oasi.org.uk

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OASI News

The newsletter of Orwell Astronomical Society (Ipswich)

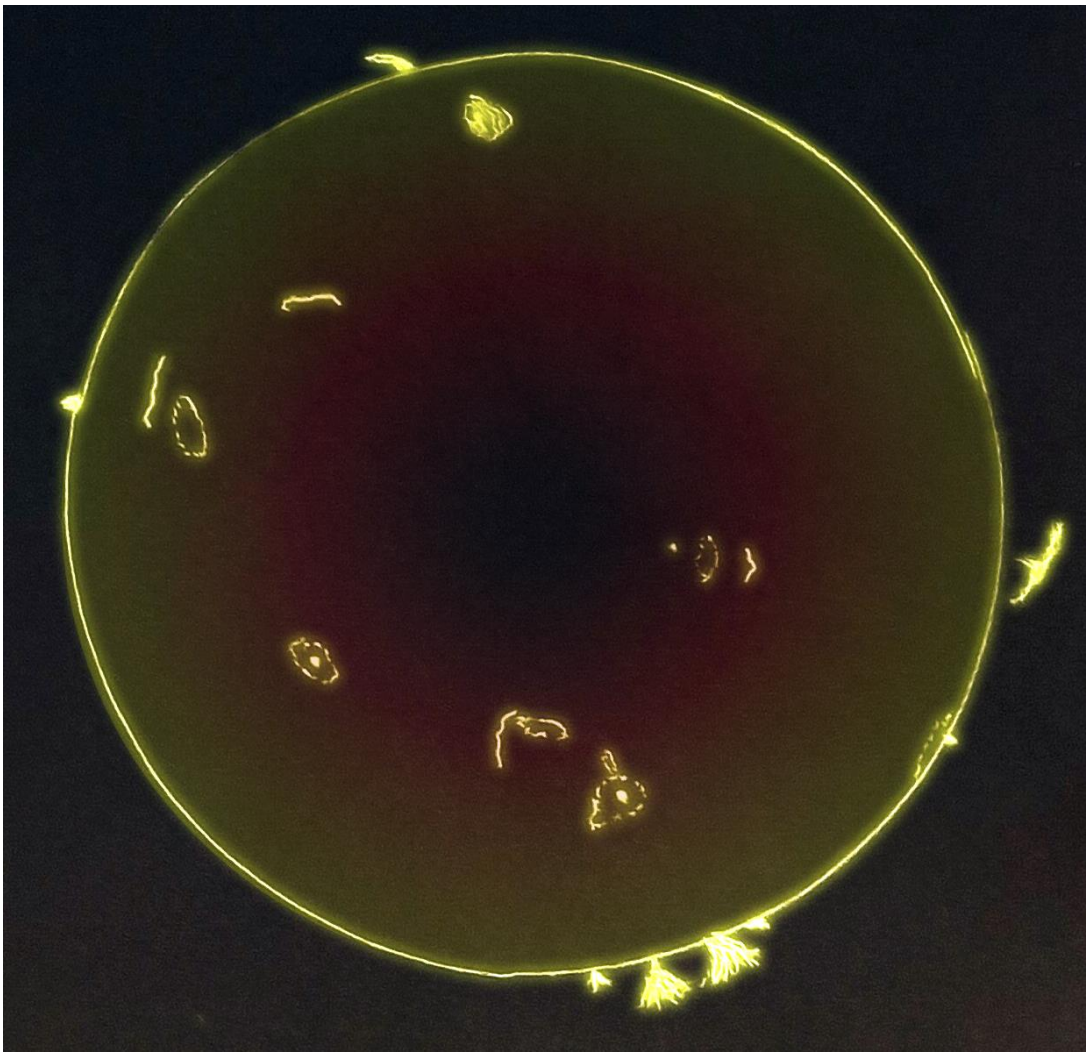

Figure 1 Inverted and colourized solar sketch, by Neil Morley

Contents

Society Notices

Dear Members,

We are now in August and the nights are, at last, starting to get longer!

Observing highlights this month include the Perseid meteor shower and the planet Saturn now rising in the late evening. The Perseids will peak on the 12th August, which unfortunately, is only a couple of days after the full Moon, but it is still worth looking out for Perseid meteors a week or two either side of the peak.

During August we are also looking for help for a week of maintenance at Orwell Park Observatory from 11th-15th August, plus a Solar outreach event at Bawdsey Radar Museum on Sunday 24th August.

If you are able to help out, please let myself or any Committee member know. We would be grateful for any assistance.

Thank you and clear skies!

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 12th September 2025 on Zoom. All members welcome.

New members

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 August).

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

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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 11th August 19:30 Newbourne Village Hall	Paul Whiting,	Newbourne meeting - beginners and new members welcome! Observing target for the month: Perseid meteors. 19:30: doors open. 19:45: Astro-news by Paul Whiting, FRAS. NB: if the sky is clear, priority will be given to observing, and Astro-News will be postponed.
Monday 18th August 20:00 Zoom	Paul Whiting,	Pre-recorded talk: When Galaxies were Born by Richard Ellis. (Zoom login details are provided in an email to members.)
Wednesday 20th August 19:30 Newbourne Village Hall	Martin Cook	If the sky is clear, observing from the field in front of Newbourne Village Hall. Observing target for the month: Perseid meteors. If conditions are unsuitable for observing, the meeting will adjourn to The Fox , Newbourne. NB: there will be no entry for members of OASI to Newbourne Village Hall itself, and Orwell Park Observatory will be closed.
Sunday 24th August 11:00-16:00 Bawdsey Radar Museum	Paul Whiting,	Public access event. Observing the Sun safely. NB: This event is run by Bawdsey Radar.
Monday 25th August 19:30 Newbourne Village Hall	Paul Whiting,	Newbourne meeting - beginners and new members welcome! Observing target for the month: Perseid meteors. 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**

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.

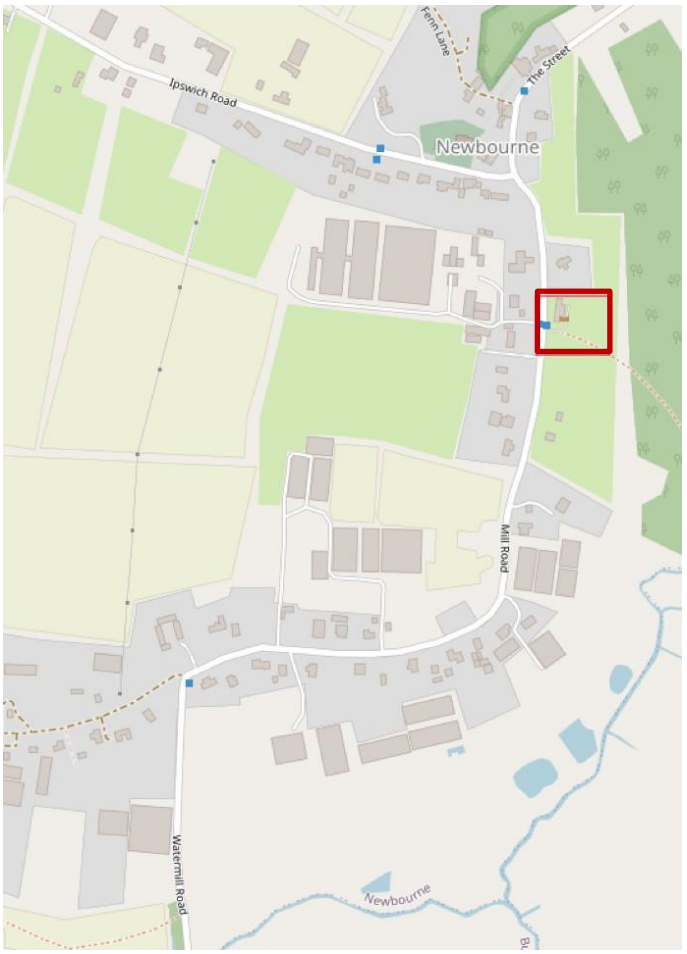
• Turn left at the end of the short corridor then immediately right.

• 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**

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		
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.

Sun 24 Aug 2025 11:00-16:00 Bawdsey Radar Museum	Public access event. Observing the Sun safely. NB: This event is run by Bawdsey Radar.

BAA news, events & webinars

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

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

Nothing in August

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.

The Night Sky in August 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	04:17	19:45		
	31	05:06	18:44		
Moon ☾	1	13:20	22:01		First Quarter : 01 August 12:41 Full Moon : 09 August 07:55 Perigee : 14 August 18:00 Last Quarter : 16 August 05:12 New Moon : 23 August 06:07
	31	14:43	21:17		
Mercury ☿	1	04:42	19:01	4.8	
	31	03:51	18:26	-1.1	
Venus ♀	1	01:14	17:23	-3.9	
	31	02:08	17:34	-3.8	
Mars ♂	1	08:50	21:10	1.6	
	31	08:42	19:41	1.6	
Jupiter ♃	1	01:54	18:13	-1.8	
	31	00:26	16:37	-1.8	
Saturn ♄	1	21:29	09:14	0.8	
	31	19:29	07:07	0.7	
Uranus ♅	1	23:14	14:59	5.8	
	31	21:18	13:03	5.7	
Neptune ♆	1	21:23	09:19	7.8	
	31	19:24	07:18	7.8	

Occultations during Augusts 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 Augusts 2025

Name	Date of Maximum	Normal Limits	Possible hourly rate	Description
Delta Aquariids	30 July	12 July-23 Aug	25	Steady stream of meteors over several days but a low rate per hour
Perseids	12 August	17 July-24 Aug	150	Many bright fast meteors with trains. Associated with Comet Swift-Tuttle (1737, 1862, 1992)

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/2025 K1 ATLAS	12.5	2025-Aug-13	110°	Hercules
C/2025 A6 Lemmon	13.9	2025-Aug-12	33°	Gemini
217P LINEAR	14.4	2025-Aug-11	41°	Gemini
240P NEAT	14.5	2025-Aug-12	91°	Eridanus
C/2021 G2 Atlas	14.5	2025-Aug-12	84°	Serpens
C/2024 E1 Wierzchos	14.6	2025-Aug-13	84°	Hercules
C/2022 N2 PANSTARRS	15	2025-Aug-13	89°	Aries
C/2022 E3 ZTF	15.1	2025-Aug-10	106°	Horologium
C/2022 E2 ATLAS	15.2	2025-Aug-10	97°	Cassiopeia
C/2024 J3 ATLAS	15.3	2025-Aug-12	138°	Scutum
C/2023 R1 PANSTARRS	15.3	2025-Aug-12	141°	Vulpecula
C/2014 UN271 Bernardinelli-Bernstein	15.3	2025-Aug-12	94°	Dorado
C/2023 C2 ATLAS	15.4	2025-Aug-10	106°	Cassiopeia
C/2024 G6 ATLAS	15.7	2025-Aug-07	96°	Libra
48P Johnson	15.8	2025-Aug-12	88°	Taurus
65P Gunn	16	2025-Aug-01	131°	Sagittarius

Visible ISS passes >30º max altitude for August 2025

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

Times are **GMT**.
Predictions are approximate (07/04/25) 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	Start			Highest point			End		
	(mag)	Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
24-Aug	-2.9	03:37:07	17°	SW	03:39:15	38°	SSE	03:42:24	10°	E
26-Aug	-3.6	03:35:41	21°	WSW	03:37:43	62°	SSE	03:41:03	10°	E
27-Aug	-3.5	02:48:29	47°	S	02:48:43	48°	SSE	02:51:57	10°	E
27-Aug	-3.8	04:21:57	10°	W	04:25:18	86°	S	04:28:40	10°	E
28-Aug	-3.8	03:34:08	21°	W	03:36:13	82°	S	03:39:34	10°	E
29-Aug	-3.9	02:46:56	69°	SSW	02:47:07	72°	SSE	02:50:28	10°	E
29-Aug	-3.8	04:20:26	10°	W	04:23:48	80°	S	04:27:09	10°	ESE
30-Aug	-3.8	03:32:35	21°	W	03:34:41	86°	S	03:38:02	10°	E
31-Aug	-3.9	02:45:25	82°	SW	02:45:32	86°	S	02:48:53	10°	E
31-Aug	-3.7	04:18:52	10°	W	04:22:10	59°	SSW	04:25:28	10°	ESE

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

Answer to July 2025 question

Question for July.

S = 6851

G = 323

L = 1713

K = 1315

What does P = ?

Take the alphanumerical value of each letter. Cube this total. Deduct the reverse alphanumerical number from this total. For example:

S = 19 (alphanumerical number). 19 cubed = 6859. Reverse alphanumerical number = 8. 6859 – 8 = 6851.

Therefore P = 163 = 4096. Reverse alphanumerical = 11.

4096-11 = 4085.

Question for August

B I V

G R O

Z K M

S D H

N G D

H T X

= = =

24 15 ?

What is the number at ?

High-Throughput Spectroscopic Extreme Ultraviolet Telescope (EUVST)

Short Article from the library.

Andy Willshere

For many decades now, we have been studying various aspects of our Sun. EUVST will investigate the solar atmosphere as well as solar winds and solar eruptions and composition. These events spread widely away from the Sun and impact throughout the solar system, especially impacting upon space weather and its radiative surroundings, that could disrupt satellite transmissions and GPS systems This mission is designed to study Earth, Space and Sun as a linked entity. It will be led by the Japanese Aerospace Agency (JAXA) and other international partners, including NASA and other European countries.

On board the craft carries EUVST as the mission payload, which is an Extreme Ultraviolet imaging slit-jaw system imaging spectrometer, as well as a UV spectral irradiance monitor (SoSpIM). These will monitor the Sun's temperatures concurrently with a high degree of both spatial and temporal resolution. The high ultra-violet equipment is designed to record the most accurate measurements of the solar atmosphere obtained to date.

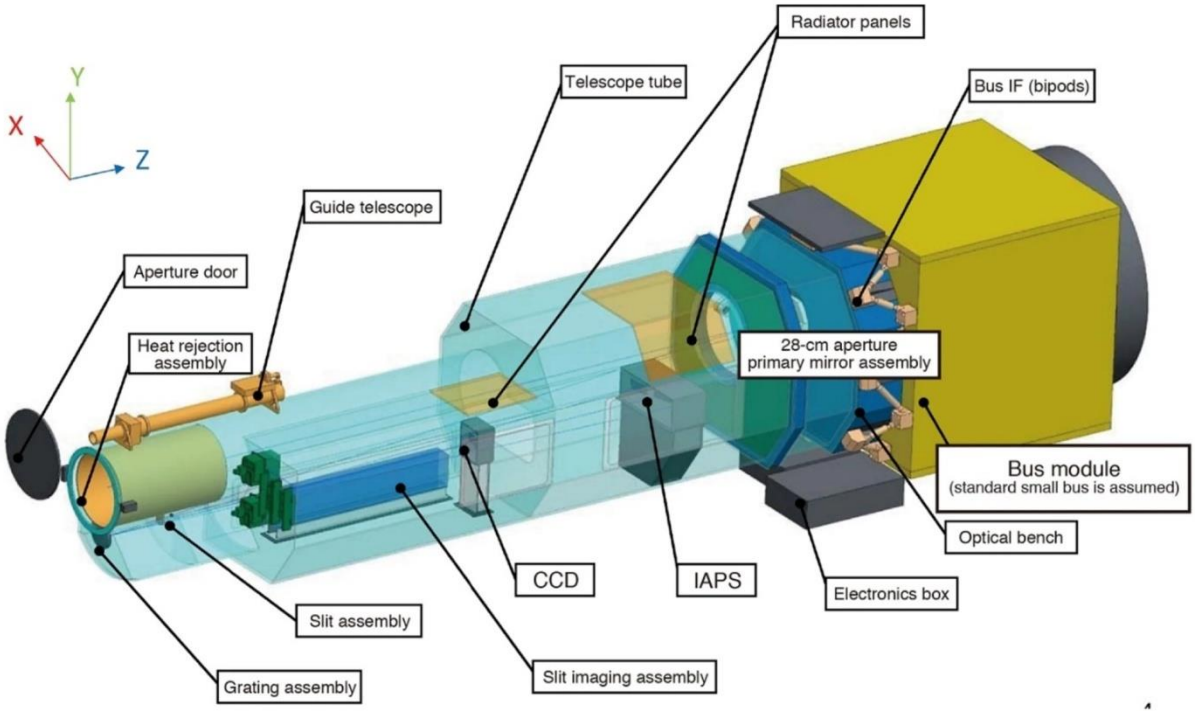
A question it is hoped that EUVST will answer is how the plasma universe is generated, how it develops and how the Sun effects our whole solar system. In April of 2020, JAXA decided that the M-class mission will be launched with an Epsilon S launch vehicle of launch mass 500 kg, into a Sun-synchonous orbit >600 km. It is planned to last for 2 years with a latest launch date scheduled for 2026.

So, what are the scientific objectives that EUVST is designed to address:

- Why the Sun's outermost layer can reach temperatures of millions of degrees yet its surface temperature is cooler? This is Coronal heating.
- Analyse how charged particles are propelled across interplanetary space from the Sun.
- How space weather is affected by solar flares and coronal mass ejections (CME).

A main feature of EUVST is that it has minimal optical elements of a primary mirror and diffraction grating, and therefore doesn't require filters. This means that its primary function in collecting solar UV radiation can be performed in isolation. EUVST has a high spatial and temporal resolution of 0.4 arcsec and < 1 sec. respectively, and is able to capture areas 10-30 times greater. It will also discern variations of emission lines in the EUV range and detect the broad temperature span from chromosphere to corona, and will be

able to integrate observations with both ground-based telescopes and solar satellites. EUVST will always be pointed towards the Sun utilising its spacecraft three-axis altitude control and the tip-tilt management of the primary mirror.



Picture credit: EUVST - NASA Science

EUVST is capable of detecting temperatures ranging from the chromosphere which is an asymmetric layer situated above the photosphere, with temperatures from 6000°C to 20,000°C., which at higher temperatures hydrogen (H-alpha) is emitted as a red coloured light, to the plasma medium which is heated to as high as $\mathbf{10^7}$ °C.

This mission will provide cutting – edge spectroscopic technology by utilising equipment and scientific knowhow by collaborating internationally. It will completely change how we understand the Sun's atmosphere and its effect upon space weather as well as providing information about foundational processes that forcefully motivate solar activity.

References:

EUVST - NASA Science

NASA Approves Heliophysics Missions to Explore Sun, Earth's Aurora - NASA

SOLAR-C - Wikipedia

OASI summer picnic 2025

A few snaps from the annual summer picnic, July 19th 2025. The weather wasn't great that day, and solar viewing was limited. However, there was a few sunny spells…

OASI at Latitude Festival 2025

For the fourth time OASI were invited to take part at the Latitude Festival at Henham.

We would again be supporting the Cosmic Shambles Network with Stargazing, but also a first for this year, we would be offering Solar observing during the daytime. We were invited to attend on Friday 25th July as this was the main "Astronomy Day", with guest speakers including, Professor Chris Lintott, Dr Dame Maggie Aderin-Pocock, Professor Kevin Fong and Dr George Dransfield.

We organised a team of six to attend, then a week before the event, Trent Burton, Producer of the Cosmic Shambles Network, asked if we could also attend on the Saturday and Sunday! As we would be driving to the Festival and back each day, this would be a lot to ask for us to commit to three days. However, five of us were able to attend on the Saturday, but it was a stretch too far to make it on the Sunday.

So, we set off for Latitude on Friday 25th July, Bill, Paul and myself meeting up with Mike, Martin and Neil at the Martlesham Park and Ride, then continuing on to the Festival. We arrived on-site at around midday to check-in when we discovered that late replacements, Martin and Neil hadn't been added to the performers list! Thankfully, after a phone call to Trent, this was quickly sorted out. We then loaded our carts with our gear and dragged them through the mud to our location in the Cosmic Shambles Forest. We soon found the Green Room, with free snacks and drinks, and had a chat with Chris Lintott and Kevin Fong. We found out that we weren't allocated a "shed", this was no great loss as they were situated under the trees, plus, unfortunately, they had run out of free meal vouchers for the performers canteen!

We set up our Lunt Hα solar scope and Widesky refractor, with Herschel wedge, outside the entrance to the forest, with a reasonably good view of the sky. It started off mainly cloudy, but became increasingly sunny as the afternoon progressed. We attracted a lot of interest from festival goers and were particularly busy after Chis Lintott's talk, where he gave us a mention. We packed up at around 17:30 and headed to the canteen for dinner.

During the evening, myself, Martin, Mike and Neil, explored the festival site, while Paul and Bill enjoyed

the hospitality of the Green Room. At around 21:30 we set up our telescopes again in the hope of being able to enjoy some stargazing. Unfortunately, by now, we were troubled by persistent high cloud, plus the inevitable lights from the festival, with the only objects visible being the bright stars Altair and Vega. The Seestar S50 fared better, Paul managed to obtain a stacked image of M57 The Ring Nebula. Despite the poor viewing conditions, we still managed to obtain a good level of interest from festival goers passing by. At 23:15 it had become cloudier, so we decided to pack up and head home.

The weather forecast for the Saturday was not good, with rain forecast from early afternoon. With little prospect of being able to carry out solar observing, we decided to arrive later, with the hope that it may clear up in the evening to enable some stargazing. We arrived on-site at around 15:00 to be greeted by the forecast heavy rain, so we decided that it wasn't worth dragging our gear through the mud and headed for a very busy Green Room. Mike, Martin and myself watched a show presented by Chris Lintott and musician Steve Pretty, Universe of Music, and later in the evening, Martin and myself watched a performance by the Kaiser Chiefs.

By 22:00 the rain had stopped, but unfortunately, it was still mostly cloudy, so we decided that it wasn't worth setting any equipment up and to head for home.

So, although the weather won on Saturday, Friday was a pretty successful day. Trent remarked on how busy we looked and Chris was happy to work with us, even labelling us the "Real Astronomers"!

Members of OASI who attended over both days were:

Bill Barton, Martin Cook, Andy Gibbs, Neil Morley, Paul Whiting and Mike Whybray.

Equipment used:

Lunt LS50 Hα solar telescope, with Skywatcher Solarquest Mount.

Widesky 80mm refractor with Lunt Herschel Wedge and Skywatcher AZ Mount.

Celestron Nexstar 8SE 200mm Schmidt Cassegrain telescope.

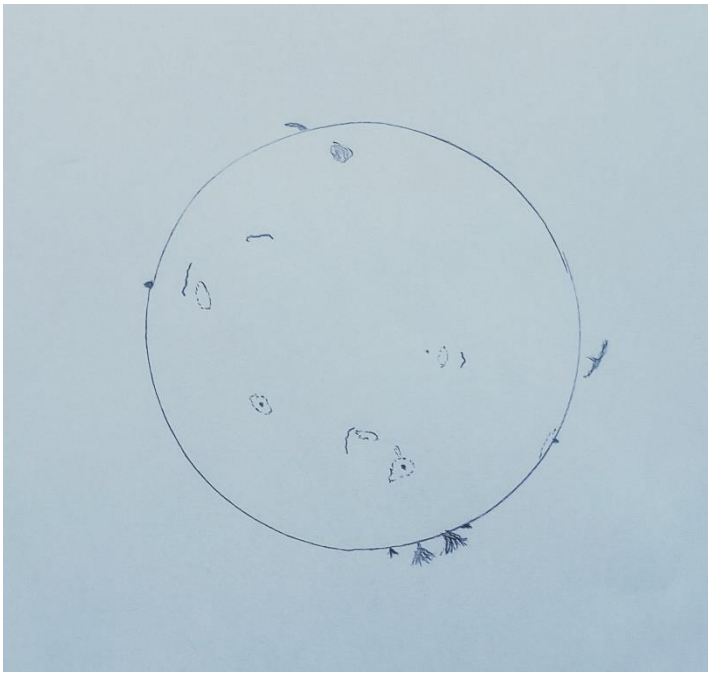
ZWO Seestar S50 Smart Telescope

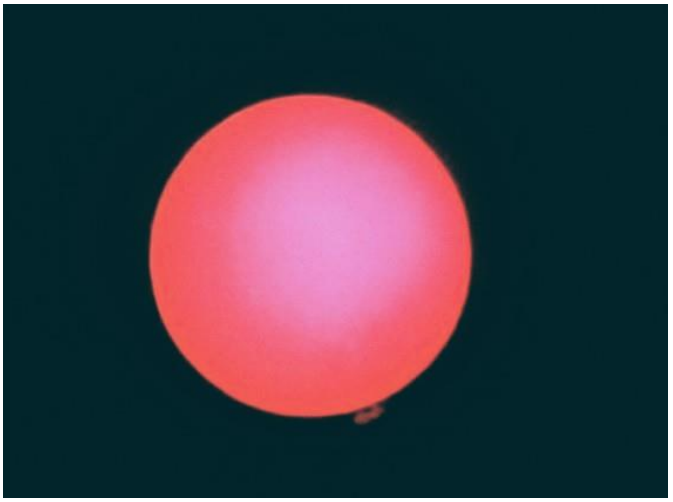
Members Observations

Please send your pictures to news@oasi.org.uk, with any relevant information.

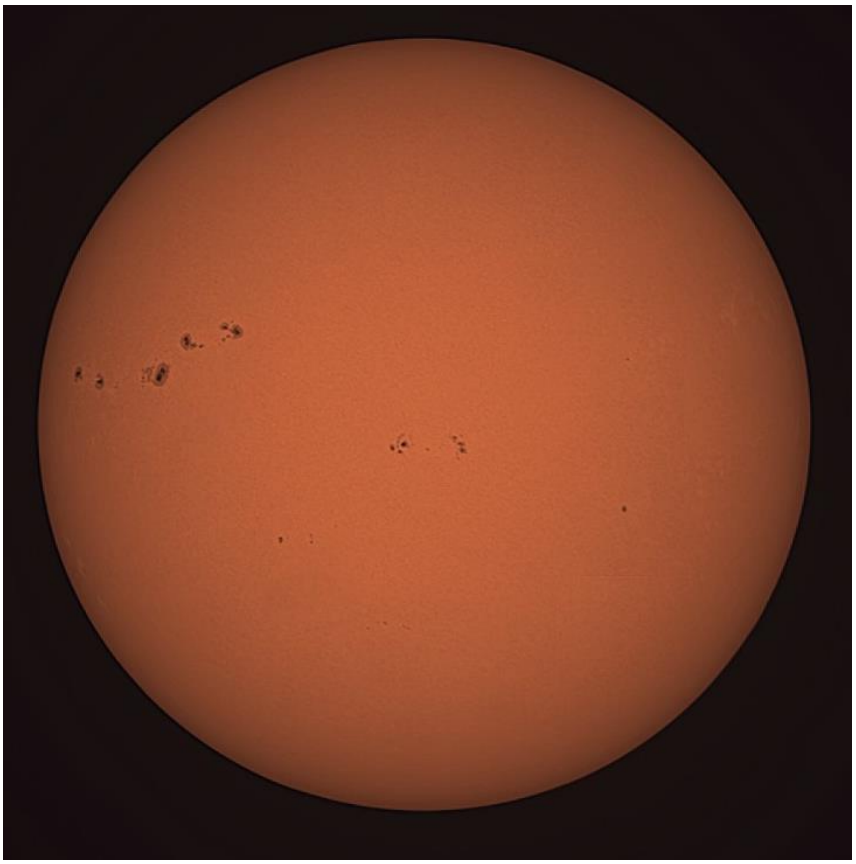
Neil Morley

Here's a sketch and afocal smartphone image using OASI's Coronado PST H-a telescope between 16:40-16:50 UTC on Saturday 11/07/25. I used an 8-24mm Baader Mk IV zoom eyepiece at 24mm providing around 17x magnification. The interesting area at the 5-o-clock position is a couple of impressive fan prominences. An example of a detached prominence is at the 3-o-clock position.





Steve Mcelvanney



Sun 18th July with a Seestar and some tweaking