



## December 2019 to January 2020



*Infrared View of the M81 Galaxy Credit: NASA/JPL-Caltech*

### What to look out for in the night sky

**12 December - Full Moon** This full moon is known as the Full Cold Moon, Long Nights Moon or Moon Before Yule.

**13-14 December - Geminids Meteor Shower** This is considered by many to be the best meteor shower, producing up to 120 multicoloured meteors per hour at its peak. It is produced by debris left behind by an asteroid, 3200 Phaethon, discovered in 1982. The shower runs annually from 7-17 December but peaks overnight on 13/14 December. The nearly full moon will block out some of the meteors but it could still be a good show. Best viewing just after midnight.

**21-22 December - Ursids Meteor Shower** The Ursids can produce around 5-10 meteors per hour. The shower runs annually from 17-25 December but peaks overnight on 21/22 December. Best viewing is just after midnight.

**22 December - Winter Solstice** This is the shortest day of the year in the Northern Hemisphere and the longest day in the Southern Hemisphere.

**23 December - Moon and Mars in Close Approach** The pair will appear no higher than 16° above the horizon, rising at 04:50 before fading from the SE horizon around 07:42.

**26 December - New Moon** This is the optimum time to observe objects such as galaxies and star clusters as there will be no moonlight to interfere.

**29 December - Moon and Venus in Close Approach** The pair will appear no higher than 14° above the horizon. They will become visible around 16:19, 14° above the south-western horizon, setting at 18:42.

**3-4 January - Quadrantids Meteor Shower** Up to 40 meteors per hour can be produced at its peak. The shower runs annually from 1-5 January, peaking on the night of 3-4 January. The Moon will set shortly after midnight, leaving fairly dark skies for a good show.

**10 January - Penumbral Lunar Eclipse/Full Moon** A penumbral lunar eclipse occurs when the Moon passes through the Earth's partial shadow, or penumbra, causing the Moon to darken slightly. The eclipse will be visible throughout most of Europe, Africa, Asia, the Indian Ocean and Western Australia. Most penumbral lunar eclipses look like a normal **Full Moon**. This full moon is known as the Full Wolf Moon, Old Moon or Moon After Yule.

**20 January - Moon and Mars in Close Approach.** The pair will appear above the southern horizon, no higher than 14°, at 04:47, 3 hours and 15 minutes before the Sun. It will fade from view around 07:36.

**24 January - New Moon** This is the optimum time to observe objects such as galaxies and star clusters as there will be no moonlight to interfere.

**28 January - Moon and Venus in Close Approach** The pair will become visible around 17:02, 25° above the SW horizon, setting at 20:21.

### Forthcoming Club Events

Meetings are held in **The Lounge, Geddington Village Hall, Queen Street, Geddington NN14 1AZ**

Please visit [www.naastronomy.com](http://www.naastronomy.com) to check final meeting information. Visit the NAA Facebook pages for discussion, photos and events.



**Tuesday 3 December** 7.30 for 7.45pm - Members' talks and observing (if the sky is clear)

**Saturday 7 December** - Christmas supper in Kettering – booking essential

**Tuesday 10 December** 7.30pm - Committee meeting at The Piper, Windmill Avenue, Kettering

**Tuesday 17 December** 7.30 for 7.45pm - Christmas fish and chips supper and quiz – booking essential

**Tuesday 14 January** 7.30 for 7.45pm - Visiting speaker **Mike Frost**

**Tuesday 21 January** 7.30 for 7.45pm - Members' talks and observing (if the sky is clear)

**Meetings with guest speakers: £3 (£4 for non-members)**

**General meetings: £2 (£3 for non-members)**

**Full membership: £30 (Concessions £19)**

### Club Contact Details

**President:** Nick Freville Tel: 01536 723211

email: [astro2002astro@yahoo.co.uk](mailto:astro2002astro@yahoo.co.uk)

**Chair and Speaker Co-ordinator:** Sue Yendell Tel: 01536 515976

email: [susan-yendell@sky.com](mailto:susan-yendell@sky.com)

**Treasurer:** Eleanor Patrick Tel: 01536 521488

**Joint Secretaries:** Jane Napier Tel: 07960 262401

Anne Douglas email: [adouglas2@sky.com](mailto:adouglas2@sky.com)

**Committee Members:** Mervyn Lloyd Tel: 07706 181770

Frank Tasker Tel: 01536 390040



*Image of Earth taken by astronaut Nick Hague from the ISS, 9<sup>th</sup> October 2019 Credit: NASA*

### Useful websites:

<https://www.timeanddate.com/astronomy/sights-to-see.html>

<https://in-the-sky.org/newscal.php?month=3&year=2019&maxdiff=2>

<https://www.nasa.gov/>

<http://www.seasky.org/astronomy/astronomy-calendar-2019.html>

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[www.naastronomy.com](http://www.naastronomy.com)

