

KG

11366  
189

*Ida E. Woods.*

*Book 13.*

*Examination of Northern Regions*



KG11366 .189

120phae.pr6j.1191w  
Harvard College Observatory.

Ida E. Woods. Book No. 13.

Examination of Plates for Novae and  
other Interesting Objects.

AB plates taken in  
Milky Way (Northern)

Exam. of regions at  $0^\circ$  &  $+15^\circ$  assigned, July, 1920, in  
absence of Miss Mackie. Also,  $+75^\circ$   
Also, northern regions,  $0^\circ$  and  $+15^\circ$ , of Aul series.

Regions from list posted by Miss Leavitt.

173806 late estimates p. 96 etc.







1928pnae.10.11.1194M



KG 11366.189













Objects filled in thro' p. 58, 72

Verify - p. 47  
48 - see later fil.



Northern regions.

July 15, 1920.

## Examination of Ac Plates.

Region

20<sup>h</sup>00<sup>m</sup> +15°

ac 22721 July 8, 1920, Exp. 66<sup>m</sup>  
16456 May 11, 1915, Exp. 64<sup>m</sup>  
(22721 superposed on 16456)

Time: - about 35 minutes



194632

X Cygni

 $1946.7 + 3240' (1900)$ 

(see print)





Friday, July 16, 1920.

# Examination of AC Plates -

Region  $18^{\text{h}} 00^{\text{m}} +15^{\circ}$

AC 22705 July 3, 1920, Exp. 56<sup>m</sup>

AC 16737 Sept. 15, 1915, Exp. 62

(22705 superposed on 16737)

Time: - about 20 minutes -

No objects of interest found







Saturday, July 17, 1920.

# Examination of A C Plates.

Region:  $17^h 00^m$   $0.0$

ac 22709 July 4, 1920, Exp.  $68^m$   
 are 10691 June 17, 1915, Exp.  $60^m$   
 (22709 superposed on are 10691)

22709 has elongated wings. ~~no~~

"

Time: - about 20 minutes

No objects of interest were found -





July <sup>19</sup> 14, 1920.

Examination of AC Plates -

Region

~~H~~ <sup>21</sup> 00 +15°

ac 22683, June 19, 1920, Exp. 50<sup>m</sup>

I found 22683 was ruled for obs.  
so probably this has been exam. by  
someone.





July 19, 1920.

Examination of AC Plates.

Region  $19^{\text{h}} 00^{\text{m}} + 15^{\circ}$

ac 22686 June 22, 1920, Eff. 60%

Quality is 2, not good enough  
for examination.







Saturday, July 24, 1920.

# Examination of AC Plates.

Region  $20^h 00^m 00^s$

AC 22681, June 19, 1920, Exp. 50<sup>m</sup>  
 22696 June 25, " , Exp. 62<sup>m</sup>  
 Of these, 22696 is later,  
 longer exposure, and better,  
 therefore 22681 is not examined.

AC 22696 -  
 17672 June 22, 1916, Exp. 65<sup>m</sup>  
 (22696 superposed on 17672)  
 22696 is not a good plate  
 for comparison, small images  
 many defects, but a quick  
 exam. has been made for a  
 Nova. A var. could hardly  
 be found on this plate.

Time - about 20 minutes.

No objects of interest were found.



CC 17672 could be used again for comparison  
as fainter stars were not exam.

15

Saturday, July 24, 1920.

Examination of Arc Plates.

$22^{\text{h}} 00^{\text{m}} + 15^{\circ}$

Region

ac 22735 July 13, 1920, Exp. 60<sup>m</sup>

19105 Sept. 10, 1917, Exp. 62<sup>m</sup>

(22735 superposed on 19105)

Q

Time: about 20 minutes

no objects of interest were found





July 24, 1920.

Examination of Am & Ac Plates

Region

$21^{\text{h}} 00^{\text{m}} 0.0^{\circ}$

Ac 22728, July 10, 1920, Exp.  $58^{\circ}$   
Am 10078 August 19, 1914, Exp. 74.  
(22728 superposed on 10078)



Kuom neb.

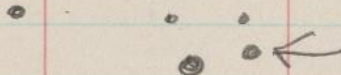
+11° 45' 77

<sup>h m</sup>  
21 22 59.6

+11° 31.4' neb.

(1855)

non 10078



Kumma nebula

$-1^{\circ} 46' 75''$

$21^h 25^m 59.0^s - 1^{\circ} 28' 2'' (1855)$   
neb.

H on 10078





Jupiter

Almanac

position for

Aug 19, 1914 =

$21^{\circ} 16' 2.99'' - 16^{\circ} 57' 0.6''$



July 24, 1920.

Examination of A.C. Plates -

Region  $0^h 00^m + 75^\circ$

AC 22733 July 13, 1920, Exp. 56<sup>m</sup>  
18128 November 7, 1916, Exp. 68<sup>m</sup>  
(22733 superposed on 18128)

Time: - about 20 minutes

No objects of interest were found.





July 24, 1920.

# Examination of AC Plates -

Region  $4^{\text{h}} 00^{\text{m}} +75^{\circ}$

ac 22736 July 13, 1920, Exp. 44<sup>m</sup>  
 15917 December 22, 1914, Exp. 70<sup>m</sup>  
 (22736 superposed on 15917)

1920 plate very poor -  
 A quick exam. was made -

Time: - about 10 minutes.

No objects of interest were found.



Use 13917 again.

Tuesday  
Monday, July 26<sup>7</sup>, 1920.

Examination of A C Plates

Region

17<sup>h</sup> 00<sup>m</sup> 0.0

ac 22748 July 17, 1920, Exp. 60<sup>m</sup>  
am 10649 June 7, 1915, Exp. 68<sup>m</sup>  
(22748 superposed on 10649)

Time ; — about twenty minutes.

No objects of interest found.





July 27, 1920.

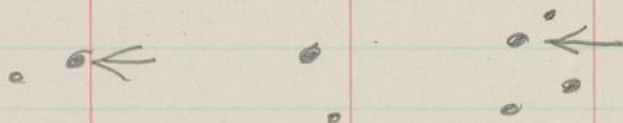
Examination of AC Plates.

Region  $19^h 00^m$   $0.0$

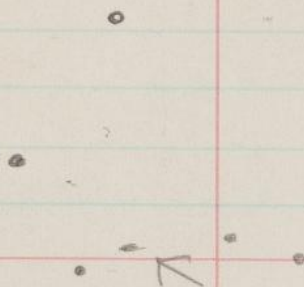
AC 22744, July 16, 1920, Exp. 72<sup>m</sup>  
Am 10651, June 7, 1915, Exp. 39<sup>m</sup>  
(22744 superposed on 10651)



2 extra stars (on Am Plate)  
near no. end. of plate.



Comet?  
or  
Defect



Assume Defect.  
(Miss L. saw this)

Not seen on 22749, July 17





Began cut. on  
Cordis.

July 27, 1920.

## Examination of AC Plates -

Region

 $18^{\text{h}} 00^{\text{m}} + 15^{\circ}$ 

ac 22749, July 17, 1920, Exp. 60<sup>m</sup>  
 au 11013 August 17, 1915, Exp. 62<sup>m</sup>  
 (22749 superposed on 11013)

ac 22764 July 21, 1920, Exp. 60<sup>m</sup>  
 not as good plate as 22749.

"

Time: about 25 minutes.

No objects of interest were found.



✓

Han 22749

Comet  
or  
Defect  
?Not on  
Assume  
Defect -

Not on AC 22764 July 21.

*begin taking in coms.*

Wednesday, July 28, 1920.

Examination of Ac Plate

Region

$20^h 00^m + 15^\circ$

Ac 22755 July 19, 1920, Exp. 58<sup>m</sup>  
 am 11348 October 8, 1915, Exp. 61<sup>m</sup>  
 (22755 superposed on 11348)



190108  
R Aquilae  
 $19^{\text{h}} 16^{\text{m}} + 8^{\circ} 5'$   
(1900)

was already marked on 11348, but shows  
change.

on 11348



July 28, 1920.

Examination of AC Plates.

Region

$20^{\text{h}} 00^{\text{m}} + 75^{\circ}$

AC 22765

July 21, 1920, Exp. 68<sup>m</sup>

17718

July 6, 1916, Exp. 62<sup>m</sup>

(22765 superposed on 17718)

Few stars, many defects.

Time: about 20 minutes.

No objects of interest were found.





Monday, August 23, 1920.

# Examination of AC Plates

Region  $18^{\text{h}} 00^{\text{m}}$   $+75^{\circ}$

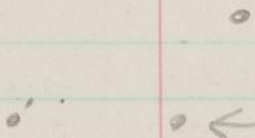
ac 22813, August 20, 1920, Exp. 42<sup>m</sup>  
 ac 2857, October 6, 1902, Exp. 76<sup>m</sup>  
 (2857 superposed on 22813)

1920 plate is so poor, no novae  
 or var. could be detected  
 on the 1902 plate.

Time :- about 25 minutes.



Probably  
defect.



Not like star images.

August 23, 1920.

# Examination of AC Plates

Region

$17^{\text{h}} 00^{\text{m}} +15^{\circ}$

AC 22807, August 19, 1920, Exp. 62<sup>m</sup>  
 AC 15288 June 22, 1914, Exp. 61<sup>m</sup>  
 (22807 superposed on 15288)

The 1920 plate is too poor to be  
 comparable except for brighter  
 stars."

Time: — about 25 minutes

No objects of interest were found.





August 23, 1920.

# Examination of AC Plates

Region

$21^{\text{h}} 02^{\text{m}} + 15.0^{\circ}$

ac 22810, August 19, 1920, Exp. 108<sup>m</sup>  
 17650, June 4, 1916, Exp. 40.  
 (22810 superposed on 17650)

22810, bright stars have secondary  
 image.

Time :- about 30 minutes -

No objects of interest were found -



17650 Excellent plate, repeat with  
another late plate.

August 23, 1920.

Examination of Ac Plates

Region

$18^{\text{h}} 00^{\text{m}} 0.0^{\circ}$

ac 22808, August 19, 1920, Exp.  $61^{\text{m}}$   
ac 16685, August 26, 1915, Exp.  $61^{\text{m}}$   
(22808 superposed on 16685)

Time :- about 30 minutes

No objects of interest were found.





Tuesday, August 24, 1920.

Examination of AC Plates

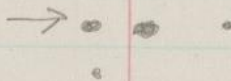
Region

$19^{\text{h}} 00^{\text{m}} +15^{\circ}$

AC 22814, August 20, 1920, Exp. 55<sup>m</sup>  
M 10922, July 31, 1915, Exp. 60<sup>m</sup>  
(22814 superposed on 10922)



Not known  
var.



br. 10922

ft 22814

Dul+9 \*Dbl.

peculiar image on 22814?

*	°			h	m	s		°	'			
+9	40	47	19	10	7.1	+9	4.9	8.5			(1855)	
+9	40	48	19	10	7.6	+9	5.3	9.0				

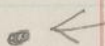
Look on Later Plates ✓

Nova?

$19^h. 9^m + 3.5 (1855)$

No 22814

Defect?



br. 22814

Not a Planet

$18^h$  pl. does not occur (Ac 22808)

Assume

defect

N.S. on Ac 22798, August 6.

N.S. on 22844, September 2.





Region

 $19^h 00^m 00^s$ 

AC 22718, July 6, 1920 Poor plate

This region is covered by 22744,  
July 16, 1920.

See page 28.





Monday, August 30, 1920.

Examination of Ac Plates.

Region

$17^{\text{h}} 00^{\text{m}} 0.0^{\circ}$

AC 22778, July 27, 1920, Exp. 62<sup>m</sup>  
 avc 11887, June 3, 1916, Exp. 60<sup>m</sup>  
 (22778 superposed on 11887)

Poor 1920 plate -

+

See peculiar defect.

Time: - about 25 minutes.

No objects of interest were found.



Tuesday, August 31, 1920.

Examination of AC Plates

Region  
Region

18<sup>th</sup> 00<sup>m</sup>

0.0

ac 22796, August 6, 1920, Exp. 63<sup>m</sup>

ac 17547 April 29, 1916, Exp. 60<sup>m</sup>

(22796 superposed on 17547)

Time: - about 25 min.

no objects of interest found.

August 31, 1920.

## Examination of AC Plates

Region

22<sup>nd</sup> 00

+15°

ac 22775, July 26, 1920, Exp. 49m

ac 17846, Sept. 2, 1916, Exp. 69m

(22775 superposed on 17846)



Nos. continued  
from Bk. 14,  
p. 124.

55

Saturday, September 4, 1920.

Examination of Northern regions.

Region

9<sup>h</sup> 00<sup>m</sup>

0.0

Alt 15145<sup>07</sup>

Alt 13857

(13857 superposed)

April 17, 1920,

April 16, 1918,

Exp. 62<sup>m</sup>

Exp. 60<sup>m</sup>

Note: - Choice of 15107, Apr. 17, and 15115, April 19, same region. 15115 would be chosen as later date, but images are trailed, and 15107 seems to be better plate for comparison.

Obj. No. 12 near N. edge of pl. (13857)

or on 13857

N.S. 15107

Neptune

confirmed by

other stars near edge are seen distinctly.

position from

13836 & 13839

Almanac, 1918

N.S. on AC 20867 (9 + 15) Dec. 23, 1918

8<sup>h</sup> 26<sup>m</sup> 25.14

Alt 14007

(8 0)

May 31, 1918

+19° 2' 56.1"

15115

(9 0)

Apr. 19, 1920

Seen on AC 20062 Apr. 25, 1918 N.S. ~~AC 20626~~, Oct. 31, 1918

N.S. AC 20626, Oct. 31, "

~~Seen on~~ N.S. Alt 13203 May 27 1917

N.S. Alt 12976 Apr. 12, "

N.S. Alt 13161 May 19 "

N.S. 13181 May 22 "

N.S. 13197 May 26 "

N.S. 13245 June 10 "

Seen near this position 13784 Mar. 10

No. 13

on 13857

Saturn position f. Almanac, 8<sup>h</sup> 41<sup>m</sup> 16.35 + 19° 14' 41.0 (1918)



3 Extra stars near So. edge -  
Superpose 13857 & 13800.

9<sup>h</sup> 0 0.0 Cont.

No. 14  
Jupiter

on 15107  
position fr. Almanac, 1920, 8<sup>h</sup> 44<sup>m</sup> 12.05 + 19° 1' 20".3

No. 15

Neptune on 15107  
position fr. Almanac, 1920 (Apr. 19) 8<sup>h</sup> 44<sup>m</sup> 41.89 + 18° 4' 17.4

No. 16

br. 13857

fr 15107

br 13800

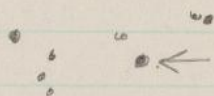
fr 13784

br 13245

085008

T Hydrae - 8<sup>h</sup> 50.8<sup>m</sup> - 8° 46' (1900)  
verified by print.

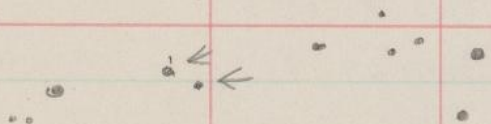
Sta 17



on 13857 not seen 15107  
See in slightly diff. position on  
13800

Extra star  
near edge.

Stos. 18 & 19  
Extra



on 13857 n.s. 15107  
see in slightly diff.  
position on 13800

Time about 50 minutes.



Region

20 h

 $+15^\circ$ 

QC 52844, September 2, 1920, Eff. 72<sup>m</sup>?  
 All 10961, August 8, 1915, Eff. 60<sup>m</sup>  
 1096 (22844 superfluous)

No. 20

on AC 22844

not on 10961

Wora?

on 22814 Aug. 20, 1920

Not moving

Dr. 22721 July 8, 1911

obi.

not seen in AM 11136 Sept. 12, 1915

194632

11277 11 28

X Cygni

an 8875 May 6, 1913

19<sup>h</sup> 46<sup>m</sup>

seen on AC 22755 July 19, 1920

+32

n. 3 " am 11357 Oct. 10, 1915

(1900)

N. S. .. ac 22605-Apr. 18, 1920

Bu on AC 22687 June 22 '11 (+3d)

No. 21

on 10961 not on 22844

Cyfra

This star does not belong to  
region, see Aue 7091 (20<sup>th</sup> 0°)

Time about 30 minutes

1 extra star near No. edge -

Monday, September 6, 1920.

# Examination of AC Plates

Region

19<sup>h</sup>

0°

ac 22835-

September 1, 1920, Exp. 62<sup>m</sup>

am 11957

June 11, 1916, Exp. 47<sup>m</sup>

(11957 superposed)

No. 22

on 11957

extra star. Does not belong to region, see  
am 10262, 19<sup>h</sup> 15°

time, about 35 minutes.



Tuesday, September 7, 1920.

Exposure of AC Plates Dark day.

Regrin  $20^h + 75^\circ$

AC 22853, September 3, 1920, Exp. 60<sup>m</sup>

AC 17749, August 1, 1916, Exp. 72<sup>m</sup>  
(17749 superseded)

These plates twist so at this declination that the preceding portion is not covered. This was compared with

AC 4248, Nov. 24, 1903, Exp. 109<sup>m</sup>

No objects of interest found.

Time, about 45 minutes.

September 7, 1920.

Region

17 ~~18~~<sup>h</sup> <sup>Crab. of Northern Regions</sup>  
+15°

ac 22849, September 3, 1920, Eff. 58<sup>m</sup>  
air 8445 July 12, 1912, Eff. 60<sup>m</sup>  
(22849 superposed)

No objects of interest were found.

Time: about 40 minutes.



Wednesday, September 8, 1920.

Examination of Northern Regions.

Region

4<sup>h</sup> +15°

Am 15124, April 21, 1920, Exp. 30<sup>m</sup>

Ac 21228 March 3, 1919, Exp. 56.

(21228 superposed)

Am 15124 is very poor, black plate -  
Comparison made of brighter stars  
only. Plate badly fogged by moonlight.

No. 30

Image of Moon.

Time: about 15 minutes.

September 11, 1920.

Examination of Northern Regions.

Region

17<sup>h</sup> 0.0

ac 22859

September 4, 1920, Exp. 60<sup>m</sup>

Am 13054

April 25, 1917,

Exp. 60<sup>m</sup>

(22859 superposed)

22859, elongated, poor, images

No objects of interest were found.

Time: about 25 minutes.



September 11, 1920.

Region

Examination of Northern Regions.  
 $0^h 0^m +75^\circ$

ac 22855 September 3, 1920, Exp. 70<sup>m</sup>

ac 2718 July 31, 1902, Exp. 60<sup>m</sup>  
 (2718 superposed)

Could not find a plate of  $0 +75$   
 so used a plate  $1.9 +75$  which  
 covers most of plate.

1920 plate is quite good.  
 comparison difficult, owing to  
 different positions of plates and  
 scale is not exactly same.

No objects of interest found.

Time: about 35 minutes.

1 Extra star near No. edge -

Friday, September 24, 1920.

Examination of Northern Regions.

Region

$7^h 00^m$   $0.0$

ac 22896 September 21, 1920, Eff.  $58^m$   
 Ans 10473 April 23, 1915, Eff. 30.  
 (22896 superposed)

No. 57

Extra star near No. edge - on 10473  
 Does not belong to region, see Ans 13762  
 $6^h 15^m$

Time: about 25 minutes



1 Extra star near No. edge.

September 24, 1920.

Region

Examination of Northern Region -  
6<sup>h</sup> +15°

ac 22895 September 21, 1920, Exp. 58<sup>m</sup>

all 11336 October 6, 1915, Exp. 30<sup>m</sup>  
(11336 superposed)

No. 58

Extra star near No. edge on 11336

Time: about 30 minutes

2 extra stars.

September 24, 1920.

# Examination of Northern Regions

Region.  
Re

22<sup>h</sup>

+15°

ac

22868

September 15, 1920, Exp. ?

all

13757

December 13, 1917, Exp. 30~

(13757 superposed)

Nos. 59 & 60

2 Extra stars near No. edge.  
on 13757.



1 extra star.

67<sup>v</sup>

September 29, 1920.

Examination of Northern Regions.  
Region  $20^{\circ}$   $+15^{\circ}$

arc 22871 September 16, 1920, Eff.  $.68^m$   
arc 12073 June 27, 1916, Eff.  $.60^m$   
(22871 superposed)

No. 61 on arc 12073

Is this a Comet?

No. 62 Extra star near No. edge on 12073  
Does not belong to region. See

arc 10444  
 $19^{\circ} 0^{\circ}$

Arc 12073 was already marked with a  
sequence but care has been taken  
not to rub the markings.

Time: about 25 minutes.

RejectFriday, October 8, 1920.Examination of Northern Regions-

Region

18<sup>h</sup>

+15°

Anc

14981

August 31, 1919, Exp. 60<sup>m</sup>

AC

16589

July 15, 1915,

Exp. 62<sup>m</sup>

(14981 superposed)

14981, poor plate, shows only faint stars.

No. 85

No. 86

14981 is a yellow plate,  
L<sup>1</sup>, though not so  
marked -The stars which appeared  
to be variable are not  
to be looked up.



Extra star near No. edge.

69

October 8, 1920.

Region

Examination of Northern Regions.

21<sup>h</sup> 0°

Am 14965 August 27, 1919, Exp. 62<sup>m</sup>

Am 10672 June 12, 1915, Exp. 95<sup>m</sup>

(10672 superposed)

14965, trailed, poor images.

No. 85.

Extra star near No. edge of plate.

Does not belong to region, see Am 11880,  
21<sup>h</sup> -15°

October 8, 1920.

Examination of Northern Regions.

Region

$18^h 0^m$

Am 15026, September 28, 1919, Eff. 60<sup>m</sup>

Am 9232 July 23, 1913, Eff. 65<sup>m</sup>  
(15026 superposed)

No. 86

Nova Ophiuchi No. 4, Mackie.

180911

$18^h 9^m.4 + 11^\circ$



October 9, 1920.

Examination of Northern Regions  
 Region  $20^h + 15^0$   
 Aug 14966 August 27, 1919, Exp.  $62^m$   
 Aug 10692 June 17, 1915, Exp.  $60^m$   
 (14966 superposed)

10692 has a sequence marked on it, but care has been taken not to rub it.

10692 identified at  $20^h 10^m$ , therefore a section, preceding, is not covered by this plate.

No. 87  
 RT Aquilae 19 33.3 + 11 30 (1900)  
 19 33 11

Time: about 45 minutes.

Monday, October 11, 1920.

Examination of Northern Regions.

Region

20<sup>h</sup> 0<sup>m</sup>

Alt 15027 September 28, 1919, Exp. 65<sup>m</sup>  
 alt 8970 May 28, 1913, Exp. 66<sup>m</sup>  
 (8970 superposed)

No objects of interest were found.

Time 1'40 minutes.



~~Two regions~~  
~~on this page.~~

Wednesday, July 6, 1921.

Examination of Northern Regions.

Region

1<sup>h</sup> + 45°

AC 23833

June 25, 1921, Exp. 74<sup>m</sup>

AC 19061

August 26, 1917, Exp. 66

(23833 superposed)

Defects on <sup>brty.</sup> plates.

No objects of interest.

~~Region~~

~~3<sup>h</sup> + 60°~~

74 3 regions on page

Thursday, July 7, 1921.

Examination of Northern Plates

Region

$20^h + 30^\circ$

ac 23832 June 25, 1921, Exp. 56<sup>m</sup>  
ac 4964 June 13, 1904, Exp. 67<sup>m</sup>  
(23832 superposed)

Defects in ac 23832

Region

$18^h + 15^\circ$

ac 23835 July 5, 1921, Exp. 60<sup>m</sup>  
am 10663 June 11, 1915, Exp. 60<sup>m</sup>  
(23835 superposed)

Region

$19^h + 15^\circ$

ac 23831 June 25, 1921, Exp. 64<sup>m</sup>  
ac 4767 Sept. 1, 1906, Exp. 54<sup>m</sup>  
(23831 superposed)

No objects of interest were found.



3 regions  
on page

75

Wednesday, July 27, 1921.Examination of Northern Plates

Region

 $\delta +45^\circ$ 

ac 23869, July 24, 1921, Exp. 72  
 ac 16725 Sept. 11, 1915, Exp. 60<sup>m</sup>  
 (23869 superposed)

No objects of interest.

Region

4 +75

ac 23876 July 25, 1921, Exp. 58<sup>m</sup>  
 ac 7777 Sept. 3, 1906, Exp. 72<sup>m</sup>  
 (ac 23876 superposed)

Oning to the declination, the plates do  
 not exactly superpose, and 7777 is  
 centered at 3<sup>h</sup>. This leaves part of plates  
 not examined. Plate was chosen, even  
 with R. A. slightly an hour out, because of date.  
 no objects of interest

Region

19.5 +60

ac 23863 July 23, 1921, Exp. 64<sup>m</sup>  
 ac 16590 July 15, 1915, Exp. 60<sup>m</sup>  
 (23863 superposed)

No objects of interest.



Saturday,  
~~Wednesday~~, August 6<sup>th</sup>, 1921.

# Examination of Northern Plates

Region

$19^h + 15^\circ$

ac 23908 August 4, 1921, Exp. 70<sup>m</sup>

ac 8517 May 22, 1907, Exp. 75<sup>m</sup>

(23908 superposed) N.S. 23908

No. 212

Br. 8517

193311

RT Aquilae  $19^h 33.3 + 11^\circ 30' (1900)$

Verified by print.

No. 213

190108

R Aquilae

Br. 23908

N.S. 8517

$19^h 01.6 + 8^\circ 5' (1900)$

Verified by idem. Dist. No.



Two regions  
on this page.

77

Tuesday, August 9, 1921.

Examination of Northern Plates.

Region

$23^h + 45^\circ$

ac 23914, August 5, 1921, Exp. 60<sup>m</sup>

ac 12076, October 31, 1910, Exp. 60<sup>m</sup>  
(23914 superposed)

12076 has many defects, hazy objects.  
Some were looked up for possible  
comets, on plates of nearby dates.  
No results.

Region

$3^h + 60^\circ$

ac 23918, August 5, 1921, Exp. 63<sup>m</sup>

ac 7434, April 2, 1906, Exp. 62<sup>m</sup>  
(23918 superposed)

No objects of interest were found.

2 regions  
on this  
page.Thursday, August 18, 1921.

## Examination of Northern Plates

Region

18<sup>h</sup> 0°ac 23952 August 15, 1921, Exp. 56<sup>m</sup>ac 4986 June 18, 1904, Exp. 65<sup>m</sup>

(23952 superposed)

No objects were found

Region

18<sup>h</sup> +30ac 23953 August 15, 1921, Exp. 56<sup>m</sup>ac 3852 August 21, 1903, Exp. 85<sup>m</sup>

(23953 superposed)

No. 216

object similar to stars but peculiar.  
Probably defect.Another object, winged, comet-like,  
but probably fogging, m ac 3833,  
Aug. 15, 1903

Comet ?

Defect ?



Friday, August 19, 1921.

Examination of Northern Plates.

Region

6<sup>h</sup>+68

ac 23958, August 15, 1921, Exp. 56<sup>m</sup>

ac 3939, September 14, 1903, Exp. 110<sup>m</sup>  
(23958 superposed)

No objects found



80

For proof

not. Aug 8415, 10974

Ft. ac 16411

im. ac 23998

Ft. ac 15341

ac 23740

Ft. not  
min  
ac 16411  
ac 10613

Region

Friday, August 26, 1921.

Examination of Northern Regions

18<sup>h</sup> 0<sup>m</sup>

ac 23998, August 23, 1921, Cyp. 60<sup>m</sup>

ac 12563, September 14, 1911, Cyp. 64<sup>m</sup>  
(23998 superposed)

no-217

Br. 12563

Very ft. 23998

\*

Ft. ? on ac 15341 July 21, 1914

Apparently  
their Var -

Br. 11808 July 29, 1910

11867 Aug 20 "

and 9925 July 10, 1914

Range, about 2 magn.?

12578 Sept 22, 1911

Not in Var. St. Cat.

12700 Nov. 2, 1913

not minimum  
but fainter?

Dist. - 6° 46' 38"

14234 July 31, 1913

17<sup>h</sup> 36<sup>m</sup> 9.9 - 6° 11.6 8.8 (1855)

13164 Aug 8, 1912

See Am 10000

2.4 -2

14297 Aug. 25, 1913

17 38.6 - 6 14 (1900)

14435 Oct. 17, "

July 28, 1914

14502 Nov 4, "

See Am 10034

15164 May 6, 1914

Aug. 8, 1914

15218 May 29, "

ac 15383 Aug. 22, 1914

15257 June 12, "

Max? am 8415 July 8, 1912

Am 8908 May 14, 1913

8477 " 18 "

8968 May 28, "

8532 Aug. 3 "

8945 Too poor

8543 Aug. 15 "

9029 June 7, 1913

8551 " 16, "

-15° 9912 June 30, 1914

8592 Sept. 3, "

0° ac 16685 Aug. 26, 1915

8603 " 5, "

am 10750 July 3, "

8659 " 21, "

10770 July 10, "

8686 Oct. 8, "

10797 " 13, "

8725 " 18, "

10832 " 17, "



Am 10797

Iden. chd by Miss Walker.

\* Confirmed by Miss Learitt, August 29.

\* Ft. but not Min. on plates of 1914, see page 80

H. D. Cat. Spectrum Bf - 9.2.

<sup>am</sup>  
Br. 10974 Aug. 11, 1915.<sup>ac</sup>  
Ft. 16411 Apr. 18, 1915Ft ? <sup>ac</sup> 16155 Feb. 21, "

23627 April 12, 1921

23759 June 4, "

23899 Aug. 3, "

Ft? 22859 Sept. 4, 1920

23289 Too poor

23523 Mar. 11, 1921

23672 May 9, 1921

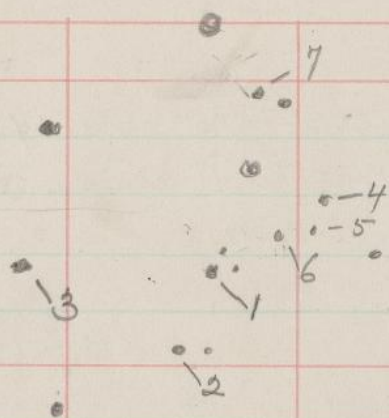
23689 " 16, "

Ft? 23725 " 26, "

23952 Too poor -

Ft Am 10613 June 3, 1915

List of B plates, see page 96.



Mtd. on B 29257

Stars selected for temporary sequence of  
new Variable

RS Ophiuchi Compared with Seg. of RS Ophiuchi  
Seg. Comp. <sup>mixed</sup> on MC 5587

Bh. 9, p. 179

RSoph.

$$a = 9.3$$
$$b = 9.8$$
$$c = 9.9$$
$$d = 10.2$$
$$e = 10.6$$
$$L = 10,9$$
$$q = 11.2$$

New Var. estimates made on B 29257

$$1 = 9,25$$
$$2 = 9.7$$
$$3 = 9.8$$
$$4 = 9.8$$
$$5 = 10.4$$
$$6 = 10.5$$
$$7 = \frac{11.0}{14.0}$$

estimates  
9.7 on 2520

9.8 and 9.33

9.6

10.0

10.7

10,5

11.1

verified by D.

9.60 mean

9.75

9.70

990

0.55

0,50

11.05

verified by B 34113

$$1 = 9.6$$
$$z = 9.7$$
$$3 = 9.7$$
$$4 = 9.9$$
$$5 = 10.5$$
$$6 = 10,4$$
 $7 = 11.0$



Early plates estimated Bb. 11, No. 72.

83

Note:

Estimates made out of order.

Records  
in order of  
J.D. for  
convenience

				J.D.	Superseded	Est. made Sept. 5
					With 2y. p. 82	Seg. Bk. page
ac	21648	July 30, 1919	22170		Too poor.	Probably bright 9.6
	21710	Aug. 20, "	22191		9.5	9.6
	21730	Aug. 23, "	22194		9.5	9.7?
	21797	Sept. 13, "	22215		9.5?	Poor - "
Am	15026	" 28, "	22230		9.5	9.6
ac	21886	Oct. 8, "	22240		9.5	Poor 9.6?
	22342	Jan. 31, 1920	22355		Too poor.	"
	22453	Feb. 26, "	22381		9.8	9.9?
	22509	Mar. 10, "	22394		Too poor.	Ft. stars N.S. "
	22588	Apr. 10, "	22425		9.7	9.6
	22646	May 18, "	22463		N.S.	Poor. No ft. stars
	22647	" 18, "	"		N.S.	No ft. stars "
	22671	June 7, "	22483		9.8?	9.8?
	22679	" 19, "	22495		N.S.	No. ft. stars "
-	22709	July 4, "	22510		9.7?	Poor - 9.6?
Am	15305	" 14, "	22520		9.8	9.8
ac	22748	" 17, "	22523		N.S.	No. ft. stars "
	22778	" 27, "	22533		Too poor -	"
	22796	Aug. 6, "	22543		Too poor	"
Am	15384	" 6, "	"		9.8	10.1
	15395	" 9, "	22546		9.8	9.9?
ac	22808	" 19, "	22556		Too poor	"
Am	15425	" 15, "	22552		9.8? Poor.	9.9?
	15428	" 16, "	22553		9.8? Poor.	10.0
	15435	" 17, "	22554		Too poor -	"
	15436	" 17, "	"		N.S.	Ft. stars N.S. "
	15485	Sept. 12, "	22580		9.8	10.2
	15489	" 13, "	22581		9.8	10.2



Obj. 176 on 15485  
?Saturday, August 27, 1921.Examination of Southern Plates.  
J.D. SuppundelEst.  
made  
Sept. 5

ac 22859	Sept. 4, 1920	22572	9.8?	Poor.	Vacuum but ft. stars not seen
22869	" 16, "	22584	9.8?	Poor.	<9.7
<sup>49</sup> 22906	<sup>49</sup> Oct. 24, "	22602	10.6?		10.4?
22970	Oct. 11, "	22609	10.6?		10.5
22984	" 15, "	22613	Too Poor		..
23012	" 23, "	22621	10.5?	Poor.	10.5?
23289	Jan. 17, 1921	22707	N.S. Th. Stars N.S.		"
<sup>23365</sup> 23441	Feb. 14, "	22735	10.6? Too poor.		10.7
23482	" 25, "	22746	N.S. Th. Stars N.S.		"
23523	Mar. 11, "	22760	N.S. Th. Stars N.S.		<9.9
23542	" 18, "	22767	10.4?		10.5?
23600	April 2, "	22782	10.4		10.5
23627	" 12, "	22792	10.4		10.5
23672	May 9, "	22819	10.6		10.5
23683	" 11, "	22821	10.2?		10.4
23689	" 16, "	22826	10.5?		<10.4
23725	" 26, "	22836	Too poor		..
23740	" 30, "	22840	10.5		10.6
23752	June 2, "	22843	Defective film?		"
23759	June 4, "	22845	10.5		10.5
23879	July 26, "	22897	10.6?		10.6
23893	" 31, "	22902	Too poor		..
23899	Aug. 3, "	22905	10.6		10.6
23922	" 8, "	22910	Too poor		..
23952	" 15, "	22917	Too poor		..
23998	" 23, "	22925	10.6		10.6
24021	" 26, "	22928	Too poor		..

to find plate

see page 85

\* Added Aug 29



Monday, August 29, 1921.

Cont.  
Bk. 13, p. 96

Mhd sequence on B 37728. Also, see Bk. 11, p. 57.

Comparison Seq. = R S Ophiuchi, mhd on print and  
MC 5587Seq. selected (in numbers) on B 51198, corrected  
by Miss Learitt, marked finally on B 37728, in  
letters.

H.S.L.

\* → Signance Magn. See Bk. 38: 83.

\* Additional 1921 plates: (Entered as taken after  
entry of plates on page 84.)

ac 24042	September 1, 1921	10.7	J.D. 22934
ac. 24114,	" 19, "	10.6	J.D. 22952

Am 15603	June 9, "	10.6	22850
15650	Aug. 3, "	10.6	22905
ac 24028	" 27, "	< 9.8	22929
24062,	Sept. 7, "	10.4 <sup>6</sup>	22940
24158	" 27, "	Too poor	22960
24169	Oct. 1, "	< 10.5	22964
24200	" 6, "	< 9.7	22969
24271	" 21, "	< 9.8	22984
24430	Dec. 6, "	Too poor	

Plotted

Thursday, September 1, 1921.

Expansion of Northern Regions

Region

17 ~~18~~ <sup>15</sup> +15°

ac 23999, August 23, 1921, Exp. 66<sup>m</sup>  
 ac 14160 July 10, 1913, Exp. 60<sup>m</sup>  
 (23999 superposed)

Defects on 23999

No objects of interest.



Monday, September 5, 1921.

Examination of Southern Plates.

Region

AC 24005 August 23, 1921, Exp. 60<sup>m</sup>

AC 19265 October 11, 1917, Exp. 60<sup>m</sup>  
(24005 superposed)

24005 very poor - Only brightest  
stars can be compared

No. 218

Var.

061907

T Monocerotis  $6^h 19.8 + 7^\circ 8'$  (1900)

Dm +7° 1273

(Verified by identification of Dm. No.)

Tuesday, September 6, 1921.

Examination of Northern Plates.

Region

$21^h + 60^\circ$

ac 23988 August 21, 1921, Exp. 56<sup>m</sup>

ac 14353 Sept. 10, 1913, Exp. 69<sup>m</sup>  
(23988 superposed)

no. 219 Br. 23988 N.S. 14353.

Br. 14498 Nov. 2 1913

22617 Apr. 28, 1920

22697 June 25, "

→ Defective film on ac 14353.

Many defects on plates.



2 regions  
on this page.

Tuesday, September 13, 1921.

Examination of Northern Plates.

Region

$5^h + 30^0$

ac 24069, September 7, 1921, Exp. 60<sup>m</sup>  
ac 16950, November 7, 1915, Exp. 66<sup>m</sup>  
(24069 superposed)

Region

$4^h + 45^0$

ac 24068 September 7, 1921, Exp. 60<sup>m</sup>  
ac 19645 January 4, 1918, Exp. 36<sup>m</sup>  
(24068 superposed)

Both late plates are very much poorer than comparison plates. Only brighter stars can be compared.

No objects of interest were found.



2 regions  
in page -

Wednesday, September 14, 1921.

## Examination of Northern Regions.

Region

 $2^h + 45^\circ$ ac 24075, September 8, 1921, Exp. 60<sup>m</sup>ac 21212, March 1, 1919, Exp. 50<sup>m</sup>

(24075 superposed)

No. 220

from ac 21212

ac 19474 shows  
fainter stars

24075 does not show faint stars.

Br. 21212

N.S. 24075

Confirmed Br. on 20992 Jan 20, 1919.

Fl. Nov. 7, 1917 ac 19415

Fl. Nov. 16, 1916 ac 19474

0228

R Trianguli  $+33^\circ 47'$ 

(Fleming, 1890) (Verified by identification of Dir. No.)

No. 221

Peculiar defect or moving object?

N.S. on 24068 Sept. 7. Br. 24075

see below  
Position

Region

 $4^h + 75^\circ$ ac 24077, September 8, 1921, Exp. 58<sup>m</sup>ac 12195, December 9, 1910, Exp. 61<sup>m</sup>

(24077 superposed)

24077 does not show faint stars.

no objects of interest were found.

No. 221 Cont. approx. (1855)  $2^h 37^m + 53.9^\circ$



2 regions  
on page

Thursday, September 15, 1921.

Examination of Northern Regions

Region

$7^h + 30^0$

ac 24079, September 8, 1921, Exp. 56<sup>m</sup>

ac 20723, November 24, 1918, Exp. 58<sup>m</sup>

(24079 superposed)

Many defects on 20723, round black dots, not similar to the stellar images of this region. Apparently another exposure.

Plate rejected

Use ac 19207, September 26, 1917, Exp. 50<sup>m</sup>

No. 222. Jupiter Br. on 20723.

Position from Almanac =  $7^h 5^m 32.95 + 22^0 32' 16''.0$

No. 223 Br. 19207

N.S. 24079

Defect?

N.S. ac 19219, Sept. 30, 1917.

Probably defect. ✓

Region

$1^h + 45^0$

ac 24022, August 26, 1921, Exp. 60<sup>m</sup>

ac 5487, November 5, 1904, Exp. 63<sup>m</sup>

(24022 superposed)

No objects were found.

Friday, September 16, 1921.

Examination of Northern Regions

Region

$18^h 0^m$

ac 24042, September 1, 1921, Est.  $60^m$   
 ac 2137, July 16, 1903, Est.  $60^m$   
 (24042 superposed)

No. 224  
 (from ac 2137)

Br. 24042 Ft. 2137

very br. on ac 21710 Aug. 20, 1919.

184300

Nova Aquilae

No. 3.

$18^h 43.8^m + 0^{\circ} 28'$  (1900)

(verified by print)

No. 225

173806

var. of S.E.W. near on page 80.

Est. = 10.7

2nd Est. <sup>fixed</sup> already made, see p. 85.



Saturday, September 24, 1921.

Region Examination of northern Regions.  
3h +45°

ac 24004, August 23, 1921, Exp. 60<sup>m</sup>

ac 16805, October 3, 1925, Exp. 70<sup>m</sup>  
(24004 superposed)

No objects of interest were found.

*2 regions  
of this page*

Tuesday, September 27, 1921.

Examination of Northern Regions.

Region

$22^h + 30^{\circ}$

ac 23995, August 22, 1921, Eff.  $63^m$

ac 5090, July 21, 1904, Eff.  $67^m$

(23995 superposed)

No. 234

B<sub>1</sub>. 5090

Ft. 23995

Var.

222129

RV Pegasi.  $22^h 21.0^m + 29^{\circ} 58'$  (1900)  
Verified by print.

See page 93.

Region

$3^h + 45^{\circ}$

ac 24004, August 23, 1921, Eff.  $60^m$

ac 16805, October 3, 1915, Eff.  $70^m$

(24004 superposed)





Later years that are covered by air & ac plates  
are not meas. on B plates

173806  
Cont. from page 85.

Additional plates: -

When star is  
meas., these plates to  
be taken out, <sup>See</sup> list 24  
for additional plates  
of region.

B plates

5972

7871

9296

9395

13990

16034

16495

17441

34112

20422

21150

21549

23055

23660

25915

26341

etc

B37728 is plate of sequence

MC 5737

5607

I 4171

6556

6571

8698

8744

8862

8894

8995

9102

13008

I 29462

13009

31728

13034

31729

15411

31730

15845

31843

18346

31858

18448

31882

18477

31899

18681

31991

18837

33125

20924

21060

23211

26866

27071

28986

29172



Wednesday, December 30, 1925

97

173806

Add. 2

Estimates of later plates —

## The Merrill Iron Star

For summary, Bibliography, etc., see Book 29, page 190.

Plates at 18<sup>h</sup> 0<sup>m</sup>Plates at 17<sup>h</sup> 0<sup>m</sup>

J.D.

15738

10.4

and

and

list 2423177 10.4 15738 May 2, 1922 2422868 10.7 15621 June 27, 1921

3182<sup>0</sup>

10.6

15760

May 5,

23218

10.3

15848

June 12, 1922

May 18?

3193

10.5

15792

May 18,

3205

10.5

15819

May 30.

3226

10.7

15877

June 20

very small image

3256

10.5

15975

July 20

3244

10.5

15989

July 28

3278

10.2

16019

Aug 11

3292<sup>5</sup>

10.4

16055

Aug 28

3305

10.2

16056

Sept 7

3345

9.6

16119

Oct 17

3535

9.5

16231

April 25, 1923

3610

9.6

16319

July 9, 1923

3649

9.6

16371

August 17

3671

9.6

16413

Sept 8

~~16422~~



Add. 2

Plates at  $18^h 0^m$ 

Probably < 10.2	ac 24728	April 22, 1922	CLC
10.1	ac 24864	Sept. 13, 1922	2423311
9.5	25164	Feb. 22, 1923	23473
9.4	25245	May 7, 1923	23547
9.4	25292	June 30, "	23601
	25299	Ben not est	
		July 6	
9.6	25314	July 17	23618
9.6	25321	August 6,	23638
9.4	25357	Aug. 30	23662
9.6	25564	July 27, 1924	23964
9.6	25573	July 11, 1924	23978
9.6	25599	July 21, "	3988
9.6	25820	March 20-21 1925	24230-1
9.6	25871	April 16-17, "	24257-8
9.7	25944	June 16-17, "	24318-9
9.7 or 8	26030	Sept. 8-9 "	24402-3

Internal about April 1922, several CLC  
 but too poor for estimate.



Add. 2

AX at  $18^h 0^0$ 

9.4	AX 492	April 30, 1924	2423906
9.5	509	May 5, 1924	23911
9.4	556	May 26, "	3932
9.6	571	29, "	3935
9.6	593	June 7, "	3944
9.4	597	June 9, "	3946
9.6	633	June 26, "	3963
9.4	657	July 1, "	3968
9.5	718	July 25, "	3992
9.4	757	Aug. 19, "	4007
9.5	790	Sept. 3, "	4032
9.6	1029	April 28-29, 1925	4269-70
9.6	1050	May 14-15, "	4285-6
9.6	1093	May 27-28, "	4298-9
9.6	1158	June 17-18, "	4319-20
9.6	1216	July 11-12, "	4343-4

plot —

AY at  $18^h 0^0$ 

9.6	AY 73	May 25, 1924	2423931
9.4	98	June 9, "	3946
9.6	148	July 17, "	3984
9.4	164	July 23, "	3990
9.6	194	August 15, "	4013
9.6	205	" 18, "	4016
9.6	261	Sept. 26, "	4058 <sup>5</sup>
9.6	268	Oct. 1, "	4060
9.5	323	" 20, "	4079

Add  
.218<sup>h</sup> 0<sup>o</sup>

9.6	AY	567	April 5-6 1925	24246-7
9.6		597	" 18-19 "	4259-60
9.6		641	May 26-27 "	4297-98
<del>10.0?</del>		662	June 12-13 "	4314-15
9.6		665	" 13-14 "	4315-6
9.6		676	" 19-20 "	4321-22
9.6		720	July 29-30 "	4361-62
9.6		754	Aug 22-23 "	4385-6
		816	Sept 28	Too poor



Add. 2

Plates at 17 -15

10.2 am	15737	May 2, 1922	23177
10.2	15718	April 27, "	23172
	2472		

Plates at  $17^h 0^m$ 

Add. 2

867	May 29, 1900	2415169	about 10.4
8628	July 26, 1907	17784 <sup>3</sup>	9.8
16314	March 23, 1915	20580	9.9
17263	Jan. 28, 1916	20891	9.6
17581	May 9, "	20993	9.6
18699	Mar. 22, 1917	1310	9.5
18819	May 3, "	1352	9.6
19103	Sept. 10, "	1482	9.6
19964	Mar. 22, 1918	1675	9.6
20315	July 27, "	<del>17</del> 1802	9.5

10426	April 17, 1915	0605	9.9
10613	June 3, "	0652	10.4
10649	June 7, "	0656	10.1
10670	June 12, "	0661	9.8
10691	June 17, "	0666	10.0
10974	Aug. 14, "	0721	9.6
11955	June 11, 1916	1026	9.6
12031	June 20, 1916	1035	9.5
13521	August 16, 1917	1457	9.5
14030	June 5, 1918	1750	9.6
14077	June 14, "	1759	9.5
14284	Aug 12, "	1818	9.4
14920	Aug 15, 1919	<del>1821</del> 2186	9.7
14926	Aug. 17, "	<del>1823</del> 2188	9.7



Add. 2

Am 12094	June 30, 1916	21045	9.7
12352	Aug. 19, "	1095	9.6
13054	April 25, 1917	1344	9.6
13269	June 13, 1917	1393	9.6
13311	June 19, "	1399	9.4

MC 5607 } June 2, 1914  
 extreme edge — out of focus — better  
 not include

5737 } June 20, 1914

Friday, January 15, 1926.

Estimates of early B plates

Unconv  
Magn

B 5972	May 19, 1891	2411872	9.6	
9276	May 1, 1893	12585	9.6	
9394	" 7, "	12591	9.7	Out of focus
9395	" 7, "	12591	9.67	
13573	June 4, 1895	13349	9.6	
13990	July 8, "	13383	9.6	extreme edge
16034	May 30, 1896	3710	9.5	
16445	June 19, "	3730	9.6	
19116	May 13, 1897	4058 Slide 367	9.6	
20422	Sept. 17, "	4185	9.5	
21150	April 2, 1898	4382	9.6	
21549	May 31, "	44 <sup>4</sup> / <sub>5</sub> 1	9.6	
22792	May 9, 1899	4784	9.6	
23055	June 16, "	4822	9.6	
25121	April 11, 1900	5121	10.4	
25340	May 18, "	5158	10.4	Corner
25915	Sept. 3, "	5266	10.1	
33679	May 6, 1904	6607	9.6	
33923	June 2, "	6634	9.5	
34244	July 1, "	6663	9.6	
36083	May 22, 1905	6988	9.6	
36789	Aug. 22, "	7080	9.5	



Cont., Bb. 29, page 190  
 Work of April, 1929, see Bb. 13, p. 106-

Estimates of early I plates J.D. add .2

I 1201	May 21, 1890	2411509	9.6
1718	August 28, 1890	1608	9.6
4171	Sept. 9, 1891	1985	9.8
6556	July 11, 1892	2291	9.8
6571	" 12, "	2292	Poor
8698	July 2, 1893	2647	9.7
8744	" 11, "	2656	9.8
8862	" 21, "	2666	9.7
8894	" 23, "	2668	9.7
8995	" 30, "	2675	9.8
9102	August 8, "	2684	9.7
10999	April 25, 1894	2944	10.2
11258	July 14, "	3024	10.7
13008	June 19, 1895	3364	9.6
13034	July 2, "	3377	9.5
14992	April 24, 1896	3674	9.6
15411	July 1, "	3742	9.6
<del>15685</del>	<del>Sept. 1, "</del>	<del>3804</del>	<del>9.6</del> Too poor
15845	Sept. 1, "	3804	9.6
18345	July 16, 1897	4122	Poor
18448	August 6, "	4143	9.6
18477	" 7, "	4144	9.6
18681	Sept. 6, "	4174	9.6
18837	" 15, "	4183	9.6
20924	June 30, 1898	4471	9.6
21060	August 15, "	4517	9.6
22718	April 19, 1899	4764	9.6
23211	Slide 1584 July 26, 1899	4858	9.6
25692	August 29, 1900	5261	10.3



173806

Merrill's Iron Star

NOTE FOR MISS WOODS

APRIL 24, 1929

Dr. Merrill of Mount Wilson suggests that we bring our observations of XX Ophiuchi up to date. In Harvard Circular 292 we gave the observations to 1926. The star is acting up again and I think you had better put it on your list for rather early attention to get out an estimate on all plates available in continuation of our earlier report.

H. S.

A.D.W. File Merrill's letter but do not answer it.





Corrected  
magnitudes  
used (Comp 1922)

to check  
JD

ax Plates 18<sup>h</sup> 0<sup>m</sup>

1216 Page 99

1312

9.7	1355	Oct. 7-8 1925	24431
9.6	1620	May 11-12 1926	24647
9.6	1647	May 17-18	653
9.7	1698	June 14-15	4681
9.7	1723	June 30-July 1	4697
9.8	1739	July 5-6	4700
9.8	1760	July 10-11	4707
<del>9.7</del>	1782		
9.7	1795	July 17-18	4714
9.8	1812	Aug 2-3	4730
9.7	1842	Aug 16-17	744
9.7	1905	Sept 13-14	772
9.8	1934	Oct 2-3 1926	791
9.7	2011	Sept 29-30 1927	5153
9.8	2020	Oct 1-2 1927	5155
9.7	2360	May 14-15 1928	5381
9.8	2487	June 11-12	5409
9.8	2526	June 18-19	5416
9.8	2562	June 25-26	5423
9.7	2599	July 12-13	440
9.7	2620	July 16-17	444
9.7	2717	Aug 6-7	465
9.7	2770	Aug 17-18	476
9.7	2868	Sept 7-8	497
sup. 112	2976		

not rec'd April 1929



NYC 6366 see apl?

109

AX Plates 17 0  
 9.8 1755 July 9-10 1926 24706

Region  
 17 -15  
 1270  
 1304

9.7 1062 May 18-19 1925 24289  
 9.7 1092 May 27-28 98  
 9.8 1141 June 12-13 4314  
 9.7 1186 June 24-25 26  
 9.8 1270 Aug 10-11 1925 4373  
 1304

not dupl. of  
 p. 99, 4298

Famula  
 Mease

(1931) 9.7

1618 May 10 1926  
 1639  
 9.7 1694 June 12-13 1926 4679  
 9.8 1704 June 15-16 82  
 1730  
 1790

9.8 1830 Aug 6-7 1926 4734  
 9.7 1833 Aug 10-11 4738  
 9.7 1916 Sept 27-28 1926 86  
 2227

9.8 2245 March 24-25 1928 25330  
 9.7 2430 May 21-22 53878  
 9.8 2500 June 13-14 5411  
 9.8 2538 June 20-21 5418  
 9.7 2591 July 11-12 39

9.7	AX	2626	July 17-18 1928	25455
9.7		2758	Aug 15-16	74
9.7		2849	Sept 3-4	493



AY Plates at 18 0 & 17-15 no plate at 18-15 or 17 0

—	816	NY	—
9.8	1021	April 18-19 1926	24624
9.8	1048	May 8-9	644
	1075		
	1095		
9.8	1143	Sept 13-14	772
9.8	1192	Oct 25-26 1926	814
	1385		
9.8	1387	March 8-9 1927	4948
	1427		
	1431		
	1459		
	1442		
	1451		
—	1459	Corr	
	1461		
	1475		
9.8	1507	June 27-28	5059
	1509		
	1499		
9.6	1517	July 5-6	5067
9.7	1529	July 25-26	5087
	1539		
—	1547	Corr	—
—	1563	Corr	—
9.7	1645	Sept 24-25	5148
—	1692	Corr	—
9.8	1760	Oct 24-25 1927	5178

ac Plates  $17^h 0^m - 15^m$

? 9.8 26312  
 — 26331 Smaller image but black 24656 May 20-21 1926  
 — 26344 Too poor  
 — 365 Too poor  
 — 369 Too poor  
 — 371 Too poor  
 — 384 Too poor

Additional AY 12

AY 1459 : 9.8 May 3-4, 1927 25004  
 754 9.8 Aug 22-23 1925 24385  
 17

Est. 1931

AY 1755 9.6 July 9-10, 1926 24706 In HR 868  
 AX 718 9.6 July 25 1924 23992  
 AX 2971 9.6 Oct. 4-5 1928 5524



Continued, 1931, p. 118

ac Plates  $18^h 0^m 5 - 15^m$  after ac 26030

—	26290	April 12-13 1926	24618 (in ledger) —
9.7	26324	May 12-13, 1926	24648
9.8	26359	June 17-18	4684
9.8	360	June 19-20	4686
—	381	June 20-21	4687
—	385	Too poor	
9.7	444	Sept 18-19	24777
—	720	Too poor	
9.7	840	May 27-28 1927	25028
9.8	27349	March 9-10 1929	25680
	27407		26459
	<del>29226</del>	<del>April 27-28 1931</del>	<del>110.9</del> 26459 = p. 118
	29188	Too poor	

No I plates 1929

9.7	46754	July 24-25, 1928	25452
I	46796	not cover.	

B	54602*	54625*
54269	620	626
385	621	672
390	622	705
443	623	713
456	624	
523		

Comparison Stars on B 37728



## Continued Estimates, July 16, 1931

115

Estimates 10.0 ?

RB  
RH 18<sup>h</sup> 0.0RB  
RH 209 9.6 April 15-16 1928 25352

<del>RH 279</del>	<del>9.9</del>	<del>May 13-14,</del>	<del>25380</del>
RB 241	9.7	April 5-6, 1929	25707
282	9.6	April 12-13	25714
319	9.7	May 9-10 "	25741
340	10.0 -	May 16-17 "	25748
362	<del>10.0</del> 9.8	June 1-2 "	5764
398	9.8	June 13-14	5776
460	9.7	July 30-31	5823
491	9.7	Aug 9-10 "	5833
514	10.0 -	Aug 24-25	5848
542	9.7	Sept 7-8 "	5862
581	10.0 -	Oct 3-4	5888
902	<del>10.0</del> 9.8	Apr. 8-9 1930	6075
942	9.7	Apr. 26-27	6093
990	9.8	May 20-21 "	6117
1049	9.8	June 19-20 "	6147
1074	9.8	June 27-28 "	6155
1100	9.8	July 2-3 "	6160
1183	9.8	July 29-30 "	6187
1210	9.8	Aug 13-14 "	6202
1289	9.8	Sept 18-19 "	6238
1290	9.7	Sept 19-20 "	6239



RH

279	9.9	May 13-14 1928	25380	
RH 304	9.5	May 26-27 1928	25393	
306		May 31-June 1 "	25398	
363	9.5	July 17-18 "	25445	
441	9.7	Aug 15-16 "	25474	
463	9.8	Aug 20-21 "	25479	
1181	9.7	May 13-14 1929	25745	
1221	9.8	May 29-30 "	25761	
1228	9.8	June 1-2 "	25764	
1251	9.8	June 9-10 "	25772	
1283	9.7	June 29-30 "	25792	
1387	9.7	Aug 2-3 "	5826	
1459	9.8	" 31-Sept 1 "	5855 -	
1601	9.8	Oct 21-22 "	5906 -	
2204	10.0	Apr 14-15 1930	<del>6081</del> + 6142	
2213	9.8	June 16-17 "	6144	
2089	"	Apr. 14-15 1930	6081 -	Too poor
2190	10.0	June 4-5 "	6132 -	
2253	9.8	July 4-5 "	6162	
2269	9.8	July 12-13 "	6170	
2273	9.8	July 15-16 "	6173	
2281	10.0	July 17-18 "	6175	
2378	9.8	Aug 20-21 "	6209	
2394	9.8	July 15-16 . MK3		
3215		Just off edge		
3116	"	"		



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M13

			J.D.
M13 2394	9.8	July 15-16, 1929	25808
2401	9.8	July 29-30 "	5822
2412	9.8	Aug 2-3, "	5826

26444	9.8	Sept 18-19 1926	24777
ac 26345	(19h)	"	
26840	9.8	May 27-28 1927	25028
27349	9.8	Mar. 9-10 1929	25680
27431	9.8	May 5-6 1929	25737
27445	9.7	May 9-10 "	5741
27513	9.7	June 8-9 "	5771
27605	9.8	July 15-16 "	5808
27693	Tor pin		
27698	" "		
28289	9.8	April 22-23, 1930	26089
28296	Tor pin		
28513	9.8	Aug 13-14, "	26202
verified by AW 29226	10.9	April 27-28, 1931	26459 (18-15)



ac Pl.  $17^h 0^o$ 

26344	June 9-10 1926		
26927	April 29-30 1928	Too poor	25366
29170	Apr. 13-14 1931	" "	6445
29264	May 20-21 "	" "	6482
29265	May 20-21	" "	6482
29294	June 14-15, "		6507

B	54602	9.8	Aug. 1-2, 1930	6190 -
	54620	9.8	Aug 21-22 "	6210 -
	54621	9.8	Aug 21-22 "	6210 -
	54622	9.8	Aug 21 "	" "
	54623	9.8	Aug 21-22 "	" -
	54624	9.8	Aug 21-22 "	" -
	54625	9.8	Aug 21-22 "	" -
	54705	9.8	Sept 23-24 "	6243 -
	54269	9.8	May 23-24 "	6120 -

extreme edge	54385	10.0	June 19-20, 1930	6147 -
	54390	9.9	June 20, 21, "	6148 -
	54443	9.8	June 28, 29, "	6156 -
	54523	9.9	July 19-20 "	6177 -
		9.8		



















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