KG
11365
626

1918phae.proj..627C

202

15-Inch

Equatorial

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KG 11865.62.6

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KG 11365.626

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Nov. 30 – 1918

Cont from Book 201.

G.M.T.	P.a. 260	Lactitia Cont.	Plot V
13-27-30	203.7	550	
	258.7	550	
	28.8	1100	+ 1.42
	83.8		
	205.8		+ 1.32
	259.6	538	
	20.6	644	
	75.0	1182	+ 1.23
	P.a. 80		Mean = + 1.57
	303.6		
	344.6	410	
	122.2	492	
	171.4	902	+ 1.91
	299.3		+ 1.82
	346.3	470	
	120.6	500	
13-31-20	170.6	970	+ 1.77

13-29-45

13 27 40

2192 f. 561

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1918phae.proj..627C

Nov. 30–1918

Lactitia (39) VI

Telescope reversed.

G.M.T.	Pa. 80		
13-39-10	22.6		
	93.3	>0.7	
	209.4	512	
	260.6	121.9	+1.15
	25.8		+1.22
	81.0	55.2	
	204.8	600	
	264.8	115.2	+1.30
	Pa. 260		Mean = +1.43
	116.8		
	172.2	55.4	
	298.6	49.1	
	347.7	104.5	+1.55
	121.7		+1.64
	168.4	46.7	
50	296.8	50.8	
13-45-	347.6	97.5	+1.72

13 42 30
1 45
13 50 45

2428.570

1918phae.proj.6276

Nov. 30 – Ecl

Laetitia. VII

P.a. 260

13-5135

120.8	480	
168.8	490	
297.4	970	+1.73
346.4		

+1.67

121.8	484	
170.2	535	
295.1	1019	+1.61
348.6		

P.a 80 Mean = +1.46

199.0	662	
265.2	505	
27.2	1167	+1.27
77.7		

+1.25

208.7	535	
262.2	650	
21.4	1185	+1.23
86.4		

57.
13-45

13 54 20
1 45
13 52 35
21528.578

1400 Cs hatch = 2nd 10 last by Bell

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1918phae.proj..627C

Nov. 30-1918.

Laetitia VIII

	Pa. 80		
14-5-35	206.8	608	
	267.6	590	
	24 8	1198	+ 1.20
	83.8		
			+ 1.24
	206.6	566	
	263.2	555	
	28.3	1121	+ 1.37
	83.8		
	Pa. 260		Mean = + 1.31
	299.6	482	
	347.8	458	
	120.8	940	+ 1.41
	166.6		
			+ 1.24
	300.2	476	
	347.8	522	
	117.4	998	+ 1.66
14-9-00	69.6		

14 7 18
2 20

(4 5 8
2928.58)

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1918phae.proj..627C

Nov. 30 - 1918

Zaclitia ~~IX~~ #4

	R.A. 26		
14-17-15	300.8	468	
	347.6	484	
	119.4	~~+05.2~~	+ ~~+53~~
	167.8	952	1.76
			+ 1.6 ✗
	298.9	494	
	348.3	571	
	115.3	1065	+ 15.0
	172.4		
	R.A. 20		Mean = + 1.41
	19.6	678	
	87.4	539	
	208.3	1217	+ 1.16
	262.2		
			+ 1.18
	27.6		
	85.2	57.6	
	207.4	618	
14-21-50	269.2	1194	+ 1.21

14 19 32
2 10

14 17 22

21928.595

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1918phae.proj..627C

NOV. 30 – 1918

~~Lactula~~

G.M.T.	Pa	Ao		
14-40-10	21	.7	631	X
	84	.8	531	
	208	.6	116.2	+ 1.24
	261	.7		
				+ 1.24
	26	.2	584	
	80	.6	659	
	202	.7	120.3	+ 1.19
	268	.6		
	Pa 260			Mean = + 1.38
	114	.4	620	
	176	.4	444	
	302	.4	106.4	+ 1.50
	346	.8		
				+ 1.51
	121	.1	466	
	167	.7	589	+ 1.52
45	296	.1	105.5	
14-~~51~~-40	355	.0		
5 50				
14 42 5				
2 10				
14 40 45				
2				
1928.612				

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Nov. 30 - 1918

Laetitia

	Pa 260	5		XI
15-4-25	119.6	64.5	✓	
	174.1	40.8	✓	
	303.6	49 53	✓ + 1.77	
	344.4			
			✓ + 1.76	
	122.3	47.3	✓	
	169.6	49.0	✓	
	298.2	96.3	+ 1.75	
	347.2			
	Pa 80		✓ mean = + 1.49	
	202.6	611	✓	
	263.7	578		
	24.8	11 8.9	+ 1.22	
	81.6			
			✓ + 1.22	
	205.6	561		
	261.7	63.1		
	20.3	119.2	+ 1.21	
&				
15-9-30	83.4			

15 6 28
2 10
15 4 18

2192828

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1918phae.proj..627C

8

Nov. 30–1918

Lactitia

XII

G.M.T.	R.A. 80		
15 13 10	203.6	62.6	
	266.2	52.4	
	25.3	115.0	+ 1.30
	77.7		
			+ 1.29
	211.2	59.6	
	260.8	66.4	
	19.7	116.0	+ 1.24
	~~90.2~~		
	86.1		
	R.A. 260		Mean = + 1.46
	295.2	58.3	
	353.5	45.0	
	120.6	103.3	+ 1.38
	165.6		
			+ 1.63
	301.1	46.7	
	347.8	52.4	
	121.2	99.1	+ 1.68
15 + 7 = 22	1736		

Spr 3.3
Eq 260 A

15 15 18
2 10

15 13 8

2628.634

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1918phae.proj.-6276

Fri. Dec. 6 - 1918

L.C. Obs. 15" Eq. Phot.

Saturn · 10 0 +13.6

Titan

G.M.T. Mean of ~~Jupiter~~ with

CS = 9 5 8 +13 30 (1855)

= +13.2206

	P.a 260		
17 04.0	268	comp + dif	
	247	57.9	
	199.6	67.6	
	267.2	125.5	+ 1.07
	25.2		
	87.8	62.6	+ 1.09
	203.6	61.2	
	264.8	123.8	+ 1.11
	P.a 80		Mean = + 1.38
	117.8		237
	169.4	51.6	8.75
	299.8	471	
	346.9	987	+ 1.69
	112.7		
	169.6	56.9	+ 1.66
	300.6	44.2	
17 16.6	344.8	100.9	+ 1.63

17 10.3 Obs. very diff. & labored.

Apr 5-3
P.a. 315A

21934.

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1918phae.proj..627C

Sun Dec 8 - 1918

LC 15" Erg.

Iapetus

GMT.

Titan, Rhea & Dione
easily identified
but nothing near
Iapetus.

17 35 Both 3" & 1' eyepiece used

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1918phae.proj..627C

Mon Dec 9, 1918

15" Eq. 2C obs

G.M.T.		Sapetha
17 00	cloudy	
18 00	cloudy	
18 30	sky clearer	
18 50	Sapetha seen, but very diffindly	
19 6 0	seen, difficult	
19 20 0	seen	more difficult.
19 30 0	seen	difficult
19 45 0	seen	difficult
20 0.0	seen	
20 7.0	seen	
20 15.0	seen	
20 22.0	seen	
20 35.0	seen	
20 48.0	seen	
20 55.0	seen	faintly.
21 0 0	Clds over region	
21 10 0	still seen, tho faint (Sbd?)	

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1918phae.proj..627C

Dec 9–18.

Glass. Iapetus

21 20 cloudy
21 30 clouds
21 37 clouds
21 42.0 Iapetus very faint
21 43.0 Iapetus (?) appears to have disappeared.

(south)

21 52 Clouds over Saturn again.
Sky quite cloudy in west.

16 sets 16

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1918phae.proj...627C

~~Tues~~ Wed. Dec. 18-1918

15" Eq. Lick.

Sht: Nova aquilae.

10 30 — in Fld Nova 5 < 5.0 — 5.5

10 35 — in H" finder Nova 5 > 6.26 — 5.26 / 5.63

Region too low & many too poor to use photometer.

Uranus 21481/4 Phot T.

2412

2 24 W -140

Pa 100 5.18 2 ~~Uranus~~ with ~~865~~ (X) 844

11 16.0 135.4 < 5.18 Uranus.

155.8	20.4	865 mean with Norton of the 2 ×.
313.3	20.9	
334.2	41.3	+ 370
134.2		
155.2	21.0	+ 370
312.4	20.2	+ 370
3330	41.2	
Pa 280		Mean + 335 — 5.18
216.6		~~865~~
249.6	31.0	~~5.30~~
39.4	28.2	+ 209 — 5.3 = X = Mean
67.6	59.2	
220.8	24.4	+ 300
245.2	29.1	
38.6	53.5	+ 312 — Pa 100 A
11 21.4 67.7		Pa 6.4

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1918phae.proj..627C

Dec 8–1918

~~Reduction of~~ Plot 7.

Pa. 290 ~~865 with 8.48~~ ~~5.48~~ Means

11 22.4 212.0 <57> dis 865 mean with
257.4 45.4 Doubtful / 2 objects
30.8 46.9
77.7 92.3 + 1.85

209.6
258.6 49.0 +1.78
28.6 48.4
77.0 97.4 +1.72

Pa. 110 Means + 2.34
311.2 1.48
337.4 26.2 6.14
129.8 32.8
162.6 59.0 + 2.90

307.6
339.6 32.0 +2.90
130.6 27.2
11 29.0 157.8 59.2 + 2.89

Pa 110a
Shr 6.6

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1918phae.proj..627C

2 9 4b

Dec. 17–1918

.7 R T Lyrae (15) 37 est 11.0

V Lyrae 1905 29a est 12.8

S Lyrae 1909 25 est 12.7

RS Lyrae 1909 33 est 13.0

RU Lyrae 1909 41 est 13.1

U Drac. 1909 67 est 13.7 Diff

U Lyrae 1916 37 est 10.0

T Y Cyg 1929 28 est 11.5

R Cygni 1934 67 est 8.0

R T Cyg 1940 64 est 7.5

T U Cyg ~~1946 32~~ 1943 64 est 8.9

X Cygni 1946 32 est 13.0

Z Cygni 1958 49 est 9.0

15 est 32. 15

32 nebs 48

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1918phae.proj..627C

(Thurs.) Dec. 19 - 1918

12" Polar Uranus LOCK PhotR

2146 IX

Comp* = 5.8

G.M.T.	P.A. East		
11 17.7	285.6	5.18	dis.
	364.6	6.20	
	124.3	5.73	
	181.6	12.63	+1.06
	303.2		
	362.8	5.96	+0.98
	115.2	5.41	
	189.3	13.37	+0.90

P.a West — Mean = 0.88

STF

Magn = 6.06

	211.2		
	279.3	6.81	
	32.3	6.10	
	93.3	12.91	+1.00
	213.8		087
	277.2	6.34	
	20.2	5.81	
+1 25.0	98.3	14.15	+0.74

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1918phae.proj..627C

Dec. 19-1918

21947

21348 SS Cygni. Phot R.
ext 9.4

11348	107.6	< 8s dis	
	190.2	826	
	299.8	620	
	361.8	1744.6	+0.68

	112.2		
	185.6	>34	+ 0.61
	283.2	784	
	371.6	157.8	+0.54

Mean = +0.86

	298		850
	899	600	936
	206.8	678	
	274.6	1278	+1.03

	268		
	93.3	685	+1.11
	218.6	517	
11420	270.3	1202	+1.19

Wrong record used by mistake
Ob. on pp 16 & 17 made with
12" Polar Telescope.

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1918phae.proj..627C

Mon. Dec 23 – 1918

LC Obs 15" Ery.

Grnt.

10 2) Nov. April 3. 1 fr 300 with 9.
~~ext~~ 5.6

Twi. ~~stony~~, too low for
15" ~~o~~ plot F.

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1918phae.proj..627C

Mon. Dec. 30 - 1918

LCdb. 15" Ery. Phot R
LC Jr. Rec

Latitude

11-58-30	207.7		0 -4 -48
	271.4	637	1 25
	20.4	799	0 31 W -4
	100.3	143.6	+0.70

Comp with -4°

I.

Ind Below

194.4		+0.50
288.4	94.0	
24	69.6	
94.4	163.6	+0.31

Index above clouds.

Mean = +0.39

113.2		
190.4	77.2	
287.4	96.9	
14.2	164.0	+0.30

107.7		+0.28
194.2	86.5	
293.2	99.0	
13.6	166.9	+0.25

11-57-15

1 43

11 53 52
2 25
11 51 27

159.5

Troubled by clouds in above group. rejected same.

2 1958.

12 00 Watch used = 2m 25s fast by Bell.

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1918phae.proj..627C

Dec. 30, 1918

Lactitia

Index Above

~~12-6-25-~~	112.8		
	182.2	69.4	
	296.8	65.4	
	362.2	134.8	+0.88
	116.7		+0.88
	186.6	69.9	
	299.8	65.5	
	365.3	135.4	+0.87

Index below — Mean = +1.01

	31.6		
	95.3	63.7	
	209.4	59.4	
	268.8	123.1	+1.13
	29.4		+1.14
	962.1	62.7	
	208.8	58.6	
12-10-50	267.4	121.3	+1.16

12 8 38
2 21

12 6 13
1918.

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1918phae.proj..627C

Dec. 30-1918

Laetitia - ~~XX~~ II

	Index	Below	
12-13-40	24.8		
	97.4	72.6	
	207.7	696	
	277.3	1422	+0.73
	23.8		+0.86
	98.6	748	
	22.2	550	
	277.2	1298	+0.98

Mean = +0.82

	Index	Above	
	292.2		
	367.3	751	
	112.4	692	
	181.6	1443	+0.69
	295.5		+0.78
	361.4	659	
	115.6	696	
12-18-15	185.2	1355	+0.87

11 55
12 15 58
2 25

12 13 33
1958.

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1918phae.proj..627c

Dec 30, 1918

Lactitia

Ins 14

G.M.T.			
	Ind. Above		
12-28-0	293.3		
	367.2	739	
	111.3	203	
	181.6	1442	+ 0.69
	297.8		+ 080
	362.8	650	
	115.7	646	
	184.3	1336	+ 0.90
	Ind. Below		Mean = + 0.89
	203.8		
	271.3	675	
	26.6	716	
	98.2	1391	+ 0.79
	213.2		+ 0.98
	271.2	590	
	25.7	625	
12-33-30	88.2	1215	+ 1.16

1 30

12 30 45

2 21

12 28 20

1918.

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1918phae.proj..627C

Dec 30-19 f

Laetitia IV

G.M.T. Index Below

~~12-45~~ 213.3
272.4 591
25.6 641
89.7 123.2 +1.12

clock broke down
~~between~~ pushed on by hand.

205.2 +1.02
273.3 68.1
29.6 65.2
94.8 133.3 +0.91

Index above Mean +0.94

112.6
183.2 70.6
296.6 70.6
367.2 141.2 +0.75

121.2 +0.86
185.2 64.0
297.3 67.1
~~1-45~~ 15.364.4 131.1 +0.96

12 42 00
2 25
12 39 35
2 1958.

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1918phae.proj..627C

Laetitia Dec. 30-1918- 12" Polar V

G.M.T	Index	S.E	
~~13~~ -	115.0		
13-9-0	184.8	69.8	
	283.2	86.6	
	369.8	156.4	+0.45
	113.2		+0.51
	184.7	71.5	
	289.8	105.1	
	368.6	150.3	+0.57
	Index N.W.		Mean = +0.68
	19.4		
	84.8	65.4	
	199.2	114.4	
	270.0	136.2	+0.85
	23.7		+0.86
	89.8	66.1	
16	209.8	120.0	
13-~~22~~45.	274.2	135.2	+0.87

25 45

13 12 52

2 25

13 10 27

21958.

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1918phae.proj..627C

Dec. 30-1918.

Lactiba. VI

G.M.T.

13-22-0 26.3
99.2 72.9
204.9 70.9
275.8 143.8 +0.80

22.8 65.6 +0.87
88.4 66.5
205.4 132.1 +0.74
271.9

Mean = +0.69

288.4
365.5 77.1
115.4 71.2
186.6 148.3 +0.61

9
220.6 +0.51
10.6 80.0
114.4 78.6
13-24-25 193.3 158.6 +041

925

13 24 42
2 25

13 22 17

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1918phae.proj..627C

Dec 30 - 1918

VII

G.M.T. | Index SE

13-33-00

291.6
370.8
108.4
191.7

89.2 ✓
83.3 ✓
162.5

+0.33

289.8
16.7
109.8
~~194.8~~
189.4

89.9 ✓
79.6 ✓
166.5

+0.29
+0.25

Index NW

Mean = +0.34

200.8
280.2
~~212~~
18.8
95.5

79.4
76.7
156.1

+0.46

201.4
279.8
15.2
98.7

78.4
83.5
161.9

+0.40
+0.34

134000

00
13 37 30
2 25
13 35 5

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1918phae.proj..627C

Dec. 30-18

VIII

Index NW

13-48-15 208.2

276.6	684	
19.7	209	
95.6	1443	+ 0.69

203.2		+ 0.60
276.4	732	
19.7	807	
101.4	1539	+ 0.50

Index S.E. Mean = + 0.46

115.6		
193.6	78.0	
287.4	814	
8.8	1594	+ 0.39

109.0		+ 0.32
193.6	846	
288.2	820	
10.2	166.6	+ 0.25

13-53-40

101.55

13 53 57

2 25

13 48 32

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1918phae.proj..627C

Dec. 30 - 1918

α Ceti Photr.

GMT	Index South		
~~14 - 17 - 15~~	38.8		
14 11 15	77.2	38.4	
	220.6	36 8	
	257.4	2 5 2	— 234
			234
	41.2		
	81.3	40 1	
	222.4	35 0	
	257.4	2 5 1	— 234
	Index North		Mean 2 29
	309.6		9 19
	347.4	37 8	6 90
	139.2	37 2	
	167.4	2 5 0	— 231
	306.4		
	348.2	41.8	— 224
	132.2	40 2	
14 - 16.75	172.4	8 20	— 214
1 30		2) 3	
14 13 45		76.8	
2 23			
14 11 20			
1958.			

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1918phae.proj..627C

2195 ✓

Dec. 30 - 1918

14 25 SS Aurigae 060547 est <12.6

16 27 21 Gem 074922 est 9.0 bright

14 45 T Aurig 053005 9 est 10.6

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1918phae.proj..627C

Near Jan. 6-1919

G.M.T.	Rep. Sat I (Jup.) comp with Sat II (mean sat orbit)	
12-14-23	sust	
32	2 I mean	Look
02 10	242.2	535
38	296.0	546
		Rhst R
50	241.2	532
12-3-3	294.4	589
19	235.5	577
32	293.2	
		599
46	233.3	537
X 59	289.0	516
12-4-15	237.4	588
31	296.2	
		634
41	232.8	642
51	297.0	648
502	232.2	600
16	292.2	
		610
28	226.2	748
95	301.0	692
59	281.8	626
12-6-10	294.4	

15" Eq.

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1918phae.proj..627C

Jan. 6–1919

20627	229.4	650
36	298.4	~~68~~ 738
50	224.6	696
59	294.2	595
7–10	234.7	575
20	292.2	584
34	233.8	638
44	297.6	
55	232.2	
8–02	294.0	
15	227.8	
~~26~~	298.0	
37	231.2	
50	298.3	
9–0	234.4	
10	298.4	
18	231.7	
30	300.0	
40	232.2	
50	298.2	
10–2	227.2	
14	299.8	
26	229.6	
36	298.6	
46	232.1	
56	300.7	
11–5	232.2	
15	303.1	

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1918phae.proj..627C

Jan. 6 – 1919

12 11 25 230.4

L.V.

12 12 0	248.2	
25	285.2	37.0
36	250.2	36.0
12 1 46	286.2	7.30

Dark I appeared very close to limb, mottled filaments very distinct

Ft 3424

12 20	35.0	
21	35.0	

Relay

19	
12 ~~20~~	00
20	00

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1918phae.proj..627C

Wed. Jan 8 - 1919

1961

LCMb 15" Eq. LCfr Rec

N Gemini 074922 <125

12 55

Look for Meteoric Object

Marked sup. object.

Too cloudy to continue.

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1918phae.proj..627C

Friday January 10, 1919

15" Eq. Photo

L.C. Obs. L.C. Spec.

Lactitudes

1 44 - 33

2 26

1 22 W

I

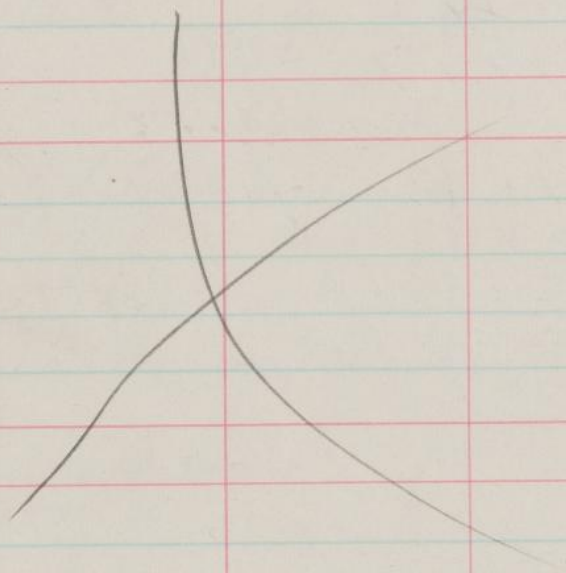
Moonlight too strong to measure Lactitudes

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1918phae.proj..627C

Friday January 9, 1919

15" EE. 1 q. Rho 1



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1918phae.proj..627C

Monday January 13, 1919.

15" Eq. Phot T—

L.C. Obs. P.9.20 L.C. Jr. Ref

U. Cephei .005381

11-59-45 ~~119.2~~ ~~88.5~~

207.7 Vardis 88.5

298.6 86.2

24.8 1747 -010

120.0 -005

205.3 853

290.8 949

25.7 1802 +000

1799

P.G. 200 Means -006

227.6

289.0 56.4

52.2 466 -154

188.8 103.0

166

~~2938~~

50.9

96.9 460

12-4-7 ~~227.6~~ 503

272.9 96.3 -175

3 5-2

above group rejected stars were out of center of field.

12 1 56

12 2 36

12 00 Ft. 3424 = 40^s slow by bell

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1918phae.proj.-6276

Jan 13, 1919.

15" Eq. Phot. I

P.9200 α Cephei II

12-5-40	95.0	< Var dis.	
	99.6	546	
	~~231.4~~	408	
	272.2	954	−1.77
	51.6		−1.74
	96.9	453	
	229.6	520	
	276.6	973	−1.72

P.9220 Mean = −0.99 (4)

	~~117.4~~		
	214.4	970	
	302.3	839	
	26.2	1809	
		1781	+0.02
	126.6		−014
	201.8	752	
	297.7	885	
12-9-2	26.2	1637	−031

(2) 21
12 + 01

21972.506
600
−.094

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1918phae.proj..627C

Jan. 13, 1919.

	Pa. 20	U. Cephei		II
12-14-14	113.6	922		
	205.8	833		
	308.8	1755	− 0.08	
	22.1			
			−006	
	120.2	819		
	202.1	960		
	293.6	1779	− 0.04	
	26.6			
	Pa 200		Mean = − 0.74	
	223.2	584		741
	281.6	534		7.67
	48.2	1118	− 1.38	
	101.6			
			−1.42	
	~~2198~~			
	227.2	461		
	273.3	618		
12-18-15	44.4	1079	* − 1.47	
	106.2			
12 16 1.4				
12 16 5.4				
2972.512				
600				
− 088				

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1918phae.proj..627C

Jan. 13 - 1919.

2 Cephei

IV

R.a 200

12-26-0 213.1 679
281.0 546
46.0 122.5 - 1.14
100.6

- 1.29

230.4 474
277.8 615
44.0 108.9 - 1.44
105.5

R.a 20

Mean = - 0.64
- 441
- 1.77

297.9 903
28.2 835
120.3 1738 - 0.12
203.8

+ 0.02

303.6 846
28.2 1035
109.8 1881
12-32-10 213 3 1719 + 0.15

12 24 5
12 24 45
21972.5-29
600
-.050

Photos
Rad.

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1918phae.proj..627C

Moon Jan. 20, 1919

G.M.T.	L.C. Obs.	15" Eq.	L.C. Jh Rec
Ind above	Lacaille	1 20 - 20	
12-35-50	25.2		
	99.2	Comp. * dis.	Plat R.
	211.8	74.0	
	275.6	63.8	
		137.8 + 0.82	
		= +0.70	
	26.4	73.8	
	100.2	75.6	
	201.8	149.4 +0.59	
	277.4		
Ind Below	Lacaille	dis Mean - + 0.64	
	358.6	103.6	
	102.2	115.7	
	175.1	219.3 +0.76	
	290.8	140.7	
	356.3	119.1 +0.66	
	100.4	95.1	
	183.8	209.2	
12-97-50	278.9	150.8 +0.56	

12 41 : 30
1 11

12 60 31

21979.528

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1918phae.proj..627C

~~Pastes~~

2nd Below.

12-5-20	244.2	104.1	II
	348.3	103.6	
	63.6	207.7	
	177.2	142.3	+ 0.83

~~0.74~~ 2 + 0.58

246.3	103.5 ✓	
349.8	98.4 ✓	
71.4	201.9 ✓	
169.8	158.1 ✓	+ 0.42 ✓

Mean = + 0.53

2nd Above

258.2	80.7	80.2	
338.4	121.5	71.5	
83.2	201.7	151.7	+ 0.54
154.7	158.3		

+ 048

262.2	78.2 ✓	~~0.41~~	
340.4	79.8 ✓		
77.6	148.0	+ 0.42	
12-5825	157.4		

9 45

C 25452 =
1 15

12 53 31) 21979.53 d

13 00 Co watch = 1m 15s fast by bell

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1918phae.proj..627C

Jan 20 - 1919

Ind. above

13-6-10	258.6	80.8	
	339.4	81.6	
	80.2	162.4	+0.33
	161.8		

			+0.23
	257.2	85.0	
	342.2	85.8	
	774	170.8	+0.17
	163.2		

Ind. Below Dream = +0.30

	162.2	84.2	
	246.4	92.2	
	352.2	156.4	+045
	64.4		

			+0.31
	168.6	85.0	
	253.6	82.0	
	344.4		
13-12-20	66.4	167.0	+0.25

13 9 15
13 8 00
21979.547

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1918phae.proj..627C

Jan. 20 – 1919.

G.M.T.

	Index	Below	IV
13-26-40	165.6	~~126.2~~	
	241.2	96.2	
	356.2	~~40~~ 40.2	
	66.4		
		166~~4~~	+0.26
	169.2	78.2	+0.33
	247.4	~~8~~ 0.8	
	345.6	159.0	+0.40
	66.4		

Index above — Mean = +0.26

75.0	86.8 ✓	
161.8	84.7 ✓	
253.5	171.5 ✓	+0.16 ✓
340.2		
		+0.22
78.2	81.0 ✓	
159.2	83.6 ✓	
256.2	164.6 ✓	+0.29 ✓
13-34-5 339.8		

13 30 22

13 29)

2(9)9.562

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1918phae.proj..627C

Jan. 20 - 1919

Index Above

13-45-53 77.2 81.7 ~
158.9 84.0 ~
252.2 165.7 +0.27
336.2

= ±.28

74.7 84.9 ~
159.6 79.6 ~
256.6 164.5 + 0.29
336.2

Index Below Mean = +0.39

353.4 73.2
66.6 98.8
170.6 172.0 + 0.54
249.4

+0.50

357.7 71.1
68.8 84.7
166.2 155.8 046
13-53 025-0.9

13 49 28
13 48 13
2 1979.575

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1918phae.proj..627C

Jan. 20 - 1919

G.M.T.

14

Index Below

VI

8 21 18	353.8		
	62.2	68.4	
	170.4	75.4	
	245.8	143.8	+0.70
	351.6		+0.62
	64.2	72.6	
	169.8	78.9	
	248.7	151.5	+0.55

Index above Mean = +0.54

	259.6		
	340.2	80.6	
	77.6	77.8	
	155.4	158.4	+041
	258.7		
	330.0	71.3	+0.46
	79.6	82.6	
14 8 25 20	162.2	153.9	+0.50

14 23 19

14.22 4

21979.599

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1918phae.proj..627C

Jan. 20-1919

Laelia VII

Index Above

14 55 55 145.6

255.2

~~333.3~~

140.4

Reject. Impossible to continue For Gar

Index Below Mean

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1918phae.proj..627C

Thu Feb. 7, 1919

Eclb. 15" Eq. Lee Jr Rec

Sunset P.9.20 V

α Cephei 005-381 Phot T.

126.2 Comp por. * dis.

1236.0 198.4 722

297.1 927

27.4 1649 + 0.29 I

125.3 885 + 0.30

203.8 857

295.9 1642 + 0.30

21.6

P.9.20 Mean = +079

~~1236.0~~ Diff

226.4 533

279.1 628

43.7 1155 + 1.29 Magn = 9.20

165.9

- 1.28

223.7 573

281.0 590

43.6 1636 + 1.27

12-41-5 102.6

775

(2 38 32

26

(2 38 58

2(99).

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1918phae.proj..627C

Feb. 7 – 1919

η Cephei

Eyepc.	Pa. 200		
13-16-35	300.1		
	22.6	f 2.6	
	119.6	f 4.6	
	204.2	197.2	+0.24
	302.8		+0.34
	25.1	f 2.3	
	127.6	f 4.6	
	202.2	156.9	+0.44
	Pa 200		mean = +0.68
	38.8		8.41
	105.2	66.4	mean = 9.09
	221.4	62.68	
	284.2	129.2	+1.00
	47.0		
	107.8	60.8	+1.03
	219.2	65.4	
13-21-15	284.6	126.2	+1.06

37 50

(3 18 55
13 19 21
2199.

13 00 Fixed $\times 42 \times = 26''$ slow after Bell.

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1918phae.proj..627C

Feb 7-1919

N Cephei. II

G.M.T.	Pa. ~~20~~	
12-51-45	230.12	498
	280.0	668
	30.8	~~11 5.8~~ +12.7
	105.6	116.6

	220.7	655 ✓ +1.16
	286.2	614 ✓
	41.6	1269 +10.4
	103.0	

Pa 200

	300.0	822
	22.2	~~830~~
	199.2	1652 +0.26
	202.2	

Mean = +0.676
8.41
Mag = 9.17

+0.35

	307.8	79.6
	~~24.4~~	78.2
	123.2	157.8 +042
12-55-30	201.4	

12 53 38
26
12 54 04

2887.

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1918phae.proj..627C

Feb. 7 – 1918

~~Smith~~ Pa. 20 IV

13-30-41 ~~44~~ 0.0
108.6 68.6
223.3 0 93
282.6 127.9 + 1.02

40.0
106.6 66.6 + 0.98
220.1 65.1
285.2 131.7 + 0.94

Pa 200 Mean = + 0.68
~~285.2~~ 8.41
123.8 Mean = 9.09
201.7 77.9
302.6 82.0
24.6 159.9 + 0.38

~~24.6~~
122.8
198.6 76.4 + 0.38
13 – ~~40~~ 35 – U 299.8 82.9
5 41 22.7 159.3 + 0.39

13 32 50
13 33 16
21997.

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1918phae.proj..627C

Feb. 7–9.

V

	P.A.		
~~13~~	116.2	841	
14 1-25	210.3	790	
	301.8	1631	+ 032
	20.8		
			+ 0.38
	128.6	70.0	
	198.6	86.6	
	297.8	1566	+ 045
	24.4		
	P.A.	Mean = + 0.77	
	225.5		841
	282.0	56.5	Mean = 918
	43.8	66.4	
	110.2	1229	+ 1.13
	219.7		
	286.0	66.3	+ 1.16
14-~~5~~-40	46.6	537	
~~13~~	100.3	1200	+ 119

14 3 32

14 3 ~~58~~

2(99).

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1918phae.proj..627C

Feb. 7 1919

Pa. 20 VL

14-12-40
231.6
297.2
42.2
104.14
655
622
1277 +103

220.6
284.3
44.6
104.6
637
600
1237 +1.11 +1.07

Pa. 200
304.2
20.4
121.8
213.8
Mean = +067
841
Mean = 908
762
920
1682 +022

2954
31.2
130.6
198.2
14-17-20
958
676
1634 +032 +0.27

14 15 0
14 15 26

2197

1918phae.proj..627C

Feb. 7, 1919

VIII

R.A. 200

9-28-9

308.6
19.2
120.6
214.4

706
938
1644 +0.30

304.1
35.2
129.6
202.6

911
730
1641 +0.30

R.A. 20

48.8
104.6
217.0
293.3

528
763
1291 +100

Mean = +0.70
.41
9.12

Magn.

41.3
110.4
229.6
278.6

691
490
1181 +1.23

+1.12

11-31-30.

59 39

14 2.9 50
14 30 16
21997.

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1918phae.proj,627c

Feb. 7 - 1919

Maphei

VIII

Pa. 20

14 39 - 55

48.4
100.8
216.7
289.2

524
725
1249 + 1.09

39.8
107.8
226.7
276.7

680
500
1180 + 1.24 + 1.16

Pa 250
122.2
204.3
298.0
27.6

821
896
1717 + 0.16

Mean = + 0.70
8.41
Mean 9.11

123.9
203.6
302.2
296

794
824
1621 + 0.34 + 0.25

14 44 55

14 42 25
26

14 42 51

2997.

Clock 30 seconds slow

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1918phae.proj.:627C

Feb 7 - 1919

U Cephei

IX

15-8-15 Pa 200

	119.8		
	208.16	88.8	
	279.8	122.9	
	42.17	211.7	
		148.3	— 0.61
	108.7		— 0.49
	221.0	1123	
	297.6	822	
	24.8	1945	— 0.387
		1605	

Pa 20

Mean = +0.02

	221.2		841
	283.6	624	Mean = 843
	31.6	821	
	113.7	1445	+ 0.6A
			+ 0.52
	207.6		
	298.4	908	
	37.8	697	
15-5-25	107.5	1605	+ 037

5 40

15 2 50

15 3 20

by Bell.

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1918phae.proj..627C

Feb. 7–1919

Weather

	9	Pa. 20		X
15-14-13		216.6	690	
		285.6	846	
		31.3	1536	+ 0,553
		115.9		
				+ 0.44
		212.6	860	
		298.6	758	
		34.4	1618	+ 035
		110.2		
		Pa. 200		Mean + 0.07
		293.6	91.2	f. 41
		24.8	988	Mean f. 48
		106.0	190.0	
		214.8	1700	— 0.19
		286.2		
		36.6	110.4	— 0.30
		121.2	910	
15-13-10		212.2	201.4	
			158.6	— 0.41
15 11 12				
15 11 42				

Sfr = 3.7
Pa = 195A

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1918phae.proj..627C

Mon Feb. 17 1919

~~R Z Cephei~~ 22 49 37

Algol – Lacaille

15" Eq. Phot T

22 46 +38.0
29 50
6 14 W

Comp* = +37°.475

Pa 190 Sp = 16

12 11 20	132.9	Comp*dis.	
	179.6	46.7	
	309.6	58.6	
	368.2	105.3	+15.3
			I
	131.8		+1.50
	188.8	57.0	
	313.6	57.2	
	364.8	108.2	+1.46
	Pa 10		Mean = +1.26
	220.4	55.8	
	276.2	55.3	
	30.8	113.1	+0.96
	106.1		
	214.6		+1.03
	286.9	72.3	
	42.4	52.0	
12 18 10	94.4	124.3	+1.10
	29 30		
	12 14 45		
	12 14 59		
	22 00 7.		

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1918phae.proj..627C

58

Feb. 17-1919

~~RZ Cephei~~ Lacaille Cont II

G.M.T.	Pa.	10	
12 24 0	221.2		
	273.3	52.1	
	30.6	75.2	
	105.8	127.3	+1.04
			+1.00
	210.6		
	289.2	78.6	
	45.0	51.6	
	96.6	130.2	+D97
			Mean = +1.34
	Pa 190		
	318.4		
	361.0	42.6	
	132.9	55.9	
	188.8	98.5	+1.69
			+1.69
	312.2		
	360.0	55.8	
	140.8	42.8	
12 30.0	183.6	98.6	+1.69
12 27.0			
12 2):04			
22007			

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1918phae.proj..627C

Feb. 17 – 1917

= Lacertae

G.M.T. RZ Cephei (Cont) III

	Pa 190		
12 42 20	319.2		
	360.0	408	
	134.2	513	
	185.5	921	+1.86
	315.6		+1.78
	11.2	53.6	
	137.6	42.2	
	179.8	95.8	+1.71
	Pa 10		Mean = +1.59
	43.6		
	95.8	52.2	
	220.6	62.2	
	282.4	114.4	+1.32
	35.9		
	99.6	63.9	+1.40
	227.9	43.7	
12 48.20	271.6	107.6	+1.47
12 45 20			
12 45 24	Region too low in clot & haze		
22007	to continue with advantage.		

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1918phae.proj..627C

Feb. 17–1919.

005381 μ Cephei

05-23

4 30 W

6 04

5 11

Pa. 20

1330 312.2 [illegible]

10.6 58.4

113.6 79.6

193.2 138.0 + 0.81

303.2

14.8 71.6 +0.88

128.6 60.2

188.8 131.8 + 0.94

Pa 200

35.2 Mean +0.69

105.6 70.4 8.41

209.8 82.2 9.10

292.0 152.6 +0.52

24.7

107.7 80.0 +0.50

210.2 75.3

1390 285.5 155.3 +0.47

1360

1364

220009

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1918phae.proj..627C

Feb. 17 - 19

2 Cephei

Pa. 200

13 10 30 37.2 II

104.8 67.6

214.6 72.0

286.6 139.6 +0.78

36.2 +0.64

107.6 71.4

206.6 82.2

288.8 153.6 +0.50

Pa = 20 Mean = +0.86

124.2 ±.41

189.6 65.4 9.27

307.8 60.4

368.2 125.4 +1.07

126.3 +1.09

186.4 60.1

308.2 63.8

13 16 00 12.0 123.9 +1.11

13 13 15

13 13 19

22007.

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1918phae.proj..627C

Feb. 17-1919

N Cephei

	Pg. 20	+		
13 20 40	126.9			44
	189.9	630		
	312.6	572		
	369.8	1202	+ 1.19	
	128.6		+ 1.10	
	190.6	620		
	306.6	663		
	372.9	1283	+ 1.01	
	Pg. 200		Mean = +0.59	
	205.8			841
	299.0	932		900
	27.8	78.8		
	106.6	1720	+ 0.17	
	209.2		+ 0.18	
	291.8	826		
	26.3	865		
13 28 40	112.8	1691	+ 0.20	

13 24 40

13 24 44

2200?.

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1918phae.proj..627C

Feb. 17–1919

N Cephei

Pa 200

13 43 30	200 6		
	291.6	91.0	
	32.2	71.4	
	163.6	1624	+ 0.34
	214.2		
	~~286.8~~	72.6	+ 0.38
	~~28.4~~	860	
	1144	158.6	+ 0.41

Pa 20

Mean = +0.74

841

915

	309.6		
	374.4	64.8	
	131.4	56.4	
	187.8	121.2	+ 1.17
	307.2		
	370.4	63.2	+ 1.10
	127.0	64.8	
13 48 40	191.8	128.0	+ 1.02
10			

13 46 5

13 46 9

2007.

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1918phae.proj..627C

Feb. 17–1919

α Cephei

	R.A. 20			~~IV~~ V
13 59 0	301.6			
	13.3	71.7		
	122.6	72.2		
	194.8	143.9	+0.70	
	310.6		+0.84	
	364.9	54.3		
	118.3	75.9		
	194.2	130.2	+0.97	
	R.A. 200		Mean = +0.90	
	27.6			8.41
	113.6	86.0		8.91
	208.8	79.8		
	~~288.6~~	166.8	+0.25	
	30.8		+0.17	
	103.6	72.8		
	196.7	102.1		
14 05 10	298.8	174.9	+0.09	

14 02 05 Clouds near region
14 02 09
22007.

14 00 Cs watch = 4^s fast slow by bells

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1918phae..proj..627C

Feb. 17 - 1919

2 Cephei

VI

Pa. 200

14 10 20 24.0
121.0 97.0
204.6 84.6
289.2 181.6
178.4 — 0.03

306
117.8 87.6 — 0.12
196.0 104.0
300.0 191.6
168.4 — 0.22

Pa 20 Mean = +0.17

113.8 8.41
199.6 85.8 Sum = 8.58
306.8 69.4
16.2 15.2 + 0.47

120.4
194.4 74.0 + 0.46
297.8 82.8
14 15 20 20.6 15.68 + 0.44
26 40

14 13 20 Troubled by clouds in the sky
14 13 24
2 20 07.

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1918phae.proj..627C

Feb. 17-1919

μ Cephei VII

	Pa. 20		
14 18 40	116.2		
	194.4	78.2	
	300.2	74.4	
	14.6	152.6	+ 0.52
	122.8		
	192.9	70.1	+ 0.56
	301.6	79.1	
	20.7	149.2	+ 0.59
	Pa 200		Mean = + 0.18
	193.6		8.41
	300.4	106.8	8.59
	25.5	78.3	
	111.8	193.1	
		166.9	− 0.25
	208.0		
	295.8	87.8	− 0.21
	20.4	101.2	
14 24 00	121.6	189.0	
		171.0	− 0.17
14 21 20			

22007.
14 30 Too many clots to continue with advantage.

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1918phae.proj..627C

Mr. Campbell

Finder of 15 in. Tel. cleaned

Mar. 26. 1919.

G.

MAR 27 1919

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1918phae.proj..627C

Sat April 19, 1919

Cloudy. 15-11 E Eq.

R Can Ven 134440
4" finder

1 ∓ 20 est Var = 10.9

11.7 (v) map only, LV. just obs 11.6

Star between 10.4 & 9.8 seen but not very distinctly

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1918phae.proj..627C

Wed. April 30, 1919. R.R.M. Rec

7h 2h0 V.A.Obs 15" Eq. Sa S. Aurigae .060-47

1 & 3 C.A. est var = < 13.8

X Aurigae	06 04 50	est	11.5
V Aurigae	06 16 47	est	11.9
X Gemin	06 40 30	est	10.7
RR Gemin	07 12 01	est	12.8
T Cam Min	07 28 11	est	12.8
S Gemin	07 37 23	est	14.2
T Gemin	07 43 23	est	13.6
U Gemin	07 49 22	est	13.9

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1918phae.proj..627C

70

$2^{2}{}_{0}{}^{19}$

14.0.0 ✓

Wed. April 30, 1919.

S Hydrae	084803	est	8.8
U Cancri	083819	est	12.1
V Sextis	095421	est	13.8
W Sextis	104814	est	12.6
S Sextis	110506	est	13.7
R Crucis	115919	est	10.7
SU Virginis	120012	est	11.5
T Virginis	120905	est	13.7
Y Virginis	122803	est	13.5

1H 40

18

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1918phae.proj..627C

(Fri) May 23 – 1919

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

Jupiter
7 4 +22.9

(3.3) Chaldea
1352 +2 44

1354 +2.0
1230
1242

Pa.=210 Cmp. Star. Dis. ~~Obst~~ I

13,21.55	137.8	
	184.7	46.9
	299.2	79.6
	378.8	126.5 +10s
	121.6	7 +0.98
	198.4	76.8
	314.6	55.8
	370.4	132.6 +092 Mean = +0.53
	214.4	[Pa.=30]
~~Pa. 30~~	28.3	69.9
	23.2	101.2
	124.4	171.1 +017
	201.3	
13 43 52	302.2	100.9 +0.08
	36.6	79.8
13.45.50	116.4	180.7 X 179.3 -0.01

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1918phae.proj..627C

72

Friday, May 23, 1919.

Chaldea (313)

	Pa. -30		
13, 54, 0	215.4		
	283.0	67.6	
	24.4	99.2	
	123.6	166.8	+0.25
	205.6		+0.25
	296.6	91.0	
	32.7	75.7	
	108.1	166.5	+0.25
	P.9. -210		Mean = +0.60
	312.2		
	370.4	58.2	
	121.6	62.4	
	204.0	140.6	+0.76
			+096
	304.7		
	380.2	75.5	
	138.2	45.8	
13 57.50	184.0	121.3	+1.16
11 50			
13 55 57			

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1918phae.proj..627C

Friday, May 23, 1919.

Chaldea (313)

P.a. = 210

14. 4. 35	317.0		~~H~~
	370.0	53.0	
	119.4	81.0	
	200.4	134.0	+ 0.90
			+ 088
	300.8		
	382.1	81.3	
	134.0	53.8	
	187.8	135.1	+ 087

P.a. = 30

	~~36.6~~ 0		+ 0.40
	115.0	79.0	
	198.4	106.0	
	304.4	185.0	
		175.0	- 0.09
	28.7		
	122.6	93.9	- 008
	205.2	90.6	
18. 8. 35	295.6	184.5	
		175.5	- 0.08

Icc 6 37

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1918phae.proj..627C

74

Friday, May 23, 1919.

Chaldea (313)

IV

	Pa. = 30		
14, 18, 15	26.2		
	114.4	88.2	
	211.3	75.1	
	286.4	163.3	+ 0.32
			+ 0.30
	35.1		
	107.7	72.6	
	202.4	94.7	
	295.2	165.4	+ 0.28
	Pa. = 210.		Mean = + 0.60
	136.3		
	187.4	51.1	
	299.2	86.0	
	385.2	137.1	+ 0.83
			+ 0.70
	126.1		
	200.2	74.1	
	312.3	56.9	
14, 21, 55	369.2	131.0	+ 0.96
10			
14 20 05			

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1918phae.proj..627C

May 23–1919

Chaldea (313)

V

$\delta a = 210$

14. 32.51

131,8
190,4 58.6
303,3 77,9
381,2 136.5 +0,84

121,0 +0,80
203,2 82,2
312,8 58,6
371,4 140.8 + 0,76

$\delta a = 30$ Mean = +0,44

214,0
285,6 71,6
26,4 +98,2
~~14.34.30~~ 124,6 ~~+89.8~~
169,8 +0,19

201,0
304,6 103,6 +0,08
32,6 77,2
14. 35. 20 109,8 180,8 +
14. 34. 10 179,2 – 0,02

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1918phae.proj..627C

Friday, May 23, 1919.

Chaldea (313)

	Pa. = 30.		
14, 21, 30	214.6		
	290.6	76.0	
	27.7	92.5	
	120.2	168.5	+ 0.22
	238.0		+ 0.47
	297.8	59.8	
	32.2	83.0	
	115.2	142.8	+ 0.72
	Pa. = 210		
	300.0		
	375.2	75.2	+ 0.64
	132.6	61.0	
	193.6	136.2	+ 0.85
	308.4		+ 0.82
	371.4	63.0	
	130.0	76.0	
14, 44.55	206.0	139.0	+ 0.79

P.9 (97) A
Spr 3.2

Troubled by clouds in last part of group.

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1918phae.proj..627C

✓

~~Tuesday, May 27,~~ 1919.

LCOb. Miller Rx

(Saturn Visitors)

Chaddea. (3(3)

13 50 + 20

13 52

50 2

13 X0 Sat. not found; abandoned

Long Period Vars

R Coronae 115919 est 8.1

13 14

1 1 5 W

S U Virginis 120012 est 11.9

R U Virginis 124204 est 12.4

U. Virginis 124606 est 12.4

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1918phae.proj..627C

78

Fri. May 30 - 1919

LCObs. 15" ℰ Eq. Miller Rec

005-381 ℵ Cephei Phot T.
12 18
11 25 W +81.3
P.A. = 200 Variable disk.

13. 18. 25
139.6
186.6 47.0
320.3 45.2
365.5 92.2 −1.86

133.2 −1.82
182.3 49.1
320.0 45.5
365.5 94.6 − 1.79

P.A. = 20 841
219.6 −1.32
281.4 61.8 7.09
32.3 77.1
109.4 138.9 − 0.80

210.8
285.2 74.4 − 0.82
38.0 67.6
13, 22.20 105.6 141.0 − 0.85
13.20.22

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1918phae.proj..627C

May 30, 1919.

U Cephei II.

	P.g. 220		
13.27.0	217.8		
	282.3	64.5	
	43.2	67.2	
	110.4	131.7	−0.94
	215.6		−0.92
	287.4	71.8	
	36.4	62.4	
	98.8	~~24~~	
		134.2	−0.89
	P.g. = 200		
	318.6	44.7	
	363.3	46.8	
	139.6	91.5	−1.87
	186.4		
	317.1		
	369.8	52.7	−1.88
	144.4	38.0	
13.30.25	182.4	90.7	−1.90
13.28.42			

841
Mean = 1.40
7.01

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1918phae.proj..627C

May 30, 1919.

U. Cephei III.

	P.a. = 200		
13, 35.55	324.2		
	360.4	36.2	
	140.6	48.2	
	188.8	84.4	−2.07
	315.6		−1.94
	363.2	47.6	
	135.5	46.1	
	181.6	93.7	−1.82
			841
	P.a. = 20		Mean = −1.44
	39.2		6.97
	106.3	67.1	
	217.4	68.2	
	285.6	135.3	−0.87
	34.4		
	107.2	72.8	−0.94
	222.6	56.0	
13, 38.5	278.6	128.8	−1.00
13, 37.0			

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1918phae.proj..627C

May 30, 1918.

U. Aquilæ. ~~II.~~

	P.a. = 20		
13. 47. 5	37.0		
	99.2	62.2	
	213.8	72.2	
	286.0	134.4	− 0.89
	37.7		− 0.84
	108.8	71.1	
	218.9	68.0	
	286.9	139.1	− 0.79
			841
	P.a. = 20		Mean = −1.28
	~~82.2~~		7.13
	~~273.8~~	~~140.8~~	37.8
→	~~360.8~~		
	133.9	~~58.2~~	58.2
	192.1	~~109.0~~	96.0 −1.76
	312.8		− 1.71
	368.8	56.0	
	139.8	43.9	
13. 52. 5	183.7	99.9	− 1.66

Brodsham 3 4 4 > 3 min. 35 sec. slowly bell.

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1918phae.proj..627C

May 30, 1919.

α Cephei

+

P.g. = 200

13. 58.50

399.6		
361.0	41.4	
136.1	51.3	
187.4	92.7	−1.84
311.2		−1.76
363.6	52.4	
141.2	46.2	
187.4	98.6	−1.69

841

mean −1.30

7.11

P.g. = 220

~~216.4~~

~~+10.6~~

290.1	73.7	
37.2	67	
103.9	140.4	−0.77
226.3		
284.6	58.3	−0.84
35.1	74.7	
109.8	133.0	−0.91

14. 1. 25

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1918phae.proj..627C

May 30, 1919.

U Cephei VI.

	Pig. = 20		
14. 6. 35	216.4		
	290.8	74.4	
	37.4	66.2	
	103.6	140.6	− 0.76
	223.6		− 0.84
	280.7	57.1	
	40.0	71.4	
	111.4	128.5	− 1.01
	Pig. = 20		
	309.6		
	367.8	58.2	
	142.2	43.4	
	185.6	101.6	− 1.62
	321.3		− 1.69
	364.6	43.3	
	136.2	52.6	
14. 9. 45	188.8	95.9	− 1.76

841

Mean = −1.26

7.15

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1918phae.proj..627C

Tues June 3 - 1919

L.C. Obs 15" Eq. Miller Rec.

	113267	S. U. Draconis.		
	13 20		Plate T.T.	
	1 4A W	P.a. = 250		
13. 38.55	31.3	Cmp. Stardis		
	116.6	85.3		
	192.6	120.6		
	313.2	205.9		
		1541	−0.50	
	26.6			
	129.0	102.4	−0.40	
	204.8	93.4		
	298.2	195.8		
	P.a. = 70	164.2	−0.30	894
			Mean =	−0.08
				8.86
	126.8			
	198.4	71.6		
	294.8	107.9		
	~~323.7~~	179.5	+0.01	
	123.1			
	207.2	84.2	+0.24	
	305.5	71.7		
13. 42.25	377.2	155.9	+0.46	
13. 40.40				
13. 40. 29				
22113.				

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1918phae.proj..627C

June 3 - 1919

113267 S.U. Draconis II.

P.a. = 70

13. 49. 20 129.6
190.8 61.2
300.6 82.7
383.3 143.9 +0.70

120.8 +0.60
203.2 82.4
308.0 70.8
378.8 153.2 +0.51

894
Mean = -0.04
8,90

P.a. = 250

200.8
304.8 104.0
14.2 114.4
128.6 218.4
141.6 -0.74

193.8
311.4 117.6 -0.68
24.2 94.6
13.54.10 118.8 212.2
13.51.45 147.8 -0.62
13.51.34
22113.

14.0 Fredham 34 24 = 11 sec. fast by bell.

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1918phae.proj..627C

June 3, 1919.

S. U. Draconis III

	Pa. = 250		
14. 01. 35	203.8		
	301.0	97.2	
	18.8	112.0	
	130.8	209.2	
		150.8	−0.56
	192.2		
	310.6	118.4	−0.58
	27.6	92.6	
	120.2	211.0	
		149.0	−0.59
	Pa. = 70		
	312.8		
	373.2	60.4	
	120.4	86.7	
	209.1	147.1	+0.63
	299.1		
	380.2	81.1	+0.60
	127.7	69.2	
14. 06. 20	196.9	150.3	+0.57
14. 04. 58			
14. 03. 47			
2113.			

894
Mean ± 0.01
8.93

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1918phae.proj.-627C

June 3, 1919.
S. U. Draconis. IV.

	P.a. = 70		
14. 16. 35	307.2		
	376.8	69.6	
	116.7	90.2	
	206.9	159.8	+ 0.38
	294.8		+ 0.41
	381.6	86.8	
	127.6	70.2	
	197.8	157.0	+ 0.44
	P.a. = 250		mean = −0.04
	20.2		894
	120.0	99.8	8.90
	196.9	113.0	
	309.9	212.8	
		147.2	− 0.63
	17.7		
	126.2	108.5	− 0.50
	205.4	91.2	
14. 20,30	296.6	199.7	
14. 18. 32		160.3	− 0.38
14. 18. 21			
22113.			

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1918phae.proj..627C

June 3, 1919.

S. U. Draconis V

	P.a. = 250		
14. 36. 55	29.2		
	122.0	92.8	
	199.2	112.4	
	311.6	205.2	
		154.8	−0.48
	19.2		
	128.6	111.4	−0.46
	207.4	91.4	
	298.8	202.8	
		157.2	−0.43
			894
			Mean −0.02
			8.96
	129.7		
	197.8	68.1	
	293.3	98.1	
	391.4	166.2	+0.26
	115.2		
	206.6	91.4	+0.50
	312.0	50.8	
14. 40. 50	362.8	142	+0.73
14. 38. 52			
	P.a. = 72 A	Sp. ~~III~~	3.2

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1918phae.proj, 627C

June 3, 1918

SS. Cygni

22 13

15.2 213843 est 11.4

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1918phae.proj..627C

Tues. June 10 - 1919

LCOb 15" Eq. H.T.C. Rec

(1326) S a Draconis
13 5 2
220 W +67.7

T3

PA= 70° I

13 40 5 305.8 comet dia.
372.1 663
125.6 702
190.8 1365 + 0.4"

312.2 + 0.5"
374.0 619
129.2 741
203.3 1359 + 0.8"

PA = 250° Mean = +0.5"
30.2 8.9"
115.3 85.1 Mean 9.48
201.3 899
291.2 1750 + 0.0"

13 42 38 31.2 + 0.2"
108.2 770
211.4 833
294.7 1600.3 + 0.3"

13 45 10 ~~31.2~~

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1918phae.proj..627C

June 10-1918

P.A. 250°

II

13 52 35	82.8		
	111 4	28.6	
	213 2	81.6	
	294 8	160 2	++ 0.38
	83.7		+ 0.42
	110 2	76.5	
	212.8	79.0	
	291.8	155.5	+ 0.47
	P.A. 70°		Mean = +0.56
	130 2		8.94
	196 0	65.8	Magn = 9.50
	305 8	74.6	
	380 4	140.4	+ 0.77
	120 0		+ 0.70
	205 8	85.8	
	314 2	108.4	
13 56 48	375 5	147.1	+ 0.63
13 56 38			

14 00 Bond 342K = 20/18 slow by bell

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1918phae.proj..627C

June 10 1919

		PA 70		II
14 9.48	131.6			
	192.3	60.7		
	303 2	120		
	375 2	132.7	+ 0.92	
	123 1		+ 090	
	196 7	73.6		
	310 6	612		
	3718	1348	+ 088	
		PA 250	Mean = + 060	
	214.8			89%
	292.7	71.9	Mean =	9.5%
	-30.7	45.9		
	116.6	163.8	+ 031	
	208.1		+ 0.29	
	296.8	88.7		
14 13 15	36.0	77.2		
14 11 $\frac{63}{32}$	113.2	165.9	+ 027	

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1918phae.proj..627C

June 10, 1919

IV

14 25 30 PA 250

213.6
295.5-
27.6
111.3

f 1.9
f 3.7
165.4 + 0.28

+ 0.34

211.2
296.8
35.3
108.7

f 5.6
73.4
159.0 + 0.40

PA 70

Mean = +0.66
8.94
Magn = 9.60

315.9
372.8
123.6
198.2

56.9
74.6
131.5 + 0.95

+0.98

312.1
378.6
131.1
193.4

66.5
62.3
128.8 + 1.00

14 30.32
14 20 01

SS Cygni est = 11.8

14 41 29 21 38 43

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94

Thurs. June 12 - 1919

LOOb 15" Eq. Rec. DW Block

GMT

SU Drac. 11326
11406
234W Phot 1.

Comp * 8.9 b with * 9.2 d

3	Pa.	70		1
41 7	207.6	Comp * 8.9 Kordis		
30	298.6	91.0		
54	35.8	75.0		
	110.8	166.0	+ 0.27	
	216.2		+ 0.36	
	291.7	75.5		
	31.2	81.0		
	112.2	156.5	+ 0.45	
	Pa	250	Mean = +0.57	
	300.4		894	
	381.2	80.8	± d = Mapu. 9.5 - 1	
	134.0	53.8		
	189.8	136.6	+ 0.84	
	313.6	60.3	+ 0.78	
	373.9	82.0		
3 4554	118.8	142.3	+ 0.73	Sp = 2.2
14 3 46 5	200.8			Pa = 250 A
14 43 23		22022		

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1918phae.proj...627C

June 12 - 1919

Par. 2 W 13.

S U Drac. Photo T.

Var. with δ.g & comp *.

P.a. 250

3 14 50 40	213.2	< comp * dis	
	293.6	δ 0.4	
	26.1	δ 6.1	
	112.2	166.5	+ 0.25
	217.1		+ 0.26
	297.7	δ 0.6	
	30.6	δ = δ	
	116.4	166.4	+ 026

Pa. 70 Mean = + 0.62

δ 9 4

9.56

	317.5		
	373.8	56.3	
	123.6	> 50	
	197.6	130.3	+ 0.97
	309.7		+ 1.97
	381.8	72.1	Pa = 72 A
	133.3	58.4	S/n = 3.3
3 14 54 6	191.7	130.5	+ 0.97

3 14 52 23 2 20 22

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1918phae.proj..627C

June 12–1919

S U Drac II

4	Pa. 70		
1h 29 00	311.8		
	370.6	58.8	
	118.8	69.9	
	198.7	128.7	+ 1.00
	303.0		+ 0.89
	21.6	78.6	
	135.6	61.1	
	196.7	139.7	+ 0.78
	Pa. 250		Mean = + 0.62
	36.4		8.94
	106.6	70.2	95.6
	208.4	91.2	
	299.6	161.4	+ 0.35
	29.6		+ 0.36
	117.7	88.1	
4	215.2	73.2	
1h 34 30	288.4	161.3	+ 0.36

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June 12 – 1919 22^{12}

Sa Drac. III Pla. DW 8

P.a. 250

14 55 40	26.6		
	114.8	88.2	
	216.2	101.4	
	295.0	161.0	+ 0.25
	31.6		+ 0.20
	112.7	81.1	
	209.4	178.8	
	292.2	163.9	+ 0.30
		P.a. 70	Mean = 0.63
	124.6		0.94
	195.6	71.0	9.57
	312.2	189.2	
	21.4	140.2	+ 0.77
	132.2		
	194.4	62.2	+ 0.98
	310.2	178.5	
14 59 12	367.7	119.7	+ 1.20

16 00 Fe 3[illegible] = 23° slow by bell

16 15 SS Cyg. 21[illegible] = 11.2 rising ?

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1918phae.proj..627C

Friday, June 13, 1919

S. S. Cygni 22 3843 - Fro Almy

13, 30, 0

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1918phae.proj..627C

22/31 ✓

S.C. Observer
Recorder

Saturday, June 21, 1919.

Gama Leonis (4 in. eyepiece)
Testing worm & clocks.

~~14.15.0.35~~
15.

1015 20
attempted for a long time to regulate clocks so that it would keep telescope on the stars, but no amount of weights or adjustment of spring governor would accomplish this. This is a case for W. P. ~~S~~.

~~16.10.35~~
14.55.0

Long Per Vars.

γ Virg. 122803
1618
3 50 W ~~EA~~ 13.8 – 15 inch.

~~16.21.20~~ 15.06

~~16.26.0~~ 15.11 RU Virginis 124204
1622
340 W est 12.6 – 15in.

~~16.29.25~~ 15.14 RV Virginis 130212
1626
324 W est 13.8 – 15in.

15.20 V Virginis 132202 ~~est~~
1632
310 W est 14.0 – 15in.

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~~Shuttan~~ Saturday, June 21, 1919.

Σ γ Virginis 135304
1637
244 W est ——

~~15.~~ A3 Var. 3B

~~See~~ See Chart

R W Librae 152714
1643
116 W est 142

15. 36

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Sunday. June 22, 1919.

L.C.Cb. R.M. Roe.

V Leonis.
Test for worm rate.

15.12.35
13.25
14.17

15. 16.35
18.00
18.53

15 19.45
20.40

20.57
22.00

No use — clock will not carry telescope with sufficient accuracy for ~~these tests~~.

~(415

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1918phae.proj..627C

2 2 1 3 2 ✓

June 22–1918.

R Comæ 12141 est
1536
3 22 W

Region too low.

14. 30. 55 R Hydræ 132422 est 7.0–5 in.
1547
223 W

14. 34. 40 R R Virginis 135908 est 13.8–15 in
1549
150 W

14. 39. 40 γ Librae 150605 est 13.5–15 in.
1555
049 W

14. 45. 20 χ Librae 153020 est 13.5
160
030 W

14. 55 ζ Scorpii 160021 est

abandoned.

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1918phae.proj..627C

Sat. June 28 - 1919

15h 7m E. Ev

N.C. Clear

N.C. Head Rec

~~Arcturus~~

1K 1147 +19?

Prof. Kig experimenting with out of focus apparatus.

E Bootis

14h 41m +27.4°

15h 21m

0h 40m

15h 34m - 54m W. Reject.

Seeing too poor & clock rate a little too rapid to make desired observations for W.H.P.

Variables

R Ophiuchi 17h 02m 15s

15h 52m

1h 10m E - 15m

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104

June 28–1919

GMT

14 2 — T Her. 18 05 31 est 13.1 (15")
15 55
2 10 ε +31.0

TV Her 18 10 31 est m 4.2x (5")
16 05
14 25 — 2 5 ε +31.8
31.8

W Lyrae 18 11 36 est 10.6 (5")
16 08
2 03 ε +36.5

S.V. Her. 18 22 24 est. 14.2 (15")
16 12
2 10 ε +24.6

RZ Her 18 32 25 est. 10.1 (5")
16 15
2 17 ε +26.0

RY Lyrae 18 41 34 est 12.1 (15")
16 19
2 22 ε +34.6

RX Lyrae 18 50 32 est. 14.5 (15")
16 22
2 28 ε +32.8

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1918phae.proj..627C

June 28 - 1919

✓

Z Lyrae 18 56 34 est. 9.9 (5")
16 26
2 30 E + 34.8

RT Lyrae 18 57 37 est. 14.2 (15")
16 31
2 26 E + 37.6

SS Cygni 21 38 43 est. 9.9 (5")
16 38
5 00 E 43.8

14 57

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1918phae.proj..627C

June ~~July~~ 30 – 1919

LGCB

G.M.T. S U Drac. 113267 Phot. I

11 32 +67.5
15 17
3 45 W

I

P.A = 70

3 1
1 ~~4~~ 55 05 139.~~4~~6 < comp ~~4~~ dis
221.8 822
314.6 1042
58.8 186.4 – 0.12
173.6

133.6 – 0.01
230.4 96.8
320.4 77.8
42.2 174.6 + 0.10

P.A. = 250 Mean = – 0.26
219.7 8.94
322.9 103.2 Magn = 8.68
39.8 111.6
157.4 214.8
145.2 – 0.67

13 53 02 212.8
328.4 105.6 – 0.52
3 44.7 94.5
1 ~~4~~ 55 40 139.2 200.1
13 53 22 159.9 – 0.38

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1918phae.proj..627C

July 30 - 1919

14 00 Ferod 3424 = 20" fast by bell

Pa. 250 II

14 04 05	146.4	< roam dis	
	219.8	73.4	
	329.8	63.4	
	33.2	136.8	− 0.84
	147.1		− 0.13
	220.2	73.1	
	325.8	74.4	
	40.2	147.5	− 0.62
Pa. 70			Roam = ∗ − 0.22
	222.4		0.94
	326.1	103.7	Rmag = 0.72
	44.8	90.4	
	135.2	194.1	+ 0.27
		~~185.9~~	
	225.8		
	321.2	95.4	+ 0.32
	39.8	104.4	
14. 08 10	144.2	199.8	
		160.2	+ 0.38
14 06 08			
14 05 48			

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1918phae.proj..627C

June 30 - 1919

Pa 70

14 23 15

226.4		
325.8	99.4	
50.2	83.1	
133.3	182.5	
	177.5	+ 0.05

233.1		+ 0.10
316.7	83.6	
43.7	103.7	
147.4	187.3	
	172.7	+ 0.14

Mean = - 0.21

Pa 250

320.6		
38.2	77.6	
146.6	72.2	
218.8	149.2	* - 0.58

328.2		- 0.52
38.0	69.8	
143.4	64.6	
229.8	156.2	* - 0.45

14 27 45
14 24 30

P.A. = 251 A
Spr. = 3.4

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1918phae.proj..627C

Tues. July 8, 1919

LC Obs. 15" ε Eq. N.C.H. Roe

15 53 55 π Bootis 14 36 + 16.2
54 05 10

ε Bootis

55 23
55 41 15 14 35 +14.2
55 59 15 15 43

1 8 +14.2

~~58 14~~

06 53 14
59 14 10 07 07 14
59 24 11 07 21 15
59 35 07 36

16 00 14 16
00 30 14
00 44

Test of work of clock

c

01 31 17
01 48

Obs very difficult

03 34 15
03 49 17
04 06 13
04 19

Yet quantity of data appear to give assurance of probability of mean value being a good one.

05 34 22
05 56 14
06 10

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1918phae.proj..627C

July 8: 1909

2 2 18

G.M.T. L.C. Obs. ~~Obst~~ Variables Remarks.

15-02 Z Cygni 19 49-5-8 est 10.6 (5")
17-19
2 30 E +50.0

15 05 S S Cygni 21 38 43 est 11.5 (5")
17 24
4 14 E

15 16 S Sagittæ 15-17 14 est 12.8 (5")
17 35
2 18 W Repeat

Observation very difficult & somewhat uncertain.

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1918phae.proj..627C

Wed July 9, 1919

L.C. Obs. 2nd H Rec.

π Bootis

The amount of see saw across the wire from right to left equals ½ to ⅓ the separation of these components, probably equal to 3 seconds of arc.

15 46 00 .5
05

46 30½ 4
46 34½

47 07 ? .7
47 14

47 50 8
58

17 5
22

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1918phae.proj..627C

Tues. July 29 1919

5" finder of 15" Ref. L. Clk

14 19 SS Cygni 21 38 43 ext 11.2

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1918phae.proj..627C

2 x 16"

Wed. July 30 – 1919

5-½" finder of 15" E. Eq.

ACCh.

14 33 S S Cygni est 11.6

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1918phae.proj..627C

114

Sat. Aug 2 - 1919

5" Finder of 15"

S.M.T. P.C. Ch.

14:7 SS Cygni 21 30 43 est 11.6

1918phae.proj..627C

2219

Wed. Aug. 20 – 1919

L.C. Cobb 15" E. Eq. N.C.H. Roc

12.52 14 05 12 — 2 Virginis est 12.4 (15")
17 30 Variable seen with difficulty.
3 25 W – 12.8

14 34 17 — V Librae est. 12.0 (15")
18 05
33 1 W – 17.2

15 00 18 — R T Librae est 12.6 (15")
18.07
3.07 W – 18

13 00 15 05 19 — T Librae est 13.0 (15")
18 06
30 1 W – 19

15 06 05 — f Librae est 13.6 (15")
18 03
307 W – 05

15 15 20 — 5 Librae est. 8.6 (15")
18 16
30 1 W – 20

15 27 14 — R U Librae est 11.6 (15")
18 18
25 1 W – 14

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1918phae.proj..627C

22 Vol

Wed Aug 20 - 1919.

15 30 20
18 20
250 W -20

X Librae est 12.7 (15)

15 36 20
18 23
257 W -20

U Librae est 13.2 (15)
closeness of companion makes estimate difficult.

15 40 20
18 25
245 W -20

Z Librae est = K 2 variable (15)

15 47 15
18 38
241 W -15.9

R Librae est. 13.2 (15)

15 58 23
18 32
2 34 W -23.3

RZ Scorpii est 9.6 (15)

16 00 21
18 34
2 34 W -21.5

Z Scorpii est y o variable 13th (15)

16 02 21
18 37
235 W -21.2

X Scorpii est 13.2 (15)

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✓ Wed Aug 20 - 1919.

	160519 1840 235 W	-19.8	W Scorpii est 9.0 variable 14m	(15)
	160524 1442 237 W	-26.6	RX Scorpii est 13.4	(15)
	161122a 1843 232 W	-22.7	R Scorpii est 13.4	(15)
	161122b		S Scorpii est 13.6	(15)
	161607 1846 230 W	-07.5	W Oph. est 10.9	(15)
	162319 1851 228 W	-19.	Y Scorpii est. 12.2	(15)
	162815 1858 230 W	-15.9	T Oph est. 13.0	(15)
9-57	162816 1900 232 W	-16	S Oph est 9.6	(15)

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1918phae.proj..627C

Thurs Sept. 4, 1919

15^{h} 9 Eq.

L.C. Ob. (6) Helz Phot. T

19 2 — 18.3 (1919)

19 0 —19.0

Asteroid not identified with certainty.

(C 0) Bothered by clouds until 14^{h}.00 G.M.T.

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1918phae.proj..627C

Sat. Sept. 13, 1919.

15" Eq.

L.C. Obs. L.C. Jr. Rec

.7

T Cam Var 12 25 32

19 15

et T = 11.4 1 50 W +32.0

Hagen Sup Var. not seen.

12 50 star nearby seen = 12.4

.7

18 25 29 Mrs Woods Nova?

19 40

1 15 W -29.4

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1918phae.proj..627C

Wed. Sept 17-1919

1st "Eng. Mch Rec.

Metcalf Comet I

S.M.T. 7 :16 +47.4

19 30 S.T.

12 14 R.A.

12 40 Comet fills the field quite completely, suggestion of a tail to N. NE.

(1) Coma.

2½ 21 -149

20 11

24 10

Mr Heads Watch used.

14 00 Watch 8 sec slow by bell.

Coma

at 20h 45m S.T. Dec = -14°

HA = 3h 32m E

RA = 8 0 17

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1918phae.proj..627C

Sept 17, 1919.

Photometer T

G M T	Pa 190	Ceres		I
13 39 48	151.2	< ceres dis.		
	216.3	65.1		
	322.6	0.5		
	43.1	145.6	−0.66 ✓	
	147.2		−0.62 ✓	
	229.2	2.0		
	330.6	67.8		
	38.4	149.8	−0.58 ✓	
	Pa 10			
	246.6			
	303.2	56		
	65.1	61.7		
	126.8	128.3	−1.01 ✓	
	241.2			
	310.6	69.4	−1.06 ✓	
	68.7	53.0		
13 43 43	121.7	122.4	−1.10 ✓	

Imean = −0.84 ✓

.76

1.92

13 41 46

13 41 56

22219.571

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Sept 17 - 1919

G M T	Pallas	Ceres		II
~~35~~	~~H 9.6~~			
14 00 55	246.2			
	308.8	62.6		
	63.3	70.3		
	133.6	132.9	-0.92	
	242.2			
	311.6	69.4	-1.12	
	72.4	46.8		
	118.2	115.2	-1.32	
	PA 190		Mean = -0.84	
	330.6			8.76
	34.8	64.2		7.92
	144.2	86.4		
	230.6	150.6	-0.56	
	322.2			
	46.8	84.6	-0.58	
	153.7	63.5		
14 04 27	217.2	148.1	-0.61	
14 02 41				
14 02 49				
22 19. 585				

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1918phae.proj..627C

Sept 17 - 1919

gmT		Ceres		III
	Pa: 190			
14 15 38	332.6			
	40.7	68.1		
	150.6	70.8		
	221.4	-138.9	- 0.80	
	328.0			
	47.8	79.8	- 0.66	
	149.4	72.7		
	222.1	152.5	- 0.53	
	Pa 10		Mean: - 0.85	
	65: 5			8.76
	129.6	64.1		7.91
	241.3	71.9		
	313.2	136.0	- 0.86	
	62.6			
	133.6	71.0	-1.04	
	253.1	48.3		
14 18 52	301.4	119.3	-1.21	

14 17 15

14 17 23

22 19.595

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1918phae.proj..627C

Sept 17 1919

Pa. 10 Cen.

14 44 03	69.6	6		
	130.4	60.8		
	247.2	53.8	1.31	
	301.0	114.6	-1.09	
	69.0			
	122.8	53.8	-1.38	
	245.8	54.6		
	300.4	108.4	-1.45	
	Pa 190			Mean: -1.04
	149.1			-0.98
	227.4	78.3		2.76
	332.7	61.0		3 3 2
	33.7	139.3	-0.79	
	157.7			
	219.2	61.5	-0.70	
	322.0	86.2		
14 47 33	48.2	147.7	-0.62	

V 36
14 45 48
14 45 56
22019.61
14 50 o Ceti 021403 eye est 3.8 2C

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1918phae..proj..627C

Sept 17 - 1919

Ceres V

P.a = 190

14. 55-06 14 55 5-

220.7 75.2 ✓
329.6 68.3 ✓
37.9 143.5 ✓ -0.70 ✓

151.6 ✓
217.6 66.0 ✓ -0.62 ✓
324.4 86.2 ✓
50.6 152.2 ✓ -0.53 ✓

P.a = 10

67.1 ✓
123.9 56.8 ✓
239.1 73.0 ✓
312.1 129.8 ✓ -0.98 ✓
~~58.6~~

58.6 ✓
133.2 74.6 ✓ -1.02 ✓
250.6 51.8 ✓
14 59 42 302.4 126.4 ✓ -1.05 ✓

14 57 24
14 57 32
2
22d19.624

Mean -0.82 ✓
8 >6
7.9 ✓

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1918phae.proj..627C

Sept 17 1919

9 m T Ceres VI

Pa = 10

15 13 42 68.8
123.7 54.9 ✓
245.2 61.2 ✓
306.4 116.1 ✓ - 1.28 ✓

64.6 ✓
129.8 65.2 ✓ - 1.33 ✓
254.8 46.6 ✓
301.4 111.8 ✓ - 1.38 ✓

Pa = 190

156.2 ✓
222.6 66.4 ✓
~~330.2~~ ~~83.8~~
322.8 150.2 ✓ - 0.57 ✓
46.6

148.1 ✓
228.7 80.6 ✓ - 0.60 ✓
331.4 66.8 ✓
15 17 24 38.2 147.4 ✓ - 0.63

15 15 33
15 15 41

22 019.636

6 ✓
Mean = - 0.9 ✗
2.26
7.00

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1918phae.proj.:6270

Sept 17 – 1919

VII

GMT	Ceres.			
	Pa = 190			
15 – 25 = 51	14 5 : 5			
	223.2	77.7		
	325 = 6	77.2		
	42.8	154 9	~~– 0.48~~ – 0.48	
	147.2			
	222.8	77.6	– 0.56	
	330.6	69.8		
	40.4	147.4	– 0.63	
	Pa = 10		Mean = – 0.90	
	69.6			£ > 6
	122.8	53.2		7.86
	249.2	57.6		
	306.8	110.8	– 1.40	
	63.8			
	136.6	72.8	– 1.25	
	251.7	51.6		
15 31 15	303.3	124.4	– 1.10	

15 – 28 33

15 – 28 41

Pa. = 11.0 A

S/n. = 6.8

22 0 19 645 Comp ✱ = – 14°.67 (Pa) = £ 76

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1918phae.proj..627C

Thurs Sept. 18 – 1919

LCCOb 15" Eq. NCH Rec

(1) Corer Phot T.

24 20 −15.0
19 10
5 10 2

Too low at present

T Androm 001726
1920
4.57E+26.4

Abandoned, to start Ceres again.

NCH's watch used.
4
10 00 00 10 sec fast by bill.

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1918phae.proj. .6270

Sept 18, 1919

Ceres -

I

1

P.a. 60

13 03 40 69.6 ← Ceres dia.

120.8 51.2 ✓

241.7 68.1 ✓

309.8 119.3 ✓ -1.21 ✓

63.3

128.9 65.6 ✓ -1.15 ✓

245.5 59.1 ✓

304.6 124.7 ✓ -1.09 ✓

Pa = 240 Mean = -0.84 ✓

155.7 .76

221.3 65.6 ✓ 1.92

319.6 86.2 ✓

45.8 151.8 ✓ -0.54 ✓

145.9

227.7 81.8 ✓ -0.52 ✓

328.8 72.4 ✓

13 08 09 41.2 154.2 ✓ -0.49 ✓

11 49

13 05 54

2 2 20.546

Comp ✱ = -15°.0 (.92) = .76

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1918phae.proj..627C

Sept 18-1919

Ceres

II

P.a. 240

13 19 00

153.2			
216.6	63.4		
333.2	68.4		
41.6	131.8	-0.94	
152.4			
221.2	68.8	-0.91	
332.8	65.8		
38.6	134.6	-0.88	
Pa 60		Mean =	-0.96
250.2			1.26
303.6	53.4		2.80
63.4	68.7		
132.1	122.1	-1.14	
236.8		-1.02	
314.1	77.3		
67.1	57.1		
124.2	134.4	-0.89	

13 ~~23~~ 18 00

13 21 00

22 20 45 6

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1918phae.proj..6276

Sept 18 - 1919

Comp ✕ of tonight with −14°67 (8.9)

Pa 330

13 25⁻ 00	232.2	Comp ✕ of last night obs	
	315.8	236	
	51.2	900	
	141.2	1736	−0.12
	224.6		−0.10
	318.2	93.6	
	54.7	217	
	136.4	1753	−0.09

Pa 150

Mean = +0.03

	313.6		
	50.2	91.6	
	137.4	972	
	234.6	1938	
		1662	+0.26
	318.6		
	55.7	97.1	+0.16
	144.8	264	
13 28 35	231.2	1835	
		1765	+0.06

13 26 48

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1918phae.proj..627C

Sept 18-1919

Same again.

	Pa. 150			
13 29 00	320.2			13
	50.4	90.2		
	135.3	100.1		
	235.4	90.3		
		~~169~~		
		179	+ 0.01	
	315.6			
	54.7	99.1	+ 0.03	
	141.4	88.8		
	225.2	182.9		
		177.1	+ 0.05	
	Pa. 330			
	57.7		Mean = − 0.02	
	143.2	85.5		
	230.4	90.9		
	321.3	176.4	− 0.07	
	47.2		− 0.08	
	135.9	88.7		
	230.2	87.2		
13 32 10	317.4	175.9	−0.08 Pa = 329 A	13
13 30 35				

1918phae.proj.6276

Sept. 18-1918

Ceres III

	P.A. 340		
B 34-43	324.2		
	42.1	77.9 ✓	
	152.2	68.9 ✓	
	221.1	146 8	— 0.64
	333.6		
	39.6	66.0 ✓	−0.76
	153.3	~~222.4~~	
	222.4	69.1 ✓	
		135.1	— 0.87
	Pa 60		Mean = −0.91
	67.2	✓	8.76
	125.8	58.6	7.79
	248.0	58.8 ✓	
	306.8	117 4	— 1.25
	65.9		
	130.2	64.3	— 1.18
	248.4	59.8	
13 39 03	308.2	124 1	— 1.10
13 46			
13 36 53			
22 20. 567			

Aurora visible in North - about 5° above horiz.

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1918phae.proj..627C

Sept 18-1919

Ceres IV

Pa 60

13 53 20 66.4 ✓

126.8 60.4 ✓

239.8 72.0 ✓

311.8 132.4 ✓ −0.93 ✓

59.7 ✓

131.4 71.7 ✓ −0.89 ✓

244.2 64.5 ✓

308.7 136.2 ✓ −0.85 ✓

Pa. 240 Mean = −0.70 ✓

155.2 .76

217.6 62.4 ✓ 8.06

324.2 86.5 ✓

50.7 148.9 ✓ −0.60 ✓

148.8 ✓ −0.52

227.4 78.6 ✓ 57

324.9 78.3 ✓

13 56 ~~50~~ 43.2 156.9 ✓ −0.44 ✓

13 55 05

13 54 51

22020 ; 50

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1918phae.proj.6276

Sept. 18 – 1918

Ceres. ✓

P.a. 240

14 14 45	152.9		
	219.8	56.9 ✓	
	329.8	81.0 ✓	
	50.8	137.9 ✓	−0.82 ✓
	150.0		
	223.7	73.7 ✓	−0.67 ✓
	323.6	79.1 ✓	✓
	42.7	152.8 ✓	−0.52

Pa 60

Mean = −0.90

	242.9	✓	876
	310.2	67.3 ✓	786
	65.8	61.0 ✓	✓
	126.8	128.3	−1.02 ✓
	246.2		4
	309.8	63.6 ✓	−1.15
	69.6	52.6 ✓	✓
14 18 12	122.2	116.2	−1.28

14 16 28

14 16 18

220 20. 594

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Sept 18 - 1919

Ceres VI

Pa. 60

14 28 16	244.6		
	304.8	60.2	
	63.7	62.1	
	125.8	122.3	-1.14
	239.6		
	305.7	66.1	-1.14
	68.6	56.8	
	125.4	122.9	-1.13

Pa 240

Mean -0.93

	331.0		
	45.5	74.5	
	150.2	70.5	
	220.7	144.5	-0.68
	334.8		-0.72
	42.7	67.9	
	148.8	73.4	
14 32 08	222.2	141.3	-0.75

14 30 12

.604

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1918phae.proj.627C

Sept 18 1919

Ceres

VII

Pa. 240

14 32 53	332.0		
	44.4	72.4	
	150.5	67.7	
	218.2	140.1	− 0.77
	331.6		
	44.4	72.8	− 0.76
	150.6	68.8	
	219.4	141.6	− 0.74

Mean − 1.02
± .26
1.74

Pa. 60

	68.7		
	123.6	54.9	
	242.6	61.1	
	303.7	115.0	− 1.30
	66.8		
	127.1	60.3	− 1.28
	246.8	56.4	
14 36 43	303.2	116.7	− 1.27

14 34 48

608

Pas.

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1918phae.proj..627C

Sept 18, 1919

Ceres

VIII

	P.A. 60		
14 42 02	63.2		
	122.8	59.6	
	245.9	56.5	
	302.4	116.1	- 1.28
	68.7		
	129.2	60.5	- 1.22
	243.8	61.4	
	305.2	121.9	- 1.15
	P.A. 240		Mean: - 0.94
	154.4		876
	220.8	66.4	702
	329.6	74.8	
	44.4	141.2	- 0.75
	148.6		
	222.3	73.7	- 0.73
	331.8	69.4	
14 46 12	41.2	143.1	- 0.71
14 44 07			
614			

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1918phae.proj. .627C

Sept 18, 1919.

Ceres

IX

P.a. 240

14 47 12 148.6

	222.8	74.2	
	325.5	78.1	
	43.6	152.3	−0.53

	151.9		
	221.8	69.9	−0.60
	328.2	75.1	
	43.3	145.0	−0.67

Pa. 60

Mean −0.89

	248.2		
	301.8	53.6	
	63.2	63.5	
	126.7	117.1	−1.26

	242.6		
	305.2	62.6	−1.18
	70.6	61.8	
14 51 06	132.4	124.4	−1.10

14 49

618

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1918phae.proj..627C

Sept 18 - 1919

Ceres

	Pa 60			
14 55 30	246.2			
	306.2	60.0		
	63.3	67.1		
	130.4	127.1	- 1.04	
	240.3			
	310.3	70.0	- 1.00	
	66.9	60.9		
	127.8	130.9	-0.96	
	Pa 240			Mean - 0.89
	332.6			8.76
	41.8	69.2		7.87
	149.2	70.6		
	219.8	139.8	-0.78	
	331.8			
	46.4	74.6	- 0.78	
	153.4	64.8		
14 59 20	218.2	139.4	- 0.79	
14 57 25				
623				

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1918phae.proj..627C

Sept 18-1919

		Ceres		XT
	Pa 240			
15 00 42	331.8			
	42.6	70.8		
	146.6	77.0		
	223.6	147.8	−0.62	
	325.1			
	40.6	75.5	−0.66	
	150.7	~~218.~~		
	218.6	67.9		
		143.4	−0.71	
	Pa 60		Mean	−0.94
	68.8			F26
	123.8	55.0		1.82
	241.4	65.3		
	306.7	120.3	−1.19	
	67.7			
	128.8	61.1	−1.21	
	248.4	57.0		
15 04 53	305.4	118.1	−1.23	
15 02 48				
627				

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1918phae.proj..627C

Sept 18 - 1919.

Ceres XII

	P.a. 66		
15 11 45	67.2		
	126.8	59.6	
	243.7	61.1	
	304.8	120.7	- 1.18
	66.7		
	127.4	60.7	-1.20
	244.8	58.0	
	302.8	118.7	- 1.22
	P.a. 240		Mean - 0.96
	154.7		8 76
	217.6	62.9	7.80
	327.0	74.2	
	41.2	137.1	- 0.83
	150.6		
	224.2	73.6	- 0.72
	331.3	74.2	
15 15 58	45.5	147.8	-0.62

15 13 52

63'

Sky considerably cloudy towards close of observation, possibly affecting last two groups

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1918phae.proj..627C

Sat. Sept. 27 - 1919 ✓

	L.C.Ob.	15" Eq:		NCH-Rec.
G M T		Variables:		
11 42	X Aquil.	194604	est 13.7	(15")
		1906		
		040 E +4.0		New Chart
	R R Aquil	195202	est 13.5	(15")
		1915		
		0.37 E - 2.5	~~est~~	
	R S Aquil	195308	est. 14.4	(15")
		1931		
		022 E - 8.2		
12.00	R Capric.	200514	est. 12.1	(15")
		1935	The 12.2 is O.K.	
		30 E - 14.6		
	W Capric	200822	est 11.5	(15")
		1942		
		026 E - 22.2		
	Z Aquil.	200906	est. 11.6	(15")
		1944		
		25 E - 6.4		
12 07	RU Capric	202622	est 11.6	(15")
		1946		
		040 E - 22.5		

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1918phae.proj..627C

Sept. 27, 1919

G. M. T.

12 06 ψ Aquar 203905 est. 11.7 (15")
1952
047 E -5.2

W Aquar 204104 est 13.7 (15")
2000
41 E -04.4 ~~cat~~

Ceres. I

P.A. 140 Photometer T.

13 09 27 146.6 < Ceres dis.
219.8 73.2
336.4 56.9
33.3 130.1 -0.98

157.2 -0.98
213.4 56.2
323.8 75.4
39.2 131.6 -0.97 Mean = -1.31

P.A. 320
246.8
306.3 59.5
72.2 46.2
118.4 105.7 -1.52

255.4
296.3 40.9 -1.64
64.2 55.2
13 14 00 119.4 96.1 1.75
13 11

22029.549

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1918phae.proj..627C

Sept 27, 1919

Ceres II

#5	Pa 320			
13 17 47	244.4			
	297.8	53.4		
	66.7	51.7		
	118.4	105.1	-1.53	
	247.8			
	298.8	51.0	-1.50	
	64.8	56.8		
	121.6	107.8	-1.47	
	Pa 140			Mean = -1.16
	325.8			
	37.4	71.6		
	153.6	61.8		
	215.4	133.4	-0.91	
	329.8			
	37.8	68.0	-0.82	
	148.6	74.2		
13 22 16	222.8	142.2	-0.73	
536				

Heads watch used,
4 sec slow at 14 00 .9 G.M.T.
Comp ☆ = -15°.44 (8.9)

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1918phae.proj..627C

Sept 27 1919

gmt				III
13 29 28	P.a. 140 Ceres			
	327.4			
	37.4	70.0		
	153.1	64.5		
	217.6	134.5	- 0.89	
	332.4			
	38.6	66.2	-0.88	
	150.6	68.8		
	219.4	135.0	- 0.88	
	Pa 320			Mean - 1.22
	67.6			
	119.6	52.0		
	249.8	49.6		
	297.4	99.6	- 1.67	
	66.8			
	122.2	55.4	- 1.57	
	246.9	52.5		
13 3343	299.4	107.9	- 1.47	
13 31				
5-63				

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1918phae.proj..627C

Sept 27, 1919

G m T		Ceres		12
	Pa. 320			
13 38 13	69.4			
	120.9	51.5		
	249.8	46.6		
	296.4	98.1	- 1.70	
	69.4			
	119.8	50.4	- 1.68	
	250.7	48.9		
	299.6	99.3	- 1.67	
	Pa 140			Mean - 1.30
	329.6			
	41.2	71.6		
	153.4	63.4		
	216.8	135.0	- 0.88	
	330.8			
	34.4	63.6	- 0.92	
	152.8	66.6		
13 42 40	219.6	130.2	0.97	
569				

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1918phae.proj..627C

Sept 27 1919

G M T	Ceres			I
	Pa 140			
13 47 23	327.2			
	36.6	69.4		
	151.2	65.7		
	216.9	135.1	−0.87	
	331.8			
	37.6	65.8	−0.80	
	145.9	76.9		
	222.8	142.7	−0.72	
	P.a. 320			Mean −1.29
	66.2			
	121.3	55.1		
	251.4	42.0		
	293.4	97.1	−1.73	
	69.9			
	118.2	48.3	−1.78	
	252.2	45.1		
13 51 23	297.3	93.4	−1.82	
13 49 23				
576				

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1918phae.proj...627C

Sept 27, 1919

VI

g m T		Ceres	
	Pa = 320		
13 57 05	67.2		
	117.8	50.6	
	255.4	40.6	
	296.0	91.2	- 1.88
	71.8		
	115.9	44.1	- 1.76
	244.7	56.5	
	301.2	100.6	- 1.64
	Pa 140		Mean - 1.37
	157.0		
	219.7	68.7	
	331.6	63.6	
	35.2	132.3	- 0.93
	153.3		
	218.2	64.9	- .98
	330.7	62.9	
14 00 52	33.6	128.8	1.03
11 57			
13 57 58			
5 p 3			

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1918phae.proj..627C

Sept 27 1919

Ceres VII

	Pa = 140		
14 06 38	153.7		
	218.9	65.2	
	328.2	78.6	
	36.8	143.8	−0.70
	154.4		
	218.0	63.6	−0.78
	325.8	72.2	
	38.0	135.8	−0.86
	Pa 320		Mean = −1.14
	245.1		
	304.2	59.1	
	67.1	50.3	
	117.4	109.4	−1.43
	247.7		
	297.4	49.7	−1.54
	67.8	51.0	
14 10 31	118.8	100.7	−1.64

14 of 34

590

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1918phae.proj:627C

Sept 27, 1919

Cores VIII

	Pa 320		
14 13 06	248.6		
	299.6	51.0	
	67.4	57.4	
	118.8	102.4	-1.60
	249.4		
	299.4	50.0	-1.56
	66.8	56.0	
	122.8	106.0	-1.57
	Pa 146		
	~~336.6~~		
	34.6	58.0	
	157.2	58.8	Reject.
	216.0	116.8	
			mean = -1.10
	329.8		
	35.8	66.0	
	148.8	77.2	
~~14 16 46~~	226.0	143.2	-0.71
	327.1		
	39.2	72.1	-0.76
	150.6	66.8	
14 18 44	217.4	138.9	-0.80

14 11 50
14 15 55
59 6

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1918phae.proj..627C

Sept 27, 1919

G m T		Ceres		TX
	Pa 140			
14 25 33	330.2			
	36.6	66.4		
	151.2	70.1		
	221.3	136.5	-0.84	
	331.1			
	41.1	70.0	-0.88	
	155.4	63.4		
	218.8	133.4	-0.91	
	P.a. 320			Mean -1.14
	66.6			
	114.8	48.2		
	249.2	54.4		
	303.6	102.6	-1.59	
			-1.41	
	62.4			
	121.3	58.9		
	244.8	59.4		
14 29 24	304.2	118.3	-1.23	
14 27 28				
602				

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Sept 27, 1919

gmT		Ceres	X
	P.a. 320		
14 34 24	66.6		
	118.8	52.2	
	249.4	50.4	
	299.8	102.6	-1.59
	66.6		
	117.6	51.0	-1.62
	253.2	49.1	
	302.3	100.1	
			-1.65
			mean -1.27
	P.a. 140		
	150.8		
	214.6	63.8	
	330.4	64.4	
	34.8	128.2	-1.02
	146.6		-0.92
	218.6	72.0	
	329.2	66.2	
14 38 16	35.4	138.2	-0.81
14 36 20			
60			

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1918phae.proj..627C

Sept 27 1919

G m T		Ceres	XI
	P.a. 140		
14 44 18	153.3		
	212.3	59.0	
	326.6	74.2	
	40.8	133.2	
			-0.91
	147.2		
	217.9	70.7	-0.86
	333.3	67.4	
	40.7	138.1	-0.81
	Pa 320		Mean -1.24
	248.7		
	301.4	52.7	
	67.4	49.4	
	116.8	102.1	-1.61
	247.2		-1.61
	296.2	49.0	
	67.4	52.8	
14 48 02	120.2	101.8	-1.61
14 46			
615			

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1918phae.proj..6276

Sept 27, 1919

gmT		Ceres		XII
	Pa 320			
14 53 43	246.3			
	302.6	56.3		
	69.4	50.2		
	119.6	106.5	-1.50	
	242.2			
	297.3	55.1	-1.49	
	70.2	52.4		
	122.6	107.5	-1.48	
	Pa. 170			Mean -1.24
	334.6			
	33.6	59.0		
	143.6	73.6		
	217.2	132.6	-0.92	
	327.9			
	34.6	66.7	-0.98	
	156.2	59.8		
14 57 56	216.0	126.5	-1.05	

.622

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1918phae.proj..627C

Sept 27 1919

gmT		Ceres		XIII
	Pa 140			
15 05 12	329.4			
	33.2	63.8		
	147.4	73.0		
	220.4	136.8	-0.84	
	327.8			
	40.8	73.0	-0.88	
	152.1	60.5		
	212.6	133.5	-0.91	
	Pa 320		Mean. -1.24	
	70.2			
	119.2	49.0		
	246.4	53.4		
	249.8	102.4	-1.60	
	68.2			
	123.8	55.6	-1.61	
	251.4	45.8		
14 09 11	297.2	101.4	-1.62	

15 07 630

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1918phae.proj..6276

Sept 27, 1919

G.m.T.	P.A. 320	Cents	XIV
15 14 27	70.2		
	116.3	46.1	
	246.3	56.5	
	302.8	102.6	−1.59
	63.4		−1.58
	120.8	57.4	
	251.2	46.5	
	297.7	103.9	−1.56
	P.A. 140		Mean −1.12
	150.6		
	216.6	66.0	
	324.4	77.8	
	42.2	143.8	−0.70
	144.2		
	219.2	75.0	−0.66
	323.8	72.8	
15 18 23	36.6	147.8	−0.62
15 16			
636			

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1918phae.proj..627C

Sept 27 1919

G.M.T.		Cones	XP.
	P.A. 140		
15h 24m 49s	156.8		
	217.6	60.8	
	323.3	75.5	
	38.8	136.3	−0.85
	150.6		
	225.6	75.0	−0.66
	327.7	79.2	
	37.4	154.7	−0.48
	P.A. 320		Mean = −1.13
	250.9		
	299.8	48.9	
	70.0	55.2	
	125.2	104.1	−1.56
	250.8		−1.60
	296.4	46.4	
	65.4	54.4	
15h 38m 43s	119.8	100.8	−1.64
15h 26m			
644			

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1918phae.proj..627C

Sept 27 1919

Ceres

XVI

G MT			
	Pa. 320		
15 34 30	250.0		
	301.8	57.8	
	76.4	49.0	
	125.4	100.8	-1.64
	247.9		
	296.2	48.3	-1.62
	65.6	54.0	
	119.6	102.3	-1.60
	Pa 140		Mean -1.20
	324.8		
	40.0	75.2	
	153.2	64.4	
	217.6	139.6	-0.78
	327.6		-0.77
	39.8	72.2	
	150.9	68.3	
15 38 20	219.2	140.5	-0.76

15 36

650

Pa 144.a

Spa 4.8

Comparison Star.

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1918phae.proj..627C

Sunday, Sept 28, 1919

Lick Obs. 15" E Eq. 2cH Rec.

G.m.T. P.a. 190 Ceres I

13 09 10 324.4 < Ceres dis. Photometer T

	43.8	79.4	
	158.4	55.0	
	213.4	134.4	-0.89
	330.8		
	36.4	65.6	-0.81
	146.6	76.4	
	223.0	142.0	-0.73

Pa 10 Mean = -1.18

	64.4		
	122.2	57.8	
	248.2	46.9	
	295.1	104.7	-1.54
	73.1		
	124.0	50.9	1.54
	250.8	54.4	
13 13 02	305.2	105.3	-1.53

13 11

Same comparison star as Sept 27, 1919
= -15°.44 (19)

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1918phae.proj..627C

Sept 28, 1919

g.m.T.		Ceres		II.
	Pa 10			
13-16-55	62.6			
	121.0	58.4		
	251.2	50.1		
	301.3	108.5	-1.45	
	72.2			
	118.3	46.1	-1.50	
	244.4	57.8		
	302.2	103.9	-1.56	
	Pa 190		Mean - 1.19	
	148.2			
	217.6	69.4		
	331.3	62.9		
	34.2	132.3	-0.93	
	154.8		-0.88	
	218.4	63.6		
	326.3	74.0		
13 20 47	40.3	137.6	-0.82	
13 18				
55				

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1918phae.proj..627C

Sept 28 1919

gmT		Ceres		III
	Pa 140			
13 24 18	148.8			
	222.3	73.5		
	329.6	63.2		
	32.8	136.7	-0.84	
	152.0			
	216.6	64.6	-0.85	
	329.2	71.2		
	40.4	135.8	-0.86	
	Pa 10			Mean -1.15
	238.4			
	302.8	64.4		
	68.6	46.6		
	115.2	111.0	-1.39	
	248.8			
	296.0	~~47.2~~	-1.46	
	64.8	47.2		
13 27 45	123.3	58.5		
		105.7	-1.52	

560

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1918phae..proj..627C

Sept 28, 1919

gmt		Cores	IV
	P.a. 10		
13 34 03	246.2		
	296.4	50.2	
	70.6	50.5	
	121.1	100.7	-1.64
	248.0		
	298.6	50.6	-1.57
	64.8	55.8	
	120.6	106.4	-1.50
	P.a. 190		Mean : -1.20
	~~330.8~~		
	31.2	~~60.4~~	Reject. See below.
	~~154.2~~	63.5	
	~~217.7~~	123.9	~~-1.11~~
	326.6		
	33.6	67.0	
	148.2	72.4	
~~13 37 27~~	220.6	139.4	-0.79
	327.7		
	38.7	71.0	-0.84
	152.8	63.2	
13.40 08	216.0	134.2	-0.84
567			

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1918phae.proj..627C

Sept 28 1919

gmt		Ceres		V
	Pa 190			
13 45 58	330.2			
	36.2	66.0		
	155.4	63.4		
	218.8	129.4	−0.94	
				0.95
	323.4			0.80
	39.8	76.4		
retaken	152.5	71.1		
see below	223.6	147.5	−0.62	
	Pa 10			−1.22
	69.6		Mean =	−1.15
	119.6	50.0		
	249.4	53.0		
	304.4	105.0	−1.54	
	68.3			
	128.4	60.1	−1.50	
	249.6	47.8		
(13 49 38)	297.4	107.9	−1.47	
	Pa 190			
	154.8			
	217.2	62.4		
	324.4	70.7		0.91
13 53 35	35.1	133.1		

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1918phae.proj..627C

Sept 25 1919

gmT		Cres		VI
	Pa. 190			
13 57 24	151.6			
	220.8	69.2		
	330.7	67.7		
	38.4	136.9	-0.84	
	152.0			
	218.4	66.4	-0.81	
	326.6	73.2		
	39.8	139.6	-0.78	
	Pa. 10		Mean	-1.22
	249.8			
	302.7	52.9		
	70.0	46.2		
	116.2	99.1	-1.68	
			-1.63	
	249.7			
	299.2	49.5		
	66.2	53.6		
14 01 05	119.8	103.1	-1.58	

582

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1918phae.proj..627C

Sept 28 1919

Ceres

VII

gmT			
	Pa. ~~190~~ 19		
14 04 27	248.6		
	299.2	50.6	
	72.1	46.1	
	118.2	96.7	-1.74
	250.0		
	297.8	47.8	-1.70
	64.8	52.6	
	117.4	100.4	-1.65
	P.a. 190		Mean -1.22
	324.3		
	40.0	75.7	
	151.0	61.2	
	212.2	136.9	-0.84
	330.2		
	37.9	67.7	-0.75
	141.6	78.0	
14 08 01	219.6	145.7	-0.66

14 06

587

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1918phae.proj.627C

Sept 28 1919

G.M.T.		Cores		KIII
	Pa 190			
14 13 10	326.9			
	41.2	74.3		
	150.0	67.2		
	217.2	141.5	−0.74	
	327.8			
	41.6	73.8	−0.72	
	152.2	69.2		
	221.4	143.0	−0.71	
	Pa 10		Mean	−1.14
	66.2			
	123.6	57.4		
	248.2	51.8		
	300.0	109.2	−1.44	
	68.6			
	119.2	50.6	−1.55	
	247.2	49.4		
14 16 42	296.6	100.0	−1.66	
	594			

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1918phae.proj..627C

Sept 28 1919

G M T		Ceres.	IX
	Pa. 1.0		
14 21 29	70.0		
	118.8	48.8	
	250.2	49.1	
	299.3	97.9	-1.71
	71.1		
	121.1	50.0	-1.69
	246.8	49.6	
	296.4	99.6	-1.67
	P.A. 190	~~146.~~	Mean - 1.22
	146.4		
	215.2	68.8	
	327.8	71.2	
	39.0	140.0	-0.77
	152.1		
	221.6	69.5	-0.74
	325.0	74.0	
14 24 58	39.0	143.5	0.70
599			

15 00 Q Ceti est 4.8 n.e.

Pa. 187 a
Spr. 4.8

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1918phae.proj..627C

1 Mon Sept 29, 1919

Locals. 15" E 4y. mcl4. Rec.

1h 25-29 Nova Sag. 5.

1h 21 - 29 5.
1h 25
10 w

11 50 S est a 1, 4th

a
b
N

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1918phae.proj..627C

Monday Oct 6 1919

g.m.T.	2c Obs.	Ceres	mch Rec. I
	Pa 210	Comp ✱ = HR 33	
12 49 18	206.4	Comp dis.	Phot T
	230.6	24.2	
	25.4	23.4	
	48.8	47.6	+3.38
	206.4		
	228.3	21.9	+3.38
	22.4	26.0	
	48.4	47.9	+3.37
	Pa 30		Mean +2.79
	288.2		5.05
	324.6	36.4	7.84
	104.7	40.8	
	145.5	76.2	+2.31
	281.8		
	328.6	46.8	+2.20
	107.2	37.0	
12 53 0	144.2	83.8	+2.08

22037 .528

Focus altered — considerably improved.

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1918phae..proj..627C

Oct 6 1919

Ceres II

Pa 30

12 56 10

295.2

325.2 30.0

106.4 35.4

141.8 65.4 +2.66

289.8

322.2 32.4 +2.66

110.6 32.7

143.3 65.1 +2.67

Focus at 5.50-8

Pa 210 Mean +2.74

23.8 5.05

50.7 26.9 7.79

202.2 32.2

234.4 59.1 +2.89

19.3 +2.82

52.8 33.5

202.8 29.2

13 00 30 232.0 62.7 +2.76

540

Oil clock.

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1918phae.proj..627C

Oct 6, 1919

Ceres

III

P.a. 210

13 07 37 20.0

50.8 30.8

202.2 29.6

331.8 60.4 +2.84

21.8

46.9 25.1 3.0 S

206.4 25.2

231.6 50.3 +3.26

P.a. 30 Mean +2.76

108.4 5.0 S

142.6 34.2 2.A1

289.8 33.8

323.6 68.0 +2.57

105.9

144.8 38.9 +2.47

290.8 35.4

13 11 17 326.2 74.3 +2.37

13 09 27

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1918phae.proj..627C

Oct 6, 1918.

Ceres

IV

Pa 30

13 21 11

106.6		
141.6	35.0	
290.2	31.4	
321.6	66.4	+2.63
109.8		
142.2	32.4	+2.58
289.2	37.0	
326.2	69.4	+2.53

P.a. 210

Mean +2.68

5.05

7.73

202.0		
233.6	31.6	
18.9	30.3	
49.2	61.9	+2.79
203.1		
235.2	32.1	+2.79
20.0	29.8	
49.8	61.9	+2.79

13 24 52

558

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1918phae.proj..627C

Oct 6, 1919

G.M.T.	Arcs			D
	Pa 210			
13 41 04	202.6			
	233.4	30.8		
	20.2	30.9		
	51.1	61.7	+2.80	
	202.6			
	231.3	28.7	+2.84	
	20.2	30.6		
	50.8	59.3	+2.89	
				75
			Mean	+2.~~66~~
				5.05
				7.80
	Pa 30			
	288.8			
	323.6	34.8		
	109.8	34.0		
	143.8	68.8	+2.55	
			+2.66	
	292.3			
	322.6	30.3		
	109.8	31.8		
13 44 19	141.6	62.1	+2.78	
	5)2			

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1918phae.proj.627c

Oct 6 - 1918

VI

g.m.t.	Ceres		
	Pa 30		
h 3 54 17	290.0		
	324.2	34.2	
	107.7	36.3	
	144.0	70.5	+ 2.49
	290.0		
	323.6	33.6	+ 2.59
	140.7	31.0	
	141.7	64.6	+ 2.69
	Pa 210		Mean + 2.76
	22.6		5.05
	49.1	26.5	7.81
	203.6	29.4	
	233.0	55.9	+ 3.02
	20.7		
	50.6	29.9	+ 2.92
	201.7	30.9	
13 57 37	232.6	60.8	2.83
571			

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1918phae.proj..627C

Oct 6, 1919

G.M.T.		Ceres		VII
	P.A. 210			
14 13 50	18.2			
	48.3	30.1		
	204.1	25.9		
	230.0	56.0	+ 3.02	
	21.3			
	51.6	30.3	+ 3.01	
	203.6	26.0		
	229.6	56.3	+3.00	
	P.A. 30		Mean	+ 2.76
	310.2			5.05
	142.0	31.8		7.81
	284.2	36.4		
	320.6	68.2	2.57	
	107.1			
	145.8	38.7	+ 2.50	
	289.2	33.4		
14 17 23	322.6	72.1	2.44	

594

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1918phae.proj.627C

Oct 6, 1919

gmt		Ceres		VIII
	Pa 30			
14 33-57.	110.3			
	140.3	30.0		
	288.7	33.5		
	322.2	63.5	+2.73	
	110.1			
	144.6	34.5	+2.69	
	291.2	32.0		
	323.2	66.5	+2.65	
	Pa 210		Mean	+2.82
	202.8			5.05
	230.2	27.4		7.87
	22.4	28.4		
	50.8	55.8	+3.02	
	203.3			
	230.0	26.7	+2.96	
	19.6	32.6		
14 37 26	52.2	59.3	+2.89	
	60f			

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1918phae.proj..627C

Oct 6 1919

gmt		Ceres	IX
	Pa. 210		
14 40 22	202.1		
	231.4	29.3	
	22.8	27.2	
	50.0	56.5	+3.00
	201.2		
	232.4	31.2	+2.94
	21.4	28.5	
	49.9	59.7	+2.87
	Pa 30		Mean +2.82
	292.2		5.05
	322.3	30.1	787
	109.1	34.3	
	143.4	64.4	+2.70
	288.6		+2.70
	322.8	34.2	
	111.7	30.0	
14 43 49	141.7	64.2	+2.71
612			

Last two groups taken without clock in operation.

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1918phae.proj.:627C

Tuesday Oct 7, 1919

GMT				
	LC Obs.			Mch Rec.
	R. Cor. Bor. 15 44 28			
	Pa 150			
11 31 27	11.4	Var dis.		Phot T
	63.4	52.0		
	194.2	46.4		
	240.6	98.4	-1.70	
	13.6			
	65.1	51.5	-1.66	
	192.4	49.8		
	242.2	101.3	-1.62	
				7.18
	Pa 330		Mean:	-1.42
	94.7			5.76
	160.4	65.7		
	276.4	56.6		
	333.0	122.3	-1.14	
	101.2			
	155.8	54.6	-1.18	
	279.2	57.7		
11 35 05	336.9	118.3	-1.23	
481				
			Pa.	330 A
			Spec.	6.3

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1918phae.proj..627C

Oct 7, 1919

gmT		Ceres	00 -16.2	I.
	Pa 230			
11 48 50	201.8	∠ Comp dis.		Phot T
	233.2	31.4		
	21.8	26.6		
	48.4	58.0	+ 2.94	
	205.4			
	231.2	25.8	+ 2.96	
	19.2	30.8		
	50.0	56.6	+ 2.99	
	P.a. 50		Mean = 42.75	
	288.2		5.05	
	324.4	36.2 Clouds.	7.80	
	110.8	35.0		
	145.8	71.2	+ 2.47	
	293.3			
	323.6	30.3	+ 2.54	
	109.2	36.4		
11 52 35	145.6	66.7	+ 2.62	

4.94

Troubled by clds during last half of group.

12 50 Sky nearly covered. Observation impossible

Same Comp * as last night (6 Oct 1919)

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1918phae.proj..6276

Wed Oct 1 1919

ZC Obs.

G.M.T.		Ceres.			I ~~II~~
	Pa 60				
# 11 5 20	285.5	(Comp * dis			
	325.6	40.1			
	111.2	35.6			
	146.8	75.7	+	2.32	
	290.7				
	326.6	35.9	+	2.30	
	105.6	41.6			
	147.2	77.5	+	2.27	
	Pa 240		Mean =	+	5.05 / 2.79 / 7.84
	21.6				
	50.8	29.2			
	206.8	22.0			
	228.8	51.2	+	3.22	
	24.2		+	3.28	
	47.4	23.2			
	203.8	25.4			
11 58.0	229.2	48.6	+	3.33	
11 55.0					
497					

Pencils readjusted at end of group I
Moon close by & bright. observation difficult.
C's watch used above. 1 min 4 sec fast

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1918phae.proj..627C

Oct 8, 1914

	1C Obs. Ceres.			2nd Rec II
	Pa 240			
12 00 17	156.4			
	184.0	27.6		
	335.8	25.0		
	360.8	52.6	+3.16	
	157.7			
	181.7	24.0	+3.21	
	333.6	26.2		
	359.8	50.2	+3.26	
				5.05
	Pa 60			Mean +2.88
	239.2			7.93
	277.9	38.7		
	62.2	32.4		
	94.6	71.1	+2.47	
	244.0			
	273.6	29.6	+2.56	
	60.8	36.6		
12 04 00	97.4	66.2	+2.64	

12 02

.502

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1918phae.proj.-6276

Oct 8, 1919

Ceres III

	Pa 60			
12 09 28	238.6			
	274.8	36.2		
	62.7	30.6		
	93.3	66.8	+ 2.61	
	243.3			
	273.9	30.6	+ 2.58	
	58.7	37.7		
	96.4	68.3	+ 2.56	
				5.05
			Mean	+ 2.84
	Pd 240			7.89
	332.2			
	363.6	31.4		
	156.7	25.9		
	182.6	57.3	+ 2.96	
	336.1		+ 3.10	
	359.7	23.6		
	156.6	27.0		
12 13 18	183.6	50.6	+ 3.24	

.50 A

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1918phae.proj..627C

Oct 8, 1919

Ceres

IV

Pa 240

12 21 17 336.4
362.4 26.0
154.7 26.4
181.1 52.4 + 3.17

334.6
359.6 25.0 + 3.09
154.1 31.1
185.2 56.1 + 3.01

5.05
Mean + 2.82
7.87

Pa 60

62.2
95.6 33.4
242.8 31.9
274.7 65.3 + 2.67

60.6
97.6 37.0 + 2.54
240.8 36.0
12 25 24 276.8 73.0 + 2.41

516

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1918phae.proj.627C

Oct 8 / 19 / 9.

V

Ceres

	Pa 60			
12.34 32	61.8			
	97.7	35.9		
	242.3	33.5		
	275.8	69.4	+ 2 53	
	59.7			
	97.6	37.9	+ 2.48	
	240.6	34.2		
	274.8	72.1	+ 2.44	
				5.05
	Pa 240		Mean	+ 2 82
	155.9			7.87
	182.6	26.7		
	337.2	24.6		
	361.8	51.3	+ 3 22	
	157.1			
	181.2	24.1	+ 3.16	
	331.2	30.1		
12 38 33	361.3	54.2	+ 3.09	

526

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Oct 8, 1919

Ceres

VI

Pa 240

12 45 44 155:0
182.6 27.6
334.4 27.0
361.4 54.6 + 3.07

156.1
181.9 25.8 + 3.10
333.8 27.4
361.2 53.2 + 3.13

Pa 60

239.6
277.4 37.8
62.1 33.5
95.6 71.3 + 2.46

242.2
272.2 30.0 + 2.61
63.4 32.7
12 50 23 96.1 62.7 + 2.76

533

J05
+ 2.86
7.91

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Oct 8, 1919

Ceres VII

	Pa 60			
13 08 51	240.9			
	276.6	35.7		
	59.8	37.0		
	96.8	72.7	+2.42.	
	239.3			
	277.0	37.7	+2.41	
	60.3	35.5		
	95.8	73.2	+2.40	
	Pa 240			
	333.4			
	362.9	29.5		
	155.3	30.9		
	186.2	60.4	+2.84	
	338.8			
	361.9	28.1	+2.86	
	153.7	31.6		
13 12 48	185.3	59.7	+2.87	

549

5.05

Mean = +2.64

7.69

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Oct 8, 1919

Ceres. VIII

P.a. 240

13 15 06 331.7
363.2 31.5
157.3 25.5
182.8 57.0 +2.98

332.6
363.3 30.7 +2.96
153.2 27.2
182.4 57.9 +2.94

5.05
Mean 2.76
7.81

Pa 60
63.7
96.3 32.6
240.8 35.1
275.9 67.7 +2.59

~~58.2~~ ? 42.2 Repeated
100.4 33.8 below.
240.6 76.0 +2.32
~~13 18 38~~ ~~274.4~~
+2.57

61.2
93.0 31.8
~~1956~~ 238.6 37.0 +2.55
13 1956 275.6 68.8

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Oct 5, 1919

Ceres

IX

Pa 60

13 25 21

62.2		
93.6	31.4	
239.2	34.2	
273.4	65.6	+ 2.66
59.2		
96.6	37.4	+ 2.48
238.1	38.8	
276.9	76.2	+ 2.31

3.05

Mean: + 2.73

7.78

Pa 240

154.8		
181.2	26.4	
332.8	29.0	
361.8	55.4	+ 3.04
156.3		+ 2.98
183.6	27.3	
333.4	30.9	
364.3	58.2	+ 2.93

13 29 17

360

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Oct 8, 1919

Ceres ~~II~~ X

Pq 240

13 42 28

154.4		
185.8	31.4	
334.6	29.7	
364.3	61.1	+ 2.82
152.8		
183.4	30.6	+ 2.85
333.4	28.9	
362.3	59.5	+ 2.88

5.05

Mean: + 2.75

~~+~~ 7.80

P.9. 60

240.8		
273.7	32.9	
61.6	31.7	
93.3	64.6	+ 2.69
~~239.6~~		
~~276.8~~	~~37.2~~	Reject
~~58.1~~	~~37.7~~	Rejected below.
~~95.8~~	~~74.9~~	

~~+3 46 16~~

+ 2.65

240.4		
273.3	32.9	
61.6	34.0	
95.6	66.9	+ 2.61

~~13 47 31~~ -73

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Oct 8 1919

Ceres

XI

	Pa 60			
13 58.33	241.6			
	273.6	32.0		
	61.2	35.4		
	96.6	67.4	+2.59	
	238.9			
	275.7	36.8	+2.56	
	62.2	32.6		
	94.8	69.4	+2.53	
				5.05
	Pa 240		Mean	+2.86
				7.91
	334.8			
	359.3	24.5		
	153.8	29.5		
	183.3	54.0	+3.10	
	336.8			
	360.0	23.2	+3.17	
	155.4	27.4		
14 02 17	182.8	50.6	+3.24	

513

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Oct 8, 1919

Ceres XII

	Pa 240			
14 03 53	331.4			
	361.2	29.8		
	154.8	27.4		
	182.2	57.2	+ 2.97	
	332.2			
	362.4	30.2	+ 2.95	
	156.3	28.1		
	184.4	58.3	+ 2.93	
				5.05
	Pa 60		Mean:	+ 2.72
	61.6			7.77
	94.4	32.8		
	239.6	38.6		
	278.2	71.4	+ 2.46	
	62.4		+ 2.48	
	96.9	34.5		
	239.3	35.3		
14 07 46	274.6	69.8	+ 2.57	

587

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Oct 8, 1919

Ceres XIII

	Pa 60			
14 10 29	61.4			
	94.4	33.0		
	241.7	33.2		
	274.9	66.2	+ 2.64	
	62.6			
	99.3	36.7	+ 2.52	
	238.6	36.4		
	275.0	73.1	+ 2.41	
				5.05
	Pa = 40		Mean	+ 2.76
	155.6			7.81
	182.3	26.7		
	334.2	30.2		
	364.4	56.9	+ 2.98	
	154.9		+ 3.00	
	182.4	27.5		
	333.8	28.6		
14 14 45	362.4	56.1	+ 3.01	

592

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Oct 8 1919

Ceres XIV

Pq 240

14 25 10 154.6

183.0 28.4

335.2 28.1

363.3 56.5 + 3.00

151.5

182.5 27.0 + 2.99

332.2 30.0

362.2 57.0 + 2.98

.505

Mean: + 2.70

7.75

Pa 60

240.6

275.6 35.0

60.3 38.0

98.3 73.0 + 2.41

239.3 + 2.40

277.1 37.8

60.4 35.8

14 29 00 96.2 73.6 + 2.39

602

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Oct 8, 1919

Ceres XV

Pa 60

14 35 29 239.2

274.6	35.4	
60.4	38.0	
98.4	73.4	+2.40

238.7

276.4	37.7	+2.44
62.2	33.0	
95.2	70.7	+2.48

505

Mean 278

7.83

Pa 240

333.8

361.1	27.3	
157.2	27.4	
184.6	54.7	+3.07

334.2

362.2	28.0	+3.12
157.8	24.3	
182.1	52.3	+3.15

14 40 34

609

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1918phae.proj..627C

Oct 8 1919

Ceres XVI

Pa 240

14 50 13

335.7
360.8 25.1
155.0 26.8
181.8 51.9 +3.19

333.8
362.8 29.0 +3.16
757.6 24.0
181.6 53.0 +3.14

5.05
mean +2.88
7.93

Pa 60

62.6
91.8 29.2
240.0 37.8
277.8 67.0 +2.61

59.8
97.5 37.7
242.4 30.8
(14 54 37) 273.2 68.5 +2.56

3
+2.6

60.9
92.6 31.7
240.8 34.0
14 55 52 274.8 65.7 +2.65

622

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1918phae.proj..6276

Oct 8 1919

Ceres

XVII

Pa. 60

15-06.50 59.1
96.6 37.5
240.6 35.5
276.1 73.0 +2.41

61.1
93.2 32.1 +2.53
241.8 33.8
275.6 65.9 +2.65

5.05
Mean +2.79
7.84

Pa 240

154.8
182.6 27.8
336.4 26.2
362.6 54.0 +3.10

155.4
184.1 28.7 +3.05
334.4 27.8
15 10 52 362.2 56.5 +3.00

15 8
631

H's watch - 25 sec slow at 14 hrs.

Pa. 242 A

Same Comp * as last night. Sp. 11.3

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Friday Oct 17, 1919

gmT	LC obs. Ceres			N.CH. Rec I
	Pa 170			
11 40 37	235.0	Ceres dis.	Phot T.	
	285.2	50.2		
	41.4	68.4		
	109.8	118.6	−1.22	
	226.9			
	291.0	64.1	−1.25	
	57.2	52.1		
	109.3	116.2	−1.28	
	Pa 350		Mean −1.10	
	318.3			
	16.6	58.3		
	130.6	77.2		
	207.8	135.5	−0.87	
	315.3			
	21.6	66.3	−0.94	
	139.6	62.1		
11 45 03	201.7	128.4	−1.01	
11 42 48				

. Hft

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1918phae.proj..627C

Oct 17 1919

Cores II

11 46 30	Pencils readjusted		
	Pa 350		
11 47 45	96.3		
	157.8	61.5	
	285.7	43.3	
	329.0	104.8	−1.54
	103.6		
	156.6	53.0	−1.54
	282.2	57.4	
	333.6	104.4	−1.55
	Pa 170		
	~~282.2~~		
	~~47.3~~		
	62.2	57.9	Mean −1.19
	176.2	79.0	
	255.2	136.9	−0.84
	4.6		
	65.2	60.6	
	192.6	52.3	
11 53 20	244.9	112.9	
	6.8		
	64.9	58.1	
	182.8	79.0	
11 54 43	261.8	137.1	−0.83

Reject this group

Image very faint throughout observation. −0.84

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1918phae.proj..627C

Oct 17 1919

Ceres

II

12 0000 Pencils again readjusted

Pa 170

12 01 53	42.6		
	96.6	54.0	
	211.7	76.9	
	288.6	130.9	-0.96
	35.1		
	107.2	72.1	1.02
	226.6	52.6	
	279.2	124.7	-1.09

Pa 350

Mean = -1.18

	136.3		
	192.6	56.3	
	306.2	62.7	
	8.9	119.0	-1.21
	128.0		
	191.6	63.6	1.33
	318.2	45.1	
12 05 48	363.3	108.7	-1.45

12 03 50

503

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Oct 17, 1919

Ceres

III

Pa 380

12 13 28 134.2
193.3 59.1
304.4 70.5
-14.9 129.6 -0.99

128.6
191.6 63.0 -1.18
315.5 48.8
364.3 111.8 -1.38

Mean -1.15

Pa 170

43.1
98.6 55.5
217.5 65.8
283.3 121.3 -1.16

37.2
104.1 66.9 -1.12
223.3 57.7
12 17 27 281.0 124.6 -1.09

12 15 28

510

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1918phae.proj..627C

Oct 17, 1919

Ceres

IV

	Pa 170			
12 23 18	38.0			
	100.0	62.0		
	220.1	57.7		
	277.8	119.7	-1.20	
	35.5			
	105.8	70.3	-1.10	
	222.2	59.1		
	281.3	129.4	-0.99	
	Pa 350		Mean	-1.16
	136.1			
	185.2	49.1		
	306.2	68.8		
	15.0	117.9	-1.24	
	127.1			
	192.3	65.2	-1.22	
	311.4	54.6		
12 26 40	366.0	119.8	-1.20	

12 26 59

?17

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Oct 17, 1919

Ceres

I

Pa ~~350~~ 0

12 36 34 128.6

191.1	62.5	
306.2	69.4	
15.6	131.9	−0.94

124.7		
197.2	72.5	−1.07
316.5	47.1	
363.6	119.6	−1.20

Pa 180 Mean: −1.00

(?)

228.8		
278.2	54.4	
27.4	81.5	
108.9	135.9	−0.86

−0.94

219.8		
289.6	69.8	
42.4	58.4	
100.8	128.2	1.02

12 41 39

12 39 36

Reject

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Oct 17, 1919

Ceres

	Pa 180			
12 43 00	223.4			
	280.2	56.8		
	38.0	65.8		
	103.8	122.6	-1.14	
	214.4			
	290.2	75.8	-1.06	
	39.8	54.6		
	94.4	130.4	-0.97	
	P.A. ~~180~~ 0		Mean: -1.23	
	~~180.0~~			(?)
	317.7	~~37.7~~		
	366.3	48.6		
	127.2	56.1		
	183.3	104.7	-1.54	
	308.2			
	15.9	67.7	-1.40	
	132.4	~~49.4~~		
12 47 37	181.9	118.1	-1.26	
12 45 18				
531				

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Oct 17, 1919

	Pa O	Ceres		VII
12 51 03	309.1			
	366.2	57.1		
	129.8	63.2		
	193.0	120.3	−1.19	
	309.7			
	371.2	61.5	−1.24	
	136.9	54.2		
	191.1	115.7	−1.29	
	Pa 180			Mean: −1.16
	44.2			
	95.5	51.3		
	212.4	70.9		
	283.3	122.2	−1.14	
	36.6			
	105.7	69.1	1.09	
	221.6	58.2		
12 54 58	279.8	127.3	−1.04	
12 53 00				
537				

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Oct 17, 1919

Ceres VIII

	Pa 180			
13 03 16	40.4			
	100.0	59.6		
	213.2	72.9		
	286.1	132.5	-0.93	
	39.4			
	101.8	62.4	-1.04	
	221.6	59.8		
	281.4	122.2	-1.14	
	Pa = 0		Mean -1.16	
	134.1			
	185.4	59.3		
	308.1	61.7		
	369.8	113.0	-1.35	
	127.6			
	192.6	65.0	-1.28	
	312.7	54.5		
13 07 09	367.2	119.5	-1.20	
13 05 12				
5 45				

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Oct 17, 1919

Ceres

IX

	Pa O		
13 12 52	129.7		
	190.4	60.7	
	307.4	58.2	
	365.6	118.9	-1.22
	130.7		
	192.2	61.5	-1.29
	310.6	51.0	
	361.6	112.5	-1.36
	Pa 180		Mean = -1.22
	222.4		
	279.2	56.8	
	38.8	66.1	
	104.9	122.9	-1.13
	219.4		
	281.8	62.4	-1.14
	44.3	59.4	
13 17 07	103.7	121.8	-1.15

5 5 2

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Oct 17, 1919

Ceres I

	Pa 180			
13 18 17	220.2			13
	280.6	60.4		
	40.2	63.8		
	104.0	124.2	-1.10	
	214.4			
	278.9	64.5	-1.06	
	34.7	63.1		
	97.8	127.6	-1.03	
	Pa 0		Mean -1.20	
	318.2			
	364.4	49.2		
	126.2	62.2		
	188.4	111.4	-1.39	
	311.8			
	365.8	54.0	-1.34	
	129.8	61.9		
13 22 04	191.7	115.9	-1.28	1

13 20
5 56

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Oct 17, 1919

Ceres

XI

Pa. O

13 27 48	313.1		
	366.6	53.5	
	128.4	59.2	
	187.6	112.7	-1.36
	310.1		
	367.2	57.1	-1.32
	131.0	59.1	
	190.1	116.2	-1.28

Pa 180

	42.2		
	101.2	59.0	Mean -1.12
	210.6	75.2	
	285.8	134.2	-0.89
	~~39.8~~		
	103.7	~~63.9~~ Reject	
	222.1	52.2	
13 ~~31 38~~	274.3	116.1	~~-1.28~~
	38.4		-0.92
	99.3	60.9	
	216.2	70.4	
13 33 06	286.6	131.3	-0.95

562

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Oct 17, 1919

Ceres — XII

Pa 180

13 43 50	33.8		
	101.3	67.5	
	225.9	49.6	
	275.8	116.9	−1.26
	37.7		
	96.3	58.6	−1.17
	214.0	68.8	
	282.8	125.4	−1.08

Pa 0 — Mean −1.14

	131.6		
	186.2	54.6	
	305.6	68.0	
	13.6	122.6	−1.14
	126.8		
	196.6	69.8	−1.12
	311.6	53.9	
13 47 08	365.5	123.7	−1.11

574

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Oct 17, 1919

Cores XIII

Pa 0

13 58 03 131.2
191.4 60.2
312.8 57.4
10.2 117.6 −1.25

129.8
193.6 63.8 −1.26
312.6 ~~302.8~~
365.4 116.6 −1.27

Pa 180 Mean −1.21

223.3
280.2 56.9
35.6 63.0
98.6 119.9 −1.19

218.4
284.9 66.5 −1.16
43.6 56.8
14 03 29 100.4 123.3 −1.12

583

14 00 H's watch 20 sec slow.

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Oct 17, 1919

Ceres XIV

	Pa 180		
14 11 48	220.4		
	280.4	60.0	
	41.1	54.4	
	95.5	114.4	-1.32
	214.1		
	282.6	68.5	-1.20
	40.0	56.3	
	96.3	124.8	-1.09
	Pa 0		Mean -1.14
	314.0		
	11.8	57.8	
	124.2	70.1	-1.02
	194.3	127.9	~~-0.82~~
	310.6		
	368.7	58.1	-1.08
	128.2	64.6	
14 15 38	192.8	122.7	-1.13
14 13 43			
594			

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1918phae.proj..627C

Oct 17, 1919

Ceres

XX

	Pa 0			
14 21 18	307.2			
	12.6	65.4		
	132.2	56.7		
	188.9	122.1	-1.14	
	313.8			
	369.8	56.0	-1.18	
	129.1	62.1		
	191.2	118.1	-1.23	
	Pa 180		Mean.	-1.17
	40.9			
	98.8	57.9		
	217.3	69.9		
	286.4	127.0	-1.04	
	39.3			
	104.4	65.1	-1.16	
	224.8	50.8		
14 25 41	275.6	115.9	-1.28	
14 21 30				
60 00				

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1918phae.proj..627C

Oct 17, 1919

Ceres XVI

	Pa 180		
14 29 04	41.2		
	97.7	56.5	
	217.1	86.3	
	283.4	122.8	-1.13
	37.8		
	101.2	63.4	-1.20
	223.2	53.6	
	276.8	117.0	-1.26
	Pa. 0		Mean -1,22
	135.8		
	191.8	56.0	
	311.3	59.5	
	10.8	115.5	-1.29
	127.7		-1.25
	195.8	68.1	
	315.1	51.1	
14 32 50	366.2	119.2	-1.21

61 5x

5x 30 57

605

Pa = 2.0 A
Spr. = 1.3

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Saturday Oct 18, 1919

LC Obs. Mt Rec. I

GMT Ceres

Pa 280

11 55 02	215.2	∠ Ceres dis.	Phot T
	279.2	64.0	
	38.6	70.5	
	109.1	134.5	-0.89
	214.6		
	285.4	70.8	-0.83
	39.8	69.6	
	109.4	140.4	-0.77

Mean = -0.92

Pa 100

311.8		
367.1	55.3	
128.1	72.1	
200.2	127.4	-1.03
299.8		
11.8	72.0	-1.02
131.8	57.0	
11 59 46 188.8	129.0	-1.00

Not Ceres — reject.

Wrong reading.

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Oct 18, 1919

LC Obs. Neff Rec. I

G M T		Ceres	
	Pg. 60		
12 12 55	247.4	∠ Ceres dis.	
	309.6	62.2	
	71.3	61.9	
	133.2	124.1	-1.10
	242.1		
	314.4	72.3	-1.06
	74.8	56.0	
	130.8	128.3	-1.01
			Mean -1.11
	Pa 240		
	343.0		
	40.0	57.0	
	154.9	63.5	
	218.4	120.5	-1.18
	339.1		
	41.7	62.6	-1.16
	159.8	60.0	
12 17 10	219.8	122.6	-1.14
10 5			
12 15 2			
5 10			

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Oct 18, 1919

Cores II

~~26 14~~	Pa 240.		
12 26 14	340.8		
	36.8	56.0	
	158.3	62.4	
	220.7	118.4	−1.23
	338.0		
	43.1	65.1	−1.20
	163.6	56.5	
	220.1	121.6	−1.16
	Pa 60		Mean = −1.12
	72.1		
	130.7	58.6	
	245.8	65.6	
	311.4	124.2	−1.10
	67.8		
	136.4	68.6	−1.04
	247.9	61.4	
12 29 52	309.3	130.0	−0.98
16 06			
12 ~~28~~ 03			
57			

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Oct 18, 1919

Ceres

III

	Pa 60			
12 39 49	70.7			
	126.4	55.7		
	245.8	65.0		
	310.8	120.7	-1.18	
	70.8			
	132.1	61.3	-1.20	
	251.6	56.8		
	308.4	118.1	-1.23	
	Pa 240		Mean =	-1.12
	165.8			
	217.6	51.8		
	332.2	70.2		
	42.4	122.0	-1.15	
	156.2			
	222.6	66.4	-1.04	
	339.6	66.3		
1v 43 32	45.9	132.7	-0.92	

12 41 40

529

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Oct 18, 1919

Ceres IV

Pa 240

I 44 12	163.2		
	219.2	56.0	
	338.6	64.2	
	42.8	120.2	-1.19
	156.6		
	222.1	65.5	-1.20
	344.6	54.2	
	38.8	119.7	-1.20

Pa 60 Mean -1.16

	251.8		
	309.6	57.8	
	66.2	66.8	
	133.0	124.6	-1.09
	244.6		
	315.4	70.8	-1.12
	77.8	57.4	
I 47 18	129.2	122.2	-1.14

11 30

12 45 45

532

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Oct 18, 1919

Ares K

	P.a. 60			
12 58 10	252.0			
	304.2	52.2		
	67.9	65.8		
	133.7	118.0	-1.24	
	250.6			
	310.0	59.4	-1.26	
	71.4	56.0		
	127.4	115.4	-1.29	
	P.a. 240		Mean	-1.15
	339.0			
	43.9	64.9		
	151.1	65.1		
	220.2	130.0	~~-1.00~~ -.98	
	~~338.8~~			
	43.3	64.5 Reject.		
	163.1	50.5		
~~13 01 37~~	213.6	115.0	-1.04	
	337.0			
	38.8	61.8		
	159.8	63.0		
13 03 49	222.8	124.8	-1.09	

43 01 50 02 00

Continued in Book 203

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