

## Astronomy News

### Night Sky 2021 – February

Sunrise	Sunset	Mercury Rises	Venus Rises
1st – 7:48am 10th – 7:33am 20th – 7:14am 28th – 6:57am	1st – 5:02pm 10th – 5:18pm 20th – 5:36pm 28th – 5:50pm	14th – 6:42am 20th – 6:18am 24th – 6:10am 28th – 6:04am	1st – 7:23am 5th – 7:22am Its unlikely you will see Venus this month
Moon Rise	Moon Set	Moon Rise	Moon Set
----- 1st – 9:42pm (E) 2nd – 11:04pm 4th – 12:25am 5th – 1:48am (ESE) 6th – 3:10am 7th – 4:29am 8th – 5:40am 9th – 6:38am 10th – 7:22am 11th – 7:55am 12th – 8:21am (ESE) 13th – 8:41am 14th – 8:58am 15th – 9:13am (E) 16th – 9:28am 17th – 9:43am 18th – 10:00am (ENE)	1st - 9:52am 2nd – 10:10am (W) 3rd – 10:28am 4th – 10:49am (WSW) 5th – 11:13am 6th – 11:43am 7th – 12:23pm 8th – 1:15pm 9th – 2:19pm 10th – 3:32pm 11th – 4:48pm 12th – 6:04pm (WSW) 13th – 7:18pm 14th – 8:29pm 15th – 9:38pm (W) 16th – 10:46pm 17th – 11:54pm (WNW) 19th – 1:02am	19th – 10:20am 20th – 10:45am 21st – 11:17am 22nd – 11:59am 23rd – 12:53pm 24th – 1:59pm 25th – 3:15pm 26th – 4:36pm (ENE) 27th – 5:59pm 28th – 7:23pm ----- All times in notes are set for <b>Somerton</b> unless stated	20th – 2:10am 21st – 3:17am 22nd – 4:20am 23rd – 5:16am 24th – 6:03am 25th – 6:41am 26th – 7:11am 27th – 7:35am (WNW) 28th – 7:55am ----- <b>Moon Phases</b> Last Quarter – 4th New Moon – 11th First Quarter – 19th Full Moon – 27th
A useful site: <a href="http://www.heavens-above.com">www.heavens-above.com</a>	A S Zielonka		

Please note that there are two close comets this month. C/2020 S3 Erasmus (6.6 mag – Jan 2nd) and C/2020 R4 Atlas (9.5 mag – Jan 7th) which won't be visible this month as they are near to the Sun.

The Solar Orbiter this month has a close approach with the Sun. It will be within 0.5 AU from the Sun (less than half the distance between the Earth and Sun).

An occultation of the star Nu Virginis (4 mag) in Virgo by the Moon occurs on the night of the 31st December. It disappears at 12:24:55am and reappears at 1:34:39am. (These times are set for Yeovilton).

At 11.00pm on the 1st the star Porrima (2.7 mag) in Virgo is 3 degrees below the Moon in the east... Then at 6:00am the following morning Porrima will be 1½ degrees to the lower right of the Moon.

On the night of the 2nd at 12:45am the Moon is approximately midway between Zeta Virginis (3.3 mag) and Spica (1 mag) in the ESE.

The moon is at perigee (370,116km) on the 3rd at 7:03pm.

At 6:00am on the 4th the star Zubenelgenubi (2.7 mag) in Libra is 5 degrees to the left of the Moon and 3½ degrees below.

During the evening of the 4th the two stars Gamma Ceti (3.4 mag) and Mu ceti (4.2 mag) in Cetus point the way to Mars.

On the 6th at 6:00am the star Antares (1 mag) in Scorpius is 5¼ degrees below the crescent Moon and just 1½ degrees above left of the Moon is the star Psi Ophiuchi (4.4 mag) in Ophiuchus.

At 6:00am on the 7th the star 85340 "Hipparcus ID" (4.1 mag) in Ophiuchus is ½ a degree to the left of the crescent Moon low in the south east.

On the 8th at 6:45am the star Kaus Borealis (2.8 mag) in Sagittarius is just ½ a degree to the left of the thin crescent Moon low in the south east.

Mercury is at inferior conjunction on the 8th.

At 6:55am on the 9th a very thin crescent Moon will be seen due south east at 135 degrees azimuth and just 1 degree above the horizon.

On the 12th at 5:50pm a very thin crescent Moon may be seen low in the WSW at 224.5 degrees azimuth and 1 degree above the horizon.

At 7:00pm on the 13th a thin crescent Moon is at 252 degrees azimuth and 2 degrees above the horizon. Neptune is 3½ degrees above the Moon and 3 degrees to the right.

On the 14th at 7:00pm the star Iota Ceti (3.5 mag) in Cetus is 4 degrees to the left of the crescent Moon and 2½ degrees below.

There is a scheduled launch from the Baikonur Cosmodrome in Kazakhstan on the 15th\* at 4:45am\*. An uncrewed Russian Progress 76 cargo craft will launch to the ISS, delivering food, fuel and supplies.

At 7:00pm on the 16th the star Nu Piscium (4.4 mag) in Pisces is less than ½ a degree left of the crescent Moon.

On the 17th at 7:00pm Uranus is 2½ degrees to the right of the crescent Moon and 2¼ degrees above.

The moon is at apogee (404,467km) on the 18th at 10:22am. At 6:45pm Mars is 5¼ degrees above the crescent Moon in the SSW.

There is a scheduled landing of the Perseverance Rover on Mars on the 18th\* at 8:43pm\*. It will search for signs of habitable conditions on Mars in the ancient past and for signs of past microbial life. The rover will land in Jezero Crater, a large impact crater about 28 miles (45 km) wide just north of the Martian equator. Jezero once contained a lake, which scientists think is one of the most ideal places to find evidence of ancient microbial life.

At 6:30pm on the 19th Mars is 9 degrees to the right of the Moon. The Pleiades star cluster is 6 degrees above right of the Moon.

On the 20th at 6:30pm the star Tau Tauri (4.2 mag) in Taurus is 1¾ degrees upper right of the Moon.

There is a scheduled launch from Wallops Flight Facility in Virginia on the 20th \* at 5:36pm\* to the ISS. This is Northrop Grumman's fifteenth contracted commercial resupply services mission. Cygnus spacecraft aboard an Antares rocket will deliver several tons of cargo and supplies.

Venus reaches aphelion on the 20th (The furthest point from the Sun in its orbit).

At 9:30pm on the 21st the star Zeta Tauri (2.9 mag) in Taurus is 3 degrees above the Moon. The star Elnath (1.6 mag) also in Taurus is 6 degrees to the right of the Moon and 1½ degrees above.

On the 22nd at midnight the star Mebsuta (3 mag) in Gemini is just ½ a degree to the upper right of the Moon.

At midnight on the 23rd the star Kappa Geminorum (3.5 mag) in Gemini is 1 degree to the upper left of the Moon.

On the 24th at midnight the Beehive Star cluster is just 2 degrees to the lower left of the Moon.

From the 24th - 28th low in the south east you may get a chance to see Jupiter, Mercury and Saturn. On the 24th at 6:25am Mercury will be 2 degrees above the horizon at 118.5 degrees azimuth with Saturn 4 degrees to the right at 123 degrees azimuth and just 1½ degrees above the horizon. At 6:30am on the 26th Saturn will be 3 degrees above the horizon at 125 degrees azimuth with Mercury 4½ degrees to the left. Jupiter is barely above the horizon at 117.5 degrees azimuth.

At 9:30pm on the 25th the two stars Rasalas (3.8 mag) and Epsilon Leonis (2.9 mag) both in Leo point the way to the Moon. The star Lambda Leonis (4.3 mag) is 4 degrees to the upper left of the Moon... Then at 3:30am the following morning the stars Kappa Leonis (4.4 mag) and Lambda Leonis point the way to the Moon.

On the 26th at 10:30pm the star Regulus (1.3 mag) is 5½ degrees to the right of the Moon. The star Rho Leonis (3.8 mag) is 5 degrees below the Moon and 1 degree to the right.

At 6:30am on the 27th the star Rho Leonis (3.8 mag) is 4 degrees below the Moon in the west.

On the 27th at 10:15pm the Moon lies between the stars Iota Leonis (4 mag) and Sigma Leonis (4 mag). Iota Leonis is just 1½ degrees above left of the Moon.

At 6:00am on the 28th the star Nu Virginis (4 mag) in Virgo is 2 degrees to the left of the Moon and 1 degree above... Then at midnight the star Zaniah (3.8 mag) is 3 degrees below the Moon and 1 degree to the right.

From the 28th February – 8th March Mars passes close to The Pleiades. On the 4th their just 2½ degrees apart.

\* = Dates and times are subject to change.

News: C/2021 A1 (Leonard) is a comet with a Hyperbolic trajectory discovered by G J Leonard at the Mount Lemmon Observatory on January 3rd. On December 12th 2021 the comet will be at a distance of 0.233AU from the Earth. It will make its closest approach to the Sun on January 3rd 2022. In December 2021, the comet is expected to reach naked eye visibility. Its currently in the constellation of Bootes

Facts: On the 18th January 2002, the National Science Foundation formally opened the Gemini South telescope in Chile. This became the second telescope to make up the Gemini Observatory. Its twin telescope, Gemini North, is located in Hawaii.