



The Newsletter



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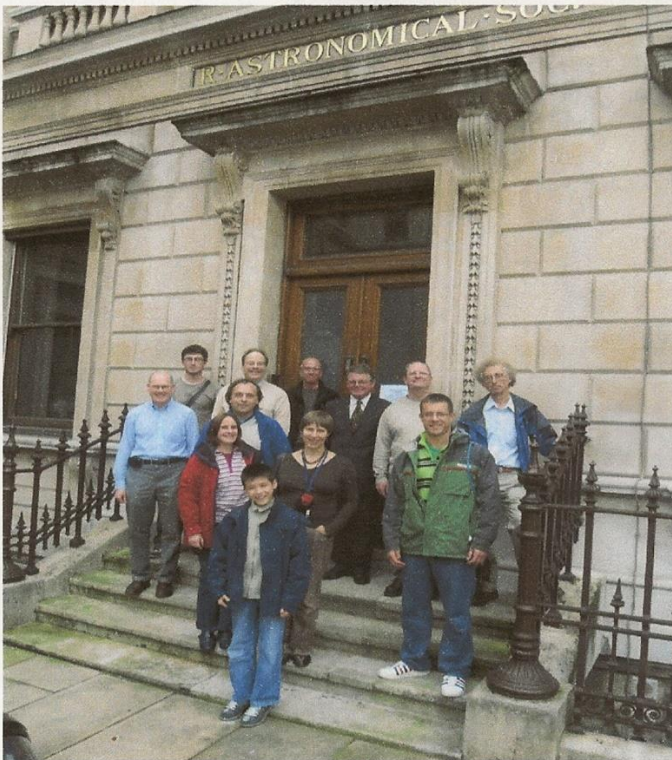
Orwell Astronomical Society (Ipswich)

2012
AUG-SEPT

Registered charity no. 271313

www.oasi.org.uk

No 477



Peter D Hingley 1951 – 2012

On the steps of the Royal Astronomical library, with members of the
Orwell Astronomical Society in October 2010.

Society News (Roy Gooding)

1 Committee Meeting Saturday 29th September

All members are invited to attend the next Committee 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

No new members have joined since the last Newsletter

4 Events Programme for 2012

This provisional event list will be updated through out the year

Event	Venue	Date
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
Geminids provisional meeting	Behind the refreshment hut at "The Dip" Felixstowe	15 th December

6 Observational Out Reach Meetings 2012

Autumn Star Party: Chantry Park

This event has been rescheduled for Saturday 22nd September.

Meeting	Venue	Date
Star Party	Chantry Park	Saturday 22 nd September 19:00 to 21:00


Directions:

- Please arrive at about 18:30 to set up equipment
- Enter Chantry Park from the Hadleigh Road entrance. It is the drive way to the Sue Rider home.
- This drive dose not have any gates so access is always open
- At the top of the drive take the left hand road. There are about 3 speed humps along here.

At the end of this road, which is about 200 yards long, there is a parking area.

7 OASI Email Distribution List

The society runs an email distribution list, for verious 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 

Night Sky (August)

Moon

Full Moon	3 rd Quarter	New Moon	1 st Quarter	Full Moon
2 nd	9 th	17 th	24 th	31 st

Object	Date			Mag	Notes
		Rise	Set		
Sun	1	04:17	19:45		
	31	05:06	18:44		
Mercury	1	04:12	18:55	0.7	Mercury will be at greatest western elongation on the 16 th
	31	04:04	18:37		
Venus	1	01:01	16:42	-4.2	Venus is well placed to observe in the pre-dawn morning sky.
	31	01:03	16:47		
Mars	1	10:43	21:42	0.7	Mars will visible in the western sky after sun set
	31	10:35	20:16		
Jupiter	1	23:43	15:53	-1.9	Jupiter returns to the late evening sky this month
	31	21:59	14:16		
Saturn	1	11:18	22:11	0.8	Saturn is also visible in the western sky this month.
	31	09:34	20:17		
Uranus	1	21:27	10:03	5.8	Uranus is near to the borders of Pisces and Cetus
	31	19:27	08:01		
Neptune	1	20:25	06:38	7.8	Neptune is in Aquarius
	31	18:26	04:35		

Meteor Showers

Shower	Limits	Maximum	ZHR
α Capriconids	July 15 th to August 20 th	August 2 nd	5
\perp Aquarids	July to August	August 6 th	8
Perseids	July 23 rd to August 20 th	August 12 th 10:00	80

Meteor source is the BAA Handbook

Night Sky (September)

Moon

3 rd Quarter	New Moon	1 st Quarter	Full Moon
8 th	16 th	22 th	30 th

Object	Date			Mag	Notes
		Rise	Set		
Sun	1	05:08	18:42		
	30	05:55	17:34		
Mercury	1	04:11	18:37	0.7	Mercury is too close to the sun this month, to be seen
	30	07:22	17:56		
Venus	1	01:04	16:47	-4.2	Venus remains well placed to observe in the pre-dawn morning sky.
	30	02:01	16:24		
Mars	1	10:34	20:13	1.2	Mars moves into evening twilight this month
	30	10:34	19:01		
Jupiter	1	21:56	14:13	-1.9	Jupiter is becoming more prominent in the evening sky this month
	30	20:08	12:27		
Saturn	1	09:30	20:13	0.8	Saturn moves into the evening twilight this month
	30	07:54	18:24		
Uranus	1	19:23	07:57	5.7	Uranus is near to the borders of Pisces and Cetus
	30	17:28	05:56		
Neptune	1	18:22	04:31	7.8	Neptune is in Aquarius
	30	16:27	02:33		

Meteor Showers

Shower	Limits	Maximum	ZHR
Piscids	September to October	Sept 8 th	10
		Sept 21 st	5
		Oct. 13 th	?

Meteor source is the BAA Handbook

Astronomy in the Park May 2012

Roy Gooding

2012 was our 4th year in running our public solar observing ,out reach meetings in Christchurch Park. The 1st option for the event was scheduled for the May 19th and 20th , with the fall back 2nd option to be on the following weekend. In previous years, I had gained a reputation of choosing a weekend with extreme good sunny weather. This year however, the weather was more mixed. After weeks of cloud and rain, a few members assembled from around 10:30 at the Reg Driver Centre, hoping that good weather would prevail. Unfortunately, the day was to remain predominately cloudy. Clear patches of sky were few in number and amounted to less than 5% of the sky at any one moment.

A small number of members of the public were able to, fleetingly observe the sun.

Equipment in use on the 1st day included:

90mm Maksutov with solar filter

70mm Maksutov used for or solar projection

40mm Coronado

12x 60 solar binoculars

Members present on the 1st day included

Eric Sims

Pete & Nicky Richards

Joe Statin

Matthew Leeks

Paul Whiting

The weather forecast for Sunday gave a more unsettled day than Saturday, so it was decided to abandon the meeting, and split the event over two weekends. We resumed for our 2nd day, the following Saturday 26th. The weather on the 26th proved to be more summer like. The skies were mostly clear, which bid well for a busy day.

Equipment in use on the 2nd day included:

90mm Maksutov with solar filter

70mm Maksutov used for or solar projection

40mm Coronado

12 x 60 solar binoculars

- 60mm Coronado
- 127mm Meade with solar filter
- 80mm refractor with solar filter

Members present on the 2nd day included

- Eric Sims
- Pete & Nicky Richards
- Joe Statin
- Matthew Leeks
- Paul Whiting
- Martin Cook
- Jennie Wood
- John Wainwright
- Neil Morley

A few more members arrived for short periods, but did not keep a note on who they were. As usual I would to thank all members who were able attend

It is difficult to estimate how many people we attracted on each day, but it was probably between 150 to 200 over the 2 days.



OCCULTATIONS DURING AUGUST

No interesting lunar occultations occur during the month under favourable circumstances.

James Appleton

OCCULTATIONS DURING SEPTEMBER

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
23 Sep	20:34:54	D	0.61+	-25	14	7.2	Hip 93336
25 Sep	21:06:03	D	0.81+	-29	24	6.8	ZC 3051
26 Sep	21:28:31	D	0.89+	-32	29	7.0	ZC 3184
26 Sep	21:32:23	D	0.89+	-32	29	5.1	46 Cap

James Appleton

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 10 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

Some Astronomical Sites in New Mexico and Arizona

Mike O' Mahony

On a camping holiday in New Mexico and Arizona we (Pat and I) took the opportunity to visit a few astronomical sites that fell close to our route.

New Mexico lies mainly on the Colorado plateau, an area with elevation of about 5-10,000 ft centred on what is called the Four Corners region of the USA where Colorado, Utah, Arizona and New Mexico meet. The various forms of erosion, wind, water etc and their effect on the high plateau, have given rise to beautiful and exotic landscapes of canyons, buttes, caverns etc. Pueblo dwelling Indians inhabited the area from 2000 BC before moving down to the plains, and some of their very modern looking multistory dwellings are still intact (as in Mesa Verde). Many of the areas we travelled through were Navajo Reservations [you can tell when you enter a reservation area by the inevitable large Casino, Fireworks shop, and Liquor store]

The circular anti-clockwise route (3000 miles) we travelled from Phoenix Arizona through New Mexico, was mainly through desert (during the day temperature never dropped to less than 35 degrees), which together with the high elevation and lack of population, makes it very suitable for astronomy and astronomical observatories, but also military use [eg White Sands missile test ranges (photo), Los Alamos (Nuclear heritage), Roswell etc]. The region is inhabited by mountain lions and rattlesnakes who hunt at night so it can be interesting getting out of the tent at night to do some star gazing, and seeing glowing eyes reflected in your headlight !



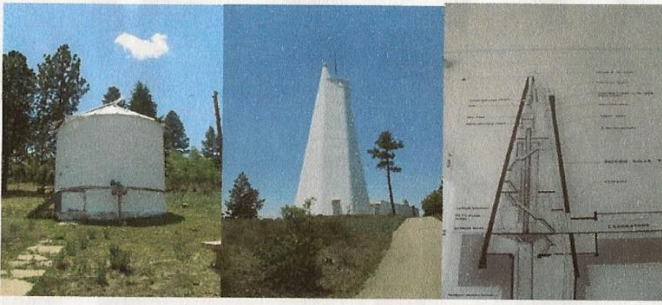
Karl G Jansky Very Large Array: Driving through Pictown (only one shop which indeed sells very tasty pies) Route 60 passes through the Very Large Array Radio Telescope [photo] facility situated in a plain at 7000 ft elevation. This has 27 dish antennas (which move on rails to facilitate interferometry), each with a diameter of 25 metres and the dishes are configured in a Y shape across the plain, each arm extending over 20 km. Frequency coverage is 74 MHz to 50 GHz. Best resolution is 0.05 arc-seconds. Its use includes the study of black holes and proto-planets; as well as the scene for many movies !

National Solar Observatory: located off Route 82 on Sacramento Peak near Cloudcroft at an elevation of 9200 ft and overlooking White Sands Missile Range. The original observatory in 1950 was made using an off-the-shelf grain silo (photo) with drive motor, but there are now two main operational domes; currently plans are under way to build a new 4 metre solar telescope (largest in the world) and locate in Hawaii.

The Dunn Solar Telescope (photo) is 113 m high, with 72 m underground. Two movable mirrors on top guide the light down the tower in evacuated tubes to the primary mirror, which is 1.6 m (64 inches) diameter and 57 m below ground. The light is then reflected back to ground level exiting the vacuum tube for experiments. The entire optical system from top of the tower to the base of the underground portion plus the 12 m diameter observing room (a total of more than 200 tons) is suspended/floated on a mercury bearing -10 tons of the stuff !

This telescope is used for study of sunspots, solar flares, filaments etc. It is in constant use by professionals, but they allow visitors to view what is happening and see the images on screens etc.

Evans Solar Facility: houses a 16 inch coronagraph. This has a disk that blocks the bright disk of the sun simulating an eclipse enabling studies of the corona and of solar flares.



Lowell Observatory:

The Lowell Observatory is situated in Flagstaff Arizona. Percival Lowell (1855-1916) was wealthy (through inheritance). Reading an Italian paper by the Director of Milan Observatory through mistranslation he understood the paper to have identified the existence of canals on Mars. He founded the Lowell Observatory on Mars Hill in Flagstaff to study Mars. For over 15 years he made extensive studies of the planet with detailed drawings of the canals and advanced the theory that they were used by a past civilization to channel water from the poles. It seems not many others could see exactly what he saw and his work became disregarded by the scientific community and, as we know, finally disproved.

The major scientific impacts they claim for the observatory are the discovery of Pluto [by Clyde Tombaugh- basically the observatory caretaker]; the initial observations and measurements which led to Hubble's Expanding Universe concept; and the mapping of the moon for the NASA landing. Neil Armstrong spent some time there observing the proposed landing site and as he had to take over manual control due to computer overload in the last minutes of the landing they like to think their telescope helped save the mission).

At Lowell's death his wife contested his will, in which he wanted the scientific work to continue funded by his estate. There was a 10 yr legal battle in which a large part of the estate went on legal fees, but eventually she lost and the foundation continues today funding about 20 full time independent researchers. Currently a new 42 inch telescope is been built on a mesa about 40 miles from Flagstaff (so they can't be too short of cash!).

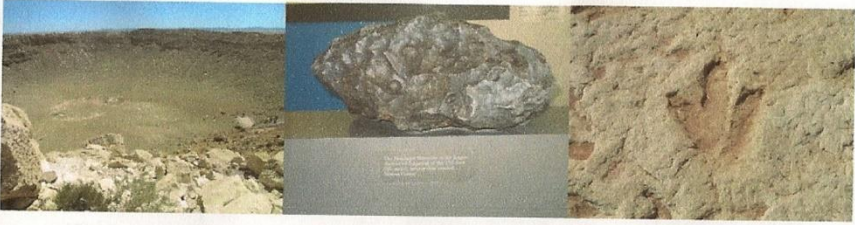
There are two domes on site, the 24 inch Lowell Observatory and the Pluto Observatory. The Pluto telescope is a 13 inch refractor with 14 inch photographic plates, seemingly unused these days. The work on Pluto was done with endless photographs looking for differences in movements from one night to another-great patience was required.

The Lowell telescope is not used professionally but open to the public every day. It reminded me of a scaled up version of the Tomline (same era of course). It has a 24 inch mirror and a focal length of 32 feet. There is an old clockwork drive for the 'scope and the dome runs on car wheels. The dome interior is not as pretty as ours lots of struts etc and the observing platform would take some nerve to use:- a vision of Paul giving his taster talk from about 50 ft high sprung to mind! All the mechanics were constructed by local bicycle manufacturers and hence very bespoke.

On the day we viewed Saturn (what else) and it did look great, lovely contrast and colour.



Meteor Crater: Not an observatory but space related ! Near Flagstaff lies Meteor Crater. 50,000 years ago an iron-nickel meteorite estimated to have been 150 ft across and weighing several hundred thousand tons hit the earth creating a hole 700 ft deep and 4000 ft wide. Following its discovery in 1903 more than 25 years were spent trying to find the meteorite assumed buried somewhere below the crater, but with no luck. Large meteorite fragments have been found in the vicinity (photo).



Finally dinosaurs ruled the earth here, as footprint shows (at least that is what the Navajo told me!).



A rattlesnake blocking the trail in New Mexico ! In Cherokee mythology the seven stars of the Pleiades represent the tail (with its seven rattles) of the rattlesnake constellation. Like the Mayan Calendar, the Cherokee Calendar, which has many predictions about the behavior of Mars, Venus (and its transits) and Jupiter, comes to an end inn 2012 !!

Grazing Occultation of Jupiter and it's Galilean Moons

On the 15th July 2012, the planet Jupiter and it's four Galilean moons were occulted by the Moon. For observers in favourable positions this would be a once in a lifetime chance to observe a grazing occultation of Jupiter. Although the event was timed for around 0300 hrs BST, and required travelling to North Norfolk, the 'usual suspects' decided to attempt an observation.

Using predictions made by James Appleton, the graze tracks of all five objects were plotted on Google Earth and a list of possible candidate observing sites planned. It was apparent that for any single site, a graze of Jupiter and one of it's moons would be possible, with the other three moons being fully occulted. Given the distance to the sites and the time of the observation, it was decided to use the graze track for Io as the one to go for.

Given that the event will be at a very low altitude (approx 8.5°) in the dawn sky, a clear view East-North-East was required.

After checking the sites on the ground, the list was reduced to one, a large concrete 'pad', adjacent to a very narrow, rural road, clears views over corn fields and with loads of space for cars and telescopes just north of the village of Beetley (close to Dereham). As is now usual for these events, a 'GO/NO-GO' conference call was arranged for 2200hrs on Sat. 14th July, during which we would decide whether conditions were favourable to travel.

The 14th dawned wet, totally overcast and miserable, with the forecast for the next 24hrs. exactly the same. However, the infra-red weather satellite sequences showed a narrow band of possible clear skies moving in from the west, which just might be over the site at the right time.

During the conference call, most observers decided that conditions were just too unfavourable and that they would therefore not travel. However, two of us, myself and Joe Startin thought that the possibility of observing such an awesome sight was worth the risk and we decided to 'give it a go'.

Travelling in separate vehicle, we left our homes at 0015hrs in heavy rain, with very wet roads, travelling to the Norfolk border along the A140. Once into Norfolk, the roads were bone dry ! I arrived on site at 0145hrs to be met with a totally overcast sky,

with Joe arriving a few minutes later. By 0230hrs, a few stars were visible with some obviously clear patches in various positions around the horizon, but not where we needed them to be !

The five events, in order of occurrence were:

Europa graze at 0252hrs

Jupiter graze at 0255hrs

Io occultation 15 secs later

Ganymede occultation at 0302 hrs

And Callisto occultation at 0305hrs.

So, a rather busy few minutes !

The event passed off exactly as predicted, a magnificent sight. Jupiter gliding along the rugged limb of the moons, and Io dodging in and out of the mountains and valleys of the lunar surface.

The only problem was that this music of the spheres was all done in secret, hidden behind the clouds !

24hrs later, there were clear skies AND an aurora visible !

Yet another graze attempt defeated by the British weather !

Alan Smith

What we would have seen !



Peter Hingley 1951-2012

by Tina Hammond

Peter Hingley was a very good friend of OASI - and many other societies and clubs - giving his time generously to all.

His interests were diverse and thus made him a very knowledgeable and interesting person to have to the good fortune to talk to. A lover of real ale, railways, canals, sundials, astronomy, humour and literature made it impossible for anybody not to get along with him.

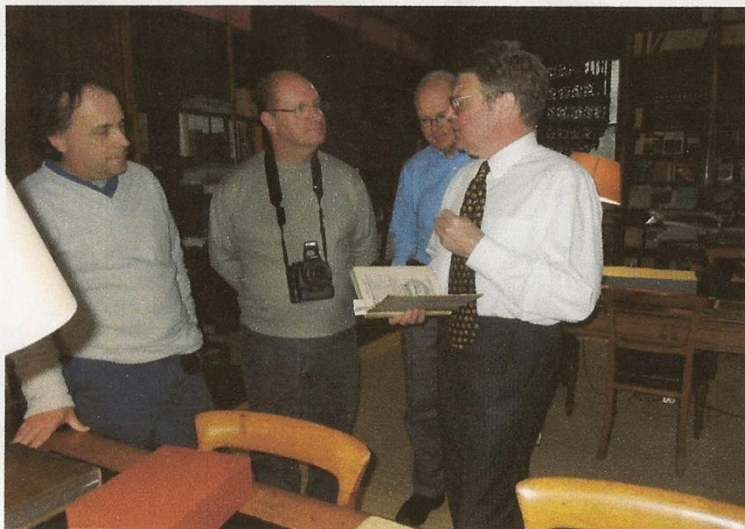
His death (on or around 17 - 19 June) at home from an internal haemorrhage at the very early age of 61 is a loss to many, and the world has lost a wonderful humane person. It is a tragedy that such a gregarious creature should spend his final minutes alone.

Although he had been suffering from stress and was hospitalised in February following a fall which was compounded by a virus, he returned to his work as Librarian at the RAS and was looking forward to retirement on 31 August 2012, ideally relocating to Crewe, that Mecca for rail, steam, freight, canals and possibly the odd pub (Stalybridge Station Bar, anybody?).

He is to be cremated - possibly on 20 July - and his ashes scattered close to a railway surrounded by beautiful scenery.

His ex-wife, Sheila, works at Durham University, tenuously linked to OASI by the fact that Colonel Tomline's astronomer, John Isaac Plummer, worked there immediately before relocating to Orwell Park.

He was generous with his time and OASI enjoyed a day at the RAS Library in 2010, which was advertised as a two hour talk by Peter, after which we would be left to our own devices, but he was kind



Members of OASI with Peter at the RAS Library in October 2010.

enough to show us bonus items at the expense of leaving his own work. Of course we were as pleased to share lunch with him as he was to share it with us.

Peter came to Ipswich to speak to OASI on several occasions, each time enjoying an hour or so in the pub following his always excellent orations. He also performed the Opening Ceremony and Dedication of the Library at Orwell Park Observatory, the sash which he cut still (literally!) hanging around the Belvedere.

He would liberally hand out a potted autobiography of himself, entitled ***Life And Hard Times***, at these talks: one of which I typed out a few years ago. I am hoping to include it here (although I am advised that it may appear in a later edition of the Newsletter, owing to pressure of space), and you will get an idea of what a kind and generous man the world has lost.



BRECKLAND ASTRONOMICAL SOCIETY

AUTUMN STAR PARTY

After the satisfactory results of our first two star parties, BAS will be holding star parties every Spring and Autumn at Haw Wood Farm Caravan Park.

The site is just off the A12 at Hinton, about 5 miles ESE of Halesworth via the A144. It is a very good dark sky site. In March this year naked eye visibility was 5.73, averted vision 5.99 and the best SQM reading was 21.75

The shop on site will open as required and can provide the basics plus sandwiches and coffee by request.

The Star Party will be held from Friday 19th to Tuesday 23rd October 2012.

Come earlier or stop later if you want. Pitches are £10 per night with hook up.

The site is dog friendly and well behaved dogs are welcome.

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

For information see the BAS website, www.brecklandastro.org.uk

OTHER ACTIVITIES

For those that like to do something in the day there are many footpaths in Dunwich forest only minutes away, if you take the path through the reed beds you may be lucky enough to hear the bitterns booming. This path joins the long distance Coast Path and the Sandlings Walk.

Dunwich Beach is only 10 minutes away, and 15 minutes away RSPB Minsmere or Westleton Heath.

Also 15 minutes away Walberswick and the Blythe Estuary offer river-side walks and a walk to Southwold. If there is sufficient interest it may be possible to arrange a professionally guided bird walk in the locality, there will be a small charge for this. Contact Tony Fox Carter if you would like to take part in this activity. However this must be booked well in advance.

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 AUGUST - SEPTEMBER

STONs	SMALL TELESCOPES OBSERVING NIGHTS AT THE OBSERVATORY STONs should start again in October 2012. More information in the next newsletter. ☎ 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 at the moment but hope to start again in October. More information in the next newsletter. ☎ Mike Whybray [REDACTED]
Tuesday 4th September 8pm	OBSERVATORY VISITS BY LOCAL COMMUNITY GROUPS Taster Evening start of autumn series ☎ Paul Whiting FRAS [REDACTED]
Saturday 29th September 8.00pm	NEXT COMMITTEE MEETING Venue: The Methodist Church Hall Blackhorse Lane Ipswich

OUT REACH MEETING

Star party in Chantry Park scheduled for
Saturday 22nd September 2012

OPEN WEEKEND

Dates and times still to be arranged for October or November.

Society Contact Details

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

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

Web-site. James Appleton: e-mail [REDACTED]

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

Facebook.com/orwell astronomical

Chairman: Neil Morley [REDACTED] / e-mail [REDACTED]

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