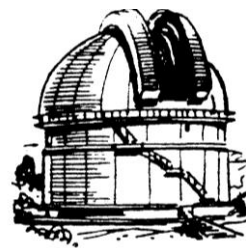


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# Journal

of the



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## Nottingham Astronomical Society

March 2013

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**Inside this issue**

- Sky Notes for March
- Diary Dates for 2013
- NAS e-Services
- Advertisements
- Society Information
- Membership application form

**Thursday, 7<sup>th</sup> March**

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

Tonight we welcome  
**Dr John Bridges**  
University of Leicester

who will be speaking on

**“ Exploring Mars with  
Curiosity ”**

### Comet PanSTARRS is coming

John Drummond in New Zealand took this picture of comet Pan-STARRS  
on 23<sup>rd</sup> January



Credit: Science@NASA/John Drummond

From the UK, the comet may become visible to the naked eye in the second half of this month. *See our **Skynotes** for further information.*

# Sky Notes

## March 2013

Compiled by Roy Gretton



All times given below are in Universal Time (UT), effectively equal to GMT.  
Note, however, that British Summer Time begins at 01:00 on March 31<sup>st</sup>,  
when clocks will be advanced by one hour.

### PHASES OF THE MOON

Last Quarter	4 <sup>th</sup> March, 21:53
New Moon	11 <sup>th</sup> March, 19:51
First Quarter	19 <sup>th</sup> March, 17:27
Full Moon	27 <sup>th</sup> March, 09:27

This month the Moon is closest to the Earth on the 5<sup>th</sup>, and furthest on the 19<sup>th</sup>.

*(Data from the BAA Handbook)*

### THE PLANETS

**Mercury** passes through inferior conjunction on March 4<sup>th</sup>, and is thereafter a morning object. It reaches greatest western elongation on the 31<sup>st</sup>, when it will be 28 degrees from the Sun, but very poorly placed for observation from the UK.

**Venus**, which reaches superior conjunction on March 28<sup>th</sup>, will be unobservable this month.

**Mars**, heading toward conjunction with the Sun in April, is unobservable this month.

**Jupiter**, a splendid evening object, will spend March moving slowly eastward through the constellation of Taurus. By the end of the month its brightness will have faded to magnitude  $-2.1$ , after reaching  $-2.8$  last December, because it will have receded to 5.5 AU from Earth (compared with 4 AU in early December). Even so, it remains a very rewarding object to observe. The constant movements of the four brightest satellites are fascinating to observe. Interesting phenomena include: eclipses (when a satellite is hidden in Jupiter's shadow), occultations (when a satellite passes behind the body of the planet), transits (when a satellite passes in front of the planet) and shadow transits (when a satellite casts its shadow on to the visible surface of Jupiter).

**For observers with a small telescope** (say, 50mm aperture or greater) re-emergences of satellites **from eclipse** are perhaps the most interesting phenomena to observe. Look a little way to the *right* of the planet's disk (if you have an inverting telescope) or to the *left* of the planet (if your instrument gives an erect view). The eclipsed satellite will begin to reappear as a very faint star, and over a few minutes will grow to its full brightness. Start observing about 10 minutes before the times stated below (evenings only):

March	Re-emergence of
5 <sup>th</sup>	Ganymede 18:59
5 <sup>th</sup>	Io 22:19
12 <sup>th</sup>	Ganymede 23:01
21 <sup>st</sup>	Europa 21:15

21 <sup>st</sup>	Io	20:38
28 <sup>th</sup>	Io	22:33
28 <sup>th</sup>	Europa	23:59

For **shadow transits** you will need a **slightly larger telescope** (say 100mm aperture or greater). Look for a dark spot crossing Jupiter's disk. A list of shadow transits visible in the evenings this month is given below.

<b>March</b>	<b>Shadow transit of</b>	
4 <sup>th</sup>	Io	begins 22:51
5 <sup>th</sup>	Europa	18:56 – 21:21
6 <sup>th</sup>	Io	ends 19:31
12 <sup>th</sup>	Europa	21:32 – 23:57
13 <sup>th</sup>	Io	19:16 – 21:27
20 <sup>th</sup>	Io	21:12 – 23:23
29 <sup>th</sup>	Io	ends 19:48
30 <sup>th</sup>	Ganymede	ends 21:13

*(Data obtained from the BAA Handbook).*

**Saturn** is a morning object in the constellation of Libra, but it is starting to put in an appearance before the end of the evening, and will be rising at around 21:00 (10 pm BST) on March 31<sup>st</sup>. The tilt of the rings is about 19 degrees, giving us a good view of their northern face, and a modest-sized telescope should reveal the shadow of the planet on the rings. Titan, Saturn's largest satellite, will be due north of the planet on March 12<sup>th</sup> and again on the 28<sup>th</sup>.

**Uranus** and **Neptune** are unobservable this month.

## METEORS

There are no notable meteor showers in March.

## VARIABLE STAR: Algol

There are **four** minima of this **eclipsing binary** visible from the UK this month. They occur on March 8<sup>th</sup> (02:45), the 10<sup>th</sup> (23:35), the 13<sup>th</sup> (20:30) and on the 31<sup>st</sup> (01:25 UT). The star dims from its normal brightness (magnitude 2.1) magnitude 3.4 over a period of 4.8 hours, and then returns to its normal brightness in a similar length of time.

**COMET C1 2011 L4 (PanSTARRS)** may become visible for brief periods in the evening sky in the second half of this month. Current predictions are for it to be magnitude 3 to 4. Visit

<http://earthsky.org/space/comet-panstarrs-possibly-visible-to-eye-in-march-2013>

<http://www.universetoday.com/100169/comet-panstarrs-how-to-see-it-in-march-2013/>

to find general information, and

<http://www.ast.cam.ac.uk/~jds/1114.ukl> for detailed night-by-night predictions through March and April.

## 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](http://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, 7<sup>th</sup> March 2013**

Talk: **“ Exploring Mars with Curiosity ”**

**Dr. John Bridges**

Reader in Planetary Science, Space Research Centre, University of Leicester.  
Dr. Bridges is a member of the NASA Science Team for the current Curiosity Rover mission.

**Thursday, 4<sup>th</sup> April 2013**

Talk: **“ Visual Observing – How to Observe and Record ”**

**Paul Abel**

University of Leicester and Sky at Night Co-Presenter.

**Thursday, 2<sup>nd</sup> May 2013**

Talk: **“ Telescopes and Technology in the 21<sup>st</sup> Century ”**

**Dr. Ken Elliott**

Elliott Automation Ltd

**Thursday, 6<sup>th</sup> June 2013**

Talk : **“ Exploring Jupiter's Icy Moons – the next ESA Mission to Jupiter “**

**Dr. Emma Bunce**

University of Leicester

Thursday, 4th July 2013

Talk:

**“ Matter Between the Stars -  
the Physics and Chemistry of the Interstellar Medium ”**

**Dr Paul Ruffle**

Jodrell Bank Centre for Astrophysics – University of Manchester

**August 2013 - Summer Break - No Meeting**

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 now keep up to date with details of the Society's meetings and other events by visiting the NAS website:

[www.nottinghamastro.org.uk](http://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](mailto:secretary@nottinghamastro.org.uk)

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

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## ADVERTISEMENTS

### FOR SALE

- **Orion** (USA) 6x26 correct image **finderscope**, complete with bracket   **£15**
  
- **Telescope Optics Book** by Rutten and van Venrooij (hardback), in excellent condition  
**£12**

Contact **BARRY WINSTON**

Home tel no 0115 989 4239      mobile no. 07507 863 689.

Email [barrywinston@yahoo.com](mailto:barrywinston@yahoo.com)

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### WANTED: Eyepieces

I am currently looking for 2nd hand Televue eyepieces to compliment my TV 101.

I am looking for mainly Nagler eyepieces but would be interested in other models in the Televue too.

I am situated close to Alfreton, Derbyshire. Thank you.

**Paul Davies**

Email: [paul@graphic.demon.co.uk](mailto:paul@graphic.demon.co.uk)

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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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## **PRESIDENT:**

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

## **CAMPAIGN FOR DARK SKIES**

### **REPRESENTATIVE:**

**Barrie Chacksfield**

email: [b.chacksfield@gmail.com](mailto:b.chacksfield@gmail.com)

## **ORDINARY COMMITTEE MEMBERS:**

**Kevin Greally**

**David Anderson**

**Victoria Jolly**

**Phil Heesom**

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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 2013**

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

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

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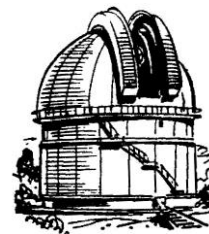
If you would like more information about the **Nottingham Astronomical Society**, or would like to become a member, please contact the Secretary [secretary@nottinghamastro.org.uk](mailto:secretary@nottinghamastro.org.uk) or speak to any NAS committee member at one of the regular monthly meetings. A membership application form is inside this issue of the Journal.

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### **The 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.

# NOTTINGHAM ASTRONOMICAL SOCIETY



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Affiliated to the British Astronomical Association  
Member of the Federation of Astronomical Societies

Registered Charity No. 1066645  
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## ***Membership application and Gift Aid declaration***

**Title:**

**Full name:**

**Full home address:**

**Postcode:**

**Telephone:**

**e-mail address:**

<b>Subscription rate:</b>	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:**