Lewes Astronomical Society

Newsletter
September 2026

LAS Newsletter: September 2026

Editor: Chris Taylor

Contents

1 Introduction

Welcome to the September 2026 issue of the LAS Newsletter, and thanks to all the members who have contributed to it.

2 Recent events

Thanks to Judith Pyett for writing section 2.2 on the follow-up Harvey's LAS social event, related to the Harvey's Brewery visit in July.

2.1 Falcon 9 lunar impact (5th August)

At about 7:35am BST on 5th August, the upper stage of a SpaceX Falcon 9 rocket had been predicted to hit the waning gibbous Moon at about 5,400mph, close to the crater Einstein and near the western visible rim of the Moon. It was expected that some telescopic observers might see a flash or a debris plume, and NASA and the Korean Aerospace Administration (KASA) were planning to observe the impact and its aftermath (see this link).

Although no direct visual image of a flash was reported, data of other kinds confirmed the impact (see this Wikipedia article and this Guardian article). Firstly, ground-based spectral analysis from the Very Large Telescope (VLT) at the Paranal Observatory in Chile revealed strong, sudden lithium and sodium emission lines for about 10 minutes just after the expected impact time (the sodium was thought to come from the lunar surface material, and the lithium from the rocket stage). Secondly, comparison of pre- and post-impact imagery of the lunar surface by the South Korean spacecraft Danuri and by NASA's Lunar Reconnaissance Orbiter both showed clear visual evidence of the impact location.

2.2 Follow-up Harvey's LAS social event (5th August)

Following on from our July tour of Harvey's Brewery, we were delighted to welcome 17 of our tour attendees to a private follow-up event at the John Harvey Tavern on 5th August.

It was a great opportunity to continue the experience, share our thoughts about the brewery tour and, of course, enjoy some more of Harvey's famous beers in good company. The John Harvey Tavern offers something called a beer flight. As shown in the accompanying picture, the flight comes with three glasses, allowing you to choose three different beers from both keg and cask available at the pub.

Each glass contains a third of a pint, giving you three different beers for just £5.00. That's a pint for a fiver — but with the added bonus of being able to sample three different Harvey's beers rather than committing to just one.

According to Hamish, there are 10 Harvey's beers available at the pub, including one beer that is only available at the John Harvey Tavern.

Naturally, we were keen to discover something a little different, so we decided to give the beer flight a try. It was an excellent way to sample a selection of Harvey's beers, compare their different flavours and perhaps even discover a new favourite. If you missed our brewery tour or the follow-up event, don't worry — you can still enjoy the Harvey's experience for yourself at the John Harvey Tavern.

Three beers. Three glasses. One great-tasting experience — and all for just £5.00!

2.3 Partial solar eclipse (12th August)

A solar eclipse (source theskylive.com) occurred on 12th August, with more than 90% of the Sun's disk covered at the peak in the Lewes area. See Iain Todd's article on the BBC Sky at Night Magazine website for an overview, including the path of totality, which began inside the Arctic Circle, crossing parts of Greenland, Iceland, Portugal, and Spain, and ending in the Mediterranean. In Spain and Portugal, totality occurred not long before sunset. For

another overview of the eclipse, see this NASA webpage. Also from NASA, see these animations of the 12th August eclipse, this detailed map with comments, and this explanation of different types of solar eclipse.

On Seaford seafront, the eclipse started at about 18:19 BST, peaked at about 19:14, and ended at 20:07. Thanks to the LAS members who helped with this very crowded and at times hectic event (especially Deborah, Michele, and Carina dealing with eclipse glasses around the Martello Tower), to Seaford Town Council (including the Deputy Mayor, who came) and their staff for liaising with Chris and Judith, and to the local cafe owner for staying open at Judith's request. Some LAS members saw the eclipse at home, and a few went abroad to see totality. LAS member Clive Mellor, a presenter for local radio station Seahaven FM, broadcasted two interviews on the eclipse, one with Carina on 10th August, and one on 13th August with Judith and others.

The next solar eclipse will be on 2nd August 2027; it will be partial from the UK and in most of western Europe, but total in parts of southern Spain, North Africa (including Morocco, Algeria, Tunisia, Libya, and Egypt), Saudi Arabia, and Yemen. For a general website with predictions for future solar and lunar eclipses, see the website eclipsewise.com.

2.4 Perseids meteor shower (12th/13th August)

Only a few hours after the solar eclipse was the peak of the Perseids meteor shower, best seen in dark skies after 11pm over the night of 12th/13th. A formal LAS Perseids event was not practical so soon after the big solar eclipse event earlier on the 12th, but some LAS members made the effort to see some meteors, either going out to a dark site or just observing from their gardens during the night of 12th/13th, or a night or two before or after the peak. A few members took photos of meteors (not easy with such transient events); expect one of these photos in the October Newsletter.

2.5 Landport Residents Association Picnic, Lewes (26th August)

The LAS had a stall at the *Eridge Green Annual Community Picnic*, organized by the Landport Residents Association (who invited the Mayor of Lewes, an LAS member), and held on the communal area next to Eridge Green street, in the Landport area of Lewes (between the A2029 Offham Road and the River Ouse). LAS members Carina, Chris, Michele, Brian, Joan, Judith, and Steve chatted to people at the LAS stand, with activities for children, and safely viewed the Sun with two specially equipped telescopes. This was an enjoyable and relaxed event with a nice communal atmosphere. Thanks to the LAS members who helped at the LAS stand, particularly to Carina for organizing the LAS contribution, and to Jane for liaising with the Landport Residents Association beforehand.

2.6 Partial lunar eclipse (28th August)

In the early hours of 28th August, a lunar eclipse (source theskylive.com) occurred; from Lewes, it was partial, i.e. some but not all of the Moon's disk was in the *umbra* (darkest part) of the Earth's shadow. Nonetheless, only a small fraction of the Moon was outside the umbra when the peak occurred at 5:12am BST, making the eclipse near-total. The Moon set, still in eclipse, at about 6:15am BST. See this general guide to lunar eclipses from the Royal Museums Greenwich, explaining the stages and types of lunar eclipse.

Locations with an unobstructed view of the south-south-west to west-south-west horizon were suitable for viewing this eclipse. Given the rather anti-social timing, no formal LAS event was arranged to observe it; however, despite pessimistic cloud-cover forecasts before midnight, several LAS members saw the Moon in eclipse from the general area around Lewes, and some photographed it, posting images later on the LAS WhatsApp feed.

2.7 Astronomy Festival 2026, Herstmonceux (28th–30th August)

The LAS had a stand at this annual festival, held from Friday 28th to Sunday 30th August at the Observatory Science Centre (OSC), located on the edge of the Herstmonceux Castle estate a few miles inland from Eastbourne.

On Friday 28th, during the daytime session, there were telescope tours, planetarium shows, access to the OSC's displays (including the "Lunar Experience" in Dome F), and activities for children. The daytime weather was dry with sunny spells, allowing intermittent use of solar telescopes at the LAS stand and nearby stands. Despite the reasonable weather, however, visitor numbers were fairly low, perhaps because it was a normal weekday. In the evening session, the Festival's programme of talks was introduced by the convenor, LAS Committee member Ian Whiteley FRAS (a long-time volunteer at the OSC), followed by the first talk, "Royal Observatory Greenwich: A History in Objects", by Dr Louise Devoy (from the Royal Observatory, Greenwich). Cloud cover increased rapidly after sunset, and so not much night-sky observation was possible, but visitors were still able to look at the Observatory's indoor displays and to go inside some domes.

On Saturday 29th, the daytime session had similar non-talk activities to those on Friday, and a sequence of four talks: Neil Phillipson on "Mankind's Next Great Leap"; Dr Vicki Smith (from the nearby NERC Space Geodesy Facility (SGF) — see this YouTube video for a previous talk by her); Gary Newport on "The Voyager Missions" (see this NASA webpage); and Dr Robin Catchpole on "Are we alone?". In the evening, there was an astronomical quiz at the "Newton's Bar" tent. Unfortunately the weather was very bad on this day, with heavy rain showers and strong winds. As a result of this, fewer visitors came than expected, telescopic observations were not feasible, and in the evening

the LAS gazebo was wrecked by the wind (at least the third gazebo to be blown down that day). Given the bad weather, a previously unscheduled evening talk by Freddy Muñoz Arancibia, Lead Mechanical Engineer at the Vera C. Rubin Observatory (who was at the Festival) was held. See this brief video clip of him on YouTube channel NOIRLabAstro (in Spanish, but you might be able to get English sidebar captions by adjusting some settings).

On Sunday 30th, there were four more talks: LAS member Doug Edworthy on "Please Don't Light Me Up"; Royal Astronomical Society President Professor Jim Wild (by video-link) on "Solar superstorms — Are we ready for another Carrington Event?"; LAS President Professor Stephen Wilkins from the University of Sussex on "Simulating the Universe"; and Dr Darren Baskill (also from the University of Sussex) on "The Tidal Universe". Although fairly high levels of cloud cover restricted solar telescope use, the weather was much better on this day than on Saturday, with drier and less windy conditions, allowing the LAS volunteers to operate from two tables, despite the loss of the gazebo. Many visitors came to the LAS stand on this day, particularly families with young children, who enjoyed making paper rockets and took away free astronomical badges and magazines. After a raffle ticket draw with three prizes of telescopes, things drew to a close at 5pm, concluding another very enjoyable annual event. Even during periods with fewer visitors, it had been interesting for volunteers from the various astronomical societies and other organizations to meet each other and to compare experiences.

Thanks to the LAS members who helped with the LAS stand, particularly to Carina for organizing the LAS participation in this event, and to Paul Whitmarsh for being both an LAS volunteer and an OSC volunteer (showing OSC telescopes and domes to visitors). Thanks also to LAS member Ian Whiteley for being the Festival's talks convenor, for publicizing the OSC's "Rescue a railing" fundraiser, and for his part in the recent successful campaign to persuade Queen's University of Kingston, Ontario (the owners of the Herstmonceux Castle estate) to grant a new ten-year lease to the OSC.

3 Upcoming events

See https://www.lewesas.org.uk/events for details and updates on upcoming events (weather-dependent events may be cancelled).

3.1 Subud Centre meeting (2nd September)

The LAS monthly lecture meetings resume with Greg Smye-Rumsby talking at the Subud Centre (Talbot Terrace, Lewes, BN7 2DS; what3words: ///tripled.collide.flattens) on "Flat Earth Conspiracies" (non-members £4; doors open at 7pm; talk starts at 7:30pm). Thanks to Paul Whitmarsh for the following short summary.

Greg will be examining the recent resurgence of the idea that the Earth might actually be flat. This notion has gained some momentum in recent years, perhaps because of a growing mistrust in the established way society has been going. Greg's talk kicks out some of the more obvious aspects of the conspiracy and sets those thoughts against the long history of the science that has proved otherwise for many centuries.

3.2 International Moon observation event (19th September)

NASA are arranging an "International Observe the Moon Night" on 19th September, in which people around the world are encouraged to observe the Moon and to celebrate its role in science, exploration, the arts, and human culture. NASA's website for this event includes the following free resources:

- Moon maps for 19th September 2026 (one each for Northern and Southern Hemisphere observers).
- Learning activities for a variety of age groups.
- Multimedia resources, including flyers, stickers, and so on.
- Rain or shine resources that you can use if it's too cloudy to observe the Moon.

Also relevant here is the book "Moon: Art, Science, Culture" by Alexandra Loske (an art historian who is Curator at the Royal Pavilion in Brighton) and Robert Massey (who is LAS Chair and also Deputy Executive Director of the Royal Astronomical Society). An electronic Kindle version is available to download; you do not need a physical Kindle device to read it, as free Kindle reader software is available for PCs, laptops, and notepads (and for smartphones too, but viewing this book on a large-screen device is recommended, as it contains many beautiful colour images). New and second-hand physical copies of the book are also currently available from Amazon in the UK.

4 This month's topic links

A small selection of interesting links from various sources.

4.1 Links from the WhatsApp feed

Some more interesting links posted by LAS members:

- Seestar array imaging (Chris K.): using 52 Seestars with 246 hours of exposure; video by Ethan of YouTube channel Rooftop Astronomy.
- Best telescopes to photograph the planets (Gerard F.): article from the website astroforumspace.com of Dutch astronomer Wido Oerlemans.

- Meteorite hunting in New Zealand (Jim R.): Guardian article by Natasha May, about the latest meteorite found by Fireballs Aotearoa, a group of astronomers, geologists, and citizen scientists, set up by LAS member Jim Rowe and run by several of his colleagues, who use a camera network to track bright meteors and thereby to locate possible meteorite landing areas.
- Fastest known star orbit (Robert M.): Guardian article by Hannah Devlin about a star that orbits the Milky Way's central supermassive black hole, with an orbital speed estimated at up to 8% or more of the speed of light (see also this webpage, including a video, from the European Southern Observatory).

4.2 Other links

Some interesting links from other sources:

- Apollo 16 image gallery: a selection of high-resolution colour images from the Apollo 16 lunar landing mission, on the website moongiant.com; shown with the permission of NASA archives.
- Nancy Grace Roman Space Telescope: article by Noelia Noël of the University of Surrey on NASA's new space telescope; from the Science + Technology section of the website theconversation.com/uk. The telescope was launched successfully on 30th August.
- "10 women who changed astronomy": article from astronomy.com about ten great woman astronomers (including Nancy Grace Roman).
- Black hole star: Guardian article by journalist Ian Sample about the discovery of a new kind of celestial object, based on observations made by the James Webb Space Telescope.

5 Monthly person: Sir Martin Ryle (1918–1984)

Sir Martin Ryle was born in Brighton on 27th September 1918, and died in Cambridge on 14th October 1984. For the period 1972–1982, he was the 12th Astronomer Royal, and the first to hold that title in its modern sense, as an honorary award to a prominent astronomer, rather than as someone responsible for the operations of the Royal Observatory. With Antony Hewish, Ryle was jointly awarded the 1974 Nobel Prize in Physics, "for their pioneering research in radio astrophysics: Ryle for his observations and inventions, in particular of the aperture synthesis technique, and Hewish for his decisive role in the discovery of pulsars".

Before his important post-war contributions to astronomy and cosmology, Ryle did vital research and development work during the Second World War

on radar and on countermeasures to radar. See this biographical entry on the website of Royal Society Publishing, from where an account of Ryle's life and career by Sir Francis Graham-Smith can be downloaded in PDF format.

6 The night sky in September 2026

Thanks as always to Paul Whitmarsh for the lookahead guide, and to Sarah Carson for the star chart.

6.1 Lookahead guide

The chart in section 6.2 shows how the night sky will appear at 11pm at the start of September, 10pm in mid-month, and 9pm at the end of September. The position and phase of the Moon are shown for the 20th, 24th and 28th. Venus has been a constant companion in the evening skies this year; however, September is its swan song before it returns as the morning star in October. Saturn makes a welcome return to the evening skies, while Mars and Jupiter are visible in the morning skies for early risers.

September is a great time to get away from the town lights and see the Milky Way stretching overhead. Made of myriads of stars in our galaxy, it glows as a faint cloud running from the south-west to the north-east on our map.

There is an avian theme this time of year, with the constellations of Aquila the Eagle and Cygnus the Swan prominent in the evening sky. If you have binoculars, you can spot another avian reference: look between the top star in Scutum and the bottom star in Aquila and you will find the Wild Duck Cluster. This cluster forms a fan of faint starlight reminiscent of a flock of ducks or geese flying in formation.

Aquila contains one of the faintest stars known, Van Biesbroeck's Star. It has only about 8% of the Sun's mass and sits right on the boundary between a true star and a brown dwarf. Despite being intrinsically dim, if it were placed at the centre of the Solar System it would appear only slightly brighter than the full Moon.

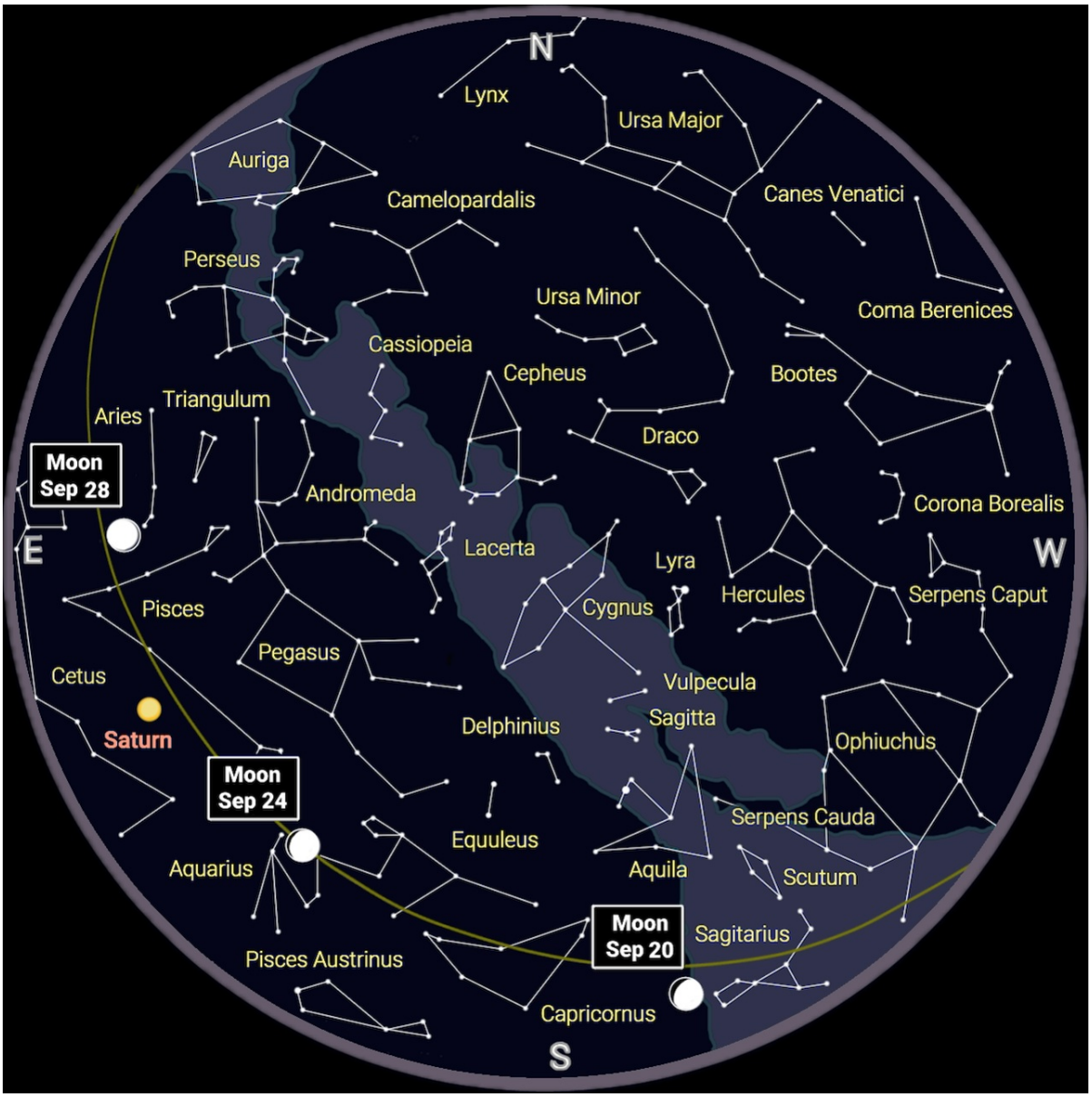
Moving up from Aquila to Cygnus we pass the constellation Vulpecula. With binoculars, look between the central stars of Sagitta and Vulpecula and you will find the ghost of a star: the Dumbbell Nebula. This planetary nebula is the outer atmosphere of a dying star, ejected into space and illuminated by the hot white dwarf at its centre, which will cool over billions of years into a cosmic cinder.

Finally, onto Cygnus, a constellation rich with clusters and nebulae to explore with binoculars. We have seen a tiny star that will live for tens of billions of years, and a star that has reached the end of its life. Now we come to Deneb,

the brightest star in Cygnus. Deneb shines between 60,000 and 200,000 times brighter than the Sun. It is a blue supergiant, fusing heavier elements in its core, and within a few million years will ultimately end its days as a spectacular supernova.

6.2 Star chart

Refer back to the lookahead guide in section 6.1 as required.



7 LAS image gallery

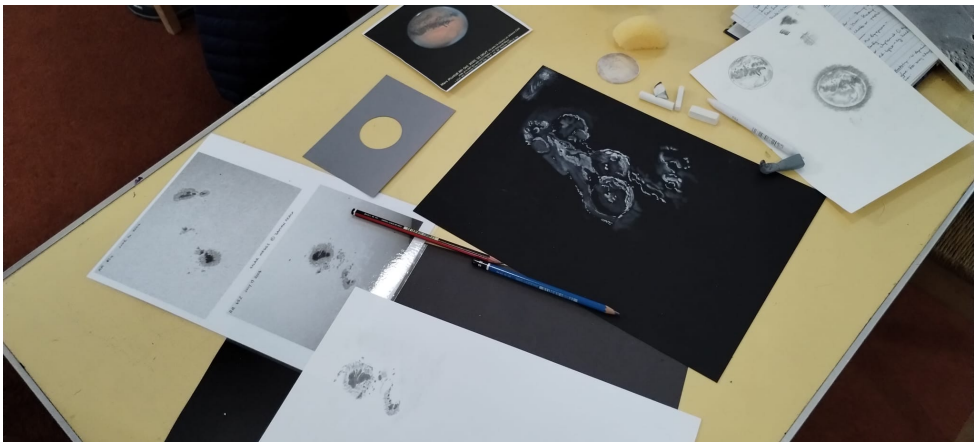
For details on Messier 13 in section 7.2, see this NASA webpage.

7.1 Quito Astronomical Observatory (Nicole Vann Monney)

See this Wikipedia page for more details on this elegant nineteenth-century observatory in Ecuador.

7.2 Hercules Cluster, Messier 13 (Gerard Fox)

7.3 Sketches at Sally Russell's drawing class (Anthony Gristwood)



7.4 Moon at First Quarter (Sally Russell)

For learning the names of lunar features and more about them, these two websites help: NASA's Daily Moon Guide, which names up to three features per day, visible by eye, binoculars, or telescope; and the Moon webpage of the website theskylive.com, which names many more features per day (scroll down to the initial image; click on it to get blue dots on features; click on a blue dot to get further information on that feature). See also section 3.2 for NASA's 19th September international Moon observation event.

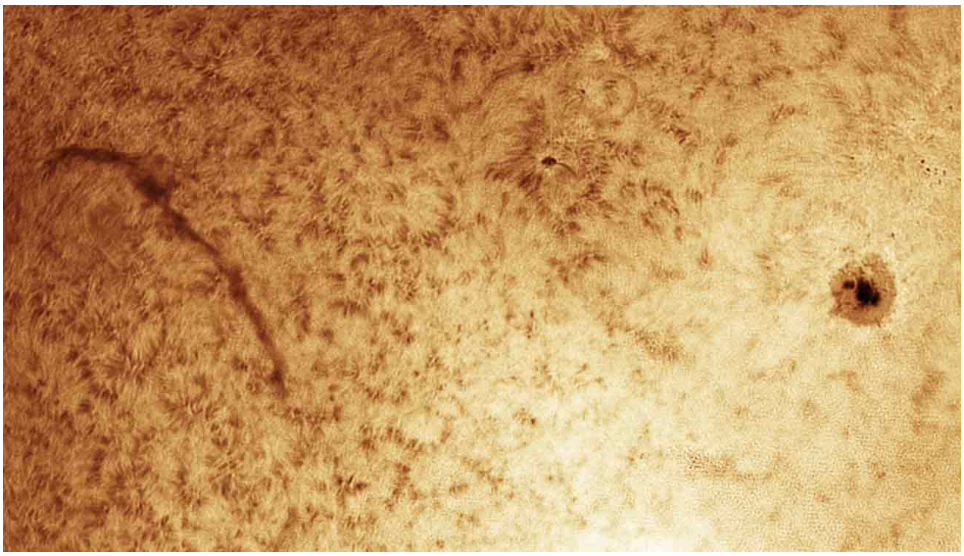
7.5 Refractive distortion at sunset, Seaford (Robert Massey)

Here, the Sun looks like a fried egg yolk as it sinks below the sea horizon.

7.6 Comet C/2025 R3 PanSTARRS (Paul Whitmarsh)

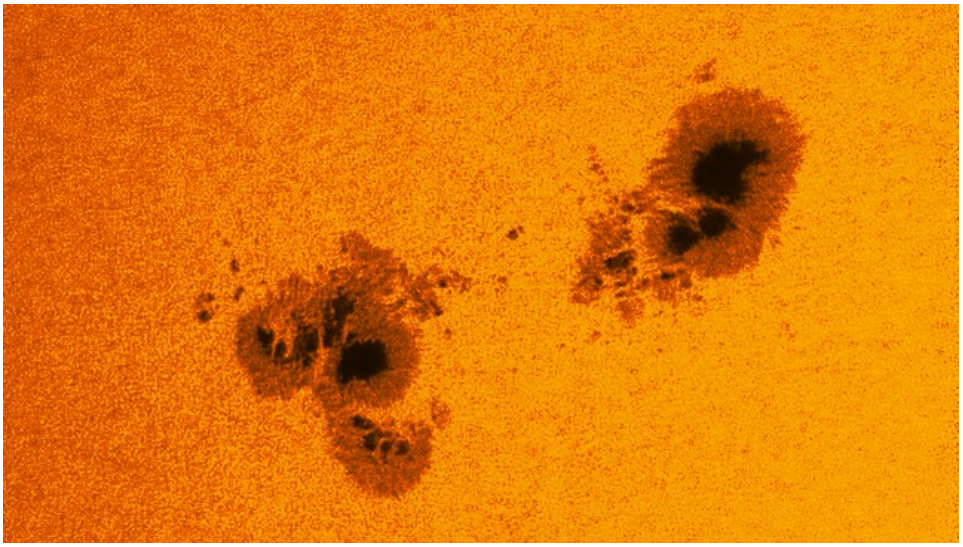
See this interactive image of its orbit (well outside the ecliptic plane) from the website astro.vanbuitenen.nl, and this video from astroforumspace.com.

7.7 Sun filament and sunspot (Peter Quinn)



As this webpage from Montana State University explains, solar *filaments* are thread-like regions of very dense but relatively cool plasma, suspended above the Sun's chromosphere by magnetic forces. They appear dark when against the background of the Sun's chromosphere, but bright when projecting beyond the edge of the Sun's visible disk, when they are called *prominences*, another term for the same underlying phenomenon.

7.8 Sunspots in detail (Taylor Hughes)



Like filaments, sunspots look dark in comparison to the rest of the solar disk because of their relative coolness. Within each sunspot, there are darker *umbral* regions, and less dark *penumbral* regions; see this webpage.