

KG
11365
103

B.32

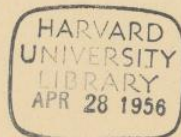
No. 32.

Reduction of Transits
Nov. 9. 1858 to June 19. 1859

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

KG 11365.103

KG-11365.103



Nov. 9/10. 1858

A II.

Ill. East

I. Louis

31.8

—

39.3

43.0

11 5 47.0

19

19

Nov. 11

A. H.

Ill. East

Moon TV

43.2

47.1

51.1

54.9

19 59 59.0

258.3

19 59 51.06

Nov. 12. 1858

A.H.

M. East.

 α Aquilae β Aquilae

16 Pegasi

49.7

18.9

34.2

53.3

22.4

38.0

56.8

25.9

41.9

0.3

29.2

41.8

19 43

4.0

19

47

32.9

21

41

49.1

164.1

129.3

209.4

19 42

56.82

19

47

25.86

21

45

41.88

Nov. 15.

A. H.

Hl. Ear.

12 Ceti

α Cassiopeae

β Ceti

48.1

22.2

28.0

51.8

28.9

31.9

55.2

35.0

35.1

58.7

41.0

39.0

0 22 2.3 0 31 47.8 0 35 42.9

216.1

174.9

177.3

0 21 55.22 0 31 34.98 0 35 35.46

Nov. 16. 1858.

A. H.

All. Ear

Moon TV		γ Pegani		d Piscium		α Canis major	
	48.0		55.2		17.4		22.5
	52.1		59.1		21.3		28.8
	56.1		2.6		24.8		35.0
	59.1		6.1		28.2		40.9
23 59	3.3 0	5	9.8 0	12	31.8 0	31	47.4
	218.9		132.8		123.5		174.6
	278.9		12.8				
23 58	55.78 0	5	2.56 0	12	24.70 0	31	34.92

Nov. 17.

A. H.

Ill. East

♂ Aquarii		♀ " Aquarii		♂ " Pegasi		♀ " Pis. Aus.		♂ " Pegasi	
	20.0		3.2		22.2		47.2		40.4
	23.6		6.8		25.8		51.1		44.2
	27.0		10.2		29.2		55.3		47.8
	30.4		13.6		32.7		55.4		51.2
22	8	22	27	22	33	22	49	22	56
	135.2		51.0		146.2		217.0		238.6
22	8	22	27	22	33	22	48	22	56
	27.04		10.20		29.24		55.40		47.72

Nov. 18, 1858.

W.C.B.		C.W.P.		M. East									
γ Aquilae		ϵ Piscium		δ Piscium		Moon TD		α Arietis					
	28.3		34.6		18.9		33.1		35.9				
	32.0		38.0		22.4		37.0		39.4				
	35.7		41.6		26.0		40.5		43.2				
	38.9		44.9		29.2		44.0		46.6				
19	38	42.6	0	54	48.71	5	33.11	41	47.91	48	50.3	1	
		177.5			207.8		129.6		202.1		215.4		
19	38	35.50	0	54	41.561	5	25.921	41	40.501	48	43.08	1	

Nov. 18'

C. M. P.

Ill. Eau.

α Aritis

9		10.2
4		14.0
2		17.8
6		21.3
3	1 58	21.2
4		88.5
08	1 58	17.70

Nov. 19, 1858

C.M.P.

M. East

1858phae. p

γ' Arietis			α Arietis			δ Ceti			ϵ^2 Ceti					
		44.0			35.5			10.1			54.2			36.8
		48.1			39.5			13.8			58.1			40.5
		51.5			43.0			17.8			1.4			44.0
		55.0			46.6			21.2			4.8			47.2
1	44	59.2	1	48	50.0	1	58	25.1	2	9	8.2	2	19	57.0
		257.8			214.6			88.0			126.7			219.5
											6.7			
1	44	51.56	1	48	42.42	1	58	17.60	2	9	1.34	2	19	43.90

Nov. 19.

C.W.P.

Ill. Eau

Moon 10

2 Arietis

5 Arietis

8			42.7			5.8			44.4
5			46.2			9.4			48.84
0			50.8			13.2			52.2
2			54.1			16.8			55.9
0	2	39	58.0	2	50	20.8	3	5	59.4
5			251.8			66.0			260.3
90	2	59	50.36	2	50	13.20	3	5	52.06

Nov. 19/20, 1858.

A. H.

Ill. Ear

Polaris s.p. 2 Virginis

	2	47.1			40.5
	5	9.2			44.2
	7	25.5			47.9
	9	44.9			51.2
13	12	8.6	13	16	55.0
		135.3			238.8
13	7	27.06	13	16	47.76

Nov. 22,

A. H.

Ill. East

α Aquarii		β Aquarii		5 Pegasi		α Pis. Aus.		α Pegasi						
	26.9		18.0		20.2		45.3		38.6					
	30.5		21.6		23.9		49.6		42.2					
	34.0		25.2		27.4		53.6		46.0					
	37.3		28.6		30.8		57.4		49.3					
1	57	41.0	22	8	32.2	22	33	34.4	22	49	1.7	22	56	53.0
		119.7			125.6			136.7			207.6			229.1
1	57	33.94	22	8	25.12	22	33	27.34	22	48	53.52	22	56	46.82

Nov. 26, 1858.

A. U.

Ill. Pan

7 Aquarii		5 Pegasi		2 Pegasi	
	59.3		18.2		36.6
	2.9		21.8		40.3
	6.2		25.3		43.8
	9.1		28.8		47.3
22 27	13.2	33	32.1	22 58	51.2
	91.1		126.6		219.2
22 27	6.22	33	25.32	22 56	43.84

Nov. 28/29.

A.H.

All East

A.H.		All East	
α Leonis (claud)	β Leonis	γ Urs. Maj.	Moon TTD
34.0	41.5	8.5	27.1
37.3	43.3	14.1	31.0
40.8	49.0	20.1	34.7
44.2	52.6	26.4	38.2
11 28 48.0	11 40 56.2	11 41 32.5	11 52 42.0
204.3	244.6	102.4	173.4
11 28 40.86	11 40 49.92	11 41 20.48	11 52 34.88

Nov. 30.

A. H.
Pezari

Ill. East-

γ Piscium

33.5 41.1

37.2	44.8
------	------

40.9 48.1

44.2 51.4

22 5.6 48.0 23 8 55.0

203.8 250 240.4

22 56 40.7623 8 48.08

Nov. 30/31.

A.H.

All. East

 α Virginis

Moon 110

34.4

8.9

38.2

12.7

41.7

16.3

45.2

19.8

13 16

48.7

13

28

23.5

208.2

81.2

13 16

41.64

13

28

16.24

Dec. 1. 1858.

A. H.

M. Ear-

γ Piscium		κ Piscium	
	40.1		31.3
	43.9		34.9
	47.3		38.4
	50.7		41.8
23	8	54.2	23 18 45.2
	236.2		191.6
23	8	47.24	23 18 38.32

Dec. 5/6.

A.H.

Ill. Ear

γ Virginis			β Corvi			γ Virginis			δ Can. Ven.		
		24.8			41.8			14.1			6.2
		28.6			48.7			17.8			11.1
		32.0			49.4			21.3			15.7
		35.3			53.0			24.7			19.9
12	11	39.0	12	21	57.0	12	33	28.1	12	48	24.9
		159.7			246.9			106.0			77.8
12	11	31.94	12	25	49.38	12	33	21.20	12	48	15.56

Dec. 8/9

H. E. art

A. H.
2 Virginis

26.0

29.7

33.1

36.4

13 16 40.1

165.3

13. 16 33.06

Dec. 10

A.H.

Ill. Ear

Moon 10		β Aqnarii		ε Pegani		δ Capricorn	
	40.0		46.8		54.0		53.9
	44.0		50.6		57.8		57.8
	47.7		54.0		1.2		1.3
	51.2		57.3		4.7		5.1
21 19	55.2	21 23	1.0	21 36	8.4	21 38	8.8
	238.1		209.7		126.1		126.9
			269.7		6.1		6.9
21 19	47.62	21 22	53.94	21 36	1.22	21 38	1.38

Dec. 19/16. 1858.

A. H.

Ill. East-

 β Corvi γ Virginis

12 Can. Ven.

		30.4			2.5			55.4
		34.4			6.5			0.1
		38.2			9.8			4.4
		42.0			13.2			8.8
12	25	46.0	12	33	17.0	12	48	13.1
		191.0			49.0			81.8
12	25	38.20	12	33	9.80	12	48	4.36

Dec. 16.

A. H.

All. Ear.

γ Piscium	101	" Piscium	β Arietis	2	" Arietis	" Moon 10
28.7		46.5	23.3		41.1	3.0
32.3		50.2	27.1		49.6	6.8
36.0		53.9	30.9		53.3	10.3
39.4		57.3	34.4		57.0	13.9
1 22 43.2	1	27 1.0	1 41- 38.3	1	58 1.0	2 8 18.0
179.6		208.9	154.0		206.4	52.0
		268.9			266.4	
1 22 35.92	1	26 53.78	1 45- 30.80	1	57 53.28	2 8 10.40

Dec. 16, 1858.

A. H.

Ill. East

 π Arietis

58.0

1.8

5.3

8.9

2 40 12.8

86.8

26.8

2 40 5.36

Dec. 20.

A. H.

All. East

 α Cassiopea

53.9

0.2

6.4

12.3

31 18.9

91.7

31 6.74

Dec. 22. 1858.

A. H.

M. East

 β Ceti ϵ Piscium

58.3

5.6

2.2

9.1

5.9

12.7

9.3

16.0

0 35 13.2 0 54 19.7

88.9

63.1

0 35 5.78 0 54 12.62

Dec. 27.

A. H.

M. East

ϵ Piscium		γ Piscium		ν Piscium		β Arietis				
	0.9		19.8		29.2		14.3			
	4.5		23.3		32.9		18.2			
	8.0		27.0		36.4		21.8			
	11.4		30.4		39.7		25.4			
0 54	15.0	1	22 8	34.2	1	32	43.3	1	41-	29.2
	39.8			134.9			181.5			108.9
0 54	7.96	1	22	26.94	1	32	36.30	1	45-	21.78

Dec. 2/28. 1858.

A.H.

Ill. East

1858phae. p

ϵ Corvi		γ Virginis		β Corvi		12 Can. Ven.		θ Virginis							
	14.9		4.6		21.2		45.8		1.4						
	18.7		8.0		25.1		50.5		5.1						
	22.4		11.1		28.9		55.0		8.5						
	30.0		14.9		32.5		59.4		12.0						
12	1	26.0	12	11	18.3	12	25	36.5	12	48	4.0	13	1	15.4	13
		112.0			57.3			144.2			214.7			42.4	
											274.7				
12	1	22.40	12	11	11.46	12	25	28.84	12	47	54.94	13	1	8.48	13

Dec. 27/28.

A.H.

Ill. Ear

Moon 110

2 " Virginis

5 " Virginis

26.2

8.4

52.9

30.0

17.2

56.4

33.6

15.7

0.0

37.1

19.0

3.1

13 12

40.8

13

16

22.8

13

26

6.9

167.7

78.1

119.3

13 12

33.54

13

16

15.62

13

25

23.86

Dec. 28/29. 1858.

A.H.

Ill. East

1858phae. p

A. H.		" Virginis		" Virginis		h Virginis		" Bootis		" Moon 110					
	0.6		7.4		54.1		19.0		32.0						
	4.3		10.9		57.9		22.9		36.0						
	7.9		14.4		1.3		26.4		39.7						
	11.2		18.1		4.8		30.0		43.3						
13	1	14.9	13	16	21.9	13	24	8.3	13	46	34.0	14	1	47.3	14
	38.5		72.7		126.4					132.3				198.3	
					6.4										
13	1	7.78	13	16	14.54	13	24	1.28	13	46	26.46	14	1	39.66	14

Dec. 28/29.

A. U.

All. Eau

α Bootis

34.8

38.6

42.0

49.3

14 7 41.4

209.9

14 7 41.98

Jan. 1/5. 1859.

A. L.

M. Ear-

+ Lyrae.

20.9

25.4

29.9

34.2

18 30 38.9

149.3

18 30 29.86

$$\sum \xi^2 = 0.0176$$

$$\gamma = 0.045$$

Jan. 5.

A. H.

Ill. Ear

 α Piscium β Arietis α Arietis

21.4

6.1

28.9

25.0

10.3

32.7

28.4

14.0

36.4

31.8

17.1

40.2

1 32

35.7

1

41

21.3

1

57

44.0

142.3

69.1

187.2

1 32

28.461

41

13.921

57

36.44

Jan. 7/8

A. H.

 α Lyrae.

21.9

26.3

30.7

35.0

18 30 39.7

153.6

18 30 30.72

$$\Sigma \epsilon^2 = 0.0186$$

$$q = 0.046$$

Jan. 17/18

A.H.

M. Ear

 α Cor. Ber α Serpens lis

48.6

26.0

52.7

29.8

56.6

33.2

0.3

36.8

15 27

4.4

15 35

40.3

162.6

166.1

15 27

56.5

15 35

33.22

Jan. 19. 1859.

A. H.

M. East

 β Tauri δ Orionis α Leporis ϵ Orionis

25.0

51.2

33.3

6.6

29.0

54.9

37.1

10.1

32.9

58.3

40.9

13.7

36.8

1.7

44.4

17.0

5 15 40.8 5

23

5.3

5

24

48.15

27

20.1

164.1

171.4

203.8

67.9

5 15 32.90 5

22

58.28

5

24

40.763

27

13.58

Jan. 23/24.

Ill. Ear-

A. H.

 β Corvi γ Virginis

12 Can. Ven.

Moon 110

 δ Virginis

47.5

19.8

12.3

3.8

51.4

23.3

17.0

7.4

31.2

55.2

26.8

21.6

11.0

34.8

58.8

30.4

25.9

14.6

38.2

12 25 28.12 32 33.9 12 47 30.7 12 53 18.4 13 0 41.8

215.7

134.2

107.5

58.2

12 24 55.14 12 32 26.84 12 47 21.50 12 53 11.04

Jan. 23/24. 1889.

A. H.

58 Virginis 2 Virginis

52.6 34.4

56.2 38.0

59.7 41.5

2.9 48.0

13 8 6.7 13 15 49.0

178.1 207.9

13 7 59.62 13 15 41.58

Jan. 24.

M. E. an

A. H.

 α Persei γ Tauri

58.3

51.9

4.0

55.8

9.1

59.7

14.2

3.3

3 12 20.03

37. 7.3

105.6

178.0

3 12 9.12 3 36 59.60

Jan. 29th 1859.

A. H.

M. East

58 Virginis		" Virginis		" Moon TDD		" 2 Boies	
	48.2		29.9		0.2		56.8
	51.8		33.5		4.0		0.5
	54.2		37.2		7.6		4.2
	58.7		40.5		11.4		7.8
13 8	0 2.2 13	15	44.2 13	43	15.3	14	7 11.8
	216.1		188.3		38.5		81.1
13 7	55.22 13	15	37.06 13	43	7.70	14	7 4.22

Feb. 3/4

A.U.

M. East

 α Lyra

18.8

23.5

27.7

32.0

18 41 36.9

138.7

18 41 27.74

$$\Sigma \epsilon^2 = 0.0626$$

$$\gamma = 0.084$$

Feb. 1859.

A. H.

M. Ear-

x Lyrae

18.3

22.8

27.3

31.8

18 41 36.4

136.6

18 41 27.32

$$\Sigma z^2 = 0.0726$$

$$\gamma = 0.091$$

Feb. 5

A.U.

M. Ear

 β Arietis α Arietis

2.5

24.8

6.4

28.7

10.0

32.4

13.6

36.2

1 58 17.3 2 8 40.0

49.8

162.1

1 58 9.96 2 8 32.42

Feb. 10. 1859.

A. H.

M. East

 α Ceti δ Arietis

Moon TO

 π Tauri γ Tauri

6.8

46.1

52.1

32.8

18.2

10.3

49.8

56.8

36.9

22.0

14.0

53.3

0.8

40.6

25.7

17.4

57.0

4.4

44.3

29.3

3 4

21.0

3

13

0.8 3

26

8.5

3

41

48.3 3

48

33.4

4

69.5

207.0

123.0

202.9

128.6

3 4

13.90

3

12

53.40 3

25

0.60

3

41

40.88 3

48

28.72

4

Feb. 12, 1854.

A.U.

Ill. East-

v' Tauri

τ Tauri

Moon TO

s Gemini

α Aurigae

2			5.8			0.7			37.7			7.3			36.9
0			9.7			4.3			41.8			11.3			41.2
7			13.3			8.2			45.8			15.2			45.2
3			17.0			11.7			49.8			18.9			49.0
4	4	27	21.0	4	43	15.7	5	34	53.9	6	12	23.0	6	15	53.2
6			66.8			40.6			229.0			78.7			228.5
2	4	27	13.36	4	43	8.12	5	34	45.80	6	12	18.14	6	15	45.10

Feb. 14. 1859.

A.U.

Ill. East

δ Geminor	γ Geminor	β Geminor	Moon	TO
57.6	13.0	58.2		26.1
1.4	17.2	0.3		21.6
5.0	21.2	4.2		29.5
8.8	24.9	8.2		33.3
7 21 12.7	7 26 29.0	7 46 12.2	7 51 37.4	
85.1	105.3	81.9		147.3
7 21 5.10	7 26 21.06	7 46 4.22	7 51 29.46	

Feb. 17.

A. U.

M. Ear

γ Draconis	δ Herculis	ϵ Ophiuchi
-------------------	-------------------	---------------------

10.6	11.1	14.0
------	------	------

16.2	18.3	17.6
------	------	------

21.7	19.3	21.1
------	------	------

22.8	23.4	24.1
------	------	------

16 31 40.5	16 45 27.8	17 0 28.2
------------	------------	-----------

127.8	96.9	105.4
-------	------	-------

16 31 28.56	16 45 19.38	17 0 21.08
-------------	-------------	------------

Feb. 21. 1889

A.U.

 α Leporis" ϵ Orionis

46.4

19.7

50.2

23.3

53.8

26.8

57.3

30.2

 δ 36 1.1 δ

38 33.7

208.8

133.7

 δ 35 53.76 δ 38 26.74

Feb. 24.

Ill. E an.

"

E Orionis

A.U.		"		"	
β Tauri		α Leporis		ϵ Orionis	
	39.0		47.7		21.0
	43.2		51.6		24.1
	47.2		55.1		27.8
	51.0		58.7		31.1
5	26	55.0	5	36	2.4
				5	38
	238.4		218.5		139.1
5	26	47.08	5	35	55.10
				5	38
					27.82

March. 1. 1859.

A.H.

M. East

S Orionis

α Leporis

ε Orionis

7.6

49.5

23.1

11.3

53.3

26.6

14.7

57.2

29.9

18.0

0.9

33.3

5

34

21.55

36

4.8

5

38

36.9

73.1

161.7

149.8

5

34

14.625

35

57.15

5

38

29.96

March. 1/2

A. H.

Ill. Ear.

 α Cygni

.51.3

86.3

1.4

6.0

20 46 11.2

127.2

20 46 1.44

March. 4. 1859.

A.H.

M. East

1858phae.p

α^2 Geminor		α Can. Min.		β Geminor		δ Cancri		γ Argus							
	55.9		35.7		1.2		11.8		52.9						
	0.1		39.3		51.3		15.8		56.8						
	4.2		42.9		9.3		19.6		0.5						
	8.2		46.2		13.2		23.4		4.2						
7	35	12.6	7	40	49.5	7	46	17.2	8	4	27.6	8	11	8.2	1
	81.0		214.0		46.2		98.2		122.6						
7	35	4.20	7	40	42.80	7	46	9.24	8	4	19.64	8	11	0.52	1

March, 7.

A.U.

Polaris

11	18.7
13	40.9
15	58.1
18	13.2
1 20	35.4
	166.3
1 15	57.26

March 9, 1859.

1858phae.proj.

A.U.				M. Ear				C. W. P.							
Polaris				Moon TO		S Arietis		Pisui		S Gemini					
11	20.8			12.7		--		33.4		4.0					
13	42.9			16.8		--		39.0		7.8					
15	56.6			20.4		2.55		44.3		11.7					
18	8.2			24.4		--		49.4		15.3					
1	20	39.1	3	8	28.2	3	13	--	3	23	54.9	7	27	19.0	3
		167.6			102.5						221.0			57.8	
1	15	57.52	3	8	20.50				3	23	44.20	7	21	11.56	3

March, 10.

A. H.

Ill. East-

2 Persei

" "
 γ Tauri" "
 Moon 10

33.7

27.3

57.7

38.8

31.3

1.7

44.3

34.9

51.5

49.4

38.6

9.3

3 23

55.3

3

48

42.7

4

8

13.8

221.1

174.8

88.0

3 23

44.30

3

48

34.96

4

8

5.60

March. 1911. 1859

A.H.

M. East

α Ophiuchi		μ Herculis		γ Draconis					
	45.2		17.0		36.2				
	48.9		21.2		42.2				
	52.4		21.2		47.7				
	55.9		28.9		53.4				
17	37	59.7	17	50	33.1	18	2	59.1	7
	262.1		125.4		238.6				
17	37	52.42	17	50	25.08	18	2	47.72	7

March 14.

Ill. Ear

A.M.						Ill. Ear		
δ Geminor			α^2 Geminor			β Geminor		
		4.8			57.9			3.7
		8.6			2.2			7.8
		12.2			6.3			11.7
		15.8			10.4			15.1
7	21	19.8	7	35	14.8	7	46	19.6
		61.3			91.6			58.3
7	21	12.26	7	35	6.32	7	46	11.66

March. 16. 1859.

A. U.

All. East

A. U.			" "			B. A.C. 3345			" "			" "		
θ Uss Maj.			1 Leonis			1 Leonis			2 Leonis					
		46.3			18.0			23.2			3.0			16.6
		51.8			18.9			26.8			6.7			20.3
		57.5			22.7			30.4			10.3			23.8
		2.8			28.5			33.7			13.7			27.2
9	33	8.7	9	47	30.5	9	49	37.5	10	0	17.4	10	10	30.9
		167.1			113.6			151.6			51.1			118.8
9	32	57.42	9	47	22.72	9	49	30.32	10	0	10.22	10	10	23.76

March, 18

A. U.

Alt. East

A. A.		" "		" "		" "		" "		" "		" "	
Moon 10		45° Louis		p Louis		b Louis		2 Vis Map					
	4.2		37.0		48.1		15.8		18.4				
	8.0		40.6		51.7		19.4		26.7				
	11.6		44.1		55.2		22.9		33.9				
	15.0		47.6		58.6		26.3		41.2				
10	21	18.9	10 29	51.2	10 35	2.4	10 51	30.0	11 4	49.2			
	57.7		220.5		216.0		114.4		169.4				
10	25	11.54	10 29	44.80	10 34	55.30	10 51	22.88	11 4	33.88			

March, 21, 1859.

A. H.

Ill. Ear

♂ Geminoꝛ		51	♀ Cephæi	2	♂ Canis Maj	7	♀ Can. Maj	♂	♀ Geminoꝛ	0
	50.1		40	19.4		20.9		29.1		7.0
	54.0		41	37.4		24.8		33.3		11.0
	58.1		42	46.4		28.3		37.1		14.8
	1.8		44	0.6		31.8		41.0		—
6	24	58.6	41	12.0	6	48	35.4	7	2	41.2
	9	120.6		115.8		141.2		141.7		21
6	23	58.126	42	47.18	6	48	28.24	7	2	37.14

March 28, 1859.

A. H.

M. East

S. W. Min. sp.		51 Cephei		Sirius		ε Can. Maj.		γ Can. Maj.		
	25	18.8	40	20.0		19.8	28.3		46.9	
	26	20.5	41	35.3		23.6	32.4		50.6	
	27	17.0	42	46.0		27.2	36.3		54.2	
	28	15.0	43	56.6		30.8	40.2		57.7	
b	29	18.9 b	45	12.2 b	48	34.5 7	2	44.3 7	7	1.3
		87.2		170.1		135.9		181.5		210.7
b	27	17.44 b	42	34.02 b	48	27.18 7	2	36.30 7	6	54.14

March 28, 1859

Ill. Eau

A.H.		H.P.T.	
Geminor		Saturn Idimb	
	6.0		35.7
	9.8		39.2
	13.5		43.0
	17.1		46.5
7 21	21.1	8 41	50.3
	67.5		214.7
7 21	13.50	8 41	42.94

March, 30.

A.M.

Ill. East

2 ^d Geminor		" Can. Min		3 ^d Geminor	
	58.6		18.9		4.2
	2.9		22.6		8.2
	6.9		26.1		12.2
	10.8		29.5		16.0
7 35	15.4	7 41	33.2	7 46	20.0
	94.6		130.3		60.6

7 35 6.92 7 41 26.06 7 46 12.12

April 1. 1858

A. H.

Ill. East

8 Geminor

3.4

7.5

11.4

15.4

19.4

57.1

7

46

7

46

11.42

Apr. 4.

A.U.

Ill. East

 2^2 Gemini

57.2

1.4

5.6

9.4

7 35 13.7

87.3

7 35 5.46

Apr. 5. 1859.

A.H.

M. East

1858phae . pr

M.A.		ε Can. Maj.		δ Geminor		α Geminor		α Can. Min		β Geminor					
		25.8		3.5		56.9		17.4		2.4					
		30.0		7.4		1.0		21.0		6.6					
		33.9		11.2		5.2		24.5		10.5					
		37.8		14.8		9.2		27.9		14.4					
7	2	41.9	7	21	18.7	7	35	13.5	7	41	31.3	7	46	18.4	4
		169.4		55.6		85.8		122.1		52.3					
7	2	33.88	7	21	11.12	7	35	5.16	7	41	24.42	7	46	10.46	4

April 7.

Mt. Ear

A.H.

Moon ^{Cloudy} 10 7 α Aurigae β Tauri ϵ Orionis

22.3

34.5

43.0

24.8

26.4

39.5

47.4

28.5

30.2

44.6

51.2

31.9

34.3

49.6

58.0

35.3

4 52 38.45

15

54.75

26

59.35

38

38.8

151.6

222.9

255.9

159.3

4 52 30.325

15

44.585

26

51.185

38

31.86

April 8. 1859.

A. H.

Ill. East

Moon		μ Geminor		γ Geminor	
—		46.6		58.1	
11.4		50.6		59.0	
13.4		54.3		2.6	
19.3		58.0		6.0	
5 58 23.6	6 24	1.9	6 39	9.9	
		211.4		132.6	
	6 23	54.28	6 39	2.52	

Apr. 9. 1859.

A. H.

M. East

Auriga		μ Geminor		Moon 1.0.		ι Geminor		ν Geminor	
	43.9		46.5		53.8		18.8		34.8
	48.0		50.3		58.0		22.8		38.8
	51.9		54.2		2.1		26.7		42.6
	55.7		57.9		5.8		30.5		46.3
b 15	59.9	b 24	1.8	7 4	10.0	7 26	34.7	7 36	50.3
	259.4		210.7		129.7		133.5		212.8
b 15	51.88	b 23	54.14	7 4	1.94	7 26	26.70	7 36	42.56

April 12, 1859.

1858phae.proj.

A. L.				Ill. East											
Moon TO				2 Lionis		γ' Lionis		45 Lionis		p Lionis					
		35.6			12.9		32.8		33.3				44.5		
		39.3			16.5		36.5		37.0				48.1		
		43.0			19.9		40.2		40.4				51.6		
		46.4			23.4		43.7		43.8				55.0		
9	54	50.3	10	1	27.3	10	12	47.6	10	20	47.4	10	25	58.7	
		214.6			100.0			200.8			201.9			257.9	
9	54	42.92	10	1	20.00	10	12	40.16	10	20	40.38	10	25	51.58	

Apr. 15

A. U.

H. Eau

 η Cancri ϵ Hydrae

5		52.2		38.0	
1		56.2		41.7	
6		59.9		45.2	
0		3.4		48.5	
7	6	25	7.3	39	52.1
9			179.0		221.5
8	8	24	59.80	8	39
					45.10

Apr. 16. 1859.

M.P.7.

M. Ear

1858phae.p

♂ Corvi		γ' Virginis		ψ Virginis		γ Virginis		Moon TO			
	19.0		51.2		21.8		13.2		24.2		
	22.9		54.9		25.3		16.7		27.8		
	26.7		58.2		28.8		20.4		31.7		
	30.1		1.5		32.1		23.8		35.1		
12	27	34.0	12 35	5.2	12 47	33.8	13 2	27.3	13 22	38.9	13
	132.7		171.0		143.8		161.4		157.7		
12	27	26.54	12 34	58.20	12 47	28.76	13 2	20.28	13 22	31.54	13

Apr. 16

H.P. 7.

M. East

Winn 573?

2	16.2								
8	19.4								
7	23.0								
1	26.3								
9	13 34 30.2								
7	115.1								
54	13 34 23.02								

April 19. 1859.

H. P. T.

Ill. East

1858phae. p.

B.A.C. 4896		B.A.C. 4923		ψ Bootis		β Librae		Moon 110							
	2.5		34.2		43.4		45.6		59.7						
	5.9		38.0		47.4		49.3		3.8						
	9.6		41.7		51.3		52.8		7.5						
	13.0		45.2		55.0		56.1		11.3						
14	44	16.9	14	49	49.2	14	58	59.3	15	9	59.8	15	12	15.4	15
	47.9		208.3				256.4		263.6					97.7	
14	44	9.58	14	49	41.66	14	58	51.28	15	9	52.72	15	12	7.54	15

Apr. 18/19.

U. P. 7.

M. East

b Scorpii

p Scorpii

49.9

30.6

54.1

34.8

58.0

39.0

1.4

42.6

15 43

5.7

15 48

41.8

169.1

193.8

15 42

57.82

15

48

38.76

Apr. 7th. 1859.

A.M.

M. East

Polaris

	2	19.4
	4	39.0
	6	59.1
	9	11.2
1	14	35.5
		164.2
1	6	56.84

Apr. 20.

A.U.

M. E. C.

 ϵ Hydrae

2 Urs Maj

36.6

47.6

40.3

53.1

43.8

58.5

47.2

3.4

8 39

50.8

8

50

9.0

218.7

171.6

8 39

43.74

8

49

58.32

Apr. 24/25 1859.

A.M.

M. Ear

β Aquilae				2 ² Capricorn				2 Cygni				Moon T ¹⁰			
29.0				19.6				38.9				9.1			
32.5				23.2				44.0				13.2			
36.0				26.7				49.0				16.9			
39.3				30.2				53.7				20.6			
19	48	43.0	20 10	34.0	20	36	58.8	20	43	24.6					
179.8				133.7				244.4				84.4			
19	48	35.96	20 10	26.74	20	36	48.88	20	43	16.88					

Apr. 27.

A.U.

M. Eare

A. A.		"		"		"		"						
p Leonis		l Leonis		x Uis Mag		x Leonis		p Leonis						
	29.1		56.7		59.1		50.7		42.2					
	32.8		0.4		7.0		54.4		46.0					
	36.2		3.9		14.6		57.8		49.7					
	39.5		7.4		21.8		1.0		53.4					
10	25	43.3	10	42	11.0	55	29.7	10	58	4.8	11	6	57.3	
	180.9		79.4		132.2		168.7						248.6	
10	25	36.18	10	42	3.88	10	55	14.44	10	57	57.7	11	6	49.72

Apr. 29. 1859.

A. H.

M. Ear

 ε Leonis π Leonis α Leonis

54.6

50.2

56.1

58.4

54.0

52.9

2.3

57.4

3.4

5.9

0.9

6.9

9 38

10.0

9

53

4.4

10

1

10.6

131.2

166.9

136.9

9 38

2.24

9

52

57.38

10

1

3.38

May 2.

M. Ear

A.U.

 β Corvi γ Virginis

2.2

34.8

6.1

38.3

9.9

41.7

13.7

45.1

12 27

17.4

12

34

48.7

49.2

208.6

12 27

9.84

12

34

41.72

May 23. 1859.

A.H.

M. East

x Cygni

36.1

41.2

46.1

50.9

20 36 56.1

230.4

20 36 46.08

May 7.

A.U.

M. Ear

Moon	10	2	Uis	Maj	7	Louis	8	Louis
57.3				53.3			44.9	36.3
1.4				1.0			48.5	40.2
5.3				8.4			52.0	44.0
9.1				15.8			55.4	47.6
7 39 13.3	10	55	23.8	10	57	59.0	11 6	51.3
86.4			102.3			259.8		219.4

7 39 5.28 10 55 28.46 10 57 51.96 11 6 43.88

May 13. 1859.

A.H.

Ill. East

α Leonis		γ Leonis		ρ Leonis					
	48.3		8.3		20.0				
	52.1		12.1		23.7				
	55.6		15.8		27.1				
	59.0		19.4		30.6				
10	1	2.8	10 12	23.2	10 25	34.2			12
	217.8		12	78.8		135.6			
10	0	55.56	10 12	15.76	10 25	27.12			12

May 18. 1859.

A.H.

ϵ Corvi			γ Virginis			β Corvi			γ Virginis			12 Can. Ven.		
		45.2			34.8			51.9			24.1			17.1
		49.0			38.3			55.6			27.8			21.9
		52.7			41.9			59.4			31.2			26.1
		56.3			45.2			3.1			34.7			30.5
12	2	0.2	12	12	48.8	12	27	7.0	12	34	38.1	12	49	35.1
		203.4			209.0			177.0			155.9			130.7
12	1	52.68	12	12	41.80	12	26	59.40	12	34	31.18	12	49	26.14

May 23. 1859

A.H.

 δ Hyd. Crat. ν Leonis β Leonis

5.6

32.1

40.1

9.3

35.7

43.9

12.8

39.2

47.4

16.3

42.6

50.9

11 12

20.0

11 29

46.2

11 41

54.7

64.0

195.8

237.0

11 12

12.80

11 29

39.16

11 41

47.40

May 23/4.

M. East

A.H.			"			"			"			"		
β Aquarii			α Cephei			γ Capricorn			ϵ Pegasi			δ Capricorn		
55.9			50.7			45			3.0			3.1		
59.6			58.4			8.0			6.8			6.9		
3.0			5.8			11.6			10.2			10.5		
6.3			13.0			15.2			13.6			14.1		
21	24	10.1	21	15	21.1	21	32	19.0	21	37	17.4	21	39	17.8
134.9			149.0			58.3			51.0			52.4		
21	24	2.98	21	15	5.80	21	32	11.66	21	37	10.20	21	39	10.48

May $23\frac{1}{2}$. 1859.

A. M.

M. East.

Moon 110

[illegible]

21 57 45.56 05.01 75 100 1 50 10 0200 21 82.80 100 12

May 27.

A. H.

H. East

12 Can. Ven.		Polaris s.p.		α Virginis	
	7.6	2	19.0		29.8
	12.2	4	40.3		33.4
	16.6	6	54.8		36.9
	21.3	9	10.9		40.4
12 49	25.8	13	36.0	13	44.0
	82.5		161.0		184.5
12 49	16.70	13	6	56.20	13 17 36.90

June 6. 1859.

A. H.

Ill. East West

1858phae

Leonis		Moon 10		β Leonis		γ Leonis		δ Leonis	
	26.9		48.2		27.7		53.3		8.7
	30.6		51.9		31.4		1.6		5.5
	34.0		55.3		34.9		7.4		11.1
	37.5		—		38.4		13.3		18.5
10	0	41.2	10	14	—	41.1	42.2	46	19.5
	170.2					174.6		97.1	2.1
10	0	34.04				34.92	46	27.42	1.1

June 77

A. H.

 α Pegasi

M. Wene

23 57 26.9

June 7. 1859.

A. H.

Ill. West

2 Vis Maj.

Moon TV

8 Hyd. Crat.

27.9

55.4

52.8

35.7

59.2

56.4

43.0

2.6

59.9

50.4

6.0

3.5

10 54 58.3 H

6

9.8 H

12

7.2

215.3

133.0

179.8

10 54 43.06 H

6

2.60 H

11

59.96

June 7/10

Ill. W. L.

A. H.		"		Ill. W. L.		"		"		"	
32 Vulpecular		61 Cygni		5 Cygni		2 Cephei		3 Aquarii			
	8.2		8.9		31.0		40.1		44.4		
	12.2		13.6		35.3		47.6		48.0		
	16.1		17.7		39.1		54.7		51.3		
	20.0		22.1		42.9		2.0		54.9		
20	48	24.0	21	0	26.7	21	6	47.2	21	15	9.9
		80.5			89.0			195.5			154.3
											257.0
20	48	16.10	21	0	17.80	21	6	39.10	21	14	54.86
										21	23
											51.40

June 10th 1859.

H. P. T.

M. W. L.

61 Cygni

5 Cygni

8.8

30.9

13.2

35.2

17.3

38.8

21.9

42.9

21 0

26.9

21

6

47.0

88.1

194.8

21 0

17.6

21

6

38.96

June 11.

A.U.

Ill. West

 ρ Bootis

" Moon 10

2 Librae

i Librae

20.2

51.8

41.0

47.8

24.3

55.3

44.9

51.7

28.2

59.1

48.6

55.2

32.4

3.0

52.0

58.9

14 25

36.6

14

29

6.8

14

42

55.8

15

4

2.5

141.7

176.0

242.3

216.1

14 25

28.34

14

28

59.20

14

42

48.46

15

3

45.22

June 14, 1859.

A.U.				J.A. New			
12 Can. Ven.		0 Virginis		2 Virginis		5 Virginis	
	1.1		16.2		23.2		8.0
	5.7		19.9		27.0		11.7
	10.1		23.3		30.4		15.0
	—		26.8		33.9		18.4
12	49	19.1	13 2	30.3	13 17	37.6	13 27
			116.5		152.1		75.1
			13 2	23.30	13 17	30.42	13 27
							15.02

