

KG

11365

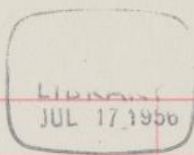
997

E. F. L.

NG 11365.997

2

KG 11365.997



YELLOW

6

YELLOW

Series 295 - Yellow

Feb 19, 1915

9 25

mc 5954

Pole

mc 5954

Off

Curve Magn.

mc

5959

mean

Curve Magn.

5	4.1	4.2	5.1	5.2	5.15	5.1	5.2	5.18	1.80	1.87	7.05
6	5.1	5.2	5.15	5.1	5.2	5.18	5.18	1.80	1.87	7.05	
8	6.3	6.4	6.45	6.5	6.5	6.48	6.48	1.98	1.53	8.01	
9				7.2	7.5	7.35	7.35	1.39	1.36	8.71	
10				7.5	7.7	7.60	7.60	1.28	1.34	8.94	
11				8.0	8.1	8.05	8.05	1.31	1.31	9.36	
12				8.3	8.5	8.40	8.40	1.18	1.32	9.72	
13				8.7	8.7	8.70	8.70	1.38	1.33	10.03	
14				8.9	8.9	8.90	8.90	1.34	1.32	10.22	
15				9.4	9.3	9.35	9.35	1.29	1.27	10.62	
16				9.8	9.8	9.80	9.80	1.14	1.15	10.95	

88 2	6.5	6.3	6.40	+1.54	7.94
87 12	6.3	6.1	6.20	1.59	7.79
87 15	6.5	6.4	6.45	1.54	7.99

chw

2m	4.1	4.2	4.3	4.25	+2.18	6.43
3m	5.2	5.5	5.35	5.35	1.82	7.17
4m	6.6	6.7	6.65	6.65	1.50	8.15
5m	7.0	7.1	7.05	7.05	1.41	8.46
6m	7.7	7.8	7.75	7.75	1.33	9.08
7m	8.5	8.6	8.55	8.55	1.33	9.87
8m	8.9	8.9	8.90	8.90	1.32	10.22
9m	9.3	9.5	9.40	9.40	1.26	10.66
10m	9.5	9.5	9.50	9.50	1.23	10.73
11m	8.5	8.5	8.50	8.50	1.32	9.82
12m	8.8	8.7	8.75	8.75	1.33	10.08
13m	7.5	7.8	7.65	7.65	1.34	8.99
14m	7.7	7.7	7.70	7.70	1.33	9.03
15m	6.7	6.9	6.80	6.80	1.47	8.27
16m	7.8	8.0	7.90	7.90	1.32	9.22

chw

YELLOW

Series 295

Feb 19, 1915

Copied

Card

ScW

mag	MC 5955	D	17	0 - 15	0	Alt. corr. -11
94	1, Sci	Sc 2	53	+1.84	7.14	
1.79	Boofay, c	66	1.51	8.11		
1.99		65	1.53	8.03		
		63	1.56	7.86		
		67	1.49	8.19		
		74	1.36	8.76		
		78	1.33	9.13		
		59.6	1.66	7.56		
		60	1.63	7.63		
		81	1.31	9.41		
		83	1.31	9.61		
		87	1.33	10.03		
		79	1.32	9.22		
		85	1.32	9.82		
		87	1.33	10.03		
		90	1.32	10.32		
		97	1.34	9.04		
		87	1.33	10.03		
		92	1.80	10.50		
	Donnan crack	20				
		21	75			
		22	87	1.33	10.03	

ch 14

Plate broken across center - defects - images poor.

8

YELLOW

Series 295 copied.
Feb 19, 1915

Card

Sc W

Me 59561		17	00	00	Alt. +.02
Se1	Se2	Curve	Mag	pc	
1 30 3.1		.	.	8.1	
2 33 3.4		.	.	8.4	
3	6.0	+1.63	7.63		
4	7.1	1.41	8.51		
5	7.2	1.39	8.59		
6	8.1	1.31	9.41		
07	7.8	1.33	9.13		
08	9.1	1.31	10.41		
09	9.1	1.31	10.41		
010	9.2	1.30	10.50		
011	9.7	1.17	10.87		
012	9.9	1.13	11.03		

ch W

Poor Blat.

YELLOW

Se W

Series 295
Feb 19, 1915

Copied

Card

Me 5957 2'			Extra Magn. PC		
Se 1	Se 2				
1	4.9		+1.96	6.86	90
2	4.8 4.9 4.95	50	1.94	6.89	90
3	4.3 4.4	57	2.14	6.54	86
4		48	1.98	6.78	
5		61	1.61	7.71	
6		63	1.56	7.86	
6a		60	1.63	7.83	
7		59	1.66	7.56	
8		71	1.41	8.51	
8a		80	1.31	9.31	
9		85	1.32	9.82	
10		88	1.33	10.13	
11		74	1.36	8.76	
12		84	1.32	9.72	
13		85	1.32	9.82	
14		91 93	1.30	10.50	
15		89	1.32	10.22	
16		99?	1.13?	11.03?	
17		98	1.16	10.96	
30		51	1.89	6.99	9.1

Alt. corr. +.09

dw

YELLOW

Series 295
Feb 19, 1915

Card

Se W

MC 5958 B-1 17 20 + 45.0
 Se 1. Se 2 Curv Magn. PC Quality B in Journal.
 40 4.1 +2.24 6.34 87 act. corr. +.12
 2 52 1.86 7.06 97
 3 2.0 2.1 2 7.1

Near the edge.

Too near edge

" " "

4				
5				
6				
7		6.8	1.59	7.79
8	4.1 4.2		2.21	6.41 87
9		5.2	1.86	7.06
10		6.7	1.49	8.19
11		6.5	1.53	8.03
12		6.0	1.63	7.63
13		6.2	1.59	7.79
14		7.7	1.33	9.03
15		7.2	1.39	8.59
16		8.1	1.31	9.41
17		8.7	1.33	10.03
18		8.6	1.33	9.93
19		7.8	1.33	9.13
20		8.7	1.33	10.03
21		9.2	1.30	10.50
22		9.0	1.32	10.32
23		9.1	1.30	10.40

dw

Images elongated

YELLOW

DeW

Series 295
Feb 19, 1915

MC 5959 L

Pole

5 41 4.2

PC

88

88 2 63

6 51 5.2

9.7

12 6.1

8

6.5

15 6.4

9

7.5

10

7.7

11

8.1

12

8.5

13

8.7

14

8.9

15

9.3

16

9.8

2u 42 4.3

3u

5.5

4u

6.7

5u

7.1

6u

7.8

7u

8.6

8u

8.9

9u

9.5

4p

8.5

5p

8.7

6p

See p. 6

Sim. poor

90

7.5

" "

86

7.7

" "

80

7.8

105

6.9

115

8.0

Series poor

11. 40

12

10 15

Se W

YELLOW

Series 296

Feb 22, 1915

MC 5966, 0.04

me
5972
P. 18

Course Magn.

			mean	Diff.		
5	B					
6	4.1	4.2	4.2	4.20 ^{00.00}	+2.78	+3.06 7.26
8	4.9	5.0	4.95 ⁰¹	4.9	2.75	7.83
9		6.5	6.7	6.60 ^{13.12}	2.14	2.18 8.78
10		6.7	6.8	6.75 ^{12.10}	2.13	2.13 8.88
11		7.5	7.5	7.50 ^{00.10}	1.86	1.84 9.44
12		7.7	7.8	7.75 ^{02.00}	1.83	1.89 9.64
13		8.1	8.2	8.15 ^{03.00}	1.93	1.84 9.99
14		8.4	8.5	8.45 ^{03.00}	1.79	1.83 10.28
15		8.8	8.9	8.85 ^{02.00}	1.79	1.77 10.62
16		9.1	9.2	9.15 ^{05.00}	1.79	1.74 10.89
17		9.4	9.5	9.45 ^{05.00}	1.59	1.69 11.14
18		9.9	9.9	9.90 ^{00.00}	1.66	1.61 11.51

ch W

+8.8	2	5.0	5.1	5.05 ¹⁰	5.0	5.2	5.12 ^{01.00}	+2.74	7.86
+8.7	12	4.3	4.4			4.9	4.65 ^{25.25}	2.91	7.56
+8.7	15	5.0	5.1	5.05 ¹⁰	5.0	5.3	5.18 ^{13.12}	2.72	7.90
8.8	115				6.3	6.60	6.45 ^{15.15}	2.24	8.69
8.8	115	4.9	5.0	5.00 ⁰⁰	5.0	5.8	5.40 ^{40.40}	2.62	8.02
9.0					6.5	7.0	6.75 ^{25.25}	2.13	8.88
9.6					6.3	6.7	6.50 ^{20.20}	2.22	8.72
9.0					6.8	7.2	7.00 ^{40.40}	2.06	9.66

YELLOW

Series 296

Feb 23, 1915

S.W.

Mc 5966 _n Pole		me	Mean	Curve Magn.	
S ₂₁	S ₂₂	5972			
20 2.1		8.19	2.45 ^{5.0}		
30	42	4.3	4.35 ^{3.5}	+3.04	7.29
40	5.0 5.2	5.8	5.45 ^{5.0}	2.47 ^{4.1}	7.92 ^{8.06}
50	6.2	6.2	6.20 ^{5.5}	2.33	8.53
60	7.2	7.1	7.15 ^{6.5}	2.02	9.17
70	7.7	7.8	7.75 ^{7.0}	1.89	9.64
80	8.5	8.7	8.60 ^{8.0}	1.80	10.40
90	9.2	8.9	9.05 ^{9.0}	1.75	10.80
100					
110					
120					
40	7.8	8.0	7.90 ^{8.0}	1.87	9.77
50	7.5	7.8	7.65 ^{7.5}	1.90	9.55
60	8.7	8.7	8.70 ^{8.5}	1.79	10.49

S.W.

14

YELLOW

Series 296

Copied

Sc W

Feb 20, 1915

Carad

Me 5967 17-15

alt. corr. -13

Se1 Se2 Curv Magn.

Near edge

Near edge

1	4.1 4.2		+3.06	7.26
2	4.3 4.4		3.00	7.40
3	4.4 4.5		2.96	7.46
4	4.2 4.3		3.03	7.33
5	5.2 5.2 5.25 5.3		2.67	7.92
6		6.1	2.36	8.46
7		6.4	2.25	8.65
8	4.2 4.3	4.2	3.03	7.33
9	4.1 4.2		3.06	7.26
10		7.1	2.04	9.14
11		7.3	1.98	9.28
12		7.7	1.90	9.60
13		6.9	2.08	8.98
14		7.9	1.87	9.77
15		7.6 7.7 7.7	1.91	9.51
16		8.1	1.84	9.94
17		6.9	2.08	8.98
18		8.1	1.84	9.94
19		8.6	1.80	10.40
20		9.4	1.70	11.10
21		9.2	1.73	10.93
22		8.1	1.85	9.95
23		8.7	1.79	10.49
24		9.8	1.63	11.43
25		9.0	1.75	10.75
26		9.8	1.63	11.43
27		9.5	1.68	11.18

YELLOW

Series 296

Sept 23, 1915

copied.

Cand.

Se W

	mc	5968.2	17	00	00	pc
	ser	alt. ± 0.1	ser	curv	magn.	
1	B _u					7.5
2	B _u					8.0
3	4.1	4.2		+3.06	7.26	9.3
4	6.0	6.1	6.05	6.0	2.38	8.43
5			5.8		2.47	8.27
6			7.3		1.97	9.27
07			7.0		2.06	9.06
08			8.1		1.84	9.94
09			** 7.5	1.82	10.32	
				1.94	9.44	
010			8.3		1.84	10.14
			8.80	1.1		
011			8.7	8.9	1.78	10.58
012			8.7		1.79	10.49
* 013			8.6		1.80	10.40
014			8			
015			9.7		1.65	11.35

ch W

Sept. 9, 1915.

* Reject. wrong star measured. Identification looked up.
 m.o.r. } bo.
 a.d.w. }

Sc.W. ** Sept 9, 1915 Re-meas. by Ld.
 Rec. " O.

08 8.3
 09 8.5
 010 8.5

Evidently wrong unit.
 Per Ld.

16

YELLOW

Series 296

Feb 22, 1915

Copied

Card

dc W

me	59692	69	17	0	+15	0	alt. corr. +.08
sc1	sc2	chase	magn.	pc			
1	3.2	3.3					90
2	3.1	3.2					87
3	2.7	2.8					85
4	3.9 ^{4.0}	3.7	2.8	3.9 ^{4.1}			87
5	4.8	4.9	4.95	5.0	+2.80	7.75	
6			5.1	2.74	7.84		
7			4.9	2.82	7.72		
8			6.2	2.33	8.53		
9			7.6	1.92	9.52		
10			8.1	1.85	9.95		
11			6.7	2.15	8.85		
12			7.5	1.94	9.44		
13			7.7	1.90	9.60		
14			8.4	1.83	10.23		
15			8.1	1.85	9.95		
16			ns				
17			98?	1.63?	11.43?		
18			ns				
19			ns				
20			98?	1.63?	11.43?		
3a	4.1						
8a			6.9	2.08	8.98		

Feb. Mar. 1, 1915.

dc W

sc1	sc2
3a 4.1	9.7

W

* Reject, as on examination the measure does not seem to be even that of the prismatic companions

YELLOW

Series 296

Feb 23, 1915 Copied

Card

dcW

Mc 5970 L B7

Sprock

"Sol 5971" ser 2 curve magn. 17.20 + 45.0 alt. corr. +.11

1	3.2 3.3			89
2	4.5 4.6	+2.93	7.53	98
3	B _n			77

near edge	4.43 4.4	3.00	7.40	
-----------	----------	------	------	--

Too near edge	5	2.40		
---------------	---	------	--	--

near edge	6	6.0	2.40	8.40
-----------	---	-----	------	------

7	6.0	2.40	8.40	
---	-----	------	------	--

8	3.9 4.0	3.13	7.13	93
---	---------	------	------	----

9	4.9 5.0 5.00 ⁰⁰ 5.0	2.79	7.79	
---	--------------------------------	------	------	--

10	6.3	2.28	8.58	
----	-----	------	------	--

11	6.5	2.23	8.73	
----	-----	------	------	--

12	5.9	2.44	8.34	
----	-----	------	------	--

13	6.0	2.40	8.40	
----	-----	------	------	--

14	7.2	2.00	9.20	
----	-----	------	------	--

15	7.2	2.00	9.20	
----	-----	------	------	--

16	8.3	1.84	10.14	
----	-----	------	-------	--

17	8.7	1.79	10.49	
----	-----	------	-------	--

18	8.5	1.82	10.32	
----	-----	------	-------	--

19	7.7	1.90	9.60	
----	-----	------	------	--

20	8.3	1.84	10.14	
----	-----	------	-------	--

21	8.9	1.76	10.66	
----	-----	------	-------	--

22	8.6	1.80	10.40	
----	-----	------	-------	--

23	9.3	1.72	11.02	
----	-----	------	-------	--

24	9.7	1.64	11.34	
----	-----	------	-------	--

25	9.5	1.67	11.27	
----	-----	------	-------	--

26	9.8	1.63	11.43	
----	-----	------	-------	--

dcW

18

YELLOW

Series 296

Feb 22, 1915

Be W

Mc 5972-8 Pole

Sw 1	Sw 2	pc
5.13		8.5

6 4.1 4.2

8

5.2

9

6.1

10

6.8

11

7.5

12

7.8

13

8.2

14

8.5

15

8.9

16

9.2

17

WS

9.5

18

9.9

88.2

5.2

89.12

4.9

15

5.3

88.115

6.60 6.1

6.5 6.7

105

5.8

90

7.0

86

6.7

80

7.2

YELLOW

Series 296

Feb 20, 1915

Sc W

MC 5972^l Pole (cont)

	Sc 1	Sc 2
2u	2.8 2.9	
3u	4.2 4.3	
4u		5.8
5u		6.2
6u		7.1
7u		7.8
8u		8.7
9u		8.9
10u		8
11u		
12u		
4p		8.0
5p		7.8
6p		8.7

20

YELLOW

Series 296

Feb 22, 1915

Copied

D. W.

Mc 5972 S' 18 50-12.5 (Nova Sag 1 U Senti)

Alt. corr. -.09

	502	Curve	Magn.
e	6.1	+2.36	8.46
d	6.7	2.15	8.85
c	7.4	1.96	9.36
a	8.0	1.86	9.86
d'	8.5	1.82	10.32
e	8.5	1.82	10.32

Plate shows very few images

YELLOW

Series 296

copied

bc W

Feb 23, 1915

mc 59748		18	50 - 2.5	pc	(Prox Sent Sol)
sc 1	sc 2	Curve	magn.		alt. 00
1	B _n	.	.	87	
2	B _n	.	.	85	
3	4.1 4.2	+3.06	7.26	90	
4	5.1 5.2 5.25	5.3	2.68	7.93	
5		6.0	2.40	8.40	
6		6.3	2.29	8.59	
7		6.7	2.15	8.85	
8		6.5	2.22	8.72	
9		7.4	1.96	9.36	
10		7.5	1.94	9.44	
11		7.2	2.00	9.20	
12		8.2	1.84	10.04	
13		8.6	1.80	10.40	
14		9.0	1.76	10.76	
15		9.7	1.65	11.35	

ch W

22

YELLOW

Series 296

J. J. 23, 1915 Copied

Card.

Mc 59752' 10 19 00 - 15.0 alt. corr. -14

Curve Magn.

+2.83 7.73

Im. along	1	Se 1 4.8 4.9	Se 2		
	2	3.8 3.9			
Mar edge	3		5.5	2.59	8.09
Im along	4		6.2	2.33	8.53
	5		5.1	2.74	7.84
	6		5.4	2.63	8.03
	7		6.6 6.1 6.5 6.7	2.18	8.78
	8		7.1	2.04	9.14
	9		7.4	1.96	9.36
	10	4.3 4.4		3.00	7.40
	11		4.9	2.82	7.72
	12		7.3	1.98	9.28
	13		6.1	2.36 1.86	8.46 7.96
	14		6.0	2.40 1.90	8.40 7.90
	15		9.8	1.63	11.43
	16		6.5	2.22	8.72
	17		9.3	1.71	11.01
	18		9.2	2.00	9.20
	19		8.9	1.76	10.66
	20		9.7	1.65	11.35
	21		9.0	1.76	10.76
	22		9.6 9.1 9.5 9.7	1.67	11.27
	23		8.6	1.80	10.40
	24		8.1		

ch W

YELLOW

Series 388

SeW

Mch 8, 1915

10 30	mc 4080	Bo	mc 4085	mean	Diff.	pc	mc 4085	mean	Diff.	pc	mc 4085	mean	Diff.	pc	mc 4085	mean	Diff.	pc
Curve Magn.	Se1	Se2	7085				7085				7085				7085			
5	t.p.		P.28			7.6	7.5	7.55	-1.88	2n	t.p.				7.6	7.5	7.55	-1.10
6	t.p.					8.15	8.1	8.12	1.14	3n	t.p.				8.15	8.1	8.12	1.10
+4.08	8.13	8	3.9	4.0		4.1	4.05	4.05	+4.9	8.89	8.9	8.90	+1.44	4n	4.1	4.2	4.2	9.0
3.79	8.77	9	4.9	5.0	4.95	4.9	5.0	4.98	3.74	9.5	9.5	9.50	+1.47	5n	4.7	4.8	4.75	8.5
3.70	8.85	10		5.2	5.1	5.15	3.73	9.8			9.8	9.80	+1.06	6n	6.0	6.1	6.05	8.5
3.12	9.42	11		6.4	6.2	6.30	3.06				5.0	5.00	-1.10	7n	6.9	6.8	6.85	8.5
2.96	9.66	12		6.7	6.70	6.70	2.88				6.0	6.00	-1.08	8n	6.9	6.8	6.85	8.5
2.86	10.01	13		7.1	7.2	7.15	2.83				8.0	8.00	-0.98	9n	7.5	7.5	7.50	8.5
2.82	10.27	14		7.4	7.5	7.45	2.79				9.0	9.00	-0.85	10n	8.0	8.0	8.00	8.5
2.78	10.58	15		7.8	7.8	7.80	2.74				10.0	10.00	-0.75	11n	9.0	9.2	9.10	8.5
2.74	10.89	16		8.1	8.2	8.15	2.79								7.5	7.7	7.60	8.5
2.71	11.06	17		8.3	8.4	8.35	2.69								9.0	6.9	6.95	8.5
2.64	11.49	18		8.8	9.0	8.85	2.71											
2.54	11.84	19		9.3	9.5	9.20	2.64											
2.45	12.23	20		9.7	9.8	9.75	2.41											

Curve Magn.	P.C.	Curve Magn.	P.C.
88 2 4.0 4.1	4.1	89 8.9 8.90	-0.98
87 12 t.p.		88 8.7 8.75	-1.02
87 15 t.p.		89 8.7 8.80	-1.00
88 115	6.1	6.0 6.04	3.24
88 105	4.3	4.1 4.20	4.03
88 90	5.1	4.9 5.00	3.78
88 86	5.1	5.0 5.05	3.74
88 80	5.2	5.2 5.25	3.69

Re. mt.

P.C.

clw

Recomputed
Mch 12.
mistake of a
unit

8n

8.5

4n

8.9

24

YELLOW

Series 388

Copied

Cand.

Se W

Mch 8, 1915

Mb 7081 Orionis		Alt. corr. .00		Curve Magn.	
Se1	Se2	Curve Magn.	PC		
a	tp		85	-1.05	7.45
b	3.8 3.9	+4.14	8.04 88	-1.00	7.80
c	4.7 4.8	3.83	8.63 96	-0.82	8.78
d	5.2 5.3 5.30 ⁰⁰ 5.3	3.63	8.93		
e		6.1	3.22	9.32	
f		6.7	2.96	9.66	
g		7.0	2.89	9.89	
h		7.7	2.86	10.06	
i		7.5	2.83	10.33	
j		8.1	2.74	10.84	
k		8.4	2.71	11.11	
l		8.5	2.70	11.20	
m		8.8	2.64	11.44	
n		8.7	2.66	11.36	
o		9.05 ⁰¹			
p		9.0 9.1	2.60	11.65	
q		9.80 ⁰⁰			
r		9.8 9.8	2.44	12.24	
s		9.90 ⁰⁰			
t		9.9 9.9	2	2	

chr W

YELLOW

Series 388

Copied

Card

be W

Mch 8, 1915

Me 7082		J. J. J. (Ref)		alt. corr. +12		Curve Magn. P.C.		Curve Magn.	
		Curve Magn.		P.C.		Curve Magn.		Curve Magn.	
1	tp	.	.	8.7	-1.02	7.68	8.2	12.73	10.93
2	4.2 4.3	4.00	8.30	9.2	-0.93	8.27	8.0	2.76	10.76
3	4.1 4.2	4.04	8.24	8.8	-1.00	7.80	8.4	2.71	11.11
4		7.1	2.87	9.97			8.1	2.75	10.85
5		8.5	2.70	11.20			9.1	2.58	11.68
6		8.5	2.70	11.20			9.5	2.51	12.01
7		8.9	2.63	11.53			9.7	tp	6.7 E
8		9.8	2.4	12.24			9.7	tp	8.0 -1.106.90
a		.	.						
b	tp	.	.	6.1	E	.			
c	off hd:	.	.						
d	tp	.	.	6.9	E	.			
e	tp	.	.	7.1	E	.			
f	tp	.	.	7.3	-1.09	6.21			
g	tp	.	.	7.4	-1.00	6.40			
h		.	.						
k	tp	.	.	7.9	-1.00	6.90			
k'	tp	.	.	8.7	-1.02	7.68			
l	tp	.	.	8.3	-1.07	7.23			
l'		5.1	4.371	8.81	9.8	-0.75	9.05		
m	4.0 4.1	4.06	8.16	9.0	-0.97	8.03			
n		4.8	3.83	8.63	9.8	-0.75	9.05		
o		5.8	3.37	9.17					
p		6.9	2.91	9.81					
q		7.2	2.86	10.06					
r		7.5	2.82	10.32					

be W

Bright images near edge - poor focus

26

YELLOW

Series 388

Mar 8, 1915

Copied

Card

MC 7083	b ₃	Curve Magn	PC	Alt. corr. +.08	Curve Magn
1	5.1	.	79	-1.10	6.80
2	5.1	.	75	-1.10	6.40
3	5.1	.	78	-1.10	6.70
4	5.1	.	85 87	-1.04	7.54
5	5.1	.	87	-1.02	7.68
6	5.1	.	88	-1.00	7.80
7	4.1	4.16	8.16 8.9	-0.98	7.92
8	3.8	2	8.5	-1.05	7.45
9	5.0 5.00 ⁰⁰ 5.0	3.76	8.76 9.5	-0.85	8.65
10	4.0	4.11	8.11 8.7	-1.02	7.68
11	4.1	4.06	8.16 8.8	-1.00	7.80
12	5.1	3.72	8.82 9.7	-0.78	8.92
13	5.7	3.42	9.12		
14	6.4	3.08	9.48		
15	6.70 12	2.96	9.66		
16	6.3	3.12	9.42		
17	6.3	3.12	9.42		
18	7.1	2.87	9.97		
19	7.3	2.84	10.14		
20	7.3	2.84	10.14		
21	7.7	2.79	10.49		
22	7.9	2.76	10.66		
23	8.2	2.73	10.93		
24	7.3	2.84	10.14		
25	8.5	2.70	11.20		
26	8.60 11	2.68	11.28		
26a	8.90 00	2.63	11.53		
27	9.60 11	2.48	12.08		

YELLOW

Series 388

Apical

Card.

bcw

Mch 8, 1915

Alt. corr. $-.02$

MC 7084		Net Orion			
Sec 1		Sec 2		Curve Magn.	
a		90	+2.61	11.61	
b		99	+2.42	12.32	
c		95	2.51	12.01	
e		97	2.46	12.16	
		P.C.?		Star images	
		Curve Magn.		Curve Magn.	
1	4.3 4.4 5.0 4.8	87	-1.02	7.68	+3.97 8.37
2	4.9 4.7 4.90	95	-0.85	8.65	3.80 8.70
3	4.2 5.3	98	-0.75	9.05	3.63 8.63
4		71	+2.87	9.97	
5		73	2.84	10.14	
6		75	2.82	10.52	
7		71	2.87	9.97	
8		87	2.66	11.36	
9		90	2.66	11.61	
10		92	2.56	11.76	
11		93	2.54	11.84	
12		93	2.54	11.84	
13		ns	.	.	
14		98?	2.44?	12.24?	

ch W

Images poor. elongated and faint ones hazy.

28

YELLOW

Series 388

Bell

Mch 8, 1915

MC 1085 Pole

sol	sc2	pc	sol	sc2	pc
5 tp		75	2n tp		75
6 tp		8.1	3n tp		85
8 40.4i		89	4n 41.2		90
9	5.0	95	5n 47.48 47	4.75 0.1	
10	5.1		6n	6.1	
11	6.2		7n	6.8	
12	6.7		8n	7.5	
13	7.2		9n	8.0	
14	7.5		10n	9.2	
15	7.8		4b	6.8	
16	8.2		6b	7.7	
17	8.4		5a	6.9	
18	8.8		1n	9.7	
19	9.2				
20	9.8				

+ 88 2 40.4i

87 12 tp

87 15 tp

88 115

105

90

86

88

89

87

87

59

41

49

5.1

53

90

12 30

P.C.

Rec. Int.

3n 8.5 8.7

4n 9.0

YELLOW

Series 388

Mch 10, 1915

10	55	MC 1085	Bole	Se 1	Se 2	mc	pc	mean	Diff.	Se 1	Se 2	mc	mean	Curve Magn.
Curve Magn.	5	tp	7091	Mean Diff.	Defecture	7.50	7.50	-1.93	2n	tp	7091	Mean Diff.	7.50	-1.06 6.39
	6	tp	P.35			8.2	8.1	1.17	3n	tp	P.35		8.3	8.5 8.40-0.98 7.42
4.38	8.03	8	39	4.0	3.3	3.65	4.38	8.7	8.75	0.72	4n	4.14	4.10	9.29 9.10-0.87 8.21
3.72	8.72	9	49	5.0	5.00	5.00	3.74	9.5	9.3	0.66	5n	4.84	4.7	4.7 4.75 3.83 8.59
3.63	8.83	10			5.2	5.2	3.68	9.8	9.80	0.92	6n	6.1	5.4	5.75 3.40 8.15
3.22	9.37	11			6.2	6.1	3.21				7n	6.7	6.2	6.45 3.14 9.59
3.12	9.62	12			6.5	6.5	3.08				8n	7.5	7.2	7.35 2.93 10.28
2.97	10.07	13			7.1	7.1	2.98	5.	-1.06	6.44	9n	8.1	8.0	8.05 2.84 10.89
2.91	10.36	14			7.5	7.4	2.79	6.	-1.00	7.15	10n	9.2	9.1	9.15 2.72 11.87
2.87	10.62	15			7.8	7.7	2.89	8.	-0.94	7.81	11n	9.5	9.1	9.30 2.70 12.00
2.83	10.98	16			8.2	8.1	2.79	9.	-0.85	8.55	12n			
2.82	11.12	17			8.3	8.3	2.74	10.	-0.80	9.00	4n	6.8	6.2	6.50 3.13 9.63
2.77	11.52	18			8.8	8.7	2.81				wn w 52	7.7	6.20	6.45 3.14 9.59
2.72	11.87	19			9.2	9.4	2.79				wn w 62	6.9	7.3	7.60 2.88 10.48
2.63	12.18	20			9.7	9.40	2.64							
2.58	12.28	21			9.7	9.70	2.57							
88	2	40	4.1		4.0	4.05	4.18	8.9	8.95	-0.91	8.04			
87	12	tp					8.23	8.7	8.70	-0.94	7.76			
15	tp							8.8	8.7	8.75	-0.94	7.81		
88	115				60	5.7	5.85	3.36	9.21					
105	40	4.1			4.0	4.2	4.15	4.13	8.28	9.0	9.0	9.00	-0.90	8.10
90					4.9	4.9	4.90	3.77	8.67					
86					5.0	4.9	4.95	3.75	8.70					
80					5.2	5.2	5.20	3.63	8.83					

clw W

30

YELLOW

Series 388

Copied

ScW

Mch 10, 1915

Band.

Mc 7086 y		Mingae		6		12		alt. corr. +.12	
Sc1	Sc2	Approx Magn.		PC					
a	tp							-0.89	8.21
b	4.1 4.2		+4.10	8.30	9.1	9.60	9.1	-0.83	8.77
c	5.8 5.9 5.95	4.10	6.0	3.33	9.28				
d		6.2	3.22	9.42					
e		7.0	3.00	10.00					
f		7.2	2.96	10.16					
g		7.6	2.88	10.48					
h		8.0	2.84	10.84					
i		8.2	2.83	11.03					
j		8.1	2.84	10.94					
k		8.6	2.79	11.39					
l		8.5	2.80	11.30					
m		9.05	2.74	11.79					
n		9.0	2.70	12.00					
o		9.0	2.74	11.74					
p		9.60	2.61	12.21					
q		9.8	2.56	12.36					
r		9.8	2.56	12.36					
s		9.8	2.56?	12.36?					

clw

YELLOW

Series 388

Copied

Se W

Mch 10, 1915

Mc 7087		Maximum		b 26+16.5		alt. corr. +10.	
Se 1		Curve Magn.		pc			
1	43 4.4	4.00	8.40	9.1	-0.89	8.21	
2		3.09	9.69				
3		2.97	10.07				
4		2.79	11.34				
5		2.78	11.48				
6		2.70	12.00				
7		2.61	12.21				
8							
9							
10							

ch W

32

YELLOW

Series 388

Copied

Se W

Mar 10, 1915

Card.

Me 7088		Dist		Curve Magn.		Alt. corr. -10	
Se 1	Se 2			pc		Curve Magn.	
1	th	.	.	79	-1.03	6.87	
2	th	.	.	82	-1.00	7.20	
3	29 40	+4.20	8.20	89	-0.92	7.98	
4	th	.	.	81	-1.01	7.09	
5	43 46 47 4.55	393	8.48	95	-0.84	8.66	
6	49 50 5.00 50	371	8.71	98	-0.80	9.00	
7	32 23	.	.	85	-0.97	7.53	
8	57	341	9.11				
9	th	.	.	81	-1.01	7.09	
10	59 6.05 10	334	9.24				
11	60 60	327	9.32				
12	53	358	8.88				
13	48	381	8.61	97	-0.81	8.89	
14	72	296	10.16				
15	69	301	9.91				
16	59	333	9.23				
17	75	290	10.40				
18	74	291	10.31				
19	75	289	10.39				
20	77	287	10.57				
21	81	284	10.94				
22	86	279	11.39				
23	90 90	274	11.74				
24	82	283	11.03				
25	97 97	257	12.27				
26	94 94	266	12.11				
27	97 97	258	12.28				
28	8						

cl W

Bn. images towards edge - out of focus.

YELLOW

Series 388

Copied

Band.

Sc W

MC 10, 1915

MC 7089	b4 s2	Curve Magn.	pc	alt. corr. +.09	Curve Magn.	
1 tp	.	.	80	-1.02	9.02	6.98
2 tp	.	.	80	-0.98	9.28	7.32
3 tp	.	.	81	-1.01	9.11	7.09
4 tp	.	.	79.86	-1.03	8.93	6.87
4a tp	.	.	85.86	-0.96	9.56	7.54
5 5.0 5.1	.	+3.66 8.76	87	-0.81	10.51	8.79
6 tp	.	.	82	-1.00	9.20	7.20
7 3.2 3.3?	.	.	87	-0.95	9.65	7.75
8	6.1	3.25 9.35				
9 4.2 4.3		4.04 8.34	90	-0.90	9.90	8.10
9a	6.0	3.30 9.30				
10	6.8	3.03 9.83				
11	7.2	2.96 10.16				
12	6.2	3.21 9.41				
13	6.1	3.26 9.36				
14	7.5	2.89 10.39				
15	7.9	2.85 10.75				
16	8.1	2.83 10.93				
17	8.1	2.83 10.93				
18	8.7	2.78 11.48				
19	8.4	2.81 11.21				
20	8.3	2.81 11.11				
21	9.75 10	9.7 9.256 12.31				
22	8.7	2.78 11.48				
23	3	.				
24	3	.				

34

YELLOW

Series 388

Apied

R Geminorum

Alt. corr. +.11

DeW	merogo	ser	ser	pc	Curve Magn.	Curve Magn.
a	th				6.3	
b	On edge.					
c	th			7.2		
d	th			7.4	-1.06	6.34
wrong place marked & measured. changed 10 Feb. 1916						
e	49 5.0			8		
f	th			8.1	-1.01	7.09
g	th			8.4	-0.98	7.42
h	40 4.1		4.15 8.25	8.9	-0.92	7.98
k	42 4.3		4.05 8.35	9.1	-0.89	8.21
l	46 4.7		3.86 8.56	9.7	-0.81	8.89
m	52 5.3 5.20	5.1	3.63 8.83			
n			5.9 3.33 9.23			
o			6.4 3.16 9.56			
p			8.2 2.82 11.02			
q			8.2 2.82 11.02			
r			8.5 2.80 11.30			
s			8.7 2.78 11.48			
t			9.0 2.74 11.74?			
u			n.s.			

clw

YELLOW

Series 388

ScW

Mch 10, 1915

Mc 709, 906

Sc1 Sc2

5 tp

6 tp

8 3.2 3.3

9 4.9 5.0 5.00 5.0

10 5.2

11 6.1

12 6.5

13 7.1

14 7.4

15 7.7

16 8.1

17 8.3

18 8.7

19 9.1

20 9.4 9.5

21 9.7

22 9.7

23 9.7

24 9.7

25 9.7

26 9.7

27 9.7

28 9.7

29 9.7

30 9.7

31 9.7

32 9.7

33 9.7

34 9.7

35 9.7

36 9.7

37 9.7

PC

7.5

8.1

8.7

9.3

Sc1 Sc2 PC

2u tp 7.4

3u tp 8.3

4u 3.9 4.1 4.10 9.2

5u 4.6 4.7

6u 5.3 5.4

7u 6.2

8u 7.2

9u 8.0

10u 9.1

11u 9.1? star very close

12u

4b 6.2

5b 6.1 6.3

6b 7.3

7b

8b

88 2 3.9 4.0

87 12 tp

15 tp

88 11.5

105 4.1 4.2

90

86

80

12 40

36

YELLOW

Series 191

S.W.

Mch 12, 1915

3	MC 4726	Bole	mc	Mean	Diff	Cum	Magn.
	5.1	5.2	4.941				
5		5.2	5.2	5.20 ⁰⁰⁰⁰	+1.23	+1.10	6.30
6		6.4	6.3	6.35 ⁰⁵⁰⁵	0.63	0.71	7.06
8		7.5	7.4	7.45 ¹⁰¹⁰	0.88	0.52	7.97
9		8.3	8.1	8.20 ⁰⁵⁰⁵	0.54	0.42	8.62
10		8.6	8.5	8.55 ⁰⁵⁰⁵	0.33	0.38	8.93
11		9.1	9.0	9.05 ⁰⁵⁰⁵	0.31	0.31	9.36
12		9.5	9.4	9.45 ⁰⁵⁰⁵	0.13	0.25	9.70
13		9.9	9.8	9.85	0.23	0.19	10.14
14		ns	.	.	.	.	.

ch W

87.5	7.5	7.2	7.35 ¹⁰¹⁵	0.54	7.89
12	7.2	7.0	7.10 ¹⁰¹⁰	0.56	7.66
86.2	7.1	7.5	7.60 ¹⁰¹⁰	0.50	8.10
115	8.7	8.7	8.70 ⁰⁰⁰⁰	0.36	9.06
105	7.9	7.7	7.80 ¹⁰¹⁰	0.48	8.28
90	.	.	.	.	.
86	.	.	.	.	.
80	.	.	.	.	.

2n	5.55 ²¹	5.7	5.2	5.38 ¹⁷¹⁸	1.03	4
	5.4				~~0.83~~	6.21
3n	6.9	6.4		6.65 ^{25 25}	0.54	9
					~~0.58~~	7.29
4n	7.8	7.7		7.75 ^{05 05}	0.49	8.24
5n	8.2	8.0		8.10 ^{10 10}	0.44	8.54
6n	8.7	8.5		8.60 ^{10 10}	0.37	8.97
7n	9.5	9.3		9.40 ^{10 10}	0.26	9.66
40	9.5	9.3		9.40	0.26	9.66

YELLOW

Series 191 Copied

Sc W

Mch 12, 1915

Cand.

MC 4737 Mch Orion

	Sc 2	Curve	Magn.
1	79	+0.46	8.36
2	81	0.43	8.53
3	85	0.39	8.89
4	90	0.32	9.32
5	ns?	.	.
6	ns	.	.
7	97	0.22	9.92
8	ns	.	.

alt. corr. - .04

ch 14

YELLOW

Series 191

Copied

ScW

Mch 12, 1915

Card.

MC 4738 ⁵⁰² D4 Curve Magn. alt. corr. -1.0

1	61	+0.79	6.89
2	69	0.60	7.50
3	74	0.53	7.93
4	62	0.56	6.76
5	78	0.48	8.28
6	81	0.43	8.53
7	^{69.5} 70	0.60	7.55
8	86	0.37	8.97
9	65	0.66	7.16
10	87	0.36	9.06
11	89	0.33	9.23
12	86	0.37	8.97
13	81	0.44	8.54
14	ns	.	.
15	90	0.31	9.31
16	87	0.36	9.06
17	97?	0.22?	9.92?
18	ns	.	.
19	98	0.20	10.00
20	98?	0.20?	10.00?

chrW

Images slightly elongated.

YELLOW

Series 191

Copied

ScW

Mch 12, 1915

Card

	MC 4740	b4	Curve Magn.	alt. corr. +.09
1	Se 2 6.1		+0.79	6.89
2	6.5		0.66	7.16
3	6.2		0.76	6.96
4	6.1		0.79	6.89
4a	7.0		0.59	7.59
5	8.1		0.43	8.53
6	6.4		0.70	7.10
7	7.2		0.56	7.76
8	8.3		0.41	8.71
9	7.8		0.48	8.28
9a	8.7		0.36	9.06
10	9.0		0.32	9.32
11	9.4		0.26	9.66
12	8.6 ¹⁰ 8.5 8.7		0.37	8.97
13	8.7		0.36	9.06
14	9.8		0.20	10.00
15	9.8		0.20	10.00
16	* 8.5 ^{Reject}		0.39	8.89
17	9.8		0.20	10.00
18				

chW

* Plate examined May 18, 1915 — 16 not seen, wrong star measured above. W

40

YELLOW

Series 191

BeW

Mc 12, 1915

Mc 4741 Pte

5	8.2
	5.2
6	6.3
8	7.4
9	8.1
10	8.5
11	9.0
12	9.4
13	9.8
14	
15	

87 15	7.2
12	7.0
88 2	7.5
115	8.7
105	7.7

20	5.2
30	6.4
40	7.7
50	8.0
60	8.5
70	9.3
40	9.3

4 20

MC 4739 omitted. (Am Reg)

Intercepted 15 m

YFI LOW

Series 191

Mch 15, 1915

S.W.

9	45	mc 474 501	Bole 502	mc 4747 4744	Mean	Diff	Curve	Magn.
5			53	6.0	5.65 ^{35 35} _{20 20}	+0.78	+0.76	6.41
6			62	6.60	6.40 ^{20 20} _{20 20}	0.58	0.59	6.99
8			73	7.7	7.50 ^{20 20} _{25 25}	0.53	0.49	7.99
9			80	8.5	8.25 ^{20 20} _{20 20}	0.49	0.43	8.68
10			83	8.7	8.50 ^{10 10} _{10 10}	0.38	0.40	8.90
11			89	9.1	9.00 ^{00 00} _{00 00}	0.36	0.33	9.33
12			95	9.5	9.50 ^{00 00} _{00 00}	0.08	0.21	9.71
13			99	9.9	9.90 ^{00 00} _{00 00}	0.18	0.11	10.01

ch W

87.15	75	7.8	7.65 ^{15 15} _{25 25}	0.47	8.12
12	70	7.5	7.25 ^{00 00} _{00 00}	0.51	7.76
88.2	77	7.7	7.70 ^{10 10} _{10 10}	0.47	8.17
115	89	8.7	8.80 ^{00 00} _{00 00}	0.36	9.16
105	80	8.0	8.00 ^{00 00} _{00 00}	0.45	8.45
86	87	8.7	8.70 ^{00 00} _{00 00}	0.37	9.07
80	87	8.7	8.70 ^{00 00} _{00 00}	0.37	9.07
20	52	5.8	5.50 ^{20 20} _{30 30}	0.80	6.30
30	63	6.9	6.60 ^{15 15} _{20 20}	0.59	7.19
40	78	8.1	8.00 ^{05 05} _{05 05}	0.46	8.41
50	79	8.0	7.95 ^{05 05} _{05 05}	0.46	8.41
60	86	8.7	8.65 ^{05 05} _{05 05}	0.38	9.03
70	95	9.5	9.50 ^{05 05} _{05 05}	0.21	9.71
80					
40	97	9.7	9.75 ^{10 10} _{10 10}	0.18	9.78

ch W

42

YELLOW

Series 191

Copied.

de W

Mch 15, 1915

Card.

MC 4742 B3

Curve Magn.

Alt. corr. +.12

Se 1

Se 2

1 4.1 4.2

2

5.2

+0.88⁶ 6.08⁶

Near edge of pl.

3

6.7

0.57 7.27²

4

6.9

0.54 7.44

5

5.8

0.73 6.53

6

7.4

0.50 7.90

7

7.7

0.47 8.17

7a

8.3

0.42 8.72

8

7.9

0.46 8.36

9

7.7

0.47 8.17

10

9.1

0.31 9.41

11

8.7

0.37 9.07

12

8.60¹¹
8.5 8.7

0.39 8.99

13

9.0

0.33 9.33

14

9.3

0.26 9.56

15

9.5

0.21 9.71

16

9.3

0.26 9.56

17

8.7

.

18

9.60¹¹
9.5 9.7

0.18 9.78

de W

YELLOW

Series 191

Copied

Cards.

SeW

Mch 15, 1915

Alt. Corr. -10

MC 4745		D 5 Curve Magn.		
Se 1		Se 2		
Ther edge	1	63	+0.64	6.94
	2	65	0.60	7.10
"	3	59	0.71	6.61
"	4	74	0.50	7.90
"	5	73	0.50	7.80
	6	79	0.46	8.36
	7	82	0.43	8.63
	8	77	0.47	8.17
	9	77	0.47	8.17
	10	81	0.44	8.54
	11	83	0.42	8.72
	12	90	0.33	9.33
	13	97	0.15	9.85
	14	90	0.33	9.33
	15	ns	.	.
	16	90	0.33	9.33
	17	97	0.15	9.85
	18			

Images for elongated

44

YELLOW

Series 191

Se W

Mch 15, 1915

Mc 4747 pole

Se 1

Se 2

5	6.0
6	6.5 6.7 6.60 1.1
8	7.7
9	8.5
10	8.7
11	9.1
12	9.5
13	9.9 9.9 9.9 0.0
14	
15	

87.15	7.8
12	7.5
88.2	7.7
115	8.7
105	8.0
86	8.7
80	8.7
2n	5.8
3n	6.9
4n	8.1
5n	8.0
6n	8.7
4p	9.5

10
to 45

Very poor Series

10m - sub

Plates 4343, 4344 + 4346 omitted (DM Regions)

YELLOW

Series 438

Se W

Mch 18, 1915

10	15	mc 7680	Boh	mc	mean	mc	7685	mean	Diff.	mc	7685	mean	Diff.	mc	7685	mean	Diff.
Curve Magn.		5th		7685	Diff.												
		6th															
3.49	7.99	8	4.5	4.6	4.4	4.50	4.35	5.9	5.8	5.85	2.89	8.0	7.95	7.9	8.00	7.98	-1.00
2.91	8.76	9															
2.83	8.98	11															
2.72	9.32	11															
2.64	9.66	12															
2.61	9.96	13															
2.60	10.25	14															
2.57	10.67	15															
2.57	11.02	16															
2.57	11.07	17															
2.57	11.52	18															
2.58	11.85	19															
2.62	12.12	20															
2.64	12.39	21															

mc 7685	mean	Curve Magn.	mc 7685	mean	Curve Magn.	mc 7685	mean	Curve Magn.								
4.9	4.8	3.32	8.17	9.0	8.95	8.9	8.95	8.98	-1.00	7.98	9.2	9.1	9.15	-1.10	8.10	
4.3	4.4	4.40	3.55	7.93	8.10	8.7	8.55	8.78	-1.04	7.61	8.8	8.9	8.85	-1.19	7.61	
4.2	4.3	4.36	3.61	7.86	8.8	8.75	8.7	8.70	8.78	-1.02	7.78	8.7	8.7	8.70	-1.21	7.49
6.2	6.2	6.20	2.81	9.01												
4.9	4.9	4.80	2.30	8.20	8.9	8.95	9.0	8.95	8.98	-1.00	8.98	9.1	9.19	1.0	7.98	
6.1	6.1	6.05	2.85	8.90												
6.0	6.0	6.05	2.87	8.82												
6.1	6.1	6.05	2.85	8.90												

ch W

46

YELLOW

Series 438

ScW

Mch 18, 1915

MC 7680 cont		mc 7685	Mean	Curv Magn	mc 7685	Mean	Curv Magn	mc 7685	Mean	Curv Magn
Sc 1	Sc 2	P 52	P 52	P 52	P 52	P 52	P 52	P 52	P 52	P 52
2m +p					7.6	7.6	7.6	7.6	7.9	7.9
3m 3.2 3.3		3.30			8.3	8.4	8.5	8.4	8.8	8.8
4m 4.9 5.0		5.05	5.02	+3.25	9.5	9.5	9.4	9.4	9.8	9.5
5m		5.3	5.3	5.30					9.7	9.7
6m		6.2	6.1	6.15						
7m		7.1	7.1	7.10						
8m		7.7	7.8	7.75						
9m		8.3	8.3	8.30						
10m		9.2	9.2	9.20						
11m		9.3	9.2	9.25						
12m		7.6								
4p		7.2	7.0	7.10						
5p		7.2	7.2	7.20						
6p		7.9	8.0	7.95						

clw

YELLOW

Series 438

Mch 18, 1915

Copied

Card.

SeW

mag	MC 7681	Se 1	Se 2	Curve Magn.	alt. corr. ⁻¹⁰	Curve Magn.	PC	Curve Magn.			
4.6	1	th		+3.6	8.10 8.1	-1.09	7.01	8.3	-1.32	6.98	
6.1	2	4.1 4.2		+3.6 ^E 7.83 ^E	8.6 8.65	8.7	-1.03	7.62	8.7	-1.21	7.49
3.4	3	th			th	th hazy		* 7.86	-1.24	7.36 ^E	
10	4		5.0	3.26 8.26	9.5 9.50	9.5	-0.93	8.57	9.3	-1.08	8.22
	5	3.1 3.2		2 2	8.3 8.40	8.5	-1.06	7.34	8.38 8.40 8.5	-1.29	7.11
	6	4.7 4.8		3.33 8.13	8.7 8.75	8.8	-1.02	7.73	9.0	-1.14	7.86
	7	4.9 5.0 5.00	5.0	3.26 8.26	9.3 9.30	9.3	-0.96	8.34	9.5 9.6 9.7	-1.02	8.58
	8	4.3 4.4		3.53 7.93	th	th			8.7	-1.21	7.49
	9		5.9	2.89 8.79					9.8	-0.98	8.82
	10		6.2	2.81 9.01							
	11		6.7	2.70 9.40							
	12		6.7	2.70 9.40							
	13		6.9	2.66 9.56							
	14		7.5	2.60 10.10							
	15		8.1	2.57 10.67							
	16		7.3	2.61 9.91							
	17		7.9	2.58 10.48							
	17a		8.6	2.57 11.17							
	18		8.7	2.57 11.27							
	19		9.0	2.57 11.57							
	20		8.9	2.57 11.47							
	21		9.3?	2.60 11.90?							
	22		9.8	2.64 12.44							
	23		3								

* wr. unit. P.C. 3.

* ur. unit. P.C. 3.

chW

YELLOW

Series 438

Mch 18, 1915

Copied

Card.

mc 7682	Sec 1	Sec 2	Curve Magn.	Alt. corr. +.10	Curve Magn.	pc	Curve Magn.
1	tp	.	.	tp	tp	.	8.1 -1.38 6.72
2	tp	.	.	83 8.30 83 ?	-1.08	7.22	83 -1.32 6.98
3	tp	.	.	73 7.30 73	2	.	7.7 -1.48 6.22
4	4.1 4.2		+2.63 ^e 7.83 ^e	86 8.65 87	-1.03	7.62	87 -1.21 7.49
5	tp	.	.	tp 8.30 83	-1.08	7.22	87 8.60 85 -1.24 7.36
6	4.1 4.2		3.63 ^e 7.83 ^e	87 8.70 87	-1.03	7.67	89 -1.16 7.74
7		5.7	2.96 8.66	97 9.75 98	-0.89	8.86	98 -0.98 8.82
8		5.9	2.89 8.79	tp	tp	.	89 -1.16 7.74
9	4.3 4.4		3.53 7.93				
10		6.1	2.84 8.94				
11		5.9	2.89 8.79				
12		6.9	2.66 9.56				
13	4.2	6.9	2.66 9.56				
12a	4.3	7.3	2.61 9.91				
14		7.7	2.59 10.29				
15		9.8	2.59 10.39				
16		8.1	2.57 10.67				
17		8.3	2.57 10.87				
18		7.5	2.60 10.10				
19		8.3	2.57 10.87				
20		9.4	2.60 12.00				
21		8.9	2.57 11.47				
22		9.5	2.62 12.12?				
23		9.5	2.62 12.12				
24		9.8	2.64 12.44				
25		9.9	2.65 12.55				

dw

Faint images do not compare well with scale images.

YELLOW

Series 438

Card

ScW

Mch 18, 1915

Copied

mc 7683 δ Persei

		Curve Magn.
a	62	+2.81 9.01
b	7.1 69	2.64 9.64
c	70	2.64 9.64
d	71	2.63 9.73
e	69	2.66 9.56
f	72	2.62 9.82
g	77	2.59 10.29
h	83	2.57 10.87
i	82	2.57 10.77
k	85	2.57 11.07
l	89	2.57 11.47
m	89	2.57 11.47
n	91	2.57 11.67
n'	95	2.61 12.11
n ₂	9.60 9.77	2.62 12.22
o	9.80 9.8	2.64 12.44
p	8	

alt. corr. +1.2

ch W

50

YELLOW

Series 438

Mch 18, 1915

Copied

Card

Se W

Mc 7684

scz

Erid

Ref.

alt. corr. -.08

1
Sc 1
+P

Curve Magn.

2.79
69.695 70 E E

Pc

74 E

2

63

+ 2.79

+ 1.56

9.09

3

63

2.79

+ 1.56

9.09

4

69

2.66

9.56

5

71

2.63

9.73

6

73

2.61

9.91

7

75

2.60

10.10

8

81

2.57

10.67

Sm. hazy

9

83?

2.57?

10.87?

10

88

2.57

11.37

11

90

2.57

11.57

12

91

97

2.63

12.33

ch W

YELLOW

Series 438

Se W

Mch 18, 1915

9	30	Mc 7685	Pole		pc
		Se1	Se2	g. i. h	
5	th			77.7.80 19	79
6	th			79.80.0 8.1	83
8	43 4.4			90.89.5 8.9	92
9		5.8		97.9.70 9.7	97
10		6.1			9.9
11		6.5			
		6.95 0.1			
12		7.0 6.9			
13		7.3			
14		7.7			
15		8.0			
16		8.4			
17		8.5			
18		9.0			
19		9.3			
20		9.5			
21		9.7			
		Se1			
882		4.8		90.9.00 9.0	92
8715	43 4.4	4.3		85.8.60 8.7	8.8
12	4.1 4.2			88.8.80 8.8	8.7
88115		6.2			
105		4.9		90.9.00 9.0	91
90		6.0			
86		5.9			
80		6.0			

Faint images, hazy - poorly defined

52

YELLOW

Series 438

ScW

Mch 18 1915

Mc 7689⁵ cont-

2n tp

3n tp

4n 5.0 5.1 5.05 5.0

5n 5.3

6n 6.1

7n 7.1

8n 7.8

9n 8.3

10n 9.2

11n 9.2

4d 7.0

5d 7.2

6d 8.0

2 : h

76.765 77

83.845 85

93.945 95

Pe

79

89

95

97

YELLOW

Series 438

dew

Mch 19, 1915

mc 7685			mc 7691			mc 7691			mc 7691		
Curve Magn.	Sec	Mean Diff.	Curve Magn.	Sec	Mean Diff.	Curve Magn.	Sec	Mean Diff.	Curve Magn.	Sec	Mean Diff.
43.37	8.02	8 42 4.3	5.0	4.65	+3.38	7.7	7.70	7.75 -1.32	7.8	7.5	7.9 -1.35
294	8.79	9	5.1	6.0	5.85 2.89	7.9	8.00	8.1 8.10 8.05 -1.87	8.3	8.30	-1.22
2.88	8.93	10	6.0	6.1	6.05 2.83	8.9	8.95	9.0 8.95 -0.92	9.8		9.20 -1.17
2.77	9.27	11	6.3	6.7	6.50 2.86	9.7	9.75	9.8 9.75 -1.01	9.8		9.80 -1.06
2.70	9.55	12	6.7	7.0	6.85 2.73	Diff. images			9.8		9.80 -0.92
2.59	10.04	13	7.3	7.60	7.45 2.63	Curve Magn.			PC	d.W	
2.54	10.29	14	7.6	7.9	7.75 2.49	5	-1.17	6.58	-1.31	6.47	
2.51	10.61	15	8.0	8.2	8.10 2.54	6	-1.12	6.93	-1.26	6.94	
2.50	10.90	16	8.3	8.5	8.40 2.54	8	-1.02	7.93	-1.13	8.07	
2.50	11.10	17	8.5	8.7	8.60 2.44	9	-0.94	8.81	-1.02	8.78	
2.51	11.61	18	9.0	9.2	9.10 2.46	10			-1.02	8.78	
2.50	11.70	19	9.2		9.20 2.74						
2.53	12.03	20	9.5		9.50 2.69						
2.55	12.35	21	9.8		9.80 2.47						
88	2		4.7		4.70 +3.34 8.04	9.0	8.95	8.9 -1.02 7.93	9.1	7.4	-1.15 7.95
87	10	4.3 4.4			4.40 3.45 7.85	8.9	8.85	8.8 -1.03 7.82	8.9		-1.18 7.72
	12	4.2 4.3			4.30 2 8.78 7.0 8.7	8.7		-1.05 7.65	8.7		-1.21 7.49
88	11.5		6.2	6.1	6.15 2.86 9.01						
	10.5		4.7	4.9	4.80 3.30 8.10	8.9	8.95	9.0 -1.02 7.93	9.1		-1.15 7.95
	9.0		5.9	6.0	5.95 2.91 8.86						
	8.6		6.0	5.9	5.95 2.91 8.86						
	8.0		5.9	6.1	6.00 2.90 8.90						
										P.C.	Remeasured
										+88° 2	9.1
										+87° 15	8.8
										April 8, 1915	
										S.F.M. Rec.	

*

Rejected. See note p. 59.

YELLOW

Series 438

D-W

Mch 19, 1915

mc 7685	Bole	cont	mc 7691	Curve Magn	pc	Mean Curve Magn
20	sc1	sc2	mc 7691	Mean		
20	4.0		4.1	4.05	2	8.38
40			4.9	4.90	+3.26	8.16
50			5.2	5.20		3.16
60			6.0	6.8	6.40	2.80
70			6.9	7.4	7.15	2.64
80			7.5	8.0	7.75	2.54
90			8.2	8.5	8.35	2.50
100			9.1	9.10	2.51	11.61
110			9.2	9.1	9.15	2.51
40			6.8	6.8	6.80	2.71
50			6.9	6.9	6.90	2.69
60			7.8	7.8	7.80	2.54

Ch W

Se W

YELLOW

Series 438

Feb 19, 1915

Copied

Cand.

Mag	MC 7686	Pleiades	alt. corr. + .08	Curve Magn.	PC	Curve Magn.
1.60	Se 1	Se 2	Curve Magn.			
1	Bv		2.01 h	2.195 1.9	4.2	2
2	Bv		3.13.10 3.1	2	5.1	2
3	Bv		3.0 3.00 3.0	2	5.2	2
4	Bv		th. th	2	5.3	2
5	Bv		th. th		5.9	2
6	Bv		th. th		6.0	2
7	Bv		th. th		6.4	2
8	Bv		6.06.06.1 (star) 2.99	9.04 8.74	6.7	2
9	Bv		6.36.30.63 (star) 2.82	9.12 8.74	7.0	2
10	B		7.27.25.73 (star) 2.62	9.8.7 8.74	7.5 7.7	-1.31 6.29
11	2.0 2.1		-1.65	7.97.90.79	7.53	6.75
12	2.0 2.1		-1.14	7.97.95.8.0	6.81	8.1
13	2.1 2.2		-1.12	8.08.05.8.1	6.93	8.3
14	2.3 2.4		-1.11	8.28.20.8.2	7.09	8.5
15	2.7 2.3 2.4 2.60 ^{2.3}		-1.10	8.38.30.8.3	7.20	8.5 8.7-1.22
16	2.3 2.4		-1.10	8.38.30.8.3	7.20	8.5
17	3.1 3.2		-1.06	8.78.70.8.7	7.64	9.0
18	4.0 4.1		-1.03	9.08.95.8.9	7.92	9.3
19	4.7 4.8	+3.30	8.10	th. th		9.7
20	4.7 4.8	3.30	8.10	9.59.50.9.5	-0.97	8.53
21	4.9 5.0 4.90 ¹¹ 4.8	3.26	8.16	9.79.70.9.7	-0.95	8.75
22		5.3	3.12	8.42		
23		4.9	3.26	8.16		
24		5.3	3.11	8.41		
25		5.7	2.97	8.67		
26		5.1	3.19	8.29		
27		6.7	2.73	9.43		
28		7.60 ¹¹ 7.5 7.7	2.57	10.17		
29		6.3	2.82	9.12		
30		8.1	2.51	10.61		

not comp. with reals.
 faint - 2.00 not measured the faintest seen.

56

YELLOW

Series 438

Copied

Card.

S.W.

Mch 19, 1915

mc 7687	Se 1	Se 2	Curve Magn.	alt. corr. +.10	Curve Magn.	PC	Curve Magn.
1	tp		.	8.30 8.3	-1.10 7.20	84	-1.25 7.15
2	tp		.	8.70 8.7	-1.05 7.65	87	-1.21 7.49
3	tp		.	8.70 8.7	-1.05 7.65	87	-1.21 7.49
4	4.3 4.4		+3.46 ^e 7.86 ^e	8.78.60 8.5	-1.06 7.54	87	-1.21 7.49
5	5.0 5.1 5.10 ⁰⁰	5.1	3.19 8.29	8.90 8.9	-1.03 7.87	91	-1.15 7.95
6		5.3	2.94 8.74	9.70 9.7	-0.95 8.75	96.0 11	9.5 -1.06 8.54
7	4.3 4.4		3.46 ^e 7.86 ^e	8.50 8.5	-1.08 7.42	87	-1.21 7.49
8		6.2	2.84 9.04	9.60 9.7	-0.96 8.64		
9		6.2	2.84 9.04	9.80 9.8	-0.94 8.86		
10		6.3	2.82 9.12	9.80 9.9	-0.94 8.86		
11		5.8	2.94 8.74	9.50 9.5	-0.97 8.53	97	-1.04 8.66
12		7.0	2.67 9.67				
13		7.1	2.66 9.76				
14		7.0	2.67 9.67				
15		7.5 7.7	2.57 10.17				
16		6.60 11	6.72.75 9.35				
17		7.3	2.61 9.91				
18		7.7	2.55 10.25				
19		8.0	2.50 10.80				
20		8.2	2.50 10.70				
21		8.5	2.50 11.00				
22		8.7	2.50 11.20				
23		8.0	2.52 10.52				
24		8.1	2.51 10.61				
24.2		8.7	2.50 11.20				
25		8.7	2.50 11.20				
26		9.7	2.51 11.71				
27		9.40 11	2.52 11.92				
28		9.5	2.53 11.03				
29		9.7	2.57 12.47				

S.W.

YELLOW

Series 438

Card.

Sc W

Mch 19, 1915

Copied

mc 7688	Alt. corr. +.07	Curve Magn.	Curve Magn.	Curve Magn.					
Sc 1									
1 tp	8.50 ^h	8.5 -1.07	7.43	8.60 ¹¹ 8.7 -1.22	7.38				
2 tp	8.58 ¹¹	8.3 -1.09	7.31	8.4	-1.25	7.15			
3 tp	tp . tp	.	.	8.0	-1.29	6.71			
4 tp	8.18 ¹⁰	8.1 -1.12	6.98	8.2	-1.26	6.94			
4a tp	8.78 ¹⁰	8.7 -1.05	7.65	8.7	-1.27	7.43 ⁹			
4b tp	tp . tp	.	.	8.1	-1.28	6.82			
5	6.0	+2.90	8.90	9.7 9.8	.	.	9.8	-1.02	.
6	5.9	2.92	8.82	9.7 9.75 ¹⁰	9.8 -0.95	8.80	9.8	-1.02	8.78
7	5.9	2.92	8.82	9.8 9.80 ¹⁰	9.8 -0.94	8.86	9.9	-1.00	8.90
8	5.7	2.97	8.67	9.8 9.80 ¹⁰	9.8 -0.94	8.86	9.8	-1.02	8.78
9	5.9	2.93	8.83				9.8	-1.02	8.78
9a	5.1	3.19	8.29	8.9 8.85 ¹⁰	8.8 -1.03	7.82	9.0	-1.16	7.84
9b	6.7	2.73	9.43						
10	6.8	2.71	9.51						
11	6.9	2.69	9.59						
12	7.3	2.61	9.91						
13	6.7	2.73	9.43						
14	7.8	2.54	10.34						
15	7.7	2.56	10.26						
16	6.9	2.69	9.59						
17	8.1	2.51	10.61						
18	8.2	2.50	10.70						
19	8.2	2.50	10.70						
20	8.9	2.50	11.40						
21	8.9	2.50	11.40						
22	8.7	2.50	11.20						
23	9.05 ¹²	8.9 9.250	11.55	ch W					
24	7.8								
25									

YELLOW

Series 438

Mch 19, 1915

Copied

Cand.

b-w

mc	7689	b3	Curve Magn.	alt. corr. $+0.5$	Curve Magn.	pc	Curve Magn.
1	tp	sc 1	.	78	-1.16 6.64	79	-1.29 6.61
2	tp	sc 2	.	80 tp	-1.13 6.87	79	-1.29 6.61
3	tp		.	tp tp	.	79	-1.29 6.61
4	42 4.3		E	87 8.70 87	-1.05 7.65	89	-1.18 7.72
5	tp		.	tp tp	.	87	-1.21 7.49
6	43 4.4		E	tp tp	.	87	-1.21 7.49
7	49 5.0 5.00 50		+3.23 8.23	90 9.00 90	-1.02 7.98	91	-1.15 8.95
8	42 4.3		E	87 8.70 87	-1.05 7.65	87	-1.21 7.49
9		6.1	2.86 8.96				
10	41 4.2		E	87 8.70 87	-1.05 7.65	87	-1.21 7.49
11	43 4.4		E	87 8.70 87	-1.05 7.65	89	-1.18 7.72
12		6.2	2.84 9.04				
13			.				
14		7.1	2.66 9.76				
15		7.3	2.61 9.91				
16		7.1	2.66 9.76				
17		6.9	2.69 9.59				
18		7.5	2.58 10.08				
19		7.7	2.56 10.26				
20		7.7	2.56 10.26				
21		7.9	2.53 10.43				
22		8.2	2.50 10.70				
23		8.7	2.50 11.20				
24		7.7	2.56 10.26				
25		8.7	2.50 11.20				
26		8.9	2.50 11.40				
26a		8.8	2.50 11.30				
26b		9.7	2.55 12.25				

ch W

Images poor - Plate covered with pin holes - very poor

YELLOW

Series 438

May 19, 1915

Se W

MC 4691 Cole

Se1	Se2
-----	-----

5 t.p.

6 th

8 4.9 5.0

9 60

10	6.1
----	-----

11 67

12 70

13 760 ± 1
75 77

14 79

15 82

16	85
----	----

17	87
----	----

18 92

19 $\frac{1}{2}$

20 t_p

88 2 + h

* 87 15 + 1/2

 $12 + h$

88115 6.1

108 49

90 6.0

86	59
----	----

80	61
----	----

PC

79

83

*78

Pc

1.0

9.0

7.9

Remeasured

April 8, 1915

G. F. M. Rec

Faint-images hazy. Plate defective

12. 5 * Presumably an error in reading - nijed. E.7.8

60

YELLOW

Series 438

Mc 19 1915

bcw

Mc 7691 cont

2n tp

3n 40 41

4n

5n

6n

7n

8n

9n

10n

11n

40

50

60

53 49

59 52

68 68

73 74

79 80

85

tp tp

92 91

69 68

71 69

78 78

9 ih
1.6 7.7 0.7 8

8.5 8.5 8.5

9.3 9.4 0.9 5

pc

8.0

8.7

9.3

YELLOW

61

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YELLOW

YELLOW

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YELLOW

64

YELLOW

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65

66

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YELLOW

WOLBACH

YELLOW

70

YELLOW

YELLOW

YELLOW

YELLOW

72

YELLOW

YELLOW

YELLOW

73

74

YELLOW

YELLOW

76

MR Series 17

Scm

Dec 11, 1917

11-30

MR 2340

Bale

	501	502	2344	2357					
		B	p79	p80			cu	magn	
5									
6	3.3 3.1		3.2	3.3	3.27 ⁰¹⁰	3.84	3.84	7.14	
8	4.9 4.7	4.95 ¹⁰	5.0	5.1	4.90	4.98 ^{03 12 05}	3.25	3.30	8.25
9	6.0 5.8	6.00 ⁰⁰	6.0	5.7	5.5	5.73 ^{27 03 22}	3.10	3.10	9.10
10			6.1	5.9	5.8	5.93 ²⁰¹	3.09	3.10	9.20
11			6.7	6.4	6.1	6.40 ³⁰³	3.15	3.08	9.78
12			7.1	6.7	6.5	6.77 ³¹²	3.09	3.07	10.17
13			7.4	7.5	7.2	7.37 ⁰¹²	2.93	3.06	10.46
14			7.7	7.8	7.5	7.62 ⁰¹²	2.98	3.05	10.75
15			7.9	8.0	7.8	7.90 ¹⁰¹¹	3.18	3.04	10.94
16			8.3	8.3	8.0	8.20 ¹¹²	3.20	3.03	11.33
17			8.5	8.6	8.3	8.47 ⁰¹²	3.16	3.03	11.53
18			9.0	9.0	8.9	8.97 ⁰⁰¹	3.09	3.02	12.02
19			9.3	9.5	9.3	9.37 ¹¹¹	3.05	3.02	12.32
20			9.7	10.02	9.8	9.83 ¹²⁰	2.90	3.03	12.73
23		205							

M Series 17

ScM

Dec 11, 1917

M 2341 124 K 8 15-15

alt. am - 19.

	502 Cu	124 K	8
1	6.1	3.10	9.20
2	7.5	3.06	10.56
3	7.9	3.04	10.94
4	6.4	3.10	9.50
5	8.5	3.03	11.53
6	8.3	3.03	11.33
7	8.7	3.03	11.73
8	9.3	3.02	12.32
9	9.5	3.03	12.53
10	9.8	3.03	12.83
11	9.9?	3.03	12.93
12	F		

78

M D Series 17

Sch

Dec 11, 1917

	M D	2343	76 K	8	16 + 15	Act. corr. + .16
1	^{5.1} 4.7	4.95	^{5.2} 5.0	3.20	8.25	
2		5.4	3.20	8.60		
3		5.9	3.14	9.04		
4		6.5	3.09	9.59		
5		7.1	3.07	10.17		
6		7.5	3.06	10.56		
7		7.9	3.04	10.94		
8		8.4	3.03	11.43		
9		8.7	3.03	11.73		
10		8.9	3.03	11.93		
11		9.1	3.02	12.12		
		^{9.60 ± 1}				
12		9.5	9.7	3.03	12.63	
13		9.9	3.03	12.93		

MA Series 17

Se M

Dec 11, 1917

	MA 2344	Pole	
5	^{3.2} 3.0	^{Se 2} B	mag
6		3.87	7.07
8		5.1 3.26	8.36
9		5.7 3.16	8.86
10		5.9 3.14	9.04
11		6.4 3.10	9.50
12		6.7 3.09	9.79
13		7.5 3.06	10.56
14		7.8 3.05	10.85
15		8.0 3.04	11.04
16		8.3 3.03	11.33
17		8.6 3.03	11.63
18		9.0 3.02	12.02
19		9.5 3.03	12.53
20		10.0 3.03	<u>13.03</u>

80

M_B Series 17

ScM

Dec 11, 1917

M_B 2346 δ_{22} δ K_{mag} 16 14 + 74.9

Act. corr. -.04

1	7.2	3.05	10.28
2	7.5	3.06	10.56
3	7.7	3.05	10.75
4	8.0	3.04	11.04
5	8.1	3.04	11.14
6	8.5	3.03	11.53
7	8.9	3.03	11.93
8	9.1	3.02	12.12
9	9.4	3.03	12.43
10	9.8	3.03	12.83
11	10.0	3.03	<u>13.03</u>

M D Series

bc M

Dec 11, 1917

	M D 2347	9	52	101 K	alt. corr. +0.06
	50.2	an	mag	0.0	
1	49	3.32	8.22		
2	59	3.14	9.04		
3	61	3.10	9.20		
4	65	6.60 ¹ 6.7	3.09	9.69	
5	72	3.08	10.28		
6	75	3.06	10.56		
7	81	3.04	11.14		
8	88	3.03	11.83		
9	93	9.40 ¹ 9.5	3.03	12.43	
10	F				

82

M.D. Series 17

Dem

Dec 11, 1917

M.D. 2348		126 K		10 17-15	act. corr. - 19
1	^{Sec 1} 3.7	^{Sec 2} 4.00	^{Sec 3} 3.9	^{Sec 4} 3.59	^{Sec 5} 7.59
2		5.5	3.17	8.67	
3		6.8	3.08	9.88	
4		7.2	3.07	10.27	
5		7.7	3.05	10.75	
6		8.3	3.03	11.33	
7		8.7	3.03	11.73	
8		8.9	3.03	11.9 B	
9		^{9.60 ± 1} 9.5	9.7303	12.63	

M D Series 17

Sc M

Dec 11, 1917

M D 2349		53	15	9	25 + 30	Alt. cor +.20
1	^{5.8} 5.7	^{5.85} 5.8	3.14	8.99		
2	^{6.5} 6.3	^{6.5000} 6.5	3.10	9.60		
3		6.4	3.10	9.50		
4		7.2	3.07	10.27		
5		7.5	3.06	10.56		
6		7.7	3.05	10.75		
7		^{8.402} 8.5	8.3 3.03	11.43		
8		8.7	3.02	11.73		
9		8.9	3.03	11.93		
10		9.3	3.03	12.33		
11		9.7	3.03	12.73		
12		9.8	3.03	12.83		
13		F				

84

MR Series 17

S.M.

Dec 11, 1917

MR 2350		29 K 9		38 + 44.9	
	sec	sec	magn		
1	3.7	3.62	7.52		
2	4.8	5.00	5.0	3.29	8.29
3		5.7	3.17		8.87
4		6.5	3.10		9.60
5		7.3	3.07		10.37
6		7.5	3.06		10.56
7		7.8	3.04		10.84
8		8.3	3.03		11.33
9		9.3	9.20"	9.1303	12.23
10		9.7	3.03		12.73

Alt. cor + .21

MA Series 17

BeM

Dec 11, 1917

MA 2351		Bole	
5	5.1	5.2	Cu magn
6	3.1	3	3.84 7.14
8	4.9 4.7	4.90 ⁰⁰	4.9 3.31 8.21
9		5.5	3.19 8.69
10		5.8	3.13 8.93
11		6.1	3.10 9.20
12		6.5	3.10 9.60
13		7.2	3.07 10.27
14		7.5	3.06 10.56
15		7.8	3.05 10.85
16		8.0	3.04 11.04
17		8.3	3.04 11.34
18		8.9	3.03 11.93
19		9.3	3.03 12.33
20		9.8	3.03 <u>12.93</u>

1100

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