

SKYNOTES for January 2020

An easily printable version to encourage active observing among members of the Nottingham AS

All times given below are in Greenwich Mean Time

Earth's **perihelion**, when the planet is closest to the Sun, will occur in the morning of January 5th, when the centres of the two bodies will be 91,398,200 miles apart (which happens to be about 5 miles closer than they were a year ago – but I don't suppose this winter will be noticeably warmer as a result!)

PHASES OF THE MOON

| <i>Phase</i> | <i>Date</i> |
|---------------|--------------------------|
| First Quarter | January 3 rd |
| Full Moon | January 10 th |
| Last Quarter | January 17 th |
| New Moon | January 24 th |

This month the Moon is closest to Earth on the 13th, and furthest on the 29th.

THE PLANETS

Mercury must be regarded as unobservable for most of this month, as it passes through superior conjunction on January 10th, to emerge as a challenging evening object thereafter.

Venus will really begin to make its presence felt in the evening sky this month, after lurking low in the southwest since the start of November. As January begins it will still be 18 degrees south of the celestial equator, but this improves to only 4 degrees south by the end of the month, by which time the planet will be a striking magnitude -4.1 object, 25 degrees in elevation as the sky darkens.

Mars (magnitude $+1.5$) is a relatively inconspicuous object moving from the constellation of Libra into Scorpius this month, and ending January almost 23 degrees south of the celestial equator. So a difficult object, less than 5 arcseconds across, for observers at our latitude.

Jupiter passed through conjunction with the Sun on December 27th, and is now a morning object. By the end of January it will have returned to visibility, very low in the southeast before sunrise, magnitude -1.9 .

Saturn passes through conjunction with the Sun on January 13th, and hence is unobservable this month.

Uranus is an evening object about 13 degrees north of the celestial equator in the constellation of Aries, and shining at magnitude 5.8.

Neptune is also an evening object, about 6 degrees south of the celestial equator in the constellation of Aquarius, and shining at magnitude 7.9. It will be setting about three hours after the Sun by the end of January.

METEORS

If you want give yourself the best chance of observing the **Quadrantids**, the time to be outside will be between midnight and dawn on January 4th, when the 8-day old Moon will have set, and maximum activity is anticipated. These meteors appear to radiate from a point in the north of the constellation of Boötes, not far from the handle of the Plough, and can be as prolific as the better-known Perseids of August.