KG
11365
614

1916phae.proj..615C

15-inch

Celestial Equatorial

Jan 19, 1916 – July 17, 1916

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KG-11865.614

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KG 11365.64

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Wed Jan. 19, 1916

L Gobs. T 6.0 Rec

U Cephei Phot T.

~~P.C~~ P.A. & 193.0

Error of Watch = 27ˢ slow Spr = 3.9

U. Cephei Compared with (8.4)

P.C. 200

~~4.9~~

~~52~~

~~06 58 52~~ + ~~81.2~~

06 59 15 314.0 < Varies

8.8 54.8

~~139.2~~ 41.2

~~+ 28.8~~ 96.0 — 1.76

180.4

322.2 — 1.81

0.8 58.6

133.8 53.4

187.2 92.0 — 1.86

P.A. 204 Mean = — 1.56

221.3 .41

280.4 59.1 6.85

43.6 53.6

97.2 112.7 — 1.36

224.8 — 1.30

276.4 51.6

37.8 66.0

07 06 21 103.8 117.6 — 1.25

125 36

7 2

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Jan. 19, 1916

(8.5) with (8.4)

P. a. = 10

7 43 54	195.6	< 8.4 dis	
	302.4	106.8	
	33.1	76.7	
	109.8	183.5	
		176.5	+ 0.06
	207.4		
	291.8	84.4	
	23.7	99.5	+ 0.06
	123.2	183.9	
		176.1	+ 007

P. a. 190 Means −.09

114.6		
206.0	91.4	
302.7	74.9	
17.6	166.3	− 0.26

	127.2		
	195.4	68.2	− 0.24
	289.2	99.6	
7 48 55	28.8	167.8	− 0.23

Images reversed ~~for~~ in middle of each set of 4.

P. a. 192.0

Spr 2.1

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Jan. 19, 1916

M with (8.4)

Van to Right thmout whole
~~set~~ groups.

R.a. 200

7 54 58

130.4 < Vanalis
187.9 57.5
310.8 571
7.9 114.6 — 1.31

130.0 — 1.32
187.5 57.5
313.3 563
9.6 113.8 — 1.33

R.A. = 20 Mean = −1.18
36.8
102.3 65.5
220.6 58.7
279.3 124.2 — 1.10

35.5 — 1.05
103.4 67.9
218.2 611
7 59 50 279.3 129.0 — 1.00

14 48
7 57

R.a. 13.0
Spr. 3.8

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Jan. 19, 1916

O Cote 02h40m3

Phot R.

Heretofore I have placed Var on left of comp & thus measured.

In this group I will reverse in order to turn each 2 & 3 readings.

	Order		
		Left	
8 26 18	242.8	< Various	
	248.9	6.1	
	62.2	7.7	
	69.9	13.8	— 6.10
	241.8		— 5.94
	249.7	7.9	
	61.4	8.0	
	69.4	15.9	— 5.79
			Mean = 5.78
		Reverse Right	9 19
	151.6		3.41
	159.8	8.2	
	331.4	9.3	
	3407	17.5	— 5.58
	151.2		— 5.63
	160.6	9.4	
	332.4	9.3	
8 33 17	339.7	16.7	— 5.60

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1916phae.proj..615C

Jan. 19, 1916

Same again.

Not reversing images, but taking them as on former occasions.
Var to ~~left~~.

Index Right.

$08^h\ 37\ 30$	150.6	Var dis	
	159.8	9.2	
	332.8	7.0	
	339.8	16.2	— 5.76
	152.2		— 5.88
	159.3	7.1	
	332.2	7.3	
	~~338.9~~	14.4	— 6.01
	339.5		

Index Left Mean = −5.90

	62.2		9.19
	68.9	6.7	Magn — 3.29
	242.2	7.6	
	249.8	14.3	— 6.02
	61.7		−5.92
	68.9	7.2	
	241.5	8.4	
$8\ 43\ 36$	249.9	15.6	— 5.83
f 40.6			

Pleiades

~~(660) etc.~~

~~(112) — (2031) sets.~~

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1916phae.proj..615C

8

20887

Mon. Jan. 24. 1916

L.C.Obs. T.O.O.Rec.

15" Equat.

W Drac 180536 est 9.4
X Drac 180666 est 10.2
2706
90

S V Drac 183149 est 12.7
2713
+42 +49.2

R.U. Lyrae 190941 est 12.7

U Drac 190967 est 9.9

T Z Cyg. 191350 est 10.1

R Cygni 193449 est 12.9

R T Cygni 194348 est 12.3

T U Cygni 194348 est 11.9

Z Cygni 195849 est 9.1

S Cygni 200357 est 11.1

S X Cygni 201130 est ~~too~~ Low

S T Cygni 202954 est 12.8

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1916phae.proj..615C

Jan, 24, 1916.

R Z Cygni 20 48 46 est Var 11.8
susp. South
of F = 10.9

X Cephei 21 03 82 est. 11.8

S Cephei 21 36 78 est 9.7 Var quiet
red. Sky hazy
in this region

S S Cygni 21 48 43 est 12.0

o Ceti Phot R. 02 x 03 =

07 43 23

243.3	Index below.	
~~249.9~~	< Vanish.	Image to left throughout
250.4	7.1	
63.1	6.8	
69.9	13.9	− 6.08
243.2		
		− 5.97
249.9	6.7	
~~59.4~~	8.7	
61.2	15.4	− 5.86
69.9		Mean − 5.96
	Reverse Index above	9.19
		Magn 3.23
153.0		
160.2	7.2	
333.8	21	
340.9	19.3	− 6.02
152.8		− 5.96
161.0	8.2	
334.0	6.9	
340.9	15.1	− 5.90

07 48 56

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1916phae.proj..615C

Jan. 24, 1916.

Index above -

07 49 57 — 152.0 / Vardis

160.8 — Images reversed

331.5 — 8.8

339.9 — 8.4

17.2 — −5.62

150.9 — −5.68

160.0 — 9.1

332.7 — 7.2

339.9 — 16.3 — −5.74

Index below

62.2 — Mean −5.70

70.0 — 7.8 — Mean 9.19

241.4 — 8.5 — 3.49

249.9 — 16.3 — −5.74

60.9 — −5.71

70.0 — 9.1

242.2 — 7.6

7 56 07 — 249.8 — 16.7 — −5.68

East Var, M.E. α 2.0 δ 3 3,4

(19) (679) extra (32) (2063) settle

X Androm. 001046 est 13.0 Obs. diff.

T Androm 001726 est too Cloudy in this region

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1916phae.proj..615C

20892

Sat. Jan 29, 1916

20892 L Cdbr 15" E Eq. Phot R

o Cetᵢ 02 14 03

04 15

2 4 W -3.6

> 36 Below

60 ℉

70.2

Images too hazy & thin to make good settings.

Sky quite hazy & cloudy.

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1916phae.proj..615C

Thurs Feb. 3, 1916

LC Obs. 15" & Eq.

R Aud. 00 18 30
4 Kt
4 30 + 3 + 0

Impossible to move down
snow in tracks & helps not
here.

1916phae.proj..615C

Mon. Feb 7, 1916

20901

LC Obs 15" E Eq. Obs Rec

○ Cete 021403 Phot R

NE ext 4.1 0409

155 W-3.6

Index below

06 50 16	62.4	Vardis	Images perfectly round
	71.3		
	240.4	8.9	
	252.0	11.6	
		20.5	— 5.24
	58.5		— 5.13
	71.8	13.3	
	242.3	9.3	
	251.6	22.6	— 5.02
	Reverse above.		
	332.6		Mean — 5.14
	342.0	9.4	9.19
	152.2	10.9	4.05
	163.1	20.3	— 5.26
	330.4		5.16
	343.2	12.8	
	152.6	9.4	
06 55 45	162.0	22.2	— 5.06

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1916phae.proj..615C

09 0 1

~~Jan~~ Feb. 7, 1916.

Index above Same Again

06 ~~56~~ 08

332.6		Var to Lofthouse
~~3~~43.0	10.4	
152.8	9.1	
161.9	19.5	— 5.35

332.0		5.32
341.9	9.9	
152.2	10.1	
162.3	20.0	— 5.29

Below

Mean — 5.33

242.2		
251.9	9.7	9.69
62.0	9.9	Magn. 3.86
71.9	19.6	— 5.33

241.6		5.34
251.4	9.8	
62.2	9.7	
71.9	19.5	— 5.35

07 00 14

seeing rather blurry.

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1916phae.proj..615C

Feb. 7, 1916

30901

S Pegasi 23158
2830
~~5~~ 15 est 12.2 ✓

SS Cygni 213f43 est 11.1 ✓

RV Pegasi 222129 est 12.8 ✓
2f41
620 + 29.9

RT Peg. 21~~5~~f34 est 13.1 ✓
2f43
646

S Lac. 22 2439 est 12.6 ✓
2848
624

R. Lac. 22 3841 est 11.9 ✓
2850
612

V. Cass. 230759 est 12.1 ✓
2853
546

Z. Cass. 233956 est 13.8 ✓
2857 if seen
518 prob. Nov.

Y Cass 23~~5~~f51 est. p. 5 Var ✓
13.5 ~~7~~
+

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1916phae.proj..615C

Feb. 7, 1916.

~~T. Drac, 17 54 58~~

~~R. N. Draconis~~ R Andromedae 00 18 38 est < 13.7 ✓
5 03
~~50~~
4 45 + 13 f 0

Y Cephei 00 31 79 est. 10.5 ✓
5 12
4 41

S. Cass. 0 0 12 72 est < 13.5 ✓
5 12
4 00

Z Cephei 02 12 81 est 11.1 ✓
5 15
3 03

R R Cephei 02 30 80 est V0.1 ✓
5 19
2 49 + 80

~~T Camelopardalis~~ 04 30 65
05

R R Cass 23 50 53 ✓
2 9 28
5 3f

Y 1 Var
both faint ☆ ☆
13.6 t

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1916phae.proj..615C

Feb. 7, 1916

✓ X Androm 001046 est 12.3

✓ U Cass. 004047 est 13.4

✓ R W Androm 004132 est 13.8
barely seen

✓ V Androm 004435 est 11.8

✓ R R Androm 004533 est P5 Var
see finer chart 14±

✓ R V Cass. 004746 est 14.0
susp Var ⇐ N of RV = 10.9 & red.

✓ W Cass. 004958 est 9.9

✓ R Z Persei 012350 est 13.1

✓ V Z Androm 011041 est 13.2

✓ Androm 013338 est 13.8
y very faint

✓ R U Androm 013238 est 13.5

✓ U Pisc 011712 est 11.7

637
520

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1916phae.proj..615C

Feb. 7, 1916.

S Psc	01 12 08	est	9.0
R Psc	01 25 02	est	13.5
S Arietis	01 59 12	est	13.7
~~R R Persei 02 21 50 est~~			
U Arietis	03 05 14	est	10.8
T Tauri	04 16 19	est	11.4
R Tauri	04 22 09	est	13.4
S Tauri	04 23 09	est	14.7
U Ura Min	14 15 67 7 05 7 10 4 50	est	8.4 finder
R Canebp.	14 25 84 7 10 7 15 4 45	est	12.0

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1916phae.proj..615C

Feb. 7, 1916.

S Ursae Min 153378 est 9.7
713
820
340

R. Draconis 163266 est 10.0
718
914
246

T Draconis 175458 est T=11.9
720 Var. Sp=10.3
1034 Abe. diff in
126 Low alt.

V Draconis 175654 est if seen
730 13.3
1026

10; 10

~~T Camelop 043065 est~~

~~X Camelop 043274~~

(32)-(2095) ests.
(43)-(722) ests.

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Mon. Feb. 21, 1916

L.C. Obs. T.O.O Rec.
15" E Eq. Phot T.
Comp with (8.4) 2 Coffin

~~Obs~~

P.A-20 Images reversed

06 50 13	209.8	~~Var~~ dis.		Ia
	286.1	763		
	38.5	673		
	106.0	1436	− 0.70	
06 52 15	247.3		− 0.81	
	283.4	661		
	36.6	666		
	103.2	1327	− 0.92	
	P.A. = 200			
	9.1 < Comp + dis		Means =	−1.08
	131.8	122.7		+0.28
	186.8	1281		−0.41
06 56 17	310.9	2510.8	+ 1.44	−0.33
		109.2		
	14.4		+ 1.36	
	127.0	1126		
	183.0	1318		
06 57 37	314.8	2444	− 9	
16 22		1156	+ 1.27	

06 54 06
06 55 00
~~15.619~~
20915 497
20915 619
−0.122

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1916phae.proj..615C

Feb. 21, 1916

R.A. = 200

06 58 07 — 6.4 ~~comp~~ds

133.6 127.2
187.2 1259
313.1 253.1
106.9

-1.49

I 6

~~07~~

6 59 07 — 4.7

133.0 128.3
181.8 1290
310.8 253
102.7

-1.59

R.A. = 20

215.0 Vardir
282.1 67.1
34.8 67.2
07 01 40 — 102.0 134.3

-0.89

212.8
285.1 72.3
36.6 100
07 02 53 — 106.6 142.3

-0.73

Mean = -1.14
-0.06
-1.20

7.23
+29
7.52

1 47
07 00 27
45
7 01 11

2015.501
1561.9
=0.118

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Feb. 21, 1916.

P.A. = 20

07 09 33	210.6	Vanden	II a
	283.3	727	
	38.2	680	
	106.2	1407	− 0.76
07 10 51	212.6		− 0.74
	282.2	69.6	
	30.8	734	
	104.2	1430	− 0.71

P.A. = 200

Mean = − 092

07 13 6	305.8		8.41
	13.6	778	7.49
	132.8	524	
07 13 53	185.2	1302	− 0.97
	312.6		− 1.10
	5.8	553.2	
	126.2	654	
07 15 12	191.6	1208.6	− 1.22

9 29

07 12 22

44

07 13 06

20915. ~~507~~ 509

15 619

− 0.110

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1916phae.proj..615C

Feb. 21, 1916

P. 9. 200

II b

7 18 28	125.6	Var to thwart		Var to Right
	192.2	666		
	309.6	692		
	18.8	135.8	−0.86	
07 19 58	121.7		−0.77	
	191.2	69.5		
	305.6	750		
	20.6	144.5	−0.68	

P. 9. = 20 Means = −0.64

	206.2			+.41
	284.2	78.0		7.77
	32.1	786	−0.40	−.29
7 22 50	110.7	156.6		7.48
	211.2		−0.50	
	285.3	74.1		
	31.7	79.5		
7 23 57	109.2	153.6	−0.54	

7 23 57
A5 13
21 18
46
22 02
209.5.575
15.615
0.104

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1916phae.proj..615C

Feb. 21, 1916.

P. a = 20

III a

7 30 25 — 212.2 < Vardis
286.6 > K4
43.6 5 > 2
100.8 131.6 — 0.95

7 31 49 — 217.2 — 0.80
282.8 6 5 6
29.2 8 0.4
109.6 146.0 — 0.65

P. a. = 200 Mean — 090
.461
> 551

300.6
13.8 > 32
134.8 5 34
7 34 35 — 188.2 166 — 1.06

310.2 — 1.00
8.3 581
122.2 740
7 36 02 — 196.2 132.1 — 0.94

12 551
> 33 13
4 64
> 33 5
20915.524
15.619
— 0.095

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1916phae.proj..615C

Feb. 21, 1916

P.A. 200

7 40 00	305.6			III G.
	17.2	71.6		
	123.1	69.7		
	192.8	141.3	— 0.7	
7 41 12	305.2		— 0.71	
	14.6	69.4		
	123.8	69.0		
	199.8	145.4	— 0.67	

P.A. = 20 Mean — 0.69

	27.6			
	110.2	82.6		
	206.8	82.0		
7 43 41	293.8	169.6	— 0.20	
	28.2			
	110.9	82.7	— 0.24	
	206.2	82.4	— 0.28	
7 44 37	288.6	165.1	—	

7.93
.29
7.64

930
4222
44
6306
20915.30
15.619
−0.089

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1916phae.proj..615C

Feb. 21, 1916

Pa. 20

IV a

08 04 19 26.4 Var dis.
14.8 884
214.9 70.3
285.2 154 — 0.41

08 06 00 34.6 — 0.32
111.3 767
203.8 914
295.2 168.1 — 0.22

Pa. = 200 Mean = −0.41
117.2 7.93
196.0 788
305.8 684
08 09 35 14.2 1472 — 0.63

126.8 −0.63
195.5 687
302.6 784
08 11 59 21.2 1473 −0.63

31 53
08 07 58
44
08 08 42

2091 5.548
15 619
−0.071

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1916phae.proj..615C

Feb. 21, 1916

Pa = 200

08 11 49 121.3 IVb
206.4 85.1
297.3 8 29
20.2 1680 − 0.23

08 12 56 118.2 −0.22
199.6 81.4
294.4 86.9
21.3 1683 −0.22

Pa = 20 Mean = −0.06

203.4 8.41
296.0 92.6 8.36
21.2 93.0 29
08 16 56 114.2 185.6 8.07
1747 +0.11

202.8
296.3 93.5
25.2 90.6 +0.10
115.8 184.1
1729 +0.08

8
08 18 00
19 41
of 14 55
44
of 15 39
2091 55 3
15 6 19
−0.066

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1916phae.proj..615C

Aug. 21, 1916

Pa. = 20

Va

08 23 07	203.2			
	294.8	916		
	89.6	804		
	110.0	1720	— 0.13	
08 24 30	209.8			
	292.2	824	— 0.14	
	24.6	904		
	115.0	1728	— 0.14	

Pa = 200 Mean = −0.20

±.41

±21

	295.5			
	24.6	891		
	123.8	764		
08 21 22	200.2	1655	— 0.27	
	302.8		025	
	20.9	781		
	118.7	896		
08 18 36	209.3	1677	— 0.23	

23 35

08 25 54

44

08 26 38

2091.560

15.619

−0.059

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1916phae.proj..615C

Feb. 21, 1916

P.A. = 200

K L

08 29 09 292.2
25.6 8 3.4
120.3 + 27
203.0 166.1 − 0.26

08 30 13 294.4 − 0.20
24.2 8 9.8
117.1 8 3
200.4 173.1 − 0.13

P.A. = 20 Mean = + 002

15.8 + .41
118.2 92.4 + .43
202.2 92 2 .29
08 32 59 294.4 1846 + 0.09 8.14
1735.4

22.6
123.2 100.6 + 0.23
199.4 98 9
08 34 59 298.3 199.5
1600.5 + 037

7 11
08 31 48
46
08 32 32
2091.5 565
15619
− 0.054

Old over region at end

C is W = 44" slow at 8:45 —
(160)(225) Setts
= 722 ents

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1916phae.proj..615C

Cleared 8:30 pm

Sat. Feb. 26, 1916

P C Cls 15" ε Eq L C Rc.

Cs watch = 14ª fast of Ball 103

ν Cephei 00ˢ 381 Phot 1.

Comp with * A.41

00ˢ 3

06 36

643 W

P.a. 20°

I

9 03.0

10.8 Vars due Images poorly revised.

131.3 120.5

196.0 105ℓ

301.8 226.3

21.7 133.7 +0.92

124.9 103.2

190.6 118.8 +0.86

309.4 222.0

P.a. 200 138.0 +0.81

22 2.7

35.2 112.5 Mean = +0.69

0326 8.41

113.2 93.2 Magn = 9.10

206.4 20ˢ.7

2937 15ˢ.43 +0.49

30.2 96.5

105.0 1122 +0.5ˢ2

9 10.3 217.2 2087

13.3 15ˢ.13 +0.5ˢ5

9 6.6

.2

9 6.4

209 20.587

20.600

-0.018

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Feb. 26, 1916

P.a. 200°

II

9 15.6

280.6
407
113 3
208.2

120.1
95.9
216.0
144.0 +0.69

288.8
31.8
101.8
218.8

103.0
117.0 +0.73
220.0
140.0 +0.77

P.a. 20° Mean = +0.70

8.41
9.11

191.3
311.3
22.2
118.3

120.0
96.1
216.1
143.9 +070

197.0
301.3
13.8
244

104.3
110.6 +0.68
214.9
145.1 +067

9 22.8
38.4

9 19.2
9 19.0

209 20.597
20.605
−0.008

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1916phae.proj..615C

Feb. 26, 1916

III

Comp to dis from Lowell

Pa 20°

9 24.0	124.0	
	192.2	68.2
	302.3	8.51
	27.4	153.3 + 0.5-1
	121.3	
	196.6	75.3 +0.60
	310.6	69.3
	199	144.6 +0.68

Pa. 200°

Mean + 0.55

	39.2	8.41
	105.8	66.6 8.96
	210.3	8.27
	293.0	149.3 + 0.59
	28.3	
	108.9	80.6 +0.51
	219.8	67.5
9 33.2	287.3	157.1 +0.42

57.2

9 28.6

9 28.4

209 20.603

20.605

−0.002

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1916phae.proj..615C

Feb. 26 1916

IV

P.A. 200°

9 35.0

34.2		
102.4	68.2	
207.4	68.6	
291.0	136.8	+0.54

P.A. 20°

127.2		
190.8	63.6	
302.8	75.8	
18.6	149.4	+0.59

0.60

Mean +0.65

8.41

+0.70

9.06

122.4		
194.8	72.4	
308.4	65.8	
14.2	138.2	+0.81

P.A. 200°

216.9		
284.9	68.0	
29.8	77.4	
107.2	145.4	+0.66

9 42.8

778

9 38.9

9 38.7

20 9 20.610
20.605
+ 00.005

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1916phae.proj..615C

Feb. 26, 1916

P.A. 200°

D

10 7.0 33.3
108.4 73.1
2176 64.6
2822 139.7 +0.78

398
102.2 62.4 +0.77
204.4 78.5
2869 140.9 +0.76

P.A. 20° Mean = +0.62
120,6 8.41
192.4 71.8 9.03
300.2 820
22.2 153.8 +0.50

116.6
199.8 832 +0.46
3037 741
17.8 157.3 +0.43

1014.2
21,2
10 10.6
10 10.4

20920.632
20605
+0.027

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1916phae.proj..615C

Feb. 26, 1916

Pa 20°

10 16.8 12 40

193.8	69.0	
296.7	83.7	
20.3	152.7	+0.52
118.6		
200.4	81.8	+0.48
303.3	149	
18.2	156.7	+0.44

Pa 200°

Mean = +0.50
0.44
Magn. = 0.91

37.3	67.5	
104.8	88.7	
204.2	156.2	+0.45
292.9		
		+0.52
34.3		
108.0	73.7	
211.8	75.0	
10 23.8 296.8	148.7	+0.60

0.06
10 20.3
10 20.1
20 8 20 639
20 605
T 0.034

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1916phae.proj..615C

Feb. 26, 1916

VII

Pa. 200°

10	33.0	41.8	
		101.6	59.8
		207.6	82.6
		290.2	142.4 + 0.73

+ 0.64

29.8		
109.4	79.6	
213.4	71.6	
285.0	151.2	+ 0.59

Pa. 20°

Mean + 0.59

	308.0		8.41
	16.7	68.7	9.00
	119.6	82.2	
	201.8	150.9	+ 0.56

296.4		+ 0.54
21.8	85.4	
124.9	67.9	
192.8	153.3	+ 0.51

10 40.8

38

10 36.9

10 36.7

20920.651

20.605

60.046

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1916phae.proj.615C

Feb 26, 1916

P.a. 20°

10 42.0

304.4
24.9
128.4
191.6

~~0~~.5
63.2
143.7 +0.70

~~304.8~~ 3

+0.66

15.2
11~~.8~~6
195.4

714
768
148.2 +0.61

P.a. 200°

Mean = +0.574
+.41
8.95

~~1124~~
205.8
292.3
35.1
107.9

+6.6
72.8
159.3 +0.39

207.4
295.6
35.3
104.6

+0.41
+8.2
69.3
157.5 +0.43

10 49.8
118
10 45.9
10 45.7
28 20.657
20.605
60.052

P.P. (128)(238.3) feet
722 Ests

P.a = 192.0
Sp. = 3.7
Dec +81.7
Hg. 8.36 w
S.T 9:29

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1916phae.proj..615C

Monday Feb. 28, 1916.

L.C. Obsv. 15" Equa. — J.O.O. Rec.

O Ceti 2|403

below — Photo. R.

06 43 15

57.9 < Vanish
72.6 14.7
237.2 191
256.3 33.8 — 4.14

54.7 — 4.00
78.1 23.4
240.0 146
254.8 38.2 — 3.87

above — Mean — 4.05
329.6 9.19
342.4 128 Magn = 5.14
145.3 219
167.2 34.7 — 4.09

326.3 — 4.10
345.2 18.9
149.0 15.4
164.4 343 — 4.11

06 49 26

06 46.3
20922.

Images reversed as they should be.

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1916phae..proj..615C

Feb. 28, 1916.

X Andromedae		001046	est 10.1
Z Cass.	✓	233956	est < 13.6
RR Cass.	✓	235053	est 12.4
Z androm	✓	232848	est 8.7
Y Cass.	✓	235855	est 12.0
M Cass.	✓	004047	est 8 s 3 Var
RW Androm	✓	004132	est 13.7 if seen
V Androm	✓	004435	est 12.9
RR Androm	✓	004533	est ε 5 M
RV Cass.	✓	004746	est 14.4

Var to N of RV = 10.3

U Androm	✓	010940	est 12.8
UZ Androm	✓	011041	est 12.4
RZ Persei	✓	012350	est 12.2
RU Androm	✓	013238	est 13.8
Y Androm	✓	013338	est 13.9

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1916phae.proj..615C

Feb. 28, 1916.

U Persei 01 53 54 ✓ est 8,4
6 30
4 37

RR Persei 02 21 50 ✓ est 13.7
6 37
4 16

S arietis 01 59 12 ✓ est 11.8

R Ceti 02 20 00 ~~est~~ too for West

γ Cephei 00 31 79 ✓ est 11.2
6 49
6 17

Z Cephei 02 12 81 ✓ est 10.2
6 54
4 42

RR Cephei 02 30 80 est 10.8

R Tauri 04 22 09 ✓ est 13.8

S Tauri 04 23 09 est 14.8

S Aurigae 05 20 34 ✓ est 8.4

+ 34.4 — 2 20 W ✓ 7 4 4 ha

Neb = N. J C.

W Aurigae 05 20 36 ✓ est 13.3

R R Tauri 05 3 39 ✓ est 12.0

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1916phae.proj..615C

Feb. 28, 1916.

	α Aurigae	05 35 31	est 1.3 Var 14±
	Z Tauri	05 46 15	est m 5 Var or 14±
9 45	R. U Tauri		est 13.1
	γ Monoc.	06 51 11	est 12.9
West	V Can Min	07 01 09	est W 2 IV
10 08			Yerkes Chart

(16) – (2399)
(32) – (754)

1916phae.proj..615C

Tuesday Feb. 29, 1916

L.C. ~~Obsr.~~ T.O.O. Rec

Phots T.

Meas. Stars in Pleiades

3 40 +23
5 30
2 50

f. compared with g
f appears double
abandon
< f. dis.

06 50 33 173.6

star g with h.
P. 9, 230

07 00 03 22.2
114.0 < g dis
204.8
292.8

27.4
111.2
203.9
300.2

P. 9 50

Abandoned
Aft. hard images always
appear double. Why?

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1916phae.proj..615C

Feb. 29, 1916.

20923 5 T And. 001726 est ✓ 13.2

5 59
5 42 W

R Androm 001838 ✓ est 14.1

Z Ceti 010102 ✓ est 9.6

S Psc. 011208 ✓ est 9.7
Venus almost within field

U Piss. 011712 ✓ est 0[3]3g

R Piss 012502 ✓ est 12.5

R Ceti 022000 ✓ est 10.3

U Ceti 022813 ✓ est 11.9

20923 5 U Arietis 030514 ✓ est 9.0

X Ceti 031401 ✓ est 11.2

20923 5 X Cephei 210382 ✓ est 13.3

V Cass. ✓ 230759 est 12.6

20923 6 SV Androm ✓ 235939 est 13.1

8 15

LV = 15.0 S Cass. ✓ 01272 est 14.8

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1916phae.proj..615C

Feb. 29, 1916

20923 6

1 Persei 032043 ✓ est 9.2

Nova Persei No 2 032443 ✓ est

Hag. 44 3 Nova 4 Hag 49

Hag. 20 much ~~lighter than~~ Hag. 32
0 br. than Hag. 11 is 20 a Var?

W Persei 022335 ✓ est 12.8
L. V_1 = 14.0

T Camelop. 043065 est 9.1

X Camelop. 043274 est 9.6

S Camelop 053068 est 10.3

8 55 V Camelop 054974 est 10.5

S S Aurigae 060547 est

S Urs. Maj 123961 est 8.4
T Urs. Maj 123160 est 12.9
RS Urs. Maj 123459 est 12.5

750
444

20923 6 ~~S~~ T Urs. Min. 133273 est 13.5

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1916phae.proj..6150

Feb. 29, 1916.

20923 6

R Can. Ven. 134440 est 8.2

U Urs. Min 141567 est 9.4

S Bootis 141954 est 13.3

R Camelop 142584 est 9.9

S Urs. Min. 153378 est 9.9

R Drac. 163266 est 8.5

T Drac. 175458 est 12.9

~~Sp~~ speomp = 11-1

20923 6

V Drac. 175654 est < 13.5

region low

~~(34) 243~~

(34) (788)

(-) (2399)

1916phae.proj..615C

20924

Wed. March 1, 1916

LC Ob 15-11 & Eg.

06 40	U Gemin	074922	est 14.0
	R Gemin	070122	est 11.7
	R Can. Min	070310	est
		547 / 116	abandon
	R R Monoc	071201	est 10.3
	V Gemin	071713	est too high
	U Cancri	083019	~~est~~
		est ry 3 Var yerkes chart	
	S Hydrae	084803	est 10,2
	T Hydrae	085008	est 10.1
	W Cancri	090425	est m5 3n yerkes chart
	V Leonis	095421	est 13.2
	W Leonis	104814	est 12.5
	S Leonis	110506	est 13.5
	~~Z Hydrae~~		
	Z Puppis	072820	est <13.5
			Seeing poor

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1916phae.proj..615C

20924 1

March 1, 1916.

α Puppis 07 56 12 est W 5 Var 14th

Comet 1a 1916

$\frac{f \; 5^{-9} + 13.1}{\frac{6 \; 5^{-2}}{2} > + 13.1}$

Comet not readily picked up

γ Draconis 09 31 78 est 13.0

R Ursa Maj 10 37 69 est 10.0

$\frac{(14)\,(802)}{-\quad 2399}$ L

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1916phae.proj..615C

Thurs. Mar 9, 1916

PCOb. 15" Eq.

Cote 021403 Phot R.

Left

7 3.6	238.4	< Vanda	
	255.2	16.8	
	~~77.6~~	21 s	
	54.3	38.3	− 3.86
	>5.8		
	237.1		− 3.95
	257.2	20.1	
	58.4	15.2	
	73.6	35.3	− 4.04

Right

Mean = − 3.83

9.19

Mag = 5.36

145.3		
165.0	19.7	
325.4	21.9	
347.3	41.6	− 3.68
146.7		
169.7	23.0	− 3.71
~~32.8~~	19.6	
327.6	406	− 3.74
7 12.4	345.2	
7 12 8.0 8.0		

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1916phae.proj..615C

Mar 9 - 1916

20932 7

Z Cancri 23284 est f. 6
30 57
7 31 W +48.2

prec image of 2 stars assumed to be
2 the 13.7. 9 3 2 3 fol *.

R Cass 23533 est 9.f
3106
7 13 W +5 9 f

T Cephei 21086 est 8.3 4" finder
3108
10 00

S Ceph 21367 est 9.3
31 16
9 40

T Cass 00175 — est 8.7 4"
719
7 2 +55 —

W Cass 00495 est 9.2
724
6 35 +58.2

R X And 00560 est 12.0
726
6 28 +40.6

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1916phae.proj..615C

Mar. 9, 1916

X Cas 01495 est 10.8
730
541 +57.8

R Aurig 02102 est 8.2
733 4" finder
528 +246

R Tri 02313 est 5.3
737 4" finder
506 +33.8

W And 02114 est 8.4 4" finder
741
540 +43.8

S Persei 02155 est 8.7 4"
746
531 +58.1

W Persei 02435 est 10.0
750
57 W+566

W Tauri 04221 est 9.1
754
332 +15.4

RX Tauri 04320 est 11.4
754
336 +8.2

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1916phae.proj..615C

Mar. 9, 1916

V Tauri 044617 ~~est~~ 13.4
f 03
3 17 W +17.4

R Leporis 045374 ~~est~~ f.8
~~R~~ f 07
3 12 -14.9

R Orionis 054307 ~~est~~ 10.1
f 11
3 18 +8.0

V Orionis 050003 est 11.3
f 15
3 15 +3.9

T Leporis 050022 est 10.0
f 14
3 14 -22.6

SS Aurigae 060547 w 4 Var Var at L.V.
f 55
9 3K 2 50 +47.3

U Geminorum 074922 est 9.0
f 59
1 10 +22.0

9 38

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1916phae.proj..615C

20932

Mar 9 – 1916.

R Ursa Min. 163172
9 31
7 00 2

d 2, 3 e 7.4

W Draco 16561 ext 11.8

X Draco 170666 ext 10.1
9 38
8 28
3 32

U Drac. 190967 ext 11.7
9 42
9 27
2 33

1025

(26) (828) este
(16) (2415) sette.

L

1916phae.proj..615C

2939

Thursday Mar 16, 1916

L. C. Obsr. T. 00, Rec

○ Cat α 1403

Index to left

07 09 23

55.2		
74.6	var dist	19.4
235.0		227
257.1		
		42.1 — 3.65
53.8		
78.1		24.3 — 3.5 δ
295.0		20.8
255.8		45.1 — 3.50

Index to right Mean — 3.5 δ

9.19

Magn. 5.61

327.2		
346.6	19.4	
143.3	243	
167.6	43.7	— 3.57
323.6		
347.4	23.8	— 3.5 δ
146.8	196	
166.4	43.4	— 3.59

7 14 56

24 14

7 12

Region rather low but can be depised.

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1916phae.proj..615C

Mar. 16, 1916

B Persei Phot T.

0301 40 Index 240 9½" Cap.

07 57 30	46.0	Var dis.	
	82.8	36.8	I
	~~232.8~~	29.6	
	236.1	664	— 2.63
	265.7		
07 59 19	53.2		— 2.61
	86.3	331	
	232.8	345	
	267.3	676	— 2.59
	Index 60	Mean =	−2.94
	143.8		613
	173.6	29.8 Magn.	3.19
	328.6	276	
08 02 51	351.2	524	— 3.17
	149.6		
	170.0	20.4	— 3.28
	326.7	267	
08 04 01	353.4	471	— 3.40

×3 41

~~08 5~~

~~8~~ f 00 55 2620939. ~~583~~ 582

f .28 612

f 00 27 −.070

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1916phae.prbj..615C

Mar. 16, 1916

H

P.A. 60°

08 08 24 — 145.3, 170.8, 329.4, 351.2 — 255, 21.8 — 47.3 — 3.40

8 09 52 — 145.8, 172.1, 327.5, 350.8 — 263, 233 — 496 — 3.29 — 3.34

P.A. 240° — Mean = −2.86, 613, Magn = 3.27

8 13 15 — 228.3, 271.2, 52.5, 86.0 — 429, 335 — 764 — 2.30

8 14 25 — 234.2, 269.1, 50.0, 86.2 — 349, 362 — 711 — 2.47 — 2.38

8 11 16
8 11 29
28
8 11 01
09395449
612
−.063

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1916phae.proj..615C

Mar. 16, 1916

Pa. 240

8 23 20	230.2			
	268.3	381		
	+ 48.6	397		
	88.3	778	— 2.26	
8 24 35	233.2		— 2.31	
	266.4	332		
	46.6	41.4		
	88.0	746	— 2.36	

Pa. 60

Mean = − 2.78
0.13
Magn = 3.35

	326.6		
	352.8	26.2	
	147.0	24.2	
8 27 49	171.2	50.4	— 3.25
	326.6		— 3.24
	351.0	24.4	
	145.9	26.3	
8 28 59	172.2	50.7	— 3.24

24 43
8 26 11
−28
8 25 43

0939.560
612
−.052

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1916phae.proj..6150

Mar. 16, 1916

P.A. 60

8 33 12

325.2
353.3
146.0
170.1

28.1
241
522 — 3.17

IV

8 34 34

327.8
351.2
147.2
171.8

23.4
246
480 — 3.36

— 3.26

P.A. 240

52.4
87.9
231.8
08 37 25 267.1

355
35.9
714 — 2.46

Mean = — 2.83
6.10
Mag = 3.30

52.1
89.1
229.4
08 38 33 267.1

370 — 2.40
383
753 — 2.94

23 44

08 35 56
28

8 35 28

0939.566

612
— .046

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1916phae.proj..615C

Mar. 16, 1916

P.a. 240°

08 55 20

46.8		
86.4	39.6	
234.4	335	
267.9	33.1	— 241

8 57 00 ±

48.8		— 233
87.2	384	
229.6	398	
269.4	38.2	— 225

P.a. 60° Mean = — 2.66

613

Magn = 3.47

08 59 53

146.2		
175.4	29.2	
324.3	281	
352.4	57.3	— 296

148.3		— 3.00
174.4	261	
322.2	296	
351.8	55.7	— 303

09 01 05

33 18

08 58 20

-28

08 57 52

09 39.582

613

.030

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1916phae.proj..6150

Mar. 16, 1916.

P. 9. 60°

09 06 37	145.8		VI
	174.2	28.4	
	324.8	280	
	352.8	56.4	~ 300
			— 302
9 08 21	147.8		
	173.6	25.8	
	324.2	29.4	
	353.6	55.2	~ 305

P. A. 240°

Mean = 266
6.13
Magn = 3.47

	228.4		
	267.2	38.8	
	~~238.3~~	39.4	
09 12 19	269.6	78.2	~ 225
			2.31
	51.0		
	87.8	36.8	
	231.4	37.4	
09 ~~13~~ 42	268.8	74.2	~ 2.37

0 59

9 10 15
~~28~~

9 9 47

09 39.590

.612

.022

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1916phae.proj..615C

Mar. 16, 1916

P.A. 240°

VII

09 19 53	53.3		
	84.6	31.3	
	229.9	35.7	
	265.6	67.0	— 2.61
			0
			— 2.54
9 21 55	52.8		
	86.4	33.6	
	226.6	39.8	— 2.40
	266.4	73.4	

P.A. 60°

Mean = — 2.75

613

Magn = 3.38

	144.2		
	173.8	29.6	
	324.6	27.6	
9 25 20	352.2	57.2	— 2.97
	146.4		
	173.3	26.9	— 3.00
	324.7	28.6	
09 26 27	353.3	55.5	— 3.06

12 35

9 23 09

28

9 22 41

0939.599

612

.013

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1916phae.proj..615C

Mar 16, 1916

P.A. 60°

VIII

09 42 27	146.6		
	172.1	25.5	
	327.2	226	
	349.8	48.1	− 3.36
9 43 53	146.6		
	169.4	22.8	− 334
	325.3	263	
	351.6	49.1	− 3.31

P.A. 240°

Mean = −2.99
613
Magn = 3.14

	231.8		
	268.2	36.4	
	50.9	318	
9 46 56	82.7	68.2	− 2.57
	234.8		
	269.0	34.2	− 2.6X
	56.8	362	
09 48 14	83.8	64.4	− 2.70

21 30
9 45 22
28
9 44 54

0939.615
612
f.003

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1916phae.proj..615C

Mar. 16, 1916

P.a. 240°

IX

09 53 44 231.6
267.7 361
51.5 356
87.1 717 — 2.40

9 55 01 232.8
265.6 328 — 2.50
51.4 356
87.0 684 — 2.56

P.a. 60° Mean = — 2.98
613
Magn = 3.20

324.4
351.4 27.0
146.8 21.8
9 57 49 -168.6 48.8 — 3.33

328.3
352.4 241 — 3.36
147.2 231
09 59 10 170.3 472 — 3.40

25 44
9 56 26
28
9 55 58

0939.622
612
+.010

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1916phae.proj..615C

Mar. 16, 1916

P.a 60°

X

10 14 28	326.4		
	352.0	25.6	
	148.3	21.7	
	170.0	47.3	— 3.40
10 15 40	327.2		
	351.6	24.4	— 3.36
	146.7	24.6	
	171.3	49.0	— 3.32

P.a. 240°

Mean = − 3.25
0.13

Mean = + 2.88

	56.7		
	83.8	27.1	
	236.4	25.3	
10 18 35	261.7	52.4	— 3.17
	56.4		— 3.14
	81.3	24.9	
	232.8	28.6	
10 20 03	261.4	53.5	− 3.72

28 46

10 17 12
28

10 16 44

0939.637
.612
+.025

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1916phae.proj..615C

Mar. 16, 1916

Pa. 240°

		52.2		XI
10	22	27	55.4	
			81.8	29.6
			233.3	28.5
			261.8	58.1 — 393
10	24	04	56.4	
			84.3	27.9 — 290
			232.6	32.0
			264.6	59.9 — 286

Pa 60°

Mean = −3.10

613

Magn = 3.03

			143.7	
			171.4	27.7
			328.8	22.4
10	26	47	351.2	50.1 — 327
			146.6	
			171.0	24.4 — 330
			327.2	24.2
10	27	58	351.4	48.6 — 333

Pa 56° 12″

21 16

10 25 19

28

10 24 51

Usllers to continue further region becoming too low.

0939.642

61.2

10 33

4.030

Cs Watch used = 28 sec fast

of Balloon 10 3. L. (198) (2613)

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1916phae..proj..615C

Fri Mar. 17, 1916

~~EC~~ Obs. 15-9 E Eq.

Cs Wolcb = 21 sec fast at 7:00

u Caphei 005-38 Phot T.

P.a. 20 I

> 15-5 125-3 < comp * dis.
191.6 663
299.8 746
144 1409 + 0.76 9"5-Caf
119.6
195.4 75.8 +0.72
303.7 69.5
13.2 145.3 +0.67
P.a. 200 Mean = +0.48
208.2 8.41
~~288.2~~ 80.0 8.89
31.8 76.5
108.3 156.5 +0.465

2033
296.6 93.3 +0.24
28.4 85.3
7 24.5 113.7 178.6 +0.03

> 20.0
> 19.6
2094+0.514
40.549
-00.035

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1916phae.proj..615C

Mar. 17, 1916

Pa. 200°

> 26.0	210.4		11
	286.8	76.4	9.5" Cap.
	26.3	89.5	
	115.8	165.9	+ 0.27

204.0		+ 0.29
297.4	93.4	
35.6	70.2	
105.8	163.6	+ 0.31

Pa. 20° Mean = + 0.64

310.8			8.41
96	58.8		
123.3	69.3	Angle	9.05
192.6	128.1		+ 1.02

306.7		+ 0.98
16.8	70.1	
129.2	62.4	
191.6	132.5	+ 0.93

> 346
> 30.3
> 29.9

20940.521
L60549
-00.028

Reward 9½" Cap. after record gone. Thereafter full aperture used.

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1916phae.proj..615C

Mar. 17, 1916

Pg. 20°

III

> 450 309.4
367.6
123.2
189.4

58.2
66.2
1244 + 1.10

302.2
12.8
1300
185.5

70.6
55.5
1261 + 1.06

+1.08

Pg. 200°

35.3
107.3
204.1
293.7

> 2.0
89.6
1611.6 + 0.35

Mean = +0.70
.41
9.11

~~226~~
25.7
112.0
~~204.7~~

> 54.0207.8
990 25.2

+0.33

86.3
774
163.7 +0.31

> 49.5
> 49.1
2044.534
40.3-49
-0.015

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1916phae.proj..615C

Mar 17, 1916

Pa 200°

δ 68.0

34.6
105.7 71.1
198.8 δ 9.6
288.4 160.7 +037

IV

2δ.6
112.4 δ 3.8 +0.34
207.3 δ 0.2
287.5 164.0 +0.30

Pa. 20 Mean +0.70
132.2 δ 4.1
187.0 34.8 9.11
305.1 69.9
15.0 124.7 +1.09

123.6 +1.06
194.2 70.6
310.3 57.3
7.6 127.9 +1.02

δ 94
δ 47
δ 4.3

20960.544
460 569
-0.005

1916phae.proj..615C

Mar. 17, 1916

P.9.20°

δ 25.δ 132.6
187.7 551
306.0 63.δ
369.δ 118.9 +1.22

+1.12

123.3
194.2 709
308.4 574
365.δ 128.3 +1.01

P.9.200° Mean = +0.74
214.6 δ.41
290.2 75.6 9.15
25.δ δ57
111.3 161.3 +0.36

202.δ
293.0 90.2 +0.36
34.3 70.3
10δ.6 160.5 +0.37

δ 32.δ
586
δ 29.3
δ 28.9
20 δ 40.562
40.549
+0.013

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1916phae.proj..615C

March 17, 1916

P.A. 208°

α 36.0

208.9
288.0
237
110.4

91.1
67
165 α

+0.27

VI

203.7
295.2
33.4
105.1

91.5
71.7
1632

+0.30
+0.32

Mean = +0.62
α 41
Magn = 9.03

P.A. 20°

305.0
369.5
132
123.3
192.7

64.5
69.4
133.9

+0.90

+0.93

3026
13.6
131.4
191.6

71.0
59.4
130.8

+0.96

α 42.0
α 38.0
α 37.6
20900.568
50.569
+0.019

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1916phae.proj..615C

March 17, 1916

P.A. 20°

VII

904.3	30.3		
	36.8	59.5	
	11.2	79.6	
	19.8	139.1	+0.79
	29.8		+0.82
	18.9	79.1	
	131.4	56.9	
	18.3	136.0	+0.86

P.A. 200°

Mean = +0.62

	33.6		
	10.4	70.4	
	20.5.3	86.3	
	29.1.6	156.7	+0.44
	29.3		+0.43
	111.2	81.9	
	211.2	76.2	
9123	2874	158.1	+0.42

8.41
9.03

9 8.3
9 7.9
20 +0.58
+0.540
+0.040

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1916phae.proj..615C

March 17, 1916

P.A. 200°

VIII

9 15.2

27.4
107.3 79.9
204.4 80.0
292.4 167.9 +0.23

25.9
112.6 86.7 +0.24
210.3 80.1
290.4 166.8 +0.25

P.A. 20°

Mean = +0.66
8.41
Magn = 9.07

129.8
187.7 57.9
303.4 67.4
10.8 125.3 +1.08

125.8
192.8 67.0 +1.07
310.4 59.3
9.7 126.3 +1.06

9 22.8
38.0

9 19.0
9 18.6

20960.597
cos.549
+0.048

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1916phae.proj..615C

March 17, 1916

P.A. 20°

IX

9 40.5 132.1
185.9 53.8
304.6 70.7
15.3 124.3 +1.10

122.7
193.6 70.9
310.4 57.4
7.8 128.3 +1.01 +1.06

P.A. 200°

Mean = +0.72
8.41
Magn = 9.13

2100
288.7)8.7
26.6 8.26
109.2 161.3 +0.36

202.4 +0.37
291.6 89.2
36.0 70.6
9 48.3 106.6 159.8 +0.38

9 44.4
20 9 40.614
40.065
9 40.5

1916phae.proj..615C

March 17, 1916

P.A. 200°

X

~~9 505~~
9 520

210.2
286.6 76.4
28.8 8.20
110.8 158.4 +0.41

207.6
294.9 87.3 +0.40
34.5 72.9
107.4 160.2 +0.38
P.A. 20° Mean = +0.39
~~+0.41~~
Mag = 8.99

306.5
15.4 68.9
121.7 72.0
193.7 140.9 +0.76

298.4
17.8 79.4 +0.76
127.6 61.8
189.4 141.2 +0.75

10000

9 ~~5~~ 6.0
9 ~~5~~ 7.6
20940.622
40.549
+0.073

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1916phae.proj..615C

Mar. 17, 1916

P. Pa. 20

XI

10 11.7 303.6
16.5 72.9
113.8 890
202.8 161.9 + 0.34

294.3
264 921 + 0.26
119.6 778
197.4 169.9 + 0.19

P. Pa 200 Dmean = + 0.04
8.41
Magn = 8.45

23.8
111.9 88.1
200.3 100.5
300.8 188.6
171.4 − 0.16

21.3
116.4 95.1 − 0.18
201.7 950
296.7 1901
1699 − 0.19

10. 20.9
326
10 16.3
10 15.9
20 40.636
40.542
+0.087

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1916phae.proj..615C

Mar. 17, 1916

P.A. = 00

XII

10 22 5 — 24.8

119.3	94.5	
194.8	105.3	
300.1	199.8	
	160.2	−0.38
22.2		
121.0	98.8	
202.7	93.5	−0.30
296.2	192.3	
	167.7	−023

P.A. 20 — Mean = −0.13

118.4		Mag. = 84.1 / 82.8
203.3	84.9	
294.7	92.2	
26.9	177.1	+0.05
115.6		
205.8	90.2	+0.04
294.2	88.9	
23.1	179.1	+0.02

10 30.0

10 26.2
10 25.8
20 9460.643
40.549
+0.094

P.A. 146
Sp. 3.7

(192) (2 80/355) reb.

L.

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1916phae.proj..615C

Tues. Mar. 21, 1916

LCOB 15" E 29

Phot T Watch 8 sec slow

Z Draconis = 11 39 72 at 7:10

7 29

P. a. 0° 4 10 +72.8

7 44 25	133.3	Comparisons dis	Corr for * = +72.545
	183.2	49.9	
	311.8	53.5	
	5.3	10 34 + 1.57	I
7 46 00	131.2		
	186.8	55.6 + 1.58	
	312.2	46.6	
~~7 44~~	358.8	10 2.2 + 1.60	

P. a. 180° Mean = +1.28

1.78

Magn = 10.06

	43.0	
	99.2	56.2
	210.6	68.6
07 49 45	279.2	1248 + 1.09
	36.3	0.99
	108.2	71.9
	215.8	62
	~~221.4~~	
07 51 24	278.0	1341 + 0.89

31 34

07 47 54

7 48 02

20944 533

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1916phae.proj..615C

Mar. 21, 1916

P.A. 180

II

07 58 45

42.4 ✓
97.8 662 ✓ −
213.6 1216 ✓ + 1.1-6
279.8

08 00 21

37.3
103.2 659 ✓ + 1,20 ✓
222.1 522 ✓
274.3 1181 ✓ + 1.23 ✓

P.A. 0 Means = + 1.39 ✓

314.3
359.8 455 ✓ Mags 478 ✓
130.9 589 ✓ + 1,55 ✓ 10.17
08 03 38 189.8 1044 ✓
+ 1.58 ✓

311.3
63.3 520 ✓
130.8 501 ✓ + 1.61 ✓
08 05 34 180.9 1021 ✓

8 1A

08 02 04

08 02 12

209 44.5 24 3

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1916phae.proj..615C

Mar. 21, 1916

P.A. 0°

TTT

08 29 35

316.8	540	
360.8	553	
133.4	~~10~~ 9.3	~~+1.43~~ 1.67
187.7	9	

08 31 27

309.4	539	+1.50
363.3	509	
133.9	~~1050~~	+1.58
184.8	104.8	

P.A. 180

mean = +1.4°

8.78

221.6	552	
276.8	~~656~~	magn. ~~10.19~~ 10.1
33.8	121.8	~~+1.38~~ 1.15
100.4		

08 34 29

219.0	651	~~+1.32~~ +1.20
284.1	523	
43.1	1174	+1.25
95.4		

08 35 33

11 04

08 32 46

08 32 54

20 944.565

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1916phae.proj..615C

Mar 21, 1916

Pa-180

IV

08 46 25

219.6	586 ✓	
278.2	624 ✓	
36.3	1210+ ✓	1.17 ✓
98.7		

+1.23 ✓

08 47 50

216.8	664 ✓	
283.2	494 ✓	
44.8	1158+ ✓	1.29 ✓
94.2		

Pa. 0

Mean = +1.46 ✓

8.78 ✓

10.24

316.4	439 ✓	
360.3	552 ✓	
131.6	991+ ✓	1.68 ✓
186.8		

08 51 44

310.6	566 ✓	+1.70 ✓
367.2	406 ✓	
139.8	972+ ✓	1.73 ✓
180.4		

08 53 08

39 07

08 49 47

08 49 55

20944.576

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1916phae.proj..615C

Mar 21, 1916

P.A. 0 Moon has risen

V

09 10 01 315.6
358.3 427
136.2 452
181.4 879 + 1.97

9 12 03 317.2 + 2.06
358.8 416
140.2 402
180.4 818 + 2.14

P.A. 180 mean = +1.75

43.9 470 8.78
90.9 628 mag 10.53
215.8 1098 + 1.42
09 15 54 278.6

36.7 636 + 1.44
100.3 449
225.4 1085 + 1.45
09 16 30 270.3

14 24

09 13 52

09 14 50

20944593

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1916phae.proj..615C

Mar 21, 1916

P. A. 180

VII

09 23 18 — 48.2 462 ✓
94.4 572 ✓
220.8 1034 ✓ + 1.57 ✓
278.0

09 24 42 — 36.6 582 ✓ + 1.54 ✓
94.8 484 ✓
226.3 1066 ✓ + 1.50 ✓
274.7

P. A. 0 — Mean = + 1.80 ✓
8.78 ✓
Magn. 10.58 ✓

138.1 415 ✓
179.6 440 ✓
318.7 855 ✓ + 2.04 ✓
09 28 07 — 362.7

131.6 456 ✓ + 2.07 ✓
177.2 376 ✓
320.2 832 ✓ + 2.10 ✓
09 29 42 — 356.8

23 49
09 25 57
09 26 05
20944.601

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1916phae.proj..615C

Mar 21, 1916

P.a. 0°

09 ~~39 06~~ 40 19

319.8	414 ✓
361.2	480 ✓
135.3	894 ✓ + 1.93 ✓
183.3	

9 41 54

318.6	446 ✓ + 2.04 ✓
363.2	366 ✓
138.8	812 ✓ + 2.16 ✓
175.4	

P.a. 180 Mean = + 1.95 ✓

8.78 ✓

47.7	439 ✓ magn. 10.73 ✓
91.6	508 ✓
222.8	947 ✓ + 1.79 ✓
273.6	

09 ~~20~~ 45 20

42.8	494 ✓ + 1.86 ✓
92.2	399 ✓
228.5	893 ✓ + 1.93 ✓
268.4	

09 46 53

14 26

09 43 36

09 43 ~~44~~

2044.614

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1916phae.proj..615C

Mar 21, 1916

R.A. 180

VIII

09 53 54 — 50.8, 88.3, 221.7, 272.8 — 375, 511 — 886 + 195

9 55 39 — 40.0, 94.3, 228.3, 269.4 — 543, 411 — 954 + 177 — + 186

R.A. 0 — Mean = + 2.19 — 8.78 — 10.97 — magn.

10 00 02 — 324.7, 356.6, 138.7, 175.3 — 319, 366 — 687 + 2.55

10 01 52 — 317.8, 355.9, 142.8, 175.0 — 381, 322 — 703 + 2.50 — + 2.52

31 27

9 57 52

9 58 00

20944.624

Star very dim in plate.

Moonlight, brighter stars only seen.

PA = 170°

Dist = 2.2

Decl = +7 26

128 Sets.

2933

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1916phae.proj..615C

Sat Mar 25, 1916

20948

L.C.Obs. 15" E Eq.

X Camelop 04 32 74
07 5-2
320 W + 74.5-

$\overline{X}$ = 9.4
Acott's Var(?) = 9.7 surely faint
> 30 selected star in extra eq.
k 5-6 4m 2 n

V Camiop 23 07 59 est 11.5
32 15-
9 8 +59.0

Z Androm. 23 28 48 est 8.4

Z Cassiop. 23 39 56 est 13.5
32 29

R R Cassiop. 23 50 53 est 11.5

R Cassiop 23 53 50 est 10.7

γ Cassiop 23 58 55 est 11.1

X Androm 00 10 46 est 8.7

T Cassiop. 00 17 55 est 8.5

γ Cephei 00 31 79 est 12.8
C

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1916phae.proj..615C

Mar. 25, 1916.

	α Androm	01 09 40	est 13.5 diff. to see
	S Cassiop.	01 12 72	est < 13.8
R	Z Persei	01 23 50	est 10.2
R	U Androm.	01 32 38	est < 13.5
	γ Androm.	01 33 38	est < 13.3
	α Persei	01 53 54	est 8.5
	W Androm	02 11 43	est 8.4
	R Triang.	02 31 33	est 5.6 finder
	S Persei	02 15 58	est 8.9
R	R Persei	02 21 50	est 13.8 if seen
	W Persei	02 43 56	est 9.9
	Z Cephei	02 12 81	est 10.8
R	R Cephei	02 30 80	est 11.4
	T Camelop	04 30 65	est 8.6 finder
7 30	— ≠ Camelop	04 32 74	est 9.7 or 4 4/3 Oct. 8 (V.G.)

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1916phae..proj..615C

Mar 25, 1916.

S Camelop 05 30 68 est 9.9

V Camelop 05 4974 est 11.6

S S Aurigae 06 05 47 est x 3 N

U Gemin. 07 49 22 est 14.0
L V = 14.4

10 00

(30) (858) ests
(933) setts L.

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1916phae.proj..615C

Tues. Mar. 28, 1916

F.C. Obs. 15" E.G.

Z Draconis 11392 Phot T.

p. cldy, but will try for Z Drac

> 56.0 13 f
179.5 ℄ comp * dis.

too cldy to see to run micrs

8 43.0 31 f

too cldy to continue with
8 50 this work

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1916phae.proj..615C

Thurs. Mar. 30, 1916

LC Obs. 15" E Eq.

07	10		× Canopus	043274	est x = 9.3 finder	
				07 55		
			P. 9. = 40	323		
07	26	14	119.8	= dec. th Syst Var. with (9.3)		
			194.7	comp star dis		
			290.7	74.9		
			24.4	937		I
				168.6	+ 0.22	
			111.3			
			208.4	971	+ 0.19	
			302.0	744		
			16.4	171.5	+ 0.16	
			P. 9. = 220		Mean = ∓ 0.36	
			17.6	dis.		
			114.6	970		
			192.2	1122	∓ 0.56	
			30 4.4	209.2		
				1508		
			14.5		∓ 0.52	
			121.6	107.1		
			192.5	983		
07	32	01	290.8	2054	∓ 0.49	
				1546		

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1916phae.proj..615C

~~Thurs~~ Mar 30, 1916

P.A. 220

II

37 40
07 ~~37 48~~ 17.8 Comp ~~*~~ dvs

113.6	958	
189.3	1205	
309.8	216.3	−0.70
	143.7	
9.9		−0.70
122.8	1129	
198.4	1038	
302.2	216.7	−0.71
	143.3	

P.A. 40

Mean = −0.23

118.8	~~comp * dvs~~	0.16
~~188.8~~		~~37~~
~~195.3~~	76.5	Final Mean = −0.20
~~218.~~		
292.8	846	
21.4	165.1	+0.28
108.8		+0.24
204.7	95.9	
299.8	736	
07 46 13 13.4	169.6	+0.20

In telescope my var appears fainter than 9.3-9.7 while in plot. it measures the brightest. Comp * made to disappear thus!
I will not consider this as final until another night's exam.

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1916phae.proj..615C

Mar. 30, 1916

Fog too dense to settle this matter conclusively tonight.

PA 270° Spr 2.3

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1916phae.proj..615C

20954

Thurs. Mar. 31, 1916

L.C. Obs. 15-4 Eq. P

X Camelop 04 32 54 est X = 9.4 thirds

08 10
3 38 W Phot T.

Pa 220

Meas. of Cloth star.

7 22.8	119.6	< Vardis.	
	192.8	73.2	
	302.6	71.6	
	14.2	144.8	−0.68
	124.2		−0.68
	192.4	68.2	
	300.8	76.8	
	17.6	145.0	−0.67

Mean = −0.24

Pa. 40

	15.8		
	118.8	103.0	
	204.7	87.7	
	292.4	190.7	
		169.3	+0.20
	22.3		
	111.7	89.4	
	199.4	102.4	+0.21
7 32.8	301.8	191.8	
7 27.8		168.2	+0.22

est 4, 2/3

Pa = 40°
Spr = 2.2
Ha = 3:46
Dec = +74.3
S.T. = 8:29

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1916phae..proj..6156

20954

Mar 31, 1916

SU Drac. 113267 Phot T.
8 32
3 00 +67.5

X Aurigae 06045 ext 11.3

SS Aurigae 060547 x 5 Var.
of 40
2 35 W +47.5

x 7 L.V.

U Geminorum 074922
08 49
1 00 (14.1) 2 Var
= 14.3

8 00

V Canis Min 070109
08 53
1 54 +9.0

Var + w at L.V. = w of Var 14.5 th

Z Puppis 072820 b
09 02
1 34 W -20.7

ext Var N.S. < 14.0

U Puppis 073612 ext
9 16
1 20 -12.8 +5 N

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1916phae.proj..615C

Mar. 31-1916.

S Hydrae 09 00 24

est α 3 Van = 13.5th

χ Hydrae 09 30 14 est 9.0

R R Hydrae 09 40 23 est 8.7

R Comae 11 59 19 est α 0 14th

09 33
+26 +19.3

T Can Ven 12 25 32 est 9.0

9 43
2x² +32.2

R Can Ven 13 44 40 est 9.3

9 46
3 58 2 +40.0

S Virginis 12 00 12 est 10.6

S S Virginis 12 20 01 est 8.4

R Virginis 12 33 07 est 11.3

π Virginis 12 46 06 est 8.3

R V Virginis 12 42 04 est

α 3 Van 13.5th

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1910phae.proj..0156

Mar. 31 - 1906

T Virginis 120905 est 10.1

9 30 Y Virginis 122803 est 12.8
1018
210

R Corvi 121418 est 7.0 4" finder
1029
145-2 -18.7

R V Virg. 130212 est <13.0
1032
230 -12.6

V Virginis 132202 est 9 2
1038
244

S Virginis 132706 est 9.8
1042
245 -6.7

R Hydrae 132422 est 7.0
1045
239 E -22.8 4" finder.

R R V Virg 135908 est 11.4
1059
1000 38 -8.7

Z Virg. 140512 est mag = 13.0

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1916phae.proj.615C

Mar. 31. — 1916.

RS Virg. 142205 ext 13.0

Sky poor, some ~~fog~~ in dome.

10 15 & lens slightly dewed.

L

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1916phae.proj..615C

Fri. Apr. 7, 1916

P.C.Obs

Clouds and mean X Camobj
Phot N.

P.A. 40

8 01.0

296 8 Comp * dis
376 8 800 Comp * α the 7.3
108.0 990
207.0 1790 +002

288.0 +002
30.8 1028
118.6 762
194 8 1790 +002

P.A. 220 Mean = -0.18

~~113.6~~
~~223.8~~ ~~176~~
110.2 86.9
195.1 1053
300.4 1922
1578 −0.42

~~116~~ 17.3
119.6 102.3
206.3 825 −0.26
8 14.0 288.8 1848
8 07.5 1752 −0.09

Jupiter H " α 5, 1/3
Jupiter 15" α 5. 2/3

P.A. 220°
Apr. 22
Ha. 4:57 W
Dec +7 43

X Camobj. = (8.5) 1 Var. ST. = 9.40

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1916phae.proj..615C

April 7, 1916

~~S Aurigae 0605-47~~
~~0942~~
337

Aciti * with Bjurstedt
same dec ±.

Pa. 270

δ 36.6	118.8	< Vardis	
	202.8	8.40	
	299.3	8.24	
	21.7	1664	−026
	111.6		−030
	2038	92.2	
	3031	70.5	
	13.6	1627	−033

Pa 90 Mean = −0.17

	25.2	86.6	
	111.8	99.5	
	197.8	1861	
	2973	1735	+011
	15.5		−004
	116.7	101.2	
	215.0	68.3	
δ 47.0.	263.3	1695	−020

Yields

Pa. 92°
δ/m 2.8
Ita. 5.26 W

Thr

ST = 10.10 Dec +74.3

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1916phae.proj.:015C

April 7, 1916

Stars α + β 1 × Canal region

Pa. 150

δ 56.F 26.4

110.3 < α dis.

196.9 — δ 3.9

299.4 — 1025

1864

173.6 — +012

22.4

117.2 — 948 — +009

204.4 — 88.2

292.6 — 1830 — +0.06

Pa. 330 — 173.0 — mean = −0.02

117.2

196.6 — 79.4

291.2 — 914

22.6 — 1708 * — 017 — (34)(893) (96)(3029)

108.7

205.3 — 966 — − 0.13 — L

300.4 — 58.4

9 05.0 — 10.8 — 175.0 — − 0.09

eyepiece!! Pa. 329°

Sp 2.4

Dec +74.4

Ha. 5.42 W

S.T. 10:24

elder

1000 Too poor to continue.

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1916phae.proj..615C

Thurs April 20, 1916

P.C. Obs. 15" E. Eq.

Clouds star mean X Camelop.

04 ~~46~~ +7 K
9 36
5 Hw +74.0
4 50

P.A. 40 Comp + 9.3 α

> 48.0 16.8 < Surf dis.
117.1 100.3
204.8 81.6
286.4 (81.9
(78.1 + 0.03

25.5
107.5 82.0 + 0.03
196.6 99 4
> 52.0 296.0 (81.4 + 0.03
(78.6

PA. 220
~~HH~~ Adv Mean = - 0.20
8 03.0 116.6
201.3 84.7
300.4 (67
161.4 - 0.35
14.1
121.7 - 0.44
196 4 74.7
299.6 78 1 - 0.52
8 080 17.7 (152.8
7 45 Surf = α 2.4 β

PA. 40°
Spr 2.2

231.0
> 57.8

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1916phae.proj..615C

April 20. 1916

Clouds stars with B.

R.A. 270°

~~270~~

1904 < Bdis = cent ~~*~~

δ 13.4 304.2 1138

22.3 89.7

112.0 2035

1565 − 0.45

204.0

295.3 91.3 − 0.50

12.0 1078

119.8 1991

R.A. 90 1509 − 0.56

107.5 Mean = − 0.24

207.8 1003

297.3 78.2

15.5 1785 + 0.03

δ 23.0 111.4 cldy

all cldy, impossible to finish groups.

R.A. 9 20

δ 2.4

(1) (89 3)

(32) (3061)

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1916phae.proj..615C

Saturday April 29, 1916

L.C. Aber T.O.O. Rea

15" Eq.

X Camelop. 04 32 74 est 9.9
susp. Var.

Acotis susp Var.

Comp with /3.

P.a. 100

07 53 52

119.6	< var dis	
195.2	75.6	
291.9	94.4	
26.3	170.0	-0.19
114.4		-0.22
200.8	86.4	
294.8	80.7	
15.5	167.1	-0.24

P.a. 280. Mean = +0.07

202.9		
297.7	94.8	
11.4	100.8	
123.2	195.6	
	164.4	+0.30
194.8		
301.4	106.6	+0.36
24.2	95.6	
119.8	202.2	
	157.8	+0.42

08 00 50

P.a = 271.5
Spr. = 3.0

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1916phae.proj..615C

April 29, 1916

Search Var with α

P.a, 220

8 11 18 112.6 < Var. dis.
193.5 8 0.9
310.2 5 8 2
8.4 139.1 − 0.79

α 4
β 2

124.4
186.7 623 − 0.80
301.9 76.5
18.4 138.8 − 0.80

P.a, 140 Mean = − 0.~~40~~ 37

202.4
294.6 9 22
18.8 8 9.6
108.4 181.8 + 0.03
178.2

202.6
293.5 90.9 + 0.06
19.6 93.8
8 19 03 113.4 184.7 + 0.09
175.3

P.a. = 40°
Spr = 2.5

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1916phae.proj..615C

20983

April, 29, 1916

08	33	✓	S	S Aurigae	06 05 47 est W 3
		✓	R	Aurigae	05 09 53 est 8.9
		✓	S	Camelop.	05 30 68 est 8.8
		✓	V	Camelop.	05 49 74 est 12.8
		✓	[illegible]	Lyncis	06 31 59 est 12.7
		✓	S	Lyncis	6 35 58 est S O var both stars near L V
		✓	R	Lyncis	06 53 55 est 8.9
		✓	21	Gemin.	07 49 22 est 14.0
		✓	X	Ursa Maj.	08 33 50 est 12.1
		✓	ν	Draconis	09 31 78 est 9.6
		✓	R	Ursa Maj	10 37 69 est 12.1
		✓	U	Cancri	08 30 19 est Z 3 at L V.
		✓	S	Hydrae	08 48 03 est 13.0
		✓	V	Leonis	09 54 21 est 13.2

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1916phae.proj..615C

April 29, 1916

W Leonis 10 48 14 est 13, 8

S Leonis 11 05 06 est 10.6

(17) (910)
(32) (3093) R

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1916phae.proj..615C

Sunday April 30, 1916.

L.C. Aber. J.O.O. Rec.
15" Eq.

X Camelop. 04 32 74 est 10.4
Olcott's star near by
alpha 2
0 β =
susp. with alpha α

P.A. 40°

07 58 07

22.2 Wardle
115.6 93.4
207.8 79.7
287.5 173.1 — 0.13

33.4
108.3 74.9 — 0.15
199.8 96.2
296.0 171.1 — 0.17

P.A. 220° Mean = — 0.38

115.8
200.5 84.7
307.9 65.1
13.0 149.8 — 0.58

123.8 — 0.62
187.8 64.0 PA 220°
301.6 81.6 Spr. 2.4
08 03 45 23.2 145.6 — 0.66

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1916phae.proj..615C

April 30, 1916

Algol's Susp Var with /3

P.a. 270

8 13 06 121.2 <var. dis.
191.6 70.4
299.4 74.3
373.7 144.7 — 0.68

120.6
197.7 77.1 — 0.67
305.0 67.7
373.7 145.8 — 0.66

P.a. 90

Mean = −0.42

209.2
287.4 79.2
22.5 91.2
113.7 170.4 — 0.18

197.8
293.4 95.6 — 0.18
31.3 94.9
08 18 49 106.2 170.5 — 0.18

P.a = 90°
Spr = 2.9

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1916phae.proj..615C

20984

Apr 30 - 1916

U Geminorum 074922

8 30 est 14.2

✓ R S Ursæ Majoris 123459 est 14.2

✓ T Ursæ Minoris 133273 est 13.5

✓ U Ursæ Minoris 141567 est 11.3

✓ R Camelop 142584 est 8.6 finder

✓ S Ursæ Minoris 153378 est 8.6 finder

✓ S Bootis 141954 est 10.3

✓ R Draconis 163246 est 7.6 finder

✓ T Draconis 175458 est = 12.9
comp to T = 10.8

✓ V Draconis 175654 est 13.2

✓ W Draconis 180565 est 12.8

✓ X Draconis 180666 est 11.8

✓ U Draconis 190967 est 13.5

225
644
516

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1916phae.proj..615C

Apr. 30, 1916

N X Cephei 21038.2 est α 3 n

12 30
8 33
3 27

Yerkes chart

V T Cephei 21086.8 est 9.8

12 3x
8 3x
3 26 +68.1

V S Cephei 21367.6 est 8.7

12 36
9 00
3 50 +78.0

9 50

(19) (929)
(32) (3125)

L.

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1916phae.proj..615C

Monday May 1, 1916

L.C. Aber. J.C.O. Rec.

15" Eq.

C. watch 11 sec. fast at $7^h 37^m$ P.M.

Camelop 043274 est

~~double star~~ with alpha (α)

P.A. 40°

7 57 50	117.0	Cent* ~~Radio~~	
	201.0	840	
	294.4	833	
	17.7	1673	+ 0.24
	112.4		+ 008
	199.4	870	~~+ 0.08~~
	291.7	977	
	29.4	1847	
		1753	∓ 0.09

P.A. 220°

	299.8	Var	Mean = −0.27
	17.2	174	
	121.3	735	
	194.8	1509	− 0.56
	307.9		− 062
	13.6	657	
	122.3	787	P.A. 920°
08 06 56	201.0	1444	− 0.69 Spr 2.5

Obs. very diff on acct of haze & fog stars at times barely seen

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1916phae.proj..615C

May 1 - 1916.

measures a trifle uncertain and
Observer confused at times as
to which image was the var.
but values as corrected stand
as O.K.

Algol to start with / 3.
P.a.

8 37 Too cloudy to continue.

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1916phae.proj..615C

Tuesday, May 2, 1916.

L.O. Aber. J.O.O. Rec.
15" Eq.

— Camelop 04327 F.
P.A. 40° sus. with ∠

07 49 30

182.6	Var dis		P.O.Obs
303.3	1207		
19.8	902		
110.0	2109		
	1491	+ 0.59	
203.0	888		
291.8	1184	0.56	
8.3	2072		
126.7	1572	+ 0.52	

P.A. 220° Mean = 0.00

297.2	777	
14.9		
123.4	728	
196.2	1505	— 0.57

308.3	631	— 0.56
11.4	883	
109.7	1514	— 0.55

07 55 20 198.0 P.A. 220°
Spr 2.4

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1916phae.proj..615C

May 2, 1916.

same again

P.A. 22°

08 02 00

193.6	comparis. ~~var dis~~	Prof H C. Wilson
299.9	1063	OB.
15.4	1085	
123.9	2148	
	1452	× 0.67

~~300.8~~

196.3	1079	× 0.5 f
299.2	1020	
19.6	2119	
121.6	2049	× 0.4 f
	1535.1	

P.A. 40°

Mean = -0.14

15.6	1055	
121.1	916	
202.8	1971	+ 0.32
294.4	1629	

17.7	917	
109.4	1040	+ 0.31
193.3	1957	
297.3	1643	+ 0.30

08 14 23

P.A. ~~40°~~ 60°

8 pr 2.5

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1916phae.proj..615C

May 2, 1916.

Same again with β

P.A. 90°

08 25 27

21.8	Lvar dis	
108.7	869	
192.8	59	
297.7	94	
	181.8	+0.03
19.5	178.2	
118.0	985	
204.4	875	+0.07
291.9	186.0	+0.11
	1260	

P.A. 270 Mean = −0.29

123.5		
191.9	684	
301.0	750	−
16.0	143.4	±0.71
		−
116.8		±0.65
200.3	535	
305.3	658	−
11.1	149.3	±0.59

08 30 45

PA 270°

Spr 3.0

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1916phae.proj..615C

May 2, 1916.

SS Aurigae 060547 est x 3 N
α Gemin 074922 est 14.1
var = 14.1 also H. C. Wilson
T. Camelop 043065 est 8.0 finder

8h 53m Z Aurigae 055355 est 10.7

X Hydrae 093014 est 10.1

Y Hydrae 94622 est 6.8 finder

V Hydrae 104620 est 7.1 finder

RV Virginis 130212 est 13.8

9h 25m R Hydrae 132422 est clouds

~~Z Bootis 140113 est~~

9 40 Too cloudy to continue.

(9) (938)

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1916phae.proj..615C

Thursday May 4, 1916

L. C. Obsr. T. O. O. Rec.

15" Eqr.

— Camelop 04 32 74

Alcotb mrp Var

∠ 3, 0 3

∠ 1 2 3 } Prof. H. C. Wilson

P. A. 220 Smoop with ∠

08 03 20

112.8	var dio.	
197.7	849	
305.0	668	
11.8		
1517		− 0.54
121.1		
190.8	697	− 0.46
291.7	901	
21.8	1598	− 0.38
P. A 40°		Mean = − 0.24
193.4	1024	
295.8	863	
22.6	1887	
108.9	1743	+ 0.16
		− 0.02
206.8	787	
285.5	910	
26.0	1697	− 0.20

08 08 52 117.0

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1916phae.proj..615C

May 4, 1916.

~~8~~ same again

Prof. H. C. Wilson Obsr.

~~8 12.20 288.8 Var dis~~

~~89.5~~

P. a. ~~4222~~

08 16 24

197.1	Var ~~comstar~~ dis.	
296.4	993	
23.8	908	
114.6	~~1901~~ 1599	+ 0.38
207.6	886	
296.2	930	+ 0.20
27.4		
120.4	1816	
	1784	+ 0.03

P. a. ~~4~~222 Mean = − 0.10

21.8	comp* dis. 941	
115.9	1043	
197.4		
301.7	1984	− 0.35
	1616	
16.7	1065	
123.2	962	− 0.39
203.4		
299.6	~~2927~~	
08 28 01	2037	− 0.43
	1573	

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1916phae.proj..615C

May 4, 1916

9 00 Quite cloudy

9 12 clearing S & W

η Geminorum 07 49 22 est 13.5
12
sky hazy diff to see faint stars

R T Librae 15 00 18 est 13.2 est. diff on account of haze

V Librae 14 34 17 est 12.9

T Librae 15 05 19 est k'2 N
13 2A
1 37
10 23

Y Librae 15 06 05 est 12.2 e'
1 3 30 susp var n.f = 11.4
1 36
10 24

S Librae 15 15 20 est (6) — (4)
1 B 35
1 40
10 20

10 35 too cloudy to continue

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1916phae..proj..615C

Tues. May 9-1916

PC Obs. 15" E Eq.

07 49 22 ζ Geminorum.
11 19
3 30

f 20 ext 13.9

SU Draconis · 113267

11 35 +67 5 Phot T.
11 50
0 15 W P.A. 70° PC Obs.

9 0.5	105.2	var. dis.		
(0.8)	204.3	rev. im.	99.1	Comp ✶ = b(8.9)
	295.7		f 1.1	see PC's chart.
	16.8		180.2	
			179.8	+0.00
	119.7			−0.14
	197.8		78.1	
	291.3	rev. im.	f 7.1	
9 3.0	18.4		165.2	−0.28
			P.A. 25°0	Means +0.37
9 6.1	181.8			f.94
	305.6		123.8	9.31
	17.3	rev. im.	96.4	
	113.7		220.2	+0.78
			139.8	
	196.6			+0.88
	299.2		102.6	2420993.586
	7.1	rev. im.	118.1	93.482
			230.7	0.104
9 8.1	125.2		129.3	+0.99
1H 4.4				

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1916phae.proj..615C

May 9 - 1916

		P.A. 250			H.W. Obs. 11
9	11.5	195.6	< Vandiv		
		303.6	108.0		
		13.2	107.9		
		121.1	215.9		
			144.1	+0.69	
		192.5			
		301.2	108.7	+0.74	
		13.5	111.5		
9	15.5	125.0	220.2	+0.78	
			139.8		
		P.A. 70	Mean =	+0.26	
9	17.18	115.0			8.96
		196.7	81.7		9.20
		294.8	84.7		
		19.5	166.4	−0.26	
		113.6		−0.22	
		200.3	86.7		
		298.5	83.9		
9	21.4	22.4	170.6	−0.18	

17.2
9 14.3
2420993.593
93.482
0.111

Repair light

(1)(945)
(12)(325)

Ha = 1:134
Dec = +67.8
T. = 12:5-0
P.a. = 70.1 B
Sh = 3.4

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1916phae.proj..615c

Thursday May 11, 1916

15-11 ε Eq.

ν U Draconis 11 3267

Ref. H.C.W. obs (H.C.W.)
Ref. Chant obs. (C.a.C.)

P. a. 70

08 05 04	24.0	< comp star, dio		
	112.6		88.6 ✓	(H.C.W.)
	199.3		94.7 ✓	
	294.0		183.3 ✓	−.006 ✓
			176.7	
	91.6			
	119.8		98.2 ✓	−0.17 ✓
	202.8		96.4 ✓	
8 09 24	299.2		194.6 ✓	
			165.4 ✓	−0.28 ✓

P. a. 250

8 11 46	304.1		✓ Mean = +0.30	
	9.8		65.7 ✓	8.94
	122.1		211 ✓	+.084 ✓ 9.24
	193.2		136.8	
				+0.16 ✓
	302.8		✓	
	16.1		73.3 ✓	
	123.9		71.1	
08 14 34	195.0		144 ✓	+0.69 ✓

460 58
8 10 14
13 10 14

20995.578
ε = 46 3
0.086

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1916phae.proj..615C

(2)

May 11, 1916

P. a, 250'

(C.A.C)

Prof. W. watch used (watch 5 sec. slow)

8 25 39	306.1	589	star dia	
	5.0	639		
	123.8	1128		+ 1.35
	187.7			
	307.0	632		+ 1.05
	10.2	779		
	116.9			+ 0.75
8 32 48	194.8	1411		

P. a, 70

mean + 0.37

8.94

9.31

08 35 30	114.6	868	var dia	
	201.4	817		
	294.2	1685		− 0.22
	15.9			
	113.4	832		− 0.31
	196.6	756		
	299.2	1588		− 0.40
08 40 08	15.8			

13 57

8 33 29

0985. ~~606~~ 565 463

+ 0.102

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1916phae.proj..615C

III

May 11, 1916

P. a. 70 (H.C. W)

08 48 01	~~20.7~~	comp star. dis.	
	110.3	~~89.6~~	
	202.5	938	
	296.3	~~343.4~~	− 0.06
		1834	
	19.6	944	− .03
	114.0	859	
	206.2	1803	0.01
8 52 5	292.1	179.7	

P. a. 250

mean = ±0.38

8.94

9.32

8 53 26	191.9	var star dis ~~comp. star dis~~	
	301.7	1098	
	14.2	1091	
	123.3	218.9	+ 0.75
		141.1	
	194.8	1062	
	301.0	1165	+ 0.79
	9.5	227	
8 58 50	126.0	137.3	+ 0.83

12 32

A 43 08

995.620

577

463

+0.113

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1916phae.proj..615C

IV

May 11, 1916

P.a. 250 (c.a.c)

09 07 ~~10~~ 05

302.0 < comp. star dio
8.4 664 ✓
122.0 690 ✓ + 0,87 ✓
191.0 135.4

292.2 755 ✓ + 0.82 ✓
7.7 646 ✓
121.7 140.1 ✓ + 0.77 ✓
9 12 01 186.3

P.a. 70 Mean = 0.36
8.94
9.30

~~09 1 57 112.0~~
09 14 39 198.1 < comp. star dio
287.0 889 ✓
23.0 903 ✓ + 0,02 ✓
113.3 179.2 ✓

193.8 1069 ✓ − .11 ✓
300.7 857 ✓
22.6 1926 ✓
9 19 04 108.3 167.4 ✓ − ,24 ✓
12 54

9 13 14
995.592
463
0.129

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1916phae.proj..615C

V

May 11, 1916

(1+C.W)

P.a. 70

9 23 07

204.0	comp. star dis.	
292.7	887 ✓	
18.6	909 ✓	
109.5	179.6 ✓	+ 0.01 ✓
198.6	944 ✓	- 0.07 ✓
293.0	930 ✓	
19.8	187.4 ✓	- 0.14 ✓
112.8	172.6 ✓	

9 29 25

P.a. 250

Mean = ±0.43²

9 31 00

301.0	comp. star dis.	
10.0	690 ✓	
124.2	648 ✓	0.80.
189.0	133.8 ✓	+ 0.11
305.0	647 ✓	+ 0.93²
9.7	668	
124.4	131.5 ✓	+0.95
191.2		

09 35 04

38 36

9 29 39

995.604

663

0.141

8.94

9.36

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1916phae.proj..615C

VII

May 11, 1916.

P.A. 250

(C.A.C)

09 40 20

302.0 ← comp. star dis.

10.9	689	
121.9	698 ✓	✓
230	1387	+ 0.80
191.7		
190.8		

298.3	725 ✓	+ 0.76 ✓
10.8	708 ✓	
121.2	1433 ✓	+ 0.71 ✓
192.0		

9 - 4 56 58

Mean = 3 3
+0.894
9.27

P.A. 70

9 47 14

206.6 ← comp. star dis.

211.6	105.0 ✓	
21.3	91.4 ✓	- 0.31 ✓
112.7	196.4 ✓	+ 1.75
	163.6	

197.0	1002 ✓	+ 0.10
297.2	745 ✓	
32.0	1747 ✓	+ 0.10
106.5		

09 54 23

30 55

9 47 44

995.617

463

0.15 ✓

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1916phae.proj..615C

VII

May 11, 1916.

R.A. 70 (H.C.W.)

~~19~~ 04 49	205.5	< comp. star dis.	
	295.4	899 ✓	
	26.5	807 ✓	
	107.2	170.6 ✓	+ 0.18 ✓
	205.5	883 ✓	+ 0.16 ✓
	293.8	845 ✓	
	25.0	172.8 ✓	+ 0.14 ✓
10 10 37	109.5		

Mean = +0.50 ✓

~~8.94~~

7.44

R.A. 250

10 12 13	126.3	< comp. star dis.	
	194.2	679 ✓	
	308.0	670 ✓	
	15.0	134.9 ✓	+ 0.88 ✓
	119.8	723 ✓	+ 0.84 ✓
	192.1	~~8~~67 ✓	
	303.5	139.0 ✓	+ 0.79 ✓
10 15 57	~~4~~ 10.2		

3 36

10 10 54

995.633

663

0.170

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1916phae.proj..615C

VIII

May 11, 1916.

R.A. 250 (C.A.C.)

10 22 50

124.0 < comp. star dis.
188.5 645 ✓
300.0 649 ✓
4.9 129.4 ✓ + 0.99 ✓

125.9 690 ✓ + 0.85 ✓
194.9 744 ✓
296.8 143.4 ✓ + 0.71 ✓
11.2

10 27 11

Mean = 37.4 ✓
+0.94
9.31

R.A. 70

10 29 27

14.4 < comp. star dis.
108.0 936 ✓
203.8 949 ✓
298.7 188.5 ✓ — 0.16 ✓
171.5
20.0 954 ✓
115.4 ✓ — 0.11 ✓
203.0 876
290.6 183.0 ✓ — 0.06 ✓
177.0 ✓

10 34 55
34 23

10 28 36

0995.6045
×63
0.182

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1916phae.proj..615c

IX

May 11, 1916

P. 9.70 (H.C.W.)

10 38 29	29.3	comp star dis.	
	109.2	799 ✓	
	208.0	857 ✓	
	293.7	165.6 ✓	+ 0.27 ✓
	26.5	847 ✓	+ 0.26 ✓
	111.2	828 ✓	
	207.0	167.5 ✓	+ 0.24 ✓
10 43 ?	289.8		

P. 9. 250

Mean = 0.53 ✓

~~0.94~~ ✓

9.67

~~10 46 38~~	~~302.7~~		
	~~11.6~~		
10 49 53	124.0	comp star dis	
	190.7	667 ✓	
	299.3	727 ✓	
	12.0	139.4 ✓	+ 0.79 ✓
	121.8	727 ✓	+ 0.80 ✓
	194.5	648 ✓	
	305.0	137.5 ✓	+ 0.82 ✓
10.5223	9.8		

23 45

10 45 56

0985. 656

663

0.093

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1916phae.proj..615C

X

May 1, 1916

P.a. 250 (C.a.C)

10 57 04 — 118.5 < comp. star dis
185.0 665 ✓
299.5 713 ✓
10.8 . 137.8 ✓ + 0.82 ✓

118.9 705 ✓ + 0.81 ✓
189.4 . 683 ✓
301.5 . 138.8 ✓ + 0.80 ✓
11 01 42 . 9.8

P.a. 70 Mean = ~~44~~ +0.36 / 8.94 / 9.30

11 03 47 — 11.4 < comp. star dis.
107.8 964 ✓
201.8 873 ✓
289.1 ✓ 183.7 ✓ 7
176.3 − 0.09
25.9 ✓ +0.10
109.4 835 ✓ + 0.07
205.7 . 817 ✓
287.4 . 165.2 ✓ + 0.28 ✓

11 07 35
10 08
11 02 32

995. ~~576~~
669
463
+.206

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1916phae.proj..6156

XI May 11, 1916

P. a. 70 (H.C.W)

11 10 54	22.5	comp. star dis	
	108.2	857 ✓	
	204.6	859 ✓	
	290.5	171.6 ✓	+ 0.16 ✓
	22.7	867 ✓	+ 0.17 ✓
	109.4	836 ✓	
	207.0	170.3 ✓	+ 0.18 ✓
11 14 56	290.6		

P. a. 250 Mean ±0.52 ✓

~~250.~~

~~11 16 39~~	~~193.0~~		
11 21 44	122.3	comp. star dis	
	194.5	722 ✓	
	302.8	661 ✓	
	8.9	138.3 ✓	+ 0.81 ✓
	120.2	682 ✓	+ 0.86 ✓
	188.4		
	305.0	652 ✓	
	10.2	133.4 ✓	+ 0.91 ✓

11 2550

33 24

11 18 21

99 = 639

463

+0.216

1916phae.proj..615C

XII

May 11, 1916

P. 9.250 (C.a.C)

11 30 58	118.5	< comp. star dis.	
	186.0	675 ✓	
	307.9	626 ✓	
	10.5	130.1 ✓	+ 0.98 ✓
	126.0	670 ✓	+ 0.95 ✓
	193.0	659 ✓	
	300.1	132.9 ✓	+ 0.92 ✓
11 35 43	6.0		

Ra. 70

Mean = +0.62 ✓

94 / 9.56

11 37 25	28.7	< comp. star dis	
	110.8	821 ✓	
	205.3	784 ✓	
	283.7	160.5 ✓	+ 0.37 ✓
	25.2	830 ✓	+ 0.29 ✓
	108.2	860 ✓	
	201.0	169.0 ✓	+ 0.21 ✓
11 42 07	287.0		

26 13

11 36 33

995.692

463

0.229

P. q = 7.15

Spr = 3.0

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1916phae.proj..615C

Fri
~~Wed~~. May 12, 1916

15^{-11} Eq.

Error of watch used = 4sec slow at 7^h

S Draconis 11326

	P.A. 70		H.W. Obs.
δ ~~21.6~~	26.2	< comp + dia	P.C. Rec
	105.8	79.6	
	207.8	80.6	
	~~288.4~~	160.2	+ 0.38
	21.8		+ 0.32
	105.4	83.6	
	205.7	80	
δ 5.5	288.7	166.6	+ 0.25
	P.A. 250		Mean = + 0.33
δ 6.8	126.8	< comp + dia	~~δ 94~~
	185.2	58.4	9.67
	~~306.7~~	64.2	
	305.2	122.6	+ 1.14
	94		
	128.7		+ 1.14
	188.1	59.4	
	307.1	63.0	
δ 11.6	101	122.4	+ 1.14
255			
δ 6.4	96.546		
δ 6.5	96.124		
20996.546	0.422		

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1916phae.proj..615C

II

May 12 1916

δ U. Drac. com
P.A. 250

L.C. Observer
H.C.W. recorder

δ 15 02 30 9.0
4.6 Comp dis.
124.1 rev. im
194.0

55.6 δ
69.9
125.5 + 1.07

298.7
15.3
129.0
184.1

+1.00
76.6
55.1
131.7 + 0.54

δ 15 02

rev dis P.A. 70.

31.5
99.5 comp dis.
200.9 rev. im
291.1

2 mean + 0.70
60.0
90.2
158.2 + 0.42

δ 9.4
9.6

220
112.1 rev im.
212.8
262.0

+0.40
90.1
69.2
159.3 + 0.39

δ 22.1
372
δ 18.6
18.7
996.553
96.124
+0.431

1916phae.proj..615C

III

May 12 1916

P.A. 70°

H.C.W Obs & Rec.

8 29,8

~~230,0~~
109.2 Comp dis
209.2 Rev.
289.0

79.2
79.8
159.0 +0,40

+0,44

29.0
108.4
8 36.8 211,1
284.8

81.4
73.7 +0,48
155.1

Pa 250

8 43.7

127
190.4 Comp dis
308.3 rev in.
72

+0.79
.94
9.73

62.7
58.9
121.6 +1.16

125.6
187.1 Rev i
303.1
8 50.0 49

61.5 +1.14
61.8
123.3 +1.12

160 3
f 40.1
f 40.2

996.569
96.124
0.445

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1916phae.proj..615C

IV

May 12 1916

PA 250°

8 55.5
123.6 comp dis
191.8 rev. 2
304.0
7.4

126.0
187.4 rev.
303.8
9 3.3 7.2

PA 70°

9 3.5 208.1 comp dis
287.2 rev.
26.1
102.9

208.1
287.9 rev 1
286
9 10.0 104.7

143
9 3.6
9 3.1
996.586
996.124
0.462

H.C.W. obs & rec.

68.2
63.4
131.6 +0.95

+1.02

61.4
63.7
125.1 +1.08

79.1
76.8
153.9 +0.46

+0.46

79.8
76.1
155.9 +0.46

+0.77
8.94
9.68

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1916phae.proj..615C

V

May 12 1916

PA 70°

			H.C.N. Obs. & Tel.	
9 18.2	205.7	Comp. dis.		
	286.8		81.1	
	31.8		75.7	
	107.5		156.8	+ .44
	206.6		80.4	+ .48
	287.0		72.7	
	31.4		153.1	+ .51
9 25.8	104.1			
	PA 250°			
9 28.5	304.8	Comp. dis.		+ 0.78
	4.4		62.6	8.94
	130.0		57.2	9.72
	187.2		119.8	+1.20
	304.5			
	8.0		63.5	+ 1.09
	123.6		66.3	
9 36.0	189.9		129.8	+0.98
28.2				
9 27.0				
9 27.1				
996.602				
96.124				
0.478				

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1916phae.proj..615C

VI

May 12, 1916

	PA, 250°	HCW Obs & Rec.	
q 43.0	302.6		
	10.1 new Comp dis	67.5	
	124.8	65.3	
	190.1	132.8	+.92
	304.9		
	7.9 new	63.0	+1.00
	126.8	62.0	
q 46.2	188.8	125.0	+1.08
	PA 70°		
~~q 50.1~~	~~102.6~~		+0.78
q 57.5	207.1		8.94
	288.0 Comp dis	80.9	9.72
	28.7 new	74.6	
	103.3	155.5	+0.47
	213.9		
	286.8	72.9	+0.56
	31.1 new	73.9	
q 57.5	105.0	146.8	+0.64

02

q 50.0
q 50.1
996.618
996.124
0494

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1916phae.proj..615C

VII

May 2, 1916

PA 70°

10 05.5	211.6	Comp dis.	
	288.1		76.5
	29.4		74.8
	104.2		151.3 +0.55
	211.4		
	286.7		75.3 +0.57
	31.0		74.1
10 11.6	105.1		149.4 +0.59

PA 258°

10 16.5	123.0	Comp dis	+0.76
	191.5		68.5 +0.84
	304.9		64.0
	8.9		132.5 +0.93
	175.3		
	199.1		64.8 +0.95
	365.0		65.4
10 23.0	10.4		130.2 +0.97

166

10 14.2

10 14.3

996.635

96.124

0.511

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1916phae.proj..615C

VIII

May 12, 1916

PA 250°

10 32.0 125.5
187.4 Comp. dis.
302.7
10.6

126.0
185.9
299.6
10 38.0 7.5

PA 70°

10 40.3 206.7
287.0 Comp. dis.
25.8
108.0

208.7
288.6
29.0
10 46.2 107.9

156.5
10 39.1
10 39.2
996.65-2
996.124
0.528

Hel V obs & red.

61.6
67.9
129.5 +0.99

+1.00

59.9
68.2
128.1 +1.02

+0.68
894
9.62

80.3
82.2
162.5 +0.33

0.36

79.9
78.9
158.8 +0.40

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1916phae.proj..615C

IX May 12/1916

P.A. 72.5

10 53.0 208.5 comp. dis

292.0	83.5	
29.7	79.5	
109.2	163.0	+.32
206.3		+.34
291.6	85.3	
300	75.9	
105.9	161.2	+.36

P.A. 252

11 2.5 298.8 comp. dis.

15.6	76.8	
120.4	73.4	
193.8	150.2	+.57
297.0		+.52
15.6	78.6	
116.9	77.0	
11 8.4 193.9	155.6	+.47

+.43
.94
1.37

121.4

11 00.7

11 00.8

Watch slow 5^s

996.667

996.124

+0.543

P.A. 253.0

Aver. 3.4

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1916phae.proj..615C

20997

Saturday May 13, 1916

L.C. Obs. J. OO, Rec.

12 10 Cloudy
12 30 clearer
12 48

15" Eq.

SS Cygni 21 38 43 est 8.3 finder
16 28
5 10
6 50

R Y Lyrae 18 41 34 est 13.8
16 36
2 05
9 55

Obs. of last night in 12" evidently in error.

Z Cygni 19 58 49 est 13.0
16 40
3 18
8 42

13 50

S Cygni 20 03 57 est < 14.5
16 44
3 19
8 43

RS Cygni 20 09 38 est 7.5 finder
16 47
3 22
8 38

SX Cygni 20 11 30 est 13.8
16 52
3 19
8 41

WX Cygni 20 14 37 est 13.0
16 55
3 19
8 41

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1916phae.proj..615C

May 13, 1916

21. Cygni 201647 est 8.2 finder
1658
318
842

ST Cygni 202954 est 13.3
1659
340
820

V Cygni 203847 est 12.0
1706
332
828

RZ Cygni 204846 est 12.8
1708
340
820
Susp Var (?) = 11.3 and red—

R Vulpc. 205923 est 9.1
1713
346
814

S T Sagit 15-5-12 est 13.5
1717
138
1022

W Aquilae 191007 est 8.9
1727
143
1147
Susp. var near = 10.5

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1916phae.proj..615C

May 13, 1916.

R Sagitt 191019 est 11.8
1732
138
1022

S Sagitt 19 est
Clouds

R W Sagitt 190819 est 9.6

R. X Sagitt 190818 est 13.4

14 04 R Y Sagitt 191033 est P var
var faint extremely diffs.

R V Aquilae 193509 est 9.5
1748
147
1013

X Aquilae 194604 est 8.9
1751
155
1005

R R Aquilae 195202 est 12.2
1752 faint and diffs.
200
1000

R S Aquilae 195308 est < 12.0

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1916phae.proj..615c

May 13, 1916

S Y Aquilae 20 02 12 est 10.6
17 57
2 05
9 55

S Aquilae 20 07 15 est clouds

14 23 Too hazy and cloudy to continue

R.

(25)(970)

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1916phae.proj..615C

Wednesday May 17, 1916

watch 26s fast

SU Draconis 11 3267

P.A. 250°

H.C.N. Ob 2 rec

8 50.0	3042		
	14.1 Comp dis	69.5	
	120.0 rev. i	70.1	
	190.1	140.0	+ 0.77
	8		
	3027		+ 0.82
	10.1 rev. i	67.4	
	123.3	67.7	
8 56.7	191.0	135.1	+ 0.87
	P.A. 70°		
8 58.8	16.1		
	1105 comp. dis	94.4	+ 0.35
	199.9	95.8	894
	295.7	190.2	9.29
	~~245~~	169.8	— 0.19
	20.6		
	114.1	93.5	- 0.12
	203.7 rev. i	88.9	
9 04.6	292.6	182.4	— 0.05
		177.6	

301

8 57.5

- 4

13 8 57.1

21001 5-81

1.407

0.174

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19:10phae.proj..61:5c

II

May 17, 1946.

P

PA 70.0°

H.e.W. obs

9 13.2 27.4 Comp dis
112.0
1969
294.8
24
24.1
110.2
202.9
9 18 294.0

846
959
180.5
179.5 −0.01

86.1 +0.02
91.1
177.2 +0.05

9 21.7 301.0
7.5 comp dis
124.3
186.3

66.5
62.0
128.5 +1.01

+0.5 2
8.98
9 x 6

302.8
5.7
126.0
9 28.0 191.6

62.9 +1.02
65.6
128.1 +1.02

1.8
9 10.5
14 9 10.1
21001.590
1.607
0.183

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1916phae.proj..615C

III

May 17, 1916

PA 250°

9 36.5 299.6 comp dis
7.8
126.6
192.1

306.0
24
125.8
9 42.0 189.6

68.2
65.5
133.7 + 0.90

61.4 + 0.98
63.8
126.2 + 1.06

P.A. 70°

9 44.9 28.0 comp. dis
109.0
204.0
293.4

81.0
89.4
170.4 + 0.16

+0.56
.94
9.50

23.3
113.6
203.9
9 51.0 266.2

90.3 +0.14
84.3
174.6 + 0.10

144
9 43.6
149 43.2
2100 1.613
1.407
0.206

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1916phae.proj..615c

IV

May 17 – 1916.

P.A. 70°

9 09.2 222
110.7 comp. dis.
202.7 r.
289.8

25.1
111.9
204.6
10 04.5 293.1

P.A. 250°

10 6.7 304.5
8.6 comp. dis.
127.0
188.2

303.3
7.5
121.8
10 12.0 188.0

224
10 05.6
15 05.1
2100 1.628
1.407
0.221

H.R. W. Obs.

88.5
87.1
175.6 +0.08

+0.08
86.8
88.7
175.5 +0.08

64.0
61.2
125.2 +1.08

+1.02
64.2
66.2
130.4 +0.97

+0.55
89x
9x9

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1916phae.proj..615C

V

May 17 1916

SU Draconis

PA 250°

H.C.W. 86.

10 17.4 303.8
9.2 comp dis 65.4
123.4 54.6
188.0 120.0 +1.19

303.0 +1.12
5.0 62.0
125.0 64.9
10 23.5 189.9 126.9 +1.04

PA 70° +0.62

10 25.5 23.0 89.4
109.6 86.6 9.5-6
204.0 86.0
290.0 172.6 +0.14

20.0 +0.12
109.7 89.7
205.5 85.7 +0.09
10 31.4 291.2 175.4

27.8
10 28.0
15 27.6
2100 1.644
1.407
0.237

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1916phae.proj..6156

VI May 17–1916

PA 70°

10 46.2	25.5		
	110.6	85.1	
	202.8	85.4	
	288.2	170.5	+0.18
	26.8		
	108.9	82.1	+0.17
	204.2	89.5	
10 52.5	293.7	171.6	+0.16

PA 250°

10 55.0	120.0		+0.54
	191.0 comp dis	71.0	8.94
	301.9	66.8	9.48
	8.7	137.8	+0.82
	123.6		
	189.2	65.6	+0.90
	305.0	63.9	
11 01.3	8.9	129.5	+0.99

150
10 53.8
15 53.4
2 1001.66
1.407
0.255

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1916phae.proj..615C

VII

May 17: 1916

SW Draconis

PA 250°

				Helv. obs
11 11.0	1246			
	1891	comp. dis	64.3	
	3089		58.8	
	77		123.1	+1.13
	1253			+1.08
	1884		63.1	
	3038		63.9	
11 16.5	77		127.0	+1.04

PA 70°

12 18.5	259			+0.68
	1087		83.7	8.9 v
	2049		81.1	9.62
11 24.0	2860		164.8	+0.29
	clouds			
11 31.0	208			
37.5	1138		93.0	
	clouds.			

30.0
11 17.5
16 17.1
2100 1.678
1.407
0.271

RA. 67.8
Sprocket 5.6
watch 25s fast

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1916phae.proj..6156

Thursday May 18 1916

SU Draconis 113267

PA 70°

8 41.6	207.0 comp dis			H.C.W. 811
	281.6	74.6		C.A.C. Rec.
	282	78.8		
	1070	153.4	+ 0.51	
	2060			0.48
	2876	81.6		
	313	75.4		
8 47.3	1067	157.0	+ 0.44	

PA 250

8 49.7	3043			+0,80
	84	64.1		894
	1287	60.3		974
	1890	124.4	+ 1,10	
				+1.12
	8034	64.0		
	74	58.7		
	1253	122.7	+ 1.13	
8 52.0	1840			

306

8 47.6

(3 47).C

21002.5)5

2068

0.507

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1916phae.proj..615C

II

May 18 + 1916

SW Drae

P.A. 250°

C. a. C. Ob.?

9 4 0 296.3 comp bis

5.0 89.

130.8 68.7

185.6 54.8

123.5 + 1.12

306.5

9.3 62.8 + 1.10

121.8 62.0

9 11.6 183.8 124.8 + 1.09

P.A. 70°

+0.72

15 5 206.2 comp. dis

288.6 82.4

21.7 85.4

107.1 167.8 + 0.23

894

9.66

206.3 + 0.34

285.1 78.8

9 20.0 26.4 77.1

clouds 155.9 + 0.46

238 103.5

111

9 12.5

14 12.5

21002.592

2.068

0.524

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1916phae.proj..615C

Friday May 26, 1916

SU Draconis 11 32 67

water fast 22°

P.A. 70° Sprocket 3?

H.C.W Obs. & rec.

8 26 0

196.2			
245.0	comp. dis. rev. im.		
19.1		98.8	
114.6		95.5	
		194.3	
		165.7	− 0.27
196.4			
297.8		99.4	− 0.25
21.3		92.8	
114.1		192.2	
	PA 250°	167.8	− 0.23
299.6			
17.4		79.8	+ 0.06
116.8		79.4	8 4
196.2		157.2	+ 0.43 9.00
294.7			+ 0.36
19.1		84.4	
116.4		79.9	
195.3		164.3	+ 0.30

8 36 0

P 31.0 .4

1.8 30.6

21,019.563

10.993

0.570

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1916phae.proj..615C

II

May 26. 1916

P.A. 250°

H.C.W. 0h

8 42,5

295,1

16,0 Comp. dis

120,8

203,0

809

822

1631

+ 0,32

291,7

13,9

115,6

199,8

+0.29

82,2

84,2

166,4

+ 0,26

8 47,3

PA 70°

202,0

288,8

15,2

113,0

86,8

97,6

184,6

175,4

+0,08

8,96

- 0,09

201,9

293,6

20,0

118,1

91,7

98,1

189,8

170,2

- 0,14

- 0,19

8 53,5

960

8 48,0

47,6

13 48,0

2(010.575

9.993

0.582

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1916phae.proj..615C

III

May 26, 1916

PA 70°

H.C.W. of

8 59.5 200.8 conf. dis.
294.8 94.0
17.8 99.5
117.3 193.5 − 0.25
166.5

197.6 − 0.24
295.4 97.8
23.0 94.2
9 6.3 117.2 192.0 − 0.23
168.0

P.A. 250°

114.5 000
9 8.0 203.8 84.3
295.6 74.4
20.0 163.7 + 0.31
119.1

2046 85.5 + 0.24
296.7 85.0
9 12.6 21.7 170.5 + 0.18

26 4

9 06.6

14 06.2

2(0.5847)
9.993
0.594

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1916phae.proj..615c

IV

May 26, 1916

SU Draconis

P.A. 250°

H.W. 06

9	18	111.0		
		203.8	92.8	
		293.3	89.1	
		22.4	181.5	− 0.03
			178.1	
		111.0		
		205.0	94.0	− 0.02
		293.7	87.3	
9	23.8	21.0	181.3	
		P.A. 70°	178.7	− 0.02
9	25.5	205.1		
		294.6	89.5	− 0.08
		17.4	98.6	89.4
		116.0	188.1	8.06
			171.9	− 0.15
		197.0		
		294.9	97.9	− 0.15
		22.9	89.8	
9	31.6	112.7	187.7	
		191	172.2	− 0.15

9 2.8

1.4 2.4.4

2.1010.600

9.993

0.607

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1916phae.proj..615C

V

May 26, 1916

PA 70°

Heiv. obs.

g 38.0	200.5			
	294.1	comp dis.		
		93.6		
	23.0	93.4		
	116.4	187.0		
		173.0	− 0.13	
	201.6			
	294.0	92.4	−0.18	
	18.5	92.2		
g 43.0	117.7	191.6		
		168.4	− 0,22	

PA 250°

g 46.0	107.4			−010
	205.3	97.9		894
	295.9	84.3		884
	20.2	182.2		
		177.8	− 004	
	112.9			
	200.9	88.0	−0.02	
	292.5	91.3		
g 49.0	23.8	179.3	+ 0.01	

150
g 43.8
M 434
210 10.613
9.993
0.620

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1916phae.proj..615C

VI

May 26. 1916

Su Draconis

PA 250°

H.e.W. Obs.

9 55.0	110.1		
	203.6 comp dis.		
		93.6	
	293.7	88.1	
	21.8	181.7	
		176.3	— 0.03
	110.9		
	200.3	89.4	0.00
	293.8	88.9	
10 00.0	22.7	178.3	+ 0.03

PA 70°

10 1.2	18.5	100.4	— 0.09
	118.9	91.3	
	209.6	191.7	
	291.9	168.3	— 0.22
	20.0	94.0	-0.18
	114.0	93.7	
	199.1	187.7	
10 05.4	292.8	172.3	— 0.15

16

10 00.4

15 000

2010.6 25

9.993

0.639

0.632

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1916phae.proj..615C

VII

May 26, 1916

P.A. 70°

H.c.W. 8 bs.

10 Mo 17.5 comp dis
119.8 102.3
201.5 93.7
295.2 196.0
164.0 — 0,30

20,0 — 0,20
116,1 96.1
201,6 89.2
10 16.9 291.3 185.8 — 0,11
P.A. 250° 174.2

292.8 0,00
10 14.0 19.2 86.4
116,6 83.2
199.8 169.7 + 0,20
29.2

293.9 +0,20
20.0 86.1
115.7 83.9
10 27.8 199.6 170.0 + 0,19

35.4
10 18.8
15 18.4
2(010.63)
9.993
a644

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1916phae.proj..615C

VII May 26, 1916

SU Draconis

P.A. 250°

				H.W. obs.
10 33.9	301.1	comp dist		
	20.9		79.8	
	115.8		85.1	
	200.9		164.9	+ 0.29
	294.3			+ 0.24
	23.4		89.1	
	116.5		81.5	
10 39.7	198.0		170.6	+ 0.18
		PA 70°		
				− 0,00
10 41.2	200.1			
	296.0		95.9	
	21.3		95.4	
	116.7		191.3	
			168.7	− 0,21
	198.1			
	298.9		100.8	−0.24
	21.7		92.9	
10 46.2	114.6		193.7	
			166.3	− 0.26

005

10 40.1

15 39.7

2(10.653

10.653

000

1916phae.proj..615c

VIII

May 26 1916

		P.A. 70°		H.C.W. obs.
10	56.3	200.7		
		293.8	93.1	
		18.2	95.4	
		113.6	188.5	
			171.5	
				−0.16
		200.4		
		297.9	97.5	
		20.8	91.9	−0.17
		112.7	189.4	
			170.6	−0.18
11	4.0	P.A. 250°		
11	6.0	294.9		
		22.0	87.1	−0.06
		110.1	91.5	
		201.4	178.6	+0.03
		296.2		
		23.9	87.7	+0.04
		111.6	89.4	
11	10.8	201.0	177.1	+0.05

171
11 4.8
11 4.4
21010 669
10 653
0.016

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1916phae.proj..615C

IX

May 26. 1916

SU Draconis

		P.A. 250°	HeW dδ
11 18.0	296.7		
	17.2	80.5	
	112.1	88.6	
	200.7	169.1	+ 0.20
	292.8		
	24.2	91.4	+ 0.18
	117.1	80.7	
11 22.9	197.8	172.1	+ 0.15
		P.A. 70°	
11 25.0	~~200.9~~		
	295.0	94.1	+ 0.03
	19.0	95.8	
	114.8	189.9	
		170.1	− 0.19
	19~~5~~.6		
	294.0	96.9	− 0.12
	22.7	86.1	
11 31.5	108.8	183.0	
		177.0	− 0.05

17.4
11 24.4
11 24.0
2010.683
10.653
0.030

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1916phae.proj..615c

X

May 26, 1916

SU Draconis

PA 70°

11 39.8	204.0	comp dis		H.e.W. obs.
	294.1		90.1	
	17.3		95.8	
	113.1		185.9	
			174.1	− 0,11
	197.2			
	290.9		93.7	− 0,15
	19.5		96.3	
11 46.0	115.8		190.0	− 0.19
			1700	

PA 250°

				+ 0,16
11 48.8	121.1			
	199.1		78.0	
	300.7		77.1	
	17.8		155.1	+ 0,48
	120.9			+ 0,46
	196.5		75.6	
	293.4		80.7	
11 55.7	14.1		156.3	+ 0,45

303

11 47.6

11 47.2

2(0(0.699

10.653

0.046

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1916phae.proj..615C

XI

May 26. 1916

SU Draconis

H.C.W obs.

PA 250°

12 2.8	116.6			
	197.0	comp. dis.		
	295.0	80.4		
	16.2	81.2		
		161.6	+ .35	
	114.1			+.30
	202.5	88.4		
	295.5	78.3		
12 8.7	13.8	166.7	+ .25	

PA 70°

+0,12

	200.4		
	293.0	92.6	
	22.3	95.1	
	117.4	187.7	
		172.3	− 0,14
	199.6		
	293.7	94.1	−.06
12 17.1	24.9	85.3	
19.9	110.2	179.4	+ 0,01

12 10.0
19 9.6
21010.715
10653
0062

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1916phae.proj..615C

XII May 26, 1916

PA 70°

H.C.K. obs.

12 26.0	209.2		
	291.9 Comp. dis	82.7	
	21.7	90.8	
	112.5	173.5	+ 0.12
	204.0		
	291.5	87.5	+ 0.10
	22.0	87.4	
12 32.4	109.4	174.9	+ 0.09

PA 250°

+0.23

12 34.4	115.0		
	197.0	82.0	
	300.2	77.4	
	17.6	159.4	+ 0.39
	115.0		
	201.1	86.1	+ 0.36
	294.8	77.3	
12 39.8	12.1	163.4	+ 0.32

126
12 33.2
10 32.8
2(10.0) 31
1065
0.0078

PA 250°
8 sprocket 3.1
water fast 22s

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1916phae.proj..615C

Wednesday May 31 1916

watch slow
15s

SU Draconis

P.A. 250°

H.C.W. Obs.
C.a.C Rec.

8. 31	120.0	Comp. star dis		
	191.2		71.2	
	296.6		76.1	
	12.7		147.3	+.63
	119.0			+.56
	198.5		79.5	
	300.6		74.4	
8. 40	15.0		153.9	+.50

P.A. 70°

8 48	208.8			+0.56
	286.0		77.2	894
	34.0		72.0	9.52
	106.0		149.2	+.59
	211.1		71.9	+.60
	283.0		75.8	
	32.6		147.7	
8. 52.5s	108.4			+.62

8 42.8
8 43.1

21015.5
15.27
+.296

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1916phae.proj..615C

II May 31 1916

PA 70°

9 29.9	204.0			C.A.C obs.
	286.0 comp. dis			H.C.W. red
	33.7	82.0		
	104.9	71.7		
		153.7	+0.50	
	208.3			+.47
	284.8	76.5		
	23.5	80.3		
9 10.0	103.8	156.8	+0.44	

PA. 250°

9 18.6	294.6			+0.54
	12.0	77.4		894
	119.0	73.9		948
	192.9	151.3	+0.53	
	302.0			
	14.8	72.8	+.60	
~~245~~	116.0	73.0		
9 24.5	191.0	145.8	+0.66	

9 14.0
9 14.3

21015.593
15.276
.317

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1916phae.proj..615C

II

May 31 1916

P.A. 250

9 30	302.1	Comp dis		HCW obs
	14.7		72.6	Cae R
	123.6		65.7	
	189.3		138.3	+.81
	304.2			+.90
	9.5		65.3	
	124.6		63.7	
9 34.7	188.1		129.0	+.00

P.A. 70°

9 37.4	25.8	Comp. dis		+0.66
	104.0		78.2	894
	206.3		77.2	9.60
	283.5		155.4	+0.47
	23.6			+.42
	106.0		82.4	
	210.3		77.7	
9 41.2	288.0		160.1	+0.88

9 35.8
9 36.1

2105.608
15.276
.332

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1916phae.proj..615C

IV.

P. A 70°

C.A.C. obs
H.C.W. Red

9 43.5	24.8	comp. dis.		
	108.1		83.3	
	213.0		75.9	
	288.9		159.2	+ .40
	25.0			+ .30
	103.9		78.9	
	200.6		90.0	
54.7	290.6		168.9	+ .21

1	P.A. 250°				
56.6	295.4				+0.44
	17.6		82.2		~~.94~~
	116.8		74.2		9.38
	191.0		156.4	+ .45	
	302.2				
	15.0		72.8	+ .58	
	120.0		70.8		
10 2.6	190.8		143.6	+0.70	

9 54.3
9 54.6
21015.622
15.276
.346

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1916phae.proj..615C

V

May 31. 1916

P.A. 250

10	~~14~~ 4.8	301.2			HCW obs.
		8.6 comb dis			
		122.8	67.4		
		192.6	69.8		
			137.2	+.83	
		305.5		+.90	
		11.6	66.1		
		124.6	64.4		
10	13.4	189.0	130.5	+.97	
PA 70		31.1			+.66
10	15.2	111.2 comb dis	80.1		.94
		205.4	82.7		9.60
		288.1	162.8	+.33	
		25.0			
		106.3	61.3	+.43	
		211.0	71.0		
10	~~18~~ 5	282.0	152.3	+.53	

10 14.2
10 14.5
21 0 15.6 ~~35~~ 27
15.276
~~.359~~ .328

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1916phae.proj..615C

VI May 31, 1916

PA 70°

10 32,0	27.6		CAC	Obs
	116.8 comp. dis.	89.2		
	205.4	85.6		
	291,0	174.8	+0,10	
	31,6			+,22
	105.0	73.4		
	200.8	88.2		
10 40.0	289,0	161.6	+0,35	
487	197.0			+.56
	302,1 comp dis			194
	59.9	67,8		9,-0
	120,1	70.0		
	190.1	137.8	+0.82	
	299.9			
	7,8	67.9		90
	128.4	61.4		
10 53.4	189.8	129,3	+ 0.99	

10 42.6
10 42.8

21015.655
15.276
.379

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1916phae.proj..615C

VII

May 31, 1916

PA 250

11 0.7	~~300.5~~			New obs Cab Rec
	9.8	69.3		
	122.1	69.0		
	191.1	138.3	+0.81	
	300.7		+.87	
	12.0	71.3		
	126.3	61.2	+0.93	
11 05	187.5	132.5		

PA 70

11 06.3	28.8			0,69
	104.9	Comp dim 76.1		~~.94~~
	207.9	73.9		9.63
	281.8	150.0	+0.58	
	27.5	~~84.5~~	+.51	
	112.0	84.5		
	210.8	~~72.3~~		
11 10.3	283.1	156.8	+0.44	

11 05.6

11 05.9

210 15.671

15.276

.395

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1916phae.proj..615C

VIII

May 31, 1916

PA 70°

				Calc obs. HCW Rec
11 21.0	21.1			
	111.0	89.9		
	201.8	86.2		
	290.0	178.1	+0.03	
	300			
	105.0	75.0		+.15
	202.9	90.1		
11 28.5	293.0	165.1	+0.28	

RA. 250°

31.2	~~192.9~~			+0.54
	302.1			194
	13.6	71.5		248
	124.8	63.8		
	188.6	135.3	+0.81	
	309.0	57.4		
	6.4	72.0		+.93
	121.9	129.4		
11 39.5	193.9		+0.99	

11 30.0

11 30.3

21 0 15.687
15.276
0.411

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1916phae.proj..615C

IX

May 31, 1916

P.a. 250

11 46.0	300.5		H.C.N. 860	
	8.5	Comp. dis		
	127.8	68.0		
	187.6	59.8		
		127.8	+1.03	
	305.9		+1.06	
	9.4	63.5		
	127.8	61.6		
11 50.4	189.4	125.1	+1.04	

P.a. 70

				+0.70
11 51.6	23.8			894
	106.7	82.9		9.64
	206.0	80.0		
	286.0	162.9	+0.32	
	25.8			
	109.7	83.9	+0.33	
	208.0	78.3		
11 53.0	286.3	162.2	+0.34	

P.A. 72°

Sprocket 3.6

11 51.0

11 51.3

watch slow 17s

21015.702

15.276

.426

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1916phae.proj..615C

June 1, 1916

SU Draconis 113267

P.A. 71°				
8 24.6	14.1 Comp dis			HCW Obs.
	113.5	99.4		CAC Red.
Wated slow	199.0	96.8		
21s	295.8	196.2	−0.31	
		163.8		
	20.7			
	113.0	92.3	−0.26	
	203.0	99.0		
8 29.0	302.0	191.3	−0.21	
		165.7		
P.A. 250°				
8 30.8	300.0	78.8		
	18.8	85.8		+0.03
	114.0	164.6	+0.29	+94
	199.8			+97
			+0.32	
	292.3			
	~~75~~ 22.2	89.9		
		71.2	+0.36	
	116.8	161.1		
8 33.6	198.0			
8 29.5				
8 29.9				
210 16.562				
15.437				
.625				

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1916phae.proj..615C

II June 1. 1916

SU Drac.

P.A. 251°

			CAC OC	
8h 38m.0	293.3	conf. dis	H.C.W. dec.	
	27.0		83.7	
	118.0		85.9	
	203.9		169.6	+ 0.20
	290.5			+ 0.10
	19.6		89.1	
	114.3		90.3	
8 47.2	204.6		179.4	+ 0.01

P.A. 71°

~~8 50.1~~	~~119.8~~			- 0.07
8 51.4	198.4			8.94 / 8.87
	289.7		91.3	
	13.0		105.7	
	118.7		197.0	- 0.32
			163.0	
	204.4			
	295.5		91.1	- 0.24
	22.6		92.4	
8 59.7	120.0		188.5	- 0.16
			171.5	

8 49.1

8 49.5

21016.576
15.937
.639

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1916phae.proj..6156

III

June 1, 1916

SV Draconis

PA 71°

HCW Obs
Cab Rec

9 2.5	201.1	93.2		
	294.3	91.1		
	21.1	184.3	−0.08	
	112.2	175.7		
	205.0	93.7	− .08	
	298.7	90.4		
	20.8	184.1	−0.08	
9. 5.6	111.2	175.9		

PA. 251°

+.01
A.9 V
A.9 3

9 6.5	107.0			
	203. Comp. dis	96.1		
		84.0		
	293.7	180.1	.00	
	17.7	179.9		
			+.10	
	112.6	89.4		
	202.0	80.8	+0.19	
	295.8	170.2		
9 10	16.6			

9 6.15
9 6.5
21016.588
15.937
.651

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1916phae.proj..615C

IV

June 1. 1916

Su Drac,

P.A. 251°

9 ~~15~~.9	101,0 comp. dis.		C.A.C. Ob	
	205.2	104.2	H.C.W. Rec	
	259.5	89.7		
	19.2	193.9		
		166.1	− 0,26	
	109.3			
	205.5	96.2	− 0,24	
	288.6	95.9		
9 24.8	24.4	192.1		
		167.9	− 0,23	
	PA 71°			
9 27.0	17.0			− 0.20
	110,6	93.6		8.96
	197.0	95.0		8.74
	292,0	188 6		
		171.4	− 0,16	
	18.1			
	114.2	96.1		
	201.2	91.6	− 0,15	
9 33.6	292.8	187.7		
		172.3	− 0,14	

9 25.3
9 25.7

21016.601
16.597
.004

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1916phae.proj..615C

V

June 1, 1916

Pa. ~~231~~ 71°

9 37.0	24.3 comp dis			HCW OG
	114.7	90.4		Cab rec
	201.1	92.1		
	293.2	182.5	~~0.50~~	
		177.5	−0.05	
	24.4	88.9		−0.04
	113.3	91.9		
	201.2	180.8	−0.02	
	293.1	179.2		
9 41.0				

Pa. ~~71~~ 251

9 42.1	293.2				+0.07
	019.3	86.1			
	117.8	82.2	+0.22		8.94
	200.0	168.3			9.01
				+0.18	
	293.2	84.3			
	17.5	88.3	+0.14		
	112.6	172.6			
9 45.6	200.9				

9 41.45

9 41.8

21016.612

16.597

.015

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1916phae.proj..615C

VI

June 1. 1916

P.A. 251°

9 52.6	287.2	comp. dis.		C.A.C. Obs.
	21.2		94.0	
	111.0		90.6	
	201.6		184.6	
			175.4	−0.09
	287.0			
	24.1		97.1	−0.19
	106.1		98.1	
10 00.9	204.2		195.2	
			164.8	−0.29

P.A. 72°

10 03.5	199.0			
	291.4		92.4	−0.13
	18.8		95.5	
	104.3		187.9	8.94 / 8.81
			172.1	−0.15
	199.5			
	292.7		93.2	−0.07
	22.8		86.2	
10 10.5	109.0		179.4	+0.01

10 01.9
10 02.3
2 10 16.626
16.597
.029

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1916phae.proj..615C

VII

June 1, 1916

10 14.7 P.a. 72° +

	204.3		HCW Ob.
	292.5 Comp dis	88.2	
	22.8	88.2	
	111.0	176.4	+0.07
	199.1	97.8	
	296.9	83.9	+.02
	25.1	181.7	
10 18.5	109.0	178.3	-0.03

changed focus, found Tube had slipped out

P.a 252

10 20.6	~~156~~				+0.25
	115.4	~~79.4~~	79.4		
	194.8	~~105.2~~	76.1		8.94
	300.0	~~184.6~~	155.5	+0.47	9.19
	16.1	~~195.4~~			
				+0.48	
	~~16.1~~	~~101.1~~			
	117.2	78.9		+0.49	
	196.1	75.6			
	296.1	154.5			
10 25.2	11.7				

10 19.75

10 20.1

21016.639

16.597

.042

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1916phae.proj..615C

VIII

June 1, 1916

SU Draconis

P.a. 252°

~~H Cur 01~~

10 33.6	112.0	comp. dis.		C.H.C.
	197.5		85.5	
	291.5		80.7	
	12.2		166.2	+0.26
	123.0			+0.46
	188.7		65.7	
	298.8		80.6	
10 42.9	19.4		146.3	+0.65

PA 72°

~~10 44.6~~	~~299.4~~			+0.20
~~10 46.0~~	~~117.6~~			8.94
10 47.0	196.8			9.14
	288.5		91.7	
	20.8		94.7	
	115.5		186.4	
			178.6	−0.12
	202.8			
	296.0		93.3	−0.05
	19.0		85.8	
10 54.4	104.8		179.1	+0.02

10 44.48
10 44.8
2 10 16.656
16.597
.059

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1916phae.proj..615C

Thursday June 1, 1916

IX

10	58.3		P.a. 72°		H&W Obs.
		203.6			
		296.4 Comp dis	92.8		
		19.0	92.5		
		111.5	185.3	−0.10	
			174.7		
		202.0			
		298.1	96.1	−.08	
		22.0	86.4		
11	2.0	108.4	182.5	−0.05	
			177.5		
			P.a. 252		
~~11~~	~~3.4~~	~~14.0~~			
11	4.6	296.7 Comp. Standis	78.1		+.16
		14.8	77.2		8.94
		120.2	155.3	+0.47	9.10
		197.4			
		295.2			
		17.2	82.0	+.40	
		114.0	80.5		
11	8.1	194.5	162.5	+0.33	

11 3.25

11 3.6

21016.669

16.597

.072

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1916phae.proj..615C

X

June 1. 1916

SU Draco.

P.A. 25°.20

			C.A.C. obs.
11 15.7	304.0 comp. dis.		
	20.0	76.0	
	116.1	76.1	
	192.2	152.1	+0.53
	303.4		+0.52
	9.8	66.4	
	114.5	86.5	
11 25.5	201.0	152.9	+0.52

PA 72°

11 28.0	198.0			+0.17
	296.0	98.0		8.94
	18.8	93.4		9.11
	112.2	191.4		
		168.6	−0.22	
	194.0			
	290.4	96.4		
	20.2	90.6	−0.18	
11 35.3	110.8	187.0		
		173.0	−0.13	

11 26.1

11 26.5

21016.685

16.597

0.088

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1916phae.proj..615C

XI

June 1, 1916

S Ursae Draconis

P.a. 72½°

H C W Obs.

11 39.1	204.2			
	297.1	92.9		
	20.0	91.2		
	111.2	184.1	−0.08	
		175.9		
	202.2	89.2	+.02	
	291.4	84.7		
	25.8	173.9	+0.11	
11 43.0	110.5			
		P.a 252½		
11 44.2	120.2			+0.25
	198.0	77.8		894
	300.0	73.5		919
	13.5	151.3	+0.55	
	116.0			
	196.1	80.1	+ .48	
	297.2	78.7		
12 47.6	15.9	158.8	+0.40	

11 43.47
11 43.8 P.a. 252
21016.697 Sprocket 3.7
16.549
.100
Watch slow 22s

Latest 97° to date
Orbs settle — H261

1916phae.proj..615C

Thursday June 22, 1916

P.C.Ob.

R Y Sagitt. 191033 est var very faint or well seen
var fairly well seen
t seen at intervals
est r 5 3 t prob. 13th

11 48

(1) (971)
4261
L.P.

1916phae.proj.615c

Fri. June 23, 1916

D.C. Obs 15" E. Eq.

8 00 Twilight still too strong.

R Leo Min 09 39 34 est = 10.7
14 59
5 20 W +35.0

8 40

V Leonis 09 54 21 est = ~~10.9~~ 13.0
15-07
5 13 W

W Leonis 10 48 14 est = 13.8 ±
15-13
4 25 W +14.2 q 3 Var

S Leonis 11 05 06 est = 9.6
15-17
4 12 W +6.0

R Corvi 12 14 18 est = 10.3
15-22
3 8 -18.5

V Virginis 13 22 02 est 10.1
15-26
2 4 -2.6

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1916phae.proj..615C

June 23, 1916

γ Virginis 12 28 03 est = 13.0
15 35
3 7

RU Virginis 12 42 04 est = 13.7
15 37
2 55 W.

RV Vir 13 02 12 est = 13.8
15 40
2 38 −12.6

RR Vir 13 59 08 est = 13.3
15 44
1 45 − 0.7 13.8±

Ode in North

Z Virginis 14 05 12 est = 13.3
15 53
1 48 W −12.8

X Ursæ Maj. 0 f 33 50 est = 10.2
15 39
7 26 +50.1

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1916phae.proj..615C

June 23, 1916

γ Draco 09317 est = 8.3
1611
640W +78 3

R Ursa Maj 10369 est = 12.8
1617
5K0

S Ursa Maj 12396 1 est = 10.1

T Ursa Maj 12316 0 est = 8.1

10 00 RS Ursa Maj. 12345 7 est = 13.7
1620
346W

T Ursa Min 133273 est = 10.9
1627
255

U Ursa Min 141567 est = 11.6
1633
218

R Camelop 142584 est = 8.1
1637 4" finder
212W +84 5

10 22 R Draconis 163266 est = 9.9 4"

10 30 SS Cygni 213843 est 9.8

2.2 998 L.P.
4261

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1916phae.proj..615C

Tues. June 27, 1916

L.C.Ob. 15" E. Eq.

Cldy early evening.

8 35 Clearer, but some clouds even now.

17 57 11 R T Opk.
15 11
2 40 Σ +11.2 Too cloudy.

W Draconis 18 05 65 est 13.0

X Draconis. 18 06 66 est ~~13.5~~ 12.7
15 14
2 52 Σ +66.0

V Draconis 18 57 65 C est 10.6
15 23
2 33 Σ +53.0

SV Drac. 18 31 49 est 13.8
15 27
3 04 Σ +49.2

RY Lyrae 18 41 34 est 9 3 N
15 31
3 10 +34.5 < 14±
see chart

1916phae.proj..615C

June 27 - 1916

RX Lyrae 18 50 32 — est — y 2 Var
15 40
3 10 14.5 ±

Z Lyrae 18 56 34 est 11.2
15 43
31 3 2 +34.8

RT Lyrae 18 57 37 est.
↳ Var. just seen = 14.8 = (est 2 Var)

RS Lyrae 19 09 33 est 13.7

RU Lyrae 19 09 41 est N.N.
< 12.6 by a mag or more.
< 14.5 ±

U Draconis 19 09 67 est (13.2) 6 var

9 30 Clear & hazing.

S Cygni 20 03 57 est 14.6
16 10
35 3 +57.8

V Cygni 20 38 47 est 12.8
16 14 var red.
4 24 +47.8

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1916phae.proj..615C

June 27 — 1916

R Z Cygni 20h 48m 46s est 13.4
16 22
4 26 8 + 4 7 2

Scale var near 10.0 = 11.6

21 X Cygni 20 50 30 est
16 30
4 20 + 3 0 0

955 — clds here and more general over whole sky

1000 S S Cygni 21h 3m 43s est 10.9

16 — 1009
— 4261

P.P.

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1916phae.proj..615C

Thurs June 29-1916

L.C Obs. 15" E. Eq. J.O.1 Res

9 00 Too cloudy to begin now

9 15 Some clearing in west.

γ Librae 150605 est
1616
1,10 W -5: 0

γ = 13.8 ← identification sure.
l' = 10.9

Z Librae 154020 est. α 3 3/3
13.8±

R Librae 154715 est. x 5 IV

X Scorpii 160221 est 13.5

Z Scorpii 160021 est 12.8

10h 00 W Scorpii 160519 est 12.2

R X Scorpii 160524 est 10.9

W Ophiuchi 161607 est γ 3 var
var ∠ V

γ Scorpii 162319 est 11.3

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1916phae.proj..615C

June 29, 1916

R R Ophiuchi 16 43 19 est 13.2

S S Ophiuchi 16 52 02 est 13.3

S y Aquilae 20 02 12 est 12.3

17 16

2 46

9 14

S Aquilae 20 07 15 a est 10.2

R W Aquilae 20 07 15 b est 9.4

R U Aquilae 20 08 12 est 10.4

Repaint Index

R Delphini 20 10 08 est 11.8

Z Delphini 20 28 17 est 8.8

Y Delphini 20 36 11 est var not seen with certainty new chart needed

S Delphini 20 38 16 est 10.9

T Delphini 20 40 16 est 9.9

V Delphini 20 43 18 est x2 N

11h 00 X Delphini 20 50 17 est 9.7

sup. Var South = 12.8

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1916phae.proj..615c

June 29, 1916

R Vulpeculae 205923 est 12.0

T W Cygni 210129 est 10.2

R Equulei 210812 est 10.1

X Pegasi 211614 est 13.9

~~R Y Cygni 213753 est~~

R R Pegasi 214024 est 10.4

V Pegasi 215605 est 14.2

S T Sagitt 185512 est 11.5

R X Sagitt 190818 est 10.4

R W Sagitt 190819 est 9.3

W Aquilae 191007 est 9.4
star d 9.2

T Sagitt. 191017 est 12.8

R Sagitt 191019 est 9.3

Cr Var near Sbg = 12.6 S Sagitt 191319 est 10.3

Z Sagitt 191321 est 11.3

~~R R Aquilae 195202~~

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1916phae.proj..615C

June 29, 1916.

R Y Sagitt 19 10 33 est m 1,39
var seems to be suddenly
brighter than last time

(2 12

H1 – 1050 Plotted
— 4261 Posted
Ledgered

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1916phae.proj..615C

21045

Fri June 30 - 1916

LCObs. 15" E. Eq.

T Camelop 04 30 6.5
15 35
11 05 W

δ 45 Too low in twilight
δ 51 est var = 9.2

X Camelop 04 32 7.4 est 11.0
15 37
11 5 +70 5

S Camelop 05 30 6 est 8.7
15 50
10 20 W +68.8

V Camelop 05 49 7 K est n s var
15 5 3 13.5 ±
10 04 +74.0

U Lyncis 06 31 5.9 est 12.6
15 5 7
9 26 W +59.8

S Lyncis 06 35 5 est s var
16 00 13.8 ±
9 25 +58.3

R Lyncis 06 35 5 est 11.0
16 10
9 17 +58.0

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1916phae.proj..615C

June 30 - 1916

X Ophei 210382 α 5m < 14.5
1623
440 E +82.7

T Ophei 210868 est 9.8
1630
438 +68.2
> 22

S Ophei 213678 est 9.8
1636
500 +78.2

S S Cygni 213843 est 11.3
1638
500

S Lacertae 222439 est 9.6
1642
542
618 +39.8

R Lacertae 223841 = 7 var
1648 14.5
550
618 +41.8

V Cassiop. 230759 est 8.1
1652
615 +58.5

10 09

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1916phae.proj..615C

June 30 — 1916

Z Androm. 23 28 42 est 9.3
16 56
6 32
5 28 +48.0

Z Cassiop. 23 39 56 est 9.3
16 59
6 40
5 20 +56.0

RR Cass. 23 50 3 est 11.0
17 03
6 47
5 13 +53.0

R Cass. 23 53 0 est 12.8
17 06
6 47
6 13 +57.8

Y Cass 23 55 5 est 10.8
17 08
6 50
5 10 +55.0

SV Andr. 23 59 39 est 9.9

RT Pegasi 21 59 39 est 10.7
17 15 star close to var = 11.3
6 44
7 16 +34.6

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June 30 – 1916

RV Pegasi 22129 est 12.0
1721
50
70 +3.0

W Pegasi 23425 est 8.0
1724
550
610 +20.0

S And. 23335 est 9.0
1726
605
553 +35.0

Z Pegasi 23525 est 12.0
1730
625
535 +25.3

X And. 24 00046 est 12.0
1743
627
533 +46.4

T Cas 24 00155 est 8.0
1747
630
530 +55.0

11 00

28 – 1078 ff.
– 4261 ℓ

1916phae.proj..615C

Wed. July 5-1916

L.C. Obs 15" & Eq.

10 30 24 00 31 79 / 17 41 / 6 50 / 5 10 +79.5 — Y Cephei 22 Var 14.5 ±

S Cassiop 01127 2 est 12.5

10 36 17 47 / 4 35 / 25 +72.0

Z Cephei 02120 1 est < 14.0

R R Cephei 023080 est 13.8

R R Aquilae 19520 2 est 13.2

11 00 18 10 / 1 42 / 10 18 -22

11 03 R S Aquilae 19530 8 est 14.0

18 18 / 1 35 / 10 25 +.2

R Capric 20051 4 est 10.6 Varied

18 22 / 1 43 / 10 17 -14.6

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1916phae.proj..615C

July 5 — 1916.

Z Aquilae 200906 est 12.8
1826
143
1017 -6.5

Y Aquarii 203905 est 12.3

W Aquarii 204104 est 13.0
Cldr nearby.

T Aquarii 204405 est 12.7
1834
210
950 -5.5

RS Aquarii 210504 est 11.2
1905
20 -4.5
1000

RR Aquarii 210903 est 13.7
1912
157
23 -3.0

RT Capric 201121 est 7.5
1913
1256

1200

W Capric 200822 est
9 var
var suspected

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1916phae.proj..615C

July 5—1916

R U Capric 20622 est N.S.

1920

1 06

10 54 (12.5) sunfoulg.

U Capric 20421 est 10.3

1922

1 20

10 40 -10.2

R R Capric 20562 7

1926

1 30 -27.5

est a 3.3 b

10.34 ? arg. sq. chart No 147

V Capric. 21024 est 10.8

1928

1 33

10 27 -24.3

X Capric 21022 1 est n 4 2 0

1935 obscuration.

1 27

10 33 -21.8

Z Capri 21056 est 12.0

1937

1 28

10 32 -1.96

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1916phae.proj..615C

July 5 – 1916

21 16 15 – τ Capric est var 3 o

1940 13.4 t

1 36

10 24 – 15.6

γ Capric. 21 28 14 – est p 3 ℓ

1943

1 45

10 15 – 14.4

π aquarii 21 57 17 est 11 4

1947

2 10

9 50 – 17.8

χ aquarii 22 13 24 est 13.2

1950

2 23

9 37 – 21.3

RT Aquarii 22 17 22 est 10.7

1952

2 25

9 35 – 22.6

S aquarii 22 51 20 est 10.4

1956

2 55

9 03 – 29.9

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1916phae.proj..615C

July 5 — 1916

T Pegasi 220412 est 10.3
2000
24 +12.0
9.56

Y Pegasi 220613 est 14.0

RS Pegasi 220714 est x var, 13.0+
2011
156
1004

13 0v

RW Pegasi 225914 est 10.9
2019
2 40 +14.8
9 20

13 ord

R Pegasi 230110 est 12.7
2021
240 +10.0

S Pegasi 231508 est 9.7
2027
248 +8.4

T Andron 001726 est 8.8
2033
3 44 +26.4
8 16

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1916phae.proj..615C

July 5 — 1916

RW Andromedae 00h13m2 +41° 12.8

2041
400 +32.2

13 35 Look up so called 13.7m brighter than (2.5-m)

Impossible to continue, heavy fog low down & reaching now dep into higher portions of sky. Dew an objection?

35 — 1113
— 4261

L. P.

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1916phae.proj..615C

Thurs July 6 - 1916

L.C. Obs. 15" E. Eq.

Olcott's Star near X Camelop.

04 48 74
16 08
11 20 W +740

Surf Star with B.

P.A. 90°

9 26 — 291.6 Comp. star dia.
23.8 92.2 ✓
R.D. 7 75.1 ✓
122.2 167.3 ✓ + 0.24
197.3

+0.27
301.0 ✓
15.4 74.4 ✓
R.D. 7 113.3 89.5 ✓
202.8 163.9 ✓ + 0.30

PA. 270°

Mean = −0.14

15.6
127.6 114.0 ✓
R.D. 7 197.3 101.3 ✓
298.6 215.3 ✓
144.7 − 0.68

18.2
119.3 99.1 ✓ − 0.56
R.D. 7 197.1 104.5
301.6 203.6 ✓
9.33 156.4 − 0.45
9 30

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1916phae.proj..615C

July 6 - 1916.

Sc Orac. 113267

PA 250 1202

530 +67.5

α 9.5-0.5 200.8 Comp similar

295.6 968 ✓

> 16.2 1054 ✓

121.6 2002 ✓

9 5-6 30 194.2 1598 ✓ −0.38

300.8

> 19.4 106.6 ✓

115.2 P.G. 70 95-8 ✓ −0.40

~~P.G. 250~~ 2024 ✓

~~P.G. 250~~ 1576 ✓ −0.43

P.G. ~~250~~

9 5-5. 30 301.6 ~~Variable~~

17.8 Comp Adis - Orac = +0.02

> 116.3 6.2 ✓ 8.94

199.8 835 ✓ 896

1597 + ~~0.39~~

~~9 5-6 45 294.4~~ > 302.2 >>.4 ✓ +0.44

9 5-7. 10 ~~19.6~~ 19.6 >7.2 ✓

118.6 1046 ✓ +0.49

195.8

~~9 5-8~~ ~~294.8~~

~~9 5 9 0~~ ~~16.8~~

14 15

9 53 34

2105.621

5 160R°

~~0.019~~ 0.021

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1916phae.proj..615C

July 6 - 1916.

Pa 70

−10 9.50

296.2
18.8
> 116.4
200.0

Comp stars dec

82.6 ✓
83.6 ✓
1662 ✓ + 0.26

II

296.8
21.2
> 119.8
197.4

84.4 ✓ + 0.30
82.6 ✓
1620 ✓ + 0.34

−10 11 15

Pa 250

10 12 30

28.8
93.0 ✓
113.8
> 1020 ✓
196.6
1950 ✓ − 0.29
298.6
1650 ✓

Quad = +0.02 +0.12
f.94
f.96

16.4
116.4
> 198.3
290.8

1000 ✓ −0.26
925 ✓
1925 ✓
1675 ✓ 0.24

10 15 00

+35
10 12 09

21051.633
51.602
0.031

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1916phae.proj..615C

July 6-1916.

P.A 250

10 22 20	20.4			III
	119.2	98.8		
>	200.1	99.9		
	300.0	198.7		
		161.3	— 0.36	
	20.4			
	118.2	97.8	— 032	
>	199.2	97.6		
10 24 50	296.8	195.5		
		~~164.5~~	— 029	
	P.A 70	164.5		Mean = + 0.16
10 25 50	120.6			8.94
	195.0	74.4		9.10
>	306.8	67.4		
	14.2	141.8	+ 074	
	124.4			
	197.8	73.4	+ 0.65	
>	299.4	172		
10 28 40	16.6	150.6	+ 0.56	
21 05				

10 25 16
2105 1.642
5 1.600
0.042

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1916phae.proj..615C

July 6 – 1916.

IV

P.A. 70°

10 34 45	124.0		
	198.8	148	
	301.8	142	
	16.0	1490	
			+0.59
	120.8		+0.52
	198.4	77.6	
	297.0	78.9	
10 36 30	15.9	156.5	+0.45

P.A. 250°

Mean = +0.18
8.94
9.12

10 37 05	201.8		
	299.2	97.4	
	21.5	98.7	
	120.2	196.1	✗ −0.30
		163.9	
	201.6		−0.16
	298.8	97.2	
	28.8	84.2	
10 39 20	113.0	181.4	
		178.6	−0.03

27 40
10 36 55

21051.651
37.600
0.051

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1916phae.proj..615C

July 6 1916

P. G. 250

10 55. 05	204.4		
	296.4	92.0	
	22.2	93.4	
	115.6	185.4	
		174.6	− 0.10
	202.8		
	299.8	97.0	− 0.12
	27.2	90.0	
10 57 50	117.2	187.0	
		173.0	− 0.13

P. G. 70

Mean = + 0.18

11 00 30	298.8		
	17.2	78.4	
	124.3	74.1	
	198.4	152.5	+ 0.53
	301.8		+ 0.49
	21.4	79.6	
	122.8	76.6	
11 03 20	199.4	156.2	+ 0.45

236 45

10 59 11

2105.1.666

57.600

0.066

P.G. 72°

Sp. 3.0

— 111 3

96 − 4357

P. P.

1916phae..proj..615C

Fri. July 14, 1916

R.C.Obs. 15" Eq.

U Vir. 12 4606 est 12 2
16 46
4 00 +6.0

9 00

Abour surrounded obs with 12" tonight

RU Vir: 12 4204 est 2 0 Var
13.6±

RV Vir. 13 0212 est 12.8
16 55
3 57 -12.6

VV Vir. 13 2202 est 12.4
16 58
3 36 -2.6

RR Vir. 13 5908 est <13.0
17 04
3 S-W -8.7

Z Vir. 14 0512
17 20
3 15 W. -12.8

abandoned

5 - 1118
- 4357

10 07 Resumed obs with 12" Refl

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1916phae.proj..615C

Mon. July 17-1916

P.C. Obs. 15" E. Eq.

U Ophiuchi 005381 Phot T

1640

813 E

Cont X = (8.4) 347 +81.3

P.a. 200 I

8 sf 20	38.4	< Vardis.	
	98.7	60.3	
	203.6	828	
	286.4	143.1	−0.71
	28.3		
	109.6	873	−0.54
	213.6	938	
	287.4	161.1	−0.36

P.a. 20 Mean = −1.04

8.41

7.37

137.2		
1842	520	
313.3	541	
367.4	106.1	−1.51
137.2		
1836	464	−1.54
3078	577	
365.6	104.1	−1.56

9 12.00

Clock out of order & I had to just telescope along by hand & rope ob. very diff.

9 05 10

2 1062.5 f7

0 27 0.2

−0.11 5

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1916phae.proj..6150

July 17 – 1916

P.a. 20°

II

9 23 00 139.8
186.8
306.4
361.8

127.3
186.6
312.2
367.8

P.a 200°
206.4
288.2
300
108.2

206.8
283.8
27.3
9 29 40 108.4

9 26 20

21062.601
62)02
-00.101

47.0
59.4
106.4 – 1.50

59.3 – 1.40
53.6
112.9 – 1.31

Mean = – 0.90
1.41
7.51

81.8
78.2
160.0 – 0.38

– 0.40

77.0
81.1
158.1 – 0.42

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1916phae.proj..615C

July 17 - 1916

P.A. 200

9 46 00

210.2
290.4 80.2
31.7 39
105.6 154.1 − 0.50

217.4
291.4 140 − 0.44
27.7 86.5
114.2 160.5 − 0.37

P.A. 20°

306.8
368.4 61.6
132.4 49.8
182.2 111.4 − 1.39

309.8
369.6 59.8 − 1.38
134.8 52.4
9 46 30 187.2 112.2 − 1.37

9 43 15

21062.613
62.702
−0.089

Mean = − 0.91
8.41
9.50

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1916phae.proj..615C

July -17-1916

P.A. 20°

IV

q 58 40

309.8		
14.0	642	
127.6	610	
188.6	125.2	−1.08
		−1.02
311.8		
110.8	69.0	
129.4	613	
190.7	130.3	−0.97
		−0.54
		0.41
		7.87
P.A. 200°		
31.7		
111.4	79.7	
203.4	882	
291.6	167.9	−0.23
22.2		−0.06
117.3	95.1	
203.3	90.3	
293.6	185.4	+0.10
	174.6	

10.06.10

10 02 25

2106 2.626

62.702

−0.076

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July 17, 1916

PG 200°

10 08 15 29.2
111.8 42.6
202.4 42.2
289.6 169.8 — 0.19

27.3
114.4 87.1 — 0.06
198.2 96.8
10 10 30 295.0 183.9
PG 20° 176.1 + 0.07

Mean = −0.55
8.41
786

10 11 20 127.3
191.2 63.9
309.6 60.8
124.8 10.4
124.8
188.4 63.6 — 1.04
305.3 61.1
129.7 — 0.99

10 13 50 11.4

3 55

10 10 59
2106.633
62.702
−0.069

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1916phae.proj..615C

July 17. 1916

P.A. 20°

10 16 50 128.0
191.6
308.3
10.2
126.3

190.4
308.4
10.4

636
619
1255 −107

−106

641
620
1261 −106

P.A 200°

201.4
293.3
20.9
113.8

919
929
1848
1255 +009

200.8
206.6
29.8
114.6

878
848
1726 −014

−0.12

10 23 30
10 20 10
21062.639
62702
00.063

Mean = −0.47
4
4.41
7.94
7

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1916phae.proj..615C

July 17, 1916

Pa 200° VII

10 31 30
206.8
296.8 950
1032
17.4 1932
120.6 166.8 +025

200.2
298.9 98.7 +023
24.4 926
117.0 1913
Pa 20° 168.7 +0.21

~~14.4~~ Mean = -0.20
8.41
8.21

123.6
194.0 70.4
73.6
301.8 144.0 -0.69

15.4

-0.63

125.3 72.6
197.9 77.9
298.9 150.5 -0.57

10 37 35
16.8
10 34 32

21062.6469
62.70k
-0.05

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1916phae.proj..615C

July 17, 1916

VIII

~~206~~ Pa 20°

10 44 00 119.6
199.8 f0.2
295.0 f.34
18.4 1636 − 0.31

120.1
198.8)0.7 − 0.28
295.6 f78
23.4 1665 − 025

Pa. 200° Mean − + 0.07
201.4 f41
306.9 1055 f.48
220 970
119.0 2025
1575 + 0.43

1978
301.7 103.9 + 042
19.6 974
117.0 201.3
10 54 40 158.7 + 0.41

10 51 20
21062.660
62.702
− 0.042

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1916phae.proj..615C

July 17 - 1916

P.a. 200°

10 55 20

195.3
301.3
16.7
125.2

1060
1085
2145
1455

+0.66

196.8
303.3
17.7
122.2

1065
1065
2110
1490

+0.62

+0.59

P.a. 20°

Mean = +0.30
f.41
f.21

1200
205.2
293.8
26.2
115.3

f5.2
924
1776

−0.05

205.8
294.0
23.2

905
892
1797

−0.003

−0.001

11 03 30
10 59 25

21062.666
62.202
−0.036

P.a. 140°
Spr 3.6

Watch correct
at 11:10

Ledgwood

R.A. = 5.47 ξ
Dec = +8 1.3
S.T. = 19.10

11 18
1 H - H 501

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