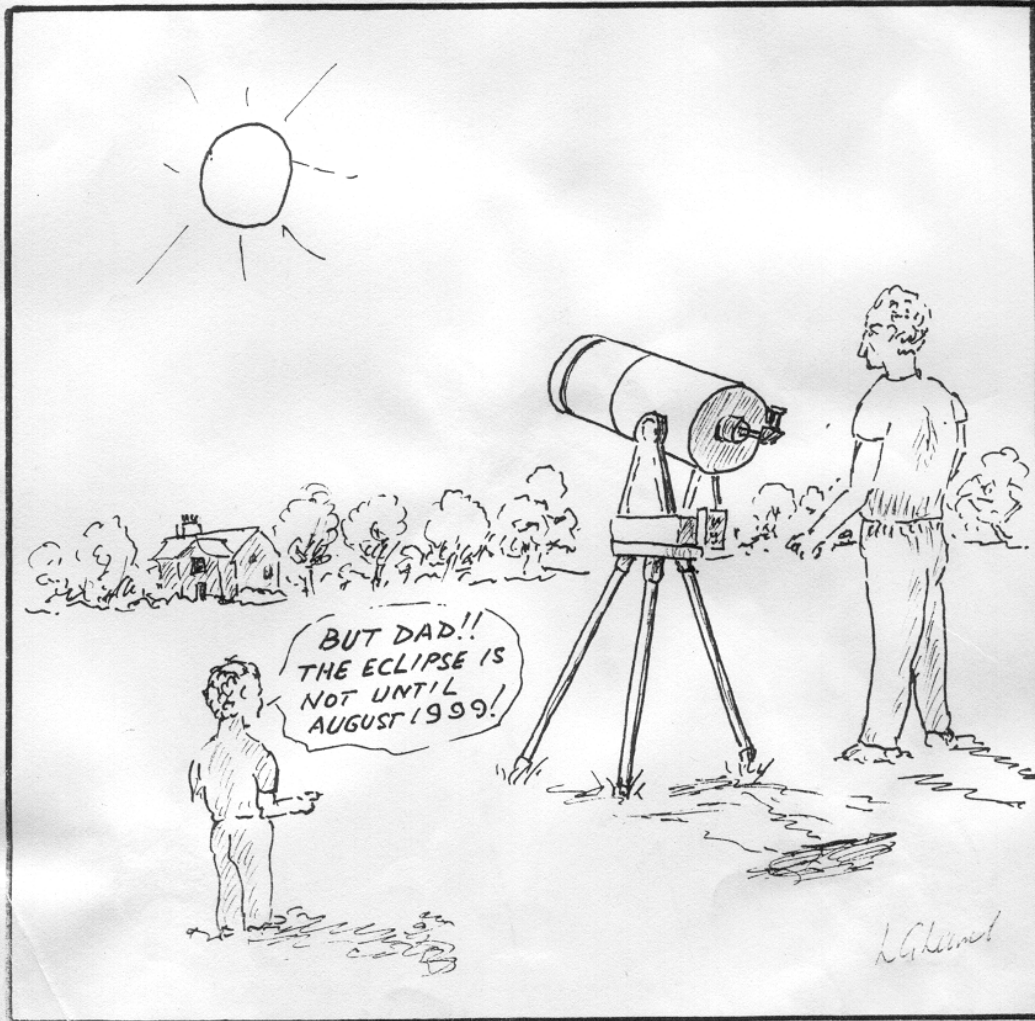


# ORWELL ASTRONOMICAL SOCIETY IPSWICH

Charity No 271313

## AUGUST 1998



## Society News

### 1 Next Committee Meeting

The next committee meeting will be held on Saturday 12<sup>th</sup> September from 19:30 in the club room. As usual this is an open meeting and any one who is interested is invited to attend.

### 2 Events for 1998

Astro Camp	From 16 <sup>th</sup> August
Summer Barbecue	Provisionally 5 <sup>th</sup> September
Horncastle Weekend	From 11 <sup>th</sup> September
Thetford Astro Camp :- Ashdown AS	From 18 <sup>th</sup> to 27 <sup>th</sup> September
Lecture meeting: Nial Tanvir Intergalactic Stars	2 <sup>nd</sup> October Friends Meeting House 20:00 start
FAS Cambridge Convention	3 <sup>rd</sup> October
Open Weekend	16 <sup>th</sup> , 17 <sup>th</sup> 18 <sup>th</sup> October
Lecture Meeting: Martin Mobberley	3 <sup>rd</sup> December ( Thursday) Friends Meeting House 20:00 start
Christmas Meal	9 <sup>th</sup> December. The venue for this years meal will be at the Newbourn Fox

### 3 Committee Meeting Summary

The last committee meeting was held on Saturday 4<sup>th</sup> July. Items discussed included.

- a) Ted Samson has been co-opted onto the committee. Ted will be responsible in coordinating the Beginners Sessions, formally named the Informal Interactive Workshops. These will begin on Wednesday 9<sup>th</sup> September. The agenda and meeting place are being arranged. Information will follow in next month's newsletter.
- b) Present membership is at 64 with 3 honorary, this has stayed the same since the last meeting
- c) A selection of new books will be purchased for the library to complement the Beginners Session meetings
- d) Decorating working parties are to be arranged during August to paint the interior of the dome. If you are able to give a hand please contact any committee member.
- e) Discussion held on next years Total Eclipse  
Mylar Eclipse glasses will be purchased.  
Details of the BAA event at Truro School are at the dome  
Full details of the Explorers tour is available at the dome

Dave Payne has checked with the Caravan & Camping club. Sites are now taking bookings from members.

# Night Sky

All times GMT

## Sun

The sun will be rising approximately between 04:20 to 05:10  
The sun will be setting approximately between 20.00 to 19:00

## Moon

<b>Full Moon</b>	<b>3<sup>rd</sup> Quarter</b>	<b>New Moon</b>	<b>1<sup>st</sup> Quarter</b>
8 <sup>th</sup>	14 <sup>th</sup>	22 <sup>nd</sup>	8 <sup>th</sup>

**Mercury** Mercury will be at inferior conjunction on 13<sup>th</sup>. It will then be moving into the morning sky, reaching greatest western elongation on the 31<sup>st</sup> (18°). At the end of the month it will be rising about 2 hours before the sun.

**Venus** Venus remains in the morning sky, where it is low down in the morning twilight sky. Mercury is due south on the 25 - 26<sup>th</sup>. Magnitude will be at -3.8.

**Mars** Mars will be rising about 02:00 in mid month. Magnitude 1.7

**Jupiter** Jupiter will be rising at sunset at the end of the month. Magnitude -2.8

**Saturn** Saturn will be rising at about 20:30 by the end of the month. Magnitude 0.3

**Uranus** Uranus will be at opposition on the 3<sup>rd</sup> Magnitude 5.7

**Neptune** Neptune will be setting at about 02:00 at the end of the month. Magnitude 7.8

## Meteor Showers

Name	Limits	Max	ZHR
δ Aquarids	July 15th to August 20th	July 29th	10 / 20
α Capricornids	July 15 <sup>th</sup> to August 20 <sup>th</sup>	August 2 <sup>nd</sup>	5
ι Aquarids	July to August	August 6 <sup>th</sup>	8
Perseids	July 23 <sup>rd</sup> to August 20 <sup>th</sup>	August 12	140

Meteor source is the BAA Handbook

Roy Gooding

## THE RANSOMES CONNECTION

The third and concluding part of Ken Goward's historical exploration & analysis  
If, as a result of my inane scribbles, you haven't given up  
Astronomy altogether or - perhaps - sought refuge in some far  
flung Monastery or Convent. Take heart because we come, at  
last, to discuss the Orwell Park instrument...



### So, where does this all fit in...

In this final part I will make some observations and what I believe to be not unreasonable conjectures on the installation of our instrument. Let me say at the outset that I am merely a young(?) pup of a new member with no 'pedigree' within our society and that I entirely acknowledge the extensive superior knowledge and long experience of senior members who have researched or worked upon the instrument over many years. I certainly do not wish to insult your intelligence by explaining the backgrounds of two final 'players' in the connection - *Wilfred Airy* (son of Sir George) and *George Tomline* - about whom many far worthier sages have documented their biographies for our benefit.

### Established facts - well and lesser known

*'Tomline had Wilfred Airy, the son of the then Astronomer Royal George Airy, design the telescope and observatory for him. Troughton & Simms of London, the world's leading telescope maker at the time, built the telescope.'*

*'The telescope was installed in the new observatory in 1873/4. It had a 10 inch (25 cm) object glass that was made by Merz of Germany at a cost of £333.6s 8d. The cost of the telescope tube and mounting alone was £1,345. 12s 8d, bringing the total cost to £1,678. 19s 4d. Even today this is a considerable amount of money, but Tomline was extremely wealthy and money was no object he demanded the best.'*

Direct quotes from the very useful historical guide, issued to all new members, compiled by Messrs Radley, Cheeseman, Barnard, Gooding and Marriott. No mention of Ransomes there but the reader will note the final costs *included* the mounting and the implication might be that - *somehow* - Troughton & Simms must have provided or produced it. I find that a little odd as the company were primarily involved in the production of fine instrumentation, rather than heavy casting. My own feelings are that the arrangement would have been as for the production of the three Greenwich instruments, subject of the previous part of this series, in as much as Troughton & Simms were responsible for the instrumentation & optics, whilst the heavy mounting WAS entrusted to Ransomes - possibly with the Ransomes element of the final price being billed by Troughtons?

There are individual similarities too;

- (1) The Airy Altazimuth Instrument of 1847 was mounted on a 26 feet high central brick pier, separate from the rest of the dome. I offer the conjecture that Wilfred Airy was influenced by his father's idea to raise the observing height above surrounding buildings and avoid river mists when he entrusted the Architectural design details at Orwell Park to Mr J MacVicar Anderson FRIBA.

- (2) The Airy Transit Instrument of 1847. Nothing individually connecting here.
- (3) The Airy Great Equatorial Refractor of 1859. When our instrument was made the generally accepted largest sized British made object lenses were up to 6 inches. It was also accepted that the 'foreigners' were better at the larger sizes and that the company trading as Messrs Merz of Munich were market leaders for the excellence of their glass and their ready availability 'off the shelf'. The Great Equatorial used a Merz 12.8 inch Object Glass. Our instrument has a 10 inch Merz Object Glass. What is not so generally well known is that our OG was mounted in a temporary tube on the wrought iron framework of the Greenwich instrument when first imported for comparison\* and quality checks with the 12.8 telescope before going on to Troughtons for fitting into the Orwell tube.

*\*Comparisons were made by turning both telescopes onto bright double stars, looking at the separations and diffraction rings.*

#### **Call in the 'Independent Expert'**

Some time ago, the bulk of Ransomes historical records (everything from order books to blueprints) were passed to the archives at the University of Reading to be stored for posterity. Extensive though those Ransomes archives are, there seems to be no mention of the Orwell instrument, or, indeed, the Airy Altazimuth and Transit instruments at Greenwich. The Great Equatorial instrument receives only a vague 'passing note'. Our own secretary, Roy Gooding, has undertaken considerable research on this, both via Reading and local sources with a negative result. Fortunately, my previously mentioned daytime - 'anorak' - hobby, Traction Engines, came into play as a fellow member of the East Anglian Traction Engine Society (Mr Fred T Dyer. C.Eng FIME), is internationally acknowledged by the steam preservation fraternity as THE leading authority on the history and products of Ransomes of Ipswich. Fred, who lives at Ashbocking, was apprenticed in the 1930's at Ransomes - the last apprentice ever to train on steam engine engineering there. He worked continuously for the company until his retirement a few years ago, over the years being promoted up to the giddy heights of Farm Machinery Works Manager. He has written much on the subject and retains close links with both the company and the few surviving descendants of the Ransomes family, including the only true direct descendant who now farms in New Zealand. Fred has also contributed much to the archives at Reading. Beyond the Great Equatorial he, too, had no previous knowledge of Ransomes telescope making activities. It was with considerable pleasure that Fred accepted an invitation to visit our instrument at Orwell Park in May of this year to cast his expert eye over the mounting and give an opinion, rather in the style of the Antiques Roadshow experts, on whether or not he thought it might be of Ransomes origin..

#### **Mr Dyer's Expert Opinion**

The two part telescope mounting is 'almost certainly' a Ransomes product (Ransomes, Sims & Head) from their Orwell Foundry, both by casting style and size. At that relevant period (1870s) the only other foundries capable of making castings of such size and accuracy were no closer than Sheffield, although the Royal Naval Dockyards at Chatham - *at a pinch* - had facilities for such castings, but that seems most unlikely. The casting would have been dug into the floor of

the Orwell Foundry and a wooden former would have been placed into the excavation with sand very tightly packed around. The former would then be removed and a core fashioned\* after which, molten metal would have been poured into the resulting mould. Our mounting bears marks that were made by hardwood spindles which passed through the outer mould to hold the inside core as well as provide a means of lifting out the cooled casting after the process. The spindles were subsequently removed and their holes were patched with core plugs. There is evidence of a Ransomes style makers plate having been on the neck of the mounting at some point. Ransomes and other manufacturers usually placed a plate on the outside of such castings, there wasn't much point in putting one on the inside! It would be a likely scenario that the mounting would have been transported by barge downstream along the Orwell direct from the works.

*\*The inner core would have been made of anything that came to hand and was pressed into use if it could be easily broken out afterwards. The 'preferred' mix to pack in tightly was sand, straw and horse droppings. Hygiene obviously wasn't too big an issue in those days!*

#### **Conclusions**

There now appears little doubt of the Ransomes origin, both from circumstantial evidence of previous Airy/Troughton & Simms/Ransomes collaborations and Fred's expert opinion.

It has been proffered to me that the suggested makers plate marks were, in fact, made by a gas lamp fitting which is known to have been on the telescope mount. However, I have studied the 1970 Anglia TV footage of our instrument and it is clear from that film that the gas fitting was at the 'inward radius' just above the large hole near the floor, not continuing so high up the mount. Can I suggest it went missing during the WWII military requisition period and that the Army, bless 'em, possibly might be the starting point to look for our missing plate - what a perfect souvenir of one's service days it would have made for some bored squaddie?

The steam lover in me has a kind of romantic hope that the mount might have been hauled into place by the very successful Ransomes 'Portable' steam engines of the day. More likely, however, was some kind of windlass/sweat and tears arrangement as local labour was plentiful and cheap in those days.

#### **What next?**

Obviously it would be marvellous if documents confirming the specification/order to the Orwell works were ever to surface, although that is less likely the further time passes. Perhaps a concentrated trawl through the local newspapers and other publications of the day might turn something up - maybe a feature on the raising of the mount too?

Still being actively researched but about 95% confirmed is, perhaps, a hint of Victorian nepotism by George Biddall Airy viz. The original Robert Ransome married a local lass, Mary Raven and that union produced 12 children. One of them, Jane Ransome, settled down and married one Arthur Biddall of Playford and their union, in turn produced 10 children (*TV and electric blankets hadn't yet been invented..*) One of the daughters amongst those 10 married a local chap George Airy - the future great man himself. Having mentioned nepotism, perhaps one should be more charitable and ponder that Airy was, obviously, familiar with Ransomes quality and trusted them to 'do the job' correctly.

## NEW LIBRARY BOOKS

I have purchased three new books for the library. They are aimed primarily at beginners, although I hope that they will also be of some interest to experienced observers.

*Philip's Guide To Stars And Planets* by Patrick Moore. This book provides a general introduction to astronomy, covering the solar system, star clusters, galaxies and constellations. Approximately half the book is devoted to a listing of the constellations which contains a useful and comprehensive listing of the main observing sights associated with each.

*Collins Pocket Guide To Stars And Planets* by Ian Ridpath and Wil Tirion. The bulk of this book is devoted to a detailed description of the constellations including a list of the main observing objects associated with each.

*Teach Yourself Astronomy* by Patrick Moore. This book is an excellent introduction to the whole subject of astronomy. Written in the inimitable style of the author, it will appeal to beginners and experienced observers alike.

The library is housed in the Orwell Park Observatory. It holds a selection of astronomy books, videos and magazines. All members of OASI are welcome to use the library. Please contact me with requests for purchases of books, videos and software.

James Appleton

## OCCULTATIONS DURING AUGUST 1998

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 (r)	Star	Mag
D	01 Aug 22:07	.63+	-16	11	.11N	gamma Lib	4.0
D	14 Aug 02:25	.58-	-16	36	.57N	mu Cet	4.4
R	03:21		-11	43			
D	16 Aug 02:04	.36-	-19	23	.19S	89 Tau	5.8
R	03:05	.35-	-13	32			
D	16 Aug 02:45	.35-	-15	29	.86S	sigma 2 Tau	4.8
R	03:17	.35-	-12	34			

James Appleton

Incidentally, there was a local portrait artist, Anna Pocock (nee Airy), who passed away just a short while back, a centenarian resident of Playford who was the granddaughter of George Airy and, most likely, Wilfreds daughter\*.

An element of this last part of the 'Ransomes Connection' is subjective and I actually hope that someone might be able to 'shoot me down in flames' on certain aspects as it is my belief that this series of articles will fail if they have not sparked healthy debate amongst our members. **If you have a missing piece of the jigsaw - the committee would appreciate hearing from you** and if you might want to debunk any of my scribbles, well, my back is broad...!

\*Dr Gloria Clifton, curator at the Old RGO, and Fred Dyer are digging further on these family connections.

**Footnote.** Fred pointed out to me that the new Ransomes Europark MFI retail unit stands on the former part of Ransomes land where used casting sand was dumped for a great many years. Can I speculate, therefore, that one might purchase furniture of a reputedly shaky quality from premises on very shaky foundations!!

Ken Goward

Informal Interactive Workshops for Orwell Astronomical Society Members - update.

A focus group of five members was appointed at the July committee meeting to work out details for the workshops ie: themes for the sessions, presentation, and format. Wednesday evenings from 7.30 to 8.30 seems the most popular time, although regrettably this will not suit all. The first monthly session is planned for Wednesday September 9th. We hope to have the use of a room at the Orwell Park school. Final details will be sent out in another letter in August. For further information, requests, suggestions, or comments, please contact Ted Sampson on [redacted] or Ken Goward on [redacted].

## VENUE FOR BARBECUE

At the last committee meeting we talked about the possibilities of having a club barbecue but every venue we came up with was a non starter. What we need is suggestions from some body else out there. What is really needed is some body who knows of a sight that allows parties of people to congregate with portable barbecues and space to park cars out of the way. Another option is some very kind and understanding person with a large garden with an unhampered view of the sky, so that if it is clear then it would be even better for those who have portable telescopes to bring them along and make it a very memorable evening.

If you have any ideas of a suitable sight then can you please get in touch with any member of the committee as soon as possible. As every one knows, although summer still doesn't seem to have arrived, but it could happen at any time, so this is a question that needs a very quick answer if we are to arrange any thing for this year.

E. Sims

-7-

-8-



Loughton Astronomical Society

Presents:-

# THE 4th EQUINOX SKYCAMP.

{Sponsored by Broadhurst, Clarkson & Fuller. London}

**Friday 18th September  
Until Sunday 27th September**

At the DOWER HOUSE TOURING PARK,  
EAST HARLING, THETFORD, NORFOLK.

ENGLAND NR16 2SE

Tel: 01953 717 314

**Cost Per Pitch per night**

Prebook £6.50 On day £7.00

If prebook minimum stay 2 nights please quote reference number SC4 when booking.

**Main Event Day: Saturday 19th September**

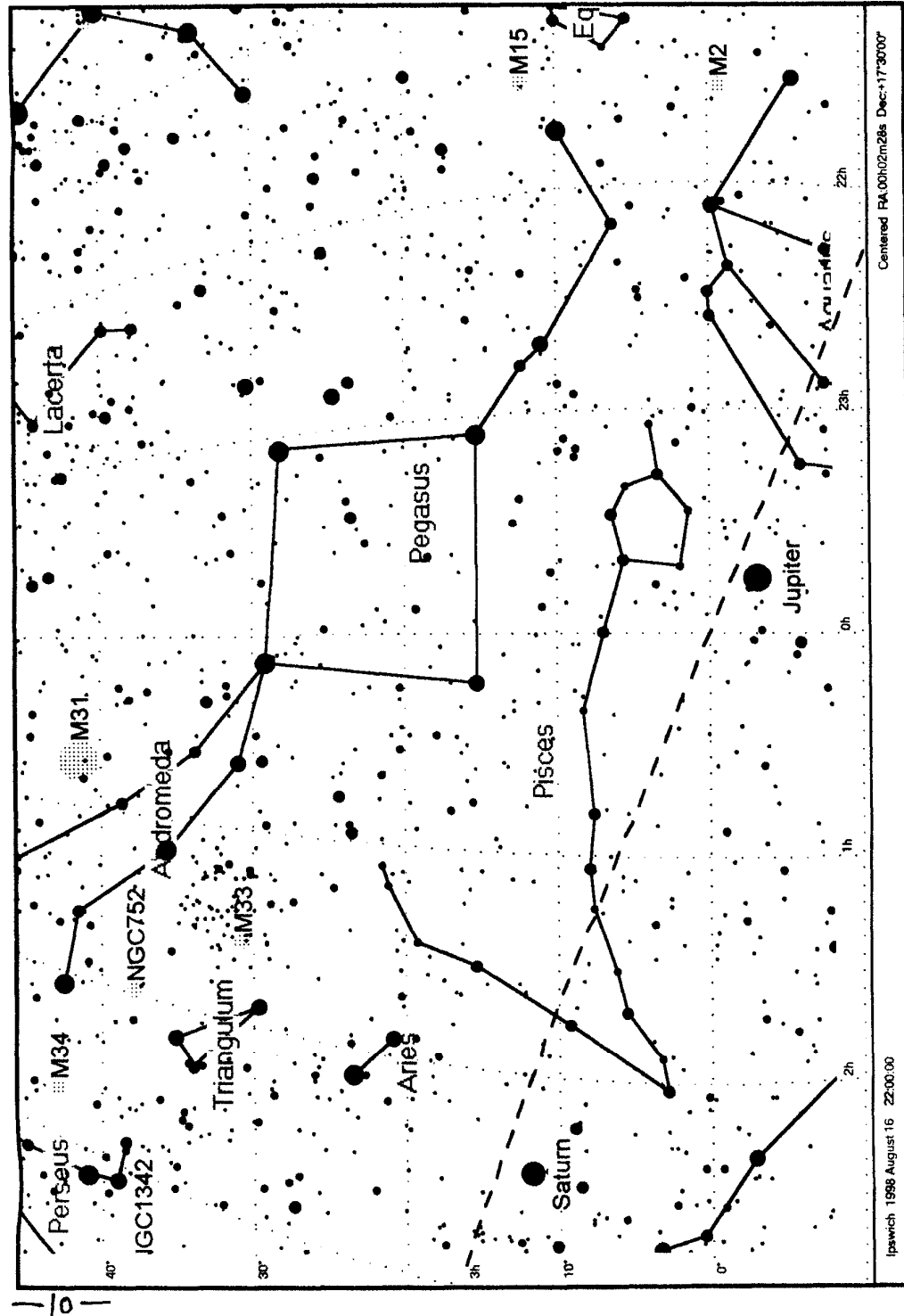
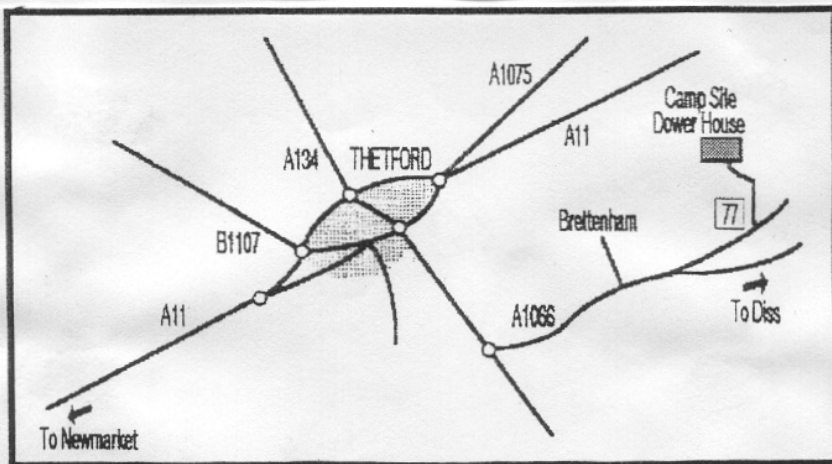
For details send a large SAE to:

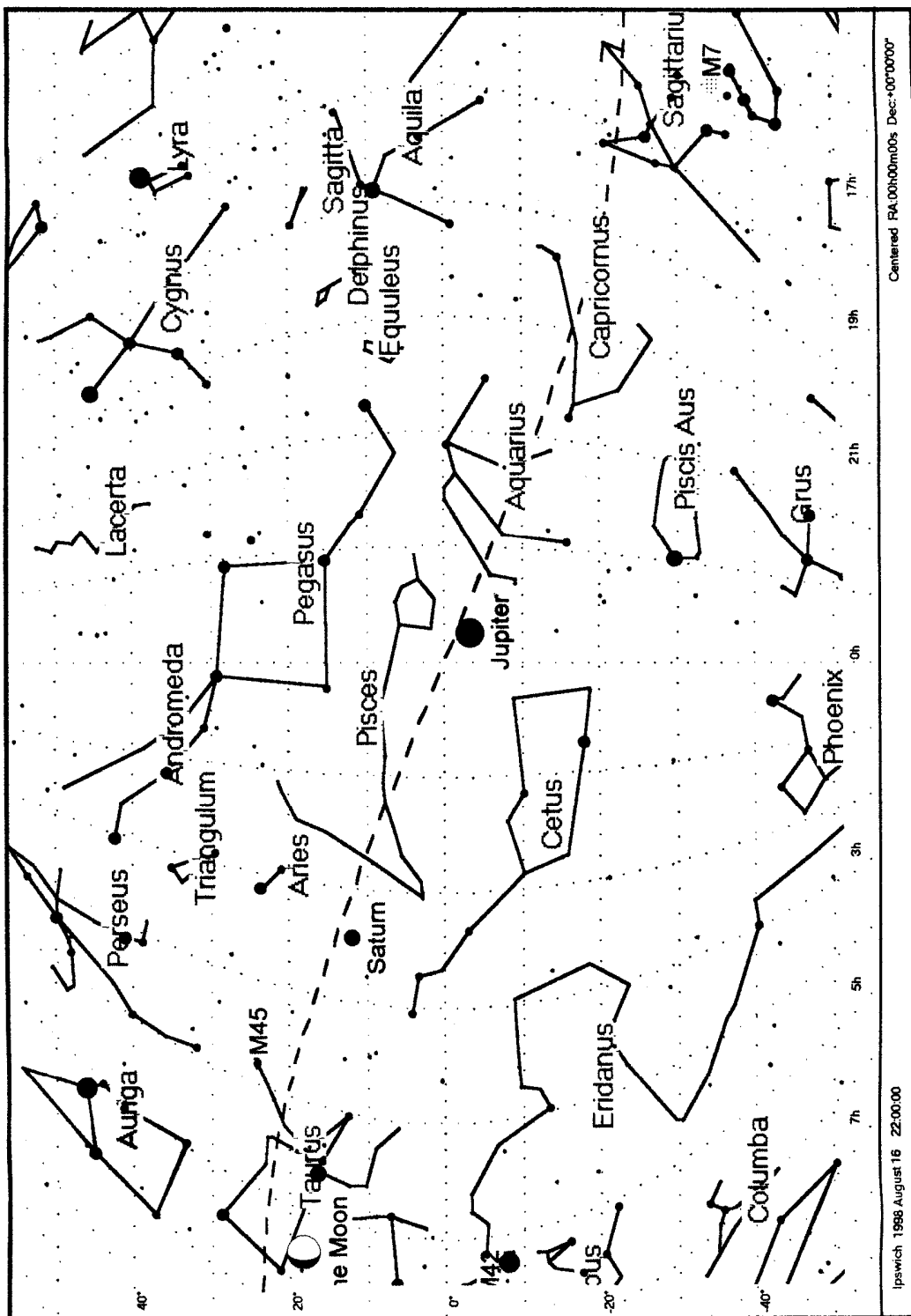
**MIKE COOK, [REDACTED], ROMFORD.**

**ESSEX. ENGLAND. R.M.7 8.R.D**

**TEL:- [REDACTED]**

All enquiries must reach above address by Friday 11th September





Centered RA:00h00m00s Dec:+00°00'00"

Ipswich 1998 August 16 22:00:00

# PROGRAMME FOR AUGUST

Mondays from 7.30pm Mr N Gage	GENERAL OBSERVATION SECTION
Tuesdays from 7.30pm Mr P Richards	OBSERVATORY VISITS FROM OUTSIDE GROUPS
Wednesdays from 8.00pm Mr M Cook	NEBULA & FAINT OBJECTS SECTION Mr D Payne
Thursdays from 7.30pm Mr P Richards	OBSERVATORY VISITS FROM OUTSIDE GROUPS
Fridays from 7.30pm 14th - 28th Mr J Hood	DOUBLE STARS

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

Lectures and other events:

## Committee Meeting

The next committee meeting is to be held on Saturday September 12th in the club room at the observatory at 7.30pm. All members are welcome to attend.

e-mail enquires to [oasieng@btcs.bt.co.uk](mailto:oasieng@btcs.bt.co.uk)  
 WWW url <http://www.ast.cam.ac.uk:80/~ipswich/>

1998 COMMITTEE		Home Phone	Work Phone
CHAIRMAN	D Payne		
SECRETARY	R Gooding		
TREASURER	M Harlow		
MAINTENANCE CO-ORD	M Cook		
JOURNAL CO-ORDINATOR	E Sims		
SOCIETY ACTIVITIES & DARK SKIES	P Richards		
EQUIPMENT CURATOR	J Walsh		
LIBRARIAN & COMP SOFTWARE	J Appleton		
JOURNAL ARTICLES TO	E Sims		Ipswich Suffolk IP1 4HA
CORRESPONDENCE ADDRESS	R Gooding OASI Secretary		Ipswich Suffolk IP1 6AE
MEMBERSHIP	M. Cook		Ipswich IP4 5PZ
REP FOR BEGINNERS FOCUS GROUP	T Sampson		