1910phae.proj..2229C

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

1910phae.proj.2229C

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

1910phae.proj.229C

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

1910phae.proj.2229C

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

1910phae.proj.2229C

November 19, 1910

Double Stars.

~~D~~ Positions from Gesellschaft Catalogue
0h to 8h positions checked +30° to +35°

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

1910phae.proj.2229c

November 28, 1910

Examination of A & B plates to confirm variation of object marked on B11969.
Approx Pos. 23h 58m - 0° 58' (1855)

B11916 ff.
I32170 ff.
I31958 ff.
B34565 ~~Br.~~ not covering
B36902 Br.
B37153 ff.
B40691 ff.
I21574
I24258
I18863
I16073
I14104 Cover the region but star is too faint to be seen.

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

1910phae.proj.2229c

December 1, 1910

~~? +31° 12 5.6 6 7 43.0 +31 8.5 (18 5-5)~~

Mark on I chart + I Spectrum confirms variation

+33° 12 8.9 6h 7 34.7 +33 42.2 15.1 magn. 9.1

Marked on I 20267 chart, I 31324 spectrum.

I8348 faint

I6073 Br.

I5865 Br.

I5645 Br.

I5561 ff?

I3384 Br.

I2668 Br.

I724 Br.

I404 Br.

I20267 Br.

I36374 Br.?

I27290 Br.

I24058 Br.

I21879 ff.

See A.J.C's book 27, p. 34.

V W Argyle H.C. 164.

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

1910phae.proj.2229c

Dec 31, 1910

Confirmation of Var No. 2 on AC 9525

Marked on I 2287 B.D. +48°2957

Position 19 45 15.7 +48 41.4 Magn. 8.9 (1855)

I 16385	Br.		
I 15182	Br,	I 20792	ft.
I 15492	Br.	I 14711	Br.
I 15728	Br.	I 14520	Br.
I 15963	Br.	I 13045	ft.
I 16731	Br.	I 13302	Br.
I 16569	Br.	I 13780	ft?
I 11963	Br.		
I 11472	ft?		
I 12780	Br		
I 5303	Br.		
I 4708	Br.		
I 4938	Br.		
I 11325	Br.		
I 7490	Br.		
I 8824	Br.		
I 8850	Br.		
I 8735	Br.		
I 17048	Br.		
I 22963	Br.		
I 21344	Br.		
I 26079	Br.		
I 19445	Br.		
I 18124	Br.		
I 8711	Br		
I 18939	Br		

Image missing on AC 9525 [illegible] 2072, but film is probably defective. Not variable

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

1910phae.proj.2229C

January 5, 1911

Examination of I Plates to confirm object marked on I 15962 B.D +57° 2104

I 27522 Br.
I 18427 Br.
I 23333 Br.
I 25919 Br.
I 17425 Br.
I 17854 Br.
I 18050 Br.
I 18228 Br.
I 17077 Br.
I 17218 Br.
I 17296 Br.
I 16222 Br.
I 16576 Br.
I 16946 Br.
I 15703 Br.
I 15320 Br.
I 15512 Br.
I 9063 Br.
I 1369 Br.
I 19202 Br.
I 2064 Br.
I 2454 Br.

Both confs. by E. J. C. on inspection of these plates. Jan. 12, 1911.

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

1910phae.proj.2229c

January 12, 1911

Examination of Ac plates to confirm variation of object marked on Ac 10060

No. 140
a.l.c. 27, 34

Ac 10084 Bv.
Ac 5776 ff + 33°1290 6h7m42.2s
Ac 11288 Bv + 33°15.'1
Ac 11119 ff
Ac 11034 ff.
Ac 10082 Bv.
Ac 9881 Bv.
Ac 11014 ff.
Ac 10832 ff
Ac 9308 Bv,
Ac 9223 ff
Ac 9166 ff
Ac 9056 ff
Ac 8237 Bv.
Ac 8058 ff
Ac 8018 ff
Ac 7998 ff.
Ac 7405 ff
Ac 6901 mod,
Ac 5340 Bv
Ac H820 ff
Ac 3496 ff.
Ac 3469 Bv.
Ac 663 ff

Variability conf. by L.D.N. "about a magnitude"

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

1910phae.proj.2229c

Jan. 13 4 1911

I Plates for
Examination of A object marked on I 28493
B.D. +23° 1243 6h 3m 7.5 +23° 14.1 magn 7.3

I 28493 Br.
I 29900 Br.
I 29910 Br.
I 29994 Br.
I 33801 Br.
I 36544 Br.
I 26565 Br.
I 26064 Br.
I 24143 Br.
I 24609 Br.
I 25959 Br.
I 21425 Br.
I 21721 Br.
I 21218 Br.
I 21160 Br.
I 21414 Br.
I 21366 Br.
I 21746 Br.
I 17384 Br.
I 10188 Br.
I 10548 Br.
I 10888 Br.
I 3134 Br.
I 30074 Br.

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

1910phae.proj.2229c

January 18, 1911

Examination of Am plates for variation of object marked on B 38151

Am 2846	Br.	Am 6354	ff
Am 2873	Br.	Am 6404	ff.
Am 2990	Br.	Am 6434	ff
Am 3050	Br.	Am 6449	ff
Am 3082	Br.	Am 6576	ff
Am 3110	Br.	Am 6625	ff
Am 3124	Br.	Am 6643	Br.
Am 3129	Br.	Am 6947	ff
Am 3406	ff?	Am 6977	ff.
Am 3436	ff?	Am 7009	Br
Am 3488	Br.	Am 7055	ff.
Am 3507	Br.	Am 7108	ff
Am 3524	Br.	Am 7171	ff
Am 5610	ff.	Am 7184	ff
Am 5673	ff.	Am 7227	Br
Am 5718	ff.		
Am 5750	ff		
Am 5843	ff.		
Am 6027	ff		
Am 6049	Br		
Am 6113	ff		
Am 6161	ff		
Am 6201	ff		
Am 6230	ff		
Am 6281	ff		
Am 6298	ff		

After having this looked up, I found it is one I found in May 10 - 060° in Nov. No. ~~168~~ 118 (A. J. C.)

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

1910phae.proj.2229c

January 20, 1911

No. 141.

A. J. C. 27, 74

Examination of A. C. Plates to confirm variation of object B.D. +50° 72
0 18 31.9 +50 28.7 magn 8.2 marked on

ac 11254		ac 12288	Br
ac 8030	ff	ac 11999	ff
ac 8056	ff	ac 12026	ff
ac 8118	ff	ac 12066	Br.
ac 8255	ff?	ac 12192	Br.
ac 8625	Br.	ac 12218	ff
ac 8669	ff?	ac 12238	ff
ac 8701	ff?	ac 12259	ff
ac 8747	ff poor plate	ac 11254	Br.
ac 8809	Br.		
ac 8865	Br.		
ac 8878	ff		
ac 8893	ff		
ac 8897	Br.		
ac 9036	ff		
ac 9122	ff		
ac 9123	ff		
ac 9129	Br.		
ac 11040	Br.		
ac 11125	Br.		
ac 11144	ff		
ac 11265	ff		
ac 11316	ff		
ac 11750	ff		
ac 11781	ff		

Several bright and faint plates looked at by A. J. C. and variability confirmed.

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

1910phae.proj.2229c

February 9, 1911

Examination of Ac plates for variation of object

No. 145.

+40°1476

06h6m04s.

no. 4 in Ac 152.

Ac 152 ff.
Ac 239 ff.
Ac 9363 Br.
Am 6783 Br.
Am 9307 Br.
Ac 12231 Br.
Ac 10046 Br.
Ac 10306 Br.
Ac 8212 Br.
Ac 12313 ff. Measures.
Ac 8320 Br.
Ac 7221 Br. Measures.
Ac 10093 Br.
Ac 9410 Br.
Am 4114 Br.
Am 4059 Br.
Am 4013 Br.
Am 3425 ff.
Am 2545 ff.
Am 1622 ff.
Am 231 ff.
~~Ac~~ 6838 ff.
~~Ac~~ 6834 Br.
Ac 6820 Br.
Ac 6770 Br.
Ac 6725 Br.
Ac 6144 ff.

I made its familiar chain round on Ac 152, 239, 10306, 12313 ~~& 9363~~. Examination superficially independent, and was made before this and chain compared,

A. J. C.

Ac 6077 ff.

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

1910phae.proj.2229C

February 27. 1911

Examination of Aa + Am Plates for variation of object which appears to be faint on Am 1252

Am 3689	Br.	Am 6170	Br.
Am 4388	Br.	Am 7063	Br.
Am 538	Br.	Am 7163	Br.
Am 577	Br.	Am 7195	Br.
Am 614	Br.		
Am 1278	Br.	Not Confirmed May change.	
Am 1528	Br.		
Am 1917	Br.		
Am 1952	Br.		
Am 1960	Br.		
Am 2085	Br.		
Am 2109	Br.		
Am 2147	Br.		
Am 2746	Br.		
Am 2916	Br.		
Am 4205	Br.		
Am 4269	Br.		
Am 4311	Br.		
Am 4339	Br.		
Am 4620	Br.		
Am 4954	Br.		
Am 5640	Br.		
Am 5683	Br.		
Am 6114	Br.		
Am 6136	Br.		

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

1910phae.proj.2229c

March 9, 1911

Examination of I Plates for variability of object marked on I 22103 (07291) rough

No. 142.

I 24184	Br
I 24097	Br
I 24928	Br
I 13969	Br
I 17495	Br
I 32943	Br. Near edge.
I 32887	Br.
I 20699	Br
I 25996	ft.
I 22402	Br Near edge
I 28477	Br

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

1910phae.proj.2229C

April 14, 1911

Examination of I and B Plates for object marked on B 28721 +6° 1208
~~6h +9.2m +5° 28'~~ 6 13 38.0 +6 31.9

No. 143.

	I 28277	Br.
	I 23827	Br.
	I 13962	Br
	I 17488	fr.
	I 12398	Br.
	I 17557	Br.
	I 26579	Br.
	I 20188	Br.
	I 19229	Slightly faint.
	B 28721	Br.
Dec. 5, 1904	B 35 332	very Br.

also object on Ac 5765, Dec. 4, 1904
Certainly variable 0.7 or 0.8 magn

Nov. 9, 04	Ac 3209	fr.
Dec 12, "	" 3292	very fr.
Dec 4, 04	Ac 5765	very fr.
Dec. 5, 04	B 35 332	" "
Dec. 13, "	Ac 5715	fr.
Jan. 4, 05.	Ac 5797	very fr.

= +6° 1203, magn. 9.5

Period short.

Nearly as bright as +6° 1215, magn. 8.7

According to Ac. magns. varies fr 8.8 to 9.5

Ac 9783, T', varies +6° 1215, magn. 8.5
+6° 1203, 9.5. The range is therefore 8.6 to 9.5

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

1910phae.proj.2229C

April 14, 1911

Examination of I plates for object marked on I 23827 | 6 | 19.2 + 5 28 (approx)

Ins. 146.

I 19229	~~ff~~ Bv.
I 20188	~~ff~~ Bv
I 26579	Bright=
I 17554	Bv
I 12398	Bv
I 13962	Bv.
I 28277	Bv.
B 28721	ff.
I 23827	~~ff~~ Bv.
B 35332	very ff.

Examined on 10 I plates and 15 AC or Am plates.
Certainly equivalent to nearly 1 mag.

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

1910phae.proj.2229C

April 20, 1911

Examination of Ac Plates to confirm variable No 144 marked on ac 5918.

No. 144

ac 5918	~~ff~~ Br.	Am 3366 Br.
ac 12301	ff.	Am 3385 Br.
ac 5725	ff.	Am 3880 Br.
ac 2885	ff.	Am 4668 Br.
ac 2295	ff.	Am 5853 ff.
ac 152	ff.	Am 5885 ff.
ac 10941	ff.	Am 6006 ff.
Am 5248	Slightly-fainter	Am 6721 Br.
ac 6871	Br.	Am 6754 ff.
ac 5893	Br.	Am 6783 ff.
ac 3305	ff.	
ac 4519	ff.	
ac 4631	Br.	
ac 10258	ff.	
ac 10334	ff.	
ac 10884	ff.	
ac 10995	ff.	
ac 11388	ff.	
ac 11534	ff.	
ac 12045	ff.	
ac 7292	ff.	
ac 9025	Brighter	
ac 9309	Brighter	
ac 10093	Brighter	
ac 10306	ff.	
Am 3310	Brighter	

Variability confirmed by L. D. W.

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

1910phae.proj.2229c

April 20, 1911

+B Plates

Examination of I Plates for variability of Algol no. 315 181625 / marked on B 135536

I 36885	not covering	B 37537	not covering
I 11774	not covering	B 35851	Br. f
I 11521	Sp. f	B 36047	Br.
I 1500	Br.	B 36385	Br.
~~I 25699~~	~~Br.~~	B 32627	Br.
I 1604	Normal	B 38984	Br.
I 1990	Normal	B 39136	not covering
I 3816	Br.	B 39151	Br. f
I 3971	ff.	B 39424	Br.
I 24891	Dff.	B 40041	Br.
B 33858	Br	B 40259	Br.
B 34250	Br.	B 41633	not covering f
B 27446	Br.		
B 30593	not covering		
B 30321	Br. f		
B 29904	Br.		
B 29525	Slightly ff.		
B 29531	ff.		
B 28734	Br.		
B 28621	Br.		
B 28160	ff.		
B 28156	Br.		
B 31576	Br.		
B 32490	Br.		
B 37314	Br.		

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

1910phae.proj.2229C

May 5, 1911

Examination of B Plates for ~~Cor~~ var No. 28
-72° 69 0 48 10 -72 32.6 (1900)

B 12147	Too near edge
B 12148	Too near edge
B 12184	Too near edge
B8694	Not Covering
B4212	Not Covering
B6851	Br.
B6920	Br.
B6931	Too near edge
B8426	Sp.
B9808	Br.
B10256	Br.
B10479	Too near edge
B10747	Br.
B11648	Not Covering
B11779	Too poor
B11911	Br. Poor Plate

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

1910phae.proj.2229c

May 8, 1911

Continuation of May 5.
Examination of B Plates for variable
No. 28 marked on B 18066

B32206	Br.
B32269	not covering
B21655	faint
B21757	not covering
B22227	not covering
B23300	not covering
B23624	not covering
B24161	not covering
B24227	not covering
25771	not covering
26076	not covering
26134	not covering
26550	not covering
B12520	not covering
B14486	Br.
B14563	not covering
B14713	not covering
B14714	Br.
B16838	ft. for near edge
B20675	Br
B20678	Br
B41063	Br.
B40913	Br
B40922	Br
B41816	Br.

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

1910phae.proj.2229C

May 8, 1911 (cont.)

B 41019	Br.	3691	Br.
B 36246	Br.	3778	Br.
B 37227	Br. very faint	4358	fr.
B 38180	~~Slightly fainter~~	4382	Br.
B 39599	Br. Neb. edge	4518	Br.
B 40899	Br.	4623	Br.
B 28750	Br.	5638	Br.
B 30128	Br.	5648	Br.
B 30836	faint	5735	Br.
B 31159	faint	5811	Br.
Am Plates		5855	fr.
5211	Br.	5896	Br.
5572	Br.	5915	Br.
1104	Too poor	6307	Br.
1119	Br.	6367	Br.
1442	faint	6356	Br.
1465	Br.	6414	Br.
1670	Too poor	6501	Br.
1674	Too poor	6601	Br.
1976	Br.	6757	Br.
2104	Br.	6778	Br.
2132	Br.	7051	Br.
2162	Br.	7110	Br.
2257	Br.	7206	Br.
2706	faint	7230	Br.
3012	Br.	7262	Br.
3093	Br.	7407	Br.
3141	Br.	7906	Br.
3172	Br.	7917	Br.

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

1910phae.proj.2229c

May 9. 1911 (cont)

	am 5007	Br.
	5087	Br.
	5129	Br.
	5136	Br.
	5152	Br.
	5180	Br.
	1027	Br.
Multi	4587	Br.

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

1910phae.proj.2229C

May 13, 1911

Continuation of a.m. Plates for Dec. 28

am 1650	~~Br.~~ ff.	am 1739	Br.
1620	Br.	1519	Br.
3940	Br.	1404	Br.
3868	Br.	1117	Br.
3798	Br.	1082	Br.
3766	Br.	1007	Br.
3731	Br.	972	Br.
3725	Br.	690	Br.
3652	Br.	677	faint
3323	Br.	610	Br.
3265	Br.	545	faint
3242	Br.	329	faint
3154	Br.	257	faint
3052	Br.	219	Br.
3026	Too Poor	203	Too Poor
2992	Br.	127	Br.
2799	Br.	112	Br.
2791	Slightly ff.	100	Br.
2431	Too poor	85	Br.
2413	Br.	42	Br.
2340	Br.	3987	Br.
2314	Br.	4712	Slightly ff.
2238	Br.	4654	Br.
2195	Br.	4519	Br.
2181	Br.	4496	Br.
2068	Br.	6509	Br.

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

1910phae.proj.2229c

May 13. 1911 (cont of Var 28)

Am 6316	Br.
5930	Too Poor.
5916	Br.
5813	Br.
5783	Br.
5704	Br.
5265	Br.
5230	ft.
5197	Br.
5176	Br.
5102	Br.
5031	Br.
2374	Too fnt.
1669	Too Poor
1045	Slightly ft? Plate scratched in region
629	Too Poor
628	Not Covering
638	not covering
299	Too near edge
560	Too near edge
319	Too near edge
4004	Br

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

1910phae.proj.2229C

May 15, 1911

Examination of Ac + Am Plates for Faintness of Var. No. 57 marked on Am 2660

1553	Br.	Am 916 Mult Br.	ac 6476 Faint
1953	faint	" 920 Mult, Br.	ac 6537 Br.
1961	Br.	" 921 Mult Br.	ac 6576 Br.
2110	Br.	931 Br.	ac 6713 Br.
2119	Br.	1021 Br.	ac 6863 Br.
2137	Br.	1051 Slightly fainter?	
2245	~~Br.~~ faint	1237 Br.	ac 7048 Too Poor
2260	Br.	1251 Br.	am 10 Br.
2279	Br.	1270 Br.	am 28 Br.
2573	Br.	1287 Br.	am 153 Br.
2714	Br.	1424 Faint	am 403 Br.
2767	Br.	1436 Br.	am 473 Br.
2855	Br.	1483 Br.	am 556 Br.
2915	Br.	1542 Faint	576 Br
2958	Br.	ac 4986 Br.	622 Ft.
2995	Br.	ac 5058 Br.	646 Br
3422	Br.	ac 5098 Too Poor	ac 2625 Br.
3449	Br.	ac 5199 Br.	ac 2673 Br.
3464	Br.	ac 5227 Br.	ac 2771 Br.
3505	Br.	Ac 5328 Br.	ac 2778 Br.
3561	Br.	ac 5561 Too Poor	ac 2815 Br.
3598	Br.	ac 6124 Too Poor	ac 3503 Too Poor
800	Br.	ac 6156 Too Poor	ac 3599 Br.
818	Br.	ac 6246 Too Poor	ac 3651 Br
897	Br.	ac 6323 Br.	ac 3693 Br.
911	Mult. Br.	ac 6393 Br.	ac 3725 Br
		ac 6421 Br.	

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

1910phae.proj.2229C

May 16, 1911 (cont'd from 5-7)

ac 3787 Br.	ac 1675 Br.	Am 4244 Br.
ac 3812 Br.	ac 1682 Too Poor.	Am 4271 Br.
ac 3889 Br	ac 1749 Br.	Am 4313 Br.
ac 3899 Br.	ac 1781 Br.	ac 7476 Br.
ac 3977 Br.	ac 1821 Br.	ac 7550 Br.
ac 4864 Br.	ac 1859 Br.	ac 7596 Slightly Faint?
ac 4923 Br	ac 2485 Too Poor	ac 7662 Br.
ac 4949 Br.	ac 21553 Br.	ac 7719 Br.
ac 360 Faint	ac 11701 Br.	ac 7805 Br
ac 361 Too Poor	ac 11745 Br.	ac 7855 Br.
ac 780 Br	ac 11759 Br.	ac 7954 Br.
ac 843 Br.	ac 11774 Br.	ac 8456 Br.
ac 855 Br.	ac 11808 Br.	ac 8483 Br.
ac 939 Br	ac 11867 Br.	ac 8513 Br.
ac 1019 Br.	ac 11885 Too Poor.	ac 8556 Br.
ac 1325 Br.	ac 11902 Too Poor.	ac 8568 Too Poor
ac 1390 Too Poor	ac 11938 Br.	ac 8590 Br
ac 1461 Br	Am 3651 Br.	ac 8642 Br
ac 1511 Br.	Am 3675 Nulf. Br.	ac 8662 Br.
ac 1517 Br	Am 3688 Br.	ac 8732 Faint
ac 1518 Br	Am 3726 Br.	ac 8763 Faint
ac 1522 Br	Am 3739 Br.	ac 8895 Too Poor
ac 1546 Br	Am 3835 Br	ac 9493 Too Poor
ac 1571 Br.	Am 3882 Br.	ac 9570 T' Br.
ac 1584 Too Poor	Am 3921 Faint	ac 9584 Faint,
ac 1621 Too Poor	Am 4150 Br.	ac 9594 Br T'
ac 1624 Too Poor	Am 4190 Br.	ac 9620 Br
ac 1632 Too Poor	Am 4196 Br.	ac 9633 Br.

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

1910phae.proj.2229C

May 16, 1911 (Cont var 57)

	Ac 9690	Faint	Am 6389 Br.	Am 5021 Br.
Ac	9728	Br.	Am 6441 Too Poor	Am 5071 Br.
Ac	9776	Br.	Am 6505 Br.	Am 5087 Br.
Ac	9810	Faint	Am 6588 Br.	Am 5164 Br.
Ac	9923	Br.	Am 6920 Br.	Am 5175 Br.
Ac	99217	Br.	Am 6937 Slightly ft	Am 5398 Br.
Ac	9955	Br.	Am 6983 Br.	Am 5429 Br.
Ac	10532	Br.	Am 7029 Br.	Am 5499 Br.
Ac	10592	Br.	Am 7057 Br.	Am 5569 Br.
Ac	10637	Br.	Am 7077 Br.	Am 5621 Br.
Ac	10701	Br.	Am 7096 Br.	Am 5633 Br.
Ac	10782	Br.	Am 7107 Br.	Am 5645 Br.
Ac	10826	Br.	Am 7121 Faint	Am 5689 Br.
Ac	10854	Br.	Am 7177 Br.	Ac 2655 Br.
Ac	10916	Slightly faint	Am 7279 Br.	Ac 2691 Br.
Ac	11695	Br.	Am 4354 Br.	Ac 2715 Br.
Am	5741	Br.	Am 4535 Br.	Ac 2778 Br.
Am	5806	Faint	Am 4624 Br.	Ac 2837 Br.
Am	5814	Br.	Am 4655 Br.	Ac 2847 Br.
Am	6196	Faint	Am 4787 Too Poor	Ac 2916 Br.
Am	6144	Br.	Am 4796 Too Poor	Ac 2961 Br.
Am	6166	Br.	Am 4801 Br.	Ac 3601 Br.
Am	6172	Br.	Am 4803 Too Poor	Ac 3702 Br.
Am	6192	Br.	Am 4817 Br.	Ac 3825 Br.
Am	6251	Br.	Am 4941 Br.	Ac 3836 Ft
Am	6257	Br.	Am 4962 Br.	Ac 3851 Br.
Am	6312	Br.	Am 4995 Met Br	Ac 3935 Br.
Am	6325	Br.	Am 5012 Too Poor	Ac 4914 Ft

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

1910phae.proj.2229c

May 16, 1911 (cont from No. 57)

Ac 4955	Br.	ac	1780	Br.	Am 1993	Faint
ac 4980	Br.	ac	1828	Too Poor	" 2052	Br.
ac 5042	Br	ac	2568	Br.	" 2072	Br.
ac 5068	Br.	ac.	2609	Too Poor	" 2142	Br.
ac 5180	Br.	ac	2612	Br	" 2184	Br.
ac 5211	Ft	ac	2645	Too Poor	" 2200	Br.
ac 5220	Br	am	46	Too Poor	" 2335	Br.
ac 5335	Br.	am	75	Br.	" 2533	Br.
ac 6358	Too Poor	am	57	Br.	" 2653	Br.
ac 6431	Br	am	239	Br.	" 2661	Br.
ac 6469	Br.	am	566	Br.	" 2702	Br
ac 377	Br	am	685	Br.	" 2725	Br.
ac 471	Br.	am	850	Br.	" 2754	Br.
ac 858	Br.	am	868	Br	" 2856	Br.
ac 868	Br	am	888	Br	" 2907	Br
ac 869	Too Poor	am	1010	Br.	" 2989	Faint
ac 936	Too Poor	am	1191	Br.	" 3002	Br.
ac 948	Br	am.	1203	Br.	" 2797	Faint
ac 963	Br	am	1297	Faint	" 2756	Br.
ac 1462	Br	am	1336	Br.	" 3081	Br.
ac 1475	Br.	am	1353	Br	" 3099	Br
ac 1501	Br	am	1384	Br.	" 3128	Br
ac 1527	Br	am	1522	Br.	" 3515	Br.
ac 1542	Br.	am	1523	Br	" 3587	Br.
ac 1618	Br.	am	1524	Br.	" 3631	Br.
ac 1655	Br.	am	1594	Br	" 3647	Br.
ac 1699	Too Poor	am	1631	Br	" 3711	Br
ac 1722	Br	am	1887	Br.	" 3742	Br

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

1910phae.proj.2229c

May 17, 1911 Var No. 57 Cont.

am	3764	Br		ac 7801	Br
am	3891	Br		ac 7905	Br
am	3593	Br		ac 8500	Br
am	4176	Br		ac 8557	Br
ac	9512	Br		ac 8607	Br
ac	9589	Br		ac 8671	Br
ac	9608	Br		ac 8685	Br
ac	9667	Br		ac 8721	Br
ac	9684	Br		ac 8805	Br
ac	9697	Br		ac 8812	Br
ac	9754	Br		ac 8847	Br
ac	9792	Br		ac 8885	Br
ac	10519	Br		ac 9461	Br
ac	10620	Br		ac 9463	Br
ac	10693	Br		ac 11985	Br
ac	10825	Br		am 5724	Br
ac	11702	Br		am 5725	Br
ac	11710	Fair Br		am 5743	Br
ac	11747	Br		am 5837	Br
ac	6532	Br		am 5868	Br
ac	6565	Very Br.	? ?	am 6026	Fair Br
ac	6632	Br.		am 6131	Br
ac	6643	Slightly	faint	am 6144	Br
ac	6699	Br		am 6269	Br
ac	6835	Br		am 6252	Br
ac	7681	Br		am 6271	Br
ac	7726	Br		am 6360	Br
ac	7738	Br		am 6405	Br

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

1910phae.proj.2229c

May 17, 1911 (Var no 57 cont.)

Am 6462	Br.	Am 5603	Br.
Am 6471	Br.	Am 5650	Br.
Am 6493	Br.	Am 5709	Br.
Am 6503	Br.	Ac 11760	Br
Am 6575	Br.	Ac 11958	Br.
Am 6606	Br	Am 4260	Br.
Am 6623	Br	Am 4296	Br.
Am 6636	Br.	Am 4335	Br.
Am 6676	Br.	Am 4368	Br.
Am 6921	Br.	Am 4473	Br.
Am 6953	Br.	Am 4498	Br.
Am 6972	Br.	Am 4514	Br.
Am 7014	Br.	Am 4601	Br.
Am 7015	Br.	Am 4648	Br.
Am 7023	Br.	Am 4768	Br.
Am 7035	Br.	Am 4879	Br.
Am 7040	Slightly Ft.	Am 4908	Br.
Am 7116	Br.	Am 5065	Br.
Am 7141	Br.	Am 5089	Br.
Am 7191	Br.	Am 5105	Br.
Am 7222	Faint	Am 5132	Br.
Am 7257	Br.		
Am 7292	Br.		
Am 5156	Br.		
Am 5391	Br.		
Am 5484	Br		
Am 5521	Br.		
Am 5570	Br.		

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

1910phae.proj.2229C

May 20, 1911

Var No. 57 Cont.
Examination of I + B Plates

B16569	Br.
B16568	Br.
B16416	Br.
B16162	Faint
B15897	Br.
B14743	Br.
B15833	Br.
B2452	Br.
B2523	Br.
B6117	Br.
B6122	Br.
B6137	Br.
B18613	Br.
B18730	Br.
B19327	Br.
B19242	Br.
B20449	Br.
B20470	Br.
B21286	Br.
B21312	Br.
B22093	Br.
B22402	Br.
B22496	Br.
B14042	Br.

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

1910phae.proj.2229c

May 21, 1911 (Obs No. 57 cont.)

B16808	Br.	I14993	Br.
B16938	Br.	I 8726	Br.
B17145	Br.	I 8790	Br.
B17240	Br.	I 9021	Br.
B17448	Br.	I 9053	Br.
B17485	Br.	I 9104	Faint
B17619	Br.	I11130	Br.
B17715	Br.	I11257	Br.
B17921	Br.	I11388	Faint
B 9850	Faint	I13036	Br.
B 7691	Faint	I 6188	Br.
B 9851	Br.	I 2153	Too near edge
B 9878	Br.	I 3869	Br.
B 9879	Br.	I 6596	Faint
B 9916	Not covering	I32197	Br.
B10223	Br.	I32198	Br
B10224	Br.	I32196	Br
B13579	Br	I32134	Br.
B13727	Br.	I25683	Br.
B13935	Br.	I25704	Near Edge
		I25779	Too Poor
I20925	Br	I27184	?
I21061	Br.	I31859	Br.
I23212	Br.	I31883	Br.
I23223	Br.	I31900	Faint
I18838	Br.	I31907	Too near edge.
I18799	Br.	I31910	Not covering
I15527	Br.		

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

1910phae.proj.2229C

May 22, 1911 cont.

I	31911	not covering
I	31944	faint? f
I	31992	faint
I	32078	Br.
I	32079	Br.
I	32080	Br.
I	32081	Br.
I	32082	Br.
I	32083	Br.
I	32084	Br.
I	32127	faint?
I	32135	Br.
I	35305	Br.
II	32199	Br.
I	32200	Br.
I	32201	Br,
I	32202	Br.
I	32203	Br.
I	32204	Br.
I	32205	Br,
I	32234	Br.
I	32235	Br.
I	32236	Br,
I	32268	Br.
I	32270	Br.
I	32341	Br,

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

1910phae.proj.2229c

September 11, 1911

Examination of I Plates: variation of object marked on I 33515, Spectrum M + d on I 37256
Position $21^h\ 2^m\ 5^s.0 + 15'\ 23''$ (Approx)

1897 Sept. 6	I 18691	Br.
1897 Sept. 14	I 18815	Br.
1898 Sept. 30	I 21303	Fr.
1901 Oct. 4	I 27691	Slightly Fr.
1901 Oct 5	I 27712	Slightly Fr?
1906 Aug. 26	I 34210	Faint
1892 Sept 2	I 6833	very faint
1906 July 14	I 34138	Faint
	I 7171	missing

SZ Pegasi H.C. 167.

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

1910phae.proj.2229C

Sept. 19, 1911 (Cont)

1891 Nov. 3	I H685	Br.	
1893 July 21	I 8853	Br.	
1893 July 23	I 8907	Br.	
93 Oct. 31	I 9845	~~very faint~~	Invisible
1896 Mar. 31	I 14798	very faint	
1896 May 11	I 15093	~~very faint~~	Invisible
1898 Sept. 29	I 21284	~~very faint~~	Invisible
1900 June 9	I 25437	faint	
1901 Nov. 21	I 27990	faint	
1900 Oct. 11	I 25909	faint	
1902 Nov. 29	I 29583	Bright	
1902 Nov 3	I 29503	faint	
1902 Aug. 25	I 29168	~~very faint~~	Invisible
1897 Sept. 14	I 18815	Br.	
1905 Oct. 8	I 33515	Br.	
1906 July 14	I 34138	faint	
1911 Aug. 22	I 37256 Sp.	Br.	

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

1910phae.proj.2229c

Sept. 28, 1911

Examination of I Plates for Variation of Sm +38° 5-25

Position Marked on I 15 by 9 r.

I 33377	~~Sv~~ Faint
I 29731	~~Sv~~ ~~Faint~~ Invisible
I 9608	~~V. S~~ ~~Invisible~~ Invisible
I 10080	Bv
I 19482	very faint
I 27401	Faint

I ~~9608~~ 29731 Compared with I 10080 shows variability

Sp N on I 26324

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

1910phae.proj.2229C

October 6, 1911

			Observer
1909 Nov. 3	Ac 10998	very Br.	A. J. C
1909 nov. 5	Ac 11009	" "	"
1911 Aug. 18	Ac 12506	Br	"
1905 Nov. 17	Ac 6999	A faint star seen. Maybe adjacent star. Probably var.	
1905 Dec 14	Ac 7107	Nr. S.	
1906 Sept. 4	Ac 7780	Nr S	
1906 Sept 18	Ac 7825	Nr S.	
1907 Sept 26	Ac 8798	Nr. S	
1907 Oct. 11	Ac 8859	Nr. S	
1908 Sept. 8	Ac 9736	Br.	
1909 May 26	Ac 10530	Nr S.	
1909 Oct. 25	Ac 10965	very Br.	
1909 Nov. 11	Ac 11073	Br.	
1910 July, 28	Ac 11804	Nr. S.	
1910 Aug. 2	Ac 11829	Nr. S. very poor plate	
1910 Sept. 29	Ac 11969	Nr. S	
1910 Oct. 31	Ac 12074	Nr. S	
1910 Nov. 17	Ac 12126	Probably seen. Rather ft.	

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

1910phae.proj.2229c

October 13, 1911

Examination of I Plates for variability of
13.13+3° 1381 6 37 3.8 +3 27.6 Magn. 9.3
Position marked on I 26828

I 26828	~~Very ff~~
I 13962	Imis
I 23876	Imis
I 26827	very faint
I 17554	Imis
I 20188	Imis
I 17406	Visible on this plate
I 26829	Imis
I 20135	Too poor
I 23833	Too poor
I 25147	Too poor
I 21490	defect? near position of plate
I 21593	Imis
I 21655	Imis

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

1910phae.proj.2229C

October 14, 1911

Examination of I plates for variability of Dm
−12° 2289 7 55 18.7 −12 23.9 magn. 8.3
marked on B 20308

B20585 Bv
B21355 Bv.
B19041 Bv
B20308 Bv

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

1910phae.proj.2229c

October 28, 1911

Examination of I Plates for star marked 10.9 in segment of b Canis Maj.

13 plates examined and no variation seen

1910 Dec. 27	I 36991
1899 Jan. 25	I 22222
1897 Nov. 7	I 19521
1896 Nov. 22	I 16588
1890 Mar. 8	I 805
1891 Feb. 22	I 3153
1905 Feb. 16	I 32695
1907 June 12	I 34724
1896 Dec 3	I 16672
1911 Jan. 18	I 37033
1898 Mar 5	I 20358
1902 Feb. 6	I 28422 Object marked on this plate.
1899 Sept. 20	I 23594

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

1910phae.proj.2229C

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

1910phae.proj.2229c

Entered by mistake in A.M.C's book. After starting I find that the plate is no good, and is rejected.

October 30, 1911

B2088

Time 12:57

no	class	Int.	Remark
1	a	2	very poor focus
2	a	2	" " "
3	ys	3	" " "
4	a	2	" " "
5	y	2	
6	f	2	
7	f5?	2	
8	k0	4	
9	a	2	
10	f8?	2	
11	k0	4	
12	a3	5	
13	f5	3	too poor
14	a2	2	
15	y?	2	
16	y?	2	
17	a5	2	
18	a2	2	
19	k0	3	
20	y?	2	
21	a	3	
22	y	2	
23	a	3	
24	f5	3	
25	f5	3	
26	y0	2	
27	a	4	

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

1910phae.proj.2229c

B

1	1 40.7	+27°	277	1 36 42.6	+27 44.1	7.5
2	1 34.4	+28°	282	1 33 55.0	+28 47.2	7.5
3	1 33.6	+29	20	1 33 27.0	+29 19.3	6.0
4	1 25.5	+29	40	1 25 30.1	+29 39.6	8.0
5	1 23.2	+28	37	1 23 11.9	+28 40.0	7.3
6	1 19.2	+29	2	1 19 15.3	+29 1.6	7.5
7	1 17.2	+27	52	1 17 8.4	+27 48	7.7
8	1 13.4	+27	58	1 13 6.4	+27 58.6	5.0
9	1 6.4	+29	50	1 6 21.4	+29 47.4	7.5
10	1 5.0	+29	20	1 5 1.1	+29 19.1	6.5
11	1 3.8	+29	22	1 3 41.0	+29 20.5	4.2
12	1 3.6	+30	40	1 3 7.6	+30 39.5	5.5
13	1 40.4	+31	55	1 40 24.8	+31 57.5	6.2
14	1 36.1	+31	48	1 36 5.1	+31 47.2	7.2
15	1 35.6	+31	27	1 35 35.7	+31 29.2	6.5
16	1 27.0	+32	24	1 26 44.8	+32 22.9	7.2
17	1 11.1	+32	45	1 10 48.8	+32 45.4	7.8
18	1 10.9	+32	57	1 10 33.3	+32 59.5	8.0
19	1 8.4	+32	24	1 8 13.9	+32 22.1	6.5
20	1 5.6	+32	22	1 5 2.5	+32 22.5	7.9
21	1 5.4	+33	18	1 5 12.1	+33 20.6	7.0
22	1 27.4	+33	6	1 27 36.4	+33 6.1	6.5
23	1 23.8	+34	7	1 23 53.5	+34 3.6	6.6
24	1 19.2	+33	36	1 18 52.4	+33 36.4	66
25	1 18.6	+33	50	1 18 49.5	+33 53.2	7.8
26	1 15.4	+33	30	1 15 25.2	+33 28.7	6.3
27	1 33.9	+34	32	1 33 42.5	+34 30.3	6.0

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

1910phae.proj.2229c

October 30, 1911

No	Class	Int	Remark
28	a	2	

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

1910phae.proj.2229c

28	1 30.8 + 35 48	+35°	314	1 30 45.6 +35 48.3	7.0

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

1910phae.proj.2229c

November 6. 1911

Looked up at request of

Mount Wilson Observatory

AC and AI Plates for

Examination of variability of H.R 1406

See letter of E.A Fath - November 1st.

Marked on AI 9553 and AC 12295

AC 12324	Br.	AI 9622	Br.
AI 9561	slightly ff.	AI 9660	Br.
AI 9580	Br.	AI 9669	Br.
AI 9320	faint	AI 9709	Br.
AI 9319	faint	AI 9726	Br.
AI 9387	slightly ff.	AI 9770	Br.
AI 9399	Br.	AI 9797	Br.
AI 9408	ff	AI 10108	Br.
AI 9432	Br.	AI 10178	Slightly ff.
AI 9459	Br.		
AI 9481	Br.	30	
AI 9485	Br.		
AI 9494	ff.		
AI 9505	Br.		
AI 9516	Br.		
AI 9527	Br.		
AI 9538	Br.		
AI 9548	Br.		
AI 9584	Br.		
AI 9590	Br.		
AI 9204	Br.		
AI 9269	Too faint		
AI 9296	Too faint		

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

1910phae.proj.22290

Nov. 7, 1911 (Cont)

AI	898	Br.	AI	8510	Slightly ff.
	457	Br.		8834	Br.
	2095	Br.		9190	Too poor
	1993	Br		9309	ff.
	4764	Br.			
	4524	Br.		32	
	4249	Br.			
	4209	Br.			
	4187	Br.			
	4136	Too poor			
	5561	Br.			
	5486	Br			
	5422.	Br.			
	5320	Br			
	5343.	Br.			
	5270	Br.			
	4866	Br.			
	7629	Br.			
	7706	Br			
	7367	Br.			
	7289	Br.			
	7265	Slightly ff			
	7262	Br.			
	7128	Br.			
	7056	Br.			
	8192	Br.			
	8453	Br.			
	8466	Br.			

I have examined a large number of these plates and find no certain change in this star. It is always faint ~~brighter~~ than +31°776, and brighter than +29°728.

	Photom. mag.	Sp.
+31°776	5.33	
+29°728	6.92	
H.R. 1406	6.26	

A. J. C.

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

1910phae.proj.2229c

Nov. 11, 1911

Examination of AI Plates for variation of
β Aquilae +6° 4357
Marked on AI 5010

AI .9974	Br.		AI .10110	Br.
.9976	Br		.10120	Br.
.10005	Br.		.10086	Br
Mar. 23, 1906 .5476	Slightly fainter?		.10130	Br
.9137	slightly ff		.10131	Br.
.10047	Br.		.6096	Br.
.10158	Br		.6180	Br
.5268	Br.		.59921	Br.
.10157	Br		.5379	Br
.9957	Br.		.9113	Br
.10227	Br.		.9944	Br
.10074	Br		.9951	very Br.
.10064	Br.		.9953	very Br
.10055	Br		.8115	Br
.2225	Slightly ff.		.9158	Br.
.8082	Br.		.9163	Slightly ff
.4426	Br.			
.4406	Slight change			
.4381	Br			
.4293	Br.			
.5279	Br.			
.5033	Br.			
.5056	Br.			
.5054	Br			

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

1910phae.proj.2229c

β Aquilae

Plate	Date	Plate	Date
	1904		1911
HI 2225	Mar. 13,	9951	June 21,
	1905		1911
4293	Oct. 12,	9953	June 22,
	1905		1911
4381	Oct. 30,	9957	June 29,
	1905		1911
4406	Nov. 4,	9974	July 3,
	1905		1911
4426	Nov. 9,	9976	July 4,
	1906		1911
5033	May 20,	10005	July 19
	1906		1911
5056	June 4,	10049	Aug. 14,
	1906		1911
5059	June 10,	10055	Aug. 16
	1906		1911
5268	Sept. 15,	10064	Aug 19
	1906		1911
5279	Sept. 18,	10074	Aug. 21,
	1906		1911
5349	Oct. 12,	10086	Sept. 1,
	1906		1911
5476	Nov. 22,	10110	Sept. 12,
	1907		1911
5992	July 12,	10120	Sept. 14,
	1907		1911
6096	Sept. 6,	10130	Sept. 20,
	1907		1911
6180	Oct. 11,	10131	Sept. 20,
	1909		1911
8082	Aug. 28,	10157	Sept. 28,
	1909		1911
8115	Oct. 2,	10158	Sept. 28,
	1910		1911
9113	Aug. 9,	10227	Oct. 24
	1910		
9137	Aug. 20,		
	1910		
9158	Aug. 30,		
	1910		
9163	Sept. 2,		
	1911		
9944	June 20,		

Examined on 40 plates.
Estimated to be slightly
fainter on March 13, 1904,
Nov. 4, 1905, Nov. 22, 1906,
Aug. 30, and Sept. 2, 1910, but the difference
does not seem to be great
enough to assume variability.
No evidence of any progressive
changes from 1906 - 1911,
that is, there is no evidence
that β Aquilae is fainter
in 1911 than in 1906.

A. J. C.

Nov. 14, 1911.

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

1910phae.proj.2229c

February 13, 1912

Examination of AM Plates for variation of
R.P.D. - 58° 82' 1 52 - 58 48.9 Magn 9.8
Marked on B41950

~~AM~~ 6356	Bv.		
AM 6414	Bv.	AM 5211	Bv
AM 6501	Bv.	5572	Bv
AM 6601	Bv	5638	Bv
AM 6778	Bv.	5648	Bv
AM 7051	Bv	5735	Bv
AM 7110	Bv.	5871	Bv
AM 7206	Bv.	5896	Bv
AM 7230	Bv.	5915	Bv
AM 7283	Bv.	6307	Bv
AM 7294	Bv.		
AM 7340	Bv.		
AM 7520	Bv		
AM 7574	Bv		
AM 7602	Bv		
AM 7635	Bv.		
4623	Bv		
4673	Bv		
4707	Bv		
4900	Bv		
4917	Bv		
5007	Bv		
5081	Bv		
5136	Bv		
5152	Bv		
5180	Bv		

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

1910phae.proj.2229C

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

19109hae.proj.2229c

August 21, 1912

Examination of Plates for variability of object suspected by Prof Slocum. Approx 185 + Pos. 17 31 28.3 +18 39.7
Marked on I 30667

Oct 21, 1899	I 23885	Bv.
June 7, 1899	I 12945	Bv.
Aug. 28, 1902	I 29016	Bv.
Aug 25, 1902	I 29163	Bv.
Aug 23, 1902	I 29139	Bv.
Sept 14, 1897	I 18795	Bv.
Sept. 20, 1899	I 4276	Bv
Aug. 10, 1893	I 9156	Bv
June 1, 1907	Am 4887	Bv.
July 10, 1907	Am 4949	Bv
Sept. 1, 1910	Am 7245	Bv
June 25, 1908	Am 5600	Bv.
Aug. 27, 1907	Am 5097	Bv.
April 7, 1908	Am 5350	Bv.
April 25, 1908	Am 5414	Bv.
May 3, 1908	Am 5428	Bv.
July 20, 1909	Am 6383	Bv.

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

1910phae.proj.2229C

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

1910phae.proj.2229c

November 11, 1914

Examination of Ann Plates for variation of b.P.D -58° 4326
12 22.8 - 58 20 magn. given as 9.8 Either error or variable,
Comp. Stars a + b marked on 5320 normal magn.
~~Ann~~ a 3, 2 b

Ann	3499	normal	Ann 7386	normal
"	4746	"	7412	"
"	5471	"	7444	"
	5514	"	7489	"
	5606	"	7521	"
	6268	"	8203	"
	6235	"	8210	"
	7604	"	8217	"
	5644	"	782	"
	5946	"	738	"
	5967	"	806	"
	6053	"	846	"
	6101	"	1159	"
	6108	"	1229	"
	6123	"	39 plates	
	6152	"		
	6179	"		
	6194	"		
	6365	"		
	6885	"		
	6908	"		
	6949	"		
	6978	"		
	7111	"		
	7379			

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

1910phae.proj.2229C

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

1910phae.proj.2229c

January 28, 1920

An examination of I plates for variation of B.D. +34° 4134 Magn. 9.3 Marked on I 27645

I	21266	Br.	I4655 Br.
I	21912	Br.	4954 Br.
I	18884	Br.	28 plates.
	14743	Br.	No variation seen
	16143	Br.	
	15425	Br.	
	16262	Br.	
	11265	Br.	
	11678	Br.	
	5231	Br.	
	7029	Br.	
	7171	Br.	
	7140	Br.	
	9066	Br.	
	9045	Br.	
	8801	Br.	
	9978	Br.	
	2469	Br.	
	2724	Br.	
	5272	Br.	
	6947	Br.	
	6970	Br.	
	6923	Br.	
	4372	Br.	
	4314	Br.	
	4070	Br.	

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

1910phae.proj.2229C

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

1910phae.proj.2229c

January 30, 1920

An examination of I Plates for variability of Object marked ± on I 29486 20h 6.3m +41° 12' (1900)

Af Cygni

I 29328	~~N.S~~ Too faint
29329	~~N.S~~ Too faint
29330	~~N.S~~ Too faint
35388	Too ~~faint~~ faint
35566	~~Do~~ Faint
35565	~~B.~~ Too faint
21321	~~Normal~~ Too faint
23131	Normal
22770	faint.
25328	faint
18540	faint.
18941	Br.
18989	Too faint
20993	faint
6980	Too faint
2801	" "
7203	Normal
8849	Too faint
8879	" "
7167	" "
13205	" "
13143	faint
13317	faint
15241	Too faint

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

1910phae.proj.2229C

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

1910phae.proj.2229c

January 30, 1920

An Examination of 2 plates for variability of +50° 920 Magn. 9.5 marked on H 1778 Sp. and A 7136 chart plate. Also I 29887

I 33415	Too poor
I 33519	faint.
I 32443	Br.
29846	faint.
5354	faint.
24425	Br.
23530	faint
26585	Br.
21744	Br.
23752	Too poor
17143	Too poor
17180	faint
7960	faint
3017	Too poor.

10 good plates show variation of about 0.3 to 0.4

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

1910phae.proj.2229C

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

1910phae.proj.2229C

January 31, 1920

An examination of 9 plates for the range of the variation of +43° 53 $0^h\ 12.3^m$ +43 54 (1855) UX Andromn.

I4477 Too Bov
I11598 Bv. Too faint
I381 Bv.
2637 Bv Too faint
9450 Bv faint
4476 Bv faint
7482 Bv. faint
13807 too faint
13863 Bv faint
13745 Bv faint
16625 Bv. faint
16281 Bv too faint
19103 Bv too faint
33731 Bv faint
32351 ~~Slightly~~ faint
32350 Bv. faint
31197 Bv. ~~Too faint~~ faint "Very faint".
29611 Bv faint
29684 Bv faint
27772 Bv.
24099 Bv.
21729 Bv.
21643 Bv.

I 29684 faint
I 24099 bright.

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

1910phae.proj.2229C

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

1910phae.proj.2229c

February 2, 1920

An examination of Am plates for variation of Miss Cannon's ~~Star~~ marked on a Am 13937

Am 13104 Br. Dm −18° 35 28 $12^h 54^m 11^s.0$ −18° 5′.5 7.8

	13163	Br.	Am 4363	Br.
	13174	Br.	4265	Br.
	13199	Br.	12849	Br.
	13414	Br.	14071	Br.
	13842	Br.	2116	Br.
1918 April 13	13856	faint.	2099	Br
	13953	too faint	1900	Br
	13978	Br.	1800	Br
	14012	Br.	1476	Br.
	14018	Br.	793	Br
	14026	Br.	10012	Br.
	14051	Br	10074	Br.
	9165	Br	10338	Br
	6966	Br	~~1917~~ 1915 April 18 10434	faint
	6955	Br.	10440	Br.
	6941	Br.	10547	Br
	6261	Br.	10619	Br.
	6116	Br.	10646	Br
	5504	Br.	1915 July 17 10829	faint
	5548	Br.	11555	Br
	5947	Br.	11558	Br
	5292	Br.	11630	Br
	5353	Br.	11695	Br
	5447	Br.	11882	Br
	4292	Br.	11871	Br

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

1910phae.proj.2229C

Feb. 2, 1920

cont. from page 62

A 14672 br.

Am 12049 Br.
12139 Br.
12205 Br
12289 Br.
1918 May 2 13937 faint

56 plates examined

Faint on
Am 10434 April 18 1915
" 10829 July 17, 1915
13856 April 13, 1918
~~13939 May 2, 1918~~
12213 July 18, 1916

Sp. A3. Probably Algol type
See A. J. C. 27, 107 for discovery of this variable.

Feb. 1, 1922 Variability also confirmed by L. D. M. See her book. I have also gone over the plates several times and while the range is small there is no doubt of the variability. Compared with reg. D7, the range is from 8.2 to 8.9.

Other faint dates and light on Am 12273, July 27, 1916.
Am 12269 July 26, 1916 Am 12225 July 20, 1916
Am 8965 May 28, 1913

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

1910phae.proj.2229C

Friday, February 13, 1920

An examination for variability of Espin's star marked on I 26353 (1855) $6^h\ 17.7^m\ +19°\ 8'$
$6\ 20.3 + 19\ 8$ (1920)

I 21423	Faint
I 23941	"
I 21815	"
I 24612	"
I 22216	"
I 23828	"
I 19936	Too ft.
I 14417	Faint
I 20397	"
I 17618	"
20266	"
20395	"
17489	"
13967	"
8033	"
10325	"
10103	"
10579	Too Bri
16990	Faint
5785	Faint.
5768	"

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

1910phae.proj.2229c

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

1910phae.proj.2229c

Saturday February, 14, 1920

An examination of I plates for the variability of
B.D. +49° 3673 21 49.9 +49 49 Sp. ~~Bd~~ Nd on H. 1962

I 13026	Too poor
I 33342	No change
I 29657	"
I 24004	"
I 23583	"
I 26113	"
I 18904	"
I 18560	"
I 18564	"
I 18755	Too poor

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

1910phae.proj.2229C

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

1910phae.proj.2229c

Tuesday May 18, 1920

An examination of B plates for variability in the star −29° 10587.

B	11236	Bv
B	11454	"
B	15924	"
	15683	"
	173125	"
	16935	"
	16603	"
	16403	"
	16123	"
	16061	"
	44666	"
	43922	"
	44910	"
	18832	"
	18577	"
	18549	"

No evidence of variation seen on these plates.

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

1910phae.proj.2229c

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

1910phae.proj.2229c

Tuesday, March 1, 1921

Object of 8th magn. on Carte
allgel $5^h 32^m - 10$

See letter of Auckermann
Feb. 3, 1921

Region near ε Orionis

a

ac 10093 Dec. 23, 1908 6 1m

ac 10258 Feb. 25, 1909 60m
ac 10221 Feb. 6, 1909 48m
Object at limit of vis. certainty 12m

am 5936 Jan. 10, 1909
n.s. <10.7

am 5939 Jan. 21, 1909 105m
n, s. <11

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

1910phae.proj.2229C

March 4, 1921
Cont. of preceding

A 2199 Jan. 22, 1897

A 2220 Feb. 4, 1894

Object seems same as on chart only very faint, certainly 11m or less

B 35111 Same as atm
Oct. 15, 1904

The photographic magnitude on AC 16258 must be near 12.

All the good plates show it of the same magn. and there was no increase at or near date of Algiers plate Jan. 18, 1909.

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

1910phae.proj.2229c

Friday, March 4, 1921

Notes on "Benennung" van Maanen A.N. 212, 353

No. 2. vz Andromedae
+46°30 Variability founded on DM observations
Why given name?
Marked on I 29684, : ← Small star (about 12th mag.) near the position
·
·
S
variation in either or 5 plates. See com I 29684. No evidence of

No. 9. W ✕ Cass.
Very small variation.

02 R J Cepi
Not confirmed

17. Read Camm for Machin.

25 See note on f. 364.

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

1910phae.proj.22290

Thursday, March 17, 1921
end. of preceding

No. 46. VZ Gem. Var. rests on D.M. obs.
Missing star.

Obs. 1856 March 31, and Apr. 2, mags.
8.7 & 9.5. Not seen since
Either error or a Nova of 1856!

48 Nova Cancri No. 3

What are the other Novae in
Cancer. Is this the third in
this cluster?
Look up in Hartwig's Ephemeris.

74. Fm Machine read Camm

77. BB Cas. In A.O. 46, 16, it states "Var
not conf. at Harvard" Yet name is assigned!

Why omitted?

10 21.2	-61 6	11½-15	Cir 26
10 51.6	-61 10	1875	
10 52.6	-61 18	1906	11.5?-14.5
			A.O. 26, 203

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

1910phae.proj.2229c

March 17, 1921

119 R Z Leonis
Has this ever been looked up on our plates?

141 See ref. for conf. of var.
142 A. J. 30
A. N. 209, 47

? R x Cygni
Opt. Astron. Cat. 8, 110

149 Ross Comm. for March
154
158
171
181
198
222
241

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

1910phae.proj.2229C

March 23, 1921

Conth. of preceding

180 "Sp. schwach M66" !!

Sp. Ko. Star is in Cluster M6.

Nos. 38 R Y Puppis

40 R Z "

47 U Pyx. All taken from Jenkins'

62 T U Vel. discordant list on A.J. 28.

172 Y Z Cent. 171 but no emission is stated to have been made

1910phae.proj.2229c

March 23, 1921

Notes on the stars recently lettered as variables

000746 VZ Andromedae

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

1910phae.proj.2229C

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

1910phae.proj.2229c

Tuesday Jan. 23, 1923

See postcard of Kobel Jan 5, 1923.

+8°1016 5m 31.3 +8 1 3

BD +8°1016 Rasp. var.

AC 22298	Jan 21, 1920	5.0	#0
AC 22422	Feb. 20 "	5	+15
AI 19375	Jan 21 1920	6	0
AI 19520	Feb 26. "	5	0
AI 19497	Feb 20 "	5	0
AI 1819	Dec 13 1903	6	0
AI 599	Jan 1 1903	6	0
AI 3678	March 22 1905	6	0
AI 10339	Nov 22, 1911	6	0
AI 19105	Nov 23, 1919	4	0
AI 19301	Jan 10, 1920	4	0
AI 19331	Jan 14, 1920	4	0
AI 19392	Jan 28, 1920	4	0

Feb. 1922
Feb. 1922

Kobel found it = ϕ^2 on Jan. 20 & Feb. 23, 1920
< ϕ^2 in Feb. 1922

Nearest dates Jan. 21, Feb. 20, 1920

On all plates familiar than ϕ^2 Orionis.

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

1910phae.proj.2229c

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

1910phae.proj.2229c

Friday, Jan. 26, 1923

Search for star found on Arequipa plate mean dates 1917. Appears to be Innes' star at 1 8 20.7

Plates on which it is seen + dates.

B 3734	y1 Not		
B 5105	Seen June 13, 1917		
B 43509	y2 Not Sept 16, 1912		

S

& B 7695

Slight darkening of the film near pos. Var seen? Plate fogged and imperfect Obs. needs to be confirmed.

B 9854	y2 Not	4395	y1 Not
B 12721	y2 not	BB 50475 Seen	May 15, 1917
B 17651	y1 Not.	B 51039 "	June 14, 1917
B 23203	y2 Not.	B 51110 "	June 18, 1917
B 26387	y2 Not	B 51165 "	June 20 1917
B 2691	y1 Not	B 16571 Not seen	Not y not seen
B 31576	y2 Not	B 51210 Seen	June 23, 1917
B 40363	y1 Not	B 51522 "	July 20, 1917
B 44713	y2 Not	B 51558 "	July 28, 1917
B 44793	y2 not	B 43694	y1 Not
B 44946	y1 not	B 6113	y1 not
B 45394	y2 not	B 14745	y2 not
B 44710	y2 not	B 19380	y2 not
B 51452	Seen July 16, 1917	B 21284	y1 not
B 51473	" July 16, 1917	B 23645	y2 not
B 27184	y1 not	B 28160	y2 not

f = 14,0 map.

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

1910phae.proj.2229c

B29904 y_2 not
B32490 y_2 not
B34250 y_2 not
B39151 y_1 not
B39424 y_1 not
B42311 y_1 not
B42752 y_1 not
B43931 y_1 not
B13936 y_1 not
B20451 y_1 not
B26116 y_1 not
B26483 y_1 not
B 5245 y_2 not
B22515 y_1 not
B25390 y_1 not
B27446 y_2 not
B9881 y_1 not
B16164 y_2 not
B19580 y_2 not
B19244 y_2 not
B43123 y_2 not
B44722 y_2 not
B44970 y_2 not
B45722 y_1 not

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

1910phae.proj.2229c

Monday Jan 29, 1923

1F2027

Am plates

1529	4	H1 N.	July 10, 1920
5013		H1 N.	July 17. 1907
5683		H1 N.	July 25, 1908
1278		H1 N	May 27. 1902
1236		H2 N	May 2, 1902
11829		H3 N.	May 27, 1916
817		H1 N	May 25, 1901
802		H1 N	May 22, 1901
12229		N. Selection 11	July 20, 1916
12222		reserve	July 19, 1916
1589		H1 N.	Sept 20, 1902
3002		H1 N.	Sept 2. 1904
14869		N. Selection 11	July 26, 1919
14682		reserve	May 4, 1919
4339		H1 N.	June 22, 1906
11084		H1 N.	Sept 6, 1915
15663		N. Selection 11	Sept 1, 1921
4954		H1 N	July 1, 1907
5640		H1 N.	July 7, 1908
~~15~~ 15496		reserve	Sept 13, 1920
9579		H1 N.	Aug. 30, ?
10902		H1 N	July 29, 1915
10088		H1 N	Aug 22, 1914
8369		H2 N	June 18, 1912
7725		N. Selection 10	Aug. 27, 1911
6343		H2 N	July 12, 1909.
8081		N. Selection 9	April 18, 1912
6946		H2 N	May 28, 1910

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

1910phae.proj.2229C

Am 2147	H 3 N	July 23, 1903
6228	N Sleuthen II	June 14, 1909
2129	H 2 N	July 15, 1903
431	H 3 N	June 14, 1906
3689	H 3 N	July 5, 1905
2854	H 2 N	July 21, 1904
808	H 2 N	May 29, 1901
461	H 3 N	May 8, 1900
137	H 2 N	Sept 6, 1899
4388	N 1 N	July 11, 1906
7063	H 3 N	July 2, 1910
9237	H 1 N	July 24, 1913

68 Plates examined H.B.N.

H.S.C. B47710 June 30, 1916 18 10 – 27.5
47759 July 2 " " "

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

1910phae.proj.2229c

Tuesday, Jan. 30, 1923

Star 182027
Obs. of plates on wh. object is visible
Sep. of Nova Sgr. 5 m N

July 17, 1917 Am 13417
v 9.0

May 15, 1917 Am 13141
10.5

July 14, 1917 Am 13400
9.2

July 2, 1916 Am 12119
n.s. faint Nova 10.5

July 27, 1917 Am 13440
9.9

July 14, 1917 Am 13400
9.2

July 17, 1916 Am 12209
n.s faint Nova 10.5

July 18, 1916 Am 12216
11.8 object in Nova 0.

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

1910phae..proj..2229C

Jan. 30, 1923

18h02.7

July 17, 1916 Am 12208
11.9

July 24, 1916 Am 12258
Formal Elfe n.s L.O.S

June 13, 1918 Am 14070
11.0 =L

Aug 11, 1918 Am 14281
16.0

June 12, 1918 Am 14062
10.7

July 18, 1919 Am 6374
n.s. faint Chm 12.3

Sept. 12, 1920 Am 15486
Elongated. about 12.5
faint train o coincidental.

July 19, 1918 Am 12222
n.s. faint Chm 10.5

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

1910phae.proj.2229c

Jan. 30, 1923

Sept 30, 1916 Am 1 25 35
10.3

May 4 1917 Am 1 46 8 2
Seyman a dim splotch
Too poor test.
Probably 11–12

Aug. 21, 1917 Am 1 35 30
9.8

July 28, 1917 Am 1 34 48
9.9

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

1910phae.proj.2229C

Notes on Star 18207

p. 301

In Circular No. 37 of the Union Observatory, Star 4a R.A. 18h19.0 Dec. -27°11', is listed as a new variable between the limits 10.6 to 9.7.

On examining while superposing two plates taken with the Cooke lens, this object was discovered independently. It was bright on AM 13434, taken and invisible on Ams taken

When in Cambridge it was found to have been already found by Innes. I put Miss Haynes on the track of it, so that she might learn to look up variables on the plates. She examined 68 Ams plates and found no trace of the star before 1916. also a large number (20-30 probably) B plates without finding the star. Somewhat Mrs. Leavitt found many of the observations.

It is not seen on plates earlier than July 17, 1916.

July 17, 1916	11.8		1918	June 12	10.7
18 "	11.9			13	11.0
Aug. 30 "	10.8				
Sept. 30 "	10.3		Aug.	11	11.0
Aug. 16	10.6				
May 15, 1917	10.5		1919	May 4	Dim plate
					12?
July 14, "	9.2				
17	9.0				
July 27	9.9		1920	Sept. 12	Barely seen
28	9.9				12.5?
Aug. 21	9.8				

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

1910phae.proj.2229C

~~15207~~

List of new plates July 1916—

1916			
July 17	12208	18-30	11.9
	12209	19-15	<10.5
18	12216	18-30	11.8
19	12222	19-15	<10.5
20	12224	"	
21	12235	18-30	
"	12236	19-15	
24	12258	"	
28	12282	"	
Aug. 1	12287	19-30	unt
3	12297	18-15	
"	12298	19-30	10.8
4	12304	18-15	
~~14~~	~~12327~~	" ~~L'~~	
		~~19-30~~ L'	
16 12337	—	18-15	
"	12338	19-30	10.6
23 12362	1	18-15	~~10.~~
"	12363	19-31	10.5
27	12382	18-15	
Sept. 28	12508	18-30	
30	12535	"	10.3
Oct. 19	12626	18-15	10.3
" 20	12637	19-30	

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

1910phae.proj.2229C

List of Am plates (cont.)

1916			
Oct. 23	12663	18-15	
24	12674	18-30	
1917			
May 15	13141	18-30	10.5
June 13	13270	18-15	
" 14	13278	18-30	
18	13303	18-15	10.0
"	13304	18-30	
19	13312	18-15	
22	13333	18-30	
27	13357	18-15	
28	13367	18-30	
July 9	13384	18-15	
14	13408	18-30	9.2
15	13405	18-15	
17	13417	18-30	9.0
19	13429	18-15	
20	13433	18-30	
27	13440	"	
28	13448	18-15	9.9
~~Aug. 2~~	~~13466~~	~~18-30~~	~~L'~~
~~4~~	~~13468~~	~~18-15~~	~~L'~~
~~5~~	~~13475~~	~~18-30~~	~~L'~~

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

1910phae.proj.2229c

1917	Am plates (emb.)		
Aug. 6	13480	19-30	
9	13489	19-30	
10	93	18-15	
Aug. 12 ~~Oct~~	13582	18-15	
"	13583	19-30	
14	13512	18-15	
"	3	19-30	
16	22	18-15	
19	27	"	
21	30	"	9.8
30	49	19-30	
Oct. 21	13689	18-15	
27	92	19-30	
1918			
June 12	14067		
June 13	14069	18-15	10.7
"	14070	19-30	11.0
29	14120	19-30	

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

1910phae.proj.2229C

Wednesday, Jan. 31, 1923

16 2027

July 10, 1920 M F 6250 emp. stars for Nova Sag. 5 marked.

Var. = 12.7

Sept. 14, 1920 M F 7104

12.6

M F 7710

11.2 Images not alike,

Sept. 30, 1918

M F 7628

Sept. 29 1918 11.4 Nova comparable to 7710

Sept. 9, 1920 M F 7021

12.6

Found no Mt plate in 1921 or 1922

B53430 Nov. 1922 Will come but it is not here yet. It is listed in shipment of Dec. 10, 1922 No A plates in 1922

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

1910phae.proj.2229c

Friday, Feb. 9, 1923

Obs. to confirm variation of plate with peculiar spectrum on M.F. 7900

H.D. 81137
-52° 2262

Am plates at 9h -60°

Ft. on Am 13785 March 1918
v = 10.1

a = 9.3
b = 9.5
c = 9.8
a = 10,2
c = 10.5
adapted from Miss Saville's maps. ~~comparison~~ comparison of adjacent stars

Am 12763 May 6, 1902
v = 9.4

Am 12916 1917 March 28
v = 9.8

Am 12886 1917 March 23
9,9

Am 1793 Jan 5, 1903
9.3

13198 May 26, 1917
10,2

1787 Jan. 3, 1903
9.4

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

1910phae.proj.2229c

Feb 9, 1923

Comb. of faces.

✓ Am 1921 May 7, 1913
9.3

✓ Am 1867 May 4, 1903
9.4

Am 9722 Apr. 21, 194
Duplicate

Am 9739 Apr. 27, 1913
✓ 9.9

9773 May 15
9.9

✓ 9780 May 25
9.9

✓ 9848 1914
9.9

✓ 10523 Aug 2, 1915
9.7

✓ 14590 March 27, 1919
10.0 Franklin Chem Co

✓ 15172 May 12 1920
10.0

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

1910phae.proj.2229c

Feb. 9, 1923 - 5h 02m 26s

√ Am 1921 May 7, 1903
9.3

√ Am 1714 Nov. 25, 1902.
9.4

√ Am 1700 Nov. 19, 1902
9.4

√ 1247 May 15, 1902
9.3

√ 1157 March 8, 1902
9.4

√ 1156 March 1, 1902
9.4

√ 1116 Nov. 30, 1901
9.3

√ 790 May 21, 1901
9.3

3282 Dec. 8, 1900
√ 9.4

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

1910phae.proj.2229C

-53°2262

Feb. 9, 1923

3,194 Nov. 4, 1904
9.3

2792 July 1, 1904
9.3

15753 May 5, 1922
ft. 10.1

15770 May 4, 1922
10.0 marked
Look upon scan of this plate

15798 March 30, 1922
ft. 10.1

15776 March 26, 1922
ft. 10.1

15771 March 6, 1922
ft. 10.1

8828 Apr. 24, 1913
9.8

11437 Nov. 9, 1915
9.5

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

1910phae.proj.2229c

Feb. 9, 1903 −67° 2262

√ Am 3 K67 Apr. 22, 1905

9.4

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

1910phae.proj.22290

Friday, Feb. 16, 1923 -5202262

Cont. of preceding

Am 6208 May 20, 1912
9.8

Am 3303 Jan. 9, 1905
9.4

4790 May 2, 1907
9.4

5351 Apr. 1, 1908
9.6

6850 March 19, 1910
9.8

3509 May 10, 1905
9.4

6008 March 29, 1909
9.6

4670 Dec. 8, 1906
9.4

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

1910phae.proj.2229C

Feb 16, 1923 -52°2262

Am 5 [illegible] 1 May 6, 1908

9.5 Images hard to compare

5942 Jan 24, 1909

9.7

7607 May 2, 1911

9.7

The spectrum is Ma in H.D. where the plate is No 81137

The best spectrum plate is A 5791 Apr. 9, 1902

Here the bands of M sp. are seen and 5 H. lines. Efforts by various devices to identify these lines, I find they agree best with lines in γ Cassiopeiae at 4457, 4413-6, 4357-8, or Hγ, [illegible], 4287, 4243 or 4233 - Sp. must seem in region of shorter λ than the H. lines 4233-43.

The intensities are in order from red to violet

1, 3, 5, 3, 3.

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

1910phae.proj.2229C

Thursday March 15, 1923

9, 8.7 - 52 8 H.D. 81137

-52°2262 Cont. of study of the spectrum

Lines in η Carinae Lick Bull. 25

	Int	Identt.	
4233	5⁻	4233.33	Enh. Fe
4244	8	[44.49 Co]	Doublet
4287	10	La Fe - V	
4346	5⁻		
4351-8	8,10		
4414	8	[13.97 Co]	"
4416	9		
4457	6	[5⁻1.75⁻ Fe]	
4485	5⁻		

March 22, 1923. It came to me this morning that the spectrum might resemble those of Boss 5650 + H.D. 42474, = H.R. 8383,

21 53.8 +63 5

For Boss 5650, see A.S.P. 33, 263. also see H.A. 56, where I first described the spectrum.

Does not look at all like H.D. 81137.

H.D. 42474 See J 3744 6, 186. Not spec. class

6 5.8 +23 14

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

1910phae.proj.2229c

Tuesday, April 17, 1923

Spectrum R Sagittae

I 34351 G5 in dist. light
No lines clearly seen

I 31167 in extreme edges
Certainly much familiar there in
I 34351, but not yet plain

I 33226
G8, some sharp lines seen

I 16463
G5

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

1910phae.proj.2229C

Thursday, May 31, 1923

182027 cont. from p. 91
See H. B. 782
Observations of later plates, each plate referred to Ins H. B. 782 was taken in 1920.

See Nova Sag. 5 in a

B 53430 Jan. 1, 1922
Faint ~~plates~~ later mean pos.
Safe to say that no star is seen
to change mag. 14, since star is
13.27 of Nova Sag. 5 dep. is quite
legible on plates

Ann 15602 June 9, 1921

15663 Sept. 1, 1921
Star n.s. last plates do not show
fl. stars.
Certainly ~~##~~ would be seen if of mag
10, by comparing with dep. of Nova Sag. 5

Ann 16017 Aug. 10, 1922
var. n.s. 21 1.3

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

1910phae.proj.2229c

May 31, 1923

18h02m7 cmth.

Am 15931
n.s. <11.2

Am 16120 Oct. 17, 1922
n.s. <11.5

Am 15866 June 16, 1922
n.s. <11.5

Am 15934 July 12, 1922
n.s. <11.3

Am 15842 June 31, 1922
n.s. <11.2

B23770 cfp. 255m
Show a group of star means
for Momentum which it is.
For sep. See M #6250, also
Shorty plate

A2752

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

1910phae.proj.2229C

December 18, 1923

Very faint nebulosity M F8047
Sp.

B2,1942 (Ll. 981) n.s. Exp. 4h

a 9 00 Aug. 4, 1908 Star vis. both at
each 1.5 mag. fainter than n. f.

July 0, 1920 M F6240 v. l. very many.
" " M F6244 v. l. certainly very many.
" " M F6586 Aug. 5, 1920
almost as l. as n. f. star

✓ B47041 June 2, 1916 very l. M. f. bandy seen

✓ B 49904 Apr. 12, 1917 n. s. n. f. seen

✓ B 52892 May 18, 1918 v. seen least
faintest star n. f.

B 46996 May 29, 1916
very bright 0.6 ? n. f.

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

1910phae.proj.2229C

Var. 164153

Dec. 18, 1923

89	8 20	B 4047	n.s.	<15ᵐ	60ᵐ exps.
93	6 24	9685	"		10ᵐ "
"	" "	9687	"		
94	7 20	11629	just glimpsed		
"	8 13	16868	n.s.		
95	6 1	13492	Bn. 11.8		
96	5 13	15871	" "		
96	6 12	16281	12.6		
97	5 22	19164	11.9		
"	9 18	20442	n.s.		
98	4 12	21197	11.7		
"	8 26	21895	n.s.		
"	9 7				
99	5 30	21942	n.s.		
00	5 7	22929	12		
"	7 20	25239	11.9		
01	5 28	25[illegible]04	band seen.		
"	6 5	27478	11.9		55531
"	" 21	27558	11.5		55541 Many fainter stars seen May 28.
		27719	12.5		55557
"	" 25	27749	12.4		55561
"	7 3	28146	14.0		15569
02	4 28	29470	12		
~~03~~	~~4 17~~		~~12.2~~		
"	6 26	30189	13		
03	4 17		12.2		
04	5 17	33622	11.5		
08	4	A 9000	1.5 mags less than n.s.		

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

1910phae.proj.2229c

11	4	17	B42219	n.S.
12	7	21	43357	13
"	4	22	43360	13
16	5	29	B46996	Bn.
"	6	2	47041	very h.
17	4	12	49904	n.S.
18	5	18	50822	12.6 faint—diff. n. pair
19	7	2	M 40719	n.h. 11.5
20	7	10	6240	very h.
"	"	4	6244	" "
"	8	5	6586	12.5 not so h. as n.p. Alan.

Period about 1 year?
Nopalea lecheana Sept. & April

$2413346 + 365^{d}\mathfrak{L}$.

Bn.	June 1. 95	
	May 20 96	
	May or Jun 97	
	Apr 98	
	May 00	
?	Before May 28 01	$2413346 + 367^{d}\mathfrak{L}$.
	May 4 04	
	May 24 16	
very h.	July 2 19	
" "	" 10.20	

First very h. on B13492 1895 June 1.

2413346

2422516 July 10, 1920

25) 9170 (367

75

167

150

170

175

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

1910phae.proj.2229C

Tuesday, June 15, 1926

152849 Search for h. lines in Sp. of R Hor

No. 131 on B39069

B13036 N.S.

97 July 29 19936 Br. banded, all hyd lines H γ + red Mol. lines.
11689 Barely seen Torf.

95, Aug. 7 14347 " " " "
12029 Fairly L. best focus no pron. Corbs continuous
93, July 10. 9767 Torf.
10, May 15 41265 N.S.
41499 H ε Mg Mol lines

00, June 2 A4428 Bright. Space near Hδ seems bright but no certain lines Hγ Hε?

97, Aug. 26 20157 Br. Like 19936 above

05 Apr. 24 38524 Br. Bands up

04 Jun. 18 29189 Bands very diffuse. Mol. lines. Def. poor.

9435 N.S.

8302 N.S.

38480 Mg. No bright lines

39374 Mg No " "

9628 Torf.

A4428 Bright Space at Hδ, but no certain lines

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

1910phae.proj.22290

Monday Jan. 24, 1927

R Normae 153849

B 53156 July 11, 1922

S 3209 July 21 "

B 13050 Apr. 17, 1895, bright H γ H δ lines, broad lines - no lines
B 21248 no lines Apr. 19, 1898
B 14347 " " Aug. 7, 1895

Plates shown R Normae Lyf.

Too poor.

B 41422 June 6, 1910, broad lines no lines seen

✓ B 12029 Aug. 29, 1894 Br. lines def. too poor to measure

14135 ✓ 19936 July 29, 1897 Poor spectr. M4-5. very fl. from H γ to ε.

8849 ✓ 41489 June 26, 1910 broad lines seen but no central H lines fl. M5

15113 ✓ A 4428 June 2, 1900 Mse H δ fl. h.

14168 ✓ B 20157 1897 Aug. 26

15056 ✓ 38754 1908 Apr. 24 M4e. H γ, H δ h.

18111 ✓ 39189 1908 June 18 M4-5. fl. from H γ to ε.

15026 ✓ 38480 Oct. 20, 1908 M3 spectr. poor.

18150 ✓ 39374 1908 July 27 M4 dark fl. nar. H δ = 0.9 H γ

23258 S 3209 Repeat July 21, 1922 Mse. H γ + H δ well-marked

18077 June 39069 June 4, 1908 no distinct H lines M5-e. broad M4e H γ, H δ fl. h.

23247 53156 July 11, 1922 " " "

B 11689 July 26, 1894 no bright lines. Fl. neb. H lines seen

Too poor

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

1910phae.proj.2229c

Friday, October 10, 1924

Search for object 47, 1909 Reinmuth's
See A. N. 222, 207. here.
Br. on Reinmuth's plate of Aug. 6, 1909

Ac plates near Aug. 6, 1909

Ac-Kam		
10682	Aug. 2, 1909	$18^h + 30°$
Ann 6431	" 4. "	17 + 15
" 6440	" 5 "	" "
Ac 10688	" 6 "	" "
" 10695	" 7 "	18 + 30
" 10704	" 11 "	17 + 15

Pos. 1909 17 33 13.18 +19° 5′ 40.″2
red. to 1909 23.4 − 21.6
Aug. 6.4 17 33 36.6 19 5′ 18.6 (1909.59+6)
+ 4 23.6
19 9 4 2.2

Pos. of Pallas for Aug. 6, 1909 Greenwich

17 33.7 +19 9

or for Transit at Greenwich

17 33 40.72 +19 5 56.7

~~Daily~~ motion in δ Aug. 6 − 8
South 21′ 58″.2

2) 1318
659
263.6
4

1264
54
1318

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

1910phae.proj.22290

Oct. 10, 1924

On Aug. 11 apparent 1855

~~17 33.1 +18 14~~

17 30 31 +18 10 (mayes)

17.30.5 +18 10

(1855) Pallas 17 30 31 +18 8 14
on Aug. 11.

Pallas Aug. 10 17 32 58.60 +18 21 41.1

12 17 32 44.98 +17 57 10

motion 2 days	13.62	2 2' 34".1
1 day	6.81	11 17.0

17h 32m 51.79 +18° 10' 24".1 (1909)
2 20.4 2 10
17 30 31 18 8 14

Prec. +2.6 ~~× 9 = 23.4~~

~~2".4 × 9 = 21".6~~

1909.
1855
54
2.6
324
108
140.
120
20.4

-2.4
54
96
120
129.6 (60
120 2'
96

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

1910phae.proj.2229c

Nova 47.1909 Hercules.

This object was looked for on photographs taken with the 1-inch Cooke Telescope on August 2, 4, 5, 6, 7 and 11, 1909. The Nova is not seen on any of these plates, though on the 16-17 magnitudes. The Asteroid Pallas is visible on each of the plates and on August 6, was in the approximate position of the Nova.

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

1910phae.proj.2229C

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

1910phae.proj.2229c

Thursday, Oct. 24 1924

Points about variables found in Sagittarius region.

Classes.

Algol

No. 1 in Sag. Region 2.658

Diagram J.D.

Am 12282	July 28, 1916	~~11.7~~	2421078.625		
12292	Aug. 2 "	[11.7	2421078.633	25.008 / 2.504	
13423	July 18, 1917	11.5	2421428 ~~822~~ 660		350.027
14158	" 13, 1918	[12.0	2421788.6~~73~~ 81		
14280	Aug. 11, "	11.0	2421817.5~~73~~ 60		28879
ac 21796	~~Sept~~ Sept. 13, 1919	[11.5	2422215.522		397.962
Mc 19809	May 18, 1923	10.5	2423558.791		343.269
Cec 25258	" " "	10.5	2423558.172 ~~482~~ 48	2)5.621 / 2.810	563.193 / 3558.482 / 2)5.309 / 2.654
Mc 19826	" 23 "	12.3	2423563.793		
" 19857	June 16, "	12.3	2423587.679		23.886 / 922 / 8)23.922 / 2.658
" 19858	" " "	12.3	2423587.750	87.715	

Period about 2.656 or perhaps better

2423587.715 / 1078.632 / 2509.083 — 2.655 — 2.655

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

1910phae.proj.2229C

Algols		Short Per.		Long		Small
1	9.5–12.5	3		4		Var.
2		9		6.		5
20		10		7		8
21	13.5–14.3	~~11.~~		12		47
31	~~12.8–14.3~~	13		14	12.2–[16	
36	14.4–15.0	15 ?	11.2–12.5	16		
56	12.8–14.3	18		17		
		19		22		
		27	14.2–15.0	23		
		30	12.0–12.9	24	14.0–[16	
		32		28	13.2–[15.5 Br. Aug. '23, Aug. '24	
		33		~~35 Var.~~		
		37 ?		42	14.4–[16 Br. May 1923, Aug. 1924.	
		38		41	14.2–[16 Bright May 1923, Sept. 1924.	
Numbers		43		~~40 Var. Short Per.~~		
~~25~~		46		49	12.8–[16	
~~26~~		47		29	14.0–[16	
~~29~~		26	13.5–15.0	50	13.5–[16	
34				Anomalous		
~~36~~				11	12.5–14.0	
39?				25	12.5–16	
~~40 Short Per.~~ long.				51	13.9–[16	
~~41~~				52	13.0–[16	
44						
45						

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

1910phae.proj.2229c

Sagittarii

Var. Algol. 18 56 -8

2 Arbelo DM.

Ht. Am 18936, July 12, 1922 Bx. on 17 other Am plates.

Mc 19826,

t. 20676 Apr. 2, 1924

" 20958 Aug. 27, "

Bright on all three Mc plates (28) y 18.8 - 8

" " " " " " 19.1 - 8

Mo 18 30 - 12 not covering.

Conclusion Certainly Algol type of large range. 2 maxima.

4 dates of fainting

Bx. on 56 other plates examined

B

1910phae.proj.2229C

Sagittarius

Long

Var.

4

18.6 – 6

Br.	Med.	Ft.	H. S.
19793	19744	18897	20001
826			20745
857			
860			
866			

Br. I 33356 Sept. 21, 1905

33365 " 22, "

I 31859, July 13, 1904 med about = 19744

Bright in plates of Aug. 2, 30, Sept. 4, 1924

Much faint on Sept 24, 1924

Meas. 19857 1923 about June 1.

Aug. 2, 1924

Sept. 21, 1905 I. D 17110

June, 1923 23572 6462

Aug. 2 1924 24000 428

6462 ÷ 428 = 15 (4280, 2182, 2140)

24000 − 17110 = 6890

6890 ÷ 16 = 431 (64, 49, 48, 10)

Period about 430 days or 1/2

No plates in autumn of 1923.

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

1910phae.proj.2229c

No. 5

No. 5
shows change of
perhaps ~~0.4~~ ~~0.6~~ mags
I think.
Dir. instance:
Br. on UC 19866, 20990
Dk. on 19826, 19857, 20958
but it is so slight.
~~Might it not be photographic~~

Smith

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

1910phae.proj.22296

No 7

No. 8

No. 8.

Br. on MC 20743

" " MC. 20916

" " MC. 19860 June 17 1923

Ft. on MC. 19866 June 19 1923

" on MC. 19857

" " MC 20969

I think this is really variable. Maybe 0.8 magn. ~~but you~~.

Maybe 1.0 magn.

But my estimate is not correct probably However - it is variable -

D.D.W.

A.J.C.	
Br.	Ft
~~19744~~	19857
826	866
860	
20940	
20958	
20966	
20976	

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

1910phae.proj.2229c

Sag. Region

No. 11

Bright mass on 19857, 60, 66, 96, 97 only.

Nebulosity appears, but varies slightly on other plates.

Cannot det. class.

02.5 – 14.0 May be short period, but if so, why is it not as bright on same other plates as the 5 above?

Remark. The only bright mass observed on 27 plates Oct. 26, 1923 and Oct. 3, 1924 was in June July, 1923. The mass was practically the same on June 16, 17, 19, July 12, 13, 1923.

Bx. 21061 Oct. 22, 1924

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

1910phae.proj.22206

5.

No. 14. Bn.

June 30 ~~1908~~ 1898		14471
June 29 '07		17756
May 29, 1900		16169
Sept. 1910		8916
Oct. 10 1922		3338
May, June 1923		23572
		234

7727
29
5 6

3572
224
3806 Jan '24
224
4030 Sept '24

Bulletin July 1924

23998
20
40018
35572
2) 436
218

218) 23572
14471
9101 (41
872
381
218
163

Period perhaps 218d (41) 9101
82
90
82
81

Bulletin 1986 + June 17, 1923
J.D. 2423588 + 222d

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

1910phae.proj.2229C

No. 15 18 21 59.7 − 12 31.6

Ft. on all the plates in 1923
Faintest on 20015

Bn. on all the plates of 1924

11.2−12.5 Can this be a Cepheid

Small range for Class II.

No. 16 Bn Pge 20780 June 9' 2x
I 43687 24, 24

Assumed Max. June 17, 1924 J.D. 23954

23957
250
3704 = Oct. 11, 1923

23954
14226
250) 9728 (39
750
2228
2250

39) 9725 (25
78
192
195

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

1910phae.proj.2229c

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

1910phae.proj.2229c

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

1910phae.proj.22296

No. 25

24235361174 dΣ.

1174

8710 Oct. 1923

1174

3884 Apr. 24

1174

4058 Sept 29, 24

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

1910phae.proj.2229c

No. 29.

Bn. Apr 28, 1923 35-3 6 371
May 1, 1924 3907 ~~374~~
Oct 23, " 4082 175

24059
23
82

4082
35-33
3) 5 4 9
1 83

4082
35-36
3) 5 4 6
182

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

1910phae.proj.2229c

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

1910phae.proj.2229c

No. 34. 190209

Long

MC 19951 Mark. Aug. 13, 1923
21013 Oct. 1 1924

23632
13
23645
24060
2) 4 1 5
2 0 8

MC 20754 Faint not seen. May 4, 1924
23645
208
23853 1924 March 8

Long mark.

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

1910phae.proj..2229C

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

1910phae.proj.2229C

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

1910phae.proj.2229c

38

19 s⁻ 48 - 9 20.1

Br. 19896 July 12, 1923 23613
May 4, May. 31 May 18 1924 3924
311

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

1910phae.proj.2229C

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

1910phae.proj.2229c

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

1910phae.proj.2229C

Sagittarius region

Star 51 = vy agk

Fading on May 10, 1923 3550 148 longer than 148 d
Brightening Oct. 5, 1923 3698
Bright Oct. 22, 1924

4081
209
3881

assume Apr. 5, 1924 last
n. s. in Apr. 2, d May 1

Ann. Vis. 20676 Apr. 2, 1924 ~~Apr~~

assume Apr. 16, 1923 3520
Dim. 5 2 ~~4095~~
3729 209 d

3729
209
3938 June '24 last in was n.s. in June '24.

4081
3520
2) 561
280

3) 561
187

3520
280
3800
280
4080 Jan. 1924

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

1910phae.proj.2229C

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

1910phae.proj.2229C

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

1910phae.proj.2229c

59 Bn. α 10264 Sept. 5, 1910

18920
23667 Sept. 4.23 + 263 dξ.

263) 4747 (18
263
2107

3667
263
39330 Mag 24, 1 Ezy

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

1910phae.proj.2229c

Tuesday April 6, 1926

Br. line object marked m ƒ 8697
appears pos.
Hues Hγ, Hδ, HεK respectively
Looked up for van. by L. D. W.

I 11104

" M. something suspicious

The something else seems to be due objects projecting from matching up of the lines

I 20961 something bad
I 29144 " "
I 8729 " Injection, decidedly.
27707 " "
I 32145 " nine readings good

I 20942
I 15585
I 25323
I 6598
I 27187
I 18919

The something else seems fainter than normal in I 8729 but it is a poor plate, and by sup. the feature appears blending of the something else

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

1910phae.proj.2229c

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

1910phae.proj.2229C

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

1910phae.proj.2229c

W Serpentis

MF 7927 7933 very fine

7933 7927 like 7933, only H+K very sharp & narrow, seen better
H/ wide thing, many thing lines beh. Hγ + Hδ.

MF 8067 Bright bands on violet edges of H, K,

B13757. Br. lines ? S
B40639. Star faintly. Gs?
B40852. Hδ fl. - Gs?
B8642. Numerous wide dk. lines
MF7839, resembling 7933
B39315 Br. bands as MF8067
B21257 " " thing.
B23025 " " "
B13801 Br. Hγ
B22912 Almost ends, br. lines seen faintly, thing in violet edges.
MF8011 Fine narrow
B39405. Narrow H+K (phase of MF7933)
B13135 A little fl. thing dark bands
B40332 Narrow + indistinct
MF7967 Like 7933

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

1910phae.proj.2229c

B40707 sharp?. G5

B41766 (long) almost end

B5-3119 like K F7933

B24169 Br. lines -

B39+92 (pt.?) Br. per. dd bands

B405-90 pt. to H/ practically long

B53303 long, Br. Hγ, Hδ long

B9483 Probably like 7933

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

1910phae.proj.2229C

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

1910phae.proj.2229C

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