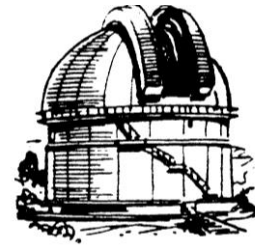

Journal

of the



Nottingham Astronomical Society

July and August 2007

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Thursday

at the

British Geological Survey

Nicker Hill, Keyworth

8 pm (doors open at 7.30pm)

This evening we will be visiting the
BGS 3D Immersion Suite

An opportunity to view images of the surface of
Mars in 3D

NOTTINGHAMSHIRE'S NEWEST OBSERVATORY

Nottingham Trent University's new £150,000 observatory on the Clifton campus is expected to become fully operational this year. Housed within the 5-metre dome is a fully computer-controlled 20-inch modified Newtonian telescope. This is linked to a 7 metre by 5 metre (warm) control room. Imaging facilities include two Starlight Express CCD cameras.

The Observatory supports teaching and the university Astronomy Society. **Use with schools and external interest groups is encouraged.** The Director of the Trent Astronomical Observatory is Dr Robin Turner, who can be contacted for informal discussions on possible usage

Source: http://www.ntu.ac.uk/science/specialist_centres/observatory/

Sky Notes

2007 July and August

Compiled by Roy Gretton



Aphelion, when the Earth is furthest from the Sun, occurs this year on July 7th, when the two bodies will be 152 million kilometres apart.

PHASES OF THE MOON

July
Last Quarter occurs in the late afternoon of the 7th
New Moon occurs close to midday on the 14th
First Quarter occurs soon after dawn on the 22nd
Full Moon occurs in the early morning of the 30th

August
Last Quarter occurs on the evening of the 5th
New Moon occurs around midnight on the night of the 12th -13th
First Quarter occurs just before midnight (UT) on the 20th
(just before 1 a.m. on the 21st, BST)
Full Moon occurs in the late morning of the 28th

In July the Moon is closest to Earth on the 9th, and furthest from Earth on the 22nd.
In August the Moon is closest to Earth on the 4th, and furthest from Earth on the 19th.

THE PLANETS

Mercury puts in its best morning appearance of 2007 in late July. The planet will be at greatest western elongation on July 20th, when it will be 20 degrees from the Sun, and shining at magnitude -0.1. Look for Mercury in the bright eastern sky before sunrise in the last week of July. The planet will be rising about an hour before the Sun, in the constellation of Gemini.

Venus, having put in a splendid evening appearance throughout the spring, is now fast disappearing into the sunset glow, at a rate of about one degree per day, and will reach inferior conjunction (between Earth and Sun) on August 18th.

Mars is at last pulling clear of the dawn glow, and moving northward, so that it will steadily become better placed for observers in Britain throughout the remainder of 2007. By the end of August it will be 18 degrees north of the celestial equator, shining at magnitude 0.3, and its apparent diameter will have grown to 8 arcseconds. We look forward to late December, when the distance between Earth and Mars will be half that in late August, and the Red Planet will be riding high in our winter sky.

Jupiter is now an evening object, prominent in the south, but low in the sky for observers in the UK. From Nottingham the planet will be only 15 degrees above the southern horizon at best. Between the beginning of July and the end of August its magnitude will dim from -2.5 to -2.2. Though not well-placed for telescopic study, Jupiter will continue to be a pleasing sight for naked-eye observers, appearing northeast of Antares, the brightest star in Scorpius.

Saturn is fast disappearing into the bright glow of sunset, and will be virtually unobservable by the beginning of July. However, you might like to look for the planet in the evening sky on July 2nd, when it will be less than one degree from Venus. It will move closer to the Sun until it reaches conjunction on August 21st.

Uranus is a magnitude 5.7 morning object in the constellation of Aquarius. **Neptune** (magnitude 7.8) reaches opposition in the constellation of Capricornus on August 13th. From Nottinghamshire you will need binoculars or a telescope in order to find either of them.

METEORS

One of our best meteor showers, the **Perseids**, occurs in August, and this year conditions are particularly favourable for observation, as the predicted maximum activity coincides with a New Moon. The Perseids typically are fast meteors that produce a high proportion of bright events. They can be seen between July 23rd and August 20th, with the maximum occurring in the early morning of August 13th. So the best evening for viewing the Perseids is August 12th. It will be getting dark by 9 pm BST, and if the sky is clear that evening, and you live in a particularly light-polluted neighbourhood, you could consider travelling to a darker spot. You might even take family or friends with you. Usually the weather is relatively warm on an August evening, so it is an ideal time to introduce someone to the joys of meteor-watching. On average you can expect to see a meteor every minute. You might even try capturing a few with your digital camera!

DIARY DATES 2007

<p style="text-align: center;">Meetings of the Nottingham Astronomical Society Our programme for 2007 is below. Don't forget to check our website: http://beehive.thisisnottingham.co.uk/nottinghamastro for the latest information about the Society's meetings and observing sessions.</p>
<p style="text-align: center;">Thursday 5 July 2007 British Geological Survey, Keyworth 8.00pm (Doors open 7.30pm) The BGS 3D Immersion Suite An opportunity to view images of the surface of Mars in 3D</p>
<p style="text-align: center;">August Summer break, no meeting</p>
<p style="text-align: center;">Thursday 6 September 2007 British Geological Survey, Keyworth 8.00pm (Doors open 7.30pm) Talk: 'How Galaxies are Formed' Christopher Conselice University of Nottingham</p>
<p style="text-align: center;">Thursday 4 October 2007 British Geological Survey, Keyworth 8.00pm (Doors open 7.30pm) Talk: 'Beneath the Shadow of the Moon' Mike Frost</p>
<p style="text-align: center;">Thursday 1 November 2007 British Geological Survey, Keyworth 8.00pm (Doors open 7.30pm) Annual General Meeting 2007</p>
<p style="text-align: center;">Thursday 6 December 2007 British Geological Survey, Keyworth 8.00pm (Doors open 7.30pm) Talk: 'Simple Sums for Astronomers' Dr Roy Gretton NAS Vice-President</p>

OTHER EVENTS

THE HERSTMONCEUX SCIENCE CENTRE ASTRONOMY FESTIVAL

7th, 8th & 9th September 2007

Camp under the backdrop of the historic domes and enjoy a packed weekend.

This year, speakers on Saturday will include:

Nik Szymanek (Astrophotographer)

Dr Andy Newsam (Liverpool John Moores University)

Dr Paul Murdin (Institute of Astronomy, Cambridge)

Prof. Brian Hunter (Queens University, Canada)

5th speaker to be confirmed

There will also be informal talks given by the **Sky at Night team** who are supporting the event this year.

Dr Anton Vamplew will be speaking on Sunday as part of the family activity fun day along with rocket demonstrations, rocket making and launching plus much more.

For more information please visit our website: www.the-observatory.org

Alternatively you can contact the centre on **01323 833731**.

Don't miss out on this fantastic weekend. Come and soak up the atmosphere at the UK's home of astronomy and hopefully take a look through the historic telescopes, weather permitting of course!

Sandra Voss
Science Director
The Observatory Science Centre
Herstmonceux
Hailsham
East Sussex BN27 1RN

Phone: 01323 832731

Fax: 01323 832741

www.the-observatory.org

Registered charity number: 298542

Small Advertisements

For Sale

Celestron Nexstar 5 telescope

(Schmidt-Cassegrain)

with 26 mm Plossl eyepiece, red-dot finder, standard and erect-image diagonals, aluminium tripod, padded carry-case, Nexstar user's guide.

Excellent condition. Very robust, fully computerised with easy set-up and GOTO operation with large database. Free delivery within 50 miles of Nottingham.

Only £600

**Please contact Sam Boote
s.boote@bcs.org
0115 937 4644**

**This advertising space is available
free of charge to society members**

For Sale

10 inch reflector telescope, focal length 63 inches
with RA Drive
two eyepieces
and storage shed

Any reasonable offer accepted

Phone **Mr Chambers**
0115 914 1454

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 'Beehive' website:

<http://beehive.thisisnottingham.co.uk/nottinghamastro>

NAS Journal e-mailing list

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

nottinghamastro@yahoo.co.uk

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

Nottingham Astronomical Society

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APPLICATION FOR MEMBERSHIP

If you would like to join the Nottingham Astronomical Society, please complete and tear off this slip. Make your cheque/postal order payable to: **THE NOTTINGHAM ASTRONOMICAL SOCIETY**. Then send the slip and payment to Paul Stocks, Secretary, Nottingham Astronomical Society, 22 Killerton Park Drive, West Bridgford, Nottingham, NG2 7SB

Alternatively you may hand the slip and payment to the Secretary or Treasurer at one of the Society's regular meetings.

Your name _____

Full address _____

_____ Postcode _____

I wish to join the Nottingham Astronomical Society and enclose the membership fee for:

- Full Adult £25
- Junior (17 years or under) £12.50
- Concession (*full time student, UB40, etc*) £12.50

Please tick and enter your e-mail address if you wish to receive:

- the monthly **NAS Journal** (in 'Word' format) by e-mail
- e-mail notifications of dates & times of observing sessions using the large telescope at our observatory.

Your e-mail address: _____

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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Joe Sowerby

Dorothy Sowerby

Kevin Greally

Meetings

Our meetings, often with an illustrated talk by a guest speaker, are held on the first Thursday of each month (except in August & October) 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 2006-07

Adult	£25
Junior (under 18 years)	£12.50
Concessions*	£12.50
(*Full-time student, jobseeker's allowance, basic state pension)	

Subscriptions become due on 1 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, Paul Stocks, or speak to any NAS committee member at one of the regular monthly meetings. A membership application form appears inside this issue of the Journal.
