KG
11366
185

1919phae.proj.1187w

Ida E. Woods
Book 9.
Examination of AM & AC Plates.

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KG11366,165

H.Q.56 No.6.

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Harvard College Observatory.

Ida E. Woods. Book No. 9.

(Continuation of Bk. 7)

Examination of Plates for Novae and other Interesting Objects.

A Mand A C plates taken in Milky Way (Southern)

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1919phat..proj..118?W

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To confirm

New

~~29~~
~~30~~
~~31~~
~~33~~
~~34~~
~~36~~
~~106~~
~~130~~
~~160~~
~~161~~
~~162~~
~~163~~
~~168~~
~~169~~
~~172~~
~~176~~
~~177~~
~~178~~
~~184~~
~~208~~
~~209~~
~~212~~
~~213~~

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Bk. 9, Total = 35 pairs of plates.

Examination of Southern Regions for Novae, Variables, and other interesting objects.

Index, Book 9.

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4

(4-4 game)

Saturday, November 22, 1919. Dark afternoon.

Examination of AM & AC Plates -

Region $8^h\ 0^m$ $-15°$

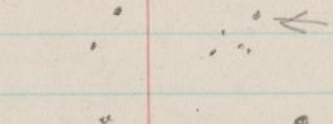
AC 22016, November 20, 1919, Eff. 60m
AC 17197, January 7, 1916. Eff. 60
(22016 superposed on 17197)
No specially good comparison plate in 1915 was found. June, 1916, has already been used: Blo. 7, p. 106. So Jan. 1916 was chosen for this comp. plate. A plate was needed which showed ft. stars as AC 22016 is an excellent plate, showing many stars, but not very round images.

Time, about 1½ h

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Nova Ae 22016



N. S. first marked on 17197

ff

Lic 17394 1916
Am 14016 1918
Am 13244 1917
Am 14024 1918

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November 22, 1919.
and November 24, 1919.

Examination of AM & AC Plates.

Region $10^h 00^m$ $-15°$

AC 22018, November 20, 1919, Ef. 64m
AM 10713 June 20, 1915, Ef 37
(10713 superposed on 22018)

No plate AC of 1915 was found that had comparable images so AM 10713 was used.

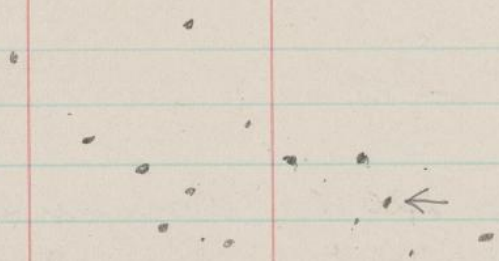
Time, about 50 min.

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1919phae.proj.1187W

Plates given to Prof. G. to look at this Object.
To complete marked obj. later.

N on Ann 10713
near extreme southern edge



not on ac 22018
" " Ann 14604 April, 1919 (−30°)
14440 June, 1918 (−30°)
ac 16213 May, 1915
Ann 10401 Apr. 1915
Ann 10476 Apr. 1915
Ann 10625 June 5, 1915 (−30°)

Extra image?

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November 24, 1919.

Examination of AM & AC Plates.

Region 6 cos −15

AC 22015 November 20, 1919. Eff. 60m
AM 10446 April 20, 1915, " 30m
(10446 superposed on 22015)

No plate of 1914 could be found.
Previous plate used in comparison
for 1915 was Dec. '13 so I chose this plate
April, 1915.

Very many star-like defects on these
plates, proved very deceitful.

Time, interrupted, perhaps 1¼ hr.

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N on AM 10446

?

Probably defect.

not on 22015

not on

ac 16759 Sept, 1915
am 12831 Dec., 1916
am 14632 Apr., 1919
* ac 12763 Nov. 1911
*ac 12810 Dec. 1911
*ac 12911 Feb. 1912
ac 12946 Feb. "
ac 13842 Oct. "

(*good plate)

Comet?
Hazy image

N on am 10446

No plate of near date.

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1919phae.proj.1187W

Saturday, December 6, 1919.

Examination of ac & am Plates.

Region 6 00 -15

A recent plate of am series, as far as recived at present, is am 14632.

am 14632 April 24, 1919 Exp. 35m
am 12831 Dec. 20, 1916 Exp. 60.
(12831 superposid on 14632).

Only a quick survey of these plates is made as these areas have been covered lent not the 1919 in am series.

No objects of interest seen.

Time, about 20 min.

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1919phae.proj.1187W

Friday, December 12, 1919. Dark, late afternoon
and Saturday, December 13, 1919.

Examination of AM and AC Plates.

Region $9^h\ 00^m$ $-15°$

AC 22058 December 2, 1919, Eff. 58^m
AM 13173 May 21, 1917, Eff. 38^m
(13173 superposed on 22058)

No objects of interest

Time abnt 50 min.

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1919phae.proj.1187W

Extra images near S. edge.

Extra Exp. ? Three images near south edge marked. Not in region.
See And 1062.5, $9^h\,00^m - 30^\circ$, with this in centre, no stars there.

Several defective, round, black images over plate.
One near N edge of plate is very conspicuous and is assumed to be defect.

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1919phae.proj.1187W

Saturday, December 13, 1919.
and Monday, December 15, 1919.
Examination of AM & ac Plates.

ac $7^{h}\,20^{m}$ -15°

ac 22076, December 4, 1919, Exp. 56m
ac 17121; Dec. 15, 1915, Exp. 66
(22076 superposed on 17121)

22076, poor plate, not really comparable with good Cordoba plate. Dark plate.

Several large dark defects in ac 22076
ac 17121 found to be badly scratched already entered on Cover.

Time abmt 1 h.

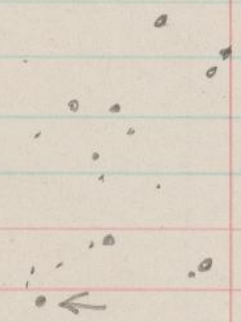
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1919phae.proj.1187W

AC 15976 good pl. of regin.
Repeat 1915 —
This comp. unsatisfactory

see also, Bk. 7, p. 179.

Nova?
or Var?
061702
V Monocerotis
$6^h 17^m.7 - 2° 9'$



Not Seen on
Am 14574 Feb. 16, 1919.
AC 22076 Dec. 4, 1919

1915 plates
- Am 11465 Nov. 14, 1915
- Am 11436 Nov. 9, "
- Am 11533 Mar. 7, 1916
- Am 11524 Mar. 3, "
- Am 11579 Mar. 28 "
- Am 11598 Apr. 3 "
- Am 11675 May 7 "

Indicated Nova in sudden rise but is known var.

n on AC 17121

~~Not~~ Seen on
Bright AC 17121 Dec. 15, 1915
Bright Am 11485 Dec. 11, 1915
Bright Am 11495 L' Dec. 31, 1915
Bright AC 17275 Feb. 3, 1916
? Brightest on 17092 L' Dec. 10, 1915
First? AC 17052 Nov. 30, 1915
Bright AC 17211 Jan. 14, 1916
" AC 17256 Jan. 28 "
17375 Mar. 1 "

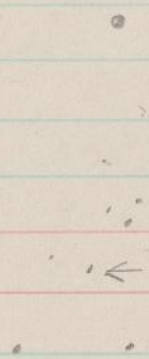
over

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1919phae.proj.1187W

$7^h 00^m - 15^\circ$ Continued.

N on AC 17121



Was already marked on AC 17121
some change between 17121 & 22076

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1919phae.proj.1187W

Monday, December 15, 1919.

Examination of AM & AC Plates

Region $5^h\ 00^m\ -15^\circ$

AC 22083 December 5, 1919 Expt 73^m
AC 15721 November 14, 1914 Ex 62.
(22083 superposed on 15721)

AC 22083 very poor plate, badly fogged, stars fair images.

Blurred objects near S edge of 22083 assumed to be defects.

Conclusions: 1919 plate too poor.
Repeat 1914 plate.
No objects of interest found.

Time about 25 min.

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1919phae.proj.1187W

Not satisfactory comparison.
Repeat 1914 plate.

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1919phae.proj.1187W

Very dull.

Saturday, December 27, 1919.

Examination of ac & ac Plates

Region $5^h\,00^m$ $-15°$

ac 22104, December 14, 1919, Exp. 58m
ac 15721, November 14, 1914, Exp. 62m
(22104 superposed on 15721)

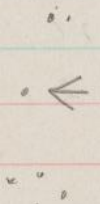
ac 22104 has many defects or stars not on comparison plates. There is no record of a second exposure. Many of these seem to be round, good images of stars. No very bright stars are in this second class of images.
Might there have been a second exposure?
Poor plates for comparison?
See note page 18
No objects of interest found.

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1919phae.proj.1187w

N on AC 22104

Probably Defect



ft. on 15721 Br on 22104

Apparently this is a defect or second exposure image superposed in the spot where the faint star would show.

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1919phae.proj.1187W

 See, also, page 14.

Monday, December 29, 1919.

Examination of AM & AC Plates -

Regim 7 $7^h 00^m$ $-15°$

AC 22098, December 10, 1919, Exp. 58^m
22125, " .18, ", Exp. 61

22125, better plate.

Comparison AC 22125, Dec. 18, 1919, Exp. 61^m
17121, Dec. 15, 1915, Exp. 66^m
(22125 superposed on 17121)

Several clusters on plate.
Regim is thick
See bright defects on AC 17121.

No objects of interest.

Time interrupted, about 80^m.

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N of AC 22125 near center of plate

Probably defect.

br. 22125 ft 22098
apparently defective film on 22098

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Selected on Thursday, January 1, 1920.
and completed on Tuesday, January 6, 1920.
Examination of Am & Ac Plates

Regions ~~16h 30m -60°~~

No plates at this region were found.
As this region has not been drawn,
I selected two plates at 15h -60°

15 00 -60°

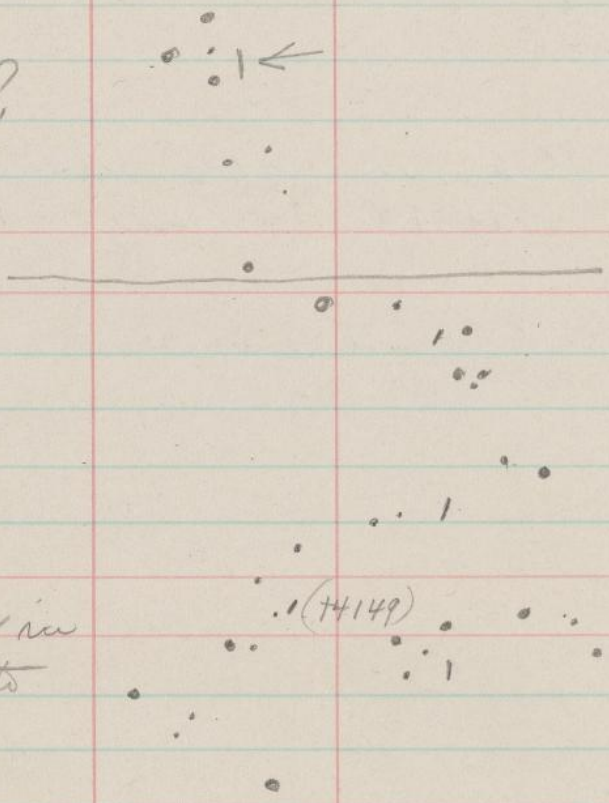
~~Am 14410 May 21, 1919, Exp. 44m~~
~~13420 July 18, 1917, Exp. 68~~
Am 14164 July 15, 1918, Exp. 67m
13388 July 11, 1917. Exp. 60m
(13388 superposed on 14164)

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1919phae.proj.1187W

N or anc 14164

Trail or Defect?



South Pole Effosure?

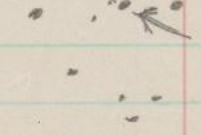
Other trails on some of the plates are in same relations to each other.

~~false image?~~

14149	July 12, 1918	Exp 60m
14158	July 14, "	Exp 74
14164	July 15, "	Exp 67
14166	July 15, "	Exp 74

false image?
Not on
14166
14158

N in anc 14164



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Friday, January 2, 1920.

Region $9^h\,00^m$ -15°

AC 22150	December 25, 1919	Exp. 60 m
19817	February 13, 1918	Exp. 97 m
	(22150 superposed on	19817)

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1919phae..proj..1187W

N on AC 22150

Var.

Identified by B39965

090024

$9^h 0.7 - 24^\circ 41' (1900)$

S Pyxidis

Cr. AC 22058 1919
22150 1919

ft. AC 19817 1918
20794 1918
AC 18460 1917

~~See 207.~~

See AC 20794 second exposure?
many images like stars, either defects
or second exposure.

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1919phae.proj.1187w

See page 24 for completion of plates already selected.

Tuesday, January 6, 1920. also Wednesday, Jan. 7, 1920.

New shipment recd from Peru.
Select latest plates of Milky Way regions.

Region $16^h 00^m$ -45°

Am 14951, August 25, 1919, Eff. 62^m
11942, June 10, 1916, Eff. 60^m
(11942 superposed on 14951)

?

Am 11942, are several elongated trails, probably South Pole Exposure?

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1910phot.proj.+1107W

Fine plate 9907
" " at −60°, 13112

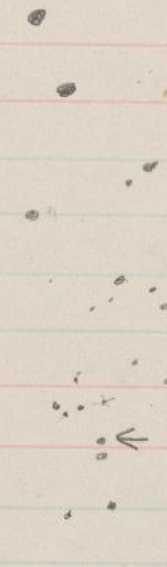
Enter suspected list

Not confirmed.
Var.?

Algol?

Iden. B 21141

CDM −38° 11490
16 55 31.2 −38 53.5 7.7



br. 11942 ft. Ara 14951
14880
" 12994
9907
9918
10213
11305
11557
11673
11710
12105
12117
12126
12994
B 21141

Continued Bk. 15, f. 71

Not very large range
but range in 14951 seems
all right — faint.

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30 V

Confirmed

Apparently a new Var.

Nr an AM 11942 (below center)

Var?
Algol?
E.A.D.
$-54^\circ 7757$

$16^h 25^m 19^s.8$
$-54^\circ 29'.2$ 2 den. B1936
9.4 (1875)
Prec. 2^s $-3'.2$

Seen 11942 Not seen, or extremely ft.
14880 14951
12994
13159

Continued, Bk. 15, p. 72

$16^h 27^m.3 - 54^\circ 32'$. (1900).

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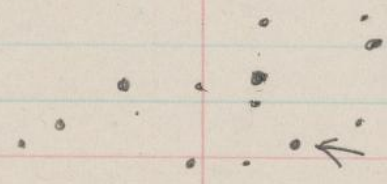
N on Ann 14951

(S following section of plate

Var.?

Algol?

17 26 57
RW Ara



-57° 8613 — Iden. by B21140 — Gr. 2299 4612 — Gr. 12117 14951 12994 14880 12126 12105 12290 12303 — ph. or N.S. 11942

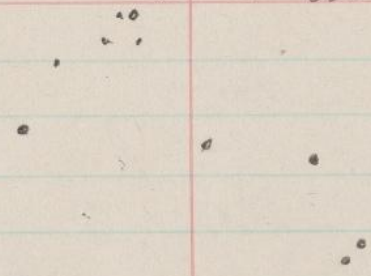
17h 26.3m -57° 5' (1900)

(Verified by iden.)

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N on Ann 14951



Where is this?

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1919phae.proj.1187w

✓

Var.? or defective image?

N on AM 14951

below center

Assume defective image on 14951

Normal on these plates, never faint.

Br. ~~14951~~ 12994

AM 6582	2299
6861	4773
6927	5529
6971	4612
6975	
7069	
7170	
7819	
8189	
8214	
12126	
12142	
12507	

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1919phae.proj.1187W

34 ✓

Nor Arr 14951

Var.
153454
H Normae

$15^h 34^m.6 - 54° 59' (1900)$
$-54° 6636$

Idem. B. 29443 Gr 14951 ft. 11942
12994

Verified by ~~ft~~
idem Br. Br.

Br.	ft.
4612	2299
4773	~~4778~~
4778 ?	5529
6927	*6582
~~6971~~	6861
7170	6971
7209	6975
	7069

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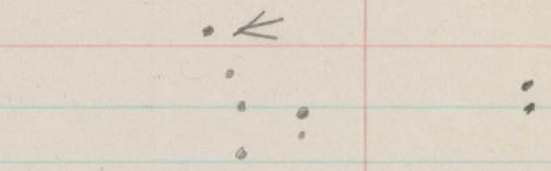
1919phae.proj.1187W

Extra exposure?

Non Am 11942

near S
prec. edge

extra star
near
edge.
Another
exposure?



Not on 14951
14880
Not on 12103 at -60°
July 1, 1916.

Assume false image?

See same(?) star, slightly displaced, on Am 12994.

N.S.
12303 -60°
13159 -60
13112 -60

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1919phae.proj.1187w

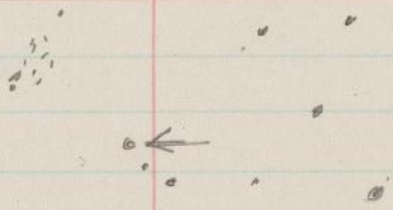
36 ✓

Assume defective on 14951

N on 14951

Var.?

Is it this defective image



11942
Br. ~~14951~~
12994
12290

fr. ~~11942~~ or defective 14951

Br. 2299
4612

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1919phae.proj.1187w

Thursday, January 8, 1920.

Examination of AM & AC Plates.

Region $8^h\ 00^m$ $-15°$

AC 22205 January 4, 1920, Exp. 5^m
~~17197~~
AM 10635 June 6, 1915, Exp 30^m
(22205 superposed on 10635)
1920 plate is very dark and poor.
No good AC plate of 1915 was at hand.

No objects of interest noted.

Time: about 25 m.

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1919phae.proj.1187w

1919 plate poor.
Repeat 1915 —

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1919phae.proj.1187w

Thursday, January 8, 1920.

Examination of AM and AC Plates.

Region $6^h\ 00^m$ $-15°$

AC 22184, January 2, 1920, Eff. $.56^m$
AM 12872, February 10, 1917, Eff. $.60^m$

Feb. 10, 1917, was chosen because an early plate, 1914 or earlier, could not be found. Apr, 1917, has already been used.

No objects of interest noted.

Time: abmt 30 mins.

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1919phae.proj.1187W

Use AC 19454, Nov. 1917, for comparison with a better plate.

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1919phae.proj.1187w

Thursday, January 8, 1920.
and Friday, January 9, 1920.
Examination of AM & ac Plates

Region $7^{h}\,00^{m}$ -15°

ac 22149, December 25, 1919, Exp. 65m
ac 15976, January 7, 1915, Exp. 66m
(22149 superposed on 15976)

Circle already marked on
ac 15976, near center.

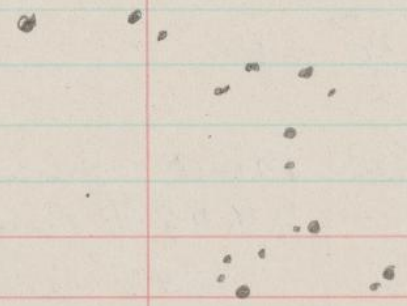
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1919phae.proj.1187W

N on AC 15976
(near N prec. corner)

061702

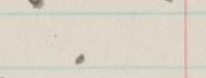
V Monocerotis
(see page 15, Bk. 9)
Ref. = ?



Not on 22149

N on AC 22149

Assume caused by defective film.



Not seen on 15976 but film is gone and star appears on AC 22076, Dec. 4, 1919.

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1919phae.proj.1187w

Friday, January 9, 1920.

✓ added to regions

Examination of Arc & ac Plates.

Regin $16^h 30^m - 60^\circ$

Arc 14811 June 28, 1919, Exp. 60^m
14890 August 4, 1919, Exp. 61^m
14945 August 22, 1919, Exp. 62^m

14890 is best plate

These plates should be compared separately as the dates are quite scattered, and the latest plate is not the best. See following pages.
In selecting the years to go with each plate, consideration has been made of the relative qualities of each — the plate showing 11 stars has been used with good plate.

Arc 14811 with Arc 11902
14502 with 14945
14890 with 12995

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See later

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Saturday, January 10, 1920.

Examination of AM & AC Plates.

Region $12^{hm}\,00 \quad -75^{\circ}$

AM 14937, August 21, 1919. Ef. 44m
AM 12294 August 3, 1916, Ef. 30m
(12294 Superposed on 14937)

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1919phae.proj.1187W

N on Cam 12294 S of center

Var. Nbr. on Cam 12149

Iden. by B38438

131283

N Octantis

$13^h 12^m.3 - 83° 4' 2$ (1900)

(See print)

Br. 14937 ft 14883 N.S 12294

14860 9034

12149 9095

Shown to Miss Cannon.

Note range on these plates.

N on AM 12294

Var.

near N prec. corner

105359

Iden. on B12988

N Carinae

$10^h 53^m.7 - 59° 1' 2$ (1900)

$-59° 2888$

(1891)

Roberts

Br. 12294 ft. 14937

Addf. by Cat. iden.

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1919phae.proj.1187W

Var.

N or Am 12294

Idem. by
B 12988

11 3966

RT Muscae
$11^h 39^m.8 - 66° 45'$ (1900)
Leavitt
(1906)

bn 12294

ft. 14937

C.P.D.-66° 1637
Verified by Cat. index.

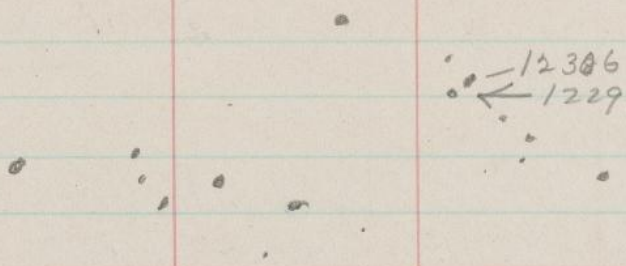
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1919phae.proj.1187W

?

N. on am 12294 near center.

Moving object.



12294 Aug. 3, 1916
12306 Aug. 5, 1916

on plates at 13^h30^m -60°
This region is too near edge to show ft. images.
am 12302 August 4, 1916
and 12307 Aug. 5, 1916
were looked up -

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1919phae.proj.1187W

50 The discovery of Nova Ophiuchi, No. 5, on Jan. 10, with subsequent determinations of plates, measures, etc.; interrupted further search of plate until Jan. 28.

Saturday, January 10, 1920.

also, Wednesday, January 28, 1920.

Examination of AW & AC Plates.

Region $17^h\ 00^m\ -30°$

AW 14938 August 21, 1919 Exp. 67m

13478 August 6, 1917 Exp. 64m

(13478 superposed on 14938)

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1919phae.proj.1187w

Pages 51 to 85 = Nova Ophiuchi, No 5

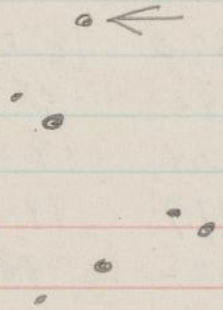
AM 14260 excellent plate

For other disputed objects, see page 86.

165030
RR Scorpii is noted on plates used in this study. Iden. by chart.

16h 48m -29° (1900)

Nova AM 13478 near centre of plate.



Not wrong object.

Nova? not on 14938 ~~not on~~

13689 Oct. 21, 1917.

Perhaps very faint. 13676 Oct. 14, 1917

13439 July 27, 1917 very ft. broken.

13433 July 20, 1917

13438 July 21, 1917

Use for identification B21926

13985 May 17, 1918 ft.?

14022 June 4, 1918

14037 June 6, 1918

14260 Aug. 4, 1918

13433 July 20, 1917

Seen — AM 13488 Aug. 9, 1917. } with marked decrease

13492 Aug. 10 much fainter }

13497 Aug. 11

13432 beginning to lighten

13113 May 12, 1917

13132 May 14, 1917

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1919phae.proj.1187w

5694 long exp.

Monday, January 12, 1920

8644 :
10427 excellent plate
14885 exc. pl.

star mean -29° 12990

No apparent change in ~~CDM -29° 12990~~, i.e. star marked 1 in diagram

nova
•-1
•-2

One cat. star is in this position, CDM -29° 12990. Later closer identification will prove whether it is star mk'd. 1 or 2.

CDM. -29° 12990 later identified as star mkd 2

AM	4378	1906	AM	7390	1911
	4392	1906		7401	1911
	4534	1906		8587	1912
	5377	1908		8644	1912
	5436	1908		8745	1912
	5474	1908		9059	1913
	5543	1908		9088	1913
	5622	1908		9106	1913
	6358	1909		9295	1913
	6388	1909		9351	1913
	7062	1910		9440	1913
	7075	1910		9856	1914
	7562	1911		9878	1914
	7628	1911		9887	1914
	1234	1902		9893	1914
	799	1901		10091	1914
	807	1901		10102	1914
	2486	1904		10106	1914
	5694	1908		10427	1915
	5749	1908		10435	1915
	5958	1909		10709	1915
	6182	1909		10715	1915
	6205	1909		10722	1915
	6250	1909		11679	1916
	6911	1910		11685	1916
	6935	1910		11698	1916

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1919phae.proj.1187W

Region 18-15 just of edge. 14165 excellent pl
14266 " "

am 11915	1916		am 13938	1919
11926	1916		14885	1919
12581	1916			
8882	1913		14513	L'
11942	1916		14526	L'
14260	1918	Aug. 4 p normal	14480	Oct. 3, 1918.
14022	1918		14142	July 11, 1918
13985	1918		14159	July 14, 1918
14037	1918			
12994 ~~12997~~	1917			
13022	1917 Apr. 16			
13040	1917 Apr. 18			
13941	1918			
14048	1918			
14061	1918			
14083	1918			
14132	1918	July 2, 1918 p normal		
14147	1918	July 12 " p "		
14139	1918	July 8 " p normal		
14165	1918	" 15 " p "		
14235	1918	" 30 " p "		
14266	Aug. 6, 1918	p "		
14292	L''			
14382	Sept. 7, 1918	n = .3		
14430	Sept. 24, "	Poor.		
14455	Sept. 29, "	p normal (just seen)		
14417		L'		
14424		L'		

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1919phae.proj.1187W

ft. fut brighter than normal

Am	13389	July 11, 1917
	13408	July 16, "
	13415	" 17, "
	13421	July 18, "
	13427	" 19 "

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1919phae.proj.1187W

Identification See B 51196

← Nova

~~CDM -29° 12990~~

CDM -29° 12990.

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1919phae.proj.1187W

51196 best plate

List of B plates, 1917.

B 49905	Apr. 12, 1917	Nova N.S. ^ -29 12990 normal	star near
49953	" 13, "	In extreme corner below film? N. S.	
50001	" 14, "	Nova N. S. ^ -29 12990 normal	star near
50018			
50019	" 15, "	" " " "	
~~50067~~	~~" 16, "~~	Off edge	
50468	May 15, "	Nova very br. Cat. st. not	Star near adjacent star
50523	" 17, "	Nova very bright Cat. st.	
50629	" 21, "	Broken, Nova very bright. Cat.	adjacent
50713			
50989	June 12, "	Nova faint. Cat. st. and	adjacent
51077	" 17, "	Nova faint Cat. st.	adjacent
51078	" 17, "	Nova faint. Cat. st.	adjacent
51134	" 19, "	Nova faint.	" "
51138	" 19, "	Nova faint.	" "
51175	" 21, "	Nova faint	" "
51177	" 21, "	Nova faint	" "
51194	" 22, "	Nova faint.	" "
51196	" 22, "	Nova faint	" "
51246	" 27, "	L'	
51427	July 14, "	Nova faint	" "
51430	" 14, "	Poor plate. Nova N. S	
51465	" 16, "	Nova very ft.	Cat. st.
51466	" 16, "	Nova very ft.	" "
51617	Aug. 5, "	L'	
52746			
50713	May 25, "	Nova faint	Cat. st. and

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1919phae..proj.1187W

Use B 51465 for meas. of position.

Star near
^ Cat. star -29° 12990, C.D.M., when seen does not show any apparent change on these plates. Is always about equal to 2 stars close by.

This is star No. 1, page 52. Cat. Star is star No. 2.

very faint, near edge

separated
not separated.
star covered by image.
other 2 not seen.
probably overlapping image of Nova.
clearly overlaps.
distinctly separate " Nova prec. and North.
probably overlaps.
not seen.
clearly overlaps
probably overlaps
distinctly separate.

distinctly separate
Cat. star N. S.
distinctly separate.
" "

other 2 not seen.

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1919phae.proj.1187W

Am Plates 1917.

	12920	Mar. 28	Normal
Am	12994	Apr. 13.	Nova N.S. Poor plate
	13040	April 18,	Nova N.S. adjacent ~~Sat.~~ st. seen.
	13022	Apr. 16,	Nova N.S. " " "
(date checked) max. →	13053	April 25,	Nova brightest Plate
	13113	May 12,	Nova fr. adj. ~~Sat.~~ st. covered by
	13132	May 14,	" " " " " "
	13140	May 15,	" " " " " "
	13179	May 21	Nova Br. " " " "
	13188	May 23,	" " " " " "
	13268	June 13,	" "(?) " " " "
	13283	June 15	" " faint.
	13310	June 19	" seen.
	13301	June 18	" "
	13382	July 9	L'
	13389	July 11	Nova seen.
	13403	July 15	Nova fr. or N. S
	13408	July 16	" "
	13409	July 16	" very fr.
	13415	July 17	" " "
	13421	July 18	" fr.
	13427	July 19	" "
	13432	July 20	" "
	13433	July 20	" " or N.S. near edge.
	13438	July 21	" " " " "
	13439	July 27	N.S.
	12455	July 31	L'

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1919phae.proj.1187w

at -45°
image
"
"
" near edge
"
"

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1919phae.proj.1187W

Ane Plates, 1917.

Ane	13459	Aug. 2.	2'.
	13463	Aug. 3	2'
	13464	Aug. 3	2'
	13466	Aug. 4	2'
	13478	Aug. 6.	Nova very bright.
	13488	Aug. 9	Nova bright.
	13492	Aug. 10	" fading
	13497	" "	" ft. but seen, brigh
	13676	Oct. 14.	" ft. or ~~Cat.~~ adjacent Star only?

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1919phae..proj.1187W

ter than adj. stars

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1919phae.proj.1187W

Thursday, January 15, 1920.

Estimates made on June 10, 1920.

Nova (?) $16^h\ 48^m\ -29°$

Estimates ent. in brackets, i.e. letter given, is faintest star seen. Magns. used, See Bk. 8, page 122. note made June 10.

B Plates examined. No trace of Nova. On most of these plates the three adjoining stars are noted, with no apparent change. The remaining plates are too poor to show as faint stars as these three stars. ← note made Jan. 15.

Dates taken directly from plate covers.

$n=<14.1$	(u)	10059	Aug. 1, 1893	
$n=<14.1$	(u)	13490	June 6, 1895	
$n=<13.0$	(s)	11698	July 30, 1894	
$n=<14.1$	(u)	13983	July 8, 1895	
$n=<15.3$	(x)	19439	June 8, 1897	
$n=<13.7$	(t)	19684	July 1, 1897	
$n=<14.1$	(u)	19062	May 10, 1897	
$n=<14.7$	(w)	19195	May 25, 1897	
$n=<14.1$	(u)	19162	May 22, 1897	
		13311	May 11, 1895	(u) $n=<14.1$
		13312	May 11, 1895	(u) $n<14.1$
		12844	March 5, 1895	(q=.1) $n<12.3$
		12826	Feb. 22, 1895	Too poor. ..
		12917	Apr. 6, 1895	(u=.1) $n<14.2$
		18592	March 6, 1897	(w) $n<14.7$
		18713	March 29, 1897	(t) $n<13.7$
		18771	Apr. 7, 1897.	(s=.1) $n<13.1$
		18882	April 21, 1897	(w) $n<14.7$
		18438	Jan. 29, 1897	(w) $n<14.7$
		22506	Apr. 6, 1899	(s=.1) $n<13.1$
		15869	May 13, 1896	(r=.2) $n<12.7$
		16539	June 30, 1896	(r=.2) $n<12.7$
		26009	Sept. 5, 1900	(u) $n<14.1$
		25464	May 25, 1900	
		7672	May 17, 1892	(r) $n<12.5$

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1919phae..proj..1187W

B plates examined

B 6073	May 28,	1891	(r=.2)	n=<127
13867	July 1,	1895	(w)	n<147
13987	July 8,	1895	(s)	n<130
15873	March 2,	1896	(t)	n<137
15431	March 16,	1896	(r=.2)	n<127
15525	April 6,	1896	Too poor ..	
15607	Apr. 13,	1896	(u)	n<14.1
15703	May 4,	1896	(t)	n<137
15943	May 22,	1896	(x)	n<153
15988	May 29,	1896		
16095	June 3,	1896	(s=.2)	n<13.2
16393	June 16,	1896	(r=.1)	n<12.6
16442	June 19,	1896	(x?)	n<153
16615	July 2,	1896	(s)	n<13.0
16879	July 17,	1896	(t=.1)	n<13.8
17076	Aug. 7,	1896	(s=.2)	n<13.2
17233	Aug. 25,	1896	(u)	n<14.1
17503	Sept. 30,	1896	(w)	n<14.1
17723	Oct. 28,	1896	(r=.1)	n<12.6
19481	June 9,	1897	(u)	n<14.1
20475	Sept. 21	1897	(t=.1)	n<138
30052	June 16,	1899	(u)	n<141
28361	July 8,	1899	(t)	n<137
28356	Aug. 26	1901	(s)	n<13.0
30533	Aug. 11,	1902	(u)	n<14.1
31430	Apr. 16,	1903	(u)	n<141

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1919phae.proj.1187w

See previous image B 15589
Specially good B pl = 34295

Compare 34295 with actual image of Nova,

B Plates examined

B 33384,	April 16, 1904	(q = .2)	$n < 12.4$
33965	June 3, 1904	(w)	$n < 14.7$
20281	Sept. 13, 1897		
26481	Oct. 24, 1900	(u = .1)	$n < 14.2$
26489	Oct. 25, 1900	(w)	$n < 14.7$
33890	May 31, 1904	(t)	$n < 13.7$
34295	July 6, 1904	(z)	$n < 15.8$
35763	April 5, 1905	(s)	$n < 13.0$
39890	Feb. 23, 1909	Two exp., reject	
~~41364~~			

(faintest stars seen) *

Continued, page 66

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1919phae.proj.1187W

Estimates entered on June 15, 1920.

Friday, January 16, 1920.

See 3825
Does Nora appear, ft.?

A 3832 marked -

List of A Plates

	A 2660	Aug. 23, 1897	Broken near extreme N. edge.
	2826	Oct. 14, 1897.	
	3221	Aug. 8, 1898.	
Z=.1	8x10 3698	July 10, 1899	
Z=.1	3825	Aug. 11, 1899.	
Z=.2	3826	Aug. 11, 1899.	
Z=.1	3827	Aug. 11, 1899	
Z=.2	3828	Aug. 11, 1899.	— see object near
Z seen	8x10 3829	Aug. 11, 1899.	
Z seen	3830	Aug. 11, 1899	
Z=.1	3831	Aug. 11, 1899.	
Z=.1	3832	Aug. 11, 11899.	
	4771		
	5625	Sept. 4, 11901.	Nbs. comp st.?
	5642	Sept. 10, 1901	Good pl. tenuis
	5708	Oct. 9, 1901.	
	~~6042~~	does not cover.	
	~~6043~~	" " "	
	6509	Aug. 19, 1903.	
	10052	May 2, 1910	
	10121	June 7, 1910	Best plate, near edge.
	10207	July 29, 1910	No plate. Has been sent to Kapteyn.

9684 spectrum A pl. — broken.

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1919phae.proj.1187W

Examine B5919.
5196

Estimates entered on
June 10, 1920.

Add. list of B plates Nova not seen.

B 5336	May 29,	1890.	(q)	$n < 12.2$
5392	June 9,	1890	(r=.1)	$n < 12.6$
9848	July 21,	1893	(r)	$n < 12.5$
16638	July 3,	1896	(q)	$n < 12.2$
~~17713~~	~~Oct. 29,~~	~~1896~~	Does not exist.	
29261	April 2,	1902	(q)	$n < 12.2$
30104	June 17,	1902	(q)	$n < 12.2$
31478	April 17,	1903	(r=.1)	$n < 12.6$
33331	April 12,	1904	(q)	$n < 12.2$
33758	May 14,	1904	(t=.1)	$n < 13.8$
33851	May 25,	1904	(s)	$n < 13.0$
34008	June 7,	1904	(w)	$n < 14.7$
38943	May 19,	1908	(s=.1)	$n =< 13.1$
41364	May 28,	1910	(s)	$n =< 13.0$
41626	July 14,	1910	(r)	$n =< 12.5$
43189	June 8,	1912	(w)	$n < 11.2$
43353	July 21,	1912	(s)	$n < 13.0$
43708	May 24,	1913	(q)	$n < 12.0$

18489	Feb. 2,	1897	(r=.2)	$n < 12.7$
11999	Aug. 24,	1894	Broken Sl. 689	
15656	April 23,	1896	Broken Sl. 699	
11900	August 14,	1894	Broken Sl 2290 (s)	

5919

B 21926 Sept. 5, 1898. B (?)

25464, May 15, 1900 (w) <14.7

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1919phae.proj.1187W

Early B plates

B 597 Cl. D
606 Cl. G
615 Cl. G.
1294 Cl. D

} Valuables.

B ~~21926~~ } ~~Plates not found~~ -
~~25464~~

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1919phae.proj.1187W

164829

For enlargement ~~A 5642 or A 2826 or 3827~~ A 3825 ~~3826 ft. st.~~

Comp. stars selected, in numbers, on ~~A 3698~~ A 3826 B 20281

Vol. 50 and other ~~bright~~ stars marked on B 17076

MF of region = MF 3932

Reference Sequence plate = B 44596 = 35 Ks.

Magn. of 35 Ks, ~~Bk.~~ (Bk. 34, p. 113. (Bk. 48, p. 130. superseded

Identification, B 21926.

For orientation, see B 17076

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1919phae.proj.1187W

Find
B 50067

Tuesday, January 20, 1920.

Later, inter changed 5 & 6.

Maxima readings of Nova

See a3826

Using Nova Seq.

Brightest

Miss L. = 9.0 Magn. on B 50523, May 17, 1917, = ~~1 to 2~~ 3 1 7, N 34,
9.1 B 50629, May 21, 1917, = about = 6 ? = 9.0

.. prec. this, AM 13113, May 12, 1917, = 8 1 N, N 29,
.. 13132, May 14, " = 7 1 N, N 18,
9.3 13140, May 15, " = 5 3 N, N 27 = 8.8
8.9 13179 May 21, " = about = 6 = 9.0
est. D.E.W. made Jan. 22 8.5 13147 May 16, " 42 N 35 Corrected = 8.3

9.2 (second max in Aug.) 13488 Aug. 9, 1917 = 45 86.8 N, 89.2 6 = 8.80

recent magn. } on MF 3932, June 23, 1919, compared with 35 Ks sequence on B 44596, star 14 barely seen.

Star 14, Bk. 34, p. 113, = 13.4 (?)

see Miss Leavitt's ~~estimates~~ measures, Bk. 42, H. & L., p. 66.

Added on Jan. 22.

most recent plates before AM 13113 are AM 13040, April 18, 1917, star 12 is barely seen. Star 12 = (Bk. 34, p. 113) = 12.7

Miss L.

Brightest 6.7

AM 13053 April 25, 1917, a little brighter than star 1. = 6.4 or 6.5 ?

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1919phae.proj.1187W

Nova 164829
Estimate of plate in 1917, August
Am 13478, August 6, 1917

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1919phae.proj.1187W

Friday, January 23, 1920.

Estimate of ft. star which follows Nova
1.1 S and S Smith 7", marked b in
Bk. 8, page 33
Compared with 35-Ks sequence
AM 10427 star 102 b, b 210,

star 102 b, b 311

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1919phae.proj.1187W

Friday, January 23, 1920.

Nova 164829

Continued examination of plates.
Plates at -15°
No trace of Nova, on plates not 1917.
AC 21561 June 28, 1919

Am 9820 June 3, 1914
9879 " 19, "
9912 " 30, "
9934 July 13, "
9982 " 24, "
10047 Aug. 12, "
10079 Aug. 20, "
10080 " 20, "
10090 " 24, "
10126 Sept. 15, "
10145 " 18, "
10612 June 3, 1915
10758 July 4, "
10763 " 9, "
10804 " 14, "
10820 " 16, "
10936 August 2, "
11686 May 8 1916
11699 May 10, "
11803 May 25 "
11844 May 28, "
11860 May 29, "

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1919phae.proj.1187W

Continued

am	12137	July 4, 1916
	12207	July 17, "
	12227	
	12234	July 21, "
	12240	July 22, "
ac	17510	April 10, 1916
	17661	Too poor.
	17694	June 29, 1916
	17786	August 15, "
	18609	Feb. 24, 1917
	18810	Too poor.
	18893	June 17, 1917.
	18923	June 27, "
	19018	Too poor
	20167	June 3, 1918
	21207	Too poor.
	21243	Too poor.
	21254	March 9, 1919
	21364	April 21, "
	21373	April 22, "
	21566	June 29, "

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1919phae.proj.1187W

Friday, January 23, 1920.

Nova. 164829

Plates at -45°
No trace of Nova.
Am 14487 Oct. 4, 1918
14479 Oct. 3, "
~~144~~
12498 Sept. 27, 1916
12507 Sept. 28, "
13005 Apr. 14, 1917
13081 " 15, "
13021 " 16, "
13986 May 17, 1918
13994 May 18 "
14148 July 12 "
14127 July 1, "
14456 Sept. 29, "
14461 Sept. 30, "
14678 Too poor. Trails

10096 Aug. 28 1914
~~10092~~ 10092 Sept. 8 1914
10084 Aug. 21 "
10087 Aug. 22, "
9989 July 25, "
10020 Aug 3 "
10021 Aug. 3 "
10031 Aug. 7 "
9935 July 13 "

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Excellent plates Am 11815 12342 8395, See defect? on 11815 Compare with 12920

Saturday, January 24, 1920.

Nova

Plates at -30°
No trace of nova

Am	11815	May 26, 1916	
	11826	May 27, 1916	
	11843	May 28, "	pn = .2
	11875	June 2, "	p normal
	12920	Mar. 28, 1917	
	12592	Oct. 16 1916	n = .1
	12497	Sept. 27, 1916	n = .1
	12461	Sept. 20, "	n = .1
	12342	Aug. 17, "	
	8395	July 5, 1912	o normal
	8468	July 17, "	n = .4 o not seen < 11.6
	8516	Aug. 1, "	l = .2 m n.B. < 10.5
	8517	Aug. 1, "	o has defect in glass a/p/p cut acute normal.
	8574	Aug. 28 "	o normal
	8935	May 23, 1913	n = .2
	8943	May 24, "	o normal
	8991	June 2, "	n = .2
	9026	June 7, "	n = .1
	9145	July 1, "	Too poor.
	9151	July 2, "	Too poor.
	8565	Aug. 19, 1912	
	11110	Sept. 9 1915	p normal
	14480	Oct. 3 1918	p normal

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1919phae.proj.1187w

12116 measure?

Nova 164829

Plates at -30°

9167	July 4,	1913	m = .2
9221	Too poor	Trails	
9263	July 27,	1913	l = .3
9454	Sept. 16,	"	m = .2
9500	Sept. 26,	"	m = .1
9812	Too poor		
9819	June 3,	1914	p normal
9897	June 24,	"	m = .2
9933	July 13,	"	p normal
9946	July 16,	"	m barely seen
9995	July 27,	"	l = .2
10041	Trails. Too poor.		
10046	Aug. 12,	1914	l = .2
10089	July 24,	"	l = .1
10137	Sept. 17,	"	p normal
10183	Oct. 9,	"	m = .1
10435	Apr. 18,	1915	p normal.
10557	May 6,	1915	
10569	Too poor		
10656	June 10,	1915	p normal
10740	July 2,	1915	m barely seen.
10779	July 11,	"	p normal
10787	July 12,	"	m = .2
10811	July 15,	"	p normal
10819	July 16,	"	l = .3
10901	July 29,	"	p normal
10919	July 31,	"	p normal

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1919phae.proj.1187w

Nova.

Am 12116	July 2, 1916	
12126	July 3, "	p normal
12141	July 5, "	p normal
11316	Oct. 5, 1915	p normal
11782	May 23, 1918	m = .2
8327	June 12, 1912	m = .1, m NS < 10.8
8343	June 14, "	m = .1 or not distinguishable, < 11.3
8071	Apr. 17, "	Too poor
8179	May 11, "	Too poor
8181	May 11, "	Too poor
8220	May 21, "	m = 1
(see p. 75) 8395	July 5, 1912	p normal
8587	Sept. 2, 1912	l = .2 Plate poor.
8644	Sept. 16, 1912	m barely seen.
9059	June 11 1913	m = .2
9088	June 23 "	p normal
9106	June 25 "	m = .1
9295	Aug. 2 "	p normal
9351	Aug. 18 "	m barely seen.
9440	Sept. 9 "	p normal
9856	June 12 1914	p normal
9878	June 19 "	l = .1
9887	June 22 "	m barely seen.
9893	June 23, "	p normal
10091	Aug. 25 "	m barely seen
10102	Poor plate	

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Ann. 164829

The trace of Nova

Plates at -45°

Ann 9942	July 15,	1914
9969	July 22,	"
9894	June 23	"
9926	July 10,	"
11145	Sept. 13,	1915
11155	Sept. 14,	"
11000	Aug. 15,	"
10992	Aug. 14,	"
10812	July 15,	"
10690	June 17,	"
10602	June 2,	"
11774	May 22,	1916
7170	Aug. 1	1910
7209		Too poor
7221	Aug. 27,	1910
7310	Sept. 24,	1910
7394	Apr. 22,	1911
7405	Apr. 30,	1911
7411	May 2,	1911
7452	June 15,	"
7461	June 17,	"
7469	June 23,	"
7495	June 27,	"

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1919phae.proj.1187W

Hora.

Plates at -45°

Ann	7515	July 5, 1911
	7541	July 13, "
	7544	July 14, "
	7567	July 18, "
	7607	July 23, "
	7625	July 31, "
	8870	May 5, 1913
	8890	May 9, "
	8913	May 15, "
	8952	May 26, "
	8984	May 31, "
	8606	Sept. 6, 1912
	8634	Sept. 13, "
	8731	Oct. 19, "
	8844	Apr. 30, 1913
	7629	Aug. 1 1911
	7638	Aug. 2, "
	7675	Aug. 15, "
	7743	Sept. 12, "
	7819	Sept. 23, "
	8112	April 23, 1912
	8189	May 17, "
	8214	May 20, "
	8237	May 23, "
	8246	May 24, "
	8263	May 27, "

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Nova 164829

Plates at −45°

Ann	8282	June 4, 1912
	8294	June 6, "
	8334	June 13, "
	8361	June 17, "
	8389	July 4, "
	8462	July 16, "
	8494	July 20, "
	8998	June 3, 1913
	9038	June 9, "
	9061	June 11, "
	9098	June 24, "
	9115	June 26, "
	9162	July 3, "
	9182	July 8, "
	9375	Aug. 28, "
	9387	Sept. 1, "
	9405	Sept. 4, "
	9505	Sept. 27, "
	9533	Oct. 2, "
	9554	Oct. 6, "
	9802	May 29, 1914
	9806	May 30, "
	9818	June 2, "
	9883	June 20, "
	9231	July 23, 1913
	9238	July 24, "

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Nova.

9296 August 2, 1913
10138 Sept. 17, 1914

14951 Aug 25, 1919.

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Nova 164829

Spectrum plate of region,
α 9684, Brobeck. (1909 plate)

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Plates at −30° No trace of Nova.

Ann 7	562	July 17, 1911	n seen
	628	July 1 "	
	707		Too poor
	742		Too poor
	825	Sept. 24, 1911	n seen
	871		Too poor

	11679	May 7, 1916	p normal
	11685	May 8 "	p normal
	11698	May 10 "	p normal
	11826	May 27 "	n = .5
	11915	June 7, "	p normal
	11926	June 8, "	p normal

Ann 9		July 25 1899	p normal
	136	Sept. 6, 1899	p normal
	180		Too poor.
	394	Mar. 29, 1900	n = .1
	453	May 7, 1900	p normal
	523		Too poor.
	613	Sept. 1 1900	p normal
	643	Sept 11 "	n seen
	784	May 13 1901	n = .1
	799	May 22, "	n seen
	804	May 27, "	p normal
	904	July 6, "	p normal
	906	July 9, "	n seen
	945	July 25, "	p normal

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164829

Plates at -30° cont.

Ane	10106	Sept. 10, 1914	f normal
	10427	April 17, 1915	f normal
	10557	May 6, "	f normal
	10709	June 19 "	f appreciably
	~~10715~~		normal, very faint
	10715	June 20 "	f normal.
	10722	June 21 "	f normal
	12342	Aug. 17 1916	f normal
	4891	June 3, 1907	f normal
	4960	July 2 "	" "
	5000	" 15 "	" "
	5095	Aug 26 "	" "
	5322	March 14 1908	" "
	5330	Mar. 25 "	" "
	5377	April 8 "	" " Barely seen.
	5436	May 6 "	" "
	5474	" 19 "	" "
	5543	June 7 "	~~m~~ = .1
	5622	July 3 "	f normal
	5694	July 27 "	" "
	5749	Aug. 14 "	" "
	5958	Feb. 23 1909	m barely seen
	5999	Too faint	
	6004	Mar. 28 1909	f normal
	6070	April 25 "	" "

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1919phae.proj.1187w

Continued, Bk. 8 p. 136.

Plates at - 30°

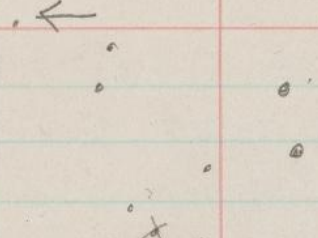
Arc	6095	May 8, 1909.	n = .2
	6111	May 11, "	
	6182	Too poor.	
	6205	June 9, 1909	n = .1
	6250	June 19 "	p normal
	6334	July 10 "	p "
	6342	Trailed images Too poor to include.	p. normal
	6358	July 15, 1909	p normal
	6388	July 21 "	p normal
	6415	July 26, "	p normal
	6439	July 5 "	n = .3
	6862	April 4, 1910	p normal
	6911	Too poor.	
	6935	May 27, 1910	n = .1
	6957	May 30, "	p normal
	6988	June 4, "	n seen
	7101	July 9, "	n = .1
	7256	Sept 3 "	n seen
	7410	May 2, 1911	n = .2
	7462	June 17 "	p normal
	7062	July 2, 1910	p normal
	7075	July 5, "	n = .2
	7390	April 10, 1911	p normal
	7401	Apr. 26, "	n = .1
	7539	July 13, "	n = .1
	7542	July 14 "	n seen

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Examine on later plates - 365°

N or a M 14938, Aug. 21, 1919.
near (N) top of plate.



Defect?

Image is not like other stars in this portion of plate.

~~Center at 15° Not on~~ ~~AM 14812, June 28~~

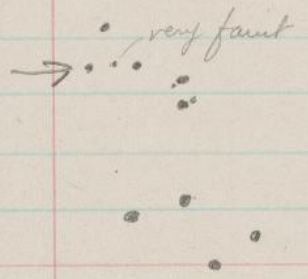
Not on Am 14812, June 28, 1919, Center at −15°
" " 14815 June 29, " " " " "
" " 14923 August 16, " " " " "
" " 14867 July 25, " " " " "
" " 14823 July 2, " " " " −30°
" " 14875 July 31, " " " " −30°

Apparently not a moving object.

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?
AI Scorpii

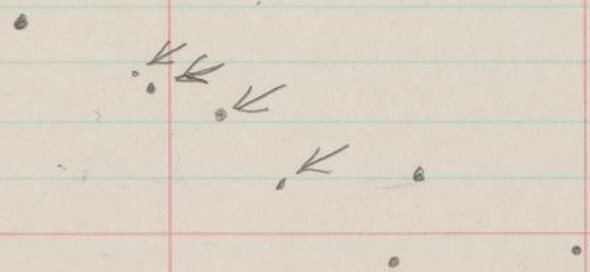


Not seen on Ann 13478
Seen on Ann 14938
Bright on Ann 14855 July 21, 1919.
Ft (?) on Ann 14869 July 26, "
Seen on Ann 14854 July 21, "
" " Ann 14864 July 24, "
" " 14881 Aug. 1, "

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Near S. edge of Plate 13478



Probably defective film near edge

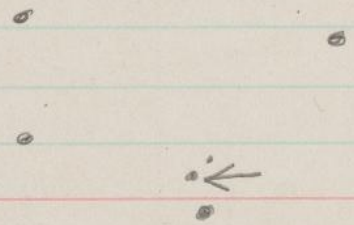
?

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Near S edge of AM 13478 Near number.

Another exposure?



on AM 13488, Aug. 9, 1917



position changed a little.

Not seen on 14808 June 26, center at -45°
14880 August 1, 1919. -45

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Thursday, January 29, 1920.

Examination of Au & ac Plates

Region $15^h\,00^m - 30^\circ$

Aus 14 ~~8~~ 9 15 14 August 15, 1919, Eq. 60^m

~~14043 June 7, 1918, Eq. 61^m~~

14020 June 4, 1918, Eq. 62^m

(14020 superposed on 14918)

14043 north part of plate, poor focus, does not show faint stars.

I found 14043 too poor for comparison with the better plate of 1919. Used 14020.

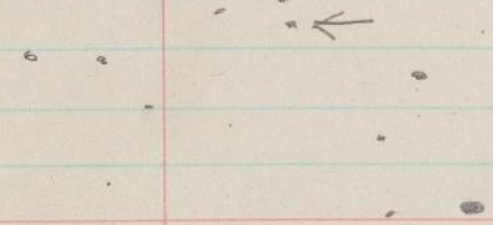
The 1918 plates show the short trails noticed on other plates. Is this a South Pole exposure?

Faint variables would not be noted on these plates because 1919 plate shows much fainter and more stars than other plate.

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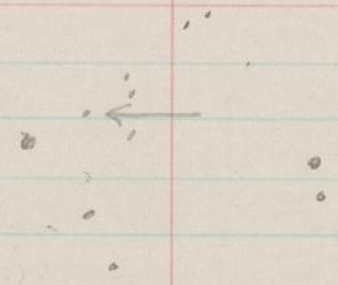
N? on AM 14020



Not seen on AM 14918

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1919phae.proj.1187W



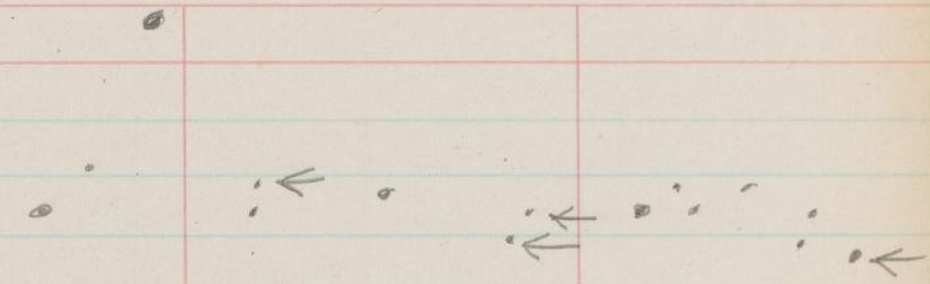
Br. 14918
(a faint star

N.B. 14020

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extra images



all on am 14020
not on am 14918

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not cat. in ~~Astindex~~.

Thursday, January 29, 1920.

Not a M.W. region, on edge.

Examination of AM & AC Plates.

Region $13^h\,00^m$ $-30°$

AM 14917 August 15, 1919, Eff. 60^m
14065 June 13, 1918, Eff 66^m

See bright defect on 1918 plate, near centre.

14065 has a great many small defects that look very much like stars. Have looked up several of these, comparing with 14041, but have not marked all for numbering.

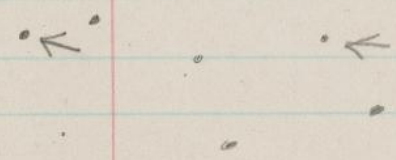
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Stars near edge

N on 14065

Number near ~~to~~ end of plate.



Not on AM 14917

not on AM 14041, June 7, 1918.

other stars are on 14041 not on 14917

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1919phae.proj.1187W

Nov Am 14065

. near center of plate

- ←

•. short trail.
confirmed by
Am 14041

• but there are

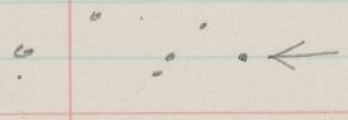
• other trails on
both plates which
coincide; not in
relation to the
stars but in
relation to their
relative positions
on the two plates

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Not on 14065

Defect probably.



not on 14917
but is probably a defect.
other similar defects nearby are marked but not plotted on this page.

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1919phae.proj.1187W

Nov Aur 14917

122525

Metcalf.

br. on 14917

fr. on 14065
14041
12849 1916
12980 : 1917

Bright on
Aur 1283.
See ledger
for max. dates.

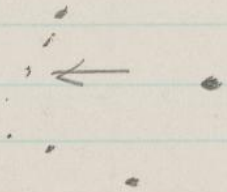
At maximum on Aur 14917.

Plates at max - from Ledger -
676
783
1283
2116 etc -

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N on Ann 14065



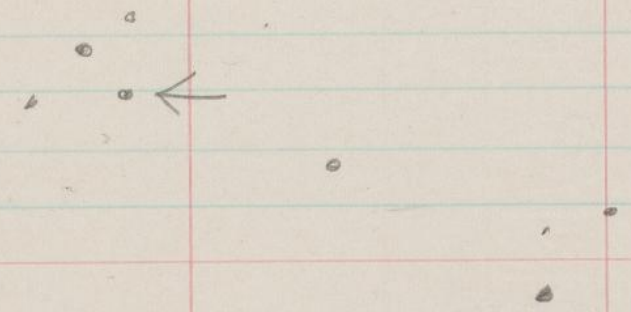
Probably defect.

not on Ann 14 641
June 7, 1918

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λ on AM 14065



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1919phae.proj.1187w

Not on 14065

Defect, probably.

Not on 14917

Not on 14041, June 7, 1918. Is not quite like other images. Probably defect -

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1919phae.proj.1187W

Monday, February 2, 1920.

Examination of aw & ac Plates.

Region 1800 -45

aw 14939. August 21, 1919, Eff. 52m
12614 Oct. 18, 1916, Eff. 30m
(12614 superposed on 14939)

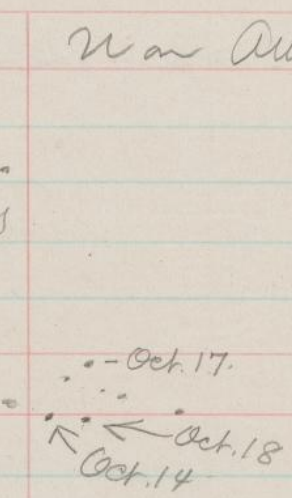
12614, away from center, images are poor focus.

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1919phae..proj..1187W

Near center of plate. Nov Am 12614

Moving Object ?

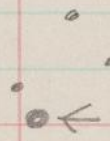


Am 12582 Oct. 14, 1916.
12599 Oct. 14, "
12614 Oct. 18, "

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1919phae.proj.1187w

Near N edge of plate N on Ame 14939



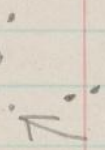
Large, hazy object on Ame 14939
Not shape of stars in vicinity.
Not on

→ (Compare this with 14934 when both plates can be found at same time)

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1919phae.proj.1187W

Non Ann 14939



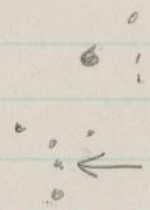
Nova Sagittarii
No. 5
see Bk. 7,
page —

Nova quite faint in August, 1919.

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1919phae.proj.1187w

Nov Ann 12614



var.

180048

-Telescopii br. on 12614 very ft on 14939

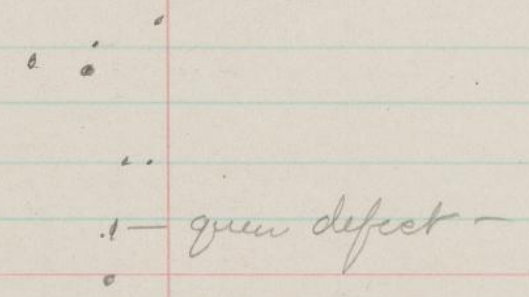
1901 Fleming.

CDM. -48° 12910 18 0.1 -48 44 (1900)

Verified by iden.

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1919phae.proj.1187w

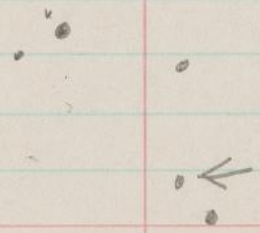


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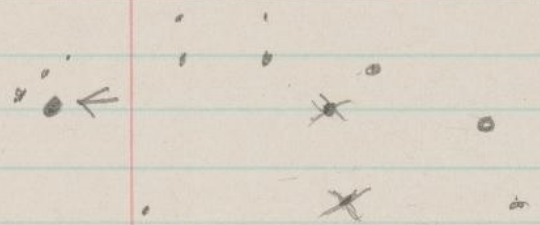
1919phae.proj.1187w

Stars near edge.

Nm Am 12614



on 12614 not on 14939



on 12614 not on 14939.

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Monday, February 2, 1920.
and Tuesday, February 3, 1920.

Examination of AH & AC plates.

Region AH 12h 00m - 45°

AH 14888, Aug. 4, 1919, Exp. 31m
11870, June 2, 1916, Exp. 60m
(11870 superposed on 14888)

Time: about 50 minutes.

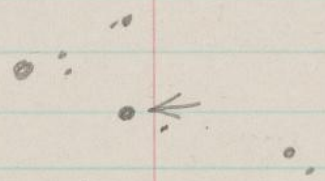
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Extra Star near edge.

N on Ann 11870

Near number end of plate.



Not on Ann 14888

Not on Ann 11939, June 10, 1916.

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1919phae.proj.1187W

Tuesday, February 3, 1920.

Examination of Am & ac Plates.

Region α 16^{h} 00^{m} -45°

Recent plates.

Am 14808, June 26, 1919, Eff. 57.^{m}

14880, August 1, 1919, Eff. 64

Not examined, because Am 14951, August 25, 1919, was examined. See page 28.

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114 See also object at 18 3.2 (1900) -32.1, not known var, near CDM -32° 13811

See Bk. 15, p. 76. Proves to be prismatic companion.

Tuesday, February 3, 1920.
and Wednesday, February 4, 1920.

181 39.0 -32 6.3 (1875) found on B32352 on April 17, 1920 U.S.N. B22478

Examination of Arc & Ac Plates

Region 17h 00m -45°.

Arc 14864, July 24, 1919, Eq. 62m
(11155 Sept. 14, 1915)
(11155 superposed on 14864)
plate 1915 too poor for comp. with the good plate of 1919.

14864, July 24, 1919
10213, Oct. 20, 1914, Eq. 62m
(10213 superposed on 14864)

prec. part of 10213 is poor, bad focus & trails, but center is better.
This plate is also not good enough for comparison. So a good plate must be looked for, even earlier date.

Exam. made { Arc 14864 July 24, 1919. Eq. 62m
3762, August 8, 1905, Eq. 67m
Very dense region

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16h-30 does not cover
For other objects in this region, see pages
130 & 131.

pages 115 to 129
Nova Sag., 6.

Nr an Aur 3762

B 32353
Identity ∧
Near N. E. corner

Found Feb. 4.
Nova?

Not a known
variable.

	Plates of immediate dates	Not seen on Aur 14864 (Dec. Center of Pl.)	
18h 2.0m	Not seen	Aur 3703 July 10, 1905	
−32.°5	Seen, bright,	3810 Aug. 19, "	
(Approx. 1900)	" faint	3822 Aug. 22, "	
	Gone	3873 Sept. 9, "	
	* Bright	3750 July 27, "	−15° broken Sl 2811
	Fairly bright	3775 August 10, "	−45°
	Gone	3859 Sept. 7 "	−45°
	Not Seen	3922 Oct. 2, "	−45
	Not Seen	3732 July 24, "	−45
	" "	3689 July 5, 1905	−30
	* Bright	3802 August 18, 1905	−30
	Not Seen	3883 Sept. 16, 1905	−30
	Bright	3792 August 17, 1905	−15°
		3811 Aug. 19, 1905 (−15)	−11° Does not cover
	Bright	3801 Aug. 18, "	−15 Br. Sl. 3032
	Not seen	3890 Sept. 18, 1905	−15°
	Not seen	3614 June 10, 1905	−45
Found on this plate	Bright	3762 Aug. 8, "	−45
	Bright	3764 Aug. 8 "	−15
	Not seen	3891 Sept. 18 "	−15

3703 July 10
3711 July 11
3732 July 24
3742 July 26
3750 July 27
3762 Aug. 8
3764 Aug. 8
3775 Aug. 10
3792 Aug. 17 - Brighter?
3801 Aug. 18
3802 Aug. 18
3810 Aug. 19
3822 Aug. 22
3859 Sept. 7
3873 Sept. 9
3883 Sept. 16

B Plate, showing Nova, see page 122.

	Seen, faint.	Aur 3743 July 26, 1905	−15 — Or is this in Aur 3743?
		3711 July 11, "	−15
		3720 July 12, "	−30

For AC plates of these dates, see p. 42

N. S.

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1919phae.proj.1187W

Excellent Mult. image pl. of region = 86.95.

Nova? $18^h\ 2.0^m - 32.5^\circ$ (approx. 1905)

two ft. stars near show.

Nova? not seen. On many of these plates, the Plates immediately before and after August, 1905.

Dates taken from plate covers.

Aw 2873 July 23, 1904
2990 August 31, "
3050 Sept. 19, 1904
3058 3082 Sept. 29 " Sept. 20, 1904
3110 Oct. 5, "
3112 3124 Oct. 11, " Oct. 6, 1904
3129 Oct 12, "
3392 6695 March 17, 1905 July 7, 1905 Cl. C.
3405 3406 Mar. 28, 1905 Mar. 28, "
3420 3436 Apr. 2, "
3480 Apr. 28, "
3507 May 9, "
3524 May 11, "
3552 May 22, "
3579 3616 June 7, June 10, " Broken Sl. 3123
3649 June 20, "
3654 June 20, "
3655 June 22, 1905. Broken. Sl. 3133
3928 Oct. 5, "
4174 Apr. 24, 1906
4249 May 22, "
4273 June 1, "
4329 June 16, "
4367 July 2, "
4455 Aug. 6, "

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Find 3673 18-30

Nova?

N. not seen

Ann 4486	August 10, 1906
4590	Sept. 22, 1906
4612	Oct. 9, "
4773	April 18, 1907

3762

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1919phae.proj.1187W

Nova - 180232

Nova(?) Not seen on these plates.

Plates at -45°

Aur 67	Aug. 5,	1899
73	Aug. 7,	"
80	Aug. 8,	"
124	Aug. 31,	"
225	Oct. 14,	"
366	Feb. 20,	1900
411	Too poor.	
426	Apr. 7	1900
515	June 27	"
555	July 25,	"
656	Sept 15	
833		Not found.
879	June 24,	1901
960	Aug. 5	"
988	Aug 12	"
1002	Aug 22	"
1171	April 1	1902
1213	April 28	"
1225	Apr. 30	"
1333	June 11	"
1351	June 13	"
1374	June 17	"
1383	June 24	"
1397	June 26,	"
1498	Aug. 12.	"
1640	Oct. 11	"

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1919phae.proj.1187W

Comp. Pl. 2037

Nova

Nova (?) not seen on these plates

Plates	at −45°	
All 1829	March 3,	1903
1852	April 3,	"
1862	April 17	"
1895	Apr. 28,	"
1989	June 2,	"
2024	June 13,	"
2037	June 15,	"
2051	June 18,	"
2081	June 30,	"
2177	Aug 10	"
2191	Aug. 12,	"
2212	Aug. 17,	"
2299	Oct. 8,	"
2523	April 11,	1904
2541	Apr. 14,	1904
2615	May 5	"
2636	May 7	"
2655	May 14	"
2691	June 2	"
2763	June 20	"
2825	July 7	"
2832	July 9,	"
2897	August 1,	"
* 4746	April 20,	1907
4820	May 10,	"

* For plates between these Nos. see pages 115, 116, 117.

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1919phae.proj.1187W

Nova 180232

Nova(?) Not seen on these plates.
Plates at −45°

Aur	4878	May 31,	1907
	4886	June 1,	"
	4888	June 1,	"
	4961	July 2,	"
	5104	Aug. 28	"
	5011	July 17	Too poor.
	5034	August 1,	"
	5063	Aug. 15,	"
	5317	Too poor.	
	5358	April 2,	1908
	5450	May 8,	"
	5529	June 5,	"
	5575	June 18,	"
	5607	June 26,	"
	5688	July 26,	"
	5708	August 1,	"
	5751	Aug. 15,	"
	5986	March 22	1909
	6024	April 7,	"
	6055	Apr. 23,	"
	6105	May 9,	"
	6190	May 30,	"
	6198	June 8,	"
	6239	June 17,	"
	6287	June 25,	"
	6348	July 13,	"

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1919phae.proj.1187W

Nova

Nova(?) Not seen on these plates (Plates at -45°)

Am 6398	July 23, 1909	
6410	July 25, "	
6432	Aug. 4, "	
6448		Aug. 11, 1909
6481	Aug. 18, "	
6582	Sept. 12, "	
6861	April 4, 1910	
6927	May 26 "	
6971	June 1, "	
6975	June 2, "	
7069	July 3, "	
7209	Aug. 14, "	
7221	Aug. 27, "	
7310	Sept. 24, "	
7394	Apr. 22, 1911	
7405	April 30, "	
7411	May 2, "	
7452	June 15, "	
7461	June 17, "	
7469	June 23, "	
7474	Too poor	
7495	June 27, 1911	
7515	July 5, "	
7541	July 13, "	
7567	July 18, "	
7607	July 23, "	
7625	July 31, "	
7629	Aug. 1, "	N. B. defect close to 2 ft. stars
7638	Aug. 2, "	

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Nova. 180232

B plates, July and Aug., and Sept., 1905.

B 36379 (85)		
36432		
36791	August 22, 1905	Just off edge —
* 36792	August 22, 1905,	Seen Faint. Near ed
Yf. 36858	Sept. 1, "	
36868	Sept. 1, "	Not seen.
36895	Does not cover —	
36911	Does not cover	
36962	"	

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For B plates, other dates, see page 152.

edge

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Meas. 2661
Gul. 6050

Nova 180232

Plates of Aug. 1905 should be about 7430

Bruce Plates of region

A 2606	Aug. 3, 1897	near edge
A 2809	Oct. 6, 1897.	near edge Nova ?
10112	June 5, 1910.	Two faint stars in this
10126	June 8, 1910	Faint stars show. Nova

Meas. 2661	August 23, 1897.	
2714	Sept. 13, 1897	Does not show ft. stars.
Gul. 6050	Aug. 4, 1902	

Spectra
A 2093
2095
2062

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1010plate_proj_11807w

Thursday, June 2, 1921. Placed here to be with records of this nova.

Nova Sagittarii, No. 6.

Estimates of Magnitude for Ledger.

Using Magn. for Sequence, as adopted, Bk. 45, 175, Col. 18.

Am 3720		
3732	N.S. < 11.1	
3742		
3750	7.5	Slide 2811
ac 6565	8.0 ?	Very low plate, but Nova bright
Am 3762	8.2	one of these?
3764		
3775	8.0	
3792	8.0	Extreme corner —
3801		
3802	8.1	
3810		
B 36792		
Am 3822	10.1	
ac 6632	N.S. < 8.0	Extreme corner.
ac 6643		
B 36858		
36868		
Am 3859	N.S. < 11.5	
3883	N.S. < 13.1	
3922	N.S. < 11.9	
3873	N.S. < 11.9	
3890	N.S. < 11.1	

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1919phae.proj.1187W

Thursday, February 5, 1920.

Nova. 180232

Nova (?) Not Seen on these plates.

Plates	at -45°	
Aur 7675	August 15, 1911	
7743	Sept. 12, 1911	
7819	Sept. 23, "	
8112	Apr. 23, 1912	
8189	May 17, "	
8214	May 20, "	
8237	May 23, "	
8246	May 24, "	
8263	May 27, "	
8282	June 4, "	N.B. Defect in pos. of Nova
8334	June 13, "	
8361	June 17, "	
8389	July 4, "	
8462	July 16, "	
8494	July 20, "	
8565	Aug. 19, "	
8606	Sept. 6, "	
8634	Sept. 13, "	
8731	Oct. 19, "	
8844	April 30, 1913	
8870	May 5, "	
8890	May 9, "	
8952	May 26, "	
8984	May 31, "	
8998	June 3, "	
9038	June 9 "	

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1919phae..proj..1187W

Nova -

Nova ? Not seen on these plates

Plates at -45°

Arc	9061	June 11, 1913
	9098	June 24, "
	9115	June 26, "
	9162	July 3, "
	9182	July 8, "
	9231	July 23, "
	9238	July 24, "
	9296	Aug. 2, "
	9375	Aug. 28, "
	9387	Sept. 1, "
	9405	Sept. 4, "
	9505	Sept. 27, "
	9533	Oct. 2, "
	9554	Oct. 6, "
	9802	May 29, 1914
	9818	June 2, "
	9883	June 20, "
	9894	June 23, "
	9898	June 24, "
	9907	June 29, "
	9918	July 1, "
	9926	July 10, "
	9935	July 13, "
	9942	July 15, "
	9969	July 22, "
	9989	July 25, "

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1919phae.proj.1187w

11073 Cap St ?

Nova. 180232

Nova (?) Not Seen in these plates.

Plates at -45°

Aw	10028	August 3,	1914.
	10031	Aug. 7,	"
	10043	Aug. 11,	"
	10084	Aug. 21,	"
	10087	Aug. 22,	"
	10096	Aug. 28,	"
	10099	Sept. 8,	"
	10138	Sept. 17,	"
10213 →	10462		Oct. 20, 1914 ← Broken not found
	10497	Apr. 25,	1915
	10519	Apr. 29,	" Too faint
	10605	June 2	"
	10624	June 4,	"
	10640	June 6,	"
	10812	July 15	"
	10929	Aug. 1	"
	11073	Aug. 29	"
	11078	Aug. 31,	"
	11145	Sept. 13,	"
11155 →	11305	Oct. 4,	" Sept. 14 Defect close to pos. of Nova.
	11557	Mar. 9,	1916
	11673	May 6,	"
	11710	May 11,	"
	11774	May 22,	"
	11944	June 10,	"
	12105	July 1,	"

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Nova.

Nova(?) Not seen on these plates -

Plates at -45°

Aug 12117 July 2, 1916
12126 July 3, 1916
12142 July 5, "
12286 August 1, "
12291 Aug. 2, "
12309 Aug. 5, "
12417 Sept. 16, "

~~Region 9 -15°~~

12498 Sept. 27, "
12507 Sept. 28 " Oct. 18, 1916.
12614 13007 April 14, 1917
13055 Apr. 25, "
13255 June 11, "
13277 June 14, "
13295 June 17, "
13479 Aug. 6, "
13485 Aug. 8, "
13498 Aug. 11, "
13507 Aug. 13, "
13516 Aug. 15, "
13677 Oct. 14, "
13688 Oct. 21, "
13986 May 17, 1918
13994 May 18, "
14023 June 4, "
14038 June 6, "

Continued, p. 134

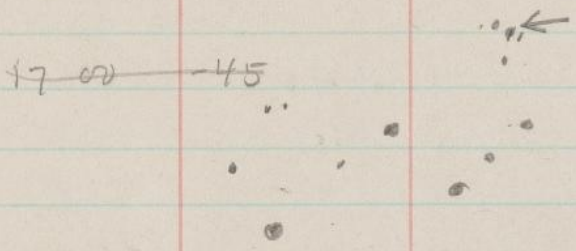
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1919phae.proj.1187W

See page 114.

1700-45 Cont.

Found Feb. 3.
Var. ?



175149
S Arae

Circle enclosing this region already on plate.
Br. 3762 ft. 14864

$17^h 51^m.4$ $-49° 25'$ (1900)

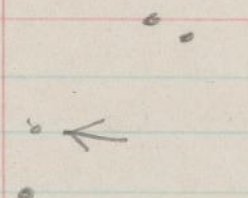
(Verified by Innes)

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1919phae.proj.1187w

17 00-45 Cont

Found Feb. 3.
Nova or
Var. ?



R Normal

br. 3762 m. S. 14864

15 28 49

15 28,8-49 10
iden. by chart.

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1919phae.proj.1187W

Suitable Plates for ? comp. st.

Comp. st. – Aur 1278, 1917, 1952, 2085, 2261, *2572, *2713
" " – 1589? *3448, *3537, *4205
1428. Eff – 49/m

2746 long eff.

Nova – 180232

Nova (?) not seen on these plates.

	Plates at -30°	
Aur	15	July 26, 1899
	137	Sept. 6, "
	461	May 8, 1900
	614	Sept. 1 "
	1236	May 2, 1902
	1252	May 15, "
	1278	May 27, "
find	? 1406	Birkenmayer
	1414	July 2, "
	1437	July 9, "
	1487	July 29, 1902
	1528	Sept. 13, "
	1589	Sept. 30, "
	1543	Sept. 17, "
	1917	May 6, 1903
	1952	May 18, "
	1960	May 19, "
	2085	July 1, "
	2109	July 12, "
	2129	July 15, "
	2147	July 23, "
	2261	Sept. 3, 1903
	2572	Apr. 22, 1904
	2639	May 7, "
	2713	June 4, "
	2746	June 14, "
	2756	June 18, "

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1919phae..proj..1187W

Friday, February 6, 1920.

Nova.

Nova (?) not seen on these plates.

Plates at -30°

Arc	2797	July 1, 1904
	2854	July 21, "
	3448	April 7, 1905
	3496	May 2, 1905
	3537	May 13, "
	3625	June 12, "
	4205	May 4, 1906
	4269	May 29, "
	4339	June 22, "
	5444	May 7, 1908
	5576	June 18, "
	5683	July 25, "
	5712	Aug. 2, "
	5807	too poor.
	5820	Sept. 14, 1908
	5854	Sept. 24, "
	6011	Nov. 29, 1909
	6114	May 11, "
	6136	May 15, "
	6170	May 26, "
	6228	June 14, "
	6338	July 11, "
	6343	July 12, "
	6347	July 13, "
	6368	July 17, "
	6374	July 18, "

Continued on page 136.

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1919phae.proj.1187W

See page 129. Nova 180232

Nova(?) not seen on these plates -

Plates at -45°

Ann 14127	July 1,	1918
14148	July 12,	"
14261	Aug. 4,	"
14267	Aug. 6,	"
14352	Aug. 28,	"
14456	Sept. 29,	"
14461	Sept. 30,	"
14678	Too poor — Trails	
14939	Aug. 21,	1919.
14854	July 21,	"
14868	July 25,	"
14881	Aug. 1,	"
14855	July 21,	"
12599	Oct. 17,	1916
12582	Oct. 14,	"
11111	Sept. 9,	1915
14881	Aug. 1,	1919
14855	July 21,	"
14854	July 21,	"
14939	Aug. 21,	"

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1919phae.proj.1187w

See page 133, Plates at -30°

Nova 180232

Nova (?) not seen on these plates.

Plates at -30°

Ann	6422	July 28,	1909
	6454	August 12,	"
	6592	Sept. 15,	"
	6613	Sept. 21,	"
	6946	May 28,	1910
	6952	May 29,	"
	6976	June 2,	"
	7033	June 25	"
	7063	July 2,	" long exp.
	7084	July 6,	"
	7163	July 31,	"
	7265	Sept. 4,	"
	7402	April 26,	1911
	7457	June 16,	"
	7458	June 16,	"
	7496	June 27,	"
	7523	July 6,	"
	7530	July 7,	"
	7549	July 15,	"
	7606	July 23,	"
	7651	August 4,	"
	7676	Aug. 15,	"
	7725	Aug. 27,	"
	7744	Too poor	
	7792	Sept. 20,	1911
	7841	Oct. 1,	"

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1919phae..proj..1187W

Comp. st ? 8522

Nova

Nova (?) not seen on these plates.

Plates at -30°

Am 8064	April 16,	1912
8081	April 18,	"
8122	April 25,	"
8124	April 25	"
8165	May 9,	"
8206	May 19,	"
8230	May 22,	"
8301	June 7,	"
8307	June 8,	"
8369	June 18,	"
8390	July 4,	"
8423	July 9,	"
8469	July 17,	"
8485	July 19,	"
8492	July 20,	"
8559	Aug. 17,	"
8578	Aug. 30,	"
4365	July 2,	1906
4527	August 24,	"
4539	Aug. 27,	"
4562	Too poor.	
4804	May 7,	1907
5024	July 30,	"
5090	Aug. 25,	"
5114	Sept. 1,	"

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Comp st. pl. 9131 ? 11689
9203
10098
11084

Nova. 180232

Nova (?) not seen on these plates

~~534~~ Plates at -30°.

All 5340	March 26, 1908.
5390	April 10, "
8579	August 30, 1912
8598	Sept. 4, "
8624	Sept. 11, "
8748	Nov. 4, "
8851	May 1, 1913
8883	May 7, "
8903	May 10, "
8937	May 23, "
8944	May 24, "
8999	June 3, "
9012	June 5, "
9068	June 12, "
9090	June 23 "
9123	June 27, "
9146	July 1, "
9153	July 2, "
9197	July 10, "
9203	July 12, "
9237	July 24, "
9267	July 28, "
9304	August 5, "
9336	Aug. 9, "
9376	Too poor

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1919phae.proj,1187W

Nova -

Nova(?) not seen on these plates.

Plates at -30°

Am 9386	Sept. 1,	1913
9392	Sept. 2,	"
9455	Sept. 16,	"
9541	Oct. 3,	"
9860	June 13,	1914
9889	June 22,	"
9891	June 23,	"
9937	July 14,	"
9938	July 14,	"
9943	July 15,	"
9947	July 16,	"
9977	July 23,	"
9983	July 24,	"
10032	Aug. 7,	"
10038	Aug. 9,	"
10085	Aug. 21,	"
10088	Aug. 22,	"
10093	Aug. 27,	"
10098	Sept. 8,	"
10146	Sept. 18,	"
10171	Too poor	
10180	Oct. 8	"
10257	Nov. 3,	"
10570	May 8,	1915
10623	June 4,	"
10632	June 5,	"

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1919phae.proj.1187W

Nova 180232

Nova (?) not seen on these plates.

	Plates at	-30°
Am 10662	June 11,	1915
10702	June 18,	"
10718	June 20,	"
10736	July 1,	"
10741	July 2,	"
10764	July 9,	"
10769	July 10,	"
10788	July 12,	"
10822	July 16,	"
10973	Aug. 10,	"
11084	Sept. 6,	"
11276	Sept. 28,	"
11317	Oct. 5,	"
11689	May 9,	1916
11775	May 22,	"
11785	May 23,	"
11916	June 7,	"
11956	June 11,	"
12032	June 20,	"
12064	June 24,	"
12285	Aug. 1,	1916
12287	Aug. 1,	"
12296	Aug. 3,	"
12298	Aug. 3,	"
12338	Aug. 16,	"
12363	Aug. 23,	"
13141	May 15,	1917
13276	June 14,	"

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1919phae.proj.1187W

Hora

Hora (?) not seen on these plates

Plates at -30°.

Am 13254	June 11,	1917.
13302	June 18,	"
13319	June 20,	"
13400	July 14,	"
13417	July 17,	"
13480	Aug. 6,	"
13513	Aug. 14,	"
14062	June 12,	1918
14070	June 13,	"
10427	April 17,	1915
14885	Aug. 2,	1919
14037	June 6,	1918
14022	June 4,	"
14260	Aug. 4,	"
Am 802	May 22,	1901
808	May 27,	"
907	July 9,	"
981	Aug. 10,	"
1001	Aug. 21,	"
1028	Sept. 4,	"
1043	Sept. 6,	"
1073	Oct. 1,	"
1094	Oct. 8,	" tr. Sl. 2907
1099	Oct. 10,	"

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1919phae.proj.1187w

Saturday, February 7, 1920.

Nova 180232

Ac Plates of 1905.

Ac 6061	Feb. 23, 1905.	Too poor.
6140	March 6, "	Too poor.
6234	Mar. 30, "	Too poor.
6261	April 3, "	Prob. not seen. Extreme Corner
6281	Apr. 8, "	" " " " "
6392	May 23, "	Not seen, " "
6358	Dual. 1	Too poor.
6350	no plate	
6431	Too poor.	" "
6459	Too poor.	" "
6466	Too poor.	" "
6485	Too poor.	" "
6492	July 6, Prob. not seen.	Too poor? " "
6493	July 7, 1905	Prob. not seen. " "
6532	July 21, "	Corner, covering this region, is missing.
6565	August 2, 1905.	Seem, fairly bright
6632	Aug. 26, "	Probably not seen Poor film and extreme corner.
6643	Aug. 31, 1905	Probably not seen. In extreme Corner.

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1487 Ecl. 383°

Compl. pl. 2916 ? 907?

Nova 180232

Nova? Not seen on these plates.

Plates at -30°

Ann 817	May 28,	1901
1422	July 3,	1902 R
1470	July 14,	"
1487	July 29,	"
2244	Sept. 1,	"
2916	Aug. 4,	1904
2959	Aug. 18,	"
3002	Sept. 2,	"
4562		
4920	June 11,	1907
4954	July 1,	"
5013	July 17,	"
5640	July 7,	1908
~~10736~~	~~July 1,~~	~~1915~~
~~10769~~	~~July 10,~~	~~"~~
10902	July 29,	"
12208	July 17,	1916
12127	July 3,	"
13022	April 16,	1917
13040	Apr. 18,	"
13337	June 23,	"
13433	July 20,	"
13492	Aug. 10,	"
13497	Aug. 11,	"
13676	Oct. 14,	"
14869	July 26,	1919

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1919phae.proj.1187w

Nova.

Nova(?) not seen on these plates –
Plates at -30°

Am 802 May 22, 1901
808 May 27, "
907 July 9, 1901
1028 Sept. 4, "
1043 Sept. 6, "
14885 August 2, 1919
~~14855 July 21, "~~
11875 June 2, 1916.

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Nova 180232

Nova(?) not seen on these plates -

Plates at -45°

all 11846 May 28, 1916
11888 June 3, "
11862 May 29, "
11903 June 6, "
12107 July 1, "
12128 July 3, "
12144 July 5, "

11802 May 25, "
11783 May 23, "

13401 July 14, 1917
13411 July 16, "
13418 July 17, "
13435 July 20, "
13441 July 27, "
13438 July 21, "

577 broken
981 August 10, 1901
1001 Aug. 21, "
1073 Oct. 1, "
1094 Oct. 8, " broken. Sk. 3907
1099 Oct. 10, "
11827 May 27, 1916
11817 May 26, "

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1919phae.proj.1187w

Nova

Nova(?) not seen on these plates -
Plates at -45°

am 14881 August 1, 1919.
14868 July 25, "

4613 Oct. 9, 1906
14854 July 21, 1919
~~14867 July 25, "~~
7170 Aug. 1, 1910

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Nova 180232

Nova(?) not seen on these plates

Plates at -15°

ann 14867 July 25, 1919.

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1919phae.proj.1187w

Monday, February 9, 1920.

Examination of Ac & Ac Plates.

Regions $8^h\ 00^m\ -15^\circ$

Ac 22337 January 31, 1920, Exp. 64m
Ac 18229 November 22, 1916, Exp. 60m
(18229 superposed on 22337)

No plate found of this region in 1914, which was desired. (See schedule of regions). Probably alternate Regions were not taken then.

Ac 22337 is fogged, difficult to see stars through another plate, but images are good.

No objects. Many defects on plates.

Time: about 40m. Black plate.

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1919phae.proj.1187W

Count. of
16156
16580
22478
×27438
32032 show ft. sts
36432
*38823
41653

Iden. 16415
28524

N B 23787

Tuesday, February 10, 1920.

Nova 180232

B Plates of region examined.
Nova(?) not seen on these plates, except as very ft star, no plates showing ft. stars.

B 6133	May 30,	1891
7695	?	
9854	?	
9855	July 21,	1893
13585	June 3,	1895
15741	May 9,	1896
16099	June 3,	1896
16156	June 5,	"
16164	June 5,	"
16415	June 17,	"
16496	June 27,	"
16499	June 27,	"
16576	July 1,	"
16580	July 1,	"
16883	July 17,	"
17093	Aug. 11,	"
18595	Mar. 6,	1897
19085	May 12,	"
22478	Apr. 5,	1899
23696	July 27,	"
23745	July 31,	"
* 23770	Aug. 4,	" long exposure.
Miss Leavitt 23787	Aug. 8,	"
24009	July 25,	"
25384	May 22,	1900

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1919phae.proj.1187W

B	27438	May 27, 1901
	29524	April 29, 1902.
	29857	May 29, 1902
	30512	August 4, 1902
	30513	" 4, " long exp.
	32032	June 22 1903
	32353	July 31, "
	32544	Sept. 1, 1903
	36432	July 12, 1905
	38649	April 9, 1908
	38823	May 3, "
	41380	May 29, 1910
	41487	June 25, "
	41653	July 15, "
	42375	June 15, 1911
	42670	Sept. 12, 1912
	43744	June 7, 1913
	44108	Aug. 19, "
	44678	June 29, 1914.

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Wednesday, February 11, 1920.

Examination of aw & ac Plates.

Regin $7^h 00^m$ $-15°$

ac ~~15766~~ 22352, February 7, 1920, Ef. 66^m

ac 15733 November 16, 1914, Ef. 60^m

22352 superposed on 15733.

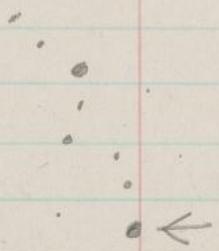
Very dense region.

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1919phae.proj.1187W

N on AC 15733
Near top of plate -

Probably
defect -



Not seen on AC 22352
but this is doubtless caused
by a dfect in film, a
long scar -

Do bright on
AC 22149 Dec. 25, 1919.
22205 Jan. 4, 1920
22269 Jan. 15, 1920

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1919phae.proj.1187W

finish top & bottom

14821 is an excellent plate.

Thursday, February 12, 1920.

Examination of Acc & Anl Plates.

Regions $15^h 00^m$ $-45°$

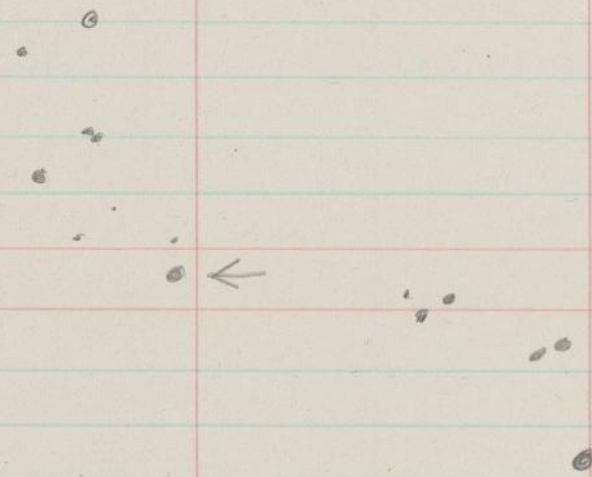
Anl 14821 July 1, 1919. Eff. 75m
~~11658 May 1, 1916, Eff. 50m~~
2607 May 4, 1904, Eff. 60m

Very dense region.
1916 plate, 11658, was not good enough for comparison with the 1919 plate although it was chosen from several Quad. 5 plates.
I have gone back to an early year for comp. plate and have chosen Anl 2607, 1904, although this is hardly good enough for comp. with the excellent plate of 1919.

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N on Acc 14821



Var.

Nota
Nova.
140959

R Centauri brighter on 14821 ft. on 2607
very br. on 6130

iden. by Chart.

found in 1871

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1919phae.proj.1187w

February 12, 1920.

Long period?
Confirmed by Miss Leavitt, February 8, 1921

Region 15h 00m -45° Cont
N. or Ann 148 21/00

Apparently star image

Iden by B 33475

Nova?
Too faint for Nova?

14h 55m.0 -34°.1

Apparently Not Variable

Dec 11867 May 30, 1916
14046 (-30) June 10, 1918

For list of plates exam., see Bk. 15, p. 77

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1919phae.proj.1187W

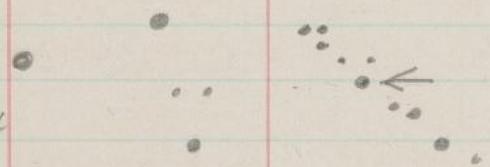
Nt confirmed

S foll. part of plate

Non Aur 2607

Iden. B 36952

$16^h 16^m.5$ $-52.^\circ 4$



Not known var.

Cr. 2607

faint 14821

Is this defective image?

Apparently no change — always normal on these plates, like 2607, bright.

Aur 1979 June 1, 1903 6181
2045 " 16 " 6222
2059 " 22 " 6237
2073 " 27 "
2169 Aug 4 "
2507 Apr. 7 1904
2548 Apr. 16 "
2633 May 7 "
2737 June 11 "
5463 May 10 1908
5542 June 7 "
5574 " 18 "
5655 July 10 "
5706 Aug. 1 "
6010 March 29, 1909
6028 April 7, "
6037 " 20 "
6130 May 14 "

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1919phae.proj.1187w

New, Long Period (?)
Confirmed by Miss Leavitt
February 8, 1921.
$14^h\ 54^m.0 - 42^\circ.1$

Not known
variable.

✓

CDM -41° 9373
$14^h\ 52^m\ 40^s.5 - 41^\circ\ 59'.4$ (1875)
9.6

Iden. checked
by Miss Walker.
New Var.
Checked by Miss H.

Near center

N on Ame 14860 21

Iden. B 25106

Br. 14860 21

fr. on 2607
14918
14020
faintest? 15102 8
11698
14046
14745
15166

For proof:—
Br. Ame 1979 *2737 ~~2607~~ 2045
Fr. 2607 2633 *15102 6 *6237

Bet. Max & Min. 5706 B25106 ~~2045~~

* For list of plates exam., see Bk. 15, page 82.

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1919phae.proj.1187W

New Var. Confirmed
Iden. (Not Cat Star) confirmed (Wolf. 5436)
new var. confirmed 36396
New! Long Period?
Confirmed by Miss Hewitt, February 19, 1921

See Sf. B39277 June 29, 1908
tried for date of June 1908

15 52.5 -40.1

R on Am 14866 21

Iden. B29446
B41319

Not known
Variable

Br. 14821

Ft. 2607

R.A. would be abnt equal to star at X15 51 2.8 -40 7.8 ? abnt -40 0

Not in CDm
" " CPD

Br. * 5396	Apr. 22, 1905	Ft. 1979	June 1, 1903		-45
5467	Apr. 24, 1908	2045	" 16 "		-45
5423	" 30 "	2059	" 22 "		-45
15388 ?	Stars very	2073	" 27 "		-45
	ft but this one	14957	Aug 26 1919		-30
	apparently a little	15237	June 7 1920		-30
	brighter than usual.	14015	June 2 1918		-30
5322	Mar 14, 1908	14035	" 6 "		-30
* 5330	" 25 "	14132	July 2 "		-30
5377	Poor pl Apr 8 1908	14139	" 8 "		-30
** 5436	May 6 1908	14382	Sept 7 1918		-30
5474	" 19 "	5095	Aug 26 1907		-30
** B41319	May 26, 1910	B36396	July 11, 1905		
Am 39277	June 29, 1908				
Am 11891	June 4, 1916				

Idem. confirmed by Miss Wilson
New Var. confirmed by Miss H.

For proof: Br. B41319 Am 5436 * 5396 * 11891

March 9, 1921.
Estimate of Mags for Ranges:-
Comp. with Carte 16h-40° Bk. 35:143, B46765
Var. is br. on B46765. 7=10.7 12=12.15

Ft. * B36396 Am ** 2607 ** 1979 Shows ft stars Defect due to star

Spect. B39277 var. = 10.6 to 12.1

Compared directly with Seq. a grade brighter than Star 7. Confirmed on Am 5396 which has elongated images. On Am 2607 var. abnt = Star 12. Var. not quite as faint on Am 1979 B29446 shows var. probably half-tone but Seq. is not well placed for comparison.

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1919phae.proj.1187w

Friday, February 13, 1920.

Examination of AM and AC Plates.

Region $17^h\ 00^m\ -30°$

AM 14885, August 2, 1919, Exp. 62m
11875, June 2, 1916, Exp. 60m
11875 superposed on 14885

11875 is not nearly as good as 14885, does not show the stars. This is an alternate ~~plate~~ region. not many plates. Of several which I examined, no one was as good as 1919 plate.

No objects found.

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Repeat Ans 14885, comp. with a later plate, if
a equally excellent pl. is taken

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1919phae.proj.1187W

Saturday, February 14, 1920.

Examination of Arc & Ac Plates.

Region $19^h\ 00^m$ $-45°$

Arc 14868 July 25, 1919, Exp. 65m
4613 Oct. 9, 1906, Exp. 75m
(4613 superposed on 14868)

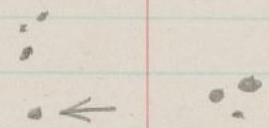
Several plates of 1916, the year I desired to compare with recent plate, were examined but not found good enough to compare with 14868.

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1919phae.proj.1187W

Am 11817, May 26, 1916, may be confused with any good plate unless very ft. stars are wanted. Is not quite as good as 1906 plate which was chosen.

I.E.W.'s
Nova
rediscovered
independently



faintly bright, still, in July, 1919.

Nova Sag., 5.

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1919phae.proj.1187W

N.

Nova?
Var?



185537a

R Cor. Austr. br. on AN 14868 ft. on AN 4613
$18^h\,55^m.2$ – 37° 6' (1900)
(Schmidt)
(1865)

This is nebulous on B 21384, faint.

14869 July 26 19-30 does not show ft. stars.
Br. 14887 Aug. 2 19-30

Ft. 14740 May 31 19-45
14792 June 23 20-45 does not show ft. stars
Confirms – Br. 14891 Aug. 4 20-45 (marked pl.)
Ft. 14934 Aug 20 20-45

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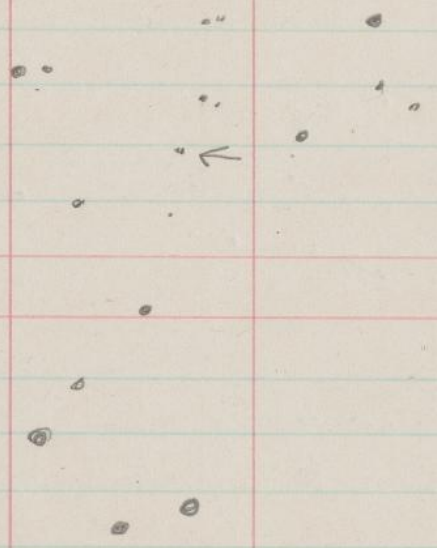
1919phae.proj.1187W

Not confirmed,
but watch —
See New Var near,
Blk. 15, f. 60.

Continued Blk. 15, page 59.

Identified —
Jan. 19, 1921

New var 14868 near center



Not a known
var —

CDM −44° 13538
19 38 14.4 −44 50.3
10

Not seen on 4613 or neg ft.
Ft. ? 14269

Ft. on B 14372
Identification checked by Miss M. A. Gill —
Plates −30°
Br. 14877 July 31, 1919
Plates 20° −30° are not satisfactory

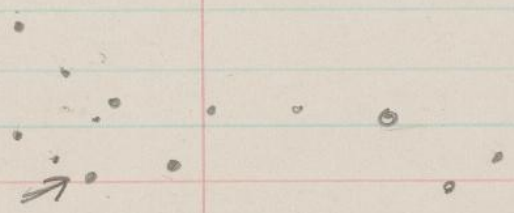
(Note made Jan. 21, 1921)	Ft. 14740	May 31, 1919	
	Ft. 14792	June 23 1919	
Is this a Nova	Ft 15016	Sept. 22 "	
	N.S. 15040	Oct. 18 "	
Confirmed Br. on 14891 Aug. 4.	15390	Aug. 7 1920	
	15403	" 11 "	
	15430	" 16 "	
Bright 14868 14877 14891	14940	Aug. 21, 1919	Too poor 1930-60
	Ft→ 14927	Aug. 17, 1919	1930-60

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1919phae.proj.1187W

Nova AM 4613

R W Arae
17 26.3 -57.1
1900
(Miss Cannon's)



Not seen on 14868

(Not a Nova - see above)

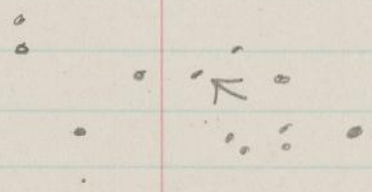
Bright on AM 4169 Apr. 23, 1906
Seen on AM 11817 May 26, 1916

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1919phae.proj.1187W

N on Aud 14868

Not exactly like other star images. Probably defect.



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1919phae.proj.1187W

14868
N on Ann 4613

This was already marked on ~~this~~ plate Ann 4613

181146

R S Telescopii
-46° 12279
$18^h 11^m.4$ -46° 35' (1900)

(Leland)
(1910)

Br. 14868 N.S. 4613

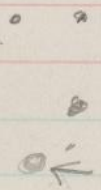
Br. on B 27846 = Slide 3355

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1919phae.proj.1187W

N. on Aug 4613

Comet?
or Defect.



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1919phae.proj.1187W

finish near Hora? left a bottom

Monday, February 16, 1920.

Examination of AH & AC Plates.

Region $14^h\ 00^m$ $-75°$

AH 14860 July 23, 1919, Ef. 62m
13964 May 8, 1918, Ef 65m
(13964 superposed on 14860)

13964 does not show nearly as faint stars as ~~does~~ 14860 does.

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1919phae.proj.1187W

Repeat 14860 with a Cater good plate.



Defective image?

Quite bright on 14860 Very ft. on 13964 but a trace of the whole image is seen and is near the edge. Probably defective image.

Confirmed by 11657

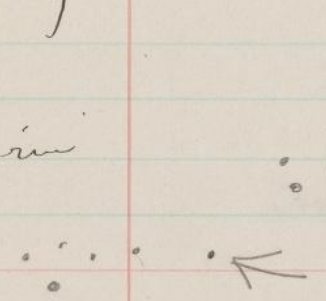
John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1919phae.proj.1187w

176

Var?
Apparently
New.

to confirm



Nova? A 9th star, seen on Ans 14860,
a Var? not seen on 13964
Seen, faint, Ans 11657, May 1, 1916.
" " 13111, May 12, 1917

C.P.D. -72° 2055
17h 8m 15.5 -72° 20'.7 9.8 (1875)
3 -1.8 Marked on B 12998
17 11 -72 22.5 (Approx. 1900)

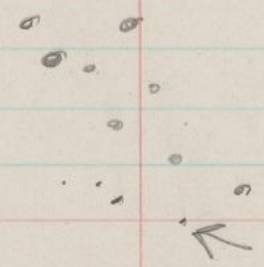
Iden. checked by Miss M. A. Gill.
Not known var. checked by " "

* No proof of variation.
For list of B plates examined, see Bk. 15, p. 56.

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1919phae.proj.1187w

N on AM 14860



Nova?
or Var.?

131283
U Octantis
$13^h 12^m.3$ -83 42
(1900)
Verified by
print.

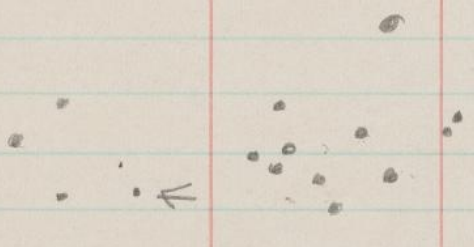
Not seen on 13964
Seen on AM 13111 May 12, 1917,
Br. on AM 11657, May 1, 1916
Ft on 13111, May 12, 1917

John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1919phae.proj.1187W

N. on 14860
near north edge.

Var.



Not a nova br. on 14860 not seen. 13964
br. on 11657
br. 13111

140959
R Centauri
$14^h\ 9.^m7\ -59°\ 27\ (1900)$

(Verified by print)

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1919phae.proj.1187w

(Look up on late plates when unpacked)

Non 14860

Defect or Comet?-

hazy object.

$14^h 34^m - 62.8°$
(Approx. 1900)

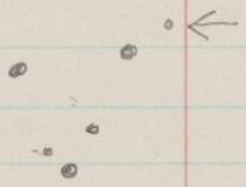
There are other, larger, defects on same plate.

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1919phae.proj.1187w

N or near center

Probably Defect.

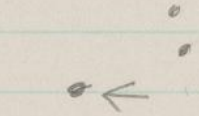


Other defects similar to this.

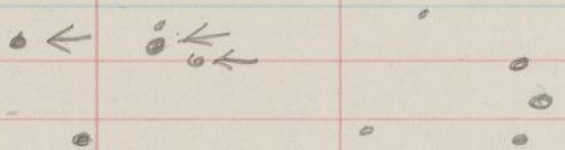
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1919phae.proj.1187W

Images near Number end on
13964 not on
14860



Same as above,
Mean center
of South edge



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1919phae.proj.1187w

Thursday, February 19, 1920.

Examination of AK and Ac Plates.

Regin $16^{h}\,00^{m}\;-30^{\circ}$

Ac 14875 July 31, 1919, Eff. 60m
11698 May 10, 1916, Eff. 60m
(11698 superposed on 14875)

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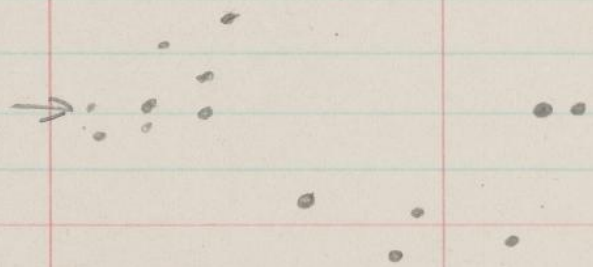
1919phae.proj.1187w

✓

✓

Assume this to be defective image only.

Defective?



15 23 -27.3
Not known
Var.

Bright 14875 Not seen or defective
14823 July 2, 1919 on 11698
11685 May 8, 1916
11679 May 7, "

15183 May 13 1920
15298 July 11 "
15467 Sept. 6 "
15488 " 13, "

Exam. by
Miss
Leavitt.

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1919phae.proj.1187w

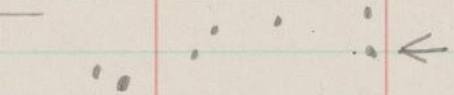
184 ✓

✓

Assume this & bee
defective image only.

N. on 14875

Defective?



(– Librae
15h 18.8 –28° 21'

Slipher? Br. on 14875 Ft 11698 Ldn. Cy
is near this 14823 B 9984.
position 11679
faint variable) 11685

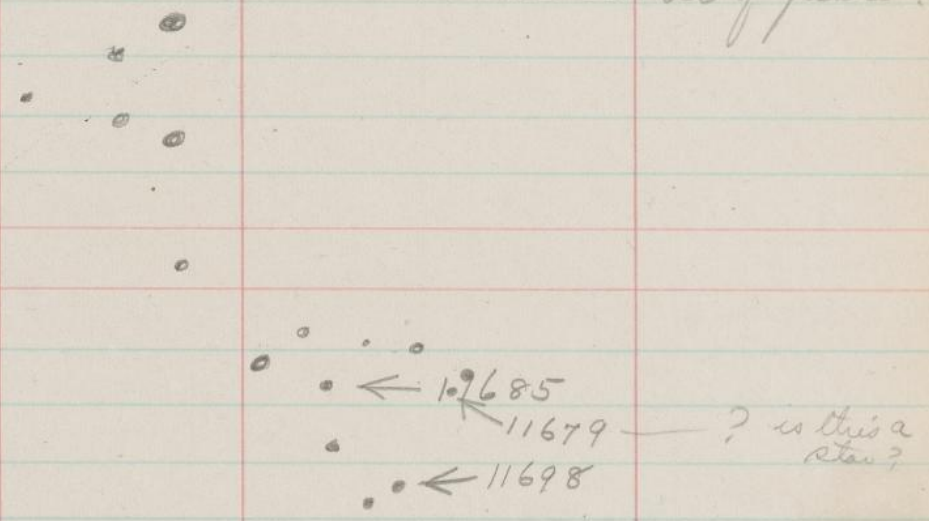
This star is cDM. –28° 11325 15h 16m 51.s5 –28° 19'.7 9.3
– Librae is not Cat. star, as given in reference,
A.N. Nach. 198, 353.

Exam. by Miss Leavitt

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1919phae..proj..1187W

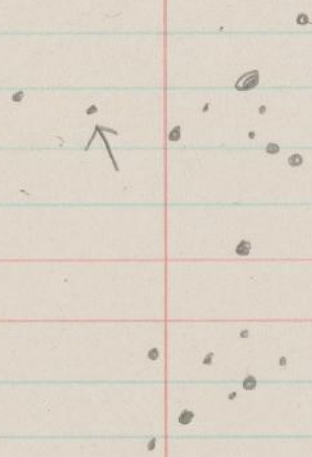
R on 11698
near center of plate:



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1919phae.proj.1187W

N on 14875



see also page 191

165030

R R Scorpii

16h 50m.2 −30° 25′
(1900)
Fleming.

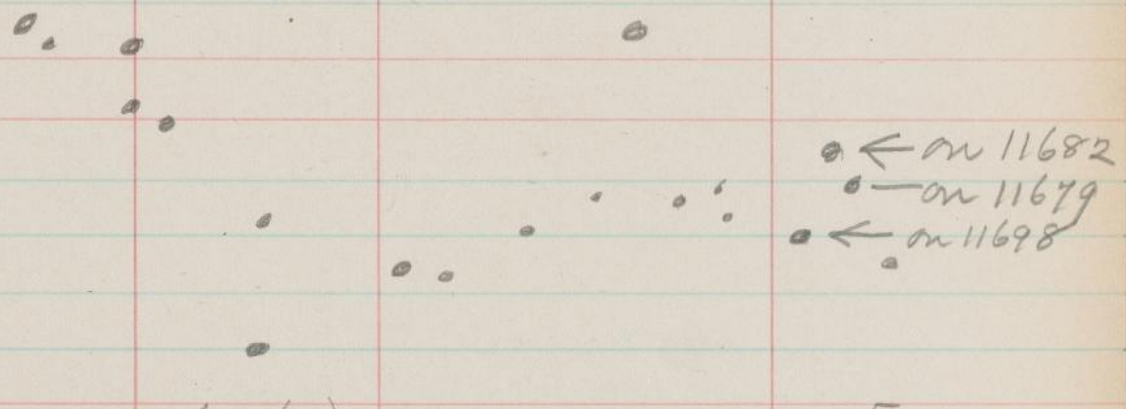
Idem. by B 15869

~~Must be~~
Idem. by chart.

B.D. on 14875

1919phae.proj.1187W

N on 11698
near Numbers edge.



See this(?) star on 11685

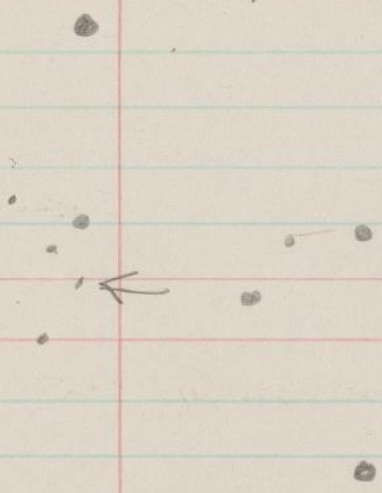
John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1919phae.proj.1187W

Nov

Nov AM 14875

Probably Defect



Not on 11698
" " 14823 July 2, 1919.
" " 14923 Aug. 16, 1919 −15°
" " 14815 June 29, " −15°
" " 14812 June 28, " −15°
" " 14867 July 25, " −15°

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1919phae.proj.1187W

R or au 11698

Probably defect

not au 11685

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1919phae.proj.1187W

Friday, February 20, 1920.

Examination of Am & AC Plates

Region $16^h 00^m - 30^\circ$

Am 14823 July 2, 1919, Eff. 62^m
~~10901 July 29, 1915, Eff. 58^m~~
9819 June 3, 1914, Eff. 59^m
(9819 superposed on 14823)

No plate of 1915 was good enough to comp. with 14823
1914 plate does not show nearly as faint stars.

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1919phae.proj.1187w

Repeat 14823 with good late plate

165030 See sketch on page 186.

RR Scorpii This object ft. on 14823 very bright on 9819

h m
16 50.2 -30° 25' Cr. 14823 ft. 9819
10797
11685

(1900)

Fleming.

Must be at maximum on 9819.

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1919phae.proj.1187W

Saturday, February 21, 1920.

Examination of AH and AB Plates.

Regin 17 00 -45

am 14854, not examined because 14864 was examined, see page 114.

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1919phae..proj.1187W

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1919phae.proj.1187W

February 21, 1920.

Examination of AH and AC Plates -

Region $5^h 00^m$ -15°

AC 22405 February 16, 1920, Ef. 58^m
13735 February 5, 1913, Ef. 60^m
(13735/22405 superposed on ~~22405~~/13735)

These plates do not have the same center but 1920 plate is not very good so I have only compared roughly and did not try to find a better comparison plate that is, comp. plate is much better than 1920 pl. 1920 plate is not even, stars hardly show in southern half of plate.

Defects on Plates

Conclusion: No objects of interest.

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1919phae.proj.1187W

Repeat year 1913 with better plate.

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1919phae.proj.1187w

February 21, 1920.
Completed on Feb. 23, 1920.

Examination of Ashland AC Plates

Region $9^h\ 00^m$ $-15°$

AC 22407 February 16, 1920, Exp. 54m
17174 December 30, 1915, Exp. 60m
(22407 superposed on 17174)

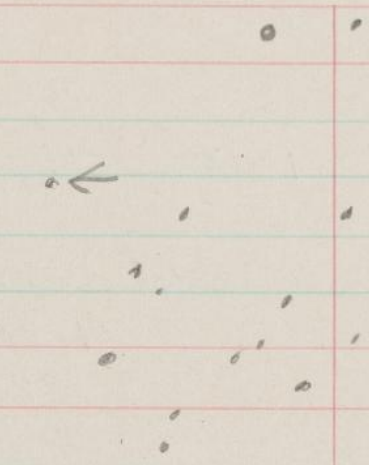
John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1919plate.proj.118W

See later plates

N on AC 22407

found on Feb. 23.



Defect or nova ?

Repeat region

Examined image under high power microscope. Probably a defect, but compare with later plate.

Not seen on

AC 22058, Dec. 2, 1919.
22150 Dec. 25, 1919
22205 Jan. 4, 1920
22269 Jan. 15, "

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1919phae.proj.1187W

Report

Monday, February 23, 1920.

Examination of AM and AC Plates.

Region 17 00 −15°

AM 14867 July 25, 1919, Eff. 73m
11699 May 10, 1916,
10145 Sept. 18, 1914, Eff. 62m
10145 superposed on 14867

No plate of 1915 was equal to 1919 plate, of those exam.

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1919phae..proj..1187W

N on 14867
following centre

Var.

$-17^\circ 4978$
$17^h 50^m 57^s.0$
$-17^\circ 23'.0$ 9.1

17 17
N X Sagittarii

Cannon.

br. 14867 ft 10145

N on 14867
preceding centre

Var. a
Defect?
$-16^\circ 4307$
$16^h 25^m 55^s.0$
$-16^\circ 51'.1$ (1855) var.

16 16.
S Ophiuchi

Pogson.

Seen on 14867
Not seen on 10145

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1919phae.proj.1187W

Tuesday, February 24, 1920.

Examination of aH & aC Plates.

Region. $8^h\ 00^m$ -15°

aC 22269 January 15, 1920, Exp. 60m
17394 March 11, 1916, Exp. 60m
22269 superposed on 17397

17394 is almost too dark a plate to use -

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1919phae.proj.1187W

Nan 22269

Var.

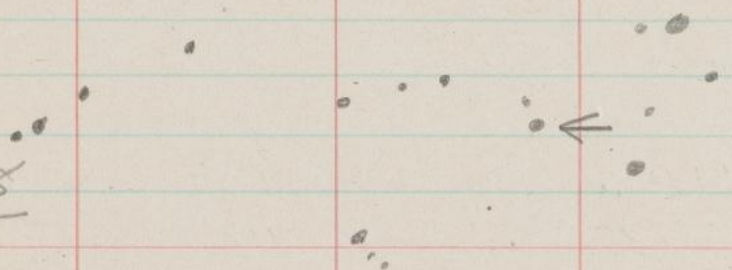
085008

T Hydrae

8h 50.8 -8° 46'

(1900)

(see chart)



Faint or defective on 17394

Seen on 22205 Jan 4, 1920

22337 Jan. 31, " Taylor.

N.S. or faint on 22407 Feb. 16, 1920.

~~N.S.~~ " on N.S. on 19378 Nov. 2, 1917

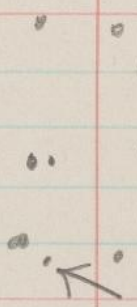
N. S. on Fk on 19456 Nov. 12, "

Seen on 19901 March 15, 1918.

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1919phae.proj.1187W

Nov 22269
following center

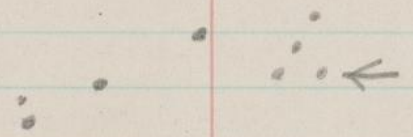


defective a H.S. on 17394 ?

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1919phae.proj.1187W

N on e2269
near center.



defect on 17394

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1919phae.proj.1187W

Repeated

February 24, 1920.

Examination of Am & Ac Plates.

Region $18^h 00^m -15^\circ$

am 14948 August 23, 1919, Exp. 63m
10472 April 22, 1915, Exp. 74m
(10472 superposed on 14948)

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1919phae.proj.1187w

Nova? or Var.?

170215

R Ophiuchi,
17h 2.0 -15° 58
(1900)

Pogson - Brightest on 14886, Aug. 2, 1919.
(See print)

Nova AM 14948

Brightest on 14948
N.S. on 10472

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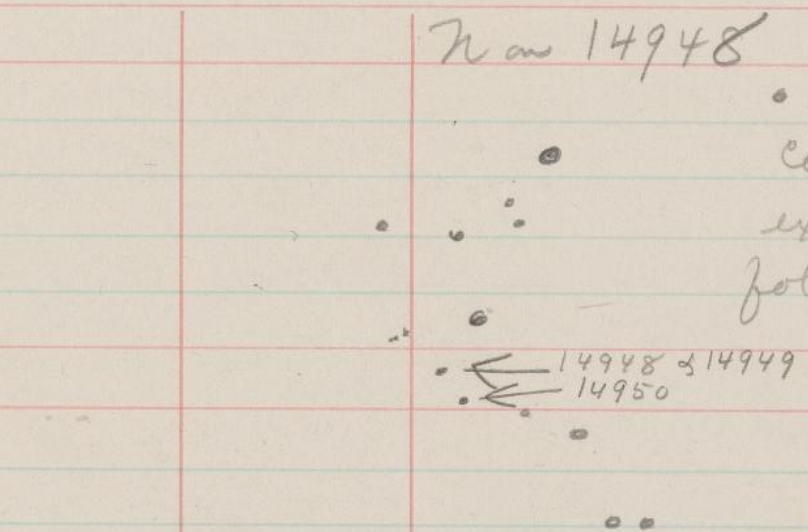
1919phae.proj.1187W

Nova?
or Var?

Moving object
near bright star
whose idem, =
-16°

$18^h 58^m 31.^s7$
$-16°26'.8$ 6.2
(1855)

Nova 14948



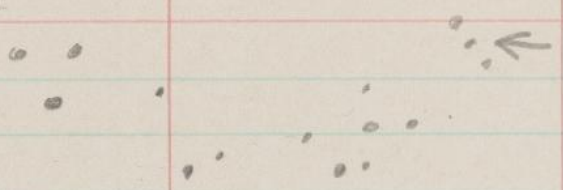
center line,
extreme
fol. edge

Not seen on 10472
" " " 14886, Aug. 2, 1919.
Seen on 14950, Aug. 24, "
Not seen on 14924, Aug. 16, "
Seen on 14949, Aug. 23, 1919.

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1919phae.proj.1187w

Nav 10472



Var.

Dec. -12° 5202
$18^h 46^m 19^s.7$
-12° 46.9 9.3
(1855)

br. nr 10472

ff. nr 14948

184812

U Scuti
$18^h 48^m.8$ -12° 44′ (1900)

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1919phae.proj.1187W

N on 10472

Var.

18 1916

~~X Sagittarii~~

$18^h\ 19.^m0 - 16^\circ\ 51'$

(1900)

(Cannon)

(1908)

$-16^\circ\ 4859$

br

br. on 10472

~~10472~~

fr. on 14948

Verified by identification.

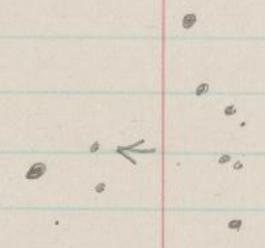
John G. Wolbach Library, Harvard-Smithsonian Center for Astrophysics • Provided by the NASA Astrophysics Data System

1919phae.proj.1187W

√

Not a known Var.

Var?



$-17^\circ 5278$
$18^h 31^m 1.7^s$
$-17^\circ 48.5'$
(1855)

	Br. on 10472		ft. 14948 No further proof of being faint
9.2	Ft. 10975	Aug. 11, 1915	
	Ft. 11065		
Small, if any, variation	Ft. 11328		
	Ft. 10604	June 2	
	Ft 10614	June 3	
A faint star - Probably defective films.	Ft 10790	July 12	
	Ft. 10903	July 29	
	Ft 10913	July 30	
	Ft 10967	Aug. 9	
	Ft 9938	July 14, 1914	$19^h - 30^\circ$
	Ft 9943	July 15	
	Ft 9947	July 16	
	Ft 10032	Aug. 7	
	Ft 10038	Aug. 9	
Exam by Miss Leavitt.	Ft 10180	Oct. 8 (Plus defect)	
	Ft 10257	Nov. 3	
	Ft 10570	May 8	

while examining that object.

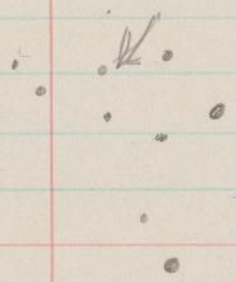
also, examined list of plates on p. 215
Plates of 1915 show it a little brighter, but range is small -
~~Not examined further~~

A faint star near · ↙ was suspected by Miss Leavitt;
No evidence of variation

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1919phae.proj.1187W

hazy object.

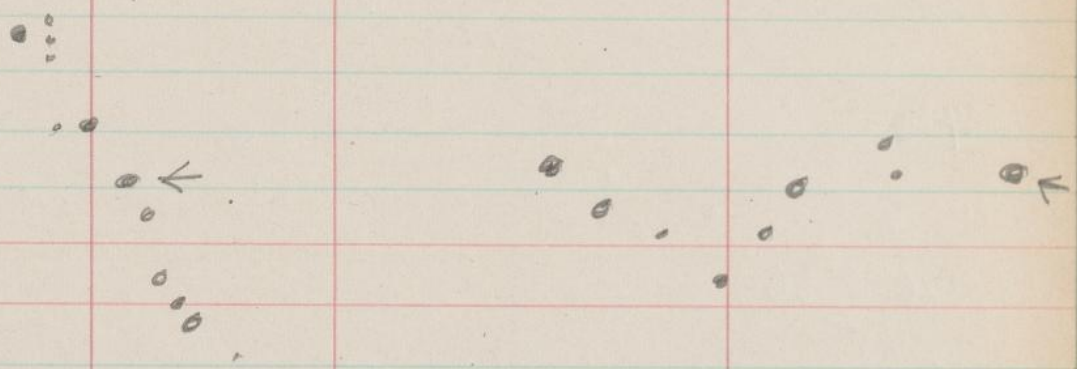


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1919phae.proj.1187W

Extra stars near Number end.

N. on 10472



Not on 14978

Not on Ann 10822, July 16, 1915 18-30

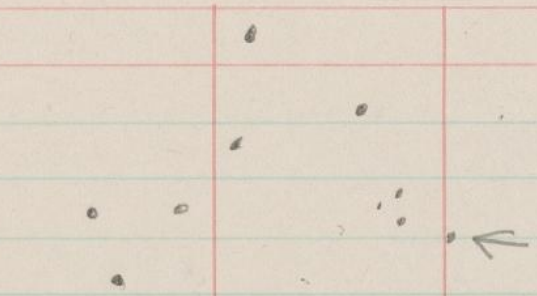
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1919phae.proj.1187w

212

Var.?

183705



Z Scuti'
18 37.6-5 56
(1900)
-5° 47 34
(Cannon)
(1907)

Bruce 10472

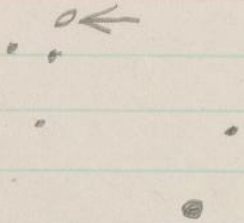
Ft. 14948

Verified by identification

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Comet?



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Nova?

Nov. 14948
near N. edge

184300
Nova Aquilae
No. 3

br. 14948
14886 Aug. 2, 1919.

ft. 10472
N.S. 11328 Oct. 6, 1915

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?

New 1

Var.

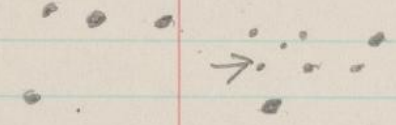
-14° 51 94

18h 39m 56.7s

-14° 40' 1 9.8

(1855)

Near 10472
near object on page 207



br. 14948
14886 Aug. 2, 1919

ft. 10472
No further proof of being faint.

Small if any variation.

10472
14948

Always normal.

Edam. Am 9305
9328
9467
9532
9542
9585
9963
9996
10048
10067
10072
10110
10127
10148
10262
10751

10790
10806
10850
10903
10913
10967
11085
11121
11128
11256
11786.
11790
11830
11847
13270
13405

13423
13429
13448
13502
13512
13522
14383
14394
14873
14948
15022

Assume defective films.

Very ft.

Ex. by Miss Leavitt.

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1919phae.proj.1187W

Thursday, February 26, 1920.
and Saturday, February 28, 1920.

Examination of AM & AC Plates.

Region $16^h\ 00^m$ $-15°$

AM 14923 August 16, 1919, Eff. .62m
13006 April 14, 1917, Eff. .63m
13006 superposed on 14923

No plate showing faint enough stars was found among 1915 plates examined. (1915 was date desired for this comparison). April, 1917, has already been compared (another plate) but this is best plate found. 14923 shows a large number of stars, and the best possible comparison plate is wanted.

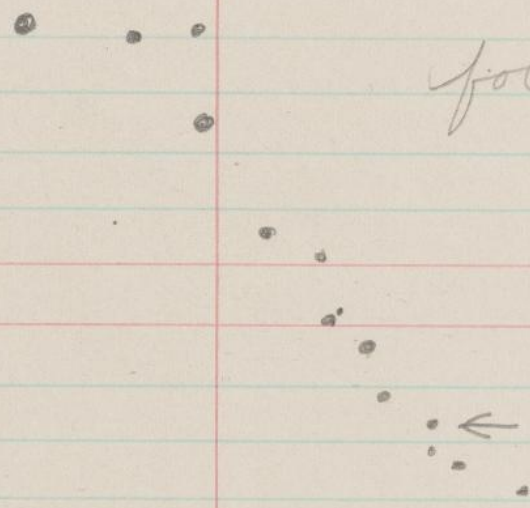
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1919phae.proj.1187W

Var.
-12° 4510
16 21 12

Nov 14923

following center



V Ophiuchi

Denér
1881

(see print)

c
br. on Aw 14923

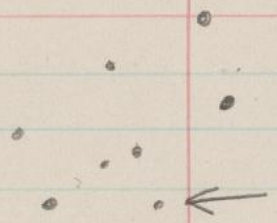
ft. on Aw 13006

14812 June 28, 1919
14815 June 29, 1919
AC 18828 May 11, 1917

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1919phae.proj.1187W

Var.?



following center.

$-16^\circ 4307$

162816

S Ophiuchi for an Ann 14923 ft. on 13006
14815

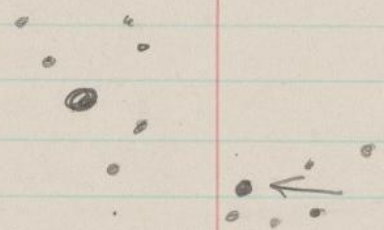
$16^h 28^m.5$ $-16^\circ 57'$
P. (1900)
Pogson
1854

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1919phae.proj.1187w

Continued in
Book 12, page 6.

Nova?
or Var.?



-15° 4455

170215

R Ophiuchi

17^{h} -15°

(1900)

Pogson
1853

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