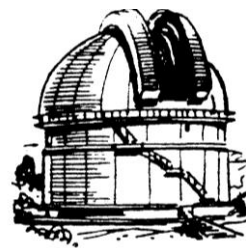


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# Journal

of the



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## Nottingham Astronomical Society

July-August 2009

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- Sky Notes for July and August
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**Thursday, 2<sup>nd</sup> July**  
at the  
**British Geological Survey**  
Nicker Hill, Keyworth  
**8 pm** (doors open at 7.30pm)

Tonight we welcome  
**Dr Ann Bonell**

who will be speaking on  
**“Edwin Hubble”**

### WELCOME TO OUR TWO-MONTH JOURNAL

Please note that **the Society does not meet at Keyworth in August.**

However, August can be regarded as the beginning of a new observing season, with the return of dark overnight skies, since by the middle of the month the Sun will be setting at about 8.30 pm BST. And there are some truly glorious sights to be seen in the late summer sky, with the constellation of Cygnus riding high, and a dense section of the Milky Way stretching down to the southwestern horizon. Here are rich pickings for users of telescopes, binoculars, and even the naked eye from a dark site.

But even in early July, when Astronomical Twilight lasts all night, there are phenomena of interest to be observed in the sky. For example, noctilucent clouds are best seen at this time of year. These are high-altitude, pale blue filamentary clouds, lying far above the normal clouds we associate with the weather. They are typically formed about 50 miles above the Earth's surface, and become visible when illuminated by the Sun when it is well below the horizon. Look toward the north or northwest on a clear evening after 10.30. There were good displays over the Midlands during the weekend of 12-13<sup>th</sup> June (observed from Derbyshire by the Editor), and again on Wednesday June 17<sup>th</sup> (observed from Nottingham).

Further afield, on July 22<sup>nd</sup> there will be a total eclipse of the Sun, not visible from the UK, but observable along a track stretching from India to the Hawaiian Islands. We wish good luck to members of the Society who are travelling to the Far East to share in what they hope will be the experience of a lifetime: the longest solar eclipse of the 21<sup>st</sup> Century.

# Sky Notes

## July-August 2009

Compiled by Roy Gretton



Earth will be at **aphelion**, its furthest distance from the Sun (152 million km), on July 4<sup>th</sup>.

### PHASES OF THE MOON

#### July

Full Moon occurs on the morning of the 7<sup>th</sup>  
Last Quarter occurs on the morning of the 15<sup>th</sup>  
New Moon occurs in the early morning of the 22<sup>nd</sup>  
First Quarter occurs in the late evening of the 28<sup>th</sup>

#### August

Full Moon occurs soon after midnight on August 6<sup>th</sup>  
Last Quarter occurs in the early evening of August 13<sup>th</sup>  
New Moon occurs on the morning of August 20<sup>th</sup>  
First Quarter occurs on the morning of August 27<sup>th</sup>

### THE PLANETS

**Mercury** is poorly-placed for observation from Britain throughout July and August. Greatest eastern elongation occurs on August 24<sup>th</sup>, but the planet will be very low in our sky.

**Venus** is a bright morning object, moving through the constellation of Taurus in July, and shining at magnitude -4. It begins July 44 degrees from the Sun, but by the end of August the separation will have decreased to 32 degrees, and the planet will be getting more difficult to observe.

**Mars** is another morning object, but at magnitude +1.1 is much fainter than Venus. Through a telescope it remains a tiny object, a mere five arcseconds across.

**Jupiter** remains a morning object in July, but reaches opposition on August 14<sup>th</sup>, on which date it will be due south at midnight, and shining brightly at magnitude -2.8. Being about 15 degrees south of the celestial equator, it is still poorly-placed for detailed observation from the UK, but users of small telescopes can, as usual, enjoy watching the nightly movements of the four Galilean satellites.

**Saturn** is just observable after sunset as July begins, but will be lost from sight before the end of August.

**Uranus** is a magnitude 5.8 morning object in Aquarius, while **Neptune** is a much fainter magnitude 8 object in Capricornus. Neptune reaches opposition on August 17<sup>th</sup>

(three days after Jupiter does so, hence the two planets are quite close to each other in the sky, which may assist you in locating the fainter of the two).

## METEORS

August's old favourites, the **Perseids**, will be making their annual appearance in late July through to mid-August, with maximum activity expected August 12<sup>th</sup>, when a waning gibbous Moon will tend to interfere with observations.

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## The Nottingham Astronomical Society



### 'Starwatch' astronomical event

On the evening of Saturday 26th September 2009, the Nottingham Astronomical Society is hosting a public astronomical event at the British Geological Survey as part of the IYA2009 celebrations.

- Telescopes will be available to look at the night sky (weather permitting).
- Learn how to use a telescope and what to look for in the night sky.
- View stunning astronomical photographs and learn how to take your own.
- Listen to presentations throughout the evening.

The speakers are:

**Prof. Michael Merrifield** and  
**Dr Boris Häußler** (Haeussler)

Nottingham Astronomy Group, The University of Nottingham.

**Paul Money**  
Contributor to The Sky At Night magazine

The talks will start at 5:30pm.

*Time: The event will be open to the public from 3pm to 10pm.*

Venue: British Geological Survey, Keyworth, Nottingham, NG12 5GG.  
Admission: The event will be free to all society members with proof of membership.  
There will be an admission fee of £2.50 to members of the public.

## DIARY DATES 2009/2010

### 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 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)  
Talk: 'The time has come...!'  
Dr Paul Roebuck

#### 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

#### Thursday 3 December 2009

British Geological Survey, Keyworth  
8.00pm (Doors open 7.30pm)  
Talk: 'The Magnetic Solar System - an unfolding tale of plasma, planets and probes'  
NAS member Dr Jon Woodcock  
from the Astronomy Unit at Queen Mary, University of London

#### Thursday 7 January 2010

British Geological Survey, Keyworth  
8.00pm (Doors open 7.30pm)  
**Members' Evening**

#### Thursday 4 February 2010

British Geological Survey, Keyworth  
8.00pm (Doors open 7.30pm)  
Talk: 'Observatories without Telescopes'  
Dr. Daniel Brown  
from the School of Science & Technology

**Nottingham Trent University**

**Thursday 4 March 2010**  
British Geological Survey, Keyworth  
8.00pm (Doors open 7.30pm)

Talk: '**Observing Orion**'  
**Paul Money**

*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*

The **Nottingham University Astronomy Public Lecture Series** continues this month with a Lecture on Astrobiology.

**'Life on Other Worlds'**

by Mark Hammonds  
of the Nottingham University Business School

Time and Date: 6:00pm to 7:00pm, 23<sup>rd</sup> July

Venue: Maths & Physics Building,  
University Park Campus

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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**

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## Small Advertisements

### **Equipment for sale**

Celestron 1 ¼" visual back	£5
Celestron 1 ¼" star diagonal (prism)	£10
Celestron 2" star diagonal (mirror)	£20

**Please contact Sam Boote**  
**s.boote@bcs.org**  
**0115 937 4644**

### **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](mailto:roygretton@hotmail.co.uk)

### **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 Members may submit private advertisements for inclusion free of charge in the Journal. Please email the Editor.*

## 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:	Full	£25.00	<input type="checkbox"/>
	Concession	£12.50	<input type="checkbox"/>
	Half-year*	£12.50	<input type="checkbox"/>
	Concession half-year*	£6.25	<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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## **PRESIDENT:**

**Fred Hopper**

e-mail: [fred.w.m.hopper@googlemail.com](mailto:fred.w.m.hopper@googlemail.com)

## **VICE PRESIDENT:**

**Dr Roy Gretton**

e-mail: [roygretton@hotmail.co.uk](mailto:roygretton@hotmail.co.uk)

## **SECRETARY:**

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## **TREASURER:**

**Sam Boote**

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## **JOURNAL EDITOR:**

**Dr Roy Gretton**

e-mail: [roygretton@hotmail.co.uk](mailto:roygretton@hotmail.co.uk)

## **DIRECTOR OF OBSERVING and CURATOR OF INSTRUMENTS**

**John Hurst**

email: [jmhurst@hotmail.co.uk](mailto:jmhurst@hotmail.co.uk)

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

## **ORDINARY COMMITTEE MEMBERS:**

**Joe Sowerby**

**Dorothy Sowerby**

**Kevin Greally**

**David Anderson**

**Julie Morledge**

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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) 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**

Full	£25
Concessions	£12.50

Subscriptions become due on 1<sup>st</sup> October. Half-price subscription is charged if joining after 1<sup>st</sup> 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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