

3.74 diff. in mag. bet. primary
& first diffracted mag.

February 24, 1960

Region $18^\circ + 30^\circ$

Ac 6387 superposed on D 1447 = Ac 7569

1, No. 109 Buylater on for negative. Small change
 confirmed on numerous Ac plates of region
 $19^\circ + 40^\circ$ where it comes near center of
 plates. A small change is found but
 I am not sure that it is real.
 Br. on Ac 7766, 6714, 4745, 4840,

Fl. on Ac 5181, 4725, 4844,

Marked on D 15385, identified as
 $+47^\circ 26' 25''$ $18^\circ 18'$ 15.2 $+47^\circ 29.6$ (100)
 checked by J. C. M.
 Sp. Ac 6000 - Fl. on D 20122

Miss Wells looked at the Ac plates
 above named, and thinks it shows
 a small range, about 0.6 mag.

Miss Leland thinks this star surely varies about 0.7^m

February 24, 1910.

Ac 6387 cont

2. On pos. out on neg.

Known
Polygram.

3. Brighter on positive.

near
No. 100

Br. on Ac 10443, 5088, 10682, 7660,
3795, 2647,

It. on Ac 6571, 3986, 3958, 3965, 4003,
4027, 5013

Mch. on 7589, 3673, 4074, 4934, 4845,
4853, 4886, 5054, 5076, 5124, 2532,
2580, 2617, 2856,

Variation clearly seen by comparing plates.

Ac 3795 and 6387

Range probably 1.7 on 0.8
this is $+60^\circ 28' 43''$ $17^\circ 9''$ $17^\circ 7' + 36^\circ 32.5' (500)$

marked on I plate and identify again
Sp. only on 7589
marked on 23088 by J. M.

February 24, 1910.

March 5, 1910

Region 18° - 60°

A.M. 2806 superseded and THH64 = Am 424

1. *Bijectio* on negative. Small differences with mag. may be real.

marked on B 29488 CDM-45° 12401 18 10 51.3 -45 288 922 (1875)

not confirmed
Sep. 40.

ft. on 3874, 2588,

medium on 2121, 1286,

Br. on 2084, 5669, 2627, 2772

Difference right.

Look at plate when it comes near center

2. *Bijectio* on neg.

marked on B 29253 CDM-49° 11833 17 49 32.0 -49 245 10 (1875)

Known Stars

3. *Bijectio* on pos.

Known
in Area

4. *Bijectio* on pos.

checked by J.E.M.
marked on B 36876 CDM-51° 11288 18 33 44.9 -51 446 94 (1875)

Br. on 2121, 3874, 2588, 2084, 1286, 5669,

787, 2627, 2772, 3485

This is C.D. 81° 11283 18° 33 44.5 -51 448 9.2 J.E.M.

Conf. on p. 39. ft. on July 18, 1901. & Am 2806 July 5, 1904
Probably alogh. Op. 125 left on B 28028 2x26 frame

March 5, 1910.

C.D. -50° 10005 -17 11 17.7 -50 59.4 9.1 J.E.M.

5. *Bijectio* on pos.

Presumably a double star. Faintest thin following on neg.
marked on B 35870 CDM-50° 11196 -17 11 18.0 -50 59.6 9.3

Br. on 3485, 2772, 2627, 787, 2084

checked by (1875)
J.E.M. & L.H.H.

ft. on 5669, 1286, 2588, 3874.

No. 112
Sep. 29.

Certainly varies 1.5 magn.

measured on 787, & 2806

6. *Bijectio* on pos.

marked on B 20112 approx pos. 1875 17 56.3 -59.0

medium on 2121, 3874

very ft. on 2588, 5669,

Position measured

Br. on 2084, 1286, 787,

by C.D.W.

No. 113

Varies 1 magn. or more

7. *Bijectio* on neg.

checked by J.E.M.

marked on B 40075 C.D. -57° 3290 16 55 54.8 -57 32.1 9.5 (1875)

Br. on 5669, 2772, 3485, 3874, 2121,

Med. on 787, 1286, 2084

slightly ft. on 2627, 2698,

ft. on 4246, faint surch. plate in which it is a faint

No. 114
conf. (certainly)
Sep. 30/8

- Bijectio* on neg.

checked by J.E.M.

marked on B 40075 C.D. -55° 7643 16 31 11.5 -55 30 9.0 (1875)

Br. on 2627, 2588, 3874, 2084, 286, 5669, 787, 2772,

ft. on 2121, 3485 (measured on 2806)

Varies less than 7 magn.

No. 115
conf. on
p. 36.

March 5, 1910

9. *Bugalis* on pos.

Marked on B 40375 approx. pos. 16 41.3 - 60.9 (1895)

Known
164360

March 7, 1910

Regim 18°-60°

Am 3586, superposed on D, 4464 =
Am 4246.1. *Tanitis* on pos. neg.Br. on 2972, 2806, 2887, 3620, 2627, 2590, 2121,
3874, 1286, 2084, 3485, 3690, 6227, 5695
Marked on B 33585 CDM - 43° 12427, 15 39 46.6 - 43 23.9 97 (1895)

checked by S. E. W.

No. 116

Conf. inf 41

Ft. on 5669,

Look up in plate - mean center

Br. on 286277, 6483, 3544, 5755,

2. *Bugalis* on neg.

Ft. on 2806, 2972

Br. on 787

Separated by 3x95

Marked on B 33585 CDM - 46° 12279 15 9 30.4 - 46 35.6 95 (1895)

Known

181146

3.

Bugalis on pos.fruit slat. Pos. measured
by A. D. W.

Ft. on 2806, 3495, 2627

Br. on 5669, 2627, 2121,

Marked on B 25342 Approx. pos. 18 52.9 - 53.7 (1895)

No. 117

Conf. inf 37

p. 37

Ft. on 3680, 3844,

Med. on 2598

Look up in a few 10 plates.

March 7, 1910

Am 3586 cent.

4. Bright in neg.
Sound in 2806 (No. 7)
He on pos. not in neg.

Known
162855

5. Bright in neg.
Am 3586 cent.

See p. 32
not comp. 15
It is 2878, 2886
Am 3586, 2627, 3874
Change sign and
confirmed.

Marked on B 25368 approx. pos. 18 sec 54.50 (1895)

Omit unless conf. on B plate.

On pos. not in neg. may faint. This is No. 113

6. Bright in neg.

It is 1669, 2972,

Images elongated & probably
defective.

March 7, 1910

Am 3586 cent.

7. On pos. not in neg.

Marked on B 40210 CPD -64° 35' 73" 16 42 40.7 -64 59.4 95
(1875)

Known

164565

8. Bright in pos.
It is on 2806, 2972, 2627, 5669,

15. Slightly br. on 3495

Image defective on 4248

- 7a. Bright in neg. (Notice when looking up 7)

Conf.
See p. 32

No. 124

It is 6069, 3680, 2588, 5669, 3874, 1286,
2084, 2121, 3425, 2972, 6483, 6207,
6277, 5695

Bright than normal in Am 3586. Central, vanishes
and seen by comparing Am 3586, Am 3586 + Am 3586
Slightly in 6087? May be defective.

- 7b. Bright in neg.

It is 4246. Bar. unless image is defective.

Look up in plate nearer center.

No. 125

Am 3586, 2084, 2627, 6483, 5695, Feb. 9. 2p

See p. 33.

Slightly br. in 5388. Feb. 10. 5.

Check on the plates
 whether marked that
 the plates are the
 same marked on the
 specimen by these numbers

March 11, 1910

18^h - 60°

Am 6069 superseded

Bugulites inpos

checked by I.E.W.

Marked on B 40499 C.P.M. -46° 12' 50" 18 57 47.2 -46 9.2 520(75)

Fl. in 6087, 6483, 6277, 6267, 5785,

Br. in 3586, 3495, 2972, 2806.

Certainly same

Sp. not on B 9787,

2. *Bugulites inneg.*

checked by I.E.W.

Marked on B 40499 C.P.M. -45° 12' 69" 18 34 86 -45 53.8 91

(1175)

Fl. in 6087, 6483, 6207,

Br. in 3586, 5785, 5695,

Med. in 3586,

very fl. 6277,

Sp. can not be classified
 on B 9787

3. *Bugulites inpos.*

120

Marked on B 27496 C.P.D. -60° 6' 24" 17 33 48.1 -60 27.0 90

Fl. in 6483, 6277, 6207, 3485, 1281

St. fl. in 3144

Br. in 2806, 2972, 2084, 5669, 4149, 5695

Measure on 4149 in 6069 in 3485.

Confirm on B plates.

Variable conf. by L.D.W. on the above AM plates.

4. *in neg. inpos.*

Marked on B 9314 C.P.D. -60° 6' 24" 17 33 48.1 -60 27.0 90 (1875)

Fl. in B 7496

Med. in 3586, 5785,

Br. in 6277

checked by L.D.W.

100% B plates examined

on B 2122

Fl. in B 2114

March 11, 1910

Am 6069 cont.

5. *Bugulites inneg.*

Marked on B 27496 C.P.D. -63° 41' 4" 17 45 58.6 -63 36.5 86 (1075)

122. Br. in 6483, 6207, 3586, 3485, 787, 6277, 5685.

Certainly fl. in 4246.

Sup. 47

Fl. in 3586, 3680

Sp. in 3586, 3680

6. *Bugulites inpos.*

16285

7. *Bugulites inpos.*

Known

16485

8. *Bugulites inpos.*

Marked on B 25367 C.P.D. -69° 29' 12" 18 22 32.8 -69 58.4 92 (1875)

Fl. in 3486, 787, 3586, 5669, 5064, 5695

6277, 6483, 3544, 2

123

Br. in 3586, 5785, 3874, 3680, 5669, 2598, 5695,

5385, 2627.

9. *Bugulites*

Sp. in B 11673, Ks? Br. B 15606 Mc?

comb. inf. 44

March 12, 1910

Estimates of B Can. Ven.

Ac 241	Ac 333	Ac 2574
7.4	8.5	7.2
Ac 278		very dark plate les?
7.7	Ac 278	Ac 1604
	7.8	7.2
Ac 299	Ac 874	7.6
7.7	8.5 8.3	Ac 3508
	images long	8.6
Ac 576		
8.3	Ac 1440	Ac 2615
Ac 628	7.8	8.3
7.8		
Ac 648	Ac 1248	Ac 2207
Ac 648	8.6	8.8
Bp. Ven. air	images long	
Dark dark plate		Ac 2237
Ac 432	Ac 1381	8.8
7.7	8.7	
Ac 1520	Ac 896	Ac 2666
7.1	7.9	8.3
	images long lines	dark plate
Ac 1562	Ac 1229	Ac 2510
7.1	8.4	7.9
Ac 814		Ac 354
8.4		8.4

March 12, 1910

B Can. Ven. cont.

2266	3283	3588	4692	4992
8.8	7.9	8.4	8.9	8.9
3174	3272	3681	4312	5788
8.6	7.9	8.4	8.4	8.4
2870	3367	3691	4379	5603
8.8	7.9	8.5	8.4	8.5
long images different		3706	4470	5669
	3403	8.4	8.5	8.4
2331	8.2			
8.6		3720	4501	6084
	3473	8.4	8.5	8.4
2383	8.4			
8.3		5031	4554	6320
Ac 2646	4447	8.9	8.4	8.6
8.3	8.5		4606	
Ac 2497	3555	4532	8.8	6005
7.6	8.4	8.5		8.5
very dark plate		3758	4677	
	4625	8.4	8.9	6367
Ac 2681	8.5		4717	8.6
8.3		4273	8.8	
	8.5	4273	4790	5756
3025	5793	8.4	8.9	8.5
8.6	8.8	4133	4811	5769
		8.9	8.9	8.8

March 12, 1910

B Cam. Rem. cont.

5819	6273	9434
8.4	8.5	8.5

5887	ac 9286	9449
8.7	8.4	8.4

6361	9329	9487
8.6	8.4	8.6

ac 9219	10413	9358
dark plate	8.7	8.8
7.0		

5960	10364	9544
8.5	8.5	8.4
	9367	
	8.6	9553

5994		8.5
8.5	10281	

	8.5	9592
		8.5

6058	9430	
8.4	8.5	

6158	10655	
8.5	8.4	

6207		
8.6		

March 13, 1910

B Cam. Rem. cont.

ac 6460	7409	7554	10497
8.4	8.3	7.6	8.4

6481	7439	7585	9250
8.3	8.4	7.5	8.3

6542	7467	7530	10209
7.9	8.2	7.6	8.4

6767	7489	7538	10375
	8.1	7.6	8.4
8.1			

	7507	7549	10467
		7.7	8.5
6985	8.0		

	8.2	7516	7580
		7.5	10604
7218	8.8		8.2

7.8		9153	
	7523	8.2	11106

7284	7.8		8.4
7.9		10567	

	7591	8.3	11281
7342	7.4		8.5

	dark plate	8.5	
			7636

7393	7566	10630	78
8.3	7.5	8.4	

	dark plate		
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March 13, 1910

McCan. ten. cont

AC 8312	7699	8578
7.8	7.9	8.0

8725	7713
7.9	7.9
	7.8

7653	7773
7.7	
dark plate.	7.8

8164	8615
8.2	8.0

8429	8295
8.0	7.9

7604	8179
7.9	8.0

8533	8241
8.2	7.9

7679	8486
7.8	8.0

8502
7.9

March 13, 1910

Estimates of var. No. 109
 Sequence on AC 7766 & on AC
 11455 5' plate with magn. 7
 polar regions marked

a	8.0
b	8.7
c	9.0
d	9.4
e	9.5
f	9.6
g	
h	

March 13, 1910

Estimates from var. 109

a 7.9
 b 8.8
 c 9.2
 d 9.5
 e 9.5
 f 9.6
 g 9.8
 h

E. F. L.

a 8.0
 b 8.9
 c 9.1
 d 9.4
 e 9.5
 f 9.5
 g 9.7
 h 9.9

March 13, 1910

Estimates from var. No. 109.

5207	4297	5181	3335	10842
ac 9.2	9.0	9.6	9.5	9.0
ac 5032	9.2	4852	1268	10620
9.2	9.4	9.0	9.0	9.0
		1713	difficult	10877
ac 5094	7667	9.1	10645	9.0
9.0	9.1		9.0	
		1767		
4045	7813	9.1	10674	10886
9.5	9.5		9.4	9.0
		1822		
4052	8672	9.0	10689	10900
9.2	9.5		9.0	9.0
		3384		
4171	7870	9.0	10761	10917
9.1	9.1	1863	9.2	9.0
		9.0		
4209	8432		10789 ³	10962
9.1	9.1	1974	9.0	8.9
		9.2		
4319	8603	difficult	10833	10971
9.2	9.0	2014	9.0	9.0
		9.0		

March 14, 1910

Var. No. 1109 cont.			
11029	9779	6606	8861
9.6	9.1	9.1	8.9
Extremely ft.	9.4		
	difficult	6698	8897
11048	9835	9.1	9.4
9.2	9.0	6822	3550
11073	9846	9.2	9.1
9.2	9.0	7477	3631
		9.1	9.0
11084	10168		
9.5	8.9	8686	3689
	10266	9.1	9.0
11140	8.9		3739
9.1		8723	9.1
	10539	9.2	
9731	9.0		5236
9.0		8751	9.5
	10547	9.1	
9746	9.0	8828	5329
9.1		9.0	9.1
	6482		
9789	9.1	8836	5365
8.9		9.0	9.1

5391	CC6714
9.1	8.9
5522	6373
9.1	9.1
5551	
9.1	
5978	
9.1	
6180	
9.1	
6253	
9.1	
6315	
9.1	
6430	
9.1	
AC4896	
9.5	
AC4877	
9.0	

March 22, 1910

^{18h + 30}
across equator

1. On positron
W. Lyrae.

2. Brighten in positron
+33° 34' 4"

Faintly shown on Ac 2677, 2779, 2828
2871, 3832, 4887, 5228, 6416, 6538
6661, 5761, 5207, 10188, 10471, 10539
Brightly shown on Ac 3978, 4813, 7813, 1274
Ac 7569
Ac 1863, 2014, 4171
Also faintly on Ac 10547, 1268, 1767

March 22, 1910

3. Brighten on pos.
Kumm.
R. S. Huc.

4. Brighten on neg.
Kumm.
R. S. Huc.

5. Brighten on neg.
Kumm.
174916.

Regime 18^h + 30°

Known Variables.

170627 R¹¹ H₂u.171333 u H₂u.171723 R¹¹ H₂u.173633 S² H₂u.174422 S¹¹ H₂u.174416 - H₂u.175315 Z H₂u.175519 R¹¹ H₂u.180531 T¹¹ H₂u.181136 W¹¹ H₂u.182224 S¹¹ H₂u.182846 T¹¹ H₂u.183225 R¹¹ H₂u.183728 - L₂u.183932 R¹¹ H₂u.184134 R¹¹ H₂u.184243 R¹¹ H₂u.185036 S¹¹ H₂u.185243 R¹¹ H₂u.185634 Z¹¹ H₂u.

20 known at beginning of exam
 5 of these are found to be overexposed

$$5:11 = 20:4$$

$$\begin{array}{r} 5 \overline{) 20} \\ 44 \end{array} \text{ probable m.}$$

Regime 12^h + 30°

Known Variables 11^h - 13^h
 + 15 - 145

S¹¹ H₂u.113639 R¹¹ H₂u. Reg. # small115919 R¹¹ H₂u.122532 T¹¹ H₂u. Found124238 In Reg. In H₂u. F's last bit124041 B¹¹ H₂u. Found.

6
 1 known counting B¹¹ H₂u.
 4 new found and 4 new ones.

$$4:8 = 5:10$$

$$4:8 = 6:12$$

March 23, 1940.

Additional estimates of 60 B. Can. Rev.

Ac 1520
7.2

7.2

221562

7.2

7.6

Ac 1549

7.4

Ac 1558

March 24, 1900

Period of No. 105, 181031.

See 23, 212,

	<u>Br.</u>	<u>Med.</u>	<u>Surv.</u>
4561	98, 9, 28.	93 8 8	
1798	99 5-23	97 9 18	96, 6 23
6328	03 8 1		06, 5-20

Davis in
 Ac 253, 501, 1013
 Sept 1, 1902
 Nov 62
 Oct 25 - June 16
 2999 685 K
 588
 2466 846 K
 May 17, 1909
 8539, 857 K
 1702
 Apr 10, 08
 7888
 Apr 24, 1909
 Oct 2, Oct 23,
 Br Ac 997, Apr 5, 1909
 18. 5115
 Fred 842
 " 30 "
 Ky Br. 8896, Oct. 2, 1907.
 H on 10873 May 9, 1909 & May 25, 1909
 Br on Ac 10553, June 8, 1909. 2418466
 Davis in 11375, Feb. 10, 1910

No. 105.	Period.
Dr. m	but
J.D. 2684	1504
4188	373
4561	237
4798	217
5115	1213
6328	659
7870	8466
	883
	596

237, ³7, 373

8466
2684
5782
27) ⁴44 29
151

No. 112. Dr. m Dec 787

Dr. m Dec 2806

Please check 112, B 35810. See C.D.M. as it gives only two of three stars; might it have been combined stars as it agrees in R.A. with one and Dec. with other? I should think C.D.M. might be the combined, also Z.C. (which I can not find) or that the second star was observed in both and the variable might have been faint at the time.

Ident. as -50° 11196 by C.D.M.

" " -50° 10005 by I.E.M.

C.D.M.

C.P.D.

-50 11196 17 11 18.0 -50 59.6 9.3 -50 10005 17 11 17.7 -50 59.4 9.1
-50 10006 17 11 21.7 -50 59.6 9.6
-50 11203 17 11 34.5 -50 59.4 8.1 -50 10013 17 11 33.9 -50 59.4 7.8

Miss Cannon in Your variable
no. 112., faint on Dec 2806, Dr. m Dec 787 and
identified on B 35810 is - Languide sue.
C.D.M. -50° 11196 17 11 18.0 -50 59.6 (1875) 9.3 equals
C.P.D. -50° 10005 17 11 17.7 -50 59.4 (1875) 9.3 and
Z.C. 17^h 768 17 11 17.8 -50 59.3 9.5

The dec. given in Z.C. & C.P.D. is more
nearly right - than that given in C.D.M.
but this means an error of only .2 of a second
at most - I.D.M. March 30 1910

March 31, 1910

Jan. No. 117. ^{Position} Measured by Miss
Wachsmuth, 1863 (See D. W. II, 131)
Checked by J. C. M.

Examined on B

June 23, 1910

Examination of B plates to confirm variation

of Object No. 7a

Pl. Ans 186, p. 9.

16 40 450-64 14 1875 after

No. 124

40910	—	lunis.	The clus. boundary
25383	—	"	A.M.C. was the
19165	—	"	n.p. component and
21142	—	"	this variable was
22553	—	"	lunis. except in B22511.
23477	—	"	"
22891	—	Bright blue lake yellow.	Two double, 2.p.
B25965	—	lunis.	Component much
25477	—	"	brighter than n.f.
15872	—	"	"
11559	—	"	"
30536	—	"	"
32585	—	"	"
21897	—	fixed.	"

A 2707 shows two stars. The spot preceding component is the variable. It is three times fainter than the n.f.

July 2, 1906. A 2791 variable fainter than n.f.
 Jan 23, 1897 A 2506 variable not seen, L 14 m
 May 20, 1899 B 22891 variable very bright.

July 4, 1910

Examination of B plates to confirm variation

of Object No. 7b

Ans 186, p. 9.

mag 23 marked Nov. 27411

No. 125.

27411	Rev.	
29757	Rev.	
33628	Rev.	
35708	Rev.	
40373	Rev.	
22521	Rev.	
23470	Rev.	
27146	Rev.	
21139	Rev.	conf. by E.P.C. Est. 7.9
11121	Rev.	conf. " " 10.0
6280	Rev.	

checked by L.D.H.

Varies 0.8 or 0.9 mag, perhaps a whole magnitude.

Spectrum 1st type m. B 19902

July 5, 1910

Examination of B plates to confirm variation
 of object No. ^{near 3556, p. 8} C.P.D. - 58° 7599 196 430-58 23.7
 Magn. 9.6 marked on B 55368

B 55368 Br.
 11639 Br.
 11620 Br.
 23112 Br.
 25524 Br.
 27853 Br.
 88958 Br.
 28514 Br.
 28661 Br.
 32116 Br.
 40500 Br.
 28240 Br.

See p. 8. Am ^{3556, cl. m. p. 8} re-examined, and a very
 slight variation appears, but not
 enough to lead to the magn.
 is from green shape and
 suspected that it is a red star.
 Not the announced unless further
 confirmation is received.
 suspected.

July 5, 1910.

Examination of B plates to confirm variation of
 M. 114 Object No. 114 C.P.D. - 57° 8290 16 55 54.8 - 57 32.1
 Marked on B #0375 Am 2492 Br.

B 27162 Br. 2484 Br.
 25119 Br. 1924 ft. near edge
 29758 Br. 2598 slightly faint
 29975 Br. 1959 slightly faint
 12093 Br. 3479 Br.
 35760 Br. 3066 Br.
 38028 Br. 2914 slightly faint
 16443 Br. 2712 slightly faint
 22474 Br. 2571 Br.

From the shape, I suspect
 that this is a red star.
 B 9460 sp. plate
 examined but there is
 no trace of the spectrum
 of this object

2243 slightly faint
 2128 Br.
 2121 Br.
 2101 Br.
 1835 Br.
 1423 slightly faint
 1061 Br.
 1535 Br.
 1471 Br.
 1260 Br.
 1238 Br.
 1460 Br.
 309 slightly ft.
 938 slightly ft.
 1449 faint

Observations on Am plate
 were made by R. P. C.

July 5, 1910

Examination of B plates to confirm variation
of object No. 115 C.P.D. - 55° 76' 43" 16 31 11.5
- 55° 2.0 marked on B 40375

B	19368	Bv.	2243	slightly faint
	38887	Bv.	2712	Bv.
	36400	Bv.	1989	faint
	29975	Bv.	2914	Bv.
	29758	Bv.	1535	medium
	32576	Bv.	1061	Bv.
	30240	Bv.	1423	slightly fl.
	34281	Bv.	1835	Bv.
	30161	Bv.	2101	faint
	28281	Bv.	2121	faint probably at min.
	11596	Bv.	2128	faint
	25119	Bv.	2571	Bv.
	27162	Bv.	3066	Bv.
	23002	Bv.	3479	faint
	26912	Bv.	2487	slightly faint
	22474	Bv.	2492	Bv.
	16443	Bv.		
	38028	Bv.		
	35760	Bv.		
	12093	Bv.		

obs. on Arm plates made
by A. J. C.

July 7, 1910

Examination of B plates to confirm variations of
object No. 117 (Appar.) position 17 52.9 - 53.7 marked
on B 25347

m. 117.

B	27413	fl.
	27436	fl.
	21023	fl.
	20480	fl.
	23534	fl.
	11628	very Bv.
	29988	Bv.
	29448	Bv.
	38945	fl.

Variation confirmed by A. M. C.

July 7, 1910

No. 120.

Examination of B plates to confirm variation
of object 120 C.P.D. - $60^{\circ} 69' 24''$ $14^{\circ} 23'$ $48.1 - 60^{\circ} 27'$
marked on B 27496

See p. 10.

B 32253 Br.
11417 Br.
13505 Br.
14852 Br.
15120 Br.
15530 Br.
15707 Br.
16098 Br.
16566 Br.
27845.

B 9314 Br.
B 876 ~~10~~ *variable fainter than m B 9314.*

B 29760 *legat. ft.*

B 23877
B 27845 *Brigit?*

Sp. Imb on B 17043

July 11, 1910

No. 111

Examination of B plates to confirm variability
of object No. 111 C.A.P. - $51^{\circ} 11' 53''$ $18^{\circ} 33' 44.5''$ -
51 144.8 g. 2 marked on B 36876

B 13583 Br.
16286 Br.
19505 Br.
17711 Br.
20479 Br.
23073 Br.
26084 Br.
25425 Br.
25497 Br.
27912 faint
9215 Br.
6108 Br.
5990 Br.
32511 Br.
34682 Br.
29582 Br.
37698 Br.

1901 July 18

faint conf. by A.F.C.

Probably an algal.

Aug. 15, 1910

Examination of 13 plates to confirm variation of
Obj. No. 1 C.D.M. - $45^{\circ} 12' 40.1''$ $18^{\circ} 10' 57.8''$ - $45^{\circ} 24.8''$ (1875)
Marks on 13 29428

23667	Bv.
40486	Bv.
34025	Bv.
13750	Bv.
83336	Bv.
16572	Bv.
27444	Fl.
22513	Bv.
19176	Bv.
25888	Bv.
21552	Fl.
34234	Bv.
14497	Bv.
9694	Bv.
32629	Bv.

13 27444, 14497, 21552, 29488 examined
by A.P.C. and no variation seen
Put in respective list.

August 15, 1910

No. 116

Examination of 13 Plates to confirm variation of
Obj. No. 116 ^{Aug 7.} marked on 1333585 C.D.M. - $45^{\circ} 12' 42.9''$
18 9 46.6 - 43 23.9 9.7 (1875)
33969 Bv.
21224 Bv. Am 4888 Bv. June 1, 1907.
25343 Bv. Am 4886 Fl. " " "
27437 Bv. Am 6348 Sept 27, 1907.
4934 Bv. Am 4778 " " "
4990 Bv. Am 4773 Fl.
5420 Bv. Am 5669 Fl.
35915 Bv. Probably Algal type
96207 Bv. var. conf. by L.D. H.
32352 Bv. and E.F.L.
29451 Bv.

Sp. B3 on 13 21552.

August 4, 1910

Am 6069 emb. from p. 11

9.

Family in ^{position} ~~position~~

Base of ~~rock~~ 14-15 plates.

Kenn
S. Pan

~~Fla~~ ~~rock~~ ~~Am~~ ~~5~~ ~~3~~ ~~2~~

August 23, 1910

Examination of B plates to confirm variation
 of object No. 11 17 18-55 marked on B 19111
 No. 127. Sep. 42

July 21, 1903	32305	Bv.
July 7, 1902	30297	Bv.
Oct. 8, 1903	32697	Bv.
Apr. 28, 1902	39480	Bv.
Aug. 10, 1905	36580	fault
Apr. 12, 1905	36310	Bv.
June 14, 1894	11420	Bv.
May 12, 1896	15826	H
May 22, 1897	19170	Bv.
May 27, 1898	21575	variable
Aug. 17, 1899	23875	fault
June 27, 1899	23199	Bv.
Aug. 25, 1899	24006	variable

Aug. 24 1910

Examination of B plates for variable No. 122.

19376	Bv.
21222	Bv.
22509	Bv.
27412	Bv.
27845	Bv.
23877	Bv.
9314	Bv.
6285	Bv.
16566	Bv.
32253	Bv.
36107	Bv.
37670	Bv.
37330	Bv.
29760	Bv.

F.A.I.C.

Small variation seen by comparing B 9314
 and B 37670.

Sp. Mh on B 17045

August 25, 1910

18^h - 60^o

~~Am 3544~~ superposed on
in D 14264 = Am 4288

1. Bright in neg. pos.

Br. on 3586, 2972, 6069, 5695, 5528
Fl? on 2538, 1286,

Marked on B 23969 (approx. 17 58 - 43 40)
Br. on Am 3713, 3762, 3816, 3822, 3873, 3928
4174, 4249, 4273, 1210, 1327, 1345

2. On pos. mark on neg.

Kum
H. Area

3. Bright in pos.

Kum.
V. Par.

Br. on 5805
Fl. on 3874, 6069
Change small but apparently real

Aug. 25, 1910

Am 3544 cont.

4. Bright in neg.
A very bright star
Kum
R. Area
algol type

5. Bright in pos.

Kum
R.
Par.

6. Bright in neg.
Much brighter in neg. than
in pos.

Kum
M. 122

7. On neg. not in pos.
Not on 5695, 5669, 2606, 4253, 4254, 4255, 4256, 4257, 4258, 4259, 4260, 4261, 4262, 4263, 4264, 4265, 4266, 4267, 4268, 4269, 4270, 4271, 4272, 4273, 4274, 4275, 4276, 4277, 4278, 4279, 4280, 4281, 4282, 4283, 4284, 4285, 4286, 4287, 4288, 4289, 4290, 4291, 4292, 4293, 4294, 4295, 4296, 4297, 4298, 4299, 4300, 4301, 4302, 4303, 4304, 4305, 4306, 4307, 4308, 4309, 4310, 4311, 4312, 4313, 4314, 4315, 4316, 4317, 4318, 4319, 4320, 4321, 4322, 4323, 4324, 4325, 4326, 4327, 4328, 4329, 4330, 4331, 4332, 4333, 4334, 4335, 4336, 4337, 4338, 4339, 4340, 4341, 4342, 4343, 4344, 4345, 4346, 4347, 4348, 4349, 4350, 4351, 4352, 4353, 4354, 4355, 4356, 4357, 4358, 4359, 4360, 4361, 4362, 4363, 4364, 4365, 4366, 4367, 4368, 4369, 4370, 4371, 4372, 4373, 4374, 4375, 4376, 4377, 4378, 4379, 4380, 4381, 4382, 4383, 4384, 4385, 4386, 4387, 4388, 4389, 4390, 4391, 4392, 4393, 4394, 4395, 4396, 4397, 4398, 4399, 4400, 4401, 4402, 4403, 4404, 4405, 4406, 4407, 4408, 4409, 4410, 4411, 4412, 4413, 4414, 4415, 4416, 4417, 4418, 4419, 4420, 4421, 4422, 4423, 4424, 4425, 4426, 4427, 4428, 4429, 4430, 4431, 4432, 4433, 4434, 4435, 4436, 4437, 4438, 4439, 4440, 4441, 4442, 4443, 4444, 4445, 4446, 4447, 4448, 4449, 4450, 4451, 4452, 4453, 4454, 4455, 4456, 4457, 4458, 4459, 4460, 4461, 4462, 4463, 4464, 4465, 4466, 4467, 4468, 4469, 4470, 4471, 4472, 4473, 4474, 4475, 4476, 4477, 4478, 4479, 4480, 4481, 4482, 4483, 4484, 4485, 4486, 4487, 4488, 4489, 4490, 4491, 4492, 4493, 4494, 4495, 4496, 4497, 4498, 4499, 4500, 4501, 4502, 4503, 4504, 4505, 4506, 4507, 4508, 4509, 4510, 4511, 4512, 4513, 4514, 4515, 4516, 4517, 4518, 4519, 4520, 4521, 4522, 4523, 4524, 4525, 4526, 4527, 4528, 4529, 4530, 4531, 4532, 4533, 4534, 4535, 4536, 4537, 4538, 4539, 4540, 4541, 4542, 4543, 4544, 4545, 4546, 4547, 4548, 4549, 4550, 4551, 4552, 4553, 4554, 4555, 4556, 4557, 4558, 4559, 4560, 4561, 4562, 4563, 4564, 4565, 4566, 4567, 4568, 4569, 4570, 4571, 4572, 4573, 4574, 4575, 4576, 4577, 4578, 4579, 4580, 4581, 4582, 4583, 4584, 4585, 4586, 4587, 4588, 4589, 4590, 4591, 4592, 4593, 4594, 4595, 4596, 4597, 4598, 4599, 4600, 4601, 4602, 4603, 4604, 4605, 4606, 4607, 4608, 4609, 4610, 4611, 4612, 4613, 4614, 4615, 4616, 4617, 4618, 4619, 4620, 4621, 4622, 4623, 4624, 4625, 4626, 4627, 4628, 4629, 4630, 4631, 4632, 4633, 4634, 4635, 4636, 4637, 4638, 4639, 4640, 4641, 4642, 4643, 4644, 4645, 4646, 4647, 4648, 4649, 4650, 4651, 4652, 4653, 4654, 4655, 4656, 4657, 4658, 4659, 4660, 4661, 4662, 4663, 4664, 4665, 4666, 4667, 4668, 4669, 4670, 4671, 4672, 4673, 4674, 4675, 4676, 4677, 4678, 4679, 4680, 4681, 4682, 4683, 4684, 4685, 4686, 4687, 4688, 4689, 4690, 4691, 4692, 4693, 4694, 4695, 4696, 4697, 4698, 4699, 4700, 4701, 4702, 4703, 4704, 4705, 4706, 4707, 4708, 4709, 4710, 4711, 4712, 4713, 4714, 4715, 4716, 4717, 4718, 4719, 4720, 4721, 4722, 4723, 4724, 4725, 4726, 4727, 4728, 4729, 4730, 4731, 4732, 4733, 4734, 4735, 4736, 4737, 4738, 4739, 4740, 4741, 4742, 4743, 4744, 4745, 4746, 4747, 4748, 4749, 4750, 4751, 4752, 4753, 4754, 4755, 4756, 4757, 4758, 4759, 4760, 4761, 4762, 4763, 4764, 4765, 4766, 4767, 4768, 4769, 4770, 4771, 4772, 4773, 4774, 4775, 4776, 4777, 4778, 4779, 4780, 4781, 4782, 4783, 4784, 4785, 4786, 4787, 4788, 4789, 4790, 4791, 4792, 4793, 4794, 4795, 4796, 4797, 4798, 4799, 4800, 4801, 4802, 4803, 4804, 4805, 4806, 4807, 4808, 4809, 4810, 4811, 4812, 4813, 4814, 4815, 4816, 4817, 4818, 4819, 4820, 4821, 4822, 4823, 4824, 4825, 4826, 4827, 4828, 4829, 4830, 4831, 4832, 4833, 4834, 4835, 4836, 4837, 4838, 4839, 4840, 4841, 4842, 4843, 4844, 4845, 4846, 4847, 4848, 4849, 4850, 4851, 4852, 4853, 4854, 4855, 4856, 4857, 4858, 4859, 4860, 4861, 4862, 4863, 4864, 4865, 4866, 4867, 4868, 4869, 4870, 4871, 4872, 4873, 4874, 4875, 4876, 4877, 4878, 4879, 4880, 4881, 4882, 4883, 4884, 4885, 4886, 4887, 4888, 4889, 4890, 4891, 4892, 4893, 4894, 4895, 4896, 4897, 4898, 4899, 4900, 4901, 4902, 4903, 4904, 4905, 4906, 4907, 4908, 4909, 4910, 4911, 4912, 4913, 4914, 4915, 4916, 4917, 4918, 4919, 4920, 4921, 4922, 4923, 4924, 4925, 4926, 4927, 4928, 4929, 4930, 4931, 4932, 4933, 4934, 4935, 4936, 4937, 4938, 4939, 4940, 4941, 4942, 4943, 4944, 4945, 4946, 4947, 4948, 4949, 4950, 4951, 4952, 4953, 4954, 4955, 4956, 4957, 4958, 4959, 4960, 4961, 4962, 4963, 4964, 4965, 4966, 4967, 4968, 4969, 4970, 4971, 4972, 4973, 4974, 4975, 4976, 4977, 4978, 4979, 4980, 4981, 4982, 4983, 4984, 4985, 4986, 4987, 4988, 4989, 4990, 4991, 4992, 4993, 4994, 4995, 4996, 4997, 4998, 4999, 5000

M. 129

M. 129

M. 129

M. 129

Aug. 25, 1910

Am 3544 cont.

8. *Buglata* in pos.
Marked on B 27411.

Very bright on 6069, 1286

Medium on 3586, 6277, 787

10 Ft. on 6483, 3874.

Varies fully a magn

approx. 16.25 - 63.1

- 62.5377 16.2375
(20.0762, m.c.)
checked by A.D.A.

Sp. 9.5, certainly 2nd type - B37586.

Buglata on neg.

9.

Kum

no. 124

10

Kum

164565

Buglata in pos.

11.

Kum

S. L. in pos.

Buglata on neg.

Aug. 25, 1910

Am 3544 cont.

12.

Buglata in pos.

Kum

no. 123

13.

Buglata on neg.

Am 131

Ft. on 5780, 2972, 2588,

Br. on 3495

Change small but appears to
be realapprox. 15.4 - 77.10
Marked on B22880- 77.1292 (F. 16.0 m - 77.42.4 L.D.M. + a.m.c.)
checked by A.D.A. 826, 2695

Bz. on Am 591, Am 751, 108, 186, 2219, 2235

Ft. ? on 218

Seq. of R. Par. on Am 108

Sp. Ma? Rec
on B19008.

Ft. on Am 260

Do not assume unless conf. on B plates.
Am 421 and Am 2219 variable by L.D.M. + a.m.c. F.L.
but confirm variation to nearly 1 mag.

Aug. 25, 1910.

Am 2872

In looking at this plate
when picking out the ones
I had suspected, I noticed
that a star is fainter than
in Am 2872.

Identified in B. 19118 by L. D. W.
This is ~~5508112~~ (this is No. 132)

No. 132

~~17 15 55.0 - 55 7.0 9.8~~
No. 132 = -57° 56' 13" 17" 24' 9.4" -57.3.3 8.4 (a.m.c.)
checked by A. D. W.

Maybe an Algol.

Other stars

Am 2544	Bv.	1423	631	5695	Bv.
4246	Bv.	1535	4919	6277	Bv.
5068	Bv.	1959	4809	6483	Bv.
5669	Bv.	6916	4639	1286	Slightly ft?
3734	Bv.	6899	4558	4149	Bv.
3690	Bv.	6379	4464	789	Bv.
2627	Bv.	6313	4314	2806	Bv.
2084	Bv.	6160	4372	495	Bv.
6209	Bv.	6067	2772	2424	2424
3894	Bv.	1061	4955	very faint!	
5385	Bv.	1136	Bv. 2747	5171	
3586	Bv.	908			
6069	Bv.	816	5332	5451	5562
		644	5486	5632	5730

Sept. 57.

Aug. 25, 1910

Am 2872

Fainter than normal

Bright in 3495, 5785 - 3544 4246
6069, 2806, 3586, 789,

Slightly ft? on 2598, 5695, 288
4149

This shows a very small variation
but it may be due to the shape

of images

Parkin suspected list

Aug. 26, 1910.

No. 132 cont. from p. 52

No. 132

Algal

44 Am plates examined before
the green plate was found in
which, they are faint.
10 other Am plates show it
normal. Therefore, it is faint on
2 of 56 Am plates.

It in Am 4955 July 1, 1907

Measure 4955 & 6143

In order to determine its spectrum
May 31, 1914 I found B 11994, and immediately
saw that it is faint

B 11994 shows the star normal.
Sp. B8 - B.

May 26 in Am 6143 & 5785

10.6 m Am 4955

Kum Vars in region $18^h - 60^o$

163156	R Ara	Faint	
158263	S Lirig Arch	Faint	125555 S Lib.
158462	U " "		163059 Faint
16048	X Norma		164461 Faint
161057	S Norma		162850 R Ara Faint
160952	W Norma		164167 - Lirig Arch
161450	Norma		164260 Faint
161751	"		164461
162546	"		164565 Faint
163967	R Lirig Arch		164686
165452	T Ara		164863
171843	S W Scorp		165761
173457	R Par	Faint	172049
173543	R U Scorp		17364
174162	W Par		180240
174551	U Ara	Faint	181146 Faint
174748	V Ara		
174949	W Ara	Faint	40 kum
175149	S Ara	Faint	13 found
180241	X Const.		22 feet
180363	R Par	Faint	13:35 = 40:4
181849	T Lib.		13) 14 00 (108 feet, w.
184667	R Par		13 13 00
180449	U Lib.		11 x
191050	Y Lib.		40 - 22 - 62
193972	T Par.		62 found in region
194350	W Lib.		108) 62.00 (1.57
194659	S Par.	Faint	5 40
			8 00
			7 56

Sept. 14, 1910

No. 119. Sep. 10.

Sp. "Ma 4" W. P. F. marked on B 40555
 4098, August 2, 1910.
 Vac. confirmed by L. D. W.

Examination of B plates.

B 28736	9.6	
B 25517	9.3	
B 40318	9.2	
B 11759	9.1	
B 22070	9.3	
B 27648	9.4	
B 33631	9.3	
Am 5718	9.2	Good plate
B 25881	9.8	
B 2155		
Am 5555	9.8	
Am 5452	9.1	

October 5, 1910

Regin 0^h 0^m

Am 3825 Superposed on D 14416 = Am 2205

1. Faint in negative.

No. 133
 Dr. on Am 6638, 6517, Ac 11136, Ac 11054
 Ac 9677
 Ft. on Ac 11030 not distinctly seen on
 this plate, but star p. p. is seen

Ac 11018 a little faint
 Ac 9780 a little faint
 marked on B 16158.

+12° 49.97
 23° 22' 37.5 +12° 44.8 9.2
 Incl. checked by A. D. W.
 Sp. on B 1313 1st app.

Ac 11988 No. 133 135 high
 No. 25, 10 Ac 12150 " " " "
 Ac 12161 " " " "
 Ac 6737 " high " "
 Ac 11088 " " " ft.
 Ac 11197 " " " Vign.
 Ac 6618 " " " "
 " 6647 " " " "
 " 6656 " " " "
 Ac 6681 " " " "

October 6, 1910

Am 3825 cont.

2. Brighter on position.

Run A Pegasi.

3. On position, not on neg.

This looks like an image of something, but is perhaps not exactly like the star images. It is on Am 2255. May be an asteroid.

When 6517, 5681, 1589, 2272
2376, ^{12 days later} (Sept 2, 1910)4. On neg, not on pos.
Apparently a defect, as the shape differs.

5. Brighter on negation

D. on 3021, 5689

F. on 5367, 6769

Rather from old plates. Look up in B or J plates.
23 57.8 +1 on aff. (1800)Berlin
inspected

Nov. 28, 1910

Am 3825 cont.

(5)

Checked on B 11969

Looked up by A. M. C. and recorded in his book. No variation found.

On B 33684, 11969, 132170, 131258, 40681, B 11916
sl. fl. ? on B 37153.

(6)

On pos, not on neg.

Elongated. May be a planet.

Apparent pos. $23^{\circ}15' - 4^{\circ}45'$ (1855) Sept. 2, 1903
Nauvika Am 2272 when Sept. 14, 1803. Shows the
object at $23^{\circ}35' - 4^{\circ}30'$. (approx. 1855)Berlin / alcyonid from Sept. 30, 1803 as
date of apparition of Nauvika, and position $23^{\circ}12' - 3^{\circ}46'$ (1803) A. M. 163, 181 from
corrected $-2^{\circ}6'$ $-37'$ making $23^{\circ}8' - 4^{\circ}23'$ (1803)According to my obs. the apparent position
for 1855 would be $23^{\circ}7' - 4^{\circ}33'$ on Sept. 10, 1903Reducing to 1800 gives $23^{\circ}9.3' - 4^{\circ}18'$

agreeing approximately with Nauvika.

(7)

Bright planet on pos, not on neg.
 $23.8 - 4.40$

October 11, 1910

0h 00

Am 657 superimposed on the R
= Am 22551. *Brighten* on pos. Poor images
importantNo certain variation on 12 plates.
Probably due to different shape of
the images.2. *Brighten* on neg.Kum
R. Regan3. Much *brighten* on pos.Kum
6/1909
Schi

October 11, 1910

Am 657 cont.

4. *Brighten* on pos. checked by C.D.H.
B 38164 - 1907 0m 34.1 - 190 22.7 8.0
Bm on Am 3014, 2760, 6673, 5693, 5910, 2879.
Nov. 184 H. ft. on 5736, 6587.
H. ft. on 6502, 6517.
Sp. M. on B 14672.
Bm on 11263, Am 2918, Am 3789
Am 2852, Am 3760.5. *Brighten* on neg.Kum
233815
Regan6. *Brighten* on position
on eschewedKum
R. Regan7. Slightly *brighten* on pos.
H. ft. on Am 2272No variation seen on 10 - 15 Am
plates at hand

Oct. 13, 1910

+7°50'56"

Ac 3076	Rv.	Ac 380	For poor	Am 2936	Rv.
Ac 3115	Rv.	Ac 464	no variation	Am 3212	Rv.
Ac 3782	Rv.	Ac 475	Rv.	Am 3153	Rv.
Ac 3799	Rv.	Ac 595	Rv.	Am 3115	Rv.
Ac 3875	For poor	Ac 908	Rv.	Am 3078	Rv.
Ac 3989	Rv.	Ac 945	For poor	Am 3045	Rv.
Ac 4066	gone	Ac 969	"	Am 2977	Rv.
Ac 4097	Rv.	Ac 972	Rv.	Am 3627	Rv.
Ac 4110	Rv.	Ac 1050	Rv.	Am 3258	Rv.
Ac 4118	Rv.	Ac 1160	Rv.	Am 3735	Rv.
Ac 4157	Rv.	Ac 1187	Rv.	Am 3758	Rv.
Ac 4177	Rv.	Ac 1568	Rv.	Am 3815	Rv.
Ac 4188	For poor	Ac 1622	Rv.	Am 3836	Rv.
Ac 4218	Rv.	Ac 1725	Rv.	Am 3866	Rv.
Ac 4314	Rv.	Ac 1832	Rv.	Am 3914	Rv.
Ac 4331	Rv.	Ac 1865	Rv.	Am 3955	Rv.
Ac 4411	Rv.	Ac 1920	Rv.	Am 3985	Rv.
Ac 4364	Rv.	Ac 1975	Rv.	Am 4003	Rv.
Ac 4970	For poor	Ac 2001	Rv.	Am 582	Rv.
Ac 5006	"	Ac 2023	Rv.	Am 602	Rv.
Ac 5063	"	Ac 2054	Rv.	Am 668	fr.
Ac 5074	Rv.	Ac 2132	Rv.	Am 699	Rv.
Ac 5084	Rv.	Ac 2717	Rv.	Am 864	Rv.
Ac 5109	Rv.	Ac 2735	Rv.	Am 883	Rv.
Ac 5131	no variation	Ac 2759	Rv.	Am 968	Rv.
Ac 5152	Rv.	Am 2776	Rv.	Am 984	Rv.
Ac 5192	For poor	Am 2851	Rv.	Am 1004	Rv.
Ac 90	Rv.	Am 2878	Slightly fr.	Am 1018	Rv.
Ac 279	For poor	Am 2910	Rv.	Am 1079	Rv.

Oct. 13, 1910

+7°50'56"

Am 1092	Rv.	Ac 5455	Rv.	Ac 9930	Rv.
Am 1098	Rv.	Ac 6516	Rv.	Ac 9958	Rv.
Am 1314	Rv.	Ac 6563	Rv.	Ac 9992	Rv.
Am 1348	Rv.	Ac 6568	Rv.	Ac 10051	Rv.
Am 1366	Rv.	Ac 6659	Rv.	Ac 10099	Rv.
Am 1368	Rv.	Ac 6816	For poor	Ac 10131	Rv.
Am 1525	Rv.	Ac 6931	Rv.	Ac 10535	Rv.
Am 1604	Rv.	Am 40	Rv.	Ac 10602	Rv.
Am 1642	Rv.	Am 83	fr.	Ac 10676	Rv.
Am 1658	Rv.	Am 94	Rv.	Ac 10696	Rv.
Am 2004	Rv.	Am 95	For poor	Ac 10730	For poor
Am 2026	Rv.	Am 123	Rv.	Ac 10746	"
Am 2087	Rv.	Am 188	Rv.	Ac 10752	Rv.
Am 2192	Rv.	Am 213	Rv.	Ac 10824	Rv.
Am 2705	Rv.	Am 254	Rv.	Ac 10834	Rv.
Am 2310	Rv.	Am 552	Rv.	Ac 10849	Rv.
Am 2328	Rv.	Ac 8907	Rv.	Ac 10872	Rv.
Am 2328	Rv.	Ac 8974	fr.	Ac 10920	Rv.
Ac 5306	Rv.	Ac 8981	Rv.	Ac 10929	Rv.
Am 2321	not examined	Ac 9008	For poor	Ac 10957	Rv.
Ac 5237	Rv.	Ac 9076	Rv.	Ac 10995	Rv.
Ac 5347	Rv.	Ac 9088	Rv.	Ac 7088	unsp. ? For poor
Ac 5410	Rv.	Ac 9541	Rv.	Ac 7123	Rv.
Ac 5463	Rv.	Ac 9600	For poor	Ac 7149	Rv.
Ac 5496	Rv.	Ac 9657	Rv.	Ac 7638	For poor
Ac 5511	Rv.	Ac 9702	Rv.	Ac 7717	Rv.
Ac 5564	Rv.	Ac 9743	For poor	Ac 7753	gone
Ac 5734	Rv.	Ac 9826	"	Ac 7759	Rv.
Ac 6469	Rv.				

Oct 13, 1910

+7° 50' 56"

Ac 7790	Per.	Am 4906	Per.	Am 6731	Per.
Ac 7831	Per.	Am 5030	Per.	Am 6737	Per.
Ac 7839	Too poor	Am 5044	Per.	Am 7027	Per.
Ac 7929	Per.	Am 5067	Per.	Am 7080	Per.
Ac 8005	Per.	Am 5084	Per.	Am 7125	Per.
Ac 8020	Per.	Am 5093	Per.	Ac 11003	Per.
Ac 8072	Per.	Am 5107	Per.	Ac 11052	fr
Ac 8129	Per.	Am 5112	Per.	Ac 11059	Too poor
Ac 8219	Per.	Am 5118	fr.	Ac 11098	fr.
Ac 8597	Per.	Am 5187	Per.	Ac 11197	Per.
Ac 8648	Per.	Am 5198	Per.	Ac 11199	Per.
Ac 8654	Per.	Am 5249	Per.	Ac 11208	Per.
Ac 8718	Too poor	Am 5271	Slightly off	Ac 11242	Per.
Ac 8753	Per.	Am 5679	Per.	Ac 11602	Too poor
Ac 8772	Per.	Am 5743	Per.	Ac 11703	" "
Ac 8807	Per.	Am 5759	Per.	Ac 11819	Per.
Ac 8820	Too poor	Am 5801	Per.	Ac 11837	Per.
Ac 9831	Per.	Am 5867	Per.	Ac 11946	Too poor
Ac 8863	Per.	Am 5870	Per.	Ac 11891	Per.
Ac 8876	Per.	Am 6285	Per.	Ac 11900	Per.
Ac 8891	Too poor	Am 6291	Per.	Ac 11971	Per.
Am 4475	Per.	Am 6275	Per.	Ac 11979	fr.
Am 4523	Per.	Am 6446	Per.	Am 4307	Per.
Am 4538	Per.	Am 6467	Per.	Am 4323	Per.
Am 4550	Per.	Am 6557	Per.	Am 4346	Per.
Am 4583	Per. on meridian	Am 6618	Per.	Am 4469	Per.
Am 4608	Per.	Am 6647	Per.	Ac 10121	Per.
Am 4682	Per.	Am 6656	Per.	Faint on 22 plates	
Am 4704	Per.	Am 6691	Per.	Bright on 311	

Region 0° 0'

1/2 Auricular

?	225914	RM Per.	
	230110	R Per.	Found
	231110	- Per.	
	231508	S Per.	Found
	231711		
?	231917	RM Aqua.	
	233815	R Aqua.	Found
	234716	Z Aqua.	
	235201	V Ceti	
	235215	U Per.	Found
	235715	W Aqua	
	001909	S Ceti	Found
	002212		
	002614	S Per.	

$$5:8 = 14:4$$

$$5 \overline{) 112} \\ 22$$

3 new ones.

$$3:8 = 7:4$$

$$\begin{array}{r} 18 \\ 3 \overline{) 54} \\ 48 \\ \hline 6 \end{array}$$

$$5:8 = 17:4$$

$$5 \overline{) 136} \\ 27 \text{ prob. no.}$$

See H.C. number from found is to total number found
127 as number known at beginning of investigation is
to probable number existing in region

Dec 1, 1910

Ac 11099 supposed

1. Brighter on positive
 but changes in about 15
 AC plates at hand
 may be Algol types

2. Brighter on positive
 Algol var.

3. Brighter on pos.
 Run
 R. Regani

4. Brighter on positive?
 Component of a very bright star
 no variation seen in 15- μ m plates at
 central 3 h - 15 h

January 18, 1911

Algol var. no. 135

Est. of sequence from MC 792

Polar sep. entered on this plate
 from MC 240.Sep. for var. in red
 Polar sep. in black

a	7.8?	Too far away.
b	8.12	
c	8.2	
d	9.5	
e	10.0	Reject.
f	10.4	
g	10.5	Some of the polar sequence
h	10.8	are ^{probably} attached incorrectly.
i	11.1	
j	11.5	
k	11.7	
l	11.9	
m	12.1	
n	12.6	
o		
p		

Jan. 19, 1911

Spec for var. No. 135

in No. 792.

The police rep. taken from fruit to grow
me by, Miss Searitt.

a	8.0
b	9.0?
c	8.9
d	9.3
e	9.8
f	10.1
g	10.2
h	10.5
i	10.8
j	11.1
k	11.2
l	11.6
m	11.9
n	12.0
o	12.7
p	

wrong data was marked

Jan. 19, 1911

No. 135

a	8.2?
b	9.1
c	9.2
d	9.5
e	9.8
f	10.1
g	10.3 too far off
h	10.5
i	10.8
j	11.2
k	11.4
l	11.6
m	12.0
n	12.5

Jan. 19, 1911
 Estimates of sep. for no. 135

				Applied Inference
a	8.2?	8.0?	8.2?	8.1
b	9.1	9.0?	9.1	9.1
c	9.2	8.9	9.2	9.1
d	9.6	9.3	9.5	9.5
e	9.8	9.8	9.8	9.8
f	10.1	10.1	10.1	10.1
g	10.2	10.2	10.3	10.2
h	10.5	10.5	10.5	10.5
i				
j	10.8	10.8	10.8	10.8
k	11.1	11.1	11.2	11.1
m	11.4	11.2	11.4	11.3
n	11.7	11.6	11.6	11.6
o	12.0	12.0	12.0	12.0
p	12.7	12.7	12.5	12.6

Jan. 19, 1911
 Observations of no. 135

ac 11980 ^{11.4} 10.6	am 6517	ac 11922
✓ am 1569	8.9	not coming
✓ s.s. < 10.6	✓ am 5118	
am 1569	10.4	Good image.
9.0	✓ am 11052	
ac 8974	10.4? very poor image.	
✓ very poor plate	Cy. tail, much fading than	
10.0	f = 10.8, but fainter comp. class	
✓ am 83	ac 10054	
✓ s.s. < 10.9	10.4	
✓ am 3366	am 5571	mc 792
11.4	9.2	mc = 10.6
✓ ac 7753	ac 11098	B 24117
7.5 < 11.4	10.4	12.5
am 3325	am 7962	
9.0	9.2	
✓ am 668	ac 11099	
10.4	11.1	
✓ am 289	am 2272	
10.2 On the edge	9.0	

Jan. 9, 1911

Am 5185 No. 135
 Mult. image, flat varying.
 13 images, last one very ft.

- 1 H. S.
- 2 H. S.
- 3 H. S.
- 4 H. S.
- 5 2.4 sec, too defective to measure
- 6 10.9
- 7 16.4
- 8 10.0
- 9 9.76
- 10 9.14
- 11 9.2
- 12 9.1 about max.
- 13 9.0

13th image very ft. small, but
 in the run, it seems a little brighter
 than 12, as compared with 13
 of the other stars.

Jan. 20, 1911

No. 135 cont.

Am 4066

n. S.
 211.0

ac 11979

Platy very poor.
 I think the flat
 is ft. but un-
 measure

Am 2878

9.1 (about max.)

ac 5681

9.4

ac 8085

11.9

ac 6724

10.0

6^h 0^m

Jan. 30, 1911

CC 2885 ^{Dec 9, 1902} ~~referred~~ on
 D 14917 = AC 5665

1. Bright in pos.

Known
 M. known

2. Bright in pos.

Known
 D. S. Quinn
 B. L.

3. Much brighter in pos.
Image in neg. probably defective

4. Bright in pos.

+ 6° 12.8 6° 13.7 38.0 + 6 3.5 9 8.8

Mark in plate & compare run

Mark spectrum. Am. m. ac 5917

J 2828721, marked.

Sp. m J 19831, 500K. Sp. checked.

Marked in B 28721

See A. M. C. 6 book I, 13.

Similar to m. ac 5917,

neg. th. ac 5913

th. m. m. m. m.
 ac 5917, ac 5914,
 ac 5913, ac 5915,
 ac 12301, Am 5268,
 ac 12619,

Jan. 30, 1911

AC 2885 cont.

5. on pos. not on neg.

Known
 Unknown

6. Bright in negative, 5^h 32^m 22^s - 6° 38' (1900)
 FL m AC 5938, 12230, ^{Feb 3, 1905} 05-3206b

Br. on 5918. Jan. 30, 1905.

Br. on 12062

Very ft. on AC 5665, Dec. 4, 1914

Changes about 1 mag. or perhaps a little less.

Known
 Formed
 by Feb. 2.

Shore layer
 rays on plates.

This is -6° 25.9, announced in H. C. 79, ^{Mar 36, 1904}
 Conf. in H. C. 86, ^{Sept. 5, 1904} measured on 114 plates.

range 8.0 to 10.2, period irregular

Also conf. by neg. A. M. 177, 77 range 9.5-12.

No letter has been accepted

B 710 lines

6h 0⁰

Feb. 14, 1911

ac 2398 ^{March 19, 1902} independent ~ D₁ 14917 =
ac 5665.

1. Brighten on pos.

Kum
Zorinis

2. Brighten on position?
seems to be a double star.
Machin I plate.

3. Brighten on pos.

Kum Fionid on ac 2885
+ 6° 120 h

4. Brighten on ref.

Kum
H. Monn

5. Brighten on ref.

Kum
W. Onie

0° 6°

Feb. 21, 1911

Par. No. 134

Examination of additional plates.

June 20, 1903

Br. on Am 2005

Br. Am 1367, 1401, 2021,

Am 2214, 2330

ft. on

Dec. 22, 1902 Am 1760

Dec. 15, 1903 Am 2410

Nov. 9, 1903 Ab 4187

Oct. 6, 1902 Am 1607

Oct. 9, 1902 Am 1624

cl. ft.

Bright on about 15 other plates.

This variable was at or near minimum in December 1902, and in Nov. and Dec. 1903, and in August 1905.

Exam. on 38 plates.

Period may be slightly less than a year.

or irregular

Variation conf. by E. F. L.

6° 0°

Map 25.

Known Variables.

050001	W. Quinis (Faint)		
045403	- Or	9.5 - 10.5	5 4.9 - 5.35
050003	Or		
052404	S Or	(Faint)	
052702	- Or	20 871.4	5 24.0 - 4 47
052707	R 700		- 40 1144
053005	T 800	Faint	
053206	S 700	Faint	
053913	S 700		
054610a	Z Linn		
054607	Z Linn		
055013	Z Linn		
055716	R 700	Faint	
061614	R 500	Faint	
061702	R 700	Faint	
061807	Z Linn	Faint	
062808	Z Linn		
062915	W Linn	(Faint)	
062908	R 700		
063308	R 700		
064018	R 700	11 - 15.5	
064207	W 700		
064604	- Linn		
064807	R 700	(Faint)	
065111	Y Linn		
065208	X Linn	Faint	

Feb. 21, 1911

Observation of ran. No. 97 = 155264

I 1100
WhenI 1081
Unblended.~~Obs~~
I 1101, 1306
1312, 904
1321, 1322
1294, 1254
UnblendedI 19071 - 46
7.6

Labels to Only the brightest photo spec	{	I 6330	1478	8613
		I 18247	1406	8640
		I 17277	3679	8705
		I 17374	3690	6452
		I 18239	3701	6411
		I 6385	3783	
		6357	2789	
		6342	3796	
		2995	6304	

Feb. 21, 1911

I 32925
FaintI 27686
7.6? From near edge.I 34022
7.0 near edgeI 20119
7.5? very near edge.I 23835
7.7I 20173
Too poorI 23366
7.8I 20371
Not convincingI 25445
7.5I 20392
7.6I 27229
7.7I 20414
7.5I 27532
Too poorI 19416
FaintI 27613
7.5? From near edgeI 13334
Little faintI 27605
7.8I 13440
7.5

Feb. 21, 1911
Observations of No. 97, 4th M. Diasoni

I 13589
7.4

I 15611
Little faint

I 16421
Slightly faint

I 16449
7.5

I 3440
not coming

I 3441
faint =

I 3442
7.5

I 9179
not coming

I 9215
7.4

I 9216
7.4

I 9217
not coming

I 6429
7.5

I 6416
not coming

I 6405
not coming

I 35005 Spectrum
7.6

I 31564 Spectrum
7.6

I 34995 Spectrum
7.6

I 11683
slightly faint

I 29097
7.5

Feb. 21, 1911
Observations of 4th M. Diasoni

I 12936
7.5

1891 Apr. 21
2411844.705

• 12^h 00February 22, 1911

ac 11435 taken March 4, 1910
superposed on D 15053

Fairly bright object on position
not on neg.
apparent $11^h 14^m + 6$
 $10^h 59^m + 5 \quad 31$

Evidently, Massalia, opposite
day March 3.

ac 11634 superposed on D 15053
R. S. Truj. found

marked on ac 11308 Jan. 15, 1910
11323 " 19 "
11314 " 16 "

12^h 00Dec 13, 1911

ac 11435 superposed on D 15053
from ac 11314

1. Massalia. See prev. page

2. Brighter on neg? Br. than on D 15053, and
fainter than on D 15053
Br. on Jan 6 117, Jh on 11330, 8868
Br. on 10, 351, 6264, 1104, 8788, 11314, 3341
DM + 5° 26 34 12 23.0 + 5 12.9 8.5
Obs. var. bright obj. else
marked on I 24575

3. Brighter on neg.
Jh. on 6 117, 3341, 8788,
obj. pl. near 11435, seen if brighter in
due to defect. holding to defect, also on ac 11435
(emb. on p. 134.) taken March 15, 1910

Newbr. 149 DM + 0° 29 00 12 1.1 + 0 19.7 9.3 Marked on I 24575
min. machine made 1 p. 94 (vul.)
Confirmed by J. C. M. and photos examined by A. J. C. various
about 0.8 mag.

Plates not comparable. The images
are so much larger on neg. than on pos.
Objects marked some time ago, first
probably since Feb 22 (except Massalia)

emb. p. 134.

Feb 23, 1911

Algebra. No. 135. $+7^{\circ}50'56''$ Oct. 11, 1892 I 7321
9.01.8.
2383
$$\begin{array}{r} 4909.718 + 376182 \text{ Comp.} \\ 3012.666 \\ \hline 1897.062 \end{array}$$

$$\begin{array}{r} 230.12656 \\ 1927.18856 \\ 60.25312 \\ \hline 1987.44168 \end{array}$$
Oct. 23, 1892 I 7405
9.0

2395

$$\begin{array}{r} 1897.062 \\ 230.12656 \\ 1927.18856 \\ 60.25312 \\ \hline 1987.44168 \end{array}$$
Sept. 9, 1891 I 4184
9.0

1985

$$\begin{array}{r} 1987.44168 \\ 36.12656 \\ \hline 2023.56824 \end{array}$$
Oct. 9, 1891 I 4491
9.0

2015

$$\begin{array}{r} 2023.56824 \\ 15.06328 \\ \hline 2038.63152 \end{array}$$
Nov. 4, 1891 I 4715
9.0

2041

$$\begin{array}{r} 2038.63152 \\ 7.57164 \\ \hline 2046.20316 \\ 30.42656 \\ \hline 2076.62972 \end{array}$$
very faint on B24117
taken Sept. 11, 1899.

Normal on

B6544 B14706

B22186 B13961

B22136

B1694

B20086

B20159

B20403

B20756

B20760

B19795

B18259

B16755

B2694

$$\begin{array}{r} 2341.42876 \\ 30.12656 \\ \hline 2371.55532 \\ 11.27746 \\ \hline 2382.83278 \\ 11.27746 \\ \hline 2394.11024 \end{array}$$

+ -

Equation of Light for No. 131

$$\begin{aligned} 23^h 27.0^m &= \text{long. } 355^{\circ} \\ +7^{\circ} 7.0' &= +9^{\circ} 7' \text{ lat} \\ \text{cor. lat.} &= .986 \end{aligned}$$

315 + 150°

6 ϕ	355 + ϕ	Date	355 - ϕ	175 + ϕ	175 - ϕ
.0005	17°	372 = 12 Apr. 2	338	Feb. 27	192 Oct. 15 1889
.0045	38°	393 = 33 Apr. 23	317	Feb. 6	213 Oct. 16 1890
.0035	53°	408 = 48 May 9	302	Jan. 26	228 Nov. 10 1890
.0025	65°	420 = 60 May 21	289	Jan. 11	240 Nov. 22 1890
.0015	75°	430 = 70 June 1	280	Jan. 1	250 Dec. 2 1890
.0005	85°	440 = 80 June 11	270	Dec. 22	260 Dec. 12 1890

correction is .001 from June 1 to May

.0005	85°	80	June 11	Dec. 22	Dec. 12 June 21
.0015	75°	70 <td>June 1 <td>Jan. 1 <td>Dec. 2 July 2 </td></td></td>	June 1 <td>Jan. 1 <td>Dec. 2 July 2 </td></td>	Jan. 1 <td>Dec. 2 July 2 </td>	Dec. 2 July 2
.0025	65°	60 <td>May 21 <td>Jan. 11 <td>Nov. 22 July 12 </td></td></td>	May 21 <td>Jan. 11 <td>Nov. 22 July 12 </td></td>	Jan. 11 <td>Nov. 22 July 12 </td>	Nov. 22 July 12
.0035	53°	48 <td>May 9 <td>Jan. 26 <td>Nov. 10 July 25 </td></td></td>	May 9 <td>Jan. 26 <td>Nov. 10 July 25 </td></td>	Jan. 26 <td>Nov. 10 July 25 </td>	Nov. 10 July 25
.0045	38°	33 <td>Apr. 23 <td>Feb. 6 <td>Oct. 26 Aug. 10 </td></td></td>	Apr. 23 <td>Feb. 6 <td>Oct. 26 Aug. 10 </td></td>	Feb. 6 <td>Oct. 26 Aug. 10 </td>	Oct. 26 Aug. 10
.0055	17°	12 <td>Apr. 2</td> <td>Feb. 27 <td>Oct. 5 Aug. 11 </td></td>	Apr. 2	Feb. 27 <td>Oct. 5 Aug. 11 </td>	Oct. 5 Aug. 11

correction is .001 from June 1 to June 10

May 21 to May 31

May 9 to May 26

Apr. 23 to May 8

Jan. 1 to Dec. 21

Jan. 11 to Dec. 31

Jan. 26 to Jan. 10

Jan. 26 to Jan. 10

Feb. 6 to Jan. 25

Dec. 2 to Dec. 11

Nov. 22 to Dec. 1

Nov. 10 to Nov. 21

Oct. 26 to Nov. 9

Sign +

$$No. 135 = +7^{\circ} 50' 16'' \quad 23 \ 29.3 \quad +7^{\circ} 32' 18''$$

$$Long = 356^{\circ} \quad Lat = 9.8^{\circ}$$

$$cos = .985$$

$356^{\circ} - \phi$	Date	$176^{\circ} - \phi$	Date
0005 88-4412 81	Dec 23	261 Dec. 13	91 June 22
0715 75-431 71	Jan 1	251 Dec. 3	101 July 3
0725 64-420 60	Jan 12	240 Nov. 22	112 July 15
0735 53-409 49	Jan 23	229 Nov. 11	123 July 26
0745 38-394 34	Feb 7	214 Oct. 27	138 Aug. 11
0755 16-372 12	Feb 17	192 Oct. 5	149 Sept. 3
0756 00-352 356	Mar 17	176 Sept. 19	176 Sept. 19

Add algebraically to the P.D. and decimal of day when plate was taken

Jan 0 - 12 - 000	Jan 1 - 11 - 000
" 12 - 22 - 002	" 12 - 22 - 003
Jan 23 - Feb 7 - 003	" 23 - Feb 6 - 004
Feb 7 - Feb 17 - 004	Feb 7 - Mar 17 - 005
Mar 17 - Mar 17 - 005	Mar 17 - Apr. 23 - 005
Apr. 24 - May 9 - 004	May 10 - May 20 - 003
May 21 - June 2 - 002	May 21 - June 2 - 002
June 2 - June 11 - 001	June 12 - June 21 - 000
June 22 - July 3 - 001	July 3 - July 14 - 002
July 15 - July 26 - 003	July 26 - Aug. 10 - 004

Aug. 11 - Sept. 19 - 005
 Sept. 19 - Oct. 26 - 004
 Oct. 27 - Nov. 10 - 004
 Nov. 11 - Nov. 21 - 003
 Nov. 22 - Dec. 3 - 002
 Dec. 3 - Dec. 23 - 001
 Dec. 13 - Dec. 23 - 001

March 6, 1911

No. 135	Algal	I 26120
B26332	8.9	I 16456
B28094	8.9	I 16458
B28645	8.9	I 18647
B30179	8.9	I 18669
B32267	8.9	I 21094
B32708	8.9	I 21140
B34042	10.6	I 23866
B34551	10.3	I 23899
B37076	8.9	I 24255
B37174	8.9	I 26110
		not coming

Position of faint crop stars for Algol
 Val. No. 435.
 A 4688. Variables as center.

	α	δ	α	δ	mean α	mean δ	mean $X = 403.33$
h	+26.88	-5.10	+26.89	-5.09	+26.88	-5.10	+108.33
k	+22.10	-14.58	+22.09	-14.49	+22.10	-14.54	+87.06
l	+13.58	+6.80	+13.57	+6.80	+13.58	+6.80	+54.73
m	+13.83	-9.18	+13.80	-9.19	+13.82	-9.18	+53.69
n	-0.08	+2.19	-0.08	+2.19	-0.08	+2.19	-0.32
o	+21.30	-7.35	+21.30	-7.33	+21.30	-7.34	+85.84
p	-0.40	+5.80	-0.38	+5.81	-0.39	+5.80	-1.57

$$\alpha = +7^{\circ} 50.5', 23^{\circ} 27' 2.4'' + 7^{\circ} 7.0'$$

$$\cos 4^{\circ} 7' = .99230$$

$$\sec =$$

$$\frac{1}{.99230} = 1.0078$$

$$\frac{1.0078}{.99230} = 1.0166$$

$$\frac{1.0166}{.99230} = 1.0244$$

$$\frac{1.0244}{.99230} = 1.0322$$

$$\frac{1.0322}{.99230} = 1.0400$$

$$\frac{1.0400}{.99230} = 1.0478$$

$$\frac{1.0478}{.99230} = 1.0556$$

$$\frac{1.0556}{.99230} = 1.0634$$

$$\frac{1.0634}{.99230} = 1.0712$$

$$\frac{1.0712}{.99230} = 1.0790$$

$$\frac{1.0790}{.99230} = 1.0868$$

$$\frac{1.0868}{.99230} = 1.0946$$

$$\frac{1.0946}{.99230} = 1.1024$$

$$\frac{1.1024}{.99230} = 1.1102$$

$$\frac{1.1102}{.99230} = 1.1180$$

$$\frac{1.1180}{.99230} = 1.1258$$

$$\frac{1.1258}{.99230} = 1.1336$$

$$\frac{1.1336}{.99230} = 1.1414$$

$$\frac{1.1414}{.99230} = 1.1492$$

$$\frac{1.1492}{.99230} = 1.1570$$

$$\frac{1.1570}{.99230} = 1.1648$$

$$\frac{1.1648}{.99230} = 1.1726$$

$$\frac{1.1726}{.99230} = 1.1804$$

$$\frac{1.1804}{.99230} = 1.1882$$

$$\frac{1.1882}{.99230} = 1.1960$$

$$\frac{1.1960}{.99230} = 1.2038$$

$$\frac{1.2038}{.99230} = 1.2116$$

$$\frac{1.2116}{.99230} = 1.2194$$

$$\frac{1.2194}{.99230} = 1.2272$$

$$\frac{1.2272}{.99230} = 1.2350$$

$$\frac{1.2350}{.99230} = 1.2428$$

$$\frac{1.2428}{.99230} = 1.2506$$

$$\frac{1.2506}{.99230} = 1.2584$$

$$\frac{1.2584}{.99230} = 1.2662$$

$$\frac{1.2662}{.99230} = 1.2740$$

$$\frac{1.2740}{.99230} = 1.2818$$

$$\frac{1.2818}{.99230} = 1.2896$$

$$\frac{1.2896}{.99230} = 1.2974$$

$$\frac{1.2974}{.99230} = 1.3052$$

$$\frac{1.3052}{.99230} = 1.3130$$

$$\frac{1.3130}{.99230} = 1.3208$$

$$\frac{1.3208}{.99230} = 1.3286$$

$$\frac{1.3286}{.99230} = 1.3364$$

$$\frac{1.3364}{.99230} = 1.3442$$

$$\frac{1.3442}{.99230} = 1.3520$$

$$\frac{1.3520}{.99230} = 1.3598$$

$$\frac{1.3598}{.99230} = 1.3676$$

$$\frac{1.3676}{.99230} = 1.3754$$

$$\frac{1.3754}{.99230} = 1.3832$$

$$\frac{1.3832}{.99230} = 1.3910$$

$$\frac{1.3910}{.99230} = 1.3988$$

$$\frac{1.3988}{.99230} = 1.4066$$

$$\frac{1.4066}{.99230} = 1.4144$$

$$\frac{1.4144}{.99230} = 1.4222$$

$$\frac{1.4222}{.99230} = 1.4300$$

$$\frac{1.4300}{.99230} = 1.4378$$

$$\frac{1.4378}{.99230} = 1.4456$$

$$\frac{1.4456}{.99230} = 1.4534$$

$$\frac{1.4534}{.99230} = 1.4612$$

$$\frac{1.4612}{.99230} = 1.4690$$

$$\frac{1.4690}{.99230} = 1.4768$$

$$\frac{1.4768}{.99230} = 1.4846$$

$$\frac{1.4846}{.99230} = 1.4924$$

$$\frac{1.4924}{.99230} = 1.5002$$

$$\frac{1.5002}{.99230} = 1.5080$$

$$\frac{1.5080}{.99230} = 1.5158$$

$$\frac{1.5158}{.99230} = 1.5236$$

$$\frac{1.5236}{.99230} = 1.5314$$

$$\frac{1.5314}{.99230} = 1.5392$$

$$\frac{1.5392}{.99230} = 1.5470$$

$$\frac{1.5470}{.99230} = 1.5548$$

$$\frac{1.5548}{.99230} = 1.5626$$

$$\frac{1.5626}{.99230} = 1.5704$$

$$\frac{1.5704}{.99230} = 1.5782$$

$$\frac{1.5782}{.99230} = 1.5860$$

$$\frac{1.5860}{.99230} = 1.5938$$

$$\frac{1.5938}{.99230} = 1.6016$$

$$\frac{1.6016}{.99230} = 1.6094$$

$$\frac{1.6094}{.99230} = 1.6172$$

$$\frac{1.6172}{.99230} = 1.6250$$

$$\frac{1.6250}{.99230} = 1.6328$$

$$\frac{1.6328}{.99230} = 1.6406$$

$$\frac{1.6406}{.99230} = 1.6484$$

$$\frac{1.6484}{.99230} = 1.6562$$

$$\frac{1.6562}{.99230} = 1.6640$$

$$\frac{1.6640}{.99230} = 1.6718$$

$$\frac{1.6718}{.99230} = 1.6796$$

$$\frac{1.6796}{.99230} = 1.6874$$

$$\frac{1.6874}{.99230} = 1.6952$$

$$\frac{1.6952}{.99230} = 1.7030$$

$$\frac{1.7030}{.99230} = 1.7108$$

$$\frac{1.7108}{.99230} = 1.7186$$

$$\frac{1.7186}{.99230} = 1.7264$$

$$\frac{1.7264}{.99230} = 1.7342$$

$$\frac{1.7342}{.99230} = 1.7420$$

$$\frac{1.7420}{.99230} = 1.7498$$

$$\frac{1.7498}{.99230} = 1.7576$$

$$\frac{1.7576}{.99230} = 1.7654$$

$$\frac{1.7654}{.99230} = 1.7732$$

$$\frac{1.7732}{.99230} = 1.7810$$

$$\frac{1.7810}{.99230} = 1.7888$$

$$\frac{1.7888}{.99230} = 1.7966$$

$$\frac{1.7966}{.99230} = 1.8044$$

$$\frac{1.8044}{.99230} = 1.8122$$

$$\frac{1.8122}{.99230} = 1.8200$$

$$\frac{1.8200}{.99230} = 1.8278$$

$$\frac{1.8278}{.99230} = 1.8356$$

$$\frac{1.8356}{.99230} = 1.8434$$

$$\frac{1.8434}{.99230} = 1.8512$$

$$\frac{1.8512}{.99230} = 1.8590$$

$$\frac{1.8590}{.99230} = 1.8668$$

$$\frac{1.8668}{.99230} = 1.8746$$

$$\frac{1.8746}{.99230} = 1.8824$$

$$\frac{1.8824}{.99230} = 1.8902$$

$$\frac{1.8902}{.99230} = 1.8980$$

$$\frac{1.8980}{.99230} = 1.9058$$

$$\frac{1.9058}{.99230} = 1.9136$$

$$\frac{1.9136}{.99230} = 1.9214$$

$$\frac{1.9214}{.99230} = 1.9292$$

$$\frac{1.9292}{.99230} = 1.9370$$

$$\frac{1.9370}{.99230} = 1.9448$$

$$\frac{1.9448}{.99230} = 1.9526$$

$$\frac{1.9526}{.99230} = 1.9604$$

$$\frac{1.9604}{.99230} = 1.9682$$

$$\frac{1.9682}{.99230} = 1.9760$$

$$\frac{1.9760}{.99230} = 1.9838$$

$$\frac{1.9838}{.99230} = 1.9916$$

$$\frac{1.9916}{.99230} = 1.9994$$

$$\frac{1.9994}{.99230} = 2.0072$$

$$\frac{2.0072}{.99230} = 2.0150$$

$$\frac{2.0150}{.99230} = 2.0228$$

$$\frac{2.0228}{.99230} = 2.0306$$

$$\frac{2.0306}{.99230} = 2.0384$$

$$\frac{2.0384}{.99230} = 2.0462$$

$$\frac{2.0462}{.99230} = 2.0540$$

$$\frac{2.0540}{.99230} = 2.0618$$

$$\frac{2.0618}{.99230} = 2.0696$$

$$\frac{2.0696}{.99230} = 2.0774$$

$$\frac{2.0774}{.99230} = 2.0852$$

$$\frac{2.0852}{.99230} = 2.0930$$

$$\frac{2.0930}{.99230} = 2.1008$$

$$\frac{2.1008}{.99230} = 2.1086$$

$$\frac{2.1086}{.99230} = 2.1164$$

$$\frac{2.1164}{.99230} = 2.1242$$

$$\frac{2.1242}{.99230} = 2.1320$$

$$\frac{2.1320}{.99230} = 2.1398$$

$$\frac{2.1398}{.99230} = 2.1476$$

$$\frac{2.1476}{.99230} = 2.1554$$

$$\frac{2.1554}{.99230} = 2.1632$$

$$\frac{2.1632}{.99230} = 2.1710$$

$$\frac{2.1710}{.99230} = 2.1788$$

$$\frac{2.1788}{.99230} = 2.1866$$

$$\frac{2.1866}{.99230} = 2.1944$$

$$\frac{2.1944}{.99230} = 2.2022$$

$$\frac{2.2022}{.99230} = 2.2100$$

$$\frac{2.2100}{.99230} = 2.2178$$

$$\frac{2.2178}{.99230} = 2.2256$$

$$\frac{2.2256}{.99230} = 2.2334$$

$$\frac{2.2334}{.99230} = 2.2412$$

$$\frac{2.2412}{.99230} = 2.2490$$

$$\frac{2.2490}{.99230} = 2.2568$$

$$\frac{2.2568}{.99230} = 2.2646$$

$$\frac{2.2646}{.99230} = 2.2724$$

$$\frac{2.2724}{.99230} = 2.2802$$

$$\frac{2.2802}{.99230} = 2.2880$$

$$\frac{2.2880}{.99230} = 2.2958$$

$$\frac{2.2958}{.99230} = 2.3036$$

$$\frac{2.3036}{.99230} = 2.3114$$

$$\frac{2.3114}{.99230} = 2.3192$$

$$\frac{2.3192}{.99230} = 2.3270$$

$$\frac{2.3270}{.99230} = 2.3348$$

$$\frac{2.3348}{.99230} = 2.3426$$

$$\frac{2.3426}{.99230} = 2.3504$$

$$\frac{2.3504}{.99230} = 2.3582$$

$$\frac{2.3582}{.99230} = 2.3660$$

$$\frac{2.3660}{.99230} = 2.3738$$

$$\frac{2.3738}{.99230} = 2.3816$$

$$\frac{2.3816}{.99230} = 2.3894$$

$$\frac{2.3894}{.99230} = 2.3972$$

$$\frac{2.3972}{.99230} = 2.4050$$

$$\frac{2.4050}{.99230} = 2.4128$$

$$\frac{2.4128}{.99230} = 2.4206$$

$$\frac{2.4206}{.99230} = 2.4284$$

$$\frac{2.4284}{.99230} = 2.4362$$

$$\frac{2.4362}{.99230} = 2.4440$$

$$\frac{2.4440}{.99230} = 2.4518$$

$$\frac{2.4518}{.99230} = 2.4596$$

$$\frac{2.4596}{.99230} = 2.4674$$

$$\frac{2.4674}{.99230} = 2.4752$$

$$\frac{2.4752}{.99230} = 2.4830$$

$$\frac{2.4830}{.99230} = 2.4908$$

$$\frac{2.4908}{.99230} = 2.4986$$

$$\frac{2.4986}{.99230} = 2.5064$$

$$\frac{2.5064}{.99230} = 2.5142$$

$$\frac{2.5142}{.99230} = 2.5220$$

$$\frac{2.5220}{.99230} = 2.5298$$

$$\frac{2.5298}{.99230} = 2.5376$$

$$\frac{2.5376}{.99230} = 2.5454$$

$$\frac{2.5454}{.99230} = 2.5532$$

$$\frac{2.5532}{.99230} = 2.5610$$

$$\frac{2.5610}{.99230} = 2.5688$$

$$\frac{2.5688}{.99230} = 2.5766$$

$$\frac{2.5766}{.99230} = 2.5844$$

$$\frac{2.5844}{.99230} = 2.5922$$

$$\frac{2.5922}{.99230} = 2.6000$$

$$\frac{2.6000}{.99230} = 2.6078$$

$$\frac{2.6078}{.99230} = 2.6156$$

$$\frac{2.6156}{.99230} = 2.6234$$

$$\frac{2.6234}{.99230} = 2.6312$$

$$\frac{2.6312}{.99230} = 2.6390$$

$$\frac{2.6390}{.99230} = 2.6468$$

$$\frac{2.6468}{.99230} = 2.6546$$

$$\frac{2.6546}{.99230} = 2.6624$$

$$\frac{2.6624}{.99230} = 2.6702$$

$$\frac{2.6702}{.99230} = 2.6780$$

$$\frac{2.6780}{.99230} = 2.6858$$

$$\frac{2.6858}{.99230} = 2.6936$$

$$\frac{2.6936}{.99230} = 2.7014$$

$$\frac{2.7014}{.99230} = 2.7092$$

$$\frac{2.7092}{.99230} = 2.7170$$

$$\frac{2.7170}{.99230} = 2.7248$$

$$\frac{2.7248}{.99230} = 2.7326$$

$$\frac{2.7326}{.99230} = 2.7404$$

$$\frac{2.7404}{.99230} = 2.7482$$

$$\frac{2.7482}{.99230} = 2.7560$$

$$\frac{2.7560}{.99230} = 2.7638$$

$$\frac{2.7638}{.99230} = 2.7716$$

$$\frac{2.7716}{.99230} = 2.7794$$

$$\frac{2.7794}{.99230} = 2.7872$$

$$\frac{2.7872}{.99230} = 2.7950$$

$$\frac{2.7950}{.99230} = 2.8028$$

$$\frac{2.8028}{.99230} = 2.8106$$

$$\frac{2.8106}{.99230} = 2.8184$$

$$\frac{2.8184}{.99230} = 2.8262$$

$$\frac{2.8262}{.99230} = 2.8340$$

$$\frac{2.8340}{.99230} = 2.8418$$

$$\frac{2.8418}{.99230} = 2.8496$$

$$\frac{2.8496}{.99230} = 2.8574$$

$$\frac{2.8574}{.99230} = 2.8652$$

$$\frac{2.8652}{.99230} = 2.8730$$

$$\frac{2.8730}{.99230} = 2.8808$$

$$\frac{2.8808}{.99230} = 2.8886$$

$$\frac{2.8886}{.99230} = 2.8964$$

$$\frac{2.8964}{.99230} = 2.9042$$

$$\frac{2.9042}{.99230} = 2.9120$$

$$\frac{2.9120}{.99230} = 2.9198$$

$$\frac{2.9198}{.99230} = 2.9276$$

$$\frac{2.9276}{.99230} = 2.9354$$

$$\frac{2.9354}{.99230} = 2.9432$$

$$\frac{2.9432}{.99230} = 2.9510$$

$$\frac{2.9510}{.99230} = 2.9588$$

$$\frac{2.9588}{.99230} = 2.9666$$

$$\frac{2.9666}{.99230} = 2.9744$$

$$\frac{2.9744}{.99230} = 2.9822$$

$$\frac{2.9822}{.99230} = 2.9900$$

$$\frac{2.9900}{.99230} = 2.9978$$

$$\frac{2.9978}{.99230} = 3.0056$$

$$\frac{3.0056}{.99230} = 3.0134$$

$$\frac{3.0134}{.99230} = 3.0212$$

$$\frac{3.0212}{.99230} = 3.0290$$

$$\frac{3.0290}{.99230} = 3.0368$$

$$\frac{3.0368}{.99230} = 3.0446$$

$$\frac{3.0446}{.99230} = 3.0524$$

$$\frac{3.0524}{.99230} = 3.0602$$

$$\frac{3.0602}{.99230} = 3.0680$$

$$\frac{3.0680}{.99230} = 3.0758$$

$$\frac{3.0758}{.99230} = 3.0836$$

$$\frac{3.0836}{.99230} = 3.0914$$

$$\frac{3.0914}{.99230} = 3.0992$$

$$\frac{3.0992}{.99230} = 3.1070$$

$$\frac{3.1070}{.99230} = 3.1148$$

$$\frac{3.1148}{.99230} = 3.1226$$

$$\frac{3.1226}{.99230} = 3.1304$$

$$\frac{3.1304}{.99230} = 3.1382$$

$$\frac{3.1382}{.99230} = 3.1460$$

$$\frac{3.1460}{.99230} = 3.1538$$

$$\frac{3.1538}{.99230} = 3.1616$$

$$\frac{3.1616}{.99230} = 3.1694$$

$$\frac{3.1694}{.99230} = 3.1772$$

$$\frac{3.1772}{.99230} = 3.1850$$

$$\frac{3.1850}{.99230} = 3.1928$$

$$\frac{3.1928}{.99230} = 3.2006$$

$$\frac{3.2006}{.99230} = 3.2084$$

$$\frac{3.2084}{.99230} = 3.2162$$

$$\frac{3.2162}{.99230} = 3.2240$$

$$\frac{3.2240}{.99230} = 3.2318$$

$$\frac{3.2318}{.99230} = 3.2396$$

$$\frac{3.2396}{.99230} = 3.2474$$

$$\frac{3.2474}{.99230} = 3.2552$$

$$\frac{3.2552}{.99230} = 3.2630$$

$$\frac{3.2630}{.99230} = 3.2708$$

$$\frac{3.2708}{.99230} = 3.2786$$

$$\frac{3.2786}{.99230} = 3.2864$$

$$\frac{3.2864}{.99230} = 3.2942$$

$$\frac{3.2942}{.99230} = 3.3020$$

$$\frac{3.3020}{.99230} = 3.3098$$

$$\frac{3.3098}{.99230} = 3.3176$$

$$\frac{3.3176}{.99230} = 3.3254$$

$$\frac{3.3254}{.99230} = 3.3332$$

$$\frac{3.3332}{.99230} = 3.3410$$

$$\frac{3.3410}{.99230} = 3.3488$$

$$\frac{3.3488}{.99230} = 3.3566$$

$$\frac{3.3566}{.99230} = 3.3644$$

$$\frac{3.3644}{.99230} = 3.3722$$

$$\frac{3.3722}{.99230} = 3.3800$$

$$\frac{3.3800}{.99230} = 3.3878$$

$$\frac{3.3878}{.99230} = 3.3956$$

$$\frac{3.3956}{.99230} = 3.4034$$

$$\frac{3.4034}{.99230} = 3.4112$$

$$\frac{3.4112}{.99230} = 3.4190$$

$$\frac{3.4190}{.99230} = 3.4268$$

$$\frac{3.4268}{.99230} = 3.4346$$

$$\frac{3.4346}{.99230} = 3.4424$$

$$\frac{3.4424}{.99230} = 3.4502$$

$$\frac{3.4502}{.99230} = 3.4580$$

$$\frac{3.4580}{.99230} = 3.4658$$

$$\frac{3.4658}{.99230} = 3.4736$$

$$\frac{3.4736}{.99230} = 3.4814$$

$$\frac{3.4814}{.99230} = 3.4892$$

$$\frac{3.4892}{.99230} = 3.4970$$

$$\frac{3.4970}{.99230} = 3.5048$$

$$\frac{3.5048}{.99230} = 3.5126$$

$$\frac{3.5126}{.99230} = 3.5204$$

$$\frac{3.5204}{.99230} = 3.5282$$

$$\frac{3.5282}{.99230} = 3.5360$$

$$\frac{3.5360}{.99230} = 3.5438$$

$$\frac{3.5438}{.99230} = 3.5516$$

$$\frac{3.5516}{.99230} = 3.5594$$

$$\frac{3.5594}{.99230} = 3.5672$$

$$\frac{3.5672}{.99230} = 3.5750$$

$$\frac{3.5750}{.99230} = 3.5828$$

$$\frac{3.5828}{.99230} = 3.5906$$

$$\frac{3.5906}{.99230} = 3.5984$$

$$\frac{3.5984}{.99230} = 3.6062$$

$$\frac{3.6$$

March 20, 1911
Sequence for SW Diacronia

Ac 10271

1	3.21
2	2.68
a	2.98
b	3.10
c	2.20
d	2.80
e	3.80
f	4.10
g	5.21
h	5.30
i	5.50
j	6.15
k	4.55
l	4.40

March 20, 1911
Sequence for SW Diacronia

Ac 10469

1	3.75
2	2.80
b	3.80
c	4.90
d	4.95
e	3.30
f	2.50
g	4.20
h	5.05
i	5.75
j	5.90
k	5.80
l	7.10

Measures of segments for SW Draconis

sp	AC 10469	Phase	21/1911	AC 10271
+65° 1081 A2	a 5.1	7.15	+0.07	7.22
+63° 1192 K	b 5.3	5.78	+1.17	6.95
+65° 1087 95	c 5.9	6.90	+0.91	7.81
+62° 1416 K	d 6.0	6.49	+1.17	7.66
+63° 1228 F	e 6.4	7.3	+0.32	7.9
+63° 1194 K	f 6.7	7.39	+1.17	8.56
+65° 1069 K2	g 7.3	7.30	+1.17	8.47
+64° 1078	h 7.4	7.1
+64° 1081 K3	k 7.6	8.80	+0.71	9.51
	l 8.2	..	+1.17	9.97
+65° 1062 A1	1 5.6	7.50	0.00	7.50
+64° 1074 95	2 4.7	5.88	+0.91	6.79
	3			4.3

SW Draconis

AC 9447	mean
a 6.1	5.3 7.03 7.0
b 6.3	5.5 7.18 7.2
c 6.7	5.9 7.60 7.6
d 6.9	6.1 7.78 7.8
e 7.4	6.6 8.18 8.2
f 7.6	6.8 8.33 8.3
g 8.1	7.4 8.94 9.0
h 8.1	7.5 9.07 9.1
k 8.3	7.7 9.30 9.3
l 8.8	8.2 9.8 9.8
1 6.4	5.7 7.38 7.4
2 5.8	5.0 6.80 6.8

March 22, 1911

Measurements of γ Draconis.

✓ ac 9447 7.3	✓ ac 4775- 7.4	ac 10312 9.3
✓ ac 4754 7.3	✓ ac 846 9.3	
✓ ac 5037 7.3	I 19416 7.7	
✓ ac 6322 7.2	Comparison stars too far away.	
✓ ac 2348 7.2	ac 9295 9.0	
✓ ac 2414 7.4	I 16421	
✓ ac 3994 7.3	Probably normal, images distorted.	
✓ ac 10415 9.2	ac 8392 9.1	
✓ I 15611 7.8	✓ ac 1648 7.5-	
	I 11683 7.8	
	✓ I 32925 9.2	✓ I 3441 7.8?

March 25, 1911

Observations of γ Draconis

ac 5257 7.2	ac 6287 7.2	ac 4599 7.4
ac 5327 7.2	ac 5334 7.2	ac 4691 7.3
ac 5827 7.2	ac 6548 7.2	ac 4747 7.2
ac 5986 7.2 ³	ac 6561 7.4	ac 4776 7.4
ac 6031 7.2	ac 6580 7.3	ac 4783 7.3
ac 6070 7.4	ac 6585 7.2	ac 4803 7.3
ac 6197 7.3	ac 5233 8.1	ac 5930 7.3
ac 6233 7.2	ac 4451 7.3	ac 6300 7.3
ac 6349 7.2	ac 4491 7.2	ac 6409 7.3
ac 6372 7.3	ac 4523 7.3	ac 6458 7.4

J.N. 16781.525, 8.1 Sept 7, 1904

Inch 25, 911
 Mr. O. L. Loomis

ac 6470
 7.4

ac 9533
 7.4

ac 7321
 7.4

ac 10219
 7.4

ac 7395
 7.3

ac 10611
 7.3

ac 11024
 7.3

1906, 4, 2
 J.D. 17303.869

7440
 9.0

ac 11332
 7.3

ac 7509
 Too poor

ac 7716
 7.5

Images distorted

1907 1, 5
 J.D. 17581.932

ac 8136
 8.1

1907 4, 11
 J.D. 17677.710

ac 8410
 7.9

Images distorted

ac 8656
 7.5

ac 9444
 7.4

April 24, 1911

Observations of Algal sea. No. 35—
Same sequence, used as for Nova Sag. No. 3,
see B 21918.
Plates on which it is fainter than normal.
B 25925

9.3

Am 104

B 28160

9.3

10.4

Am 204

n.s. in glimpse?
10.5

J 3971 (poor)

Sp. pl. sp. n.s. & seen.
19.6

Am 539

n.s.
10.5

J 24891

16.7

Poor plates

Am 845

10.6

Am 1492

9.0

B 29531

16.6

Am 1874

9.2

April 24, 1911

Conts. of Var. No. 35

Am 2919

Am 4350 (cont.)

9.0

8.

9.

10.

11.

12.

13.

14.

15.

16.

17.

18.

Am 3625

~~11.5~~
11.3

Am 2572

very faint

11.5

Am 6374

very faint

11.6

Am 4311

11.5

Am 4350

mult. images

18 images

1.

2.

3.

4.

5.

6.

7.

9.1

9.3

April 24, 1911

Am 4350

1. normal
2. "
3. "
4. "
5. "
6. slightly ft
7. faintly
8. faintly
9. quite ft.
10. very ft.
11. barely seen
12. barely seen
13. not seen, perhaps barely seen
14. Perhaps barely seen
15. surely seen
16. bright
17. bright
18. bright but not normal.

April 24, 1911

rev. no. 35 normal, about 8.7,
m

Am 6228

6347

7084

7195

7063

6170

6136

7163

It is a little brighter
than comparison star
C.

Equation of Light for Alpol var 35.
M. 35

(1875) $18^h 14.6$ = 273° long. checked by G.D.M.
1875 $-25^\circ 17.6$ = $-1^\circ 7'$ lat.

cos. $-1^\circ 7' = .99956$ checked by G.D.M.

mean cor. = .0058 It becomes .0055 at 18° ,
.0045 at 39° , .0035 at 53° ,
.0025 at 65° , .0015 at 75° , .0005 at 85°

ϕ	$273 + \phi$	$273 - \phi$	$93 + 0$	$93 - \phi$
.0005 85°	358 March 19	188 Oct. 1	178 Sept. 21	8° March 19
.0015 75°	348 March 8	198 Oct. 11	168 Sept. 11	18 Apr. 8
.0025 65°	338 Feb. 28	208 Oct. 21	158 Aug. 31	28 Apr. 18
.0035 53°	326 Feb. 16	220 Nov. 2	146 Aug. 19	40 Apr. 30
.0045 39°	312 Feb. 2	234 Nov. 16	132 Aug. 4	54 May 15
.0055 18°	291 Jan. 12	255 Dec. 7	111 July 13	75 June 6
.0058 0°	273 —	273 —	93 —	93 —

Correction is .001 from March 8 to 19, Oct. 1 to 10, Sept. 11 to 20, March 29 to Apr. 7
 .002 Feb. 18 to March 7, " 11 to 20 Aug. 31 to Sept. 10 Apr. 8 to 17
 .003 Feb. 16 to 27, Oct. 21 to Nov. 1, Aug. 19 to 30, Apr. 18 to 29
 .004 Feb. 2 to 15, Nov. 2 to 15, Aug. 4 to 18, Apr. 30 to May 15
 .005 Jan. 12 to Feb. 1, Nov. 16 to Dec. 6, July 13 to Aug. 3, May 15 to June 6

Jan. 12 to Feb. 1, .005
 Feb. 2 to Feb. 15, .004
 Feb. 16 to 27, .003
 Feb. 28 to March 7, .002
 March 8 to 28, .001
 March 29 to April 7, +.001

April 8 to 17, +.002 July 13 to Aug. 3, .005 Nov. 2 to 15
 " 18 to 29, .003 Aug. 4 to 18, +.004 " 19 to 30, .003 Nov. 16
 " 30 to May 14, +.004 Aug. 31 to Sept. 10, .002 Nov. 17
 May 15 to June 5, +.005 Sept. 11 to Oct. 30, +.001 Dec. 1 to 10, .001
 June 6 to July 12, Sept. 1 to 10, .002 Oct. 11 to 20, .002 Nov. 1 to 15, +.003

May 17, 1911

Confirmation of var 194613, E. F. L.
matched on Am 3648.Br on Am 1641, 4256, 3753,
1623, Ac 5344, ~~Am 3648~~Ft. on Am 861, 599, 1992, 2534^{very ft}
2925, Am 1489, Am 3648.Median on Am 2035, 2308, 2778
3520No change on multiple mag. plates
Am 441, Am 3753Comparison of Am 1641 var. bright
with Am 1462 or 2534 or Am 861
where variation is faint shows a
certain change of about 0.7 mag.

May 17, 1911

Variable 20163 E. F. L.

Identified on Am 2925 from B 2148

Br. on 2925, 1344, 2778, 1641,
5302, 668^h,
6991, 7097, 4621, 4932,
4821, 10037, 4381
10534
4270, 4277Perhaps very slightly ft. on Am 7058
and 7091, 3569On these plates this star shows a
change of 0.4 or 0.5 mag.

Additional plates.

Slightly ft. on Am 16

Certainly ft. on Am 1462

Br. on Am 624, 5690, 5547, Ac 6750,

Slightly ft. on 5664

Ft. on 3569

Faintest on Am 1462. Compared with Am 4821
a variation of about 0.6 or 0.7 is seen.
Br. on 2925, 10534

May 26, 1911

Measure of sep. for Van 57. on Al. volm
plates.

ac 2573

l	3.90	
2	5.88	1.78
a	4.10	-0.22
b	4.00	+0.10
c	4.25	+1.00
d	5.05	+25
e	5.82	0.80
f	6.30	0.77
g	7.10	0.48
h	8.05	0.80
		0.95

Images very uncertain not comparable with plate.

May 26, 1911

ac 7550

Van 57.

l	4.88
2	6.10
a	5.00
b	4.92
c	5.22
d	5.55
e	6.32
f	6.88
g	7.32
h	8.66?

Images not comparable.

Scale "N"

May 27, 1911

AC 1051

AC 7550

$\begin{matrix} \text{AC 7550} \\ \text{Se. 2} \\ 1 \quad 3.7 \\ 2 \quad 5.9 \end{matrix}$
 $\begin{matrix} 2.2 \\ -2.0 \end{matrix}$
 $\begin{matrix} a \quad 3.9 \\ b \quad 4.0 \\ c \quad 4.1 \\ d \quad 5.2 \\ e \quad 5.5 \\ f \quad 7.1 \\ g \quad 7.7 \\ h \quad 8.7 \end{matrix}$
 $\begin{matrix} +0.1 \\ +0.1 \\ +1.1 \\ +0.3 \\ +1.6 \\ +0.6 \\ +1.6 \end{matrix}$

AC 7550

$\begin{matrix} 1 \quad 4.9 \\ 2 \quad 7.7 \end{matrix}$
 $\begin{matrix} a \quad 5.0 \\ b \quad 5.2 \\ c \quad 5.4 \\ d \quad 6.5 \\ e \quad 7.0 \end{matrix}$
 $\begin{matrix} f \\ g \\ h \end{matrix}$
Fl. images
not comp.
with scale

Se. "N"

May 27, 1911

meas. by E. F. L.

AC 1051

AC 7550

$\begin{matrix} \text{AC 1051} \\ \text{Se. 2} \\ 1 \quad 3.9 \\ 2 \quad 6.9 \end{matrix}$
 $\begin{matrix} a \quad 4.1 \\ b \quad 4.3 \\ c \quad 4.3 \\ d \quad 5.6 \\ e \quad 5.9 \\ f \quad 7.3 \\ g \quad 8.2 \\ h \quad 8.9 \end{matrix}$
Fl. images
not comp.
with scale
higher ones.

$\begin{matrix} \text{AC 7550} \\ \text{Se. 2} \\ 1 \quad 3.8 \\ 2 \quad 6.7 \end{matrix}$
 $\begin{matrix} a \quad 4.0 \\ b \quad 4.1 \\ c \quad 4.1 \\ d \quad 5.3 \\ e \quad 5.7 \\ f \quad 7.2 \\ g \quad 7.9 \\ h \quad 8.7 \end{matrix}$

May 27 1911

Am 2573

Sun.
M. 1051

meas. by 2. H. d.

1	4.2	26
2	6.8	-0.2
a	4.6	+0.1
b	4.7	+0.4
c	5.1	+0.5
d	5.6	+0.6
e	6.2	+0.9
f	7.1	+0.4
g	7.5	+0.4
h	7.9	

1	3.8
2	6.9
a	4.1
b	4.3
c	4.3
d	5.6
e	6.1
f	7.4
g	8.1?
h	9.0?

Var. 57

Am 2573 Mean

1	3.7	3.8	3.8
2	3.9	4.0	4.0
a	4.0	4.1	4.0
b	4.1	4.1	4.1
c	5.2	5.3	5.2
d	5.5	5.7	5.6
e	6.9	6.7	6.8
f	7.1	7.2	7.2
g	7.7	7.9	7.8
h	8.7	8.7	8.7

sp.
k

Variable 57

Am ¹⁰⁵¹ 2543

					Mean	Am mag.	Sp. in	
1	3.9	3.8	3.8	3.7	3.8	6.8	2.7	7.69
2	4.1	4.1	4.1	3.9	4.0	7.2	2.8	7.54
3	4.3	4.3	4.3	4.0	4.1	7.5	2.0	7.52
4	4.3	4.3	4.3	4.1	4.1		2.0	0.00
5	5.5	5.6	5.6	5.2	5.3		2.2	0.07
6	5.9	6.1	6.2	5.5	5.7			
7	6.9	6.9	6.9	6.9	6.8	8.8	2.2	9.52
8	7.5	7.4	7.4	7.1	7.3	8.3	2.1	9.63
9	8.2	8.1	8.2	7.7	8.0			
10	8.9	9.0	9.0	8.7	8.6	9.6		

May 29, 1911

Observations of Variable No 57 18 21 09

✓ ac 3836	Am 2989	Am 5806	Am 3677
9.4	8.6	8.8	8.1
ac 4955	Am 1993	Am 6126	No variation
7.8	8.6	9.4	
	Am 7040		Am 2745
	8.0		
Am 4801	Am 1051	Am 6937	7.8
7.8	7.9	7.9	No variation
ac 6565	ac 360	Am 7121	Am 2143
7.9	9.4	8.4	7.8
			No variation
✓ Am 7222	Am 3921	ac 4914	
9.4	8.6	For Boru	X
ac 6643	ac 9690	✓ Am 2797	ac 6476
8.2	9.3	8.9	8.6
		very near edge	
	ac 9584	Am 1297	Am 1542
am 6172	9.4	8.8	9.0
7.9			Am 2245
	ac 9810	Am 6221	9.3
Am 6251	8.5	8.5	Plate fogged in region
7.9			
	ac 10916	Am 5627	Am 1953
Am 6312	8.0	7.7	8.7
7.9		No variation	
			Am 1424
		Am 4410	8.8
		7.8	No variation

May 29, 1911 var no 57 (cont)

A27596
7.8A27320
8.6A2763 very poor
8.5B16162
9.6I 6596
8.6B7691
8.6B9850
8.5I 11385
8.7

I 32187

May 30, 1911 (var 57 cont)

I 32127

8.1 very near edge

I 31992

8.6 near edge

I 31944

8.3 near edge

I 31900 near edge
8.4

I 21061

7.8

I 9104

8.6 near edge

B16569

7.8

B17619

For new ~~near edge~~
may be slightly faint

B20449

8.6

I 27184

8.4

I 32199

8.0? Images distorted

I 32200

8.2 Images distorted

I 32201

8.2 Images distorted

I 32202

8.1 Images distorted

I 32203

8.0 Images distorted

I 32204

8.0 Images distorted

I 32205

7.9? Images very much distorted

I 32234

8.0 Images very much distorted

I 32235

8.0? Images distorted

I 32270

8.2 Images very much distorted

May 30, 1911 (var 59 cont.)

I 32268
8.3 Images distortedI 32236
8.2 Images distortedI 32341
7.8Al 5211
8.7Al 4914
8.8 Poor Plate -I 27184
8.4 Images distorted

October 12, 1911

Observations of Arcturus New var. +58° 30
See post card of Prof. Turner. Sept. 30, 1911
Comp. class in 124216.

Al 1971

✓ d 3, 1 x e

Al 2650

e 1, 2 x f

Al 5386

✓ e 1, 2 x f

Al 10168

Normal. Poor plate.

Al 10172

✓ e 10, 11 x f

Al 8760

e 1, 2 x b

Al 11302

✓ e 3, 1 x f

Al 10859

e 3, 2 x b

Al 11137

✓ e 2, 1 x d

Al 10948

e 1, 3 x b

Al 9833

✓ e 1, 2 x d

Al 10905

e 3, 0 x b

Al 10984

e 2, 2 x f

Al 11291

e 0, 3 x b

Al 6681

e 3, 0 x d

Al 10874

e 0, 2 x b

October 11, 1911

Plates on which +58°30' in ~~approx. 1911~~ ^{see preceding page for} observations near minimum

2426	1899 Dec. 12	at 5789	1905 Jan. 1	at 9065	1907 Dec. 12
at 1996	1901 Nov. 21	" 6479	" June 30	" 7101	" Dec. 12
" 2019	" Nov. 28	" 6501	" July 9	" 9167	1908 Jan. 18
" 2063	" Dec. 6	" 6581	" July 26	" 9168	" Jan. 14
" 2077	" Dec. 15	" 6616	" Aug. 21	" 9195	" Jan. 12
" 2085	" Dec. 18	" 6635	" Aug. 27	" 9202	" Jan. 27
" 2141	1902 Jan. 2	" 6645	" Aug. 31	" 9530	" Jan. 14
" 2153	" Jan. 4	" 6744	" Sept. 27	" 9939	" Nov. 31
" 2188	" Jan. 14	" 6815	" Oct. 9	" 10013	" Dec. 18
" 2684	" July 11	" 6866	" Oct. 21	" 10033	" Dec. 10
" 2701	" Aug. 14	" 8279	1907 Feb. 22	" 10852	1909 Sept. 30
" 2777	" Aug. 25	" 8297	" Feb. 25	" 10859	" Oct. 2
" 2796	" Aug. 30	" 8537	" June 7	" 10874	" Oct. 5
at 5422	1904 Oct. 24	" 8608	" July 12	" 10905	" Oct. 9
" 5476	" Nov. 2	" 8620	" July 18	" 10948	" Oct. 19
" 5503	" Nov. 9	" 8637	" July 27	" 10950	" Oct. 19
" 5520	" Nov. 12	" 8682	" Aug. 12	" 11005	" Nov. 4
" 5640	" Dec. 1	" 8760	" Sept. 13	" 11033	" Nov. 9
" 5652	" Dec. 2	" 8814	" Oct. 1	" 11077	" Nov. 26
" 32413	" 11	" 9031	" Nov. 29	" 11100	" Nov. 30
at 5745	" Dec. 18	" 9066	" Dec. 11		
" 5780	" Dec. 29				

October 11, 1911
Continuation of preceding

at 11111 1909 Dec. 4

" 11154 " Dec. 14

" 11158 " Dec. 16

" 11190 " Dec. 21

" 11255 1910 Jan. 7

" 11291 " Jan. 12

" 11400 " Feb. 19

" 11724 " June 19

" 11734 " June 25

" 11775 " July 9

" 11921 " Sept. 12

" 11962 " Sept. 28

" 12007 " Oct. 6

" 12179 " Dec. 7

" 12322 1911 Feb. 10

" 12326 " Feb. 16

" 12379 " May 26

" 12391 " June 1

" 12526 " Aug. 23

" 12546 " Sept. 4

at 10768 " Oct. 2

Dry +58° 30
Comparison stars.

α	+57° 98'	0	24	17.3	+57 32.3	7.1	7.02
β	+57° 85'	0	19	43.9	+57 45.0	7.3	7.24
γ	+58° 24'	0	10	56	+58 15.1	7.8	
δ	+58° 22'	0	8	7.1	+58 38.4	8.0	
ε	+58° 28'	0	11	25.6	+58 54.8	8.0	
ζ	+58° 18'	0	7	33.7	+58 59.5	8.2	

October 20, 1911

Obs. of recent plates of 23 29 07
Algol var. Nov. 135

MC 1278

Four images

Image	Set	18.	Comp	Photo
$\frac{\text{the preceding}}{\text{the following}} =$	1	11.8	9300.623	- .024
2	12.0	8.37		- .010
3	12.1	6.50		+ .003
4	12.3	6.62		+ .015

J 37250

10.6

9270.594

.520 + .074

ac 12575

10.2

Images very poor

9300.574

- .073

Nov. 2, 1911

Algol

var. 23 29 07 M. 135

MC 1341

Image	Set	Comp.
1	10.4	9334.472
2	10.7	.486
3	11.5	.500

Comp.

9334.539

- .067

- .053

- .039

MC 1344

Set

Image #			
1	10.9	9334.610	+ .071
2	10.7	.624	+ .085
3	10.1	.638	+ .099

MC 1343

Image	Set		
1	12.5	9334.564	+ .025
2	11.8	.552	+ .041
3	11.3	.593	+ .054

MC 1345

Image	Set		
1	9.7	9334.655	+ .116
2	9.7	.666	+ .127

Nov 2, 1911

MC 1247
12.0

9281.791

- .026

MC 1342

Image

1 11.9
2 12.3
3 12.59334.520
.534
.548- .019
- .005
+ .007

MD 1343

Image

1 12.5
2 12.3
3 12.09334.564
.580
.593+ .025
+ .041
+ .054

MD 1344

Image

1 11.2
2 10.7
3 10.39334.616
.624
.638+ .071
+ .085
+ .099

MD 1345

Image

1 9.9
2 10.0
39334.655
.666+ .116
+ .127

1220

April 16, 1912

March 4, 1912
 Ac 11435 Rupesodon D =
 Ac 3341 Feb 4, 1803.

cont. from p. 91.

4. Known SS Trig.

5. Brighten on neg.

B. on Ac 11314, 3349, 10351,
 Ft. on Ac 10120, 3341, 12408,

Approx. 11 27 + 1

Approx. 1855 11 26.5 + 0 46 Marked on I 24727
 New var. of mima's look 1. to 2.5 plates.
 150 Conf. by J.C.M. and examined by R.J.C. var. about 1 neg.

6. Brighten on neg.

B. on Ac 11318, 11314, B. on Ac 11520
 In the Dm. Certainly var.

11 + 11

Approx. 1855 11 31.0 + 11 21 Marked on I 24344
 of mima's look 1. p. 96. Conf. by J.C.M. and plates
 examined by R.J.C. var. about 0.7 neg.

7. Brighten on neg.
 Known R Trig.

Oct 8, 1913

Ac 11435 cont.

8. Brighten on neg.

157 DM + 3 2593 ii 57.1 + 3 25.8 9.0 Marked on I 32648

B. on Ac 117, 1104, 11330, 11440, 6266,
 10351, 11314

sp.?

Ft. on 3341, 8864, var. 0.7 neg

B. Ft. on 3358

Conf. by J.C.M. var. on I. 97. Also conf. by R.J.C.

9.

Massalia, on neg.

6. Spectrum looked up.

31476 n.s.

37114 seeds but see ft.

37113 say ft. Not A? May be K or M.

Range 10.5 - 11.2 from companion

with region marked on

This rather distant even on Ac plate

12^h 0^m

Oct 8, 1913

Am 8788 superimposed D 14916
Jan 27, 1907

1. Bright on pos.

Pos. on 1104, 6266, 8864, 6117

Sl. ft. on 10351, 11330, 11625, 10520,
12267,

ft. on 9335, 9450

Faintest on 9335, then 9450

Certainly var. Probably Algotypes

Identified by J. C. M. on B28625

as - 40° 31.5' - 11^h 44.4 - 4° 57.0 Rh. 3, 142

max = 9.8

min = 10.6 Int. Scale from seg. of
MC 2593 transferred to A

2.

Bright on neg.

Known
SS Neg.

3.

Br. on neg.

Found on
11435
m. 8

8.17-13.

12^h 0^m

Oct 8, 1913.

Am 6117 ^{superficial}
May 14, 1909Kum
A. V. 1913.

1. Bright in up

2. Bright in up.

Found in
11434

3. Bright in fiss.

Br. on 10351, 1104, 11435, 8391, 3349

Certainly slightly fl. on 6117.

154 Approx. 1888: 12 13.7 + 1 11 18131

Marched on 1104. Fl. on 3208, 3472, 3529, J.C.M. 3, 142

Fl. speaking seen on 335886, but not
defined. Looks like M.

4. Bright in up.

Fl. on 3341 & 1104, bright on several others.

Conform on 5 plates in B.

Br. on 8391, 3349

Certainly fl. on 3341 & 1104, Br. on 3349

Short fl. in up.

Approx. 1888: 11^h 26.3 + 0 45 Shd. on B 33352

By fl. on 31752, May 13, 1903 620.2C.

J 33352

325.18

3,0988

155
Found
as 150

Am 6117

5. On neg. no hump
not shape of stars
Defect or asteroid6. Much fainter on negative.
Probably defective image, as it seems
like broken into two stars. 30 al
plates show no variation.

W. 4 cont.

3 15756
~~3 15756~~ e v, 1 f.

B 13165 e 1, 3 d

B 25135 d 1, 3 c

Spectrum seen on 31572
but not defined. 78 6 5

Variability certain

h = +0° 28' 13

e = +0° 28' 05

f = +0° 28' 00

9.1

9.5

= 9.4

12 h 00

April 2², 1914Ac 1104 superposed on D
= Ac 33411. Much brighter on neg.
Run R. Neg.2. Much brighter on neg.
Run Y. Neg.

3. H. Brighter on neg. Raster ft. star
 appears 12,501
 very ft. on 6117, 2586,
 medium on 1314, 9228,
 10 ft. on Ac plate. Confirmed on I & B.
 confirmed on I, B & A plate. See p. C. M.
 appears the fainter a greater part of
 the time.

4. Brighter on neg. ? may not be real

April 22, 1914

5. On neg. May be defect.

Thursday, March 15-1923

Monomers full, examined for ft. vacuoles
MC plates taken with 2 images

Negatives MC 19541

Positive D 19148 from MC 19525

1. Br. on negative
Approx. 6 51 - 0 10 (1955)
Not known
Comp. with exp. 98 K on MC 2355, $\tau = 11.0$ in (1954)
then $\tau = 12.0$
On 19525 = 11.9 Paria Range 11.0 to 11.9
Meas. 6 52 53.6 - 0 146 (1900)

2. Brighter impression

Approx. 6 55 + 0 50
Not known
 $\tau = 13.1$ exp MC 2355
Also ft. on MC 19542
Meas. 6 57 56 + 0 45.8 (1900)
on MC 19505 about 12.4

Feb 7 19541 Paria Range 12.4 to 13.1
No. 1 No. 2
Br. ft.

Both clear very less than 1 image. I think.

March 15-1923

Conf. of preceding vacs.

MC 19496

No. 1 medium

No. 2 "

19529

No. 1

Br

No. 2

Br

19538

~~Med~~ Br

Br or med

Outflow, 19535

Br

Med.

Feb 7 19494

Med.

Med

Feb 16 19520

Br

Med ft.

19505

Med

Br

Feb 16 19532

Br.

Med br.

Feb 17 19540

Br.

Med ft.

Feb 10 19511

Br.

Br? or

Feb 10 19513

Br.

Br.

Feb 19 19534

Br.

Med br.

Feb 8 19506

Med. br.

Br

(cont. p. 146)

November 11, 1914

Search for bright variables.

Region $18^h 0$.

AI 12878 lastly superposed on D
= A 911707

RS Valpec found, Algol variable.

Nov. 12, 1914

Search for bright variables.

$0^h + 60^0$

AI 13027 taken Oct. 27, 1914
superposed on D 15495 = AI 10203.

R Cass found bright on AI 13027,
nearby on D 15495.

The scale of these two plates differs
so that examination is difficult.

About 15 minutes taken for examination.

March 15, 1923
Cont. from p. 143

	Inc. 19495	No. 1 Partly ft.	No. 2 ft.
Feb. 7			
10	19509	Br.	Med. ft.
10	19512	Br.	Br.
17	19522	Br.	Little ft.
16	19531	Br.	Br.
	J 31033	ft.	Too near E.
Oct. 14, 1903	J 30994	Med.	Too far
Apr. 2, 1905 best 1.	J 32966	Br.	Br.
	B 35366	Med.	Br.
Dec. 8, 1904	Too poor to measure		

Tuesday, March 20, 1923

Cont. of numerous region

Meas. 6 58 32.9 - 0 2.6 (1900)

MC 19495m

19149 for MC 19530

Meas. 6 56 - 0 3 (1850)

One for object found which shows change.

It is object in MC 19495 No. 3 in region

3. Confirmation in other plates.

MC 19495 Br.

19505 ft.

19506 Brightening

19509 Br.

511 "

512 med

513 "

19529 "

530 "

532 " go

19540 " h.

542 ft.

19558 ft.

555 "

556 "

ft. in MC 7299

Br. in MC 7429

Dim. of
last reg. machine 7299

Conf. by J. E. H.

Tuesday, March 27, 1923

Cont. of numerous region

MC 19636 m

19148 for 19505

4. Brighten in negative

Conf. in MC 1579 ft. MC 1457 235
MC 6745 bright, 17182

Meas. 6 45 48.7 - 1 18.7 (1900)

5. Brighten in negative

Meas. 6 45 24.8 + 0 7.2

Br. in 1456, 6746, 19495

Doubtful. Must be conf.

All five variables conf. by J. E. H. See his book 10, 182.
the remainder

1. Fair range

2. Good "

3. Very small "

4. Good "

5. Good range

Monday, April 2, 1923

Estimate of range of the 5 variables in
monoceros

	mc 19541	19555	19495	19511
1.	✓ 11.0 a.j.C.	✓ 11.9 a.j.C.	12.2 a.j.C.	11.2
	11.2 S.E. M.	12.3 S.E. M.		
	<u>11.1</u>	<u>12.1</u>		

[mc 7299 ref. num. = 11.3]

2.	mc 7299 ref. num.	19505	19541	19542	19636
	12.7	12.5	13.2	13.2	12.4

3. [mc 7299 comp. r. ref. num.]
3 = 14.1

	mc 19541	19494	7299
	13.6	13.82	14.0 old ref.

4.	mc 2179	19636	6746	19505
	11.7	11.5	11.4	11.5 12.1

5.	mc 19556	19541	19636	19505
	12.8	13.5	12.9	13.5

mc 19542
11.0

Extreme range

	Mark	Min.	Range	Mod.
var 1	11.0	12.2	1.2	11.6
2	12.4	13.2	0.8	12.8
3	13.2	14.0	0.8	13.6
4	11.4	12.1	0.7	11.8
5	12.8	13.5	0.7	13.2

+ 0.02

6	12.8	13.8	0.9	12.5
7	11.9	12.7	0.8	12.3

m
M = 2
m-M = 1.5

10,000 pc

April 6, 1923

R. K. Allen

5695
July 27, 1908

bay ft.

11 or less

5785
Sept. 2, 1908

10.7

8187

5959
Feb. 23, 1909

11 or 11.5

6087
May 7, 1909

10.3

May 7, 17, June 9, 1909 8034
all engines6143
May 17, 1909

10.1

8444

6277 June 23, 1909

10.3

8481

6313 July 6, 1909

10.7

8494

6483 Aug. 19, 1909

h.s. [11]

8538

6516 May 2, 1910

h.s. [11]

8804

7670 July 3, 1910

h.s. [11]

8856

April 6, 1923

R. K. Allen

7204 Aug. 13, 1910
bay ft. of green.8588 Sept. 22, 1912
M.S. [12]

9648

8914 May 15, 1913
ft. 10.9

9903

10092 Aug. 27, 1914
ft. 10.8 — 11

20372

1916 May 10-27 from p. fender
Max. before May 10.

Probably broken in March 15, 1916

Max. bet March 15 & May 8, 1916

10107 Sept. 10, 1914

h.s. [12]

20386

Saturday April 7, 1923

R. H. Anan

1914

9883 - May 29

m.s. < 12

9822 June 3, 11.7

9854 June 11 11.6

9908 June 28 11.6

9922 July 2 11.6

9930 July 11 11.6

9970 " 22 11.8

10006 Aug 4 11.7

10030 Aug 7 11.7

10092 " 27 11.7

10107 Sept. 10 Torpam

Apr. 7, 1923

1914

Am

10133 April 11.7

R. H. Anan

10200 Oct. 17 10.6 20423

max. after Oct. 7

1915

Apr. 6. 10393 11.7

10677 June 13 11.2

10781 July 11 10.4 20680

10805 July 14 10.2 20683

10866 Aug 9 10.3 20709

Decidedly h. in June = 30 than in Aug. 9
 Assume July 30 for max.

Apr. 7, 1923

R & Area

1913

8914 May 15
11.4

9092 June 23

10.0

9385 Sept. 1
11.5

max

9942

Also check mean max
in March 28, & Apr. 2, 1905

6957

1905
3463 Apr. 21
10.13479 Apr. 24
10.13495 May 2
10.4May 15
10.53596 Sept. 9
11.7

Apr. 7, 1923

R & Area

1906

4372

July 9, 1906

4464

Aug. 7

11.0

4558

Sept. 10
10.5

max bet. Aug. 7 & Sept. 10

7447±

4639

Oct. 15
11.5

1922

15948

July 14
10.6

11

15868

June 16
10.0

$$\begin{array}{r}
 23222 \\
 14383 \\
 \hline
 22 \overline{) 8829} \quad (35) \\
 756 \\
 \hline
 1269 \\
 1260 \\
 \hline
 9
 \end{array}$$

$$\begin{array}{r}
 10636 \quad (42) \\
 84 \\
 \hline
 233 \\
 210 \\
 \hline
 230
 \end{array}$$

$$\begin{array}{r}
 23222 \\
 12586 \\
 \hline
 250 \overline{) 10636} \quad (42) \\
 1000 \\
 \hline
 636 \\
 504 \\
 \hline
 132
 \end{array}$$

Tuesday, April 10, 1923

Immense again cont.

MC 19686

D 19148 from MC 19105

one new one found

6. Brighter on MC 19686
ft 19505

emfs on MC 19511, 12, 13

forming families on the three plates
on each family then adjacent
star.

Estimating on MC 19686 $\text{var} = 12.5$

Estimating on MC 19505 $\text{var} = 13.0$

Very prominent reg on MC 7299

Est. of No. 6 from reg 9+12 (on MC 2335). PL 19686 12.3

" 19505 13.3

Comp. by J.E.W. See her book 10, 184.

"

MC 19495 Br.

19505 very ft.

19509 Med. orb.

19511 Bright

* 19513 very ft.

19530 Br.

19686 Med. or Br.

19513. Is there a change between 2 exp.?
Other stars have one mag (over) higher
in this it seems unusual.

MC 7429 7^h - 2.5

Cute sep. after stars 8.3 - 9.8.

Friday, April 13, 1923

X Minn. 065208 in 1904
obs. in H. 2. 47. give little or no variation
during this year.

B10974 Apr. 20, 1894

10.0

1895, Dec. 22 B14904
8.9

1900 Dec. 17 Am 2418

9.2

1903 Dec. 23 Am 2423

9.1

1903 Dec. 27 4.0 AC 4448

9.0

1904 Incl. 8 AC 4712

9.3

1904 Apr. 4, Am 2500
9.2

obs. min. Feb. 21, 1904

Apr. 13, 1923

Arch.

1904 Apr. 11 X Minn. emb.
Am 2519

1904 Apr. 18 9.1
Am 2551

9.1

1904 May 7 Am 2630

9.3

9.5

Minn.

1904 Sept. 29 Am 3089

9.2

1904 Oct. 30 Am 3119

8.9

May.

obs. May Oct. 25, 1904

1904 Nov. 9 AC 5507

8.9

May.

The star is difficult on Am and AC plates, partly owing to small range shown (at least on the plates examined so far) and partly due to great difference between emp. plates and land. The change is much better seen on Land B plates.

164 MC 7299 3 rais marked.
 MC 195415 " " category

Saturday, April 14, 1923

Iron field (cont)
 MC 19701 in MC 19505

7 Numbering continues for various found in series.
 One new one found
 Br. in 19701

Conf. in

Feb. 10	MC	Br.	MC	ft.	Med
19513	Br.	MC 19541	MC 19495		
19509	"	19506	19530		
19686	" (med)	19556 ?	19529 aft.		
19572	"	19532	19554		
		19540 fainter	19531		
		19542 "	6746		
		April 10 19697 "			

A comparison of 19509 highest & 19541 ft.
 shows a change of at least 0.5 mag.
 Period 100.

ft. in Feb. 8 h. in Feb. 10
 ft. in April 10 h. in April 12

* Conf. by J.E.W. Bl. 10, 185

" MC 19506 ft.
 19509 Br.
 19540 ft.
 19541 "
 19701 Br.

good range

Range	18509	11.9
	18541	12.7

Wednesday, April 18, 1923

Count of stars in Iron field.
 Reticule on MC 19541

Eq. 1 Near Centre
 29

2 60 Cluster

3 18 29

60

18

26

4 26 14

35

22

5 14 22

19

6 35 12

257

7 22

8 22

9 19

10 12

44 x 36
 44
 144
 144
 1584
 26
 9504
 3168
 41184

MC Plate extends from

RA 6^h 36^m to 7^h 2^m

Dec +30° to -20°

RA 26^m = 390' or 6 1/2°

Dec +5° 20'

5.3 x 6.5

5.3

195

325

3 x 5

3445 41184 (1200
 3445
 6734

Monday, April 23, 1923

Variable? +53° 1319 9 6.4 +53 27 (1900)

See letter of Philip Fox to Professor
Shapley, April 16, 1923.

"He says
April 4, 1921 star was [9.8
5, 1921 " " missing entirely when
plates of mag. 9.5 were clearly visible
Scattered other plates show no mark
of irregularity"

I have examined about 120 plates taken
between 1903 and 1922 and find
no evidence of variation

Marked on J 30156 (red ink)
the position and following of two stars

Sp. Fox J 31601

No plates on Apr. 4 or 5, 1921 with 1-inch or
1/2 inch. nearest dates March 30 and
April 12 on both of which the star
is normal.

Friday, June 1, 1923

Regin centrally placed $18^h 30^m - 56^m$
 $-5^{\circ} 30' - 10^{\circ} 40'$
 Sagittarius regin
 Outside of this Regis's regin in HL 161

MC 19826 May 27, 1923
 D19202 from MC 19793

1. Much brighter in 19826 pos. 19793

Also ft. in MD 19826

$-10^{\circ} 47' 1''$ $18^h 38^m 0.8^s - 10^{\circ} 23.7' 9.4''$
 sp. in B35080 (n. of no. 418) Hydrogen lines ran
 B53264, in pos. 19793

Adaptive No. 1.

Not in print. Br. on 1956, 1986, 1986, 1986, 1986. Ft. on 19826 + 19857
 Range about 3 magnitudes? (Rough estimate) E. 7 S.

2. Brighter in pos. 19793

Adaptive No. 2.

Var.

Also ft. in MD 19826

In in DM Appur.

18 55 - 18 40

Not in print. Ft. on MC 19826. Br. on 19857. Not so br. on 19744, 19816 + 19810
 Not on Photo 19793 + 19861 do not cover it. Var. of 15? E. 7 S.
 Handy on 19826

3. Br. in MC 19826

Defect

Not in print.

Exam. of MC 19793 shows defect near
 Also MD 19793 shows the star bright.
 Br. on 19826. fainter on 19857, 19744 + 19816. Not ft.
 on 19744 + 19860. Slight ft.

Tuesday, June 5, 1923

Cont. of preceding

4

Br. in reg.

Also ft. in Pos. from 19744 run 19744

Adaptive No. 3

Var.

Middle one of 3

in $\cdot \cdot \cdot$ as in 19826,

Also br. in MD 19826

Not in print. Br. on 19826, 19857, 19793 + 19816. Ft. on 19744 + 19860

Conf. Range about 2 magnitudes?

5

Slightly br. in 19826, but can
 not yet confirm.

Not in print

Brighter on 19744 + 19793. Ft. on 19826, 19857, 19816 + 19860. May be better
 $\cdot \cdot \cdot$

16

Br. in 19826

ft. in 19744 contact run 19744

Var.

Also ft. in MD 19793

Br. in 19793

Adaptive No. 4

Var.

18 37 - 6 20 (rough)

Not in print. Br. on 19826, 19744 + 19793. Ft. on 19857, 19816 + 19860
 Conf. Range 2 magnitudes?

June 5, 1973

Cm h

X

Br. in Contact 19744 + 19744

Adaptive

no.

5

ir

No 7 on list Br on 19792 + 19826. Fl on 19866, 19857 + 19866

Conf. Range 2.5 in mag?

8

on 19826

Maybe defective portion of film

m

No 8 on list Only Br on 19826. faint on 1986, 19793, 19744, 19811 + 19857
Had more plates. Dances about a mag. or there
plates? Not conf.

9.

Br in contacts 19744 + 19793

fl - in 19826

Adaptive

6

ir

No 9 on list Faintest on 19744. Brighter on 19857, 19826, 19866
19792 + 19857 Had more plates

10

Brighter in contact 19744

+ 19793

Plate 19793 shows a considerably brighter
than on 19826.

Var.

Adaptive

no.

7

No 10 on list

Br on 19866. faint on 19857, 19792, 19866, 19826

Faintest on 19744. Had more plates.

Tuesday, June 5, 1973

John's preceding list objects nos. 1 + 2
show large range and are possibly
Algols.Nos. 4, 6, 7, 9 and 10 also appear the
certainly variables.

11

Brighter in 19744

Adaptive

no.

8

fls. on 19793, 19726, 19866, 19857,
Med. in 19826.

No 8 on list

Br on 19857, 19866, 19866. Fl on 19793 + 19744 + 19826
Conf. Varies about 2 magnitudes.

12

Brighter 19826

only fl. and, in 19744

No 9

ir

Algol?

Monday, June 18, 1923

MC 19850 in D 19208 from MC 19819
(Corus $18^h 10^m$ to $18^h 38^m$)
 -10° to -15.5°

1
no. 30
Brighten negative
18 23 - 13.0 (1855) angle.
Orken D.M.
Also bright in MD 19850, but fl.
MD 19856, 19819, 19793, 19860, 19857,
19858, 19861, 19898.

Strange it is so much brighten in both
MC 19850 and MD 19850 than in
other plates.

MC & MD 19850 June 10 '23

MC & MD 19858 June 16 '23

" 19861 " 17 "

" 20015 Sept 4 "

Thursday, ~~July~~ Aug. 2, 1923

MC 19857 in Contact
from MC 19844

1. Bijectus in 19857
also ft. in MD 19744, also ft. in
JMC & MD 19793
Bijectus in all the other MC and
MD plates taken recently.
Aloft

Algebra

Approx 18 38 - 7 45 (1 hour)
when in

10

m

2. Much bijectus in negative
ft. in 19793

11

Br. in 19860

See Card

Friday, August 3, 1923

V of Pegasi 215701

Mc 19912 July 19, 1923, exp. 53" shows
no trace of this star.
Star of Miss Beavitt's register (her book,
42.94) is distinct even with spec. of
at least 0.5 magn. fainter. Hence
VJ must be fainter than 15.2.

Nov. 1923.

Milky Way. Variables as numbered on chart

Var No 1 Med on 19744 Br on 19793. Ft on 19826 + 19857
Br on 19861 + 19866

No. 1 = ~~AD~~ S.D. = $10^{\circ} 47' 91$

" No 2 Med on 19744 - off 19793. Ft on 19826. Br on 19857 - off 19861. Med. 19866

" No 3 Ft on 19744 + Br on 19793. Br on 19826. Med on 19857. Ft on 19860 + 19866 19897 before.
See also p. 197

" No 4 Ft on 19744. Br on 19793, 19826, 19857, 19860.
Ft on 19866. In middle on A 1947

Lun. in MC 20001

" No 5 Br on 19744, 19793 + 19826. Ft on 19857, 19860 + 19866

" No 7 Med 19744. Br on 19793 + 19826. Ft on 19857
19860. Very ft on 19866
T.D. on A 1947

" No 8 Ft on 19744, 19793. Br on 19826. Ft on 19857
19860 + 19866. May be br on acct of defl near

" No 9 Very ft on 19744, Br on 19793. Br on 19826 + 19857. Med. 19860 + 19866

" No 10 Faintest on 19744. Br on 19793, 19826, 19857
19860 + 19866

" No 11 Ft on 19744 + 19793. Br on 19826. Br on 19857
19860 + 19866

Seq. for Nova Sag. 1.

1855 - 840 (mag 1855)

H.S. L. L. L. 45, 135

L = 10.0 h = 11.7

m = 10.3 q = 12.0

n = 10.7 z = 12.4

o = 11.6

Dec. 26, 1923

Search for other plates on which No. 1 is faint.

About 60 Ac to A.M. plates examined
Ft. on AC 25258, May 18, 1923

Br on MC 19744, 19793, 19819

Am 12207 Br on July 17, 1916

Am 12228 19

Am 12236 21

Am 12258 24

Also ph. on

July 28, 1916 AC 12282

July 2 " 12292 ph. clear near middle seen. < 11.7

July 18, 1917 13423 " 11.5 near

July 13, 1918 14157 " 12.0 Br on A.M. 467, July 15, 1918.

Aug. 11, 1918 14282 11.0

Sept. 13 1919 AC 21796 n.s. < 11.5

Algal type. Compared with seq. of Nova Sag.
in Ac plates. May 28. Min. 12
Ft. on MC 20001

June 14, 1913 19857

" " 19858

May 23 " 19826 12.3

also AC 25258 May 18, 1923
Luh 5 days.

May 18, 1923 MC 19809 10.5
" " AC 25258 10.5
n.s. very ft. but not a h. mag.

MC 19858 near edge (diff) certainly fainter than n.s. of which
19857 no diff. from 19858 is 12.0 stars
(MC 19857 appears to be constant at min.
19858 in plates about 12.3.

Monday Dec. 2, 1923

mc 19897 July 13, 1923
in Dec 12 from mc 19793

1. Br. m mc 19897
Brighter still m

Dec. 12

2. Br. m mc 19897

Ft m 19744

Br. m 1896 19886

Dec. 13

mc 6 m chest is n.s. in mc 19897

Thursday, Dec. 27, 1923

Search for no. 2
Ft. m Am 15936, July 12, 1922
Br. 11336
Ft. m Am 5089 Aug. 25, 1907 n.s.

Am 5065-6271
all types except 5089

Am 6606 Sept. 19, 1909
Ft. n.s. than n.f. sun

Am 6360-7035 all types

Am 10824-12536 bright.

Est. of mag.
AC 6106 mag 10.9
15936 11.9 equals comp. star
5089 } n.s. < comp. star
6606 } fainter than mag. 12.

Am 1982-6 plates; only ft in mc 1982-6
about mag. 12.

Probably Algol type, but est. of intermediate
mag. impossible as relation difficult in Am
plates.

Var 2. age
0.1247

Feb 8, 1924

Milky Way

X Y X Y mean & mean Diff & Diff Red to m

Var 2 + 9.05 - 19.60 + 9.03 - 19.60 + 9.04 - 19.80 - 575 - 3380 - 288 - 1690
 Geo 6520 + 3.28 + 14.00 + 3.30 + 14.00 + 3.29 + 14.00 - 575 - 3380 - 288 - 1690
 " 6497 - 55.03 + 1.10 - 55.05 + 1.08 - 55.04 + 1.09 - 6408 - 2089 - 32.04 - 10.44
 " 6523 + 12.60 - 53.30 + 12.60 - 53.30 + 12.60 - 53.29 + 12.60 - 3349 + 10.52 - 16.74

$$\text{Sec } -8^{\circ} 58' = 1.012 \times 4 = 4.048 \times -2.88 = -11.7$$

$$\begin{aligned} -32.04 &= -129.7 \\ 1.78 &= -4.2 \\ +40.82 &= +43.8 \end{aligned}$$

Geo 6520 18 56 44.06 - 8 24 53.1
 - 11.7 - 16 54.0

18 56 55.76 - 8 41 47.1

6497 18 54 46.55 - 8 32 0.6
 - 2 9.7 - 10 26.4

18 56 56.25 - 8 42 27.0

6523 18 57 6.12 - 8 58 27.9
 + 7.2 - 16 44.4

18 56 52.92 - 8 41 43.5

Mean

*Revised
Sep. 208*

Var 2 age
0.10069

Feb 15, 1924

Milky Way

X Y X Y mean & mean Diff & Diff Red to m

Var -25.80 - 32.10 - 25.80 - 32.08 - 25.80 - 32.09
 Geo 6251 - 54.15 + 55.05 - 54.18 + 55.05 - 54.16 + 55.05 - 28.36 + 87.14 - 14.18 + 14.48
 " 6282 + 55.20 - 43.70 + 55.30 - 43.68 + 55.30 - 43.69 + 81.10 - 11.60 + 40.55 - 5.89
 " 6246 - 73.98 - 40.98 - 73.98 - 40.98 - 73.98 - 40.98 - 48.18 - 8.89 - 24.09 - 4.44

$$\text{Sec } -6^{\circ} 54' = 1.007 \times 4 = 4.028 \times -14.18 = -57.1$$

$$+40.55 = +163.3$$

$$-24.09 = -97.0$$

$$\times -6251$$

Geo 6251 18 33 16.67 - 6 4.39.1
 - 57.1 + 43 34.2

18 34 13.77 - 6 48 12.7

6282 18 36 57.89 - 6 54 5.9
 + 2 43.3 - 5 48.0

18 34 14.59 - 6 48 17.9

6246 18 32 36.54 - 6 52 45.1
 - 1 37.0 - 4 26.4

18 34 13.54 - 6 48 18.7

Mean Pos. of Var. 18 34 14.37 - 6 48 16.4

Feb 19, 1924

M.W

Var 7 - age
29560

Var 7	x	y	x	y	mean x	mean y	Diff	Diff	Red. 15 m
Sec	6348	+19.20	-4.10	+19.20	-4.10	+19.20	-4.10		
Sec	6348	+19.00	+13.30	+19.00	+13.29	+19.00	+13.30	-0.20	+17.40
"	6478	+41.99	-41.99	+22.50	-41.99	+22.50	-41.99	+330	-37.89
"	6357	-33.48	-7.48	-33.50	-7.48	-33.49	-7.48	-52.69	-2.38
								-26.34	-1.9

$$\begin{aligned} \text{Sec } -10^{\circ} 21' &= 1.016 \times 4 = 4.064 \times -0.10 = -0.4 \\ &+ 1.65 = +6.7 \\ &- 26.34 = -107.0 \end{aligned}$$

$$\begin{aligned} -9^{\circ} 48' 61'' & \\ -10^{\circ} 48' 32'' & \end{aligned}$$

$$\begin{aligned} \text{Sec. } 6348 \quad 18 \quad 45 \quad 28.46 - 9 \quad 53 \quad 25.6 \\ - 0.4 \quad + 8 \quad 42.0 \\ 18 \quad 45 \quad 28.86 - 10 \quad 2 \quad 07.6 \end{aligned}$$

$$\begin{aligned} \text{" } 6478 \quad 18 \quad 45 \quad 35.82 - 10 \quad 21 \quad 3.8 \\ + 6.7 \quad - 18 \quad 56.4 \\ 18 \quad 45 \quad 29.12 - 10 \quad 2 \quad 07.4 \end{aligned}$$

$$\begin{aligned} \text{" } 6357 \quad 18 \quad 43 \quad 41.61 - 10 \quad 3 \quad 47.6 \\ - 1 \quad 47.0 \quad - 1 \quad 41.4 \\ 18 \quad 45 \quad 28.61 - 10 \quad 2 \quad 06.2 \end{aligned}$$

Mean Pos of Var 18 45 28.86 - 10 2 7.1

Feb 19, 1924

M.W

Var 9 -
29550

Var 9	x	y	x	y	mean x	mean y	Diff	Diff
Sec	6412	+24.00	+13.50	+24.00	+13.50	+24.00	+13.50	
Sec	6412	+5.00	+38.20	+4.99	+38.29	+5.00	+38.30	-19.00
"	6432	+49.99	-5.98	+50.00	-5.99	+50.00	-5.98	+26.00
"	6494	+10.50	-39.82	+10.02	-39.82	+10.01	-39.82	-13.99
								-52.52
								-7.00
								-26.26

$$\begin{aligned} \text{Sec } -9^{\circ} 41' &= 1.016 \times 4 = 4.064 \times -9.50 = -38.6 \\ &+ 13.00 = +52.8 \\ &- 7.00 = -28.4 \end{aligned}$$

$$\begin{aligned} -9^{\circ} 48' 61'' & \\ -10^{\circ} 48' 32'' & \end{aligned}$$

$$\begin{aligned} \text{Sec. } 6412 \quad 18 \quad 47 \quad 32.09 - 9 \quad 41 \quad 50.2 \\ - 38.6 \quad + 12 \quad 24.0 \\ 18 \quad 48 \quad 10.69 - 9 \quad 54 \quad 14.2 \end{aligned}$$

$$\begin{aligned} \text{" } 6432 \quad 18 \quad 49 \quad 4.41 - 10 \quad 3 \quad 49.3 \\ + 52.8 \quad + 9 \quad 44.4 \\ 18 \quad 48 \quad 11.61 - 9 \quad 54 \quad 04.9 \end{aligned}$$

$$\begin{aligned} \text{" } 6494 \quad 18 \quad 47 \quad 43.31 - 10 \quad 20 \quad 30.0 \\ - 28.6 \quad - 26 \quad 15.6 \\ 18 \quad 48 \quad 11.97 - 9 \quad 54 \quad 14.4 \end{aligned}$$

Mean 18 48 11.44 - 9 54 11

Feb 19, 1924

St 5- age
Q9560

M.W

	x	y	x	y	mean	mean	diff	diff	Red to mm
Var	5	19.88	37.50	19.89	57.50	19.88	57.50		
↓	6337	0.60	77.50	0.60	77.50	0.60	77.50	19.28	120.00
..	6357	52.48	0.40	52.48	0.40	52.48	0.40	32.60	57.90
..	6439	21.10	19.98	21.10	19.98	21.10	19.98	40.98	17.48

$$\begin{aligned} \text{See } 10 \ 3 &= 1.015 \times 4 = 4.060 \times -9.64 = -39.1 \\ &+ 16.30 = +66.2 \\ &- 20.49 = -83.2 \end{aligned}$$

Q ₂₀	6337	18	41	55.20	-9	24	57.8
				-39.1		+10	57.0
	18	42	34.30	-9	34	57.8	

$$\begin{aligned} -9 \ 4843 \\ -10 \ 4818 \end{aligned}$$

$$-6337 - 9$$

5- ... show side up

..

..

..

6357-10

6439-10

6357	18	43	41.61	-10	3	47.6
		+1	6.2		+28	57.0
18	42	35.41	-9	34	50.6	
6439	18	41	12.39	-10	13	52.1
		1	23.2		+38	44.4
18	42	35.59	-9	35	07.7	

$$18 \ 42 \ 35 - 9 \ 35.0$$

Feb 23, 1924

31-6 age
Q1847

	x	y	x	y
Var	6	1.60	5.98	
See	6428	12.48	2.28	
..	6446	39.50	8.10	
..	6435	10.38	13.00	

Plate moved from
orientation plate (see next page)

St-6 age
A 1947Feb 23, 1924
M.W.

	x	y	x	y	mean	mean	Diff	Diff	
Var 6	+3.20	-6.40	+3.30	-6.40	+3.30	-6.40			Red to min
Gas 6423	-10.80	-3.00	-10.80	-3.00	-10.80	-3.00	-14.10	+3.40	-7.05 + 1.70
" 6446	+40.60	+8.50	+40.60	+8.50	+40.60	+8.50	+37.30	+14.90	+18.65 + 7.45
" 6435	+12.00	-12.48	+12.00	-12.48	+12.00	-12.48	+8.70	-7.08	+4.35 - 3.54

Sec - $9^{\circ} 29 = 1.014 \times 4 = 4.056 \times -7.05 = -28.6$
 $+ 18.65 = +75.6$
 $+ 4.35 = +17.6$
 $-9^{\circ} 4899 \left. \begin{array}{l} 8 \\ 4900 \end{array} \right\} \text{miles.}$

Gas 6423 18 48 26.92 - 9 29 37.2
 $-28.6 + 1 42.0$

 18 48 55.52 - 9 31 19.2

" 6446 18 50 12.03 - 9 24 16.5 $-9^{\circ} 4806$
 $+ 1 15.6 + 7 27.0$

 18 48 56.43 - 9 31 43.5

Regich.
Sep. 209

" 6435 18 49 13.05 - 9 34 58.7
 $+17.6 - 3 32.4$

 18 48 55.45 - 9 31 26.3

mean Pos. 18 48 55.80 - 9 31 29.7

St-10 age
A 1947Feb 25, 1924
M.W.

	x	y	x	y	mean	mean	Diff	Diff	
Var 10	+13.52	-5.80	+13.52	-5.80	+13.52	-5.80			
Gas 6319	-6.50	+75.00	-6.50	+75.00	-6.50	+75.00	+20.01	+69.20	+10.00 + 34.60
" 6317	-15.50	+2.48	-15.50	+2.50	-15.50	+2.48	-29.01	+33.2	-14.50 + 1.66
" 6334	+42.00	+1.00	+42.01	+1.00	+42.00	+1.00	+28.49	-4.80	+14.24 - 2.40

Sec - $7^{\circ} 10.08 \times 4 = 40.32 \times 10.00 = +40.3$
 $-7^{\circ} 40.1009 \times 4 = 40.36 - 14.50 = -58.5$
 $+ 14.24 = +57.4$
 $-7 4703 \left. \begin{array}{l} 8 \\ 4705 \end{array} \right\} \text{miles.}$

Gas 6319 18 39 49.71 - 7 4 19.1
 $+40.3 +34 36.0$

 18 40 30.01 - 7 38 55.1

" 6317 18 39 32.80 - 7 40 33.8
 $-58.5 + 1 39.6$

 18 40 31 30 - 7 38 54.2

" 6334 18 41 29.69 - 7 41 9.5
 $+57.4 - 2 24.0$

 18 40 32.29 - 7 38 45.5

mean Pos of Var 18 40 31.33 - 7 38 51.6
 $-2 58.9$

Feb 26, 1924

Sl. 11 age
Q. 1847

M.W.

	X	Y	X	Y	X	Y	mean	mean	Diff	Diff	Return
Var 11	+27.98	-12.70	+32.98	-0.60	+32.98	-0.60	+32.98	-0.60			
Geo. 6482	+70.80	+7.48	+75.50	+19.58	+75.50	+19.60	+75.50	+19.59	+42.52	+20.19	+21.26
" 6430	+63.50	-18.48	-58.10	-6.60	-58.10	-6.58	-58.10	-6.59	-9.08	-5.99	-48.54
" 6466			+16.50	-63.49	+16.50	-63.50	+16.50	-63.50	+13.48	-62.90	+82.4

Sec - $7^{\circ} 28' = 1009 \times 4 = 4036 \times +21.26 = +85.6$
 $x - 45.54 = -193.8$
 $x + 8.24 = +33.3$

-7°47'38"
4774

Geo 6482 18 53 28.75 - 7 28.8 47.3
 $+85.8$ $+10$ 6.0

18 52 2.95 - 7 38 53.3

" 6430 18 48 59.09 - 7 43 18.8
 -3 3.8 -3 00

18 52 2.89 - 7 40 18.8

-8°47'80"
 " 6466 18 51 32.22 - 8 11 0.0
 $+33.3$ -31 27.0

18 52 5 52 - 7 39 33.0

Mean 18 52 3.78 - 7 39.6

Get photo long distance apart. large - dense

Repeat

Feb 26, 1924

Sl. 12 age
Q. 1847

M.W.

	X	Y	X	Y	mean	mean	Diff	Diff
Var 12	-28.98	-45.40	-28.99	-45.40	-28.98	-45.40		
Geo 6466	+41.05	-22.00	+41.05	-21.99	+41.05	-22.00	+70.04	+23.40
" 6480	-33.00	+34.58	-33.00	+34.58	-33.00	+34.58	-4.02	-79.98
" 6429	-38.00	-54.48	-38.00	-54.49	-38.00	-54.48	-9.02	-9.08

Sec - $8^{\circ} 11' = 1010 \times 4 = 4040 \times 135.02 = +141.5$
 $7 43 = 1.009 \times 4 = 4.036 \times -2.01 = -8.1$
 $8 27 = 1.011 \times 4 = 4.044 \times -4.51 = -18.2$

-7°47'38"
4774

Geo. 6466 18 51 32.22 - 8 11 0.0
 $+2$ 21.5 $+11$ 42.0

18 49 10.12 - 8 22 42.0

" 6430 18 48 59.09 - 7 43 18.8
 -8.1 -39 59.4

18 49 7.19 - 8 23 19.4

" 6429 18 48 52.46 - 8 27 55.7
 -18.2 -4 32.4

18 49 10.66 - 8 23 23.3

Repeat

18 49 10

Feb 26, 1924

mm

St 13. a/c

Q. 1847

	x	y	x	y	mean & mean Diff	Diff
Var 13	-40.5	-2.00	-40.5	-2.00	-46.04	-2.00 + 14.04
Geo 6430	-28.00	+37.00	-28.00	+36.99	-28.00	+37.00 + 18.04 + 39.00 + 9.02 + 19.50
" 6466	+46.65	-19.00	+46.03	-19.50	+46.04	-19.50 + 92.08 - 17.50 + 46.04 - 8.75
" 6429	-33.00	-52.00	-33.00	-51.99	-33.00	-52.00 + 13.04 - 50.00 + 6.52 - 25.00

$$\begin{aligned} \text{Sec } -7^\circ 43' &= 1.009 \times 4 = 4.036 \times 9.02 = +36.4 \\ &+ 46.04 = +185.8 \\ &+ 6.52 = +26.3 \end{aligned}$$

Geo. 6430	18	48	59.09	-7	43	18.8
			+36.4		+19	30.0
	18	48	22.69	-8	2	48.8
" 6466	18	51	32.22	-8	11	50
			+3		-8	45.0
	18	48	26.42	-8	2	15.0
" 6429	18	48	52.46	-8	27	55.7
			+26.3		-25	5.0
	18	48	26.16	-8	2	55.7
	18	48	26	-8	2.6	

(1900)
Repeat

Feb 29, 1924

Remains of No 10 - by different orientation

	x	y	x	y	mean + mean	Diff	Diff	Red to mm
Var 10	+15.00	-33.03	+15.00	-33.05	+15.00	-33.04		
6319	-5.50	+35.70	-5.50	+35.70	-5.50	+35.70 + 20.50 + 68.74 + 10.25 + 34.37		
6317	-14.00	-36.50	-14.00	-36.50	-14.00	-36.50 + 29.00 - 3.46 + 14.50 - 17.3		
6334	+43.98	-37.99	+43.98	-37.98	+43.98	-37.98 + 28.98 - 4.94 + 14.49 - 2.47		

$$\begin{aligned} \text{Sec } -7^\circ 40' &= 1.006 \times 4 = 4.032 \times 10.25 = +41.3 \\ &- 7 40 = 1.009 \times 4 = 4.036 \times 14.50 = +58.5 \\ &14.49 = +58.5 \end{aligned}$$

Geo. 6319	18	39	49.71	-7	43	19.1
			+41.3		-34	22.2
	18	40	31.01	-7	38	41.3
" 6317	18	39	32.80	-7	40	33.8
			+58.5		-1	43.8
	18	40	31.30	-7	38	50.0
" 6334	18	41	29.69	-7	41	9.5
			+58.5		-2	28.2
	18	40	31.19	-7	38	41.3

$$\begin{aligned} \text{Mean Pos of Var.} &= 18 40 31.19 - 7 38 44.2 \\ &18^h 40^m 31^s - 9 36.7 \end{aligned}$$

Accuracy aimed at in determining position of variables from plates. S.A. to nearest second of time. Error of amount of one.

Est. of brightness

no 2

Am 16104 bet. n r d.

m 1, 30

m = 10.7

0 = 11.2

10.8

16.9

10.85

mag.

mm 13.2

Alford type.

H m Am 11936, July 12, 1922

Bright m 17 vch Am plates.

March 21, 1924

St 10

To check measures of Nov - p 193

$$\begin{array}{r}
 6319 \quad 18 \quad 39 \quad 50 - 7 \quad 4.3 \\
 \quad \quad \quad 45 \quad + 34.8 \quad \pi \\
 \hline
 18 \quad 40 \quad 35 - 7 \quad 39.1
 \end{array}$$

$$\begin{array}{r}
 6317 \quad 18 \quad 39 \quad 33 - 7 \quad 40.6 \\
 \quad \quad \quad 58 \quad - 1.6 \quad \pi \\
 \hline
 18 \quad 40 \quad 31 - 7 \quad 39.0
 \end{array}$$

$$\begin{array}{r}
 6334 \quad 18 \quad 41 \quad 30 - 7 \quad 41.2 \\
 \quad \quad \quad 58 \quad - 2.1 \quad S \\
 \hline
 18 \quad 40 \quad 32 - 7 \quad 39.1
 \end{array}$$

$$18 \quad 40 \quad 33 - 7 \quad 39.1$$

$$18 \quad 40 \quad 31 - 7 \quad 38.7$$

$$18 \quad 40 \quad 31 - 7 \quad 38.9$$

$$\begin{array}{r}
 \text{Mean of} \\
 3 \quad 18 \quad 40 \quad 31 - 7 \quad 38.9
 \end{array}$$

Apr. 7, 1924

Star 11, by method used in May Ch.

Measurements

-7°47'24" p 21.60 T. 10.60
 -7°47'63" f 46.00 n 3.70
 -8°47'80" f 7.95 n 31.6

18 53 28.75 - 7 28.847.3
 1 26.59 10.60

18 52 2.16 - 7 39.4

18 48 59.09 - 7 43.3
 3 44.1 3.7

18 52 3.50 - 7 39.6

18 51 32.22 - 8 11.0
 31.87 31.6

18 52 4.09 - 7 39.4

4.009
21.6
86.59

4.009
26
184.41

4.009
29.1
31.87

Period - R.A. +1.07
-0.25
-0.44

Mean 1900 18 52 3.25 - 7 39.5

No. 3 (1900) 18 34 14 - 6 48.3
 rep. 183

April 1, 1900

No. 3 comb. jump. 178

May 10 Me 19700 ft.

19793 ft.

May 23 19826 ft.

June 16 18959 ft.

17 19860 ft.

19 19866 "

19897 ft.

Aug 30 20001 ft.

Does not show on AM plates of long exp. Not seen in A.R. 437, which it must have been at min. as stars of brightness of 1st Vega by 1 star or is glimpsed in A.R. 437, mag. 14.43.

Star near var. which it equals in m.c. 19826 is about = to 5th of Vega by which is mag. 13.01
 The range is therefore from 13.0 to [14.0]

Period about

Additional Me plates should be examined to find it again

Start

18 37 - 6 20 (miles)

Ft. on 19744

Br. 19782

" 19826 19857 19860 19866

→ Bay pt. 19897 July 13, 1923, near min.

Invi. A 1847.

Br. on A K 437, about = S = 13.01

Invi. must be very flt. as

N var at max is several tenths higher
than that s.p.

→ On M² 20001, no hint of var.
Whereas stars at least two magnitudes
fainter are seen

On J 33367, even slightly h. than s.p. star

Hence range is
from 13.0 to [14.5] (the safe)

→ Perhaps Algal type

Ft. Apr. 26, 1923 but only slight

near mt July 13, 1923

At min Aug 30, 1923.

Start

Br on MC 19744

Ft on 19826

Slight diff. must be confirmed
MC 20001 shows the slight diff.

Not enough to announce until more confirmation
is obtained

~~Ft 189 19897~~~~" 19857~~

Star 6.

18 48.9 - 9 31

Br. 19744
19793

Jit. 19826

n.s. on 20001

19861 veg. fl.

19857 veg. fl.

19897 n.s.

19866

A little higher than cab map

 $r = 12.43$

Assume 12.2 mag.

n.s. on A K 437
hence range =

12.2 - 14.

long
short periods, probably.

Star 7

Br.

19744

19793 mag. 10

Jit

19846 mag. 23

19866 veg. fl. - 7

19857 " " fine 16

19897 too poor

20001 n.s. veg. fl.

also seen.

on Am 1534 t is seen distinctly

 $t = 13.55$

19860 veg. fl.

or is flinched

it is seen = 14.06

when Am 153x

or 14.45 is flinched.

A K 437

Star 7 n.s.

~~who was has not seen by E. F. L. ?~~
~~Could she find it on A plates? ?~~
She says n.s. on A 1547 Deep 18x
A 8560

Perhaps a Nova! in, in n. A 8560.

at mag. on MC 19744 & 19793

nearly equals 12.5 mag. 12.6.

12.4, 2.2

12.83

12.81

12.82

estimated from plate on Am 153x of same
brightness as 7 on the mill plates

Star 8

upper north pres. side of reg.

Br.

19744

J.E.

19793

19866

19857

20001

(med. 19826)

Change very slight, and not to
be announced earlier confirmed.
In a dark cloud,

Star 9

Br.

19826

Very ph. 19744

19793

19857

E. F. L.

med.

19860

19866

20001

19897

19866

m.s. on AM 153X
AK 1437.

med. 19793

The fol. & slightly, position of 2 Close Stars

On 19744 fainter than the pres.

On 20001 m.s. but pres. star clearly seen

At max about equals S 13.01

At min, vanishes from the MC plate
20011

Probably short period

13.0 - [15-?

Star 10 18 40 31.33 - 7 38 57.6
p. 189

B. n.
Mc 19857

ft.
19744
19793 slightly

19826
19857
19860
19866

B. n. Am 15-34, AK 437

varieties small. Have brass wood
conferm.

Conf. by J. E. W. See her book 25, 74.

Almost equals q. at max. Assume 12.0,
below & at max.

12.0 to 12.6. Period short.

Star 11 18 52 3.25 - 7 39.5 p. 190

B. n.
19857

ft 19744
19793

19860

formed 19826

25. 19826
✓ 19866

ft. 19857, Aug. 13, 1923
Regr. 19 05 - 7.5

→ short period.

Best p. 4 q. at max 11.9
at min.

Range 11.9 to 13.0

Star
12

18 49 10.66 - 8 23 23.3

Br
19897ft.
19793 n.s.

19826 ft.

19744 ft. n.s.

very h. 20001

19860 h.

~~198~~
19857

19866

Long period?

Br. for Am 1534, bet. 2 red.

Est. 12.6 at mag.
at min goes below limit of
Mc plates m. 60 m. exp.

Star 13 18 48 26.16 - 8 25.7

Br.
19897
19866ft.
19744Range rather small but seems
to be real.

J

May 19, 1923

A 1947

Var 2 M.W. A.G.C. - Remasque

$$\begin{array}{r}
 \text{Bas. } 6520 \quad - 10.0 \\
 \quad \quad \quad - 2.5 + 17.3 + 16.9 \\
 6497 \quad - 127.6 \\
 \quad \quad \quad + 32.4 + 10.4 + 10.0 \\
 6523 \quad + 64 \\
 \quad \quad \quad + 1.6 - 16.8 - 16.8
 \end{array}$$

$$\begin{array}{r}
 \text{Bas. } 6520 \quad 18 \quad 56 \quad 44 - 8 \quad 249.52.1 \\
 \quad \quad \quad - 10 \quad \quad \quad + 16.9 \\
 \hline
 18 \quad 56 \quad 54 - 8 \quad 41.8
 \end{array}$$

$$\begin{array}{r}
 \text{" } 6497 \quad 18 \quad 54 \quad 47 - 8 \quad 32.0 \\
 \quad \quad \quad - 2 \quad 9 \quad \quad \quad + 10.0 \\
 \hline
 18 \quad 56 \quad 56 - 8 \quad 42.0
 \end{array}$$

$$\begin{array}{r}
 \text{" } 6523 \quad 18 \quad 57 \quad 6 - 8 \quad 58.5 \\
 \quad \quad \quad + 6 \quad \quad \quad - 16.8 \\
 \hline
 18 \quad 56 \quad 54 - 8 \quad 41.7
 \end{array}$$

$$\text{Mean} \quad 18 \quad 56 \quad 53 - 8 \quad 41.8$$

May 19, 1924

Var 6 M.W. A.G.C.

Remasque

$$\begin{array}{r}
 28.8 \\
 6423 \quad - 77.2 + 1.9 \\
 6446 \quad + 17.3 + 6.9 \\
 6435 \quad + 16.8 \\
 \quad \quad \quad + 4.2 - 3.8
 \end{array}$$

$$\begin{array}{r}
 \text{Bas. } 6423 \quad 18 \quad 48 \quad 27 - 9 \quad 29.6 \\
 \quad \quad \quad - 28 \quad \quad \quad + 1.9 \\
 \hline
 18 \quad 48 \quad 55 - 9 \quad 31.5
 \end{array}$$

$$\begin{array}{r}
 \text{" } 6446 \quad 18 \quad 50 \quad 12 - 9 \quad 24.3 \\
 \quad \quad \quad + 1 \quad 17 \quad \quad \quad + 6.9 \\
 \hline
 18 \quad 48 \quad 55 - 9 \quad 31.2
 \end{array}$$

$$\begin{array}{r}
 \text{" } 6435 \quad 18 \quad 49 \quad 13 - 9 \quad 35.0 \\
 \quad \quad \quad + 16 \quad \quad \quad - 3.8 \\
 \hline
 18 \quad 48 \quad 57 - 9 \quad 31.2
 \end{array}$$

$$\begin{array}{r}
 \text{Mean} \quad 18 \quad 48 \quad 56 - 9 \quad 31.3 \\
 1900
 \end{array}$$

May 29, 1924

Sta. 19357 M.W.

~~6316 - 34 - 7.4~~
~~6320 + 1.30 + 2.2~~
~~6327 + 1.5 - 6.5~~

R.A. + 98.2 ÷ 15 Dec 1915

6316 - 0.6 - 7.8
 " 6320 + 6.3 + 1.8
 " 6327 + 10.7 - 6.8

6316 18 39 28 - 6 26.5
 (1900) - 4 - 12.5
 18 39 32 - 6 14.0

6320 18 40 13 - 6 11.0
 + 41 + 2.9
 18 39 32 - 6 13.9

6327 18 40 42 - 6 25.1
 + 1 10 - 10.9

(1900) 18 39 32 - 6 14.2
 18 39 32 - 6 14.0

No. 16

Wednesday, June 19, 1924

m MC 20780 18 30 - 12.9

Star near 18 30 - 10 40 (very weak)
 off in MC + MC 202780, with in action
 plates as follows

Oct 11, 1920 MC 16961 (32^m) a, b seen. Star 17 ohms?

July 28, '03 B 32341 (60) a "

July 7, '09 A 9524 (101) near edge - Star not in

Sept 5, '06 A 8070 (10) " " "

June 23, '09 A 8416 (60) " " "

July 14, '19 A 9560 60 a, b, & another off star near

June 1921 B 27628 60 m.s.

July 2, 95 J 13036 43 Star seen? Very poor but I think it is m.s.

J 43647 June 24, 1924
 Star about same as MC 20780

Aug. 16
(current)

Q 2857

July 12, 1924

18 30-12

New Bar. age. (no. 1 in MC 20780)

Long fin. run. see spec pg

6382	32.0	
	8.0	- 8.2
6387	14.0	+ 34.4
6401	137.6	+ 34.4 - 9.0

- 10 4734 } 20.
- 10 4735 }

6382	18 32 10	- 10	48.6
	- 32		- 8.2
	18 32 42	- 10	40.4

6387	18 33 0	- 10	5.5
	+ 14		+ 34.4
	18 32 46	- 10	39.9

6401	18 35 0	- 10	48.6
	+ 2 18		- 9.0
	18 32 42	- 10	39.6

Mean Pos 18 32 43 - 10 40.0

213

July 25, 1924

18 30-12

MC 2082 in D ~~4208~~ = MC 19819

Search for object highest in MC 19819
Bijack in MC 19861. Not in 2082

No. 14

See p. 314

18 25-10

Medusa Br.

1989

1989

2015

1986

was ahead 1 mag in thick pen

Nov. 15

Br. in MC 2082

18 18.5-12 30 (1885)

FF

Not in 2082. On 19819

18 35-12 (any) (1885)

Not in 2015, 19861, 19869, 19858

Defect in 20

MC 19819, not quite same shape as the stars.

Defect?

17

U.S. 19244
dup. in

On 2082. Not in 19819, 19861, 19869, 19858
also in 2015, Sept. 13, but not as high as in
2082 or 2084

19826

It. in 19861, 19858, 19866, 19859

June 9, 1924

h. 14 New long point. 18 25-10
 July 25, 1920

Bn. on B 37694 June 29 1907

Bn. on I 20925 June 30 1898

Bn. on Al 868 May 29, 1900

" " A Sept 1910
 " " " Jan 16, 1922
 " " " Oct 10, 1922
 " " " May 1923

ft. or not seen on B 19242 May 28 1897

" " " on B 20470 Sept. 20 1897

" " " B 22796 May 9 1899

" " " B 25878 Sept 1900

" " " B 27586 June 6 1901

" " " B 27628 June 8 1901

" " " B 31686 May 8 1903

" " " I 31859 July 13 1904

h. 14

Monday, Aug. 11, 1920
 18 45-8

Mc20910 Aug. 2, 1920 rep on
 D. 19445 for Mc20745, May 1, 1920

18) 1. Bn. on Mc20910 Alfol.?
 Mc20910
 Mc19857 Bn.

Med Aug ft.
 19826 20745
 19744
 19860
 19857

19 2. Bn. on Mc20910 18 46-10 15
 19897 Bn. 20001 ext. edge
 ft 19744 20745 ft.

19826
 19857
 19897
 19826
 20916
 19793
 19753 > 2
 on 19800 Ld

Short point, maybe
 probably 8 or 9 inches.
 n (glass up)

20 3. ft on Mc20910
 Alfol.?

alight
 20001

Bn 19826, 19857, 19860, 19897, 19744

Aug ft. 20910
 basis measurement 1 may

Wed. Aug. 13

Mc 19826 m

D 19445 = 20745

21

18 32.5 77 50 (avg 1855)
 Ft m 20745 hardly seen.
 Br. m small white plates at hand.
 Algal?

Br. m 20910, 20916.

22

18 43 - 6 55 (avg 1855)
 Ft. m 20745, 20910, 19897, 20916
 (avg ft. 2000)

Br. 19744, 19860, 19857, 19826, 19793
 Ft 20916

Shad ferns?
 Probably big ferns

23.

Br. m m 20745 18 49 - 6 10 (avg 1855)
 Mt m 19826, 19897, 19860, 19897, 19744
 20910
 Br. m 20001

Wednesday, Aug. 13

Mc 19826 emb

24

Br. m 19826, 19897 18 52 - 7 30
 (avg 1855)

Wed 19744

Mtn 20745, 20001

Avg. 19860, 19857

Ft 20910

25

Ft. m 19826 18 55 - 6 20 (avg)
 Br. m 20745 lie S.f. of limestone
 Varying in white plates

26

Br. m 19826 18 51 - 6 22
 Ft. m 20745

Br. m 19857, 19860,

Ft m coral when

27

Ft m 19826
 Br. m 20745
 Ft m 19857, 19860.

emb. 153, 36

Aug 19, 1924

09560

Var¹⁸₂₀ age

Geo. 6418 $\frac{330}{9.5 + 3.4}$
 6432 $\frac{720}{+ 18.2 - 17.1}$
 6439 $\frac{1250}{+ 31.4 + 4.8}$

Geo. 6418 $\frac{1900}{18 \quad 38 \quad 28 - 10 = 15.5}$

$- 38 \quad + 3.4$

$\frac{4}{18 \quad 39 \quad 06 - 10 \quad 18.9}$

6432 $18 \quad 40 \quad 19 - 10 \quad 35.7$

$+ 1 \quad 13 \quad - 17.1$

$18 \quad 39 \quad 06 - 10 \quad 18.6$

6439 $18 \quad 41 \quad 12 - 10 \quad 13.9$

$+ 2 \quad 6 \quad + 4.8$

$18 \quad 39 \quad 06 - 10 \quad 18.7$

mean₁₀₀ $18 \quad 39 \quad 6 - 10 \quad 18.7$

Variablen

Variable Page

107 27, 28, 1, 17, 18, 19, 21

110 2

111 4, 39

112 5, 28

113 5, 8

114 5, 35

115 5, 36

116 7, 41

117 7, 37, 31

118 10

119 10, 56

120 10, 38

121 10

122 11, 42, 49

123 11, 51

124 9, 32, 50

125 9, 33

126 42

127 42, 46

128 42

129 49

130 50

131 51

132 52, 54

133 57

134 61

135 62 - 66, 69, 70, 75

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143, 76

144, 78

145, 78

146, 79

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148

149, 91

150, 134

151, 134

152, 135

153, 136

154, 138

Aug 19, 1924

0.9560

Jan 20, 1925

$\begin{array}{r}
 \text{Aug } 6306 - 52.4 \\
 \quad \quad \quad - 13.1 + 18.6 \\
 6299 - 75.6 \\
 \quad \quad \quad - 18.9 - 5.4 \\
 6318 + 25.6 \\
 \quad \quad \quad - 6.4 - 10.5
 \end{array}$

$\begin{array}{r}
 \text{Aug } 6306 \quad 18 \quad 38 \quad 23 - 9 \quad 1.4 \\
 \quad \quad \quad - 52 \quad \quad \quad + 18.6 \\
 \hline
 18 \quad 39 \quad 15 - 9 \quad 20.0
 \end{array}$

$\begin{array}{r}
 \text{" } 6299 \quad 18 \quad 38 \quad 1 - 9 \quad 25.1 \\
 \quad \quad \quad - 15 \quad \quad \quad - 5.4 \\
 \hline
 18 \quad 39 \quad 16 - 9 \quad 19.7
 \end{array}$

$\begin{array}{r}
 \text{" } 6318 \quad 18 \quad 39 \quad 43 - 9 \quad 30.1 \\
 \quad \quad \quad + 26 \quad \quad \quad - 10.5 \\
 \hline
 18 \quad 39 \quad 17 - 9 \quad 19.6
 \end{array}$

Mean Pos $18 \quad 39 \quad 16 - 9 \quad 19.8$

