Astronomy News

Night Sky 2022 - March

Sunrise	Sunset	Moon Phases	Venus Rises
1st – 6:56am 10th – 6:36am 20th – 6:14am 30th – 6:51am	1st – 5:52pm 10th – 6:07pm 20th – 6:24pm 30th – 7:40pm	New Moon – 2nd First Quarter –10th Full Moon – 18th Last Quarter – 25th	1st – 4:50am 10th – 4:44am 20th – 4:36am 30th – 5:26am
Moon Rise	**Moon Set**	**Moon Rise**	**Moon Set**
1st - 7:00am 2nd – 7:22am (ESE) 3rd – 7:39am 4th – 7:54am (E) 5th – 8:08am 6th – 8:23am 7th – 8:38am (ENE) 8th – 8:57am 9th – 9:20am 10th – 9:50am 11th – 10:30am (NE) 12th – 11:20am (NE) 13th – 12:21pm 14th – 1:31pm 15th – 2:45pm 16th – 4:02pm (ENE) 17th – 5:19pm 18th – 6:38pm (E) 19th – 7:58pm	1st - 4:07pm 2nd – 5:31 (WSW) 3rd – 6:52pm 4th – 8:10pm (W) 5th – 9:25pm 6th – 10:39pm (WNW) 7th – 11:52pm 9th – 1:04am 10th – 2:13am 11th – 3:16am (NW) 12th – 4:11am (NW) 13th – 4:55am 14th – 5:29am 15th – 5:55am 16th – 6:16am (WNW) 17th – 6:33am 18th – 6:49am 19th – 7:03am (W) 20th – 7:18am	20th – 9:20pm (ESE) 21st – 10:45pm 23rd – 12:11am 24th – 1:34am 25th – 2:49am (SE) 26th – 3:48am 27th – 5:32am 28th – 6:03am 29th – 6:27am (ESE) 30th – 6:45am 31st – 7:00am - - - - - - - All times in notes are set for **Somerton** unless stated	21st – 7:35am (WSW) 22nd – 7:56am 23rd – 8:24am 24th – 9:02am 25th – 9:55am (SW) 26th – 11:03am 27th – 1:22pm 28th – 2:26pm 29th – 4:09pm (WSW) 30th – 5:30pm 31st – 6:48pm (W) - - - - - - - **Please note that the Clocks go forward 1 Hour on the night of the 26th**
A useful site: www.heavens-above.com	A S Zielonka		

Mercury and Jupiter will not be seen this month as they are too near the Sun for observing.

The mission: CAPSTONE – Cubesat Pathfinder Mission is scheduled to launch aboard a Rocket Lab's Electron rocket this month from Launch Complex 1 in New Zealand. A microwave oven-sized Cube-Sat weighing just 55 pounds will serve as the first spacecraft to test a unique, elliptical lunar orbit as part of the Cislunar Autonomous Positioning System Technology Operations and Navigation Experiment. With a highly ambitious schedule, CAPSTONE will demonstrate key commercial capabilities. NASA partners will test cutting-edge tools for mission planning and operations , paving the way and expanding opportunities for small and more affordable space and exploration missions to the Moon, Mars and other destinations throughout the solar system.

The mission: GOES-T launch date is targeted for the 1st* from Cape Canaveral, Florida. The Geostationary Operational Environmental Satellite-T will provide advanced imagery and atmospheric measurements of Earth's weather, oceans and environment, real-time mapping of total lightning activity, and improved monitoring of solar activity and space weather.

From the 1st – 4th the asteroid Vesta will be passing close to Mars. On the 2nd at 6:00am Vesta is 2 degrees above Mars and 1 degree to the right. It's also 3 degrees below Venus and 2½ degrees to the right. (For further information on this asteroid or others please see the 'Asteroid' section in the website above)

Venus through the beginning of the month passes close to Mars. At 5:30am on the 1st Venus is 6½ degrees above the SE horizon with Mars just 4 degrees to the lower right of it.

A very thin crescent Moon may be seen on the evening of the 3rd at around 6:25pm low in the west. At 6:24pm it will be 3¼ degrees above the horizon at 256 degrees azimuth.

Jupiter is at superior conjunction on the 5th.

At 8:00pm on the 5th the star Nu Piscium (4.4mag) in Pisces is 2¾ degrees to the left of the crescent Moon and 1¾ degrees above.

On the 6th at 10:00pm Uranus is 5½ degrees above the crescent Moon and 1¼ degrees to the left.

At 8:00pm on the 7th Uranus is 5 degrees below the crescent Moon and 4 degrees to the right.

On the 8th at 8:00pm the Pleiades Star Cluster is just 4 degrees to the upper right of the crescent Moon.

Around 7:30pm on the 9th the star Tau Tauri (4.2 mag) is less than ½ a degree to the lower left of the Moon.

From the 10th – 20th The asteroid Ceres (8.5 mag) will be passing close to the star Kappa Tauri (4.2 mag). On the 15th at 7:00pm Ceres is just 1½ degrees to the right of Kappa Tauri

At 7:30pm on the 10th the star Elnath (1.6 mag) in Taurus is just 3½ degrees to the upper right of the Moon.

The Moon is at apogee (404,268km) on the 10th at 11:04pm.

On the 11th at 11:30pm the star Mebsuta (3 mag) in Gemini is just 2½ degrees to the left of the Moon and 1 degree above.

At 11:00pm on the 12th the two stars Pollux (1.1 mag) and Upsilon Geminorium (4 mag) point the way to the Moon.

Neptune is at superior conjunction on the 13th.

On the 13th at midnight the Beehive star cluster is 6 degrees to the left of the Moon and ½ a degree below.

At 8:00pm on the 14th the Beehive star cluster is 6 degrees to the right of the Moon and 1 degree above.

On the 15th at midnight the star Eta Leonis (3.4 mag) is just ¾ of a degree to the upper left of the Moon.

At midnight on the 16th the star Chertan (3.3 mag) in Leo is 6 degrees to the upper left of the Moon.

On the 17th at midnight the star Nu Virginis (4 mag) is just ¾ of a degree to the upper left of the Moon.

At midnight on the 18th the star Porrima (2.7 mag) in Virgo is 2¾ degrees to the lower left of the Moon... … Then at 5:30am the following morning Porrima is less than ¼ a degree above the Moon.

On the 19th at 9:00pm the star Theta Virginis (4.3 mag) is just 2 degrees to the upper right of the Moon low in the ESE.

Venus reaches maximum western elongation on the 20th.

At midnight on the 20th the star Kappa Virginis (4.1 mag) is 1¾ degrees to the lower left of the Moon.

On the 21st at midnight the star Zubenelgenubi (2.7 mag) in Libra is 4½ degrees to the upper right of the Moon.

At 5:00am on the 23rd the star Dschubba (2.2 mag) in Scorpius is 3½ degrees to the right of the Moon. The Moon is at perigee (369,760km) at 11:38pm.

On the 24th at 5:00am the star named 84405 (4.3 mag) in the Hipparcos Catalog is less than a ¼ of a degree to the lower right of the Moon.

At 5:00am on the 25th the star Kaus Media (2,7 mag) in Sagittarius is 2¾ degrees below the Moon.

From the 25th – 31st Venus and Saturn pass close to one another. On the 29th at 6:10am Saturn is just 2¼ degrees to the lower right of Venus. Mars is 4½ degrees to the right of Saturn and ¾ of a degree above.

On the 26th at 5:00am the star Tau Sagittarii (3.3 mag) is 3½ degrees to the right of the Moon and 1 degree above.

At 6:10am on the 27th Venus is 5¾ degrees above the south east horizon at 120 degrees azimuth. Mars is 5 degrees to the right of Venus and 1¼ degrees below. Saturn is 2¾ degrees below Venus and 1 degree to the left. At the same time the crescent Moon is just 3¼ degrees above the horizon and 18½ degrees to the right of Venus.

From the March 27th to April 3rd Comet C/2019 L3 Atlas (9.4 mag - 10th Feb) will pass close to the star Alhena (1.9 mag) in Gemini. On the 30th Comet Atlas will be 1¼ degrees upper left of Alhena.

On the 28th at 6:15am Venus is 7 degrees above the horizon at 120.5 degrees azimuth. Saturn is 2½ degrees below Venus. Mars is 5½ degrees to the right of Venus and 1¼ degrees below. The crescent Moon is barely half a degree degree above the horizon at 126.5 degrees azimuth.

The mission: Axiom-1 mission to the International Space Station (ISS) will launch from NASA's Kennedy Space Centre in Florida on the 30th*. Once aboard the orbiting laboratory, the four-person Axiom Space crew will conduct science, outreach, and commercial activities for eight days before their return to Earth. 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. Axiom has proposed **Michael Lopez-Alegria**, **Larry Connor**, **Mark Pathy**, and **Eyton Stibbe** as prime crew members. These private astronauts will be reviewed by NASA and its international partners, as is standard for any space station crew, and undergo NASA medical qualification testing to be approved for flight. Lopez-Alegria will serve as the mission commander, with Peggy Whitson and John Shoffner as backups. (See below for details)

* = Dates and times are subject to change.

Michael Lopez-Alegria (b.1958) was born in Madrid, Spain. He holds the all time American record for ten Extravehicular Activities (EVA's) in space totalling 67 hours and 40 minutes. On April 2nd 2007, Lopez-Alegria set the record for the longest space mission of any American astronaut. When he landed on April 21st his time in space on a single mission was 215 days.

Larry Connor (b.1950) was born in Albany, New York. He is an American real estate and technology entrepreneur. Connor is a private pilot involved in multiple aerobatic competitions and has carried out dives in the Mariana Trench. Connor was named as a pilot of the first private crew to visit the ISS.

Mark Pathy (b.1969) is a Canadian businessman and philanthropist. He is the CEO of Mavrik, a privately owned Canadian investment company. He is also the chairman of Stingray Group and the former co-CEO of Fednav, a private shipping company co-founded by his great-uncle, Ernest Pathy, who was an immigrant from Hungary. In January 2021, it was announced that he was to fly on board SpaceX Axiom Space-1 as a mission specialist.
Eyton Stibbe (b.1958) was born in Haifa. He will be the second Israeli in space. The bulk of his time during the mission will be dedicated to conducting educational experiments. He would become the second Israeli in space, after Ilan Ramon, who died in the Columbia disaster, returning from space.

News: A fragment of modern space exploration will strike the farside of the Moon this month. Recent observations, combined with calculations made by Bill Gray of Project Pluto have shown that a Falcon 9 rocket upper stage will strike the lunar surface on March 4th around 12:26pm near the edge of Hertzprung crater.
Since its 2018 launch, the unassuming Tess Satellite has found 175 confirmed exoplanets. Now that the James Webb Space Telescope (JWST) has successfully launched and deployed, the team are keen for a closer look at them.
Astronomers have discovered a candidate new planet around Proxima Centauri, the nearest star to the Sun at 4.2 light-years. The find brings the total number of candidate planets in this system to three.
On February 3rd, a SpaceX Falcon 9 rocket launched out of Kennedy Space Centre in Florida with Starlink Group 4-7. The launch, part of a routine addition to SpaceX's starlink satellite network, went of without a hitch. But it soon became clear that something was amiss and up to 40 starlink satellites were knocked out by a solar storm, a coronal mass ejection that struck Earth environment at the time of launch.

Facts: The longest space mission on record is that of Valerly Polyakov, who spent 437 days aboard the Russian space station Mir during 1994 and 1995.