

1907phae.proj..981L

KG

11365  
980



KG 11365, 980

1907phae.proj..981L















KG 11365, 980





# Contents.

Object.	Page.
Measures of sequences for Pleiades + Pole.	4-14
" Polar sequence + Photographic seq for Nova Persei	15, 16
" of sequence for var. -59° 233	19, 20
" " " var. -59° 400	21, 22
Measures of seq. for M5 and region $17^h + 15^m$	24
Measures of seq. for $\chi$ Coronae. $15^h 43.6^m + 36^m 41^s$	26, 27
Measures of seq. for -Coronae $15^h + 29^m$	28, 29
Measures of seq. for var. $0^h 2.0^m + 50^m 45^s$	30-33
Measures of seq. for Mr Metcalf's var. $9^h 45^m 39.8^s + 12.203^s$	36-38
Estimated brightness of J. H. M.'s var.	39-43
Remeasures of N Plates.	44-49-54
Measures of N Plates. Region $17^h + 75^m$	55, 56
" " " " $20^h + 45^m$	57, 58
" " " " $23^h + 15^m$	59, 60
" " " " $23^h - 15^m$	61, 62
" " " " $21^h - 15^m$	63, 64
" " " " $1^h 20^m + 45^s$	65, 66
" " " " $1^h + 15^m$	67, 68, 87, 128
" " " " $17^h 20^m + 45^s$	69, 70
" " " " $3^h + 15^m$	71, 72, 94, 129
" " " " $4^h + 45^m$	73, 74
" " " " $19^h - 15^m$	75, 76
" " " " $19^h + 15^m$	77, 78
" " " " $17^h + 15^m$	79, 80
" " " " $14^h 40^m + 45^s$	81, 82
" " " " $20^h + 75^m$	83, 84, 109
" " " " $7^h + 15^m$	85
Measures of ft. stars in Pol. seq. $4^h + 75^m$	86, 107
" " " " " " $1^h + 15^m$	87



# Contents.

Object.	Page.
Measures of ft stars Pl. seq. <sup>h</sup> 20 + 45	88
" " " " " " 23 + 15	89, 198
" " " " " " 23 - 15	90
" " " " " " 21 - 15	91
" " " " " " 1 20 + 45	92, 112
" " " " " " 1 + 15	93, 128
" " " " " " 3 + 15	94, 129
" " " " " " 17 20 + 45	95, 125
" " " " " " 4 + 45	96, 113
" " " " " " 19 - 15	97
" " " " " " 19 + 15	98, 132
" " " " " " 17 + 15	99, 133
" " " " " " 20 + 75	100
" " " " " " 14 40 + 45	101, 124
" " " " " " 7 + 15	102, 130
Meas. of Polar & other sequences <sup>including ft stars</sup> 11 + 15	103, 104, 131
" " " " " " 9 20 + 45	105, 106, 122
Meas of ft stars. Pol. seq & other 12 + 75	108, 126, 127
Meas. of Polar & Phot seq. <sup>Wetzel's var</sup>	110, 111
" " Pol. and other sequences. 5 - 15	114, 115
" " " " " " 12 + 45	116, 117, 123
" " " " " " 5 + 15	118, 119, 121
Direct estimates to find var. in <sup>+27 3909</sup>	120
Meas of Polar & other sequences <sup>+4 stars</sup> 9 + 15	134, 135
" " " " " " 9 - 15	136, 137
" " " " " " 13 - 15	138, 139
" " " " " " 15 + 15	140, 141
" " " " " " 21 + 15	142, 143
" " " " " " 15 - 15	144, 145
" " " " " " 6 40 + 45	148



# Contents.

Object.	Page.
Measures of Seq. for M3	146, 147
" " " " and reg. $17^h + 15^m$	150-152
" " Pol. seq and seq for 060547	154, <del>156</del> , -160
" " " " " Miss Whiteside's var.	162-165
" " faint stars in seq for 060547	166
" " Pleiades + Polar sequences	168
" " Seq. for M3	170-174
" of Polar, Phot. seq for RX Androm.	176, 177, 178
" " Seq. for var. $19^h 30.6^m - 45.52^s$	179-186
Exam. of plates to find variation in $+50^s 1590$	187, 188
Estimates of brightness RX Androm. $0^h 56.2^m + 40^s 31.5$	189-192
Remeasures in Lodges 3, 5, 6, + 14	193-197
Measures of Seq. for var. $18^h 20.3^m + 24.9^s$ (E.C.P.)	199, 200
T' Plate. Reg $3^h - 15^m$	202 - 203
Measures of $\eta$ Herculis - comparing it with $\epsilon$ Herculis	205 - 222
Faint stars in Polar Seq. $6^h 40^m + 45^s$	201
" " " " " $21^h + 15^m$	204
Polar sequence &c $1^h - 15^m$	155
" " and Phot. seq for 060547	156 - 160, 166
Measures of Seq. for Miss Whiteside's var.	162 - 165
" " Pleiades + Pole	168
Scale measures of seq. for M3	170-174
Measures of seq. for RX Androm.	176-178
" " var. at $19^h 30.6^m - 45.52^s$	179-186
Exam. of plates to find variation if any in $+50^s 1590$	187, 188
Estimates of br. of RX Androm.	189-192
Remeasures of discordant cases in Var Stars.	193-197
Measures of ft. stars in Seq. for B12	198
" of seq. for var. $18^h 20.3^m + 24.9^s$ E.C.P.	199, 200
Meas. of ft. stars in standard regions	201-204
" $\eta$ Herculis + $33^s 28.4$ compared with $\epsilon$ Herc. $137^s 28.4$	205 - 222



## N' Plates

## Sequences of Pleiades and Pole

March 20, 1907

(Miss Leavitt's seq.)

I 33774

Pl. 1st	a'	b	f			
		2.2	2.2	2.1	2.17	001
	f'	4.2	4.3	4.2	4.23	010
	g	4.3	4.5	4.3	4.37	111
	h	5.2	5.2	5.2	5.20	000
	i	5.8	5.9	6.0	5.90	101
	j	6.3	6.3	6.7	6.43	113
	j'	7.7	7.7	7.7	7.70	000
	k	8.5	8.5	8.5	8.50	000
	l	9.0	9.2	9.1	9.10	110
	m	-	-	-	-	-
	n	-	-	-	-	-

Pole	a	3.8	4.0	4.1	4.0	4.03	010
	b	5.8	5.9	5.7	5.80	011	
	c	6.7	6.4	6.7	6.60	121	
	d	8.2	8.0	8.0	8.03	100	
	e	8.3	8.3	8.3	8.30	000	
	f	8.7	8.7	8.8	8.73	001	
	g	9.5	9.3	9.4	9.40	110	
	h	-	-	-	-	-	
	k	-	-	-	-	-	

Pl. 2d	a'	1.7				
	f'	1.9	2.1	2.1	2.2	2.13 001
	f	4.2	4.2	4.2	4.20	000
	g	4.3	4.2	4.3	4.27	010
	h	5.3	5.2	5.1	5.20	101
	i	5.9	5.8	6.2	5.97	122
	j	6.3	6.7	6.6	6.53	221
	j'	7.8	7.8	7.7	7.77	001

I<sup>n</sup> Plates,  
Pleiades and Pole-

March 20, 1907

I 32774	F				
K <del>84</del>	<del>8.7</del>	8.3	8.3	8.27	100
l	9.1	9.1	9.3	9.17	111
m	-	-			
n	-	-			

Pole.	a 3.9 =	4.1			
b		5.9			
c		6.4			
d		8.0			
e		8.3			
f		8.7			
g		9.3			
h		-			
k		-			

Pl. 2 <sup>d</sup>	a'				
b'	1.9 =	2.1			
f		4.2			
g		4.2			
h		5.2			
n		5.8			
f		6.7			
f'		7.8			
K		8.3			
l		9.1			
m		-			
n		-			

Pole	a 3.8 =	4.0			
b		5.7			
c		6.7			
d		8.0			
e		8.3			
f		8.8			



# *I<sup>n</sup> Plates.*

## *Pleiades and Pole*

*March 20 1907*

*I 33774*

*g<sup>o</sup> 9.4*  
*h —*  
*k —*

*Pl. 1<sup>st</sup>*

*a' 2.0 = 2.2*

*f 4.3*  
*g<sub>h</sub> 4.5*  
*h 5.2*  
*i 5.9*  
*j 6.3*  
*j' 7.7*  
*k 8.5*  
*l 9.2*  
*m —*  
*n —*

*Pl 1<sup>st</sup>*

*a' 1.9 = 2.1*

*f 4.2*  
*g 4.3*  
*g<sub>h</sub> 5.2*  
*h 6.0*  
*i 6.7*  
*j 7.7*  
*k 8.5*  
*l 9.1*  
*m —*  
*n —*

*Pole*

*a 3.7 = 3.9*  
*b 5.6*  
*c 6.7*  
*d 8.0*

*Reject 4<sup>th</sup> meas. of Pole.*

I' Plates.

7

Pleiades and Pole.

Mch 20, 1907

I3377K

e 8.3

f 8.7

g 9.3

h -

k -

Pl 2d

a' -

f' 2.0 = 2.2

f 4.2

g 4.3

h 5.1

i 6.2

j 6.6

j' 7.7

k 8.3

l 9.3

m -

n -



N<sup>1</sup> Plates.

Pleiades and Pole

Mch 20, 1907

I 33821

Pl. 1<sup>st</sup>

a' B.

b' B.

f 2.0 = 2.2 2.3 2.2 2.23 010

g 2.2 = 2.4 2.3 2.3 2.33 100

h 2.7 = 2.9 2.6 2.5 2.67 212

i 3.0 = 3.3 3.2 3.2 3.23 100

j ~~3.4~~ 4.4 = 3.6 3.5 3.5 3.53 100

f 5.3 5.1 5.0 5.07 001

g 5.8 5.5 5.4 5.57 212

h 7.1 7.1 7.2 7.13 001

m 8.3 8.5 8.4 8.40 110

n 9.5 9.5 9.5 9.50 000

Pole

a ~~1.7~~ 1.9 2.0 1.9 1.93 010

b 3.2 = 3.4 3.6 3.6 3.53 111

c 3.9 4.1 4.0 4.00 110

d 5.2 5.3 5.2 5.23 010

e 5.5 5.7 5.5 5.57 111

f 6.0 6.1 5.9 6.00 011

g 8.0 8.0 7.9 7.97 001

h 8.3 8.4 8.2 8.30 011

K 8.8 8.9 8.6 8.77 012

Pl. 2<sup>d</sup>

a'

b'

f 2.1 = 2.3 2.2 2.3 2.23 101

g 2.2 = 2.4 2.4 2.3 2.37 001

h 2.6 = 2.8 2.7 2.7 2.73 100

i 3.1 = 3.3 3.2 3.2 3.23 100

f 3.3 3.5 3.5 3.5 3.50 000

T Plates.  
Pleiades and Pole  
Mch 20, 1907

I 33821

j <sup>ft.</sup> 5.2 5.1 5.0 5.10 101

k 5.9 5.7 5.5 5.70 202

l <sup>12</sup> 8.4 7.1 7.2 7.17 010

m 8.2 8.3 8.4 8.30 101

n 9.5 9.4 9.5 9.47 010

Pole a 1.8 = 2.0

b 3.6

c 4.1

d 5.3

e 5.7

f 6.1

g 8.0

h 8.4

k 8.9

Pl. 2<sup>d</sup>. a 13

b

f 2.2 2.0

g 2.4 2.2

h 2.7 2.5

i 3.2 3.0

j 3.5 3.3

k 5.1

l 5.7

m 7.1

n 8.3

o 9.4

Pole a 1.7 = 1.9

b 3.4 = 3.6

c 4.0



T' Plates.

Pleiades and Pole

Mch 22, 1907

I 3821

d 5.2

e 5.5

f 5.9

g 7.9

h 8.2

K 8.6

Pl. 125

a'

f'

f <sup>B<sub>v</sub></sup> 2.1 = 2.3

g 2.1 2.3

h 2.4 2.6

i 3.0 3.2

j 3.3 3.5

k 5.1

L 5.5

m 7.1

n 8.5

o 9.5

Pl. 126

a'

b'

f 2.0 2.2

g 2.2 2.3

h 2.3 2.5

i 3.0 3.2

j 3.3 3.5

k 5.0

L 5.4

m 7.2

n 8.4

T' Plates.  
 Pleiades and Pole-

Mch 22, 1907

I 33821

	$\infty$	<del>9.5</del> 9.5
Pole	a	1.7 - 1.9
	b	3.1 - 3.3
	c	4.0 3.9
	d	5.3
	e	5.6
	f	6.0
	g	7.8
	h	8.1
	k	8.7
Pole 2d	a'	
	b'	
	f	2.1 2.3
	g	2.1 2.3
	h	2.5 2.7
	i	3.0 3.2
	j	3.3 3.5
	j'	5.0
	k	5.5
	l	7.2
	m	8.4
	n	9.5



*T' Plates*  
*Pleiades and Pole*  
*Mch 22, 1907*

	<i>T</i>	34313				
<i>Pl 1<sup>st</sup></i>	<i>a'</i>	—	<i>B</i>	<i>F</i>		
	<i>f'</i>	—				
	<i>f</i>	2.9	3.1	3.0	3.1	3.07 010
	<i>g</i>	2.9	3.1	3.2	3.2	3.17 100
	<i>h</i>	3.2	3.5	3.5	3.6	3.53 001
	<i>i</i>	3.6	3.8	3.8	3.9	3.83 001
	<i>j</i>		4.1	4.1	4.1	4.10 000
	<i>k</i>		5.1	5.1	5.2	5.13 001
	<i>l</i>		5.5	5.7	5.7	5.63 111
	<i>m</i>		7.2	7.2	7.3	7.23 001
	<i>n</i>		8.2	8.3	8.3	8.27 100
	<i>o</i>		8.9	8.9	9.0	8.93 001
<i>Pole.</i>	<i>a</i>	2.0	2.2	2.3	2.3	2.27 100
	<i>b</i>	3.8	4.0	3.9	3.9	3.83 111
	<i>c</i>	4.8	5.0	4.3	4.3	4.27 100
	<i>d</i>	5.9	5.2	5.1	5.3	5.20 011
	<i>e</i>		5.4	5.4	5.7	5.50 112
	<i>f</i>		5.9	5.9	6.1	5.97 111
	<i>g</i>		7.8	7.7	7.7	7.73 100
	<i>h</i>		8.1	8.1	8.3	8.17 111
	<i>k</i>		8.7	8.7	8.8	8.73 001
<i>Pl 2<sup>nd</sup></i>	<i>a'</i>	2.8				
	<i>f'</i>	3.0				
	<i>f</i>	2.8	3.0			
	<i>g</i>	3.0	3.2			
	<i>h</i>	3.3	3.5			
	<i>i</i>		3.8			
	<i>j</i>		3.9			
			4.1			

*I' Plates.*  
*Pleiades and Pole*  
*Mar 22, 1907*

I34313

j' 5.1

j<sub>k</sub> 5.7

l 7.2

m 8.3

n 8.9

Pole a 2.1 2.3

b 4.0 4.2

c 4.9 4.3

d 5.1

e 5.4

f 5.9

g 7.7

h 8.1

k 8.7

Pl. 2 1/2 a' -

b' -

f 2.9 3.1

g 3.0 3.2

h 3.3 3.6

i 3.9

j 4.1

j<sub>k</sub> 5.2

k 5.7

l 7.3

m 8.3

n 9.0

Pole a 2.1 2.3

b 3.7 3.9



*T' Plates.*  
*Pleiades and Ple*  
*Mar 22, 1907*

I 34313

c 4.7

d 5.3

e 5.7

f 6.1

g 7.7

h 8.3

k 8.8

T<sup>1</sup> Plates.Seq. marked  
on I 34250 from  
L Campbell's  
chart.Polar sequence and seq. for Nova Persei  
No. 2.  
(Miss Leavitt's scale)

I 34250						March 26, 1907						I 34250					
Polar	a	<sup>F</sup> 2.3	<sup>B</sup> 2.1	2.2	2.25	10											
	b	3.8		3.9	3.85	0.1											
	c	5.0		4.9	4.95	0.1											
	d	6.1		6.1	6.10	0.0											
	e	6.4		6.3	6.35	0.1											
	f	6.8		6.8	6.80	0.0											
	g	8.3		8.5	8.40	1.1											
	h	8.6		8.7	8.65	0.1											
	K	9.1		9.2	9.15	1.0											
Phot. Seq.	a	4.3		4.2	4.25	10											
	b	6.1		6.1	6.10	0.0											
	c	7.0		7.1	7.05	0.1											
	d	6.9		7.1	7.00	1.1											
	e	7.9		7.8	7.85	1.0											
	f	8.3		8.2	8.25	1.0											
	g	8.5		8.5	8.50	0.0											
	h	9.1		9.2	9.15	1.0											
	k	9.1		9.3	9.20	1.1											
	l	9.0		9.2	9.10	1.1											
Polar	m	9.8		9.7	9.75	0.1											
	n	10.0		9.9	9.95	0.1											
	a	2.2		2.0													
	b	3.9															
	c	4.9															
	d	6.1															
	e	6.3															
	f	6.8															
	g	8.5															
	h	8.7															
I 34470																	
Polar	a	<sup>F</sup> 2.3		2.4	2.1	2.35	10										
	b	3.9		4.0	4.0	3.95	10										
	c	5.0		4.9	4.95	0.1											
	d	5.9		6.0	5.95	10											
	e	6.2		6.3	6.25	0.1											
	f	6.6		6.7	6.65	0.1											
	g	8.1		8.0	8.05	10											
	h	8.4		8.3	8.35	0.1											
	k	8.9		8.8	8.85	10											
Phot.	a	4.3		4.1	4.20	1.1											
	b	5.9		6.1	6.00	1.1											
	c	6.8		6.7	6.75	0.1											
	d	6.9		6.7	6.70	0.0											
	e	7.5		7.6	7.55	1.0											
	f	8.5															
	g	8.5															
	h	8.7															
	i	8.7															



J' Plates.

Nova Persei No 2.

Mch 27, 1907

I 34470

f 8.1 8.1 8.10 00

g 8.7 8.7 8.70 00

h 9.2 9.1 9.15 01

K 9.1 9.1 9.10 00

l 8.9 9.0 8.95 10

m 9.7 9.8 9.75 10

n 9.9 9.9 9.90 00

Pol. a 2.4 2.2

b 4.0

c 4.9

d 6.0

e 6.3

f 6.7

g 8.0

h 8.3

K 8.8

Phot. a 4.1

b 6.1

c 6.7

d 6.7

e 7.0

f 8.1

g 8.7

h 9.1

K 9.1

l 9.0

m 9.8

n 9.9

*I' Plates.*

17





Scale measures of seq. for var-59<sup>233</sup>  
(Comp stars on B14993)

(Scale C)

March 28, 1907

B.14993

a 5.3

b 5.7

c 6.4

d 6.7

e 7.1

f 7.4

g 7.9

h 7.8

k 8.2

l 8.4

m 8.3

n 8.8

o 9.7

p 9.8

q 10.1

var. 6.7

B.14728

a 5.3

b 5.5

c 6.3

d 6.6

e 6.9

f 7.4

g 7.7

h 7.8

k 8.3

l 8.5



- 59.233 (cont)

March 28 1907

B14728  
 m 8.5  
 n 9.2  
 o 9.9  
 p 9.9  
 q 9.49  
 var 7.1

B24261  
 a 5.3  
 b 5.7  
 c 6.7  
 d 6.9  
 e 7.3  
 f 7.7  
 g 8.2  
 h 8.2  
 k 8.7  
 l 8.9  
 m 9.1  
 n 9.7  
 o m 6.0  
 p 0.1 p  
 q 9.29  
 var 7.2

24393  
 \*B26036

a 6.3  
 b 6.5  
 c 7.2  
 d 7.3  
 e 7.6  
 f 8.1  
 g 8.4  
 h 8.3  
 k 8.7  
 l 8.7  
 m 8.9  
 n 9.5  
 o 10.0  
 p 0.3 p  
 q 9.39  
 var 7.2

Very poor  
 plates.  
 Images larger & hazier

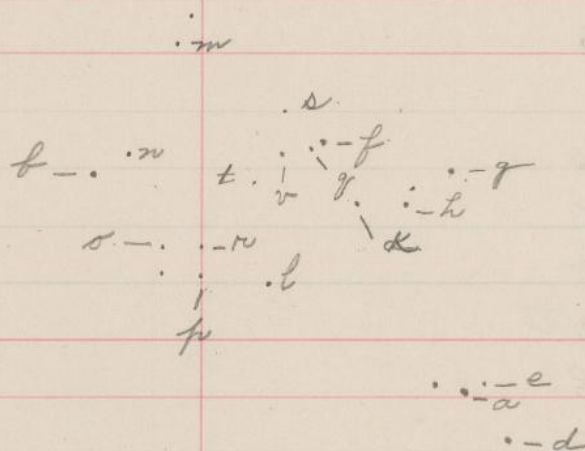
Measures of  $-57^{\circ} 40''$

(Comp stars on B18069)

Meas 20, 1907

B18069

a 5.8  
 b 6.1  
 d x 6.4  
 c x 6.3  
 e 7.0  
 f 7.3  
 g 7.2  
 h 7.5  
 k 7.7  
 l 8.3  
 m 8.3  
 n 8.5  
 o 9.1  
 p 9.4  
 q 9.7  
 r 9.8  
 s 9.9  
 t 10.3  
 u 12.2  
 var. 9.8



B30841

a 6.3  
 b 6.8  
 d x 7.2  
 c x 7.0  
 e 7.5  
 f 7.7  
 g 7.6



- 57° 400 (cont)

Mch 30, 1907

B 30841

h 7.9

k 8.1

l 8.6

m 8.7

n 8.9

o 9.3

p 9.7

q 10.0

r 9.9

s 10.2

t 8.3 t

var 10.1

B 26380

a 6.2

b 6.7

d &amp; 7.2

c &amp; 6.9

e 7.4

f 7.6

g 7.6

h 7.8

k 7.9

l 8.3

m 8.5

n 8.7

o 9.3

p 9.7

q 9.8

r 9.8

s 10.2

t 10.2

var 7.9

B 23949

a 6.3

b 6.7

c 6.9

d 7.1

e 7.4

f 7.8

g 7.9

h 8.2

k 8.3

l 8.7

m 8.9

n 9.2

o 9.6

p 9.9

q 10.1

r 10.4

s 10.3 s

t 10.1 t

var 9.2





Measurements of sequences for M5-  
and region  $17^h + 15$  (~~see B 31 p.~~)

Apr. 11, 1907 (Miss Leavitt's Scale)

A 7832		
M.P. Seq.	1	B.
	2	1.0
	3	1.2
	4	1.6
	5	1.0
	6	1.5
	7	1.9
	8	B.
	9	1.7
	10	2.0
	A	2.9
	B	4.0?

Exposed = images not  
comp. with scale images

Phot. Seq.		
	a	2.2
	b	2.9
	c	4.8
	d	6.3
	e	6.5
	f	7.3
	g	7.9
	h	8.7
	i	9.2
	m	
	n	
	o	
	p	
	q	





Measures of seq. for  $\times$  Coronae.  
 $15^h 43.6^m + 36^s 41^i$  (Comp stars on I 25288)

May 27, 1907

✓ I 20888

a 6.4

b 7.5

c 8.2

d 8.7

e 9.3

f 9.7

g 9.5

h 10.1

k 10.3

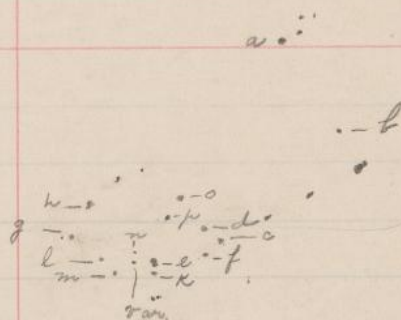
l 10.2

m 13 m

n m 3 n

o F

p n.s



✓ I 14563

a 6.4

b 7.4

c 8.1

d 8.6

e 9.2

f 9.5

g 9.3

h 10.0

k 10.2

l 10.2

m 13 m

n m 3 n

o F

p F

## X Baromae (cont)

May 27, 1907

✓ I 24820

a 6.5

b 7.7

c 8.2

d 8.8

e 9.3

f 9.5

g 9.4

Defective? h 10.0

k 10.2

l k 3 l

m l 3 m

n m 3 n

o n.s

p n.s

✓ I 17737

a 6.5

b 7.7

c 8.3

d 8.8

e 9.4

f 9.6

g 9.4

h 10.1

k h 3 k

l k 2 l

m l 2 m

n f

o n.s

p n.s

Quality 3 plates -  
Could find no thing better.Comp star 'g' appears brighter than 'f'  
on the four plates measured above



Measure of seg for - Coronae  
<sup>h m</sup>  
 15 52 + 29 (Comp stars on I 32996)

May 27, 1907

✓ I 32996

a 6.7

b 7.4

c 7.5

d 8.0

e 8.3

f 8.6

g 8.9

h 9.3

k 9.8

l 9.9

m 6.5 m.

n 3 m

var 8.3

h m  
i j var d  
g k

+

✓ I 24819

a 6.0

b 6.9

c 7.1

d 7.6

e 7.9

f 8.1

g 8.5

h 8.7

k 9.0

l 9.1

m 9.9

n 10.2

var 7.5 ?

## Coronae (cont)

May 27, 1907

✓ I 18280

a 6.2

b 7.1

c 7.1

d 7.6

e 8.1

f 8.3

g 8.7

h 9.1

k 9.6

l 9.8

m 10.3

n m3n

var. n.5?

✓ I 6455

a 6.2

b 7.0

c 7.2

d 7.6

e 7.9

f 8.1

g 8.5

h 8.9

k 9.3

l 9.5

m 10.2

n m2n

var. 10.1?



Measures of seq for var  $0^h 20^m 50^s 45'$   
(Comp stars on I 31198)

May 29, 1907

✓ I 31198

a 5.2

b 5.5

c 5.9

d 6.0

e 6.5

f 6.8

g 7.2

h 7.4

k 7.4

l 7.7

m 8.0

n <sup>3</sup> 8.3

o 8.5

p 8.8 8.5

q 8.5 8.8

r 9.7

s 9.8

t 10.3

u to w

w <sup>u 3 w</sup> ~~w + f~~

x w 1 x

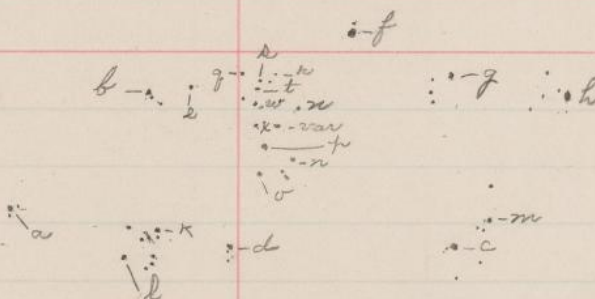
y 9.7

$l \quad m$   
 $0 \quad 2.0 + 50 \quad 45 \quad (\text{cont})$

May 29, 1907

✓ I 5002

a 6.1  
 b 6.5  
 c 7.0  
 d 7.1  
 e 7.8  
 f 8.0  
 g 8.2  
 h 8.6  
 k 8.5  
 l 8.8  
 m 9.3  
 n 9.9 9.6  
 o 10.3 10.0  
 p 10.4 10.1  
 q 10.4 10.4  
 r n.s.  
 s n.s.  
 t n.s.  
 u n.s.  
 v n.s.  
 x n.s.  
 y 10.1





$h$   $m$   
 0 2.0 + 50 45 (cont)

May 29, 1907

✓  $\Sigma$  15783

a 6.2

b 6.6

c 6.9

d 7.0

e 7.7

f 7.9

g 8.1

h 8.3

k 8.3

l 8.6

m 8.9

n 9.2

~~o 9.3~~ 9.3

p 7.6 9.4

q 7.4 9.6

r 10.2

s 10.2

t 5.5 t

u to w

x n.s.

y n.s.

var. 10.2?

$l \quad m$   
 $0 \quad 2.0 + 50 \quad 45$

May 29, 1907

✓ I 27653

a 6.7

b 7.1

c 7.3

d 7.5

e 8.3

f 8.6

g 8.7

h 9.1

k 9.1

l 9.3

m 9.5

n 10.1

o n 40

p 0.1 p

q 7.7 q

r 9.6 r

s r 1 s

t F

u F

v n.s

x n.s

var 9.2



1. *Diagram of sig. for +49 41*  
*0 29-41 29* (Comp. star on 1 21 41)





Measurements of  $\Sigma$  for Mr. Mital's var.  
 (see W.P.F.'s book 17 p 156)  $9^{\circ} 45' 39.8'' + 12' 20.3''$  approx.

Comp stars on I 32744

June 6, 07

✓ I 32744<sup>4</sup>

a 7.1  
 b 7.1  
 c 7.7  
 d ~~8.1~~ 7.9  
 e 8.1  
 f 8.4  
 g 8.7  
 h 8.9  
 k 8.9  
 l 9.4  
 m 9.9  
 n 10.0  
 o n 50  
 p 0.1 p  
 q p 3.9  
 r 9.2 n  
 s p 1.5  
 var. - Fainter than p

✓ I 8225

a 6.3  
 b 6.2  
 c 6.9  
 d 7.2  
 e 7.5  
 f 7.7  
 g 8.1  
 h 8.4  
 k 8.5

$h$   
 $9\ 45\ 39.8 + 12^\circ\ 20.3$  (cent)

June 6, 07

✓ I 8225 (cent)

$l\ 9.6$

$m\ 9.9$

~~$n\ 10.0$~~   $10.0$

$v\ n\ 30$

$fu\ 0.2\ fu$

$g\ F$

$h\ n.s$

$k\ n.s$

$var.\ n.s$

$4$   
 I 327X4

✓  $a\ 7.0$

$b\ 7.1$

$c\ 7.7$

$d\ 8.1$

$e\ 8.2$

$f\ 8.4$

$g\ 8.7$

$h\ 8.9$

$k\ 9.1$

$l\ 9.6$

$m\ 9.9$

$n\ 10.0$

$o\ n\ 50$

$fu\ 0.1\ fu$

$g\ fu\ 29$

$h\ 9.2\ h$

$k\ n\ 0.8$



9.45 39.8 + 12 20.3 (cont)

June 6, 07

✓ I 8225

a 6.2

b 6.2

c 6.9

d 7.2

e 7.4

f 7.5

g 7.9

h 8.3

k 8.5

l 9.6

m 9.9

n 10.1

o 230

p 0.1 p

q 2.5

r 2.5

s 2.5

t 2.5

u

Estimates of new var. found by J. H. M.  
 $9^{\text{th}} 45.39.8 + 12 \ 20.3$  (Comp stars on I 32744)

June 11, 1907

✓ I 32744 13. <del>X</del> <sup>3</sup>	✓ I 28126 13.0	I 22588 Not cover reg.	I 10852 Too poor
I 25223 Does not cover reg.	I 28499 Too poor	I 22649 sp. Not cover reg.	I 8271 Not cover reg.
✓ I 26373 12.0	✓ <del>I 29710</del> <sup>30009</sup> 11.9?	I 22656 sp. On edge.	I 8378 Not cover reg.
I 26410 Does not cover reg.	I 31163 sp. Too poor	I 23778 Just off film	I 10142 Not cover reg.
I 28300 Does not cover reg.	I 22585 Too poor	I 13887 Too poor	I 5814 Mr. reg.
I 29962 Does not cover reg.	I 22174 Does not cover reg.	I 13888 Not cover reg.	I 5870 Not cover reg.
I 29963 Does not cover reg.	I 22196 Not cover reg.	I 31477 sp. Not cover reg.	I 5882 Too poor
I 26405 Just off film	I 22315 sp. Not cover reg.	I 31571 sp. Not cover reg.	I 5995 Not cover reg.
I 26589 Off film	I 31338 sp. Too poor	I 31571 sp. Near edge	I 6018 Too poor
I 26879 Off film	I 22539 sp. Too poor	I 10736 Mr. reg.	I 6040 Not cover reg.



## Estimates of new var. (J.H.M.) cont.

June 11, 1907

I 6174 Not cover reg.	✓ I 17726 13.5?	I 14683 Off film.	I 966 Not cover reg.
I 20616 Not cover reg.	I 17768 Not cover reg.	I 15007 Off film.	I 641 Not cover reg. Too poor
I 20617 Not cover reg.	I 17769 On edge of film uncertain.	I 12652	I 503 Sp Too poor
I 20144 Too poor	I 17826 Too poor	✓ I 5664 12.3	✓ I 281. 13.0
I 19549 On edge.	I 17827 Too poor	I 5595 No. reg.	I 10035 Too poor
I 19930 Too poor	I 17829 Too poor	I 5062 Not cover reg.	I 10246 Too poor
I 18078 On edge of film	I 15140 Too poor	I 3355 Not cover reg.	B 2416 Sp Too poor
✓ I 17467 13.5?	I 15141 Too poor	I 3321 Too poor	B 2446 Sp Too poor
I 17558 Off film	I 15009 On edge of film.	I 1004 On edge of film.	B 2602 Sp Too poor
I 17559 On edge of film uncertain.	✓ I 15055 11.9	I 643 Sp Too poor	B 3237 Sp Too poor

## Estimates of new var. (J.H.M.)

June 12, 1907

B 3238	I 34023 sp	B 1114 sp	✓ I 32309
Not cover reg.	Too poor	Too poor	<u>13.2</u>
B 9555 sp	I 34064 sp	I 31610 sp	✓ I 20439
Too poor	Too poor	Off film	<u>11.8</u>
B 9247	✓ I 34394	I 10770	✓ I 24489
Not cover reg.	<u>13.4</u>	Not cover reg.	<u>11.6</u>
B 9463 sp	I 34480	I 12628	I 24848
Too poor	Off film	Too poor	Too poor
✓ I 32455	I 34493 sp	I 5746	✓ am 4171
<u>13.0</u>	Too poor	Too poor	<u>12.0</u>
✓ I 32532	I 34506 sp	I 19468	✓ ac 201
<u>11.8</u>	Not cover reg.	Unidentified	<u>12.0</u>
I 32906	B 2083 sp	✓ ma 96	✓ ac 146
Too poor	Too poor	<u>11.5</u>	<u>11.7</u>
I 32974	B 2230 sp	✓ ma 94	✓ ac 591
Not cover reg.	Not cover reg.	<u>13.5</u>	<u>12.0</u>
I 33002	B 2400 sp	✓ I 8225	✓ ac 1264
Not cover reg.	Too poor	<u>13.5</u>	<u>11.7</u>
I 33038 sp	✓ B 2481	✓ I 22505	✓ ac 2382
Too poor	<u>11.5</u>	<u>13.0</u>	<u>12.0</u>



## Estimates of new var (J. H. M.)

June 12, 1907

ac 2435 To Port	✓ ac 7041 <u>12.0</u>	B28934 To port	✓ B27064 <u>12.0</u>
✓ ac 3245 <u>11.7</u>	✓ ac 7122 <u>11.7</u>	B35499 W. reg.	✓ B27461 <u>12.0</u>
✓ ac 3307 <u>12.0</u>	✓ ac 7208 <u>12.0</u>	B10873 To port	B28919 Near edge
✓ ac 3389 <u>11.6</u>	✓ ac 7281 <u>12.0</u>	✓ B11181 <u>12.0</u>	B29149 To port
ac 3433 To port	✓ ac 7310 <u>12.0</u>	B15264 Off film	B29395 Near edge
ac 4142 To port	✓ am 1216 <u>11.3</u>	✓ B24466 <u>13.5</u>	B29424 Not cover reg.
✓ ac 4241 <u>11.7</u>	✓ am 3458 <u>12.0</u>	B25094 On edge off.	✓ B29498 <u>11.9</u>
✓ ac 6134 <u>12.0</u>	✓ am 4075 <u>11.7</u>	B25128 Not cover reg.	B30050 Not cover reg.
ac 6145 Port	✓ ac 8234 <u>11.7</u>	B25403 Not cover reg.	B31312 Near edge
✓ ac 6246 <u>11.7</u>	✓ ac 8134 <u>11.7</u>	✓ B26792 <u>11.7</u> ? On edge	✓ B31490 <u>12.0</u>

## Estimates of new var (J.H.M.)

✓ June 12, 1907

B31705  
Not cover reg.A7693  
12.0B32900  
New edgeB33088  
Not cover reg.B33789  
Not cover reg.B35388  
Not cover reg.✓ B35253  
12.0B35522  
For port✓ B36050  
12.0✓ A7649  
13.5✓ A5821  
13.4



## IV Plates.

Remeasures of stars in M. P. seq.  
having residuals of .50 or more.

Reg.

$$B_2 = 12^h + 45^s$$

August 26, 1907

Reg.

$$B_5 = 12^h + 45^s$$

I 28383

B. 31  
Early meas.

3d meas.

1st meas No 1 6.2 6.1 6.2 6.1 6.1 6.14

1 6.2 6.2 6.1 = 6.17

" 8 8.8 8.7 8.9 8.9 8.9 8.84

8 8.8 8.8 8.7 = 8.77

2d " 1 6.1

" 8 8.7

I 28537

A

B

C

D

E

I 28436

1 6.7 6.6 6.2 6.2 6.1 6.36

1 6.7 6.7 6.6 = 6.67

8 8.7 8.7 8.7 8.6 8.4 8.62

8 8.7 8.7 8.7 = 8.70

1 6.6

8 8.7

I 28765

A

B

C

D

E

$$B_2 = 4^h + 45^s$$

I 27948

8 8.1 8.0 7.8 7.9 7.9 7.94

8 7.9 8.1 8.0 = 8.00

10 9.2 9.1 8.8 8.9 9.1 9.02

10 8.9 9.2 9.1 9.07

8 8.0

10 9.1

I 28537

A

B

C

D

E

I 32989

8 8.7 8.7 8.5 8.7 8.6 8.64

8 8.8 8.7 8.7 = 8.70

10 9.6 9.7 9.3 9.5 9.7 9.56

10 9.5 9.6 9.7 = 9.60

8 8.7

10 9.7

I 28765

A

B

C

D

E

Plates.

45

Remeasures (cont)

Reg.

$$B_7 = 1720 + 45$$

$$C_1 = 112 + 15$$

Aug 28 1907

I 29438

1<sup>st</sup> meas 4 8.3 8.3 8.3 8.3 8.3 8.30

6 6.8 6.9 6.9 6.7 6.6 6.78

2<sup>nd</sup> " 4 8.3

6 6.9

3<sup>rd</sup> meas.

4 8.2 8.3 8.3 = 8.27

6 6.7 6.8 6.9 = 6.80

3<sup>rd</sup> I 32017 1<sup>st</sup> meas

6.83 6.9 6.8 7.0 6.8 6.9 6.88

7.7 7.8 7.9 7.8 7.5 7.6 7.72

9.7 9.5 9.5 9.5 9.7 9.7 9.58

9.6 9.7 9.5 9.7 9.5 9.7 9.6 9.64

9.1 9.2 9.2 9.2 9.2 9.2 9.58

9.8 10.0 9.9 = 9.90 10.0 9.9 9.7 9.9 10.0 9.90

I 34041

4 8.4 8.3 8.2 8.3 8.2 8.28

6 6.9 6.9 6.7 6.9 6.9 6.86

4 8.3

6 6.9

4 8.2 8.4 8.3 = 8.30

6 6.7 6.9 6.9 = 6.83

2 6.8

6 7.9

10 9.5

2 9.5

B 9.2

C 9.9

Reg.

$$B_9 = 2240 + 45$$

I 30558

5 7.8 7.7 7.8 7.8 7.6 7.74

5 7.7

5 7.8 7.8 7.7 = 7.77

3<sup>rd</sup> I 34359 1<sup>st</sup> meas

6.7 6.7 6.6 6.7 6.6 6.3 6.2 6.2 6.40

7.2 7.4 7.3 7.4 7.3 8.7 8.8 8.8

9.2 9.1 9.1 9.1 9.1 8.8 8.8 8.7 8.90

9.2 9.2 9.2 9.2 9.1 8.7 8.7 8.7 8.88

8.8 8.8 8.7 8.9 8.9 8.5 8.5 8.6 8.68

9.9 9.8 9.7 9.8 9.9 9.9 9.9 9.9 9.88

I 34496

5 7.7 7.7 7.5 7.4 7.4 7.54

" 7.7

5 7.5 7.7 7.7 = 7.63

3<sup>rd</sup> I 34359 1<sup>st</sup> meas

6.7 6.7 6.6 6.7 6.6 6.3 6.2 6.2 6.40

7.2 7.4 7.3 7.4 7.3 8.7 8.8 8.8

9.2 9.1 9.1 9.1 9.1 8.8 8.8 8.7 8.90

9.2 9.2 9.2 9.2 9.1 8.7 8.7 8.7 8.88

8.8 8.8 8.7 8.9 8.9 8.5 8.5 8.6 8.68

9.9 9.8 9.7 9.8 9.9 9.9 9.9 9.9 9.88

2 6.6

6 7.3

10 9.1

2 9.1

B 8.9

C 9.9

Images poor - hazy  
on I 34359

\* wing 51 was marked on this



## N Plates.

## Remasures (cont)

Reg  
C2 = 3 + 15

Aug 28, 1907

C3 = 5 + 15

I 27951

1 6.3 6.2 6.4 6.4 6.2 6.30

2 7.0 6.9 7.0 7.0 6.9 6.96

7 7.8 7.9 7.9 7.8 7.7 7.82

10 8.8 8.9 8.8 8.8 8.7 8.80

1 6.2

2 6.9

7 7.9

10 8.9

3d meas

1 6.3 6.3 6.2 = 6.27

2 7.1 7.0 6.9 = 7.00

7 7.9 7.8 7.9 = 7.87

10 8.8 8.8 8.9 = 8.83

3d meas I 34356

8.3 8.4 8.4 8.5 8.4 8.5

8.9 8.9 9.0 8.7 8.6 8.8

6.8 6.7 6.7 6.8 6.9 6.9

2 8.4

13 9.0

3 6.7

C4 = 7 + 15

I 33855

1 6.9 7.0 6.8 6.9 6.8 6.88

2 7.5 7.7 7.4 7.5 7.6 7.54

7 8.4 8.6 8.5 8.5 8.7 8.54

10 9.6 9.5 9.7 9.7 9.5 9.60

1 7.0

2 7.7

7 8.6

10 9.5

3d meas

1 6.9 6.9 7.0 = 6.93

2 7.7 7.5 7.7 = 7.63

7 8.5 8.4 8.6 = 8.50

10 9.7 9.6 9.5 = 9.60

3d meas I 28188

8.3 8.3 8.2 8.3 8.3 8.3

8.0 8.0 8.2 8.2 8.5

9.2 9.2 9.1 9.3 9.2

C ?

5 8.2

2 8.0

a 9.2

C ?

C2 = 5 + 15

I 30134

2 8.7 8.7 8.4 8.4 8.5 8.54

1 6.9 6.8 6.5 6.5 6.9 6.72

1 9.1 9.1 9.3 9.1 9.1 9.14

2 8.7

3 6.8

13 9.1

3d meas

2 8.6 8.7 8.7 = 8.67

3 6.9 6.9 6.8 = 6.87

1 9.2 9.1 9.1 = 9.13

3d meas I 33939

8.2 8.2 8.0 8.0 7.8

7.9 7.9 7.7 7.6 7.7

8.9 8.9 8.9 8.8 8.9

C ?

5 8.2

2 7.9

a 8.9

C ?





48

N' Plates.

Remeasures (cont)

Reg

 $C_6 = 11^h + 15$ 

Aug. 29 1907

 $C_7 = 13^h + 15$ 

I 28538

No 10 9.9 9.8 10.0 10.0 9.9 9.92  
 10 9.8

3<sup>d</sup> meas

10 9.8 9.9 9.8 = 9.83

I 34413

3<sup>d</sup> meas 7.8 9 7.8 7.7 7.7 7.5 7.7  
 8.7 8.8 8.8 8.7 8.6 8.5  
 9.1 6 9.2 9.2 9.3 9.1 9.2  
 9.3 4 9.5 9.4 9.4 9.3 9.3  
 9.7 8 9.8 9.8 9.6 9.5 9.7  
 9.8 10 9.7 9.8 9.6 9.5 9.5

I 33736

No 10 9.5 9.6 9.4 9.2 9.4 9.42  
 " 9.6

10 9.4 9.5 9.6 = 9.50

 $C_7 = 13^h + 15$ 

I 33780

9 6.3 6.6 6.2 6.2 6.3 6.32

3 7.7 7.6 7.4 7.6 7.4 7.54

6 8.3 8.2 8.1 8.1 8.2 8.18

4 8.1 8.1 8.4 8.3 8.2 8.22

8 8.6 8.3 8.3 8.4 8.3 8.38

10 8.7 8.7 8.4 8.5 8.4 8.54

9 6.6

3 7.6

6 8.2

4 8.1

8 8.3

10 8.7

9 6.3 6.3 6.6 6.40

3 7.7 7.7 7.6 7.67

6 8.2 8.3 8.2 8.23

4 8.0 8.1 8.1 8.07

8 8.3 8.6 8.3 8.40

10 8.7 8.7 8.7 8.70

 $C_8 = 15^h + 15$ 

I 28731

9 7.3 7.3

B

C

D

E

9 7.3

B

C

D

E

## Remeasures (cont)

C8 = 15 + 15

Aug 29, 1907

C9 = 17 + 15

I 31855

9 6.5 6.5

7.68

B

8.68

C

9.20

D

9.38

E

9.68

9 6.5

9.62

B

C

D

E

C9 = 17 + 15

I 30580

7 8.3 8.4 8.4 8.5 8.5 8.42

B 9.7 9.7 9.8 9.8 9.7 9.74

C 10.0 10.0 10.1 10.1 10.2 10.08

D 10.0 9.9 9.9 9.7 10.0 9.90

7 8.4

B 9.7

C 10.0

D 9.9

I 32021

7 8.7 8.7 8.8 8.7 8.7 8.72

B 9.9 9.8 10.0 10.0 9.9 9.92

C 10.2 10.2 10.3 10.3 10.3 10.26

D 10.1 10.1 10.1 10.0 10.0 10.06

3<sup>d</sup> meas 7 8.7

B 9.8

C 10.2

D 10.1

C11 = 21 + 15

I 28049

7.4 5 7.3 7.4 = 7.5 7.4 7.3 7.38

" 7.4

I 28989

6.3 5 6.3 6.2 6.3 6.1 6.3 6.24

" 6.2

C12 = 22 + 15

I 27496

8.4 6 8.3 8.3 8.3 8.33

9.3 7 9.5 9.3 9.4 9.33

9.8 8 9.3 9.7 9.7 9.73

10.1 B 10.1 10.2 10.13

6

7

8

B

I 33651

7 8.7 8.7 8.7 = 8.70

B 9.9 9.9 9.8 9.8 7.3 6 7.4

C 10.1 10.2 10.2 10.17 8.2 7 8.3

D 10.0 10.1 10.1 10.07 8.5 8 8.7

9.8 B 9.7

9.8 = 9.77



# Examination of AC Plates to discover variation in DM+7 3832

Mar 21, 1907

Am 2110

b 1 v

v 4 c

Am 2855

b 2 v

v 3 c

Am 3505

b 2 v

v 4 c

Am 1961

b 2 v

v 4 c

Am 2915

b 1 v

v 5 c

Am 3598

b 2 v

v 4 c

Am 2119

b 2 v

v 3 c

Am 2958

b 3 v

v 1 c

Am 3651

b 1 v

v 5 c

Am 2137

b 1 v

v 5 c

Am 2995

b 1 v

v 5 c

Am 3688

b 3 v

v 3 c

Am 2245

b 1 v

v 4 c

Am 3422

b 3 v

v 2 c

Am 3726

b 1 v

v 4 c

Am 2260

b 1 v

v 4 c

Am 3449

b 2 v

v 3 c

Am 10

b 1 v

v 5 c

Am 2279

b 2 v

v 5 c

Am 3464

b 1 v

v 5 c

Am 28

b 1 v

v 4 c

Am 2714

b 1 v

Am 153

b 1 v

$+7^{\circ} 3832$  (cont)Am 402  
W. reg.

Am 403

625

54c

Am 473

615

55c

Am 556

L C



I' Plates.  
Remeasures.

D<sub>1</sub> = 1<sup>h</sup>-15

Sept 3 '07

D<sub>2</sub> = 3<sup>h</sup>-15

3<sup>h</sup> 1<sup>m</sup> I 28051  
 7.4 1 7.4 7.3 7.4 = 7.37  
 8.2 3 8.3 8.2 8.2 = 8.23  
 8.8 6 8.7 8.7 8.8 = 8.73  
 1 7.3  
 3 8.2  
 6 8.7

I 34369  
 6.8 1 6.9 6.9 = 6.87  
 7.4 3 7.5 7.4 = 7.43  
 7.7 6 7.7 7.7 = 7.70  
 1 6.9  
 3 7.4  
 6 7.7

D<sub>2</sub> = 3<sup>h</sup>-15

I 28186  
 7.2 1 7.2 7.1 = 7.17  
 8.3 5 8.2 8.2 = 8.23  
 10.0 B 10.2 10.2 = 10.13  
 9.8 C 9.8 9.7 = 9.77  
 9.9 D 10.0 9.9 = 9.93  
 1 7.1  
 5 8.2  
 B 10.2  
 C 9.7  
 D 9.9

3<sup>h</sup> 1<sup>m</sup> I 30957  
 6.5 1 6.6 6.7 = 6.80  
 7.8 5 7.7 7.7 = 7.73  
 9.7 B 9.8 9.7 = 9.73  
 9.2 C 9.3 9.3 = 9.27  
 9.8 D 9.7 9.7 = 9.73  
 1 6.7  
 5 7.7  
 B 9.7  
 C 9.3  
 D 9.7

D<sub>5</sub> = 9<sup>h</sup>-15

I 28616  
 9.7 C 9.6 9.7 = 9.67  
 " 9.7

I 33923  
 9.7 C 9.5 9.4 = 9.53  
 " 9.4

D<sub>6</sub> = 11<sup>h</sup>-15

I 33940  
 7.1 1 7.1 7.2 = 7.13  
 8.8 3 8.7 8.8 = 8.77  
 8.0 5 8.1 8.1 = 8.07  
 7.8 6 7.7 7.7 = 7.73  
 10.2 E 10.1 10.1 = 10.17  
 1 7.2  
 3 8.8  
 5 8.1  
 6 7.7

*Platus.*  
*Remeasures.*

$D_6 = 11^h - 15^m$

*Sept 3, '07*

$D_8 = 15^h - 15^m$

*I 34040*

6.3 6.44 1 6.7 6.6 6.4 6.3 6.3 6.46  
7.3 7.48 3 8.5 8.3  
9.8 9.74 5 7.4 7.5 7.4 7.2 7.3 7.36  
9.3 9.28 6 7.3 7.3 7.2 7.1 7.1 7.20  
9.6 9.62 8 9.8 9.9 10.2 10.0 10.0 9.98

1 6.6  
3 8.3  
5 7.5  
6 7.3  
8 9.9

*I 28828*

3d m 5.8 3 5.9 5.9 5.9 5.8 5.7 5.84  
6.0 2 6.1 6.1 6.1 6.0 6.0 6.06  
5.8 3 5.9  
6.2 6.1

*I 34048*

6.7 3 6.8 6.8 6.7 6.7 6.7 6.74  
6.9 2 7.0 7.1 7.1 6.6 6.7 6.8 6.84  
3 6.8  
2 7.1

$D_7 = 13^h - 15^m$

*I 33955*

9.7 9.70 2 7.3 7.4 7.2 7.1 7.0 7.20  
8 9.1 9.1 8.9 8.8 8.8 8.94  
a 9.9 9.8 9.7 9.8 9.7 9.78

2 7.4  
8 9.1  
a 7.8

9.9 9.70

2 7.2 7.3 7.4 7.30  
8 9.0 9.1 9.1 9.07  
a 9.8 9.9 9.8 9.83

$D_9 = 17^h - 15^m$

*I 28766*  
7.5 2 7.7 7.6 7.5 7.3 7.3 7.2 7.40  
" 7.5

*I 33987*

7.8 2 7.9 8.0 8.1 7.9 7.8 7.94  
" 8.0

*I 33968*

7.12 2 6.0 5.9 6.3 5.9 5.9 6.00  
8 8.0 7.9 8.1 7.9 7.8 7.96  
a 9.1 9.1 8.8 8.9 8.8 8.94

7.9 7.96

7.6 7.70  
8 10.27?

2 5.9  
8 7.9  
a 9.1

2 5.9 6.2 5.9 5.93 6.00  
8 8.0 8.1 7.9 8.00  
a 9.1 9.1 9.1 9.10

$D_{10} = 19^h - 15^m$

*I 32020*

9.4 10 9.2 9.3 9.3 9.5 9.6 9.42  
" 9.3



54

I' Plates.

Remasures -

Reg  
23<sup>h</sup> - 15

Sept. 4, 07

I 27947  
 6.8 2 6.7 6.8<sup>671</sup> 6.36363 6.48  
 7.0 5 7.1 7.0<sup>703</sup> 7.17070 7.4<sup>04</sup>  
 2 6.8  
 5 7.0

I 34366  
 6.9 2 7.0 6.9<sup>693</sup> 6.76869 6.86  
 7.4 5 7.3 7.4<sup>734</sup> 7.77778 7.58  
 2 6.9  
 5 7.2

Reg.  
h  
H + 75°

Sept 30, 1907

[illegible]

I 34839 (cont)  
mP 1 83

20	1	8.3
	2	8.9
	3	5.8
	4	6.9
	5	6.8
	6	6.9
	7	6.9
	8	7.9
	9	8.3
	10	8.0
Sta	28	7.9
	29	8.8
	36	7.7
	37	7.6
	2	8.2
	1	8.9
	5	8.6

Sta	28	7.9
	29	8.8
	36	7.7
	37	7.6
	2	8.2
	1	8.9
	5	8.6
	4	8.8
	6	8.0

	a	b	c	d	e	f	g
M.P.	8.3	8.9	5.7	7.0	6.8	6.9	6.8
P.L.	5.1	6.5	7.2	8.2	8.7	9.0	10.0



N' Plates.

Reg.  
4<sup>th</sup> + 45°

Oct 2, 1907

I 34839 (cont)

8 7.8

9 8.2

10 7.9

A 9.1 9.1 9.1 = 9.10 9.17 9.13

B 9.1 9.0 9.1 = 9.07 9.27 9.23

C 10.0 10.0 10.1 = 10.03 10.10 9.93

D ?

E F

28 7.8

29 8.9

30 7.8

31 7.7

2 8.3

1 8.9

5 8.7

4 8.9

6 7.9

10 8.0

A 9.1

B 9.0

C 10.0

D ?

E F

Polar

A 9.1 5.0

B 9.1 6.3

C 10.1 7.1

D ? 8.1

E F 8.6

f 8.9

h 10.1

20<sup>h</sup> + 45°

I 34728

Pol. a 5.1 5.2 5.1 = 5.13

b 6.5 6.4 6.4 = 6.43

c 7.3 7.2 7.2 = 7.23

d 8.2 8.2 8.2 = 8.20

e 8.6 8.5 8.6 = 8.57

f 8.9 9.0 8.9 = 8.93

h 10.1 10.1 10.1 = 10.10

mp 1 5.9 5.9 5.9 = 5.90

2 6.9 7.0 6.9 = 6.93

3 6.1 6.1 6.2 = 6.13

4 7.2 7.2 7.2 = 7.20

5 6.9 6.9 6.8 = 6.87

6 7.3 7.4 7.4 = 7.37

7 7.8 7.8 7.8 = 7.80

8 8.2 8.2 8.2 = 8.20

9 9.0 9.1 9.0 = 9.03

10 8.8 8.9 8.8 = 8.83

Sta. 16 8.1 8.1 8.2 = 8.13

20 7.9 8.0 7.9 = 7.93

22 8.2 8.2 8.1 = 8.17

21 8.1 8.1 8.1 = 8.10

N' Plates.

20<sup>h</sup> + 45

Oct 4, 1907

I 34728 (cont.)

I 34728 (cont.)

25 8.0 7.9 7.9 - 7.93 8.20 8.20

Sta. 16 8.1

24 8.6 8.5 8.6 - 8.57 8.60 8.53

20 8.0

4 8.7 8.7 8.7 - 8.70 8.70 8.87

22 8.2

5 8.9 8.9 8.9 - 8.90 9.03 9.03

21 8.1

1 8.3 8.3 8.3 - 8.30 8.53 8.60

25 7.9

2 8.3 8.2 8.2 - 8.23 8.33 8.30

24 8.5

6 8.6 8.7 8.7 - 8.67 8.87 8.93

4 8.7

10 7.9 8.1 8.0 - 8.00 8.07 8.20

5 8.9

a 5.2

1 8.3

b 6.4

2 8.2

c 7.2

6 8.7

d 8.2

10 8.1

e 8.5

Pol. a 5.1

f 9.0

b 6.4

h 10.1

c 7.2

i 5.9

d 8.2

2 7.0

e 8.6

3 6.1

f 8.9

4 7.2

h 10.1

5 6.9

M.P. 1 5.9

6 7.4

2 6.9

7 7.8

3 6.2

8 8.2

4 7.2

9 9.1

5 6.8

10 8.9

6 7.4

a

7 7.8

b

8 8.2

c

9 9.0

d

10 8.8



I' Plates.

20<sup>h</sup> +45

Oct 4, 1907

I 34728 (cont)

a

B

C

D

E

Sta. 16.82

20 7.9

22 8.1

21 8.1

25 7.9

24 8.6

4 8.7

5 8.9

1 8.3

2 8.2

6 8.7

10 8.0

## I' Plates

 $23 + 15$ 

Oct. 4, 1907

	I 34833	34. Pl. 22446 12. Pl. 33651 24. Pl.
Pol.	a 5.1 5.1 5.1 = 5.10 5.13 5.03	
	b 6.3 6.4 6.3 = 6.33 6.53 6.27	
	c 7.3 7.3 7.3 = 7.30 7.33 7.33	
	d 8.2 8.3 8.3 = 8.27 8.77 8.23	
	e 8.7 8.6 8.6 = 8.63 9.20 8.50	
	f 8.9 8.9 8.9 = 8.90 9.53 8.80	
	h 10.0 10.1 10.0 = 10.03 — 9.87	
M.P.	1 7.4 7.4 7.2 = 7.33 7.90 7.17	
	2 7.3 7.3 7.3 = 7.30 7.50 7.20	
	3 8.2 8.3 8.2 = 8.23 8.83 8.13	
	4 7.8 7.7 7.9 = 7.80 8.30 7.63	
	5 5.0 5.0 4.9 = 4.97 5.03 4.93	
	6 7.6 7.7 7.9 = 7.73 8.20 7.33	
	7 8.5 8.5 8.7 = 8.57 9.37 8.27	
	8 8.5 8.7 8.7 = 8.63 9.73 8.43	
	9 9.3 9.3 9.3 = 9.30 10.03 9.30	
	10 8.2 8.3 8.3 = 8.27 9.30 8.37	
+16 4872 <sup>2</sup> Star.	16 9.1 9.2 9.3 = 9.20 9.83 9.27	
+16 4857 <sup>1</sup>	20 8.1 8.1 8.2 = 8.13 8.70 8.20	
+15 4776 <sup>1</sup>	22 8.9 8.8 8.9 = 8.87 9.80 8.67	
+15 4762 <sup>2</sup>	21 7.9 7.9 7.9 = 7.90 8.43 7.93	
+15 4749 <sup>1</sup>	25 8.1 8.1 8.0 = 8.07 8.67 8.30	
+15 4741 <sup>1</sup>	24 8.4 8.3 8.3 = 8.33 8.97 8.37	
+14 4907 <sup>1</sup>	4 8.1 8.2 8.2 = 8.17 8.60 7.97	
+14 4922 <sup>1</sup>	5 8.4 8.3 8.2 = 8.30 9.03 8.20	
+14 4931 <sup>1</sup>	1 7.4 7.5 7.4 = 7.43 8.17 7.33	
+14 4940 <sup>1</sup>	2 7.3 7.3 7.3 = 7.20 8.30 7.30	

+18 5056 <sup>1</sup>	6 7.6 7.5 7.6 = 7.57 8.30 7.30	
+18 5044 <sup>1</sup>	10 7.3 7.2 7.3 = 7.27 7.97 7.20	
Pol.	a 5.1	
	b 6.4	
	c 7.3	
	d 8.3	
	e 8.6	
	f 8.9	
	h 10.1	
M.P.	1 7.4	
	2 7.3	
	3 8.3	
	4 7.7	
	5 5.0	
	6 7.7	
	7 8.5	
	8 8.7	
	9 9.3	
	10 8.3	
	a 9.4 9.4 9.5 = 9.43	
	B 9.9 9.9 9.9 = 9.90	
	C 10.0 10.1 10.1 = 10.07	
	D 10.2 10.1 10.1 = 10.13	
	E 10.2 10.2 10.1 = 10.17	
Star.	16 9.2	
	20 8.1	
	22 8.8	
	21 7.9	



60

N Plates.

<sup>h</sup>  
23 + 15Oct 7 1907

I 34833

25 8.1

24 8.3

4 8.2

5 7.3 8.3

1 7.5

2 7.3

6 7.5

10 7.2

Pol. a 5.1

b 6.3

c 7.3

d 8.3

e 8.6

f 8.9

h 10.0

mp 1 7.2

2 7.3

3 8.2

4 7.9

5 4.9

6 7.9

7 8.7

8 8.7

9 9.3

10 8.3

A 9.5

B 9.9

C 10.1

I 34833

8 10.2

E 10.2

Starr. 16 9.3

20 8.2

22 8.9

21 7.9

25 8.0

24 8.3

4 8.2

5 8.2

1 7.4

2 7.3

6 7.6

10 7.3

I' Plates.

October 8 1907

23-15

	I 34880	73.4 PL 127947	14 PL 127947	24 PL 127947
Pol.	a	5.3 5.3 5.2 5.27 4.90 5.03		
	b	6.9 6.8 6.8 6.83 6.10 6.17		
	c	<del>7.3</del> 7.6 7.4 7.50 6.90 7.07		
	d	8.2 8.3 8.3 8.27 7.87 7.73		
	e	8.5 8.6 8.6 8.57 8.13 7.73		
	f	8.8 8.9 8.9 8.87 8.50 8.20		
	h	10.0 10.1 10.0 10.03 9.87 9.80		
mp	1	<del>7.7</del> 8.0 8.0 8.0 7.17 7.17		
	2	7.1 7.2 7.1 7.13 6.30 6.80		
	3	7.9 7.8 7.8 7.83 7.07 7.23		
	4	7.9 7.9 7.9 7.90 7.10 7.20		
	5	7.8 7.7 7.8 7.77 7.03 7.73		
	6	8.7 8.7 8.7 8.70 7.70 7.83		
	7	8.9 8.8 8.8 8.83 7.87 7.93		
	8	9.3 9.5 9.3 9.37 8.50 8.37		
	9	9.7 9.7 9.7 9.70 8.83 8.70		
	10	9.3 9.4 9.3 9.33 8.53 8.20		
	A	10.1 10.1 10.2 10.13 9.73 9.53		
	B	10.2 10.1 10.2 10.17 9.80 9.63		
	C	F F F 9.70 9.73		
	D	F F F 10.07 10.00		
	E	F F F		
	20	9.5 9.5 9.5 9.43 8.73 8.63		
St.	16	9.8 9.8 9.8 9.80 8.77 8.60		
	22	8.7 8.9 8.9 8.83 7.93 8.20		
	21	8.3 8.3 8.4 8.33 7.77 7.90		
	25	8.2 8.3 8.3 8.27 7.27 7.73		
	24	8.7 8.9 8.9 8.83 7.97 7.93		

I 34880

	4	7.9 7.9 7.8 7.87 7.13 7.33
	5	8.1 8.1 8.2 8.13 7.37 7.70
	1	8.9 8.9 8.8 8.87 8.03 8.13
	2	8.6 8.6 8.7 8.63 7.77 7.93
	6	9.7 9.7 9.7 9.70 8.70 8.73
	10	8.9 8.9 8.8 8.87 8.27 8.13
Pol.	a	5.3
	b	6.8
	c	7.6
	d	8.3
	e	8.6
	f	8.9
	h	10.1
mp	1	7.9
	2	7.2
	3	7.8
	4	7.7
	5	7.7
	6	8.7
	7	8.8
	8	9.5
	9	9.7
	10	9.4
	A	10.1
	B	10.1
	C	F
	D	F
	E	F



62

I' Plates.

23<sup>h</sup> - 15

Oct 8, 1907

T 34880

St. 16 9.3  
 20 9.3  
 22 8.9  
 21 8.3  
 25 8.3  
 24 8.6

4 7.9  
 5 8.1  
 1 8.7  
 2 8.6  
 6 9.8

10 8.9

Pol. a 5.2

b 6.8

c 7.4

d 8.3

e 8.6

f 8.9

h 10.0

M.P. 1 7.8

2 7.1

3 7.8

4 7.7

5 7.8

6 8.7

7 8.8

8 9.3

9 9.7

10 9.3

A 10.2

B 10.2

C 7

D 7

E 7

St. 16 9.5

20 9.5

22 8.9

21 8.4

25 8.3

24 8.6

4 7.9

5 8.2

1 8.8

2 8.7

6 9.7

10 8.8

21-15

Oct 9, 1907

I 34877

Pol. a 5.1 5.0 5.1 = 5.07 4.97

b <sup>6.4</sup> 6.9 6.4 6.4 = 6.40 6.37

c 7.3 7.2 7.1 = 7.20 7.13

d 8.3 8.3 8.2 = 8.27 8.17

e 8.7 8.6 8.7 = 8.67 8.47

f 9.1 8.9 9.0 = 9.00 8.83

h <sup>10.2</sup> 10.2 10.1 10.0 = 10.10 9.97

MP 1 7.8 7.9 7.7 = 7.80 7.70

2 6.9 6.8 6.8 = 6.83 6.80

3 7.2 7.1 7.2 = 7.17 6.97

4 8.1 7.9 7.9 = 7.97 7.70

5 8.2 8.2 8.3 = 8.23 8.03

6 8.6 8.5 8.4 = 8.50 8.20

7 8.3 8.3 8.2 = 8.27 8.00

8 8.7 8.7 8.6 = 8.67 8.23

10 7 9.5 9.0 9.1 = 9.03 8.93

9 7 9.5 9.5 9.7 = 9.57 8.90

A 9.3 9.3 9.3 9.30

B 9.5 9.6 9.5 9.53

C 10.1 10.1 10.0 10.07

D 10.2 10.2 10.2 10.20

E 10.1 10.1 10.2 10.13

Stan. 16 8.7 8.5 8.5 = 8.57 7.90 -13 5849

20 <sup>9.0</sup> 9.3 8.9 9.1 = 9.00 8.57 -13 5833

22 8.6 8.4 8.5 = 8.50 8.13 -14 5955

21 8.4 8.3 8.3 = 8.33 8.20 -14 5938

25 9.2 8.9 9.1 = 9.07 8.70 -14 5920

24 8.9 8.9 8.8 = 8.87 8.20 -14 5903

-15 5853 4 8.8 8.7 8.9 = 8.80 8.20

-15 5873 5 9.7 9.8 9.8 = 9.77 9.20

-15 5895 1 9.7 9.7 9.7 = 9.70 8.83

-15 5909 2 8.8 8.7 8.8 = 8.77 8.40

-16 5796 6 8.9 8.9 9.1 = 8.97 8.47

-16 5774 10 9.1 8.9 8.9 = 8.97 8.37

Pol. a 5.0

b 6.4

c 7.2

d 8.3

e 8.6

f 8.9

h 10.1

MP 1 7.9

2 6.8

3 7.1

4 7.9

5 8.2

6 8.5

7 8.3

8 8.7

9 9.6

10 9.5

A 9.3

B 9.6

C 10.1

D 10.2

E 10.1



64

J' Plates

h  
21-15

Oct. 9, 1907

I 34877

Stan.

16 8.5

20 8.9

22 8.4

21 8.3

25 8.9

24 8.9

4 8.7

5 9.8

1 9.7

2 8.7

6 8.9

10 8.9

Pol.

a 5.1

b 6.4

c 7.1

d 8.2

e 8.7

f 9.9

h 10.0

m.p

1 7.7

2 6.8

3 7.2

4 7.9

5 8.3

6 8.4

7 8.2

8 8.6

9 9.7

10 9.7

a 9.3

B 9.5

C 10.0

D 10.2

E 10.2

Stan.

16 8.5

20 9.1

22 8.5

21 8.3

25 9.1

24 8.8

4 8.9

5 9.8

1 9.7

2 8.8

6 9.1

10 8.9

h m  
1 20 + 45°

Oct 15 1907

		T 348314 <small>3d. meas 1st. meas T 34376 T 33862</small>					
Pol.	a	5.1	5.1	5.1	5.10	4.90	5.23
	b	6.4	6.5	6.4	6.43	6.40	6.30
	c	7.3	7.2	7.3	7.27	7.23	7.20
	d	8.2	8.2	8.2	8.20	8.10	7.90
	e	8.4	8.5	8.5	8.47	8.40	8.20
	f	8.9	8.9	8.9	8.90	8.80	8.73
	h	10.0	10.0	10.0	10.00	9.93	9.87
m.p.	1	8.3	8.4	8.4	8.37	8.30	8.07
	2	<sup>5.4</sup> <del>5.7</del>	5.2	5.3	5.30	5.23	5.27
	3	<sup>6.3</sup> <del>6.9</del>	6.9	6.9	6.90	7.00	6.77
	4	<del>8.7</del>	6.3	6.3	6.30	6.30	6.20
	5	7.2	7.3	7.2	7.23	7.07	6.93
	6	<sup>7.5</sup> 7.6	<del>7.7</del>	<del>7.7</del>	7.67	7.33	7.20
	7	8.2	8.3	8.3	8.27	7.63	7.83
	8	8.3	8.5	8.6	8.47	8.30	8.00
	9	8.1	8.1	8.1	8.10	8.00	7.83
	10	8.6	8.7	8.6	8.63	8.47	8.20
	A	8.7	8.6	8.7	8.67	8.40	8.33
	B	9.0	9.1	9.0	9.03	8.83	8.70
	C	8.9	8.8	8.8	8.83	8.60	8.50
	D	9.9	10.0	9.8	9.90	9.73	9.73
	E	10.2	10.3	10.2	10.23	10.03	10.07
✓ +45 350	Star. 1/6	8.7	8.6	8.7	8.67	8.43	7.97
✓ +45 346	20	8.2	8.2	8.2	8.20	8.17	7.87
✓ +45 372	22	8.1	8.1	8.1	8.10	7.90	7.83
✓ +45 348	21	9.1	9.0	9.0	9.03	8.77	8.77
✓ +45 337	25	8.3	8.2	8.3	8.27	8.27	8.17
✓ +45 316	✓ 24	8.0	8.1	8.0	8.03	7.83	7.63

✓ +43 276	✓ 4	8.1	8.1	8.1	8.10	8.03	7.93
✓ +44 294	✓ 5	8.3	8.2	8.2	8.23	8.17	7.97
✓ +44 309	✓ 1	8.2	8.1	8.1	8.13	8.03	7.90
✓ +44 321	✓ 2	8.2	8.2	8.2	8.20	8.27	7.97
✓ +43 298	✓ 6	8.0	8.1	8.1	8.10	7.97	7.83
✓ +43 284	✓ 10	8.8	8.6	8.6	8.67	8.37	8.20

Pol.	a	5.1
	b	6.5
	c	7.2
	d	8.2
	e	8.5
	f	8.9
	h	10.0

m.p.	1	8.4
	2	5.2
	3	6.9
	4	6.3
	5	7.3
	6	7.5
	7	8.3
	8	8.5
	9	8.1
	10	8.7
	A	8.6
	B	9.1
	C	8.8
	D	10.0
	E	10.3



66

I' Plates.

1 20 + 45

Oct 15 1907

I 34834

Stam. 16 8.6

20 8.2

22 8.1

21 9.0

25 8.2

24 8.1

4 8.1

5 8.2

1 8.1

2 8.2

6 8.1

10 8.6

Pol. a 5.1

b 6.4

c 7.3

d 8.2

e 8.5

f 8.9

h 10.0

m.p 1 8.4

2 5.3

3 6.9

4 6.3

5 7.2

6 7.8

7 8.3

8 8.6

9 8.1

10 8.6

a 8.7

B 9.0

C 8.8

D 9.8

E 10.2

Stam. 16 8.7

20 8.2

22 8.1

21 9.0

25 8.3

24 8.0

4 8.1

5 8.2

1 8.1

2 8.2

6 8.1

10 8.6

h.  
1 + 15

Oct 21 1907

Pol. ~~34891~~ <sup>24.10  
13.357  
1.52017  
3d. 10.4</sup>  
 a 4.9 5.0 5.0 = 4.97 5.10 5.20  
 b 6.4 6.3 6.4 = 6.37 6.40 6.23  
 c 7.1 7.1 7.1 = 7.10 7.30 7.00  
 d 8.2 8.1 8.2 = 8.17 8.30 7.47  
 e 8.5 8.5 8.5 = 8.50 8.57 7.70

mp ~~99~~ <sup>99</sup> 10.0 10.0 = 9.97 9.83 9.80  
 1 6.4 6.3 6.4 = 6.37 7.07 6.30

2 6.3 6.2 6.3 = 6.27 6.90 6.23

3 7.1 7.1 7.2 = 7.13 7.37 6.90

4 7.3 7.3 7.3 = 7.30 7.43 6.97

5 ~~7.1~~ 7.1 7.1 = 7.10 7.30 6.87

6 ~~7.3~~ 7.3 7.3 = 7.30 7.63

7 8.6 8.7 8.7 = 8.67 8.77

8 7.8 7.8 7.7 = 7.77 7.90

9 8.7 8.8 8.8 = 8.77 8.77

10 9.5 9.6 9.7 = 9.60 9.63

A 9.3 9.3 9.3 = 9.30 9.67

B 8.9 9.0 9.0 = 8.97 9.83

b 9.8 9.9 9.8 = 9.83 9.87

B

E

Starr. 16 8.3 8.5 8.3 = 8.37 8.50

~~20~~ 8.6 8.6 8.4 = 8.53 8.53

22 7.8 7.9 7.9 = 7.87 8.13

21 8.9 8.7 8.7 = 8.77 8.87

25 8.7 8.6 8.6 = 8.63 8.77

4 8.3 8.2 8.3 = 8.27 8.33

24 8.1 8.2 8.2 = 8.17 8.40

15 8.8 8.7 8.7 = 8.73 8.87

5 8.7 8.8 8.9 = 8.80 8.80

20 8.3 8.3 8.5 = 8.37 8.57

6 7.9 7.8 7.8 = 7.83 7.97

10 8.9 8.8 8.9 = 8.87 8.90

Pol. a 5.0

b 6.3

c 7.1

d 8.1

e 8.5

f 8.9

h 10.0

mp 1 6.3

2 6.2

3 7.1

4 7.3

5 7.1

6 7.3

7 8.7

8 7.8

9 8.8

10 9.6

A 9.3

B 9.0

C 9.7

D

E



68

T' Plates.

Oct 21, 1907

1<sup>h</sup>  
1 + 15

I 34891

Stan 16 8.5

20 8.6

22 7.9

21 8.7

25 8.6

24 8.2

4 8.2

5 8.7

1 8.8

2 8.3

6 7.8

10 8.8

Pol. a 5.0

b 6.4

c 7.1

d 8.2

e 8.5

f 8.9

h 10.0

MP 1 6.4

2 6.3

3 7.2

4 7.3

5 7.1

6 7.3

7 8.7

8 7.7

9 8.8

10 9.7

A 9.3

B 9.0

C 9.8

D

E

Stan. 16 8.3

20 8.4

22 7.9

21 8.7

25 8.6

24 8.3

4 8.2

5 8.7

6 8.9

2 8.5

6 7.8

10 8.9

J' Plates.

17 20 + 45

Oct 21, 1907

		1st. hand	2d. hand	
Pol	a	5.0 5.0 4.9 = 4.97	001 4.73 5.07	
	b	6.3 6.3 6.3 = 6.30	000 6.03 6.70	
	c	7.1 7.2 7.1 = 7.13	010 6.83 7.27	
	d	8.1 8.1 8.1 = 8.10	000 7.87 8.13	
	e	8.4 8.4 8.4 = 8.40	000 8.20 8.37	
	f	8.8 8.8 8.8 = 8.83	001 8.57 8.77	
	h	9.9 9.9 9.9 = 9.90	000 9.83 9.83	
mp	1	6.1 6.1 6.1 = 6.10	000 5.80 6.00	
	2	7.2 7.2 7.2 = 7.23	001 6.73 7.03	
	3	7.7 7.8 7.8 = 7.77	100 7.33 7.57	
	4	8.1 8.3 8.3 = 8.23	111 8.30 8.23	
	5	8.7 8.8 8.7 = 8.73	010 8.70 8.67	
	6	6.9 6.8 6.9 = 6.87	010 6.73 6.83	
	7	7.8 7.8 7.9 = 7.83	001 7.47 7.53	
	8	7.9 7.9 7.9 = 7.90	000 7.80 7.93	
	9	8.8 8.7 8.7 = 8.73	100 8.40 8.60	
	10	8.4 8.5 8.5 = 8.47	100 8.27 8.43	
	11	9.1 9.2 9.1 = 9.13	010 8.83 8.87	
	12	9.9 9.9 9.8 = 9.87	001 9.73 9.73	
	13	9.9 9.9 = 9.93	100 9.87 9.87	
	14	9.1 9.1 9.1 = 9.10	000 9.03 8.93	
	15	9.9 9.9 9.9 = 9.90	000 9.80 9.80	
Stars	16	7.7 7.8 7.7 = 7.73	010 7.30 7.97	
	20	7.9 7.9 7.9 = 7.90	000 7.80 8.20	
	22	8.4 8.5 8.6 = 8.50	101 8.47 8.93	
	21	8.1 8.3 8.3 = 8.23	111 8.10 8.20	
	25	8.8 8.7 8.7 = 8.73	100 8.63 8.70	
	24	9.0 8.9 9.0 = 8.97	010 8.80 8.83	

4	9.1 9.2 9.2 = 9.17	100 9.07
5	8.7 8.7 8.7 = 8.70	000 8.70
1	8.0 7.9 7.9 = 7.93	100 8.10
2	8.2 8.3 8.2 = 8.23	010 8.07
6	8.1 8.2 8.1 = 8.13	010 8.07
10	8.4 8.5 8.4 = 8.43	010 8.10
Pol.	a	5.0
	b	6.3
	c	7.2
	d	8.1
	e	8.4
	f	8.8
	h	9.9
mp	1	6.1
	2	7.2
	3	7.8
	4	8.3
	5	8.8
	6	6.8
	7	7.8
	8	7.9
	9	8.7
	10	8.5
	a	8.9
	b	9.2
	c	9.4
	d	9.7
	e	9.4



## T' Plates.

Oct 22, 1907

17 20 + 45

T 34890

Stan. 16 7.8

20 7.9

22 8.5

21 8.3

25 8.7

24 8.9

4 9.2

5 8.7

1 7.9

2 8.3

6 8.2

10 8.5

Pol. a 4.9

b 6.3

c 7.1

d 8.1

e 8.4

f 8.9

h 9.9

M.P. 1 6.1

2 7.3

3 7.8

4 8.3

5 8.7

6 6.9

7 7.9

8 7.9

9 8.7

10 8.5

a 9.1

B 9.3

C 9.3

D 9.9

E 9.6

Stan. 16 7.7

20 7.9

22 8.6

21 8.3

25 8.7

24 9.0

4 9.2

5 8.7

1 7.9

2 8.2

6 8.1

10 8.4

h  
3 + 15

Oct 22, 1907

I 34856

34.8

M. Pl.

34.8

Pol. a 5.1 5.1 5.1 = 5.10 000 5.23 5.17  
 b 6.5 6.5 6.4 = 6.47 001 6.53 6.57  
 c 7.4 7.3 7.3 = 7.33 100 7.20 7.33  
 d 8.2 8.3 8.3 = 8.27 100 7.90 8.27  
 e 8.7 8.7 8.7 = 8.70 000 8.23 8.53  
 f 9.0 9.1 9.0 = 9.03 010 8.57 9.03

m.p.

h 10.1 10.0 10.0 = 10.03 100 9.70 10.13  
 1 6.3 6.3 6.2 = 6.27 001 6.33 6.83  
 2 7.3 7.4 7.3 = 7.33 010 6.97 7.50  
 3 6.9 6.8 6.9 = 6.87 010 7.17 7.13  
 4 7.1 7.3 7.2 = 7.20 110 7.23 7.47  
 5 7.4 7.5 7.4 = 7.43 010 7.33 7.80  
 6 7.6 7.5 7.5 = 7.53 100 7.20 7.63  
 7 8.2 8.1 8.2 = 8.17 010 7.80 8.57  
 8 7.9 7.8 7.9 = 7.87 010 7.60 8.07  
 9 8.7 8.5 8.7 = 8.63 111 8.13 8.60  
 10 9.4 9.3 9.4 = 9.37 010 8.77 9.63  
 A 9.7 9.7 9.8 = 9.73 001 9.63 9.90  
 B 9.9 9.9 9.9 = 9.90 000 9.80 10.17  
 C 10.0 10.0 10.1 = 10.03 001 10.00 10.20  
 D 10.3 10.2 10.3 = 10.27 010 10.17 —  
 E F — — — — —

Star. 16 8.3 8.2 8.2 = 8.23 100 7.67 8.20  
 20 8.7 8.7 8.5 = 8.63 111 7.77 8.53  
 22 8.1 8.0 7.9 = 8.00 101 7.43 8.10  
 21 8.7 8.8 8.7 = 8.80 101 8.23 8.70  
 25 8.2 8.2 8.3 = 8.23 001 7.73 8.30  
 24 8.3 8.3 8.4 = 8.33 001 7.83 8.53

4 8.5 8.5 8.4 = 8.47 001 8.20 8.63  
 5 8.3 8.3 8.3 = 8.30 000 8.44  
 1 9.1 9.1 9.0 = 9.07 001 8.70 8.80  
 2 8.5 8.5 8.3 = 8.43 111 8.33 8.57  
 6 8.3 8.4 8.5 = 8.40 000 8.50 8.53  
 10 8.5 8.5 8.3 = 8.43 000 8.27 8.47

Pol.

a 5.1  
 b 6.5  
 c 7.3  
 d 8.3  
 e 8.7  
 f 9.1  
 h 10.0

m.p.

1 6.3  
 2 7.4  
 3 6.8  
 4 7.3  
 5 7.5  
 6 7.5  
 7 8.1  
 8 7.8  
 9 8.5  
 10 9.3  
 A 9.7  
 B 9.9  
 C 10.0  
 D 10.2  
 E



$\frac{h}{g} + 15$ 

Oct 26 1907

I 34856

Stam.

16 8.2

20 8.7

22 8.0

21 8.8

25 8.2

24 8.3

4 8.5

5 8.3

1 9.1

2 8.3

6 8.4

10 8.5

Pl.

a 5.1

b 6.4

c 7.3

d 8.3

e 8.7

f 9.0

h 10.0

mp

1 6.2

2 7.3

3 6.9

4 7.2

5 7.4

6 7.5

7 8.7

8 7.9

9 8.7

10 9.4

A 9.8

B 9.9

C 10.1

D 10.3

E —

St. 16 8.2

20 8.5

22 7.9

21 8.7

25 8.3

24 8.4

4 8.4

5 8.3

1 9.0

2 8.3

6 8.5

10 8.3

4 + 45

Oct 26, 1907

I 34855

34.92

1st Pl. 2d Pl.

Pol. a 5.1 5.1 5.1 = 5.10 000 5.00 5.10  
 b 6.5 6.4 6.4 = 6.43 100 6.23 6.43  
 c 7.4 7.4 7.3 = 7.37 001 6.90 7.23  
 d 8.3 8.2 8.3 = 8.27 010 7.93 8.23  
 e 8.5 8.5 8.6 = 8.53 001 8.30 8.53  
 f 8.9 8.9 9.0 = 8.93 001 8.67 8.87

Mrp

h 10.0 10.0 10.1 = 10.03 001 9.87 10.03  
 i 7.1 7.2 7.3 = 7.20 10.20 101 6.83 7.23  
 2 6.7 6.8 6.8 = 6.77 100 6.73 6.87  
 3 6.9 6.9 6.9 = 6.90 000 6.83 7.07  
 4 7.3 7.3 7.3 = 7.30 000 7.07 7.27  
 5 7.4 7.3 7.3 = 7.33 100 7.00 7.37  
 6 8.2 8.3 8.3 = 8.27 100 7.93 8.20  
 7 8.8 8.8 8.8 = 8.80 000 8.70 8.97  
 8 8.2 8.3 8.3 = 8.27 100 7.87 8.60  
 9 8.7 8.7 8.7 = 8.70 000 8.63 8.80  
 10 9.3 9.2 9.2 = 9.23 100 8.93 9.50  
 A 9.8 9.6 9.7 = 9.70 110 9.57 9.93  
 B 10.0 9.9 9.9 = 9.93 100 9.90 10.20  
 C 10.2 10.1 10.1 = 10.13 100 10.18 10.25  
 D 10.2 10.2 10.1 = 10.17 001 10.23 10.20  
 E - - -

St.

16 7.6 7.5 7.5 = 7.53 100 7.23 7.50  
 20 7.9 7.8 7.9 = 7.87 010 7.47 8.00  
 22 8.1 7.9 8.0 = 8.00 110 7.63 8.07  
 21 8.8 8.7 8.7 = 8.73 100 8.27 8.73  
 25 8.0 8.1 7.9 = 8.00 011 7.70 8.00  
 24 8.1 8.0 8.0 = 8.03 100 7.70 8.07

4 7.3 7.3 7.3 = 7.30 7.07 7.37  
 5 8.8 8.8 8.9 = 8.83 8.43 8.89  
 1 7.8 7.9 7.8 = 7.83 7.30 7.86  
 2 8.3 8.3 8.4 = 8.33 8.00 8.19  
 6 9.0 8.9 9.0 = 8.97 8.70 8.90  
 10 8.2 8.2 8.2 = 8.20 7.97 8.33  
 000

Pol.

a 5.1  
 b 6.4  
 c 7.4  
 d 8.2  
 e 8.5  
 f 8.9  
 h 10.0

Mrp

1 7.2  
 2 6.8  
 3 6.9  
 4 7.3  
 5 7.3  
 6 8.3  
 7 8.8  
 8 8.3  
 9 8.7  
 10 9.2  
 A 9.6  
 B 9.9  
 C 10.1  
 D 10.2  
 E



4 + 45

Oct 26, 1907

T 34855

St 16 7.5

20 7.8

22 7.9

21 8.7

25 8.1

24 8.0

4 7.3

5 8.8

1 7.9

2 8.3

6 8.9

10 8.2

Pol a 5.1

b 6.4

c 7.3

d 8.3

e 8.6

f 9.0

h 10.1

mp 1 7.3

2 6.8

3 6.9

4 7.3

5 7.3

6 8.3

7 8.8

8 8.3

9 8.7

10 9.2

a 9.7

B 9.9

C 10.1

D 10.1

E

10 7.5

26 7.9

28 8.0

21 8.7

25 7.9

24 8.0

4 7.3

5 8.9

1 7.8

2 8.4

6 9.0

10 8.2

19-15

Oct 26, 1907

T 34853 <sup>2d. 10</sup> <sup>1st. 10</sup>

Pol. a 5.2 5.1 5.1 = 5.13 5.27  
 b 6.5 6.7 6.5 = 6.57 6.87  
 c 7.3 7.3 7.3 = 7.30 7.53  
 d 8.3 8.2 8.2 = 8.23 8.33  
 e 8.6 8.5 8.5 = 8.53 8.73  
 f 9.0 8.9 8.9 = 8.93 9.07  
 h 10.1 10.1 10.0 = 10.07 10.07

mp 1 7.4 7.3 7.3 = 7.33 7.83  
 2 7.7 7.7 7.6 = 7.67 8.10  
 3 6.9 6.8 6.9 = 6.87 7.20  
 4 7.1 7.1 7.1 = 7.10 7.50  
 5 7.9 7.7 7.7 = 7.77 8.27  
 6 8.7 8.7 8.7 = 8.70 8.93  
 7 8.5 8.5 8.4 = 8.47 8.93  
 8 8.7 8.7 8.7 = 8.70 9.03  
 9 9.3 9.2 9.3 = 9.27 9.70  
 10 8.9 8.9 8.9 = 8.90 9.53

A 9.3 9.3 9.3 9.30

B 9.6 9.7 9.6 9.63

C 10.2 10.2 10.1 10.17

D 10.2 10.2 10.2 10.20

E F — — —

Star. 16 7.7 7.6 7.7 = 7.67 8.20 8.1 8.1 8.2 8.13  
 20 8.7 8.7 8.7 = 8.77 8.70 8.7 8.7 8.7 8.77  
 22 8.3 8.3 8.3 = 8.30 8.73 8.7 8.7 8.7 8.77  
 21 8.7 8.6 8.5 = 8.60 9.13 8.9 8.8 8.9 8.87  
 25 7.9 7.9 7.8 = 7.87 8.37 8.3 8.4 8.3 8.33  
 24 8.7 8.7 8.7 = 8.70 8.97 9.1 9.1 9.1 9.10

8.9 8.9 8.9 <sup>890</sup> 4 8.5 8.5 8.6 = 8.53 8.93  
 9.0 9.0 9.1 <sup>901</sup> 5 8.7 8.7 8.7 = 8.70 9.37  
 9.4 9.3 9.3 <sup>933</sup> 1 9.1 9.1 9.1 = 9.10 9.77  
 8.9 8.9 8.8 <sup>887</sup> 2 8.5 8.6 8.5 = 8.53 9.03  
 9.0 9.0 8.9 <sup>893</sup> 6 8.7 8.8 8.7 = 8.73 9.20  
 9.3 9.3 9.2 <sup>927</sup> 10 8.7 8.8 8.8 = 8.77 9.50

Pol. a 5.1

b 6.7

c 7.3

d 8.2

e 8.5

f 8.9

h 10.1

mp 1 7.3

2 7.7

3 6.9

4 7.1

5 7.7

6 8.7

7 8.5

8 8.7

9 9.9

10 8.9

a 9.3

B 9.7

C 10.2

D 10.2

E F



19-15

Oct 26, 1907

I 34853

Stan. 16 ~~8.6~~ 8.1  
 20 ~~8.7~~ 8.8  
 22 ~~8.3~~ 8.9  
 21 ~~8.6~~ 8.8  
 25 ~~8.9~~ 8.4  
 24 ~~8.7~~ 9.1  
 4 ~~8.5~~ 8.9  
 5 ~~8.7~~ 9.0  
 1 ~~9.1~~ 9.3  
 2 ~~8.6~~ 8.9  
 6 ~~9.0~~ 9.0  
 10 ~~8.5~~ 9.3

Pol. a 5.1  
 f 6.5  
 c 7.3  
 d 8.2  
 e 8.5  
 f 8.9  
 h 10.0

M.P. 1 7.3  
 2 7.6  
 3 6.8  
 4 7.1  
 5 7.7  
 6 8.7  
 7 8.4  
 8 8.7  
 9 7.8

10 8.9  
 A 9.3  
 B 9.6  
 C 10.2  
 D 10.2  
 E 9.7

Stars 5229 16 7.7 8.2  
 -135201 20 8.7 8.9  
 -145320 22 8.3 8.8  
 -145288 21 8.5 8.9  
 -145268 25 7.8 8.3  
 -145240 24 8.7 9.1  
 -155163 4 8.6 8.9  
 -155203 5 8.7 9.1  
 -155236 1 9.1 9.4  
 -155256 2 8.5 8.9  
 -165151 6 9.7 9.0  
 -165227 10 8.5 9.3

19 + 15

23 + 15

Oct 22 1907

I 34838

I 34842

3d. Pl. 12d. Pl. 2d. Pl.  
mias. mias. mias.

Pol. a 5.1 5.1 5.0 5.1 = 5.07 5.00 5.23  
 b 6.8 6.4 6.4 6.4 = 6.40 6.47 6.57  
 c 7.5 7.2 7.2 7.1 = 7.17 7.30 7.30  
 d 8.5 8.2 8.2 8.3 = 8.23 8.23 8.23  
 e 8.8 8.5 8.5 8.5 = 8.50 8.60 8.53  
 f 9.1 8.9 9.0 8.9 = 8.93 8.93 8.83

m.p.

h 10.1 10.0 9.9 10.0 = 9.97 9.83 9.93  
 1 6.8 7.0 7.0 = 7.03 7.33 7.23  
 2 8.4 8.3 8.4 = 8.37 8.57 8.33  
 3 8.7 8.8 8.7 = 8.73 8.87 8.73  
 4 8.7 8.7 8.7 = 8.70 8.77 8.70  
 5 6.0 6.1 6.1 = 6.07 6.27 6.37  
 6 6.2 6.2 6.2 = 6.20 6.83 6.87  
 7 6.7 6.8 6.8 = 6.77 7.27 7.27  
 8 7.7 7.7 7.8 = 7.73 7.93 7.80  
 9 7.5 7.5 7.5 = 7.50 7.83 7.77  
 10 7.9 8.0 7.9 = 7.93 8.17 8.13  
 A 9.8 9.7 9.8 = 9.77 9.90 9.80  
 B 10.0 9.9 10.0 = 9.97 10.07 10.07  
 C 9.7 9.7 9.7 = 9.70 9.87 9.90  
 D 9.5 9.5 9.5 = 9.50 9.80 9.73  
 E F — — 10.20

Starn.

16 8.6 8.4 8.6 = 8.53 8.80 8.63  
 20 7.9 7.8 7.8 = 7.83 8.17 7.87  
 22 9.3 9.1 9.1 = 9.17 9.37 8.87  
 21 8.2 8.1 8.1 = 8.07 8.37 8.20  
 25 8.2 8.1 8.0 = 8.07 8.30 8.20  
 24 8.2 8.2 8.2 = 8.20 8.23 8.13

4 7.8 7.7 7.8 = 7.77 7.97 7.97 3  
 5 8.3 8.4 8.4 = 8.37 8.33 8.27 0  
 1 7.8 7.7 7.7 = 7.73 7.87 7.97 3  
 2 8.7 8.7 8.8 = 8.73 8.97 8.87 1  
 6 8.2 8.3 8.4 = 8.30 8.30 8.30 7  
 10 8.5 8.6 8.6 = 8.57 8.63 8.60 7

Pol.

a 5.0  
 b 6.4  
 c 7.2  
 d 8.2  
 e 8.5  
 f 9.0  
 h 9.9

m.p.

1 7.1  
 2 8.3  
 3 8.8  
 4 8.7  
 5 6.1  
 6 6.2  
 7 6.8  
 8 7.7  
 9 7.5  
 10 8.0

A 9.7  
 B 9.9  
 C 9.7  
 D 9.5  
 E



19<sup>h</sup> + 15Oct 30 1907

T 34838

Star. 16 8.4

20 7.8

22 9.1

21 8.2

25 8.1

24 8.2

4 7.7

5 8.1

1 7.7

2 8.7

6 8.3

10 8.6

Pol. a 5.1

b 6.4

c 7.1

d 8.3

e 8.5

f 8.9

h 10.0

M<sub>p</sub> 1 7.0

2 8.4

3 8.7

4 8.7

5 6.1

6 6.2

7 6.8

8 7.8

9 7.5

10 7.9

a 9.8

B 10.0

C 9.7

D 9.5

E 7.

Star. 16 8.6

20 7.8

22 9.1

21 8.1

25 8.0

24 8.2

4 7.8

5 8.1

1 7.7

2 8.8

6 8.4

10 8.6

17+15

(Scale 6")

Oct 30, 1907

	I	3	4	8	3	1	3d Pl. "mes."	1st Pl. "PL"	2d Pl. "PL"
Pol.	a	5.1	5.2	5.1	5.13	5.00	5.17		
	b	6.3	6.4	6.4	6.37	6.43	6.73		
	c	7.2	7.2	7.3	7.23	7.33	7.37		
	d	8.3	8.2	8.3	8.27	8.17	8.73		
	e	8.6	8.5	8.5	8.53	8.47	9.07		
	f	9.0	8.9	8.9	8.93	8.80	9.47		
	h	10.0	10.1	10.0	10.03	9.83	10.23		
MP	1	<sup>WS</sup> 5.3	6.2	6.2	6.23	6.23	6.23		
	2	7.4	7.3	7.4	7.37	7.47	7.83		
	3	7.9	7.7	7.8	7.80	8.17	8.27		
	4	8.2	8.2	8.2	8.20	8.20	8.67		
	5	7.8	7.8	7.9	7.83	7.93	8.27		
	6	8.3	8.2	8.2	8.23	8.20	8.50		
	7	8.2	8.1	8.3	8.33	8.33	8.70	2d m.	
	8	7.3	7.3	7.3	7.30	7.00	7.33	1st m.	
	9	8.1	8.2	8.3	8.20	8.20	8.60		
	10	8.4	8.5	8.4	8.43	8.43	8.93		
	A	9.2	9.2	9.2	9.20	9.20	9.63		
	B	9.7	9.8	9.7	9.73	9.77	9.97		
	C	10.0	10.0	10.0	10.00	10.13	10.20		
	D	9.9	10.1	9.9	9.97	9.87	10.03		
	E	—							
Stan.	16	8.7	8.6	8.7	8.67	8.73	9.23		
	20	8.5	8.2	8.2	8.30	8.30	8.30		
	24	7.9	7.8	7.9	7.87	8.00	8.67		
	21	8.4	8.2	8.4	8.33	8.27	8.70		
	25	8.3	8.3	8.5	8.37	8.40	8.80		
	22	8.1	8.1	8.2	8.13	7.87	8.43		

4	7.9	7.9	7.9	7.90	7.63	8.53
5	8.7	8.7	8.8	8.73	8.60	9.20
1	8.3	8.2	8.3	8.27	8.10	8.53
2	8.7	8.7	8.7	8.70	8.43	8.97
6	8.5	8.4	8.3	8.40	8.23	8.77
10	7.8	7.8	7.8	7.80	7.50	8.47
Pol.	a	5.2				
	b	6.4				
	c	7.2				
	d	8.2				
	e	8.5				
	f	8.9				
	h	10.1				
MP	1	6.2				
	2	7.3				
	3	7.7				
	4	8.2				
	5	7.8				
	6	8.2				
	7	8.1				
	8	7.3				
	9	8.2				
	10	8.5				
	A	9.2				
	B	9.8				
	C	10.0				
	D	10.1				
	E	—				



I' Plates.

<sup>h</sup>  
17 + 15

Oct 30, 1907

I 34831

St. 16 8.6

20 8.2

22 7.8

21 8.2

25 8.3

24 8.1

4 7.9

5 8.7

1 8.2

3 8.7

6 8.4

10 7.8

Pol. a 5.1

b 6.4

c 7.3

d 8.3

e 8.5

f 8.9

h 10.0

mp 1 6.2

2 7.4

3 7.8

4 8.2

5 7.9

6 8.2

7 8.3

8 7.3

9 8.3

10 8.4

A 9.2

B 9.7

C 9.10.0

D 9.9

E —

16 8.7

20 8.2

22 7.9

21 8.1

25 8.2

24 8.2

4 7.9

5 8.8

1 8.3

2 8.7

6 8.3

10 7.8

h m o  
14 40 + 45

Oct 30, 1907

I 34829 <sup>3.4 Pl.</sup> <sup>1.4 Pl.</sup> <sup>2.4 Pl.</sup>  
 Pol. a 4.9 5.0 4.9 = 4.93 4.73 5.83  
 b 6.3 6.4 6.3 = 6.33 6.03 7.33  
 c 7.0 7.1 7.0 = 7.03 6.83 7.87  
 d 8.1 8.2 8.2 = 8.17 8.20 8.47  
 e 8.5 8.5 8.5 = 8.50 8.47 8.80

f 9.0 8.9 9.0 = 8.97 8.90 9.23  
 h 10.1 10.1 10.1 = 10.10 10.07 10.20  
 K 1 6.7 6.7 6.4 = 6.60 6.83 7.20

2 6.8 6.9 6.9 = 6.87 6.63 7.70

3 7.3 7.5 7.4 = 7.40 7.37 8.10

4 7.8 7.8 7.7 = 7.77 7.97 8.27

5 8.8 8.7 8.7 = 8.73 8.77 8.83

6 8.2 8.2 8.3 = 8.23 8.27 8.60

7 8.8 8.8 8.7 = 8.77 8.97 8.97

8 8.3 8.5 8.3 = 8.37 8.50 8.67

9 7.7 7.9 7.8 = 7.80 7.63 8.13

10 8.4 8.3 8.4 = 8.37 8.53 8.73

A 9.1 9.2 9.2 = 9.17 9.27 9.47

B 9.8 9.8 9.7 = 9.77 9.90 9.87

C 9.8 9.8 9.8 = 9.80 9.97 9.87

D 9.7 9.9 9.7 = 9.77 10.13 10.13

E 10.1 10.2 10.1 = 10.13 — 10.20

Stars. X6 8.1 8.1 8.1 8.10 8.37 8.70

✓ 20 7.9 7.9 7.9 7.90 7.93 8.53

✓ 22 8.7 8.8 8.7 8.73 8.73 8.97

✓ 21 8.4 8.3 8.4 8.37 8.57 8.77

✓ 25 8.2 8.3 8.5 8.33 8.57 8.70

✓ 24 8.7 8.7 8.7 8.70 8.70 8.80

✓ 4 8.8 8.7 8.9 8.80 8.83 8.60

✓ 5 8.6 8.7 8.7 8.67 8.80 8.73

✓ 1 8.5 8.5 8.4 8.47 8.60 8.60

✓ 2 7.3 7.3 7.3 7.30 7.00 7.77

✓ 16 8.7 8.7 8.8 8.73 8.33 8.07

10 9.0 9.1 9.0 9.03 8.90 8.60

Pol. a 5.0

b 6.4

c 7.1

d 8.2

e 8.5

f 8.9

h 10.1

MP 1 6.7

2 6.9

3 7.5

4 7.8

5 8.7

6 8.2

7 8.8

8 8.5

9 7.9

10 8.3

A 9.2

B 9.8

C 9.8

D 9.9

E 10.2



Oct 31, 19071  
4 40 + 45

Star. 16 8.1  
20 7.9  
22 8.8  
21 8.3  
25 8.3  
24 8.7

4 8.7

5 8.7

1 8.5

2 7.3

6 8.7

10 9.1

Pol. a 4.9

b 6.3

c 7.0

d 8.2

e 8.5

f 9.0

h 10.1

AKP 1 6.4

2 6.9

3 7.4

4 7.7

5 8.7

6 8.3

7 8.7

8 8.3

9 7.8

10 8.4

a 9.2

B 9.7

b 9.8

15 9.7

E 10.1

Star. 16 8.1

20 7.9

22 8.7

21 8.4

25 8.5

24 8.7

4 8.9

5 8.7

1 8.4

2 7.3

6 8.8

10 9.0

D' Plates.

83

 $20 + 45$ 

Oct. 31, 1907

I 34708

Pol.	a	5.1	5.2	5.2	5.17
	b	6.4	6.5	6.4	6.43
	c	7.3	7.4	7.3	7.33
	d	8.3	8.3	8.2	8.27
	e	8.6	8.5	8.5	8.53
	f	8.9	8.9	8.9	8.90
	h	10.0	10.1	10.1	10.07

m.p.	1	7.7	7.6	7.6	7.63
	2	7.5	7.4	7.6	7.50
	3	7.4	7.5	7.4	7.43
	4	7.9	7.8	7.7	7.80
	5	8.3	8.5	8.5	8.43
	6	7.3	7.3	7.4	7.33
	7	8.2	8.2	8.1	8.17
	8	8.4	8.6	8.6	8.53
	9	8.5	8.7	8.5	8.57

	10				
A	9.2	9.3	9.2	9.23	
B	10.0	10.0	10.0	10.00	
C	9.9	10.0	9.9	9.93	
D	-	-	-		
E	-	-	-		

Stan	28	8.1	8.1	8.1	8.10
	29	8.7	8.7	8.7	8.70
	<del>30</del>	8.7	8.6	8.5	8.60
	36	7.8	8.0	7.9	7.90

~~35~~  
~~34~~

37	<del>x</del>	8.3	8.5	8.4	8.40
	5	8.1	8.2	8.2	8.17
	1	8.8	8.7	8.6	8.70
10	<del>2</del>	8.2	8.2	8.1	8.17
	6	9.4	9.3	9.4	9.37
	<del>2</del>	8.1	8.1	8.1	8.10

Pol.	a	5.2
	b	6.5
	c	7.4
	d	8.3
	e	8.5
	f	8.9
	h	10.1

m.p.	1	7.6
	2	7.4
	3	7.5
	4	7.8
	5	8.5
	6	7.3
	7	8.2
	8	8.6
	9	8.7

	10	
A	9.3	
B	10.0	
C	10.0	
D		
E		



I' Plates.

20 + 75

Oct 31, 1907

I 34708

Star. 28 8.1

29 8.7

37 8.6

36 8.0

4 8.5

5 8.2

1 8.7

2 8.2

6 9.3

10 8.1

a 5.2

Pol. b 6.4

c 7.3

d 8.2

e 8.5

f 8.9

g 7.0

h 10.1

MP 1 7.6

2 7.6

3 7.4

4 7.7

5 8.5

6 7.4

7 8.1

8 8.6

9 8.5

a 9.2

B 10.0

C 9.9

D

E

Star. 28 8.1

29 8.7

37 8.5

36 7.9

4 8.4

5 8.2

1 8.6

2 8.1

6 9.4

10 8.1

h  
7+15

Dec 17 1907

T 35046

Pol. a 5.1 5.2 5.1 513 010  
 b 6.4 6.3 6.4 637 010  
 c 7.3 7.3 7.2 727 001  
 d 8.3 8.1 8.1 817 111  
 e 8.5 8.4 8.5 847 010  
 f 8.9 8.8 8.9 887 010  
 h 10.1 10.1 10.1 1010 000

m.p. 1 6.3 6.3 6.4 633 001  
 2 7.1 7.1 7.2 713 001  
 3 6.9 6.9 6.9 690 000  
 4 7.9 7.8 7.8 783 100  
 5 7.7 7.7 7.7 770 000  
 6 8.2 8.1 8.1 813 100

7 8.1 7.9 8.1 803 111  
 8 6.9 6.9 6.9 690 000  
 9 7.2 7.1 7.2 717 010  
 10 7.9 7.8 7.7 780 001

A 9.6 9.7 9.7 967  
 B 10.1 10.0 10.1 1007  
 C 9.9 9.9 9.9 990  
 D 10.2 10.1 10.1 1013  
 E 10.2 10.1 10.2 1017

Stam. 16 8.8 8.8 8.8 880 1  
 20 8.3 8.5 8.3 837  
 22 7.9 7.6 7.9 760  
 21 8.5 8.4 8.2 838  
 25 7.8 7.6 7.8 773  
 24 7.1 7.1 7.2 713

2 8.0 7.9 7.9 790  
 1 7.8 7.8 7.8 780  
 5 8.7 8.6 8.6 860  
 4 8.7 8.6 8.7 867  
 6 7.2 7.1 7.2 717  
 10 7.9 7.9 7.9 790

Pol. a 5.2 2 7.9 20 8.8  
 b 6.3 1 7.8 22 7.9  
 c 7.3 5 8.6 21 8.2  
 d 8.1 4 8.6 25 7.8  
 e 8.4 6 7.1 24 7.2  
 f 8.8 10 7.9 2 7.9  
 h 10.1 Pol. a 5.1 1 7.8

1 6.3 4 8.7  
 2 7.1 5 8.5  
 3 6.9 6 7.2  
 4 7.8 10 7.9  
 5 7.7 7 8.9  
 6 8.1 h 10.1

7 7.9 m.p. 1 6.4  
 8 6.9 2 7.2  
 9 7.1 3 6.9  
 10 7.8 4 7.8  
 A 9.7 5 7.7  
 B 10.0 6 8.1  
 C 9.9 7 8.1  
 D 10.1 8 6.9  
 E 10.1 9 7.2  
 10 7.7



I<sup>1</sup> Plates.

Measures of faint stars  $g, h, k, k^2, k^3$  in  
polar seq. also of stars  $a, b, c, d, e$ .  $4^h + 45^m$   
(Miss Leavitt's scale, No 32811)

Nov. 12, 1907

I 34839

$g$	8.5	8.7	8.60	8.1		
$h$	9.1	9.2	9.15	1.0		
$k$	9.6	9.6	9.60	0.0		
$k^2$	9.7	9.8	9.75	1.0		
$k^3$	10.0	10.0	10.00	0.0		
$a$	7.7	7.9	7.80	1.1	8.10	3.79
$b$	7.8	7.8	7.80	0.0	7.95	3.85
$c$	9.1	9.1	9.10	0.0	9.50	3.43
$d$	9.7	9.8	9.75	1.0	9.90	3.55
$e$	9.9	10.0	9.95	1.0	9.90	3.55

 $g$  8.7 $h$  9.2 $k$  9.6 $k^2$  9.8 $k^3$  10.0 $a$  7.9 $b$  7.8 $c$  9.1 $d$  9.8 $e$  10.0

(See p 107 for other measures of faint stars)

The faint stars measured for  $a, b, c, d, e$  are measured on  
I 28212. The identification has not been checked, and they may  
not be identical with those meas. by Prof. P.

## T' Plates.

 $h + 15^\circ$ 

Measurements of faint stars g, h, k,  $k^2 + k^3$  in  
Polar seq. also ft stars a, b, c, d, + e. (Reg 1 + 15)  
(Scale 32811)

Nov 14, 1907

I 34891

g	8.6	8.5	8.55	0 1		
h	9.0	9.1	9.05	0 1		
k	9.5	9.5	9.50	0 0		
$k^2$	9.7	9.7	9.70	0 0		
$k^3$	9.9	10.0	9.95	1 0		
a	7.9	8.1	8.00	1 1	4.04	12.04
b	7.5	7.8	7.65	1 2	4.09	11.74
c	9.0	9.0	9.00	0 0	3.67	12.62
d	9.5	9.5	9.50	0 0	3.71	13.21
e	9.7	9.8	9.75	1 0	3.71	13.46
g	8.5					
h	9.1					
k	9.5					
$k^2$	9.7					
$k^3$	10.0					
a	8.1					
b	7.8					
c	9.0					
d	9.5					
e	9.8					

The faint stars a, b, c, d, + e are marked on I 29230. Identifications have not been checked. Star "e" is not the same as one meas. by Prof P. as I could find no star in that pos. on T' plate.



## T' Plates.

Measures of faint stars  $g$   $h$   $k$   $k^2$   $k^3$  in  
Polar seq. also ft stars  $a$   $b$   $c$   $d$   $e$  Reg  $20^h 45^s$   
(Scale 32811)

Nov 15 1907

$20^h 45^s$

T 34728

$g$  8.6 8.5 8.55 0.1

$h$  9.0 9.0 9.00 0.0

$k$  9.5 9.7 9.60 1.1

$k^2$  9.7 9.8 9.75 1.0

$k^3$  10.1 10.1 10.10 0.0

~~$a$  8.3 8.4 8.35 1.0~~

~~$b$  8.6 8.0 8.05 1.0~~

~~$c$  9.9 9.4 8.95 1.0~~

~~$d$  9.8 9.4 9.40 0.0~~

~~$e$  9.7 9.5 9.45 0.1~~

~~$g$  8.5~~

~~$h$  9.0~~

~~$k$  9.7~~

~~$k^2$  9.8~~

~~$k^3$  10.1~~

~~$a$  8.4~~

~~$b$  8.6~~

~~$c$  9.9~~

~~$d$  9.7~~

~~$e$  9.8~~

8.3 8.4 8.35 3.74

8.6 8.6 8.60 3.71

9.9 9.8 9.85 3.65

9.8 9.9 9.85 3.65

9.7 9.8 9.75 3.64

8.4

8.6

9.8

9.9

9.8

Faint stars  $a$   $b$   $c$   $d$   $e$  are marked on D 23061. Cannot find a star in position given for "c". So have measured another. Identification not checked.

## I' Plates.

Measure of faint stars g, h, k, k<sup>2</sup>, k<sup>3</sup> in  
 Polaris Seq - also faint stars a, b, c, d, e (28<sup>h</sup> + 15)  
 (Scale 32811)

Nov 16, 1907

I 34833

g	8.5	8.5	8.50	00
h	8.9	9.0	8.95	10
k	9.5	9.5	9.50	00
k <sup>2</sup>	9.5	9.6	9.55	10
k <sup>3</sup>	10.0	10.0	10.00	00
a	8.2	8.4	8.40	00 8.30
b	8.8	9.0	8.95	10 8.90
c	9.0	8.9	8.90	00 8.95
d	9.3	9.5	9.50	00 9.40
e	9.7	9.7	9.70	00 9.70
g	8.5			
h	9.0			
k	9.5			
k <sup>2</sup>	9.6			
k <sup>3</sup>	10.0			
a	8.4			
b	9.0			
c	8.9			
d	9.5			
e	9.7			

12 00 + 45

36420

29

38

7 00 + 15-0

36402

Faint stars a, b, c, d, e marked on above plate.  
 Identifications have not been checked



## I' Plates.

Measurements of faint stars g h k k<sup>2</sup> + k<sup>3</sup> in  
Polar seg. also faint stars a b c d + e (23<sup>h</sup>-15)

23<sup>h</sup>-15

(Scale 32811)

Nov 18, 1907

I 34880

g	8.5	8.5	8.50	00	
h	9.0	9.0	9.00	00	
k	9.6	9.7	9.65	01	
k <sup>2</sup>	9.7	9.7	9.70	00	
k <sup>3</sup>	10.0	10.0	10.00	00	
a	8.8	9.0	8.90		8.90
b	9.2	9.2	9.20	00	9.20
c	9.5	9.6	9.55	01	9.40
d	9.6	9.7	9.65	00	9.55
e	9.9	9.9	9.90	01	9.95
g	8.5				
h	9.0				
k	9.7				
k <sup>2</sup>	9.7				
k <sup>3</sup>	10.0				
a	9.0				
b	9.2				
c	9.3				
d	9.5				
e	9.9				

I 34366

g	8.3	8.2	8.25
h	8.6	8.6	8.60
k	9.1	9.1	9.10
k <sup>2</sup>	9.2	9.1	9.15
k <sup>3</sup>	9.5	9.5	9.50
a	8.3	8.2	8.25
b	8.2	8.3	8.25
c	8.5	8.5	8.50
d	8.7	8.8	8.75
e	9.3	9.3	9.30
g	8.2		
h	8.6		
k	9.1		
k <sup>2</sup>	9.1		
k <sup>3</sup>	9.5		
a	8.2		
b	8.3		
c	8.5		
d	8.8		
e	9.3		

The stars a b c d e are probably not the ones measured  
by Prof. P. Could not be sure of identifications.

Plates.

91

Measures of faint stars  $g h k k^2 + k^3$  in  
Polar seq. also faint stars  $a b c d + e$ . 21-15

21-15

(Scale 32811)

Nov 18, 1907

Jan 10, 1910

I 34877

I 32147

g 8.5 8.4 8.45 10

8.3 8.3 8.30

h 8.9 9.0 8.95 10

8.6 8.5 8.55

k 9.5 9.5 9.50 00

9.2 9.3 9.25

 $k^2$  9.7 9.6 9.65 10

9.3 9.5 9.40

 $k^3$  10.0 10.0 10.00 00

9.7 9.8 9.75

a 8.3 8.3 8.30 00

7.3 7.5 7.40

b 8.4 8.4 8.40 00

7.7 7.9 7.80

c 9.7 9.7 9.70 00

8.8 8.8 8.80

d 9.9 9.8 9.85 10

8.9 9.0 8.95

e 9.7 9.7 9.70 00

8.9 8.9 8.90

g 8.4

8.3

h 9.0

8.5

k 9.5

9.3

 $k^2$  9.6

9.5

 $k^3$  10.0

9.8

a 8.3

7.5

b 8.4

7.9

c 9.7

8.8

d 9.8

9.0

e 9.7

8.9

Faint stars a b c d + e measured and marked on  
above plate have not been checked as regards identification  
with those measured by Prof. P.



T' Plates.

Measures of faint stars  $g$   $h$   $k$   $k^2$   $k^3$  in  
 Polar Seq - also faint stars  $a$   $b$   $c$   $d$   $e$  ( $1^h 20^m 45^s$ )  
Nov 25/1907 (Scale 3.2811)

$h$   
 $1^h 20^m 45^s$

T 34834

g 8.3 8.5 8.40 11

h 8.8 8.9 8.85 01

k 9.5 9.5 9.50 00

k<sup>2</sup> 9.5 9.6 9.55 10k<sup>3</sup> 10.0 10.0 10.00 00

a 7.2 7.3 7.25 01

b 8.2 8.0 8.05 10

c 7.8 7.8 7.80 00

d 8.7 8.7 8.70 00

e 9.2 9.2 9.20 00

f 9.3 9.3 9.30 00

g 8.5

h 8.9

k 9.5

k<sup>2</sup> 9.6k<sup>3</sup> 10.0

a 7.3

b 8.0

c 7.8

d 8.7

e 9.2

f 9.3

To the faint stars  $a$   $b$   $c$   $d$   $e$  I have added  $f$  in  
 order to have three stars fainter than "g" per instructions  
 identifications not checked.

I Plates.

Measurements of faint stars g, h, k,  $k^2 + k^3$  in  
 Polar seq. also faint stars a, b, c, d + e (1<sup>h</sup> + 15)  
 Nov 25, 1907 (Scale 32811)

I 34891

g 8.5 8.4 8.45 10

h 9.0 9.0 9.00 00

k 9.6 9.5 9.55 01

 $k^2$  9.6 9.7 9.65 01 $k^3$  9.9 10.1 10.00 11

a 8.4 8.3 8.35 01

b ~~9.2~~ 9.1 9.15 01

c 9.8 9.7 9.75 01

d 9.5 9.5 9.50 00

e 9.8 9.9 9.85 01

g 8.4

h 9.0

k 9.5

 $k^2$  9.7 $k^3$  10.1

a 8.3

b 9.1

c 9.7

d 9.5

e 9.9

Stars marked on above plate and measured - a, b, c, d + e.  
 identifications have not been checked.



## T' Plates

Measure of faint-stars a b c d + e -  
also g, h, k,  $k^2$  +  $k^3$  in Polar Seq.

Nov 26 1907

(Scale 32811)

<sup>h</sup>  
3 + 15

T 34856

g 8.5 8.5 8.50 00

h 9.0 9.0 9.00 00

k 9.6 9.5 9.56 06

$k^2$  9.7 9.7 9.70 00

$k^3$  10.0 10.1 10.05 01

a 8.7 8.6 8.65 10 376

b 9.0 9.1 9.05 01 370

c 9.2 9.2 9.20 00 369

d 9.7 9.8 <sup>9.75</sup>~~9.80~~ 10 370

e 10.0 10.0 10.00 00 370

g 8.5

h 9.0

k 9.5

$k^2$  9.8

$k^3$  10.1

a 8.6

b 9.1

c 9.2

d 9.8

e 10.0

Faint-stars a b c d + e marked and measured on  
above plate. Identifications not checked.

N<sup>o</sup> Plates.Measurements of g, h, k, k<sup>2</sup> + k<sup>3</sup> in Polar seq.  
also faint stars a b c d e (17 20 + 45)

17 20 + 45

Nov 24 1904

(Scale 32811)

I 34890

g	8.3	8.4	8.35	10	
h	8.8	8.9	8.85	01	
k	9.5	9.4	9.45	10	
k <sup>2</sup>	9.5	9.5	9.50	00	
k <sup>3</sup>	9.9	9.9	9.90	00	
a	7.9	7.9	7.90	00	4.00
b	8.3	8.4	8.35	10	3.90
c	8.4	8.5	8.45	01	3.88
d	<del>9.2</del> 10.0	<del>9.3</del> 10.0	<del>9.25</del> 10.00	01	3.90
e	<del>7.7</del> 8.7	<del>7.8</del> 8.8	<del>7.75</del> 8.75	10	3.86
g	8.4				
h	8.9				
k	9.4				
k <sup>2</sup>	9.5				
k <sup>3</sup>	9.9				
a	7.9				
b	8.4				
c	8.5				
d	<del>9.2</del> 10.0				
e	<del>7.7</del> 8.8				

Faint-stars a b c d e are probably not the ones measured  
by Prof P. could not find all in positions given.  
Identifications not checked.



I' Plates.

Measures of faint stars g, h, k,  $k^2 + k^3$  in  
Polar Seq. also faint stars a, b, c, d + e ( $k^2 + k^3$ )

Dec 3, 1907

(Scale 32811)

I 34855

g 8.7 8.6 8.65 10

h 9.2 9.2 9.20 00

k 9.9 9.9 9.90 00

 $k^2$  9.9 9.9 9.90 00 $k^3$  10.2 10.2 10.20 00a 7.9 7.8 7.85 10 <sup>Curve</sup> 4.06

b 8.9 8.9 8.90 00 3.55

c 9.1 9.1 9.10 00 3.50

d 9.5 9.5 9.50 00 3.40

e 9.7 9.8 9.75 10 3.42

g 8.6

h 9.2

k 9.9

 $k^2$  9.9 $k^3$  10.2

a 7.8

b 8.9

c 9.1

d 9.5

e 9.8

Faint stars a, b, c, d, e  
measured - are marked on above plate  
identifications not checked.

N<sup>o</sup> Plates.

Measures of faint stars  $g, h, k, k^2 + k^3$  in  
Polar seq. also  $a, b, c, d + e$  (19-15)  
Dec 3, 1907 (Scale 32811)

19-15

I 34853

g 8.7 8.7 8.70 00

h 9.2 9.1 9.15 01

k 9.8 9.8 9.80 00

 $k^2$  9.9 9.9 9.90 00 $k^3$  10.2 10.1 10.15 01

a 8.4 8.4 8.40 00

b 8.8 8.9 8.85 01

c 9.8 9.8 9.80 00

d 10.0 9.9 9.95 01

e 10.1 10.1 10.10 00

g 8.7

h 9.1

k 9.8

 $k^2$  9.9 $k^3$  10.1

a 8.4

b 8.9

c 9.8

d 9.9

e 10.1

I 32020

8.7 8.8 8.75

9.2 9.2 9.20

9.8 9.7 9.75

10.0 9.8 9.90

10.3 10.0 10.15

8.5 8.5 8.50

9.0 8.9 8.95

9.7 9.6 9.65

9.8 9.8 9.80

10.0 10.0 10.00

8.8

9.2

9.7

9.8

10.0

8.5

8.9

9.6

9.8

10.0

Failed to find stars c d + e and have measured  
others. Identifications not checked.



## T' Plates.

Measurements of faint-stars g, h, k,  $k^2$ ,  $k^3$   
in Polar Seq. also a, b, c, d + e (19+15)  
Dec 9, 1909 (Scale 32811)

h  
19+15

T 34838

g	8.7	8.6	8.65	10
h	9.0	9.0	9.00	00
k	9.5	9.5	9.50	00
$k^2$	9.6	9.7	9.65	01
$k^3$	10.0	10.0	10.00	00
a	8.9	8.9	8.90	00 368
b	9.4	9.5	9.45	01 372
c	9.3	9.3	9.30	00 371
d	9.8	9.8	9.80	00 375
e	10.1	10.1	10.10	00 378
g	8.6			
h	9.0			
k	9.5			
$k^2$	9.7			
$k^3$	10.0			
a	8.9			
b	9.5			
c	9.3			
d	9.8			
e	10.1			

Faint-stars a b c d + e - identifications not checked  
d + e probably not the ones meas by Prof P.

## T' Plates.

Measure of faint stars g, h, k, k<sup>2</sup> + k<sup>3</sup>  
in Polar Seg. also a, b, c, d + e (Scale 32811)

Dec 6 1907

h  
17 + 15

T 34831

g	8.5	8.5	8.50	00
h	8.9	8.9	8.90	00
k	9.5	9.6	9.55	10
k <sup>2</sup>	9.7	9.7	9.70	00
k <sup>3</sup>	10.0	10.0	10.00	00
a	8.0	7.9	7.95	01
b	8.7	8.6	8.65	00
c	9.5	9.4	9.45	10
d	10.0	10.0	10.00	00
e	9.9	9.8	9.85	10
g	8.5			
h	8.9			
k	9.6			
k <sup>2</sup>	9.7			
k <sup>3</sup>	10.0			
a	7.9			
b	8.7	8.6		
c	9.4			
d	10.0			
e	9.8			

See  
BK 33 p. 118  
for meas. of these stars

Stars meas. for a, b, c, d + e probably not the same  
as those given on observing sheet. Could not find stars  
in positions recorded.



## T' Plates.

Measurements of faint stars g, h, k, k<sup>2</sup> & k<sup>3</sup> in P.  
 Seq. also faint stars a b c d e (20+75) (Seduz 281)

Dec 11, 1907

20<sup>h</sup> + 75<sup>m</sup>

T 34708

g 8.7 8.6 8.65 10

h 9.3 9.1 9.20 11

k 9.8 9.7 9.75 01

k<sup>2</sup> 9.9 9.8 9.85 10

k<sup>3</sup> 10.1 10.1 10.10 00

a 8.3 ~~8.2 8.25 10~~  
~~8.8 8.75 10~~

f 9.3 9.3 9.30 00

c 9.3 9.4 9.35 10

d 9.2 9.3 9.25 01

e 9.7 9.8 9.75 10

g 8.6

h 9.1

k 9.7

k<sup>2</sup> 9.8

k<sup>3</sup> 10.1

a 8.2

b 9.3

c 9.4

d 9.3

e 9.8

Identifications of a b c d e have not been checked  
 d & e are not ones recorded by Prof. P.?

2' Plates

Measures of faint stars  $g, h, k, k^2, k^3$  in  
 Pol. seq - also faint stars  $a, b, c, d, e$  (14 40+45)  
 (Scale 32811)

Dec 12 1907

14 40+45

I 34829

$g$	8.7	8.7	8.70 00	
$h$	9.2	9.1	9.15 01	
$k$	9.8	9.7	9.75 01	
$k^2$	9.9	9.8	9.85 10	
$k^3$	10.1	10.1	10.10 00	
$a$	7.7	7.8	7.75 10	3.67 3.73
$b$	8.9	8.7	8.80 11	3.56 3.55
$c$	9.0	8.9	8.95 01	3.54 3.54
$d$	9.3	9.2	9.25 10	3.53 3.52
$e$	9.1	9.1	9.10 00	3.54 3.53
$g$	8.7			
$h$	9.1			
$k$	9.7			
$k^2$	9.8			
$k^3$	10.1			
$a$	7.8			
$b$	8.7			
$c$	8.9			
$d$	9.2			
$e$	9.1			

Identifications of faint stars  $a, b, c, d, e$  not  
 checked.



Dec 21, 1907

$$7 + 15$$
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11 + 15

Dec 27 1907

T 35036			3d 1st 2d			8.3 8.3 8.30			8.3 8.3 8.30			8.3 8.3 8.30		
Pol.	a	5.4 5.7 5.7	5.60	5.63	5.70	4	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
	b	6.7 6.8 6.8	6.77	6.80	6.83	5	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
	c	7.4 7.4 7.6	7.47	7.50	7.53	1	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
	d	8.1 8.1 8.2	8.13	8.16	8.19	2	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
	e	8.3 8.4 8.5	8.40	8.43	8.46	6	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
	f	8.7 8.7 8.9	8.77	8.80	8.83	10	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
	h	10.1 10.1 10.1	10.10	10.13	10.16	a	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
Sta. P	1	6.9 6.9 7.0	6.93	6.96	6.99	b	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
	2	7.2 7.3 7.3	7.27	7.30	7.33	c	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
	3	7.4 7.5 7.4	7.43	7.46	7.49	d	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
	4	7.8 7.7 7.9	7.80	7.83	7.86	e	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
	5	8.9 8.9 8.8	8.87	8.90	8.93	f	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
	6	9.1 8.9 8.9	8.97	9.00	9.03	h	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
	7	8.2 8.2 8.3	8.23	8.26	8.29	1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
	8	7.9 7.8 7.9	7.87	7.90	7.93	2	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
	9	8.5 8.3 8.5	8.43	8.46	8.49	3	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	10	8.8 8.6 8.9	8.77	8.80	8.83	4	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
	A	8.6 8.7 8.6	8.63	8.66	8.69	5	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
	B	8.2 8.9 8.9	8.90	8.93	8.96	6	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
	b	9.1 9.1 9.2	9.13	9.16	9.19	7	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
	D	-	-	-	-	8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
	E	-	-	-	-	9	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
Stan.	16	8.3 8.2 8.2	8.23	8.26	8.29	10	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
	20	8.5 8.5 8.5	8.50	8.53	8.56	a	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
	22	8.3 8.3 8.4	8.33	8.36	8.39	B	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
	21	7.9 7.9 7.9	7.90	7.93	7.96	b	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
W.S	25	8.0 8.0 8.0	8.00	8.03	8.06	D	-	-	-	-	-	-	-	-
	24	8.7 8.8 8.7	8.73	8.76	8.79	E	-	-	-	-	-	-	-	-



I' Plates.

Measures of faint stars  $g, h, k, k^2, k^3$   
in Polar Seq. Also  $a, b, c, d, e$   $11^h + 15^m$  (Scale 3280)

Dec 30, 1907

I 35036

g 8.6 8.6 8.60 00

h 9.1 9.2 9.15 00

k 10.0 9.9 9.95 01

k<sup>2</sup> 10.0 10.0 10.00 00k<sup>3</sup> F F - -~~a 7.3 7.4~~

b 8.1 7.9 8.00 11

c 7.9 7.9 7.90 00

d 9.9 9.9 9.90 00

e 10.0 10.0 10.00 00

e' 10.0 10.0 10.00 00

g 8.6

h 9.2

k 9.9

k<sup>2</sup> 10.0k<sup>3</sup> F

a 7.4

b 7.9

c 7.9

d 9.9

e 10.0

e' 10.0

Reject

Check identifications of a b c d + e

h m s  
9 20 + 45

T 27925									
Pol.	a	5.1	5.0	5.1	5.07	5.23	5.10	5.10	5.10
	b	6.5	6.5	6.4	6.47	6.70	6.01	6.40	6.40
	c	7.4	7.4	7.3	7.37	7.27	7.01	7.13	7.13
	d	8.3	8.4	8.3	8.33	7.90	8.10	8.13	8.13
	e	8.5	8.6	8.6	8.57	8.20	1.00	8.43	8.43
	f	8.9	9.0	8.9	8.93	8.60	0.10	8.87	8.87
	h	10.1	10.1	10.0	10.07	9.87	0.01	9.87	9.87
m.p. Left image	1	7.1	7.1	7.1	7.10	7.03	0.00	6.93	6.93
	2	7.7	7.6	7.8	7.70	7.37	0.11	7.47	7.47
	3	7.9	7.9	7.9	7.90	7.70	0.00	7.73	7.73
	4	7.8	7.6	7.6	7.67	7.30	1.11	7.27	7.27
	5	8.1	8.1	8.0	8.07	7.93	0.01	8.03	8.03
	6	8.8	8.9	8.7	8.80	8.67	0.11	8.83	8.83
	7	8.2	8.3	8.2	8.23	8.07	0.10	8.13	8.13
	8	7.2	7.1	7.2	7.17	6.93	0.10	6.97	6.97
	9	8.9	8.9	8.9	8.90	8.63	0.00	8.80	8.80
	10	8.8	8.8	8.8	8.80	8.33	0.00	8.60	8.60
	A	9.6	9.7	9.7	9.67	9.63	1.00	9.67	9.67
	B	9.5	9.7	9.6	9.60	9.57	1.10	9.53	9.53
	b	9.9	9.9	9.9	9.90	9.73	0.00	9.77	9.77
	D	10.1	10.1	10.0	10.07	9.90	0.01	10.07	10.07
	E	F	F	F	-	9.90	-	9.97	9.97
+46 1511	Star	16	8.7	8.5	8.7	8.63	8.37	1.11	8.23
+46 1501	20	7.9	7.9	7.9	7.97	7.80	1.11	7.70	7.70
+45 1733	22	8.3	8.2	8.2	8.23	8.20	1.00	8.23	8.23
+45 1725	21	8.9	8.9	8.9	8.90	8.67	0.00	8.73	8.73
+45 1705	24	8.4	8.3	8.4	8.37	8.17	0.10	8.20	8.20
+45 1714	25	8.5	8.5	8.5	8.50	8.27	0.00	8.37	8.37
Jan 2, 1908									
	a	5.1	5.0	5.1	5.07	5.23	5.10	5.10	5.10
	b	6.5	6.5	6.4	6.47	6.70	6.01	6.40	6.40
	c	7.4	7.4	7.3	7.37	7.27	7.01	7.13	7.13
	d	8.3	8.4	8.3	8.33	7.90	8.10	8.13	8.13
	e	8.5	8.6	8.6	8.57	8.20	1.00	8.43	8.43
	f	8.9	9.0	8.9	8.93	8.60	0.10	8.87	8.87
	h	10.1	10.1	10.0	10.07	9.87	0.01	9.87	9.87
	1	7.1	7.1	7.1	7.10	7.03	0.00	6.93	6.93
	2	7.7	7.6	7.8	7.70	7.37	0.11	7.47	7.47
	3	7.9	7.9	7.9	7.90	7.70	0.00	7.73	7.73
	4	7.8	7.6	7.6	7.67	7.30	1.11	7.27	7.27
	5	8.1	8.1	8.0	8.07	7.93	0.01	8.03	8.03
	6	8.8	8.9	8.7	8.80	8.67	0.11	8.83	8.83
	7	8.2	8.3	8.2	8.23	8.07	0.10	8.13	8.13
	8	7.2	7.1	7.2	7.17	6.93	0.10	6.97	6.97
	9	8.9	8.9	8.9	8.90	8.63	0.00	8.80	8.80
	10	8.8	8.8	8.8	8.80	8.33	0.00	8.60	8.60
	A	9.6	9.7	9.7	9.67	9.63	1.00	9.67	9.67
	B	9.5	9.7	9.6	9.60	9.57	1.10	9.53	9.53
	b	9.9	9.9	9.9	9.90	9.73	0.00	9.77	9.77
	D	10.1	10.1	10.0	10.07	9.90	0.01	10.07	10.07
	E	F	F	F	-	9.90	-	9.97	9.97
	16	8.7	8.5	8.7	8.63	8.37	1.11	8.23	8.23
	20	7.9	7.9	7.9	7.97	7.80	1.11	7.70	7.70
	22	8.3	8.2	8.2	8.23	8.20	1.00	8.23	8.23
	21	8.9	8.9	8.9	8.90	8.67	0.00	8.73	8.73
	24	8.4	8.3	8.4	8.37	8.17	0.10	8.20	8.20
	25	8.5	8.5	8.5	8.50	8.27	0.00	8.37	8.37
	a	5.1	5.0	5.1	5.07	5.23	5.10	5.10	5.10
	b	6.5	6.5	6.4	6.47	6.70	6.01	6.40	6.40
	c	7.4	7.4	7.3	7.37	7.27	7.01	7.13	7.13
	d	8.3	8.4	8.3	8.33	7.90	8.10	8.13	8.13
	e	8.5	8.6	8.6	8.57	8.20	1.00	8.43	8.43
	f	8.9	9.0	8.9	8.93	8.60	0.10	8.87	8.87
	h	10.1	10.1	10.0	10.07	9.87	0.01	9.87	9.87
	1	7.1	7.1	7.1	7.10	7.03	0.00	6.93	6.93
	2	7.7	7.6	7.8	7.70	7.37	0.11	7.47	7.47
	3	7.9	7.9	7.9	7.90	7.70	0.00	7.73	7.73
	4	7.8	7.6	7.6	7.67	7.30	1.11	7.27	7.27
	5	8.1	8.1	8.0	8.07	7.93	0.01	8.03	8.03
	6	8.8	8.9	8.7	8.80	8.67	0.11	8.83	8.83
	7	8.2	8.3	8.2	8.23	8.07	0.10	8.13	8.13
	8	7.2	7.1	7.2	7.17	6.93	0.10	6.97	6.97
	9	8.9	8.9	8.9	8.90	8.63	0.00	8.80	8.80
	10	8.8	8.8	8.8	8.80	8.33	0.00	8.60	8.60
	A	9.6	9.7	9.7	9.67	9.63	1.00	9.67	9.67
	B	9.5	9.7	9.6	9.60	9.57	1.10	9.53	9.53
	b	9.9	9.9	9.9	9.90	9.73	0.00	9.77	9.77
	D	10.1	10.1	10.0	10.07	9.90	0.01	10.07	10.07
	E	F	F	F	-	9.90	-	9.97	9.97
	16	8.7	8.5	8.7	8.63	8.37	1.11	8.23	8.23
	20	7.9	7.9	7.9	7.97	7.80	1.11	7.70	7.70
	22	8.3	8.2	8.2	8.23	8.20	1.00	8.23	8.23
	21	8.9	8.9	8.9	8.90	8.67	0.00	8.73	8.73
	24	8.4	8.3	8.4	8.37	8.17	0.10	8.20	8.20
	25	8.5	8.5	8.5	8.50	8.27	0.00	8.37	8.37
	a	5.1	5.0	5.1	5.07	5.23	5.10	5.10	5.10
	b	6.5	6.5	6.4	6.47	6.70	6.01	6.40	6.40
	c	7.4	7.4	7.3	7.37	7.27	7.01	7.13	7.13
	d	8.3	8.4	8.3	8.33	7.90	8.10	8.13	8.13
	e	8.5	8.6	8.6	8.57	8.20	1.00	8.43	8.43
	f	8.9	9.0	8.9	8.93	8.60	0.10	8.87	8.87
	h	10.1	10.1	10.0	10.07	9.87	0.01	9.87	9.87
	1	7.1	7.1	7.1	7.10	7.03	0.00	6.93	6.93
	2	7.7	7.6	7.8	7.70	7.37	0.11	7.47	7.47
	3	7.9	7.9	7.9	7.90	7.70	0.00	7.73	7.73
	4	7.8	7.6	7.6	7.67	7.30	1.11	7.27	7.27
	5	8.1	8.1	8.0	8.07	7.93	0.01	8.03	8.03
	6	8.8	8.9	8.7	8.80	8.67	0.11	8.83	8.83
	7	8.2	8.3	8.2	8.23	8.07	0.10	8.13	8.13
	8	7.2	7.1	7.2	7.17	6.93	0.10	6.97	6.97
	9	8.9	8.9	8.9	8.90	8.63	0.00	8.80	8.80
	10	8.8	8.8	8.8	8.80	8.33	0.00	8.60	8.60
	A	9.6	9.7	9.7	9.67	9.63	1.00	9.67	9.67
	B	9.5	9.7	9.6	9.60	9.57	1.10	9.53	9.53
	b	9.9	9.9	9.9	9.90	9.73	0.00	9.77	9.77
	D	10.1	10.1	10.0	10.07	9.90	0.01	10.07	10.07
	E	F	F	F	-	9.90	-	9.97	9.97
	16	8.7	8.5	8.7	8.63	8.37	1.11	8.23	8.23
	20	7.9	7.9	7.9	7.97	7.80	1.11	7.70	7.70
	22	8.3	8.2	8.2	8.23	8.20	1.00	8.23	8.23
	21	8.9	8.9	8.9	8.90	8.67	0.00	8.73	8.73
	24	8.4	8.3	8.4	8.37	8.17	0.10	8.20	8.20
	25	8.5	8.5	8.5	8.50	8.27	0.00	8.37	8.37



Measures of faint stars  $g, h, k, k_2, k_3$  in  
Polar seq. also  $a, b, c, d, e$  (9 20 + 45)  
(Scale 32811.)

Jan 2, 1908

9 20 + 45

T 27925

$g$  8.7 8.1 8.70 00

$h$  9.1 9.2 9.15 00

$k$  9.7 9.7 9.70 00

$k_2$  9.8 9.7 9.75 01

$k_3$  10.1 10.1 10.10 00

$a$  8.5 8.5 8.50 00 3.66

$b$  8.3 8.3 8.30 00 3.72

$c$  8.8 8.7 8.75 01 3.59

$d$  9.2 9.1 9.15 01 3.53

$e$  9.3 9.3 9.30 00 3.62

$g$  8.7

$h$  9.2

$k$  9.7

$k_2$  9.7

$k_3$  10.1

$a$  8.5

$b$  8.3

$c$  8.7

$d$  9.1

$e$  9.3

Check identifications of  $a, b, c, d, e$  —

Measurements of faint stars  $g, h, k, k^2, k^3$  in  
Polar seg. also  $a, b, c, d, e$  (Scale 32811)

Jan 4/1908

$h$   
 $H+75$

I 32132

$g$  8.7 8.7 8.70 00

$h$  9.3 9.3 9.30 00

$k$  9.8 9.7 9.75 01

$k^2$  9.9 9.8 9.85 10

$k^3$  10.1 10.1 10.10 00

$a$  8.1 8.1 8.10 00

$b$  7.9 8.0 7.95 10

$c$  ~~9.5~~ 9.7 9.5 9.50 00

$d$  9.9 9.9 9.90 00

$e$  9.9 9.9 9.90 00

$g$  8.7

$h$  9.3

$k$  9.7

$k^2$  9.8

$k^3$  10.1

$a$  8.1

$b$  8.0

$c$  9.5

$d$  9.9

$e$  9.9

See p 86 -



Measure of faint stars  $g$   $h$   $k$   $k_2$   $k_3$  in  
Polar Seq - also  $a$   $b$   $c$   $d$   $e$  - (Scale 32811)

Jan 4, 1908

$12 + 75$   
T 28383

$g$  8.7 8.7 8.70 00

$h$  9.3 9.3 9.30 00

$k$  9.9 9.9 9.90 00

$k_2$  10.0 10.0 10.00 00

$k_3$  10.2 10.2 10.20 00

$a$  9.0 9.1 9.05 01 3.44 12.44

$b$  9.1 9.0 9.05 10 3.44 12.44

$c$  9.7 9.5 9.60 11 3.31 12.91

$d$  9.9 9.9 9.90 00 3.36 13.26

$e$  10.0 9.9 9.95 01 3.38 13.33

$g$  8.7

$h$  9.3

$k$  9.9

$k_2$  10.0

$k_3$  10.2

$a$  9.1

$b$  9.0

$c$  9.5

$d$  9.9

$e$  9.9

Measures of faint stars g, h, k, k<sup>2</sup>, k<sup>3</sup> in  
Polar Sey - also a, b, c, d, e (Scale 32811)

20<sup>h</sup> + 75

Jan 6 1908

I 28836

g 8.3 8.3 8.30 00

h 8.7 8.7 8.70 00

k 9.3 9.2 9.25 10

k<sup>2</sup> 9.3 9.3 9.30 00

k<sup>3</sup> 9.7 9.8 9.75 10

a 7.7 7.5 7.60 11

b 8.8 8.5 8.65 21

c 8.7 8.5 8.60 11

d 8.8 8.4 8.60 72

e 9.7 9.8 9.75 10

g 8.3

h 8.7

k 9.2

k<sup>2</sup> 9.3

k<sup>3</sup> 9.8 9.8

a 7.5

b 8.5

c 8.5

d 8.4

e 9.8

See p 100



Measures of Polar Seq. and seq. for  
Mr. Metcalfe's var. Pos  $8^h 29^m 4^s 52$  (Comp stars on  
MA 430)  
Jan 1, 1908 (approx. 855)  
MA 430

MA 430				Values for plotting	MA 430			
Pol.	a	$2.1 = 2.8$	$2.1 = 2.8$	2.80	Pol.	a	$2.1$	
	b	$3.3 = 4.2$	$3.4 = 4.1$	4.15		b	$3.4$	
	c	4.9	5.0	4.95		c	5.0	
	d	5.9	6.0	5.95		d	6.0	
Phot.	e	6.5	6.2	6.25	Phot.	e	6.2	
	f	6.9	6.8	6.85		f	6.8	
	g	8.5	8.5	8.50		g	8.5	
	h	8.7	8.8	8.75		h	8.8	
	k	9.8	9.8	9.80				
	a	5.9	5.9	5.90		a	5.9	
	b	6.2	6.2	6.20		b	6.2	
	c	6.2	6.3	6.25		c	6.3	
	d	$7.2$	$7.2$	$7.20$		d	$7.2$	
	e	7.4	7.4	7.40		e	7.4	
	f	7.4	7.4	7.40		f	7.4	
	g	7.7	7.7	7.70		g	7.7	
	h	7.9	7.8	7.85		h	7.8	
	k	7.9	7.9	7.90		k	7.9	
	l	8.4	8.3	8.35		l	8.3	
	m	8.7	8.7	8.70		m	8.7	
	n	9.1	9.1	9.10		n	9.1	
	o	9.8	9.9	9.85		o	9.9	
	p	9.9	9.9	9.90		p	9.9	

## Mr Mitcalfe's variable (cont)

Jan 2, 1908

(Scale C)

Ma 426

Pol.	a	2.2-2.9	2.1-2.85	3.55	Pol.	a	Bv
	b	3.4-4.1	3.5-4.2-4.45	3.83		b	Bv
	c	5.1	5.1	5.10		c	5.1
	d	6.3	6.2	6.25		d	6.2
	e	6.6	6.6	6.60		e	6.6
	f	7.2	7.1	7.15		f	7.1
	g	8.7	8.5	8.60		g	8.5
	h	8.9	8.8	8.85		h	8.8
Phot.	k	9.7	9.7	9.70	Phot.	k	9.7
	a	6.2	6.1	6.15		a	6.1
	b	6.4	6.3	6.35		b	6.3
	c	6.4	6.4	6.40		c	6.4
	d	7.3	7.3	7.30		d	7.3
	e	7.3	7.4	7.35		e	7.4
	f	7.4	7.4	7.40		f	7.4
	g	7.9	7.8	7.85		g	7.8
	h	7.9	8.0	7.95		h	8.0
	k	8.0	8.1	8.05		k	8.1
	l	8.5	8.4	8.45		l	8.4
	m	8.9	8.9	8.90		m	8.9
	n	9.2	9.2	9.20		n	9.2
	o	10.0	9.9	9.95		o	9.9
	p	10.1	10.0	10.05		p	10.0



T' Plates.

Measures of faint stars g h k k<sup>2</sup> k<sup>3</sup> in  
Polar Seq. also a b c d + e (Scale 32811)

Jan 7 1908

T 34376

g 8.6 8.5 8.56 0.1

h 9.1 9.2 9.15 1.0

k 9.7 9.7 9.70 0.0

k<sup>2</sup> 9.9 9.8 9.85 1.0k<sup>3</sup> 10.1 10.1 10.10 0.0

a 7.2 7.2 7.20 0.0

b 7.7 7.8 7.75 1.0

c 7.4 7.4 7.40 0.0

d 8.8 8.7 8.75 0.1

e 9.7 9.8 9.75 1.0

f 9.8 9.8 9.8 1.0

g 8.5 8.5 8.5 1.0

h 9.2 9.2 9.2 1.0

k 9.7 9.7 9.7 1.0

k<sup>2</sup> 9.8 9.8 9.8 1.0k<sup>3</sup> 10.1 10.1 10.1 1.0

a 7.2 7.2 7.2 1.0

b 7.8 7.8 7.8 1.0

c 7.4 7.4 7.4 1.0

d 8.7 8.7 8.7 1.0

e 9.8 9.8 9.8 1.0

f 9.8 9.8 9.8 1.0

Sep 92

T<sup>1</sup> Plates.

Measures of faint stars g h k k<sup>2</sup>, k<sup>3</sup> in  
 Polar seq. also a b c d + e (Scale 32911)  
 Jan 7, 1908

<sup>h</sup>  
 H + 4.5

32989

~~T 279.48~~

g 8.7 8.6 8.65 10

h 9.1 9.1 9.10 00

k 9.7 9.7 9.70 00

k<sup>2</sup> 9.8 9.8 9.80 00k<sup>3</sup> 10.0 10.1 10.05 01

Curve.

Double

a 8.2 8.3 8.25 01 3.80

b 9.3 9.2 9.25 10 3.85

c <sup>9.3</sup>  
~~9.7~~ 9.3 9.30 00 3.55

d 9.7 9.5 9.60 11 3.57

e 9.8 9.9 9.85 01

g 8.6

h 9.1

k 9.7

k<sup>2</sup> 9.8k<sup>3</sup> 10.1

a 8.3

b 9.2

c 9.3

d 9.5

e 9.9



T' Plates.

5-15°

Jan 9, 1908

T 35089

T 35089

T 35089

Pol.

a 5.2 5.1 5.2 5.17 010 -14 1002 24 7.7 7.4 7.7 7.60 121  
 b 6.5 6.4 6.4 6.43 100 -15 907 4 8.9 8.8 8.8 8.83 100  
 c 7.3 7.3 7.3 7.30 000 -15 924 5 8.8 8.9 8.8 8.83 100  
 d 7.9 7.9 8.0 7.93 001 -15 944 1 8.1 8.1 8.1 8.10 000  
 e 8.2 8.2 8.2 8.20 000 -15 959 2 7.9 7.8 7.8 7.83 100  
 f 8.7 8.6 8.6 8.63 100 -16 1037 6 8.8 8.8 8.8 8.80 000  
 g 9.6 9.7 9.7 9.67 100 -16 1025 10 8.2 8.2 8.2 8.20 000

D 10.1

E 10.0

16 9.8

20 7.5

22 8.7

21 9.7

25 8.2

24 7.4

m.p.

h 10.0 10.1 10.1 10.07 100  
 1 6.8 6.9 6.87 010  
 2 7.1 7.0 7.0 7.03 100  
 3 7.2 7.2 7.2 7.20 000  
 4 6.9 7.0 6.9 6.93 010  
 5 8.1 8.1 8.1 8.10 000  
 6 8.5 8.7 8.5 8.57 111  
 7 9.1 9.2 9.2 9.17 100  
 8 8.9 8.9 8.9 8.90 000  
 9 9.3 9.4 9.2 9.30 011  
 10 8.7 8.7 8.8 8.73 001  
 11 9.5 9.5 9.5 9.50 000  
 12 9.7 9.7 9.7 9.70 000  
 13 9.8 9.9 9.8 9.83 010  
 14 10.1 10.1 10.0 10.07 001

Pol. a 5.1

b 6.4

c 7.3

d 7.9

e 8.2

f 8.6

g 9.7

h 10.1

1 6.8

2 7.0

3 7.2

4 7.0

5 8.1

6 8.7

7 9.2

8 8.9

9 9.4

10 8.7

11 9.5

12 9.7

13 9.9

Pol.

a 5.2

b 6.4

c 7.3

d 8.0

e 8.2

f 8.6

g 9.7

h 10.1

1 6.9

2 7.0

3 7.2

4 6.9

5 8.1

6 8.5

-13 1060

-13 1050

-14 1059

-14 1037

-14 1021

## I' Plates.

h  
5-15

Jan 9, 1908

(Serial 32811)

I 35089	Faint Stars.	I 28190	I 35089	Faint stars
7 9.2	g 8.5 8.4 8.45 10	g 8.5 8.6 8.6 8.55 10		
8 8.9	h 8.8 8.7 8.75 01	h 8.9 9.2 8.8 8.85 10		
9 9.2	k 9.2 9.1 9.15 01	k 9.3 9.8 9.3 9.30 00		
10 8.8	k2 9.4 9.3 9.35 01	k2 9.5 9.9 9.4 9.45 10		
a 9.5	k3 9.8 9.7 9.75 01	k3 9.9 10.1 9.8 9.85 10		
B 9.7	a 8.0 8.1 8.05	a 8.4 8.4 8.4 8.40		
C 9.8	b 8.6 8.5 8.55	b 8.7 8.6 8.6 8.65		
D 10.0	c 8.7 8.7 8.70	c 8.9 8.9 8.9 8.90		
E 9.9	d 9.2 9.2 9.20	d 9.3 9.2 9.2 9.25		
Stan. 16 9.8	e 8.9 8.9 8.90	e 9.0 9.0 9.0 9.00		
20 7.5	g 8.4	g 8.6		
22 8.8	h 8.7	h 8.8		
21 9.7	k 9.1	k 9.3		
25 8.2	k2 9.5	k2 9.4		
24 7.7	k3 9.7	k3 9.8		
4 8.8	a 8.1	a 8.4		
5 8.8	b 8.5	b 8.6		
1 8.1	c 8.7	c 8.9		
2 7.8	d 9.2	d 9.2		
6 8.8	e 8.9	e 9.0		
10 8.2				

I have measured the left hand half of the images for M.P. and Standard sequences. could not separate them and really should have a better plate.



## J' Plates.

h  
12 + 45

Jan 13 1908

T 35090														
Pol	a	5.7	5.7	5.7	5.70	000	25	9.2	9.3	9.2	9.23	000	B	9.7
	b	6.9	7.0	7.0	6.97	100	20	8.3	8.4	8.5	8.40	101	C	9.9
	c	7.5	7.7	7.6	7.60	110	2	9.3	9.3	9.2	9.27	001	15	10.1
	d	8.3	8.2	8.2	8.23	100	5	9.4	9.2	9.1	9.23	201	E	10.2
	e	8.5	8.5	8.5	8.50	000	1	8.9	8.9	8.8	8.87	001	16	9.3
	f	8.9	8.9	8.8	8.87	001	10	9.5	9.7	9.5	9.57	111	20	8.4
	g	9.7	9.8	9.7	9.73	010	6	9.8	9.7	9.8	9.77	010	22	8.9
	h	10.2	10.2	10.1	10.17	001	4	9.3	9.4	9.5	9.40	101	21	8.2
mp	1	6.9	6.8	6.9	6.87	010	Pol	a	5.7				25	9.3
	2	7.2	7.3	7.2	7.23	010	b	7.0					24	8.4
	3	8.3	8.2	8.3	8.27	010	c	7.7					4	9.3
	4	8.7	8.6	8.7	8.67	010	d	8.2					5	9.2
	5	8.7	8.7	8.7	8.70	000	e	8.5					1	8.9
	6	8.8	8.7	8.7	8.73	100	f	8.9					2	9.7
	7	9.1	8.9	8.9	8.97	111	g	9.8					6	9.7
	8	7.5	7.7	7.3	7.43	111	h	10.2					10	9.4
	9	7.7	7.6	7.7	7.67	010	mp	1	6.8			Pol	a	5.7
	10	8.7	8.7	8.7	8.70	000	2	7.3				b	7.0	
	A	9.5	9.4	9.4	9.43	100	3	8.2				c	7.6	
	B	9.9	9.7	9.7	9.77	111	4	8.6				d	8.2	
	C	10.1	9.9	9.9	9.97	111	5	8.7				e	8.5	
	D	10.2	10.1	10.1	10.13	100	6	8.7				f	8.8	
	E	10.2	10.2	10.1	10.17	001	7	8.9				g	9.7	
Stan	16	9.3	9.3	9.1	9.23	111	8	7.3				h	10.1	
	24	8.6	8.4	8.6	8.53	111	9	7.6			mp	1	6.9	
	22	9.0	8.9	9.1	9.00	011	10	8.7			2	7.2		
	21	8.1	8.2	8.1	8.13	010	a	9.4			3	8.3		
											4	8.7		

I' Plates,

L  
12+45

Jan 13, 1908

(Scale 32811)

I 35090

5 8.7

6 8.7

7 8.9

8 7.5

9 7.7

10 8.7

a 9.4

B 9.7

C 9.9

D 10.1

E 10.1

Star, 16 9.1

20 8.6

22 9.1

21 8.1

25 9.2

24 8.5

4 9.2

5 9.1

1 8.8

2 9.5

6 9.8

10 9.5

I 35090 faint stars

g 8.6 8.5 8.56

h 9.3 9.1 9.20

k 9.9 9.8 9.85

l 10.0 9.8 9.90

b 10.3 10.2 10.25

a 7.9 8.1 8.00 8.95

f 8.5 8.6 8.55 8.73

c 9.0 8.9 8.95 8.54

d 9.3 9.3 9.30 8.46

e 9.4 9.5 9.45 8.45

g 8.5

h 9.1

k 9.8

l 9.8

b 10.2

a 8.1

f 8.6

c 8.9

d 9.3

e 9.5



T' Plates.

5+15

Jan. 13, 1908

I 35092

Pol.	a	5.0	5.0	5.1	5.03	001	+15 716	24	8.5	8.2	8.3	8.5	8.33	8.50	000	10.1
	b	6.5	6.7	6.5	6.57	111	+14 790	4	8.3	7.9	8.1	8.2	8.07	201		7
	c	7.4	7.4	7.3	7.37	001	+14 845	2	8.0		8.1	8.0	8.03	16		8.2
	d	8.2	8.2	8.2	8.20	000	+14 837	1	8.3		8.3	8.2	8.27	20		8.3
	e	8.4	8.5	8.5	8.47	100	+14 819	5	8.4	8.0	8.1	8.2	8.19	22		7.9
	f	8.9	8.9	8.9	8.90	000	+13 811	6	8.6	8.1	8.1	8.1	8.10	21		8.3
	g	9.7	9.7	9.7	9.70	000	+13 785	10	7.0		7.1	7.0	7.03	25		7.9
	h	10.1	10.1	10.0	10.07	000								24		8.5

M.P.

1	6.1	6.0	6.0	6.03	100				b	6.7						4	8.1
2	8.5	8.7	8.7	8.63	111				c	7.4						5	8.1
3	7.0	7.0	6.9	6.97	001				d	8.2						1	8.3
4	7.1	7.2	7.0	7.10	011				e	8.5						2	8.1
5	6.3	6.2	6.2	6.23	100				f	8.9						6	8.1
6	8.2	8.2	8.2	8.20	000				g	9.7						10	7.1
7	7.9	8.1	8.1	8.03	111				h	10.1							
8	9.3	9.5	9.5	9.43	100				Pol.	a	5.1						
9	10.1	10.2	10.2	10.17	100				b	6.5							
10	8.2	8.2	8.2	8.20	000				c	7.3							
A	8.9	8.9	9.0	8.93	001				d	8.2							
B	9.7	9.6	9.7	9.67	010				e	8.5							
C	9.7	9.8	9.9	9.80	101				f	8.9							
D	9.9	10.1	10.1	10.03	111				g	9.7							
E	10.2								h	10.0							
F									M.P.	1	6.0						
+16 496	8.0	8.2	8.1	8.10	110				2	8.7							
+16 690	8.1	8.3	8.3	8.23	000				3	6.9							
+15 756	7.9	7.9	7.9	7.90	000				4	7.0							
+15 743	8.3	8.3	8.3	8.30	000				5	6.2							
+15 730	7.8	7.9	7.8	7.80	010				6	8.2							

## I' Plates.

Jan 16 1908

Seide 32811

I 35092 (Faint stars)

7 8.1  
 8 9.5  
 9 10.2  
 10 8.2  
 A 9.0  
 B 9.7  
 C 9.9  
 D 10.1  
 E F  
 Star, 16 8.1  
 20 8.3  
 22 7.9  
 21 8.3  
 25 7.8  
 24 8.5  
 4 8.2  
 5 8.0  
 1 8.2  
 2 8.2  
 6 8.1  
 10 7.0

g 8.7 8.6 8.67  
 h 9.1 9.1 9.10  
 k 9.7 9.7 9.70  
 k<sup>2</sup> 9.9 9.8 9.85  
 k<sup>3</sup> 10.1 10.1 10.10  
 a 7.7 7.6 7.65 3.83  
 b 8.7 8.7 8.70 3.71  
 c 8.9 8.9 8.90 3.58  
 d 9.3 9.3 9.30 3.53  
 e 10.1 9.9 10.00 3.57  
 g 8.6  
 h 9.1  
 k 9.7  
 k<sup>2</sup> 9.8  
 k<sup>3</sup> 10.1  
 a 7.6  
 b 8.7  
 c 8.9  
 d 9.3  
 e 9.9



Direct estimates to find variation  
in +27 3909

January 16, 08

I 11538

5.0

I 4429

?

I 23646

5.2

I 23604

5.2

I 11302

< 5.0

I 2244

5.3

I 18852

~~5.4~~ 5.2

I 2754.8

5.2

B 2541

5.1

I 15753

5.2

I 7139

5.0

I 6922

4.9

I 27888

5.2

I 25957

5.1

I 15752

5.0

I 2046

5.0

I' Plates.

Faint stars g, h, k, k<sup>2</sup>, k<sup>3</sup> in Pol. seq. also  
a b c d eh  
5+15

(Scale 32811)

Jan 16, 1908

I 30134

g 8.6 85 8.56 01

h 9.0 90 9.00 10

k 9.6 97 9.65 01

k<sup>2</sup> 9.8 98 9.80 00k<sup>3</sup> 10.1 101 10.10 00a 8.0 77 7.85 00 383  
~~398~~

b 8.5 85 8.50 00 373

c 8.7 88 8.75 10 362

d 9.1 92 9.15 10 358

e 9.8 98 9.80 00 351

g 8.5

h 9.0

k 9.7

k<sup>2</sup> 9.8k<sup>3</sup> 10.1

a 7.7

b 8.5

c 8.8

d 9.2

e 9.8



Measures of faint stars  $g$   $h$   $k$   $k^2$   $k^3$  in  
Pol. Seq. - also  $a$   $b$   $c$   $d$   $e$

9 20+45

(Scale 32811)

Jan 17 1908

I 28729

$g$  8.5 8.6 8.56 10

$h$  9.1 9.0 9.05 10

$k$  9.7 9.7 9.70 00

$k^2$  Star superimposed on  $k^2$

$k^3$  10.1 10.1 10.10 00

$a$  ~~8.8~~ 8.5 8.50 00 3.76

$b$  8.5 8.4 8.45 10 3.75

$c$  8.8 8.7 8.75 01 3.59

$d$  9.2 9.2 9.20 00 3.46

$e$  9.6 9.5 9.55 01

$g$  8.6

$h$  9.0

$k$  9.7

$k^2$  -

$k^3$  10.1

$a$  8.5

$b$  8.4

$c$  8.7

$d$  9.2

$e$  9.5

Measures of faint stars g h k b<sup>2</sup>, k<sup>3</sup> in  
Pol. seq. also a b c d e

<sup>h</sup>  
12 + 45

(Scale 32811)

Jan 17, 1908

I 28765

g 8.7 8.7 8.70 00

h 9.2 9.3 9.25 01

k 9.7 9.8 9.75 10

k<sup>2</sup> 9.8 9.8 9.80 00

k<sup>3</sup> 10.2 10.1 10.15 01

a 8.7 8.7 8.70 00 3.61

b 9.5 9.4 9.45 10 3.47

c 9.7 9.9 9.80 01 3.52

d 10.2 10.1 10.15 01 3.63

e 10.2 10.2 10.20 00 3.66

g 8.7

h 9.3

k 9.8

k<sup>2</sup> 9.8

k<sup>3</sup> 10.1

a 8.7

b 9.4

c 9.9

d 10.1

e 10.2



Measurements of faint stars g h k k<sup>2</sup> k<sup>3</sup> in  
Pol. Seq- also a b c d e

14 40+45

Jan 18, 1908

I	33948				
g	8.4	8.7	8.70	00	
h	9.2	9.2	9.20	00	
k	9.8	9.8	9.80	00	
k <sup>2</sup>	9.9	9.9	9.90	00	
k <sup>3</sup>	10.1	10.1	10.10	00	
a	8.4	8.3	8.35	01	360
b	9.1	9.2	9.15	10	356
c	9.2	9.3	9.25	01	354
d	9.3	9.5	9.40	11	353
e	9.0	9.3	9.15	21	354
g	8.7				
h	9.2				
k	9.8				
k <sup>2</sup>	9.9				
k <sup>3</sup>	10.1				
a	8.3				
b	9.2				
c	9.3				
d	9.5				
e	9.3				

Measures of faint stars g, h, k, k<sup>2</sup>, k<sup>3</sup> in  
 Pol. Seq. also a, b, c, d + e  
 Jan 18 1908

17 20 + 45

I 34041

g 8.5 8.6 8.56 10

h 9.1 9.0 9.05 10

k 9.7 9.6 9.65 10

k<sup>2</sup> 9.8 9.7 9.75 01

k<sup>3</sup> 10.1 10.1 10.10 00

a 7.7 7.7 7.70 00 3.71

b 8.3 8.3 8.30 00 3.67

c 8.4 8.5 8.45 01 3.66

d 10.1 10.1 10.10 00 3.65

e 8.9 8.9 8.90 00 3.63

g 8.6

h 9.0

k 9.6

k<sup>2</sup> 9.7

k<sup>3</sup> 10.1

a 7.7

b 8.3

c 8.5

d 10.1

e 8.9



## D' Plates.

12 + 75

Jan. 20, 1908

I 34535

Pol. a 5.0 5.0 4.9 4.97 001

b 6.5 6.7 6.7 6.63 111

c 7.3 7.3 7.3 7.30 000

d 8.2 8.3 8.3 8.27 100

e 8.5 8.5 8.6 8.53 001

f 8.9 8.9 9.0 8.93 001 Pol.

g 9.5 9.7 9.7 9.63 111

h 9.9 10.0 10.1 10.00 101

m.p. 1 4.9 5.0 5.0 4.97 100

2 7.1 7.1 7.0 7.07 001

3 8.1 8.0 8.0 8.03 100

4 7.8 7.9 7.9 7.87 100

5 8.2 8.2 8.2 8.20 000

6 8.7 8.9 8.8 8.80 110

7 8.5 8.4 8.4 8.43 100 m.p.

8 8.6 8.7 8.5 8.60 011

9 9.4 9.5 9.5 9.47 100

10 9.6 9.7 9.7 9.67 100

a 9.7 9.9 9.8 9.80 100

B 9.9 10.0 10.0 9.97 100

C 10.1 10.2 10.1 10.13 010

D F F F ---

E F F F ---

Stan. 29 8.3 8.5 8.3 8.37 111

28 8.9 8.9 8.9 8.90 000

b 8.1 8.1 8.1 8.10 000

36 9.1 9.2 9.1 9.13 010

2 8.0 7.9 8.0 7.97 010

1 8.0 8.0 7.9 7.97 001 E F

5 8.4 8.6 8.4 8.47 Stan. 29 8.5

4 7.9 8.1 8.0 8.00 110 28 8.9

37 8.1 8.1 8.3 8.17 111 37 8.1

10 7.7 7.7 7.6 7.67 001 36 9.2

Pol. a 5.0

b 6.7

c 7.3

d 8.3

e 8.5

f 8.9

g 9.7

h 10.0

k F

1 5.0

2 7.1

3 8.0

4 7.9

5 8.2

6 8.9

7 8.4

8 8.7

9 9.5

10 9.7

a 9.9

B 10.0

C 10.2

D F

2 7.9

1 8.0

5 8.6

4 8.1

6 8.1

10 7.7

Pol. a 4.9

b 6.7

c 7.3

d 8.3

e 8.6

f 9.0

g 9.7

h 10.1

m.p. 1 5.0

2 7.0

3 8.0

4 7.9

5 8.2

6 8.8

7 8.4

8 8.5

9 9.5

$h$   
12 + 75

Jan 20, 1908

(Scale 32811)

Faint stars.

T 34535

10 9.7

a 98

B 10.0

C 10.1

D F

E F

Stars, 29 8.3

28 8.9

37 8.1

36 9.1

2 8.0

1 7.9

5 8.4

4 8.0

6 8.3

10 7.6

g 8.7 8.7 8.70

h 9.2 9.2 9.20

k 9.8 9.8 9.80

k<sup>2</sup> 9.9 9.8 9.85k<sup>3</sup> 10.2 10.1 10.15

a 8.8 8.5 8.65 3.62 12.27

f 8.8 8.7 8.75 3.49 12.24

c 9.3 9.4 9.35 3.44 12.79

d 9.7 9.8 9.75 3.46 13.21

e 9.9 9.9 9.90 3.50 13.40

g 8.7

h 9.2

k 9.8

k<sup>2</sup> 9.8k<sup>3</sup> 10.1

a 8.5

f 8.7

c 9.4

d 9.8

e 9.9



1 + 15

~~20 + 45~~

Measurements of faint stars  $g$  to  $k^3$  in  
 Pol. Seq. also  $a, b, c, d + e$

Jan. 24, 1908

(Scale 32811)

34359  
~~31764~~

$g$	8.6	8.4	8.50	11		
$h$	9.1	8.9	9.00	11		
$k$	9.7	9.6	9.65	10		
$k^2$	9.7	9.7	9.70	00		
$k^3$	10.0	10.1	10.05	01		
$a$	7.7	7.8	7.75	10	4.00	11.75
$b$	7.3	7.5	7.40	11	4.10	11.50
$c$	8.7	8.7	8.70	00	3.73	12.43
$d$	9.3	9.5	9.40	11	3.65	13.05
$e$	9.7	9.8	9.75	10	3.67	13.42
$g$	8.4					
$h$	8.9					
$k$	9.6					
$k^2$	9.7					
$k^3$	10.1					
$a$	7.8					
$b$	7.5					
$c$	8.7					
$d$	9.5					
$e$	9.8					

Saint stars  $\gamma, h, k, k_2, k_3$  in Polar seq. also  
a b c d e

$h$   
3+15

Jan 24 1908

I 27951

$g$	8.5	8.5	8.50	00	
$h$	9.0	9.1	9.05	01	
$k$	9.7	9.8	9.75	10	
$k_2$	9.8	9.8	9.80	00	
$k_3$	10.1	10.1	10.10	00	
$a$	8.2	8.3	8.25	01	3.90
$b$	8.7	8.7	8.70	00	3.73
$c$	9.1	9.2	9.15	10	3.58
$d$	9.3	9.5	9.40	11	3.54
$e$	9.9	10.0	9.95	10	3.64
$g$	8.5				
$h$	9.1				
$k$	9.8				
$k_2$	9.8				
$k_3$	10.1				
$a$	8.3				
$b$	8.7				
$c$	9.2				
$d$	9.5				
$e$	10.0				



Measures of faint stars g, h, k, k<sub>2</sub> + k<sub>3</sub>  
in Pol. seq. also a b c d + e

Jan 25 1908

I 33939

g 8.5 8.5 8.50 00

h 9.0 8.9 8.95 01

k 9.6 9.6 9.60 00

k<sub>2</sub> 9.8 9.7 9.75 01

k<sub>3</sub> 10.0 10.0 10.00 00

a 8.6 8.5 8.55 01 377

b 8.9 8.9 8.90 00 371

c 8.5 8.6 8.55 10 378

d 9.1 9.2 9.15 10 368

e 8.7 8.7 8.70 00 374

g 8.5

h 8.9

k 9.6

k<sub>2</sub> 9.7

k<sub>3</sub> 10.0

a 8.5

b 8.9

c 8.6

d 9.2

e 8.7

Measures of faint stars g, h, k, k<sub>2</sub>+k<sub>3</sub>  
in Pol. Seq. - also a b c d e -

Jan 27 1908

<sup>h</sup>  
11+15

I 33736

g	8.7	8.6	8.65	
h	9.3	9.2	9.25	
k	9.9	9.8	9.85	
k <sub>2</sub>	10.1	9.9	10.00	
k <sub>3</sub>	F	F	-	
a	9.5	9.3	9.40	3.40
b	10.0	9.9	9.95	3.40
c	8.7	8.6	8.65	3.56
d	F			
e	F			
e'	F			
g	8.6			
h	9.2			
k	9.8			
k <sub>2</sub>	9.9			
k <sub>3</sub>	10.2 F			
a	9.3			
b	9.9			
c	8.6			
d	-			
e	-			
e'	-			

Faint-stars do not come out on either this plate  
or the first one measured (I 28538). - Pon Plates,



Measures of faint stars g h k k<sub>2</sub> k<sub>3</sub>  
in Pol seq - also a b c d e

19+15

Jan 28 1908

I 32131

g 8.6 8.7 8.65 01

h 9.1 9.1 9.10 00

k 9.8 9.7 9.75 01

k<sub>2</sub> 9.9 9.8 9.85 10k<sub>3</sub> 10.1 10.1 10.10 00

a 9.2 9.2 9.20 00 3.56

b 9.7 9.8 9.75 10 3.55

c 9.5 9.5 9.50 00 3.58

d 10.0 9.9 9.95 01 3.59

e 10.3 10.2 10.25 10 3.68

g 8.7

h 9.1

k 9.7

k<sub>2</sub> 9.8k<sub>3</sub> 10.1

a 9.2

b 9.8

c 9.5

d 9.9

e 10.2

Measures of faint stars  $g, h, k, k_2, k_3$   
in Pol. seq. also  $a, b, c, d, e$

Jan 28, 1907

$17 + 15$

T 32021

$g$  9.1 9.0 9.05

$h$  9.4 9.3 9.35

$k$  9.9 9.7 9.80

$k_2$  10.0 9.9 9.95

$k_3$  F

$a$

$b$

$c$

$d$

$e$

$g$  9.0

$h$  9.3

$k$  9.7

$k_2$  9.9

$k_3$  F

$a$

$b$

$c$

$d$

$e$

See Bk 33 p. 118



## T' Plates.

9<sup>h</sup> + 15'

(Scale C.)

May 4 1908

I 35246

An

Pol.

a	4.4	4.6	4.6	3.7	4.53	111	25	7.8	7.7	7.9	7.80	011	B	9.2
t	6.2	6.2	6.1		6.17	001	24	7.4	7.3	7.5	7.40	011	b	9.4
c	6.7	6.7	6.7		6.70	000	4	7.7	7.7	7.7	7.70	000	B	9.7
d	7.8	7.7	7.8		7.77	010	5	8.1	8.0	8.0	8.03	100	E	10.1
e	8.1	8.1	8.2		8.13	001	1	7.3	7.4	7.4	7.37	100	16	8.2
f	8.5	8.5	8.6		8.53	001	2	8.2	8.1	8.2	8.17	010	20	7.8
g	9.5	9.7	9.5		9.57	111	6	7.9	8.0	8.1	8.00	101	22	8.1
h	9.9	10.0	10.0		9.97	100	10	7.6	7.7	7.8	7.70	101	21	7.3
K	—	—	—											

M.P.

1	6.8	7.0	6.9		6.90	110	Pol. a	4.6					25	7.7
2	6.9	7.1	7.0		7.00	110	t	6.2					24	7.3
3	7.7	7.9	7.7		7.77	111	c	6.7					4	7.7
4	7.4	7.3	7.4		7.37	010	d	7.7					5	8.0
5	7.5	7.5	7.7		7.57	111	e	8.1					1	7.4
6	7.6	7.6	7.7		7.63	001	f	8.5					2	8.1
7	8.7	8.7	8.7		8.70	000	g	9.7					6	8.0
8	6.8	6.9	6.9		6.87	100	h	9.9	10.0				10	7.7
9	7.3	7.3	7.3		7.30	000	K	—					Pol. a	4.6
10	7.6	7.5	7.5		7.53	100	1	7.0					b	6.1
11	8.3	8.5			8.40	011	2	7.1					c	6.7
12	8.2	8.2			8.17	100	3	7.9					d	7.8
13	8.9	9.0			8.93	001	4	7.3					e	8.2
B	9.4	9.2	9.3		9.30	110	5	7.5					f	8.6
b	9.6	9.4	9.5		9.50	110	6	7.6					g	9.5
B	9.9	9.7	9.9		9.83	111	7	8.7					h	10.0
E	10.2	10.1	10.2		10.17	010	8	6.9					K	—
Star.	16	8.3	8.2	8.2	8.23	100	9	7.3					1	6.9
	20	7.9	7.8	7.9	7.87	010	10	7.5					2	7.0
	22	8.3	8.1	8.3	8.23	111	11	8.3					3	7.7
	21	7.5	7.3	7.3	7.37	111	12	8.9						



h  
9+15

May 4 1908

I 35246

4 7.4

5 7.7

6 7.7

7 8.7

8 6.9

9 7.3

10 7.5

Staw.

16 8.2

20 7.9

22 8.3

21 7.3

25 7.9

24 7.5

4 7.7

5 8.0

1 7.4

2 8.2

6 8.1

10 7.8

A 9.0

B 9.3

C 9.5

D 9.9

E 10.2

I 35246

I 28718

I 34407

a 4.53 B. 5.87

b 6.17 5.87 7.30

c 6.70 6.53 7.80

d 7.77 7.70 8.63

e 8.13 8.30 8.90

f 8.53 8.77 9.30

g 9.57

h 9.97 9.73 10.37

i 6.90 7.40 7.97

2 7.00 7.43 8.13

3 7.77 8.63 8.73

4 7.37 8.17 8.30

5 7.57 8.30 8.53

6 7.63 8.57 8.70

7 8.70 9.67 9.83

8 6.87 7.10 7.70

9 7.30 7.60 8.23

10 7.53 8.17 8.60

A 8.93 9.80 9.70

B 9.30 9.73 9.87

C 9.50 10.03 9.97

D 9.83 10.27 10.30

E 10.17 - -

10 8.23 8.97 9.60

20 7.87 8.37 8.90

22 8.23 8.83 9.23

21 7.87 7.93 8.37

25 7.80 8.87 9.10

24 7.40 8.13 8.43

4 7.70 8.40 8.57

5 8.03 8.67 8.33

1 7.37 7.70 8.27

2 8.17 8.73 8.70

6 8.00 8.27 8.73

10 7.70 8.43 8.57

June 7, 09  
Faint stars in Pol. Seg  
I 28718

g 8.5 8.4 8.45

h 8.5 8.5 8.50 3.85

i 8.8 8.8 8.80

k 8.8 8.9 8.85 3.86

l 9.4 9.4 9.40

m 9.0 9.2 9.10 3.86

n 9.5 9.4 9.45

o 9.5 9.5 9.50 3.87

p 10.0 9.9 9.95

q 9.9 10.0 9.95 3.89

I 35246

g 8.1 8.1 8.10

h 7.3 7.4 7.35 4.05

i 8.3 8.5 8.40

j 7.7 7.7 7.70 4.16

k 8.8 9.0 8.90

l 8.0 8.1 8.03 4.20

m 8.7 9.0 8.95

n 8.4 8.3 8.35 4.26

o 9.3 9.5 9.40

p 9.0 9.0 9.00 4.34

I 28718

g 8.4

h 8.5

i 8.8

j 8.9

k 9.6

l 9.2

m 9.1

n 9.0

o 8.1

p 9.0

q 8.3

r 9.5

s 9.0



T' Plates.

9<sup>h</sup> - 15

Scale

May 5 1908

35182

Pol.

a	4.7	4.6	4.6	4.63	100-142730-25	8.6	8.6	8.5	8.57	001	13	9.7	9.7	9.7	9.70
b	6.1	6.0	5.9	6.00	101-142710-24	8.7	8.8	8.7	8.73	010	6	9.8	9.7	9.7	9.73
c	6.7	6.6	6.6	6.63	100-152651-4	9.5	9.7	9.7	9.63	111	5	f	f	f	-
d	7.9	8.0	8.0	7.97	100-152672-5	8.7	8.9	8.9	8.83	000	8	f	f	f	-
e	8.2	8.3	8.4	8.30	101-152696-1	8.8	8.7	8.8	8.78	010	16	8.0			
f	8.7	8.7	8.9	8.77	111-152716-2	8.6	8.7	8.8	8.70	101	20	7.9			
g	9.5	9.6	9.5	9.53	010-162680-6	8.7	8.9	8.9	8.83	111	22	8.2			
h	10.0	10.0	9.9	9.97	001-162665-10	8.6	8.5	8.5	8.53	100	21	7.4			
k	6.7	-	-	-	-	-	-	-	-	-	-	-			

M.P.

See next  
column.

1	6.2	6.2	6.3	6.23	001										
2	6.7	6.7	6.7	6.70	000										
3	7.3	7.1	7.1	7.13	100										
4	7.9	7.8	7.8	7.83	000										
5	8.2	8.2	8.2	8.20	000										
6	7.4	7.5	7.4	7.43	010										
7	8.7	8.7	8.7	8.70	000										
8	8.3	8.4	8.3	8.33	010										
9	9.7	9.5	9.7	9.63	010										
10	7.1	7.2	7.1	7.17	010										
A	9.5	9.4	9.5	9.47	010										
B	9.7	9.7	9.7	9.70	000										
C	9.7	9.8	9.7	9.73	010										
D	f	-	-	-	-										
E	f	-	-	-	-										

-13 2764

Stan.

-13 2745

-14 2762

-14 2742

16	8.3	8.3	8.3	8.30	010										
20	7.8	7.9	8.0	7.90	101										
22	8.3	8.2	8.3	8.27	010										
21	7.3	7.4	7.3	7.33	010										

Pol.

a	4.6					25	8.6								
b	6.0					24	8.8								
c	6.6					4	9.7								
d	8.0					5	8.7								
e	8.3					1	8.7								
f	8.7					2	8.7								
g	9.6					6	8.9								
h	10.0					10	8.5								
K	-					-	-								

Pol.

a	4.6														
b	5.9														
c	6.6														
d	8.0														
e	8.4														
f	8.9														
g	9.5														
h	9.9														
K	-														
1	6.7														
2	7.3														
3	7.3														
4	8.5														
5	8.6														
6	7.8														
7	8.7														
8	8.7														
9	9.4														
10	7.3														
a	9.4														

T' Plates.

137

9-15

May 5, 1908

I 35182

4 8.3

5 8.7

6 7.7

7 8.7

8 8.7

9 9.5

10 7.3

A 9.5

B 9.7

C 9.7

D F

E F

Stan. 16 7.9

20 8.0

22 8.3

21 7.3

25 8.5

24 8.7

4 9.7

5 8.7

1 8.8

2 8.8

6 8.9

10 8.5

Fl stars. (Sl. 32811)

I 35182

g 8.8 8.3 8.30

h 8.7 8.7 8.70

K 9.3 9.2 9.25

K<sub>2</sub> 9.3 9.3 9.30K<sub>3</sub> 9.5 9.6 9.55

a 8.0 8.1 8.05

b 8.3 8.3 8.30

c 8.0 8.2 8.10

d 9.7 9.7 9.70

e 9.5 9.5 9.50

g 8.3

h 8.7

K 9.2

K<sub>2</sub> 9.3K<sub>3</sub> 9.6

a 8.0

b 8.3

c 8.1

d 9.7

e 9.5

I 28616

8.5 8.4 8.45

8.8 8.7 8.75

9.2 9.3 9.25

9.3 9.3 9.30

9.6 9.7 9.65

8.1 8.1 8.10

8.3 8.3 8.30

8.2 8.1 8.15

9.7 9.8 9.85

9.5 9.7 9.60

8.4

8.7

9.3

9.3

9.7

8.1

8.3

8.1

9.8

9.7



D' Plates.

h  
13-15

Se. "C"

May 8, 1908

I 35247													
Pol.	a	4.8	4.9	4.8	4.83	010	24	9.5 <sup>9.4 9.47</sup>	001	D	100		
	b	6.4	6.3	6.3	6.33	100	4	8.7	8.6 8.7 8.67	010	E	F	
	c	7.1	7.0	7.0	7.03	100	5	8.7	8.5 8.5 <sup>8.57</sup>	111	16	7.7	
	d	8.0	8.1	8.0	8.03	010	1	8.2	8.3 8.3 8.27	100	20	7.9	
	e	8.3	8.3	8.3	8.30	000	2	8.8	8.7 8.7 8.73	100	22	8.5	
	f	8.7	8.7	8.8	8.73	001	6	8.1	8.0 7.9 8.00	101	21	8.7	
	g	9.3	9.3	9.4	9.33	001	10	7.9	8.1 8.1 8.03	111	25	8.5	
	h	9.9	9.8	9.9	9.87	010	a	4.9			24	9.5	difficult
m.p	1	6.0	6.0	5.9	5.97	001	b	6.3			4	8.6	
	2	6.5	6.4	6.5	6.47	010	c	7.0			5	8.5	
	3	7.4	7.5	7.4	7.43	010	d	8.1			1	8.3	
	4	7.1	6.9	7.0	7.00	110	e	8.3			2	8.7	
	5	7.3	7.2	7.3	7.27	010	f	8.7			6	8.0	
	6	7.5	7.7	7.7	7.63	111	g	9.3			10	8.1	
	7	7.8	8.0	8.0	7.93	111	h	9.8		Pol.	a	4.8	
	8	8.4	8.3	8.5	8.40	011	1	6.0			b	6.3	
	9	7.7	8.1	8.1	8.03	111	2	6.4			c	7.0	
	10	8.6	8.7	8.7	8.67	100	3	7.5			d	8.0	
	A	9.5	9.5	9.5	9.50	000	4	6.9			e	8.3	
	B	9.7	9.8	9.7	9.73	010	5	7.2			f	8.8	
	b	9.6	9.7	9.6	9.63	010	6	7.7			g	9.4	
	15	10.0	10.0	10.0	10.00	000	7	8.0			h	9.9	
	E	F	-	-	-	-	8	8.3		m.p	1	5.9	
	16	7.7	7.7	7.6	7.67	001	9	8.1			2	6.5	
	20	7.8	7.9	7.8	7.83	010	10	8.7			3	7.4	
	22	8.6	8.5	8.5	8.53	100	A	9.5			4	7.0	
Stau.	21	8.7	8.7	8.7	8.70	000	B	9.8			5	7.3	
	25	8.5	8.5	8.5	8.50	000	b	9.7			6	7.7	

13 - 15

May 8, 1908

I 35247

78.0

8 8.5

9 8.1

10 8.7

a 9.5

B 9.7

C 9.6

D 10.0

E —

-13.3655

Star, → 16 7.6

-13.3647 20 7.8

-14.3659 22 8.5

-14.3646 21 8.7

-14.3631 25 8.5

-14.3616 24 9.4 Difficult.

-15.3566 4 8.7

-15.3586 5 8.5

-15.3597 1 8.3

-15.3610 2 8.7

-16.3601 6 7.9

-16.3587 10 8.1

Ft. Stars

I 33968

g 7.8 7.7 7.75

h 8.1 8.0 8.05

K 8.6 8.6 8.60

K<sub>2</sub> 8.7 8.7 8.70K<sub>3</sub> 9.0 9.1 9.05

a 7.7 7.8 7.75

b 7.9 8.0 7.95

C 7.9 7.9 7.90

D 8.2 8.1 8.15

E 8.7 8.6 8.65

g 7.7

h 8.0

K 8.6

K<sub>2</sub> 8.7K<sub>3</sub> 9.6

a 7.8

B 8.0

C 7.9

D 8.1

E 8.6

Faint Stars

I 35247 (Faint)

g 7.9 7.9 7.8 7.85

h 8.5 8.3 8.2 8.25

K 8.9 8.8 8.85

K<sub>2</sub> 8.9 8.9 8.90K<sub>3</sub> 9.2 9.2 9.20

a 8.1 8.0 8.05

b 8.3 8.3 8.30

C 8.3 8.2 8.25

d 8.7 8.6 8.60

e 9.2 9.0 9.10

g 7.8

h 8.3

K 8.8

K<sub>2</sub> 8.8K<sub>3</sub> 9.2

a 8.0

b 8.3

C 8.2

d 8.5

e 9.0



N Plates.

15 + 15

May 11, 1908

I 35286

Pol.	a	4.6	4.7	4.63 <sup>B</sup>	4.63	010	25	7.4	7.3	7.3	7.33 <sup>B</sup>	100	9.3
	b	6.2	6.3	6.1	6.20	011	24	7.6	7.5	7.5	7.53 <sup>B</sup>	100	9.8
	c	7.0	7.0	6.9	6.97	001	4	7.9	7.7	7.8	7.80 <sup>B</sup>	110	9.7
	d	8.2	8.2	8.3	8.23	001	5	8.4	8.2	8.1	8.23	201	10.0
	e	8.6	8.7	8.7	8.67	100	1	7.3	7.2	7.3 <sup>B</sup>	7.27 <sup>B</sup>	010	16 8.7
	f	9.1	9.1	9.1	9.10	000	2	8.7	8.5	8.3	8.50	202	20 7.7
	g	9.8	9.9	9.7	9.80	011	6	8.2	8.3	8.3	8.27	000	22 7.8
	h	<del>10.2</del>	<del>10.2</del>	<del>10.2</del>	10.20	000	10	8.7	8.7	8.7	8.70	000	21 8.7
	K	—	—	—	—	—	—	—	—	—	—	—	—

MP	1	6.0	5.9	6.0	5.97	010	Pol.	a	4.0	25	7.3	
	2	7.7	7.7	7.7	7.70	000		b	6.3	24	7.5	
	3	7.3	7.4	7.4	7.37	100		c	7.0	14	7.7	
	4	7.5	7.5	7.4	7.47	001		d	8.2	5	8.2	
	5	8.5	8.3	8.3	8.37	111		e	8.7	1	7.2	
	6	8.4	8.5	8.5	8.47	100		f	9.1	2	8.5	
	7	8.3	8.1	8.2	8.20	110		g	9.9	6	8.3	
	8	6.9	6.8	6.9	6.87	010		h	<del>10.3</del>	10	8.7	
	9	6.7	6.7	6.7	6.70	000	Pol.	a	4.6	39		
	10	8.2	8.1	8.3	8.20	011		b	6.1			
	A	9.5	9.5	9.4	9.47		MP	1	5.9			
	B	9.4	9.3	9.4	9.37			2	7.7			
	b	9.7	9.8	9.7	9.73			3	7.4			
	B	9.6	9.7	9.5	9.60			4	7.5			
	E	9.9	10.0	9.9	9.93			5	8.3			
								6	8.5			
								7	8.1			
								8	6.8			
								9	6.7			
								10	8.1			
								A	9.5			
Star	16	8.7	8.7	8.7	8.70	000		K	—			
	20	7.7	7.7	7.8	7.73	006	MP	1	6.0			
	22	7.7	7.8	7.7	7.73	000		2	7.7			
	21	8.7	8.7	8.7	8.70	000		3	7.4			

Sub Bk33  
74115-  
meas. 75 ft. stars.

J' Plates.

141

h  
15 + 15

May 11, 1908

I 35286

4 7.4

5 8.3

6 8.5

7 8.2

8 6.9

9 6.7

10 8.3

A 9.4

B 9.4

C 9.7

D 9.5

E 9.9

Stan. 16 8.7

20 7.8

22 8.7

21 8.7

25 7.3

24 7.5

4 7.8

5 8.1

1 7.3

2 8.3

6 8.3

10 8.7

Faint Stars

I 35286 I 28731

g 8.5 8.4 8.45 8.3 8.4 8.35

h 8.8 8.8 8.80 8.6 8.7 8.65

K 9.2 9.2 9.20 9.1 9.2 9.15

K<sub>2</sub> 9.3 9.4 9.35 9.3 9.3 9.30K<sub>3</sub> 9.8 9.9 9.85 9.7 9.7 9.70

a 8.4 8.3 8.35 8.5 8.5 8.50

b 8.2 8.2 8.20 8.4 8.4 8.40

c 8.5 8.5 8.50 8.7 8.7 8.70

d 8.5 8.4 8.45 8.6 8.5 8.55

e 9.0 8.9 8.95 8.9 9.0 8.95

g 8.4 8.4

h 8.8 8.7

K 9.2 9.2

K<sub>2</sub> 9.4 9.3K<sub>3</sub> 9.9 9.7

a 8.3 8.5

b 8.2 8.4

c 8.5 8.7

d 8.4 8.5

e 8.9 9.0



21 + 15

Scale "C"

May 18, 1908

\* I 35296

Pol.	a	4.8	4.9	4.8	4.83	010154313	2.5	8.5	8.4	8.5	8.47	010	13	9.9	9.5
	b	6.4	6.3	6.3	6.33	1001154301	2.4	8.3	8.3	8.3	8.30	000	6	9.9	
	c	7.1	7.1	7.0	7.07	0011144486	4	7.4	7.4	7.3	7.37	001	15	10.1	
	d	8.4	8.3	8.3	8.33	1001144519	5	6.7	7.5	7.4	7.47	100	E	F	
	e	8.7	8.6	8.6	8.63	1001144532	1	6.0	9.2	9.2	9.2	12.1	16	8.9	X
	f	9.1	9.1	9.1	9.10	0001154334	2	6.5	8.7	8.7	8.5	8.63	111	20	9.2
	g	9.7	9.7	9.7	9.70	0001134612	6	7.4	9.2	9.2	9.1	9.17	001	23	7.3
	h	10.1	-	-	-	+134604/0	001	8.7	8.5	8.5	8.57	111	21	9.2	

MP

1	6.1	6.1	6.0	6.07	Pol.	a	4.9	25	8.4	
2	6.7	6.6	6.6	6.63	100	b	6.3	24	8.3	
3	8.2	8.1	8.4	8.23	012	c	7.1	4	7.4	
4	6.2	6.1	6.2	6.17	010	d	8.3	5	7.4	
5	6.8	6.7	6.8	6.77	010	e	8.6	1	8.7	
6	8.4	8.5	8.5	8.47	100	f	9.1	2	8.7	
7	7.5	7.3	7.3	7.37	111	g	9.7	6	9.2	
8	7.7	7.7	7.6	7.67	001	h	—	10	8.5	
9	9.2	9.0	9.2	9.13	MP	1	6.1	Pol.	a	4.8
10	9.9	9.7	9.7	9.77	111	2	6.6	b	6.3	
a	9.3	9.2	9.3	9.27		3	8.1	c	7.0	
b	9.7	9.5	9.7	9.63		4	6.1	d	8.3	
c	10.0	9.9	10.0	9.97		5	6.7	e	8.6	
d	10.1	10.1	10.2	10.13		6	8.5	f	9.1	
e	7	7	7	—		7	7.3	g	9.7	

+14 4551

Star.

+15 4310

+15 4358

+15 4336

2	8.4	8.9				8	7.7			
<del>2</del>	<del>9.2</del>	<del>8.7</del>	8.7	8.77	111					
20	9.3	9.2	9.2	9.23	100	9	9.0	MP	1	6.0
22	7.3	7.3	7.3	7.30	000	10	9.7		2	6.6
21	9.3	9.2	9.3	9.27	010	a	<del>9.9</del>		3	8.4

\* Images elongated

21+15

May 18, 1908

I 35296

4 6.2

5 6.8

6 8.5

7 7.3

8 7.6

9 9.2

10 9.7

A 9.9 9.3

B 9.9 9.7

C 10.0

D 10.2

E 7

Star. 16 8.7

20 9.2

22 7.3

21 9.3

25 8.5

24 8.3

4 7.3

5 7.4

1 8.9

2 8.5

6 9.1

10 8.5



J' Plates.

May 26, 1908

I 35292

Pol.	a	4.9	5.0	4.9	4.93
	b	6.3	6.3	6.2	6.27
	c	7.1	7.0	6.9	7.00
	d	8.2	8.2	8.2	8.20
	e	8.5	8.5	8.4	8.47
	f	9.1	8.9	8.9	8.97
	g	9.8	9.7	9.7	9.73
	h	10.2	10.0	10.1	10.10
	k				

M.P.	1	5.6	5.8	5.7	5.70
	2	5.9	6.0	5.9	5.93
	3	5.6	5.8	5.7	5.70
	4	7.9	7.8	7.8	7.83
	5	8.2	8.3	8.1	8.20
	6	8.1	8.2	8.1	8.13
	7	7.9	7.9	8.0	7.93
	8	8.8	8.7	8.7	8.73

	9	9.5	9.5	9.3	9.43
	10	9.7	9.6	9.7	9.67
	A	9.6	9.5	9.6	9.57
	B	9.9	9.7	9.7	9.77
	b	10.2	9.9	9.9	10.00
	D	10.0	10.0	10.1	10.03
	E	10.2	10.1	10.2	10.17

Star	16	8.2	8.1	8.2	8.17
	20	10.0	9.9	10.0	9.97
	22	9.0	8.9	8.9	8.97
	21	8.6	8.7	8.7	8.67

24	8.9	8.9	8.9	8.90
<del>24</del>	<del>9.2</del>	<del>9.2</del>	<del>9.2</del>	<del>9.17</del>
4	9.7	9.6	9.7	9.67
25	9.5	9.6	9.5	9.53
1	8.1	8.1	8.2	8.13
2	9.0	9.2	9.2	9.13
6	8.3	8.2	8.2	8.23
10	8.9	8.7	8.7	8.77

Pol.	a	5.0
	b	6.3
	c	7.0
	d	8.2
	e	8.5
	f	8.9
	g	9.7
	h	10.0
	k	

Pol.	a	4.9
	b	6.2
	c	6.9
	d	8.2
	e	8.4
	f	8.9
	g	9.7
	h	10.1
	k	

M.P.	1	5.8
	2	6.0
	3	5.8
	4	7.8
	5	8.3
	6	8.2
	7	7.9
	8	8.7
	9	9.5
	10	9.6
	A	9.5

15<sup>h</sup> - 15May 26, 1908 S<sup>c</sup>M

I 35292

4 78

5 8.1

6 8.1

7 8.0

8 8.7

9 9.3

10 9.7

A 96

B 97

6 99

15 10.1

E 10.2

16 8.2-13 4068

20 10.0-13 4054

22 8.9-14 4141

21 8.7-14 4122

25 9.2-14 4097

24 8.9-14 4080

4 9.7-15 3999

5 9.1-15 4014

1 8.2-15 4030

2 9.2-15 4046

6 8.2-16 4004

10 8.7-16 3990

Faint Stars.

I 28828

I 35292

g 8.5 8.4 8.45

8.4 8.5 8.45

h 8.7 8.7 8.70

8.6 8.7 8.65

K 9.3 9.2 9.25

9.3 9.3 9.30

K<sub>2</sub> 9.5 9.4 9.45

9.4 9.5 9.45

K<sub>3</sub> 9.8 9.8 9.80

9.8 9.9 9.85

A 8.1 8.2 8.15

8.5 8.3 8.40

B 8.6 8.5 8.55

8.9 8.7 8.80

C 9.0 9.0 9.00

9.3 9.2 9.25

D 9.5 9.4 9.45

9.7 9.7 9.70

E 9.9 9.8 9.85

10.0 10.1 10.05

g 8.4

8.5

h 8.7

8.7

K 9.2

9.3

K<sub>2</sub> 9.4

9.5

K<sub>3</sub> 9.8

9.9

A 8.2

8.3

B 8.5

8.7

C 9.0

9.2

D 9.4

9.7

E 9.8

10.1



Measures of Seq for M3 - also additional stars meas by E.C.P.

(Scale 615350)

June 3, 1908

(Scale I 32811)

X 8563	Bm. 2	Est	Ar 10 (Kuler 10)
a 5.5	a B. $1.8 = 1.5$	a 10 b	a 5.4
b 5.5	b $3.7$ $2.0$ $3.8$	b 1 c	b 5.6
c 6.0	c $3.9$ $2.1$ $3.9$	c 5 d	c 6.1
d 6.3	d $4.3$ $2.6$ $4.3$	d 7 d'	d 6.3
e 6.5	d' $5.0$ $3.2$ $4.9$	d' 3 e	e 6.7
f 6.9	e $5.2$ $3.6$ $5.1$	e ? f	f 7.0
g 7.2	f $7.9$ $6.1$ $7.1$	f 4 g	g 7.2
h 7.5	g $5.4$ $6.5$ $7.5$		h 7.5
k 7.8			k 7.6
l 8.0			l 7.9
m 8.2			m 8.2
n 8.5			n 8.5
o 8.9			o 8.7
p 9.3			p 9.5

X 9204

a 5.4	a B. $1.0$ ?
b 5.3	b 3.6 3.3
c 6.1	c 3.6 3.3
d 6.3	d 4.1 3.8
e 6.7	d' 4.9 4.6
f 7.0	e 5.2 4.9
g 7.3	f 6.1 5.8
h 7.5	g 6.4 6.5 6.2
k 7.7	
l 7.9	
m 8.2	
n 8.6	
o 8.9	
p 9.5	

Additional

stars measured  
by E.C.P.  
June 4, 08

a B	—
b 2.3	2.1
c 2.4	2.2
d 2.9	2.7
d' 3.7	
e 3.9	
f 5.5	
g 6.0 6.1	

Estimated intervals between  
stars in Seq. of M3

June 3, 1908

x 9204

a 1 b

b 4 c

c 3 d

d 5 e

e 4 f

f 3 g

g 4 h

h 1 k

k 2 l

l 3 m

m 5 n

n 3 o

o 4 p

a ? b

b o c

c ? d

d 8 d'

d' 2 e

e 10 f ?

f 4 g

Q 10 Keeler 10

a 1 b

b 3 c

c 3 d

d 4 e

e 3 f

f 3 g

g 3 h

h 2 k

k 2 l

l 3 m

m 3 n

n 3 o

o 5 p

a 10 b

b 2 c

c 4 d ?

d 7 d'

d' 3 e

e ? f

f 3 g

Additional stars  
meas. by E.C.P.



August 11, 1909

Reg. 6.40+45 T 35052

Pol.	a	5.2	5.2	5.1	5.17	001+4415275	8.5	8.5	8.5	8.50	000	22	7.5
	b	6.7	6.5	6.6	6.60	1104415391	7.5	7.5	7.4	7.47	001	21	8.2
	c	7.3	7.2	7.2	7.23	1004415482	8.6	8.8	8.8	8.73	100	25	7.8
	d	8.2	8.1	8.1	8.13	10044216056	7.7	7.8	7.8	7.77	100	24	8.3
	e	8.7	8.5	8.5	8.57	111443157210	7.9	7.8	7.8	7.83	100	4	8.2
	f	9.1	9.0	9.0	9.03	100	Pol. a	5.2				5	8.5
	h	9.7	9.7	9.7	9.70	000	b	6.5				1	7.5
M.P.	K	10.2	10.2	10.2	10.20	000	c	7.2				2	8.8
	1	8.7	8.5	8.5	8.57	011	d	8.1				6	7.8
	2	8.5	8.3	8.4	8.40	110	e	8.5				10	7.8
	3	6.2	6.3	6.1	6.20	011	f	9.0	Pol. a	5.1			
	4	6.9	7.0	6.9	6.93	010	h	9.7			b	6.6	
	5	7.2	7.2	7.1	7.17	001	K	10.2			c	7.2	
	6	7.8	8.1	7.7	7.87	122	2	8.3			d	8.1	
	7	7.5	7.5	7.5	7.50	000	3	6.3			e	8.5	
	8	7.7	7.7	7.8	7.73	001	4	7.0			f	9.0	
	9	8.7	8.5	8.7	8.63	111	5	7.2			h	9.7	
	10	8.5	8.5	8.5	8.50	000	6	8.1			K	10.2	
	a	8.9	9.0	8.9	8.93	010	7	7.5	M.P.	1	8.6		
	b	8.7	8.7	8.6	8.67	001	8	7.7			2	8.4	
	c	9.8	9.9	9.9	9.87	100	9	8.5			3	6.1	
	d	10.0	10.1	10.1	10.07	100	10	8.5			4	6.9	
	e	7	7	7			a	9.0			5	7.1	
Stive 1195	16	8.3	8.3	8.3	8.30	000	b	8.7			6	7.7	
+46 1184	20	7.5	7.4	7.5	7.47	010	c	9.9			7	7.5	
+45 1361	22	7.6	7.5	7.5	7.53	100	B	10.1			8	7.8	
+45 1356	21	8.2	8.2	8.2	8.20	000	S	7			9	8.7	
+45 1349	25	7.7	7.8	7.7	7.73	010	16	8.3			10	8.5	
+45 1342	24	8.3	8.3	8.2	8.27	001	20	7.4			a	8.9	
+44 1514	4	8.2	8.2	8.2	8.20	000							

	B	8.6
	C	9.9
	D	10.1
	E	7
st	16	8.3
	20	7.5
	22	7.5
	21	8.2
	25	7.7
	24	8.2
	4	8.2
	5	8.5
	1	7.4
	2	8.8
	6	7.8
	10	7.8



I' Plates.

Measures of Seq. for M3 and seq  
 69 (meas by Mr. B.) Reg 17<sup>h</sup> + 15<sup>h</sup> (Scale C 15350)

Feb 7 1908

A 8358		A 8327	
<i>F</i>	<i>Br.</i>	<i>F</i>	<i>Br</i>
a 6.1		a 5.7	
b 6.9		b 6.3	
c 6.8		c 6.3	
d 7.2		d 6.7	
e 7.2		e 6.8	
f 7.6		f 7.3	
g 8.1		g 7.8	
h 8.4		h 8.1	
k 8.9		k 8.5	
l Defective?		l 8.7	
m 9.2		m 8.9	
n 9.2		n 9.1	
o 9.5		o 9.3	
p 10.0		p 9.5	
q f		q 9.8 f	
1 1.9		1 2.0	
2 2.9		2 3.0	
3 3.3		3 3.2	
4 3.3		4 3.5	
5 3.1		5 3.2	
6 3.4		6 3.2	
7 3.3		7 3.6	
8 2.9		8 2.8	
9 3.7		9 3.8	
10 3.8		10 3.8	
A 4.2		A 4.3	
B 5.1		B 5.2	
C 6.1		C 6.3	
D 6.9		D 6.9	
E 6.7		E 6.7	

Wrong star marked  
 and measured for

Measures of seq for M3 and seq. for  
C9 = (cont.)

(No. C 15350)

Feb 7, 1908

A 8358

a 6.2

f 6.8

c 6.8

d 7.2

e 7.3

f 7.7

g 8.1

h 8.5

k 9.0

l Defective

m 9.3

n 9.5

o 9.5

p 9.9

q F

1 1.9

2 3.0

3 3.2

4 3.3

5 3.2

6 3.4

7 3.2

8 3.6

9 2.8

10 3.7

A 4.0

B 4.3

C 5.2

D 6.2

E 7.1

A 8327

a 5.8

f 6.3

c 6.2

d 6.6

e 6.9

f 7.3

g 7.6

h 8.0

k 8.3

l 8.6

m 8.8

n 9.0

o 9.2

p 9.5

q F

1 2.0

2 3.1

3 3.2

4 3.3

5 3.2

6 3.2

7 3.5

8 2.9

9 3.6

10 4.0

A 4.4

B 5.2

C 6.1

D 6.7

E 6.8

was marked  
and meas for D



## D' Plates.

Measures of faint stars in M.P. seq.  
for 69-17<sup>h</sup>+15

Feb 21, 1908

(Scale C 15350)

A 8358

A 4.3  
B 5.0  
C 6.1  
D 7.1  
E 6.8  
F 7.5  
G 7.8  
H 8.5  
K 8.7  
L 9.5  
M 9.7  
N 10.0

A 8358

A 4.2  
B 5.0  
C 6.0  
D 7.1  
E 6.8  
F 7.4  
G 7.7  
H 8.7  
K 8.8  
L 9.5  
M 9.7  
N 10.0

A 8327

A 4.2  
B 5.0  
C 5.9  
D 6.9  
E 6.5  
F 7.2  
G 7.6  
H 8.1  
K 8.2  
L 8.9  
M 9.0  
N 9.3

A 8327

A 4.1  
B 4.9  
C 6.0  
D 6.8  
E 6.4  
F 7.1  
G 7.5  
H 8.1  
K 8.2  
L 8.8  
M 9.0  
N 9.3





N' Plates.

Polar sequence - Seq for 060547

March 9, 1908.I 35207  
F 38

a

1 5.3

b 6.1

2 6.3

c 6.7

3 6.6

d 7.8

4 7.3

e 8.5

5 8.4

f 8.7

6 8.8

7 8.7

8 8.7

9 8.7

10 9.9

11 8.7

12 F

13 9.2

14 9.2

15 9.3

16 9.5

17 9.7

18 10.0

Reject?

Remeasured with Miss Leavitt's scale, 32811.

F<sub>1</sub> Plates.

155

## Polar sequence + others -

Reg 1<sup>h</sup> - 15

Aug 17, 09

	I 34354	I 34354		I 34354
pd	a 5.2 5.0 5.1 5.1 0.4 8.3 8.2 8.2 8.2 16 8.4			10 8.8 2.8.2
	b 6.4 6.3 6.4 6.3 7.5 8.7 8.7 8.7 8.7 20 8.3			a 9.5 2.8.5
	c 7.2 7.1 7.1 7.1 3.1 9.3 9.4 9.3 9.3 24 8.3			B 9.7 K 2.0
	d 7.9 8.0 8.1 8.0 2.2 8.5 8.6 8.5 8.5 25 9.3			C 9.6 K 2.9.0
	e 8.3 8.3 8.4 8.3 3.6 9.1 9.1 9.3 9.1 21 8.7			D 9.8 K 3.9.5
	f 8.6 8.7 8.9 8.7 3.10 8.9 9.1 9.2 9.0 22 8.3			E 10.2 a 8.3 8.2
	h 9.5 9.7 9.7 9.6 7.2 5.0 4.8.2			16 8.4 4.8.6 8.5
mp	i 10.1 10.1 10.2 10.3 6.9 6.9 6.8 6.8 7.6.3			20 8.3 C 8.3 8.3
	2 7.0 6.9 6.9 6.9 3.7.1			24 8.5 d 8.8 8.5
	3 7.4 7.5 7.5 7.4 7.8.0			25 9.3 e 9.5 9.3
	4 7.9 8.0 8.0 7.9 7.8.3			21 8.5 I 34369
	5 7.9 7.8 7.8 7.8 3.8.7			22 8.2 g 8.1 8.1 8.10
	6 7.7 7.7 7.8 7.7 3.9.7			4 8.2 h 8.5 8.4 8.4.5
	7 8.7 8.7 8.7 8.7 7.1.6.9			5 8.8 K 9.0 8.9 8.8.5
	8 8.6 8.7 8.7 8.6 7.2.6.9			1 9.3 K 2.9.2 9.1 9.1.5
	9 8.7 8.7 8.8 8.7 3.7.5			2 8.5 K 3.9.5 9.5 9.5.0
	10 8.4 8.8 8.8 8.7 7.4.8.0			6 9.3 a 8.2 8.2 8.2.0
	a 9.5 9.4 9.5 9.4 7.5.7.8			10 9.2 B 8.5 8.5 8.6.5
	B 9.8 9.7 9.7 9.7 3.6.7.7			F <sub>1</sub> - Stars. C 8.3 8.3 8.3.0
	C 9.5 9.5 9.6 9.5 3.7.8.9			2 8.1 8.2 8.1.5 B 8.6 8.5 8.5.5
	D 9.8 9.9 9.8 9.8 3.8.8.7			h 8.5 8.5 8.5.0 E 9.3 9.3 9.3.0
	E 10.1 10.2 10.2 10.1 7.9.8.7			K 9.0 9.0 9.0.0 g 8.1
	16 8.3 8.4 8.4 8.3 7.10.8.8			K 2.9.1 9.0 9.0.5 h 8.4
	20 8.1 8.3 8.3 8.2 3.9.4			K 3.9.5 9.5 9.5.0 K 8.9
	24 8.4 8.3 8.5 8.4 0.13.9.7			a 8.3 8.3 8.3.0 K 2.9.1
	25 9.2 9.3 9.3 9.2 7.9.5			6 8.7 8.6 8.6.5 K 3.9.5
	21 8.7 8.7 8.5 8.6 3.7.9			C 8.2 8.3 8.2.5 B 8.5
	22 8.3 8.3 8.2 8.2 7.10.2			d 8.7 8.8 8.7.5 C 8.3
				e 9.7 9.5 9.6.0 B 8.5



## T' Plates.

Polar sequence r. seq. for 060547.

Scale # 32811

March 9, 1908.

H.G. recorder.

I 35207		F	
A	1.9	A	1.8
1	3.2	1	3.1
	3.4		3.2
b	3.9	b	4.0
2	3.9	2	4.0
c	4.3	c	4.3
3	4.2	3	4.1
d	6.1	d	6.2
4	5.4	4	5.3
e	6.4	e	6.5
5	6.9	5	6.7
f	7.0	f	7.1
6	6.7	6	7.0
g	8.5	g	8.8
7	6.4	7	6.5
h	9.0	h	9.0
8	6.9	8	6.8
k	9.5	k	9.4
9	7.5	9	7.5
k2	9.7	k2	9.5
10	7.4	10	7.7
k3	10.0	k3	9.8
11	7.7	11	7.9
12	8.3	12	8.3
13	8.5	13	8.5
14	8.7	14	8.7
15	8.9	15	9.1
16	9.3	16	9.4
17	9.9	17	9.9
18	10.1	18	10.1
19	10.1	19	10.1

Br. 1.6	1.85 a 4.55
29	3.15
	3.20
38	3.95 b 4.03
	3.95
	4.30 c 4.66
	4.15
	6.15 d 4.06
	5.35
	6.45 e 4.19
	6.60
	7.05 f 4.14
	6.85
	7.05
	8.65 g 4.01
	6.45
	6.85
	9.00 h 3.70
	6.85
	9.45 k 3.82
	7.50
	7.40
	9.60 k2 3.85
	7.55
	9.90 k3 3.86
	7.80
	8.30
	8.20
	8.50
	8.70
	9.00
	9.35
	9.90
	10.10
	10.10

## T' Plates

Polar sequence 1 seq. for 060547.

Scale #32811

March 9, 1908.

J. L. G. recorder.

I 35206					
	$\frac{F}{\#}$	Br.		$\frac{F}{\#}$	Br.
a	1.9	1.7	a	2.0	1.8
1	3.4	3.2	1	3.3	3.1
b	3.8	3.6	b	3.8	3.6
2	4.0		2	3.9	
c	4.2		c	4.2	
3	4.0		3	4.0	
d	6.2		d	6.3	
4	5.2		4	5.2	
e	6.5		e	6.6	
5	6.4		5	6.4	
f	7.1		f	7.0	
6	<del>6.9</del> 7.2		6	<del>6.9</del> 6.5	
g	8.7		g	8.6	
7	6.3		7	6.4	
h	8.9		h	8.8	
8	6.7		8	6.7	
k	9.4		k	9.7	
9	7.5		9	7.7	
k <sup>2</sup>	9.7		k <sup>2</sup>	9.8	
10	7.7		10	7.7	
k <sup>3</sup>	9.9		k <sup>3</sup>	10.0	
11	7.8		11	7.9	
12	8.1		12	8.1	
13	8.3		13	8.4	
14	8.7		14	8.5	
15	8.9		15	8.7	
16	9.3		16	9.2	
17	9.8		17	9.9	
18	10.1		18	10.1	
19	7.5		19	7.5	



N<sup>o</sup> Plates.

Polar sequence &amp; seq. for 060547.

March 10, 1908

Am. C. recorder

12 45

35211

A 5 RV.  
2.5 2.3

1 3.3 3.1

2 4.2

3 4.3

C 4.8

3 4.7

d 6.5

4 5.9

e 7.0

5 6.8

f 7.4

6 7.1

g 8.7

7 6.9

h 9.0

8 7.1

h 9.6

9 7.7

K2 9.7

10 7.7

K3 10.0

11 7.8

12 8.3

13 8.5

14 8.9

15 9.1

16 9.6

17 10.1

18 9.5

A 5  
2.4

1 3.3

2 4.3

3 4.2

C 4.9

3 4.6

d 6.5

4 6.0

e 6.9

5 6.9

f 7.5

6 7.1

g 8.6

7 6.9

h 9.1

8 7.1

h 9.5

9 7.8

K2 9.7

10 7.7

K3 10.1

11 8.0

12 8.3

13 8.5

14 8.8

15 8.9

16 9.3

17 9.8

18 9.5

RV  
2.2

3.1

2.45 a 3.95

3.310 2.5

4.25 b 3.73

4.25

4.85 c 4.11

4.65

6.50 d 3.71

5.95

6.95 e 3.69

6.85

7.45 f 3.74

7.10

8.65 g 3.85

6.90

9.05 h 3.61

7.10

9.55 K 3.75

7.75

9.70 K2 3.75

7.80

10.05 K3 3.71

7.90

8.30

8.50

8.85

9.00

9.45

9.95

9.95

Polar sequence &amp; seq. for 060547

2.15

March 10, 1908.

H. D. L. recorder

I 35210

	$\mathcal{F}$	Br.
a	2.4	2.2
1	3.4	3.2
b	4.1	
2	4.9	
c	5.2	
3	4.9	
d	7.1	
4	6.2	
e	7.4	
5	7.0	
f	7.9	
6	7.5	
g	8.7	
7	7.1	
h	9.0	
8	7.2	
k	9.6	
9	8.2	
k2	9.8	
10	8.2	
k3	$\mathcal{F}$	
11	8.3	
12	8.6	
13	8.9	
14	9.0	
15	9.2	
16	9.5	
17	10.0	
18	10.2	

	$\mathcal{F}$	Br.		
a	2.3	2.1	2.35	a 4.05
1	3.5	3.3	3.45	
b	4.1		4.10	b 3.88
2	4.8		4.85	
c	5.2		5.20	c 3.76
3	4.9		4.90	
d	7.1		7.10	d 3.11
4	6.4		6.30	
e	7.5		7.45	e 3.19
5	7.2		7.10	
f	7.9		7.90	f 3.29
6	7.4		<del>7.45</del> <del>7.65</del>	
g	8.6		8.65	g 3.85
7	7.2		7.15	
h	9.1		9.05	h 3.61
8	7.5		7.35	
k	9.7		9.65	k 3.65
9	8.2		8.20	
k2	9.8		9.80	k2 3.65
10	<del>8.2</del> <del>7.9</del>		<del>8.20</del> <del>7.95</del>	
k3	$\mathcal{F}$		—	k3
11	8.7		<del>8.25</del> <del>8.10</del>	
12	8.5		8.55	
13	8.5		8.70	
14	9.0		9.00	
15	9.2		9.20	
16	9.5		9.50	
17	9.9		9.95	
18	10.0		10.10	
19	$\mathcal{F}$		—	

2.45

1908 S



## T' Plates.

Direct estimates of Seq for 060547 using  
magnitudes of Polar Seq.

Mar 11, 1908

T 35207

1	7.5
2	8.3
3	8.7
4	9.7?
5	10.4
6	11.0
7	11.0
8	10.9
9	— 11.6
10	— 11.6
11	— 11.7
12	12.3
13	12.5
14	12.7
15	12.9
16	<del>13</del>
17	13.8
18	13.9
19	13.9

T 35206

1	7.4
2	8.2
3	8.8
4	9.6
5	10.4
6	10.8
7	10.7
8	10.9
9	— 11.5
10	— 11.5
11	— 11.7
12	12.1
13	12.4
14	12.8
15	13.0
16	13.2
17	13.7
18	13.9
19	<del>14</del> < 13.8

1 35 <sup>211</sup> 207

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19



Measures of Seq for Miss Whitford's  
var. Pos — (Seq on I 29650) —

March 20 1908 (Scale 8858)

ac 5480

a 8.5  
b 8.8  
c 9.3  
d 9.5  
e 9.5  
f 9.6  
g 9.9  
h ~~9.7~~ 10.1  
k 10.5  
l 10.5

ac 5945

a 7.4  
b 7.7  
c 8.1  
d 8.3  
e 8.3  
f 8.5  
g 8.7  
h 9.0  
k 9.5  
l 9.6

ac 5369

a 7.5  
b 7.7  
c 8.1  
d 8.4  
e 8.3  
f 8.5  
g 8.7  
h 9.0  
k 9.5  
l 9.6

ac 4555

a 7.3  
b 7.7  
c 8.1  
d 8.4  
e 8.4  
f 8.3 ?  
g 8.7  
h 9.1  
k 9.5  
l 9.5





J'

Measure of Polar and photographic  
sequences for Miss Whitend's var.

S. I 32811

March 30, 1908

I 35226			J		
Pol.	a	B	a	B	B.
	2.2	2.0	2.1	2.15	1.9
1	5.5		5.4	5.45	1.0
b	3.6		3.8	3.70	1.1
2	6.2		6.0	6.10	1.1
c	4.8		4.9	4.89	1.0
3	6.5		6.3	6.40	1.1
d	6.1		6.1	6.10	0.0
4	6.7		6.5	6.60	1.1
e	6.5		6.5	6.50	0.0
5	6.6		6.5	6.55	0.1
f	7.0		6.9	6.95	0.1
6	6.9		7.0	6.95	1.0
g	8.3		8.2	8.25	1.0
7	7.1		7.3	7.20	1.1
h	8.6		8.5	8.55	0.1
8	7.5		7.6	7.55	1.0
Image defective K	9.3		9.1	9.20	1.1
9	7.9		8.0	7.95	1.0
K <sup>2</sup>	7.4		9.3	9.35	0.1
10	8.1		8.2	8.15	1.0
11			K <sup>3</sup>	9.7	9.75
K <sup>3</sup>	9.8				0.1

Measures of Polaris and photographic  
seq. for Miss W — s. van.

Apr. 7 1908

(Sc. 32811)

	I 34889	Br			Br.
4.25 Pol.	a 2.5	2.3	a	2.4 2.45	3.95 2.2
	1 5.9		1	5.8 5.85	
4.28	f 3.9		f	3.9 3.90	4.08
	2 6.5		2	6.4 6.45	
4.07	c 5.2		c	5.2 5.20	3.76
	3 6.8		3	6.9 6.85	
4.11	d 6.5		d	6.4 6.45	3.76
	4 7.0		4	6.9 6.95	
4.14	e 6.7		e	6.7 6.70	3.94
	5 6.9		5	6.8 6.85	
4.24	f 7.2		f	7.3 7.25	3.94
	6 7.2		6	7.1 7.15	
4.25	g 8.4		g	8.5 8.45	4.05
	7 7.5		7	7.5 7.50	
4.15	h 8.7		h	8.7 8.70	4.00
	8 7.7		8	7.8 7.75	
4.07	k 9.3		k	9.2 9.25	4.02
	9 7.9		9	8.0 7.95	
4.60	k <sup>2</sup> 9.5		k <sup>2</sup>	9.3 9.40	4.05
	10 8.3		10	8.3 8.30	
4.01	k <sup>3</sup> 9.9		k <sup>3</sup>	9.7 9.80	3.96



12.10

Ma 515

May 13, 1907

(H. J. Steeden)

14 B. —

15 3.9 665 .57 001

16 4.5 8 7 8 77 010

17 5.3 4 4 4 40 00.0

18 ~~5.9~~ 5-5 6 5.3 001

19 6.2 13  $\frac{11}{13}$  11 11.7  $\frac{11}{13}$

$x = 7.5 \quad 5-4 \quad 5-47 \quad 010$

7 8.0 6 4 6 53 111

3 8.6 5 4 5 47 010

4 45 43 001

B 9.5 ~~4 5 5~~

$f = 9.9^\circ \text{ F}$  12.35

14 B

15 4.0 5

16 4.5 8

17 5.3 4

18 5.7 6

19-63

$\chi$  7.4 3-

2 7.9 6

8.5 5

L 9.0 5-

B 9.5 ~~6~~

$$\begin{array}{r} 1 \frac{1}{2} \\ - 10,0 \\ \hline \end{array}$$

14 B -

15 4.0 6

16 4.6 7

17	5.3	4
----	-----	---

18 5.7

19 6.4

75

2 8.1

24	8.5
----	-----

28.9

B 9.3 -





J' Plates.

Mass. of Pleiades and Pole

(Miss Leavitt's Se.) May 22 1908

I 34313

Pl.	a	B.	B.	B	---	n	8.7		e	55
	f	B.	B.	B	---	g	3.3	3.1	f	58
	j	4.3	4.2	4.3	4.27 0.10	f	3.1	2.9	h	7.9
	j'	5.2	5.4	5.3	5.30 1.10	i	3.8	3.6	k	8.7
	k	5.7	5.7	5.7	5.70 <sup>990</sup> Pol	a	2.5	2.3		
	h	3.6	3.7	3.7	3.67 1.00	b	3.7			
	l	7.2	7.3	7.2	7.23 0.10	c	4.7			
	m	8.1	8.2	8.1	8.13 0.10	d	5.4			
	n	8.8	8.7	8.7	8.73 1.00	e	5.7			
	g	3.2	3.3	3.1	3.0 3.20 0.11	f	6.1			
	j	3.0	3.1	3.0	2.8 3.03 0.10	h	8.0			
	i	3.7	3.8	3.8	3.77 1.00	k	8.7			
Pol.	a	2.3	2.5	2.3	2.1 2.37 <sup>11</sup> Pl	a'	B			
	b	3.7	3.7	3.7	3.70 0.00	f'	B			
	c	4.5	4.7	4.5	4.57 1.11	j	4.3			
	d	5.2	5.4	5.2	5.27 1.11	j'	5.3			
	e	5.5	5.7	5.5	5.57 1.11	k	5.7			
	f	5.9	6.1	5.8	5.93 0.21	h	3.7			
	h	7.9	8.0	7.9	7.93 0.10	l	7.2			
	k	8.5	8.7	8.7	8.63 1.11	m	8.1			
Pl.	a	B.				n	8.7		3.0	
	f	B.				g	3.1		2.9	
	j	4.2				f	3.0		2.8	
	j'	5.4				i	3.8		3.6	
	k	5.7				Pol. a	2.3		2.1	
	h	3.7				b	3.7			
	l	7.3				c	4.5			
	m	8.2				d	5.2			





## Scale measures of Seq for M3

(Se. 15350)

June 15 1908

(Se. I 32811)

X 6844

$\frac{F}{A}$	$\frac{B}{B_v}$
a 1.3	1.6
b 3.0	3.3
c 3.1	3.4
d 3.9	4.2
d' 4.7	5.1
e 5.0	5.4
f 6.1	6.4
g 6.7	6.7
a 6.0	
b 6.1	
c 6.5	
d 6.7	
e 7.1	
f 7.5	
g 7.7	
h 8.0	
k 8.2	
l 8.5	
m 8.7	
n 8.9	
o 9.2	
p 9.7	

$\frac{K_B}{F}$	$\frac{B}{B_v}$
a	
b 2.4	2.2
c 2.5	2.3
d 3.0	2.8
d' 3.8	
e 3.9	
f 5.8	
g 6.3	
a 5.3	
b 5.5	
c 6.1	
d 6.2	
e 6.7	
f 7.2	
g 7.3	
h 7.7	
k 7.9	
l 8.1	
m 8.3	
n 8.5	
o 8.8	
p 9.5	

Seq for M3 (cont)

(Se. I 32811)

June 15, 1908

	K. 4	
a	2.2	B
b	2.2	Bk.
c	2.4	2.0
d	3.1	2.2
d'	4.0	2.9
e	4.2	
f	6.1	
g	6.5	
a	5.5	
b	5.5	
c	6.2	
d	6.5	
e	7.0	
f	7.3	
g	7.5	
h	7.7	
k	8.0	
l	8.2	
m	8.5	
n	8.9	
o	9.1	
p	9.7	



Scale measures of Seq for M3 Kuhn plates  
of 60 mm exp.

June 15 '08

K? (9 20.5 - 10 20.5)		
a	<del>1.3</del>	B
b	1.0	B
c	1.0	1.0
d	1.7	1.7
d'	2.3	2.3
e	2.3	2.3
f	<del>2.8</del> 3.2	3.2
g	<del>3.2</del>	3.8
a	<del>2.7</del> 3.3	3.1
b	<del>3.1</del> 3.3	3.3
c	3.8 <del>2.7</del> 3.2	<del>2.8</del>
d	3.8 <del>3.2</del>	
e	4.8	
f	4.2	
g	4.4	
h	4.8	
k	5.0	
l	5.3	
m	5.3	
n	5.8	
o	6.2	
p	6.9	
q	7.6	
r	8.0	
s	8.5	
t	9.0	
u	9.8	

Scale measures of Seq for M3 - Keeler plates  
of 60 m 24p

June 16 '08

K (9 23.7 - 10 23.7)

a	B	B
b	1.0	B
c	1.2	1.0
d	1.7	1.6
e	2.2	2.2
f	2.3	2.3
g	3.2	3.2
h	3.2	3.7
i	3.2	3.2
j	3.2	3.6
k	3.7	
l	3.7	
m	4.0	
n	4.3	
o	4.7	
p	5.1	
q	5.3	
r	5.6	
s	5.8	
t	6.2	
u	6.7	
v	7.3	
w	8.2	
x	8.7	
y	9.0	
z	9.5	
aa	9.8	



Scale measures of seg. for Mo. Kepler plates  
of 60 m exp

June 16, 08

K ( $\overset{h}{9} \overset{m}{23.0} - \overset{h}{10} \overset{m}{23.0}$ )

a	27
b	3.0
c	3.2
d	3.6
e	3.9
f	4.2
g	4.6
h	4.8
k	5.0
l	5.2
m	5.4
n	5.9
o	6.4
p	7.3
q	7.9
r	8.3
s	8.7
t	9.1
u	9.9

a	13
b	13
c	13
d	1.2
d'	1.7
e	1.9
f	3.0
g	3.5

K? ( $\overset{h}{9} \overset{m}{12.46} - \overset{h}{10} \overset{m}{12.46}$ )

a	4.2
b	4.4
c	5.0
d	5.0
e	5.2
f	5.5
g	5.7
h	6.0
k	6.3
l	6.7
m	6.8
n	7.2
o	7.5
p	8.2
q	8.6
r	8.8
s	9.1
t	9.7
u	9.7

a	13
b	1.7
c	1.9
d	2.2
d'	2.9
e	3.1
f	4.2
g	4.6
g	4.9

Scale measures of seg for Mo. Keeler plates  
of 60 m exp.



Measurements of Polar Seq. and Photographs  
Seq. (from Mr. Campbell's chart) for RX Androm.

Scale "C"

Oct 6 1908

I 35508			Sc I 32811			I 35508		
	$\beta$	$\gamma$	$\beta$	$\gamma$		$\beta$	$\gamma$	
a. $\beta$	3.3		1.8	1.6		a $\beta$	1.4	1.6
a	8.5		6.8	<del>2.9</del>		a	<del>6.7</del>	6.7
b. $\beta$	5.7		3.1	2.9		b $\beta$	2.8	3.0
b	7.9		6.3			b	6	6.2
c. $\beta$	6.2		<del>3.9</del>			c $\beta$		4.0
c	8.7		6.9			c		6.8
d. $\beta$	8.1		6.5			d $\beta$		6.4
d	8.0		6.3			d		6.3
e. $\beta$	8.4		6.9			e $\beta$		7.1
e	9.1		7.4			e		7.6
f. $\beta$	8.9		7.3			f. $\beta$		7.4
f	8.6		6.8			f		6.8
g. $\beta$			8.7			g. $\beta$		8.9
g			8.3			g		8.7
h. $\beta$			9.0			h. $\beta$		8.9
h			9.3			h		9.2
k. $\beta$			9.7			k. $\beta$		9.7
k			8.5			k		8.6
l			9.7			l		8.7
m			9.6			l		9.8
n			9.3			m		9.8
o			9.9			n		9.2
p			10.0			o		10.0
						p		10.2

Fixed and  
mail for a better  
plate. images  
elongated.

images  
Scale not-  
faint enough

# Measures of Polar and Photographic Seq. for RX Androm.

Se. I 32811

Oct 2 1908

Mean.	I 35556	B	I 35556	B <sub>2</sub>	B <sub>3</sub>
1.70	aP 2.0	1.8	aP 2.1	2.05	1.9 4.35
6.75	a 6.3		a 6.3	6.30	4.16
3.05	bP 3.8	3.8	bP 3.7	3.75	4.23
6.25	b 5.7		b 5.9	5.80	4.17
3.95	cP 4.6		cP 4.7	4.65	4.31
6.85	c 6.3		c 6.2	6.25	4.15
6.45	dP 6.2		dP 6.1	6.15	4.06
6.30	d 6.0		d 5.8	5.90	4.17
7.00	eP 6.5		eP 6.5	6.50	4.14
7.50	e 7.0		e 7.0	7.00	4.10
7.35	fP 7.0		fP 7.1	7.05	4.14
6.80	f 6.2		f 6.3	6.25	4.16
8.90	gP 8.5		gP 8.4	8.45	4.05
8.25	g 7.5		g 7.7	7.60	4.09
8.95	hP 8.7		hP 8.7	8.70	4.00
9.25	h 8.3		h 8.4	8.35	4.06
9.70	iP 9.2		kP 9.3	9.25	4.02
	k 7.7		k 7.6	7.65	4.08
	k <sup>2</sup> P 7.7		k <sup>2</sup> P 7.5	7.40	4.05
	l 8.9		l 8.8	8.85	4.03
	k <sup>3</sup> 7.7		k <sup>3</sup> P 7.8	7.75	4.01
	m 8.8		m 8.7	8.75	4.03
	k <sup>2</sup> P 7.7		n 8.4	8.35	4.06
	n 8.3		o 8.9	8.95	4.04
	o 9.0		p 8.9	8.90	4.04
	p 8.9				



TR X Androm. Polar and photographic sequences.

(ScI 32811)

Oct 24 1908

I 35605		
aP	<sup>F</sup> 2.3	<sup>BW</sup> 2.1
a	6.2	
bP	3.9	
b	5.7	
cP	4.8	
c	6.1	
dP	6.3	
d	5.9	
eP	6.4	
e	6.7	
fP	6.9	
f	6.3	
gP	8.3	
g	7.5	
hP	8.6	
h	8.1	
kP	9.1	
k	7.7	
k <sub>2</sub> P	9.3	
l	8.7	
k <sub>3</sub> P	9.6	
m	8.7	
n	8.4	
o	8.9	
p	8.7	

I 35605		
aP	<sup>F</sup> 2.2 <sup>BW</sup> 2.25 <sup>BW</sup> 2.0	4.15
a	6.3	6.25
bP	4.0	3.95 4.03
b	5.6	5.65
cP	4.7	4.75 4.21
c	6.0	6.05
dP	6.1	6.10 4.11
d	5.8	5.85
eP	6.5	6.45 4.19
e	6.7	6.70
fP	7.1	7.00 4.19
f	6.4	6.35
gP	8.3	8.30 4.20
g	7.6	7.55
hP	8.5	8.55 4.15
h	8.3	8.20
kP	9.1	9.10 4.17
k	7.8	7.75 3
k <sub>2</sub> P	9.3	9.30 4.15
l	8.5	8.60
k <sub>3</sub> P	9.7	9.65 4.11
m	8.7	8.70
n	8.5	8.45
o	8.8	8.85
p	8.7	8.70

<sup>h</sup> 19 30.6 — <sup>m</sup> 45 52 (approx)

(Sc I 32811)

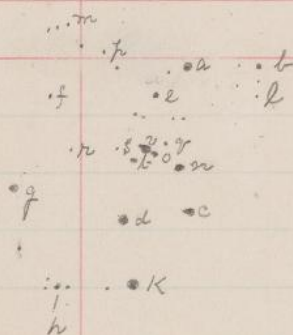
Oct 24, 1908

(Compare stars on B20568)

B20568

B20829

15	Reading from unbol 4.19	a 5.0
		b 5.5
08		c 5.7
	4.16	d 5.7
21		e 5.9
	4.18	f 6.2
11		g 6.7
	4.17	h 7.1
19		k 7.2
	4.19	l 7.7
19		m 8.0
	4.18	n 8.1
20		o 8.3
	4.18	p 8.7
15		q 8.9
	4.16	r 9.3
17		s 9.5
	4.18	t 9.9
5		v 9.3
	4.15	
1		
	4.16	
	4.17	
	4.15	
	4.16	



	a 5.5
	b 6.2
	c 6.3
	d 6.3
	e <del>6.5</del> 6.5
	f <del>7.2</del> 6.8
	g 7.5
	h 8.0
	k 8.2
	l 8.5
	m 8.7
	n 8.7
	o 9.0
	p 9.3
	q 9.5
	r 9.8
	s 10.1
	t 10.3
	v 10.0



19 30.6 - 45 52 (approx)

Oct 26 1908

B26056

a 5.2  
 b 5.7  
 c 5.9  
 d 6.1  
 e 6.3  
 f 6.7  
 g 7.4  
 h 7.7  
 k 7.8  
 l 8.3  
 m 8.5  
 n 8.7  
 o 8.9  
 p 9.3  
 q 9.5  
 r 9.9  
 s 10.2  
 t 23t  
 var. 6.4

B36195

a 5.5  
 b 6.2  
 c 6.5  
 d 6.7  
 e 6.9  
 f 7.3  
 g 8.0  
 h 8.2  
 k 8.4  
 l 8.7  
 m 8.9  
 n 9.0  
 o 9.3  
 p 9.6  
 q 9.9  
 r 9.5m  
 s 10.3s  
 t ns  
 var. f

19 30.6 - 45 52

Oct 26, 1908

B 20568

✓ 13.1

B 26147

✓ Too poor in reg. of v.

B 27514

✓ 11.2

B 36195

✓ 13.6

B 16200

✓ Too poor in reg.

B 27922

✓ 13.5

B 24416

✓ 13.8

B 14550

✓ 10.7

B 27940

✓ 13.5

B 26056

✓ 10.0

B 14095

✓ 10.6

B 20675 Iso?

✓ Too poor in r. of v.

B 30829

✓ 13.3

B 14091

✓ 10.6

B 20609

✓ Too poor

B 22158

✓ 11.1

B 25728

✓ 12.1

B 20329

✓ 12.1

B 27640

✓ 11.9

B 25399

✓ 11.3 near edge

B 21478

✓ 11.3 Porc plate

B 23067

✓ 10.5

B 31809

✓ 11.7 near edge

B 30017

✓ 10.7

B 16901

13.2

B 31529

✓ 11.5

B 34256

✓ 10.1

B 16109

✓ Too poor in  
reg. of v.

B 27449

✓ 11.3

B 36438

✓ 12.1



19 30.6 - 45 52

Oct 27, 1908

B16297

✓ 12.2

B17692

✓ 11.0

B17968

✓ 10.0

B22037

✓ Tow near Edge

B22041

✓ 10.0

B22074

✓ 10.3

B36705

✓ 9.3

B37295

✓ 13.2

B37296

✓ 13.5

B37546

✓ 12.8

B29580

✓ Tow poor in v.

B31738

✓ 12.5

B35855

✓ 12.8

B10460

✓ 10.8

B39219

✓ 12.2

B12510

✓ 10.6

B12923

✓ 12.0 Poor Pl.

B12885

✓ Tow poor in v.

B16584

✓ 13.2

B9925

✓ 12.8

B9698

✓ 12.8

B8717

✓ 12.8

B11070

✓ 9.7

B7842

✓ 9.6

B29659

✓ Tow poor in v.

B12176

✓ 13.2

B10645

✓ Tow poor

B13667

✓ 12.7?

B11643

✓ 12.9

B9218

13.5

$$19^{\text{h}} 30.6^{\text{m}} - 45^{\circ} 52'$$

Oct 27, 1908

B7843

✓ 9.6

B19092

✓ Too poor

B19335

✓ 9.5

B33952

✓ 9.3

B19488

✓ 9.2

B19583

✓ 9.2

B33590

10.8

✓

B18057

✓ 10.0

B22518

✓ 11.2

B6682

✓ Too poor in r.

B13894

✓ 11.4

B37069

✓ 10.7

B6595

✓ Too poor

B13221

✓ 13.5

B13939

✓ 11.3

B6166

✓ Too poor

B19780

✓ 9.3

B30299

✓ 9.2

B5246

✓ 13.2

B11967

✓ 13.2

B16292

✓ 11.3

B32520

✓ 11.7

B11700

✓ Too poor in r.

B30367

✓ 9.6

B32162

✓ 13.2

B11645

✓ 13.2

B15895

✓ Too poor

B23110

✓ 10.3

B21413

✓ 11.9

B28172

✓ 13.5



<sup>L m</sup>  
19 30.6 - 45 52

Oct 27, 1908

B29456

✓ 13.2

B36065

✓ 13.2

B21340

✓ Too poor in m.

✓ B21409

Too near edge

B37907

✓ 9.5

B15454

✓ Too poor.

B15590

✓ 10.2

B36090

✓ 12.8

B31690

✓ Too poor in m.

B33545

✓ 10.9

B14402

✓ 10.1

B14503

✓ 10.8

B28629

✓ Too poor in m. of v.

B34288

✓ 10.2

B30515

✓ 10.3

B15561

✓ Too poor in m.

B17728

✓ 10.0

B32357

✓ 13.7

B29878

✓ 12.2 snatch over v.

B17372

✓ Too poor in m. of v.

B23854

✓ 13.6

B37118

✓ 11.3

B17082

✓ Too poor in m.

B18790

✓ Too poor in m.

B17838

✓ 9.8

B17510

✓ 12.0

B27522

✓ 11.3

B25669

✓ 12.8

B17242

✓ 13.2

B37043

✓ 10.2

19 30.6 - 45 52

Oct 27, 1908

B14857

✓ Too poor in tv.

B21523

✓ Too poor

B28181

✓ 14.0

B9217

✓ 13.5

B29484

✓ 13.5

B33959

✓ 9.4

B6172

✓ Too poor.

B37647

✓ 11.2

B23856

✓ 13.5

B33448

✓ Too near edge

B33498

✓ 11.6

B25759

✓ 10.7

B21721

✓ Too near edge

B30003

✓ 10.7

B25277

✓ Too poor in tv.

B21247

✓ Too poor in tv.

B32128

13.8

B25276

✓ 13.5

B15747

✓ Too poor.

B30084

✓ 10.7

B6154

✓ Too poor. in tv

B22559

✓ 11.3

B30322

✓ 9.3

B6153

✓ Too poor in tv.

B21578

✓ Too poor in tv

B30311

✓ 9.5

B23540

✓ 12.3 ?

B19516

✓ 9.2

B28311

13.8

B23081

✓ 12.3



19 30.6 - 45 52

Oct 27, 1908

B 5923

✓ Too poor in h.

B 9654

✓ 12.8

B 19600

Bro. missing

✓ B 3580

Too poor in h.

B 6685

✓ Too poor in h.

B 3814 Por Pl.

✓ 12.0

B 25306

✓ 13.5

B 3745

✓ 13.0

B 5941

Broken - missing

B 3731

Too near edge ✓ 12.8?

B 36216

Broken missing

B 4352

✓ Too poor

B 6684

✓ Too poor.

B 30365

✓ 9.3

B 19346

✓ 9.4

B 13632

✓ 12.7

B 7445

✓ 12.3

B 12174

✓ 12.2 Near Edge

B 7422

✓ Too poor in h.

B 9653

✓ Too poor in h.

B 13545

✓ 12.6

Examination of plates to find  
variation if any - in +50 1590. Suspected.  
while examining Map of Sky.

Nov 3 1908

I 22035 10.3	I 5661 10.6	ac 5667 10.0
I 17344 11.0	I 8355 10.5	ac 4830 10.0
I 24794 10.2	I 10766 10.5	ac 5440 10.1
I 24413 10.2	I 777 10.7	ac 3632 10.7
I 26714 10.2	I 14875 10.9	ac 3714 10.2
I 34433 11.0	I 14857 10.7	ac 3653 10.2
I 26223 10.4	I 22438 10.5	ac 4163 10.1
I 28509 10.3	I 22048 10.7	ac 4122 10.7
I 19495 10.2	I 19749 10.5	ac 4430 10.3
I 8332 10.7	I 10568 10.7	ac 4400 10.7



+ 50 1590 (cont)

Nov 3, 1908

ac 4647

10.5

ac 4722

10.7

ac 3625

11.0

ac 4576

10.7

ac 4708

10.5

ac 5808

10.8

ac 6381

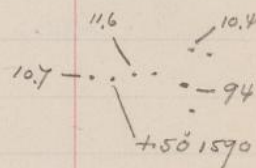
10.7

ac 5727

10.7

ac 7502

10.4 10.1



ac 5628

10.0

ac 7480

10.1

ac 5575

10.7

ac 7407

10.6

An examination of above plates, also of preceding page for +50 1590 shows a variation of a magnitude in AC plate

ac 5501

10.9

ac 4792

10.9

ac 5390

10.1

ac 6276

10.0

ac 5372

10.3

ac 3246

11.2

ac 4780

10.2

ac 5471

10.9

Estimates of brightness of RX Androm.  
 $h \quad m \quad s$   
 0 56 27 + 40 31.5 (1855)

Nov 6 1908

AC 3136 v

v 11.5

AC 4210 v

v 11.1

AC 673 v

Too poor

AC 2741 v

v 11.1

AC 4228 v

v 11.0

AC 698 v

v 11.7

AC 2942 v

v 12.1

AC 4259 v

v 12.0 ?

AC 1956 v

v 11.6

AC 2929 v

v 12.0

AC 2711 v

v 11.2

AC 1977 v

v 10.2

AC 2876 v

v 12.1

AC 4596 v

v 11.5

AC 2045 v

v 11.7

AC 2936 v

~~+12.4~~

v 12.3

AC 134 v

v 11.5 ?

AC 8809 v

v 11.5

AC 3079 v

v 11.7

AC 157 v

v 10.9

AC 8878 v

v 11.8

AC 3239 v

v 11.8

AC 505 v

v 11.0

AC 8893 v

Too poor

AC 3310 v

v 11.0

AC 511 v

v 11.2

AC 8994 v

v 12.3

AC 4144 v

v 11.0

AC 638 v

v 11.3

AC 6753 v

v 10.7



R X Androm.

Nov 6, 1908

AC 6857 ✓  
✓ 11.6AC 7060 ✓  
✓ 11.7AC 8255 ✓  
✓ 11.2AC 9036 ✓  
✓ 11.5AC 7176 ✓  
✓ 10.7AC 8625 ✓  
✓ 11.0~~AC 9122 ✓ Too poor~~  
~~✓ 11.7~~AC 7335 ✓  
✓ 11.1AC 8701 ✓  
✓ 11.2AC 9123 ✓  
✓ 11.7~~AC 7771~~  
~~✓ Too poor~~AC 5226 ✓  
✓ 10.9AC 9129 ✓  
✓ 11.7AC 8000 ✓  
✓ 11.8AC 5313 ✓  
✓ 11.7AC 9242 ✓  
✓ 11.7AC 8030 ✓  
✓ 12.0AC 5436 ✓  
✓ Too poorAC 6845 ✓  
✓ 11.7AC 8022 ✓  
12.5AC 5455 ✓  
✓ 12.4AC 6952 ✓  
✓ 10.9AC 8056 ✓  
✓ 12.7AC 5487 ✓  
✓ Too poorAC 7006 ✓  
✓ 10.8AC 8118 ✓  
✓ 11.7AC 5547 ✓  
✓ 12.0AC 7007 ✓  
✓ 11.0AC 8669 ✓  
~~Too poor~~  
✓ 11.2AC 5624 ✓  
✓ 11.8

R X Androm.

Nov 9, 1908

AC 5655 ✓

✓ 11.7

AC 3102 ✓

✓ 10.5

AC 1968 ✓

✓ 11.5

AC 5713 ✓

✓ 11.8

AC 3109 ✓

✓ 10.6

AC 2009 ✓

✓ 11.3

AC 5787 ✓

✓ 11.8

AC 3191 ✓

✓ 11.7

AC 2039 ✓

✓ 11.7

AC 5831 ✓

✓ Too poor

AC 3216 ✓

✓ 11.7

AC 7909 ✓

✓ 11.0

AC 6527 ✓

✓ 11.8

AC 3297 ✓

✓ 11.6

AC 8043 ✓

✓ 11.7?

AC 6621 ✓

✓ 11.0

AC 4179 ✓

✓ 10.9

AC 8940 ✓

✓ 11.8

AC 6682 ✓

11.0

AC 631 ✓

✓ 10.8

AC 6574 ✓

✓ Too poor

AC 6730 ✓

✓ 11.0

AC 1130 ✓

✓ 11.0

AC 6646 ✓

✓ Too poor

AC 2152 ✓

✓ 11.7

AC 1776 ✓

✓ 11.8

AC 6649 ✓

✓ Too poor

AC 2242 ✓

✓ 11.7

AC 1825 ✓

✓ 11.6

AC 6841 ✓

✓ Too poor



R X Andromeda.

Nov 9, 1908

AC 6867 ✓  
✓ 10.9AC 5774 ✓  
✓ 12.4?AC 6908 ✓  
✓ 10.3AC 9692 ✓  
✓ 11.5AC 6932 ✓  
✓ 10.8AC 9660 ✓  
✓ 11.7AC 7021 ✓  
✓ 10.9AC 5  
9760 ✓  
11.7AC 7035 ✓  
✓ Too poor.~~AC 6682~~  
~~11.7~~AC 7052 ✓  
✓ 11.0AC 7771 ✓  
✓ 11.7AC 4366 ✓  
✓ 11.1AC 4540 ✓  
✓ 11.5AC 5034 ✓  
✓ 11.1AC 5712 ✓  
✓ 11.0

Remasures of plates in Ledger 3-  
O<sup>n</sup> 18.4-62 14

Jan 14, 09  
Jan 14, 09

B4373

Too poor.

B6923

Too poor in reg of v.

B7085

K 3 v

v o l

B17629

K 3 v

v 2 l

Ledger 5-

B20650

~~d 3 v~~

~~v 4 v~~

d 4 v

v 3 e

B20655 - missing

d 3 v

v 2 e

B20656

d 5 v

v 3 e

~~a m 112~~

~~p 1 v~~

~~v 2 f~~

B28750

o 1 v 12.14 12.09 12.12

v 3 f

a m 889

g 1 v 10.49 10.57-10.53

v 1 l



Ledger 5 (cont.)  
Jan 15, '09

J

A6989

f on edge of plate

~~f 3 v?~~

v 3 g

f 1 v

v 3 g

A6991

f on edge of film

~~f 4 v?~~

v 2 g

f 3 v

v 1 g

A6992

f on edge of film

~~f 5 v?~~

v 1 g

f 3 v

v 1 g

A6990

f on edge of pl.

~~f 5 v?~~

v 1 g

f 1 v

v 2 g

AM 2810

Too poor.

AM 112

f 1 v.

AM 100

Too poor.

Jan. 19, 1909

Ledger 6 - Remasures.

Previous  
plates remeas-  
ured by W.P.F.

18189

Pl. too poor in reg of v.

Ab 4642

d3v

v1e

Ab 6219

Pl. too poor in reg. of v.

Ab 6488

b3v

v2c

Ab 6664

b1v

v3c

Ab 6904

d3v

v2e

Ab 7083

f2v

v1g



Jan 27 1909

(Comp. stars on I 16336)

Ledger 14: (Remeasures.) R. Horologii

B 8735

v 4 c

t off plate.

B 20918

m 3

v 70.5

B 23675

v 0 c

Not comparable with b

B 23735

v 1 c

Cannot compare v. with f

A m 32

c 2 v

Not comparable with "d"?

A m 51

c 2 v

not comp. with "d"?

A m 160

e 3 v

not comp. with "f"

Jan 27, 1909

## Remains R Horologii (cont.)

Am 627

v, f

not comp. with a

B 33025

c 6 v

v 16

Am 664 Iso.

v 4 c

Am 2450

d 0 v

v 0 v  
a brighter than "d"

B 29028

25 v

v 2 f

Am 3869

k 1 v

v 3 l

B 30409

k 1 v

l no.

Am 2463

d 3 v

v not comp. with "f"

B 30430

h 7 v

v 2 k

Am 2871

l 1 n

B 30443

h 5 v

v 2 k

Am 1481

h 6 v

v 1 k?

Am 1481

h 6 v

v 2 k



T' Plates.

Faint Stars  
Aug 16, '99  
H. L.

I 33651

g 8.2 8.3 8.25

h 8.5 8.5 8.50

K 9.0 9.0 9.00

K<sub>2</sub> 9.2 9.2 9.20K<sub>3</sub> 9.5 9.6 9.55~~7.3 7.4 7.35~~ a ~~8.2 8.3~~ 8.35 8.25~~8.0 8.1 8.05~~ b 8.9 9.0 8.95 8.95~~7.7 7.9 7.90~~ c ~~9.7 9.7~~ 8.90 9.20~~8.3 8.4 8.35~~ d 9.3 9.4 9.35 9.35~~8.5 8.4 8.45~~ e 9.5 9.5 9.50 9.50

g 8.3

h 8.5

K 9.0

K<sub>2</sub> 9.2K<sub>3</sub> 9.6

a 8.3

b 9.0

c 9.2

d 9.4

e 9.5

Measures of seq for var.  
18 20.3 + 24.9 (approx. 1855) E. b. P.

Scale I 32811

January 28, 1909

32145  
~~I 11133~~

a 4.1  
b 4.3  
c 4.7  
d 5.0  
e 5.2  
f 5.9  
g 6.2  
h 6.9  
k 7.3  
l 7.7  
m 8.2  
n 8.7  
o 8.9  
var. 7.0

~~I 11133~~

a 4.8  
b 5.2  
c 5.5  
d 5.7  
e 6.0  
f 6.8  
g 7.4  
h 8.1  
k 8.3  
l 8.6  
m 9.0  
n 9.4  
o 9.7



Measures of seq: for var. 18<sup>h</sup> 20.3<sup>m</sup> + 24.9<sup>s</sup> [Cont]

Jan 28, 1909

I 32145

a 4.0

b 4.3

c 4.8

d 5.0

e 5.3

f 5.9

g 6.2

h 6.9

k 7.3

l 7.9

m 8.3

n 8.7

o 9.0

p 7.2

I 11133

a 4.9

b 5.3

c 5.5

d 5.7

e 5.9

f 6.7

g 7.2

h 7.9

k 8.2

l 8.5

m 8.9

n 9.2

o 9.6

Measures of fl. stars in Polar Seg - g, h, k, k<sub>2</sub>, k<sub>3</sub>  
also a, b, c, d + e

May 17, 1909

I 29578

g Star superposed orig?

h 8.7 8.6 8.65

k 9.4 9.3 9.35

k<sub>2</sub> 9.6 9.5 9.55

k<sub>3</sub> 9.9 9.9 9.90

Left image. a 7.4 7.5 7.45 4.20

b 7.3 7.3 7.30 4.25

c 8.5 8.6 8.55 4.00

d 9.3 9.3 9.30 3.89

e 9.5 9.5 9.50 3.87

g Star superposed -

h 8.6

k 9.3

k<sub>2</sub> 9.5

k<sub>3</sub> 9.9

a 7.5

b 7.3

c 8.6

d 9.3

e 9.5

I 35052

g 8.4 8.3 8.35

h 8.7 8.7 8.70

k 9.2 9.2 9.20

k<sub>2</sub> 9.4 9.4 9.40

k<sub>3</sub> 9.8 9.9 9.85

a 7.3 7.3 7.30 4.00

b 7.2 7.3 7.25 4.00

c 8.7 8.5 8.60 3.99

d 9.3 9.3 9.30 3.97

e 9.5 9.5 9.50 3.97

g 8.3

h 8.7

k 9.2

k<sub>2</sub> 9.4

k<sub>3</sub> 9.9

a 7.3

b 7.3

c 8.5

d 9.3

e 9.5



T' Plates.

h  
3-15

Aug. 18, 1909

T 35045

Pol. a 5.0 5.1 5.1 5.07  
 b 6.3 6.3 6.3 6.30  
 c 7.2 7.2 7.1 7.17  
 d 8.1 7.9 7.9 7.97  
 e 8.3 8.2 8.2 8.23  
 f 8.7 8.7 8.9 8.77

g 9.5

M.P.

h 9.8 9.9 9.9 9.87  
 k 10.2 10.3 10.2 10.23  
 1 6.7 6.4 6.7 6.60v

2 7.3 7.2 7.3 7.27v

3 7.2 7.3 7.2 7.23v

4 6.9 6.8 6.8 6.83v

5 7.3 7.3 7.3 7.30v

6 7.4 7.2 7.3 7.30v

7 8.3 8.3 8.1 8.23v

8 8.5 8.7 8.5 8.57v

9 8.2 8.1 7.9 8.07v

10 9.3 9.1 9.1 9.17

A 9.2 9.3 9.3 9.27

B 9.9 10.0 9.9 9.93

C 9.4 9.3 9.4 9.37

D 9.8 9.8 9.9 9.83

E 9.9 10.0 10.1 10.00

Staw. 16 8.5 8.7 8.7 8.63

20 8.7 8.7 8.2 8.67

22 8.9 8.9 9.0 8.93

21 8.9 9.0 8.9 8.93

25 8.3 8.1 8.3 8.23

24 9.2 9.0 8.9 9.03

4 9.5 9.5 9.3 9.43

5 8.2 8.1 8.1 8.13

1 7.9 7.9 7.9 7.90

2 8.7 8.9 8.7 8.77

6 9.7 9.7 9.6 9.67

10 9.8 9.9 9.9 9.87

Pol

a 5.1

b 6.3

c 7.2

d 7.9

e 8.2

f 8.7

g 9.5

h 9.8

k 10.3

M.P.

1 6.4

2 7.4

3 7.3

4 6.8

5 7.3

6 7.2

7 8.3

8 8.7

9 8.1

10 9.1

A 9.3

B 10.0

C 9.3

St

D 9.8

E 10.9

16 8.7

20 8.7

22 8.9

21 9.0

25 8.1

24 9.0

4 9.5

5 8.1

1 7.9

2 8.9

6 9.7

10 9.1

Pol.

a 5.1

b 6.3

c 7.1

d 7.9

e 8.2

f 8.9

h 9.8

k 10.2

1 6.7

2 7.3

3 7.2

4 6.8

5 7.3

6 7.3

mp

3 - 15

Aug 25 1909

Sc 32811

Faint stars

I 35045

I 35045

y 8.1

8 8.5

9 7.9

10 9.1

a 9.3

B 9.9

c 9.4

d 9.9

E 10.1

sl- 16 8.7

20 8.2

22 9.0

21 8.9

25 8.3

24 8.9

4 9.3

5 8.1

1 7.9

2 8.7

6 9.6

10 9.1

Sc 32811

Faint stars

I 35045

g 8.4 8.5 8.45 01

h 8.8 8.9 8.85 01

k 9.3 9.2 9.25 10

k2 9.5 9.3 9.40 11

k3 10.0 9.9 9.95 01

a 8.1 8.2 8.15 10 392

b 8.9 8.8 8.85 10 390

c 8.3 8.2 8.25 10 391

d 8.9 8.8 8.85 10 390

E 9.0 8.9 8.95 01 389

g 8.5

h 8.9

k 9.2

k2 9.3

k3 9.9

a 8.2

b 8.8

c 8.2

d 8.8

E 8.9

Sc 32811

Faint stars

I 30957

g 8.3 8.3 8.30 00

h 8.7 8.6 8.65 10

k 9.1 9.0 9.05 10

k2 9.2 9.2 9.20 00

k3 9.7 9.5 9.60 11

a 7.9 8.0 7.95 10 403

b 8.5 8.5 8.50 00 409

c 8.1 8.2 8.15 10 405

d 8.3 8.4 8.35 10 407

e 8.5 8.7 8.60 11 410

g 8.3

h 8.6

k 9.0

k2 9.2

k3 9.5

a 8.0

b 8.5

c 8.2

d 8.4

e 8.7



T<sup>1</sup> Plates.

21 + 15

Faint Stars (Polar)

Aug 16, 09

I 28989

g 8.4 8.4 8.40

h 8.7 8.7 8.70

k 9.1 9.2 9.15

k<sub>2</sub> 9.3 9.3 9.30k<sub>3</sub> 9.7 9.8 9.75 0.5

a 8.7 8.7 8.70 7.95 4.08

b 8.8 8.5 8.65 8.25 4.07

c 9.1 9.2 9.15 8.70 4.07

d 9.9 9.7 9.60 8.95 4.06

e 9.6 9.7 9.65 9.25 4.05

g 8.4

h 8.7

k 9.2

k<sub>2</sub> 9.3k<sub>3</sub> 9.8

a 8.7 8.0

b 8.6 8.3

c 9.2 8.7

d 9.7 9.0

e 9.7 9.3

I 35296

g 8.7 8.7 8.70

h 9.0 9.0 9.00

k 9.5 9.4 9.45

k<sub>2</sub> 9.5 9.5 9.50k<sub>3</sub> 9.8 9.9 9.85 0.5

a 8.7 8.3 9.25 8.25

b 9.3 8.5 9.30 8.50

c 9.7 8.9 9.70 8.90

d 10.0 9.7 9.95 9.20

e 10.1 9.5 10.10 9.45

g 8.7

h 9.0

k 9.4

k<sub>2</sub> 9.5k<sub>3</sub> 9.9 8.3

a 9.3 8.8

b 9.3 8.5

c 9.7 8.9

d 10.1 9.2

e 10.1 9.5

In all cases where the number is underlined 205  
 the variable is fainter - not brighter - than the  
 comparison star "e".

Measure of  $\alpha$  Hercules  $+33^{\circ}2864$  - comparing it  
 with  $\epsilon$  Hercules  $+37^{\circ}2864$

April 9, 1909

↓ AC 10265

$w \underline{3} e$

AC 8334

$w$  off Pl.

AC 6461

↓  $w o e$  On edge of Pl.

↓ AC 8380

$w \underline{2} e$  On edge

↓ AC 8326

$w \underline{7} e$  " " near edge of film

↓ AC 8268

$w \underline{4} e$  " " " " " "

↓ AC 8587

$w \underline{2} e$  " " " " " "

↓ AC 9413

$w \underline{1} e$

↓ AC 7251

$w \underline{3} e$

↓ AC 7410

$w \underline{3} e$

↓ AC 7504

$w \underline{3} e$

↓ AC 4942

$w \underline{2} e$

↓ AC 4736

$w \underline{5} e$

↓ AC 3570

$w \underline{2} e$

↓ AC 1287

$w \underline{1} e$

↓ AC 1311

$w \underline{2} e$

↓ AC 1324

$w \underline{3} e$

↓ AC 1441

$w \underline{5} e$

↓ AC 1505

$w \underline{3} e$

↓ AC 1581

$w \underline{3} e$



Measures of  $\eta$  Herculis (cont)

Apr 9, 1909.

↓ AC 1656 m <u>8</u> e	↓ AC 913 m <u>0</u> e	↓ AC 881 m <u>3</u> e
↓ AC 1670 m <u>5</u> e	↓ AC 1213 m <u>2</u> e	↓ AC 827 m <u>4</u> e
↓ AC 1706 m <u>3</u> e	↓ AC 279 Iso m <u>5</u> e	↓ AC 928 m <u>2</u> e
↓ AC 1759 m <u>1</u> e	↓ AC 390 m <u>1</u> e	↓ AC 970 m <u>3</u> e
↓ AC 1813 m <u>3</u> e	↓ AC 473 m <u>2</u> e Images <u>poor</u>	↓ AC 1405 m <u>3</u> e
↓ AC 1829 m <u>0</u> e	↓ AC 701 m <u>0</u> e	↓ AC 1435 m <u>4</u> e
↓ AC 1916 m <u>1</u> e	↓ AC 743 Iso m <u>4</u> e	↓ AC 1482 Iso m <u>3</u> e
↓ AC 2314 Too near edge	↓ AC 773 m <u>3</u> e	↓ AC 1559 m <u>4</u> e
↓ AC 51 m <u>1</u> e	↓ AC 806 m <u>3</u> e	↓ AC 1623 m <u>2</u> e
↓ AC 252 m <u>3</u> e	↓ AC 826 m <u>3</u> e	↓ AC 1637 m <u>2</u> e

Measures of  $\alpha$  Herculis cont

Apr 9, 1909

↓ AC 1687  
u3e↓ AC 2617  
u4e↓ AC 8697  
u2e↓ AC 1712  
u5e↓ AC 2647  
u3e↓ AC 8742  
u4e↓ AC 1766  
u3e↓ AC 2663  
u3e↓ AC 8928  
u5e↓ AC 1796  
u2e↓ AC 2716  
u3e↓ AC 8946  
u5e↓ AC 1841  
u5e↓ AC 2724  
u4e↓ AC 8972  
u5e↓ AC 1848  
u3e↓ AC 2755  
u2e↓ AC 9471  
u4e↓ AC 2425  
u1e↓ AC 2790  
u5e↓ AC 9432  
u3e↓ AC 2460  
u2e↓ AC 2843  
u4e↓ AC 9524  
u3e↓ AC 2532  
u3e↓ AC 2846  
u5e↓ AC 9602  
u3e↓ AC 2590  
u3e↓ AC 2856  
u4e↓ AC 9645  
u4e



Measures of  $\alpha$  Herculis (cont.)Apr. 12, 1909✓ AC 9674  
m4e✓ AC 3197  
m6e✓ AC 3800  
m5e✓ AC 9763  
m5e✓ AC 3344  
m5e✓ AC 3837  
m4e✓ AC 9777  
m4e✓ AC 3468  
m6e✓ AC 3856  
m2e✓ AC 9802  
m4e✓ AC 3502  
m5e✓ AC 3950  
m1e✓ AC 9825  
m2e✓ AC 3511  
m4e✓ AC 3958  
m2e✓ AC 9977  
m3e✓ AC 3592  
m3e✓ AC 3965  
m3e✓ AC 10187  
m2e✓ AC 3617  
m4e✓ AC 4027  
m4e✓ AC 10315  
m4ex  
✓ AC 3652  
m3e✓ AC 4074  
m3e✓ AC 2879  
m2e✓ AC 3711  
m1e?✓ AC 4725  
m4e✓ AC 2925  
m2e✓ AC 3778  
m3e✓ AC 4745  
m4e

Measure of  $\mu$  Hercules (cont)

Apr. 12, 1909

✓ AC 4791  
u3e✓ AC 5189  
u4e✓ AC 6108  
u3e✓ AC 4834  
u4e✓ AC 5252  
u3e✓ AC 6138  
u2e✓ AC 4850  
u2e✓ AC 5292  
u5e✓ AC 6198  
u4e✓ AC 4853  
u3e✓ AC 5333  
u3e✓ AC 6259  
u3e✓ AC 4886  
u6e✓ AC 5393  
u4e✓ AC 6279  
u4e✓ AC 5013  
u4e✓ AC 5461  
u3e✓ AC 6357  
u4e✓ AC 5054  
u3e✓ AC 5913  
u3e✓ AC 6505  
u3e✓ AC 5076  
u4e✓ AC 5942  
u2e✓ AC 6522  
u3e✓ AC 5124  
u4e✓ AC 5987  
u2e✓ AC 6566  
u4e✓ AC 5129  
u3e✓ AC 6059  
u2e✓ AC 6656  
u4e



Measures of  $\mu$  Hercules (cont)

Apr. 12, 1909

✓ AC 6666 m 5 e	✓ AC 7568 m 3 e	✓ AC 8369 m 3 e
✓ AC 6877 m 3 e	✓ AC 7604 m 5 e	✓ AC 8423 m 3 e
✓ AC 6913 m 4 e	✓ AC 7660 m 4 e	✓ AC 8431 m 2 e
✓ AC 6988 m 4 e	✓ AC 7688 m 4 e	✓ AC 8506 m 3 e
✓ AC 7034 m 5 e	✓ AC 7703 m 3 e	✓ AC 8529 m 4 e
✓ AC 7043 m 4 e	✓ AC 7793 m 4 e	✓ AC 8522 m 1 e
✓ AC 7071 m 4 e	✓ AC 7832 m 4 e	✓ AC 8580 m 3 e
✓ AC 7401 m 3 e	✓ AC 7841 m 5 e	✓ AC 8600 m 3 e
✓ AC 7469 m 3 e	✓ AC 7980 m 3 e	✓ AC 8626 m 3 e
✓ AC 7540 m 3 e	✓ AC 8034 m 3 e	✓ AT 5260 m 3 e

Measures of  $\alpha$  Herculis (cont)April 1909

↓ AI 5256  
52 w 1 e

✓ AI 1332  
w 3 e

✓ AI 6911  
w 3 e

✓ AI 1496  
w 1 e

✓ AI 1494  
w 2 e

✓ AI 1472  
w 2 e

↓ AI 1488  
w 1 e

↓ AI 1484  
w 2 e

✓ AI 1465  
w 1 e

↓ AI 1458  
w 4 e

↓ AI 1454  
w 8 e

↓ AI 1453  
w 7 e

↓ AI 1445  
w 5 e

↓ AI 1437  
w 4 e

↓ AI 430  
w 2 e

✓ AI 411  
w 0 e

↓ AI 978  
w 2 e

✓ AI 971  
w 2 e

✓ AI 965  
w 3 e

✓ AI 956  
w 2 e

✓ AI 949  
w 4 e

✓ AI 939  
w 2 e

✓ AI 927  
w 3 e

✓ AI 918  
w 3 e

↓ AI 6685  
w 2 e

↓ AI 6670  
w 4 e

↓ AI 6650  
w 1 e

↓ AI 6648  
w <sup>2</sup> e

↓ AI 6627  
w 2 e

✓ AI 7373  
w 2 e?



Measurements of  $\alpha$  Herculis (cont)

Apr. 14, 1909

✓ $\alpha$ I 7349 n n.s Pl. defective?	✓ $\alpha$ I 7663 n o e	✓ $\alpha$ I 6792 a <u>2</u> e
✓ $\alpha$ I 7338 n <u>5</u> e	✓ $\alpha$ I 7659 n i e?	✓ $\alpha$ I 6767 n i e
✓ $\alpha$ I 996 n 4 e	✓ $\alpha$ I 7647 n <u>2</u> e	✓ $\alpha$ I 6761 n <u>2</u> e
✓ $\alpha$ I 992 n 3 e	✓ $\alpha$ I 7636 n <u>3</u> e	✓ $\alpha$ I 6749 n <u>2</u> e
✓ $\alpha$ I 6520 n <u>3</u> e	✓ $\alpha$ I 7601 n <u>3</u> e	✓ $\alpha$ I 6737 n <u>3</u> e
$\alpha$ I 6530 n <u>3</u> e Imaged from	✓ $\alpha$ I 7267 n <u>4</u> e	✓ $\alpha$ I 6994 n <u>5</u> e
✓ $\alpha$ I 6562 n <u>2</u> e New edge	✓ $\alpha$ I 7247 n <u>3</u> e	✓ $\alpha$ I 6985 n <u>3</u> e
✓ $\alpha$ I 6598 n <u>3</u> e " "	✓ $\alpha$ I 7220 n <u>2</u> e	✓ $\alpha$ I 6976 n <u>3</u> e
✓ $\alpha$ I 7683 n <u>5</u> e " "	✓ $\alpha$ I 7209 n <u>3</u> e	✓ $\alpha$ I 6972 n <u>3</u> e
✓ $\alpha$ I 7662 n i e	✓ $\alpha$ I 6798 n <u>3</u> e	✓ $\alpha$ I 6967 n <u>3</u> e

Measures of  $\alpha$  Herculis (cont)

Apr 5 1909

J AI 6956

w1 e✓ AI <sup>275</sup>219w0 e

J AI 1316

w1 e

J AI 6947

w3 e

✓ AI 274

w1 e

J AI 1312

w2 e

J AI 6933

w4 e

J AI 267

w1 e

J AI 1301

w3 e

J AI 6926

w2 e? *Knaridge*

✓ AI 263

w1 e

✓ AI 892

w1 e

J AI 6927

w1 e

J AI 253

w2 e

J AI 6907

w1 e

✓ AI 997

w3 e

J AI 249

w4 e

J AI 6890

w1 e

✓ AI 297

w3 e

J AI 236

w2 e

J AI 6882

w3 e✓ AI 296 *Isos*  
*Poor Poor.*

✓ AI 232

w1 e

J AI 6880

w1 e

J AI 292

w1 e

J AI 1320

w3 e

J AI 6874

w3 e

✓ AI 281

w1 e *Poor Pl.*

J AI 1321

w4 e

J AI 6871

w3 e



Measures of  $\alpha$  Herculis (cont)

Apr. 15, 1909

↓ AI 6851 w <u>1</u> e	↓ AI 145 w <u>3</u> e	✓ AI 146 w o e
✓ AI 225 w 1 e	↓ AI 170 w <u>1</u> e	✓ AI 177 Too poor
✓ AI 224 Too poor.	↓ AI 183 w <u>1</u> e	✓ AI 184 Too poor
✓ AI 221 w 1 e	↓ AI 186 w <u>6</u> e	↓ AI 188 w <u>1</u> e
↓ AI 84 w <u>4</u> e	↓ AI 191 w <u>3</u> e	✓ AI 6828 w o e
↓ AI 102 w <u>2</u> e	↓ AI 6846 w <u>3</u> e	↓ AI 6806 w <u>2</u> e
✓ AI 112 w 1 e	↓ AI 6815 w <u>3</u> e	↓ AI 1435 <del>Too poor</del> w <u>10</u> e
↓ AI 128 w <u>1</u> e	↓ AI 6762 w <u>1</u> e	↓ AI 1422 w <u>3</u> e
✓ AI 133 w 1 e	↓ AI 1429 w o e	↓ AI 1421 <del>Too poor</del> w <u>8</u> e
✓ AI 138 w <u>2</u> e	↓ AI 1416 w <u>1</u> e Poor plate	↓ AI 1415 w <u>3</u> e

Measures of  $\eta$  Herculis (cont)

Apr 15, 1909

↓ AI 1408

 $w_2 e$ 

↓ AI 5278

 $w_2 e$ 

↓ AI 5261

 $w_4 e$ 

✓ AI 5299

 $w_1 e$ 

↓ AI 5243

 $w_2 e$ 

✓ AI 5206

 $w_0 e$ 

✓ AI 5291

 $w_0 e$ 

↓ AI 5424

 $w_2 e$  near edge

↓ AI 5426

 $w_3 e$ 

↓ AI 5215

 $w_1 e$ 

↓ AI 5433

 $w_4 e$ 

↓ AI 5446

 $w_3 e$ 

↓ AI 5454

 $w_3 e$ 

↓ AI 7510

 $w_0 e$ 

✓ AI 7519

 $w_0 e$ 

↓ AI 5497

Image in pos. of v. very ft.  
Other images fade out - do  
not think image to meas.

↓ AI 7373

 $w_5 e$  Towards edge.

↓ AI 7187

 $w_3 e$ 

↓ AI 7596

 $w_1 e$ 

↓ AI 7181

 $w_2 e$ 

↓ AI 7161

 $w_3 e$ 

↓ AI 7572

 $w_1 e$ 

↓ AI 7143

 $w_2 e$ 

↓ AI 7142

 $w_3 e$ 

↓ AI 7557

 $w_3 e$ 

↓ AI 7069

 $w_5 e$  near edge

↓ AI 7132

 $w_4 e$ 

✓ AI 7549

↓ AI 7110

 $w_4 e$ 

↓ AI 7099 near edge

 $w_8 e$



Measures of  $\eta$  Herculis (cont)

Apr. 15, 1909

↓ AI 7091 u <u>3</u> e	↓ AI 1215 u <u>2</u> e near edge	✓ AI 2588 u 1 e
↓ AI 7078 u <u>4</u> e near edge	↓ AI 1208 u <u>3</u> e near edge	✓ AI 25 <sup>78</sup> <del>76</del> u 1 e
↓ AI 7062 u <u>3</u> e	✓ AI 1205 u o e	✓ AI 2566 u o e
↓ AI 7058 u <u>3</u> e	✓ AI 877 u 1 e near edge	↓ AI 2543 u 1 e
↓ AI 7039 u <u>3</u> e near edge	↓ AI 834 u <u>2</u> e	✓ AI 2501 u 1 e
↓ AI 7012 u n.s. Plate defective?	✓ AI 817 u 3 e	↓ AI 2509 u 2 e
↓ AI 7009 u <u>10</u> e near edge	✓ AI 2583 u o e	↓ AI 2525 u 1 e
↓ AI 7001 u <u>5</u> e	✓ AI 2570 u 2 e	↓ AI 2539 u <u>3</u> e
✓ AI 2577 u 1 e	✓ AI 2563 u o e	✓ AI 2702 u 1 e
✓ AI 2567 u 1 e	✓ AI 2555 u 1 e	✓ AI 2682 u o e

# Measures of $\eta$ Herculis (contd)

Apr 17 1909

✓ AI 2547  
u 1 e

✓ AI 2693  
u 4 e

✓ AI 2673  
u 2 e

✓ AI 2544  
u 2 e

✓ AI 2671  
u 1 e

✓ AI 2658  
u 2 e

✓ AI 2502  
Tropon

✓ AI 2629  
u 8 e

✓ AI 2630  
u 2 e

✓ AI 2507  
u 3 e

✓ AI 2625  
u 2 e

✓ AI 2621  
u 2 e

✓ AI 2511  
u 3 e

✓ AI 2612  
u 2 e

✓ AI 2613  
u 1 e

✓ AI 2532  
u 3 e

✓ AI 2605  
u 2 e

✓ AI 5603  
u 3 e

✓ AI 2695  
u 1 e

✓ AI 5692  
u 2 e near edge

✓ AI 5693  
u 1 e

✓ AI 2672  
u 1 e

✓ AI 1224  
u 2 e

✓ AI 705  
u 2 e

✓ AI 2656  
u 0 e

✓ AI 1378  
u 1 e

✓ AI 1366  
u 0 e

✓ AI 264<sup>0</sup>~~4~~  
u 2 e

✓ AI 1371  
u 2 e

✓ AI 1365  
u 1 e



Measures of  $\alpha$  Herculis (cont).Apr. 20, 1909

✓ $\alpha$ T 1363 w <u>2</u> e narrow	✓ $\alpha$ T 7109 w <u>3</u> e	✓ $\alpha$ T 310 w <u>2</u> e
✓ $\alpha$ T 7002 w <u>1</u> e	✓ $\alpha$ T 7131 w <u>2</u> e	✓ $\alpha$ T 5249 w <u>2</u> e
✓ $\alpha$ T 7003 w <u>3</u> e	✓ $\alpha$ T 7140 w <u>3</u> e	✓ $\alpha$ T 5234 w <u>2</u> e
$\alpha$ T 7040 Defective in n. g. v.	✓ $\alpha$ T 7148 w <u>3</u> e	✓ $\alpha$ T 5229 w <u>1</u> e
✓ $\alpha$ T 7034 w <u>4</u> e	✓ $\alpha$ T 7144 w <u>4</u> e	✓ $\alpha$ T 5222 w <u>1</u> e
✓ $\alpha$ T 7050 w <u>0</u> e	✓ $\alpha$ T 7316 w <u>9</u> e	✓ $\alpha$ T 6888 w <u>2</u> e
$\alpha$ T 7068 w <u>1</u> e	✓ $\alpha$ T 7337 w <u>7</u> e	✓ $\alpha$ T 6884 w <u>1</u> e
✓ $\alpha$ T 7087 w <u>0</u> e	✓ $\alpha$ T 1357 w <u>2</u> e	✓ $\alpha$ T 6879 w <u>2</u> e
✓ $\alpha$ T 7083 w <u>1</u> e	✓ $\alpha$ T 5293 w <u>1</u> e	✓ $\alpha$ T 6848 w <u>1</u> e
✓ $\alpha$ T 7100 w <u>0</u> e	✓ $\alpha$ T 5267 w <u>1</u> e	✓ $\alpha$ T 6849 w <u>4</u> e

Measures of  $\eta$  Herculis (cont.)

Apr 20, 1909

✓ AT 6839  
u 3 e✓ AT 6810  
u 1 e✓ AT 6966  
u 1 e✓ AI 6838  
u 2 e✓ AI 6915  
u 1 e✓ AI 6978  
u 0 e✓ AI 6812  
u 2 e✓ AI 6922  
u 2 e✓ AI 6986  
u 5 e✓ AI 6903  
u 3 e✓ AI 6948  
u 0 e✓ AI 6995  
u 2 e✓ AI 6917  
u 3 e✓ AI 6960  
u 1 e✓ AI 6997  
u 2 e✓ AI 7392  
u 1 e✓ AI 1250  
u 0 e✓ AI 1248  
u 1 e✓ AI 1342  
u 0 e✓ AI 1337  
u 1 e✓ AI 1240  
u 2 e✓ AI 1236  
u 0 e✓ AI 1231  
u 3 e✓ AI 5996  
u 3 e✓ AI 5977  
u 0 e✓ AI 5972  
u 0 e✓ AI 5933  
u 3 e✓ AI 5970<sup>65</sup>  
u 0 e✓ AI 5958  
u 3 e✓ AI 5923  
u 3 e



Measures of Seq. for var. +62° 2007 (292)  
(Seq. in alb #067)

April 7, 1908 (Scale 8858)

	Se No 1	Se No 2	Corr -0.2	Cont. Se 2
alb 4067	B			↓
a	2.5	2.7	<del>2.5</del>	2.7
b	3.3	3.3	3.1	3.5
c	3.5	3.6	3.4	3.7
d	3.5	3.7	3.5	3.7
e	3.9	4.2	4.0	4.1
var	3.4	3.3	3.1	3.6

	Se No 3	Se No 2	Corr -0.4	
ac 3912				
a	3.8	4.2	<del>3.8</del>	4.2
b	4.5	4.8	4.4	4.9
c	4.8	5.1	4.7	5.2
d	4.8	5.1	4.7	5.2
e	5.3	5.5	5.1	5.7
var	4.2	4.9	4.5	4.6

	No 1	No 2		
ac 4091				
a	2.3	2.5	<del>2.3</del>	2.5
b	3.0	3.0	2.8	3.2
c	3.3	3.4	3.2	3.5
d	3.5	3.7	3.5	3.7
e	3.9	4.2	4.0	4.1
var	3.2	3.1	2.9	3.4

	No 1	No 2		
ac 3818				
a	2.6	2.9	<del>2.7</del>	2.8
b	3.1	3.5	3.3	3.3
c	3.5	3.8	3.6	3.7
d	3.6	4.0	3.8	3.8
e	3.9	4.3	4.0	4.1

Measures of  $\eta$  Herculis (cont.)

Apr 20, 1909

AI 5923 w4e	AI 5844 w0e	AI 5843 w1e	AI 5836 w1e
AI 5917 w3e	AI 5837 w3e	AI 5828 w0e	AI 5804 w4e
AI 5111 w4e	AI 5799 w4e	AI 5608 w5e	AI 5643 w4e
AI 5122 w1e	AI 5649 w0e	AI 5660 Toprov.	AI 5691 w3e
AI 5128 w5e e 3 $\pi$	AI 5694 w2e	AI 5712 w2e	AI 5720 w0e
AI 5135 w3e	AI 5767 w1e	AI 5778 w1e	AI 5780 w1e?
AI 5140 w2e	AI 5789 w3e	AI 5370 w1e	AI 5380 w3e
AI 5149 w2e	AI 5416 w1e	AI 5900 w3e	AI 5893 w3e
AI 5184 w5e	AI 5482 w2e	AI 5882 w4e	AI 5881 w1e



Measures of  $\eta$  Herculis (cont)Apr. 26, 1909

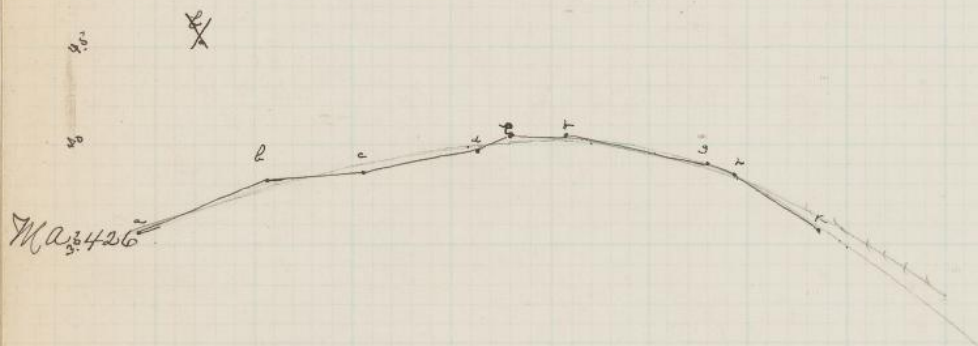
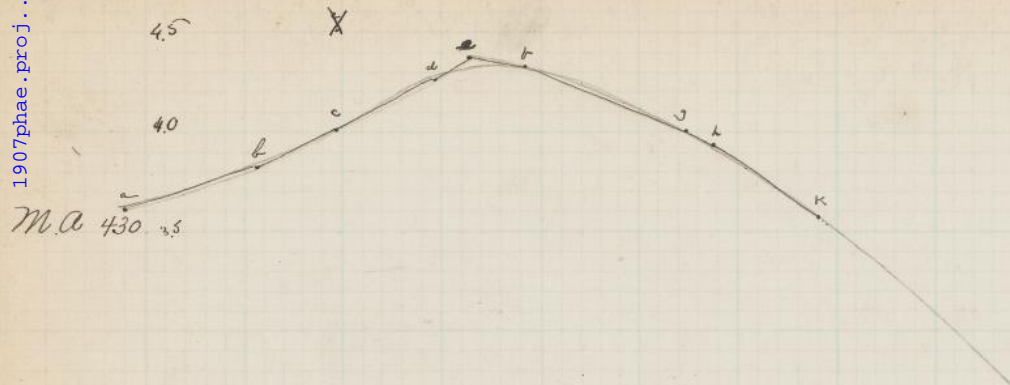
✓ AI 5852 noe	✓ AI 5017 u <u>4</u> e	✓ AI 5032 noe	✓ AI 5050 noe
✓ AI 5020 u <u>2</u> e	✓ AI 5054 u <u>5</u> e	✓ AI 5057 u <u>2</u> e	✓ AI 5073 u <u>1</u> e
✓ AI 7575 u <u>5</u> e e 4 $\pi$ .	✓ AI 7142 u <u>4</u> e	AI 1227 u <u>2</u> e	AI 7436 Too poor
✓ AI 7132 u <u>5</u> e	✓ AI 7541 u <u>2</u> e	✓ AI 7574 u <u>2</u> e	✓ AI 7564 u <u>3</u> e
✓ AI 7563 u <u>2</u> e $\pi$	✓ AI 7587 u <u>2</u> e	✓ AI 7688 u <u>1</u> e	✓ AI 7660 noe
✓ AI 7635 u <u>2</u> e	✓ AI 7626 u <u>1</u> e	✓ AI 6766 u <u>3</u> e	✓ AI 6757 u <u>5</u> e
✓ AI 6732 noe	✓ AI 6718 u <u>3</u> e	✓ AI 6713 noe	✓ AI 6683 u <u>1</u> e
✓ AI 6141 u <u>3</u> e	✓ AI 6179 u <u>1</u> e	✓ AI 6529 noe	✓ AI 6674 u <u>5</u> e
✓ AI 6126 u <u>1</u> e	✓ AI 6169 u <u>1</u> e	✓ AI 6248 u <u>3</u> e	AI 6553 u <u>2</u> e

Continued in B 33-1-66

f







Ma 420.35

426.35





1907hae.proj..981L

4

6

8

10

Miss Whitehead's Variable

1907hae.proj..981L

40

40

40

40

1907hae.proj..981L







1907phae.proj..981L