

ORWELL ASTRONOMICAL SOCIETY, IPSWICH.

SOCIETY NEWS





OPEN DAY: Saturday 16th July

ALL members and their families are invited to come along on Saturday 16th July to the observatory to HELP! with the Open Day arrangements. In order to make this day a complete success please come along, even if it is only for an hour or so.

THE NIGHT SKY

(all times G.M.T.)

SUN The sun rises at approximately at 04.00 to 04.20
The sun sets at approximately at 20.20 to 20.00

MOON  6th  13th  22th  29th

MERCURY This month Mercury is visible in the morning sky. Greatest elongation is on the 6th (21°). Mercury is quite bright this month (Mag. -0.3) but will be difficult to see.

VENUS Venus will be rising about 3 hours before the sun in mid month. It will be at Mag. -4.5 on the 19th.

MARS Mars will be rising about 2 hours after sunset. Mag. -1.2

JUPITER Rises at midnight in mid month. Mag. -2.2

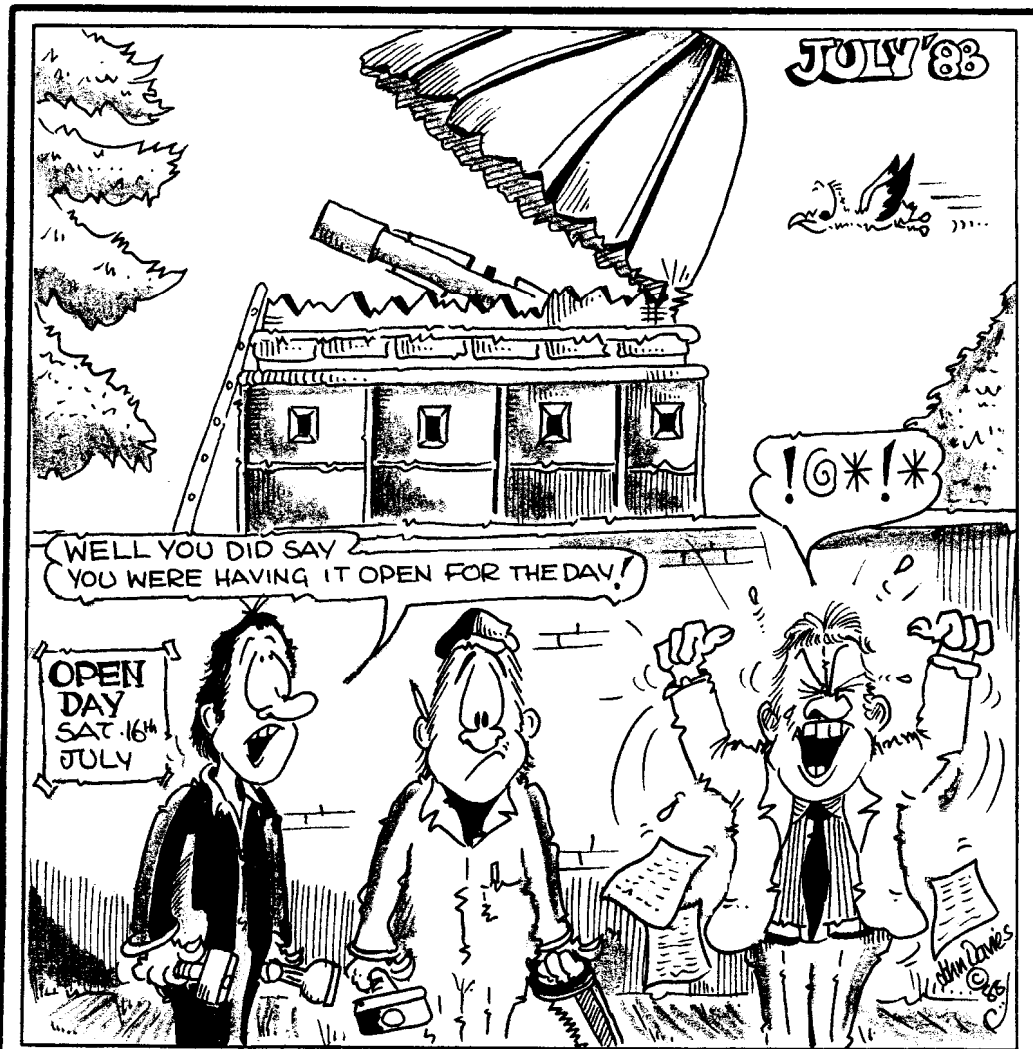
SATURN Rises before sunset and will be visible until about 02.00. Mag. 0.2

URANUS Sets at similar times to Saturn. Mag. 5.9

NEPTUNE Neptune follows behind Uranus by about half an hour. Mag. 7.7

R. Gooding

Q.A.S.I.



The 21st Anniversary of the Society is rapidly approaching. We will need you ALL to help on Saturday 16th July. The main exhibition area is in the School Gym here will be the stalls, games, slide show, Refreshments etc. The list of activities and jobs that are planned are shown listed below. In addition to the exhibition area a classroom at the rear of the gym will be used as a lecture hall for the four lectures that will be presented during the day. The observatory dome will be also be open for visitors and guided tours given.

If we are to run all these events smoothly -

ALL MEMBERS ARE REQUIRED TO HELP.

- so PLEASE come along, you will have a good day out.

Please NOTE:

As mentioned above, we will be selling refreshments in the Gym. It would be very much appreciated and of great help to the Society if members could donate a half dozen scones or buns to the refreshment stall before the event opens.

EVENT	TIME
Doors Open	10.30
1st Guided Tour of Observatory	11.00
Start of video films	11.00
Start of slide show	11.00
1st LECTURE Neil Bone: Atmospheric Phenomenon	11.30 to 12.30
Lunch Break	12.30 to 14.00
2nd Guided Tour of Observatory	13.15
2nd LECTURE Andrea Prestwich The Origin of Active Galactic Nuclei.	14.00
3rd Guided Tour of Observatory	14.15
Afternoon Break	15.00 to 16.00
4th Guided Tour of Observatory	15.15
3rd LECTURE Rosemary Naylor The Orion Nubula	16.00 to 17.00
5th Guided tour of Observatory	16.15
Tea Break	17.00 to 18.00
DRAW	17.00
6th Guided Tour of Observatory	17.15
4th LECTURE History of the Observatory?	18.00 to 19.00
Close	20.00



ORWELL ASTRONOMICAL SOCIETY OPEN DAY

SATURDAY 16th JULY 1988

Wall Displays:

1. History: Orwell Park, Observatory, Society, Pummers Work.
2. Restoration of Observatory.
3. Society Field Trips.
4. Variable Stars
5. Lunar Photographs
6. Deep Sky Photographs
7. Meteors and Comets
8. Solar System Mural
9. Measurement of the Universe

Table Displays:

1. Entrance Desk **
2. Telescope Making'
3. Society Information Desk**
4. Trade Stands (four).
5. 3D Orion Model'
6. Epsilon Lyra Model'
7. Earth Moon Model'
8. Double Star Display plus Algol Model'

Other Displays:

1. Members Telescopes'
2. Automatic Slide Show'

Games:

1. Bomb the UFO.*
2. Hunt the Nova or Comet*
3. Quiz and/or Xword*
4. Computer Games**

Other Activities:

1. Films/Videos*
2. Lectures**
3. Observatory Tours**

Organisation and Welfare

1. Car Parking***
2. Refreshments
3. Toilets
4. First Aid
5. Policing Grounds**
6. Lunch for Lectures
7. Ticket Sales*
8. Draw*

* These items will require members to be present almost continuously (one member per **).

' These items will require 3 to 4 members to cover all of them.

The total number of members required to be present at any one time is about 30. We have approximately 60 members potentially available. If ALL members attend and are willing to give about four hours of their time to the event, it should run smoothly. I look forward to seeing you all on Saturday 16th JULY.

David Payne



Mars in Focus.

by J. Walsh.

With Mars coming to it's closest opposition to us for years this September, it's going to be a good opportunity to observe this small but interesting world more closely.

Being one of the inner Planets, Mars is a rocky world only 4,219 miles (6,790 KM) in diameter at it's Equator. The mean distance from the Sun is 141,640,000 miles (227,940,000 KM), with the Sidereal Period of Revolution, or Year being 687 Days. The Day or Sol as it is called on Mars is just over 24½ hours.

Mars Atmosphere is very thin, about 6 Millibars (1/200 that of Earth) on the surface and is made up of Carbon Dioxide 95%, Mollecular Nitrogen 2.7%, Argon 1.6%, Mollecular Oxygen 0.13%, Carbon Monoxide 0.07% plus traces of Water Vapour, Neon, Krypton, Xenon and also Ozone has been detected.

Compared to Earths Atmosphere Mars, and also Venus have very high Carbon Dioxide levels, but if the Carbon Dioxide were to be released from Carbonates in Earth's Rocks and Oceans, the Carbon Dioxide levels would be the same on Earth as Mars and Venus, about 95 or 96%.

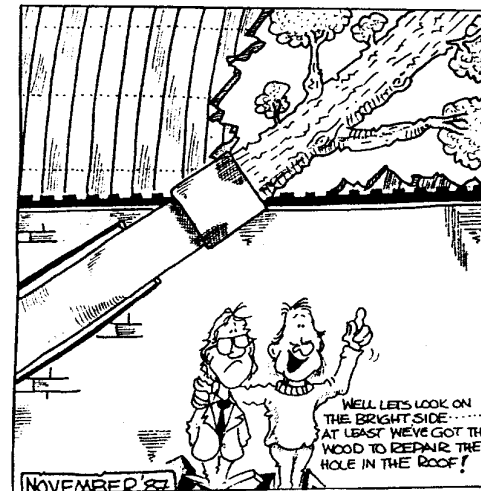
Most of the time (barring the dust storms which in extreme cases can cover the whole Planet and make observing impossible) Mars Atmosphere is clear and from Earth based Telescopes you can see quite a few surface features, as Mars is one of the closest planets to us (about 34,000,000 miles.) we can observe the seasons quite closely. With an Axial Inclination of just under 24 Degrees, virtually the same as Earth, the seasons on Mars follow a similar pattern to to our own, but as Mars is a Superior Planet (has an orbit around the Sun greater than our own.) plus a more Elliptical Orbit than Earth around the Sun, the Martian seasons are greatly exaggerated. The mean surface temperature on Mars is about 230K. (- 40 C.). Among the surface features found on Mars is what looks like dry river beds, which suggest that there could have been liquid of some form on the surface, perhaps Water. Another of the surface features is the mighty Olympus Mons which stands nearly 14 miles (21 KM) high, which is 2½ times taller than Mount Everest, Earths highest mountain. A few hundred miles to the South of Olympus Mons is the Tharsis ridge where the three volcanos Arsia Mons, Pavonis Mons and Aseraeus Mons stand.

Mars has two tiny moons called Phobos and Deimos, seen from the surface of Mars they must look like two tiny pin pricks of

light. Phobos the largest of the two Moons is only about 17 miles (27 KM) across and has two distinctively massive craters called Hall and Strickney that almost dominate the tiny moon, from photographs of the cracks and faults on Phobos whatever caused these massive craters must have come close to shattering this tiny moon. Also Phobos is the only satellite known in the Solar System to have an Orbital Period shorter than it's Primary's Axial Rotation Period. In fact, everybody is looking forward to the Probe which is being sent to this odd little Moon shortly.

The other Moon Deimos is about 9 miles (15 KM) across but lacks the more distinctive markings and features of Phobos. Deimos does have a few craters and a thin layer of surface dust.

Mars like the Moon is a prime target for manned missions in the not to far distant future, what other secrets will this tiny red planet give up when Man does finally walk on it's surface.



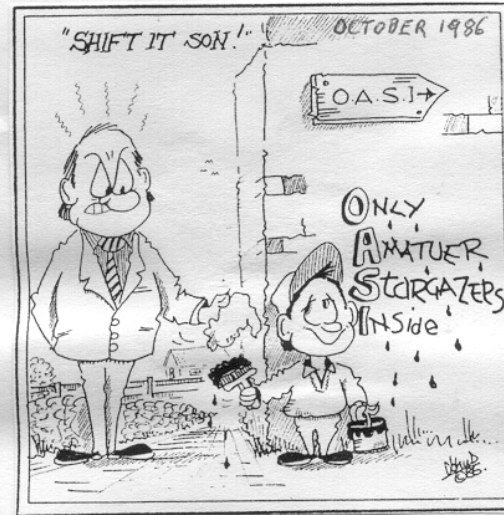
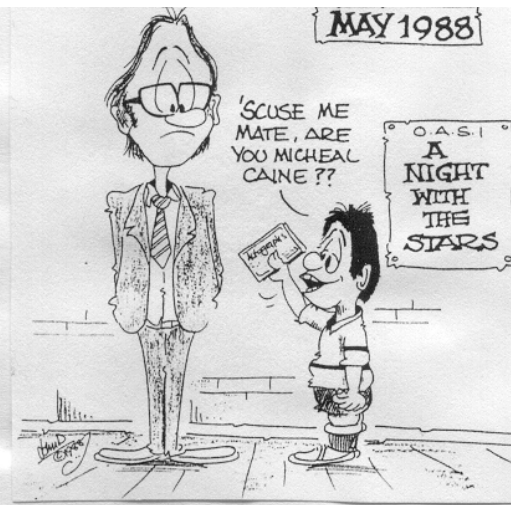
FRONT COVERS

Since November 1985 all our journal front covers have been original drawings by John Davis of Burge.

Each month he tries to depict some astronomical event or happening. If not he comes up with a suitable cartoon.

I have selected a few to reprint in miniature to let people know what they have been missing by not belonging to the Orwell Astronomical Society.

E. Sims.



THE NAMING OF VARIABLE STARS

by Mike Nicholls

It was in the 19th century that the German astronomer Argelander decided that variable stars should have a naming system of their own. By this time Beyer had used the Greek alphabet for his catalogue of the brightest stars. Flamsteed had used numbers in his; small Roman letters had been used and capital Roman letters up to Q had been used for the then newly charted southern constellations.

It was decided to use capital Roman letters starting with R up to Z, for example R CrB, W Cyg and so on. This catered for only nine variables per constellation; nowhere near enough. So it was decided to use double letters starting with RR up to RZ then SS to SZ, and so on up to YY, YZ and ZZ. After this came AA to AZ, BB to BZ etc., finishing up with QZ. The two letters were kept in alphabetical order, for example, combinations like WA, SR, BA etc., were not used. Also the letter J was not used, to avoid confusion with I. This system allowed for 234 variables. However, constellations such as Cygnus and Sagittarius in the Milky Way, soon used them up.

It was then that a system came into use which continued from and could also include, the previous one. After QY, QZ came V235, V236 etc. This system has no limits, of course, and the capital letter system could be superceded by it. E.g. R CrB = V1 CrB, W Cyg = V6 Cyg etc. This does not seem to have happened and the capital letters are still in normal use, the later system taking over at V235.

Some of the brighter variables had, of course, been given Greek letters by Beyer. These have not been changed nor included in Argelander's nor the later system. E.g. β Persei or Algol, α Orionis or Betelgeuse and δ Cephei.

Mondays from 8pm

GENERAL OBSERVATION SECTION

	Mr R Newman	Tel. Fel.	
4-11	Mr J King	Tel. Fel.	
18-25	Mr N Taylor	Tel. Fel.	

Tuesdays from 8pm

GENERAL OBSERVATION SECTION

5-12	Mr R Newman	Tel. Fel.	
19-26	Mr J King	Tel. Fel.	

Wednesdays from 8pm

NEBULA AND FAINT OBJECTS SECTION / CLUB NIGHT

6-13	Mr M Cook	Tel.	
20-27	Mr D Payne	Tel.	

Fridays from 8pm

GENERAL OBSERVATION SECTION

8-22	Mr P R Richards	Tel.	
	Mr M Harlow	Tel.	
	Mr R A Lobbett	Tel.	

On nights other than Wednesday ring directors to confirm dates.

1988 COMMITTEE

CHAIRMAN	D Payne	Home:	
		Work:	
VICE CHAIRMAN	D Barnard	Home:	
		Work:	
SECRETARY	R Gooding	Home:	
TREASURER	M Nicholls	Home:	
		Work:	
MAINTENANCE	M Cook	Home:	
		Work:	
JOURNAL	E Sims	Home:	
CO-ORD			
LIBRARIAN	P Richards	Home:	
		Work:	
EQUIPMENT	R Newman	Home:	
CURATOR		Work:	
SPECIAL	N Taylor	Home:	
EVENTS		Work:	

ORWELL ASTRONOMICAL SOCIETY, IPSWICH

21st ANNIVERSARY



ORWELL PARK OBSERVATORY BUILT circa 1873.

SITUATED AT ORWELL PARK SCHOOL, NACTON (nr IPSWICH).

ORWELL PARK OBSERVATORY

OPEN DAY

SATURDAY 16th JULY

ALL DAY FROM 10.30am LECTURES UNTIL 7.00pm

DISPLAYS

TRADE STANDS

GUIDED TOURS

REFRESHMENTS

ENTRANCE FEE

ADULTS 1.50

CHILDREN 50P

FOR MORE INFORMATION WRITE TO :
OASI SECRETARY,
Mr R. Gooding,
168 ASHCROFT ROAD,
IPSWICH,
IP1 6AE.