

KG  
11366  
203

Ida E. Woods  
Book 27  
Examination of Milky Way Region

<sup>hm</sup>  
1925-8

KG 11366, 208

19.4 - 8      Exc. 2 pl. 10105

Oct. 11924 To f. 80      All Vars. listed on cards, meas., and  
proved, except p 20.  
Cards comp. for publication.

J.E.W. Bk. 27,

Provisional Index

For details of Vars., see  
later Index of each Var.

Gran. MW Reg.  $19^h 25^m - 8^\circ$

- p.  
4 Dr. Shapley's instructions  
5 List of original plates  
5 " " known Vars. in Region  
6 Comp. 19946-20038  
19} Meteor Trail  
24 Comp. 19946-20112  
46 List of later plates — \*\*  
54 Comp. 19946-19886  
55 Comp. 19946-20687  
56 " 19946-20694  
57 " 19946-20746  
59 " 19946-20777  
59 " 19946-20766  
60 " 19946-20757  
61 " 19946-20810  
62 " 19946-20811  
66 " 19946-20817

1925phae.proj.120sw

Harvard College Observatory

Ida E. Woods

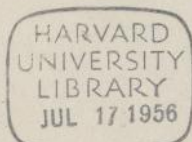
Book No. 27

Special Examination of MC Plates  
Milky Way Region





KG 11366.203





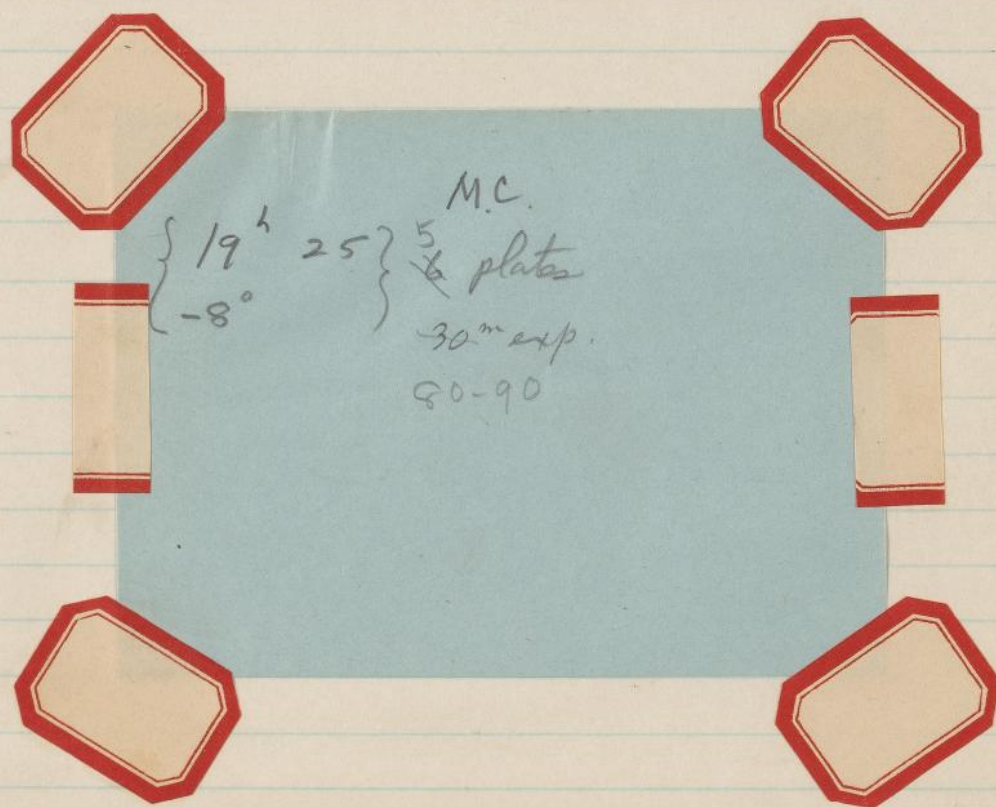




Milky Way Region  
already exam. on MC Plates

See Book.

Limits of  
1 plate of Region



to 19<sup>h</sup> 19<sup>m</sup> 19<sup>s</sup> 35<sup>u</sup>  
 Region 4.8 - 9.9

Monday, March 10, 1924.

5

(See Meteor. & Prec. corner 19946)

5 Plates, MC, given me today by Dr. Shapley.

2

see list. To be examined by superposing  
 D & MC.

|          |                 |                      |
|----------|-----------------|----------------------|
| MC 19886 | July 8, 1923    | Exp. 86 <sup>m</sup> |
| 19946    | August 9, 1923  | 80                   |
| 19957    | Aug. 15, "      | 80                   |
| 20038    | September 14, " | 90                   |
| 20112    | October 6, "    | 80                   |

→ see p. 46, cont.

D 19269 from MC 19946  
 19270 " 19946

A portion of each plate is not covered (in Dec.)  
 see p. 6. Region in common extends from  
 19<sup>h</sup> 10<sup>m</sup> to 19<sup>h</sup> 36<sup>m</sup>  
 -6.0 to -10.0 (less)

Known Variables in region:

Limits 19<sup>h</sup> 10<sup>m</sup> to 19<sup>h</sup> 36<sup>m</sup>, -6° to -11° see, also, above

|             |               |             |      |           |            |
|-------------|---------------|-------------|------|-----------|------------|
| AK 209, 191 | H. W. Aquilae | 19 10 39 -8 | 15.6 | 10 - < 13 | Wolf       |
| AK 219, 219 | - Aquilae     | 19 20 29 -7 | 10.4 | 12 - 16   | Rejmimette |
| -7 4968     | U Aquilae     | 19 23 58 -7 | 15.0 | 6.2 - 6.9 | Sauryer    |

also 190907, 191007 possibly prec. limits on some plates (H. 2. 55)

New Vars. found: See cards.

Comparing

D 19269 = MC 19946

MC 20038

20038 superposed

Br. star at 19 20 -9.8

Is this known as Dbl.? Not Dbl in DM

A portion of each plate is not covered (in Dec.)

Portion in common covers 19 10 to 19 36

-6 to -10.0

New Var. Not in Cat

19 25.0 - 8.4 (1855) App. 1900 - 19 27 - 8.3

Br. 20038<sup>+0.1</sup> N.S. 19946

Very Br. 20112

19886

19957 N.S. or Extremely F.

Seen B 15044 (marked as 15044)

26052

Obs.

On B pl. Var. about = 2

Magn. Range " MC 19946 < 1 (~~2.8~~) Var. N.S.

" MC 20112 nearly = 4

→ A 9839, 61<sup>m</sup>, does not show faint stars seen on MC plates

Eff.

10<sup>m</sup> A 8073 Sept. 5, 1906 Var. N.S. < 1a 1 N.S.61<sup>m</sup> 9839 Oct. 10, 1909 Var. N.S. < 1a 1 N.S.

B Plates exam.

Var. marked on 15044

B 9884 Var. N.S. 1a barely seen

26052  $\uparrow$  Var. very ft.  $< 2$  1a also seen  
Sept. 11, 1900

15044 October 31, 1895 Var. ft. between 1a & 2

29881 May 28, 1902 Var. ~~N.S.~~ <sup>N.S.</sup> nearly = 2  $< 1a$

30202 June 26, 1902 Var. N.S.  $< 1a$

31743 May 7 ? Var. N.S.  $< 1a$

33781 May 20 1904 V N.S.  $< 2$

\* 34054 June 11, 1904 Br. Nearly = 4 brighter than 4  
Map \* 34407 July 26, 1905 Br. A little br. than 2

36197 June 23, 1905 V N.S.  $< 2$  1a barely seen

36913 Sept. 7, 1905 V N.S.  $< 2$  1a barely seen

40411 June 9, 1909 Seen between 1a & 2

40504 June 27, 1909 V N.S.  $< 2$

40655 July 26, 1909 V N.S.  $< 1a$

40755 Aug. 23, 1909 V N.S.  $< 2$

27786 June 26, 1901 Seen Br. than 2

33865 May 25, 1904 Seen Between 1a & 2

34666 Aug. 17, 1904 Seen About = 3

Magns. October 27, 1924 See p. 80

about 12.5 on B 34407

15.0 on 20038

about 16.5 on 19957

[16.5 19946

8

N.B. Dates of 1904 for increase & decrease.

For Proof & Range:

~~MC~~ Max.

Medium

Th. or N.S.

MC 20112

27786

MC 19886

B 34054

34666

showing B pl. that shows  
ft. stars.

B 34407

B plates, though there  
do not show first  
stars.

Could have  
been found on  
B Pl.

No sequence near for estimates

Compared with MC 15606 (See Bk. 21, inside  
of cover.)

(N.B. 15606 = 30<sup>m</sup> Eff.)

20112 = 80

Var. on 20112 a little brighter than Star 6

6 = 11.6 Corr.

Var. =

rept

Position measured, MC 20112, Bk. 19, p. 178.

## Exam. of I Plates

I 9029

|       |                 |        |                        |      |
|-------|-----------------|--------|------------------------|------|
| 9347  | August 31, 1893 | V.N.S. | <sup>star</sup><br>< 2 |      |
| 9588  | October 7, 1893 | V.N.S. | < 2                    |      |
| 11375 | August 21, 1894 | V.N.S. | < 2                    |      |
| 15673 | Aug. 11, 1896   | V.N.S. | < 3                    | Poor |
| 18800 | Sept. 14, 1897  | V.N.S. | < 2                    |      |
| 21063 | August 15, 1898 | V.N.S. | < 2                    |      |
| 23227 | July 27, 1899   | V.N.S. | < 3                    |      |
| 25805 | Sept. 18, 1900  | V.N.S. | < 2                    |      |
| 25864 | Sept. 25, 1900  | V.N.S. | < 2                    |      |
| 27487 | Sept. 14, 1901  | N.S.   |                        | Poor |





12

Tuesday, March 11, 1924

M.W. Region Continued.

D19269 &amp; MC 20038

Var.

Br. 19946

Fl. 20038

a little br. than 4

between 2 &amp; 3

Br 19957

20112 much fainter

Very Br. 19886

than 1 - barely trace

1917.4 - 7.8 (1855)

Not in Var. Cat.

May<sup>?</sup> X A 8073 brighter than 5 near N edge.9839 Var. & 2 barely seen. Var. fainter than 3  
near N edge9586 probably not seen. Fl. stars N.S.  
near S edge

Est. Magn. October 27. See p. 80

14.2 on MC 19886

Trace or [16.5 on 20112

B 34054 shows faint stars

13

Proof &amp; Range:

Max MC 19046

A<sup>MC</sup> 18886

B 27786

Min. MC 20112

A 9839

Position meas. Bk. 19, p. 180.

19 19.8 -7 46 (1900)

Ex. of I plates

For I 9029 Broken  
 dates, 9347 Too poor  
 see p. 769, 15673 Too poor

18800 " "

21063 " "

23227 " "

25805 " "

25864 " "

27487 " "

Exam. of B. Plates

B 9884 Too poor.

B 15044 4 Seen V &amp; S.

26052 4 " V &amp; S.

27786 a little brighter than 5

29881 fainter than 2(?) V &amp; S.

30202 V &amp; S. fainter than 4. 2 &amp; 3 barely seen, probably one image.

## B Platus

- B 31743 Var N.S. fainter than 4  
 33781 V. N.S.  
 33865 V N.S. [4 trace of 3  
 34054 V N.S. [1  
 34407 V N.S. [4 trace of 2? & 3  
 34666 Poor pl. but shows fr. stars. Probably V  
 36197 About = 4 Seen *barely seen.*  
 36913 Poor. V. N.S. [4  
 40411 Probably Trace of V.  
 40504 V N.S. 4 seen  
 40655 V N.S. 4 quite fr.  
 40755 V N.S. 4 quite bright

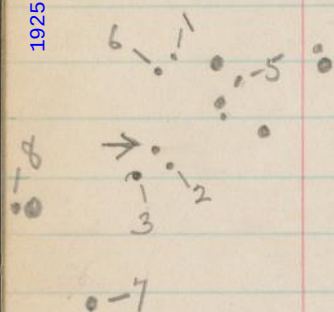






March 11, 1924.

Var. Identified as Known Var. See below.



Br.

20038

= 7

20112 V = Star 8

Very ft

19946

A Auto fainter ~~and~~ than 1

19 18.2 - 7.4 (1855)

5, 1923

19 20 29 - 7 10

K Remmuth

an 219, 219.

Marked  
on B29881N.B. In A.M. Ref. stars are  $-7^{\circ}4933$  &  $-7^{\circ}4936$ Should read  $-7^{\circ}4953$  &  $-7^{\circ}4956$ See error originally in B.D. Corrected in  
HCO copy.

$$6.7 \text{ s.f.} = (6.7 \times \sec = 1.01 \div 15) = 0.45 \text{ s.f.}$$

$$4.2 \text{ n.p.} = (4.2 \times 1.01 \div 15) = 0.28 \text{ n.p.}$$

B.D.  $-7^{\circ}4953$  19 17 41.2 - 7 12.5 9.0

$$\begin{array}{r} 0.4 \\ \hline 19 \ 18.1 \end{array}$$

B.D.  $-7^{\circ}4956$  19 18 19.4 - 7 16.8 8.5

$$\begin{array}{r} 0.3 \\ \hline 19 \ 18.0 \end{array}$$

Est. of Magn. <sup>Octob 27.</sup> <sub>see p. 80</sub>

Prob. Max. on MC 20112

13.0 on MC 20112

Saturday March 15, 1924

Meteor Trail found on MC 19946  
extreme corner, North, prec.

across corner, does not show beginning or  
end.

(found D 19269 <sup>compared with</sup> MC 20112.)

Exam. on MD 19946, not seen. Probably too faint.  
Nov. 1, 1924. Seen by Dr. Shapley & Mr. Fisher,

U Aquilae, apparently smaller image on  
and bright on MC 19946

March 11.

-Var. ? 19 18.2 -6.7 (1855)

Not in Var. Cat.

Br.

Fl.

19946 2-3

20038 about = 4

19957 nearly = 2

20112 3-4

19886 2-3 (medium)

~~19886 2-3~~

20817 medium

20687 Fl

20811 "

Position,  
Measure, if confirmedMiss Cannon thinks Variation is not more  
than .3 Watch on later plates.

See below. Do not meas. till later, if needed.

October 30. Plates looked over again <sup>limits</sup> shown to Miss  
Cannon, who confirms this as a  
Var. of small range - about .5 estimated

To be  
included  
Nov. 1924

Est. of Magn. October 27. See p. 80  
about 15.4 on 19957  
15.9 ~~16.0~~ on 20038  
15.9 or 16.0 on 20687

Measured Pl. 29, p. 56

MC 19957

0

Notes





Thursday, March 13, 1924.

Same M.W. Region

Comparing D 19269 = mc 19946  
mc 20112

20112 superposed.

|                                 |       |          |
|---------------------------------|-------|----------|
| Var. ? $19^h 27.7 - 9.0$ (1855) | N.S.  | Seen Ft. |
| Bz. 19946                       | 20112 | 19886    |
| 19957                           | 20038 |          |

Marked on B29881 a very ft. star but  
probably at Max.

Meas. pos. on A 9839 Bb. 19, p. 182

Est. of Magn., October 27. See p. 80

about  $15.5$  on 19946

< 16.4 on 20038

16.2 = about .2

Perhaps B29881 is brighter. Fied ? No.

Proof &amp; Range:

Mar. 19946

A 9839

B 29881

Min 20112

B 34666

Medium 19886

Exam. of I Plates

I 9029

9347 too poor for ft. stars

9588 " " " " "

11375 " " " " "

15673 " " " " "

18800 " " " " "

21063 " " " " "

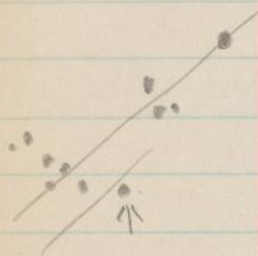
23227 " " " " "

25805 " " " " "

25864 " " " " "

27487 " " " " "

Var. ? 19.8/18.2 -6.7 (1855)  
~~not in Var. Cat.~~



See p. 20.

~~slight Var. ?~~

Var., p. 24.

Examination of B Plates

B 9884 Probably Trace

15044 Fh stars not seen

26052 " " " "

27786 Probably Max

29881 " "

30202 " "

31743 Fh stars not seen

33781 " " " "

33865 " " " "

34054 Max.

34407 Fh stars not seen

34666 Fh stars seen. Var. N.S.

36197 Probably seen — at limit of pl —

36913 Doubtful

40411 Poor

40504 Possibly Min. Fh stars near  
 barely seen. Var. apparently N.S.

40655 Same note as 40504.

40755 Too poor

Exam. of A. Platus  
8073 Min. Poor pl.  
a 9839 Max.





March 13.

Var. (This should have been found on first pair of plates)

Br. 19946

Fl. or N.S.

N.S.

Br. B 29881

19886

20112

20038

19<sup>h</sup> 18.6 - 6.8 (1855)

19957

marked on B 29881

Measure position on MC 19946.

Meas. Bk. 19,  
p. 186.

Proof &amp; Range:

Max.

Min.

MC 19946

20112

B 29881

B 36197

B 34054

Est. of Magn. October 27. See p. 80

14.4<sup>6</sup> on 19946

14.3 on B 34054

[16.5 on 20112]

find 36197

## Exam. on I Plates

I 9029

9347 Too poor.

9588 " "

11375 " "

15673 " "

18800 " "

21063 " "

23227 " "

25805 " "

25864 " "

27487 " "

## Exam. of B Plates

B 9884 Too poor.

15044 Probably Ft. All ft. stars near limit  
of plate

26052 Ft. or N.S.

27786 Min

30202 Probably N.S.

31743 Too poor.

33781 Ft. stars not seen.

33865 Probably N.S.

34407 Seen &amp; Ft.

\* 34054 Br.

29881 Max?

36197 Ft. stars seen. Var. N.S. &amp; very Ft.

36913 Too poor.

40411 Ft. stars barely seen

40504 " " " "

B 40655 Fh. stars barely seen.  
40755 Fh. stars seen - Var N.S.

Exam. of A Plates  
9586 Too poor.







Friday, March 14, 1924.

M.W. Region Continued  
Var.

B. 19946

#. N.S. 20112

(Reg not covered by 20038)  
" " " " 19886

Fl. (not quite Max?) 19957

19. 13.0 - 5.2 (1855)

Stars near this Var. are marked on B23450

This star, unless brighter than MC 19946, is  
beyond limit of B plates (also I)

A few plates were exp. — not  
recorded, as they do not show faint  
stars.

→ Position measured, Ab. 19, p. 196.

Proof:  
only MC plates  
show this.

Max.  
19896  
19946

Min.  
20112  
19957

Est. of Magn. Oct. 27. See p. 80

15.8 on 19946

~~find~~ 19896 about 15.0

L 16.5 on 20112

Get another MC plate to measure, if possible. 37  
no a pl.

Exam. of A plates

a 9586 does not show faint stars

MC 19959 Does not cover.

19952 V on extreme N edge. Probably near Max.

MC 19886 Not covered

\* Max. 19896 Br. than 1 Ft. stars not good image  
19934 Br., not Max but Var. is bright, comfortably

1995146 A trifle brighter than 3

19952 Between 2-3

19952 Br., Not Max.

19957 Trifle fainter than 3

19959 Edge - Too poor to see stars

20038 Not covered

20112 V N.S. Star 7 distinctly seen

→ May be slight trace of Var. (or grain?).



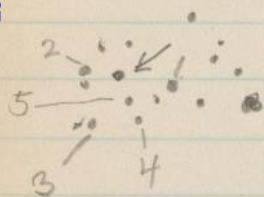






March 14,

Var. 19 15.0 - 9.1 (1855)



Br. 19946  
19886  
19957

Trace on N.S. 20112  
very ft 20038

Marked on B33865.

Many plates examined but star too faint to appear except when at max. and if plate is very good.

Proof and Range:

Can be  
proved by  
B plates.

max.

min

mc

mc

B.

\* 34054 34666

These two plates, long exp., show ft. stars,  
and show Var. at max. & min.

A 8073

Meas. Position on A 8073. Meas. Bk. 19, p. 190

Est. of Magn. Oct. 27. See p. 80

14.5 on B 34054

14.6 on mc 19946

16.4 about 16.4 mc 20038

I Plates not recorded. Some examined.  
Star too faint for any but best plates.

| Exam. of B Plates |                   |                        |
|-------------------|-------------------|------------------------|
| B 9884            | V N.S.            | Star 4 (p. 42) seen    |
| 15044             | N.S. or Trace     | 4 seen                 |
| 26052             | Very ft., if seen |                        |
| 27786             | N.S.              | 4 seen                 |
| 27791             | Trace             | 5 probably equal to V. |
| 30202             | N.S.              | 3 seen                 |
| 31742             | N.S.              | 2 "                    |
| 33781             | Too poor          |                        |
| 33865             | Seen              | Between 2 & 3          |
| 34054             | Br                | 1 to 2                 |
| 34407             | N.S.              | [3                     |
| 34666             | N.S.              | [5                     |
| 36197             | N.S.              | [3                     |
| 36913             | N.S.              | [2                     |
| 40411             | N.S.              | [4                     |
| 40504             | N.S.              | [3                     |
| 40655             | N.S.              | [5                     |
| 40755             | N.S.              | [4.                    |

On A 8073 Max. triple or. than 2





(this  
book  
page  
Comparison

XX

# List of later MC & MD Plates

|   |        |          |         |                |
|---|--------|----------|---------|----------------|
|   | 55     | MC 20687 | April 3 | very black     |
|   | 56     | 20694    | " 11    | poor           |
|   | 59     | 20702    | " 15    | Black          |
|   | 59     | 20712    | " 16    | Black & broken |
| 1 | 57     | 20746    | May 1   | Black          |
|   | 60     | 20757    | " 13    | Black          |
|   | 59     | 20766    | " 30    | Black          |
|   | 59     | 20777    | June 5  | Black          |
|   | 61     | 20810    | July 5  |                |
| 1 | 82, 62 | 20811    | July 7  |                |
| 2 | 66     | 20817    | " 10    |                |

to July 24

|          |    |       |              |                                                           |
|----------|----|-------|--------------|-----------------------------------------------------------|
| 1        | 54 | 19886 | July 8 1923  | does not cover full region                                |
|          | *  | 19946 | Aug. 9, "    | & D 19269 & D 19270 * used for one plate, each comparison |
| 2        | 86 | 19957 | Aug. 15, "   | Comp. by Miss Fairfield. LEW de Co                        |
| 2        | 6  | 20038 | Sept. 14, "  |                                                           |
| 4        | 24 | 20112 | October 6, " |                                                           |
| 11 Total |    |       |              |                                                           |

16 plates to July 28, 1924

MC 20958 August 27, 1924 47<sup>m</sup> 18.8  
20959 August 28, " 70 -3<sup>o</sup>

to Oct. 1.

|    |       |                  |    |  |
|----|-------|------------------|----|--|
| 86 |       |                  |    |  |
| 82 | 21062 | Oct. 22, 1924    | 60 |  |
|    | 21535 | July 24-25, 1925 | 90 |  |
|    | 21522 | July 14-15, "    | 96 |  |
|    | 21649 | October 15-16, " | 51 |  |
|    | 21652 | " 17-18, "       | 62 |  |

For Dates, see p. 46 MD plates 19.4-8°

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MD 20687

20694

20702

20712

20746

20757

20766

20777

20810

20811

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20817

19886

19946

19957

20038

20112

for  
is  
do later?

Saturday, March 15, 1924.

Var. or Defective Image?

19 12.5 - 6.7 (1855)

Br. 19946

N.S. 20112

Seen, Ft. 19957

Very Br. 19886

20038

Trace, only

Mc 19886 about = 2

19946 " = 4

19957 " = 6

20038 Almost N.S.?

20112 N.S.

Proof to Range

max Mc 19886

B 34054

33865

Min Mc 20112

no B. photo shows very  
ft. stars.

B 29881 may be best.

→ Meas. Pos. on Mc 19886, Bb. 19, p. 192.

Est. of Magn. Oct. 27 See p. 80.

about 14.5 19886

[16.5 20112

The same F plates that were examined for preceding Variables show no trace of this star.

| Exam. of B plates (p 48) |       |                                                                                                      |
|--------------------------|-------|------------------------------------------------------------------------------------------------------|
| B                        | 9884  | Star 1, seen, possibly trace of 6 & V, probably combined                                             |
|                          | 15044 | 1 seen                                                                                               |
|                          | 23450 | Poor                                                                                                 |
|                          | 26052 | 2 seen                                                                                               |
|                          | 27620 | Poor                                                                                                 |
|                          | 27786 | 2 seen                                                                                               |
|                          | 27791 | possibly trace of 6 & V, probably combined.                                                          |
|                          | 29881 | 3 seen                                                                                               |
|                          | 30202 | 1 seen                                                                                               |
|                          | 31743 | 1 seen                                                                                               |
|                          | 33781 | 1 "                                                                                                  |
| Max.                     | 33865 | one star, probably var, seen. Too bright to be 6 and is in pos. of Var. V = a trifle brighter than 2 |
| Max                      | 34054 | V but 1 & 2                                                                                          |
|                          | 34407 | 2 seen Var. probably N.S.                                                                            |
|                          | 36197 | V Probably seen, fr.                                                                                 |
|                          | 36913 | Poor                                                                                                 |
|                          | 40411 | [ 3                                                                                                  |
|                          | 40504 | [ 1                                                                                                  |
|                          | 40655 | [ 2                                                                                                  |
|                          | 40755 | [ 2                                                                                                  |

Exam. of A Plates  
A 9586 I 2







<sup>25</sup> Wednesday, March 19, 1924.

Region

19<sup>h</sup> - 7<sup>o</sup> Continued

Comparing D 19269 = MC 19946

MC 19886

19886 superposed

Only a portion of region is common to both plates,  
in Dec.

Tuesday, April 8, 1924

Region 19<sup>25</sup><sub>1-7</sub>

Continued

Comparing D19269 = MC19946

MC 20687

20687 taken for special M. Way region,  
April 3, 1924

too dark for direct comparison with Dpl.  
compared hastily with 19946 direct.  
20687 is nearly as black as D plate -  
fogged.

many defects — possible Comets?  
These were marked on 20687

Thursday, April 24, 1924.  
Milky Way Region Cont. 19 25 - 8

mc 19946

20694

20694 superposed

Plates differ very much in number and size of stars.

Faint stars N.S. on new plate

Can not compare <sup>equidistantly</sup> ~~directly~~ with D plate so compared directly with mc 19946

Var. f. 30 is missing on new plate. Images are so small this would probably not have been noted if not mtd on 19946

Change noted in Var. found f. 42

Many defects that looked like ft. stars  
on 20694.

No other objects found

Thursday, May 28, 1924.

Milky Way Region -

57

Recent plate  
1925-8

19946

20746 May 1

20746 two

blocks to superpose  
on D pl.

19946 superposed - marked on 20746

Compared  
directly with  
19946

See objects suspected of Nebulosity

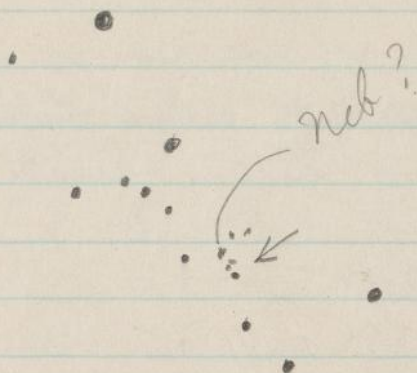
On both plates - either close to faint stars or

Neb.

Not satisfactory  
as plates are  
blacks and  
differ widely

No. 1

New Var.?



Br 19946

Trace or NS 20746

Br. 19957

Th. 19886

20702 ?

Th. 20038

Th. 20112

20687

Watch Neb.?

Meas. of Pos., Bk. 19, p. 216.

19 27 43  $-7^{\circ} 1' 58''$  (1900)

Est. of Magn. Oct. 27. See p. 80

14.6<sup>008</sup> ~ 19946

16.4 ~ 20746

Thursday, June 12, 1924

Exam. of MW Region  
MC 19946

20777 June 5, 1924, Exp. 105<sup>n</sup>

20777 shows faint stars - would be  
very good plate if not so black.

Too black to compare thoroughly.

Two of early vars. would have been noted  
no other objects

→ Will be excellent plate for proof of new objects

MC 20766 May 30, 1924 Exp. 60

too black to use for superposition.

MC 20702 April 15, 1924 Exp. 68<sup>n</sup>

Quite black - Not superposed.

To be used for proof, if needed.

MC 20712 April 16, 1924 Exp. 38

Black and broken. Not superposed.

To be used for proof, if needed.

Good images

Monday, June 9, 1924.

mc 19946

mc 20757, May 13, 1924.

20757 superposed

20757 is too black to compare with contact print.

20757 does not show as fr. stars as 19946

no new objects found.

Monday, July 14, 1924

(mc 19946) D10269

mc 20810 July 5, 1924, Exp. 43<sup>m</sup>

20810 Superposed.

20810 not as good as 19269. Does not show faint  
stars at all.

No new obj.

Wednesday, July 16, 1924

D19269 = me 19946

mc20811 July 7, 1924, 60<sup>m</sup>

20811 superposed

20811 is excellent - shows fr. stars

Saturday, July 19, 1924.  
 Regim continued.

20811 - 19269

19 11.5 - 7.1 Var. fund

Br. on 20811  
 20810

n Sor

Fk. 19946

19951

19957

20038

20101

20112

20687

20694

20702

20746

Meas. of Position, Bb. 29, p. 4.  $19^h 14^m 6.^s 71 - 7^{\circ} 1' 13.''6$   
 (1900)

Br. A 10105

N. S. A 10278

15.0 on 20810

16.3 on 19946

<sup>a</sup>  
 Fund 10105

about 14.0 on A 10105





Monday, July 21, 1924

D 19269 = mc 19946

mc 20817 July 10, 1924, Exp. 101<sup>m</sup>

20817 superseded.

New Var.  $19^h 14.3 - 8.7$  (1855)

• • • ←

Bk. 20817

20777

20810

20811

N.S. or

Ff. 19946.

19951

19957

20038

A 10278

A 10105

\* Brightest A 4791

Measure of Position, Bk. 29, p. 8.

Est. Magn. Oct. 28 See p. 80.

About 13.5? on A 4791

16.7 on 19946

on A plate, by, as a star  
near which = 13.5? on  
mc 19946

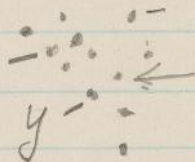






Wednesday, July 23, 1924.

19946 - 20817 Cont.  
New Var.



19 13.5 - 7.0 Br. 19946  
(1855) 19951  
19957  
20038

Fl. 20817  
20777  
20811 Medium Br.  
a 10105  
a 3928

Meas. Pos., Bk. 29, p. <sup>44</sup>~~40~~

~~19<sup>h</sup> 11<sup>m</sup> 11<sup>s</sup> - 9° 6' 6" (19.00)~~

Fl = y

Est. of Magn. Oct. 29. Sep. 80.  
15.0 on 19946  
16.1 on 20817

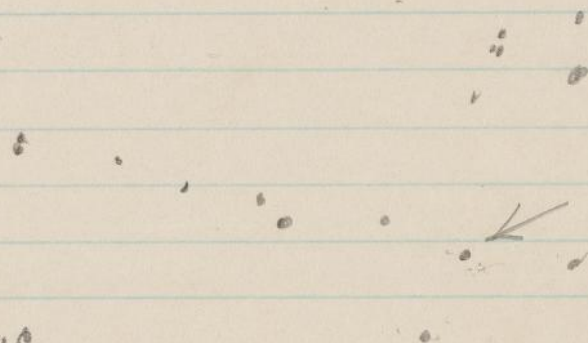






July 23, 1924.  
 Region Cont.  
 19946 - 20817.

New Var. 19 8.5 - 9.2 (1855)  
 extreme prec. edge. Doubtful at  
 first if defective, so near edge.  
 Confirmed both ft. and bright.



Edge of pl.  
 But see 19951  
 (19.1 - 8)

mc  
 Br. 19946  
 a little brighter 19957  
 See marked on 19951  
 Region 19 05 - 7.5  
 (not on edge)  
 Br. A10105

Th or N. S.  
 20817  
 20777  
 20810  
 20811 N S or  
 covered by  
 pl. no.

A10278  
 A 4791

Meas. position on A10105  
 meas. Pos., Blk. 29, p. 10

About 13.5 on mc 19951 <sup>conf.</sup>  
 see A10278 <sup>Seq. not on 19951</sup>  
 about 16.0 on 20777 <sup>Star on extreme edge of 19946</sup>



Monday, October 27, 1924

MW Reg. 19.4 - 8

Miss C's No. 53

X  
Miss C.

Exam. to confirm 2 <sup>new</sup> vars. ~~seen~~ by Miss Cannon  
 exam. of 2 plates of this region.  
 See Bb. 153, a.g.c. p.

1) Marked on 20112

Pt. 20694

Br. 20112

Poor pl. but

20754

proof

20038

20687

19946

Br. = Brighter than x

Pt. = slightly br. than y

19 18.5 - 7.4  
(1855)

A plates, too near N. edge

Meas. for 20038

Confirmed by J.E.W.

Pos. meas. Bb. 29, p. 40.

Est. Magn.

15.1 on 20038

16.1 on 19946



~~Miss C~~

19.4 - 8

Miss C's No. 54

To confirm a <sup>new</sup> suspected var. of Miss Cannon, exam. of plates of this region, see (Miss C) Bb. 153, p.

Br. 20112

Ft. 19886

20817

20777

20811

Medium 19946

20746

Br. = Brighter than X  
Ft. = Fainter than Y

Meas. pos. 20112, if no A plate.  
Confirmed by D.E.W.

\* Pos. meas., Bb. 29, p. 42

Est. of Magn. Oct. 28 See p. 80

16.3 on 20112

16.2 20811

X — 16.0 20777

X — 16.5? 19886  
n.b.

X<sup>c</sup>  
Miso

19.4-8

Miso C's No. 57

To confirm a <sup>new</sup> suspected Var. of Miso  
 Cannon, exam. of plates of this region.  
 See (Miso C) Bb. 8

Fl. 20038

19886

20702

Poor

but extreme?

20811  
 Be } other  
 Medium } plates

Confirmed by J. E. W., October 30.

October 27

 $19^h 25^m - 8^\circ$  Magnitudes.

Region of Nova Aquilae, No. 1, Sequence as marked on MC 6180; Magns., H.A. 84, No. 5, p.

Region partly marked on AC 12072 ( $19.0^\circ$ )

Region of  $19.4 - 8$  compared with this on AC 12072

in region  
19.4-8

and stars selected that are about  $= l_{\frac{1}{2}}^{\frac{1}{2}} p_{\frac{1}{2}}^{\frac{1}{2}}$

which are  $(11.1) = 11.3$  and  $(12.0) = 12.2$

Region of  $19.0 - 15^\circ$  also compared.

The stars selected were marked on MC 19946 of Var. M.W. Reg., and, as they are about just 1 magn. apart, this grade was used in selecting other stars with attempt to make them 1 magn. apart.

Thus, on 19946, are marked stars at approximately 11.2, 12.2, 13.2, 14.2, 15.2, 16.2

mc  
19946  
Exp. 80<sup>m</sup>

For check, a pl. of 38<sup>m</sup>, MC 20712, was marked with these same stars and compared with MC 15606, Magns. as given in Bb. 21 (D.E.W.) inside cover.

The grades agree fairly well.

\* No plate of region has yet been taken with Diff. Grating.

\* Confirmed for provisional magnitudes by Dr. Shapley,

October 28.

Except 15.2 - make 154

126

Thursday, October 30, 1924  
19.4<sup>h</sup> - 8°  
MC 20811  
21062

20811 superposed

Neb? fol., N corner.

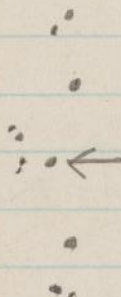
Fth. Neb. in center

Br., round Neb., near Center

New Var. ?

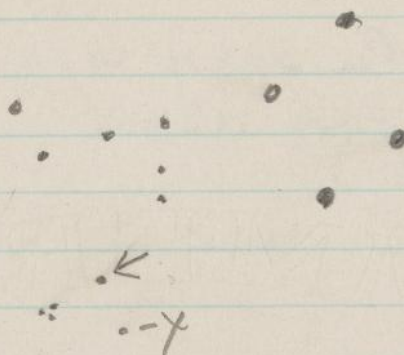
Br. 20811

H. or N.S.  
21062



Same as page 66

New Var.?



19 16.2 - 9.6  
(1855)

Br. 20811

NS 21062

Medim 19946

20810

19886

\* 19957

\* 20817

Q 10105

Fl. first seen 2011/2

20687 Purple

20694 Poor, Probably  
N.S. ✓

20702 Taipei

20746

20757

$x = \text{much brighter than } y$   
 $F_1 = \text{fainter (n.s.) than } y$

Position meas. Bl. 29, p. 46

148 20817

15.0 on 19957

[16.5 m 20746

Comp. of MD plates of region 19.4-8

MD 19957

20817

20817 superposed

No objects

not very fr stars shown on either plate

















