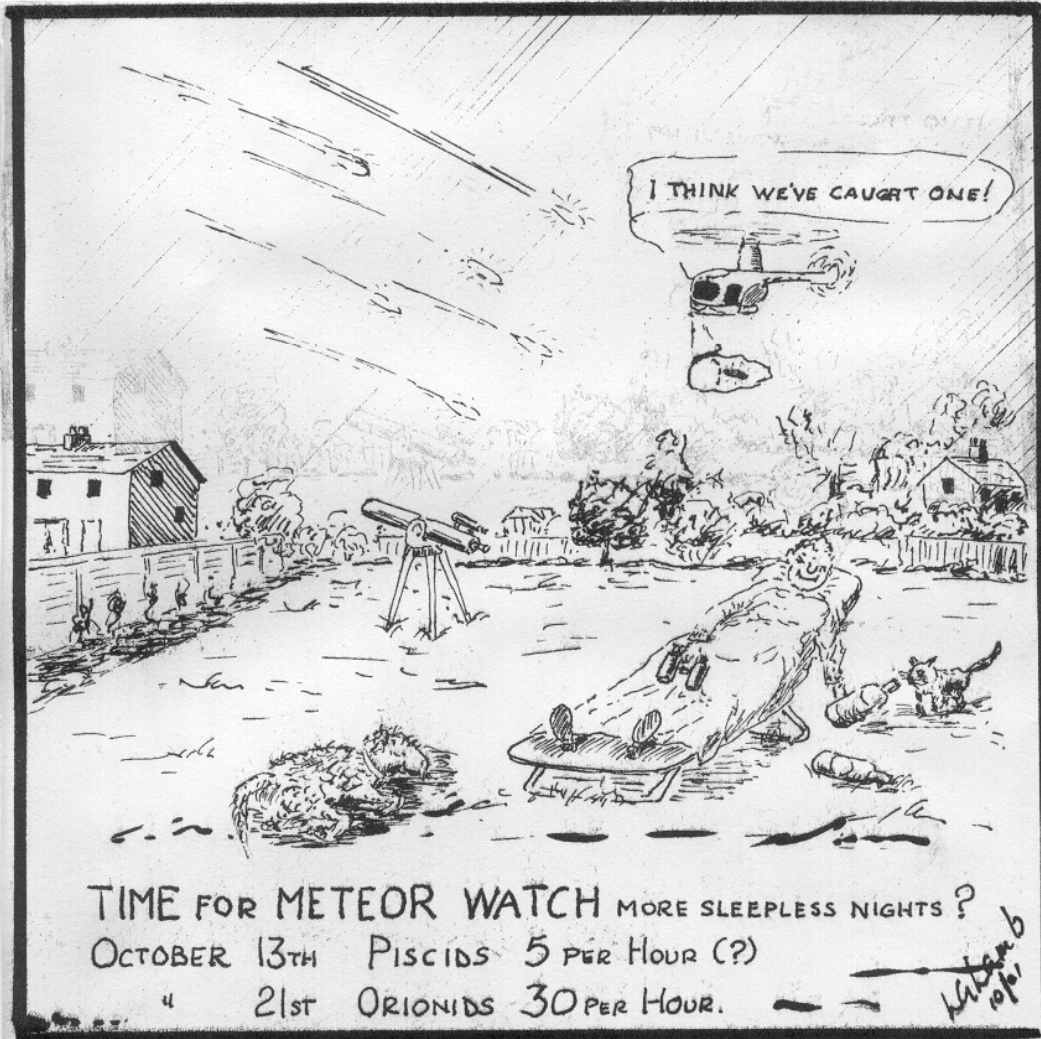


# ORWELL ASTRONOMICAL

## SOCIETY IPSWICH

Charity No 271313

### OCTOBER 2001



## Society News

### Open Weekend !!!



As much help as possible will be required for this year's event to run smoothly. If you are able to help, please contact any committee member, so that your name can be added to the rota.

Dates:- Saturday 24<sup>th</sup> October from 17:00 to 22:00  
 Sunday 25<sup>th</sup> October from 17:00 to 22:00

#### 1 Next Committee Meeting

The next committee meeting will be held on Saturday 17<sup>th</sup> November from 19:30 in the clubroom. This is an open meeting and any one who is interested is invited to attend.

#### 2 Events for 2001

Event	Details	Date
Astronomy Workshop	Telescopes & Observing	Wednesday 3 <sup>rd</sup> October
Lecture Meeting Friend's Meeting House, Fonnereau Road	Why the Universe Exists by Joao Magueijo	Friday 5 <sup>th</sup> October 20:00 start
FAS Convention	Venue: Rutherford Appleton Laboratory Oxfordshire	Saturday 13 <sup>th</sup> October
Visiting Cambridge Astronomical Association	See Other East Anglian Astronomical Society's page	Meets every 3 <sup>rd</sup> Friday of the month.
North Essex Astronomical Society	See Other East Anglian Astronomical Society's page	Meets every 3 <sup>rd</sup> Thursday of the month.
Norwich astronomical Society	See Other East Anglian Astronomical Society's page	Meets every Friday
Astronomy Workshop	Constellation Close up	Wednesday 7 <sup>th</sup> November
Open Weekend	Members help will be needed again this year. to prepare the displays	Saturday 24 <sup>th</sup> and Sunday 25 <sup>th</sup> November
Astronomy Workshop	Variable Stars	Wednesday 5 <sup>th</sup> December
Lecture Meeting Friend's Meeting House, Fonnereau Road	Space Odysseys 2001 short talks	Friday 30 <sup>th</sup> November 20:00 start
Christmas Meal	Oyster Reach Restaurant	Wednesday 12 <sup>th</sup> December 20:00

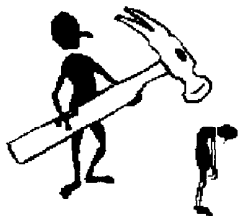
#### Christmas Meal

The Christmas meal this year will be at the Oyster Reach Restaurant Bourne Hill Wherstead Ipswich. The start time is 20:00 and will cost £14.95

If you wish to come please contact Roy Gooding

### 3 Its! Still Observatory Maintenance Time Again

Its that time of year again when the observatory is closed for observing, and all hands are requested to man (or woman) the power tools, hammers, and paint brushes.



During the next few weeks the equipment storage floor above the library is be extended and re-floored.

The lift shaft at the bottom of the stair well is to be floored across.

The library floor will be lowered, thus removing the step.

A book case will be either purchased or built.

Anyone who dares to show their face, will be press-ganged into helping. If you intend to come along to the observatory during October please come in old clothes.

### 4 Committee Meeting Notes

#### Security at Orwell Park School.

The Header Master, Andrew Auster has asked us to increase our security, when meeting at the observatory. Members who come along regularly to meetings at the observatory will be asked to display a society badge in their car windows. These together with holders will be distributed to members between now and the end of the year, when the new subscription year begins. If you only attend meetings on a casual basis please ask for a badge when you next arrive.

Always bring your membership card with you when you attend and sign yourself in the observatory log. Membership cardholders will be distributed to members between now and the end of the year when the new subscription year begins.

Any visitors to the observatory must always be met in the car park, and escorted to the observatory.

#### Constitution Amendment

The following will be added to the society constitution in Section 12.  
 "As implied by this constitution, the licence and other society documents"  
 This will be proposed at the next AGM for ratification.

#### CCD Equipment

A vote of thanks was given to Mike Harlow for donating a CCD camera and ancillary equipment to the society.

### Night Sky

All times GMT

#### Sun

The sun will be rising approximately between 06:10 and 07:00  
 The sun will be setting approximately between 17:50 and 16:30

#### Moon

Full Moon	3 <sup>rd</sup> Quarter	New Moon	1 <sup>st</sup> Quarter
2 <sup>nd</sup>	10 <sup>th</sup>	16 <sup>th</sup>	24 <sup>th</sup>

**Mercury** Mercury is at inferior conjunction on the 14<sup>th</sup>. It reappears in the morning sky, reaching greatest western elongation on the 29<sup>th</sup>, at 19°. It will be to near the horizon to be observed

**Venus** Venus starts to get closer to the sun in the morning sky, this month.  
 Magnitude -3.8

**Mars** Mars is moving further away from the earth this month, diminishing to only 10 arcseconds in size. Mars will be setting at about 21:50 in mid month. Magnitude 0.0

**Jupiter** Jupiter will be rising at about 21:20 in mid month. Magnitude -2.4.

**Saturn** Saturn will be rising at about 19:20 in mid month. Magnitude -0.1

**Uranus** Uranus will be rising at about 15:15 and setting at about 00:40 in mid month.  
 Magnitude 5.8

**Neptune** Neptune will be rising at about 14:30 and setting at about 23:20 in mid month.  
 Magnitude 7.9

### OCCULTATIONS DURING OCTOBER

The table lists stellar occultations 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 (°)	Star Alt (°)	Min Dist (rad)	Star	Mag
D	01 Oct 18:51	0.99+	-13	9	0.08S	ZC 18	5.8
D	21 Oct 17:25	0.27+	-6	11	0.50N	ZC 2610	6.9
D	22 Oct 18:24	0.37+	-16	11	0.08N	ZC 2771	5.6
D	23 Oct 17:16	0.46+	-6	14	0.62N	V4200 Sgr	6.2
D	25 Oct 17:52	0.65+	-12	16	0.59S	epsilon Cap	4.5
R	18:59	0.65+	-22	18			
D	25 Oct 21:45	0.66+	-44	12	0.50S	kappa Cap	4.7
D	28 Oct 22:54	0.89+	-50	29	0.17S	30 Psc	4.4
D	29 Oct 01:19	0.90+	-46	15	0.81S	33 Psc	4.6

Shower	Maximum	Limits	ZHR
Piscids	October 13 <sup>th</sup>	September to October	?
Orionids	October 20 <sup>th</sup>	October 16 <sup>th</sup> - 27 <sup>th</sup>	25

Meteor source is the BAA Handbook

### Other East Anglian Astronomical Society's Meetings

There is an open invitation to our members to attend any of the following local society meetings. If you do attend any of these meetings, please introduce yourself.

#### Norwich Astronomical Society

They meet ever Friday at the Seething observatory.

#### Directions to the Observatory

- 1 Leaving Ipswich along the A140
- 2 Turn right on the B1135 for Bungay
- 3 Turn left at Woodton to the B1332
- 4 Turn 1st right
- 5 Turn 1st right again. You should now be in Harveys Lane. It is sign posted to SEETHING OBSERVATORY, SEETHING INDUSTRIAL ESTATE.
- 6 Continue down this twisty and rather narrow road for just over 1 mile. You come to a crossroads. Go straight over, into Toad Lane.

You will pass the old USAF Airfield control tower on the left. The observatory entrance is on the left, about 200 yards further down the lane.



Bangs, Big Bangs and Whimpers	By David Cook	Friday 26 <sup>th</sup> & Saturday 27 <sup>th</sup> October
Seeing Double	By Philip Cowley	Friday 30 <sup>th</sup> November & Saturday 1 <sup>st</sup> December
A Voyagers Tale A visit to the Gas Giant	By Stuart Edge	Friday 25 <sup>th</sup> & Saturday 26 <sup>th</sup> January 2002
The Light of a Thousand Suns	By Mark Lawrik-Thompson	Friday 22 <sup>nd</sup> & Saturday 23 <sup>rd</sup> February
Galaxies Galore	By Philip Young	Friday 22 <sup>nd</sup> & Saturday 23 <sup>rd</sup> March 2002
The Space Race From Sputnik to Apollo	By David Balcombe	Friday 26 <sup>th</sup> & Saturday 27 <sup>th</sup> April 2002

Lecture admission £2.00 adults. Under 16 £1.00 Other Fridays are observing nights.

#### Cambridge Astronomical Association

The Cambridge AA meet in the Institute of Astronomy, Madingley Road Cambridge every 3<sup>rd</sup> Friday of the month.

#### North Essex Astronomical Society

The North Essex Astronomical Society meets every 3<sup>rd</sup> Thursday at the BT Social Club hall Witham Telephone Exchange. They charge £2.00 per person. At the time of writing I had not received an events programme for this group.

#### Society Contacts

Norwich Astronomical Society	Mr. Frank Lawlor	
North Essex Astronomical Society	Mr. Iain Manning	
Cambridge Astronomical Association	Mr. S. Trafford	

#### Summer Excursion to the National Space Centre (Roy Gooding)

At Astrofest 2000 there was a stand advertising the new National Space Centre in Leicester. This looked like a good venue for a future society summer excursion. However there would be a wait of about 18 months, as the Space Centre was not due to open until June 2001.

The intervening period of 18 months soon pasted, and a party of 26 members, families and friends set out for Leicester on Saturday 15<sup>th</sup> September. We left Crown Street coach lay-by at about 08:10 and arrive at the space Centre a little after 11:00. The day started out fine, but had turned to intermittent drizzle, during the journey.

The Space Centre Exhibitions ranged from the uses of satellites in Earth orbit, exploring the planets and the universe and a full-scale mock-up of the module that ESA is building for the International Space Station. The displays were designed to be used principally by children and school groups, with a large selection of hands on exhibits. These would keep youngsters of any age amused for hours.

By the side of the coach park there was another museum that no one know about. It was a former pumping station that used two very large beam engines to power the pumps. Several of us quickly walked through on the way back to the coach. Had we known about earlier it would have deserved more than a cursory glance. The beam engines are still in working order, and are turned on a few times a year on steam days.

With a short break at a road side service station for a bite to eat we arrived back in Ipswich a little after 20:00. Every one mentioned that they were satisfied with the day out.

## Open Weekend 2001

Our annual fund raising event this year is being held on Saturday 24<sup>th</sup> and Sunday 26<sup>th</sup> November. This is will be the biggest society organised event for 13 years, (the last was the convention held in 1988).

This event needs All members to assist, if it is to go smoothly. Many areas have to be manned (or womaned) continuously, with enough members to assist as relief.

### Open Weekend !!!!!



As much **help** as possible will be **required** for this year's event to run smoothly. If you are able to **help**, please **contact** any **committee member**, so that your **name** can be added to the **rota**.

Dates:- Saturday 24<sup>th</sup> October from 17:00 to 22:00  
 Sunday 25<sup>th</sup> October from 17:00 to 22:00

#### Programme so far

Three classrooms will be in use, as well as the observatory.

#### Displays

Eclipse Chasing	Nigel Evans
Occultation's for the bloke in the street	James Appleton
Radio Astronomy. Recordings of Helen Sharman in space	Paul Whiting
Hands on Computers	Mike Whybray
OASI club stand	Ken Goward
G. B Airy Centenary	Ken Goward
Clarkson's Moon Crater ( Gassendi A)	Ken Goward
Other displays are welcome please contact Ken Goward	

Exhibition Space	Exhibition Space	Promotional Materials
Clacton AS	Anglia Cameras	Springer Verlag
BAA	Earth & Sky	PPARC

#### Areas that require manning

Car Park
Reception Desk
Exhibits and displays
Telescopes in the court yard
Telescopes on the balconies
Tomline Telescope
Floating members who are able to offer relief to others and to talk and answer visitor enquiries.

**WANTED**  
**OLD ASTRO & SPEACEFLIGHT**  
**MAGAZINES.**  
**OLD ASTRO & SCIENCE BOOKS.**  
**OR ANYTHING APPROPRIATE**  
**FOR RESALE AT THIS YEAR'S**  
**OPEN WEEKEND.**

The above items raised much needed additional revenue at last year's event and we propose to repeat the exercise!!

Please bring your unwanted goodies up to the observatory – or contact Ken Goward

email [redacted]

# A LONG HOT SUMMER WITH THE HEAVY GANG

By Ken Goward

You know, if there was an OASI award for tenacity of purpose then our Librarian, James Appleton, would be seriously in the running...

You see, for as long as some would care to recall he's nagged away at committee meetings about the somewhat 'third world' state of the OASI library and, said he for the umpteenth time, "What are we gonna do about it?"

So – to keep him happy we've well and truly grasped the nettle and set about a major refurbishment of the library and lift shaft.

## THE PROBLEM

Regular users of our library will be fully cognisant of the singular unsuitability of the old arrangements;

- A raised floor - the cause of more than one cartwheel out for unsuspecting newer members.
- The all pervading musty smell.
- Poor lighting.
- The tendency for everything not in current use to be deposited there.
- Need one go on...

## THE PLAN

After many months of discussion a consensus emerged that we should factor in the following alterations;

- Floor over the old lift shaft at the bottom level to make a new storage area for all that stuff 'not in current use'.
- Remove the stage floor in the library and replace with a new one level to the club room floor.
- Construct new book shelving and affix to wall, which is to be protected against damp ingress by a battened membrane – book shelving to be encased behind glazed doors.
- Replace tool storage area floor and affix new ceiling below (library ceiling) – extend tool storage floor by 18" (or whatever that is in foreign measurements).
- Replace library lighting.
- Provide low-level background heating in library.
- Make good and paint.
- All to be done over the 2001 summer observing hiatus.

## THE REALITY

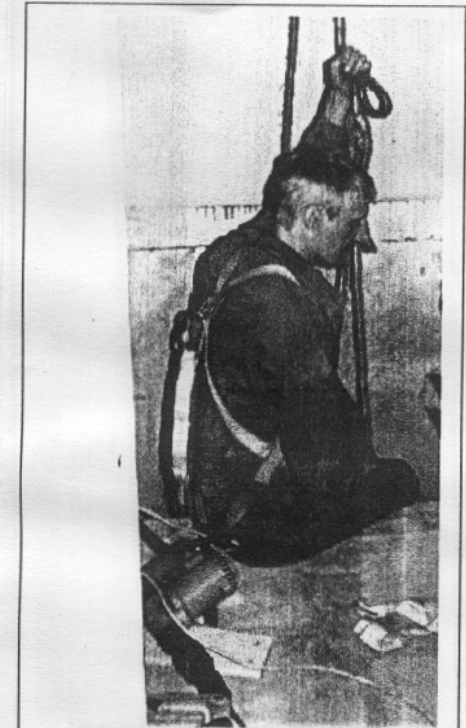
A fine idea on paper, but was there ever a plan that came off thus? !!

Fortunately we are blessed with a fine 'Jack of all trades' in the persona of Martin Cook. He quickly became the de facto leader of a small group of 'workers' who even more quickly picked up a nickname, 'The Heavy Gang'. They were split into two sub specie (?) the Builders and the Disposers...

It's quite a drop down that shaft you know and a certain level of bottle is needed to contemplate working within its confines. The first job was to accurately mark off lines for joist hangers to be inserted into the walls at the lower level. At first we used some old steps hung over the precipice with yours truly acting as counterweight (fat slob) whilst others clambered out. Martin soon got all professional on us and brought along a pukka industrial harness, secured by ropes strung over the upper level beams for safety. It took about four weeks and X amount of sweat until new beams were securely fitted and floorboards nailed down.

Meanwhile, the Disposers had been efficiently going about their business carting away all our debris and any redundant junk they could sniff out. So efficient, in fact, that I for one took to parking my car some way from the observatory as it's seven years old and an obvious tempting target for their disposal activities!

The main work has been in the library, which necessitated the removal of the old staging and a substantial girder support structure below, which OASI members had installed some years previously. For many weeks we hammered, banged, swore, perspired and downed the odd glass of Adnams afterwards as the task ground slowly on. As I write the light is at



Heavy Gang leading light, Martin Cook, prepares to descend into the abyss.

Photo Les Lamb.

the end of that tunnel and we have now completely replaced the old floor with a new flush level one and are about to undertake the last of the real heavy work by replacing the tool store floor.

#### WHERE WE ARE NOW

Still some weeks away from completion and likely to drag on a little as we enter the observing season again. Believe it or not – one or two of the Heavy Gang are hoping for clouded Wednesday evenings so that they can press on with the project!

#### THE FINISHED PRODUCT

At the end of all this we'll have a facility to be proud of. Garry Coleman's design for the bookshelves is most impressive. The library ceiling will be of polished Pine planking with inset Halogen Down Lighters. Fixed steps will lead to a much improved tool storage area and the windows will be cleaned up, varnished and returned to something of their former glory. On the wall opposite the bookshelves will be a low wattage slim line electric heater and the whole emphasis will be on making our extensive library a pleasant place to browse and read.



Martin Cook and Ken Goward dismantle the old girders.  
Photo Les Lamb

James will have to find something else to campaign on at committee meetings methinks!

#### ARCHIVE REQUEST

If anyone has taken photos of the above works taking place – and we were aware of flashes occasionally going off – I would appreciate the loan of same to be scanned and added to our display/archive of the observatory history and restoration.

Ken Goward  
Heavy Gang general dogsbody

## GCSE ASTRONOMY

I am sure that the members of OASI will be pleased to know that I have at long last completed the GCSE Astronomy course. It is now safe to talk to me secure in the knowledge that I will not be asking difficult questions such as “Can you explain sidereal time just one more time please?”, when all you really want is some peace and quiet to do a spot of observing.

As a complete novice in the field of Astronomy I found the GCSE course to be invaluable. It is very broad based with five main areas of interest:

1. Planet Earth
2. The Moon and the Sun
3. The Solar System
4. Stars and Galaxies
5. Observing Techniques and Space Exploration

Thanks to the course I now understand the concept of Right Ascension and would like to try to observe examples of the different types of binary star systems.

There are also four pieces of coursework to submit. These are chosen one from each of four categories:

1. Naked Eye Observations
2. Photographic, Binocular and Telescopic Observations
3. Graphical and Computational Work
4. Constructional Work

I chose to estimate the magnitudes of the stars in three constellations with the naked eye as my first piece of coursework. I then made drawings of Saturn and Jupiter using the main telescope and drew the stages of the recent Lunar Eclipse using my binoculars for the second piece. I also drew a star chart and plotted the paths of Saturn and Jupiter on it for the year 2001 to complete the graphical work and finally I made a telescope to satisfy the constructional work component.

I would like to say that the members of the society have been extremely helpful to me throughout the course. All of you have offered encouragement, many have answered my seemingly never-ending stream of questions and some have given valuable practical advice with coursework. This was especially needed when I began to make my 'telescope' from an old piece of drainpipe and a short length of conduit. It took an evening of debate and head scratching to solve the problem of how to fix the lenses into their respective tubes and then how to fix the two tubes together, but in such a way as to still allow some movement to focus the telescope. Thanks to Martin the final problem was eliminated when he kindly provided a custom made plastic 'doughnut' shape, which can only be described as perfect. My telescope even earned the admiration of some members and the compliment of 'probably providing a better image than Galileo's first but ground breaking telescope!' Not bad for the total cost of £2.22!

So if you feel that you could answer questions such as:  
'How are Cepheid Variables used as distance indicators?'

or

'How is the method of heliocentric parallax used to measure the distance of nearby stars?'

then GCSE Astronomy is the course for you. I have a copy of the syllabus and a selection of past papers, with answers, if anyone is interested!

It seems fitting that I managed to gain a starred A grade for the GCSE and it has to be admitted that this is in no small way due to the expertise of the members of the society. Thank you one and all.

Kathryn Gerry

# SECURITY AT ORWELL PARK A REVISED SYSTEM FOR OASI MEMBERS

School security has been under review, following isolated cases of theft from the premises in recent weeks and the following is entirely unrelated to current terrorism concerns.

In order to assist school staff in identifying bona fide persons on school premises, it has been agreed between the society and the school authorities that;

1. All OASI members will be required to wear their membership cards in neck hung pass holders whilst on the premises of the Orwell Park School & Observatory.
2. All OASI members who park their cars on school premises will be required to display the round society badge in their car windscreen(s).

Over the next few weeks the society will purchase sufficient pass and tax disc style holders for distribution to all members. It is anticipated that members who regularly attend the observatory will receive their pass holders as and when they become available and that ALL members will receive their holders with their renewed 2002 membership cards – *please let us know if you use more than one car!*

Full implementation, therefore, will be by end January 2002. In the meantime it would be appreciated if members attending the observatory, display their membership cards in plastic pin on holders that are available in the clubroom.

Neither the Committee, nor the school, desire to make Orwell Park into Fort Knox and we hope you will agree that these arrangements are sensible and impose no burden upon anyone – beyond remembering to wear their ID, that is!!

*Ken Goward*  
**For the OASI Committee**

### Astronomy Workshops - Series 4

The first of the new series of workshops will be held on **Wednesday October 3rd from 7.45 until 9.00pm**. As previously, the venue will be the school science classroom which is on the ground floor, with the entrance in the corner of the courtyard. The subject is '**Home Telescopes**'. The success of the evening depends largely upon members bringing their telescopes for others to see, and being prepared to say a little about them. Due to the continued stiring work by Martin and his team on the levelling of the library floor, the balcony area is not yet available for a follow-up session on Monday. Ted Sampson.

### Observing Programme For October

Dates	Observing Director	Activities
Monday		Nothing Booked
Tuesday		Nothing Booked
Wednesdays 3rd 10th 17th 24th 31st from 8.00pm	M Cook D Payne	Nebular & Faint Objects
Thursday	11th St Mathews Church 25th Martlesham Cubs	Group Visits
Fridays		Nothing Booked

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.

### 2001 COMMITTEE

	Home Phone	Work Phone
CHAIRMAN	D Payne	
SECRETARY & WORK PARTY ORGANISER	R Gooding	
TREASURER & PUBLICITY	K Goward	
MECHANICS	M Cook	
NEWSLETTER CO-ORDINATOR	E Sims	
BEGINNERS MEETING CO-ORD & VISIT CO-ORD	T Sampson	
EQUIPMENT CURATOR	G Coleman	
LIBRARIAN	J Walsh	
	J Appleton	
CO-OPTED MEMBER		
LECTURE CO-ORDINATOR & DARK SKIES	P Richards	
JOURNAL ARTICLES TO CORRESPONDENCE ADDRESS	E Sims	Ipswich Suffolk IP1 4HA
	R Gooding	OASI Secretary Ipswich Suffolk IP1 6AE
MEMBERSHIP	M. Cook	Ipswich IP4 5PZ

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### Special Events

#### 1. COMMITTEE MEETING November 17th

The next committee meeting is to be held on **Saturday 17th of November at 7.30pm in the club room at the observatory**. All members are welcome to attend.

#### 2. LECTURE MEETING October 5th

The next lecture is at the Friends Meeting house in Fonnereau road on **October 5th at 20.00**. The subject is "Why the Universe Exists" by Joao Magueijo of Imperial College.

#### 3. ASTRONOMY WORKSHOP October 3rd

Telescopes and Observing. Members to bring own telescopes and demonstrate.

### Society Contact Details

	Home Phone	Work Phone
Chairman	D Payne	
Secretary	R Gooding	

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

e-mail queries: [ipswich@ast.cam.ac.uk](mailto:ipswich@ast.cam.ac.uk)  
 WWW address: <http://www.ast.cam.ac.uk/~ipswich/>

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