

ORWELL ASTRONOMICAL
SOCIETY ~ IPSWICH

APRIL
1995

NIGHT SKY

All times GMT

SUN

Rises approximately at 05.40 to 04.30
Sets approximately at 18.30 to 19.30

MOON



8 th



15 th



22 nd



29 th

MERCURY Mercury will be at superior conjunction on the 14th. By the end of the month it should be easily seen in the western sky after sunset, when it will be setting about 2 hours after the sun. Mag -1

VENUS Venus will be rising about an hour before the sun. It remains low down in the eastern sky before sunrise. Mag -3.9.

MARS Mars will be visible most of the night, setting in the east at about 03.00 in mid month. As it is moving away from the earth its magnitude will be decreasing to 0.5 by the end of the month.

JUPITER Jupiter will be rising about an hour before midnight at the end of the month. It is at present in Ophiuchus. Mag -2.3

SATURN Saturn reappears from conjunction, into the early morning sky. It will be low down and difficult to see.

URANUS Uranus will be rising at about 02.30 in mid month. Mag. 5.6

NEPTUNE Neptune will both be rising about 20 minutes after Uranus. Mag. 7.9

CLOCK TOWER

ORWELL SCHOOL

L.Glanb

R. Gooding

OCCULTATIONS DURING APRIL 1995

The table lists disappearance times of stars of magnitude 7.5 or brighter which are occulted during the month. Only events taking place under favourable circumstances are listed. The data relates to Orwell Park Observatory, and timings, etc. will differ slightly for nearby locations.

Date	Time (UT)	Mag	Lunar Phase	Sun Alt (°)	Star Alt (°)	Star (D=double)
Tue 04 Apr	21:38:17	7.3	0.20+	-25	13	ZC663 (D)
Fri 07 Apr	23:15:55	6.7	0.47+	-30	19	PPM23383
Sat 08 Apr	19:25:32	7.5	0.56+	-8	52	PPM24374
Mon 10 Apr	21:48:47	6.0	0.75+	-24	42	ZC1397 Omega Leo (D)
Wed 12 Apr	23:25:31	5.3	0.92+	-29	34	ZC1623, 69 Leo
Fri 14 Apr	20:35:58	7.3	0.99+	-15	19	ZC1859
Fri 14 Apr	21:17:53	7.5	0.99+	-20	24	PPM196025
Fri 14 Apr	22:09:44	7.5	1.00+	-24	27	PPM196046
Tue 18 Apr	03:58:16	3.8	0.90-	-9	16	ZC2322 Nu Sco (D)

James Appleton

SOCIETY NEWS

NEW CAR PARKING FOR 1995

 * The society has been asked by the school to change our *
 * present car parking arrangements. Will all members *
 * and visitors please now park around the grass island *
 * in front of the school and not near the school kitchens *
 * *****

2 Committee Meeting

The Next committee meeting will be held on Saturday 29th April, at 7.30pm. Any member who wishes to attend will be welcome

3 List of events for 1995

A new lecture venue will be used at Ipswich Prep. School Henley Road.

Lecture Meeting	7-4-95
WEB Society AGM Cambridge	20-5-95
BAA Exhibition London	24-6-95
School parents day	June?
Astro Camp	13-8-95
FAS Convention	30-9-95
Second open weekend October ?	
Christmas Meal	20-12-95?

4 Lecture Meeting 4th April

A lecture meeting will be held on Friday 7th April. Mr. Nik Szymanek will give a talk on CCD cameras.

NB This meeting will be at new venue, the Ipswich Prep. School in Henley road. The entrance into the school is in Henley road next to the post box. The school entrance has a plaque outside the door.

5 Return of Unused Observatory Keys

If any member has a set of observatory keys and no longer needs to use them, could you please return them to Roy Gooding. The keys will be reissued to members who have expressed an interest in starting new evening meetings. A set of keys costs the society about £12.00, and there are over 15 sets of observatory keys.

OPEN WEEKEND

The Open Weekend held on the 10th, 11th and 12th of March was very successful. It was clear on two of the three evenings, Friday and Sunday. Saturday was the worst night, it rained almost continuously, but this did not deter about 50 visitors. The alternative programme had to be started, a slide show. Thus the

only problem of the weekend occurred. The society slide projector, of many years standing decided to devour several astronomical slides with catastrophic results. It has now been decided to purchase a new slide projector using some of the monies raised from the weekend.

A minimum of six members are required to run the observatory during an open weekend. this number was greatly surpassed on all three evenings. As well as the 10" telescope, several smaller instruments were in use on the balconies. This gave the visitors an opportunity to use and compare different size refractors and reflectors.

The observatory was programmed to open its doors to the public at 8.00. On some evenings visitors were waiting outside before 7.30. The total number of visitors is estimated to be about 250, making this our best open weekend for several years.

There were two principal reasons for holding the open weekend at this time in March, first quarter was on the 9th and the BBC Heavenly Bodies series had completed its run a few weeks before. The programme invited viewers to send for a guide, that included a list of local societies that held open evenings. This source generated about ten inquiries in the month before the open weekend.

Advertising followed similar lines as in previous years. Posters were sent out to all the local libraries and information offices in the area, and for individual distribution by members. Both the local radio stations were notified about the event. BBC Suffolk asked for a interview, which was broadcast on the friday afternoon. The adverts in the "Whats On" columns in the local press were mentioned by many of the visitors as the information source they had used.

The moon and mars were the two objects principally observed each evening. Serval visitors asked if we will be holding other open evenings later in the year. A second series of open evenings may be arranged for the autumn when Jupiter and Saturn will be visible.

R.Gooding

When Nature Holds it's Breath.

by J.Walsh.

On the 11th August 1999 there will be a total Eclipse of the Sun which will be seen from the British Isles. The first in seventy two years, the last one occuring on 29th June 1927, when the traet of totality crossed Lancashire and Yorkshire. I hope skies are clear around Cornwall in 1999, for unless I am prepared to travel around the world following these Eclipses, this will probably be the only total Eclipse I will see in my lifetime!!

So what is an Eclipse, the standard answer you would get would be,"when one astronomical body enters and passes through the shadow of another astronomical body". But this can be misleading, for when Mercury and Venus transit the Sun, these too can be termed Eclipses but on a much smaller scale. So for simplicity's sake we will use the term Eclipse in relation to the Sun, the Moon and the Earth and how they align themselves to form the three main types of Eclipse.

Lunar Eclipses always take place at full Moon, and because, the the Moons orbit is inclined at an angle of 5° and 9° to the ecliptic, this does not mean that there will be an Eclipse every time the Moon is full, only when the Sun, the Moon and the Earth are lined up less than 9° from the Ecliptic.(see diagram overleaf.) If more than 9° but less than $12\frac{1}{2}^{\circ}$ you will see a partial Eclipse of the Moon.

Solar Eclipses always occur at New Moon, when the Moon is between the Earth and the Sun. This is what most people visulise, when the Moon slowly blots out the sunlight until that strange twilight which puts you literally in the Moons shadow. The orbital eccentricity of the Moon is 0.055, sometimes when the Moon is at the furtherest point in it's ellipse from the Earth, and the Sun, the Moon and the Earth line up to form an Eclipse you will see an Annular or Ring effect this is when the apparent disc of the Moon does not quite cover the apparent disc of the Sun.

PROGRAMME FOR APRIL

Mondays from 7.30pm

GENERAL OBSERVATION SECTION

No Directors available for this night

Tuesdays from 7.30pm

GENERAL OBSERVATION SECTION

Mr D Barnard [redacted] daytime only

Wednesdays from 7.45pm

NEBULA & FAINT OBJECTS SECTION

Mr M Cook [redacted] Mr D Payne [redacted]

Thursdays from 7.30pm

OBSERVATORY VISITS FROM OUTSIDE GROUPS

Mr P Richards [redacted]

Fridays from 7.30pm

DOUBLE STARS

14th 28th

Mr J Hood [redacted] Mr M Barritt [redacted]

All members are welcome to come but, on nights other than Wednesdays please check with the director of the night that the observatory will be open.

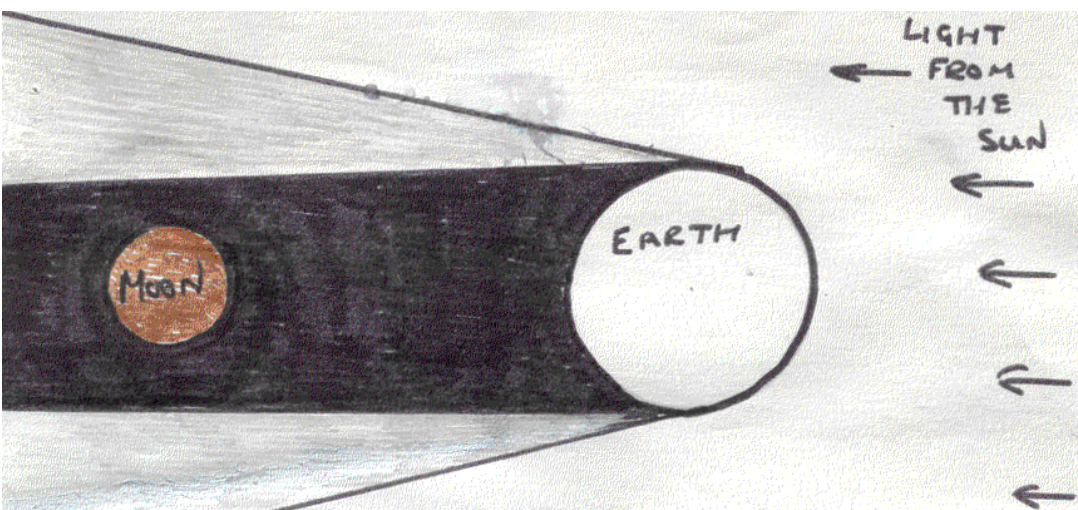
Lectures and other events:

Committee Meeting Saturday 29th April In the club room.

Lecture Meeting Friday 7th April at the Ipswich Prep School Henley Rd
Visits, 6th April . 24th Ipswich Cubs.

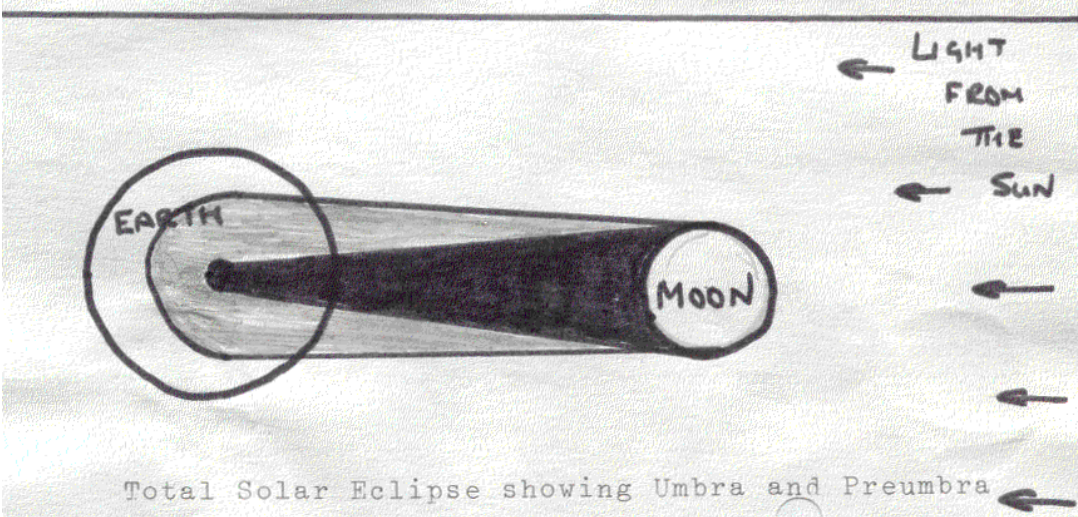
1995 COMMITTEE

	Home Phone	Work Phone
CHAIRMAN	D Payne	[redacted]
SECRETARY	R Gooding	[redacted]
TREASURER	M Nicholls	[redacted]
MAINTENANCE CO-ORD	M Cook	[redacted]
JOURNAL CO-ORDINATOR	E Sims	[redacted]
PUBLICITY & VISIT CO-ORD	P Richards	[redacted]
EQUIPMENT CURATOR	M Harlow	[redacted]
SPECIAL EVENTS CO-ORD	M Andrews	[redacted]
LIBRARIAN & COMP SOFTWARE	J Appleton	[redacted]
JOURNAL ARTICLES TO	E Sims [redacted]	Ipswich Suffolk IP1 4HA
CORRESPONDENCE ADDRESS	R Gooding OASI Secretary	[redacted] Ipswich Suffolk IP1 6AE



Lunar Eclipse, showing Umbra and Preumbra shadow.

I hope I will be able to see the total Eclipse in four years time, when the skies grow darker to that weird half twilight and you can see the Stars and Planets on the other side of the Sun. For approximately seven minutes nature will hold it's breath, and I bet I will be holding mine for most of that time as well.



Total Solar Eclipse showing Umbra and Preumbra