

1878phase.jpg .489.

KG
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488

KG 1136548f



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Times of Eclipses of Jupiter's Satellites, 3

I. June 23. 1878. III.

Sid. Time	18	19	44	18	54	50	18	36	13	18	41	41	12	8	33
C. M. T.	12	9	45	12	44	45	12	26	11	12	31	38		23	41
Diff.	6	9	59	6	10	5	6	10	2	6	10	3	12	32	14
Comp. time											12	32	14		
O - C.								- 36 ³			- 36 ³				

II. June 29. 1878. I.

Sid. Time	19	42	38	20	42	48	19	31	51	19	35	28			
C. M. T.	13	8	45	14	8	45	12	58	0	13	1	36			
Diff.	6	33	53	6	34	3	6	33	51	6	33	52			
Comp. time															
O - C.															

III. June 30. 1878. II

Sid. time	18	46	24	19	46	34	19	23	16	19 ^h	26 ^m	10 ^s			
C. M. T.	12	9	45	13	9	45	12	46	31	12	49	24			
Diff.	6	36	39	6	36	49	6	36	45	6	36	46			
Comp. time															
O - C															

IV. July 7. 1878. II

Sid. time	21	15	29	22	50	47	22	26	25	22	29	16			
C. M. T.	14	9	45	15	44	45	15	20	28	15	23	18			
Diff.	7	5	44	7	6	2	7	5	54	7	5	58			
Comp. time															
O - C.															

V. July 15. 1878. I

Sid. time	19	26	48	20	12	55	19	54	44	19	55	40			
C. M. T.	11	49	45	12	35	45	12	17	37	12	18	33			
Diff.	7	37	43	7	37	10	7	37	7	7	37	7			
Comp. time															
O - C.															

~~Aug 2 - acc. cont. of~~
~~Sept 20~~

VI August 7, 1878 I			
Sid. time	22 59 22	24 14 35	23 56 10
C. M. J.	13 50 45	15 5 45	14 47 23
Diff.	9 8 37	9 8 50	9 8 47
Comp. time			
O - C			

VII August 19, 1878. I			
Sid. time	19 20 36	19 58 42	19 36 59
C. M. J.	9 27 45	10 5 45	9 44 5
Diff.	9 52 51	9 52 57	9 52 54
Comp. time			
O - C			

VIII August 23, 1878. I			
Sid. time	23 5 3	23 34 8	23 15 22
C. M. J.	12 55 45	13 24 45	13 6 2
Diff.	10 9 18	10 9 23	10 9 20
Comp. time			
O - C			

IX August 25, 1878, I			
Sid. time	17 1 58	18 9 9	17 51 6
C. M. J.	6 45 45	7 52 45	7 34 45
Diff.	10 16 13	10 16 24	10 16 21
Comp. time			
O - C			

X August 26, 1878. II			
Sid. time	21 4 34	22 59 53	22 40 3
C. M. J.	10 43 45	12 38 45	12 18 58
Diff.	10 20 49	10 21 8	10 21 5
Comp. time			
O - C			

	XI			Sept. 1			1878.			I		
Sid. time	19	56	8	21	54	27	20	13	56	20	17	6
G.M.T.	9	11	45	11	9	45	9	29	30	9	32	40
Diff.	10	44	23	10	44	42	10	44	26	10	44	26
Comp. time												
O-C												

✓

	XII	Sept. 1	1878.	IV	
Sid. time	19 56 8	21 54 27	21 15 45	21 23 15	
G. M. T.	9 11 45	11 9 45	10 31 9	10 38 38	
Diff	10 44 23	10 44 42	10 44 36	10 44 37	
Comp. time					
O-C					

	XIII			Sept. 8			1878			I		
Sid. time	22	12	11	22	53	18	22	37	29	22	41	25
C. M. T.	10	59	45	11	40	45	11	24	59	11	28	54
Diff.	11	12	26	11	12	33	11	12	30	11	12	31
Comp. time												
O - C												

	XIV Sept. 10. 1878. III											
Sid time	19	10	35	23	5	13	19	27	24	19	48	7
G. M. T.	7	50	45	11	44	45	8	7	30	8	28	9
Diff.	11	19	50	11	20	28	11	19	54	11	19	58
Comp. time												
O - C												

✓

XV Sept. 10, 1878. III												
Sid. time	19	10	35	23	5	13	23	22	16	23	37	49
G. M. T.	7	50	45	11	44	45	12	1	45	12	17	16
Diff.	11	19	50	11	20	28	11	20	31	11	20	33
Comp. time												
O - C												

Lid. time

C.M.J.

Diff

Comp. time

O-C

XVI

Sept. 10, 1878, III

19 10 35 23 5 13 23 12 30 23 19 45

7 50 45 11 44 45 11 52 1 11 59 15

11 19 50 11 20 28 11 20 29 11 20 30

XVII

Sept. 17 18⁷⁸ I

19 21 18 19 57 24 19 37 2 19 39 33

7 33 45 8 9 45 7 49 26 7 51 57

11 47 33 11 47 39 11 47 36 11 47 36

XVIII

Sept. 17, 1878. I

XIX

Sept 20 1878 II

21 40 32

21 26 6 21 30 12

9 40 45

W.

XX

Sept. 20, 1878 III

21 27 40 21 30 55

XXI Oct. 3, 1878. I

18	38	24	19	15	31	18	59	48	19	4	59
5	47	45	6	24	45	6	9	6	6	14	16
12	50	39	12	50	46	12	50	42	12	50	43

XXII Oct. 3, 1878, I

XXIII Oct. 10, 1878. I

20	59	29	21	41	36	21	22	59	21	27	35
7	40	45	8	22	45	8	4	11	8	8	46
13	18	44	13	18	51	13	18	48	13	18	49

XXIV Oct. 10, 1878. I

XXV Oct. 15, 1878. II

19	48	3	20	33	10	20	15	12	20	19	8
6	9	45	6	54	45	6	36	50	6	40	45
13	38	18	13	38	25	13	38	22	13	38	23

XXVI Oct. 15-1878. II

XXVII Oct. 16, 1878. III

21 37 18	24 13 44	21 49 39	21 57 20
7 54 45	10 30 45	8 7 4	8 14 43
13 42 33	13 42 59	13 42 35	13 42 37

XXVIII Oct. 17, 1878. I

23 26 33	23 56 38	23 47 4	23 49 50
9 39 45	10 9 45	10 0 12	10 2 58
13 46 48	13 46 53	13 46 52	13 46 52

XXIX Oct. 17, 1878, I

XXX Oct. 22, 1878. II

23 7 16	23 36 20	23 22 19	23 24 26
9 0 45	9 29 45	9 15 46	9 17 53
14 6 31	14 6 35	14 6 33	14 6 33

XXXI Oct 26 1878. I

20	31	39	21	9	45	20	46	13	20	50	21
6	9	45	6	47	45	6	24	16	6	28	24
14	21	54	14	22	0	14	21	57	14	21	57

XXXII Oct. 26 1878 I.

XXXIII Nov. 2, 1878. I

22	56	44	23	23	49	23	9	34	23	12	22
8	6	45	8	33	45	8	19	33	8	22	20
14	49	59	14	50	4	14	50	1	14	50	2

XXXIV Nov. 2, 1878. I

XXXV Nov. 7 1878 IV

21	9	13	22	9	23	21	41	20	21	⁴⁸ ~~55~~ ²⁷	⁸ ~~9~~ ⁵³
5	59	45	6	59	45	6	31	47	6	³⁸ ~~45~~ ⁵³	⁵³ ~~53~~
15	9	28	15	9	38	15	9	33	15	9	34

XXXVI Nov. 7, 1878. IV

XXXVII Dec. 18 1878 II

12 7 17	12 24 20	12 12 41	12 15 58
6 14 45	6 31 45	6 20 8	6 23 23
5-52 32	5-52 35	5-52 53	5-52 35

May 10, 1879. I

16 53 7	18 45 25	18 18 47	18 21 43
13 37 45	15 29 45	15 3 ~~19~~	15 6 ~~7~~ (?)
3 15 22	3 15 40	3 15 ~~36~~	3 15 ~~36~~

May 30, 1879. II

19 47 31	20 18 36	20 8 40	20 10 30
15 ~~13~~ 45	15 44 45	15 34 51	15 36 40
4 33 46	4 33 51	4 33 49	4 33 50

June 18, 1879. I

18 42 17	19 38 28	19 19 18	19 21 35
12 53 45	13 49 45	13 30 39	13 32 55
5-48 32	5-48 43	5-48 39	5-48 40

June 24, 1879. II

17	41	35	18	56	47	18	47	37	18	50	49
11	29	45	12	44	45	12	35	36	12	38	48
6	11	50	6	12	2	6	12	1	6	12	1

July 1 1879

21	14	43	22	0	50	21	49	31	21	53	39
14	34	45	15	20	45	15	9	28	15	13	35
6	39	58	6	40	5	6	40	3	6	40	4

July 15, 1879.

23	45	3	24	30	10	24	12	6	24	16	20
12	24	45	13	19	45	12	51	44	12	55	57
11	20	18	11	20	25	11	20	22	11	20	23

July 15, 1879.

27	19	38	28	0	44	27	42	18	27	48	46
15	58	45	16	39	45	16	21	22	16	27	49(?)
11	20	53	11	20	59	11	20	56	11	20	57

July 18 1879

22	41	9	23	36	18	23	21	51	23	24	18
14	54	45	15	49	45	15	35	20	15	37	47
7	46	24	7	46	33	7	46	31	7	46	31

I July 27 1879.

To be looked up in
the future.

See Chrono-
graph sheet.

IV August 2, 1879.

17	58	40	22	11	21	18	8	20	18	10	1
9	13	45	13	25	45	9	23	23	9	25	4
8	44	55	8	45	36	8	44	57	8	44	57

IV August 2 1879.

August 2, 1879.

22	11	21	23	50	37	22	32	51	22	36	50
13	25	45	15	4	45	13	47	12	13	51	10(?)
8	45	36	8	45	52	8	45	39	8	45	40

IV August 2 1879

II August 2 1879.

22	11	21	23	50	37	23	31	39	23	33	23
13	25	45	15	4	45	14	45	⁵⁰ ~~49~~	14	47	³³ ~~34~~ (?)
8	45	36	8	45	52	8	45	49	8	45	49

I August 3 1879.

22	5	42	23	5	52	22	49	50	22	51	48
13	9	45	14	9	45	13	53	46	13	55	43
8	55	57	8	56	7	8	56	4	8	56	5

I August 10, 1879

24	48	1	25	19	6	25	5	38	25	8	19
15	29	45	16	0	45	15	47	19	15	50	0
9	18	16	9	18	21	9	18	19	9	18	19

II August 2 1879

22	10	20	23	50	37	22	32	51	22	40	56
13	24	45	15	4	45	13	47	12	13	55	16
8	45	35	8	45	52	8	45	39	8	45	40

I August 12 1879.

19	13	53	19	56	0	19	42	22	19	44	3
9	48	45	10	30	45	10	17	9	10	18	50
9	25	8	9	25	15	9	25	13	9	25	13

57. I August 19, 1879.

21	37	34	22	28	42	22	5-	20	22	7	0
11	44	45	12	35	45	12	12	27	12	14	6
9	52	49	9	52	57	9	52	53	9	52	54

58. III August 20, 1879.

18	15	28	19	5-8	45	18	58	1	19	2	24
8	12	45	9	5-5	45	8	55	11	8	59	33
10	2	43	10	3	0	10	2	50	10	2	51

59. II August 20, 1879.

18	15	28	19	5-8	45	19	15	4	19	18	7
8	12	45	9	55	45	9	12	11	9	15	14
10	2	43	10	3	0	10	2	53	10	2	53

60. I August 28, 1879.

18	45	2	19	8	6	19	1	2	19	4	34
8	17	45	8	40	45	8	33	42	8	37	14 (?)
10	27	17	10	27	21	10	27	20	10	27	20

61. I Sept 6 1879

18	19	55	20	25	10	18	26	30	18	27	34
7	8	45	9	14	45	7	15	18	7	16	22
11	11	10	11	10	30	11	11	12	11	11	12

62. Sept. 14, 1879.

20 17 44 20 54 50 20 44 0 20 47 11
8 42 45 9 19 45 9 8 57 9 12 7
11 34 59 11 35 5 11 35 3 11 35 4

62. Sept. 20, 1879
~~22 47 49 25 17 54~~ already Computed at end.
~~10 58 45 11 18 45~~ Computed.

4

Sept. 25, 1879 probably omitted by mistake.
Computed at end.

66. Sept. 27, 1879.

~~24 14 39 24 51 46 24 29 13 24 31 28~~ X
~~12 47 45 13 24 45 13 2 16 13 4 31~~ Computed at end.
~~11 26 54 11 27 1 11 26 57 11 26 57~~

67. I Sept. 29, 1879.

19 52 34 20 33 41 20 5 2 20 8 24
7 18 45 7 59 45 7 31 11 7 34 32
12 33 49 12 33 56 12 33 51 12 33 52

68. III Oct 2, 1879.

~~23 30 4 24 41 16 24 16 10 24 19 13~~
~~11 43 45 12 54 45 12 29 43 12 32 46~~ (?) Computed at end.
~~11 46 19 11 46 31 11 46 27 11 46 27~~

69. IV Oct. 8, 1879.

23	0	24	23	46	31	23	33	12	23	34	16
9	50	45	10	36	45	10	23	28	10	24	32
13	9	39	13	9	46	13	9	44	13	9	44

71. III Oct. 9, 1879.

~~25~~	~~1~~	~~51~~	25	38	56	25	22	50	25	24	43
~~12~~	~~47~~	~~45~~	~~13~~	~~24~~	~~45~~	~~13~~	~~8~~	~~41~~	~~13~~	~~10~~	~~34~~
~~12~~	~~14~~	~~6~~	~~12~~	~~14~~	~~11~~	~~12~~	~~14~~	~~9~~	~~12~~	~~14~~	~~9~~

Computed
at end.

72. I Oct. 13, 1879.

23	26	12	24	8	19	23	51	6	23	54	54
10	56	45	11	38	45	11	21	35	11	25	22
12	29	27	12	29	34	12	29	31	12	29	32

74. II Oct. 16, 1879.

21	44	34	22	35	42	22	24	56	22	28	48
8	3	45	8	55	45	8	44	1	8	47	52
13	40	49	13	40	57	13	40	55	13	40	56

TV Oct. 25, 1879.

22	49	6	23	26	12	22	59	20	23	6	4
8	33	45	9	9	45	8	43	41	8	50	14
14	15	21	14	16	27	14	15	39	14	15	51

I Oct. 29 1879.

23 50 0	24 32 6	24 14 32	24 19 24
9 17 45	9 59 45	9 42 13	9 47 5
14 32 15	14 32 21	14 32 19	14 32 19

III Nov. 7, 1879.

20 5 14	20 37 20	20 23 58	20 28 20
4 57 45	5 29 45	5 16 25	5 20 47
15 7 29	15 7 35	15 7 33	15 7 33

I Nov. 7, 1879.

20 37 20	21 32 29	21 14 20	21 17 8
5 29 45	6 24 45	6 6 39	6 9 26
15 7 35	15 7 44	15 7 41	15 7 42

III Nov. 7, 1879.

21 32 29	24 13 55	23 45 44	23 49 23
6 24 45	9 5 45	8 37 39	8 41 17
15 7 44	15 8 10	15 8 5	15 8 6

II Nov. 10, 1879

20 49 5	28 0 16	21 11 18	21 17 23
5 29 45	12 39 45	5 51 54	5 57 58
15 19	20 15 20	31 15 19	24 15 19 25

I Nov. 30, 1879.

22	7	28	32	39	10	23	0	38	23	5	42
5	29	45	15	59	45	6	22	46	6	27	50
16	37	43	16	39	25	16	37	52	16	37	52

I Dec 7, 1879.

4	55	35	10	30	40	8	19	14	8	24	26
4	54	45	10	29	45	8	18	21	8	23	33
	50			55			53			53	

II Dec 12, 1879.

4	46	8	5	57	8	5	41	20	5	45	40
4	44	45	5	55	45	5	39	47	5	44	17
	1	23		1	23		1	23		1	23

I Dec. 16, 1879.

4	21	38	4	58	38	4	44	51	4	47	2
4	19	45	4	56	45	4	42	58	4	45	9
	1	53		1	53		1	53		1	53

III Dec. 20, 1879

23	11	38	26	42	13	23	27	18	23	30	49
5	14	45	8	44	45	5	30	22	5	33	43
17	56	53	17	57	28	17	56	56	17	56	56

I

January 8, 1880.

24	39	37	29	24	42	29	3	8	29	9	50
12	34	45	17	19	45	16	58	11	17	4	53
12	4	52	12	4	57	12	4	57	12	4	57

II

January 13, 1880.

5	5	5	6	5	36	38
5	49	45	5	31	17	
5	21	5	21			

I

May 23, 1880.

26	50	48	27	45	48	27	27	20	27	30	4
14	50	45	15	44	45	15	26	37	15	29	17
12	0	3	12	1	3	12	0	43	12	0	47

II

June 24, 1880

20	43	16	21	40	25	21	18	4	21	29	14
14	28	45	15	25	45	15	33	29	15	14	37
6	14	31	6	14	40	6	14	35	6	14	37

I

June 29, 1880.

12	51	56	13	42	56	13	26	38	13	32	12
12	48	45	13	39	45	13	23	27	13	29	1
3	11	3	11	3	11	3	11	3	11		

62. Sept. 20, 1879.

22 47 49	23 18 54	23 4 58	23 7 35
10 48 45	11 19 45	11 5 51	11 8 28
11 59 4	11 59 9	11 59 7	11 59 7

66. Sept. 27, 1879.

25 14 39	25 51 46	25 29 13	25 31 28
12 47 45	13 24 45	13 2 16	13 4 31
12 26 54	12 27 1	12 26 57	12 26 57

Sept. 25, 1879.

20 28 6	21 18 9	20 46 25	20 51 49
8 9 45	8 59 45	8 28 3	8 33 27
12 18 21	12 18 24	12 18 22	12 18 22

68. III Oct. 2, 1879

24 30 4	25 41 16	25 16 10	25 22 58
11 43 45	12 54 45	12 29 43	12 46 30
12 46 19	12 46 31	12 46 27	12 46 28

71. III Oct. 9, 1879.

26 1 51	26 38 56	26 19 50	26 24 43
12 47 45	13 24 45	13 5 42	13 10 34
13 14 6	13 14 11	13 14 8	13 14 9

