

KG
11365
114

C.9

Computed A.R. of Polar Stars.
1862 Mch. 11th -
1863 August 19th.

Sold by T. Groom & Co., Stationers, India Building, 82 State St., Boston.

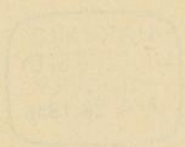
KG 11365, 114

$$a' = n a x$$

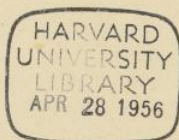
$$a' = n x.$$

$$\sqrt{a} + b = \gamma \sin T^v$$

$$-b - c = \gamma \cos T^v$$



KG-11365,114



Transit - Book. Proposed Order

1.

Name

1st wire

2^d "

3^d "

4th "

5th "

Sum

Mean = τ'

τ'

n to d + c sec d

Clock error Obs'd

Clock Corr. Comp'd

App. AR. — [Vacant for Clock d.]

Deviation from Catal. [Vacant for Stars not
Clock to Polar]

Reduction to 1865.0 [Vacant for Clock and Polar Stars]

Transfer to separate
form

by A.	Aa	by A.	Aa
by B.	Bb		
by C.	Cc		
by D.	Dd		
by n.	C + n/a		
by v.	(T + n)' v		
Sum			

[Change sign, above]

AR 1865.0 Comp. [for Polar Stars]

AR 1865.0 Obs'd [Vacant for C. and P.]

For stars of dec
> 60°

d	
T + x by sin	
sin T + x by	
(T + n) A'	
d'	

(or δ , mean)

Not always
necessary

Instrumental
Corrections
for Broken Transits

by d'	
by c ad'	
by int.	
by int.	
by int.	
by int.	

21 Cephei - Havelle - 15th Camelopardalis

6 32

7 42

+ .66

	March 11	March 26, 1945	March 26, 1945	March 27
21 Cephei	9.7389			
h A	0.3895	0.3845	0.3845	
h B	9.814	9.726	9.768	
h C	1.2691	1.2720	1.2706	
h D	0.4904	0.1664	0.3361	
(Sum)	-2.807	-2.772	-2.766	
51 Cephei Havelle				
h A	1.4850	1.5690	1.8690	- 73.97
h B	9.3212	9.089	9.089	+ 0.12
h C	9.3217	0.5923	0.5923	+ 3.91
h D	0.1373	0.4734	0.4734	- 2.98
h	-0.032			+ 0.09
h	+0.009			+ 0.07
(Sum)				- 72.76
4th Aquarius B				
h A				
h B				
h C				
h D				
h				
h				
(Sum)				
25 Camelopardalis Havelle				
h A	1.1166	1.5016	1.5016	- 31.72
h B	9.1402	8.954	8.866	+ 0.07
h C	9.1438	0.4119	0.4158	+ 2.61
h D	9.7017	0.1921	9.8681	- 0.74
h	+0.011	- 0.03	- 0.03	- 0.03
h	+0.002	+ 0.02	+ 0.15	+ 0.15
(Sum)		- 27.85	- 29.66	
15th Camelopardalis B				
h A	1.1666	1.5781	1.5781	- 37.85
h B	9.5755	9.290	9.290	+ 0.19
h C	9.5766	0.7457	0.7457	+ 5.57
h D	9.7921	0.2825	0.2825	+ 1.92
h	+0.014	- 0.05	- 0.05	- 0.05
h	-0.005	- 0.04	- 0.04	- 0.04
(Sum)		- 30.24		

411.28 MS.

0.3837_n

9.773 "

1.2688 "

0.4574 "

-2.761

1.8687_n -73.92

9.114 +0.13

0.5905 +3.89

0.5947_n -3.93

+0.09

+0.07

-73.67

1.5723_n -37.35

9.270 +0.19

0.7464 +5.58

0.2495_n -1.77

+0.05

-0.04

-33.44

g^h 8^m - g^h 26^m Pulo. - 35
 continued on p. 250

Mrh. 28	Mrh 28 1893.	Mrh 29 AM	Apr 4 AM	Apr 7 1895.
g ^h (A+)	0.3837 _n	9.7438 _n 0.3837 _n	9.7705 _n 0.3821 _n	0.3803 _n
h B	9.793 _n	9.788 _n	9.576 _n	9.579 _n
h C	1.2688 _n	1.2676 _n	1.2561 _n	1.2515 _n
h D	0.4599 _n	0.5095 _n	0.7234 _n	0.7988 _n
(C+M)	-2.761	-2.758	-2.741	-2.734
24 Cephei Wurtli	✓		✓	
h a	1.7541 _n 2.1376 + 137.3 _n		2.136 _n + 136.86	
h b	0.2638 0.037 _n - 1.09		9.782 _n - 0.61	
h c	0.2439 1.5727 _n - 32.56		1.5020 _n - 31.77	
h d	0.4749 _n 0.9348 + 8.61		1.1983 + 15.79	
ce - 0.076	+ 0.24		+ 0.21	
v + 0.150	+ 1.14		+ 1.13	
	+ 113.65		+ 121.61	
74 Draconis	✓	✓	✓	✓
h a	0.5025 _n 0.8862 + 7.69	0.8862 + 7.69	0.8846 + 7.67	0.8828 + 7.61
h b	9.4492 - 0.16	9.495 _n - 0.16	8.945 _n - 0.09	8.926 _n - 0.08
h c	9.4130 - 4.80	0.6806 _n - 4.80	0.6711 _n - 4.71	0.6645 _n - 4.62
h d	9.4997 _n + 1.02	0.0092 + 1.02	0.2231 + 1.67	0.2985 + 1.99
h + 0.021	- 0.06	- 0.06	- 0.06	- 0.06
v + 0.002	+ 0.01	+ 0.01	+ 0.01	+ 0.01
	+ 3.70	+ 4.49	+ 4.88	
1 Draconis Wurtli				
h a	0.9648			
h b	9.5519 _n			
h c	9.5562 _n			
h d	9.4910			
h + 0.006				
v + 0.004				
119 Cephei B.	✓			
h a	0.6531 _n 1.0368 + 10.88		1.0334 _n + 10.80	
h b	9.6698 9.463 _n - 0.29		9.189 _n - 0.15	
h c	9.6730 0.9418 _n - 8.75		0.9245 _n - 8.40	
h d	9.5795 _n 0.0341 + 1.09		0.3783 + 2.39	
h + 0.010	- 0.03		- 0.03	
v + 0.004	+ 0.03		+ 0.03	
	+ 2.93		+ 4.64	

Exp. 18.

Apr 12

Apr 16

Apr 18

Apr. 19 JHS

Apr 23. JHS

0.3756

0.3736

8.433 ~

8.747 ~

1.2122 ~

1.1939 ~

1.0047 ~

1.0531 ~

-2.700

-2.689

1.3602 ~ - 21.89

7.985 + 0.01

0.7684 + 5.87

0.4957 ~ - 3.12

- 0.01

+ 0.03

- 19.11

1.0285 + 10.68

8.103 ~ - 0.01

0.8852 ~ - 7.68

0.5862 + 3.84

- 0.03

+ 0.03

+ 6.83

$10^h 14^m - 11^h 27^m - 0.27 \text{ P.M.}$

continued on p. —

	Mar 26 M.S.	Mar 27 A.H.	Mar 28 M.S.	Mar 29 A.H.
A+n	0.3839 _n	9.7436 0.3837 _n		9.7438 0.3836 _n
B	9.741 _n	9.787 _n		9.787 _n
C	1.2705 _n	1.2696 _n		1.2625 _n
D	0.3653 _n	0.4087 _n		0.5130 _n
(sum)	-2.766	-2.763		-2.758
3d Canis Major. H.				
a	0.995 _n	1.2932 _n	-19.64	1.2931 _n
b	9.7078 _n	9.490	+0.71	9.490
c	9.7059 _n	0.9755	+9.45	0.9756
d	9.4038 _n	9.8125 _n	-0.65	9.9168 _n
e	-0.036		+0.10	
f	+0.005		+0.04	
			-10.39	-10.57
3d Cephei H.				
a	8.5740 _n			8.9576
b	9.6782			9.465 _n
c	9.6820			0.9495 _n
d	9.1943 _n			9.7073
e	+0.106			-0.02
f	+0.001			+0.01
				-8.60
202. Canis Major. B				
a	0.6666	1.0485 _n	-11.18	1.0482 _n
b	9.6638 _n	9.435	+0.27	9.451
c	9.6682 _n	0.9387	+8.68	0.9357
d	8.8918	9.7091 _n	-0.17	9.6048 _n
e	-0.047		+0.13	
f	+0.002		+0.01	
			-2.26	-2.37
3d Cephei H.				
a	8.4451 _n	8.8295	+0.07	8.8292
b	0.0390	9.810 _n	-0.65	9.826 _n
c	0.0398	1.3103 _n	-20.43	1.3073 _n
d	9.1899 _n	9.5352	+0.34	9.7029
e	+0.086		-0.23	
f	+0.002		+0.01	
			-20.89	-20.61

Lu p. 16.

Apr 4 AM.	Apr 7 AM.	Apr 12	Apr 16	Apr 18.
9.7707	0.3502n	9.7823	9.7823	9.7931
0.3821n	0.522 n	0.3792n ymT 1.7480n	0.3879n 0.7566n	0.3786n 1.3600n
9.535n	0.522 n	9.556 n ymT 1.2463	9.140n 1.2274	8.663n 1.2172
1.2561n	1.2573 n	1.2374 n	1.2238n	1.2160n
0.7239n	0.8009 n	0.9006 n T 287'29'	0.9645n 286'28'	0.9926n 285'59'
-2.741	-2.733	-2.719 by 1.7685	-2.709 1.7768	-2.703 1.7772
	✓	✓	✓	✓
1.2916n -19.57	1.2897 n -19.49	1.2887n -19.44	1.2874n -19.38	1.2859n -19.32
9.239 +0.17	9.2258 +0.17	9.257 +0.14	8.843 +0.17	8.366 +0.02
0.9640 +9.20	0.9572 +9.06	0.9433 +8.74	0.9297 +8.50	0.9219 +8.35
0.1277 n -1.34	0.2047 n -1.60	0.3044n -2.01	0.3653n -2.34	0.3964n -2.49
+0.10	+0.10	+0.10	+0.10	+0.10
+0.04	+0.04	+0.04	+0.04	+0.04
-11.40	-11.72	-12.35	-13.01	-13.30
	✓	✓	✓	✓
8.9561 +0.09	8.9542. +0.09	8.9532 +0.09	8.9519 +0.09	8.9504 +0.09
9.213 n -0.16	9.2002 n -0.16	9.232n -0.17	8.818n -0.07	8.341n -0.02
0.9401 n -8.71	0.9333 n -8.58	0.9194n -8.21	0.9058n -8.05	0.8980n -7.91
9.9182 +0.83	9.9952 +0.99	0.0949 +1.25	0.1588 +1.44	0.1869 +1.54
-0.02	-0.02	-0.02	-0.02	-0.02
+0.01	+0.01	+0.01	+0.01	+0.01
-7.96	-7.67	-7.15	-6.60	-6.31
	✓	✓	✓	✓
	1.01			
	1.0448n -11.09			
	9.1858 +0.15			
	0.9195 +8.31			
	9.6927n -0.49			
	+0.13			
	+0.01			
	-2.98			
	✓	✓	✓	✓
	8.8254 +0.07	8.8248 +0.07	8.8235 +0.07	
	9.5610 n -0.36	9.593 n -0.39	9.179 n -0.15	
	1.2911 n -19.55	1.2772n -18.93	1.2636n -18.35	
	9.9908 +0.98	0.0905 +1.23	0.1344 +1.43	
	-0.23	-0.23	-0.23	
	+0.02	+0.01	+0.01	
	-19.07	-18.24	-17.22	

8.

11 53 - 12 50

Puls. - 20

Mch 26. 7115.

Mch 27

Mch 28 7115.

Mch 29

1 (H+n)
 " M
 " C
 " D
 19+n

0.3839_n9.772_n1.2705_n0.3699_n

-2.766

9.762_n0.3836_n9.786_n1.2675_n0.5162_n

-2.757

309 Cephei B.

19.4 0.3993

" b 9.976

" c 9.9736

" d 8.6499_n

" +0.035

" -0.001

0.7832_n - 6.079.7446_n + 0.561.2641_n - 17.54

8.7998 + 0.06

-0.10

-0.01

-24.22

0.7829_n - 6.079.7586_n - 0.521.2411_n - 17.42

8.9661 + 0.09

-0.10

-0.01

-24.88

5 hrs min B.

19.4 0.1691

" b 1.1340_n" c 0.1345_n" d 8.8819_n

" +0.302

" +0.001

0.5730_n - 3.74

9.906 + 0.81

1.4050 + 25.41

9.2318 + 0.17

-0.84

+0.01

+21.82

6 hrs min B.

8.1363_n0.3946_n0.3947_n9.1914_n

-0.096

-0.006

9.0202 + 0.10

0.1066 + 1.47

1.6652 + 46.26

9.5213 + 0.35

+0.27

-0.05

+48.40

43 Cephei A.

0.6327

9.9189

9.9202

9.2708

+0.068

-0.006

1.2166_n - 16.479.6909_n - 0.491.1907_n - 15.529.6207_n - 0.42

-0.14

-0.05

-33.13

Sond

Lu p. 12.

Apr 4

Apr 7 MS.

Apr 12

Apr 16

Apr 18

0.3602_n
 9.525_n
 1.2511_n
 0.8024_n
 -2.733

9.7823
 0.3792_n
 9.547_n
 1.2372_n
 0.9078_n
 -2.719

9.7675
 0.3778_n
 9.122_n
 1.2235_n
 0.9655_n
 -2.708

0.7795_n -6.02
 9.6976_n -0.31
 1.2247_n -16.78
 9.2523 +0.18
 -0.10
 +0.01
 -23.04

0.7785_n -6.01
 9.520_n -0.33
 1.2128_n -16.32
 9.3572 +0.22
 -0.10
 -0.01
 -21.55

0.5693_n -3.71
 9.6590_n +0.46
 1.3856 +24.30
 9.6643 +0.48
 -0.83
 +0.07
 +20.74

0.5169_n -3.69
 9.256 +0.18
 1.3580 +22.80
 8.867 +0.07
 -0.81
 +0.01
 +18.56

9.0165 +0.10
 9.91964 +0.82
 1.6258 +44.24
 9.9938 +0.99
 +0.26
 -0.05
 +46.36

1.2129_n -16.33
 9.4489_n -0.28
 1.1713_n -14.83
 0.0732_n -1.19
 -0.18
 -0.05
 -32.86

g. Aru

" B

" C

" D

g. W

2 1/2 Can. Cap. B

g. a 0.5358_w" b 9.8982_w" c 9.8995_w" d 9.6655_w

μ - 0.061

v - 1.005

Mch 26 MS

0.3839_w9.772_w1.2705_w0.3506_w

-2.766

Mch 27

Mch 28 MS

Mch 29

0.8197 + 6.60

9.6702 + 0.47

1.1700 + 14.79

9.8131 + 0.65

+ 0.22

- 0.04

+ 22.69

Tels. -16

Le p. 14.

Apr. 4

Apr. 7

Apr. 12

Apr. 16

Apr. 18

9.7676

0.3776w

9.116w

1.2234w

0.9662w

-2.708

0.8136 + 6.57

9.014 0.10

1.1229 13.27

9.4287 2.68

+0.22

0.04

+22.74

1153-1250

80

Apr 19 1915

Apr 23 1915

Apr 26

Apr 28 1915

309 Cepheus B

0.3993

9.9726

9.9736

8.6499_n

+0.035

-0.001

5 hrs min B

0.1491

0.1340_n0.1345_n8.6619_n

+0.302

+0.001

64M min B

8.6363_n0.3946_n0.3946_n9.1914_n

-0.096

-0.06

43 Cepheus Woodin

0.8328

9.9189

9.9202

9.2708

+0.068

-0.006

0.3731_n8.633_n1.1832_n1.0757_n

-2.684

0.5622_n -3.65

8.767 +0.06

1.3177 +20.78

9.9576 +0.91

-0.81

+0.01

+17.30

9.0094 +0.10

9.0276 +0.11

1.5778 +37.83

0.2671 +1.86

+0.26

-0.04

+10.12

1.2059_n -16.078.5519_n -0.041.1034_n -12.690.3465_n -2.22

-0.15

-0.04

-31.24

- 20 Pm.

Apr 26

Apr 29 M.S.

Apr 30

May 7 M.S.

May 15 M.S.

0.3722_n
 9.230
 1.1606_n
 1.1139_n
 -2.673

9.6108_n
 0.3716_n
 9.367
 1.1545_n
 1.1261_n
 -2.670

0.3672_n
 9.484
 1.1052_n
 1.1762_n
 -2.657

0.3635_n γ μ T 1.8016_n
 9.819 γ μ T 1.0053
 1.0327_n γ 9.8071
 1.2235_n γ 279.5
 -2.629

0.7715_n -5.91
 9.2026 +0.16
 1.1342_n -13.63
 9.5638 +0.37
 -0.09
 -0.01
 -19.11

0.7709_n -5.90
 9.360 +0.22
 1.1281_n -13.43
 9.5710 +0.38
 -0.09
 -0.01
 -18.83

0.7628_n -5.79
 9.7916 +0.62
 1.0063_n -10.15
 9.6734 +0.47
 -0.09
 -0.01
 -14.95

0.5613_n -3.64
 9.3640_n -0.23
 1.2957 +19.73
 9.9958 +0.99
 -0.81
 +0.01
 +16.05

9.0085 +0.10
 9.6246_n -0.42
 1.5552 +35.91
 0.3053 +2.02
 +0.26
 -0.04
 +37.83

1.2050_n -16.03
 9.1489 +0.14
 1.0808_n -12.04
 0.3847_n -2.43
 -0.18
 -0.06
 -30.58

1.2044_n -16.01
 9.286 +0.19
 1.0747_n -11.88
 0.3969_n -2.49
 -0.18
 -0.04
 -30.41

9.0035 +0.10
 9.8786_n -0.76
 1.4998 +31.61
 0.3676 +2.33
 +0.26
 -0.04
 +33.50

1.2008_n -15.85
 9.4029 +0.25
 1.0284_n -10.60
 0.4470_n -2.79
 -0.18
 -0.04
 -29.21

8.9998 +0.10
 0.2136_n -1.64
 1.4273 +26.75
 0.4149 +2.60
 +0.25
 -0.04
 +28.02

14

Camber 13^h 51^m Pulr. -0^d 14

Apr 19

Apr 23

Apr 24

Apr 25

21^h Camber. B

0.6358_n
 9.8982_n
 9.8995_n
 9.6626_n
 -0.061
 -0.005

20^h 41^m minor B

0.8996_n
 9.9601_n
 9.9610_n
 9.7557_n
 -0.027
 -0.012

Apr 527 sp

0.9074
 9.5193
 9.5249
 9.4029
 +0.021
 -0.003

0.3731_n
 8.626_n
 1.1830_n
 1.0760_n
 -2.684

✓
 0.5069_n + 6.44
 8.524_n + 0.03
 1.0825_n + 12.09
 0.5386_n + 3.46
 + 0.22
 - 0.04
 + 22.20

See p. 20. p. 22

Apr 26

Apr 29

Apr 30

May 14

May 17

0.3722_n
9.235
1.1604_n
1.1142_n
-2.673

0.8080 +6.43
9.1332_n -0.14
1.0599 +11.48
0.5768 +3.78
+0.22
-0.04
+21.73

2.87115
0.3643_n
9.791
1.0423_n
1.2186_n
-2.632

✓
0.8001 +6.31
9.5992_n -0.40
0.9418_n +3.25
0.6412 +4.40
+0.21
-0.03
+19.64

✓
1.2639 +18.36
9.751_n -0.56
1.0733 +10.08
0.9737 +9.41
+0.07
-0.04
+37.28

✓
1.2717_n -18.69
9.3103 +0.20
0.5672_n -3.69
0.6215_n -4.18
-0.06
-0.02
-26.44

0.36157_n $\gamma_{16} \Gamma 18009$
9.8445 $\gamma_{16} \Gamma 0.9798$
1.0105_n
1.2336_n $\gamma 14058$
-2.624 $\Gamma 27835$

0.7973 +6.26
9.7427_n -0.55
0.9100 +8.13
0.6962 +0.492
+0.21
-0.03
+18.99

1.2611 +18.24
9.8046_n -0.64
0.9715 +9.36
0.9887 +9.74
+0.07
-0.08
+36.69

1.2689_n -18.57
9.3638 +0.23
0.5354_n -3.43
0.6315_n -4.33
-0.06
+0.02
-26.18

16.

1043 — 11438

-27 Pals.

Apr 19

0.3754n
8.418 n
1.2120 n
1.0054n
-2.720

30 Camelopard H.

0.9095	1.2849n	-19.27
9.7028n	8.1178	+0.01
9.7059n	0.9179	+8.28
9.4038	0.4092n	-2.57
-0.036		+0.10
+0.005		+0.04
		-13.48

34 Cepheus H.

8.5750n
9.6782
9.6820
9.1943n
+0.006
+0.001

202 Camelopard B

0.6646
9.6638n
9.6682n
8.8918
-0.017
+0.002

39 Cepheus H.

8.4609n
0.0391
0.0100
9.1901n
+0.066
+0.002

Apr 23

Apr 24

Apr 25 MS

0.3731
8.646 n
1.1836n
1.0750n
-2.684

1.2826n -19.17
8.3488 +0.22
0.8895 +7.75
0.4788n -3.01
+0.10
+0.04
-14.07

8.9481 +0.09
8.3242n -0.02
0.8656n -7.34
0.2693 +1.86
-0.02
+0.01
-5.42

1.0377n -10.91
8.3098 +0.02
0.8518 +7.11
9.9658n -0.93
+0.13
+0.01
-4.57

8.8340 +0.07
8.6851n -0.05
1.2236n -16.73
0.2651 +1.84
-0.23
+0.01
-15.09

Apr 26
9.6053
 0.3731n
 8.114n
 1.1783n
 1.0851n
 -2.681

Apr 29

Apr 30
9.8106
 0.3717n
 8.360
 1.1549n
 1.1221n
 -2.670

May 7

0.3673n
 9.484
 1.1057n
 1.1757n
 -2.657

May 15

^{9.8391}
 0.3635n
 9.417
 1.0333n
 1.2231n
 -2.629

1.2768n -18.91
 9.1868n -0.15
 0.8116 +6.48
 0.5795n -3.80
 +0.09
+0.04
 -16.25

✓
 8.9481 +0.09
 7.792n -0.01
 0.8603n -7.25
 0.2794 +1.90
 -0.02
+0.01
 -5.28

✓
 8.9477 +0.09
 8.038 +0.01
 0.8369n -6.82
 0.3164 +2.07
 -0.02
+0.01
 -4.71

✓
 8.9423 +0.09
 9.1622 +0.15
 0.7877n -6.13
 0.3700 +2.34
 -0.02
+0.01
 -3.56

✓
 1.0363n -10.87
 8.024n -0.01
 0.8231 +6.69
 0.0139n -1.03
 +0.13
+0.01
 -5.08

✓
 1.0319n -10.76
 9.1478n -0.14
 0.7739 +5.94
 0.0675n -1.16
 +0.13
+0.01
 -5.98

1.0281n -10.67
 9.481n -0.30
 0.7015 +5.03
 0.1149n -1.30
 +0.13
+0.01
 -7.10

✓
 8.8340 +0.07
 8.153n -0.01
 1.2183n -16.53
 0.2752 +1.88
 -0.23
+0.01
 -14.81

✓
 8.8326 +0.07
 8.399 +0.03
 1.1949n -15.66
 0.3122 +2.05
 -0.23
+0.01
 -13.73

✓
 8.8282 +0.07
 9.5231 +0.33
 1.1457n -13.99
 0.3658 +2.32
 -0.23
+0.01
 -11.47

8.8244 +0.07
 9.856 +0.72
 1.0732n -11.84
 0.4132 +2.59
 -0.23
+0.01
 -8.68

18.

Apr. 25 Hk.

Apr. 26

Apr. 29

Apr. 30

0.3731

8.653 ~

1.1838 ~

1.0747 ~

-2.664

24 Cygnus Hk.

24 Draconis

18 Draconis Hk. ✓

0.9648

1.3379 ~ -21.77

0.5519 ~

8.2049 +0.02

0.5562 ~

0.7400 +5.50

0.4910

0.5657 ~ -3.68

+0.004

+0.01

+0.004

+0.03

-19.91

119 Cygnus B.

0.6531 ~

0.0262 +10.62

0.6698

8.3228 ~ -0.02

0.6730

0.8568 ~ -7.19

0.5795 ~

0.6542 +4.57

+0.010

-0.03

+0.004

+0.03

+7.92

May 7

20.

1150-1250 P.M. -20

May 17

May 17.

May 23

0.3616n
9.8442
1.0912n
1.2333n
-2.624

0.3587n
9.8386
0.9364n
1.2588n
-2.607

309 Cephei Bsp

5 hrs min B.

alg 0.1891	0.5507n	-3.55
2h 0.1340n	9.9782n	-0.95
c 0.1345n	1.1457	+13.99
d 8.8810n	0.1153	+1.30
n +0.302		-0.79
v +0.001		+0.01
		<u>+10.01</u>

6 hrs min B

h a 8.621 n	8.9827	+0.10
n b 0.3944n	0.2330n	-1.71
c 0.3944n	1.3310	+21.43
d 9.1912n	0.4500	+2.82
-0.096		+0.25
-0.006		-0.04
		<u>+22.85</u>

43 Cephei Bsp

h a 0.8328	1.1946n	-15.65	1.1916n	-15.64
h b 9.9190	9.7132	+0.58	9.7576	+0.57
h c 9.9203	0.9315n	-8.54	0.8567n	-7.19
h d 9.2710	0.5043n	-3.19	0.5298n	-3.39
u +0.064		-0.18		-0.18
v -0.006		-0.04		-0.04
		<u>-27.02</u>		<u>-25.77</u>

22

AR in mean 14 18^m - Pol. - 0.16

	May 23	June 11	June 16	June 17
214 Camlop B.				
Log a 0.3567n	0.3567n	0.3469n	0.3220n	0.3415n
b 0.8392	0.8392	0.0620	0.0740	0.0650
c 0.9358n	0.9358n	0.6786n	0.1658n	0.0622n
d 1.7590n	1.7590n	1.3049n	1.3093n	1.3097n
e -2.607	-2.607	-2.555	-2.542	-2.539
20 mpm minute B.				
Log a 0.8995n	1.2582	1.2415	1.2410	
b 0.9601n	0.7993n	0.0341n	0.0051n	
c 0.9609n	0.8967	0.1267	0.0221	
d 0.7551n	1.0141	1.0644n	1.0648	
e -0.017	+0.07	+0.07	+0.07	
f -0.012	+0.08	-0.08	-0.08	
	+35.69	+29.29	+29.08	
323 Cepha B.				
Log a 0.9074	1.2661n	1.2561n	1.2494n	1.2489n
b 0.5593	0.3585	0.0063	0.5933	0.5823
c 0.5269	0.4607n	0.0135n	0.6907n	0.5671n
d 0.6029	0.6619n	0.7078n	0.7122n	0.7226n
e +0.021	-0.05	-0.05	-0.05	-0.05
f +0.013	+0.02	-0.02	-0.02	-0.02
	-25.77	-23.74	-23.08	-22.97
323 Cepha B.				
Log a 1.2697	1.6284n	1.6164n	1.6112n	1.6112n
b 0.6061	0.6453	0.8931	0.6711	0.6711
c 0.8070	0.7478n	0.2856n	0.8692n	0.8692n
d 0.8904	1.1491n	1.1950n	1.1998n	1.1998n
e +0.163	-0.42	-0.42	-0.42	-0.42
f -0.016	-0.11	-0.10	-0.10	-0.10
	-62.22	-58.68	-57.21	-57.21

May 28.

9.5822

0.3560 n

9.5827

0.3578 n

1.2759 n

2.574

1.2634 n - 18.34

9.5820 + 0.32

0.3527 n - 2.41

0.6788 n - 4.78

- 9.05

- 0.02

- 20.28

AR in new 163 - Pub. 95 - .05

May 23.	June 11	June 16	June 17
9.888	9.8912	9.9063	
0.3586w	0.3466w	0.3420w	
9.8411	0.0882	0.0728	
0.9344w	0.4738w	0.1556w	
1.2589w	1.3050w	1.3094w	
-2.607	-2.585	-2.541	

57 W. m. B.

h a 1.3680w	1.7266	+ 53.29	~~1.7146~~	+ 51.53	1.7100	+ 51.29
" b 0.0313w	9.8724w	- 0.75	0.1195w	- 1.32	0.1041w	- 1.27
" c 0.0316w	0.9660	+ 9.25	0.5054	+ 3.20	0.1872	+ 1.54
" d 0.1199w	1.3793	+ 23.95	1.4249	+ 26.60	1.4293	+ 26.87
" + 0.033		- 0.09		- 0.08		- 0.08
" - 0.039		- 0.26		- 0.25		- 0.25
		+ 58.39		+ 79.98		+ 76.10

Gr 750 sp.

1.7208	1.5676w	- 36.95
9.6150	9.7032	+ 0.50
9.6166	0.0901w	- 1.23
9.8315	1.1365w	- 13.70
+ 0.003		- 0.08
- 0.009		- 0.06
		- 57.52

62 W. m. B.

h a 0.8336w	1.1924	+ 15.58
" b 9.4633w	9.3044w	- 0.20
" c 9.1662w	0.4006	+ 2.52
" d 9.6959w	0.9553	+ 9.02
" + 0.015		- 0.04
" - 0.004		- 0.03
		+ 26.85

E W. m. m. m.

A

h a 0.5881w
" b 9.1023w
" c 9.1063w
" d 9.6796w
" + 0.011
" - 0.001

July 18
~~9.9856~~
~~0.0005~~
 0.0585
 0.9158
 1.2641n
 -2.4581

July 22
~~9.9856~~
 0.3188n
 0.1268
 0.9826
 1.2445n
 -2.440

Aug. 5th
 9.9793
 0.3110n
 0.0532
 1.1009
 1.1798n
 -2.608

Aug. 6th
 9.9836
 0.3090n
 0.0652
 1.1163
 1.1662n
 -2.602

Aug. 11th
 9.9908
 0.3056n
 0.0063
 1.1507
 1.1278n
 -2.389

1.5396 - 34.64
 9.7418 + 0.55
 0.6992 + 2.97
 1.0760n - 11.91
 - 0.01
 - 0.05
 - 42.09

1.1526 + 14.21
 9.5901n - 0.39
 0.4488n - 2.81
 0.9604 + 9.72
 - 0.04
 - 0.02
 + 19.67

11.895 + 13.47
 9.1908n - 0.15
 0.0221n - 1.05
 0.9137 + 8.78
 - 0.03
 - 0.01
 + 21.01

1.1191 + 13.15
 9.1855n - 0.15
 0.2072n - 1.64
 0.8594 + 7.23
 - 0.03
 - 0.01
 + 18.58

1.1171 + 13.09
 9.1835n - 0.15
 0.2226n - 1.67
 0.8558 + 7.07
 - 0.03
 - 0.01
 + 18.824

1.1137 + 12.99
 9.1026n - 0.13
 0.2570n - 1.81
 0.8094 + 6.42
 - 0.03
 - 0.01
 + 17.43

APL. mean 1832 - P. + 15

July 18.

0.3214_n

0.0893

0.9173

1.2637_n

-2.454

July 22.

9.9653

0.3167_n

0.1272

0.9716

1.2483_n

-2.440

July 26th

9.9708

0.3152_n

0.0939

1.0182

1.2303_n

-2.432

Aug. 4th

9.9795

0.3109_n

0.0538

1.1073

1.1792_n

-2.407

Hyamelops sp.

1.2664

9.1492

9.1508

9.8865

+0.022

+0.003

1.5618_n - 38.44

9.2764 + 0.19

0.1224 + 1.33

1.1348_n - 13.64

- 0.05

- 0.02

- 50.63

1.5770_n - 37.76

9.2320 + 0.17

0.2525 + 1.79

1.0657_n - 11.63

- 0.05

- 0.02

- 47.50

Staph. sp.

1.4849 1.8062 - 64.02

9.3237_n 9.4130 - 0.26

9.3242_n 0.2415_n - 1.74

0.1371 1.4008_n - 25.16

-0.032 + 0.08

+0.009 + 0.05

- 91.05

1.8001_n - 63.10

9.4176_n - 0.26

0.3424_n - 2.20

1.3674_n - 23.30

+ 0.08

+ 0.05

- 88.73

4 My. m. B. sp.

1.8870

0.0855_n

0.0855_n

0.5672

-0.014

+0.136

2.2022_n - 159.28

0.1424_n - 1.82

1.2067_n - 16.10

1.7975_n - 62.74

+ 0.04

+ 0.80

- 238.80

25 Lani. H. sp.

1.120_n 1165

9.1408_n

9.1444_n

9.7017

+0.011

+0.002

1.4372_n - 27.25

9.2347_n - 0.17

0.1626_n - 1.45

0.9320_n - 8.55

- 0.03

+ 0.01

- 37.44

Corrected by 22

Error.

Aug. 6 th	Aug. 17 th	Aug. 18 th	Aug. 20 th	Aug. 21 st
9.9838	9.9902	9.9931	9.9990	6.0006
0.3089w	0.3056w	0.3044w	0.3015w	0.3007w
0.0846	0.0033	0.0160	0.0339	0.0225
1.1171	1.1573	1.1803	1.2001	1.2046
1.1654w	1.1270w	1.0812w	1.0784w	1.0267w
-2.402	-2.388	-2.375	-2.364	-2.361
	Γ 254° 17'			
1.5750w	1.5717w			1.5866w
-37.58	-37.30			-36.86
Q.2338	Q.1525			9.1717
+0.12	+0.14			+0.15
0.2679	0.3021			0.3554
+1.45	+2.00			+2.27
1.0519w	1.0135w			0.9552w
-11.27	-10.32			-8.23
-0.05	-0.05			-0.05
-0.02	-0.02			-0.02
-46.90	-45.55			-42.76
				Γ 2w
1.7938w	1.7905w	1.7893w	1.7864w	1.7856w
-62.20	-61.73	-61.56	-61.15	-61.03
Q.4083w	Q.3270w	Q.3397w	Q.3576w	Q.3462w
-0.26	-0.21	-0.22	-0.23	-0.22
0.4413w	0.4755w	0.5045w	0.5243w	0.5288w
-2.76	-2.99	-3.19	-3.33	-3.39
1.3025w	1.2641w	1.2184w	1.1755w	1.1638w
+26.17	-18.37	-16.54	-14.98	-14.58
+0.08	+0.08	+0.08	+0.08	+0.08
+0.05	+0.05	+0.05	+0.05	+0.05
-85.26	-83.17	-81.38	-79.56	-79.09
2.1926w	2.1914w	2.1885w	2.1877w	2.1877w
-155.82	-155.32	-154.35	-154.07	-154.07
0.0916w	0.1045w	0.1226w	0.1110w	0.1110w
-1.24	-1.27	-1.33	-1.29	-1.29
1.2798w	1.2688w	1.2886w	1.2931w	1.2931w
-17.37	-18.57	-19.43	-19.64	-19.64
1.6942w	1.6985w	1.6958w	1.5939w	1.5939w
-49.46	-44.52	-40.34	-39.25	-39.25
+0.03	+0.03	+0.03	+0.03	+0.03
+0.77	+0.76	+0.76	+0.74	+0.74
-223.09	-218.59	-214.66	-213.48	-213.48
1.429w	1.427w	1.4245w	1.4216w	
-26.85	-26.65	-26.58	-26.40	
Q.2254w	Q.1441w	Q.1568w	Q.1747w	
-0.17	-0.14	-0.14	-0.15	
0.2615w	0.2957w	0.3217w	0.3445w	
-1.83	-1.98	-2.11	-2.21	
0.8671w	0.8267w	0.7830w	0.7401w	
-7.36	-6.74	-6.07	-5.50	
-0.03	-0.03	-0.03	-0.03	
+0.01	+0.01	+0.01	+0.01	
-36.23	-35.53	-34.92	-34.28	
21	21		21	

Alt - mean 20 deg Polr. +13

Err

	Aug 7 th	Aug 10 th	Aug 15 th	Aug 20 th
day A.	9.9859	9.9908	9.9981	9.9991
" B	0.3079 _n	0.3056 _n	0.3046 _n	0.3015 _n
" C	1.0743	0.0006 _n	0.8120	0.0332
" D	1.1249	1.1518	1.1807	1.2005
" E	1.1578 _n	1.1263 _n	1.0895 _n	1.0378 _n
" F	-2.397	-2.388	-2.374	-2.363
156. Camelp. B. sp.				
day a	1.1884	1.4963 _n	1.4928 _n	1.4899 _n
" b	9.4758 _n	-31.36	-31.19	-30.89
" c	9.5501 _n	-0.35	-0.32	-0.32
" d	0.6028 _n	9.4716 _n	9.4728 _n	9.5090 _n
" e	9.7919	-4.01	-4.56	-4.78
" f	0.9497 _n	0.6297 _n	0.6586 _n	0.6784 _n
" g	-8.91	0.9182 _n	0.8724 _n	0.8296 _n
" h	+0.018	-8.28	-7.45	-6.75
" i	-0.005	-0.04	-0.04	-0.04
" j	-0.03	-0.03	-0.03	-0.03
" k	-44.70	-44.10	-43.50	-42.91
1. Wras. in Bode				
day a	1.7549 _n	2.0605	+114.95	
" b	0.2432	0.2440	+0.75	
" c	0.2433	1.3951	+24.84	
" d	0.4756 _n	1.6019	+39.98	
" e	-0.078		+0.14	
" f	+0.150		+0.86	
" g			+182.56	
74. Staloni				
day a	0.5026 _n	0.5082	+6.43	
" b	9.4072	9.4080	+0.26	
" c	9.4130	0.5648	+3.67	
" d	9.4998 _n	0.6261	+4.23	
" e	+0.021		-0.05	
" f	+0.002		+0.07	
" g			+14.55	
1. Staloni H. sp.				
day a	0.9647	1.2703 _n	1.2691 _n	1.2662 _n
" b	9.5520 _n	-18.63	-18.58	-18.48
" c	9.5563 _n	9.5518 _n	9.5690 _n	9.5852 _n
" d	9.4968	-0.36	-0.37	-0.38
" e	+0.004	0.7081 _n	0.7370 _n	0.7518 _n
" f	+0.004	0.6171 _n	0.5713 _n	0.5283 _n
" g		-5.11	-5.46	-5.71
" h		-4.14	-3.73	-3.48
" i		-0.01	-0.01	-0.01
" j		+0.02	+0.02	+0.03
" k		-28.13	-28.13	-28.07

Aug. 21st

0.0007
0.3007_n
0.0212
1.2050
1.0257_n
-2.361

251.22

1.7049_n
1.2376_n
1.7215

Sept. 2.

0.0110
0.2954_n
0.0031
1.2469
0.8381_n
-2.327

Sept. 4.

0.0143
0.2937_n
9.9038
1.2522
0.7958_n
-2.322

Sept. 6.

0.0169
0.2923_n
9.9100
1.2602
0.6907_n
-2.312

Sept. 10.

0.0169
0.2923_n
9.9204
1.2626
0.6265_n
-2.306

1.4638_n -30.541.4821_n -30.359.4789_n -0.309.4096_n -0.290.7248_n -5.310.7301_n -5.370.6300_n -4.270.5867_n -3.86

-0.04

-0.04

-0.03

-0.03

-40.49

-39.94

2.0556 +113.68

0.2644 +1.84

1.4483 +28.07

1.5013 +31.72

+0.08

+0.84

+176.33

2.0486 +111.82

0.2220 +1.69

1.4985 +31.70

1.2704 +16.64

+0.18

+0.81

+164.44

2.0472 +111.46

0.1636 1.46

1.5069 32.12

1.1021 18.65

+0.17

+0.79

+158.65

0.7919 +6.24

9.3232 +0.21

0.6732 +4.71

0.1905 +11.55

-0.05

+0.01

+12.67

1.2584_n -18.139.5358_n -0.340.8088_n -6.430.2888_n -1.93

-0.01

+0.02

-26.62

1.2570_n -19.079.4724_n -0.300.8149_n -6.610.1173_n -1.31

-0.01

+0.02

-21.28

AR in mean 22.77 ^{4 m} +0.22 Pula

1862 Aug. 20th
 9.9993
 0.3014
 0.0324
 1.2009
 1.0366
 -2.363

Sept 4.
 0.0444
 0.2936 n
 9.9824
 1.2521
 0.7927 n
 -2.322

Sept 10.
 0.0469
 0.2923 n
 9.9213
 1.2677
 0.6233 n
 -2.906

Sept. 23
 0.0263
 0.2972 n
 9.9467
 1.2731
 9.4594
 -2.270

119 Cepheus Bsp.

Log a 0.6339 n 0.9469 + 9.01
 " b 9.6686 9.7010 + 0.50
 " c 9.6712 0.8721 + 2.48
 " d 9.5757 0.6117 + 4.03
 " +0.010 - 0.02
 " +0.004 + 0.02
 + 21.02

0.9371 + 8.55
 9.6514 + 0.45
 0.9233 + 8.52
 0.3676 + 2.06
 - 0.02
 + 0.02
 + 20.08

0.4778 + 8.52
 9.5899 + 0.39
 0.9349 + 8.64
 0.1984 + 1.60
 - 0.02
 + 0.02
 + 19.50

0.7227 + 8.52
 9.6153 + 0.41
 0.9443 + 8.53
 9.0345 n - 0.11
 - 0.02
 + 0.02
 + 17.82

30 Camel. Hw. sp.

Log a 0.9093
 " b 9.7028 n
 " c 9.7058 n
 " d 9.4035
 " -0.036
 " +0.005

1.2029 n - 15.96
 9.6852 n - 0.48
 0.9577 n - 9.08
 0.1962 n - 1.57
 + 0.08
 + 0.03
 - 26.98

1.2016 n - 15.91
 9.6741 n - 0.42
 0.9695 n - 9.32
 0.0268 n - 1.06
 + 0.03
 + 0.03
 - 26.60

1.1965 n - 15.72
 9.6495 n - 0.45
 0.9789 n - 9.52
 8.8629 + 0.07
 + 0.08
 + 0.03
 - 25.51

34 Cepheus H.

Log a 8.586 n
 " b 9.6783
 " c 9.6821
 " d 9.1946 n
 " +0.006
 " +0.001

8.878 + 0.08
 9.6607 + 0.46
 0.9342 + 8.57
 9.9571 + 0.97
 - 0.01
 + 0.01
 + 10.10

8.876 + 0.08
 9.5996 + 0.40
 0.9458 + 8.63
 9.8177 + 0.66
 - 0.01
 + 0.01
 + 9.97

8.821 + 0.07
 9.6250 + 0.42
 0.9552 + 9.02
 8.6538 n - 0.05
 - 0.01
 0.00
 + 9.45

202 Camel. B sp.

Log a 0.6646
 " b 9.6637 n
 " c 9.6681 n
 " d 8.8913
 " -0.047
 " +0.002

0.9516 n - 8.95
 9.6104 n - 0.41
 0.9412 n - 8.73
 8.3507 + 0.02
 + 0.11
 + 0.01
 - 17.95

Sept. 29.	Oct. 7
<u>0.0317</u>	<u>0.0376</u>
0.2843w	0.2809w
0.0500	0.0309
1.2702	1.2590
0.3718	0.7107
-2.254	-2.232

82
41
53
11
02
02
85
72
65
52
97
08
03
51
72
02
05
01
00
45
5-
1
23
02
11
72
95

0.9298 + 8.57
9.7186 + 0.52
0.9114 + 8.78
9.9579w - 0.90
-0.02
+ 0.02
+ 7.07

10

10

10

1.1902w - 15.50
9.7337w - 0.54
0.9646w - 9.22
0.1142 + 1.30
+ 0.08
+ 0.03
-23.85

ray A'
 " B
 " C
 " D
 T.M.

1862 Aug. 21

0.0005
 0.3008_n 1.7053_n
 0.0234 1.2321_n
 1.2044
 1.0274_n 25th 24th
 -2.361 1.7286

Sept 4.

0.1161
 0.2938_n
 9.9859
 1.2516
 0.7978_n
 -2.323

Sept 8.

0.1016_n
 1.2923_n
 9.9174
 1.2600
 0.6949_n
 -2.312

Sept 9.

0.0109
 0.2923_n
 9.9173
 1.2618
 0.6663_n
 -2.309

E. W. L. minoris

0.8081 _n	1.1089	+ 12.65	1.1019	+ 12.65	1.1004	+ 12.60	1.1004	+ 12.60
9.1023 _n	9.1257 _n	- 0.13	9.0862 _n	- 0.12	9.0194 _n	- 0.10	9.0156 _n	- 0.10
9.1063 _n	0.3107 _n	- 2.04	0.3579 _n	- 2.28	0.3663 _n	- 2.33	0.3681 _n	- 2.34
9.6795 _n	0.7069 _n	+ 5.09	0.4773	+ 3.00	0.3744	+ 2.37	0.3438	+ 2.21
+ 0.011		- 0.03		- 0.03		- 0.09		- 0.02
- 0.001		- 0.01		- 0.01		- 0.04		- 0.01
		+ 15.73		+ 13.21		+ 12.51		+ 12.34

by Samuel B.

Previous page

57 Sept 14th 27.
 2.7111_n minoris

4.9111_n D 37

	Sept 10.	Sept. 16	Sept 17	Sept 18	Sept 25
	0.0169	0.0219	0.0223	0.0245	0.0267
	0.2923 _n	0.2896 _n	0.2888 _n	0.2883 _n	0.2871 _n
	9.9191	0.0043	0.0005	9.9900	9.9759
	1.2674	1.2706	1.2713	1.2719	1.2727
	0.6310 _n	0.3474 _n	0.2741 _n	0.1854 _n	0.9589
	-2.306	-2.290	-2.287	-2.285	-2.265
60	1.1004 + 12.60	1.0977 + 12.52	1.0969 + 12.50	1.0964 + 12.49	1.0957 + 12.45
10	9.0214 _n - 0.11	9.1066 _n - 0.13	9.1028 _n - 0.13	9.0923 _n - 0.12	9.0782 _n - 0.12
34	0.3697 _n - 2.34	0.3769 _n - 2.38	0.3776 _n - 2.39	0.3782 _n - 2.39	0.3790 _n - 2.39
21	0.3108 + 2.04	0.0269 + 1.06	9.9536 + 0.90	9.8649 + 0.71	9.6384 _n - 0.44
02	-0.02	-0.02	-0.02	-0.02	-0.02
01	-0.01	-0.01	-0.01	-0.01	-0.01
34	+12.16	+11.06	+10.85	+10.66	+9.47

Alt in mean 1857 = Pula + .07

	Aug 29.	Sept 2.	Sept 4.	Sept 16.
A	0.0052	0.0119	0.0142	0.0220
B	0.2986 n	0.2949 n	0.2938 n 1.6599 n	0.2896 n 1.6556 n
C	9.9611	0.0033	9.9848 1.2746 n	0.0063 1.2936 n
D	1.2357	1.2468	1.2578	1.2707
E	0.9132 n	0.8394 n	0.7912 n T 247" 37'	0.3619 n T 246" 32'
T-3	-2.339	-2.328	-2.323 1.6940	-2.290 1.6600

57 Cepheus Wep

Log a	1.9850	1.7234 n	-60.73
" b	9.320 n	9.281 n	-0.17
" c	9.320 n	0.555 n	-3.59
" d	0.1373	1.0506 n	-11.24
" e	-0.032		+0.07
" f	+0.009		+0.05
			-75.63

57 Cepheus Bep

Log a	1.8868
" b	0.0893 n
" c	0.0894 n
" d	0.5670
" e	-0.014
" f	+0.135

57 Cepheus Wep

Log a	1.1186
" b	9.1409 n
" c	9.1445 n
" d	9.7017
" e	+0.011
" f	+0.042

1.4115 n	-25.79
9.1462 n	-0.14
0.3913 n	-2.46
0.5711 n	-3.48
	-0.03
	+0.01
	-31.89

1.4106 n	-25.72
9.1257 n	-0.13
0.3960 n	-2.49
0.4979 n	-3.14
	-0.03
	+0.01
	-31.50

0.4062 n	-25.68
9.1452 n	-0.44
0.4152 n	-2.60
0.0436 n	-1.11
	-0.03
	+0.01
	-29.35

Sept 17	Sept 25	Sept 27	Oct 4	Oct 9
<u>0.0254</u>	<u>0.0267</u>	<u>0.0285</u>	<u>0.0377</u>	<u>0.0358</u>
0.2889n	0.2570n	0.2861n	0.2869n	0.2808n
9.9999	9.9774	0.0204	0.0667	0.0648
1.2713	1.2722	1.2718	1.2572	1.2551
0.1676n	9.9750	0.212	0.7343	0.7607
-2.1287	-2.265	-2.260	-2.230	-2.227
	✓			
1.7738n -59.40	1.7720n -59.16	1.7711n -59.03	1.7659n -58.33	1.7658n -58.31
9.320 n -0.21	9.297 n -0.20	9.2606n -0.22	9.315 n -0.23	9.355 n -0.24
0.591 n -3.90	0.593 n -3.92	0.5918n -3.91	0.577 n -3.78	0.575 n -3.76
0.4049n -2.54	0.1123 +1.30	0.3493 +2.24	0.8716 +7.44	0.8980 +7.91
+0.07	+0.07	+0.07	+0.07	+0.07
+0.05	+0.04	+0.04	+0.04	+0.04
-65.93	-61.87	-60.81	-54.79	-54.79

1.3975n -24.98
 9.1856n -0.15
 0.4017n -2.52
 0.4360 +2.72
 -0.02
 +0.01
 -24.94

Mm mean 2024 Puc. +.13

Sept 14.
0.0171
0.2922n
9.9358
1.2651
0.5902n
-2.303

Sept 16.
0.0221
0.2896n
0.1043
1.2707
0.3369n
-2.290

Sept 23.
0.0263
0.2873n 1.5867n
9.9458 1.2931n
1.2731
9.4082 243" 2'
-2.270 1.6367

Sept 25
0.0268
0.2870n 1.5784n
9.9786 1.2941n
1.2726
9.9800 242" 33'
-2.265 1.6303

55 Comet B. sp

Log a	1.1884	1.4606n	-30.24	1.4780n	-30.06
b	9.4780n	9.4118n	-0.26	9.4803n	-0.30
c	9.4780n	0.7431n	-5.54	0.7467n	-5.61
d	9.7918	0.3620n	-2.41	0.1287n	-1.35
μ	+6.018		-0.04		-0.04
σ	-0.005		-0.03		-0.03
			-36.52		-37.39

N. W. 1900

Log a	1.7552n	2.0474	+111.52	2.0448	+110.86
b	0.2429	0.1767	+1.57	0.2472	+1.77
c	0.2430	1.5061	+32.72	1.5137	+32.71
d	0.6760n	1.0662	+11.15	0.8129	+6.50
μ	-0.076		+0.17		+0.17
σ	+0.150		+0.79		+0.79
			+137.86		+152.80

7/7 Dra 1900

0.5077n
9.4072
9.4130
9.4998n
+0.021
+0.002

0.7897 +6.16
9.3158 +0.24
0.6856 +4.85
9.4791 -0.30
-0.05
+0.07
+10.91

1 Dra 1900

Log a 0.7646
b 9.5520n
c 9.5563n
d 9.4907
μ +0.004
σ +0.004

1.2979n -17.86
9.6978n -0.31
0.8294n -6.76
8.8789 +0.08
-0.04
+0.02
-24.84

1.2516n +17.86
9.5306n -0.34
0.8289n -6.74
9.4707 +0.30
-0.01
+0.02
-24.68

Sept 29	Oct. 7	Oct. 8	Nov. 1	Nov. 4
0.0315	0.0376	0.0372	0.0604	0.0613
0.2844 _n	0.2809 _n 1.5209 _n	0.2809 _n 1.5115 _n	0.2674 _n	0.2668 _n
0.0494	0.0296 1.2860 _n	0.0460 1.2830 _n	0.2222	0.2425
1.2503	1.2591	1.2571	1.1619	1.1423
0.3709	0.7081 239.54	0.7360 239.63	1.1120	1.1384
-2.254	-2.092 1.5838	-2.230 1.5802	-2.164	-2.156

2.0396 + 109.52	2.0361 + 108.63	2.0361 + 108.65	2.0226 + 105.32
0.2928 + 1.96	0.2725 + 1.87	0.2889 + 1.94	0.4651 + 2.92
1.5133 + 32.60	1.5021 + 31.78	1.5001 + 31.69	1.4049 + 25.40
0.8469 _n - 7.03	1.1641 _n - 15.28	1.2120 _n - 16.29	1.5880 _n - 36.73
+ 0.17	+ 0.18	+ 0.17	+ 0.67
+ 0.77	+ 0.75	+ 0.75	+ 0.70
+ 137.99	+ 127.93	+ 126.85	+ 95.78

0.7871 + 6.13	0.7836 + 6.08
9.4566 + 0.29	9.4368 + 0.27
0.6833 + 4.81	0.6721 + 4.70
9.8707 - 0.74	0.2039 _n - 1.61
- 0.05	- 0.05
+ 0.01	+ 0.01
+ 10.45	+ 9.40

1.2490 _n - 17.74	1.2455 _n - 17.60	1.2455 _n - 17.60	1.2314 _n - 17.04
9.6014 _n - 0.40	9.5916 _n - 0.38	9.5980 _n - 0.40	9.7945 _n - 0.62
0.8216 _n - 6.71	0.8196 _n - 6.54	0.8134 _n - 6.51	0.6966 _n - 5.00
9.8616 + 0.73	0.1968 + 1.58	0.2267 + 1.69	0.6291 + 4.26
- 0.01	- 0.01	- 0.01	- 0.01
+ 0.02	+ 0.02	+ 0.02	+ 0.02
- 26.11	- 27.93	- 22.81	- 18.39

Alt. mean $23^{\circ} 57' = \text{True} + 0.28$

1862phae

Sept. 27.	Sept. 29.	Oct. 18	Oct. 30
<u>0.0263</u>	<u>0.0318</u>	<u>0.0432</u>	<u>0.0591</u>
0.2872 _n	0.2862 _n	0.2754 _n	0.2682 _n
9.9473	0.0502	0.1198	0.2262
1.2431	1.2702	1.2287	1.1730
9.4900	9.3804	0.9463	1.0944
-2.270	-2.254	-2.202	-2.169
		0.06	

Top Ap. H					
Ly a	8.4982	8.7755	+0.06	8.7425	+0.06
b	0.0395	9.9868	+0.97	0.0897	+1.23
c	0.0403	1.3134	+20.58	1.3105	+19.98
d	9.1904 _n	8.6804 _n	-0.05	9.5708 _n	-0.37
M	+0.086	-0.20		-0.19	
✓	+0.002	+0.01		+0.01	
		+21.37		+20.72	

Top Ap. B					
Ly a	0.3996	0.6868 _n	-4.86	0.6838 _n	-4.82
b	9.9729	9.9202	+0.83	0.0231	+1.06
c	9.9739	1.2470	+17.66	1.2441	+17.54
d	8.4489 _n	7.9389 _n	-0.01	8.8293 _n	-0.07
M	+0.035	-0.08		-0.08	
✓	-0.001	-0.01		-0.01	
		+13.53		+13.62	

Top Ap. minor Bp.					
Ly a	0.1890				
b	0.1336 _n				
c	0.1341 _n				
d	8.8820 _n				
M	+0.301				
✓	+0.041				

6. Major minor Bp.					
Ly a	8.5717 _n	8.8590	+0.07		
b	0.3938 _n	0.3411 _n	-2.19		
c	0.3939 _n	0.6670 _n	-46.45		
d	9.1906 _n	8.6806 _n	-0.05		
M	-1.096	+0.22			
✓	-0.006	-0.03			
		-48.43			

Nov. 3	Nov 4.	Nov 10.	Pole. +79 Dec 10. morning	Pole. +79 Dec 11 evening
0.0610	0.0613	0.0682	0.1040	0.1044
0.2670w	0.2668w	0.2684w	0.2379w	0.2376w
0.2339	0.2444	0.3162	0.4286	0.4268
1.1480	1.1412	1.0949	0.5440	0.5233
1.1312	1.1396	1.1846	1.3029	1.3036
-2.158	-2.155	-2.139	-2.056	-2.054
	x			
	8.7657 + 0.06			
	0.2839 + 1.92			
	1.1815 + 15.19			
	0.3310w - 2.14			
	- 0.19			
	+ 0.01			
	+ 14.85			
x				
0.6666w -4.64				
0.2058 + 1.61				
1.1219 + 13.24				
9.5801w - 0.38				
- 0.04				
0.00				
+ 9.75				
		0.4574w - 2.83		
		0.4498w - 2.82		
		1.2290w - 16.95		
		0.0611w - 1.17		
		- 0.64		
		+ 0.01		
		- 24.60		
	x			
	8.8341 + 0.07	8.8096 + 0.06	8.8093 + 0.06	
	0.7100w - 5.13	0.8224w - 6.64	0.8206w - 6.68	
	1.4888w - 80.82	0.9379w - 8.67	0.9172w - 8.26	
	0.3752w - 2.37	0.4935w - 3.12	0.4942w - 3.12	
	+ 0.21	+ 0.20	+ 0.20	
	- 0.03	- 0.02	- 0.02	
	- 38.07	- 18.19	- 17.82	

Pul. +53

Pul. +03

1862 Sept 5

1862 Oct. 7

1862 Oct. 18

at

0.0375

0.0376

0.0472

0.2810w 1.5281w

0.2809w

0.2754w 1.6638w

0.0180 1.2861w

0.0353

0.1202 1.2621w

1.2620

1.2583

1.2296

0.6590 T^o 24° 12'

0.7196

0.9404 237° 57'

-2.238 77 1.5897

-2.232

-2.207 1.5361

Ellw mm sp.

0.8084w 1.0891 + 12.27

9.1024w 9.1206w - 0.13

9.1064w 0.3686w - 2.34

9.6795w 0.3885w - 2.18

+0.011 - 0.02

-0.001 - 0.01

+7.59

above

1.0835 + 12.12

9.2226w - 0.17

0.3308w - 2.17

0.6199w - 4.16

- 0.02

- 0.00

+ 5.60

14 Camelyp H.

1.5661 1.5671w - 35.25

9.1456 9.1666 + 0.15

9.1502 0.4122 + 2.58

9.5865 0.5455 + 3.57

+0.022 - 0.05

-0.003 - 0.02

-29.08

below

51 Cephei H.

1.4864 1.7658w - 58.31

9.3249w 9.3429w - 0.22

9.3204w 0.5874w - 3.87

0.1371 0.7761 + 6.25

-0.032 + 0.07

+0.009 + 0.04

-56.04

below

-55.06

25 Lami. H.

1.1166 1.3975w - 24.98

9.1111w 9.1764w - 0.15

9.1447w 0.4030w - 2.53

9.7016 0.6212 + 2.62

+0.011 - 0.02

+0.002 + 0.01

-25.03

below

1.3920w - 24.66

9.2613w - 0.18

0.7723w - 2.77

0.6220 + 4.39

- 0.02

+ 0.01

-22.87

27 1/2" Pulc. + 21

1861 Nov 3	1861 Oct 30	1861 Nov 4	1862 Dec 11
<u>0.0610</u>	<u>0.0591</u>	<u>0.0613</u>	<u>0.1064</u>
0.2670 _n	0.2682 _n	0.2668 _n	0.2376 _n
0.2322	0.2262	0.2636	0.4271
1.1485	1.1730	1.1417	0.5267
1.1306	1.0944	1.1390	1.3035
-2.158	-2.169	-2.156	-2.055

119 Ceph. B.

✓

Lyn 0.6535_n

b 9.6704

c 9.6731

d 9.5798_n

M +0.010

V +0.004

30 Camel H sp.

✓

Lyn 0.9092

b 9.907_nc 9.9058_n

d 9.4033

M -0.036

V +0.005

34 Ceph. H.

Lyn 8.5900_n

b 9.6783

c 9.6821

d 9.1944_n

M +0.06

V +0.001

202 Camel. B

Lyn 0.6613

b 9.6837_nc 9.6880_n

d 8.8911

M -0.047

V +0.002

8.5552	+0.07	8.5568	+0.07	8.5276	+0.07
9.9065	+0.80	9.9219	+0.84	0.1054	+1.28
0.8557	+7.16	0.8238	+6.67	0.2088	+1.62
0.2588 _n	-1.95	0.3234 _n	-2.16	0.1979 _n	-3.15
	-0.81		-0.01		-0.01
	+0.00		+0.01		0.00
	+6.07		+5.42		-0.19

1862 Dec 12 1862 Dec 18
 0.1051 0.1106
 0.2371 1.1575 0.2330w
 0.4244 0.7553 0.4530
 0.4822 0.0232
 1.3049 1.1909 1.3099
 -2.052 2488291 -2.036

1862 Dec 28 evening
 0.1239
 0.2227w
 0.4453
 0.3550w
 1.3074
 -2.008

1862 Dec 28 morning 1862 Dec 29 evening
 0.1242 0.1245
 0.2226w 1.1161w 0.2226w
 0.4470 7.567w 0.4492
 0.3856w 0.4112w
 1.3069 218.23 1.3064
 -2.007 1.1163 -2.006.

1.1463w -14.01
 0.1271w -1.34
 0.1880w -1.54
 0.7082 + 5.11
 + 0.07
 + 0.02
 -11.69

8.8271 + 0.07 8.8230 + 0.07
 0.1027 + 1.27 0.1313 + 1.35
 0.1643 + 1.46 9.7053 + 0.51
 0.4992w - 3.15 0.5043w - 3.19
 - 0.01 - 0.01
 0.00 0.00
 - 0.36 - 1.27

0.8870w - 7.71 0.8867w - 7.70 0.8865w - 7.70
 0.1096w - 1.29 0.1107w - 1.29 0.1129w - 1.30
 0.0230 + 1.05 0.0236 + 1.13 0.0222 + 1.22
 0.1985 + 1.58 0.1980 + 1.58 0.1975 + 1.58
 + 0.09 + 0.09 + 0.09
 + 0.01 + 0.01 + 0.01
 - 6.27 - 6.14 - 6.10

Tul. + 0.75

Tul. + .65

1862 Nov 10	1862 Dec 8 th	1862 Dec 10 th	1862 Dec 10 th morning
0.0884	0.1007	0.1034	0.1040
0.2623	0.2403 _n	0.2384 _n	0.2379 _n
0.7161	0.4364	0.4464 _n	0.4284
1.0943	0.6324	0.5614	0.5416
1.1850	1.2989 _n	1.2164	1.2035
-2.139	-2.063	244.53	-2.056

43 Eph. A sp.

Log a 0.8332	1.0955	-12.46	1.0735 _n	-11.84	1.0416 _n	-11.79	1.0711 _n	-11.79
" b 9.919 _n	0.2353	+ 1.72	0.3556	+ 2.27	0.3495	+ 2.24	0.3476	+ 2.23
" c 9.9105	0.0148	+ 10.34	0.5529	+ 3.57	0.1819	+ 3.03	0.1621	+ 2.90
" d 9.2718	0.4568	+ 2.86	0.5707	+ 3.72	0.5740	+ 3.75	0.5748	+ 3.76
" e + 0.068		- 0.15		- 0.14		- 0.14		- 0.14
" f - 0.096		- 0.03		- 0.03		- 0.03		- 0.03
		+ 2.28		- 2.45		- 2.94		- 3.07

214 Camelo B

Log a 0.4331 _n			0.6715	+ 4.69
9.6979 _n			0.3282 _n	- 2.13
9.5992 _n			0.1606 _n	- 2.89
9.4620 _n			0.7642 _n	- 5.81
- 0.081				+ 0.16
- 0.005				- 0.02
				- 6.00

20 Mrs m to

Log a 0.6987 _n	1.1390	+ 13.77
" b 9.9598 _n	0.3962 _n	- 2.49
" c 9.9607 _n	0.5931 _n	- 3.92
" d 9.7557 _n	1.0566 _n	- 11.34
" e - 0.027		+ 0.06
" f - 0.012		- 0.05
		- 3.97

Gr. 527

Log a 0.9076	1.1455 _n	- 13.98
" b 9.5796	9.9478	+ 0.89
" c 9.5119	0.0665	+ 1.17
" d 9.4032	0.7062	+ 5.08
+ 0.04		- 0.06
- 0.003		- 0.01
		- 6.91

Puls + 35

Dec 16
 0.1261
 0.2349n 1.7458n
 0.4386 0.6453n 0.4637
 0.2235 9.5366
 1.3058 252°35' 1.3105
 -2.041 1.6690 -2.030

✓
 1.0651n -11.70
 0.3578 +2.28
 0.1440 +1.39
 0.5806 +3.81
 -0.14
 -0.03
 -4.39

✓
 1.1336 +13.60
 0.3964n -2.50
 0.1842n -1.53
 1.0645n -11.60
 +0.06
 -0.05
 -2.02

✓
 1.1425n -13.88 1.1377n -13.73
 9.9580 +0.91 9.9831 +0.96
 9.7484 +0.56 9.0615 +0.12
 0.7320 +5.39 0.7137 +5.17
 -0.04 -0.04
 -0.01 -0.01
 -7.07 -7.53

Puls + 55

~~1862 Dec 24~~
 0.1210
 0.2250n 1.1222n
 0.4535 0.2684n
 9.9939n
 1.3100 262°2'
 1.1264
 -2.019

✓
 0.1581 +4.55
 0.3514n -2.25
 9.6931 +0.78
 0.7720n -5.92
 +0.16
 -0.02
 -2.70

Puls + 55

1862 Dec 28 morning
 0.1243
 0.2223n
 0.4477
 0.3955n
 1.3069
 -2.006

✓
 1.0555n -11.36
 0.3669 +2.33
 0.3160n -2.07
 0.5787 +3.79
 -0.14
 -0.02
 -7.47

✓
 0.6554 +6.52
 0.3656n -2.22
 0.2947 +1.97
 0.7669n -5.67
 +0.16
 -0.02
 -1.46

Puls + 35

1862 Dec 29 evening
 0.1246
 0.2221n
 0.4580
 0.4222n
 1.3062
 -2.005

1.9553n -11.36
 0.3692 +2.34
 0.3427n -2.20
 0.5780 +3.78
 -0.14
 -0.02
 -7.60

3.39

Orion +.43

1862 Dec 17 th	1862 Dec 20	1863 Jan 5	1863 Jan 19 th
0.1046	0.1145	0.5585	0.6151
0.2374n	0.2300n	0.2144n	0.2013n
0.4264	0.4638	0.4665	0.4537
0.5174	0.5024	0.6938n	0.9659n
1.3038	1.3105	0.2949	1.2502
-2.054	-2.030	-1.966	-1.948
-2.47	1.1459		

323 Cephei B

Log a	1.2702
b	9.5859
c	9.6068
d	9.6906
μ	+0.163
ν	-0.116

1.6416n	-30.62
0.2724	-1.87
0.5006n	-3.17
1.1655	+15.33
	-0.32
	-0.06
	-16.87

57 Pleiades B sp

Log a	1.3671n
b	0.0315n
c	0.0318n
d	0.1191n
μ	+0.032
ν	-0.039

1.5971	+39.55
0.4953n	-3.13
0.5342n	-0.34
1.4296n	-26.90
	-0.07
	-0.16
	+8.95

Procyon 750

Log a	1.2210	1.4584n	-28.73
b	9.6168	0.0612	+1.10
c	9.6164	0.1338	+1.35
d	9.8377	1.1355	+13.66
μ	+0.003		-0.01
ν	-0.009		-0.04
			-12.66

1.4354n	-27.26	1.4223n	-26.44
0.0613	+1.31	0.0645	+1.17
0.3102n	-2.04	0.5823n	-3.65
1.1266	+13.39	1.0819	+12.08
	-0.01		-0.01
	-0.04		-0.04
	-14.75		-16.89

62 Leo B sp

Log a	0.8335n	1.0709	+11.78
b	9.6134n	9.8698n	-0.77
c	9.6632n	9.9837n	-0.96
d	9.6957n	0.9995n	-9.97
μ	+0.015		-0.03
ν	-0.004		-0.02
			+0.01

0.0179	+11.17	1.0348	+10.83
9.9209n	-0.85	9.9171n	-0.63
0.1601	+1.45	0.4322	+2.70
0.9906n	-9.79	0.9459n	-8.83
	-0.03		-0.03
	-0.02		-0.02
	+1.93		+3.82

4
7
65
08
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20
53
103
12
2

u.l.t.O.28 Log for 1863.0

Right Asc. - 1863.0	1862 Jan 18	1862 Dec 28	1862 Dec 28 morning	1862 Dec 28 evening
27 49.98 + 13345.27	0.1106	0.1240	0.1243	0.1246
23 53 15.04 85 57 16.96	0.2330n	0.2226n	0.2223n	0.2221n
12 12 52.20 87 11 10.79	0.4535	0.4456	0.4473	0.4497
12 14 19.43 88 26 53.22*	0.0136	0.3594n	0.3897n	0.6180n
	1.3099	1.3073	1.3068	1.3063
	-2.035	-2.008	-2.007	-2.005
39 Ceph A				
Log a 8.5079n		8.7305	8.7302	8.7300
u 0.0396		+ 0.05	+ 0.05	+ 0.05
v 0.0404		0.4852	0.4869	0.4893
u 9.1905n		+ 3.06	+ 3.07	+ 3.08
		0.3998n	0.4301n	0.4566n
		-2.51	-2.69	-2.87
		0.4978n	0.4973n	0.4968n
		-3.15	-3.14	-3.14
		-0.17	-0.17	-0.17
		+0.01	+0.01	+0.01
		-2.71	-2.87	-3.04
309 Ceph B				
Log a 9.7997	0.6227n	-4.30	0.6273n	-4.19
u 9.9730	0.4265	+2.62	0.4186	+2.62
v 9.9740	0.9876	+0.97	0.3334n	-2.16
u 8.4485n	0.7584n	-0.57	0.3637n	-2.81
		-0.07	0.7002n	-0.57
		-0.07	-0.07	-0.07
		0.10	0.10	0.10
	-1.30	-4.37	-4.51	-4.64
5111 n B.				
Log a 0.890		0.4116n	-2.58	0.4113n
u 0.1334n		-2.58	-2.58	-2.58
v 0.1339n		0.5790n	-3.79	0.5807n
u 8.6820n		-3.79	-3.81	-3.83
		0.4933	+3.11	0.5236
		0.1893n	+3.34	+3.34
		-1.55	-1.55	-1.55
		-0.60	-0.60	-0.60
		0.00	0.00	0.00
		-5.41	-5.20	-4.99
6111 n B.				
Log a 8.5416		8.7642n	-0.06	8.7639n
u 0.3735n		-0.06	-0.06	-0.06
v 0.3736n		0.8391n	-6.90	0.8408n
u 9.1902n		-6.90	-6.93	-6.97
		0.7530	+5.65	0.7833
		0.4975n	+5.07	+5.07
		-3.14	-3.14	-3.14
		+0.19	+0.19	+0.19
		-0.02	-0.02	-0.02
		-4.27	-3.89	-3.57

0.24 Pul.

1863 Jan

1862 Dec 20th

9.5333

0.2196_n 1.1202_n0.2303_n

0.4669 9.5195

0.4630

0.5551_n

9.6615

1.3024

272^h 52'

1.7105

-1.997

1.1207

-2.030

119 Cephei B

30 Camel H 4.

34 Cephei H.

ix

Log. from previous
21

8.8096 + 0.06

8.8203 + 0.07

0.1452 + 1.40

0.1413 + 1.38

0.2042_n - 1.73

9.3436 + 0.22

0.4968_n - 3.140.5049_n - 3.20

+ .01

- .01

00

00

- 3.42

- 1.54

202 Camel B.

*

Lucova +.35

1863 Jan 1	1863 Jan 2	1863 Jan 3	1863 Jan 5
9.5345	9.5403	9.5465	9.5582
0.2195	0.2183	0.2170	0.2145
0.4674	0.4713	0.4725	0.4668
0.5595	0.5967	0.6311	0.6921
1.3023	1.3007	1.2990	1.2951
-1.997	-1.994	-1.992	-1.986

43 Cephei 14

Log a	0.8333	1.0028	-11.29	1.0503	-11.23	1.0478	-11.16
" b	9.9192	0.3666	+2.44	0.3912	+2.47	0.3660	+2.43
" c	9.9205	0.4800	+3.02	0.5516	-3.56	0.6126	-4.10
" d	9.2719	0.5742	+3.75	0.5709	+3.72	0.5670	+3.69
Log	+0.068	-0.14	-0.14	-0.14	-0.14	-0.14	-0.14
" v	-0.006	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
		-8.28			-8.76		-9.30

214 Amalop B. 4.

Log	0.4347	0.6542	+4.51	0.6530	+4.50	0.6517	+4.48
" b	9.8979	0.3653	-2.32	0.3692	-2.34	0.3704	-2.35
" c	9.8992	0.4587	+2.88	0.4959	+3.13	0.5303	+3.39
" d	9.4620	0.7643	-5.81	0.7677	-5.79	0.7610	-5.77
M	-0.081	+0.16	+0.16	+0.16	+0.16	+0.16	+0.16
v	-0.005	-0.12	-0.12	-0.12	-0.12	-0.12	-0.12
		-0.60		-0.36		-0.11	

20 W. 100 B. 4.

Log 527
0.9076
9.5194
9.5249
9.4024.

+0.021

-0.003

	1863 Jan 17 th	1863 Jan 30.	1863 Feb 2	
3.	9.6022	9.6414	9.6534	
12.	0.2041n	0.1936n	0.1903n	1.2118n
32	0.4633	4.4538	0.4295	1.0106
37'	0.9360n	1.0864n	1.1118n	30° 11'
	1.2589	1.1911	1.1702	1.2843
	- 1.903	- 1.918	- 1.910	

16	1.0374n	- 10.90
43	0.3825	+ 2.41
10	1.8585n	- 7.19
69	1.5308	+ 3.39
12		- 0.13
02		- 0.02
30		- 12.44

✓	1.4012n	- 12.63	✓	1.0979n	- 12.53
	9.9632	+ 0.92		9.9489	+ 0.89
	0.6103n	- 4.09		0.6367n	- 4.33
	0.5935	+ 3.92		0.5726	+ 3.74
		- 0.04			- 0.04
		- 0.01			- 0.01
		- 11.93			- 12.28

Pole. +53

1863 Jan 19

9.6136

0.2012_n

0.6531

0.9671_n T^h 294°31'

1.2498 Y 1.1907

- 1.948

1863 Jan 31

9.6468

0.1922_n

0.4408

1.0967_n

1.1832

1863 Feb. 2

9.6539

0.1901_n

0.4281

1.1133_n

1.1609

- 1.910

1863 Feb 16

9.6841

0.1796_n 1.2893_n

0.4006 1.1263

1.2012_n

1.0358 304.30
1.3223

- 1.871

ε Ursae minor

log a 0.8080_n

" b 9.1026_n

" c 9.1066_n

" d 9.6794_n

" +0.011

" -0.001

by Cassiopeia B.

log a 1.2662

" b 9.1476

" c 9.1492

" d 9.8865

" +0.022

" -0.003

51 Cephei H.

1.4846

9.3267_n

9.3272_n

0.1370

-0.032

+0.009

25 Cameli H.

1.1165

9.1416_n

9.1452_n

9.7016

+0.011

+0.002

1863 Feb 20	1863 Feb 21	1863 Feb 23	1863 Mar 2	1863 Mar 5
9.6925	9.6930	9.6948	9.7121	9.7140
0.1762n 1.3140n	0.1781n	0.1784n	0.1716n 1.3710n	0.1709n
0.3724 1.1521	0.3773	0.3868	0.3818 1.1881	0.3632
1.2188n	1.2228n	1.2302n	1.2512n 303°12'	1.2580n
0.9831	0.9885	0.9374	0.8016 7.4482	0.7250
-1.860	-1.857	-1.852	-1.833	-1.824
			0.9746 + 9.54	
			9.4844n - 0.30	
			0.3578n + 2.28	
			0.4810n - 3.03	
			- 0.02	
			<u>- 0.00</u>	
			+ 6.48	
			1.4378n - 27.41	
			9.5294 + 0.34	
			0.4004n - 2.52	
			0.6881 + 4.88	
			- 0.14	
			<u>- 0.01</u>	
			- 24.76	
1.6628n - 46.01	1.6627n - 45.99	1.6610n - 45.92	1.6562n - 45.31	1.6555n - 45.24
9.6991n - 0.50	9.7040n + 0.57	9.7135n - 0.52	9.7085n - 0.51	9.6909n - 0.49
0.5160 + 3.52	0.5500 + 3.55	0.5524 + 3.61	0.5784 + 3.79	0.5852 + 3.85
1.1201 + 13.14	1.1055 + 12.75	1.0724 + 11.87	0.9086 + 8.68	0.8620 + 7.28
+ 0.06	+ 0.06	+ 0.06	+ 0.06	+ 0.06
+ 0.03	+ 0.03	+ 0.03	+ 0.03	+ 0.03
- 29.72	- 30.11	- 30.87	- 33.26	- 34.51
1.2947n - 19.71	1.2946n - 19.70	1.2939n - 19.67	1.2881n - 19.61	1.2874n - 19.58
9.5140n - 0.33	9.5189n - 0.33	9.5284n - 0.34	9.5234n - 0.33	9.5058n - 0.32
0.3640 + 2.31	0.3660 + 2.33	0.3754 + 2.37	0.3964 + 2.49	0.4032 + 2.53
0.6847 + 4.84	0.6701 + 4.68	0.6375 + 4.34	0.5032 + 3.19	0.4286 + 2.67
- 0.02	- 0.02	- 0.02	- 0.02	- 0.02
+ 0.01	+ 0.01	+ 0.01	+ 0.01	+ 0.01
- 12.90	- 13.03	- 13.31	- 14.07	- 14.51

Per. + 61

6 + 15.85 10 29.1
7 21.64 11 27.7
8 25.92 12 26.4
9 + 28.5

	1863 Feb 7		1863 Feb 21		1863 Mar 2		1863 Mar 5	
	9.6609		9.6930		9.7124		9.7140	
	0.1881n	1.2428n	0.1781n		0.1715n		0.1709n	1.3881n
	0.4008	1.0653	0.3770		0.3812		0.3640	1.1990
	1.1504n	1.3222	1.2231n		1.2574n		1.2583n	302.54
	1.1282	303.36'	0.9673		0.7997		0.7228	1.4640
	-1.695		-1.657		-1.832		-1.824	
<i>h m m m min. B</i>								
1.8862	2.0743n	-118.67	2.0643n	-115.95	2.0577n	-114.21	2.0571n	-114.04
0.0920n	0.4928n	-3.11	0.4690n	-2.95	0.4732n	-2.97	0.4560n	-2.86
0.0920n	1.2424	+17.48	1.3151	+20.66	1.3434	+22.05	1.3503	+22.50
0.5663	1.6945	+49.49	1.5336	+34.17	1.3660	+23.23	1.2891	+19.66
-0.014		+0.03		+0.03		+0.03		+0.03
+0.136		+0.47		+0.48		+0.46		+0.45
	-34.29		-63.56		-71.41		-74.56	
<i>156 Camil B</i>								
1.1883	1.3764n	-23.79	1.3664n	-23.25	1.3598n	-22.90		
9.4762n	9.8770n	-0.75	9.8532n	-0.71	9.8574n	-0.72		
9.4781n	0.6285	+6.25	0.7012	+5.03	0.7295	+5.37		
9.7913	0.9195	+8.30	0.7566	+5.74	0.5910	+3.90		
+0.018		+0.03		-0.03		-0.03		
-1.005		-0.02		-0.02		-0.02		
	-12.04		-13.24		-14.40			
<i>1 h m m m B</i>								
1.7560n	1.9441	+87.93	1.9341	+88.92	1.9275	+84.62	1.9269	+84.57
0.2461	0.6469	+4.41	0.6211	+4.18	0.6253	+4.23	0.6081	+4.06
0.2462	1.3946n	-24.81	1.4673n	-29.34	1.4956n	-31.30	1.5025n	-31.80
0.4745n	1.6027n	-40.06	1.4416n	-27.66	1.2742n	-18.80	1.1973n	-15.75
-0.076		+0.14		+0.14		+0.14		+0.14
+0.150		+0.56		+0.52		+0.50		+0.50
	+28.15		+33.76		+39.39		+41.66	
<i>74 Draconi</i>								
0.5786n	0.6909	+4.91			0.6743	+4.82		
9.4072	9.8080	+0.64			9.7884	+0.61		
9.4100	0.5834n	-3.66			0.6646n	-4.64		
9.6999n	0.6261n	-4.25			0.7996n	-1.99		
+0.021		-0.04				-0.04		
+0.002		+0.01				+0.01		
	-2.39				-1.30			

Publ. - 39

Puls. +.70

	1863 Feb 7		1863 Feb 25		1863 Mar 2		1863 Mar 6	
	2.0610		2.6992		2.7124		2.7140	
	0.1880 _n		0.1758 _n		0.1715 _n		0.1710 _n	
	0.4012 _n		0.3978		0.3802		0.3644	
	1.1510 _n		1.2375 _n		1.2577 _n		1.2602 _n	
	1.1273		0.9002		0.7975		0.6907	
	-1.894		-1.846		-1.832		-1.821	
1 Dms H.								
0.9645	1.1525 _n	-14.21	1.1403 _n	-13.81	1.1360 _n	-13.88		
9.5520 _n	9.9532 _n	-0.90	9.9498 _n	-0.89	9.9322 _n	-0.86		
9.5563 _n	0.7473	+5.10	0.7938	+6.22	0.8080	+6.43		
9.4916	0.6179	+4.15	0.3908	+2.46	0.2881	+1.94		
+0.004		-0.01		-0.01		-0.11		
+0.004		+0.02		+0.01		+0.01		
	-0.85		-6.02		-6.17			
1.9 Ceph B.								
0.6538 _n	0.8418	+6.94	0.8296	+6.75	0.8253	+6.69		
0.6705	0.0712	+1.18	0.0683	+1.17	0.0597	+1.12		
9.6732	0.8242 _n	-6.67	0.9107 _n	-8.14	0.9249 _n	-8.61		
9.5810 _n	0.7073 _n	-5.10	0.4802 _n	-3.02	0.0775 _n	-2.39		
+0.010		-0.02		-0.02		-0.02		
+0.004		+0.01		+0.01		+0.01		
	-3.66		-3.25		-3.08			
30 Laurel H.								
0.9090							1.0800 _n	-12.02
9.7027 _n							0.0671 _n	+1.17
9.7159 _n							0.9661	+9.25
9.4031							0.0938	+1.24
-0.036								+0.07
+0.005								+0.02
								-2.61
34 Ceph H.								
8.5966 _n			8.7724	+0.06			8.7676	+0.06
9.6755			0.0763	+1.79			0.0429	+1.10
9.6777			0.9197 _n	-0.37			0.9444 _n	-8.76
9.6822			0.0947 _n	-1.24			9.8852 _n	-0.77
9.6846				-0.98				-0.91
9.6877				+0.00				+0.00
+0.066				-8.45				-8.45
+1.002				31				

P. -30

1863 Mar. 9	1863 Mar 11	1863 Mar 27 th	1863 Mar 30 th	1863 Apr 1
9.7168	9.7218	9.7480	9.7529	9.7534
0.1700 _n	0.1682 _n 1.4212 _n	0.1584 _n	0.1565 _n	0.1580 _n
0.3821	0.3939 1.2055	0.4134	0.4022	0.3983
1.2653 _n	1.2678 _n 301° 19'	1.2699 _n	1.2686 _n	1.2638 _n
0.5870	0.5002 1.4696	0.3927 _n	0.5455 _n	0.6232 _n
-1.813	-1.807	-1.764	-1.756	-1.750
1.1348 _n -13.63	1.1327 _n -13.57		1.1210 _n -13.21	1.1208 _n -13.20
9.9341 _n -0.46	9.9459 _n -0.88		9.9542 _n -0.90	9.9502 _n -0.89
0.8216 +6.63	0.8241 +6.67		0.8229 +6.85	0.8201 +6.61
0.0786 +1.20	9.9908 +0.98		0.0361 _n -1.09	0.1139 _n -1.30
-0.01	-0.01		-0.01	-0.01
+0.01	+0.01		+0.01	+0.01
-6.66	-6.60		-8.58	-8.78
0.8238 +6.66	0.8220 +6.64	0.8122 +6.49	0.8103 +6.46	
0.0526 +1.13	0.0644 +1.16	0.0839 +1.21	0.0727 +1.18	
0.9385 _n -8.68	0.9410 _n -8.73	0.9421 _n -8.77	0.9398 _n -8.71	
0.1670 _n -1.47	0.1802 _n -1.20	9.9727 +0.94	0.1255 +1.34	
-0.02	-0.02	-0.02	-0.02	
+0.01	+0.01	+0.01	+0.01	
-2.37	-2.14	-0.14	+0.26	
1.0790 _n -12.97				
0.0848 _n -1.21				
0.9712 +9.36				
9.9901 +0.98				
+0.07				
+0.02				
-2.77				
8.7666 +0.06	8.7648 +0.06			
0.0646 -1.15	0.0724 +1.18			
0.9475 _n -8.86	0.9500 _n -8.91			
9.7815 _n -0.60	9.6947 _n -0.49			
-0.07	-0.07			
+0.04	+0.04			
-8.26	-8.17			

P
nlr +.43

1863 Feb 10

9.6880
0.1866n 1.2592n
0.4119 1.0847
1.1683n 303° 47' 1
1.1021 1.3395
-1.888

Feb 14

9.6812
0.1818n 1.2785n
0.4153 1.1110
1.1907n 304° 13'
1.0603 1.3810
-1.877

Feb 16

9.6878
0.1797n 1.2887
0.4014 1.1256
1.2007n 304° 27'
1.0370 1.3724
-1.871

Feb 17

9.6901
0.1790n 1.2945n
0.3922 1.1329
1.2057n 304° 35'
1.0246 1.3769
-1.864

323 Cephei B

1.2706
9.8058
9.8068
9.8908
+ 0.163
- 0.016

x

1.4500n -28.20
0.2072 + 1.61
1.0075n -10.18
0.9278 + 8.47
- 0.31
- 0.06
-28.67

x

1.4496n -28.16
1.1980 + 1.58
1.1122n -10.28
0.9134 + 8.23
- 0.31
- 0.16
-29.00

57 Ursae min B

x

1.3668n 1.5534 +35.76
0.0315n 0.4430n -2.78
0.0318n 1.2001 +15.85
0.1188n 1.2209n -16.63
+ 0.033 - 0.06
- 0.039 - 0.14
+ 32.00

x

1.5165n + 35.10
0.4329n + 2.70
1.2325 + 17.08
1.1558n -14.31
- 0.06
- 0.14
+ 35.07

Sp 750

1.2211
9.6147
9.6163
9.8318
+ 0.013
- 0.009

✓

1.4029n -25.24
0.0340 + 1.07
1.8070n - 6.41
0.8921 + 7.80
- 0.04
- 0.03
-22.86

x

1.4006n -25.17
0.0161 + 1.04
0.8170n - 6.56
0.8688 + 7.39
- 0.01
- 0.03
-23.34

x

1.4001n -25.13
0.0069 + 1.02
0.8217n - 6.63
0.8554 + 7.18
- 0.01
- 0.03
-23.60

62 Can min B

0.8336n
9.6635n
9.6664n
9.6787n
+ 0.015
- 0.014

x

1.0152 + 10.36
9.8788n - 0.76
0.6567 + 4.54
0.7560n - 5.70
- 0.03
- 0.01
+ 8.40

x

1.0131 + 10.30
9.8649n - 0.73
0.6671 + 4.64
0.7327n - 5.41
- 0.03
- 0.01
+ 8.76

x

1.0124 + 10.29
9.8557n - 0.72
0.6718 + 4.70
0.7203n - 5.25
- 0.03
- 0.01
+ 8.98

Pip. +93
Morning

Feb 20. 8

9.6927
0.1762n 1.3167n
0.3784 1.1432
1.2204 303.51'
0.9773 1.3974
-1659

~~Feb. 20. 8~~

1663 June 2

See afterward

June 4

15

1.5150 +35.08
0.4079w -2.56
1.2522 +17.67
1.0961w -12.47
-0.06
-0.13
+37.73

1.3983n -25.08
0.9711 +0.98
0.8367n -1.87
0.8091 +6.44
-0.01
-0.03
-24.57

rejust. via note.
over

P₁₀ + .77

1863 March 6

9.7140
 0.1710w
 0.3646
 1.2606w
 0.6884
 -1.824

1863 March 9th

7.7169
 0.1649w
 0.3826
 1.2654w
 0.5842
 -1.813

P₁₀ - .23

1863 Apr 9.

9.7157
 0.1514w
 0.4492
 1.2469w
 0.8397w
 -1.728

1863 May 9

9.8167w
 0.1285w
 0.5410
 1.0913w
 1.1875w
 -1.646

202 Lamm B

8.5776w
 0.6636w
 9.6679w
 8.5907
 -0.047
 +0.002
 -0.84
 -1.07
 +8.47
 +0.38
 +0.09
 +0.01
 +1.04

39 Cephei H

8.6986
 0.4044
 1.3010w
 9.8791w
 +0.086
 +0.002
 +0.05
 +2.54
 -20.00
 -0.76
 -0.16
 +0.01
 -18.32

309 Cephei B

0.3998
 9.9702
 9.9742
 8.4479w
 +0.005
 -0.001
 0.5708w
 0.3378
 1.2346w
 9.1363w
 -3.72
 +2.18
 -17.16
 -0.14
 -0.06
 0.00
 -18.90

5. M3 mm B

0.1889
 0.1332w
 0.1337w
 8.8821w
 +0.307
 +0.007
 0.3599w
 0.4976w
 1.3941
 9.5705w
 -2.29
 -3.14
 +24.78
 -0.37
 -0.55
 0.00
 +18.93

8.6790
 0.4890
 1.2675w
 0.0304
 +0.05
 +3.09
 -19.39
 +1.07
 -0.16
 +0.01
 -15.33

0.5512w
 0.4224
 1.2211w
 9.2876
 -3.56
 +2.64
 -16.64
 +0.19
 -0.06
 0.00
 -17.43

0.3603w
 0.5824w
 1.3806
 9.7218
 -2.19
 -3.72
 +24.02
 +0.53
 -0.52
 0.00
 +18.12

1863 May 19	1863 May 25	1863 May 23.
<u>9.8312</u>	<u>9.8442</u>	<u>9.8412</u>
0.1210 _n	0.1124 _n	0.1157 _n
0.5503	0.5787	0.5813
0.9913 _n	0.9112 _n	0.9401 _n
1.2411 _n	1.2651 _n	1.2578 _n
-1.619	-1.603	-1.608
x		
0.7852 _n	0.7786 _n	-6.08
-6.10	-1.74	
0.2139 _n	0.2123 _n	-1.74
-1.76		
0.6592	0.5791	+3.60
+4.56		
0.1318 _n	0.1558 _n	-1.43
-1.36		
+0.08	+0.08	
0.01	+0.01	
-4.57	-3.28	
x		
8.6486	+0.04	
0.6201	+4.17	
1.0319 _n	-10.76	
0.4318	+2.70	
-0.15		
+0.11		
-3.99		
x		
0.5142 _n	+3.27	0.5155 _n
0.5519	+3.56	0.5545
1.8854 _n	-7.68	0.9143 _n
9.7130	+0.52	9.7027
	-0.06	-0.06
	0.00	0.00
	-6.93	-7.36

Pucc. +83

1862 Nov 6

9.7141

0.1709

0.3627

1.2605

0.6866

-1.621

Pucc. -17

1863 Apr 9.

9.7659

0.1512

0.4493

1.2666

0.8716

-1.728

1863 Apr 13.

9.7762

0.1478

0.4420

~~0.6470~~

0.9155

1.2347

-1.717

1863 May 1

9.7964

0.1381

0.5059

1.1495

1.1294

-1.688

6 Wm m B

Log a 6.4962

8.6657

+0.05

" b 0.3930

0.7579

-5.72

" c 0.3931

1.1556

+45.04

" d 9.1897

9.8763

-0.75

μ

-0.096

+0.18

ν

-0.006

-0.02

+38.78

40 Cephei 14

Log a 0.8335

" b 9.9194

" c 9.9207

" d 9.2724

μ

+0.068

ν

-1.006

✓

0.9813

-9.58

0.3614

+2.30

~~1.1552~~

+4.30

0.1677

-1.54

-0.02

-0.02

-23.26

214 Camelopard B

Log a 0.4362

" b 9.8977

" c 9.8990

" d 9.4618

μ

-0.074

ν

-0.005

✓

0.5854

+3.75

0.3470

-2.22

1.1456

+13.98

0.8838

+2.01

+0.13

-0.01

+27.64

0.5723

+3.74

0.4036

-2.53

1.0685

+11.18

0.5912

+3.90

+0.12

-0.01

+16.40

2

20 Wm m B

Log a 0.8981

" b 9.9597

" c 9.9605

" d 9.7561

-0.027

-0.02

1863 May 9	1863 May 19	1863 May 23	1863 June 1	1863 June 2
<u>9.8168</u>	<u>9.8319</u>	<u>9.8348</u>	<u>9.8554</u>	<u>9.8586</u>
0.1284 _n	0.1209 _n	0.1194 _n	0.1082 _n	0.1065 _n
0.5409	0.5805	0.5833	0.6111	0.6145
1.0906 _n	0.9906 _n	0.9785 _n	0.9861 _n	0.9865 _n
1.1879 _n	1.2615 _n	1.2460 _n	1.2862 _n	1.2886 _n
-1.6246	-1.619	-1.648	-1.583	-1.580

✓

0.9417 _n	-8.74
0.5305	+3.39
0.7068 _n	-5.09
0.5566 _n	-3.62
	-0.11
	-0.02
	-14.19

x

0.5626	+3.65
0.4386 _n	-2.74
0.9896	+9.76
0.6497	+4.46
	+0.12
	-0.01
	+15.24

1.0490	+10.45	0.138 _n x	1.0475	+10.47	1.0046	+10.11
0.5602 _n	-3.67	0.5409 _n	0.5409 _n	-3.44	0.5762 _n	-3.75
0.9871 _n	+8.94	0.9871 _n	0.9871 _n	+8.64	0.7250	+5.31
0.9976 _n	+9.94	1.0046 _n	1.0046 _n	+10.65	1.0447	+11.08
	+0.04			+0.06		+0.04
	-0.03			-0.03		-0.04
	+25.87			+25.77		+22.75

Pole +.53				Pole +.93			
1863 March 9 th		1863 March 11 th		1863 Jan 17		1863 July 11	
9.7163		9.7213		9.8898		9.9302	
0.1701 _n	1.4117 _n	0.1684 _n		0.0878 _n		0.0601 _n	
0.3806	1.2043	0.3902		0.6359		0.6417	
1.2650 _n	301° 49'	1.2677 _n		0.0678 _n		0.7912	
0.5937	1.4924	0.5086		1.3097 _n		1.2856 _n	
	-1.84		-1.808		-1.539		-1.473
<i>E. Ursae minor</i>				<i>abn</i>			
Ly a 0.8080 _n	0.9781	+ 9.51		0.8958	+ 7.89	0.8681	+ 7.38
" b 9.1027 _n	9.4833 _n	- 0.30		9.7386 _n	- 0.55	9.7444 _n	- 0.56
" c 9.1067 _n	0.3717	+ 2.36		9.1745	+ 0.15	9.7779 _n	- 0.63
" d 9.6794 _n	0.2731 _n	- 1.88		0.9691	+ 9.75	0.9650	+ 9.23
"		- 0.02			- 0.02		- 0.02
"	+ 0.011						
"	- 0.001	0.00			1.00		0.00
		+ 9.67			+ 17.22		+ 15.40
<i>64 Canell B</i>				<i>sp</i>			
Ly a 1.2662	1.4063 _n	- 27.31		1.3540 _n	- 22.59	1.3263 _n	- 21.20
" b 9.1473	9.5279	+ 0.34		9.7832	+ 0.61	9.7890	+ 0.62
" c 9.1489	0.4139 _n	- 2.59		9.2167 _n	- 0.16	9.9408	+ 0.87
" d 9.5865	0.6602	+ 3.02		1.1962 _n	- 15.71	1.1721 _n	- 14.86
"		+ 0.04			- 0.03		- 0.03
"	+ 0.022	- 0.01			- 0.01		- 0.01
"	- 0.003						
		- 26.59			- 37.89		- 34.61
<i>51 Cephei H</i>				<i>sp</i>			
Ly a 1.4848	1.6532 _n	- 45.00		1.5726 _n	- 37.38		
" b 9.3274 _n	9.7206 _n	- 0.53		9.9633 _n	- 0.92		
" c 9.3279 _n	0.5956	+ 3.24		9.3957	+ 0.25		
" d 0.1370	0.6456	+ 4.42		1.1166 _n	- 27.77		
"		+ 0.06			+ 0.05		
"	- 0.032	+ 0.03			+ 0.02		
"	+ 0.009	- 37.08			- 65.95		
<i>25 Canell H</i>				<i>sp</i>			
Ly a 1.1165	1.2819 _n	- 19.27		1.2073 _n	- 16.01		
" b 9.1416 _n	9.5366 _n	- 0.34		9.7775 _n	- 0.60		
" c 9.1452 _n	0.4129	+ 2.59		9.2130	+ 0.16		
" d 9.7016	0.2102	+ 1.62		1.0113	- 10.27		
"		- 0.02			- 0.02		
"	+ 0.011	+ 0.01			0.00		
"	+ 0.002	- 15.41			- 26.74		

See afterward

1

11

11

Puls. -39

Puls. +.11

1860 Apr 9

9.7652

9.1516_n

0.4490

1.2472_n0.8364_n

-1.728

Mey in B

Ly α 1.756 _n	1.9080	+ 80.91
" b 0.2419	0.6909	+ 4.91
" c 0.2420	1.4892 _n	- 30.84
" d 0.4770 _n	1.3134 _n	- 20.58
"	- 0.076	+ 0.13
"	+ 0.150	+ 0.45
		+ 34.98

74 Macom

Ly α 0.5030 _n	0.6566	+ 4.51
" b 9.4042	9.6562	+ 0.72
" c 9.4130	0.6602 _n	- 4.57
" d 9.5000 _n	0.3364	+ 2.17
"	+ 0.019	- 0.03
"	+ 0.002	+ 0.01
		+ 2.81

Puls. -30

1863 Apr 9

9.7755

0.1514_n

0.4691

1.2469_n

0.8383

-1.728

1 Star H

Log a 0.9644

1.1158_n -13.05" b 9.5520_n0.0011_n -1.00" c 9.5563_n0.8032_n +6.36

" d 9.4905

0.3288_n -2.13

u +0.005

-0.01

v +0.004

+0.01

-9.82

119 Gph B

Log a 0.6539_n

0.8053 +6.49

" b 9.6706

0.1197 +1.32

" c 9.6733

0.9202_n -8.32" d 9.5802_n

0.4185 +2.62

u +0.010

-0.02

v +0.004

+0.01

+2.10

30 Laim H

Log a 0.9090

~~+0.005~~" b 9.7026_n1.0558_n -11.37" c 9.7057_n0.1641_n -1.46

" d 9.4030

0.9228 +8.37

u -0.036

0.3920_n -2.47

v +0.005

+0.06

+0.01

-6.86

34 Gph H

Log a 8.6021_n

8.7535 +0.06

" b 9.6785

0.1276 +1.34

" c 9.1823

0.9292_n -8.50" d 9.1946_n

0.0329 -1.08

u +0.006

-0.01

v +0.001

0.00

-6.07

1863 Apr 18

9.7765

0.1468_n

0.4615

1.2171_n0.9890_n

-1.704

1863 Apr 21

9.7820

0.1445_n

0.4872

1.2043_n1.0274_n

-1.696

1863 Apr 22

9.7846

0.1433_n

0.4924

1.1998_n1.0372_n

-1.693

1863 Apr 23	1863 May 2	1863 May 9	1863 June 23	1863 June 29
9.7972	9.7976	9.8168	9.8967	9.9105
0.7431 _n	0.3731 _r	0.1285 _n	0.0821 _n	0.0741 _n
0.4953	~~0.7774~~	0.5411	0.6253	0.6454
1.1950 _n	1.1438 _n	1.0917 _n	9.8782	0.4166
1.0506 _n	1.1358 _n	1.1871 _n	1.3102 _n	1.3063 _n
-1.690	-1.666	-1.646	-1.524	-1.507
x			x	x
			1.0465 _n	1.0385 _n
			-11.13	-10.92
			0.1773 _n	0.1976 _n
			-1.50	-1.57
			9.4325 _n	9.9729 _n
			-0.27	-0.94
			0.8017 _n	0.7968 _n
			-6.32	-6.26
			-0.01	-0.01
			+0.01	+0.01
			-19.22	-19.69
			x	
0.7970	+6.27		0.7360	+5.44
0.1659	+1.47		0.2959	+1.98
0.8683 _n	-7.38		9.5495	+0.35
0.6308	+4.27		0.8904	+7.77
-0.02			-0.02	
+0.01			+0.01	
+4.62			+16.53	
	x			
	1.0465 _n	-11.13		
	0.2157 _n	-1.64		
	0.8495	+7.07		
	0.5396 _n	-3.46		
	+0.06			
	+0.01			
	-7.09			
	x			
	8.7306	+0.05		
	0.2196	+1.66		
	0.7740	-5.94		
	0.3817	+2.41		
	-0.01			
	1.55			
	-1.83			

P.M. -08

1863 May 23

9.8419
0.1157n
0.5811
0.9380n
1.2586n

-1.008

527

9.9078

9.5794

9.5249

9.4035

+0.020

-0.003

-0.01

-0.01

1.2706

9.8057

9.8166

9.8911

+0.164

-0.016

1.3607n

0.0316n

0.0319n

0.1176n

+0.032

-0.039

1.2213

9.6145

9.6161

9.8323

+1.006

-0.009

1.3357n

0.1931

0.5257n

1.0979n

-0.04

-0.02

-36.01

1863 May 25

9.8443
0.1144n
0.5766
0.9090n
1.2656n

-1.002

1863 June 2

9.8588
0.1064n
0.6147
0.7624n
1.2888n

-1.580

1863 June 4

9.8657
0.1028n
0.6152
0.7152n
1.2933n

-1.575

1.3850n
0.3613
0.7156n
1.1567n

-24.27
+2.42
-5.20
-14.34

1.3770n
0.4204
0.5690n
1.1799n

-23.82
+2.63
-3.71
-15.13

1.3734n
0.4209
0.5218n
1.1844n

-23.62
+2.64
-3.33
-15.29

-0.26

-0.04

-41.69

-0.26

-0.04

-40.33

-0.26

-0.04

-39.90

1.4811
0.6102n
0.9409
1.3832

+30.28
-4.08
+8.73
+24.16

1.4731
0.6163n
0.7943
1.4064

+29.72
-4.43
+6.23
+25.49

1.4695
0.6468n
0.7471
1.4109

+29.68
-4.43
+5.59
+25.75

-0.05

-0.10

+58.94

-0.05

-0.10

+58.86

-0.05

-0.09

+56.25

1.3357n
0.1931
0.5257n
1.0979n

-21.66
+1.56
-3.35
-12.53

-0.04

-0.02

-36.01

see before

1863 Jan 27	1863 July 11	1863 July 20	1863 Jan 16	1863 July 11
9.9044	9.9299	9.9447	9.8665	9.9299
0.0783 _n	0.0603 _n	0.0491 _n	0.0897 _n	0.0603 _n
0.6397	0.6414	0.6228	0.6362	0.6413
0.2803	0.7889	0.9406	0.1766 _n	0.7889
1.3084 _n	1.2859 _n	1.2577 _n	1.3092 _n	1.2859 _n
-1.572	-1.474	-1.449	-1.542	-1.474

1.3189 _n	-22.33	1.3197 _n	-20.88	1.3603 _n	-22.92	1.3309 _n	-21.412
0.1454	+2.79	0.4285	+2.68	0.4419	+2.77	0.4470	+2.80
0.0969	+1.25	0.7472	+5.59	0.9832 _n	-0.96	0.5955	+3.94
1.1995 _n	-15.83	1.1483 _n	-14.07	1.2003 _n	-15.86	1.1770 _n	-15.03
	-0.25		-0.24		-0.25		-0.24
	-0.04		-0.03		-0.04		-0.04
	-34.41		-26.95		-37.26		-29.93

1.4450	+27.86
0.6712 _n	-4.71
0.3122 _n	-1.05
1.4260	+26.67
	-0.05
	-0.09
	+47.63

1.2816 _n	-19.12	1.2704 _n	-18.64
0.2559	+1.80	0.2373	+1.73
0.4050	+2.54	0.5567	+3.60
1.1182 _n	-13.13	1.0900 _n	-12.30
	-0.09		-0.07
	-0.02		-0.02
	-27.94		-15.64

Puls. +.01

1863 May 25

9.8444
0.1143_n
0.5766
0.9076_n
1.2659

-1.602

1863 July 11.

9.9301
1.0602_n
0.6416
0.7908
1.2857_n

-1.474

1863 July 20

9.9627
0.6496_n
0.6227
0.9418
1.2574_n

-1.449

July 21

9.9453
0.0486_n
0.6229
0.9552
1.2535_n

-1.446

62 um m B

x

84 a 0.8333_n 0.9476 + 8.86
" 1 9.4635_n 0.0421_n - 1.11
" 2 9.4664_n 0.0740 + 2.37
" 3 9.6956_n 0.9615 + 9.15
x + 0.015 - 0.02
v - 0.004 - 0.01
+ 19.24

x

0.8935 + 7.82
0.1051_n - 1.27
0.2572_n - 1.81
0.9813 + 7.58
- 0.02
- 0.01
+ 14.29

v

0.8681 + 7.38
9.7445_n - 0.55
9.8978_n - 0.79
0.9651 + 9.23
- 0.02
0.00
+ 15.25

v

1.3265_n - 21.20
9.7877 + 0.63
9.9385 + 0.84
1.1723_n - 14.97
- 0.03
- 0.01
- 34.63

E 201 m

0.8079_n
9.1029_n
9.1070_n
9.6794_n

+ 0.011
- 0.001

64 Count B.

1.2663
9.1461
9.1477
9.8866

+ 0.022
- 0.003

51 Apr H.

1.4547
9.3298_n
9.3303_n
0.1369

- 0.031
+ 0.009

July 22	July 23	July 29	July 30	July 31
9.9461	9.9462	9.9499	9.9466	9.9429
0.0438n	0.0471n	0.0367n	0.0353n	0.0342n
0.6249	0.6280	0.6289	0.6239	0.6188
0.9681	0.9805	1.0362	1.0558	1.0652
1.2495n	1.2453n	1.2164n	1.2110n	1.2054n
-1.444	-1.441	-1.424	-1.422	-1.419

$$\begin{array}{r}
 \times \\
 0.8813 + 7.61 \\
 0.0884n - 1.23 \\
 0.4345n - 2.71 \\
 0.9451 + 8.81 \\
 - 0.02 \\
 \hline
 - 0.01 \\
 + 12.415
 \end{array}$$

$$\begin{array}{r}
 \times \\
 0.8559 + 7.18 \\
 9.7278n - 0.53 \\
 0.0751n - 1.19 \\
 0.9289 + 8.49 \\
 - 0.02 \\
 \hline
 0.00 \\
 + 13.93
 \end{array}$$

$$\begin{array}{r}
 \times \\
 0.8432 + 6.97 \\
 9.7266n - 0.53 \\
 0.1628n - 1.46 \\
 0.8904 + 7.78 \\
 - 0.02 \\
 \hline
 1.00 \\
 + 12.73
 \end{array}$$

$$\begin{array}{r}
 \times \\
 1.5316n - 34.02 \\
 9.9578n - 0.91 \\
 0.3108n - 2.05 \\
 1.3822n - 24.71 \\
 + 0.04 \\
 + 0.02 \\
 \hline
 - 61.03
 \end{array}$$

$$\begin{array}{r}
 \times \\
 1.5214n - 33.22 \\
 9.9587n - 0.91 \\
 0.3685n - 2.34 \\
 1.3533n - 22.56 \\
 + 0.04 \\
 + 0.02 \\
 \hline
 - 58.97
 \end{array}$$

$$\begin{array}{r}
 1.5149n - 33.03 \\
 9.9477n - 0.89 \\
 0.3955n - 2.49 \\
 1.3423n - 21.94 \\
 + 0.04 \\
 + 0.02 \\
 \hline
 - 58.29
 \end{array}$$

Calc. +11

		1862 May 27		1862 Jun 5		1863 July 23		1863 July 28	
Log. for 1863.5		9.8461		9.8681		9.9474		9.9579	
		0.1104n		0.1070n		0.0469n		0.0384n	
		0.5836		0.6128		0.6284		0.6324	
		0.8742n		0.6642n		0.9817		1.0372	
		1.2729n		1.2957n		1.2447n		1.2212n	
		-1.596		-1.572		-1.441		-1.427	
4000 mi B sp		x		x		x		x	
Log a	1.8856	1.9990n	-99.77	1.9866n	-96.96	1.9325n	-85.60	1.9240n	-83.95
b	0.0945n	0.6781n	+4.77	0.7073n	-5.10	0.7229n	-5.29	0.7269n	-5.33
c	0.0945n	0.9687	+9.30	0.7787	+6.01	1.0762n	-11.92	1.1317n	-13.54
d	0.5657	1.6386n	-68.96	1.8614n	-72.66	1.8104n	-64.63	1.7869n	-61.22
h	-0.018		+0.03		+0.03		+0.03		+0.03
v	+137		+0.35		+0.32		+0.29		+0.28
		-163.82		-168.38		-167.12		-163.73	
156 Camel B sp									
Log a	1.1881								
b	9.4766n								
c	9.4787n								
d	9.1715								
h	+0.009								
v	-0.005								
Mun. B.				x					
Log a	1.7569n			1.8579	+72.09				
b	0.2414			0.8542	+7.05				
c	0.2415			0.9257n	-8.43				
d	0.4776n			1.7733	+59.33				
h	-0.76				+0.12				
v	+150				+0.37				
					+130.53				
Zu. bracoia				x					
Log a	0.5014n			0.6024	+4.00				
b	9.4070			0.0198	+1.05				
c	9.4129			0.0971n	-1.25				
d	9.4992n			0.7949	+6.24				
h	+0.019				-0.03				
v	+0.02				0.00				
					+10.01				

1863 July 29		1863 Aug 3		1863 Aug 12		1863 Aug 14		1863 Aug 17	
7.9001		7.9650		7.9771		7.9789		7.9796	
0.0365 _n		0.0324 _n		0.0218 _n		0.0201 _n		0.0195 _n	
0.6284		0.6096		0.6122		0.6017		0.5942	
1.0672		1.0921		1.1564		1.1682		1.1846	
1.2159 _n		1.1888 _n		1.1200 _n		1.1023 _n		1.0730 _n	
-1.424		-1.411		-1.386		-1.381		-1.372	
✓		✓		✓		✓		✓	
1.9221 _n	-83.58	1.9160 _n	-82.79	1.9074 _n	-80.60	1.9057 _n	-80.48		
0.7229 _n	-5.28	0.7041 _n	-5.06	0.7067 _n	-5.09	0.6962 _n	-4.97		
1.1417 _n	-13.86	1.1866 _n	-15.37	1.2509 _n	-17.82	1.2627 _n	-18.31		
1.7816 _n	-60.47	1.7525 _n	-56.56	1.6857 _n	-48.50	1.6650 _n	-46.56		
+ .03		+ 0.03		+ 0.02		+ 0.02			
+ .28		+ 0.27		+ 0.26		+ 0.26			
-162.88		-157.48		-151.93		-150.04			
		✓		✓		✓		✓	
		1.2099 _n	-16.21	1.2082 _n	-16.15	1.2076 _n	-16.13		
		0.0868 _n	-1.22	0.0782 _n	-1.20	0.0708 _n	-1.18		
		0.6351 _n	-4.32	0.6469 _n	-4.43	0.6633 _n	-4.61		
		0.9115 _n	-8.16	0.8938 _n	-7.83	0.8649 _n	-7.32		
			-0.01		-0.01		-0.01		
			-0.01		-0.01		-0.01		
			-29.93		-29.63		-29.26		
		✓		✓		✓		✓	
		1.7893	+ 61.57	1.7787	+ 60.08	1.7720	+ 59.84	1.7764	+ 59.76
		0.8570	+ 7.10	0.8536	+ 7.13	0.8431	+ 6.97	0.8356	+ 6.85
		1.3336	+ 21.56	1.3979	+ 25.00	1.4097	+ 26.68	1.4261	+ 26.68
		1.6644	+ 46.17	1.5976	+ 39.59	1.5799	+ 38.01	1.5506	+ 35.53
		+ 0.11		+ 0.11		+ 0.11		+ 0.10	
		+ 0.30		+ 0.29		+ 0.28		+ 0.29	
		+ 136.81		+ 132.20		+ 130.89		+ 129.24	
✓		✓		✓		✓		✓	
0.5379	+ 3.45					0.5215	+ 3.32		
0.0354	+ 1.08					0.0987	+ 1.02		
0.4601	+ 2.88					0.5811	+ 3.81		
0.7157	+ 5.19					0.6215	+ 3.99		
- 0.03							- 1.03		
0.00							0.00		
+ 12.57							+ 12.11		

P. -16

1867 Jan 6
 9.8648
 0.1030n
 0.6152
 0.7171n
 1.2931n

-1.575

Jan 6
 9.8696
 0.1002n
 0.6110
 0.6638n
 1.2970n

-1.570

Jan 11
 9.8755
 0.0966n
 0.6152
 0.4893n
 1.3046n

-1.556

24y Canal B

Lega 0.4337n
 " 9.8976n
 " 9.8989n
 " 9.4616n

μ -0.074
 ν -0.005

0.5367 +3.44
 0.5128n -3.26
 0.6160 +4.13
 0.7547 +5.69
 +0.12
 +0.01
 +10.11

0.5339n +3.42
 0.5186n -3.23
 0.5627 +3.65
 0.7586 +5.74
 +0.12
 -0.01
 +9.69

0.5303 +3.39
 0.5128n -3.26
 0.3682 +2.45
 0.7662 +5.84
 +0.12
 -0.01
 +8.53

$P_{\text{ali}} + .08$

		1863 July 23.	1863 July 29	1863 July 31	1863 Aug 17			
Lep A	9.9472	9.9601			9.9796			
" B	0.0470 _n	0.0365 _n		Lu 51 Cephei diam	0.0195 _n			
" C	0.6283	0.6225		Sat	0.5952			
" D	0.9614	1.0172		2 1/2 days back	1.1466			
" E	1.2449 _n	1.2159 _n			1.0730 _n			
Σ		-1.441	-1.425		-1.372			
25 Camelpot sp								
1164	1.1634 _n	-14.57	1.1529 _n	-14.22	1.1506 _n	-14.15	1.1359 _n	-13.68
1499 _n	9.7702 _n	-0.59	9.7702 _n	-0.59	9.7607 _n	-0.56	9.7361 _n	-0.54
1455 _n	0.1269 _n	-1.34	0.1927 _n	-1.56	0.2107 _n	-1.63	0.3301 _n	-2.14
7017 _n	0.9466 _n	-8.84	0.9176 _n	-8.27	0.9071 _n	-8.07	0.7747 _n	-5.95
+1.011		-0.02		-0.02		-0.02		-0.02
+0.002		0.10		0.00		0.00		0.00
		-25.36		-24.66		-24.45		-22.33

P
m. +.20

1863 Jan 30

2.9135
0.0721_n
0.6458
0.4651
1.3053_n

-1.503

1863 July 21

2.9455
0.0464_n
0.6232
0.6577
1.2527_n

-1.446

1863 July 22

2.9463
0.0478_n
0.6255
0.9705
1.2187_n

-1.443

1863 July 29

2.9602
0.0365_n
0.6280
1.0680
1.2151_n

-1.424

1 Brav Hw

Lya 0.9643

" B 9.5520_n" c 9.5563_n

" d 9.4903

" + 0.005

" + 0.004

119 Cep B

Lya 0.6541_n" b 9.6705_n

" c 9.6732

" d 9.5802_n

" + 1.010

" + 1.004

30 Cam H

3 Cep H

Lya 8.6785

" b 0.3237

" c 0.1475

" d 0.5000

" + 0.006

" + 0.001

+ 0.05

+ 2.11

+ 1.40

+ 3.16

- 0.01

0.00

+ 6.71

8.6549

0.3016

0.6401

0.4474

- 0.11

1.00

+ 9.21

+ 0.05

+ 2.00

+ 4.37

+ 2.80

- 0.11

1.00

+ 9.21

8.6542

0.3041

0.6529

0.4434

- 0.01

0.00

+ 9.32

+ 0.05

+ 2.01

+ 4.47

+ 2.78

- 0.01

0.00

+ 9.32

+ 0.05

+ 2.01

+ 4.47

+ 2.78

- 0.01

0.00

+ 9.32

X

1.0008_n - 10.020.1800_n - 1.510.0042_n - 4.020.7157_n - 5.20

- 0.01

+ 0.01

- 20.75

X

0.6906 + 4.90

0.2985 + 1.99

0.7212 + 5.26

0.7956 + 6.25

- 0.01

+ 0.01

+ 18.40

1863 Aug 12

7.9792

0.0217_n

0.6118

1.1569

1.1193_n

- 0.386

x

0.9860_n

- 9.68

0.1638_n

- 1.46

0.7132

- 5.12

0.6096_n

- 4.02

- 0.01

+ 0.01

- 20.38

1863 Aug 14.

7.9790

0.0200_n

0.6013

1.1647

1.1014_n

- 1.380

x

0.9843_n

- 9.64

0.1533_n

- 1.42

0.7250_n

- 5.31

0.5917_n

- 3.90

- 0.01

+ 0.01

- 20.22

x

0.6441

+ 4.72

0.2718

+ 1.82

0.8419

- 6.93

0.6816

+ 4.80

- 0.01

+ 0.01

+ 18.32

1863 Aug 18

7.9800

0.0191_n

0.5959

1.1901

1.0616_n

- 1.369

x

0.9834_n

- 9.62

0.1479_n

- 1.41

0.7464_n

- 5.58

0.5519_n

- 3.58

- 0.01

+ 0.01

- 20.17

x

0.6732

+ 4.71

0.2664

+ 1.85

0.8633

+ 2.30

0.6418

+ 4.38

- 0.01

+ 0.01

+ 18.24

8.6281

+ 0.04

0.2904

+ 1.95

0.8393

+ 6.91

0.3140

+ 2.06

- 0.01

0.00

+ 10.95

1862 July 20

1863 July 20

9.9447m

0.0490m

0.6228

0.9406

1.2577m

-1.449

1863 July 20

9.9460m

0.0480m

0.6247

0.9670

1.2498m

-1.444

320 Cphn B sp

x

1.2706

1.3196m

-20.87

9.8057

0.6265

+ 2.68

9.8066

0.7472

+ 5.59

9.8912

1.1489m

-14.09

+ 0.164

- 0.24

- 0.016

- 0.03

-26.96

57 mms min Bp

x

62 750m Bp

x

1.2213

1.2703m

-18.63

9.6444

0.2372

+ 1.73

9.6160

0.5566

+ 3.60

9.8321

1.0898m

-12.29

+ 0.006

- 0.01

- 0.009

- 0.02

-25.62

62 750m Bp

x

x

1.2693m

-18.61

0.2391

+ 1.74

0.5830

+ 3.83

1.0819m

-12.08

- 0.01

- 0.02

-25.15

1863 July 22
 7.9455
 0.0466m
 0.6234
 0.9586
 1.2524m

-1.446

1863 July 22
 7.9464
 0.0479m
 0.6257
 0.9714
 1.2484m

-1.443

1863 Aug 6
 7.9675
 0.0502m
 0.6162
 1.1171
 1.1654m

-1.402

1863 Aug 10
 7.9742
 0.0244m
 0.6195
 1.1448
 1.1354m

-1.391

1863 August 13

39 Cephei 14

8.5653m

0.0400

0.0408

7.1909m

+0.066

+0.002

39 Cephei 13

5 MS m 13

Aug 0.1689

0.2373m

-1.73

0.2366m

-1.72

0.2197m

-1.66

0.2133m

-1.64

July 0.1329m

0.7553m

-5.71

0.7586m

-5.74

0.7491m

-5.61

0.7524m

-5.66

" 0.1334m

0.0920m

-12.36

1.1068m

-12.73

1.2505m

-17.80

1.2782m

-18.98

" 8.8821m

0.1365

+1.36

0.1305

+1.35

0.0475

+1.12

0.0175

+1.04

" +0.301

+0.001

-0.43

-0.43

-0.42

-0.42

" +0.001

+0.001

-0.00

-0.00

0.00

0.00

" -18.97

-18.97

-19.27

-19.27

-24.37

-25.66

1863 by 12

9.9273

0.0216

0.6114

1.1573

1.1187_m

-1.385

x

8.5669 + 0.04

0.6514 + 4.48

1.1981 + 15.78

0.3096 + 2.04

- 0.12

0.00

+ 22.22

Pntr. +33

1863 July 22.

9.9464

0.0477_n

0.6258

0.9721

1.2481_n

-1.443

1863 Aug. 6.

9.9675

0.0302_n

0.6162

1.1171

1.1653_n

-1.402

1863 Aug 10

9.97430

0.0323_n

0.6194

1.1468

1.1354_n

-1.391

6 W m B

8.4464_n0.3925_n0.3926_n9.1893_n

-0.091

-0.006

8.4964

1.0183_n1.3847_n

0.3774

+ 0.03

- 10.43

- 23.16

+ 2.73

+ 0.13

- 1.01

- 30.71

8.4789

1.0087_n1.5097_n

0.3546

+ 0.03

- 10.20

- 32.24

+ 2.26

+ 0.13

- 0.01

- 40.13

43 Lep m H

214 Cam d B

0.6337_n9.8976_n9.8989_n9.4618_n

-0.034

-0.005

0.4580

0.5770_n1.0437_n

0.5969

+ 2.87

- 3.29

- 11.06

+ 3.94

+ 0.10

- 0.01

- 7.45

20 W m B

P
no. + 11

1863 Aug 19.

9.9910

0.0786w

0.5982

1.1945

1.0518w

-1.367

156 Camel B₂N

a	1.1541	1.2067w	-16.10
b	9.4767w	0.0751w	-1.19
c	9.4788w	0.6733w	-4.71
d	9.7915	0.8433w	-6.97
	+0.009		-0.01
	+0.005		+0.01
			-28.97

X U₂ uni B

a	1.7572w	1.7759	+59.69
b	0.2412	0.8396	+6.91
c	0.2412	1.4357	+27.27
d	0.4779w	1.5297	+33.86
	-1.077		+0.11
	+0.151		+0.28
			+128.12

P

mlr. +.02

1863 Aug 3

9.9650

0.0324w

0.6196

1.0914

1.1874w

-1.411

1863 Aug 4

9.9654

0.0326w

0.6102

1.0996

1.1810w

-1.408

1863 Aug 10

9.9732

0.0256w

0.6202

1.1431

1.1374w

-1.391

1863 Aug 12

9.9710

0.0218w

0.6127

1.1558

1.1208w

-1.386

Σ Mr min

r

0.8079w

0.8603

+6.92

9.1029w

9.7125w

-0.52

9.1069w

0.1982

-1.58

9.6794w

0.8668

+7.36

+0.011

-0.02

-1.001

0.00

+12.16

0.8327

+6.80

9.7231w

-0.53

0.2500w

-1.78

0.8168

+6.56

-0.02

0.00

+11.03

64 Camel B.

r

1.2663

1.2907w

-19.89

9.1461

9.7557

+0.57

9.1477

0.2391

+1.74

9.8866

1.0760w

-11.86

+0.022

-0.03

-0.003

-0.01

-29.48

1.2911w

-19.55

9.7663

+0.59

0.2908

+1.95

1.0260w

-10.57

-0.03

-0.01

-27.62

51 Cep. 14.

r

1.4866

1.5740w

-32.84

9.3296w

9.9394w

-0.87

9.3303w

0.4217w

-2.64

0.1369

1.3243w

-21.10

-0.031

+0.04

+0.009

+0.02

-57.43

x

1.5166w

-32.95

9.9400w

-0.87

0.4299w

-2.69

1.3179w

-20.79

+0.04

+0.02

-57.14

x

1.5094w

-32.31

9.9500w

-0.89

0.4734w

-2.97

1.2713w

-18.81

+0.04

+0.02

-54.92

x

1.5064w

-32.09

9.9425w

-0.88

0.4861w

-3.06

1.2577w

-18.10

+0.04

+0.02

-54.07

1863 Aug 14

9.9789
0.0201_n
0.6021
1.1687
1.1031_n

-1.381

1863 Aug 15

9.9792
0.0198_n
0.5977
1.1734
1.0937_n

-1.378

1863 Aug 17

9.9796
0.0195_n
0.5942
1.1841
1.0739_n

-1.373

1863 Aug 19

~~1863 Aug 19~~
9.9805
0.0187_n
0.5981
1.1941
1.0528_n

-1.367

✓
1.2564_n +19.34
9.97482 + 0.56
0.3164 + 2.17
0.9897_n - 7.77
- 0.03
- 0.01
-26.42

✓
1.5044_n -31.95
9.9275_n - 0.85
0.5037_n -3.19
1.2306_n -17.01
+ 0.04
+ 0.02
-52.94

✓
1.5041_n -31.93
9.9240_n - 0.84
0.5144_n -3.27
1.2108_n -16.75
+ 0.04
+ 0.02
-52.23

~~✓~~
1.5033_n -31.86
9.9279_n -0.85
1.5246_n -3.34
1.1897_n -15.48
+ 0.04
+ 0.02
-51.47

$$x+y = (1+\frac{y}{x})x$$

$$\ln(x+y) = \ln x + \ln(1+\frac{y}{x})$$

h r

