



# OASI News

The newsletter of the Orwell Astronomical Society (Ipswich).  
Registered charity 271313.

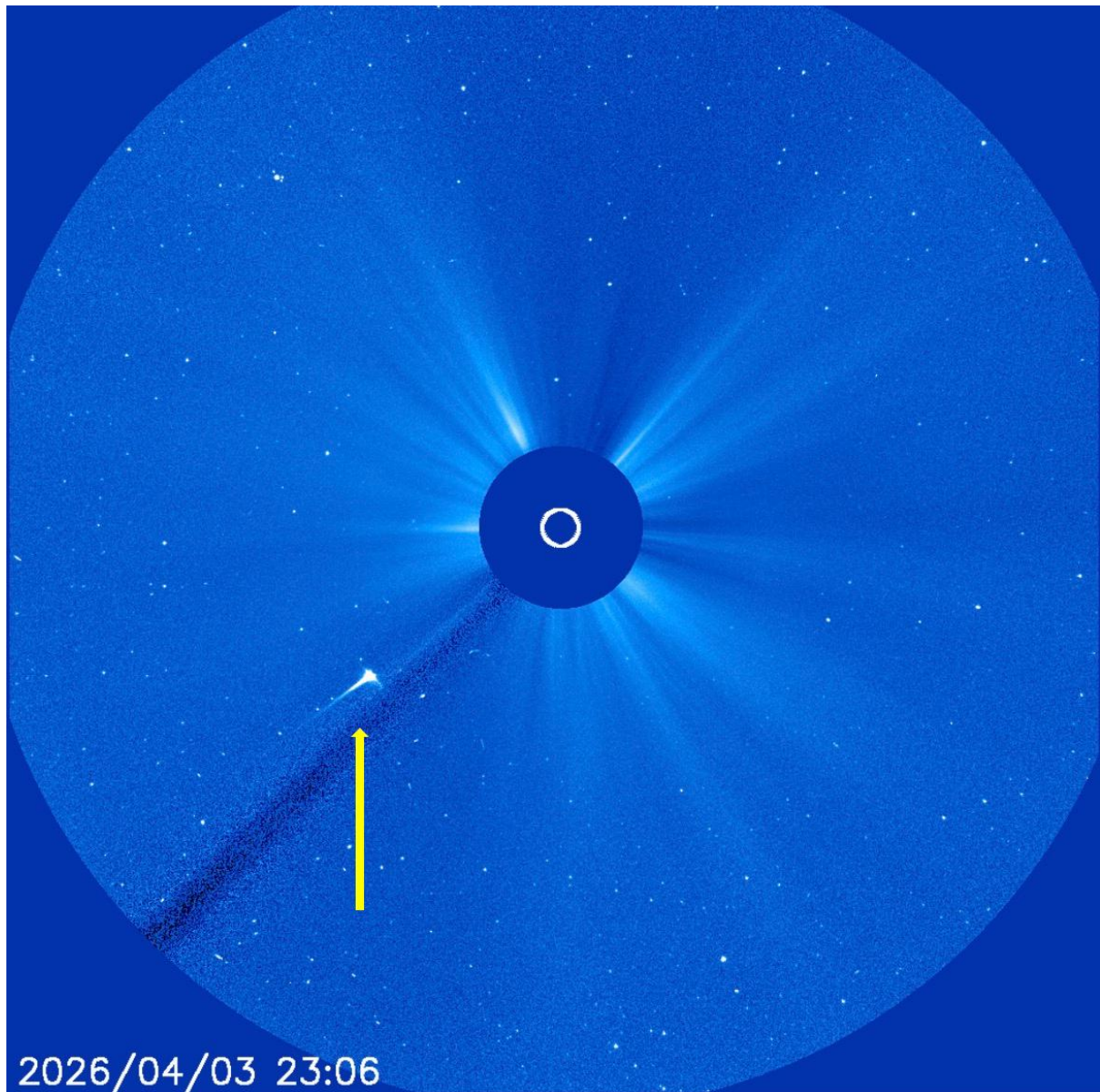


Image by the SOHO LASCO C3 coronagraph of Comet MAPS (C/2026 A1) approximately 15 hours before perihelion. Although there were hopes that the comet might achieve naked eye visibility around perihelion, there were no reports of naked eye observations. Alas, the comet did not survive perihelion passage.

## Contents

Chairman’s Message .....	3
Committee & Trustees .....	3
Contact Details .....	4
OASI News .....	4
Events .....	4
OASI @ Orwell Park .....	6
OASI @ Newbourne .....	7
Outreach Events .....	7
The Night Sky in May 2026.....	8
RIP Comet MAPS! .....	10
Final Lecture of the Spring 2026 Season.....	11
A Visit to the Whipple Museum, Cambridge .....	12
Mizar and Alcor: A Naked Eye Double Star .....	14
Members’ Observations.....	16

## Chairman's Message

Dear Members,

With all the bad things going on in the world at the moment, it was refreshing to see some good news, for a change, with NASA's hugely successful Artemis II mission to the Moon. This was the first crewed mission to travel beyond low Earth orbit since Apollo 17 in December 1972.

I am just old enough to remember the Apollo missions of the late 60's and early 70's and this was one of the main reasons for getting me interested in space and astronomy. Let's hope that the Artemis missions will continue, with humans eventually walking on the surface of the Moon again, perhaps igniting an interest in astronomy for a future chairperson of OASI!

I hope to see you at one of our meetings in May, hopefully we can observe the Moon!

Clear skies!

Andy Gibbs,

Chairman.

## Committee & Trustees

<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> <a href="#">Robin Carpenter</a> <a href="#">Martin Cook</a> <a href="#">Adam Honeybell</a> <a href="#">Matt Leeks</a> <a href="#">Peter Richards</a> <a href="#">Paul Whiting</a> <a href="#">Mike Whybray</a>  <a href="#">Andy Willshire</a>	Committee meeting minutes, web site. OASI@Newbourne deputy coordinator. Membership, Tomline refractor maintenance & user testing. Newsletter. Safety & security. Lecture meetings. OASI@Newbourne coordinator. Astronomy workshops, Child Protection Officer, Orwell Park School astronomy. Librarian.
<b>Trustees</b>	Bill Barton Neil Morley David Payne	

## Contact Details

Events: [www.oasi.org.uk/Events/Events.php](http://www.oasi.org.uk/Events/Events.php)  
Email queries: [info@oasi.org.uk](mailto:info@oasi.org.uk)  
Website: [www.oasi.org.uk](http://www.oasi.org.uk)  
Facebook: [www.facebook.com/groups/445056098989371](https://www.facebook.com/groups/445056098989371)  
YouTube: [www.youtube.com/@orwellastronomical425](https://www.youtube.com/@orwellastronomical425)  
WhatsApp: email Andy Gibbs ([chairman@oasi.org.uk](mailto:chairman@oasi.org.uk)) to be added to the WhatsApp group.  
Message board: <https://groups.io/g/OASI> (members-only).  
Orwell Park Observatory (meeting nights only): tel. 07960 083714

## OASI News

Edited this month by James Appleton.

News, pictures, observing reports, notices of events and articles of general interest are always welcome for the Newsletter! Please send material to [news@oasi.org.uk](mailto:news@oasi.org.uk). The closing date for material is the 15<sup>th</sup> day of the month.

The Newsletter archive is at [www.oasi.org.uk/NL/NL\\_archive.php](http://www.oasi.org.uk/NL/NL_archive.php).

Authors: please note that the Newsletter is publicly available!

## Events

Date, Time & Location	Contact	Event
Mon 04 May 2026 19:30 <a href="#">Newbourne Village Hall</a>	Paul Whiting, FRAS <a href="mailto:newbourne@oasi.org.uk">newbourne@oasi.org.uk</a>	<a href="#">Newbourne meeting - beginners and new members welcome!</a> 19:30 Doors open.
Wed 06 May 2026 20:00 <a href="#">Orwell Park Observatory</a>	Martin Cook <a href="mailto:membership@oasi.org.uk">membership@oasi.org.uk</a>	General observing for members of OASI.
Wed 13 May 2026 20:00 <a href="#">Orwell Park Observatory</a>	Martin Cook <a href="mailto:membership@oasi.org.uk">membership@oasi.org.uk</a>	General observing for members of OASI.
Mon 18 May 2026 20:00 Zoom	Paul Whiting, FRAS <a href="mailto:treasurer@oasi.org.uk">treasurer@oasi.org.uk</a>	Pre-recorded talk: <i>The Physics of Black Holes</i> by Chris Impey. (Zoom login details are provided by email to members.)
Wed 20 May 2026 20:00 <a href="#">Orwell Park Observatory</a>	Martin Cook <a href="mailto:membership@oasi.org.uk">membership@oasi.org.uk</a>	General observing for members of OASI.
Mon 25 May 2026 19:30 <a href="#">Newbourne Village Hall</a>	Paul Whiting, FRAS <a href="mailto:newbourne@oasi.org.uk">newbourne@oasi.org.uk</a>	<a href="#">Newbourne meeting - beginners and new members welcome!</a> 19:30 Doors open. 19:45 <i>Sky Notes</i> by Bill Barton, FRAS.

<b>Date, Time &amp; Location</b>	<b>Contact</b>	<b>Event</b>
Wed 27 May 2026 20:00 <a href="#">Orwell Park Observatory</a>	Martin Cook <a href="mailto:membership@oasi.org.uk">membership@oasi.org.uk</a>	General observing for members of OASI.
Fri 29 May 2026 20:00 Zoom	Andy Gibbs <a href="mailto:chairman@oasi.org.uk">chairman@oasi.org.uk</a>	Committee meeting via Zoom. All members are invited to attend.
Wed 03 Jun 2026 20:00 <a href="#">Orwell Park Observatory</a>	Martin Cook <a href="mailto:membership@oasi.org.uk">membership@oasi.org.uk</a>	General observing for members of OASI.
Mon 08 Jun 2026 19:30 <a href="#">Newbourne Village Hall</a>	Paul Whiting, FRAS <a href="mailto:newbourne@oasi.org.uk">newbourne@oasi.org.uk</a>	<a href="#">Newbourne meeting - beginners and new members welcome!</a> 19:30 Doors open.
Wed 10 Jun 2026 20:00 <a href="#">Orwell Park Observatory</a>	Martin Cook <a href="mailto:membership@oasi.org.uk">membership@oasi.org.uk</a>	General observing for members of OASI.
Mon 15 Jun 2026 20:00 Zoom	Paul Whiting, FRAS <a href="mailto:treasurer@oasi.org.uk">treasurer@oasi.org.uk</a>	Pre-recorded talk: <i>The Search for Planet B</i> by Hannah Osborne. (Zoom login details are provided by email to members.)
Wed 17 Jun 2026 20:00 <a href="#">Orwell Park Observatory</a>	Martin Cook <a href="mailto:membership@oasi.org.uk">membership@oasi.org.uk</a>	General observing for members of OASI.
Sun 21 Jun 2026 09:30-16:00 <a href="#">East Suffolk Wireless Revival</a>	Paul Whiting, FRAS <a href="mailto:treasurer@oasi.org.uk">treasurer@oasi.org.uk</a>	Public access event. Solar observing. Booking not necessary.
Mon 22 Jun 2026 19:30 <a href="#">Newbourne Village Hall</a>	Paul Whiting, FRAS <a href="mailto:newbourne@oasi.org.uk">newbourne@oasi.org.uk</a>	<a href="#">Newbourne meeting - beginners and new members welcome!</a> 19:30 Doors open. 19:45 <i>Sky Notes</i> by Bill Barton, FRAS.
Wed 24 Jun 2026 20:00 <a href="#">Orwell Park Observatory</a>	Martin Cook <a href="mailto:membership@oasi.org.uk">membership@oasi.org.uk</a>	General observing for members of OASI.
Sat 27 Jun 2026 11:00-16:00 <a href="#">Christchurch Park, outside Christchurch Mansion</a>	Roy Gooding <a href="mailto:r.gooding908@btinternet.com">r.gooding908@btinternet.com</a>	Public access event. Solar observing. Booking not necessary.
Tue 30 Jun 2026 11:00 <a href="#">The Hold, Fore Street, Ipswich</a>	Bill Barton, FRAS <a href="mailto:bill.barton@oasi.org.uk">bill.barton@oasi.org.uk</a>	Public access event. A presentation by Bill, <i>The Other Side of Basil Brown</i> , about Suffolk archaeologist Basil Brown (1888-1977), concentrating on his work in astronomy. The talk is in association with Suffolk Archives' summer 2026 exhibition <i>The Moon: Our Nearest Neighbour</i> . <a href="#">Details</a> .

The latest list of events is available online: <https://www.oasi.org.uk/Events/Events.php>.

OASI events are free for members to attend. All members are welcome at all events.

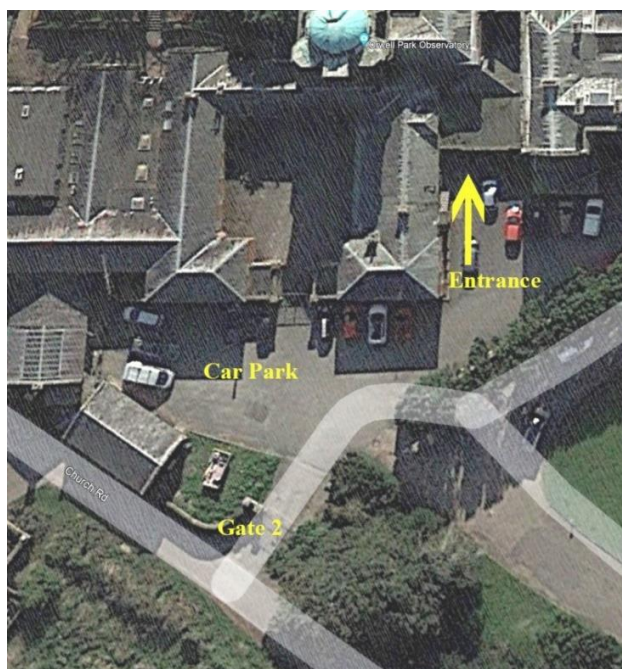
## OASI @ Orwell Park

We hold meetings at Orwell Park Observatory every Wednesday evening from 8pm.

Access is via the second gate on Church Road, Nacton. (What3Words: [tour.fuse.banks.](https://www.what3words.com/tour/fuse/banks))

Access requires the combination code or a key fob to open the gate and a key fob to open the door to the observatory. Regular attendees will be provided with a key fob – ask any committee member for details. If you do not have a key fob, ring the observatory number and someone will let you in.

Attendees must follow the below route. Please keep noise to a minimum to avoid disturbing pupils and staff at Orwell Park School.



- Enter through the gate south (towards the River Orwell) of the main gate of the school. The combination code or a key fob is required to open the gate.
- Park as indicated on the above map.
- Enter the school through the double black doors as indicated on the map. A key fob is 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 turn immediately right.
- Pass through the single door and follow the stairs immediately on the left to the observatory.

## OASI @ Newbourne

Meetings at Newbourne are held in the Village Hall, Mill Lane, IP12 4NP (What3Words: scars.atlas.printing.)

Doors open at 7.30pm.

Visitors are welcome. Anyone visiting more than twice will be asked to become a member of OASI.

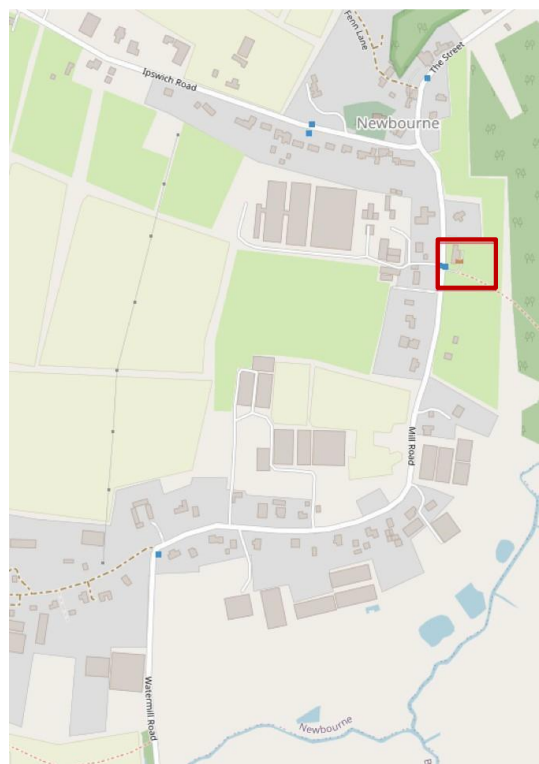
Newbourne dates for 2026		
May	04#	25(S, A)
June	08	22(S)
July	13	27(S, A)
August	10	24(S)
September	14	28(S, A)
October	12	26(S)
November	09	23(S, A)
December	14(Q)	

A = Astro News by Paul Whiting.

S = Sky Notes by Bill Barton.

Q = quiz by Paul Whiting.

Newbourne Meetings are generally held on the 2<sup>nd</sup> and 4<sup>th</sup> Mondays of each month. # indicates a deviation from the usual monthly pattern.



## Outreach Events

The following outreach events have been organised. Assistance will be appreciated from as many members as possible. Enthusiasm and willingness to engage with members of the public are more important than expertise! Contact the organisers with offers of assistance or to ask for more information.

Date	Event	Organiser	Status
Sunday 21 June	Solar observing at Kirton Playing Field, Wireless Revival	Paul Whiting	Confirmed
Saturday 27 June	Solar observing at Christchurch Mansion*	Roy Gooding	Confirmed
Saturday 08 August	Solar observing outside Suffolk University**	Andy Gibbs	Confirmed
Monday 31 August	Solar observing at Bawdsey Radar Museum	Paul Whiting	Confirmed
Friday 18 September	Lunar observing at Newbourne Village Hall**	Andy Gibbs	Confirmed

\* The alternative date originally proposed for this event, Saturday 06 June, has been cancelled.

\*\* Event is in association with *The Hold* as part of the exhibition *The Moon: Our Nearest Neighbour*.

# The Night Sky in May 2026

Event times are in BST.

Data for Sun, Moon, planets and ISS are from <https://heavens-above.com> for the location of Orwell Park Observatory, 52.0096°N, 1.2305°E. Data for meteor showers are from the *BAA Handbook* for 2026.

Object	Date	Rise	Set	Mag.
Sun ☉	1	05:26	20:20	
	31	04:42	21:04	
Moon ☾	1	20:42	04:49	
	31	22:03	03:59	
Mercury ☿	1	05:15	18:44	-0.7
	31	05:38	22:43	-0.5
Venus ♀	1	06:35	22:54	-3.8
	31	06:59	23:46	-3.9
Mars ♂	1	04:51	17:48	1.2
	31	03:33	18:00	1.3
Jupiter ♃	1	09:30	01:48	-1.9
	31	07:59	00:06	-1.7
Saturn ♄	1	04:47	17:00	0.9
	31	02:54	15:19	0.9
Uranus ♅	1	06:19	21:58	5.8
	31	04:25	20:10	5.8
Neptune ♆	1	04:32	16:29	7.9
	31	02:35	14:36	7.9

## Meteor showers

Shower	Visibility	Maximum ZHR (*)	Prospects for the UK
Eta Aquarids	19 Apr – 28 May	40 during 06-07 May	Poor

\* ZHR (zenithal hourly rate) is the number of meteors an observer would see in an hour of peak activity if the radiant were at the zenith, assuming perfect conditions.

## Visible passes of the ISS

Date	Mag	Time	Start		Highest Point			End		
			Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
<a href="#">01-May</a>	-2.6	02:15:59	35°	ESE	02:15:59	35°	ESE	02:18:13	10°	E
<a href="#">01-May</a>	-3.8	03:48:55	15°	W	03:51:39	86°	S	03:55:02	10°	E
<a href="#">02-May</a>	-1.2	01:30:01	14°	E	01:30:01	14°	E	01:30:40	10°	E
<a href="#">02-May</a>	-3.9	03:02:58	38°	W	03:04:08	83°	S	03:07:31	10°	E
<a href="#">02-May</a>	-3.7	04:37:33	10°	W	04:40:55	64°	SSW	04:44:15	10°	ESE
<a href="#">03-May</a>	-3.7	02:17:00	65°	ESE	02:17:00	65°	ESE	02:19:59	10°	E
<a href="#">03-May</a>	-3.8	03:50:01	10°	W	03:53:24	76°	S	03:56:47	10°	ESE
<a href="#">04-May</a>	-1.9	01:31:01	23°	E	01:31:01	23°	E	01:32:26	10°	E
<a href="#">04-May</a>	-3.9	03:03:57	24°	W	03:05:52	83°	S	03:09:14	10°	E
<a href="#">04-May</a>	-3.2	04:39:19	10°	W	04:42:31	39°	SSW	04:45:41	10°	SE
<a href="#">05-May</a>	-3.9	02:18:01	73°	WSW	02:18:18	86°	S	02:21:41	10°	E
<a href="#">05-May</a>	-3.6	03:51:43	10°	W	03:55:01	51°	SSW	03:58:18	10°	ESE
<a href="#">06-May</a>	-2.5	01:32:08	32°	E	01:32:08	32°	E	01:34:05	10°	E
<a href="#">06-May</a>	-3.8	03:05:05	17°	W	03:07:29	64°	SSW	03:10:49	10°	ESE
<a href="#">07-May</a>	-0.9	00:46:26	10°	E	00:46:26	10°	E	00:46:30	10°	E
<a href="#">07-May</a>	-3.9	02:19:24	60°	WSW	02:19:54	76°	S	02:23:16	10°	ESE
<a href="#">07-May</a>	-2.9	03:53:27	10°	W	03:56:26	29°	SSW	03:59:25	10°	SSE
<a href="#">07-May</a>	-1.3	22:16:30	10°	SSW	22:16:33	10°	SSW	22:16:33	10°	SSW
<a href="#">08-May</a>	-2.0	01:34:15	23°	E	01:34:15	23°	E	01:35:40	10°	E
<a href="#">08-May</a>	-3.4	03:07:17	23°	W	03:08:56	39°	SSW	03:12:06	10°	SE
<a href="#">08-May</a>	-2.1	21:29:38	10°	S	21:31:41	15°	SE	21:33:44	10°	ESE
<a href="#">08-May</a>	-3.7	23:04:40	10°	WSW	23:07:56	52°	SSE	23:07:59	51°	SSE
<a href="#">09-May</a>	-1.7	02:23:44	17°	SE	02:23:44	17°	SE	02:24:39	10°	ESE
<a href="#">09-May</a>	-2.1	03:56:56	15°	SW	03:57:38	15°	SW	03:59:42	10°	S
<a href="#">09-May</a>	-3.3	22:17:13	10°	SW	22:20:22	39°	SSE	22:23:32	10°	E
<a href="#">09-May</a>	-3.9	23:53:38	10°	W	23:57:00	83°	S	23:57:04	82°	SE
<a href="#">10-May</a>	-2.9	21:29:51	10°	SSW	21:32:49	29°	SSE	21:35:46	10°	E
<a href="#">10-May</a>	-3.9	23:05:59	10°	WSW	23:09:20	76°	S	23:11:43	18°	E
<a href="#">11-May</a>	-2.5	00:42:45	10°	W	00:44:41	32°	W	00:44:41	32°	W
<a href="#">11-May</a>	-3.8	22:18:20	10°	WSW	22:21:40	64°	SSE	22:25:00	10°	E
<a href="#">11-May</a>	-3.9	23:55:04	10°	W	23:58:25	83°	S	23:58:51	65°	ESE
<a href="#">12-May</a>	-3.6	21:30:45	10°	WSW	21:34:00	51°	SSE	21:37:17	10°	E
<a href="#">12-May</a>	-3.9	23:07:21	10°	W	23:10:43	86°	S	23:12:51	21°	E
<a href="#">13-May</a>	-2.2	00:44:09	10°	W	00:45:47	25°	W	00:45:47	25°	W

Date	Mag	Time	Start		Highest Point			End		
			Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
<a href="#">13-May</a>	-3.9	22:19:38	10°	W	22:22:59	83°	S	22:26:21	10°	E
<a href="#">14-May</a>	-3.8	21:31:54	10°	WSW	21:35:15	75°	S	21:38:36	10°	E
<a href="#">14-May</a>	-3.9	23:08:40	10°	W	23:12:01	76°	S	23:13:32	30°	ESE
<a href="#">15-May</a>	-1.5	00:45:34	10°	W	00:46:27	16°	W	00:46:27	16°	W
<a href="#">15-May</a>	-3.8	22:20:54	10°	W	22:24:15	83°	S	22:27:21	12°	E
<a href="#">15-May</a>	-2.9	23:57:43	10°	W	00:00:17	36°	SW	00:00:17	36°	SW
<a href="#">16-May</a>	-3.8	21:33:07	10°	W	21:36:29	86°	S	21:39:51	10°	E
<a href="#">16-May</a>	-3.6	23:09:54	10°	W	23:13:11	52°	SSW	23:14:05	38°	SSE
<a href="#">17-May</a>	-3.8	22:22:06	10°	W	22:25:26	65°	SSW	22:27:53	17°	ESE
<a href="#">17-May</a>	-1.9	23:59:10	10°	W	00:00:48	19°	WSW	00:00:48	19°	WSW
<a href="#">18-May</a>	-3.8	21:34:17	10°	W	21:37:38	76°	S	21:41:00	10°	ESE
<a href="#">18-May</a>	-2.8	23:11:10	10°	W	23:14:10	30°	SSW	23:14:36	29°	SSW
<a href="#">19-May</a>	-3.1	22:23:15	10°	W	22:26:26	40°	SSW	22:28:24	19°	SE
<a href="#">20-May</a>	-3.4	21:35:23	10°	W	21:38:39	53°	SSW	21:41:56	10°	ESE
<a href="#">20-May</a>	-1.8	23:12:48	10°	WSW	23:14:55	16°	SW	23:15:07	16°	SSW
<a href="#">21-May</a>	-2.2	22:24:33	10°	W	22:27:14	22°	SSW	22:28:56	15°	S
<a href="#">22-May</a>	-2.6	21:36:29	10°	W	21:39:29	30°	SSW	21:42:29	10°	SE
<a href="#">23-May</a>	-1.3	22:26:47	10°	WSW	22:27:47	11°	SW	22:28:48	10°	SSW

## RIP Comet MAPS!

Comet MAPS, officially C/2026 A1 (MAPS), is no more! Perihelion was at 14:17 UT on 04 April 2026, at a distance of only 163,000 km above the photosphere. At perihelion, the comet was subject to a solar energy flux of 41.8 MW/m<sup>2</sup>. The comet failed to reappear from behind the Sun after perihelion, so was likely vapourised.

See the front page of this issue of the *Newsletter* for an image from the LASCO C3 coronagraph aboard the SOHO spacecraft, taken at 23:06 UT on 03 April, showing the comet approximately 15 hours before perihelion. (SOHO is the Solar and Heliospheric Observatory, a joint NASA/ESA spacecraft launched in December 1995. LASCO is the Large Angle and Spectrometric COronagraph, one of 11 instruments aboard SOHO. LASCO is a set of three coronagraphs which image the solar corona from 1.1 to 32 solar radii, i.e. 800,000-22,500,000 km.)

## Final Lecture of the Spring 2026 Season

On 24 April, [Chris Mead, Chair & Secretary of DASH Astro](#), delivered a fascinating talk on *Astronomy in Uzbekistan*. The lecture began in the violent and bloody times of the fourteenth and fifteenth centuries in the region, described the astronomical heritage left by Ulugh Beg (1394-1449), illustrated some Soviet-era astronomical facilities and finally provided an outlook for the future of astronomy in the country. Chris's account, a combination of travelog and scientific history, was quite different from the usual astronomical lecture, and held the audience spellbound. It provided a splendid finale to OASI's Spring 2026 lecture season.

Please contact Pete Richards, OASI Lecture Co-ordinator, with any suggestions or requests for future lecture topics: [lectures@oasi.org.uk](mailto:lectures@oasi.org.uk).



**Chairman Andy Gibbs introduces lecturer Chris Mead at the start of the final lecture of the 2026 spring season, 24 April 2026.**

# A Visit to the Whipple Museum, Cambridge

Neil Short, with another edition of *Short's World*.

On 11 June 2025 I took part in a tour with the Institute of Physics to Cambridge. The first stop was the Whipple Museum, and the second the Mullard Radio Astronomy Observatory (MRAO), southwest of the town. This report covers the first stop.

The Whipple Museum was founded in 1944 following the donation of Robert Whipple's collection of some 1000 pieces of scientific measuring equipment to Cambridge University. Whipple was Managing Director of the Cambridge Scientific Instrument Company and was an avid collector! The museum grew to house a range of equipment used by departments of Cambridge University.

The museum is housed in what was originally the Cambridge "Free School" (later the Perse School). The building was completed in 1628 and, whilst undergoing a variety of uses through the ages, became host to the museum in 1956 after being purchased by the Cambridge University Department of the History of Science. Below, I've picked out just a few items of astronomical interest.

The tour started on the first floor with telescopes, but bypassed the 125 mm refractor (1910), presented front and centre to visitors to the gallery, behind which is the first item added to the Whipple collection, a "5-draw" (five sections to draw out) refractor from Italy *circa* 1750. Further on there is a fine large reflecting telescope (230 mm aperture) made by William Herschel *circa* 1790 at the request of King George III. (Note: optics by William Herschel, woodwork by the King's cabinet maker). The King presented the instrument to the Duke of Marlborough for his observatory at Blenheim Palace, and it was eventually donated to the Whipple Collection in 1944. One final, unusual item in the collection is an 1860 umbrella for the man about town, containing a telescope, thermometer, spyglass, microscope and sundial!



**125 mm refractor, 1910.**



**230 mm reflector with mirror by Herschel.**

The museum had on show a couple of orreries, clearly constructed for the wealthy and astronomically discerning classes. Both were constructed in the 18<sup>th</sup> century, indeed pre-March 1781, as Uranus was not included in the mechanisms.

The second floor housed a representation of the "Victorian parlour" of the scientifically minded person (usually gentleman) of the 19<sup>th</sup> Century. A collection of globes was presented towards the back of the gallery. There were globes of the surface of several planets and of particular interest to me were globes of Mars, fabricated *circa* 1890–1920, based on the maps drawn by the astronomer

Percival Lowell, who believed he had sighted a planetary network of canals. (I have a small version of such a globe at home).



**5-draw refractor, circa 1760.**



**The decorative case of an orrery.**



**An orrery mechanism.**



**Globe of Mars.**

The museum houses a treasure trove of scientific equipment, some linked to the major pillars of science in the 18<sup>th</sup> and 19<sup>th</sup> centuries. I found it to be of great interest, although the number and nature of the items can be overwhelming! If you are ever in Cambridge with time to spare, I recommend a visit. Entrance is free (donations are welcomed!) and the staff offer tremendous help and support.

Finally, if you are ever in the centre of Cambridge, look out for the Eagle Pub on Bene't Street (yes, it really is spelt that way). This 14<sup>th</sup> century hostelry includes a (locally) famous "RAF bar" with insignia of local squadrons from World War I to the current day. Of interest from a scientific viewpoint: it was the oft-frequented venue for Francis Crick and James Watson who, on 28 February 1953 walked into the bar and stated, "We have discovered the secret of life", a reference to their discovery of the double helix structure of DNA.

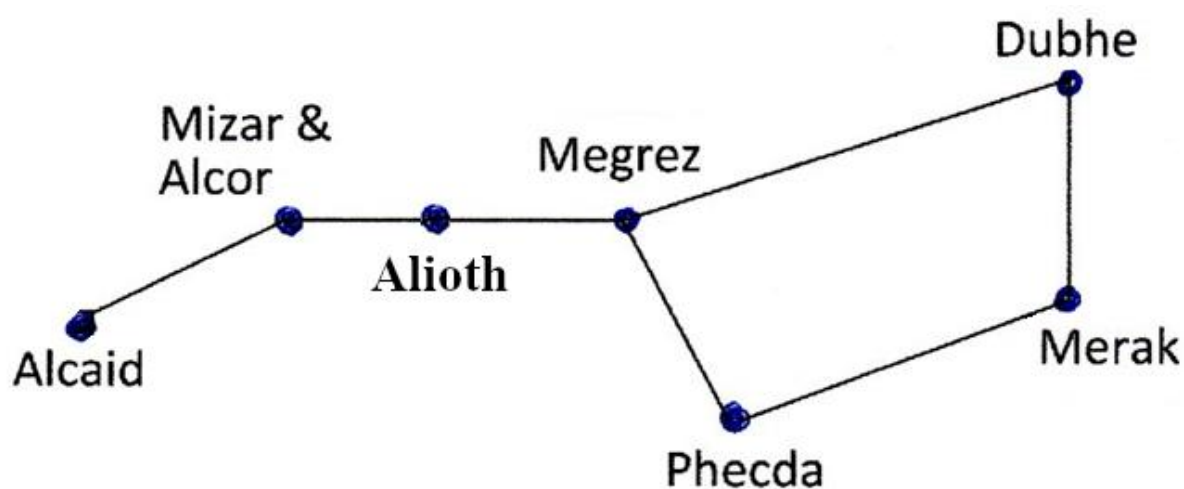
Next month in *Short's World*: a visit to the MRAO, Cambridge.

## Mizar and Alcor: A Naked Eye Double Star

An article from the library by Andy Willshere.

Mizar and Alcor nestle in the constellation Ursa Major (also known as The Plough or Big Dipper). The constellation is one of the most readily identifiable patterns in the night sky and the two stars sit in the bend of the handle making them easy objects to identify. Even mild light pollution does not prevent their identification, and a 60mm refracting telescope will reveal their form.

Even before the advent of the telescope, ancient Arab astronomers used the stars as a test of eyesight and called them “the horse and the rider”. They were also noted in Roman scripts and were known in Japan as “Jinsei” or life, which symbolised a fellow traveller.



### The Plough

The telescope revealed that the pair was much more complex than a simple double star! In 1617 an Italian astronomer, Bernedetto Castelli, a student of Galileo, looked through his telescope at Mizar, and found that it was itself a double star. This was the first astronomical telescopic binary ever noted. Today we know that Alcor is a binary star and Mizar a quadruple system, together forming a grouping of six stars.

Mizar and Alcor are approximately 83 light years from the sun (measured by the Hipparcos astrometry satellite) with a suggestion of being gravitationally bound. Their orbital period is probably in the order of hundreds of thousands of years. The stars of Alcor are 1.2 light years away from those of Mizar. Both Mizar and Alcor exist within the Ursa Major Moving Group.

Mizar is a visual double with components separated by 14.4 arcseconds. Each component is a spectroscopic binary with a combined magnitude of 2.04. Components of the visual double are known as Mizar A and B and their spectroscopic components as Aa, Ab, Ba and Bb. The components of Mizar A have a brightness 35 times that of the Sun, and they take approximately 20 days and thirteen hours to orbit each other. The components of Mizar B take about six months to orbit each other. The only difference noted between Mizar Aa and Ab is that they have fractionally different radial velocity which suggests a small difference in mass. Spectral lines show that they are both Ap stars, i.e. chemically peculiar, as well as having a slower rotation rate than normal A and B class stars.

Alcor has a magnitude of 4.0. In 2009 a companion star was discovered; named Alcor B, it is a main sequence red dwarf of magnitude 8.8, one second of arc distant from Alcor A.

Just imagine that hundreds of years ago, Galileo (1564-1642) observed both Mizar and Alcor, initially with the naked eye, and later with a telescope. The stars thus form a bridge between ancient peoples looking to the stars and modern highly technical astronomy. If this is your first encounter with constellations, the pair can be used as a stepping- stone for further exploration.

**References:**

[Mizar and Alcor - Wikipedia](#)

[Mizar and Alcor in the bend of the Big Dipper](#)

[Mizar and Alcor: the Plough's famous double star | BBC Sky at Night Magazine](#)

## Members' Observations

### Carl Baldwin

Carl's images displayed this month are the initial product of a newly acquired mono camera and imaging wheel. His complete imaging system is:

- Sky-Watcher SkyMax 180 Pro (Maksutov Cassegrain).
- Sky-Watcher EQ6R-Pro mount.
- Player One Saturn-M SQR mono camera.
- LRGB filter wheel.

The filter wheel is attached through a Celestron Ultima Duo eyepiece (essentially a repackaged Baader Hyperion). The filter wheel screws directly onto one side of the eyepiece, the nosepiece of the camera on the other. (Initial attempts to include a Barlow lens in the optical train were not successful and have been abandoned for the time being!)

21 March 2026

Jupiter and Europa (left of the planet) imaged 20:30-20:36 UT. The image is the output from a trial run of the new camera and filters. To reduce the number of changes relative to the previous process, the filter wheel was not used and filters were changed manually. This resulted in an overall duration of imaging longer than is ideal for Jupiter (durations need to be constrained because of the rapid rotation of the planet). In addition, one of the colours is out of alignment. However, clearly the image represents a very promising first attempt and we can expect lovely images once the process is thoroughly debugged!

02 April 2026

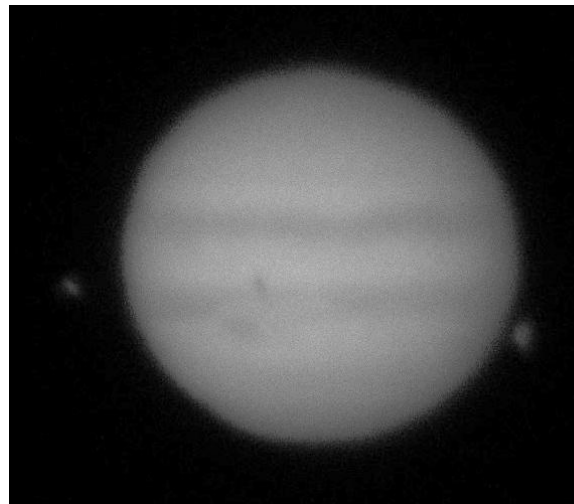
A single-shot image of Jupiter with Io to the right and Ganymede to the left. (Contrast around the moons has been significantly boosted to make them visible.) The shadow of Ganymede is visible above the great red spot. Visibility was not perfect, but was good enough to enable further experimentation with the new camera.

07 April 2026

Image captured 20:57-21:00 UT.



21 March 2026



02 April 2026



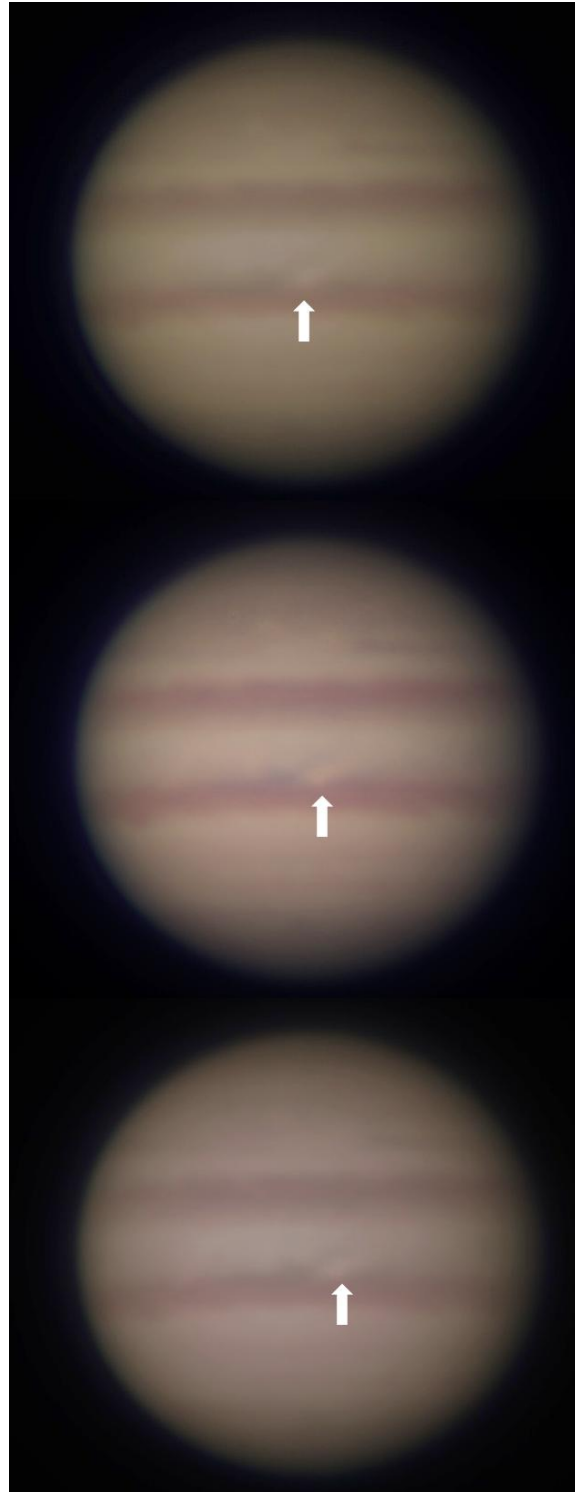
07 April 2026

Just how quickly does Jupiter rotate? The rotation period in the equatorial region is 9h 50m 30s, and this can result in blurring if images span a duration of more than a few minutes.

The sequence of three images to the right illustrates the effect of such rapid rotation. Carl took the images on 15 April 2026, through the Tomline Refractor, using the Player One camera, at the following times (UT, top to bottom):

- 20:30 - 20:33,
- 20:34 - 20:38,
- 20:39 - 20:42.

They illustrate show how much the position of the Great Red Spot changed in a period of only 12 minutes.



**Andy Gibbs**

07 April 2026.

Jupiter imaged at 21:19. 200mm Meade LX200 ACF, ZWO ASI 178mc camera and 2.5x Barlow lens. Software: Sharpcap 4, Autostakkert!3, Registax 6 and Affinity Photo 2.



**Steve McElvanney**

Images captured with a ZWO FF80 on AM3 mount using ASI2600 MC Air camera. No filters.  
Processed in Pixinsight.

NGC2403 in Camelopardalis. Imaged during late March and early April 2026 (last sub exposed on 06 April). Stack of 242 x 180 s exposures.



Unfortunately, changes to the usual imaging process in Pixinsight resulted in an artefact when the galaxy was pasted back into to the sky: this is in the form of a dark, linear feature just underneath the right star of the bright pair immediately above of the galaxy. The artefact is visible on zooming in to the image at 5x or so.

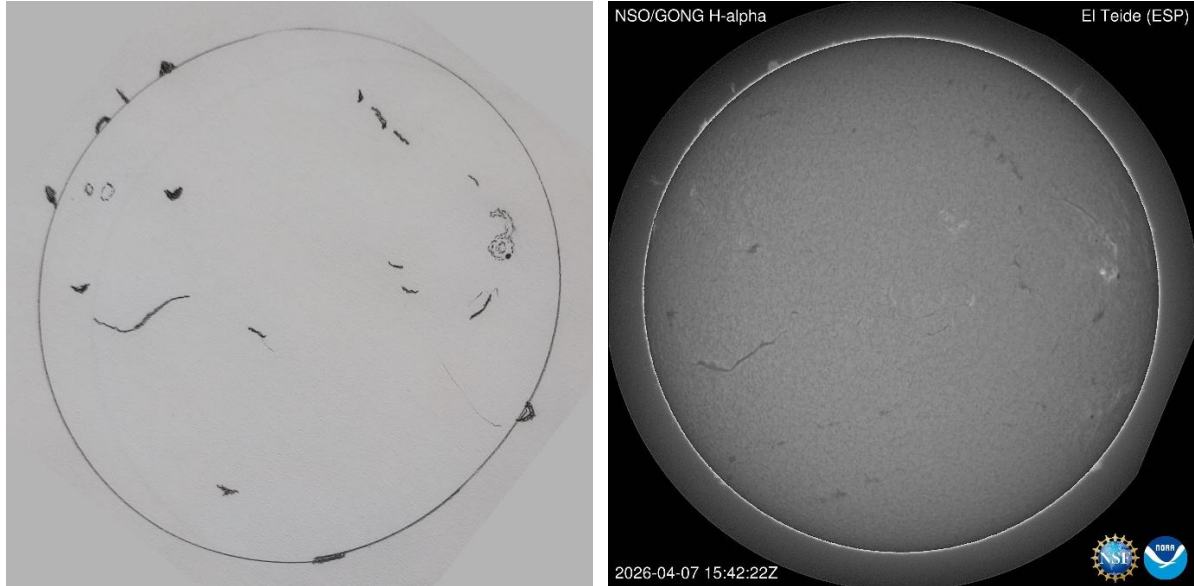
Markarian's Chain, a group of galaxies in the Virgo Cluster lying along a smooth curve. Imaged on 07 April 2026; stack of 59 x 180s exposures. The galaxies were discovered by Charles Messier and William Herschel. The Armenian astrophysicist, Benjamin Markarian, discovered their common motion in the early 1960s.



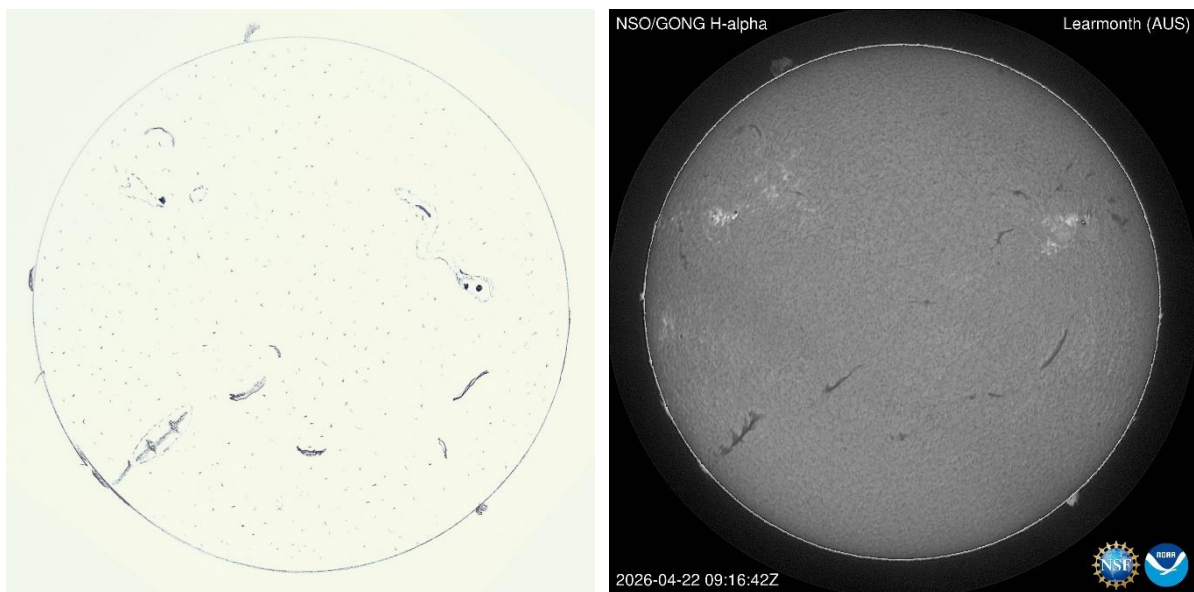
## Neil Morley

Sketches of the solar disk in H $\alpha$  light drawn at the eyepiece of a Lunt LS35 solar telescope and, for comparison, corresponding images taken on the same day by GONG (Global Oscillation Network Group) at the US National Solar Observatory.

07 April 2026: twenty-five and 20 mm Plössl eyepieces used (with a B400 diagonal), providing magnifications of 16x and 20x.



22 April 2026, 13:00 – 13:15. Twenty mm Plössl eyepiece used (with a B400 diagonal) providing magnification of 20x.



H $\alpha$  light is visible radiation produced by a Hydrogen atom. According to the Bohr model of the atom, electrons can exist in defined energy levels orbiting the nucleus. The atom emits H $\alpha$  light when an electron transitions from the third level to the second. The radiation is deep red in colour, wavelength 656.5nm.

**Louise Manning**

C2025 R3 (PanSTARRS) captured in the early morning of 12 April with a Seestar C30 "smart" telescope.



## Nigel Evans

Two images of C/2025 R3 (PanSTARRS) taken in the pre-dawn sky of 14 April. The comet was at low altitude, not visible from Nigel's permanently mounted telescope, so the images were captured using portable equipment in his front garden through gaps in the skyline. The weather was not misty as such, but everything had a cold, damp feel to it. [*Typical spring early morning in the UK – Ed.*]

The comet's tail is not particularly prominent from Nigel's suburban sky: adding more exposures taken in the dawn sky did not improve the image. The comet was not for certain visible in binoculars.

Below are two images captured with Sony A7S cameras. The lower image was obtained with a longer focal length and provides sharper detail.



Sony A7S camera with 200mm telephoto lens at f/5.6, six 15-second subframes at ISO 3200.



Sony A7S Mk3 camera with 150-600mm zoom lens at 600mm, f/8, thirty 30-second subframes at ISO 3200.

-o0o-