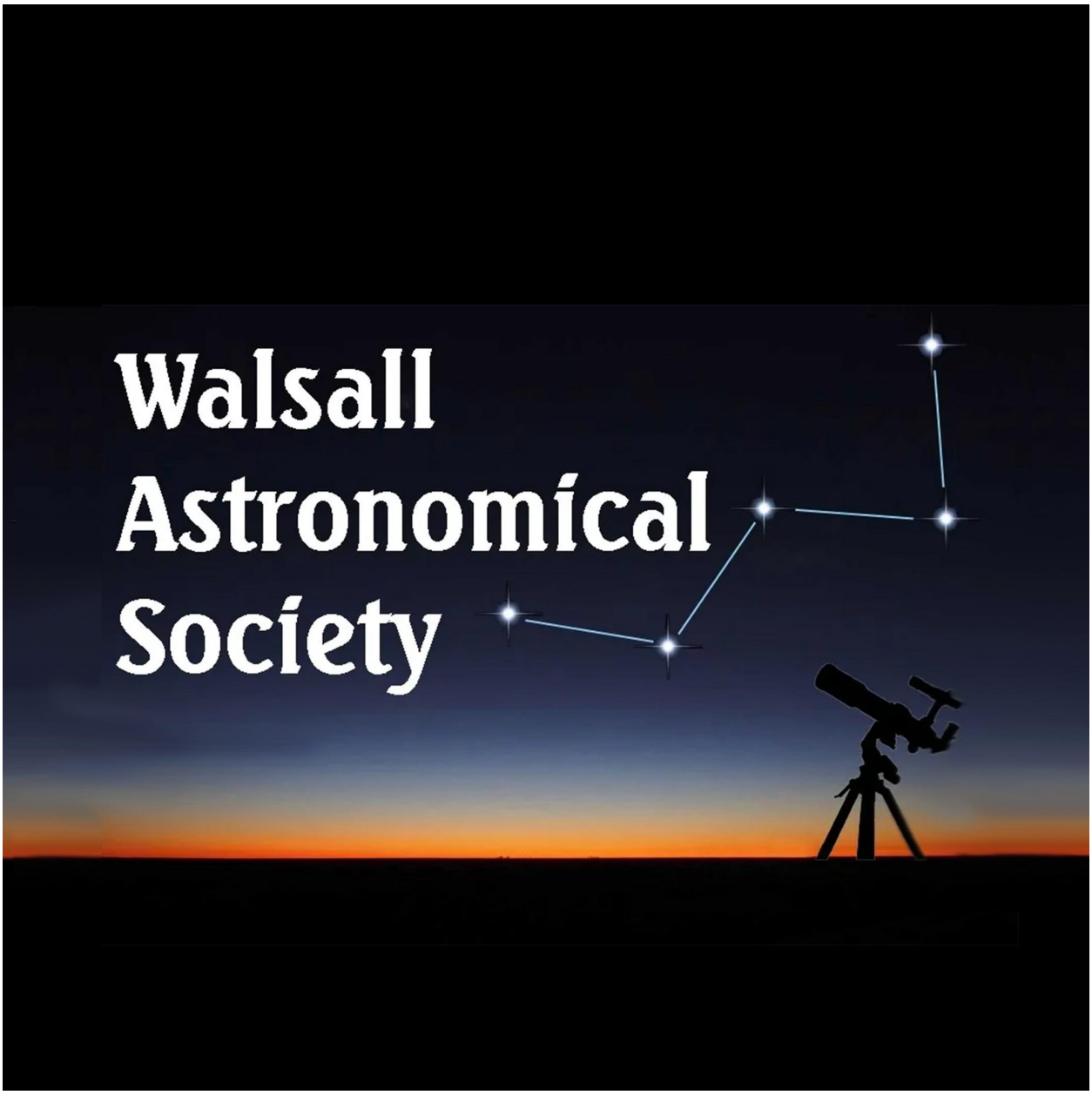


February 2026

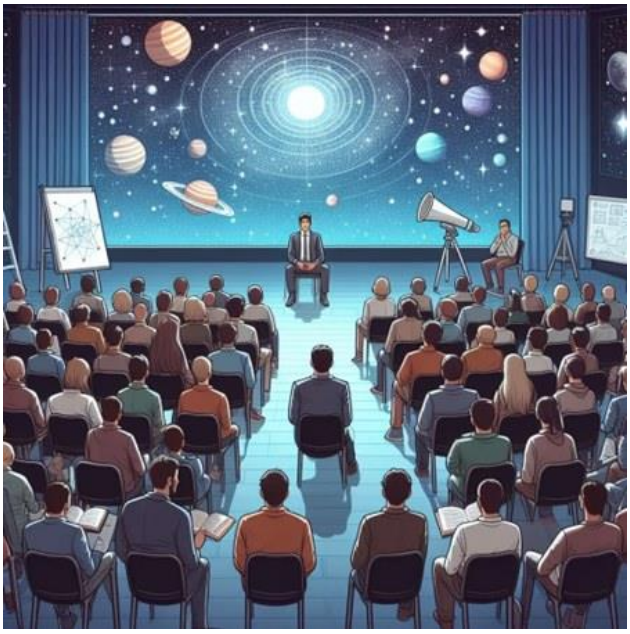
What's Up Monthly Publication

One month gone already in 2026!

February offers some of the best mid-winter observing conditions of the year, with long, reliably dark evenings and steadily lengthening daylight that doesn't cut too deeply into night-time opportunities. In Walsall, early February nights still begin around 17:00 and stretch until roughly 07:30, giving observers around 11–12 hours of usable darkness including twilight at the start of the month, gradually shortening as sunrise moves earlier and sunset later through February.

The crisp winter air often delivers good transparency, making this a great month for general observing—whether you're scanning bright seasonal constellations, checking in on familiar deep-sky objects, or taking advantage of stable conditions for lunar and planetary viewing. It's an inviting time to wrap up warm, bring out binoculars or a telescope, and enjoy the long, quiet nights before spring lightens the skies again.

What's on this month



Thursday 5th February - **AGM** - Members Only - 8PM Start

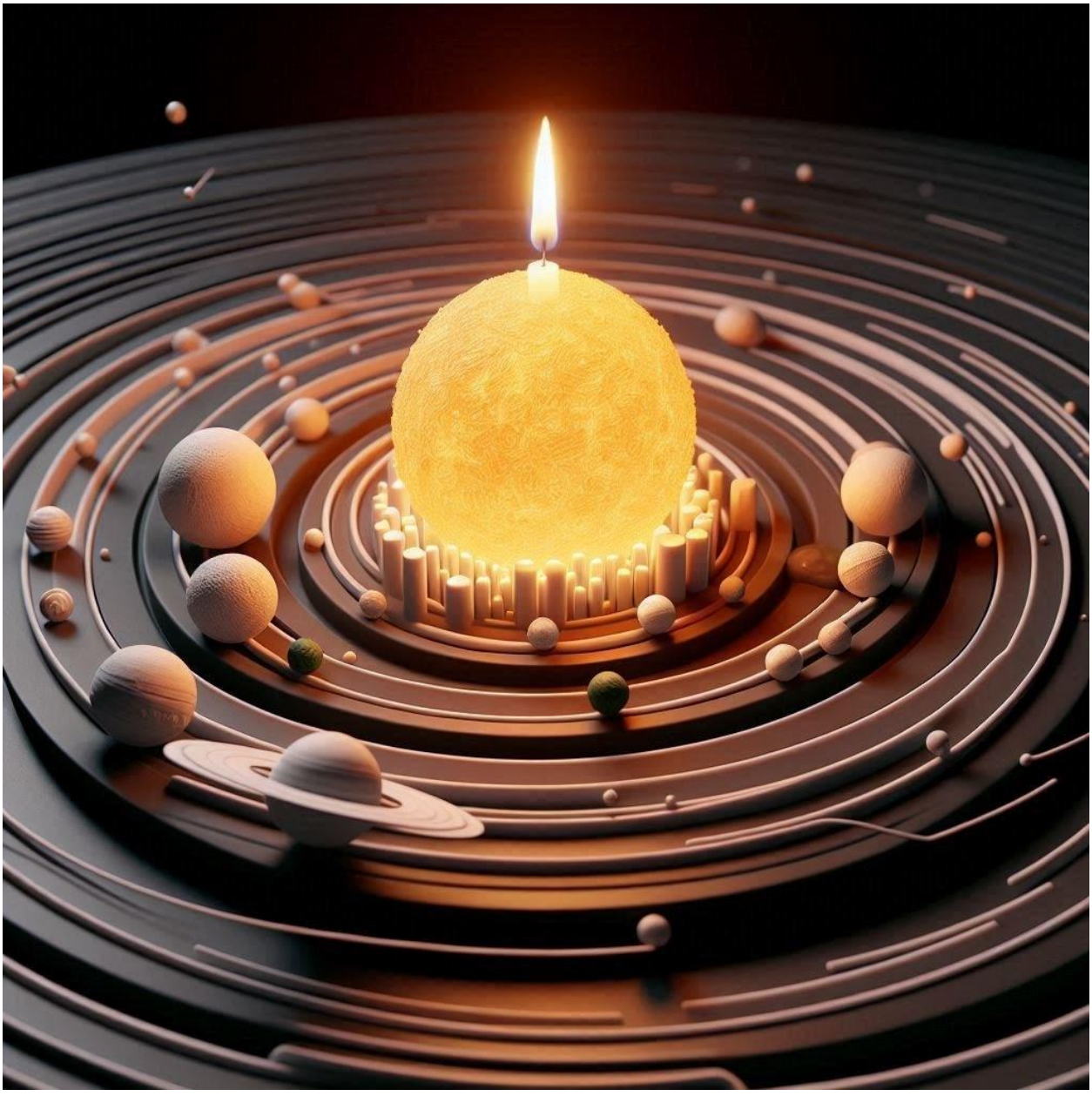
Friday and Saturday 6th & 7th February - European AstroFest - Kensington Conference and Events centre - More details can be found Here: AstroFest

Thursday 12th February: Telescopes out if clear and general support, help and guidance.

Thursday 19th February: Telescopes out if clear and general support, help and guidance.

Thursday 26th February: Monthly 'What's Up' presentation

Anniversaries February



Here are some significant astronomy anniversaries that occurred in February throughout history:

- **February 5, 1971** – **Apollo 14 lands on the Moon:** Apollo 14 lands on the Moon in the Fra Mauro formation, with astronauts Alan Shepard, Edgar Mitchell, and command module pilot Stuart Roosa.
- **February 10, 2020 - Solar Orbiter is launched:** Launched to study the Sun and it's inner heliosphere.
- **February 12, 1809** – **Birth of Charles Darwin:** Although best known for his contributions to biology, Darwin's theory of evolution by natural selection has influenced astronomical thought, particularly in the search for life elsewhere in the universe.
- **February 14, 1990** – **Voyager 1's "Pale Blue Dot" image:** On Valentine's Day 1990, NASA's Voyager 1 took a photograph of Earth from a distance of about 3.7 billion miles, famously showing Earth as a tiny "pale blue dot" in the vastness of space.
- **February 17, 1959** – **First successful U.S. weather satellite (Vanguard 2):** Vanguard 2 was launched to study Earth's cloud cover, marking a significant achievement in satellite-based weather observation.
- **February 18, 1930** – **Discovery of Pluto:** Clyde Tombaugh discovered Pluto on this date at the Lowell Observatory in Arizona, marking the discovery of the then-9th planet in our solar system.
- **February 20, 1962** – **John Glenn's orbital flight:** John Glenn became the first American to orbit Earth aboard the Friendship 7 spacecraft on this date, contributing to the U.S. Space Race effort.
- **February 24, 1987** – **Supernova 1987A discovery:** Supernova 1987A was discovered in the Large Magellanic Cloud. It was the closest supernova observed in nearly 400 years and provided a wealth of data on stellar evolution.
- **February 25, 1969** – **Launch of Mariner 6:** Mariner 6 is launched to study Mars' surface and atmosphere during close flybys.

These anniversaries highlight key discoveries, milestones, and events that shaped the field of astronomy and space exploration.

Moon Phases

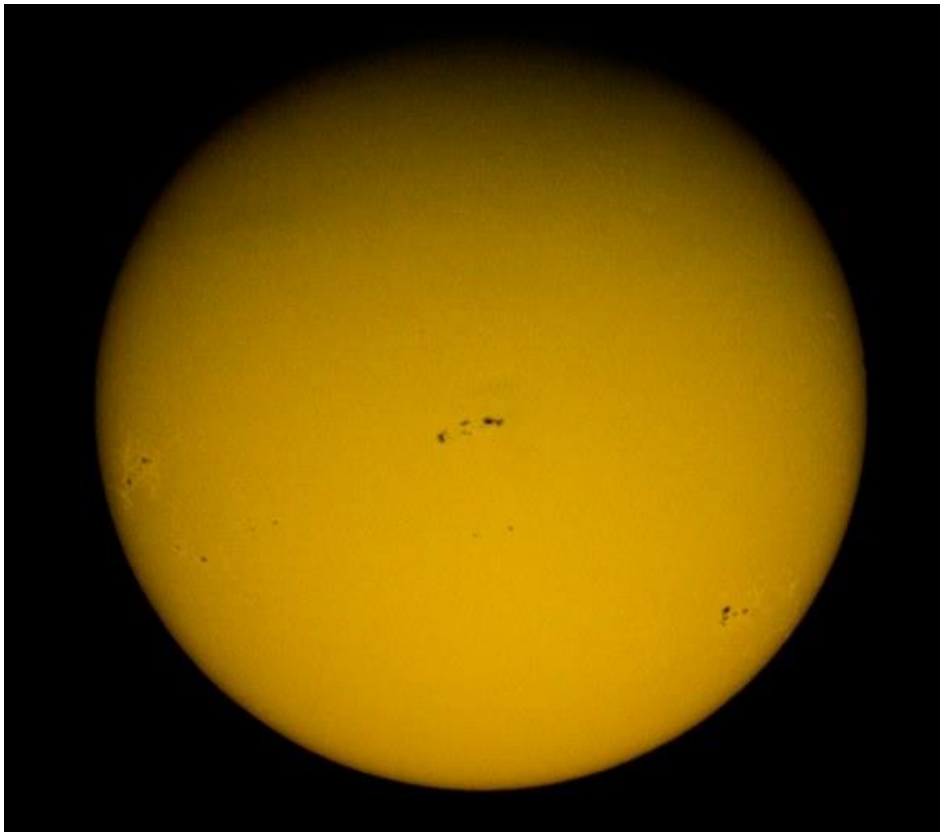
Sunday 1st Feb - Full Moon

Monday 9th Feb - Last quarter

Tuesday 17th Feb - New Moon

Tuesday 24th Feb - First quarter

The Sun



Solar activity in February 2026 is expected to be **High**. Having reached the "Solar Maximum" phase of Cycle 25 in late 2024/early 2025, the Sun remains in a period of intense magnetic

activity. Expect frequent sunspots, solar flares (M-class and potentially X-class), and Coronal Mass Ejections (CMEs). This heightened activity increases the probability of **auroral displays (Northern Lights)** visible from Northern UK and potentially further south during geomagnetic storms.

Live feeds from our sun are available (Here)

Solar Weather forecast (Here)

Solar Cycle progression (Here)

The Planets

Here’s a summary of the positions and visibility of the planets in February as seen from the UK:

- **Jupiter:** The brightest planet in the evening sky, located in Gemini. It is visible nearly all night and reaches its highest point around 8:00 PM.
- **Mars:** Visible in the early morning hours, rising in the East. It is currentlyin its "dimmer" phase but is still a distinct reddish point of light.

- **Venus:** Appearing as the "Evening Star" low in the West after sunset. It will be very bright and easy to spot before it sets about an hour after the Sun.
- **Saturn:** Only visible very early in the month, low in the West after sunset. By late February, it will be lost in the Sun's glare.
- **Uranus:** Requires binoculars or a telescope. It is located in Taurus and is visible for much of the evening.
- **Neptune:** Too close to the Sun for safe viewing. It sets shortly after the Sun and is buried in the twilight glow.
- **Mercury:** Best seen around February 19 in the evening twilight. It will be low on the western horizon just after sunset.

The planetary alignment will continue through the be visible in the beginning of the month, but as the month goes on with more daylight and planets moving towards the horizon they will become more difficult to see

Comets & Meteors

Meteor Showers

- Alpha Centaurids: While primarily a Southern Hemisphere shower, some "earthgrazing" meteors may be visible from the far south of the UK during the peak on February 8.
- Anthelion Source: Not a specific shower, but this region produces a steady rate of 1-2 meteors per hour throughout February, visible from the UK in dark locations.

Comets

• **C/2024 E1 (Wierzchos)**: The primary comet for February. It is expected to be magnitude 8-9 and will be moving through the constellation Cetus. Visible in the early evening.

• **24P/Schaumasse**: A periodic comet fading from magnitude 10 to 11. It is a telescope-only target visible in the evening sky.

For optimal viewing, observers should focus on times when the Moon is not interfering and look in areas with minimal light pollution. Binoculars or small telescopes are recommended for a better view of the comet's tail and coma, as naked-eye visibility might still be challenging depending on the comet's final brightness

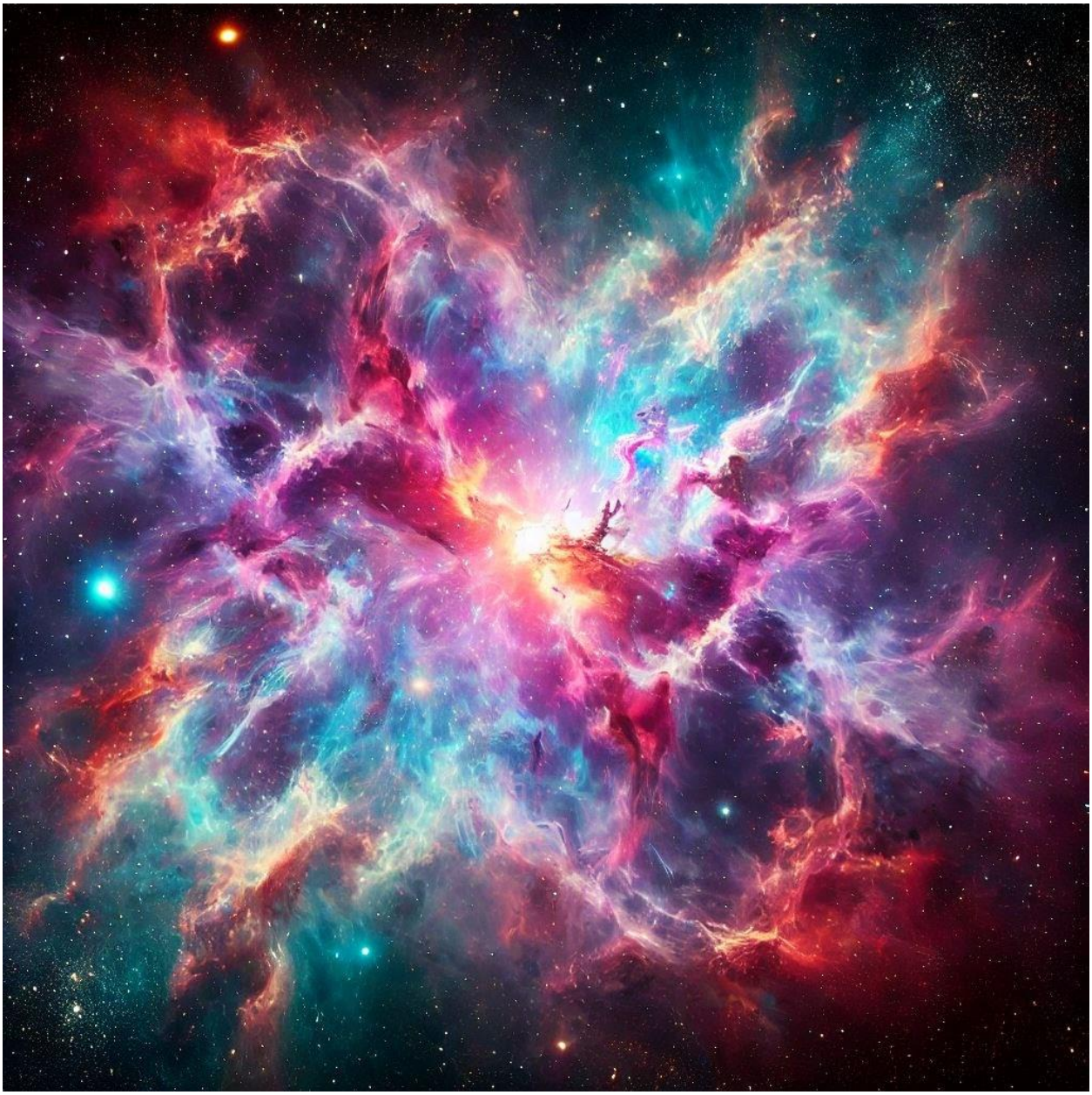
Asteroids

• **4 Vesta**: Magnitude +7.8. Located in Gemini, it is easily visible in binoculars from the UK.

• **16 Psyche**: Magnitude +10.2. Located in the constellation Leo, this metal-rich asteroid is a target for small telescopes.

• **2 Pallas**: Magnitude +9.4. Visible in the constellation Hercules in the early morning hours.

Deep Sky Targets



For Telescopes

In February 2026, the UK night skies will showcase several prominent deep-sky objects visible during the winter months. Here's a list of noteworthy objects:

- **North**

- Sunflower Galaxy (M63): A spiral galaxy, without well defined spiral arms

- Pinwheel Galaxy (M101): A face-on spiral galaxy, with will defined spiral arms.

- Bodes Galaxy (M81): A bright spiral galaxy in close proximity to M82.

- Cigar Galaxy (M82): A spiral galaxy, with a massive emission of gas and dust caused by newly forming stars.

- **East**

- Beehive Cluster or Praesope (M44): An Open Cluster of around 1000 stars.

- Whirlpool Galaxy (M51): A great example of a 'grand design' spiral galaxy, with symmetrical arms laced with stars, gas and dust.

- Black Eye Galaxy (M64): A Spiral galaxy named for the dark band of dust that sweeps across the bright nucleus.

- Leo Triplet (M65, M66 and NGC3628): A group of interacting spiral galaxies, which should be visible through a moderate telescope.

- **South**

- Orion Nebula (M42): A bright emission nebula in Orion’s Sword, easily visible with binoculars or a small telescope.

- Horsehead Nebula (Barnard 33): A dark nebula best viewed with larger telescopes and specialized filters.

- Sirius Star Cluster (M41): An open cluster located near Sirius, visible with binoculars or small telescopes.

- Capella Cluster (M36, M37, M38): Three open clusters, each offering a stunning view through binoculars or a telescope.

- Rosette Nebula (NGC 2237): A large emission nebula surrounding a young star cluster, best seen with a wide-field telescope.

- Crab Nebula (M1): A supernova remnant near Zeta Tauri, visible through small telescopes.

- Eskimo Nebula (NGC 2392): A planetary nebula resembling a face surrounded by a parka hood, visible with moderate telescopes

- **West**

- Andromeda Galaxy (M31): The closest major galaxy to the Milky Way, visible as a fuzzy patch with the naked eye in dark skies.

- Phantom Galaxy (M74): A face-on spiral galaxy, made up of symmetrical spiral arms and winding dust lanes around a bright nucleus

- Double Cluster (NGC 869 and NGC 884): A pair of open clusters near the border of Perseus and Cassiopeia, visible with the naked eye or binoculars.

- Pleiades (M45): The famous open star cluster visible to the naked eye, resembling a miniature dipper.

These objects span various types, from galaxies to nebulae and star clusters, providing excellent opportunities for stargazing and astrophotography. Use a star map or astronomy app to locate them easily.

For Binoculars

With 7x50 wide angle binoculars sweep the milky-Way from Cassiopeia through Perseus and Auriga to Procyon. Enjoy the Hyades and Pleiades at the same time.

Bright Star Clusters

1. **The Pleiades (M45)** – A stunning open star cluster in Taurus.
2. **The Hyades** – A nearby V-shaped cluster in Taurus surrounding Aldebaran.

Nebulae and Galaxies

1. **Orion Nebula (M42)** – Visible in winter in Orion's Sword, a vivid star-forming region.
2. **Andromeda Galaxy (M31)** – The closest spiral galaxy, seen best in autumn and winter.

Globular Clusters

1. **Hercules Globular Cluster (M13)** – A dense, bright star cluster visible in summer.
2. **M92** – Another impressive globular cluster in Hercules, slightly dimmer but rewarding.

Planets and the Moon

1. **Jupiter and its Moons** – Binoculars reveal Jupiter’s four largest moons.
2. **The Moon** – Ideal for exploring craters, maria, and mountains at any phase.

Switching to the Caldwell catalogue:

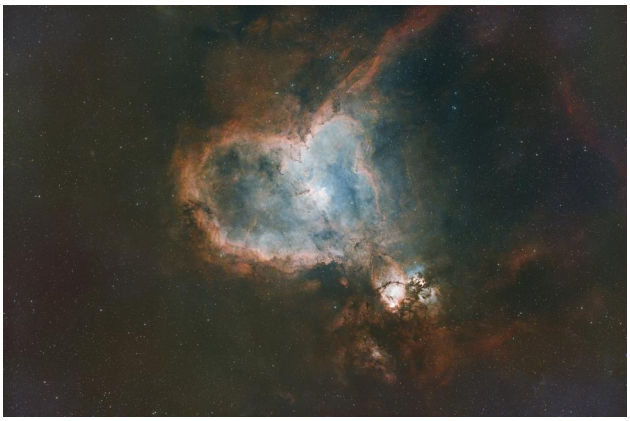
C13 The Owl Cluster in Cassiopeia is not difficult for binoculars or small telescopes. (Draw a line from epsilon CAS through delta for about half the distance to find chi CAS which is in the middle of this open cluster also known as.NGC457).

C14 We all know as NGC 869 & 884 the double cluster or sword handle in Perseus,

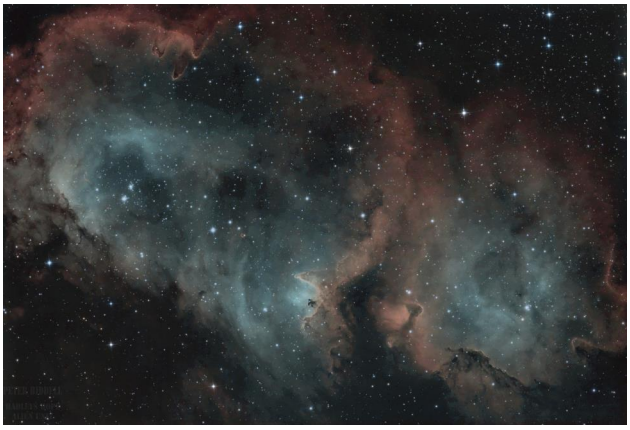
Club Member Gallery

Images captured by club members throughout the previous month

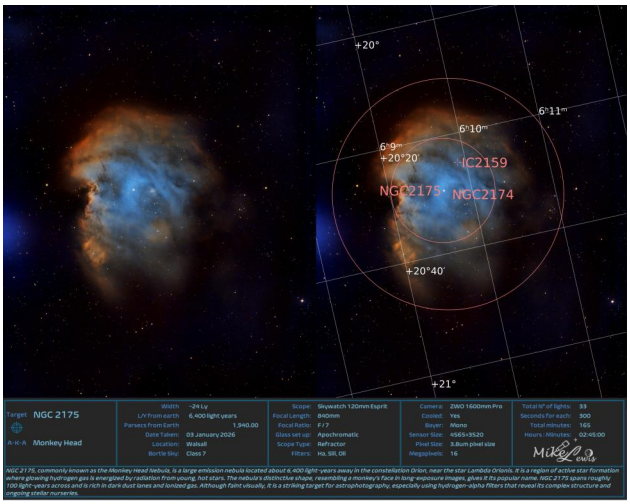
1 - Moon - Tycho Crater - David Kyte



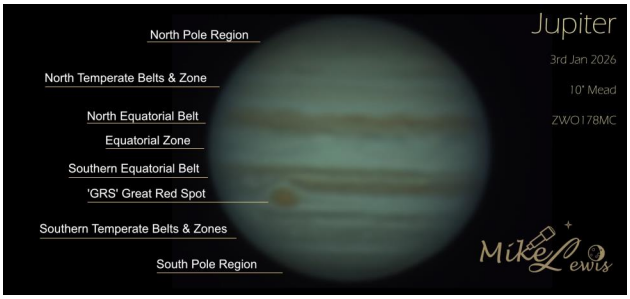
2 - The Heart Nebula - IC1805 - Keith Thompson



3 - The Soul Nebula - IC1848 - Peter Biddell



4 - Monkey Head - Michael Lewis



5 - Jupiter - Michael Lewis

Bills Bulletin

Hi guys

In this section I will be looking at some research papers and giving overviews of what is going on in the astronomy. I have added some of the articles and papers I had had look at this month, hope you enjoy

Sun

BAA hydrogen line meeting with Andrew thornett

https://youtu.be/Q7S3Qz4u3Yg?si=jzUx0sQXxZpvNBOx

Solar flare video

https://apple.news/AxQO6pXQrSrmstRDZuIn_JA

g4 class solar storm

Earth was just hit by the strongest solar radiation storm in over 20 years — here's what it means | Space

'The most incredible display of aurora I've ever seen in my 20 years of flying'. Pilot captures historic northern lights show from 37,000 feet (photos) | Space

Earth

Thea may have bought water to earth which may have been very dry beforehand

https://apple.news/ANRtCcAZ-QrqRkjz1_7MTdw

Falling space debris can be tracked by sonic boom

Falling space junk can be tracked from its sonic booms | Science | AAAS

Quantum superstitions on a large scale

https://apple.news/AmSJyY7JFSTG-HbarL1cWIQ

Moon

ISS and the moon

https://apple.news/A45bQHlnVQZWFgTHPMIhX3w

Travelling on the moon may have a speed limit

Electric Shocks Could Enforce a Lunar Speed Limit - Universe Today

Moon impact would affect earth

If asteroid YR4 hits our Moon, it'll cause a bright flash and meteors as debris hits Earth, say scientists | BBC Sky at Night Magazine

Planetary

Tidal forces may not cause faulting currently on europa

Little to no active faulting likely at Europa's seafloor today | Nature Communications

Some views on Mars are beautiful

NASA's Curiosity rover sends stunning new panorama from high on Mars' Mount Sharp | Space

Mars has ripples

NASA Perseverance rover sees megaripples on Mars photo of the day for Jan. 7, 2026. | Space

Samples will not come home to earth

NASA won't bring Mars samples back to Earth: this is the science that will be lost

Biggest IO eruption

https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2025JE009047?__cf_chl_tk=ufpmx96qpspCvXCxpQEnFSTvNNesKOFWQqLhjXp2Wms-1769756453-1.0.1.1-sHi6joHReFta1KR36LweOuR44fWpAEYmxrPE9Xt6f5s

How thick is that shell

NASA's Juno Measures Thickness of Europa's Ice Shell - NASA

Asteroids

Hydrogen cyanide is found in asteroids comets and planetary atmospheres. The heavy bombardment may have delivered to earth. You need this to make life

Frozen hydrogen cyanide 'cobwebs' offer clues to origin of life - American Chemical Society

Comets

Comet pan stars 2025 r3 will be at its best in April forewarned is forearmed

Will Comet C/2025 R3 (PanSTARRS) be the 'great comet' of 2026? | Space

How do you form comets

NASA Webb Finds Young Sun-Like Star Forging, Spewing Common Crystals - NASA Science

Tess follows I3

NASA exoplanet probe tracks interstellar comet 3I/ATLAS to gauge its spin | Space

https://apple.news/ANwGxrwOjTOC_qMnhIE472g

Exoplanet

A rogue Saturn has been found a free floater

Rogue Saturn Discovered Floating Through the Milky Way - Sky & Telescope

Exoplanet atmospheric make up to be determined with small satellite

NASA's Pandora Satellite, CubeSats to Explore Exoplanets, Beyond - NASA Science

Planets around two stars are very rare why

https://apple.news/A0plQixCxS1uz6UpkLrJFWQ

Astro biology

A close encounter with two stars 4 million years ago may have seeded ions for life to develop

https://apple.news/A1817m7CbTLWnzHqasTy9vA

How do you find life

How astronomers plan to detect the signatures of alien life in the atmospheres of distant planets | Space

Resurrection of an enzyme which fixed nitrogen in organisms 3 billion years ago

Resurrecting Ancient Enzymes in NASA's Search for Life Beyond Earth - NASA Science

Milky Way

Globule clusters surround galaxies and are often the oldest objects around. They lay all around the Milky Way forming a sphere. As they age they loose stars into the field around them. Globulars around the bulge leak stars less. This paper has looked at the rate of star loss from one such globular

https://arxiv.org/abs/2512.19074

Galactic globular cluster loses stars through tidal stripping, observations reveal

In the Betelgeuse turbulence

NASA Hubble Helps Detect 'Wake' of Betelgeuse's Elusive Companion Star - NASA Science

Dust reflects X-ray flares from black at the centre of Milky Way

NASA X-ray spacecraft reveals the shockingly violent history of the Milky Way's supermassive black hole | Space

Iron bars in space

https://apple.news/AIsWPebZZRReliebQe2eEeg

Galaxies

Dark matter cloud

Starless Gas Cloud Might Harbor Dark Matter - Sky & Telescope

Even early dwarf galaxies have enough heavy elements to increase star production

NASA Webb Finds Early-Universe Analog's Unexpected Talent for Making Dust - NASA Science

Early galaxies age quicker

James Webb Space Telescope discovers young galaxies age rapidly: 'It's like seeing 2-year-old children act like teenagers' | Space

Redshirt 14.4 galaxy

https://apple.news/AAqvqExSQQ_iLxZQO164Ycw

NASA Webb Pushes Boundaries of Observable Universe Closer to Big Bang - NASA Science

Assembly of early clusters

NASA Telescopes Spot Surprisingly Mature Cluster in Early Universe - NASA

Cosmology

Supermassive X-ray black holes produce jets and winds which change star formation rates within the galaxy they are in. A new paper finds they don't occur at the same time

Evidence of mutually exclusive outflow forms from a black hole X-ray binary | Nature Astronomy

Webb and black holes a story

James Webb Space Telescope reveals new origin story for the universe's 1st supermassive black holes | Space

Telescopes

Time for a private space telescope

Former Google CEO plans to singlehandedly fund a Hubble telescope replacement - Ars Technica

Very expensive 6 inch scope

https://apple.news/AEBNAQJWhQK-FVUdyd11C0g

Observing

Lets look at Jupiter

How to observe Jupiter through a telescope

Aurora seen as far down as Devon

https://apple.news/A8tEuTZqhSYGQ0jb7Q5rUAA

Dalby

Stargazing in Dalby Forest - Sky & Telescope

Space flight

Going to the moon requires more thought about medicine

Opinion | Crew-11 emergency on space station exposes a NASA blindspot. - The Washington Post

Massive rocket launch no earlier than feb 6

https://apple.news/ArTmAKwamTqa8nS-S8VASvw

Space health and safety

ESA - Stay smart on space chemical compliance

Spectrum is go

ESA - Spectrum’s qualifying second launch

Artemis two

Artemis Archives - NASA

https://youtu.be/nBdjwRmJRbU?si=gUEvlibf-Q9EqFMH

https://time.com/7346146/artemis-ii-launch-nasa-astronauts-moon-mission/

NASA Updates Artemis II Wet Dress Rehearsal, Launch Opportunities - NASA

NASA has a crashed u2

https://apple.news/Ar9KuFw1hQD2qDeD0TKJGAA

Schedules, links and contacts

- ***TV - BBC Sky at night (Here)***
- ***Upcoming Space Launches (Here)***
- ***Moon Phases (Here)***
- ***Dark Sky Calendar (Here)***

- ***Clear Outside - Astronomy weather forecast (Here)***

- ***Cloud radar map (Here)***

- ***Beginners guide (Here)***

- ***Walsall Astronomy Facebook Group (Here)***

- ***Walsall Astronomy Website (Here)***

- ***Contact: Info@walsallastro.com***
