Astronomy News

Night Sky 2020 - March

Sunrise	Sunset	Mercury Rises	Venus Sets
1st – 6:55am 10th – 6:35am 20th – 6:13am 30th – 6:50am	1st – 5:52pm 10th – 6:08pm 20th – 6:25pm 30th – 7:41pm	15th – 5:41am 20th – 5:33am 25th – 5:27am 29th – 6:23am	1st – 10:02pm 10th – 10:26pm 20th – 10:51pm 30th – 12:11am
Moon Rise	**Moon Set**	**Moon Rise**	**Moon Set**
- - - - - - - 1st – 9:45am (ENE) 2nd – 10:12am 3rd – 10:46am 4th – 11:30am 5th – 12:26pm 6th – 1:36pm 7th – 2:55pm 8th – 4:20pm (ENE) 9th – 5:47pm 10th – 7:15pm (E) 11th – 8:41pm 12th – 10:06pm 13th – 11:29pm (ESE) 15th – 12:49am 16th – 2:02am 17th – 3:06am 18th – 3:59am 19th – 4:41am 20th – 5:14am 21st – 5:41am	1st - 12:02am (WNW) 2nd – 1:10am 3rd – 2:18am 4th – 3:24am 5th – 4:24am 6th – 5:15am 7th – 5:58am 8th – 6:32am (WNW) 9th – 7:00am 10th – 7:24am 11th – 7:46am (W) 12th – 8:08am 13th – 8:32am (WSW) 14th – 9:00am 15th – 9:33am 16th – 10:13am 17th – 11:01am 18th – 11:58am 19th – 1:01pm 20th – 2:07pm 21st – 3:14pm (WSW)	22nd – 6:02am (ESE) 23rd – 6:21am 24th – 6:38am 25th – 6:54am (E) 26th – 7:11am 27th – 7:28am 28th – 7:48am (ENE) 29th – 9:13am 30th – 9:43am 31st – 10:22am - - - - - - - **Moon Phases** First Quarter – 2nd Full Moon – 9th Last Quarter – 16th New Moon - 24th	22nd – 4:22pm 23rd – 5:28pm 24th – 6:34pm (W) 25th – 7:40pm 26th – 8:46pm 27th – 9:53pm (WNW) 28th – 11:01pm 30th – 1:09am 31st – 2:14am - - - - - - - Clocks go forward an hour on the night of the 28th - - - - - - - All times in notes are set from Somerton unless stated
A useful site: www.heavens-above.com	A S Zielonka		

From the Feb 29th – March 9th Comet C/2017 T2 Panstarrs (9th mag on Feb10th) will be within 2½ degrees of the star Epsilon Cassiopeiae (3.3mag) in Cassiopiea. On the 9th it is 1.759AU from the Earth It reaches perihelion on May 4th when its 1.615AU from the Sun. (For further information on this comet or others listed, please see the 'Comet' section of the website above)

At 5:30am on the 1st the asteroid Vesta is 6 degrees above the Moon and 2 degreesto the left. (For further info please see the 'Asteroid' and 'Sky chart' section in the website above)

Comet C/2020 A2 Iwamoto (11.5 mag Feb 10th) is half a degree to the upper right of the star Errai (3.2 mag) in Cepheus on the 1st at 9:30pm in the north. Errai is 11 degrees from the Pole Star. It was at perihelion on Jan 8th.

On the 1st at 9:30pm the Pleiades star cluster is 7½ degrees to the upper right of the Moon. The star Lambda Tauri (3.4 mag) in Taurus is 4¾ degrees to the lower left of the Moon.

There is a scheduled launch on the 2nd* at 6:45am* from Cape Canaveral in Florida. A SpaceX Dragon cargo spacecraft will deliver NASA science investigations, supplies, and equipment to the International Space Station (ISS).

At 7:00pm on the 2nd Aldebaran in Taurus is 3¾ degrees below the first quarter Moon.

On the 3rd at 7:00pm the star Zeta Tauri (2.9 mag) in Taurus is ¾ of a degree below the Moon.

At 11:00pm on the 4th the star Mebsuta (3 mag) in Gemini is 2¼ degrees above right of the Moon.

On the 5th at 11:00pm the star Kappam Geminorum (3.5 mag) in Gemini is 2 degrees above right of the Moon

At 11:00pm on the 6th The Beehive Cluster is 1 degree below right of the Moon.

There is a close conjunction between Venus and Uranus on the 7th & 8th. At 7:00pm on the 7th Uranus is 2½ degrees to the left and on the 8th Uranus is 2¼ degrees lower left.

Neptune is at superior conjunction (with the Sun) on the 8th.

On the 8th at 5:30am low in the west the star Eta Leonis (3.4 mag) in Leo is 2½ degrees above left of the Moon.

At 5:30am on the 9th the star Chertan (3.3 mag) in Leo is 6½ degrees directly above the Moon.

On the night of the 9th at 1:00am the star Denebola (2.1 mag) in Leo is 8½ degrees directly above the Moon.

At midnight on the 10th the star Porrima (2.7 mag) in Virgo is just 2 degrees below the Moon.

On the 11th at midnight the star Spica (1st mag) in Virgo is 6 degrees below right of the Moon.

At 5:30am on the 13th the star Zebeneschamali (2.6 mag) in Libra is 4 degrees to the lower left of the Moon.

On the 15th at 5:00am the star Antares (1st mag) in Scorpios is 5½ degrees below the Moon and 2 degrees to the right.

At 5:00am on the 16th the star Theta Ophiuchi (3.2 mag) in Ophiuchus is 3 degrees to the right of the Moon and 1 degree below with a few fainter stars between them.

On the 17th at 5:00am the star Kaus Borealis (2.8 mag) in Sagittarius is 1½ degrees to the lower right of the Moon.

At 5:30am on the 18th low in the south east, Mars will be 2 degrees to the upper left of the crescent Moon with Jupiter 1½ degrees to the left of Mars. Saturn is 10 degrees to the left of the Moon. There is also an occultation of Mars by the Moon today, though this will only be visible across the southern ocean and the lower half of South America.

On the 19th at 5:30am Saturn will be 4 degrees above the crescent Moon and 1½ degrees to the left. Jupiter and Mars to the right of them are just 1 degree apart.

Venus is at perihelion (its closest to the Sun in its orbit) on the 20th.

At 5:33am on the 20th the crescent Moon is in the south east at 126 degrees azimuth and 1½ degrees above the horizon.

From the 20th March - 1st April Mars passes between Jupiter and Saturn which are 6½ degrees apart in the early morning sky. They will be low in the south east from 5:00am. There is a close conjunction between Jupiter and Mars on the 20th when they are only ¾ of a degree apart. On the 31st there is a close conjunction between Saturn and Mars when they are just 1 degree apart. Later on this year there is a close conjunction between the two giant planets.

On the 23rd at 5:40am Mercury will be in the ESE at 109 degrees azimuth and just 1½ degrees above the horizon.

Mercury will be at maximum western elongation from the Sun on the 24th.

Venus will be at maximum eastern elongation from the Sun on the 24th.

At 7:09pm on the 25th a very thin crescent Moon will be seen due west (270 degrees azimuth) and just 4 degrees above the horizon.

On the 26th at 8:00pm Uranus is 4½ degrees above the thin crescent Moon and 2½ degrees to the right.

Mercury is at aphelion (its most distant from the Sun in its orbit) on the 27th.

At 8:00pm on the 27th Venus is 12 degrees above the crescent Moon. Uranus is 8 degrees to the right of the Moon and 6 degrees below.

On the 28th at 9:30pm Venus is 7½ degrees to the right of the crescent Moon. The Pleiades star cluster is 5½ degrees to the upper left of Venus.

Comet 88P Howell (14 mag on Feb 10th) is between the stars Zeta Virginis (3.3 mag) and Spica (1st mag) in Virgo on the 27thand 28th. It is 4½ degrees approx from Zeta Virginis. On the 27th it is 1.289 AU from Earth. On the 9th/10th May the comet will be at its closest to Earth at 1.08 AU. Around May 20th it will be within half a degree of the star Porrima (2.7mag) in Virgo.

An occultation of the star Ain (3.5 mag) in Taurus by the Moon occurs on the evening of the 29th. It disappears behind the Moon at 7:20:51pm and reappears at 8:29:28pm. Aldebaran is 3 degrees to the left of them. (These times are set from Yeovilton)

On the 30th at midnight the star Zeta Tauri (2.9mag) in Taurus is 2¼ degrees above left of the Moon.

At midnight on the the 31st the star Mu Geminorum (2.8 mag) in Gemini is half a degree below left of the Moon.

* = Dates and times are subject to change.

News: If all goes according to plan the Solar Orbiter that was launched on February 10th will begin its official mission in November 2021, when it will capture its first polar closeup by autumn 2022. It'll be fixed at the same orbital speed as the Sun, and will be in lockstep with the star, co-rotating around it so that it can image the same spot over the course of the Sun's 25-day rotation. It's also equipped with 10 incredible instruments (more on these, in later issues) designed to withstand extreme conditions near the Sun. Ultimately, it will make 22 elliptical orbits around the Sun before the mission concludes. Its first gravity assist manoeuvre is with Venus, and will be on December 26th. At its closest approach to the Sun, it will get within a distance of about 26 million miles, and thats closer than Mercury's orbit.

Facts: A thin layer of frozen nitrogen ice covering the Tombaugh Regio (the heart shape region) of Pluto, vapourises into the atmosphere each day, only to condense each night as the Sun sets. This rhythmic pattern sends billowing plumes of nitrogen gas into the atmosphere.