Journal

of the

Nottingham Astronomical Society

October 2023



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Thursday, October 5th

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

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

This evening we welcome

Dr. Richard J. Goodrich

who will be speaking on

Fear and Loathing in the Heavens: The 1910 Return of Halley's Comet

Chairman's Message, October 2023

Hello Everyone,

Here we are in September, and as I write this there appears to be a biblical flood coming down from the heavens, and so we're past the equinox and summer is officially done, clearly!

It was good to see people at the observing evening where we saw many objects around the night sky. The rain isn't really helping observatory access, which I noticed was already getting very soggy on the last trip up there to do some maintenance. We've had some talks with our landlords, Severn Trent, and maybe there could be something there. I really hope so, otherwise we're going to have to look into renting airboats or something. We have most of the Autumn program put together now, just waiting on confirmation for December's speaker. So look forward to the darker nights and interesting topics coming up, and all the events in the sky that we will hopefully see.

Best wishes, Julian NAS Chair

Sky Notes October 2023





All times given below are in British Summer Time unless otherwise stated

British Summer Time ends on Sunday, October 29th. Clocks should be turned back one hour at 2 am on that date.

PHASES OF THE MOON

Phase	
Last Quarter	October 6 th
New Moon	October 14 th
First Quarter	October 22 nd
Full Moon	October 28 th

This month the Moon is closest to Earth on the 26th, and furthest on the 10th.

A **partial lunar eclipse** will occur on October 28th. Just over 12 percent of the Moon will be immersed in the Earth's shadow, so a small "bite" will appear to be taken out of the Moon's upper right, with the umbral phase beginning at 8:35pm and ending at 9:52pm (duration 77 minutes). The faint penumbral eclipse will be visible for an hour or so either side of the partial phase.

THE PLANETS

Mercury will be practically unobservable this month, with superior conjunction occurring on October 20^{th.}

Venus is an outstanding object in the morning sky, shining at magnitude -4.6 as it rises shortly after 3 am at the beginning of October, and reaching greatest western elongation (46 degrees) on the 23rd.

Mars, still technically an evening object, must now be regarded as unobservable as it heads toward conjunction with the Sun in November.

Jupiter is now the stand-out planet in the evening sky, rising at about 8 pm as October begins, and culminating at 2 am in mid-month, by which time it will be shining at magnitude -2.9.

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.

October	Disappearance into eclipse of
$4^{ ext{th}}$	Europa 8:44 pm
11^{th}	Europa 11:21 pm
15^{th}	Io 8:33 pm
22 nd	Io 10:27 pm
23 rd	Ganymede 8:49 pm
29 th	Io 11:22 pm UT
30^{th}	Ganymede 11:50 pm UT
31 st	Io 5:51 pm UT

October	Shadow transit of
5^{th}	Ganymede begins 10:55 pm
$7^{ m th}$	Io 9:18 pm to 11:28 pm
13^{th}	Europa 6:28 pm to 8:48 pm
$14^{ m th}$	Io begins 11:12 pm
20^{th}	Europa 9:04 pm to 11:23 pm
23 rd	Io 7:36 pm to 9:46 pm
27^{th}	Europa begins 11:39 pm
30 th	Io 8:31 pm to 10:41 pm UT

Saturn, shining at magnitude +0.6 in the constellation of Aquarius, will be due south at 10:40 pm as October begins, at 9:40 pm in mid-month, and at 7:40 pm UT on the 31st. At these times its elevation will be close to 25 degrees, making for better observing opportunities than we've had for some years.



The aspect of **Saturn** on October 1st (north at the top)

Uranus, a few degrees northeast of Jupiter in the constellation of Aries, will be due south at 2:45 am in mid-October.

Neptune, magnitude 7.8, now 3 degrees south of the celestial equator in the constellation of Pisces, will be rising at 7 pm as October begins.

METEORS

The principal meteor shower in October is the **Orionids**, which put in a reasonably favourable appearance this year, peaking on the night of the 21st-22nd, with the Moon at First Quarter. Twenty events per hour may be visible under ideal conditions.

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	Торіс	Speaker
October 5 th	Fear and Loathing in the Heavens: The 1910 Return of Halley's Comet	Dr. Richard J. Goodrich
November 2 nd	Stars and Sensationalism: Searching for the First Stars in the James Webb Space Telescope Era	Dr Emma Chapman University of Nottingham

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 October 19th

Social and Practical Astronomy, Plumtree, September 2023

The September Plumtree meeting was run by James and was part one of two talks on filters used in astronomy, covering the principle of what filters do and a quick tour of the common filters available to amateur astronomers. Everyone was given a piece of red and blue acetate and different colours were projected on the screen to show how these coloured acetate block or let through certain coloured light. I'm not sure it was totally successful but there was a lot of laughing and plenty of interaction and discussion.



Professor Jeremy Shears, Director of the British Astronomical Association's Variable Star Section is coming to talk at Plumtree in **October** on something variable-related!

James Dawson Observatory Director <u>observatory@nottinghamastro.org.uk</u>

Extracts from the programme of John Hurst's funeral, celebrating his life



Роем Starlight written and read by son, Edward

The stars reach out from times gone by, their photons lighting up the sky, they guide us, teach us, raise our sights, illuminating all our nights.

And even when their days are done, the light they shone lives on and on, still reaching out, still shining bright, still lighting up our sky each night.

You were my star, you were my guide, you taught me love, compassion, pride, and like each star that's burned it's last, your light shines bright from moments past.

For those you touched, whose lives you've altered, and wrapped in love that never faltered, we say goodbye, sweet dreams, goodnight, we hold your warmth, we carry your light.



ORDER OF SERVICE

MUSIC ON ENTRANCE Moonlight Sonata by Beethoven

WELCOME AND INTRODUCTION led by celebrant, Richard Late

THE LIGHTING OF A CANDLE IN MEMORY OF JOHN





James Dawson

Astronomical Images from the Swiss Alps by Richard Field

Taken in early September in Saas Grund, at an altitude of approximately 1600m



The imaging set-up



Planetary nebula



Saturn



Veil Nebula in Cygnus



M81, Bode's Galaxy

Orion slain!

Meteor strikes at the very heart of Orion in the early hours.



Not a particularly bright meteor but made me smile with the relative perspective of it.

From my **UKMON** meteor station on 21st September at 05:38 BST. Sporadic meteor at visual magnitude -0.4

Mark Fairfax

Observatory Open Evening, September 9th

30 members enjoyed an evening of stargazing at the NAS observatory on Saturday 9th September. Skies stayed clear despite a long lightning storm visible near the horizon to the north periodically lighting up the night sky, which made for an interesting sight whilst viewing through the eyepiece of the 24" telescope.

Targets for the evening were



Thank you to all who attended and enjoyed a warm late summer evening at the Observatory.

Richard Severn

Advertisements

FOR SALE

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



Orion UK rack and pinion focusser £7

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



2-inch and 1.25-inch adapters to fit focusser £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



£10



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

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: <u>http://www.facebook.com/nas.org.uk</u>

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 <u>secretary@nottinghamastro.org.uk</u>

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

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 <u>secretary@nottinghamastro.org.uk</u> or speak to any NAS committee member at one of the regular monthly meetings.

The Nottingham Astronomical Society

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