No. 492 Registered Charity 271313 **January 2014**

OASI News

The newsletter of the Orwell Astronomical Society

Contents

Committee (2013)

Chairman	Neil Morley	Chair committee meetings, represent OASI to external bodies (retiring)
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
	Eric Sims	Newsletter (retiring)
	John Wainwright	Equipment curator
	Mike Whybray	Workshops
	Mike Norris	Newbourne Observing Group

Your 2014 Committee Needs You!

Annual General Meeting

Saturday 18th January 2014

All members are invited to attend the AGM – 8:00pm at Museum St Methodist Church Hall, Black Horse Lane, Ipswich.

If you would like to stand for the committee for 2014 please write or email Roy Gooding before the AGM. There about 3 /4 committee meetings in the year. Every committee member is given a responsibility. **All that is needed is your name, a proposer and a seconder.**

Existing members who wish to remain on the committee for 2014 need not reapply

From the retiring Chairman

It is with great regret that I have decided to stand down as Chairman of OASI at the next AGM.

Over the last week, my circumstances at work have changed very significantly with increased responsibility and I feel unable to carry out my role as I would wish. Also, having been in the position for five years, I feel it is time for a change. This has not been an easy decision. I feel my time as Chairman has been productive and the Society is in a much stronger position than when I first started.

I'd like to thank you all for your considerable support over the past five years.

Best regards,

Neil

Subscriptions are due for 2014

Martin Cook, Membership Secretary

A renewal form is 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 with the following information

name, membership ID and your email address

so that the newsletter can be sent directly to you.

Society Notices

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.

The Newsletter

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

Following Eric's retirement as Editor it was decided to use an outside printer. The cost of doing so has meant that only the front and back pages can be printed in colour.

The full colour version is, however, 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

Thanks to Dave Murton and James Appleton, we have a new web-based forum for general discussions and some initial specialist areas.

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

OASI members can join this forum at http://forum.oasi.org.uk/index.php

Welcome to New Members

Colin Body Nigel Ault Jeremy Hennell-James Neil Ayers

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.

Stargazing Live

by Roy Gooding

Option 1

Tuesday 7th January from 20:00 to 22:00 (weather permitting)

Two events planned. A lecture in the Reg Drive visitor centre and telescopes on the hill. If you would like to bring a telescope please arrive at about 19:30 to set up before the visitors arrive at 20:00. The Bolton Lane gate will be used for this event.

It should be possible to determine if the weather will be good on Sunday 5th.

I will contact Alan on Monday Tuesday for the final decision for the 1st option.

Option 2 if bad weather on the 7th

Thursday 9th January from 20:00 to 22:00

Same arrangements as before with the exception that the lecture will be held irrespective of the weather.

After all this recent wet weather, we have been asked to keep vehicles off the grass and to keep them on the paths.

Telescopes can be erected on the grass as normal.

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	Orwell Park Observatory	Martin Cook, Roy Gooding	General observation (weather permitting) using a variety of telescopes.
Tuesday 07 January, 20:00	Orwell Park Observatory	Gerry Pilling, Paddy O'Sullivan & Dave Robinson	Small Telescopes Observing Night. Main observing targets: Orion, Gemini.
Tuesday 07 January, 19:30-22:00	Christchurch Park, Bolton Lane entrance	Roy Gooding	**Public access event:** star party in conjunction with BBC Stargazing Live. (NB: If weather unsuitable, postpone to Thursday 09 January.) Booking not necessary.
Monday 13 January, 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.)

Date and Time	Location	Contact	Event
Tuesday 14 January, 20:00	Orwell Park Observatory	Paul Whiting	Taster evening for people considering joining OASI.
Saturday 18 January, 20:00	Methodist Church Hall	Roy Gooding	AGM
Wednesday 29 January, 19:30 for 19:45 start	Nacton Village Hall	Mike Whybray	Astronomy Workshop, Joe Startin & Matthew Robertson: *The Equation of Time*. What is *the equation of time*? How can you work it out? How can you measure it? What does it say about the Earth's orbit? What would it be on other planets? We'll try to answer these and other questions.
Thursday 30 January, 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.)
Tuesday 04 February, 20:00	Orwell Park Observatory	Gerry Pilling, Paddy O'Sullivan & Dave Robinson	Small Telescopes Observing Night. Main observing targets: Cancer and any lurking comets.
Tuesday 04 February, 20:00	Orwell Park Observatory	Paul Whiting	Taster evening for people considering joining OASI.
Monday 10 February, 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 21 February, 20:00	Methodist Church Hall, Museum St, Ipswich	Pete Richards	**Lecture Meeting:** Greg Smye-Rumsby (Royal Observatory/ Astronomy Now) “Building the Solar System”
Thursday 27 February, 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.)
Saturday 01 March, 20:00-22:00	Christchurch Park, Westerfield Road entrance	Roy Gooding	**Public access event**: star party marking National Astronomy Week 2014. (Will postpone to 08 March if weather unsuitable.) Booking not necessary.

Date and Time	Location	Contact	Event
Tuesday 04 March, 20:00	Orwell Park Observatory	Gerry Pilling, Paddy O'Sullivan & Dave Robinson	Small Telescopes Observing Night. Main observing target: constellation Leo.
Tuesday 04 March, 20:00	Orwell Park Observatory	Paul Whiting	Taster evening for people considering joining OASI.
Monday 10 March, 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.)
Thursday 27 March, 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.)
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.)
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: *Black Swans - Black Holes in the Constellation Cygnus*.
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 necessary.

Society Contact details

Observatory (meeting nights only) 07967 519249
Email queries: info@oasi.org.uk
Facebook.com/orwell astronomical
Twitter: @OASIpswich
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

New Instruments for OASI

We now have a Celestron NexStar 8SE

http://www.celestron.com/astronomy/celestron-nexstar-8se.html

and some new big binoculars – Helios Quantum 4 series 100mm aperture by 25x magnification with a Horizon 8115 field tripod.

DASH Astro – A New Astronomy Society for NE Suffolk

DASH Astro (Darsham And Surrounding Hamlets) is a new society who meet in Darsham, Suffolk. Their web site is http://dash.moonfruit.co.uk/ and they tweet @DarshamAstro

M42 from Walberswick

by David Murton

Orion HDRI combination of 2 images using Picturenaut 3.2

Night Sky in January

Roy Gooding

Moon

New Moon	1st Quarter	Full Moon	Last Quarter
21:39 UTC 30 Jan	03:39 UTC 8 Jan	04:53 UTC 16 Jan	05:19 UTC 24 Jan

Sun and planets

Earth is at perihelion on 4 January at a distance of 0.9833562 AU from the Sun.

Object	Date	Rise	Set	Mag.	Notes
Sun	1	08:03	15:54		
	31	07:37	16:41		
Mercury	1	08:31	15:43	-0.7	Mercury is at greatest eastern elongation on the 31st.
	31	08:19	18:21	-0.5	
Venus	1	08:43	17:22	-4.4	Venus starts the month low down in the western sky. It is at Inferior Conjunction on the 11th and then moves into the early morning sky.
	31	05:34	14:42	-4.5	
Mars	1	00:11	11:44	0.8	Aphelion 3 Jan. Mars is in Virgo and is best place to see this month after midnight.
	31	23:13	10:07	0.3	
Jupiter	1	16:10	08:29	-2.4	Jupiter is at opposition on the 5th . It remains well placed to observer all night.
	31	13:52	06:18	-2.4	
Saturn	1	03:50	13:00	1.2	Saturn is visible on the early morning sky
	31	02:03	11:08	1.1	
Uranus	1	11:29	23:55	5.8	Uranus can be seen in evening sky this month
	31	09:32	22:02	5.9	
Neptune	1	10:30	20:33	7.9	Neptune is too close to the sun to see this month
	31	08:33	18:40	8.0	

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

Meteor Shower

Source: BAA Handbook p98

Shower	Limits	Maximum	ZHR
Quarantids	Jan 1-5	Jan 2/3	80?

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

Lunar Occultations during 2014

By James Appleton

Introduction

During 2014, there are over 700 lunar occultations potentially observable from East Anglia, although many involve faint stars. The tracks of three grazing lunar occultations cross the region during the year, one within 30 km of Orwell Park Observatory and two within 3 km! No lunar occultations of planets occur in 2014 visible from East Anglia.

This article summarises circumstances of the best occultations during the year. It provides details for the location of Orwell Park Observatory; differences will in general be negligible for locations throughout East Anglia.

Occultations of Bright Stars

Table 1 lists occultation events during the year, of stars to magnitude 5.5, where the circumstances are favourable. The events should be readily visible in small telescopes or binoculars. The first two columns of table 1 list the date and time (UT) of the occultation. Column three gives the phenomenon: 'D' denotes a disappearance and 'R' a reappearance. The table lists circumstances of D and/or R as dictated by the visibility of each phenomenon (determined by altitude, lunar phase, etc). Column four details the lunar phase (‘+’ for waxing and ‘’ for waning). Columns five and six give the altitude of the Sun and the star, both in degrees. (A negative solar altitude means that the sun is below the horizon.) Columns seven and eight provide the star’s magnitude and catalogue number.

Date	UT	D/R	Lunar Phase	Sun Alt (°)	Star Alt (°)	Mag	Star
11 Feb	20:10:09	D	0.91+	-29	50	3.6	54 Gem
	20:45:29	R		-34	52		
13 Feb	20:32:19	D	0.99+	-32	38	5.4	60 Cnc
07 Mar	18:30:09	R	0.42+	-8	53	4.3	68 Tau
13 Mar	21:02:48	D	0.92+	-28	45	5.4	2 Leo
04 May	20:22:05	D	0.29+	-8	31	3.6	54 Gem
	20:43:37	R		-11	28		
03 Jun	21:45:57	D	0.32+	-11	15	5.4	2 Leo
	22:45:09	R		-14	6		
15 Jun	00:14:56	D	0.95-	-15	17	3.9	44 Sgr
	01:18:10	R		-13	20		
08 Aug	21:01:14	D	0.95+	-12	19	3.9	44 Sgr
	22:05:50	R		-18	20		
05 Nov	17:06:42	D	0.98+	-8	11	4.3	110 Psc

Table 1. Occultations of stars of magnitude 5.5 or brighter.

Occultation Seasons

The Moon's orbit is defined by a range of periodicities, both short and long term. The short term periodicities cause the Moon's path through the sky to follow a pattern whereby it almost repeats itself every month. The longer term periodicities gradually shift the orbit so that no particular pattern of approximate repetition can last more than a few years. This results in so called "occultation seasons", lasting for months or years, during which particular stars are repeatedly occulted, or repeatedly not occulted. In 2014, the phenomenon is evident through repeated occultations of the stars 54 Gem and 44 Sgr during the year.

Nights with many Occultation Events

During the year, the Moon traverses some rich star fields. When this happens, a large number of occultations can occur during a single evening. Table 2 lists all evenings throughout the year when the Moon occults more than 12 stars. The large numbers of occultations on 03 May and 28 October are associated with star fields in Gemini and Ophiuchus respectively.

Date	**Occ's**	Date	Occ's	Date	Occ's	Date	Occ's
04 Jan	15	05 Jan	27	05 Mar	15	07 Mar	14
03 Apr	15	04 Apr	15	05 Apr	22	06 Apr	14
02 May	15	03 May	46(!)	04 May	26	05 May	13
28 Oct	48 (!)	30 Oct	13	25 Nov	15	26 Nov	16
24 Dec	14	25 Dec	18	26 Dec	22		

Table 2. Evenings with more than 12 occultations.

Grazing Occultations

The tracks of three grazing occultations cross East Anglia during the year. Table 3 summarises the circumstances and figure 1 plots the tracks. Note that the graze tracks of Hip 109637 and 88 Psc pass very close to Orwell Park Observatory.

Weather permitting, the usual band of dedicated OASI occultation observers may organise observing trips to the grazes! Please get in touch if you are interested in participating. Google Earth plots of the tracks are on the OASI web site for those keen to select a good observing site: http://www.oasi.org.uk/Occs/Occs.shtml.

Date	**Time (UT)**	**Lunar Phase**	**Limb**	**Sun Alt (°)**	**Star Alt (°)**	**Track Dist from OPO (km)**	**Mag**	**Star**
13 Jan	00:45	0.91+	S	-58	40	28	4.9	104 Tau
01 Nov	21:41	0.70+	S	-46	23	3	7.1	Hip 109637
29 Dec	17:39	0.61+	N	-15	43	2	6.0	88 Psc

Table 3. Grazing lunar occultations.

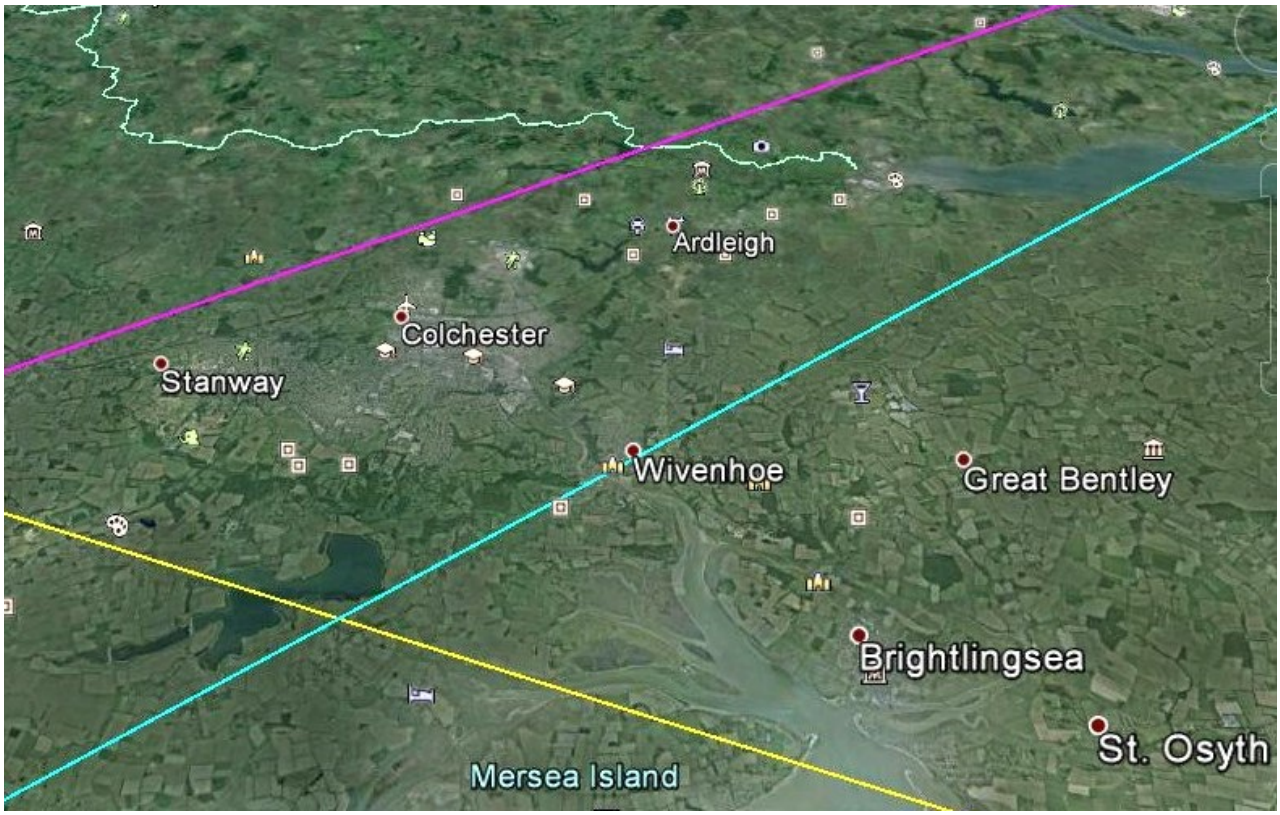

Figure 1. Graze tracks. (104 Tau yellow, Hip 109637 pink, 88 Psc cyan.)

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: http://www.asteroidoccultation.com/2014_03/0307_9_32274.htm

Occultations during January

The table lists lunar occultations which occur during the month under favourable circumstances. The data relate to Orwell Park Observatory [1] but will be similar at nearby locations.

Date	Time (UT)	D/R	Lunar Phase	Sun Alt (°)	Star Alt (°)	Mag	Star
05 Jan	17:27:47	D	0.24+	-13	31	6.6	ZC 3366
06 Jan	19:45:29	D	0.35+	-33	27	6.3	25 Psc
07 Jan	21:18:12	D	0.47+	-47	26	6.0	60 Psc
	21:53:36	R		-51	21		
11 Jan	17:00:53	D	0.83+	-8	36	6.6	ZC 600

1. See also page 14 for an Essex occultation!

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 - OK only on the last night as it was snowing the first few days! Pictures on the back page. 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.

I will be holding a meeting to discuss this trip at the Newbourne Observing Group meeting on Monday 13th January at 8pm. I hope to see you there.

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, you 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 sledging 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

December 2013 Meeting

Cloud & Rain but Mince Pies & Mulled Wine!

Many thanks to all those members who braved the awful weather and made it to our Christmas meeting at Newbourne. We hope the mince pies, mulled wine and the good company made up for the lack of observing.

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

Monday 13th Jan	Thursday 30th Jan
Monday 10th Feb	Thursday 27th Feb
Monday 10th Mar	Thursday 27th Mar
Monday 14th Apr	Thursday 1st May

Small Telescope Observing Nights (STONs)

By Gerry Pilling

Jan 7th	Targets Orion, Gemini	Feb 4th	Target Cancer and any comets lurking
March 4th	Target Leo	April 1st	Targets Saturn, Mars and Sasco

The Speed of Light Project

By Martin Cook

The four Galilean satellites of Jupiter present a fascinating and ever-changing spectacle to the amateur astronomer. They orbit in the equatorial plane of the planet and pass from east to west in front of the parent body and from west to east behind it. There are four phenomena that a Galilean satellite exhibits during an orbit: transit, shadow transit, eclipse and occultation. (In fact, orbital inclinations are such that there are two periods during each sidereal period of Jupiter in which Callisto, the outermost Galilean, appears to pass above or below the planet and its shadow, and does not display these phenomena.)

After conjunction and before opposition, the shadow of Jupiter falls to the west, eclipse precedes occultation, and shadow transit precedes transit. After opposition, the order of phenomena is reversed. Jupiter is at opposition on 05 January 2014.

It is possible to estimate the speed of light from observations of the Galilean satellites. The method was first suggested by the Danish astronomer Ole Rømer (1644-1710). B

A list of Io events can be found at www.oasi.org.uk/Obsvns/JoP/JoP.shtml

I also set a challenge at the workshop to photo/video one of these events.

Essex Occultation

By Alan Smith

The next grazing occultation is nearly upon us ! If you would like to observe this unusual and spectacular event, the society will be organising an 'expedition' to deepest, darkest Essex.

The event is timed to occur at around 00:45 hrs on Monday the 13th January 2014, and can only be observed very close to the 'graze line' shown by following the Google Earth link at: www.oasi.org.uk/Occs/Occ_summary_2014.shtml ... follow the 'track' link shown near the bottom of the page against the event dated 13 Jan 2014. I have already surveyed a number of sites that should prove suitable to set up telescopes (and negotiated access where necessary). An OS map is attached showing 4 such sites. If we can get enough people to attend, we will set up at the site ringed around an old airfield close to the centre of the map. The site will be difficult to find so you will need either a competent 'co-pilot/navigator' or a sat nav that can be programmed to navigate to Lat/Long co-ordinates. The co-ordinates for the site (this works on my Tom-Tom) are: 51.845285N 0.786225E, or 51° 50' 43" N, 0° 47' 10" E. This is not far from Abberton Reservoir. You will need to be onsite and ready to observe by close to midnight, and we will be ready to depart the site for home by about 0100hrs.

In order to be able to see the event you will need a telescope capable of holding a magnification of around 75 or more. If you would like to time the event, some sort of time recorder would be nice ! I use an MP3 recorder (most smart phones have one of these) with manual timing 'marks' entered by speaking, with a reference time obtained from an MSF clock (there will be plenty of these available on the night). There is no need to time the event if you don't wish to....it's a great spectacle just to watch !

It would be REALLY nice (and a society first) to try and image the event. So, come on all you guys that have been getting such good pictures lately, give it a go !

The more people we can get, the better the chance of a good observation, so if you want to have a go (it's a really easy, and rare thing to see) let me know. There will be a general discussion at the observatory next Wednesday (8/1/14). Once I have a list of interested parties, I'll send out details of the 'Go/No go' conference call, with meeting up times etc.

Winter Lecture

Greg Smye-Rumsby
(Royal Observatory & Astronomy Now)

Building the Solar System

8pm Friday 21st February 2014

The Methodist Halls,
Black Horse Lane, Ipswich

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

Aurora December 2013

Paul Whiting FRAS

Some aurora piccies taken by my own fair (yet absolutely frozen at the time!) hands.

For the photo nerds, I was using a Nikon D3200, 5s at F3.5. They would be even better if I had focussed properly – I blame the cold hands !

Taken from just North of Tromsø, latitude 70° N.

Aurora over Leo

Aurora over Orion