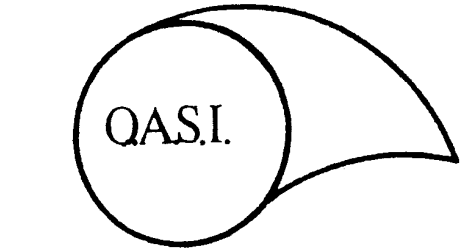
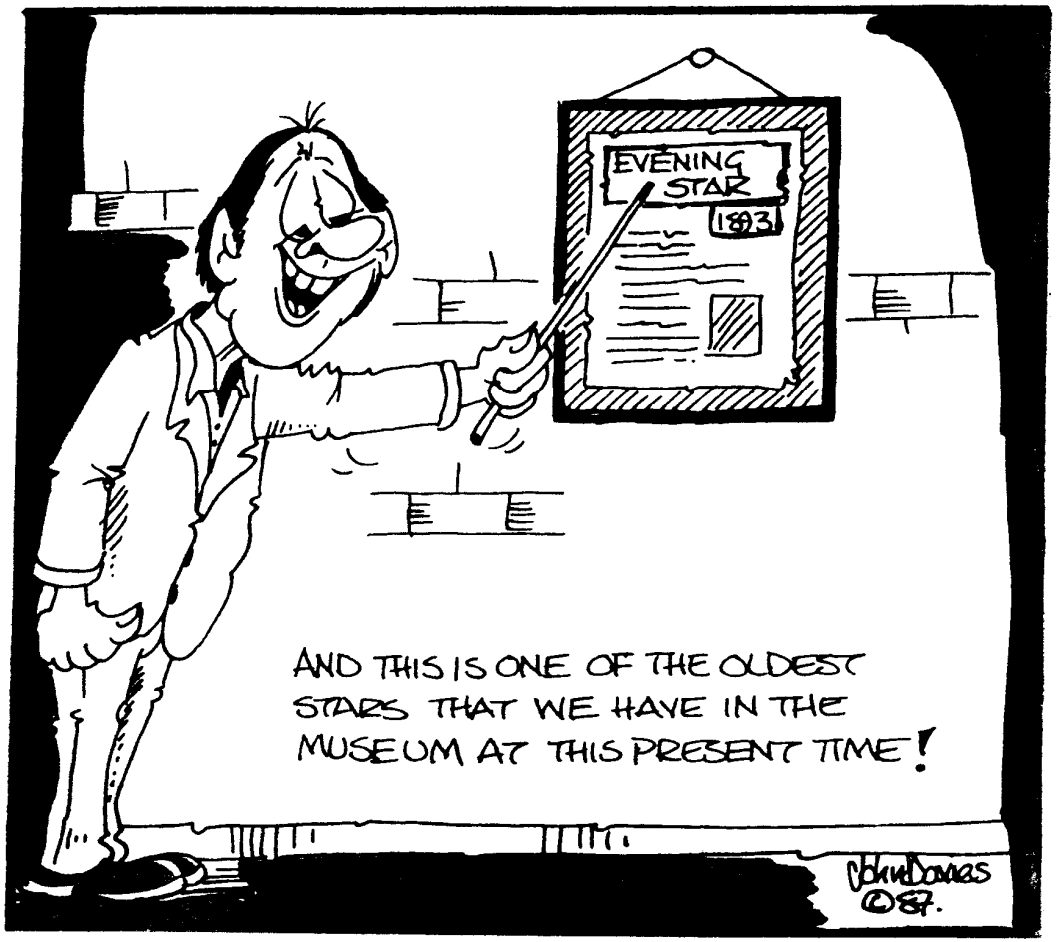
ORWELL ASTRONOMICAL SOCIETY, IPSWICH



APRIL 1987



SOCIETY NEWS

Astronomical Convention

The Southern Area Group of Astronomical Societies will be holding a convention on Saturday 13th June at the Guildford Technical College. The days programme will include:- lectures, trade stands, films, various displays and demonstrations. Entrance fee is £1.50 for an adult and £1.00 for children, plus transport costs. Anyone interested in attending should contact Roy Gooding.

Astronomy Now

This is the title of a new British Astronomical Magazine. This publication will be available at the Dome as soon as the first year's subscription has been paid. The first issue was on sale at W.H. Smiths and Menzies at a cost of £1.25. A gloss colour U.K. astronomical magazine has been a long time awaited. I would recommend that members should support this new venture and obtain their own copies. For assured delivery a subscription form can be obtained from Roy Gooding. The magazine will be published every other month until September, after which it will be published monthly.

Lecture Meeting, Friday 10th April, 8.00 p.m.

The last lecture of this session will be given by Bob. Markham on the Geology of the Solar System (IV) at The Friends' Meeting House. Fornereau Road.

Open Weekend

Our annual public open weekend will be between 25/28th September. More details will follow nearer the time.

21st Anniversary

1988 Will be the 21st anniversary of the Society's formation. It is proposed to hold an astronomical convention during the summer of next year. This event is still in the preliminary planning stage, thus no more details are yet available.

Meteor Watch

A meteor watch for the Lyrids will be arranged for Wednesday 22nd April.

Mid-Kent Astronomical Society's Convention

The Mid-Kent Astronomical Society will also be holding an astronomical convention on Saturday 30th May. Tickets will cost £2.00 plus transport. Anyone interested in attending please contact Roy Gooding.

NIGHT SKY

(all times G.M.T.)

Sun Rises approximately between 05.40 - 04.40
Sets approximately between 18.30 - 19.30

Moon 6th 14th 20th 28th

Mercury Visible in morning sky with difficulty as it is located near the Sun -0.3

Venus Also visible in the morning sky. Rises less than 1 hour earlier than the sun all month. Mag.-4.0.

Mars Visible in the evening sky in Taurus. Sets at about 23.00 in mid month. Mag. 1.6.

Jupiter Visible in morning sky. Becomes better placed for observation towards the end of the month. Mag.-2.0.

Saturn Rises at about 23.30 in mid month. Located in Ophiuchus. Mag. 0.3.

Uranus Rises at about midnight in mid month. Mag. 5.8.

Neptune Rises at about 01.00 in mid month. Mag. 7.7.

Lecture Meeting Held on 13th March

Alan Smith and Roy Cheesman presented a repeat report on their Australian trip of April 1986. Their first report was held in June last year. Unfortunately an audience of under a dozen attended this meeting. This low turnout was never explained, considering the number of people that had shown an interest in Roy & Alan's exploits. It was therefore decided to stage a second showing. This was amply rewarded, with the Collinson Room completely packed out. The attendance was between 40 - 50, the highest number we have had for many years whilst using the Collinson Room. Roy and Alan presented only part of their total slide collection of the trip due to time restriction. The slide presentation was augmented with location descriptions together with various anecdotes, some often quite amusing. The talk lasted about 1½ hours, during which time the audience had shown no signs of restlessness, and showed their appreciation at the close.

Roy Gooding.

ACROSS

1 Pertaining to the stars (3)
5 The sun's heading towards this point in Hercules at 19.75 km/sec. (4)
8 It's a low tide (4)
9 Eighth moon of Saturn (7)
10 Fourth moon of Saturn (5)
12 The Serpent - Constellation (7)
13 Tool of the sculpture - Constellation (6)
14 Where the moon sets (4)
16 Queen of northern constellations (10)
18 An ocular would be designed for one (3)
19 Point in the orbit of a satellite located nearest the earth (7)
20 This astronomer predicted the orbit of Neptune thereby enabling it to be discovered in 1946 (5)

DOWN

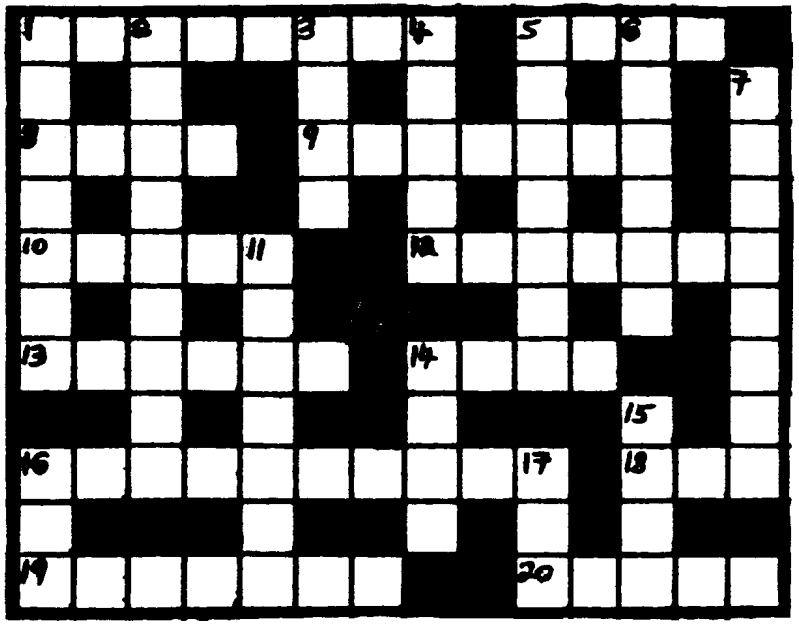
1 Period after which the same relative positions of a planetary surface and satellite are reproduced (7)
2 Two meteor showers with radiants in the constellation of Draco (9)
3 "The Nose" bright star in Perseus (4)
4 The wolf - southern constellation (5)
5 "Rival of Mars" - bright star in Scorpius (7)
6 A religious holiday celebrated the first Sunday after the first full moon after the vernal equinox (6)
7 Extreme positions of the sun in its apparent annual path amongst the stars - occurs in winter and summer (9)
11 The end of day and beginning of night (7)
14 Using this person's law it is possible to determine the temperature of incandescant bodies (4)
15 Star with apparent magnitude of 0.04, spectral type AOV (4)
16 Crater or goblet - constellation (3)
17 Ethereal constellation (3)

Solution to crossword number 6 (February)

Across - 1 Europa, 4 Praesepe, 8 Rigel, 9 Reflecting 10 Geocentric, 12 Year, 13 Pan, 15 Little Bear, 18 International Date Line, 23 Dorado, 25 Occultation, 27 Libration, 29 Errai, 30 Opacity, 31 Newton, 32 Sun, 33 Eros

Down - 1 Early Bird, 2 Refractor, 3 Alcor, 4 Prism, 5 Algol, 6 Sagitta, 7 Encke, 8 Range, 11 Cassegrain, 14 Ara, 16 Botein, 17 Circinus, 19 Radiant, 20 Neutron, 21 Lateral, 22 Lunar, 24 Orion, 26 Lion, 28 Air, 29 Eye

R.A. LOBBETT



9th ANNUAL ASTRONOMY WEEKEND COURSE OXFORD

In 1979 & 1980 I attended the weekend astronomy course in Oxford along with fellow members of the Bristol Astronomical Society, other amateur astronomers and others with an interest in the subject. This years course is entitled "Observing The Universe" and includes seven lectures each by a speaker prominent in the field of astronomy. The course runs from the evening of Friday 15th through to Sunday 17th of May. The cost ranges from £15 for lectures only without accommodation or meals to £59 for a single room and all meals. Application forms and full details can be obtained from: Rosemary Merlin, University of Oxford, Department of External Studies, Rewley House, 1 Wellington Square, Oxford OX1 2JA. I phoned Rewley House today (25th March) and it appears that there are plenty of places remaining. The latest date for return of application forms is 11th May but as the courses are popular an earlier date would be advisable.

P.R. RICHARDS

Choosing An Eyepiece

D Payne

Choosing an eyepiece for your telescope can be a fairly complicated process with a range of features and requirements to be finely balanced. A good quality eyepiece can be an expensive accessory to your telescope so the decision to buy should not be taken hastily.

Magnification is often taken as the main consideration for the choice of an eyepiece but of course is only one of several parameters and, depending on the observations to be undertaken, may not be the most important. Listed below are the main characteristics of an eyepiece that should be considered prior to purchase:

a. Magnification.
b. Field of view.
c. Contrast (freedom from scatter and ghost images).
d. Eye Relief.
e. Light Transmission Efficiency.
f. Freedom from Aberrations.

Unfortunately these characteristics are not independent and cannot be specified in isolation from each other. For example, magnification obviously determines the size of the image seen by the observer but it also has a major impact on the field of view seen through the eyepiece and the eye relief. The field of view also depends on the details of the lense design and the number of elements within the eyepiece. This inturn will affect ghosting, scatter and aberrations.

Magnification:

The magnification of a telescope can be defined in several ways giving different insights into the effect of magnification on the other parameters mentioned above:

$$M = F/f = D/d = Af/Rf$$

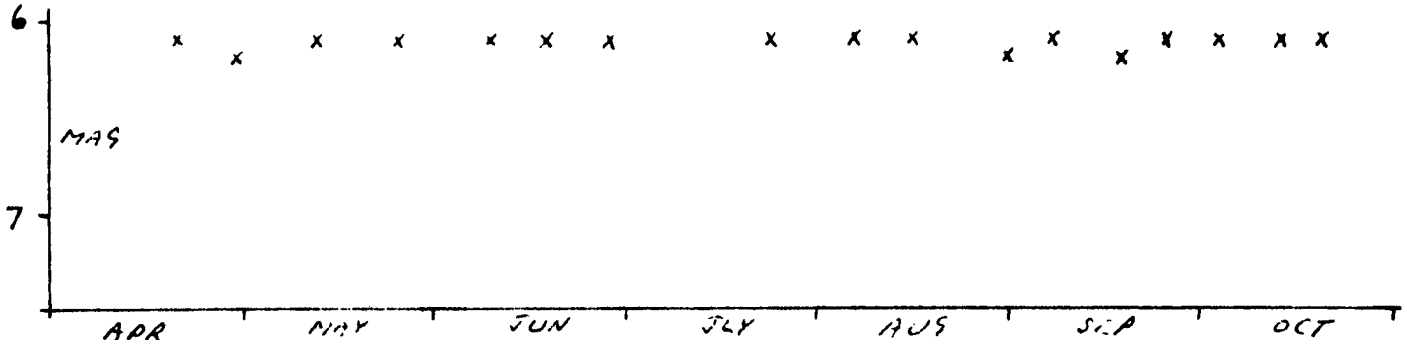
Where M = the magnification
F = the focal length of the objective
f = the focal length of the eyepiece
D = the diameter of the objective
d = the diameter of the exit pupil
Af = the Apparent field of the eyepiece
Rf = the Real field of the eyepiece

TO BE CONTINUED

VARIABLE STAR OBSERVATIONS

by Mike Nicholls

The rather unimposing light curve shown below is that of R Coronae Borealis from April to October 1986. It shows the star in its normal, maximum brightness condition. A glance at the journal of December 1985, will show how rapidly this star can fade to around the 15th magnitude. R CrB is an old giant star with a high proportion of carbon in its atmosphere. The rapid fading is thought to be due to this carbon condensing out to form a veil of soot around the star. R CrB has recently come into the news during analysis of the IRAS infra-red satellite data. This shows a vast cloud of dust around the star, about 26 light years across. If the sun had a cloud like this, it would encompass not only the solar system but the nearest 50 stars as well. There still seems to be a mystery as to why the cloud shines so brightly in the infra-red. R CrB itself cannot supply enough energy, and the surrounding stars are not thought to be strong enough either.



PROGRAMME FOR

MONDAYS from 8pm

DOUBLE STAR & PLANETS SECTION
Mr N Taylor, Farelands, Trimley Tel:Fel

Mr T Gillan, Bardwell, Bury St.Edmunds. Tel:

Miss M Edwards, Felixstowe Tel:Fel.

TUESDAYS from 8pm

GENERAL OBSERVATION SECTION
Mr N Gage, Trimley Tel: Fel.
Mr R Newman, Felixstowe Tel: Fel.
Mr J King, Felixstowe Tel: Fel.

WEDNESDAYS from 8pm

NEBULAE & FAINT OBJECTS SECTION
Mr M Cook, Ipswich Tel: Ips.
Mr D Payne, Wickham Market. Tel:W.Mkt

FRIDAYS from 8pm

GENERAL OBSERVATION SECTION
Mr R A Lobbett, Felixstowe. Tel:Fel.
Mr J Hood, Ipswich. Tel:Ips.
Mr M Harlow, Felixstowe Tel:Fel.

On nights other than Wednesday please contact directors to confirm dates.

1987 COMMITTEE

CHAIRMAN	D Payne	Wickham Market, IP13 0SD	Work: Home:
VICE CHAIRMAN /P.R.O	D Barnard	Ipswich, IP4 5PP	Work: Home:
SECRETARY	R Booding	Ipswich IP1 6AE	Work: Home:
TREASURER	M Nicholls	Capel St. Mary, Ipswich, IP9 2EX	Work: Home:
MAINTENANCE	M Cook	Ipswich, IP4 5PZ	Home: Work:
JOURNAL CO-ORD	E Sies	Ipswich, IP1 4HA	Home:
SOCIETY EVENTS	R Lobbett	Felixstowe	WORK: Home:
F.A.S. ARTICLES	M Harlow	Felixstowe	Home:
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