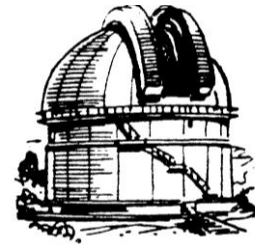


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# Journal

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## Nottingham Astronomical Society September 2008

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**Thursday 4<sup>th</sup> September**

at the  
**British Geological Survey**  
Nicker Hill, Keyworth

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

Tonight we have a  
**MEMBERS' EVENING**

with the theme of  
***Telescopes***

when a number of telescopes of different types  
will be available for use

### **A SMALL ICY WORLD IS THE SOLAR SYSTEM'S NEWEST KNOWN MEMBER**

An irregular lump of ice and rock, about 50 miles across, has been discovered between the orbits of Uranus and Neptune. The object, named 2006SQ372, happens to be at perihelion, and its highly elliptical orbit means that, over a period of about 11,000 years, it will recede to a distance of nearly 1600 astronomical units (40 times the distance of Pluto from the Sun). This implies that the object may come from the inner edge of the Oort cloud, the reservoir of cometary bodies that is thought to extend out to three-quarters of the distance to the nearest star, Proxima Centauri.

2006SQ372 isn't classified as a comet because it doesn't approach close enough to the Sun to begin to develop a coma, but it probably has the same essential nature as a comet. The discovery was reported on August 18<sup>th</sup>, and was based on data from the Sloan Digital Sky Survey.

# Sky Notes

## 2008 September

Compiled by Roy Gretton



**The Sun** will be directly over Earth's equator at a quarter to five on the afternoon of September 22<sup>nd</sup>. This moment is called the **Autumnal Equinox**, and thereafter the southern hemisphere will be receiving the lion's share of solar radiation for the rest of the year.

**September** generally is an agreeable month for astronomical observation in Britain, since there are plenty of hours of darkness, and the chill of winter has not yet arrived.

### PHASES OF THE MOON

First Quarter occurs in the afternoon of September 7<sup>th</sup>

Full Moon occurs on the morning of the 15<sup>th</sup>

Last Quarter occurs on the morning of the 22<sup>nd</sup>

New Moon occurs on the morning of the 29<sup>th</sup>

### THE PLANETS

**Mercury** will be at greatest eastern elongation on September 11<sup>th</sup>, when it will be 27 degrees from the Sun. However, autumn is never a good time of year to observe the inferior planets in the evening from the northern hemisphere, and as Mercury will be setting barely 40 minutes after the Sun, it will be essentially unobservable from the UK.

**Venus** also is an evening object this month, but too close to the Sun for effective observation. We shall have to wait until December for Venus to shine at its best.

**Mars**, after a spectacular showing last autumn, has now disappeared from visibility as it moves toward conjunction with the Sun on December 5<sup>th</sup>.

**Jupiter** continues to be the brightest object in the heavens apart from the Sun and Moon. Look for it low in the south-west after dark.

**Saturn** is unobservable this month, as it reaches conjunction (on the far side of the Sun) on September 4<sup>th</sup>.

**Uranus** (magnitude 5.9) is an easy binocular object in the constellation of Aquarius.

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

### METEORS

From one point of view, September is the best month of the year for spotting meteors, as sporadic rates are at their highest. Sporadic meteors are objects not associated with recognised showers, but represent the dusty background of the Solar System. In the hours before dawn, observers can expect to see ten or more sporadics per hour on a clear, moonless

night. Along with the sporadics you may observe the occasional **Piscid** meteor, a member of a shower that typically gives a couple of events per hour.

### **VARIABLE STAR: Algol**

There are five minima of this **eclipsing binary** visible from the UK this month. They occur on September 7<sup>th</sup> (3.45 am BST), the 10<sup>th</sup> (12.40 am), the 12<sup>th</sup> (9.30 pm), the 27<sup>th</sup> (5.35 am) and the 30<sup>th</sup> (2.20 am). The star dims from its normal brightness (magnitude 2.1) to magnitude 3.4 over a period of 4.8 hours.

## **DIARY DATES 2008**

<p style="text-align: center;"><b>Meetings of the Nottingham Astronomical Society</b></p> <p>Our programme for the coming months is below. Don't forget to check our website: <a href="http://beehive.thisisnottingham.co.uk/nottinghamastro">http://beehive.thisisnottingham.co.uk/nottinghamastro</a> for the latest information about the Society's meetings and observing sessions.</p>
<p style="text-align: center;"><b>Thursday 4 September 2008</b> British Geological Survey, Keyworth From 7.30pm <b>Members' Evening</b> The theme is 'Small Telescopes'. <b>Do bring along your own telescope or binoculars if you wish!</b></p>
<p style="text-align: center;"><b>Thursday 2 October 2008</b> British Geological Survey, Keyworth 8.00pm (Doors open 7.30pm) <i>To be confirmed:</i> <b>'Dr Plot and the Amazing Double Sunset'</b> Kevin Kilburn</p>
<p style="text-align: center;"><b>Thursday 6 November 2008</b> British Geological Survey, Keyworth 8.00pm (Doors open 7.30pm) <b>Annual General Meeting 2008</b></p>
<p style="text-align: center;"><b>Thursday 4 December 2008</b> British Geological Survey, Keyworth 8.00pm (Doors open 7.30pm) <b>The BGS 3-D Suite</b> Another opportunity to view planetary images in 3D. <b>With thanks to Doug Tragheim of the BGS</b></p>

## OTHER EVENTS

### **Birmingham Space Day**

**Saturday 4<sup>th</sup> October 2008**

**Poynting Physics Building  
and the Large Lecture Theatre,  
University of Birmingham**

I have the great pleasure of inviting you all along to the University of Birmingham's Space day. This event is free for all and will take place on Oct 4th.

"Forty two". That was the answer to Life, the Universe and Everything proposed by Deep Thought in Douglas Adams' book the Hitchhiker's Guide to the Galaxy. But how much of the ultimate answer does the Universe actually contribute?

Whilst astronomers at the University of Birmingham are likely unable to find the answer to that question, at their upcoming event, Space Day, they hope to be able to answer many other more day-to-day questions, such as how does a telescope work? What can I look at in the sky tonight? How did NASA get their rovers on Mars safely?

This event, aimed at all ages of the general public, will feature talks by researchers from the School of Physics and Astronomy, including Dr William Chaplin on the "Music of the Sun" and

Dr Somak Raychaudhury on "Einstein's Outrageous Legacy - Black Holes, Cosmic Illusions and

Dark Energy", as well as interactive workshops which tackle telescope making, air rocket creation and launching, and even making Mars rovers out of little more than cardboard and sellotape! Other activities such as a tour of the night sky in a mobile planetarium, a tour of the department's astronomical and space laboratory facilities, a chance to see how many cosmic rays pass through you every second and a raffle are planned for the day.

Space Day is currently planned to run from **10:00am to 5:15pm on Saturday 4th October 2008**. Entrance and all activities are free, but due to limits on numbers certain workshops will be on a "first-come-first served basis."

**For more information (including directions to the venue) please see:**

<http://www.talkandtelescope.org.uk/spaceday>

best wishes,

Sam

**Samuel George** [www.krioma.net](http://www.krioma.net)

University of Birmingham Astrophysics and Space Research Group

Secretary, Federation of Astronomical Societies [www.fedastro.org.uk](http://www.fedastro.org.uk)

**Kielder Observatory Astronomical Society**  
**6th KIELDER FOREST AUTUMN STAR CAMP**  
**Northumberland**

**29 October - 2 November 2008**

The 6<sup>th</sup> Kielder Forest Star Camp will be staged over five nights from 29 October to 2 November 2008 in the spectacular Border countryside between England and Scotland.

The event is being staged by the Kielder Observatory Astronomical Society, which has been formed to exploit an exciting new £480,000 observatory built 1270 feet above England's remotest village and which is now fully operational.

Star Camp will be based at Kielder campsite and for the fifth year in succession we have kept pitch fees at £12 per night for an electric hook-up and £10 without (per pitch). There's also a minimum two night stay and fees must be paid up front. The main day will be on Saturday 1 November at 18th century Kielder Castle. We will have top speakers and a full line-up of the nation's leading astronomy vendors, including The Widescreen Centre, Rother Valley Optics, Astrosource UK, Astro Trac and (provisionally) Ian King Imaging.

Activities on the main day will be free of charge. Details and a booking form can be found at [www.richard.demon.co.uk/starcamp](http://www.richard.demon.co.uk/starcamp)

For further information contact me at [starcamp@richarddarn.demon.co.uk](mailto:starcamp@richarddarn.demon.co.uk), or call **01226 246351**.

We hope to see you under Kielder's dark sky!

Richard Darn

**KielderObservatory.org**

# 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**

This advertising space is available  
free of charge to society members

### 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

## 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

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### 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, 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:

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

Please tick and enter your e-mail address if you wish to receive:

- the monthly **NAS Journal** (in 'Word' format) by e-mail
- e-mail notifications of dates & times of observing sessions using the large telescope at our observatory.

Your e-mail address: \_\_\_\_\_

# 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**

**Robert Bush**

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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 2007-08

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.

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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, 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.

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