
Journal

of the

Nottingham Astronomical Society

September 2026



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Thursday, September 3rd

**Nottingham Emmanuel School
Gresham Park Road,
West Bridgford,
Nottingham, NG2 7YF**

7:45pm (doors open at 7:15pm)

This evening we welcome

Dr Paul McMillan

of the University of Leicester

who will be speaking on

**Ten Things You Might Not Know
About the Milky Way**

Chairman's Message, September 2026

Dear Members,

It looks like Autumn is heading towards us at a rate. This means darker skies and less warm weather, although I'm sure the numerous heatwaves over the summer you, like me, found uncomfortable. Weather!

We have our first talk of the new season coming up in the first week of September, about the Milky Way, to be given by Dr Paul McMillan of Leicester,. The Plumtree meeting will feature members images and tales of the recent eclipse. If you have any photos or similar to contribute to the meeting, do let us know.

Best wishes,

Julian

NAS Chair

Sky Notes

September 2026



Compiled by Roy Gretton

All times given below are in British Summer Time

The **Southward Equinox** (**Autumnal Equinox** in the Northern Hemisphere) will occur at 1:05 am on September 23rd.

PHASES OF THE MOON

Phase	Date
Last Quarter	September 4 th
New Moon	September 11 th
First Quarter	September 18 th
Full Moon	September 26 th

This month the Moon is closest to Earth on the 6th, and furthest on the 19th.

THE PLANETS

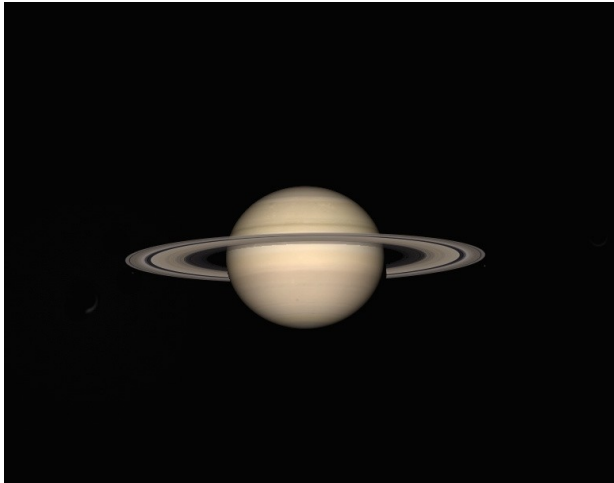
Mercury will be an evening object throughout this month (and for the whole of October) but will be very difficult to observe.

Venus will also be an evening object throughout September, but increasingly difficult to observe, as it will end the month 21 degrees south of the celestial equator and 33 degrees from the Sun.

Mars begins September in the constellation of Gemini, rising about 1:30 am, and will end the month in Cancer, by which time its angular diameter will have grown to 5.7 arcseconds – still relatively tiny but an improvement on the 3.9 arcseconds it managed back in January.

Jupiter this month crosses the boundary from Cancer into Leo, a sign that it will no longer be as high in our sky over the coming winter as it has been recently. Even so, by the end of September it will have moved clear of the sunrise glow to become observable in a dark sky.

Saturn, lurking close to the border of Pisces and Cetus, will probably be the most rewarding of the planets to observe this month, as it will be rising as the sun sets and culminating shortly after 1 am by the close of September. The ring system will be inclined at about 8 degrees to our line of sight (following our passage through the ring plane last year). Opposition will occur on October 4th.



**Saturn due south at 1 am
on September 20th**

(North at top)

Uranus, about midway between Aldebaran and the Pleiades, will be rising at approximately 10 pm in mid-September.

Neptune is on the celestial equator in the constellation of Pisces, reaching opposition on September 26th and shining at magnitude 7.8.

METEORS

The **September Epsilon Perseids** are worth a mention because although they are much less prolific than their August namesakes, 2026 is a particularly favourable year for them as their maximum activity on September 10th occurs one day before the New Moon. Expect a handful of events per hour – if you're lucky.

The Nottingham Astronomical Society: E - SERVICES

Whether or not you are a NAS member, you can keep up to date with details of the Society's

NAS on Facebook

You are welcome to connect with other members and friends of the NAS on Facebook by going to:
<http://www.facebook.com/nas.org.uk>

NAS on X

The Society has an X account at <https://twitter.com/NottinghamAstro>

NAS Journal e-mailing list

To register for your monthly e-mailed link to the NAS Journal, just e-mail
membership@nottinghamastro.org.uk

You don't have to be a Society member to take advantage of this service.

If you happen to change your email address, please remember to inform the Society by emailing us at membership@nottinghamastro.org.uk

DIARY DATES 2026

Monthly Meetings of the Nottingham Astronomical Society

1. Meetings at
Nottingham Emmanuel School
Gresham Park Road,
West Bridgford,
Nottingham, NG2 7YF

Held on the **FIRST Thursday** of each month (**unless otherwise stated**)
except **August**

Doors open at 7:15pm for 7:45pm start.

*These events are normally centred around a talk by a visiting speaker,
except Quiz Nights, etc, when NAS members provide the activities.
Normally we have a **Helpdesk** open at each meeting.*

Date	Topic	Speaker
3 rd September	Ten Things you might not know about the Milky Way	Paul McMillan University of Leicester
1 st October	Racing the Moon's Shadow	Mike Provost

2. Social and Practical Astronomy Meetings at the Burnside Memorial Hall, Plumtree

Church Hill, Plumtree, Nottingham, NG12 5ND

Held on the **THIRD Thursday** of each month from **7:30pm**

*These meetings are of a more informal nature, providing opportunity for
members and guests to share their hobby over a cup of tea or coffee,
as well as listening to a short talk or discussion*

The next meeting will be on **September 17th**

Social and Practical Astronomy, Plumtree, July and August 2026

The **July** meeting saw member **Diya** talk about the mythology of the constellations, a follow up talk from her talk on the mythology of the solar system. The ancient Greeks and Romans really did have vivid imaginations and loved story telling! Julian also gave a talk on the proper motion of stars and how the constellations will change over time.



Diya above (left) cutting another amazing cake from Secretary Chris, and during her talk, accompanied by her father Shreshth.

The **August** Plumtree was a talk by **Neil Mudford** on Radio Astronomy and we learnt about the history of radio astronomy and some of the things amateur radio astronomer can do, as well as seeing some general amateur radio equipment. All fascinating stuff! Neil can be seen below giving his talk and also cutting the Plumtree cake which this time Diya made, which was a very tasty carrot cake.



Thanks to both Diya and Neil [and Julian] for your Plumtree talks; it is great to have members volunteer to tell us about something they are interested in. And thanks to Chris and Diya for the cakes. See you all in September.

James Dawson

helpdesk@nottinghamastro.org.uk

Future Plumtree Meetings (third Thursday of the month):

September 2026	Richard Severn and Julian Onions; solar eclipse
October 2026	Brian Griffin; the history of the NAS Observatory
November 2026	Leigh Blake; the fine line of AI in amateur astronomy
December 2026	AGM and the Christmas Cosmos
January 2027	Joe Colls; Rockets!

Upcoming events for the amateur astronomer

18 th September 2026	BAA Meeting	Liverpool
26 th September 2026	SHA Research Methods Workshop	Birmingham
3 rd October 2026	Radio Astronomy Section Day	Mansfield
28 th October 2026	BAA Meeting	London
24 th October 2026	SPA Meeting	Northampton
28 th October 2026	BAA Meeting	London
31 st October 2026	International Astronomy Show	Coventry
7 th November 2026	SHA Autumn Conference	Birmingham
13-15 th November	SPA residential weekend	Shrewsbury
5 th December	BAA Back to Basics	Ipswich
12 th December 2026	BAA Christmas Meeting	London
30 th January 2027	SPA Meeting	London
20 th March 2027	BAA Deep Sky Section Meeting	TBC
23-25 th April 2027	SHA Spring Conference	Cambridge
28 th May 2027	BAA Spring Meeting	Eastbourne
16 th October 2027	BAA Variable Star Section Meeting	TBC

NEEDED!

Do you have any photographs of the NAS Observatory before about 2016? We are collating a photographic archive of images of the Observatory, specifically between 2001 and 2016 as we have lots before 2001 and lots after 2016. If you have any, please let me know.

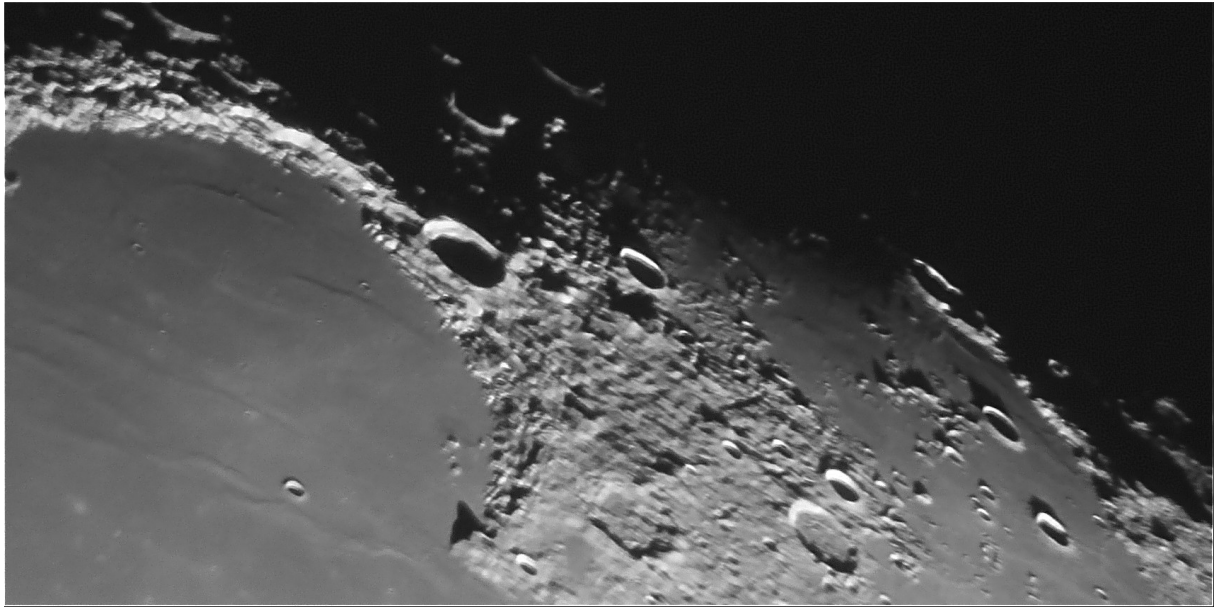


James Dawson

helpdesk@nottinghamastro.org.uk

The Sinus Iridum

The exotically named Sinus Iridum, “Bay of Rainbows”, is an attractive feature of the Moon when it is about 10 days old (i.e. about 10 days after each New Moon). It has been featured in this publication several times before, most recently by James in the April 2025 issue – but is well worth another look.



The *Bay of Rainbows* and the area to the northeast, imaged by eyepiece projection using a Canon 700Da with a Celestron C11 telescope

In his article James mentioned that the heights of lunar peaks above the surrounding terrain could be estimated by relatively simple trigonometry, using the lengths of their shadows, and as an example drew attention to the shadow formed by La Place, the prominent peak at the eastern end of the bay (left of centre near the bottom of this image).

I happen to recall that as a teenage apprentice over 60 years ago, I had to give a talk about a famous scientist to a group of my peers, and chose William Herschel. (Curiously, no one else in the group chose an astronomer...but then, we were *chemical* apprentices!)

I mentioned that among his many projects, Herschel attempted to estimate the heights of some lunar mountains – although he wasn't the first person to try this. Over a century earlier, the Polish astronomer and moon mapper, Johannes Hevelius, born in 1611, did some pioneering work in this field. The height of a lunar mountain would be calculated as a fraction of the Moon's diameter, which could be estimated from its angular size and approximately-known distance from Earth. The simplest method (for a very limited selection of mountains) is to do the calculation for the **special case** of when the mountain is on the terminator (and first visible as a bright spot in the surrounding darkness) at **quadrature** (when the Sun-Terminator-Observer angle is 90 degrees).

Herschel adapted this procedure so as to remove the narrow requirement for the Moon to be at quadrature, allowing it to be at almost any phase. A crucial component of this method is to know the angle of incidence of the Sun's rays relative to the vertical line that passes through the peak – a matter of improved trigonometry.

Roy Gretton

Helios Exhibition - Southwell Minster

As part of the build up to the 2026 August solar eclipse, Southwell Minster held a special exhibition by acclaimed artist Luke Jerram featuring a 7 metre sun created by NASA imagery on display inside the Cathedral.

Nottingham Astronomical Society supported the first day of the exhibition on Wednesday 29th July holding a solar observing session for the public. We were fortunate with crystal clear skies, welcoming several hundred people to observe the sun. We had two telescopes set up with both white light filters and a Lunt hydrogen alpha scope. Special thanks to David Owen and James Dawson for supporting me at the event, enduring the strong July sunshine to educate the public. The opportunity to view the sun safely through dedicated solar telescopes was extremely well received by visitors



Richard Severn

FURTHER DEEP SKY IMAGES FROM A SEESTAR S50
processed to enhance faint non-stellar details



IC1805 Heart Nebula - Mosaic

Telescope: SeeStar S50

Filter: LP

Subframes: 10sec

Mount: Equatorial

Location: 52 N; 01 W

Date: 2025-10-26

Duration: 460min exposure (exposure spread over the 4x greater FOV than the original Seestar FOV)

1) Original mosaic subframes stacked and de-noised within the SeeStar S50



2) Cropped combined image with stars left unchanged and superimposed on the nebula with stretched histogram



M31 Andromeda galaxy - Mosaic

Telescope: SeeStar S50

Filter: IRCUT

Subframes: 10sec

Mount: Equatorial

Location: 52 N; 01 W

Date: 2025-08-10

Duration: 142min exposure

1) Original subframes stacked and de-noised
within the SeeStar S50



2) Combined image with stars left unchanged
and superimposed on the galaxy with stretched
histogram



NGC7023 Iris Nebula

Telescope: SeeStar S50

Filter: LP

Subframes: 10sec

Mount: Equatorial

Location: 52 N; 01 W

Date: 2025-08-09

Duration: 202min exposure

1) Original subframes stacked and de-noised within the SeeStar S50

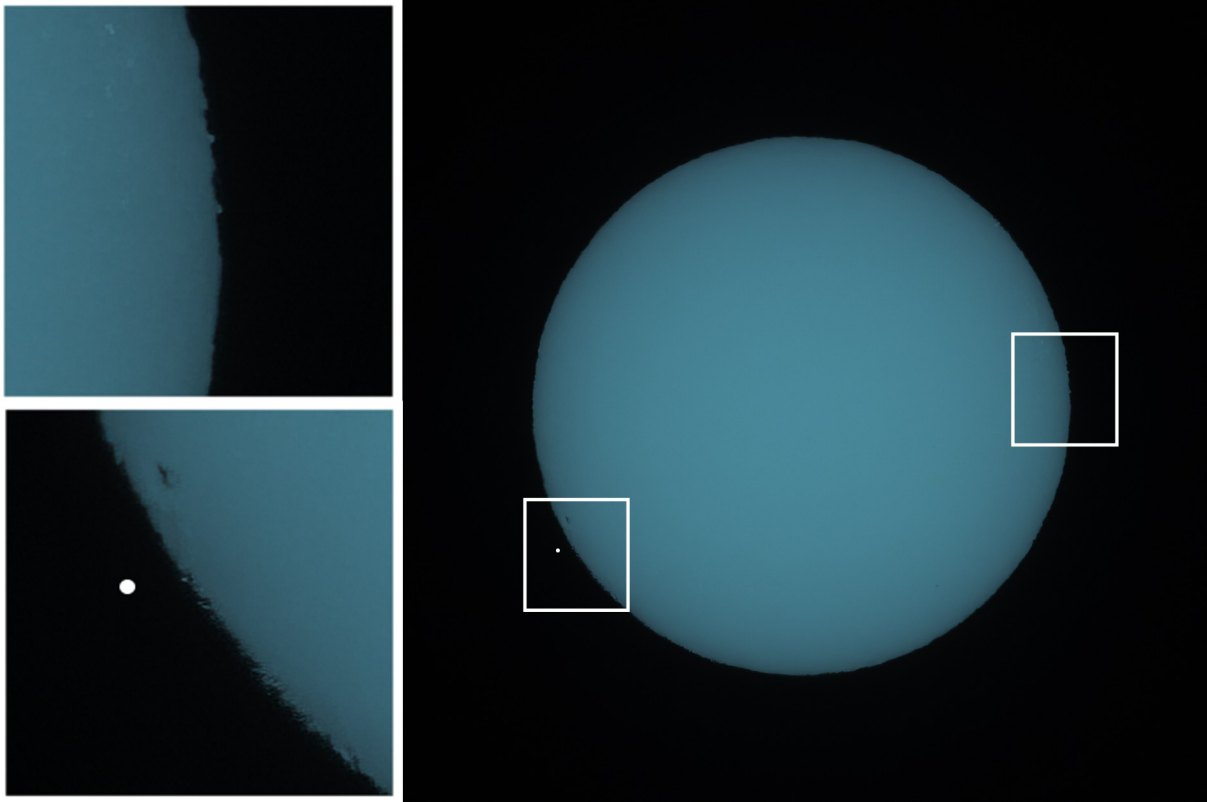


2) Combined image with stars left unchanged and superimposed on the nebula with stretched histogram.

Andrzej Bargiela

Coronal Mass Ejections

imaged by **Andrzej Bargiela** through a 490-510nm band-pass filter. The interesting detail in the image is the edge of the disk showing coronal mass ejections of ionised oxygen. Ejections are several thousand kilometers out from the Sun's surface.



The technical specification of the image

:

Date/time: 11/08/2026, 13:04

Camera: Canon EOS 77D

Lens: Sigma 100-400/4.5-6.3 & 400 plus Canon 1.4x converter

Filter: ND64 plus ZWO Dual band-pass H α (656nm) and OIII (500nm)

Exposure: 1/4000sec, F22.0, ISO400

The white dot is a disk representing the size of Earth on the same scale as the Sun.

Advertisements

For sale

Celestron NexStar 6SE SCT and accessories

The following standard accessories are included:

- visual back
- star diagonal
- 25 mm Plossl eyepiece
- red-dot finder
- tripod
- full instructions
- original cardboard boxes (if you want them)

The following additional accessories are included in this package:

- Bob's Knobs collimation aid (already fitted)
- Celestron dew heater band (already fitted)
- Celestron aluminium dew shield with cover
- Farpoint Bahtinov mask
- Geoptik pack-in bag for transporting the scope and mount

Price £795

More photos available. Inspection welcomed. Free delivery within a reasonable distance.

Sam Boote sam@boote.myzen.co.uk or at Society meetings





ASTRO-JUMBLE SALE

★ SATURDAY 19TH SEPTEMBER ★

Dear Astronomers,
Do you have a telescope, eyepiece or anything Astro you'd like to sell, if so then you can sell it at our Astro Jumble Sale.

Melton & District Astronomical Society are holding a one day Astro Jumble Sale at

TILTON ON THE HILL VILLAGE HALL
Oakham Rd, Tilton on the Hill, Leicester LE7 9DB

What3Words: narrates.professes.muddy

You can sell anything Astronomical on your table from books to telescopes so long as its Astronomical then you can sell it.

We will also looking to have a few stalls from local Astro sellers but the aim is to help amateur astronomers sell their unwanted gear which we all accumulate over time and find a new home for your precious equipment and may be even find a bargain or a item you've been looking for years.

★ EVENT DETAILS ★
⌚ Set up from 8.30am on the day
🚪 Doors to the public open at 10am
⌚ The event will finish at 3pm
☕ Refreshments on sale too!

★ TABLES ARE £20 ★
Which includes a £10 deposit of which the deposit will be refunded on the day of the Jumble Sale.
⚠ If you don't turn up on the day then you will lose your £10 deposit and your table fee.

TO BOOK A TABLE OR TO FIND OUT MORE INFORMATION PLEASE CALL SIMON ON 07766 446132

BUY, SELL OR BROWSE - EVERYTHING ASTRO!

Dear Astronomers,

Do you have a telescope, eyepiece or anything Astro you'd like to sell, if so then you can sell it at our Astro Jumble Sale.

Melton & District Astronomical Society are holding a one day **Astro Jumble Sale** at Tilton on the Hill Village Hall. Oakham Rd, Tilton on the Hill, Leicester LE7 9DB

What3Words: narrates.professes.muddy

You can sell anything Astronomical on your table from books to telescopes so long as its Astronomical then you can sell it.

We will also looking to have a few stalls from local Astro sellers but the aim is to help amateur astronomers sell their unwanted gear which we all accumulate over time and find a new home for your precious equipment and may be even find a bargain or a item you've been looking for years.

Set up from 8.30am on the day and doors to the public open at 10am. They'll be refreshments on sale too. The event will finish at 3pm.

Tables are £20 which includes a £10 deposit of which the deposit will be refunded on the day of the Jumble Sale.

If you don't turn up on the day then you will lose your £10 deposit and your table fee.

To book a table or to find out more information please call Simon on 07766446132.

Kind Regards,

Simon Brown

Melton & District Astronomical Society

Pulsar Observatory for sale

I've had this full height (2.7m) observatory from new and it's in good working order. As I'm moving house it's for sale at £1,500 (new it would cost £7,499).



Purchaser to dismantle and remove before the 2nd of October.

Contact r.j.stewart@me.com

Nottingham Astronomical Society

Affiliated to the British Astronomical Association
Member of the Federation of Astronomical Societies
Supporters of the Commission for Dark Skies

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Meetings

Our formal meetings, often with an illustrated talk by a guest speaker, **normally** are held on the first Thursday of each month (except in August) at:

**Nottingham Emmanuel School
Gresham Park Road,
West Bridgford,
Nottingham, NG2 7YF**

Doors open	7:15pm
Meetings start	7:45pm
Meetings end	9:15 pm

These meetings are open to the public, and visitors are welcome to attend, subject to a charge of £5 per meeting for adults (£1 for concessions).

Annual subscriptions 2026

Individual	£40
Family (maximum of two adults, and children/students living at the same address)	£55
Under-18s and full-time students	£5

Subscriptions become due on 1st January. Half-price subscription is charged if joining after 30th June (minimum subscription £5).

Please make cheques payable to:
Nottingham Astronomical Society.

If you would like more information about the **Nottingham Astronomical Society**, or would like to become a member, please contact membership@nottinghamastro.org.uk or speak to any NAS committee member at one of our regular monthly meetings.

The Nottingham Astronomical Society

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