

KG
11366
047

ethers
Star Variables
Book 12.

KG 11366.047

Genevieve F. Matheis

Record Book no. 12

Circumpolar Variables

Estimates of Brightness
(overflow book)

N.B. A small "c" in ink in a page corner below the page number, and between the red lines, indicates that the magnitudes from that page have been copied into the ledger, with the exception of the "yellow" or isochromatic plates. If there are no magnitudes recorded on a page, the "c" indicates that it has been recorded in some way (in the ledger) that these plates could not be measured.

N.B. "Comp." in the remarks, in this book (and others of Mt. Wilson which variable stars are measured) indicates "Variable does not compare well with images of comparison stars."

2

KG 11366.047



4

Wednesday, October 27, 1915

4.20

R Aurigae (continued from Bk 8:171)

x

Plate No.

Magn.

J 26059

11.4

J 28298

.

E. sup.

J 30861

13.5

?

Faint

J 32682

10.3

.

J 32817

.

E. Comparison too difficult as
comp. stars are distant.

J 22223

.

"

"

"

"

"

J 22243

10.3

?

E

J 17323

11.4

E.

J 11616

13.2

?

Faint

4.4⁵

J 17527

12.3

Does not compare well

Thursday, October 28, 1915

3.00

R Aurigae

Plate No.	Magn.		c
J 17825	13.6 ?	Faint; does not compare well	
J 15971	10.6 ?	Does not compare well	
J 10186	.	Off plate	
J 9795	.	" "	
J 10022	.	" "	
J 7785	.	" "	
J 7968	.	" "	
J 2654	.	" "	
J 27986	.	sup.	
J 5577	.	Too near edge	
ac 4055	.	Too near edge	
ac 4161	.	" " "	
ac 4252	.	" " "	
ac 4369	.	" " "	
ac 4556	.	" " "	
ac 4772	.	" " "	
ac 5275	.	" " "	
ac 5342	.	" " "	
ac 5654	.	" " "	
ac 6183	.	" " "	
ac 6813	.	" " "	
ac 6835	.	" " "	
ac 7514	.	Too poor, sup.	
ac 1289	.	C plate, too difficult.	
ac 9717	.	" " "	
ac 12708	.	sup.	
ac 12966	n.s.?	"	
ac 16236	9.7 ?	"	

Thursday, October 28, 1915

R Aurigae

e

Plate No.	Image	
ac 12434	.	Too near edge.
ac 10386	.	" " "
ac 12442	.	" " "
ac 12447	.	" " "

3.50

3.59

ac 15218	.	Too near edge
ac 15117	.	" " "
ac 14717	.	" " "
ac 14801	.	" " "
ac 14832	.	" " "
ac 14903	.	" " "
ac 15487	.	" " "
ac 15376	.	" " "

On all ^{ac} plates, of 7^h +45° region of variable is too far from centre to give measures, for the variable is so close to the comparison star γ as to be superposed in all these cases. These plates are:-

ac 15752	ac 12635	ac 12978	ac 14606
ac 15899	ac 12692	ac 13030	ac 14647
ac 16019	ac 12709	ac 13040	
ac 10787	ac 12748	ac 13079	
ac 10793	ac 12788	ac 13907	
ac 11070	ac 12840	ac 14400	
ac 12269	ac 12889	ac 14441	
ac 12332	ac 12920	ac 14573	

4.12

Friday, October 29, 1915

4.30

R Aurigae

Plate No.	Magn.	
ac 15917	.	Too near edge
ac 15974	.	" " "
ac 14173	.	" " "
ac 14285	.	" " "
ac 14393	.	Too poor
ac 14440	.	Too near edge

On all ac plates of $4^h + 75^\circ$ region of variable is too far from centre to give measures, since the variable is so close to the comparison stars as to be superposed in all these cases.

These plates are:-

ac 14544 ac 16257
 ac 14603 ac 16097
 ac 14626 ac 16187
 ac 14645 ac 16175
 ac 14739 ac 14384
 ac 14746 ac 16077
 ac 14761
 ac 14777
 ac 14830
 ac 14920
 ac 14928
 ac 15344
 ac 15437
 ac 15679
 ac 15731
 ac 15788

Friday, October 28, 1915

π Aurigae

Plate no. Magn.

✓ 15543 10.9

✓ 5890

off plate

Plates at $\gamma^N + 45$

ac 16077

ac 15589

ac 15694

ac 15524

ac 15051

5.07

Saturday, October 30, 1915

3.00

R Aurigae

Plate No.	Magn.		
ac 16317	9.6 ?	Difficult	
ac 16359	9.6 ?	"	
ac 16442	.	Too poor	
ac 16727	m.s. ? < 11.6	Plate poor	
ac 16825	m.s. ? < 12.1		
ac 16471	.	Off plate	
ac 16681	.	" "	
ac 16842	.	" "	
ac 16851	.	" "	
ac 16751	.	" "	
ac 16370	.	" "	
ac 16428	.	" "	
am 8025	.	Too poor	
am 8027	.	" "	
am 8028	.	" "	
am 8034	.	" "	
ac 16362	.	Off plate	
ac 16843	.	" "	
ac 16701	.	Too poor	
ac 16461	.	Off plate	
ac 16726	.	Too poor	
ac 16700	.	Off plate	
ac 16356	.	exp. (yellow)	
ac 16736	.	Off plate	
ac 16845	.	" "	
ac 16358	.	" "	
ac 16816	.	" "	
ac 16832	.	" "	
ac 16853	m.s. ? < 12.6		

Saturday, October 30, 1915

R Aurigae

c

Plate No.	Image	yellow Plates
ac 16285	.	off plate
ac 16774	.	" "
ac 16326	.	Too near edge
ac 16333	e 2 v v 3 f	
ac 16479		Too near edge
ac 16533		Too poor

Plates included in ledger (?) which do not cover region.

ac 16508
ac 16334
ac 16343
ac 16768
ac 16271
ac 16480
ac 16802
ac 16270
ac 16818

4.121

Monday, November 1st 1915

3.08

R Aurigae

Plate No.	Magn.	Yellow Plates
ac 16895	.	Off plate.
ac 16905	.	" "
ac 14372	.	Too poor - trailed
ac 14674	.	sup
ac 14776	.	sup.
ac 15631	.	Too poor
ac 15652	.	" "
ac 15851	.	sup.
ac 16059	g' 5 V g 0 V V 1 g ²	
ac 16193	.	sup
ac 16194	g ² 5 V V 1 g f	
ac 14780	f 3 V V 1 g'	
ac 15048	g ² V ² V 3 g ²	
ac 15680	n.s.?	Too poor
ac 16188	.	sup.
ac 16095	g ² V V 3 g ²	

Monday, November 1, 1915

R. Aurigae

Plate No.	Mag.	
ac 16864	m.s. ≤ 11.6	
ac 9098	.	Too poor.
ac 8035	.	hot region
ac 16378	.	" "
3 3110	.	off plate
3 3089	.	" "
3 19487	.	" "
ac 10327	10.1	T' plate
ac 5752	.	Too near edge
ac 12821	.	" " "
ac 11495	.	" " "
ac 4071	.	Trailed
ac 5492	m.s. ≤ 12.1	
ac 1747	.	Too poor.

Plates at $7^h + 45$ (See notes, p. 6)

4.37	ac 6833	ac 12889	ac 14606	ac 15117
4.40	ac 11070	ac 12920	ac 14647	ac 15487
	ac 12269	ac 12978	ac 14717	ac 15524
	ac 12332	ac 13030	ac 14777	ac 15576
	ac 12635	ac 13040	ac 14801	ac 15589
	ac 12692	ac 13079	ac 14832	ac 15694
	ac 12709	ac 13907	ac 14858	ac 15752
	ac 12748	ac 14400	ac 14903	ac 15899
	ac 12788	ac 14441	ac 15018	ac 16019
4.42	ac 12840	ac 14573	ac 15051	ac

Monday, November 1, 1915

P Aurigae

Plate No.	Magn.	Color
ac 13599	g 1 v v 3 g 2	<u>yellow</u>
ac 13802	.	Too poor
ac 14864	.	" "
ac 16104	g 1 v v 3 g 2	
ac 13793	.	Too poor

(12 m out)
4.16

14

Tuesday, November 2, 1915

3.55

R Aurigae

v

Plate No.	Magn.
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a 7489	11.2
--------	------

a 7141	11.5
--------	------

a 7150	
--------	--

hot region

C 8364	10.4
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See page 24 for continuance of measures - R Aurigae

Tuesday, November 2, 1915

R Lyncis

Plate no.			c
QC 1334	n.s. < 13.0		
ac 608	.	Too poor - trailed	
QC 1413	.	" " "	
QC 2083	13.2 ?	Faint	
ac 2329	.	Too difficult - trailed	
ac 5376	9.3 ?		
QC 6944	10.3 ?	Does not compare well	

4.45-

Wednesday, November 3, 1915

10.22

P Lyncis

Plate no.	magn.	
ac 3773	.	Too poor.
ac 3751	.	" "
ac 3876	.	" "
ac 3897	.	" "
ac 8336	n.s. < 12.4	
ac 6712	n.s. < 11.7	
ac 5783	.	Too near edge.
ac 1412	.	Too poor.
ac 10482	.	" "
ac 11356	10.8	
ac 634	n.s. < 11.7	
ac 5526	.	Too near edge
ac 2255	.	Too difficult C plate
ac 2275	n.s. < 13.0	
ac 2323	n.s. < 12.6	
ac 2427	.	Too poor.
ac 2040	.	" "
ac 3414	.	" "
ac 3993	.	" "
ac 4206	10.1	
ac 4302	.	Too poor
ac 4639	n.s. < 12.2	
ac 5424	10.1 ?	Poor
ac 5431	9.7	
ac 5550	10.0	
ac 5574	10.6	
ac 6037	.	Too poor
ac 1962	.	Too near edge
ac 5696	11.1 ?	?

Wednesday, November 3, 1915

R Lyncis

Plate No.	Magn.		
ac 7442	.	Too close E.	
ac 9406	.	Off plate	
ac 12661	.	7 plates: too difficult.	
ac 5541	10.4?	Edge	
ac 3911	.	Too close.	

c

18^m out

11.39

Thursday November 4, 1915

2.45

R Lyncis

✓

ac Plate no Magn.

ac 15970

Sup. Too faint

ac 15987

12.1 ?

Faint

ac 16875

m.s. 511.7

ac 16864

Does not cover

ac 16156

Too poor: edge

ac 16238

10.0 ?

E.

ac 16825

Too near edge

ac 15925

13.1 ?

Very faint

ac 16870

Too poor, E.

ac 16145

10.0 ?

Extremes E.

ac 16472

m.s. < 11.2

ac 16745

Too poor

ac 16853

Too faint for good comparison

ac 16429

Too poor, E.

ac 16727

" " "

ac 16442

" " "

ac 16359

Too near edge,

ac 16317

" " "

ac 16681

" " " Poor.

ac 16842

" " "

ac 16362

10.8 ?

Does not compare well

ac 16843

Too poor.

ac 16701

Too poor, dark

ac 16461

Too faint and hazy

ac 16575

Too near edge: poor

ac 16111

" " "

ac 16237

10.0

ac 16397

11.0

Thursday, November 4, 1915

R Lyncis

Plate No.	Magn.		
ac 16019	12.2		
ac 16586	.	Too poor	Σ
ac 16134	9.9		
ac 16222	9.7	?	Does not compare well. Σ .
ac 15762	.		Off plate
ac 15817	.	" "	
ac 15889	-	" "	

also plates at $q^L + 60$; - var. off plate.

ac 15908 ac 16136
ac 16035 ac
ac 16098

ac 16248 10.0
ac 6890 10.4 ? Faint, Σ .
ac 13052 . Too poor.

3.36

20

Monday, November 8, 1915

2.00

R Lyncis

v

Plate no.	Magn.	Yellow
ac 16061	.	Too poor.
ac 16775	.	" "
ac 16333	e 1 v v 3 f'	.
ac 16768	.	Too near edge.
ac 16533	.	Too poor
ac 16271	d 5 v v 1 e	
ac 16480	.	Too faint
ac 16802	.	" "
ac 15051	d 6 v v 0 e v 3 f'	
ac 15524	.	Too faint
ac 15589	.	" "
ac 15694	.	" "
ac 16077	e 1 v v 5 f'	
ac 16343	.	Too near edge.
ac 16097	.	" " "
ac 16334	.	" " "
ac 16270	d 5 v v 1 e	
ac 16195	.	Too near edge
ac 16062	.	Too dark + poor
ac 16088	e 2 v v 4 f'	
ac 16104	.	Too near edge
ac 16095	e 2 v v 3 f'	

2.29

Tuesday, November 9, 1915

3.22

P Lyncis

Plate No.	Magn.	Yellow
ac 13962	.	off plate.
ac 16194	d 5 ✓ v 1 e	
ac 15048	d 6 ✓ v 1 e	
ac 15680	.	Too faint
ac 14364	.	" "
ac 13672	d 3 ✓ v 2 N	

		Blue
ac 5342	9.5 ?	Does not compare well
ac 5492	10.1 ?	" " " "
ac 4071	.	Trailed
ac 5654	10.9	

3.40

3.45

ac 2419	.	Too poor. E.
ac 5308	.	Broken. missing
ac ~~7263~~ 9000	.	"not to be used unless necessary"
ac 4714	.	"not region" " "
ac 9000	.	not region
ac 5283	.	Too near edge.
B 1936	m.s. < 13.0	E.
2 26068	11.4	
2 19514	m.s. < 13.0	E.
2 16665	m.s. < 12.2	E.
2 12513	.	Too faint E.
2 10195	m.s. < 13.0	
2 23571	.	Sup. on 23570, Too difficult.

4610

22

Friday, November 12, 1915

2.36

P Lyncis

C

Plate no. Magn.

aff. 1326 13.8 ? Does not compare well.

C 8747

n.s. ≤ 13.0

Trailed

2.48

*
max
after

Wednesday, November 24, 1915

P Lyncis - Remeasures.

12.55	Plate No.	Magn.	
* Wrong image at first for a	ac 14858 *	d $\frac{3}{2}$ v v $\frac{1}{2}$ e	yellow
	ac 14832	9.7	
	ac 14837		Does not cover
	ac 14903	9.6	Does not compare well
* Marking poor; appears to be 14837	* ac 14837	10.0 ?	" " " " v
	ac 14921	9.6	Large + hazy Image large + hazy. Does not compare well.
1.15	ac 14780	g 2 v v 1 h'	yellow

See page 27 for continuation

24

Wednesday, November 3, 1915

3.08

P Aurigae

c

Plate No. Magn.

ac 5865

ac 10175

ac 12311

3.21

a 7170 11.4

Too close to edge.

~~Too close to edge.~~

Too near edge.

Thursday, November 4, 1915

5.00

R Aurigae (Remeasures) Artificial Light.
c

Plate No. Magn.

25 17527 12.4

9 17323 11.7 ? E. poor,

9 17322 11.7

5.10

26

Monday, November 8, 1915

R Aurigae

✓

Plate no.	Magn.	
ac 6247	10.4 ?	Does not compare well
ac 16111	10.7 ?	Difficult. h defective? g ³ , k, and l used.

Tuesday, December 21, 1915

R Lyncis

Plate No. Magn.

D12301 n.s. < 12.4

c

28

Wednesday, December 23, 1915

10.03

P Lyncis

e

Plate no. Magn.

J. 665

Too poor E.

J. 2894

Too dark and fogged

e 780

off E.

e 773

off E.

10.18

See page 107

Friday, November 12, 1915

2.54

P Ursae Majoris

Plate No.	Magn.		c
ac 6166	.	7 plate	
ac 7167	.	off plate	
ac 14591	.	" "	
ac 14638	.	" "	
ac 14803	.	" "	

The following plates (+45°) do not cover.

ac 14835	ac 14918	ac 15939	ac 15963	ac 7139
ac 14906	ac 14941	ac 15867	ac 15981	ac 14771
ac 15634	ac 14958	ac 15769	ac 15991	ac 14490
ac 15687	ac 15045	ac 15124	ac 16015	ac 14103
ac 14900	ac 15980	ac 15094	ac 14078	ac 14786

ac 3460	m.s. < 11.0	2
ac 4532	10.6 ?	Very faint

ac 11223	.	T' Too difficult.
ac 11660	.	" " "

ac 1485	10.7 ?	Very faint
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ac 3187	10.3	
ac 6402	8.5 ?	Trailed ? Images poor.
ac 14473	.	Too poor. (yellow)
ac 14474	.	" " "

ac 3277	.	Too dark.
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ac 3330	11.3 ?	Very faint
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ac 3407	m.s. < 10.4	
ac 8196	8.6 ?	Plate dark.

3.33

Saturday, November 13, 1915

2.55

P Ursa Majoris

c

Plate No.	Magn.	
ac 877	8.6	Does not compare well
ac 5684	n.s. < 10.4	
ac 12132	n.s. < 11.4	
ac 12409	n.s. < 10.4	
ac 13884		c plate Too difficult
ac 13901	n.s. < 10.4	
ac 13904	n.s. < 10.3	
ac 14229	n.s. < 11.8	
ac 14073	10.0	Does not compare well
ac 14848	n.s. < 11.2	
ac 14891	n.s. < 12.9	
ac 14924	n.s. < 12.9	
ac 16028	10.0	
ac 258	n.s. < 10.9	
ac 758		2. Too poor
ac 2983	8.5 ?	Fogged; corner of plate
ac 3063	8.7 ?	2.
ac 3121	9.4 ?	Does not compare well
ac 3186		Too much fogged. Cor. of plate
ac 3246	10.9 ?	2.
ac 6175	11.8 ?	Faint
ac 6170		Too poor.
ac 6178	m' 1 v	
	v 1 m	
ac 6229	8.6	
ac 6275	8.2	
ac 6391	8.4	
ac 7385	8.6	

Saturday, November 13, 1915

P Ursae Majoris

Plate No.	Magn.		c
ac 6348	8.1		
ac 7415	8.7 ?	Does not compare well	Extreme?
ac 6328	8.0		
ac 3382	11.8 ?	Lim. of vis.	
ac 6292	7.9		
ac 6395	8.6		
ac 6414	8.8 ?	Does not compare well	
ac 7066	n.s. < 12.1		
ac 14847	.	off plate	
ac 14857	.	" "	
ac 14861	.	" " (yellow)	
ac 4782	.	Too poor,	
ac 4789	n.s. < 10.9		
ac 4884	n.s. < 11.2		
ac 4898	n.s. < 11.4		
ac 4979	8.5		
ac 5080	8.6 ?	Poor	
ac 5198	9.7 ?	Lim. of vis.	
ac 5415	n.s. < 11.2		
ac 5568	n.s. < 11.8		
ac 5571	n.s. < 12.4		
ac 5584	n.s. < 10.9		
ac 5602	n.s. < 11.8		
ac 5621	n.s. < 12.1		
ac 5673	n.s. < 12.4		
ac 5717	n.s. < 12.4		
ac 5792	n.s. < 11.2		
ac 5874	n.s. < 10.9		

Saturday, November 13, 1915

R Ursae Majoris

Plate No.	Magn.	
ac 5897	n.s. < 12.9	
ac 7545	10.9	
ac 8391	n.s. < 10.9	
ac 7594	.	Too poor
ac 8205	8.8 ?	Does not compare well
ac 8207	9.3	" " " "
ac 8388	n.s. < 11.8	
ac 8443	.	Too faint
ac 9300	.	In plate Too difficult
ac 9376	.	" " " "
ac 14181	.	Too poor.
ac 8395	.	Not to be used unless necessary. (yellow)

4.26

Plate
wrong

Monday, November 15, 1915

2.48

R Ursae Majoris.

Plate No Magn.

c

ac 14265 . Too poor (yellow)

ac 14468 " " "

ac 14469 " " "

ac 14193 " " "

ac 14139 " " "

ac 15839 . Too near ϵ "

ac 8469 . Too poor.

ac 8476 n.s. < 10.4

ac 8504 n.s. < 10.9

ac 8509 n.s. < 10.4

Plates which do not cover region

ac 14377 ac 16836 ac 16794

ac 1498 ac 16380

ac 846 ac 7078

ac 10455 ac 16572

ac 16569 ac 16729

Plate numbered
wrong.

ac 15446 .

Too poor ϵ

ac 9284 .

In plate Too difficult

ac 9290 .

" " " "

ac 9291 .

" " " "

ac 4716 .

Not to be used unless necessary

ac 10491 .

Too near ϵ .

ac 15932 n.s. < 10.4

ac 10272 .

Too poor (yellow)

ac 5976 12.9 ?

Lim. of vis.

ac 6029 n.s. < 10.4

ac 6029 n.s. < 10.4

Monday, November 15, 1915

R Ursae Majoris

Plate No.	Magn.	
ac 3479	n.s. < 10.9	
ac 3498	.	Too poor E.
ac 3534	n.s. < 10.9	
ac 3591	.	Too poor
ac 3615	.	Too poor E.
ac 4376	n.s. < 10.9	
ac 16148	7.9	
ac 4681	n.s. < 10.4	
ac 16313	8.2	
ac 16222	8.2 ?	E.
ac 16374	9.3	
ac 16607	.	Too near E.
ac 16391	9.2	Does not compare well
ac 16463	.	Too near E.
ac 16467	10.5	Does not compare well.
ac 16593	n.s. < 10.4	
ac 16656	n.s. < 10.4	
ac 16728	.	Too poor
ac 16828	.	Too near E.
ac 3580	n.s. < 10.9	
ac 3640	.	Too poor.
ac 3542	n.s. < 10.4	
ac 3610	.	Too poor
ac 3648	n.s. < 11.4	
ac 3737	n.s. < 10.9	
ac 4460	12.9 ?	Lim. of vis.
ac 4199	.	Too poor.
ac 4340	n.s. < 11.2	

Monday, November 15, 1915

P Ursae Majoris.

Plate No.	Magn.	
ac 4516	n.s. 11.8	
ac 4591	.	700 foot
ac 4654	n.s. 11.8	
ac 4690	.	700 foot

4.02

36

Tuesday, November 16, 1915

12.30

R Ursae Majoris

Plate No.	Magn.
C 3430	n.s. < 12.9

a 1422

Σ. Too difficult. Images do not compare

a 1316 13.3

a 1339 13.1

a 208 12.2

a 200 12.2

Imm. poor + hazy

a 496 n.s. < 13.4

a 475 13.9 ?

Very doubtful. Lim. of vis.

a 464 14.2

X at lim. of vis.

1.01

3.00

ac 1561 n.s. < 10.4

ac 1991 12.3

ac 2140 8.6

ac 1598 .

Too poor

ac 2068 10.6 ?

Lim. of vis.

ac 2116 8.8

Does not compare well

ac 2259 8.9

ac 3417 .

Too poor

ac 3476 .

ac 7439 .

Does not cover

ac 4702 n.s. < 11.4

ac 16741 .

off edge

ac 16730 .

Too poor Σ,

ac 16670 .

" " Σ,

ac 16576 .

" " Σ

Plate wrongly numbered
This is actually ac 7439

Tuesday, November 16, 1915

R Ursa Majoris

Plate No	Magn.		
ac 16797	.	off Σ .	
ac 16833	.	" Σ .	
ac 16880	.	" Σ	
ac 16224	8.1		
ac 16681	n.s. < 11.2		
ac 16109	.	Cracked - not to be used unless necessary	
ac 16562	n.s. < 10.4		
ac 16587	.	Too poor Σ .	
ac 16639	.	Too poor	
ac 16738	.	" "	
ac 16149	7.9		
ac 1555	11.6 ?	Poor; lim. of vis.	
ac 16249	.	off Σ .	
ac 1557	.	Too poor	
ac 16571	.	Too near Σ	
ac 1558	n.s. < 10.7		
ac 16488	.	hot region	
ac 1457	10.2	Images double	
ac 11357	n.s. < 11.2		
ac 16422	.	Too near Σ . Comp. stars off Σ	
ac 1458	10.1		
ac 11465	9.3		
ac 16305	.	off Σ .	
ac 11673	10.0		
ac 16417	.	off Σ .	
ac 1434	10.0		
ac 16415	.	hot region	

Tuesday, November 16, 1915

P Ursae Majoris

v

Plate No.	Magn.
ac 13107	ns. < 12.4
ac 1414	9.3
ac 16389	9.3
ac 1387	8.8
ac 1444	9.4 ?
ac 16167	.
ac 1372	8.6
ac 16303	8.4
ac 1341	8.3
ac 16045	.
ac 16291	.
ac 1292	8.9
ac 16458	10.3
ac 16225	7.9
ac 16390	8.9 ?
ac 16487	.

Does not compare well
 images
 Poor Does not compare well
 off edge

Too poor.
 off plate

g + l' used
 off plate

4.02

Wednesday, November 17, 1915

3.25

P Ursae Majoris

Plate No.	Magn.	
ac 7432	9.0	
ac 7436	9.3	
ac 2915	9.5	
ac 3303	n.s. < 10.9	
ac 7475	9.7	
ac 3317	.	Image blurred: too difficult
ac 2932	8.4	
ac 2694	n.s. ? < 10.4	
ac 3351	11.8 ?	Lim. of vis.
ac 7462	9.3	Does not compare well
ac 3097	9.3	
ac 2265	9.0	
ac 2689	.	Too poor
ac 3114	9.8	
ac 2693	.	Too poor
ac 2534	n.s. < 12.9	
ac 6167	.	7 plates / Too difficult
ac 7427	8.9	
ac 2566	n.s. < 10.9	
ac 2559	n.s. < 10.4	
ac 2416	10.5	Does not compare well
ac 2336	9.3	" " " "
ac 2475	11.7 ?	Image of 9 sec.; near def.
ac 259	n.s. < 10.4	
ac 333	n.s. < 10.4	
ac 726	n.s. < 11.2	
ac 319	n.s. < 11.2	
ac 517	.	Too poor

Wednesday, November 17, 1915

R Ursae Majoris

u

Plate No.	Magn.	
ac 558	13.2?	u n.s.; v lim. of vis. Very doubtful
ac 800	10.2	It and m' used. m def.?
ac 1137	m.s. < 11.4	Scratch over position of v
ac 753	m.s. < 10.9	
ac 859	8.1	
ac 610	m.s. < 10.9	
ac 850	8.0	
ac 1111	m.s. < 12.4	
ac 1211	.	Too poor
ac 1196	11.0	Faint
~~ac~~ 838	m.s. < 13.4	
~~ac~~ 13605	m.s. < 10.4	
J 24837	12.2	
J 18318	m.s. < 12.9	
J 24838	12.2	
J 19576	.	Trails Too difficult
J 20077	.	Spectrum
J 33033	.	"
J 33093	.	"
ac 13956	.	Too poor <u>yellow</u>
ac 15053	e' 4 v v 1 k	
ac 16345	.	Too poor Too near edge.
ac 13958	.	Too poor
ac 16325	.	Off plate
ac 13893	.	Too poor
ac 13789	.	" "

4.30

Thursday, November 18, 1915

3.00

R Musae Majoris

Plate No	Magn.	
ac 2442	.	Missing
ac 11739	n.s. < 10.4	T' - too difficult
ac 10609	8.1 ?	Σ T' plate
I 35391	13.3	T' plate
I 1096	.	off plate
		yellow
ac 1175	.	Class 9 - Spectrum ?
ac 16278	g.	Too near Σ .
ac 15087	e' 1 v	
	v 3/5	
ac 15079	e' 2 v	
	v 1 e	
ac 16207	d 2 v	
	+ 5 e	
	v 7 g	
ac 16081	d 2 v	
	v 7 g	
ac 16543	.	Too poor.
ac 16779	.	Too near Σ .
ac 14961	.	off plate
ac 3523	n.s. < 0'	
ac 16777	.	off plate
ac 16344	d 7 v	
	v 2 g	
ac 16324	.	Too poor Σ .

Thursday, November 18, 1915

P Ursae Majoris

✓	Plate No.	Magn.	Yellow
	ac 16206	d 4 v ✓ 5 g	
	ac 16897	..	Too poor
	ac 15653	..	" "
	ac 15077	..	" "
	ac 15165	g 2 v ✓ 1 h	
	ac 15073	e' 2 v r 1 e	
	ac 15063	e 2 v v 3 k	
	ac 14623	n.s. < n	
	ac 13960	n.s. < o	
	ac 14947	n.s. < p	Too poor
	ac 3522	n 2 v v 0 N	
	ac 15071	..	off plate
	ac 13601	..	Too poor
	ac 13797	n.s. < n	
	ac 13892	n.s. < n	
	ac 15049	K 3 v ✓ 1 m	

Thursday, November 18, 1915

P Ursae Majoris

Plate No.	Magn.	
ac 13674	.	Too poor
ac 13252	2.3 V	
	V 1/R	

ac 13894	.	Too poor
ac 13799	n.s.k.n	

3.55

4.15

ac 16061	.	Too poor; fogged.
ac 16768	.	" " E.
ac 16480	.	Too near E.
ac 16802	.	" " "

ac 16195	d 4 V
	V 5 g

ac 16575	.	Too poor. (Blue)
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Blue

ac 16035	10.0
ac 16136	8.1

4.28

44

Friday, November 19, 1915

2.50

R wae Majoris

✓ Plate No. Magn. yellow
 ac 160621 g 2 v
 v 3 h

ac 16343 d 7 v
 v 2 g

ac 16334 d 7 v
 v 2 g

ac 16461 m.s. < $\frac{m}{10.3}$ (Blue)

ac 16098 d 5 v
 v 4 g

ac 16270 Too near edge

Blue

ac 16248 7.9? d off edge v extreme 2

ac 16586 m.s. < 9.2

ac 16238 8.0

ac 16701 Too f. dark.

ac 16145 7.9

ac 16429 10.1

ac 1524 m.s. < 9.4

3.18

Thursday, November 25, 1915

11.50

R Ursae Majoris

Plate No.	Magn.		C
ac 16305	.	Off plate	
ac 16881	m.s. < 10.9		
ac 2508	12.5?	Lim. of vis. 3 scarcely seen	
ac 16667	.	Too near ϵ .	
ac 5560	12.5?	Very doubtful Lim. of vis. 3 not seen	
ac 16226	8.0?	ϵ .	
ac 2611	m.s. < 10.9	Too poor, hot region	

12.00

Wednesday, December 1, 1915

R Ursae Majoris Remeasures

3.00 ?

Plate No. Magn

ac 2525 m.s. ? < 12.4

It seems, ν is a mere blur on plate, and not comparable.

ac 12136 m.s. < 8.7

E. "m" plate. A star from the second (fainter) exposure very close to position of ν . Evidently this was measured for ν originally.

3.18

Thursday, December 16, 1915

P Ursa Majoris

Plate No.	Magn.
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J 15511	12.8?
---------	-------

t m.s.

Tuesday, February 15, 1916

α Ursae Majoris

Plate No Magn,

ac 10222 n.s. < 12.1

ac 10227

Too faint + uncertain. If seen, about 12.3. Object in position of γ peculiar in shape. May be defect, or image of γ defective.

Monday, November 22, 1915

2.50

7 Ursae Majoris

Plate No.	Magn.		c
ac 16148	10.0		
ac 14848	n.s. < 11.0		
ac 13901	.	Too poor.	
ac 5636	.	Hot region	
ac 16429	.	" "	
ac 8467	.	" "	
ac 16461	.	" "	
ac 16145	.	" "	
ac 16701	.	Too dark	
ac 16238	.	Hot region	
ac 16586	..	" "	
ac 16248	.	" "	
ac 7427	.	Too faint; identification doubtful < 14.0	
ac 1292	12.3 ?	Faint	
ac 11673	12.3 ?	n, o, p, used	o defective, ?
ac 11465	9.21		
ac 11357	8.3	Comp. stars distant	
ac 9448	.	Hot region	
ac 13107	9.4 ?	Comp. stars distant	
ac 7432	n.s. < 13.8 ²¹		

Monday, November 22, 1915

γ Ursae Majoris

Plate No.	magn.	Yellow
ac 13893	.	Too poor
ac 14861	.	" "
ac 13956	.	" "
ac 13950	.	" "
ac 15053	♀ 1v v 3g'	
ac 15045	♀ 1v v 4g'	
ac 16270	.	Hot region
ac 16334	.	" "
ac 16098	.	" "
ac 16062	.	" "
ac 15963	8.5 ?	Does not compare well

3.55

Tuesday, November 23, 1915

2.40

7 Ursae Majoris

Plate No.	Magn.	
ac 16150	9.9	
ac 16367	* 11.1?	Poor, E.
ac 16398	m.s. < 11.8	
ac 16517	.	Too poor
ac 16233	10.9	
ac 15141	9.0?	Poor Comp. star & distant
ac 16453	m.s. < 9.7?	Object in pos. of v defect? E.
ac 16290	11.2?	Poor; faint
ac 16475	m.s. < 11.0	
ac 16580	.	Too poor
ac 16711	8.3?	Poor E.
ac 16108	.	Not to be used unless necessary
ac 16040	8.7?	E. Comp. stars distant;
ac 16127	.	E. Comp. stars too distant to compare at this portion of the plate.
ac 16216	10.9	
ac 16266	11.2	
ac 16372	.	Too poor E
ac 16426	.	" "
ac 16140	.	Off plate
ac 16462	m.s. < 10.6	
ac 16526	m.s. < 10.6	
ac 16154	.	Off plate
ac 16393	.	" "
ac 16866	.	" "
ac 16811	.	" "
ac 16678	.	" "

* Reject See p. 65 297m Dec. 7, 1915

Tuesday, November 23, 1915

Trans. Mag.

Plate No.	Magn.	
ac 16512	.	Off plate
ac 4510	.	" "
ac 13985	n.s. < 11.3	
ac 14973	9.61 $g^2 2 V$	$V = 9.69$
	$V 1 g^3$	
	9.73	(Reduced by proportion)
Plates at $15^h + 45^m$ - do not cover region		
ac 3133	ac 15074	ac 16036
ac 3166	ac 16041	
ac 6148	ac 15420	
ac 7749	ac 16005	
ac 14787	n.s. < 11.0	
ac 14756	n.s. < 11.0	
ac 14080	n.s. < 11.0	
ac 15188	9.1 ?	Poor
ac 15208	9.6 ?	Does not compare well. Compare g^2 data
ac 16087	.	Too poor
ac 14452	n.s. < 9.7	
ac 14696	n.s. < 12.4	
ac 14935	.	Too poor
ac 14942	.	" "
ac 13897	n.s. < 10.6	
ac 3296	9.5	Comp. stars distant
ac 4242	.	Off plate
ac 15143	.	Too near edge
ac 16728	8.9 ?	Comp. stars distant
ac 16828	.	Too poor
ac 16569	n.s. < 10.1	

Tuesday, November 23, 1915

7 hrs. mag.

Plate No. Magn

ac 16836

Too poor

ac 16571 m.s. < 9.7

ac 16422 m.s. < 11.8

ac 16225 10.8

ac 16458 m.s. < 9.7

ac 16303 11.6

ac 16224 10.8

ac 16562 m.s. < 9.8

ac 16587 m.s. < 10.6

ac 16639 ^{9.61}
g² 1V
V 2g³ 9.73Comp star g² distant

v = 9.65 (Reduced by proportion)

ac 16738 8.8

Comp. star d distant

ac 15293

Too near E.

ac 15334

" " "

ac 9233

Too poor.

3.57

Wednesday, November 24, 1915

2140

Yrsa Majoris

c

Plate No.	Magn.	
mc 3286	m.s. < 13.2	
mc 5451	8.9	P.C.'s used. Compared with d, f, and g
mc 3212	m.s. < 12.6	
mc 3241	m.s. < 12.6	
mc 3213	m.s. < 12.6	
mc 6966 ⁰	11.5	P.C.'s not used. Near lim. of vis. p.c. of <u>m</u> not seen
mc 8133	10.9	Diff. grating plate. Film rubbed directly over V. P.C.'s too faint to use
mc 8498	13.6	
mc 8666	14.1	
mc 3286	m.s. < 12.4	

Wednesday, November 24, 1915

Ursae Majoris

Plate No.	Magn.	Yellow	
mc 8465	n 3 v v 5 p.		o defective?
mc 8102	h 4 v v 2 p		
mc 5624	f 3 v v 5 g		
mc 6235	n.s. < 0		
mc 7010	h 5 v v 2 k		
mc 6511	n.s. < 0		
mc 6777	o 3 v v 0 p v 1 g	?	lim. of vis.
mc 3212	n.s. < m		
mc 3240	n.s. < m		
mc 8044	h 3 v v 5 k		
mc 5314	d 5 v v 2 f	P.C. is used	
mc 5026	g ³ 3 v v 1 p		

56

Wednesday, November 24, 1915

7 Ursae Majoris

✓

Plate No.
mc 5091

Magn.

f 7 v
v 1 g³
v 2 g

yellow

mc 3241

n.s. < m

Poor plate

mc 7547

f 3 v
v 1 cDifficult. Comp stars
distant P.C.s used

mc 5123

f 5 v
v 2 g
v 3 g³

P.C.s used.

mc 3213

n.s. < l

3. 41

Thursday, November 25, 1915

12.18

T Ursae Majoris

Plate No.	Magn.	
ac 16226	11.1	
ac 12963	9.2	
ac 7630	10.1 ?	Poor; lazy. E.
ac 7376	n.s. < 12.6	
ac 9439	.	Plate missing
ac 3154	.	Not to be used unless necessary
ac 9874	.	Too poor E. T' plate
ac 14931	.	C plate Too difficult
ac 14324	.	Too poor E. T' plate
ac 7078	.	Does not cover. Does not identify at position given
ac 11387	8.8 ?	Does not compare well T' plate (yellow)
ac 8395	.	Not to be used unless necessary
ac 10571	.	Broken and thrown away
ac 14325	.	Too poor

Thursday, November 25, 1915

7 Wane Majors

✓	Plate No.	Magn	<u>Yellow</u>	
	ac 14958	h 2 ✓ v 1 k		Does not compare well
Not marked yellow but plate appears to have been taken with yellow light.	ac 5929	f 1 v v 3 g'		
	ac 14873	m.s. ? 5 m		Too poor for estimate
	ac 13676	.		Too poor
	ac 13675	.		" "
	ac 15071	d 4 v v 1 f		
	ac 15857	.		Too near E
	ac 15964	.		" " "
	ac 16081	f 5 v v 3 g'		
	ac 16543	m.s. < 10 k		
	ac 16206	.		Too poor E
	ac 15071	d 5 v v 1 f		
	ac 13900	m.s. < 5 k		
	ac 14947	k 1 v v 2 l	?	Poor E. Lim. of vis.
	ac 15165	d 5 v v 1 f		E.
	ac 15073	d 6 v v 0 f v 5 g'		

Thursday, November 25, 1915

7 Ursae Majoris

Plate No.	Magn.	Yellow	
ac 14683	.	Too poor Σ .	
ac 13966	.	" " "	
ac 13952	n.s. < h		
ac 16357	n.s. < h		
ac 16898	.	Too poor Σ .	
ac 16205	h 2 v v 1 h	Poor	Imm. of 1/5 sec

1.18

Friday, November 26, 1915

7 Ursa Majoris

✓ 1158

Plate No.

Magn

C 9709

10.9

C 9663

9.6

f and g³ used g' + g² off plate

C 3306

10.9?

C 9770

n.s. < 10.6

C 9721

11.6

C 9662

10.1

C 9722

11.4?

Does not compare well

C 9779

12.2

C 9780

12.0?

Poor

C 9771

11.6?

"

C 3321

9.5?

Difficult f + g³ used g' + g² off plate

C

C 9252

n.s. < 13.2

C 9710

10.5

Trailed badly

C 3646

11.5

C 9251

n.s. < 13.8

12.31

Saturday
~~Friday~~ November 26, 1915

10.40

7 Ursae Majoris

Plate No.	Magn.		C
m $\oplus$ 5624	9.8	Image of ν fac.	
m $\oplus$ 6511	n.s. < 11.8		
δ 16251	9.4	f and g^3 used. g^1 and g^2 are distant, and do not compare well with ν , as it is near ϵ .	
a 463	^{12.80} 9.1 ν	$\nu = 12.84$ 04 05	
	ν 12 12.89		(Reduced by proportion)
a 497	n.s. < 12.8		
a 498	n.s. < 11.3		
a 1406	9.0 ?	Difficult, bright, ϵ . e and f used, other bright comp. stars too far away to compare well in size or shape.	
a 1489	9.6 ?	Does not compare well. ϵ . f and g^3 used.	
a 1305	12.7	Lim. of vis.	
a 1560	n.s. ? < 11.8	ϵ .	

11.20

11.25 Qc 16138 9.61 g^2 1 ν $\sim$ $\nu = 9.67$
 ν 1 g^3 9.73

Qc 16520	.	Off plate
Qc 16679	.	" "
Qc 16686	.	" "
Qc 16682	.	" "
Qc 16313	11.6 ?	Lim. of vis. ϵ .
Qc 16374	12.2	
Qc 16391	12.2 ?	o not seen

Saturday, November 27, 1915

Truce Majoris

v

Plate No. Magn.

ac 16463 n.s. < 10.8

ac 16467 n.s. < 11.8

ac 16593 n.s. < 10.6

ac 16656

Off plate

ac 16934 9.5?

Difficult

ac 1493 n.s. < 11.3

ac 2088 n.s. < 12.4

ac 9459 n.s. < 10.6

ac 9537 n.s. < 10.6

11.48

11.54

ac 8439

Missing

D 25551 12.7?

Difficult. Line of vis.

D 34706 9.9?

Does not compare well

ac 1524 n.s. < 11.0

ac 13788

Too poor

~~9.5~~yellowac 15879 ~~9.3~~ f 1 v
v 4 g' ~~9.36~~

ac 13894

Too poor.

ac 13799

"

ac 16344

Off plate

ac 16324 154 v

v 1 e

ac 16897

Off plate

ac 15063 f 2 v

v 3 g'

ac 16207 24 v

2 3

Saturday, November 27, 1915

7 Ursae Majoris

Plate No	Magn.	Yellow	c
ac 13674	.	Too poor	
ac 16100	n.s. < g^3		
ac 16632	.	Too poor	
ac 16006	n.s. < g^3	Σ .	
ac 16182	φ 3v v 2k ?		15 at lim. of vis.
ac 16093	φ 5v v 4g'		
ac 15887	φ 2v v 5g'		
ac 16055	d 5v v 2f f		
ac 9443	.	Too poor + difficult Σ . Plate exp. on I T' plate	

12.27

64

Thursday, December 2, 1915

γ Ursae Majoris

AC 15963 C 2 v
v 1 d

Tuesday December 7, 1915

2.25

Tusae Majoris

Plate No.	Magn.	
mD 3240	n.s. < 12.6	
mD 8465	n.s. < 12.0	
mD 8044	10.4	
mc 3264	n.s. < 12.9	
ac 16367	* 12.5?	Very faint E.
mD 8102	10.5	
mD 3264	n.s. < 11.3	

2.37⁸

* A defect near position of variable may have been measured originally (see J. 51) Reject first measure (11.1') certainly wrong. B. F. M. Dec. 7, 1915

Thursday, ~~December~~ January 6, 1916

Ursae Majoris Remeasures.

Plate No.	Magn.	
ac 8346	10.0 ?	ef.
ac 8314	* 9.7 ?	ef.
ac 8330	.	Too poor, z, f, Focus of v poorer than that of comp. stars? v Denser at one edge.

* Reject. Images differ in shape from those
of comparison stars. Probably defect. lim.
of vis.

Saturday, January 8, 1916

4.03

7 *Ursae majoris*

Plate no.	magn.	
ac 17112	m.s.? < 11.0	
ac 17133	m.s.? < 10.6	
ac 17029	10.6	Σ .
ac 17138	12.1?	Very doubtful. Lim. of vis. + im. of v floor.
ac 17132		off Σ .
ac 17041	10.7	Comp.
ac 17134	-	Too poor Σ .
mc 10143	12.4	Plate taken with diff. gating.

4.15?

4.25

ac 16981	9.7?	comp.
ac 16995	9.9?	Σ .

4.29

Monday, November 29, 1915

12.15

P S Ursae Majoris

Plate No.	Magn.		c
13437	m.s. < 13.5		
17029	12.6	Very faint	
18086	m.s. < 14.2		
16544	10.25 d 1 V	V = 10.30	
	V 1 e 10.34		
15277	m.s. < 13.5?	Difficult 2 exps. + trailed, also	
		15278 superposed.	
13438	.	Off plate	
20169	.	" "	
20412	.	" "	

ac 16389 . Off plate

ac 13901 m.s. < 10.9

ac 8467 . Off plate

ac 11673 ^{12.29} ~~12.3~~ 1 V ? V = 12.31

V 2 15 12.34

ac 11465 10.7

ac 9448 . Not region

ac 7432 13.3? m. used, m. defective? o.m.s.

ac 13107 10.4 Does not compare well

1.15

1.50 ac 7427 13.5? Does not compare well

ac 8330 m.s. < 11.0

ac 3537 11.9? E. Very doubtful, lim. of vis.

ac 1241 . Off plate

ac 8371 m.s. < 12.3 Def. in pos. of V?

ac 11667 11.9? Lim. of vis. Two exps.

Monday, November 29, 1915

R S Ursae Majoris

c

Plate No.	Magn.	
ac 13174	10.4	Does not compare well; shapen
ac 14880	n.s. < 13.0	
ac 14103	n.s. < 10.9	
ac 3737	n.s. < 12.3	
ac 6170	.	Too poor
ac 7066	11.8?	Does not compare
ac 1498	.	Not region
ac 846	.	"
ac 7475	n.s. < 12.8	
ac 2694	$10.25 d 1 v$	$V = 10.30$
	$V 1 e 10.34$	
ac 1555	n.s. < 12.3	
ac 11464	10.4?	E. line of vis.
ac 11524	$10.92 \frac{1}{2} v$	
	$V 1 g 10.99$	
ac 12337	.	Too difficult; dim. of v a blur. Comp. stars out of order because of faintness
ac 4447	11.1?	
ac 3093	$10.25 d 2 v$	$V = 10.31$
	$V 1 e 10.34$	
ac 5269	n.s. < 12.3	
ac 1159	$10.25 d 2 v$	Does not compare well; dim. V short
	$V 1 e 10.34$	$V = 10.31$
ac 12143	.	Too poor.
ac 2524	n.s. < 10.5	E
ac 3581	n.s. < 10.9	
ac 8346	n.s. < 10.9	
ac 9353	.	Too dark

* Assumed to be 5669,
as 5069 is not region,
and 5669 was taken out
to be measured

Monday, November 29, 1911

R S Ursae Majoris

Plate No.	Magn.		
ac 1557	n.s. < 11.5		
ac 1457	n.s. < 12.3?	Two expo.	
ac 1450	n.s. < 12.1		
ac 7462	n.s. < 11.0		
ac 1387	11.9		
ac 2475	n.s. < 12.3		
ac 800	n.s. < 11.5		
ac 2416	n.s. < 12.3		
ac 1372	n.s. < 11.0		
ac 850	10.0	Does not compare well - hazier than c. stars	
ac 1196	9.5		
ac 1211	.	Too poor	
ac 1444	n.s. < 12.1		
ac 859	9.7		
ac 16728	.	Too poor	
ac 16041	.	hot region	
ac 15143	.	Too near ϵ .	
ac 16639	n.s. < 10.3		
ac 16587	n.s. < 10.5		
ac 16562	.	Too near ϵ	
ac 16224	11.3 ?	Extreme ϵ ,	
ac 16303	11.0	ϵ ,	
ac 16738	.	Too poor	
ac 15293	.	Too near ϵ .	
ac 15334	.	" " "	

2.5/

3.11

72

Monday, November 29, 1915

P S Wrosee Majoris

Plate No.	Magn.	
ac 9233	.	Too poor
ac 15420	.	Too near Σ .
ac 16005	.	Too near Σ .
ac 16036	.	" : " "
ac 16458	n.s. < 10.5	Σ .
ac 16225	11.7 ?	Σ .
ac 16422	11.3	Σ .
ac 16511	n.s. < 10.3	
ac 16836	.	Too poor
ac 16569	n.s. < 10.3	
ac 16828	.	Too poor
ac 16678	.	Off edge
ac 16572	.	" "
ac 4510	.	" "
ac 3133	.	" "
ac 13897	n.s. < 10.2	
ac 4242	.	off edge
ac 3166	.	" "
ac 7749	.	" "
ac 6148	.	" "

3.30

Tuesday, November 30, 1915

2.45-

R S Linsae Majoris

Plate No.	Magn.	
ac 2431	n.s. < 11.0	
ac 2508	n.s. < 12.8	
ac 3187	n.s. < 12.8	
ac 6402	11.2	
ac 261	n.s. < 11.5	
ac 1419	n.s. < 12.1	
ac 1163	9.6 ?	Σ
ac 16296	.	off plate
ac 3334	.	" "
ac 3424	.	" "
ac 2537	.	hot region
ac 9447	.	off plate
ac 12153-	.	" "
ac 12833	n.s. < 11.5	
ac 13934	12.2	
ac 9489	.	Too far Σ
ac 11353	.	" " Trails of
ac 16139	.	hot region
ac 16995-	11.7 ?	h^2 off edge
ac 16367	$10.92 \pm 1V$	$v = 10.94$
	$v \pm 2g \ 10.99$	
ac 8563	.	off edge
ac 16981	n.s. < 11.0	Σ .
ac 16313	10.8 ?	g, f and g used a too near Σ .
ac 16686	.	off edge
ac 16862	.	" "
ac 16374	10.9	Does not compare well in slope
ac 16679	.	off edge

74

Tuesday, November 30, 1915

R S Ursae Majoris

Plate No.	Magn.	
ac 16520	.	Does not cover
ac 16391	10.8	
ac 16463	n.s. < 10.9	
ac 16467	n.s. < 11.5	Σ :
ac 16656	.	Off edge
ac 16934	n.s. < 10.9	
ac 9409	.	Too poor Σ
ac 16593	n.s. < 10.5	
ac 16226	11.2	
ac 14325	.	Does not cover
ac 11387	11.8?	h^2 not seen & Lim. of vis. T' plate.
ac 16398	10.4	
ac 16077	n.s. < 9.9	
ac 16233	11.3	
ac 16453	n.s. < 10.5	
ac 16290	10.7	
ac 16475	n.s. < 11.0	
ac 16580	.	Too poor Σ ,
ac 16711	.	" " Σ ,
ac 16216	11.3	
ac 16266	10.92 $\pm 2V$	$V = 10.97$
	$V 19$ 10.99	
ac 16372	10.34 $\pm 1V$	Lim. of c dec.
	$V 1C$ 10.52	$V = 10.43$
ac 16426	.	Too poor
ac 16462	n.s. < 10.9	
ac 16526	n.s. < 10.9	

Tuesday, November 30, 1915

P. S. Wrasse Majoris

Plate no.	Mag.		
ac 16866	.	off plate	
ac 16811	.	" "	

ac 15857	.	yellow	
"	.	Too near Σ	

ac 15964	.	" "	Σ
----------	---	-----	----------

ac 16081	n.s. < ~~h~~		
----------	---------------------	--	--

ac 16357	c 1 v ?	Σ	
	v 1 d		

ac 16543	n.s. < d		
----------	----------	--	--

ac 16898	.	Too poor	
----------	---	----------	--

ac 16005	n.s. < e		
----------	----------	--	--

ac 15887	n.s. < f		
----------	----------	--	--

ac 16506	.	Too poor	
----------	---	----------	--

ac 16632	.	" "	
----------	---	-----	--

ac 16897	.	" "	
----------	---	-----	--

ac 16324	e 5 v	f covered by def.	
----------	-------	-------------------	--

	d 4 v		
--	-------	--	--

	v 2 g		
--	-------	--	--

ac 16344	.	off edge	
----------	---	----------	--

4:10

76

Wednesday, December 1, 1915

3.35

P S Eves. Maj.

yellow

✓

Plate No. Magn.
mc 8044 g 1 ✓
v 5 b

mc 8465 e 4 ✓
v 0 d
v 4 f
mc 8102 d 6 ✓
v 1 f

ac 15079 n.s. < h
ac 15053 n.s. < f

ac 15074 . off edge
ac 1175 . Too faint

3.44

3.53

ac 16181 . off plate

Wednesday, December 1, 1915

P S Wrs. Maj.

Plate No.	Magn.		
ac 10375	n.s. < 11.5		
ac 13765	.	"C" plate too difficult.	
ac 2442	.	Plate missing - "not sent from Lab.?"	
ac 13728	$10.92 \pm 1V$	$V = 10.96$	
	$V 1.9 \quad 10.99$		
ac 17018	.	Off plate	
ac 17029	11.3?	Poor E.	
~~ac~~ mD 8465	$10.92 \pm 2V$	$V = 10.94$	
	$V 1.9 \quad 10.99$		
~~ac~~ mD 8044	11.6	Does not compare well	
mD 8102	11.4		
ac 17041	11.3		
ac 2515	n.s. < 12.1		
ac 3154	n.s. < 12.3		
mc 8666	13.9		
mc 8498	11.4		
mc 8133	11.2	PC's used and star images also. P.C. of h n.s.	
J 3446	n.s. < 9.9		
J +735345	n.s. < 12.8		
J 34529	.	Missing	
4.20	.		
a 498	.	off plate	

Monday, January 10, 1916

12.20?

P S Ursae Majoris

Plate No.	Magn.	
ac 17133	11.2?	f Comp. stars out of regular order
ac 17112	10.8?	Comp. stars out of regular order, e and f used
ac 17138	10.7?	Comp.
ac 17132	.	off e.
ac 17134	10.6?	e and fused
mc 10143	10.6?	" " " " P.E's + diff. images, compared.

12.31

Thursday, December 2, 1915

12.3.23

S Zosae Majoris

Plate No.	Magn.		
ac 6148	.	off plate	
ac 13897	n.s. < 9.9		
ac 7749	.	off plate	
ac 4242	.	" "	
ac 4516	.	" "	
ac 13901	n.s. < 9.9		
ac 11673	10.8		
ac 11465	n.s. < 12.4	many defects in this region	
ac 9448	.	not region	
ac 1241	.	"	
ac 13174	9.4		
ac 14103	n.s. < 9.9	Σ	
ac 11464	.	Too poor Σ ,	
ac 11524	n.s. ? < 9.9	Σ ,	
ac 12337	10.0		
ac 8346	.	Too poor v seen? or is object in its position a defect?	
ac 8295	n.s. < 11.4		
ac 1292	n.s. ? < 12.4	Too poor v seen? Probably object in its pos. is defect, as it does not compare, & there are other defects on plate similar	
ac 3272	10.4	Trailed.	
ac 3238	10.3		
ac 3054	n.s. < 12.4		
ac 3174	10.4 ?	Very doubtful. Σ & n.s	
ac 3025	n.s. < 12.4		

Thursday, December 2, 1915

2.27

S Musae Majoris

v

Plate No.	Magn.	
ac 13934	n.s. < 11.4	
ac 16995	11.8?	o n.s. Σ
ac 16139	.	not region
ac 16367	.	in fogging Σ
ac 16934	n.s. < 9.9	
ac 16656	.	off Σ
ac 16467	10.9?	Σ
ac 16679	.	off Σ
ac 16374	.	Too poor and faint
ac 16862	.	off plate
ac 16686	.	" "
ac 16520	.	" "
ac 16391	11.5?	Does not compare well. v large + lazy
ac 16463	10.4?	l not seen
ac 16303	n.s. < 12.4	
ac 16224	n.s. < 12.4	Σ
ac 16313	n.s. < 12.4	Σ
ac 16562	10.0?	Σ
ac 16087	9.8	Does not compare well
ac 16639	n.s. < 9.9	
ac 16981	n.s. < 11.4	
ac 9459	n.s. < 9.6	Σ
ac 16225	n.s. < 12.4	
ac 16458	.	Too faint + poor. Σ
ac 16036	.	Too near Σ
ac 16226	n.s. < 13.3	
ac 16593	10.1?	Σ

Thursday, December 2, 1915

S Ursae Majoris

Plate No.	Magn		
ac 16005	.	Too near Σ	
ac 16828	.	Too far Σ	
ac 16569	9.8		
ac 16836	.	Too far Σ	
ac 16511	10.1 ?	Poor	lim. of vis.
ac 16422	11.3		
ac 16678	.	off Σ	
ac 16512	.	off Σ	
ac 16398	n.s. ? < 11.4	Defect in	pos. of v. ?
ac 1163	.	Too near Σ	
ac 16296	.	off Σ	
ac 9447	n.s. ? < 11.0	Σ	
ac 9489	.	Too far Σ	
ac 16811	.	off Σ	
ac 16866	.	" "	
ac 16526	9.8 ?	Σ	
ac 16462	10.1 ?	Σ	
ac 16426	n.s. < 9.6		

3.17

Friday, December 3, 1915

2.15

S Ursae Majoris

U

Plate no.	Magn.	
ac 3187	10.6	Does not compare well
ac 6402	n.s. < 11.0	
ac 2456	n.s. < 11.0	Σ
ac 3047	n.s. < 11.4	:
ac 3165	n.s. < 9.3	Σ.
ac 3259	10.4	Σ
ac 4192	10.4?	Σ.
ac 4648	n.s. < 11.4	Σ
ac 8351	.	Σ. Too poor
ac 4233	n.s. < 10.2	Σ.
ac 4531	n.s. < 11.0	Σ.
ac 4743	.	Σ. Under plate no.
ac 4586	n.s. < 9.6	Σ
ac 4673	n.s. < 11.4	Σ.
ac 5217	n.s. < 10.2	Σ
ac 8422	n.s. < 10.6	Σ.
ac 6256	n.s. < 9.6	Σ
ac 4175	.	Σ. Under plate no.
ac 3295	10.4	
ac 16216	n.s. < 12.4	
ac 16711	n.s. < 9.6	Σ.
ac 16580	n.s. < 9.6	Σ.
ac 16475	n.s. < 11.0	Σ.
ac 6297	n.s. < 10.2	Σ
ac 16290	n.s. < 12.4	Σ
ac 6347	.	Too poor, trailed
ac 6374	n.s. < 10.2	
ac 7210	n.s. < 11.4	

Friday, December 3, 1915

S Ursae Majoris

Plate No.	Magn.		
ac 6401	.	Too poor Σ .	
ac 6435	.	Too poor	
ac 5659	n.s. < 11.4		
ac 6912	.	Plate too dark	
ac 7139	.	Too poor.	
ac 5702	11.5 ?	Line of vis Σ	
ac 5619	n.s. < 11.0		
ac 5596	n.s. < 10.2		
ac 5508	n.s. < 11.4		
ac 5459	n.s. < 10.6		
ac 5729	11.2 ?	Line of vis. Σ	
ac 2088	9.8	Σ .	
ac 16372	.	Σ in fogging	
ac 17018	.	off edge	
ac 7602	n.s. < 10.2	Σ	
ac 16266	n.s. < 11.6		
3.00			
3.07			
ac 17029	10.8 ?	Does not compare well	
ac 7640	.	Too poor Σ .	
ac 7622	.	In fogging, Σ .	
ac 8054	9.5 ?	Σ .	
ac 8240	n.s. < 11.0	Σ	
ac 17041	10.9		
ac 7659	n.s. < 10.2		
ac 8163	n.s. < 10.6		
ac 9574	.	Too poor Σ .	
ac 9575	.	" " T' plate	
ac 9952	.	" " Σ	

Friday, December 3, 1915

S Zwae Majoris

✓

Plate No.	Magn.	
ac 3097	12.9	Does not compare well. - Image sharper than c.s. Faint. Too poor Σ
ac 16453	.	
ac 16233	n.s. < 11.6	
ac 16517	.	Too poor
ac 16728	.	" " Σ
ac 15420	.	" " Σ
ac 15334	.	" " Σ
ac 15293	.	" " Σ
ac 16041	.	not region
ac 16738	.	Too poor

3.33

Saturday, December 4, 1915

3.07

S. Cassae Majoris

Plate No.	Magn.		c
ac 1123	n.s. < 13.3		
ac 3893	.	Too poor: Σ ,	
ac 9087	.	" " Σ ,	
ac 10128	.	" " Σ , v under plate no.	
ac 9152	.	" " Σ , v " " "	
ac 10189	n.s. < 11.0	Σ ,	
ac 10217	n.s. < 11.0	Σ ,	
ac 10226	.	Too poor Σ ,	
ac 15188	n.s. < 10.2		
ac 16028	n.s. < 11.4		
ac 16389	.	off edge	
ac 14943	10.4	Σ ,	
ac 15141	10.4	Does not compare well	
ac 14942	.	Too poor	
ac 14935	9.8		
ac 3296	10.3		
ac 16150	n.s. < 12.4		
ac 11583	.	Too poor Σ ,	
ac 11651	.	" " Σ ,	
ac 11506	n.s. < 10.2		
ac 11573	.	Too poor Σ ,	
ac 11297	n.s. < 10.2		
ac 11489	.	v under plate no. Σ ,	
ac 11008	.	Too poor Σ ,	
ac 11148	.	" " Σ ,	
ac 10590	.	" " Σ ,	
ac 13596	.	" " Σ ,	
ac 10578	.	" " Σ ,	
ac 13508	10.4	Does not compare well	

Saturday, December 4, 1915

S Ursae Majoris

Plate No.	Magn.	
ac 12729	10.0 ?	Poor plate - trailed
ac 12847	n.s. ? < 11.6	" " "

3.30

Monday, December 6, 1915

2130

S Zosae Majoris

Plate No.	Magn.		c
ac 14900	9.8	Does not compare well	
ac 15160	10.9	"	
ac 12874	n.s. < 11.4		
ac 15147	10.5?	Does not compare well. v hazy	
ac 15124	10.1 ?	" " " " v larger hazy	
ac 12883	n.s. < 12.4		
ac 15094	10.0 ?	Does not compare well, Imm. dec.	
ac 12894	n.s. < 12.4		
ac 15811	9.9	Does not compare well, Imm. of v sharp	
ac 14857 ¹	n.s. < 10.2		
ac 15153	10.8		
ac 12925	n.s. < 12.4		
ac 15125	10.3	Imm. dec. Does not appear defective, and yet is denser at one side than the other. Center of plate.	
ac 15991	n.s. < 12.4	Too faint to meas., if seen	
ac 12933	n.s. < 11.6		
ac 14847	10.5?	Hazy. Lim. of vis.	
ac 15981	12.5?	Lim. of vis. p' not seen	
ac 15012	9.7	See note for 15125	
ac 12962	n.s. < 12.4		
ac 14972	9.7		
ac 12980	n.s. < 11.4		
ac 16040	n.s. < 11.6		
ac 16127	.	Cor. v under plate no.	
ac 14914	.	"c" plate Too difficult	
ac 15735	9.8	Does not compare well	

Monday, December 6, 1915

S Ursae Majoris

Plate No.	Magn.	
ac 14771	n.s. < 9.9	
ac 15769	10.1	* Does not comp. well
ac 14710	n.s. < 10.6	
ac 15292	n.s. < 10.6	
ac 12853	n.s. < 12.4	
ac 15193	n.s. < 9.3	
ac 14941	10.1?	Faint dm. sec.
ac 12861	n.s. < 12.4	
ac 15013	9.7	~~ac~~ * Comp.
ac 14934	10.8	Comp.
ac 16148	[*] 13.32 g, v	$v = 13.38$ 06 05
	$v 12$ 13.43	
ac 12865	n.s. < 12.4	
ac 15879	10.7?	Comp. v large + hazy
ac 14526	n.s. < 10.2	
ac 12347	9.8	Comp. v large + hazy
ac 12369	n.s. < 10.6	
ac 12395	n.s. < 10.6	
ac 12257	11.5	E.
ac 12283	11.1?	Lim. of vis.
ac 12073	n.s. < 10.6	Cor.
ac 12223	.	E. under plate no.
ac 12247	n.s. < 11.4	
ac 14078	n.s. < 10.6	
ac 14039	n.s. < 9.86	
ac 14001	n.s. < 9.9	
ac 13985	n.s. < 11.0	
ac 13976	n.s. < 10.6	

3.36

* See note on the back

* Reject See page 102

Tuesday, December 7, 1915

3.40

S Ursae Majoris

Plate no.	Magn.	yellow	c
ac 15071	d 7v e 5v v 3f		
ac 16205	m.s.? < h	Defect in pos. of v?	
ac 16100	.	Too poor. Σ .	
ac 14861	-	" "	
ac 16182	m.s. < ~~g~~ ^{g²}		
ac 16093	m.s.? < h		
ac 15045	d 9v e 6v v 4f		
ac 13894	.	Too poor. Σ .	
ac 15073	d 5v v 6f	Σ comp. star "e" too far away to compare?	
ac 16207	m.s. < h		
ac 15063	d 7v v 3f	Σ See note for 15073	
ac 15165	g ³ 3v v 1h		
ac 15087	d 7v e 4v v 4f		
ac 16324	k 5v v 1m	Line of vis.	
ac 16897	.	off Σ .	
ac 16632	.	Too poor	
ac 16506	.	" "	Σ

Tuesday, December 7, 1915

Syrus majoris

✓

Plate No.	Magn.	
MC 8133	13.6	
MC 8666	9.7	P.C.'s used
MC 6211	10.4 ?	Very doubtful. Bright, but P.C.'s too faint to give measure
MC 5451	10.5 ?	P.C.'s used

4.13

Wednesday, December 8, 1915

3.00

S Ursae Majoris

Plate No.	Magn.		
J 34768	9.7	Difficult	T' plate
J 34532	13.0		T' plate
J 34718	9.5	Difficult	T' plate
J 34529	.	Missing.	
J 34706	9.8?	E.	Comp. stars distant
J 34711	9.7		
m 8465	10.7		
m 8044	13.0?	Extreme	lim. of vis. g.m.s.
m 8102	m.s. < 12.8		
mc 3085	12.6	Does not	compare well
mc 8498	10.5	Diff.	images used.
mc 7570	12.1	Diff.	images too faint & poor to use.
mc 6745	10.3	P.C.	is used
mc 7853	14.4		
mc 6960	10.0	Does not	compare well
		P.C.	is used
ac 14931	.	"C" plate;	too difficult
ac 15208	11.6?	lim. of vis.	o m.s.
ac 14786	11.8	Faint	Im. sec

Wednesday, December 8, 1915

S. W. Majoris

v

Plate No.	Magn	Yellow
ac 14958	d 7v e 5v v 4f	
ac 13952	n.s. < g ²	
ac 13912	n.s. < g ¹	
ac 13966	.	Too low
ac 15963	h 3v v 2e	Does not comp. well. v hazy
ac 16206	.	Too near E.
ac 16344	.	" " E
ac 15964	.	" " E
ac 15857	.	" " E
ac 15053	d 7v e 4v v 5f	

3.55

Thursday, December 9, 1915

3.13

S Ursae Majoris

Plate No.	Magn.		
ac 3114	12.1	Comp.	
ac 13191	n.s. < 10.2		
ac 6178	12.2		
ac 12995	n.s. < 10.6		
ac 13026	10.8	Does not comp. with L	
ac 16015	12.6?	dim. of vis. comp. dim. of 0.000	
ac 31320	11.8	Faint	
ac 14918	10.4	"C" plate E.	
ac 11729	.	Too difficult T' plate E.	
ac 10571	.	Broken and thrown away.	
ac 11387	n.s. < 10.6	T'	
ac 14325	.	Too poor	
ac 968	n.s. < 10.2		
ac 2515	n.s. < 11.6		
ac 31354	11.4		
ac ~~31354~~ 9443	.	Not region	
ac 3029	n.s. < 12.4		
ac 14914	.	"C" plate Too difficult	
ac 16108	n.s. < 10.6		

(See p. 100 for cont.)

Friday, December 10, 1915

3.10

S Ursae Majoris

e

Plate No.	Magn.	
a 6410	.	Does not cover
a 6362	.	" " "
a 6361	.	" " "
ad 6360	.	hot region
a 6359	.	" "
		yellow
mc 3241	m 2 ✓ v 1 N	? Poor, very faint.
mc 5091	d 8 ✓ e 1 ✓ f' 1 ✓	P.C.'s used.
mc 5026	v 7 ♀ d 8 ✓ e 4 ✓ f' 1 ✓ v 3 ♀	
mc 6511	d 9 ✓ e 5 ✓ v 0 ♀ v 5 ♀	
mc 5123	d 4 ✓ e 3 ✓ v 1 ♀ v 7 ♀	
mc 6235	d 9 ✓ e 5 ✓ v 1 ♀ v 4 ♀	

Friday December 10, 1915

S Ursae Majoris

Plate No Magn.

mc 8102 m 5⁻ ✓
✓ 30

mc 8465 f 1 ✓
✓ 39

mc 3213 m 2³ ✓
✓ 2³ N ?

ac 8395 f 3 ✓ ? Lim.
✓ 29

4.119

Thursday
~~Tuesday~~ December 9, 1915

S Ursae Majoris

Plate No.	Magn.	Yellow	
ac 14947	d 8 v e 5 v v 4 f		ε
ac 15079	d 8 v e 4 v v 4 f		
ac 16055	m.s. < 2		
ac 16898	.	Too near ε.	
ac 16543	d 9 v e 3 v v 4 f		
ac 16307	.	Too near ε.	
ac 16081	m.s. < m		
mc 7547	K 1 v v 3 c		
mc 7010	d 6 v e 2 v v 4 f	P.C. 5 used. P.C. of f scarcely seen.	
mc 5314	d 8 v e 4 v v 6 f	P.C. 3 used.	
mc 6777	d 8 v e 5 v v 5 f		

Wednesday, December 15, 1915

S Ursae Majoris

Plate No.	Magn.		
mc 8044	n 4 ✓	<u>yellow</u>	c
	r 20		

102

Monday, January 3, 1916

S Ursa Majoris - Remeasure

ac 16148 n.s. < 13.4

Object near position
of V (defect?) probably
measured previously for
V.

Wednesday, January 5, 1916⁶

12.38

S Ursae Majoris

Plate No.

Magn.

mD 6235

10.3

mD 6511

9.8?

Does not compare well. Image of ν large and hazy.

12.50

mC 6211

10.5

(Remeasure)

1.00

mC 10143

10.3

P.C's used.

1.03

Thursday
~~Wednesday~~ January 6, 1916

S Ursae Majoris

AC 11511

12.8?

Very faint. It is doubtful whether var. is seen, as it is at the extreme limit of vis., but the image in the plate compares well with 'f'. Corner of plate.

MD 8044

13.1?

Extreme limit of vis.; very doubtful. γ compared with q ; δ is very hazy and indistinct.

Tuesday, January 11, 1916

12.05-

S Ursae Majoris

Plate No. Magn.
ac 15292 m.s. < 10.6

mc 5624 K4 V
V02
V3m

yellow

mc 5771 13.32 g 1 V
V22 13.43

m[⊕] 5624 12.3

12.15-

Monday, January 24, 1916

S Ursae Majoris

Plate No.	Magn.	
m _D 3241	m.s. ? < 12.4	
m _D 3264	* 12.3?	Doubtful; lim. of vis.
m _D 3213	m.s. < 12.4	

* Repeat. Var. not seen < 11.4 Object measured shows by superposition to be defect.

Monday, December 27, 1915

R Lyncis.

C 8027

Too poor to measure

3.30

Comparison stars t and s

	~~K~~ 324568	MC 5143	50720	5108	2827	2975
$q' - r'$						3
$r' - r''$	3	4	4	5	3	4
$r'' - s$	4	5	3	3	4	7
$s - t$	<u>1</u>	<u>1</u>	1	<u>1</u>	<u>1</u>	7
$t - u'$	7	4	2	2	7	
$u' - w$						

8 17009

$r' - r''$	3	4
$r'' - s$	4	2
$s - t$	<u>2</u>	<u>2</u>
$t - u'$	2	3

4.01

1915phae.proj.1048W