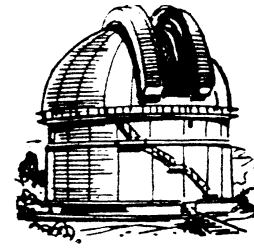

Journal

of the



Nottingham Astronomical Society

June 2012

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Thursday, June 7th
British Geological Survey
Nicker Hill, Keyworth
8 pm (doors open at 7.30pm)

This evening we welcome
David Conner
Secretary of the Melton and District
Astronomical Society

who will be speaking on

“Magnetism in Astronomy”

SUMMER: An Opportunity to Observe Noctilucent Clouds

Noctilucent clouds are pale blue filamentary clouds, lying far above the normal clouds we associate with the weather. They are a recently-discovered phenomenon, as there is apparently no record of their observation dating before 1885. Some theorists have speculated that their advent was connected with the industrial revolution, and that they may be considered as evidence of climate change.



Image from NASA website

Typically noctilucent clouds are formed about 50 miles above the Earth's surface, and become visible when illuminated by the Sun when it is well below the horizon. They are most commonly observed in the summer months (chiefly June and July in the northern hemisphere) at latitudes between 50° and 70° north and south of the equator. They are still poorly understood, but their “electric blue” appearance is quite distinctive.

If you wish to see noctilucent clouds, look toward the north or northwest on a clear evening after 10.30 pm. You might like to try imaging them with a digital camera, in which case use a tripod if you have one, and find the best exposure setting by trial and error.

Sky Notes

June 2012

Compiled by Roy Gretton



The **Summer Solstice**, when the Sun reaches its maximum northerly declination of 23.43772 degrees, occurs at nine minutes after midnight **BST** on June 21st (23h 09m **UT** on June 20th).

PHASES OF THE MOON

Full Moon occurs on June 4th
Last Quarter occurs on the 11th
New Moon occurs on the 19th
First Quarter occurs on the 27th

In June the Moon is closest to the Earth on the 3rd, and furthest from the Earth on the 16th. This month the Full Moon occurs only 22 hours after perigee, so we can again expect to see a relatively large Full Moon.

THE PLANETS

Mercury puts in an evening appearance at the end this month, as June 30th is only one day away from the planet's greatest eastern elongation, when it will be 26 degrees from the Sun, and 10 degrees above the northwestern horizon at sunset.

Venus, the glorious "evening star" which has adorned our sky for many months, has now disappeared into the sunset, heading for the transit that will occur on June 6th (see details of this event below).



Venus imaged by the Editor
at 20:07 UT on 2012 May 17

(1/500th sec at ISO400)

Mars continues its easterly motion through the constellation of Leo, but is now a relatively inconspicuous object (fading toward magnitude 1) with an apparent diameter of about seven seconds of arc.

Jupiter is unobservable throughout June.

Saturn is the principal planet on view this month, appearing as an off-white magnitude 0.5 "star" a few degrees east of Spica in the constellation of Virgo. The largest satellite, Titan, will be due north of the planet on June 14th, and again on the 30th.

Neptune, in the constellation of Aquarius, becomes available for observation in the morning sky this month.

TRANSIT OF VENUS, June 6th

The planet Venus, when viewed from Earth, will pass across the face of the Sun on the early morning on June 6th. The previous occasion when this happened was on 8th June 2004 (UK observers were favoured with largely clear skies on that date), but the next transit of Venus will not occur until December 2117.

In 2004 we were able to observe the whole of the transit from Britain, as it began after sunrise and lasted for most of the morning. This year it will be observers further east who will get the best views, as the whole of the event will be visible from much of Australia, New Zealand, China, Cambodia, Vietnam and Japan, and much of the Pacific.

For us in the UK, there will be barely an hour of the transit remaining by the time the Sun rises at around 4.40 am **BST**. You will therefore need a good location with a clear northeastern horizon and an absence of cloud in that direction (the coasts of East Anglia come to mind) but the weather is, as always, the big unknown.

If you are lucky and the sky is clear, remember to take all necessary precautions for observing the Sun. Unless you have a solar telescope, or an instrument fitted with a proper solar filter, you should view the transit by projecting the image from a small telescope on to a piece of white card. Or, of course, you can view it directly through “eclipse glasses” – the dark spectacles that were available in abundance in 1999 – as the dark spot will be easily visible without magnification.



The transit of Venus on 2004 June 8th imaged by the Editor at about 7 am BST using a compact digital camera to capture the image projected from a 45mm refractor

The Nottingham Astronomical Society: E - SERVICES

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

secretary@nottinghamastro.org.uk

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

DIARY DATES 2012

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 information 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 June 2012

Talk: Magnetism in Astronomy

David Conner

Thursday, 5th July 2012

Talk: "Exodus – The Death of Stars "

Paul Money

August 2012 - Summer Break - No Meeting

Thursday, 6th September 2012

Members' Evening (visitors welcome) - Topics to be arranged

Thursday 4th October 2012

Talk: (Title to be announced)

Thursday 1st November 2012

2012 Annual General Meeting

Thursday 6th December 2012

Talk: " Climate Change and the Sun-Earth Connection"

Dr Jim Wild

Space Plasma Environment and Radio Science Group
Lancaster University

Nottingham Trent University Open Dome Event - "Finding one of the many Norths – Navigating, maps and explorers "

Date: 20 June 2012

Time: 4.00 pm - 6.00 pm

Event: Open Dome Event – Finding one of the many Norths – Navigating, maps and explorers

Location: CELS and Optical observatory, Clifton campus

Details:

Finding North can be a challenge. But we all have sometime or other learnt how to do it. But what North are we actually talking about: magnetic, geographic, grid? What for different ways are there to find North.

Following polar explorers and 2nd world war desert troops that relied heavily upon precise orienteering, S. Godby (ARES, NTU) will give us an insight into the definitions of North and finding it in his talk.

The event will start at 4pm at the NTU observatory where visitors will get a tour of the NTU observatory and the chance to see the Sun with the observatory's solar scope or small telescopes if the weather allows it.

If the weather is not good, a small planetarium session will be offered in the observatory pointing out objects of interest.

At 5pm we will continue to CEL 015 for the talk by S. Godby.

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

Advertisement

WANTED: Eyepieces

I am currently looking for 2nd hand Televue eyepieces to compliment my TV 101.

I am looking for mainly Nagler eyepieces but would be interested in other models in the Televue too.

I am situated close to Alfreton, Derbyshire.

Thank you.

Paul Davies

Email: paul@graphic.demon.co.uk

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:

Roy Gretton

e-mail: roygretton@hotmail.co.uk

SECRETARY:

Victoria Jolly

e-mail: secretary@nottinghamastro.org.uk

TREASURER:

Sam Boote

e-mail: s.boote@bcs.org

JOURNAL EDITOR:

Roy Gretton

e-mail: roygretton@hotmail.co.uk

OBSERVATORY DIRECTOR:

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

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 2012

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

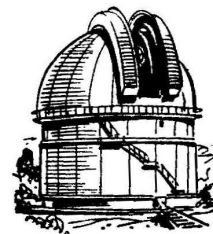
Subscriptions become due on 1st January. Half-price subscription is charged if joining after 1st July. Please make cheques payable to: Nottingham Astronomical Society.

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

NOTTINGHAM ASTRONOMICAL SOCIETY



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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:

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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:

Date: