

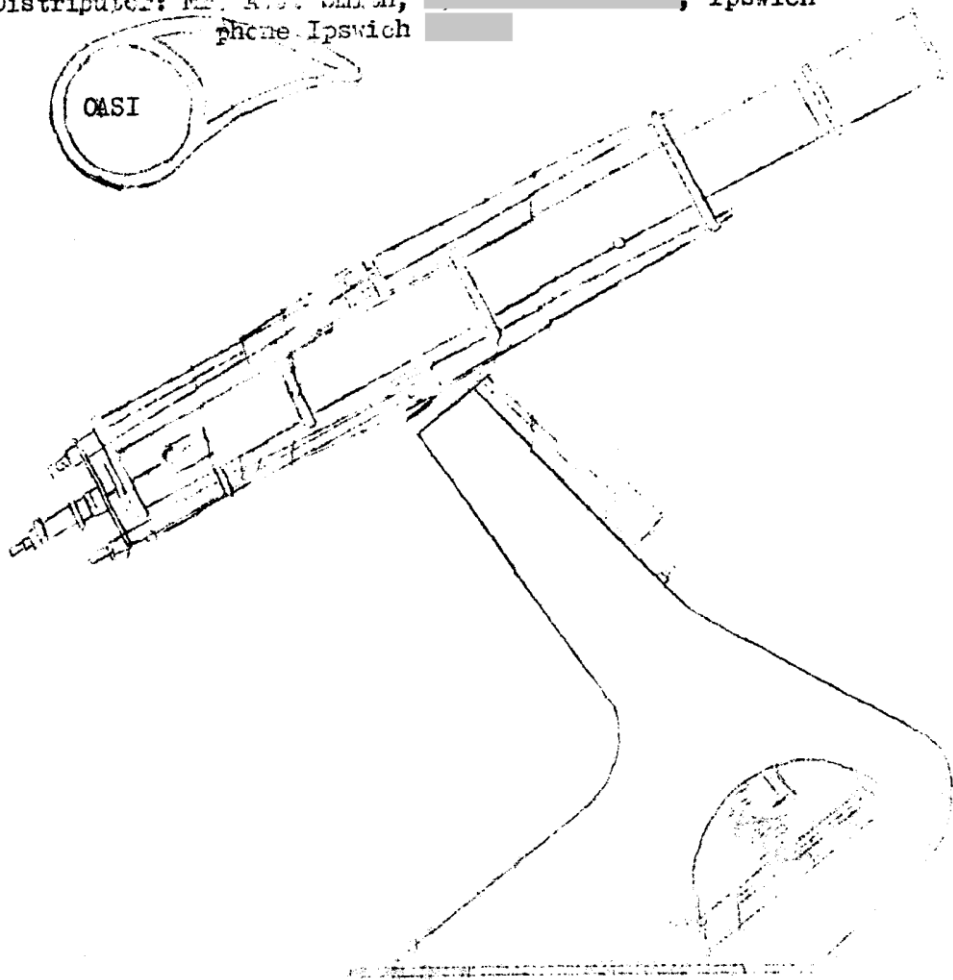
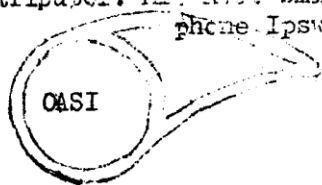
MAY 1980

JOURNAL OF THE ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

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The Orwell Park 10 inch Astronomical Telescope  
at Necton, near Ipswich.

THE NIGHT SKY AS SEEN FROM ORWELL PARK DURING MAY.

by Paul Burt.

The Plough still dominates the zenith area this month while Virgo and Bootes are due south around mid-night. Libra lies to the south-east of Virgo, and on the south-eastern horizon the brilliant red Antares in Scorpio can be found after mid-night. Antares has the 7th magnitude green companion, which is exceptionally difficult to see because of the primary's brightness and it's low altitude in the British skies. To the south-west Orphinchus is visible by late evening, and the conspicuously crown-shaped Corona lies next to Bootes. The eastern sky is dominated by Hercules and Lyra, and the head of Draco, lying just west of Vega. Leo is prominent in the western sky and the whole length of Hydra is still visible winding from the southern to the western horizon.

THE SUN.

Sunrise is at 04h 40m at the beginning of the month, changing to 03h 40m at month-end. Sunset changes from 19h 30m to 20h 10m. The Sun moves from Aries to Taurus during the month.

THE MOON.

Full Moon	8d 00h 45m	New Moon	23d 04h 40m
Last Quarter	16d 05h 11m	First Quarter	29d 20h 07

Occultations.

<u>Star</u>	<u>Phase</u>	<u>Mag.</u>	<u>Time</u>		
			<u>d.</u>	<u>h.</u>	<u>m.</u>
1504	D	5.7	2	1	22.2
* 1047	D	5.2	25	20	59.5

D = Disappearance                      R = Reappearance  
 Stars listed according to Zodiacal Catalog (ZC)  
 numbers.

\* denotes double star.

THE PLANETS.

- Mercury reaches greatest elongation east of  $21^{\circ}$  on the 9th, when it will be setting two hours after the Sun at magnitude +0.5 decreasing. This is the best evening apparition of Mercury this year.
- Venus will be rising an hour before the Sun throughout the month at magnitude -3.6
- Mars fades from magnitude -0.7 to -0.1 during the month, in Virgo. It will be visible until around 0200 hrs, and reaches it's stationary point on the 13th, changing from retrograde to normal motion.
- Minor Planet Ceres reaches greatest brilliance of mag.+7.7 during mid-month in Libra. Position on the 11th will be R.A. 15h 15.67m, Dec.  $-9^{\circ} 01.9m$
- Jupiter will be visible until the early hours at mag. -2.0 in Virgo.
- Saturn is also in Virgo at magnitude +0.7, setting shortly before Jupiter.
- Uranus reaches opposition on the 24th between Libra and Scorpius at mag. +5.7. R.A. 16h 02m Dec.  $21^{\circ} 30'$  Apparent diameter  $3'' .9$

FROM OTHER JOURNALS

by Paul Burt.

Quasar Redshifts ARE real.

A team of astronomers at Palomar have achieved results which confirm that red-shift measurements of quasars do relate to their receding velocity and distance. Using a new spectrographic system, they measured the spectra of nebulosities surrounding the Quasar 3C48, and found them to be clusters of hot young stars, similar to the arms of a spiral galaxy. The red-shifts of the clusters are identical to that of the quasar. This discovery in turn means that British and Australian astronomers have discovered the remotest known object in the Universe - a quasar called PKS 2000-330, which, with a red-shift of 3.78, breaks the ten-year-old record of 3.53 held by quasar OQ172.

PKS 2000-330 also becomes the most luminous known object, equivalent to 10,000 Milky Ways, but packed into a region only a few light years across.

It is receding from us at over 90 per-cent of the

speed of light, at a distance of 13,000 million light years, and the light now being received from it was emitted when the Universe was only one-tenth of its present age.

### VARIABLE STAR OBSERVATIONS

by Mike Nicholls.

The starfield shown on page 4 shows the constellation of Coronae Borealis, the northern crown, which is in the south-east in the evening sky at present. It is here that the interesting variable R Coronae Borealis (R CrB) can be found. This star remains at a maximum of about magnitude 6.1 for most of the time, maybe several years. Suddenly and without warning it fades by up to 9 magnitudes in a few days.

Anyone interested can observe this star with binoculars when it is at maximum, provided they can locate the northern crown: it is normally the brightest star inside the crown. The chart shows the variable R quite close to the magnitude star labelled G. Other comparison stars shown are C, mag 5.9, D (6.3) and E (6.6). When at maximum R CrB is slightly fainter than C and slightly brighter than D. Star C is best located by extending the line joining  $\theta$  (theta) and CrB and  $i$  (iota) CrB.

Should R CrB fade, of course, it can no longer be seen with binoculars. A telescope and more detailed charts are necessary. At my last observation on March 23rd it was at maximum and has been so for some time. However, we may be lucky and see it fade this year.

Mike Nicholls.

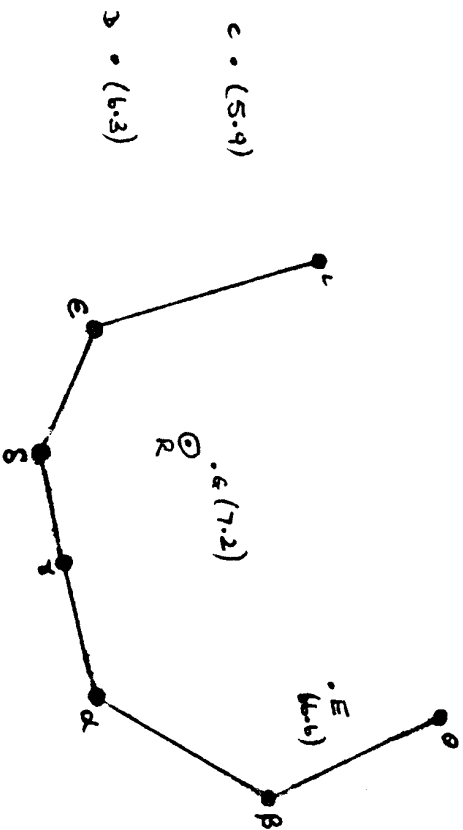
### METEOR NOTES

There are no major meteor showers this month and we do not propose to hold any sporadic meteor watches.

A report on the April Lyrids shower to be held on Saturday 24th April after the Committee Meeting will be in next month's Journal.

David Barnard.

Field of R Coronae Borealis (R CrB)



M. Nicholls

MAINTENANCE OF OBSERVATORY— HELP IS NEEDED!

As much as possible is required by members to do necessary repairs and decorating to the observatory.

If you can spare an evening or so to 'clean the observatory up' and this year we hope to finish off all the major repair jobs so that in coming years we will only have to 'tidy up'.

Your help would be greatly appreciated.

ARTICLES FOR THE MONTHLY JOURNAL

If you have any articles or astronomical observations which you would like published in our monthly journal would you please send them on. It would be nice to see other members contributing to the journal now and again. Anything of astronomical interest will be accepted.

DEADLINE FOR JUNE'S JOURNAL

Owing to the breakdown of the offset machine the journal may have to be photocopied again next month. Please send your items to arrive by 20th. May to R.M. Cheesman, 9A. Temple Grove, Baker's Lane, West Hanningfield, Chelmsford, Essex CM2 8LQ

CLUB NIGHTS AT THE OBSERVATORY

If you are interested in running a night at the observatory on a regular basis (once a week or every other week) please contact any member of the committee. We need at least two members to run an evening together so if you are interested but do not know anyone to share the night with please contact us and we will try to make arrangements.

OPEN EVENINGS AT THE OBSERVATORY FOR  
THE GENERAL PUBLIC

As reported in last month's Journal we propose to open the Observatory up for four nights so that the general public can come and see what we are up to.

YOUR HELP IS NEEDED on these nights.

The Observatory will be open from about 730pm. to 11p.m. on the following nights, we will be there even if the observing conditions are unfavourable.

FRIDAY	7th	May
SATURDAY	8th	May
SUNDAY	9th	May
MONDAY	10th	May

Most of the planets together with the Moon will be visible (weather permitting of course)

Please do not forget to come along on at least one of these nights even if it is only for an hour or so.

## Notices

- 1) There are still a few subscriptions  
outstanding from some members who have their  
journal posted to them direct. If you would  
like to continue your membership, please send  
the appropriate remittance to the membership  
secretary. Thank-you.
  
- 2) Due to a major fault with the offset  
duplicate your journal has had to be  
photocopied and may not be up to standard.



ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

PROGRAM FOR MAY 1982

At the Observatory, Orwell Park School, Nacton.

WEDNESDAYS from 8p.m.

Nebulae & Faint Objects Section

Directors: Mr. B. Payne & Mr. M. Cook

5th 12th 19th & 26th

FRIDAYS from 8p.m.

Variable Stars Section

Directors: Mr. M. Nicholls

7th 14th 21st & 28th.

OBSERVATORY OPEN EVENINGS FOR THE GENERAL PUBLIC.

The following nights the Observatory will be open for the general public to look through the Giant Telescope at Orwell Park.

Admission is by donation towards Society's funds

The Observatory will be open irrespective of weather conditions from approx 8p.m. to 11pm. on

FRIDAY 7th May

SATURDAY 8th May

SUNDAY 9th May

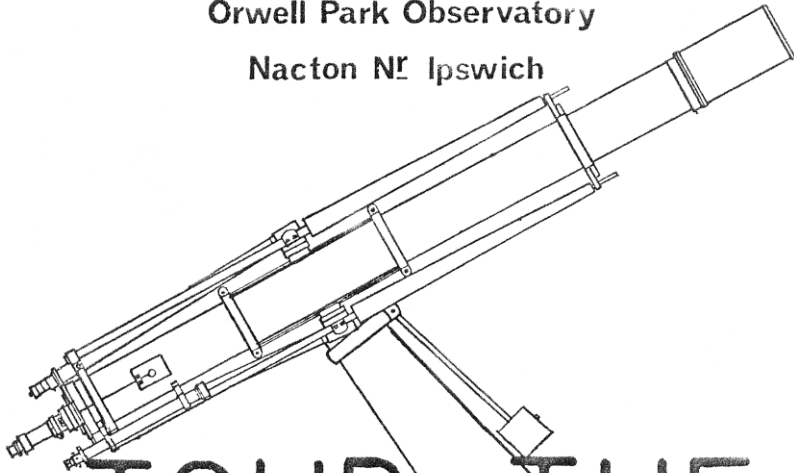
MONDAY 10th May.

As many members as possible are required to help on these nights.

# Orwell Astronomical Society (Ipswich)

Orwell Park Observatory

Nacton N<sup>o</sup> Ipswich



# TOUR THE SOLAR SYSTEM

MAY 7-10<sup>th</sup>

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

MOON      MARS      JUPITER      SATURN

at our Open Weekend, using the 10" refractor and other telescopes

## OPEN WEEKEND PROGRAMME

Observatory open at the following times :-

Friday	7th	8.00 p.m. to 11.00 p.m.
Saturday	8th	8.00 p.m. to 11.00 p.m.
Sunday	9th	8.00 p.m. to 11.00 p.m.
Monday	10th	8.00 p.m. to 11.00 p.m.

(Weather permitting)

Entrance Donation:-

Adult    40p  
Child    20p

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