KG
11365
966

H.S.L. Book 44

Miscellaneous

KG1365,965

H.S.L. Book 44 Miscellaneous.

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Tuesday, January 20, 1920

121561 R Y Urs. Maj.
Estimate Cont. from Book 41

Magnitudes of Comp. Stars (numbered on
Plate I 25342

a	7.8	e	9.4
b	8.4	f	9.6
c	8.9	g	10.2
d	9.0		

J. D.			
19487.797	AC ✓13027	9.0 ? e	
19492.741	✓13045	9.1	
19501.757	✓13075	9.0	
19518.591	✓13107	9.0	neb
19527.591	✓13123	8.9	
20062.909	✓14452	9.4 ?? eq~~nef~~	neb
20078.921	✓14526	9.3 ? eq	
20121.924	✓14696	9.3 ? e	neb
20129.933	✓14710	9.2 ? e	
20143.900	✓14756	9.1 ? eq	neb
20171.847	✓14848	9.0 ? eq	neb
20200.708	✓14935	9.1 ? eq	neb
20459.926	✓15769	9.1 e	
20205.802	✓14973	9.0 ? e	neb
20246.642	✓15124	8.8 e	
20259.643	✓15160	9.0 e	
20307.587	✓15292	9.3 e	
20453.930	✓15735	9.0	
17788.565	✓8646	8.9	

Tuesday, Jan. 20, 1920

R Y Urs. Maj. Cont.

J. D.			
19094.792	AC ✓12357	9.5 e	neb
19175.570	✓12369	9.3 e	
19218.632	✓12409	9.2 ? e	
19226.630	✓12436	9.0 ? e	
19308.529	✓12590	8.9 ? e	neb
19353.913	✓12729	9.3 ? e i	
19409.832	✓12833	9.4 e	
19414 ~~12847~~.936	✓12847	9.5 e	
19439.875	✓12884	9.3 ? e	neb
19441.940	✓12896	9.3 ? e	neb
19441.858	✓12894	9.4 ? e	neb
19461.878	✓12963	9.1	
17810.550	✓8713	9.0 ? g f	
17947.928	✓9153	9.2 ? e f g	
17976.836	✓9240	9.0 ? e	
17979.900	✓9250	9.0 ? e	
17992.788	✓9281	9.0 ? g	
18235.478	✓9837	9.2 e	
18261.925	✓9918	9.1 e	
18809.603	✓11667	9.4 i	
18848.748	✓11733	9.3 e	
18864.590	✓11776	9.3 e	
18975.909	✓12073	9.1 ? e	neb
19033.949	✓12247	9.0 ? e	
19044.935	✓12283	9.2 e	
19067.762	✓12319	9.2 e i	
19086.817	✓12337	9.4 e	
18688.869	✓11313	9.0	

Tues. Jan. 20, 1920

RY Urs. Maj. Cont.

J. D.		
✓ 5150	I25316	9.2
✓ 5152	25342	9.1
✓ 4968	24005	9.0
✓ 4800	22927	9.3

Wednesday Jan. 21, 1920

RY Urs. Maj. Cont.

J. D.		
✓ 3908	I16~~8~~785	9.3
✓ 3901.	16712	9.3
✓ 3907	16754	9.3
✓ 3789	15697	8.8
✓ 3766	15522	8.8
✓ 3878	16537	9.3
✓ 3996	17537	9.1
✓ 3734	15357	9.2
✓ 3758	15476	8.9
✓ 3935	17029	9.1
✓ 4056	18086	8.8
✓ 3972	17346	9.2
✓ 3979	17395	9.2
✓ 4136	18367	9.2
✓ 4026	17811	8.9
✓ 3823	15988	9.2
✓ 4884	23363	9.1
✓ 3447	13476	9.0
✓ 3442	13437	8.9
✓ 3721	15277 ~~15278~~	8.9 i
✓ 3729	15300	9.0
✓ 3841	16120	9.2
✓ 3855	16250	9.3
✓ 3855	16251	9.2
✓ 4087	18205	8.9

Wednesday, Jan. 21, 1920

R Y Urs. Maj. Cont

J.D.			
✓ 4087	182$\overset{0}{8}$4	8.9	
✓ 2179	5925	8.9	
✓ 25$\overset{7}{2}$9	8468	8.9	
✓ 2579	8469	8.9	
✓ 1817	3338	9.2	
✓ 1817	3339	9.1	
✓ 1844	3436	9.2	
✓ 184$\overset{9}{2}$	3492	8.9	
✓ 1487	1099	9.2	
✓ 2011	4441	9.1?	g
✓ 1570	1498	9.1?	g
✓ 2133	5529	8.8	
✓ 2146	5723	8.9	
✓ 1889	3673	8.8	i

Thursday, Jan. 22, 1920

R Y Urs. Maj. Cont

1916 ✓ May 24	21008	AC 17625	9.2?	neb
✓ Mar. 28	0951	17456	9.3	neb
✓ May 6	0990	17571	9.3?	neb
✓ July 6	1051	17714	9.0	
✓ May 31	1015	17639	9.0	
✓ Apr. 3	0957	17480	9.3? e	
✓ Apr. 13	0967	17519	9.2? e	
✓ May 4	0988	17563	9.2? e	
✓ Mar. 28	0951	17455	9.3 e	
✓ Mar. 16	0939	17405	9.3 e	
✓ Feb. 7	0901	17297	9.3 e	
✓ Jan. 18	0881	17230	8.9 e	yellow
✓ Jan. 13	0876	17209	9.2 e	
✓ Apr. 2	0956	17474	9.3 e	
✓ June 2	1017	17647	9.0 e	
✓ Feb. 15	0909	17324	9.4 e	
✓ Mar. 1	0924	17376	9.4 e	
✓ Mar. 23	0946	17428	8.4 e	yellow
✓ Mar. 31	0954	17464	9.3? e	neb
✓ Apr. 12	0966	17512	9.3? e	neb
✓ May 6	0990	17570	9.4? e	neb
1916 ✓ June 20	1035	17662	9.1? e	~~neb~~
1915 ✓ Nov. 5	08$\overset{0}{1}$7	16934	8.9 e	
✓ Nov. 24	0826	17029	8.8 e	
✓ Sept. 14	0755	16728	8.9 e	
✓ Dec. 14	0846	17112	8.9 e	
✓ Dec. 16	0848	17133	9.0? e	neb
1915 ✓ Nov. 12	08$\overset{2}{4}$4	16981	8.9 e	

~~Friday, January 30, 1920~~

121561 R Y Urs. Maj. Cont.

	AC ~~2845~~	~~tp~~
✓1902 Oct. 7	2864	9.3 q
~~1902 Aug. 31~~	~~2799~~	~~tp~~
✓1902 Aug. 7	2726	8.9
✓1902 Oct. 20	2915	9.3
✓1902 July 16	2693	8.6
✓1902 July 13	2689	8.7
✓1903 Feb. 17	3303	9.0
✓1902 Dec. 28	3114	8.8
✓1903 Feb. 18	3317	8.9
	~~8656~~	~~tp~~
✓1907 July 10	8602	8.9 ? e f
✓1907 July 3	8586	8.8 ? e f
✓1909 March 8	10294	~~8.8~~ 9.0 e
" 11	10296	9.1 e
✓1909 Feb. 6	10219	8.9 e
	~~10008~~	~~tp~~
1908 Dec. 5	10000	9.1 e
✓1908 Oct. 22	9842	9.3 ? e
✓1908 Aug. 31	9708	9.3 ? e
	~~9624~~	~~tp~~
✓1902 Dec. ~~21~~ 31 ?	3132	8.7
✓1903 Feb. 13	3296	8.9
✓1903 Feb. 17	3309	8.9 ? e
✓1908 Feb. ~~23~~ 8	10223	9.0 q
✓1908 June 29	9587	8.9
✓1908 Feb. 2	9229	9.1

Friday, Jan 30, 1920

121561 R Y Urs. Maj. Cont.

✓1907 July 9	AC 8598	8.8
✓1907 Aug. 26	8720	8.9
✓1902 July 2	2661	8.8
✓1902 June 17	2629	8.8
✓1902 Sept. 8	282~~X~~1	9.2
✓1908 June 25	9575	9.0
✓1908 Nov. 23	9952	9.3 ? e f
✓1908 Dec. 31	10128	8.9 e
✓1909 Jan. 31	10189	8.9 e
✓1909 Feb. 6	1021~~X~~7	8.8 e
✓1909 Feb. 11	10226	8.8 e
✓1909 Mar. 11	10297	8.9 e
✓1907 June 7	8532	8.8 e
	~~9086~~	~~tp~~
	~~9087~~	~~tp~~
✓1908 Jan. 6	9152	9.2 e
✓1908 Feb. 4	9240	8.9 e
	~~2657~~	~~tp~~
✓1902 July 11	2680	8.8 e
✓1902 Dec. 5	3047	9.2 e
✓1903 Jan. 12	3165	8.8 e
✓1903 Feb. 7	3259	8.7 e
✓1903 Feb. 13	3295	8.8 e
✓1903 Feb. 18	3316	8.9 e
✓1903 Mar. 1	3383	8.9 e
✓1902 June 26	2646	8.9 ? e f
✓1902 July 11	2681	8.7 e

✓1902 Sept. 8	AC 2820	9.2 e
✓1902 Nov. 28	3025	9.2 e
✓1902 Dec. 7	3054	9.2 e
✓1903 Jan. 13	3174	8.9 e
✓1903 Feb. 2	3238	8.8 e
✓1903 Feb. 9	3272	8.8 e

Order of Plates pp 12, 13

✓AC 2629	AC 3174	AC 9575
✓2646	3238	9587
2657	3259	9624
✓2661	3272	9708
✓2680	3295	9842
✓2681	3296	9952
2689	3303	10,000
✓2693	3309	10008
✓2726	3316	10128
~~2799~~	3317	10189
2820	✓3383	1021~~X~~7
✓282~~X~~1	8532	10219
✓2864	8586	10223
✓2915	8598	10226
✓3025	8602	10294
✓3047	8656	10296
✓3054	8720	10297
3114	9152	
3132	92~~2~~29 ✓	
3165	9240 ✓	

Friday, Feb. 20, 1920

121561 R Y Urs Maj. Repeated Estimates

a	7.8	✓	I 25342	9.2	
b	8.4	✓	AC 2680	8.8	
c	8.9	✓	AC 14526	9.2?	e f
d	9.0	✓	14452	9.3?	neb e f
e	9.4	✓	13927	9.3?	e g mult. im.
f	9.6	✓	11195	9.1?	
g	10.2	✓	11269	8.9	
		✓	13524	9.3	
		✓	13641	9.2	
		✓	13781	8.9?	mult. im.
		✓	13869	9.2?	neb
		✓	13977	9.1	
		✓	11313	9.0	
		✓	13989	8.9	
		✓	2629	8.9	
		✓	2681	8.7	
		✓	14036	8.8	
		✓	14136	9.1	
		✓	11357	8.7	
		✓	259	9.0	
		✓	14059	9.0	
		✓	319	9.2	
		✓	333	9.2	
		✓	726	9.0	
		✓	753	9.3	
		✓	1123	8.9	e
		✓	1137	8.9	

Friday, Feb. 20, 1920

121561 R Y Urs Maj. cont

✓	AC 1196	9.3	
✓	1292	9.3	
✓	2068	9.3	
✓	2116	9.4	
✓	2259	9.1	g
✓	2265	9.2	
✓	2336	8.9	
✓	2416	8.8	
✓	2431	8.8	
✓	2140	9.3	
✓	2534	8.8	
✓	2611	8.7	
✓	2932	9.2	
✓	3680	8.4	Not a yellow plate, according to the record, but the stars of the sequence do not appear quite normal. Star e appears rather ft.
✓	I 17029	9.2	
✓	17346	9.1	
✓	17395	9.1?	prin. comp.
✓	17537	9.0	
✓	17811	9.0	(p.c.
✓	18086	8.9	
✓	18204	9.0?	
✓	18205	9.0?	
✓	18367	9.3	

(Cont)

Friday, Feb. 20, 1920

121561 RY Urs Maj. Cont.

✓	I 22927	9.3
✓	23363	8.9
✓	24005	8.9
✓	8468	8.9? e
✓	8469	8.9
✓	13476	8.9 e
✓	13437	9.0?
✓	15277	9.0?
✓	15300	9.0
✓	15357	8.9
✓	15476	8.9
✓	15522	8.9
✓	15697	8.8
✓	15988	9.2
✓	16120	9.3
✓	16250	9.3
✓	16251	9.3
✓	16537	9.4
✓	16712	9.3
✓	16754	9.4
✓	16785	9.4
✓	1099	9.3
✓	1498	9.0? q
✓	3338	9.0? q
✓	3339	9.0?
✓	3436	9.1? e
✓	I 3492	8.9? e
✓	3673	8.7
✓	4441	8.9? q
✓	5529	8.9? eq
✓	5723	8.9? eq
✓	5925	8.9? eq

Saturday, Feb. 20, 1920

121561 RY Urs. Maj. Cont.

Third estimate on discord. plates

✓ AC 2265
9.1?

✓ I 15357
9.1?

AC 2265
First est. 8.9 Reject. Wrong
Second 9.2 Retain

I 15357
~~Di~~
First est. 9.2
Second 8.9
Difficult, Retain all three

Tuesday, April 13, 1920

T Pyxidis.

Observations on Plates showing the Nova bright in 1920.

Magnitudes of Comparison Stars

a 6.9 b, 7.6 c, 7.7 d, 8.0 e, 8.6

f, 8.9 g, 9.0 h, 9.4 k 10.0 l 10.4

m 10.8 n 11.2 o 11.5 p 12.0

A 5.1 B 5.6 C 6.0 D 6.2 E 6.4 F 6.8

J.D. 22412 AC 22540 7.4 ~~April 6~~ March 28

22424 AC 22571 7.4 April 9

22421 I 39919 6.6? April 6

Compared with star a, only. The brighter comparison stars are all too distant

22394 AC 22504 7.7 March 10

22424 $a\overset{I}{\cancel{C}}$ $1964\overset{2}{\cancel{8}}$ 7.7 April 9

22421 AC 22555 6.6 April 6

Compared with Stars C and a

T Pyxidis

Observations repeated

South at the top

AI 19642 7.7 7.7 7.70 00

AC 22504 7.7 7.7 7.70 00

AC 22555 $\overset{6}{\cancel{8}}$.6 6.6 6.60 00

I 39919 $\overset{6}{\cancel{8}}$.7? very bright 6.6? 6.65 10

Compared with Star a only

AC 22540 7.3 l 7.4 7.35 10

AC 22571 7.4 7.4 7.40 00

Saturday, April 24, 1920

T Pyxidis cont.

North at top

J.D. 224~~19~~25	AC 22581	6.9	6.9	6.90 $^{0\,0}$
22429	AI 19661	7.6	7.7	7.65 $^{0\,1}$
	AI 19624	too poor		
22425	AI 19652	7.0	7.0	7.00 $^{0\,0}$
22429	AC 22590	7.8	7.7	7.75 $^{1\,0}$

South at top

AC 22581	6.9
AI 19652	7.0
AI 19661	7.7
AC 22590	7.7

Wednesday May 5, 1920

Star at $7^h\ 20^m\ 6^s$, + 15° 40′ 25″ (1920)
Follows B.D. +15° 1564 about 3′ of arc.

Missing from B.D. Found on plates taken March 22 and April 10 with 5″ and 6″ portrait lenses at Berkeley, Cal. Found by a student, H. B. Kaster.

See letter from Leuschner May 1, 1920.

The star was photographed here on March 23, April 3, April 6, and April 8, and appears constantly of about the magnitude 9.1 in comparison with H.S. Seq. C 4. Examination of the following AC plates shows it uniformly of the same brightness. On Plate I 916, taken April 1, 1890, it is seen, and of the same brightness. It does not seem to be necessary to look it up further. In the Bordeaux catalogue it is given as of Magn. 9.0 (1906.3)

Plates Examined and showing the suspected star of constant brightness:—

I 916, April 1, 1890
AC 3427, March 14, 1903
AC 5700 Dec. 10, 1904
AC 5784 Dec. 29, 1904
AC 5884 Jan. 23, 1905
AC 6834 Oct. 12, 1905
AC 7988 Nov. 7, 1906
AC 9999 Dec. 5, 1908
AC 10942 Oct. 18, 1909

AC 11268 Jan. 8, 1910
14617 Dec. 3, 1913
14877 Feb. 14, 1914
22446 Feb. 26, 1920
22523 Mar. 23, 1920
22553 April 3, 1920
22557 April 6, 1920
22558 April 6, 1920
22563 April 8, 1920

Wednesday, July 7, 1920

μ' Scorpii (For Miss Maury)

Estimates of intensity of spectrum of μ, in ~~terms of~~ comparison with μ2

X ~~1707~~ 7707		
μ, 4 μ_2		3
X 7708	μ, 3	3
X 7750	μ, 5	4.5
X 8370	μ, 5	4
11334	μ, 2	2.5
7732	μ, 1	2
9230	μ, 2	2.5
7759	μ, 2	2.5
8468	μ, 4	4
9080	μ, 4	3.5
9553	μ, 3	3.5
8573	μ, 4	4
11056	μ, 1	2
10873	μ, 2	2.5
narrow 7700	μ, 3	3
7714	μ, 3	3
narrow 7694	μ, 2	2
11055	μ, 2	1.5
9208	μ, 4	3
13162	μ, 1	1
9275	μ, 3	2.5
10287	μ, 2	1.5
11386	μ, 3	2.5

μ, Scorpii Cont.

X 11382	μ, 2	2
(broad) 7694	μ, 2	2
10862	μ, 2	1
9300	μ, 1	2
11073	μ, 1	1
10743	μ, 2	1.5
narrow) 9139	μ, 2	2
10603	μ, 2	2
broad) 7700	μ, 3	3
7715	μ, 3	2
7726	μ, 2	2
7850	μ, 3	3
7851	μ, 3	2
9164	μ, 4	4
11324	μ, 2	2.5
7837	μ, 5	3.5
7902	μ, 5	5
9030	μ, 5	5
7761	μ, 4	4.5
narrow ~~7826~~ 7626	μ, 4	4
8009	μ, 3 ?	4 ?
7720	μ, ~~2~~ 3	3
7731	μ, 2	2
7733	μ, 1	2
7716	μ, 2	2.5
7735	μ, 2	2.5
7711	μ, 2	1.5

μ, Scorpii Cont

broad	X 7626	μ, 4	4
	10551	μ, 1	1
	7752	μ, 3	3
	11074	μ, 1	1
	10747	μ, 1	2
1 pr	5776	μ, 3	2.5
1 pr	5710	μ, 2	2
	7697	μ, 2	3
	10597	μ, 1	2
	7703	μ, 4?	3?
	7709	μ, 2	1
narrow	7710	μ, 3	3
	7725	μ, 3	2.5
	7730	μ, 2	2
	7749	μ, 3	3
	7743	μ, 3	3
broad	7710	μ, 3	3
	7751	μ, 3+	4
	7814	μ, 2	3
	7980	μ, 3	3
	7734	μ, 1	1.5
	7790	μ, 3	2.5
	9043	μ, 5	4.5
	9310	μ, 3	3
	9902	μ, 2	3
	7736	μ, 2	1.5

Wed. July 7, 1920

μ, Scorpii Cont

X 10297	μ, 2	2
7748	μ, 3−	2
10303	μ, 2	1
7747	μ, 3−	2.5
10306	μ, 2	2
10534	μ, 1	1
7742	μ, 3	3
10542	μ, 2	1.5
10557	μ, 2−	1
10591	μ 3	1.5
7746	μ, 3.?	2.5

All of the estimates on pp 24–27 were made with the spectra vertical, μ, at the right, film side of plate up. No magnifying glass Both eyes used.

Scale

1 μ, brighter distinction barely seen
2 μ, slightly brighter
3 well seen
4 very noticeable
5 very striking

Sometimes the sign + or − was added when hesitation was felt

Thursday July 8, 1920

μ Scorpii Cont

Star μ_1 to the right. See Remarks p. 27

X	11051	μ_1 2	2
	13061	μ_1 1	1
(broad)	11052	μ_1 3 ?	3
	10320	μ_1 3 ?	2.5
	9045	μ_1 4	4
	11335	μ_1 2	2.5
	11338	μ_1 2	2.5
	11390	μ_1 1	1.5
	12493	μ_1 1	1
	12473	μ_1 1 ?	1
	12460	μ_1 1	1
	7722	μ_1 3 −	2.5
	7723	μ_1 2	2
	7724 ~~7724~~	μ_1 2 +	1.5
	11062	μ_1 2	2
	11065	μ_1 2 −	1
	12486	μ_1 1	2
	12478	μ_1 2 −	2
	11085	μ_1 1	2
narrow	11089	μ_1 2 +	? (4)
	11093	μ_1 1	1
	$11\overset{3}{\cancel{1}}32$	μ_1 1	1
	7712	μ_1 2	2.5
	7727	μ_1 2	1
	13037	μ_1 1	1
	7690	μ_1 2 −	1.5
	13015	μ_1 1	? 1

Thurs. July 8, 1920

μ Scorpii Cont

narrow X	7687	μ_1 2	
	12958	μ_1 2	2.5
	13016	μ_1 1	1
	7683	too poor	—
1 pr	4382	μ_1 2	2
	12470	μ_1 1 ?	1
narrow	7687	μ_1 1	2
	12946	μ_1 1 ?	1
	11069	μ_1 2 −	1.5
	11078	μ_1 2 ?	2.5
	7721	μ_1 3 −	3
broad	$7\overset{6}{\cancel{7}}87$	μ_1 2 −	2
	7782	μ_1 3	3
	11081	μ_1 2	2
	13081	μ_1 1	1
	12489	μ_1 1	1.5
	12952	μ_1 2	3
	12956	μ_1 3	3
	13080	μ_1 1	1
	7713	μ_1 2	2
	13038	μ_1 1	1
	12483	μ_1 1	1

Thursday, July 28, 1920

μ_1 Scorpii Cont

Estimates with Star μ_1 to the left
Second set of Observations

X	12952	μ_1 3
	12489	μ_1 1 +
	13081	μ_1 1
	11081	μ_1 2
	7782	μ_1 3
	12483	μ_1 1
	13038	μ_1 1
	7713	μ_1 2
	13080	μ_1 1
	12956	μ_1 3
narrow	7687	μ_1 2
	7721	μ_1 3
	11078	μ_1 3 −
	11069	μ_1 2 −
	12946	μ_1 1
	12470	μ_1 1
	4382	μ_1 2
broad	7687	μ_1 2
	13016	μ_1 1
	12958	μ_1 3 −
	13015	μ_1 1
	7690	μ_1 2 −
	13037	μ_1 1
	7727	μ_1 1

μ Scorpii Cont

X	7712	μ_1 2 +
	11332	μ_1 1
	11089	μ_1 4
	12478	μ_1 2
	12486	μ_1 2
	11062	μ 2
	7722	μ_1 2 +
	11085	μ_1 2
	11093	μ_1 1
	12460	μ_1 1
	12473	μ_1 1
	12493	μ_1 1
	11390	μ_1 2 −
	11065	μ_1 1
	11338	μ_1 3 −
	11335	μ_1 2 +
	9045	μ_1 4
	7723	μ_1 2
	10320	μ_1 2 +
broad ~~narrow~~	11052	μ_1 3
v	13061	μ_1 1
	7724	μ_1 2 −
	11051	μ_1 2
	7746	μ_1 2 + ?
	10591	μ_1 2 −
	10557	μ_1 1
	10542	μ_1 2 −

July 8, 1920

μ Scorpii Cont.

X	7742	μ	3
	10534	μ_1	1
	10306	μ_1	2
	7747	μ_1	2+
	10303	μ_1	1
	10297	μ_1	2
	7736	μ_1	2−
	9902	μ_1	3
	9310	μ_1	3
	9043	μ_1	4+
	7748	μ_1	2
	7790	μ_1	3-
	7734	μ_1	2-
	7980	μ_1	3
	7814	μ_1	3
	7751	μ_1	4
narrow	7710	μ_1	3
	7743	μ_1	3
	7749	μ_1	3
	7730	μ_1	2
	7725	μ_1	2+
	7709	μ_1	1
	10597	μ_1	2
broad	7710	μ_1	3
	7697	μ_1	3
	7703	μ_1	3 ?
	5710	μ_1	2

July 8, 1920

μ_1 Scorpii Cont

x	5776	μ	3−
	10747	μ_1	2
	11074	μ_1	1
	7752	μ_1	3
	10551	μ_1	1
	7711	μ_1	2−
	7735	μ_1	3−

Friday, July 9, 1920

μ Scorpii Cont.

Second Estimates μ_1 at left

narrow X	7626	μ_1 4	
	7733	μ_1 2	
	8009	μ_1 4	?
	7720	μ_1 3	
	7731	μ_1 2	
broad	7626	μ_1 4	
	7716	μ_1 2	+
	7761	μ_1 4	+
	7902	μ_1 5	
	7837	μ_1 3	+
	11324	μ_1 3	−
	9164	μ_1 4	
	7850	μ_1 3	
	7726	μ_1 2	
	9030	μ_1 5	
	7715	μ_1 2	
narrow	7700	μ_1 3	
	10603	μ_1 2	
narrow	9139	μ_1 2	
	7851	μ_1 2	
	10743	μ_1 2	−
	11073	μ_1 1	
	9310	μ_1 2	
	10862	μ_1 1	
narrow	7694	μ_1 2	

μ Scorpii

Second Est. Cont.

broad X	7700	μ_1 3	
	11382	μ_1 2	
	11386	μ_1 3	−
	10287	μ_1 2	−
	9275	μ_1 3	−
	13162	μ_1 1	
	9208	μ_1 3	
	11055	μ_1 2	−
broad	9139	μ_1 1	
	7714	μ_1 3	
	10873	μ_1 2	+
	11056	μ_1 2	
	8573	μ_1 4	
	9553	μ_1 3	+
	9080	μ_1 3	+
	8468	μ_1 4	
	7759	μ_1 3	−
broad	7694	μ_1 2	
	9230	μ_1 3	−
	7732	μ_1 2	
	11334	μ_1 2	+
	8370	μ_1 4	
	7750	μ_1 4	+
	7708	μ_1 3	
	7707	μ_1 3	

Friday, July 9, 1920

μ Scorpii

First Estimates μ_1 to left

×	106~~4~~13	μ 2	2
	10577	μ_1 2	3
	10523	too poor	—
	10309	μ_1 2	3
	10278	μ_1 2	2.5
	7974	μ_1 3	3
	7739	μ_1 3 −	3
	10531	μ_1 3 −	2 3?
	7917	μ_1 2 +	3
	7741	μ_1 2	2.5
	7744	μ_1 3	3
	10281	μ_1 2	2
	10617	μ_1 3 −	3
	7820	μ_1 3	? 3.5
	10572	μ_1 2 +	3
	7840	μ_1 2	3
	7898	μ_1 4	4
	7919	μ_1 4	3.5
	10586	μ_1 2 +	2.5
	8045	μ_1 2 −	1
2 spectra	10312	μ_1 2	2
	8411	μ_1 3	4.5
	7738	μ_1 4 −	4
	10529	μ_1 2	3
	8526	μ_1 4	4.5
	8627	too poor	—

July 9

First est. cont

~~2 of~~	× 9040	μ_1 2	2?
2 spectra	7740	μ_1 3	3.5
narrow	9048	μ_1 3	
	10275	μ_1 1	2
	7737	μ_1 2	3
	10567	μ_1 2	2
	10284	μ_1 1 —	1
	7745	μ_1 3	3
broad	9048	μ_1 3 +	4
	10530	μ_1 2	2
	10291	μ_1 2 −	2
	10300	μ_1 2 +	2.5
	10520	μ_1 2	3
	10581	μ_1 3	2.5
broad	10317	μ_1 2	(2.5)
	10294	μ_1 2	3
	10323	μ_1 1	2
	10526	μ_1 3	−2.5
	10562	μ_1 3	2.5
	10538	μ_1 3	3
	10609	μ_1 2	3
	10671	μ_1 2 −	3
	10739	μ_1 1	1
	10544	μ_1 3	2.5
	10750	μ_1 2 −	2
	10881	μ_1 1	2
	10545	μ_1 2	2.5
	12943	μ_1 3	3

July 9

μ_1 Scorpii

Second est μ_1 to right

X 7737	μ_1 3
10275	μ_1 2
7740	μ_1 3 +
9040	μ_1 2 ?
8627	too poor
8526	μ_1 4 +
10529	μ_1 3
7738	μ_1 4
8411	μ_1 4 +
10312	μ_1 ~~3~~2
8045	μ_1 1
10586	μ_1 2 +
7919	μ_1 3 +
7898	μ_1 4
7840	μ_1 3
10572	μ_1 3
7820	μ_1 3 +
10617	μ_1 3
10281	μ_1 2
7744	μ_1 3
7741	μ_1 2 +
7917	μ_1 3
10531	μ_1 3 ?
7739	μ_1 3
7974	μ_1 3
10278	μ_1 3 −
10309	μ_1 3

July 9, 1920

μ Scorpii

Second est cont

	X 10577	μ_1 3
	10613	μ_1 2
	10881	μ 2
	10750	μ_1 2
	10544	μ_1 3 −
	10739	μ_1 1
	10671	μ_1 3
	10609	μ_1 3
	10538	μ_1 3
	10562	μ_1 3 −
	10526	μ_1 3 −
	10323	μ_1 2
	10294	μ_1 3
	10317	μ_1 2 +
	10581	μ_1 3 −
	10520	μ_1 3
	10300	μ_1 3 −
	10291	μ_1 2
	10530	μ_1 2
Broad	9048 ~~9408~~	μ_1 4
	7745	μ_1 3
	10284	μ_1 1
	10567	μ_1 2
	12943	μ_1 3
	10545	μ_1 3 −

Tuesday, July 27, 1920

V Puppis.

Examination of Plates to compare the variation in intensity of Spectrum at different places, as compared with μ, Scorpii

The following plates near maximum:
X 8129, 8063, 9007, 6385, 8147, 8205
The following plates near minimum:
X 8484, 8140, 8199, 6507, 8068

Comparisons made with AGC 10390, as marked on X 8484.

At or near maximum, V Puppis was estimated as from 3 to 4 grades brighter than AGC 10390, on the scale described on page 27. Near minimum it was estimated from two to three grades fainter.

The whole range, therefore, is 6 or 7 grades, while that of μ, Scorpii is about 3 grades. It may be estimated roughly that the range of μ, Scorpii is about 1/2 that of V Puppis. If the latter has a range of 0.8 magn. that of μ, may be about 0.4 magn.

Wednesday, August 11, 1920

Limiting Magnitude of X Plates.

Comparison of A and X for η Carinae

A 11459 Exp. 60m with grating. ~~Images~~
The diffraction images of Nos. 13 and 15 are about 0.7 and 0.5 magn. brighter than limit of plate, respectively. The preliminary magnitudes of Nos. 13 and 15 are 12.0 and 12.2, respectively. The grating constant is computed to be 3.42. The limiting magnitude of the plate is probably ~~about~~ from 16.2 to 16.5. Images small and good.

X 6523, Exp. 60m has a limiting magnitude almost exactly the same as A 11459. The images are somewhat elongated. If the images were as small as on X 10839 (for M 22) 0.3 or 0.4 magn. would probably be added.

X 5213 and 5720, Exp. 60m, have large images and do not show stars as faint as X 6523

A 2549, exp. 60m without grating, shows stars perhaps 0.3 magn. fainter than A 11459.

According to the above, it may be assumed that the limiting magn. of good A plates of 60m without grating will be nearly 16.5, and of good X plates of 60m about the same.

With 100 minutes exposure, the best X plates, showing small images may perhaps have limiting magnitudes of about 17.0

Scale M

Thursday August 12, 1920

2 50

Scale Measures to determine the Brightness of Comparison Stars for Messier 22

M 22	Series MF 4701	252 Repeated after MF 4703,05		1 cu C10 MF 4705	2 cu D10 MF 4703	Alt. +06 1 magn.	Alt. -01 2 magn.
a	6.8	6.80 00	6.8	4.24	4.41	11.04	11.21
b	~~7.7~~ 6.8	6.75 0.1	6.7	4.25	4.43	11.00	11.18
c	7.7	7.70 00	7.7	4.12	4.28	11.82	11.98
d	7.9	7.95 1.0	8.0	4.09	4.26	12.04	12.21
e	8.7	8.65 1.0	8.6	4.08	4.28	12.73	12.93
f	8.8	8.75 0.1	8.7	4.08	4.30	12.83	13.05
g	9.3	9.30 00	9.3	4.11	4.37	13.41	13.67
h	9.6	9.50 1.1	9.4	4.14	4.41	13.64	13.91
K	10.0?	10.00? 00	10.0?	4.20	4.48	14.20?	14.48?
l	n.S.					n.s	

Plot 211

C 10	MF 4705	Diff
12	5.9	4.59
13	6.5	4.23
14 ~~15~~	6.7	4.31
15 ~~16~~	7.1	4.07
16	7.6	3.92
17	7.8	4.10
18	8.0	4.35
19	8.5	4.24
20	8.8	4.07
21	9.2	4.28
22	10.0	3.84
23	9.7	4.28
24	9.8	4.43
25	n.S.	

Series 252 cont

D 10	MF 4703	H.A. +1.4 Diff.	Plot 211	Corr C10	Magn (C10)
~~18~~					
~~19~~					
~~20~~					
~~21~~					
22	6.1	4.69		4.42	10.52
23	6.4	4.27		4.32	10.72
24	6.4	4.49		4.32	10.72
25	7.2	4.48		4.18	11.38
26	7.3	3.92		4.17	11.47
27	7.~~7~~2	4.04		4.18	11.38
28	7.2	4.46		4.18	11.38
29	7.7	4.24		4.11	11.81
30	7.8	4.36		4.10	11.90
31	8.0	4.36		4.10	12.10
32	8.2	4.40		4.08	12.28
33	8.8	4.14		4.08	12.88
34	9.0	4.08		4.09	13.09
35	9.0	4.36		4.09	13.09
36	9.2	4.43		4.10	13.30
37	9.8	4.46		4.18	13.98
38	9.8	4.50		4.18	13.98
39	F				

Thurs. Aug. 12, 1920

Comparison Stars Cont.

Series 236

D10	MF 4539	HA71.4 Diff.	Plot 211	Curve C10	Magn (C10)	Series 252 p.43 (C10)	alt +07 Mean 236} 252}		C-A 71.34 mean
22	6.3	4.49		4.31	10.61	10.52	$\overset{63}{10.56}$	05, 04	+16
23	6.7	3.97		4.23	10.93	10.72	$\overset{89}{10.82}$	11, 10	-22
24	6.3	4.59		4.31	10.61	10.72	$\overset{73}{10.66}$	05, 06	+16
25	7.2	4.48		4.18	11.38	11.38	$\overset{45}{11.38}$	00, 00	+23
26	7.2	4.02		4.18	11.38	11.47	$\overset{49}{11.42}$	04, 05	-27
27	6.9	4.34		4.20	11.10	11.38	$\overset{31}{11.24}$	14, 14	-07
28	7.2	4.46		4.18	11.38	11.38	$\overset{45}{11.38}$	00, 00	+21
29	7.7	4.24		4.08	11.78	11.81	$\overset{87}{11.80}$	02, 01	+07
30	7.8	4.36		4.07	11.87	11.90	$\overset{85}{11.88}$	01, 02	+21
31	7.8	4.56		4.07	11.87	12.10	$\overset{12.05}{11.98}$	11, 12	+31
32	8.0	4.60		4.04	12.04	12.28	$\overset{23}{12.16}$	12, 12	+37
33	~~8.3~~ 8.8	4.14		4.01	12.81	12.88	$\overset{91}{12.84}$	03, 04	+03
34	8.2 Reject. wrong star probably	4.88		4.02	~~12.22~~	13.09	$\overset{16}{13.09}$	. 0	-08
35	9.1	4.26		4.05	13.15	13.09	$\overset{19}{13.12}$	03 03	+17
36	9.2	4.43		4.08	13.28	13.30	$\overset{36}{13.29}$	01 01	+27
37	9.8	4.46		4.21	14.01	13.98	$\overset{07}{14.00}$	01, 02	+19
38	n.s	.			.	13.98	$\overset{14.05}{13.98}$	. a	+25
							10.01 & 12.00		104 − 56 9 +0.05
							12.01 + 14.00		+115 5 +0.23

Nos. 23, 26, and 27 and 34 come out very faint on Arequipa plates. No. 23 has Spectrum Class K0. Nos. 26 and 27 may be red.

Nos. 22, 24, 25 are apparently white, as the difference Ptg − Ptm are small, or negative.

~~On~~ In these MF two series, C − A comes out large and positive. I.E. Arequipa magnitudes are brighter than Cambridge. From B series Arequipa magnitudes were found to come out fainter than Cambridge.

These are far better than B series plates, especially as regards distance coo

Thurs. Aug. 12, 1920

Comparison Stars Cont.

Series 236

M22 ~~C 10~~	MF 4542	Repeated	1 Curve C10 MF4545	2 Curve D10 MF4539	alt +06 1 Magn.	alt -01 2 Magn.
a	6.6	6.55 01 6.5	4.26	4.42	10.81	10.97
b	6.4	6.40 00 6.4	4.30	4.43	10.70	10.83
c	7.8	7.75 01 7.7	4.07	4.32	11.82	12.07
d	8.1	8.10 00 8.1	4.03	4.31	12.13	12.41
e	8.8	8.75 01 8.7	4.01	4.31	12.76	13.06
f	8.9	8.85 10 8.8	4.02	4.31	12.87	13.16
g	9.3	9.45 12 9.6	4.13	4.34	13.58	13.79
h	9.6	9.60 00 9.6	4.16	4.35	13.76	13.95
k	10.0?	10.00 2: 10.0?	4.26	4.39	14.26 ? f	14.39 ?
l	f					

Plot 211

C 10	MF 4545	Diff.
12	6.0	4.49
13	6.6	4.13
14	6.8	4.21
15	7.0	4.17
16	7.6	3.92
17	7.8	4.10
18	8.2	4.15
19	8.7	4.04
20	~~9~~ 8.9	3.97
21	9.5	3.98
22	f	f
23	9.7	4.28
24	9.9	4.33

Friday, August 20, 1920

η Carinae. Observations on
Recent Plates.

Seq on ··
Print D 3750

a = 7.6
a′ = 8.0
b = 8.4
c = 8.5
d = 8.7

B52298
p.c. too poor (neb.)

B52696 p	8.3
52961 p	8.5?.
MF3307 p	8.3
MF3440 p	8.3
MF3467 p	8.2
B49924 p	8.3
B50217 p	8.5
B50405 p	8.5
B50635 p	8.4
B50745 p	8.4?
B35834 p	8.3
36009 p	8.4
36010 p	8.3
37353 p	no p.c.
41281 p	8.3

Monday August 23, 1920.

New Star in Cygnus 20h +54°
Discovered by 19h 56m 28s.1 +53° 24′ 27″.2

Region examined by Miss Walker {Wed. Aug. 11 / Sat. Aug. 14} BK 14 pp 13, 15, on plates AC 22804, AC22805 Centers at 21h +60° and 21h +45°.

Limiting magnitude of these plates estimated from sequence B8

On AC 22805, Star 11 of seq. is barely seen. Quality of images similar to that for the Nova. Magn. of B8, Star 11, in H.A. 71.4 is 9.35. The Nova would certainly be visible if as bright as 9.4.

Bright stars marked on AD19830.

On AC 22804, somewhat fainter stars are seen in the region of the Nova. Sequence B8 is not well placed. Estimated limiting magn. about 9.8.

a = H.R. 7528 δ Cygni
Pltm 2.97 Sp. A
Ptg 3.0

AC 22817 Aug. 20, 1920. RA = 21h Dec = ~~+60°~~ 45°
Nova about equals a

b = HR ~~7504~~ 7469 θ Cygni
Pltm ~~6.37~~ 4.64 ~~dM~~
Sp. F5 Ptg 5.0

AC 22815 Aug. 20 19h +45° AC 22818 Aug. 20 21h +60°
On all 3 plates taken Aug. 20 the Nova appears about equal to a. The brightness and varying position on plates makes it uncertain whether the magnitude changed during the time covered.

c = HR 7608
Pltm 5.04 B5
Ptg 4.9

d = HR 7740

Pltm = 4.32 A3
Ptg 4.5

AD 19866 Aug. 19, 1920 17h + J.D. 22556.587 G.M.T. 13h 28m
Nova ~~a~~ ~~b~~ Nova 1 c Nova 2 d

Nova about magn. 3.0 August 20
" " " 4.8 " 19

~~Wednesday~~ Tuesday, August 24, 1920

Nova Cygni No. 3

On Plates I 30768 and A 1646, there is a star very close to the position of the Nova. The magnitude is probably about 14. On Plate AC 22815 which shows the Nova bright, lines of direction passing through the Nova have been indicated for 3 pairs of stars. The same stars are also marked on A 1646. The Nova is slightly south of the line drawn between comparison stars q and u, and still more slightly north of the line connecting ~~x~~ t with a star adjacent to q and slightly south of it. The position is certainly within ~~0.1~~ less than a minute of arc of the Nova. A plate should be taken with the 8-inch at once for superposing.

Comparison stars marked on the following plates:

AI 19752
AC 18830
~~I~~
A 1646

Wednesday, August 25, 1920

Nova Cygni No. 3

Plate AC 22826 Taken Aug 24, 1920 multiple images

The relation of the different images to one another varies strikingly. Is this due to passing clouds? The order of brightness of the 7 images is as follows;

Nova (centre)	~~1, 7,~~ 2, 4, 3, 1, 7, 5; 6	(order of increasing brightness)
Star K (centre)	2, ~~6~~ 7, 4, 3, 1 5; 6	
" b (s.p.) α Cygni	2, 3, 1, 7, 4, 6, 5	
" c (s) δ Cygni	2, 4, 3, 1, 7, 6, 5	
– n p	3, 2; 1, 7; 6; 5; 4	(3, 2, 1 very faint)
	2 (ns) (3ns), 1 (ft) 7, 4, 5, 6	

The order of brightness, fortunately, is nearly the same for the Nova and for δ Cygni and comparison seems fairly safe except for the great difference in distance from centre.

Images 1, 5, 6, and 7 show ~~x~~ the Nova and δ Cygni nearly equal. Images 2 and 4 show the Nova brighter by 0.1 or 0.2 mag. Image 3 shows it brighter by about 0.4 mag. These differences are probably not due to fluctuations in the brightness of the Nova. If δ Cygni has magn 3.0, the Nova would be about 2.9.

J.D. 22561

Wednesday, August 25, 1920

Nova Cygni No. 3 Cont.

J.D. 22560

AC 22824. mult. im. Taken Aug. 23, 1920 22560
Order of brightness 1, 2, 3, is the same all over the plate. About 0.2 magn. brighter than δ Cygni, or 2.8 magn.

AC 22823. Taken Aug. 23, 1900 J.D. 22560
One exp. of 2m. Estimate too difficult. Somewhat brighter than δ Cygni.

AI 19866 Aug. 19, 1920 J.D. 22556
4.7?
Images scattered and widely different in appearance

a = ~~ε~~ α Cygni
~~b~~ c = δ Cygni HR 7528
~~c~~ b = γ Cygni
d = 1 Cygni = HR 7420
e HR 7408?
~~f~~ g = HR 7608
~~g~~ f HR 7740
h = HR 7469

a = ~~3.0~~ 1.4
b = ~~3.0~~ 2.8
c = 3.0
d = 4.1
e =
f = 4.~~9~~5
g = 4.~~5~~9
h = 5.0

Thursday, August 26, 1920

Nova Cygni No. 3
Examination of early plates

	Lim. mag.		Lim. mag.
I141 π (Nova?) lim. = 0.1 ξ 1 π	15.3 ✓	I4198 β 1 N	11.7 ✓
I1495 π n.s. γ = 0.1	12.1 ✓	I5116 δ 3 N	12.6 ✓
I1761 π n.s. η = 0.2	14.4 ✓	I5275 ε 1 N	12.9 ✓
I1777 ζ = 0.2 π n.s.	13.6 ✓	I5381 ε 2 N	13.0 ✓
I1922 γ 1 N	12.1 ✓	I6499 y 1 N	10.3 ✓
I2064 ε 2 N	13.0 ✓	I6514 ω 1 N	9.6 ✓
I2454 γ 1 N	12.1 ✓	I6566 ε 3 N	13.1 ✓
I27~~66~~78 ζ 1 N	13.5 ✓	I6660 ε 1 N	12.9 ✓
~~I3451 β 1 N~~		I6697 β 3 N	11.9 ✓

Nova Cygni No. 3 Cont.

I6717	θ 1 N	14.4 ✓
6739	ε 1 N	12.9 ✓
6779	δ 4 N	12.7 ✓
6809	η 1 N	14.3 ✓
7093	ε 1 N	12.9 ✓
7187	η 1 N	14.3 ✓
7204	η 1 N	14.3 ✓
9034	z 1 N	11.2 ✓
9035	ζ 1 N	13.5 ✓
9063	off edge	✓
21495	θ 1 N	14.4 ✓
21508	θ 1 N	14.4 ✓
21514	δ 2 N	12.5 ✓
22771	ζ 1 π (sun)	15.5 ✓
22825	λ 1 N	14.7 ✓
~~22929~~		
23062	off	
23077	"	
23145	"	
23168	"	
23266	"	
23522	"	
25158	ζ 1 N	13.5 ✓
25180	ν 1 N	15.0 ✓
25182	λ 1 N	14.7 ✓
25912	off	
26287	"	

I27522	η 1 N	14.3
27826	λ 1 N	14.7
29258	ζ 1 N	13.5 ✓
30657	η 1 N	14.3 ✓
33806	ζ 0 π (new	15.5
35568	θ 1 ✗ N	14.4 ✓
35570	ε 3 ✗ N	13.1 ✓
35572	δ 2 N	12.5 ✓
35573	ε 1 N	12.9 ✓
36252	off	
9720	η 1 N	14.3 ✓
9708	δ 2 N	12.5 ✓
11831	ζ 1 N	13.5 ✓
11870	δ 1 N	12.4 ✓
13326	γ 1 N	10.3 ✓
13361	too poor	✓
13553	η 1 N	14.3 ✓
13760	ζ 1 N	13.5 ✓
15797	ζ 1 N	13.5 ✓
15887	η 1 N	14.3 ✓
15924	ε 1 N	12.9 ✓
15962	η 1 N	14.3 ✓
16171	η 1 N	14.3 ✓
16222	η 1 N	14.3 ✓
16387	ε 1 N	12.9 ✓
16576	η 1 N	14.3 ✓
17905	η 1 N	14.3 ✓

Thurs. Aug. 26, 1920

Nova Cygni No. 3 Cont.

I17906	θ 1 N	14.4 ✓
18741	ε 1 N	12.9 ✓
20965	α 1 N	11.1? ✓
21123	ε 1 N	12.9 ✓
15796	off	
21513	off	
23470	off	
27318	off	
11982	δ 2 N	12.5 ✓
6769	off	
9477	ε 2 N	13.0
13243	off	
15630	t. p.	
29219	off	
25628	off	
26320	off	
27262	off	
18756	off	
9193	"	
9325	"	
14111	"	
15461	"	
1760	"	
24187	η 1 N	14.3
26321	θ 1 N	14.4
27470	ε 2 N	13.0

I9148	too poor	
9326	off ✓	
11626	" ✓	
18757	ε 1 N	12.9 ✓
17218	ζ 1 N (edge	13.5 ✓
3760	η 1 N	14.3 ✓
4451	ε 2 N	13.0 ✓
22919	ε 3 N	13.1
998	ε 1 N	12.9 ✓
1968	γ 1 N	12.1 ✓
1649	α 2 N	11.8? ✓
1343	δ 2 N	12.5 ✓
1330	δ 1 N	12.4 ✓
1261	δ 1 N	12.4 ✓
983	ζ 1 N	13.5 ✓
1050	ζ 2 N	13.6 ✓

Plates having centres south of Dec. +49°2 do not cover the region of the Nova.

Friday, August 27, 1920.

Nova Cygni No. 3 Cont.

I 27565	η1N	14.3 ✓
I 983	ζ1N	13.5
35581	β1N	11.7 ✓
29068	ζ1N	13.5 ✓
1948	ζθ1N	14.4 =
1971	ε3N	13.1
8963	ζ3N	13.7 ✓

There are no early B plates covering the region.

Saturday, August 28, 1920

T Pyxidis

Seq. on
B 29314
Sanders Chart.

a	6.9
b	7.6
c	7.7
d	8.0
e	8.6
f	8.9
g	9.0
h	9.4
k	10.0

am	15103	7.6	✓
	15091	7.4	✓
	14819	n.s. < 11.5	✓
	15233	8.6	✓
	15178	7.9	✓
	15233	8.6	✓
AI	19671	7.6	✓
MF	5246	7.6? ✓ Corner of plate. comp. with a and d	
	5651	Too near edge	✓
	5636	" " "	✓
	5620	" " "	✓
	5610	8.0? edge	✓
	5575	8.0	✓
	5500	too near edge	✓
	3446	n.s. < 13.5	✓
	3445	n.s. < 13.5	✓
	3460	n.s. < 12.6	✓
	3461	n.s. < 13.2	✓
	5244	7.7? edge	✓
	5264	7.7? edge	✓
am	15189	7.7	✓
	15177	7.7	✓
	15160	7.9	✓
AC	22600	7.6	✓

Monday Aug. 31, 1920

184929 Nova Lyrae. A few recent plates
Comparison Star Plate I 25198

Provisional	AC 22661	n.s. < W (<11.0)		1920 May 30	224~~7~~75
Magnitudes	22604	Nova o $t^{10.4}$	10.45	Apr. 18	22433
		S 4 $\text{Nova}^{10.5}$			
		u n.s.			
p 9.2	22634	Nova n.s.	s = 0.1 <10.2	May 10	22453
q 9.7	22677	Nova n.s.	r = 0.1 <9.9	June 14	22490
r 9.8	22707	Nova seen ?		July 3	22509
s 10.1		$\overset{t}{p}$ = 0.1	10.6?		
t 10.4		t, ~~r~~ Nova ?			
u 10.8	22785	Nova n.s.	~~u~~ t = 0.1 <10.5	July 28	22534
	22794	Nova n.s.	r = 0.1 <9.9	1920, Aug. ~~4~~ 5	22542

Monday August 31, 1920

180911 Nova Ophiuchi No. 4
Sample Chart

Prov. Mag.			
	AC ~~16332~~ 22647	~~m 10.6~~ n.s. <10.6	May 18, 1920
h = 9.6	22671	~~10.8~~ 11.2	June 7, 1920
k = 9.8	22814	n.s. <9.8	Aug. 20, 1920
l = 10.1	22744	n.s. <9.8	July 16, 1920
m = 10.5	22705	11.1	July 3, 1920
n = 11.0			
o = 11.1			
p = 11.5			

Monday, August 31, 1920

Nova Cygni No. 3

For prev. magn. of Comp. stars, see p. 50

			Mean	J.D.
AC 22827	3.0	Aug. 25	2.95	22562
AC 22831	3.1	Aug. 26	3.15	2563
22830	3.4	Aug. 26	3.30	2563
22832	3.3	Aug. 27	3.15	2564

With reading glass only

AC 22830	3.2
22831	3.2
22827	2.9
22832	3.0

The Nova is at the centre of the plates while δ Cygni (3.0) is distant. Systematic error, therefore, vitiates the observations. The Nova seems to show but little change on these plates.

Monday Aug. 21 1920

Nova Cygni No. 3

Observations on AC plates (One or two for each year since 1900

AC 776	γ = 0.0	Mar. 21, 1900	12.0 ✓
1140	t p.		
1761	γ = 0.2	Sept. 21, 1901	12.2 ✓
2554	ε = 0.4	Mar. 15, 1902	13.2 ✓
2881	ε = 0.4	Oct. 9, 1902	13.2 ✓
3484	δ = 0.1	Apr. 5, 1903	12.4 ✓
4091	δ = 0.2	Oct. 24, 1903	12.5 ✓
4969	β = 0.1	June 15, 1904	11.7 ✓
5545	ε = 0.2	Nov. 17, 1904	13.0 ✓
6388	t p		
6~~8~~797	δ = 0.1	Oct. 7, 1905	12.4 ✓
7226	β = 0.1	Jan. 29, 1906	11.7 ✓
7807	α = 0.2	Sept. 11, 1906	11.5?
8592	α = 0.1	July 5, 1907	11.4? ✓
9864	δ = 0.4	Oct. 31, 1908	12.7 ✓
10396	β = 0.1	Apr. 4, 1909	11.7 ✓
10964	δ = 0.4	Oct. 25, 1909	12.7 ✓
11665	~~t p~~ off?		
12015	α = 0.2	Oct. 10, 1910	11.5? ✓
12456	β = 0.1	July 19, 1911	11.7 ✓
12508	β = 0.3	Aug. 19, 1911	11.9 ✓
12564	δ = 0.1	Sept. 11, 1911	12.4 ✓
13022	ε = 0.1	March 22, 1912	12.9 ✓
13050	β = 0.1	Mar. 31, 1912	11.7 ✓
13239	α = 0.2	Sept. 17, 1912	11.5? ✓
13240	γ = 0.2	Sept. 17, 1912	10.4 ✓

Monday August 31, 1920

Nova Cygni No. 3 Cont.

AC 13938	δ = 0.1	Apr. 5, 1913	12.4 ✓
14288	α = 0.2	Aug 23, 1913	11.5? ✓
15259	β = 0.1	June 12, 1914	11.7 ✓
15338	δ = 0.1	July 20, 1914	12.4 ✓
14409	δ = 0.4	Sept 28, 1912	12.7 ✓
14685	ε = 0.4	Dec. 19, 1913	13.2 ✓
15736	ζ = 0.1	Nov. 17, 1914	13.5 ✓
16567	δ = 0.1	July 6, 1915	12.4 ✓
17032	δ = 0.2	Nov. 26, 1915	12.5 ✓
17922	χ = 0.2	Sept. 22, 1916	10.0 ✓
20765	β = 0.1	Nov. 30, 1918	11.7 ✓
21299	δ = 0.2	Mar. 24, 1919	12.5 ✓
21582	α = 0.3	July 4, 1919	14.6?
17844	ζ = 0.1	Sept 2, 1916	13.5 ✓

Nova Cygni No. 3

AI 19868 4.4? Images large

c = 3.0
d = 4.1
f = 4.5
g = 4.9
h = 5.0

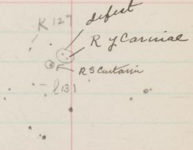
AI 19866 4.7? edge of plate

Comparison of the two plates shows how uncertain any estimates must be. There is little doubt, however, that the nova is fainter on AI 19866 than on AI

Wednesday, September 15, 1920

Suspected Variable in field of
R S Centauri 111661

Chart drawn from sample chart



Mr
says that in Nov. and Dec., 1919, one of the two faint stars enclosed in circle ⊙ was as bright as the 10th magnitude.

On MF 5280 (April 19, 1920) neither star is seen, and both must have been fainter than the fourteenth magnitude. The only plates taken in Nov. and Dec. 1919 are the three Am plates, Nos. 15069, 15074, 15077, all taken with yellow light. The best of these, Am 15077*, shows no stars fainter than c. 9.5, and therefore could not be expected to show stars of the 10th magn. It shows no trace of either star. The other two plates are too poor.

Plate Am 14822, taken July 2, 1919, was used for comparison. It shows stars fainter than "l 131" by at least a magnitude but shows no trace of the suspected stars.

Evidently, if the brightness in ~~It~~ Nov. + Dec. was real, it must have occurred later than July 2, 1919 and ^from faint^ earlier than April 19, 1920

This star is
11 1561 R y Carinae
Bright on B 27574
Med. on B 25185
Ft on B
from which the
sample chart was
made.
See also
Annals of Cape Obs.
Vol. IX p. 82 B

Sept. 16
On Am 15077,
*R S. Centauri
is not seen,
and was
fainter than
c 9.5

Friday, January 14, 1921

Miss Cannon's Var. 180 = C.P.D − 47° 7363
$15^{h}\,39^{m}.4$ $-\underset{47\ 41}{\cancel{23^{\circ}\,37'}}$ (1900)

Magnitudes compared with sequence for 179K $\overset{1}{a} = 8.9$ $\overset{2}{b} = 10.2$ $\overset{3}{c} = 10.3$ 15 = 13.9

B 31878 10.0
B 21924 n.s. < 14

The comparisons of variable region and Kapteyn region were made on Am 14036

Var. 179 = CDM − 46° 13014 $19^{h}\,20^{m}.3$ $-46^{\circ}\,4'$ (1900)
Magnitudes compared with sequence for 182K
6 = 10.6 7 = 10.9 8 = 11.0 9 = 11.6 15 = 13.5
B 28181 11
30829 14 ?

Var. 181 = CDM − 23° 12396 $15^{h}\,29^{m}.5$ $-23^{\circ}\,37'$ 1900
Magnitudes compared with sequence for IX Librae
f = 11.1 g = 11.3 K = 11.6 n = 13.6
B 27398 11.4
B 30318 14.5 ?

Tuesday, March 29, 1921

H. S. L. Var. "25" = H 1249 124061

Magnitude compared with Sequence for 31 Ks. See Book 48 page 126. Original weighted mean.

11 = 11.8		B 40480	12.7
12 12.0		a 7244	12.7
13 13.5			
14 12.9			
15 13.3			

Wednesday, March 30, 1921

Heagen's Variable U Y Geminorum, near T Geminorum 074324. See letter of March 10, 1921

Compared with sequence for T Geminorum, Book 9 a page 107

Preliminary magn. of Sequence: –

o = 12.6 p = 12.8 q = 13.0 r = 13.5

s = 13.3 t = 13.6 u = 13.2 w = 13.8

x = 14.3 y = 14.6 z = 15.1

Fr. Heagen states that there must have been maxima ~~in~~ about March 1892 and February 1896, and a minimum in the middle of March, 1897 He thinks the period is about ~~2~~ 345 days

Marked on I 33629 and MC 5111

On both of these plates the star is estimated as of magn. 13.4 The dates are Nov. 8, 1905, and March 20, 1914.

Too faint for AC plates. Look up on I and A plates, especially in February and March 1892, 1896, and 1897

I 17620,	March $1\overset{6}{7}$, 1897	13.4 F	
5805	March 6 1892	13.3	
17591	March 15, 1897	<13.2	poor plate
5769	March 4, 1892	too poor	<13.0.

On all of the 4 plates showing this object it is of constant magnitude. Plate I 17620 was taken in the middle of March, 1897, when according to Heagen it should have been near minimum

Plates estimated 13.7 by A.D.W. examined by H. S. L. The images are at limit of visibility and do not show variation.

Obsered by A. D. W. BK . Apparent range 13.4 to 13.7, but actual variation on these plates certainly does not vary more than 0.1 or 0.2.

Monday April 25, 1921

W Monocerotis.

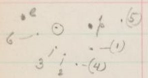
Mr. Campbell does not find much variation recently, nor do members of the A.A.V.S.O. Miss Walker has looked it up. See A.D.W. 5: 35, 36 with Chart on p. 36

Ref. Seq. on MC 9550
Magn. ~~MK~~ Ld 51: 156

13	11.98
14	12.46
15	12.75
16	12.95
17	1334
18	$13.7\overset{3}{8}$
19	1392
20	1457

Estimates of Miss Walker's comparison Stars in terms of Ref. Seq. close by ~~M7~~

✝ Star	Magn. MC 9550	
1	12.8	c
2	12.9	d
3	12.7	b
4	12.3	a
5	13.1	e
6	13.2	f



Estimates of Var. in terms of Stars 1 to 6

B 35717	13.3	
33260	12.9	
17657	12.8	
31497	13.2	
38489	13.1	
35232	13.2	
34377	13.2	
33863	13.2	
32789	12.9	
MC 15725	13.3	Im. neb.
9550	13.1	" "

The variable has a very small range. Large range given in Catalogue an error. Very red star

---

Monday, May 2, 1921

Plates for Miss Young. Hagen Region

✓✓ 211614 X Pegasi D 18762 = D 18718 = MC 11211 "Good" Miss Young
Good. Shows fainter stars than sample chart.

✓✓ 193311 R T Aquilae D 18785 = D 18782 = MC 1273 G
Good. Shows all stars on sample chart
(D 18776 = 18688 = MC 1273 Very poor)

✓✓ 190529 V Lyrae D 18787 = D 18777 = MC 11260 G
Good. Shows all on sample chart

✓✓ 193509 R V Aquilae D 18786 = D 18778 = MC 1273 G
Good. Has not a plate from MC 1273 been sent already? Not a good one

✓✓ 233956 Z Cassiopeiae D 18788 = D 18779 = MC 4203 G
Badly scratched. Otherwise good

✓✓ 192928 T Y Cygni D 18784 = D 18780 = A 7866 G
good. Not quite so good as sample, from same plate.

✓✓ 191007 W Aquilae D 18783 = D 18781 = A 10105 G
Good. shows much more than sample

✗ 195202 R R Aquilae Shows all stars on sample, which, however is inferior (from B 15047 - "Unsatisfactory"
D 18774 = D 18764 = A 10208 There are a good many defects. Send to Miss Young. It may be necessary to take a plate.

Thursday, May 19, 1921

DM +44° 994 RA = $4^h 26^m 5^s$ Dec. +44° 40'.2 (1855)

Announced as variable by G. Stanley Williams
M.N. LXXXI, 392

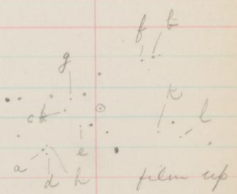
Marked on AC 6964

Examination of a large number of plates shows no variation except of shape and quality of image due doubtless to its red color (Spectrum Class M according to Miss Cannon). On a few plates, however, the object is apparently really brighter than normal.

Mr. Williams finds a range of only 0.5 magn. visually, with comparison stars whose light intervals are large. On account of the redness of the star visual observations must be subject to large accidental errors, as are the photographic observations.

AC 11295
b 1 $\underline{v}$ 0 c 0 d 0 e 1 f
$\underline{v}$ 3 g

AC 7380
c 2 $\underline{v}$ 1 d
$\underline{v}$ 0 e, 1 f
$\underline{v}$ 2 g, $\underline{v}$ 2 h, $\underline{v}$ 2 k



AC 16825
a 1 b 1 c 3 d 0 e 1 f 0 g 0 h 2 $\underline{v}$ 0 k 2 l

Thursday, May 19, 1921

DM +44° 994 Cont.

AC 5804
a 1 b 0 c 0 $\underline{v}$ 3 d 1 e 0 f $\underline{1}$ g 1 h 2 k 2 l
a 1 v 1 c 10.10 10.15 10.12 0$\underline{2}$ 03
v 3 f

AC 6719
a 2 b 0 c 0 v 3 d $\underline{1}$ e 1 f 1 g 0 h 2 k 2 l
a 2 v 0 c 10.20, 10.25, 10.05 10.1$\overset{7}{5}$ $\overset{03}{05}$, 08, $\underline{12}$
v 4 g

AC 69$\overset{6}{8}$4
a 2 v 0 c 3 d 1 e 0 f 1 g 0 h 1 k 3 l
a 2 v 0 c v 3 d 10.20, 10.25 10.22 0$\underline{2}$, 03

AC 7357
a 1 b 1 c 2 d 1 e 0 v $\underline{2}$ f
f 3 v 0 g 0 h 1 k 2 l

AC 12081 bc
10.10
10.05
9.95
10.03
a 1 v 2 c
v 3 d v 5 g

Of the above plates, AC 11295, ~~16825~~, 5804, 12081, 6719, 6984 show the star unquestionably brighter than normal. Plates AC 7380 and 16825, 7357 show the variable faint or normal.

The plates of which a list is given on the next page show little change in the star which is normally about 0.3 magn. fainter than c and 0.2 brighter than g.

There is considerable apparent fluctuation on plates thus called normal but the brightness seems to be real on the plates mentioned above.

Thursday May 19, 1921 -

Dm + 44° 994 Cont.

Plates showing variable "normal"

AC 5689
16111
17108
21940
22105
22275
22552
22382
22310
22346

The above originally selected by Miss Cannon

About 40 plates taken in 1905 and 1906 show the brightness normal

Dm + 44° 994 Cont.

AC 22148	g1, 1h	c 4v edge	
22230	g1, 1K	c 4v edge	
22482	g1, 1h	c 5v	
22556	c4, 0g, 2h		
22979	34, 0g, 2K		
23113	c 3, 0g, 1k		
23194	c 5, g1, 1K		
23250	c 5, 0g, 0K, 3l		
23403	c 4, 0g, 1K		
22253	c4, 0g, 0K, 2l		
22887	c4, g1, 0K, 3l		
23067	c5, 0g, 1K, 4l		
23359	c 2, 1g, 2K		bright?
22244	c5, g1, 0K, 3l		
22351	c5, g1, 0K, 3l		
22404	c4, 0g, 1K, 4l		
22420	normal		
22444	normal		
22551	"		
22879	"		
22936	"		
23049	"		
23103	"		
23209	"		
23261	"		
23370	"		
23384	"		
23436	"		

May 19, 1921

+44° 944 Cont.

AC 23510	c2, od, 1e, 3f, 3g, 5K	10.45, 10.15, 10.15 10.25 20,10 11
	Poor plate, but variable seems to be really bright	
23280	normal	
23379	"	
23579	c3, 1g, 3K possibly br.	
22224	normal	
22254	"	
6955	"	
5813	" im. very large	
6111	"	
6211	"	
6687	a2, 0c, 4g	
~~6687~~	very poor, but probably bright	
6724	normal	
6734	normal? Image nebulous	
6740	" ? " "	
7229	possibly bright " "	
7348	normal	
7383	"	
7854	" Im. nebulous	
7911	" " "	
7924	"	
7997	"	
8017	"	
8044	"	
8104	"	
8109	"	

May 19, 1921

+44° 944 Cont.

AC 7224	a2, b2, c1, 3e, 3f, 3g	10.20, 35, 15	10.23 03, 12, 08
	rather bright		
16825	c5, g1, 0h, 2K		
7380	c3, 0g, 1K (normal)		
6964	a2, c2, 1g, 2K	10.20, 45, 35, 45	10.36 16, 09, 01, 09
6719	c1, 3g, 5K	10.35, 10.15, 10.15	10.22 13, 07, 07
5804	a2, 0c, 4g	10.20, 10.25, 10.05	10.17 03, 08, 12
7357	c4, 0g, 1K	10.65, 10.45, 10.65	10.58 07, 13, 07

Comparison star e fluctuates slightly. Not used as a rule.

Plates showing variable bright are
AC 5804✓, 6719✓, (6964✓), 7224✓?, (7229✓) 6687 edge, (23579✗)
23510✓, (23359)? 12081✓

Number of plates examined, about 75 here recorded, and about ~~40~~ 60 additional not recorded.

Out of over 100 plates there are 6 which seem to show clear maxima, and 4 others which are probably brighter than normal. The object fluctuates somewhat when "normal" and often appears nebulous, especially when near the edge of the plate.

Plates with check marks in ink were independently selected by Dr. Shapley as showing the object bright, without doubt. May 21, 1921

Saturday, May 21, 1920

+44° 994 Comparison Stars
Sequence Plate I26058

B2	
15	10.1
16	10.1
17	10.5
18	10.6
19	11.0
20	11.2
21	11.3
22	11.5
23	11.5
24	11.6
24a	11.9
25	12.3
26	12.5
27	12.8
28	13.0
13	9.4
14	9.7

Comparisons with H.D. Seq. B 2
For chart of Var. Sequence, see p. 70

AC 12785		AC 16825	
a	10.0	a	10.0
c	10.2	:c	:10.2
d	10.1	d	
e	10.2	e	
f		f	
g	10.4	g	10.4
k	10.6	k	10.6
l	11.0	l	11.1

AC 22887		AC 23359		mean		
a	10.0	a	10.0	a	10.00	0000
b	x	b				
c	~~10.2~~ 10.2	c	10.4	c	10.25	0002
d		d				
e		e	~~10.4~~	e	10.~~4~~2?	
f		f	"			
g	10.~~6~~5	g	10. 5	g	10.45	0011
h		h				
k	10.7	k	10.7	k	10.65	0011
l	11.2	l	11.0	l	11.08	1011

Star e is Williams E Seems to fluctuate slightly

---

	a	b	c	d	e	f	g	h	K	l
AC 11295			0	0	1					
7380			3							
16825	1	1	3	0	1	0	0	2	2	
5804	1	0	3	1	0	1	r			

AC 5804	10.18 p. 71	10.17 p.75
6719	10.17 "	10.22 p.75
6964	10.22 "	10.36 p.75
7224		10.23 "
7229		
12081	10.03 p.71	
23510		10.25 p.74

Wednesday, May 25, 1921

Comparison Stars for Mr. Jordan.
See Letter and List of May 17, 1921

RX Aurigae MC 69$\overset{1}{7}$5 Cath 5^h + 39,5, TT Aurigae
+39° 1134 MC 6917 8.0 0 ✓ mean 7.98
AC 21668 8.0 0
AC 22383 7.9 1
AC 22105 8,0 0
AC 21756
{TT Aurigae BK 38: 39 a $\overset{7}{8}$.9, a' $\overset{7}{8}$.9, b' 7.9, d 8.6
{used as standards for RX Aurigae

BK 38: 21
for SY Cassiop.
d^1 = 10.7
d^2 = 11.1
f = 11.5

TV Cassiopeiae Comp. Star + 58° 24 Comp. with Seq SY Cassiop.
MC 11831 + 58° 24 diffs = 11.0 − 3.74 = 7.26 mean
MC 12113 ″ = 10.9 7.16
pc of P 12111, 7.3 P MC 12116 7.4 ✓ 7.38
MC 11831
p.c of P 11830, 7.4 P MC 11835 7.4
Observations from diffraction images rejected (Would confirm M. W. Searle)

VX Pers. Comp. Star + 57° 500. Compared with
Stars 6 = 9.5, 7 = 9.9, 7a = 10.0, 8 = 10.6 (Seq for Cluster)
MC 6496 m 9.9 mean ✓ 10.04
AC 23081 10.1
AC 22183 10.1
22313 10.0
22030 10.1

Friday, May 27, 1921

R U Monocerotis Comp. Stars − 7° 1621, − 7° 1622
Compared with Ref. Seq for Reg $6^h 50^m$ − 7°.5
See Lo Book 1, pp 166, 167
Magn Star 3, 9.54 4, 9.63 5, 9.86 6, 10.29 7, 10.57
MC 9550 ~~fr~~ diff 1621, 10.0
1622, 9.8 Mean
AM 13597 1621, 10.0 1622, 9.8 1621, ✓ 9.92
AC 23098 ″ 9.9 ″ 9.7 1622, ✓ 9.76
AC 23348 ″ 9.9 ″ 9.7
AC 22896 ″ 9.8 ″ 9.8

{SZ Aquilae Comp. Stars + 1° 3870, + 1° 3867
{TT Aquilae Comp. Star + 1° 3905
Compared with Sequence for Reg 1 K a
See BK 19: 136
Stars 1, 7.76 2, 9.16 3, 10.29 4, 10.64
~~MC 5706~~ 3870 3867 3905 Mean ✓
MC 5706 ~~9.2~~ R 10.2 X 7.8 3870 8.56 (63)
AC 16449 8.8 10.3 7.8 3867 ✓ 10.26
AC 16568 8.7 10.2 7.7 3905 ✓ 7.75
″ $\overset{8.34}{\beta}$ 1, 3 $\overset{8.72}{q}$ 8.43. $\overset{10.38}{w}$ 1, 3 $\overset{10.72}{x}$ 10.40 $\overset{7.33}{m}$ 3, $\overset{7.62}{o}$ n, 3 $\overset{7.90}{o}$ 7.62 Sq. Nova Aquilae III
AC 18711 8.8 10.2 7.7 n 3, 0 o, 4 p
$\overset{8.34}{\beta}$ 1, 3 $\overset{8.72}{q}$ 8.43 7.92
AC 16739 8.7 10.2 7.8
β 2, 2 q 8.53 $\overset{10.05}{u}$ 3, 1 $\overset{10.38}{w}$ 10.32 n 1, 2 o 7.71

Seq. for Nova aquilae No. 3

m	7.33
n	7.62
o	7.90
p	8.34
q	8.72
r	9.05
e	9.88
t	9.80
u	10.05
w	10.38
x	10.72

Tuesday, May 31, 1921

Comparison Stars for Mr. Jordan Cont.

R S Orionis Comp Star +14°1260
Compared with Seq. for 74K BK 7.77
Stars 2, 8.86 3, 9.27 4, 9.89 5~~A~~, 10.22 1, 6.91

~~MC 2647~~	~~9.8? different R S Orionis~~	
~~AC 20704~~	~~9.4~~	
~~AC 19396~~	~~9.3~~	
~~AC 22315~~		
MC 2647	8.5?	✓ 8.64
AC 22315	8.7	
13860	8.6	
19396	8.7	
20704	8.7	

Z Aurigae Comp. Stars +41°1609, +41°1608
Compared with Carte Seq. 7^h, $+39^\circ.5$
9, 12.0 10, 12.5 Stars 3, 9.90 4, 10.12 5, 10.82 6, 10.92 7, 11.40 8, 11.64

MC 7352 ~~X~~ diff	1608	1609
	11.6 ?	10.8 ? rej
AC 19796	7	10.3
AC 19830	11.6	10.3
AC 21901	11.6	10.2
AC 20605	~~11.5~~	10.2
19776	11.5	10.1
	11.58 ✓	10.22 ✓

Tues. May 31, 1921

S V Persei. Measure prismatic comparisons of stars a, b, c, 1, 2, and 3 of sequence for 24 Ka, together with prism. comp of corresponding stars on Pole plate MC 2604

Tuesday, June 14, 1921

10 45

114360 S V Centauri (HV 1289)

Observations from May, 1918 to date

Comp. Star plate B52928

a	8.5
b	8.7
c	8.8
d	9.0
e	9.2
f	9.4
g	9.5
h	9.7
k	9.8
l	9.9

Am 15164	8.9 ✓
✓ 15188	8.9 ✓
✓ 15191	9.0 ✓
✓ 15229	8.7 ✓
✓ 15235	8.7 ✓
~~15268~~	
✓ 13931	8.7 ✓
✓ 13957	8.8 ✓
✓ 13962	9.7 ✓
✓ 13974	8.7 ✓
✓ 13989	9.7
✓ 14009	8.7 ✓
✓ 14145	8.7 ✓
✓ 14151	8.7 ✓
✓ 14642	9.5 ✓
✓ 14662	9.7 ✓
✓ 14667	8.7 ✓
~~14668~~	

11 15

Tuesday, June 14, 1921

3 15

114360 S V Centauri Cont.

Am 14668	too poor ✓
✓ 14677	trails 8.7 [illegible] ✓
✓ 14705	8.7 ✓
✓ 14709	8.7 ✓
✓ 14735	8.9 ✓
✓ 14784	8.8 ✓
✓ 14788	8.9 ✓
✓ 14822	9.0 ✓
✓ 14866	8.7 ✓
✓ 14878	9.1 ✓
✓ 15112	8.7 ✓
✓ 15116	Too foggy ✓
✓ 15732	8.8 ✓
✓ 14743	8.7 ✓
✓ 14805	8.7 ✓
✓ 14888	8.7 ✓
15185	8.8 ✓
✓ 14663	9.4 ✓
✓ 13961	9.4 ✓
✓ 13980	8.7 ✓
✓ 14073	8.7 ✓
✓ 14134	8.9 ✓
✓ 14157	8.7 ✓
✓ 14258	9.0 ✓
✓ 14589	8.9 ✓
✓ 14606	9.7 ✓
✓ 14611	8.7 ✓
✓ 14641	9.6 ✓

Am ✓ 14937	9.8 ✓
✓ 15095	8.7 ✓
✓ 15184	8.7 ✓
✓ 15186	8.8 ✓
✓ 15234	8.7 ✓
✓ 15387	9.5? very poor

3 50

Wednesday, June 15, 1921

Stars for Mr. Jordan. Cont from p. 81

~~091329 RW Cancri MC 2361 54 K~~

102029 V Leon. Min. MC 2361 54 K

	+29° 2043	+29° 2044
AC 8112	9.9	10.7
6146	9.9	10.7
5777	9.9	10.8
	9.90	10.73

124544 ζ Cancri MC 2667 32 K

~~AC 1~~	+44° 2228	
AC 15124	11.2	Mean 11.13
11644	11.1	
13532	11.1	

Compared (below) with Seq. B5

AC 15124	11.1
13532	11.1
13623	11.2

The results derived from Comparison with B5 and 54 K are the same

---

Thursday July 21, 1921

Variable 044930 – Aurigae (H.C. 251)

See letter from F.C. Jordan of Allegheny, July 19, 1921. He finds no changes on 12 dates.

This variable shows a large range. It is faint on AC 17411 Mar. 17, 1916

	17447	" 27 "
AM	11623	April 8 "
AC	19150	Sept 16, 1917
	19167	" 19 "

Confirming Miss Applegate's observations. On AC 19214, Sept. 29, 1917, the brightness is normal, and also on AC 19030, Aug. 12, 1920

Normal on the following plates: –

AC 15936	Dec. 26, 1914	
15406	Aug. 25 "	
15413	" 26 "	
15806	Nov. 28 "	
15787	" 26 "	(slightly faint?
15765	" 22 "	
15758	" 21 "	
15742	" 17 "	
15730	" 16 "	
15796	" 27 "	
15759	" 21 "	

In H.C. 2~~51~~ 25, it is stated that Miss Applegate found a minimum from Nov. 26 to 28, 1914. This is evidently a mistake. Her minimum of 1916 and 1917 are confirmed, as above. I can find no record of her observations. Only the record of discovery in her Book 7 page 104 See A 6:105

Miss A. records it as "fainter than normal on Nov. 26 to 28, 1914, but not so ft as usual minimum" I find it possibly ft by 0.2 magn. It was perhaps a mistake to include these dates in the Remark, H.C. ~~251~~ 225.

Thursday August 11, 1921

235053 R R Cassiopeiae
Observations on Recent Plates

b	88
d	9.2
e	9.5
c	9.7
a	98
f	10.0
g	10.2
h	10.5
k	10.9
l	11.5
m	11.6
m'	121
n'	12.3
n	12.7
o	13.1
p	13.3
q	13.7
r	146
s	14.8

MC 17533	12.6		June 4, 1921	J.D. 22845
17500	12.6?	very hazy	May 26, 1921	22836
17678	14.~~4~~3		July 31, 1921	22902
17608	12.7		June 21, 1921	22862

Wednesday September 28, 1921

DM + 24° 571 Phot 6.77 Sp. K5
Near Pleiades.

Star	Mag. 1917	Estimates of photographic magnitude	
16	7.5	MC 4248 p.c.	8.2
17	8.0	AC 11276	8.1
18	8.6		
19	8.7		

This star appears conspicuously red on the chart made from Plates MC and MC taken with blue and red light, respectively. The magnitude may be marked 8.2 on the chart.

Wednesday, September 28, 1921

Examination of pairs of plates taken according to the scheme for Red 60^m; Blue 3 exp. of 1^m, 2^m, 4^m or 1^m, 3^m, 9^m

When the longest exposure on the blue plate is 4^m, there are many images on the red plate which are brighter than the 4^m exposure.

When the longest exposure for the blue plate is 9^m, the majority of images on red plate are fainter than the 9^m exposure, falling between 3^m and 9^m or between 1^m and 3^m. On all plates, however there are a good many stars brighter than the 9^m exposure.

It is proposed to make the exposures on blue plates 1^m, 4^m and 16^m. Some of the brighter red stars will still be too bright for comparison but the great majority of the stars would be provided for. Still better would be exposures of 1^m 5^m 25^m; but this would require perhaps too much time, and images on the longest exposures might be elongated.

Repeat the red plates for D 2 and D 12, and both plates for B 9. Also red plate for C 3

Repeat blue plates of exp. 1^m 2^m, 4^m? Would require plates for C 1, C 3, C 11, ~~taken~~ to be taken with exposures 1^m 3^m 9^m

Card put in for repeating the above regions

Monday October 3, 1921

235053 RR Cassiopeiae

Observations on Recent Plates

Comp. Star Plate MC 17533

MC 17562	12.6 ✓
17881	14.7 ✓
17825	14.8 ✓
17715	14.5 ✓
17742	n.s. <14.0 ✓
17658	13.0

The observation (13.0) on MC 17658 is discordant with the light curve, and a magnitude too bright apparently. The plate is poor and the variable rather near the limit of visibility. But the comparison star of ,13.7 is not seen or barely visible, while the variable is very clearly seen. Was there a still-stand and sudden drop, or must the plate be thrown out as defective?

Monday October 3, 1921

RR Cassiopeiae

		p89	p86
MC 17562	12.9	12.6	
17678	14.3	.	14.3
17881	14.~~7~~8	14.7	
17825	14.8	14.8	
17742	n.s. <14	n.s.	
17918	14.9? g/f		
17715	14.4	14.5	
17533	12.5	~~12~~.	12.6
17658	13.0	13.0	

Thursday Oct. 3, 1921

RR Cassiopeiae

~~MC 17533~~

MC 17966 Oct. 1, 1921 n.s. < 15.0

A very fine plate. No trace of the variable on film

B 87067 October 6, 1905. (B.)

Var. No. 128.

R V Sagittarii

$18^{h}\ 21^{m}.4\ -33^{\circ}\ 23'$ (1900)

(See inside cover.)

Scale "A."

KG 11365.965

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C.D.M. -33° 13234.

Magnitudes of Comparison Stars. C.D.M. −33° 13234 18h 19.7m −33° 23.6′ 9.2 (1875)

Name	Letter	Design.	Magn.	x	y	R.A.	Dec.	B9855 Obs. Magn.	B9882	B13535	B13581	Diff.				Mean	Resid.								
		C.D.M. −33° 13234	9.2																						
	a	C.D.M. −33 13272	8.5					5.6	6.0	5.6	5.0	5	4	3	5	.42	1	0	1	1	.00	8.50	+1.38	7.12	a
	b	−33 13225	7.3					6.1	6.4	5.9	5.5	2	3	3	2	.25	0	1	1	0	.42	6.88	−.24	7.54	b
	c	−33 13239	8.5					6.3	6.7	6.2	5.7	4	4	3	4	.38	0	0	1	0	.67	7.83	+.71	7.79	c
	d	−32 14147	8.5					6.7	7.1	6.5	6.1	5	4	4	4	.42	1	0	0	0	1.05	7.45	+.33	8.17	d
	e	−33 13258	9.3					7.2	7.5	6.9	6.5	3	4	4	4	.38	1	0	0	0	1.47	$\overset{7}{8}$.83	+.$\overset{7}{6}$1	8.59	e
	f	−33 132~~49~~ 52	9.0 ~~8.3~~					7.5	7.9	7.3	6.9	2	2	2	3	.22	0	0	0	1	1.85	7.15	+.03	8.97	f
	g	−33 13249	8.3					7.7	8.1	7.5	7.2	3	3	3	3	.30	0	0	0	0	2.07	6.23	−.89	9.19	g
	h	−33 13236	9.5					8.0	8.4	7.8	7.5	4	3	4	3	.35	0	1	0	1	2.37	7.13	+.01	9.49	h
	k	−33 13247	9.7					8.4	8.7	8.2	7.8	4	4	4	6	.45	0	0	0	2	2.72	6.98	−.14	9.84	k
	l	−33 13224	10					8.8	9.1	8.6	8.4	2	2	2	4	.25	0	0	0	2	3.17	6.83	−.29	10.29	l
	m	−33 13231	10					9.0	9.3	8.8	8.8	4	5	4	4	.42	0	1	0	0	3.42	6.58	−.54	10.54	m
	n	−33 13244	9.9					9.4	9.8	9.2	9.2	3	3	3	3	.30	0	0	0	0	3.84	6.06	−1.06	10.96	n
	o							9.7	10.1	9.5	9.5	5	4	4	4	.42	1	0	0	0	4.14			11.26	o
	p							10.2	R	9.9	9.9	·	3	3	3	.30	·	0	0	0	4.56			11.68	p
	q							?	R	10.2	10.2	·	4	4	3	.37	·	0	0	1	4.86			11.98	q
	r							?	R	10.6	10.5	·									5.$\overset{2}{0}$3			12.35	r

7.12 −3.16 +3.17

128. 182133. RV Sagittarii.

~~α 21.4h 33m δ 23° 23′ (1900).~~

Plate	.Date	J.D.	Exp.	Comp.	Magn.	Resid.	Ob.		.B P
~~B 3426~~	~~89, 6, 6~~	~~1160~~	~~60~~	~~" "~~	~~"~~	~~" "~~	—	~~Missing~~	
~~B 3532~~	~~" " 13~~	~~1167~~	~~10~~	~~" "~~	~~"~~	~~" "~~	F	~~Too poor~~	8 16
B 3533	" " 13	1167	10	h 3, A	9.7	` `	F		8 16
~~B 3591~~	~~" " 18~~	~~1172~~	~~13~~	~~" "~~	~~"~~	~~" "~~	B	~~Poor pl.~~	15 13
~~B 3660~~	~~" " 26~~	~~1180~~	~~60~~	~~e.1 A~~	~~8.6~~	~~" "~~	F		8 16
~~B 3706~~	~~" 7, 2~~	~~1186~~	~~25~~	~~" "~~	~~"~~	~~" "~~	"	Too poor.	8 16
~~B 3707~~	~~" " 2~~	~~"~~	~~60~~	~~d 3 A~~	~~8.4~~	~~" "~~	"		8 16
B 3756	" " 8	1192	10	d 5, 0,e 4 f	8.61	06, 02, 04	F	~~Mean 8.72~~	" 16
"	" " "	"	"	e 3, 2 f	8.83	06, 06	F		" 16
B 3896	" " 24	1208	60	d 2, 3 e	8.33	04, 04	F		8 15
B 3960	" 8, 6	1221	10	d 1, 4 e	8.23	04, 04	F		" "
~~B 3975~~	~~" 7~~	~~1222~~	~~13~~	~~" "~~	~~"~~	~~" "~~	B	~~Poor pl.~~	15 13
B 3992	" " 8	1223	10	d 3, 2 e	8.43	04, 04	F		8 16
B 3996	" " 8	1223	10	e 1, 4 f	8.63	06, 06	F		8 16
~~B 4030~~	~~" " 18~~	~~1233~~	~~60~~	~~" "~~	~~"~~	~~" "~~	"	~~On edge.~~	" "
~~B 4136~~	~~" 9, 4~~	~~1250~~	~~10~~	~~h 1, 3 k~~	~~(9.56)~~	~~08 02~~	F	~~Reject on edge of pl. probably wrong star meas. first.~~	8 15
"	" " "	"	"	g 1, 3 h	9.24	05, 05	F	d, e	8 17 ~~15~~
~~B 4185~~	~~" " 8~~	~~1254~~	~~10~~				B	~~Cannot find~~	
~~B 4186~~	~~" " 8~~	~~1254~~	~~10~~				B	" "	
B 4396	" 10, 10	1286	25	k 4 A	10.2	` `	F		8 16

No. 128

Printers Catalogue

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182133. R V Sagittarii ~~cont.~~

Plate	Date	J.D.	Exp.	Comp.	Magn.	Resid	Ob.		. B
~~B 4936~~	~~90, 4, 9~~	~~1467~~	~~10~~	~~..~~	~~..~~	~~..~~	~~F Too poor.~~	8	16
~~B 4938~~	~~" " 9~~	~~"~~	~~10~~	~~"~~	~~"~~	~~"~~	~~"~~	8	16
~~B 5175~~	~~" 5, 11~~	~~1499~~	~~60~~	~~e, 3 A~~	~~8.8~~	~~..~~	~~..~~	8	16
~~B 5184~~	~~" " 13~~	~~1501~~	~~60~~	~~e 2 A~~	~~8.7~~	~~..~~	~~..~~	8	15
B 5255	" " 22	1510	60	f 1, 2 g	9.03	04, 04	F	"	16
"	" "	"	"	g 2, 2 h	9.34	05, 05	F	"	16
B 6111	9ˈ, 5, 29	1882	10	e 4, 1 f	8.93	06, 06	F	8	16
B 6112	" " 29	1882	10	e 2, 2 f	8.78	01, 01	F	8 ~~15~~	15
B 6132	" " 30	1883	10	e 3, 2 f	8.83	06, 06	F	8	16
B 6133	" " 30	1883	10	e 4, 1 f	89 3	06, 06	F	"	16
~~B 6489~~	~~" 7, 7~~	~~1921~~	~~11~~	~~..~~	~~..~~	~~..~~	~~Near edge~~	"	16
~~B 6616~~	~~" 8, 3~~	~~1948~~	~~60~~	~~..~~	~~..~~	~~..~~	~~Too poor.~~	"	16
~~B 6621~~	~~" " 4~~	~~1949~~	~~76~~	~~..~~	~~..~~	~~..~~	~~..~~	8	16
B 6630	" " 5	1950	67	h 1, A	9.5	- -	F	"	16
~~B 6645~~	~~" " 7~~	~~1952~~	~~69~~	~~e 1 A~~	~~8.6~~	~~..~~	~~F~~	"	16
B 6919	" 9, 17	1993	2	m. 1, A	10.6	- -	F	8	16
~~B 7819~~	~~92, 6, 6~~	~~2256~~	~~85~~	~~f. 2 A~~	~~9.1~~	~~..~~	~~..~~	8	16
~~B 8233~~	~~" 7, 30~~	~~2310~~	~~75~~	~~f. 2 A~~	~~9.1~~	~~..~~	~~..~~	8	16
~~B 9347~~	~~93, 6, 5~~	~~2620~~	~~60~~	~~h. 2 A~~	~~9.6~~	~~..~~	~~..~~	"	16
~~B 9388~~ 65	~~" " 9~~	~~2624~~	~~60~~	~~k. 1 A~~	~~9.9~~	~~..~~	~~..~~	8	16

~~Mean 9.18~~

890.

182133. R V Sagittarii cont.

Plate	Date	JD	Exp.	Comp.	Magn.	Resid.	Ob.		BP
~~B 9588~~	~~93, 6, 14~~	~~2629~~	~~60~~	~~k.3 A~~	~~10.1~~	~~" "~~	Fl		8 16
B 9592	" " 15	2630	61	q 2, 3 r	12.12	06, 07	Fl		8/~~15~~ 13
B 9593	" " 13	2630	90	q 2, 3 r	12.12	06, 07	Fl		8 1
B 9696	" " 24	2639	10	q 1 R ~~q A 2~~	12.08	a "	Fl		" 16
~~B 9705~~	~~" 7, 5~~	~~2650~~	~~79~~	~~l.3 A~~	~~10.5~~	~~" "~~	~~"~~		8 16
~~B 9800~~	~~" " 21~~	~~2666~~	~~10~~	~~p.3 A~~	~~11.9~~	~~" "~~	~~"~~		8 16
B 9882	" " 22	2667	10	q, 3, 1 r	12.26	02, 01	Fl		" 16
~~B 10086~~	~~" 8, 3~~	~~2679~~	~~60~~	~~g.2 A~~	~~9.3~~	~~" "~~	~~"~~		8 16
~~B 11535~~	~~94, 7, 7~~	~~3017~~	~~61~~	~~h.1 A~~	~~9.5~~	~~" "~~	~~"~~		8 16
B 11760	" 8, 7	3048	10	m 4, 1 n	10.90	04, 04	Fl		" 16
B 11940	" " 16	3057	10	l 3, 2 m	10.46	13, 12	Fl		" 16
B 12853	95, 3, 6	3259	30	l 3, A	10.5	" "	Fl		" "
~~B 13406~~	~~" 5, 23~~	~~3337~~	~~60~~	~~m 1 A~~	~~10.6~~	~~" "~~	B		~~8~~ 15 13
B 13535	" 6, 3	3348	10	σ 2, 3 p	11.42	04, 04	Fl	Mean 11.40	8 16
~~"~~	~~" " "~~	~~"~~	~~"~~	~~Sc.~~	~~11.37~~	~~01 01~~	~~"~~		" "
B 13581	" " 4	3349	10	σ 1, 4 p	11.32	04, 04	Fl	~~Mean 11.34~~	8/~~15~~ 13
~~"~~	~~" " "~~	~~"~~	~~"~~	~~Sc.~~	~~11.37~~	~~01 01~~	~~"~~		"
B 13785	" " 17	3362	60	k 1 R	9.94	a ~~a~~	B Fl		15 13
~~B 13791~~	~~" " 18~~	~~3363~~	~~60~~	~~l.2 A~~	~~10.4~~	~~" "~~	~~B~~		8 16
~~B 13825~~	~~" " 24~~	~~3369~~	~~73~~	~~" "~~	~~" "~~	~~" "~~	~~Fl~~	~~Too poor~~	8 16

182133. RV Sagittarii, cont.

Plate	Date	J.D.	Ep.	Comp.	Magn.	Resid.	Ob.	
~~B 12230~~	~~95, 6, 26~~	~~3371~~	~~123~~	~~h3 h~~	~~9.7~~	~~.. ..~~	H	
B 13851	 29	3374	60	h1, 2k	9.62	03, 02	H	
..	.. ..	..	..	h3, 1k	9.74	01, 00	H	Mean 9.68
B 14039	.. 7, 9	3384	10	k2, 3l	10.02	02, 03	H	
B 14046	 9	3384	11	k3, 2l	10.12	02, 03	H	
B 14374	.. 8, 15	3421	92	e1, 3f	8.68	01, 01	H	
..	.. ..	..	..	e4, 1f	8.93	06, 06	H	Mean 8.80
B 14496	.. 9, 5	3442	10	d3, 1e	8.48	01, 01	H	
..	.. ..	..	..	d5, 0e, 5f	8.58	09, 01, 11	H	Mean 8.53
B 14498	 5	3442	10	~~g1, 3h~~	~~(9.24)~~	~~05, 05~~	~~H~~	
..	.. ..	—	—	d5, 0e, 4f	8.61	06, 02, 04	H	d
..	.. ..	..	..	d4, 1e	8.53	04, 04	H	Mean 8.57
B 14508	 6	3443	120	e3, 1f	8.88	01, 01	H	
B 14634	 14	3451	92	e4, 0f, 2g	8.98	01, 01, 01	H	
B 15741	96, 5, 9	3689	6	k2, 1l	10.12	08, 07	B	
B 16099	.. 6, 3	3714	12	k2, 1l	10.12	08, 07	B	
B 16156	 5	3716	17	k2, 2l	10.06	02, 03	B	
B 16165	 5	3716	11	h2, 1k	9.72	03, 02	B	
B 16415	 17	3728	23	k1, 2l	10.02	08, 07	B	
B 16496	 27	3738	10	e2, 1f ~~g2, 2h~~	8.83 ~~9.34~~	04, 04 ~~05, 05~~	B	d

12/8 182133. RV Sagittarii ~~sout.~~

Plate	Date	J.D.	Exp.	Comp.	Magn.	Resid.	Ob.
B 16499	96, 6, 27	3738	10 m	e 1, 2 f	8.73	04, 04	B
B 16576	" 7, 1	3742	12	e 1, 1 f	8.78	09, 09	B
B 16580	" " 1	3742	12	e 1, 2 f	8.73	04, 04	B
B 16725	" " 8	3749	90	g 1, 2 h	9.29	00, 00	B
B 16883	" " 17	3758	10	e 2, 1 f	8.83	04, 04	B
B 16983	" " 21	3762	10	e 2, 1 f	8.83	04, 04	B
B 17093	" 8, 11	3783	21	f 1, 2 g	9.03	04, 04	B
B 17143	" " 14	3786	12	e 2, 1 f	8.83	04, 04	B
B 17238	" " 25	3797	12	g 1, 3 h	9.24	05, 05	B
B 17239	" " 25	3797	11	g 2, 3 h	9.29	10, 10	B
~~a 2044~~	~~" 9, 5~~	~~3808~~	~~61~~	~~h 2, A~~	~~9.6~~	~~" "~~	B
a 2062	" " 10	3813	61	g 2, 1 h	9.39	00, 00	B
B 17484	" " 28	3831	11	l 1, 2 m	10.36	03, 02	B
B 17652	" 10, 13	3846	10	m 3, 2 n	10.80	04, 04	B
B 17709	" " 15	3848	11	m 1, 2 n	10.70	06, 06	B
B 17714	" " 27	3860	11	n 2, 2 o	11.11	05, 05	B
B 18023	" 11, 25	3889	12	o 1, A	11.3	x x	B
~~B 18090~~	~~" " 28~~	~~3892~~	~~13~~	~~"~~	~~"~~	~~" "~~	~~" Poor integ. of sect.~~
~~B 18570~~	~~97, 2, 9~~	~~3965~~	~~15~~	~~"~~	~~"~~	~~" "~~	~~" Poor plate.~~
B 18595	" 3, 6	3990	10	n 2, 1 o	11.16	00, 00	B

Sp 103 - Gal 140

182133. R V Sagittarii ~~cont.~~

Plate	Date	J.D.	Exp.	Comp.	Magn.	Resid.	Ob.
B 18727	97, 4, 2	4017	10^m	m1, 2n	10.70	06, 06	B
B 18728	„ „ 2	4017	12	l1, 2m	10.36	03, 02	B
B 18924	„ „ 22	4037	11	k1, 2l	10.02	08, 07	B
B 18950	„ „ 23	4038	13	k3, 2l	10.12	02 ~~04~~, 03	B
B 19085	„ 5, 12	4057	11	g2, 1h	9.39	00, 00	B
B 19086	„ „ 12	4057	12	g2, 1h	9.39	00, 00	B
B 19200	„ „ 25	4070	13	g1, 2h	9.29	00, 00	B
B 19219	„ „ 26	4071	10	e2, 1f	8.83	04, 04	B
B 19245	„ „ 28	4073	14	e1, 1f	8.78	09, 09	B
B 19325	„ 6, 1	4077	11	g1, 2h	9.29	00, 00	B
B 19448	„ „ 8	4084	10	f1, 1g	9.08	01, 01	B
B 19449	„ „ 8	4084	13	e1, 2f	8.73	04, 04	B
B 19576	„ „ 18	4094	11	e1, 1f	8.78	09, 09	B
B 19689	„ 7, 1	4107	10	g1, 2h	9.29	00, 00	B
B 19690	„ „ 1	4107	10	e2, 1f	8.83	04, 04	B
B 19873	„ „ 20	4126	49	m1 ~~k~~	10.64	a ~~l~~	B
B 19928	„ „ 26	4132	60	m1 ~~k~~	10.64	a ~~l~~	B
~~B 20058~~	~~„ 8, 16~~	~~4153~~	~~65~~	~~„ „~~	~~„~~	~~„ „~~	~~„~~ ~~Poor pl.~~
B 20120	„ „ 19	4156	11	m2, 3n	10.70	04, 04	B
B 20121	„ „ 19	4156	10	m2, 1n	10.80	06, 06	B

182133. R V Sagittarii ~~cont.~~

Plate	Date	J.D.	Eff.	Comp.	Magn.	Resid	Ob.
a 2661	97, 8, 23	4160	$\overset{m}{60}$	m3, 2n	10.80	04, 04	B
a 2673	" " 26	4163	60	m1, 2o	11.06	00, 00	B
~~B 20183~~	~~" " 27~~	~~4164~~	~~62~~	~~m.1 A~~	~~10.6~~	" "	"
~~B 20243~~	~~" 9, 2~~	~~4170~~	~~61~~	~~m.1 A~~	10.6 ~~11.0~~	" "	"
a 2714	" " 13	4181	10	n2, 2o	11.11	05, 05	B
B 20322	" " 14	4182	12	o1, 3p	11.37	01, 01	B
B 20323	" " 14	4182	13	n2, 1o	11.16	00, 00	B
B 20477	" " 21	4189	10	o2, 3p	11.42	04, 04	B
~~B 20499~~	~~" " 22~~	~~4190~~	~~10~~	~~o.1 A~~	~~11.3~~	" "	"
a 2810	" 10, 6	4204	10	p2, 2q	11.83	05, 05	B
B 21225	98, 4, 13	4393	10	e1, 2f	8.73	04, 04	B ✓
B 21283	" " 26	4406	10	~~g1, 2h~~ d2, 2e	~~9.29~~ 8.38	~~00, 00~~ 01, 01	~~B edge~~ B de
B 21385	" 5, 12	4422	13	e2, 1f	8.83	04, 04	B
B 21476	" " 25	4435	13	e2, 1f	8.83	04, 04	B
B 21576	" 6, 7	4448	12	g2, 2h	9.34	05, 05	B
B 21719	" " 20	4461	21	k2, 2l	10.06	02, 03	B
B 21919	" 9, 3	4536	10	o2, 2p	11.47	01, 01	B
B 21994	" 10, 7	4570	10	o1 ~~R~~	11.36	a ~~R~~	B
~~B 22035~~	~~" " 13~~	~~4576~~	~~10~~	~~o.2 A~~	~~11.4~~	" "	"
B 22478	99, 4, 5	4750	10	g1, 2h	9.29	00, 00	B ✓

182133. R V Sagittarii ~~cont.~~

Plate	Date	J.D.	exp.	Comp.	Magn.	Resid.	Ob.	
B22514	99, 4, 6	4751	10 "	d 2, 2 e e 2, o f, 3 g	8.38 8.88	01, 01 09, 09, 01	B B	
~~B23059~~	~~" 6, 16~~	~~4822~~	~~10~~	~~p. 1 A~~	~~11.7~~	~~" "~~	~~"~~	
B23075	" " 17	4823	10	σ 1, 2 p	11.42	06, 06	B	
B23076	" " 17	4823	10	σ 2, 1 p	11.52	06, 06	B	
B23077	" " 17	4823	15	σ 2, 1 p	11.52	06, 06	B	
~~B23666~~	~~" 7, 26~~	~~4862~~	~~12~~	~~q. 1 A~~	~~12.0~~	~~" "~~	~~"~~	
~~AM 15~~	~~" " 26~~	~~"~~	~~71~~	~~n. 1 A~~	~~11.0~~	~~" "~~	~~"~~	
B23696	" " 27	4863	10	r. 2, A	12.5	" "	B	
~~B23745~~	~~" " 31~~	~~4917~~	~~300~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Poor images~~
~~AM 33~~	~~" " 31~~	~~"~~	~~60~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~"~~
~~B23750~~	~~" 8, 1~~	~~4868~~	~~116~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~"~~
~~AM 47~~	~~" " 2~~	~~4869~~	~~64~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Pl. trailed~~
~~AM 63~~	~~" " 4~~	~~4871~~	~~61~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Poor plate~~
~~B23770~~	~~" " 4~~	~~"~~	~~255~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Too near edge~~
B23776	" " 5	4872	270	q 2, 1 r	12.22	04, 03	B	
~~AM 69~~	~~" " 5~~	~~"~~	~~26~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Poor image~~
~~AC 377~~	~~" " 6~~	~~4873~~	~~64~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Too near edge~~
B23781	" " 7	4874	185	~~r 2 R~~ r 3, 2 s	~~12.55~~ 12.62	~~A. A~~ 03, 02	B	
B23787	" " 8	4875	80	~~2 r R~~ r 2, 2 s	~~12.45~~ 12.58	~~A. A~~ 03, 02	B	
~~AM 107~~	~~" " 24~~	~~4891~~	~~60~~	~~n. 1 A~~	~~11.0~~	~~" "~~	~~"~~	

182133. R V Sagittarii ~~cont.~~

Plate	Date	J.D.	Eff.	Comp.	Magn.	Resid.	Obs.		BP
~~AM 116~~	~~99, 8, 20~~	~~4892~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~B~~	~~Pl. trailed~~	15 14
B 24009	" " 23	4892	10	q.2, A	12.1	" "	B		" 13
~~AM 135~~	~~" " 31~~	~~4898~~	~~66~~	~~o.1 A~~	~~11.3~~	~~" "~~	~~"~~		" 13
~~AM 137~~	~~" 9, 6~~	~~4904~~	~~75~~	~~o.1 A~~	~~11.3~~	~~" "~~	~~"~~		" 15
~~AM 154~~	~~" " 21~~	~~4919~~	~~82~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~Pl. trailed~~	"
~~B 24154~~	~~" " 22~~	~~4920~~	~~190~~	~~m.1 A~~	~~10.6~~	~~" "~~	~~"~~		" 12
~~AC 471~~	~~" 10, 10~~	~~4938~~	~~69~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~Poor pl.~~	" 14
B 24375	" " 13	4941	10	σ2, 2p	11.47	01, 01	B		" 13
~~AM 226~~	~~" " 14~~	~~4942~~	~~84~~	~~n.1 A~~	~~11.0~~	~~" "~~	~~"~~		13
B 24921	00, 3, 31	5110	63	m2, 2n	10.75	01, 01	B		" 12
~~AM 427~~	~~" 4, 7~~	~~5117~~	~~61~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~Pl. trailed~~	" 15
~~AM 461~~	~~" 5, 8~~	~~5148~~	~~62~~	~~o.1 A~~	~~11.2~~	~~" "~~	~~"~~		" 15
~~AC 858~~	~~" " 11~~	~~5151~~	~~60~~	~~g1 A~~	~~9.2~~	~~" "~~	~~"~~		" 13
B 25344	" " 18	5158	10	σ2, 2p	11.47	01, 01	B		" 12
B 25387	" " 22	5162	10	p1, 2q	11.78	00, 00	B		" "
~~B 25389~~	~~" 22~~	~~"~~	~~10~~	~~p.2 A~~	~~11.8~~	~~" "~~	B		" "
~~AC 868~~	~~" " 29~~	~~5169~~	~~72~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~Poor image~~	" 13
~~AC 869~~	~~" " 30~~	~~5170~~	~~73~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~Poor pl~~	" "
B 25521	" 6, 2	5173	60	q2, 2r	12.16	02, 01	B		" 12
~~AM 506~~	~~" " 20~~	~~5191~~	~~60~~	~~b2 A~~	~~10.4~~	~~" "~~	B		" 15

182133. R V Sagittarii ~~cont~~

Plate	Date	J.D.	Exp.	Comp.	Magn.	Resid.	Ob.	
~~AC 936~~	~~00, 7, 20~~	~~5221~~	~~83~~	~~„ „~~	~~„~~	~~„ „~~	~~B~~	~~Poor pl~~
~~AM 538~~	~~„ „ 23~~	~~5224~~	~~60~~	~~0.1 A~~	~~11.3~~	~~„ „~~	~~„~~	
~~AM 548~~	~~„ „ 24~~	~~5225~~	~~60~~	~~„ „~~	~~„~~	~~„ „~~	~~„~~	~~Pl trailed~~
~~AC 948~~	~~„ 8, 1~~	~~5233~~	~~70~~	~~„ „~~	~~„~~	~~„ „~~	~~„~~	~~Poor in reg. Isoch.~~
~~AM 577~~	~~„ „ 2~~	~~5234~~	~~62~~	~~0.2 A~~	~~11.4~~	~~„ „~~	~~„~~	
~~AC 963~~	~~„ „ 16~~	~~5248~~	~~84~~	~~„ „~~	~~„~~	~~„ „~~	~~„~~	~~Poor pl.~~
~~AM 592~~	~~„ „ 29~~	~~5261~~	~~60~~	~~m .2 A~~	~~11.1~~	~~„ „~~	~~„~~	
~~AM 614~~	~~„ 9, 1~~	~~5264~~	~~70~~	~~n .1 A~~	~~11.0~~	~~„ „~~	~~„~~	
B 25880	„ „	5264	11	σ 3, 2 p	11.52	04, 04	B	
~~B 26117~~	~~„ „ 13~~	~~5276~~	~~10~~	~~0.2 A~~	~~11.4~~	~~„ „~~	~~„~~	
B 26141	„ „ 15	5278	62	σ 2, 2 p	11.47	01, .01	B	
B 26388	„ 10, 11	5304	10	m 2, 2 n	10.75	01, .01	B	
~~AM 683~~	~~„ „ 15~~	~~5308~~	~~60~~	~~h .1 A~~	~~9.5~~	~~„ „~~	~~„~~	
~~AC 1462~~	~~01, 5, 13~~	~~5518~~	~~55~~	~~e .1 A~~	~~8.6~~	~~„ „~~	~~„~~	
~~AC 1473~~	~~„ „ 16~~	~~5521~~	~~53~~	~~„ „~~	~~„~~	~~„ „~~	~~„~~	~~Isoch. Poor pl.~~
~~AM 798~~	~~„ „ 21~~	~~5526~~	~~60~~	~~0.1 A~~	~~11.3~~	~~„ „~~	~~„~~	
AM 802	„ „ 22	5527	60	0.2 A	11.4	„ „	„	
B 27438	„ „ 27	5532	10	~~o 2, 1 r~~	~~12.22~~	~~04 03~~	~~B~~	~~Defect in reg~~
		„	„	r .1, A	12.4	„ „	B r	
~~B 27445~~	~~„ „ 27~~	~~5532~~	~~10~~	~~σ 2, 1 p~~	~~11.52~~	~~06 06~~	~~B~~	~~Wrong star.~~
				~~p 1 A~~	~~11.7~~	~~„ „~~	~~B~~	
~~AM 808~~	~~„ „ 27~~	~~„~~	~~51~~	~~0.1 A~~	~~11.3~~	~~„ „~~	~~„~~	

182133. R V Sagittarii ~~cont.~~

Plate	Date	JD	Exp.	Comp.	Magn.	Resid.	Ch.	
~~aC 1594~~	~~01, 7, 1~~	~~5567~~	~~2°~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~B Class M~~
~~aC 1595~~	~~" " 1~~	~~"~~	~~1°~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~" "~~
~~aM 907~~	~~" " 9~~	~~5575~~	~~60~~	~~0.1 A~~	~~11.3~~	~~"~~	~~" "~~	
~~B 27871~~	~~" " 13~~	~~5579~~	~~58~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~Surface~~
~~aM 917~~	~~" " 15~~	~~5581~~	~~57~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~Class C~~
~~aC 1618~~	~~" " 15~~	~~"~~	~~42~~	~~"~~	~~"~~	~~"~~	~~" "~~	Poor in reg. of var.
~~B 27892~~	~~" " 16~~	~~5582~~	~~65~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~Surface~~
~~aM 919~~	~~" " 16~~	~~"~~	~~43~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~Class C~~
~~aM 922~~	~~" " 19~~	~~5585~~	~~09~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~Class C~~
~~aM 924~~	~~" " 20~~	~~5586~~	~~514~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~Class C~~
aM 949	" 8, 2	5599	62	n 1, 1 o	11.11	05, 05	B	
aM 959	" " 5	5602	69	l 1, 2 m	10.36	03, 02	B	
aM 981	" " 10	5607	86	m 3, 3 n	10.75	09, 09	B	
~~B 28196~~	~~" " 12~~	~~5609~~	~~60~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~Surface~~
~~B 28205~~	~~" " 13~~	~~5610~~	~~60~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~Surface~~
~~aC 1655~~	~~" " 15~~ 4	~~5611~~	~~70~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~Poor in reg.~~
aM 1001	" " 21	5618	60	k 2, 2 l	10.06	02, 03	B	
aM 1010	" " 23	5620	60	k 2, 1 l	10.12	08, 07	B	
~~aC 1699~~	~~" " 30~~	~~5627~~	~~5~~	~~"~~	~~"~~	~~"~~	~~" "~~	~~Poor in reg.~~
aM 1028	" 9, 4	5632	67	k 2, 3 l	10.02	02, 03	B	

182133. RV Sagittarii

Plate	Date	J.D.	Ap.	Comp.	Magn.	Resid.	Ob.	
aM 1043	01, 9, 6	5634	60	k2, 1l	10.12	08, 07	B	
~~aC 1722~~	~~" " 7~~	~~5635~~	~~70~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~" Poor in reg.~~
~~aC 1780~~	~~" " 25~~	~~5653~~	~~61~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~" Poor in reg.~~
aM 1073	" 10, 1	5659	71	g2, 2h	9.34	05, 05	B	
B 28622	" " 3	5661	10	g2, 2h	9.34	05, 05	B	
~~aC 1828~~	~~" " 5~~	~~5663~~	~~73~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~" Useless~~
~~aC 1840~~	~~" " 7~~	~~5665~~	~~61~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~" Too near edge~~
aM 1094	" " 8	5666	60	f2, 2g	9.08	09, 09	B	
aM 1099	" " 10	5668	68	e2, 1f	8.83	04, 04	B	
B 28735	" " 10	5668	10	g2, 3h	9.29	10, 10	B	
~~aM 1191~~	~~02, 4, 7~~	~~5847~~	~~60~~	~~h.1 A~~	~~9.5~~	~~" "~~	~~B~~	
~~aM 1194~~	~~" " 8~~	~~5848~~	~~60~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~" Missing~~
~~aM 1201~~	~~" " 14~~	~~5854~~	~~60~~	~~l.1 A~~	~~10.3~~	~~" "~~	~~"~~	
~~aM 1203~~	~~" " 15~~	~~5855~~	~~60~~	~~e2 A~~	~~8.7~~	~~" "~~	~~"~~	
~~aM 1210~~	~~" " 26~~	~~5866~~	~~60~~	~~n.2 A~~	~~11.1~~	~~" "~~	~~"~~	
B 29487	" " 28	5868	10	g2, 1r	12.22	04, 03	B	
~~B 29524~~	~~" " 29~~	~~5869~~	~~10~~	~~g.2 A~~	~~12.1~~	~~" "~~	~~"~~	
~~B 29527~~	~~" " 29~~	~~"~~	~~10~~	~~p2 A~~	~~11.8~~	~~" "~~	~~"~~	
~~aM 1226~~	~~" " 30~~	~~5870~~	~~60~~	~~l.1 A~~	~~10.3~~	~~" "~~	~~"~~	
~~aM 1236~~	~~" 5, 2~~	~~5872~~	~~60~~	~~o.1 A~~	~~11.3~~	~~" "~~		

182133. RV Sagittarii ~~cont~~

Plate	Date	J.D.	Eff.	Comp.	Magn.	Resid.	Ob.	
~~AM 1252~~	~~02, 5, 1~~	~~5885~~	~~60~~	~~o.2 A~~	~~11.4~~	~~" "~~	~~B~~	
~~AC 2568~~	~~" " 20~~	~~5890~~	~~69~~	~~d.2 A~~	~~8.3~~	~~" "~~	~~"~~	
~~AM 1278~~	~~" " 27~~	~~5897~~	~~60~~	~~o.1 A~~	~~11.3~~	~~" "~~	~~"~~	
B 29857	" " 27	5897	10	o3, 2p	11.52	04, 04	B	
~~AM 1297~~	~~" 6, 2~~	~~5903~~	~~60~~	~~l.1 A~~	~~10.3~~	~~" "~~	~~"~~	
~~AC 2612~~	~~" " 6~~	~~5907~~	~~94~~	~~e.2 A~~	~~8.7~~	~~" "~~	~~"~~	
~~AM 1327~~	~~" " 10~~	~~5911~~	~~62~~	~~n.1 A~~	~~11.0~~	~~" "~~	~~"~~	
~~AM 1336~~	~~" " 11~~	~~5912~~	~~60~~	~~l.1 A~~	~~10.3~~	~~" "~~	~~"~~	
B 30016	" " 12	5913	60	n2, 20	11.11	05, 05	B	
~~AM 1344~~	~~" " 12~~	~~"~~	~~60~~	~~n.2 A~~	~~11.1~~	~~" "~~	~~"~~	
~~AM 1353~~	~~" " 13~~	~~5914~~	~~60~~	~~l.1 A~~	~~10.3~~	~~" "~~	~~"~~	
~~AM 1364~~	~~" " 14~~	~~5915~~	~~60~~	~~o.1 A~~	~~11.3~~	~~" "~~	~~"~~	
~~AM 1381~~	~~" " 24~~	~~5925~~	~~62~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Not corr.~~
~~AM 1384~~	~~" " 24~~	~~"~~	~~60~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Too near edge~~
AM 1390	" " 25	5926	60	m3, 2n	10.80	04, 04	B	
~~AM 1406~~	~~" " 28~~	~~5929~~	~~396~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Class C~~
~~AC 2655~~	~~" " 29~~	~~5930~~	~~85~~	~~e.1 A~~	~~8.6~~	~~" "~~	~~"~~	
AM 1414	" 7, 2	5933	60	n1, 10	11.11	05, 05	B	
AM 1422	" " 3	5934	60	m3, 2n	10.80	04, 04	B	
AM 1428	" " 7	5938	491	m2, 2n	10.75	01, 01	B	

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Sp 104 - G.14

Plate	Date	J.D.	Exp.	Comp.	Magn.	Resid.	O.		
B 30310	02, 7, 8	5939	60	m 2, 1 n	10.80	.06, .06	B		.B
AM 1461	" " 12	5943	60	m 3, 2 n	10.80	.04, .04	B		15
~~AC 2691~~	~~" " 13~~	~~5944~~	~~81~~	~~e.1 A~~	~~8.6~~	~~" "~~	~~"~~		"
AM 1470	" " 14	5945	60	m 3, 2 n	10.80	.04, .04	B		"
~~AM 1487~~	~~" " 29~~	~~5960~~	~~383~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~Poor images~~	"
AM 1488	" " 30	5961	260	l 1, 2 m	10.36	.03, .02	B		"
~~AC 2714~~	~~" " 31~~	~~5962~~	~~27~~	~~"~~	~~"~~	~~" "~~	~~B~~	~~Poor.~~	"
~~AC 2715~~	~~" " 31~~	~~"~~	~~60~~	~~f.2 A~~	~~9.1~~	~~" "~~	~~B~~		"
B 30512	" 8, 4	5966	24	h 3, 2 k	9.72	.07, .08	B		"
B 30513	" " 4	5966	188	k 1, 2 l	10.02	.08, .07	B		"
A 60350	" " 4	5966	262	k 1, 1 l	10.06	.12, .13	B		"
AM 1491	" " 9	5971	60	h 2, 2 k	9.66	.03, .02	B		"
~~AM 1492~~	~~" " 9~~	~~"~~	~~60~~	~~l.1 A~~	~~10.3~~	~~" "~~	~~"~~		"
~~AC 2737~~	~~" " 12~~	~~5974~~	~~19~~				~~B~~	~~Not found~~	"
~~AM 1522~~	~~" " 25~~	~~5987~~	~~85~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~Poor images~~	"
~~AC 2778~~	~~" " 26~~	~~5988~~	~~67~~	~~e.2 A~~	~~8.7~~	~~" "~~	~~"~~		"
AM 1523	" " 31	5993	122	e 1, 2 f	8.73	.04, .04	B		"
~~AM 1524~~	~~" 9, 2~~	~~5995~~	~~320~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~Poor images~~	" 14
AM 1528	" " 13	6006	60	e 1, 2 f	8.73	.04, .04	B		" 14
~~AC 2837~~	~~" " 14~~	~~6007~~	~~72~~	~~"~~	~~"~~	~~" "~~	~~"~~	~~Poor in [illegible]~~	"

182133. R V Sagittarii, ~~cont.~~

Plate	Date	J.D.	Exp.	Comp.	Magn.	Resid.	Ob.	
AM 1543	02, 9, 17	6010	60	f 1, 1 g	9.08	01, .01	B	
~~AC 2847~~	~~" " 23~~	~~6016~~	~~72~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Poor in reg.~~
B 30644	" " 23	6016	10	~~e 3, 3 f~~ g 2, 3 h	~~8.78~~ 9.29	~~11 11~~ 10, 10	~~B~~ Bd, r	~~? "e" seems br. than "f".~~
AM 1589	" " 30	6023	60	g 1, 2 h	9.29	00, 00	B	
AM 1594	" 10, 4	6027	60	g 2, 1 h	9.39	00, 00	B	
AM 1631	" " 10	6033	60	g 2, 2 h	9.34	05, 05	B	
AM 1632	" " 10	6033	60	g 2, 2 h	9.34	05, 05	B	
B 30867	" " 11	6034	10	g 2, 2 h	9.34	05, 05	B	
~~AC 2910~~	~~" " 20~~	~~6043~~	~~104~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Poor in reg.~~
AM 1653	" " 21	6044	60	h 3, 2 k	9.72	07, 08	B	
~~AC 2961~~	~~" 11, 1~~	~~6055~~	~~59~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Poor in reg.~~
B 31405	03, 4, 3	6208	60	o 3, 2 p	11.52	04, 04	B	
~~AM 1854~~	~~" " 3~~		~~60~~	~~n + 1 A~~	~~11.0~~	~~" "~~	B	
~~AM 1874~~	~~" " 21~~	~~6226~~	~~62~~	~~n + 1 A~~	~~11.0~~	~~" "~~	B	
AM 1875	" " 21	6226	60	m 3, 2 n	10.80	04, 04	B	
~~AM 1887~~	~~" " 25~~	~~6230~~	~~68~~	~~k + 1 A~~	~~9.9~~	~~"~~	B	
~~AM 1895~~	~~" " 28~~	~~6033~~	~~61~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Too near edge~~
B 31577	" 5, 2	6237	11	k 3, 2 l	10.12	02, 03	B	
B 31646	" " 5	~~6040~~ 6240	10	k 1, 2 l	10.02	08, 07	B	
AM 1917	" " 6	~~6041~~ 6241	60	k 2, 2 l	10.06	02, 03	B	

903.7

182133. RV Sagittarii ~~cont.~~

Plate	Date	J.D.	Exp.	Comp.	Magn.	Resid.	Ob.	
B 31684	03, 5, 6	6241	10m	k 2, 1 l	10.12	08, 07	B	
~~AC 3601~~	~~" " 8~~	~~6243~~	~~53~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Poor in reg.~~
AM 1952	" " 18	6253	60	h 2, 1 k	9.72	03, 02	B	
AM 1960	" " 19	6254	61	g 1, 2 h	9.29	00, 00	B	
B 32016	" " 19	6254	60	g 2, 3 h	9.29	10, 10	B	
~~AC 3702~~	~~" " 30~~	~~6265~~	~~77~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Poor in reg.~~
~~AM 1993~~	~~" 6, 2~~	~~6268~~	~~63~~	~~k.1 [illegible]~~	~~9.9~~	~~" "~~	~~"~~	
AM 1994	" " 2	6268	60	g 2, 2 h	9.34	05, 05	B	
AM 2005	" " 4	6270	60	g 3, 2 h	9.39	10, 10	B	
AM 2034	" " 15	6281	60	e 2, 2 f	8.78	01, 01	B	
AM 2037	" " 15	6281	62	e 1, 2 f	8.73	04, 04	B	
AM 2050	" " 17	6283	61	e 2, 1 f	8.83	04, 04	B	
AM 2052	" " 18	6284	60	e 2, 3 f	8.73	06, 06	B	
B 32032	" " 22	6288	60	g 1, 2 h	9.29	00, 00	B	
B 32051	" " 24	6290	60	g 2, 2 h	9.34	05, 05	B	
AM 2072	" " 26	6292	60	d 3, 2 e	8.43	04, 04	B	
AM 2075	" " 27	6293	60	e 2, 3 f	8.73	06, 06	B	
~~AM 2080~~	~~" " 29~~	~~6295~~	~~435~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Cant~~
AM 2085	" 7, 1	6297	66	d 2, 1 e	8.43	06, 06	B	
AM 2109	" " 12	6308	69	d 1, 2 e	8.33	06, 06	B	

182133. R V Sagittarii ~~cont.~~

Plate	Date			J.D.	Exp.	Comp.	Magn.	Resid.	Obs.	
					m					
AM 2129	03,	7,	15	6311	60	d1, 2e	8.33	.06, .06	B	
~~AM 2140~~	~~"~~	~~"~~	~~17~~	~~6313~~	~~541~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Class C~~
AM 2142	"	"	20	6316	63	d3, 2e	8.43	.04, .04	B	
~~AM 2143~~	~~"~~	~~"~~	~~20~~	~~"~~	~~395~~	~~" "~~	~~"~~	~~" "~~	~~"~~	Class C
AM 2147	"	"	23	6319	73	d2, 2e	8.38	.01, .01	B	
A 6463	"	"	25	6321	60	d2, 1e	8.43	.06, .06	B	
B 32353	"	"	31	6327	10	~~f1, 1g~~ d.2, 1e	~~9.08~~ 8.43	~~.01, .01~~ .06, .06	B	dx
AM 2178	"	8,	10	6337	60	d2, 1e	8.43	.06, .06	B	
AM 2184	"	"	11	6338	63	e3, 3f	8.78	.11, .11	B	
AM 2199	"	"	13	6340	60	e2, 2f	8.78	.01, .01	B	
AM 2200	"	"	13	6340	63	e2, 2f	8.78	.01, .01	B	
~~AC 3825~~	~~"~~	~~"~~	~~14~~	~~6341~~	~~64~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Poor in reg.~~
~~AC 3836~~	~~"~~	~~"~~	~~17~~	~~6344~~	~~70~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Poor in reg.~~
B 32473	"	"	18	6345	60	f1, 1g	9.08	.01, .01	B	
~~AC 3851~~	~~"~~	~~"~~	~~21~~	~~6348~~	~~61~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Poor in reg.~~
B 32544	"	9,	1	6359	10	g1, 2h	9.29	.00, .00	B	
AM 2244	"	"	1	6359	61	g2, 1h	9.39	.00, .00	B	
AM 2261	"	"	3	6361	60	h2, 2k	9.66	.03, .02	B	
B 32628	"	"	3	6361	10	g2, 2h	9.34	.05, .05	B	
~~AC 3935~~	~~"~~	~~"~~	~~14~~	~~6372~~	~~60~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Poor pl.~~

182133. R V Sagittarii ~~cont.~~

Plate	Date	JD	Ap.	Comp.	Magn.	Resid.	Ob.	B	P
B32633	03, 9, 17	6375	60	k1, 2l	10.02	08, 07	B	15	13
AM2280	 18	6376	63	k2, 1l	10.12	08, 07	B	..	18
AM2309	.. 10, 9	6397	64	m3, 2n	10.80	04, 04	B	..	14
AM2320	 12	6400	68	n2, Ω	11.1	- -	B	..	14
~~AM2335~~	~~.. .. 19~~	~~6407~~	~~72~~	~~l1, 4~~	~~10.3~~	~~.. ..~~	B	..	13
B33337	04, 4, 12	6583	10	g2, 1h	9.39	00, 00	B	32	14
AM2532	 12	6583	62	h2, 1k	9.72	03, 02	B	..	14
AM2572	 22	6593	61	h3, 1k	9.76	03, 02	B	..	10
B33586	.. 5, 3	6604	8	g1, 2h	9.29	00, 00	B	..	14
AM2618	 5	6606	60	f2, 1g	9.13	04, 04	B	..	14
AM2629	 6	6607	28	e1, 2f	8.73	04, 04	B	..	10
AM2639	 7	6608	60	f1, 0g, 2h	9.18	11, 01, 11	B	..	
AM2652	 13	6614	60	f2, 3g	9.03	14, 14	B	..	14
B33810	 23	6624	10	e1, 3f	8.68	01, 01	B	..	14
B33857	 25	6626	10	d1, 2e	8.33	06, 06	B	..	14
AM2694	.. 6, 2	6634	60	e2, 3f	8.73	06, 06	B	..	14
AM2713	 4	6636	60	d3, 2e	8.38	01, 01	B	..	13
AM2724	 7	6639	67	e2, 3f	8.73	06, 06	B	..	14
B34053	 11	6643	63	d2, 3e	8.33	04, 04	B	..	14
AM2756	 18	6650	60	e1, 3f	8.68	01, 01	B	..	13

127. 182133. R V Sagittarii. ~~cont.~~

Plate	Date	JD	Exp.	Comp.	Magn.	Resid.	Ob.	
AM2797	04, 7, 1	6663	60	g1, 2h	9.29	00, 00	B	
AM2846	" " 20	6682	62	k2, 3l	10.02	02, 03	B	
AM2854	" " 21	6683	69	h3, 1k	9.76	03, 02	B	
AM2873	" " 23	6685	61	h3, 1k	9.76	03, 02	B	
~~B34634~~	~~" 8, 10~~	~~6703~~	~~61~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Surface~~
AM2940	" " 12	6705	63	m3, 4n	10.70	14, 14	B	
AM2959	" " 18	6711	62	n2, 3o	11.06	10, 10	B	
~~B34863~~	~~" 9, 7~~	~~6731~~	~~60~~	~~" "~~	~~"~~	~~" "~~	~~"~~	~~Surface~~
AM3392	05, 3, 17	6922	60	e2, 0f, 2g	8.92	13, 05, 07	B	
AM3406	" " 28	6933	62	e3, 1f	8.88	01, 01	B	
B35685	" " 29	6934	10	e3, 3f	8.78	11, 11	B	
AM3436	" 4, 2	6938	60	e2, 2f	8.78	01, 01	B	
AM3448	" " 7	6943	65	e2, 3f	8.73	06, 06	B	
B35850	" " 21	6957	10	d2, 3e	8.33	04, 04	B	
AM3488	" " 28	6964	65	e1, 3f	8.68	01, 01	B	
AM3496	" 5, 2	6968	71	e1, 3f	8.68	01, 01	B	
AM3507	" " 9	6975	60	e3, 1f	8.88	01, 01	B	
AM3524	" " 11	6977	67	f2, 1g	9.13	04, 04	B	
AM3537	" " 13	6979	60	f1, 2g	9.03	04, 04	B	
AM3552	" " 22	6988	60	g2, 1h	9.39	00, 00	B	

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182133. R V Sagittarii ~~cont~~

Plate	Date	JD	App.	Comp.	Magn	Resid.	Ob.		B	P
AM3579	05, 6, 2	6999	59 m	k2, 3l	10.0~~6~~ 2	~~08~~ 02,	~~07~~ 03	B	32	14
AM3616	〃 〃 10	7007	63	k3, 2l	10.12	02,	03	B	〃	14
AM3625	〃 〃 12	7009	60	m2, 3n	10.70	04,	04	B	〃	14
AM3641	〃 〃 20	7017	61	m3, 2n	10.80	04,	04	B	〃	14
AM3689	〃 7, 5	7032	62	n3, 3o	11.11	15,	15	B	〃	14
AM3720	〃 〃 12	7039	60	m4, 1n	10.90	04,	04	B	〃	16
B36432	〃 〃 12	7039	10	σ1, 3p	11.37	01,	01	B	〃	14
B36895	〃 9, 6	7095	10	p1, f	11.7	〃	〃	B ✓	〃	14
AM3859	〃 〃 7	7096	64	m2, 2n	10.75	01,	01	Br ~~Scratch over variable~~. Meas?	〃	
~~B36962~~	~~〃 〃 9~~	~~7098~~	~~10~~	~~o2, f~~	~~11.4~~	~~〃~~	~~〃~~	~~〃~~	〃	14
~~AM3922~~	~~〃 10, 2~~	~~7121~~	~~60~~	~~n3, 2o~~	~~11.16~~	~~10~~	~~10~~	~~B~~	〃	14
		~~〃~~	~~〃~~	~~m1 f~~	~~11.0~~	~~〃~~	~~〃~~	~~B f~~		
B37067	〃 〃 6	7125	10	ε1, f	12.4	〃	〃	B ✓	〃	14

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Printer's Catalogue

R V Sagittarii cont.

Plate	Date	J.D.	Exp.	Comp.	Magn.	Resid.	Obs.	
~~AM 817~~	~~01, 5, 28~~	~~5533~~	~~60^m^~~	~~0.1 A~~	~~11.3~~	~~„ „~~	~~B~~	
~~AC 1501~~	~~„ 6, 4~~	~~5540~~	~~106~~	~~„ „~~	~~„~~	~~„ „~~	~~„~~	~~Poor pl.~~
~~AM 827~~	~~„ „ 5~~	~~5541~~	~~62~~	~~n.2 A~~	~~11.1~~	~~„ „~~	~~„~~	
~~AM 835~~	~~„ „ 6~~	~~5542~~	~~63~~	~~n.1 A~~	~~11.0~~	~~„ „~~	~~„~~	
~~AM 850~~	~~„ „ 11~~	~~5547~~	~~61~~	~~l.2 A~~	~~10.4~~	~~„ „~~	~~„~~	
~~AC 1527~~	~~„ „ 11~~	~~„~~	~~96~~	~~e.2 A~~	~~8.7~~	~~„ „~~	~~„~~	
~~AM 854~~	~~„ „ 14~~	~~5550~~	~~525~~	~~„ „~~	~~„~~	~~„ „~~	~~„~~	~~Class C~~
~~AC 1542~~	~~„ „ 15~~	~~5551~~	~~43~~	~~„ „~~	~~„~~	~~„ „~~	~~„~~	~~Poor pl.~~
~~AM 856~~	~~„ „ 17~~	~~5553~~	~~90~~	~~„ „~~	~~„~~	~~„ „~~	~~„~~	~~Class C~~
~~AM 868~~	~~„ „ 21~~	~~5557~~	~~64~~	~~k.2 A~~	~~10.0~~	~~„ „~~	~~„~~	
~~AM 869~~	~~„ „ 21~~	~~„~~	~~60~~	~~0.1 A~~	~~11.3~~	~~„ „~~	~~„~~	
~~AM 875~~	~~„ „ 22~~	~~5558~~	~~60~~	~~l.1 A~~	~~10.3~~	~~„ „~~	~~„~~	
~~AM 882~~	~~„ „ 24~~	~~5560~~	~~60~~	~~n.2 A~~	~~11.1~~	~~„ „~~	~~„~~	
~~AM 888~~	~~„ „ 25~~	~~5561~~	~~65~~	~~n.1 A~~	~~11.0~~	~~„ „~~	~~„~~	
~~AC 1588~~	~~„ 7, 1~~	~~5567~~	~~2°~~	~~„ „~~	~~„~~	~~„ „~~	~~„~~	~~Class M~~
~~AC 1589~~	~~„ „ „~~	~~„~~	~~10°~~	~~„ „~~	~~„~~	~~„ „~~	~~„ „ „~~	
~~AC 1590~~	~~„ „ „~~	~~„~~	~~2°~~	~~„ „~~	~~„~~	~~„ „~~	~~„ „ „~~	
~~AC 1591~~	~~„ „ „~~	~~„~~	~~10°~~	~~„ „~~	~~„~~	~~„ „~~	~~„ „ „~~	
~~AC 1592~~	~~„ „ „~~	~~„~~	~~2°~~	~~„ „~~	~~„~~	~~„ „~~	~~„ „ „~~	
~~AC 1593~~	~~„ „ „~~	~~„~~	~~10°~~	~~„ „~~	~~„~~	~~„ „~~	~~„ „ „~~	

Dates checked
Magn. checked.

B 14634 Sept. 14, 1895 F.
AC 4980 July 1, 1904. B.

J.D. through checked by W.L.L. Aug. 1905

Var. No. 128. RV Sagittarii

New Variable Star in

C.D.M. -33° 13234 $18^h\,19^m.7$ $-33^\circ\,23'.6$ 9.2 (1875)
$18^h\,21^m.4$ $-33^\circ\,23'$ (1900)

Bk. 8, p. 158.

See Mrs. F's. Book 4. p 165
meas. on B 14498.

Faint sequence marked on B 13581

Scale "A"

1847 2163 2477 [illegible]

18h 19.7 −33° 23.6

9.0 Dele at 1240
660
1900
1550
3450

Min 2650
700
3350

2210/6 = 368

2210/7 = 316

3045
313
3358

0267
3160
316
3743

	3683		3163
		0	0267
		1	0583
0	0847	2	0899
1	1215 368	3	1215
2	1583	4	1531
3	1951	5	1847
4	2319	6	21~~[illegible]~~63
5	2687	7	2479
6	3055	8	2795
7	3423 ~~366~~	9	31~~26~~11
8		~~8~~10	34~~22~~27
		~~9~~11	3743
		~~10~~12	4059

New Variable Star in
CDM -33° 13234

Magn. from CDM Vol – XVII.

Date	Magn			
Aug 12, 1892	Invisible	2323	4Σ+160	12.2
May 29, 1889	9.7	1152	1Σ+253	10.8
July 18 "	8.3	1202	+303	8.4
Sept. 17 "	9.7	1263	2Σ+48	9.8

New Variable Star in
C.D.M. −33° 13234 18h 19m.7 −33° 23′.6 9.2 (1875)

Plate.	Date.	J.D.	Exp.	Comp.	Magn.	Resid.	0899 +3162		
B 3426	89 6 6	1160	60m				✓		
~~B 3532~~	~~" " 13~~	~~1167~~	~~10~~				✓		Too poor.
B 3533	" " 13	1167	10	h‖3 n	~~9.79~~		0 +268 ✓		
B ~~3591~~ B 3660	" " 26	1180	60	e‖1 n	~~8.69~~		✓ +281		
~~B 3706~~	~~" 7 2~~	~~1186~~	~~25~~				✓ +287		Too poor.
B 3707	" " 2	1186	60	d‖3 n	~~8.47~~		✓ +287		
B 3756	" " 8	1192	10	d5,0e,4f	8.61	.06 .02	✓ +293	−8 ×	Mean 8.72
B 3896	" " 24	1208	60	c3, 2f d2,3e	8.83 8.33	.04 .06 .06 .04 .04	✓ ✓ +309		
B 3960	" 8 6	1221	10	d1,4e	8.23	.04 .04	1 +6 ✓ [illegible]		
B ~~3975~~ B 3992	" " 8	1223	10	d3,2e	8.43	.04 .04	✓ +8 ✓ ~~+329~~		
B 3996	" " 8	1223	10	e1,4f	8.63	.06 .06	✓ +8	−4	
~~B 4030~~	~~" " 18~~	~~1233~~	~~60~~				✓ +18 ~~324~~		On edge.
B 4136	" 9 4	1250	10	h1,3k g1,3h	[9.56] 9.24	.03 .02 .05 .05	✓ +35 ✓	−4 Reject	on edge of pl. prob. W.S. [illegible]
B 4185	" " 8	1254	10				✓ +39		
B 4186	" " 8	1254	10				✓ +39		
B 4396	" 10 10	1286	25	k‖4 n	~~10.24~~		✓ +71		
~~B 4936~~	~~90 4 9~~	~~1467~~	~~10~~				✓ +252		Too poor.
~~B 4938~~	~~" " 9~~	~~1467~~	~~10~~				✓		Too poor.
B 5175	" 5 11	1499	60	e‖3 n	~~8.59~~ 8		✓ +284		
B 5184	" " 13	1501	60	e‖2 n	~~8.79~~		✓ +286		
B 5255	" " 22	1510	60	f1,2g g2,2h	9.03 9.34	.04 .04 .05 .05	✓ +295 ✓	+6 ×	Mean 9.18

New Variable Star in C.D.M. −33° 13234.

Plate	Date			J.D.	Exp.	Comp.	Magn.	Resid.			
B ✓6111	91	5	29	1882	10^m	e 4,1 f	8.93	.06	.06	✓ 3 +35 +14	
B ✓6112	"	"	29	1882	10	e 2,2 f	8.78	.01	.01	✓ " +17	
B ✓6132	"	"	30	1883	10	e 3,2 f	8.83	.06	.06	✓ +36 +17	
B ✓6133	"	"	30	1883	10	e 4,1 f	8.93	.06	.06	✓ " +13	
~~B ✓6489~~	~~"~~	~~7~~	~~7~~	~~1921~~	~~11~~					✓ +74	Near edge.
~~B ✓6616~~	~~"~~	~~8~~	~~3~~	~~1948~~	~~60~~					✓ +101	Too poor.
~~B ✓6621~~	~~"~~	~~"~~	~~4~~	~~1949~~	~~76~~					✓ +102	Too poor.
B ✓6630	"	"	5	1950	67	h ∥ 1 n	~~9.5~~	..	..	✓ +103	
B ✓6645	"	"	7	1952	69	e ∥ 1 n	~~8.6~~	..	..	✓ +105	
B ✓6919	"	9	17	1993	2	m ∥ 1 n	~~10.6~~	..	..	✓ +146	
B ✓7819	92	6	6	2256	85	f ∥ 2 n	~~9.1~~	..	..	✓ 4 +93	
B ✓8233	"	7	30	2310	75	f ∥ 2 n	~~9.1~~	..	..	✓ 157	
B ✓9547	93	6	5	2620	60	h ∥ 2 n	~~9.6~~	..	..	✓ 5 +141	
B ✓9565	"	"	9	2624	60	k ∥ 1 n	~~9.9~~	..	..	✓ +145	
B ✓9588	"	"	~~3~~ 14	262~~8~~9	60	k ∥ 3 n	~~10.1~~	..	..	✓ +150	
B ✓9592	"	"	15	2630	61	q 2,3 r	12.12	.06	.07	✓ +151	
B ✓9593	"	"	15	2630	90	q 2,3 r	12.12	.06	.07	✓ "	
B ✓9696	"	"	24	2639	10	q ∥ 2 r ∥ 1	12.08	..	..	✓ +160	×
B ✓9758	"	7	5	2650	79	l ∥ 3 n	~~10.5~~			✓ +171	
B ✓9855	"	"	21	2666	10	p ∥ 3 n	~~11.9~~ n.s.			✓ +187	
B ✓9882	"	"	22	2667	10	q 3,1 r	12.26 f	.02	.01	✓ +188	

New Variable Star in
C.D.M. -33° 13234

Plate	Date			J.D.	Exp.	Comp.	Magn.	Resid.				
B 10086	93	8	3	2679	60m	g‖2 n	X9.3X	..	..	✓ 5+200		
B 11535	94	7	7	3017	61	h‖1 n	X9.5X	..	..	✓ 6+222		
B 11760	"	8	~~6~~ 7	3048	~~60~~ 10	m4,1w	10.90	.04	.04	✓ +253	0	
B 11940	"	"	16	3057	10	l3,2m	10.46	.13	.12	✓ +262	0	
B 12853	95	3	6	3259	30	l‖3 n	X10.5X	..	"	✓ 7 +148		
B 13406 B 13535	"	6	3	3348	10	o2,3p	11.42 11.37	.04 .01	.04 .01	✓ +237 ✓	+4 +2	Mean 11.40
B 13581	"	"	4	3349	10	o1,4p	11.32 11.37	.04 .01	.04 .01	✓ +238 ✓	0 0	Mean 11.34
B ~~13785~~ B 13791	"	"	18	3363	60	l‖2 n	X10.5X 4	..	..	✓ +252		
~~B 13825~~	~~"~~	~~"~~	~~24~~	~~3369~~	~~73~~					✓ +258		Too poor.
B 13830	"	"	26	3371	123	h‖3 n	X9.7X	..	..	✓ +260		
B 13851	"	"	29	3374	60	h1,2k m3,1k	9.62 9.74	.03 .01	.02 .00	✓ +263 ✓	-18	Mean 9.68
B 14039	"	7	9	3384	10	k2,3l	10.02	.02	.03	✓ +273	0	
B 14046	"	"	9	3384	11	k3,2l	10.12	.02	.03	✓ +273	+1	
B 14374	"	8	15	3421	92	e1,3f c4,1f	8.68 8.93	.01 .06	.01 .06	✓ 310	+7	mean 8.80
B 14496	"	9	5	3442	10	d3,1e d5,0e	8.48 8.58	.01 .09	.01 .01	8+15	+2	mean 8.53
B 14498	"	"	5	3442	10	5f g1,3h d5,0e	[9.24] 8.61	.11 .05 .06	.05 .02	"	-3	Ry [illegible] W.S.? mean 8.57
B 14508	"	"	6	3443	120	4f d4,1e e3,1f	8.53 8.88	.04 .04 .01	.04 .01	✓ +16	-2	
B 14634	"	"	14	3451	92	e4,0f,2g	8.98	.01 .01	.01	✓ +24	0	