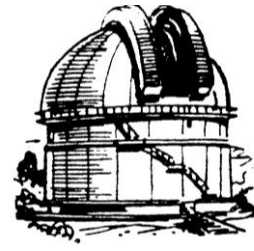

Journal

of the



Nottingham Astronomical Society

December 2006

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Thursday 7th December

at the

British Geological Survey

Nicker Hill, Keyworth

8 pm (doors open at 7.30pm)

Professor Jack Meadows

of Loughborough University

will be speaking on

The Barwell Meteorite

THE DEATH OF MGS?

NASA has lost contact with Mars Global Surveyor, the oldest of its four spacecraft in orbit around Mars. Nothing has been heard from MGS since November 2nd, in spite of more than 800 commands sent from Earth to restore communications. Flight engineers now fear that the mission may be at an end. Mars Global Surveyor was launched on November 7th, 1996, and after lengthy aerobraking manoeuvres designed to put it into the right orbit, began studying the red planet in detail in April 1999. There was a problem with one of its solar panels shortly after launch, and it may be that the jamming of this same panel has ultimately led to a loss of power on the orbiter. However, MGS has been a highly successful craft, and has performed for much longer than was originally planned.

Sky Notes

2006 December

Compiled by Roy Gretton



The **Winter Solstice** occurs shortly after midnight on December 22nd. On that date the Sun will be overhead on the Tropic of Capricorn, 23.44 degrees south of the equator. Viewed from Nottingham, about 53 degrees north of the equator, the midday Sun will be approximately 13½ degrees above the southern horizon on that date.

PHASES OF THE MOON

Full Moon occurs shortly after midnight on December 5th
Last Quarter occurs in the afternoon of the 12th
New Moon occurs in the afternoon of the 20th
First Quarter occurs in the afternoon of the 27th

This month the Moon is closest to Earth on the 2nd, and furthest from Earth on the 13th.

(Yet another) OCCULTATION OF THE PLEIADES

The Moon will pass in front of the Pleiades open cluster on December 4th. The event will be much easier to observe than was the case in November, as this time the stars will be between 20 and 37 degrees above the horizon. The times of **disappearance** of the main stars (as seen from Greenwich) behind the **dark** limb of the Moon are as follows:

STAR	MAGNITUDE	TIME
Electra	3.7	02h 55m
Celaeno	5.4	03h 04m
Maia	3.9	03h 36m
Merope	4.1	03h 42m
Alcyone	2.8	04h 04m
Pleione	5.1	04h 46m
Atlas	3.6	04h 51m

The Moon will be close to Full on the morning in question, so binoculars or a telescope will be needed in order to be able to see the Pleiades alongside the glare of the lunar surface.

THE PLANETS

Mercury (magnitude -0.6) is well-placed for observation in the pre-dawn sky in the first week on the month, but will be lost in the solar glare by mid-December.

Venus, now in the evening sky, is destined to put on a good show for us in the coming spring, but is at present very difficult to observe, and at the end of the month will still be only seven degrees above the western horizon at sunset.

A keen observer may be able to find **Mars**, very small and faint, in the morning sky from mid-December onwards, but we shall have to wait nearly a year to see this planet at its best.

Jupiter has begun to pull away from the Sun, and later this month may be seen in the southeast shortly before sunrise.

Saturn is the planet of choice yet again this month. Still a morning object in the constellation of Leo, it is now rising at about 9 p.m. and shines at magnitude 0.4. Telescopic observation should be particularly rewarding. The Moon will be close to Saturn on the 10th and 11th of December.

Uranus can be found with binoculars in the evening sky. It is a magnitude 5.7 object about one degree east of Lambda Aquarii.

Neptune, is a magnitude 7.9 evening object in the constellation of Capricornus, but is becoming more difficult to observe as December progresses.

METEORS

The **Geminids** are December's best meteor shower, and widely-regarded as the most reliable display of the entire year. This year the expected maximum occurs in daylight for UK observers. The most promising time for us occurs just before dawn on December 14th, when the waning crescent Moon should be only a minor distraction. Another meteor stream, the **Ursids**, should be at their best on the evening of December 22nd, around 8 pm.

COMET

Comet 2006 M4 (SWAN) has been of great interest to observers for some weeks now. It brightened to become a naked eye object, and appeared considerably brighter than the globular cluster M13 in Hercules when it passed close by in late October. Although steadily fading, it is still visible through binoculars, and will remain an evening object to the end of December, by which time it will have moved from Aquila into Aquarius.

DIARY DATES 2006-07

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 7 December 2006

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

The Barwell Meteorite

Professor Jack Meadows
Loughborough University

Thursday 4 January 2007

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

Members' Evening

Thursday 1 February 2007

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

The Leonid Meteors

Dennis Ashton FRAS

Thursday 1 March 2007

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

Light Pollution

Dr Darren Baskill
University of Leicester

Keyworth gets the vote!

At November's Annual General Meeting, members voted in favour of the NAS holding all future meetings at the **British Geological Survey** in Keyworth. With the result being 20 votes for Keyworth and 1 for Djanogly, the decision was very clear cut! The committee are grateful to the British Geological Survey for offering the Society the use of a meeting room every month on a permanent basis, free of charge. This will be of great benefit to the Society, and we look forward to holding well-attended meetings there.

At our "new home" at the BGS, doors will open at 7.30pm with the guest speaker's talk at **8.00pm**. This links better with the bus timetable for anyone using public transport to get to the meeting.

New committee member

Kevin Greally joined the NAS committee at the AGM. Welcome aboard the committee, Kevin!

Paul Stocks
NAS Secretary

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, dust cover, 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

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.

NAS Observatory Group

A web group page and message service (for NAS members only) is available at

<http://uk.groups.yahoo.com/group/nottinghamastronomicalsociety/>

It is used for circulating information to members about work at the observatory and use of the large telescope. If you are a member of the Society, you can join this online group by visiting the website and clicking on "Join this Group".

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.*

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, Hon. 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

(please tick appropriate box)

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

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:

Fred Hopper

email: fwmh@nerc.ac.uk

VICE PRESIDENTS:

David Lukehurst

e-mail: gildor@ntlworld.com

website: www.dobsonians.co.uk

Dr Roy Gretton

e-mail: roygretton@speed-mail.co.uk

SECRETARY:

Paul Stocks

Tel: 0115 914 8185

e-mail: nottinghamastro@yahoo.co.uk

TREASURER:

Dr Mike Provost

e-mail: mike.provost@ntlworld.com

JOURNAL EDITOR:

Dr Roy Gretton

e-mail: roygretton@speed-mail.co.uk

CURATOR OF INSTRUMENTS

David Lukehurst

e-mail: gildor@ntlworld.com

DIRECTOR OF OBSERVING

John Hurst

Observatory line: 07726 940700

CAMPAIGN FOR DARK SKIES:

Duncan Collins

email: duncan.collins@talk21.com

ORDINARY COMMITTEE MEMBERS:

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.
