No. 502 Registered Charity 271313 November 2014

OASI News

The newsletter of the Orwell Astronomical Society

M45 Pleiades

Photo by David Murton

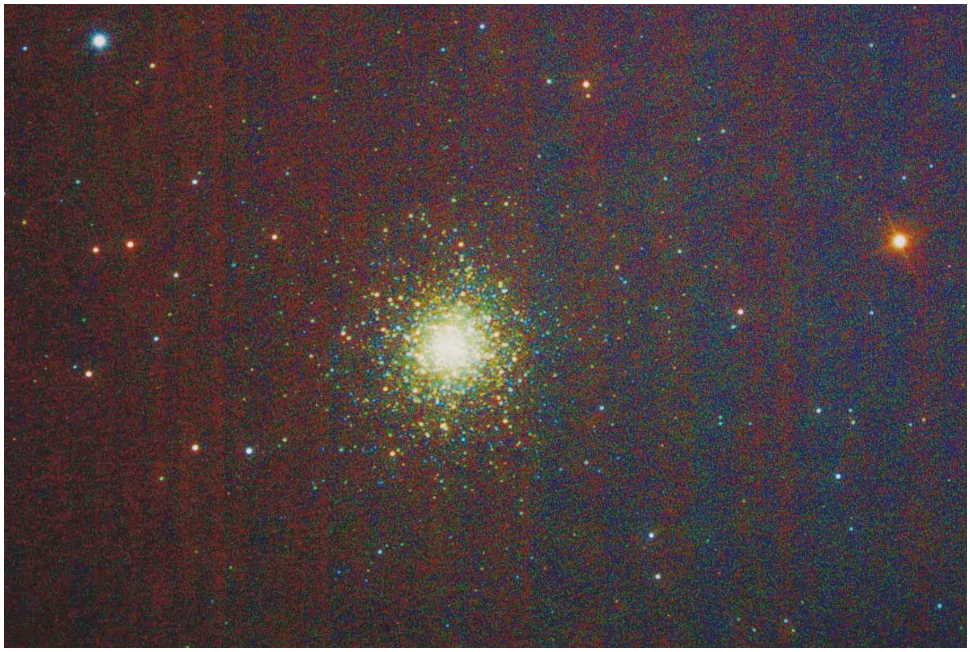
Trustees: **Mr Roy Adams** **Mr David Brown** **Mr David Payne**

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

M13

by David Murton

6 x 240 seconds iso 800
+ 5 x dark frames



Star Party at Bentley

Photos by Mike Nichols

Setting up

See also page 15

Contents

M13 2
Star Party at Bentley 2
Society Contact details 4
Access into the School Grounds and Observatory Tower 4
Access code 4
Articles for OASI News 4
The Newsletter 4
Reproducing articles from OASI News 4
Newsletter archive on DVD 5
Committee 2014 5
Society Notices 5
Committee Meeting Tuesday 9 December 5
Welcome to New Members 5
Contacts 5
Society Events Diary 6
Google Calendar 6
Diary list 6
The Christmas Meal 8
Newbourne Observing Group 8
Small Telescope Observing Nights (STONs) 8
Outreach Meetings 9
Open Weekend 2014 9
Provisional dates for 2015 10
Workshops 10
Lecture Meetings 10
The Night Sky in November 11
Moon 11
Sun and planets 11
Meteor Showers 11
Visible ISS passes ≥15° max altitude 12
Occultations during November 13
Paul's Astronomy Podcast for November 13
Square of Pegasus Survey 13
Partial Solar Eclipse 2015 13
Some Astronomy Guides 14
Observations of Grazing Lunar Occultations 14
The Star Party at Bentley 15
Amnesty Astronomical 15
Photo Gallery 16

Click the page number to take you there. Click the filename in the page footer to return to Contents.

Have you booked for the Christmas meal yet? - See page 8

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 send material for the OASI web site and newsletter

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

news@oasi.org.uk

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.

Access into the School Grounds and Observatory Tower

Please use the third gate into the school grounds. 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 key to the toilets in the school gym is located in the seating area in the Belvedere room.

Access code

The gate access code has changed. Please contact the Membership Secretary to obtain the new code.

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, rtfd, 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.

The Newsletter

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 now available from the OASI web site.**

Authors, please note that your articles will now be publicly available worldwide!

Reproducing articles from OASI News

If you plan to reproduce an article exactly as per OASI News then please contact the Editor – otherwise, as a matter of courtesy, please seek permission from and credit the original source/ author.

You may not reproduce articles for profit or other commercial purpose.

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. 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 what format your require – DVD or your own 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

Society Notices

Committee Meeting Tuesday 9 December

Venue TBA Time: 20:00 to 22:00

This meeting is open to any member who wishes to come along

Welcome to New Members

Anne Keen Chris Bailey (rejoined)

Contacts

A printed list of Committee and other activity contacts is available from the Secretary or the Observatory. Email links are available in the pdf version of this newsletter.

For general enquiries please email info@oasi.org.uk and your enquiry will be forwarded for action.

Society Events Diary

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

Google Calendar

There's a Google Calendar on the OASI web site with the latest dates (and corrections!). If you want to easily add OASI Events to your own computer/ phone/tablet calendar application click this button on the website Events page

For other astronomy news and astro pictures try our

Twitter feed https://twitter.com/OASIpswich
Facebook page https://www.facebook.com/pages/Orwell-Astronomical/158256464287623
Discussion Forum http://forum.oasi.org.uk/index.php
Subscribe to the OASI Yahoo group by emailing oasi-subscribe@yahoogroups.com

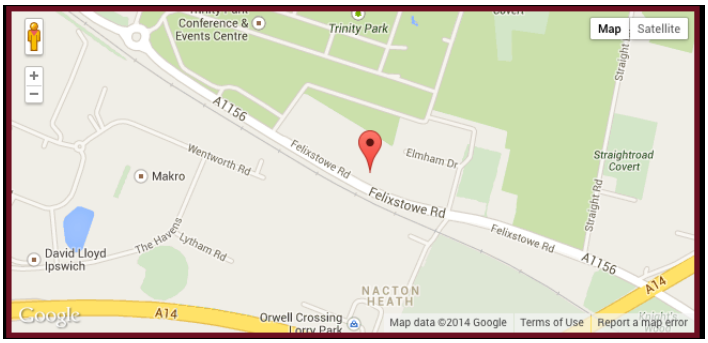
Diary list

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.
31 Oct - 01 Nov 19:30 - 22:00	Orwell Park Observatory	Roy Gooding	**Observatory Open Days** **See page 9**
Saturday 01 November Time TBA	TBA	James Appleton	Field trip to observe grazing lunar occultation of the magnitude 7.1 star Hip 109637.
Tuesday 4 November	Orwell Park Observatory	Paul Whiting, FRAS	**Public access event.** Observatory tour. **Places must be booked.** Further info and book a place.
Monday 10 November 19:00	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group.
Tuesday 18 Nov 20:00	Orwell Park Observatory	Gerry Pilling	Small Telescope Observing Night
Friday 21 November 2014, 20:00	Methodist Church Hall, Black Horse Lane, Ipswich	Peter Richards	**Lecture Meeting.** Alan McGuire - Using the Sloan Digital Sky Survey to Study Quasars and the Early Universe.
Monday 24 November 19:00	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group.
Saturday 29 November 19:00 to 20:00	Bentley Playing field	Roy Gooding	Bentley Village Star Party Option 2
Tuesday 2 December	Orwell Park Observatory	Paul Whiting, FRAS	**Public access event.** Observatory tour. **Places must be booked.** Further info and book a place.

Date and Time	Location	Contact	Event
Monday 8 Dec 19:00	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group.
Wednesday 10 Dec	Nacton Village Hall	Mike Whybray	Workshop: James Appleton: Rømer Revisited Reprised
Tuesday 16 Dec 20:00	Orwell Park Observatory	Gerry Pilling	Small Telescope Observing Night
Wednesday 17 Dec 20:00	Shepherd & Dog, Nacton	Roy Gooding	Christmas meal.
Monday 22 Dec 19:00	Newbourne Village Hall	Mike Norris Mike O'Mahony	Newbourne Observing Group. Christmas Meeting and Astro ~~Junk Sale~~ Bring & Buy
Monday 29 Dec Time TBD	TBA	James Appleton	Field trip to observe grazing lunar occultation of the magnitude 6.6 star 88 Psc.
2015			
Saturday 17 Jan 2015	Bentley	Roy Gooding	Bentley Star Party TBC
Tuesday 20 Jan 2015 20:00	Orwell Park Observatory	Gerry Pilling	Small Telescope Observing Night
Saturday 24 January	Methodist Church Hall, Black Horse Lane, Ipswich	Roy Gooding	The AGM
Wednesday 11 Feb	North Norway	Paul Whiting, FRAS	OASI aurora observing field trip to northern Norway, 11-16 February 2015. Further details on web site and p15
Tuesday 17 February 20:00	Orwell Park Observatory	Gerry Pilling	Small Telescope Observing Night
Tuesday 17 March 20:00	Orwell Park Observatory	Gerry Pilling	Small Telescope Observing Night
Friday 20 March 08:00	TBA	Roy Gooding	**Public access event:** Partial Eclipse viewing (maximum eclipse at 9.47 am)
Tuesday 07 April 20:00	Orwell Park Observatory	Gerry Pilling	Small Telescope Observing Night
16/17 May or 23/24 if cloudy	Christchurch Park	Roy Gooding	Solar Observing event

The Christmas Meal

Wednesday 17 December 8pm at the Shepherd & Dog, Nacton



Starter

Prawn cocktail

Pork, chicken liver and real ale pâté

Homemade brocolli and Leicestershire Stilton soup

Breaded Camembert

Mains

The Great British Carvery:

Norfolk Turkey, Saxon Beef, Shoulder of Lamb and Gammon, with all the trimmings

www.greatbritishcarvery.co.uk/our-pubs/shepherd-dog

Pan-fried salmon fillet

Root vegetable, apricot and nut bake

Puddings

Belgian chocolate and hazelnut choux buns

Traditional Christmas pudding

Apple and almond strudel tart

Baked vanilla cheesecake

Please let Roy Gooding know if you will be attending and your choice of menu.

Deposit: £5 Full cost £ 16.95

As many members hold a Diamond Club card, the final cost may be less than £16.95

I will start my usual booking spreadsheet and bring it along on Wednesdays.

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) is 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 strengths and weaknesses of particular models. If you've already splashed the cash, bring your new scope along to use or for advice on setting-up and adjustment.

November Meetings are on Monday 10th & 24th November from 7pm.
All welcome, with or without telescopes.

David Murton, OASI Chairman

Small Telescope Observing Nights (STONs)

Contact: Gerry Pilling

These take place at Orwell Park Observatory.

Nov 18 2014	Jan 20 2015
Dec 16 2014	Feb 17 2015
	March 17 2015 (St Paddy's Day!)
	Apr 7 2015

Outreach Meetings

Contact: Roy Gooding

No more Outreach meetings have been arranged for this year

Open Weekend 2014

The Observatory Open Weekend this year will be **Friday 31 October and Saturday 1st 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 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

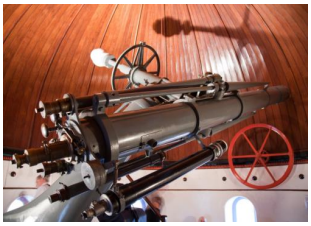
If you are only available to help for a short time your presence will still be appreciated.

OASI

Orwell Astronomical Society (Ipswich)

Charity Registered in England. No 271313.

OPEN EVENINGS AT ORWELL PARK OBSERVATORY, NACTON

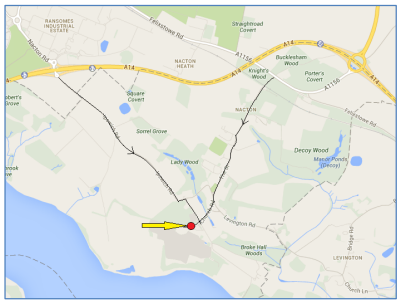


31st October/1st November 7.30-10.00pm

Adults £3
Child/Concessions £1.50

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 (above right). 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.



New to astronomy?

Our Newbourne observing evenings are for you! Meetings take place at Newbourne village hall, usually on the 2nd & 4th Monday of the month (check the OASI website to confirm) 7pm to 11pm. If you are interested in Astronomy please feel free to come along and meet us. Bring your equipment. If the sky is clear we will be observing, If not there will be talks on astronomical topics. Always help at hand.

http://www.newbourne.org.uk/village_hall.htm

The Newbourne Village Hall, Mill Lane Newbourne, IP12 4NP

Provisional dates for 2015

Christchurch Park Star Party

Option 1: Saturday 31st January

Option 2: Saturday 28th February

Astronomy in the Park

Option 1: Saturday / Sunday 16/17 May

Option 2: Saturday / Sunday 23rd / 24th May

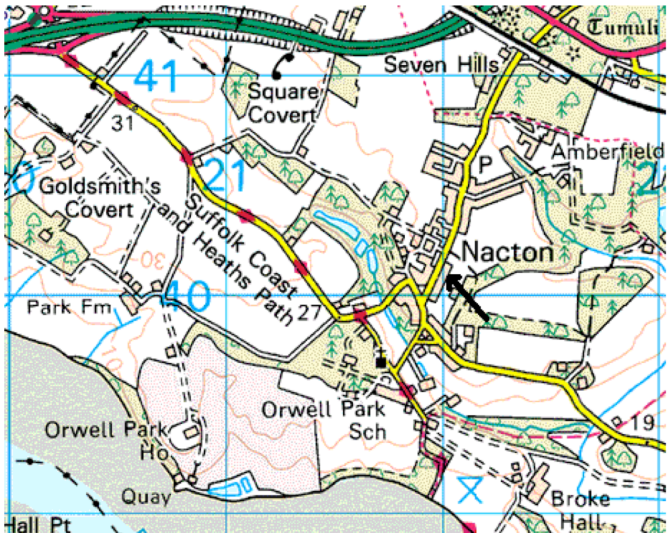
Workshops

Nacton Village Hall IP10 0EU
Contact Mike Whybray

Doors open at 7:30pm.

Workshop starts at 7:45pm

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



Nacton Village Hall is next to the small village school, just below and left of the N in Nacton on the map. 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!

Do you have a subject you could workshop? Give Mike Whybray a call! workshops@oasi.org.uk

10 December **James Appleton: Rømer Revisited Reprised**

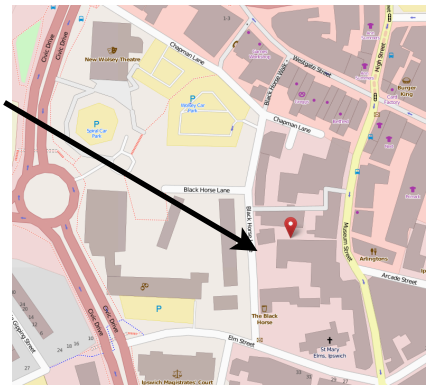
The fourth workshop describing OASI's efforts to estimate the speed of light! For over 2 years, members of OASI and others have observed eclipses of the Galilean satellites of Jupiter. James will provide an update on work to follow the approach of Ole Rømer (1644–1710) to use the observations to estimate the speed of light. A theoretical investigation identifies the factors that limit the accuracy of the method. Finally, Rømer's own observations are re-analysed from a modern perspective. The project was featured as part of NAW 2014.

28th Jan 2015 **Neil Norman: A Comets Tale**

A brief talk on the subject of comets from earliest observations to the Rosetta mission to comet 67P. Neil runs Comet Watch, a Facebook group for observing, measuring and sharing information about comets past, present and future, with world class imagers posting pictures.

Lecture Meetings

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



8pm Friday 21st November

Alan McGuire

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

The Night Sky in November

Martin RH

Moon

Source: http://heavens-above.com/moon.aspx

1st Quarter	Full Moon	Last Quarter	New Moon
29 November 10:06	06 November 22:23	14 November 15:16	22 November 12:32

Times are UTC at Orwell Park Observatory.

Sun and planets

Source: http://heavens-above.com/PlanetSummary.aspx

Object	Date	Rise	Set	Mag.	Notes
Sun	1	06:50	16:27		
	30	07:39	15:48		
Mercury	1	05:00	15:59	-0.4	Mercury reaches maximum western elongation on 01 Nov.
	30	07:21	15:26	-0.6	
Venus	1	07:01	16:30	-3.7	Venus is still a prominent object low down in the early morning sky.
	30	08:34	16:09		
Mars	1	11:57	19:05	1.0	Mars is in Sagittarius
	30	11:19	19:06	1.1	
Jupiter	1	23:20	14:06	-1.9	Jupiter is in Leo and visible in the early morning sky.
	30	21:37	12:16	-2.1	
Saturn	1	08:11	17:08	1.3	Saturn is visible in the western sky for a short time after sunset
	30	10.59	06:36		
Uranus	1	15:38	04:28	5.7	Uranus is in Pisces, and will be visible in the evening sky
	30	13:43	02:29		
Neptune	1	14:34	00:46	7.9	Neptune remains in Aquarius
	30	12:40	22:48		

Meteor Showers

Source: BAA Handbook 2014 p95-7

Shower	Limits	Maximum	ZHR	Notes
Taurids	Oct 20 - Nov 30	Nov 5 Nov 12	10	Slow metoers. Double radiant. Unfavourable.
Leonids	Nov 15 - 20	Nov 18	20?	Very fast meteors, many with persistent trains. Favourable

Visible ISS passes ≥15º max altitude

Martin RH

Source: http://heavens-above.com/PassSummary.aspx?satid=25544

Date	Mag.	Start			Highest point			End		
		Time	Alt.	Az.	Time	Alt.	Az.	Time	Alt.	Az.
11 Nov	-1.0	05:51:46	10°	SSW	05:54:33	25°	SSE	05:57:20	10°	E
12 Nov	-0.6	05:02:54	10°	S	05:05:10	17°	SE	05:07:27	10°	E
13 Nov	-2.2	05:48:40	10°	SW	05:51:51	43°	SSE	05:55:02	10°	E
14 Nov	-1.7	05:01:23	26°	S	05:02:20	31°	SSE	05:05:20	10°	E
14 Nov	-3.1	06:35:26	10°	WSW	06:38:46	78°	S	06:42:06	10°	E
15 Nov	-0.6	04:14:03	18°	ESE	04:14:03	18°	ESE	04:15:30	10°	E
15 Nov	-3.0	05:46:54	19°	WSW	05:49:08	66°	SSE	05:52:27	10°	E
16 Nov	-2.8	04:59:26	52°	SSE	04:59:31	52°	SSE	05:02:46	10°	E
16 Nov	-3.2	06:32:45	10°	W	06:36:06	87°	S	06:39:26	10°	E
17 Nov	-0.5	04:11:53	19°	E	04:11:53	19°	E	04:13:02	10°	E
17 Nov	-3.3	05:44:42	27°	W	05:46:24	84°	S	05:49:44	10°	E
18 Nov	-2.9	04:57:04	64°	ESE	04:57:04	64°	ESE	05:00:01	10°	E
18 Nov	-3.2	06:29:59	10°	W	06:33:19	78°	S	06:36:39	10°	ESE
19 Nov	-0.3	04:09:22	17°	E	04:09:22	17°	E	04:10:16	10°	E
19 Nov	-3.3	05:42:12	33°	W	05:43:34	85°	S	05:46:54	10°	E
20 Nov	-2.6	04:54:27	55°	E	04:54:27	55°	E	04:57:08	10°	E
20 Nov	-2.9	06:27:16	11°	W	06:30:23	57°	SSW	06:33:39	10°	ESE
21 Nov	-0.1	04:06:41	15°	E	04:06:41	15°	E	04:07:19	10°	E
21 Nov	-3.2	05:39:29	38°	W	05:40:37	71°	SSW	05:43:56	10°	ESE
22 Nov	-2.2	04:51:42	45°	ESE	04:51:42	45°	ESE	04:54:08	10°	E
22 Nov	-2.2	06:24:31	12°	W	06:27:15	35°	SSW	06:30:18	10°	SE
23 Nov	-2.8	05:36:42	38°	WSW	05:37:29	47°	SSW	05:40:41	10°	SE
24 Nov	-1.7	04:48:54	33°	SE	04:48:54	33°	SE	04:50:56	10°	ESE
24 Nov	-1.4	06:21:43	12°	W	06:23:53	20°	SW	06:26:22	10°	SSE
25 Nov	-2.1	05:33:56	28°	SW	05:34:08	28°	SSW	05:37:02	10°	SSE
26 Nov	-1.0	04:46:10	20°	SSE	04:46:10	20°	SSE	04:47:26	10°	SE
27 Nov	-1.0	05:31:15	15°	SSW	05:31:15	15°	SSW	05:32:36	10°	S

There's an app for that: Try ISS Spotter for iPad/iPhone, which alerts you to impending passes of the ISS. For Android-based phones/tablets there's ISS Detector.

If you use Twitter @twisst or @ISS_spotter will send you a tweet when the international space station (ISS) will be visible at your location.

Occultations during November

James Appleton

The table lists lunar occultations which occur during the month under favourable circumstances.

The data relates 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
01 Nov	19:26:38	D	0.69+	-28	30	7.0	36 Aqr
02 Nov	17:54:46	D	0.79+	-14	27	7.5	Hip 113718
05 Nov	17:06:42	D	0.98+	-8	11	4.3	110 Psc
25 Nov	17:19:05	D	0.12+	-13	11	6.4	ZC 2764
27 Nov	19:23:46	D	0.31+	-32	15	6.6	8 Aqr
28 Nov	17:31:08	D	0.42+	-15	29	7.2	Hip 107974

On 01 November, the graze track of the magnitude 7.1 star Hip 109637 passes within 3 km of Orwell Park observatory at 21:41 UT. Further details are on page 14 and can also be found on the OASI website: www.oasi.org.uk/Occs/Occs.shtml.

James Appleton

Paul's Astronomy Podcast for November

Paul Whiting FRAS

Podcast, November 2014 www.oasi.org.uk/2014_11_pod.mp3

Square of Pegasus Survey

Please continue to send in your reports to Paul Whiting.

Partial Solar Eclipse 2015

Bill Barton FRAS

Here are the local circumstances for the partial solar eclipse of March 20, 2015. These days NASA presents this data on a 'Google Map' that you can zoom in on and clip to get the data. Below is for the Waterfront in Ipswich (as mentioned at our last Committee Meeting). The clocks will change on Sunday March 29th next year so the times shown need no adjustment.

Lat.: 52.053° N

Long.: 1.1608° E Partial Solar Eclipse

Magnitude: 0.867

Obscuration: 84.28%

Event	Date	Time (UT)	Alt	Azi
Start of partial eclipse (C1)	2015/03/20	08:26:41.1	21.0°	119.9°
Maximum eclipse	2015/03/20	09:33:03.9	29.0°	135.9°
End of partial eclipse (C4)	2015/03/20	10:43:15.3	35.1°	155.4°

Some Astronomy Guides

The One Minute Astronomer	oneminuteastronomer.com/
Astronomy Know How	www.astronomyknowhow.com
Stargazers lounge	stargazerslounge.com/
Society for Popular Astronomy	www.popastro.com/index.php
UK Astronomy Directory	www.uk-astronomy.co.uk/directory/
Meteor Watch	www.meteorwatch.org/
S.P.A.M. Meteor Detection Group	http://www.merriott-astro.co.uk/About.htm
Heavens Above (satellites, astronomy & time data)	heavens-above.com/
Your Sky	www.fourmilab.ch/yoursky/
Metcheck forecast	uk.metcheck.com
Weatherweb	www.weatherweb.net
Astronomy weather forecast	clearoutside.com/forecast/52.06/1.15
Lightning	www.lightningmaps.org/realtime?lang=en
ISS	www.isstracker.com/
Paul's Podcast	www.oasi.org.uk/2014_11_pod.mp3

Observations of Grazing Lunar Occultations

By Alan Smith and James Appleton

The second of this years grazing occultations will occur at about 2130 UT on 1/11/14. The track is conveniently placed close to Ipswich, the altitude of the moon is favorable, the time of the event is OK and it is a 'south limb' apparition which usually gives a more spectacular view. On this occasion, the star is actually a double with the primary component being at 7.1mag and the secondary sitting at 10.2mag. This could make for an even more interesting observation.

On the down side, the 1st of Nov. is also the second of our open nights at the observatory, and there will be a number of commercial firework displays to celebrate 'Guy Fawkes' night.

A brief explanation, by James Appleton, of a grazing occultation follows:

> A lunar occultation occurs when the Moon appears to pass in front of a star, hiding it from view. If the moon appears to pass centrally in front of the star, it can obscure the star for more than an hour. However, generally the moon's path will be such that the centre of the visible disk passes to the north or south of the star, in which case the star is obscured for a shorter period. In the limit, the north or south polar limb of the moon briefly obscures the star – this case is termed a grazing lunar occultation, or simply a graze.
>
> During a graze, mountains and valleys on the lunar limb can appear to pass in front of the star, alternately obscuring and revealing it. When this happens, the star can appear to flash on and off. For a graze of any given star, such an effect is visible only along a path across the Earth's surface at most few kilometres wide: this path is referred to as the graze track. Generally, a south polar graze is more spectacular to observe than a north polar graze because the moon's south limb is the more rugged of the two.
>
> The lunar limb profile is not known with great accuracy. In 1963, the American astronomer C B Watts published a 951 page book entitled "The Marginal Zone of the Moon" which detailed the elevation of the lunar limb above or below its mean level all around its circumference, for nearly all libration angles. Watt's monumental tome was based on 475,000 measurements made during a period of 20 years of 700 photographs of the moon. Although Watts' estimates are of variable accuracy and omit some libration angles, to date they are the only available source of limb profile data. In recent years there has been interest in revising and correcting Watts' work, but to date no organisation has been prepared to invest the necessary resources to undertake the work.

An observation of a graze establishes a relationship between several quantities: the location of the observer, the position of the moon, the position of the star and the topography of the lunar limb. The lunar limb topography is by far the least well known of the four quantities, and observations of a graze, when appropriately analysed, can reveal corrections needed to Watts' limb profile data.

A team of observers from OASI (the usual suspects) will attempt to observe this event. If you would like to join us, please be aware that you will need a 'reasonable' telescope capable of handling a fairly high power (*100 ?) magnification. The graze track can be seen on the OASI web site (http://www.oasi.org.uk/Occs/Occ_summary_2014.shtml) and you will notice that it passes very close to Ipswich and surrounding villages. We are going to observe from a site between Tunstall and Snape. It is just off the B1069 on the 'Tunstall road' (which goes to Iken church), at a Forestry Commision picnic site (the Google Earth coordinates are: 52° 09' 02.57" N, 1° 28' 41.92" E). We would aim to meet at about 2030 hrs at the site. This gives us time to set up telescopes and 'get our eye in'.

If you would like to join us, please contact me to get further details of the 'pre-event' conference call and any other details you might need.

Alan Smith

The Star Party at Bentley

David Murton

Keeping warm around Roy's red light (photo by Mike Nichols)

Thanks to all of who came along on Saturday 4 October. It was a great evening with a lot of interest from the village. We could have done with a few more scopes to deal with the numbers of people!

The site is excellent with good horizons and less light pollution than anywhere else we have tried around Ipswich and all present agreed we should use it again. The locals are also keen for us to use the site.

We propose to hold another evening there fairly soon this time coinciding with a new moon. Following that we will decide whether to schedule regular evenings.

This site holds great promise for OASI. The villagers are keen for us to use it, it appears to offer darker skies than Nacton or Newbourne – and it's close to Ipswich. Please come and check it out when we get something organised.

Amnesty Astronomical

Have you borrowed anything from the Observatory? Did you return it, or is it still at home on a shelf or in a drawer? There will be a list of missing items in next month's OASI News to jog your memory.

If you wish to borrow eyepieces, etc., on a short term basis, there is a loan book. Please enter your name, a description of the item borrowed and the date you borrowed it. We know where you live...

Photo Gallery

Photo by David Murton

View from the observatory across the River Orwell towards the Butt & Oyster (centre) and the Manningtree radio mast (right)

M31 17x 240 seconds + 4x darks + 8x flats, photo by David Murton