



OASI News

The newsletter of Orwell Astronomical Society (Ipswich)



NGC457 - The Owl Cluster - Seestar – Andy Gibbs

Trustees:

Mr Neil Morley Mr David Payne Mr Bill Barton

Honorary President:

Dr Allan Chapman D. Phil MA FRAS

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Society Notices

Dear Members,

It is good to see some of our newer members using our social media channels. We are always looking at new ways to engage with our members. If you are not a member of our Facebook group, click on the link from our website homepage and request to join. If you would like to join our WhatsApp group, please email your details to chairman@oasi.org.uk and I will add you to the group.

This month we have two eclipses to look forward to. On Friday 14th March there is a Partial Lunar Eclipse. The penumbral phase begins at 03:57 from Ipswich, with the partial phase visible low in the West from 05:09. Unfortunately, a Total Eclipse will not be visible as the Moon will be below the horizon by then.

On Saturday 29th March a Partial Solar Eclipse will be visible from Ipswich. The eclipse will begin at 10:09, with the deepest point of the eclipse occurring at 11:05, when around 40% of the Sun's disc will be covered by the Moon.

Hopefully clear skies will prevail and I look forward to hearing of your observations.

Thank you,

Andy Gibbs, Chairman.

Committee 2025

Chairman	Andy Gibbs	Set overall agenda for OASI, Chair committee meetings, Press and publicity
Secretary	Roy Gooding	Outreach meetings (jointly with Chairman), observatory decoration
Treasurer	Paul Whiting	Finance, Supervision of applications for grants. Visits by outside groups, Observatory tours, public appreciation of astronomy, Outreach activities
Committee	James Appleton	Committee meeting minutes, Web site
	Martin Cook	Membership, Tomline refractor maintenance & user testing
	Matt Leeks	Safety & security
	Peter Richards	Lecture meetings
	Mike Whybray	Astronomy Workshops, Child protection officer, Orwell Park School Astronomy Club
	Andy Willshere	Librarian
	Adam Honeybell	Newsletter
	Paul Whiting	OASI @ Newbourne

Committee Meeting

The next Committee Meeting will be the Friday 30th May 2025 on Zoom. All members welcome.

New members

Stephen Tetlow
Julia Large
Welcome!

Society Contact details

Website:	https://www.oasi.org.uk
Events:	https://www.oasi.org.uk/Events/Events.php
Email queries:	info@oasi.org.uk
Submissions for Newsletter:	news@oasi.org.uk
Members-only message board:	https://groups.io/g/OASI
Observatory (meeting nights only):	☎ 07960 083714

Social Media

For other astronomy news and astro pictures try our socials:

Facebook:	https://www.facebook.com/groups/445056098989371
YouTube:	https://www.youtube.com/@orwellastronomical425
WhatsApp:	There is a WhatsApp group. Please email to be added.

We'd like to use social media a little more, since it's a more direct and immediate way to interact with members and potential members. Feel free to post pictures, comments or interesting articles. The more it's used, the more other people will be inclined to use it as well.

Articles for OASI News

News, pictures and articles for this newsletter are always welcome.

Please send tables as separate files in one of these formats (Excel, .csv, OpenOffice)

If you don't feel up to writing a major article, perhaps you might write a short note for OASI News along the lines of "This month I have mostly been observing/constructing/mending/reading/etc."

Please send material for the OASI web site and newsletter e.g., observations, notices of events, general interest articles, to news@oasi.org.uk

The CLOSING date is the **15th** day of the month (i.e. 15th March).

The Newsletter archive is at www.oasi.org.uk/NL/NL_form.shtml

Authors, please note that your articles will be publicly available worldwide!

Reproducing articles from OASI News

If you plan to reproduce an article exactly as per OASI News then please contact the Editor – otherwise, as a matter of courtesy, please seek permission from and credit the original source/author. You may not reproduce articles for profit or other commercial purpose.

Meetings and events

We have regular meetings on the 2nd and 4th Monday of the month (usually) at **Newbourne Village Hall**, and every Wednesday at **Orwell Park**. Night sky observing will usually take place when the skies are clear. See [website](#) for more events.

Date, Time & Location	Contact	Event
Weekly, every Wednesday, from 20:00, Orwell Park Observatory, Nacton	Martin Cook	Observatory open
Monday 3rd March 20:00 Orwell Park Observatory	Paul Whiting,	Taster evening . Fully booked.
Monday 10th March 19:30 Newbourne Village Hall	Paul Whiting,	Newbourne meeting - beginners and new members welcome! Observing target for the month: Gemini. Doors open 19:30.
Monday 17th March 20:00 Zoom	Paul Whiting,	Pre-recorded talk: William Herschel - Discoverer of the Deep Sky by Wolfgang Steinicke. (Zoom login details are provided in an email to members.)
Friday 21st March 19:45 St Augustine's Church, The Lantern Room (church annex)	Pete Richards	Lecture Meeting. Mike Culley , The Eye At Night . Our 2025 lecture series .
Monday 24th March 19:30 Newbourne Village Hall	Paul Whiting,	Newbourne meeting - beginners and new members welcome! Observing target for the month: Gemini. 19:30: doors open. 19:45: Sky Notes by Bill Barton, FRAS.

OASI @ Orwell Park

There are regular meetings every Wednesday evening from 8pm. Access is controlled by a gate and a fob. The entrance is gate 2 is on Church Road, What3Words is [tour.fuse.banks](https://www.what3words.com/)

Access into the School Grounds and Observatory Tower

The route is as follows:

- Enter through gate 2 (gate 1 being the main gate) and park inside as per the attached map.
- Enter the school through the double black doors as indicated on the map. A key fob will be required to open the door.
- Continue straight through the next two sets of double doors.
- Turn left at the end of the short corridor then immediately right.
- Pass through the single door and on your left you will find the staircase leading to the observatory.
- On no account must you deviate from this route.



When leaving the observatory use the same route but in reverse. Please keep noise to a minimum as there are staff quarters nearby.

OASI @ Newbourne

newbourne@oasi.org.uk

We meet at Newbourne Village Hall, Mill Lane, IP12 4NP on the 2nd and 4th Mondays from 19:30.

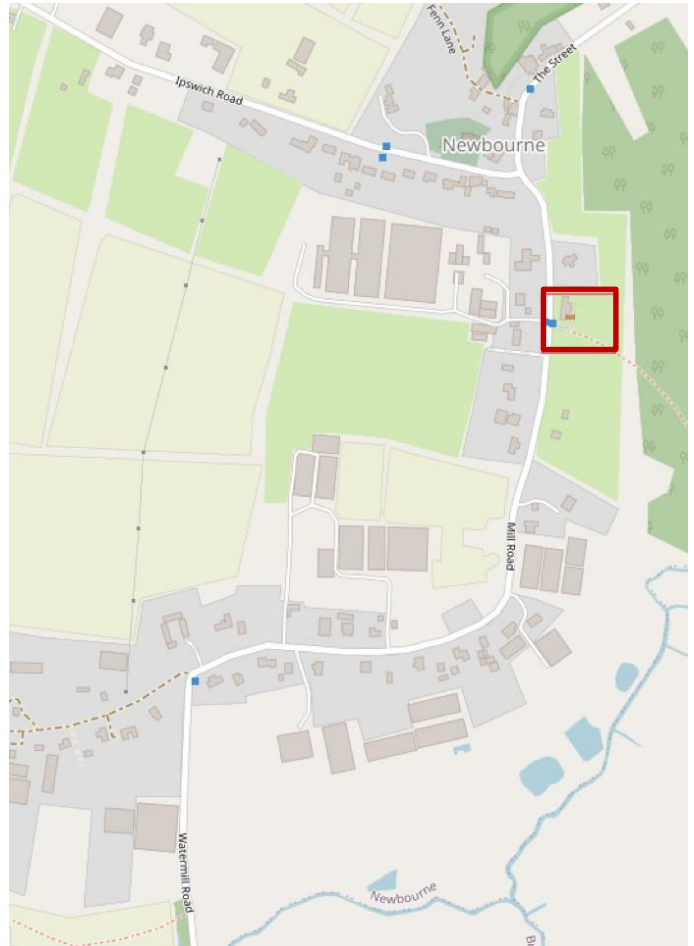
What3Words [scars.atlas.printing](https://www.what3words.com/scars.atlas.printing)

Visitors are welcome but we do ask you to join the Society after two visits.

<http://www.oasi.org.uk/OASI/Membership.php>

Newbourne dates for 2025

March	10	24(S)
April	14	28(S)
May	05#	26(S)
June	09	23(S)
July	14	28
August	11	25
September	08	22
October	13	27
November	10	24
December	08	22



We open up for all meetings at 7:30pm.

Astro News (A) / Sky Notes (S) at 7:45pm followed by any Talks (T), Workshops (W) and occasional Quiz (Q).

indicates a change to the normal monthly pattern.

Forthcoming Outreach Programmes 2025

All members are welcome to come along and help out at these events – you don't need to be an expert in the subject, just some enthusiasm! Just respond to the email call for help prior to the event.

Please note that not all events are open to the public.

No events scheduled at present...but hopefully there will be a few solar events in the summer!

BAA news, events & webinars

BAA: <https://britastro.org/events/future-events>

Events correct at time of publication, please go to website for latest information.

15 March 2025	Practical Astronomy Show 2025	
22 March 2025	Deep Sky Section Annual Meeting	The Deep Sky Section is holding its annual meeting in Goostrey, Cheshire, hosted by the Macclesfield Astronomical Society
26 March 2025	BAA Meeting	We will be holding a meeting on Wednesday 26th March 2025 from 17:00 to 20:00 at the Institute of Physics in London

The BAA Radio Astronomy Section

The BAA Radio Astronomy Section have been enjoying talks, seminars and tutorials via Zoom and these are available on the BAA YouTube channel <https://www.youtube.com/user/britishastronomical/playlists>.

OASI Website

OASI Website: www.oasi.org.uk

Responses to the recent OASI membership survey requested two sets of changes to the OASI website:

1. Updating and modernisation.
2. Links to society resources to be made easily available from the home page.

To move forward on #1, I need an understanding of what changes are being requested. Could any members with views on this please contact me, ideally directly via james@appleton1.com. (If you prefer to remain anonymous, please send your thoughts to any committee member with a request to forward them anonymously to me.) If any members have experience of implementing the latest on-trend digital aesthetic in websites and are willing to assist in updating the OASI website, again please contact me.

Regarding #2. It appears to be impossible to put the full set of resource material online. I have contacted the authors of material that is not already online and in nearly all cases it is either no longer available or the author is unwilling to publish it. I will construct a link from the front page to the currently available material but, alas, this covers only a fraction of the resource.

James Appleton, OASI webmaster.

The Night Sky in March 2025

Event times are for Orwell Park Observatory at 52.0096°N, 1.2305°E. Times are **GMT** unless otherwise stated.

Sun, Moon and planets

Sources: <http://heavens-above.com/PlanetSummary.aspx> <http://heavens-above.com/moon.aspx>

Object	Date	Rise	Set	Mag.	Notes
Sun ☉	1	06:41	17:35		Partial Solar Eclipse: Saturday 29 th March 2025 First contact 10:09:58am maximum 11:05:32am last contact: 12:02:17am
	31	05:32	18:28		
Moon ☾	1	07:16	19:52		First Quarter : 06 March 16:32 Full Moon : 14 March 06:55 Lunar eclipse : Friday 14 th March, 3:57am – 6:22am Apogee : 17 March 16:37 Last Quarter : 22 March 11:30 New Moon : 29 March 10:58 Perigee : 30 March 05:26
	31	06:01	22:00		
Mercury ☿	1	07:10	19:01	-1.0	
	31	05:07	17:15	3.2	
Venus ♀	1	06:51	20:38	-4.5	
	31	04:29	17:25	-4.1	
Mars ♂	1	11:58	05:07	-0.3	
	31	10:41	03:21	0.4	
Jupiter ♃	1	09:56	02:04	-2.2	
	31	08:10	00:25	-2.0	
Saturn ♄	1	07:14	18:15	1.1	
	31	05:22	16:38	1.2	
Uranus ♅	1	09:01	00:23	5.8	
	31	07:05	22:28	5.8	
Neptune ♆	1	07:23	19:04	8.0	
	31	05:27	17:12	8.0	

Occultations during March 2025

https://iota-es.de/moon/grazing_descrx101.html and
<http://www.lunar-occultations.com/iota/bstar/bstar.htm>

Observers are encouraged to download and install the **Occult** software program [Windows only] to generate predictions for their own particular site coordinates.

Meteor showers during March 2025

No notable showers until April, with the Lyrids.

See also <https://www.rmg.co.uk/stories/topics/meteor-shower-guide>

For radio observation, use reflections from Graves Radar on 143.049MHz or the Brams transmitter in Belgium on 49.97MHz and UK GB3MBA on 50.408MHz <https://www.ukmeteorbeacon.org/Home>

See also https://www.popastro.com/main_spa1/meteor/radio-meteor-observing-2020/.

Comets

Source : <https://heavens-above.com/Comets.aspx>.

Comet	Brightness	Date of last reported observation	Angular separation from Sun	Constellation
C/2024 G3 ATLAS	8.5	2025-Feb-23	36°	Phoenix
29P Schwassmann-Wachmann 1	11.7	2025-Mar-02	162°	Leo
C/2023 A3 Tsuchinshan-ATLAS	12.9	2025-Mar-03	44°	Delphinus
P/2023 S1	14.2	2025-Feb-23	143°	Cancer
C/2022 E2 ATLAS	14.2	2025-Mar-02	65°	Andromeda
C/2021 G2 Atlas	14.5	2025-Mar-01	108°	Libra
C/2022 QE78 ATLAS	14.6	2025-Feb-24	110°	Orion
C/2022 N2 PANSTARRS	15.1	2025-Feb-02	20°	Pisces
13P Olbers	15.1	2025-Feb-24	65°	Sagittarius
C/2024 B1 Lemmon	15.1	2025-Mar-02	75°	Hercules
49P Arend-Rigaux	15.6	2025-Feb-24	52°	Cetus
C/2023 T3 Fuls	15.7	2025-Feb-28	126°	Centaurus
496P Hill	16	2025-Feb-25	80°	Taurus
C/2019 U5 PANSTARRS	16	2025-Feb-15	91°	Pictor

Visible ISS passes >30° max altitude for March 2025

Source: <http://heavens-above.com/PassSummary.aspx?satid=25544>

Times are **GMT**.

Predictions are approximate (03/03/25) due to craft adjustments. Check the day before.

There are more passes than this, but they're below 30 degrees, so will be harder to spot unless you have good weather and can see the horizon. As with stella/planetary brightness, the more negative the magnitude, the brighter it is.

Date	Brightness (mag)	Start			Highest point			End			Pass type
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.	
03-Mar	-3	04:55:23	33°	SW	04:55:38	34°	SSW	04:58:43	10°	SE	visible
15-Mar	-3.4	20:01:40	10°	WSW	20:04:30	49°	SSW	20:04:30	49°	SSW	visible
16-Mar	-3.2	19:13:21	10°	SW	19:16:31	42°	SSE	19:18:15	22°	E	visible
17-Mar	-4	20:01:16	10°	WSW	20:04:36	78°	S	20:04:46	75°	SE	visible
18-Mar	-3.7	19:12:45	10°	WSW	19:16:04	66°	SSE	19:18:16	19°	E	visible
19-Mar	-3.9	20:00:49	10°	W	20:04:11	86°	S	20:04:36	66°	E	visible
20-Mar	-3.8	19:12:12	10°	W	19:15:32	84°	S	19:17:57	18°	E	visible
20-Mar	-2.1	20:48:55	10°	W	20:50:51	31°	W	20:50:51	31°	W	visible
21-Mar	-3.9	20:00:16	10°	W	20:03:37	77°	S	20:04:09	58°	ESE	visible
22-Mar	-3.8	19:11:35	10°	W	19:14:56	84°	S	19:17:25	17°	E	visible
23-Mar	-3.4	19:59:36	10°	W	20:02:52	54°	SSW	20:03:33	43°	SSE	visible
24-Mar	-3.6	19:10:50	10°	W	19:14:10	67°	SSW	19:16:48	15°	ESE	visible
25-Mar	-2.5	19:58:53	10°	W	20:01:54	32°	SSW	20:02:55	26°	S	visible
26-Mar	-2.9	19:10:00	10°	W	19:13:11	43°	SSW	19:16:09	11°	SE	visible

Bill Barton's Radio Broadcast

ICRFM (Ipswich Community Radio) 105.7 MHz at about 08:25 in the morning of the first Wednesday of each month. I aim to cover what there is to see in the sky and then a little bit on something topical. ICRFM is also available to listen to over the Internet and there is a listen again option on their website. <http://www.icrfm.com>

Answers to February 2025 questions

Question 1. They are all virtually anagrams of each other.

Question 2. To find the answer it is a matter of number substitution.

The answer is the older sister is 17 years old and the younger 7. Two years ago they were 15 and 5,(3 times as old) and in 3 years time they will be 20 and 10.(2 times as old).

Quick puzzles for March 2025.

1. What is the number at ? J = -7. P = 5. R = 9. L = -3. Y = ?.

2.

8	7	17
9 7	14 4	15 6
55	49	?

3.

If JOHN = 61

PETER = 71

MARY = 51

JANE = 78

What does CHRIS = ?

Enjoy!

HERMES (Heliophysics Environmental and Radiation Measurement)

Short article from the Library.

Andy Willshere

During 2017, the first Artemis program was set in motion, the idea of which was to supply a program for international spaceflight to land a human again on the moon by 2024. This was to be conducted by the United States. In September 2020, NASA authorised the Artemis Plan, which would attempt to propel America into new space exploration, and especially the moon. An Artemis support camp would be established on the moon's surface, with an orbiting space station called 'Gateway' underpinning its functionality. It was because of this program that Goddard Space Flight Centre was contacted asking if it would be possible for a Heliophysics arrangement to fly onboard Gateway. Goddard have immense experience in manufacturing and overseeing Heliophysics equipment, and as part of the Gateway design, the Heliophysics Environmental and Radiation Measurement Experiment Suite (HERMES) would be scheduled to fly with the Power and Propulsion Element (PPE). The second element of Gateway would be the Habitation and Logistics Outpost (HALO). These two sections would be coupled together in orbit. At this point six contrasting instruments were considered for HERMES, but this was quickly reduced to four due to weight, cost and ease of usage criteria. However, it was later decided that instead of two launches for HALO and PPE they would be launched together on a commercial launch vehicle. This meant that the two teams working on the separate sections would be working together, and would have to find a way to co-link the two entities for lift-off. Because of this, HERMES was more developed than PPE.



Picture credit: NASA. Artwork depicting HALO and PPE. HERMES situated on the underside marked with an arrow.

So, what is the primary reason that these instruments will be flown with HERMES. The main thought was that NASA needed to understand the type of space weather that occurred and also how to predict it, and what the

consequences on humans and Gateway would be.

It was decided that the main science goals and objectives of HERMES would be as follows:

- i. Establish processes of solar wind mass and energy transfer.
- ii. Identify energy, topology and ion structure of the cavernous magnetotail.
- iii. Institute methods to assess all types of space weather to provide information for deep space and extended human surveys. It would be necessary to use this data to evaluate if locally generated electrical interference would have any effect on HERMES.

From this, HERMES main tasks are to focus on interpreting the sources of space-weather fluctuation controlled by the sun and restrained by the magnetosphere. The orbit of the spacecraft is such that it will be within the solar wind for a possible three weeks in every four. This will provide for a large amount of data gathering which should allow scientists to comprehend the fluctuations of space weather, which may affect astronauts working in areas both around and on the moon.

The four instruments selected are Nemesis, Merit, Eea and Span-1.

- a) NEMISIS is the Noise Eliminating Magnetometer Instrument in a Small Integrated System. This system consists of two magneto-inductive sensors and a fluxgate magnetometer incorporated with a NEMISIS electronics card.
- b) MERIT is a Miniaturised Electron pRoton Telescope. This has dimensions of 10*10*30cm and weighs about 3.5 kg.
- c) EEA is the Electron Electrostatic Analyser, which analyses low energy electron flux as well as density and temperature.
- d) Span-1 is the Solar Probe Analyser-Ion apparatus. This is an ion plasma sensor. It weighs about 3.2 kg and generates 145kbps of continuous data.

Several challenges befell HERMES from the start. Size and weight was a major consideration. All of the equipment could weight no more than 25kg and had to fit in a 50cm cube envelope. The initial boom for the magnetometer was of fixed length, but a retractable one was needed. The electrical interfaces were not fully functioning and there were payload launch problems with the Small Orbital Replacement Unit Robotic Interface (SORI). Of all of the problems the weight allowance proved to be the most difficult to alleviate.

Because of the earlier change in plans with the co-launching of the two modules, a further problem transpired, which was to add external payloads. Plans had not been drawn up for this eventuality and so neither PPE,HALO nor SORI had been designed for this eventuality. Work therefore continued on HERMES in parallel with Gateway development to solve this problem. With the amount of work necessary to complete the design and programme plan in order to attain readiness for launch no earlier than November 2024, with in all probability a true launch date of 2025, using a Falcon Heavy rocket, a critical mission review was instituted on 27th January 2022. The review evaluated all the progress and considered that HERMES would become part of the Artemis mission. It will be mounted on the HALO element of NASA's Gateway space station. This will be where most of the scientific experiments of various types will take place by the astronauts who will live in the space station whilst orbiting the moon.

All future missions to the moon and possibly beyond will require up to date information about space-weather. Perhaps a HERMES system would become part of an individual space craft allowing for onboard space weather analysis, which would allow for real-time alerts.

References:

[Microsoft Word - IEEE HERMES_7.docx \(nasa.gov\)](#)

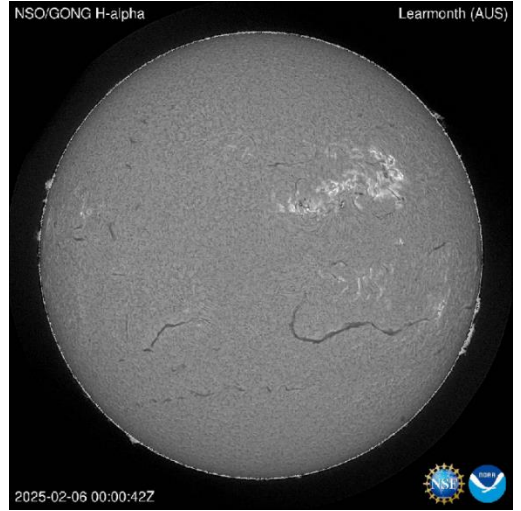
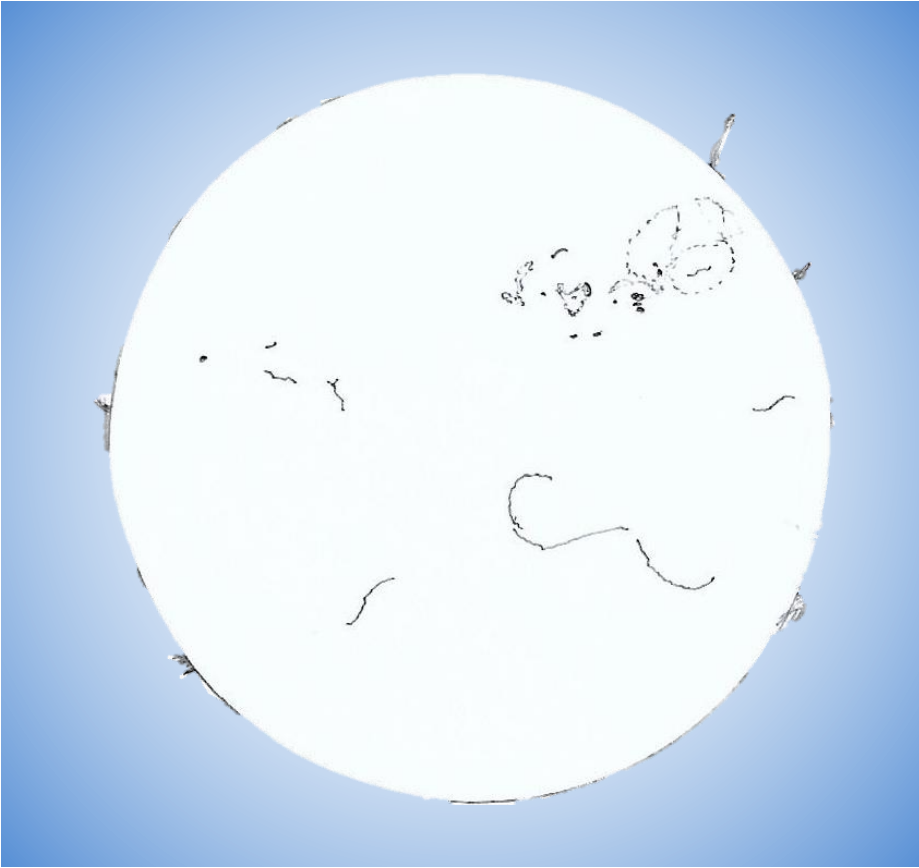
[The HERMES Space-Weather Science Payload for Gateway - NASA/ADS \(harvard.edu\)](#)

[HERMES - NASA Science](#)

[Space Weather Workshop 2023 - Paterson 18 Apr.pptx \(noaa.gov\)](#)

Members Observations

Neil Morley – Solar sketches



A Hydrogen Alpha solar sketch from 06/02/25 (Left) with a corresponding GONG image [Top Right] (Global Oscillation Network Group within the National Solar Observatory). I also include a photo of my Lunt LS35 Hydrogen-Alpha telescope on an EQ5 mount. The mount was (converted to Alt-Az by orienting the polar axis vertically. It makes the setup light and portable and is useful for larger refractors as well.

The observation was made on 06/02/25 between 11:10 and 11:20 UTC using my Lunt LS35 Hydrogen-Alpha scope. The telescope features a front-mounted etalon that is tuned by tilting mechanically via a small thumbscrew. Initially it was detuned to a white light view. This allowed the major sunspot groups to be sketched providing suitable anchor points for the remainder of the sketch. The scope was then properly tuned by adjusting the thumbscrew by one to two turns to provide an optimal Hydrogen-Alpha view with best contrast of features including prominences, filaments and active region. This enabled the sketch to be completed quickly.

The Moon and Venus

On 1st February 2025, the crescent moon and Venus were close together in the sky. Here are a few photos:



Robin Carpenter



Neil Morley - North Ipswich



From Felixstowe Beach - Tracy Flynn



Bill Barton - 2nd February 2025

Andrew Rodgers

Bodes galaxy. M81 and m82

Star Adventurer gti st 80 scope



Andy Gibbs

NGC2174 The Monkey Head Nebula

Seestar



Michael Maran

The Pleiades

