

SPACEWATCH

the newsletter of the Abingdon Astronomical Society

MAIN Meeting

13th April 2026

**Stan Cocking Memorial Lecture:
'Astrophotography using remote and
robotic observatories'**

Peter Goodhew FRAS

EDITORIAL

Welcome to the April edition of Spacewatch.

As a recipient of Spacewatch, you will know by now that Owen Brazell, our friend and chairman, died on the morning of Monday 16th March in a road traffic accident involving Owen's car and a lorry on the A420, while on his way to the Kelling Heath Star Party.

The obituary below was requested by the FAS and is reproduced here with permission.

**Owen Brazell
1957 - 2026**



Owen Brazell, who died in a road traffic accident on Monday 16th March, was a major figure in British amateur astronomy, well known worldwide for deep sky visual astronomy.

Owen was president of the Webb Society and, for many years, editor of its Deep Sky Observer journal. He had held various roles in the British Astronomical Association, including as an Acting Editor of the BAA Newsletter, Meetings Secretary, Assistant Director of the Deep Sky Section and member of the BAA Council. He had also been active in the Federation of Astronomical Societies, as an editor of the FAS Newsletter and a Council member. He was also known to readers of astronomy magazines, as the writer of columns in Astronomy Now. He regularly represented the Webb Society at astronomy conventions and gave talks to astronomical societies throughout Britain. He also wrote the two volume set 'Galaxy of the Month', published by the Webb Deep Sky Society. He frequently attended star parties at Kelling Heath and Kielder and also took his telescopes to other dark sky locations. Indeed, he was en route to Kelling Heath when he had his fatal accident.

Owen spent his early years in Toronto, Canada, before moving to the UK and completing his school education at Southwell Minster Grammar School in Nottinghamshire. In 1976, he took up a place at St Andrew's University, Scotland to study for a degree in astronomy. He started postgraduate studies for an MSc but left these to work in the oil industry, initially in research and development and later in computer systems design. In the 1980s his work took him to Calgary in Canada where, outside of work, he worked with the Calgary Centennial Planetarium and was a council member of the RASC Calgary Centre and editor of its Starseeker journal. By the 1990s he had returned to the UK, living first in Surrey and, later, in Aston Tirrold in Oxfordshire. When in Oxfordshire, he first started attending the recently formed Abingdon Astronomical Society, which is when I first met him. In the early 2000s his work took him to the London area for a few years. When his employer opened new premises in Abingdon, Oxfordshire, Owen moved to nearby Faringdon and rejoined Abingdon AS. He joined the committee in 2005 and had been our chairman since 2018. Owen

NOTICE OF ANNUAL GENERAL MEETING

did much for the Society, introducing visiting speakers, providing short talks and beginners' meeting talks and editing our newsletter. He organised and led Zoom meetings for our 2020-2021 season during the Covid-19 pandemic. His Covid infection in October 2021 was serious enough to involve a short stay in hospital. He participated in outreach events, bringing well-chosen telescopes, and, as chairman, he chaired our committee meetings. Most of all, he was a deep reservoir of knowledge about the deep sky, general astronomy and telescopes and eyepieces. Owen was always happy to advise fellow amateurs and newcomers to astronomy. He encouraged members to join him for continued discussions after meetings in a nearby pub, where he would drink exclusively Diet Coke. He possessed a wide range of telescopes and high end eyepieces. Owen was a visual astronomer rather than an astrophotographer. However, a year or two ago, he bought a ZWO Seestar S50 and was soon using it to take fine images, particularly of comets.

Beyond astronomy, Owen had a range of other interests. He was very knowledgeable about stone circles, burial chambers and other ancient monuments. He had played table tennis at a county level until relatively recently. He had also volunteered with the British Red Cross, at one time using his all wheel drive vehicle to ferry medical staff to work at a hospital up a snow covered hill. For the past three years, he had been a volunteer at Kelmscott Manor, the 17th century manor house that now houses artwork by its most famous resident, William Morris.

Owen's sudden death is a major loss to Abingdon AS, to astronomy and, above all, to his family. We shall miss him greatly.

Chris Holt, Secretary, Abingdon AS

The acting editor of "SpaceWatch" is Chris Holt, who would very much appreciate your stories & contributions. In particular whilst many fine images are being posted on the discussion group it would be nice to have some in SpaceWatch. Please send any news, observations, photos, etc. to: secretary@abingdonastro.org.uk.

The Annual General Meeting for 2024/25 will take place on Monday 11 May 2026 at All Saints' Methodist Church Hall, Dorchester Crescent, Abingdon at 8.00 p.m., and will be followed by talk by Dr Lee Macdonald (History of Science Museum, Univ. of Oxford), 'Royal Observatory Greenwich 1881 to 1939'.

Agenda

- 1 Apologies for absence
- 2 Minutes of the previous Abingdon AS AGM (held 12/05/2025)
- 3 Matters arising
- 4 Presentation of Committee's report
- 5 Presentation of Treasurer's report and Adoption of accounts
- 6 Membership fees for 2026/2027
- 7 Election of officers
 - i) Chairman
 - ii) Secretary
 - iii) Treasurer
 - iv) Publicity Officer
- 8 Election of other Committee members (between one and six in number)
- 9 Any other business

NOMINATIONS FOR ELECTIONS TO COMMITTEE

Nominations are sought for the posts of Chairman, Secretary, Treasurer, Publicity Officer and between 1 and 6 other committee members.

Under the Constitution of the Society, the "candidates for election shall be proposed and seconded by ordinary members of the Society and the nomination, including the candidate's signature, submitted in writing to the Chairman at least four weeks prior to the Annual General Meeting" (para. 10.3.3). Ordinary members are all those who are not honorary members or affiliated members.

The Constitution goes on to say that, "in the event of there being no candidate for the election of an officer of the Society, or fewer than ten candidates for the election to the Committee, the Chairman may accept nominations given at the meeting" (para. 10.3.4).

Chris Holt, Secretary, Abingdon AS

REPORT OF LAST MEETING

March's meeting

40 years of Supernova 1987A:

Prof Pat Roche (Ox uni) was working at the Anglo Australian Siding Spring site (NSW) in 1987 (so not quite 40 years ago, but who cares about a bit of artistic license?) when a star that went supernova in the Large Magellanic Cloud (LMC) was spotted. He was working with the 3.9 m Anglo Australian telescope (AAT) and was fortunate to follow the duration of the star's apparition from February 23rd until it had faded two and a half years on. The LMC has fewer heavy elements than the Milky Way, and the progenitor star, SK-69 202 was a blue supergiant in the very active and bright, Tarantula Nebula. Astronomers have been able to calculate the durations of the star's 'onion skin' fusion (burning) phases from its pre-destruction appearance.

The assumption is that it was about 11 million years old. 10 million years of that was hydrogen burning, then it turned to helium burning, which made its core contract and it got hotter and made it expand its outer layers. This started around 650,000BC and then helium exhaustion happened at around 45,000 BC. More of the outer shell was puffed out as the core contracted more, generating the heat to burn carbon (10,000 BC-ish), followed by another contraction and neon burning. You see things speeding up so much now; this phase is thought to have started in 1971. Then in 1983 a core of oxygen forms, then silicon ignition kicks in in 1987....February 13...then ten days later there is total exhaustion and total collapse of the super hot core.

At visible wavelengths it reached 3rd mag. Inside the cloud of debris it was dense and obscured and bright. As it expanded it became less opaque and the radioactive decay caused the fading to be slower than expected. High energy X-rays were given off as nickel decayed to cobalt to iron. About 25 neutrinos were detected, which meant a neutron star or a black hole had been created. But the debris was too dense for us to know.

By 1994 we had Hubble in action and it was able to detect an inner equatorial ring and two outer rings above the two poles, reminiscent of an hourglass. It

appears all three rings are about 20,000 years old, and they were seen to be brightening as the SN ejecta interacted with these rings. There are bright knots of light in the inner ring, some brighter than the others along one side. Hubble saw them at their brightest in 2016 and they are now fading, so much so that they may well be gone in another ten years. The inner ring is now believed to be the remnant of a companion star. This would also explain the unevenness of the lighting in the ring and the fact that the SNR is not more spherical like a planetary nebula.

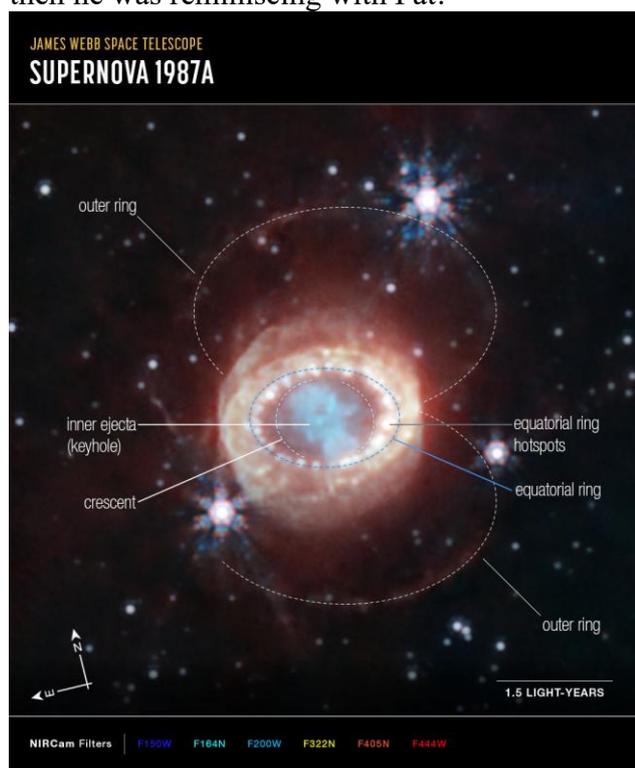
A lot of work was done by Claes Fransson, who calculated that the stuff given off was around 4 solar masses of hydrogen, 6 solar masses of helium and 1.9 ish solar masses of oxygen. Radioactive decay can also explain why early galaxies can be so dusty, because the high energy particles given off by very early massive stars can get trapped in the dust grains. Interestingly, AAT spectra were quite smooth early on, with hydrogen emission lines coming from a thick mush of plasma, then radioactive decay started showing through, nickel decay (half life 80 days) to cobalt (half life 8.8 days) to iron 56 was confirmed. The temperature was down to 1500K but hot enough so that the silicon dioxide molecules were vibrating.

The space telescopes Spitzer, Herschel and Chandra detected the dust in IR and X-ray but the resolution was poor until ALMA came on board and could see that about half a solar mass of dust had condensed from the ejecta. By 2016 the cooling was down to 20-30K but silicon and carbon dioxides were still giving off emission lines in a H α ring. Now we could see that the precursor material wasn't completely mixed and one clump seemed warm. Do we have a neutron star hiding?

JWST made its first shot in 2022 (= July 16, day 12,974 to be exact!). A five filter composite image but still the NS is hidden, although there are singly and multiply excited argon emission lines (MIRI and NIRSPEC cameras respectively) and radioactive decay from 44 titanium in an area which is where it is surely is!

We now wait for visibility and for the ELT and SKA to awaken.

I have a very poignant footnote to tack onto this excellent talk on a brilliant topic: our much missed chairman Owen was working in Zimbabwe in the 80s and saw SN1987A visually. It was very orange. I find it very hard to realise we had been in the presence of someone who saw a the II supernova with his own eyes and that I do wish I had had more of a chat about it during our last coffee break, but then he was reminiscing with Pat!



Supernova 1987A (NIRCam Compass Image)
(Credit: NASA, ESA, CSA, STScI)

THE NIGHT SKY FOR APRIL 2026

What's up for April 2026

Steve Creasey and Cristina Garcia Pozuelo Sanchez

As we try and get over the shock of Owen's tragic death, now is the time to remember with fondness all of the memories we each have of him. Whether it was something amusing or amazing he said during one of his talks, an interesting fact in a conversation at the pub or one of the many times he would speak to the person sat next to him, too loud during someone else's presentation (he did that to me many times) 😊 I'm sure we all have memories we will cherish of him.

Cristina and I were fortunate to live very close to Owen, on many occasions Owen would come down to our house if there was a comet or an eclipse or an occultation, or even if there was just a decent clear night. He would either bring one of his very large Dobsonian telescopes, his Takahashi Mewlon, a dslr and tripod or latterly one of his beloved SeeStar smart scopes, to realise his inner imager! Cristina especially loved that Owen had embraced the smart scopes so enthusiastically, I think they were in competition with each other to see who could acquire the most! They had many discussions reviewing the pros and cons of the different models they had bought. And Owen was always able to give good advice on which target would be good at any given time of the year.

My fondest memory is probably one of the nights we managed to see comet C/2020 F3 (NEOWISE), Owen and John Reader had come over to ours. We watched the comet sink in the NNW, skim the N horizon and then climb back up in the NNE a few hours later. Around 01:30 we started to see NLCs appearing, which turned into a fantastic NLC display, with the comet sitting just above it.

That night we also looked at Venus, Mars, Jupiter and Saturn, we had a great view of the Milky Way and we had an ISS pass, as well as looking at many other DSOs! In astronomy Bingo we got a full house! It was a night I will remember for a long time.

As well as fitting into the chairman's role so well at AAS, he really was a fount of astronomical knowledge, always on top of which comets were around at any given time (most of which he would manage to capture with one of his SeeStar smart telescopes), he was abreast of new astronomical discoveries and observations, and always up on the latest space missions, current or upcoming. Writing for Astronomy magazines, giving talks at various other Astronomical societies and lots more as mentioned by Chris.

There will be an extra star in the sky now that Owen is no longer with us!

I know Cristina and I do and will miss him greatly! Rest in peace Owen

Mercury will reach its greatest western elongation on April 3rd, its maximum apparent distance from the Sun. This is usually the best

time to observe it, but it won't be visible in early April as it remains close to the eastern horizon at sunrise.

Best viewing: Around April 3rd, low in the eastern sky before sunrise.

Venus is moving away from the Sun after its Superior Conjunction. It will shine brightly after sunset this month, though still close to the western horizon. Over the next few months, it will climb higher into darker skies, appearing larger and transitioning into a crescent shape.

Highlights: A brilliant evening star in the west after sunset, near the Pleiades star cluster. A Crescent Moon will pass by on April 18-19.

Mars is not visible this month as it remains close to the Sun after its Superior Conjunction on January 9th. It is still on the far side of the Sun, about 470 million km away. Mars will gradually brighten and grow larger as Earth catches up with it later this year.

Possible viewing: Low in the east before sunrise near Mercury in early April.

Jupiter: is still a great target for observation, appearing high in the southwest evening sky. Its cloud bands and four Galilean moons are visible through telescopes, and the Great Red Spot can also be seen. Apps like Stellarium can help track its features and moon transits.

Viewing tip: Bright in the southwest near Gemini. Look for a pairing with the Moon.

Saturn is currently not visible, having passed behind the Sun on March 25th. It will reappear in the evening sky later this year.

Uranus & Neptune: Uranus is well-placed in the southern sky and can be found near the Pleiades star cluster. It appears as a bluish, fuzzy star through binoculars or a small telescope.

Viewing: Near Venus on April 23rd, requiring binoculars.

Neptune is not visible this month as, like Mars, it remains close to the Sun and is much fainter than Mars.

Comets:

1. Comet C/2026 A1 (MAPS)

- Visibility Window: Late March to early April 2026
- Perihelion: April 4, 2026
- Brightness: Potential to reach magnitude 0.1 at closest approach; some uncertainty due to its sungrazing nature.
- Location and Viewing: Visible from both hemispheres, but in the Northern Hemisphere it will appear low over the southwestern horizon at dusk, making observation more challenging.
- Notes: As a Kreutz sungrazer, MAPS may break apart near the Sun. If it survives, a long, bright dust tail could be seen in twilight shortly after perihelion. Initial visibility is mostly through binoculars or small telescopes.

2. Comet C/2025 R3 (PanSTARRS)

- Visibility Window: Late April to early May 2026 in the Northern Hemisphere
- Perihelion: April 19, 2026
- Brightness: Expected to reach magnitude 2.9 under typical conditions; in the best case, it could achieve -1.0 , rivalling bright planets in the sky.
- Location and Viewing: Northern Hemisphere observers may spot it in the morning sky in late April, appearing as a fuzzy object. After perihelion, visibility shifts more favourably toward the Southern Hemisphere.
- Notes: PanSTARRS offers a more predictable naked-eye experience compared to MAPS, making it the prime target for observers in Oxfordshire.

Deep Sky Objects

M67 – An Open Cluster in the constellation of Cancer

NGC 3344 – A face on spiral galaxy in Leo Minor

NGC 3381 – A barred spiral galaxy in Leo Minor

NGC 3432 – An edge on spiral galaxy in Leo Minor

NGC 3486 – An intermediate barred spiral galaxy in Leo Minor

NGC 3561 – Ambartsumian’s Knot, Interacting galaxies in Ursa Major (challenging)
M101 – The Pinwheel galaxy, a face on spiral galaxy in Ursa major
NGC 4147 – A Globular cluster in the constellation of Coma Berenices
M106 – An intermediate spiral galaxy in Canes Venatici
NGC 2146 – A barred spiral galaxy in Camelopardalis

Clear Skies
Steve and Cristina

BORROWING THE SEESTAR

As many of you will know, the Society now owns a Seestar 50 telescope, which is available for members to borrow. It is small, extremely portable, easy to store, and easy to use via a free downloadable app on your smart phone.

Unlike traditional telescopes, you cannot look through the Seestar. It is used to take digital images that are downloaded to your phone (which you can then download to a PC, etc. for image processing if you so desire).

Apart from an off/on button physically on the telescope, all commands and instructions go through the phone app.

Apart from needing your own smart phone, everything you require is supplied.

You need no experience of either using a telescope or image processing to use the Seestar as it does virtually all the work for you automatically. However, there are plenty of user options if you want to play around with it.

There are two main requirements if you want to borrow the Seestar.

The first is you have to have been a member of the society for the past 18 months, and the second is you have to leave a deposit of £50.

The money is fully refundable as long as you return the Seestar in the same condition as you received it.

You can borrow the Seestar for two calendar months (longer if nobody else has asked to borrow it) so you get plenty of time to take lots of images.

If you are interested in borrowing the equipment contact me at bobdryden@ntlworld.com

Bob

UPCOMING MEETING NOTES

27th April 8pm Beginners’ Meeting in the Main Hall., talks to include ‘Naming astronomical objects’ and a talk to be confirmed

Observing evenings: There will be no further in-person or virtual observing evenings this season.

Mailing List: we have now moved to a new mailing list on groups.io called

abingdonas@groups.io

This mailing list requires approval from the List Owner, before subscriptions are finalized.

This mailing list is for email discussions of astronomical topics and the exchange of messages, notices of meetings and events organised by Abingdon Astronomical Society and others, and astronomical news between members of Abingdon Astronomical Society.

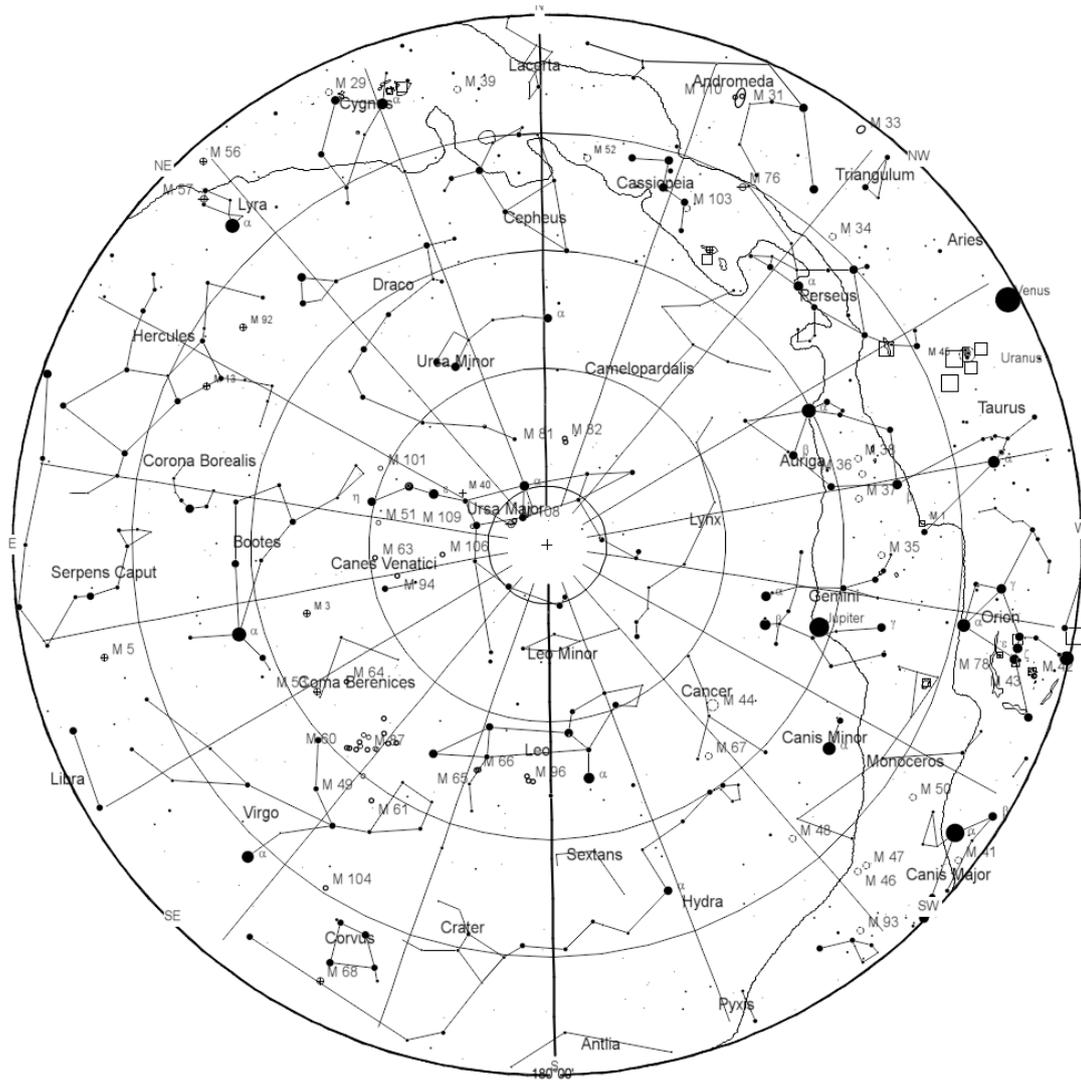
The new Groups.io group (i.e. list) has a st Homepage at <https://groups.io/g/abingdonas/> Group membership is primarily for current and/or recent members of Abingdon Astronomical Society. Those who are permitted to join the Group but do not become members of Abingdon Astronomical Society nor have been recent members may, in due course, be removed from this Group. The Group is not listed in the Groups.io directory but, currently, once found the archived messages will be visible publicly.

We have also setup a new WhatsApp group for real time announcements of astronomical/ meteorological (NLC, Auroral) phenomena. The group is open to all members of the society. To join leave your mobile number with any member of the committee and you will receive an invite to join.

We also operate two Facebook groups so you can also keep in touch with the society through those.

STAR CHART

The night sky at 10 pm (BST) Wednesday 15th April 2026



MOON PHASES APRIL 2026

Moon phases and solar and lunar rise and set times for April 2026						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1  ↑19:21 ↓06:16	2  ↑20:36 ↓06:27	3  ↑21:52 ↓06:39	4  ↑23:08 ↓06:53
			 ↑06:48 ↓19:33	 ↑06:45 ↓19:35	 ↑06:43 ↓19:37	 ↑06:41 ↓19:39
5  ↑06:38 ↓19:40	6  ↑00:22 ↓07:36	7  ↑01:31 ↓08:10	8  ↑02:30 ↓08:57	9  ↑03:17 ↓09:57	10  ↑03:52 ↓11:07	11  ↑04:17 ↓12:22
 ↑06:38 ↓19:40	 ↑06:36 ↓19:42	 ↑06:34 ↓19:44	 ↑06:32 ↓19:45	 ↑06:29 ↓19:47	 ↑06:27 ↓19:48	 ↑06:25 ↓19:50
12  ↑04:36 ↓13:41	13  ↑04:51 ↓15:01	14  ↑05:03 ↓16:22	15  ↑05:15 ↓17:45	16  ↑05:27 ↓19:11	17  ↑05:41 ↓20:42	18  ↑05:59 ↓22:16
 ↑06:23 ↓19:52	 ↑06:21 ↓19:53	 ↑06:18 ↓19:55	 ↑06:16 ↓19:57	 ↑06:14 ↓19:58	 ↑06:12 ↓20:00	 ↑06:10 ↓20:02
19  ↑06:23 ↓23:49	20  ↑06:58 ↓---	21  ↑07:51 ↓01:11	22  ↑09:01 ↓02:15	23  ↑10:24 ↓02:58	24  ↑11:51 ↓03:28	25  ↑13:16 ↓03:48
 ↑06:08 ↓20:03	 ↑06:06 ↓20:05	 ↑06:04 ↓20:07	 ↑06:02 ↓20:08	 ↑06:00 ↓20:10	 ↑05:58 ↓20:11	 ↑05:56 ↓20:13
26  ↑14:36 ↓04:02	27  ↑15:53 ↓04:14	28  ↑17:08 ↓04:25	29  ↑18:22 ↓04:35	30  ↑19:37 ↓04:47		
 ↑05:54 ↓20:15	 ↑05:52 ↓20:16	 ↑05:50 ↓20:18	 ↑05:48 ↓20:20	 ↑05:46 ↓20:21		
Times in BST						

Beginners Meeting Talks 2025/26

Date	Long Talk	Speaker	Long Talk	Speaker
SEP 29th	Whats Up	Dan	Eyepieces	Owen
OCT 27th	Jupiter	Ian	NEO	Bob
NOV 24th	Xmas Meal			
DEC 1st	First Telescope	Ian	Orion	Owen
JAN 26th	Brown Dwarfs	Dan	Intro. To Solar System Imaging	Chris Pickford
FEB 23rd	The Science in Space films	Cristina	Messier Marathon	Owen
MAR 16th	Observing Planetary Moons	Bob	Weather Apps & websites	Chris
APR 27th	tbc	Cristina	Naming Astronomical Objects	Dan
MAY 18th	Local Galaxies	tbc	Setting Up an Equatorial Mount	Chris
JUN 15th	Solar Eclipses	Bob	Putting Together a Mobile Imaging Rig	Ian

Images of Owen



Meal at the Packhorse, November 2024 (Image: Charline Giroud)



ATOM Science Market stall 12th March 2026 (Image: Chris Holt)



ATOM Science Market stall March 2024 (Image: Chris Holt)



Observing Comet C/ 2020 F3 Neowise (Image: Steve Creasey)