

Astronomy News

Night Sky 2021 - January

Sunrise	Sunset	Mercury Sets	Venus Rises
1 st – 8:14am 10 th – 8:11am 20 th – 8:03am 30 th – 7:50am	1 st – 4:15pm 10 th – 4:26pm 20 th – 4:41pm 30 th – 4:59pm	5 th – 4:51pm 10 th – 5:18pm 20 th – 6:12pm 30 th – 6:25pm	1 st – 6:48am 10 th – 7:06am 20 th – 7:19am 30 th – 7:24am
Moon Rise	Moon Set	Moon Rise	Moon Set
----- 1 st – 6:39pm 2 nd – 7:56pm 3 rd – 9:15pm (ENE) 4 th – 10:34pm 5 th – 11:54pm (E) 7 th – 1:14am 8 th – 2:37am (ESE) 9 th – 4:01am 10 th – 5:25am 11 th – 6:44am 12 th – 7:52am 13 th – 8:46am 14 th – 9:26am 15 th – 9:56am 16 th – 10:19am (ESE) 17 th – 10:37am 18 th – 10:53am 19 th – 11:08am (E)	1 st – 10:12am 2 nd – 10:43am 3 rd – 11:07am (WNW) 4 th – 11:28am 5 th – 11:46am 6 th – 12:04pm (W) 7 th – 12:23pm 8 th – 12:44pm (WSW) 9 th – 1:11pm 10 th – 1:45pm 11 th – 2:30pm 12 th – 3:28pm 13 th – 4:38pm 14 th – 5:54pm 15 th – 7:11pm 16 th – 8:25pm (WSW) 17 th – 9:37pm 18 th – 10:46pm (W) 19 th – 11:54pm	20 th – 11:23am 21 st – 11:39am 22 nd – 11:57am (ENE) 23 rd – 12:20pm 24 th – 12:48pm 25 th – 1:24pm 26 th – 2:12pm 27 th – 3:12pm 28 th – 4:22pm 29 th – 5:40pm 30 th – 7:00pm (ENE) 31 st – 8:21pm ----- All times in notes are set for Somerton unless stated	21 st – 1:02am 22 nd – 2:09am (WNW) 23 rd – 3:17am 24 th – 4:26am 25 th – 5:32am 26 th – 6:33am 27 th – 7:26am 28 th – 8:09am 29 th – 8:43am 30 th – 9:10am (WNW) 31 st – 9:33am ----- Moon Phases Last Quarter – 6 th New Moon – 13 th First Quarter – 20 th Full Moon – 28 th
A useful site: www.heavens-above.com	A S Zielonka		

[At midnight on the 1st](#) the star Epsilon Leonis (2.9 mag) in Leo is 7 degrees to the left of the Moon in the south east... and [at 6:05am on the 2nd](#) the stars Rasalas (3.8 mag) and Epsilon Leonis point the way to the moon in the south west.

From the 1st – 10th Comet C/2020 M3 Atlas (9.4 mag – Dec 9th) passes close to the star Capella (0 mag). [On the 3rd at 8:00pm](#) they are high in the west, with Comet Atlas is just ½ a degree above Capella.

[On the 2nd at 9:00pm](#) the star Eta Leonis (3.4 mag) in Leo is ¾ of a degree above the Moon in the ENE... and [at 6:00am on the 3rd](#) with the star Regulus, all three form an equilateral triangle. Eta Leonis is to the right of the Moon.

The Quadrantids meteor shower reaches its peak on the 2nd/3rd though they can be seen from the 1st – 5th.

[At midnight on the 3rd](#) the star Chertan (3.3 mag) in Leo is 4 degrees to the left of the Moon and 2½ degrees above... and [at 6:00am on the 4th](#) the star Iota Leonis (4 mag) is 2 degrees above left of the Moon.

On the night of [the 5th at 1:00am](#) the star Porrima (2.7 mag) in Virgo is 2½ degrees upper right of the Moon.

From the 5th – 20th Comet C/2020 P1 Neowise (11.5 mag – Nov 28th) passes close to the star Unukalhai (2.6 mag) in Serpens. On the 10th at 6:00am Neowise is just ½ a degree below right of Unukalhai. The crescent Moon is directly below them near the horizon in the south east.

At 6:00am on the 7th the star Spica (0.9 mag) in Virgo is 7 degrees to the right of the Moon and 2½ degrees below.

On the 8th at 6:00am the star Zubenelgenubi (2.7 mag) in Libra is [3 degrees below the crescent](#) Moon and ½ a degree to the left.

At 6:30am on the 9th the star Acrab (2.5 mag) in Scorpius is 5½ degrees to the lower left of the crescent Moon. The moon is at perigee (367,387km) [at 3:37pm](#).

From the 9th – 12th Mercury passes close to Jupiter and Saturn. On the 10th at 5:00pm Jupiter, Saturn and Mercury will be low in the south west. Jupiter is 4½ degrees above the horizon at 231 degrees azimuth. Mercury is 2 degrees below Jupiter. Saturn is 2¼ degrees to the lower right of Jupiter and 1¾ degrees slightly upper right of Mercury. On the 11th Mercury is 1½ degrees to the lower left of Jupiter. On the 12th Mercury is 2 degrees to the left of Jupiter.

On the 10th at 6:45am the star Antares (1 mag) in Scorpius is 5 degrees to the lower right of a thin crescent Moon.

At 7:30am on the 11th a very thin crescent Moon maybe seen low in the south east 6½ degrees to the right of Venus. The Moon is 4 degrees above the horizon at 139.5 degrees azimuth and Venus just 2 ½ degrees above the horizon at 133 degrees azimuth.

[On the 14th at 5:00pm](#) the crescent Moon is due south west at 225 degrees azimuth with Mercury 4 ½ degrees to its right. Jupiter is 4¼ degrees to the lower right of Mercury, with Saturn 1½ degrees above the horizon at 235.5 degrees azimuth, and just 2¾ degrees lower right of Jupiter.

Pluto is at superior conjunction on the 14th.

[At 5:00pm on the 15th](#) the star Delta Capricorni (2.8 mag) in Capricornus is 4 degrees to the right of the Moon.

[On the 16th at 5:00pm](#) the star Tau Aquarii (4 mag) in Aquarius is 1 degree to the lower right of the Moon.

[At 5:00pm on the 17th](#) Neptune is 5½ degrees to the right of the Moon and 3 degrees above.

From the 17th – 23rd the asteroid 39 Laetitia (10.4 mag) passes close to the star Meissa (3.3 mag) in Orion. During the evenings of the 20th and 21st Laetitia will be ½ a degree from Meissa.

[On the 18th at 5:00pm](#) the star Iota Ceti (3.5 mag) in Cetus is 5½ degrees below the Moon and 1¼ degrees to the right.

Mercury is at perihelion on the 19th.

From the 19th – 22nd the asteroid 8 Flora (10.1 mag) passes close to the star Mu Ceti (4.2 mag) in Cetus. On the 20th Flora is ¾ of a degree from Mu Ceti and [on the 21st at 8:00pm](#) Flora will be approximately midway between Mu Ceti and the Moon.

[At midnight on the 20th](#) Mars is 7 degrees above the Moon and 2 degrees to the right. Uranus is 6¼ degrees above the Moon and just ½ a degree to the right. Uranus is 1½ degrees to the lower left of the Moon.

The moon is at apogee (404,360km) [on the 21st at 1:11pm](#). [At 8:30pm](#) Mars is 7 degrees to the right of the Moon with Uranus 1½ degrees below Mars and ¾ of a degree to the left.

From the 21st – 26th Comet C/2020 S3 Erasmus (5.6 mag – Dec 9th) passes close to the star Albali (3.7 mag) in Aquarius. [On the 24th at 5:30pm](#) Comet Erasmus will be midway between Albali and 102624 “Hipparcus Cat ID” (4.4 mag) will be low in the WSW and just 5 degrees above the horizon at 252 degrees azimuth.

From the 22nd – 25th Mercury passes close to the star Delta Capricorni (2.8 mag) in Capricornus. [On the 24th at 5:30pm](#) Mercury will be 2¾ degrees above right of Delta Capricorni which is 6½ degrees above the horizon at 235 degrees azimuth.

[On the 22nd at 8:30pm](#) the star 16369 “Hipparcus ID” (4.1 mag) in Taurus is 3 degrees below the Moon and 1 degree to the left.

[At 11:30pm on the 23rd](#) the star Ain (3.5 mag) in Taurus is 1½ degrees to the left of the Moon.

Mercury reaches maximum eastern elongation on the 24th.

Saturn is at superior conjunction on the 24th.

From the 25th – 31st Comet 88P Howell (9.1 mag – Dec 9th) passes close to Neptune. [At 6:00pm on the 28th](#) Howell will be 1½ degrees to the lower left of Neptune. Neptune is 2½ degrees to the left of the star Phi Aquarii (4.2 mag) in Aquarius and 1 degree above.

[On the 25th at midnight](#) the star Propus (3.3 mag) in Gemini is 1¾ degrees to the left of the Moon and 1 degree below. Mu Geminorum is 3¼ degrees to the left of the Moon.

[At midnight on the 26th](#) the star Wasat (3.5 mag) in Gemini is 3½ degrees to the left of the Moon and 1 degree below.

[On the 27th at 8:00pm](#) the stars Castor (1.5 mag) and Pollux (1.1 mag) in Gemini point the way to the Moon.

[At 6:00pm on the 28th](#) the Beehive star cluster is 2¾ degrees to the right of the Moon.

[On the 29th at midnight](#) the star Eta Leonis (3.4 mag) in Leo is 2 degrees to the left of the Moon and ¾ degree below.

Jupiter is at superior conjunction on the 29th.

[At 11:30pm on the 30th](#) the star Chertan (3.3 mag) in Leo is 6¼ degrees to the left of the Moon.

[On the 31st at 11:30pm](#) the star Denebola (2.1 mag) in Leo is 8 degrees to the upper left of the Moon.

* = Dates and times are subject to change.

News: **Solar Orbiter:** The science payload is composed of 10 instruments.

10/10) SoloHI – Solar Orbiter Heliospheric Imager (United States): Images both the quasi-steady flow and transient disturbances in the solar wind over a wide field of view by observing visible sunlight scattered by solar wind electrons. SoloHi provides unique measurements to pinpoint coronal mass ejections (CMEs).

News: The planned launch date (at present) of the James Webb Space Telescope is October 31st.

Facts: On December 12th 1967, NASA launched the Pioneer 8 spacecraft on a mission to study the Sun and interplanetary space. It sent back data for nearly 30years.