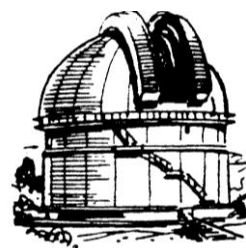

Journal

of the



Nottingham Astronomical Society

May 2010

Inside this issue

- Sky Notes for May
- Diary Dates
- Public Lecture at Nottingham University
- Open Dome Event at NTU
- E-services
- Advertisements
- Membership application form
- Society Information

Thursday, 6th May

at the

British Geological Survey

Nicker Hill, Keyworth

8 pm (doors open at 7.30pm)

Tonight's talk is by

Dr Roy Gretton

NAS Vice President

on the topic of

**Astrophotography with a
DSLR Camera**

AN ICY SURPRISE

American researchers using a NASA telescope on the summit of Mauna Kea in Hawaii have discovered a large amount of water in an unexpected location: on an asteroid orbiting between Mars and Jupiter. The asteroid, known as Themis, is over 100 miles across, and apparently has a thin but extensive coating of ice, which may be replenished from an extensive reservoir of frozen water in the rocky interior. About a third of the asteroid's surface appears to be covered in water ice. Typically, ice on the surface of an asteroid at this distance from the Sun should have diffused into space millions of years ago, but with ice persisting on Themis until the present day, scientists are speculating that there is a supply of ice inside the rock, available to replenish the surface layer.

This discovery of an icy asteroid potentially blurs the distinction between asteroids and comets, since asteroids traditionally are regarded as dry rocks, and comets as dusty ice-balls. There may in fact turn out to be a continuum of dry and icy bodies, with asteroids being near the dry end, and comets near the wet.

The research results are published in the current issue of *Nature*.

For more information go to

<http://www.nature.com/nature/journal/v464/n7293/full/4641286a.html>

Sky Notes

May 2010

Compiled by Roy Gretton



PHASES OF THE MOON

Last Quarter occurs on the morning of May 6th
New Moon occurs in the early morning of the 14th
First Quarter occurs in the late evening of the 20th
Full Moon occurs in the late evening of the 27th

This month the Moon is closest to Earth on the 20th, and furthest on the 6th.

THE PLANETS

Although **Mercury** reaches greatest western elongation (25 degrees) on the 26th, and is therefore present in the morning sky, it is not well-placed for northern hemisphere observers at this apparition.

Venus is becoming ever more prominent in the western sky after sunset. In mid-May it will be 30 degrees from the Sun, and shining at magnitude -3.8 . Look for a bright white “star” about an hour after sunset.

Mars is an orange, first magnitude evening star, moving through the constellation of Cancer and eventually into Leo. Early in May its apparent diameter diminishes to less than seven arcseconds, making it a very small target for telescopic observation.

Jupiter continues to be a difficult object to observe in the pre-dawn sky, being very low down in the constellation of Aquarius.

Saturn, an evening object in the constellation of Virgo, continues to be well placed for observation this month. A modest-sized telescope will show the ring system as a narrow band slicing through the middle of the planet.

Both **Uranus** and **Neptune** are extremely difficult to observe this month.

METEORS

There are two notable meteor showers in May. The first is the Eta Aquariids, whose peak occurs in unfavourable conditions on the 5th. This stream is associated with Halley’s comet, and may give about 30 events per hour at maximum. The other shower is the Alpha-Scorpiids, the maximum of which, on the 13th, occurs very close to the New Moon. But you will need plenty of patience if you intent to observe them, as only about five events per hour are expected under the most favourable conditions.

VARIABLE STAR: Algol

There are **three** minima of this **eclipsing binary** visible from the UK this month. They occur on May 5th (4.10 am **BST**), the 8th (1 am), and the 28th (2.50 am). The star dims from its normal brightness (magnitude 2.1) to magnitude 3.4 over a period of 4.8 hours.

DIARY DATES 2010

Meetings of the Nottingham Astronomical Society

Our programme for the coming months is below. Don't forget to check our website:
www.nottinghamastro.org.uk
for the latest information about the Society's meetings and observing sessions.

Thursday 6th May 2010

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

Talk: '**Astrophotography with a DSLR Camera**'

Dr Roy Gretton
NAS Vice President

Thursday 3rd June 2010

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

Talk: '**Is there or has there been Life on Mars?**'

Prof. Mark Sims
Physics and Astronomy Department
University of Leicester

Thursday 1st July 2010

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

Members Evening, with short talks by members of the NAS, including

**"After the Space Shuttle, What's Next? -
NASA's plans for the future of human spaceflight"**
Paul Stocks

Thursday 2nd September 2010

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

"WIMP Hunting: The Search for Dark Matter"
Dr Anne Green
School of Physics and Astronomy
University of Nottingham

Thursday 7th October 2010
British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Cosmology and the LHC (what the LHC might or might not tell us about the universe)

Susan Cartwright
Department of Physics and Astronomy
University of Sheffield

Thursday 4th November 2010
British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)

Annual General Meeting 2010

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

Public astronomy lecture at the University of Nottingham

"The Chemistry of Space"

Speaker: Dr. June McCombie

Date: Thursday 20th May 2010

Time: 6-7 pm

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

Nottingham Trent University Open Dome Event – "Astrophysics for Dummies"

- Date:** 25 May 2010
Time: 4.00pm to 6.00pm
Location: NTU Observatory, Clifton Campus, Nottingham Trent University
Details: As the daylight hours are getting longer, we welcome the first of our summer Open Dome Events. During this season we are able to use the specialist equipment in NTU observatory to safely make some daytime solar observations.

This event will begin at 4.00pm at the NTU observatory, where visitors will be given a guided tour and will have the chance to view the Sun using the observatory's solar scope or small telescopes. If, due to poor weather, it is not possible to observe, a small planetarium session will be offered in the dome pointing out objects of interest.

The event will continue in the CELS Building with a talk entitled '*Astrophysics for Dummies*', presented by Dr. G. Wells of Nottingham Trent University. This presentation will introduce some basic concepts used in physics and will be followed by a brief overview what is currently visible in the sky.

Booking is required for this event. Please contact [Daniel Brown](#) to register.

For further information about the optical observatory, please visit the [observatory website](#).

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.

Small Advertisements

FOR SALE

Losmandy GM-8 equatorial mount with Gemini system £1200

Tele Vue binoviewer £450

For full details, please contact Sam Boote:

0115 937 4644

s.boote@bcs.org

www.sboote.demon.co.uk/astro

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.

£28

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

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

Title:

Full name:

Full home address:

Postcode:

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.

Signature:

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

e-mail: fred.w.m.hopper@googlemail.com

VICE PRESIDENT:

Dr Roy Gretton

e-mail: roygretton@hotmail.co.uk

SECRETARY:

Robert Bush

e-mail: info@nottinghamastro.org.uk

TREASURER:

Sam Boote

e-mail: s.boote@bcs.org

JOURNAL EDITOR:

Dr Roy Gretton

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)

**CAMPAIGN FOR DARK SKIES
REPRESENTATIVE:**

Barrie Chacksfield

email: b.chacksfield@bgs.ac.uk

ORDINARY COMMITTEE MEMBERS:

Joe Sowerby

Dorothy Sowerby

Kevin Greally

David Anderson

Julie Morledge

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 2009/10

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

Subscriptions become due on 1st 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 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

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.