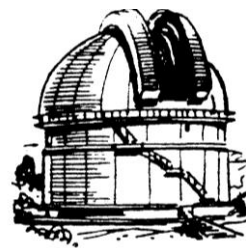

Journal

of the



Nottingham Astronomical Society

September 2013

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Thursday, 5th September

British Geological Survey

Nicker Hill, Keyworth

8 pm (doors open at 7.30pm)

Tonight we will be holding a

Members' Evening

to which all friends
as well as members of the Society
are welcome

RECENT NEWS STORIES ON THE WEB

Follow these links for interesting current news:

Streams of gas wrapped around our galaxy were stripped from the Magellanic Clouds

<http://www.sciencedaily.com/releases/2013/08/130808123318.htm>

Gamma ray burst reveals the composition of a galaxy 12.7 billion light-years away

<http://www.sci-news.com/astromony/science-gamma-ray-burst-galaxy-01292.html>

Astronomers obtain a direct image of an exoplanet orbiting a Sun-like star

<http://www.sci-news.com/astromony/science-image-extrasolar-gas-giant-01288.html>

Clues to the first hundred thousand years of our universe

<http://phys.org/news/2013-08-thousand-years-universe-tantalizing-hints.html>

Something big is about to happen on the Sun

<http://www.sciencedaily.com/releases/2013/08/130806171645.htm>

Sky Notes

September 2013

Compiled by Roy Gretton



All times given below are in **British Summer Time (BST)**

The Southward Equinox (also known as the Autumnal Equinox in the northern hemisphere) occurs at 9:44 pm on September 22nd, at which time the Sun will be exactly over Earth's equator.

PHASES OF THE MOON

New Moon	12:36 pm on September 5 th
First Quarter	6:08 pm on September 12 th
Full Moon	12:13 pm on September 19 th
Last Quarter	4:55 am on September 27 th

This month the Moon is closest to the Earth on the 15th, and furthest on the 27th.

(Data from the BAA Handbook)

THE PLANETS

Mercury is an evening object during September, but fiendishly difficult to observe due to the very shallow angle that the ecliptic makes with the western horizon at this time of year.

Venus is also an evening object, but not easy to observe for reasons similar to those that apply with Mercury. That said, Venus is much brighter than Mercury, and by the end of September will be over 44 degrees from the Sun, although still very low in the southwest after sunset.

Mars is a morning object, beginning the month in the constellation of Cancer, where it will be seen among the stars of the Beehive Cluster on September 9th. By the end of the month the planet will have crossed over into Leo, where it will be rising over 4 hours before the Sun, and exhibiting a 4 arcsecond disk shining at magnitude +1.6 (hardly worth getting the telescope out for!)

Jupiter is a morning object in the constellation of Gemini. By the end of this month it will be rising at about midnight, a foretaste of what we can expect during the coming winter when Jupiter, for northern hemisphere observers, will be King of the night sky.

Saturn, in southeastern Virgo, is steadily disappearing into the sunset glow, but can still be observed early in the month.

Uranus, in the constellation of Pisces will, by the close of September, be due south at an elevation of 42 degrees shortly after 1 am BST. Shining at magnitude +5.7, it is easily visible in binoculars, and through a moderate-sized telescope exhibits a greenish-blue disk 3.7 arcseconds across.

Neptune, magnitude +7.8, is now an evening object in the constellation of Aquarius.

METEORS

September's regular meteors are the **Piscids**, which have multiple radiants close to the ecliptic. This year the maximum around September 5th is highly favourable, with a 3-day old Moon. But don't expect anything comparable to the activity provided by August's Perseids!

REFLECTIONS ON A PERSEID METEOR WATCH

August is a great time for observing meteors, with the arrival of a number of minor showers in addition to the famous Perseids. The British Astronomical Association handbook lists no fewer than six showers that are active for UK observers in early August: the Alpha-Cygnids, the Capricornids, the Delta-Aquarids, the Alpha-Capricornids, the Iota-Aquarids, and of course the Perseids. This abundance of showers, coupled with the warm nights, make early August arguably the best time of year for meteor spotters. The Perseids received plenty of coverage in the news media this year, and many people who do not normally spend the hours of darkness stargazing were tempted outdoors in the hope of seeing shooting stars.

The night of 11th-12th August 2013 was affected by persistent cloud in Nottinghamshire, with relatively few clear breaks, but the night of the 12th-13th was mainly clear and excellent for meteor spotting. I didn't spend the whole night under the stars; I was in bed by 1 am, after observing from 10:30 pm. Early in the session, most of the meteors I saw were not Perseids. Indeed, some of them were moving in exactly the opposite direction, approaching the constellation of Perseus from the south or west. I concluded that most of these were probably Cygnids or Capricornids. Eventually, as the Perseid radiant climbed higher into the sky, I began to see a majority of Perseids. Hoping to image some of them, I had set up my Canon 450D camera on a tripod, and programmed it to image continuously with 15-second exposures at ISO1600 through an 18mm lens. This of course gave me hundreds of images to sift through, and thus far I have identified only one definite Perseid trail, and that extremely weak. This may be because the meteors I observed were generally on the faint side, and therefore most failed to register on the imaging chip.

I had aimed the camera at an area of sky about 40 degrees to the right of the radiant, so that much of Cassiopeia and Andromeda were included in the images. Unfortunately, being engrossed in looking for meteors visually, I failed to notice that after about 45 minutes the camera lens was covered with dew, so a whole series of images were worthless! Perhaps for routine meteor imaging I would need a camera with higher ISO options.

Roy Gretton

DIARY DATES 2013

Monthly Meetings of the Nottingham Astronomical Society

Our programme for this year is shown below. Don't forget to check our website:

www.nottinghamastro.org.uk

for the latest information about the Society's meetings and for further information about the talks and speakers.

Our meetings are held on the **FIRST THURSDAY** of the month,

at the British Geological Survey, Keyworth, Notts. NG12 5GG

doors open at 7:30pm for 8pm start.

Thursday, 5th September 2013

Members' Evening (visitors welcome)

A short talk by one of our members, followed by an **Astro Quiz**.

Thursday 3rd October 2013

Talk: **“ Astrophotography – and How It's Done ”**

Nik Szymanek

The British amateur astronomer and prolific astrophotographer

Thursday 7th November 2013

2013 Annual General Meeting

Thursday 5th December 2013

Dramatic Lecture : **“ Into the Cosmic Ocean ”**

The dream of travel to the stars

Andrew Lound

Andy is a popular public presenter and UK Coordinator for the Planetary Society

The Nottingham Astronomical Society: E - SERVICES

Whether or not you are a NAS member, you can keep up to date with details of the Society's meetings and other events by visiting the NAS website:

www.nottinghamastro.org.uk

NAS on Facebook

You are welcome to connect with other members and friends of the NAS on Facebook by going to:

<http://www.facebook.com/nas.org.uk>

NAS Journal e-mailing list

To register for your monthly e-mailed copy of the NAS Journal, just e-mail

secretary@nottinghamastro.org.uk

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

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Telescope for sale

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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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email: b.chacksfield@gmail.com

ORDINARY COMMITTEE MEMBERS:

Kevin Greally

David Anderson

Victoria Jolly

Phil Heesom

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 2013

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

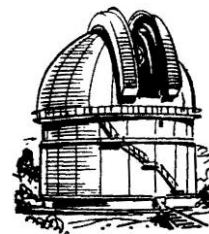
Subscriptions become due on 1st January. Half-price subscription is charged if joining after 1st July. Please make cheques payable to: Nottingham Astronomical Society.

If you would like more information about the **Nottingham Astronomical Society**, or would like to become a member, please contact the Secretary secretary@nottinghamastro.org.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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NOTTINGHAM ASTRONOMICAL SOCIETY



Founded in 1946 for all interested in astronomy
Affiliated to the British Astronomical Association
Member of the Federation of Astronomical Societies

Registered Charity No. 1066645
Member of the Society for Popular Astronomy
Supporter of the Campaign for Dark Skies

Membership application and Gift Aid declaration

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Subscription rate:	Full	£25.00	(year)	£12.50	(half year)
	Concession	£12.50		£6.25	
	Partnership	£37.50		£18.75	

Concession = under-18 / full-time student / unemployed and receiving benefits

Partnership = two members living together as a couple at the same address

I wish my subscriptions to be eligible for Gift Aid **Yes / No**

Gift Aid declaration

(HMRC reference XR32048)

I want Nottingham Astronomical Society to treat all subscriptions and donations that I make from the date of this declaration as Gift Aid donations, until I notify you otherwise.

I pay an amount of UK Income Tax and/or Capital Gains Tax at least equal to the tax that Nottingham Astronomical Society reclaims on my donations in the appropriate tax year.

Signature:

Date: