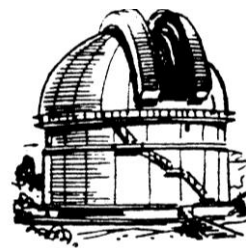

Journal

of the



Nottingham Astronomical Society

December 2008

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Thursday 4th December

at the

British Geological Survey

Nicker Hill, Keyworth

8 pm (doors open at 7.30pm)

Tonight we have a special viewing of three dimensional planetary images in the

BGS 3D Suite

presented by Doug Tragheim

CHANDRAYAAN AT THE MOON

India's first mission to the Moon, Chandrayaan-1, has begun making scientific observations, and has successfully deployed its Moon Impact Probe. The 29-kilogram probe was dropped on to the lunar surface close to Shackleton crater, near to the south pole. This is one of the regions, permanently in shadow, where ice may exist. The probe carried a video imaging system that took pictures during the 25-minute descent, until it struck the lunar surface at 1.5 kilometres per second. The data were transmitted to the orbiter, and later send back to Earth. The rest of Chandrayaan-1's instruments should begin full science operations in the middle of December. The European Space Agency is involved with three of the instruments on board: an X-ray spectrometer, an atom reflecting analyser) and a near-infrared spectrometer.

Sky Notes

2008 December

Compiled by Roy Gretton



THE WINTER SOLSTICE, when the Sun reaches its southern extremity as viewed from Earth, occurs shortly after midday on December 21st. Following this date, days in the northern hemisphere begin to lengthen, after a process of shortening that began on June 20th.

The earliest sunset occurs on or about December 13th, while the latest sunrise takes place on or about December 29th.

PHASES OF THE MOON

First Quarter occurs on the evening of December 5th

Full Moon occurs soon after sunset on the 12th

Last Quarter occurs on the morning of the 19th

New Moon occurs soon after midday on the 27th

THE PLANETS

Mercury is unobservable during the first half of December, but emerges into the evening sky toward the end of the month. It will never be easy to find, but if you fancy a challenge you could try spotting it soon after sunset on the 29th, when it will share a five-degree-wide patch of sky with the 2-day-old crescent Moon and Jupiter, low down in the southwest. The two planets will be to the lower left of the Moon, with Mercury closest to the horizon, and probably requiring binoculars for observation.

Venus is steadily coming to prominence as a brilliant evening object, and by the end of the month will be 25 degrees above the horizon at sunset, shining at magnitude -4.3. On December 1st the Moon occults Venus (see below), and at sunset on the 31st, Venus is only 2.5 degrees away from the crescent Moon.

Mars is unobservable this month, as conjunction occurs on December 5th.

Jupiter is now very difficult to observe in the evening sky, and by the end of December will have disappeared into the sunset.

Saturn is still a morning object, but by the end of December will be rising before 11 p.m., and crossing the meridian about 5 a.m. It is easy to find as a first magnitude object in the constellation of Leo.

Uranus (magnitude 5.8) is a binocular object in the constellation of Aquarius, about three degrees northeast of Phi Aquarii (magnitude 4).

Neptune (magnitude 7.8), is a much more difficult object in the constellation of Capricornus.

METEORS

One of our best annual meteor showers, the **Geminids**, reaches maximum activity on December 13th, but conditions this year are very unfavourable, as the Moon is Full on the previous day.

VARIABLE STAR: Algol

There are no fewer than **seven** minima of this **eclipsing binary** visible from the UK this month. They occur on December 2nd (3.20 am), the 5th (ten minutes past midnight), the 7th (9 pm), the 22nd (5.05 am), the 25th (1.55 am), the 27th (10.40 pm), and the 30th (7.30 pm). The star dims from its normal brightness (magnitude 2.1) to magnitude 3.4 over a period of 4.8 hours.

OCCULTATION OF VENUS, December 1st.

The crescent Moon will pass in front of the planet Venus in the early evening of December 1st. Venus disappears behind the dark limb of the Moon at 3.45 pm, and emerges from behind the bright limb at 5.15 pm.

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

The Nottingham Astronomical Society, and/or the Editor accept no responsibility for any errors that may occur within this publication. Any views expressed in the NAS Journal are those of the individual authors and not necessarily endorsed by the Nottingham Astronomical Society, its Committee or Members.

DIARY DATES 2008-09

Meetings of the Nottingham Astronomical Society

Our programme for the coming months 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.

Thursday 4 December 2008

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

The BGS 3-D Suite

Another opportunity to view planetary images in 3D.
With thanks to Doug Tragheim of the BGS

Thursday 8 January 2009

Please note that this is the second Thursday in the month!

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

Members' Evening

featuring a talk, 'Astrophysics for Beginners'
by NAS member Julian Onions

Thursday 5 February 2009

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

Talk: 'The time has come...!

Dr Paul Roebuck

Thursday 5 March 2009

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

Talk: 'A Long Time Ago in Galaxies Far, Far Away'

Dr Amanda Bauer

of the School of Physics & Astronomy, University of Nottingham

Thursday 2 April 2009

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

Talk: 'The Little Engine That Could:
How Black Holes Shape Our Universe'

Dr Olivia Johnson

of the School of Physics & Astronomy, University of Nottingham

Thursday 7 May 2009

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

Talk: 'The Lost Gardens of Fireside:
Where did James Nasmyth live?'

Kevin Kilburn FRAS

Diary Dates 2009 continued

Thursday 4 June 2009

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

Talk: 'The Search for Extraterrestrial Intelligence'
Dr Mike Leggett FRAS

Thursday 2 July 2009

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

Talk: 'Edwin Hubble'
Dr Ann Bonell

August - Summer break

Thursday 3 September 2009

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)
Topic to be confirmed

Thursday 1 October 2009

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

Talk: 'Sounding out the Sun'
Dr Roger New
Sheffield Hallam University

Thursday 5 November 2009

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

Annual General Meeting 2009

please see the Agenda in this issue of the Journal

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

**Ken Willoughby, Carleton Community High School
&
St. Wilfrid's Catholic High School
Present**

**An Evening with Captain Eugene Cernan
Fighter Pilot-USN, Gemini 9A, Apollo 10, Commander of Apollo 17 &
The Last Man to Set Foot on the Moon**



Friday March 6th 2009, 19:30

at

**St. Wilfrid's Catholic High School, Cutsyke Road, Featherstone
West Yorkshire, WF7 6BD
Admission £40. Ticket Only.**

S A E to

**Ken Willoughby, 11 Hardistry Drive, Pontefract,
West Yorkshire. WF8 4BU
or School Reception**

Cheques payable to Apollo XIII.

Please include telephone/ e-mail address

Trade Stands from 18:15.

Gene will stay behind for 60 minutes to meet people.

**Dinner with Gene on Thursday night: £60 each
or £600 per table of 10**

Group photos with Gene taken by Andrew Box - £10 each

Small Advertisements

Various items of equipment for sale

Celestron Nexstar 5 telescope and tripod etc. (including nylon cover and power supply)	£395
Pop-up observatory tent	£95
Carl Zeiss 10x50 binoculars with leather case	£25
Meade 9.7 Super Plossl eyepiece	£25
Celestron 3.6 Plossl eyepiece	£10
Celestron 90-degree erecting diagonal	£10
sodium light pollution filter	£10

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

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

For Sale

Meade Telescope with GOTO control system £100

4.5" (114mm) equatorial reflecting telescope, with Starfinder
Electronic Hand Controller

910mm focal length, f/8

precision polished 4.5" aluminized mirror

5x24mm viewfinder

Contact John Aitken

Tel: 01476 577599

Email: j_aitken@hotmail.co.uk

NAS Membership application 2008/09

If you would like to join the Nottingham Astronomical Society, please complete the form below. Hand the slip and payment (cheque or cash) to the Treasurer at any of the Society's meetings.

If paying by cheque, please make it payable to **Nottingham Astronomical Society**. Alternatively, you may post the slip and your cheque (*not cash*) to

Sam Boote, Treasurer
Nottingham Astronomical Society
17 Rannock Gardens
Keyworth
Nottingham NG12 5FQ

Title: _____ Name: _____

Address including postcode: _____

Telephone: _____

e-mail: _____

please tick one box

Subscription rate:	Normal	£25.00	<input type="checkbox"/>
	Concession	£12.50	<input type="checkbox"/>
	Half-year*	£12.50	<input type="checkbox"/>

**Half-year is available from 1 April to 30 September*

Gift Aid

Do you pay Income Tax and/or Capital Gains Tax? If so, would you like to register for Gift Aid? Please ask the Treasurer for a Gift Aid declaration form. You need to fill it in only once. As a registered charity, the Society will get £6.25 from the taxman for each £25 subscription. You have to be a UK tax payer in order to participate in Gift Aid.

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

PRESIDENT:

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e-mail: roygretton@hotmail.co.uk

**DIRECTOR OF OBSERVING and
CURATOR OF INSTRUMENTS**

John Hurst

email: jmhurst@hotmail.co.uk

Observatory line: 07726 940700 (line open during observing sessions)

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 & 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 2008-09

Adult	£25
Junior (under 18 years)	£12.50
Concessions	£12.50

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 nottinghamastro@yahoo.co.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.
