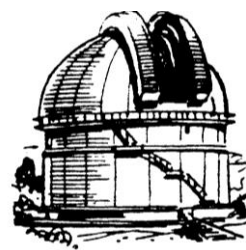

Journal

of the



Nottingham Astronomical Society

November 2009

Inside this issue

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Thursday, 5th November

at the

British Geological Survey

Nicker Hill, Keyworth

8 pm (doors open at 7.30pm)

**All members are encouraged
to attend our**

Annual General Meeting

**the agenda for which is on Page 5
of this Journal**

A HOT ROCKY PLANET!

A planet 500 light-years away from Earth has been found to be the fastest moving planet known, orbiting its star once every 20.4 hours. The planet, known as CoRoT-7b, is only 2.5 million kilometres from the star, and is the first extra-solar object to be unambiguously confirmed as a rocky planet. It was discovered in February 2009 from transit data for the star, CoRoT-7, collected by the French-led stellar seismology and planet-hunting spacecraft CoRoT.

One difficulty encountered when making the measurements was believed to be the presence of a large number of starspots on the surface of the parent star, thought to be typical of relatively young stars. These spots tended to interfere with measurements of the light from the star.

Although there are several planets suspected of being less massive than this one, and equally rocky, CoRoT-7b is nevertheless the first small exoplanet to have had its properties measured to this degree of accuracy through both transits and radial velocity measurements. It is also the closest planet to a star ever found, being less than one-twentieth of the distance from Mercury to the Sun. It is expected that NASA's Kepler spacecraft, which was launched in March, will find many more rocky low mass planets in the coming years.

Sky Notes

November 2009

Compiled by Roy Gretton



PHASES OF THE MOON

Full Moon occurs on the evening of November 2nd

Last Quarter occurs on the afternoon of the 9th

New Moon occurs on the evening of the 16th

First Quarter occurs on the evening of the 24th

THE PLANETS

Mercury passes through superior conjunction (on the far side of the Sun from Earth) on November 5th. Thereafter it becomes an evening object, but is not well placed for observation from Britain.

Venus is a morning object, but fading and moving closer to the Sun, it will be difficult to observe this month.

Mars, in the constellation of Cancer, continues to brighten, but appears very small through telescopes, and even by the end of November will have an apparent diameter of less than ten arcseconds. To the naked eye it appears as an orange star with a magnitude approaching zero. As November begins the planet will be passing through the bright open star cluster, M44 (the Beehive Cluster).

Jupiter appears as a bright off-white object in the constellation of Capricornus, low in the southwest in the early evening. However, the best opportunities for observing the planet in 2009 have now passed, as Jupiter moves closer to the Sun. On November 23rd, the crescent Moon will pass within two degrees of Jupiter.

Saturn is a morning object, rising about two hours before the Sun. If you are sufficiently keen to observe the planet through a telescope at this time, you will notice that it appears to have lost its famous rings, because they are presented almost edge-on to the Earth. One consequence of this is that Saturn, at magnitude +1.1, is noticeably dimmer than usual.

Uranus is fairly well-placed for evening observation this month, about three and a half degrees south of the celestial equator, in the constellation of Aquarius. At magnitude 5.8 it is brighter than any of the surrounding stars in a low-magnification field.

Neptune is a much fainter target (magnitude 7.9) in northeastern Capricornus, 14 degrees south of the celestial equator, a little to the east of Jupiter. The planet is becoming increasingly difficult to observe in the southwest in the early evening.

METEORS

The principal meteor shower of November is the Leonids, which have given spectacular displays in certain years in the past. This year conditions are ideal for observation in terms of moonlight, as the peak of the display occurs close to New Moon. Maximum activity is

predicted for the nights of November 16th-17th and 17-18th, with the best observing opportunities being between midnight and dawn.

VARIABLE STAR: Algol

There are **four** minima of this **eclipsing binary** visible from the UK this month. They occur on November 11th (5.20 am), the 14th (2.05 am), the 16th (11 pm), and the 19th (7.50 pm). The star dims from its normal brightness (magnitude 2.1) to magnitude 3.4 over a period of 4.8 hours.

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

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

ADVANCE NOTICE

Friday April 16th 2010 at 7:30pm

Ken Willoughby, St. Wilfrid's Catholic High School
and Carleton Community High School
present

An Evening With Dr. Edgar Mitchell

Apollo 14 Lunar Module Pilot and 6th Man to set foot on the Moon.

at St. Wilfrid's Catholic High School
Cutsyke Road
Featherstone
WF7 6BD.

Tickets £30 each (cheques payable to Apollo 13.)

SAE to: Ken Willoughby, 11 Hardistry Drive, Pontefract WF8 4BU. 01977 795535.

e-mail: ken.willoughby@btinternet.com

Please include your e-mail/telephone number.

Dinner with Dr Mitchell at Wentbridge House Hotel, Thursday April 15th @ 7:30pm is £60.

Group photos will be taken with Dr. Mitchell at each table and photos will be available for purchase following dinner at £10. Visit St. Wilfrid's Catholic High School web site and click on info for directions:

St-wilfrids.wakefield.sch.uk

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 5th November 2009

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

Annual General Meeting 2009

Thursday 3rd December 2009

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

Talk: '**Our Never-Ending Universe: What Caused the Big Bang?**'

Asa Bluck

School of Physics & Astronomy
University of Nottingham

Thursday 7th January 2010

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

Members Evening

Thursday 4th 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 4th March 2010

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

Talk: '**Observing Orion**'

Paul Money

Thursday 1st April 2010

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)
Topic to be confirmed

Thursday 6th May 2010

British Geological Survey, Keyworth
8.00pm (Doors open 7.30pm)
Topic to be confirmed

Thursday 3rd June 2010

British Geological Survey, Keyworth

8.00pm (Doors open 7.30pm)
Talk: **'Is there or has there been Life on Mars?'**
Prof. Mark Sims
Physics and Astronomy Department
University of Leicester

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

Nottingham Astronomical Society Annual General Meeting

8.00pm, Thursday 5 November 2009, at the British Geological Survey, Keyworth

AGENDA

1. President declares the 2009 AGM open
2. Approval of minutes of the 2008 AGM
3. Arising from minutes
4. President's report
5. Secretary's report
6. Treasurer's report
7. Observatory and Large Telescope
8. Journal Editor
9. Campaign for Dark Skies
10. Issues relating to the observatory site
11. **Membership fees.** Committee proposes that membership fees for the next society year should be held at the following rates: Adult: **£25**, Under-18s, full-time students: **£12.50**, Adult partners living at the same address: **£37.50**.
12. The President will call on the 2008-09 committee to stand down.
13. **Election of Committee for 2009-10:**

Committee members are trustees of the Nottingham Astronomical Society, Registered Charity No. 1066645

Note: the post of **President:** is for a two-year term, ending at AGM, November 2011.

All committee posts are open to any adult member of the society but it is customary for the president, secretary and treasurer to be drawn from members that have previously been society trustees. Before electing members, the president will ensure that any further nominations for posts are recognised before asking the membership to vote.

President Candidate: **Dr. Fred Hopper**
Vice-President Candidate: **Dr Roy Gretton**
Secretary Candidate: **Robert Bush**
Treasurer Candidate: **Sam Boote**
Journal Editor Candidate: **Dr Roy Gretton**

Director of Observing Candidate: **John Hurst**
Curator of Instruments Candidate: **John Hurst**
Campaign for Dark Skies [vacant]
Ordinary Committee Members Candidates:
David Anderson, Kevin Greally,
Dorothy Sowerby, Joe Sowerby,
Julie Morledge

14. Any other business
15. AGM close.

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

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

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

NAS Membership application 2009/10

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"/> |
| | Joint rate for partners living at the same address: | whole year | £37.50 <input type="checkbox"/> |
| | | half year* | £18.75 <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**

PRESIDENT:

Fred Hopper

e-mail: fred.w.m.hopper@googlemail.com

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Dr Roy Gretton

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SECRETARY:

Robert Bush

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TREASURER:

Sam Boote

e-mail: s.boote@bcs.org

JOURNAL EDITOR:

Dr Roy Gretton

e-mail: roygretton@hotmail.co.uk

**DIRECTOR OF OBSERVING and
CURATOR OF INSTRUMENTS**

John Hurst

email: 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

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 2009/10

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

Subscriptions become due on 1st October. Half-price subscription is charged if joining after 1st April. 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 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.

The Nottingham Astronomical Society

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