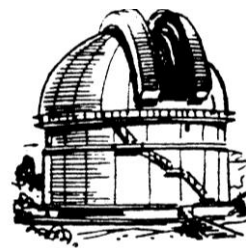

Journal

of the



Nottingham Astronomical Society

July & August 2013

Inside this issue

- Sky Notes for July and August
- NAS e-Services
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- Membership application form

Thursday, 4th July
British Geological Survey
Nicker Hill, Keyworth
8 pm (doors open at 7.30pm)

Tonight we welcome

Dr Paul Ruffle
of Jodrell Bank

who will be speaking on

**“ Matter Between the Stars -
the Physics and Chemistry of
the Interstellar Medium ”**

RECENT NEWS STORIES ON THE WEB

Follow these links for interesting current news:

Three Planets Discovered in the Habitable Zone of Nearby Star

<http://www.sciencedaily.com/releases/2013/06/130625073544.htm>

The first transiting planets in a star cluster have been discovered

[http://www.astronomy.com/en/News-](http://www.astronomy.com/en/News-Observing/News/2013/06/First%20transiting%20planets%20in%20a%20star%20cluster%20discovered.aspx)

[Observing/News/2013/06/First%20transiting%20planets%20in%20a%20star%20cluster%20discovered.aspx](http://www.astronomy.com/en/News-Observing/News/2013/06/First%20transiting%20planets%20in%20a%20star%20cluster%20discovered.aspx)

New class of variable star identified

<http://www.astronomynow.com/news/n1306/16variablestar/>

Billion-Pixel View From Mars Curiosity Rover at Rock Nest released

<http://www.jpl.nasa.gov/spaceimages/details.php?id=PIA16919>

Sterilizing Mars Spacecraft Is Largely a Waste of Money, say Two Experts

<http://www.sciencedaily.com/releases/2013/06/130627102617.htm>

Sky Notes

July and August 2013

Compiled by Roy Gretton



All times given below are in **British Summer Time (BST)**

Earth's **Aphelion** occurs on July 5th, when we shall be 152,097,400 km from the Sun.

PHASES OF THE MOON

| | July | August |
|---------------|---------------------------------|----------------------------------|
| New Moon | 8:14 am on the 8 th | 10:51 pm on the 6 th |
| First Quarter | 4:18 am on the 16 th | 11:56 am on the 14 th |
| Full Moon | 7:16 pm on the 22 nd | 2:45 am on the 21 st |
| Last Quarter | 6:43 pm on the 29 th | 10:35 am on the 28 th |

In July the Moon is closest to the Earth on the 21st, and furthest from the Earth on the 7th. In August the respective dates are the 19th and the 3rd.

(Data from the BAA Handbook)

THE PLANETS

Mercury will be at inferior conjunction on July 9th, thereafter becoming a morning object until it reaches greatest western elongation on July 30th. It then moves back to superior conjunction on August 24th. However, throughout the whole period Mercury will be very difficult to observe from our latitude.

Venus is an evening object, and will be 25 degrees from the Sun at the beginning of July. This will increase to 39 degrees by the end of August, when its brightness will have reached magnitude -3.9 , but throughout these two months the planet will never be seen against a dark sky, so observing conditions will not be ideal.

Mars is now a morning object, presenting a tiny disk barely 4 arcseconds across. We shall have to wait several months before useful observations of its surface can be made with a telescope.



The view looking east
as twilight begins
on the
morning of August 25th

Jupiter also is a morning object, having passed through conjunction with the Sun on June 19th. It begins July at a distance of more than 6 AU from Earth, and with an apparent

diameter of a little over 30 arcseconds. It will be slowly drawing away from the Sun, until by the end of August the planet will be easy to spot, lying in the constellation of Gemini in the pre-dawn sky.

Saturn is now well past its best for observation during the present apparition as it moves toward the Sun in the evening sky. Still in the constellation of Virgo, it will end its retrograde motion on July 11th, after which it resumes its easterly progress against the background stars. By the close of August Saturn will have receded to 10.3 AU from Earth, and will have faded to magnitude +0.7.

Uranus is a morning object more than 4 degrees north of the celestial equator, close to the border of Cetus and Pisces. Magnitude +5.7.

Neptune, magnitude +7.8, reaches opposition to the Sun on August 27th, when it will still be more than 10 degrees south of the celestial equator.

METEORS

There are three meteor showers visible in August, all of which are favourable (in terms of moonlight) for observation this year: the **Alpha Capricornids**, which peak on the morning of the 3rd, and may produce a handful of events in an hour if you are very lucky (but some of these may be long, slow fireballs), the **Iota Aquarids**, which peak on the 6th, and may produce a handful of faint meteors per hour...and of course the **Perseids**, probably the best-observed shower of the year, peaking on the evening of August 12th, which may give us one event per *minute*. So if you are blessed with a clear sky on the 12th, take the opportunity of a warm evening to go outside and enjoy the show. The Moon will by then be a 6-day-old crescent, but it will move out of the way as the night progresses. And bear in mind that the Perseids are active for a number of days either side of August 12th, so you can also make use of these dates (especially the 11th).

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 Journal e-mailing list

To register for your monthly e-mailed copy of the NAS Journal, just e-mail secretary@nottinghamastro.org.uk

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

DIARY DATES 2013

Monthly Meetings of the Nottingham Astronomical Society

Our programme for this year is shown below. Don't forget to check our website:

www.nottinghamastro.org.uk

for the latest information about the Society's meetings and for further information about the talks and speakers.

Our meetings are held on the **FIRST THURSDAY** of the month,

at the British Geological Survey, Keyworth, Notts. NG12 5GG

doors open at 7:30pm for 8pm start.

Thursday, 4th July 2013

Talk:

**“ Matter Between the Stars -
the Physics and Chemistry of the Interstellar Medium ”**

Dr Paul Ruffle

Jodrell Bank Centre for Astrophysics – University of Manchester

August 2013 - Summer Break - No Meeting

Thursday, 5th September 2013

Members' Evening (visitors welcome)

A short talk by one of our members, followed by an **Astro Quiz**.

Thursday 3rd October 2013

Talk:

“ Astrophotography – and How It's Done ”

Nik Szymanek

The British amateur astronomer and prolific astrophotographer

Thursday 7th November 2013

2013 Annual General Meeting

Thursday 5th December 2013

Dramatic Lecture : “ Into the Cosmic Ocean ”

The dream of travel to the stars

Andrew Lound

Andy is a popular public presenter and UK Coordinator for the Planetary Society

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FOR SALE

Skywatcher Evostar 120 Refractor on EQ5 Mount

Almost new. Motor drives to both axes with hand controller
Heavy duty metal tripod. 50mm right-angle finder. 2" star-diagonal.
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available if wanted.
£300

Phone David on: 0115 9602266 or e-mail: david_lukehurst@o2.co.uk

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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email: b.chacksfield@gmail.com

ORDINARY COMMITTEE MEMBERS:

Kevin Greally

David Anderson

Victoria Jolly

Phil Heesom

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 2013

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

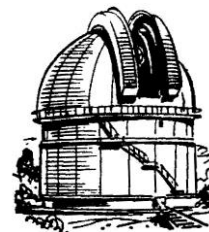
Subscriptions become due on 1st January. Half-price subscription is charged if joining after 1st July. Please make cheques payable to: Nottingham Astronomical Society.

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. A membership application form is inside this issue of the Journal.

The Nottingham Astronomical Society

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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

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| | 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)

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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.

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Date: