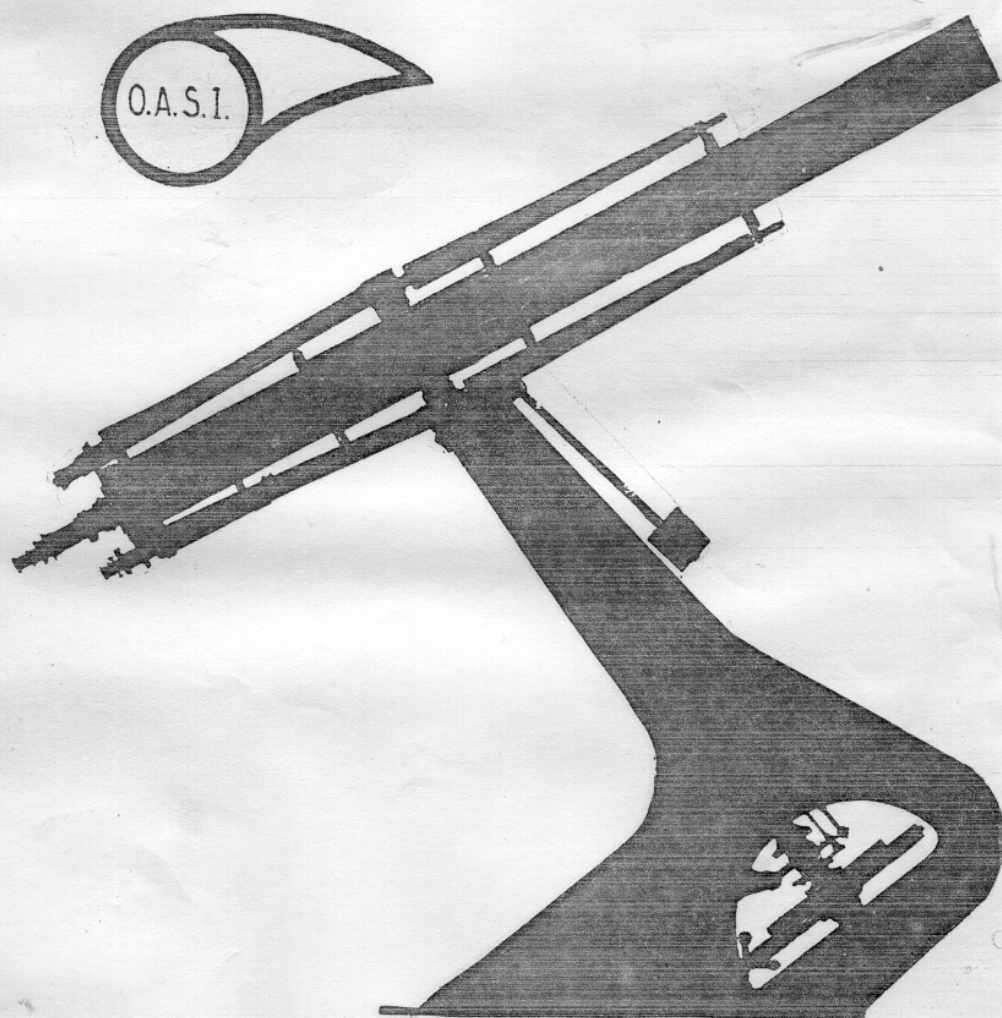


DECEMBER 1984



The Orwell Park Observatory 10 inch Astronomical Telescope at Nacton near Ipswich

SOCIETY NEWS

1. 1985 Annual General Meeting

All members are invited to attend the annual general meeting to be held on Saturday 12th January in the school's library. The meeting will commence from 20.00 hours when a review of the society's 1984 year will be presented along with the election of the 1985 committee, concluding with an airing of any members suggestions for activities in 1985.

2. 1985 Astronomical Calendar

If sufficient members are interested a batch of calendars will be ordered. Pictures include various news returned from the Voyager probes as well as ground based telescopes. Price will be £3.25 each.

3. 2nd East Anglian Astronomical Society's Convention

To be held on 2nd February 1985. Adults £1.50, Children 75p. Interested members contact R. Gooding as soon as possible so tickets can be ordered.

4. Graze Occultation Field Trips

Two graze occultations are visible from East Anglia this month. Trips to observe these events may be arranged if weather conditions are favourable.

1st December 3rd at approximately 18hr. 17min.
2nd " 19th " " 7hr. 8min.

NIGHT SKY

Constellations (all times G.M.T.)

The winter constellations of Orion, Taurus, Auriga and Gemini are well placed for observation.

Sun Rises approx. 08.10 Sets approx: 15.50

Moon ☉ 8th ☽ 16th ● 22nd ☾ 30th

Occultations

10th	ZC 709	Mag. 4.3	R	18hr. 41.5m
12th	900	" 4.9	R	5hr. 27.2m
19th	1821	" 2.9	D	11hr. 40.4m
19th	1821	" 2.9	R	12hr. 25.0m

Mercury Inferior conjunction on the 14th.

Venus Visible low in western sky after sunset

Mars Sets at about 20.30. Mag. 1.0

Jupiter Sets at about 18.00. Mag. -1.5

Saturn Rises at about 05.00 Mag. 0.8

Uranus Conjunction on the 5th.

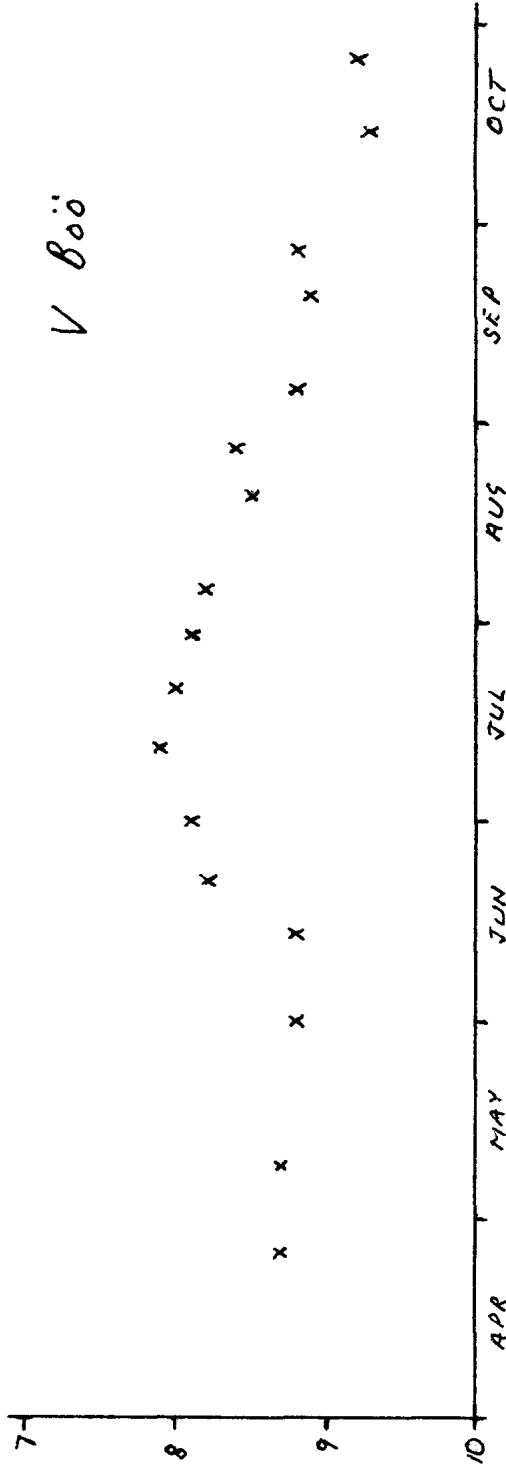
Neptune Conjunction on the 22nd.

VARIABLE STAR OBSERVATIONS

by Mike Nicholls

This light curve is that of V Boo from April to October this year. This star is a member of the semi-regular class. The light range shown is not very great, although the quoted range is from magnitude 7.0 to 12.0, rather large for the class. The period is quoted as 258 days, but this is probably a rough figure.

Observations were made using an 8" reflector.



RUNNING COSTS 1984/85

<u>Income 1984</u>	<u>Outgoings</u>	<u>1984</u>	<u>1985</u>
Subs £259-50	Rent	5-00	5-00
Stamps <u>37-30</u>	Publications		
£296-80	& Societies		
	BAA	20-20	22-00
	JAS	6-00	6-50
	The Astronomer	19-50	20-50
	Sky & Telescope	13-90	21-25
	FAS	7-50	7-50
	Astronomy Mag.	15-50	16-50
	Journal		
	Printing	72-00	72-00
	Distribution	<u>52-00</u>	<u>60-00</u>
		£211-60	£231-25



1985 SUBSCRIPTIONS

Society subscriptions are due on January 1st.
Prompt payment will be appreciated.

Rates are: Junior £3.50
Adult £5.50
Family £6.50

Members have the option of either collecting their newsletters from the observatory, or having it posted to them. Newsletter postage is an extra £1.60 above the normal subscription rate.

Up and Coming Visits

- 1) Monday November 26th, 7.00pm.
Visit by 11th Ipswich Cubs.
- 2) Wednesday December 12th, 7.45pm.
Visit by the Seckford Foundation, Woodbridge.

Meteor Notes for December 1984.

There are two major showers this month.

- 1) The Geminids.
Maxima occurring on December 13.5, active from 7th-15th.
Expect a ZHR of about 60. Radiant 07hrs 28mins, Dec. +32°.
- 2) The Ursids.
Maxima on 22nd, normal limits 17th-24th. Radiant 14hrs 28mins Dec. +78°. ZHR of 12. Rich in faint meteors.

David Barnard.

Open Committee Meeting

Everyone is invited to this meeting at the observatory on Saturday December 1st at 7.30pm.

SUFFOLK CLOCK CENTRE

QUALITY CLOCK REPAIRS

P.A. & D.R. Bearcroft C.M.B.H.I.

Ipswich IP1 6DS

Tel. Ipswich

The Constellation Triangulum

D Payne

During the month of December the small constellation of Triangulum is high in the evening sky. It is a rather faint constellation but is easily recognised by the three main stars which form an elongated triangle lying midway between the Pleiades and the well known nebula in Andromeda M31.

The most notable object in the constellation is M33, mentioned in last month's article. Besides M33 there are seven other faint galaxies listed in the NGC catalogue. These objects are all rather faint but two of them can be seen in small telescopes on dark clear nights. Both objects are spiral galaxies, the larger object is NGC 925, 9.4' x 4.0' and has an integrated magnitude of 10.5. The other object is NGC 672, 4.5' x 1.7' with an integrated magnitude of 11.6. The other NGC objects are rather fainter but should all be within the range of the Orwell Park 10 inch refractor.

Besides the galaxies in Triangulum there is an interesting double star with a noticeable contrast of colours. The star is Iota Triangulum with components 3.8" apart and magnitudes 5.4 and 7. The fainter component is a pale blue and the brighter a contrasting yellow. The pair is easily found and can be separated in a three inch telescope. Each component of the visible pair is a spectroscopic binary making this a complicated stellar system containing four suns.



PROGRAMME FOR DECEMBER

Isaac Newton has a clear view.

The Canary Islands have recently become the home of Britain's newest Earth based optical telescope. The site on La Palma was first tested 10 years ago using smaller instruments but now the 2.5m Isaac Newton Telescope (INT) has been producing results since May of this year. The Royal Greenwich Observatory are most impressed with the results (mainly spectra of stars, galaxies & quasars). These findings, it is hoped, will bridge the gap between existing ground based telescopes and the Space Telescope due for launch in two years time.

The quality of the results are due in part to an advancement in the telescopes' spectrographic capabilities but most credit goes to the viewing conditions. Initial site tests omitted the darkness of the sky and its use for infrared astronomy. The site however turns out to be among the best in the world for both of these.

Both artificial and natural airglow are at a minimum on the island. There is little in the way of manmade illumination distorting information. Natural airglow caused by atoms in the upper atmosphere is only 30% brighter than some Australian based telescopes. The darkness of the sky is attributed to the Earth's magnetic field. The field when it dips into the upper atmosphere brings down charged particles from space which increases the airglow. Many observatories are either close to the Magnetic poles (North America or Australia) or in South America. La Palma being positioned equatorially in the magnet field is affected less by airglow.

As mentioned earlier, the spectroscopic information was credited to the viewing conditions. More specifically these conditions are due to the very dry air above the island. Since the equipment was using shorter wavelength in the infrared, it was prone to absorption of these by water vapour in the atmosphere. The results from La Palma (which is at an altitude of 2400m) are similar to the Mauna Kea telescope on Hawaii (at 4200m). The most important feature on La Palma is lack of air turbulence. Most observatories suffer star image blurring of 10-20 arcseconds. However, on La Palma the worst night produced blurring of 1.1 arcseconds and an overall average of 0.8 arcseconds. These results and the comparative cheapness of Earth based telescope must surely prove that there is still a place for them in modern astronomy. (Steve Wenham)

MONDAYS from 8pm 3, 10, 17,	DOUBLE STAR & PLANETS SECTION Mr N Taylor [redacted], Farmlands Trimley Mr T Gillan [redacted], Felixstowe	Tel: Fel. [redacted] Tel: Fel. [redacted]
TUESDAYS from 7pm By Arrangement With Directors	GENERAL OBSERVATION SECTION Mr N Gage, [redacted], Trimley Mr R Newman [redacted], Felixstowe	Tel: Fel. [redacted] Tel: Fel. [redacted]
WEDNESDAYS from 8pm 5, 12, 19	NEBULEA & FAINT OBJECTS SECTION Mr M Cook, [redacted], Ipswich Mr D Payne, [redacted], Wickham Market.	Tel: Ips. [redacted] Tel: W.Mkt [redacted]
FRIDAYS from 8pm By Arrangement With Directors	VARIABLE STAR SECTION Mr R Gooding, [redacted], Ipswich Mr M Nicholls, [redacted], Capel St. Mary.	Tel: Ips. [redacted] Tel: Ips. [redacted]

1984 COMMITTEE

CHAIRMAN	D Payne [redacted], Wickham Market, IP13 OSD	Work: [redacted] Home: [redacted]
VICE CHAIRMAN	R Cheesman [redacted], Corringham, Essex SS17 9BU	Work: [redacted] Extn [redacted]
SECRETARY	R Gooding [redacted], Ipswich IP1 6AE	Work: [redacted] Home: [redacted]
TREASURER	M Nicholls [redacted], Capel St. Mary, Ipswich, IP9 2EX	Work: [redacted] Home: [redacted]
MEMBERSHIP SEC.	M Barriskill [redacted], Ipswich IP1 2EZ	Home: [redacted]
P.R.O.	D Barnard [redacted], Ipswich, IP4 5PP	Home: [redacted] Work: [redacted]
MAINTENANCE	M Cook [redacted], Ipswich, IP4 5QA	Home: [redacted] Work: [redacted]
FUNCTIONS	E Sims [redacted], Ipswich, IP1 4HA	Home: [redacted]
LIBRARIAN	N Gage [redacted], Trimley St Mary,	Home: [redacted] Work: [redacted]