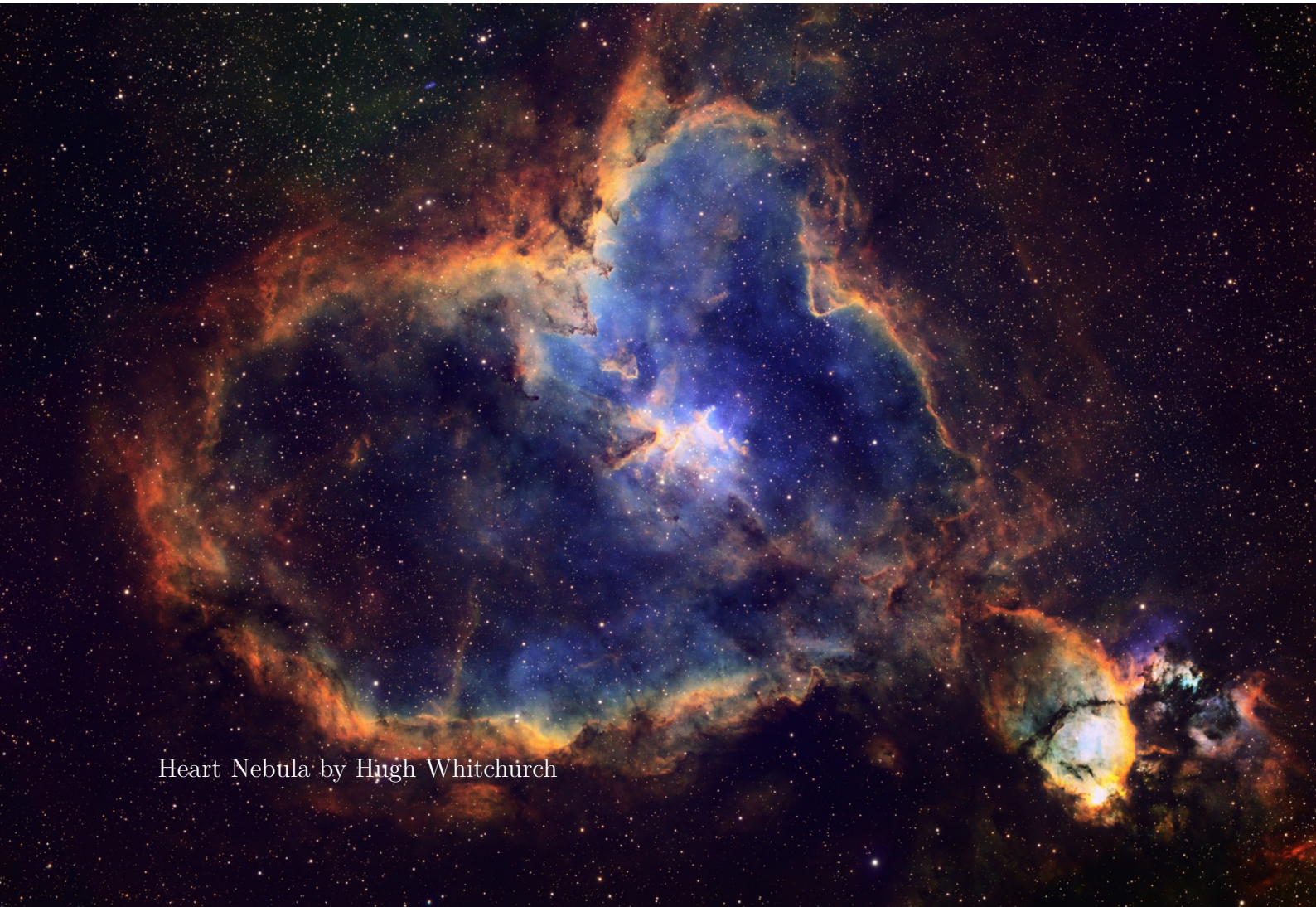
Astronomy
La Société Guernesiaise

Sagittarius

The Newsletter of the Astronomy Section of La Société Guernesiaise — 2026



Heart Nebula by High Whitchurch

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About the Astronomy Section

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The Astronomy Section of La Société Guernesiaise promotes the enjoyment and understanding of astronomy through talks, observing, outreach, and shared enthusiasm for the night sky.

Section Meetings

The Section meets at the Observatory **every Tuesday** evening from **8 p.m.** with a talk, discussion and/or observing.

For the currently planned talks and events, see Upcoming Talks and Events.

David Le Conte Astronomical Observatory

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Astronomy Section Officers

Role	Person
Secretary	Elaine Mahy
Honorary Treasurer	Chris Guerin
Equipment Officer	Matt Skillett

Other Section Roles

Role	Person
IT / Website	Robert Roue
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Submissions

Material for and enquiries about the Sagittarius newsletter should be sent to The Editor

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About the Astronomy Section Website

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The Astronomy Section website is available at www.astronomy.org.gg

Submissions

Please send any website submissions to astronomy@societe.org.gg

From the Webmaster

Robert Roue

I joined the Astronomy Section in Autumn 2023 as a way to reconnect with a past passion. I am a visual observer at heart, my own telescope being a 300mm manual Dobsonian. Since joining, I have learnt a great deal from our section presentations and through the shared knowledge of our members.

In my professional life, I work in IT support at a bank. Outside the office, I am a father of two young children, including one with additional learning needs. My lived experience with neurodivergence has led me to become an active community volunteer and a member of a work-place group focused on awareness, integration, and reasonable adjustments for neurodivergent colleagues. I am very keen to bring this passion for diversity, equity, and inclusivity to our section to ensure it remains a welcoming space for everyone.

Whilst juggling work and family life, I consider helping with the running of the section as a rewarding extension of the hobby itself. I enjoy helping with our group visits, and since October, I have taken on the management of the section's website and IT.

The website should be a true reflection of our members' work. I welcome any contributions you might have, including:

- **Gallery Images:** Photos of your recent observations can be showcased along with a caption.

- **Educational Content:** Articles, guides, or "how-to" pieces that would work well as a web page and could be valuable to other members and website visitors.

Editorial and Reports

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Introduction from the Editor

Welcome to the 2026 edition of Sagittarius.

It is a pleasure to be editing the newsletter at a time when there is fresh energy around the Astronomy Section. I have been struck by the warmth, knowledge and enthusiasm of our members — and by how great the **David Le Conte Astronomical Observatory** site is for observing, learning, and sharing the sky together.

My thanks to **Elaine Mahy** and the long-standing Guernsey astronomy enthusiasts who have helped bring the Section together with such a friendly, practical spirit. Looking ahead, I am excited to help grow a welcoming community where everyone feels able to take part, whether you are brand new to astronomy or have years of experience.

Thank you to everyone who contributed to this edition. If you would like to write something for the next newsletter — an observing report, a short article, or an image with notes — please get in touch.

With best wishes,

Nick Rowe

Comments from the Honorary Treasurer

I have been interested in astronomy and astrophysics for as long as I can remember, but only joined the Section in 2025.

I was a science teacher for 11 years focusing on physics, and introduced the Astronomy GCSE to each of my schools. It was a learning curve for me - I found that I know a lot more about astrophysics than about practical astronomy!

I joined the Section for two main reasons:

- To share my theoretical knowledge, gained through my own education and my teaching career.
- To learn practical skills from others - I can explain how a telescope works far better than I can use one.

In terms of sharing theory, I also have a YouTube channel, Astronomy with Mr Guerin.

On the practical side, I have recently bought a second-hand Celestron 70AZ, and I would welcome help to use it effectively!

Chris Guerin

Astronomy Section Secretary's Report

This report covers the 15-month period from January 2025 to the end of March 2026.

Committee Changes

In July 2025, Jean Dean and most of the previous Astronomy Section committee stepped down. Thanks are due to those members on committee and others who assisted in running group and open events during that period, including: Martin Sarre, Stephanie Rice, Jacques Loveridge, Owain Catton, Jean Dean, Peter Langford, Allan Phillips, Thomas Harvey, Anthony Nel, and Robert Roue.

Maintenance at the site was carried out over the summer by a small number of members with Council permission, thanks to Robert Roue, Elaine Mahy, Clive Stubbings and Jenny Webster.

Following a members' meeting in September, an Annual Business Meeting was held in October. Officers for the section were elected: Elaine Mahy as Secretary, Matt Skillett as Equipment Officer, and Chris Guerin as Treasurer. Subsequently, Robert Roue has taken on the website / IT, and Nick Rowe has taken on the role of Sagittarius editor.

Other members have been involved in various ways, including Jill Barnicoat who kindly organised the Section's very enjoyable Christmas meal at Les Rocquettes Hotel, and Nick Després who has kindly continued to take care of mowing.

The arrangements for the Section are currently as follows:

- meetings for members are weekly on Tuesdays from 8 p.m., plus occasional extra events.
- group visits are arranged as per enquiries received; normally these run in winter months with the dark evenings.
- open events - one completed at Halloween 2025, with a series being planned for 2026.

Member Activities

We have a series of member talks, activities and observing projects planned and under way.

In early 2025 talks were presented by: Jason Hill on Stars, their Properties and Lifecycles; Robert Roue on Black Holes; Jean Dean on Marvels of the Solar System, as well as a number of video lectures.

Talks from October 2025 to March 2026 have been given by Chris Guerin on the Moon and the Apollo Missions. Elaine Mahy gave talks on the Autumn Night Sky, and in January on Planets and Observability with reference to the Planet Parade of 2025. Robert Roue has given talks on the Voyager Missions, and The Great Zoom: From 1mm to the Edge of Everything.

Current activity includes familiarising more active members with the telescopes, which will both aid opportunities for research and projects, and enable more of the active members to support our interactions with the community.

At our Tuesday meetings for members we also welcome potential new members and occasional visitors.

Group Visits and Open Events

Visits to the Observatory during early 2025 included 3rd St Martins Scouts, 12th Guernsey Cubs, 12th St Mary's Rainbows, and Adult Autism Group. A visit was also made to Blanchelande Park Care Home. In autumn we welcomed 3rd St Martins Cubs.

From January to March 2026, we hosted visits from 3rd St Martins Beavers, 9th St Peters Beavers, Goguetters WI, 4th Forest Air Scout Cubs, and Home Education group. We made a visit to the St Mary and St Michael Year 5 class at their school. One further visit is expected, and further enquiries are always welcome.

In early 2025 a busy open evening was held on 12th January, followed by a popular Partial Solar Eclipse open event on 27th March.

In October we held a joint Halloween Open Evening at the Observatory with the Bat and Entomology Sections, which was well attended considering it was a cloudy and rather windy night!

Volunteers running visits and open events over the winter season 2025-26 have included Elaine Mahy, Robert Roue, Jill Barnicoat, Chris Guerin, Nick Rowe, Grant Steer, Paul Gavey, Clive Stubbings, Matt Skillett and Jenny Webster.

In 2025, a total of £766 was raised from outreach events.

Donations from group visits from January to March 2026 have totalled £205.

Public Talks

On 9th March 2026, a number of members were able to attend Helen Sharman's talk for schools entitled "Out of this World". It was a fascinating talk about the practicalities of putting people into space; Helen's own experiences going to the Mir space station, and the general theme of being prepared and being open to opportunity.

On 23rd March 2026, the Ladies College arranged a very interesting evening talk about Exo-planets by Cambridge PhD student Akhil Kumar.

And on 31st March 2026, Astronomy Section members Chris Guerin, Clive Stubbings and Grant Steer prepared a public talk at the Frossard Theatre, Candie, about Artemis – "Return to the Moon".

New Members and Other Connections

We have been pleased to welcome several new members over the last few months who have got involved in Section activity, as well as meeting further prospective new members.

We have been approached by a representative of the Guernsey Muslim Initiative, to assist with crescent moon sightings which mark the beginning of the lunar month. It is interesting to learn this practical connection with astronomy, and it can be quite a challenge to find a really thin crescent moon very low in the sky.

We look forward to further connections with this group.

Astronomical Events

Eclipses

On 14th March 2025, a lunar eclipse was visible to the west before dawn, and observed by some members who took the trouble to wake up early! On 29th March 2025, many members observed the 31% partial solar eclipse during the morning from the Observatory and elsewhere on the island, using safe methods. Finally on 7th September, a lunar eclipse was visible rising in the east after sunset, appearing above a thin cloud layer to the delight of many people watching from the east coast of Guernsey.

Comets

Two comets featured in autumn 2025: Comet C/2025 A6 (Lemmon) and Comet C/2025 R2 (SWAN). Comet C/2025 A6 (Lemmon) first made an early morning showing at a good altitude in early October to the north-east, bright enough to spot with binoculars. By mid October it was visible to the north-west in the evening as well, by then brighter but at lower altitude. For several days while there was no moon, both comets were binocular objects in the evening, with Comet C/2025 R2 (SWAN) lying low to the south-west before it headed into the busy area of the Milky Way - making for an interesting outing to view and photograph them!

Planets

In early 2025 we were treated to a planet parade with some excellent opportunities to view and to photograph many of the planets during an evening. Mercury and Venus had favourable eastern elongations while Mars remained accessible at good altitude, enabling observation of each of their changing phases and apparent sizes. The outer planets Jupiter and Uranus were also visible at good altitudes, while Saturn and Neptune faded into the sunset, reappearing in summer prior to their opposition in September. Saturn's rings appeared edge on in March 2025, and close to edge-on again in autumn.

In early 2026 we began with good views of Jupiter, Uranus, Saturn and Neptune, and a reasonable eastern elongation of Mercury. Venus is also visible in the evening at best altitude from mid-April to mid-June, before a fairly unfavourable eastern elongation in August. Mars is the planet missing this time round – it will be visible again from mid 2026 before dawn.

Northern Lights

We continue to have some good opportunities to view the Northern Lights, or aurora borealis from Guernsey through solar maximum - though predicting these and being there at the right time is another matter! We have been lucky that so many people have now had a chance to view them and photograph them; that social media allows us to communicate these opportunities quickly, and that in Guernsey we can easily find dark spots to observe them from.

Elaine Mahy and Claire Adam, a local aurora enthusiast, took part in a BBC Radio Guernsey interview in January 2026 about the aurora.

Meteors

Although the Perseids in August were accompanied by the moon making viewing difficult, the Geminids in December were set against a dark moonless sky. We were fortunate to have some good Geminid meteor viewing weather. Some members completed a meteor count one clear evening four days prior to the peak, counting 12-15 meteors in an hour. On the peak night a good few bright meteors were visible.

Messier Marathon

The Messier Marathon is an observing event that runs all night to find as many of the 110 Messier objects as possible. These objects – originally catalogued so they would not be mistaken for comets - range from brighter star clusters to nebulae and galaxies. All are in the range of a small to medium telescope, and some are visible in binoculars or to the naked eye.

A new moon is needed to benefit from dark skies to see these objects most clearly, giving three approximately 7-day windows during the best part of the year for the event in February, March and April – and subject, of course, to the weather.

Various attempts were made at the Observatory in early 2026, lastly with an entire clear night!

Messier Marathon attempts:

- Thursday 19th-20th February 2026; several members observed through gaps in fairly persistent cloud, catching views of Saturn, Neptune and the Moon, and later 3 members remained to observe during a 3-hour gap in the clouds from 11 p.m. to 2 a.m., allowing us to view ~60 Messier objects.
- Saturday 14th-15th March 2026, clear until 3 a.m. – informal observing of 91 objects seen, including 43 photographically.
- Tuesday 17th-18th March 2026 to 5 a.m. – a clear Tuesday, so we welcomed 18 members and visitors to the Observatory, observing 70 Messier objects before midnight. A small number of members stayed on later to complete the project; overall 99 Messier objects were seen, plus an additional 4 captured photographically, totalling 103 of the 110. This is a great achievement considering the restrictions in visibility at the Observatory site.

These events have been very useful in giving members more practice in using the Meade and Takahashi telescopes, along with having some setups outside.

It was also useful to share ideas with Debby Quertier and Paul Gavey who had been involved in the last Messier Marathon held at the Section in the year 2000, when the Meade and Takahashi telescopes were newly installed.

Members involved in the Observatory attempts: Clive Stubbings, Robert Roue, Elaine Mahy, Grant Steer, Beverly Mason-Barney, Jennifer Webster, Jill Barnicoat, Paul Gavey and Thomas and Sam Loveridge.

Maintenance

In early 2025, maintenance work included tree cutting; full replacement of the telescope building roofing felt following storm damage; replacement of external lights, and laying a new concrete slab at the entrance to the telescope building. Summer maintenance included exterior painting of the meeting room building, shed and telescope building, meeting room window repairs, and a few other jobs. Mowing and gardening was carried out by members as needed.

My own comments

I am very pleased to have this opportunity to take the Section forward now alongside others who bring a variety of knowledge and experience. I would like to express my appreciation to all those who have helped the Section to be what it is, as well as to those who are contributing in so many ways now.

For those who don't know me, I've had a keen interest in astronomy since childhood. Over the years I've enjoyed binocular astronomy, observing from skies around the world, astronavigation, and taking my Astronomy GCSE. Section membership since 2017 has helped me learn about telescopes and photography and to update my astronomical knowledge, and I have enjoyed sharing my own knowledge and enthusiasm both within and outside the Section. Most importantly, I have met some amazing people.

Finally, the Section is run by its members, for its members. While the aim of the Section is to promote an interest in astronomy, it is also an organisation that people choose to join for leisure. The diversity of members makes the Section. Each person should be respected and valued for who they are.

Elaine Mahy

Upcoming Talks and Events

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Weekly Meetings

We open for scheduled meetings every Tuesday from 8 p.m. All members (and potential members / occasional visitors) are welcome.

Some talks and events are scheduled, as below. We also run discussions, practical activities, and observing when the weather is clear.

Dates may be changed for example if a good observing evening displaces a talk, or if a reserved observing evening is cloudy.

Please keep an eye out for any updates to the schedule, which will be circulated to members by email, and via the Section's Facebook page.

This Year So Far

- 06 January - *Planning meeting*
- 13 January - Planets and Observability (**Speaker: Elaine Mahy**)
- 20 January - Apollo Missions (**Speaker: Chris Guerin**)
- 03 February - Planning a Messier Marathon (**Speaker: Elaine Mahy**)
- 10 February - Voyager: A Lifetime Amongst the Stars (**Speaker: Robert Roue**)
- 17 February - *First Window for Messier Marathon Attempt*
- 18 March - *Second Window for Messier Marathon Attempt*
- 24 March - The Great Zoom: From 1mm to the Edge of Everything (**Speaker: Robert Roue**)

Juno: Peering Beneath Jupiter's Clouds

(Date TBC)

NASA's Juno spacecraft has been orbiting Jupiter since 2016, transforming our understanding of the giant planet. By flying closer than any previous mission, Juno has revealed new insights into Jupiter's interior structure, powerful magnetic field, deep atmospheric dynamics, and spectacular polar cyclones. This talk will explore Juno's scientific goals, how it studies Jupiter, and some of its most surprising discoveries about our Solar System's largest planet and its moons.

Speaker: Matt Skillett

Rockets Talk – Boots

(Date TBC)

Humanity has long imagined leaving Earth and standing on another world. So far, the only time that happened was briefly, when NASA went to the Moon in the 1970s. What real plans are there in 2026, what progress has been made, how will it happen, and when will humanity next plant its boots on another world?

Speaker: Clive Stubbings

Astronomy Recollections around the World

(Date TBC)

From Guernsey, over the ocean, past the Equator, to southern skies. Find out what other ways there are to view the sky, and some of the surprising finds.

Speaker: Elaine Mahy

The Night Sky in Spring

(Date TBC)

Learn your way around the Spring night sky, as the temperature rises and the evenings draw out. Observe how the evening constellations appear to progress rapidly month by month during Spring - and it's also a good time for observing planets and the Moon. If you're an early bird, the Milky Way is becoming visible in the pre-dawn hours.

Speaker: Elaine Mahy

The Summer Sky

(Date TBC)

How and when to observe the sky through the longest days / the shortest nights. What can be seen, and what you may never have thought to look at, but can with a little more effort…

Speaker: Elaine Mahy

We would welcome further ideas and offers of talks from any members or other interesting contacts.

Astronomical Events and Observing Guide

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Welcome to the Astronomy Section's observing guide for 2026!

There are many events to see throughout the year - and of especial note will be the 94.4% partial solar eclipse visible from Guernsey on 12th August - the best one since 1999!

Solar System

The Sun

Date	Event	Notes
Jan 03	Earth at Perihelion	The closest point in Earth's orbit about the Sun (17:15 UTC). Distance 147,099,894 km.
Jul 06	Earth at Aphelion	Farthest from the Sun (18:30 BST). Distance 152,087,774 km.
Aug 12	Partial Solar Eclipse in Europe	Partial from Guernsey; totality track through eastern Greenland, Iceland, northern Portugal, and northern Spain.

For more information on the partial solar eclipse from Guernsey, see Eclipses - Solar

Sources: (Time and Date 2026j, Time and Date 2026l)

Stellar Resource 1 - Solar Cycle Forecast

The Marshall Space Flight Center - Solar Cycle Forecast

Updated monthly, its uses include the planning of future spacecraft missions.

It shows plots (with underlying tabular data) for *sunspot numbers*, *radio flux* and *geomagnetic index Ap*.

The plots show years from 2018 to 2032, allowing you to visualise the 2026 forecasts in the context of past observed data as well as future years' forecast data.

Sources: (NASA 2026a)

Stellar Resource 2 - Sun Graph for Guernsey

Time and Date - 2026 Sun Graph for Guernsey

Slide to any date and click to toggle freezing the slider. Beneath the lower bar, figures are shown for Night; Astronomical, Nautical, and Civil Twilight; then Daylight, before stepping back through twilight (Civil, Nautical, Astronomical) into Night. Switch to *Day/Night Length* where you can see that *there is a period in summer* (in 2026 it is from 6th June to 7th July) *with no true night in Guernsey!* (only Astronomical Twilight at the darkest)

Sources: (Time and Date 2026a)

The Planets

Date	Planet	Event	Further Notes / Visibility
Jan 10	Jupiter	At Opposition	Constellation: Gemini
Feb 19	Mercury	At Greatest Eastern Elongation	After sunset
Feb 28	All Except Mars	Planets Parade	Above horizon after sunset
Apr 03	Mercury	At Greatest Western Elongation	Before sunrise
Jun 12	Jupiter, Mercury and Venus	Mini Alignment	After sunset - challenging
Jun 15	Mercury	At Greatest Eastern Elongation	After sunset
Aug 02	Mercury	At Greatest Western Elongation	Before sunrise
Aug 12	All Except Venus	Planets Parade	Above horizon before sunrise
Aug 15	Venus	At Greatest Eastern Elongation	Evening
Sep 26	Neptune	At Opposition	Constellation: Pisces
Oct 04	Saturn	At Opposition	Constellation: Cetus
Oct 12	Mercury	At Greatest Eastern Elongation	After sunset
Nov 20	Mercury	At Greatest Western Elongation	Before sunrise
Nov 25	Uranus	At Opposition	Constellation: Taurus
Nov 30	Mercury, Venus, Mars, Jupiter, Uranus	Planets Parade	Before dawn

Mercury

The most favourable elongations in 2026 are 19th February (evening), 15th June (evening), 2nd August (morning), 21st November (morning).

Venus

Venus will be reasonably well positioned to view in the evenings of April to July, however the greatest eastern elongation at dusk on 15th August is not favourable from the northern hemisphere. Good views of Venus will be seen before dawn to the south-east from mid November 2026 until mid February 2027, and is best at greatest western elongation on 3rd January 2027 when it is also in a wide conjunction with the crescent Moon.

Mars

Mars is not visible until around June when it will be viewable low in the dawn sky to the east-north-east. Views before dawn will improve for the rest of the year, including a triple conjunction with Jupiter and Regulus in late November. Mars' next opposition is 19th February 2027.

Jupiter

Jupiter was at opposition on 10th January 2026, and next opposition is 11th February 2027. We will have good views of Jupiter during the evenings until its conjunction with Venus on 9th June. It can be seen between Venus and Mercury on 17th June when the crescent Moon also lies very close to Venus. On 24th June Jupiter and Mercury are at their closest, then both fade into the Sun's glare as Jupiter approaches conjunction on 29th July. Jupiter will be visible before dawn from late August, becoming more prominent in the morning skies for the rest of the year.

Saturn

Saturn is visible in the evenings to the west-south-west until approximately 8th March when it lies in conjunction with Venus. After that it will fade into the dusk as it approaches conjunction on 25th March. From mid May it will become visible again low in the pre-dawn sky to the east, and will become visible in the evenings from August. Best views are around opposition on 4th October, and it will remain an easy evening object for the rest of the year. From early 2026 when the ring-plane is still almost edge on, a significant opening of the rings will be apparent, appearing greatest in September before narrowing a little again towards the end of the year. It will also be noted that the moons of Saturn will change from appearing to lie almost in a line when the rings are edge on, with frequent moon and shadow transits across the planet; to a fair scattering around the planet as the rings are more open, with only the closer moons showing transits and shadows.

Uranus

Uranus is an easy binocular or telescope object at good altitude in the early part of the year, lying close to the Pleiades star cluster. Uranus lies in conjunction with Venus and the Pleiades on 23rd April, after which it will fade into the Sun's glare. Uranus will become visible again in the pre-dawn sky near Mars, with a close Uranus-Mars conjunction on 4th July. Views of Uranus will improve over the following months, with opposition on 25th November.

Neptune

Neptune lies in conjunction with Saturn in Pisces on 15th February after sunset low to the WSW, and with the thin crescent moon close by as well on the 19th February, along with Mercury below. Disappearing into the dusk until its conjunction on 22nd March, Neptune will reappear in the dawn skies from June onwards, with views improving towards opposition on 26th September. It will remain visible as an evening object for the remainder of the year.

Overall

All five of the superior planets currently lie at or above the celestial equator so rise to a good altitude at our latitude.

Pluto

Pluto (a dwarf planet) at present lies in Capricorn, a particularly low point along the ecliptic for us to view at our latitude. When Pluto was discovered 96 years ago, it was high up in Gemini. It has completed less than half of its 248-year orbit since we have been aware of its existence! Pluto is in theory visible with a medium to large telescope, however it is not easy to see at low altitude. (You could, of course, go to the southern hemisphere for a better view!). It is however moving to a part of the sky with fewer stars, so if we can see it, it will at least be easier to pick out … ! Pluto moves only very slowly against the background stars - and it will remain in Capricorn until 2038.

Other Notes

- 28 February is the main opportunity to see a 'planets parade', featuring Mercury, Venus, Jupiter, Saturn, Uranus and Neptune.
- 12 August is another - albeit less good - opportunity, but might serve as a warm-up before the main event later in the day: the partial solar eclipse.
- There is no Mars opposition in 2026, the next one being 19th February 2027. (In-The-Sky.org 2026t)
- The June 12 'Mini' Alignment is challenging and likely best viewed - if attempted - at 22:00 BST.

> **Tip**
>
> In Stellarium you can use the time travel feature (along with your location) to see where the three planets will appear.

n.b. for planets parade photography from 2025 see Astrophotography - Planets Parade.

Sources: (EarthSky 2026d, In-The-Sky.org 2026l, In-The-Sky.org 2026s, In-The-Sky.org 2026r, In-The-Sky.org 2026t, In-The-Sky.org 2026v, In-The-Sky.org 2026u, In-The-Sky.org 2026y, In-The-Sky.org 2026x, In-The-Sky.org 2026m, In-The-Sky.org 2026aa, In-The-Sky.org 2026z, Star Walk 2026a, Stellarium 2026, Time and Date 2026b)

Minor Planets

Table 4: Minor Planets at Opposition (2026)

Date	Object	Minor Planet Sub-Type	Event	Mag	Constellation
Jan 02	40 Harmonia	Asteroid	At opposition	+9.0	Gemini
Jan 23	44 Nysa	Asteroid	At opposition	+8.6	Cancer
Feb 27	7 Iris	Asteroid	At opposition	+8.9	Sextans
Mar 21	20 Massalia	Asteroid	At opposition	+9.0	Virgo
Jul 09	8 Flora	Asteroid	At opposition	+8.9	Sagittarius
Jul 09	18 Melpomene	Asteroid	At opposition	+8.9	Aquila
Jul 26	3 Juno	Asteroid	At opposition	+9.1	Aquila

Date	Object	Minor Planet Sub-Type	Event	Mag	Constellation
Sep 30	192 Nausikaa	Asteroid	At opposition	+8.4	Pisces
Oct 04	2 Pallas	Asteroid	At opposition	+8.2	Cetus
Oct 13	4 Vesta	Asteroid	At opposition	+6.5	Cetus

Minor Planets reaching opposition in 2026 brighter than magnitude +9.5.

Observers Notes

- **Bright Start:** The year begins with 44 Nysa reaching magnitude +8.6 in Cancer on Jan 23, followed by 7 Iris (mag +8.9) in February.
- **July Double Header:** Two major asteroids reach opposition on the same date, July 9. 8 Flora will be in Sagittarius (mag +8.9), while 18 Melpomene will be in Aquila (mag +8.9).
- **Brightest Target:** 4 Vesta is the brightest asteroid of the year, reaching magnitude +6.5 in October.
- **Cetus Pair:** Both 2 Pallas and 4 Vesta appear in the constellation Cetus in October, reaching opposition just nine days apart.
- **1 Ceres:** The Dwarf Planet Ceres does not appear on this list as it reaches solar conjunction in May 2026 and does not reach opposition during the year. (In-The-Sky.org 2026a)

Sources: (In-The-Sky.org 2026a, In-The-Sky.org 2026k, In-The-Sky.org 2026h, In-The-Sky.org 2026j, In-The-Sky.org 2026f, In-The-Sky.org 2026e, In-The-Sky.org 2026b, In-The-Sky.org 2026c, In-The-Sky.org 2026i, In-The-Sky.org 2026d, In-The-Sky.org 2026g)

Comets

Perihelion	Comet	Perihelion Magnitude	Closest Approach	Closest Approach Magnitude	Information
Jan 08	24P/Schaumasse	9.7	Jan 04, 2026	9.8	Visible in morning sky
Jan 20	C/2024 E1 (Wierzchos)	8.1	Feb 17, 2026	8.7	Southern Hemisphere around perihelion; both hemispheres around closest approach to Earth
Early Apr	C/2026 A1 (MAPS)	-3.4	Apr 05, 2026	7.4	Kreutz sungrazer at perihelion. Newly discovered; could be naked-eye or break up
Apr 19	C/2025 R3 (PanSTARRS)	6.8	Apr 26, 2026	6 (possibly 3.3)	Visible in morning sky
Aug 02	10P/Tempel 2	6.9	Aug 03, 2026	6.9	Visible in evening sky

Note: 24P/Schaumasse will remain visible through telescopes until the end of February, fading to about magnitude 11 by then.

C/2025 R3 (PanSTARRS) has the potential to be the brightest comet of 2026. It could brighten to magnitude 3.3 due to forward scattering, making it visible to the naked eye. Best viewing from the Northern Hemisphere will be in late April in the morning sky.

C/2026 A1 (MAPS) is a newly discovered sungrazer that may become spectacular but will be difficult to observe due to its proximity to the Sun.

Sources: (Buitenen, Arne van 2026, In-The-Sky.org 2026p, Star Walk 2026b)

The Moon

Phases of the Moon

New Moon		First Quarter	Full Moon		Third Quarter
			Jan 03		Jan 10
Jan 18		Jan 26	Feb 01		Feb 09
Feb 17		Feb 24	Mar 03		Mar 11
Mar 19		Mar 25	Apr 02		Apr 10
Apr 17		Apr 24	May 01		May 09
May 16	*SN*	May 23	May 31	*BMI*	Jun 08
Jun 15	*SN*	Jun 21	Jun 30	*MF*	Jul 07
Jul 14		Jul 21	Jul 29		Aug 06
Aug 12		Aug 20	Aug 28	*PE*	Sep 04
Sep 11		Sep 18	Sep 26		Oct 03
Oct 10		Oct 18	Oct 26		Nov 01
Nov 09		Nov 17	Nov 24		Dec 01
Dec 09		Dec 17	Dec 24	*SF*	Dec 30

Moon phase dates are listed for St Peter Port local time (GMT/BST).

The highlighted abbreviations are explained below.

Note that while December 24 is the only full moon to fall within the strict 360,000 km limit often used by astronomers for a 'supermoon', broader definitions based on a 90% proximity to perigee also classify the full moons of January and November as super full moons, as well as the new moons of April, July, and August as super new moons.

Sources: (Time and Date 2026e, Time and Date 2026o)

Special Lunar Event Abbreviations

Abbreviation	Meaning
SN	Super New Moon - at or near perigee (closest to Earth) - slightly increased gravitational effect on tides
BMI	Blue Moon - 2nd full in month & Micro Full Moon! (see below)
MF	Micro Full Moon (Apogean Full Moon) - at or near Apogee (farthest from Earth) 14% smaller and 30% dimmer than its opposite i.e. SF
PE	Partial (Lunar) Eclipse - part of the Moon passes through the Umbra (Earth's darkest shadow)
SF	Super Full Moon (Perigean Full Moon) - at or near perigee (closest to Earth) - impressive views - slightly increased gravitational effect on tides

Events of particular note are the *partial lunar eclipse* in late August, the *Blue Micro-Moon* on 31 May, the *Micro Full Moon* on 30 June, and the *Super Full Moon* on 24 December. Super New Moons fall on 16 May and 15 June. (Also see Eclipses - Lunar)

For the micro full moons, it could be interesting to see if it is possible to perceive them as smaller and dimmer.

Blue moons are no different save their calendar significance.

A new moon is an astronomical conjunction where the Sun and Moon share the same ecliptic longitude. When perfectly aligned, we get a solar eclipse - essentially a grand 'occultation' where the Moon blocks the Sun from our view.

When the Moon is at or near perigee, it has a slightly increased gravitational effect on tides.

Sources: (EarthSky 2026f, EarthSky 2026e, Time and Date 2026e)

Lunar Conjunctions

These lunar conjunctions occur when the Moon and a planet share the same Right Ascension (RA), making them appear close together from our perspective on Earth. *(A perfect alignment would instead be an occultation.)* The best lunar conjunctions are as follows

Date	Planet	Moon Phase	Notes
Jun 17	Venus	Waxing Crescent	
Sep 14	Venus	Waxing Crescent	For experienced observers only
Oct 05	Mars	Waning Crescent	
Oct 06	Jupiter	Waning Crescent	
Nov 02	Mars	Last Quarter	
Nov 02	Jupiter	Last Quarter	
Nov 07	Venus	Waning Crescent	
Nov 30	Jupiter	Waning Gibbous	

Note: The Oct 06 Jupiter conjunction occurs a few hours after sunrise. It can still be seen in binoculars or telescope (do not aim any optical aid near the Sun).

Earthshine

On October 6th, the Moon is a waning crescent (20% illuminated). While slightly thick, it offers a potential opportunity to photograph earthshine alongside Jupiter from a dark location.

On November 2nd, the Moon is a Last Quarter (Half Moon). While this conjunction with the Moon, Mars and Jupiter will be striking, the Moon will be too bright to observe earthshine.

November 7th offers the best morning opportunity: the Moon will be a very thin crescent (4% illuminated) close to Venus in the dawn sky, ideal for spotting earthshine if the horizon is clear. The bright star Spica adds a third element to this conjunction and it could be a lovely one to observe.

Sources: (Time and Date 2026f, Time and Date 2026i, Time and Date 2026h, Time and Date 2026g, Time and Date 2026e)

Events and Phenomena

Lunar Eclipses

As indicated in the Phases of the Moon section, there is a *partial lunar eclipse* on 28th August.

Maximum eclipse is at 05:12 BST, with the Moon at 10.3° above the west-southwest horizon.

Although partial, the Moon nearly completely passes into the Earth's Umbra as observed from Guernsey.

Sources: (Time and Date 2026d)

Solar Eclipses

> **Warning**
>
> **Please be aware:** Use ISO 12312-2 certified solar filters (or equivalent) and observe with experienced Section members; never view the Sun directly or through unfiltered optics.

As indicated in the table in the section for The Sun, there is a *partial solar eclipse* (partial as observed from Guernsey) on 12th August, with a 94.4% magnitude. Local times are: start 18:20 BST, maximum 19:17 BST (Sun 10.8° altitude, west by north), and end 20:10 BST. Totality occurs along a path through eastern Greenland, Iceland, northern Portugal and northern Spain. On the Total Solar Eclipse on 12 Aug 2026: Path Map & Times, if you zoom in to Guernsey then left-click on the map, an info box with eclipse visibility information is given for that location, including an Obscuration percentage.

Sources: (Time and Date 2026l, Time and Date 2026n)

Occultations

Planet	Global Event	Global Date	Geocentric Time (GMT)	Local Event	Local Date	Local Conjunction Time	Sep. (T-O-M)°	Elev.
Venus	Occultation	Jun 17	20:30	Conjunction (Near Miss)	Jun 17	21:05 UT	0.62°	14.6°
Mars	Occultation	Oct 05	07:11	Wide Conjunction	Oct 05	05:17 UT	0.73°	49.1°

June 17 (Venus): Spectacular near-miss in the evening twilight.

October 05 (Mars): Occurs in nautical twilight with a wide separation.

Using the JPL Horizons application programming interface (API)

Note that the *'Local Conjunction Time'* in the above table links to parameterised queries against the JPL Horizons application programming interface (API).

This application programming interface was very useful to assess the events listed as Occultations on *In The Sky* (which refer to global geocentric events) and determine the nature of the events from a local perspective in Guernsey.

As the Moon's apparent radius is $\approx 0.26^\circ$ (varying slightly with perigee/apogee), a *T-O-M* (Target-Observer-Moon) separation of $< 0.26^\circ$ indicates the planet is likely behind the Moon and an occultation is taking place.

The key parameters used for the June 17 event were:

Parameter	Value Used	Meaning
`COMMAND`	`'299'`	The target body ID (Venus).
`CENTER`	`'coord@399'`	Specifies that the observation point is a coordinate on Earth (@399).
`SITE_COORD`	`'-2.5852,49.4383,0'`	User coordinates: Longitude (West is negative), Latitude, Altitude (km).
`QUANTITIES`	`'1,4,20,25'`	The data columns to retrieve: RA/Dec (1), Az/El (4), Solar/Lunar Presence (20), and **Target-Observer-Moon angle** (25).
`TIME_TYPE`	`'UT'`	Forces the output to Universal Time (bypassing local timezone confusion).

To check other planets, you would change the `COMMAND` parameter to the appropriate body ID:

- Mercury: `'199'`
- Venus: `'299'`
- Mars: `'499'`
- Jupiter: `'599'`
- Saturn: `'699'`

Sources: (In-The-Sky.org 2026w, NASA/JPL 2026)

Planetary Conjunctions

Date	Planets	Position	Morning/Evening	Separation
Mar 08	Venus and Saturn	West	Evening	1°00’
Apr 20	Mercury and Saturn	East	Morning	0°30’
Apr 20	Saturn and Mars	East	Morning	1°18’
Jun 09	Venus and Jupiter	West	Evening	1°38’
Jul 04	Mars and Uranus	East	Morning	0°06’
Aug 15	Jupiter and Mercury	East	Morning	0°33’
Nov 15	Jupiter and Mars	South-East	Morning	1°14’

Three Planets

April 20: Mercury, Saturn, and Mars will all appear within a few degrees of each other. This is a very difficult observation from Guernsey: Mercury rises just minutes before the Sun. You will need a perfectly clear eastern horizon and binoculars to spot it very low in the brightening twilight (approximately 06:00 BST).

> **Warning**
>
> **Please be aware:** For observing prior to dawn, for safety, stop scanning for objects by half an hour before sunrise. The sky will already be too bright to see your target, and this will avoid any chance of accidentally viewing the Sun, which would be very dangerous through any form of optical aid.

Venus-Jupiter Conjunction

June 9: A stunning pairing of the two brightest planets. Separation is approx 1°38’. Look West about 45 minutes after sunset.

> **Tip**
>
> Wait until the Sun has fully dipped below the horizon before sweeping the area with binoculars to see them pop out of the twilight glow.

‘Independence Day’ Appulse

July 4: Mars and Uranus will appear so close (0°06’) that they may look like a single “double star” in low-power optics. Best viewing is 04:00–04:30 BST. You need binoculars to see the faint, pale green Uranus next to Mars before the pre-dawn sky gets too bright.

Sources: (In-The-Sky.org 2026o, In-The-Sky.org 2026n, NASA/JPL 2026)

Meteor Showers

Date	Meteor Shower Event	Dates of Activity	ZHR
Jan 04	Quadrantid meteor shower maximum	Dec 28 to Jan 12	120
Apr 22	April Lyrid meteor shower maximum	Apr 16 to Apr 25	18
May 06	η-Aquariid meteor shower maximum	Apr 19 to May 28	40
Jul 30	α-Capricornid meteor shower maximum	Jul 03 to Aug 15	5
Jul 30	Southern δ-Aquariid meteor shower maximum	Jul 12 to Aug 23	25
Aug 13	Perseid meteor shower maximum	Jul 17 to Aug 24	150
Sep 01	Aurigid meteor shower maximum	Aug 28 to Sep 05	6
Oct 09	Draconid meteor shower maximum	Oct 06 to Oct 10	10
Oct 21	Orionid meteor shower maximum	Oct 02 to Nov 07	15
Oct 10	Southern Taurid meteor shower maximum	Sep 10 to Nov 20	5
Nov 12	Northern Taurid meteor shower maximum	Oct 20 to Dec 10	5
Nov 18	Leonid meteor shower maximum	Nov 06 to Nov 30	15
Dec 14	Geminid meteor shower maximum	Dec 04 to Dec 20	120
Dec 22	Ursid meteor shower maximum	Dec 17 to Dec 26	10

2026 Highlights

The Perseids (August 13): This year offers ideal conditions. With the New Moon / Solar Eclipse occurring on August 12, the peak on the night of August 13 will be set against a perfectly dark sky.

The Geminids (December 14): The King of Meteor Showers will also be favourable. The Moon will be a Waxing Crescent (28% illuminated) and will set in the evening, leaving the peak hours after midnight dark and clear.

Notes on Observation: During meteor showers, meteors that emanate from within an 8° circle around the radiant are considered to belong to that shower. Observation is easiest when looking 40° to 45° away from the radiant *(about two stretched hand spans at arm's length).*

Meteors may appear in any part of the sky; the longest trails occur furthest from the radiant. Dress warmly and try to view as much sky area as possible for the best chance of seeing meteors. A comfortable reclining chair that supports your head is very useful. Once settled, let your eyes adapt to the darkness, which takes 20-30 minutes. Don't be tempted to look at your phone, or any other lights around. Best views are from dark sites away from light pollution. If you are observing from your home, switch off all lights that you can in the house, and find a suitable observing spot outside that shades you from any further light sources in the area. The later you observe, the more meteors you may see and hopefully the less light pollution there will be. See if you can count how many meteors you see in one hour!

Note: Peak dates and activity ranges may vary slightly across different astronomy guides due to time zone differences and prediction models. The table above primarily utilizes data from the Royal Museums Greenwich (2026).

Sources: (EarthSky 2026a, EarthSky 2026b, EarthSky 2026c, International Meteor Organization 2026, Royal Museums Greenwich 2026a, Time and Date 2026e)

Equinoxes and Solstices

Event	Date	Time
Vernal Equinox	Mar 20	14:46 GMT
Summer Solstice	Jun 21	09:24 BST
Autumnal Equinox	Sep 23	01:05 BST
Winter Solstice	Dec 21	20:50 GMT

Also see Time and Date - St Peter Port - Solstices and Equinoxes (Time and Date 2026k)

Sources: (Time and Date 2026k)

Satellites

The Starlink Train

Best seen in the days following a launch. See the following article for more background: Starlink satellite train: how to see and track it in the night sky (Space.com 2026)

There is no shortage of these satellites. As can be seen on the Satellite Map - Starlink (Satellite Map 2026)

The ISS

Best viewed when your location is in darkness but the station is sunlit, typically around dawn or dusk.

NASA has a 'Spot the Station' mobile app which includes location-relevant notifications - see Spot the Station (NASA 2026b)

The JUICE Spacecraft

ESA's JUICE Spacecraft will swing within 9000 km of Earth in September on a gravity assist manoeuvre.

See Royal Museums Greenwich - September Highlights (Royal Museums Greenwich 2026b) and ESA's Juice Page (European Space Agency 2026).

Such flybys can sometimes be observable—it may be worth monitoring online for updated information nearer the time when precise tracking data is released.

Sources: (European Space Agency 2026, NASA 2026b, Royal Museums Greenwich 2026b, Satellite Map 2026, Space.com 2026)

And Finally...

All the events tabulated in this guide are available in one chronology here: Year-at-a-Glance Chronology.

Articles

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Space, the Moon and the New Model

There is a new space race brewing, this time between the USA and China. Both are racing towards putting boots back on the Moon before the end of the decade.

NASA's Artemis-II rocket is just rolling out to Pad 39B for the second time after its roll-back due to a helium problem in the ICPS upper stage. Artemis is the cornerstone of NASA's bid to return to the Moon. This mission, the second of the Artemis program and the first crewed mission, takes astronauts on a fly-by of the Moon and back to Earth. In some ways, it is the Apollo-8 of our time, paving the way for Artemis-III to test out lunar landers in Earth orbit before Artemis-IV combines all the pieces and lands astronauts back on the Moon. At the time of writing, Artemis-II is scheduled for a launch in the April launch window between the 1st and 6th April.

The Artemis program is currently aiming for Artemis-IV to perform a 2028 landing in the South Pole region of the Moon.

Meanwhile, China is expected to launch the latest of its Chang'e series missions, Chang'e 7, in 2026 with a lunar lander and rover ahead of its first crewed lunar missions expected around 2029-2030.

Both the USA and China are actively recruiting other states to join their Lunar Clubs and both are planning bases in the south pole region. Competition drives both pace and innovation, so we can expect an interesting few years ahead.

One of the interesting features of Artemis is that it has gone to the commercial space market for its lander technology. The plan is to use the Artemis Orion capsule to ferry the astronauts to and from lunar orbit, but for them to dock with a waiting lunar lander. That lander is a variant of the huge, 9m diameter, SpaceX Starship and, in later missions, the Blue Origin Blue Moon lander.

Starship is SpaceX's next generation rocket currently under development in Boca Chica, Texas. The latest version is due to fly from the new launch tower within weeks.

Starship has the potential to completely change the rules of access to space. It is almost the opposite of the Artemis SLS rocket in its design goals and is a little bigger. NASA builds Artemis SLS rockets at a rate of roughly one every couple of years and flies each once. NASA is trying to increase launch cadence to more than one a year. SpaceX plans to build many Starship rockets each week, fly 1000s of times a year, and make them fully reusable.

This is what is really different about Starship; SpaceX want Starship to be optimised, bringing down the cost of access to space. As well as meeting the needs of conventional payloads to orbit and supporting NASA's Human Landing System, it makes it easier to carry large heavy payloads like new space stations and scientific equipment to space, and it supports their Mars and Moon plans.

So far it's not all been plain sailing: there have been some spectacular failures over the last year, but last year started on a high with a booster catch and ended on a high with a successful reentry and pinpoint splashdown. There are high hopes for the next test flight. NASA is banking on that for its lunar lander in 1-2 years' time.

The new space-economy is growing and diversifying. When NASA retired the space shuttle it was with the intent of moving to a more contractual arrangement, encouraging the private-sector to provide services that NASA could purchase. In theory this would deliver increased competition and choice while reducing cost. It has taken a while but we are now seeing the fruits of that policy. The SpaceX Falcon 9 rocket launched 165 times last year, with all but 8 of those launches being re-flown 1st-stage boosters. It flew all sorts of payloads, from tiny cube-sats for small companies and universities to the Blue Ghost commercial lunar lander, and it provides essential access to the ISS with Crew flights, commercial flights and freight. NASA now buys flights and saves money.

SpaceX is not alone as a commercial provider. There are an increasing number of new companies building space hardware in the USA and Europe. Even China appears to have a few new space companies that are not state owned.

In the USA, Blue Origin is one of the increasing number of new-space companies working to reduce the cost of access to space. They are also chomping at SpaceX's heels for NASA lunar projects and launch contracts. Blue have now flown their New Glenn rocket and on the second attempt recovered their New Glenn rocket following the Falcon-9 path. They are providing engines to ULA for their Vulcan rockets and are also a player in the sub-orbital space tourist business.

Blue Origin (and Virgin Galactic) sell suborbital flights, allowing "ordinary" people to visit space, albeit very briefly, and experience weightlessness. These flights go over the 80 or 100 km altitudes generally considered high enough to be space. For comparison, passenger aircraft fly just over 10 km. At 100 km the Earth is curved and the sky is black.

And to bring it all back home, this year in the UK we are expecting at least a couple of launches from the new UK, SaxaVord Spaceport. Both from new European rocket companies.

Space is becoming a real industry, with many new players around the world. Governments will continue to drive and fund challenging missions but the private sector will increasingly take more of the load.

That holiday in orbit or ticket to the moon is still some way off for most of us, but it is definitely looking nearer. So watch this space.

Author: Clive Stubbings

Beyond the De La Rue Ocean: Modern Celestial Names

Robert Roue on how celestial naming has evolved from Latin to global culture.

In the 2019 edition of *Sagittarius*, the late David Le Conte shared how Guernseyman Warren De La Rue (1815–1889) once had an ocean named after him on Mars. David's article, *"De La Rue Ocean on Mars"* explained how that 19th-century name was eventually replaced by the International Astronomical Union (IAU) in 1919 in favour of the classical Latin name we use today: *Mare Erythraeum*.

Inspired by David's exploration of that transition, I wanted to research the broader story behind these names. If the 1920s were about Latinising the sky for scientific neutrality, the 21st century is about globalising it, ensuring that the map of the stars reflects the diversity of the entire human race.

As David noted, the early map-makers of Mars, like Richard Proctor, were often biased, naming craters and seas after their friends and colleagues. When the IAU was formed, they realised that if every country named a planet's features after its own national heroes, the maps would become a political battlefield.

Their solution was to use Latin, a language belonging to no living nation. This gave us the classical era of nomenclature. For decades, if you discovered a ridge on Venus or a crater on Mercury, you looked to Virgil, Homer, or the Roman pantheon for a name.

Today, the IAU has moved far beyond the borders of Rome and Greece. As we discover thousands of features on distant moons like Titan or Enceladus, the Latin well has begun to run dry. In response, the IAU now assigns cultural themes to different worlds:

- Indigenous names: The dwarf planets in the Kuiper Belt are named after creator deities from non-European cultures, such as *Makemake* (Easter Island) and *Haumea* (Hawaii).
- Literary names: On Saturn's moon Titan, hills and mountains are named after the characters and mountains in J.R.R. Tolkien's Middle-earth, like *Bilbo Colles* or *Doom Mons*; and on Enceladus, craters are named after the characters from the Arabian Nights, such as *Shahrazad*, *Dunyazad* or *Ali Baba*.
- Global mythology: Saturn's outer irregularly orbiting moons are grouped into Inuit and Gallic clusters with prograde orbits, with names like *Paaliaq* and *Tarvos*; and the Norse retrograde clusters, such as *Ymir* and *Thrymr*, honouring the storytelling traditions of the far north and ancient Europe alike.

For many of us, the dream of naming a star is a common one. However, the process is far more rigorous than certain websites would have you believe. If you find a new asteroid, here is how it officially becomes a part of history:

1. Upon discovery, you report your coordinates to the Minor Planet Center (MPC). The object is given a "provisional designation" (like *2026 AB12*).
2. You must observe the object until its orbit is precisely determined. This often requires observations over several "oppositions", so this can take years.
3. Once the orbit is confirmed, the IAU assigns it a permanent number. Only then does the discoverer have the "naming privilege". For 10 years after numbering, you can propose a name to the IAU's *Working Group for Small Bodies Nomenclature*.

4. The name must be 16 characters or less, pronounceable, and non-offensive. To prevent the "Proctor problem" David wrote about, you cannot name it after yourself, and political/military figures must have been deceased for at least 100 years.

Curiously, whilst you are forbidden from naming an asteroid after yourself, the rules for comets are the exact opposite. By tradition, a comet is officially named after its discoverers (up to three people). This is how we get names like *Comet Hale-Bopp*.

However, even this is evolving. Most modern comets are now found by automated sky surveys. In these cases, the comet takes the name of the project or its location, such as *C/2025 A6 (Lemmon)*. Whilst "Lemmon" sounds like a surname, it actually refers to part of the Catalina Sky Survey network in Arizona, the Mount Lemmon Survey, which itself was named after the 19th-century botanist Sara Plummer Lemmon.

Figure 1: Comet C/2025 A6 Lemmon early morning 2nd October 2025, taken from the Vale. By Elaine Mahy.

And talking of botany, Guernsey's local flora is represented by *Asteroid 1318 Nerina* (the Guernsey Lily).

The transition from private tributes to Latin standards, and now to global cultural themes, marks the maturing of our science into a shared human story. Today, our local Guernsey Lily shares the sky with Polynesian creator gods and the heroes of modern literature.

Whilst David Le Conte's 2019 article provided a vital anchor to our past, this new, inclusive way of naming celestial objects ensures that as we look forward, the map of the heavens speaks a language that belongs to everyone.

Author: Robert Roue

Neurodiversity in Astronomy

In the history of science, the most significant breakthroughs rarely come from everyone thinking in the same way. In astronomy, a field defined by vast scales, intricate data, and long periods of observation, neurodivergent thinking is often a core component of the field's success.

Some people question why more people are being diagnosed with neurodivergent conditions in recent years. However, the explanation is familiar to any stargazer: there were not more stars in the sky after the invention of the telescope; we just had better tools to see what had always been there. Whether it is Autism, ADHD, or Dyslexia, these different cognitive styles offer unique approaches to solving the mysteries of the Universe.

Psychologists often talk about "spiky profiles". While a neurotypical person might have relatively even skills across the board, neurodivergent individuals could have spikes of extraordinary ability in specific areas, balanced by challenges in others.

In the context of astronomy, these spikes often manifest as a high drive to understand the rules of a system such as orbital mechanics; deep interests and intense focus on specific problems; and exceptional pattern recognition, giving them the ability to see "the signal in the noise".

Many of the heroes of our field are known for their specific cognitive alignments that allow them to thrive within the world of physics and astronomy:

- Hypatia of Alexandria, one of the earliest recorded female mathematicians and astronomers, was renowned for her meticulous work on astronomical tables and her refinement of the astrolabe. Her life was defined by a profound devotion to logical systems and the preservation of mathematical knowledge.

- Sir Isaac Newton was known for his intense, solitary focus and literal-mindedness. His ability to isolate himself in singular, obsessive study allowed him to derive the laws of motion that we still use to track the planets today.

- Henry Cavendish, who "weighed the Earth" and discovered hydrogen. Cavendish was notoriously reclusive, famously communicating with his servants only via written notes. His preference for solitude was paired with an almost unparalleled precision in scientific measurement.

- Dame Maggie Aderin-Pocock, the scientist, astronomer and science communicator best known for BBC's The Sky at Night, has openly shared how dyslexia has given her all sorts of skills she would not otherwise have, allowing her to visualise complex 3D systems when designing space instruments and optical subsystems.

"My Dyslexic thinking means I do not just think outside the box… I think outside the planet!"
- *Maggie Aderin-Pocock*

These examples remind us that there is no "correct" way for a brain to function. In the same way that we use different wavelengths of light to build a complete picture of a galaxy, the astronomical community relies on a spectrum of cognitive styles.

Within our own section of La Société, we recognise that the universe is far too complex to be understood by one type of mind alone. We want the David Le Conte Astronomical Observatory to be more than just a place for observation; we want it to be a hub of shared enthusiasm and genuine connection.

This is a space to build relationships, not only through the lens of a telescope but through the many other passions our members bring with them. Whether you thrive on the perfect collimation of a telescope, find peace in solitary data analysis, or love connecting with others over shared interests far beyond the stars, there is a place for you here.

Our section is built on a shared passion for the cosmos, and we remain committed to being a space where every observer, regardless of how their brain is wired, feels welcome to contribute to our collective understanding of the night sky.

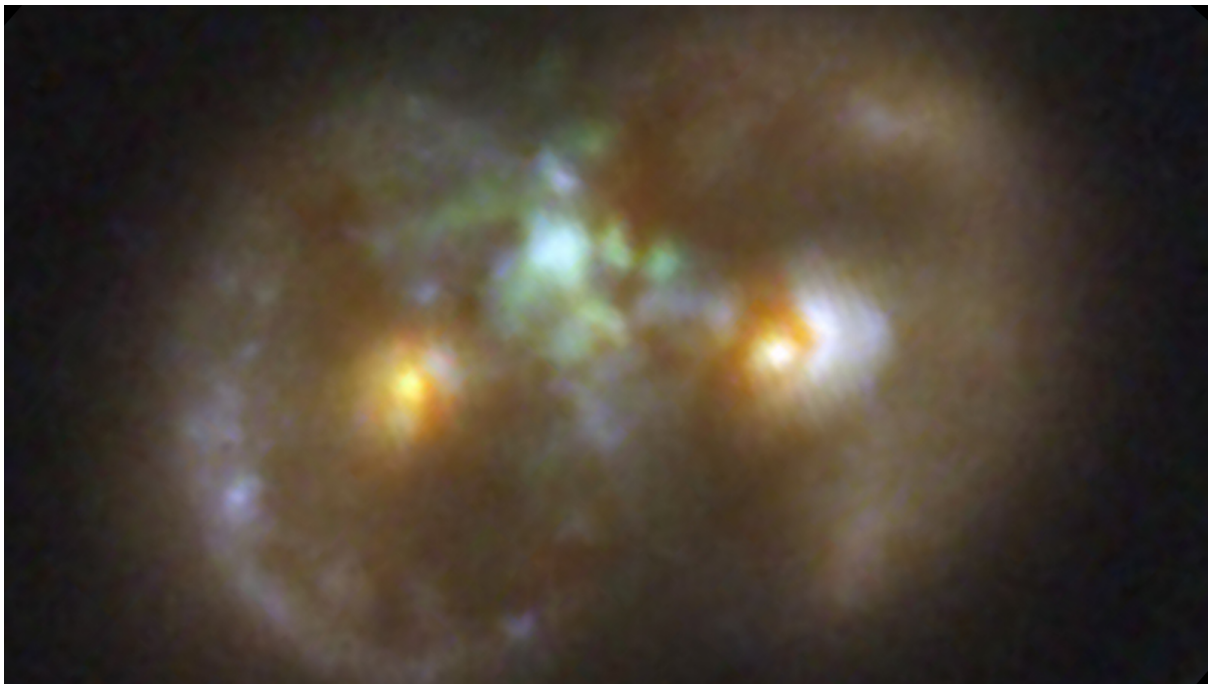

Figure 2: The Infinity Galaxy as seen by the James Webb Space Telescope.
The infinity symbol is widely used within the neurodivergent community.
NASA, ESA, CSA, STScI, P. van Dokkum (Yale University).

Author: Robert Roue

Planning a Messier Marathon

Elaine Mahy describes plans for a Messier Marathon in 2026.

In April 2025, some astronomy friends and I planned and ran a "Messier Marathon" on the south coast of Guernsey. It was a great project and a great learning experience.

We would like to organise a Messier Marathon event with the Section in early 2026

Here follow some plans and thoughts based on our experiences that provide an introduction for running this event.

Looking back, the Section ran a Messier Marathon in the year 2000 when the Meade and Takahashi telescopes were newly in service, and I have enjoyed speaking to some who were involved at the time. You can find Debby Quertier's report on it in the July-September 2000 issue of Sagittarius.

Have you been involved in a similar event in Guernsey or elsewhere?

Would you like to be involved this year?

So... what are the Messier objects? How do we find them? How can we plan to view them throughout one whole night?

The Messier objects are "fuzzy objects" in fixed positions which were catalogued by Charles Messier (1730-1817) and his friend and assistant Pierre Méchain in Paris, in order to distinguish them from comets, which he was also searching for. Those fixed diffuse objects include nebulae and star clusters in our own galaxy, as well as what are now known to be some separate galaxies in our neighbourhood.

The 110 Messier objects are generally the easiest to find examples of such objects, designated as M1, M2 and so on. All are also visible from our own latitude in Guernsey. A few are visible to the naked eye; many are visible in binoculars, and all are within reach of a small to medium telescope.

Further catalogues of similar objects were compiled by others with more powerful equipment later on, but the Messier objects are an achievable set for amateur observers with relatively inexpensive equipment today.

During parts of February to April it is feasible to attempt to see all of the Messier objects.

The challenge is to do it all in one dark, clear night…

Ideal latitude

It should be mentioned here that at our latitude of approx 49.5 degrees north, it would be difficult to practically see ALL the Messier objects in one night, even though technically it might be possible with a horizon-to-horizon view.

Some southern objects graze into the dusk / dawn from our latitude. From a less northerly latitude, for example 25 degrees north, more of the southern objects would be seen against a darker sky, making the whole list more achievable.

Fieldtrip, anyone?

Although it is possible to locate Messier objects one by one on the night in question, it is very helpful to learn where they are in advance in order to find each one quickly on the night. Many can be found in binoculars. Some are easily found; some you need to know where to look. For those which require a telescope, it is much harder to come across these just by scanning the sky. It helps to study star charts beforehand and learn where they are. Planetarium applications such as Stellarium for PC are very useful, and there are versions for phones.

Knowing the objects also helps with planning; if you know the distribution and magnitudes, and which ones set first, you can plan an order of viewing.

You can also plan what equipment to use to find each object quickly, to make progress in ticking them off.

There are recommended orders of viewing that are published. For me, however, I felt I would learn the objects better and learn the process better by designing my own order of viewing using a number of factors.

Some factors to consider

- Latitude of observing site
- Where specifically to observe from, what is in the way?
- Where are the local sources of light pollution in relation to that site?
- Should more than one site be considered, based on weather conditions, all-round visibility, or anything else (availability of a kettle / toilets etc)?
- What objects can be found quickly and easily at the beginning of the evening?
- What objects set first and which ones of those are realistic to attempt without wasting too much time / missing others?
- What groups of objects in the same area of sky can be located quickly and logically to proceed through the list at a good pace?
- What objects require a specific piece of equipment? Can a number of those be found as a batch?
- What equipment is available?
- What groups of objects are only visible low to the south at a particular time?
- What objects set early evening in the north-west, but might be easier to find rising again in the north-east in the early hours?
- What objects are rising with the dawn following close behind? What is the best order to see some of those, knowing they will not all be possible?
- Will there be passing clouds, or haze, or fog, or any chance of rain?
- How strict to be in terms of finding each object manually, vs using a computerised telescope to “find” the objects? The challenge is greater - and more satisfying - when you do all the work to find the objects. But it may be more achievable, especially if conditions are less than ideal, to grab a bit of help.
- To work in a group, or alone? There are advantages of spreading the load and sharing the fun.
- How to include more people without compromising the objectives too much?

Where to look, and what time

Loosely speaking, in February-April:

- The Messier objects to find after sunset and before midnight, looking westwards, are a few galaxies (February/March), followed by various nebulae and open clusters lying mostly in the direction of the outer part of our spiral arm amongst some bright constellations. Many of these are binocular objects.
- The next Messier objects for later in the evening are galaxies, most of which are clustered around Ursa Major, Leo and Virgo, and require a small to medium telescope.
- The last Messier objects include many globular clusters lying towards and around the galactic core. These are a mixture of binocular and telescope objects dependent on their distance and apparent size and magnitude. Observing many of these is not possible until the early and not so early hours of the morning.
- Mixed in amongst these batches are a few other Messier objects - including planetary nebulae, reflection nebulae, a supernova remnant, and a few of the closer galaxies, open clusters, and globular clusters which can lie in any direction. Many of these are within reach of binoculars (for quick identification, at least), though some require a telescope.

Messier Objects - 17th February 2026 from Guernsey

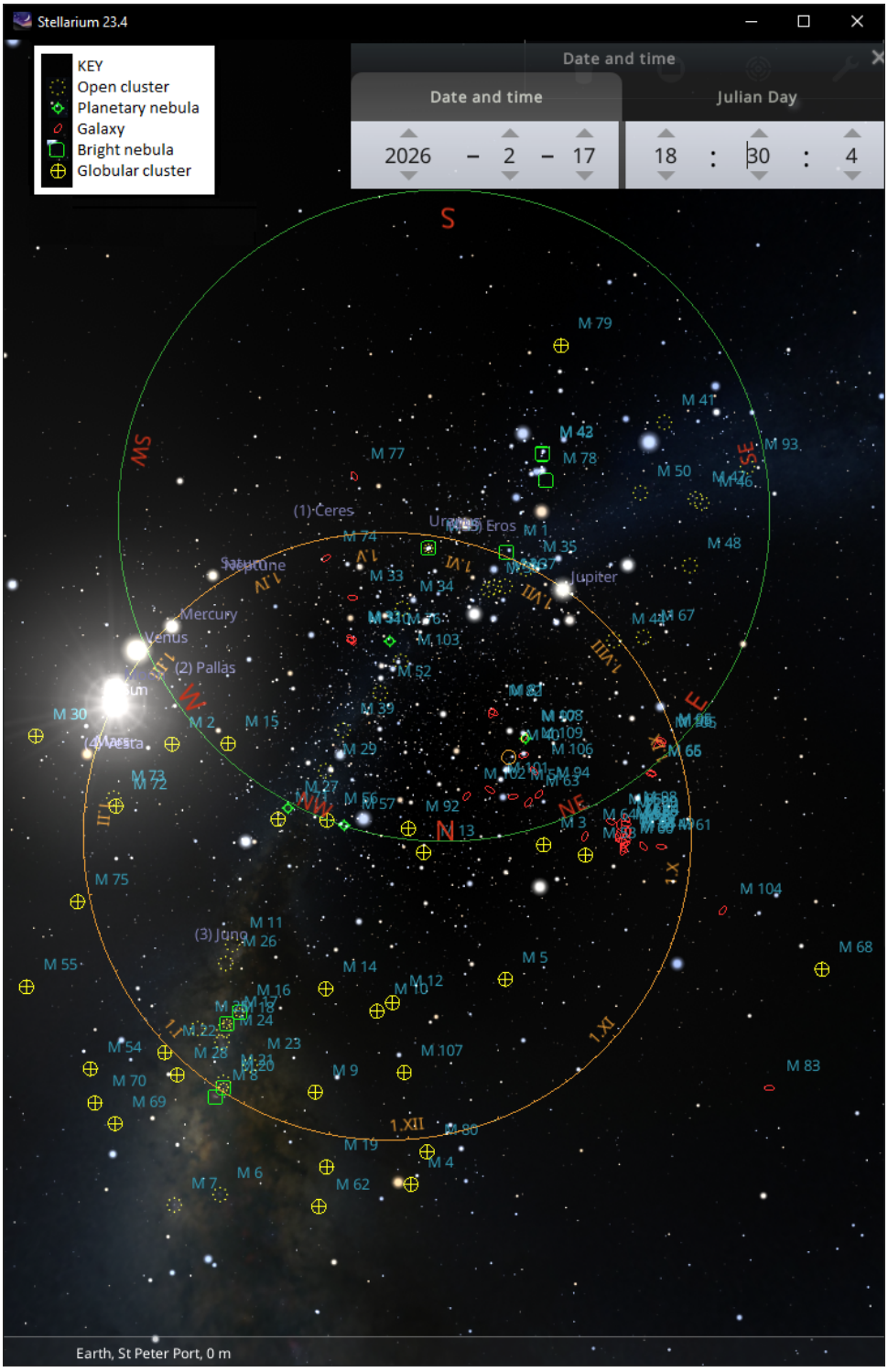

Figure 3: A view of all the Messier objects, using Stellarium, at February 2026 New Moon

The inside of the green circle represents the horizon in Guernsey and what is above it, and the orange circle represents the ecliptic – the path that the Sun follows through the year.

The sky appears to rotate over the hours of each day and over the months during the year, centred around the Pole Star which lies at the centre of the image / off-centre in the overlapping portion of the circles. So in this way all the Messier objects are visible above the horizon at

some point.

In February to April, the Sun passes through a part of the sky that is less populated with Messier objects, with the theoretical opportunity to see them all.

You can see how the objects are clustered; how open clusters and nebulae align with the Milky Way, globular clusters are concentrated around the centre of the Milky Way, and galaxies that tend to lie in groupings and structures are seen away from the plane of the Milky Way (the Milky Way obscures our view of more galaxies).

Messier Objects' Altitudes - 17th February 2026 from Guernsey

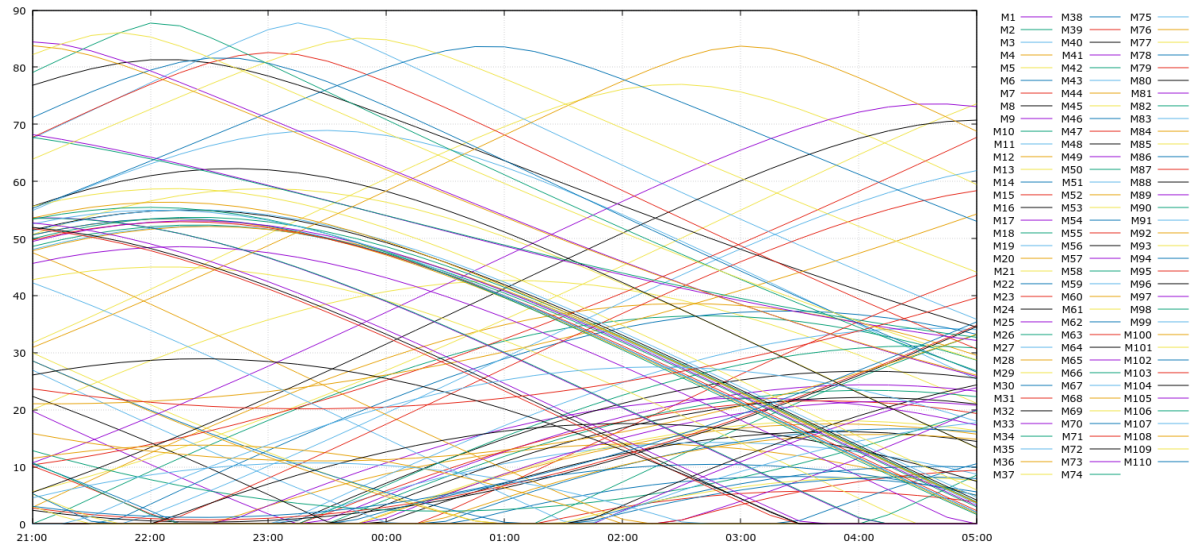

Figure 4: Plot of Messier Objects' Altitudes for Night of 17th February 2026

This highlights why working out an order to look at objects is important so you see objects as close as possible to maximum altitude.

This is especially important for objects that are low in the sky.

Choosing the date

New Moons in early 2026 for ideal dark conditions are listed below, and I have considered a few days each side with a crescent moon that is not too obtrusive. This might also help the chosen date to "fall" on a weekend which might be more convenient (clear skies permitting).

January

- Sunday 18 January 19:52 (too early, Milky Way core rises with the dawn)

February

- Tuesday 17 February 12.01 GMT, Half term
  - Sunset 17.32 at 253 degrees, sunrise 07.14 at 107 degrees.
  - Astronomical dark 19.20 to 05.27, 10 hours.
- Dark nights: 13-19 February.
- Preferred dates
  - Friday 13th February.
  - Saturday 14th February.

March

- Thursday 19 March 01.23 GMT, Term time.
  - Sunset 18.21 at 270 degrees, sunrise 06.13 at 89 degrees.
  - Astronomical dark 20.09 to 04.25, 8.25 hours.
- Dark nights 14-21 March.
- Preferred dates
  - Saturday 14th March.
  - Friday 20th March.
  - Saturday 21st March.

April

- Friday 17 April 12.51 BST, Summer term.
  - Sunset 20.05 at 288 degrees, sunrise 06.12 at 72 degrees.
  - Astronomical dark 22.08 to 04.09, 6 hours.
- Dark nights 12-19 April.
- Preferred dates
  - Friday 17th April.
  - Saturday 18th April.

May

- May is too late, and the night is too short.

Choosing a site

Observatory?

Restricted visibility and observability timings, but a comfortable site. Good for members who want to call in; and for coffee and tea and chat. Perhaps good for an earlier date.

Coastal?

This can provide a much better all-round view. South is better for dark skies after dusk and before dawn, with good viewing of the early morning Milky Way with less light pollution. Less "home comforts" but more versatile. More planning required; can plan site options. For the serious observer. Perhaps good for a later date.

We could consider running both types of event.

What are additional considerations for an all night session?

- warmth
- dew control
- drinks / eats
- power for mount / dew heater / kettle
- generator
- large battery
- phones / contact / Stellarium
- health and safety in the dark / when overtired / cold
- emergency contact details
- keeping a register of who is on site
- site "rules"
- who can attend
- safety of kit
- what kit to use
- illumination / light pollution control

Would you like to take part?

If you want to get involved in an attempt at the Observatory and/or off-site, please do come and have a chat with us sooner rather than later so you can be included in the planning.

Dates will necessarily have to remain flexible within the guideline dates mentioned above, though if a weekend date looks clear we would choose that to involve more people.

Author: Elaine Mahy

See next page for images from the Messier Marathon in 2025

Messier Marathon 2025 - Images

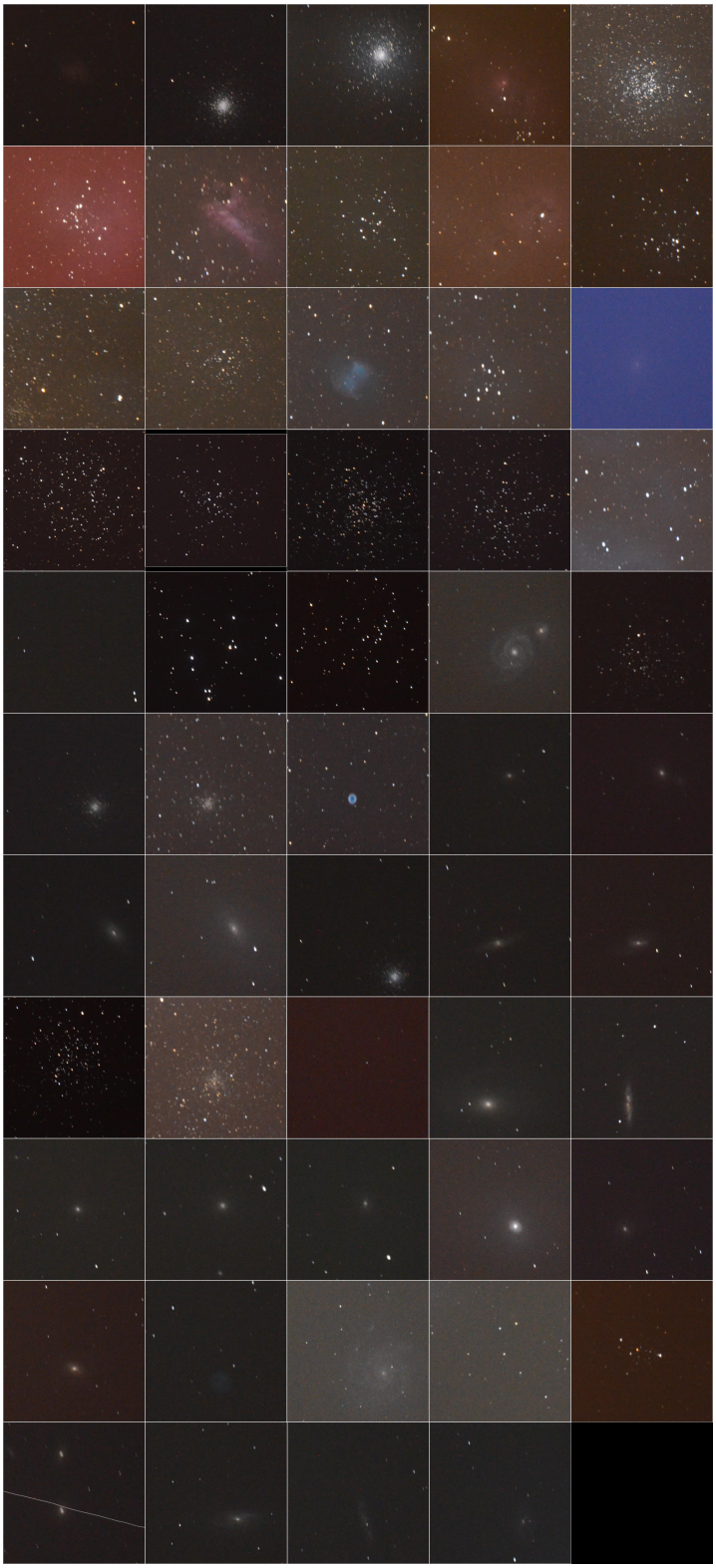

Figure 5: A compilation of Messier objects, night of 26-27 April 2025

Figure 6: M3 and M51, night of 26-27 April 2025

Doing a Messier Marathon is a battle against time. There is time to take a single picture of each object but not much spare. These are single shot exposures. No processing, just direct from the camera as jpg and then cropped.

This was my first attempt at a marathon and a great learning experience. The night was not ideal but was good enough to make it a worthwhile and enjoyable experience. There was a lot of moisture condensing out on all the equipment and it was a fight to keep the optics clear.

If anyone is interested in these pictures, has any questions or wants to chat about the process and the problems, I would be very happy to discuss.

Photographer: Clive Stubbings

Breckland Astronomical Society

Mark Humphrys introduces the Breckland Astronomical Society.

It is about 4:30 on a crisp winter's afternoon and I am looking out from our landing window across our small corner plot of a garden. Our flock of 40 or so sparrows have bedded down for the night in the ivy-strewn trees that form part of the hedgerow that is the boundary between our garden and the recreation ground behind. Wood pigeons and collared doves also take refuge in the mass of high branches well away from predatory cats. Sunlight glinting off a large round object on the far side of the "Rec" catches my eye.

Figure 7: The observatory dome glimpsed through trees at dusk

It is the dome that houses the 20" telescope of the Breckland Astronomical Society (or BAS for short). They have been on the Rec for the past 25 years and I have been a member for a few of those. Originally the society was started back in 1993 and was based at the Hingham Primary School about 3 miles away. It was started by Spencer Allen FRAS and Paul Planken, the then headmaster of the school. As the village grew so did the light pollution and forced the society to move.

Fortunately, they were able to find a suitable location on the corner of the Great Ellingham Recreation Ground and pay a small peppercorn annual rent. Though it is right next to the B1077 (the Watton Road) there are some great views from the observatory with plenty of fields to the south and, being the highest point for miles around (OK, do not laugh… a mere 150 feet above sea level!), the 5 acres or so that the Rec covers means that there are no lights near to the observatory itself.

Construction on the observatory was started in 1999 and cost around £32,000, raised from donations, jumble sales etc. The dome was donated by the University of Hertfordshire and

despite a slight leak and being over 50 years old it still does a good job! The observatory officially opened on the 28th October 2000.

The 20" telescope (actually it is not quite 20", more like 19 and a bit!) was built by club members under the leadership of Tony Fox Carter. It was well constructed as it is still in weekly use 25 years later, with not much more than some computer upgrades and a bit of cleaning from time to time!

Figure 8: Breckland Astronomical Society observatory on the Rec

Figure 9: Inside the dome with the 20-inch telescope

The society meets every Tuesday night. We have around 60 members, so while not particularly big there is a steady stream of people on club night, except when it is pouring with rain, even our most hardy members tend to put their feet up in front of the TV then! On the last Friday of the month from around September though to May we have open nights where we invite members of the public along (though in truth - they are welcome on Tuesdays too!). We might get 50 to 100 visitors each time. Though earlier in 2025 with the well-publicised "planetary alignment" on the national media we were completely overwhelmed with the arrival of nearly 500 people. The queue for the observatory stretched a good 200 yards across the Rec. We learnt

a few lessons from that one!

On the second Friday of the month we have guest lectures in the village hall which is on the other side of the Rec from the Observatory. In recent months we have had talks on gravitational waves, imaging the International Space Station, planetary nebulae, comets and the "stuff between the stars".

Figure 10: A guest lecture in the village hall

Facilities-wise we have a number of telescopes. These can be lent to society members if they want to use them at home or to try different types before deciding to buy one for themselves. We also have a 12" Meade LX90 that was donated to the society which is currently being used by a club member.

Our concrete pad was built by members a few years ago. The hedgerow next to the observatory is full of hazel and it needed a good trim so we could see the western horizon - so we put all the branches to good use and made a fence with it all.

The concrete pad comes into its own as we will bring all the telescopes out and set them up, and on more popular nights not everyone can fit in the observatory so the chairs and tables come out and we sit around chatting or, if we do get a clear sky (they mostly occur on non-club nights to be honest!), observing.

We have had some amazing nights, a couple of years ago we did a Perseid BBQ in August with quite a few members turning up and more than a few members of the public. Watched the meteors fly over and around 10 p.m. the sky lit up with the Northern Lights which lasted for a good couple of hours.

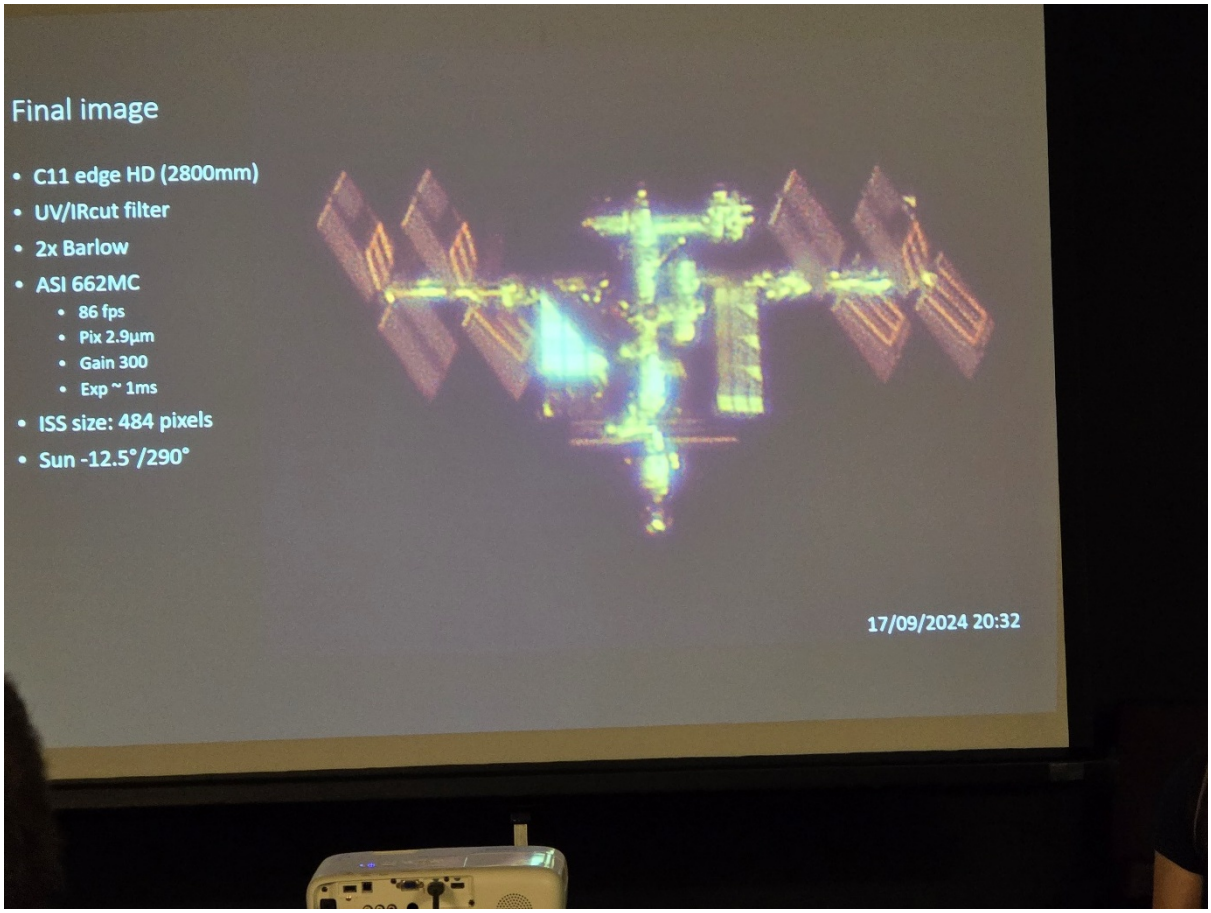

Figure 11: ISS imaging talk at a recent lecture

Figure 12: The telescope room and equipment

Figure 13: Wattle fence made from hedgerow branches beside the concrete pad

Figure 14: Open night on the Rec with telescopes set up

Figure 15: Observers gather under red light at the observatory

Though we are quite a small society we are very friendly so if you happen to be holidaying in or near Norfolk and get a chance to pop over to Great Ellingham we would love to meet you.

You can find out a lot more about us on our website: Breckland Astro

Or on our FB group: Breckland Astro - FaceBook

Author: Mark Humphrys

Book Reviews

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Shooting Stars II – by Nik Szymanek

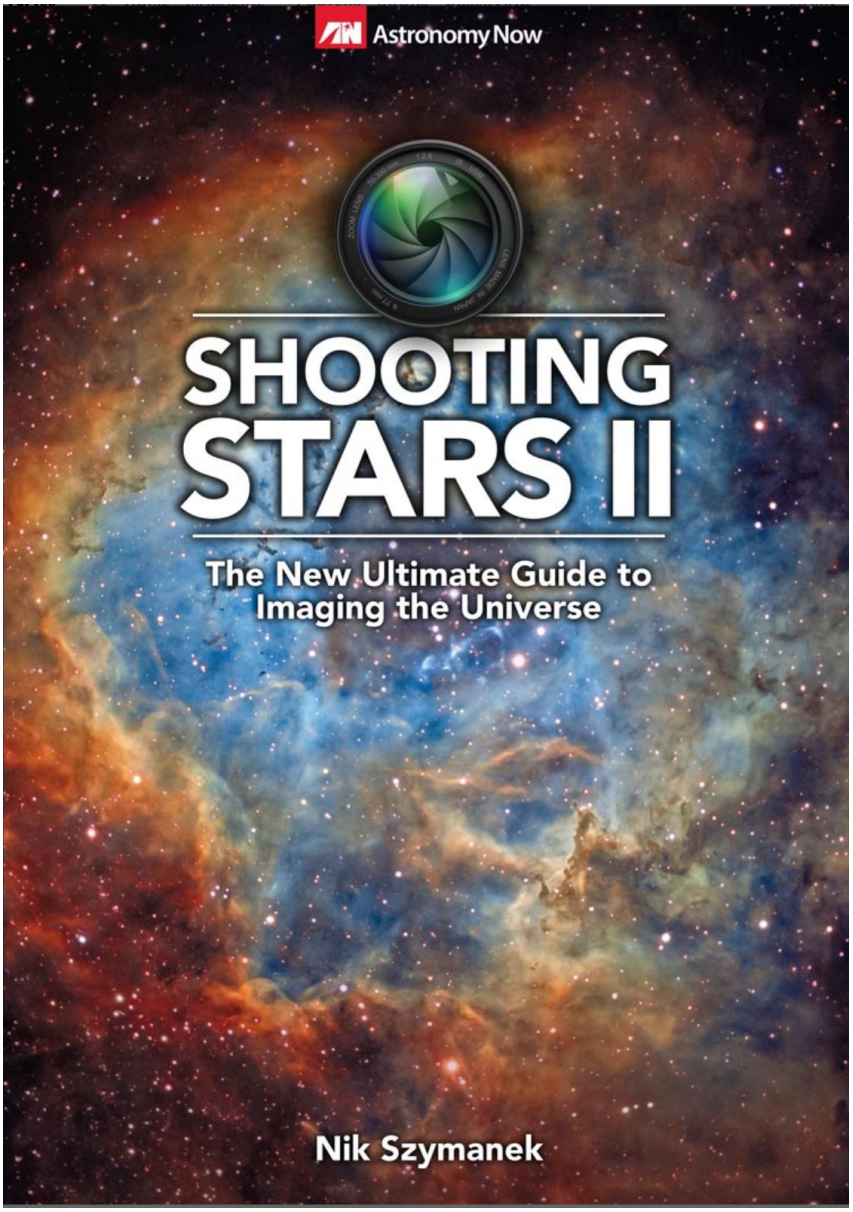

Figure 16: Shooting Stars II – by Nik Szymanek

So you have a camera of one sort or another, you have a telescope and you have a mount. You have seen all these wonderful images taken by other amateur astronomers on Facebook (other social media sites are available!) but you perhaps feel a little overwhelmed and not sure what to do? You do not really know your CMOSs from your CCDs, your FITS from your TIFFs and you have heard you need some flat fields (where am I going to find a flat field in Guernsey?), add a few BIAS frames and you put some pixies in a bin. And out of this witch's brew you somehow come up with some mind-blowing images of the night sky. Well if this is you then this bookazine is probably a good place to start.

Originally published in 2019 by the Pole Star Publications, it comes from the Astronomy Now stable of guides.

It is available from their website for £10.99: Astronomy Now: Shooting Stars – 2nd Edition

Nik Szymanek has been around doing astrophotography for a very long time, since the early 90s, so he knows a lot about the subject, has been there and done it, made the mistakes and learnt from them. He often travels to Las Palmas to the observatory on top of the Roque de los Muchachos mountain to make use of the clear skies from there. All that experience and knowledge has gone into the writing of this book.

It is 130 pages and it is packed with information that you need to get started and then flourish in astrophotography. There are 12 chapters in all, covering everything from choosing the right equipment and an introduction to imaging, through to specific subjects like image processing, creating images like the Hubble Space Telescope – at least using the same colour palette they use, how to overcome light pollution, and adding Hydrogen Alpha into your pictures, among others.

Throughout the whole book are stunning images: the Butterfly nebula, Pinwheel galaxy, Rosette and Orion nebulae to name a few, these acting as inspiration for you to try. Each chapter contains a wealth of information on parts of the imaging process, describing carefully each step with screenshots of the various software that you can use, so that you get a feel for the settings.

The text is not particularly complicated, it is written in an easy conversational way making it easy to follow and understand the concepts. There is only one formula, on page 21 for the resolution of a camera system. Not complicated, just basic school mathematics.

Each chapter concentrates on a particular process and steps you through it stage by stage. For instance, Chapter 9 concentrates on the Andromeda Galaxy along with its two companions M32 and M110. It takes you through the processes of stacking luminance data through to RGB data and then incorporates hydrogen alpha data to really get the very best out of the imaging.

But the book also shows how quickly the technology changes. As this book was written 5 years ago there is no mention of the latest smart telescopes, for instance, but nevertheless the techniques are still applicable and the step-by-step approach makes it well worth a read. My copy has become quite dog-eared through use.

So if you are starting out in astrophotography and are not sure what to do or what to point skywards, this would be £10.99 well spent.

Reviewer: Mark Humphrys

Test Your Stargazer's Knowledge

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The Astronomical Quiz

1. First name of the astronomer who refined the classification of stellar spectra
2. A 2.56 metre reflector telescope found in La Palma that is operated by Denmark, Iceland, Finland and Sweden
3. This probe fired a 370-kilogram projectile at Comet 9p/Tempel 1 in July 2005. It is also the name of a film.
4. The point at which a moon or large satellite would be torn apart by a planet's tidal forces. It lies 2.46 times the planet's radius from the planet's centre
5. This halo of comet nuclei is thought to be about 100,000 astronomical units from the Sun
6. Launched from the Space Shuttle in 1989, this probe mapped Venus using radar and carried out a gravity field map of the planet. What was it called?
7. Another name for the "First Point of Aries" and the "First Point of Libra"
8. In a reflecting telescope with a secondary mirror supported by arms, this phenomenon causes stars to have spikes.
9. In this constellation you can find the open clusters M36, M37 and M38
10. This storm is roughly 20,000 kilometres long and 14,000 kilometres in width and has been blowing for at least 200 years
11. This desert is home to some of the largest telescopes on Earth
12. A nickname given to very large amateur telescopes
13. The name given to the distance of 149,597,870,700 metres
14. Wavelengths of electromagnetic radiation below 121 nanometres are called Extreme Ultraviolet. What abbreviation is given to this radiation?
15. In radio astronomy this directional antenna is used in interferometers, you may see them used for TV reception, what are they called?
16. What object is made up by the first letters of the answers to the preceding 15 questions?

Author: Mark Humphrys

Do you know your Moons?

Here are 20 images of various moons in the Solar System. Name them! And for an extra point, what body do they orbit?

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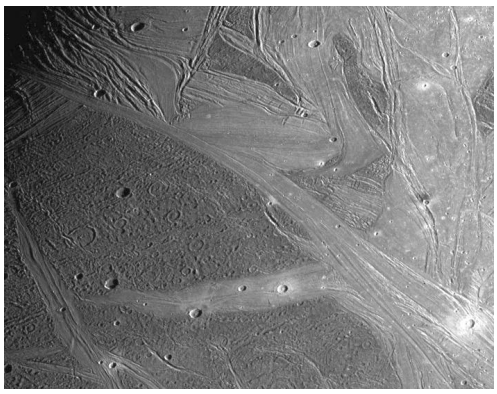
2

3



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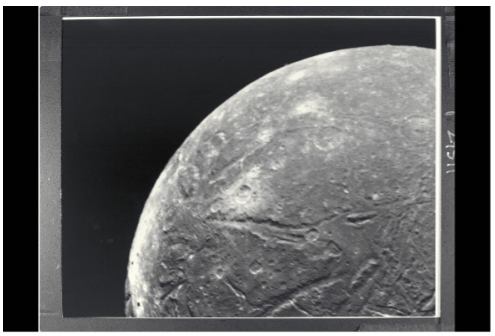

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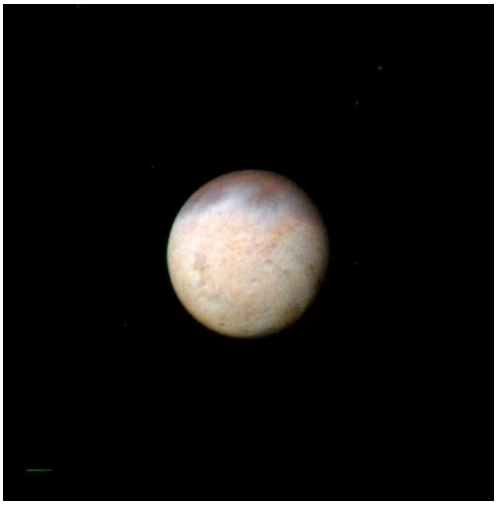

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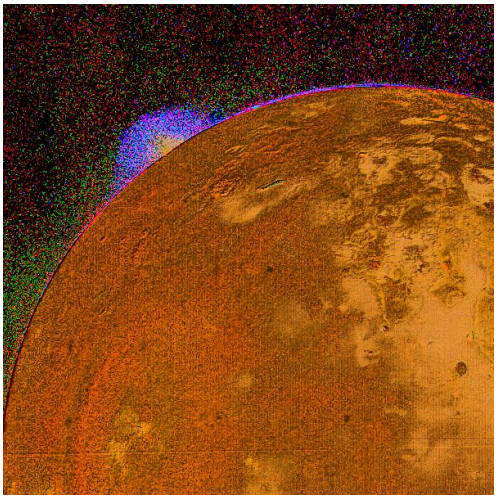

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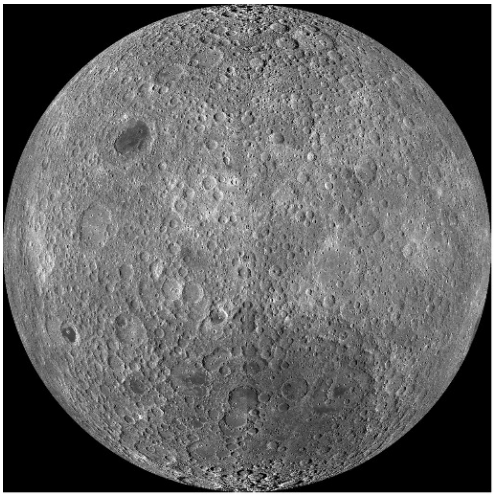

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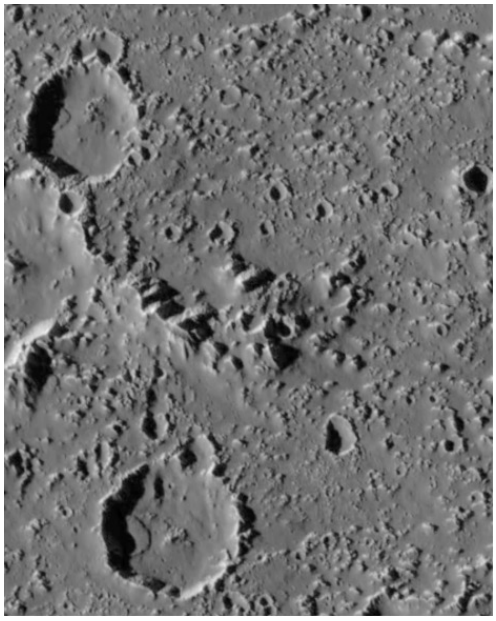

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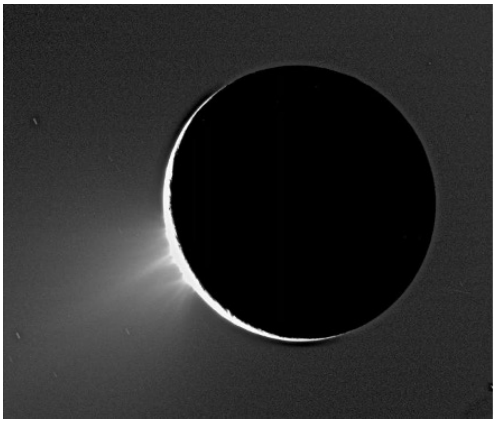

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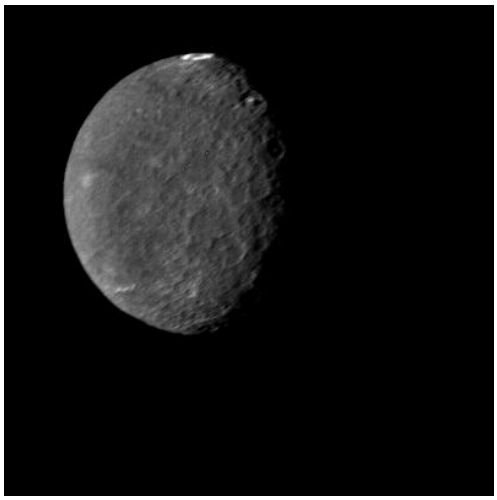

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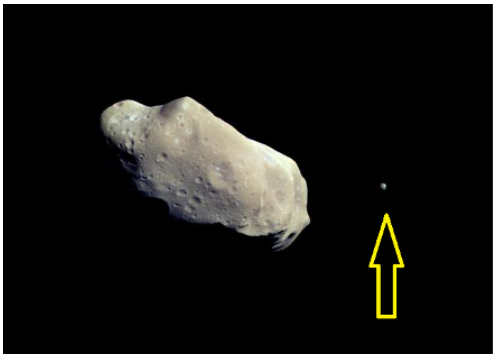

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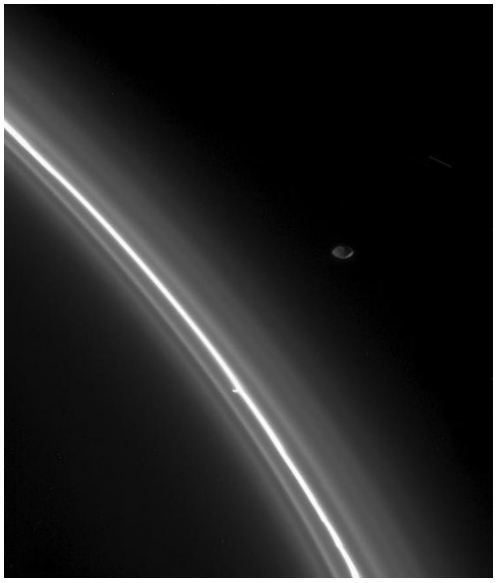

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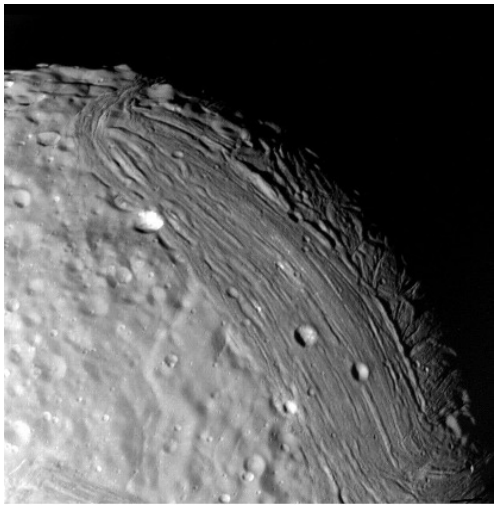

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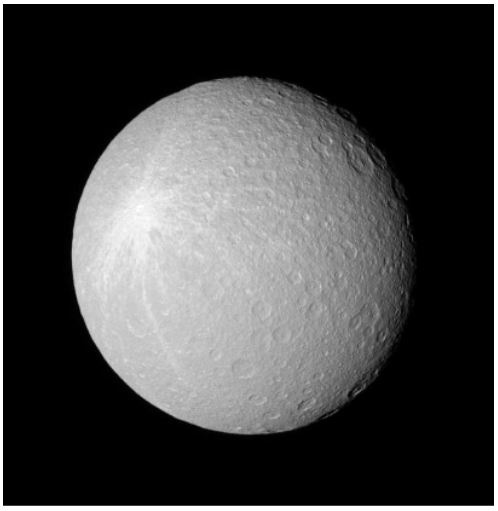

Astrophotography

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M33 - The Triangulum Galaxy

Figure 17: M33 - The Triangulum Galaxy

Highlights

- **M33 Triangulum Galaxy:** a spiral galaxy in Triangulum, the smallest of the three main galaxies in our Local Group; 61,100 ly across and 2.878 million ly away.
- **Star formation:** scattered blue regions indicate active star birth, possibly including the Local Group's largest star-forming nursery.
- **Imaging highlights:** ASI294MC Pro one-shot colour on an ASKAR 107PHQ (750mm) with AM5N, guided with PHD2/N.I.N.A; 2h20 total (28×300s) with an Optolong L-Quad Enhance filter, processed in PixInsight.

Notes

A spiral galaxy and the smallest of the three larger galaxies that make up our local group, the others being Andromeda and the Milky Way. It is located in the constellation Triangulum, hence its name. About half the size of our Milky Way galaxy, it measures approx. 61,100 light years across and is 2.878 million light years from Earth.

It has many 'Blue-coloured regions' scattered throughout the galaxy that are believed to be sites of rapid star birth, and is also thought to include the largest star-forming nursery in the entire Local Group.

This image was shot with a 'One Shot Colour' ZWO ASI294MC Pro cooled camera, an ASKAR 107PHQ 750mm focal length telescope mounted on a ZWO AM5N harmonic equatorial drive mount. PHD2 guiding and controlled using the N.I.N.A. software application. A total exposure time of only 2 hours 20 minutes (28 x 300sec) in reasonably good conditions but aided with an Optolong L-Quad Enhance filter. Final processing was done in PixInsight.

Photographer: Hugh Whitchurch

M31 - The Andromeda Galaxy

Figure 18: M31 - The Andromeda Galaxy

Highlights

- **M-31 Andromeda Galaxy:** our nearest major neighbour, largest in the Local Group; 200,000 ly across and 2.5 million ly away.
- **Possible Milky Way encounter:** may be approaching at 110 kilometres per second (disputed); any collision not expected for 4.5 billion years, with uncertainties from sideways motion and gravitational influences (M33/LMC).
- **Imaging highlights:** 3-night capture using ASI294MC Pro (ultraviolet/infrared) plus ASI294MM Pro (hydrogen-alpha); 2 hours one-shot colour (OSC) + 1 hour 40 minutes hydrogen-alpha on a WO GT81 (350mm) with AM5N, ASIAIR control, processed in PixInsight.

Notes

Our nearest galactic neighbour and the largest of the three big galaxies in our Local Group - the others being the Triangulum and Milky Way galaxies. Similar in many ways to our own Milky Way it has a diameter of roughly 200,000 light years! It is located nearly 2.5m light years from Earth.

Although disputed by some astronomers, it may be heading in our direction at the astonishing speed of 110 kilometres a second… but no need to worry as any collision is not expected for another 4.5 billion years! The disagreement centres on two factors that may have been ignored until now. Firstly, sideways movement of a galaxy is tricky to establish and may have a significant effect on the red shift we are detecting which is what some astronomers are basing their predictions on. That means our perception of the direction of travel could be wrong. The second factor, that is equally difficult to measure, is the gravitational effect that the Triangulum Galaxy and Large Magellanic Cloud could be having on the Milky Way which just might be sufficient to avoid any collision.

This image was taken over three nights using both a 'One Shot Colour' ZWO ASI294MC Pro cooled camera with only a UV/IR filter being used, as well as a ZWO ASI294MM Pro monochrome camera using a Hydrogen Alpha filter. Just under two hours OSC (55 x 120sec) plus one hour forty minutes of monochrome Ha. (20 x 300sec). The telescope used was a William Optics GT81 with a focal reducer (350mm focal length) and the mount used was a ZWO AM5N. The imaging controller was the ZWO ASIAIR and the final image was processed in PixInsight.

Photographer: Hugh Whitchurch

SH2-190 or IC1805 - The Heart Nebula (Cover Photo)

Figure 19: SH2-190 or IC1805 - The Heart Nebula

Highlights

- **IC 1805 / Heart Nebula:** Bright, heart-shaped emission nebula in Cassiopeia, 7,500 light-years away in the Perseus arm; very large (150 arcminutes) and easy to capture.
- **What to look for:** Contains targets like **Melotte 15** and the **Fish Head**, plus the tiny blue **WeBo 1** planetary nebula near the top-right; narrowband suits its strong colours.
- **Imaging setup & data:** Multi-night narrowband capture (Ha 2h45m, SII 2h35m, OIII 2h35m) using **WO GT81 + reducer (350mm)** on **ZWO AM5N**, controlled by **ASI-AIR**, processed in **PixInsight.**

Notes

An emission nebula in the constellation Cassiopeia. It is a mix of glowing interstellar gas and dark dust clouds. Its commonly used name obviously comes from its shape. It is located

approximately 7,500 light-years away from us within the Perseus spiral arm of our galaxy. Other names have been used such as the Running Dog Nebula and the Heart and Soul.

Discovered by William Herschel in 1787, this object is worthy of closer observation and photography as it encompasses several other, beautiful targets including the Fish Head and Melotte 15. Probably best taken using narrowband filters that can separate the rich blues and oranges.

If you look closely in the top right hand side of the image, you will see a very small blue disk known as WeBo 1 which is thought to be a planetary nebula.

The object is pretty huge spanning about 150 arc-minutes in size. It is also quite bright so easily captured with the most basic equipment.

This image was taken over a few nights between gaps in the clouds! 2hrs 45min Hydrogen Alpha (7 x 600sec + 19 x 300sec), 2hrs 35min Sulfur II (8 x 600sec + 15 x 300sec) and 2hrs 35min Oxygen III (8 x 600sec + 15 x 300sec). The telescope was a William Optics GT81 with a focal reducer (350mm focal length) and the mount used was a ZWO AM5N. The imaging controller was the ZWO ASIAIR and the final image was processed in PixInsight.

Photographer: Hugh Whitchurch

Planets Parade

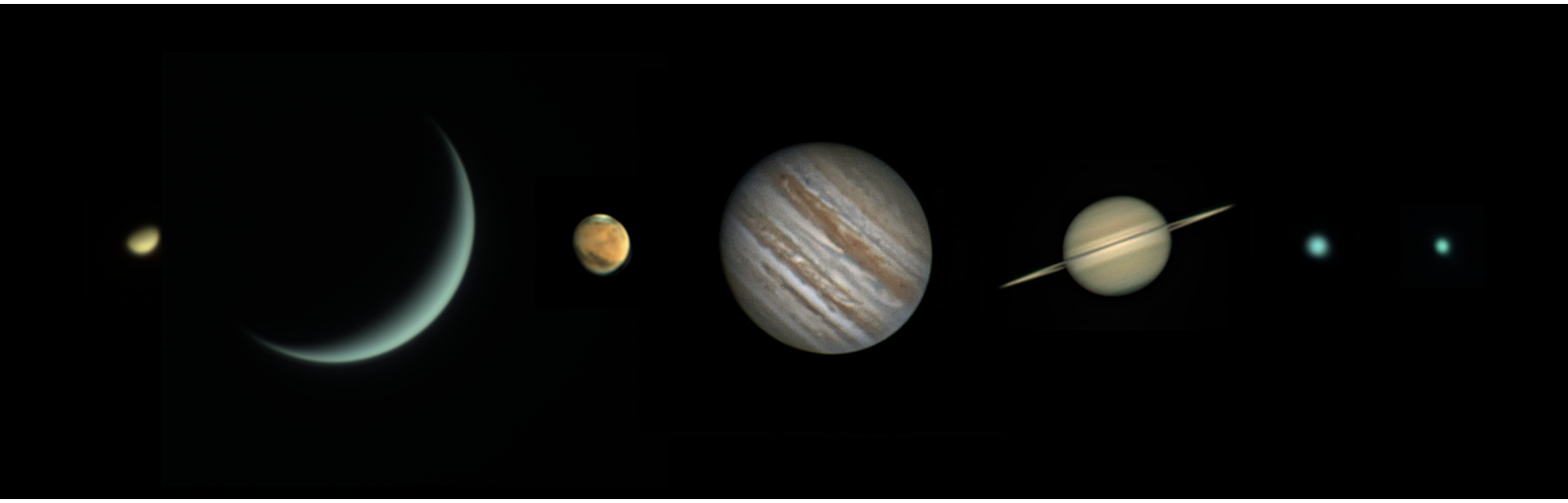

Figure 20: Planets in 2025 : Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune

Highlights

- **"Planets Parade"** composite of **Mercury, Venus, Mars, Jupiter** and **Uranus**, all imaged on **1 March 2025. Saturn and Neptune imaged 28th September 2025.**
- **Celestron C8** on **Meade LXD75** with **ZWO ASI224MC, UV-IR filter, ZWO ADC** and **2.5× Barlow**; processed via **FireCapture → AutoStakkert 4 → RegiStax6**, then composited in **GIMP**.
- **Venus** was captured **mid-afternoon**; the **others after sunset. Phases** show for **Mercury/Venus/Mars,** with **Venus large and a thin crescent** as it was closer to Earth; improved technique and exposure control gave better clarity.

Notes

Venus was taken mid afternoon when high in the sky; the others were taken after sunset.

Phases are clearly visible for Mercury, Venus and Mars. Venus appears very large compared to the other planets as it was in a part of its orbit close to Earth, shown by its thin crescent phase.

During a few months of practice on these planets I improved my processes for timings, collimation, focus, colour dispersion correction, and capture settings to avoid overexposure which had been causing problems. This has resulted in far better clarity. Also as it happens the telescope and accessories were probably well settled for temperature that day.

Photographer: Elaine Mahy

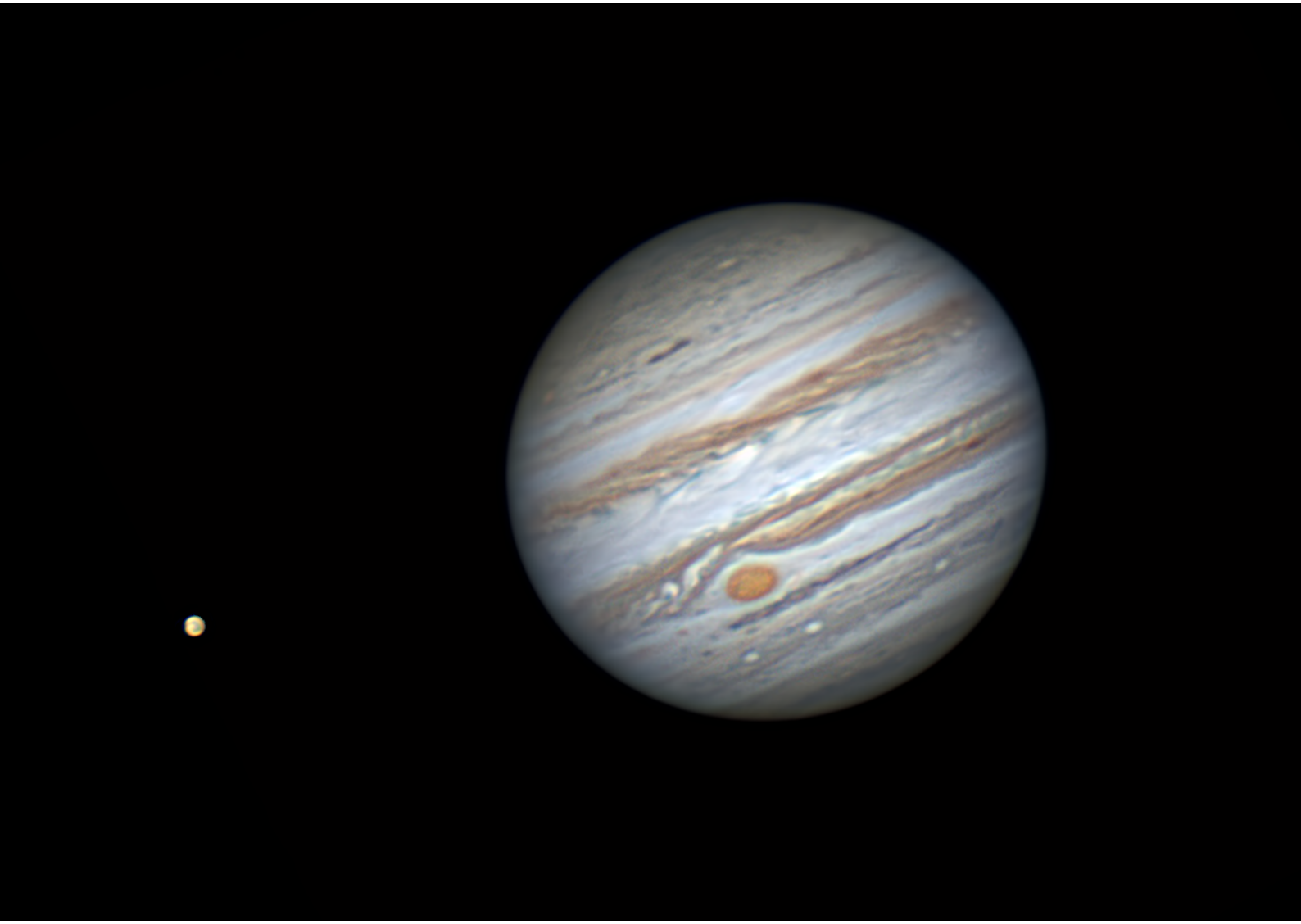

Figure 21: Jupiter at Opposition - Ganymede pictured moving away from the planet. Image taken on 10th January 2026 with a Skywatcher 350p Newtonian telescope.

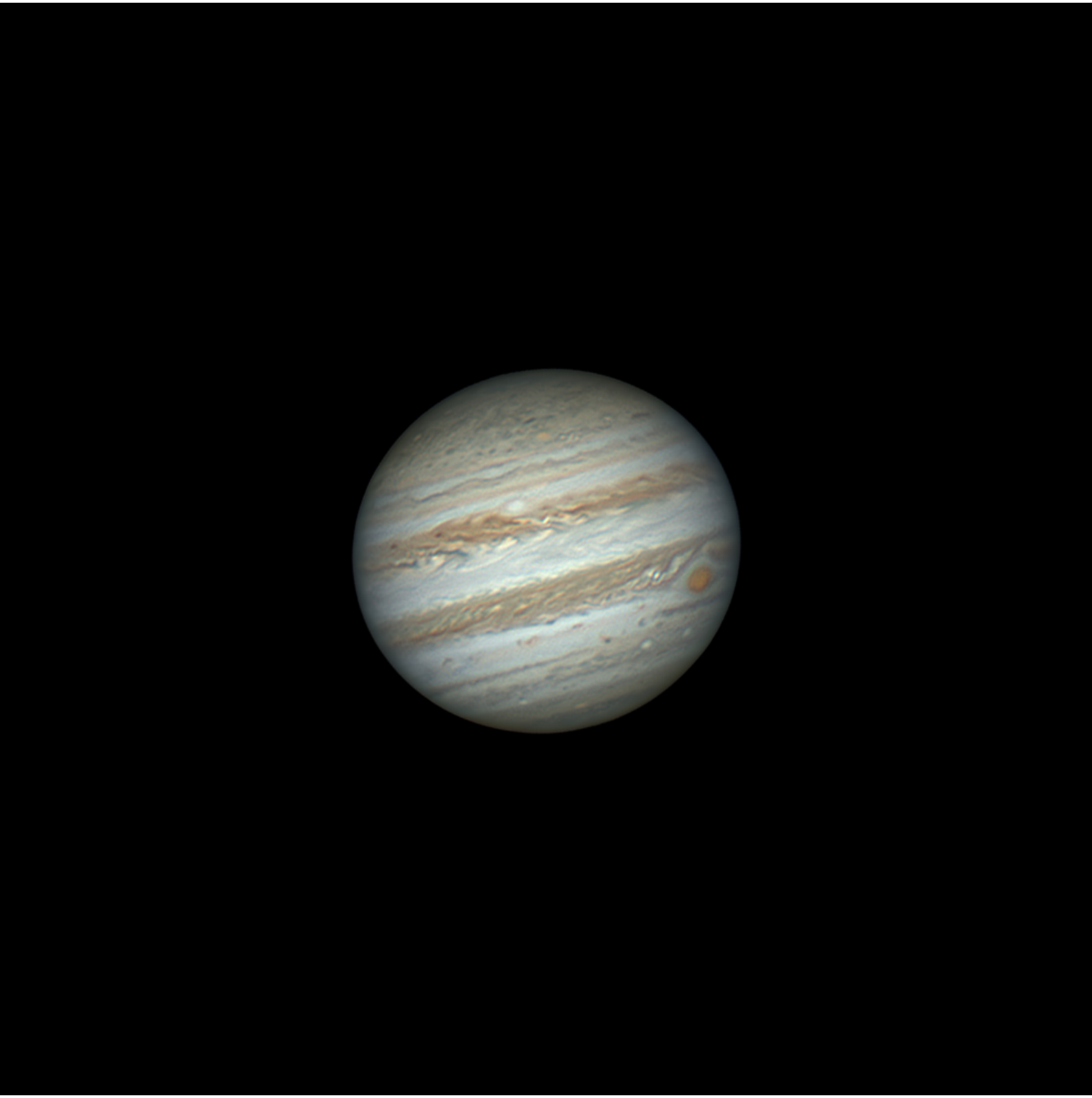

Figure 22: Jupiter on New Year's Day - Reasonable to Good seeing conditions allowed this image to be taken in the early hours of New Year's Day. Image taken with a Skywatcher 350p Newtonian telescope.

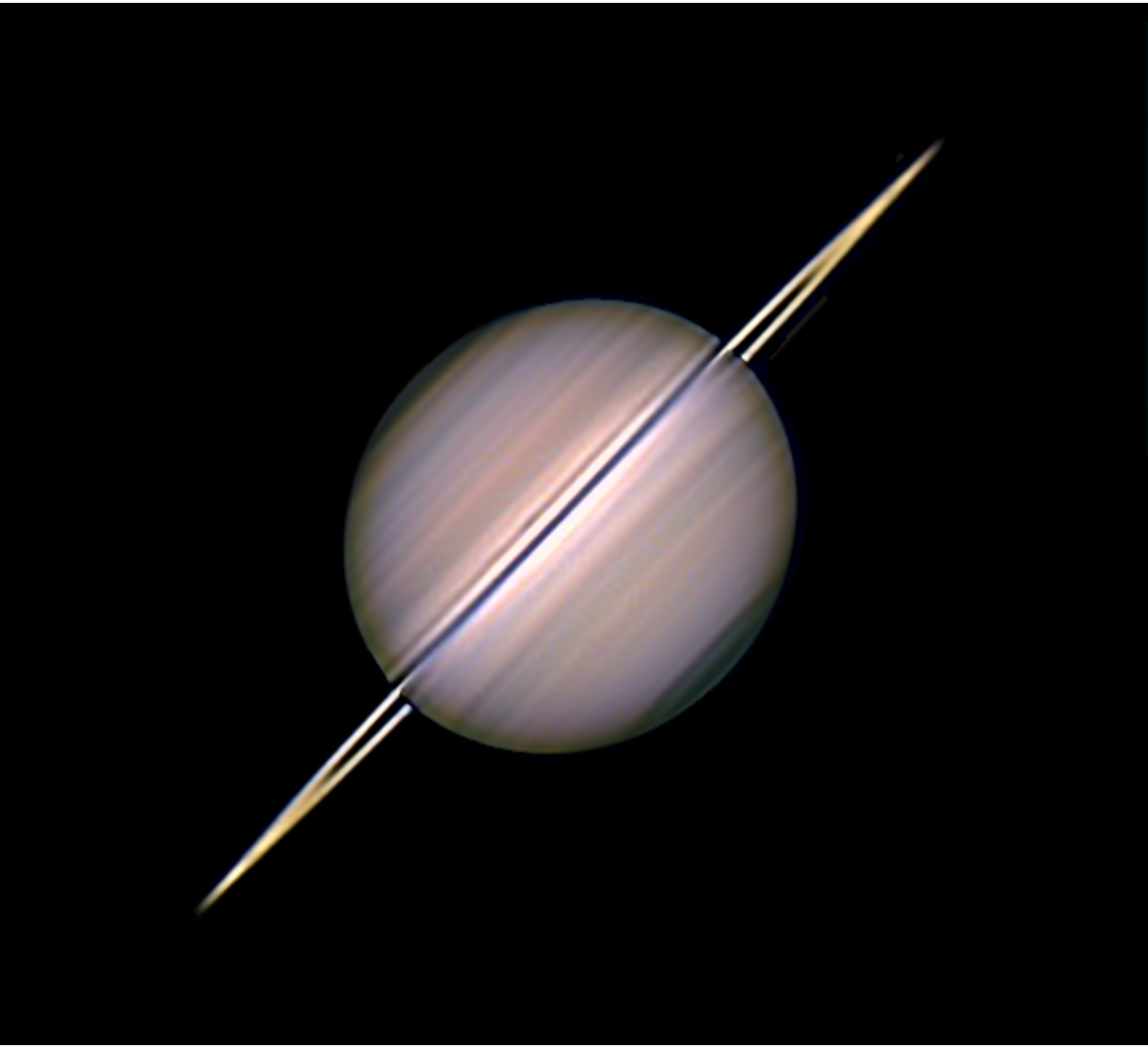

Figure 23: Saturn imaged in late September. The rings are still closing and are not far off being edge on. A combination of IR and RGB data.

Photographer: Matt Skillett

Montes Alpes Caucasus Apenninus

Figure 24: Montes Alpes Caucasus Apenninus

Highlights

- The Moon's mountain ranges **(Montes Alpes, Caucasus, Apenninus)** on 2 July 2025 (23:05, GMT+1).

- Sony A7S + Celestron C8 with ZWO ADC and 2.5× Barlow; 1/25s at ISO 4000, cropped with minor edits in darktable.

Photographer: Elaine Mahy

Helix Nebula

Figure 25: Helix Nebula

Highlights

- The **Helix Nebula (C63/NGC 7293)** in Aquarius from Saints Harbour car park on 27–28 August 2025 (23:30, GMT+1).
- Sony A7S through a Celestron C8 on a Meade LXD75; 40 × 30s at ISO 32000, stacked in Deep Sky Stacker and (40 light frames each ISO32000) finished in darktable.

Notes

This planetary nebula is new to me… it is diffuse so not really an observational object - and lies low in Aquarius so is a little elusive. It was my main target to try for the evening, and I was very pleased with how it came out.

Photographer: Elaine Mahy

Southern Stars

Figure 26: Southern Stars

Highlights

- **The Milky Way** from Saints Bay on 17–18 May 2025 (01:25, GMT+1).
- Sony A7S + Samyang 14mm: single 30s exposure at ISO 2000, f/2.8, processed in darktable to enhance detail without looking overdone.

Photographer: Elaine Mahy

The Astronomical Quiz - Answers

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1. "Annie" Jump Cannon (1863 to 1941) – she refined the classification of stars according to spectral types and produced the O B A F G K M scale.
2. Nordic Optical Telescope.
3. Deep Impact.
4. Roche Limit.
5. Oort Cloud.
6. Magellan probe.
7. Equinox – the points at which the Sun's apparent annual path intersects the celestial equator, on the 20 March and the 22 or 23 September.
8. Diffraction – due to the wave nature of light, it slightly bends around an object causing diffraction rings.
9. Auriga, the charioteer.
10. Great Red Spot on Jupiter, first recorded by SH Schwabe in 1831. It currently rotates in about 4.5 days.
11. Atacama Desert in Chile.
12. Light Buckets – large diameter telescopes that capture as much light as possible.
13. Astronomical Unit (au), the mean distance from the Earth to the Sun, ratified by the International Astronomical Union in 2012.
14. XUV.
15. Yagi antenna. Made of parallel rods, the one at the back is called the "reflector" and the ones in front are the "directors".
16. Andromeda Galaxy.

Author: Mark Humphrys

Do You Know Your Moons - Answers

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1. Phobos, Mars
2. Charon, Pluto
3. Ganymede, Jupiter
4. Ariel, Uranus
5. Mimas, Saturn
6. Triton, Neptune
7. Titan, Saturn
8. Europa, Jupiter
9. Deimos, Mars
10. Io, Jupiter
11. Nix, Pluto
12. The Far Side of our Moon, Earth
13. Callisto, Jupiter
14. Enceladus, Saturn
15. Umbriel, Uranus
16. Dactyl, Asteroid Ida
17. Pandora (and Prometheus), Saturn
18. Hyperion, Saturn
19. Miranda, Uranus
20. Rhea, Saturn

All images are courtesy of NASA

Year-at-a-Glance Chronology

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January

Date	Category	Object	Event	Notes
Jan 02	Minor Planet	40 Harmonia	At opposition	
Jan 03	Sun		Earth at Perihelion	The closest point in Earth's orbit about the Sun (17:15 UTC). Distance 147,099,894 km.
Jan 03	Moon Phase	Moon	Full Moon	
Jan 04	Meteor Shower	Quadrantid	Maximum	Active Dec 28 to Jan 12; ZHR 120
Jan 04	Comet	24P/Schaumasse	Closest approach to Earth	Magnitude 9.8
Jan 08	Comet	24P/Schaumasse	Perihelion	Magnitude 9.7; visible in morning sky
Jan 10	Planets	Jupiter	At Opposition	
Jan 10	Moon Phase	Moon	Third Quarter	
Jan 18	Moon Phase	Moon	New Moon	
Jan 20	Comet	C/2024 E1 (Wierzchos)	Perihelion	Magnitude 8.1; Southern Hemisphere around perihelion
Jan 23	Minor Planet	44 Nysa	At opposition	
Jan 26	Moon Phase	Moon	First Quarter	

Sources: (In-The-Sky.org 2026p, International Meteor Organization 2026, In-The-Sky.org 2026h, In-The-Sky.org 2026s, In-The-Sky.org 2026i, Star Walk 2026b, Time and Date 2026j, Time and Date 2026e)

February

Date	Category	Object	Event	Notes
Feb 01	Moon Phase	Moon	Full Moon	

Date	Category	Object	Event	Notes
Feb 09	Moon Phase	Moon	Third Quarter	
Feb 17	Moon Phase	Moon	New Moon	
Feb 17	Comet	C/2024 E1 (Wierzchos)	Closest approach to Earth	Magnitude 8.7; both hemispheres around closest approach
Feb 19	Planets	Mercury	At Greatest Eastern Elongation	After sunset
Feb 24	Moon Phase	Moon	First Quarter	
Feb 27	Minor Planet	7 Iris	At opposition	
Feb 28	Planets	All Except Mars	Planets Parade	Above horizon after sunset

Sources: (In-The-Sky.org 2026p, In-The-Sky.org 2026l, In-The-Sky.org 2026j, Star Walk 2026a, Time and Date 2026e)

March

Date	Category	Object	Event	Notes
Mar 03	Moon Phase	Moon	Full Moon	
Mar 08	Planetary Conjunction	Venus and Saturn	Conjunction	West; evening; 1°00’
Mar 11	Moon Phase	Moon	Third Quarter	
Mar 19	Moon Phase	Moon	New Moon	
Mar 20	Equinox/Solstice		Vernal Equinox	14:46 GMT
Mar 21	Minor Planet	20 Massalia	At opposition	
Mar 25	Moon Phase	Moon	First Quarter	

Sources: (In-The-Sky.org 2026o, In-The-Sky.org 2026e, Time and Date 2026e, Time and Date 2026k)

April

Date	Category	Object	Event	Notes
Apr 02	Moon Phase	Moon	Full Moon	
Apr 03	Planets	Mercury	At Greatest Western Elongation	Before sunrise
Early Apr	Comet	C/2026 A1 (MAPS)	Perihelion	Mag -3.4; Kreutz sungrazer; may be naked-eye or break up
Apr 05	Comet	C/2026 A1 (MAPS)	Closest approach to Earth	Mag 7.4
Apr 10	Moon Phase	Moon	Third Quarter	
Apr 17	Moon Phase	Moon	New Moon	
Apr 19	Comet	C/2025 R3 (PanSTARRS)	Perihelion	Mag 6.8; morning sky
Apr 20	Planetary Conjunction	Mercury and Saturn	Conjunction	East; morning; 0°30’
Apr 20	Planetary Conjunction	Saturn and Mars	Conjunction	East; morning; 1°18’
Apr 22	Meteor Shower	April Lyrid	Maximum	Active Apr 16 to Apr 25; ZHR 18
Apr 24	Moon Phase	Moon	First Quarter	
Apr 26	Comet	C/2025 R3 (PanSTARRS)	Closest approach to Earth	Mag 6 (possibly 3.3); morning sky

Sources: (Buitenen, Arne van 2026, International Meteor Organization 2026, In-The-Sky.org 2026l, In-The-Sky.org 2026o, Star Walk 2026b, Time and Date 2026e)

May

Date	Category	Object	Event	Notes
May 01	Moon Phase	Moon	Full Moon	
May 06	Meteor Shower	η-Aquariid	Maximum	Active Apr 19 to May 28; ZHR 40
May 09	Moon Phase	Moon	Third Quarter	

Date	Category	Object	Event	Notes
May 16	Moon Phase	Moon	New Moon	*SN*
May 23	Moon Phase	Moon	First Quarter	
May 31	Moon Phase	Moon	Full Moon	*BMI*

Sources: (International Meteor Organization 2026, Time and Date 2026e, Time and Date 2026o)

June

Date	Category	Object	Event	Notes
Jun 08	Moon Phase	Moon	Third Quarter	
Jun 09	Planetary Conjunction	Venus and Jupiter	Conjunction	West; evening; 1°38’
Jun 12	Planets	Jupiter, Mercury and Venus	Mini Alignment	After sunset; challenging (22:00 BST)
Jun 15	Moon Phase	Moon	New Moon	*SN*
Jun 15	Planets	Mercury	At Greatest Eastern Elongation	After sunset
Jun 17	Lunar Conjunction	Venus	Conjunction	Waxing Crescent
Jun 17	Occultation	Venus	Conjunction (Near Miss)	21:05 UT; separation 0.62°
Jun 21	Moon Phase	Moon	First Quarter	
Jun 21	Equinox/Solstice		Summer Solstice	09:24 BST
Jun 30	Moon Phase	Moon	Full Moon	*MF*

Sources: (International Meteor Organization 2026, In-The-Sky.org 2026l, In-The-Sky.org 2026o, In-The-Sky.org 2026w, In-The-Sky.org 2026n, NASA/JPL 2026, Time and Date 2026e, Time and Date 2026k)

July

Date	Category	Object	Event	Notes
Jul 04	Planetary Conjunction	Mars and Uranus	Conjunction	East; morning; 0°06’
Jul 06	Sun		Earth at Aphelion	Farthest from the Sun (18:30 BST). Distance 152,087,774 km
Jul 07	Moon Phase	Moon	Third Quarter	
Jul 09	Minor Planet	8 Flora	At opposition	
Jul 09	Minor Planet	18 Melpomene	At opposition	
Jul 14	Moon Phase	Moon	New Moon	
Jul 21	Moon Phase	Moon	First Quarter	
Jul 26	Minor Planet	3 Juno	At opposition	
Jul 29	Moon Phase	Moon	Full Moon	
Jul 30	Meteor Shower	α-Capricornid	Maximum	Active Jul 03 to Aug 15; ZHR 5
Jul 30	Meteor Shower	Southern δ-Aquariid	Maximum	Active Jul 12 to Aug 23; ZHR 25

Sources: (International Meteor Organization 2026, In-The-Sky.org 2026o, In-The-Sky.org 2026k, In-The-Sky.org 2026f, In-The-Sky.org 2026b, NASA/JPL 2026, Time and Date 2026j, Time and Date 2026e)

August

Date	Category	Object	Event	Notes
Aug 02	Planets	Mercury	At Greatest Western Elongation	Before sunrise
Aug 02	Comet	10P/Tempel 2	Perihelion	Magnitude 6.9; visible in evening sky
Aug 03	Comet	10P/Tempel 2	Closest approach to Earth	Magnitude 6.9; visible in evening sky
Aug 06	Moon Phase	Moon	Third Quarter	
Aug 12	Planets	All Except Venus	Planets Parade	Above horizon before sunrise

Date	Category	Object	Event	Notes
Aug 12	Sun		Partial Solar Eclipse in Europe	Partial from Guernsey; totality track through eastern Greenland, Iceland, northern Portugal, and northern Spain
Aug 12	Moon Phase	Moon	New Moon	
Aug 13	Meteor Shower	Perseid	Maximum	Active Jul 17 to Aug 24; ZHR 150
Aug 15	Planets	Venus	At Greatest Eastern Elongation	Evening
Aug 15	Planetary Conjunction	Jupiter and Mercury	Conjunction	East; morning; 0°33’
Aug 20	Moon Phase	Moon	First Quarter	
Aug 28	Moon Phase	Moon	Full Moon	*PE*

Sources: (EarthSky 2026d, International Meteor Organization 2026, In-The-Sky.org 2026l, NASA/JPL 2026, Star Walk 2026a, Star Walk 2026b, Time and Date 2026d, Time and Date 2026e, Time and Date 2026l)

September

Date	Category	Object	Event	Notes
Sep 01	Meteor Shower	Aurigid	Maximum	Active Aug 28 to Sep 05; ZHR 6
Sep 04	Moon Phase	Moon	Third Quarter	
Sep 11	Moon Phase	Moon	New Moon	
Sep 14	Lunar Conjunction	Venus	Conjunction	Waxing Crescent
Sep 18	Moon Phase	Moon	First Quarter	
Sep 23	Equinox/Solstice		Autumnal Equinox	01:05 BST
Sep 26	Planets	Neptune	At Opposition	
Sep 26	Moon Phase	Moon	Full Moon	

Date	Category	Object	Event	Notes
Sep 30	Minor Planet	192 Nausikaa	At opposition	

Sources: (International Meteor Organization 2026, In-The-Sky.org 2026c, In-The-Sky.org 2026v, In-The-Sky.org 2026w, NASA/JPL 2026, Time and Date 2026e, Time and Date 2026k)

October

Date	Category	Object	Event	Notes
Oct 03	Moon Phase	Moon	Third Quarter	
Oct 04	Planets	Saturn	At Opposition	
Oct 04	Minor Planet	2 Pallas	At opposition	
Oct 05	Lunar Conjunction	Mars	Conjunction	Waning Crescent
Oct 05	Occultation	Mars	Wide Conjunction	07:11 UT; daylight/bright twilight
Oct 06	Lunar Conjunction	Jupiter	Conjunction	Waning Crescent
Oct 09	Meteor Shower	Draconid	Maximum	Active Oct 06 to Oct 10; ZHR 10
Oct 10	Moon Phase	Moon	New Moon	
Oct 10	Meteor Shower	Southern Taurid	Maximum	Active Sep 10 to Nov 20; ZHR 5
Oct 12	Planets	Mercury	At Greatest Eastern Elongation	After sunset
Oct 13	Minor Planet	4 Vesta	At opposition	
Oct 18	Moon Phase	Moon	First Quarter	
Oct 21	Meteor Shower	Orionid	Maximum	Active Oct 02 to Nov 07; ZHR 15
Oct 26	Moon Phase	Moon	Full Moon	

Sources: (International Meteor Organization 2026, In-The-Sky.org 2026l, In-The-Sky.org 2026w, In-The-Sky.org 2026d, In-The-Sky.org 2026y, In-The-Sky.org 2026g, NASA/JPL 2026, Time and Date 2026e)

November

Date	Category	Object	Event	Notes
Nov 01	Moon Phase	Moon	Third Quarter	
Nov 02	Lunar Conjunction	Jupiter	Conjunction	Last Quarter
Nov 02	Lunar Conjunction	Mars	Conjunction	Last Quarter
Nov 07	Lunar Conjunction	Venus	Conjunction	Waning Crescent
Nov 09	Moon Phase	Moon	New Moon	
Nov 12	Meteor Shower	Northern Taurid	Maximum	Active Oct 20 to Dec 10; ZHR 5
Nov 15	Planetary Conjunction	Jupiter and Mars	Conjunction	South-East; morning; 1°14'
Nov 17	Moon Phase	Moon	First Quarter	
Nov 18	Meteor Shower	Leonid	Maximum	Active Nov 06 to Nov 30; ZHR 15
Nov 20	Planets	Mercury	At Greatest Western Elongation	Before sunrise
Nov 24	Moon Phase	Moon	Full Moon	
Nov 25	Planets	Uranus	At Opposition	
Nov 30	Planets	Mercury, Venus, Mars, Jupiter, Uranus	Planets Parade	Before dawn
Nov 30	Lunar Conjunction	Jupiter	Conjunction	Waning Gibbous

Sources: (International Meteor Organization 2026, In-The-Sky.org 2026l, In-The-Sky.org 2026o, In-The-Sky.org 2026m, In-The-Sky.org 2026aa, NASA/JPL 2026, Time and Date 2026e)

December

Date	Category	Object	Event	Notes
Dec 01	Moon Phase	Moon	Third Quarter	

Date	Category	Object	Event	Notes
Dec 09	Moon Phase	Moon	New Moon	
Dec 14	Meteor Shower	Geminid	Maximum	Active Dec 04 to Dec 20; ZHR 120
Dec 17	Moon Phase	Moon	First Quarter	
Dec 21	Equinox/Solstice		Winter Solstice	20:50 GMT
Dec 22	Meteor Shower	Ursid	Maximum	Active Dec 17 to Dec 26; ZHR 10
Dec 24	Moon Phase	Moon	Full Moon	*SF*
Dec 30	Moon Phase	Moon	Third Quarter	

Sources: (International Meteor Organization 2026, Time and Date 2026e, Time and Date 2026k, Time and Date 2026o)

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References and Further Reading

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Site	Summary
Sea and Sky: Astronomy Calendar of Celestial Events for Calendar Year 2026	Year-at-a-glance list of notable astronomy events (meteor showers, eclipses, conjunctions, etc.) with brief descriptions and dates.
AstroPixels: 2026 Sky Event Almanac - GMT	Highly detailed almanac-style tables (eclipses/transits and other events) with precise timings, presented in GMT.
Time and Date - Guernsey	Sunrise/sunset, twilight, day length, and solar noon details for Guernsey (location-based).
Time and Date - St Peter Port	Astronomy overview for St Peter Port: moon phases, planet visibility, and other sky highlights tailored to that location.
Calendar - 12: Moon Phases 2026	Simple monthly/annual moon phase calendar view for 2026 (new/first quarter/full/last quarter).
The Naked Eye Planets	Quick guidance on which planets are visible to the naked eye and when, with easy-to-use observing info.
EarthSky: Venus After Sunset (Greatest Elongation)	Explains Venus greatest elongation and when it is best seen after sunset.
In-The-Sky	Comprehensive observing planner: sky charts, event listings (eclipses, meteor showers, conjunctions), and location-specific visibility tools.

Sources: (AstroPixels 2026, Calendar-12 2026, EarthSky 2026d, In-The-Sky.org 2026o, In-The-Sky.org 2026q, The Naked Eye Planets 2026, Royal Museums Greenwich 2026b, Sea and Sky 2026, Time and Date 2026c, Time and Date 2026m)

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