

KG
11366
192

Ida E. Woods
Book 16.
Discussion, measures, etc., of
objects suspected as Nova.

KG 11366.192

1921phae.proj.1194w

Harvard College Observatory

Ida E. Woods

Book No. 16,
Continuation of
Book 8.

Discussion, etc., of
Objects suspected as Novae.

Found in examination of Southern Plates.
in Milky Way.

KG 11366.192



Nova Sagittarii, No. 7.

Date of Discovery, November 10, 1920.
Plate - Aul 15418

Sequence selected on B24009 and A2661.
" identified on A2661.

Reference sequence, *Nova Sagittarii*, No. 6,
as marked on print.

Magnitudes, Bk. 45, p. 717.

D18796 Plate enlarged, A 6050

Position measured, Miss Walker's Bk., p. 76,
copied, Bk. 14, p. 179.

Measure 2 MF plates

✓ MF 4465

✓ 6737

Measure 2 AM plates

✓ AM 8522

✓ AM 14154

Measure faint stars on 2 A Plates

✓ A 2661

✓ A 10112 } Estimates made, Argelander Method.

HARVARD COLLEGE OBSERVATORY

BULLETIN 733

A Nova has been discovered by Miss Woods at R. A. $17^h 59^m 44^s$, Dec. $-31^\circ 44'.9$ (1900). It was found by a comparison of a recent photograph with one made in 1914. The Nova appeared on the early plate. On a Bruce plate taken in 1902, no star is visible near this position brighter than magn. 17. On August 7, 1914, the Nova was fainter than magn. 11. On August 9, it was of about magn. 9.5, and on August 11 and 12 was at maximum, magn. 8. It began to fade at once and on October 8 had declined to magn. 12. On July 30, 1915, it was fainter than magn. 14. The position of this star, Nova Sagittarii, No. 7, is within a degree of that of Nova Sagittarii, No. 6, announced in H. B. 714.

Saturday, May 7, 1921

Nova Sagittarii, No. 7.

Magn. used -
Bla. 45, p. 75, Col. 18.

MF 4465	Measure of Magnitudes.	Reference Sequence =
Scale M	Se. 1	Se. 2
$\alpha = 1$ on 2661	> 1	
2	1.7 = 1.9	1.90 <u>a</u> . + 5.71
3	2.3 = 2.5	2.50 <u>a</u> . 5.31
4	2.7 = 2.9	2.90 <u>a</u> . 5.23
5	3.2 = 3.4	3.40 <u>a</u> . 5.11
6	3.6 = 3.8	B 3.80 <u>a</u> . 5.00
7	4.1 = 4.3	4.2 4.25 05 05 4.89
8	4.6 = 4.8	4.7 4.75 05 05 4.78
9	5.3 = 5.5	5.2 5.35 15 15 5.00
10	5.8 = 6.0	6.1 6.05 05 05 4.71
11	6.2 = 6.4	6.2 6.30 10 10 4.56
12	6.6 = 6.8	6.7 6.75 05 05 4.38
13	6.9 = 7.1	7.2 7.15 05 05 4.34
14		7.7 7.70 . <u>a</u> 4.20
15		7.3 7.30 . <u>a</u> 4.37
16		7.6 7.60 . <u>a</u> 4.68
17		8.3 8.30 . <u>a</u> 4.42
18		8.7 8.70 . <u>a</u> 4.37
19		8.7 8.70 . <u>a</u> 4.56
20		8.9 8.90 . <u>a</u> 4.64
21		9.3 9.30 . <u>a</u> 4.56
22	F	F . . F

Magn. * - Mean.

Prismatic Comp.

Scale 2

Magn. -
Mean.

1	7.1	7.10	-0.25
2	8.2	8.20	-0.59
3	8.5	8.50	-0.69
4	8.8	8.80	-0.67
5	9.1	9.10	-0.59
6	F	$\overline{9}$	$\overline{9}$

Diffraction Images

North.

Scale 2

South

Scale 2

Mean

Magn. -
Mean.

1	5.3	5.3	5.30	00 00	+1.55
2	6.4	6.4	6.40	00 00	+1.21
3	6.7	6.8	6.75	05 05	+1.06
4	7.2	7.2	7.20	00 00	+0.93
5	7.6	7.6	7.60	00 00	+0.91
6	7.8	7.8	7.80	00 00	+1.00
7	8.3	8.3	8.30	00 00	+0.84
8	8.8	8.8	8.80	00 00	+0.73
9	9.2	9.2	9.20	00 00	+1.15
10	9.5	9.6	9.55	05 05	+1.21
11	F	$\overline{9}$	$\overline{9}$		$\overline{9}$

Irra Sagittarii, No. 7.

MF 4465	Measures of Magnitudes.	Irra Sequence, No. 7.			
Scale M	Scale 1	Sc. 2	Mean	As marked on B 24009	
1	2.2 = 2.4		2.40	Q. ^{Read. f. curve} 5.83 7.73	
2	3.4 = 3.6		3.60	Q. 5.06 8.66	
3	3.2 = 3.4		3.40	Q. 5.11 8.51	
4	3.6 = 3.8		3.80	Q. 5.02 8.82	
5	3.5 = 3.7	B	3.70	Q. 5.04 8.74	
6	4.6 = 4.8	4.6	4.70	10 10	4.85 9.55
7	5.4 = 5.6	5.5	5.55	05 05	4.68 10.23
8	4.6 = 4.8	4.6	4.70	10 10	4.85 9.55
9	5.2 = 5.4	5.5	5.45	05 05	4.70 10.15
10	6.3 = 6.5	6.2	6.35	15 15	4.53 10.88
11	6.6 = 6.8	6.7	6.75	05 05	4.47 11.22
12	6.9 = 7.1	7.1	7.10	00 00	4.43 11.53
13	F	7.1	7.10	Q	4.43 11.53
14		7.5	7.50	Q	4.38 11.88
15		7.9	7.90	Q	4.35 12.25
16		8.1	8.10	Q	4.34 12.44
17		8.8	8.80	Q	4.45 13.25
18		8.7	8.70	Q	4.42 13.12
19		8.8	8.80	Q	4.45 13.25
20		F	F		F
21		F			

Prismatic Comp.

Scale 2

Read.
from Curve

Magn.

1	8.3	8.30	-0.60	7.70
2	9.2	9.20	-0.69	8.51
3	8.8	8.80	-0.67	8.13
4	9.3	9.30	-0.70	8.60
5	9.5	9.50	-0.70	8.80
6	$\bar{5}$	$\bar{5}$		$\bar{5}$

Diffraction Images

North
Scale 2

South Mean

Read.
from Curve. Magn.

1	6.9	6.9	6.90 00 00	1.07	7.97
2	7.5	7.6	7.55 <u>05</u> 05	0.95	8.50
3	7.1	7.1	7.10 00 00	1.02	8.12
4	7.6	7.6	7.60 00 00	0.93	8.53
5	8.2	8.2	8.20 00 00	0.89	9.09
6	8.7	8.7	8.70 00 00	0.90	9.60
7	*	8.8	8.80 00 00	0.91	9.71
8	8.7	8.8	8.75 <u>05</u> 05	0.91	9.66
9	8.8	8.8	8.80 00 00	0.91	9.71
10	$\bar{5}$	$\bar{5}$			$\bar{5}$
11	$\bar{5}$				

* 7 Star superposed on North Diff. Image.

Monday, May 9, 1921.

Magn. = Bk. 45, 75

Iota Sagittarii, No. 7.

MF 6737	Measures of Magnitudes.	Reference Sequence,
Scale M	Scale 1	Scale 2 Mean.
1	> 1.0	B
2	1.7 = 1.9	1.90 <u>a</u> .
3	1.7 = 1.9	1.90 <u>a</u> .
4	2.2 = 2.4	2.40 <u>a</u> .
5	2.6 = 2.8	2.80 <u>a</u> .
6	2.8 = 3.0	3.00 <u>a</u> .
7	3.6 = 3.8	B 3.80 <u>a</u> .
8	4.1 = 4.3	4.2 4.25 05 05
9	5.3 = 5.5	5.4 5.45 05 05
10	5.6 = 5.8	5.8 5.80 00 00
11	6.1 = 6.3	6.2 6.25 05 05
12	6.4 = 6.6	6.6 6.60 00 00
13	B	7.2 7.20 . <u>a</u>
14		7.5 7.50 . <u>a</u>
15		7.1 7.10 . <u>a</u>
16		7.7 7.70 . <u>a</u>
17		8.2 8.20 . <u>a</u>
18		8.7 8.70 . <u>a</u>
19		8.6 8.60 . <u>a</u>
20		8.9 8.90 . <u>a</u>
21		9.2 9.20 . <u>a</u>
22		9.5 9.50 . <u>a</u>
23		* "X
24		F B

* 23 Combined with Diffract. Image of 11.

Prismatic Comp.

	Scale 2	Mean	Magn. - Mean
1	7.3	7.30	-0.45
2	8.2	8.20	-0.59
3	8.5	8.50	-0.69
4	8.9	8.90	-0.77
5	9.2	9.20	-0.69
6	$\overline{8}$	$\overline{8}$	$\overline{8}$

Diffraction Images

	North Scale 2	South Scale 2	Mean	Magn. - Mean
1	5.2	5.2	5.20 00 00	+1.65
2	6.4	6.3	6.35 05 05	1.26
3	6.5	6.6	6.55 05 05	1.26
4	6.7	6.7	6.70 00 00	1.43
5	7.5	7.4	7.45 05 05	1.06
6	7.6	7.6	7.60 00 00	1.20
7	7.8	7.8	7.80 00 00	1.34
8	1. * 8	8.2	8.20 . $\underline{a}$	1.33
9	8.7	8.7	8.70 00 00	1.65
10	9.4	9.4	9.40 00 00	1.36
11	9.5	1. * 9.6	9.50 $\underline{a}$.	1.36
12	9.6	9.6	9.60 00 00	1.53
13	$\overline{8}$	$\overline{8}$	$\overline{8}$	$\overline{8}$

* Combined with a star.

Nova Sagittarii, No. 7.

MF 6737		Measure of Magnitudes. Seq. of Nova 7,					
Scale M	Scale 1	Scale 2	Mean	Read. f.	Curv.	Magn.	Dec B 24009
1	2.0 = 2.2		2.20 <u>a</u>		5.81	8.01	
2	2.9 = 3.1		3.10 <u>a</u>		5.66	8.76	
3	2.8 = 3.0		3.00 <u>a</u>		5.68	8.68	
4	2.9 = 3.1		3.10 <u>a</u>		5.66	8.76	
5	3.6 = 3.8	B	3.80 <u>a</u>		5.44	9.24	
6	4.1 = 4.3	4.4	4.35 <u>05</u>	05	5.26	9.61	
7	4.8 = 5.0	5.1	5.05 <u>05</u>	05	5.03	10.08	
8	4.6 = 4.8	4.7	4.75 <u>05</u>	05	5.13	9.88	
9	4.7 = 4.9	4.9	4.90 <u>00</u>	00	5.09	9.99	
10	5.8 = 6.0	5.9	5.95 <u>05</u>	05	4.76	10.71	
11	6.4 = 6.6	6.6	6.60 <u>00</u>	00	4.58	11.18	
12	6.6 = 6.8	6.8	6.80 <u>00</u>	00	4.54	11.34	
13		7.2	7.20 <u>a</u>		4.50	11.70	
14		7.1	7.10 <u>a</u>		4.50	11.60	
15		7.7	7.70 <u>a</u>		4.51	12.21	
16		8.1	8.10 <u>a</u>		4.52	12.62	
17		8.5	8.50 <u>a</u>		4.56	13.06	
18		8.6	8.60 <u>a</u>		4.57	13.17	
19		8.8	8.80 <u>a</u>		4.59	13.39	
20		9.3	9.30 <u>a</u>		4.65	13.95	
21		9.4	9.40 <u>a</u>		4.67	14.07	
22		9.8?	9.80 <u>a</u>		4.73	<u>14.53</u>	
23		9.8	9.80 <u>a</u>		4.73	<u>14.53</u>	

Prismatic Companions

	Scale 2		Read. fr. Curre.	Magn.
1	8.2	8.20	-0.60	7.60
2	9.1	9.10	-0.75	8.35
3	9.1	9.10	-0.75	8.35
4	9.1	9.10	-0.75	8.35
5	$\overline{F}$	$\overline{F}$	$\overline{F}$	$\overline{F}$
6				

Diffraction Images

North		South		Read. fr. Curre.		Magn.
	Scale 2		Scale 2 Mean			
1	6.1	6.2	6.15 05 05	1.37		7.52
2	7.5	7.5	7.50 00 00	1.26 ⁷		8.77
3	7.3	7.3	7.30 00 00	1.26		8.56
4	7.3	7.3	7.30 00 00	1.26		8.56
5	7.9	7.9	7.90 00 00	1.30		9.20
6	8.1	8.1	8.10 00 00	1.31		9.41
7	8.4	8.4	8.40 00 00	1.34		9.74
8	8.5	8.4	8.45 05 05	1.3 $\overline{5}$		9.80
9	8.7	8.7	8.70 00 00	1.38		10.08
10	9.5	9.5	9.50 00 00	1.49		10.99
11	9.5	9.5	9.50 00 00	1.49		10.99
12	$\overline{F}$	$\overline{F}$	$\overline{F}$			$\overline{F}$

Tuesday, May 10, 1921.

* Magn. =
34.45, p. 75

Nova Sagittarii, No. 7.

AM 8522
Scale A

Measures of Magnitudes.

Reference Sequence,

Nova Sag, No. 6

	Scale B	Scale C	Mean	* Magn. - Mean
1	4.1 = 3.7	B	3.70	<u>a</u> 3.15
2	5.2 = 4.8	4.7	4.75	05 <u>05</u> 2.86
3	5.3 = 4.9	4.8	4.85	05 <u>05</u> 2.96
4	5.8 = 5.4	5.5	5.45	<u>05</u> 05 2.68
5	6.1 = 5.7	5.7	5.70	00 00 2.81
6	6.4 = 6.0	5.9	5.95	05 <u>05</u> 2.85
7	7.1 = 6.7	6.5	6.60	10 <u>10</u> 2.54
8	7.2 = 6.8	6.7	6.75	05 <u>05</u> 2.78
9	7.7 = 7.3	7.3	7.30	00 00 3.05
10	<u>B</u>	7.6	7.60	• <u>a</u> 3.16
11		8.2	8.20	• <u>a</u> 2.66
12		8.4	8.40	• <u>a</u> 2.73
13		8.8	8.80	• <u>a</u> 2.69
14		9.2	9.20	• <u>a</u> 2.70
15		8.7	8.70	• <u>a</u> 2.97
16		9.4	9.40	• <u>a</u> 2.88
17		<u>B</u>	<u>T</u>	
18		<u>B</u>		

Measures of Magnitudes.

Sequence of Nova
Sagittarii No. 7.

	Scale B	Scale C	Mean	Res.	Reading fr. Curve	Magn.
1	5.6 = 5.2	5.1	5.15	05 05	2.75	8.00
2	6.4 = 6.0	5.7	5.85	15 15	2.77	8.62
3	5.8 = 5.4	5.5	5.45	05 05	2.81	8.26
4	6.2 = 5.8	5.8	5.80	00 00	2.78	8.58
5	6.6 = 6.2	6.2	6.20	00 00	2.74	8.94
6	6.9 = 6.5	6.6	6.55	05 05	2.72	9.27
7	7.7 = 7.3	7.4	7.35	05 05	2.70	10.05
8	7.4 = 7.0	7.1	7.05	05 05	2.70	9.75
9	7.7 = 7.3	7.4	7.35	05 05	2.70	10.05
10	8.7 = 8.3	8.5	8.40	10 10	2.73	11.13
11	8.9 = 8.5	8.8	8.65	15 15	2.74	11.39
12	$\overline{8}$	8.9	8.90	$\underline{0}$	2.76	11.66
13		9.3	9.30	$\underline{0}$	2.78	12.08
14		9.5	9.50	$\underline{0}$	2.80	12.30
15		$\overline{9}$	$\overline{9}$			$\overline{9}$

* Magn. =
Bk. 45, p. 75.

Nova Sagittarii, No. 7.

AM 1414⁵⁴
Scale A

Measures of Magnitudes.
Reference Sequence,
Nova Sag. No. 6.

14143 has images that are slightly elongated. Reject. Substituted.	Scale B	Scale C.	Mean	*Magn. - Mean.	
1	3.4 = 3.0	B	3.00 <u>a</u> .	3.85	
2	4.5 = 4.1	4.3	4.20 <u>10</u> 10	3.41	
3	4.7 = 4.3	4.6	4.45 <u>15</u> 15	3.36	
4	5.5 = 5.1	5.1	5.10 00 00	3.03	
14154	5	5.6 = 5.2	5.3	5.25 <u>05</u> 05	3.26
	6	6.1 = 5.7	5.6	5.65 05 <u>05</u>	3.15
	7	6.6 = 6.2	6.1	6.15 05 <u>05</u>	2.99
	8	6.7 = 6.3	6.5	6.40 <u>10</u> 10	3.13
	9	7.5 = 7.1	6.8	6.95 15 <u>15</u>	3.40
	10	7.9 = 7.5	7.6	7.55 <u>05</u> 05	3.21
	11	8.3 = 7.9	7.8	7.85 05 <u>05</u>	3.01
	12	8.7 = 8.3	8.3	8.30 00 00	2.83
	13	[9.1] omit	8.9	8.90 . <u>a</u>	2.59
	14	[9.3] omit	9.2	9.20 . <u>a</u>	2.70
	15		8.7	8.70 . <u>a</u>	2.99
	16		9.5	9.50 . <u>a</u>	2.78
	17		9.7	9.70 . <u>a</u>	2.02
	18		F		<u>F</u>

Measures of Magnitudes.
Sequence of Nova Sag. No. 7.

	Scale B	Scale C	Mean	Reading from Curve	Magn.
1	4.7 = 4.3	4.3	4.30 00 00	3.37	7.67
2	5.8 = ~~5.4~~	5.7	5.55 <u>15</u> 15	3.11	8.66
3	5.7 = 5.3	5.5	5.40 <u>10</u> 10	3.12	8.52
4	6.1 = 5.7	5.7	5.70 00 00	3.10	8.80
5	6.3 = 5.9	5.8	5.85 05 <u>05</u>	3.10	8.95
6	6.6 = 6.2	6.4	6.30 <u>10</u> 10	3.10	9.40
7	7.3 = 6.9	6.9	6.90 00 00	3.08	9.98
8	7.2 = 6.8	6.7	6.75 05 <u>05</u>	3.08	9.83
9	7.5 = 7.1	6.8	6.95 15 <u>15</u>	3.08	10.03
10	8.6 = 8.2	8.4	8.30 <u>10</u> 10	2.92	11.22
11	8.8 = 8.4	8.6	8.50 <u>10</u> 10	2.87	11.37
12	[9.2] omit	8.7	8.70 . <u>Q</u>	2.83	11.53
13	[9.4] omit	8.8	8.80 . <u>Q</u>	2.81	11.61
14	—	9.1	9.10 . <u>Q</u>	2.77	11.87
15	—	9.6	9.60 . <u>Q</u>	2.72	12.32
16	—	F	<u>F</u>	<u>F</u>	<u>F</u>
17					
18					

Friday, May 13, 1921.
and Saturday, May 14, 1921.
Nova Sagittarii, No. 7.

A 10112		Measures of Magnitudes of Sequence.		May 14. Estimates, Argelander	
Scale P	Reject these				
Reject	1	1.7 ? measures.	1	Magn.	Diff.
		Make	2	B ₁₂ 145:76	Magn.
		estimates	3		- Estimates
	3	2.3	4		Reading
	4	2.4	5		from Centre
	5	2.7	6		
	6	3.1	7		
	7	3.5	8		
	8	2.9	9		
	9	3.1	10		
	10	3.7	11	3	0.00 10.99 10.99 10.80 10.80
	11	3.9	12	6	0.30 11.19 10.89 10.82 11.12
	12	4.7	13	0	0.90 11.52 10.62 10.87 11.77
	13		14	0	0.90 etc. 10.83 10.87 11.77
	14		15	8	0.90 11.01 10.87 11.77
	15		16	2	1.70 10.58 10.90 12.60
	16		17	1	1.90 10.63 10.91 12.81
	17		18	3	2.00 11.16 10.92 12.92
	18		19	1	2.30 10.84 10.92 13.22
	19		20	4	2.40 10.92 10.92 13.32
	20		21	5	2.80 11.15 10.93 13.73
	21		22	2	3.30 10.77 10.93 14.23
	22		23	1	3.50 11.03 10.93 14.43
	23				3.60 10.93 10.93 14.53
				36	

Method.

May 14, 1921.

Nova Sagittarii, No. 7.

A 2661

Estimates of Sequence of Nova, No. 7.

Magn.
Bb. 45.77

Estimate

Magn. - Reading
Estimates from Curve

1					
2					
3					
4					
5					
6					
7					
8					
9		0.00	10.00	10.00	10.15
10	4	0.40	10.99	10.59	10.67
11	1	0.5	etc.	10.69	10.80
12	1	0.6		10.92	10.90
13	0	0.6		11.13	10.90
14	1	0.7		11.21	10.99
15	4	1.1		11.18	11.29
16	3	1.4		11.13	11.45
17	1	1.5		11.66	11.50
18	2	1.7		11.44	11.55
19	1	1.8		11.52	11.56
20	3	2.1		11.85	11.60
21	5	2.6		11.47	11.60
22	2	2.8		11.73	11.60
23	0	2.8		11.73	11.60
28					

See object on 24009

Saturday, May 28, 1921.

180031 Nova Sag. No. 7.

Estimates of Magnitude for Ledger -

* Sequence as marked on B 24009
Magnitudes, Bk. 45, p. 77

B 45001 on extreme edge. Comp. with 4 & 6.
9.1 5 off plate.

B 45010 9.5
Is image hazy

B 45049 11.3
45047 Does not cover region
45046 " " " "

Nov N. S. < 12.7

44932 8.5 On extreme edge
45000 9.1 Extreme edge. Comp. with
4 & 6. 5 off plate

44970 8.3
44946 8.2
A 11002 about 8.2 images very large and
out of focus.

A 110032 < 11.7

A 110085 9.7

10088 9.8

10098 11.4

10093 10.6

10257 < 11.7

10146 11.6

10171 " "

elongated images.

Nov N. S.

Too poor

Am 10052	10	Too poor
10180	12.2	
10051	"	Too poor
10047	8.2	
10038	8.9	
10079	about 9.27	
10080	9.6	
10115	$< \frac{10.2}{11.7}$	Star 9 = 1.2 Nova N.S.
10145	< 11.2	Nova N.S.
10121	< 11.0	" "
10126	< 10.0	" "
10043	7.7	A little brighter than Star 1. Compared with stars 2 and 3 of Seg. of Nova Sagittaris no. 6.
10084	9.8	
10138	11.5	
10087	9.9	
10099	11.4	
10096	10.3	
10031	< 11.0	Nova N.S. Very poor plate but important date. Images elongated.
10021	< 11.5	Defect in position of Nova but it is small and image would show if it appeared in that date.
9996	< 9.8	Nova N.S.
10048	$11 = 8.2$	
10067	8.7 or 8	
10110	Nova N.S. < 10.0	

Tuesday, May 31, 1921.

Estimates of Nova Sag No. 7 Cont.

Ant 10072	9.0
10110	Nova N.S. < 10.0
10127	" " < 11.2
10213	" " < 11.8
10020	" " < 10.0
10148	" " < 10.0
10262	" " < 10.0
Ac 15480	Too poor.

Wednesday, June 8, 1921.

Nova Sagittarii, No. 6.

Using stars as marked
on print.

Estimates of Magnitude.
Ledger of 1905.

Using magn. Bk. 45:74.

Anc 3720	N.S. < 11.9	
3732	N.S. < 11.1	
3742	8.8	
3750	7.3	Extreme corner
ac 6565	7.9	" "
Anc 3762	8.2	
3764	8.2	Extreme corner
3775	8.2	near edge
3792	8.1	" near edge
3801	8.2	Extreme corner
3802	8.2	
3810		
B 36792	about 10.0?	Estimate difficult. Nova
Anc 3822	9.7	in extreme corner, images distorted.
B 36858	Sf. Too poor to show	also, internal seg. stars
36868	N.S. < 12.7	8th 9 nearly a magn.
Anc 3859	< 11.1 N.S.	
ac 6632	"	Too poor for estimate Nova N.S.
Anc 3873	N.S. < 11.9	
3883	N.S. < 13.1	

November 3, 1921.

Nova Puppis,

To find position of Nova and ft. star close to
Nova.

B 31244

x x y y

m.m. m.m. m.m. m.m. Mean x Resid. Mean y Resid.

a -6.90 -6.90 -1.72 -1.72 -6.90 00 00 -1.72 00 00

b -4.41 -4.45 0.00 0.00 -4.43 02 02 0.00 00 00

c -2.35 -2.38 -3.38 -3.35 -2.36 01 02 -3.36 02 01

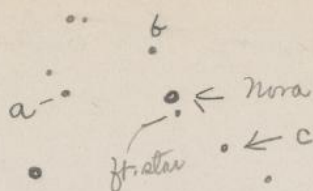
Nova -4.00 -4.00 -1.48 -1.48 -4.00 00 00 -1.48 00 00

faint star
close to
Nova. -3.82 -3.80 -1.62 -1.62 -3.81 01 01 -1.62 00 00

(constant of B Pl.)

Mean x - Nova	Mean y - Nova	x x 179	y x 179
-2.90 m.m.	-0.24	- 519.10	- 42.96
-0.43	+1.48	- 76.97	+264.92
+1.64	-1.88	+ 293.56	-336.52
+0.18	+0.14	+ 34.01	- 25.06

Map, film ref, 29
B 31244



C.P.D.

$a = \text{CDM} -26\ 5702\ 8\ 7\ 54.4 -26\ 11.7\ 9.9$
 $b = \text{CDM}, -26\ 5714\ 8\ 8\ 28.1 -26\ 7.1\ 9.7 -26^\circ\ 3170$
 $c = -26\ 5723\ 8\ 8\ 55.5 -26\ 17.2\ 9.4 -26^\circ\ 3172$

Oriented by $\left. \begin{matrix} -26^\circ\ 5708 \\ -26^\circ\ 5709 \\ -26^\circ\ 5710 \end{matrix} \right\}$

$a\ 6.90$
 $b\ 4.41$
 $c\ 2.35$

$nra\ 4.00\ 4.00\ 1.48\ 1.48$

Position checked by Miss Walker.
Constellation checked by Dr. Shapley.

CDul.

$$\begin{array}{rcl}
 -26\ 5702 & 8^h\ 7^m\ 54.4 & -26^\circ\ 11.7' \quad (1875) \quad \text{secant of } \delta = 1.1145 \quad 42.96- \\
 & -38.6 & -0.7 \\
 \hline
 & 8\ 8\ 33.0 & -26\ 11.0
 \end{array}$$

$$\begin{array}{r}
 519.10 \\
 15 \overline{) 578.536950} \\
 \hline
 38.56+
 \end{array}$$

$$\begin{array}{rcl}
 -26\ 5714 & 8\ 8\ 28.1 & -26\ 7.1 \quad (1875) \quad \text{secant of } \delta = 1.1138 \quad 264.92- \\
 & -5.7 & +4.4 \\
 \hline
 & 8\ 8\ 33.8 & -26\ 11.5
 \end{array}$$

$$\begin{array}{r}
 76.97 \\
 15 \overline{) 85.729186} \\
 \hline
 5.71+
 \end{array}$$

$$\begin{array}{rcl}
 -26\ 5723 & 8\ 8\ 55.5 & -26\ 17.8 \quad (1875) \quad \text{secant of } \delta = 1.1154 \quad 336.52- \\
 & +21.8 & -5.6 \\
 \hline
 & 8\ 8\ 33.7 & -26\ 11.8
 \end{array}$$

$$\begin{array}{r}
 293.56 \\
 15 \overline{) 327.436824} \\
 \hline
 21.83-
 \end{array}$$

Nova firm

(1875)

$$\begin{array}{rcl}
 \text{CDul. } -26\ 5702 & = & 8^h\ 8\ 33.0 \quad -26^\circ\ 11.0' \\
 -26\ 5714 & = & 8\ 8\ 33.8 \quad -26\ 11.5 \\
 -26\ 5723 & = & 8\ 8\ 33.7 \quad -26\ 11.8
 \end{array}$$

$$\begin{array}{r}
 15 \\
 \hline
 1.21
 \end{array}$$

$$-0.5 \quad +0.4$$

$$+0.3 \quad -0.1$$

$$+0.2 \quad -0.8^2$$

$$+0.5 \quad +0.4$$

$$-0.5 \quad -0.4^3$$

$$\text{Nova (1875)} \quad 8\ 8\ 33.5 \quad -26\ 11.4$$

$$\text{Prec. from 2.C.} \quad 1\ 2.9 \quad -4.4$$

$$\text{Nova (1900)} \quad 8\ 9\ 36.4 \quad -26\ 15.8$$

$$\text{Prec. C.P.D.} \quad 1\ 2.6 \quad -4.4$$

Position of faint star near Nova.

Nova = (1875) 8 8 33.5 -26 11.4 Sec. $\delta = 1.1144$
 $\begin{array}{r} 2.5 \\ \hline 8 \ 8 \ 36.0 \ -26 \ 11.8 \end{array}$
 $\begin{array}{r} 34.01 \\ 15 \overline{) 37.900744} \\ \underline{2.53-} \end{array}$

$25''.06 = 0.4'$

Faint star follows 2.5^s , south $0.4'$

From ZC, Am. Proc. $\alpha = \begin{array}{r} 2.5202 \\ \underline{25} \\ 63.0050 \end{array} \bigg| \delta = 10''.6685$
 $\begin{array}{r} 25 \\ \hline 62.8875 \end{array}$
 $\begin{array}{r} 25 \\ \hline 266''.7125 = 4' \ 26.7'' \end{array}$

Suspected Nova. Variable or Nova?

In (Mc Plates) Milky Way Region $19^h 4 - 3^{\circ}$

Only on MC 20917

For plates first exam. see Bk. 28, p. 40

Plot, p. 36

Not Variable

" Nova, see Bk. 28

→ Assumed Defect.

Object, p. 32, Cont.

Defeat —

omit

Object, p. 32 Cont.

Catalogues Nicolajew - 1875 positions
Strasbourg = 1900 "

	1	0	187561900
a -1 3777	1928 8.4	-1 59.1 9.0 4922	1929 10.58 -1 56 34.0
(1900) -2 5057	1928 47.2	-2 38.2 8.3 6715	1931 7.88 -2 32 29.4
c -1 3789	1929 57.2	-1 57.9 9.0 4935	1931 0.08 -1 55 33.6

-1 3789	(1900)	6727 19 32 17.85-152 20.0
---------	--------	---------------------------

Rejst, ser f. 38

Use triangle of stars all in -2° —
giving position for 1900.

mint

Object, p. 32, cont.

B23971	(1855)	Magn.	Genell.	(1900)
a -2 5052	19 28 12.6	-2 45.3	9.0 6702	19 30 32.56 -2 39 36.3
b -2 5057	19 28 47.2	-2 38.2	8.3 6715	19 31 7.88 -2 32 29.4
c -2 5066	19 30 17.3	-2 45.3	8.9 6735	19 32 37.83 -2 39 45.4

Measures not made — Object not 39
proved to be other than Defeat.

a

b

c

a

b

c

a 19 30 32.56 -2 39 36.3

b 19 31 7.88 -2 32 29.4

c 19 32 37.83 -2 39 45.4

Monday, March 21, 1926

Nova $17^h 18^m 22 - 24 42.5 (1900)$

Object 59, ^{MW} Region $17^h 12^m - 22^o$

Found on January 20, 1926 (found as Var. not suspected of being Nova until March)

Continued from

Bls 34, page 36.

On a plates of region

Later, this was suspected to be Nova, as the only two plates then showing it were a plates of slight diff. in date.

All plates examined did not show it except the ^{2d} B plates of dates in 1897.

See Ledger.

This was taken out of list of Variables to be announced, March 1926. (Milky Way Region)

Sequence of 39 KS 17 18 -26

Bk. 34, p. 117 Means. 48, p. 134

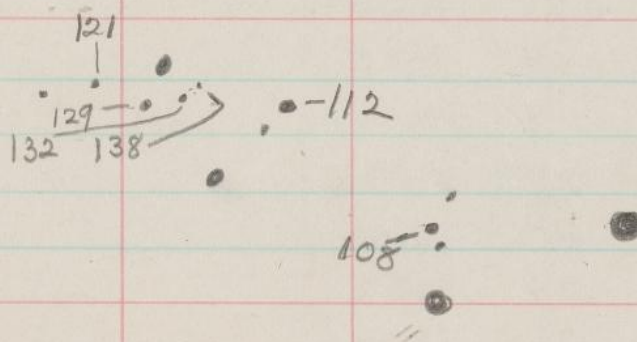
Mean Magn.

Corr. Magn. from B 44969

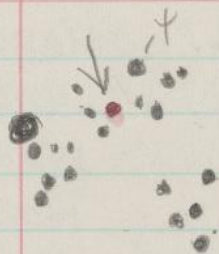
1	9.30	+0.17	9.47
2	9.98	0.21	10.19
2a	11.64	0.24	11.88
3	11.84	0.24	12.08
4	12.06	.24	12.30
5	12.12	.24	12.36
6	12.24	.24	12.48
7	12.38	.24	12.62
8	13.13	.26	13.39
9	13.06	.26	13.32
10	13.56	.26	13.82
11	13.74	.26	14.00
12	13.87	.25	14.12

Sequence of Nova taken directly from 39 Ks

39 Ks marked on B19416
 Nova Seq. marked on B44969



Estimates and marking on B44969



Detail from A 3794
Nova from 2676

and many fainter stars in background

Ledger Observations, 1897

Corr. Magns.					Eff.
[14.2	B	17439	Sept. 22 1896	2413825	10 ^m
11.3	B	19169	May 22, 1897	14067	10
12.0		19416	June 7	14083	10
11.5		19481	" 9	14085	10
12.0		19725	July 2	14108	11
11.9	A	2676	August 27	14164	67
12.2	B	20424	Sept. 17	14185	10
12.4		20445	" 18	14186	10
13.6 ~~14.0~~	A	2841	October 21	14219	61
13.5		2844	" 23	14221	62
[13.3	B	21103	March 28, 1898	14377	10
[12.9		21146	April 2, "	14388 ²	10
[17.0	A	3517	May 8, 1899	14783	242
[17.0		3519	" 9,	14784	230
[17.0		3522	10,	14785	270
		3524			
[17.0		3527	16,	14791	60
		3528			
[18.0		3794	August 1,	14868	180

Bibliography: 17 18 22 -24 42.5 (1900)

Discovered as Var., Region 1712-22,
No. 59, Bk. 34, page 36, January 20, 1926.

Confirmed by Miss Cannon

Bh. 29, p. 152 Position

16, 42 Comparison stars, Based on 39 Ks

44 Observations 1897

46, etc. Exam. other plates.

Years, 1890 to 1925, except 1892

March 24, 1926

Nova. Plates examined.

A Plates not showing Nova, besides those
near date of 1897, see page 44

in cont
also p. 44
also on 44

A	3527	May 16	1899	60	
	3794	August 1,	1899	180	shows stars probably fainter than 18.5
	9375	June 14	1909	60	

Summary

page	46	A Plates	2 ¹	2 ¹ (besides p. 44)
47	Am	"	52 [✓]	
48			54 [✓]	
49			54 [✓]	
50			18 [✓]	
51			49 [✓]	226 ⁷
52	a K			3 [✓]
52	a X			13 [✓]
53	B		26 [✓]	
54			25 [✓]	
55			26 [✓]	
56			23 [✓]	
57			5 [✓]	105
				349 ⁵⁰
44	1897 etc			17
				366 ⁷

(B plates were examined before Am. but Am. are recorded first for convenience in disposing of plates)

Now

Plates examined

Am Plates - $18^h 00^m - 30^0$

Am	15	1899	Am	2572	1904
	137	1899		2639	~~26~~
	461	1900		2713	
	538	1900		2756 ²⁷⁴⁶	
	802	1901		2797	
	808	1901		2854	
	817	1901		2916	
	907	1901		2959	
	1028	1901		3002	to 1904
	1043	1901		3392	1905
	1236	1902		3448	
	1252	1902		3496	
	1278	1902		3537	
	1414	2		3599	
	1422	2		3625	
	1437	2		3689	
	1487	2		3802	
	1528	1902		3883	1905
	1952	1903		4205	1906
	2085	3		4269	
	2109	3		4311	
	2129	3		4339	
	2147	3		4365	
	2244	3		4388	1906
	2261	1903		4527	1906

long exp. 1428

51
52

Pl. 2 Cols. of Plate Nos.

Nova

Am Platis

Am 4539	1906	Am 11084	1915
4562		11276	1915
4620	1906	11785	1916
4804	1907	11829	1916
4954		12208	1916
5013		12216	1916
5024		13440	1917
5090		14682	1919
5114	1907	15021	1919
5340	1908	15294	1920
5390		15486	1920
5444		15745	1922
5576		15767	1922
5683		15795	1922
5712	1908	15818	1922
6946	1910	15826	1922
8937	1913	15842	1922
8944		15869	1922
8999		15909	1922
9068		15931	1922
9090		15934	1922
9131		15990	1922
9336	1913	15993	1922
10570	1915	15996	1922
10741		16015	1922
10764		16017	1922
10788	1915	16018	1922

Insert
p. 49
also, p. 50

54

Cont. p. 50

N.B. 2 Cols. of Nos.

Insert, page 48

(Am 6347	1909	Am 8579	1912
6454	1909	8598	1912
6592	1909	8624	1912
6952	1910	8883	1913
7033	1910	8903	1913
7063	1910	9146	1913
7084	1910	9197	1913
7163	1910	9203	1913
7265	1910	9237	1913
7457	1911	9267	1913
7458	1911	9860	1914
7523	1911	9889	1914
7549	1911	9891	1914
7606	1911	9937	1914
7676	1911	9943	1914
7792	1911	9947	1914
7841	1911	9977	1914
8301	1912	9983	1914
8307	1912	10038	1914
8369	1912	10085	1914
8390	1912	10088	1914
8423	1912	10093	1914
8469	1912	10098	1914
8485	1912	10146	1914
8492	1912	10180	1914
8522	1912	10822	1915
8559	1912	10902	1915

54

Am	16059	1922
	16068	1922
	16120	1922
	16220	1923
	16262	1923
	16296	1923
	16351	1923
	16382	1923
	16386	1923

9

Insert,

p 48 Am	5640	1908
	5820	1908
	5854	1908
	6011	1909
	6114	1909
	6170	1909
	6228	1909
	6338	1909
	6343	1909

9

NB 2 Cols in this page

Regim ^{h m} 17 ⁰⁰ - 30°				
Amc	4858	1907	Amc 13276	1917
	8122	1912	13302	1917
	8574	1912	13319	1917
	8578	1912	13337	1917
	9123	1913	13488	1917
	10427	1915	13492	1917
	10435	1915	13497	1917
	10623	1915	13696	1917
	10632	1915	14022	1918
	10656	1915	14037	1918
	10662	1915	14048	1918
	10709	1915	14061	1918
	10715	1915	14083	1918
	10722	1915	14266	1918
	109 ~~52~~ ⁷³	1915	14782	1919
	11316	1915	14885	1919
	11875	1916	14938	1919
	11915	1916	14958	1919
	11926	1916	15417	1920
	12285	1916	15609	1921
	12296	1916	15649	1921
	12342	1916	16043	1922
	12581	1916		
	12592	1916		
	13022	1917		
	13040	1917		
	13254	1917		

49

Mora

AK 233 April 1, 1909
 288 May 1, 1909
 508 Sept 26, 1909

 3
ax $18 + 30^\circ$

488 April 29, 1924

535 May 13

613 June 23

725 July 26

see clouds 765 Aug. 22

1032 April 29-30, 1925

1049 May 14-15

*
edge of lane? 1146 June 15-16

1180 June 23-24

1220 July 16-17

1284 August 15-16

1316 Sept. 10-11

1360 October 8-9

 13

Nora

B Platis see sketch page 43, identifying x

B 5392	June	1890	x seen	
5954	May	1891	x barely seen	
5955	May	1891	poor	
6090	May	1891	x N.S.	
6091	May	1891	x N.S.	
9205	-	-	x seen	
9206			x seen	
9208			x seen	
9209			x seen	
9848	July	1893	x seen	
11285	May	1894	x seen	
13533	June	1895		shows ft. stars
13987	July	1895	x seen	
13992	July	1895		ft. stars
15823	May	1896	x N.S.	
16030	May	1896		ft. stars
16447	June	1896	x N.S.	
16638	July	1896	x N.S.	
1897 ^{etc.}	Plates, see Observations, page 44			
21514	May	1898		ft. stars
21915	Sept.	1898	x seen	
22006	Oct.	1898	x N.S.	
22794	May	1899	x N.S.	
22857	May	1899		ft. stars
23057	June	1899	x barely seen	
23658	July	1899	x seen	
23967	Aug.	1899		ft. stars

** = get out plates long exposure for
expos. of further stars.

	B 24133	Sept	1899	ft stars
	25079	April	1900	x not seen
	25268	May	1900	ft stars
Cup 67 ft st	* 25559	June	1900	ft stars
	25913	Sept	1900	poor
	25917	"	1900	poor
	26343	Oct.	1900	x n.s.
	26431	Oct	1900	ft stars
	26455	Oct	1900	ft st
	26460	Oct	1900	ft. stars
Cup 50	26482	Oct	1900	ft st
	26490	Oct	1900	ft st
Cup 64	28170	Aug	1901	ft st
	28254	Aug	1901	x seen
	29517	Apr.	1902	x barely seen
	29814	May	1902	x seen
	29819	May	1902	x seen
	30104	June	1902	poor
Cup 60 **	30248	June	1902	ft stars
Cup 60 **	30275	July	1902	ft. stars
~~Cup 60~~	~~33758~~	~~May~~	~~1904~~	~~ft stars~~
~~Cup 62 **~~	~~34008~~	~~June~~	~~1904~~	~~ft stars~~
	30577	Sept	1902	x
	30586	Sept	1902	x
	31477	Apr.	1903	x
	31727	May	1903	x
	31918	June	1903	x

	B	32041	June	1903	ft. stars
		32099	July	1903	ft stars
Exp 66 **		32277	July	1903	ft stars
		32694	Oct.	1903	X
		33300	Apr.	1904	X
		33332	Apr.	1904	X barely seen
		33808	May	1904	X
Exp 60		33758	May	1904	ft stars
		33808	May	1904	X
		33851	May	1904	X
Exp 62 **		34008	June	1904	ft stars
		34246	July	1904	ft stars
		35713	March	1905	X NS
		35813	April	1905	X NS
		36379	July	1905	X seen
		36467	July	1905	X NS
		36912	Sept	1905	X barely seen
		37498	May	1907	X seen
		38943	May	1908	X seen
		38974	May	1908	X seen
		40132	April	1909	X NS
see		42305	May	1911	X NS
Insert		42666	Sept	1911	X barely seen
L. 56		43025	April	1912	X NS
		43122	May	1912	X NS
		43134	May	1912	X barely seen
		43708	May	1913	X NS

B	43765	June	1913	x NS	
	44103	August	1913	x seen	
	44536	June	1914	ft stars	
	44710	July	1914	ft. stars	
	44940	Aug.	1914		edge
	44944	Aug.	1914	x NS	
	44956	Aug.	1914	x barely seen	
44969	45482	Aug.	1915	x barely seen	
	46593	May	1916	x seen	
	46645	May	1916	x NS	
	46647	May	1916	x NS	
	46648	May	1916	x NS	
	46834	May	1916	x NS	
	46866	May	1916	x seen	
	46898	May	1916	x NS	
	47740	July	1916	x NS	
	48009	July	1916	x NS	
	#			~~x seen~~	

Insert page 55	40267	May	1909	ft. stars	
	41364	May	1910	x NS	
	41485	June	1910	x seen	
	41626	July	1910	x NS	
	42233	April	1911	x seen	
	46898	May	19	x NS	

223

B 50001	April 1917	1917	x NS
50993	June	1917	x NS
51100	June	1917	x NS
51146	June	1917	x NS
51182	June	1917	x NS

5

Sept. 15, 1927

Region $18^{\text{h}} 24^{\text{m}} - 23^{\circ}$

Object No. 30

Nova

position measured, Bk. 39, p. 150

Examined, proved, etc., among
Milky Way Vars, proved to be Nova.

See Bk. 38 p. 161.

Found July 1, 1926 on B. long exposure Plates

H13

Region 1824-23

Object No. 7

Nova of 1924

Position meas. 39, 152

Examined, proved, etc, among
Milky Way Vars., proved to be Nova.

See Bk. 37, p. 88, etc -

Found April 30, 1926, on MF plates.

1921phae.proj.1194w