



OASI News

The newsletter of the Orwell Astronomical Society



Mike Whybray presents a tankard and suitable contents to retiring Chairman Neil Morley

Trustees: **Mr Roy Adams** **Mr David Brown** **Mr David Payne**

Honorary President: **Dr Allan Chapman D.Phil MA FRAS**



Retiring Chairman Neil congratulates incoming Chairman David
Not sure which is most pleased...

Contents

Society Contact details	3
Articles for OASI News	3
Committee 2014	4
Committee Meeting Saturday 28th March (note change)	4
Subscriptions are due for 2014	5
Constitution changes	5
Society Notices	5
Society Events	6
Night Sky in March	8
An Astronomer's Psalm	9
The Graze of 104 (tau)	10
UT transit times of Jupiter's Great Red Spot	10
OASI Field trip to see the Northern Lights (hopefully)	11
Newbourne Observing Group	12
Small Telescope Observing Nights (STONs)	12
Lecture Meetings	12
Breckland Astronomical Society	13
Giordano Bruno	13
Workshop Meetings	14
Links from Chris Bailey's photo processing workshop	14
RAG 2014 - 17 May 2014	15
Some pictures from the OASI Forum	16

Society Contact details

Observatory (meeting nights only)
07967 519249
Email queries: info@oasi.org.uk
Facebook.com/orwell astronomical
Twitter: @OASlpswich
Forum: forum.oasi.org.uk/index.php

**Please send material for the OASI
web site and newsletter
e.g. observations, notices of events,
general interest articles, to
news@oasi.org.uk**

Articles for OASI News

News, pictures and articles for this newsletter are always welcome. Please send them to
news@oasi.org.uk

The CLOSING date is the 18th day of the month

Please submit your articles in any of the following formats:-

Text: txt, rtf, rtf, doc, docx, odt, Pages

Spreadsheets: xls, xlsx, OpenOffice/LibreOffice, Numbers

Images: tiff, png, jpg

Please send tables as separate files in one of the above formats.

Paper vs pdf

The Newsletter is published 11 times a year - currently about 170 copies per edition - at a cost, in 2013, of £1,083 including postage (£794). Costs for printing will increase this year due to using a commercial printer.

I would encourage readers to take the e-version (pdf file) which can be read by any type of computer/tablet (Windows, Mac, Linux, iMac, Kindle, Android, etc.) You can always print it yourself if you have an aversion to tablets and screens. We appreciate that some members are only able to accept the paper version so there are no plans to stop.

From January 2014 the maximum size of a printed newsletter will be 24 pages and only the cover (both sides) will be in colour. This is due to the cost of printing.

Newsletter archive on DVD

James Appleton

The electronic archive of OASI *Newsletters* is complete from edition 1 (February 1972) to edition 484 (April 2013) inclusive. From May 2013 onwards, *Newsletter* production was undertaken electronically and editions are available for download from the OASI Yahoo files. The archive contains a scan of every non-blank page of the *Newsletter* and an index in the form of an Excel spreadsheet. The spreadsheet facilitates locating articles by keyword searches using the Excel *Find* function. The archive can now be searched online at www.oasi.org.uk/NL/NL_form.shtml

A DVD containing the archive is in the OASI library for loan to members. Anybody wanting their own copy, please let me know and I can either provide an additional DVD or load the archive onto a memory stick.

Committee 2014

Chairman	David Murton	Chair committee meetings, represent OASI to external bodies
Secretary	Roy Gooding	Respond to enquiries, Press & publicity, Outreach meetings, Open days
Treasurer	Paul Whiting FRAS	Finance, Visits by outside groups, Supervision of applications for grants, Taster evenings, Public appreciation of astronomy.
Committee	James Appleton	Web site
	Bill Barton FRAS	Safety & security
	Martin Cook	Membership, Tomline refractor maintenance
	<u>Tina Hammond</u>	Librarian
	<u>Peter Richards</u>	Lecture meetings, Email distribution lists
	<u>Martin Richmond-Hardy</u>	Newsletter
	John Wainwright	Equipment curator
	<u>Mike Whybray</u>	Workshops
	Mike Norris	Newbourne Observing Group

Committee Meeting Saturday 28th March (note change)

All members are invited to attend the next Committee meeting. Start time 20:00 Venue: Methodist Church Hall, Black Horse Lane, Ipswich.

The removable of Junior membership from the society constitution will be discussed.

The Committee also plan to meet on Tuesday 25 Feb at the Shepherd & Dog.

Subscriptions are due for 2014

Martin Cook, Membership Secretary

A renewal form was included with January's newsletter. Please correct and return with subs.

Please ensure that you complete your membership renewal form with your choice of newsletter delivery (see below) and return it to Martin Cook.

Electronic newsletters are posted on Yahoos group (see below for information on joining) or alternatively contact me at oasi.m.cook@gmail.com giving your name, membership ID and your email address so that the newsletter can be sent directly to you.

Thank you to those who have already paid.

Constitution changes

The first committee meeting in 2014 will discuss changes to the constitution e.g., remove junior membership in order for the FAS child protection guidelines to be adopted (see below). The proposals will be put to the membership either at an EGM or the next AGM.

Society Notices

The Newsletter

The society is trying to move from paper newsletters to electronic.

We now use an outside printer. The cost of doing so means that only the cover pages can be printed in colour. The full colour version is available from the OASI Yahoo group.

To receive the electronic version of the newsletter (which you can also print in A4 or A5 booklet format) you will have to be a member of the oasi yahoo group.

To subscribe to this group please email oasi-subscribe@yahoogroups.com

Discussion Forum

We have a new web-based forum for general discussions and some initial specialist areas. OASI members can join this forum at <http://forum.oasi.org.uk/index.php>

- OASI General
- Newbourne Observing Group
- Observing - Night Sky
- Observing - Solar
- Events
- Imaging
- Small Telescopes Observing Nights
- For Sale / Wanted
- Equipment

Welcome to New Members

Richard Carter
Rene D'Arachy

Simon Flatman
Roger Buckle

Alan Thorne
Melville Cox

Ian Williams
Wan Leung

OASI Corporate Clothing

There has been a recent interest in ordering a new batch of clothing with the OASI logo. This firm has a copy of our logo Suffolk Insignia. Their URL is www.suffolkinsignia.co.uk/

If you would like to order any clothing with the society logo embroidery, please browse their web site and give me (Roy Gooding) the item type, size, colour and item number.

I will then contact Suffolk Insignia to obtain a price quote, before a formal order is placed.

Society Events

For the latest event details, please see www.oasi.org.uk/Events/Events.shtml

For other astronomy news and astro pictures try our

Twitter feed

<https://twitter.com/OASlpswich>

Facebook page

<http://www.facebook.com/Orwell-Astronomical/>

Discussion Forum

<http://forum.oasi.org.uk/index.php>

Date and Time	Location	Contact	Event
Weekly, every Wednesday, 20:00	<u>Orwell Park Observatory</u>	Martin Cook, Roy Gooding	General observation (weather permitting) using a variety of telescopes.
Tuesday 25 Feb	Shepherd & Dog, Felixstowe Rd	Roy Gooding	Post-AGM Committee meeting
Saturday 01 March, 20:00-22:00	<u>Christchurch Park, Westerfield Road entrance</u>	Roy Gooding	Public access event: Star Party marking <u>National Astronomy Week 2014</u> . (Will postpone to 08 March if weather unsuitable.) Booking not necessary.
Tuesday 04 March, 20:00	<u>Orwell Park Observatory</u>	Gerry Pilling, Paddy O'Sullivan & Dave Robinson	Small Telescopes Observing Night. Main observing target:
Tuesday 04 March, 20:00	<u>Orwell Park Observatory</u>	Paul Whiting	<u>Taster evening for people considering joining OASI.</u>
Friday 7 March 7pm for 7:30	Gainsborough Community Library (and on parkland opposite)	Paul Whiting	Outreach meeting: telescope / talk evening
Monday 10 March, 19:00-late	<u>Newbourne Village Hall</u>	<u>Mike Norris</u> Mike O'Mahony	Newbourne Observing Group. Bring your telescope to our dark-sky site. (Talks on astronomy if skies are cloudy.)
Wednesday 12 March 19:30 for 19:45	Nacton Village Hall	Mike Whybray	Workshop Exoplanets: Paul Whiting FRAS
Thursday 27 March, 19:00-late	<u>Newbourne Village Hall</u>	<u>Mike Norris</u> Mike O'Mahony	Newbourne Observing Group. Bring your telescope to our dark-sky site. (Talks on astronomy if skies are cloudy.)
27-31 March	Kelling Heath	<u>www.starparty.org</u>	Spring Star Party
Saturday 29 March 20:00	<u>Methodist Church Hall</u>		Committee meeting

Date and Time	Location	Contact	Event
Tuesday 01 April, 20:00	Orwell Park Observatory	Gerry Pilling, Paddy O'Sullivan & Dave Robinson	Small Telescopes Observing Night. Main observing targets: Saturn, Mars and Sasco.
Tuesday 01 April, 20:00	Orwell Park Observatory	Paul Whiting	Taster evening for people considering joining OASI.
Monday 14 April, 19:00-late	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group. Bring your telescope to our dark-sky site. (Talks on astronomy if skies are cloudy.)
Friday - Monday 25-28 April	Haw Wood Farm Caravan Park, Hinton, Saxmundham IP17 3QT www.hawwoodfarm.co.uk	www.brecklandastro.org.uk/	Breckland Astronomical Society Spring Star Party See page 14 for details
Thursday 01 May, 19:00-late	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group. Bring your telescope to our dark-sky site. (Talks on astronomy if skies are cloudy.)
Friday 09 May, 20:00	Methodist Church Hall	Pete Richards	Lecture Meeting. Prof Ralph Spencer: <i>Black Swans - Black Holes in the Constellation Cygnus.</i>
Saturday 17 May	National Space Centre, Leicester	BAA 020 7734 4145 See page 16	BAA Radio Astronomy Group's General Meeting
Saturday-Sunday 17-18 May, 11:00-16:00	Christchurch Park, Reg Driver Centre	Roy Gooding	Public access event: observing the sun safely. (Will postpone to 24-25 May if weather unsuitable.) Booking not
Saturday 19 July	Newbourne Village Hall	Pete Richards	Summer BBQ
Friday - Monday 19-22 September or, if poor skies in Sept: Friday-Monday 24-27 October	Haw Wood Farm Caravan Park, Hinton, Saxmundham IP17 3QT www.hawwoodfarm.co.uk	www.brecklandastro.org.uk/	Breckland Astronomical Society Autumn Star Party See page 14 for details
22Sept - 3 Oct Main weekend 26-28 Sept	Kelling Heath	starparty.las-astro.org.uk	Autumn Equinox Sky Camp (web site still showing 2013 event)
Friday 21 November 2014, 20:00	Methodist Church Hall, Museum St, Ipswich	Pete Richards	Lecture Meeting. Alan McGuire Using the Sloan Digital Sky Survey to Study Quasars and the Early Universe.

Night Sky in March

Roy Gooding & Martin RH

Moon

New Moon	1st Quarter	Full Moon	Last Quarter
1 Mar 08:00	8 March 13:27	16 March 17:08	24 March 01:46
30 March 19:45			

Sun and planets

Source: heavens-above.com, location: OPS observatory (52.0096° N, 1.2305° E)

Object	Date	Rise	Set	Mag.	Notes
Sun	1	06:41	17:35		Spring Equinox Mar 20, 16:57
	31	06:33	19:27		
Mercury	1	05:52	15:24	1.1	Mercury is in Aquarius and will low down on the western sky at the beginning of the month. Greatest elongation on 14th
	31	06:16	17:06	0.0	
Venus	1	04:38	13:38	-4.4	Venus in Sagittarius and moves into Capricornus later in the month. It will very prominent in the pre-dawn sky and at greatest elongation on 22nd.
	31	05:11	14:59	-4.1	
Mars	1	21:43	08:24	-0.5	Mars is in Virgo and brightens during the month.
	31	20:14	07:15	-1.3	
Jupiter	1	11:49	04:18	-2.2	Jupiter is in Gemini and remains well placed to observer all night.
	31	10:56	03:24	-2.0	
Saturn	1	00:13	09:16	1.0	Saturn is in Libra and visible in the early morning sky. Moon 0.4°S of Saturn on 21st.
	31	23:07	08:17	0.9	
Uranus	1	07:40	20:15	5.9	Uranus is in Pisces and can be seen in evening sky this month
	31	06:45	19:26	5.9	
Neptune	1	06:41	16:52	8.0	Neptune is in Aquarius but is too close to the Sun to see this month
	31	05:45	16:01	8.0	

See in-the-sky.org/risesetcharts.php for some nice graphs

Meteor Shower

Source: BAA Handbook 2014 p95-7

None during March

2014 Comets

2014 does not offer much for the visual observer in the way of returning periodic comets, with the most interesting one being 209P/LINEAR, which could reach 11th magnitude when it passes 0.06 AU from the earth in May. See www.ast.cam.ac.uk/~jds/preds14.pdf

The latest edition of what is now the BAA Comet Section Journal, rather than its Newsletter, as it fills 50 pages. You can download it from www.ast.cam.ac.uk/~jds/tail33.pdf

Occultations during March

James Appleton

The table lists lunar occultations which occur during the month under favourable circumstances. The data relate to Orwell Park Observatory but will be similar at nearby locations.

Date	Time (UT)	D/R	Lunar Phase	Sun Alt (d)	Star Alt (d)	Mag	Star
03 Mar	19:02:22	D	0.08+	-14	15	7.4	Hip 4323
04 Mar	20:16:13	D	0.15+	-24	15	7.4	Hip 8708
06 Mar	21:01:22	D	0.33+	-30	28	6.2	ZC 527
07 Mar	18:30:09	R	0.42+	-8	53	4.3	68 Tau
07 Mar	19:41:42	D	0.42+	-19	46	6.9	Hip 20948
07 Mar	21:57:36	D	0.43+	-36	28	6.2	ZC 684
08 Mar	20:58:23	D	0.53+	-29	44	7.3	Hip 25204
09 Mar	00:03:59	D	0.54+	-43	17	6.7	ZC 823
09 Mar	18:46:36	D	0.62+	-10	56	6.4	ZC 934
09 Mar	21:46:35	D	0.62+	-34	43	6.6	ZC 951
10 Mar	00:55:55	D	0.64+	-41	16	6.3	ZC 970
13 Mar	00:30:13	D	0.87+	-41	35	5.9	50 Cnc
13 Mar	21:02:48	D	0.92+	-28	45	5.4	2 Leo

Asteroidal Occultation

At 03:08 UT on 07 March 2014, asteroid (9) Metis will occult the magnitude 7.9 star HIP 78193 (in Libra). The maximum duration of the occultation is predicted to be 25 seconds. The asteroid is of magnitude 11 and the star, when occulted, should dim by approximately three magnitudes. The shadow track is approximately 370 km wide and is predicted to cross SE England. The track prediction may change slightly due to the availability of more accurate orbital elements closer to the date of the event. See the following url for details of the track and other key parameters: www.asteroidoccultation.com/2014_03/0307_9_32274.htm

An Astronomer's Psalm

Contributed by Mike Norris From Starry, Starry Nights by Tom Clark.

The Dob is my telescope, I shall not want.

It maketh me go out on dark nights; it leadeth me through the Messier objects.

It restoreth my night vision; it leadeth me to Star Parties.

Yeah, though I walk through the valley of the shadow of large scopes, I will fear no evil for my Naglers and Widefields they comfort me.

Thou preparest a star chart before me in the presence of the galaxies.

Thou annointest my head and optics with dew; my eyepiece cloudeth up.

Surely good seeing and no mosquitoes shall follow me all the days of my life; and I will dwell in the deep skies of the night forever.

The Graze of 104 (tau)

Alan Smith

A grazing lunar occultation of the star 13 Taurus was predicted for 00:45 UT on the morning of Monday 13 January 2014. The star is of magnitude 4.9 and the occultation a south limb event, so the astronomical circumstances were good. Although the graze track was a little south of Colchester, a number of OASI members decided to observe the phenomenon.

James Appleton and I performed our usual double act to identify a potential observing site. James calculated the graze track, producing it as a .kml file to be overlaid directly on Google Earth digital maps. Using Google Earth and OS maps I examined the track and identified a shortlist of half a dozen potential observing sites, choosing them to be off-road, away from sources of light pollution and with an unobstructed southern aspect. The sites were close to the Abberton reservoir just to the south of Colchester between Abberton and Kelvedon. I surveyed the sites a couple of weeks prior to the event, and quickly selected the most promising: an old airfield which had one of the runways accessible as a minor road. This had an almost unique advantage as being straight and at right angles to the graze track (which would allow several teams of observers to 'straddle' the track). A second, backup site was on a farm access track. I approached the owner of the farm to inform them of what we intended to do and left an explanatory 'pack' giving details of what a grazing occultation is and the OASI web site address.

With a day to go to the graze, the usual cloudy weather was forecast for the early morning, but with clear skies approaching from the west.

Our standard practice for occultation observations is to hold a telephone conference on the evening of the event to make a go/no-go decision. At 10.00pm on Sunday we held the conference, and the decision to cancel the observations was an easy one, as there was only an outside chance that the clear weather window would arrive in time.

No surprise, at the appropriate time: complete cloud cover ! And again no surprise, within an hour completely clear !

Still, there are two more grazes within reach later this year.

Alan Smith

UT transit times of Jupiter's Great Red Spot

during National Astronomy Week.

Bill Barton FRAS

Saturday March 1: 02:09, 12:05, 22:00 (20:00-22:00 1st Christchurch Park Event)

Sunday 2: 07:56, 17:52

Monday 3: 03:47, 13:43, 23:39

Tuesday 4: 09:35, 19:30

Wednesday 5: 05:26, 15:22

Thursday 6: 01:18, 11:13, 21:09

Friday 7: 07:05, 17:00 (19:30-22:00 Gainsborough Library Outreach Event)

Saturday 8: 02:56, 12:52, 22:48 (20:00-22:00 2nd Christchurch Park Event)

Source of information is here

<http://www.skyandtelescope.com/skytel/beyondthepage/Great-Red-Spot-Transit-Table-Sept-Dec-2013-222377271.html?showAll=y&c=y>

Great Red Spot Transit Table Sept 2013 - May 2014 - SkyTel Beyond the Page -
SkyandTelescope.com*

OASI Field trip to see the Northern Lights (hopefully)

By Paul Whiting FRAS

I am still taking names for the Aurora Field Trip that will take place in February 2015

Depart: Wednesday 11 February 2015 [next year!]

Return: Monday 16 February 2015

This will include 3 nights on board ship, followed by 2 nights in Tromsø, a total of 5 nights at or above 70° North.

Having just got back from the same trip, the aurora was absolutely amazing. February should be statistically better for both the lights and cloud cover, hence the decision on the date.

Details of the initial itinerary are below, and may be found on the website. Flights will be from Gatwick. I need to know names, numbers of cabins (single / double, inside / outside).

Costs will be: £1247 outside twin (per person) £1495 outside single.

There will be an opportunity to add excursions later. I will need an initial 20% deposit.

Paul

trip@oasi.org.uk

Initial itinerary

Day 1 Tromsø, the gateway to the Arctic

Fly from the UK to Tromsø, the Gateway to the Arctic, and perhaps enjoy the sights of this lively, compact city before boarding the ship and departing late in the afternoon. (Dinner on board)

Day 2 Honningsvåg and the North Cape

Following the scenic sailing through Magerøysund and after an early stop in Hammerfest, you arrive in Honningsvåg. This small port is the gateway to the wonders of the spectacular North Cape (optional excursion). At 71° 10' 21" N it puts you a mere 2,000 kilometres from the Geographical North Pole. This evening, you pass Finnkirka, a rock formation that is sacred to the indigenous Sami people and now also the site of an impressive light show. (Breakfast and dinner included)

Day 3 Kirkenes, the voyage turning point

The last port on the Voyage North is Kirkenes. And at longitude 30° E, you are actually further east than Istanbul and St. Petersburg. The terrain, culture and geography of Kirkenes offer the opportunity to take part in some fabulous Arctic excursions. Departing Kirkenes at lunchtime, you retrace your steps along the Varanger peninsula reaching Berlevåg in the evening. (Breakfast and dinner included).

Day 4 Hammerfest and Tromsø

Your first major stop of the day is Hammerfest. Here, you can enjoy an optional excursion including a visit to Hammerfest's UNESCO World Heritage site, the Meridian Column, commemorating the conclusion of Struve's historical measurement of the globe. From here, your next major stop will be Tromsø where your voyage comes to an end. Transfer to your hotel for an overnight stay. (Breakfast and dinner included).

Day 5 Day in Tromsø

After breakfast in your hotel this morning, a choice of winter excursions are available before you are transferred to Tromsø airport for your direct flight back to the UK (Breakfast included).

Extend your stay in this lively and colourful city, surrounded by the dramatic Lyngen Alps. Tromsø has many sights to offer, including Arctic history, architecture, culture and exciting excursions. Visit a coastal farm and enjoy reindeer sledding or perhaps visit the Polaris Centre. An extra day in Tromsø will give you time to enjoy this beautiful city and more time to watch out for the Northern Lights.

Day 6 Depart

Further excursions are available before your flight back to the UK. (Breakfast included).

Newbourne Observing Group

michael.norris17@btopenworld.com omahony.mike@gmail.com

We meet at The Newbourne Village Hall, Mill Lane, Newbourne, IP12 4NP

February 2014 Meeting

January was another wet and very muddy occasion with three cars having to be pushed out of the field at the January 31st meeting so we decided to cancel the meeting on 10th Feb.

Full Newbourne programme is on the OASI web site.

Our meeting dates are listed below and start at 7pm. All welcome, with or without telescopes.

Monday 10th Mar	Thursday 25th Feb
Monday 14th Apr	Thursday 27th Mar
	Thursday 1st May

Small Telescope Observing Nights (STONs)

By Gerry Pilling

March 4th	Target Leo	April 1st	Targets Saturn, Mars and Sasco
-----------	------------	-----------	--------------------------------

Lecture Meetings

These take place in The Methodist Halls, Upstairs room, Black Horse Lane, Ipswich

Winter – 8pm Friday 21st February 2014

Greg Smye-Rumsby (Royal Observatory & Astronomy Now)

Building the Solar System

Report next month.

Spring – 8pm Friday 9th May 2014

Professor Ralph Spencer (University of Manchester)

Black Swans – black holes in the constellation of Cygnus

Autumn Lecture – 8pm Friday 21st November 2014

Alan McGuire

Using the Sloan Digital Sky Survey to study Quasars and the early Universe

Breckland Astronomical Society



2014 SPRING & AUTUMN STAR PARTIES

Friday 25th – Monday 28th April

Friday 19th – Monday 22nd September

Friday 24th to Monday 27th October
if poor skies in September



Come earlier or stop later if you want. Pitches £10 per night with hook up.

A Dark Sky Discovery Site.

Naked eye visibility 5.73, averted 5.99, best SQM reading 21.75

We had 6 clear all night sessions out of 7 in autumn 2013

Booking

Direct to David Wiggins or Sue Orman at Haw Wood Farm.

Haw Wood Farm Caravan Park, Hinton, Saxmundham. IP17 3QT

Email, davewiggins@hotmail.co.uk Phone 01986 784 248

Website, www.hawwoodfarm.co.uk

Go to Haw Wood news for latest update and reviews of our star parties.

For information see the BAS website, www.brecklandastro.org.uk

Giordano Bruno

Mike Norris

On the 17th February 1600 by the grey light of a winters dawn a small parade of officials, inquisitors and priests made there way from the Tor di Nona prison in Rome towards the Campo de' Fiori that served as a market place and an execution ground. The prisoner stripped naked his tongue stopped by a leather gag sat astride a mule while priests held before him a painting of the crucifix hoping to catch the gagged mans eye of the suffering of Christ. At the Campo de' Fiori (Field of Flowers) Bruno was tied to a stake and burned alive.

Born Filippo Bruno in 1548 he was a Dominican friar, philosopher, mathematician, poet and astronomer. His rebellious and brilliant intellect brought him into constant conflict with the church. As a student he had refined the art of recall such that 1569 he was sent to Pope Pius V where he recited Psalm 86 forward and backward in Hebrew. He travelled throughout Europe including Paris, London and Oxford. He deduced from Copernicus that the other planets in the solar system were worlds in their own right and suggested that stars were distant suns and concluded that the Earth may not be the only inhabited world created by God. Such assumptions were dangerous as indeed Galileo was to find in 1610 following the publication of his book *Starry Messenger*.

When Bruno returned to Rome in 1591 he was questioned by The Roman Inquisition and held for eight years. In the week before his execution teams of confessors tried day and night to change his mind begging him to save his soul.

In the summer 1178 five English monks relaxing under an evening sky witnessed a great explosion on the moons surface. It was officially recorded by the chronicler Gervase of Canterbury. Recent research suggests that the crater named after Giordano Bruno may well be the result of this impact.



Workshop Meetings

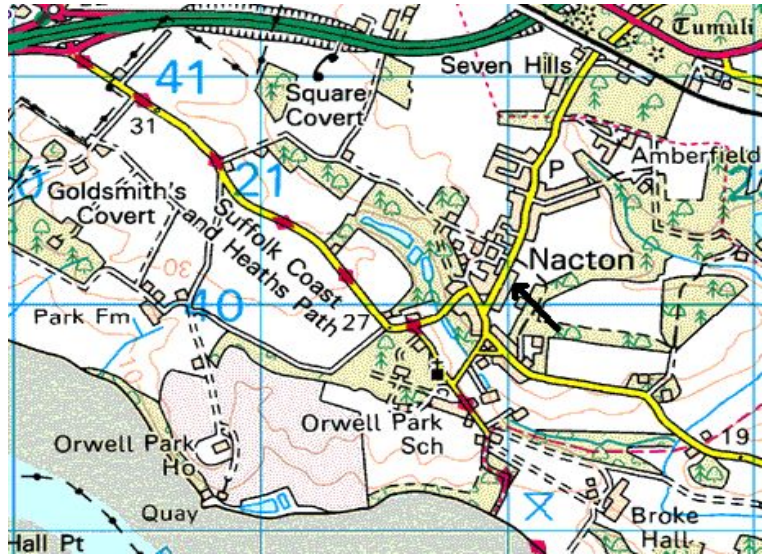
Mike Whybray

Doors open at 7:30pm.

Workshops START at 7:45pm

Venue: NACTON VILLAGE HALL
IP10 0EU (next to the small
village school, just below and left
of the N in Nacton on the map).

If you are a new OASI member, or haven't been to one of these informal workshops before, they are a mixture of events of different characters including beginners talks, interactively workshops, films, etc., suitable for all. They are also a chance to chat with other members over a cup of tea and a biscuit, in a venue rather warmer than the observatory dome on a winter's night!



Please park on the same side of the road as the hall, but avoid parking on the white lines which mark clear spaces for various driveways and passing places. The police do occasionally check up on this!

12 March Exo-planets Paul Whiting

Before 1995 planets around other star systems were only a matter of conjecture. Since then more and more exo-planets have been discovered, and as detection techniques get better, more earth-sized planets in the goldilocks zone capable of bearing life are being highlighted. Paul will discuss how planets are formed and talk about the various techniques astronomers use to detect these exo-planets.

Do you have a subject you could workshop? Give Mike Whybray a call!

Links from Chris Bailey's photo processing workshop

PixInsight	pixinsight.com/
Tutorials	www.harrysastroshed.com/pixinsighthome.html
Deep Sky Stacker	deepskystacker.free.fr/english/index.html
PHD Guiding	www.stark-labs.com/phdguiding.html
TheSkyX	www.bisque.com/sc/pages/TheSkyX-Editions.aspx
FocusMax	www.focusmax.org/
UK Astroimaging forum	ukastroimaging.co.uk/forums/index.php

RAG 2014 – 17 May 2014

The BAA's Radio Astronomy Group will be holding its 2014 General Meeting at the National Space Centre, Leicester on Saturday 17th May. This has been a popular event in the past with the two previous meetings selling out before the day, showing the continuing interest in amateur radio astronomy. The event will include a range of talks from both professional and amateur speakers on radio astronomy and associated geophysics topics such as Space Weather.

We will be keeping the same format with two keynote speakers supported by a number of presentations from members of the Group. The two keynote speakers this year will be Prof Paul Cannon from the University of Birmingham who will talk about the physics associated with solar superstorms and how often they occur. The talk will then go on to describe a number of technological impacts of solar superstorms and assess how much we can mitigate their impact. Dr Klaas Wiersema (University of Leicester) will describe how new radio telescope technology enables the exploration of the "transient" radio Universe, from the mysterious millisecond duration "fast radio bursts" to the energetic afterglows of gamma-ray bursts (GRBs) which are sometimes visible for years. The presentation will show how new technology is allowing us to study afterglows and other transients in a completely new way.

Supporting papers will include: an ultra-low cost Hydrogen Line radio telescope (Peter East); the modelling of our local galactic topology (Gordon Dennis); the design of an Arduino- based magnetometer (Jonathan Rawlinson); making and analysing observations with Starbase (Laurence Newell); some limitations of amateur radio astronomy (David Morgan); and reports on developments at EAARO (Jason Williams) and the Harold Clayton Observatory (Dave James).

Tickets for the event cost £12 for BAA members and £15 for non-members and can be purchased by phone, e-mail or postal application via the BAA office. An order form can be downloaded from the BAA RAG website at www.britastro.org/radio/. Tickets include free parking at the NSC and free admission to the main attraction, excluding the Planetarium show. Tea and coffee will be provided during the breaks but lunch is not included. Delegates are welcome to bring their own lunch or there is an NSC shop selling a range of sandwiches and other refreshments. It would help the NSC if you could also record the number of people in your party that are likely to use this facility when you book tickets.

Paul Hyde G4CSD radiogroup@britastro.org



Some pictures from the OASI Forum



M42 Orion Nebula by Jeremy Hennell James

Comet Lovejoy on
6 December 2013
by Mike Harlow

Despite the strong winds I thought it worth having a go for Lovejoy this morning. There was a lot of patchy cloud at 4.30am and it got worse till I gave up at 5.30 but I did manage to get a few wide angle shots through the gaps. I had planned some telephoto shots as well but no chance given the conditions.

So one rather modest attempt attached. The stars labelled are in Corona Borealis and all around mag 5. Kappa CrB is mag 4.8 so it looks like the comet is a bit brighter than this.

