

FEBRUARY 1985



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

SOCIETY NEWS

Subscriptions were due on the 1st January.

Rates are: JUNIOR £3.50  
ADULT £5.50  
FAMILY £6.50

Renewals should be sent to D.Barnard's Address on back cover.

NIGHT SKY

CONSTELLATIONS (all times G.M.T.)

The winter constellations, of Orion, Auriga, Perseus & Taurus are well placed for observation.

SUN Rises approx. between 07.44- 06.50

Sets approx. between 16.44-17.30

MOON ○ 5th    ● 12th    ● 19th    ● 27th

OCCULTATIONS

1st	ZC867	mag. 6.9	D	23hr. 5.9m
27th	660	" 4.4	D	22hr. 20.2m
27th	664	" 5.4	D	23hr. 5.0m

MERCURY Superior conjunction on the 19th.

Venus Sets at 21.50 in mid month. Mag. -4.3

MARS Sets at 21.20 in mid month. Mag. 1.4

JUPITER Rises at 06.20 in mid month. Mag. -1.5

SATURN Rises at 01.50 in mid month. Mag. 0.7

URANUS Rises at 03.30 in mid month. Mag. 5.8

NEPTUNE Rises at 05.00 in mid month. Mag. 7.7

## New Members

We welcome the following new members to the society:  
Mr B J Appleby (membership no. 307),  
Mr W J Welsh & family (308),  
Mr Ivey & family (309),  
Mr T A Mack (310) and  
Mr W J Barton (311).

## Visits in February

Only one this month:  
Wednesday February 6th, CliffQuay Camera Club at 8pm.

## Open Committee Meeting

All members are invited to attend this meeting at the observatory club room on Saturday February 9th at 8pm.

## Neptune reveals its ring

Neptune almost certainly has a narrow, incomplete ring around it, according to Bill Hubbard of the University of Arizona. This ring is responsible for a previous idea that Neptune had a small third moon.

Astronomers know of Saturn's & Uranus' rings, the latter were discovered when the planet moved in front of a star and the rings blocked off the star's light before and after the star was hidden by the planet.

Hubbard has now analysed observations made when Neptune passed near a star last July. Two observatories in Chile both recorded a dip in the star's light at about the same time.

The length of the obscuration indicates that the object hiding the star is only a few tens of kilometres wide. But to be seen at both observatories it must have been more than a hundred kilometres long. Astronomers at both sites saw the star dim to about two-thirds of its original intensity. The shape and partial transparency of the object mean it is almost certainly part of a ring, rather than a satellite.

( David Barnard )

## Articles for publication in the Journal

We still require more material, whether observations, cartoons, cross-word puzzles, or ANYTHING! Please forward any articles to any committee member.

## Deep Sky Objects in Orion

D B Payne

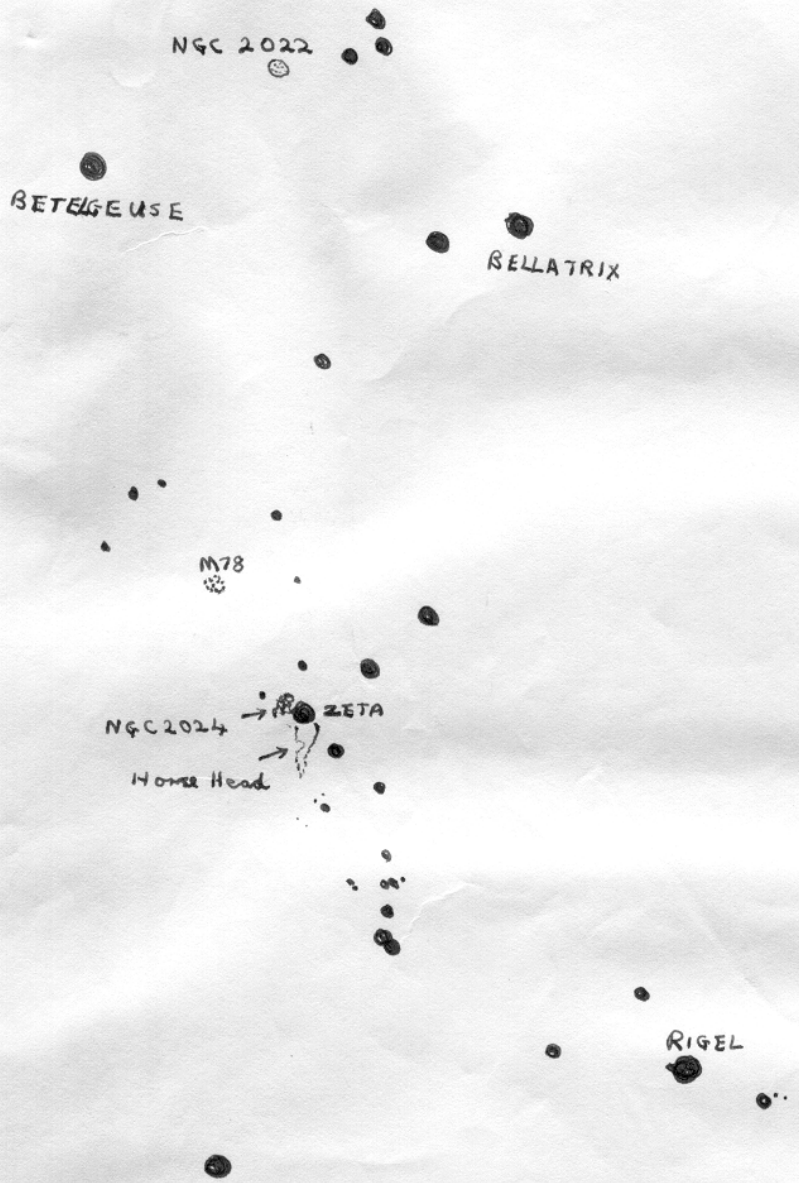
The constellation of Orion has been dominating the winter skies and remains prominent in the early evening during February. Of the deep sky objects in Orion, M42 is the best known and easiest to observe. The prominence of M42 together with M43 tend to leave the other deep sky in Orion somewhat neglected.

Amongst the more prominent of these other objects is M78 one of the brightest reflection nebulae in the sky. However reflection nebulae tend to be very faint objects and even 'bright' ones can be difficult to observe. M78 appears as two 10th magnitude stars surrounded by faint nebulosity. The nebulosity can be detected in a 4inch telescope on good dark nights but larger instruments of 8 or 10 inches aperture are needed in order to reveal the elongated shape. The nebulae is 8' x 6' and has an integrated magnitude of 8 but most of this light comes from the two stars.

At the northern end of the constellation is a small and faint planetary nebula NGC 2022. This is a magnitude 12 object with a diameter of 25" and should be visible in a 4inch using moderate powers of about 100x. It stands high powers quite well and readily shows a clear disk in the Orwell Park 10 inch refractor. The central star is magnitude 14 and should be visible in the 10 inch but I have yet to see it.

Near the star Zeta Orionis, the eastern most star of the belt of Orion, is the fairly bright emission nebula NGC 2024. Unfortunately the close proximity of the second magnitude Zeta tends to drown out the nebula making it a fairly difficult object for telescopes of less than 6 inches aperture. If it was not for this close proximity to Zeta, NGC 2024 would be a fine object and would probably have appeared in Messier's catalogue. See if you can find it!

Below Zeta is that well known but very difficult object the Horsehead Nebula. The famous horse head shape is produced by dark nebulosity lying in front of a region of bright nebulosity. The horse head shape usually requires photography to reveal it but it has been seen in 10 inch telescopes. I have detected the 'linear' intersection of the dark nebula against the brighter background with my 10 inch reflector but have not so far been able to make out the horse head structure.



### Halley's Comet Sighted

New infrared observations of Halley's comet suggest that it is already surrounded by a small halo of dust, despite its great distance from the Sun. The comet was detected for the first time in the infrared spectrum on 20th December, by Britain's 3.8 metre infrared telescope in Hawaii. The comet is still beyond the orbit of Jupiter, and is still too faint to be directly visible.

The observation showed a body about 20 kilometres in diameter, at least twice the diameter suggested by optical measurements. The likely explanation is that it has a halo of dust.

### Galileo to visit Asteroid

NASA'S spaceprobe to Jupiter, Galileo, could take the first close-up photographs of an asteroid during its journey. The projects planners have now assessed a proposal to fly Galileo close to the asteroid Amfitrite, seven months after the probes launch in May 1986. But they will the final decision on changing the probe's course until after its launch.

NASA says that a detour to pass 10,000 kilometres of Amfitrite carries no extra risk of colliding with asteroid fragments. The month delay would cut the number of orbits that Galileo could make around Jupiter from 11 to 10.

( David Barnard )

## SUFFOLK CLOCK CENTRE

QUALITY CLOCK REPAIRS

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

Ipswich IP1 6DS

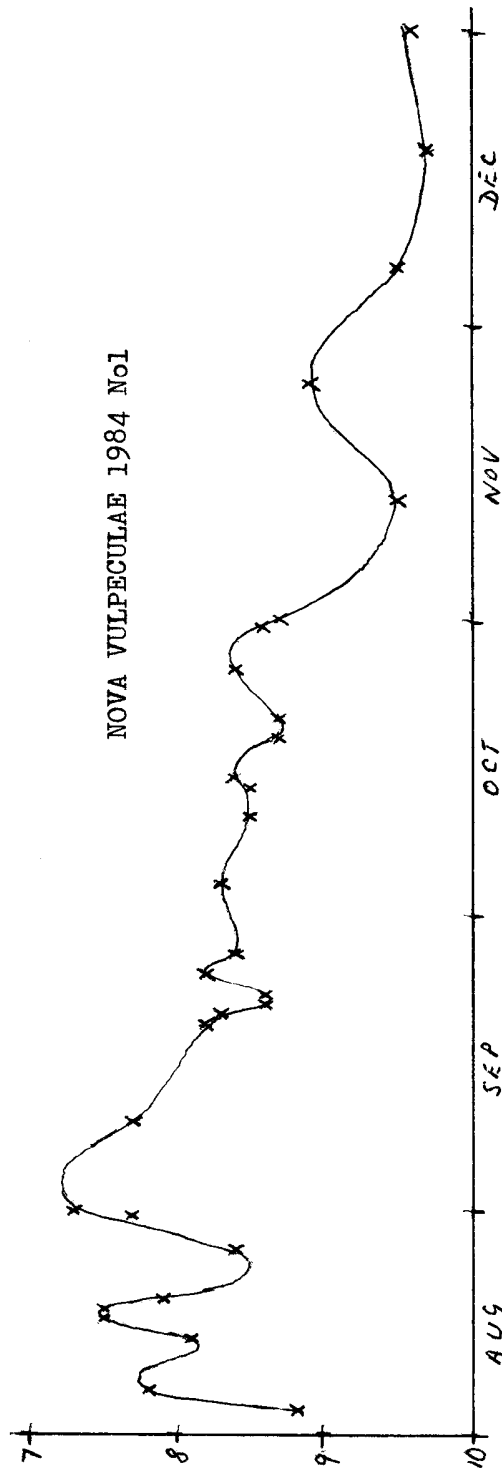
Tel. Ipswich

VARIABLE STAR OBSERVATIONS  
by Mike Nicholls.

The light curve shown below is that of Nova Vulpeculae 1984 No1 from August to December 1984. This is an example of a slow nova discovered at the end of July. A maximum of around 6.8 occurred early in August which is not recorded here. It looks as though two or three more maxima occurred during August and early September. After that, although some erratic variations can be seen, which is quite normal for novae, the general trend is for the star to fade slowly.

Photographic plates have been examined to try and determine what the star looked like before it became a nova. However, the results are inconclusive because it is difficult to measure positions on a photographic plate very accurately.

Observations were made using an 8" reflector.



PROGRAMME FOR FEBRUARY

MONDAYS from 8pm By Arrangement Until April	DOUBLE STAR & PLANETS SECTION Mr N Taylor [redacted], Farlands 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 6, 13, 20, 27	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]

1985 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.	D Barnard	[redacted], Ipswich, IP4 5PP	Home: [redacted] Work: [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	-----		