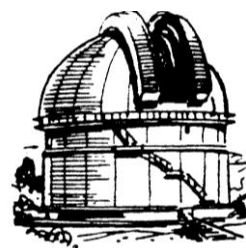

Journal

of the



Nottingham Astronomical Society

July-August 2010

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Thursday, 1st July

at the

British Geological Survey
Nicker Hill, Keyworth

8 pm (doors open at 7.30pm)

Tonight we have a

Members' Evening

with various items of interest including a
talk by Paul Stocks on

**"After the Space Shuttle, What's
Next? - NASA's plans for the future
of human spaceflight"**

WELCOME TO OUR TWO-MONTH JOURNAL

Please note that **the Society does not meet at Keyworth in August.**

However, August can be regarded as the beginning of a new observing season, with the return of dark overnight skies, since by the middle of the month the Sun will be setting at about 8.30 pm BST. And there are some truly glorious sights to be seen in the late summer sky, with the constellation of Cygnus riding high, and a dense section of the Milky Way stretching down to the southwestern horizon. In this region there are some splendid sights for users of telescopes, binoculars, and even the naked eye from a dark location. Telescopic objects of perennial interest include M13 (the great globular cluster in Hercules), M57 (the Ring Nebula in Lyra, almost directly overhead at 10 pm in mid-August), and M27 (the Dumbell Nebula in Vulpecula).

Also, this year the Perseid meteors will be appearing under very favourable conditions, with the evening of August 12th expected to be the time of maximum activity. Let's hope for a clear sky as some compensation for the complete wipe-out of the Geminid maximum last December!

Further afield, a total eclipse of the Sun with a maximum duration of 5 minutes 20 seconds will sweep across the south Pacific and end in southern South America on July 11th. Unfortunately most of the track of totality lies across uninhabited ocean, and on this occasion we don't know of any NAS members who are planning to make a trip to observe this event.

Sky Notes

June 2010

Compiled by Roy Gretton



Earth will be at **aphelion**, its furthest distance from the Sun (152 million km), on July 6th.

PHASES OF THE MOON

July

Last Quarter occurs in the afternoon on the 4th
New Moon occurs in the evening of the 11th
First Quarter occurs on the morning of the 18th
Full Moon occurs shortly after midnight on the 26th

August

Last Quarter occurs on the morning of the 3rd
New Moon occurs on the morning of the 10th
First Quarter occurs in the evening of the 16th
Full Moon occurs in the early evening of the 24th

THE PLANETS

Mercury, having passed through superior conjunction on June 28th, is unobservable in July, and even when the planet reaches greatest eastern elongation (in the evening sky) on August 7th, it will be very low down, and difficult to observe from the latitude of the UK.

Venus is a brilliant (magnitude -4) “evening star” in the constellation of Leo during most of July, and on the 10th will be one degree south of the star Regulus. The planet will be at greatest eastern elongation (46 degrees from the Sun) on August 20th, when it will be shining at magnitude -4.2 .

Mars begins July in the constellation of Leo, and ends August in Virgo, by which time it will have faded to magnitude $+1.5$, and will be difficult to observe in the evening twilight.

Jupiter continues to be a morning object in the constellation of Pisces. In July it will be rising around midnight, and during August will become prominent in the southeast in the late evening, shining at magnitude -2.8 . By then it will be by far the best planet to observe, the disk being nearly 46 arcseconds across, with the four Galilean satellites clearly visible in a small telescope or binoculars. After spending recent years in the southern hemisphere, Jupiter is now close to the celestial equator, and the prospects for studying the planet from the latitude of Britain are much improved.

Saturn is now heading into the sunset, and becoming ever harder to spot in the west as it heads toward conjunction with the Sun on October 1st.

Uranus and **Neptune** are both morning objects. Uranus, at magnitude 5.8 in the constellation of Pisces, has an apparent diameter of 3.5 arcseconds, and will become easier

to observe as August progresses. Neptune, at magnitude 7.9, is a much more difficult target in the constellation of Aquarius.

METEORS

July, with its lack of true darkness, is not the best month for observing meteors, but the situation is far better in August, when one of our best annual showers occurs. The **Perseids** are predicted to reach their maximum activity in the evening of August 12th, when perhaps 80 events per hour might be seen under ideal conditions. This year the circumstances are highly favourable, with no interference from moonlight. Look east after sunset on the 12th, and several evenings either side of this date. Perseid meteors tend to be fast-moving, with a high proportion of bright events, should therefore be a good subject for photography.

The Nottingham Astronomical Society: E - SERVICES

'Beehive' Website

Whether or not you are a NAS member, you can now keep up to date with details of the Society's meetings and other events by visiting the NAS website:

www.nottinghamastro.org.uk

NAS Journal e-mailing list

To register for your monthly e-mailed copy of the NAS Journal, just e-mail

info@nottinghamastro.org.uk

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

NAS Members may submit private advertisements for inclusion free of charge in the Journal. Please email the Editor.

DIARY DATES 2010

Meetings of the Nottingham Astronomical Society

Our programme for the coming months is below. Don't forget to check our website:
www.nottinghamastro.org.uk
for the latest information about the Society's meetings and observing sessions.

Thursday 1st July 2010

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Members Evening, with short talks by members of the NAS, including

**"After the Space Shuttle, What's Next? -
NASA's plans for the future of human spaceflight"
Paul Stocks**

Thursday 2nd September 2010

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Talk: **"WIMP Hunting: The Search for Dark Matter"**
Dr Anne Green
School of Physics and Astronomy
University of Nottingham

Thursday 7th October 2010

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Talk: **"Cosmology and the LHC
(what the LHC might or might not tell us about the universe)"**

Susan Cartwright
Department of Physics and Astronomy
University of Sheffield

Thursday 4th November 2010

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)
Annual General Meeting 2010

Thursday 2nd December 2010

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Talk: **"Herschel: seeing the stolen starlight"
(what the Herschel space telescope is showing us
about the hidden side of the Universe.)**

Dr Loretta Dunne
School of Physics and Astronomy
University of Nottingham

If you know of anyone who is willing to give an astronomy or science-related talk at one of our monthly meetings, please let the Secretary (or any committee member) have their contact details

NAS Members' Visit to the NTU Astronomical Observatory

Date: Mon 19 July 2010

Start time : 7pm.

Location: Optical observatory, Clifton campus

The visit will consist of a talk and a tour the observatory.

The tour will be around 30 minutes and the talk will be about 45minutes.

A brief abstract for the talk is as follows :

"Trent Astronomical Observatory – NTU peers at exo-solar planets"

Over 100 planets orbiting other stars have been discovered so far and the hunt is still on. Many of these exo-planets were discovered using the so-called transit method. Thanks to high quality CCDs now available, observing these transits has become possible for amateur astronomers. Using recent exo-planet observations carried out at Trent Astronomical Observatory I will outline the transit method. Afterwards, we will have the opportunity to inspect the observatory and some other of its exciting results.

There are still places available for this visit. If you are interested in attending please put your name on the registration sheet which will be attached to the signing-in book at our monthly meeting on Thursday 1st July.

If you are unable to attend the meeting, you can register your interest by sending an email to info@nottinghamastro.org.uk.

For further information about the NTU optical observatory, please visit the [observatory website](#).

Nottingham Trent University Open Dome Event -

"An Observatory for Everyone"

Date: 16 July 2010

Time: 4.00pm - 6.00pm

Event: Open Dome Event – An Observatory for Everyone

Location: Optical observatory, Clifton campus

Details:

Have you ever wanted to use a two-meter class telescope? Do you find staying up late, suffering freezing nights, and bad weather to observe the stars a real pain? No problem. This month's event shows you, how you could be observing from your home computer or a computer at school.

The event will start at 4pm at the NTU observatory where visitors will get a tour of the NTU observatory and the chance to see the Sun with the observatory's solar scope or small telescopes if the weather allows it.

If the weather is not good, a small planetarium session will be offered in the observatory pointing out objects of interest.

At 5pm we will continue to CEL 015 for a talk titled: *An Observatory for Everyone-The Faulkes Telescope Project* presented by Dr Paul Roach, Director of the Faulkes Telescope at Cardiff. The Faulkes Telescope Project was launched in March 2004, and over the past six years it has provided tens of thousands of images of galaxies, stars and solar system objects to school groups and amateur astronomers around the world. Established primarily for UK schools to use, the two £5 million telescopes have two-metre mirrors and are located in Hawaii and Australia. They are free to use, and are remote-controlled over the Internet, allowing users to participate in research projects with professional and amateur astronomers. Over the new few years, the Faulkes Telescopes will become part of a bigger network, the Las Cumbres Observatory Global Telescope, providing access to even more telescopes located at observatories all over the world. This talk will be followed by a brief introduction on what is visible in this month's sky.

Booking is required for this event. Please contact [Daniel Brown](#) to register.

For further information about the optical observatory, please visit the [observatory website](#).

Public astronomy lectures at the University of Nottingham

"Black Holes"

Date: Thursday 22nd July 2010

Time: 6-7 pm

Speaker: Graeme Candlish

Venue: Maths & Physics Building (B1)
University Park Campus
Nottingham
([Map](#))

"Global Warming"

Date: Thursday 19th August 2010

Time: 6-7 pm

Speaker: Dr. Frazer Pearce

Venue: Maths & Physics Building (B1)
University Park Campus
Nottingham
([Map](#))

NOTTINGHAM ASTRONOMICAL SOCIETY

Founded in 1946 for all interested in astronomy
Affiliated to the British Astronomical Association
Member of the Federation of Astronomical Societies

Registered Charity No. 1066645
Member of the Society for Popular Astronomy
Supporter of the Campaign for Dark Skies

Membership application and Gift Aid declaration

Title:

Full name:

Full home address:

Postcode:

Telephone:

e-mail address:

Subscription rate:	Full	£25.00	(year)	£12.50	(half year)
	Concession	£12.50		£6.25	
	Partnership	£37.50		£18.75	

Concession = under-18 / full-time student / unemployed and receiving benefits

Partnership = two members living together as a couple at the same address

I wish my subscriptions to be eligible for Gift Aid

Yes / No

Gift Aid declaration

(HMRC reference XR32048)

I want Nottingham Astronomical Society to treat all subscriptions and donations that I make from the date of this declaration as Gift Aid donations, until I notify you otherwise.

I pay an amount of UK Income Tax and/or Capital Gains Tax at least equal to the tax that Nottingham Astronomical Society reclaims on my donations in the appropriate tax year.

Signature:

Nottingham Astronomical Society

Affiliated to the **British Astronomical Association**
Member of the **Federation of Astronomical Societies**
Member of the **Society for Popular Astronomy**
Supporters of the **Campaign for Dark Skies**
Registered Charity No: 1066645

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Dorothy Sowerby

Kevin Greally

David Anderson

Julie Morledge

Meetings

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

**The British Geological Survey
Nicker Hill
Keyworth
Nottingham NG12 5GG**

Doors open 7.30pm

Meetings start 8.00pm

Meetings end 10.00pm

Meetings are open to the public, and visitors are always welcome to attend.

Annual subscriptions 2009/10

Full	£25
Concessions	£12.50
Joint rate for partners living at the same address	£37.50

Subscriptions become due on 1st October. Half-price subscription is charged if joining after 1st April. 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 info@nottinghamastro.org.uk or speak to any NAS committee member at one of the regular monthly meetings. A membership application form is inside this issue of the Journal.

The Nottingham Astronomical Society

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