

The Night Sky in June 2025



Monthly Guide compiled by Doug Bickley

PERTON LIBRARY
ASTRONOMY
GROUP



The evening sky in Wolverhampton on 15th of the month at 21:00

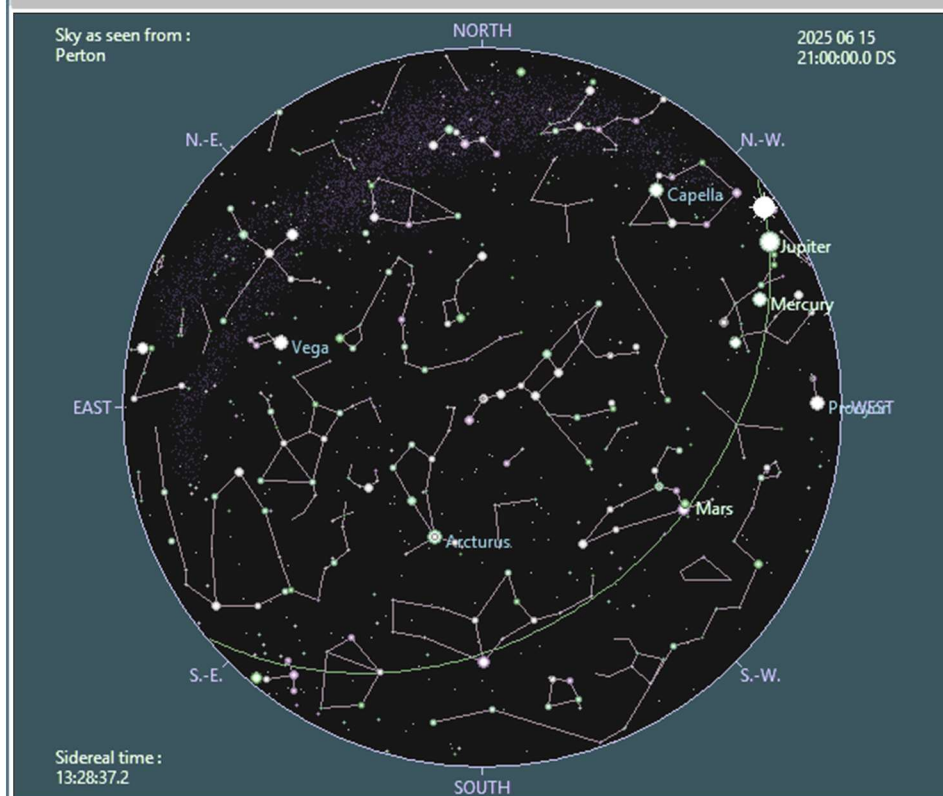


CHART GENERATED BY COELIXAPEX SOFTWARE

Events to look out for this month:

- 1 Moon between Mars and Regulus (evening)
- 3 Saturn close to Neptune (morning twilight)
- 8 Conjunction of Mercury and Jupiter (evening twilight)
- 6 ETA Aquarid meteor shower peak (early morning)
- 11 Full Moon
- 19 Perton Library Astronomy Group meeting 7pm
- 19 Moon above Saturn and Neptune (morning)
- 21 Summer Solstice
- 22 Crescent Moon above Venus (morning twilight)
- 23 Crescent Moon occults southern part of Pleiades M45 (morning twilight)
- 25 New Moon
- 23 Moon left of Mars (evening twilight)
- 26/7 Crescent Moon close to Mercury (evening twilight)
- 27 June Bootids meteor shower peak
- 29 Saturn in conjunction with Neptune (morning)
- 29 Crescent Moon between Regulus and Mars (evening twilight)

THE MOON

Lunar Phases this month

Full Moon is on 11 June.
(but the Moon seems full to us in the days before and after peak illumination).

New Moon is on 25 June.

June's Full Moon is called the Strawberry Moon. In North America, the harvesting of strawberries in June gives that month's full moon its name. Europeans have called it the Rose Moon, while other cultures named it the Hot Moon for the beginning of the summer heat.

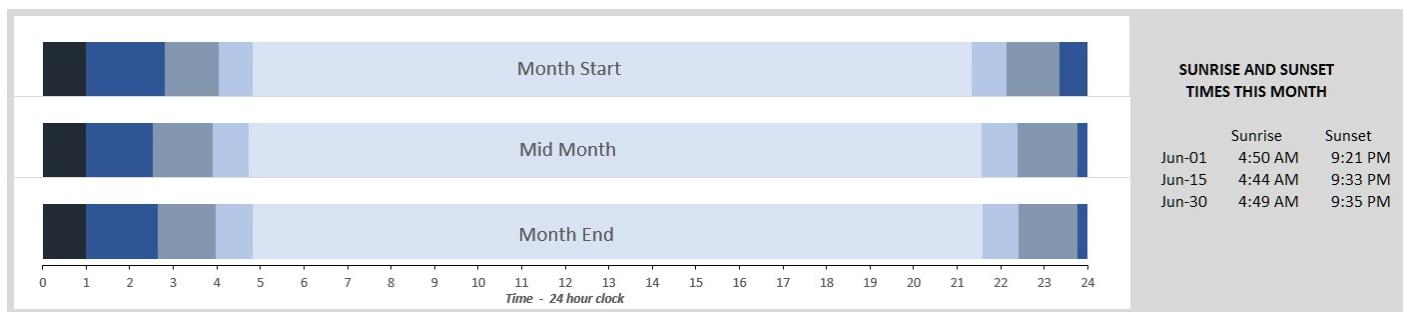
The Celtic names are Horse Moon, Dyan Moon, and Rose Moon. Other English names are Flower Moon and Planting Moon. Other sources quote Mead Moon as the Anglo-Saxon name because this was the time for mowing the meads, or meadows.

You'll find some information about this on the Royal Museum Greenwich website:
<https://www.rmg.co.uk/stories/topics/what-are-names-full-moons-throughout-year>



THE SUN

Graphical format showing sun rising, setting and twilight linked to an online data source (time-ok.com) to show twilight zones more clearly. Location is set at Wolverhampton UK.



Key:

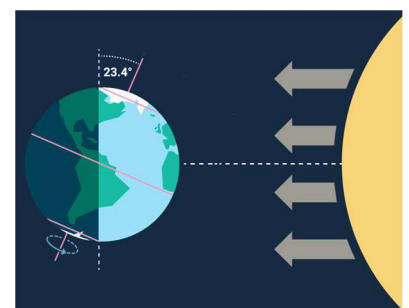
Night	Twilight			Day
	Astronomical	Nautical	Civil	

We are still seeing a lot of solar activity and aurorae with many sunspots to be seen across the Sun's surface so it is well worth keeping a look out.

Summer Solstice

This is when the Sun is directly overhead the Tropic of Cancer and is the longest day of the year in the Northern Hemisphere. In Wolverhampton it will be on 21 June 21 at 3:42 am. It marks the beginning of astronomical summer and is traditionally a time for celebration with excesses of food, drink and much more...

For meteorologists summer begins almost three weeks before on 1 June, but what do they know (or maybe they like an early party!).



PLANETS THIS MONTH

Here's my usual summary table showing planetary observation opportunities based on mid-month data:

Planetrise/Planetset, Sun, 15 Jun 2025				
Planet	Rise	Set	Meridian	Comment
Mercury	Sun 05:50	Sun 22:48	Sun 14:20	Slightly difficult to see
Venus	Sun 02:48	Sun 16:59	Sun 09:53	Good visibility
Mars	Sun 10:19	Mon 00:40	Sun 17:30	Average visibility
Jupiter	Sun 05:15	Sun 21:44	Sun 13:29	Difficult to see
Saturn	Sun 01:38	Sun 13:28	Sun 07:33	Average visibility
Uranus	Sun 03:21	Sun 19:01	Sun 11:11	Very difficult to see
Neptune	Sun 01:34	Sun 13:35	Sun 07:34	Very difficult to see

Data from timeanddate.com

And here is my usual run-down of planetary movements for the month of June:

Mercury is in Gemini in the MW at a maximum altitude 5° , shining at mag -1.1 at the start of the month but dimming. It moves away from the Sun during the month so will be visible. On 8 June it will be close enough to Jupiter to call the encounter a conjunction but this may be tricky to see. On 26 and 27 June a thin waxing crescent Moon moves from the right to left of the by then mag +0.2 planet.

Venus is in the E in Taurus at a maximum altitude of 11° , shining brightly at mag -4.2, still a morning planet. On 1 June it reaches greatest western elongation, separated from the Sun by $46''$ and appearing 50%-lit. On 22 June, a 15%-lit waning crescent Moon lies to the north of the planet.

Mars is in the W in Leo at a reduced maximum altitude of 22° , shining at mag +1.3 but dimming as it tracks through the constellation, it is now quite distant from the Earth. On 1 June, it just to the W of a 40%-lit waxing crescent Moon. On 29 June at a low altitude a 20%-lit waxing crescent Moon appears close by mars and Regulus, this star lies close to the ecliptic and therefore has regular apparent close encounters with planets.

Jupiter is still in Taurus in the NW at a much reduced altitude of 4° and will be difficult to spot this month as it reaches solar conjunction on 24 June (see my explanations in last month's issue).

Saturn is still in the E in Pisces at a maximum altitude of 15° , shining at mag +.08 but still a morning planet difficult to see. On 19 June at a 46%-lit waning crescent Moon will be very close by with Neptune joining in.

Uranus can't be seen this month.

Neptune as mentioned is close to Saturn in the morning twilight but the two planets are very low in the sky making them difficult to see.

PHENOMENA OF THE MONTH

(Table generated using Coelix Apex software):

Times are given in UT for Perton (2° 11' 0" W, 52° 35' 0" N, zone R).

Date	Hour	Description of the phenomenon
yyyy mm dd	hh:mm	
1 2025 06 01	00:00	GREATEST WESTERN ELONGATION of Venus (45.8°)
2 2025 06 03	04:41	FIRST QUARTER OF THE MOON
3 2025 06 07	11:42	Moon at apogee (geocentric dist. = 405553 km)
4 2025 06 10	03:45	Close encounter between Mercury and M 35 (topocentric dist. center to center = 1.0°)
5 2025 06 11	08:44	FULL MOON
6 2025 06 17	17:59	Close encounter between Mars and Regulus (topocentric dist. center to center = 0.7°)
7 2025 06 18	20:19	LAST QUARTER OF THE MOON
8 2025 06 19	01:52	Close encounter between the Moon and Saturn (topocentric dist. center to center = 2.0°)
9 2025 06 19	03:08	Close encounter between the Moon and Neptune (topocentric dist. center to center = 1.2°)
10 2025 06 21	03:42	SUMMER SOLSTICE
11 2025 06 22	03:56	Close encounter between the Moon and Venus (topocentric dist. center to center = 5.9°)
12 2025 06 22	05:46	Close encounter between Mercury and Pollux (topocentric dist. center to center = 5.0°)
13 2025 06 23	03:45	Close encounter between the Moon and the Pleiades (topocentric dist. center to center = 0.3°)
14 2025 06 23	05:43	Moon at perigee (geocentric dist. = 363178 km)
15 2025 06 24	16:17	CONJUNCTION between Jupiter and the Sun (geoc. dist. center to center = 0.1°)
16 2025 06 25	11:31	NEW MOON
17 2025 06 27	03:49	Meteor shower : June Bootids (duration = 11.0 days)

International Space Station (ISS)

Forecast time for all visible passes this month

Date	Mag	Transit time	Start			High point	End		
			Time	Alt.degs.	Az.		Time	Alt.degs.	Az.
24-Jun	-1.3	02:09	03:35	10°	SSE	11°	03:37	10°	ESE
26-Jun	-2.1	05:11	03:33	10°	SSW	22°	03:38	10°	E
27-Jun	-1.7	03:11	02:46	13°	SSE	15°	02:49	10°	ESE
28-Jun	-1.3	00:26	01:59	10°	SE	10°	01:59	10°	SE
28-Jun	-3.0	06:06	03:32	11°	SW	37°	03:38	10°	E
29-Jun	-2.6	04:28	02:44	19°	SSW	28°	02:49	10°	E
30-Jun	-2.3	02:46	01:57	20°	SSE	20°	02:00	10°	E
30-Jun	-3.7	06:37	03:30	10°	WSW	58°	03:37	10°	E

You can also install these apps to check for passes

Android:
ISS Detector
Satellite Tracker



IOS:
ISS Spotter



The visible passes are all later in the month, earlier in the month passes are all during daylight. As always please check the Heavens-Above website also if you want to see the latest forecasts.

[source: <https://www.heavens-above.com/>]

METEOR SHOWERS

June Bootids – 22 June to 2 July – constellation Bootes

In most years, the June Bootids are weak and produce about 1-2 meteors per hour. A thin crescent Moon will not interfere this year. The peak is on 27 June, the radiant being overhead and visible all night. The shower originates from a short-period comet 7P/Pons-Winnecke and is very unpredictable. It showed unusual activity in 1998 (50-100 meteors per hour) and 2004 (20-50 meteors per hour). Another outburst was expected in 2010, but the shower produced less than ten meteors per hour.

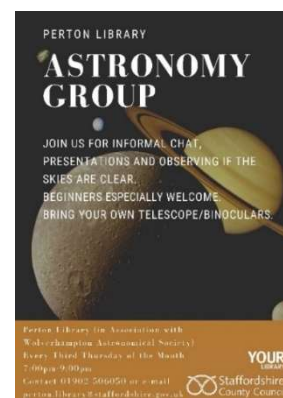
PERTON LIBRARY ASTRONOMY GROUP

The group meets on the third Thursday of every month of the year at Periton Library from 7pm to 9pm. No subscription, no need to book, all free, just drop in at any time during the evening.

(Location WV6 7QU or on what3words ///saints.empty.stands)

The group is a relaxed and friendly gathering with the occasional talk.

We are particularly suited to beginners who very often bring their telescopes along for advice on how to set up, and we have experienced members who can help with this. If the skies are clear we do try to do some observing with library and member equipment.



WOLVERHAMPTON ASTRONOMICAL SOCIETY LECTURE PROGRAMME

The Wolvas annual subscription remains a bargain at £10 per annum and you can sign up now our website www.wolvas.org.uk and pay your subscription, preferably by bank transfer.



We put together a yearly 16 lecture programme and some of this year's programme is shown below.

The host location for our live talks remains the University of Wolverhampton in the city centre. Access and facilities are excellent - details are available on the Wolvas website. Lectures in person or online will only be available to paid-up members of the Society. Members will receive regular emails with invitations to the Zoom sessions and reminders of the in-person lectures.

Non-members may attend the talks live for £2 on the door.

The last lecture for the current year is shown in the table below, after this we will have our usual summer break in our lecture season and they will resume in September. Please keep an eye on our website for updates.

Date	Speaker	Title of Talk
09-Jun-25	Dr Helen Mason	The A-X of Solar Flares
23-Jun-25	Cancelled	

As well as our webpage we will be posting details of events on social media, so keep an eye on our Facebook (<https://www.facebook.com/wolvasuk>) and X [Twitter] (<https://twitter.com/wolvasuk>) pages for the latest news.