The Newsletter

Solar observing at Alnesbourne Priory

OASI Committee Contacts and Responsibilities

Neil Morley	Chairman	[redacted]	Chair committee meetings. Represent OASI to external bodies.
Roy Gooding	Secretary		Respond to enquiries. Press & publicity Outreach meetings Open days
Paul Whiting FRAS	Treasurer		Finance Visits from outside groups
James Appleton	Committee		Minutes of committee meetings. Web site.
Bill Barton FRAS	Committee		Safety & security
Martin Cook	Committee		Membership Tomline refractor maintenance
Tina Hammond	Committee		Librarian
Peter Richards	Committee		Lecture meetings Email distribution lists
Eric Sims	Committee		Newsletter
John Wainwright	Committee		Equipment curator
Mike Whybray	Committee		Workshops

Trustees

Mr Roy Adams
Mr David Brown
Mr David Payne

Honorary President

Dr Allan Chapman D.Phil MA FRAS

The OASI mailing list

OASI has an email distribution list which all which all OASI members can join to keep in touch. If you want to join the list please send an email to

[redacted]

The email needs to Include your name (as you gave It on your membership application). Including your name is essential so we can confirm you are an OASI member (particularly If you have a cryptic email username:-).

Please note that the "oasi-subscribe" address above is not the actual email list.

Society Notices

by Roy Gooding

Access into the School Grounds and Observatory Tower

Please use the third gate into the school grounds. The code for the gate is on the back of your membership card. If the black door entrance at the base of the observatory tower is locked, please phone the observatory mobile during meeting hours.

The Newsletter

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 members of the oasi yahoo group. To subscribe to this group please email

Newsletters will still continue to be printed by Eric and mailed to those who have expressed a preference for the printed version.

Welcome to New Members

Mr. Paul Greenewich Nikhil Shah

External Events

Meeting	Venue	Date
Autumn Equinox Sky Camp	Kelling Heath, Norfolk	30 Sept – 11 October Main weekend 4-6 October
SPA Convention	Cambridge Institute of Astronomy	12 October
FAS Convention	Cambridge Institute of Astronomy	19 October

2014

Meeting	Venue	Date
National Astronomy Week	Events TBA	1 – 8 March

Open Weekend 2013

The Open Weekend this year will be Friday 22nd and Saturday 23rd of November. These two dates coincide with a long week in the school's autumn term. The Pupils will be away from the school.

Doors open for the public at 19:30

Set up time from 18:30

As usual as much help as possible is required to make this another successful fund raising Open Weekend.

Help is required in five areas

Car parking	Reception desk	Telescopes on the balconies
Tomline refractor	Telescopes in the field	

If you are only available to help for a short time your presence will still be appreciated.

Christmas Meal Wednesday 4th December

The White Horse, Church Road Felixstowe 20:00

Starters

Pork and duck terrine served with fig chutney and balsamic glaze.

Curried parsnip soup with poppadoms

Smoked trout with cucumber, dill and yogurt dressing

Toasted goats cheese with roasted red pepper topped with olive salad in a garlic and herb dressing

Main

Roasted Norfolk turkey served with all the traditional trimmings

Mixed game ragout, herb mash and roasted button onions

Fillet of Scottish salmon with scallion and saffron sauce, wilted spinach and baby potatoes

Wild mushroom, shallot and spinach parcel topped with a port wine sauce

All main courses are server with fresh vegetables

Dessert

Traditional Christmas pudding served with Cognac sauce

Chocolate brownie with white chocolate ice cream

Vanilla scented panna cotta with spiced orange

Selection of chesses and biscuits with fruit chutney

Deposit £10

Balance £14.50

There is a limited space for only 30 at The White Horse, in the private function room (converted stable block appropriate for Christmas)

Society Events

Date and Time	Location	Contact	Event
Every Wednesday, 20:00	Orwell Park Observatory	Martin Cook, Roy Gooding	General observation (weather permitting) using a variety of telescopes.
Tuesday 01 October 2013, 20:00	Orwell Park Observatory	Paul Whiting	Taster evening for people considering joining OASI.
Friday 04 – Sunday 06 October 2013	www.starparty.las-astro.org.uk	Mike Norris David Murton	OASI visit to The Autumn Equinox Sky Camp at Kelling Heath, Norfolk. (Pitch T311 in the Red Squirrel area.)
Tuesday 08 October 2013, 20:00	Orwell Park Observatory	Gerry Pilling, Paddy O'Sullivan	Small telescopes observing evening. Observing targets: Lyra, Cygnus.
Wednesday 09 October 2013, 19:30 for 19:45 start	Nacton Village Hall	Paul Whiting	Astronomy Workshop Comets
Friday 11 October 2013, 18:30	Felixstowe Ferry Golf Club	David Murton	Star gazing evening for members of OASI and FFGC (talks on astronomy if skies are cloudy). The clubhouse and bar will be open during the evening with hot food available (please request in advance).
Monday 14 October 2013, 19:00-late	Newbourne Village Hall	Mike Norris Mike O'Mahony	OASI Newbourne Observing Group. Bring your telescope to our dark-sky site. (Talks on astronomy if skies are cloudy.)
Saturday 19 October 2013	Bletchley Park	Paul Whiting	Full day coach trip and tour of Bletchley Park, including guide and hot meal.
Thursday 24 October 2013, 19:00-late	Newbourne Village Hall	Mike Norris Mike O'Mahony	OASI Newbourne Observing Group. Bring your telescope to our dark-sky site. (Talks on astronomy if skies are cloudy.)
Monday 04 November 2013, 20:00	Orwell Park Observatory	Gerry Pilling, Paddy O'Sullivan	Small telescopes observing evening. Observing targets: Cassiopeia, Andromeda, Pegasus.
Wednesday 06 November 2013, 19:30 for 19:45 start	Nacton Village Hall	James Appleton, Martin Cook and Alan Smith	Astronomy Workshop Ole Rømer and Estimation of the Speed of Light
Saturday 09 November 2013, 17:30	Newbourne Village Hall	Mike Norris Mike O'Mahony	**Public access event**: OASI Newbourne Observing Group open evening. Booking not necessary, simply turn up

Date and Time	Location	Contact	Event
Monday 11 November 2013, 19:00-late	Newbourne Village Hall	Mike Norris Mike O'Mahony	OASI Newbourne Observing Group. Bring your telescope to our dark-sky site. (Talks on astronomy if skies are cloudy.)
Tuesday 12 November 2013, 20:00	Orwell Park Observatory	Paul Whiting	Taster evening for people considering joining OASI.
Friday 22 & Saturday 23 November 2013	Orwell Park School	Roy Gooding	**Public access event**: Observatory Open Days. See page 6 Booking not necessary.
Thursday 28 November 2013, 19:00-late	Newbourne Village Hall	Mike Norris Mike O'Mahony	OASI Newbourne Observing Group. Bring your telescope to our dark-sky site. (Talks on astronomy if skies are cloudy.)
Tuesday 03 December 2013, 20:00	Orwell Park Observatory	Paul Whiting	Taster evening for people considering joining OASI.
Wednesday 4 Dec 20:00	White Horse, Church Rd, Felixstowe	Roy Gooding	Christmas meal 2013 See page 4 for details
Monday 09 December 2013, 19:00-late	Newbourne Village Hall	Mike Norris Mike O'Mahony	OASI Newbourne Observing Group. Bring your telescope to our dark-sky site. (Talks on astronomy if skies are cloudy.)
Tuesday 10 December 2013, 20:00	Orwell Park Observatory	Gerry Pilling, Paddy O'Sullivan	Small telescopes observing evening. Observing targets: Pegasus, Triangulum.
Wednesday 11 December 2013, 19:30 for 19:45 start	Nacton Village Hall	David Murton and Mike O'Mahony	Astronomy Workshop Astrophotography with a Digital Camera
Saturday 14 December 2013, time TBC	"The Dip", Felixstowe	Roy Gooding	Geminids Meteor Watch
Thursday 19 December 2013, 19:00-late	Newbourne Village Hall	Mike Norris Mike O'Mahony	OASI Newbourne Observing Group. Bring your telescope to our dark-sky site. (Talks on astronomy if skies are cloudy.)

2014

Saturday 01 – Saturday 08 March 2014	Venues TBA	Roy Gooding	**Public access events** TBA to mark National Astronomy Week 2014.

Night Sky in October

Sun and planets

Roy Gooding

Object	Date	Rise	Set	Mag.	Notes
Sun	1	1	06:07	17:40	
	31	31	07:58		
Mercury	1	1	08:37	18:06	Mercury is at greatest eastern elongation on the 9th,. but will be difficult to observer
	31	31	08:25		
Venus	1	1	10:37	18:50	Venus remains low down in the evening twilight sky this month
	31	31	12:41		
Mars	1	1	01:33	16:25	Mars is well placed to observer in the morning sky
	31	31	02:18		
Jupiter	1	1	22:28	14:49	Jupiter is now better placed to observe in the late evening sky. It has a prominent place in Gemini
	31	31	21:43		
Saturn	1	1	08:57	18:48	Saturn may be glimpsed low down in the evening twilight sky
	31	31	08:22		
Uranus	1	1	17:36	06:22	Uranus is at opposition on the 3rd
	31	31	16:41		
Neptune	1	1	16:33	02:48	Neptune is observable in Aquarius
	31	31	15:39		

Moon in August

New Moon	1st Quarter	Full Moon	3rd Quarter
5th	11th	18th	26th

Meteor Shower

Source: BAA Handbook p98

Shower	Limits	Maximum	ZHR
Draconids (Giacobinids)	Oct 8th	Oct 6th to 10th	200 – 600?
Orionids	Oct 21st	Oct 16th to 30th	25

Occultations during October

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
11 Oct	18:39:19	D	0.48+	-15	18	6.3	V4198 Sgr
13 Oct	18:32:26	D	0.70+	-14	24	7.1	Hip 103834
13 Oct	23:07:16	D	0.72+	-46	12	4.5	13 Aqr

Greenwich Observatory Visit

Mike Norris

Team Leader Bill Barton

Lucinda & Charlie Green, Mike Norris, Martin & Jen Richmond-Hardy & John Wainwright

On 27th July at 7.30am a group of bright eyed bushy tailed OASI members gathered on Ipswich Station for a visit to Greenwich Observatory.

If we were only half awake when they joined the train we were soon roused by a large group of men in the same compartment who even by 8am were all the worse for a bevy or two! We think they were going to a wedding- when they departed at Stratford we all gave a silent prayer for the bride.

We arrived at Cutty Sark and did a bit of sightseeing and then walked through Greenwich Park where we became entangled with a charity run. All Martin needed was an official number and he would have been on the podium.

The weather was just perfect and we stopped for coffee before entry to the observatory proper. We toured the interior rooms where past Astronomers Royal had lived and looked at an amazing collection of Harrison clocks. We enjoyed a visit to the planetarium which was showing a dramatic programme covering the possibility of life forms on other planets. Bill was the perfect guide, his knowledge and commentary made the entire visit so instructive and worthwhile.

By the afternoon the observatory had become much busier so it had been a wise decision by Bill to make the early start. We parted with Martin and Jen at the Cutty Sark station as they were going on to sample the night life.

It had been a thoroughly enjoyable day and one that OASI should repeat. Again our thanks to Bill for making the arrangements.

The time ball

The room housing the original Greenwich clocks

Ipswich engineering: frame of the 28" telescope

Newbourne Observing Group

We meet at The Newbourne Village Hall, Mill Lane, Newbourne, IPl2 4NP Start 7:00pm

A Night in a Thousand

A glance through our NOG reports over the last year is a reminder of how often those three enemies cloudy nights, numbing cold and wet optics often put paid to our stargazing meetings. So when we do have a night with gin clear skies that is so warm and dry that we can simply lay on the ground and marvel at the wonder of the heavens then that in itself makes it a memorable night. But add to that two bright long passes of the ISS and the most dazzling Perseids display that I certainly have ever seen and in the words of our chairman you have a very special night!

There were eighteen members there and two guests. Six telescopes were set up although many had binoculars it was that kind of night.

Andy Gibbs was showing just what a good Dob can do with some breathtaking views of deep sky objects while David Murton was busy taking images with his Canon mounted on his home made barn door tracker, one of his images is shown here.

Picture by David Murton
12th August 2013 Perseids top centre.

The list of telescopes were:

Andy Gibbs	12" Orion Dob
Gerry Pilling	130mm Celestron
David Murton	8" Helios Dob
Mike O'Mahony	120mm Skywatcher Refractor
Steve Shapland,	8" Skywatcher Newt on EQ
Lucinda & Charlie Green	114 Celestron on EQ

Open Evening

Newbourne, Saturday 9th. November From 5.30pm.

Autumn & Winter – 7pm start

Monday 9th & Thursday 26th September
Monday 14th & Thursday 24th October
Monday 11th & Thursday 28th November
Monday 9th & Thursday 19th December

Solar observing at Alnesbourne Priory

Radioastronomy

The first edition of the new BAA RAG quarterly newsletter - "RAGazine" - can now be downloaded from the RAG website at www.britastro.org/radio/index.html. At 66 pages, labelling it a newsletter is doing it an injustice! Later editions will be smaller but we do have a lot to catch up on. As the Editor explains, RAGazine is intended to be an informal way of distributing information to the amateur RA community, letting others know what people are up

Paul Hyde
BAA RAG Coordinator

radiogroup@britastro.org

Extract from contents

Federation of Astronomical Societies

At the next Federation of Astronomical Societies Annual General Meeting on Saturday, October 19th there will be 5 [6] Council posts where the current post holder will be leaving. The posts that will become vacant and the duties involved are described below. Filling these posts with new people is crucial to the continuation of the FAS services provided to your astronomical society and others.

Membership Secretary	**Meetings Organiser**
Website Organiser	**PLI Secretary**
Vice President	**Handbook Editor**

Details can be found at **fedastro.org.uk/fas/fas-council-vacancies/**

If you have any questions please contact us via the **FAS Website**

Dr Samuel George
FAS Webmaster

OASI

Orwell Astronomical Society (Ipswich)

Charity Registered in England. No 271313.

STAR GAZING EVENING AT FELIXSTOWE FERRY GOLF CLUB

Friday 11th October
6.30pm

http://www.oasi.org.uk

The Orwell Astronomical Society will be holding a star gazing evening here on the 11th.October for anyone interested in astronomy. There will be a display of various types of telescopes for visitors to look through (weather permitting*) and members will try to guide you around the night sky.

About us

A friendly local Society who meet on Wednesday evenings at Orwell Park Observatory in Nacton. Members have access to a wide range of equipment including the historic 26cm Tomline refractor dating from 1872 . We also run fortnightly observing evenings at Newbourne Village Hall. Other activities include: workshops and lectures, a comprehensive library, public outreach, observations, imaging, historical research, telescope making, monthly newsletter and website, outings and other social events.

*If weather is bad the display will be indoors so still come along!

Thinking of taking up astronomy?

Come along to find out more about our activities and how you can get involved. If you're thinking of buying some equipment for Christmas, you may be surprised at how low cost it can be. We can help you avoid buying unsuitable gear and help you set up and use what you buy.

JOHN ISAAC PLUMMER and the 1882 Transit of Venus

By James Appleton

John Isaac Plummer (1845-1925) worked at Orwell Park Observatory from 1874 until 1890 as Colonel Tomline's professional astronomer. (His biography is available from the OASI website at www.oasi.org.uk/OPO/JIP_bio_e5.doc.) His observation of the transit of Venus on 06 December 1882 was undoubtedly one of the highlights of his career but, until recently, little was known of this aspect of his work. I have recently uncovered several sources[1] which have transformed this situation and enable a reasonably full account to be compiled. This article is a brief summary of a much longer, more detailed article which can be found on the OASI website at www.oasi.org.uk/OPO/JIP_ToV_1882.doc.

Observation of a transit of Venus provides a reasonably accurate method of determining the mean distance between the Earth and the Sun and thus defining the scale of the solar system. The method relies on observers estimating the times of contact, when the limb of Venus appears to just touch the solar limb. The observed contact times can be analysed to estimate the mean Earth-Sun distance (the analysis is not for the mathematically faint-hearted!)

In 1881, the Royal Society appointed a committee to advise the government on arrangements for observing the forthcoming transit. Photography of the previous transit (09 December 1874) had not lived up to the hopes of many astronomers as the images turned out to be blurred due to atmospheric unsteadiness; the committee therefore recommended that observations be made by eye. Later in 1881, the government appointed an Executive Committee, under the direction of Edward James Stone (1831-97), Radcliffe Observer at Oxford, to oversee the arrangements. To standardise observing conditions as far as possible, the Committee issued a set of observing instructions which was widely distributed to potential observers. The Committee organised observing expeditions from England to the following locations: Jamaica, Barbados, Bermuda, the Cape of Good Hope, Madagascar, New Zealand and Brisbane. Other astronomers stationed widely around the globe also contributed to the British effort.

The three chief observers of expeditions to the West Indies were chosen from the ranks of astronomers in private employment in Britain. Plummer was appointed chief of the Bermuda expedition. Second observer at Bermuda was Lieutenant Charles Burnaby Neate (1846-1916). Neate, a professional naval officer rather than an astronomer, nevertheless clearly had a significant interest in the science. He was a veteran of the 1874 transit, which he had observed from Point Venus, Rodrigues Island. The third and final member of the expedition to Bermuda was Sergeant Dobing RAM.

In order to maximise the consistency of results, all observers, regardless of experience, assembled at the Radcliffe Observatory, Oxford, in summer 1882 for briefings and to practice observing a dynamical model of the transit. Each team then came again and stayed for about a month, allowing team members to practise setting up and using the telescopes and other apparatus and to pack equipment ready for transportation. The primary instruments of each expedition were two 150mm equatorially mounted refractors and an altazimuth transit instrument.

Plummer and Dobing entered Bermuda via the capital and main port, Hamilton, on 23 October 1882, having journeyed from New York aboard the paddle-steamer *Orinoco*. Plummer travelled as a cabin passenger; Dobing steerage. Neate arrived aboard the *Orinoco* at St. George, on the north tip of the island, on 07 November. Plummer and Neate chose to establish their observing station in the vicinity of Gibbs Hill lighthouse on the southern coast of the island. They would likely have relied upon the labour of military personnel stationed in the colony for the transport of their equipment and construction of the observing station. The transit telescope and

[1] Unfortunately, the most sought-after documents, the original observing reports by Plummer and Neate, are proving elusive, being present neither in the archives of the Royal Society nor the RGO. Efforts to locate them are currently centred on the Dun Echt Observatory archive but, alas, staff responsible are proving unhelpful….

equatorials would have required substantial concrete foundations and it is intriguing to speculate whether any trace of the observing site remains nowadays[2].

Once the observing station was established, one of the important duties of the observers was to determine its position accurately, as this formed a key factor in the analysis of results. Latitude could be determined relatively straightforwardly from observations of the altitudes of known stars. However, in order to determine longitude accurately from the stars, a reference time was required at the observing station. Neate was responsible for provision of reference time at Bermuda, a responsibility he discharged by means of "chronometer runs" to New York to access master timekeepers. The results by Plummer and Neate concerning the location of the observing station are intriguing: although their estimate of its longitude was close to the accepted value of the era, their estimate of latitude appears to have been 0.7km too far south. Once Plummer and Neate had determined the position of the observing station, they would have kept busy practicing using the instruments. There was likely considerable local interest in the activities of the observers, and they would have had to host countless visits by local people. Indeed, with one day to go, Plummer placed an advertisement in the *Royal Gazette* asking the public to avoid the observing station on the day of the transit.

Plummer observed the transit with a 150mm Cooke equatorial. Clouds were passing at the time of 1st contact and he first spotted the limb of Venus when the planet was upon the Sun. Having discerned Venus, he then followed its motion, enabling him to estimate the instant (at an earlier time) of 1st contact itself. Later he observed an aureole all around Venus and noted that the first appearance of sunlight between the limbs of the Sun and the planet was a *sudden and marked phenomenon*. He witnessed the black drop effect. Immediately after the ingress phase, the Sun was clouded out. Dense cloud was present at the time of egress and Plummer did not consider his timings of 3rd contact *of any value unless confirmed*; things were improved by the time of 4th contact and he was confident of his timing of it.

Neate observed with a 150mm Naylor equatorial. His description of his observations started just after 1st contact, when he observed a fine light shading on the following limb of Venus. When the planet was approximately half upon the disk of the Sun, he described the following limb as bright and later in his report mentioned seeing, around this time, a bright ring around the planet, approximately 2" in breadth at its widest. He found it difficult to estimate the time of 2nd contact. Thereafter, he observed the black drop effect through fleecy clouds. Of course, his observations of 3rd contact, like Plummer's, were hampered by dense cloud and he did not consider his egress timings to be of any great accuracy. He saw no aureole during egress.

Neate left Bermuda the day after the transit, departing aboard the *Orinoco* for New York; his Admiralty record noted his return to England on 24 December 1882. Plummer first arranged to auction surplus equipment of the expedition and then, on 21 December, left the island aboard the *Orinoco* bound for New York. From there, on 28 December, he began the voyage to England aboard the steamship *City of Brussels*. He must have looked forward to the transatlantic journey and the prospect of mingling with the wealthy and influential of the age. Unfortunately, the journey turned out to be more eventful than he could have anticipated as, in the early hours of 07 January 1883, he endured a shipwreck in dense fog at the mouth of the River Mersey! There were 10 fatalities and Plummer's personal description of the misfortune provides a vivid narrative.

Although summary reports from observers of the transit started appearing in print only a few days after the event, gathering together all the reports and fully analysing the data was a monumental undertaking and it was not until 1887 that the Executive Committee published its final report. As in previous transits, the black drop and atmospheric unsteadiness confounded many observers and it proved difficult in many cases to select, out of several reported event times, the appropriate one upon which to base the analysis. Despite the difficulties, the Executive Committee published an estimate of the mean Earth-Sun distance of 148,960,000 km ±400,000 km. The best modern estimate of the quantity is 149,597,870.66 km. The analysis

2 *Hmm, perhaps a search could feature in next year's summer holiday activities. Now, how to persuade the family that they want to visit Bermuda…*

indicated that the timings by Plummer and Neate were generally of good accuracy compared with those of their peers.

In fact, however, although governments and individuals around the globe invested considerable resources in observation of the 1882 transit, the technique was already falling into disfavour as a means of estimating the mean Earth-Sun distance. The black drop and atmospheric unsteadiness which prevented precise determination of the instants of apparent contact of the limbs of the Sun and Venus together limited the accuracy of the method. As a result, astronomers had already begun to turn to other methods, such as the parallax of Mars at opposition, to provide more accurate estimates. The 1882 transit was the last used by professional astronomers to estimate the scale of the solar system.

James Appleton
07 September 2013

Articles for the OASI Newsletter

News, views and articles for this newsletter are always welcome.

Please send them to

news@oasi.org.uk

The CLOSING date is the 20th day of the month

if you want your material to be published in the next issue.

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

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

Spreadsheets: Excel, OpenOffice/LibreOffice, Numbers

Images: tiff, png, jpg

Schematics: sch (Eagle preferred)

I can extract text and pictures from pdf files but tables can be a bit of a problem so please send these as separate files in one of the above formats.

Thank you for you co-operation.

Paper vs pdf

Eric Sims valiantly prints about 170 copies of the Newsletter 11 times a year. It is a mammoth effort for which we are very grateful and, to reduce the load, I would encourage readers to take the e-version (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.

The maximum size of a printed newsletter is 32 pages, to avoid the more expensive large letter postage rate, but even this length poses a not inconsiderable printing load and cost.

The e-version can be read by any type of computer (Windows/Mac/Linux) irrespective of its font set and default paper size, can contain lengthier articles, more and bigger pictures and comprise any number of pages.

Martin RH

Electronic newsletter archive

I've updated the electronic archive of OASI *Newsletters*. It's now 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 filestore.) 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.

Key statistics of the archive are:

Newsletters archived:	edition 1 to edition 484
Period:	February 1972 – April 2013
Number of scanned pages:	5528
Number of items indexed	12016
Size of archive:	3.2 GB

A DVD containing the archive has been deposited 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.

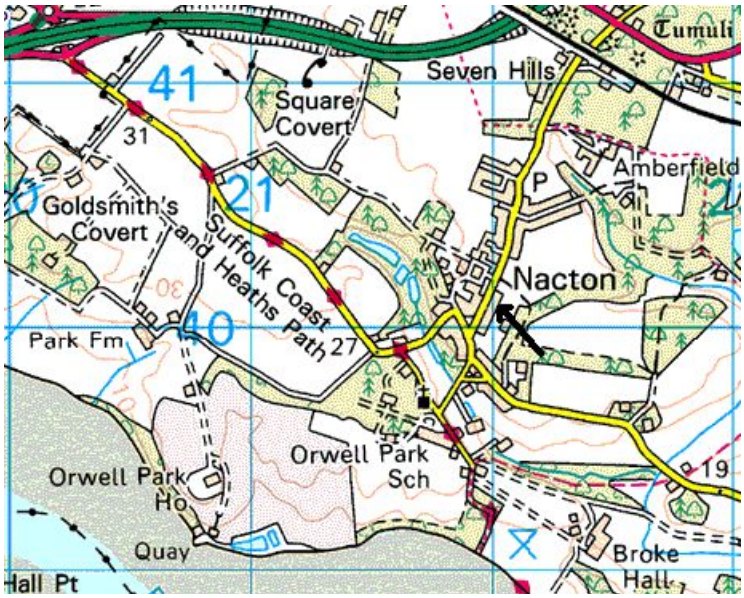
James Appleton

Astronomy Workshops

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, interactive 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!

Mike Whybray Workshops organiser [redacted] (Mobile) [redacted] (Home)

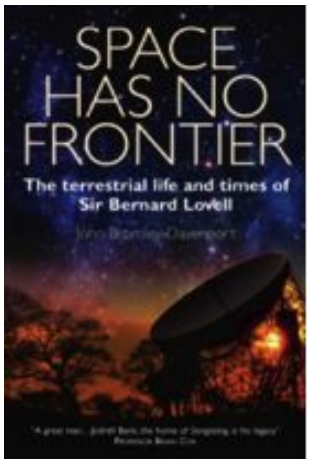
Please park on the same side of the road as the hall, but avoid parking on the white lines which mark clear spaces for various driveways and passing places. The police do occasionally check up on this!

Date	Workshop	Run by…
9 Oct	**Comets** Paul will discuss what these strange visitors are and where they come from. He will also tell you about all the bright comets he missed and the mediocre ones he managed to see.	**Paul Whiting**
6 Nov	**Ole Rømer And Estimation of the Speed of Light** In 1676, the Danish astronomer Ole Rømer (1644-1710) announced, on the basis of observations of the Galilean satellites of Jupiter, that light had a finite speed. We review his work and describe our efforts to repeat his observations and analysis. We use an innovative scale model to illustrate the dynamics of Jupiter and the Galileans. Our results, although mixed, shed new insight into aspects of Rømer's work, the practical difficulties associated with his approach and the theoretical limitations which constrain its application. We aim to encourage more members of OASI to observe the Galileans and involve themselves in a project to estimate the speed of light.	James Appleton, Martin Cook and Alan Smith
11 Dec	**Astrophotography with a Digital Camera** Aims to show what can be achieved and how to achieve it, using both DSLR's and more basic digital cameras (not webcams or CCD cameras though). Includes demonstrations with the actual equipment.	David Murton and Mike O'Mahony

SPACE HAS NO FRONTIER

The terrestrial life and times of Bernard Lovell

By John Bromley-Davenport



The biography of an extraordinary man whose life story encompassed many of the key world events of the last century.

A visionary leader in the field of science, technology and astronomy, Lovell pioneered the Jodrell Bank radio telescope, one of the most important scientific instruments in the world.

With the recent declassification of Cold War intelligence files, the book provides illuminating details of his activities working with the security services.

Compiled by the author via a series of first-person interviews and intimate conversations, along with access to new information and diaries, the book explores Lovell's life and achievements in the scientific and political context of the time.

Bene Factum Publishing - Hardback & ebook - October - £20.00

Bernard Lovell is one of the great un-sung heroes of the 20th century, a true pioneer of physics and astronomy. He is well known as a brilliant mind and the founder of the Jodrell Bank Observatory and Lovell telescope.

What is less well-known about this modern Renaissance man is the full extent of his work during the Second World War and more particularly during the Cold War. His work with radar during WW2 focused on the development of centimetre radar, of H2S (blind navigation radar) and ASV (air to surface vessel) radar. The first was used by RAF bombers while the development of ASV was vital to the fight against German U-Boats in the Bay of Biscay.

Jodrell Bank, of which Lovell was Director, was the frontline of defence monitoring the potential threat of Soviet missiles at the height of the Cold War and during the Cuban Missile Crisis. Following his 1963 trip to Russia, where he visited the top secret Soviet space tracking station, Deep Space Network, Lovell was debriefed extensively by the British security services. The classified file of this debrief was only made available following his death, when the information could be of no threat to his safety.

The book explores Lovell's contributions to his fields of excellence but is more than just a story of his life. *Space Has No Frontier* also shows how Bernard Lovell was a family man, a gifted musician, gardener and dendrologist, and a keen cricketer. He died in August 2012, one year before his 100th birthday.

A great man...Jodrell Bank, the home of Stargazing, is his legacy - Professor Brian Cox

John Bromley-Davenport QC is a successful barrister, actor and public speaker. Alongside his legal career he has become well known on both sides of the Atlantic for his solo adaptions of Dickens' *A Christmas Carol* and Jerome K. Jerome's *Three Men in a Boat,* both of which have been met with ongoing media acclaim over three decades. He has also contributed and published articles in various mainstream print publications, including *The Times,* the *Daily Telegraph* and the *Daily Mail*.

For further information please contact lucy.dundas@flint-pr.com
or call Lucy Dundas on 0203 463 2085

Diary for October

Small Telescopes Observing Nights at the observatory Paddy O'Sullivan Gerry Pilling Dave Robinson	**STONs** From 8:00pm 8th Oct: Lyra, Cygnus 4th Nov: Cassiopeia, Andromeda, Pegasus 10th Dec: Pegasus, Triangulum
Observatory Club Nights Observing with the Tomline refractor and other telescopes if skies are clear Martin Cook Roy Gooding	**Wednesdays** From 8:00pm
OASI Members Group Observing Evenings Newbourne Village Hall, Mill Road, Newbourne. Winter programme – see OASI web site for details	**7pm Monday 14 & 24 Oct** See www.newbourne.org.uk
OASI Workshop Nacton Village Hall Mike Whybray	**Wednesday 9 Oct** Comets by Paul Whiting FRAS
Observatory visits by local community groups Paul Whiting FRAS	01/10 Taster 03/10 1st Stanway Roman Cubs 19:30 10/10 1st Stanway Roman Cubs 19:30 24/10 Lions Club Ipswich 20:00 31/10 6th Felixstowe Brownies 19:00
Committee Meeting Venue: Methodist Church Hall, Blackhorse Lane, Ipswich	
Holywells Park – Star Party	
Open Weekend	22 & 23 November

Society Contact details

See page 2 for Committee contact details.

Observatory (meeting nights only)

Email queries: info@oasi.org.uk

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Twitter: @OASIpswich

Please send material for the OASI web site and newsletter

e.g. observations, notices of events, general interest articles, to

info@oasi.org.uk