EPHEMERIS OF THE SUN

Pages 4–39 contain for every even hour of Greenwich civil time the *Equation of Time*, the *Sun's Declination*, and its *Greenwich Hour Angle*. Interpolation of the equation of time and the declination may be made by inspection and is facilitated by the *H. D. (Hourly Difference)* which is given at the end of each day. The Sun's Greenwich hour angle may be found for any Greenwich civil time by means of the interpolation table on every third page. These tables have been computed using a mean value of the motion (30° 0′.0 for two hours G. C. T.), which may in extreme cases produce an error of 0′.7. To avoid this error the minutes column of G. H. A. should be interpolated by inspection; i. e., multiply the difference (0′.0 to 0′.7) by the fractional part of two hours required and apply the product with the proper sign. At the end of the month is given the Sun's *Semidiameter* for every tenth day. The equation of time for 0^h Greenwich civil time is the hour angle at Greenwich of the true Sun at that instant minus 12 hours. When interpolated to any given Greenwich civil time, it is the correction to be applied to mean time in order to obtain apparent time.

The Sun's declination given in the Almanac and the right ascension used in computing the equation of time and the Greenwich hour angle are referred to the true equator and equinox, and are corrected for aberration. They are therefore apparent positions.

It is to be noted that here, as elsewhere throughout the volume, the positive sign used with declinations indicates north and the negative sign south.

EXAMPLES

As examples of the use of pages 2–39:—

1. Let the sidereal time be required for December 23, 1947, 8^h 3^m 30^s, A. M., at a place in longitude 85° 15′ or 5^h 41^m west from Greenwich.

	h	m	s
Greenwich sidereal time of 0^h Greenwich civil time, Dec. 23, page 3 .	6	2	46.4
Reduction for 5^h 41^m, bottom of page 2		+0	56.1
Local sidereal time of 0^h local civil time, Dec. 23	6	3	42.5
Add the local civil time	8	3	30.0
Reduction for 8^h 3^m 30^s.0, Table VI		+1	19.4
The required sidereal time	14	8	31.9

2. On December 23, 1947, A. M., at a place in longitude 85° 15′ or 5^h 41^m west from Greenwich, suppose the sidereal time to be 14^h 8^m 31^s.9 and that the corresponding civil time is required.

	h	m	s
Greenwich sidereal time of 0^h Greenwich time, Dec. 23, page 3 .	6	2	46.4
Reduction for 5^h 41^m, bottom of ·		+0	56.1
Local sidereal time of 0^h local ⌐ . 23	6	3	42.5
The given sidereal time	14	8	31.9
Subtracting the first from the second gives the sidereal interval from 0^h civil time	8	4	49.4
Reduction for 8^h 4^m 49^s.4, Table V		−1	19.5
The required local civil time	8	3	29.9

3. Let the Sun's right ascension, declination, and local hour angle be required for December 23, 1947, 8^h 3^m 30^s, A. M., at a place in longitude 85° 15′ or 5^h 41^m west from Greenwich.

		h	m	s
Local civil time	Dec. 23,	8	3	30
Longitude from Greenwich (additive)		5	41	0
Greenwich civil time	Dec. 23,	13	44	30 = 13^h.74

		Equation of Time	Sun's Declination
		m s	° ′
Dec. 23, 12ʰ, G. C. T.		+1 10.6	−23 26.7
Change in 1ʰ.74	−1ˢ.2×1.74	−2.1 0′.0×1.74	0.0
		+1 8.5	−23 26.7

Local Hour Angle			Right Ascension	
	° ′			h m s
G. H. A., Dec. 23, 12ʰ . . .	0 17.7		R. A. M. S. at 0ʰ, G. C. T. .	18 2 46.4
Corr. −0′ 7× $\frac{1.74}{2}$	−0.6		Corr. for 13ʰ 44ᵐ 30ˢ, Table VI.	+2 15.4
			Eq. of Time (sign changed) .	−1 8.5
Corr. for 1ʰ 44ᵐ 30ˢ (p. 39) .	26 7.5			
			Sun's right ascension	18 3 53.3
G. H. A.	26 24.6			
Longitude west (subtract) .	85 15.0			
Local H. A.	301 9.6			

The sign + must be used with the H. D. when the equation of time or Sun's declination, if itself positive, is increasing, or, if negative, is decreasing numerically; contrariwise, the sign − must be used with the H. D. when the equation of time or Sun's declination, if positive, is decreasing, or, if negative, is increasing numerically.

EPHEMERIS OF THE MOON

Pages 40–131 contain for each hour throughout the year the *Moon's Right Ascension* and *Declination*, referred to the true equator and equinox, and also the *Moon's Greenwich Hour Angle*. The hourly differences are tabulated to facilitate the use of the interpolation tables on pages 132–134.

At the foot of pages 40–131 are given the *Moon's Semidiameter* and *Horizontal Parallax* for 0ʰ Greenwich civil time of each day.

Page 131 contains also the *Phases of the Moon* for the entire year.

Pages 132–134 contain interpolation tables for finding the Moon's right ascension, declination, and Greenwich hour angle for any given Greenwich civil time, using the hourly differences of the quantities at the given time.

Example.—Let the Moon's right ascension, declination, and Greenwich hour angle be required for January 2, 1947, at 20ʰ 24ᵐ 44ˢ Greenwich civil time.

	Right Ascension	Declination	Greenwich Hour Angle
Hourly diff., Jan. 2, 20ʰ to 21ʰ (p. 40)	135ˢ	+13.′5	14° 28.′7
	h m s	° ′	° ′
Jan. 2, 20ʰ (p. 40)	2 37 54	+12 37.7	2 8.1
Change in 24ᵐ 44ˢ . . . . . (p. 134)	55 (p. 134)	+5.5 (p. 133)	5 58.2
Jan. 2, 20ʰ 24ᵐ 44ˢ, G. C. T.	2 38 49	+12 43.2	8 6.3

Pages 135–136 contain the Moon's civil *Time of Transit, Meridian of Greenwich*, accompanied by the *Variations per Hour;* that is, the variation for one hour of longitude, by means of which the local time of transit may be found for any place whose longitude is known.

EPHEMERIDES OF PLANETS

Pages 138–153 contain the *Right Ascensions*, the *Declinations*, and the *Greenwich Hour Angles* of the four planets, Venus, Mars, Jupiter, and Saturn, for 0ʰ Greenwich civil time of each day, referred to the true equator and equinox; and the times of *Transit, Meridian of Greenwich*, given to the nearest minute. The right ascensions and the declinations are accompanied by the difference or change in every 24-hour interval by means of which

TABLE V   287

SIDEREAL INTO MEAN SOLAR TIME

TO BE SUBTRACTED FROM A SIDEREAL TIME INTERVAL

Sidereal	0ʰ	1ʰ	2ʰ	3ʰ	4ʰ	5ʰ	6ʰ	7ʰ	8ʰ	9ʰ	10ʰ	11ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	0 0.0	0 9.8	0 19.7	0 29.5	0 39.3	0 49.1	0 59.0	1 8.8	1 18.6	1 28.5	1 38.3	1 48.1
1	0 0.2	0 10.0	0 19.8	0 29.7	0 39.5	0 49.3	0 59.1	1 9.0	1 18.8	1 28.6	1 38.5	1 48.3
2	0 0.3	0 10.2	0 20.0	0 29.8	0 39.6	0 49.5	0 59.3	1 9.1	1 19.0	1 28.8	1 38.6	1 48.5
3	0 0.5	0 10.3	0 20.2	0 30.0	0 39.8	0 49.6	0 59.5	1 9.3	1 19.1	1 29.0	1 38.8	1 48.6
4	0 0.7	0 10.5	0 20.3	0 30.1	0 40.0	0 49.8	0 59.6	1 9.5	1 19.3	1 29.1	1 39.0	1 48.8
5	0 0.8	0 10.6	0 20.5	0 30.3	0 40.1	0 50.0	0 59.8	1 9.6	1 19.5	1 29.3	1 39.1	1 48.9
6	0 1.0	0 10.8	0 20.6	0 30.5	0 40.3	0 50.1	1 0.0	1 9.8	1 19.6	1 29.4	1 39.3	1 49.1
7	0 1.1	0 11.0	0 20.8	0 30.6	0 40.5	0 50.3	1 0.1	1 10.0	1 19.8	1 29.6	1 39.4	1 49.3
8	0 1.3	0 11.1	0 21.0	0 30.8	0 40.6	0 50.5	1 0.3	1 10.1	1 19.9	1 29.8	1 39.6	1 49.4
9	0 1.5	0 11.3	0 21.1	0 31.0	0 40.8	0 50.6	1 0.5	1 10.3	1 20.1	1 29.9	1 39.8	1 49.6
10	0 1.6	0 11.5	0 21.3	0 31.1	0 41.0	0 50.8	1 0.6	1 10.4	1 20.3	1 30.1	1 39.9	1 49.8
11	0 1.8	0 11.6	0 21.5	0 31.3	0 41.1	0 51.0	1 0.8	1 10.6	1 20.4	1 30.3	1 40.1	1 49.9
12	0 2.0	0 11.8	0 21.6	0 31.5	0 41.3	0 51.1	1 0.9	1 10.8	1 20.6	1 30.4	1 40.3	1 50.1
13	0 2.1	0 12.0	0 21.8	0 31.6	0 41.4	0 51.3	1 1.1	1 10.9	1 20.8	1 30.6	1 40.4	1 50.3
14	0 2.3	0 12.1	0 22.0	0 31.8	0 41.6	0 51.4	1 1.3	1 11.1	1 20.9	1 30.8	1 40.6	1 50.4
15	0 2.5	0 12.3	0 22.1	0 31.9	0 41.8	0 51.6	1 1.4	1 11.3	1 21.1	1 30.9	1 40.8	1 50.6
16	0 2.6	0 12.5	0 22.3	0 32.1	0 41.9	0 51.8	1 1.6	1 11.4	1 21.3	1 31.1	1 40.9	1 50.7
17	0 2.8	0 12.6	0 22.4	0 32.3	0 42.1	0 51.9	1 1.8	1 11.6	1 21.4	1 31.3	1 41.1	1 50.9
18	0 2.9	0 12.8	0 22.6	0 32.4	0 42.3	0 52.1	1 1.9	1 11.8	1 21.6	1 31.4	1 41.2	1 51.1
19	0 3.1	0 12.9	0 22.8	0 32.6	0 42.4	0 52.3	1 2.1	1 11.9	1 21.7	1 31.6	1 41.4	1 51.2
20	0 3.3	0 13.1	0 22.9	0 32.8	0 42.6	0 52.4	1 2.3	1 12.1	1 21.9	1 31.7	1 41.6	1 51.4
21	0 3.4	0 13.3	0 23.1	0 32.9	0 42.8	0 52.6	1 2.4	1 12.2	1 22.1	1 31.9	1 41.7	1 51.6
22	0 3.6	0 13.4	0 23.3	0 33.1	0 42.9	0 52.8	1 2.6	1 12.4	1 22.2	1 32.1	1 41.9	1 51.7
23	0 3.8	0 13.6	0 23.4	0 33.3	0 43.1	0 52.9	1 2.7	1 12.6	1 22.4	1 32.2	1 42.1	1 51.9
24	0 3.9	0 13.8	0 23.6	0 33.4	0 43.2	0 53.1	1 2.9	1 12.7	1 22.6	1 32.4	1 42.2	1 52.1
25	0 4.1	0 13.9	0 23.8	0 33.6	0 43.4	0 53.2	1 3.1	1 12.9	1 22.7	1 32.6	1 42.4	1 52.2
26	0 4.3	0 14.1	0 23.9	0 33.7	0 43.6	0 53.4	1 3.2	1 13.1	1 22.9	1 32.7	1 42.6	1 52.4
27	0 4.4	0 14.3	0 24.1	0 33.9	0 43.7	0 53.6	1 3.4	1 13.2	1 23.1	1 32.9	1 42.7	1 52.5
28	0 4.6	0 14.4	0 24.2	0 34.1	0 43.9	0 53.7	1 3.6	1 13.4	1 23.2	1 33.1	1 42.9	1 52.7
29	0 4.8	0 14.6	0 24.4	0 34.2	0 44.1	0 53.9	1 3.7	1 13.6	1 23.4	1 33.2	1 43.0	1 52.9
30	0 4.9	0 14.7	0 24.6	0 34.4	0 44.2	0 54.1	1 3.9	1 13.7	1 23.6	1 33.4	1 43.2	1 53.0
31	0 5.1	0 14.9	0 24.7	0 34.6	0 44.4	0 54.2	1 4.1	1 13.9	1 23.7	1 33.5	1 43.4	1 53.2
32	0 5.2	0 15.1	0 24.9	0 34.7	0 44.6	0 54.4	1 4.2	1 14.0	1 23.9	1 33.7	1 43.5	1 53.4
33	0 5.4	0 15.2	0 25.1	0 34.9	0 44.7	0 54.6	1 4.4	1 14.2	1 24.0	1 33.9	1 43.7	1 53.5
34	0 5.6	0 15.4	0 25.2	0 35.1	0 44.9	0 54.7	1 4.5	1 14.4	1 24.2	1 34.0	1 43.9	1 53.7
35	0 5.7	0 15.6	0 25.4	0 35.2	0 45.1	0 54.9	1 4.7	1 14.5	1 24.4	1 34.2	1 44.0	1 53.9
36	0 5.9	0 15.7	0 25.6	0 35.4	0 45.2	0 55.0	1 4.9	1 14.7	1 24.5	1 34.4	1 44.2	1 54.0
37	0 6.1	0 15.9	0 25.7	0 35.6	0 45.4	0 55.2	1 5.0	1 14.9	1 24.7	1 34.5	1 44.4	1 54.2
38	0 6.2	0 16.1	0 25.9	0 35.7	0 45.5	0 55.4	1 5.2	1 15.0	1 24.9	1 34.7	1 44.5	1 54.4
39	0 6.4	0 16.2	0 26.0	0 35.9	0 45.7	0 55.5	1 5.4	1 15.2	1 25.0	1 34.9	1 44.7	1 54.5
40	0 6.6	0 16.4	0 26.2	0 36.0	0 45.9	0 55.7	1 5.5	1 15.4	1 25.2	1 35.0	1 44.8	1 54.7
41	0 6.7	0 16.5	0 26.4	0 36.2	0 46.0	0 55.9	1 5.7	1 15.5	1 25.4	1 35.2	1 45.0	1 54.8
42	0 6.9	0 16.7	0 26.5	0 36.4	0 46.2	0 56.0	1 5.9	1 15.7	1 25.5	1 35.3	1 45.2	1 55.0
43	0 7.0	0 16.9	0 26.7	0 36.5	0 46.4	0 56.2	1 6.0	1 15.9	1 25.7	1 35.5	1 45.3	1 55.2
44	0 7.2	0 17.0	0 26.9	0 36.7	0 46.5	0 56.4	1 6.2	1 16.0	1 25.8	1 35.7	1 45.5	1 55.3
45	0 7.4	0 17.2	0 27.0	0 36.9	0 46.7	0 56.5	1 6.4	1 16.2	1 26.0	1 35.8	1 45.7	1 55.5
46	0 7.5	0 17.4	0 27.2	0 37.0	0 46.9	0 56.7	1 6.5	1 16.3	1 26.2	1 36.0	1 45.8	1 55.7
47	0 7.7	0 17.5	0 27.4	0 37.2	0 47.0	0 56.8	1 6.7	1 16.5	1 26.3	1 36.2	1 46.0	1 55.8
48	0 7.9	0 17.7	0 27.5	0 37.4	0 47.2	0 57.0	1 6.8	1 16.7	1 26.5	1 36.3	1 46.2	1 56.0
49	0 8.0	0 17.9	0 27.7	0 37.5	0 47.3	0 57.2	1 7.0	1 16.8	1 26.7	1 36.5	1 46.3	1 56.2
50	0 8.2	0 18.0	0 27.8	0 37.7	0 47.5	0 57.3	1 7.2	1 17.0	1 26.8	1 36.7	1 46.5	1 56.3
51	0 8.4	0 18.2	0 28.0	0 37.8	0 47.7	0 57.5	1 7.3	1 17.2	1 27.0	1 36.8	1 46.7	1 56.5
52	0 8.5	0 18.3	0 28.2	0 38.0	0 47.8	0 57.7	1 7.5	1 17.3	1 27.2	1 37.0	1 46.8	1 56.6
53	0 8.7	0 18.5	0 28.3	0 38.2	0 48.0	0 57.8	1 7.7	1 17.5	1 27.3	1 37.1	1 47.0	1 56.8
54	0 8.8	0 18.7	0 28.5	0 38.3	0 48.2	0 58.0	1 7.8	1 17.7	1 27.5	1 37.3	1 47.1	1 57.0
55	0 9.0	0 18.8	0 28.7	0 38.5	0 48.3	0 58.2	1 8.0	1 17.8	1 27.6	1 37.5	1 47.3	1 57.1
56	0 9.2	0 19.0	0 28.8	0 38.7	0 48.5	0 58.3	1 8.2	1 18.0	1 27.8	1 37.6	1 47.5	1 57.3
57	0 9.3	0 19.2	0 29.0	0 38.8	0 48.7	0 58.5	1 8.3	1 18.1	1 28.0	1 37.8	1 47.6	1 57.5
58	0 9.5	0 19.3	0 29.2	0 39.0	0 48.8	0 58.6	1 8.5	1 18.3	1 28.1	1 38.0	1 47.8	1 57.6
59	0 9.7	0 19.5	0 29.3	0 39.2	0 49.0	0 58.8	1 8.6	1 18.5	1 28.3	1 38.1	1 48.0	1 57.8

TABLE V

SIDEREAL INTO MEAN SOLAR TIME

TO BE SUBTRACTED FROM A SIDEREAL TIME INTERVAL

Sidereal	12^h	13^h	14^h	15^h	16^h	17^h	18^h	19^h	20^h	21^h	22^h	23^h
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	1 58.0	2 7.8	2 17.6	2 27.4	2 37.3	2 47.1	2 56.9	3 6.8	3 16.6	3 26.4	3 36.2	3 46.1
1	1 58.1	2 7.9	2 17.8	2 27.6	2 37.4	2 47.3	2 57.1	3 6.9	3 16.8	3 26.6	3 36.4	3 46.2
2	1 58.3	2 8.1	2 17.9	2 27.8	2 37.6	2 47.4	2 57.3	3 7.1	3 16.9	3 26.7	3 36.6	3 46.4
3	1 58.4	2 8.3	2 18.1	2 27.9	2 37.8	2 47.6	2 57.4	3 7.2	3 17.1	3 26.9	3 36.7	3 46.6
4	1 58.6	2 8.4	2 18.3	2 28.1	2 37.9	2 47.8	2 57.6	3 7.4	3 17.2	3 27.1	3 36.9	3 46.7
5	1 58.8	2 8.6	2 18.4	2 28.3	2 38.1	2 47.9	2 57.8	3 7.6	3 17.4	3 27.2	3 37.1	3 46.9
6	1 58.9	2 8.8	2 18.6	2 28.4	2 38.3	2 48.0	2 57.9	3 7.7	3 17.6	3 27.4	3 37.2	3 47.1
7	1 59.1	2 8.9	2 18.8	2 28.6	2 38.4	2 48.2	2 58.1	3 7.9	3 17.7	3 27.6	3 37.4	3 47.2
8	1 59.3	2 9.1	2 18.9	2 28.8	2 38.6	2 48.4	2 58.2	3 8.1	3 17.9	3 27.7	3 37.6	3 47.4
9	1 59.4	2 9.3	2 19.1	2 28.9	2 38.7	2 48.6	2 58.4	3 8.2	3 18.1	3 27.9	3 37.7	3 47.6
10	1 59.6	2 9.4	2 19.3	2 29.1	2 38.9	2 48.7	2 58.6	3 8.4	3 18.2	3 28.1	3 37.9	3 47.7
11	1 59.8	2 9.6	2 19.4	2 29.2	2 39.1	2 48.9	2 58.7	3 8.6	3 18.4	3 28.2	3 38.1	3 47.9
12	1 59.9	2 9.8	2 19.6	2 29.4	2 39.2	2 49.1	2 58.9	3 8.7	3 18.6	3 28.4	3 38.2	3 48.0
13	2 0.1	2 9.9	2 19.7	2 29.6	2 39.4	2 49.2	2 59.1	3 8.9	3 18.7	3 28.6	3 38.4	3 48.2
14	2 0.2	2 10.1	2 19.9	2 29.7	2 39.6	2 49.4	2 59.2	3 9.1	3 18.9	3 28.7	3 38.5	3 48.4
15	2 0.4	2 10.2	2 20.1	2 29.9	2 39.7	2 49.6	2 59.4	3 9.2	3 19.0	3 28.9	3 38.7	3 48.5
16	2 0.6	2 10.4	2 20.2	2 30.1	2 39.9	2 49.7	2 59.6	3 9.4	3 19.2	3 29.0	3 38.9	3 48.7
17	2 0.7	2 10.6	2 20.4	2 30.2	2 40.1	2 49.9	2 59.7	3 9.5	3 19.4	3 29.2	3 39.0	3 48.9
18	2 0.9	2 10.7	2 20.6	2 30.4	2 40.2	2 50.1	2 59.9	3 9.7	3 19.5	3 29.4	3 39.2	3 49.0
19	2 1.1	2 10.9	2 20.7	2 30.6	2 40.4	2 50.2	3 0.0	3 9.9	3 19.7	3 29.5	3 39.4	3 49.2
20	2 1.2	2 11.1	2 20.9	2 30.7	2 40.5	2 50.4	3 0.2	3 10.0	3 19.9	3 29.7	3 39.5	3 49.4
21	2 1.4	2 11.2	2 21.1	2 30.9	2 40.7	2 50.5	3 0.4	3 10.2	3 20.0	3 29.9	3 39.7	3 49.5
22	2 1.6	2 11.4	2 21.2	2 31.0	2 40.9	2 50.7	3 0.5	3 10.4	3 20.2	3 30.0	3 39.9	3 49.7
23	2 1.7	2 11.6	2 21.4	2 31.2	2 41.0	2 50.9	3 0.7	3 10.5	3 20.4	3 30.2	3 40.0	3 49.8
24	2 1.9	2 11.7	2 21.5	2 31.4	2 41.2	2 51.0	3 0.9	3 10.7	3 20.5	3 30.4	3 40.2	3 50.0
25	2 2.0	2 11.9	2 21.7	2 31.5	2 41.4	2 51.2	3 1.0	3 10.9	3 20.7	3 30.5	3 40.3	3 50.2
26	2 2.2	2 12.0	2 21.9	2 31.7	2 41.5	2 51.4	3 1.2	3 11.0	3 20.9	3 30.7	3 40.5	3 50.3
27	2 2.4	2 12.2	2 22.0	2 31.9	2 41.7	2 51.5	3 1.4	3 11.2	3 21.0	3 30.8	3 40.7	3 50.5
28	2 2.5	2 12.4	2 22.2	2 32.0	2 41.9	2 51.7	3 1.5	3 11.3	3 21.2	3 31.0	3 40.8	3 50.7
29	2 2.7	2 12.5	2 22.4	2 32.2	2 42.0	2 51.9	3 1.7	3 11.5	3 21.3	3 31.2	3 41.0	3 50.8
30	2 2.9	2 12.7	2 22.5	2 32.4	2 42.2	2 52.0	3 1.8	3 11.7	3 21.5	3 31.3	3 41.2	3 51.0
31	2 3.0	2 12.9	2 22.7	2 32.5	2 42.4	2 52.2	3 2.0	3 11.8	3 21.7	3 31.5	3 41.3	3 51.2
32	2 3.2	2 13.0	2 22.9	2 32.7	2 42.5	2 52.3	3 2.2	3 12.0	3 21.8	3 31.7	3 41.5	3 51.3
33	2 3.4	2 13.2	2 23.0	2 32.8	2 42.7	2 52.5	3 2.3	3 12.2	3 22.0	3 31.8	3 41.7	3 51.5
34	2 3.5	2 13.4	2 23.2	2 33.0	2 42.8	2 52.7	3 2.5	3 12.3	3 22.2	3 32.0	3 41.8	3 51.6
35	2 3.7	2 13.5	2 23.3	2 33.2	2 43.0	2 52.8	3 2.6	3 12.5	3 22.3	3 32.2	3 42.0	3 51.8
36	2 3.9	2 13.7	2 23.5	2 33.3	2 43.2	2 53.0	3 2.8	3 12.7	3 22.5	3 32.3	3 42.1	3 52.0
37	2 4.0	2 13.8	2 23.7	2 33.5	2 43.3	2 53.2	3 3.0	3 12.8	3 22.7	3 32.5	3 42.3	3 52.1
38	2 4.2	2 14.0	2 23.8	2 33.7	2 43.5	2 53.3	3 3.2	3 13.0	3 22.8	3 32.6	3 42.5	3 52.3
39	2 4.3	2 14.2	2 24.0	2 33.8	2 43.7	2 53.5	3 3.3	3 13.2	3 23.0	3 32.8	3 42.6	3 52.5
40	2 4.5	2 14.3	2 24.2	2 34.0	2 43.8	2 53.7	3 3.5	3 13.3	3 23.1	3 33.0	3 42.8	3 52.6
41	2 4.7	2 14.5	2 24.3	2 34.2	2 44.0	2 53.8	3 3.6	3 13.5	3 23.3	3 33.1	3 43.0	3 52.8
42	2 4.8	2 14.7	2 24.5	2 34.3	2 44.2	2 54.0	3 3.8	3 13.6	3 23.5	3 33.3	3 43.1	3 53.0
43	2 5.0	2 14.8	2 24.7	2 34.5	2 44.3	2 54.1	3 4.0	3 13.8	3 23.6	3 33.5	3 43.3	3 53.1
44	2 5.2	2 15.0	2 24.8	2 34.7	2 44.5	2 54.3	3 4.1	3 14.0	3 23.8	3 33.6	3 43.5	3 53.3
45	2 5.3	2 15.2	2 25.0	2 34.8	2 44.6	2 54.5	3 4.3	3 14.1	3 24.0	3 33.8	3 43.6	3 53.5
46	2 5.5	2 15.3	2 25.2	2 35.0	2 44.8	2 54.6	3 4.5	3 14.3	3 24.1	3 34.0	3 43.8	3 53.6
47	2 5.7	2 15.5	2 25.3	2 35.1	2 45.0	2 54.8	3 4.6	3 14.5	3 24.3	3 34.1	3 44.0	3 53.8
48	2 5.8	2 15.6	2 25.5	2 35.3	2 45.1	2 55.0	3 4.8	3 14.6	3 24.5	3 34.3	3 44.1	3 53.9
49	2 6.0	2 15.8	2 25.6	2 35.5	2 45.3	2 55.1	3 5.0	3 14.8	3 24.6	3 34.4	3 44.3	3 54.1
50	2 6.1	2 16.0	2 25.8	2 35.6	2 45.5	2 55.3	3 5.1	3 15.0	3 24.8	3 34.6	3 44.4	3 54.3
51	2 6.3	2 16.1	2 26.0	2 35.8	2 45.6	2 55.5	3 5.3	3 15.1	3 24.9	3 34.8	3 44.6	3 54.4
52	2 6.5	2 16.3	2 26.1	2 36.0	2 45.8	2 55.6	3 5.5	3 15.3	3 25.1	3 34.9	3 44.8	3 54.6
53	2 6.6	2 16.5	2 26.3	2 36.1	2 46.0	2 55.8	3 5.6	3 15.4	3 25.3	3 35.1	3 44.9	3 54.8
54	2 6.8	2 16.6	2 26.5	2 36.3	2 46.1	2 55.9	3 5.8	3 15.6	3 25.4	3 35.3	3 45.1	3 54.9
55	2 7.0	2 16.8	2 26.6	2 36.5	2 46.3	2 56.1	3 5.9	3 15.8	3 25.6	3 35.4	3 45.3	3 55.1
56	2 7.1	2 17.0	2 26.8	2 36.6	2 46.4	2 56.3	3 6.1	3 15.9	3 25.8	3 35.6	3 45.4	3 55.3
57	2 7.3	2 17.1	2 27.0	2 36.8	2 46.6	2 56.4	3 6.3	3 16.1	3 25.9	3 35.8	3 45.6	3 55.4
58	2 7.5	2 17.3	2 27.1	2 36.9	2 46.8	2 56.6	3 6.4	3 16.3	3 26.1	3 35.9	3 45.8	3 55.6
59	2 7.6	2 17.4	2 27.3	2 37.1	2 46.9	2 56.8	3 6.6	3 16.4	3 26.3	3 36.1	3 45.9	3 55.7

TABLE VI   289

MEAN SOLAR INTO SIDEREAL TIME
TO BE ADDED TO A MEAN TIME INTERVAL

Mean Solar	0^h	1^h	2^h	3^h	4^h	5^h	6^h	7^h	8^h	9^h	10^h	11^h
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	0 0.0	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4
1	0 0.2	0 10.0	0 19.9	0 29.7	0 39.6	0 49.4	0 59.3	1 9.2	1 19.0	1 28.9	1 38.7	1 48.6
2	0 0.3	0 10.2	0 20.0	0 29.9	0 39.8	0 49.6	0 59.5	1 9.3	1 19.2	1 29.0	1 38.9	1 48.8
3	0 0.5	0 10.3	0 20.2	0 30.1	0 39.9	0 49.8	0 59.6	1 9.5	1 19.3	1 29.2	1 39.1	1 48.9
4	0 0.7	0 10.5	0 20.4	0 30.2	0 40.1	0 49.9	0 59.8	1 9.7	1 19.5	1 29.4	1 39.2	1 49.1
5	0 0.8	0 10.7	0 20.5	0 30.4	0 40.2	0 50.1	1 0.0	1 9.8	1 19.7	1 29.5	1 39.4	1 49.2
6	0 1.0	0 10.8	0 20.7	0 30.6	0 40.4	0 50.3	1 0.1	1 10.0	1 19.8	1 29.7	1 39.6	1 49.4
7	0 1.2	0 11.0	0 20.9	0 30.7	0 40.6	0 50.4	1 0.3	1 10.1	1 20.0	1 29.9	1 39.7	1 49.6
8	0 1.3	0 11.2	0 21.0	0 30.9	0 40.7	0 50.6	1 0.5	1 10.3	1 20.2	1 30.0	1 39.9	1 49.7
9	0 1.5	0 11.3	0 21.2	0 31.0	0 40.9	0 50.8	1 0.6	1 10.5	1 20.3	1 30.2	1 40.0	1 49.9
10	0 1.6	0 11.5	0 21.4	0 31.2	0 41.1	0 50.9	1 0.8	1 10.6	1 20.5	1 30.4	1 40.2	1 50.1
11	0 1.8	0 11.7	0 21.5	0 31.4	0 41.2	0 51.1	1 0.9	1 10.8	1 20.7	1 30.5	1 40.4	1 50.2
12	0 2.0	0 11.8	0 21.7	0 31.5	0 41.4	0 51.3	1 1.1	1 11.0	1 20.8	1 30.7	1 40.5	1 50.4
13	0 2.1	0 12.0	0 21.8	0 31.7	0 41.6	0 51.4	1 1.3	1 11.1	1 21.0	1 30.8	1 40.7	1 50.6
14	0 2.3	0 12.2	0 22.0	0 31.9	0 41.7	0 51.6	1 1.4	1 11.3	1 21.2	1 31.0	1 40.9	1 50.7
15	0 2.5	0 12.3	0 22.2	0 32.0	0 41.9	0 51.7	1 1.6	1 11.5	1 21.3	1 31.2	1 41.0	1 50.9
16	0 2.6	0 12.5	0 22.3	0 32.2	0 42.1	0 51.9	1 1.8	1 11.6	1 21.5	1 31.3	1 41.2	1 51.0
17	0 2.8	0 12.6	0 22.5	0 32.4	0 42.2	0 52.1	1 1.9	1 11.8	1 21.6	1 31.5	1 41.4	1 51.2
18	0 3.0	0 12.8	0 22.7	0 32.5	0 42.4	0 52.2	1 2.1	1 12.0	1 21.8	1 31.7	1 41.5	1 51.4
19	0 3.1	0 13.0	0 22.8	0 32.7	0 42.5	0 52.4	1 2.3	1 12.1	1 22.0	1 31.8	1 41.7	1 51.5
20	0 3.3	0 13.1	0 23.0	0 32.9	0 42.7	0 52.6	1 2.4	1 12.3	1 22.1	1 32.0	1 41.8	1 51.7
21	0 3.4	0 13.3	0 23.2	0 33.0	0 42.9	0 52.7	1 2.6	1 12.4	1 22.3	1 32.2	1 42.0	1 51.9
22	0 3.6	0 13.5	0 23.3	0 33.2	0 43.0	0 52.9	1 2.8	1 12.6	1 22.5	1 32.3	1 42.2	1 52.0
23	0 3.8	0 13.6	0 23.5	0 33.3	0 43.2	0 53.1	1 2.9	1 12.8	1 22.6	1 32.5	1 42.3	1 52.2
24	0 3.9	0 13.8	0 23.7	0 33.5	0 43.4	0 53.2	1 3.1	1 12.9	1 22.8	1 32.7	1 42.5	1 52.4
25	0 4.1	0 14.0	0 23.8	0 33.7	0 43.5	0 53.4	1 3.2	1 13.1	1 23.0	1 32.8	1 42.7	1 52.5
26	0 4.3	0 14.1	0 24.0	0 33.8	0 43.7	0 53.6	1 3.4	1 13.3	1 23.1	1 33.0	1 42.8	1 52.7
27	0 4.4	0 14.3	0 24.1	0 34.0	0 43.9	0 53.7	1 3.6	1 13.4	1 23.3	1 33.1	1 43.0	1 52.9
28	0 4.6	0 14.5	0 24.3	0 34.2	0 44.0	0 53.9	1 3.7	1 13.6	1 23.5	1 33.3	1 43.2	1 53.0
29	0 4.8	0 14.6	0 24.5	0 34.3	0 44.2	0 54.0	1 3.9	1 13.8	1 23.6	1 33.5	1 43.3	1 53.2
30	0 4.9	0 14.8	0 24.6	0 34.5	0 44.4	0 54.2	1 4.1	1 13.9	1 23.8	1 33.6	1 43.5	1 53.3
31	0 5.1	0 14.9	0 24.8	0 34.7	0 44.5	0 54.4	1 4.2	1 14.1	1 23.9	1 33.8	1 43.7	1 53.5
32	0 5.3	0 15.1	0 25.0	0 34.8	0 44.7	0 54.5	1 4.4	1 14.3	1 24.1	1 34.0	1 43.8	1 53.7
33	0 5.4	0 15.3	0 25.1	0 35.0	0 44.8	0 54.7	1 4.6	1 14.4	1 24.3	1 34.1	1 44.0	1 53.8
34	0 5.6	0 15.4	0 25.3	0 35.2	0 45.0	0 54.9	1 4.7	1 14.6	1 24.4	1 34.3	1 44.2	1 54.0
35	0 5.8	0 15.6	0 25.5	0 35.3	0 45.2	0 55.0	1 4.9	1 14.7	1 24.6	1 34.5	1 44.3	1 54.2
36	0 5.9	0 15.8	0 25.6	0 35.5	0 45.3	0 55.2	1 5.1	1 14.9	1 24.8	1 34.6	1 44.5	1 54.3
37	0 6.1	0 15.9	0 25.8	0 35.6	0 45.5	0 55.4	1 5.2	1 15.1	1 24.9	1 34.8	1 44.6	1 54.5
38	0 6.2	0 16.1	0 26.0	0 35.8	0 45.7	0 55.5	1 5.4	1 15.2	1 25.1	1 35.0	1 44.8	1 54.7
39	0 6.4	0 16.3	0 26.1	0 36.0	0 45.8	0 55.7	1 5.5	1 15.4	1 25.3	1 35.1	1 45.0	1 54.8
40	0 6.6	0 16.4	0 26.3	0 36.1	0 46.0	0 55.9	1 5.7	1 15.6	1 25.4	1 35.3	1 45.1	1 55.0
41	0 6.7	0 16.6	0 26.4	0 36.3	0 46.2	0 56.0	1 5.9	1 15.7	1 25.6	1 35.4	1 45.3	1 55.2
42	0 6.9	0 16.8	0 26.6	0 36.5	0 46.3	0 56.2	1 6.0	1 15.9	1 25.8	1 35.6	1 45.5	1 55.3
43	0 7.1	0 16.9	0 26.8	0 36.6	0 46.5	0 56.3	1 6.2	1 16.1	1 25.9	1 35.8	1 45.6	1 55.5
44	0 7.2	0 17.1	0 26.9	0 36.8	0 46.7	0 56.5	1 6.4	1 16.2	1 26.1	1 35.9	1 45.8	1 55.6
45	0 7.4	0 17.2	0 27.1	0 37.0	0 46.8	0 56.7	1 6.5	1 16.4	1 26.2	1 36.1	1 46.0	1 55.8
46	0 7.6	0 17.4	0 27.3	0 37.1	0 47.0	0 56.8	1 6.7	1 16.6	1 26.4	1 36.3	1 46.1	1 56.0
47	0 7.7	0 17.6	0 27.4	0 37.3	0 47.1	0 57.0	1 6.9	1 16.7	1 26.6	1 36.4	1 46.3	1 56.1
48	0 7.9	0 17.7	0 27.6	0 37.5	0 47.3	0 57.2	1 7.0	1 16.9	1 26.7	1 36.6	1 46.4	1 56.3
49	0 8.0	0 17.9	0 27.8	0 37.6	0 47.5	0 57.3	1 7.2	1 17.0	1 26.9	1 36.8	1 46.6	1 56.5
50	0 8.2	0 18.1	0 27.9	0 37.8	0 47.6	0 57.5	1 7.4	1 17.2	1 27.1	1 36.9	1 46.8	1 56.6
51	0 8.4	0 18.2	0 28.1	0 37.9	0 47.8	0 57.7	1 7.5	1 17.4	1 27.2	1 37.1	1 46.9	1 56.8
52	0 8.5	0 18.4	0 28.3	0 38.1	0 48.0	0 57.8	1 7.7	1 17.5	1 27.4	1 37.3	1 47.1	1 57.0
53	0 8.7	0 18.6	0 28.4	0 38.3	0 48.1	0 58.0	1 7.8	1 17.7	1 27.6	1 37.4	1 47.3	1 57.1
54	0 8.9	0 18.7	0 28.6	0 38.4	0 48.3	0 58.2	1 8.0	1 17.9	1 27.7	1 37.6	1 47.4	1 57.3
55	0 9.0	0 18.9	0 28.7	0 38.6	0 48.5	0 58.3	1 8.2	1 18.0	1 27.9	1 37.7	1 47.6	1 57.5
56	0 9.2	0 19.1	0 28.9	0 38.8	0 48.6	0 58.5	1 8.3	1 18.2	1 28.1	1 37.9	1 47.8	1 57.6
57	0 9.4	0 19.2	0 29.1	0 38.9	0 48.8	0 58.6	1 8.5	1 18.4	1 28.2	1 38.1	1 47.9	1 57.8
58	0 9.5	0 19.4	0 29.2	0 39.1	0 49.0	0 58.8	1 8.7	1 18.5	1 28.4	1 38.2	1 48.1	1 57.9
59	0 9.7	0 19.5	0 29.4	0 39.3	0 49.1	0 59.0	1 8.8	1 18.7	1 28.5	1 38.4	1 48.3	1 58.1

TABLE VI

MEAN SOLAR INTO SIDEREAL TIME

TO BE ADDED TO A MEAN TIME INTERVAL

Mean Solar	12ʰ	13ʰ	14ʰ	15ʰ	16ʰ	17ʰ	18ʰ	19ʰ	20ʰ	21ʰ	22ʰ	23ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	1 58.3	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7
1	1 58.4	2 8.3	2 18.2	2 28.0	2 37.9	2 47.7	2 57.6	3 7.4	3 17.3	3 27.2	3 37.0	3 46.9
2	1 58.6	2 8.5	2 18.3	2 28.2	2 38.0	2 47.9	2 57.7	3 7.6	3 17.5	3 27.3	3 37.2	3 47.0
3	1 58.8	2 8.6	2 18.5	2 28.3	2 38.2	2 48.1	2 57.9	3 7.8	3 17.6	3 27.5	3 37.3	3 47.2
4	1 58.9	2 8.8	2 18.6	2 28.5	2 38.4	2 48.2	2 58.1	3 7.9	3 17.8	3 27.6	3 37.5	3 47.4
5	1 59.1	2 9.0	2 18.8	2 28.7	2 38.5	2 48.4	2 58.2	3 8.1	3 18.0	3 27.8	3 37.7	3 47.5
6	1 59.3	2 9.1	2 19.0	2 28.8	2 38.7	2 48.5	2 58.4	3 8.3	3 18.1	3 28.0	3 37.8	3 47.7
7	1 59.4	2 9.3	2 19.1	2 29.0	2 38.9	2 48.7	2 58.6	3 8.4	3 18.3	3 28.1	3 38.0	3 47.8
8	1 59.6	2 9.4	2 19.3	2 29.2	2 39.0	2 48.9	2 58.7	3 8.6	3 18.4	3 28.3	3 38.2	3 48.0
9	1 59.8	2 9.6	2 19.5	2 29.3	2 39.2	2 49.0	2 58.9	3 8.8	3 18.6	3 28.5	3 38.3	3 48.2
10	1 59.9	2 9.8	2 19.6	2 29.5	2 39.3	2 49.2	2 59.1	3 8.9	3 18.8	3 28.6	3 38.5	3 48.3
11	2 0.1	2 9.9	2 19.8	2 29.7	2 39.5	2 49.4	2 59.2	3 9.1	3 18.9	3 28.8	3 38.6	3 48.5
12	2 0.2	2 10.1	2 20.0	2 29.8	2 39.7	2 49.5	2 59.4	3 9.2	3 19.1	3 29.0	3 38.8	3 48.7
13	2 0.4	2 10.3	2 20.1	2 30.0	2 39.8	2 49.7	2 59.6	3 9.4	3 19.3	3 29.1	3 39.0	3 48.8
14	2 0.6	2 10.4	2 20.3	2 30.1	2 40.0	2 49.9	2 59.7	3 9.6	3 19.4	3 29.3	3 39.1	3 49.0
15	2 0.7	2 10.6	2 20.5	2 30.3	2 40.2	2 50.0	2 59.9	3 9.7	3 19.6	3 29.4	3 39.3	3 49.2
16	2 0.9	2 10.8	2 20.6	2 30.5	2 40.3	2 50.2	3 0.0	3 9.9	3 19.8	3 29.6	3 39.5	3 49.3
17	2 1.1	2 10.9	2 20.8	2 30.6	2 40.5	2 50.4	3 0.2	3 10.1	3 19.9	3 29.8	3 39.6	3 49.5
18	2 1.2	2 11.1	2 20.9	2 30.8	2 40.7	2 50.5	3 0.4	3 10.2	3 20.1	3 29.9	3 39.8	3 49.7
19	2 1.4	2 11.3	2 21.1	2 31.0	2 40.8	2 50.7	3 0.5	3 10.4	3 20.3	3 30.1	3 40.0	3 49.8
20	2 1.6	2 11.4	2 21.3	2 31.1	2 41.0	2 50.8	3 0.7	3 10.6	3 20.4	3 30.3	3 40.1	3 50.0
21	2 1.7	2 11.6	2 21.4	2 31.3	2 41.2	2 51.0	3 0.9	3 10.7	3 20.6	3 30.4	3 40.3	3 50.1
22	2 1.9	2 11.7	2 21.6	2 31.5	2 41.3	2 51.2	3 1.0	3 10.9	3 20.7	3 30.6	3 40.5	3 50.3
23	2 2.1	2 11.9	2 21.8	2 31.6	2 41.5	2 51.3	3 1.2	3 11.1	3 20.9	3 30.8	3 40.6	3 50.5
24	2 2.2	2 12.1	2 21.9	2 31.8	2 41.6	2 51.5	3 1.4	3 11.2	3 21.1	3 30.9	3 40.8	3 50.6
25	2 2.4	2 12.2	2 22.1	2 32.0	2 41.8	2 51.7	3 1.5	3 11.4	3 21.2	3 31.1	3 40.9	3 50.8
26	2 2.5	2 12.4	2 22.3	2 32.1	2 42.0	2 51.8	3 1.7	3 11.5	3 21.4	3 31.3	3 41.1	3 51.0
27	2 2.7	2 12.6	2 22.4	2 32.3	2 42.1	2 52.0	3 1.9	3 11.7	3 21.6	3 31.4	3 41.3	3 51.1
28	2 2.9	2 12.7	2 22.6	2 32.4	2 42.3	2 52.2	3 2.0	3 11.9	3 21.7	3 31.6	3 41.4	3 51.3
29	2 3.0	2 12.9	2 22.8	2 32.6	2 42.5	2 52.3	3 2.2	3 12.0	3 21.9	3 31.8	3 41.6	3 51.5
30	2 3.2	2 13.1	2 22.9	2 32.8	2 42.6	2 52.5	3 2.3	3 12.2	3 22.1	3 31.9	3 41.8	3 51.6
31	2 3.4	2 13.2	2 23.1	2 32.9	2 42.8	2 52.7	3 2.5	3 12.4	3 22.2	3 32.1	3 41.9	3 51.8
32	2 3.5	2 13.4	2 23.2	2 33.1	2 43.0	2 52.8	3 2.7	3 12.5	3 22.4	3 32.2	3 42.1	3 52.0
33	2 3.7	2 13.6	2 23.4	2 33.3	2 43.1	2 53.0	3 2.8	3 12.7	3 22.6	3 32.4	3 42.3	3 52.1
34	2 3.9	2 13.7	2 23.6	2 33.4	2 43.3	2 53.1	3 3.0	3 12.9	3 22.7	3 32.6	3 42.4	3 52.3
35	2 4.0	2 13.9	2 23.7	2 33.6	2 43.5	2 53.3	3 3.2	3 13.0	3 22.9	3 32.7	3 42.6	3 52.4
36	2 4.2	2 14.0	2 23.9	2 33.8	2 43.6	2 53.5	3 3.3	3 13.2	3 23.0	3 32.9	3 42.8	3 52.6
37	2 4.4	2 14.2	2 24.1	2 33.9	2 43.8	2 53.6	3 3.5	3 13.4	3 23.2	3 33.1	3 42.9	3 52.8
38	2 4.5	2 14.4	2 24.2	2 34.1	2 43.9	2 53.8	3 3.7	3 13.5	3 23.4	3 33.2	3 43.1	3 52.9
39	2 4.7	2 14.5	2 24.4	2 34.3	2 44.1	2 54.0	3 3.8	3 13.7	3 23.5	3 33.4	3 43.2	3 53.1
40	2 4.8	2 14.7	2 24.6	2 34.4	2 44.3	2 54.1	3 4.0	3 13.8	3 23.7	3 33.6	3 43.4	3 53.3
41	2 5.0	2 14.9	2 24.7	2 34.6	2 44.4	2 54.3	3 4.2	3 14.0	3 23.9	3 33.7	3 43.6	3 53.4
42	2 5.2	2 15.0	2 24.9	2 34.7	2 44.6	2 54.5	3 4.3	3 14.2	3 24.0	3 33.9	3 43.7	3 53.6
43	2 5.3	2 15.2	2 25.1	2 34.9	2 44.8	2 54.6	3 4.5	3 14.3	3 24.2	3 34.0	3 43.9	3 53.8
44	2 5.5	2 15.4	2 25.2	2 35.1	2 44.9	2 54.8	3 4.6	3 14.5	3 24.4	3 34.2	3 44.1	3 53.9
45	2 5.7	2 15.5	2 25.4	2 35.2	2 45.1	2 55.0	3 4.8	3 14.7	3 24.5	3 34.4	3 44.2	3 54.1
46	2 5.8	2 15.7	2 25.5	2 35.4	2 45.3	2 55.1	3 5.0	3 14.8	3 24.7	3 34.5	3 44.4	3 54.3
47	2 6.0	2 15.9	2 25.7	2 35.6	2 45.4	2 55.3	3 5.1	3 15.0	3 24.8	3 34.7	3 44.6	3 54.4
48	2 6.2	2 16.0	2 25.9	2 35.7	2 45.6	2 55.4	3 5.3	3 15.2	3 25.0	3 34.9	3 44.7	3 54.6
49	2 6.3	2 16.2	2 26.0	2 35.9	2 45.8	2 55.6	3 5.5	3 15.3	3 25.2	3 35.0	3 44.9	3 54.7
50	2 6.5	2 16.3	2 26.2	2 36.1	2 45.9	2 55.8	3 5.6	3 15.5	3 25.3	3 35.2	3 45.1	3 54.9
51	2 6.7	2 16.5	2 26.4	2 36.2	2 46.1	2 55.9	3 5.8	3 15.7	3 25.5	3 35.4	3 45.2	3 55.1
52	2 6.8	2 16.7	2 26.5	2 36.4	2 46.2	2 56.1	3 6.0	3 15.8	3 25.7	3 35.5	3 45.4	3 55.2
53	2 7.0	2 16.8	2 26.7	2 36.6	2 46.4	2 56.3	3 6.1	3 16.0	3 25.8	3 35.7	3 45.5	3 55.4
54	2 7.1	2 17.0	2 26.9	2 36.7	2 46.6	2 56.4	3 6.3	3 16.1	3 26.0	3 35.9	3 45.7	3 55.6
55	2 7.3	2 17.2	2 27.0	2 36.9	2 46.7	2 56.6	3 6.5	3 16.3	3 26.2	3 36.0	3 45.9	3 55.7
56	2 7.5	2 17.3	2 27.2	2 37.0	2 46.9	2 56.8	3 6.6	3 16.5	3 26.3	3 36.2	3 46.0	3 55.9
57	2 7.6	2 17.5	2 27.4	2 37.2	2 47.1	2 56.9	3 6.8	3 16.6	3 26.5	3 36.4	3 46.2	3 56.1
58	2 7.8	2 17.7	2 27.5	2 37.4	2 47.2	2 57.1	3 6.9	3 16.8	3 26.7	3 36.5	3 46.4	3 56.2
59	2 8.0	2 17.8	2 27.7	2 37.5	2 47.4	2 57.3	3 7.1	3 17.0	3 26.8	3 36.7	3 46.5	3 56.4

SUN, 1947

Day of Month	Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)					
	January	February	March	April	May	June
	h m s	h m s	h m s	h m s	h m s	h m s
1	6 39 12.5	8 41 25.8	10 31 49.3	12 34 2.5	14 32 19.1	16 34 32.3
2	6 43 9.0	8 45 22.3	10 35 45.9	12 37 59.0	14 36 15.7	16 38 28.9
3	6 47 5.6	8 49 18.9	10 39 42.4	12 41 55.6	14 40 12.2	16 42 25.5
4	6 51 2.2	8 53 15.5	10 43 39.0	12 45 52.1	14 44 8.8	16 46 22.0
5	6 54 58.7	8 57 12.0	10 47 35.6	12 49 48.7	14 48 5.3	16 50 18.6
6	6 58 55.3	9 1 8.6	10 51 32.1	12 53 45.2	14 52 1.9	16 54 15.1
7	7 2 51.8	9 5 5.1	10 55 28.7	12 57 41.8	14 55 58.4	16 58 11.7
8	7 6 48.4	9 9 1.7	10 59 25.2	13 1 38.3	14 59 55.0	17 2 8.3
9	7 10 45.0	9 12 58.2	11 3 21.8	13 5 34.9	15 3 51.5	17 6 4.8
10	7 14 41.5	9 16 54.8	11 7 18.3	13 9 31.4	15 7 48.1	17 10 1.4
11	7 18 38.1	9 20 51.3	11 11 14.9	13 13 28.0	15 11 44.7	17 13 57.9
12	7 22 34.6	9 24 47.9	11 15 11.4	13 17 24.6	15 15 41.2	17 17 54.5
13	7 26 31.2	9 28 44.4	11 19 8.0	13 21 21.1	15 19 37.8	17 21 51.0
14	7 30 27.8	9 32 41.0	11 23 4.5	13 25 17.7	15 23 34.3	17 25 47.6
15	7 34 24.3	9 36 37.6	11 27 1.1	13 29 14.2	15 27 30.9	17 29 44.2
16	7 38 20.9	9 40 34.1	11 30 57.6	13 33 10.8	15 31 27.4	17 33 40.7
17	7 42 17.4	9 44 30.7	11 34 54.2	13 37 7.3	15 35 24.0	17 37 37.3
18	7 46 14.0	9 48 27.2	11 38 50.7	13 41 3.9	15 39 20.5	17 41 33.8
19	7 50 10.5	9 52 23.8	11 42 47.3	13 45 0.4	15 43 17.1	17 45 30.4
20	7 54 7.1	9 56 20.3	11 46 43.8	13 48 57.0	15 47 13.7	17 49 27.0
21	7 58 3.7	10 0 16.9	11 50 40.4	13 52 53.5	15 51 10.2	17 53 23.5
22	8 2 0.2	10 4 13.4	11 54 36.9	13 56 50.1	15 55 6.8	17 57 20.1
23	8 5 56.8	10 8 10.0	11 58 33.5	14 0 46.6	15 59 3.3	18 1 16.6
24	8 9 53.3	10 12 6.5	12 2 30.0	14 4 43.2	16 2 59.9	18 5 13.2
25	8 13 49.9	10 16 3.1	12 6 26.6	14 8 39.8	16 6 56.5	18 9 9.8
26	8 17 46.4	10 19 59.6	12 10 23.1	14 12 36.3	16 10 53.0	18 13 6.3
27	8 21 43.0	10 23 56.2	12 14 19.7	14 16 32.9	16 14 49.6	18 17 2.9
28	8 25 39.5	10 27 52.8	12 18 16.2	14 20 29.4	16 18 46.1	18 20 59.4
29	8 29 36.1	10 31 49.3	12 22 12.8	14 24 26.0	16 22 42.7	18 24 56.0
30	8 33 32.7	10 35 45.9	12 26 9.4	14 28 22.6	16 26 39.2	18 28 52.5
31	8 37 29.2	10 39 42.4	12 30 5.9	14 32 19.1	16 30 35.8	18 32 49.1

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude	0ʰ	1ʰ	2ʰ	3ʰ	4ʰ	5ʰ	6ʰ	7ʰ	8ʰ	9ʰ	10ʰ	11ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	0 0.0	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4
5	0 0.8	0 10.7	0 20.5	0 30.4	0 40.2	0 50.1	1 0.0	1 9.8	1 19.7	1 29.5	1 39.4	1 49.2
10	0 1.6	0 11.5	0 21.4	0 31.2	0 41.1	0 50.9	1 0.8	1 10.6	1 20.5	1 30.4	1 40.2	1 50.1
15	0 2.5	0 12.3	0 22.2	0 32.0	0 41.9	0 51.7	1 1.6	1 11.5	1 21.3	1 31.2	1 41.0	1 50.9
20	0 3.3	0 13.1	0 23.0	0 32.9	0 42.7	0 52.6	1 2.4	1 12.3	1 22.1	1 32.0	1 41.8	1 51.7
25	0 4.1	0 14.0	0 23.8	0 33.7	0 43.5	0 53.4	1 3.2	1 13.1	1 23.0	1 32.8	1 42.7	1 52.5
30	0 4.9	0 14.8	0 24.6	0 34.5	0 44.4	0 54.2	1 4.1	1 13.9	1 23.8	1 33.6	1 43.5	1 53.3
35	0 5.8	0 15.6	0 25.5	0 35.3	0 45.2	0 55.0	1 4.9	1 14.7	1 24.6	1 34.5	1 44.3	1 54.2
40	0 6.6	0 16.4	0 26.3	0 36.1	0 46.0	0 55.9	1 5.7	1 15.6	1 25.4	1 35.3	1 45.1	1 55.0
45	0 7.4	0 17.2	0 27.1	0 37.0	0 46.8	0 56.7	1 6.5	1 16.4	1 26.2	1 36.1	1 46.0	1 55.8
50	0 8.2	0 18.1	0 27.9	0 37.8	0 47.6	0 57.5	1 7.4	1 17.2	1 27.1	1 36.9	1 46.8	1 56.6
55	0 9.0	0 18.9	0 28.7	0 38.6	0 48.5	0 58.3	1 8.2	1 18.0	1 27.9	1 37.7	1 47.6	1 57.5
60	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4	1 58.3

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

Day of Month	Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)					
	July	August	September	October	November	December
	h m s	h m s	h m s	h m s	h m s	h m s
1	18 32 49.1	20 35 2.4	22 37 15.6	0 35 32.2	2 37 45.3	4 36 2.1
2	18 36 45.6	20 38 58.9	22 41 12.1	0 39 28.7	2 41 41.9	4 39 58.6
3	18 40 42.2	20 42 55.5	22 45 8.7	0 43 25.3	2 45 38.5	4 43 55.2
4	18 44 38.8	20 46 52.0	22 49 5.2	0 47 21.8	2 49 35.0	4 47 51.7
5	18 48 35.3	20 50 48.6	22 53 1.8	0 51 18.4	2 53 31.6	4 51 48.3
6	18 52 31.9	20 54 45.2	22 56 58.3	0 55 14.9	2 57 28.1	4 55 44.9
7	18 56 28.4	20 58 41.7	23 0 54.9	0 59 11.5	3 1 24.7	4 59 41.4
8	19 0 25.0	21 2 38.3	23 4 51.4	1 3 8.1	3 5 21.3	5 3 38.0
9	19 4 21.6	21 6 34.8	23 8 48.0	1 7 4.6	3 9 17.8	5 7 34.5
10	19 8 18.1	21 10 31.4	23 12 44.6	1 11 1.2	3 13 14.4	5 11 31.1
11	19 12 14.7	21 14 27.9	23 16 41.1	1 14 57.7	3 17 10.9	5 15 27.6
12	19 16 11.2	21 18 24.5	23 20 37.7	1 18 54.3	3 21 7.5	5 19 24.2
13	19 20 7.8	21 22 21.0	23 24 34.2	1 22 50.8	3 25 4.0	5 23 20.8
14	19 24 4.3	21 26 17.6	23 28 30.8	1 26 47.4	3 29 0.6	5 27 17.3
15	19 28 0.9	21 30 14.2	23 32 27.3	1 30 43.9	3 32 57.1	5 31 13.9
16	19 31 57.4	21 34 10.7	23 36 23.9	1 34 40.5	3 36 53.7	5 35 10.4
17	19 35 54.0	21 38 7.3	23 40 20.4	1 38 37.0	3 40 50.3	5 39 7.0
18	19 39 50.6	21 42 3.8	23 44 17.0	1 42 33.6	3 44 46.8	5 43 3.6
19	19 43 47.1	21 46 0.4	23 48 13.5	1 46 30.1	3 48 43.4	5 47 0.1
20	19 47 43.7	21 49 56.9	23 52 10.1	1 50 26.7	3 52 39.9	5 50 56.7
21	19 51 40.2	21 53 53.5	23 56 6.6	1 54 23.3	3 56 36.5	5 54 53.2
22	19 55 36.8	21 57 50.0	0 0 3.2	1 58 19.8	4 0 33.0	5 58 49.8
23	19 59 33.4	22 1 46.6	0 3 59.8	2 2 16.4	4 4 29.6	6 2 46.4
24	20 3 29.9	22 5 43.1	0 7 56.3	2 6 12.9	4 8 26.1	6 6 42.9
25	20 7 26.5	22 9 39.7	0 11 52.9	2 10 9.5	4 12 22.7	6 10 39.5
26	20 11 23.0	22 13 36.3	0 15 49.4	2 14 6.0	4 16 19.3	6 14 36.0
27	20 15 19.6	22 17 32.8	0 19 46.0	2 18 2.6	4 20 15.8	6 18 32.6
28	20 19 16.1	22 21 29.4	0 23 42.5	2 21 59.1	4 24 12.4	6 22 29.2
29	20 23 12.7	22 25 25.9	0 27 39.1	2 25 55.7	4 28 8.9	6 26 25.7
30	20 27 9.3	22 29 22.5	0 31 35.6	2 29 52.2	4 32 5.5	6 30 22.3
31	20 31 5.8	22 33 19.0	0 35 32.2	2 33 48.8	4 36 2.1	6 34 18.8

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longi-tude	12ʰ	13ʰ	14ʰ	15ʰ	16ʰ	17ʰ	18ʰ	19ʰ	20ʰ	21ʰ	22ʰ	23ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	1 58.3	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7
5	1 59.1	2 9.0	2 18.8	2 28.7	2 38.5	2 48.4	2 58.2	3 8.1	3 18.0	3 27.8	3 37.7	3 47.5
10	1 59.9	2 9.8	2 19.6	2 29.5	2 39.3	2 49.2	2 59.1	3 8.9	3 18.8	3 28.6	3 38.5	3 48.3
15	2 0.7	2 10.6	2 20.5	2 30.3	2 40.2	2 50.0	2 59.9	3 9.7	3 19.6	3 29.4	3 39.3	3 49.2
20	2 1.6	2 11.4	2 21.3	2 31.1	2 41.0	2 50.8	3 0.7	3 10.6	3 20.4	3 30.3	3 40.1	3 50.0
25	2 2.4	2 12.2	2 22.1	2 32.0	2 41.8	2 51.7	3 1.5	3 11.4	3 21.2	3 31.1	3 40.9	3 50.8
30	2 3.2	2 13.1	2 22.9	2 32.8	2 42.6	2 52.5	3 2.3	3 12.2	3 22.1	3 31.9	3 41.8	3 51.6
35	2 4.0	2 13.9	2 23.7	2 33.6	2 43.5	2 53.3	3 3.2	3 13.0	3 22.9	3 32.7	3 42.6	3 52.4
40	2 4.8	2 14.7	2 24.6	2 34.4	2 44.3	2 54.1	3 4.0	3 13.8	3 23.7	3 33.6	3 43.4	3 53.3
45	2 5.7	2 15.5	2 25.4	2 35.2	2 45.1	2 55.0	3 4.8	3 14.7	3 24.5	3 34.4	3 44.2	3 54.1
50	2 6.5	2 16.3	2 26.2	2 36.1	2 45.9	2 55.8	3 5.6	3 15.5	3 25.3	3 35.2	3 45.1	3 54.9
55	2 7.3	2 17.2	2 27.0	2 36.9	2 46.7	2 56.6	3 6.5	3 16.3	3 26.2	3 36.0	3 45.9	3 55.7
60	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7	3 56.6

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

Wednesday 1 — Sunday 5 — Thursday 9

G.C.T. h	Equation of Time m s	Sun's Declination ° '	Sun's G.H.A. ° '	Equation of Time m s	Sun's Declination ° '	Sun's G.H.A. ° '	Equation of Time m s	Sun's Declination ° '	Sun's G.H.A. ° '
0	−3 8.3	−23 5.4	179 12.9	−5 0.1	−22 43.8	178 45.0	−6 45.2	−22 15.1	178 18.7
2	3 10.7	23 5.0	209 12.3	5 2.4	22 43.3	208 44.4	6 47.3	22 14.4	208 18.2
4	3 13.1	23 4.6	239 11.7	5 4.6	22 42.8	238 43.8	6 49.4	22 13.7	238 17.7
6	3 15.4	23 4.3	269 11.1	5 6.9	22 42.3	268 43.3	6 51.5	22 13.1	268 17.1
8	3 17.8	23 3.9	299 10.5	5 9.1	22 41.7	298 42.7	6 53.6	22 12.4	298 16.6
10	3 20.2	23 3.5	329 10.0	5 11.4	22 41.2	328 42.2	6 55.7	22 11.7	328 16.1
12	3 22.6	23 3.1	359 9.4	5 13.6	22 40.6	358 41.6	6 57.8	22 11.0	358 15.6
14	3 24.9	23 2.7	29 8.8	5 15.9	22 40.1	28 41.0	6 59.9	22 10.3	28 15.0
16	3 27.3	23 2.3	59 8.2	5 18.1	22 39.5	58 40.5	7 1.9	22 9.6	58 14.5
18	3 29.7	23 1.9	89 7.6	5 20.3	22 39.0	88 39.9	7 4.0	22 8.9	88 14.0
20	3 32.0	23 1.5	119 7.0	5 22.6	22 38.4	118 39.4	7 6.1	22 8.2	118 13.5
22	−3 34.4	−23 1.1	149 6.4	−5 24.8	−22 37.9	148 38.8	−7 8.2	−22 7.5	148 13.0
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.3	... ...

Thursday 2 — Monday 6 — Friday 10

G.C.T. h	Equation of Time m s	Sun's Declination ° '	Sun's G.H.A. ° '	Equation of Time m s	Sun's Declination ° '	Sun's G.H.A. ° '	Equation of Time m s	Sun's Declination ° '	Sun's G.H.A. ° '
0	−3 36.8	−23 0.7	179 5.8	−5 27.1	−22 37.3	178 38.2	−7 10.2	−22 6.8	178 12.4
2	3 39.1	23 0.3	209 5.2	5 29.3	22 36.8	208 37.7	7 12.3	22 6.1	208 11.9
4	3 41.5	22 59.9	239 4.6	5 31.5	22 36.2	238 37.1	7 14.4	22 5.4	238 11.4
6	3 43.8	22 59.5	269 4.0	5 33.7	22 35.6	268 36.6	7 16.4	22 4.7	268 10.9
8	3 46.2	22 59.0	299 3.5	5 35.9	22 35.0	298 36.0	7 18.5	22 3.9	298 10.4
10	3 48.5	22 58.6	329 2.9	5 38.1	22 34.5	328 35.5	7 20.5	22 3.2	328 9.9
12	3 50.9	22 58.2	359 2.3	5 40.4	22 33.9	358 34.9	7 22.6	22 2.5	358 9.4
14	3 53.2	22 57.7	29 1.7	5 42.6	22 33.3	28 34.4	7 24.6	22 1.8	28 8.9
16	3 55.6	22 57.3	59 1.1	5 44.8	22 32.7	58 33.8	7 26.6	22 1.0	58 8.3
18	3 57.9	22 56.9	89 0.5	5 47.0	22 32.1	88 33.3	7 28.7	22 0.3	88 7.8
20	4 0.3	22 56.4	118 59.9	5 49.2	22 31.5	118 32.7	7 30.7	21 59.6	118 7.3
22	−4 2.6	−22 56.0	148 59.4	−5 51.4	−22 31.0	148 32.2	−7 32.7	−21 58.8	148 6.8
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...

Friday 3 — Tuesday 7 — Saturday 11

G.C.T. h	Equation of Time m s	Sun's Declination ° '	Sun's G.H.A. ° '	Equation of Time m s	Sun's Declination ° '	Sun's G.H.A. ° '	Equation of Time m s	Sun's Declination ° '	Sun's G.H.A. ° '
0	−4 4.9	−22 55.5	178 58.8	−5 53.6	−22 30.4	178 31.6	−7 34.8	−21 58.1	178 6.3
2	4 7.3	22 55.1	208 58.2	5 55.8	22 29.8	208 31.1	7 36.8	21 57.3	208 5.8
4	4 9.6	22 54.6	238 57.6	5 57.9	22 29.2	238 30.5	7 38.8	21 56.6	238 5.3
6	4 11.9	22 54.2	268 57.0	6 0.1	22 28.5	268 30.0	7 40.8	21 55.8	268 4.8
8	4 14.2	22 53.7	298 56.4	6 2.3	22 27.9	298 29.4	7 42.8	21 55.1	298 4.3
10	4 16.5	22 53.2	328 55.9	6 4.5	22 27.3	328 28.9	7 44.8	21 54.3	328 3.8
12	4 18.9	22 52.8	358 55.3	6 6.6	22 26.7	358 28.3	7 46.8	21 53.6	358 3.3
14	4 21.2	22 52.3	28 54.7	6 8.8	22 26.1	28 27.8	7 48.8	21 52.8	28 2.8
16	4 23.5	22 51.8	58 54.1	6 11.0	22 25.5	58 27.3	7 50.8	21 52.0	58 2.3
18	4 25.8	22 51.4	88 53.6	6 13.1	22 24.8	88 26.7	7 52.8	21 51.3	88 1.8
20	4 28.1	22 50.9	118 53.0	6 15.3	22 24.2	118 26.2	7 54.8	21 50.5	118 1.3
22	−4 30.4	−22 50.4	148 52.4	−6 17.5	−22 23.6	148 25.6	−7 56.8	−21 49.7	148 0.8
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...

Saturday 4 — Wednesday 8 — Sunday 12

G.C.T. h	Equation of Time m s	Sun's Declination ° '	Sun's G.H.A. ° '	Equation of Time m s	Sun's Declination ° '	Sun's G.H.A. ° '	Equation of Time m s	Sun's Declination ° '	Sun's G.H.A. ° '
0	−4 32.7	−22 49.9	178 51.8	−6 19.6	−22 22.9	178 25.1	−7 58.7	−21 48.9	178 0.3
2	4 35.0	22 49.4	208 51.3	6 21.8	22 22.3	208 24.6	8 0.7	21 48.2	207 59.8
4	4 37.3	22 48.9	238 50.7	6 23.9	22 21.7	238 24.0	8 2.7	21 47.4	237 59.3
6	4 39.6	22 48.4	268 50.1	6 26.1	22 21.0	268 23.5	8 4.6	21 46.6	267 58.8
8	4 41.9	22 47.9	298 49.5	6 28.2	22 20.4	298 23.0	8 6.6	21 45.8	297 58.3
10	4 44.2	22 47.4	328 49.0	6 30.3	22 19.7	328 22.4	8 8.6	21 45.0	327 57.9
12	4 46.4	22 46.9	358 48.4	6 32.5	22 19.1	358 21.9	8 10.5	21 44.2	357 57.4
14	4 48.7	22 46.4	28 47.8	6 34.6	22 18.4	28 21.4	8 12.5	21 43.4	27 56.9
16	4 51.0	22 45.9	58 47.2	6 36.7	22 17.8	58 20.8	8 14.4	21 42.6	57 56.4
18	4 53.3	22 45.4	88 46.7	6 38.8	22 17.1	88 20.3	8 16.3	21 41.8	87 55.9
20	4 55.6	22 44.9	118 46.1	6 41.0	22 16.4	118 19.8	8 18.3	21 41.0	117 55.4
22	−4 57.8	−22 44.4	148 45.5	−6 43.1	−22 15.8	148 19.2	−8 20.2	−21 40.2	147 54.9
H.D.	1.1	0.3	... ...	1.1	0.3	... ...	1.0	0.4	... ...

NOTE.—The Equation of Time is to be applied to the G. C. T. in accordance with the sign as given.

SUN, 1946

Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)

Day of Month	January (h m s)	February (h m s)	March (h m s)	April (h m s)	May (h m s)	June (h m s)
1	6 40 9.7	8 42 23.0	10 32 46.5	12 34 59.7	14 33 16.3	16 35 29.5
2	6 44 6.3	8 46 19.6	10 36 43.1	12 38 56.2	14 37 12.8	16 39 26.1
3	6 48 2.8	8 50 16.1	10 40 39.6	12 42 52.8	14 41 9.4	16 43 22.6
4	6 51 59.4	8 54 12.7	10 44 36.2	12 46 49.3	14 45 5.9	16 47 19.2
5	6 55 56.0	8 58 9.2	10 48 32.7	12 50 45.9	14 49 2.5	16 51 15.8
6	6 59 52.5	9 2 5.8	10 52 29.3	12 54 42.4	14 52 59.1	16 55 12.3
7	7 3 49.1	9 6 2.3	10 56 25.8	12 58 39.0	14 56 55.6	16 59 8.9
8	7 7 45.6	9 9 58.9	11 0 22.4	13 2 35.5	15 0 52.2	17 3 5.4
9	7 11 42.2	9 13 55.4	11 4 18.9	13 6 32.1	15 4 48.7	17 7 2.0
10	7 15 38.7	9 17 52.0	11 8 15.5	13 10 28.7	15 8 45.3	17 10 58.5
11	7 19 35.3	9 21 48.5	11 12 12.1	13 14 25.2	15 12 41.8	17 14 55.1
12	7 23 31.9	9 25 45.1	11 16 8.6	13 18 21.8	15 16 38.4	17 18 51.7
13	7 27 28.4	9 29 41.7	11 20 5.2	13 22 18.3	15 20 34.9	17 22 48.2
14	7 31 25.0	9 33 38.2	11 24 1.7	13 26 14.9	15 24 31.5	17 26 44.8
15	7 35 21.5	9 37 34.8	11 27 58.3	13 30 11.4	15 28 28.0	17 30 41.3
16	7 39 18.1	9 41 31.3	11 31 54.8	13 34 8.0	15 32 24.6	17 34 37.9
17	7 43 14.7	9 45 27.9	11 35 51.4	13 38 4.5	15 36 21.2	17 38 34.5
18	7 47 11.2	9 49 24.4	11 39 47.9	13 42 1.1	15 40 17.7	17 42 31.0
19	7 51 7.8	9 53 21.0	11 43 44.5	13 45 57.6	15 44 14.3	17 46 27.6
20	7 55 4.3	9 57 17.5	11 47 41.0	13 49 54.2	15 48 10.8	17 50 24.1
21	7 59 0.9	10 1 14.1	11 51 37.6	13 53 50.7	15 52 7.4	17 54 20.7
22	8 2 57.4	10 5 10.6	11 55 34.1	13 57 47.3	15 56 4.0	17 58 17.2
23	8 6 54.0	10 9 7.2	11 59 30.7	14 1 43.8	16 0 0.5	18 2 13.8
24	8 10 50.5	10 13 3.7	12 3 27.2	14 5 40.4	16 3 57.1	18 6 10.3
25	8 14 47.1	10 17 0.3	12 7 23.8	14 9 37.0	16 7 53.6	18 10 6.9
26	8 18 43.6	10 20 56.9	12 11 20.3	14 13 33.5	16 11 50.2	18 14 3.5
27	8 22 40.2	10 24 53.4	12 15 16.9	14 17 30.1	16 15 46.7	18 18 0.0
28	8 26 36.8	10 28 50.0	12 19 13.5	14 21 26.6	16 19 43.3	18 21 56.6
29	8 30 33.3	10 32 46.5	12 23 10.0	14 25 23.2	16 23 39.8	18 25 53.1
30	8 34 29.9	10 36 43.1	12 27 6.6	14 29 19.7	16 27 36.4	18 29 49.7
31	8 38 26.4	10 40 39.6	12 31 3.1	14 33 16.3	16 31 33.0	18 33 46.3

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude (m)	0ʰ (m s)	1ʰ (m s)	2ʰ (m s)	3ʰ (m s)	4ʰ (m s)	5ʰ (m s)	6ʰ (m s)	7ʰ (m s)	8ʰ (m s)	9ʰ (m s)	10ʰ (m s)	11ʰ (m s)
0	0 0.0	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4
5	0 0.8	0 10.7	0 20.5	0 30.4	0 40.2	0 50.1	1 0.0	1 9.8	1 19.7	1 29.5	1 39.4	1 49.2
10	0 1.6	0 11.5	0 21.4	0 31.2	0 41.1	0 50.9	1 0.8	1 10.6	1 20.5	1 30.4	1 40.2	1 50.1
15	0 2.5	0 12.3	0 22.2	0 32.0	0 41.9	0 51.7	1 1.6	1 11.5	1 21.3	1 31.2	1 41.0	1 50.9
20	0 3.3	0 13.1	0 23.0	0 32.9	0 42.7	0 52.6	1 2.4	1 12.3	1 22.1	1 32.0	1 41.8	1 51.7
25	0 4.1	0 14.0	0 23.8	0 33.7	0 43.5	0 53.4	1 3.2	1 13.1	1 23.0	1 32.8	1 42.7	1 52.5
30	0 4.9	0 14.8	0 24.6	0 34.5	0 44.4	0 54.2	1 4.1	1 13.9	1 23.8	1 33.6	1 43.5	1 53.3
35	0 5.8	0 15.6	0 25.5	0 35.3	0 45.2	0 55.0	1 4.9	1 14.7	1 24.6	1 34.5	1 44.3	1 54.2
40	0 6.6	0 16.4	0 26.3	0 36.1	0 46.0	0 55.9	1 5.7	1 15.6	1 25.4	1 35.3	1 45.1	1 55.0
45	0 7.4	0 17.2	0 27.1	0 37.0	0 46.8	0 56.7	1 6.5	1 16.4	1 26.2	1 36.1	1 46.0	1 55.8
50	0 8.2	0 18.1	0 27.9	0 37.8	0 47.6	0 57.5	1 7.4	1 17.2	1 27.1	1 36.9	1 46.8	1 56.6
55	0 9.0	0 18.9	0 28.7	0 38.6	0 48.5	0 58.3	1 8.2	1 18.0	1 27.9	1 37.7	1 47.6	1 57.5
60	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4	1 58.3

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

SYMBOLS AND ABBREVIATIONS

SIGNS OF THE PLANETS, ETC.

☉	The Sun.		♃	Jupiter.
☾	The Moon.		♄	Saturn.
☿	Mercury.		♅	Uranus.
♀	Venus.		♆	Neptune.
⊕	The Earth.		♇	Pluto.
♂	Mars.			

SIGNS OF THE ZODIAC

1.	♈	Aries.		7.	♎	Libra.
2.	♉	Taurus.		8.	♏	Scorpius.
3.	♊	Gemini.		9.	♐	Sagittarius.
4.	♋	Cancer.		10.	♑	Capricornus.
5.	♌	Leo.		11.	♒	Aquarius.
6.	♍	Virgo.		12.	♓	Pisces.

ASPECTS

☌ Conjunction, or having the same Longitude or Right Ascension.

☍ Opposition, or differing 180° in Longitude or Right Ascension.

□ Quadrature, or having a geocentric angular distance of 90°.

ABBREVIATIONS

☊	Ascending Node.		°	Degrees.
☋	Descending Node.		′	Minutes of Arc.
N.	North.		″	Seconds of Arc.
S.	South.		h	Hours.
E.	East.		m	Minutes of Time.
W.	West.		s	Seconds of Time.

GREEK ALPHABET

A, α	Alpha		I, ι	Iota		P, ρ	Rho
B, β	Beta		K, κ	Kappa		Σ, σ	Sigma
Γ, γ	Gamma		Λ, λ	Lambda		T, τ	Tau
Δ, δ	Delta		M, μ	Mu		Υ, υ	Upsilon
E, ε	Epsilon		N, ν	Nu		Φ, φ	Phi
Z, ζ	Zeta		Ξ, ξ	Xi		X, χ	Chi
H, η	Eta		O, o	Omicron		Ψ, ψ	Psi
Θ, θ	Theta		Π, π, ϖ	Pi		Ω, ω	Omega

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Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)

Day of Month	July	August	September	October	November	December
	h m s	h m s	h m s	h m s	h m s	h m s
1	18 33 46.3	20 35 59.5	22 38 12.7	0 36 29.3	2 38 42.5	4 36 59.2
2	18 37 42.8	20 39 56.1	22 42 9.3	0 40 25.9	2 42 39.1	4 40 55.8
3	18 41 39.4	20 43 52.6	22 46 5.8	0 44 22.4	2 46 35.6	4 44 52.3
4	18 45 36.0	20 47 49.2	22 50 2.4	0 48 19.0	2 50 32.2	4 48 48.9
5	18 49 32.5	20 51 45.7	22 53 58.9	0 52 15.5	2 54 28.7	4 52 45.4
6	18 53 29.1	20 55 42.3	22 57 55.5	0 56 12.1	2 58 25.3	4 56 42.0
7	18 57 25.6	20 59 38.9	23 1 52.1	1 0 8.6	3 2 21.8	5 0 38.5
8	19 1 22.2	21 3 35.4	23 5 48.6	1 4 5.2	3 6 18.4	5 4 35.1
9	19 5 18.7	21 7 32.0	23 9 45.2	1 8 1.7	3 10 14.9	5 8 31.7
10	19 9 15.3	21 11 28.5	23 13 41.7	1 11 58.3	3 14 11.5	5 12 28.2
11	19 13 11.8	21 15 25.1	23 17 38.3	1 15 54.8	3 18 8.0	5 16 24.8
12	19 17 8.4	21 19 21.7	23 21 34.8	1 19 51.4	3 22 4.6	5 20 21.3
13	19 21 5.0	21 23 18.2	23 25 31.4	1 23 47.9	3 26 1.2	5 24 17.9
14	19 25 1.5	21 27 14.8	23 29 27.9	1 27 44.5	3 29 57.7	5 28 14.5
15	19 28 58.1	21 31 11.3	23 33 24.5	1 31 41.1	3 33 54.3	5 32 11.0
16	19 32 54.6	21 35 7.9	23 37 21.0	1 35 37.6	3 37 50.8	5 36 7.6
17	19 36 51.2	21 39 4.4	23 41 17.6	1 39 34.2	3 41 47.4	5 40 4.1
18	19 40 47.8	21 43 1.0	23 45 14.1	1 43 30.7	3 45 44.0	5 44 0.7
19	19 44 44.3	21 46 57.5	23 49 10.7	1 47 27.3	3 49 40.5	5 47 57.2
20	19 48 40.9	21 50 54.1	23 53 7.2	1 51 23.9	3 53 37.1	5 51 53.8
21	19 52 37.4	21 54 50.6	23 57 3.8	1 55 20.4	3 57 33.6	5 55 50.4
22	19 56 34.0	21 58 47.2	0 1 0.4	1 59 17.0	4 1 30.2	5 59 46.9
23	20 0 30.5	22 2 43.7	0 4 56.9	2 3 13.5	4 5 26.7	6 3 43.5
24	20 4 27.1	22 6 40.3	0 8 53.5	2 7 10.1	4 9 23.3	6 7 40.0
25	20 8 23.6	22 10 36.9	0 12 50.0	2 11 6.6	4 13 19.8	6 11 36.6
26	20 12 20.2	22 14 33.4	0 16 46.6	2 15 3.2	4 17 16.4	6 15 33.2
27	20 16 16.8	22 18 30.0	0 20 43.1	2 18 59.7	4 21 13.0	6 19 29.7
28	20 20 13.3	22 22 26.5	0 24 39.7	2 22 56.3	4 25 9.5	6 23 26.3
29	20 24 9.9	22 26 23.1	0 28 36.2	2 26 52.8	4 29 6.1	6 27 22.8
30	20 28 6.4	22 30 19.6	0 32 32.8	2 30 49.4	4 33 2.6	6 31 19.4
31	20 32 3.0	22 34 16.2	0 36 29.3	2 34 45.9	4 36 59.2	6 35 15.9

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude	12ʰ	13ʰ	14ʰ	15ʰ	16ʰ	17ʰ	18ʰ	19ʰ	20ʰ	21ʰ	22ʰ	23ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	1 58.3	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7
5	1 59.1	2 9.0	2 18.8	2 28.7	2 38.5	2 48.4	2 58.2	3 8.1	3 18.0	3 27.8	3 37.7	3 47.5
10	1 59.9	2 9.8	2 19.6	2 29.5	2 39.3	2 49.2	2 59.1	3 8.9	3 18.8	3 28.6	3 38.5	3 48.3
15	2 0.7	2 10.6	2 20.5	2 30.3	2 40.2	2 50.0	2 59.9	3 9.7	3 19.6	3 29.4	3 39.3	3 49.2
20	2 1.6	2 11.4	2 21.3	2 31.1	2 41.0	2 50.8	3 0.7	3 10.6	3 20.4	3 30.3	3 40.1	3 50.0
25	2 2.4	2 12.2	2 22.1	2 32.0	2 41.8	2 51.7	3 1.5	3 11.4	3 21.2	3 31.1	3 40.9	3 50.8
30	2 3.2	2 13.1	2 22.9	2 32.8	2 42.6	2 52.5	3 2.3	3 12.2	3 22.1	3 31.9	3 41.8	3 51.6
35	2 4.0	2 13.9	2 23.7	2 33.6	2 43.5	2 53.3	3 3.2	3 13.0	3 22.9	3 32.7	3 42.6	3 52.4
40	2 4.8	2 14.7	2 24.6	2 34.4	2 44.3	2 54.1	3 4.0	3 13.8	3 23.7	3 33.6	3 43.4	3 53.3
45	2 5.7	2 15.5	2 25.4	2 35.2	2 45.1	2 55.0	3 4.8	3 14.7	3 24.5	3 34.4	3 44.2	3 54.1
50	2 6.5	2 16.3	2 26.2	2 36.1	2 45.9	2 55.8	3 5.6	3 15.5	3 25.3	3 35.2	3 45.1	3 54.9
55	2 7.3	2 17.2	2 27.0	2 36.9	2 46.7	2 56.6	3 6.5	3 16.3	3 26.2	3 36.0	3 45.9	3 55.7
60	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7	3 56.6

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

G.C.T.	Equation of Time	Sun's Declination	Sun's G.H.A.	Equation of Time	Sun's Declination	Sun's G.H.A.	Equation of Time	Sun's Declination	Sun's G.H.A.
	Tuesday 1			Saturday 5			Wednesday 9		
h	m s	° ′	° ′	m s	° ′	° ′	m s	° ′	° ′
0	−3 14.8	−23 4.3	179 11.3	−5 6.8	−22 42.3	178 43.3	−6 52.0	−22 13.1	178 17.0
2	3 17.2	23 3.9	209 10.7	5 9.0	22 41.7	208 42.7	6 54.1	22 12.4	208 16.5
4	3 19.5	23 3.5	239 10.1	5 11.3	22 41.2	238 42.2	6 56.2	22 11.7	238 15.9
6	3 21.9	23 3.1	269 9.5	5 13.6	22 40.7	268 41.6	6 58.3	22 11.0	268 15.4
8	3 24.3	23 2.7	299 8.9	5 15.8	22 40.1	298 41.0	7 0.4	22 10.3	298 14.9
10	3 26.7	23 2.3	329 8.3	5 18.1	22 39.6	328 40.5	7 2.5	22 9.6	328 14.4
12	3 29.1	23 1.9	359 7.7	5 20.3	22 39.0	358 39.9	7 4.6	22 8.9	358 13.8
14	3 31.4	23 1.5	29 7.1	5 22.6	22 38.5	28 39.4	7 6.7	22 8.2	28 13.3
16	3 33.8	23 1.1	59 6.5	5 24.8	22 37.9	58 38.8	7 8.8	22 7.5	58 12.8
18	3 36.2	23 0.7	89 6.0	5 27.1	22 37.3	88 38.2	7 10.8	22 6.8	88 12.3
20	3 38.6	23 0.3	119 5.4	5 29.3	22 36.8	118 37.7	7 12.9	22 6.1	118 11.8
22	−3 40.9	−22 59.9	149 4.8	−5 31.6	−22 36.2	148 37.1	−7 15.0	−22 5.4	148 11.3
H. D.	1.2	0.2	... .	1.1	0.3		1.0	0.3	... .
	Wednesday 2			Sunday 6			Thursday 10		
0	−3 43.3	−22 59.5	179 4.2	−5 33.8	−22 35.6	178 36.5	−7 17.1	−22 4.7	178 10.7
2	3 45.7	22 59.0	209 3.6	5 36.0	22 35.1	208 36.0	7 19.1	22 4.0	208 10.2
4	3 48.0	22 58.6	239 3.0	5 38.3	22 34.5	238 35.4	7 21.2	22 3.2	238 9.7
6	3 50.4	22 58.2	269 2.4	5 40.5	22 33.9	268 34.9	7 23.2	22 2.5	268 9.2
8	3 52.7	22 57.7	299 1.8	5 42.7	22 33.3	298 34.3	7 25.3	22 1.8	298 8.7
10	3 55.1	22 57.3	329 1.2	5 44.9	22 32.7	328 33.8	7 27.3	22 1.1	328 8.2
12	3 57.4	22 56.9	359 0.6	5 47.1	22 32.2	358 33.2	7 29.3	22 0.3	358 7.7
14	3 59.8	22 56.4	29 0.1	5 49.4	22 31.6	28 32.7	7 31.4	21 59.6	28 7.2
16	4 2.1	22 56.0	58 59.5	5 51.6	22 31.0	58 32.1	7 33.4	21 58.9	58 6.6
18	4 4.5	22 55.5	88 58.9	5 53.8	22 30.4	88 31.6	7 35.4	21 58.1	88 6.1
20	4 6.8	22 55.1	118 58.3	5 56.0	22 29.8	118 31.0	7 37.5	21 57.4	118 5.6
22	−4 9.2	−22 54.6	148 57.7	−5 58.2	−22 29.2	148 30.5	−7 39.5	−21 56.6	148 5.1
H. D.	1.2	0.2	... .	1.1	0.3		1.0	0.4	... .
	Thursday 3			Monday 7			Friday 11		
0	−4 11.5	−22 54.2	178 57.1	−6 0.4	−22 28.6	178 29.9	−7 41.5	−21 55.9	178 4.6
2	4 13.8	22 53.7	208 56.5	6 2.6	22 28.0	208 29.4	7 43.5	21 55.1	208 4.1
4	4 16.2	22 53.3	238 56.0	6 4.8	22 27.3	238 28.8	7 45.5	21 54.4	238 3.6
6	4 18.5	22 52.8	268 55.4	6 6.9	22 26.7	268 28.3	7 47.5	21 53.6	268 3.1
8	4 20.8	22 52.3	298 54.8	6 9.1	22 26.1	298 27.7	7 49.5	21 52.8	298 2.6
10	4 23.1	22 51.8	328 54.2	6 11.3	22 25.5	328 27.2	7 51.5	21 52.1	328 2.1
12	4 25.5	22 51.4	358 53.6	6 13.5	22 24.9	358 26.6	7 53.5	21 51.3	358 1.6
14	4 27.8	22 50.9	28 53.1	6 15.6	22 24.2	28 26.1	7 55.5	21 50.5	28 1.1
16	4 30.1	22 50.4	58 52.5	6 17.8	22 23.6	58 25.5	7 57.5	21 49.7	58 0.6
18	4 32.4	22 49.9	88 51.9	6 20.0	22 23.0	88 25.0	7 59.5	21 49.0	88 0.1
20	4 34.7	22 49.4	118 51.3	6 22.2	22 22.3	118 24.5	8 1.4	21 48.2	117 59.6
22	−4 37.0	−22 48.9	148 50.7	−6 24.3	−22 21.7	148 23.9	−8 3.4	−21 47.4	147 59.2
H. D.	1.2	0.2	... .	1.1	0.3		1.0	0.4	... .
	Friday 4			Tuesday 8			Saturday 12		
0	−4 39.3	−22 48.5	178 50.2	−6 26.5	−22 21.0	178 23.4	−8 5.4	−21 46.6	177 58.7
2	4 41.6	22 48.0	208 49.6	6 28.6	22 20.4	208 22.8	8 7.3	21 45.8	207 58.2
4	4 43.9	22 47.5	238 49.0	6 30.8	22 19.8	238 22.3	8 9.3	21 45.0	237 57.7
6	4 46.2	22 46.9	268 48.4	6 32.9	22 19.1	268 21.8	8 11.2	21 44.2	267 57.2
8	4 48.5	22 46.4	298 47.9	6 35.0	22 18.4	298 21.2	8 13.2	21 43.4	297 56.7
10	4 50.8	22 45.9	328 47.3	6 37.2	22 17.8	328 20.7	8 15.1	21 42.6	327 56.2
12	4 53.1	22 45.4	358 46.7	6 39.3	22 17.1	358 20.2	8 17.1	21 41.8	357 55.7
14	4 55.4	22 44.9	28 46.2	6 41.4	22 16.5	28 19.6	8 19.0	21 41.0	27 55.3
16	4 57.7	22 44.4	58 45.6	6 43.6	22 15.8	58 19.1	8 20.9	21 40.2	57 54.8
18	5 0.0	22 43.9	88 45.0	6 45.7	22 15.1	88 18.6	8 22.8	21 39.4	87 54.3
20	5 2.2	22 43.3	118 44.4	6 47.8	22 14.4	118 18.0	8 24.8	21 38.6	117 53.8
22	−5 4.5	−22 42.8	148 43.9	−6 49.9	−22 13.8	148 17.5	−8 26.7	−21 37.8	147 53.3
H. D.	1.1	0.3	... .	1.1	0.3		1.0	0.4	... .

NOTE.—The Equation of Time is to be applied to the G. C. T. in accordance with the sign as given.

Day of Month	Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)																
	January			February			March			April			May			June		

Day of Month	\multicolumn{3}{c}{January}	\multicolumn{3}{c}{February}	\multicolumn{3}{c}{March}	\multicolumn{3}{c}{April}	\multicolumn{3}{c}{May}	\multicolumn{3}{c}{June}
	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s	h	m	s
1	6	41	7.1	8	43	20.3	10	33	43.8	12	35	57.0	14	34	13.6	16	36	26.8
2	6	45	3.6	8	47	16.9	10	37	40.4	12	39	53.5	14	38	10.1	16	40	23.4
3	6	49	0.2	8	51	13.4	10	41	36.9	12	43	50.1	14	42	6.7	16	44	19.9
4	6	52	56.7	8	55	10.0	10	45	33.5	12	47	46.6	14	46	3.2	16	48	16.5
5	6	56	53.3	8	59	6.5	10	49	30.0	12	51	43.2	14	49	59.8	16	52	13.0
6	7	0	49.8	9	3	3.1	10	53	26.6	12	55	39.7	14	53	56.4	16	56	9.6
7	7	4	46.4	9	6	59.6	10	57	23.1	12	59	36.3	14	57	52.9	17	0	6.1
8	7	8	43.0	9	10	56.2	11	1	19.7	13	3	32.8	15	1	49.5	17	4	2.7
9	7	12	39.5	9	14	52.8	11	5	16.3	13	7	29.4	15	5	46.0	17	7	59.3
10	7	16	36.1	9	18	49.3	11	9	12.8	13	11	26.0	15	9	42.6	17	11	55.8
11	7	20	32.6	9	22	45.9	11	13	9.4	13	15	22.5	15	13	39.1	17	15	52.4
12	7	24	29.2	9	26	42.4	11	17	5.9	13	19	19.0	15	17	35.7	17	19	49.0
13	7	28	25.7	9	30	39.0	11	21	2.5	13	23	15.6	15	21	32.2	17	23	45.5
14	7	32	22.3	9	34	35.5	11	24	59.0	13	27	12.1	15	25	28.8	17	27	42.1
15	7	36	18.9	9	38	32.1	11	28	55.6	13	31	8.7	15	29	25.4	17	31	38.6
16	7	40	15.4	9	42	28.6	11	32	52.1	13	35	5.3	15	33	21.9	17	35	35.2
17	7	44	12.0	9	46	25.2	11	36	48.7	13	39	1.8	15	37	18.5	17	39	31.7
18	7	48	8.5	9	50	21.7	11	40	45.2	13	42	58.4	15	41	15.0	17	43	28.3
19	7	52	5.1	9	54	18.3	11	44	41.8	13	46	54.9	15	45	11.6	17	47	24.8
20	7	56	1.6	9	58	14.9	11	48	38.3	13	50	51.5	15	49	8.1	17	51	21.4
21	7	59	58.2	10	2	11.4	11	52	34.9	13	54	48.1	15	53	4.7	17	55	18.0
22	8	3	54.8	10	6	8.0	11	56	31.5	13	58	44.6	15	57	1.2	17	59	14.5
23	8	7	51.3	10	10	4.5	12	0	28.0	14	2	41.2	16	0	57.8	18	3	11.1
24	8	11	47.9	10	14	1.1	12	4	24.6	14	6	37.7	16	4	54.3	18	7	7.6
25	8	15	44.4	10	17	57.6	12	8	21.1	14	10	34.2	16	8	50.9	18	11	4.2
26	8	19	41.0	10	21	54.2	12	12	17.7	14	14	30.8	16	12	47.5	18	15	0.7
27	8	23	37.6	10	25	50.7	12	16	14.2	14	18	27.3	16	16	44.0	18	18	57.3
28	8	27	34.1	10	29	47.3	12	20	10.8	14	22	23.9	16	20	40.6	18	22	53.9
29	8	31	30.7	10	33	43.8	12	24	7.3	14	26	20.5	16	24	37.1	18	26	50.4
30	8	35	27.2	10	37	40.4	12	28	3.9	14	30	17.0	16	28	33.7	18	30	47.0
31	8	39	23.8	10	41	36.9	12	32	0.4	14	34	13.6	16	32	30.3	18	34	43.5

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude	0ʰ	1ʰ	2ʰ	3ʰ	4ʰ	5ʰ	6ʰ	7ʰ	8ʰ	9ʰ	10ʰ	11ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	0 0.0	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4
5	0 0.8	0 10.7	0 20.5	0 30.4	0 40.2	0 50.1	1 0.0	1 9.8	1 19.7	1 29.5	1 39.4	1 49.2
10	0 1.6	0 11.5	0 21.4	0 31.2	0 41.1	0 50.9	1 0.8	1 10.6	1 20.5	1 30.4	1 40.2	1 50.1
15	0 2.5	0 12.3	0 22.2	0 32.0	0 41.9	0 51.7	1 1.6	1 11.5	1 21.3	1 31.2	1 41.0	1 50.9
20	0 3.3	0 13.1	0 23.0	0 32.9	0 42.7	0 52.6	1 2.4	1 12.3	1 22.1	1 32.0	1 41.8	1 51.7
25	0 4.1	0 14.0	0 23.8	0 33.7	0 43.5	0 53.4	1 3.2	1 13.1	1 23.0	1 32.8	1 42.7	1 52.5
30	0 4.9	0 14.8	0 24.6	0 34.5	0 44.4	0 54.2	1 4.1	1 13.9	1 23.8	1 33.6	1 43.5	1 53.3
35	0 5.8	0 15.6	0 25.5	0 35.3	0 45.2	0 55.0	1 4.9	1 14.7	1 24.6	1 34.5	1 44.3	1 54.2
40	0 6.6	0 16.4	0 26.3	0 36.1	0 46.0	0 55.9	1 5.7	1 15.6	1 25.4	1 35.3	1 45.1	1 55.0
45	0 7.4	0 17.2	0 27.1	0 37.0	0 46.8	0 56.7	1 6.5	1 16.4	1 26.2	1 36.1	1 46.0	1 55.8
50	0 8.2	0 18.1	0 27.9	0 37.8	0 47.6	0 57.5	1 7.4	1 17.2	1 27.1	1 36.9	1 46.8	1 56.6
55	0 9.0	0 18.9	0 28.7	0 38.6	0 48.5	0 58.3	1 8.2	1 18.0	1 27.9	1 37.7	1 47.6	1 57.5
60	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4	1 58.3

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)

Day of Month	July h m s	August h m s	September h m s	October h m s	November h m s	December h m s
1	18 34 43.5	20 36 56.8	22 39 10.0	0 37 26.6	2 39 39.7	4 37 56.4
2	18 38 40.1	20 40 53.3	22 43 6.5	0 41 23.1	2 43 36.3	4 41 53.0
3	18 42 36.6	20 44 49.9	22 47 3.1	0 45 19.7	2 47 32.8	4 45 49.5
4	18 46 33.2	20 48 46.5	22 50 59.7	0 49 16.2	2 51 29.4	4 49 46.1
5	18 50 29.8	20 52 43.0	22 54 56.2	0 53 12.8	2 55 25.9	4 53 42.6
6	18 54 26.3	20 56 39.6	22 58 52.8	0 57 9.3	2 59 22.5	4 57 39.2
7	18 58 22.9	21 0 36.1	23 2 49.3	1 1 5.9	3 3 19.0	5 1 35.8
8	19 2 19.4	21 4 32.7	23 6 45.9	1 5 2.4	3 7 15.6	5 5 32.3
9	19 6 16.0	21 8 29.3	23 10 42.4	1 8 59.0	3 11 12.2	5 9 28.9
10	19 10 12.6	21 12 25.8	23 14 39.0	1 12 55.5	3 15 8.7	5 13 25.4
11	19 14 9.1	21 16 22.4	23 18 35.5	1 16 52.1	3 19 5.3	5 17 22.0
12	19 18 5.7	21 20 18.9	23 22 32.1	1 20 48.6	3 23 1.8	5 21 18.6
13	19 22 2.2	21 24 15.5	23 26 28.6	1 24 45.2	3 26 58.4	5 25 15.1
14	19 25 58.8	21 28 12.0	23 30 25.2	1 28 41.8	3 30 55.0	5 29 11.7
15	19 29 55.3	21 32 8.6	23 34 21.7	1 32 38.3	3 34 51.5	5 33 8.2
16	19 33 51.9	21 36 5.1	23 38 18.3	1 36 34.9	3 38 48.1	5 37 4.8
17	19 37 48.4	21 40 1.7	23 42 14.8	1 40 31.4	3 42 44.6	5 41 1.3
18	19 41 45.0	21 43 58.2	23 46 11.4	1 44 28.0	3 46 41.2	5 44 57.9
19	19 45 41.6	21 47 54.8	23 50 7.9	1 48 24.5	3 50 37.7	5 48 54.5
20	19 49 38.1	21 51 51.3	23 54 4.5	1 52 21.1	3 54 34.3	5 52 51.0
21	19 53 34.7	21 55 47.9	23 58 1.0	1 56 17.6	3 58 30.8	5 56 47.6
22	19 57 31.2	21 59 44.5	0 1 57.6	2 0 14.2	4 2 27.4	6 0 44.2
23	20 1 27.8	22 3 41.0	0 5 54.1	2 4 10.7	4 6 24.0	6 4 40.7
24	20 5 24.4	22 7 37.6	0 9 50.7	2 8 7.3	4 10 20.5	6 8 37.3
25	20 9 20.9	22 11 34.1	0 13 47.2	2 12 3.8	4 14 17.1	6 12 33.8
26	20 13 17.5	22 15 30.7	0 17 43.8	2 16 0.4	4 18 13.6	6 16 30.4
27	20 17 14.0	22 19 27.2	0 21 40.4	2 19 57.0	4 22 10.2	6 20 26.9
28	20 21 10.6	22 23 23.8	0 25 36.9	2 23 53.5	4 26 6.8	6 24 23.5
29	20 25 7.1	22 27 20.3	0 29 33.5	2 27 50.1	4 30 3.3	6 28 20.0
30	20 29 3.7	22 31 16.9	0 33 30.0	2 31 46.6	4 33 59.9	6 32 16.6
31	20 33 0.2	22 35 13.4	0 37 26.6	2 35 43.2	4 37 56.4	6 36 13.1

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude m	12ʰ m s	13ʰ m s	14ʰ m s	15ʰ m s	16ʰ m s	17ʰ m s	18ʰ m s	19ʰ m s	20ʰ m s	21ʰ m s	22ʰ m s	23ʰ m s
0	1 58.3	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7
5	1 59.1	2 9.0	2 18.8	2 28.7	2 38.5	2 48.4	2 58.2	3 8.1	3 18.0	3 27.8	3 37.7	3 47.5
10	1 59.9	2 9.8	2 19.6	2 29.5	2 39.3	2 49.2	2 59.1	3 8.9	3 18.8	3 28.6	3 38.5	3 48.3
15	2 0.7	2 10.6	2 20.5	2 30.3	2 40.2	2 50.0	2 59.9	3 9.7	3 19.6	3 29.4	3 39.3	3 49.2
20	2 1.6	2 11.4	2 21.3	2 31.1	2 41.0	2 50.8	3 0.7	3 10.6	3 20.4	3 30.3	3 40.1	3 50.0
25	2 2.4	2 12.2	2 22.1	2 32.0	2 41.8	2 51.7	3 1.5	3 11.4	3 21.2	3.31.1	3 40.9	3 50.8
30	2 3.2	2 13.1	2 22.9	2 32.8	2 42.6	2 52.5	3 2.3	3 12.2	3 22.1	3 31.9	3 41.8	3 51.6
35	2 4.0	2 13.9	2 23.7	2 33.6	2 43.5	2 53.3	3 3.2	3 13.0	3 22.9	3 32.7	3 42.6	3 52.4
40	2 4.8	2 14.7	2 24.6	2 34.4	2 44.3	2 54.1	3 4.0	3 13.8	3 23.7	3 33.6	3 43.4	3 53.3
45	2 5.7	2 15.5	2 25.4	2 35.2	2 45.1	2 55.0	3 4.8	3 14.7	3 24.5	3 34.4	3 44.2	3 54.1
50	2 6.5	2 16.3	2 26.2	2 36.1	2 45.9	2 55.8	3 5.6	3 15.5	3 25.3	3 35.2	3 45.1	3 54.9
55	2 7.3	2 17.2	2 27.0	2 36.9	2 46.7	2 56.6	3 6.5	3 16.3	3 26.2	3 36.0	3 45.9	3 55.7
60	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7	3 56.6

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

G.C.T.	Equation of Time	Sun's Declination	Sun's G.H.A.	Equation of Time	Sun's Declination	Sun's G.H.A.	Equation of Time	Sun's Declination	Sun's G.H.A.
	Monday 1			**Friday 5**			**Tuesday 9**		
h	m s	° '	° '	m s	° '	° '	m s	° '	° '
0	-3 21.0	-23 3.1	179 9.7	-5 12.1	-22 40.7	178 42.0	-6 56.7	-22 11.1	178 15.8
2	3 23.4	23 2.7	209 9.2	5 14.4	22 40.1	208 41.4	6 58.8	22 10.4	208 15.3
4	3 25.8	23 2.3	239 8.6	5 16.6	22 39.6	238 40.8	7 0.9	22 9.7	238 14.8
6	3 28.1	23 1.9	269 8.0	5 18.9	22 39.0	268 40.3	7 3.0	22 9.0	268 14.2
8	3 30.5	23 1.5	299 7.4	5 21.1	22 38.5	298 39.7	7 5.1	22 8.3	298 13.7
10	3 32.8	23 1.1	329 6.8	5 23.3	22 37.9	328 39.2	7 7.2	22 7.6	328 13.2
12	3 35.2	23 0.7	359 6.2	5 25.6	22 37.4	358 38.6	7 9.3	22 6.9	358 12.7
14	3 37.6	23 0.3	29 5.6	5 27.8	22 36.8	28 38.0	7 11.3	22 6.2	28 12.2
16	3 39.9	22 59.9	59 5.0	5 30.1	22 36.2	58 37.5	7 13.4	22 5.5	58 11.6
18	3 42.3	22 59.5	89 4.4	5 32.3	22 35.7	88 36.9	7 15.5	22 4.7	88 11.1
20	3 44.6	22 59.0	119 3.8	5 34.5	22 35.1	118 36.4	7 17.5	22 4.0	118 10.6
22	-3 47.0	-22 58.6	149 3.3	-5 36.7	-22 34.5	148 35.8	-7 19.6	-22 3.3	148 10.1
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Tuesday 2			**Saturday 6**			**Wednesday 10**		
0	-3 49.3	-22 58.2	179 2.7	-5 39.0	-22 34.0	178 35.3	-7 21.7	-22 2.6	178 9.6
2	3 51.7	22 57.8	209 2.1	5 41.2	22 33.4	208 34.7	7 23.7	22 1.9	208 9.1
4	3 54.0	22 57.3	239 1.5	5 43.4	22 32.8	238 34.2	7 25.8	22 1.1	238 8.6
6	3 56.3	22 56.9	269 0.9	5 45.6	22 32.2	268 33.6	7 27.8	22 0.4	268 8.0
8	3 58.7	22 56.5	299 0.3	5 47.8	22 31.6	298 33.1	7 29.9	21 59.7	298 7.5
10	4 1.0	22 56.0	328 59.8	5 50.0	22 31.0	328 32.5	7 31.9	21 58.9	328 7.0
12	4 3.3	22 55.6	358 59.2	5 52.2	22 30.4	358 32.0	7 33.9	21 58.2	358 6.5
14	4 5.7	22 55.1	28 58.6	5 54.4	22 29.8	28 31.4	7 36.0	21 57.4	28 6.0
16	4 8.0	22 54.7	58 58.0	5 56.6	22 29.2	58 30.9	7 38.0	21 56.7	58 5.5
18	4 10.3	22 54.2	88 57.4	5 58.8	22 28.6	88 30.3	7 40.0	21 55.9	88 5.0
20	4 12.6	22 53.7	118 56.8	6 1.0	22 28.0	118 29.8	7 42.0	21 55.2	118 4.5
22	-4 15.0	-22 53.3	148 56.3	-6 3.2	-22 27.4	148 29.2	-7 44.1	-21 54.4	148 4.0
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Wednesday 3			**Sunday 7**			**Thursday 11**		
0	-4 17.3	-22 52.8	178 55.7	-6 5.3	-22 26.8	178 28.7	-7 46.1	-21 53.7	178 3.5
2	4 19.6	22 52.3	208 55.1	6 7.5	22 26.2	208 28.1	7 48.1	21 52.9	208 3.0
4	4 21.9	22 51.9	238 54.5	6 9.7	22 25.5	238 27.6	7 50.1	21 52.1	238 2.5
6	4 24.2	22 51.4	268 53.9	6 11.9	22 24.9	268 27.0	7 52.1	21 51.4	268 2.0
8	4 26.5	22 50.9	298 53.4	6 14.0	22 24.3	298 26.5	7 54.1	21 50.6	298 1.5
10	4 28.8	22 50.4	328 52.8	6 16.2	22 23.6	328 25.9	7 56.1	21 49.8	323 1.0
12	4 31.1	22 49.9	358 52.2	6 18.4	22 23.0	358 25.4	7 58.1	21 49.0	358 0.5
14	4 33.4	22 49.5	28 51.6	6 20.5	22 22.4	28 24.9	8 0.0	21 48.2	28 0.0
16	4 35.7	22 49.0	58 51.1	6 22.7	22 21.7	58 24.3	8 2.0	21 47.5	57 59.5
18	4 38.0	22 48.5	88 50.5	6 24.8	22 21.1	88 23.8	8 4.0	21 46.7	87 59.0
20	4 40.3	22 48.0	118 49.9	6 27.0	22 20.4	118 23.3	8 6.0	21 45.9	117 58.5
22	-4 42.6	-22 47.5	148 49.4	-6 29.1	-22 19.8	148 22.7	-8 7.9	-21 45.1	147 58.0
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Thursday 4			**Monday 8**			**Friday 12**		
0	-4 44.9	-22 47.0	178 48.8	-6 31.3	-22 19.1	178 22.2	-8 9.9	-21 44.3	177 57.5
2	4 47.2	22 46.5	208 48.2	6 33.4	22 18.5	208 21.6	8 11.9	21 43.5	207 57.0
4	4 49.4	22 46.0	238 47.6	6 35.6	22 17.8	238 21.1	8 13.8	21 42.7	237 56.5
6	4 51.7	22 45.4	268 47.1	6 37.7	22 17.2	268 20.6	8 15.8	21 41.9	267 56.1
8	4 54.0	22 44.9	298 46.5	6 39.8	22 16.5	298 20.0	8 17.7	21 41.1	297 55.6
10	4 56.3	22 44.4	328 45.9	6 41.9	22 15.8	328 19.5	8 19.7	21 40.3	327 55.1
12	4 58.6	22 43.9	358 45.4	6 44.1	22 15.2	358 19.0	8 21.6	21 39.5	357 54.6
14	5 0.8	22 43.4	28 44.8	6 46.2	22 14.5	28 18.5	8 23.5	21 38.6	27 54.1
16	5 3.1	22 42.8	58 44.2	6 48.3	22 13.8	58 17.9	8 25.5	21 37.8	57 53.6
18	5 5.3	22 42.3	88 43.7	6 50.4	22 13.1	88 17.4	8 27.4	21 37.0	87 53.2
20	5 7.6	22 41.8	118 43.1	6 52.5	22 12.5	118 16.9	8 29.3	21 36.2	117 52.7
22	-5 9.9	-22 41.2	148 42.5	-6 54.6	-22 11.8	148 16.3	-8 31.2	-21 35.4	147 52.2
H.D.	1.1	0.3	... ...	1.1	0.3	... ...	1.0	0.4	... ...

NOTE.—The Equation of Time is to be applied to the G. C. T. in accordance with the sign as given.

Day of Month	January	February	March	April	May	June
	Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)					
	h m s	h m s	h m s	h m s	h m s	h m s
1	6 38 8.0	8 40 21.2	10 34 41.3	12 36 54.4	14 35 11.0	16 37 24.2
2	6 42 4.5	8 44 17.8	10 38 37.8	12 40 51.0	14 39 7.6	16 41 20.8
3	6 46 1.1	8 48 14.3	10 42 34.4	12 44 47.5	14 43 4.1	16 45 17.3
4	6 49 57.6	8 52 10.9	10 46 30.9	12 48 44.1	14 47 0.7	16 49 13.9
5	6 53 54.2	8 56 7.4	10 50 27.5	12 52 40.6	14 50 57.2	16 53 10.4
6	6 57 50.7	9 0 4.0	10 54 24.1	12 56 37.2	14 54 53.8	16 57 7.0
7	7 1 47.3	9 4 0.6	10 58 20.6	13 0 33.7	14 58 50.3	17 1 3.6
8	7 5 43.9	9 7 57.1	11 2 17.2	13 4 30.3	15 2 46.9	17 5 0.1
9	7 9 40.4	9 11 53.7	11 6 13.7	13 8 26.8	15 6 43.4	17 8 56.7
10	7 13 37.0	9 15 50.2	11 10 10.3	13 12 23.4	15 10 40.0	17 12 53.2
11	7 17 33.5	9 19 46.8	11 14 6.8	13 16 19.9	15 14 36.5	17 16 49.8
12	7 21 30.1	9 23 43.3	11 18 3.3	13 20 16.5	15 18 33.1	17 20 46.4
13	7 25 26.7	9 27 39.9	11 21 59.9	13 24 13.0	15 22 29.7	17 24 42.9
14	7 29 23.2	9 31 36.4	11 25 56.4	13 28 9.6	15 26 26.2	17 28 39.5
15	7 33 19.8	9 35 33.0	11 29 53.0	13 32 6.1	15 30 22.8	17 32 36.0
16	7 37 16.3	9 39 29.5	11 33 49.5	13 36 2.7	15 34 19.3	17 36 32.6
17	7 41 12.9	9 43 26.1	11 37 46.1	13 39 59.3	15 38 15.9	17 40 29.1
18	7 45 9.4	9 47 22.6	11 41 42.7	13 43 55.8	15 42 12.4	17 44 25.7
19	7 49 6.0	9 51 19.2	11 45 39.2	13 47 52.4	15 46 9.0	17 48 22.2
20	7 53 2.5	9 55 15.7	11 49 35.8	13 51 48.9	15 50 5.5	17 52 18.8
21	7 56 59.1	9 59 12.3	11 53 32.3	13 55 45.5	15 54 2.1	17 56 15.4
22	8 0 55.6	10 3 8.9	11 57 28.9	13 59 42.0	15 57 58.6	18 0 11.9
23	8 4 52.2	10 7 5.4	12 1 25.4	14 3 38.6	16 1 55.2	18 4 8.5
24	8 8 48.8	10 11 2.0	12 5 22.0	14 7 35.1	16 5 51.8	18 8 5.0
25	8 12 45.3	10 14 58.5	12 9 18.5	14 11 31.7	16 9 48.3	18 12 1.6
26	8 16 41.9	10 18 55.1	12 13 15.1	14 15 28.2	16 13 44.9	18 15 58.2
27	8 20 38.4	10 22 51.6	12 17 11.6	14 19 24.8	16 17 41.5	18 19 54.7
28	8 24 35.0	10 26 48.2	12 21 8.2	14 23 21.3	16 21 38.0	18 23 51.3
29	8 28 31.6	10 30 44.7	12 25 4.7	14 27 17.9	16 25 34.6	18 27 47.8
30	8 32 28.1	10 34 41.3	12 29 1.3	14 31 14.5	16 29 31.1	18 31 44.4
31	8 36 24.7	10 38 37.8	12 32 57.9	14 35 11.0	16 33 27.7	18 35 40.9

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude	0ʰ	1ʰ	2ʰ	3ʰ	4ʰ	5ʰ	6ʰ	7ʰ	8ʰ	9ʰ	10ʰ	11ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	0 0.0	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4
5	0 0.8	0 10.7	0 20.5	0 30.4	0 40.2	0 50.1	1 0.0	1 9.8	1 19.7	1 29.5	1 39.4	1 49.2
10	0 1.6	0 11.5	0 21.4	0 31.2	0 41.1	0 50.9	1 0.8	1 10.6	1 20.5	1 30.4	1 40.2	1 50.1
15	0 2.5	0 12.3	0 22.2	0 32.0	0 41.9	0 51.7	1 1.6	1 11.5	1 21.3	1 31.2	1 41.0	1 50.9
20	0 3.3	0 13.1	0 23.0	0 32.9	0 42.7	0 52.6	1 2.4	1 12.3	1 22.1	1 32.0	1 41.8	1 51.7
25	0 4.1	0 14.0	0 23.8	0 33.7	0 43.5	0 53.4	1 3.2	1 13.1	1 23.0	1 32.8	1 42.7	1 52.5
30	0 4.9	0 14.8	0 24.6	0 34.5	0 44.4	0 54.2	1 4.1	1 13.9	1 23.8	1 33.6	1 43.5	1 53.3
35	0 5.8	0 15.6	0 25.5	0 35.3	0 45.2	0 55.0	1 4.9	1 14.7	1 24.6	1 34.5	1 44.3	1 54.2
40	0 6.6	0 16.4	0 26.3	0 36.1	0 46.0	0 55.9	1 5.7	1 15.6	1 25.4	1 35.3	1 45.1	1 55.0
45	0 7.4	0 17.2	0 27.1	0 37.0	0 46.8	0 56.7	1 6.5	1 16.4	1 26.2	1 36.1	1 46.0	1 55.8
50	0 8.2	0 18.1	0 27.9	0 37.8	0 47.6	0 57.5	1 7.4	1 17.2	1 27.1	1 36.9	1 46.8	1 56.6
55	0 9.0	0 18.9	0 28.7	0 38.6	0 48.5	0 58.3	1 8.2	1 18.0	1 27.9	1 37.7	1 47.6	1 57.5
60	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4	1 58.3

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)

Day of Month	July h m s	August h m s	September h m s	October h m s	November h m s	December h m s
1	18 35 40.9	20 37 54.2	22 40 7.4	0 38 23.9	2 40 37.1	4 38 53.8
2	18 39 37.5	20 41 50.7	22 44 3.9	0 42 20.5	2 44 33.6	4 42 50.3
3	18 43 34.0	20 45 47.3	22 48 0.5	0 46 17.0	2 48 30.2	4 46 46.9
4	18 47 30.6	20 49 43.9	22 51 57.0	0 50 13.6	2 52 26.8	4 50 43.5
5	18 51 27.2	20 53 40.4	22 55 53.6	0 54 10.1	2 56 23.3	4 54 40.0
6	18 55 23.7	20 57 37.0	22 59 50.1	0 58 6.7	3 0 19.9	4 58 36.6
7	18 59 20.3	21 1 33.5	23 3 46.7	1 2 3.3	3 4 16.4	5 2 33.1
8	19 3 16.8	21 5 30.1	23 7 43.2	1 5 59.8	3 8 13.0	5 6 29.7
9	19 7 13.4	21 9 26.6	23 11 39.8	1 9 56.4	3 12 9.5	5 10 26.2
10	19 11 10.0	21 13 23.2	23 15 36.3	1 13 52.9	3 16 6.1	5 14 22.8
11	19 15 6.5	21 17 19.7	23 19 32.9	1 17 49.5	3 20 2.6	5 18 19.3
12	19 19 3.1	21 21 16.3	23 23 29.5	1 21 46.0	3 23 59.2	5 22 15.9
13	19 22 59.6	21 25 12.8	23 27 26.0	1 25 42.6	3 27 55.7	5 26 12.4
14	19 26 56.2	21 29 9.4	23 31 22.6	1 29 39.1	3 31 52.3	5 30 9.0
15	19 30 52.7	21 33 6.0	23 35 19.1	1 33 35.7	3 35 48.9	5 34 5.6
16	19 34 49.3	21 37 2.5	23 39 15.7	1 37 32.2	3 39 45.4	5 38 2.1
17	19 38 45.8	21 40 59.1	23 43 12.2	1 41 28.8	3 43 42.0	5 41 58.7
18	19 42 42.4	21 44 55.6	23 47 8.8	1 45 25.3	3 47 38.5	5 45 55.3
19	19 46 39.0	21 48 52.2	23 51 5.3	1 49 21.9	3 51 35.1	5 49 51.8
20	19 50 35.5	21 52 48.7	23 55 1.9	1 53 18.4	3 55 31.6	5 53 48.4
21	19 54 32.1	21 56 45.3	23 58 58.4	1 57 15.0	3 59 28.2	5 57 44.9
22	19 58 28.6	22 0 41.8	0 2 55.0	2 1 11.5	4 3 24.8	6 1 41.5
23	20 2 25.2	22 4 38.4	0 6 51.5	2 5 8.1	4 7 21.3	6 5 38.0
24	20 6 21.7	22 8 34.9	0 10 48.1	2 9 4.7	4 11 17.9	6 9 34.6
25	20 10 18.3	22 12 31.5	0 14 44.6	2 13 1.2	4 15 14.4	6 13 31.1
26	20 14 14.9	22 16 28.0	0 18 41.2	2 16 57.8	4 19 11.0	6 17 27.7
27	20 18 11.4	22 20 24.6	0 22 37.7	2 20 54.3	4 23 7.5	6 21 24.3
28	20 22 8.0	22 24 21.1	0 26 34.3	2 24 50.9	4 27 4.1	6 25 20.8
29	20 26 4.5	22 28 17.7	0 30 30.8	2 28 47.4	4 31 0.6	6 29 17.4
30	20 30 1.1	22 32 14.3	0 34 27.4	2 32 44.0	4 34 57.2	6 33 14.0
31	20 33 57.6	22 36 10.8	0 38 23.9	2 36 40.5	4 38 53.8	6 37 10.5

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude m	12ʰ m s	13ʰ m s	14ʰ m s	15ʰ m s	16ʰ m s	17ʰ m s	18ʰ m s	19ʰ m s	20ʰ m s	21ʰ m s	22ʰ m s	23ʰ m s
0	1 58.3	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7
5	1 59.1	2 9.0	2 18.8	2 28.7	2 38.5	2 48.4	2 58.2	3 8.1	3 18.0	3 27.8	3 37.7	3 47.5
10	1 59.9	2 9.8	2 19.6	2 29.5	2 39.3	2 49.2	2 59.1	3 8.9	3 18.8	3 28.6	3 38.5	3 48.3
15	2 0.7	2 10.6	2 20.5	2 30.3	2 40.2	2 50.0	2 59.9	3 9.7	3 19.6	3 29.4	3 39.3	3 49.2
20	2 1.6	2 11.4	2 21.3	2 31.1	2 41.0	2 50.8	3 0.7	3 10.6	3 20.4	3 30.3	3 40.1	3 50.0
25	2 2.4	2 12.2	2 22.1	2 32.0	2 41.8	2 51.7	3 1.5	3 11.4	3 21.2	3 31.1	3 40.9	3 50.8
30	2 3.2	2 13.1	2 22.9	2 32.8	2 42.6	2 52.5	3 2.3	3 12.2	3 22.1	3 31.9	3 41.8	3 51.6
35	2 4.0	2 13.9	2 23.7	2 33.6	2 43.5	2 53.3	3 3.2	3 13.0	3 22.9	3 32.7	3 42.6	3 52.4
40	2 4.8	2 14.7	2 24.6	2 34.4	2 44.3	2 54.1	3 4.0	3 13.8	3 23.7	3 33.6	3 43.4	3 53.3
45	2 5.7	2 15.5	2 25.4	2 35.2	2 45.1	2 55.0	3 4.8	3 14.7	3 24.5	3 34.4	3 44.2	3 54.1
50	2 6.5	2 16.3	2 26.2	2 36.1	2 45.9	2 55.8	3 5.6	3 15.5	3 25.3	3 35.2	3 45.1	3 54.9
55	2 7.3	2 17.2	2 27.0	2 36.9	2 46.7	2 56.6	3 6.5	3 16.3	3 26.2	3 36.0	3 45.9	3 55.7
60	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7	3 56.6

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.— The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

G. C. T.	Equation of Time	Sun's Declination	Sun's G. H. A.	Equation of Time	Sun's Declination	Sun's G. H. A.	Equation of Time	Sun's Declination	Sun's G. H. A.
		Saturday 1			Wednesday 5			Sunday 9	
h	m s	° '	° '	m s	° '	° '	m s	° '	° '
0	−3 0.1	−23 6.5	179 15.0	−4 52.6	−22 45.4	178 46.9	−6 38.3	−22 17.2	178 20.4
2	3 2.5	23 6.1	209 14.4	4 54.8	22 44.9	208 46.3	6 40.4	22 16.5	208 19.9
4	3 4.9	23 5.8	239 13.8	4 57.1	22 44.4	238 45.7	6 42.5	22 15.8	238 19.4
6	3 7.3	23 5.4	269 13.2	4 59.4	22 43.9	268 45.2	6 44.6	22 15.2	268 18.8
8	3 9.7	23 5.0	299 12.6	5 1.6	22 43.4	298 44.6	6 46.7	22 14.5	298 18.3
10	3 12.1	23 4.6	329 12.0	5 3.9	22 42.8	328 44.0	6 48.8	22 13.8	328 17.8
12	3 14.5	23 4.3	359 11.4	5 6.2	22 42.3	358 43.5	6 50.9	22 13.1	358 17.3
14	3 16.9	23 3.9	29 10.8	5 8.4	22 41.8	28 42.9	6 53.0	22 12.5	28 16.7
16	3 19.3	23 3.5	59 10.2	5 10.7	22 41.2	58 42.3	6 55.1	22 11.8	58 16.2
18	3 21.6	23 3.1	89 9.6	5 12.9	22 40.7	88 41.8	6 57.2	22 11.1	88 15.7
20	3 24.0	23 2.7	119 9.0	5 15.2	22 40.1	118 41.2	6 59.3	22 10.4	118 15.2
22	3 26.4	23 2.3	149 8.4	5 17.4	22 39.6	148 40.6	7 1.4	22 9.7	148 14.7
H. D.	1.2	0.2	... ...	1.1	0.3	... ...	1.1	0.3	... ...
		Sunday 2			Thursday 6			Monday 10	
0	−3 28.8	−23 1.9	179 7.8	−5 19.7	−22 39.0	178 40.1	−7 3.5	−22 9.0	178 14.1
2	3 31.1	23 1.5	209 7.2	5 21.9	22 38.5	208 39.5	7 5.6	22 8.3	208 13.6
4	3 33.5	23 1.1	239 6.6	5 24.2	22 37.9	238 39.0	7 7.6	22 7.6	238 13.1
6	3 35.9	23 0.7	269 6.0	5 26.4	22 37.4	268 38.4	7 9.7	22 6.9	268 12.6
8	3 38.2	23 0.3	299 5.4	5 28.6	22 36.8	298 37.8	7 11.8	22 6.2	298 12.1
10	3 40.6	22 59.9	329 4.9	5 30.8	22 36.2	328 37.3	7 13.8	22 5.5	328 11.5
12	3 43.0	22 59.5	359 4.3	5 33.1	22 35.7	358 36.7	7 15.9	22 4.8	358 11.0
14	3 45.3	22 59.0	29 3.7	5 35.3	22 35.1	28 36.2	7 17.9	22 4.0	28 10.5
16	3 47.7	22 58.6	59 3.1	5 37.5	22 34.5	58 35.6	7 20.0	22 3.3	58 10.0
18	3 50.0	22 58.2	89 2.5	5 39.7	22 34.0	88 35.1	7 22.0	22 2.6	88 9.5
20	3 52.4	22 57.8	119 1.9	5 41.9	22 33.4	118 34.5	7 24.1	22 1.9	118 9.0
22	3 54.7	22 57.3	149 1.3	5 44.2	22 32.8	148 34.0	7 26.1	22 1.1	148 8.5
H. D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
		Monday 3			Friday 7			Tuesday 11	
0	−3 57.1	−22 56.9	179 0.7	−5 46.4	−22 32.2	178 33.4	−7 28.1	−22 0.4	178 8.0
2	3 59.4	22 56.4	209 0.1	5 48.6	22 31.6	208 32.9	7 30.2	21 59.7	208 7.5
4	4 1.8	22 56.0	238 59.6	5 50.8	22 31.0	238 32.3	7 32.2	21 58.9	238 7.0
6	4 4.1	22 55.5	268 59.0	5 53.0	22 30.4	268 31.8	7 34.2	21 58.2	268 6.4
8	4 6.4	22 55.1	298 58.4	5 55.1	22 29.8	298 31.2	7 36.2	21 57.4	298 5.9
10	4 8.8	22 54.6	328 57.8	5 57.3	22 29.2	328 30.7	7 38.2	21 56.7	328 5.4
12	4 11.1	22 54.2	358 57.2	5 59.5	22 28.6	358 30.1	7 40.3	21 55.9	358 4.9
14	4 13.4	22 53.7	28 56.6	6 1.7	22 28.0	28 29.6	7 42.3	21 55.2	28 4.4
16	4 15.7	22 53.3	58 56.1	6 3.9	22 27.4	58 29.0	7 44.3	21 54.4	58 3.9
18	4 18.1	22 52.8	88 55.5	6 6.1	22 26.8	88 28.5	7 46.3	21 53.7	88 3.4
20	4 20.4	22 52.3	118 54.9	6 8.2	22 26.2	118 27.9	7 48.3	21 52.9	118 2.9
22	4 22.7	22 51.9	148 54.3	6 10.4	22 25.5	148 27.4	7 50.2	21 52.1	148 2.4
H. D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
		Tuesday 4			Saturday 8			Wednesday 12	
0	−4 25.0	−22 51.4	178 53.7	−6 12.6	−22 24.9	178 26.9	−7 52.2	−21 51.4	178 1.9
2	4 27.3	22 50.9	208 53.2	6 14.7	22 24.3	208 26.3	7 54.2	21 50.6	208 1.4
4	4 29.6	22 50.4	238 52.6	6 16.9	22 23.7	238 25.8	7 56.2	21 49.8	238 1.0
6	4 31.9	22 49.9	268 52.0	6 19.0	22 23.0	268 25.2	7 58.2	21 49.1	268 0.5
8	4 34.2	22 49.5	298 51.4	6 21.2	22 22.4	298 24.7	8 0.1	21 48.3	298 0.0
10	4 36.5	22 49.0	328 50.9	6 23.3	22 21.7	328 24.2	8 2.1	21 47.5	327 59.5
12	4 38.8	22 48.5	358 50.3	6 25.5	22 21.1	358 23.6	8 4.1	21 46.7	357 59.0
14	4 41.1	22 48.0	28 49.7	6 27.6	22 20.5	28 23.1	8 6.0	21 45.9	27 58.5
16	4 43.4	22 47.5	58 49.1	6 29.8	22 19.8	58 22.6	8 8.0	21 45.1	57 58.0
18	4 45.7	22 47.0	88 48.6	6 31.9	22 19.2	88 22.0	8 9.9	21 44.3	87 57.5
20	4 48.0	22 46.5	118 48.0	6 34.0	22 18.5	118 21.5	8 11.9	21 43.5	117 57.0
22	−4 50.3	−22 46.0	148 47.4	−6 36.2	−22 17.8	148 21.0	−8 13.8	−21 42.7	147 56.5
H. D.	1.1	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...

NOTE.— The Equation of Time is to be applied to the G. C. T. in accordance with the sign as given.

Day of Month	Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)					
	January	February	March	April	May	June
	h m s	h m s	h m s	h m s	h m s	h m s
1	6 39 5.5	8 41 18.8	10 31 42.3	12 33 55.4	14 32 12.0	16 34 25.2
2	6 43 2.1	8 45 15.3	10 35 38.8	12 37 51.9	14 36 8.5	16 38 21.7
3	6 46 58.6	8 49 11.9	10 39 35.4	12 41 48.5	14 40 5.1	16 42 18.3
4	6 50 55.2	8 53 8.4	10 43 31.9	12 45 45.0	14 44 1.6	16 46 14.9
5	6 54 51.7	8 57 5.0	10 47 28.5	12 49 41.6	14 47 58.2	16 50 11.4
6	6 58 48.3	9 1 1.6	10 51 25.0	12 53 38.1	14 51 54.7	16 54 8.0
7	7 2 44.9	9 4 58.1	10 55 21.6	12 57 34.7	14 55 51.3	16 58 4.5
8	7 6 41.4	9 8 54.7	10 59 18.1	13 1 31.2	14 59 47.8	17 2 1.1
9	7 10 38.0	9 12 51.2	11 3 14.7	13 5 27.8	15 3 44.4	17 5 57.6
10	7 14 34.5	9 16 47.8	11 7 11.2	13 9 24.3	15 7 41.0	17 9 54.2
11	7 18 31.1	9 20 44.3	11 11 7.8	13 13 20.9	15 11 37.5	17 13 50.8
12	7 22 27.6	9 24 40.9	11 15 4.3	13 17 17.5	15 15 34.1	17 17 47.3
13	7 26 24.2	9 28 37.4	11 19 0.9	13 21 14.0	15 19 30.6	17 21 43.9
14	7 30 20.8	9 32 34.0	11 22 57.4	13 25 10.6	15 23 27.2	17 25 40.4
15	7 34 17.3	9 36 30.5	11 26 54.0	13 29 7.1	15 27 23.7	17 29 37.0
16	7 38 13.9	9 40 27.1	11 30 50.6	13 33 3.7	15 31 20.3	17 33 33.5
17	7 42 10.4	9 44 23.6	11 34 47.1	13 37 0.2	15 35 16.8	17 37 30.1
18	7 46 7.0	9 48 20.2	11 38 43.7	13 40 56.8	15 39 13.4	17 41 26.6
19	7 50 3.5	9 52 16.7	11 42 40.2	13 44 53.3	15 43 9.9	17 45 23.2
20	7 54 0.1	9 56 13.3	11 46 36.8	13 48 49.9	15 47 6.5	17 49 19.8
21	7 57 56.7	10 0 9.8	11 50 33.3	13 52 46.4	15 51 3.1	17 53 16.3
22	8 1 53.2	10 4 6.4	11 54 29.9	13 56 43.0	15 54 59.6	17 57 12.9
23	8 5 49.8	10 8 2.9	11 58 26.4	14 0 39.5	15 58 56.2	18 1 9.4
24	8 9 46.3	10 11 59.5	12 2 23.0	14 4 36.1	16 2 52.7	18 5 6.0
25	8 13 42.9	10 15 56.0	12 6 19.5	14 8 32.6	16 6 49.3	18 9 2.6
26	8 17 39.4	10 19 52.6	12 10 16.1	14 12 29.2	16 10 45.9	18 12 59.1
27	8 21 36.0	10 23 49.1	12 14 12.6	14 16 25.8	16 14 42.4	18 16 55.7
28	8 25 32.5	10 27 45.7	12 18 9.2	14 20 22.3	16 18 39.0	18 20 52.2
29	8 29 29.1	10 31 42.3	12 22 5.7	14 24 18.9	16 22 35.5	18 24 48.8
30	8 33 25.6	10 35 38.8	12 26 2.3	14 28 15.4	16 26 32.1	18 28 45.3
31	8 37 22.2	10 39 35.4	12 29 58.8	14 32 12.0	16 30 28.6	18 32 41.9

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude	0ʰ	1ʰ	2ʰ	3ʰ	4ʰ	5ʰ	6ʰ	7ʰ	8ʰ	9ʰ	10ʰ	11ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	0 0.0	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4
5	0 0.8	0 10.7	0 20.5	0 30.4	0 40.2	0 50.1	1 0.0	1 9.8	1 19.7	1 29.5	1 39.4	1 49.2
10	0 1.6	0 11.5	0 21.4	0 31.2	0 41.1	0 50.9	1 0.8	1 10.6	1 20.5	1 30.4	1 40.2	1 50.1
15	0 2.5	0 12.3	0 22.2	0 32.0	0 41.9	0 51.7	1 1.6	1 11.5	1 21.3	1 31 2	1 41.0	1 50.9
20	0 3.3	0 13.1	0 23.0	0 32.9	0 42.7	0 52.6	1 2.4	1 12.3	1 22.1	1 32.0	1 41.8	1 51.7
25	0 4.1	0 14.0	0 23.8	0 33.7	0 43.5	0 53.4	1 3.2	1 13.1	1 23 0	1 32.8	1 42.7	1 52.5
30	0 4.9	0 14.8	0 24.6	0 34.5	0 44.4	0 54.2	1 4.1	1 13.9	1 23.8	1 33.6	1 43.5	1 53.3
35	0 5.8	0 15.6	0 25.5	0 35.3	0 45.2	0 55.0	1 4.9	1 14.7	1 24.6	1 34.5	1 44.3	1 54.2
40	0 6.6	0 16.4	0 26.3	0 36.1	0 46.0	0 55.9	1 5.7	1 15.6	1 25.4	1 35.3	1 45.1	1 55.0
45	0 7.4	0 17.2	0 27.1	0 37.0	0 46.8	0 56.7	1 6.5	1 16.4	1 26.2	1 36.1	1 46.0	1 55.8
50	0 8.2	0 18.1	0 27.9	0 37.8	0 47.6	0 57.5	1 7.4	1 17.2	1 27.1	1 36.9	1 46.8	1 56.6
55	0 9.0	0 18.9	0 28.7	0 38.6	0 48.5	0 58.3	1 8.2	1 18.0	1 27.9	1 37.7	1 47.6	1 57.5
60	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38 6	1 48.4	1 58.3

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

Day of Month	Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)					
	July	August	September	October	November	December
	h m s	h m s	h m s	h m s	h m s	h m s
1	18 32 41.9	20 34 55.1	22 37 8.3	0 35 24.9	2 37 38.0	4 35 54.7
2	18 36 38.5	20 38 51.7	22 41 4.9	0 39 21.4	2 41 34.6	4 39 51.2
3	18 40 35.0	20 42 48.3	22 45 1.4	0 43 18.0	2 45 31.1	4 43 47.8
4	18 44 31.6	20 46 44.8	22 48 58.0	0 47 14.5	2 49 27.7	4 47 44.4
5	18 48 28.1	20 50 41.4	22 52 54.5	0 51 11.1	2 53 24.2	4 51 40.9
6	18 52 24.7	20 54 37.9	22 56 51.1	0 55 7.6	2 57 20.8	4 55 37.5
7	18 56 21.2	20 58 34.5	23 0 47.6	0 59 4.2	3 1 17.3	4 59 34.0
8	19 0 17.8	21 2 31.0	23 4 44.2	1 3 0.7	3 5 13.9	5 3 30.6
9	19 4 14.3	21 6 27.6	23 8 40.7	1 6 57.3	3 9 10.4	5 7 27.1
10	19 8 10.9	21 10 24.1	23 12 37.3	1 10 53.9	3 13 7.0	5 11 23.7
11	19 12 7.4	21 14 20.7	23 16 33.8	1 14 50.4	3 17 3.5	5 15 20.2
12	19 16 4.0	21 18 17.2	23 20 30.4	1 18 47.0	3 21 0.1	5 19 16.8
13	19 20 0.6	21 22 13.8	23 24 26.9	1 22 43.5	3 24 56.7	5 23 13.4
14	19 23 57.1	21 26 10.4	23 28 23.5	1 26 40.0	3 28 53.2	5 27 9.9
15	19 27 53.7	21 30 6.9	23 32 20.0	1 30 36.6	3 32 49.8	5 31 6.5
16	19 31 50.2	21 34 3.5	23 36 16.6	1 34 33.1	3 36 46.3	5 35 3.0
17	19 35 46.8	21 38 0.0	23 40 13.1	1 38 29.7	3 40 42.9	5 38 59.6
18	19 39 43.4	21 41 56.6	23 44 9.7	1 42 26.3	3 44 39.5	5 42 56.2
19	19 43 39.9	21 45 53.1	23 48 6.2	1 46 22.8	3 48 36.0	5 46 52.7
20	19 47 36.5	21 49 49.7	23 52 2.8	1 50 19.4	3 52 32.6	5 50 49.3
21	19 51 33.0	21 53 46.2	23 55 59.4	1 54 15.9	3 56 29.1	5 54 45.8
22	19 55 29.6	21 57 42.8	23 59 55.9	1 58 12.5	4 0 25.7	5 58 42.4
23	19 59 26.1	22 1 39.3	0 3 52.5	2 2 9.0	4 4 22.2	6 2 38.9
24	20 3 22.7	22 5 35.9	0 7 49.0	2 6 5.6	4 8 18.8	6 6 35.5
25	20 7 19.2	22 9 32.4	0 11 45.6	2 10 2.1	4 12 15.3	6 10 32.0
26	20 11 15.8	22 13 29.0	0 15 42.1	2 13 58.7	4 16 11.9	6 14 28.6
27	20 15 12.4	22 17 25.5	0 19 38.7	2 17 55.2	4 20 8.4	6 18 25.2
28	20 19 8.9	22 21 22.1	0 23 35.2	2 21 51.8	4 24 5.0	6 22 21.7
29	20 23 5.5	22 25 18.7	0 27 31.8	2 25 48.3	4 28 1.6	6 26 18.3
30	20 27 2.0	22 29 15.2	0 31 28.3	2 29 44.9	4 31 58.1	6 30 14.9
31	20 30 58.6	22 33 11.8	0 35 24.9	2 33 41.4	4 35 54.7	6 34 11.4

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude	12ʰ	13ʰ	14ʰ	15ʰ	16ʰ	17ʰ	18ʰ	19ʰ	20ʰ	21ʰ	22ʰ	23ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	1 58.3	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7
5	1 59.1	2 9.0	2 18.8	2 28.7	2 38.5	2 48.4	2 58.2	3 8.1	3 18.0	3 27.8	3 37.7	3 47.5
10	1 59.9	2 9.8	2 19.6	2 29.5	2 39.3	2 49.2	2 59.1	3 8.9	3 18.8	3 28.6	3 38.5	3 48.3
15	2 0.7	2 10.6	2 20.5	2 30.3	2 40.2	2 50.0	2 59.9	3 9.7	3 19.6	3 29.4	3 39.3	3 49.2
20	2 1.6	2 11.4	2 21.3	2 31.1	2 41.0	2 50.8	3 0.7	3 10.6	3 20.4	3 30.3	3 40.1	3 50.0
25	2 2.4	2 12.2	2 22.1	2 32.0	2 41.8	2 51.7	3 1.5	3 11.4	3 21.2	3 31.1	3 40.9	3 50.8
30	2 3.2	2 13.1	2 22.9	2 32.8	2 42.6	2 52.5	3 2.3	3 12.2	3 22.1	3 31.9	3 41.8	3 51.6
35	2 4.0	2 13.9	2 23.7	2 33.6	2 43.5	2 53.3	3 3.2	3 13.0	3 22.9	3 32.7	3 42.6	3 52.4
40	2 4.8	2 14.7	2 24.6	2 34.4	2 44.3	2 54.1	3 4.0	3 13.8	3 23.7	3 33.6	3 43.4	3 53.3
45	2 5.7	2 15.5	2 25.4	2 35.2	2 45.1	2 55.0	3 4.8	3 14.7	3 24.5	3 34.4	3 44.2	3 54.1
50	2 6.5	2 16.3	2 26.2	2 36.1	2 45.9	2 55.8	3 5.6	3 15.5	3 25.3	3 35.2	3 45.1	3 54.9
55	2 7.3	2 17.2	2 27.0	2 36.9	2 46.7	2 56.6	3 6.5	3 16.3	3 26.2	3 36 0	3 45.9	3 55.7
60	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7	3 56.6

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

G. C. T.	Equation of Time	Sun's Declination	Sun's G. H. A.	Equation of Time	Sun's Declination	Sun's G. H. A.	Equation of Time	Sun's Declination	Sun's G. H. A.
	Friday 1			**Tuesday 5**			**Saturday 9**		
h	m s	° '	° '	m s	° '	° '	m s	° '	° '
0	-3 5.6	-23 5.4	179 13.6	-4 57.9	-22 43.9	178 45.5	-6 43.8	-22 15.2	178 19.0
2	3 8.0	23 5.0	209 13.0	5 0.2	22 43.4	208 45.0	6 46.0	22 14.5	208 18.5
4	3 10.4	23 4.7	239 12.4	5 2.5	22 42.9	238 44.4	6 48.1	22 13.9	238 18.0
6	3 12.7	23 4.3	269 11.8	5 4.7	22 42.3	268 43.8	6 50.2	22 13.2	268 17.5
8	3 15.1	23 3.9	299 11.2	5 7.0	22 41.8	298 43.2	6 52.3	22 12.5	298 16.9
10	3 17.5	23 3.5	329 10.6	5 9.3	22 41.3	328 42.7	6 54.4	22 11.8	328 16.4
12	3 19.9	23 3.1	359 10.0	5 11.5	22 40.7	358 42.1	6 56.5	22 11.1	358 15.9
14	3 22.3	23 2.7	29 9.4	5 13.8	22 40.2	28 41.6	6 58.6	22 10.4	28 15.3
16	3 24.6	23 2.3	59 8.8	5 16.1	22 39.6	58 41.0	7 0.7	22 9.8	58 14.8
18	3 27.0	23 1.9	89 8.2	5 18.3	22 39.1	88 40.4	7 2.8	22 9.1	88 14.3
20	3 29.4	23 1.5	119 7.7	5 20.6	22 38.5	118 39.9	7 4.9	22 8.4	118 13.8
22	3 31.8	23 1.1	149 7.1	5 22.8	22 38.0	148 39.3	7 7.0	22 7.7	148 13.3
H. D.	1.2	0.2	... ...	1.1	0.3		1.1	0.3	... ...
	Saturday 2			**Wednesday 6**			**Sunday 10**		
0	-3 34.1	-23 0.7	179 6.5	-5 25.1	-22 37.4	178 38.7	-7 9.1	-22 6.9	178 12.7
2	3 36.5	23 0.3	209 5.9	5 27.3	22 36.8	208 38.2	7 11.2	22 6.2	208 12.2
4	3 38.9	22 59.9	239 5.3	5 29.5	22 36.3	238 37.6	7 13.2	22 5.5	238 11.7
6	3 41.2	22 59.5	269 4.7	5 31.8	22 35.7	268 37.1	7 15.3	22 4.8	268 11.2
8	3 43.6	22 59.0	299 4.1	5 34.0	22 35.1	298 36.5	7 17.4	22 4.1	298 10.7
10	3 46.0	22 58.6	329 3.5	5 36.3	22 34.6	328 35.9	7 19.4	22 3.4	328 10.1
12	3 48.3	22 58.2	359 2.9	5 38.5	22 34.0	358 35.4	7 21.5	22 2.6	358 9.6
14	3 50.7	22 57.8	29 2.3	5 40.7	22 33.4	28 34.8	7 23.5	22 1.9	28 9.1
16	3 53.0	22 57.3	59 1.7	5 42.9	22 32.8	58 34.3	7 25.6	22 1.2	58 8.6
18	3 55.4	22 56.9	89 1.2	5 45.2	22 32.2	88 33.7	7 27.6	22 0.5	88 8.1
20	3 57.7	22 56.5	119 0.6	5 47.4	22 31.6	118 33.2	7 29.7	21 59.7	118 7.6
22	4 0.1	22 56.0	149 0.0	5 49.6	22 31.1	148 32.6	7 31.7	21 59.0	148 7.1
H. D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Sunday 3			**Thursday 7**			**Monday 11**		
0	-4 2.4	-22 55.6	178 59.4	-5 51.8	-22 30.5	178 32.0	-7 33.8	-21 58.2	178 6.6
2	4 4.7	22 55.1	208 58.8	5 54.0	22 29.9	208 31.5	7 35.8	21 57.5	208 6.1
4	4 7.1	22 54.7	238 58.2	5 56.2	22 29.3	238 30.9	7 37.8	21 56.7	238 5.5
6	4 9.4	22 54.2	268 57.6	5 58.4	22 28.6	268 30.4	7 39.8	21 56.0	268 5.0
8	4 11.7	22 53.8	298 57.1	6 0.6	22 28.0	298 29.8	7 41.8	21 55.2	298 4.5
10	4 14.1	22 53.3	328 56.5	6 2.8	22 27.4	328 29.3	7 43.9	21 54.5	328 4.0
12	4 16.4	22 52.8	358 55.9	6 5.0	22 26.8	358 28.8	7 45.9	21 53.7	358 3.5
14	4 18.7	22 52.4	28 55.3	6 7.2	22 26.2	28 28.2	7 47.9	21 53.0	28 3.0
16	4 21.1	22 51.9	58 54.7	6 9.4	22 25.6	58 27.7	7 49.9	21 52.2	58 2.5
18	4 23.4	22 51.4	88 54.2	6 11.5	22 24.9	88 27.1	7 51.9	21 51.4	88 2.0
20	4 25.7	22 50.9	118 53.6	6 13.7	22 24.3	118 26.6	7 53.9	21 50.7	118 1.5
22	4 28.0	22 50.5	148 53.0	6 15.9	22 23.7	148 26.0	7 55.8	21 49.9	148 1.0
H. D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Monday 4			**Friday 8**			**Tuesday 12**		
0	-4 30.3	-22 50.0	178 52.4	-6 18.1	-22 23.1	178 25.5	-7 57.8	-21 49.1	178 0.5
2	4 32.6	22 49.5	208 51.8	6 20.2	22 22.4	208 24.9	7 59.8	21 48.3	208 0.0
4	4 35.0	22 49.0	238 51.3	6 22.4	22 21.8	238 24.4	8 1.8	21 47.5	237 59.6
6	4 37.3	22 48.5	268 50.7	6 24.6	22 21.1	268 23.9	8 3.8	21 46.8	267 59.1
8	4 39.6	22 48.0	298 50.1	6 26.7	22 20.5	298 23.3	8 5.7	21 46.0	297 58.6
10	4 41.9	22 47.5	328 49.5	6 28.9	22 19.8	328 22.8	8 7.7	21 45.2	327 58.1
12	4 44.2	22 47.0	358 49.0	6 31.0	22 19.2	358 22.2	8 9.6	21 44.4	357 57.6
14	4 46.5	22 46.5	28 48.4	6 33.2	22 18.5	28 21.7	8 11.6	21 43.6	27 57.1
16	4 48.8	22 46.0	58 47.8	6 35.3	22 17.9	58 21.2	8 13.6	21 42.8	57 56.6
18	4 51.0	22 45.5	88 47.2	6 37.4	22 17.2	88 20.6	8 15.5	21 42.0	87 56.1
20	4 53.3	22 45.0	118 46.7	6 39.6	22 16.6	118 20.1	8 17.4	21 41.2	117 55.6
22	-4 55.6	-22 44.4	148 46.1	-6 41.7	-22 15.9	148 19.6	-8 19.4	-21 40.4	147 55.2
H. D.	1.1	0.3	... ...	1.1	0.3	... ...	1.0	0.4	... ...

NOTE.—The Equation of Time is to be applied to the G. C. T. in accordance with the sign as given.

Day of Month	January h m s	February h m s	March h m s	April h m s	May h m s	June h m s
			Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)			
1	6 40 3.1	8 42 16.4	10 32 39.9	12 34 53.0	14 33 9.6	16 35 22.8
2	6 43 59.7	8 46 12.9	10 36 36.4	12 38 49.5	14 37 6.1	16 39 19.4
3	6 47 56.3	8 50 9.5	10 40 33.0	12 42 46.1	14 41 2.7	16 43 15.9
4	6 51 52.8	8 54 6.1	10 44 29.5	12 46 42.6	14 44 59.2	16 47 12.5
5	6 55 49.4	8 58 2.6	10 48 26.1	12 50 39 2	14 48 55.8	16 51 9.0
6	6 59 45.9	9 1 59.2	10 52 22.6	12 54 35.7	14 52 52.4	16 55 5.6
7	7 3 42.5	9 5 55.7	10 56 19.2	12 58 32.3	14 56 48.9	16 59 2.1
8	7 7 39.0	9 9 52.3	11 0 15.7	13 2 28.9	15 0 45.5	17 2 58.7
9	7 11 35.6	9 13 48.8	11 4 12.3	13 6 25.4	15 4 42.0	17 6 55.2
10	7 15 32.1	9 17 45.4	11 8 8.8	13 10 22.0	15 8 38.6	17 10 51.8
11	7 19 28.7	9 21 41.9	11 12 5.4	13 14 18.5	15 12 35.1	17 14 48.3
12	7 23 25.3	9 25 38.5	11 16 2.0	13 18 15.1	15 16 31.7	17 18 44.9
13	7 27 21.8	9 29 35.0	11 19 58.5	13 22 11.6	15 20 28.2	17 22 41.5
14	7 31 18.4	9 33 31.6	11 23 55.1	13 26 8.2	15 24 24.8	17 26 38.0
15	7 35 14.9	9 37 28.2	11 27 51.6	13 30 4.7	15 28 21.3	17 30 34.6
16	7 39 11.5	9 41 24.7	11 31 48.2	13 34 1.3	15 32 17.9	17 34 31.1
17	7 43 8.1	9 45 21.3	11 35 44.7	13 37 57.8	15 36 14.4	17 38 27.7
18	7 47 4.6	9 49 17.8	11 39 41.3	13 41 54.4	15 40 11.0	17 42 24.3
19	7 51 1.2	9 53 14.4	11 43 37.8	13 45 50.9	15 44 7.6	17 46 20.8
20	7 54 57.7	9 57 10.9	11 47 34.4	13 49 47.5	15 48 4.1	17 50 17.4
21	7 58 54.3	10 1 7.5	11 51 30.9	13 53 44.0	15 52 0.7	17 54 13.9
22	8 2 50.8	10 5 4.0	11 55 27.5	13 57 40.6	15 55 57.2	17 58 10.5
23	8 6 47.4	10 9 0.6	11 59 24.0	14 1 37.1	15 59 53.8	18 2 7.0
24	8 10 43.9	10 12 57.1	12 3 20.6	14 5 33.7	16 3 50.3	18 6 3.6
25	8 14 40.5	10 16 53.7	12 7 17.1	14 9 30.3	16 7 46.9	18 10 0.1
26	8 18 37.0	10 20 50.2	12 11 13.7	14 13 26.8	16 11 43.4	18 13 56.7
27	8 22 33.6	10 24 46.8	12 15 10.2	14 17 23.4	16 15 40.0	18 17 53.3
28	8 26 30.2	10 28 43.3	12 19 6.8	14 21 19.9	16 19 36.5	18 21 49.8
29	8 30 26.7	10 32 39.9	12 23 3.3	14 25 16.5	16 23 33.1	18 25 46.4
30	8 34 23.3	10 36 36.4	12 26 59.9	14 29 13.0	16 27 29.7	18 29 42.9
31	8 38 19.8	10 40 33.0	12 30 56.4	14 33 9.6	16 31 26.2	18 33 39.5

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longi-tude	0ʰ m s	1ʰ m s	2ʰ m s	3ʰ m s	4ʰ m s	5ʰ m s	6ʰ m s	7ʰ m s	8ʰ m s	9ʰ m s	10ʰ m s	11ʰ m s
0	0 0.0	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4
5	0 0.8	0 10.7	0 20.5	0 30.4	0 40.2	0 50.1	1 0.0	1 9.8	1 19.7	1 29.5	1 39.4	1 49.2
10	0 1.6	0 11.5	0 21.4	0 31.2	0 41.1	0 50.9	1 0.8	1 10.6	1 20.5	1 30.4	1 40.2	1 50.1
15	0 2.5	0 12.3	0 22.2	0 32.0	0 41.9	0 51.7	1 1.6	1 11.5	1 21.3	1 31.2	1 41.0	1 50.9
20	0 3.3	0 13.1	0 23.0	0 32.9	0 42.7	0 52.6	1 2.4	1 12.3	1 22.1	1 32.0	1 41.8	1 51.7
25	0 4.1	0 14.0	0 23.8	0 33.7	0 43.5	0 53.4	1 3.2	1 13.1	1 23.0	1 32.8	1 42.7	1 52.5
30	0 4.9	0 14.8	0 24.6	0 34.5	0 44.4	0 54.2	1 4.1	1 13.9	1 23.8	1 33.6	1 43.5	1 53.3
35	0 5.8	0 15.6	0 25.5	0 35.3	0 45.2	0 55.0	1 4.9	1 14.7	1 24.6	1 34.5	1 44.3	1 54.2
40	0 6.6	0 16.4	0 26.3	0 36.1	0 46.0	0 55.9	1 5.7	1 15.6	1 25.4	1 35.3	1 45.1	1 55.0
45	0 7.4	0 17.2	0 27.1	0 37.0	0 46.8	0 56.7	1 6.5	1 16.4	1 26.2	1 36.1	1 46.0	1 55.8
50	0 8.2	0 18.1	0 27.9	0 37.8	0 47.6	0 57.5	1 7.4	1 17.2	1 27.1	1 36.9	1 46.8	1 56.6
55	0 9.0	0 18.9	0 28.7	0 38.6	0 48.5	0 58.3	1 8.2	1 18.0	1 27.9	1 37.7	1 47.6	1 57.5
60	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4	1 58.3

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)

Day of Month	July	August	September	October	November	December
	h m s	h m s	h m s	h m s	h m s	h m s
1	18 33 39.5	20 35 52.7	22 38 5.9	0 36 22.4	2 38 35.6	4 36 52.2
2	18 37 36.1	20 39 49.3	22 42 2.4	0 40 19.0	2 42 32.1	4 40 48.8
3	18 41 32.6	20 43 45.8	22 45 59.0	0 44 15.6	2 46 28.7	4 44 45.3
4	18 45 29.2	20 47 42.4	22 49 55.5	0 48 12.1	2 50 25.2	4 48 41.9
5	18 49 25.7	20 51 38.9	22 53 52.1	0 52 8.7	2 54 21.8	4 52 38.5
6	18 53 22.3	20 55 35.5	22 57 48.7	0 56 5.2	2 58 18.3	4 56 35.0
7	18 57 18.8	20 59 32.0	23 1 45.2	1 0 1.8	3 2 14.9	5 0 31.6
8	19 1 15.4	21 3 28.6	23 5 41.8	1 3 58.3	3 6 11.4	5 4 28.1
9	19 5 11.9	21 7 25.2	23 9 38.3	1 7 54.9	3 10 8.0	5 8 24.7
10	19 9 8.5	21 11 21.7	23 13 34.9	1 11 51.4	3 14 4.6	5 12 21.3
11	19 13 5.1	21 15 18.3	23 17 31.4	1 15 48.0	3 18 1.1	5 16 17.8
12	19 17 1.6	21 19 14.8	23 21 28.0	1 19 44.5	3 21 57.7	5 20 14.4
13	19 20 58.2	21 23 11.4	23 25 24.5	1 23 41.1	3 25 54.2	5 24 10.9
14	19 24 54.7	21 27 7.9	23 29 21.1	1 27 37.6	3 29 50.8	5 28 7.5
15	19 28 51.3	21 31 4.5	23 33 17.6	1 31 34.2	3 33 47.4	5 32 4.0
16	19 32 47.8	21 35 1.0	23 37 14.2	1 35 30.7	3 37 43.9	5 36 0.6
17	19 36 44.4	21 38 57.6	23 41 10.7	1 39 27.3	3 41 40.5	5 39 57.2
18	19 40 40.9	21 42 54.1	23 45 7.3	1 43 23.8	3 45 37.0	5 43 53.7
19	19 44 37.5	21 46 50.7	23 49 3.8	1 47 20.4	3 49 33.6	5 47 50.3
20	19 48 34.1	21 50 47.2	23 53 0.4	1 51 17.0	3 53 30.1	5 51 46.8
21	19 52 30.6	21 54 43.8	23 56 56.9	1 55 13.5	3 57 26.7	5 55 43.4
22	19 56 27.2	21 58 40.4	0 0 53.5	1 59 10.0	4 1 23.2	5 59 39.9
23	20 0 23.7	22 2 36.9	0 4 50.0	2 3 6.6	4 5 19.8	6 3 36.5
24	20 4 20.3	22 6 33.5	0 8 46.6	2 7 3.1	4 9 16.3	6 7 33.1
25	20 8 16.8	22 10 30.0	0 12 43.1	2 10 59.7	4 13 12.9	6 11 29.6
26	20 12 13.4	22 14 26.6	0 16 39.7	2 14 56.3	4 17 9.5	6 15 26.2
27	20 16 10.0	22 18 23.1	0 20 36.2	2 18 52.8	4 21 6.0	6 19 22.7
28	20 20 6.5	22 22 19.7	0 24 32.8	2 22 49.4	4 25 2.6	6 23 19.3
29	20 24 3.1	22 26 16.2	0 28 29.3	2 26 45.9	4 28 59.1	6 27 15.8
30	20 27 59.6	22 30 12.8	0 32 25.9	2 30 42.5	4 32 55.7	6 31 12.4
31	20 31 56.2	22 34 9.3	0 36 22.4	2 34 39.0	4 36 52.2	6 35 9.0

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude	12ʰ	13ʰ	14ʰ	15ʰ	16ʰ	17ʰ	18ʰ	19ʰ	20ʰ	21ʰ	22ʰ	23ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	1 58.3	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7
5	1 59.1	2 9.0	2 18.8	2 28.7	2 38.5	2 48.4	2 58.2	3 8.1	3 18.0	3 27.8	3 37.7	3 47.5
10	1 59.9	2 9.8	2 19.6	2 29.5	2 39.3	2 49.2	2 59.1	3 8.9	3 18.8	3 28.6	3 38.5	3 48.3
15	2 0.7	2 10.6	2 20.5	2 30.3	2 40.2	2 50.0	2 59.9	3 9.7	3 19.6	3 29.4	3 39.3	3 49.2
20	2 1.6	2 11.4	2 21.3	2 31.1	2 41.0	2 50.8	3 0.7	3 10.6	3 20.4	3 30.3	3 40.1	3 50.0
25	2 2.4	2 12.2	2 22.1	2 32.0	2 41.8	2 51.7	3 1.5	3 11.4	3 21.2	3 31.1	3 40.9	3 50.8
30	2 3.2	2 13.1	2 22.9	2 32.8	2 42.6	2 52.5	3 2.3	3 12.2	3 22.1	3 31.9	3 41.8	3 51.6
35	2 4.0	2 13.9	2 23.7	2 33.6	2 43.5	2 53.3	3 3.2	3 13.0	3 22.9	3 32.7	3 42.6	3 52.4
40	2 4.8	2 14.7	2 24.6	2 34.4	2 44.3	2 54.1	3 4.0	3 13.8	3 23.7	3 33.6	3 43.4	3 53.3
45	2 5.7	2 15.5	2 25.4	2 35.2	2 45.1	2 55.0	3 4.8	3 14.7	3 24.5	3 34.4	3 44.2	3 54.1
50	2 6.5	2 16.3	2 26.2	2 36.1	2 45.9	2 55.8	3 5.6	3 15.5	3 25.3	3 35.2	3 45.1	3 54.9
55	2 7.3	2 17.2	2 27.0	2 36.9	2 46.7	2 56.6	3 6.5	3 16.3	3 26.2	3 36.0	3 45.9	3 55.7
60	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7	3 56.6

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

G.C.T.	Equation of Time	Sun's Declination	Sun's G.H.A.	Equation of Time	Sun's Declination	Sun's G.H.A.	Equation of Time	Sun's Declination	Sun's G.H.A.
	Thursday 1			Monday 5			Friday 9		
h	m s	° ′	° ′	m s	° ′	° ′	m s	° ′	° ′
0	−3 13.7	−23 4.3	179 11.6	−5 5.1	−22 42.4	178 43.7	−6 49.9	−22 13.2	178 17.5
2	3 16.1	23 3.9	209 11.0	5 7.3	22 41.8	208 43.2	6 52.0	22 12.6	208 17.0
4	3 18.5	23 3.5	239 10.4	5 9.6	22 41.3	238 42.6	6 54.1	22 11.9	238 16.5
6	3 20.8	23 3.1	269 9.8	5 11.8	22 40.7	268 42.1	6 56.2	22 11.2	268 16.0
8	3 23.2	23 2.7	299 9.2	5 14.1	22 40.2	298 41.5	6 58.3	22 10.5	298 15.5
10	3 25.6	23 2.3	329 8.6	5 16.3	22 39.7	328 41.0	7 0.4	22 9.8	328 14.9
12	3 27.9	23 2.0	359 8.0	5 18.5	22 39.1	358 40.4	7 2.5	22 9.1	358 14.4
14	3 30.3	23 1.6	29 7.4	5 20.8	22 38.6	28 39.8	7 4.5	22 8.4	28 13.9
16	3 32.7	23 1.1	59 6.9	5 23.0	22 38.0	58 39.3	7 6.6	22 7.7	58 13.4
18	3 35.0	23 0.7	89 6.3	5 25.2	22 37.4	88 38.7	7 8.7	22 7.0	88 12.9
20	3 37.4	23 0.3	119 5.7	5 27.5	22 36.9	118 38.1	7 10.8	22 6.3	118 12.3
22	3 39.7	22 59.9	149 5.1	5 29.7	22 36.3	148 37.6	7 12.8	22 5.6	148 11.8
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.3	... ...
	Friday 2			Tuesday 6			Saturday 10		
0	−3 42.1	−22 59.5	179 4.5	−5 31.9	−22 35.7	178 37.0	−7 14.9	−22 4.9	178 11.3
2	3 44.4	22 59.1	209 3.9	5 34.1	22 35.2	208 36.5	7 17.0	22 4.1	208 10.8
4	3 46.8	22 58.7	239 3.3	5 36.4	22 34.6	238 35.9	7 19.0	22 3.4	238 10.3
6	3 49.1	22 58.2	269 2.7	5 38.6	22 34.0	268 35.4	7 21.1	22 2.7	268 9.8
8	3 51.4	22 57.8	299 2.2	5 40.8	22 33.4	298 34.8	7 23.1	22 2.0	298 9.2
10	3 53.8	22 57.4	329 1.6	5 43.0	22 32.9	328 34.3	7 25.2	22 1.2	328 8.7
12	3 56.1	22 56.9	359 1.0	5 45.2	22 32.3	358 33.7	7 27.2	22 0.5	358 8.2
14	3 58.5	22 56.5	29 0.4	5 47.4	22 31.7	28 33.2	7 29.2	21 59.8	28 7.7
16	4 0.8	22 56.0	58 59.8	5 49.6	22 31.1	58 32.6	7 31.3	21 59.0	58 7.2
18	4 3.1	22 55.6	88 59.2	5 51.8	22 30.5	88 32.1	7 33.3	21 58.3	88 6.7
20	4 5.4	22 55.1	118 58.7	5 54.0	22 29.9	118 31.5	7 35.3	21 57.5	118 6.2
22	4 7.8	22 54.7	148 58.1	5 56.2	22 29.3	148 31.0	7 37.4	21 56.8	148 5.7
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Saturday 3			Wednesday 7			Sunday 11		
0	−4 10.1	−22 54.2	178 57.5	−5 58.4	−22 28.7	178 30.4	−7 39.4	−21 56.0	178 5.2
2	4 12.4	22 53.8	208 56.9	6 0.6	22 28.1	208 29.9	7 41.4	21 55.3	208 4.7
4	4 14.7	22 53.3	238 56.3	6 2.7	22 27.5	238 29.3	7 43.4	21 54.5	238 4.2
6	4 17.0	22 52.8	268 55.8	6 4.9	22 26.8	268 28.8	7 45.4	21 53.8	268 3.7
8	4 19.4	22 52.4	298 55.2	6 7.1	22 26.2	298 28.3	7 47.4	21 53.0	298 3.2
10	4 21.7	22 51.9	328 54.6	6 9.3	22 25.6	328 27.7	7 49.4	21 52.2	328 2.7
12	4 24.0	22 51.4	358 54.0	6 11.4	22 25.0	358 27.2	7 51.4	21 51.5	358 2.2
14	4 26.3	22 51.0	28 53.5	6 13.6	22 24.4	28 26.6	7 53.4	21 50.7	28 1.7
16	4 28.6	22 50.5	58 52.9	6 15.8	22 23.7	58 26.1	7 55.4	21 49.9	58 1.2
18	4 30.9	22 50.0	88 52.3	6 17.9	22 23.1	88 25.5	7 57.4	21 49.1	88 0.7
20	4 33.2	22 49.5	118 51.7	6 20.1	22 22.5	118 25.0	7 59.4	21 48.4	118 0.2
22	4 35.5	22 49.0	148 51.1	6 22.2	22 21.8	148 24.5	8 1.3	21 47.6	147 59.7
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Sunday 4			Thursday 8			Monday 12		
0	−4 37.8	−22 48.5	178 50.6	−6 24.4	−22 21.2	178 23.9	−8 3.3	−21 46.8	177 59.2
2	4 40.0	22 48.0	208 50.0	6 26.5	22 20.5	208 23.4	8 5.3	21 46.0	207 58.7
4	4 42.3	22 47.5	238 49.4	6 28.7	22 19.9	238 22.9	8 7.2	21 45.2	237 58.2
6	4 44.6	22 47.0	268 48.9	6 30.8	22 19.2	268 22.3	8 9.2	21 44.4	267 57.7
8	4 46.9	22 46.5	298 48.3	6 32.9	22 18.6	298 21.8	8 11.2	21 43.6	297 57.2
10	4 49.2	22 46.0	328 47.7	6 35.1	22 17.9	328 21.3	8 13.1	21 42.8	327 56.8
12	4 51.5	22 45.5	358 47.2	6 37.2	22 17.3	358 20.7	8 15.1	21 42.0	357 56.3
14	4 53.7	22 45.0	28 46.6	6 39.3	22 16.6	28 20.2	8 17.0	21 41.2	27 55.8
16	4 56.0	22 44.5	58 46.0	6 41.4	22 15.9	58 19.7	8 18.9	21 40.4	57 55.3
18	4 58.3	22 43.9	88 45.5	6 43.6	22 15.3	88 19.1	8 20.9	21 39.6	87 54.8
20	5 0.5	22 43.4	118 44.9	6 45.7	22 14.6	118 18.6	8 22.8	21 38.8	117 54.3
22	−5 2.8	−22 42.9	148 44.3	−6 47.8	−22 13.9	148 18.1	−8 24.7	−21 38.0	147 53.8
H.D.	1.1	0.3	... ...	1.1	0.3	... ...	1.0	0.4	... ...

NOTE.—The Equation of Time is to be applied to the G. C. T. in accordance with the sign as given.

Day of Month	Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S. +12ʰ)					
	January	February	March	April	May	June
	h m s	h m s	h m s	h m s	h m s	h m s
1	6 41 0.8	8 43 14.0	10 33 37.5	12 35 50.6	14 34 7.2	16 36 20.4
2	6 44 57.4	8 47 10.6	10 37 34.1	12 39 47.2	14 38 3.8	16 40 17.0
3	6 48 53.9	8 51 7.1	10 41 30.6	12 43 43.7	14 42 0.3	16 44 13.5
4	6 52 50.5	8 55 3.7	10 45 27.2	12 47 40.3	14 45 56.9	16 48 10.1
5	6 56 47.0	8 59 0.2	10 49 23.7	12 51 36.8	14 49 53.4	16 52 6.6
6	7 0 43.6	9 2 56.8	10 53 20.3	12 55 33.4	14 53 50.0	16 56 3.2
7	7 4 40.1	9 6 53.4	10 57 16.8	12 59 30.0	14 57 46.5	16 59 59.8
8	7 8 36.7	9 10 49.9	11 1 13.4	13 3 26.5	15 1 43.1	17 3 56.3
9	7 12 33.2	9 14 46.5	11 5 10.0	13 7 23.1	15 5 39.6	17 7 52.9
10	7 16 29.8	9 18 43.0	11 9 6.5	13 11 19.6	15 9 36.2	17 11 49.4
11	7 20 26.4	9 22 39.6	11 13 3.1	13 15 16.2	15 13 32.8	17 15 46.0
12	7 24 22.9	9 26 36.1	11 16 59.6	13 19 12.7	15 17 29.3	17 19 42.6
13	7 28 19.5	9 30 32.7	11 20 56.2	13 23 9.3	15 21 25.9	17 23 39.1
14	7 32 16.0	9 34 29.2	11 24 52.7	13 27 5.8	15 25 22.4	17 27 35.7
15	7 36 12.6	9 38 25.8	11 28 49.3	13 31 2.4	15 29 19.0	17 31 32.2
16	7 40 9.2	9 42 22.3	11 32 45.8	13 34 58.9	15 33 15.6	17 35 28.8
17	7 44 5.7	9 46 18.9	11 36 42.4	13 38 55.5	15 37 12.1	17 39 25.3
18	7 48 2.3	9 50 15.4	11 40 38.9	13 42 52.0	15 41 8.7	17 43 21.9
19	7 51 58.8	9 54 12.0	11 44 35.5	13 46 48.6	15 45 5.2	17 47 18.4
20	7 55 55.4	9 58 8.6	11 48 32.0	13 50 45.2	15 49 1.8	17 51 15.0
21	7 59 51.9	10 2 5.1	11 52 28.6	13 54 41.7	15 52 58.3	17 55 11.6
22	8 3 48.5	10 6 1.7	11 56 25.1	13 58 38.2	15 56 54.9	17 59 8.1
23	8 7 45.0	10 9 58.2	12 0 21.7	14 2 34.8	16 0 51.4	18 3 4.7
24	8 11 41.6	10 13 54.8	12 4 18.2	14 6 31.3	16 4 48.0	18 7 1.2
25	8 15 38.2	10 17 51.3	12 8 14.8	14 10 27.9	16 8 44.5	18 10 57.8
26	8 19 34.7	10 21 47.9	12 12 11.3	14 14 24.4	16 12 41.1	18 14 54.4
27	8 23 31.3	10 25 44.4	12 16 7.9	14 18 21.0	16 16 37.6	18 18 50.9
28	8 27 27.8	10 29 41.0	12 20 4.4	14 22 17.6	16 20 34.2	18 22 47.5
29	8 31 24.4	10 33 37.5	12 24 1.0	14 26 14.1	16 24 30.8	18 26 44.0
30	8 35 20.9	10 37 34.1	12 27 57.5	14 30 10.7	16 28 27.3	18 30 40.6
31	8 39 17.5	10 41 30.6	12 31 54.1	14 34 7.2	16 32 23.9	18 34 37.1

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude	0ʰ	1ʰ	2ʰ	3ʰ	4ʰ	5ʰ	6ʰ	7ʰ	8ʰ	9ʰ	10ʰ	11ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	0 0.0	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4
5	0 0.8	0 10.7	0 20.5	0 30.4	0 40.2	0 50.1	1 0.0	1 9.8	1 19.7	1 29.5	1 39.4	1 49.2
10	0 1.6	0 11.5	0 21.4	0 31.2	0 41.1	0 50.9	1 0.8	1 10.6	1 20.5	1 30.4	1 40.2	1 50.1
15	0 2.5	0 12.3	0 22.2	0 32.0	0 41.9	0 51.7	1 1.6	1 11.5	1 21.3	1 31.2	1 41.0	1 50.9
20	0 3.3	0 13.1	0 23.0	0 32.9	0 42.7	0 52.6	1 2.4	1 12.3	1 22.1	1 32.0	1 41.8	1 51.7
25	0 4.1	0 14.0	0 23.8	0 33.7	0 43.5	0 53.4	1 3.2	1 13.1	1 23.0	1 32.8	1 42.7	1 52.5
30	0 4.9	0 14.8	0 24.6	0 34.5	0 44.4	0 54.2	1 4.1	1 13.9	1 23.8	1 33.6	1 43.5	1 53.3
35	0 5.8	0 15.6	0 25.5	0 35.3	0 45.2	0 55.0	1 4.9	1 14.7	1 24.6	1 34.5	1 44.3	1 54.2
40	0 6.6	0 16.4	0 26.3	0 36.1	0 46.0	0 55.9	1 5.7	1 15.6	1 25.4	1 35.3	1 45.1	1 55.0
45	0 7.4	0 17.2	0 27.1	0 37.0	0 46.8	0 56.7	1 6.5	1 16.4	1 26.2	1 36.1	1 46.0	1 55.8
50	0 8.2	0 18.1	0 27.9	0 37.8	0 47.6	0 57.5	1 7.4	1 17.2	1 27.1	1 36.9	1 46.8	1 56.6
55	0 9.0	0 18.9	0 28.7	0 38.6	0 48.5	0 58.3	1 8.2	1 18.0	1 27.9	1 37.7	1 47.6	1 57.5
60	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4	1 58.3

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

Day of Month	July h m s	August h m s	September h m s	October h m s	November h m s	December h m s
	Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S. +12ʰ)					
1	18 34 37.1	20 36 50.4	22 39 3.5	0 37 20.1	2 39 33.2	4 37 49.9
2	18 38 33.7	20 40 46.9	22 43 0.1	0 41 16.6	2 43 29.8	4 41 46.4
3	18 42 30.2	20 44 43.5	22 46 56.6	0 45 13.2	2 47 26.3	4 45 43.0
4	18 46 26.8	20 48 40.0	22 50 53.2	0 49 9.7	2 51 22.9	4 49 39.5
5	18 50 23.3	20 52 36.6	22 54 49.7	0 53 6.3	2 55 19.4	4 53 36.1
6	18 54 19.9	20 56 33.1	22 58 46.3	0 57 2.8	2 59 16.0	4 57 32.7
7	18 58 16.5	21 0 29.7	23 2 42.8	1 0 59.4	3 3 12.5	5 1 29.2
8	19 2 13.0	21 4 26.3	23 6 39.4	1 4 55.9	3 7 9.1	5 5 25.8
9	19 6 9.6	21 8 22.8	23 10 35.9	1 8 52.5	3 11 5.6	5 9 22.3
10	19 10 6.2	21 12 19.4	23 14 32.5	1 12 49.0	3 15 2.2	5 13 18.9
11	19 14 2.7	21 16 15.9	23 18 29.0	1 16 45.6	3 18 58.8	5 17 15.4
12	19 17 59.3	21 20 12.5	23 22 25.6	1 20 42.2	3 22 55.3	5 21 12.0
13	19 21 55.8	21 24 9.0	23 26 22.1	1 24 38.7	3 26 51.9	5 25 8.5
14	19 25 52.4	21 28 5.6	23 30 18.7	1 28 35.3	3 30 48.4	5 29 5.1
15	19 29 48.9	21 32 2.1	23 34 15.3	1 32 31.8	3 34 45.0	5 33 1.7
16	19 33 45.5	21 35 58.7	23 38 11.8	1 36 28.4	3 38 41.5	5 36 58.2
17	19 37 42.0	21 39 55.2	23 42 8.4	1 40 24.9	3 42 38.1	5 40 54.8
18	19 41 38.6	21 43 51.8	23 46 4.9	1 44 21.5	3 46 34.6	5 44 51.3
19	19 45 35.1	21 47 48.3	23 50 1.5	1 48 18.0	3 50 31.2	5 48 47.9
20	19 49 31.7	21 51 44.9	23 53 58.0	1 52 14.6	3 54 27.7	5 52 44.5
21	19 53 28.3	21 55 41.5	23 57 54.6	1 56 11.1	3 58 24.3	5 56 41.0
22	19 57 24.8	21 59 38.0	0 1 51.1	2 0 7.7	4 2 20.9	6 0 37.6
23	20 1 21.4	22 3 34.6	0 5 47.7	2 4 4.2	4 6 17.4	6 4 34.1
24	20 5 17.9	22 7 31.1	0 9 44.2	2 8 0.8	4 10 14.0	6 8 30.7
25	20 9 14.5	22 11 27.7	0 13 40.8	2 11 57.3	4 14 10.5	6 12 27.2
26	20 13 11.0	22 15 24.2	0 17 37.3	2 15 53.9	4 18 7.1	6 16 23.8
27	20 17 7.6	22 19 20.8	0 21 33.9	2 19 50.5	4 22 3.7	6 20 20.4
28	20 21 4.1	22 23 17.3	0 25 30.4	2 23 47.0	4 26 0.2	6 24 16.9
29	20 25 0.7	22 27 13.9	0 29 27.0	2 27 43.6	4 29 56.8	6 28 13.5
30	20 28 57.2	22 31 10.4	0 33 23.5	2 31 40.1	4 33 53.3	6 32 10.0
31	20 32 53.8	22 35 7.0		2 35 36.7		6 36 6.6

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude m	12ʰ m s	13ʰ m s	14ʰ m s	15ʰ m s	16ʰ m s	17ʰ m s	18ʰ m s	19ʰ m s	20ʰ m s	21ʰ m s	22ʰ m s	23ʰ m s
0	1 58.3	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7
5	1 59.1	2 9.0	2 18.8	2 28.7	2 38.5	2 48.4	2 58.2	3 8.1	3 18.0	3 27.8	3 37.7	3 47.5
10	1 59.9	2 9.8	2 19.6	2 29.5	2 39.3	2 49.2	2 59.1	3 8.9	3 18.8	3 28.6	3 38.5	3 48.3
15	2 0.7	2 10.6	2 20.5	2 30.3	2 40.2	2 50.0	2 59.9	3 9.7	3 19.6	3 29.4	3 39.3	3 49.2
20	2 1.6	2 11.4	2 21.3	2 31.1	2 41.0	2 50.8	3 0.7	3 10.6	3 20.4	3 30.3	3 40.1	3 50.0
25	2 2.4	2 12.2	2 22.1	2 32.0	2 41.8	2 51.7	3 1.5	3 11.4	3 21.2	3 31.1	3 40.9	3 50.8
30	2 3.2	2 13.1	2 22.9	2 32.8	2 42.6	2 52.5	3 2.3	3 12.2	3 22.1	3 31.9	3 41.8	3 51.6
35	2 4.0	2 13.9	2 23.7	2 33.6	2 43.5	2 53.3	3 3.2	3 13.0	3 22.9	3 32.7	3 42.6	3 52.4
40	2 4.8	2 14.7	2 24.6	2 34.4	2 44.3	2 54.1	3 4.0	3 13.8	3 23.7	3 33.6	3 43.4	3 53.3
45	2 5.7	2 15.5	2 25.4	2 35.2	2 45.1	2 55.0	3 4.8	3 14.7	3 24.5	3 34.4	3 44.2	3 54.1
50	2 6.5	2 16.3	2 26.2	2 36.1	2 45.9	2 55.8	3 5.6	3 15.5	3 25.3	3 35.2	3 45.1	3 54.9
55	2 7.3	2 17.2	2 27.0	2 36.9	2 46.7	2 56.6	3 6.5	3 16.3	3 26.2	3 36.0	3 45.9	3 55.7
60	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7	3 56.6

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

G.C.T.	Equation of Time	Sun's Declination	Sun's G.H.A.	Equation of Time	Sun's Declination	Sun's G.H.A.	Equation of Time	Sun's Declination	Sun's G.H.A.
	Wednesday 1			Sunday 5			Thursday 9		
h	m s	° '	° '	m s	° '	° '	m s	° '	° '
0	-3 21.4	-23 3.1	179 9.6	-5 12.9	-22 40.8	178 41.8	-6 57.5	-22 11.2	178 15.6
2	3 23.8	23 2.7	209 9.1	5 15.2	22 40.2	208 41.2	6 59.5	22 10.5	208 15.1
4	3 26.2	23 2.3	239 8.5	5 17.5	22 39.7	238 40.6	7 1.6	22 9.8	238 14.6
6	3 28.5	23 2.0	269 7.9	5 19.7	22 39.1	268 40.1	7 3.7	22 9.1	268 14.1
8	3 30.9	23 1.6	299 7.3	5 22.0	22 38.6	298 39.5	7 5.8	22 8.4	298 13.6
10	3 33.3	23 1.1	329 6.7	5 24.2	22 38.0	328 39.0	7 7.9	22 7.7	328 13.0
12	3 35.7	23 0.7	359 6.1	5 26.4	22 37.5	358 38.4	7 9.9	22 7.0	358 12.5
14	3 38.0	23 0.3	29 5.5	5 28.7	22 36.9	28 37.8	7 12.0	22 6.3	28 12.0
16	3 40.4	22 59.9	59 4.9	5 30.9	22 36.3	58 37.3	7 14.1	22 5.6	58 11.5
18	3 42.8	22 59.5	89 4.3	5 33.1	22 35.8	88 36.7	7 16.1	22 4.9	88 11.0
20	3 45.1	22 59.1	119 3.7	5 35.4	22 35.2	118 36.2	7 18.2	22 4.2	118 10.5
22	3 47.5	22 58.7	149 3.1	5 37.6	22 34.6	148 35.6	7 20.2	22 3.4	148 9.9
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Thursday 2			Monday 6			Friday 10		
0	-3 49.8	-22 58.2	179 2.5	-5 39.8	-22 34.0	178 35.0	-7 22.3	-22 2.7	178 9.4
2	3 52.2	22 57.8	209 2.0	5 42.0	22 33.4	208 34.5	7 24.3	22 2.0	208 8.9
4	3 54.5	22 57.4	239 1.4	5 44.2	22 32.9	238 33.9	7 26.4	22 1.3	238 8.4
6	3 56.9	22 56.9	269 0.8	5 46.5	22 32.3	268 33.4	7 28.4	22 0.5	268 7.9
8	3 59.2	22 56.5	299 0.2	5 48.7	22 31.7	298 32.8	7 30.4	21 59.8	298 7.4
10	4 1.6	22 56.0	328 59.6	5 50.9	22 31.1	328 32.3	7 32.5	21 59.0	328 6.9
12	4 3.9	22 55.6	358 59.0	5 53.1	22 30.5	358 31.7	7 34.5	21 58.3	358 6.4
14	4 6.3	22 55.2	28 58.4	5 55.3	22 29.9	28 31.2	7 36.5	21 57.6	28 5.9
16	4 8.6	22 54.7	58 57.8	5 57.5	22 29.3	58 30.6	7 38.5	21 56.8	58 5.4
18	4 11.0	22 54.2	88 57.3	5 59.7	22 28.7	88 30.1	7 40.5	21 56.1	88 4.9
20	4 13.3	22 53.8	118 56.7	6 1.8	22 28.1	118 29.5	7 42.5	21 55.3	118 4.4
22	4 15.6	22 53.3	148 56.1	6 4.0	22 27.5	148 29.0	7 44.5	21 54.6	148 3.9
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Friday 3			Tuesday 7			Saturday 11		
0	-4 17.9	-22 52.9	178 55.5	-6 6.2	-22 26.9	178 28.4	-7 46.5	-21 53.8	178 3.4
2	4 20.3	22 52.4	208 54.9	6 8.4	22 26.2	208 27.9	7 48.5	21 53.0	208 2.9
4	4 22.6	22 51.9	238 54.4	6 10.6	22 25.6	238 27.4	7 50.5	21 52.3	238 2.4
6	4 24.9	22 51.4	268 53.8	6 12.7	22 25.0	268 26.8	7 52.5	21 51.5	268 1.9
8	4 27.2	22 51.0	298 53.2	6 14.9	22 24.4	298 26.3	7 54.5	21 50.7	298 1.4
10	4 29.5	22 50.5	328 52.6	6 17.1	22 23.7	328 25.7	7 56.5	21 50.0	328 0.9
12	4 31.8	22 50.0	358 52.0	6 19.2	22 23.1	358 25.2	7 58.5	21 49.2	358 0.4
14	4 34.2	22 49.5	28 51.5	6 21.4	22 22.5	28 24.7	8 0.4	21 48.4	27 59.9
16	4 36.5	22 49.0	58 50.9	6 23.5	22 21.8	58 24.1	8 2.4	21 47.6	57 59.4
18	4 38.8	22 48.5	88 50.3	6 25.7	22 21.2	88 23.6	8 4.3	21 46.8	87 58.9
20	4 41.1	22 48.0	118 49.7	6 27.8	22 20.6	118 23.0	8 6.3	21 46.0	117 58.4
22	4 43.4	22 47.5	148 49.2	6 30.0	22 19.9	148 22.5	8 8.3	21 45.3	147 57.9
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Saturday 4			Wednesday 8			Sunday 12		
0	-4 45.6	-22 47.0	178 48.6	-6 32.1	-22 19.2	178 22.0	-8 10.2	-21 44.5	177 57.4
2	4 47.9	22 46.5	208 48.0	6 34.2	22 18.6	208 21.4	8 12.2	21 43.7	207 57.0
4	4 50.2	22 46.0	238 47.4	6 36.4	22 17.9	238 20.9	8 14.1	21 42.9	237 56.5
6	4 52.5	22 45.5	268 46.9	6 38.5	22 17.3	268 20.4	8 16.0	21 42.1	267 56.0
8	4 54.8	22 45.0	298 46.3	6 40.6	22 16.6	298 19.9	8 18.0	21 41.2	297 55.5
10	4 57.1	22 44.5	328 45.7	6 42.7	22 15.9	328 19.3	8 19.9	21 40.4	327 55.0
12	4 59.4	22 44.0	358 45.2	6 44.8	22 15.3	358 18.8	8 21.8	21 39.6	357 54.5
14	5 1.6	22 43.4	28 44.6	6 47.0	22 14.6	28 18.3	8 23.7	21 38.8	27 54.1
16	5 3.9	22 42.9	58 44.0	6 49.1	22 13.9	58 17.7	8 25.6	21 38.0	57 53.6
18	5 6.2	22 42.4	88 43.5	6 51.2	22 13.2	88 17.2	8 27.6	21 37.2	87 53.1
20	5 8.4	22 41.8	118 42.9	6 53.3	22 12.6	118 16.7	8 29.6	21 36.3	117 52.6
22	-5 10.7	-22 41.3	148 42.3	-6 55.4	-22 11.9	148 16.2	-8 31.4	-21 35.5	147 52.2
H.D.	1.1	0.3	... ...	1.1	0.3	... ...	1.0	0.4	... ...

NOTE—The Equation of Time is to be applied to the G. C. T. in accordance with the sign as given.

Day of Month	Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)					
	January	February	March	April	May	June
	h m s	h m s	h m s	h m s	h m s	h m s
1	6 38 1.9	8 40 15.1	10 34 35.2	12 36 48.3	14 35 4.9	16 37 18.1
2	6 41 58.4	8 44 11.7	10 38 31.7	12 40 44.9	14 39 1.4	16 41 14.6
3	6 45 55.0	8 48 8.2	10 42 28.3	12 44 41.4	14 42 58.0	16 45 11.2
4	6 49 51.5	8 52 4.8	10 46 24.8	12 48 38.0	14 46 54.5	16 49 7.7
5	6 53 48.1	8 56 1.4	10 50 21.4	12 52 34.5	14 50 51.1	16 53 4.3
6	6 57 44.7	8 59 57.9	10 54 18.0	12 56 31.0	14 54 47.6	16 57 0.9
7	7 1 41.2	9 3 54.5	10 58 14.5	13 0 27.6	14 58 44.2	17 0 57.4
8	7 5 37.8	9 7 51.0	11 2 11.1	13 4 24.1	15 2 40.7	17 4 54.0
9	7 9 34.3	9 11 47.6	11 6 7.6	13 8 20.7	15 6 37.3	17 8 50.5
10	7 13 30.9	9 15 44.1	11 10 4.1	13 12 17.2	15 10 33.9	17 12 47.1
11	7 17 27.5	9 19 40.7	11 14 0.7	13 16 13.8	15 14 30.4	17 16 43.7
12	7 21 24.0	9 23 37.2	11 17 57.2	13 20 10.4	15 18 27.0	17 20 40.2
13	7 25 20.6	9 27 33.8	11 21 53.8	13 24 6.9	15 22 23.5	17 24 36.8
14	7 29 17.1	9 31 30.3	11 25 50.3	13 28 3.5	15 26 20.1	17 28 33.3
15	7 33 13.7	9 35 26.9	11 29 46.9	13 32 0.0	15 30 16.6	17 32 29.9
16	7 37 10.2	9 39 23.4	11 33 43.5	13 35 56.6	15 34 13.2	17 36 26.4
17	7 41 6.8	9 43 20.0	11 37 40.0	13 39 53.1	15 38 9.7	17 40 23.0
18	7 45 3.3	9 47 16.5	11 41 36.6	13 43 49.7	15 42 6.3	17 44 19.5
19	7 48 59.9	9 51 13.1	11 45 33.1	13 47 46.2	15 46 2.9	17 48 16.1
20	7 52 56.4	9 55 9.7	11 49 29.7	13 51 42.8	15 49 59.4	17 52 12.7
21	7 56 53.0	9 59 6.2	11 53 26.2	13 55 39.3	15 53 56.0	17 56 9.2
22	8 0 49.6	10 3 2.8	11 57 22.8	13 59 35.9	15 57 52.5	18 0 5.8
23	8 4 46.1	10 6 59.3	12 1 19.3	14 3 32.4	16 1 49.1	18 4 2.3
24	8 8 42.7	10 10 55.9	12 5 15.9	14 7 29.0	16 5 45.6	18 7 58.9
25	8 12 39.2	10 14 52.4	12 9 12.4	14 11 25.5	16 9 42.2	18 11 55 5
26	8 16 35.8	10 18 49.0	12 13 9.0	14 15 22.1	16 13 38.8	18 15 52.0
27	8 20 32.4	10 22 45.5	12 17 5.5	14 19 18.7	16 17 35.3	18 19 48.6
28	8 24 28.9	10 26 42.1	12 21 2.1	14 23 15.2	16 21 31.9	18 23 45.1
29	8 28 25.5	10 30 38.6	12 24 58.6	14 27 11.8	16 25 28.4	18 27 41.7
30	8 32 22.0	10 34 35.2	12 28 55.2	14 31 8.3	16 29 25.0	18 31 38.2
31	8 36 18.6		12 32 51.7		16 33 21.5	18 35 34.8

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longi-tude	0ʰ	1ʰ	2ʰ	3ʰ	4ʰ	5ʰ	6ʰ	7ʰ	8ʰ	9ʰ	10ʰ	11ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	0 0.0	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4
5	0 0.8	0 10.7	0 20.5	0 30.4	0 40.2	0 50.1	1 0.0	1 9.8	1 19.7	1 29.5	1 39.4	1 49.2
10	0 1.6	0 11.5	0 21.4	0 31.2	0 41.1	0 50.9	1 0.8	1 10.6	1 20.5	1 30.4	1 40.2	1 50.1
15	0 2.5	0 12.3	0 22.2	0 32.0	0 41.9	0 51.7	1 1.6	1 11.5	1 21.3	1 31.2	1 41.0	1 50.9
20	0 3.3	0 13.1	0 23.0	0 32.9	0 42.7	0 52.6	1 2.4	1 12.3	1 22.1	1 32.0	1 41.8	1 51.7
25	0 4.1	0 14.0	0 23.8	0 33.7	0 43.5	0 53.4	1 3.2	1 13.1	1 23.0	1 32.8	1 42.7	1 52.5
30	0 4.9	0 14.8	0 24.6	0 34.5	0 44.4	0 54.2	1 4.1	1 13.9	1 23.8	1 33.6	1 43.5	1 53.3
35	0 5.8	0 15.6	0 25.5	0 35.3	0 45.2	0 55.0	1 4.9	1 14.7	1 24.6	1 34.5	1 44.3	1 54.2
40	0 6.6	0 16.4	0 26.3	0 36.1	0 46.0	0 55.9	1 5.7	1 15.6	1 25.4	1 35.3	1 45.1	1 55.0
45	0 7.4	0 17.2	0 27.1	0 37.0	0 46.8	0 56.7	1 6.5	1 16.4	1 26.2	1 36.1	1 46.0	1 55.8
50	0 8.2	0 18.1	0 27.9	0 37.8	0 47.6	0 57.5	1 7.4	1 17.2	1 27.1	1 36.9	1 46.8	1 56.6
55	0 9.0	0 18.9	0 28.7	0 38.6	0 48.5	0 58.3	1 8.2	1 18.0	1 27.9	1 37.7	1 47.6	1 57.5
60	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4	1 58.3

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

Day of Month	Sidereal Time of 0ʰ Civil Time at Greenwich (R A. M. S.+12ʰ)					
	July	August	September	October	November	December
	h m s	h m s	h m s	h m s	h m s	h m s
1	18 35 34.8	20 37 48.0	22 40 1.2	0 38 17.7	2 40 30.9	4 38 47.5
2	18 39 31.3	20 41 44.6	22 43 57.7	0 42 14.3	2 44 27.4	4 42 44.1
3	18 43 27.9	20 45 41.1	22 47 54.3	0 46 10.8	2 48 24.0	4 46 40.7
4	18 47 24.5	20 49 37.7	22 51 50.8	0 50 7.4	2 52 20.5	4 50 37.2
5	18 51 21.0	20 53 34.2	22 55 47.4	0 54 3.9	2 56 17.1	4 54 33.8
6	18 55 17.6	20 57 30.8	22 59 43.9	0 58 0.5	3 0 13.7	4 58 30.3
7	18 59 14.1	21 1 27.3	23 3 40.5	1 1 57.1	3 4 10.2	5 2 26.9
8	19 3 10.7	21 5 23.9	23 7 37.0	1 5 53.6	3 8 6.8	5 6 23.4
9	19 7 7.2	21 9 20.4	23 11 33.6	1 9 50.2	3 12 3.3	5 10 20.0
10	19 11 3.8	21 13 17.0	23 15 30.2	1 13 46.7	3 15 59.9	5 14 16.5
11	19 15 0.4	21 17 13.6	23 19 26.7	1 17 43.3	3 19 56.4	5 18 13.1
12	19 18 56.9	21 21 10.1	23 23 23.3	1 21 39.8	3 23 53.0	5 22 9.6
13	19 22 53.5	21 25 6.7	23 27 19.8	1 25 36.4	3 27 49.5	5 26 6.2
14	19 26 50.0	21 29 3.2	23 31 16.4	1 29 32.9	3 31 46.1	5 30 2.8
15	19 30 46.6	21 32 59.8	23 35 12.9	1 33 29.5	3 35 42.6	5 33 59.3
16	19 34 43.1	21 36 56.3	23 39 9.5	1 37 26.0	3 39 39.2	5 37 55.9
17	19 38 39.7	21 40 52.9	23 43 6.0	1 41 22.6	3 43 35.7	5 41 52.4
18	19 42 36.2	21 44 49.5	23 47 2.6	1 45 19.1	3 47 32.3	5 45 49.0
19	19 46 32.8	21 48 46.0	23 50 59.1	1 49 15.7	3 51 28.9	5 49 45.6
20	19 50 29.4	21 52 42.6	23 54 55.7	1 53 12.2	3 55 25.4	5 53 42.1
21	19 54 25.9	21 56 39.1	23 58 52.2	1 57 8.8	3 59 22.0	5 57 38.7
22	19 58 22.5	22 0 35.6	0 2 48.8	2 1 5.3	4 3 18.5	6 1 35.2
23	20 2 19.0	22 4 32.2	0 6 45.3	2 5 1.9	4 7 15.1	6 5 31.8
24	20 6 15.6	22 8 28.7	0 10 41.9	2 8 58.4	4 11 11.6	6 9 28.3
25	20 10 12.1	22 12 25.3	0 14 38.4	2 12 55.0	4 15 8.2	6 13 24.9
26	20 14 8.7	22 16 21.9	0 18 35.0	2 16 51.6	4 19 4.7	6 17 21.4
27	20 18 5.2	22 20 18.4	0 22 31.5	2 20 48.1	4 23 1.3	6 21 18.0
28	20 22 1.8	22 24 15.0	0 26 28.1	2 24 44.7	4 26 57.8	6 25 14.6
29	20 25 58.3	22 28 11.5	0 30 24.6	2 28 41.2	4 30 54.4	6 29 11.1
30	20 29 54.9	22 32 8.1	0 34 21.2	2 32 37.8	4 34 51.0	6 33 7.7
31	20 33 51.5	22 36 4.6	0 38 17.7	2 36 34.3	4 38 47.5	6 37 4.3

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude	12ʰ	13ʰ	14ʰ	15ʰ	16ʰ	17ʰ	18ʰ	19ʰ	20ʰ	21ʰ	22ʰ	23ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	1 58.3	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7
5	1 59.1	2 9.0	2 18.8	2 28.7	2 38.5	2 48.4	2 58.2	3 8.1	3 18.0	3 27.8	3 37.7	3 47.5
10	1 59.9	2 9.8	2 19.6	2 29.5	2 39.3	2 49.2	2 59.1	3 8.9	3 18.8	3 28.6	3 38.5	3 48.3
15	2 0.7	2 10.6	2 20.5	2 30.3	2 40.2	2 50.0	2 59.9	3 9.7	3 19.6	3 29.4	3 39.3	3 49.2
20	2 1.6	2 11.4	2 21.3	2 31.1	2 41.0	2 50.8	3 0.7	3 10.6	3 20.4	3 30.3	3 40.1	3 50.0
25	2 2.4	2 12.2	2 22.1	2 32.0	2 41.8	2 51.7	3 1.5	3 11.4	3 21.2	3 31.1	3 40.9	3 50.8
30	2 3.2	2 13.1	2 22.9	2 32.8	2 42.6	2 52.5	3 2.3	3 12.2	3 22.1	3 31.9	3 41.8	3 51.6
35	2 4.0	2 13.9	2 23.7	2 33.6	2 43.5	2 53.3	3 3.2	3 13.0	3 22.9	3 32.7	3 42.6	3 52.4
40	2 4.8	2 14.7	2 24.6	2 34.4	2 44.3	2 54.1	3 4.0	3 13.8	3 23.7	3 33.6	3 43.4	3 53.3
45	2 5.7	2 15.5	2 25.4	2 35.2	2 45.1	2 55.0	3 4.8	3 14.7	3 24.5	3 34.4	3 44.2	3 54.1
50	2 6.5	2 16.3	2 26.2	2 36.1	2 45.9	2 55.8	3 5.6	3 15.5	3 25.3	3 35.2	3 45.1	3 54.9
55	2 7.3	2 17.2	2 27.0	2 36.9	2 46.7	2 56.6	3 6.5	3 16.3	3 26.2	3 36.0	3 45.9	3 55.7
60	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7	3 56.6

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

G.C.T.	Equation of Time	Sun's Declination	Sun's G.H.A.	Equation of Time	Sun's Declination	Sun's G.H.A.	Equation of Time	Sun's Declination	Sun's G.H.A.
	Monday 1			Friday 5			Tuesday 9		
h	m s	° ′	° ′	m s	° ′	° ′	m s	° ′	° ′
0	−2 57.8	−23 6.6	179 15.5	−4 50.3	−22 45.6	178 47.4	−6 36.7	−22 17.4	178 20.8
2	3 0.2	23 6.2	209 14.9	4 52 6	22 45.1	208 46.8	6 38.8	22 16.7	208 20.3
4	3 2.6	23 5.9	239 14.3	4 54.9	22 44.6	238 46.3	6 41.0	22 16.1	238 19.8
6	3 5.0	23 5.5	269 13.8	4 57.2	22 44.1	268 45.7	6 43.0	22 15.4	268 19.2
8	3 7.4	23 5.1	299 13.2	4 59.4	22 43.5	298 45.1	6 45.2	22 14.7	298 18.7
10	3 9.8	23 4.8	329 12.6	5 1.7	22 43.0	328 44.6	6 47.3	22 14.0	328 18.2
12	3 12.2	23 4.4	359 12.0	5 4.0	22 42.5	358 44.0	6 49.4	22 13.4	358 17.6
14	3 14.5	23 4.0	29 11.4	5 6.3	22 41.9	28 43.4	6 51.6	22 12.7	28 17.1
16	3 16.9	23 3.6	59 10.8	5 8.5	22 41.4	58 42.9	6 53.7	22 12.0	58 16.6
18	3 19.3	23 3.2	89 10.2	5 10.8	22 40.9	88 42.3	6 55.8	22 11.3	88 16.1
20	3 21.7	23 2.8	119 9.6	5 13.1	22 40.3	118 41.7	6 57.9	22 10.6	118 15.5
22	3 24.0	23 2.4	149 9.0	5 15.3	22 39.8	148 41.2	7 0.0	22 9.9	148 15.0
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.3	... ...
	Tuesday 2			Saturday 6			Wednesday 10		
0	−3 26.4	−23 2.0	179 8.4	−5 17.6	−22 39.2	178 40.6	−7 2.1	−22 9.2	178 14.5
2	3 28.8	23 1.6	209 7.8	5 19.8	22 38.7	208 40.0	7 4.2	22 8.5	208 14.0
4	3 31.1	23 1.2	239 7.2	5 22.1	22 38.1	238 39.5	7 6.3	22 7.8	238 13.4
6	3 33.5	23 0.8	269 6.6	5 24.3	22 37.6	268 38.9	7 8.3	22 7.1	268 12.9
8	3 35.9	23 0.4	299 6.0	5 26.5	22 37.0	298 38.4	7 10.4	22 6.4	298 12.4
10	3 38.2	23 0.0	329 5.4	5 28.8	22 36.4	328 37.8	7 12.5	22 5.7	328 11.9
12	3 40.6	22 59.6	359 4.8	5 31.0	22 35.9	358 37.2	7 14.6	22 5.0	358 11.4
14	3 43.0	22 59.2	29 4.3	5 33.3	22 35.3	28 36.7	7 16.7	22 4.3	28 10.9
16	3 45.3	22 58.7	59 3.7	5 35.5	22 34.7	58 36.1	7 18.7	22 3.5	58 10.3
18	3 47.7	22 58.3	89 3.1	5 37.7	22 34.1	88 35.6	7 20.8	22 2.8	88 9.8
20	3 50.0	22 57.9	119 2.5	5 39.9	22 33.6	118 35.0	7 22.8	22 2.1	118 9.3
22	3 52.4	22 57.5	149 1.9	5 42.2	22 33.0	148 34.5	7 24.9	22 1.4	148 8.8
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Wednesday 3			Sunday 7			Thursday 11		
0	−3 54.7	−22 57.0	179 1.3	−5 44.4	−22 32.4	178 33.9	−7 27.0	−22 0.6	178 8.3
2	3 57.1	22 56.6	209 0.7	5 46.6	22 31.8	208 33.3	7 29.0	21 59.9	208 7.8
4	3 59.4	22 56.1	239 0.2	5 48.8	22 31.2	238 32.8	7 31.0	21 59.2	238 7.2
6	4 1.7	22 55.7	268 59.6	5 51.0	22 30.6	268 32.2	7 33.1	21 58.4	268 6.7
8	4 4.0	22 55.2	298 59.0	5 53.2	22 30.0	298 31.7	7 35.1	21 57.7	298 6.2
10	4 6.4	22 54.8	328 58.4	5 55.4	22 29.4	328 31.1	7 37.1	21 56.9	328 5.7
12	4 8.7	22 54.3	358 57.8	5 57.6	22 28.8	358 30.6	7 39.2	21 56.2	358 5.2
14	4 11.1	22 53.9	28 57.2	5 59.8	22 28.2	28 30.0	7 41.2	21 55.4	28 4.7
16	4 13.4	22 53.4	58 56.7	6 2.0	22 27.6	58 29.5	7 43.2	21 54.7	58 4.2
18	4 15.7	22 53.0	88 56.1	6 4.2	22 27.0	88 28.9	7 45.2	21 53.9	88 3.7
20	4 18.1	22 52.5	118 55.5	6 6.4	22 26.3	118 28.4	7 47.2	21 53.1	118 3.2
22	4 20.4	22 52.0	148 54.9	6 8.6	22 25.7	148 27.8	7 49.2	21 52.4	148 2.7
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Thursday 4			Monday 8			Friday 12		
0	−4 22.7	−22 51.5	178 54.3	−6 10.8	−22 25.1	178 27.3	−7 51.2	−21 51.6	178 2.2
2	4 25.0	22 51.1	208 53.8	6 13.0	22 24.5	208 26.8	7 53.2	21 50.8	208 1.7
4	4 27.3	22 50.6	238 53.2	6 15.1	22 23.8	238 26.2	7 55.2	21 50.1	238 1.2
6	4 29.6	22 50.1	268 52.6	6 17.3	22 23.2	268 25.7	7 57.2	21 49.3	268 0.7
8	4 31.9	22 49.6	298 52.0	6 19.5	22 22.6	298 25.1	7 59.2	21 48.5	298 0.2
10	4 34.2	22 49.1	328 51.4	6 21.6	22 21.9	328 24.6	8 1.2	21 47.7	327 59.7
12	4 36.5	22 48.6	358 50.9	6 23.8	22 21.3	358 24.1	8 3.2	21 46.9	357 59.2
14	4 38.8	22 48.1	28 50.3	6 25.9	22 20.6	28 23.5	8 5.1	21 46.1	27 58.7
16	4 41.1	22 47.6	58 49.7	6 28.1	22 20.0	58 23.0	8 7.1	21 45.3	57 58.2
18	4 43.4	22 47.1	88 49.1	6 30.2	22 19.3	88 22.4	8 9.1	21 44.5	87 57.7
20	4 45.7	22 46.6	118 48.6	6 32.4	22 18.7	118 21.9	8 11.0	21 43.8	117 57.2
22	−4 48.0	−22 46.1	148 48.0	−6 34.5	−22 18.0	148 21.4	−8 13.0	−21 43.0	147 56.7
H.D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...

NOTE.—The Equation of Time is to be applied to the G. C. T. in accordance with the sign as given

Day of Month	Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)					
	January	February	March	April	May	June
	h m s	h m s	h m s	h m s	h m s	h m s
1	6 38 59.4	8 41 12.7	10 31 36.2	12 33 49.3	14 32 5.9	16 34 19.1
2	6 42 56.0	8 45 9.3	10 35 32.8	12 37 45.9	14 36 2.5	16 38 15.7
3	6 46 52.6	8 49 5.8	10 39 29.3	12 41 42.4	14 39 59.0	16 42 12.3
4	6 50 49.1	8 53 2.4	10 43 25.9	12 45 39.0	14 43 55.6	16 46 8.8
5	6 54 45.7	8 56 58.9	10 47 22.4	12 49 35.5	14 47 52.1	16 50 5.4
6	6 58 42.3	9 0 55.5	10 51 19.0	12 53 32.1	14 51 48.7	16 54 1.9
7	7 2 38.8	9 4 52.1	10 55 15.5	12 57 28.6	14 55 45.3	16 57 58.5
8	7 6 35.4	9 8 48.6	10 59 12.1	13 1 25.2	14 59 41.8	17 1 55.0
9	7 10 31.9	9 12 45.2	11 3 8.6	13 5 21.8	15 3 38.4	17 5 51.6
10	7 14 28.5	9 16 41.7	11 7 5.2	13 9 18.3	15 7 34.9	17 9 48.2
11	7 18 25.0	9 20 38.3	11 11 1.7	13 13 14.9	15 11 31.5	17 13 44.7
12	7 22 21.6	9 24 34.8	11 14 58.3	13 17 11.4	15 15 28.0	17 17 41.3
13	7 26 18.1	9 28 31.4	11 18 54.9	13 21 8.0	15 19 24.6	17 21 37.8
14	7 30 14.7	9 32 27.9	11 22 51.4	13 25 4.5	15 23 21.1	17 25 34.4
15	7 34 11.3	9 36 24.5	11 26 48.0	13 29 1.1	15 27 17.7	17 29 30.9
16	7 38 7.8	9 40 21.0	11 30 44.5	13 32 57.6	15 31 14.2	17 33 27.5
17	7 42 4.4	9 44 17.6	11 34 41.1	13 36 54.2	15 35 10.8	17 37 24.0
18	7 46 0.9	9 48 14.2	11 38 37.6	13 40 50.7	15 39 7.3	17 41 20.6
19	7 49 57.5	9 52 10.7	11 42 34.2	13 44 47.3	15 43 3.9	17 45 17.2
20	7 53 54.1	9 56 7.3	11 46 30.7	13 48 43.8	15 47 0.5	17 49 13.7
21	7 57 50.6	10 0 3.8	11 50 27.3	13 52 40.4	15 50 57.0	17 53 10.3
22	8 1 47.2	10 4 0.3	11 54 23.8	13 56 36.9	15 54 53.6	17 57 6.8
23	8 5 43.7	10 7 56.9	11 58 20.4	14 0 33.5	15 58 50.1	18 1 3.4
24	8 9 40.3	10 11 53.4	12 2 16.9	14 4 30.0	16 2 46.7	18 5 0.0
25	8 13 36.8	10 15 50.0	12 6 13.5	14 8 26.6	16 6 43.3	18 8 56.5
26	8 17 33.4	10 19 46.6	12 10 10.0	14 12 23.2	16 10 39.8	18 12 53.1
27	8 21 29.9	10 23 43.1	12 14 6.6	14 16 19.7	16 14 36.4	18 16 49.6
28	8 25 26.5	10 27 39.7	12 18 3.1	14 20 16.3	16 18 32.9	18 20 46.2
29	8 29 23.0	10 31 36.2	12 21 59.7	14 24 12.8	16 22 29.5	18 24 42.7
30	8 33 19.6	10 35 32.8	12 25 56.2	14 28 9.4	16 26 26.0	18 28 39.3
31	8 37 16.2	10 39 29.3	12 29 52.8	14 32 5.9	16 30 22.6	18 32 35.8

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude	0ʰ	1ʰ	2ʰ	3ʰ	4ʰ	5ʰ	6ʰ	7ʰ	8ʰ	9ʰ	10ʰ	11ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	0 0.0	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4
5	0 0.8	0 10.7	0 20.5	0 30.4	0 40.2	0 50.1	1 0.0	1 9.8	1 19.7	1 29.5	1 39.4	1 49.2
10	0 1.6	0 11.5	0 21.4	0 31.2	0 41.1	0 50.9	1 0.8	1 10.6	1 20.5	1 30.4	1 40.2	1 50.1
15	0 2.5	0 12.3	0 22.2	0 32.0	0 41.9	0 51.7	1 1.6	1 11.5	1 21.3	1 31.2	1 41.0	1 50.9
20	0 3.3	0 13.1	0 23.0	0 32.9	0 42.7	0 52.6	1 2.4	1 12.3	1 22.1	1 32.0	1 41.8	1 51.7
25	0 4.1	0 14.0	0 23.8	0 33.7	0 43.5	0 53.4	1 3.2	1 13.1	1 23.0	1 32.8	1 42.7	1 52.5
30	0 4.9	0 14.8	0 24.6	0 34.5	0 44.4	0 54.2	1 4.1	1 13.9	1 23.8	1 33.6	1 43.5	1 53.3
35	0 5.8	0 15.6	0 25.5	0 35.3	0 45.2	0 55.0	1 4.9	1 14.7	1 24.6	1 34.5	1 44.3	1 54.2
40	0 6.6	0 16.4	0 26.3	0 36.1	0 46.0	0 55.9	1 5.7	1 15.6	1 25.4	1 35.3	1 45.1	1 55.0
45	0 7.4	0 17.2	0 27.1	0 37.0	0 46.8	0 56.7	1 6.5	1 16.4	1 26.2	1 36.1	1 46.0	1 55.8
50	0 8.2	0 18.1	0 27.9	0 37.8	0 47.6	0 57.5	1 7.4	1 17.2	1 27.1	1 36.9	1 46.8	1 56.6
55	0 9.0	0 18.9	0 28.7	0 38.6	0 48.5	0 58.3	1 8.2	1 18.0	1 27.9	1 37.7	1 47.6	1 57.5
60	0 9.9	0 19.7	0 29.6	0 39.4	0 49.3	0 59.1	1 9.0	1 18.9	1 28.7	1 38.6	1 48.4	1 58.3

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.— The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

Day of Month	Sidereal Time of 0ʰ Civil Time at Greenwich (R. A. M. S.+12ʰ)					
	July	August	September	October	November	December
	h m s	h m s	h m s	h m s	h m s	h m s
1	18 32 35.8	20 34 49.1	22 37 2.3	0 35 18.8	2 37 31.9	4 35 48.6
2	18 36 32.4	20 38 45.6	22 40 58.8	0 39 15.4	2 41 28.5	4 39 45.2
3	18 40 29.0	20 42 42.2	22 44 55.3	0 43 11.9	2 45 25.1	4 43 41.7
4	18 44 25.5	20 46 38.8	22 48 51.9	0 47 8.5	2 49 21.6	4 47 38.3
5	18 48 22.1	20 50 35.3	22 52 48.4	0 51 5.0	2 53 18.2	4 51 34.8
6	18 52 18.6	20 54 31.9	22 56 45.0	0 55 1.6	2 57 14.7	4 55 31.4
7	18 56 15.2	20 58 28.4	23 0 41.6	0 58 58.1	3 1 11.3	4 59 27.9
8	19 0 11.7	21 2 25.0	23 4 38.1	1 2 54.7	3 5 7.8	5 3 24.5
9	19 4 8.3	21 6 21.5	23 8 34.7	1 6 51.2	3 9 4.4	5 7 21.1
10	19 8 4.8	21 10 18.1	23 12 31.2	1 10 47.8	3 13 0.9	5 11 17.6
11	19 12 1.4	21 14 14.6	23 16 27.8	1 14 44.3	3 16 57.5	5 15 14.2
12	19 15 58.0	21 18 11.2	23 20 24.3	1 18 40.9	3 20 54.0	5 19 10.7
13	19 19 54.5	21 22 7.7	23 24 20.9	1 22 37.4	3 24 50.6	5 23 7.3
14	19 23 51.1	21 26 4.3	23 28 17.4	1 26 34.0	3 28 47.2	5 27 3.9
15	19 27 47.6	21 30 0.9	23 32 14.0	1 30 30.5	3 32 43.7	5 31 0.4
16	19 31 44.2	21 33 57.4	23 36 10.5	1 34 27.1	3 36 40.3	5 34 57.0
17	19 35 40.8	21 37 54.0	23 40 7.1	1 38 23.6	3 40 36.8	5 38 53.5
18	19 39 37.3	21 41 50.5	23 44 3.6	1 42 20.2	3 44 33.4	5 42 50.1
19	19 43 33.9	21 45 47.1	23 48 0.2	1 46 16.8	3 48 29.9	5 46 46.6
20	19 47 30.4	21 49 43.6	23 51 56.7	1 50 13.3	3 52 26.5	5 50 43.2
21	19 51 27.0	21 53 40.2	23 55 53.3	1 54 9.9	3 56 23.0	5 54 39.7
22	19 55 23.5	21 57 36.7	23 59 49.9	1 58 6.4	4 0 19.6	5 58 36.3
23	19 59 20.1	22 1 33.3	0 3 46.4	2 2 3.0	4 4 16.1	6 2 32.8
24	20 3 16.6	22 5 29.8	0 7 43.0	2 5 59.5	4 8 12.7	6 6 29.4
25	20 7 13.2	22 9 26.4	0 11 39.5	2 9 56.1	4 12 9.3	6 10 26.0
26	20 11 9.8	22 13 22.9	0 15 36.1	2 13 52.6	4 16 5.8	6 14 22.5
27	20 15 6.3	22 17 19.5	0 19 32.6	2 17 49.2	4 20 2.4	6 18 19.1
28	20 19 2.9	22 21 16.1	0 23 29.2	2 21 45.7	4 23 58.9	6 22 15.7
29	20 22 59.4	22 25 12.6	0 27 25.7	2 25 42.3	4 27 55.5	6 26 12.2
30	20 26 56.0	22 29 9.2	0 31 22.3	2 29 38.8	4 31 52.1	6 30 8.8
31	20 30 52.5	22 33 5.7	0 35 18.8	2 33 35.4	4 35 48.6	6 34 5.3

CORRECTION FOR LONGITUDE FROM GREENWICH

(This correction table is equivalent to Table VI)

Longitude	12ʰ	13ʰ	14ʰ	15ʰ	16ʰ	17ʰ	18ʰ	19ʰ	20ʰ	21ʰ	22ʰ	23ʰ
m	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s	m s
0	1 58.3	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7
5	1 59.1	2 9.0	2 18.8	2 28.7	2 38.5	2 48.4	2 58.2	3 8.1	3 18.0	3 27.8	3 37.7	3 47.5
10	1 59.9	2 9.8	2 19.6	2 29.5	2 39.3	2 49.2	2 59.1	3 8.9	3 18.8	3 28.6	3 38.5	3 48.3
15	2 0.7	2 10.6	2 20.5	2 30.3	2 40.2	2 50.0	2 59.9	3 9.7	3 19.6	3 29.4	3 39.3	3 49.2
20	2 1.6	2 11.4	2 21.3	2 31.1	2 41.0	2 50.8	3 0.7	3 10.6	3 20.4	3 30.3	3 40.1	3 50.0
25	2 2.4	2 12.2	2 22.1	2 32.0	2 41.8	2 51.7	3 1.5	3 11.4	3 21.2	3 31.1	3 40.9	3 50.8
30	2 3.2	2 13.1	2 22.9	2 32.8	2 42.6	2 52.5	3 2.3	3 12.2	3 22.1	3 31.9	3 41.8	3 51.6
35	2 4.0	2 13.9	2 23.7	2 33.6	2 43.5	2 53.3	3 3.2	3 13.0	3 22.9	3 32.7	3 42.6	3 52.4
40	2 4.8	2 14.7	2 24.6	2 34.4	2 44.3	2 54.1	3 4.0	3 13.8	3 23.7	3 33.6	3 43.4	3 53.3
45	2 5.7	2 15.5	2 25.4	2 35.2	2 45.1	2 55.0	3 4.8	3 14.7	3 24.5	3 34.4	3 44.2	3 54.1
50	2 6.5	2 16.3	2 26.2	2 36.1	2 45.9	2 55.8	3 5.6	3 15.5	3 25.3	3 35.2	3 45.1	3 54.9
55	2 7.3	2 17.2	2 27.0	2 36.9	2 46.7	2 56.6	3 6.5	3 16.3	3 26.2	3 36.0	3 45.9	3 55.7
60	2 8.1	2 18.0	2 27.8	2 37.7	2 47.6	2 57.4	3 7.3	3 17.1	3 27.0	3 36.8	3 46.7	3 56.6

P. P.

m	s
1	0.2
2	0.3
3	0.5
4	0.7
5	0.8

NOTE.—The correction is to be added to Sidereal Time of 0ʰ Civil Time at Greenwich to obtain Sidereal Time of 0ʰ Civil Time at any longitude west of Greenwich; to be subtracted if the longitude is east of Greenwich.

G. C. T.	Equation of Time	Sun's Declination	Sun's G. H. A.	Equation of Time	Sun's Declination	Sun's G. H. A.	Equation of Time	Sun's Declination	Sun's G. H. A.
	Sunday 1			Thursday 5			Monday 9		
h	m s	° ′	° ′	m s	° ′	° ′	m s	° ′	° ′
0	−3 6.4	−23 5.5	179 13.4	−4 58.2	−22 44.1	178 45.5	−6 43.4	−22 15.5	178 19.2
2	3 8.7	23 5.2	209 12.8	5 0.4	22 43.6	208 44.9	6 45.5	22 14.8	208 18.6
4	3 11.1	23 4.8	239 12.2	5 2.7	22 43.1	238 44.3	6 47.6	22 14.1	238 18.1
6	3 13.5	23 4.4	269 11.6	5 4.9	22 42.5	268 43.8	6 49.7	22 13.4	268 17.6
8	3 15.9	23 4.0	299 11.0	5 7.2	22 42.0	298 43.2	6 51.8	22 12.8	298 17 0
10	3 18.3	23 3.7	329 10.4	5 9.5	22 41.5	328 42.6	6 53.9	22 12.1	328 16.5
12	3 20.6	23 3.3	359 9.8	5 11.7	22 40.9	358 42.1	6 56.0	22 11.4	358 16.0
14	3 23.0	23 2.9	29 9.3	5 14.0	22 40.4	28 41.5	6 58.1	22 10.7	28 15.5
16	3 25.4	23 2.5	59 8.7	5 16.2	22 39.8	58 41.0	7 0.2	22 10.0	58 15.0
18	3 27.7	23 2.1	89 8.1	5 18.4	22 39.3	88 40.4	7 2.3	22 9.3	88 14.4
20	3 30.1	23 1.7	119 7.5	5 20.7	22 38.7	118 39.8	7 4.4	22 8.6	118 13.9
22	3 32.5	23 1.3	149 6.9	5 22.9	22 38.2	148 39.3	7 6.4	22 7.9	148 13.4
H. D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.3	... ...
	Monday 2			Friday 6			Tuesday 10		
0	−3 34.8	−23 0.9	179 6.3	−5 25.2	−22 37.6	178 38.7	−7 8.5	−22 7.2	178 12.9
2	3 37.2	23 0.5	209 5.7	5 27.4	22 37.1	208 38.2	7 10.6	22 6.5	208 12.4
4	3 39.5	23 0.1	239 5.1	5 29.6	22 36.5	238 37.6	7 12.6	22 5.8	238 11.8
6	3 41.9	22 59.6	269 4.5	5 31.8	22 35.9	268 37.0	7 14.7	22 5.1	268 11.3
8	3 44.3	22 59.2	299 3.9	5 34.1	22 35.4	298 36.5	7 16.8	22 4.4	298 10.8
10	3 46.6	22 58.8	329 3.4	5 36.3	22 34.8	328 35.9	7 18.8	22 3.6	328 10.3
12	3 49.0	22 58.4	359 2.8	5 38.5	22 34.2	358 35.4	7 20.9	22 2.9	358 9.8
14	3 51.3	22 57.9	29 2.2	5 40.7	22 33.6	28 34.8	7 22.9	22 2.2	28 9.3
16	3 53.6	22 57.5	59 1.6	5 42.9	22 33.0	58 34.3	7 25.0	22 1.5	58 8.8
18	3 56.0	22 57.1	89 1.0	5 45.1	22 32.5	88 33.7	7 27.0	22 0.7	88 8.3
20	3 58.3	22 56.6	119 0.4	5 47.3	22 31.9	118 33.2	7 29.0	22 0.0	118 7.7
22	4 0.7	22 56.2	148 59.8	5 49.5	22 31.3	148 32.6	7 31.1	21 59.3	148 7.2
H. D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Tuesday 3			Saturday 7			Wednesday 11		
0	−4 3.0	−22 55.7	178 59.3	−5 51.7	−22 30.7	178 32.1	−7 33.1	−21 58.5	178 6.7
2	4 5.3	22 55.3	208 58.7	5 53.9	22 30.1	208 31.5	7 35.1	21 57.8	208 6.2
4	4 7.6	22 54.8	238 58.1	5 56.1	22 29.5	238 31.0	7 37.1	21 57.0	238 5.7
6	4 10.0	22 54.4	268 57.5	5 58.3	22 28.9	268 30.4	7 39.2	21 56.3	268 5.2
8	4 12.3	22 53.9	298 56.9	6 0.4	22 28.3	298 29.9	7 41.2	21 55.5	298 4.7
10	4 14.6	22 53.5	328 56.3	6 2.6	22 27.7	328 29.3	7 43.2	21 54.8	328 4.2
12	4 16.9	22 53.0	358 55.8	6 4.8	22 27.0	358 28.8	7 45.2	21 54.0	358 3.7
14	4 19.2	22 52.5	28 55.2	6 7.0	22 26.4	28 28.3	7 47.2	21 53.2	28 3.2
16	4 21.5	22 52.1	58 54.6	6 9.1	22 25.8	58 27.7	7 49.2	21 52.5	58 2.7
18	4 23.9	22 51.6	88 54.0	6 11.3	22 25.2	88 27.2	7 51.2	21 51.7	88 2.2
20	4 26.2	22 51.1	118 53.4	6 13.5	22 24.6	118 26.6	7 53.2	21 50.9	118 1.7
22	4 28.5	22 50.6	148 52.9	6 15.6	22 23.9	148 26.1	7 55.2	21 50.2	148 1.2
H. D.	1.2	0.2	... ...	1.1	0.3	... ...	1.0	0.4	... ...
	Wednesday 4			Sunday 8			Thursday 12		
0	−4 30.8	−22 50.2	178 52.3	−6 17.8	−22 23.3	178 25.6	−7 57.1	−21 49.4	178 0.7
2	4 33.1	22 49.7	208 51.7	6 19.9	22 22.7	208 25.0	7 59.1	21 48.6	208 0.2
4	4 35.4	22 49.2	238 51.2	6 22.1	22 22.0	238 24.5	8 1.1	21 47.8	237 59.7
6	4 37.7	22 48.7	268 50.6	6 24.2	22 21.4	268 23.9	8 3.1	21 47.0	267 59.2
8	4 39.9	22 48.2	298 50.0	6 26.4	22 20.7	298 23.4	8 5.0	21 46.3	297 58.8
10	4 42.2	22 47.7	328 49.4	6 28.5	22 20.1	328 22.9	8 7.0	21 45.5	327 58.3
12	4 44.5	22 47.2	358 48.9	6 30.6	22 19.4	358 22.3	8 8.9	21 44.7	357 57.8
14	4 46.8	22 46.7	28 48.3	6 32.8	22 18.8	28 21.8	8 10.9	21 43.9	27 57.3
16	4 49.1	22 46.2	58 47.7	6 34.9	22 18.1	58 21.3	8 12.8	21 43.1	57 56.8
18	4 51.4	22 45.7	88 47.2	6 37.0	22 17.5	88 20.7	8 14.8	21 42.3	87 56.3
20	4 53.6	22 45.2	118 46.6	6 39.2	22 16.8	118 20.2	8 16.7	21 41.5	117 55.8
22	−4 55.9	−22 44.6	148 46.0	−6 41.3	−22 16.1	148 19.7	−8 18.7	−21 40.6	147 55.3
H. D.	1.1	0.3	... ...	1.1	0.3	... ...	1.0	0.4	... ...

NOTE.—The Equation of Time is to be applied to the G. C. T. in accordance with the sign as given