

# ORWELL ASTRONOMICAL

## SOCIETY IPSWICH

Charity No 271313

### MARCH 1997



## SOCIETY NEWS

### 1 1997 Subscriptions

Subscriptions for 1997 were due from 1st of January

The rates for the new year are:-

Junior	£8.00
Adult	£12.00
Family	£14.00

A renewal form was included with the January newsletter. It would be appreciated if you could return this so that the society membership records can kept up to date.

March is the cut off month for renewing your membership. Any member who has not renewed their subscription by the end of March will not receive a copy of April's Newsletter

Please return all subscriptions to  
Martin Cook

Ipswich  
IP4 5PZ

### 2 Committee Meeting

The next committee meeting will be held on Saturday 19th April at the observatory, from 19:30. This will be an open meeting and any member is welcome to attend.

### 3 Events for 1996

This list of events was first presented at the AGM.

Lecture Meeting Andy Reid	20th March
Lecture Meeting Mike Harlow	17th April
BAA Winchester Weekend	4th April
Open Weekend	11,12,13 14th April
Summer excursion	No date fixed as yet
BAA Exhibition Meeting	8th June
Astro Camp	3rd to 17th Aug.
FAS Cambridge Convention	4th Oct.
Second Open Weekend ?	No date fixed as yet
Christmas Meal	10th Dec.

### 4 Lecture Meeting 20th March 20:00

A lecture meeting will be held at the Friends Meeting House at 39 Fonnereau Road, on Thursday 20th March.

The talk on will be given by Andy Reid on Hot Stars

# NIGHT SKY

All times GMT

## SUN

Rises approximately between 06.50 to 06:40  
Sets approximately between 17.30 to 18.20

## Moon

Third Quarter 2th, 31st  
New Moon 9th  
First Quarter 16th  
Full Moon 24th

There will be a Partial Eclipse of the moon on the 24th March.

MERCURY Mercury will be visible in the evening sky after the 21st. Mag. -1.7 in mid month

VENUS Venus will be to close to the sun this month to be seen.

MARS Mars will be at opposition this month on the 17th. Mag. -1.3.

JUPITER Jupiter will be rising at about 05:00 in mid month. Mag. -2.0

SATURN Saturn will be to close to the sun to be visible this month.

URANUS Uranus will be rising at about 04:50 in mid month. Mag +5.9

Neptune Neptune will be rising at about 02:20 in mid month. Mag. 8.0

There is a Total Eclipse of the sun on the 9th March, but unfortunately the track passes through Mongolia. Mike Harlow will be observing this event, and will give a full report at the lecture meeting in April.

*R. Gooding*

## OPEN WEEKEND

The next public Open Weekend will held on April 11th, 12th, 13th, 14th From 20:00 to 22:00, to observe comet Hale-Bopp. As many members as possible will be required to man the observatory during this period.

PLEASE COME ALONG AND LEND A HAND

A poster has been include with this months newsletter. Please find spot to display it.

## Committee Summary from 15th February

1 The 1997 committee is still short of one member. If any one is interested in helping to run the society please contact any committee member.

2 The society information pack is nearly finished, and should be distributed to all paid up members with this issue of the newsletter. The pack will include the following:

- i The history of the observatory.
- ii Operation of the observatory.
- iii Society information.
- iv The society constitution.

3 At the AGM, it was decided to purchase the following items. These were discussed again, and an estimated price given for each.

- i) Maintenance budget £100
- ii) Library budget £50 to £100
- iii) 6" reflector ( Already purchased by Dave Payne). £100
- iv) SLR camera body.
- v) Spare binocular 2x( 10x50 ). £80 total
- vi) Computer up grade. ( Alan Smith may be able to obtain a donated machine)
- vii) Finder for the 10" Dobsonian reflector. £50
- viii) Deep sky filter £60
- ix) Tripod for camera and binoculars. £60
- x) Roy Cheesman has a 8" reflector which he may be willing to dispose off.
- xi) The 8" mirror started last year will require a set of fittings, eg focusing mount, spider, tube and mount to complete it. £150
- xii) Repair of replace TV. £80
- xiii) Low light camera. £250 - 500

- 4 A society excursion will arranged for the summer.
- 5 If any members who would like to be trained to operate the observatory, and to run an evening please contact any committee member. Two trained members are needed to run an evening

## Comet Hale-Bopp Update by Mike Harlow

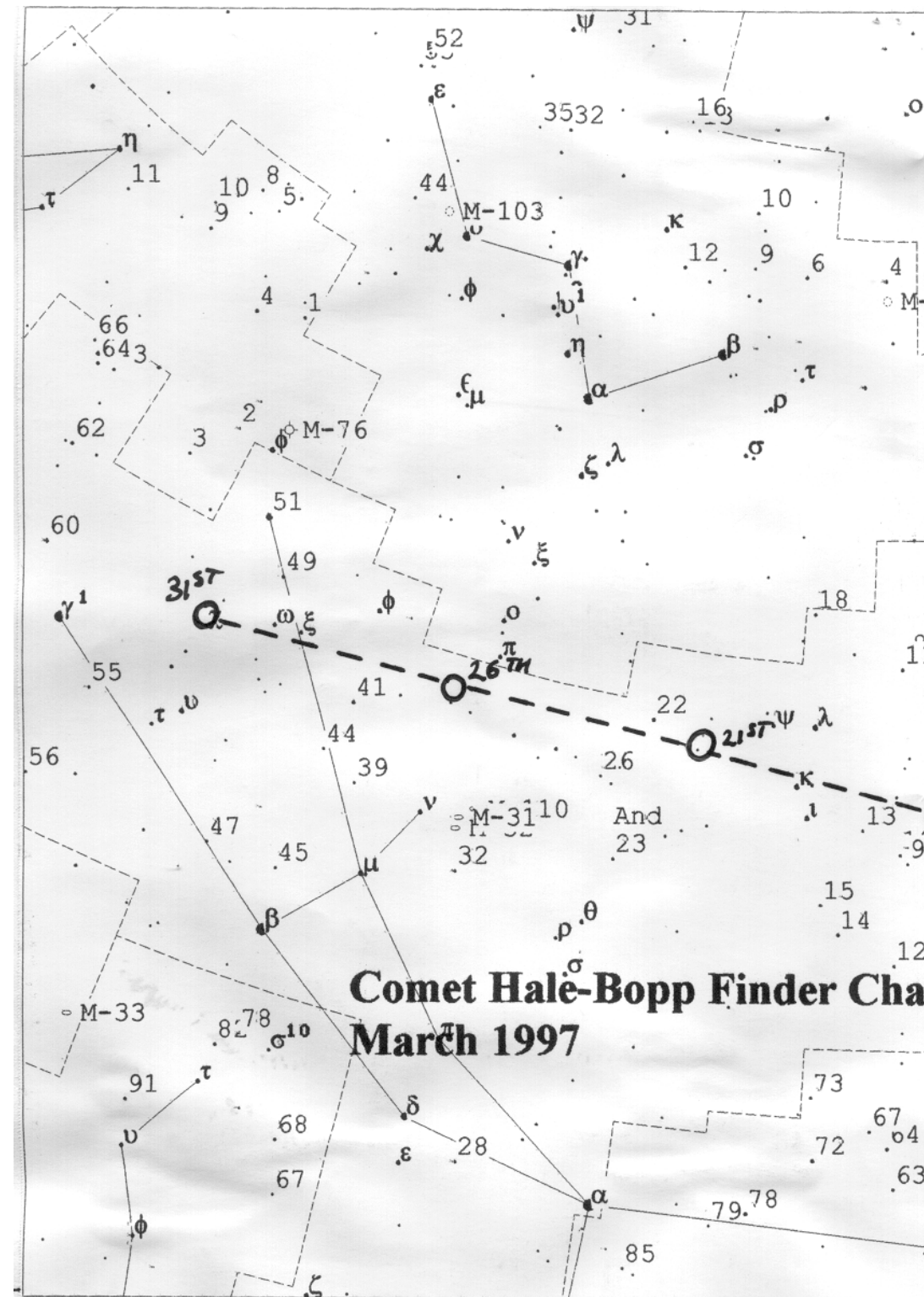
Hale-Bopp became a truly impressive sight in the morning sky during February. In March it could become spectacular as it starts the month in the morning sky and moves into the evening sky. The chart on the next page shows its path during March starting in western Cygnus, passing through little known Lacerta and on into Andromeda. By the end of the month as it approaches perihelion on 1st April its tail should stretch into Cassiopeia. The whole month is a highlight but the 9th March is particularly significant. On that day there is a total Solar eclipse, visible from Mongolia and Siberia (not Britain), during which the comet should be visible. If all goes to plan a photo of the event should appear in the May journal and be presented at my talk on 17th April (that's a BIG IF!!).

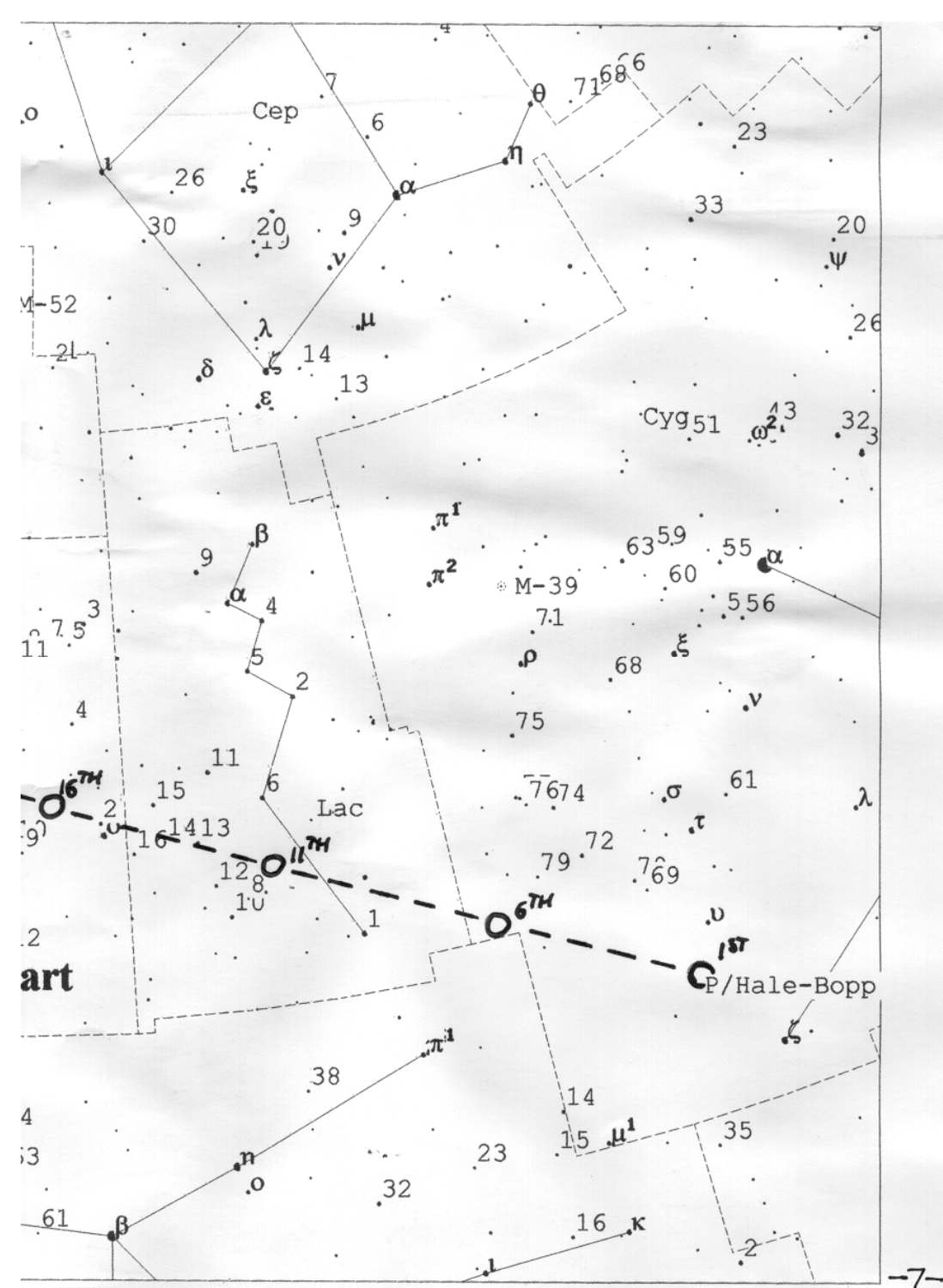


Comet Hale-Bopp imaged with a Starlight-Express CCD on a 4.5" F/5 Newtonian, 8th February 1997, 04:54 UT. The bright star is  $\gamma$  Sagitta.

Correction: In last month's journal I said that, in the January 17th image, the coma was 9 million kilometers across. That should have been 900 000 kilometers (!)

More images should appear next month in the journal and on our www-page at: <http://www.ast.cam.ac.uk/~ipswich/>





## OCCULTATIONS DURING MARCH 1997

The table lists stellar occultation events 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)	Lunar Phase	Sun Alt (°)	Star Alt (°)	Min Dist rad	Star	Mag
D	14 Mar 18:44	.37+	-8	49	.30N	Aldebaran	0.8
R	19:56		-19	41			
D	17 Mar 21:32	.68+	-30	47	.24S	lambda Gem	3.6
R	22:46		-37	38			
D	18 Mar 23:42	.77+	-38	35	.59S	30 B. Cnc	6.1
D	20 Mar 20:06	.90+	-18	44	.84S	omicron Leo	3.8
R	20:51		-24	47			

James Appleton

# Choosing telescopes and binoculars: a beginners guide

All the information used in this article is taken from a leaflet published by

National Astronomy Week. Continued from last month.

## Cost

So what's all this going to cost you? A decent pair of 8 x 40 binoculars can be purchased for £50. A reasonable 80 mm refractor will set you back about £150, while a 4 inch reflector can cost as little as £250. Remember that a telescope is a precision optical instrument and so you should be prepared to pay as much as for a good camera.

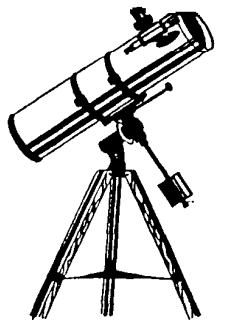


## Check your telescope

There are a number of simple tests you can perform on equipment to test its quality. Tap the tube lightly. The image should take no more than three to five seconds to stop shaking. Some people hang a weight from the centre of the tripod to improve its stability and to damp down vibrations.

The only easy test for optical quality is to observe a star image after allowing the telescope to reach outside temperature, which may take an hour and on a night when the seeing is excellent. Using the maximum usable power (see table in Decembers journal) examine the image of a moderately bright star. When perfectly focused it should be a point or very small disc of light surrounded by faint rings. In poor seeing this appearance may be hard to achieve with even a good telescope.

Defocus the image on both sides of the focus point, in both cases it should become an evenly illuminated and circular disc, although in the case of a reflector you will see the shadow of the secondary mirror in the middle. If it is impossible to achieve perfect focus, and the image appears as a short line on either side of focus the telescope is suffering from the optical defect called astigmatism.



*A small reflecting telescope on an equatorial mount*

## Legal issues

If you use a credit card to purchase equipment worth £100 or more, on which the workmanship is shoddy or the goods are damaged in the post, you will have redress to the law through the Consumer Credit Act, 1974. Try to resolve the matter with the retailer, but if that fails write to both your local Consumers Association office and your credit card company.

If you feel you have been misled in any way, or that the specification of the telescope has been falsely described, you should complain to your local trading standards office, indeed, it is your duty to do so.

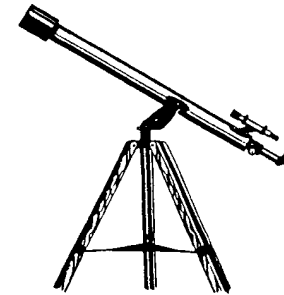
## What to look for

If possible, make the following checks before buying a small refractor

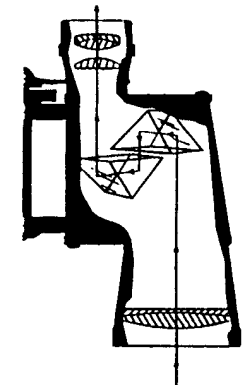
Look down the tube through the main lens. Is there a stop - a disc with a small hole in it - a short way down the tube? (This should not be confused with light baffles, which are a series of rings of decreasing diameter positioned at intervals down the tube.) Such a stop is an attempt to sharpen the image, like using a small f - stop on a camera. Unfortunately, it drastically reduces the effective aperture, and hence the image brightness. Telescopes of this sort will show you virtually nothing that you cannot see with the naked eye. If they claim to use the full size of the lens they are being fraudulently advertised.

Observe the Moon at night. Its edge should be sharp and free from obvious false colour. Make sure you observe outside, and not through a window, closed or open.

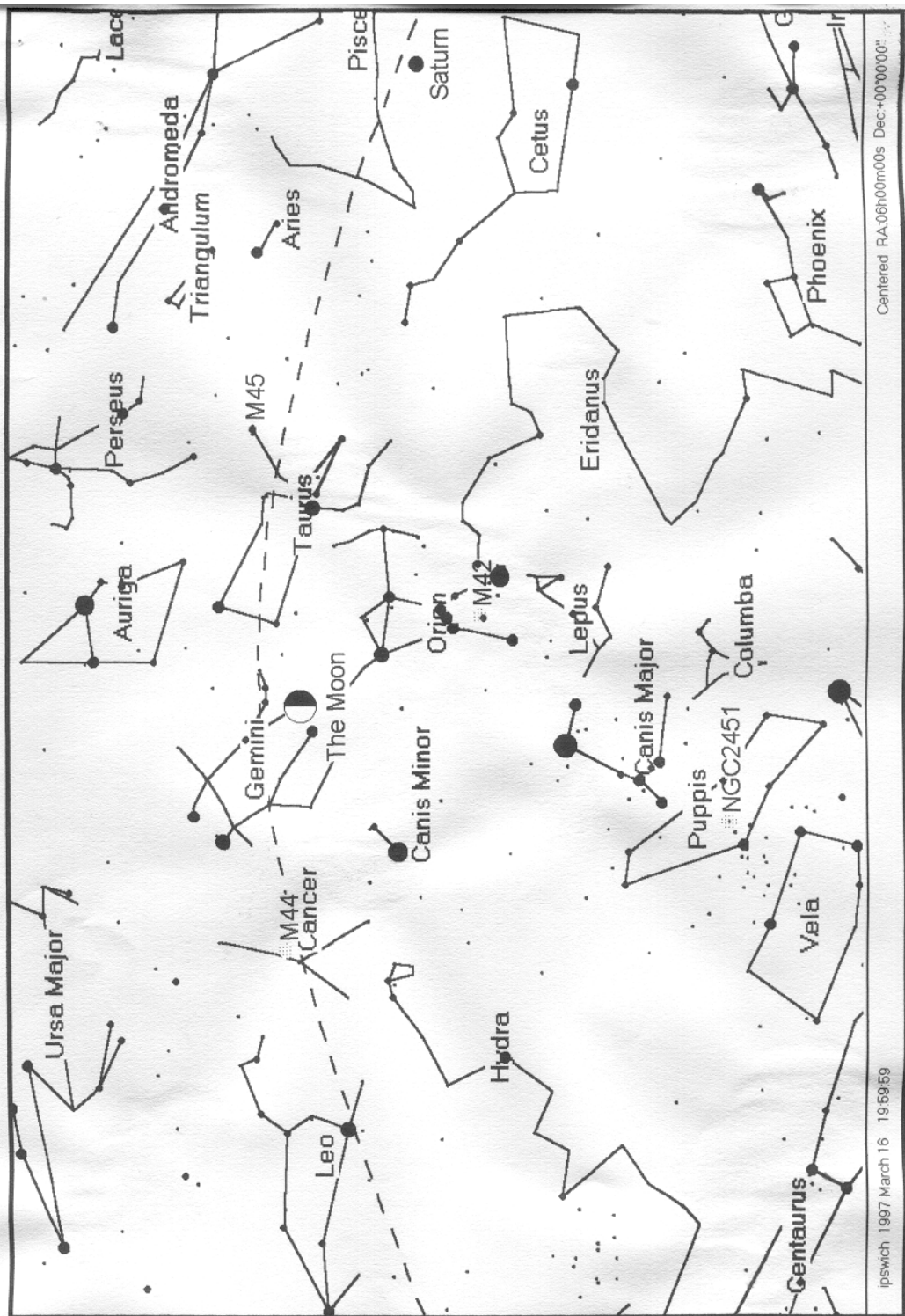
If the telescope fails either of these tests, do not buy it or return it for a full refund.



*A typical small refractor on a simple stand, with a star diagonal at the eyepiece end.  
All diagrams by John Lewis*



*Binoculars contain prisms that fold the light path, thereby making them more compact than telescopes*



## PROGRAMME FOR MARCH

**Mondays from 7.30pm** **GENERAL OBSERVATION SECTION**  
*No Directors available for this night*

**Tuesdays from 7.30pm** **OBSERVATORY VISITS FROM OUTSIDE GROUPS**  
**Mr P Richards** [REDACTED]

**Wednesdays from 7.45pm** **NEBULA & FAINT OBJECTS SECTION**  
**Mr M Cook** [REDACTED] **Mr D Payne** [REDACTED]

**Thursdays from 7.30pm** **OBSERVATORY VISITS FROM OUTSIDE GROUPS**  
**Mr P Richards** [REDACTED]

**Fridays from 7.30pm** **DOUBLE STARS**  
**14th - 28th**  
**Mr J Hood** [REDACTED] **Mr M Barritt** [REDACTED]

*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 -----On Saturday 19th April at 7.30pm in the club room at the observatory. All members are welcome to attend.**

**LECTURE "HOT STARS" Thursday 20th March 8.00pm at The Friends Meeting House Fonnereau Road Ipswich.**

**LECTURE "CELESTIAL SPECTACULARS - COMETS AND ECLIPSES" Thursday 17th April 8pm at the Friends Meeting House Fonnereau Road Ipswich.**

**e-mail enquires to [oasieng@btbcs.bt.co.uk](mailto:oasieng@btbcs.bt.co.uk)**

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

### 1997 COMMITTEE

	Home Phone	Work Phone
CHAIRMAN	D Payne	<span style="background-color: black; color: black;">[REDACTED]</span>
SECRETARY	R Gooding	<span style="background-color: black; color: black;">[REDACTED]</span>
TREASURER	M Nicholls	<span style="background-color: black; color: black;">[REDACTED]</span>
MAINTENANCE CO-ORD	M Cook	<span style="background-color: black; color: black;">[REDACTED]</span>
JOURNAL CO-ORDINATOR	E Sims	<span style="background-color: black; color: black;">[REDACTED]</span>
PUBLICITY & VISIT CO-ORD	P Richards	<span style="background-color: black; color: black;">[REDACTED]</span>
EQUIPMENT CURATOR	M Harlow	<span style="background-color: black; color: black;">[REDACTED]</span>
SPECIAL EVENTS CO-ORD	J Appleton	<span style="background-color: black; color: black;">[REDACTED]</span>
LIBRARIAN & COMP SOFTWARE	E Sims	<span style="background-color: black; color: black;">[REDACTED]</span> Ipswich Suffolk IP1 4HA
JOURNAL ARTICLES TO	R Gooding	OASI Secretary
CORRESPONDENCE ADDRESS	<span style="background-color: black; color: black;">[REDACTED]</span>	Ipswich Suffolk IP1 6AE
MEMBERSHIP	M. Cook	<span style="background-color: black; color: black;">[REDACTED]</span> Ipswich IP4 5PZ