

SEPTEMBER 1984

1. OPEN WEEKEND SEPT. 28th to OCT. 1st.
All members are requested to attend for as long as they wish on any or all of the four nights. Please contact Eric Sims who is organizing an evening roster. The observatory will be open from 8.00 to 10.30 p.m. on the Friday and Monday evenings, and between 7.00 to 10.30 p.m. on Saturday and Sunday. A minimum number of 6 members will be required for each evening. Areas which will require constant manning are the observatory and club room with additional people operating telescopes on the balconies.

AS MUCH HELP AS POSSIBLE IS REQUIRED

Please display the enclosed poster.

2. The Society has recently obtained a batch of customer cash discount cards from Summerwood Timber Ltd. of 77 Dales Road, Ipswich. These are being distributed to members in Ipswich first. The cards entitle you to a 10% cash discount on certain items from this shop (items on special offer are not included). Members who live outside Ipswich can still obtain a card if they wish by contacting R. Gooding.
3. Draw Tickets Additional draw tickets for sale can be obtained from D. Barnard.
4. F.A.S. Herstmonceux Convention, Saturday 6th October. Members wishing to attend please contact R. Gooding. A limited number of tickets will be available on a first come first served basis.

R. Gooding

NIGHT SKY

Constellations (all times G.M.T.)

The summer constellations of Cygnus, Lyra and Aquila are being replaced by the autumn constellations of Pegasus, Triangulum and Perseus.

Sun Rises approx. between 05.10 - 06.10

Sets approx. between 18.50 - 17.30

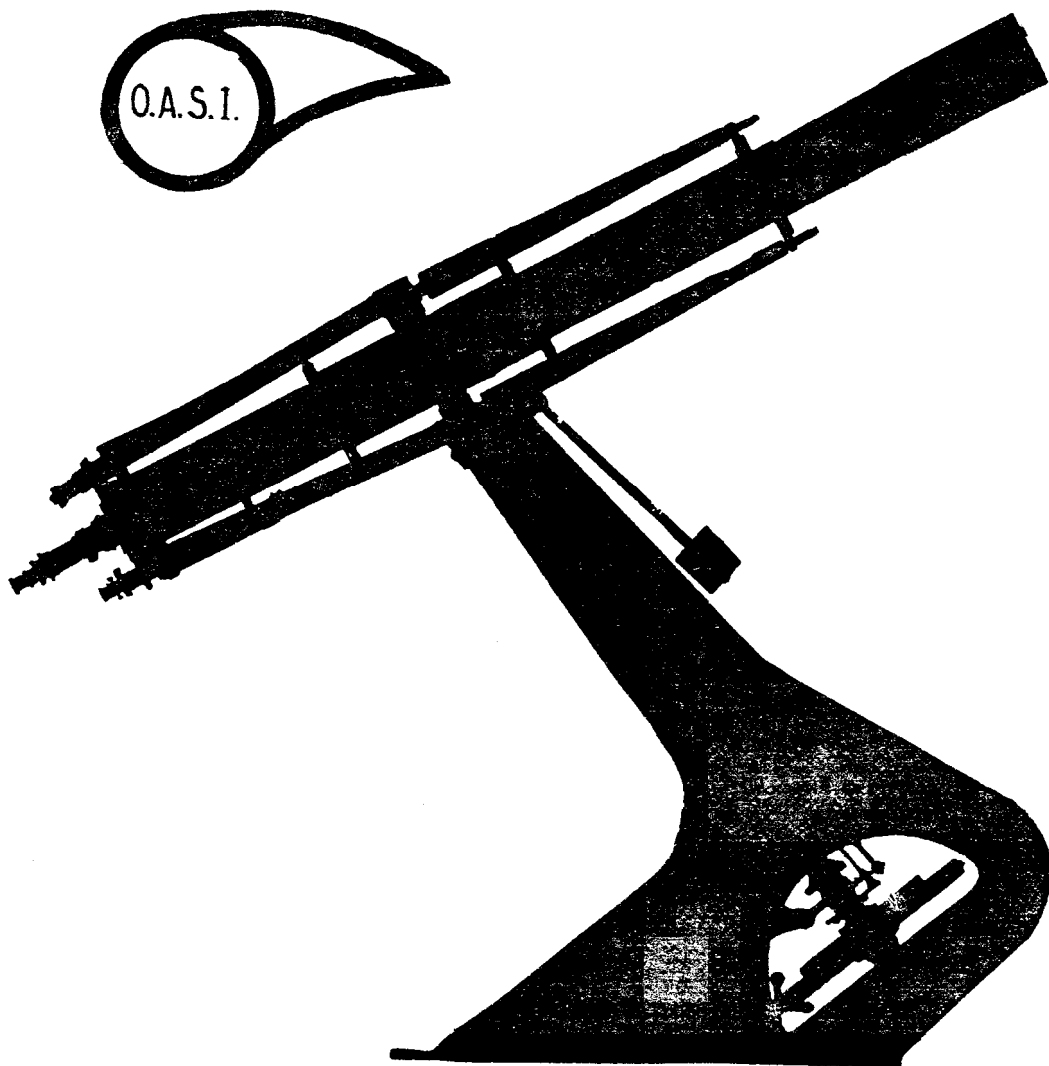
Moon ● 2nd ○ 10th ● 18th ● 25th

Occultations

12th	ZC 192	Mag. 5.3	R	22h. 33.3m
15th	517	" 6.4	R	22h. 45.4m
16th	665	" 5.7	R	24h. 18.5m

Mercury Greatest western elongation 14th (18°)

Venus Sets about 40 mins. after the sun in mid month mag.-3.3



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

Mars Sets about 21.00 hrs. in mid month. mag. 0.3
Jupiter Sets about 22.20 hrs. in mid month. mag. -1.9
Saturn Sets about 19.50 hrs. in mid month. mag. 0.9
Uranus Sets about 20.50 hrs. in mid month. mag. 5.8
Neptune Sets about 22.10 hrs. in mid month. mag. 7.7

R. Gooding

OPEN WEEKEND

Each evening from Friday 28th September until Monday 1st October the Society is opening the Observatory to the public. This event is one of the major fund raising events of the Society and requires YOUR help to make it successful. Each evening we require 6 to 10 members to be present at the Observatory to: Guide visitors, help sell Histories, pens, photographs etc., show visitors the telescopes and be available to answer questions from the visitors. So PLEASE come along and help. If you can make a definite commitment to any of the above days please contact Eric Sims on Ipswich 42654 or any of the other committee members.

In addition to the main 10 inch telescope we usually like to put a few of our members telescopes on to the balconies in the club room. If you are willing to bring your telescope up to the observatory on one or more of the evenings it would be much appreciated, again please let Eric Sims or a committee member know.

On the club room wall are posters, observations and articles of general astronomical interest. Some of this material is getting old and anyone with new observations, posters etc. that could be loaned for the Open Weekend, would be most welcome.

Finally there is an Open Committee Meeting on Saturday 8th September in the Observatory Club Room at 7:30pm. One of the major items on the agenda will be the Open Weekend. If you can help, or have any suggestions or are just generally interested please come along and join in.

Deep Sky Objects in Cygnus

D Payne

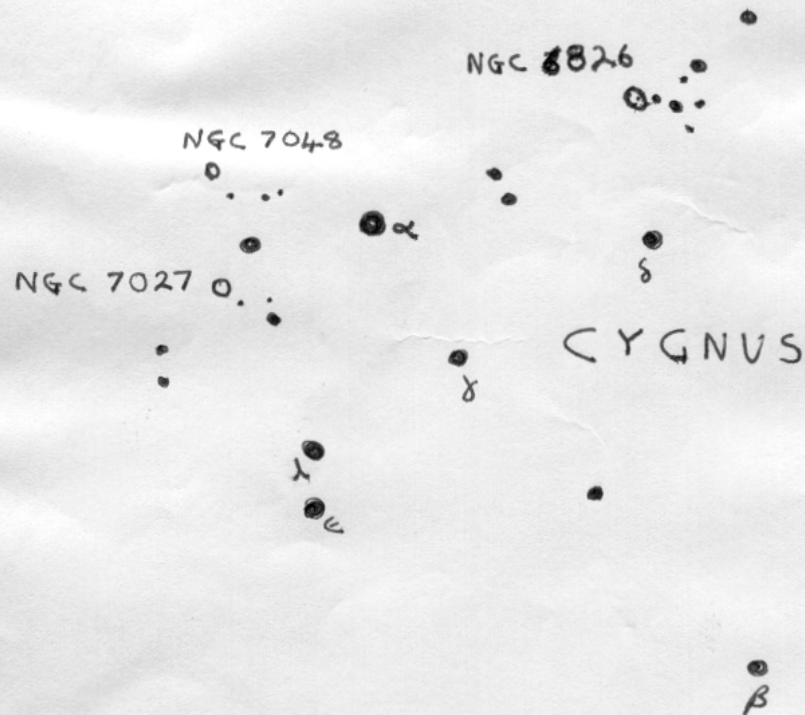
Last month the two Messier objects in Cygnus, M29 and M39, were described. The earlier darkening of the sky during September means that Cygnus is still prominent overhead shortly after sunset and many of the other deep sky objects are worthy of observation. Some of the more prominent objects are NGC 7000 known as the 'North American Nebula' because of its shape. This is best seen with binoculars because of its large size. This nebula together with NGC 6960 and 6992 the 'Veil Nebula', also visible in binoculars, are described in the September 1982 Journal.

Cygnus is particularly rich in planetary nebulae 'Burnhams Celestial Handbook' lists eleven. Of these the brightest are NGC 6826, NGC 7027 and NGC 7048.

The planetary nebulae NGC 6826 is sometimes known as the 'Blinking Nebula' because the central star dominates the nebula when direct vision is used. The surrounding nebulosity can only clearly be seen with averted vision. If therefore the nebula is observed alternatively with averted vision then direct vision the nebulosity can be seen to 'blink' on and off. The central star is magnitude 11 while the integrated magnitude of star and nebula is about 9, with a diameter of 25" it is fairly readily visible in small telescopes with moderate powers.

NGC 7027 is a peculiar 9th magnitude object 18"x11". It lies in a rich star field close to the 'North American Nebula' and can be difficult to find. Although this object is often classified as a planetary nebula it is unique in that it has a complex spectrum with many lines due to highly ionised gases. Also there appears to be no central star providing the energy source!

The third planetary nebula mentioned above, NGC 7048, is fairly easily found with small telescopes, when using low powers. This nebula is fairly large measuring 60"x50" and its low surface brightness (integrated magnitude 11) means that if high magnifications are used, it becomes difficult to observe. The central star is magnitude 18 and is therefore well out of range of most amateur instruments.



20 YEARS OF ESA.

The European Space Agency celebrated its 20th anniversary in May. The 11 member nations- Belgium, Denmark, France, West Germany, Ireland, Italy, The Netherlands, Spain, Sweden, Switzerland, and the United Kingdom, can boast past successes such as IUE, COS B, the Ariane booster rocket, and numerous other scientific satellites.

ESA has existed in its present form since 1975, when the European Space Research Organisation (ESRO) and a parallel agency for the development of launch vehicles (ELDO) joined forces. But it was in 1964 that the Europeans first agreed "to design and construct sounding rocket payloads, satellites, and space probes" as the ESRO consortium. ELDO was a six-nation cartel pledged to reduce European dependence on American Delta and Atlas launchers. The two agencies compiled a mixed record of successes and failures over the next decade, and eventually the financial strains of maintaining two separate space programmes led to the 1975 merger.

The past 10 years have seen the realization of many of those original goals. Ariane has fulfilled Europe's need for an independent launch vehicle. The International Ultraviolet Explorer, a joint venture with NASA, has proved an indispensable workhorse for astronomers since its 1978 launch. COS B monitored gamma ray sources in the Milky Way for $6\frac{1}{2}$ years. The current projects are, of course, Spacelab & Exosat. The latter, a X-ray satellite has been in orbit over a year & has expanded our knowledge of white dwarfs & neutron stars.

Coming next are the International Solar Polar mission, Hipparcos, Giotto (a probe to Comet Halley in 1986) & the Infrared Space Observatory (ISO), an instrument hundreds of times more powerful than the IRAS satellite. ESA may also participate in NASA's planned space station.

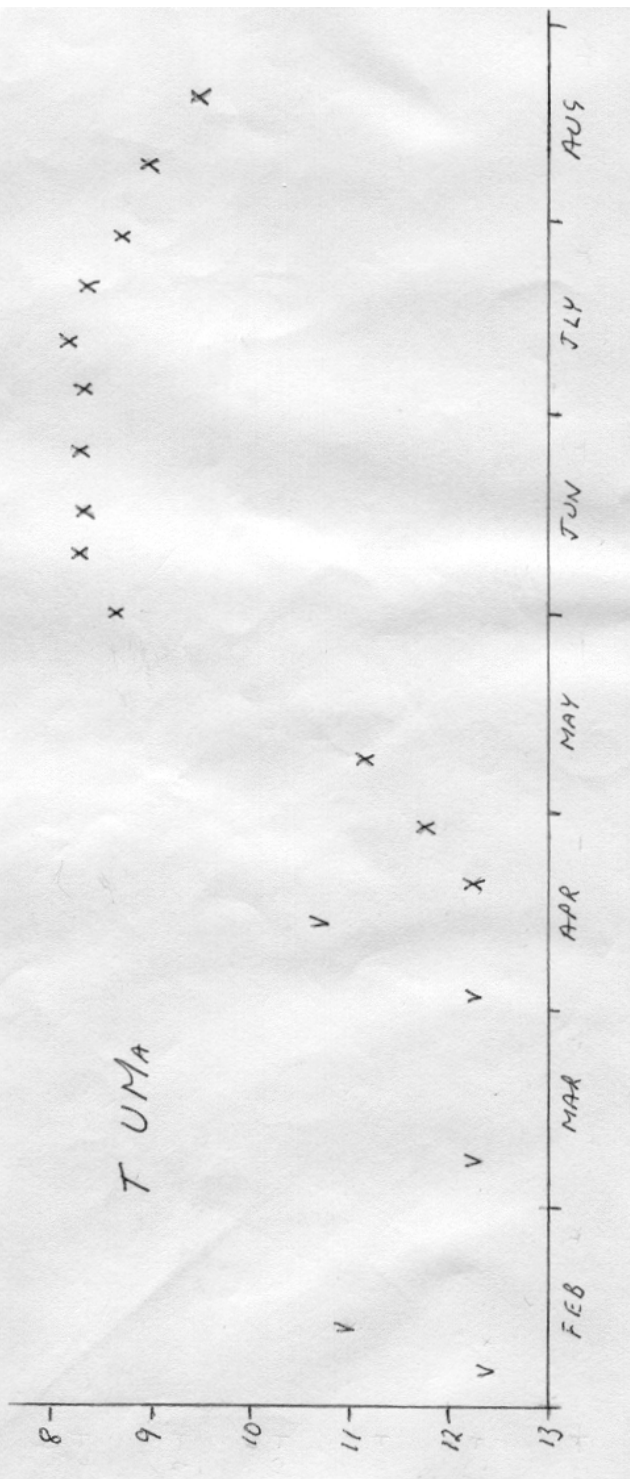
(David Barnard)

VARIABLE STAR OBSERVATIONS

by Mike Nicholls

The light curve shows T Ursae Majoris from February to August this year. This star is a long period variable, with a period of around 257 days. The curve shows a maximum around the end of June, which is about the correct predicted time, although I have seen brighter maxima than this one. The V sign indicates that the star is fainter than this value, being positioned on the curve at the magnitude of the faintest star seen.

The star-field close to T UMa is rather a difficult one to sort out when the variable is faint, and so it may sometimes get missed. Observations were made with an 8" reflector.



PROGRAMME FOR SEPTEMBER

MONDAYS from 8pm 3, 10, 17, 24	DOUBLE STAR & PLANETS SECTION Mr N Taylor [redacted], Farlands Trimley Mr T Gillan [redacted], Felixstowe	Tel: Fel. [redacted] Tel: Fel. [redacted]
TUESDAYS from 7pm 4, 11, 18, 25	GENERAL OBSERVATION SECTION Mr N Gage, [redacted], Trimley Mr R Newman [redacted], Felixstowe	Tel: Fel. [redacted]
WEDNESDAYS from 8pm 5, 12, 19, 26	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 14, 28	VARIABLE STAR SECTION Mr R Gooding, [redacted], Ipswich Mr M Nicholls, [redacted], Capel St. Mary.	Tel: Ips. [redacted] Tel: Ips. [redacted]

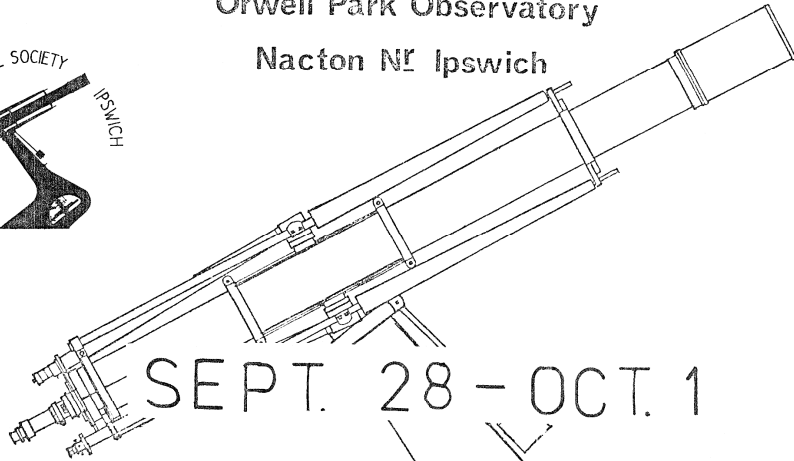
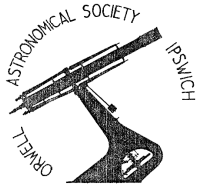
1984 COMMITTEE

CHAIRMAN	D Payne [redacted], Wickham Market, IP13 OSD	Works: [redacted] Home: [redacted]
VICE CHAIRMAN	R Cheesman [redacted], Corringham, Essex SS17 9BU	Works: [redacted] Extn: [redacted]
SECRETARY	R Gooding [redacted], Ipswich IP1 6AE	Works: [redacted] Home: [redacted]
TREASURER	M Nicholls [redacted], Capel St. Mary, Ipswich, IP9 2EX	Works: [redacted] Home: [redacted]
MEMBERSHIP SEC.	M Barriskill [redacted], Ipswich IP1 2EZ	Home: [redacted]
P.R.O.	D Barnard [redacted], Ipswich, IP4 5PP	Home: [redacted] Works: [redacted]
MAINTENANCE	M Cook [redacted], Ipswich, IP4 5QA	Home: [redacted] Works: [redacted]
FUNCTIONS	E Sims [redacted], Ipswich, IP1 4HA	Home: [redacted]
LIBRARIAN	N Gage [redacted], Trimley St Mary, IP11 9QY	Home: [redacted] Works: [redacted]

Orwell Astronomical Society (Ipswich)

Orwell Park Observatory

Nacton Nr Ipswich



SEPT. 28 - OCT. 1

OBSERVATORY OPEN WEEKEND

FOR THE OBSERVATION OF THE

MOON MARS JUPITER

through the 10" Refractor and other instruments

PROGRAMME

Friday, Sept. 28th 8.00 - 10.30 pm.

Saturday, Sept. 29th 7.00 - 10.30 pm.

Sunday, Sept. 30th 7.00 - 10.30 pm.

Monday, Oct. 1st 8.00 - 10.30 pm.

WEATHER PERMITTING

(Slide Show if cloudy)

GRAND DRAW 9.00 pm. Monday, Oct. 1st.

ENTRANCE DONATION

Adult 50p

Child 25p

Secretary: Mr. R. Gooding,
168 Ashcroft Road
Ipswich.