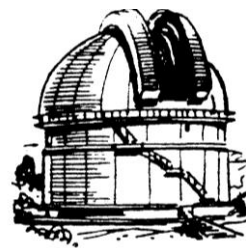


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# Journal

of the



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## Nottingham Astronomical Society

November 2007

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- Opening of Sam Boote's observatory dome
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Thursday, 1<sup>st</sup> November

at the

**British Geological Survey**

Nicker Hill, Keyworth

8 pm (doors open at 7.30pm)

This evening we have our

## **Annual General Meeting of 2007**

**followed by a short Ordinary Meeting**

### **ORION STAR COUNT RESULTS**

Last winter the *Campaign for Dark Skies* and the *Campaign to Protect Rural England* collaborated to organise a national survey to assess light pollution. They asked people to count the number of stars visible to the naked eye within the quadrilateral formed by Alpha, Beta, Gamma and Kappa Orionis. Being able to see three stars would correspond to a limiting magnitude of about 3, whereas seeing sixty stars would mean a limiting magnitude of 6 or above. Over 1500 observers took part, mostly in England and Wales. The average score turned out to be just over twelve stars, corresponding to a limiting magnitude of 4.6. There was a good match between the results of the survey and the pattern of light pollution revealed from Earth orbit.

The organisers plan to repeat the survey in future years to monitor changes in light pollution.

For more information visit: [www.britastro.org/starcount](http://www.britastro.org/starcount)

# Sky Notes

## 2007 November

Compiled by Roy Gretton



### PHASES OF THE MOON

Last Quarter occurs on the evening of November 1<sup>st</sup>  
New Moon occurs an hour before midnight on the 9<sup>th</sup>  
First Quarter occurs in the late evening of the 17<sup>th</sup>  
Full Moon occurs on the afternoon of the 24<sup>th</sup>

This month the Moon is closest to Earth on the 24<sup>th</sup> (giving us another BIG Full Moon, though not quite as big as last month's), and furthest from Earth on the 9<sup>th</sup>.

### THE PLANETS

**Mercury** will be visible in the morning sky in the first half of this month. It reaches greatest western elongation on November 8<sup>th</sup>, when it will be 5 degrees east of Spica (the brightest star in Virgo). Mercury will be shining at magnitude -0.5, and will climb to an altitude of 15 degrees by sunrise. Look for it in southeast as the pre-dawn glow develops. Later in the month the planet will be moving swiftly back toward the Sun and will no longer be observable.

**Venus** is the striking 'Bright Morning Star' throughout November, rising nearly four hours before the Sun, and shining at magnitude -4.3. It will be at an approximate altitude of 36 degrees at sunrise.

The behaviour of **Mars** is fascinating to watch as it moves toward its opposition on Christmas Eve. At the beginning of November it will be moving eastwards against the stars of Gemini, but by the end of the month it will have commenced its retrograde motion, and be moving westwards. This is because the Earth will be overtaking Mars in the "fast lane" (our orbit is closer to the Sun and so our orbital velocity is greater). At the end of November the planet will have brightened to magnitude -1, and modest-sized amateur telescopes will be capable of revealing surface markings. However, be aware that a large dust-storm began in June (the biggest on the planet since 2001), and although this has begun to clear, it may affect your view of the Martian features.

**Jupiter** is fast disappearing into the evening twilight, and is becoming very difficult to observe. It will not be visible again until well into the New Year.

**Saturn** can be seen in the early morning sky, near the tail of Leo. It rises about midnight at the beginning of November, but will be less bright than in previous years because the rings are being presented toward us at a decreasing angle (only 7 degrees in mid-month), and are therefore reflecting less light toward Earth.

**Uranus** (magnitude 5.7) is an evening object in the constellation of Aquarius, while **Neptune** (magnitude 7.8) is also an evening object, in the constellation of Capricornus.

## **METEORS**

The Taurids reach their peak activity on November 3<sup>rd</sup>, which unfortunately is close to Full Moon, so conditions will not be very favourable this year. 10 events per hour are to be expected at maximum.

However, conditions are favourable this year for viewing the Leonids, which reach maximum activity on the night of November 17-18<sup>th</sup>, with the Moon just past First Quarter. The best time for observation of these meteors is after midnight. The Perseid shower was very active around the turn of the millennium, but has declined in recent years, and about 20 events per hour are to be expected at maximum in 2007.

## **VARIABLE STAR: Algol**

There are five minima of the dark-eclipsing variable star Algol (Beta Persei) visible from the UK this month. They occur on November 8<sup>th</sup> (3.40 am), the 11<sup>th</sup> (12.30 am), the 13<sup>th</sup> (12.20 am), the 16<sup>th</sup> (6.05 pm) and the 28<sup>th</sup> (5.25 am). The star dims from its normal brightness (magnitude 2.1) to magnitude 3.4 over a period of about five hours.

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## Official opening of Sam's dome

The observatory dome at Sam Boote's home in Keyworth was officially opened by the Mayor of Rushcliffe, Christine Jeffreys, on a pleasant autumn day on 6 October. About 25 people attended, including a dozen or so members of the Society. Thanks to the generosity of those present (and some who could not be present), £100 was raised for the Mayor's charity (the Lincs and Notts Air Ambulance). In her speech, Christine showed herself to be very interested in the work of the Society and said that our annual subscription was "ludicrous" (she meant ludicrously low!). We also provisionally recruited some extra members for the Society, and we look forward to seeing them at our meetings soon.

The equipment inside the dome includes a Tele Vue 4-inch refractor on a Losmandy equatorial mount with Gemini control system. Once Sam has finished wading through the instruction manual and working out how to operate the mount, it is hoped to organise a members' evening to explore the capabilities of the equipment.



Sam Boote, Christine Jeffreys and Debbie Boote



Friends, neighbours and Society members listening to Christine Jeffreys

*(photos by Kevin Greally)*

## DIARY DATES 2007-08

### 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 1 November 2007**

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

#### **Annual General Meeting 2007**

Do please come and have your say in the running of your society

**Thursday 6 December 2007**

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

#### **Talk: 'Digital Astrophotography for Dummies'**

Not hi-tech CCDs, just simple digital cameras!

**Kevin Kilburn**

**Thursday 3 January 2008**

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

#### **Members' Evening**

**Thursday 7 February 2008**

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

#### **Talk: 'Simple Sums for Astronomers'**

**Dr Roy Gretton**

NAS Vice-President

### **The NAS Committee: *New members needed!***

The agenda for the Society's 2007 AGM is on the next page.

All of the 2007-08 committee posts are open to NAS members aged 18 and over.

New committee members are always welcome as they bring new skills and new ideas. If you can spare a little of your time to help the society, please consider standing for election to the committee. Meetings are held every six weeks or so, and last between one and a half and two hours. Committee members are trustees of the society, which is a registered charity.

If you would like to know more about committee work, please e-mail me at:

[nottinghamastro@yahoo.co.uk](mailto:nottinghamastro@yahoo.co.uk)

Paul Stocks  
NAS Secretary

**Annual General Meeting**  
8.00pm, Thursday 1 November 2007  
at the British Geological Survey, Keyworth

**AGENDA**

- 1 Meeting open
- 2 Minutes of the 2006 AGM
- 3 Arising from minutes
- 4 President's report
- 5 Secretary's report
- 6 Treasurer's report
- 7 Telescope and observatory work
- 8 Journal Editor's report
- 9 Campaign for Dark Skies report
- 10 **Election of Committee for 2007-08.** All committee posts are open to any adult member of the society.

*Committee members are trustees of the Nottingham Astronomical Society, a registered charity.*

President:	Candidate: Dr Fred Hopper
Vice-President	Candidate: Dr Roy Gretton
Secretary	Candidate: Paul Stocks
Treasurer	Candidate: Sam Boote
Journal Editor	Candidate: Dr Roy Gretton
Curator of Instruments	Candidate: John Hurst
Director of Observing	Candidate: John Hurst
Campaign for Dark Skies	Candidate: [ VACANT ]
Ordinary Committee Members	Candidates: Kevin Greally, Dorothy Sowerby, Joe Sowerby
Any further candidates for committee	

- 11 NAS Membership fees for 2007-08  
Committee proposes that the 2007-08 Membership fees should be held at the 2006-07 rate:  
**£25 adults      £12.50 under-18s and concessions**
- 12 Any other business
- 13 AGM close *(The AGM will be followed by a short ordinary meeting.)*

# Small Advertisements

## Various items of equipment for sale

Celestron Nexstar 5 telescope and tripod etc.	£395
Tele Vue 8-24 click zoom eyepiece	£75
Vixen Lanthanum 20 eyepiece	£50
Meade 9.7 Super Plossl eyepiece	£25
Celestron 3.6 Plossl eyepiece	£10
Celestron 90-degree erecting diagonal	£10
sodium light pollution filter	£10

**Reasonable offers from Society members considered**

**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

*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.*

### 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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## **PRESIDENT:**

**Fred Hopper**

*e-mail:* [fwmh@nerc.ac.uk](mailto:fwmh@nerc.ac.uk)

## **VICE PRESIDENTS:**

**David Lukehurst**

*e-mail:* [gildor@ntlworld.com](mailto:gildor@ntlworld.com)

*website:* [www.dobsonians.co.uk](http://www.dobsonians.co.uk)

**Dr Roy Gretton**

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

## **SECRETARY:**

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## **TREASURER:**

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## **JOURNAL EDITOR:**

**Dr Roy Gretton**

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

## **CURATOR OF INSTRUMENTS**

**David Lukehurst**

*e-mail:* [gildor@ntlworld.com](mailto:gildor@ntlworld.com)

## **DIRECTOR OF OBSERVING**

**John Hurst**

**Observatory line: 07726 940700**

## **CAMPAIGN FOR DARK SKIES:**

**Duncan Collins**

*e-mail:* [duncan.collins@talk21.com](mailto:duncan.collins@talk21.com)

## **ORDINARY COMMITTEE MEMBERS:**

**Joe Sowerby**

**Dorothy Sowerby**

**Kevin Greally**

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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 2006-07**

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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