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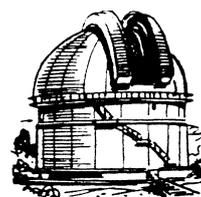
# Journal

of the

## Nottingham Astronomical Society

September 2017

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*In this issue*

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- Diary Dates 2017 – Meetings at Gotham and Plumtree
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**Thursday, 7<sup>th</sup> September**

Gotham Memorial Hall

Gotham, NG11 0HE

8 pm (doors open at 7 pm)

This evening we give a warm welcome to

**Dr Clive Tadhunter**



of the University of Sheffield

who will be speaking on

**Galaxy Evolution**

*revealed by the Hubble Space Telescope*

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### **Notice of an Extraordinary General Meeting on September 7<sup>th</sup>**

There will be an Extraordinary General Meeting of the Society at 7:45pm (*prompt*) on Thursday September 7<sup>th</sup> 2017 at Gotham Memorial Hall, Gotham, Nottingham, NG11 0HE.

The purpose of the meeting will be to consider and, if thought fit, to adopt a new constitution for submission to the Charities Commission along with an application to become a Charitable Incorporated Organisation.

# Sky Notes

## September 2017



Compiled by Roy Gretton

*All times given below are in British Summer Time*

The **Autumnal Equinox** this year occurs at 9:03pm on September 22<sup>nd</sup>. At this time the Sun will be directly above Earth's equator. Thereafter which it will reside in the southern celestial hemisphere until March 20<sup>th</sup> next year.

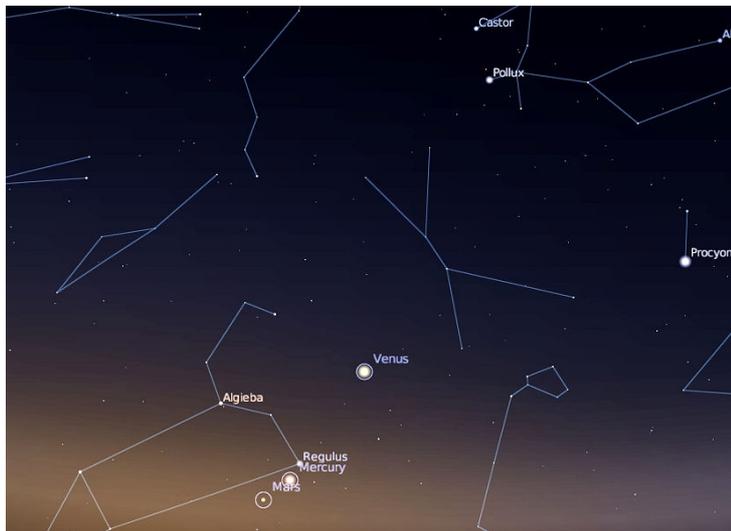
### PHASES OF THE MOON

<i>Phase</i>	<i>Date and time</i>
Full Moon	7:11pm on August 7 <sup>th</sup>
Last Quarter	2:15am on the 15 <sup>th</sup>
New Moon	7:30pm on the 21 <sup>st</sup>
First Quarter	9:13am on the 29 <sup>th</sup>

This month the Moon is closest to the Earth on the 18<sup>th</sup>, and furthest on the 2<sup>nd</sup>.

### THE PLANETS

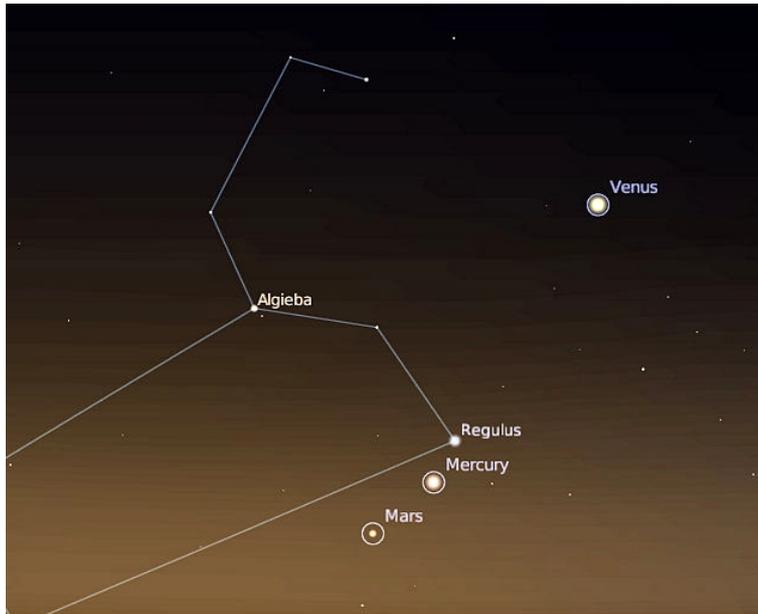
**Mercury** begins September as a morning object, moving away from the Sun until it reaches greatest western elongation on the 12<sup>th</sup>. Although this will be one of the best morning apparitions of 2017, Mercury (at magnitude  $-0.5$ ) won't be easy to observe, being very low down in the east before sunrise. In fact, there will be three planets close together in the morning sky at this time, but of these, only Venus will be easy to spot.



Looking east  
at 5:30 am on  
September 12<sup>th</sup>

**Venus** (magnitude  $-4$ ) remains bright in the morning sky, although its separation from the Sun is gradually diminishing. It is in fact moving away from us, toward the far side of the Sun, which it will reach early next year.

Tiny, distant **Mars** (magnitude 1.8) is too close to the Sun to be seen at all as September begins, but will start to become observable in the morning sky toward the end of the month. Even then, for many weeks it will still be too far away to show any worthwhile surface detail.



A closer view of the planets in the eastern sky at 5:30am on September 12<sup>th</sup>

You may be able to spot **Jupiter** (magnitude  $-1.7$ ) low in the west after sunset as September begins, but by the end of the month it will have disappeared into the solar glow as it heads toward conjunction with the Sun in October.

In mid-September **Saturn**, in the constellation of Ophiuchus, will be about 10 degrees above the SSW horizon at 9pm...so a very challenging object to observe! In fact throughout this month the planet will be further south than declination  $-22$  degrees, so very poorly placed for UK observers. Unfortunately we shall have to wait some years for the situation to improve markedly.

**Uranus** (still a morning object, about 10 degrees north of the celestial equator in the constellation of Pisces) will be above the horizon for much of the night by the close of September. At magnitude 5.8 it is theoretically within the limits of naked eye visibility, but realistically you will need binoculars to go searching for this planet. Through a telescope it appears as a pale greenish disk, 3.6 arcseconds across.

**Neptune** will be at opposition to the Sun on September 5<sup>th</sup>, when it will be nearly 8 degrees south of the celestial equator in the constellation of Aquarius, and shining at magnitude 7.8.

## METEORS

September isn't a great month for meteor showers, although there is usually a feeble "drizzle" of meteors close to the plane of the ecliptic at this time of year. Some of these are characterised as **Piscids**, that typically give a handful of events per hour at maximum, which this year occurs on September 9<sup>th</sup>.

# DIARY DATES 2017

## Monthly Meetings of the Nottingham Astronomical Society

### 1) Meetings at Gotham Memorial Hall

Nottingham Road, Gotham, NG11 0HE

Held on the **FIRST Thursday** of each month except **August**

Doors open at 7pm for 8pm start.

*These events are normally centred around a talk by a visiting speaker, except Opening Evenings, when NAS members provide the activities. Normally we have a **Library** and a **Helpdesk** open at each meeting.*

<u>Date</u>	<u>Topic</u>	<u>Speaker</u>
September 7 <sup>th</sup>	Galaxy Evolution revealed by the Hubble Space Telescope	Dr Clive Tadhunter University of Sheffield
October 5 <sup>th</sup>	Space Stations from Salyut to the ISS	Dr Mike Leggett, FRAS
November 2 <sup>nd</sup>	Annual General Meeting	
December 7 <sup>th</sup>	Voyager 40 Years On (Part 1)	Paul Money, FRAS

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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.

**For your information, the Society has now booked the use of the  
Gotham Memorial Hall for all of our First Thursday meetings in 2018**

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### 2) Social and Practical Astronomy Meetings at the Burnside Memorial Hall, Plumtree

Church Hill, Plumtree, Nottingham, NG12 5ND

Held on the **THIRD Thursday** of each month from **7:30pm**

*These meetings are of a more informal nature, providing opportunity for members and guests to share their hobby over a cup of tea or coffee, as well as listening to a short talk.*

*Members and their guests are welcome.*

**The next meeting will be on September 21<sup>st</sup>**

## Social and Practical Astronomy, Plumtree

The **September** meeting at Plumtree will be a talk by NAS member Leigh Blake on astrophotography; the exact title is yet to be decided, but with Leigh's knowledge and skill it will no doubt be helpful and interesting, whatever your ability.

The image below was taken by Leigh and is of the [Bubble Nebula](#) (NGC 7635 / Caldwell 11) as seen in the hydrogen alpha wavelength. The Bubble Nebula is to be found in the constellation of Cassiopeia.



As always, the doors will open at 7:30pm and the session will start at 8pm on **September 21<sup>st</sup>**.

**James Dawson**  
NAS Helpdesk  
[helpdesk@nottinghamastro.org.uk](mailto:helpdesk@nottinghamastro.org.uk)

# Advertisement



# nPAE

PRECISION ASTRO ENGINEERING



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Our rotating turret lets you load up 6 different items and rapidly switch between them as you observe. Combined with the built in quick change 2-inch filter slot, this allows you to not miss out on anything during the night. You can quickly change magnifications when the atmosphere calms or change your observation target without having to refocus or rebalance your telescope when clouds move in.

*"A nicely engineered facility that will save time and effort that can instead be poured into the act of observation, which is what it is all about."*



*"When the time came to cease using the turret, I actually felt my heart sink...This was the moment when I realised that not only did the turret really compliment my style of observing, but I actually missed it as well."*



*Alpha Lyrae*

Check out our website for details on the turret as well as current and upcoming astronomy accessories including cases, red LED torches, filter changers and more.



Theia Filter Changer  
£175



Large Aluminium red LED torch  
£25



Cerberus Carry Case  
£95



1.25 and 2 inch Aluminium Dust caps  
Packs of 2 starting at £40



Extra Filter Holders  
Pack of 3 £50

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<http://www.npae.net>

## The NAS Barbecue, 2017

This year's summer barbecue took place for the first time on a Sunday, after the weather forecast for the previous day had threatened us with heavy showers, possibly accompanied by thunder. Thankfully the afternoon of Sunday August 6<sup>th</sup> turned out to be dry, with a mixture of cloud and sunshine, so that telescopic observation of the Sun was possible from time to time.



Richard Mabe did sterling service as chef-in-chief, ensuring that our barbecued food was well cooked. Here is Richard's account of the day:

*The day of the summer BBQ finally arrived. Warm and sunny, tents up, cookers cleaned, a generous collection of gifts donated for the raffle, trays of buns a-plenty and John's onions warming over charcoal.*

*Lighting the BBQ proved challenging. Even Fred's slightly urgent, yet noble, efforts blowing trumpet-like on to smouldering coals failed to spark ignition. With 1pm fast approaching, an urgent dash for lighter gel from Cotgrave started things cooking.*

*Around 20 members and guests attended an enjoyable, relaxed, sociable afternoon. John gave tours of the observatory and members old and new had the chance to meet up. Thanks to all for joining in.*

...and many thanks to you, Richard.



*Images from John Hurst and Brian Griffin*

## 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](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 on Twitter**

The Society has a Twitter account at <https://twitter.com/NottinghamAstro>

### **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.

*If you happen to change your email address, please remember to inform the Society by emailing us at [treasurer@nottinghamastro.org.uk](mailto:treasurer@nottinghamastro.org.uk)*

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## ADVERTISEMENT

### **FOR SALE**

Set of four 1¼-inch coloured filters (red, yellow, green, blue) £20

**Sam Boote** [sam@boote.myzen.co.uk](mailto:sam@boote.myzen.co.uk) or at Society meetings

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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 **Commission for Dark Skies**  
**Registered Charity No: 1066645**

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**DIRECTOR OF OBSERVING:**

**(vacant post; Acting Director: John Hurst)**

email: [observatory@nottinghamastro.org.uk](mailto:observatory@nottinghamastro.org.uk)

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

**ORDINARY COMMITTEE MEMBERS:**

**Barrie Chacksfield**

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## Meetings

Our formal meetings, often with an illustrated talk by a guest speaker, are held on the first Thursday of each month (except in August) at:

**Gotham Memorial Hall  
Gotham  
Nottingham NG11 0HE**

Doors open                    7.00pm  
**Meetings start                8.00pm**  
Meetings end                10.00pm

These meetings are open to the public, and visitors are welcome to attend.

## Annual subscriptions 2017

Full	£30
Joint rate for partners living at the same address	£45
Under-18s and full-time students	£5

Subscriptions become due on 1<sup>st</sup> January. Half-price subscription is charged if joining after 30<sup>th</sup> June (minimum subscription £5).

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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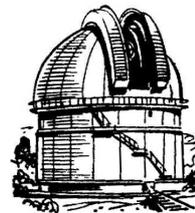
### The Nottingham Astronomical Society

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# NOTTINGHAM ASTRONOMICAL SOCIETY

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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 Commission for Dark Skies



## Membership application and Gift Aid declaration

**Title:**

**Full name:**

**Full home address:**

**Postcode:**

**Telephone:**

**e-mail address:**

<b>Subscription rate:</b>	Full	£30.00	(year)	£15.00	(half year)
	Partnership	£45.00	(year)	£22.50	(half year)
	Under-18 and full-time students	£5			

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:**