

## CAS Sky Notes for October 2024

Autumn and the dark skies are now well upon us.

### \*\*\*Comet Tshuchinshan-ATLAS\*\*\*

This could potentially become very bright. Look low in the west after sunset from the 10<sup>th</sup> October when it is first observable. Its elongation from the Sun will increase each night. The 12<sup>th</sup> is a good time to look. We hope it survives its close approach to the Sun and puts on a good display throughout October.

### Annular Solar Eclipse

This takes place on the 2<sup>nd</sup> October, but you'll need to go to the South Pacific Ocean or southern Chile I'm afraid.

### Planets

#### Mercury.

Mercury will not really be observable this month

#### Venus

Venus is an evening object with a magnitude of  $-4.0$ . Its elongation increases to  $37^\circ$ , with a phase of 75%, and a diameter of  $14''$ . Its southerly declination also makes it hard to view as it is low in the sky after sunset, but can be seen if you have a good western horizon.

#### Mars

This is in Gemini but still effectively a morning object, although it rises a little before midnight now. Its diameter increases a bit to 9 arcsec during the month and is high in the sky. Its approximate position is RA 7h 35m, Dec  $+22^\circ$ , and its red colour and the fact that it won't be twinkling (planets don't twinkle) will make it easy to identify.

#### Jupiter

This rises around 9pm now and is well placed for observing later in the night. It reaches opposition in December. It is unmistakable, with a magnitude of  $-2.6$ , so stay up and get observing!

#### Saturn

Saturn reached opposition in September. The rings have a tilt of about  $5^\circ$  by the end of the month. This could make a nice photo. It is still a bit low in the sky but is a little brighter due to more of the rings showing (mag.0.7). Look for Titan, its brightest and biggest satellite which orbits every 16 days. **On 14<sup>th</sup> October Saturn is just  $0.1^\circ$  South of the Moon.**

#### Uranus

Uranus is observable for much of the night (RA: 3h 36m, Dec  $+18^\circ$ ). It reaches opposition in November. Its magnitude is  $+5.6$  and diameter  $3.8''$ .

*On the 19<sup>th</sup>, The Moon will be between the Pleiades and Uranus.*

#### Neptune

Neptune reached opposition on 21<sup>st</sup> September, with a diameter of  $2.4''$  and mag.  $+7.8$ . Its approximate position is RA 23h 54m, Dec  $-2.2^\circ$ . **On the 15<sup>th</sup>, Neptune is about  $0.6^\circ$  south of the Moon.** This should make it easier to find.

Anyone wishing to Uranus and Neptune, and who would like more details, should contact me at [coord@cotswoldas.org.uk](mailto:coord@cotswoldas.org.uk)

## **Moon**

**2<sup>nd</sup> October:** New Moon

**10<sup>th</sup> October:** Moon is at First Quarter

**17<sup>th</sup> October:** Full Moon

**24<sup>th</sup> October:** Moon is at last quarter

*The Full Moon on the 17<sup>th</sup> is a good Supermoon to view*

## **Sun**

The Sun remains active currently, so watch out for large Sunspot groups. Remember to **never look at the Sun directly without a proper solar filter.**

## **Aurora**

The Sun is around its maximum activity and may produce more aurorae. I suggest you download an aurora alert App, such as *Aurora Pro*. The darker nights mean that there is a much better chance of seeing them.

## **Meteors**

The Orionids become visible this month, reaching their maximum around the 20<sup>th</sup>. Unfortunately, that is just after full Moon, making this display less favourable. The radiant is near the top of Orion (hence the name) and the ZHR is about 20, so not many each hour.

## **Dark Sky Objects**

The Milky Way is well placed for photography and the Andromeda Galaxy (M31) is high in the sky, making it a good target for photography. A wider angle shot could take in the Milky Way as well.