Astronomy News

Night Sky 2022 - February

Sunrise	Sunset	Mercury Rises	Venus Rises
1st – 7:48am 10th – 7:33am 20th – 7:14am 28th – 6:58am	1st – 5:02pm 10th – 5:18pm 20th – 5:36pm 28th – 5:50pm	1st – 6:44am 10th – 6:25am 20th – 6:23am 28th – 6:23am	1st – 5:35am 10th – 5:12am 20th – 4:58am 28th – 4:51am
Moon Rise	**Moon Set**	**Moon Rise**	**Moon Set**
1st - 8:33am 2nd – 8:59am (ESE) 3rd – 9:19am 4th – 9:36am 5th – 9:50am (E) 6th – 10:04am 7th – 10:19am (ENE) 8th – 10:36am 9th – 10:56am 10th – 11:21am 11th – 11:55am 12th – 12:39pm (NE) 13th - 1:34pm 14th – 2:38pm 15th - 3:50pm 16th – 5:05pm 17th – 6:21pm (ENE) 18th – 7:38pm	1st - 5:10pm 2nd – 6:37pm (WSW) 3rd – 7:59pm 4th – 9:18pm (W) 5th – 10:33pm 6th – 11:46pm 8th – 12:58am (WNW) 9th – 2:09am 10th – 3:19am 11th – 4:25am 12th – 5:25am (NW) 13th – 6:16am 14th – 6:56am 15th – 7:27am 16th – 7:52am 17th – 8:11am (WNW) 18th – 8:28am 19th – 8:42am (W)	19th – 8:55pm (E) 20th – 10:14pm 21st – 11:34pm (ESE) 23rd – 12:58am 24th – 2:22am 25th – 3:43am 26th – 4:54am (NE) 27th – 5:50am 28th – 6:31am - - - - - - - All times in notes are set for **Somerton** unless stated	20th – 8:57am 21st – 9:12am 22nd – 9:30am (WSW) 23rd – 9:53am 24th – 10:23am 25th – 11:06am 26th – 12:04pm (NW) 27th – 1:17pm 28th – 2:41pm - - - - - - - **Moon Phases** New Moon – 1st First Quarter – 8th Full Moon – 16th Last Quarter – 23rd
A useful site: www.heavens-above.com	A S Zielonka		

An occultation of the star Zubenelgenubi (2.7 mag) in Libra by the Moon occurs on the morning of 26th January. It disappears at 5:34:51am and reappears at 6:44:19am. (These times are set for Yeovilton)

February

From the 1st - 10th Comet C/2019 L3 Atlas (8.8 mag - 14th Jan) passes close to the star Mebsuta (3 mag) in Gemini. On the 4th at 9:00pm it will be 1 degree above the star, then on 5th, 6thand 7th it will be approx ¾ of a degree to the upper right of the star. On the 10th at the same time the comet will be 1¼ degrees to the right of the star.

On the 2nd at 5:45pm Jupiter is 6½ degrees above a very thin crescent Moon and 1 degree to the right. The Moon is just 6 degrees above the horizon.

At 5:45pm on the 3rd the star Psi Aquarii (4.4 mag) is 1¼ degrees to the right of the crescent Moon. Jupiter is 10¾ degrees to the lower right of the Moon. Neptune is 6 degrees above the Moon and 1 degree to the right.

Saturn is at superior conjunction on the 4th.

On the 4th at 6:00pm Neptune is 8½ degrees to the right of the Moon and 5 degrees below. The star Mu Ceti (4.2 mag) in Cetus is 5¼ degrees to the lower left of the Moon.

At 6:00pm on the 6th the star Omicron Piscium (4.2 mag) is 1¾ degrees above the crescent Moon.

On the 7th at 6:30pm Uranus is 2 degrees above the crescent Moon.

At 9:30pm on the 8th the Pleiades star cluster is 8½ degrees above the Moon.

On the 9th at 6:00pm the Moon is approximately midway between the Hyades and Pleiades star clusters.

At 6:00pm on the 10th the Moon is approximately midway between the stars Elnath (1.6 mag) and Ain (3.5 mag) in Taurus.

The Moon is at apogee (404,897km) on the 11th at 2:38am. At 6:00pm Zeta Tauri (2.9 mag) is 5 degrees to the right of the Moon and 1½ degrees below.

At 6:00pm on the 12th the star Mebsuta (3 mag) in Gemini is 1 degree lower right of the Moon.

On the 13th at 9:00pm the Moon lies between the stars Kappa Geminorum (3.5 mag) and Upsilon Geminorum (4 mag). Kappa Geminorum is 1 degree below the Moon and slightly left.

At 10:00pm on the 14th the Beehive star cluster is 3½ degrees below the near full Moon.

On the 15th at midnight the two stars Rasalas (3.8 mag) and Epsilon Leonis (3.9 mag) point the way to the Moon.

Mercury reaches maximum western elongation from the Sun on the 16th.

There is a close conjunction of Venus and Mars on the morning of the 16th in the south east. At 6:10am Mars is 6 degrees below Venus and 2½ degrees to the right. Venus is 8½ degrees above the horizon at 131 degrees azimuth with Mars 2¾ degrees above the horizon at 133.5 degrees azimuth.

At 7:00pm on the 16th the star Eta Leonis (3.4 mag) is 2¼ degrees above the Moon and ½ a degree to the right.

On the 18th at 10:00pm the star Zavijava (3.5 mag) in Virgo is 3 degrees to the right of the Moon and 1¼ degrees below.

There is a scheduled launch on the 19th* at 5:39pm from Wallops Flight Facility on Wallops Island, Virginia. Its Northrop Grumman's 17th commercial ressupply mission to the International Space Station (ISS).

At 10:00pm on the 19th the star Porrima (2.7 mag) in Virgo is 1 degree to the upper right of the Moon then at 11:00pm Porrima is 1½ degrees to the upper right of the Moon with a fainter star appoximately midway between though nearer Porrima.

On the 20th at 11:30pm the star Spica (1 mag) in Virgo is 4¼ degrees to the right of the Moon and 1½ degrees below.

At 11:45pm on the 21st the Moon is just above the horizon in the ESE at 113 degrees azimuth.

On the 23rd at 6:00am the star Gamma Librae (3.9 mag) is 5½ degrees above the Moon.

At 6:00am on the 24th the star Antares (1 mag) in Scorpius is 2½ degrees below the crescent Moon and ½ a degree to the right.

On the 25th at 6:00am the star Theta Ophuichi (3.2 mag) is 3 degrees above right of the crescent Moon.

At 6:15am on the 26th the star Phi Sagittarii (3.1 mag) is 1¾ degrees to the left of the crescent Moon. The Moon is at perigee (367,789km) at 10:26pm.

On the 27th at 6:15am a thin crescent Moon is 2 degrees above the south east horizon at 138.5 azimuth. Venus is 10 degrees above left of the Moon with Mars approximately midway between them and a degree or two to the left. Mars is 5 degrees from the Moon.

Mercury is at aphelion on the 28th.

There is a planned launch on the 28th* from the Kennedy Space Centre in Florida. The spaceflight, designated as Axiom Mission 1 (Ax-1) will travel to the ISS. Once docked, the Axiom astronauts are scheduled to spend eight days aboard the orbiting laboratory. NASA and Axiom mission planners will coordinate in-orbit activities for the private astronauts to conduct in coordination with space station crew members and flight controllers on the ground. This is the first of two tourist flights scheduled for 2022.

* = Dates and times are subject to change.

News: The first flight of NASA's X-57 will take place at the Armstrong Flight Centre in California in the Spring. It is a small, experimental airplane powered by electricity. An All-electric technology will make flying cleaner, quieter and more sustainable.

Kicking off the lunar launch list for 2022 is Artemis 1, lifting off no earlier than March though this could be in the Summer. This is the inaugural flight of the Space

Launch System (SLS), NASA's heavy-lift rocket that is key to the Artemis initiative to return humans to the Moon. Artemis 1 is uncrewed and will put the Orion Multi-Purpose Crew Vehcle in a six-day retrograde orbit around the Moon before returning it to Earth. Artemis 1 will also deploy several CubeSat payloads.

The deployment of James Webb Space Telescope's (JWST"s) 18 segment primary mirror occurred during early January. Around the 23rd January, 29 days post-launch, thrusters will fire to put the telescope into a halo orbit around the Sun-Earth L2 point approximately a million miles from Earth.

Facts: The Pulkovo Observatory near St Petersburg was opened in 1839. It was the brainchild of the German/Russian astronomer Friedrich Georg Wilhelm von Struve who became its first director. The architect was Alexander Bryullov. The observatory was equipped with state-of-the-art devices, one of them being a 15 inch aperture refractor, one of the largest refractors in the world at that time. During the Siege Of Leningrad in World War 2 all the builings were destroyed, though the main instruments were saved and stored safely in Leningrad. In May 1954 it was reopened.