Journal

of the

Nottingham Astronomical Society

July-August 2023

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Thursday, July 6th

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

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

This evening we welcome

Prof Don Pollacco

of the University of Warwick who will be speaking on

Space Debris and Astronomy

Chairman's Message, July-August 2023

Hi everyone,

Definitely summer, and the nights are drawing in now!! I'm not here for the next meeting as I'm at a research workshop in Tenerife - I know, it's a hard life.

We had a good talk last month on X-Ray astronomy, and a lot of us are now supporters of team Swift. At Plumtree, I gave a talk on my exploits in La Palma using a biggish professional telescope and all the fun and trials that that entailed. July brings Don Pollaco to talk about space junk and astronomy. I'll be sad to miss that but I'm sure you'll all enjoy it. Richard, James and I gave a talk to the Emmanuel A level physics class on the subject of amateur astronomy which was well received. Hopefully some budding astronomers there. In August we have our members barbecue, where you'll get a chance to meet other members, see the observatory in the daylight - and so be able to find it better in the night, and to see how things are developing there. We hope lot of you will be able to join us, but more details nearer the time.

Look forward to seeing you all when I get back.

Julian, NAS Chair.



Sky Notes July-August 2023

Compiled by Roy Gretton



All times given below are in British Summer Time

Earth will be at aphelion at 9pm on July 6th.

PHASES OF THE MOON

Phase	July	August
Full Moon	3 rd	1 st and 31 st
Last Quarter	10^{th}	8^{th}
New Moon	17^{th}	16 th
First Quarter	25^{th}	24^{th}

In July the Moon is closest to Earth on the 4th and furthest on the 20th. In August the corresponding dates are the 30th and 16th. Since the Full Moon on the 31st is the second one in the same calendar month, it is likely to be called a "blue moon". And if that wasn't enough, because this Full Moon occurs only 10 hours after perigee, it might also attract the title of "supermoon". I wonder how often we get a blue supermoon? *Or is that a super blue moon*?

THE PLANETS

For the best views of planets this summer, we must look to the morning sky.



The outer planets on display: Looking SE at 3 am on August 24th

Mercury spends most of the July-August period as an evening object, passing through greatest eastern elongation (27 degrees) on August 10th. It will, however, be very low down and difficult to observe, always setting less than an hour after the Sun.

You may be able to spot **Venus** low down in the west after sunset in early July, but it will be disappearing into solar glow before August begins, reaching inferior conjunction on the 13th. At the end of August it will a morning object rising about an hour before the Sun.



Venus on July 9th; diameter 38 arcseconds

Inconspicuous **Mars** continues to linger in the evening sky. Its angular diameter diminishes from 4.2 arcseconds at the beginning of July to 3.8 arcseconds (roughly the same apparent size as Uranus) by the end of August, at which time it will be shining at magnitude +1.7.

Jupiter will be rising at midnight as July gives way to August, and at 10 pm at the close of the month, by which time it will be more than 15 degrees north of the celestial equator and shining at magnitude -2.6.

As July ends and August begins, **Saturn** will be rising two hours before Jupiter, and shining at magnitude +0.6. It will reach opposition to the Sun on August 27th, when it will be less than 12 degrees south of the celestial equator, with the ring system 43 arcseconds across.

Uranus, in the constellation of Aries, will be rising at 10 pm at the end of August.

By the end of August **Neptune**, little more then 2 degrees south of the celestial equator in the constellation of Pisces, will be above the horizon for most of the night.

METEORS

This year the **Perseids** put in a highly favourable appearance, maximum activity occurring when the Moon is a thin waning crescent (27 days old). The best time for observing these meteors should be after midnight on the night of August 12th-13th, although some may be seen for at least a week either side of this date. Meteor-watching can be a real pleasure on warm summer nights!

NOCTILUCENT CLOUDS

We are now well into the NLC season. Noctilucent clouds are pale blue filamentary clouds, formed far above the normal clouds we associate with the weather. They are best observed in June and July in the northern hemisphere, becoming visible when illuminated by the Sun when it is below the horizon. *See below:*

A quote from *The Guardian* of May 29th: "The origin of the noctilucent clouds remains mysterious. They are the highest known clouds in Earth's atmosphere, existing at an altitude of about 80km (50 miles), which is virtually the edge of space. They are regarded as being too high and too tenuous to have any effect on the weather at ground level. A puzzling aspect is that there appears to be no recorded sightings of the noctilucent clouds before 1885. This seems strange considering how obvious they are. Some have suggested that perhaps they form when water freezes around industrial pollutants, which were first released into the atmosphere during the Industrial Revolution. Others suspect it is because the atmosphere now contains more of the greenhouse gas methane, which promotes the production of water vapour in the upper atmosphere."

If you wish to see noctilucent clouds, look toward the north on a clear evening after 10:30pm.

Light Pollution (again!)

A few quotes from an article published in **The Observer** on May 28th under the headline,

Stars could be invisible within 20 years as light pollution brightens night skies

"The increased use of light-emitting diodes and other forms of lighting are now brightening the night sky at a dramatic rate. Indiscriminate use of external lighting, street illumination, advertising, and illuminated sporting venues is now blinding our view of the stars."

"At its current rate most of the major constellations will be indecipherable in 20 years."

"Light pollution is now causing the night sky to brighten at a rate of around 10% a year, an increase that threatens to obliterate the sight of all but the most brilliant stars in a generation."

"The problem is that light pollution is still not perceived by the public to be a threat."

"Apart from its astronomical and cultural impact, light pollution is having serious ecological consequences".

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 <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

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
July 6 th	Space Debris and Astronomy	Prof Don Pollacco University of Warwick
August 5 th	Barbecue at the Observatory (members and their guests only)	
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 July 20th

Supernova SN2023icf in M101

A bright supernova was discovered in the spiral galaxy M101 on May 19th.

Richard Field captured this image on the night of 29-30th May using Stellina, with 500 subs stacked. The supernova is the brighter of the two objects at 5 o'clock.



Roy Gretton, unaware of the existence of the supernova, happened to be imaging M101 (along with other galaxies) using a Canon 450D camera at the prime focus of a 150mm f/5 refractor on May 29^{th} :



On June 3rd, now knowing of the discovery of the supernova, Roy attempted to image the galaxy again with the same equipment, with the following result. It's a very poor image because the sky wasn't completely dark, there was high-level haze, and to make things worse it was the night of the Full Moon. But the supernova is clearly visible, illustrating the fact that a single exploding star can outshine all the billions of other stars in its host galaxy.



Coincidentally, Roy had imaged a supernova in the *same* galaxy in September 2011:



We don't seem to get supernovae as frequently as this in our own galaxy!

My meteor detection project

by Mark Fairfax

I finally got my Raspberry Pi Meteor Station (RMS) installed, calibrated & fully operational from 28th May. Plus, I'm now a member of UK Meteor Network (UKMON) citizen science project of amateur astronomers contributing significant data to the field of meteor astronomy.

(Also very pleased to be doing some astronomy during the UK Summer where the nights don't get truly dark and a lot of telescopes are on an enforced break).

Meteor detection camera

Raspberry Pi 4b set-up.

One of my detections recently featured by UKMON (best intersection) for an interesting sporadic type meteor that covered quite a distance over the English Channel on 15th June 00:14 UT.



Lots of information and data available at https://ukmeteornetwork.co.uk/ or just stop me for a chat at one of our meetings.

STUART ATKIN

1936 - 2023



A tribute from Marcus Stone

I well remember Stuart's early membership at the NAS, the (meetings were then at the Polish Club) and getting to know him. He joined soon after I did, he was a good and helpful friend, always talking to new members and visitors, making them feel welcome.

Over the years I really appreciated our talks together on Astronomy of which Stuart had a broad understanding. One of his outstanding astronomical pictures was that of the comet Hale Bopp's 1997 apparition.

Mavis, his wife, has kindly sent a tribute and a personal summary of Stuart's developing interest in Astronomy.

Stuart you will be fondly remembered by many here at N.A.S.

Our thoughts and prayers will be with Mavis, as she herself is recovering from surgery. It is good she has a very supportive family nearby.

A tribute from Mavis, Stuart's wife

Stuart was born in Sheffield; a little brother to his 7 year old sister Enid. He wasn't so little though, weighing in at 10lb 6oz! The Dr said he had a stomach down to his boots!

When he was 5 his sister took him to Sunday school, but he fidgeted so much and asked when he could go home, as he and the lads had seen some tadpoles in the pond! That was the last of sunday school.

He has always loved the countryside, walking the hills and mountains. When he was 16 Stuart saw his first shooting star and from then on he was hooked on astronomy. Many years later he was able to buy a telescope and build an observatory for it in our garden where he spent many a night looking at the stars and planets. One night he captured an amazing photo of the milky way which was hung on our wall in nottingham.

Stuart left school and took his first job as a junior clerk at Barclays Bank in Sheffield and after that did two years national service in the R.A.F, some of it at Weeton near Blackpool.

Not long after in 1959, we met at a christmas party and continued to see each other, going dancing at the Locarno

and the Azena despite me asking which band he was dancing to! We married in August 1961 and Stuart was made manager at Lloyds and Scottish finance company in Doncaster.

Our two girls Debroah and Kathyrn were born there and it was a busy, but happy time enjoying holidays in Wales, Cornwall and the Lakes, swimming and 'crabbing' in the rock pools. At the end of the day Stuart would read them a bedtime story, but would fall asleep before they did; so they never did find out what happened to 'Mr Pink-Whistle' We moved to Derby and then on to nottingham where we lived for 48 years joining all sorts of social activities, Probus, U3A, the gym; astronomy and our church in west Bridgford where he had various roles including church steward and gift aid secretary.

When he retired we enjoyed many holidays together including his favorites, Iceland, canada, norway and scotland. When Stuart started to struggle getting around Deborah and Kathryn discussed us coming to live in Lancashire near them and our 3 grandchildren, Christopher, Daniel and Rachel and we were both very thankful we did!



The Milky Way from Gran Canaria - Canon EOS 90D 18mm ISO 6400

John Dignan

POULTRY FARM LATEST

Planning permission for a proposed Poultry farm containing 190,000 birds near to the NAS observatory was refused by Rushcliffe Borough Council last year. An appeal to the Planning Inspectorate was lodged recently and has now appeared on the Planning Inspectorate website.

https://acp.planninginspectorate.gov.uk/ViewCase.aspx?caseid=3315368

Anyone who objected to the original planning application should have been sent a notice of the appeal by Rushcliffe Planning Department. Details of the grounds of appeal are available from the Rushcliffe planning website

https://planningon-line.rushcliffe.gov.uk/online-applications/applicationDetails.do? activeTab=documents&keyVal=R6Z22QNLIXO00 <https://planningon-line.rushcliffe.gov.uk/online-applications/applicationDetails.do? activeTab=documents&keyVal=R6Z22QNLIXO00>

Representations should be made to the Planning Inspectorate link by 2nd August 2023.

Richard Severn

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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