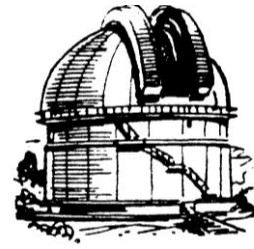


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# Journal

*of the*



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## Nottingham Astronomical Society

January 2009

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- Sky Notes for January
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**Thursday 8<sup>th</sup> January**

at the

**British Geological Survey**

Nicker Hill, Keyworth

**8 pm** (doors open at 7.30pm)

Tonight we have a

**Members' Evening**

featuring a talk on

**Astrophysics for Beginners**

by NAS member Julian Onions

### **The Committee wish all members and friends of the Society a very happy and prosperous New Year**

**2009** is the **International Year of Astronomy (IYA)**. This will be a global celebration of astronomy and its contributions to society and culture, highlighted by the 400th anniversary of the first use of an astronomical telescope by Galileo. The aim of the Year is to stimulate worldwide interest in astronomy and science under the central theme, "The Universe, Yours to Discover". It is an initiative of the International Astronomical Union (IAU) and UNESCO, to help the citizens of the world rediscover their place in the Universe. IYA2009 activities will take place locally, nationally, regionally and internationally. National Nodes have been formed in each country to prepare activities for IYA2009. These nodes will establish collaborations between professional and amateur astronomers, science centres and science communicators to plan activities for the year. For further information visit the IYA2009 website established by the IAU, at [www.astronomy2009.org](http://www.astronomy2009.org)

*(See also Page 5 of this Journal)*

# Sky Notes

## January 2009

Compiled by Roy Gretton



**Perihelion**, when Earth is closest to the Sun, occurs on January 4<sup>th</sup>, when the distance between the two bodies will be 147 million kilometres.

### PHASES OF THE MOON

First Quarter occurs at midday on January 4<sup>th</sup>

Full Moon occurs in the early hours of the 11<sup>th</sup>

Last Quarter occurs in the early hours of the 18<sup>th</sup>

New Moon occurs around sunrise on the 26<sup>th</sup>

### THE PLANETS

**Mercury** is an evening object at the beginning of the month, reaching greatest eastern elongation on January 4<sup>th</sup>, when it will be 19 degrees from the Sun. The planet will then be setting about 90 minutes after the Sun, and will be visible 5 degrees above the southwestern horizon an hour after sunset, shining at magnitude zero. After this, Mercury moves back toward the Sun, and will be at inferior conjunction (between Earth and Sun) on January 20<sup>th</sup>.

**Venus** is a splendid evening object this month, setting some four hours after the Sun as the year begins. Greatest eastern elongation (47 degrees) occurs on January 14<sup>th</sup>, when it will be shining at magnitude minus 4.3. Through a telescope the planet will exhibit a diminishing gibbous phase until a few days before greatest elongation, when it will show half-phase (like the Moon at First Quarter). Thereafter Venus will exhibit a shrinking crescent phase, but all the time will be growing in apparent diameter, from 20 arcseconds on New Year's Day to 30 arcseconds at the close of the month, a result of the planet moving steadily closer to the Earth.

**Mars** is unobservable in January, a situation that will last for several months.

**Jupiter**, too, is unobservable, as it reaches conjunction with the Sun on January 24<sup>th</sup>.

**Saturn** is still a morning object, but by the end of January will be rising in mid-evening, and will be found as a first-magnitude object in the constellation of Leo. The planet is actually dimmer than usual because the famous ring-system is almost edge-on as viewed from Earth, and will appear to be no greater than half an arcsecond thick. Hence the rings are likely to be invisible in small telescopes (which is rather unfortunate in this International Year of Astronomy).

**Uranus** and **Neptune** are too close to the Sun to be observable this month.

## METEORS

The **Quadrantids** reach their maximum activity on January 3<sup>rd</sup>. The radiant is in the northern part of the constellation of Bootes, not far from the end of the Plough, so the best time for observation will be in the final two hours before sunrise.

## VARIABLE STARS

### Algol

There are **four** minima of this **eclipsing binary** visible from the UK this month. They occur on January 11<sup>th</sup> (6.50 am), the 14<sup>th</sup> (3.35 am), the 17<sup>th</sup> (12.25 am), and the 19<sup>th</sup> (9.10 pm). The star dims from its normal brightness (magnitude 2.1) to magnitude 3.4 over a period of 4.8 hours.

### Mira

This long period variable (the 'Wonder Star') in the constellation of Cetus is at its maximum brightness as 2009 begins. At magnitude 3.5 it is an easy naked eye object in the southern sky in the early evening.

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## 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](mailto: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 2009

### 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 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

#### 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 the November 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*

## **IYA2009 and Dark Skies Awareness**

For this project, the International Astronomical Union will collaborate with the US National Optical Astronomy Observatory (NOAO), representatives of the International Dark-Sky Association (IDA), the Starlight Initiative and other national and international partners in dark sky and environmental education. The focus will be on three main citizen-scientist programs to measure local levels of light pollution. These programs will take the form of "star hunts" or "star counts", providing people with a direct way to acquire heightened awareness about light pollution through firsthand observations of the night sky. Together, the three programs will cover the entire International Year of Astronomy, namely **GLOBE at Night** (in March), the **Great World Wide Star Count** (in October) and **How Many Stars** (January, February, April through September, November and December).

For more information visit

<http://www.astronomy2009.org/globalprojects/cornerstones/darkskiesawareness/>

## Small Advertisements

### Various items of equipment for sale

Celestron Nexstar 5 telescope and tripod etc. (including nylon cover and power supply)	£350
Pop-up observatory tent	£75
Meade 9.7 Super Plossl eyepiece	£20
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](mailto: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**

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

**ORDINARY COMMITTEE MEMBERS:**

**Joe Sowerby**

**Dorothy Sowerby**

**Kevin Greally**

**David Anderson**

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## 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.

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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](mailto: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.

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