

# ORWELL ASTRONOMICAL

## SOCIETY IPSWICH

Charity No 271313

### OCTOBER 1999



## Society News

### 1 Next Committee Meeting

The next committee meeting will be held on Saturday 27<sup>th</sup> November from 19:30 in the clubroom. As usual this is an open meeting and any one who is interested is invited to attend.

### 2 Observatory Decorating

The observatory stair well walls have been given a first coat of paint. This is a lengthy process, and as much help as possible would be appreciated. So far all painting has been done on a Wednesday evening. If you are able to help please come along and give a hand.

### Events for 1999

Event	Details	Date
FAS meeting Cambridge		2 <sup>nd</sup> October
Open Weekend	To be arranged	16 <sup>th</sup> 17 <sup>th</sup> October
Christmas Meal	To be arranged	8 <sup>th</sup> December

Other events will be added to this list throughout the year

### Open Weekend 16<sup>th</sup> & 17<sup>th</sup> October

#### a Help

As much help, as possible from members is required to make this another successful Open Weekend.

#### b Posters

Please do not use the posters given out with September's newsletter. There were a couple of typing errors. A replacement poster is included with this issue. Please find a suitable location to display it.

#### c Display Items

If you any suitable items for adding to the display boards please bring them along to the observatory on a Wednesday evening. These can be photographs, drawings, personal observations etc.

## Night Sky

All times GMT

### Sun

The sun will be rising approximately between 06:10 to 06:50  
The sun will be setting approximately between 17:40 to 16:40

## Moon

<b>3<sup>rd</sup> Quarter</b>	<b>New Moon</b>	<b>1<sup>st</sup> Quarter</b>	<b>Full Moon</b>	<b>3<sup>rd</sup> Quarter</b>
2 <sup>nd</sup>	9 <sup>th</sup>	17 <sup>th</sup>	24 <sup>th</sup>	31 <sup>st</sup>

- Mercury** Mercury will be at greatest eastern elongation on the 24<sup>th</sup> at 24°. The planet stays to close to the sun this month for observation.
- Venus** Venus remains visible in the morning sky. Greatest western elongation is the 31<sup>st</sup> at 46°. Magnitude -4.5.
- Mars** Mars will be setting at 20:00 by the end of the month. Magnitude 0.7
- Jupiter** Jupiter will be at opposition on the 23<sup>rd</sup>. Magnitude -2.9
- Saturn** Saturn will be rising at 18:00 in mid month. Magnitude 0.1
- Uranus** Uranus will be setting at 23:50 in mid month. Magnitude 5.8
- Neptune** Neptune will be setting at 22:50 in mid month. Magnitude 7.8

## Meteor Showers

Shower	Maximum	Limits	ZHR
Piscids	October 13 <sup>th</sup>	September to October	?
Orionids	October 21 <sup>st</sup>	October 16 <sup>th</sup> - 27 <sup>th</sup>	25

Meteor source is the BAA Handbook

Roy Gooding

## OCCULTATIONS DURING OCTOBER 1999

The table lists stellar occultation disappearance events which occur during the month under favourable circumstances. The data relates to Orwell Park Observatory, but will be similar at nearby locations.

D or R	Date & Time (UT)	Lunar Phase	Sun Alt (d)	Star Alt (d)	Min Dist (rad)	Star	Mag
D	01 Oct 01:17	.62-	-37	37	.87S	119 Tau	4.3
R	01:49		-35	42			
D	19 Oct 18:43	.71+	-18	21	.69N	ZC 3157	7.2
D	21 Oct 20:26	.88+	-33	28	.81S	ZC 3434	7.5

James Appleton

3

## TO STAND IN THE MOON'S SHADOW

By Ken Goward

"Just a couple of small bits more and we're ready.." So said Lorraine as she piled those 'couple of small bits' into an already overloaded caravan at 4AM on a rain soaked Saturday. My thoughts were along the lines of - *perhaps* - we should have taken a low loader?, rather than a caravan filled up with everything to sustain Matthew & Daniel, our 11 month old twins (their claim to fame is that their places were booked at our intended destination before they were actually born!) plus two adults and one boisterous Dachshund for a fortnight - plus a small refractor, binoculars, notebooks and various photographic bits'n bobs. It's amazing, thought I as we started off westward, women can pack handbags and caravans with more equipment than the average landing craft during Operation Overlord! Still, its all part of the fun - we were off to the eclipse.

Our chosen observation site was at the Truro School, which the BAA had booked some time previously for the event. In excess of 600 members and their families were to attend, staying variously in makeshift bedrooms, tents and caravans. The school had been carefully chosen for its relative security & privacy of access and its excellent position on high ground overlooking the city at its SE corner with a wide unobstructed view of the sun's eclipse altitude over open farmland. Although about 15 miles north of the centre line, it was also thought that attendees would avoid the worst of the expected traffic chaos - and we could still look forward to 1minute 57 seconds of totality.

After an overnight stop near Chard and some 351 miles west of home, we arrived late on the Sunday afternoon in glorious sunshine and somewhat bemused by the odd sensation of experiencing no traffic whatsoever, despite the dire predictions previously trumpeted. We were efficiently directed to our pitch on the school athletics track amongst various other caravans and motorhomes. On two fields opposite we saw what could only be described as a tented city. Canvass seemed to stretch for hundreds of yards with all types of camping set-ups on view - ranging from flashy looking 6 berth jobs, complete with natty white picket fences (I kid you not) down through various small domes to some that could only be described as hovels! After setting up the van we strolled around the site - and what an impressive sight it was too. A great array of amateur instruments were assembled, from 20" Dobos through Meades of various sizes and configurations, numerous reflectors of various origins and down to the ubiquitous 3" refractors. Our modest 2 1/2" refractor (brought along to project the sun's image) that I'd been given many years back for Xmas during adolescence looked somewhat 'third world' and we kept it hidden in our awning! The viewing field was many feet in elevation above the rest of the school and had been carefully marked out for members and a host of TV cameras etc from what seemed to be much of the world's media.

In addition, the BAA organiser - Dr John Mason and his team - had arranged a small on site grocery shop, BAA office/souvenir/bookshop, on site restaurant & bar, sanitation & water supplies for campers and the full use of the school sports facilities, including an excellent swimming pool. Quite a culture shock - all that sports stuff - for one who counts TV channel hopping as a principal physical activity. Anyway, the degree of preparation that must have been required left us quite spellbound, it was

4

patently clear that John had made a brilliant job of the logistics. Perhaps he too would have been a natural for Operation Overlord..

Having taken it all in (sort of) we retired to the van, put the twins to bed, and contemplated good things to come in the next few days as we slowly drained a bottle of claret.

We were woken on Monday morning by the sound of rain spattering upon our roof. Never mind, I thought, it'll get all the wet stuff out of the way by Eclipse day.. Mid morning and we were pleased to have fellow OASI members, Mike Harlow & Sue Brown drop in for a cuppa (they were staying off site in nearby Hayle). A number of relevant lectures by various experts had been arranged on site and Mike, Sue and I went off to attend. The rain was on and off - hardly looking threatening and the general forecast wasn't too dire. By nightfall the sky had cleared and I took advantage of an opportunity to sweep around with the old 7 x 50s whilst Lorraine put the twins to bed. As one will appreciate, Hercules is almost directly overhead in August and I was able to pick out Globular Clusters M13 and M92 (Something not possible from our home at Mistley, which is perfectly at the centre of a triangle formed by Ipswich, Felixstowe & Colchester and benefits from all that wonderful(?) free additional lighting..) Bearing in mind that Truro is one of the principal built up areas of the Southwest it says something good, perhaps, for their lighting schemes. Several other members were out with their various instruments too, but I succumbed somewhat earlier than most when Lorraine opened some more of the red stuff..

On Tuesday morning we were again woken by rain, but it wasn't as persistent as the previous day. After attending another lecture, this time with Lorraine & the twins for company we had a pleasant walk around the nearby city centre and returned to the school in glorious sunshine - we even managed some solar projection from our 'secret' refractor. One of the lectures, delivered by BAA President Martin Mobberly, was on the subject of eclipse photography and he told us of his personal 'good luck' habit of photographing the sunset of the preceding day before an eclipse, "*Infallible*", said he.. Just before sunset I snapped a couple of sunset over Truro shots and, feeling quietly confident, returned to the van for another evening dip into our claret supply. (purely medicinal of course!)

Wednesday morning - the great day at last - and, for a change, we were woken by the sounds of frenetic activity from other members on site, busily preparing their equipment. The sky was overcast, but with some encouraging gaps in the clouds and the forecast announced a frontal system would be moving over our area 'around lunchtime'.. Presumably lunch is taken somewhat early in the Southwest and by the time we were ready to walk up to the observing area (10.40AM) light drizzle was falling and the sky was leaden. Still, undeterred we arrived on the field which was quite full with observers sporting a galaxy of observing aids. We set up in a convenient space which allowed for one double buggy, two adults and loads of ancillary equipment. All those talks on basic preparation, both back at Orwell Park and on site began to ring true. I'd forgotten the blasted cable releases and had to scurry back to the van to find them. Panic over, it only took a few minutes and we were all set up by 11.00AM. Sadly, the sky wasn't.. All eyes were skyward and all hopes were on a knife edge. It was certainly falling off in light level and getting colder. A huge cheer went up at 11.05AM - there was the almost fully eclipsed sun - and there was yet another dark cloud closing over it to stifle that cheer. 11.12AM and

5

totality was very obviously upon us. The moon's shadow approached from the west and the temperature dropped dramatically - along with what was left of the light. It was the most silent, eerie and goosebumpy feeling we'd ever experienced. Still no sign of the eclipsed sun, but I snapped away at all and everything like some demented Japanese tourist, working on the timeless theory that if you threw enough what'sit at a wall - *some of it'll stick!* All that we had been told of our precious 1 min 57 secs being over in an instant was abundantly true and the shadow wasted no time passing over us. Still no sign of the sun, although we noticed one enterprising wag holding up a dark disk and people were actually PHOTOGRAPHING HIM! An anonymous voice pointed out that there were no flares visible on his disk. Our enterprising wag duly obliged and lit a cigarette lighter behind the disk to hold the flame up to its edge. More camera shutters clicked away!! In the far distance we could see flashguns going off (what great confidence those people must have in their equipment if they believe their flashes will illuminate an object approx 250,000 miles away) and others were setting off fireworks. One certainly wouldn't have dared to turn up with a flash on our site - there were countless notices pinned up telling us not to - and I chuckled somewhat, recalling Nigel Evans's excellent article in a recent OASI newsletter which warned that one might require surgery to retrieve one's camera if flash was used during the eclipse! As the light returned and we had watched the shadow speed off SE Champagne bottles began to pop and - mild(?) - celebrations followed. Most were toasting the next eclipse (2001 in Southern Africa) and a feeling of general resignation was replaced by elation. At 11.20AM another huge but ironic cheer went up as a crescent sun peeped through the clouds for a minute or so. We had all witnessed something very special. All, that is, except our twins who slept through the event - well, they at least have some sort of vague chance of seeing the next UK eclipse in 2090..

The drizzle began again and the site slowly cleared. Back at the van our kettle was on when another OASI member, William Barton, dropped in to say hello and show us his observing equipment. Bill is an active member of the BAA Solar Section, observing in both the visible and HA. That tea warmed us all and brought spirits back up. However, Lorraine and I felt particularly sorry on Bill's behalf as this was very much a Solar man's (woman's) supreme spectacle and Bill had lugged his equipment and other gear down from all the way from Ipswich on the railways.

That afternoon a photocall had been arranged on the observing field, but rain prevented us from using it and so 600 people crammed into the school gym instead. Typical of his great modesty, John Mason who had lived, breathed and run the event hid in the crowd when the pictures were taken, rather than stand at the front with the rest of 'the great & the good' of the BAA. By evening that fickle weather of ours had cleared, allowing us all to enjoy a huge BBQ, washed down with plenty of the local brew and with a Jazz trio for background. Poignantly, many members were pointing their cameras westward over Truro Cathedral's famous triple spires to snap the sunset - 'salt into the wound' - if you will.

Would you credit it, the following morning dawned sunny and clear, not a cloud in the sky all day! We went out for a ride around Falmouth & St Mawes before returning to pack down our equipment, in readiness for the following morning's departure up to Ilfracombe for the second week of our holiday - to get over the first.. We certainly

6

found all that trumpeted eclipse traffic - it took us six hours to get to Ilfracombe - a journey that would normally take perhaps three at most!

Looking back we would not have wanted to miss being in the totality area IN ENGLAND for anything. Yes, we knew there was only a Max 40% chance of seeing the full spectacle from our shores - but - we and many others felt this was a very British Eclipse. In saying that we absolutely do not decry those dedicated eclipse chasers who observed from more favourable climates, its just a matter of personal choice. Yes, the weather let us down - but - being in the company of 600 like minded souls more than compensated.

Although I can't see us becoming eclipse chasers, as such, we still want to see the whole of a totality and hope to sort something out for the next totality event or two - always assuming we can work out how to get the caravan onto the aeroplane..

All in all, realising our puny place in the universe, it was simultaneously humbling and a great joy **TO STAND IN THE MOON'S SHADOW.**

**Footnote;** A number of TV monitors were set up for us to view pictures of the eclipse from various European TV stations. We didn't go and see them as it was a little too painful. However, on the following morning we relented and purchased some newspapers. A local tone noted a rather classic example of that great British art of making the best of a relatively poor situation by reporting on the huge crowds gathered on Pendennis Point for totality in total overcast. After the shadow passed, it said, an anonymous voice shouted out over the hushed crowds, "Special Offer. Get your Eclipse Glasses here - only 50P a pair "!! KG.

## **URGENT REQUEST**

At this year's Public Open Weekend, we are committed to exhibiting ourselves as an active and thriving society. That being so, one of the exhibition displays will, hopefully, feature what our members did and what they may or may not have seen during the recent **total eclipse**.

If you have any **photos** of; Totality - light levels - the local scene on the ground - partial phase or anything else relevant to the day.

### **CAN YOU PLEASE LOAN THEM FOR THE EXHIBITION??**

We are NOT looking for masterpieces or works of art (although anything at that level will be welcome!) but pictures to show what 'Mr or Mrs average member' experienced.

I am happy to undertake their immediate return to you after the event.

Please help us to make it a show worth seeing!!

Photos (etc) to Ken Goward - either pass them to me on a Wednesday evening session or send them to me at; [redacted], Mistley, Manningtree, CO11 1LH.

Thanks for your help.....

## **ASTRONOMY WORKSHOPS**

The next Astronomy Workshop will take place on **Wednesday October 13th**, 7.30PM, at the usual venue in the science classroom on the ground floor, close to the observatory. This will be the first of two sessions with an observing project in mind. Please bring along; (if you can) Planisphere, Star Chart, current Astro Mag  
(Preferably Astronomy Now) Ted Sampson

## **A Very British Eclipse**

In common with many UK amateur astronomers, I've been looking forward to the eclipse of 11<sup>th</sup> August 1999 ever since becoming interested in the hobby - in my case over 30 years ago. I therefore began planning my arrangements for observing the event well in advance. On average, a total eclipse is visible somewhere on earth every 18 months or so, therefore if one is prepared to travel long distance, it's possible to stand on the path of totality without too great a delay. Conversely, total eclipses visible from the UK are not so common: the last occurred in 1927, and the next will not be until 2090. It therefore seemed appropriate to attempt observation of August's eclipse from the UK, rather than from abroad, even though foreign parts might offer a better chance of clear weather.

After considering the various options, "my wife and I" decided to join the Explorers Tours charter train from Paddington to Penzance (very close to the centre line of totality). Explorers' early publicity advertised a convenient timetable with a return departure from Penzance in the early afternoon, enabling us to return home late on the evening of 11<sup>th</sup> August. Unfortunately, shortly before departure, Explorers changed the timetable so that the return train did not get back to London until 1:00 am. This meant that we needed an overnight stay in a hotel in London before getting home, but we decided still to go ahead with the trip.

We began our journey on the 19:30 from Ipswich Station to Liverpool Street. On arriving at Liverpool Street we crossed London to Paddington Station where we indulged in a prolonged game of "spot the astronomer waiting for the eclipse train" - the rucksack and tripod were the usual give-away!

After what seemed like an interminable wait at Paddington, the indicator boards finally announced the departure of the Explorers train. We made our way to the departure gate, but were completely unprepared for the sight that awaited.... A train comprising an ancient diesel locomotive hitched to some 15 or more ancient carriages. We speculated as to whether the carriages had last seen service during the 1927 eclipse or during filming of *Murder on the Orient Express*!

Although the train was fully booked it appeared to be little more than half-full. The forecasts of bad weather in Cornwall and the late change to the return departure time appeared to have discouraged many travellers!

The train arrived in Penzance at 5:15 am. I have never seen passengers so reluctant to disembark! The sky at this time suffered from about 60% cloud

but there were many large patches of clear sky. However, our enthusiasm was tempered by the knowledge that the forecast was for increasing cloud cover by late morning.

On venturing into Penzance town, my wife was not impressed! All the toilets were locked shut and few eating places were open – Penzance was not very welcoming towards its eclipse visitors! Eventually, after walking the streets for some time we stumbled upon the Queen's Hotel, which saved the day. The Queen's served an excellent breakfast and offered a sun lounge with a spectacular view due south over the promenade and the beach, directly towards the position of the sun during totality.

We took up temporary residence in the sun lounge in the Queen's and watched the spectators assemble and the cloud cover steadily increase. By the time of first contact, there was 100% cloud cover and steady rain. The rain persisted until approximately 10:45 am. By about 11:00 am the rain had stopped but the sky remained very overcast and gloomy. A substantial crowd had assembled some four or five deep along the whole length of the promenade. We left the Queen's to experience totality in the great outdoors.

The heavy cloud cover seemed to account for the dark conditions, until only some three minutes before totality, when the sky began to darken even further. Darkening proceeded rapidly, until at the time of totality, light levels were almost like night-time. Streetlights came on, the Penzance seagulls disappeared to roost, a few fireworks were let off over St Michael's Mount and thousands of camera flashes popped. There was no discernible change in wind speed or temperature at the time of totality – but this would have been difficult to detect on such a foul day. Following the end of totality the sky brightened very rapidly accompanied by some clapping and cheering from the crowd. By about 11:20 am the crowd decided that the show was over and began to disperse. The weather did not improve; however, by late morning we caught a brief glimpse of the eclipsed sun, showing approximately 50% phase, through a thinning in the clouds.

We spent the remainder of the day in Penzance. This proved something of an ordeal, as the town had not made any special effort to welcome the day-trippers. Eventually, we set off on the return train to London, checked into our hotel for the night at 1:30 am, and finally returned home at 2:00 pm on Thursday afternoon. Considering the experience as a whole: the abysmal weather which prevented observations, the lack of tourist facilities and the ancient rolling stock, it proved to be a very British eclipse!

The following pictures show some aspects of the trip.



View from the Western Promenade towards St Michael's Mount. Note the heavy clouds!



View towards the Tolcarne Beach showing the crowds forming shortly before totality.



Crowd assembling at Penzance Station for Explorers return train to Paddington.



Vintage carriage on Explorers train – last used for the 1927 eclipse or for filming *Murder on the Orient Express*?

James Appleton

11

## Eclipse Reporting Session

Many members of the society travelled to be somewhere in the path of totality to experience the Total Eclipse of the Sun on August 11<sup>th</sup>. Twenty eight of them attended the reporting session on September 3<sup>rd</sup>, when slides and video tapes were shown, and stories told, both of triumph and disaster, from the many different locations.

As is well known, the Cornwall contingent were denied most of the usual thrills, except the darkness. Even the BAA site only had the improvisation of torchlight and animation to compensate. Elsewhere in Cornwall Mike Harlow managed some atmospheric slides of the scene, using a table lamp, protected from the rain by an umbrella, to take a contrasting series pictures as totality approached.

The Continental contingent were more fortunate. Mike Wybray, after some frantic driving, captured some good views of the event in all stages from east of Fecamp in France, doing better than those at the official French site at Noyon, as Martin Cook would report. Only a few miles further east however, Ted Sampson and his party near Chauny had a lucky break in the cloud to get some projected images, and a good enough view of totality through light cloud. Paul Whiting in Germany did better still, with a fine video recording of most aspects of totality.

The travellers to Turkey predictably had the best uninterrupted views. Slides first from Paul, and then from Nigel Evans showed us what we missed. The first presenter also had some interesting statistics, with graph, to show the times of greatest concentration of visits to the closet'. Nigel had the misfortune, despite meticulous preparation, to have a failure of two of his five cameras. Yet as we now expect from him, he had some stunning images, including the sequence of the approach towards and including totality, and the moon moving away.

The reporting session was a grand event, and enjoyed by all members and visitors who were able to attend.

12

## SWITCH OFF BEFORE WE ARE ALL SWITCHED OFF

Switched off from seeing Stars that is.

Now that the nights are drawing in, could I please ask all members to be aware of the very real and ever increasing problem of light pollution.

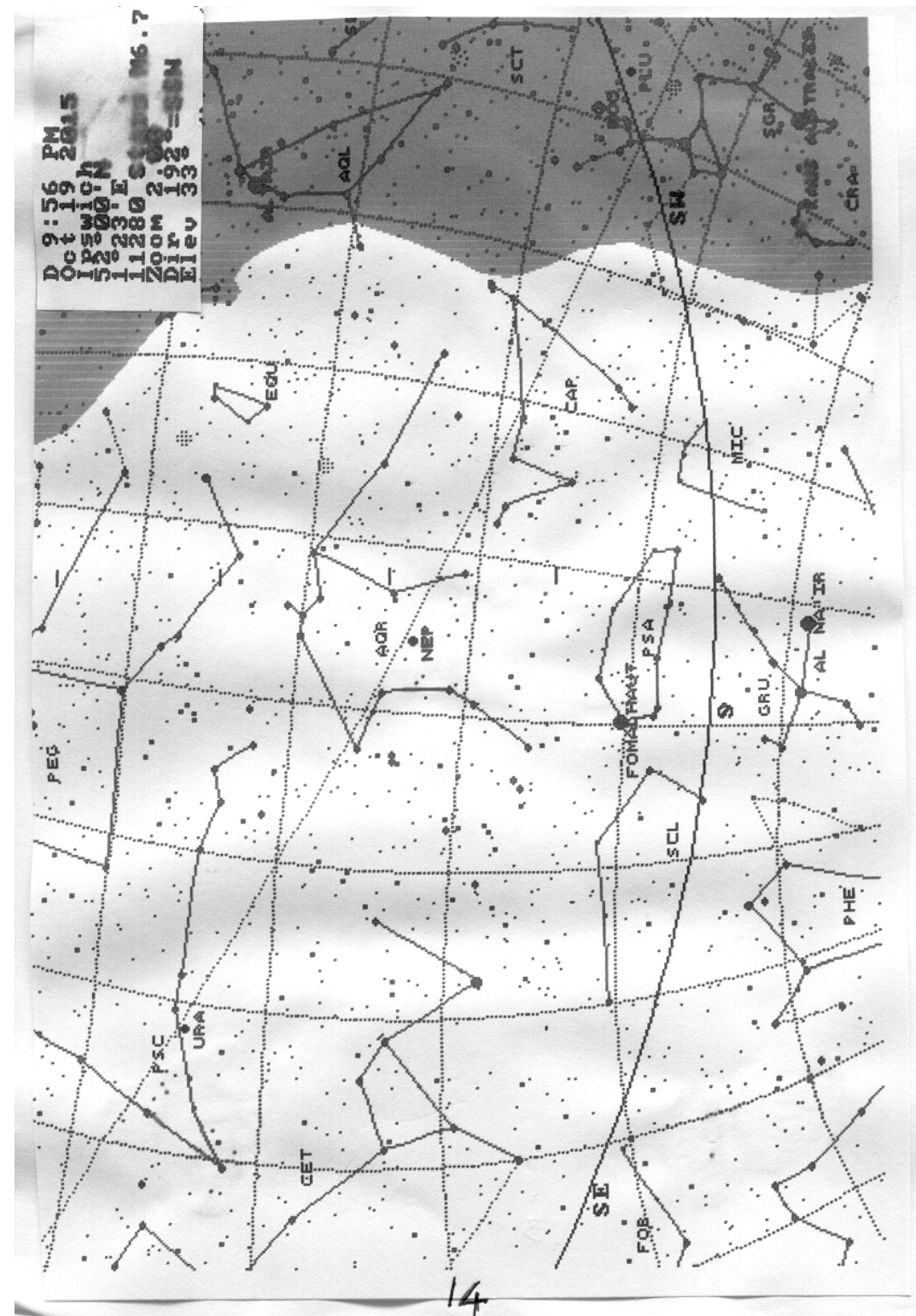
What can we do to limit light spillage into the night sky?

In fact we can each play our part in doing just that by ensuring security and garden lighting around our homes is only used when necessary, and is the minimum amount needed to allow adequate vision without blasting light everywhere including up into the night sky. An extra bonus could be lower electricity bills!

### WANTED

Meade ETX Telescope and Field tripod. Additional accessories considered. Please telephone Garry Coleman [REDACTED]

13



## Open Weekend

Wanted for the open weekend Posters , Photographs , notes of observations on Jupiter , Saturn , The Moon , The Sun & Sun-spots.

If you can help with any of these items please contact any committee member, the names are inside the back cover of this newsletter.

Also help will be needed to run the event, for example car park attendants, directing visitors, collecting donations, supervising displays, watching over telescopes and many other job that are to numerous to mention.

Here again if you can help contact any committee member.

E. Sims.

News letter coordinator.

## 1999 COMMITTEE

CHAIRMAN  
SECRETARY &  
WORK PARTY ORGANISER  
TREASURER  
MECHANICS  
NEWSLETTER CO-ORDINATOR  
BEGINNERS MEETING CO-ORD  
DARK SKIES & VISIT CO-ORD  
EQUIPMENT CURATOR  
LIBRARIAN

CO-OPTED MEMBER  
LECTURE CO-ORDINATOR

JOURNAL ARTICLES TO

CORRESPONDENCE ADDRESS

MEMBERSHIP

Home Phone Work Phone



E Sims Ipswich Suffolk IP1 4HA

R Gooding OASI Secretary  
Ipswich Suffolk IP1 6AE

M. Cook Ipswich IP4 5PZ

15

## Observing Programme For October

Dates	Observing Director	Activities
Mondays from 7.30pm	T Sampson	General Observation
Tuesdays from 7.30pm	G Coleman	Group Visits
Wednesdays from 8.00pm	M Cook D Payne	Nebular & Faint Objects
Thursdays from 7.30pm	G Coleman	Group Visits
Fridays from 7.30pm		Double Stars

All members are welcome on any night, but on nights other than Wednesday please check with the appropriate director that the observatory will be open.

## Special Events

### 1. Committee Meeting

The next committee meeting is going to be held on Saturday 27th November in the club room at the observatory at 7.30pm. All members are welcome to attend.

### 2. Open Weekend

The open weekend is on October the 16th & 17th.

Saturday the 16th we are open from 8pm to 10pm.

Sunday the 17th we are open from 2pm to 10pm to allow people to have a look round the observatory in day light.

### 3. Workshop

Wednesday October 13th 7.30pm. An observing project - planning and setting up.

### 4. Workshop

Wednesday November 10th 7.30pm. Observing project follow up - Star hopping techniques.

## Society Contact Details

	Home Phone	Work Phone
Chairman	D Payne	
Secretary	R Gooding	

Contact details for the full committee are on the inside back page.

e-mail queries:

[oasienq@btbcs.bt.co.uk](mailto:oasienq@btbcs.bt.co.uk)

WWW address:

<http://www.ast.cam.ac.uk:80/~ipswich/>

16

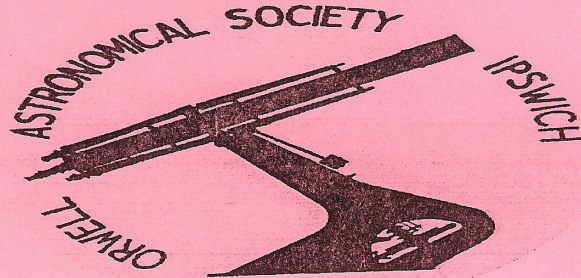


# ORWELL ASTRONOMICAL SOCIETY ( IPSWICH )

ORWELL PARK OBSERVATORY  
NACTON <sup>NR</sup> IPSWICH

## 1999 PUBLIC OPEN WEEKEND

THE ORWELL PARK OBSERVATORY WILL  
OPEN TO THE PUBLIC ON



SATURDAY	16 <sup>th</sup>	OCTOBER	From	8:00 to 10:00 pm
SUNDAY	17 <sup>th</sup>	OCTOBER	From	2:00 to 10:00 pm

The observatory will be open on Sunday afternoon for any one who is interested in seeing the observatory in daylight

Attempt to find Venus in daylight.  
Observe the Sun's surface in safety.  
Hear about the fascinating History of Orwell Park Observatory

## FOR THE OBSERVATION OF THE MOON, JUPITER, SATURN and the NIGHT SKY

If Weather Conditions Permit

If you have a pair of binoculars we recommend that you bring them with you

An alternative programme of talks and slide shows will be arranged if weather conditions are not suitable for observation

Entrance by Donation    One entrance fee will cover an evening and a Sunday afternoon visit

Child & Senior Citizen    50p  
Adult    £1

Honorary Secretary  
Roy Gooding  
16 8 Ashcroft Road  
Ipswich  
IP1 6AE