

SKYNOTES for July and August 2017

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

All times given below are in British Summer Time

Aphelion. At ten past nine on the evening of July 3rd, the Earth will further from the Sun than at any other time during 2017, with 152,092,504 km separating the two bodies (about 5 million kilometres further apart than they were on January 4th).

PHASES OF THE MOON

	July	August
First Quarter	1:51 am on the 1 st and 4:23 pm on the 30 th	9:13 am on the 29 th
Full Moon	5:07 am on the 9 th	7:11 pm on the 7 th
Last Quarter	8:16 pm on the 16 th	2:15 am on the 15 th
New Moon	10:46 am on the 23 rd	7:30 pm on the 21 st

In July the Moon is closest to the Earth on the 21st, and furthest on the 6th. In August the Moon is closest to the Earth on the 18th, and furthest on the 2nd.

THE PLANETS

Mercury begins July as an evening object, reaching greatest eastern elongation (27 degrees) on the 30th, but even then it will be very poorly placed for observation from the UK. Thereafter it moves swiftly in toward the Sun, arriving at inferior conjunction on August 26th. *During the total solar eclipse (visible across the USA on August 21st), Mercury will be about 10 degrees east of the Sun.*

Venus, in the constellation of Taurus, is a brilliant (magnitude -4) object in the morning sky throughout July and August, having passed through greatest western elongation (46 degrees from the Sun) in early June. The planet should become more noticeable as time goes on, as its declination increases through most of July and August. *During the total solar eclipse on August 21st, Venus will be about 34 degrees west of the Sun.*

Mars, after a lengthy apparition, finally reaches conjunction with the Sun on July 27th, and is therefore unobservable this summer.

Jupiter, in the constellation of Virgo, begins July as a bright (magnitude -2) "star" in the southwest after sunset, but its brightness and angular size will be decreasing with time as it heads toward conjunction with the Sun in October.

Saturn is an evening object low down in the southern sky, about 22 degrees south of the celestial equator, and so not very prominent to UK observers in spite of its brightness (magnitude 0.1). If you do get the chance to view Saturn through a telescope, the ring system is displayed to advantage, with the planet's north pole tilted toward us at about 26 degrees.

Uranus (in the constellation of Pisces) and **Neptune** (in Aquarius) are both morning objects.

METEORS

There are three meteor showers visible in August: the **Alpha Capricornids**, which peak on the night of the 2nd-3rd, with a waxing gibbous Moon, so conditions will be rather unfavourable; the **Iota Aquarids**, which peak on the 6th (close to the Full Moon, so very unfavourable); and of course the **Perseids**, which this year will peak under less than ideal conditions, with a 20-day-old Moon that will interfere with observations after midnight. Maximum activity is expected on the *evening* of August 12th, so this will be the prime time for observation this year.