



OASI News

The newsletter of the Orwell Astronomical Society



Trustees: **Mr Roy Adams** **Mr David Brown** **Mr David Payne**
Honorary President: **Dr Allan Chapman D.Phil MA FRAS**



'Galileo' looking through the Tomline Refractor

Photo by Andrew Clarke

'Galileo' visits the Orwell Park Observatory

The front cover photograph shows actor Steve Taplin, who is playing Galileo in a forthcoming musical play, looking through the Tomline Refractor during a visit by the [Gallery Players](#) to Orwell Park Observatory in April.

On 8th April the observatory was visited by members of the Gallery Players who are presenting a musical play entitled "Galileo" in the Summer. The photo on the front cover of the newsletter shows Steve Taplin - who plays the part of Galileo - looking through the Tomline Refractor.



The musical by Martin Waddington (developed for the Gallery Players) has its world premiere at the [New Wolsey Theatre](#) in Ipswich from July 9th to 12th.

www.wolseytheatre.co.uk/shows/galileo/ galleryplayers.co.uk

Galileo and daughters (Steve Taplin, Emilia Petryszyn and Naomi Doust) at Orwell Park observatory."

Photo by Andrew Clarke

Newbourne 14 April

We had over 40 people at Newbourne on 14 April, with 16 scopes in use during a lovely clear evening. Mike Norris was hoarse by the end of the evening talking to new members including at least 2 who joined on the night. Big thanks to all those who helped our new members with their scopes and involved them in what was going on.

More on page 14.

David Murton



Contents

'Galileo' visits the Orwell Park Observatory	2
Newbourne 14 April	2
Society Contact details	3
Articles for OASI News	4
Committee 2014	4
New members	4
The Newsletter	5
Society Notices	5
EGM Monday 19th May at 20:00 - Constitution changes	5
OASI Constitution - proposed revision	5
Society Events	8
Google Calendar	10
Outreach Meetings for 2014	11
Some Astronomy Guides	11
Night Sky in May	12
OASI Field trip to see the Northern Lights (hopefully)	13
Newbourne Observing Group	14
Small Telescope Observing Nights (STONs)	14
Lecture Meetings	15
RAG 2014	15
RAGazine	15
Standard Eyepiece Fitment? -- not very likely!!!	15
Risk Assessment for Solar Observing outreach events.	16
26th Ipswich Cubs Astronomer Activity Badge	17
OASI Discussion Forum	18
OASI Corporate Clothing	20

Society Contact details

Observatory (meeting nights only)
07967 519249

Email queries: info@oasi.org.uk
facebook.com/pages/orwell-astronomical [*]

Twitter: @OASIpSwich

Forum: forum.oasi.org.uk/index.php

[*] Please note that there is a hyphen in the Facebook url (which has been missing for the past year!)

Other contact details will be issued to members on a separate printed list or emailed directly to those who only receive the e-version of the News.

**Please send material for the OASI
web site and newsletter**

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

news@oasi.org.uk

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, 07967 519249 during meeting hours.

We now have a key to the toilets in the school gym. It is located in the seating area in the Belvedere room.

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 15th 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.

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
	Tina Hammond	Librarian
	Peter Richards	Lecture meetings, Email distribution lists
	Martin Richmond-Hardy	Newsletter
	John Wainwright	Equipment curator
	Mike Whybray	Workshops
	Mike Norris	Newbourne Observing Group

New members

Mr Leon Politowicz	Mr Scott Durston	Mr Bob Purvis	Mr Trevor White
Mrs Amanda Portway	Mr Daniel Harris	Mr Scott Best	Mr Jon Styles
Mr John Griffiths	Mr Robert White	Mrs Christine Hempstead	Mr James Gibson

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 may either:-

- Subscribe to the OASI Yahoo group by emailing oasi-subscribe@yahogroups.com
- Or, for those who don't like Yahoo, a Dropbox link will be emailed to those who have expressed a wish to receive the e-version. Email membership@oasi.org.uk

Society Notices

Committee Meeting 20th May 20:00

The next committee meeting will be held on 20th May from 20:00 at the Shepherd & Dog, Nacton. This is an open meeting so any member may attend.

EGM Monday 19th May at 20:00 – Constitution changes

The first committee meeting in 2014 discussed changes to the constitution, primarily to merge the separate membership categories of Junior, Full Member, Family Member and Senior Concession into a single category called Member. The reasons for doing this are to more easily comply with the child protection guidelines as provided by the Federation of Astronomical Societies, and to simplify administration by removing small but hard to police price differences between membership categories.

The proposals will be put to the membership at the EGM to be held at

Newbourne Village Hall at the NOG meeting on 19th May. A copy of the proposed revised Constitution follows. Proposed changes are in *italic*.

OASI Constitution - proposed revision

1. Name

The name of the Society shall be *Orwell Astronomical Society (Ipswich)*.

The Society is a registered charity No. 271313.

2. Objectives

To promote and advance public education and interest in the science of astronomy and to provide facilities for the encouragement and pursuit of observational astronomy.

3. Membership

Membership of the Society is at the discretion of the committee. There are two classes of membership:

1. Member
2. Honorary Member - invited by the committee to enjoy free membership for services rendered.

The immediate family of a member (partner, children, parents) are entitled to attend OASI meetings and events, however only the member may vote at

meetings. For child protection purposes, all children (under 18s) must be accompanied at meetings and events by a parent/guardian.

The committee is empowered to disqualify a member whose actions bring the Society into disrepute or damage relationships with the School. The committee must meet in order to progress a disqualification; the member in question is entitled to attend the meeting and may ask one of the Trustees of the Society to speak on his/her behalf.

4. Subscriptions

Subscriptions are payable on the first day of January. Subscriptions are not refundable except in exceptional circumstances at the discretion of the committee. Membership fees will be agreed at the AGM.

Subscriptions not paid by the end of February will be assumed to mean resignation.

5. Officers

The Honorary President of the Society will be Dr Allan Chapman, FRAS, Wadham College, Oxford.

The Society shall have three Trustees: Mr R Adams, Mr D M J Brown and Mr D B Payne. They shall have full access to all matters concerning the Society.

The Society shall also have three elected officers: Chairman, Secretary and Treasurer. These officers will be elected annually at the Annual General Meeting (AGM) of the Society.

6. Management Of The Society

The Society will be managed by a management committee consisting of the three elected officers and eight other members. The committee shall be elected annually at the AGM of the Society. All nominations for committee membership shall be in writing and be in the hands of the Secretary before the start of the AGM.

The management committee shall meet as required. Six committee members must be present to form a quorum, which must include at least one of the elected officers. The committee shall be empowered to fill any vacancy in its membership arising during the year, until the next AGM, from members of the Society.

The committee shall be empowered to appoint sub-committees for any purpose.

The management committee and any sub-committees may co-opt additional members from the Society, and they will have voting rights on the committee they join.

Each member of the Society shall have one vote in the ballot for each post at the AGM. A simple majority shall decide those elected. If there is a tie for any post the outcome shall be decided by further votes. Postal votes or proxy votes are not eligible. The committee shall take office from the date of the AGM to the date of the following AGM.

7. Disqualification Of A Committee Member

If a committee member fails to attend three consecutive committee meetings he/she may be called upon by the committee to resign. Authority to fill the vacancy will rest with the committee until the next AGM.

8. Committee Records

The Secretary shall retain minutes of all meetings of the committee and sub-committees.

9. Annual General Meeting

The AGM of the Society will be held annually, in the month of January, at a time and place agreed by the committee. Members of OASI shall be given at least 14 days' notice of the AGM, such notice being posted in the Society's newsletter.

An AGM or EGM are the only meetings that can endorse changes to the constitution or rules of the Society. Members of OASI shall be given at least 14 days' notice of a meeting to endorse such changes, together with details of the changes themselves, such notice being posted in the Society's newsletter.

10. Extraordinary General Meeting

The committee may call an Extraordinary General Meeting (EGM) to discuss any matter and shall be bound to do so on receiving a request signed by not less than 25% of the membership. Such a request must be sent to the Secretary stating the reason for the meeting. The meeting shall take place within 28 days of receipt of the request and not less than seven days clear notice of the meeting shall be given.

11. Finance

All monies shall be banked in the name of the Society. Withdrawals shall be by cheque bearing the signatures of the Treasurer and either the Secretary or Chairman. All recommendations and requests for expenditure shall be approved by the committee before being incurred.

At the AGM the Treasurer shall present a balance sheet of the income and expenditure of the Society, to be subsequently audited by an honorary auditor appointed by the committee. The auditor must not be an elected member of the committee.

12. Rules

The committee shall be empowered to make such rules as it considers necessary. Such rules shall be submitted to an AGM or EGM for ratification.

13. Winding Up The Society

Should the Society be wound up, its assets shall be placed in the hands of the Trustees to be donated wholly, at their sole and absolute discretion, to charitable bodies with aims similar to those of the Society.

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/OASIpSwich>

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.
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. Indoor activities if cloudy.
Friday 09 May,	Lecture meeting postponed to 24 October	Pete Richards	
Sunday 11 May 11:00 - 16:00	Woodbridge Tide Mill	David Murton	Public access event. Observing the sun safely. Booking not necessary. Joint event with Felixstowe & District Amateur Radio Society .
Saturday 17 May	National Space Centre, Leicester	BAA 020 7734 4145 See www.britastro.org/radio/	BAA Radio Astronomy Group's General Meeting
Saturday-Sunday 17-18 May, 11:00-16:00	<u>Christchurch Park, Reg Driver Centre</u>	Roy Gooding	Public access event: observing the sun safely. (Will postpone to 24-25 May if weather unsuitable.) Booking not necessary.
Monday 19 May 19:00 - late	<u>Newbourne Village Hall</u>	David Murton Mike Norris Mike O'Mahony	OASI Newbourne Observing Group and EGM. EGM starts 20:00 to ratify changes to the OASI constitution.
Tuesday 20 May 20:00	Shepherd & Dog	David Murton	Committee meeting
Sunday 1 June 11:00-16:00	Needham Lakes	David Murton	Public access event. Observing the sun safely. Booking not necessary.

Date and Time	Location	Contact	Event
Monday 02 June, 20:00	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group.
Monday 09 June, 20:00	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group.
Sunday 15 June	Nacton Village Hall	David Murton	Opportunity for new (and not-so-new) members of OASI to meet the committee and office bearers for informal conversations about any aspects of running the Society. "Nibbles" will be provided...
Sunday 29 June	Debenham High Street	David Murton	Debenham Street Party Solar event
July 9 - 12	New Wolsey Theatre, Ipswich	www.wolseytheatre.co.uk/shows/galileo/	The World Premiere of <i>Galileo</i> by Martin Waddington - specially developed for the Gallery Players.
Monday 14 July, 20:00	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group.
Saturday 19 July Time TBC	<u>Newbourne Village Hall</u>	Pete Richards	Summer BBQ DATE CHANGE!
3 August Time TBC	Felixstowe Leisure Centre		Public access event. Observing the sun safely. Booking not necessary.
Friday 8 August 19:30	Suffolk Wildlife Trust, Foxburrow Farm	Roy Gooding	Public access event. Astronomy evening. Details TBC.
Monday 11 August 20:00	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group.
Sunday 24 August	Alnesbourne Priory	Mike Norris	Public access event. Observing the sun safely. Booking not necessary.
Monday 8 September 20:00	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group.
Friday 12 September	Westbourne Library	Paul Whiting, FRAS	Public access event. Telescopes and talk evening. Details TBC.
Monday 22 September 19:00	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group.

Date and Time	Location	Contact	Event
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
22Sept - 3 Oct Main weekend 26-28 Sept	Kelling Heath	starparty.las-astro.org.uk	Autumn Equinox Sky Camp
Tuesday 7 October	Orwell Park Observatory	Paul Whiting, FRAS	Public access event. Observatory tour. Places must be booked. Further info and book a place.
Friday 24 October, 20:00	Methodist Church Hall, Black Horse Lane, Ipswich	Pete Richards	Lecture Meeting. Prof Ralph Spencer: Black Swans - Black Holes in the Constellation Cygnus. [postponed from May]
Friday 21 November 2014, 20:00	Methodist Church Hall, Black Horse Lane, Ipswich	Pete Richards	Lecture Meeting. Alan McGuire - Using the Sloan Digital Sky Survey to Study Quasars and the Early Universe.
Monday 8 December 19:00	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group.
Monday 22 December 19:00	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group.
Monday 29 December		James Appleton	Field trip to observe grazing lunar occultation of the magnitude 6.6 star 88 Psc.
2015			
Wednesday 11 February 2015	North Norway	Paul Whiting, FRAS	OASI aurora observing field trip to northern Norway, 11-16 February 2015. Further details on web site and p14

Google Calendar

There's a Google Calendar available if you want to easily add OASI Events to your own computer/phone/tablet calendar application. It's a long url!

<https://www.google.com/calendar/embed?src=1jhs9db71ncki4sojo7092vfvc%40group.calendar.google.com&ctz=Europe/London>

so [click here](#) if you are reading the e-version of OASI News.

Outreach Meetings for 2014

Astronomy in the Park – Christchurch Park

Our yearly event that gives the public a chance to observe the Sun safely

Option 1

Saturday 17th and Sunday 18th May

Time: 11:00 to 16:00

Venue: On the hill above the Reg Drive centre

Set up time from 10:30

Option 2 if the 1st option is cloudy.

Saturday 24th and Sunday 25th May

11:00 to 16:00

Venue: On the hill above the Reg Drive centre. Time:

Set up time from 10:30

Other Outreach meetings

Debenham Street Party

This is a new event Sunday 29th June from 12:00 - 17:00.

We have been asked if we would like to take part. This would be a solar event.

The address of the event is the High Street, Debenham, IP14 6QL. The post code is for the Angel Inn which is in the middle of the High street. Debenham is located on the B1077 going North out of Ipswich via Westerfield.

The road will be closed from 10:00 - 18:30 and the event duration is 12:00 - 17:00. We ask exhibitors to have stall/stand ready by 11:30 with all vehicles off the high street. There will be a car park provided on the day.

I am still making final arrangements with Richard Sharp for this event

Suffolk Wildlife Trust event

The Suffolk Wildlife Trust event is at Foxburrow Farm in Melton on Friday 8th August. I will have more details later in the year.

Bentley Playing Field

We have been invited to use the Bentley village playing field as a dark field site. The village will be having a Families day of Sunday 29th August. I have offered to run a solar event for them.

A Star Party will be arranged for the autumn. This event will be open to all villagers.

Westbourne Library

Friday 12 September details TBC

Some Astronomy Guides

The One Minute Astronomer

oneminuteastronomer.com/

Stargazers lounge

stargazerslounge.com/

Society for Popular Astronomy

www.popastro.com/index.php

UK Astronomy Directory

www.uk-astronomy.co.uk/directory/

Heavens Above (satellites, astronomy & time data)

heavens-above.com/

Metcheck forecast

uk.metcheck.com

Weatherweb

www.weatherweb.net

Night Sky in May

Roy Gooding

Moon

1st Quarter
7th

Full Moon
14th

Last Quarter
21th

New Moon
28th

Sun and planets

Object	Date	Rise	Set	Mag.	Notes
Sun	1	05:26	20:20		
	31	04:42	21:05		
Mercury	1	05:37	21:00	-1.1	Greatest eastern elongation on the 25 th . Mercury will be very low down in the north western sky.
	31	05:57	22:53		
Venus	1	04:20	16:08	-3.9	Venus will be very low down in the pre-dawn sky this month
	31	03:27	17:25		
Mars	1	17:13	04:52	-1.2	Mars will be moving though Virgo this month. By the end of the month its brightness will fade to -0.5
	31	15:11	02:44	-0.5	
Jupiter	1	09:08	01:41	-1.8	Jupiter is sill observable in the evening sky but it is moving into the brighting western sky
	31	05:57	23:57		
Saturn	1	20:52	06:16	0.2	Saturn is at opposition on the 10 th . It is well place to observe all night
	31	18:42	04:12		
Uranus	1	04:43	17:40		Uranus is too close to the sun to observe this month
	31	02:47	15:49		
Neptune	1	03:42	14:09		Neptune is too close to the sun to observe this month
	31	01:45	12:13		

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

Meteor Shower

Source: BAA Handbook 2014 p95-7

Shower	Maximum	Limits	ZHR
Shower	Limits	Maximum	ZHR
♈ Aquarids	April 24th to May 20th	May 5th - 6th	40
♏ Scorpids	April 20th to May 19th	April 28th & May 13th	5
Ophiuchids	May 19th to July	June 10th - June 20th	5

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 the BAA Comet Section Journal can be downloaded from www.ast.cam.ac.uk/~jds/tail33.pdf

Occultations during May

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 May	22:02:11	D	0.21+	-18	10	7.5	Tyc 1332-1682-1
04 May	20:22:05	D	0.29+	-8	31	3.6	54 Gem
	20:43:37	R		-11	28		
04 May	21:17:05	D	0.29+	-14	23	6.9	Hip 35551
05 May	23:18:48	D	0.39+	-21	10	6.5	ZC 1237
11 May	00:18:35	D	0.84+	-20	18	7.5	ZC 1747

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. There are still a few spare places.

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.

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. Cheaper inside cabins available.

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

Paul

trip@oasi.org.uk

Itinerary

Day 1 Tromsø, the gateway to the Arctic
 Day 2 Honningsvåg and the North Cape
 Day 3 Kirkenes, the voyage turning point
 Day 4 Hammerfest and Tromsø
 Day 5 Day in Tromsø
 Day 6 Depart

Newbourne Observing Group

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

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

The Newbourne Observing Group (The NOGs) are a good place to start for beginners. If you are thinking of buying a scope or binoculars, come and try before you buy and talk to owners about the strength and weaknesses of particular models. If you've already splashed the cash, bring your new scope along to use or for advise on setting-up and adjustment.

Report on Newbourne Observing Group meeting on 14th April

They say good things come to those who wait and after several wet or cloudy Newbourne nights, things finally came good on 14th April with clear skies all evening, Mars and Jupiter shining bright and 2 bright ISS passes to keep everyone occupied. Even a nearly full moon didn't detract from things as over 40 members came along, including at least two who joined on the night, and we had at least 16 scopes of all sorts out on the field.

It was especially heartening to see so many of our newer members coming along, some with new scopes to try out. I would like to give a big thanks to all those who helped them to set things up and find their way about the sky during the evening.

Thanks to the donations to the "tea fund", Mike Norris has been able to purchase a set of Bresser Binoculars for new members and guests to use at Newbourne and these were much in demand during the evening. Mike would also like there to be a simple scope available for newcomers to try while at Newbourne so if you have something laying about that you no longer use, please get in touch with him.

OASI has donated a screen to be fixed up in the village hall and a projector for our use at Newbourne evenings so we will be better prepared for those cloudy nights in future with lectures, videos and slide shows possible. Thanks to our equipment officer John Wainwright for organising things.

To help new members spot us if they need help, committee members will soon have badges to wear at OASI meetings. If you want to know something about how OASI runs just ask a badge wearer!

Don't forget there are still a couple of fortnightly meetings starting at 7pm before we change to the summer routine of once a month starting at 8pm. When we restart fortnightly again in the autumn we will be changing to all Monday nights to make things easier to remember.

© David Murton



ISS photo 14 April

©David Murton

Our May meetings are on Thursday 1 May and on Monday 19 May which includes the EGM to ratify Constitution in relation to membership category changes in the light of child protection requirements. EGM starts at 8pm. All welcome, with or without telescopes.

David Murton, OASI Chairman

Wanted: We are on the lookout for a cheap, (free!) simple scope for use by newcomers at Newbourne if anyone has one laying about they don't want.

Small Telescope Observing Nights (STONs)

By Gerry Pilling

These will resume in October at Orwell Park Observatory. More news next month.

Lecture Meetings

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

“Spring” Lecture – 8pm Friday 24th October 2014 (postponed from 9 May)

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

RAG 2014

A reminder that BAA RAG is holding this year’s General Meeting at the National Space Centre, Leicester on Saturday 17th May, starting at 10:30. We have two keynote speakers in Prof Paul Cannon (on solar superstorms) and Dr Klaas Wiersema (on Gamma ray Bursts) plus seven supporting talks to create a packed day on radio astronomy and geophysics. Tickets are still available at £15 (£12 for BAA members) which includes free admission to the NSC and free parking. Further information on the event, including details of the presentations, can be found on the BAA RAG website at www.britastro.org/radio/. Bookings can be made by post, phone, fax or email using the Booking Form downloadable from the same website.

RAGazine

The 3rd edition of the RAG quarterly newsletter is now available for download from the BAA RAG website at www.britastro.org/radio/. This edition contains Karl Jansky’s 1932 paper identifying additional radio noise to that originating from thunderstorms, a review of the recent book on the life and times of Sir Bernard Lovell, and a description of the Siberian Solar Radio Telescope, along with articles on meteor scatter, magnetometry and VLF activity, plus Tony Abbey’s Technology Watch column.

Standard Eyepiece Fitment? -- not very likely!!!

Gerry Pilling

Quite a while back Roy Lobbett asked an innocent question on the OASI email group when he purchased a new 1.25” eyepiece for his telescope that did not fit his focuser. He wondered if all 1.25” eyepieces purchased should fit a nominal 1.25” orifice in a telescope and if therefore his latest purchase might be faulty in some respect.

Having had some experience with eyepiece sleeve diameter variations, I got out my micrometer (as you do) and made some measurements with the intention of clarifying matters. All that happened is the story got worse.

All my eyepieces are labelled on the box (where I have it) as 1.25" which should be 31.75mm

Meade 3000 (Japan)

40mm	is	31.64mm	sleeve diam
------	----	---------	-------------

Meade 4000 (China)

12.5mm	is	31.53mm	sleeve diam
--------	----	---------	-------------

15mm	is	31.59mm	sleeve diam
------	----	---------	-------------

9.5mm	is	31.48mm	sleeve diam
-------	----	---------	-------------

Fullerscopes (Imperial era)

6mm is 31.57mm sleeve diam
 12mm is 31.70mm sleeve diam

So there is not much consistency here!!!!!!

This reminds me somewhat of the dead parrot sketch from Monty Python's Flying Circus.

Astronomer: I wish to buy an eyepiece please.

Shop keeper: Yes sir, what size sleeve diameter?

A: 1.25" please

SK: Would that be the imperial 1.25" or the metric 1.25" sir? We no longer can get imperial ones. Have you measured the eyepiece holder in your focuser?

A: Are they different then?

SK: Oh yes sir, the Imp 1.25" are one set of sizes that are not actually 1.25" and the Metric 1.25" which should be 31.75mm are a different set of dimensions that are not actually 31.75mm but vary by a different amount to the imperial ones!

And would sir(madam) like it to be par focal with any other you own or will you do what everyone else does and just wish it was?!!

A: That does all seem very unsatisfactory.

SK: Ah yes sir, but they have beautiful multiple coatings!!!

Etc...

Gerry Pilling

Risk Assessment for Solar Observing outreach events.

What are the hazards?	Who might be harmed and how?	What are you already doing?	Do you need to do anything else to manage this risk?	Action by whom?	Action by when?	Done
Children, etc. falling from small steps if they require them to reach the telescope eyepieces	Anyone too short to reach the eyepiece easily. By losing their balance they could fall.	We try to ensure that all telescopes are situated at a low enough height for all. If this is not possible we ensure that step ups are suitable and well grounded. All telescopes are manned at all times the public have access.	Be constantly vigilant for possible problems.	All		
Inadvertent exposure to the sun	Visitors may have their eyesight affected by looking at the sun without suitable precautions	We ensure that all equipment is suitable for safe solar observing and members are suitable aware of its safe use. Suitable warning signs will be posted advising the public about the risks of using anything but this equipment.	Ensure that all OASI members know how to safely use the equipment and that they draw the public's attention to the warning posters. Ensure that there are at least 2 members for each active telescope.	All	Ongoing	
Tripping over tripod legs	Visitors could trip over tripod legs if distracted.	We ensure that tripods are manned at all times. There will be no trailing cables, etc.		All	Ongoing	
Electric shock from equipment	Persons using equipment	All equipment will be low voltage (12v battery). No mains equipment or trailing wires to be used.		All	Ongoing	

26th Ipswich Cubs Astronomer Activity Badge

Mike O' Mahony

A small group of OASI members & better halves [Janice & Aisha Gilbert, Andy Gibbs, Mike & Ann Norris, Mike & Pat O'Mahony] worked with the 26th Ipswich Cub Scouts to help them achieve their Astronomer Activity Badge. The Cub Scout Leader is Andrew Peck and he has the fun job of managing about 25 [very active] Cubs aged between 8-10 years. The Cubs had attended one of Paul Whiting's talks in Christchurch Park in a previous year and this had spurred their interest in Astronomy.

Badge requirements

The Badge requirements are summarized as follows:

1. Understanding the solar system and difference between a planet and a star
2. Identifying 3 constellations and the pole star (and understanding its importance)
3. Observing and knowing the main features of the moon
4. Researching and reporting on a selected topic such as: meteorites, black holes, eclipses.

To cover these topics we estimated that three sessions spread over three weeks were needed, a total of 4.5 hours. With activities spread over three weeks it was hoped we would have a clear sky for practical observations on at least one of these evenings; and this proved the case with the third and final session coinciding with reasonably clear skies.

Organisation

Amongst our group we had some knowledge about how best to engage children of that age, ie children fizzing with energy, and so the aim was to make the learning process as much fun as possible. The general approach was to start with a brief talk on the topic of the session (e.g the solar system) and then to break into four groups each comprising about six cubs. Four activities were devised which in total would cover the knowledge required for that particular badge topic, each activity supervised by one of our group. Each group spent about 15 mins on a particular activity before moving on to the next, covering all activities in about 1 hour.

Sessions

I think most fun was had with the **first session** on the solar system. Janice and Aisha had spent many hours (happy or otherwise) making papier mâché planets roughly to size scale. Starting with the Earth (with features beautifully painted by Ann), the cubs laid the planets along the hall floor, with a child's pace representing one astronomical unit. As each planet was introduced its main features was discussed in a question and answer mode. The hall was very large (about 15 metres in length) so the eight planets could be spaced out to scale reasonable well. The models of Saturn and Jupiter caused much fun, Jupiter had grown so large in the making that it had to be cut in half and worn by an obliging parent (see photo), who in the mode of a fashion show could twist and turn to exhibit the red spot and bands.; Saturn with its superb rings caused great laughter (photo). In this session the four 15 min activities centred around:- (1) our telescopes (photo shows Andy Gibbs demonstrating); (2) an Orrery used to show relative orbiting speeds of planets; (3) rearranging the planet models and working out relative orbit speeds; and (4) a quiz on the solar system to reinforce learning.

The **second session** (week 2) mainly focused on the moon and its features, with the objective of knowing the main "seas" and craters. As China's Jade Rabbit had recently landed in the "Sea of Showers" it was used to illustrate the "Rabbit in the Moon" :- in China and Japan people see a "rabbit on the moon" rather than a "man on the moon". Associated moon activities were:- (1) showing how impact craters occur (Mike O'M). Plastic boxes filled with layers of sand, flour and cocoa were constructed to simulate the moon's surface. Dropping different sizes of BluTac balls from different heights gave excellent impact craters, which could be directly compared with Tycho and Copernicus on moon images. The cocoa also proved very tasty as a rim of cocoa around the mouths of one or two cubs proved ! (2) with a moon model based on a painted gym ball, the moon phases and eclipses were demonstrated (Andy).

The third activity introduced constellations and each cub (aided by Janice & Aisha) made a constellation (the Plough asterism) projector, using a cardboard tube and foil (which they pierced to form the stars) stretched over the end of the tube. Using a torch inserted in the end of the tube the asterism was projected on the wall. Finally activity (4) was a revision of knowledge on solar system from the previous week..

Following weeks of rain, our luck turned, and the **third and final session** coincided with good visibility. Telescopes were set up [Aisha, Janice & Mike N) on a patio outside the hall to view Jupiter, the Moon, some constellations and the pole star. Additional activities involved: (1) discussion on the pole star and circumpolar constellations (Pat O'M, using umbrella with painted constellations) and (2) a discussion centred around their individual research topics (Mike O'M).

The cubs were always bursting with energy so to finish our sessions a game akin to musical chairs was devised which would reinforce learning whilst expending as much energy as possible. The various props and models used over the three weeks were placed around the hall, eg individual planet models, photos of the moon etc. The cubs ran around in a circle until a command was given such as "go to the coldest planet" or "go to the red planet" and the race was on to see who got there first. Lots of fun and laughter! Finally the Cub Leader reassembled the troop and the activity badges were handed out.

I think we all enjoyed the sessions very much, the cubs were great fun and obviously enjoy many of the aspects of astronomy, which makes the interaction so rewarding. Hopefully some may go on to become members of OASI. I would like to thank the Cub Scout Leader Andrew Peck for his assistance; he does an amazing job every week so it was good to be able to help.

Pictures on page 15.

Mike O' Mahony

Scouting astronomy resources

<http://www.scoutresources.org.uk/SR/badges/astronomer/index.html>

http://www.scoutresources.org.uk/SR/badges/astronomer/astronomer_bookmarks.html

OASI Discussion Forum

We have a 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

26th Ipswich Cubs Astronomer Activity Badge



OASI Corporate Clothing

The Society now carries a stock of OASI clothing as below:

Order from Mike Norris michael.norris17@btopenworld.com Tel: 01473 726596

Sweatshirt by Maddins, easycare, crew neck, raglan sleeve. In Oxford Grey with Embroidered OASI Logo in Yellow.

Sizes: Small, Medium, Large & Ex Large.

£18.00 each



Thinsulate Beanie in 100% soft feel fabric Thinsulate lining Non-ribbed turn up in Dark Graphite with OASI embroidered in matching Yellow.

£8.00 each

Purchase both of the above for £25.00



Russell Ultimate Pique Polo Shirt in 100% combed cotton with flat knit collar and taped neck. Embroidered with OASI logo in Yellow. Sizes Small, Medium, Large & Ex.Large. Colours Black, White, Azure Blue & Sky Blue.

£15.50 each.

This item to order about 14 days.