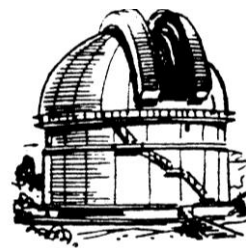

Journal

of the



Nottingham Astronomical Society

September 2011

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Thursday, September 1st

**British Geological Survey
Nicker Hill, Keyworth
8 pm (doors open at 7.30pm)**

Tonight we will be holding a
Members' Evening
(open to everyone)

which will include a talk by **Julian Onions** on
Using Telescopes in Science Studies

and a **Members' Forum** to discuss the
activities of the Society

COMET GARRADD



Comet 2009 P1 (Garradd) imaged by the Editor on 27th August. The camera was a Canon 450D at the prime focus of a 30 cm f/5.3 Newtonian reflector. The total exposure time was 8 minutes at ISO 800. (*See Sky Notes*).

This is a cropped and compressed version of the original image which had a file size of 70MB.

Sky Notes

September 2011

Compiled by Roy Gretton



The **Autumnal Equinox** when the Sun, on its southward journey, passes over Earth's equator, occurs shortly after 10 am BST on September 23rd.

PHASES OF THE MOON

First Quarter occurs on the September 4th
Full Moon occurs on the 12th
Last Quarter occurs on the 20th
New Moon occurs on the 27th

This month the Moon is closest to Earth on the 28th, and furthest from Earth on the 15th.

THE PLANETS

Mercury puts in a very favourable appearance in the morning sky during the first week of this month. It will be at greatest western elongation on September 3rd, when it will be 18 degrees from the Sun, and rising at about 4.30 am **BST**. Look into the pre-dawn glow from a vantage point with a low eastern horizon, and, given a clear sky, you should be able to spot Mercury shining at magnitude zero. After September 10th the planet will rapidly disappear into the Sun's glow, as it heads toward superior conjunction on the 28th.

Venus is an evening object, but extremely difficult to observe due to its low elevation and proximity to the Sun. Even in late September it will be a mere 3 degrees above the western horizon at sunset.

Mars is gradually becoming more observable in the morning sky. At the beginning of this month it will be rising shortly before 2 am **BST**, and will have climbed 40 degrees above the southeastern horizon at sunrise. By the end of the month it will be 60 degrees from the Sun, and very close to the Beehive Cluster, M44. However, at 5 arcseconds in diameter, the Martian disk will still be quite tiny.

Jupiter is the outstanding planetary showpiece of this autumn. It begins September as a brilliant magnitude -2.6 "star" in the constellation of Aries, rising in the late evening and reaching due south at an altitude of 52 degrees before sunrise. By the close of the month it will be crossing the meridian at 3 am **BST**, and, with an apparent diameter of 48 arcseconds, will be an excellent subject for telescopic examination.

Saturn, approaching conjunction with the Sun on October 13th, will for all practical purposes be unobservable for the next three months.

Uranus is well-placed for observation, as it reaches opposition to the Sun on September 26th. It can be found $\frac{3}{4}$ of a degree north of the celestial equator in the constellation of Pisces. At magnitude 5.7 it is on the edge of naked eye visibility from a dark-sky site. Through a telescope with a magnification greater than 200 you will be able to discern the pale blue-green disk of this gas giant.

Neptune is now an evening object in the constellation of Aquarius. At magnitude 7.8 it is much fainter than Uranus and consequently harder to find, although you may be helped by the fact that at the beginning of this month it is 1.5 degrees north of the 4.3 magnitude star Iota Aquarii.

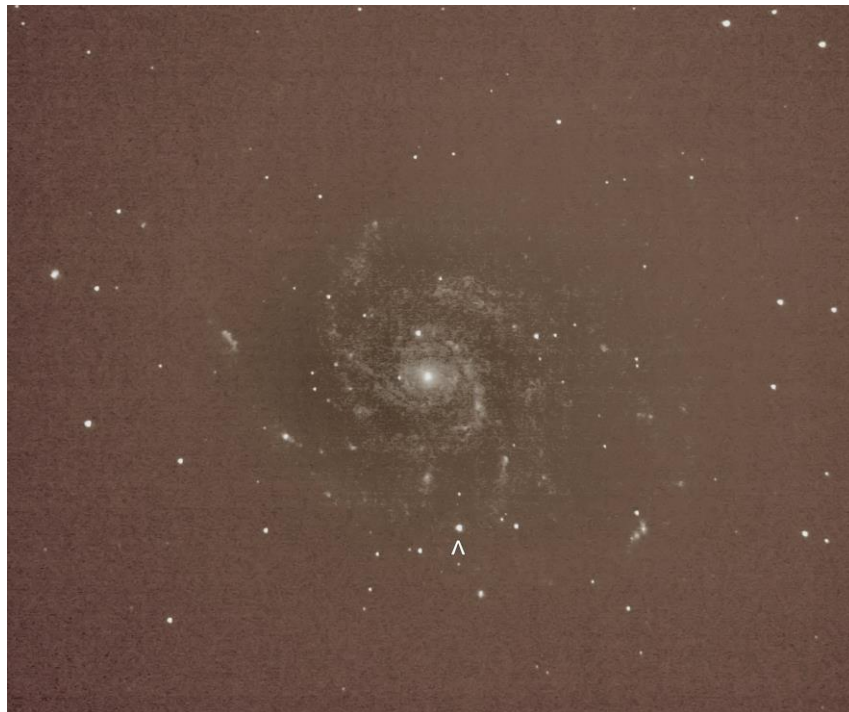
COMET GARRADD

Comet 2009 P1 (Garradd) is approximately magnitude 8 and brightening, so it is a feasible target for good binoculars or a small telescope from a dark-sky site. It is currently in the constellation of Sagitta, and will be heading northwards toward the border of Ophiuchus and Hercules. It is thus well-placed for evening observation in the first week of September, and again later in the month when the Moon has moved out of the way.

SUPERNOVA IN A NEARBY GALAXY

On August 24th professional astronomers at the Palomar Transient Factory discovered a magnitude 17, Type 1a supernova in Messier 101 (the Pinwheel Galaxy) in the constellation of Ursa Major. The supernova rapidly brightened, and is expected to continue getting brighter into the first week of September. At a distance of 21 million light-years, M101 is a relatively close galaxy, and hence the discovery of this object has created considerable excitement in the astronomical community.

The Editor captured this image late on August 27th, after clouds had partly cleared, leaving the galaxy sinking into the western sky, where light pollution is particularly bad. The picture below is a cropped and compressed version of the original image, and the colour saturation has been reduced to eliminate the orange glow. The camera used was a Canon 450D at the prime focus of my 30cm Newtonian reflector. The total exposure time was 13.5 minutes at ISO 1600. (I've indicated the supernova on this image with an arrowhead).



DIARY DATES 2011

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 details 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, 1st September

Members' Evening

including a talk on **"Using Telescopes in Science Studies"** and a **Members' Forum** to discuss any matters of interest to the Society (visitors welcome as always)

Thursday 6th October

Talk: **"Journey to the Aurora of Jupiter"**
The 2018 NASA/ESA Double Mission to the Jupiter System

Dr Nigel Bannister
Department of Physics and Astronomy
University of Leicester

Thursday 3rd November 2011

2011 Annual General Meeting

Thursday 1st December 2011

Dramatic Lecture : **"Fire from the Sky - the Tunguska Incident"**

Andrew Lound

Public physics lecture at the University of Nottingham

"Granulation Dynamics"

Date: Thursday 22nd September 2011

Time: 6-7 pm

Speaker: James Clewett

Venue: Maths & Physics Building (B1)
University Park Campus
Nottingham

The Nottingham Astronomical Society: E - SERVICES

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 website:

www.nottinghamastro.org.uk

NAS Journal e-mailing list

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

info@nottinghamastro.org.uk

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

Small Advertisements

Telescope for sale

Meade 2080 8-inch f/10 Schmidt-Cassegrain with field tripod and wedge. Reflex sight, 6mm, 12.5mm, 25mm and 32mm eyepieces, 2X Barlow, 0.4X telecompressor, two 90° erecting prisms; 45° roof prism. All in excellent condition in fitted trunk/case. Offers to 0115 937 6333 or rockvision@btinternet.com (Keyworth)

Mike Sumbler

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.

£20

Email the Editor: roygretton@hotmail.co.uk

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

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**
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Joe Sowerby

Dorothy Sowerby

Kevin Greally

David Anderson

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 2011

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

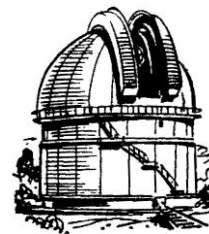
Subscriptions become due on 1st January. Half-price subscription is charged if joining after 1st July. Please make cheques payable to: Nottingham Astronomical Society.

If you would like more information about the **Nottingham Astronomical Society**, or would like to become a member, please contact the Secretary info@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

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Subscription rate:	Full	£25.00	(year)	£12.50	(half year)
	Concession	£12.50		£6.25	
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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.

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