

2019 - March

Calendar for Mauna Kea - Hawai'i

2019 - March

Longitude: W 155 28  
Latitude : N 19 50

Height: 4215m  
Time Zone: -10h 00m

Zone Time = UT - 10h 00m

| Date    | J.D. at<br>Oh UT<br>245 | LMST<br>at Oh UT<br>h m s | Moon  |       | Moon Transit<br>Dec. Phase<br>o ' o | Morning     |             |             | Sun   |       | Evening     |             |             |       |
|---------|-------------------------|---------------------------|-------|-------|-------------------------------------|-------------|-------------|-------------|-------|-------|-------------|-------------|-------------|-------|
|         |                         |                           | Rise  | Set   |                                     | Astr. Twil. | Naut. Twil. | Civil Twil. | Rise  | Set   | Civil Twil. | Naut. Twil. | Astr. Twil. |       |
|         |                         |                           | h m   | h m   |                                     | h m         | h m         | h m         | h m   | h m   | h m         | h m         | h m         | h m   |
| Fri 1   | 8543.5                  | 00 12 10                  | 03 14 | 14 52 | -22 06                              | 0.20        | 05 28       | 05 54       | 06 19 | 06 32 | 18 37       | 18 49       | 19 15       | 19 40 |
| Sat 2   | 8544.5                  | 00 16 07                  | 04 01 | 15 42 | -21 02                              | 0.13        | 05 28       | 05 53       | 06 19 | 06 31 | 18 37       | 18 50       | 19 15       | 19 41 |
| Sun 3   | 8545.5                  | 00 20 04                  | 04 46 | 16 32 | -19 00                              | 0.07        | 05 27       | 05 52       | 06 18 | 06 30 | 18 38       | 18 50       | 19 15       | 19 41 |
| Mon 4   | 8546.5                  | 00 24 00                  | 05 28 | 17 22 | -16 08                              | 0.03        | 05 26       | 05 52       | 06 17 | 06 29 | 18 38       | 18 50       | 19 16       | 19 41 |
| Tues 5  | 8547.5                  | 00 27 57                  | 06 07 | 18 12 | -12 35                              | 0.01        | 05 25       | 05 51       | 06 16 | 06 29 | 18 38       | 18 50       | 19 16       | 19 42 |
| Wed 6   | 8548.5                  | 00 31 53                  | 06 44 | 19 01 | -08 29                              | 0.00        | 05 25       | 05 50       | 06 16 | 06 28 | 18 39       | 18 51       | 19 16       | 19 42 |
| Thur 7  | 8549.5                  | 00 35 50                  | 07 20 | 19 50 | -04 01                              | 0.02        | 05 24       | 05 49       | 06 15 | 06 27 | 18 39       | 18 51       | 19 17       | 19 42 |
| Fri 8   | 8550.5                  | 00 39 46                  | 07 56 | 20 39 | +00 39                              | 0.05        | 05 23       | 05 49       | 06 14 | 06 26 | 18 39       | 18 51       | 19 17       | 19 42 |
| Sat 9   | 8551.5                  | 00 43 43                  | 08 32 | 21 30 | +05 21                              | 0.11        | 05 22       | 05 48       | 06 13 | 06 26 | 18 40       | 18 52       | 19 17       | 19 43 |
| Sun 10  | 8552.5                  | 00 47 39                  | 09 09 | 22 22 | +09 53                              | 0.18        | 05 21       | 05 47       | 06 12 | 06 25 | 18 40       | 18 52       | 19 18       | 19 43 |
| Mon 11  | 8553.5                  | 00 51 36                  | 09 49 | 23 16 | +14 01                              | 0.26        | 05 21       | 05 46       | 06 12 | 06 24 | 18 40       | 18 52       | 19 18       | 19 43 |
| Tues 12 | 8554.5                  | 00 55 32                  | 10 32 | .. .. | +17 32                              | 0.36        | 05 20       | 05 45       | 06 11 | 06 23 | 18 40       | 18 53       | 19 18       | 19 44 |
| Wed 13  | 8555.5                  | 00 59 29                  | 11 19 | 00 12 | +20 09                              | 0.47        | 05 19       | 05 44       | 06 10 | 06 22 | 18 41       | 18 53       | 19 18       | 19 44 |
| Thur 14 | 8556.5                  | 01 03 26                  | 12 12 | 01 10 | +21 36                              | 0.59        | 05 18       | 05 44       | 06 09 | 06 21 | 18 41       | 18 53       | 19 19       | 19 44 |
| Fri 15  | 8557.5                  | 01 07 22                  | 13 09 | 02 09 | +21 37                              | 0.70        | 05 17       | 05 43       | 06 08 | 06 21 | 18 41       | 18 54       | 19 19       | 19 45 |
| Sat 16  | 8558.5                  | 01 11 19                  | 14 11 | 03 08 | +20 05                              | 0.80        | 05 16       | 05 42       | 06 07 | 06 20 | 18 42       | 18 54       | 19 19       | 19 45 |
| Sun 17  | 8559.5                  | 01 15 15                  | 15 15 | 04 04 | +17 03                              | 0.89        | 05 16       | 05 41       | 06 07 | 06 19 | 18 42       | 18 54       | 19 20       | 19 45 |
| Mon 18  | 8560.5                  | 01 19 12                  | 16 21 | 04 57 | +12 43                              | 0.96        | 05 15       | 05 40       | 06 06 | 06 18 | 18 42       | 18 54       | 19 20       | 19 46 |
| Tues 19 | 8561.5                  | 01 23 08                  | 17 25 | 05 48 | .. ..                               | ....        | 05 14       | 05 39       | 06 05 | 06 17 | 18 42       | 18 55       | 19 20       | 19 46 |
| Wed 20  | 8562.5                  | 01 27 05                  | 18 28 | 06 35 | +07 28                              | 0.99        | 05 13       | 05 38       | 06 04 | 06 16 | 18 43       | 18 55       | 19 20       | 19 46 |
| Thur 21 | 8563.5                  | 01 31 01                  | 19 30 | 07 20 | +01 45                              | 1.00        | 05 12       | 05 38       | 06 03 | 06 15 | 18 43       | 18 55       | 19 21       | 19 46 |
| Fri 22  | 8564.5                  | 01 34 58                  | 20 30 | 08 04 | -04 01                              | 0.97        | 05 11       | 05 37       | 06 02 | 06 14 | 18 43       | 18 55       | 19 21       | 19 47 |
| Sat 23  | 8565.5                  | 01 38 55                  | 21 29 | 08 48 | -09 24                              | 0.91        | 05 10       | 05 36       | 06 01 | 06 14 | 18 43       | 18 56       | 19 21       | 19 47 |
| Sun 24  | 8566.5                  | 01 42 51                  | 22 27 | 09 33 | -14 05                              | 0.84        | 05 09       | 05 35       | 06 01 | 06 13 | 18 44       | 18 56       | 19 22       | 19 47 |
| Mon 25  | 8567.5                  | 01 46 48                  | 23 23 | 10 19 | -17 51                              | 0.75        | 05 08       | 05 34       | 06 00 | 06 12 | 18 44       | 18 56       | 19 22       | 19 48 |
| Tues 26 | 8568.5                  | 01 50 44                  | .. .. | 11 07 | -20 32                              | 0.65        | 05 07       | 05 33       | 05 59 | 06 11 | 18 44       | 18 57       | 19 22       | 19 48 |
| Wed 27  | 8569.5                  | 01 54 41                  | 00 17 | 11 56 | -22 04                              | 0.55        | 05 06       | 05 32       | 05 58 | 06 10 | 18 45       | 18 57       | 19 23       | 19 48 |
| Thur 28 | 8570.5                  | 01 58 37                  | 01 09 | 12 46 | -22 27                              | 0.45        | 05 06       | 05 31       | 05 57 | 06 09 | 18 45       | 18 57       | 19 23       | 19 49 |
| Fri 29  | 8571.5                  | 02 02 34                  | 01 58 | 13 37 | -21 43                              | 0.35        | 05 05       | 05 30       | 05 56 | 06 08 | 18 45       | 18 57       | 19 23       | 19 49 |
| Sat 30  | 8572.5                  | 02 06 30                  | 02 44 | 14 27 | -19 59                              | 0.26        | 05 04       | 05 30       | 05 55 | 06 08 | 18 45       | 18 58       | 19 23       | 19 49 |
| Sun 31  | 8573.5                  | 02 10 27                  | 03 26 | 15 17 | -17 22                              | 0.18        | 05 03       | 05 29       | 05 54 | 06 07 | 18 46       | 18 58       | 19 24       | 19 50 |