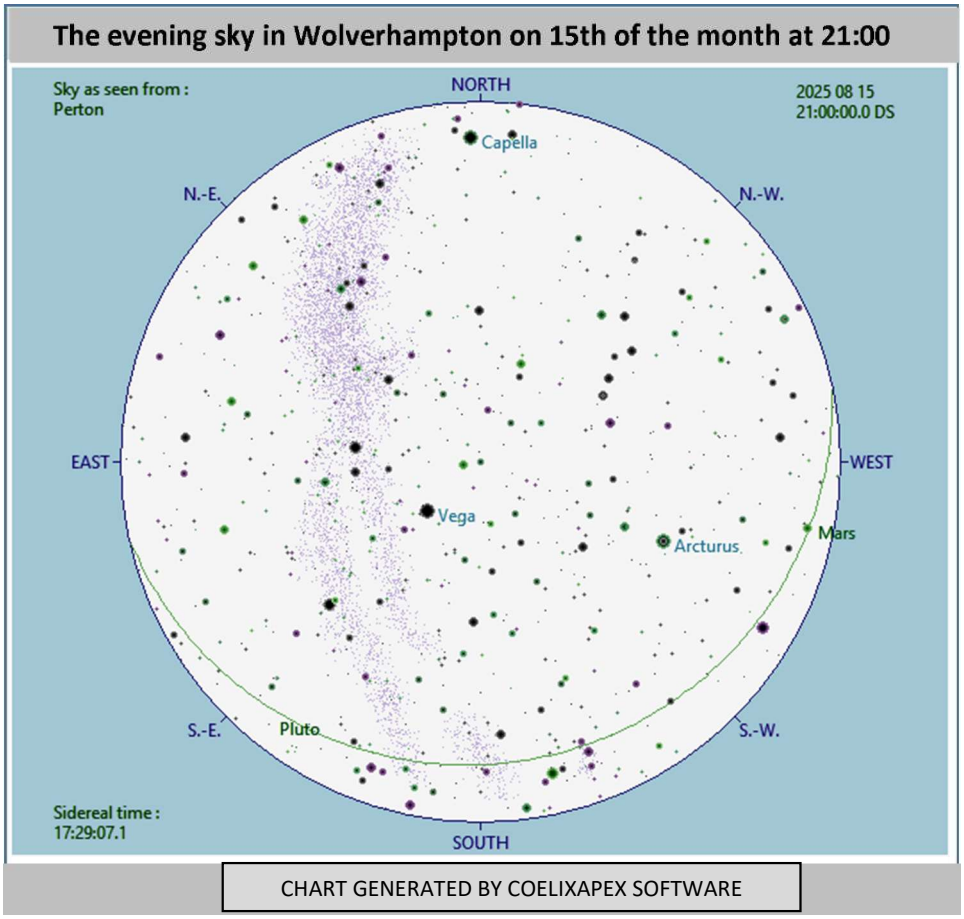
The Night Sky in August 2025

Monthly Guide
compiled by Doug Bickley

PERTON LIBRARY ASTRONOMY GROUP



Events to look out for this month:

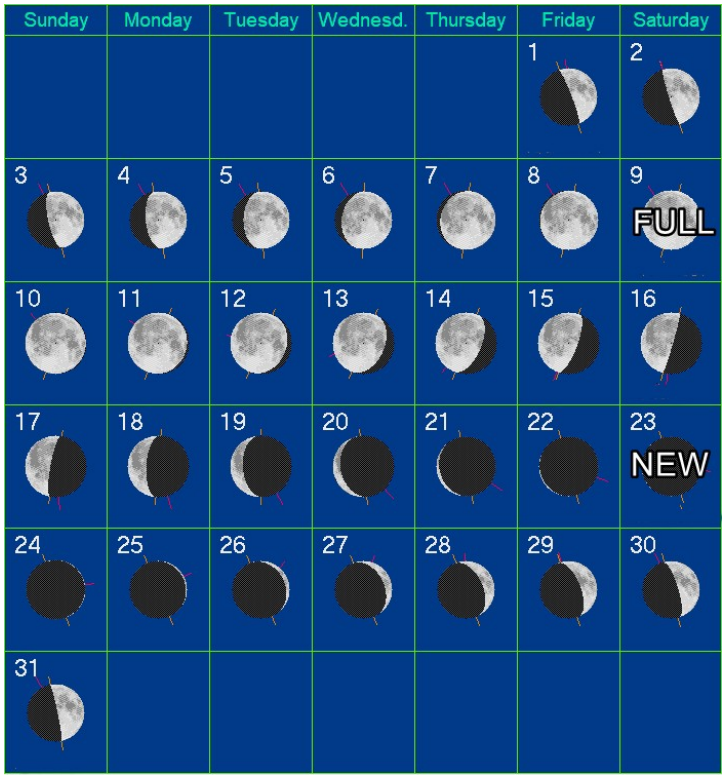
6	Saturn in conjunction with Neptune (morning)
9	Full Moon
11	Moon right of Saturn and Neptune (evening)
11	Moon left of Saturn and Neptune (evening)
12	Perseid meteor shower peak
16	Moon forms triangle with Pleiades M45 and Uranus (morning)
17	Moon forms square with Pleiades M45, Aldebaran and Uranus (morning)
19	Crescent Moon above Venus and Jupiter (morning twilight)
20	Crescent Moon close to Venus and Jupiter (morning twilight)
20	Mercury below Beehive Cluster M44 (morning twilight)
21	Crescent Moon forms triangle with Venus and Mercury (morning twilight)
21	Perton Library Astronomy Group meeting 7pm
22	Crescent Moon below left of Mercury (morning twilight)
23	New Moon
26	Crescent Moon below left of Mars (evening twilight)

THE MOON

Lunar Phases this month

Full Moon is on 9 August.

New Moon is on 23 August.



August's Full Moon is often called the Sturgeon Moon.

North American fishing tribes called August's full moon the sturgeon moon since the species appeared in number during this month. It's also been called the green corn moon, the grain moon, and the red moon for the reddish hue it often takes on in the summer haze.

The Celts called it Dispute Moon and Lynx Moon, and the Anglo-Saxons the Grain Moon. Other English names include Corn Moon and Lightning Moon.

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.

SUNRISE AND SUNSET TIMES THIS MONTH

	Sunrise	Sunset
Aug-01	5:28 AM	9:01 PM
Aug-15	5:51 AM	8:34 PM
Aug-31	6:18 AM	7:59 PM

Key:	Night	Twilight			Day
		Astronomical	Nautical	Civil	

PLANETS THIS MONTH

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

	Planetrise/Planetset, Fri, 15 Aug 2025			
Planet	Rise	Set	Meridian	Comment
Mercury	Fri 04:21	Fri 19:38	Fri 11:59	Difficult to see
Venus	Fri 02:38	Fri 18:56	Fri 10:47	Good visibility
Mars	Fri 09:57	Fri 21:45	Fri 15:52	Average visibility
Jupiter	Fri 02:20	Fri 18:51	Fri 10:36	Fairly good visibility
Saturn	Fri 21:43	Sat 09:30	Sat 03:37	Perfect visibility
Uranus	Fri 23:27	Sat 15:24	Sat 07:25	Difficult to see
Neptune	Fri 21:38	Sat 09:37	Sat 03:37	Difficult to see

Data from timeanddate.com

Although it's not getting dark until late the nights are noticeably starting to draw in. This is a good time to observe because it is still relatively warm in the evenings.

Here is my usual run-down of planetary movements for the month of August:

Mercury is still in Cancer in the ENE at a maximum altitude 8°, shining at mag -1.1 by month end. It will not be visible until the second half of the month when it emerges from the Sun's glare. On 20 August shining at mag +0.1 it lies just south of M44 the Beehive Cluster in the morning twilight just before sunrise. On 21 August a slim crescent Moon joins the party.

Venus is still in the ENE in Gemini at a maximum altitude of 13°, a morning planet (often called the Morning Star) shining brightly but dimming during the month to mag -3.8 by month end. On 31 August the planet will be just south of the Beehive Cluster, in the morning twilight.

Mars is in the W but viewing will be compromised by bright evening twilight after sunset.

Jupiter is in Gemini in the E at a maximum altitude of 23°, shining at mag. -1.8 and another morning planet. It has a close encounter with Venus on 12 August, and on 20 August Jupiter and Venus will be joined by a 10%-lit waning crescent Moon.

Saturn is in the S in Pisces shining at mag +0.5 at a maximum altitude of 35° from mid-month onwards. The rings are still tilted edge-on to Earth and the planet is also close to Neptune. As Saturn continues its orbit, its tilt will change, and the rings will gradually become visible again, eventually becoming most prominent in 2032.

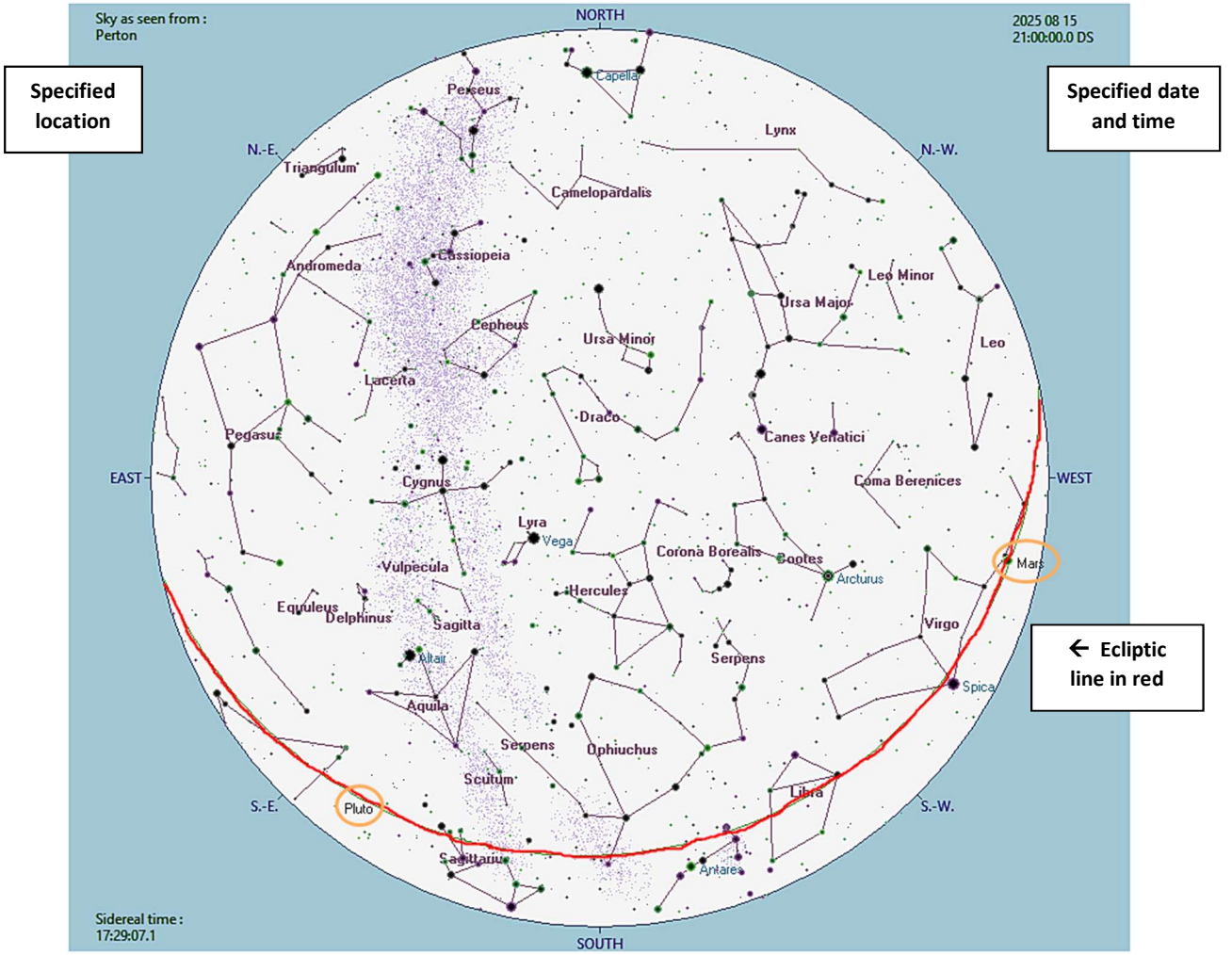
Uranus is in the SE in Taurus, shining at mag. +5.7 at a maximum altitude of 48° by later in the month. The planet will be close to M45 the Pleiades Cluster. Even in a small telescope it should be possible to see the greenish disc of the planet.

Neptune is in the S in Pisces at a maximum altitude of 36°, shining at mag. +7.8 and close to Saturn.

SKY VIEW CHART

So – what's the pretty map of the sky that I include on the first page every month? Nobody has ever asked me about it so I assume we all know what it is – Yes? – No? Anyway I thought an explanation might be useful. I anyone has any comments let me know – e.g. would a monthly larger chart be useful?

Here's this month's chart with the constellation names and lines added, and the ecliptic in red:



You'll have heard of and maybe own a planisphere – but sky charts are different.

A planisphere window is designed for **a set latitude** and will be good enough for a small range either side of that – but you **can change the time**. Planisphere makers will usually offer them in a number of versions for different latitudes, and they show stars visible from the observer's latitude; stars below the horizon are not included.

Sky maps are also used to locate stars and other objects in the sky, similar to a planisphere, but they are printed to show the entire sky as viewed from a **given location** at a **specified time and date**.

As you view the maps, do try to keep in mind that they actually represent the rotating, 3-dimensional, inverted "bowl" of the sky rather than a flat surface. Because Earth itself rotates toward the East, that inverted bowl appears to rotate toward the West. In the Northern Hemisphere we show West to the right.

- Look at the chart above - we are looking SOUTH (as shown at the bottom of the chart) directly at the constellation Ophiuchus. The centre of the chart is the point over your head, the zenith.
- If your viewpoint is looking NORTH you need to turn the chart upside down so you'll be looking directly at Camelopardalis (the Giraffe). For looking West and East you can probably work it out!

PHENOMENA OF THE MONTH

(Table generated using Coelix Apex software):

The phenomena of the month : August 2025

Times are given in daylight time for Perton (2° 11' 53" W, 52° 35' 26" N, zone Z).

	Date	Hour	Description of the phenomenon
	yyyy mm dd	hh:mm	
1	2025 08 01	00:41	INFERIOR CONJUNCTION of Mercury with the Sun (geoc. dist. center to center = 4.9°)
2	2025 08 01	13:41	FIRST QUARTER OF THE MOON
3	2025 08 01	21:37	Moon at apogee (geocentric dist. = 404161 km)
4	2025 08 02	05:59	Close encounter between Venus and M 35 (topocentric dist. center to center = 2.4°)
5	2025 08 09	08:55	FULL MOON
6	2025 08 12	07:41	Close encounter between Venus and Jupiter (topocentric dist. center to center = 0.9°)
7	2025 08 12	12:49	Meteor shower : Perseids (100 meteors/hour at zenith; duration = 38.0 days)
8	2025 08 14	19:01	Moon at perigee (geocentric dist. = 369288 km)
9	2025 08 16	06:12	LAST QUARTER OF THE MOON
10	2025 08 16	16:47	Meteor shower : Kappa Cygnids (3 meteors/hour at zenith; duration = 22.0 days)
11	2025 08 18	23:59	Close encounter between Mercury and M 44 (topocentric dist. center to center = 2.6°)
12	2025 08 19	12:00	GREATEST WESTERN ELONGATION of Mercury (18.6°)
13	2025 08 20	15:54	Close encounter between the Moon and Venus (topocentric dist. center to center = 4.0°)
14	2025 08 23	07:06	NEW MOON
15	2025 08 29	16:34	Moon at apogee (geocentric dist. = 404548 km)
16	2025 08 31	07:25	FIRST QUARTER OF THE MOON
17	2025 08 31	10:11	Meteor shower : Alpha Aurigids (10 meteors/hour at zenith; duration = 8.0 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.
22-Aug	-1.6	04:34	04:42	10°	S	18°	04:46	10°	E
23-Aug	-1.3	01:54	03:55	12°	SSE	12°	03:57	10°	ESE
24-Aug	-2.6	04:53	04:41	18°	SSW	31°	04:46	10°	E
25-Aug	-2.2	02:49	03:54	23°	SSE	23°	03:57	10°	E
25-Aug	-3.6	06:38	05:27	10°	WSW	63°	05:34	10°	E
26-Aug	-1.1	00:36	03:07	13°	ESE	13°	03:07	10°	ESE
26-Aug	-3.4	05:00	04:40	24°	SW	51°	04:45	10°	E
27-Aug	-3.1	03:07	03:53	39°	SSE	39°	03:56	10°	E
27-Aug	-3.8	06:42	05:26	10°	W	76°	05:33	10°	E
28-Aug	-1.5	01:10	03:06	18°	ESE	18°	03:07	10°	E
28-Aug	-3.8	05:06	04:39	25°	WSW	70°	04:44	10°	E
29-Aug	-3.7	03:12	03:52	60°	SSE	60°	03:55	10°	E
29-Aug	-3.8	06:41	05:25	10°	W	74°	05:31	10°	ESE
30-Aug	-1.6	01:17	03:05	21°	E	21°	03:06	10°	E
30-Aug	-3.9	05:06	04:37	26°	W	77°	04:42	10°	E
31-Aug	-3.8	03:08	03:50	71°	SE	71°	03:54	10°	E
31-Aug	-3.6	06:35	05:24	10°	W	57°	05:30	10°	ESE

You can also install these apps to check for passes

Android:
ISS Detector
Satellite Tracker

IOS:
ISS Spotter

All visible passes are shown, as you can see not many until later in the month.
Check the Heavens-Above website for this and the latest forecasts.
[source: https://www.heavens-above.com/]

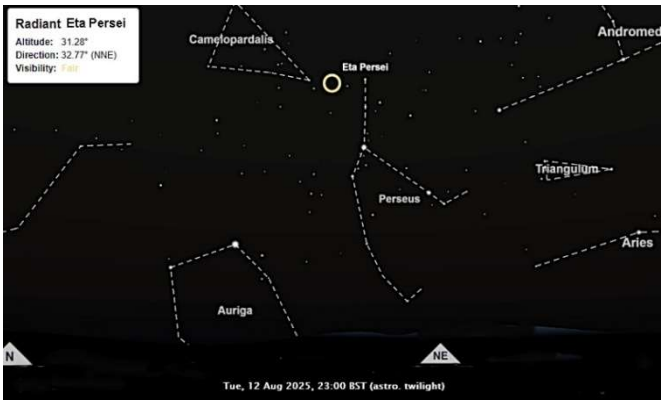
METEOR SHOWERS

August 12/13: Perseids

The Perseid meteor shower is usually one of the most active and brightest meteor showers of the year and are made of tiny space debris from the comet Swift-Tuttle. They occur every year between July 17 and August 24 and tend to peak around August 9-13.

They are named after the constellation Perseus because the direction, or radiant, from which the shower seems to come in the sky lies in the same direction as Perseus as shown in the picture.

On a good year and clear night it is possible to see between 60 to 100 meteors in an hour from a dark place.
This year the Perseids coincide with a bright Waning Gibbous Moon, only Full three days before, which may reduce the overall number of meteors that can be seen.
Meteor showers appear to originate from the radiant, but meteors can appear in any part of the sky.



<u>Top tips for meteor watchers:</u>

- Find a place where artificial lights do not spoil your viewing, the darker the skies, the better your chances.
- You won't need any special equipment, you should be ok with just your naked eyes.
- A blanket or a comfortable chair is useful - viewing meteors, just like any other kind of star gazing, is a waiting game, and you need to be comfortable - take a warm drink and relax.
- Check the weather and moonrise and set times for your location and plan around these.
- Some people mistakenly think that, since meteor showers have radiant points, you should look in the direction of the shower's radiant point to see the most meteors - but meteors can appear in all parts of the sky.
- Bring a friend - then two of you can watch in different directions (you'll be looking the wrong way when a massive fireball goes over…)
- Be patient.

PERTON LIBRARY ASTRONOMY GROUP

The group meets on the third Thursday of every month of the year at Perton 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.

Our lecture season has finished for our usual summer break they will resume in September. Please keep an eye on our website for updates.
Here is a taster for some of the upcoming lectures:

08-Sep-25	Dr Andrew Gascoyne (W'ton University)	Dark Spots, Bright Stories: the History of Sunspots
06-Oct-25	AGM + Short Talk - Steve Wootton	Short Talk - Constellations
03-Nov-25	Robin Scagell (SPA Vice President)	City Astronomy
17-Nov-25	Mike Frost	Who's Who in the Moon
12-Jan-26	Dr Steve Barrett	ABC of Stellar Evolution
19-Jan-26	Andrew Thornett	Getting started in radio astronomy
02-Feb-26	Gary Poyner	T Corona Borealis - The Jewel in the Crown
02-Mar-26	Fran Bagnall	Juno Mission
16-Mar-26	Simon Banton	The Astronomy of Stonehenge

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.