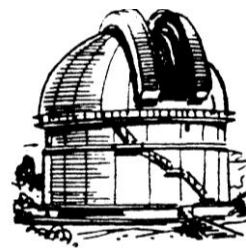

Journal

of the



Nottingham Astronomical Society

July-August 2011

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Thursday, July 7th

**British Geological Survey
Nicker Hill, Keyworth
8 pm (doors open at 7.30pm)**

This evening we welcome

Dr Andrew J. Norton

of the
Department of Physics and Astronomy
The Open University
who will be speaking on

**: “ Gamma Ray Bursts –
a Cosmic Detective Story ”**

HALE-BOPP CONTINUES TO SURPRISE ASTRONOMERS

Comet Hale-Bopp, probably the most spectacular comet within the memory of any of us alive today after the stunning display it provided in the late winter and spring of 1997, continues to astonish researchers some fourteen years later. Now more than 46 billion km away (far beyond the orbit of Neptune) Hale-Bopp has become the most remote comet ever observed, aided by the fact that it is considerably brighter than expected at such a great distance. Observations suggest that, despite the intense cold so far from the Sun, the nucleus is still ejecting sufficient gas to maintain a faint coma, adding to the comet's reflectivity.

The observations were made by a team of Hungarian astronomers who used the 2.2-metre telescope at the European Southern Observatory site at La Silla in Chile to image the comet.

Previously, the most distant comet to have been observed was Comet Halley.

Sky Notes

July-August 2011

Compiled by Roy Gretton



The date of **aphelion** this year is July 4th, when at 4 p.m. BST the Earth will be at its furthest distance from the Sun for the whole of 2011. At that time the two bodies will be separated by 152,102,200 km (about 5 million km more than their separation at perihelion, which occurred on January 3rd).

PHASES OF THE MOON

July

New Moon occurs on July 1st and again on the 30th
First Quarter occurs on the 8th
Full Moon occurs on the 15th
Last Quarter occurs on the 23rd

August

First Quarter occurs on the 6th
Full Moon occurs on the 13th
Last Quarter occurs on the 21st
New Moon occurs on the 29th

THE PLANETS

Mercury is an evening object as July begins, and continues to be visible (albeit with difficulty) for most of the month. On the 20th it will be at greatest eastern elongation, 27 degrees from the Sun, but only 8 degrees above the northwestern horizon at sunset, so you will need a location with a very low western skyline in order to observe this planet.

Venus, a morning object, is virtually unobservable as July begins, and soon disappears into the Sun's glare. It will pass through superior conjunction on August 16th.

Mars, difficult to observe as July begins, gradually moves away from the Sun in the morning sky. By the end of August it will be rising shortly after 1 a.m. BST, and will be 40 degrees above the horizon at sunrise. However, it will still be less than 5 arcseconds across, making telescopic observation unpromising.

Jupiter, a morning object in the constellation of Aries, is poised to become the dominant planet in our skies as autumn approaches. By the close of August it will be rising at 10 p.m. BST, and will be due south at an elevation of 50 degrees at about 5 a.m. By then it will be 45 arcseconds across, making it a very rewarding sight through a telescope.

Saturn, in the constellation of Virgo, is steadily fading in the evening sky, and will be difficult to observe by the beginning of August, as it heads toward conjunction with the Sun in October.

Uranus is a morning object, one degree north of the celestial equator, and two degrees west of the star 44 Piscium in the constellation of Pisces.

Neptune reaches opposition on August 22nd, when it will appear as a tiny 2.4 arcsecond diameter disk in the constellation of Aquarius.

METEORS

Conditions for observing the **Perseids** are most unfavourable this year, with maximum activity on August 13th coinciding with the Full Moon.

COMET GARRADD

Comet 2009 P1 (Garradd) is expected to reach a brightness close to magnitude 7 by the close of the year. August marks the beginning of a lengthy observing season for UK observers, with the comet moving from Pisces into Pegasus before heading toward Hercules, where it will spend most of the autumn. At the end of July it should be at magnitude 9, and on August 2nd will pass close to the globular cluster M15 in Pegasus. Members with suitable telescopes/cameras may wish to image this comet from time to time.

Public physics lecture at the University of Nottingham

"Graphene - conducting sheets with the thickness of a single carbon atom"

Date: Thursday 21st July 2011

Time: 6-7 pm

Speaker: Prof. Peter Beton

Venue: Maths & Physics Building (B1)
University Park Campus
Nottingham

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.

DIARY DATES 2011

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 details 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, 7th July 2011

Talk: “ **Gamma Ray Bursts – A Cosmic Detective Story** ”

Dr Andrew J. Norton

Department of Physics and Astronomy
The Open University

August 2011 - Summer Break - No Meeting

Thursday, 1st September

Members' Evening

(visitors welcome) - Topics to be arranged

Thursday 6th October

Talk: “ **Journey to the Aurora of Jupiter** ”
The 2018 NASA/ESA Double Mission to the Jupiter System

Dr Nigel Bannister

Department of Physics and Astronomy
University of Leicester

Thursday 3rd November 2011

2011 Annual General Meeting

Thursday 1st December 2011

Dramatic Lecture : “ **Fire from the Sky - the Tunguska Incident** ”

Andrew Lound

Small Advertisements

Telescope for sale

Meade 2080 8-inch f/10 Schmidt-Cassegrain with field tripod and wedge. Reflex sight, 6mm, 12.5mm, 25mm and 32mm eyepieces, 2X Barlow, 0.4X telecompressor, two 90° erecting prisms; 45° roof prism. All in excellent condition in fitted trunk/case. Offers to 0115 937 6333 or rockvision@btinternet.com (Keyworth)

Mike Sumbler

FOR SALE

Vixen single-axis (Right Ascension) drive motor and hand controller to fit Great Polaris or GP-DX equatorial mount.

Also battery case for use with the above.

£20

Email the Editor: roygretton@hotmail.co.uk

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

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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ORDINARY COMMITTEE MEMBERS:

Joe Sowerby

Dorothy Sowerby

Kevin Greally

David Anderson

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 2011

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

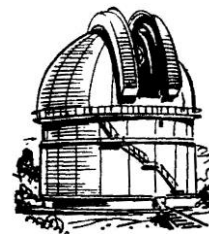
Subscriptions become due on 1st January. Half-price subscription is charged if joining after 1st July. Please make cheques payable to: Nottingham Astronomical Society.

If you would like more information about the **Nottingham Astronomical Society**, or would like to become a member, please contact the Secretary 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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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

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Full name:

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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.

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Date: