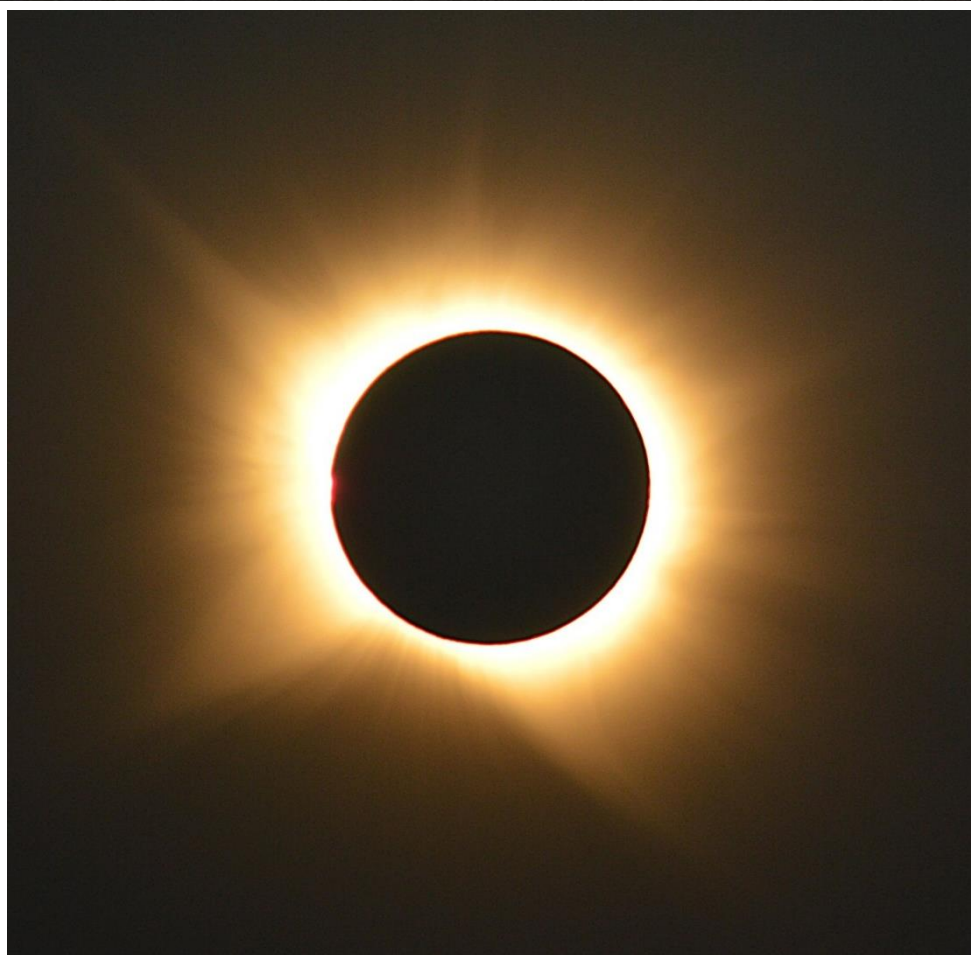




# OASI News

The newsletter of Orwell Astronomical Society (Ipswich)  
Registered Charity 271313



Paul Whiting – Total Solar eclipse viewed from Siguenza, Spain  
Nikon D3200 and 300mm lens at f/5.6  
August 12<sup>th</sup> 2026

Trustees:

Mr Neil Morley   Mr David Payne   Mr Bill Barton

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## Society Notices

Dear Members,

It was great to see so many members at our partial solar eclipse observation at Sutton Heath on Wednesday 12th August. Conditions were perfect, with some fantastic views and I am looking forward to seeing images taken at this event and from those who travelled further afield to see the total solar eclipse.

We will soon be discussing arrangements for our open evenings at Orwell Park Observatory. These are likely to be arranged for Friday and Saturday 23rd and 24th October. The successful running of these events depends on members kindly giving up their free time to help. Last year, on the Saturday evening, a large number of visitors turned up in a short space of time, severely stretching our resources.

Our open evenings are the most important outreach events for our society, so if you are able to help, in any way, please let myself or any Committee member know.

I hope to see you at one of our meetings in the coming month.

Clear skies!

Andy Gibbs, Chairman.

## Committee 2026

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

## Committee Meeting

Our next committee meeting is Sunday 6<sup>th</sup> September at 20:00 on Zoom. All members are invited to attend.

## New Members

Alan Squirrell Nikki Collier

## Society Contact details

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

## Social Media

For other astronomy news and astro pictures try our socials:

|           |                                                                                                               |
|-----------|---------------------------------------------------------------------------------------------------------------|
| Facebook: | <a href="https://www.facebook.com/groups/445056098989371">https://www.facebook.com/groups/445056098989371</a> |
| YouTube:  | <a href="https://www.youtube.com/@orwellastronomical425">https://www.youtube.com/@orwellastronomical425</a>   |
| 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](mailto:news@oasi.org.uk)

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

The Newsletter archive is at [www.oasi.org.uk/NL/NL\\_form.shtml](http://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 2<sup>nd</sup> and 4<sup>th</sup> 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wednesday 2nd September 2026 20:00<br>Orwell Park Observatory    | Martin Cook  | General observing.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Thursday 3rd September 2026 11:00 The Hold, Fore Street, Ipswich | Bill Barton  | Bill Barton, FRAS, The Astronomy of an Edwardian Lady . A presentation about the Suffolk amateur astronomer Alice Grace Cook (1877-1958), featuring her discoveries and what led to her becoming one of the first female Fellows of the Royal Astronomical Society. Booking via Suffolk Archives . The talk is in association with Suffolk Archives' summer 2026 exhibition The Moon: Our Nearest Neighbour . Details .                                                   |
| Sunday 6th September 2026 20:00 Zoom                             | Andy Gibbs   | Committee meeting via Zoom. All members are invited to attend.                                                                                                                                                                                                                                                                                                                                                                                                            |
| Wednesday 9th September 2026 20:00<br>Orwell Park Observatory    | Martin Cook  | General observing.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Monday 14th September 2026 19:30<br>Newbourne Village Hall       | Paul Whiting | Newbourne meeting - beginners and new members welcome! 19:30 Doors open.                                                                                                                                                                                                                                                                                                                                                                                                  |
| Tuesday 15th September 2026 20:00 Zoom                           | Paul Whiting | Pre-recorded talk: The Aurora Past & Present by Paul Whiting, FRAS. (Zoom login details are provided by email to members.)                                                                                                                                                                                                                                                                                                                                                |
| Wednesday 16th September 2026 20:00<br>Orwell Park Observatory   | Martin Cook  | General observing.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Wednesday 23rd September 2026 20:00<br>Orwell Park Observatory   | Martin Cook  | General observing.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Monday 28th September 2026 19:30<br>Newbourne Village Hall       | Paul Whiting | Newbourne meeting - beginners and new members welcome! 19:30 Doors open. 19:45 Bill Barton, FRAS Sky Notes and Paul Whiting, FRAS, Astro News . 20:00 Bill Barton, FRAS, The Astronomy of an Edwardian Lady . A repeat of Bill's presentation at The Hold in early September about the Suffolk amateur astronomer Alice Grace Cook (1877-1958), featuring her discoveries and what led to her becoming one of the first female Fellows of the Royal Astronomical Society. |
| Wednesday 30th September 2026 20:00<br>Orwell Park Observatory   | Martin Cook  | General observing.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## 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/?w3wc=1&w3w=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

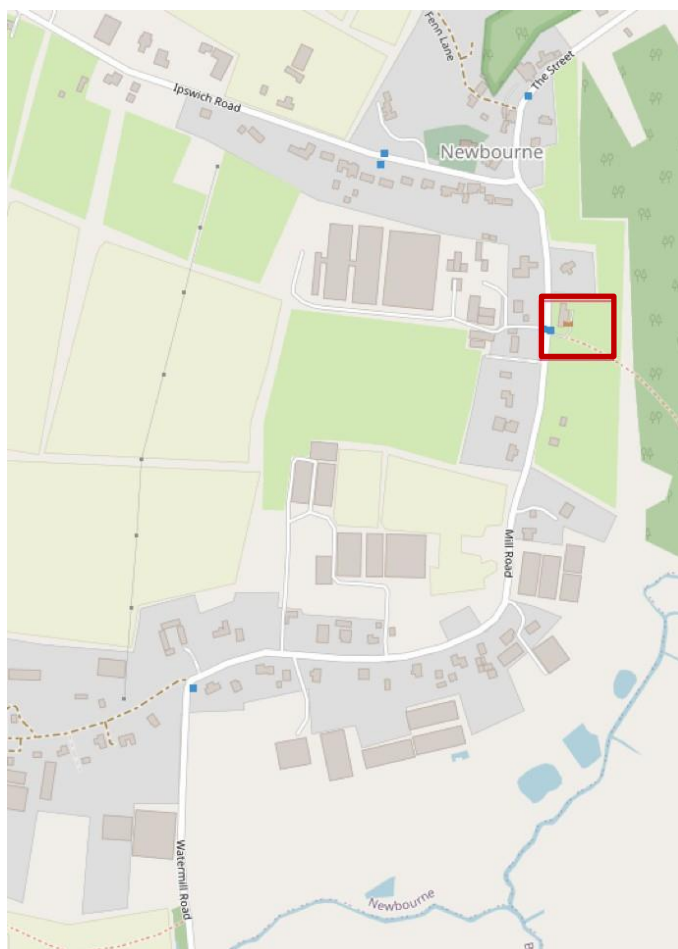
[newbourne@oasi.org.uk](mailto:newbourne@oasi.org.uk)

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>



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 2026

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.

|                                                                     |             |                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Thursday 3rd September 2026 11:00<br>The Hold, Fore Street, Ipswich | Bill Barton | Bill Barton, FRAS, The Astronomy of an Edwardian Lady . A presentation about the Suffolk amateur astronomer Alice Grace Cook (1877-1958), featuring her discoveries and what led to her becoming one of the first female Fellows of the Royal Astronomical Society. Booking via Suffolk Archives . The talk is in association with Suffolk Archives' summer 2026 exhibition The Moon: Our Nearest Neighbour . Details . |
|---------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## BAA news, events & webinars

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

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

| Date                 | Event                                     |
|----------------------|-------------------------------------------|
| Friday 18 September  | Autumn 2026 Meeting - Liverpool           |
| Saturday 3 October   | Radio Astronomy Section Day Meeting       |
| Saturday 24 October  | SPA Meeting - Northampton                 |
| Wednesday 28 October | BAA Meeting and Annual General Meeting    |
| Saturday 31 October  | The International Astronomy Show          |
| Friday 13 November   | SPA residential weekend 2026              |
| Saturday 5 December  | Back to Basics - Aurora Special - Ipswich |
| Saturday 12 December | BAA Christmas Meeting                     |

### 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 September 2026

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    | 05:07                                                                                  | 18:42                                                                                 |                                                                                        |                                                                                                                                                                                                              |
|           | 30   | 05:54                                                                                  | 17:35                                                                                 |                                                                                        |                                                                                                                                                                                                              |
| Moon ☾    | 1    | 19:43                                                                                  | 10:30                                                                                 |                                                                                        | <b>Last Quarter : 04 September 07:51</b><br><b>New Moon : 11 September 03:27</b><br><b>First Quarter : 18 September 20:44</b><br><b>Apogee : 19 September 03:01</b><br><b>Full Moon : 26 September 16:49</b> |
|           | 30   | 18:39                                                                                  | 11:09                                                                                 |                                                                                        |                                                                                                                                                                                                              |
| Mercury ☿ | 1    | 05:30                                                                                  | 18:54                                                                                 | -1.4                                                                                   |                                                                                                                                                                                                              |
|           | 30   | 08:14                                                                                  | 17:57                                                                                 | 0.0                                                                                    |                                                                                                                                                                                                              |
| Venus ♀   | 1    | 09:37                                                                                  | 19:28                                                                                 | -4.3                                                                                   |                                                                                                                                                                                                              |
|           | 30   | 09:27                                                                                  | 17:33                                                                                 | -4.4                                                                                   |                                                                                                                                                                                                              |
| Mars ♂    | 1    | 23:56                                                                                  | 16:24                                                                                 | 1.3                                                                                    |                                                                                                                                                                                                              |
|           | 30   | 23:35                                                                                  | 15:29                                                                                 | 1.1                                                                                    |                                                                                                                                                                                                              |
| Jupiter ♃ | 1    | 02:44                                                                                  | 17:50                                                                                 | -1.6                                                                                   |                                                                                                                                                                                                              |
|           | 30   | 01:22                                                                                  | 16:09                                                                                 | -1.7                                                                                   |                                                                                                                                                                                                              |
| Saturn ♄  | 1    | 19:50                                                                                  | 08:20                                                                                 | 0.5                                                                                    |                                                                                                                                                                                                              |
|           | 30   | 17:53                                                                                  | 06:15                                                                                 | 0.3                                                                                    |                                                                                                                                                                                                              |
| Uranus ♅  | 1    | 21:26                                                                                  | 13:24                                                                                 | 5.7                                                                                    |                                                                                                                                                                                                              |
|           | 30   | 19:32                                                                                  | 11:29                                                                                 | 5.6                                                                                    |                                                                                                                                                                                                              |
| Neptune ♆ | 1    | 19:25                                                                                  | 07:27                                                                                 | 7.8                                                                                    |                                                                                                                                                                                                              |
|           | 30   | 17:30                                                                                  | 05:29                                                                                 | 7.8                                                                                    |                                                                                                                                                                                                              |

## Occultations during September 2026

[https://iota-es.de/moon/grazing\\_descrx101.html](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 September 2026

| Name                             | Date of Maximum | Dates visible | Max z | Description                                                       |
|----------------------------------|-----------------|---------------|-------|-------------------------------------------------------------------|
| <a href="#">Southern Taurids</a> | 10 October      | 10 Sep-20 Nov | 5     | Very slow meteors; active from September, with maximum in October |

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/](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    |
|----------------------------|------------|-----------------------------------|-----------------------------|------------------|
| 10P Tempel 2               | 8.0        | 2026-Aug-15                       | 159.0                       | Piscis Austrinus |
| 220P McNaught              | 9.9        | 2026-Aug-16                       | 102.0                       | Cetus            |
| 169P NEAT                  | 11.4       | 2026-Aug-15                       | 22.0                        | Leo Minor        |
| 88P Howell                 | 13.8       | 2026-Aug-15                       | 100.0                       | Aries            |
| 63P Wild                   | 13.8       | 2026-Aug-02                       | 26.0                        | Leo              |
| C/2024 T5 ATLAS            | 14.4       | 2026-Aug-15                       | 74.0                        | Lepus            |
| 29P Schwassmann-Wachmann 1 | 14.5       | 2026-Aug-13                       | 28.0                        | Virgo            |
| C/2024 J3 ATLAS            | 14.5       | 2026-Aug-15                       | 109.0                       | Lyra             |
| 260P McNaught              | 14.6       | 2026-Aug-14                       | 84.0                        | Taurus           |
| C/2024 R4 PANSTARRS        | 14.7       | 2026-Aug-14                       | 116.0                       | Cygnus           |
| C/2023 R1 PANSTARRS        | 15.0       | 2026-Aug-15                       | 86.0                        | Libra            |
| 78P Gehrels                | 15.1       | 2026-Aug-13                       | 58.0                        | Orion            |
| C/2021 G2 Atlas            | 15.5       | 2026-Aug-15                       | 99.0                        | Hercules         |
| 24P Schaumasse             | 15.6       | 2026-Aug-02                       | 79.0                        | Libra            |

## Visible ISS passes >30° max altitude for September 2026

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

Times are **GMT**.

Predictions are approximate (23/08/25) 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. |
| 1 Sep  | -3.9       | 03:01:50 | 56°  | WSW | 03:02:25      | 75°  | S   | 03:05:46 | 10°  | ESE |
| 2 Sep  | -3.2       | 03:48:53 | 19°  | W   | 03:50:52      | 39°  | SSW | 03:54:00 | 10°  | SE  |
| 3 Sep  | -3.4       | 03:03:10 | 47°  | S   | 03:03:10      | 47°  | S   | 03:06:01 | 10°  | ESE |
| 10 Sep | -2.6       | 20:33:37 | 10°  | SW  | 20:35:46      | 33°  | SW  | 20:35:46 | 33°  | SW  |
| 11 Sep | -3.2       | 19:45:30 | 10°  | SW  | 19:48:38      | 37°  | SSE | 19:49:39 | 29°  | ESE |
| 12 Sep | -3.4       | 20:33:31 | 10°  | WSW | 20:36:18      | 56°  | SW  | 20:36:18 | 56°  | SW  |
| 13 Sep | -3.8       | 19:45:12 | 10°  | WSW | 19:48:32      | 62°  | SSE | 19:49:54 | 31°  | E   |
| 14 Sep | -3.4       | 18:56:56 | 10°  | SW  | 19:00:11      | 48°  | SSE | 19:03:24 | 10°  | E   |
| 14 Sep | -3.4       | 20:33:28 | 10°  | W   | 20:36:18      | 60°  | W   | 20:36:18 | 60°  | W   |
| 15 Sep | -3.9       | 19:45:04 | 10°  | W   | 19:48:26      | 82°  | S   | 19:49:43 | 35°  | E   |
| 16 Sep | -3.8       | 18:56:40 | 10°  | WSW | 19:00:01      | 73°  | SSE | 19:03:06 | 12°  | E   |
| 16 Sep | -3.1       | 20:33:22 | 10°  | W   | 20:36:00      | 51°  | W   | 20:36:00 | 51°  | W   |
| 17 Sep | -3.9       | 19:44:56 | 10°  | W   | 19:48:18      | 86°  | S   | 19:49:20 | 42°  | E   |
| 18 Sep | -3.8       | 18:56:28 | 10°  | W   | 18:59:51      | 86°  | S   | 19:02:39 | 14°  | E   |
| 18 Sep | -2.6       | 20:33:12 | 10°  | W   | 20:35:32      | 38°  | WSW | 20:35:32 | 38°  | WSW |
| 19 Sep | -3.8       | 19:44:43 | 10°  | W   | 19:48:05      | 71°  | SSW | 19:48:50 | 49°  | SE  |
| 20 Sep | -3.8       | 18:56:14 | 10°  | W   | 18:59:36      | 81°  | S   | 19:02:07 | 17°  | ESE |
| 21 Sep | -3.2       | 19:44:28 | 10°  | W   | 19:47:43      | 46°  | SSW | 19:48:18 | 41°  | SSE |
| 22 Sep | -3.5       | 18:55:55 | 10°  | W   | 18:59:14      | 60°  | SSW | 19:01:37 | 17°  | ESE |
| 24 Sep | -2.6       | 18:55:35 | 10°  | W   | 18:58:43      | 36°  | SSW | 19:01:13 | 14°  | SE  |

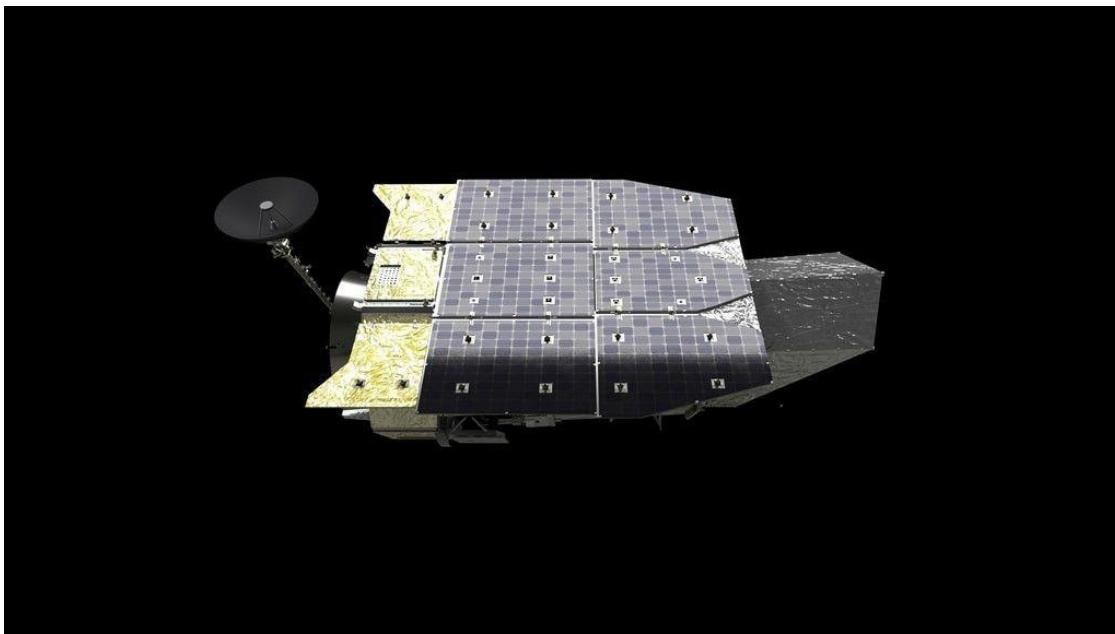
## Nancy Grace Roman Space Telescope (Roman)

Named after NASA's first chief astronomer.

Another concise article from the library

Andy Willshire.

Roman is considered as NASA's next prestigious space observatory. It is a wide-field infrared assignment, the results of which will augment our understanding of several big questions that cause cosmologists sleepless nights. The first is Dark Energy, the second Dark Matter and the last, an in depth assessment of exoplanets using microlensing and direct imaging. The spacecraft will be stationed at the L2 LaGrange point(  $1.5 \times 10^6$  km from Earth), allowing for very stable gravitational conditions, where energy usage to control the position is kept to a minimum. This position also allows for continuous solar power and has a clear view of deep space. It is scheduled to launch on Sunday 30<sup>th</sup> August 2026 at 07:20 am EDT from complex 39A at the Kennedy Space Center, Florida, via a SpaceX Falcon Heavy rocket. The administration will be by the Space telescope Science Institute(STS



cl).

Picture credit : <https://assets.science.nasa.gov>

Progress in the ability to research vast numbers of galaxies and stars over great swathes of the sky has enhanced human knowledge, answering many questions that have been languishing in scientists' to be completed file. Roman has the expertise to carry out wide field and time domain surveys to another level.

What is Dark Energy, and why are we interested? It is thought that its primary effect is to energise the speeding expansion of the universe, and that it makes up approximately 68.2% of the universe. Records demonstrate that the velocity of distant galaxies is continually increasing with time when viewed from a fixed point. In 1998 two autonomous programmes, the 'Supernova Cosmology Project' and the 'High-Z Supernova Search Team' using type 1a supernovae( standard candles) demonstrated that the universe was both expanding and accelerating. Dark energy is a perplexing, invisible force whose actions form anti-gravity that forces the universe to accelerate at an increasing rate, conversely to gravity, which attracts groups together. It is called 'Dark' because of its invisibility and is virtually undetectable with modern electronic machines. We can now move on to Dark Matter. This was suspected over eighty years ago when galaxies in the Coma cluster were examined by astronomer Fritz Zwicky who noted that they were moving so fast that they should have been hurled into space, but they remained gravitationally tethered. Normal matter interacts with electromagnetic forces whilst dark matter does not. The problem this causes is that it

does not react with light, making it somewhat tricky to notice. Scientists have therefore been simply able to presume the actuality of dark matter only from the gravitational effect on visible matter. Dark matter contenders tend to show their heads when theories are considered beyond the Standard Model, for example supersymmetry. The mass energy content of the universe of this 'matter' is 26.8%.

Gravitational microlensing is an astronomical event caused by the gravitational lens effect, which bends light from a distant source as it travels towards an observer. It is useful in identifying objects that emit little or no light such as low mass stars and planets around very dim stars.

Roman has a primary mirror of 2.4m which is the same diameter as the Hubble telescope. Infrared images taken by Hubble's Wide Field camera 3 are approximately 200 times smaller than those obtained by Roman, with the latter imaging fifty times more sky in five years than Hubble was capable of in thirty years. It will carry two scientific instruments. One a Wide Field Instrument(WFI) which is a 300 – mega pixel infrared camera which has a 200 times larger field of view than Hubble. For this WFI's focal plane uses 18 H4RG detectors which covers 0.281 square degrees for each exposure. Every one has 10 infrared detectors each with 4096\*4096 pixels, which will increase mapping speed. The detectors are specific in having very low noise, a high dynamic range and will pick out exoplanets that bathe in faint reflected light. During commissioning phases calibration recommendations were fulfilled. For photometric calibration, the Large Magellanic Cloud was used. It was selected because it has a constant density of stars with the required brightness limits. For spectroscopy, the Southern Beehive Cluster (NGC2516 in the constellation Carina) was the objective for grism wavelength calibration. This was selected as there are some stars in this field that would be difficult to avoid thus challenging the equipment. A grism is a grating prism that allows a chosen wavelength of light to pass straight through. This equipment allows the same camera to be used for both imaging and spectroscopy. The planned Supernova Deep and Wide Imaging Surveys will allow detection and light-curve monitoring of thousands of Type 1a supernovae to  $z=2$  as well as enable exact assessment of the position and redshift of millions of different galaxies. This could make it possible to produce high-resolution maps of dark matter with redshift.

The second instrument is a Coronagraph (CGI), which will quell starlight by a factor of  $10^9$  and resolve objects at 0.15 – 1.5 arcseconds separation. It can also image exoplanets speedily. Coronagraphs are telescope attachments that are constructed to diminish direct light from bright objects. This allows nearby less bright stars to be observed, and was initially intended for solar work. It employs a succession of masks and deformable mirrors filtering and deforming incoming starlight thus alleviating its intensity and allowing exoplanets to be viewed. It is a high contrast camera covering visible and near- infrared wavelengths (575nm – 825nm). This coronagraph will be the most powerful science has ever launched.

This space survey will provide the scientific community with state of the art, up to date data, which will be publically available upon processing and archiving. The innovating projects will allow Roman to serve as a multipurpose mission in an attempt to answer some of today's illusive astrophysics questions.

References:

[Why the Roman Space Telescope? - NASA Science](#)

[About Roman - NASA Science](#)

[Nancy Grace Roman Space Telescope - Wikipedia](#)

[Cosmology with Roman - Nancy Grace Roman Space Telescope - June 2021](#)

[Nancy Grace Roman Space Telescope - NASA Science](#)

[ESA - Roman factsheet](#)



## Solar Event at The Hold

We held a solar outreach event on Saturday 8<sup>th</sup> August at The Hold, to coincide with their “The Moon – our nearest neighbour” exhibition. There were around 170 visitors. It was a great day in terms of weather, but the sun itself wasn’t showing much of anything on the surface, there were a couple of tiny sunspots, but they seemed to disappear as the day went on.



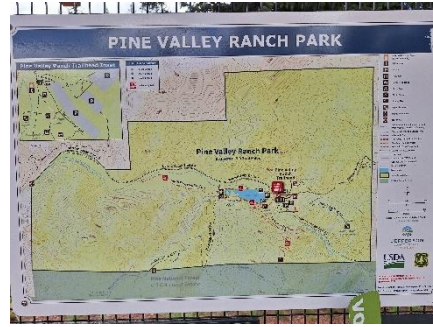
## Shorts World – The William A. Baehr Observatory

Something of a change for this Newsletter input, a visit to I'll take a guess, unvisited site by any of the Society. The location is in Colorado, USA. Earlier "Shorts World" me to a number of sites in the state, but probably none obscure. We need to travel SW of Denver to the town of then up into the hills and valleys of Jefferson County to Pine Valley Ranch Park. Sitting at around 7500feet in (around 2300m), the scenery is quite beautiful. My initial walk around Pine Lake and by the side of the fast running (North Fork) river. We are near the source of the river; it joins the mighty Missouri having crossed the great plains of the US.

On returning to the Trailhead, I took time to read the information boards which described the development of also noticed on the map, a mile or so east and a few feet of climb away, the word "Observatory" (yes, there is a reason I'm writing this as a Newsletter input). Firstly, a little history...

From the 1870's (until the 1930's), a 3 foot gauge railway worked its way through the valley transporting minerals mined in western Colorado, together with lumber and ice, to Denver. In 1927, the old 4L Ranch here, was purchased by a Chicago millionaire named William A Baehr. Baehr, the then President of Chicago's North Continent Utilities Co., built a \$1.5m "summer home" (about \$30m in today's money) in the valley. The alpine style mansion built, remains visible (just) in the trees but like the Ranch, is now in public ownership.

The then Baehr ranch foreman, Conrad Johnson, diverted and dammed the Platte river to create today's Pine Lake. The lake, as well as offering recreational opportunities to the Baehr family, also offered further income, through the shipment of ice from the lake to Denver through the winter. By now, Baehr was President of the Denver Ice and Cold Storage Company!



a small, and Members. have taken quite so Conifer, find the altitude focus was to South Platte eventually central

various this valley. I hundred



Moving finally to the astronomical element of this input, the above William Baehr had a great enthusiasm for astronomy. An amateur astronomer, Baehr commissioned J W Fecker Co to supply a custom 1937 6-inch refractor telescope, and had the observatory installed to house it. It still contains all of the original equipment.



Conrad, the above foreman, with his son, spent some 700 trips hauling water, cement and timber up the hill to build, what was then, a technologically sophisticated observatory. Some two tons of copper was used for the dome, with a car differential and steering wheel to turn it. Apparently, it remains fully functional. A weight-driven clock drive allows the scope to track its target slowly, a feature that allows for astrophotography using long exposures. A small room attached also held a chronograph, a shortwave radio and a sidereal clock.

The Observatory was located in the landscape and, obviously I was obliged to go to see it. Unfortunately, the Park Guides stressed that the Observatory is rarely open (a few evenings in the summer for star parties), but for me a closed Observatory is still worth a visit! It took only some thirty minutes to walk to the building, which stands at 7189feet.



As promised, the Observatory was firmly closed. An information board next to it however offered a picture of the original 6" refractor within.



Duty done (for all my readers of course), I returned to the Trailhead then headed back to my friends in Conifer.



An interesting visit, even without getting inside. It shows what little gems can be tucked away in the landscape.



As a final comment, the site certainly had a great backdrop from which to sit and admire the heavens.

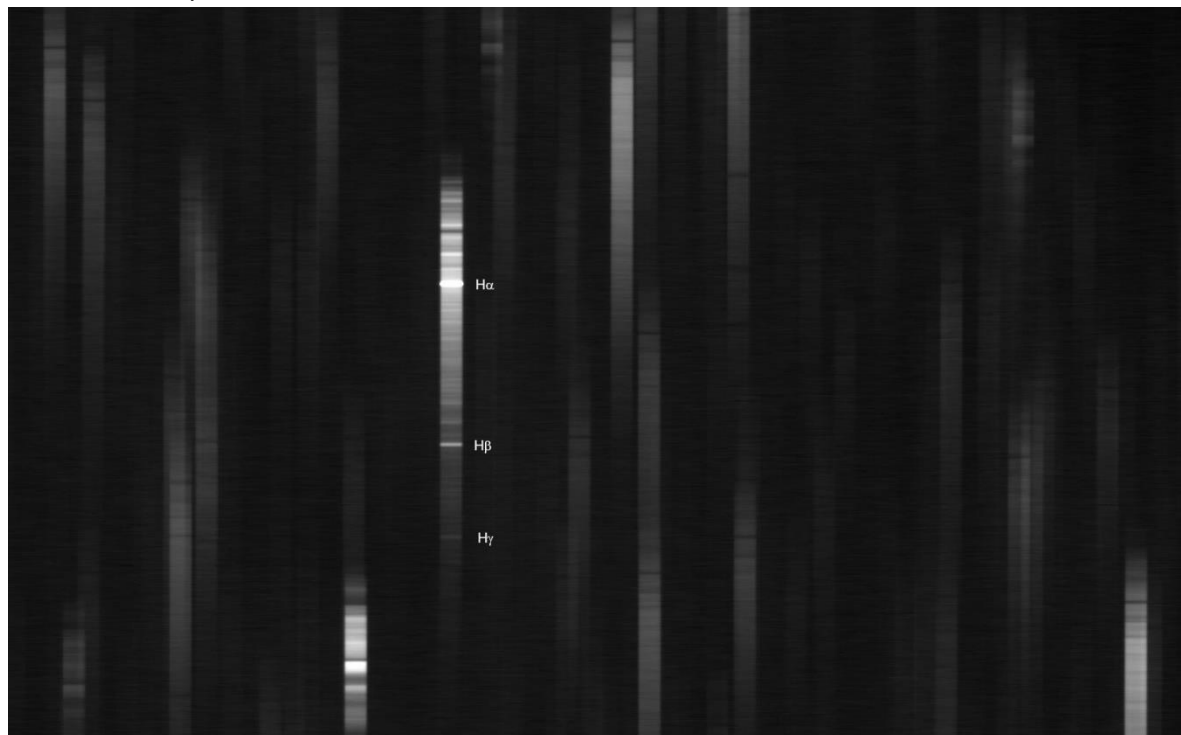
Bye for now, *Neil*

## Member Observations

### Mike Harlow – Nova Tauri 2026

I've been observing Nova Tauri 2026 in the early morning to get some spectra to see how it evolves over the next few months. One image of the field containing the nova...near M1. (The box is a one degree square in the 6 x 4 degree image). And a spectrum taken with an objective prism. Hydrogen lines are prominent with oxygen lines in the IR and some iron lines starting to appear between H alpha and H beta.

Details of the prism can be found on the BAA website





## Mike Such - Perseids

I had my first go at capturing some of the recent Perseid Meteor shower.

All were taken early hours on the 12th or 13th August in my back garden with a Nikon D850 coupled with a Sigma 24mm f1.4 , iso 2000, exposure between 13-15 seconds. All on pdf, slightly tweaked for brightness etc. on an iPhone after...all very amateurish I'm afraid!

I think the first shows a Southern Delta Aquarid with the trace of a Perseid above, as the camera was facing pretty well due South at 01.41hrs.



## Solar Eclipse – August 2026

There was a solar eclipse on August 12<sup>th</sup>, 2026. It's path of totality made landfall through Iceland, Spain and Mallorca. From the UK, it was only a partial eclipse, albeit with around 90% coverage, which meant it did have a noticeable effect on brightness. We have several sets of photographs from both the UK and Spain.

### Bill Barton (OASI Trustee)

Partial eclipse from UK - Some images through 80mm aperture spotting scope







**OASI members enjoying the eclipse!**

I arrived at the Sutton Heath observing site with Roy Gooding and Lynne around 16:15 UT. Martin Cook was already unloading and setting up his equipment. Soon after unpacking various items of equipment, I discovered the Skywatcher SynSCAN mount I'd brought along was missing its handset controller! This prevented the use of the OASI 80mm Widesky refractor for white light solar observing, but did allow me to circulate more and meet members and enjoy a great shared experience. It was also great to meet some members for the first time.

Around the time of maximum eclipse around 18:13 UT, the sky notably darkened with shadows on the ground becoming more clearly defined. The temperature fell, birds started singing, and some, notably a flock of seagulls, flew directly overhead towards their roosting location on the coast. It was strange because the Sun's elevation was  $\sim 10$  degrees above the horizon. What an experience!

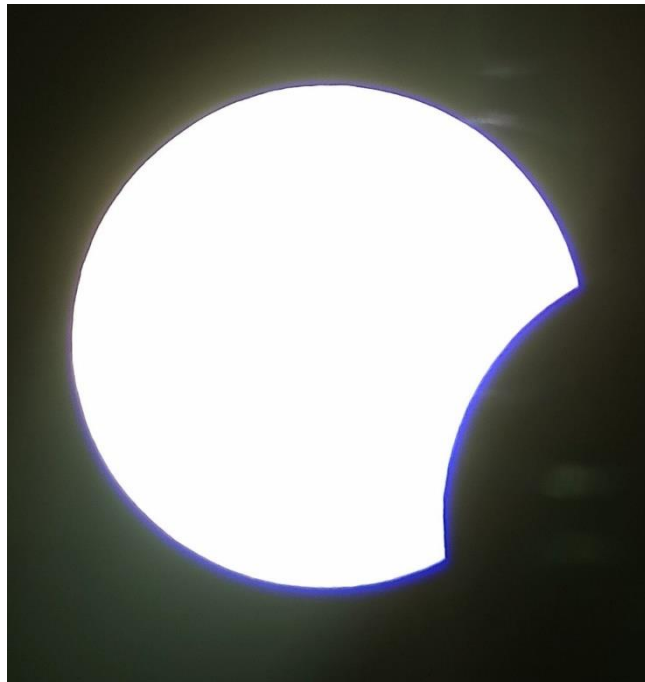
Solar images below were taken using a Motorola G31 smartphone held up to the zoom eyepiece in Roy's Skywatcher ST102 refractor. A Lunt 1.25" Herschel wedge with variable polarising filter generated an eye-safe white-light solar image. I've applied minimal post processing by cropping the images and applying a



"honey" filter using the camera app. As maximum eclipse approached, the amount of visible glare increased in the photos. This was absent when using the eyepiece visually.



**17:19 UT shortly after first contact**



**17:27 UT**



**17:51 UT**



**18:12 UT around the time of maximum eclipse**

I'd like to express thanks to Martin for choosing the observing site and all members who turned up making this a truly memorable event

## Partial eclipse 12th August 2026 – Martin Cook

Two months before the eclipse OASI was contacted by Go Stargazing with an offer on bulk buying eclipse glasses. £12 for 50 pairs including postage was an offer too good to miss, so Martin Cook ordered a batch which would be as hot as handling FA final tickets come the 12th August.

The glasses were supplied to members, free of charge, on Monday and Wednesday evenings prior to the event. During the days prior to the eclipse OASI were bombarded with emails from the general public desperate for a pair of glasses, unfortunately we had to let them down gently with an apology, as the remainder of the stock would be solely for members.

A small group of us had decided that it would be safer to run a members and friends event, as a public event ran the risk of hundreds turning up with the ensuing issues that may cause. The media were onto the eclipse by this point and we may have faced the possibility of being unable to park at our chosen observing location.

Martin and Andy Gibbs had decided that Sutton Heath picnic site may offer a good view of the west horizon, the end of the eclipse ending near to sunset, so they drove out to the site a week before the eclipse and decided on the best spot of the site to observe the whole event without trees etc coming into play.

On the day of the eclipse Martin posted a photo of himself holding up the remaining 20 pairs of glasses on OASI WhatsApp, asking if any of the evening's attendees were still without a pair, they were soon snapped up!

The plan was to meet up from 17:30, but concerned about the possibility, after the media frenzy on the day, that the car park could become full, Martin arrived at 17:00 shortly followed by Steve McElvanney, Neil Morley, Roy Gooding and Matt Leeks.

With safety in numbers it was OK to start setting up our equipment making sure our line of sight wasn't going to be compromised for the full 2 hours duration, either by other scopes or people walking past.

At 17:16, cameras and laptops had been started on time-lapse photos and solar glasses adorned eagerly awaiting first contact. Matt was the first to shout out first contact, observing through his Lunt 60mm h-alpha scope, which immediately got everyone's attention.

As the moon slowly ate away at the sun over the next hour it gave members plenty of time to wander around chatting and looking through the range of scopes in use. Roy's white light setup and Matt's Lunt proved popular. Andy was able to show the image generated by the club's Seestar 50 on his phone whilst Martin's setup using a laptop connected to a Lunt 60mm h-alpha offered relaxed viewing whilst standing up and talking within the gathered group. Unfortunately Neil in his haste to arrive had managed to bring a scope but had forgotten to pack the hand controller, but it did give Neil the opportunity to wander around talking to people.

Max eclipse was at 19:12:05 and after a countdown from Martin a large cheer went up together with some strange looks from members of the public using the same site.

As the sun began to set the moon slipped away just as the trees on the horizon started coming into view.

It was just a matter of putting all the equipment back into our cars, saying our farewells, and heading home to do some image processing.

## Success is fun- Failure is funnier!!

### Plan A

See totality in Cuenca, midway between Madrid and Valencia, where my Spanish tutor lives. Totality would last about 50 seconds. However, there was a heat dome over Europe and the forest fires raging in Spain. Temperatures would be in the high 30s. “We” decided not to go.

### Plan B

See the partial phases from home. Actually, next door had a clearer horizon, so I set up on the landing upstairs. They were away on a cruise that included seeing the eclipse!

Tripods were useless, so both cameras were mounted on large wooden boards, one a straightforward 3 axis head for a static 80mm lens that allow the Sun to drift diagonally through the FoV, the other being a loprotron Skyguider Pro and head with a 500mm lens that would track the Sun.



Both Sony A7S Mk1 cameras to be controlled by laptops, to allow for adjustments in



exposure to be made without touching. This was new to me. The camera screens were also at an awkward angle to see anything in the (hopefully) bright daylight. The laptops screens were shaded by being indoors

I had a lot of issues with communications between the laptops and the cameras not recognising each other – not all cameras worked with all laptops. There were many trips back and forth to base to get various bits, including the Sony A7S Mk3 and the old blue laptop.

The Mk3 camera was giving overexposed views of the Sun, so much so that I went home to get a different solar filter. When I returned 1 minute later disaster struck – I had locked myself out of the house 10 minutes before the eclipse started!

Total panic set in. What to do, who to call etc. All the laptops were running, the driven mount was running, but I could not start anything, nor could I switch anything off. The driven mount would eventually collide with itself, potentially damaging something

Where were the keys? Had I dropped them in my house? No. I thought that I must have put them on the window ledge. But the upstairs windows are open! – I just need a ladder to get them!

By now I had asked a neighbour for help with the ladder. I climbed up to look at the window ledges, but nothing could be seen. The next option was to climb into the house via the open window, moving the cameras out of the way, except the windows do not open a great deal (for fat people like me!). Hmm

Now I could see the keys – they were on the floor out of reach. However, my neighbour also had a litter-picker and brought it round. I was able to reach in and collect the keys quickly and enter via the front door. Hurray!

By now it was coming up to maximum partial phase and I abandoned any idea of taking any pictures. I packed everything up, occasionally looking at a partial phase in a brilliantly clear sky

## **Post Mortem**

So what the hell went wrong (before locking myself out!)

**Cameras:** 2 x Sony A7S. These use a USB micro connector

1 Sony A7S Mk3. This uses a USB Type C connector

**Laptop:**

1 Windows 11

1 Windows 10 (White)

1 Windows 10 (Blue) This was bought as a travel laptop about 10 years ago. It has lost its Wifi connection and it has insufficient memory to update Windows. It was due to be scrapped

**Leads:** I have 11 USB micro leads from a variety of sources. There are a host of USB C leads

I also have a little USB cable tester

## **Plan B again**

Plan B originally used the 2 A7SMk1 with the Win11 and white Win10 laptops. I recall having both working at the

same time, but now I wonder. Read on...

On the day the Win11 laptop connected with the camera, but there were problems with the Win10 and the other camera. Swapping out leads didn't improve things. I went home to retrieve the blue laptop and the Mk3 camera. I ended up with the Mk3 mounted but the view was strange – I needed a different solar filter and went back to get something. That is when I locked myself out with 10 minutes to go!

So where did things go wrong?

I tested all 11 leads: All 11 have connectivity through the ground and voltage lines; only 6 had connectivity through the D- and D- signalling lines. The other 5 are useless as a comms link, but OK for charging things. Of course I did not take all the cables with me, but I don't know which ones I did

The Sony A7S Mk3 camera has only been used for astrophotography. It gave me an unfamiliar view on eclipse day – that of an overexposed Sun on a black background. This is the auto exposure view that does not change when you adjust the controls. To get the view that goes brighter and darker you need to change an option: Menu 12/59->(Shooting Display) -> Live View Display Set->Live View Display ->Setting Effect ON. But on the day, this was not supposed to be the duty camera.

A Comms issue

But there is also a comms issue. So, what can talk to what? For remote control of a Sony camera there is Sony specific software IEDT(Remote)

The Mk3 can talk to any of the laptops (but using a Type C cable)

The old blue Win10 machine can talk to either of the Mk1 cameras

The white Win10 cannot talk to either of the Mk1 cameras.

Mr Google tells me there could be issues with cloud-based services interfering with the operation of the USB ports, like Google Drive, Lightroom, Dropbox etc (don't ask me how)

Off to Task Manager to see what applications start up automatically that look cloud based. None of the above were found, but there was one called Apple Push, a cloud service for iOS devices (on a PC!). I also culled a couple that don't need to start at the beginning.

Rebooted, then success!

I can now remotely control the Mk1 cameras with the white Windows 10 laptop. Just not sure when that will ever be needed!

And my neighbours? They were on Cunard's "Queen Victoria", stationed off Tarragona. They had a fantastic view!

## Eclipse Expedition 12 August 2026 – Paul Whiting



Sigüenza Castle

This eclipse trip started off bad and got worse. At least the first two days travelling to Barcelona. It started with a cancelled train from Felixstowe, trespassers on the line at Ilford, and a Heathrow Hotel transport that was 40 minutes behind its timetable. All of which made for an eight-hour journey that should have taken five at most.

The flight to Spain was fraught the next day. BA had lovingly bounced me from the flight having oversold the seats. It was only 25 minutes prior to take off I actually got a seat. OK it was an

extra legroom seat but all the same it was a hassle I could do without!

On arrival at Barcelona the luggage got lost. ALL the luggage! They displayed carousel 13 but it really came in on 14!

Then there was no sign of the tour company rep. Luckily, I met up with a couple I recognised from previous eclipses, who did manage to spot the taxi driver holding up a small piece of paper with our names on.

Barcelona. A fine city, or at least it will be when they finish building it. The famous basilica, the Sagrada Familia started construction in 1882 and is due to finish in 2036, if you believe that .... The hotel we stayed at was totally themed around space travel. Odd, given that it was part of the main Barcelona railway station. Perhaps a railway travel theme might have been more appropriate. However, each room had various space travel themed images enclosed in hemispherical plastic domes. In the vast hotel reception, a whole wall had a giant display looping a very good video explaining what was meant by a light year and giving examples of various objects and galaxies, incidentally most of which I have imaged with the SeeStar!! This video also mentioned black holes and Seyfert galaxies, so any traveller waiting in reception could learn a lot! For some reason the hotel offered free glasses of Cava for the whole of the second day. Whether this was an everyday occurrence or just a one-off. Either way I managed to try four glasses.

Then a train ride to Valencia. This went mostly without incident, spacious legroom carriages and, above all, working air conditioning. As with most trains it ran

about 30 minutes late, which had the knock-on effect of the police moving our waiting coaches away from



Sunset eclipse

the station entrance. This meant we had to haul our cases in convoy for about 700m along fairly rough ground in 35-degree heat. At least the hotel was quite nice. The beer was cheaper and better (local) than the Heineken served in Barcelona.

It was here that there was a group of five widowed grandmothers from Florida and Texas who seemed to want to adopt me! I spent most of my time trying to avoid them. One by one they came to sit next to me in the bar and in the restaurant, to introduce themselves.

Then disaster struck. What is the worst thing that could happen to a teen or twenty-something? Lost phone? Well in my case, access to emails. My laptop charger blew up. More specifically I had an indoor fireworks display whilst charging. Not good when emanating from the mains lead.

The day got better when I discovered an all you can eat Japanese buffet restaurant. Basically, eat as much sushi as you can for 28 euros. The only limitation being that you could only order five things every seven minutes, and this included drinks, pickled ginger and wasabi – a novice mistake.

Next day we were off to Cordoba – a five-hour coach ride. On arrival the temperature had climbed from 30°C to 41°C, and this was at 4.30 in the afternoon.

Onward to Seville and 45°C. From here we had coach tours to Jerez and Cadiz.

In Jerez, the home of sherry, there was a visit to the Gonzalez-Byass bodega. They make, amongst other things, Tio Pepe and Croft Original, the latter purely for the UK market. Here they served a Sherry Spritz – mixed with elderflower and lime fizz and sprigs of mint. Delicious.

Cadiz, the home of the Spanish Fleet, was once an island, but over the centuries it has silted up to become a peninsular. It still retains its encompassing walls as an island citadel. It was here I tried sea snails. They turned out to be whelks. Went down well with the local beer.

Next to Madrid, where we stayed near the Bernabéu Stadium– I believe it has something to do with football. Madrid was expensive compared to the other cities, but the hotel did serve Pisco Sour cocktails, previously only seen in Chile.

The food throughout the trip was generally good – lots of tapas. I have fallen in love with prawn and ham croquettes and the massive Spanish olives. Despite the wonderful pisco sours in Madrid, the eclipse cocktail of choice was Aperol Spritz.

Finally, we ended up in Sigüenza, staying in the exclusive Sigüenza Castle Hotel. This is a 12<sup>th</sup> century fortress that was virtually flattened during the Spanish civil war and rebuilt 80 years ago – this time with plumbing.

There were over 600 people at Sigüenza Castle – Astro Trails had booked the whole place. 4 groups staying there and 3 more coach loads coming in just for the day. There was security trying to keep the locals away from their prime viewing spot! Police were even called at one point apparently. The viewing area was the car park, which sloped quite a bit. This would easily fit 600 people IF the Sun was high in the sky, but being so low, everyone was worried about getting a spot where you could actually see the eclipse. The night



before, all you could hear were little groups muttering about plan Bs and Cs. My plan was to set up about 6pm. Coming out of breakfast that morning I looked out at the car park and all the prime spots had been taken. The earliest person to set up was out at 04:30 – 15 hours before the eclipse. Then I was told the next two groups were at 07:30 and 08:30. It got pretty frenetic then.

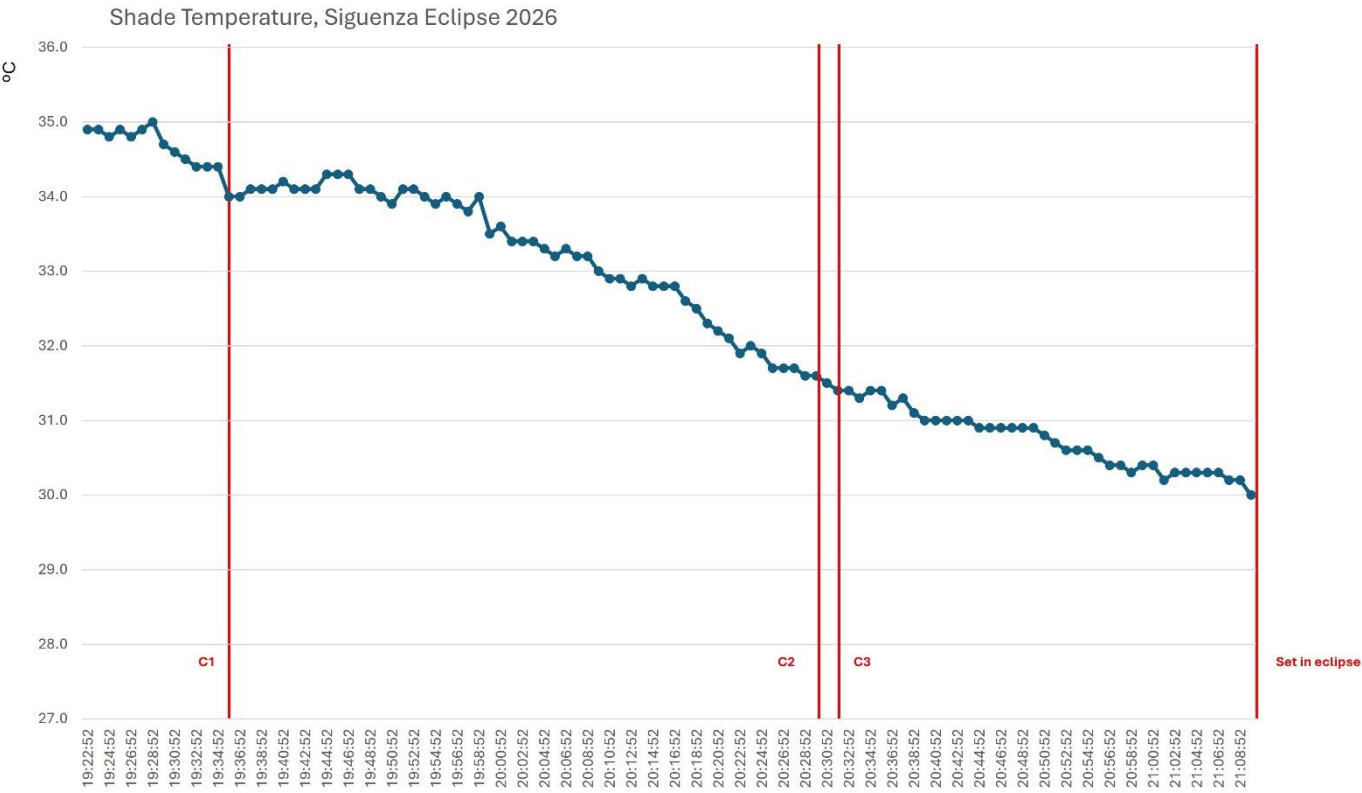
Most of my group were Americans and Canadians (mostly doctors of various sorts). There was a particular family group I had got pretty pally with over the week. An elderly mother and father, thirty-something son and daughter and son's wife (this was their honeymoon). The "kids" all worked for NASA in various interesting roles. They were the 08:30 "setup group" in prime position 3. They had set up a large awning and had bought camping chairs in Valencia just for this occasion. They invited me and half a dozen other people to join them in this tent for the day. We took it in turns to "defend" the spot from interlopers. Everyone moaned about the tent blocking the view, so they had to write a note on the side, assuring everyone we would take it down well before first contact! The kids could not do enough for the "older" folk, they were continually popping DOWN to the village to get tins of coke etc., or queuing in the hotel bar for beer for us. So, I had shelter from the Sun and 40-degree heat, continuous hydration, somewhere to sit, excellent company and a prime viewing site. I could not have asked for better.

The eclipse itself was one of the best I have seen. A large flare erupted on the left-hand limb of the Sun in exactly the same position as the first diamond ring and Bailey's Beads.

Besides the photography, I did record the shade temperature from before first contact to, in this case, sunset, as the Sun set in eclipse. As can be seen in the graph, the temperature decline is very similar to the normal evening/sunset curve.



From top to bottom:  
1/1600 second ISO 400  
1/500 second ISO 200  
1/60 second ISO 200



Temperature graph take during eclipse

## Adam Honeybell

Having missed the UK eclipse of August 1999 (and various others that I might have considered seeing in the US, Faroe Islands and Australia) the eclipse of August 2026 seemed too good an opportunity to miss. The odds of good weather somewhere in Spain in August were pretty good, and I've been to Spain several times before. You're almost spoilt for choice, although the compromise was that the further north you are, the less certain of good weather you are, but you would get a longer eclipse. I once drove from Asterius to Gijon for a work trip to fix a welding machine, and I distinctly remember it raining a lot. Whenever I thought of Spain prior to that trip I just imagined quite a dry, arid landscape. Northern Spain is much greener (and wetter).

Add to the mix the prospect of wildfires, and the trip took on a more serious tone. The government's advice was not to just stop in some random field or layby in case a nearby wildfire forced road closures. So I asked ChatGPT to monitor the weather and wildfires in Spain and recommend a suitable viewing location during the last few weeks before we went. However, I didn't want to blindly trust it, as AI's can hallucinate very convincingly. The place it selected though could only accommodate 600 people. Which may or may not have been fine (if there was only 598 people, we'd be fine). In the end, we chose another place in Navalafuente, about 70km north of Madrid. This turned out to be a good choice, as our hire car (which we thought would be a Renault clio or similar) was actually a VW Campervan...and electric! So, its range was limited somewhat. On the 87% charge we had, it wouldn't have made it to either the Northern or Southern coasts anyway. And although it was rather a smooth ride, its not exactly the most practical vehicle for the narrow backstreets of Madrid, where our hotel was located. Also, the underground car park was not going to be easy to navigate.

There was an official poster for the event in Navalafuente, but the venue was just given as El Tomilliar football pitch— which literally translates as “Thyme Field” and is apparently a commonly used place name in Spain. Nowhere could I find a more official name. We did ask at a local café if they knew about the event, but unfortunately their English was as good as my Spanish (which meant I could order a coffee and beer, but not much else). According to Google Maps there was a football pitch called the Campo de Fútbol Hector Sanchez – but no El Tomilliar. There was a sports centre in the town, with a field next to it, but it looked overgrown and also didn't command much of a view of the horizon, which we'd need since the eclipse happened close to sunset.

So we made our way to the Hector Sanchez sports field, and found a few other people there waiting too. None of them knew if this was the right place either, but my wearing a Nasa cap must have made me see like I might have more information. My thought was that if the locals didn't know where it was either, what chance did I have? But, for several people to have made the same mistake began to convince me that maybe this was the right place after all.

And so it was. The event was free, but volunteers were handing out bottles of water and eclipse glasses. A DJ was also there, playing upbeat EDM music. I don't know how many people turned up, but it must have been a few hundred at least. The pitch was astroturf too, so I guess the risk of fire was reduced. From our position though there was a range of mountains in the distance, and I was a little concerned if we would actually see it at all...but I reasoned that they would have checked this.

I set up my camera on a tripod, with only the intention of taking photos during totality (having not brought any solar filter with me). I also set up a second camera on timelapse to capture the change in light (but I've yet to process that – the exposure automatically adjusts and I want to make it look more like it really did). I had lots of people telling me beforehand that I should make sure everything is set up BEFORE the second contact, so you remember to experience the event...after all, there are bound to be thousands of photos of it, and frankly probably better than I'd be taking.

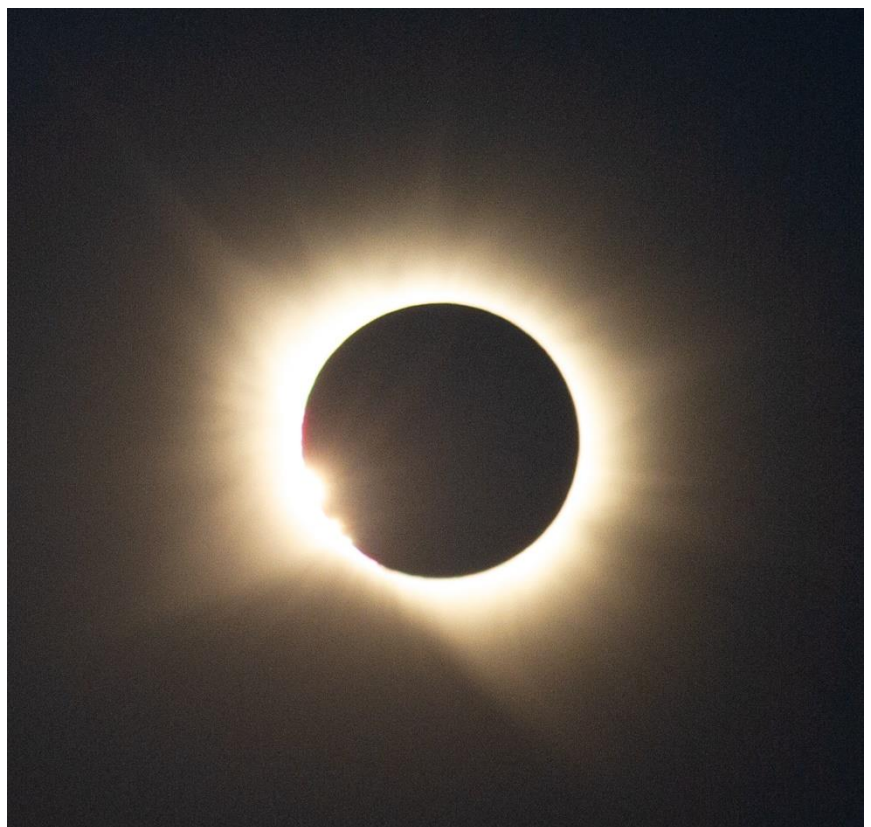
The atmosphere on the pitch was good, everyone seemed to be having a good time, enjoying the novelty of it all even if it was scorching hot. When first contact began, it was barely noticeable, even through the eclipse glasses. All the camera equipment was set up, so I just had to click the shutter once in a while (with a second pair of eclipse glasses positioned over the lens with some insulation tape).

As second contact drew near, there was a palpable sense of anticipation (at least I felt there was). The crowd that had been quite merry and jolly became a bit more subdued. I don't know how many have ever seen an eclipse before, but I guess most hadn't. I must admit I was getting a bit nervous too, though I'm not sure why. I think I was worried about missing a good shot of the eclipse...which was precisely what everyone said NOT to worry about. But still, I did. I can understand why those in the UK may have felt a bit disappointed by the partial eclipse. Even at 90% coverage, the sun is still very bright, too bright to look at...though the sky had darkened.

It wasn't until the last couple of minutes that the sky got almost as dark as night. At this point the DJ has put on his ambient tunes, and the whole atmosphere changed. The sky wasn't quite black, but nearly. It was as if I didn't really believe this was going to happen, but as the air grew cooler and the light faded we saw the very last slivers of the sun shrink to a tiny but brilliant "bailey bead", before finally become totally covered. A cheer went up from the crowd and then we could at last see the corona. I wasn't sure what I would see, but the corona looked quite pale to my eyes, almost like a cloud. I think it must be a similar effect to viewing auroras. Camera images pick up the colour more strongly than the human eye. But...I forgot my distance glasses! I am a little short-sighted but having been in bright sun all afternoon I hadn't considered that when totality arrived that it would be too dark for them and my normal glasses weren't to hand. So, I didn't quite get the subtle details, though my camera did. I didn't waste my time trying to locate them, and just tried to appreciate the view. Naomi had taken a few videos too, and captured second contact well. I noticed Jupiter high up to the south and a few other bright stars too.

The whole thing only lasted about 90 seconds, before the sun suddenly appeared again. I think third contact is probably not given the respect it deserves...your eyes are more dilated, and the brief moment of brilliance could actually be quite damaging to your eyes. I think you can get eclipse timers/alarms to warn you to cover your eyes before the sun arrives, but for the next few days I was worried I might have retinal damage, as I could see a faint dark smudge in my night vision. A trip to my opticians a few days later put my mind at rest though, they scanned my retinas and saw no obvious damage. For all I know, it might have been there for some time and I just became paranoid. Of course, we all know not to look at the sun...but an eclipse seems to override your common sense. I kept my eclipse glasses on most of the day, but adjusting the camera and checking requires you to take them off. That's where you're at risk.

I'm very glad we made the effort, it was a sight to see, and one I recommend everyone to see at least once.

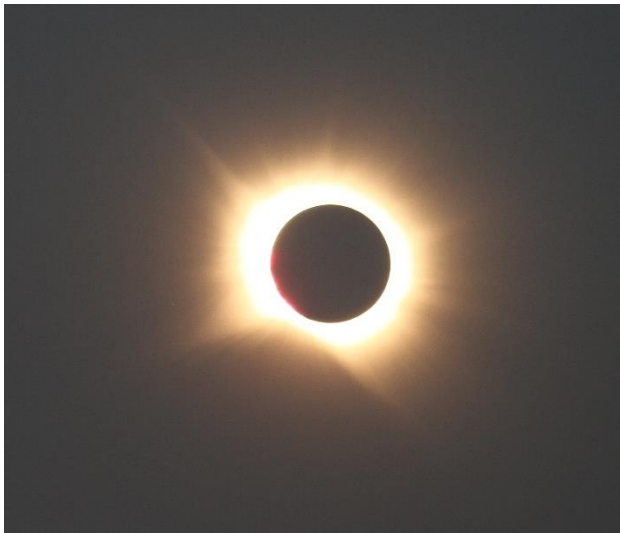


A moment before totality. Canon 7D, 300mm ISO 400 1/25S, F/5





El Tomillar Football pitch, Navalafuene, Spain



Totality and third contact: I had already a programmed in a custom bracketing setting which I have used for the moon (since its impossible to expose for the moon and landscape). I really needed several more bracketing stops (I only had 3). But the works well enough.

Both shot with Canon 7D, 300mm lens.ISO400 1/25S F/5

Matt Leeks – Partial Solar Eclipse  
Sutton Heath



View of partial eclipse with Hydrogen-Alpha filter. This reveals the photosphere and shows a prominence on the limb

