8.1		3.51			
20		9.0		3.62			
21		9.3		3.59			
24		9.65 9.6	9.1	3.93			
25		9.70 9.7	9.7	4.06			
26		10.15 10.1	10.2?	3.97			
27		ms.	ms.				
28		ms.	ms.				
7a	5.6 5.4	5.60	5.6	3.26			
13a	7.1 6.9	7.10	7.1	3.34			
18a		8.3					
21a		9.5					

Thursday June 1, 1916.

Scale m.

B series 98.

B 46202 cont.			C1	Diff. Im.	
g			h		
	pc.1	sc.2	pc.1	sc.2	Diff.
1	6.7 6.5	6.70 ⁰⁰	6.7 6.5		0.48
2	6.6 6.4	6.55 ⁰¹	6.5 6.3		0.84
3	6.7 6.5	6.80 ⁰¹	6.9 6.7		0.70
4		t.f.	9.6		0.36
5		t.f.	8.1		0.23
9		8.8	8.95 ²¹	9.1	1.33
11		9.2	9.20 ⁰⁰	9.2	0.49
12		9.8	9.80 ⁰⁰	9.8	0.32
14		†	†		
15		m.s.	m.s.		
16					
17					
18					
19					
20					
21					
24					
25					
7a		t.f.	8.4		0.46
13a		m.s.	m.s.		

Thursday June 1, 1916.

Copied B 34:9

Scale m.

B series 98.

B 46203 ⁴			117. K	1	13-14.6	add. corr. +.00		
			cu	magn	Diff. Inm.	cu	magn	Plt
					3 to			
sc.1	sc.2	sc.2			sc.2 sc.2			
6.4	6.45	0.1						
1	6.2	6.5	3.38	9.83	9.99.90	9.9	0.35	10.25
	6.9	7.00						
2	6.7	7.1	3.39	10.39	±	m.s.		
3		7.5	3.40	10.90	m.s.	m.s.		
4		7.6	3.40	11.00				
5		8.1	3.44	11.54				
6		8.1	3.60	12.30				
7		9.1	3.70	12.86				
8		9.4	3.81	13.21				
9		9.75 ± 0						
		9.7	3.93	13.68				
10		9.75 ± 0						
		9.7	3.93	13.68				
11		10.10 ± 0	4.10	14.20				
12		10.25 ± 0.1	4.13	14.28				
13		m.s.						
14								
15								

Thursday June 1, 1916.

Copied 1334:57

Scale m

B series 98.

mc 2 46 205			165 K	1 35-45°			alt corr + 0.2		
			cu	magn	Diff. In. cu	magn	P.C.	cu	magn
	sc.1	sc.2	sc.3		g	h	sc.2		
1	4.1	Q		3.63	7.93	8.2 ^{8.25} 8.3 ^{8.3}	0.38	8.63	9.8 -1.28 <u>8.52</u>
2	4.4 ^{4.4} 4.4 ^{0.0}	4.4		3.62	8.02	8.6 ^{8.65} 8.7 ^{8.7}	0.36	9.01	9.8 -1.28 <u>8.52</u>
3	5.6 ^{5.8} 5.8 ^{5.8}	5.9		3.41	9.26	9.6 ^{9.65} 9.7 ^{9.7}	0.34	9.99	n.s.
4	6.1 ^{6.1} 6.1 ^{6.1}	6.1		3.39	9.49	9.8 ^{9.8} 9.8 ^{9.8}	0.35	<u>10.15</u>	
5	6.5 ^{6.5} 6.5 ^{6.5}	6.9		3.38	10.18	+			
6	6.9 ^{6.9} 6.9 ^{6.9}	1.1		3.39	10.39	n.s.			
7		1.6		3.40	11.00				
8		1.8		3.40	11.20				
9		8.1		3.44	11.54				
10		8.4		3.52	11.92				
11		8.6		3.57	12.17				
12		9.2		3.74	12.94				
13		9.3		3.77	13.07				
14		9.4 ^{9.4} 9.2 ^{9.2}		3.77	13.07				
15		9.5 ^{9.5} 9.5 ^{9.5}		3.84	13.34				
16		9.5 ^{9.5} 9.5 ^{9.5}		3.84	13.34				
17		10.0 ^{10.0} 9.9 ^{9.9}		4.03	<u>13.98</u>				

Thursday June 1, 1916.

Copied B34:98
B27:198

Scale m.

B Series 98.

B46206.

*South Pole. and 206K

alt. corr. - .42

off centre -
Out of focus

Imm. elong.

sc.1 sc.2		Diff. Images		sc.2 sc.2		sc.2	
Cu	magn	g	h	Cu	magn	P.C.	Cu magn
a B.		6.1 ⁷	6.3 ⁷	0.622	6.722	19	.
b B.		4.1 ⁷	4.1 ⁷	0.46	.	8.1	-1.38 7.32
c ³⁶ 34	3.84	7.44	1.3 ^{7.20}	7.1	0.48	7.68	8.1 -1.38 7.32
d ³⁶ 36	3.77	7.57	1.5 ^{7.55}	1.6	0.44	7.99	9.0 -1.36 7.64
e ^{4.35} 4.1 ^{4.2}	3.61	8.06	1.6 ^{7.60}	1.6	0.43	8.09	9.4 -1.32 8.08
e' ^{4.8} 4.6 ^{4.80}	3.53	8.33	8.4 ^{8.30}	8.2	0.38	8.68	9.8 9.8 -1.28 8.52
f ^{4.8} 4.6 ^{5.00}	3.50	8.50	8.4 ^{8.30}	8.2 ¹¹	0.38	8.68	9.8 -1.28 8.52
g ^{6.3} 5.1 ^{5.25}	3.46	8.71	8.4 ⁸	8.2 ¹¹	0.37	8.77	10.1 [?] .
h ^{5.4} 5.2 ^{5.5}	3.42	8.92	8.9 ^{8.85}	8.8	0.35	9.26	ms.
k ^{6.3} 6.1 ^{6.35}	3.38	9.73	9.1 ^{9.20}	9.3	0.35	9.55	
l ^{6.6} 6.4 ^{6.60}	3.38	9.98	10.0 ^{9.90}	9.8	0.35	10.05	
l' ^{6.7} 6.5 ^{6.80}	3.38	10.18	10.0 ^{9.90}	9.8	0.35	10.25	
m ^{7.0} 6.8 ^{7.10}	3.39	10.49	10.2 [?]	.			
n	3.40	10.90	ms.				
n'	3.39	10.69					
-89° 11' = 206K = o	3.39	10.79					
f	3.44	11.54					
g	3.44	11.54					
r	3.49	11.79					
s	3.57	12.17					
t	3.52	11.92					
u	3.60	12.30					
w	3.64	12.49					
x	3.81	13.21					
y	3.86	13.41					

* Star o of S. Polar Sequence = 206K. Do not select new sequence.

Per H.S.L.

Thursday June 1, 1916.

Scale m.

B series 98.

B 46206

South Pole. and 206K

Alt. corr. - 92

Cu magn

1	δ	$10.0^{10.05^{\circ}}$	$10.1^{4.08^{\circ}}$	$\frac{4.08}{14.13}$
2	z	$9.7^{9.70^{\circ}}$	9.7	3.92
2	e	m.s.	m.s.	13.62
4	γ	m.s.		
8	β	m.s.		

11:16

Wednesday June 1, 1916.

Scale β

9.05

A 10983

C8

A Series 24. Series rejected.

15 + 15°

~~Use only for~~

P.C.

scA scB scC. scC.

scA scB scC.

1 B.

10.8 10.8

3 B.

12.5 12.5

4 off fl.

off fl.

extreme edge 6 a

8

13.9 14.0
13.8

9 B. B.

14.3

11 2.3 4.1

15.8

12 3.0 4.3

16.0

14 2.4¹ 4.3

m.s.

15 3.8 4.9

m.s.

16 3.9 5.3

18 4.9 5.8

20 a 4.6 5.9

21 5.7 6.5

m.s.

we unit.

22 6.6 7.7

25 7.9 8.3

25 a 8.5²

26 10.4

27 10.6

27 a 11.7

28 12.1

29 12.3^{low}

29 a 13.2 13.3

30 13.8 13.9

Ident uncertain } 31 14.8[?] 15.1[?]

33 m.s. m.s.

d 8.5

Images very poor. Comparison with scale difficult.
See list of stars to be omitted - for Aequifera plates

Wednesday June 7, 1916.

Scale β

- a series 24.

a 10985

154 K

14 24 - 30.1

Use only for Rel. mag. P.C.

	sc.A	B	C
1	2.4	4.4	
2	3.1	4.4?	
3	4.6	5.6	
4	5.1	6.2	
5	6.6	7.4	
6	6.9	7.6	
7	7.8	8.4	
8		7.	10.4
9			10.7 10.6
10			10.7 10.8
11			11.4
12			12.1
13			12.6
14			13.1
15			13.7 13.8
16			14.4 14.3

sc.A B C sc.C.

14.4 14.5

+

Wednesday June 7, 1916.

Scale β

A series 24

* A 10989

± 2

12 - 15°

P.C.

Use only for rel. mag.
See ^AJournal

	sc A	sc B	sc C.	Diff. from Series and Heating Curve Magn.	sc A	B	C	C.
1				Plotted sheet 78		11.3	11.4	11.35 ± 0
2						t.p.	t.p.	.
3						11.8?	11.6	11.70? ± 0.2
4 B.						12.4? from	12.2?	12.30? ± 0.2
5						13.3		
6						13.1		
7						12.6		
8 B.						13.1		
off filate 9 off fil.						.		
10 t.p.						15.1?		
" "						off fil.		
12 t.p.						n.s.?		
13 B. reg								
14 3.3? n.p.								

Inn. elong.

15 t.p.								
16 3.6? n.p.	5.8?	3.90?	4.03	9.83?				
17 3.1	4.5 ^{5.3}	4.38	4.25	9.55				
18 4.1?	5.4 ^{6.2}	3.75	3.84	10.04				
19 6.1	6.5 ^{7.3}	3.34	3.39	10.69				
20 6.5	6.8 ^{7.6}	3.24	3.27	10.87				
21 6.7	7.6 ^{8.4}	2.90	2.92	11.32				
22 7.1	8.1 ^{8.9?}	2.46?	2.68	11.58?				
23 6.2	6.7 ^{7.5?}	3.74?	3.30	10.80?				
24 6.9	7.6 ^{8.4?}	2.97?	2.92	11.32?				
25	8.3 ^{9.1}	2.50	2.56	11.66				
26 6.9	7.6 ^{8.4}	3.13	2.92	11.32				

Wednesday June 7, 1916.

Scale β

A series 24

A 10989

 ± 2 out. Use only for Rel. magn.

	Rij		Diff. from Stetson and Hartung Curve Magn.		
27	7.4 6.5 w.s.	9.1 8.3	2.56	2.56	11.66
28		9.3 9.25 8.5 9.2	2.67	2.49	11.74
29		9.5 8.1 9.50	2.49	2.33	11.83
30			10.1 1.86	1.93	12.03
31			10.8 1.40	1.50	12.30
32			11.3 1.23	1.18	12.48
33			12.1 0.69	0.70	12.80
34			12.5 0.45	0.46	12.96
35			13.5 ⁺ -0.28 ⁺	-0.13	13.37 ⁺
36			13.7 ^{low} -0.24	-0.26	13.44 ⁸
37			14.1 -0.40	-0.51	13.59
38			14.9 -1.10	-1.03	13.87
39			4?		
40			m.s.		

* All images on this plate are very poor. They are elongated and do not compare with scale.

"measure". H.S.L.

Plate instruction. Do not measure remainder A series. too poor.

10-18

Wednesday June 7, 1916

Q10991. — *Trachoma*

Saturday
Friday, June 9¹⁰, 1916.

Scale M

Series 54

Shut no 19

9.57

B 45606

C 10

19 + 15°

~~24~~ P.C.

see next page

sc.1 sc.2 sc.3

sc.1 sc.2

sc.2

1 B.

8.1 -1.26

6.5

2 3.3
3.1

4.04

8.8 -1.39

1.2

3 B.

8.7 -1.36

4 B.

9.1 -1.26

6 3.5
3.3

5.00

scratched

7 3.4

4.69

9.6 -1.31

8 4.8
4.6 4.90 5.0

4.20

9.9? -0.80

9 4.1 5.00 5.1

4.40

4.

10 5.3 5.1 5.45 5.6

4.24

11 6.1 6.10 6.1

3.94

12

1.1

3.39

13

1.4

3.33

15

1.9

3.27

16

8.5

3.02

17

8.75 8.8

3.15

18

9.30 9.3

3.05

19

9.55 9.6

3.19

20

9.90 9.9

2.97

21

10.15 10.2

3.33

22

24

25

26

27

28

29

30

9.2

3.31

10.0

2.94

centre of region = about 26 mm. north of centre of plate.

100

Saturday
Friday June 9¹⁰, 1916.

Scale m.

B series 54.

	B 45606		C 10.	Diff. Imm.
	g		h	
	sc.1	sc.2	sc.1	sc.2
1		h	6.5	0.34
2		g	7.21	0.21
3		.	7.17 ^{floor}	0.24
4		.	7.5	0.34
6		h	8.4 ^{scratched}	0.10
7		h	8.7 ²	0.09
8	8.1	8.80 ^{±1}	8.9	0.30
9	9.4	9.35 ^{±1}	9.3	0.05
10	9.8	9.76 ¹¹	9.6	-0.01
11	+		+	
12			m.s.	
13				
15				
16				
17				
18				
19				

Saturday June 10, 1916.

Copied B34151

Scale m.

B series 54-

B45607				15912	19 24-29.9				Alt. corr +.06			
				Cu	magn	g	h	Cu	magn	P.C.	Cu	magn
						sc.2	sc.2			sc.2		
wt. unit	sc.1	sc.2	sc.2									
1	4.1 ^{41.3}	4.3	4.30 ⁰⁰	4.12	8.42	7.8	7.8	0.24	8.04	9.4	-1.46	7.94
2	4.8 ^{5.0}	5.1	5.05 ⁰¹	3.91	8.96	8.3 ^{8.35}	8.4 ^{1.0}	0.17	8.52	10.0	-1.48	<u>8.52</u>
3	5.8 ^{5.9}	5.8	5.85 ¹⁰	3.71	9.56	8.8 ^{8.95}	9.1 ¹	0.11	9.06	<u>9.3</u> ^{n.s.?}		
4	5.1 ^{5.9}	5.8	5.85 ¹⁰	3.71	9.56	9.3 ^{9.25}	9.2 ¹⁰	0.08	9.32			
5	6.5 ^{6.7}	6.7	6.70 ⁰⁰	3.50	10.20	9.9 ^{10.00}	10.1 ¹	-0.02	<u>9.98</u>			
6	6.5 ^{6.7}	6.8	6.75 ¹⁰	3.49	10.24	10.1	1	-0.03	<u>10.07</u>			
7		7.2		3.40	10.60	n.s.	n.s.					
8	7.1 ^{7.1}	7.1	7.10 ⁰⁰	3.43	10.53							
9		7.6		3.35	10.95							
10		7.8		3.32	11.12							
11		8.1		3.29	11.39							
12		8.4		3.25	11.65							
13		8.8 ^{8.75}	8.7 ⁰¹	3.22	11.97							
14		9.2 ^{9.25}	9.3 ⁰¹	3.20	12.45							
15		9.8 ^{9.80}	9.8 ⁰⁰	3.20	13.08							

Centre of region 19 mm north of centre of jet.

Saturday June 10, 1916.

Copied 13 34:75

Scale m-

B Series 54.

B45608		183K	19 54-44.9	Alt. corr +.02
Cu Magn		g	h	P.C. Cu Magn
sc.1	sc.2		sc.2	sc.2
1	3.8		t.p. 53	7.4
2	3.6	4.27	8.07 t.p. 6.8 ⁹ 0.30	7.20 8.8 -1.43 7.37
3	5.4	3.77	9.37 t.p. 8.8 0.13	8.93 m.s.
4	6.4	3.53	10.13 t.p. 10.0 ⁷ -0.02	<u>9.98</u>
5	7.4	3.37	10.77 m.s. m.s.	
6	7.5	3.36	10.86	
7	7.7	3.33	11.03	
8	8.0	3.30	11.36	
9	8.0	3.30	11.30	
10	8.2	3.27	11.47	
11	8.6	3.23	11.83	
12	9.1	3.20	12.30	
13	9.2	3.20	12.35	
14	9.8	3.20	12.66	
15	10.1	3.20	<u>13.25</u>	

Saturday June 10, 1916.

Copied 1334:97

Scale m.

B series 54.

Card.

B 45609			205K	20	7-75.1	Alt corr - .32
			ln magn	Diff.	Images	P.C.
sc.1	sc.2	sc.2		$\frac{g}{sc.1} = \frac{h}{sc.2}$	ln magn	pc
1	5.9 5.1	5.1 5.80 ¹¹	3.73	9.53 9.1	9.1 9.1	0.09 9.19 n.s.
2	5.9 5.1	5.1 5.80 ¹²	3.73	9.53 9.2	9.2 9.2	0.07 9.27 n.s.
3	6.6 6.4	6.1 6.65 ⁰¹	3.51	10.6 9.8	9.9 9.9	0.00 9.85
4	6.9 6.7	6.8 6.85 ¹⁰	3.47	10.32 10.1?	def.?	-0.03 10.07
5		7.8	3.32	11.12		
6		7.9	3.31	11.21		
7		8.1	3.29	11.39		
8		8.1	3.29	11.39		
9		8.2	3.27	11.47		
10		8.3	3.26	11.56		
11		8.8	3.22	12.02		
12		8.8	3.22	12.02		
13		9.1	3.20	12.36		
14		9.3	3.20	12.50		
15		9.6 9.50 ¹² 9.4	3.20	12.70		
16		9.8 9.8 9.8	3.20	13.00		
17		9.9 9.95 ¹⁰ 10.0	3.20	13.15		

Saturday June 10, 1916.

Copied 1334:26

Scale m-

B Series 54

{Corr. + 01

B 456 10

136 K-

20 11-15.0

{Over for 8³ alt. corr + 05

cu	Magn	Diff. Imm.	cu	Magn	BC	cu	Magn
sc.1	sc.2	sc.2			sc.2		

1	4.3 4.1	4.4	4.35 ¹⁰	4.10	8.45	t.p. 7.9	0.23	8.13	9.6	-1.47	8.13
2	4.6 4.6	4.8	4.80 ⁰⁰	3.97	8.77	t.p. 8.1	0.21	8.31	9.8?	-1.48	8.32
3	5.2 5.5	5.9	5.80 ¹¹	3.73	9.53	9.4	9.3	0.05	9.40	n.s.	
4	6.2 6.0	6.1	6.15 ⁰¹	3.64	9.79	9.7	9.7	0.01	9.71		
5		7.5		3.36	10.56	n.s.	n.s.				
6		7.9		3.31	11.21						
7		8.6		3.23	11.93						
8		8.9		3.21	12.12						
9		9.2		3.20	12.40						
10		9.4	9.40 ⁰⁰	3.20	12.60						
11		9.9	9.90 ⁰⁰	3.20	13.10						
12		10.0	10.00 ⁰⁰	3.20	13.20						
13		n.s.	n.s.								
14											
15											

faint

Saturday June 10, 1916.

Scale m.

B Series 54.

* B 45611	C11	21 +15°	Diff. Im.	P.C.
sc.1 sc.2 sc.3			g h* see note.	sc.2
1 3.1 2.9	3.71	6.4	0.41	8.2 -1.39
2 3.5 3.3	3.78	t.p. almost exp.		8.6 -1.52
3 3.8 3.6	3.8 4.87	7.4	0.27	9.3 -1.63
4 3.7 3.5	4.1	7.6	0.31	9.2 -1.69
5 4.7 4.5	3.60	t.p.		9.8 -1.50
6 4.9 4.7	3.66	t.p.		9.8 -1.34
7 5.2 5.0	3.53	8.6	0.23	f.
8 5.3 5.1	3.63	8.8 8.8 8.80 ⁰⁰	0.23	
10 5.9 5.7	3.60	9.5 9.3 9.40 ¹¹	0.05	
12 6.3 6.45	3.50	10.0 f.	-0.15	
14 6.45 6.263	3.39			
15 6.8 7.0	3.40			
16 7.4	3.30			
17 7.7	3.32			
20 8.0	3.39			
23 8.1	3.16			
24 9.1	3.30			
25 9.1	3.47			
26 9.85 ⁰¹ 9.8	3.05			
27 9.85 ¹⁰ 9.9	3.29			
28 9.85 ⁰¹ 9.8	3.54			
29 f				
30 f				
31				

Seen but
much fainter
than 10th image

* This plate has a secondary exposure very near the "h" diff. image, making the "h" images very difficult to measure. "g" images poor!

11:20

Friday, June 16, 1916.

Observed B34:99

Sheet no 21

Scale m.

Series 52.

10:45

B 45581

2 Ks.

19^h

Alt. corr +.10

Cu magn Diff. Inv. Cu magn P.C. Cu Magn

sc.1 sc.2

g h

sc.2

1	5.1 ^{5.3}	5.5	5.40 ^{1'}	3.84	9.24	8.7 ^{8.25}	0.33	9.03	n.s.
2	5.8 ^{6.0}	6.1	6.05 ^{0'}	3.77	9.82	9.2	0.25	9.50	
3	6.5 ^{6.7}	6.8	6.75 ¹⁰	3.66	10.41	f.	f.		
4	6.9 ^{7.1}	7.1	7.10 ⁰⁰	3.62	10.72	n.s.	n.s.		
5		7.7		3.59	11.27				
6		8.1		3.54	11.64				
7		8.4	8.50 ^{1'}	3.56	12.06				
8		9.1	9.10 ⁰⁰	3.57	12.67				
9		9.4	9.45 ⁰¹	3.60	13.05				
10		9.9	9.90 ⁰⁰	3.65	13.55				
11		10.1	10.15 ¹⁰	3.69	13.84				
12		7.							
13									
14									
15									

Friday, June 16, 1916.

Copied 1334:51

Scale m.

Series 52.

B 45582			159K.		Diff. Imm. in Magn		alt. corr +10	
			Cu Magn		g h		PC. Cu Magn	
sc.1	sc.2	sc.2					sc.2	
1	4.2 4.0	4.3 4.25 ⁰¹	4.01	8.26	7.5	0.52	8.02	9.2 -1.31 7.89
2	4.8 5.0	5.1 5.05 ⁰¹	3.90	8.95	8.1	0.42	8.52	9.9 -1.31 8.59
3	5.7 5.5	5.7 5.7 ⁰⁰	3.81	9.51	8.8 8.8	0.33	9.13	m.s.
4	5.8 5.6	5.8 5.8 ⁰⁰	3.80	9.60	9.1	0.28	9.28	
5	6.4 6.4	6.6 6.6 ⁰⁰	3.67	10.27	9.6 9.5	0.20	9.75	
6	6.2 ³ 6.9	6.6 6.55 ¹⁰	3.68	10.23	9.8 9.9	0.16	10.01	
7	6.7 6.9	7.1 7.1 ⁰¹	3.64	10.64	+	+		
8	6.7 6.9	6.9 6.9 ⁰⁰	3.65	10.55				
9		7.3	3.60	10.90				
10		7.7	3.56	11.26				
11		7.9	3.55	11.45				
12		8.4	3.55	11.95				
13		8.6 8.5	3.55	12.10				
14		8.9 8.9	3.56	12.46				
15		9.9 9.8	3.64	13.49				

Friday June 16, 1916.

Cepheid 1334:89

Scale m.

Blériot 52.

B 45583			197 K.		Alt. corr. -0.04	
			Qu Magn	Diff. Imm.	Qu Magn	P.C. Qu Magn
sc.1	sc.2	sc.2		g h		sc.2
1 ^{3.8} 3.6	Q.		4.06	7.86	7.5 7.3 7.40 ¹²	0.54 7.94 9.2 -1.31 7.89
2 ^{4.8} 4.6	4.8	4.80 ⁰⁰	3.94	8.74	8.3 8.5 8.40 ¹¹	0.37 8.77 10.0 -1.30 <u>8.70</u>
3 ^{5.7} 5.5	5.1	5.70 ⁰⁰	3.81	9.51	9.3 9.3 9.30 ⁰⁰	0.24 9.54 m.s.
4 ^{6.4} 6.2	6.4	6.40 ⁰⁰	3.70	10.10	9.8 9.8 9.80 ⁰⁰	0.16 <u>9.96</u>
5 ^{6.9} 6.6	6.9	6.85 ⁰¹	3.65	10.50	10.0 10.0 10.00 ⁰⁰	0.13 <u>10.13</u>
6	7.2		3.60	10.80	m.s. m.s.	
7	7.4		3.58	10.98		
8	7.9		3.55	11.45		
9	7.9		3.55	11.45		
10	8.2		3.54	11.74		
11	8.3		3.54	11.84		
12	8.6		3.55	12.15		
13	9.1 ^{9.00¹¹}	8.9	3.57	12.57		
14	9.5 ^{9.60¹¹}	9.7	3.64	13.24		
15	10.0 ^{10.05⁰¹}	10.1	3.67	<u>13.72</u>		

Friday June 16, 1916.

Scale m.

B Series 52.

B 45584

C10

19 + 15°

Differ. Inv.

P.C.

sc.1 sc.2 sc.3

g h

sc.2

1 ^{3.0} 2.8 3.84
 2 ^{3.3} 3.3 3.84
 3 ^{3.2} 3.0 4.21
 4 ^{3.5} 3.3 B 4.34

+h. 6.1 0.74
 +h. 6.1 0.71
 6.4 ^{6.50^{±1}} 6.6 0.84

8.1 - 1.26
 8.8 - 1.39
 8.6 - 1.26

Imm. elong.

6 dff?
 7 ^{3.9} 3.7 ^{4.00^{±1}} 4.1 4.29
 8 ^{5.1} 4.9 ^{5.20^{±1}} 5.5 3.96
 9 ^{5.5} 5.3 ^{5.55^{±1}} 5.6 3.85
 10 ^{5.8} 5.6 ^{5.75^{±1}} 5.7 3.94
 11 ^{6.2} 6.0 ^{6.30^{±1}} 6.4 3.74
 12 ^{7.0} 6.8 ^{6.95^{±1}} 6.9 3.94
 13 7.3 3.43
 15 7.6 3.57
 16 7.8 3.72
 17 8.5 3.40

+h. +h.
 +h. 7.6 0.69
 8.4 ^{8.50^{±1}} 8.6 0.60
 8.8 ^{8.80^{±1}} 8.8 0.60

+h?
 9.5 - 1.21
 sup?
 m.s

nearly sup.

18 8.7 3.65
 19 ^{9.20^{±1}} 9.2 3.54
 20 ^{9.40^{±1}} 9.3 3.47
 21 ^{9.75^{±1}} 9.7 3.73

Seen but too faint to meas.

22 f. f.
 24 m.s?
 25
 26
 b 8.8 3.71
 e 9.6 3.34

Friday June 16, 1916.

Copied B34:52

Scale m

B series 52.

B 45585-			160 K	20 26-30°		alt. corr +.70	
			Cu Magn	Differ. In.	Cu Magn	P.C.	Cu Magn
sc1 sc2				g h		sc2	
1	^{4.7} 4.5	4.7 4.70°	3.96	8.66 +.7	0.49	8.19	9.8 -1.31 <u>8.49</u>
2	^{5.0} 5.8	5.8 5.90°	3.78	9.68 +.7	0.34	9.04	ms
3	^{6.0} 5.8	6.1 6.05°	3.77	9.82 +.7	0.33	9.13	
4	^{6.5} 6.3	6.5 6.50°	3.68	10.18 ^{9.95±2} 10.1	0.16	<u>10.01</u>	
5	^{6.8} 6.6	6.8 6.80°	3.65	10.45 ^{9.95±0} 10.0	0.13	<u>10.08</u>	
6		7.3	3.60	10.90 ms	ms.		
7		7.6	3.57	11.17			
8		7.9	3.55	11.45			
9		8.1	3.54	11.64			
10		8.1	3.54	11.64			
11		8.5	3.56	12.66			
12		^{8.90°} 8.9	3.57	12.47			
13		^{9.15} 9.3	3.58	12.73			
14		^{9.35} 9.4	3.59	² 12.94			
15		^{9.45} 10.0	3.66	<u>13.61</u>			

Friday June 16, 1916.

Opus 1327:191

Scale m

B Series 52.

B 45586

73.

20 - 15°

alt. corr. - .27

dbl.

	sc.1	sc.2		cu	magn	sc.2	cu	magn
1	.					84? } dbl. -1.29		7.11
						89? } -1.30		7.60
2	B.					1.8 km		
3	.					89	-1.31	7.59
4	.					89	-1.31	7.59
5	4.1 3.9			4.04	8.14	89	-1.31	7.59
6	4.3 4.1			4.01	8.31	9.2	-1.32	7.88
7	4.1 3.9	B.		4.04	8.14	9.3	-1.32	7.98
8	4.2 4.0	4.1	4.15 ^{0.1}	4.03	8.18	9.2	-1.32	7.88
9	4.5 4.6?	4.6	4.6	3.94	8.74	9.1	-1.31	8.39
10	4.3 4.1	4.4	4.35 ^{1.0}	4.00	8.35	9.6	-1.31	8.29
11	4.7 4.5	4.8	4.75 ^{1.0}	3.94	8.69	9.1	-1.31	8.39
12	4.7 4.5	5.0	4.85 ^{1.2}	3.93	8.78	9.9	-1.30	8.60
13	5.3 5.1	5.4	5.35 ^{1.0}	3.85	9.30	m.s.		
14	5.3 5.1	5.5	5.40 ^{1.1}	3.85	9.25			
15	5.7 5.5	5.8	5.75 ^{1.0}	3.81	9.56			
16	5.9 5.7	5.8	5.85 ^{1.0}	3.79	9.64			
17	6.2 6.0	6.1	6.15 ^{0.1}	3.74	9.89			
18	6.3 6.1	6.5	6.40 ^{1.1}	3.70	10.10			
19	6.3 6.1	6.5	6.40 ^{1.1}	3.70	10.10			
20	6.7 6.5	6.8	6.75 ^{1.0}	3.56	10.31			
21	6.9 6.7	7.1	7.00 ^{1.1}	3.63	10.63			
22		7.1		3.62	10.72			
23		7.2		3.59	10.79			
24		7.6		3.57	11.17			
25		7.7		3.56	11.36			
26		8.1		3.54	11.64			

Friday June 16, 1916.

Scale m.

B series 52-

B 45586

F 3

20 - 75°

Alt. ^{corr} - 27

sc. 2				Cu magn	
27	8.1			9.54	11.64
28	8.3			9.54	11.54
29	8.6			9.55	12.15
30	8.6			9.55	12.15
31	8.9			9.56	12.46
32	9.3			9.59	12.89
33	9.5			9.61	13.11
34	9.5	9.4	9.45 ¹⁰	9.60	13.05
35	9.6	9.6	9.60 ⁰⁰	9.63	13.23
36	9.9	9.9	9.90 ⁰⁰	9.65	<u>13.55</u>
37	10.0	9.9	9.95 ⁰²	9.66	<u>13.61</u>
38	+	+			

Friday June 16, 1916.

Copied 1327:191

Scale

Series 5-2.

B 45586		#3	Differ. Images.		Alt. corr. - .27
g		h	lu	magn	
sc. 1	sc. 2	sc. 1	sc. 2		
1	t.h.	t.h.			
2	t.h.	t.h.			
3	t.h.	t.h.			
4	t.h.	t.h.			
5	t.h.	1.1	0.60	7.70	
6	t.h.	1.6	0.50	8.10	
7	t.h.	1.6	0.50	8.10	
8	t.h.	t.h.			
9	t.h.	t.h.			
10	t.h.	1.1	0.49	8.19	
11	t.h.	t.h.			
12	8.2 8.20 ⁰⁰	8.2	0.41	8.61	
13	t.h.	8.5	0.37	8.87	
14	8.8 8.75 ⁰⁴	8.1	0.32	9.02	
15	8.9 9.00 ¹¹	9.1	0.25	9.38	
16	t.h.	9.1	0.27	9.37	
17	9.3 9.25 ¹⁰	9.2	0.25	9.45	
18	9.8 9.70 ¹⁴	9.6	0.18	9.78	
19	9.9 9.85 ¹⁰	9.8	0.16	9.96	
20	t	t			
21					
22					
23					
24					
25					
26					

Friday June 16, 1916.

Copied 1334:90

Scale m.

B Series 52.

B 45587		198 K.		21 00-59.9		alt. corr. -0.4	
sc.1 sc.2		Cu Magn		Diff. Im. Cu Magn		P.C. Cu Magn	
				sc.2 sc.2		sc.2	
1	B.			th. 6.8	0.65	7.45	8.1 -1.30 7.40
2	^{4.9} 4.1	5.1 5.00 ¹	3.90	8.90	^{8.40} 8.3 8.5	0.37	8.77 10.2? -1.30 <u>8.90</u>
3	^{6.2} 6.0	6.2 6.20 ⁰⁰	3.74	9.94	^{9.55} 9.1 9.4	0.20	9.75 m.s.
4	^{6.3} 6.1	6.4 6.35 ¹⁰	3.72	10.07	^{9.90} 9.9 9.9	0.15	<u>10.05</u>
5	^{6.4} 6.2	6.2 6.30 ¹¹	3.73	10.03	^{9.95} 10.0 9.9	0.13	<u>10.08</u>
6		1.5	3.58	11.08	m.s. m.s.		
7		1.1	3.56	11.26			
8		1.1	3.56	11.26			
9		1.1	3.56	11.26			
10		8.1	3.54	11.64			
11		^{8.55} 8.6 8.5	3.55	12.10			
12		^{8.70} 8.1 8.1	3.56	12.26			
13		^{8.75} 8.8 8.1	3.56	12.31			
14		^{9.10} 9.1 9.1	3.57	12.67			
15		^{9.35} 9.9 9.8	3.65	<u>13.50</u>			
16		7 7					

Friday June 16, 1916.

Copied B34:29

Salem.

B Series 52

B 45588		137 K.	21 11-14.8.	Alt. corr +.12
Air Magn		Differ. In. Air Magn	P.C.	Air Magn
pc.1	pc.2			
1 ^{4.5} 4.3	4.7 4.60 ¹	3.96	8.56	8.20 0.40 8.60
2 ^{5.6} 5.4	5.6 5.60 ⁰⁰	3.82	9.42	9.4 9.3 0.24 9.59 m.s.
3 ^{6.3} 6.1	6.3 6.30 ⁰⁰	3.73	10.03	100 f. 0.13 <u>10.13</u>
4	7.2	3.60	10.80	m.s. m.s.
5	7.4	3.58	10.98	
6	8.1	3.54	11.64	
7	8.3	3.54	11.84	
8	8.4	3.55	11.95	
9	8.8	3.56	12.36	
10	9.8 ^{9.85 0.1} 9.9 ^{1.0}	3.65	<u>13.50</u>	
11	9.9 ^{9.85} 9.8	3.65	<u>13.50</u>	
12	7. 7.			
13				
14				
15				

116

Friday June 16, 1916.

Copied 1334:53

Scale m.

B Series 52

B 45589		161 K	21	29-298	Alt. corr +.10	
sc.1	sc.2	ln	Magn	Diff. ln. h	ln	Magn
1	B.			6.1?	0.80	6.90
2	5.3	3.87	9.17	8.1? 8.70 ⁰⁰	0.34	9.04
3	5.6	3.80	9.60	8.9 8.9 ⁰⁰	0.30	9.20
4	6.3	3.73	10.03	9.8 9.8 ⁰⁰	0.20	<u>10.00</u>
5	7.0	3.57	11.12	n.s.	n.s.	
6	6.8	3.63	10.63			
7	7.45 ⁰¹	3.58	11.03			
8	7.8	3.56	11.36			
9	8.2	3.55	11.75			
10	8.4	3.53	11.95			
11	8.6	3.56	12.36			
12	9.1	3.58	12.73			
13	9.6	3.64	<u>13.34</u>			
14	+	+				
15	n.s?					

On B 45561 on which seq was selected,
star 5 is fainter than 6.

Friday June 16, 1916.

Scale m.

B Series 52.

B 45590		C 11	21 + 15 ⁰⁰	P.C.
sc.1	sc.2		Diff. Imm. g h sc.2 sc.2	sc.2
1 B.			B. 6.2 0.61	8.4 -1.59
2 ^{3.1} 29		3.98	t.p. 6.2 0.88	8.5 -1.42
3 ^{3.6} 33		4.17	t.p. 1.1 0.57	8.9 -1.23
4 ^{3.5} 33 B.		4.41	1.5 ^{7.45} 1.4 0.46	9.2 -1.29
5 ^{4.3} 4.1 4.30 4.3		4.00	t.p. 1.9 0.40	9.8 -1.50
6 ^{4.5} 4.3 4.60 4.1		3.86	t.p. 1.7 0.76	9.7 -1.24
7 ^{5.0} 4.8 5.00 5.1		3.78	t.p. 8.2 0.63	±
8 ^{5.0} 4.8 5.10 5.2		3.93	t.p. 8.6 0.43	m.s.
10 ^{5.1} 5.5 5.60 5.5		4.25	9.8 ^{9.80} 9.8 -0.35	
12 ^{6.3} 6.1 6.30 6.3		3.55	10.0 ^{9.95} 9.9 -0.10	
14 ^{6.1} 5.9 6.22 6.4 6.3		3.75	10.0 ^{10.00} 10.0 -0.03	
15 ^{6.7} 6.5 6.75 6.8		4.35	m.s. m.s.	
16	7.2	3.50		
17	7.6	3.42		
20	7.8	3.59		
23	8.5	3.36		
24	8.9	3.50		
25	8.9	3.67		
26	9.5	3.40		
27	^{9.55} 9.5 9.6	3.59		
28	^{9.60} 9.8 9.8	3.59		
29	^{9.90} 9.9 9.9	3.67		
30	± ±			

Wednesday July 5, 1916.

Scale β Scale measures of α plate for South Pole -
 10:05 *A 25-27. South Pole.

		No. Pris. Companions.						
		scA	scB	scC	scC.	mean	Diff. from Poullet sheet (and Kratting and Pr)	
\pm	μ							
q	48?							
r	6.3							
s	6.6							
s'	59?							
t	59?	6.5	7.3			7.3	4.08	
u	6.6	6.9	7.7			7.7	3.92	
w	6.6	6.8	7.6			7.6	4.38	
x	7.1	7.8	8.6			8.6	3.80	
y	Reflex	8.7	9.5	9.7			9.60	3.02
z		8.8	9.6	9.7			9.65	3.20
z		t.p.		9.6?			9.6?	3.39?
β		t.p.		10.1			10.1	3.08
γ		9.9	10.7	10.5			10.60	2.60
δ		7.	10.8	10.8			10.8	2.57
δ'			10.4	10.4			10.4	3.05
ϵ			10.9	10.8			10.85	2.81
ζ			11.3	11.2			11.25	2.65
η			11.7	11.8			11.75	2.31
θ			12.4	12.5			12.45	1.90
ι								
λ			12.5	12.7			12.60	1.88
μ			13.7	13.6			13.65	1.34
ν			15.4	15.1			15.25	0.34
ξ			13.4	13.4			13.40	1.70

* This scale does not compare well, except for faintest stars, but it compares better than any other scale.
 \pm Only faint stars measured, bright stars elongated.

Wednesday July 5, 1916.

Scale β . Scale measures South Polar sequences.
 a 2527. South Pole cont.

	sc C.	sc C.	mean	Diff.	Curve	Magn.
π	13.2	13.3	13.25 01	1.82	1.66	14.91
ρ	13.9	13.9	13.90 00	1.40	1.39	15.29
σ	14.2	14.2	14.20 00	1.28	1.22	15.42
τ	14.5	14.5	14.50 00	0.98	1.03	15.53
ν	15.3	15.5	15.40 11	0.26	0.33	15.73
ϕ	14.9	14.6	14.75 12	1.04	0.86	15.61
χ	14.8	14.9	14.85 01	1.11	0.80	15.65
ψ	7	7				
ω	7	7				
	14.9	7				

only faint?
 (trace of star
 seen)

Friday, July 7, 1916.

9:50.

A plate for South Pole, using Argelander's method.
A 11073. South Pole. $q \frac{4}{3} p$ $\gamma \ 2 \ 8'$ $p \ 3 \ r$ $8' \ 1 \ 8$ ~~$r \ 1 \ t$~~ $r \ 2 \ r'$ $8 \ 1 \ e$ $r' \ 1 \ t$ $e \ 2 \ 3$ $t \ 1 \ s$ $3 \ 2 \ \eta$ $s \ 2 \ u$ $\eta \ 2 \ \theta$ $u \ \frac{3}{4} \ w$ $\theta \ 1 \ \lambda$ $w \ 3 \ x$ $\lambda \ 3 \ \xi$ $x \ 3 \ y$ $\xi \ 1 \ \mu$ $y \ 1 \ z$ $\mu \ 1 \ \pi$ $z \ 2 \ \alpha$ $\pi \ 2 \ \rho$ $\alpha \ 1 \ \beta$ $\rho \ 2 \ \sigma$ $\beta \ 2 \ \gamma$ $\sigma \ 0 \ \tau$

Friday July 7, 1916.

a plate. South Polar Sequence using Argelander's method
A 11073 cont South Pole.

τ 2 γ

γ 1 ν

ν 0 ϕ ? ft.

see also next page

Friday July 7, 1916.

South Polar Sequence. Faint stars compared with P.C.'s
 A 11073. of bright stars.
 when greek letters are used = star images
 " a, b, c etc " = phys. companions.

P.C. ϵ 2 α
 α 1 f p.c.

κ h 2 η
 η 1 κ

p.c. f 1 β
 β 3 g p.c.

k 2 θ
 θ 2 l

p.c. f 1 γ
 γ 2 g p.c.

k 3 λ
 λ 2 l

p.c. f' 3 δ'
 δ' = g p.c.
~~p.c. f~~ δ' 4 h p.c.

l 1 Ξ
 Ξ = m ?
 Ξ 2 η

p.c. g 2 δ
 δ 2 h

l 2 μ
 μ 1 m.

g 1 ϵ
 ϵ 1 h

m 1 π
 π 3 n

h 1 3
 3 3 k

m 1 p
 p 1 n

n 1 σ ?

sign σ 1 σ

The distance between the ^{ft} stars and P.C.'s of bright stars is about 45 mm.
 The stars are about 45 mm making comparison difficult.

Friday July 7, 1916.

South Polar Sequence.

A 11073 (cont.)

Faint stars compared with
P.C.'s of bright stars. $m \ 2 \ \tau$ $\tau \ 1 \ 0$ $0 \ 2 \ \chi$ $\chi \ 1 \ \mu$ $0 \ 1 \ \nu$ $\nu \ 1 \ \mu$ $0 \ 2 \ \phi$ $\mu = \phi$ $\phi \ 1 \ \eta$

Saturday July 8, 1916.

9:12

South Polar Sequence. measured using Angelanders method -

A 11302

$q \ 2 \ p$

$\delta' \ 1 \ \delta$

$p \ 4 \ r$

$\delta^{\pm} \ 1 \ \epsilon$

$r \ 2 \ t$

$\epsilon \ 2 \ \zeta$

$t \ 2 \ r'$

$\zeta \ 2 \ \eta$

$r' \ 2 \ s$

$\eta \ 1 \ \theta$

$s \ 1 \ u$

$\theta \ 1 \ \lambda$

$u \ 4 \ w$

$\lambda \ 3 \ \Xi$

$w \ 3 \ x$

$\Xi \ 1 \ \mu$

$x \ 3 \ y$

$\mu \ 1 \ \pi$

$y \ 1 \ z$

$\pi \ 2 \ \rho \ \sigma$

$z \ 3 \ \alpha$

$\rho \ \sigma \ 1 \ \rho$

$\alpha \ 2 \ \beta$

$\rho \ 1 \ \tau$

$\beta \ 3 \ \gamma$

$\tau \ 2 \ \phi$

$\gamma \ 1 \ \delta'$

$\phi \ 1 \ \chi$

Saturday July 8, 1916.

South Polar Sequence.
A 11302.

ψ 1 ν

ν 2 ν

ν 1 ψ

ψ 1 ω

See also next page.

Saturday July 8, 1916.

South Polar Sequence.

A 11302.

46 stars compared with P.C. of bright stars.

Greek letters = star images.
a, b, c, etc = pris. companions.

P.C.
 $\left. \begin{array}{l} f \\ 2 \end{array} \right\} \begin{array}{l} 1 \ a \\ 3 \ g \end{array} \text{ p.c.}$

 $\left. \begin{array}{l} \beta \\ \beta \end{array} \right\} \begin{array}{l} 1 \ \alpha \\ 2 \ g \end{array}$
 $\left. \begin{array}{l} \beta \\ \beta \end{array} \right\} \begin{array}{l} 1 \ \alpha \\ 2 \ g \end{array}$
 $\left. \begin{array}{l} f \\ \gamma \end{array} \right\} \begin{array}{l} 2 \ \gamma \\ 2 \ g \end{array}$
 $\left. \begin{array}{l} f \\ \delta' \end{array} \right\} \begin{array}{l} 3 \ \gamma \delta' \\ 1 \ g \end{array}$
 $\left. \begin{array}{l} g \\ \delta \end{array} \right\} \begin{array}{l} 2 \ \delta \\ 1 \ h \end{array}$
 ϵ too faint.

 $\left. \begin{array}{l} g \\ \gamma \end{array} \right\} \begin{array}{l} 1 \ \gamma \\ 1 \ h \end{array}$

wrong in used. h 4 η
 P.C. h is defective.
 η 2 l

 $\left. \begin{array}{l} h \\ \theta \end{array} \right\} \begin{array}{l} 4 \ \theta \\ 2 \ h \end{array}$
 $\left. \begin{array}{l} h \\ \theta \end{array} \right\} \begin{array}{l} 4 \ \theta \\ 2 \ h \end{array}$
 $\left. \begin{array}{l} h \\ \lambda \end{array} \right\} \begin{array}{l} 4 \ \lambda \\ 1 \ h \end{array}$
 $\left. \begin{array}{l} h \\ \lambda \end{array} \right\} \begin{array}{l} 4 \ \lambda \\ 1 \ h \end{array}$
 $\left. \begin{array}{l} l \\ \epsilon \end{array} \right\} \begin{array}{l} 1 \ \epsilon \\ 1 \ m \end{array}$
 $\left. \begin{array}{l} l \\ \epsilon \end{array} \right\} \begin{array}{l} 1 \ \epsilon \\ 1 \ m \end{array}$
 $\left. \begin{array}{l} l \\ \mu \end{array} \right\} \begin{array}{l} 2 \ \mu \\ 1 \ m \end{array}$
 $\left. \begin{array}{l} l \\ \mu \end{array} \right\} \begin{array}{l} 2 \ \mu \\ 1 \ m \end{array}$
 $\left. \begin{array}{l} m \\ \pi \end{array} \right\} \begin{array}{l} 1 \ \pi \\ 2 \ n \end{array}$
 $\left. \begin{array}{l} m \\ \pi \end{array} \right\} \begin{array}{l} 1 \ \pi \\ 2 \ n \end{array}$
 $\left. \begin{array}{l} \alpha \\ \rho \end{array} \right\} \begin{array}{l} 2 \ \rho \\ 1 \ h \end{array}$
 $\left. \begin{array}{l} \alpha \\ \rho \end{array} \right\} \begin{array}{l} 2 \ \rho \\ 1 \ h \end{array}$
 $\left. \begin{array}{l} \sigma \\ \tau \end{array} \right\} \begin{array}{l} 3 \ \tau \\ 2 \ h \end{array}$
 $\left. \begin{array}{l} \sigma \\ \tau \end{array} \right\} \begin{array}{l} 3 \ \tau \\ 2 \ h \end{array}$
 $\left. \begin{array}{l} h \\ \tau \end{array} \right\} \begin{array}{l} 1 \ \tau \\ 1 \ g \end{array}$
 $\left. \begin{array}{l} h \\ \tau \end{array} \right\} \begin{array}{l} 1 \ \tau \\ 1 \ g \end{array}$
 $\left. \begin{array}{l} g \\ \phi \end{array} \right\} \begin{array}{l} 1 \ \phi \\ 2 \ n \end{array}$
 $\left. \begin{array}{l} g \\ \phi \end{array} \right\} \begin{array}{l} 1 \ \phi \\ 2 \ n \end{array}$

The p.c.'s of bright stars are sharper than the faint star images,
 comparison more difficult.

Saturday July 8, 1916.

South Polar Sequence.

A 11302. Lt. stars.

γ 2 γ
 γ 2 ν

γ 2 ν
 ν 1 ν

γ 3 ν
 γ 1 ν

ω ν

of not compared. Image very large as compared with
 fusinatic companions.

10, 25-

Monday July 10, 1916.

Scale m. Scale measures of South Polar Sequence.
11:11 B20426 South Pole.

	Scale of Oct. 1916			P.C.				Rel. Magn.
	sc.1	sc.2	Diff.	sc.1	sc.2	Diff.	Curve	
a				4.4	4.35		1.44	
b				4.2	4.3	1.43	6.58	5.79
c				5.6	5.6	1.06	6.35	6.70
d				5.6	5.6	1.22	1.13	6.78
e				5.4	5.1			
f				6.3		0.86	0.92	7.22
g				6.4		0.92	0.90	7.30
h				7.1		0.75	0.75	7.85?
i				7.2		0.58	0.74	7.94
j				7.3		0.80	0.73	8.03
k				7.8		0.58	0.69	8.49
l	2.6	2.8	6.12	8.3		0.62	0.67	8.97
l'	2.6	2.8	6.38	8.6		0.58	0.68	9.28
m	2.8	3.0	6.46	8.6		0.86	0.68	9.28
n	2.9	3.1	6.53	8.8		0.83	0.68	9.48
o	3.2	3.3	6.55	9.3		0.55	0.70	10.00
o'	3.1	3.3	6.64	9.3		0.64	0.70	10.00
p	3.4	3.6	6.59	nearly sup.				
q	4.1	4.3	6.33	n.s.				
r	3.8	4.0	4.14.05	6.70	9.9	0.85	0.75	<u>10.65</u>
s	4.2	4.4	4.54.45	6.61	n.s.			
t	4.6	4.8	4.84.80	6.57				
u	4.3	4.5	4.44.45	6.48				
v	4.7	4.9	5.04.95	6.43				
w	4.9	5.1	5.35.20	6.42				
x	5.4	5.6	5.65.60	6.38				
y	6.1	6.3	6.36.30	6.10				
z	6.4	6.6	6.66.60	6.02				
	6.5	6.7	6.66.65	6.20				

Images slightly elongated

monday July 10, 1916.

Scale m. Scale measures of South Polar Sequence.

B 20426

cont.

Abs. Magn.

	sc.2	sc.2	Diff.	Read. p.c. Cont.	Sum	Cont.
						5.14
α	7.1		5.89	0.75	7.85	12.99
β	7.6		5.73	0.70	8.30	13.44
γ	7.3		5.86	0.73	⁸ 8.03	13.17
δ	7.6		5.76	0.70	8.30	13.44
$\delta\epsilon$	7.6		5.66	0.70	8.30	13.44
ϵ	7.9		5.89	0.68	8.58	13.72
ζ	8.1		6.04	0.67	8.77	13.91
η	8.2		5.88	0.67	8.87	14.01
θ	8.5			0.67	9.17	14.31
λ	8.6			0.68	9.28	14.42
ϵ	9.5			0.72	¹⁰ 9.22	15.36
μ	9.1			0.69	9.79	14.93
π	9.1			0.69	9.79	14.93
ρ	9.5			0.72	10.22	15.36
σ	9.1			0.73	<u>10.43</u>	<u>15.57</u>
τ	9.7	9.7	9.70	0.73	<u>10.43</u>	<u>15.57</u>
ϕ	9.9	9.9	9.90	0.74	<u>10.64</u>	<u>15.78</u>
ψ	7 10.1	10.0	10.05	0.77	<u>10.82</u>	<u>15.96</u>
ν	10.0	10.1	10.05	0.77	<u>10.82</u>	<u>15.96</u>
ψ	7	10.0	10.0	0.76	<u>10.76</u>	<u>15.90</u>
χ	10.0?	10.0?		0.76	<u>10.76</u>	<u>15.90</u>
ω	n.s.					

Monday July 10, 1916.

Scale m.

12:08

Scale measures of South Polar Sequence.

Q 20781

Oct. 1916

Diff.

P.C.

Diff. Curve. Magn. Rel.

pc.1 pc.2

a			46.48	5.1	4.95	0.83	1.01	5.96
b			5.557	5.8	5.75	0.91	0.81	6.56
c			5.961	6.2	6.15	0.72	0.70	6.85
d			6.4 ⁶⁶	6.3	6.45	0.71	0.62	7.07
e	7.8		6.7 ⁶⁹	7.1	7.00	0.32	0.46	7.46
e'	B			7.4		0.45	0.86	7.76
f	B			7.3		0.48	0.38	7.68
g	B			7.8		0.30	0.29	8.09
h	B			8.3		0.08	0.24	8.54
k	2.3? 2.5?	6.42		8.6		0.32	0.25	8.85
l	2.2 2.4	6.78		8.9		0.28	0.28	9.18
l'	2.6 2.8	6.66		9.3		0.16	0.32	9.62
m	2.8 3.0	6.63		9.3		0.33	0.32	9.62
n	2.9 3.1	6.75		9.7		0.15	0.39	<u>10.09</u>
m'	3.2 3.4	6.54		t.f.		.	.	
o	3.3 3.5 B	6.69		9.7?	0.49 ²	0.39	<u>10.09?</u>	
p	4.4 4.6 4.7 4.65	5.98		m.s.				
q	4.1 4.3 4.5 4.40	6.35						
r	4.6 4.8 5.2 5.00	6.06						
s	^{5.1} 4.2 5.3 5.4 5.35	6.02						
s'	4.7 4.9 5.1 5.00	5.93						
t	4.6 4.8 5.1 4.95	6.43						
u	5.2 5.4 5.3 5.35	6.27						
w	5.7 5.9 6.1 6.00	5.98						
x	6.6 6.8 6.7 6.75	5.65						
y	6.9 7.1 7.1 7.10	5.52						
z	7.2	5.65						

Monday, July 10, 1916.

Scalem - Scale measures of South Polar Sequence.

B 20781

	sc. 2	Diff	p.c. Curv	Sum	Abs. Magn. Const.
					5.15
α	16	5.39	0.32	7.92	13.07
β	19	5.43	0.27	8.17	13.32
γ	8.1	5.06	0.25	8.35	13.50
δ	8.2	5.16	0.24	8.44	13.59
ϵ	8.1	5.16	0.25	8.35	13.50
ζ	8.4	5.39	0.23	8.63	13.78
η	8.6	5.54	0.24	8.84	13.99
θ	8.1	5.38	0.25	8.95	14.10
ι	9.1		0.30	9.40	14.55
κ	9.3		0.32	9.62	14.77
λ	9.1		0.39	10.04	15.24
μ	+f.				
π	9.9?		0.42	10.32?	15.47?
ρ	9.6		0.38	9.98	15.13
σ	def?				
τ	±?				
ϕ					
χ					
ψ					
ω	n.s.				

12:40

Thursday July 13, 1916.

South Polar Sequence. Argelander's method.

10-

α 11 β 11 *

μ 3 γ

γ 2 ν

ν 1 ϵ'

ϵ' 2 κ

κ 1 ν

ν 1 μ

μ 1 ω

ω 2 γ

γ 4 η

η 2 π

π 1 α

α 1 β

β 1 γ

γ 1 δ'

δ' 2 δ''

δ 1 ϵ

ϵ 3 ζ

ζ 3 η

η 1 θ

θ 2 λ

λ 3 μ

μ 1 π

π 1 α

α 2 ρ

ρ 1 σ

σ 1 τ

τ 2 ν (ν = very ft)

ν δ = faintest star seen.

* Images very poor.

Thursday July 13, 1916.

South Polar Sequence. Comp. of faint stars with P.C. of Bet stars

A 11377 cont.

Greek letters = stars images
a, b, c etc = pris. companions.f 2 α
2 1 g λ^+ 1 λ
 λ 3 mf 3 β
 β 1 g π^+
 ~~π 2 π~~
 π g 2 γ
g 2 h η^+ 1 π
 π 2 o~~h 1 δ' g 3 δ'~~
 ~~δ' 2 h δ' 1 h~~ $\delta \eta^+$ 1 μ
 μ 1 oh 1 δ
 δ 2 h η^+ 1 π
 π 1 oh 2 ϵ
 ϵ 2 h ρ 1 ρ
 ρ 1 gh 3
3 1 h ρ 2 σ
 σ 1 gh 2 η
 η 2 lg 2 τ
p.c. & m.s.?h 2 o
o 2 l

Comparisons are difficult to make, on acct of distance of bright stars used.

Thursday July 13, 1916.

1. Polar sequence. It stars compared with Diff. Images of bit stars
 a 11377.

Greek letters = ft star images.
 k, l etc = diff. lmn. bit stars

k 2 α
 α 1 l

q 2 λ
 λ 1 ν

k 2 β
 β 1 l

u 1 ε
 ε 3 w

l 2 γ
 γ 1 m

t 2 μ
 μ 1 u

m 1 δ'
 δ' 1 n

u 2 π
 π 2 w

n 2 δ
 δ 1 n'

w 1 ρ
 ρ 1 x

n 1 ε
 ε 1 n'

w 2 σ
 σ 1 x

η' 1 ζ
 ζ 2 o

w 2 x τ
 τ
 x 2 x

o 2 η
 η = f
 η 3 q

φ 1 = x?
 y m.s.

f 1 θ
 θ 1 q

4 film up, 1 plate no at left, southern diff. image used.

Thursday July 13, 1916.

South Polar Sequence. Argelanders method.

Q 11381.

q 1 p

f^{*} 2 δ'

p 2 r

δ' 2 δ.

p^r 2 r'

δ 2 ε

(large distance between s+t) s' 1 t (?)

ε 2 γ

t 1 r

ζ 2 η

r 2 u

η 1 θ

u 2 w

θ 2 λ

w 3 x

λ 3 π

x 3 ~~z~~ ^z

π 1 μ

z 1 y

μ 1 ε

y 3 α

ε 2 ρ

α 1 β

ρ 1 σ

β 2 γ

σ 1 τ

τ 3 ν ?

t a red star?

γ, ν = only trace seen.

Thursday July 13, 1916.

South Polar Sequence. It stars compared with Diff.

A 11381 cont.

Images of bit stars.

diff. of
k 1 zstar
z 2 l diffdiff.
k 2 y, star
y 1 l diffdiff.
l 3 x
d 2 m

Greek letters - ft stars

l, m etc: differ too.

l 3 x, β
 β 2 mm 2 y
y 2 η m'm 1 δ'
 δ' 2 m'm 3 δ
 δ 1 m'm 3 ϵ
 ϵ 1 m' π 1 ζ
 ζ o 3 ζ ζ 1 μ μ 1 η η 1 ρ ρ 2 θ θ 1 ν ν 2 λ λ λ 1 ν ν 3 Ξ Ξ 2 ω ω 3 μ μ 1 ω ω 3 π π 1 ω ω 1 ρ ρ 2 χ ω 2 χ σ χ σ 1 χ ω 2 σ ω 3 τ τ 2 χ

m is slightly brighter than m'.

Follow up no at left, left hand images used.

Thursday July 28⁷, 1916.

Comparison of faint stars with diff gratings & bit stars.

a 114 19 ± 3 . 20 - 15⁰ d = diff. in.

^{img}
16d 2 33
33 1 11d ^{img}

25d 3 42
42 3 ~~27d~~

17d 1 34
34 1 18d

35d 4 42³
42³ 3 27d

19d 2 35
35 1 20d

21d 2 44
44 1 26d

19d 3 36
36 1 20d

~~26d~~ 2 45
45

21d 2 37
237 1 22d?

³⁹
29d 1 45
45 2 31d

21d 3 38
38 1 22d

30d 3 45⁶
45⁶ 1 31d

24d 2 39
39 1 25d

31d 1 46⁷
47 2 32d? 32 floor.

24d 1 40
40 2 25d

25d 2 41
41 4 27d

Thursday July 27, 1916

Comparison of faint stars with diff. images of bright stars.
 A 11349. 73. (Plate very poor)

16d 3 32

24d 1 41

32 2 17d

41 1 25d

17d 2 33

25d 2 42

33 1 18d

42 1 27²⁷₂₆d

18d 1 34?

25d 3 43

34 1 19d

43 1 27d

35 not comparable.
 with diff. images.

Star 44 m.s.

19d 2 36

36 2 20d

20d 2 37

37 2 22d

22d 2 38

38 1 23d

23d 3 39

39 1 24d

24⁴d 1 40

40 1 25²⁵₂₄d

Comparison difficult. Star images large.

Friday July 28, 1916.

Estimates in grades, of faint stars of sequence E7.
 A 10965 E7- (64^m exposure only)

30 4 31

44 1 45

31 2 32

45 1 47 ? Star 46 too faint or exp?

32 2 33

47 3 48

33 2 34

34 2 35

35 4 36

36 3 37

37 3 38

38 2 ⁴⁰
~~3~~ ~~37~~

40 2 39

39 3 41

41 4 42

42 2' 43

43 3 44

Friday July 28, 1916.

Comparison of ft stars of sequence (64^m etc.) with 8^m etc.
A10965^{cont.} 87. of bright stars.

21 3 31

31 4 22

21 3 32

32 3 22

22 1 33

33 1 23

26 3 34

34 2 21

27 1 35

35 1 28

29 4 36

36 5 30

29 5 37

37 3 30

31 1 38

38 2 32

32 3 39

39 1 42 33

32 1 40

40 2 33

32 3 41

41 1 33

33 3 42

42 2 34

33 3 42³

42³ 1 34

~~36 1 44~~

~~44 3 37~~

35 3 44

44 1 36

35 3 44⁵

44⁵ 1 36

37 1 47

47 Uncertain of ident of 38 (8^m)

These comparisons reported
October 24, 1916.

12:40

Monday July 28, 1916.

Comparison of ft. stars of seq. (64^m exp.) with 1^m exp. of 64^m stars
a 10965.

Reject these measures. See notes at foot of page.

~~14~~ 1 35

20 2 38

38 1 21

21 1 39?

39 2 22

21 1 40

40 3 22

21 2 41 } ?

41 2 22 }

~~26~~ 2 42?

42 2 37 poor

4

These images do not compare well enough to continue
Images faint exp. on bright stars are small and dense.

These comparisons are difficult, because the images of ^{ft.} stars are larger and not
as dense as the 1^m star exp.

Wednesday August 1, 1916.

Sheet 133

Scale m.

B series 15 160.

12:54

B 46811

C6.

11 + 15°

C.C.

	sc.1	sc.2	sc.2	Diff
1	3.7 3.5			3.06
2	4.3 4.1	B.		.
3	4.1	4.1	4.20 11	3.31
4	4.0 3.8	4.0	4.00 00	3.56
5	4.6 4.4	4.9	4.75 21	3.02
6	5.0 4.8	5.1	5.05 01	3.16
9	5.3 5.1	5.5	5.40 11	3.19
10	5.6 5.4	5.6	5.60 00	3.30
10 a	5.6 5.6	5.8	5.80 00	3.26
13	6.7 6.5	6.6	6.65 10	3.04
14	7.1 6.9	7.0	7.05 10	3.01
14 a		7.8		.
16		7.6		2.92
17		7.7		3.08
19		8.1		2.83
21		8.4		2.80
22		8.6		2.94
33		8.6		3.23
34		9.2		2.96
25		9.3 9.25 10	9.2	3.08
26		9.50 11 9.6	9.4	3.18
27		9.65 01 9.6	9.7	3.47
28		9.70 00 9.7	9.7	3.58
30		10.00 00 10.0	10.0	3.87
29 a		7.		.

sc.2

8.3 - 1.54

8.4 - 1.54

9.1 - 1.59

9.0 - 1.44

9.1 - 1.33

9.5 - 1.29

9.9 - 1.31

f.

Wednesday August 1, 1916.

Scale m.

B Series 160.

	B 46811		06	Differ. Imm.
	$\frac{g}{h}$		$\frac{h}{h}$	
	sc.1 sc.2	sc.1 sc.2	sc.2	
1	t.p.	6.4		+0.36
Out of focus 2	t.p.	t.p.		.
3	7.1	t.p.		-0.19
4	7.6 7.60 00	7.6		-0.04
5	7.3 7.50 22	7.7		-0.27
6	8.2 8.15 01	8.1		-0.06
9	8.6 8.60 00	8.6		-0.01
10	8.8 8.80 00	8.8		-0.10
10 a	8.9 8.90 00	8.9		-0.16
13	9.8 9.85 01	9.9		-0.16
14	9.9 9.90 00	9.9		+0.16
16	m.s.	m.s.		.
17				

Wednesday August 1, 1916.

Copied B 34:109

Scale m.

B Series 160.

255 Corn - 10

B 46812

30 Ks.

we. unit.
O. Aug. 18, 1916

				Differ. Inn.		P.C.	
				g	h		
sc1	sc2	sc2	Cu.	Magn	sc2	sc2	sc2
1	^{4.3} 4.1	4.5	440 1 3.39	7.79	7.8	7.8	7.72 9.25 - 1.46 7.74
2	^{4.3} 4.1	4.1	450 2 3.37	7.87	^{8.15} 8.2	8.1	8.05 9.3 - 1.45 7.85
3	^{4.5} 4.3	5.5	540 1 3.26	8.66	^{8.60} 8.6	8.6	8.47 9.1 ^{nearby surf.} - 1.41 8.29
4	^{5.7} 5.5	5.9	570 00 3.23	8.93	^{8.80} 8.8	8.8	8.65 ⁺
5	^{6.3} 6.1	6.3	630 00 3.14	9.44	^{9.45} 9.5	9.4	9.29
6	^{7.1} 6.9	7.1	710 00 3.08	10.18	^{9.55} 9.6	9.5	9.45
7		7.6	3.04	10.64	f	f	.
8		8.4	3.03	11.43			
9		8.6	3.04	11.64			
10		8.8	3.05	11.85			
11	^{9.15} 9.1	9.2	3.11	12.26			
* 12	^{8.85} 8.9	8.8	3.07	11.92			
13	^{9.05} 9.1	9.0	3.09	12.14			
14	^{10.00} 10.0	10.0	3.71	<u>13.71</u>			
15	^{10.10} 10.0	10.2	.	.			

Remears Feb. 8, 1917.

sc2	
11	9.1
* { 12	9.5
13	9.6
14	9.9

* * Wrong stars measured (11 and 12) at previous sitting.
Crowded region, marking not good; measures made
today are of correct nos. 11 and 12. Reject prev. ones.

Wednesday August 1, 1916.

Copied B 27: 182

Scale m

Series 160.

Alt Corr - 30

B 46813

F2.

12 - 15°.

B.C.

	pc.1		Cu.	Magn	pc.1	sc.2	Magn
1	³⁶ 34		341	7.01	8.5	- 1.46	7.04
2	³⁹ 37		340	7.30	8.1	- 1.46	7.24
3	⁴¹ 39	4.3	420 L 1339	7.59	9.1	- 1.46	7.64
4	³⁹ 37	4.1	400 L 1341	7.41	9.1	- 1.46	7.64
5	⁴⁹ 47	5.1	500 L 1330	8.30	9.5	- 1.44	8.06
6	⁴⁸ 46	5.1 ⁷ poor	495 L 1331	8.26	9.1	- 1.42	<u>8.28</u>
7	⁴⁹ 47	4.9	490 00 3.32	8.22	9.5	- 1.43	8.07
8	⁴⁷ 45	4.7	470 00 3.34	8.04	9.6	- 1.42	8.18
9	⁵⁷ 55	5.6	565 10 3.22	8.87	10.0	- 1.38	<u>8.62</u>
10	⁵⁶ 54	5.6	560 00 3.23	8.83	10.0	- 1.38	<u>8.62</u>
11	⁵¹ 49	5.3	520 L 1329	8.49	4?		
12	⁵⁸ 56	5.8	580 00 3.20	9.00			
13	⁵⁷ 55	5.1	570 00 3.22	8.92			
14	⁶⁴ 62	6.2	630 11 3.15	9.45			
15	⁶⁷ 65	6.5	660 11 3.11	9.71			
16	⁶⁹ 67	6.8	685 10 3.09	9.94			
17	⁷¹ 69	7.1	710 00 3.08	10.18			
18		7.3	3.06	10.36			
19		8.0	3.03	11.03			
20		8.1	3.02	11.12			
21		8.6	3.04	11.64			
22		8.6	3.04	11.64			
23		8.5	3.03	11.53			
24		8.7	3.04	11.74			
25		8.8	3.05	11.85			
26		8.8	3.05	11.85			

Wednesday August 1, 1916.

Scale m

B series 160.

B 46813.

	89° 00'	89° 00'	Cur.	Magn
27	89	89	306	11.96
28	91 91° 00'	91	310	12.20
29	93 93° 00'	93	315	12.45
30	93 91° 12'	90	310	12.25
31	93 93° 00'	93	315	12.45
32	94 94° 00'	94	319	12.59
33	97 97° 00'	97	338	<u>13.08</u>
34	97 97° 00'	97	338	<u>13.08</u>
35	100 100° 00'	100	371	<u>13.71</u>
36	+	+	.	.

Wednesday August 1, 1916.

Copied B 27:182

Scale m

B Series 160.

B 468 13		± 2		Differ. Images.	
g		h			
sc. 1	sc. 2	sc. 1	sc. 2	Cor. Magn.	
1	6.8 6.6		t.p.	0.04	6.76
2	7.5 740 11	7.3	- 0.03	7.37	
3	7.7 765 10	7.6	- 0.06	7.59	
4	7.5 760 11	7.7	- 0.05	7.65	
5	8.1 815 10	8.2	- 0.10	8.05	
6	8.2 825 01	8.3	- 0.10	8.25	
7	7.9	t.p.	- 0.09	7.81	
8	8.1 810 00	8.1	- 0.11	7.99	
9	t.p.	8.5	- 0.12	8.48	
10	8.4 845 01	8.5	- 0.12	8.33	
Edge 11	t.p.	t.p.			
12	9.2 920 00	9.2	- 0.16	9.04	
13	9.3 935 10	9.4	- 0.16	9.19	
14	9.4 940 00	9.4	- 0.16	9.24	
15	9.9 985 10	9.8	- 0.12	9.73	
16	f.	f.			
17					
18					
19					
20					
21					

Wednesday August 1, 1916.

Copied B 34.86

Scale m.

B Series 160.

Alt Cor - 08

B 46814

194K.

12 58-60.3

Diff. In.

P.C.

sc.1	sc.2	sc.2	Cor.	Magn.	sc.1	sc.2	sc.2	sc.2
1 3.8	4.2	4.10	1.340	7.50	7.20	1.3	0.00	7.20
2 4.5	5.1	4.90	2.332	8.22	7.60	1.6	-0.05	7.55
3 6.3	6.4	6.45	10.313	9.58	9.4	9.6	-0.16	9.34
4 6.8	6.9	6.95	0.1309	10.04	10.00	10.0	-0.10	9.90
5	7.2		3.07	10.27	7.	0.7.		
6	7.5		3.04	10.54				
7	7.6		3.03	10.63				
8	8.1		3.02	11.12				
*9	8.1		3.02	11.12				
10	8.5		3.03	11.53				
11	8.6	8.1	3.04	11.69				
12	8.9	8.8	3.06	11.91				
13	9.3	9.4	3.17	12.52				
14	9.7	9.6	3.30	12.95				
15	10.1	10.1						

no 9. * var. rediscovered by O.

See H.S.L. Bk 13: 172 no 51.

Wednesday August 1, 1916.

Copied B 35:66

Scale m

B Series 160.

Alt Corr +.08

B 46815

Carte

13^h -16.5

Diff. Imm.

P.C.

	sc.1	sc.2	sc.2	Cu	Magn	sc.2	sc.2		sc.2	
1	^{4.7} 4.5	4.9	4801	3.33	8.13	^{785 01.} 7.8	7.9	-0.08	7.77	9.3 - 1.45 7.85
2	^{4.8} 4.6	4.9	4850	3.32	8.17	^{780 00} 7.8	7.8	-0.08	7.72	9.5 - 1.44 8.06
3	^{5.4} 5.2	5.6	5501	3.25	8.75	^{865 01} 8.6	8.1	-0.13	8.52	4. , ,
4	^{6.8} 6.6	6.5	6652	3.11	9.76	^{975 10} 9.7	9.8	-0.14	9.61	
5		7.5		3.04	10.54	+	+			
6		7.8		3.03	10.83					
7		8.1		3.02	11.12					
8		8.3		3.02	11.32					
9		9.0		3.09	12.09					
10		9.3		3.14	12.44					
11		9.5		3.22	12.72					
12		^{945 01} 9.4 9.5		3.20	12.65					
13		^{960 00} 9.6 9.6		3.29	12.89					
14		^{975 10} 9.7 9.8		3.40	13.15					
15		^{985 01} 9.8 9.9		3.50	13.35					
16		^{995 11} 10.0 9.9		3.65	13.60					

Wednesday August 1, 1916

Copied B 35; 114

Scale m

B Series 160.

Alt. Corr +06

B 46816

Carte

13 - 31.5°

g h

P.C.

sc.1	sc.2	sc.2	Cu.	Magn	sc.2	sc.2	sc.2	Cu.	Magn
#0					875	01			
1	3.8	4.1	405 01 3.40	7.45	1.8	7.7	- 0.06	7.69	9.21 - 1.46 7.74
2	4.6	5.1	495 21 3.31	8.26	1.8	8.4	- 0.10	7.70	9.85 - 1.43 8.07
3	4.7	4.9	490 00 3.32	8.22	8.5	8.3	- 0.12	8.28	9.7 - 1.42 8.28
4	5.2	5.5	545 01 3.26	8.71	8.8	8.1	- 0.15	8.60	9.7
5	6.2	6.6	650 11 3.12	9.62	9.4	9.5	- 0.16	9.29	
6	6.7	6.9	690 00 3.09	9.99	4?	10.0	- 0.10	9.90?	
7	7.7		3.04	10.74					
8	8.1		3.03	11.13					
9	8.2		3.02	11.22					
10	8.6		3.04	11.64					
11	8.8	8.8	3.06	11.86					
12	9.2	9.2	3.11	12.31					
13	9.3	9.4	3.18	12.53					
14	9.7	9.8	3.25	13.00					
15	9.9	9.9	3.59	13.49					

Wednesday August 1, 1916.

Scale m.

B Series 160.

7346817			C7.		13 + 15°				
sc.1 sc.2 sc.2			g h			P.C.			
1	③.		sc.2	sc.2		sc.2			
2	⁴¹ 39	3.61	th.	th.		8.2	-1.35		
3	⁴³ 4.1	4.4 3.7 4.35 L 0 3.76	th.	th.	0.11	9.1	-1.39		
4	⁴⁴ 4.2	4.7 4.55 L 1 3.65	⁸⁰⁰ 1	8.1	0.10	9.7	-1.59		
5	⁴⁹ 4.7	5.1 5.00 L 1 3.56	⁸¹⁰ 0.0	8.1	0.10	9.8	-1.60		
6	⁵³ 5.1	5.6 5.45 L 2 3.49	⁸⁵⁵ 0.0	8.5	0.01	+			
7	⁶⁰ 5.8	6.1 6.05 0.1 3.15	⁹⁰⁰ 0.0	9.1	9.1	-0.16			
8	⁶³ 6.1	6.5 6.40 L 1 3.20	⁹⁴⁰ 0.0	9.4	9.4	-0.20			
9	⁶⁷ 6.5	6.7 6.70 0.0 3.11	⁹⁸⁰ 0.0	9.8	9.8	-0.20			
11	7.2	2.91	+	10.0	-0.19				
12	7.3	3.06	n.s.	n.s.					
13	7.6	3.06							
15	7.9	3.09							
16	8.1	3.13							
17	⁸³⁰ 8.3	3.26							
19	⁹⁰⁰ 8.9	3.01							
20	⁸⁹⁰ 8.9	3.36							
21	⁹⁷⁵ 9.7	3.06							
22	⁹⁸⁵ 9.9	3.41							
23	^{10.00} 10.0	3.40							
24	n.s.								
25									
26									
27									

3:21

152

Wednesday
~~Thursday~~ August 1, 1916.

Sheet 133

Scale m

Series 155.

12: $\frac{10}{30}$

B 46958

C 8.

P.C.

sc.1 sc.2 sc.2

sc.2

44
 1 4.2 280

8.8 - 1.60

55
 3 5.3 5.5 550 00 2.59

9.5 - 1.41

Too far fr. centre

34
 4 5.7 5.6 5.65 10 3.14

9.1 - 1.38

57
 6 a 5.5 5.6 5.65 10 3.14

9.9 - 1.11

59
 8 6.2 6.15 10 2.82

10.2 - 1.23

64
 9 6.2 6.3 6.35 01 2.87

65
 11 6.6 6.7 6.75 01 2.76

70
 12 6.8 7.0 7.00 00 2.75

72
 14 7.2 2.77

74
 15 7.6 2.76

76
 16 7.8 2.92

78
 18 8.0 3.08

80
 21 8.3 3.12

82
 22 8.5 3.12

84
 25 9.1 3.16

86
 25 a 9.4 3.27

88
 26 9.39 4.01 9.5 3.33

90
 27 9.79 4.00 9.1 3.61

92
 27 a 9.89 4.00 9.9 3.83

94
 28 9.9 4.00 9.9 3.83

96
 29 m.s. m.s.

98
 30

100
 31

102
 33

Wednesday August 2, 1916.

Scale.
Series m.

B. Series 155

B 46758

C8 cont.

Diff. Imm.

	g		h		
	sc1	sc2	sc1	sc2	
1		t.f.		9.2	0.00
3		8.1	8.20	8.3	-0.11
4		t.f.		t.f.	.
8		8.9	9.00	9.1 ² ^{hor}	-0.03
9		9.1	9.20	9.3	+0.02
11		9.7	9.50	9.22 9.3	+0.01
12		10.0	9.95	11 9.9	-0.20
14		10.0	9.950	9.9	+0.02
15		.	.	+	.
6a		.	.	t.f.	.

Out of focus.

154

Wednesday August 2, 1916

Copied B 34:112

Scale m.

B Series 155

Alt. Corr. -.06

B 46759

34 Ks

14 45-59.1

Diff. Inv.

B.C.

	sc.1	sc.2	sc.3	Cu.	Magn	sc.1	sc.2	sc.3		sc.2
	5.6					3.1	R			
1	5.4	5.6	5.60 00	2.81	8.41	8.1	8.1	-0.03	8.67	9.9 - 11.9 8.71
2	6.4	6.5	6.45 01	2.87	9.32	9.5	9.4	-0.04	9.41	m.s.
3		7.2		2.92	10.12	7	7			
4		7.6		2.96	10.56	m.s	m.s			
5		7.9		3.00	10.90					
6		8.1		3.01	11.11					
7		8.3		3.04	11.34					
8		8.5		3.09	11.59					
9		8.7		3.12	11.82					
10		9.1		3.25	12.36					
11		9.1	9.10 00	3.26	12.36					
12		9.3	9.35 L 0	3.35	12.70					
13		9.7	9.75 L 0	3.66	13.41					
14		9.7	9.80 L 1	3.75	13.55					
15		10.2	10.15 01							

Wednesday August 2, 1916.

Copied B. 27. 198

Scale m.

B series 155.

Alt. Cor. - 92

B 46760

South Pole.

P.C.

sc.1 sc.2

pc.

a B.

1.8

w.s.

b ~~5.4~~ B.

8.4

c 3.3

8.5 - 1.60

6.90

d 4.2

4.3 4.25 0.1 2.80

7.05 9.1 - 1.47

7.63

e 4.6

4.6 4.60 0.0 2.80

7.40 9.1 - 1.47

7.63

e' 5.3

5.2 5.25 1.0 2.81

8.06 9.1 - 1.27

8.43

f 4.8

5.1 4.95 2.1 2.80

7.75 9.1⁴ - 1.36

8.04

g 5.3

5.5 5.40 1.1 2.81

8.21 9.5 - 1.34

8.16

h 5.8

5.6 5.70 1.1 2.82

8.52 10.0 - 1.15

8.85

i 6.3

6.1 6.5 6.40 1.1 2.86

9.26

j 7.0

6.8? 7.1 7.05 0.1 2.91

9.96

k 7.0

7.2 2.92

10.12

l 7.4

2.93

10.33

m 7.6

2.96

10.56

n 7.5

2.95

10.45

n' 7.7

2.97

10.67

206K: o 8.1

3.01

11.11

p 8.1

3.01

11.11

q 8.3

3.04

11.34

r 8.6

3.10

11.70

s 8.2

3.02

11.22

t 8.1

3.12

11.82

u 8.8

3.17

11.97

v 9.2

3.30

12.50

w 9.3

3.33

12.63

x 9.6

3.54

13.14

y

Wednesday August 2, 1916.

Scale m.

Series 155.

B. 4⁶ 760

South Pole cont.

	ACZ	PCZ		
Z	965 01	96 9.7	32 ⁵⁶ 4	1321
	1015 01			
α	10.2	10.1	,	,
	995 10			
β	99	10.0	395	<u>13.90</u>
δ	+	+	,	,
	10.15 01			
δ	102?	10.1	,	,
δ'	+	+	,	,
ϵ	m.s.		,	,
Similar than } ζ	+	,	,	,
10th min on } η	+	,	,	,

Wednesday August 2, 1916-

Copied B 27.198

Scale m.

B Series 155.

B 4760 46760

South Pole

Diff. Images.

	g		h		Cu.
	sc1	sc2	sc1	sc2	
a	6.3 6.1	6.85 1.0	6.4 6.2		-2.86
b		7.1	7.2		-0.01 -2.91 7.09
c		7.3 7.30 0.0	7.2		-0.01 -2.93 7.29
d		7.2	7.7		-0.03 7.67
e		7.6 7.60 0.0	7.6		-0.03 7.57
e'		8.5 8.45 1.0	8.4		-0.04 8.41
f		8.1 8.20 1.1	8.3		-0.04 8.16
g		8.2 8.40 2.2	8.6		-0.04 8.36
h		8.6 8.85 2.3	9.1		-0.04 8.81
h'		9.2 9.20 0.0	9.2		-0.04 9.16
i		sup?	9.3		-0.04 9.26
i'		9.9 9.80 1.1	9.7		-0.03 9.77
m		10.0 9.85 2.1	9.7		-0.03 9.82
m		10.0 10.00 0.0	10.0		-0.02 9.98
m'		4.	4.		.
o					
p					

Wednesday August 2, 1916.

Copied 44:59

Scale m.

B Series 155.

Alt. Corr. +07

B 46761

{ U Librae
Z Librae

15 34 - 50.9

Diff. Inn.

P.C.

Seq. for U Librae	sc.1	sc.2	sc.3	Cu.	Magn.	sc.2	sc.3	Diff. Inn.	P.C.	sc.2
a	5.4 ⁵⁶	5.6	5.60 00	2.81	8.41	9.1	8.9	- 0.03	8.97	10.0 - 1.15 8.85
b	5.9 ⁵⁹	6.1	6.00 11	2.84	8.84	9.1	9.1	- 0.04	9.06	10.1 - 1.11 8.99
b'	6.2 ⁶⁴	6.6	6.50 11	2.87	9.37	9.7	9.7	- 0.03	9.62	m.s. . .
c	7.1	7.2		2.92	10.12	def.	7			
d	6.9	7.1	7.0 00	2.91	10.01					
d'		7.1		2.91	10.01					
d ²		7.9		3.00	10.90					
g		8.4		3.07	11.47					
g'		8.4		3.07	11.47					
e		8.6		3.10	11.70					
l		8.8 ^{8.80 00}		3.12	11.92					
h		9.5 ^{9.45 10}	9.4	3.40	12.85					
h'		9.9 ^{9.95 10}	10.0	3.95	13.90					
m		10.0 ^{10.05 01}	10.1							
(U Librae) Var.		7.9		3.00	10.90					

 $a^0 = b'$ (see foll. page)

Wednesday August 2, 1916.

Copied 44:57

Scale m

B Series 155.

B 46761

cont.

15 34 - 20.9°.

Diff. Im.

P.C.

Diff.	Σ Librae	sc.1	sc.2	sc.3	Cu.	Magn	sc.1	sc.2	sc.3	P.C.	sc.2
		⁵⁰					⁹	^h			
c°	48	5.3	5.15	2.1	2.80	7.95	8.1	8.1	-0.04	8.06	9.3 - 1.40 7.90
a°	⁵⁷ 5.5	5.6	5.65	1.0	2.81	8.46	^{8.35} 8.3	^{1.0} 8.4	-0.04	8.31	9.8 - 1.22 8.58
a°'	⁶⁵ 6.3	6.2	6.35	1.2	2.86	9.21	^{9.55} 9.5	^{1.0} 9.6	-0.03	9.52	f.
b°		1.2			2.92	10.12	^{9.95} 10.0	^{0.1} 9.9	-0.02	9.93	
d°		1.1			2.91	10.01	f.	9.9	-0.02	9.88	
d°'		1.7			2.97	10.67					
e°		1.9			3.00	10.90					
f°		8.1			3.01	11.11					
g°		8.2			3.02	11.22					
h°		8.5			3.09	11.59					
k°		8.8	8.75	0.1							
k°'		^{4.9} w.s. 8.1			3.12	11.87					
k°'		^{8.95} 9.1	^{1.2} 8.8		3.20	12.15					
l°		^{9.55} 9.6	^{0.1} 9.5		3.50	13.05					
m°		^{9.45} 9.5	^{1.0} 9.4		3.40	12.85					
m°		^{10.00} 10.0	^{0.0} 10.0								
Σ Librae?	Var	8.1	?		3.12	11.82					

 $b' = a^{\circ}'$ (see prev. page)

Wednesday August 2, 1916.

Scale m

B series 155.

B 46763			C8	15 + 15.	Diff. Inv.	Qc.
sc.1	sc.2	sc.2		g	h	sc.2
44						
1 4.2			280	720	14 - 0.20	8.8 - 1.60
3 4.8			309		19 + 0.19	9.5 - 1.41
4 5.1	5.1	5.70 00	309	84	84 840 00 0.39	9.2 - 1.48
8 5.1	5.1	5.80 11	317	89	89 890 00 0.07	9.8 - 1.01
9 5.8	6.2	6.10 11	312	93	93 930 00 - 0.08	10.0 - 1.03
11 6.4	6.6	6.60 00	291	95	95 960 11 - 0.09	m.s.
12 6.6	6.7	6.75 01	300	98	98 985 01 - 0.10	
14 6.9	7.1	7.10 00	287	100	100 1005 01 - 0.08	
15	7.6		276	f	f	
16	7.6		292			
17	7.8		288			
21	8.4		302			
22	8.6		322			
25	9.1	9.1	316			
26	9.3	9.4	338			
27	9.6	9.8	361			
28	f	f				
29						
30						
31						

Wednesday August 2, 1916.

Copied ⁵ 44:64

Scale m

B Series 155-

Net Corr +.07

B 46764

Z Scorpis

16 02-214

Differ. Inn.

P.C.

Z Scorpis

sc1 sc2 sc3 Cu

Magn g h

sc2

	a	3.9	B	2.80	6.70	7.60 00	-0.02	7.58	9.1	-1.40	7.70
a° =	b	4.1	5.1	5.00 L 1	2.80	7.80	8.6 8.6	-0.04	8.56	9.97	8.43
	c	5.6	5.8	5.80 00	2.82	8.62	9.1 9.1	-0.04	9.06	±?	.
	d	6.3	6.5	6.50 00	2.87	9.37	9.7 9.7	-0.03	9.67		
	e	6.5	6.6	6.55 L 0	2.88	9.43	9.8 9.8	-0.03	9.77		
	f	6.7	7.1	7.00 L 1	2.90	9.90	10.0 10.1	-0.02	10.08		
	f'		7.3		2.92	10.22	± ±				
	f''		7.9		3.00	10.90					
	h		8.1		3.02	11.12					
	g		8.3		3.04	11.34					
	k		8.6		3.10	11.70					
	l		8.6		3.10	11.70					
	l'	8.85	8.8		3.13	11.98					
	m	9.40	9.5		3.39	12.79					
	n	9.80	9.8		3.72	13.52					
	p	9.85	9.9		3.80	13.65					
	o	±	±		.	.					

Varu Z Scorpis

See also next page.

Stars common to this seq. and seq. for X Scorpis (next page)

Z Scorpis X Scorpis

b = a

d = b

k = f.

Wednesday August 2, 1916.

Copied ⁵ 44.65

Scale m

B Series 155.

B 46764

Z Scorpii 16 02-21.4.

	sc.1	sc.2	sc.2	Cu.	Magn.	Diff. Im.	sc.2	sc.2	sc.2
						$\frac{g}{h}$			
						$\frac{8.70}{8.70}$			
$b = a^0$	4.9	5.1	5.00	2.80	780	8.9	8.9	-0.04	8.66
a^1	5.5	5.1	5.70	2.82	8.52	sup.	9.1	-0.04	9.06
$d = b^0$	6.6	6.5	6.55	2.88	9.43	nearly	9.6	-0.04	9.56
c^0						sup.			
e^0						$\frac{10.05}{10.0}$			
d^0						10.1	10.1	-0.02	10.03
d^1						10.67			
d^2						11.34			
d^3						11.70			
$K = f^0$						11.83			
g^0						11.70			
h^0						12.85			
i^0									
j^0									
k^0									
l^0									
m^0									
n^0									
Var									

See also prev. page

Wednesday August 2, 1916.

Copied B 35.142

Scale m

B 46765

B Series 155.

Alt. Corr +0.5

barte 16 - 40.5

Diff. In.

P.C.

	no.1	no.2	Cu.	g	h		no.2		
1	⁴⁰ 3.8	B.	280	6.80	¹⁶ 16	-0.02	7.58	8.8	-1.50 7.30
2	⁵³ 5.1	5.3 530 00	280	8.10	⁸⁴⁵ 8.4	-0.04	8.41	9.1	⁹⁸⁵ 9.8 0.1 -1.27 8.43
3	⁵⁷ 5.5	5.7 570 00	282	8.52	⁸⁷⁰ 8.7	-0.04	8.66	9.8	9.9 -1.21 8.64
4	⁶⁵ 6.3	6.5 650 00	287	9.37	⁹³⁵ 9.3	-0.04	9.31	ms.	.
5	⁷⁰ 6.8	6.9 695 01	290	9.85	⁹⁷⁰ 9.7	-0.03	9.67		
6		1.5	295	10.45	²⁴⁰ 10.0	-0.02	9.98		
7		1.6	296	10.56	ms. ²				
8		8.1	302	11.12					
9		8.4	307	11.47					
10		8.6	310	11.70					
11		⁸⁶⁰ 8.7	310	11.70					
12		⁹⁰⁰ 9.1	323	12.23					
13		⁹³⁰ 9.3	334	12.64					
14		⁹⁸⁰ 9.8	372	13.52					
15		⁹⁹⁵ 9.9	395	13.90					
16									
17									
18									
19									
20									

21 ³22

Tuesday August 15, 1916.

Measures using Angeland's method -

A 11441

E4

9 20-45°

22 1 28⁴

1

36 3 37

24 1 23

37 2 38

23 4 25

39 m.s.

25 3 26

26 2 27

27 2 28

28 1 29

29 3 30

30 2 31

31 1 32

32 1 33

33 3 34

34 2 35⁵

35 0 36

Tuesday August 15, 1916.

Measures using Argelander's method.

exptd.

A 11441. 24. Comparison of ft stars with Diff. of bit stars

diff.	star		+3.42					
25	1 38	12.36	15.78	15	3 30	10.18	10.20 02 01	13.62
39	n.s.			30	2 17	10.21	(16 dbl. not used)	

24	1 31	11.97		14	2 29	9.94		
31	1 25	12.16	12.06 09 10 15.48	29	2 15	9.68	9.82 13 13	13.23

21	3 36	11.42		14	1 28	9.84		
22	= 36	11.41 11.42	14.84	28	2 15	9.68	9.76 08 08	13.18
36	1 23	11.42						

21	3 35	11.42	
35	1 22?	11.31	11.36 06 05 14.78

The bright stars brighter than 14
are not near the centre, \therefore comparison
is difficult.

21	2 34	11.32	
35	1 22	11.31	11.32 00 01 14.74

19	1 33	10.66	
33	2 20	10.80	10.73 07 07 14.15

19	2 32	10.76	
32	2 20	10.80	10.78 02 02 14.20

19	1 31	10.66	
31	3 20	10.70	10.68 02 02 14.10

2:05

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Wednesday August 16, 1916.

Scale m.

Series 135

1105

B 46540

C6.

Diff.

P.C.

	RC.1			RC.2, RC.2
1	B.	.		8.0 - 1.24
2	B	.		8.1 - 1.22
3	^{4.3} 4.1	3.21		8.8 - 1.29
4	^{4.3} 4.1	3.26		8.1 - 1.14
5	^{4.6} 4.6	.		8.9 - 1.13
6	^{4.8} 4.6	4.8 480 00 3.41		9.4 - 1.19
9	^{5.1} 4.9	5.2 515 10 3.44		10.0 - 1.41
10	^{5.6} 5.4	5.6 560 00 3.30		
12	^{5.8} 5.6	5.9 585 01 3.49		
13	^{6.5} 6.3	6.5 650 00 3.19		
14	^{7.0} 6.8	6.9 695 01 3.11		
16	7.4	3.12		
17	7.6	3.18		
19	7.7	3.23		
21	7.9	3.36		
22	^{8.05 2.2} 7.9 8.21	3.49		
23	^{8.45 2.0} 8.5 8.4	3.38		
24	^{8.75 1.0} 8.7 8.8	3.41		
25	^{9.00 1.1} 9.1 8.9	3.33		
26	^{9.20 0.0?} 9.2 9.2?	3.48		
29	^{9.35 0.1} 9.4 9.3	3.77		
28	^{9.85 2.1} 10.0 9.7	3.43		
30	±	±	.	
10a	^{5.8} 5.6	5.7 575 01 3.31		
14a	7.6	.		
29a	9.8	3.77		

Wednesday August 16, 1916.

Scale m

Series 135.

	B 46540	C6.	Diff. Im.
	9		
	sc.1 sc.2	sc.1 sc.2	
1	.	tip.	.
2	.	tip.	.
3	tip.	72?	0.31
4	74 740 00	74	0.16
5	tip.	tip.	.
6	7.8 7.75 01	7.7	0.46
9	8.3 8.30 00	8.3	0.29
10	8.5 8.60 11	8.7	0.30
12	9.1 9.15 10	9.21	0.19
13	9.8 9.80 00	9.8	- 0.11
14	10.1 10.10 00	10.1	- 0.04
16	m.s.	m.s.	.
17			
19			
21			
10a	tip.	8.6	0.46
14a	m.s.	m.s.	.

Faint stars not comparable with scale. They are very sharp.

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Wednesday August 16, 1916.

Copied B 34: 19

Scale m.

B series 135.

alt con 108

B 46541

127 K.

11 14-154

Diff. Inn.

P.C.

	sc.1	sc.2	sc.2	Cu.	Magn	g	h		sc.2
	6.0			47	9.85	885	10		m.s.
1	5.8	5.8	5.90	11 3.35	9.85	89	8.8	0.27	9.12
	6.6			42	52	890	00		
2	5.9	6.1	6.10	00 3.34	9.85	89	8.9	0.26	9.16
	6.9			24	34	89	8.9		
3	6.1	1.3	7.10	22 3.30	10.40	89	8.9		
				28	88				
4		1.6		3.33	10.93				
				2	2				
5		1.9		3.37	11.04				
		8.25	0.1						
6		8.2	8.3	3.38	11.63				
		8.65	0.1						
7		8.6	8.1	3.43	12.08				
		8.90	0.0						
8		8.9	8.9	3.47	12.37				
		9.75	0.0						
9		9.1	9.8	3.61	13.36				
		10.00	0.0						
10		10.0	10.0	3.65	13.65				
11									
12									
13									
14									
15									

Wednesday, August 16, 1916.

Copied B 34: 85

Scale m.

B Series 135.

Alt. Cor - 08

B 46542

193 K

11 28-60.2

Diff. Inv.

P.C.

sc.1	sc.2	Cu	Magn	g	h		sc.2
1 ^{4.1} 3.9		3.60	7.70	h. 18	0.42	8.22	nearly sup.
2 ^{4.8} 4.6	4.8 480 00	3.60	8.40	8.5	sup. 0.33	8.83	9.8 - 1.34 <u>8.46</u>
3 ^{5.4} 5.2	5.6 5.50 L 1	^{5.3} 3.39	9.03	^{9.00} 9.1	^{1.1} 8.9	0.24	9.24 m.s.
4 ^{6.6} 6.4	6.5 6.55 0.1	3.30	9.85	^{9.45} 9.4	^{0.1} 9.5	0.13	9.58
5 ^{6.8} 6.6	6.8 6.80 00	^{2.4} 3.30	10.04	9.1	sup. 0.09	<u>9.79</u>	
6	7.5	^{2.5} 3.32	10.75	m.s.	m.s.		
7	7.5	^{2.5} 3.32	10.75				
8	8.0	3.35	11.35				
9	8.4						
9	7.7 w.s.	3.39	11.79				
10	8.4	3.39	11.79				
11	^{8.75} 8.8 ^{0.1} 8.7	3.45	12.20				
12	9.15 ^{1.0} 9.1	3.50	12.65				
13	^{9.35} 9.3 ^{1.0} 9.4	3.53	12.88				
14	^{9.70} 9.8 ^{1.1} 9.6	3.60	<u>13.30</u>				
15	10.00 00						
15	10.0 10.0	3.66	<u>13.66</u>				

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Wednesday, August 16, 1916.

Copied B 27:182 -

Scale m.

B Series 135.

alt. Corr. - 30

B 46543

72

12 - 75

P.C.

sc.1 sc.2

sc.2

1	B.	.	.	83	- 1.17	7.13
2	B.	.	.	86	- 1.21	7.39
3	.	.	.	90	- 1.25	7.75
4	^{3.7} 3.85	3.57	7.27	8.9	- 1.24	7.66
5	.	.	.	9.4	- 1.29	8.11
6	.	.	.	9.4	- 1.29	8.11
7	^{4.3} 4.1	4.3	4.30 00 360	7.90	9.3 - 1.28	8.02
8	^{4.4} 4.2	4.4	4.40 00 360	8.00	9.4 - 1.29	8.11
9	t.h.	t.h.	.	100	- 1.37	<u>8.63</u>
10	^{4.9} 4.1	5.0	4.95 10 359	8.54	9.9 - 1.35	<u>8.55</u>
11	^{5.3} t.h.	.	.	9.9	- 1.35	<u>8.55</u>
12	^{5.4} 5.1	5.4	5.35 10 355	8.90	t.	.
13	^{5.7} 5.2	5.6	5.50 11 353	9.03	ms.	.
14	^{6.5} 5.7	5.7	5.80 11 349	9.29		
15	^{6.7} 6.3	6.4	6.45 10 331	9.76		
16	^{6.8} 6.5	6.6	6.65 10 327	9.92		
17	^{6.8} 6.5	6.5	6.60 11 329	9.89		
18	^{6.8} 6.6	6.9	6.85 01 330	10.15		
19		7.1	330	11.00		
20		7.9	330	11.20		
21		8.2	338	11.58		
22		8.4	339	11.79		
23		8.2	330	11.50		
24		8.4	339	11.79		
25		8.7	344	12.14		
26	^{8.5} 4.9	3.41	11.91			

Wednesday August 16, 1916.

Scale m.

B series 135.

B 46543

f₂.

	sc. 1	sc. 2	Cu.	
27	8.6		3.42	12.02
28	8.9		3.47	12.37
29	9.0		3.48	12.48
30	^{8.85} 8.9	^{1.0} 8.8	3.47	12.32
31	^{9.20} 9.2	^{0.0} 9.2	3.51	12.71
32	^{9.45} 9.5	^{1.0} 9.4	3.55	13.00
33	^{9.65} 9.7	^{1.0} 9.6	3.58	13.23
34	^{9.70} 9.7	^{0.0} 9.7 w.s.	3.60	<u>13.30</u>
35	f	f	,	,
36	f		,	,
37	m.s.		,	,

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Wednesday August 16, 1916

Copied B 27, 182

Scale m.

B Series 135

	B 46543		72	Diff. Imm.	
	g		h		
	sc.1	sc.2	sc.1	sc.2	Cu.
1	+	+	+	+	.
2	1.3	.	+	.	0.43 7.73
3	1.5	7.45 1.0	1.4	.	0.35 0.43 7.88
4	+	.	1.6	.	0.32 0.43 8.03
5	+	.	+	.	.
6	8.2	8.05 2.1	1.9	.	0.23 0.40 8.45
7	1.8	.	+	.	0.28 0.42 8.22
8	+	.	1.8	.	0.28 0.42 8.22
9	+	.	8.1	.	0.40 8.50
10	8.3	8.35 1.0	8.4	.	0.36 8.71
11	+	.	+	.	.
12	9.1	9.15 1.0	9.2	.	0.21 9.36
13	9.4	9.35 0.1	9.3	.	0.17 9.52
14	9.4	9.40 0.0	9.4	.	0.14 9.54
15	10.0	9.85 2.1	9.7	.	0.04 9.89
16	f.	.	10.0	.	-0.02 9.98
17	.	.	f.	.	.
18	.	.	f.	.	.
19	.	.	.	.	.
20	.	.	.	.	.
21	.	.	.	.	.
22	.	.	.	.	.

Bright stars at distance from center. Diff. Images from.

Wednesday August 16, 1916.

Copied B 35:91

Scale m.

B 46544

Carte

B Series 135

12^h - 23.5

Alt Con +07

sc1 sc2			Diff. Im.		J.C.	
			g	h	sc2	sc2
			7.10	00		
1	33	Q.	1.1	1.1	0.44	7.54 8.6 - 1.21 7.39
2	5.8	5.4	8.85	0.1		
	5.6	5.60 22 3.52	9.12	8.8	0.27	9.12 m.s
3	6.2	5.9	9.35	1.0		
	6.0	6.05 21 3.43	9.48	9.3	0.18	9.53
4	6.8	6.9	9.90	0.0		
	6.6	6.85 0 1.324	10.09	9.9	0.03	9.93
5	6.9	7.1	10.05	0.1		
	6.8	7.00 1 1.324	10.24	10.0	-0.03	10.02
6	6.9	7.1	10.24	10.1		
	6.7	7.00 1 1.324	10.24	10.1		
7	7.9	3.31	11.21			
8	8.1	3.34	11.44			
9	8.2	3.37	11.57			
10	8.5	3.41	11.91			
11	8.8	3.46	12.26			
12	9.1	3.50	12.60			
13	8.9	3.47	12.37			
14	9.5	3.56	13.06			
15	9.35 1.0	3.53	12.88			
	9.3	9.4				
16	9.75 0.1	3.57	13.32			
	9.8	9.7				
17	9.65 1.0	3.59	13.24			
	9.7	9.6				
18	9.90 1.8	3.64	13.54			
	10.0					
19	10.00 0.0	3.66	13.66			
	10.0	10.0				
20	10.0					

13 - appears slightly brighter than 14.

174

Wednesday August 16, 1916.

Scale m.

Series 135

B 46545

C 7.

Diff.

Diff.

	sc.1	sc.2		g	h		sc.2
1	B.			sc.2	sc.2		8.1 - 1.25
2	B.			tip.	tip.		8.9 - 1.19
3	B.			tip.	16?	0.51	9.5 - 1.39
4	42 40		4.00	765 10 11	16	0.55	9.4 - 1.20
5	46 44	4.1	4.65 0.1391	8.25 1.2 8.1	8.4	0.31	def?
6	51 49	5.1	5.10 0.0384	8.50 1.1 8.4	8.6	0.44	m.s.
7	54 52	5.6	5.50 1.1370	tip.	8.8	0.40	m.s.
8	59 57	5.9	5.90 0.0370	9.35 1.2 9.5	9.2	0.25	7.4
9	63 61	6.4	6.35 1.0346	9.75 0.1 9.8	9.1	0.06	
10	68 66	6.8	6.80 0.0331	f	f		
12		7.1	3.26	m.s.	m.s.		
13		7.3	3.36				
15		7.7	3.29				
16		7.7	3.53				
17		8.2	3.36				
19		8.60 0.0 8.6	3.41				
20		8.80 0.0 8.8	3.46				
21		9.40 1.1 9.3	3.41				
22		9.65 1.0 9.7	3.61				
23		9.90 0.0 9.9	3.50				
24		f					
25		f.					
26		m.s.					
27		f.					

Since 143 Rejected for Discrepancy

3:25

Friday August 18, 1916.

Scale m.

9:04

B 46⁵ 26

Carte }
149K

B series 143.

Alt Con + 03

log for 149K

	sc.1	sc.2
1	4.8 4.6	4.7 4.75 0.1
2	5.7 5.1	5.8 5.85 1.0
3	6.1 5.9	6.3 6.20 1.1
4		7.2
5		7.7
6		7.6
7		7.8
8		8.2
9		8.0
10		8.4
11		8.5
12		8.85 0.1 8.8 8.9
13		9.30 0.0 9.3 9.3
14		9.80 1.1 9.9 9.7
15		10.00 0.0 10.0 10.0

9 02 - 31.0.

Diff. Im.

g h
sc.2 sc.2

tp. 7.7
8.6 8.1 8.65 0.1

9.2 9.1 9.15 0.1

9.7 9.5 9.60 1.1

f 9.9

f def?

m.s. m.s.

pc.

sc.2

9.4

10.0?

m.s.

Series 143 Rejected for Discordance

Both b plates are fogged.

176

Friday August 18, 1916.

Scale m

B Series 143.

Alt Cor + 07

B 46626 cont.			Carte		9 - 31.5.	
					Diff. dm.	CC.
					g h	cc.2
1	4.2	4.4	ws.		7.5 7.5 7.50 00	9.0
2	4.8	5.1	5.05 01		8.1 t.p.	9.3
3	5.3	5.5	5.50 00		8.1 t.p.	9.9
4	6.1	6.3	6.30 00		9.1 t.p.	n.s.
5	6.8	7.2	7.10 11		9.4 t.p.	
6	7.6				10.1 10.0 10.05 10	
7	7.8				n.s. n.s.	
8	8.0					
9	8.2					
10	8.4					
11	8.6					
12	8.8	8.8	8.80 00			
13	8.9	9.0	8.95 10			
14	9.3	9.4	9.35 10			
15	9.7	10.0	9.70 11			

Friday August 18, 1916.

shut no 74.

Relation MagnAct. Corr + 0.3

Scale m

B Series 143

B46627		E4		P.C.				
sc.1	sc.2	Diff	Cu	magn	sc.2	Diff	Cu	magn
1 B.					1.1	-0.68	-0.74	6.96
2 3.8		3.71	4.03	7.83	8.4	-0.89	-0.71	7.69
3 4.1		3.80	3.94	8.04	8.6	-0.70	-0.70	7.90
4 3.8								
4 3.6?		4.18	4.03	7.83	8.1	-0.72	-0.69	8.01
5 4.0								
5 3.9		4.04	3.97	7.97	8.1	-0.66	-0.69	8.01
6 4.2								
6 4.0		3.92	3.91	8.11	9.0	-0.88	-0.67	8.33
7 4.3								
7 4.1		3.80	3.88	8.18	8.8	-0.70	-0.69	8.11
8 4.9 5.0	5.08 2.11							
8 4.7 4.8	5.2 5.2	3.78	3.70	8.78	9.3	-0.44	-0.63	8.67
9 5.8								
9 5.6	5.1 5.75 0.1	3.47	3.57	9.32	9.4			
10 5.8								
10 5.6	5.1 5.75 0.1	3.52	3.57	9.32	9.7	-0.63	-0.52	9.38
11 5.9								
11 5.1	5.9 5.90 0.0	3.50	3.54	9.44				
12 6.0								
12 5.8	6.0 6.00 0.0	3.74	3.53	9.53				
13 6.0								
13 5.8	5.9 5.95 0.1	3.82	3.54	9.49				
14 6.3								
14 6.1	6.3 6.30 0.0	3.44	3.50	9.80				
15 6.2								
15 6.0	6.5 6.35 2.1	3.53	3.50	9.85				
16 6.5								
16 6.3	6.6 6.55 1.0	3.65	3.48	10.03				
17 6.9								
17 6.1	7.0 6.95 1.0	3.46	3.48	10.43				
18	7.3	3.49	3.49	10.79				
19	7.3	3.26	3.49	10.79				
20	7.5	3.50	3.50	11.00				
21	7.5	3.62	3.50	11.00				
22	7.9	3.51	3.55	11.45				
23	8.2	3.32	3.64	11.84				
24	8.3	3.57	3.66	11.96				
25	8.5	3.76	3.72	12.22				
26	8.7	3.74	3.78	12.48				

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Friday August 18, 1916.

Scale m.

B Series 143.

B 46624 cont E4.

	sc2	sc2	Diff	cu	Magn
29	8.5		3.92	3.72	12.22
28	8.9		3.95	3.85	12.75
29	9.1		3.69	3.92	13.02
30	9.4		4.11	4.01	13.41
	9.50	00			
31	9.5	9.5	3.95	4.06	13.56
	9.70	00			
32	9.7	9.7	4.10		<u>13.80</u>
	9.80	00			
33	9.8	9.8			
	10.00	00			
34	10.0?	10.0?			

race only rem? 35 f.

Friday August 18, 1916.

Scalem

B Series 143.

B 46627 cond. 84.

Differ. Im.

		g		h		Diff		lu		Magn	
sc. 1	sc. 2	sc. 1	sc. 2	sc. 1	sc. 2	sc. 1	sc. 2	sc. 1	sc. 2	sc. 1	sc. 2
1	6.21			tp.		0.62	0.56			6.96	
2		tp.				1.0	0.51	0.60		7.60	
3	7.21	7.30	1.1			1.4	0.60	0.63		7.93	
4	7.5	7.35	1.2			1.2	0.63	0.64		7.99	
5	7.8	7.30	0.0			1.3	0.74	0.63		7.93	
6	7.6	7.50	1.1			1.4	0.62	0.65		8.15	
7	7.3	7.35	1.0			1.4	0.65	0.64		7.99	
8	8.1	8.10	0.0			8.1	0.76	0.74		8.84	
9	8.5	8.55	1.0			8.6	0.67	0.78		9.33	
10	8.6	8.60	0.0			8.6	0.67	0.79		9.39	
11	8.6	8.65	0.1			8.7	0.75	0.80		9.45	
12	8.8			tp.		0.94	0.83			9.63	
13	8.8			tp.		0.97	0.83			9.63	
14		tp.				8.8	0.94	0.83		9.63	
15		tp.				tp.					
16	9.5	9.40	1.1			9.3	0.80	0.95		10.35	
17	9.5	9.40	1.1			9.3	1.01	0.95		10.35	
18	9.8	9.75	0.1			9.8	1.04	1.02		10.77	
19	9.8	9.70	1.1			9.6	0.86	1.00		10.70	
20	10.0	9.90	1.1			9.8	1.10	1.06		10.96	
21		ms.				ms.					
22											
23											
24											

Friday August 18, 1916.

Scale m.

B Series 143

* B 46678

C 5

 $q + 15^\circ$

	sc.1	sc.2	Diff.
1	B.		
2	4.3		372
4	4.1	3.	390
5	5.4	5.5	5.45 01 3.49
6	5.3	5.4	5.45 10 3.71
8	5.8	6.1	6.05 01 3.50
9	6.3	6.3	6.40 11 3.32
10	6.6	6.5	6.65 21 3.36
12	6.8	7.1	7.05 01 3.16
13	7.3		3.16
15	7.9		3.26
16	7.9		3.46
18	8.3		3.52
19	8.6		3.45
20	8.5		3.72
21	8.95	8.8	3.74
22	9.00	8.9	4.01
23	9.20	9.1	3.99
24	9.40	9.4	4.08
25	4.	10.0?	4.09
27		h.s.	
28			

14a 7.6 3.35
 4a 4.8 3.37

12a 5.2

7.1
 fogged

Diff. Im.

9.55 0.1
 6.6 6.5 0.61

t.p. 7.7 0.32

7.9 t.p. 0.30

8.30 8.4 0.64

8.6 t.p. 0.56

9.1 t.p. 0.45

t.p. t.p. ,

9.3 t.p. 0.71

9.4 t.p. 0.81

9.55 0.1
 9.6 t.p. 9.5 0.91

9. t.p. ,

P.C.

sc.2

8.2 - 1.04

8.8 - 0.78

9.1 - 0.90

9.6 - 0.66

9.7 - 0.54

9.7 - 0.15

10.0? - 0.28

Series 143 repeated
 for Discrepancy.

t.p. t.p. ,

9.5 ,

9.6

* all images from Diff. Im. + P.C.'s are
 new much elongated.

Friday August 18, 1916.

Scale m.

B series 143.

B 466 29

 $\frac{81}{2}$ Carinae } 10 12-59
 " "

Seq for S.Y.

	sc.1	sc.2
	58	575 0.4
a	5.6	51.
b	4.6	6.1?
c	6.7	675 1.0
	6.5	6.8
d		1.1?
e		755 0.1
	1.6	1.5
f		770 0.0
	1.7	1.1

Var. 62?

g. h

all

elongated

PC

sc 7

 $\frac{1}{2}$ ident uncertain
 crowded region
 98?
All images much elongated.

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Friday August 18, 1916.

Scale m.

Series 143.

Alt. Cor. - 95

B 46629

Z Carinae.

	sc.1	sc.2
a'		
a	38	
a	36	
a ²	40	
a ²	38	B.
b	53	
b	51	5.4 5.35 1.0
b ³	56	
b ³	54	5.6 5.60 0.0
b ²	64	
b ²	63	6.5 6.45 0.1
b'	65	
b'	63	6.6 6.55 1.0
d	68	
d	66	1.1 6.95 2.1
e	68	
e	66	1.0 6.90 1.1
a'		
a'		1.1
f°		8.0
f°		8.30 1.1
g°		8.4 8.21
g°		8.80 0.9
h°		8.8 8.8
h°		9.10 0.0
k°		9.1 9.1
k°		9.65 1.0
l°		9.1 9.6
l°		9.80 0.0
m°		9.8 9.8

Diff. Im.
g h
sc.1 sc.2

P.C.

sc.2

1.2 t.p.

8.4

7.45 1.0

8.8

1.5 1.4

7.55 0.1

8.1

1.6 1.5

8.40 0.0

9.4

8.4 8.4

8.65 0.1

8.6 8.1

Region
avoided.

8.9 t.p.

t.p. t.p.

9.2 t.p.

9.45 0.1

9.4 9.5

slight uncertainty in η°
according to marking

Friday August 18, 1916.

Scale m.

B46630

Series 143.

Alt Cor - 05

n. Carinae

10 41-59.4

29 KS

Differ. Inv.

P.C.

	sc.1	sc.2	sc.2
29 KS	4.9		
1	4.1	5.1	5.00 L1
2	5.3	5.5	5.40 L1
3	6.3	6.2	6.25 L0
4	6.1	6.1	6.10 00
5	6.7	6.6	6.65 L0
6		1.3	
7		1.6	
8		8.0	
9		8.3	
10		8.5	
11		8.6	
12		8.6	
13		8.6	
14		8.8	
15		8.8	
16		9.30 00	
		9.3	9.3
17		9.45 10	
		9.5	9.4
18		9.60 00	
		9.6	9.6
19		9.70 00	
		9.7	9.7
20		m.s.	m.s.

g h

sc.2 sc.2

sc.2

sup. 8.1

9.3?

8.3 sup.

9.65?

8.1 sup.

sup.

t.p. t.p.

9.7?

9.30 00

9.3 9.3

9.5 sup.

t.p. t.p.

t.p. t.p.

Friday August 18, 1916.

J. Calm.

B Series 143

B 46630

 η Carinae 10 41-59.4

	sc.1	sc.2		g	sc.2	sc.2
	3.7			sc.2	h	P.C.
a	3.5			sup	7.2	8.4
dbl a'	4.6			too close		8.6?
	4.4			7.65 0.1		9.3
a ²	3.1			1.6	7.7	9.0
a ³	B.			8.00 1.1		9.2
a ⁴	4.6			1.9	8.1	
a ⁵	4.4			8.10 0.0		sup?
b	4.6			8.1	8.1	9.4?
dbl. b'	4.6	5.0 4.90 1.1		8.10 0.0		sup.
c	4.8			partly		8.6?
d	4.6	5.0 4.90 1.1		sup. sup.		8.7
e	5.1			too close		9.3
f	4.9	5.1 5.10 0.0		8.05 2.1		9.3
g	5.2	5.2 5.20 0.0		8.25 0.1		9.3
h	5.4	5.1 5.55 2.1		8.2 8.3		9.1
i	5.2			8.35 0.1		
j	5.8	1.2		8.4 8.3		
k	5.6	5.8 5.80 0.0		sup? 8.6		
l	5.9			ms?		
m	5.1	B.		8.60 0.0		
n	5.6	5.9 5.85 0.1		8.6		
-59 2784	B.			1.2	close	
-59 2772	4.9			bit close		
-59 2735	5.6			sup.		
				6.30 0.0		1.7
				7.90 0.0		9.1
				1.9		
				8.50 1.1		
				8.6	8.4	

Ident. of P.C. very difficult - thick region and
diffraction image.

-59 2693	4.5		1.8	7.7	8.9
-60 2367	5.8		8.6	4.6	
-60 2320	5.6		sup?	8.6	9.8
-60 2219	5.4		6.5	4.6	8.1
	B.				

Friday August 18, 1916.

Scale m.

B Series 143.

Att. Corr. +08

B 46631

Carte }
151 K

11 1-31.0.

Differ. In.

P.C.

Seq for 151 K sc.1 sc.2

g h

sc.2

1 ^{5.0}4.8 4.9 4.95 0.1

t.h. 1.9

9.1

2 ^{5.1}4.9 5.6 5.35 3.2^{8.15 1.0}8.1 8.2

9.5

3 ^{6.1}5.9 6.2 6.15 1.0

t.h. 8.8

100?

4 ^{6.7}6.5 6.4 ^{6.70 0.0}ws.^{9.30 0.0}9.3 9.3

n.s.

5 ^{6.7}6.5 6.9 6.80 1.1

t.h. 9.4

n.s.

6 7.5

t.h. 9.8

7 7.8

n.s. n.s.

8 7.9

9 8.1

10 8.2

11 8.4

12 8.4

13 8.5

14 ^{9.15 1.0}9.1 9.2^{9.45 0.1 9.5}9.4 8.2 ws15 ^{9.70 1.1}9.6 9.816 ^{9.80 1.1}9.7 9.9

17 9.7 9.9

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Friday August 18, 1916.

Scale m.

B Series 143.

Alt Corr +08

B 46631 cont Carte 11 00 ~ 31.3

Differ. m.

P.C.

	sc.1	sc.2
1	4.2 4.0 ^v 4.8	4.3 4.25 0.1
2	4.6 5.9	4.1 4.75 0.1
3	5.1 6.3	5.8 5.85 1.0
4	6.1 6.6	6.2 6.25 1.0
5	6.4	6.6 6.60 0.0
6		1.2
7		1.6
8		1.6
9		1.9
10		8.1
11		8.21
12		8.35 1.0 8.3 8.4
13		8.70 0.0 8.1 8.1
14		9.00 1.1 8.9 9.1
15		9.25 1.0 9.3 9.2
16		9.70 0.0 9.1 9.1

g	h
1.7	t.p.
1.6	t.p.
8.50 0.0	
8.5	8.5
8.5	t.p.
9.10 0.0	
9.1	9.1
9.50 0.0	
9.5	9.5
9.95 0.1	
10.0	9.9
t.p.	t.p. (stanko)

sc.2
8.95 0.1
9.08 1
9.00 1.1
8.9 9.2
10.0?

Friday August 18, 1916-

Scale m.

B Series 143.

B 466 32 Cb.

	sc.1	sc.2	Diff	Diff. lon.	cc.
	5.0			g h	sc.2
1	4.8		1.76	1.5? t.p. - 0.74	8.7 - 2.14
not accurate 2				Out of focus	9.1 - 2.22
3	5.3	5.4	5.35 1.0 2.16	t.p. 8.2 - 0.69	def.
4	5.8	5.6	5.70 1.1 1.86	8.40 0.0 8.4 8.4 - 0.84	9.4 - 1.84
5	5.9	5.9	5.90 0.0 1.87	t.p. t.p.	def?
6	6.4	6.4	6.40 0.0 1.81	8.65 0.1 8.6 8.7 - 0.44	
9	6.8	6.7	6.75 0.1 1.84	8.90 0.0 8.9 8.9 - 0.31	
10	6.5	6.6	6.55 1.0 2.35	t.p. t.p.	
12		7.3	2.04	9.45 1.0 9.5 9.4 - 0.11	
13		7.8	1.89	9.9? 1 - 0.21	
14		7.9	2.16	n.s. n.s.	
16		8.4	2.12		
17		8.4	2.38		
19		8.5	2.43		
21		8.6	2.66		
22	8.80 0.0	8.8	2.74		
23	8.85 0.1	8.9	2.98		
24	9.25 1.0	9.2	2.91		
25	9.70 0.0	9.7	2.63		
26	def?				
27	9.90 0.0	9.9	3.22		
28	n.s. n.s.				
30	7.0	6.95 0.1			
10a	6.8	6.9	2.11	9.4 t.p. - 0.34	
14a	8.5				

Badly fogged and scratched

1—

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Saturday August 18, 1916.

Scale m

B series 143.

10=10

B 46628

C5.

P.C.

sc.1 sc.2

Diff

sc.2

1 0

8.1 - 0.94

2 4.3

3.72

9.0 - 0.98

4 4.5

3.70

9.2 - 1.00

5 5.3

B.

9.1 - 0.76

6 5.5

5.3

5.40

1.1

3.54

9.1 - 0.54

8 5.7

5.6

5.65

1.0

3.51

9.8 - 0.25

9 5.9

6.1

6.00

1.1

3.55

10.0 - 0.28

10 6.2

6.2

6.20

0.0

3.52

m.s.

12 6.6

6.6

6.60

0.0

3.41

13 7.0

6.9

6.95

0.1

3.26

15 7.3

7.3

3.16

16 7.8

7.8

3.36

18 8.1

8.1

3.26

19 8.3

8.3

3.52

20 8.6

8.6

3.45

21 8.5

8.5

3.72

22 9.0

9.0

3.69

23 9.1

9.1

3.91

24 9.4

9.4

3.89

25 9.5

9.5

4.03

26 10.05

10.05

10.1

4.04

27 m.s.

28

29

4a 4.9

4.9

3.47

12a 7.0

7.0

3.35

14a 7.6

7.6

9.3 from

Saturday, August ¹⁹ 18, 1916.

Scale m.

B Series 143.

	B 46628	C 5	Differ. mm.
	g	h	
	sc.1 sc.2	sc.1 sc.2	
	^{6.6} 6.4	^{6.6} 6.4	
1	6.60 00	6.4	0.56
2	7.6 00	7.6	0.42
4	7.9	7.9	0.30
5	8.4 8.50 L 1	8.6	0.44
6	8.5 8.55 L 0	8.6	0.61
8	9.1 8.95 L 2	8.8	0.60
9	9.21	9.21	0.52
10	9.21	9.21	
12	9.4 9.50 L 1	9.6	0.71
13	9.7 9.65 L 0	9.6	0.81
15	W.S.	W.S.	
16			
18			
4a	9.21	8.1	0.27

Saturday August ¹⁹~~18~~, 1916.

Scale m.

B series 143

Alt. Corr. + 29

B 46634		Caste	121 - 23.5	
sc.1 sc.2			Diff. Inv.	P.C.
			g h	sc.2
1	B. B.		t.h. 7.21	8.5
2	⁵⁶ 54 5.6 560 0 0		⁸⁶⁰ 86 86	9.9
3	⁶³ 6.1 6.1 6.20 1 1		t.h. 9.1	±
4	⁶⁷ 6.5 6.1 6.70 0 0		⁹⁶⁰ 9.6 9.6	
5	⁶⁸ 6.6 6.9 6.85 0 1		10.0 t.h.	
6	⁷⁰ 6.8 1.0 7.00 0 0		± ±	
7	8.0			
8	8.1			
9	8.1			
10	8.4			
11	8.1			
12	⁸⁹ 8.9			
13	8.9			
14	9.4			
15	9.4			
16	⁹⁶⁰ 9.5 9.1			
17	⁹⁵⁵ 9.4 9.1			
18	⁹⁹⁰ 9.9 9.9			
19	¹⁰¹⁰ 10.0 10.2			
20				

Saturday August 18¹⁹, 1916.

Scale m.

B Series 143.

Alt. Corr. - .10

B 46634 ⁵		Carte	12 - 64.5	Diff. Im.	PK
sc.1	sc.2				
1 B.	B.			6.7 6.85 1.0	sc.2
48				6.7 6.6	8.4
2 4.6	4.8 4.80 00			sc.2 sc.2	9.1
5.2				7.7 7.65 7.6	
3 5.0	5.4 5.30 1.1			t.p. sup.	9.6
5.8				8.3 8.2	9.7
4 5.6	5.7 5.75 0.1			8.5 8.1	10.1
5.9				8.4 8.6	f.
5 5.1	5.8 5.85 1.0			t.p. t.p.	
6.3				9.1? sup.	
6 6.1	6.4 6.35 1.0			f. f.	
7	7.3				
8	7.8				
9	7.8				
10	8.1				
11	8.2				
12	8.5				
	8.65 1.0				
13	8.7 8.6				
	8.90 0.0				
14	8.9 8.9				
	9.40 0.0				
*15a	9.4 9.4				
	9.80 0.0				
16	9.8 9.8				
	10.00 0.0				
17	10.0 10.0				

* This star 15 (now 15a) is n.s. on any other plate. Im. does not appear defective, but as it does not appear, a new 15 was selected and orig. 15 changed to 15a.

Saturday August 18, 1916.

Sheet no 48
Sheet no 68

Relative Magn

B Series 143-

~~All Cor - 28~~

B 46636

72.

12 - 75°

Diff Cu Magn

sc.1 sc.2

~~Superseded~~
Diff from Series Cu Magn

P.C.

sc.1 sc.2

~~Sup.~~

Diff from Series

Diff

~~Superseded~~

Cu Magn

Cu Magn

Cu Magn

1 B.

8.4 -1.66 -1.73 -1.61

6.79 -1.61 6.79

2 B

8.1 -1.62 -1.51 -1.47

7.23 -1.44 7.26

3 .

8.1 -1.68 -1.30 -1.47

7.23 -1.44 7.26

43

3.10 3.14

7.44 4.1

3.03 3.05 7.35

8.8 -1.47 -1.40 -1.45

7.35 -1.40 7.40

5 .

9.1 -1.26 -1.33 -1.34

7.75 -1.32 7.78

3.07 3.00

7.90 4.9

3.03 2.99 7.89

9.1 -1.17 -1.13 -1.34

7.75 -1.32 7.78

7 t.p.

sup?

8 t.p.

9.1 -1.33 -1.30 -1.35

7.75 -1.32 7.78

2.70 2.93

8.33 5.2

5.4 5.40 0.0

2.95 8.35

9.3 -1.20 -1.34

7.96 -1.28 8.02

2.91 2.90

8.40 5.2

5.6 5.50 1.1

2.85 2.94 8.44

9.1 -1.35 -1.29 -1.37

8.33 -1.23 8.47

11 .

t.p.

9.9 -1.65 -1.53 -1.40

8.50 -1.22 8.68

2.99 2.84

8.69 5.9

5.8 5.85 1.0

2.92 2.92 8.77

10.0 -1.23 -1.16 -1.42

8.58 -1.21 8.79

3.11 2.84

8.69 5.9

5.8 5.85 1.0

3.08 2.92 8.77

f.

2.55 2.79

9.44 6.4

6.7 6.65 0.1

2.88 2.90 9.55

2.59 2.80

9.65 6.5

6.0 6.85 1.2

2.69 2.91 9.76

2.90 2.80

9.60 6.6

6.8 6.80 0.0

3.00 2.90 9.70

2.83 2.80

9.75 6.9

6.8 6.95 1.2

2.89 2.91 9.86

2.85 2.83

9.93 7.1

7.1 2.98 2.94

10.04

2.94 2.85

10.75 7.9

7.9 2.92 3.07

10.97

2.94 2.85

10.75 7.9

7.9 3.12 3.07

10.97

3.10 3.02

11.22 8.2

8.2 3.17 3.14

11.34

2.94 3.06

11.46 8.4

8.4 3.20 3.18

11.58

3.14 3.00

11.10 8.1

8.1 3.12 3.12

11.22

3.07 3.04

11.34 8.3

8.3 3.34 3.16

11.46

3.10 3.10

11.60 8.5

8.5 3.22 3.20

11.70

3.23 3.04

11.24 8.3

8.3 3.36 3.16

11.46

Saturday August ¹⁹~~18~~, 1916.

Scale m.

B Series 143.

B 466 36

72

cont.

sc 2	Diff ^{Superadded} Cu Magn			Diff Cu Magn		
	Series					
27 8.6	3.22	3.22	11.82	3.06	3.13	11.73
28 8.1	3.22	3.25	11.95	3.22	3.17	11.87
29 8.8	3.28	3.28	12.08	3.19	3.18	11.98
30 8.8	3.32	3.28	12.08	3.16	3.18	11.98
31 9.1	3.14	3.36	12.46	3.10	3.27	12.37
32 9.2	3.30	3.38	12.58	3.33	3.32	12.52
33 9.3	3.50	3.43	12.73	3.49	3.35	12.65
34 9.25 0.1	3.63	3.40	12.65	3.70	3.33	12.58
35 9.6 0.0	3.27	3.52	13.12	3.27	3.46	13.06
36 9.70 0.9	3.50	3.56	13.26	3.50	3.50	13.20
37 9.95 1.2	3.73	3.65	13.60	3.73	3.57	13.52
38 n.s. n.s.						
39						

19
Saturday August 18, 1916.

Scale m.

B Series 143

	B 46636.		f 2	Differ. m.		
	g		h			
	sc.1	sc.2	sc.1	sc.2	Diff	Cor Magn
1		1.1	.	.	-0.33	-0.26 6.84
2		1.4	tip.	tip.	-0.19	-0.16 7.24
3		1.6? <i>hor.</i>	tip.	tip.	-0.20	-0.10 7.50
4		tip.	1.4	1.4	± 0.00	-0.16 7.24
5		.	.	.		
6		.	.	.		
7		1.6	.	.	0.06	-0.10 7.50
8		tip.	1.7	1.7	0.10	-0.06 7.64
9		tip.	8.1	8.1	0.00	0.04 ¹⁴ 8.06
10		tip.	.	.		,
11		tip.	.	.		,
12		8.1 8.65 1.0	8.6	8.6	0.19	0.13 ⁷⁸ 8.52
13		8.9 8.85 1.0	8.8	8.8	0.11	0.16 9.01
14		tip.	9.1	9.1	0.00	0.19 9.29
15		9.4 9.30 1.1	9.2	9.2	0.14	0.20 9.50
16		9.4 9.40 0.0	9.4	9.4	0.30	0.22 9.62
17		9.5 9.60 1.1	9.7	9.7	0.18	0.23 9.83
18		9.8 9.70 1.1	9.6	9.6	0.25	0.24 <u>9.94</u>
19		f.	f.	f.		
20						
21						
22						
23						
24						
25						
26						

. = too poor.

Saturday August 18¹⁹, 1916.

Scalem

B Series 143.

B 466 357

E 2 Cb.

	sc1	sc2		Differ. Imm.	PC.
	5.3			g h	sc2
1	5.1		1.46	7.4 +h- -0.64	9.1 -234
2	B.		.	th- th-	8.8 9.2 -232
3	5.4	5.6	5.50 1.1 2.01	th- 8.3 -0.79	def?
4	5.8	5.7	5.75 0.1 1.81	8.4 th- -0.84	9.6 -3.04
5	5.9	5.1	5.80 1.1 1.97	th- th-	def in film.
6	6.6	6.5	6.55 0.1 1.66	8.6 ⁷ +h- -0.49	9.6? film -1.39
9	6.6	6.6	6.60 0.0 1.99	9.2 ^{9.15 0.1} 9.1 -0.56	
10	6.6	6.6	6.60 0.0 2.30	th- 9.3 -0.40	
12	7.2		2.14	9.5 ^{9.50 0.0} 9.5 -0.16	
13	7.6		2.09	10.00 0.0	
14	7.8		2.26	10.0 10.0 -0.31	
16	8.3		2.22		
17	8.3		2.48		
19	8.4		2.53		
21	8.6		2.66		
22	8.9		2.64		
23	9.0		2.83		
24	9.40 0.0				
	9.4 9.4		2.76		
25	9.70 0.0				
	9.7 9.7		2.63		
26	9.85 0.1				
	9.8 9.9		2.83		
27	9.90 1.1				
	9.8 10.0		3.22		
28					
30					
10 a	6.9 6.90 0.0			9.25 1.0	
	6.9 6.9		2.16	9.3 9.2 -0.19	
14 a	8.1		.		

12: 12

196

Monday August 21, 1916.

Scale m.

B series 169.

17.55

B 469.06

C₁₀.

19 + 15

Bc.

sc.1

sc.2

1			
2			
3	B.		
4	B		
6	th B		
7	⁴⁰ 3.8	Q.	4.29
8	⁴⁹ 4.7	4.8	4.85 1.0 4.25
9	⁵¹ 4.9 ⁵¹	5.4 5.3	^{11.21} 6.2 4.18
10	⁵⁷ 5.5	5.6	5.65 1.0 4.04
11	⁶¹ 5.6 ⁶³	6.4	6.27 2.0 3.77
12	⁶⁷ 6.5	6.9	6.80 1.1 3.69
13		1.4	3.33
15		1.6	3.57
16		8.1	3.42
17		8.6	3.30
18		8.8	3.55
19	⁹⁴⁰ 9.4 ⁰⁰	9.4	3.34
20	⁹⁶⁵ 9.6 ⁰¹	9.7	3.22
21	⁹⁹⁰ 9.8 ¹²	10.0	3.58
22	n.s.	7.7	ws.
24	n.s.		
25			

19 - 1.06

8.1 - 1.29

8.5 - 1.16

8.8 - 0.96

9.8 - 1.30

9.4 - 1.11

9.4 sup?

n.s.

Monday August 21, 1916.

Scale In

B Series 169.

B 46906		C 10.	Diff. In.
q	h		
sc.1	sc.2	sc.1	sc.2
5.7		5.8	
1 5.5	5.75 10	5.6	1.09
6.6		6.7	
2 6.4	6.65 01	6.5	0.76
6.4		6.4	
3 6.21	6.40 00	6.21	0.94
4		t.p.	1
6	8 t.p.	t.p.	.
7	7.7 7.70 00	7.7	0.59
8	8.6 8.60 00	8.6	0.50
9	9.3 9.25 10	9.21	0.15
10	nearly sup.	9.4	0.29
11	10.1 10.05 10	10.0	-0.01
12	n.s.	n.s.	1
13			
15			
16			
17			
18			
19			

Monday August 21, 1916.

Copied B 35: 168

Scale m

B Series 169-

Alt Corr - 01

B46907

Barle

19 0-51.5

Diff. In.

P.C.

sc.1	sc.2			q	h			sc.2
1 B				7.15	1.0			
2 B				8.1	1.1	0.58	7.73	88 -1.27 7.53
3 44 4.2				8.65	1.1	0.36	8.36	95 -1.24 8.26
4 4.9	5.2	5.15	1.0	8.6	1.1	0.22	8.87	100? -1.19 8.81?
5 5.9	6.1	6.00	1.0	9.15	1.4	0.11	9.36	m.s. . .
6 6.8	6.8	6.80	0.0	9.78	1.0	0.01	10.01?	
7	7.2			10.39	m.s.			
8	7.5			10.72				
9	7.7			10.95				
10	7.9			11.13				
11	8.3			11.31				
12	8.4			11.69				
13	8.8	8.8		11.79				
14	9.2	9.2		12.19				
15	9.4	9.5		12.59				
16	9.6	9.7		12.85				
17	10.1?	10.1?		13.06				
				13.56?				

Monday August 21, 1916

Copied B 35:120

Scale m.

B Series 169.

Alt. Cor. +05

B 46908		barte		A - 31.5		Diff. Inn.		P.C.	
sc.1	sc.2	Cu.		g h		sc.2			
1	³⁸ 36		4.38	8.18	¹⁵ 8.10 + f -	0.49	7.99	8.9 - 1.26	7.64
2	⁴⁴ 4.21	4.21	4.30 11 4.25	8.55	8.1 8.1	0.35	8.45	9.5 - 1.24	8.26
3	⁵⁰ 4.8	4.8	4.90 11 4.10	9.00	⁸⁶⁰ 8.6 8.6	0.23	8.83	f.	.
4	⁵⁷ 5.5	5.6	5.65 10 3.86	9.51	⁹⁴⁵ 9.5 9.4	0.09	9.54		
5	⁶² 6.0	6.4	6.30 11 3.70	10.00	th. 9.9	0.02	<u>9.92</u>		
6	⁶⁷ 6.5	6.8	6.75 10 3.60	10.35	f m.s.	.	.		
7	1.21		3.52	10.72					
8	1.5		3.46	10.96					
9	1.6		3.44	11.04					
10	1.9		3.41	11.31					
11	8.1		3.40	11.50					
12	⁸⁵⁰ 8.5 0.0	8.5	3.39	11.89					
13	⁸⁹⁵ 8.9 1.0	9.0	3.39	12.34					
14	⁹¹⁵ 9.1 1.0	9.2	3.39	12.54					
15	⁹⁴⁰ 9.4 0.0	9.4	3.40	12.80					
16	^{10.00} 10.0 0.0	10.0	3.45	<u>13.45</u>					

200

Monday August 21, 1916

Copied B 27:158

Scale m

B Series 169.

Alt Cor +02

B 46909

E 8

20 - 45

P.C.

re.1			re.2		
1 B	.		8.8 - 1.27		7.53
2	.		8.9 - 1.26		7.44
3	.		9.0 - 1.26		7.74
4 B	.		8.4 - 1.25		7.15
5 ³⁸ 36		4.39	8.19 sup.	.	.
6 4.6	.	.	9.6 - 1.22		8.38
7 B. B.	.	.	8.8 - 1.27		7.53
8 ⁴⁵ 4.3	4.5	4.50 00 4.20	8.70 9.2 - 1.26		7.94
9 ⁴⁴ 4.2	4.6	4.50 11 4.20	8.70 9.3 - 1.25		8.05
dbl: 10 ⁴⁸ 4.6	4.8	4.80 00 4.11	8.91 9.9 - 1.20		<u>8.70</u>
10 ⁴⁸ 4.6	6.8	6.80 00 3.57	10.39 9.9 - 1.20		<u>8.70</u>
11 ⁴⁸ 4.6	4.8	4.80 00 4.11	8.91 9.9 - 1.20		<u>8.70</u>
12 ⁵⁰ 4.8	5.1	5.05 01 4.04	9.09 4.	.	.
13 ⁵⁰ 4.8	5.1	5.05 01 4.04	9.09 m.s.	.	.
14 ⁵⁶ 5.4	5.6	5.60 00 3.89	9.49		
15 ⁵⁷ 5.5	5.6	5.65 10 3.87	9.52		
16 ⁵⁶ 5.4	5.6	5.60 00 3.89	9.49		
17 ⁵⁷ 5.1	5.8	5.85 10 3.81	9.66		
18 ⁵⁷ 5.1	6.1	6.00 11 3.78	9.78		
19 ⁶⁷ 6.5	6.9	6.70 00 3.61	10.31		
20 ⁶⁸ 6.6	6.6	6.70 11 3.61	10.31		
21 ⁶⁹ 6.9	6.9	6.90 00 3.57	10.47		
22	7.1	3.54	10.64		
23	sup.	.	.		
24	7.8	3.41	11.21		
25	7.8	3.41	11.21		
26	8.4	3.39	11.79		

Monday August 21, 1916-

Scale m-

Q Series 169-

B 46909

E8 cont.

	sc 2	sc 2		
	8.70	00		
24	8.1	8.1	3.39	12.09
	8.60	00		
28	8.6	8.6	3.39	11.99
	8.70	00		
29	8.1	8.1	3.39	12.09
	8.70	00		
30	8.1	8.1	3.39	12.09
	8.95	40		
31	8.1	9.0	3.39	12.34
	9.10	09.1		
32	9.1	9.1	3.39	12.49
	9.40	00		
23	9.4	9.4	3.40	12.80
	9.65	9.1		
34	9.6	9.1	3.41	13.06
	10.00	00		
35	10.0	100.1	3.44	13.44?
	f.	f.		
36				

Monday August 21, 1916.

Copied B 27:158

Scale m

B Series 169.

	B 46909	88 cont.	Diff. Im.
	g	h	
	sc.1 sc.2	sc.1 sc.2	
1	t.p.	t.p.	0.60 7.70
2	t.p.	t.p.	. .
3	t.p.	t.p.	. .
4	t.p.	t.p.	0.71 7.41
5	1.2?	.	0.56 7.76?
6	t.p.	t.p.	. .
7	t.p.	.	. .
8	t.p.	t.p.	. .
9	1.6	t.p.	0.46 8.06
10	8.3	t.p.	0.30 8.60
11	t.p.	8.1	0.34 8.44
12	8.4 8.35 0.1	8.3	0.29 8.64
13	8.3 ^{from} 8.35 1.0	8.4	0.29 8.64
14	8.9	t.p.	0.19 9.09
15	9.2	t.p.	0.12 9.32
16	9.1 9.00 1.1	8.9	0.15 9.15
17	9.4 9.45 0.1	9.5	0.08 9.53
18	9.6 9.70 1.1	9.8	0.04 <u>9.74</u>
19	±.	±.	. .
20			
21			
22			
23			
24	Diff. Images are very poor.		
25			

Monday August 21, 1916.

Scale M

B Series 169.

Alt Cor +08

B 46910		Eros		20 35-50.		Diff. In.		P.C.	
sc1	sc2					g	h		sc2
1	⁴⁴ 4.2	4.5	445 01	4.20	8.65	^{780 00} 1.8	1.8	0.41	8.21
2	⁵⁰ 4.8	5.2	510 11	4.02	9.12	^{850 00} 8.5	8.5	0.26	8.76
3	⁵⁶ 5.4	5.5	555 01	3.89	9.44	^{915 10} 9.1	9.2	0.13	9.28
4	⁵⁶ 5.4	5.4	550 11	3.91	9.41	tp	tp-		
5	⁵⁹ 5.1	5.6	575 12	3.84	9.59	^{955 01} 9.6	9.5	0.07	9.62
6	⁶¹ 5.9	6.3	620 11	3.72	9.92	+	+		
7	⁶⁸ 6.6	6.8	680 00	3.59	10.39				
8		1.4		3.49	10.89				
9		1.8		3.41	11.21				
10		1.8		3.41	11.21				
11		8.0		3.40	11.40				
12		8.4		3.39	11.79				
13		8.5		3.39	11.89				
14	^{885 1.9} 8.9	8.8		3.39	12.24				
15	^{900 00} 9.0	9.0		3.39	12.39				
16	^{945 1.0} 9.5	9.4		3.40	12.85				
17	^{955 0.1} 9.6	9.5		3.41	12.96				
18	f.	f.							

Monday August 21, 1916.

Scalem.

B series 169

B 46912		C 11.	P.C.
sc.1	sc.2		sc.2
1		.	8.2 - 1.39
2		.	8.5 - 1.42
3 B.		.	9.1 - 1.43
4 B. B.		.	9.3 - 1.39
5 ^{40.38} 4.0	4.0	4.00 0 0 4.30	9.7 - 1.40
6 ^{41.39} 4.0	4.0	4.05 1 0 4.41	9.8 - 1.34
7 ^{47.45} 4.7	4.7	4.70 0 0 4.13	10.1 - 1.27
8 ^{51.49} 5.0	5.0	5.05 1 0 3.98	nearby.
10 ^{56.54} 5.5	5.5	5.55 0 1 3.90	sup.
12 ^{60.58} 6.2	6.2	6.10 1 1 3.75	
14 ^{63.61} 6.4	6.4	6.35 1 0 3.62	
15 ^{68.66} 6.8	6.8	6.80 0 0 3.60	
16	7.5	3.20	
17	7.5	3.52	
20	8.0	3.39	
23	^{86.5} 8.6	8.1 3.21	
24	^{89.0} 8.9	8.9 3.50	
25	^{89.5} 8.9	9.0 3.62	
26	10.00 0 0	10.0 10.0 2.90	
27	^{97.0} 9.7	9.7 3.44	
28	^{10.10} 10.1	10.1 3.29	
29	+	+	
30.	+	.	

Monday August 21, 1916.

Salem.

B Series 169.

	B 46912	C 11-	Diff. In.
	g	h	
	sc.1 sc.2	sc.1 sc.2	
1	⁶⁰ 5.8?	tp.	0.81
2	⁶⁶ 6.4 6.55 0.1	⁶⁵ 6.3	0.53
3	7.4	tp.	0.27
4	7.6	tp.	0.31
5	8.1 8.10 0.0	8.1	0.20
6	8.1 8.15 0.0	8.2	0.31
7	8.4 8.45 0.1	8.5	0.38
8	8.6 8.60 0.0	8.6	0.43
10	9.4 9.40 0.0	9.4	0.05
12	10.0 9.95 0.1	9.9	- 0.10
14	n.s.	n.s.	,
15			
16			
17			
20			
23			
25			

2:450

Tuesday August 29, 1916.

Copied B 27:158

Scale m.

B series 163.

Alt Cor +01

B 46842

E8

20 - 45°

P.C.

	sec	cor	Cu.	Magn	sec	Cu.	Magn
1				9.1	-1.54		7.56
2				8.9	-1.55		7.35
3				9.3	-1.51		7.79
4				8.6	-1.58		7.02
5	3.8		4.68	8.48	sup.	.	.
6	4.5		4.32	8.82	9.8	-1.43	8.37
7	3.5		4.83	8.33	9.1	-1.53	7.57
8	4.4		4.37	8.77	9.6	-1.48	8.12
9	3.8	B.	4.58	8.58	9.6	-1.48	8.12
dbl. 10	4.6	4.8	4.80 0 0 4.18	8.98			
	5.8	5.1	5.85 2.1 3.72	9.57	±	.	.
11	4.5	4.4	4.58 1.2 4.30	8.85	±	.	.
12	5.0	4.8	4.90 1.1 4.13	9.03	w.s.	.	.
13	4.9	4.8	4.85 1.0 4.16	9.01	±	.	.
14	5.2	5.3	5.25 0.1 3.98	9.23			
15	5.7	5.6	5.65 1.0 3.80	9.45			
16	5.1	5.3	5.20 1.1 3.99	9.19			
17	5.9	5.9	5.90 0.0 3.71	9.61			
18	6.0	6.1	6.05 0.1 3.63	9.68			
19	7.0	6.8	6.90 1.1 3.38	10.28			
20	7.0	6.9	6.95 0.1 3.34	10.29			
21		7.2	3.29	10.49			
22		7.4	3.23	10.63			
23		7.8	3.12	10.92			
24		8.1	3.08	11.18			
25		8.4	3.03	11.43			
26		8.7	3.00	11.70			

Tuesday August 29, 1916.

Scale m

B series 163.

B 46842

E8

cont.

ser			Cu.	
29	8.8		3.00	11.80
30	8.9		2.99	11.89
31	9.1		2.97	12.07
32	9.4	9.4	9.40 00 2.96	12.36
33	9.3	9.5	9.40 11 2.96	12.36
34	9.5	9.6	9.55 10 2.96	12.51
35	9.7	9.8	9.75 10 2.97	<u>12.72</u>
36	9.6	9.7	9.65 01 2.97	12.62
37	10.1	10.1	10.10 00 3.00	<u>13.10</u>
38	9.			

Tuesday August 29, 1916 -

Copied B 27: 158

Scale m.

B Series 163.

B 46842

E8 cont

Diff. Im.

g h

	sc1	sc2	pc1	sc2	Cu.	Magn
1	1.2	7.35	2.1	1.5	0.14	7.49
2	1.1	7.10	0.0	1.1	0.20	7.30
3	1.4	7.50	1.1	1.6	0.12	7.62
4	t.p.	.	t.p.	.	.	.
5	1.5	7.55	1.0	1.6	0.11	7.66
6	8.2	8.15	0.1	8.1	0.01	8.16
7	1.5	7.40	1.1	1.3	0.14	7.54
8	t.p.	.	8.1	.	0.02	8.12
9	8.1	8.10	0.0	8.1	0.02	8.12
10	8.47	8.50	1.1	8.6?	-0.03	8.47
	9.47	9.98	1.0	10.0?	-0.21	9.74
11	8.5	8.55	1.0	8.6	-0.04	8.51
12	8.8	8.80	0.0	8.8	-0.05	8.72
13	8.8	8.75	0.1	8.7	-0.07	8.68
14	9.2	9.20	0.0	9.2	-0.14	9.06
15	9.4	9.40	0.0	9.4	-0.16	9.24
16	9.4	9.40	0.0	9.4	-0.16	9.24
17	10.0	9.95	0.1	9.9	-0.21	9.74
18	10.0	10.00	0.0	10.0	-0.22	9.78
19						
20						

Tuesday August 29, 1916

Copied B 35' 146

Scale m.

B Series 163

Alt Corr. +13

B 468 43

Carte

20 - 40.5

Diff. dm.

D.C.

sc. 1	sc. 2	Cu	g	h	Cu.	Magn	per.
1 B.			5.1	h-	0.50	6.20	1.8
2 B.	B.		1.5	h-	0.12	7.62	8.9
3 ⁴⁵ 4.3	4.1	460 L 1	8.86	8.2	0.01	8.16	9.8
4 ⁵⁴ 5.2	5.6	550 L 1	9.36	9.1	-0.12	8.98	
5 ⁵⁸ 5.6	5.8	580 0 0	9.53	9.4	-0.17	9.33	
6 ⁶⁰ 5.8	5.9	595 0 1	9.64	9.9	-0.20	9.70	
7 ⁶⁸ 6.6	6.8	680 0 0	10.20	h			
8	1.4	3.22	10.62				
9	1.8	3.12	10.92				
10	8.1	3.08	11.18				
11	⁸⁴⁰ 8.4	3.02	11.42				
12	⁸⁷⁵ 8.8	3.00	11.75				
13	⁹¹⁰ 9.1	2.96	12.06				
14	⁹⁴⁵ 9.5	2.96	12.41				
15	⁹⁷⁵ 9.7	2.98	12.72				
16	n.s.						

210

Tuesday August 29. 1916.

Cofried B 35.122

Scale m-

B Series 163.

Alt Count 95

B 46844

Arte

21-31.5

Diff. In.

9C.

sc. 1 sec	Cu.	Magn	g	h	Cu.	Magn.	per
38							
1 36	4.67	8.47	+	h. def.	.	.	8.8 - 1.56 7.24
41		8.61					
2 39 .B.	4.51	9.21	1.6	+	0.11	7.71	9.2 - 1.53 7.67
49				8.40 00			
3 41 4.9	4.90 00 4.13	9.03	8.4	8.4	-0.02	8.38	10.0? 1.39 <u>8.61?</u>
58				9.35 1.0			
4 56 5.1	5.75 01 3.75	9.45	9.3	9.4	-0.15	9.20	
63				9.85 01			
5 6.1 6.5	6.40 11 3.52	9.92	9.8	9.9	-0.20	9.65	
69							
6 6.1 7.0	7.00 11 3.34	10.34	n.s.	n.s.	.	.	
69							
7 6.1 7.2	7.05 10 21 3.32	10.37					
8	7.6	3.17	10.77				
9	8.1	3.08	11.18				
10	8.2	3.05	11.25				
	8.60 00						
11	8.6 8.6	3.01	11.61				
	8.85 1.0						
12	8.9 8.8	2.99	11.84				
	9.35 1.0						
13	9.3 9.4	2.96	12.31				
	9.75 0.1						
14	10.0 9.9	2.99	<u>12.94</u>				
15	3.	.	.				

Tuesday August 29, 1916 -

Copied B 35' 170

Scale m.

B Series 163 -

Alt Cor - 02

B 46845

Carli

21 - 51.5

sc.1	sc.2	sc.3	Cu.	Diff. In.	P.C.
				sc.2 sc.3	sc.2
1 B			.	5.3? 5.2? ^{elong.} 5.25 1.0 0.61	586 1.5
2 B			.	6.8 +p.	0.25 705 86 - 1.57 7.03
3 ³⁸ 36? Bt. B.			4.67	8.47? 1.1 7.1 7.10 00 0.20	730 9.1 - 1.54 7.56
4 ^{51 52} 49 ⁵⁰ 5.3 5.3 ¹⁰¹¹ 5.22			3.97	9.19 9.1 9.1 9.10 00 - 0.12	8.98 u.s.
5 ⁶¹ 59	6.1	6.10 00	3.62	9.72 9.8 +p.	-0.20 9.60
6 ⁶³ 6.1	6.5	6.40 L 1	3.53	9.93 100 10.0 10.00 00 - 0.21	9.89
7	1.1		3.31	10.41	
8	1.8		3.12	10.92	
9	8.1		3.08	11.18	
9a	8.5		3.01	11.51	
10	8.1		3.00	11.70	
11	^{910 00} 9.1 9.1		2.97	12.07	
12	^{925 01} 9.2 9.3		2.96	12.21	
13	^{975 L0} 9.7 9.8		2.98	12.73	
14	4. 10.1		3.00	13.10	
15	4.		.	.	

Tuesday August 29, 1916.

Scalem-

B Series 163.

B 46846 -		C11	21 + 15°
sc.1 sc.2		Diff	P.C.
1			8.5 - 1.69
2			8.1 - 1.62
3 B.			9.1 - 1.43
4 B.			9.2 - 1.29
5 B.			9.9 - 1.60
6 ³⁷ 3.5?	4.6	4.76	9.9 - 1.44
7 ⁴⁴ 4.2	4.6? 4.50	4.33	10.1? 1.27
8 ⁵¹ 4.9	5.1	5.10 00	3.93
10 ⁵⁴ 5.2	5.4	5.40 00	4.05
12 ⁶³ 6.1	6.2	6.25 10	3.60
14 ⁶⁶ 6.4	6.4	6.50 11	3.47
15	7.1	3.30	
16	7.6	3.10	
17	7.9	3.12	
20	8.1	3.29	
23	^{9.10 00} 9.1	9.1	2.76
24	^{9.45 10} 9.5	9.4	2.95
25	^{9.50 00} 9.5	9.5	3.07
26	^{9.90 11} 9.8	10.0	3.00
27	4.	.	
28	ms	.	

Images on this plate are much poorer than those of rest of series.

Brighter stars are not comparable with scale.

Tuesday August 29, 1916.

Scalem.

B series 163.

C11-

Diff. Im.

	B 46846		C11-		
	g		h		
	sc.1	sc.2	sc.1	sc.2	
1	6.3	6.40	1.1	6.3	0.41
2	7.1?		+	+	-0.02
3	7.6	7.60 00	7.6		0.07
4	8.1		+	+	-0.19
5	8.4	8.45 01	8.5		-0.15
6	8.5	8.50 00	8.5		-0.04
7	8.9	9.00 11	9.1		-0.17
8	9.2	9.15 01	9.1		-0.12
10	9.1	9.70 00	9.1		-0.25
12	+		+		
14	n.s.		n.s.		
15					
16					

Diff. Images of bit stars are very poor, especially in comparison with the diff. Im. on preceding plates.

10:50

Tuesday September 5, 1916.

Comparison of ft stars with diff. Im. of big stars
1115 a 11349 L3 (See also p 137) Im h.

Star 44m.s.

25d 2 43

43 1 26d

25d 2 42

42 1 26d

24d 1 41

41 1 25d

24d 1 40

40 1 25d

23d 2 39 ?

39 1 24d

23d 1 38

38 2 24d

22d 2 37

37 1 23d

19d 2 36

36 2 20d

19d 1 35

35 30 20d

16d 3 34 ? (17 is too distant for comparison
also too poor)

34 1 18d

16d 2 33

33 2 18d

Diff. Im. and faint stars do not compare well. Diff. Im. are
large and heavy.

Tuesday September 5, 1916.

Comparison of ft stars with diff. lim. of bit stars.
 @ 11419 #3. (see also p. 139) (in images)

30d 2 48
 48 1 31d

24d 1 40
 40 1 25d

30d 3 41
 41 = 31d
 #4 32 is defective.

24d 1 39
 39 1 25d?

30d 2 46
 46 1 31d

21d 1 38
 38 1 22d

30d 2 45
 45 2 31d

21d 2 37
 37 1 22d

30d 2 44
 44 2 31d

20d 1 36
 36 2 21d

25d 2 43
 43 2 27d

19d 2 35
 35 1 20d

25d 2 43²
~~#3~~ 42 3 ~~27d~~

17d 2 34 (18 is too poor)
 34 1 19d

25d 1 41
 41 3 27d

stars brighter than 17 are too distant
 for comparison.

Star 27 appears brighter than 26.

