



The Newsletter



of the

Orwell Astronomical Society (Ipswich)

2012
JULY

Registered charity no. 271313

www.oasi.org.uk

No 476



Mobile phone camera view of 'Sun Pillar'.

A sun pillar is a vertical shaft of light extending upward or downward from the sun. Typically seen during sunrise or sunset, sun pillars form when sunlight is reflected from the surfaces of falling ice crystals associated with thin, high-level clouds (e.g. cirrostratos). The hexagonal plate-like ice crystals fall with a horizontal orientation, gently rocking from side to side as they fall.

Taken at Brakenbury fort, Felixstowe at 0448hrs, 0449hrs, and 0450hrs, 27th May 2012 whilst checking locations to observe the Venus Transit.

So, the transit wasn't a total failure ! Alan Smith

Society News (Roy Gooding)

1 Committee Meeting Saturday 21st July

Any members who are interested are invited to attend this meeting.
Start time 20:00 Venue: Methodist Church Hall.

2 Access into the School Grounds and Observatory Tower

The code for the car park gate, is on the back of your membership card.

Please use the third gate into the school grounds, this is the gate behind the Gym. If the Black door entrance at the base of the observatory tower is locked, you will have to phone someone in the observatory to let you in. My mobile number is [REDACTED]. (Roy Gooding) alternatively the Observatory mobile is [REDACTED] during meeting hours.

3 Welcome to New Members

Mr Brian Thompson

4 Events Programme for 2012

This provisional event list will be updated through out the year

Event	Venue	Date
Yoxford Star Party	NEAS are holding a star party in the Yoxford area and have requested a visit to the observatory	Date & details TBC
BAA Summer Garden Meeting	Hurst Community Centre Bexley Kent	7 th July
The Autumn Equinox Sky Camp www.starparty.org.uk/	Kelling Heath Kelling Norfolk	Extended event 10 - 21 September Main Event Weekend 14 - 16 September
Lecture meeting Nick Hewitt "Barnard, Gordon and the Darkness". It's about Dark Nebulae.	Methodist Church Halls, Blackhorse Lane	12 th October

Open Weekend Option 1	Orwell Park Observatory	27 th & 28 th October
FAS convention	Cambridge Institute Astronomy	Saturday 6 th October
Open Weekend Option 2	Orwell Park Observatory	17 th & 18 th November
Christmas Meal	TBA	5 th or 12 th December?

5 Other Observational Events 2012

Meeting	Venue	Date
Jupiter occultation	North Norfolk coast	15 th July
Perseids provisional meeting	Behind the refreshment hut at "The Dip" Felixstowe	11 th August
Geminids provisional meeting	Behind the refreshment hut at "The Dip" Felixstowe	15 th December

6 Observational Out Reach Meetings 2012

Star Party in Chantry Park

This event has been rescheduled for Saturday 22nd September.

7 OASI Email Distribution List

The society runs an email distribution list, for various communications between members. If you would like to be included on to this list, please sent an email to Pete Richards

Sent your email address to [REDACTED]

8 BAA Summer Garden Meeting Saturday 7th July

If sufficient number of members are interested in attending this meeting. An excursion may be arranged.

Night Sky (July)

Moon

Full Moon	3 rd Quarter	New Moon	1 st Quarter
3 rd	11 th	19 th	26 th

Object	Date			Mag	Notes
		Rise	Set		
Sun	1	03:40	20:19		
	31	04:16	19:47		
Mercury	1	05:59	21:36	0.7	Greatest eastern elongation on 1 st July Mercury will be low down in the north western twilight sky this month.
	31	04:20	18:59		
Venus	1	02:04	17:21	-4.2	Venus is visible in the morning sky.
	31	01:02	16:42		
Mars	1	11:05	23:19	0.7	Mars has moved into Virgo.
	31	10:44	21:45		
Jupiter	1	01:30	17:23	-1.9	Jupiter is visible in the morning sky this month.
	31	23:46	15:56		
Saturn	1	13:13	00:16	0.8	Saturn will be visible for a few hours, after sunset. It is in Virgo, close to Spica
	31	11:22	23:46		
Uranus	1	23:28	12:06	5.9	Uranus is near to the borders of Pisces and Cetus
	31	21:31	10:07		
Neptune	1	22:28	08:43	7.9	Neptune is in Aquarius
	31	20:29	06:42		

Meteor Showers

Shower	Limits	Maximum	ZHR
α Cygnids	July to August	July 20 th & August 20 th	5
Capricornids	July to August	July 8 th July 15 th July 25 th	5
δ Aquarids	July 15 th to August 20 th	July 28 th & August 6 th	20 10

Meteor source is the BAA Handbook

OCCULTATIONS DURING JULY

On 15 July, the high point of the occultation year occurs, when the grazing lunar occultation tracks of Jupiter and its Galilean satellites cross East Anglia. The circumstances are not particularly favourable: the events occur soon after 02:00 UT, shortly before dawn, at an altitude of only 10° ; the tracks pass across North Norfolk, and do not come close to Orwell Park; and the Sun is only 14° below the horizon. However, grazes of Jupiter and the Galileans are rare and the event of 15 July, even though circumstances are far from ideal, will generate much interest. The graze track of Jupiter is approximately 68 km wide and this offers the prospect of finding a location from which to observe a graze of either Io or Europa followed a few minutes later by a graze of Jupiter.

Further details and a map of the graze tracks across East Anglia may be found in the January 2012 *Newsletter*.

Weather permitting, an observing trip will be organised to observe the event. Please contact me if you are interested in participating in an observing trip.

James Appleton

Updated Biography of John Isaac Plummer



John Isaac Plummer (1845-1925) was Colonel Tomline's professional astronomer at Orwell Park Observatory, being employed there from 1874 to 1890. Prior to employment at Orwell Park, he worked successively at Cambridge, Greenwich, Glasgow and Durham Observatories and after leaving Orwell Park, he worked for the remainder of his professional career at Hong Kong Observatory.

Several members of OASI have researched Plummer's life and work. I've drawn together the threads of historical research into a biography, and have recently completed a major revision to incorporate new material covering his move to Glasgow, his time at Hong Kong, contemporary reports in local newspapers, previously unknown publications and many updates and corrections to the text in general. The biography may be downloaded from the OASI website http://www.oasi.org.uk/Hist_Obs/JIP/JIP.htm.

James Appleton

Old Orwellian Day at Orwell Park - Saturday 16 June 2012

OASI Chairman Neil Morley, together with Paul Whiting, Bill Barton and I were fortunate enough to attend the annual Old Orwellian (OO) Day 2012.

Although the weather (*very* strong winds) prevented us from opening the dome, a dozen or so OOs made their way to see how the Observatory had changed since their time (not much!), and have a general reminisce regarding the old days.

A few snippets of information that may interest the historians amongst OASI members are:-

- Tomline's office was allegedly adjacent to the foot of the Observatory.
- During a conversation speculating upon where Tomline used to moor his steam yacht *Gazelle* the 364 days a year that it was not in use, it was determined that the most likely place was the oyster beds he had created at Nacton Quay, as there was a stone jetty and dock there also.
- During the Second World War the pupils of Orwell Park were relocated to Shropshire to continue their studies. (This begs the question of a Shropshire link as Tomline was, of course, MP for Shrewsbury.)
- In January 1951 the School instigated an Astronomy Club and used the Observatory on a regular basis. These visits were conducted by Mr Noel Wilkinson, who was a classicist, with help from Mr Hancock of Nacton. Hancock generally used to operate the telescope whilst Wilkinson would breathe life into the heavens by relating the Greek myths and legends behind the constellations.
- The widow of Mr Noel Wilkinson (the second head teacher at OPS following its move to Nacton) is still alive and living in Sudbury, and Wilkinson's great niece is currently a staff member at OPS.
- Ex Head, Mr Ian Angus, now lives in Levington.
- Although the school operated a very strict lights-out policy, the children were urged to watch the 1969 Moon landing live on television!
- The Belvedere was used to store the boarding children's empty suitcases and trunks during term time during the 1960s and 1970s (and possibly earlier).

Many thanks to Head teacher Adrian Brown for inviting OASI along to the OO Day and also for providing us with a much need lunch and refreshments. We departed at 5 pm which was a shock to me, as I had estimated the time as being between 3 and 4 pm; but that is indicative of how interesting and friendly the conversations and atmosphere were.

£

by Tina Hammond

OASI SUMMER



Barbecue and Picnic

2012



Saturday 30th June

Newbourne Village Hall

The event is open to all OASI members and their friends and families.

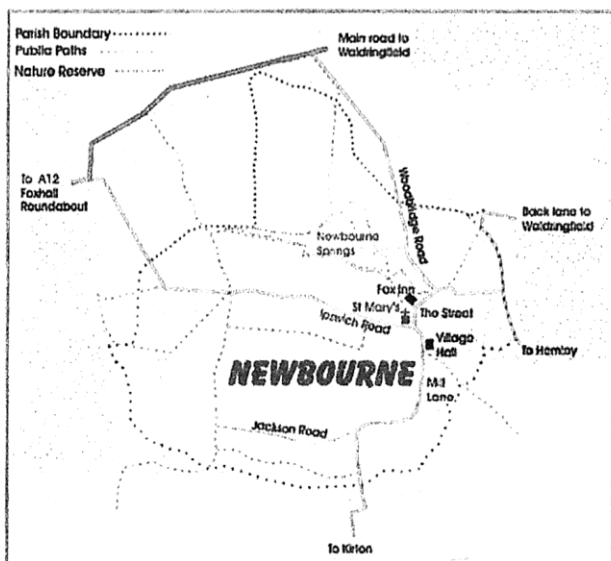
Entry is free.

Setting up time will be shortly after midday and the finish time late in the evening. The event is very informal so feel free to come along at any time even if you can only stay for a short time. The barbecue will be ready for use from about 3pm.

If you plan to eat please bring food to barbecue - and/or picnic food - and drink.

Feel free to bring picnic/garden chairs.

The venue has an excellent playing field so feel free to bring along equipment for outdoor games and if the sky is clear members and OASI solar telescopes will be available.



In case of bad weather bring party/picnic food only and the event will be held inside the hall.

Newbourne Village Hall
is in Mill Road,
Newbourne, Suffolk

Satnav info: Venue
Postcode IP12 4NP

06 JUNE 2012: *THE HAPPY-SAD BALANCE IS RESTORED*

The second and final transit of Venus of the 21st Century took place on Wednesday 06 June 2012. The transit began shortly after 22:00 UT on the previous day and fourth contact, from Ipswich, was forecast for 04:54:54 UT. Sunrise was at 03:38 UT, therefore, weather permitting, the final hour and a quarter or so of the event would be visible from East Anglia.

Preparations for the 2012 transit began some weeks in advance of the event. There was a ready consensus among prospective observers to use the Tomline Refractor to project a large image of the Sun for viewing and for taking photographs and videos, and to supplement this with the Coronado PST (Personal Solar Telescope) mounted on the roof of the transit chamber, for direct viewing by dedicated (foolhardy?) observers. Only one of the balconies off the *Belvedere* was positioned to enable observation of the transit, and Bill Barton proposed to set up his Hydrogen Alpha (H- α) telescope there to offer another, more easily accessible, direct view of the event.

Building on the experience of the 2003 transit of Mercury and the 2004 transit of Venus, Martin Cook and I aimed to extend the camera platform at the eyepiece end of the Tomline Refractor to accommodate one video camera and two remote-controlled stills cameras, all mounted close to the optical axis of the telescope. Martin fabricated the necessary metalwork and a trial run demonstrated that, with a little jostling for position, it could support three cameras. There was considerable discussion over whether to buy an HD video camera for OASI for use during the event. The Treasurer authorised the purchase (thanks, Paul!) but in the end I concluded that this was an extravagance too far, and we settled instead on using my wife's rather ancient mini-DV model (from which videos can be downloaded to a PC for easy distribution).

With one week to go to the transit, we rigged the sunshade across the aperture of the dome, attached the projection screen to the Tomline Refractor and tested the cameras *in situ*. To capture the Sun rising, the Tomline Refractor would need to point slightly downwards, resulting in the projection screen being raised to a height of some 2.5 m above the floor of the dome. For ease of viewing therefore, we built a 1.5 m high viewing platform from a scaffolding tower, and made provision to display the feed from the video camera on a large monitor at table-top height.

The weather forecast for the day of the transit was very unfavourable: largely rain and dense cloud with only a very small chance of a few brief clear intervals towards the end of the event. However, in view of the significance of the event and the interest in it, Martin and I had committed to open the Observatory whatever the weather, and 22 members of OASI registered an interest in observing from Orwell Park.

On the day of the transit, Martin and I arrived at the Observatory at 3.30 am, under dense cloud and some light rain. After a brief discussion over whether, in view of the weather, it was worth completing final preparations for observing, we decided to press ahead in case the skies miraculously cleared. At 4.00 am, preparations almost complete, I went downstairs to meet the other observers and escort them upstairs to the dome. Expecting the weather to have discouraged most intending observers, I anticipated finding no more than two people, but on rounding the corner into the car park, found instead a group of 16 posing for a photo amid a hubbub of conversation!

All the observers made their way from the car park to the Observatory, most settling in the dome. Martin and I commandeered the balcony with a prospective view of sunrise, searching constantly for any potential gap in the clouds. This was possible as Bill had decided after all not to attend the observatory with his H- α telescope, so the balcony was empty; this enabled us to pick a dainty path through the centimetre or so of standing water there (deposited overnight thanks to Anglian Water's recent declaration of *The 2012 Suffolk Drought*). From the balcony, we accumulated a fine set of photos of dense cloud and mist. A brief flurry of excitement ensued at about 5.00 am when Martin spotted a young deer on the land between Orwell Park and Levington Road: we attempted to image the creature, but it was occulted by undergrowth before we could fire up a camera.

Shortly before 6.00 am, around the time of fourth contact, skies were still completely overcast. We gave up any notion of observing, and gathered everyone upstairs in the dome for group photos. Everyone seemed to have a new camera that they weren't confident in working, so there was much fumbling with controls and cursing under the breath. After the photos, most people dispersed, leaving Martin, John, Joe and me to dismantle the equipment and restore the dome to its usual condition; this we quickly achieved.

We looked out at the sky before locking the *belvedere*, and found that the cloud cover was easing slightly. Shortly thereafter, in the car park, a further brief thinning of the cloud enabled the Sun to cast intense shadows against the wall of the gym. But the sunshine lasted only intermittently thereafter throughout the remainder of the morning.

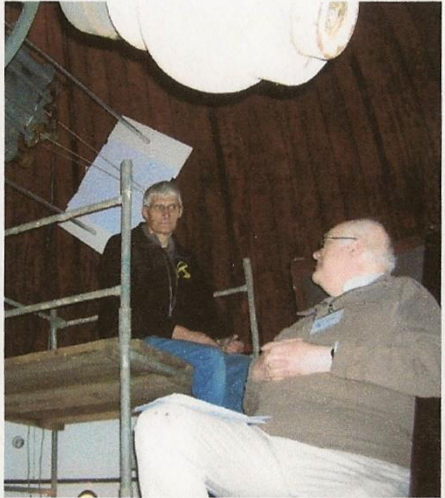
Of the two ToVs of the 21st Century, many members of OASI observed the first (on 08 June 2004) under near perfect skies from Orwell Park and a variety of locations in the UK and overseas, recording a mass of interesting results. Unfortunately, the second was clouded out. And so, the happy-sad balance was restored....

Thwarted observers on 06 June 2012 were, in alphabetical order: Merlyn and Roy Adams, James Appleton, Martin Cook, Adrian Cubitt, Aisha and Janice Gilbert, Lindsay and Tina Hammond, Matthew Leeks, Michael Norris, Joe Startin, B. Thompson, John Wainwright, Scott Wheatley, Paul Whiting, Mike Whybray and Jennie Wood. Reports of the 2004 transit may be found on the OASI web site at:

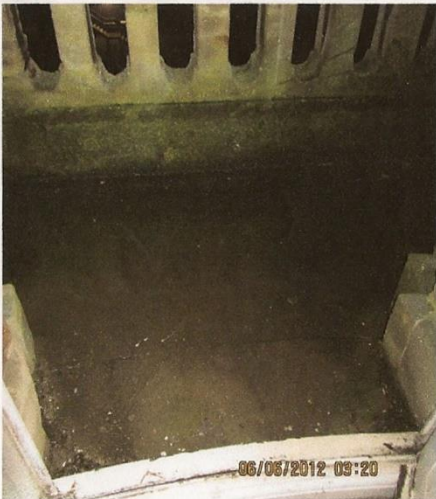
<http://www.oasi.org.uk/Observations/ToV/ToV.htm>: they illustrate the full extent of what the would-be observers missed in 2012.



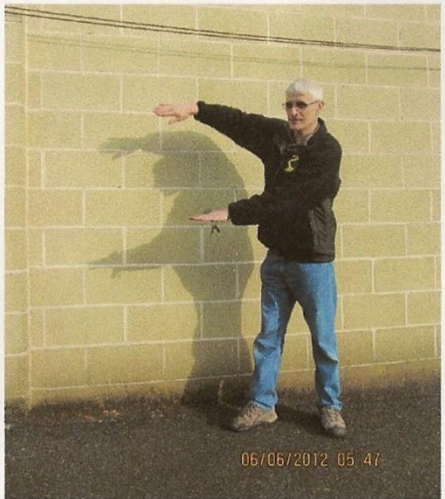
Projection screen on the Tomline Refractor. (Mike Norris.)



The projection screen and viewing platform unused. (Joe Startin.)



The waterlogged balcony (courtesy of *The 2012 Suffolk Drought*). (James Appleton.)



Martin casting a shadow in the car park just before leaving for home. (James Appleton.)



James despondent on the balcony at the weather conditions. (Mike Whybray.)



Thwarted observers in the Dome. (Martin Cook.)

James Appleton, 10 June 2012

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A Stag Night at the Observatory?

Paul Whiting

A while ago I received a request for an observatory visit, but for some unexplained reason it had to be towards the end of May. Now ordinarily this is way beyond the end of our normal visit season (September – April) as it is too light to see anything at a reasonable hour. So my first instinct was to say no – come back later. However the chap stated it was for his brother who is an astrophysicist, so without thinking about busman's holidays, I said OK.

There was also a question about staying late. Trying to deter this I suggested that in addition to the usual £50 fee we would charge £20 per hour or part after midnight. This had the desired effect and we agreed on 9-11pm.

So the Friday night arrived. A coach pulled up outside the gates and 12 gentlemen of mixed ages got out and headed towards me. This should have been the first alarm bell – arriving in a coach.

OK up we went to the dome and I gave them the usual spiel. We opened up and started looking at Venus etc. The astrophysicist was always thrust forward for the first look at everything we pointed at.

There was also this faint smell of beer...

It turned out that this was the astrophysicist's stag night and his brother had organised the visit between a starter session in a pub (5-9pm) and an all-night lock-in at the Lord Nelson!

The brother told me that he didn't dare mention the fact in case we didn't allow them up. I did suggest that next time they should bring a case of beer up with them!

I think that this must be a first for the observatory.

FACEBOOK

facebook.com/Orwell Astronomical


At the last AGM meeting it was mentioned about the idea of setting up a facebook page. And I made the big mistake of saying that I used facebook and somehow volunteer myself to arranging it.

So I thought who else I can rope in to help and managed to convince Jennie wood into helping.

So I set up the page and checked it with Jennie, and we went live about 3 months ago. I have been badgering as many members as possible to come on facebook and like the page.

So this is now a message to all those members who use facebook and especially family members to ask you to all come on and like the page please.

If anyone wants to send pics or ask me or Jennie anything we also have a direct email for facebook.

The email is 

You can also speak to us at the observatory on Wednesday evenings.

Matthew leeks

Newsletter Articles

Our Society is always on the lookout for newsletter articles! If you would like to submit an article, please email it in Microsoft word format <e.g.A5 landscape 12 point font> to the editor, Eric Sims at [REDACTED] by the third Wednesday of each month to ensure it appears in the next month's newsletter. If you don't have access to a computer, please phone me at the number published inside the back page of the newsletter.

Eric Sims

STONs Nights

As British Summer Time (Daylight Saving in Meade speak) starts at the end of March, there will be no formal arranged STONs after March until October 2012.

If anybody has something special they wish to observe, then contact Gerry Pilling, Patrick O'Sullivan or Dave Robinson to discuss and we will see what can be arranged.

Gerry Pilling.

OASI Committee Contacts & Responsibilities

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

To subscribe to the mailing list



Trustees

Mr Roy Adams
Mr David Brown
Mr David Payne

Honorary President

Dr Allan Chapman D.Phil MA FRAS

DIARY for JULY

STONs	SMALL TELESCOPES OBSERVING NIGHTS AT THE OBSERVATORY As the British Summer Time starts at the end of March, there will be no formal arranged STONs until October 2012. If anybody has something special they wish to observe, then contact Gerry Pilling, Patrick O'Sullivan or Dave Robinson to discuss and see what can be arranged. ☎ Paddy O'Sullivan [REDACTED] ☎ Gerry Pilling [REDACTED]
Wednesdays From 8.00pm	OBSERVATORY CLUB NIGHTS Observing with the Tomline Refractor and other telescopes if skies are clear. ☎ Martin Cook [REDACTED], mobile [REDACTED] ☎ Roy Gooding [REDACTED], mobile [REDACTED]
Wednesday	OASI WORKSHOP At Nacton Village Hall Nothing Booked until later in the year. ☎ Mike Whybray [REDACTED]
	OBSERVATORY VISITS BY LOCAL COMMUNITY GROUPS No visits booked at time of printing. ☎ Paul Whiting FRAS [REDACTED]
Saturday 21st July 8.00pm	NEXT COMMITTEE MEETING Venue: The Methodist Church Hall Blackhorse Lane Ipswich

Summer Barbeque
Newbourne Village Hall
More information inside.

Society Contact Details

Observatory tel. no. (meeting nights only): [REDACTED]

Secretary: Roy Gooding [REDACTED] (day) [REDACTED] (evening)

E-mail queries: info@oasi.org.uk

Facebook.com/orwell astronomical

Chairman: Neil Morley [REDACTED]

Please send material for the OASI web site (e.g. observations, notices of events, general interest articles) to info@oasi.org.uk