

GHA and Declination of the Sun for the Years 2017-2036

| OT 00h | January | | February | | March | | April | | May | | June | | OT 00h |
|-----------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|-----------------------|-----------|
| | E | Dec. | E | Dec. | E | Dec. | E | Dec. | E | Dec. | E | Dec. | |
| 1 | 4 12 ⁻⁷ | S 23 02 ⁻⁵ | 1 38 ⁻² | S 17 13 ⁻¹⁷ | 1 53 ⁺³ | S 07 45 ⁻²² | 3 59 ⁺⁴ | N 04 22 ⁺²³ | 5 42 ⁺² | N 14 57 ⁺¹⁸ | 5 34 ⁻³ | N 21 59 ⁺⁹ | 1 |
| 2 | 4 05 ⁻⁷ | S 22 57 ⁻⁵ | 1 36 ⁻² | S 16 56 ⁻¹⁷ | 1 56 ⁺³ | S 07 23 ⁻²³ | 4 03 ⁺⁵ | N 04 45 ⁺²³ | 5 44 ⁺¹ | N 15 15 ⁺¹⁸ | 5 31 ⁻² | N 22 08 ⁺⁷ | 2 |
| 3 | 3 58 ⁻⁷ | S 22 52 ⁻⁶ | 1 34 ⁻¹ | S 16 39 ⁻¹⁸ | 1 59 ⁺³ | S 07 00 ⁻²³ | 4 08 ⁺⁴ | N 05 08 ⁺²³ | 5 45 ⁺² | N 15 33 ⁺¹⁷ | 5 29 ⁻³ | N 22 15 ⁺⁸ | 3 |
| 4 | 3 51 ⁻⁷ | S 22 46 ⁻⁷ | 1 33 ⁻² | S 16 21 ⁻¹⁸ | 2 02 ⁺⁴ | S 06 37 ⁻²⁴ | 4 12 ⁺⁴ | N 05 31 ⁺²³ | 5 47 ⁺¹ | N 15 50 ⁺¹⁸ | 5 26 ⁻² | N 22 23 ⁺⁷ | 4 |
| 5 | 3 44 ⁻⁷ | S 22 39 ⁻⁶ | 1 31 ⁻¹ | S 16 03 ⁻¹⁸ | 2 06 ⁺³ | S 06 13 ⁻²³ | 4 16 ⁺⁵ | N 05 54 ⁺²³ | 5 48 ⁺² | N 16 08 ⁺¹⁷ | 5 24 ⁻³ | N 22 30 ⁺⁶ | 5 |
| 6 | 3 37 ⁻⁶ | S 22 33 ⁻⁸ | 1 30 ⁻¹ | S 15 45 ⁻¹⁸ | 2 09 ⁺³ | S 05 50 ⁻²³ | 4 21 ⁺⁴ | N 06 17 ⁺²³ | 5 50 ⁺¹ | N 16 25 ⁺¹⁶ | 5 21 ⁻² | N 22 36 ⁺⁶ | 6 |
| 7 | 3 31 ⁻⁷ | S 22 25 ⁻⁷ | 1 29 ⁻¹ | S 15 27 ⁻¹⁹ | 2 12 ⁺⁴ | S 05 27 ⁻²³ | 4 25 ⁺⁴ | N 06 40 ⁺²² | 5 51 ⁺¹ | N 16 41 ⁺¹⁷ | 5 19 ⁻³ | N 22 42 ⁺⁶ | 7 |
| 8 | 3 24 ⁻⁶ | S 22 18 ⁻⁸ | 1 28 ⁺⁰ | S 15 08 ⁻¹⁹ | 2 16 ⁺⁴ | S 05 04 ⁻²⁴ | 4 29 ⁺⁴ | N 07 02 ⁺²³ | 5 52 ⁺¹ | N 16 58 ⁺¹⁶ | 5 16 ⁻³ | N 22 48 ⁺⁵ | 8 |
| 9 | 3 18 ⁻⁶ | S 22 10 ⁻⁹ | 1 28 ⁻¹ | S 14 49 ⁻¹⁹ | 2 20 ⁺³ | S 04 40 ⁻²³ | 4 33 ⁺⁴ | N 07 25 ⁺²² | 5 53 ⁺⁰ | N 17 14 ⁺¹⁶ | 5 13 ⁻³ | N 22 53 ⁺⁵ | 9 |
| 10 | 3 12 ⁻⁶ | S 22 01 ⁻⁹ | 1 27 ⁺⁰ | S 14 30 ⁻²⁰ | 2 23 ⁺⁴ | S 04 17 ⁻²⁴ | 4 37 ⁺⁴ | N 07 47 ⁺²² | 5 53 ⁺¹ | N 17 30 ⁺¹⁶ | 5 10 ⁻³ | N 22 58 ⁺⁵ | 10 |
| 11 | 3 06 ⁻⁶ | S 21 52 ⁻⁹ | 1 27 ⁺⁰ | S 14 10 ⁻²⁰ | 2 27 ⁺⁴ | S 03 53 ⁻²³ | 4 41 ⁺⁴ | N 08 09 ⁺²² | 5 54 ⁺⁰ | N 17 46 ⁺¹⁵ | 5 07 ⁻³ | N 23 03 ⁺⁴ | 11 |
| 12 | 3 00 ⁻⁶ | S 21 43 ⁻¹⁰ | 1 27 ⁺⁰ | S 13 50 ⁻²⁰ | 2 31 ⁺⁴ | S 03 30 ⁻²⁴ | 4 45 ⁺⁴ | N 08 31 ⁺²² | 5 54 ⁺⁰ | N 18 01 ⁺¹⁵ | 5 04 ⁻³ | N 23 07 ⁺⁴ | 12 |
| 13 | 2 54 ⁻⁶ | S 21 33 ⁻¹⁰ | 1 27 ⁺¹ | S 13 30 ⁻²⁰ | 2 35 ⁺⁴ | S 03 06 ⁻²⁴ | 4 49 ⁺⁴ | N 08 53 ⁺²² | 5 54 ⁺¹ | N 18 16 ⁺¹⁵ | 5 01 ⁻³ | N 23 11 ⁺³ | 13 |
| 14 | 2 48 ⁻⁵ | S 21 23 ⁻¹¹ | 1 28 ⁺⁰ | S 13 10 ⁻²⁰ | 2 39 ⁺⁴ | S 02 42 ⁻²³ | 4 53 ⁺⁴ | N 09 15 ⁺²¹ | 5 55 ⁺⁰ | N 18 31 ⁺¹⁵ | 4 58 ⁻⁴ | N 23 14 ⁺³ | 14 |
| 15 | 2 43 ⁻⁵ | S 21 12 ⁻¹¹ | 1 28 ⁺¹ | S 12 50 ⁻²¹ | 2 43 ⁺⁵ | S 02 19 ⁻²⁴ | 4 57 ⁺³ | N 09 36 ⁺²² | 5 55 ⁻¹ | N 18 46 ⁺¹⁴ | 4 54 ⁻³ | N 23 17 ⁺³ | 15 |
| 16 | 2 38 ⁻⁶ | S 21 01 ⁻¹¹ | 1 29 ⁺¹ | S 12 29 ⁻²¹ | 2 48 ⁺⁴ | S 01 55 ⁻²⁴ | 5 00 ⁺⁴ | N 09 58 ⁺²¹ | 5 54 ⁺⁰ | N 19 00 ⁺¹⁴ | 4 51 ⁻³ | N 23 20 ⁺² | 16 |
| 17 | 2 32 ⁻⁴ | S 20 50 ⁻¹² | 1 30 ⁺¹ | S 12 08 ⁻²¹ | 2 52 ⁺⁴ | S 01 31 ⁻²³ | 5 04 ⁺³ | N 10 19 ⁺²¹ | 5 54 ⁺⁰ | N 19 14 ⁺¹³ | 4 48 ⁻³ | N 23 22 ⁺¹ | 17 |
| 18 | 2 28 ⁻⁵ | S 20 38 ⁻¹³ | 1 31 ⁺¹ | S 11 47 ⁻²¹ | 2 56 ⁺⁴ | S 01 08 ⁻²⁴ | 5 07 ⁺⁴ | N 10 40 ⁺²¹ | 5 54 ⁻¹ | N 19 27 ⁺¹³ | 4 45 ⁻³ | N 23 23 ⁺² | 18 |
| 19 | 2 23 ⁻⁵ | S 20 25 ⁻¹² | 1 32 ⁺¹ | S 11 26 ⁻²¹ | 3 00 ⁺⁵ | S 00 44 ⁻²⁴ | 5 11 ⁺³ | N 11 01 ⁺²¹ | 5 53 ⁻¹ | N 19 40 ⁺¹³ | 4 42 ⁻⁴ | N 23 25 ⁺¹ | 19 |
| 20 | 2 18 ⁻⁴ | S 20 13 ⁻¹³ | 1 33 ⁺² | S 11 05 ⁻²² | 3 05 ⁺⁴ | S 00 20 ⁻²⁴ | 5 14 ⁺³ | N 11 22 ⁺²⁰ | 5 52 ⁻¹ | N 19 53 ⁺¹³ | 4 38 ⁻³ | N 23 26 ⁺⁰ | 20 |
| 21 | 2 14 ⁻⁴ | S 20 00 ⁻¹⁴ | 1 35 ⁺² | S 10 43 ⁻²² | 3 09 ⁺⁵ | N 00 04 ⁺²³ | 5 17 ⁺³ | N 11 42 ⁺²¹ | 5 51 ⁻¹ | N 20 06 ⁺¹² | 4 35 ⁻³ | N 23 26 ⁺⁰ | 21 |
| 22 | 2 10 ⁻⁴ | S 19 46 ⁻¹³ | 1 37 ⁺² | S 10 21 ⁻²¹ | 3 14 ⁺⁴ | N 00 27 ⁺²⁴ | 5 20 ⁺³ | N 12 03 ⁺²⁰ | 5 50 ⁻¹ | N 20 18 ⁺¹² | 4 32 ⁻⁴ | N 23 26 ⁺⁰ | 22 |
| 23 | 2 06 ⁻⁴ | S 19 33 ⁻¹⁴ | 1 39 ⁺² | S 10 00 ⁻²² | 3 18 ⁺⁵ | N 00 51 ⁺²⁴ | 5 23 ⁺³ | N 12 23 ⁺²⁰ | 5 49 ⁻¹ | N 20 30 ⁺¹¹ | 4 28 ⁻³ | N 23 26 ⁻¹ | 23 |
| 24 | 2 02 ⁻⁴ | S 19 19 ⁻¹⁵ | 1 41 ⁺² | S 09 38 ⁻²³ | 3 23 ⁺⁴ | N 01 15 ⁺²³ | 5 26 ⁺² | N 12 43 ⁺²⁰ | 5 48 ⁻¹ | N 20 41 ⁺¹¹ | 4 25 ⁻³ | N 23 25 ⁻¹ | 24 |
| 25 | 1 58 ⁻³ | S 19 04 ⁻¹⁵ | 1 43 ⁺² | S 09 15 ⁻²² | 3 27 ⁺⁵ | N 01 38 ⁺²⁴ | 5 28 ⁺³ | N 13 03 ⁺¹⁹ | 5 47 ⁻² | N 20 52 ⁺¹¹ | 4 22 ⁻³ | N 23 24 ⁻² | 25 |
| 26 | 1 55 ⁻⁴ | S 18 49 ⁻¹⁵ | 1 45 ⁺³ | S 08 53 ⁻²² | 3 32 ⁺⁴ | N 02 02 ⁺²³ | 5 31 ⁺² | N 13 22 ⁺²⁰ | 5 45 ⁻¹ | N 21 03 ⁺¹⁰ | 4 19 ⁻³ | N 23 22 ⁻² | 26 |
| 27 | 1 51 ⁻³ | S 18 34 ⁻¹⁵ | 1 48 ⁺³ | S 08 31 ⁻²³ | 3 36 ⁺⁵ | N 02 25 ⁺²⁴ | 5 33 ⁺³ | N 13 42 ⁺¹⁹ | 5 44 ⁻² | N 21 13 ⁺¹⁰ | 4 16 ⁻³ | N 23 20 ⁻² | 27 |
| 28 | 1 48 ⁻³ | S 18 19 ⁻¹⁶ | 1 50 ⁺³ | S 08 08 ⁻²³ | 3 41 ⁺⁴ | N 02 49 ⁺²³ | 5 36 ⁺² | N 14 01 ⁺¹⁹ | 5 42 ⁻² | N 21 23 ⁺¹⁰ | 4 13 ⁻⁴ | N 23 18 ⁻³ | 28 |
| 29 | 1 46 ⁻³ | S 18 03 ⁻¹⁶ | 1 53 ⁰ | S 07 45 ⁰ | 3 45 ⁺⁵ | N 03 12 ⁺²⁴ | 5 38 ⁺² | N 14 20 ⁺¹⁸ | 5 40 ⁻² | N 21 33 ⁺⁹ | 4 09 ⁻³ | N 23 15 ⁻³ | 29 |
| 30 | 1 43 ⁻³ | S 17 47 ⁻¹⁷ | | | 3 50 ⁺⁴ | N 03 36 ⁺²³ | 5 40 ⁺² | N 14 38 ⁺¹⁹ | 5 38 ⁻² | N 21 42 ⁺⁹ | 4 06 ⁻² | N 23 12 ⁻⁴ | 30 |
| 31 | 1 40 ⁻² | S 17 30 ⁻¹⁷ | | | 3 54 ⁺⁵ | N 03 59 ⁺²³ | | | 5 36 ⁻² | N 21 51 ⁺⁸ | | | 31 |

| OT 00h | July | | August | | September | | October | | November | | December | | OT 00h |
|-----------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|-----------|
| | E | Dec. | E | Dec. | E | Dec. | E | Dec. | E | Dec. | E | Dec. | |
| 1 | 4 04 ⁻³ | N 23 08 ⁻⁴ | 3 24 ⁺¹ | N 18 07 ⁻¹⁵ | 4 56 ⁺⁵ | N 08 26 ⁻²² | 7 32 ⁺⁵ | S 03 01 ⁺²³ | 9 06 ⁺⁰ | S 14 17 ⁺¹⁹ | 7 49 ⁻⁶ | S 21 43 ⁺¹⁰ | 1 |
| 2 | 4 01 ⁻³ | N 23 04 ⁻⁵ | 3 25 ⁺¹ | N 17 52 ⁻¹⁵ | 5 01 ⁺⁵ | N 08 04 ⁻²² | 7 37 ⁺⁴ | S 03 24 ⁺²³ | 9 06 ⁺¹ | S 14 36 ⁺¹⁹ | 7 43 ⁻⁵ | S 21 53 ⁺⁹ | 2 |
| 3 | 3 58 ⁻³ | N 22 59 ⁻⁵ | 3 26 ⁺¹ | N 17 37 ⁻¹⁶ | 5 06 ⁺⁵ | N 07 42 ⁻²² | 7 41 ⁺⁵ | S 03 47 ⁺²³ | 9 07 ⁺⁰ | S 14 55 ⁺¹⁹ | 7 38 ⁻⁶ | S 22 02 ⁺⁸ | 3 |
| 4 | 3 55 ⁻³ | N 22 54 ⁻⁵ | 3 27 ⁺² | N 17 21 ⁻¹⁶ | 5 11 ⁺⁵ | N 07 20 ⁻²² | 7 46 ⁺⁵ | S 04 10 ⁺²⁴ | 9 07 ⁺⁰ | S 15 14 ⁺¹⁸ | 7 32 ⁻⁶ | S 22 10 ⁺⁸ | 4 |
| 5 | 3 52 ⁻³ | N 22 49 ⁻⁵ | 3 29 ⁺¹ | N 17 05 ⁻¹⁶ | 5 16 ⁺⁵ | N 06 58 ⁻²² | 7 51 ⁺⁴ | S 04 34 ⁺²³ | 9 07 ⁻¹ | S 15 32 ⁺¹⁸ | 7 26 ⁻⁶ | S 22 18 ⁺⁸ | 5 |
| 6 | 3 50 ⁻³ | N 22 44 ⁻⁶ | 3 30 ⁺² | N 16 49 ⁻¹⁷ | 5 21 ⁺⁵ | N 06 36 ⁻²² | 7 55 ⁺⁵ | S 04 57 ⁺²³ | 9 06 ⁺⁰ | S 15 50 ⁺¹⁸ | 7 20 ⁻⁷ | S 22 26 ⁺⁷ | 6 |
| 7 | 3 47 ⁻² | N 22 38 ⁻⁷ | 3 32 ⁺² | N 16 32 ⁻¹⁷ | 5 26 ⁺⁵ | N 06 14 ⁻²³ | 8 00 ⁺⁴ | S 05 20 ⁺²³ | 9 06 ⁻¹ | S 16 08 ⁺¹⁸ | 7 13 ⁻⁶ | S 22 33 ⁺⁷ | 7 |
| 8 | 3 45 ⁻² | N 22 31 ⁻⁷ | 3 34 ⁺² | N 16 15 ⁻¹⁷ | 5 31 ⁺⁵ | N 05 51 ⁻²² | 8 04 ⁺⁴ | S 05 43 ⁺²³ | 9 05 ⁻¹ | S 16 26 ⁺¹⁷ | 7 07 ⁻⁷ | S 22 40 ⁺⁶ | 8 |
| 9 | 3 43 ⁻³ | N 22 24 ⁻⁷ | 3 36 ⁺² | N 15 58 ⁻¹⁷ | 5 36 ⁺⁶ | N 05 29 ⁻²³ | 8 08 ⁺⁴ | S 06 06 ⁺²² | 9 04 ⁻² | S 16 43 ⁺¹⁸ | 7 00 ⁻⁶ | S 22 46 ⁺⁶ | 9 |
| 10 | 3 40 ⁻² | N 22 17 ⁻⁸ | 3 38 ⁺² | N 15 41 ⁻¹⁷ | 5 42 ⁺⁵ | N 05 06 ⁻²³ | 8 12 ⁺⁴ | S 06 28 ⁺²³ | 9 02 ⁻¹ | S 17 01 ⁺¹⁶ | 6 54 ⁻⁷ | S 22 52 ⁺⁵ | 10 |
| 11 | 3 38 ⁻² | N 22 09 ⁻⁸ | 3 40 ⁺² | N 15 24 ⁻¹⁸ | 5 47 ⁺⁵ | N 04 43 ⁻²² | 8 16 ⁺⁴ | S 06 51 ⁺²³ | 9 01 ⁻² | S 17 17 ⁺¹⁷ | 6 47 ⁻⁷ | S 22 57 ⁺⁵ | 11 |
| 12 | 3 36 ⁻² | N 22 01 ⁻⁸ | 3 42 ⁺³ | N 15 06 ⁻¹⁸ | 5 52 ⁺⁵ | N 04 21 ⁻²³ | 8 20 ⁺⁴ | S 07 14 ⁺²² | 8 59 ⁻¹ | S 17 34 ⁺¹⁶ | 6 40 ⁻⁷ | S 23 02 ⁺⁵ | 12 |
| 13 | 3 34 ⁻¹ | N 21 53 ⁻⁹ | 3 45 ⁺³ | N 14 48 ⁻¹⁹ | 5 57 ⁺⁶ | N 03 58 ⁻²³ | 8 24 ⁺⁴ | S 07 36 ⁺²³ | 8 58 ⁻³ | S 17 50 ⁺¹⁶ | 6 33 ⁻⁷ | S 23 07 ⁺⁴ | 13 |
| 14 | 3 33 ⁻² | N 21 44 ⁻⁹ | 3 48 ⁺² | N 14 29 ⁻¹⁸ | 6 03 ⁺⁵ | N 03 35 ⁻²³ | 8 28 ⁺³ | S 07 59 ⁺²² | 8 55 ⁻² | S 18 06 ⁺¹⁶ | 6 26 ⁻⁷ | S 23 11 ⁺³ | 14 |
| 15 | 3 31 ⁻² | N 21 35 ⁻⁹ | 3 50 ⁺³ | N 14 11 ⁻¹⁹ | 6 08 ⁺⁵ | N 03 12 ⁻²³ | 8 31 ⁺³ | S 08 21 ⁺²² | 8 53 ⁻² | S 18 22 ⁺¹⁵ | 6 19 ⁻⁸ | S 23 14 ⁺³ | 15 |
| 16 | 3 29 ⁻¹ | N 21 26 ⁻¹⁰ | 3 53 ⁺³ | N 13 52 ⁻¹⁹ | 6 13 ⁺⁶ | N 02 49 ⁻²³ | 8 34 ⁺⁴ | S 08 43 ⁺²² | 8 51 ⁻³ | S 18 37 ⁺¹⁵ | 6 11 ⁻⁷ | S 23 17 ⁺³ | 16 |
| 17 | 3 28 ⁻¹ | N 21 16 ⁻¹⁰ | 3 56 ⁺⁴ | N 13 33 ⁻¹⁹ | 6 19 ⁺⁵ | N 02 26 ⁻²⁴ | 8 38 ⁺³ | S 09 05 ⁺²² | 8 48 ⁻³ | S 18 52 ⁺¹⁵ | 6 04 ⁻⁷ | S 23 20 ⁺² | 17 |
| 18 | 3 27 ⁻¹ | N 21 06 ⁻¹¹ | 4 00 ⁺³ | N 13 14 ⁻¹⁹ | 6 24 ⁺⁵ | N 02 02 ⁻²³ | 8 41 ⁺³ | S 09 27 ⁺²² | 8 45 ⁻³ | S 19 07 ⁺¹⁴ | 5 57 ⁻⁸ | S 23 22 ⁺² | 18 |
| 19 | 3 26 ⁻¹ | N 20 55 ⁻¹¹ | 4 03 ⁺³ | N 12 55 ⁻²⁰ | 6 29 ⁺⁶ | N 01 39 ⁻²³ | 8 44 ⁺² | S 09 49 ⁺²¹ | 8 42 ⁻³ | S 19 21 ⁺¹⁴ | 5 49 ⁻⁷ | S 23 24 ⁺¹ | 19 |
| 20 | 3 25 ⁻¹ | N 20 44 ⁻¹¹ | 4 06 ⁺⁴ | N 12 35 ⁻²⁰ | 6 35 ⁺⁵ | N 01 16 ⁻²³ | 8 46 ⁺³ | S 10 10 ⁺²² | 8 39 ⁻⁴ | S 19 35 ⁺¹³ | 5 42 ⁻⁷ | S 23 25 ⁺¹ | 20 |
| 21 | 3 24 ⁻¹ | N 20 33 ⁻¹² | 4 10 ⁺⁴ | N 12 15 ⁻²⁰ | 6 40 ⁺⁵ | N 00 53 ⁻²⁴ | 8 49 ⁺² | S 10 32 ⁺²¹ | 8 35 ⁻⁴ | S 19 48 ⁺¹⁴ | 5 35 ⁻⁸ | S 23 26 ⁺⁰ | 21 |
| 22 | 3 23 ⁻¹ | N 20 21 ⁻¹² | 4 14 ⁺⁴ | N 11 55 ⁻²⁰ | 6 45 ⁺⁶ | N 00 29 ⁻²³ | 8 51 ⁺³ | S 10 53 ⁺²² | 8 31 ⁻⁴ | S 20 02 ⁺¹² | 5 27 ⁻⁷ | S 23 26 ⁺⁰ | 22 |
| 23 | 3 22 ⁺⁰ | N 20 09 ⁻¹² | 4 18 ⁺³ | N 11 35 ⁻²⁰ | 6 51 ⁺⁵ | N 00 06 ⁻²³ | 8 54 ⁺² | S 11 15 ⁺²¹ | 8 27 ⁻⁴ | S 20 14 ⁺¹³ | 5 20 ⁻⁸ | S 23 26 ⁻¹ | 23 |
| 24 | 3 22 ⁺⁰ | N 19 57 ⁻¹³ | 4 21 ⁺⁵ | N 11 15 ⁻²¹ | 6 56 ⁺⁵ | S 00 17 ⁺²⁴ | 8 56 ⁺² | S 11 36 ⁺²⁰ | 8 23 ⁻⁴ | S 20 27 ⁺¹² | 5 12 ⁻⁷ | S 23 25 ⁻¹ | 24 |
| 25 | 3 22 ⁺⁰ | N 19 44 ⁻¹² | 4 26 ⁺⁴ | N 10 54 ⁻²⁰ | 7 01 ⁺⁵ | S 00 41 ⁺²³ | 8 58 ⁺¹ | S 11 56 ⁺²¹ | 8 19 ⁻⁵ | S 20 39 ⁺¹² | | | |

