

SKYNOTES for October 2016

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

British Summer Time ends on Sunday, October 30th. Clocks should be moved backwards by one hour at 2am on that date.

PHASES OF THE MOON

<i>Phase</i>	<i>Date and time</i>
New Moon	1:11am on October 1 st & 5:38pm UT on the 30 th
First Quarter	5:33am on the 9 th
Full Moon	5:23am on the 16 th
Last Quarter	8:14pm on the 22 nd

This month the Moon is closest to the Earth on the 16th (so expect a fairly large Full Moon – although by far the biggest Full Moon of 2016 will appear *next* month), and furthest on the 4th.

THE PLANETS

Mercury begins this month very well placed for observers in the northern hemisphere, having passed through greatest western elongation (18 degrees from the Sun) on the 28th September. Look for a bright “spark” above the eastern horizon about an hour before sunrise during the first half of October.

Venus, although prominent in the western sky after sunset for observers in the southern hemisphere, is very difficult to spot from UK latitudes. By the end of October it will be shining at magnitude – 4.0, very low in the southwest as the sky begins to get dark.

Mars, also an even more challenging object for northern hemisphere observers by virtue of being considerably dimmer (magnitude +0.3) than Venus. As October begins it will be moving eastward through the constellation of Sagittarius, very low in the southwest after sunset.

Jupiter is unobservable this month, having passed through conjunction with the Sun on September 26th.

Saturn is extremely difficult to observe, as it remains well to the south (declination always more negative than –20 degrees), and will be setting before 8pm in mid-October.

Uranus reaches opposition in the constellation of Pisces on October 15th, when it will have an angular diameter of 3.7 arcseconds and be shining at magnitude 5.7 (so theoretically a naked-eye object, although realistically you will need binoculars in order to find it). At midnight Uranus will be about 45 degrees above the southern horizon, and it will be visible throughout the hours of darkness.

Neptune, in the constellation of Aquarius, rises before Uranus but is lower in the sky and much dimmer (magnitude 7.8), and thus is a much more challenging object to find.

METEORS

October’s main shower is the **Orionids**, which are fast-moving meteors with a tendency to leave trails that can remain visible for a second or two. This year their maximum activity (up to 25 events per hour) occurs between October 21st and the 24th. Conditions this year are reasonably favourable, with a third-quarter Moon in the morning sky. The radiant doesn’t rise until after 10 pm, so don’t expect to see much activity before this time.