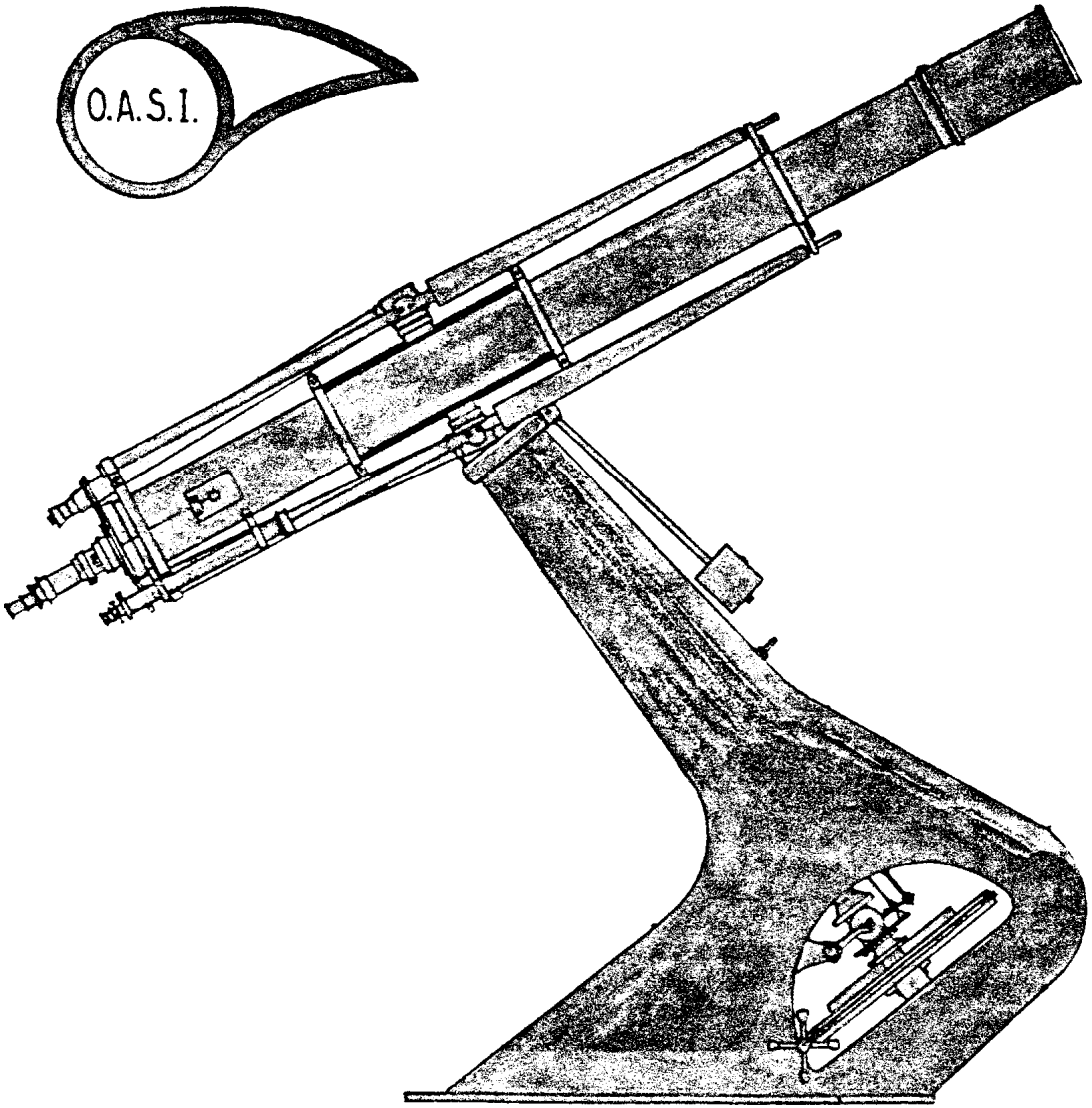
ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

APRIL 1983



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

SOCIETY NEWS

OPEN EVENINGS AT THE OBSERVATORY As advised in last month's Journal, we are opening up the Observatory on the evenings of Friday 22nd, Saturday 23rd, Sunday 24th and Monday 25th April from 8 pm to 11 pm for the general public to look through the Orwell Park telescope.

Help is needed on these evenings and if you can help on one of the nights, even if it is only for an hour or so, please come along.

Eric Sims, [redacted], Ipswich, Tel. Ips [redacted], is making up a 'duty rota' for those evenings so if you can help, please advise him a. s. a. p.

PROPOSED GUIDE TELESCOPE FOR MOUNTING ON THE TEN-INCH We are now looking for an o.g. of good quality, diameter four to five inches, for use as a guide telescope in using the ten-inch to even better advantage photographically. It might also be useful in being able to give a second set of people views on 'party' nights sensibly doubling the capacity of the whole equatorial assembly. Any help in the search is welcome. The new drive will be on before Open Weekend, and will be quite adequate for all normal visual observation.

GLASS-FRONTED BOOKCASE FOR LIBRARY USE If anyone can offer anything of this nature or information regarding one at reasonable cost, please contact Nigel Gage, see below.

CHANGES OF ADDRESS: Mr. R. M. Cheesman has now moved to [redacted], Corringham, Essex, SS17 9BU. Roy's work 'phone number: Stanford le Hope [redacted]. Mr. Nigel Gage's new address is [redacted], Trimley, Ipswich, Tel.Fel. [redacted], Work 'phone [redacted].

MAY'S JOURNAL DEADLINE Friday 15th April. As the Committee feels that response re membership renewals leaves something to be desired, making cutbacks in Journal production costs necessary, some more experiments involving spreading the Journal production - typing, as well as issue printing or reproduction, are imminent, and under the circumstances of general tightening-up on production date, with extra people involved it will be necessary to observe this deadline closely. Incidentally, MEMBERS' VIEWS on the Journal as a whole would be appreciated in feedback and of course, the occasional extra article. If you like the Journal as it is, please say so. If there's something you would give constructive criticism about, please do. Next month, we'll be producing less copies, but if membership increases, accordingly more. Although some feel using the Journal as a publicity item would be good, it has to be financed. Your views on that and similar aspects would be welcome, including whether in fact, we keep a Journal at all?

Roy Adams.

THE NIGHT SKY in APRIL

An extremely short section this time. We could have run four extra pages this month. No matter, as a reminder of the Leo, Leo Minor, Ursa Major, Coma and Virgo region could keep us all well occupied each clear night.

THE SUN Risetime from 05h38m to 04h34m, set-time from 18h32m to 19h21m.

THE MOON Phases Last Quarter 05d 08h 38m First Quarter 20d 08h 58m
New Moon 13d 07h 58m Full Moon 27d 06h 31m

Occultations	Star	Phase	Mag.	Time
D = Disappearance	ZC 691	D	6.6	16d 20h 25.8m
	ZC 1017	D	6.8	18d 21h 06.0m
	ZC 1161	D	6.2	19d 21h 34.7m

Times for latitude and longitude of Greenwich.

THE PLANETS Source: Whitaker's Almanack 1983. All times U.T. (B.S.T. minus 1 hr.)

MERCURY An evening object except at first. Best time this year to see it, at mag. -1 on 7th. (+1.5 by month-end.) Conjunction, 1.4°N, with Mars, 9d12h. Diam.6"average.
VENUS Very bright in the evening, mag -3.5. Diameter 13" to 16" (month-end).
MARS Presumably unfavourably placed for observation. Jupiter near the Moon, 2nd and 29th.
JUPITER A morning object, but becoming visible later, before midnight, mag. -2, 40"diam.
SATURN Visible most of the night at mag. +0.4, diam. 17" (equatorial).

RCA.

A Group of Galaxies in Leo

D B Payne

The constellation Leo rides high on the meridian during April. Three galaxies that form an interesting group for small telescopes are M65, M66 and NGC 3628. The group lies approximately midway between the stars Theta Leonis and Iota Leonis.

On clear dark nights M65 and M66 can be located with 10x50 binoculars. The map below shows the main stars seen in the field of view of such an instrument and the positions of the galaxies are indicated. The bright star at the top is Theta Leonis. M66 is the brighter of the three and the most conspicuous. M65 is more difficult to see in binoculars and I have not yet been able to detect NGC 3628 using them. The magnitudes of the galaxies are given as: 10.3 for M65, 9.7 for M66 and 10.3 for NGC 3628. It is interesting to note that although the integrated magnitude of NGC 3628 is the same as that of M65 it is a more diffcult object for small telescopes.

BINOCULAR FIELD AROUND M66 + M65

When using a telescope for observing low powers that will give a field of view of about 3/4 of a degree are required, if all three objects are to be seen together. M66 and M65 are quite easy in a 70mm telescope with the elongated shape of M65 easily seen. I have found NGC 3628 to be difficult with this size of telescope and it will probably need at least a 100mm (4 inch) to be seen well. In a 250mm (10 inch) telescope with a low power wide field eyepeice (50x & approx. 1 degree field) the three galaxies form a fine group. The elongated shapes of M65 and NGC 3628 are clearly seen, indicating their edge-on orientation to the Earth, while in M66 some irregularity can be seen indicating hints of spiral structure. These three galaxies are all spiral types estimated to be about 30 million light years away with diameters between 50,000 and 60,000 light years.

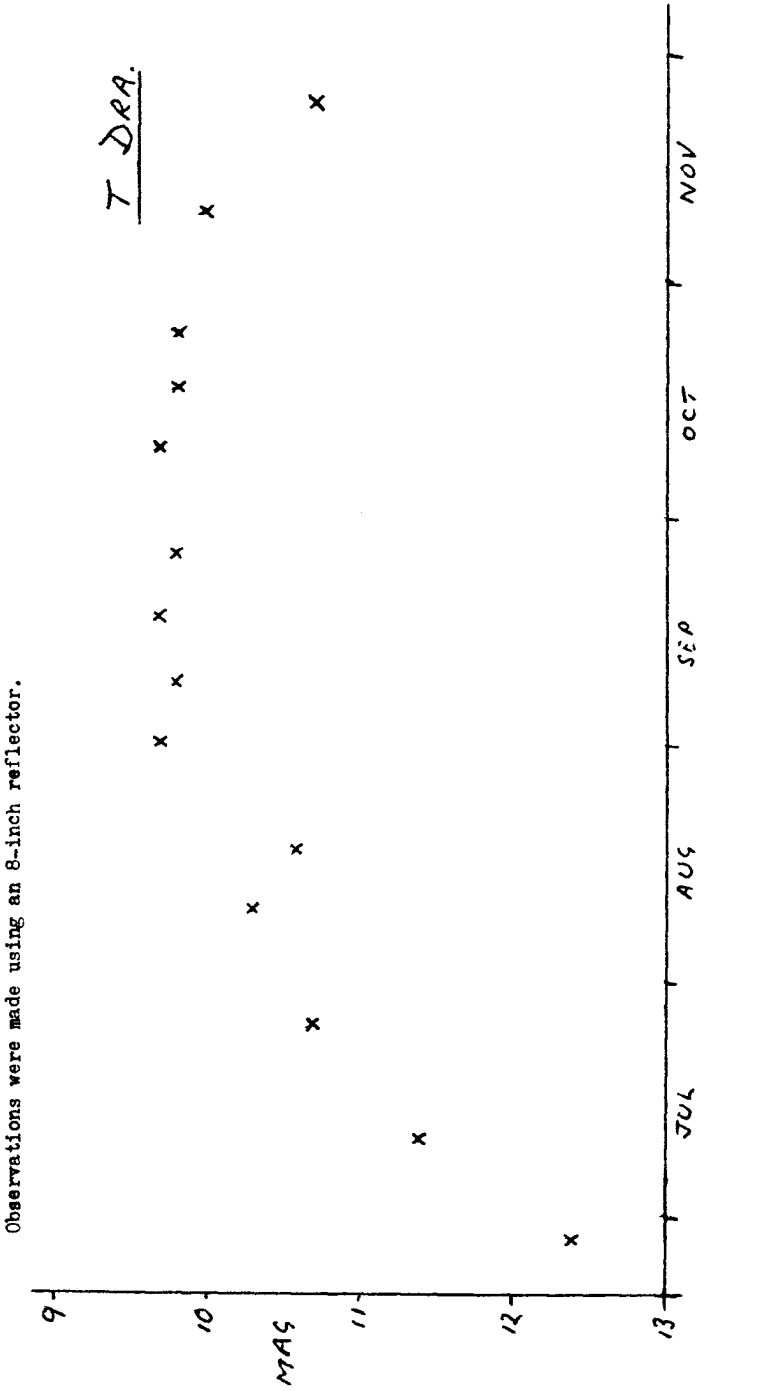
VARIABLE STAR OBSERVATIONS

by Mike Nicholls

The light curve shows T Draconis from late June to November 1982. The maximum shown is rather a flat one of the 10th magnitude. This is rather on the faint side because this star can rise to the 7th magnitude. It is 13th magnitude at minimum. The average period is quoted in Burnhams as 422 days. It is not easy to see from this portion of light curve, how this cycle deviates from the average.

T Draconis is a rather awkward star to observe. Location is easy enough because it is quite close to ξ(Xi) Draconis. It is, however, a visual binary with a 10th magnitude companion only 15 arc seconds away. Thus it can become difficult to judge its brightness accurately with such a close neighbour. An eyepiece which separates the two must be used, and this tends to move the comparison stars out of the field of view.

Observations were made using an 8-inch reflector.

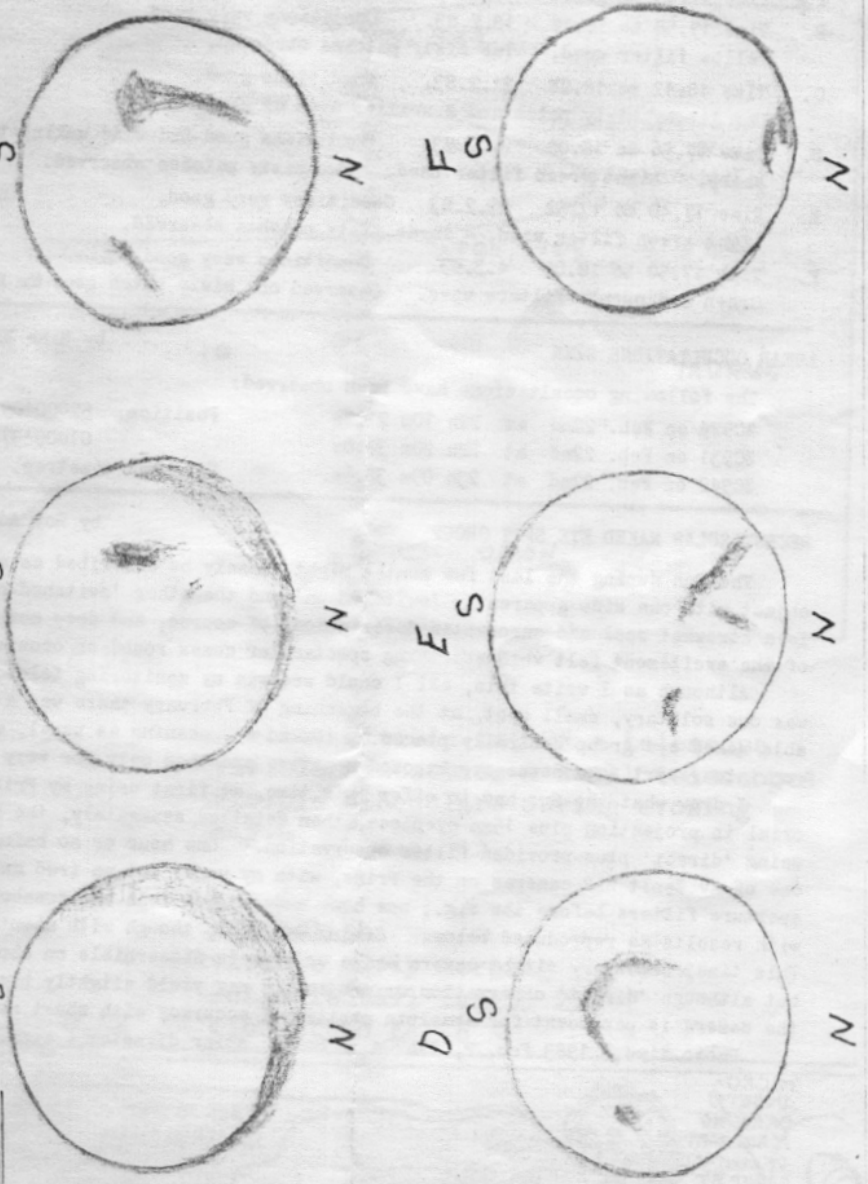


A RECORD OF VENUS OBSERVATIONS 1983.

ALL OBSERVATIONS DONE WITH 60MM REFRACTOR.

BY C. CORNISH

A 150 POWER C EYE PIECE.



DATA OVERLEAF

.... A RECORD OF VENUS OBSERVATIONS, 1983, contd. DATES & OTHER INFORMATION

A. Time 17.53 to 18.20 16.2.83. Conditions: Good but hazy.

B. Time 17.58 to 18.12 18.2.83. Conditions very good.
Yellow filter used. Two misty patches observed.

C. Time 18.12 to 18.28 21.2.83. Conditions good.
One larger misty patch and a smaller area of shading.

D. Time 17.56 to 18.08 22.2.83. Conditions good but wind making telescope shake. Light green filter used. Two misty patches observed.

E. Time 17.40 to 17.52 23.2.83 Conditions very good.
Light green filter used. Three misty patches observed.

F. Time 17.50 to 18.00 4.3.83. Conditions very good.
Green and purple filters used. Observed one misty patch near the North pole.

LUNAR OCCULTATIONS SEEN by Mike Nicholls

The following occultations have been observed:

ZC929 on Feb. 22nd at 22h 10m 21.2s Position: 52°00'09"N
ZC931 on Feb. 22nd at 22h 20m 37.0s 01°02'37"E
ZC942 on Feb. 22nd at 23h 09m 38.6s. Height: 46metres.

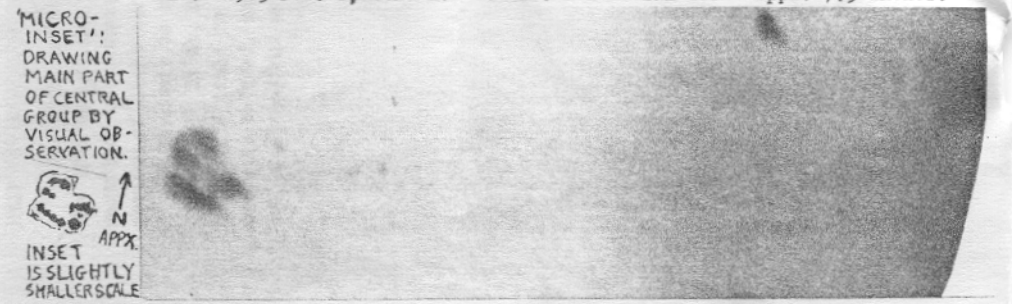
RECENT SOLAR NAKED EYE SPOT GROUP by Roy Adams

The Sun during the last few months might loosely be described as a broad object with one side apparently 'switched-on' and the other 'switched-off'. This is a somewhat cool and unromantic description, of course, and does not convey much of the excitement felt when something spectacular comes round or occurs once again.

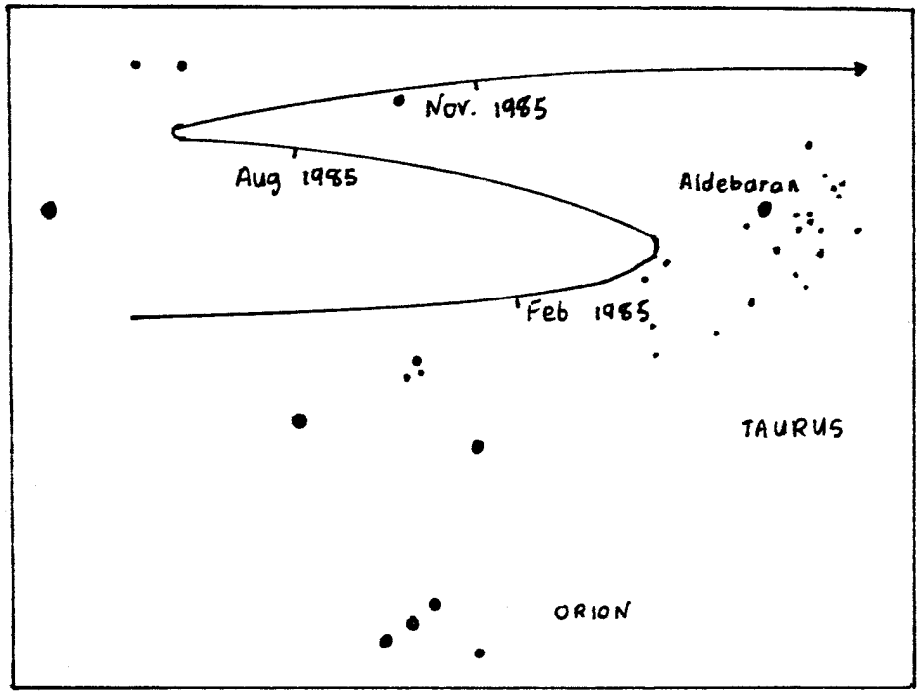
Although as I write this, all I could see via my monitoring telescope (56mm) was one solitary, small spot, at the beginning of February there was a very noticeable naked eye group centrally placed. (Naked eye meaning as usual, with the appropriate resort to a dense overexposed negative and then only for very brief check.)

I drew what the Sun had to offer this time, at first using my Prinz 60mm equatorial in projection plus 15mm eyepiece, then detailed separately, the central group using 'direct' plus-provided-filter observation. One hour or so beforehand, I used one of my Zenit SLR cameras on the Prinz, with my usual set-up (red and purple full-aperture filters before the o.g.; one home-made Barlow lens and connection shrouding) with results as reproduced below. Seeing was good, though with about 40% haze. This time, some very slight camera shake or blur is discernible on close examination but although 'direct' observation or projection may yield slightly better detail, the camera is paramount for absolute positional accuracy with short recording time.

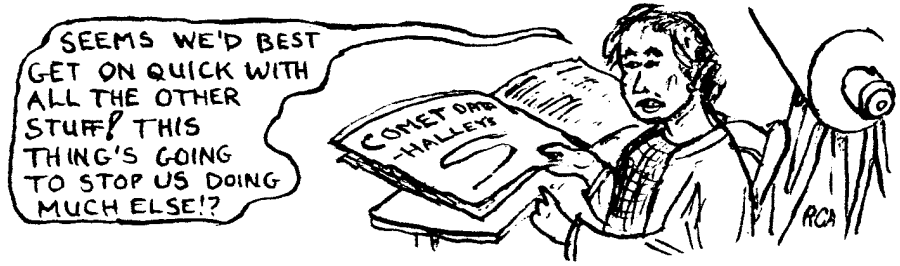
Photo time: 1983 Feb. 2, 11h20m. Scale: solar diameter = appx. 7.5 inches.



HALLEY'S RETURN



DATE	A.U.	COMMENTS
1985		
July		mag.14, visible in 10" + telescope
Oct.		visible binoculars & small telescopes
Nov.27	0.62	visible binoculars during evening
Dec.		mag.6
1986		
Jan.		mag.4
Feb. 9		Perihelion
Mar.		visible early morning
Apr.		Possible tail length 25°
Apr.11	0.42	closest to Earth



PROGRAMME FOR APRIL

TUESDAYS from 8pm	GENERAL OBSERVATION SECTION		
5, 12, 19, 26	Mr N Gage,	Trimley	Tel: Fel.
	Mr R Hebbs,	Felixstowe	Tel: Fel.
WEDNESDAYS from 8pm	NEBULEA & FAINT OBJECTS SECTION		
6, 13, 20, 27	Mr M Cook,	Ipswich	Tel: Ips.
	Mr D Payne,		
		Wickham Market.	Tel:W.Mkt.
FRIDAYS from 8pm	VARIABLE STAR SECTION		
1, 15, 22	Mr R Gooding,	Ipswich	
	Mr M Nicholls,		
		Capel St. Mary.	Tel: Ips.
SUNDAYS from 8pm	GENERAL OBSERVATION SECTION		
3, 17, 1st May	Mr R Adams,	Ipswich	Tel: Ips.
	Mr M Barriskill,	15 London Rd, Ipswich	

EVENTS PROGRAMME

Friday 22nd, Saturday 23rd, Sunday 24th and Monday 25th The Observatory is open to the public from 8pm to 11pm. Please come along and lend a hand.

Saturday 9th April 7:30 pm. Committee Meeting in the Club Room. All members are invited.

1983 COMMITTEE

CHAIRMAN	D Payne		Work:
		Wickham Market, IP13 0SD	Home:
VICE CHAIRMAN	R Cheesman	, Corringham,	Work:
		Lane, Essex SS17 9BU	Extn
SECRETARY	R Gooding	, Ipswich	Work:
TREASURER	M Nicholls	, Capel St. Mary,	Work:
		Ipswich, IP9 2EX	Home:
MEMBERSHIP SEC.	M Barriskill	, Ipswich	
P.R.O.	D Barnard	,	Home:
		Ipswich, IP4 5PP	Work:
MAINTENANCE	M Cook	,	Home:
		Ipswich, IP4 5QA	Work:
FUNCTIONS	E Sims	,	Home:
		Ipswich, IP1 4HA	
LIBRARIAN	N Gage	,	Home:
		Trimley,	Work:

LATE NEWS SLIP (AFTER MAIN PHOTOCOPYING) - METEOR NOTES, APRIL 1983 by David Barnard

There are two showers active this month.

1. The Virginids Maxi occurring on April 12th. Has a double radiant, although strictly speaking there are another 20 or so associated with this stream. First radiant, 14hrs 04mins, -9°, active throughout the month, with ZHR of 6. Second radiant, 13hrs 36mins, -11°, active between April 7th and 18th, ZHR of 10. This radiant is sometimes called the α- Virginids. Favourable for observation this year.

2. The Lyrids (formerly April Lyrids) This shower was quite active last year. A sharp maximum on April 22.6, but active from April 19th to 25th, with ZHR of 15. Radiant 18hrs 08mins, +32°. Unfavourable this year.

Due to the Open Weekend this month, it is not possible to have a meteor count. The next meteor count will be on Saturday 7th May, when we shall be observing the eta-Aquarids.

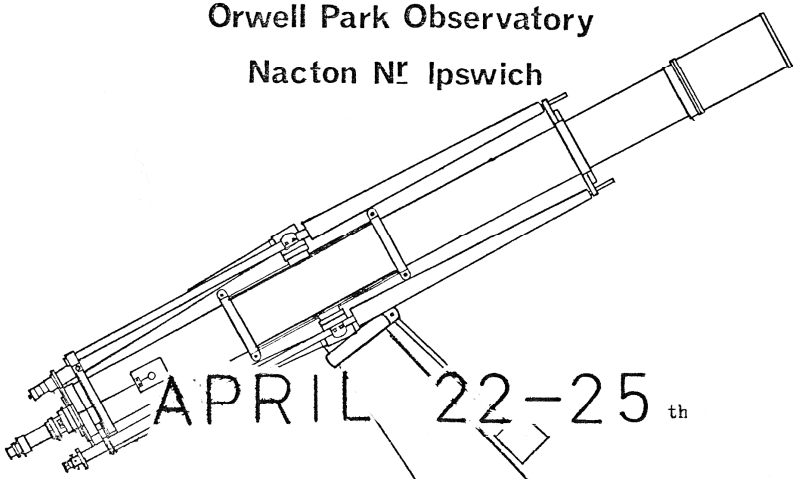
VISITS

APRIL 6th, Wednesday. Visit by Anglia Holiday Club from 7.45pm to 9.30pm.
APRIL 1st & 2nd, Friday & Saturday. Caravan Club - Observatory open.
APRIL 2nd (also). Visit by Greyhound Pub, organised by C. Baldry.

Orwell Astronomical Society (Ipswich)

Orwell Park Observatory

Nacton Nr Ipswich



APRIL 22-25th

OBSERVATORY OPEN WEEKEND

The observatory will be open for public viewing of the :-

MOON VENUS SATURN

through the 10" refractor and other instruments

OPEN WEEKEND PROGRAMME

Observatory open at the following times:-

Friday	22nd April	8.00 p.m.	to	11.00 p.m.
Saturday	23rd April	8.00 p.m.	to	11.00 p.m.
Sunday	24th April	8.00 p.m.	to	11.00 p.m.
Monday	25th April	8.00 p.m.	to	11.00 p.m.

(Weather permitting)
Slide Show if cloudy

Entrance Donation:-

Adult 50p
Child 25p

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