

Welcome to the first podcast of 2022 and, given the many distractions of the season, I will keep it brief.

Day Length during January

On January 1st the Sun will rise at around 8.06 GMT and will set around 16.02 GMT giving a day length of around 7 hours and 56 minutes. On January 31st the Sun will rise around 7.40 GMT and will set around 16.47 GMT giving a day length of around 9 hours and 7 minutes. During the month the day length will increase by around 1 hour and 11 minutes.

Moon Phases

The Moon will be new on January 2nd, reach first quarter on the 9th and will be full on the 17th. It will reach last quarter on the 25th.

The Planets

Mercury reaches Greatest Eastern Elongation on January 7th and Inferior Conjunction on the 23rd.

Between January 1st the Conjunction will be an evening object and will be visible near the southwestern horizon, shining around -0.3 until around January 16th when it will be lost in the sunset glow. It will reappear as a morning object in the Eastern sky by the end of the month.

Venus will still be visible low in the western sky at the start of the month but reaches Inferior Conjunction on January 8th. It will reappear as a morning object shining at magnitude -4.6 by the end of the month.

Mars is a morning object low in the Eastern sky slowly emerging from the dawn glow.

Jupiter is low in the southwest at the beginning of the month shining at -2.1. It is heading for Conjunction on March 5th.

Saturn is ahead of Jupiter on the Ecliptic and is heading for Conjunction on February 4th.

Uranus shines from among the stars of Aries at magnitude +5.7. It is to be found just north of the circlet of stars that form the tail of Cetus the Whale. It is an easy binocular object. A small telescope will show a small blue green disc.

Neptune shines at +7.9 from the eastern border of Aquarius, just below the circlet of stars that form the western end of the constellation Pisces. It is moving slowly towards the glow of sunset but will not reach conjunction until September.

The Quadrantid Meteor Shower

The first meteor shower of the year is one of the most prolific. It is named after a former constellation which has become redundant. The radiant, the point on the sky from which the meteors appear to emanate, now lies in Bootes.

Find the main shape of the constellation Bootes. The northern most three stars can be considered as an arrow pointing north. They are pointing at Quadrantids' radiant. Quadrantids can be seen at the beginning of the month until January 12th but the majority of meteors are expected during the predicted shower peak which occurs on the 3rd of January at around 8.40pm. The good news is that moonlight will not interfere with the show. The bad news is that at the time of the predicted peak activity, the radiant will be low in the sky but will gain altitude as the evening progresses.

Comets

Currently there are several comets in the sky but, so far, are telescopic objects.

Comet 19P/Borrelly crosses the body of Cetus the Whale between January 6th and 16th as it tracks slowly northwards towards perihelion at the beginning of February. It is expected to be shining at between magnitudes +8 and +9, but you never know.

Comet C/2019 L3 Atlas is also expected to be shining at around magnitude +9. It is tracking slowly south westwards past Castor and Pollux in Gemini. It is closest to Earth on January 6th and reaches perihelion on January 9th. Despite this it is still a long way from us. The closest it gets to the Sun is nearly 500 million kilometres.

Wishing you a Happy New Year