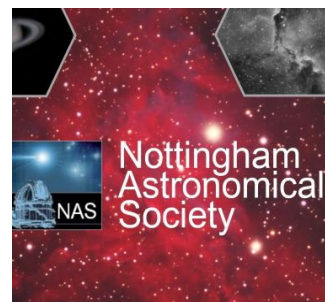

Journal

of the

Nottingham Astronomical Society

September 2023



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Thursday, September 7th

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

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

This evening we welcome

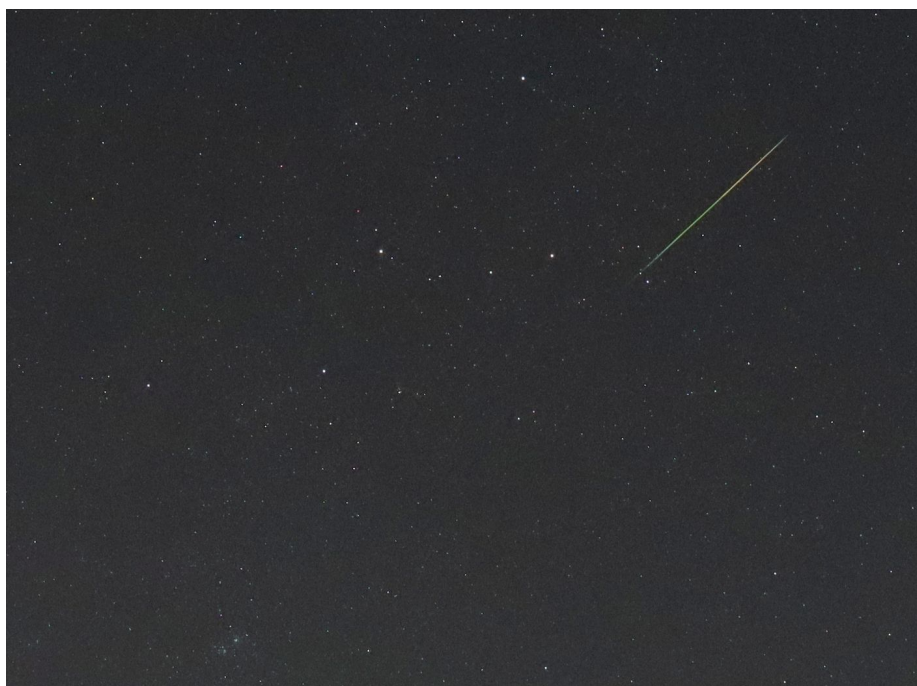
Dr Adrian Martindale

University of Leicester

who will be speaking on

Beppi Columbo

An early Perseid meteor passing the constellation of Cassiopeia
imaged by John Dignan on August 8th



Chairman's Message, September 2023

Dear Members,

Well, the nights are getting darker, and the night sky is getting more accessible.

We had a good barbecue, after the postponement because of the dreadful weather on the originally planned day. It looks like we made a good call, even if the sky wasn't completely clear later on. However I DID see one Perseid meteor! We had a good selection of people including the local Mayor and the barristers from Owthorpe.

We are really hoping to have some observatory sessions as the year goes on. Let's hope that the rain keeps away enough to make the site accessible, although we are still exploring options for making a better road.

Next month's speaker is from Leicester University and will update us on the latest information about the planet Mercury. After being neglected for many years, it had now had a couple of visits from probes bringing a wealth of information about the nearest planet to the Sun. Another cute fact about Mercury is it is the nearest planet to the Earth! See if you can figure out why this is true!

Hope you are all well.

Julian

NAS Chair

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 meetings and other events by visiting the NAS website:

www.nottinghamastro.org.uk

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 Twitter

The Society has a Twitter account at <https://twitter.com/NottinghamAstro>

NAS Journal e-mailing list

To register for your monthly e-mailed link to the NAS Journal, and a copy of our SkyNotes, just e-mail secretary@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 treasurer@nottinghamastro.org.uk

Sky Notes

September 2023

Compiled by Roy Gretton



All times given below are in British Summer Time

The **southward equinox (autumnal equinox** in the northern hemisphere) will occur shortly before 8 a.m. on September 23rd.

PHASES OF THE MOON

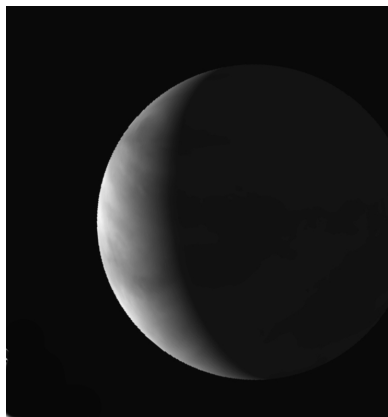
Phase	Date
Last Quarter	September 6 th
New Moon	September 15 th
First Quarter	September 22 nd
Full Moon	September 29 th

This month the Moon is closest to Earth on the 28th, and furthest on the 12th.

THE PLANETS

Mercury passes through inferior conjunction on September 6th, thereafter emerging into the morning sky to give probably its best morning apparition of the year, reaching greatest western elongation (18 degrees) on the 22nd.

Venus is now a prominent object in the morning sky, rising shortly after 3 am by the end of September and shining at a brilliant magnitude -4.7.



Venus in the morning sky
on September 16th
(north at the top)

Tiny **Mars** continues to linger in the evening sky, its angular diameter having diminished to 3.7 arcseconds (even smaller than Uranus), and its brightness to magnitude +1.6.

Jupiter will begin to dominate the evening sky this month. At the start of September it will be rising about 10 pm, and at 8 pm by the end of the month. Now having reached the constellation of Aries, it will be close to declination +15 degrees, giving it an elevation of about 52 degrees locally when it culminates (which will be at 4 am in mid-September).

Phenomena of Jupiter's satellites

The **disappearance** of Jovian satellites **into eclipse** is the easiest type of phenomenon to observe with a small telescope (say, 50mm aperture). As we are currently viewing Jupiter before opposition, satellites disappear into Jupiter's shadow on the west side of the planet (viewed from Earth). Next in ease of observation (with instruments of 100mm aperture and above) are **shadow transits**. In this case, look for a dark spot crossing Jupiter's disk. Lists of eclipse disappearances and shadow transits visible in the evenings this month are given below.

September	Disappearance into eclipse of
2 nd	Europa 21:01
6 th	Io 22:05
9 th	Europa 23:37
10 th	Ganymede 20:43
13 th	Io 23:59
22 nd	Io 20:22
29 th	Io 22:16

September	Shadow transit of
7 th	Io 19:13 to 21:23
11 th	Europa 18:48 to 21:07
14 th	Io 21:07 to 23:17
18 th	Europa 21:24 to 23:43
21 st	Io begins 23:01
25 th	Europa begins 23:59
30 th	Io 19:24 to 21:34

Saturn, shining at magnitude +0.5 in the constellation of Aquarius, will be visible all evening this month, reaching an elevation of about 25 degrees when due south, which will be soon after 10:30 pm in late September.

Uranus, a few degrees northeast of Jupiter in the constellation of Aries, will be rising at 10 pm as September begins.

Neptune, little more than 2 degrees south of the celestial equator in the constellation of Pisces, will be visible all night in September. It will be at opposition on the 19th, when its magnitude will be +7.8.

METEORS

A lesser-known shower, the **Epsilon Perseids**, come to maximum activity this year on September 10th, under very favourable conditions, with a waning crescent Moon in the morning sky. They are much less prolific than their August cousins, with five events per hour expected under ideal circumstances.

DIARY DATES 2023

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
September 7 th	Beppi Columbo	Dr Adrian Martindale University of Leicester
October 5 th	Fear and Loathing in the Heavens: The 1910 Return of Halley's Comet	Dr. Richard J. Goodrich

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 21st**

Social and Practical Astronomy, Plumtree, July and August 2023

The **July** Plumtree meeting was run by Julian and was an informal and interactive look at some of the past questions which have appeared in the GCSE written examination paper. The questions generated a lot of debate and discussion.

If you want to look at past GCSE written questions, there are several old papers and model answers available here: <https://www.pastpapersz.com/edexcel/gcse-astronomy/>

The **August** meeting was a look at the southern sky in autumn. Following a tribute to John Hurst, the session started with the summer triangle and the summer Milky Way and looked at the constellations and some of the deep sky targets in that region of the sky, as well as the position of Saturn and Jupiter in the coming months.



During the talk (above) I said Algol was sometimes thought to appear green, but having researched online, I was mistaken and unsure where that false information came from, sorry! Beta Librae has been reported to be the only green star and was recorded as having a *beautiful pale green hue* by the Rev T W Webb and T W Olcott called it *distinctively green*. We'll have to observe it ourselves to see. There was an article in Sky & Telescope in 1992 on the colour of stars and if you want to read that, a poor quality version can be downloaded [here](#).

I'm not sure of the topic for the **September** Plumtree meeting, but will share this nearer the time.

James Dawson

Observatory Director

observatory@nottinghamastro.org.uk

John Hurst

1947 – 2023



John passed away peacefully at home on Friday, August 4th. He was born at Bulwell in 1947, one of three siblings. The family later moved to Arnold, where John attended Robert Mellors County Secondary School. There he acquired a love of classical music, as each morning assembly began with the pupils listening to a recording of a well-known piece played on the gramophone by Mr Burgess, a teacher with a formidable collection of discs. It was at this school that John built his first telescope, encouraged by one of the teachers. On leaving school, John became an electrical engineering apprentice at Gedling Colliery, and from there went on to work for the Central Electricity Generating Board Control Centre at Fairham House, Green Lane. After that he moved to Ratcliffe on Soar power station where he worked for 30 years prior to his retirement.

As well as making a massive contribution to the life of the Nottingham Astronomical Society, John was also a member of the Mansfield and Sutton AS, and a founder member of Kielder Observatory. He was elected President of the NAS at the AGM in 2015 and served in that role (which was re-designated as Chairman) until January 2021. Among other interests, John was a member of the East Leake Local History Society, and of the Keyworth Photographic Society.

John married Maureen in 1977, and they have two children, Edward and Eleanor.

A tribute from Julian Onions

It is very sad to note the passing of our previous Chairman, John Hurst. John was Chairman of the NAS for many years, and an active member before that. He organised many outreach events and worked to get lots of interesting speakers to the meetings. Then, when he wanted to step down, we had several chats about handing over the chairmanship to me. I wasn't really clear what was involved, but he gave me advice on what I needed to do and chaired the handover AGM meeting breaking me in gently to the new role. We had several subsequent chats, as time moved, on about the society, the large telescope and the observatory in general. I'm sure we will all miss him and his enthusiasm for astronomy.

A tribute from Chris Sneddon

John was devoted to the Nottingham Astronomical Society, and happily gave a lot of his time to us. His success in booking wonderful - and famous! - speakers was phenomenal. Everyone looked forward to the monthly talks. He loved Outreach activities too, and, come rain or shine, was always there to represent the Society, and to share his expertise with others. Rest peacefully, John, and thank you.

A tribute from James Dawson

It was sad to hear that John had passed away even though we all knew he had been poorly for some time. John had been a prominent and active part of NAS for many years, even before his time as chairman.

John was the sole driver for NAS attending the local summer shows in a number of local villages where he'd proudly show off his boards adorned with photographs of the night sky and of NAS events, and for many years he also organised a truly excellent speaker programme.

Phone calls from John were seldom brief, and always late in the evening and in the latter years incredibly difficult as he just couldn't hear, and never stopped for breath. I never saw him type, but he said a phone call was always much quicker for him than trying to send an email. As I write this I am smiling as I do have a lot of fond memories of John.

I remember one time when I had collected a load of second-hand lead acid batteries from various garages to help boost the battery capacity at the observatory – in those days there were no solar panels or working wind-turbine so the batteries had to be lugged away and charged at home before being brought back. I labelled the batteries with white paint so I could work out which was which. I remember battery **A** was a really good one, probably 100 amp hour. It went missing for about 12 months and I couldn't find it anywhere. Then one daytime at the observatory we were unloading stuff from the boot of his car, and there was battery **A**. I asked him about it, and he said there was a long-standing electrical fault on his car which meant the car battery sometimes went flat, and he had found this half decent battery at the observatory and kept it in the boot for emergencies! We did laugh. I let him keep it, as by that time I'd already found some others.

I've found various pictures I have taken over the last 10 years or so of John and made a couple of montages of these. Lots of fond memories.



The following six pages show the montages compiled by James



Top left, the 70th Anniversary of NAS event in 2016, with Mr Alan Heath cutting the cake. 6th Aug 2016.

Top right and right, Cotgrave Show, with Richard Severn drinking homemade wine. 16th June 2018.

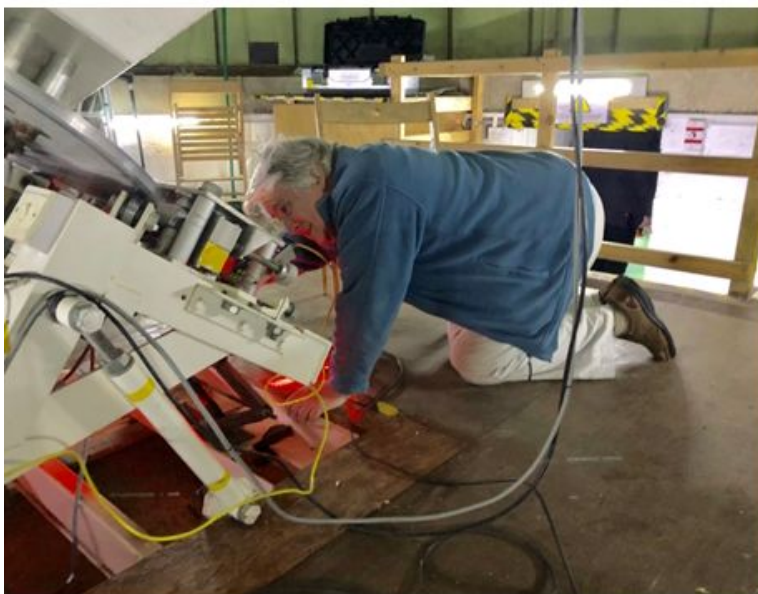


Lower right, Science in the Park, at Wollaton Hall, with Fred Hopper and Leigh Blake. 10th March 2018.





John tinkering with the 24".
Top 27th January 2019; below 28th September 2018.





Above, Fred and John building the newly acquired BBQ, which took them all day!
24th July 2018.

John proving he's still supple enough to get on the roof of the annex and fix the holes in the roof.
30th July 2016.





At the observatory in the middle of winter with the 24".
Above left, looking through the 24"; above right, keeping warm and enjoying a chocolate biscuit. 25th Feb 2018.

Bottom left with James Dawson and Fred Hopper outside the observatory; bottom right with Fred Hopper inside the observatory. 27th January 2019.





Above, Gareth, John and another member trying to answer quiz questions at Plumtree. 21st Dec 2017.

Right, John and Alan Heath at Nottingham Trent University when Alan gave a talk on his lifetime in amateur astronomy. Alan was subsequently given an honorary doctorate by the University for his contributions to astronomy. 24th April 2019.



Right, my favourite photo of John, at the International Astronomy Show in Coventry where I was trying to convince him to buy this telescope! 15th November 2019.



Below, John with Lucie Green and Julian Onions; John had managed to get Lucie to travel to Nottingham to come and talk to NAS at Gotham. 5th December 2019.



Annual “Summer” Barbecue, 2023

Our original plans, for the first Saturday in August, had to be postponed due to heavy rain all day. Not to be deterred, the following Saturday was the 12th – the height of the annual Perseid shower, an opportunity to combine barbecue and shooting stars?

At 4pm, we had a great turn-out of committee members to help set up – gazebos, tables full of rolls, salads, desserts, drinks – so we were ready to go at 6pm when members were due to begin arriving. We ended up with 35/40 people, armed with their burgers, ready to burn! We skipped the music this year out of respect for the sad passing of our former chairman, John Hurst.

Specially invited guests included the mayoress Tina and her partner, Neil, also a councillor; and the Owthorpe lawyers Tim and Lindsey, who have worked so hard alongside us to fight the chicken farm application and subsequent appeal. They certainly enjoyed themselves, especially the large jug of Pimms....? We had a lot of young guests too, who enjoyed raiding the annex for crisps, and running around our open site freely.

One of the highlights was James showing off our very impressive telescope inside the dome. Of course, it was too light for anything astronomical, but James delighted us with local sights on the horizon, Lincoln cathedral and Belvoir Castle amongst them, which cannot be seen so well with the naked eye.

Everyone was tiring when the skies began to darken. Would we see a super display of meteors, or would the skudding clouds spoil our view? The intrepid ones lingered to watch. I wasn't one of them, but I believe a few wishes were made! It was a pleasant (dry!) evening – thank you to those involved in the running of it, and all you members who turned up to enjoy it.

Chris Sneddon, Secretary



A Fireball from my Meteor Detection Camera

by Mark Fairfax

My first Fireball on my rather newly installed UKMON (UK Meteor Observation Network) Meteor detection camera set-up and one of only 18 recorded fireballs over the UK in 2023 (as of Wed 16th Aug).







13th July (actual time was 01:11 UTC so 02:11 BST)
Shower name: zeta Cassiopeiids
Visual magnitude: -4.1

NB. A fireball is an unusually bright meteor that reaches a visual magnitude of -3 or brighter.

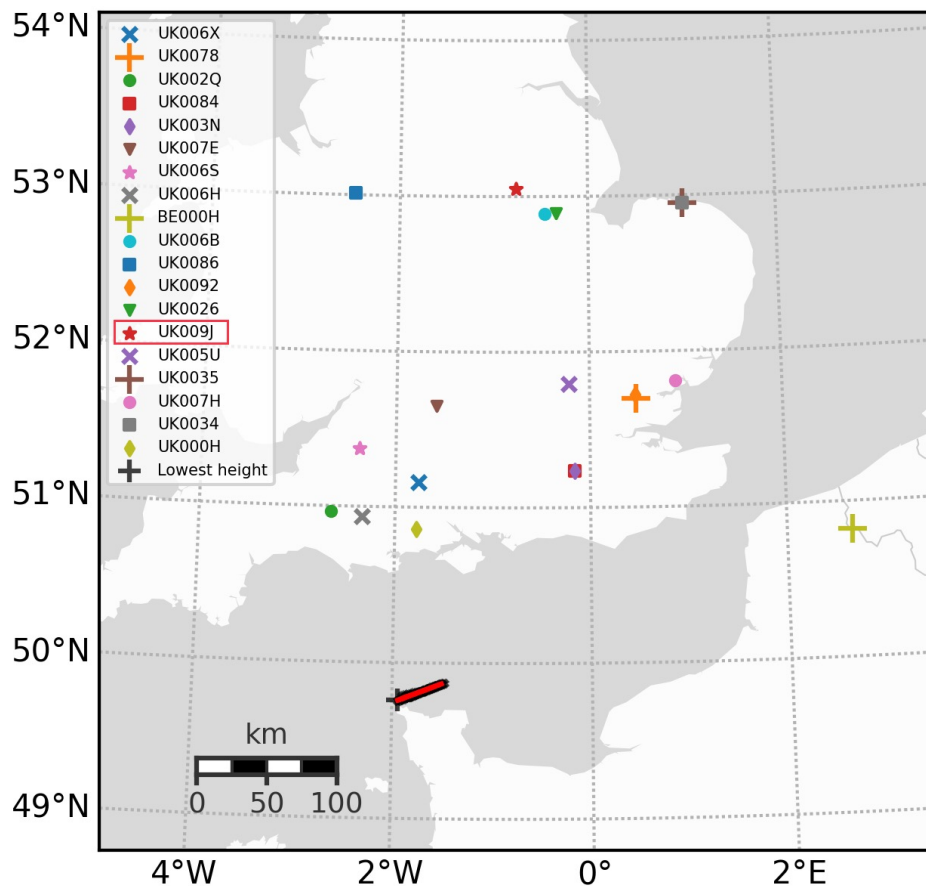
14:43 Sun 13 Aug ukmeteornetwork.co.uk 100%

UKMON News Fireballs Showers Network Team Archive Meteors live Fireball report

18 recorded fireballs in 2023

 <p>08 Aug 2023 at 12:26:50 AM UT Shower ID: spo magnitude: -4.5 vg: 71.10km/s mass: 6.5g</p>	 <p>07 Aug 2023 at 02:28:22 AM UT Shower ID: PER magnitude: -4.5 vg: 59.77km/s mass: 3.4g</p>	 <p>26 Jul 2023 at 03:24:00 AM UT Shower ID: CAP magnitude: -4.5 vg: 23.63km/s mass: 7.5g</p>
 <p>26 Jul 2023 at 03:23:59 AM UT Shower ID: CAP magnitude: -4.5 vg: 23.80km/s mass: 10g</p>	 <p>13 Jul 2023 at 02:11:08 AM UT Shower ID: ZCS magnitude: -4.1 vg: 57.88km/s mass: 1.1g</p>	 <p>10 Jul 2023 at 03:13:23 AM UT Shower ID: PPS magnitude: -4.6 vg: 66.11km/s mass: 1.1g</p>

(I am station UK009J and fireball is the bold red line in the English Channel)



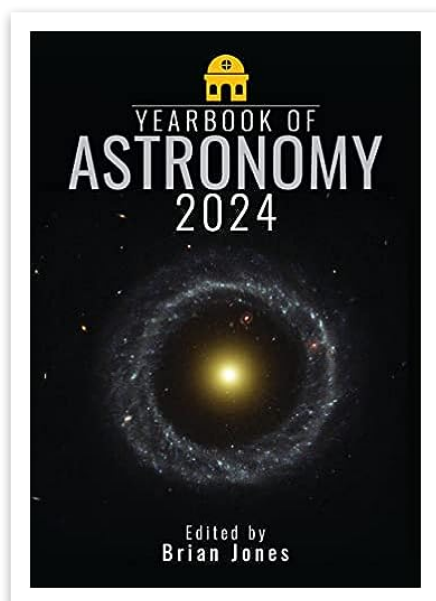
Credit: UK Meteor Observation Network

Yearbook of Astronomy 2024

Brian Jones the author of the Yearbook of Astronomy 2024 has approached me and said we can have copies of the Yearbook for £15 each; they are on Amazon for £19.99. If you want me to get you a copy for £15 please let me know before 20th September and I will order them, and hand them out at Plumtree or the Emmanuel meeting when they arrive, either in October or November. We need to order at least four to get this discount.

James Dawson

observatory@nottinghamastro.org.uk



The Veil Nebula in Cygnus
imaged by **Richard Field**



The Eastern Veil, imaged with Stellina



The Western Veil, imaged with Stellina, 540 x 10sec exposures

A composite image of the Veil Nebula, imaged by Richard Field
using the mosaic mode of Vespera, the 50mm Vaonis 'scope
and one complete circuit of the mode in 75 minutes



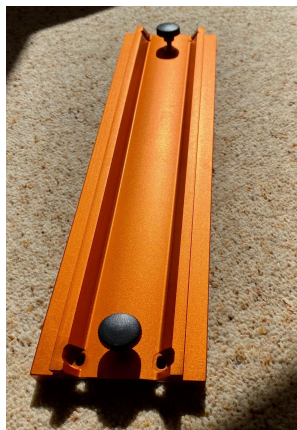
The North American Nebula, imaged by Richard Field
695 x 10 seconds using Stellina



Advertisements

FOR SALE

Celestron dovetail bar to fit C11 telescope.
New, unused **£15**



Celestron 9 x 50mm finderscope and
mounting bracket. New, unused **£45**



Orion UK rack and pinion focuser
£7

2-inch and 1.25-inch adapters to fit focuser
£5 the pair



LENSES FOR TELESCOPE MAKING, etc

Achromatic object glass
50mm diameter
focal length approx 40 cm

£5



Achromatic object glasses
43mm diameter
focal length approx 50cm

£2 each or
£5 for all three



Achromatic doublets
40mm diameter
focal length approx 10cm

£1 each or
£3 for all four



British army brass telescope
by Broadhurst Clarkson
42mm aperture,
with leather sling

£18



Contact Roy Gretton, 07483868162
journal@nottinghamastro.org.uk

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 £3 per meeting for adults.

Annual subscriptions 2023

Full	£30
Joint rate for partners	
living at the same address	£45
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 the Secretary secretary@nottinghamastro.org.uk or speak to any NAS committee member at one of the regular monthly meetings.

The Nottingham Astronomical Society

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