

EQUATION OF TIME FOR 1863, For the Meridian of Greenwich.

	JANV.		FEBV.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUG.		SEPT.		OCTO.		NOV.		DEC.	
	°	'	°	'	°	'	°	'	°	'	°	'	°	'	°	'	°	'	°	'	°	'	°	'
1	3	44	13	52	12	40	4	4	2	59	2	34	3	23	6	30	0	10	12	16	15	10	58	
2	4	12	14	0	12	25	3	46	3	7	2	25	3	34	6	0	19	10	31	16	17	14	30	
3	4	40	14	7	12	15	3	28	3	14	2	16	3	46	5	56	0	39	10	49	16	17	10	8
4	5	8	14	13	12	2	3	11	3	26	2	6	3	57	5	51	0	57	11	8	16	17	2	48
5	5	35	14	18	11	49	2	53	3	26	1	56	4	8	5	46	1	17	11	26	16	16	9	19
6	6	2	14	23	11	35	2	35	3	31	1	46	4	15	5	40	1	37	11	44	16	14	8	53
7	6	28	14	26	11	21	2	15	3	31	1	35	4	28	5	33	1	57	12	1	16	11	8	27
8	6	54	14	29	11	6	2	1	3	40	1	24	4	38	5	26	2	17	12	18	16	7	8	1
9	7	20	14	31	10	51	1	44	3	44	1	13	4	47	5	18	2	38	12	35	16	3	7	35
10	7	44	14	32	10	36	1	27	3	47	1	1	4	56	5	10	2	58	12	51	15	57	7	9
11	8	8	14	33	10	20	1	10	3	49	0	49	5	4	5	13	19	13	6	15	51	6	40	
12	8	32	14	32	10	4	0	54	3	51	0	37	5	12	4	51	3	40	13	21	15	44	6	12
13	8	55	14	31	9	47	0	38	3	53	0	25	5	20	4	41	1	13	36	15	36	5	54	
14	9	17	14	29	9	30	0	23	3	54	0	13	5	27	4	30	4	22	13	50	15	27	5	16
15	9	38	14	28	9	13	0	7	3	54	0	0	5	33	4	19	4	43	14	4	15	18	4	47
16	9	59	14	23	8	56	0	7	3	54	0	12	5	39	4	8	5	4	14	17	15	7	4	18
17	10	20	14	19	8	39	0	22	3	53	0	25	5	45	3	55	5	26	14	29	14	56	3	48
18	10	39	14	14	8	21	0	36	3	51	0	38	5	50	3	43	5	47	14	41	14	44	3	19
19	10	58	14	9	8	3	0	50	3	49	0	51	5	54	3	30	6	8	14	52	14	30	2	49
20	11	16	14	2	7	45	1	4	3	47	1	4	5	59	3	16	6	29	15	3	14	17	2	19
21	11	33	13	56	7	27	1	16	3	44	1	17	6	23	2	6	50	15	13	14	2	1	40	
22	11	50	13	48	7	8	1	29	3	40	1	30	6	52	4	7	7	11	15	22	13	46	1	19
23	12	5	13	40	6	50	1	41	3	36	1	43	6	72	3	27	31	15	3	13	30	0	49	
24	12	20	13	31	6	32	1	53	3	31	1	56	6	92	1	7	52	15	30	13	13	0	19	
25	12	35	13	22	6	13	2	4	3	25	2	8	6	112	1	18	12	15	46	12	55	0	11	
26	12	48	13	12	5	55	2	14	3	20	2	21	6	111	4	5	33	15	52	12	36	0	41	
27	13	1	13	2	5	38	2	24	3	13	2	34	6	121	2	8	52	15	52	12	17	1	11	
28	13	13	12	51	5	18	2	34	3	6	2	46	5	111	1	19	13	16	3	11	57	1	41	
29	13	24			4	59	2	43	2	59	2	59	6	100	5	49	33	16	7	11	36	2	10	
30	13	34			4	41	2	51	2	51	3	11	6	80	3	69	52	16	11	11	14	2	40	
31	13	43			4	23		2	43				6	60	18			16	13			3	9	

NOTE.—When the Sun is slow, Equation to be added to Apparent Time.—
When the Sun is Fast, Equation to be subtracted from Apparent Time.

ECLIPSES OF 1863.

In this year there will be two Eclipses of the SUN, and two of the MOON.

I.—A PARTIAL ECLIPSE OF THE SUN, May 17th, visible in Europe and the north western part of North America.

II.—A TOTAL ECLIPSE OF THE MOON, June 1st, partly visible as follows:

Total Phase ends, . . 7th. 15m., P. M., } Mean time at Boston.
Moon leaves shadow, 8h. 22m., P. M., }

III.—AN ANNULAR ECLIPSE OF THE SUN, Nov. 11th, visible in the Southern Ocean.

IV.—A PARTIAL ECLIPSE OF THE MOON, November 15th, visible as follows:

Moon enters shadow, 2h. 31m., A. M., } Mean time at Boston.
Middle of Eclipse, . . 4h. 12m., A. M., }
Moon leaves shadow, 5h. 35m., A. M., }