

KG
11365
65

A.65

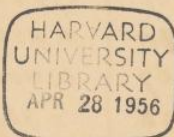
Meridian Circle
1865. May 8th & 18th
1865 June 2^d

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KG 11365.65

	138	139	140
	May 1 - May 18	May 23 - 26	May 29 - June 19
n	+ 0.027	- 0.008	+ 0.045
c	+ 0.304	- 0.344	- 0.364
$\log n$	8.4314	7.9031 ₁₂	8.6532
$\log c$	9.4829	9.5366 ₁₂	9.5366 ₁₂
45°	+ 0.457	- 0.494	- 0.441
40	0.420	- 0.456 ₃₆	- 0.419
30	0.367	- 0.402 ₅₄	- 0.371
20	0.333	- 0.369 ₃₃	- 0.350
10	0.314	- 0.350 ₁₉	- 0.340
0	0.304	- 0.344 ₆	- 0.344
-10	0.304	- 0.348 ₋₄	- 0.358
-20	0.314	- 0.363 ₁₅	- 0.383
-30	+ 0.335	- 0.392 ₂₉	- 0.423

KG 11365.65



180

10

7

1

1865 May 1st M. East

End

J. N. S.

Polaris

1	6	31.0
	9	4.1
	10	49.5
	13	28.2

6	28.5
	30.0
	31.4
	34.0
	3.0
	3.9
9	5.5
10	49.5
	27.2
	28.2
1 13	29.1

48.44
51.39
51.76
50.45

1865 May 3. Pl. East
A.M.

[illegible]

A	42.45
B	41.79
C	42.28
D	<u>42.42</u>
	42.24

1865 May 3. Mr. East
H.M.

next page

T Leonis			39 Cephei H			v Leonis			B Virginis			2 Mr. Maj.		
		39.6			42.8			42.2			20.0			18.0
		42.9			48.9			45.5			23.1			23.7
		46.6			30.8			49.2			27.0			30.0
		49.3			33.9			57.8			29.6			34.5
11	20	53.2				11	29	53.8	11	43	33.5	11	46	41.4
		231.6						244.5			133.2			147.6

11 20 46.32 11 27 36.89 11 29 48.90 11 43 26.64 11 46 29.52

40.3
41.8
43.7
45.5

48.9
30.8
33.9

R 37.48
C 36.02
D 37.23
E 36.82
36.89

1865 May 3 Ill. East
A.M.

1865phae

Te Virginis		ϵ Corvi		η Virginis		γ Corona		β Corvi		δ					
	37.4		57.2		40.2		57.5		58.2						
	40.6		52.7		43.4		55.3		1.8						
	44.3		58.7		47.2		59.6		5.9						
	47.1		1.5		49.8		2.3		8.7						
11	53	57.1	12	3	5.8	12	12	53.8	12	20	7.0	12	27	12.8	12
	220.5		171.9		234.4		175.7		87.4						
			291.9.				295.7		297.4						
11	53	44.10	12	3	58.38	12	12	46.88	12	20	59.14	12	27	54.8	12

1865 May 3. M. East

A.M.

next page

δ Virginis				Polaris				β Comae				γ Centauri				α Virginis			
		28.7		13	4	43.1		+		17.1				40.8				45.6	
		32.0			7	21.7				17.4				44.7				49.0	
		35.7			9	8.2				21.4				49.4				52.7	
		38.4			11	39.0				24.4				52.7				55.3	
12	48	42.3		13		52.8		13	5	28.9		13	12	57.6		13	17	59.4	
		177.1				164.8								245.2				262.0	
						104.8													
8	12	48	35.42	13	9	20.96						13	12	49.04		13	17	52.40	
				4		40.2													
						42.2													
						44.0													
						46.0													
				*		17.4													
						21.4													
						24.4													
						28.9													
						19.1													
						20.5													
						22.6													
				7		24.6													
						6.8													
						7.2													
						8.7													
				9		9.9													
						35.9													
						37.1													
						38.6													
						40.9													
				13	11	42.5													
						51.1													
						52.6													
						52.7													

1865 May 3 M. East
Am.

of Mrs. Maj.		of Borths		T Virginia		d Antares		20 Mrs. Min. 23			
	49.6		55.4		27.3		24.8	1	50.2		
	52.7		58.9		30.5		26.7	2	42.5		
	0.6		2.9		34.2		33.4	3	40.7		
	4.5		5.6		37.0		36.7	4	22.8		
13	42	13	48	13	54	13	58	14	5	24.8	14
	119.9		132.7		169.7		165.1		181.0		
	299.9		12.7								
13	41	13	48	13	54	13	58	14	3	36.20	14
	59.98		2.54		33.94		33.02				

1865. May 3 M. East
Am.

End

α Bootis	ρ Bootis	σ Bootis	Polaris
10.2	40.0	27.4	1 4 21.2
13.9	43.8	31.3	6 35.6
17.7	48.0	35.6	9 5.2
20.4	57.1	38.5	10 50.8
14 9 24.5	14 25 55.6	14 28 43.1	13 29.6
86.7	238.5	175.9	14 2.4
17.34			26 2.4
14 9 17.34	14 25 47.60	14 28 35.18	1 8 52.48

4 16.7
18.8
20.7
23.4
26.2
105.8 21.16

31.2
32.9
35.9
38.2
40.0
6 178.2 35.64
2.6
4.0
6.0

9 5.2
47.5
46.7
50.5
52.8
10 52.5 50.8
254.0

27.8
29.5
31.5
1 13 88.8 29.6

May 3 1865

71 α Bootis α δ + μ

10 1	57.04 + 0.32	12.59 + 15.23
11 44	26.64 + 0.31	42.11 15.16
13 18	52.40 + 0.30	7.89 15.19
14 10	17.34 + 0.33	32.82 + 15.15

10^h 52^m + 15.195
13 44 15.170

1865 May 9. M. East

End

Polaris

1	4	33.7
	6	41.7
	9	17.1
	11	0.5
	13	38.0
		131.0
		11.0
1	9	2.20

4	28.5
	30.9
	32.7
	34.1
	37.2
	39.0
	<u>202.4</u> 33.7

6	39.2
	42.3
	43.6
	<u>125.1</u> 41.7

	14.1
	15.0
	16.3
	17.5
	18.7
9	<u>21.2</u>
	<u>102.8</u> 17.1

	52.5
	59.3
	0.3
	1.4
11	<u>2.5</u>
	<u>122.4</u> 0.48

	33.4
	36.0
	38.7
12	<u>40.1</u>
1	13
	<u>42.0</u>
	<u>190.2</u> 38.0

18
a
y
7

1865 May 10. Ill. East

nutpage

JHS.

a Perseus		a Canis Min		a Loris		y Loris		30 Canis H	
	42.2 full		58.4		55.9		16.4	13	12.4
	puc 45.7		1.8		59.3		20.0		40.5
	50.6 full		5.5		3.1		29.9	14	12.6
	puc 53.1		8.2		5.8		26.8		34.0
y 25	58.1 full	y 32	11.9	10	1	9.7	10 12	30.8	10 15
			85.8			133.8		117.9	106.4
			25.8			13.8			46.4
7 25	49.90	7 32	5.16	10	1	2.76	10 12	23.58	10 14
									9.28

49.70	50.08
.67	.23
49.69	50.11

1865-May 10th Ill East
7448

α Leonis			ν Leonis			γ Cephei			β Leonis			β Virginis		
		46.8			48.2			13.1			56.0			25.8
		52.2			57.4			29.8			59.3			29.1
		55.9			55.1			40.4			8.2			32.9
		58.5			57.8			57.7			6.0			35.5
10	58	2.4	11	30	1.6	11	31	12.6	11	42	10.0	11	43	39.3
		217.8			214.1			153.6			134.5			162.6
		277.5			274.1			213.6			1.4.5			
10	57	55.56	11	29	54.82	11	33	42.72	11	42	2.90	11	43	32.52

R 6202		TT Virginis		207 (Canal R)		γ Virginis		B. Corvi	
	52.2		43.2	3	53.0		46.1		4.1
	11.6		46.6	4	18.3		49.5		7.7
	22.7		50.3		46.4		53.1		11.7
	39.2		53.0		5.9		55.8		14.4
11	45 53.9	11	53. 56.9	12	5	35.7	12 12 59.6	12	27 18.7
	181.6		250.0			159.3	264.1		56.6
	221.6					219.3			
11	45 24.32	11	53 50.00	12	4	43.86	12 12 52.82	12	27 11.32

1865 May 10th All East

JHJ

End

8 Virgines

34.5

37.9

41.5

44.0

48.0

203.9

12^h 48^m 41.18

May 10 1865 JHJ

7 26	49.90	+38	59.67	+939	+8
7 32	5.16	+31	15.02	955	-4
10 1	2.76	+32	12.49	945	
11 43	1.90	+32	12.47	925	
11 44	32.52	+31	42.05	+922	

8^h 20^m +9.463
 11 44 9.235

1865-May 12th Ill. Const-

AM

Ind

Polaris

1 Centauri

α Virginis

13 4 54.6

7 29.6

9 20.8

Dim failed

53.1

56.6

0.3

2.9

7.0

117.7

299.9

13^h 17^m 59.98

Cur
1318

59.98 + 0.30

dt + m

7.87 + 7.59

13 4

52.5
34.6
36.7

13 7

26.6
28.4
30.6
32.7

9

18.9
20.7
22.8

4 27.62 22.22

1 27.68 27.28

12.74 32.57

36.00

1865 May 13th All East
AM

a Gemmorum		a Cavis Min	b Gemmorum		c Loris		202 Camel B		
Pre	full								
—	44.4	0.9		49.1		47.8			
47.9	—	4.2		52.8		51.1	21	41.4	
—	53.0	7.9		57.0		54.9	22	7.0	
55.5	—	10.5		0.0		57.5		25.3	
—	0.4	14.4		4.5		1.5		52.7	
		37.9		163.4		212.8			
				283.4		272.8			
7 ² 25 ² 52.20		7 32 7.58	7 36	56.68	11 20	54.56	11 29		11

52.28

51.90

52.63

52.07

52.32

57.95 52.41

5.23

4.79

4.79

4.23

4.81

♂	Leonis	♂	Lupinus sp.	♂	Virginis	Rad. 6202.	♂	Virginis.
	30.6		15.7		28.1		56.9	45.6
	53.7		33.0		31.5		13.7	48.7
	57.5	33	44.6		35.1		25.7	52.6
	0.2	34	0.5		37.8		41.3	56.3
	4.0		15.3		41.7		56.3	69.2
	166.0		109.1		174.2		194.1	261.6
	286.0		229.1				134.1	"
11 29	57.20	11 33	45.82	11 43	34.84	11 45	26.82	11 53 52.32

MS.
May 13

2 Corvi	Gr 1858	η Virginis	Polaris s.p.	ϵ Centauri
—	—	48.5	13 4 57.0	49.1
3.0	19.8	51.9	7 34.6	53.2
7.0	48.5	55.7	9 19.8	57.9
9.8	8.0	58.3	11 53.0	0.9
14.0	38.1	2.2	14 5.5	5.9
		216.6	159.9	167.0
		276.6		287.0
13 3	13 4	12 12 55.32	13 9 33.98	13 12 57.40
25.79	45.59		13 4 51.7	
2.39	46.11		55.2	
22.10	45.90		58.6	
52.13	45.97		2.4	
	45.89		28.1 57.0	
			13 7 33.5	
			34.6	
			35.7	
			13.8 34.6	
			13 9 14.8	
			17.4	
			17.6	
			21.9	
			24.3	
			98.0 19.6	
			13 11 48.5	
			51.3	
			55.3	
			56.9	
			12.6 53.0	
			13 13 59.8	
			14 3.9	
			6.0	
			7.5	
			10.7	
			27.9 5.5	

May 13

End.

d Virginis

214 Cand. 13.

33.9

59.4

1.2

3.8

7.8

124 1

4.1

13 18

0.82

13

20

6.64

19

23.7

30

10.3

21

42.0

21

32.8

Sun

Cv

7 26 52.20 + .38 59.63

7.05 + .08

7 32 7.58 + .21 14.99

7.10 - .04

JHL

7 37 56.68 + .36 4.11

7.07 - 1

11 44 34.84 + .31 42.02

6.875

13 18 0.82 + .30 7.87

6.75

12 31

6.81 2

6.46

6.34

7.37

6.38

6.64

May 15. H. E.
A. K.

Luminosity		d. basis min.		B. Luminosity		d. Hydrac		d. Leonis	
pr.	fil.								
—	45.7	2.3		50.5		45.7		57.6	
49.5	—	5.6		54.2		49.4		3.1	
—	54.3	9.3		58.4		53.1		6.8	
(36.6)	—	12.0		1.4		55.6		7.5	
	2.0	15.8		5.7		59.6		13.5	
		45.0		170.2		263.6		92.5	
				290.2				32.5	
7 25 52.69		7 32 9.00		7 36 58.04		9 20 52.72		10 1 6.50	

53.50 52.78
 — 53.93
 (53.17) 53.92
 —

May 15.
A.B.

α Leonis			39 Lepus +:			δ Leonis			β Leonis			β Virginis		
	49.2		25	58.2			57.9			57.6			29.4	
	52.6		27	1.5			55.1			3.1			32.7	
	58.4			44.3			58.9			7.0			36.5	
	58.9		28	45.6			1.6			9.6			39.2	
	3.8			—			5.5			13.7			43.0	
	219.9						173.0			93.0			180.8	
	279.9						293.0			33.0				
11	20	55.98	11	27	49.66	11	39	58.60	11	42	6.60	11	43	36.16

B	49.18
C	49.52
D	49.83
E	50.21

May 15, U.E.

A.No.

Urs. Maj	π Virginis	E. Corvi	G. 1858	η Virginis
27.5	47.0	12	3	56.0
33.2	50.3		4	20.7
39.5	54.0			48.9
44.0	56.6		5	9.0
50.8	0.7			38.9
195.0	208.6	39.8		173.5
	268.6			233.5
11 46 39.00	11 53 53.72	12 3 7.96	12 4 46.70	12 12 56.68

next page

γ Cor. bor.	B. Corri	5 Virginis	Polaris	ϵ Centauri
1.1	9.9	38.3	13 4 55.2	50.5
5.0	11.3	41.5	7 35.9	54.7
7.3	15.5	43.4	9 25.0	59.1
12.0	18.3	47.8	11 52.9	2.3
16.6	22.5	52.0	14 8.2	7.2
44.0	75.5	225.0	177.2	173.8
				293.8
12 20 8.80	12 27 15.10	12 48 45.00	13 9 35.44	13 12 58.76

$$\begin{array}{r}
 13 \quad 4 \quad 54.4 \\
 \underline{55.9} \\
 10.5 \quad 55.2
 \end{array}$$

$$\begin{array}{r}
 7 \quad 33.0 \\
 34.8 \\
 39.0 \\
 \underline{38.8} \\
 23.6 \quad 35.9
 \end{array}$$

$$\begin{array}{r}
 9 \quad 24.1 \\
 \underline{25.9} \\
 10.0 \quad 25.0
 \end{array}$$

$$\begin{array}{r}
 11 \quad 50.8 \\
 52.8 \\
 \underline{55.0} \\
 8.6 \quad 52.9
 \end{array}$$

$$\begin{array}{r}
 14 \quad 8.2
 \end{array}$$

May 15. L. E.

A.M.

δ Virginis	214 Camel. 13.	η Urs. Maj	η Bootis	ϵ Virginis
53.3	—	—	5.1	37.0
58.6	19 24.7	—	8.7	40.4
3.3	20 11.8	—	13.6	44.1
5.1	44.9	(14.2)	15.4	46.7
9.2	21. 33.0	(21.2)	19.4	50.5
13 0.5			61.2	218.7
10.5				
13 18 2.10	13 20 8.04	13 42	13 48 12.24	13 54 43.74

~~40.76~~
7.45
7.65
8.27
8.58

May 15.

A. No.

end.

♄ Centauri		♄ Bothis		♄ Bothis		♄ Librae		♄ Librae						
	34.6		19.7		37.2		4.0		15.6					
	38.7		23.4		41.0		7.6		19.0					
	43.2		27.5		45.4	due noted	11.4	due noted	22.6					
	46.4		30.3		48.2		14.0		25.3					
	51.3		34.2		52.9		17.9		29.5					
	214.2		135.3		224.7		54.9		112.0					
13	58	42.84	14	9	27.06	14	28	45.94	14	43	10.98	14	43	22.40

	7	26	53.69	.38	59.60	5.53.8	
	7	32	9.00	.31	14.97	5.65.4	
8 23	5.628	7	37	58.04	.36	4.08	5.68
	9	21	52.72	.30	58.65	5.63	
	10	1	6.50	.32	12.42	5.60	
	11	42	6.60	.32	42.42	5.50	
12 15	5.500	11	44	36.16	.31	42.00	5.53
	13	18	2	10	.30	7.87	5.47
	14	10	27.06	.33	32.83	5.44	
14 32	5.360	14	43	10.98	.31	16.60	5.31
	14	43	22.40	.31	28.04	5.33	

May 16. 1865. 111 East

A. 16.

end

Polaris.

1	4	41.0
	6	56.9
	9	27.9
	11	12.8
	13	57.6
		190.2
		70.2
1	9	14.04

1	4	36.7
		38.8
		41.1
		43.5
		45.0
		5.1
		41.0

1	6	53.5
		54.6
		56.7
		59.2
		1.7
		54.7
		56.9

1	9	24.1
		26.3
		28.7
		32.6
		31.7
		27.9

1	11	9.8
		11.7
		13.9
		16.0
		51.4
		12.8

1	13	43.6
		46.4
		49.0
		51.6
		54.2
		52.4
		115 51.6

May 17. McCut
A. No.

End

L. Can. Maj	L. Gemin.	L. Can. Mon.	B. Gemin.
—	46.7	3.5	57.8
—	51.0	6.6	55.5
7.8	55.2	10.4	59.7
10.5	in failed	13.2	8.6
14.7		17.1	7.2
		50.8	176.8
			296.8
6 39	7 25 54.87	7 32 10.16	7 36 59.36

54.58
53.00
54.83
54.90
54.80

6 39 +.31
7 26 ^ .38 54.87 59.58 4.33 + 08
7 32 .31 10.16 14.95 4.48 - 04
7 37 +.36 59.36 4.06 4.34

Am

May 18. Ill Cast.

JH8

Lucius	B Lucius	B Virginis	207 Carm. B.	Rad 2825
34.0	1.9	31.8	12 3 57.9	9 29.6
57.5	5.4	35.2	4 22.9	50.7
1.0	9.2	38.7	51.8	10 13.7
3.7	11.9	41.4	11.2	29.6
7.7	15.7	45.2	40.9	54.8
123.9	44.1	192.3	184.7	178.4
3.9			244.7	58.4
11 30 0.78	11 42 8.82	11 43 38.46	12 4 48.94	12 10 11.68

2827		η Virginis		γ Virginis		211 Camel. 13		32 Camel. 16.	
				per.	fol.			per.	fol.
9	33.3		52.5	—	41.6	12	40	—	—
	54.5		55.5	44.9	—		35.6	26.4	34.5
10	17.9		59.2	—	48.6	41	0.6	48	3.0
	33.9		1.7	57.1	—		17.7	28.3	36.1
	59.0		5.6		55.1		43.0		
	198.6		174.5						
	78.6		294.5						
12	15.72	12	12	58.90	12	34	48.26		

48.28 48.27
 48.20 48.29
 — 48.26
 48.24 48.273

48.28
 48.29
 48.26
 48.273

May 18th 1865 - S. McCurt

7419

3 Cephei 76.	Plaris	2 Virginis	2 Bootis	2 2 Librae	2
50 14.3	13 5 4.3	57.5	23.3	17.6	
46.0	7 45.3	0.9	25.8	21.1	
51 35.1	9 30.1	4.8	29.8	25.2	
52 17.4	11 59.1	7.3	33.5	29.8	
	14 11.6	11.3	36.6	31.8	
	150.4	81.8	147.0	123.7	
	210.4	21.8			
12 50 51.77	13 9 42.08	13 18 4.36	14 9 29.40	14 43 24.74	15

12 50 14.0(2)	13 5 4.3
14.6	
47.8	7 45.0
48.2(3)	45.0
	49.0
	16.0 45.3
51. 35.1(4)	9 50.4
52 17.4(5)	2 30.1
	11 57.6
	58.4
	59.6
	61.7
	81.3 59.1
	14 8.3
	10.5
	11.6
	13.1
	14.5
	180 11.6
A 51.87	
B 51.69	
C 52.02	
D 51.49	
51.77	

End

α Corvinae	α Lupentis
50.0	29.9
53.7	33.4
58.0	37.1
0.9	39.8
5.2	42.6
167.8	183.8
287.8	
15 28 57.56	15 37 36.76

11 42	8.82	+ 32	12.39	3.25
11 44	38.46	- 31	41.98	3.21
13 18	4.36	.30	7.86	3.20
14 9	29.40	.33	32.82	3.09
14 43	24.74	.31	28.05	3.00
15 29	57.56	.36	1.05	3.13
15 38	36.76	.31	40.09	3.02

$$\begin{array}{l}
 \text{km} \\
 11 43 + 3.23 \quad (2) \\
 14 39 + 3.088 \quad (5)
 \end{array}$$

May 23.

A. M., H. W.

β Leonis	β Virginis	γ Urs. Maj.	π Virginis	α Corvi
6.3	36.1	34.3	53.7	23.5
10.2	39.9	40.9	57.5	27.7
13.9	42.6	45.5	0.1	30.6
16.7	46.3	51.7	3.8	34.6
20.0	49.6	57.4	7.1	(38.2)
66.1	214.5	229.8	122.2	
			2.2	
11 112 13.22	11 413 42.90	11 416 45.96	11 53 0.44	12 1 30.92

outpage

ϵ Corvi	207 Camel. B.	2 H Canum	η Virginis	12 Gormae
7.4	12 4 34.5	37.6	57.5	38.5
11.6	(53.9)	42.3	1.3	47.7
14.3	5 22.7	45.3	3.0	45.8
18.4	47.9	49.7	6.6	49.9
21.7		53.8	9.9	53.6
73.6		228.7	76.3	230.5
			16.3	
12 3 14.72		12 9 45.74	12 13 3.26	12 15 46.10

$\cdot$ 5082
 -2579
 +2.39
 +22.10

57.08
 57.11
 (56.29)
56.60

1865 - May 23d AM

AM

13 Comae		14 Comae		17 Comae		5 + 6 Comae		of Virgo		6
	12.2		34.3		5.7		54.7		59.6	
	16.6		38.6		10.0		59.3		3.5	
	19.5		41.7		12.8		2.4		1.2	
	23.6		45.8		16.9		6.8		9.9	
	27.4		49.5		20.6		10.7		13.2	
	99.3		209.9		66.0		133.9		92.6	
							13.9		32.6	
12 17	19.86	12 19	41.98	12 22	13.20	12 27	2.78	12 35	6.52	12

nat page

60 B Canum	30 Comae	31 Comae	8 Virgins	43 Cygni H. s.p.
40.3	38.2	2.7	44.6	—
45.8	42.5	7.0	48.8	—
49.6	45.5	10.1	51.4	12 50 - 52.2
54.9	49.7	14.3	55.2	51 25.5
59.6	53.4	18.0	58.3	52 14.6
250.2	229.3	52.1	258.5	

12 38 50.04 12 42 45.86 12 45 10.42 12 48 51.70 12 50 47.79

48.18

48.31

46.87

May 23 11 W

THS.

14 Canum	8 Virginis	Polaris	2 Virginis	214 Can. B.
20.3	52.6	13 4 51.1	2.1	—
25.0	58.5	7 4.6	6.0	19 42.4
28.3	1.1	9 32.5	8.7	20 17.1
32.9	4.7	11 17.4	12.3	21 3.7
37.0	8.1	13 56.5	15.8	45.6
143 5	127.2	162.1	44.9	
	7.2	102.1		
12 59 28.70	13 3 1.44	13 9 20.42	13 18 8.98	12 20 20.69

13 4 45.3
 50.4
 51.2
 52.5
 54.0
 54.4 51.1
 7 0.8
 4.1
 5.0
 8.7
 18.6 4.6
 9 39.4
 52.5
 35.7
 7.6 32.5
 11 14.3
 16.4
 17.9
 21.1
 89.7 17.4
 13 32.3
 56.3
 57.0
 60.4
 226.0
 56.5

A 21.34
 B 20.95
 C 21.05
 D 19.43

May 23

mlpage

to Virginis		o Virginis		17 H Camm		25 Camm		21 H Camm						
	48.7		14.3		40.8		22.8		5.4					
	52.6		16.4		45.8		27.5		10.2					
	55.3		20.9		49.1		30.8		13.4					
	59.0		24.5		53.9		35.4		18.4					
	2.4		27.9		58.0		39.6		22.6					
	218.0		106.0		247.6		156.1		70.0					
	278.0													
13	25	55.60	13	27	21.20	13	28	49.52	13	31	31.22	13	41	14.00

May 23
H. S.

A.M.

End

Boris	L Boris	Polaris
6.1	26.7	1 5 14.4
12.1	30.7	7 50.6
16.1	33.4	9 36.9
21.9	37.4	12 51.6
27.1	40.9	14 19.8
83.3	169.1	127.3
		247.3
13 42 16.66	14 9 33.82	1 9 49.46

1 5 12.5
14.2
16.5
13.2 14.4

7 47.2
48.6
50.6
52.3
54.5

9 33.4 50.6
36.7
37.6
40.1
27.8 36.9

12 1.2
6.2
9.5
16.9 5.6

14 18.7
20.4
23.9
79.0
19.8

May 23 1865

Dec 11 42 13.22 -36 12.34-0.52
Dec 11 44 42.90 -35 41.93-0.62

7HP 13 18 8.98 -35 7.83-0.80
Dec 14 10 33.82 -37 32.81-0.64

11^h 43^m -0.57
13 44 -0.72

12^h 0^m -0.59
13 0 -0.66

May 24

T.H.S.

next page

E Leonis		M Leonis		L Leonis		Z Leonis		39 Leporis 16-						
	7.0		0.7		7.4		58.7	11	25	58.5				
	11.2		5.1		11.4		0.8		26	53.1				
	14.1		8.0		14.0		3.5		27	54.7				
	18.0		12.1		17.8		7.1			37.3				
	21.7		15.7		21.1		10.5							
	72.0		41.6		71.7		78.8							
							18.8							
9	38	14.40	9	45	8.32	10	1	14.34	11	21	3.76	11	27	49.40

49.63

49.51

49.48

48.98

May 24

H.S.

β Leonis	γ Lepus	β Leonis	β Virginis	π Virginis	δ
59.6	22.9	7.3	37.2	54.7	
3.5	37.2	11.4	41.1	58.6	
6.1	53.3	14.1	43.8	1.3	
9.7	4.9	17.9	47.5	4.9	
13.0	22.2	31.4	50.7	8.2	
91.9	140.3	72.1	220.3	127.7	
31.9	260.3			7.7	
11 30 6.38	11 33 52.06	11 42 14.42	11 43 44.06	11 54 1.54	

Δ Corvi	207 Canis. B.	2 H Canum	12 Comae	13 Comae
24.7	12 4 6.0	46.5	39.6	28.6
28.9	35.5	50.9	44.0	32.9
31.7	55.8	54.8	46.9	35.9
35.8	5 23.9		50.9	40.0
39.3	48.8		54.6	43.8
160.4	170.0		236.0	181.1
	290.0			
12. 1 32.08	12 4 58.00	12 9	12 15 47.20	12 17 36.22

May 24

J. H. L.

4 Comae	16 Comae	17 Comae	4 Dracons	5 H Comae	24
35.4	10.6	6.7	55.5	55.7	
39.8	15.1	11.0	6.2	0.4	
42.7	18.0	14.0	14.2	3.7	
47.0	22.1	18.1	25.0	8.0	
50.6	25.9	21.7	34.6	12.0	
215.5	91.7	71.5	135.5	79.8	
			75.5	19.8	
12 19 43.10	12 20 18.34	12 22 14.30	12 24 15.10	12 27 3.96	12

24 Cornae pr			24 Cornae foll			60 B lamm			η Cassiop. sp			30 Cornae		
	17.2			18.6			41.3			47.6			37.3	
	21.3			22.7			46.9			53.6			43.7	
	24.1			25.5			50.6			0.4			46.6	
	27.9			27.3			56.0			5.1			50.8	
	31.4			32.8			0.7			12.3			54.6	
	121.9			128.9			195.5			119.0			235.0	
							253.5			299.0				
12	28	24.38	12	28	25.78	12	38	51.10	12	40	59.80	12	42	47.00

May 24 M.W.

1865phae. p.

31 Cosmae	32 Camel. H. ^{10m} ~~7p~~	32 Camel. H. foll.	Polaris s.p.	2 Virginis	21		
3.8	46	3.1	46	10.9	13 4 53.3	3.1	13
8.2	47	41.9	47	49.0	7 8.8	7.0	
11.3	48	7.7	48	15.5	9 37.4	9.7	
15.4	48	42.3	48	50.7	11 22.7	13.6	
19.1	49	15.5	49	23.0	14 2.6	16.9	
57.8		11 1.5		14 9.1	12 4.8	50.3	
		29 1.5		29.1			
12 45 11.56	12 47 58.30	12 48 5.82	13 9 28.96	13 18 10.06			13

13 4 51.6
~~55.0~~ 323
 6.6
 7 8.3
~~7.4~~ 8.8
 9 33.0
 36.7
~~42.4~~
 112.1 374
 11 16.5
 22.7
~~27.0~~
 8.2 22.7
 12 13 57.7
 14 2.4
 3.4
~~6.7~~
 10.2
 2.6

End

214 Camel. B.			2 Virginis			2 Bothis		
13	18	55.2			44.9			27.6
	19	43.4			48.8			31.9
	20	18.4			51.4			34.7
	21	3.9			55.1			38.6
		45.6			58.3			42.1
		166.5			258.5			175.1
		106.5						
13	20	21.30	13	54	51.70	14	9	25.02

May th 24 1865

10 ⁴	1 ^m	5	14.34-35	12.31-1.68
11	42		14.42-36	12.32-1.74
11	44		44.06-35	41.92-1.79
13	18		10.06-35	7.83-1.88
14	10		35.02-37	32.81-1.84

11	9	-1.737	3	-0.057
13	44	-1.860	2	
12	11	-1.786	5	

Rate -0.048

May 25
J. H. D. W.

α Leonis	δ Leonis	β Leonis	β Virginis	γ Urs. Maj.	
8.5	58.0	8.5	38.3	36.6	
12.5	2.0	12.6	42.3	43.2	
15.3	X4.6	15.3	44.8	47.7	
19.0	8.3	19.1	48.6	54.1	
22.4	11.7	22.5	51.8	59.7	
77.7	84.6	78.0	225.8	241.3	
	24.6				
10 1 15.54	11 21 4.92	11 42 15.60	11 43 45.16	11 46 48.26	11

next page

π Virginis		α Corvi		207 Camel. 13.		2 π Camm		AB η Virginis	
56.7		25.8	12 4	6.9		39.7		58.8	
59.7		30.0		36.9		44.5		2.7	
2.5		32.8		57.1		47.6		5.8	
6.2		37.0	5	24.3		52.0		9.0	
9.4		40.5		50.4		56.0		12.2	
133.5		166.1		175.6		239.8		88.0	
13.5				295.6				28.0	
11 53 2.70	12 1	33.22	12 4	59.12	12 9	47.96	12 13	5.60	

1865 May 25th 1877

AM

2 Comae	13 Comae	14 Comae	* pr. 17 Comae.	17 Comae
40.7	29.7	36.5	—	7.8
45.1	34.0	40.9	—	12.2
48.0	37.1	43.8	58.3	15.1
52.0	41.2	48.0	2.3	19.4
55.9	44.9	51.8	6.0	22.9
241.7	186.9	221.0		77.4

12 15 48.34	12 17 37.38	12 19 44.20	12 20	12 22 15.48	12
-------------	-------------	-------------	-------	-------------	----

11 Drac.	5th Canum	24 Comae foll.	9 Virginis	60 B Canum
56.4	56.9	19.8	1.7	42.5
7.8	1.6	23.8	5.7	48.2
15.3	4.8	26.7	8.4	51.8
26.6	9.1	30.5	12.2	57.3
35.9	13.1	33.8	15.5	61.0
142.0	85.5	134.6	43.5	201.8
82.0	25.5			261.8
12 24 16.40	12 27 57.0	12 28 26.92	12 35 8.70	12 38 52.36

May 25

A.M.

1865phae

<i>y Cassiopeia s.p</i>	30 Comae	31 Comae	5 Virginis	43 Leporis H. s.p
48.4	40.4	5.0	47.1	—
54.5	44.9	9.5	51.0	—
1.4	47.8	13.3	53.7	12 50 53.6
6.2	52.0	16.6	57.4	51 28.0
13.4	55.6	20.3	0.6	52 17.7
123.9	240.7	63.7	209.8	
3.9			269.8	
12 41 0.78	12 42 48.14	12 45 12.74	12 48 53.96	12 50 50.12

49.58

50.81

49.98

50.12

May 25.

A.M.

15 Canum	17 Canum	Polaris M	Centauri	d. Virginis
25.8	47.9	13	59.5	4.2
30.6	52.8	13 7 6.8	4.3	8.3
34.2	56.3	9 36.0	7.6	10.8
38.9	0.9	11 21.8	12.0	14.5
43.2	5.1	14 1.9	16.0	18.0
172.9	163.0		99.4	55.8
	283.0		39.4	
13 3 34.58	13 3 56.60	13 9 24.09	13 13 7.88	13 18 11.16

13	7	3.8
		5.6
		7.7
		10.2
9		27.3 6.8
		34.4
		35.7
		38.0
		18.1 36.0
11		20.2
		21.7
		23.4
		5.3 21.8
14		0.0
		1.8
		X 4.0
		15.8
		1.9

24.09
23.30
24.19
24.45
24.09

May 25
H.

14 Cam. B.	69 H. Main	h Virginis	o Virginis	17 H. Camm	2.
—	21.3	50.8	—	43.1	
17 44.6	29.4	54.8	20.5	48.0	
20 18.0	34.8	57.4	23.2	51.3	
21 4.9	42.3	1.2	26.8	56.0	
46.9	48.8	4.5	30.0	0.0	
	176.6	168.7		198.4	
		288.7		258.4	
13 20 21.99	13 23 35.32	13 25 57.74	13 27	13 28 51.68	13

22.63
22.15
21.95
21.22
21.99

-1.18 23.32
-3.39 23.41
+0.31 23.51
+2.91 23.41
23.41

25 Canum	1 H Borths	i Centauri	21 H Canum?	21 H Canum?
24.8	54.1	—	25.1	8.2
29.7	58.2	(4.9)	30.0	14.3
33.0	0.7	(7.9)	33.5	18.5
37.6	4.5	(12.3)	38.3	24.3
41.8	7.8	(16.5)	42.5	29.2
166.9	125.3		169.4	94.5
	5.3			
13 31 33.38	13 33 1.06	13 38 8.38	13 40 33.88	13 42 18.90

8.61

8.29

8.27

8.33

May 25
1865

<i>ω Cassiop. SP</i>			<i>ι Draconis</i>			<i>θ Centauri</i>			<i>α Bootis</i>			<i>A Bootis</i>			18
19.2			19.5			43.6			28.9			14.7			
27.8			28.3			48.3			33.1			19.6			
37.7			34.9			51.6			35.9			22.8			
44.5			43.9			56.2			39.7			27.3			
54.4			51.5			0.3			43.2			37.5			
184.0			178.1			200.0			180.8			116.1			
						260.0									

13 45 368.0 13 47 35.62 12 58 52.11 14 9 36.16 14 12 23.22 14

next page

18 H Bortis	f Bortis	(y) Bortis	σ Bortis	π Bortis	pr.
43.6	9.3	35.6	46.0		21.9
47.5	13.4	40.7	50.5		25.9
50.1	16.3	43.9	53.8		28.7
53.7	20.2	48.7	57.8		32.5
57.2	23.7	53.0	1.9		35.9
252.3	82.9	221.9	210.0		144.9
			270.0		
14 16 50.46	14 20 16.58	14 26 44.38	14 28 54.00	14 34 28.98	

May 25. MM
M.

109 Virginis			1 α Librae			2 α Librae			Gr 580 s.p.			γ Scorpii (2, 3, 4)			ω		
25.0			13.1			—			19.2			28.5					
28.9			16.9			28.5			39.8			31.7					
31.4			19.8			31.1			3.5			36.8					
35.2			23.5			34.9			20.3			41.1					
38.5			—			38.3			44.7								
159.0									127.5								
									7.5								
14	39	31.80	14	13	20.04	14	43	31.41	14	51	1.50	14	54				14

19.91
 20.13
 19.91
20.20
 20.04

31.38
 31.31
 31.43
31.57
 21.41

α Bothis	γ Bothis	223 Camul. 13.	Polaris.
9.9	37.9	—	1 5 21.6
14.2	42.4	—	7 37.8
17.0	45.2	14 59 47.2	9 42.7
21.1	49.4	15 0 17.8	12 15.6
24.7	53.1	45.1	14 26.7
86.9	228.0		166.4
			286.4
14 36 17.38	14 58 45.60		1 9 57.28

49.88
 .77
 .79
 49.81

1 5 16.9
 19.0
 21.6
 23.9
 26.6
 108.0 21.60

May 25 1865
 a.m.

5
 10 1 15.54 -35 12.29 -2.90
 11 42 15.60 -36 12.31 -2.93
 11 44 45.16 -35 41.90 -2.91
 12
 13 18 11.16 -35 7.83 -2.98
 14 9 36.16 -37 32.80 -2.99
 14 43 20.04 -36 16.62 -3.06
 14 43 31.41 -36 28.07 -2.98
 15.4
 17.2
 16.9 15.6
 22.8
 24.2
 26.4
 28.7
 31.4
 33.5 26.70

10^h 9^m - 2.913 3
 14 11 - 3.002 4 - 0.022

May 26.
M.

Gemin		L. Can ~~the~~ Min.		B. Geminor.		B. Leonis		B. Virginis	
pr.	fol.								
55.7	—		12.0		0.4		9.5		—
—	0.4		16.2		4.9		13.6		—
3.2	—		18.6		7.8		16.4		45.9
—	8.0		22.3		12.0		20.0		49.6
11.5	—		25.6		15.8		23.5		52.8
			94.7		40.9		83.0		
7 27	9.79	7 32	18.94	7 37	8.18	11 42	16.60	11 43	46.19

3.62	3.83
3.57	4.00
<u>3.78</u>	
3.657	3.915

46.13
32
21
<u>46.19</u>

next page

π Virginis			α Corvi			ϵ Corvi			207 Cabmul. B			3 H Canum		
58.7			26.7			10.4	12	4	7.9			40.7		
0.8			30.9			14.8			37.9			45.4		
3.4			33.8			17.6			57.3			48.6		
7.1			37.9			21.7		5	25.4			53.0		
10.3			41.5			25.4			50.9			57.0		
78.3			170.8			89.9			179.4			244.7		
18.3									299.4					
11	54	3.66	12	1	34.16	12	3	17.98	12	4	59.88	12	9.	48.96

ay 26
h.

2 Comae	13 Comae	14 Comae	17 Comae	5 H Comae	24
41.7	30.7	37.3	8.7	57.8	
46.2	35.1	41.7	13.1	3.5	
48.9	37.9	44.7	16.1	5.7	
53.0	41.9	48.9	20.2	10.0	
56.7	45.8	52.7	23.8	14.0	
246.5	191.4	225.5	81.9	90.0	
				30.0	
12 15 . 49.30	12 17 38.28	12 19 45.10	12 22 16.38	12 27 6.00	13

24 Comae		p Virginis		60 B Canum		7 Cassiope, sp.	
pr.	fall						
19.2	20.7	2.7		43.3		49.8	
23.4	24.7	6.7		49.0		55.5	
26.2	27.4	9.4		52.7		2.7	
29.9	31.4	13.1		58.1		7.1	
33.4	34.8	16.4		2.7		14.4	
132.1	139.0	48.3		205.8		129.5	
				265.8		9.5	
12	28	26.42	12	35	9.66	12	38
	all	27.80					53-16
						12	41
							1.90

ay 26.
76.5

1865phae.

2	Camul. H. pr	32	Camul H. foll	43	Leptus H.H.	4	Virginis	Polaris	s.p.	2					
2	47	5.7	47	13.5	—		57.8	13	4	55.8					
		43.8		51.3	50	8.3	1.70		7	7.9					
	48	9.2	48	16.9		56.2	4.3		9	36.4					
		45.9		52.8		29.4	8.0		11	22.1					
	49	17.0		25.2	52	19.5	11.3		14	4.0					
		121.6		159.7			83.1			126.2					
		61.6		99.7			23.1								
12	48	12.32	12	48	19.94	12	50	57.97	13	3	4.62	13	9	25.24	15

13	41	54.9
		55.6
		57.0
		77.555
7		7.2
		7.9
		8.6
9		23.77.9
		36.1
		36.7
		36.4
11		21.4
		22.0
		23.0
		6.4
14		3.1
		5.0
		8.1
		4.0

51.71
52.18
52.21
57.77
57.97

A.M.

outpage

L Virgins		214 Camel. B.		69 H. Ursa.		L Virgins		O Virgins	
5.1	18	56.8		—		51.8		17.6	
9.2	19	46.5		—		55.8		21.5	
11.1	20	18.7		35.4		58.5		24.2	
15.6	21	6.3		43.3		2.2		27.7	
18.9		48.2		49.8		5.4		31.1	
59.9		176.5				173.7		122.1	
		116.5				293.7			
13 18 11.98	13 20 23.30	13 23 36.22	13 25 58.74	13 27 24.42					

- 12.57 36.21
 - 6.90 36.40
 + 0.64 36.04

May 26.

A.M.

17 H Canum	25 Canum	1 H Bortis	21 H Canum	
43.8	25.7	55.1	(8.3)	9.3
48.9	30.7	59.1	13.2	15.3
52.3	33.8	1.7	16.6	19.5
56.8	38.5	5.5	21.3	25.1
1.2	42.5	8.8	25.6	30.2
203.0	171.2	130.2		99.4
263.0		10.2		
13 28 52.60	13 31 34.24	13 33 2.04	13 41 17.00	13 42 19.88

next page

<i>w</i> Cassiop. sp	<i>i</i> Draconis	<i>A</i> Cassiop. sp	*N.P.S. 14	42 H Virgine
20.2	19.8	13 50 40.0	40.5	26.1
28.6	28.8	49.8	51.6	29.9
38.7	35.4	0.3	4.8	32.5
45.6	44.3	8.0	14.1	36.0
56.0	52.2	51 20.0	27.7	39.4
189.1	180.5	118.1	138.7	163.9
		298.1	18.7	
13 45 37.82	13 47 36.10	13 50 59.62	14 1 3.74	14 5 32.78

May 26 1865. MW

AM

L Bortis	A Bortis	18 H Bortis	f Bortis	y Bortis
29.7	15.5	44.4	10.2	36.3
33.7	20.4	48.4	14.3	41.5
36.7	23.7	51.0	17.1	44.9
40.6	28.2	54.6	21.0	49.5
44.0	32.4	58.0	24.5	53.7
184.7	120.2	256.4	87.1	225.9
14 9 36.94	14 12 24.04	14 16 51.28	14 20 17.42	14 26 45.18

out page

	π Bothis		107 Virginis	1 α Librae	2 α Librae	3 Bothis
3	pr	full				
	22.8	—	25.8	13.8		7.6
5	—	27.2	29.5	17.8	29.4	13.6
9	29.5	—	32.4	20.6	32.0	16.3
5	—	34.7	36.1	24.3	35.8	20.1
7	36.7		39.3		39.3	23.8
9			163.1			83.4
18	141	34	141 39 32.62	141 43 20.84	32.33	141 45 16.68

29.95
 29.83
29.73
 29.84

30.23
 31.36

30.30

20.71

20.92

20.81

20.90

20.84

32.38

32.21

32.32

32.41

32.33

May 26

AMW

r. 580		s.p	40 Bortis	ω Bortis	223 Camel. 13
50		20.6	24.3	11.0	14 58 53.9
		41.9	29.3	15.3	59 26.0
51		4.9	32.7	18.1	15 47.7
		21.5	37.6	23.3	15 0 18.2
		46.2	41.9	26.0	45.4
		135.1	165.8	92.7	191.2
		15.1			251.2
14	51	3.02	14. 521 33.16	14 56 18.54	14 59 50.24

May 29

A. N.

L.H.S.

B Leonis

B Virginis

A. Uas. May

Polaris

1 5 22.7

7 57.9

9 43.3

12 14.4

14 27.1

16 7.4

28 7.4

1 9 ~~57.48~~ 57.48

mr failed

May 26 1865

Am

7 27 3.79 - .41 59.48 - 3.90 + 08

7 32 18.94 - .35 14.45 87 3.64 - 04

7 37 8.18 - .40 3.97 3.81

11 42 16.60 - .36 12.30 3.94

11 44 [46.19] - .35 41.89 3.95

14 9 36.94 - .37 32.80 3.77 13 24^m - 3.886

14 43 20.84 - .35 16.63 3.86

14 43 32.33 - .35 28.07 - 3.91

1 5 22.7

7 57.6

57.7

62.4

179 7 57.9

9 39.7

43.8

46.4

9.9 43.3

12 14.1

14.8

9 14.4

14 24.6

25.5

26.8

28.2

30.6

35.7 27.1

7 32^m - 3.770 (31)

11 43 3.94 (1)

14 32 - 3.847 3 13 24 - 3.886 (5)

Rate - 0.019

J.H.S.

Am

13 18 11.98 - 0.35 7.82 - 3.81

May 30. W. W.

H.S.

~~17 Comae~~		17 Comae		4 Draconis		5 H. Camm		24 Comae			
RTG 4206	2.4	→	12.5		1.1		1.7	per	full		
	6.8	→	17.0		12.6		6.4	23.1	24.6		
			19.9		20.2		9.6	27.2	28.7		
			24.0		30.8		14.0	30.0	31.5		
			29.7		40.4		17.9	33.8	35.4		
			101.1		105.1		49.6	37.3	38.7		
								151.4	158.9		
12 22		12 22	20.22	12 24	21.02	12 27	9.92	12 28	30.28		12
									full 31.78		

next page

<i>p</i> Virginis		10 B Canum		η Cassio. s.p.		30 Gornae		31 Gornae	
4.6	6.6		47.1		54.1		45.2		9.8
8.7	10.6		53.0		0.2		47.7		14.3
1.5	13.3		56.7		7.0		52.7		17.3
5.4	17.0		1.9		11.8		56.8		21.5
8.7	20.4		6.6		17.1		0.5		25.2
8.9	67.9		165.3		92.2		204.9		88.1
			285.3		32.2		264.9		
12 35	13.58	12 38	57.06	12 41	6.44	12 42	52.98	12 45	17.62

May 30 A.M.

H.S.

2. Camul. H.	43. Lephia H. s.p.	14. Canum	Polaris, s.p.	1. Centauri	
pr. foll.					
47 7.3 15.4	—	27.4	13 5 6.9	4.5	
47 46.0 54.0	50 15.0	32.2	7 18.7	9.1	
48 11.7 19.3	51 2.0	35.5	9 47.3	12.4	
48.0 55.3	35.2	40.1	11 31.7	16.8	
49 19.7 27.7	52 25.8	44.1	14 13.0	20.9	
132.9 171.7		179.3	117.6	63.7	
72.9 111.7			177.6		
12 48 14.58	12 50 58.12	12 57 35.86	13 9 35.52	13 13 12.74	13
fall 22.34					

13 5 0.6
6.1
7.1
8.0
12.8
34.6 6.9
7 13.8
17.7
18.3
24.5
25.4

(Half wrist to two
late breaks of wire
seconds)

9 41.8
46.8
53.3
21.7 47.3
11 26.7
30.5
31.2
32.0
37.8
8.4 31.7
14 8.3
11.9
13.3
18.6
52.1 13.0

58.41

57.98

58.01

58.07

58.12

α Virginis

214 Camel. B.

o Bootis

E Bootis

9.1

—

51.0

8.5

13.1

19

48.4

55.5

13.9

15.7

20

21.6

58.6

16.0

19.4

21

7.9

2.8

25.0

22.8

49.3

6.6

23.7

80.1

174.5

81.1

294.5

13 18 16.02

13 20 25.19

14 28

58.90

14 39 16.22

25.03

25.15

25.55

25.02

25.19

May 30. H. W.
 24.9

End

1 Librae	2 2 Librae	223 Camil. B.	2 2 Librae
18.0		14 58 57.1	1.8
23.0	33.3	59 30.2	6.0
24.5	36.0	51.4	8.9
28.4	39.9	15 0 23.0	13.1
	43.2	49.5	16.7
		210.2	46.5
		270.2	
14 43 24.94	14 43 36.31	14 59 54.04	15 29 9.30

24.81	36.28
24.82	36.21
25.01	36.33
25.10	36.31
24.94	36.21

May 30 1865 JHS

13 18	16.02	- 36	7.80	- 7.86
14 43	24.94	37	16.63	7.94
14 43	36.31	37	28.07	7.87
15 29	9.30	36	1.09	7.85
14 35				- 7.880

- 0.042 from May 26

May 31. 1865. H. W.

Ment

J. H. L.

Polaris s.p.	α Virginis	214 Gamut. 73.
13 5 4.4	9.7	—
7 18.5	13.7	13 19 50.3
9 48.7	16.4	20 23.3
11 32.6	20.2	21 7.2
14 12.5	23.5	—
116.7	83.5	
176.7		
13 9 35.34	13 18 16.70	12 20 26.87

13	4	58.7	
	5	9.4	
		4.1	
		5.2	
		10.5	
		21.9	4.4
	7	12.7	
		17.7	
		18.7	
		25.0	
		74.1	18.5
	9	43.9	
		47.3	
		48.0	
		48.8	
		55.4	
		243.4	48.7
	11	26.5	
		30.5	
		31.9	
		32.0	
		34.3	
		37.7	
		15.9	32.6
	14	8.4	
		11.4	
		12.1	
		13.2	
		17.8	
		12.6	125

May 31 1865 JHP

26.45

27.25

26.72

26.87

13 18 16.70 -0.36 7.79 -8.55

1865phae.proj...655

May 31. D. W.
H. L.

3	Virginie	25	Gamm	176	Bortis	i	lentaun	2043	Gr.	2
	53.7		—		59.7		—		30.5	
	37.6		35.3		3.8		—		35.7	
	0.2		38.6		6.4		—		39.1	
	3.9		43.1		10.2		17.9		43.8	
	7.2		47.2		13.5		21.8		48.0	
	122.6				93.6				197.1	
	2.6				33.6					
13	28	052	13 31	13	33	6.72	13 38	13.90	13 40	3942

- 8.35
- 4.24
+ 0.39
+ 3.63
+ 8.56

38.91

13.91
13.89

13.90

21 76. Canum

12.8

18.0

21.2

26.0

30.2

108.2

13 41 21.64

1865phae.proj...655

June 1. 1885 Ill. W.

H. S.

12 Gornae			13 Gornae			14 Gornae			16 Gornae			17 Gornae			18 Gornae		
		47.1			36.0			42.8			18.0			14.2			
		51.6			40.6			47.4			22.7			18.7			
		54.3			43.5			50.3			25.6			21.6			
		58.5			47.7			54.3			29.7			25.6			
		2.2			51.3			58.2			33.4			29.5			
		213.7			219.1			253.0			129.4			109.6			
		273.7															
12	15	54.74	12	17	43.82	12	19	50.60	12	20	25.88	12	22	21.92	12	24	18.76

4 Draconis		5 H ₂ Gamma		24 Gamma		γ Virginis		30 Gamma						
				pr.	fall	pr.	fall							
	2.8		3.2	24.5	26.0	54.6	—		46.7					
	14.3		8.1	28.9	30.2	—	58.6		51.3					
	22.1		11.1	31.5	33.0	1.0	—		54.2					
	32.6		15.6	35.6	36.9	—	4.7		58.4					
	42.2		19.6	38.9	40.4	8.0	—		2.0					
	114.0		57.6	159.4	166.5				212.6					
									272.6					
12	24	22.80	12	27	11.52	12	28	31.88	12	35	1.39	12	42	54.52
					fall			33.30						

1.44
 1.31
 1.33
 1.36

1.50
 1.32
 1.41

June 1. Ill. W.

76.5

31 Comae	32 Camel. H.	43 Lophu. H. N	E Virginis	14 Canum
	per. foll.			
11.4	12 47 9.5 17.2	—	32.5	29.0
15.9	48.0 55.4	12 50 15.9	36.7	33.9
16.9	48 13.3 21.7	51 4.4	37.2	37.2
23.1	49.3 37.5	36.9	43.0	41.9
26.8	— —	52 27.8	46.4	45.8
961			197.8	187.8
12 45 19.22		12 50 59.87	12 55 39.56	12 59 37.56

59.31
 0.38
 59.71
 0.07

 59.87

α Virginis	β Comae	Polaris	α Virginis	δ Virginis
3.4	—	13 5 8.2	10.8	31.6
7.4	42.9	7 22.5	14.8	35.6
9.8	45.9	9 49.7	17.2	38.8
13.6	50.2	11 34.5	21.0	41.9
16.9	53.9	14 15.2	24.4	45.4
51.1		130.1	88.2	192.8
		190.1		

13 3 10.22	13 5	13 9 38.02	13 18 17.64	14 5 38.56
------------	------	------------	-------------	------------

13 5	7.3
	<u>9.2</u>
	16.5 8.2
7	<u>17.3</u>
	21.0
	22.2
	23.9
	<u>26.3</u>
9	<u>112.7</u> 22.5
	44.6
	47.6
	49.6
	52.0
	<u>54.7</u>
	248.5 49.7
11	<u>32.7</u>
	34.1
	<u>36.8</u>
	13.6 34.5
14	<u>9.2</u>
	14.9
	<u>21.4</u>
	15.5 15.2

June 1. Ill. W.

H.S.

d Borkis	A. Borkis	18 16 Borkis on full ^{*pr.}	f Borkis ?	f Borkis ?
35.3	21.1	50.0	0.3	—
39.4	26.0	34.1	4.5	17.9
42.3	29.2	56.7	7.3	22.8
46.2	33.8	0.5	11.1	26.7
49.6	37.7	3.8	15.8	30.1
212.8	148.0	165.1	39.0	
		285.1		
14 9 42.56	14 12 29.60	14 16 57.02	14 20 7.80	14 20 23.06

22.98

23.13

23.10

23.01

23.06

nat

γ Bootis	σ Bootis	π Bootis per	109 Virginis
42.0	52.6	28.3	31.3
47.1	57.2	32.5	35.3
50.4	50	35.3	37.8
55.1	4.3	39.0	41.6
59.5	8.1	42.4	44.9
254.1	122.2	177.5	190.9
	2.2		
14 26 50.82	14 29 0.44	14 34 35.50	14 37 38.18

June 1865 TNS

13 18	17.64	-0.36	7.79	-9.49
14 10	42.56	-0.35	32.77	-9.44
14 43	24.31	-0.37	16.63	-9.31
14 43	37.83	-0.37	18.07	-9.39
13 44				-9.465
14 14				-9.408
Kali				-0.039

June 1. Ill. W.

16.5

End.

d. 1 Librae

d. 2. Librae

19.6

23.3

26.0

29.8

34.7

37.5

41.3

44.8

14 43

26.24

.33

.31

.20

26.24

37.86

37.71

37.83

37.91

37.83

La previous page

June 2. U.S.W.

next page

J. N. S.

2	76	Canum	7	Virginis	12	Gomae	13	Gomae	14	Gomae				
		46.8		5.9		47.9		36.9		43.6				
		51.8		9.7		52.4		41.4		48.1				
		54.8		12.4		55.2		44.2		51.0				
		59.3		16.2		59.3		48.3		55.3				
		3.2		19.6		3.0		52.1		58.8				
		215.9		64.0		217.8		222.9		256.8				
		275.9				277.8								
12	9	55.18	12	13	12.80	12	15	55.56	12	17	44.58	12	19	51.36

June 3, 1865

next

W.S.

1865phae

16 Comae			17 Comae			4 Draconis			5 16 Gamm			24 Comae			
												p. foll.			
19.0			14.7			3.3			4.0			23.4 26.7			
23.4			17.4			15.1			8.7			29.6 30.9			
26.3			22.0			22.3			12.0			32.2 33.7			
30.3			26.3			33.2			16.4			36.2 37.6			
34.1			30.0			42.4			20.2			39.6 40.9			
133.1			112.4			116.3			61.3			163.0 169.8			
12	20	26.62	12	22	22.48	12	24	23.26	12	27	12.26	12	28	32.60	12
													foll	33.96	

next

1865phae.p

	ρ Virginis.		60 B. Canum		η Cassio. s.p		30 Comae		31 Comae						
24.															
7			8.8		49.6		56.7		47.6	12.1					
9			12.9		53.4		2.4		52.0	16.6					
2.7			15.4		59.0		8.9		55.0	19.6					
7.6			19.2		4.3		13.9		59.2	23.8					
0.9			22.5		8.9		21.3		2.9	27.4					
9.8			78.8		177.2		103.2		216.7	99.5					
					297.2		43.2		276.7						
60	12	35	15.76	12	38	59.44	12	41	8.64	12	42	53.34	12	45	19.90

June 2 Ill. W.

H. I.

met.

23 Camel. H.	4 Virginis	Polaris	4 Virginis	214 Camel. B.
47 10.6 17.6	3.7	13 5 7.6	11.3	13 19 0.3
48.4 56.7	7.9	7 21.6	15.4	51.7
48 14.8 21.1	10.4	9 49.6	17.9	20 23.1
49.3 57.6	14.3	11 34.2	21.7	21 11.0
47 21.7 29.3	17.6	14 18.2	25.0	51.5
14 4.8 182.3	54.1	131.2	91.3	137.6
84.8 122.3		191.2		
12 48 16.96	13 3 10.82	13 9 38.24	13 18 18.26	13 20 27.52
fall 24.46				

13	4	59.9	
	5	5.6	
		9.4	
		10.5	
		12.8	
		98.2	7.6
	7	17.1	
		19.9	
		21.9	
		26.6	
		5.5	21.6
	9	45.5	
		46.4	
		47.3	
		48.5	
		50.7	
		53.2	
		55.6	
		347.1	49.6
	11	29.7	
		33.7	
		34.5	
		39.0	
		16.9	34.2
	14	14.1	
		16.9	
		17.7	
		24.3	
		73.0	18.2

next

1865phae-p

	h Virginis		o Virginis		17 H. Canum		25 Canum		i Centauri						
3		58.0		23.8		50.2		32.0		7.4					
7		2.0		27.7		55.1		36.8		13.1					
1		4.7		30.4		58.4		40.0		15.0					
0		8.4		34.1		3.1		44.7		19.5					
5		11.7		37.4		7.2		48.8		23.4					
6		84.8		153.4		174.0		202.3		77.4					
		24.8				294.0									
52	13	26	4.96	13	27	30.68	13	28	58.80	13	31	40.46	13	38	15.48

June 2. Ill. W.

No. 1.

1865phae.

31	16	Gamm	η	Cassio. s.p.	ϵ	Draconis	A	Cassio s.p.	δ	Centauri	α				
		32.2		26.7		26.1	50	46.7		50.7					
		37.4		35.5		35.5		56.3		55.7					
		40.6		45.4		41.7	51	7.1		58.8					
		45.4		52.5		50.5		14.9		3.1					
		49.5		2.7		58.4		26.3		7.2					
		205.1		162.8		212.2		151.3		175.5					
				222.8				31.3		295.5					
13	40	41.02	13	45	44.56	13	47	42.44	13	51	6.26	13	58	59.10	14

End

	α Bootis.	α 1 Librae	α 2 Librae	β Bootis foll.	Gr. 550 s.p.
7	36.2	20.2		15.8	28.0
7	40.2	24.3	35.7	19.9	48.7
8	42.0	27.0	38.3	22.7	11.7
1	46.9	30.8	42.1	26.6	ink failed
2	50.4		45.5	30.1	
5	216.7			115.1	
5					
9.10	14 9 43.34	14 43 27.29	14 43 38.61	14 45 23.02	14 51

38.58
 27.21 .87
 27.33 .63
 27.31 .71
 27.30
 27.29 38.61

June 3, M. W.

H. L. See next brook.

~~Leonis pr. 32 Camel. H.~~

			per.	fol.
37.0	12	45	10.3	18.0
41.3			49.4	57.0
44.0		48	14.4	21.6
48.0			50.2	58.4
51.4		49	22.7	30.3

~~14 Canum~~

30.5
35.4
38.5
43.2
47.2

~~0 Virginis~~

4.8
8.7
11.3
15.1
18.2

~~Polaris~~

10 12

12 59

13 3

14 5

13 5 7.0

11.1

17.7

7 18.2

23.7

24.6

30.7

9 54.7

55.6

11 32.8

35.2

36.0

37.4

41.3

14 14.5

17.1

18.6

22.5

α Virginis	214 Camel. 13.	69 76 Ursae	κ Virginis	σ Virginis	
12.2	19	1.0	29.3	58.8	24.6
16.2		51.4	37.3	3.0	28.6
18.9	20	24.4	42.5	5.4	31.6
22.5	21	11.2	50.2	9.2	34.9
28.9		52.8	56.7	12.5	38.1

13 18

13 19

13 25

13 26

13 27

June 2 1865 T.H.P.

13 18	18.26	-0.36	7.78	-10.12
14 10	43.34	-0.35	32.76	10.23
14 43	27.29	-0.37	16.63	10.29
14 43	38.61	-0.37	28.07	-10.17
14 14			Mean	-10.208
			Rate	-0.033

June 3. M. W.

H. L.

17 H. Ganym	25 Ganym	1 H. Borlis	i Centauri	
51.0	32.8	2.2	—	33.0
56.0	37.7	6.1	—	38.2
59.2	40.9	8.9	16.0	41.5
3.9	45.5	12.6	20.4	46.2
8.1	49.6	15.9	24.2	50.5

13 28

13 29

13 33

13 38

13 40

13

	~~16 Camm~~	~~μ Cassiop. sp~~	~~ι Draconis~~	~~A Cassiop. s.p.~~	~~ρ Centaur~~
10	15.2	27.9	26.9	13 50 47.7	51.7
12	20.3	36.4	36.1	57.4	56.5
5	23.5	46.2	42.5	51 8.0	59.5
2	28.4	53.3	51.3	15.4	4.1
5	32.6	3.8	59.1	27.6	8.2

13 41

13 45

13 47

13 58

* N.P.J. - 26.34	42 H Virginis	d Borlis	A Borlis
48.0	33.2	36.9	22.7
39.1	37.1	41.1	27.7
13.4	39.8	43.8	30.9
21.2	43.6	47.8	35.4
35.0	46.7	51.2	39.3

14 1

14 5

14 9

14 12

