



XXVIII. A table of the Sun's Right Ascension in time to every ten minutes of his longitude: with the differences and secular variation for Jan. 1, 1801. (Obliq. of the Eclip. $23^{\circ} 27' 57''$, and Sec. Var. $52'' \cdot 1$.) Calculated from Taylor's Tables of Logarithms

Mr. James Utting

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TABLE V. showing the Progression of Solar and Lunar Eclipses for xix Years*.

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| Years | Jan. | Feb. | March. | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. |
|-------|------|------|--------|--------|------|-------|-------|------|-------|------|------|------|
| 1 | | | ☉ ☽ | ☉ | | | | | ☉ ☽ | ☉ | | |
| 2 | | | ☉ ☽ | | | | | | ☉ ☽ | | | |
| 3 | | ☉ | | | | | | ☉ | | | | |
| 4 | ☽ ☉ | ☉ | | | | | ☽ | ☉ | | | | |
| 5 | ☉ ☽ | ☉ | | | | ☉ ☽ | ☉ | | | | | ☉ |
| 6 | ☽ | | | | | ☉ | | | | | | ☉ |
| 7 | | | | | ☽ | ☉ | | | | | ☽ ☉ | |
| 8 | | | | | ☽ | ☉ | | | | ☉ ☽ | | |
| 9 | | | | ☉ ☽ | | | | | | ☉ ☽ | | |
| 10 | | | | ☉ | | | | | ☉ | | | |
| 11 | | | ☉ | | | | | | ☉ | | | |
| 12 | | ☉ ☽ | ☉ | | | | | ☉ ☽ | ☉ | | | |
| 13 | ☉ | ☽ | | | | | ☉ | ☽ | | | | |
| 14 | ☉ | | | | | | ☉ | | | | | ☽ |
| 15 | ☉ | | | | | ☽ ☉ | | | | | | ☽ ☉ |
| 16 | | | | | ☉ | ☽ | | | | | ☉ | ☽ |
| 17 | | | | | ☉ | | | | | | ☉ | |
| 18 | | | | ☽ ☉ | | | | | | ☽ ☉ | | |
| 19 | | | | ☽ | ☉ | | | | ☉ ☽ | | | |
| 20 | | | ☉ ☽ | | | | | | ☉ ☽ | | | |

* Epoch of this Table 1801, 1820, 1839.

XXVIII. *A Table of the Sun's Right Ascension in Time to every Ten Minutes of his Longitude: with the Differences and Secular Variation for Jan. 1, 1801. (Obliq. of the Eclip. $23^{\circ} 27' 57''$, and Sec. Var. $52''.1$.) Calculated from TAYLOR's Tables of Logarithms. By Mr. JAMES UTTING, Lynn Regis.*

[Continued from p. 32.]

Argu-

| Argu- ment. ☉'s Long. | Signs 0 and VI. | | | Signs I. and VII. | | | Signs II. and VIII. | | | Argu- ment. ☉'s Long. |
|--------------------------------|--------------------|-------|-----------|----------------------|-------|-----------|------------------------|-------|-----------|--------------------------------|
| | R. A. | Diff. | Sec. Var. | R. A. | Diff. | Sec. Var. | R. A. | Diff. | Sec. Var. | |
| 0 0 | 0 0 0'00 | 36'69 | 0'00 | 1 51 37'39 | 38'21 | 0'62 | 3 51 15'25 | 41'65 | 0'68 | 30 0 |
| 10 | 0 0 36'69 | 36'69 | 0'00 | 1 52 15'60 | 38'23 | 0'63 | 3 51 56'90 | 41'68 | 0'68 | 50 |
| 20 | 0 1 13'38 | 36'70 | 0'01 | 1 52 53'83 | 38'25 | 0'63 | 3 52 38'58 | 41'69 | 0'68 | 40 |
| 30 | 0 1 50'08 | 36'70 | 0'01 | 1 53 32'08 | 38'26 | 0'63 | 3 53 20'27 | 41'71 | 0'67 | 30 |
| 40 | 0 2 26'77 | 36'69 | 0'02 | 1 54 10'34 | 38'28 | 0'63 | 3 54 1'98 | 41'73 | 0'67 | 20 |
| 50 | 0 3 3'46 | 36'70 | 0'02 | 1 54 48'62 | 38'30 | 0'64 | 3 54 43'71 | 41'75 | 0'67 | 10 |
| 1 0 | 0 3 40'16 | 36'69 | 0'02 | 1 55 26'92 | 38'31 | 0'64 | 3 55 25'46 | 41'76 | 0'67 | 29 0 |
| 10 | 0 4 16'85 | 36'69 | 0'03 | 1 56 5'23 | 38'32 | 0'64 | 3 56 7'22 | 41'79 | 0'66 | 50 |
| 20 | 0 4 53'54 | 36'70 | 0'03 | 1 56 43'55 | 38'35 | 0'64 | 3 56 49'01 | 41'80 | 0'66 | 40 |
| 30 | 0 5 30'24 | 36'70 | 0'04 | 1 57 21'90 | 38'36 | 0'65 | 3 57 30'81 | 41'82 | 0'66 | 30 |
| 40 | 0 6 6'94 | 36'69 | 0'04 | 1 58 0'26 | 38'38 | 0'65 | 3 58 12'63 | 41'84 | 0'66 | 20 |
| 50 | 0 6 43'63 | 36'70 | 0'05 | 1 58 38'64 | 38'39 | 0'65 | 3 58 54'47 | 41'86 | 0'66 | 10 |
| 2 0 | 0 7 20'33 | 36'70 | 0'05 | 1 59 17'03 | 38'41 | 0'65 | 3 59 36'33 | 41'88 | 0'66 | 28 0 |
| 10 | 0 7 57'03 | 36'70 | 0'05 | 1 59 55'44 | 38'43 | 0'65 | 4 0 18'21 | 41'89 | 0'65 | 50 |
| 20 | 0 8 33'73 | 36'70 | 0'06 | 2 0 33'87 | 38'44 | 0'65 | 4 1 0'10 | 41'91 | 0'65 | 40 |
| 30 | 0 9 10'43 | 36'71 | 0'06 | 2 1 12'31 | 38'46 | 0'66 | 4 1 42'01 | 41'94 | 0'65 | 30 |
| 40 | 0 9 47'14 | 36'70 | 0'07 | 2 1 50'77 | 38'48 | 0'66 | 4 2 23'95 | 41'94 | 0'65 | 20 |
| 50 | 0 10 23'84 | 36'71 | 0'07 | 2 2 29'25 | 38'49 | 0'66 | 4 3 5'89 | 41'97 | 0'64 | 10 |
| 3 0 | 0 11 0'55 | 36'71 | 0'07 | 2 3 7'74 | 38'51 | 0'66 | 4 3 47'86 | 41'99 | 0'64 | 27 0 |
| 10 | 0 11 37'26 | 36'71 | 0'08 | 2 3 46'25 | 38'52 | 0'66 | 4 4 29'85 | 42'00 | 0'64 | 50 |
| 20 | 0 12 13'97 | 36'71 | 0'08 | 2 4 24'77 | 38'56 | 0'67 | 4 5 11'85 | 42'02 | 0'64 | 40 |
| 30 | 0 12 50'68 | 36'72 | 0'09 | 2 5 3'33 | 38'56 | 0'67 | 4 5 53'87 | 42'04 | 0'63 | 30 |
| 40 | 0 13 27'40 | 36'71 | 0'09 | 2 5 41'89 | 38'59 | 0'67 | 4 6 35'91 | 42'05 | 0'63 | 20 |
| 50 | 0 14 4'11 | 36'72 | 0'10 | 2 6 20'47 | 38'60 | 0'67 | 4 7 17'96 | 42'08 | 0'63 | 10 |
| 4 0 | 0 14 40'83 | 36'72 | 0'10 | 2 6 59'07 | 38'61 | 0'67 | 4 8 0'04 | 42'09 | 0'63 | 26 0 |
| 10 | 0 15 17'55 | 36'73 | 0'10 | 2 7 37'68 | 38'64 | 0'68 | 4 8 42'13 | 42'11 | 0'62 | 50 |
| 20 | 0 15 54'28 | 36'72 | 0'11 | 2 8 16'32 | 38'64 | 0'68 | 4 9 24'24 | 42'12 | 0'62 | 40 |
| 30 | 0 16 31'00 | 36'73 | 0'11 | 2 8 54'96 | 38'67 | 0'68 | 4 10 6'36 | 42'15 | 0'61 | 30 |
| 40 | 0 17 7'73 | 36'74 | 0'12 | 2 9 33'63 | 38'69 | 0'68 | 4 10 48'51 | 42'16 | 0'61 | 20 |
| 50 | 0 17 44'47 | 36'73 | 0'12 | 2 10 12'32 | 38'70 | 0'69 | 4 11 30'67 | 42'18 | 0'61 | 10 |
| 5 0 | 0 18 21'20 | 36'74 | 0'12 | 2 10 51'02 | 38'72 | 0'69 | 4 12 12'85 | 42'19 | 0'61 | 25 0 |
| 10 | 0 18 57'94 | 36'74 | 0'12 | 2 11 29'74 | 38'74 | 0'69 | 4 12 55'04 | 42'21 | 0'60 | 50 |
| 20 | 0 19 34'68 | 36'75 | 0'13 | 2 12 8'48 | 38'75 | 0'69 | 4 13 37'25 | 42'23 | 0'60 | 40 |
| 30 | 0 20 11'42 | 36'75 | 0'13 | 2 12 47'23 | 38'78 | 0'69 | 4 14 19'48 | 42'25 | 0'60 | 30 |
| 40 | 0 20 48'17 | 36'75 | 0'14 | 2 13 26'01 | 38'79 | 0'69 | 4 15 1'73 | 42'26 | 0'60 | 20 |
| 50 | 0 21 24'92 | 36'75 | 0'14 | 2 14 4'80 | 38'81 | 0'70 | 4 15 43'99 | 42'28 | 0'59 | 10 |
| 6 0 | 0 22 1'67 | 36'76 | 0'15 | 2 14 43'61 | 38'83 | 0'70 | 4 16 26'27 | 42'31 | 0'59 | 24 0 |
| 10 | 0 22 38'43 | 36'76 | 0'15 | 2 15 22'44 | 38'84 | 0'70 | 4 17 8'58 | 42'30 | 0'58 | 50 |
| 20 | 0 23 15'19 | 36'77 | 0'15 | 2 16 1'28 | 38'87 | 0'70 | 4 17 50'88 | 42'33 | 0'58 | 40 |
| 30 | 0 23 51'96 | 36'77 | 0'16 | 2 16 40'15 | 38'88 | 0'70 | 4 18 33'21 | 42'34 | 0'58 | 30 |
| 40 | 0 24 28'73 | 36'77 | 0'16 | 2 17 19'03 | 38'90 | 0'70 | 4 19 15'55 | 42'37 | 0'58 | 20 |
| 50 | 0 25 5'50 | 36'77 | 0'17 | 2 17 57'93 | 38'92 | 0'70 | 4 19 57'92 | 42'38 | 0'57 | 10 |
| 7 0 | 0 25 42'27 | 36'79 | 0'17 | 2 18 36'85 | 38'93 | 0'71 | 4 20 40'30 | 42'39 | 0'57 | 23 0 |
| 10 | 0 26 19'06 | 36'78 | 0'18 | 2 19 15'78 | 38'96 | 0'71 | 4 21 22'69 | 42'42 | 0'57 | 50 |
| 20 | 0 26 55'84 | 36'79 | 0'18 | 2 19 54'74 | 38'97 | 0'71 | 4 22 5'11 | 42'42 | 0'57 | 40 |
| 30 | 0 27 32'63 | 36'79 | 0'18 | 2 20 33'71 | 38'99 | 0'71 | 4 22 47'53 | 42'44 | 0'56 | 30 |
| 40 | 0 28 9'42 | 36'80 | 0'19 | 2 21 12'70 | 39'01 | 0'71 | 4 23 29'97 | 42'46 | 0'56 | 20 |
| 50 | 0 28 46'22 | 36'80 | 0'19 | 2 21 51'71 | 39'03 | 0'71 | 4 24 12'43 | 42'48 | 0'56 | 10 |
| 8 0 | 0 29 23'02 | 36'81 | 0'19 | 2 22 30'74 | 39'05 | 0'71 | 4 24 54'91 | 42'49 | 0'56 | 22 0 |

TABLE continued.

| Argu- ment. ☉'s Long. | Signs O and VI. | | | Signs I. and VII. | | | Signs II. and VIII. | | | Argu- ment. ☉'s Long. |
|--------------------------------|-----------------------|-------|--------------|-------------------------|-------|--------------|------------------------|-------|--------------|--------------------------------|
| | R. A. | Diff. | Sec. Var. | R. A. | Diff. | Sec. Var. | R. A. | Diff. | Sec. Var. | |
| 0 | h | | | h | | | h | | | 0 |
| 10 | 0 29 59.83 | 36.81 | 0.19 | 2 23 9.79 | 39.07 | 0.71 | 4 25 37.40 | 42.50 | 0.55 | 10 |
| 20 | 0 30 36.64 | 36.82 | 0.20 | 2 23 48.86 | 39.08 | 0.72 | 4 26 19.90 | 42.53 | 0.55 | 20 |
| 30 | 0 31 13.46 | 36.82 | 0.20 | 2 24 27.94 | 39.10 | 0.72 | 4 27 2.43 | 42.53 | 0.55 | 30 |
| 40 | 0 31 50.28 | 36.83 | 0.21 | 2 25 7.04 | 39.13 | 0.72 | 4 27 44.96 | 42.56 | 0.54 | 40 |
| 50 | 0 32 27.11 | 36.83 | 0.21 | 2 25 46.17 | 39.14 | 0.72 | 4 28 27.52 | 42.57 | 0.54 | 50 |
| 9 0 | 0 33 3.94 | 36.83 | 0.21 | 2 26 25.31 | 39.16 | 0.72 | 4 29 10.09 | 42.58 | 0.54 | 9 0 |
| | | 36.84 | | | | | | | | |
| 10 | 0 33 40.78 | 36.84 | 0.22 | 2 27 4.47 | 39.18 | 0.72 | 4 29 52.67 | 42.60 | 0.53 | 10 |
| 20 | 0 34 17.62 | 36.85 | 0.22 | 2 27 43.65 | 39.19 | 0.73 | 4 30 35.27 | 42.61 | 0.53 | 20 |
| 30 | 0 34 54.47 | 36.85 | 0.23 | 2 28 22.84 | 39.22 | 0.73 | 4 31 17.88 | 42.63 | 0.52 | 30 |
| 40 | 0 35 31.32 | 36.86 | 0.23 | 2 29 2.06 | 39.24 | 0.73 | 4 32 0.51 | 42.64 | 0.52 | 40 |
| 50 | 0 36 8.18 | 36.87 | 0.24 | 2 29 41.30 | 39.25 | 0.73 | 4 32 43.15 | 42.66 | 0.52 | 50 |
| 10 0 | 0 36 45.05 | 36.87 | 0.24 | 2 30 20.55 | 39.27 | 0.73 | 4 33 25.81 | 42.68 | 0.52 | 10 0 |
| | | 36.87 | | | | | | | | |
| 10 | 0 37 21.92 | 36.88 | 0.24 | 2 30 59.82 | 39.30 | 0.73 | 4 34 8.49 | 42.68 | 0.52 | 10 |
| 20 | 0 37 58.80 | 36.88 | 0.24 | 2 31 39.12 | 39.31 | 0.73 | 4 34 51.17 | 42.71 | 0.51 | 20 |
| 30 | 0 38 35.68 | 36.89 | 0.25 | 2 32 18.43 | 39.33 | 0.73 | 4 35 33.88 | 42.71 | 0.51 | 30 |
| 40 | 0 39 12.57 | 36.89 | 0.25 | 2 32 57.76 | 39.35 | 0.73 | 4 36 16.59 | 42.73 | 0.50 | 40 |
| 50 | 0 39 49.46 | 36.91 | 0.26 | 2 33 37.11 | 39.37 | 0.73 | 4 36 59.32 | 42.75 | 0.50 | 50 |
| 11 0 | 0 40 26.37 | 36.90 | 0.26 | 2 34 16.48 | 39.39 | 0.73 | 4 37 42.07 | 42.76 | 0.50 | 11 0 |
| | | 36.90 | | | | | | | | |
| 10 | 0 41 3.27 | 36.92 | 0.26 | 2 34 55.87 | 39.41 | 0.74 | 4 38 24.83 | 42.77 | 0.49 | 10 |
| 20 | 0 41 40.19 | 36.92 | 0.27 | 2 35 35.28 | 39.43 | 0.74 | 4 39 7.60 | 42.79 | 0.49 | 20 |
| 30 | 0 42 17.11 | 36.93 | 0.27 | 2 36 14.71 | 39.44 | 0.74 | 4 39 50.39 | 42.80 | 0.49 | 30 |
| 40 | 0 42 54.04 | 36.93 | 0.28 | 2 36 54.15 | 39.47 | 0.74 | 4 40 33.19 | 42.82 | 0.48 | 40 |
| 50 | 0 43 30.97 | 36.94 | 0.28 | 2 37 33.62 | 39.49 | 0.74 | 4 41 16.01 | 42.82 | 0.48 | 50 |
| 12 0 | 0 44 7.91 | 36.95 | 0.28 | 2 38 13.11 | 39.50 | 0.74 | 4 41 58.83 | 42.85 | 0.47 | 12 0 |
| | | 36.95 | | | | | | | | |
| 10 | 0 44 44.86 | 36.96 | 0.29 | 2 38 52.61 | 39.53 | 0.74 | 4 42 41.68 | 42.85 | 0.47 | 10 |
| 20 | 0 45 21.82 | 36.96 | 0.29 | 2 39 32.14 | 39.54 | 0.74 | 4 43 24.53 | 42.87 | 0.46 | 20 |
| 30 | 0 45 58.78 | 36.97 | 0.30 | 2 40 11.68 | 39.57 | 0.74 | 4 44 7.40 | 42.88 | 0.46 | 30 |
| 40 | 0 46 35.75 | 36.98 | 0.30 | 2 40 51.25 | 39.58 | 0.74 | 4 44 50.28 | 42.90 | 0.46 | 40 |
| 50 | 0 47 12.73 | 36.98 | 0.31 | 2 41 30.83 | 39.61 | 0.74 | 4 45 33.18 | 42.91 | 0.45 | 50 |
| 13 0 | 0 47 49.71 | 36.00 | 0.31 | 2 42 10.44 | 39.62 | 0.75 | 4 46 16.09 | 42.92 | 0.45 | 13 0 |
| | | 36.00 | | | | | | | | |
| 10 | 0 48 26.71 | 37.00 | 0.31 | 2 42 50.06 | 39.64 | 0.75 | 4 46 59.01 | 42.93 | 0.45 | 10 |
| 20 | 0 49 3.71 | 37.00 | 0.32 | 2 43 29.70 | 39.66 | 0.75 | 4 47 41.94 | 42.95 | 0.44 | 20 |
| 30 | 0 49 40.71 | 37.02 | 0.32 | 2 44 9.36 | 39.69 | 0.75 | 4 48 24.89 | 42.96 | 0.44 | 30 |
| 40 | 0 50 17.73 | 37.02 | 0.32 | 2 44 49.05 | 39.70 | 0.75 | 4 49 7.85 | 42.97 | 0.43 | 40 |
| 50 | 0 50 54.75 | 37.04 | 0.33 | 2 45 28.75 | 39.72 | 0.75 | 4 49 50.82 | 42.98 | 0.43 | 50 |
| 14 0 | 0 51 31.79 | 37.04 | 0.33 | 2 46 8.47 | 39.74 | 0.75 | 4 50 33.80 | 43.00 | 0.43 | 14 0 |
| | | 37.04 | | | | | | | | |
| 10 | 0 52 8.83 | 37.04 | 0.33 | 2 46 48.21 | 39.76 | 0.75 | 4 51 16.80 | 43.01 | 0.43 | 10 |
| 20 | 0 52 45.87 | 37.06 | 0.33 | 2 47 27.97 | 39.79 | 0.75 | 4 51 59.81 | 43.02 | 0.42 | 20 |
| 30 | 0 53 22.93 | 37.06 | 0.34 | 2 48 7.76 | 39.80 | 0.75 | 4 52 42.83 | 43.04 | 0.41 | 30 |
| 40 | 0 53 59.99 | 37.08 | 0.35 | 2 48 47.56 | 39.82 | 0.75 | 4 53 25.87 | 43.04 | 0.41 | 40 |
| 50 | 0 54 37.07 | 37.08 | 0.35 | 2 49 27.38 | 39.84 | 0.75 | 4 54 8.91 | 43.06 | 0.41 | 50 |
| 15 0 | 0 55 14.15 | 37.09 | 0.35 | 2 50 7.22 | 39.86 | 0.75 | 4 54 51.97 | 43.07 | 0.40 | 15 0 |
| | | 37.09 | | | | | | | | |
| 10 | 0 55 51.24 | 37.10 | 0.36 | 2 50 47.08 | 39.88 | 0.75 | 4 55 35.04 | 43.08 | 0.40 | 10 |
| 20 | 0 56 28.34 | 37.10 | 0.36 | 2 51 26.96 | 39.91 | 0.75 | 4 56 18.12 | 43.09 | 0.39 | 20 |
| 30 | 0 57 5.44 | 37.12 | 0.36 | 2 52 6.87 | 39.92 | 0.75 | 4 57 1.21 | 43.10 | 0.39 | 30 |
| 40 | 0 57 42.56 | 37.13 | 0.37 | 2 52 46.79 | 39.94 | 0.75 | 4 57 44.31 | 43.12 | 0.39 | 40 |
| 50 | 0 58 19.66 | 37.13 | 0.37 | 2 53 26.73 | 39.96 | 0.75 | 4 58 27.43 | 43.12 | 0.38 | 50 |
| 16 0 | 0 58 56.82 | 37.14 | 0.37 | 2 54 6.69 | 39.98 | 0.75 | 4 59 10.55 | 43.14 | 0.38 | 16 0 |

Signs V. and XI.

Signs IV. and X.

Signs III. and IX.

TABLE continued.

| Argu- ment, ☉'s Long. | Signs O and VI. | | | Signs I. and VII. | | | Signs II. and VIII. | | | Argu- ment, ☉'s Long. |
|--------------------------------|--------------------|-------|--------------|----------------------|-------|--------------|------------------------|-------|--------------|--------------------------------|
| | R. A. | Diff. | Sec. Var. | R. A. | Diff. | Sec. Var. | R. A. | Diff. | Sec. Var. | |
| 0 | h | ' | " | h | ' | " | h | ' | " | ° |
| 10 | 0 59 33.96 | 37.16 | 0.37 | 2 54 46.67 | 40.00 | 0.75 | 4 59 53.69 | 43.15 | 0.38 | 50 |
| 20 | 1 0 11.12 | 37.16 | 0.38 | 2 55 26.67 | 40.02 | 0.75 | 5 0 36.84 | 43.15 | 0.37 | 40 |
| 30 | 1 0 48.28 | 37.17 | 0.38 | 2 56 6.69 | 40.05 | 0.75 | 5 1 19.99 | 43.15 | 0.37 | 30 |
| 40 | 1 1 25.45 | 37.19 | 0.39 | 2 56 46.74 | 40.06 | 0.75 | 5 2 3.16 | 43.18 | 0.36 | 20 |
| 50 | 1 2 2.64 | 37.19 | 0.39 | 2 57 26.80 | 40.08 | 0.75 | 5 2 46.34 | 43.19 | 0.36 | 10 |
| 17 0 | 1 2 39.83 | 37.20 | 0.40 | 2 58 6.88 | 40.10 | 0.75 | 5 3 29.53 | 43.20 | 0.36 | 13 0 |
| 10 | 1 3 17.03 | 37.21 | 0.40 | 2 58 46.98 | 40.13 | 0.75 | 5 4 12.73 | 43.21 | 0.35 | 50 |
| 20 | 1 3 54.24 | 37.22 | 0.40 | 2 59 27.11 | 40.14 | 0.75 | 5 4 55.94 | 43.22 | 0.35 | 40 |
| 30 | 1 4 31.46 | 37.23 | 0.41 | 3 0 7.25 | 40.16 | 0.75 | 5 5 39.16 | 43.23 | 0.34 | 30 |
| 40 | 1 5 8.69 | 37.24 | 0.41 | 3 0 47.41 | 40.18 | 0.75 | 5 6 22.39 | 43.24 | 0.34 | 20 |
| 50 | 1 5 45.93 | 37.25 | 0.41 | 3 1 27.59 | 40.21 | 0.75 | 5 7 5.63 | 43.25 | 0.34 | 10 |
| 18 0 | 1 6 23.18 | 37.26 | 0.42 | 3 2 7.80 | 40.22 | 0.75 | 5 7 48.88 | 43.26 | 0.33 | 12 0 |
| 10 | 1 7 0.44 | 37.27 | 0.42 | 3 2 48.02 | 40.25 | 0.75 | 5 8 32.14 | 43.26 | 0.33 | 50 |
| 20 | 1 7 37.71 | 37.29 | 0.42 | 3 3 28.27 | 40.26 | 0.75 | 5 9 15.40 | 43.28 | 0.32 | 40 |
| 30 | 1 8 15.00 | 37.29 | 0.43 | 3 4 8.53 | 40.28 | 0.75 | 5 9 58.68 | 43.29 | 0.32 | 30 |
| 40 | 1 8 52.29 | 37.30 | 0.43 | 3 4 48.81 | 40.31 | 0.75 | 5 10 41.97 | 43.29 | 0.31 | 20 |
| 50 | 1 9 29.59 | 37.32 | 0.43 | 3 5 29.12 | 40.32 | 0.75 | 5 11 25.26 | 43.31 | 0.31 | 10 |
| 19 0 | 1 10 6.91 | 37.32 | 0.44 | 3 6 9.44 | 40.35 | 0.75 | 5 12 8.57 | 43.31 | 0.31 | 11 0 |
| 10 | 1 10 44.23 | 37.33 | 0.44 | 3 6 49.79 | 40.36 | 0.75 | 5 12 51.88 | 43.32 | 0.30 | 50 |
| 20 | 1 11 21.56 | 37.35 | 0.44 | 3 7 30.15 | 40.39 | 0.75 | 5 13 35.20 | 43.34 | 0.30 | 40 |
| 30 | 1 11 58.91 | 37.36 | 0.45 | 3 8 10.54 | 40.40 | 0.75 | 5 14 18.54 | 43.34 | 0.29 | 30 |
| 40 | 1 12 36.27 | 37.37 | 0.45 | 3 8 50.94 | 40.43 | 0.75 | 5 15 1.88 | 43.34 | 0.29 | 20 |
| 50 | 1 13 13.64 | 37.38 | 0.45 | 3 9 31.37 | 40.45 | 0.75 | 5 15 45.22 | 43.36 | 0.28 | 10 |
| 20 0 | 1 13 51.02 | 37.39 | 0.45 | 3 10 11.82 | 40.46 | 0.75 | 5 16 28.58 | 43.36 | 0.28 | 10 0 |
| 10 | 1 14 28.41 | 37.40 | 0.46 | 3 10 52.28 | 40.49 | 0.75 | 5 17 11.94 | 43.37 | 0.27 | 50 |
| 20 | 1 15 5.81 | 37.41 | 0.46 | 3 11 32.77 | 40.50 | 0.75 | 5 17 55.31 | 43.38 | 0.27 | 40 |
| 30 | 1 15 43.22 | 37.43 | 0.47 | 3 12 13.27 | 40.53 | 0.75 | 5 18 38.69 | 43.39 | 0.27 | 30 |
| 40 | 1 16 20.65 | 37.44 | 0.47 | 3 12 53.80 | 40.55 | 0.75 | 5 19 22.08 | 43.40 | 0.26 | 20 |
| 50 | 1 16 58.09 | 37.45 | 0.47 | 3 13 34.35 | 40.57 | 0.75 | 5 20 5.48 | 43.40 | 0.26 | 10 |
| 21 0 | 1 17 35.54 | 37.46 | 0.48 | 3 14 14.92 | 40.59 | 0.75 | 5 20 48.88 | 43.41 | 0.25 | 9 0 |
| 10 | 1 18 13.00 | 37.47 | 0.48 | 3 14 55.51 | 40.60 | 0.75 | 5 21 32.29 | 43.42 | 0.25 | 50 |
| 20 | 1 18 50.47 | 37.48 | 0.48 | 3 15 36.11 | 40.63 | 0.75 | 5 22 15.71 | 43.42 | 0.24 | 40 |
| 30 | 1 19 27.95 | 37.50 | 0.48 | 3 16 16.74 | 40.65 | 0.75 | 5 22 59.13 | 43.43 | 0.24 | 30 |
| 40 | 1 20 5.45 | 37.51 | 0.49 | 3 16 57.39 | 40.67 | 0.74 | 5 23 42.56 | 43.44 | 0.23 | 20 |
| 50 | 1 20 42.96 | 37.52 | 0.49 | 3 17 38.06 | 40.69 | 0.74 | 5 24 26.00 | 43.44 | 0.23 | 10 |
| 22 0 | 1 21 20.48 | 37.53 | 0.49 | 3 18 18.75 | 40.71 | 0.74 | 5 25 9.44 | 43.45 | 0.23 | 8 0 |
| 10 | 1 21 58.01 | 37.55 | 0.50 | 3 18 59.46 | 40.73 | 0.74 | 5 25 52.89 | 43.46 | 0.22 | 50 |
| 20 | 1 22 35.56 | 37.55 | 0.50 | 3 19 40.19 | 40.75 | 0.74 | 5 26 36.35 | 43.46 | 0.22 | 40 |
| 30 | 1 23 13.11 | 37.58 | 0.50 | 3 20 20.94 | 40.77 | 0.74 | 5 27 19.81 | 43.47 | 0.21 | 30 |
| 40 | 1 23 50.69 | 37.58 | 0.51 | 3 21 1.71 | 40.79 | 0.74 | 5 28 3.28 | 43.48 | 0.21 | 20 |
| 50 | 1 24 28.27 | 37.59 | 0.51 | 3 21 42.50 | 40.81 | 0.74 | 5 28 46.76 | 43.48 | 0.20 | 10 |
| 23 0 | 1 25 5.86 | 37.61 | 0.51 | 3 22 23.31 | 40.83 | 0.74 | 5 29 30.24 | 43.49 | 0.20 | 7 0 |
| 10 | 1 25 43.47 | 37.63 | 0.52 | 3 23 4.14 | 40.85 | 0.74 | 5 30 13.73 | 43.49 | 0.19 | 50 |
| 20 | 1 26 21.10 | 37.63 | 0.52 | 3 23 44.99 | 40.87 | 0.74 | 5 30 57.22 | 43.50 | 0.19 | 40 |
| 30 | 1 26 58.73 | 37.65 | 0.52 | 3 24 25.86 | 40.89 | 0.74 | 5 31 40.72 | 43.51 | 0.18 | 30 |
| 40 | 1 27 36.38 | 37.66 | 0.52 | 3 25 6.75 | 40.91 | 0.73 | 5 32 24.23 | 43.51 | 0.18 | 20 |
| 50 | 1 28 14.04 | 37.67 | 0.53 | 3 25 47.66 | 40.93 | 0.73 | 5 33 7.74 | 43.51 | 0.17 | 10 |
| 24 0 | 1 28 51.71 | 37.69 | 0.53 | 3 26 28.59 | 40.95 | 0.73 | 5 33 51.25 | 43.52 | 0.17 | 6 0 |

|| Signs V. and XI. || Signs IV. and X. || Signs III. and IX. ||

TABLE continued.

| Argu- ment. ☉'s Long. | Signs O and VI. | | | Signs I. and VII. | | | Signs II. and VIII. | | | Argu- ment. ☉'s Long. |
|--------------------------------|---------------------|-------|--------------|----------------------|-------|--------------|------------------------|-------|--------------|--------------------------------|
| | R. A. | Diff. | Sec. Var. | R. A. | Diff. | Sec. Var. | R. A. | Diff. | Sec. Var. | |
| ° 10 | h 1 29 29.40 | 37.70 | 0.53 | h 3 27 9.54 | 40.97 | 0.73 | h 5 34 34.77 | 43.52 | 0.17 | ° 50 |
| 20 | 1 30 7.10 | 37.71 | 0.53 | 3 27 50.51 | 41.00 | 0.73 | 5 35 18.29 | 43.53 | 0.16 | 40 |
| 30 | 1 30 44.81 | 37.73 | 0.54 | 3 28 31.51 | 41.01 | 0.73 | 5 36 1.82 | 43.53 | 0.16 | 30 |
| 40 | 1 31 22.54 | 37.74 | 0.54 | 3 29 12.52 | 41.03 | 0.73 | 5 36 45.35 | 43.54 | 0.15 | 20 |
| 50 | 1 32 0.28 | 37.75 | 0.54 | 3 29 53.55 | 41.05 | 0.73 | 5 37 28.89 | 43.54 | 0.15 | 10 |
| 25 0 | 1 32 38.03 | 37.77 | 0.55 | 3 30 34.60 | 41.07 | 0.73 | 5 38 12.43 | 43.55 | 0.14 | 5 0 |
| 10 | 1 33 15.80 | 37.78 | 0.55 | 3 31 15.67 | 41.09 | 0.73 | 5 38 55.98 | 43.55 | 0.14 | 50 |
| 20 | 1 33 53.58 | 37.80 | 0.55 | 3 31 56.76 | 41.11 | 0.72 | 5 39 39.53 | 43.55 | 0.13 | 40 |
| 30 | 1 34 31.38 | 37.81 | 0.56 | 3 32 37.87 | 41.13 | 0.72 | 5 40 23.08 | 43.56 | 0.13 | 30 |
| 40 | 1 35 9.19 | 37.82 | 0.56 | 3 33 19.00 | 41.15 | 0.72 | 5 41 6.64 | 43.56 | 0.12 | 20 |
| 50 | 1 35 47.01 | 37.84 | 0.56 | 3 34 0.15 | 41.17 | 0.72 | 5 41 50.20 | 43.57 | 0.12 | 10 |
| 26 0 | 1 36 24.85 | 37.85 | 0.56 | 3 34 41.32 | 41.19 | 0.72 | 5 42 33.77 | 43.57 | 0.11 | 4 0 |
| 10 | 1 37 2.70 | 37.87 | 0.57 | 3 35 22.51 | 41.21 | 0.72 | 5 43 17.34 | 43.57 | 0.11 | 50 |
| 20 | 1 37 40.57 | 37.88 | 0.57 | 3 36 3.72 | 41.23 | 0.72 | 5 44 0.91 | 43.57 | 0.10 | 40 |
| 30 | 1 38 18.45 | 37.90 | 0.57 | 3 36 44.95 | 41.25 | 0.72 | 5 44 44.48 | 43.58 | 0.10 | 30 |
| 40 | 1 38 56.35 | 37.91 | 0.57 | 3 37 26.20 | 41.27 | 0.71 | 5 45 28.06 | 43.58 | 0.10 | 20 |
| 50 | 1 39 34.26 | 37.92 | 0.58 | 3 38 7.47 | 41.28 | 0.71 | 5 46 11.64 | 43.58 | 0.09 | 10 |
| 27 0 | 1 40 12.18 | 37.94 | 0.58 | 3 38 48.75 | 41.31 | 0.71 | 5 46 55.22 | 43.59 | 0.09 | 3 0 |
| 10 | 1 40 50.12 | 37.95 | 0.58 | 3 39 30.06 | 41.33 | 0.71 | 5 47 38.81 | 43.58 | 0.08 | 50 |
| 20 | 1 41 28.07 | 37.97 | 0.59 | 3 40 11.39 | 41.34 | 0.71 | 5 48 22.39 | 43.59 | 0.08 | 40 |
| 30 | 1 42 6.04 | 37.98 | 0.59 | 3 40 52.73 | 41.37 | 0.71 | 5 49 5.98 | 43.59 | 0.07 | 30 |
| 40 | 1 42 44.02 | 38.00 | 0.59 | 3 41 34.10 | 41.38 | 0.70 | 5 49 49.57 | 43.60 | 0.07 | 20 |
| 50 | 1 43 22.02 | 38.02 | 0.59 | 3 42 15.48 | 41.41 | 0.70 | 5 50 33.17 | 43.59 | 0.06 | 10 |
| 28 0 | 1 44 0.04 | 38.02 | 0.59 | 3 42 56.89 | 41.43 | 0.70 | 5 51 16.76 | 43.60 | 0.06 | 2 0 |
| 10 | 1 44 38.06 | 38.05 | 0.60 | 3 43 38.32 | 41.44 | 0.70 | 5 52 0.36 | 43.60 | 0.05 | 50 |
| 20 | 1 45 16.11 | 38.06 | 0.60 | 3 44 19.76 | 41.46 | 0.70 | 5 52 43.96 | 43.60 | 0.05 | 40 |
| 30 | 1 45 54.17 | 38.07 | 0.60 | 3 45 1.22 | 41.48 | 0.69 | 5 53 27.56 | 43.60 | 0.04 | 30 |
| 40 | 1 46 32.24 | 38.09 | 0.61 | 3 45 42.70 | 41.51 | 0.69 | 5 54 11.16 | 43.60 | 0.04 | 20 |
| 50 | 1 47 10.33 | 38.11 | 0.61 | 3 46 24.21 | 41.52 | 0.69 | 5 54 54.76 | 43.61 | 0.03 | 10 |
| 29 0 | 1 47 48.44 | 38.11 | 0.61 | 3 47 5.73 | 41.54 | 0.69 | 5 55 38.37 | 43.60 | 0.03 | 1 0 |
| 10 | 1 48 26.55 | 38.14 | 0.61 | 3 47 47.27 | 41.56 | 0.69 | 5 56 21.97 | 43.61 | 0.02 | 50 |
| 20 | 1 49 4.69 | 38.15 | 0.62 | 3 48 28.83 | 41.57 | 0.69 | 5 57 5.58 | 43.60 | 0.02 | 40 |
| 30 | 1 49 42.84 | 38.17 | 0.62 | 3 49 10.40 | 41.60 | 0.68 | 5 57 49.18 | 43.61 | 0.01 | 30 |
| 40 | 1 50 21.01 | 38.18 | 0.62 | 3 49 52.00 | 41.62 | 0.68 | 5 58 32.79 | 43.60 | 0.01 | 20 |
| 50 | 1 50 59.19 | 38.20 | 0.62 | 3 50 33.62 | 41.63 | 0.68 | 5 59 16.39 | 43.61 | 0.00 | 10 |
| 30 0 | 1 51 37.39 | | 0.62 | 3 51 15.25 | | 0.68 | 6 0 0.00 | 43.61 | 0.00 | 0 0 |
| | Signs V. and XI. | | | Signs IV. and X. | | | Signs III. and IX. | | | |

N. B. If the ☉'s longitude is between 0 and III. signs, the Table gives the R. A. If between III. and VI. signs, subtract the R. A. as given by the Table from 12 hours, the remainder is the R. A. If between VI. and IX. signs, add 12 hours to the R. A. But if between IX. and XII. signs, subtract the result given by the Table from 24 hours, and the remainder is the R. A.

The secular equation of the ☉'s R. A. is additive if subsequent to 1801, otherwise it is to be subtracted from the R. A. as given by the Table according with the above directions.