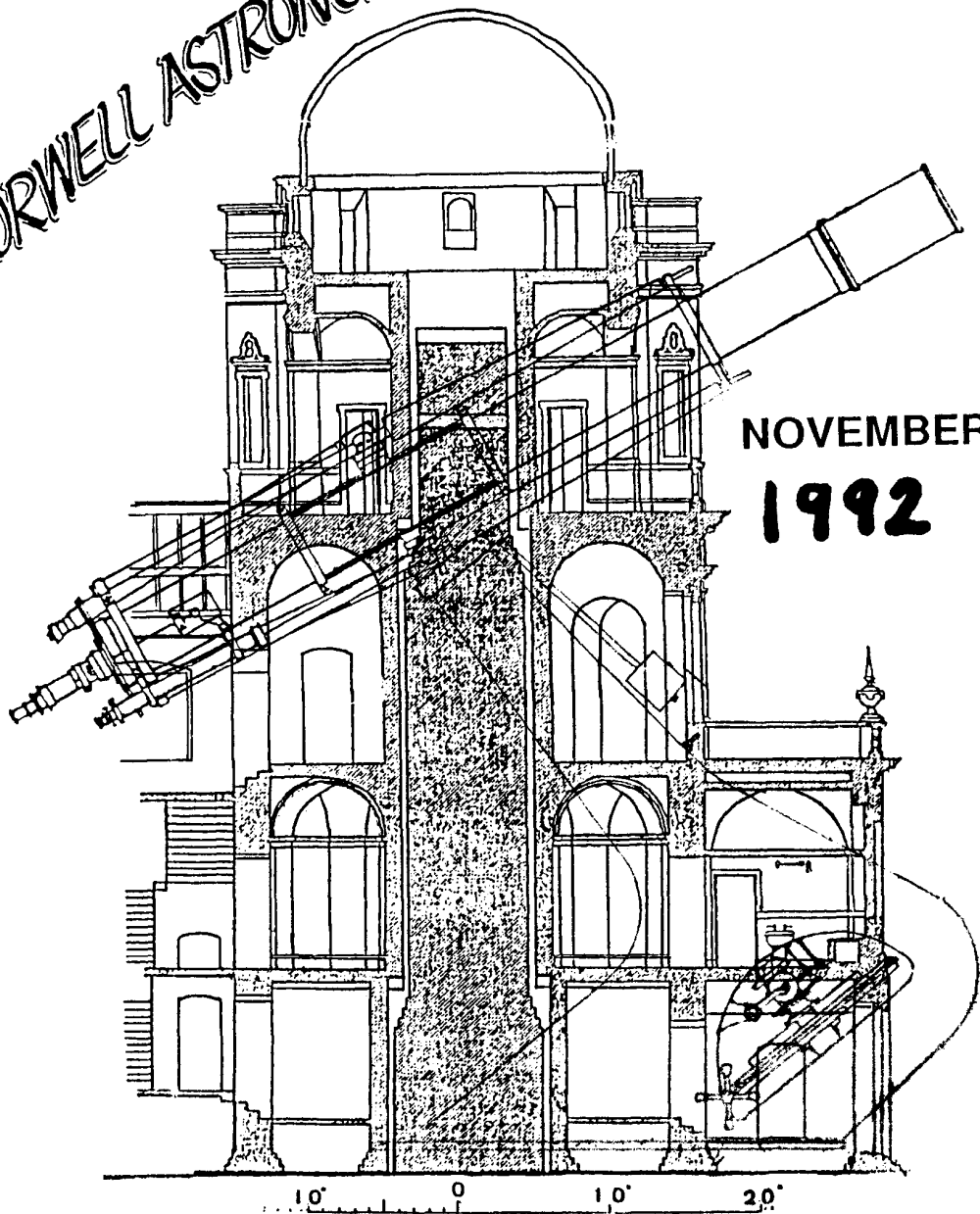


ORWELL ASTRONOMICAL SOCIETY IPSWICH



**NOVEMBER
1992**

SOCIETY NEWS

1 AN EVENING FOR AMATEUR ASTRONOMERS

This event is being organised by the Cambridge Astronomical Association, with the London Planetarium.

The event is to be held on Friday 5th March 1993 at 19.30

The programme will include a talk by Patrick Moore on the "The Inner Solar System"

Followed by " The Zeiss Projector's Night Sky Special"
Presented by Teresa Graffton

Tickets will cost £4.00. As the London Planetarium has only a limited capacity I will be collecting money ASAP again.

2 COMMITTEE MEETING

The next committee meeting will be held on the 14th November at 19.30 at the observatory. This is an open meeting for any member who would like to come along.

All times GMT

SUN

Rises approximately at from 07.00 to 07.50
Sets approximately at from 16.30 to 15.55

M O O N



2nd



10th



17th



24th

MERCURY Mercury will be at inferior conjunction of the month. By the end of the month it will be rising about 1½ hours before the sun. Mag. 1.

VENUS Venus will be drawing away from the sun this month, It will be setting about 3 hours after the sun by the end of the month. Mag. -4.1.

MARS Mars will be rising at about 19.00 by the end of the month. It will be brightening to Mag. -0.8.

JUPITER Jupiter is visible in the morning sky. Rising at about 04.30 02.00 by the end of the month. Mag.-1.8.

SATURN Saturn will be setting by 21.00 at the end of the month. It is still low down the southern part of the sky. Mag. 0.4

URANUS Uranus will be setting at about 18.00 by the end of the month. It is low down in Sagittarius. Mag 5.6.

NEPTUNE Neptune is near to Uranus, in the sky. A little to north east. Mag. 7.9

R.Gooding THE FAS CAMBRIDGE CONVENTION

Saturday 26th September was the 2nd FAS Convention to be held at Cambridge. 13 members attended the meeting. the day was organised in the same way as last year. Lectures were held at the Pipard Lecture Theatre, at the Cavendish Laboratory. Five lectures were held between 10.15 and 17.00, with stops for lunch and refreshments.

The lectures given were:-

The Astronomy of the Invisible	Dr. Paul Murdin
Why is the Night Sky Dark	Professor Sir Hermann Bondi
In Pursuit of Pulsars	Professor Jocelyn Bell Burnell
Results from the Hubble Space Telescope	Dr. Robin Catchpole
Sub-millimetre Astronomy	Professor Malcolm Longair

Guided tours were arranged in the afternoon for the Mullard Radio Astronomy Observatory and the Royal Greenwich Observatory/ Institute of Astronomy.

IPSWICH MUSEUM OPEN DAY

Saturday 17th October was the 3rd Ipswich Museum Open Day. This statement may cause you to ask yourself, surely the museum is open every weekday, therefore every day must be an open day. so what makes this Saturday any different from any other.

The museum had invited several local societies to put on a display showing what activities they have to offer. This was the second event that our society had been invited to. This year we had been given space in the bird gallery. The display that I put on included a continuously running slide show, a large notice board for posters and a table displaying society information.

At the time of writing the total number of visitors to the Museum is not known, but over a 1000 people had been counted between 10.00 and 13.00. As the afternoon seemed just as busy as the morning there must have been well over 2000 visitors attending during the day. Those of you who may have visited the museum on a more typical Saturday, will know how peaceful it is, this can not be said on open days. I have been to all three open days and every one has been well attended.

Considerable interest was shown by the visitors to our stand, and long conversations were held with many people. A considerable quantity of membership information and membership forms together with our leaflets on the observatory history were constantly on demand.

I had intended to under take some solar projection from the steps of the museum during the morning. However as I was unable to locate any large sunspots, this enterprise was quickly abandoned. I was helped by Eric Sims for most the day, except with lapse of about 2 hours while he went home for lunch.

One of the posters that I had recently purchased on the Solar System proved to be very popular. Through out the day there was a constant group of people standing beside it and discussing it with there families. On serveral occasions I was asked if I had any for sale. All I was able to do was to give the address of the Armagh Planetarium.

R.Gooding

Famous Astronomers (4)
 Edmond Halley 1656-1742
 By J. Walsh.

URSA MAJOR

Edmond Halley was born just outside London at a place called Haggerston. He went to school at Saint Pauls, and then went on to Queens College at Oxford where his interest in Astronomy grew. When he left university in 1676, he went to Saint Helena to study the Southern Hemisphere Stars, and in 1679 had them published as the Catalogus Stellarum Australium.

While he was in Saint Helena on the 7th November 1677 he observed the transit of Mercury. And, later discovered a much easier way of determining the distance from the Sun and the Earth through the transits of Mercury and Venus, and in 1678 he was elected a fellow of the Royal Society.

In 1684 he worked with Sir Isaac Newton on his laws of planetary motion which resulted in the writing of the Principia in 1687, done at Halleys expense. Among other things he discovered at this time were the differences between the orbits of Jupiter and Saturn and the slow secular acceleration of the mean motion of the Moon. In 1686 he published an account of the trade winds and monsoons for mariners. Another interesting discovery he made was that by the salt content of the oceans and seas he was able to tell fairly accurately the age of the Earth by measuring the rate in which the saltiness increased. From 1698 to 1700 he made voyages to determine the variations of the compass.

In 1705 he published Astronomiae Cometicae Synopsis which gave observations of 24 bright Comets that had appeared between 1397 and 1698. His theory that the Comets of 1531, 1607 and 1682 were the same, and that it would appear again in 1758 was proved right and the Comet today is still known as Halleys Comet and indeed returns every 76 years. He also discovered the Arora Borealis was to do with the Earths magnetism.

Halley did much work in the field of Geometry and in 1704 became Savilian Professor of Geometry at Oxford. The highlight of his career must have been his appointment of Astronomer Royal succeeding Flamsteed in 1720.

Edmond Halley was indeed a very talented and gifted astronomer whose inventions and discoveries helped set the trend for future astronomers and scientists alike to follow his example.

Ursa Major or the Great Bear is a constellation in the northern hemisphere best known by the familiar shape of the Plough or big Dipper formed by the group of seven bright stars. The stars α and β point to the Pole star.

M81 is an 8th mag spiral galaxy that appears as an elliptical patch with a brighter core in a small telescope but photographs show it as a beautiful spiral. Its partner M82 is a 9th mag galaxy presented edge on to us. So it appears as an elongated smudge in a small telescope. Under good conditions these can both be seen through binoculars in the same field of view. M101 is another 9th mag spiral galaxy face on to us. With its spiral arms it is quite impressive in photographs but small telescopes only reveal the brightest central part on a very dark clear night.

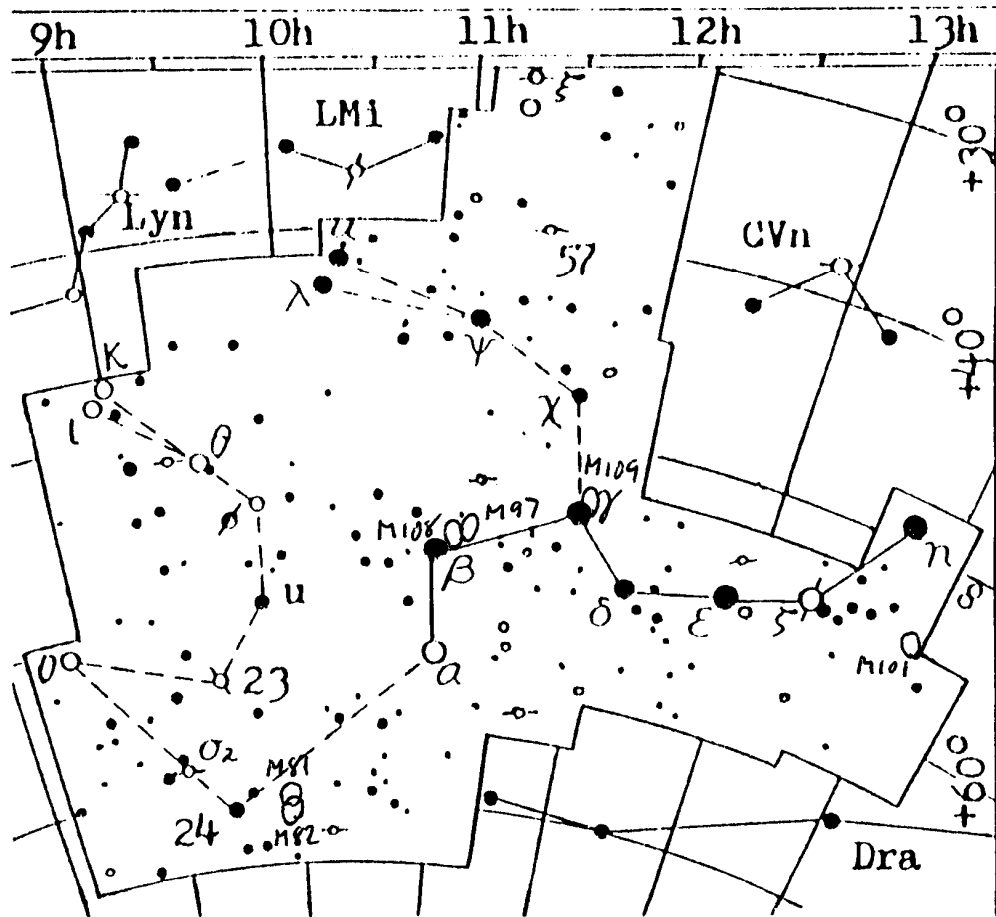
M97 the "Owl" nebula needs at least an 8inch telescope to find it unless the sky is exceptionally clear and dark.

Double Stars

Pos.	1	2	D	d"	P	A	No.
090667	4.9-8.5	b	2.2	24	σ_2		
2151	6.5-8.7	c	1.4	374	OE200		
2763	3.7-9.3	b	22.8	271	23		
101371	6.5-7.2	b	16.7	167	E1415		
111353	7.8-6.3	c	12.6	344	E1520		
1531	4.4-4.8	b	0.4	59y	ξ		
2639	5.2-8.5	b	5.5	1	57		
3664	6.7-8.0	b	2.2	323	E1559		
125454	6.0-7.7	b	3.7	283	E1695		
132155	2.4-3.9	b	14.5	150	ζ		

ξ Close pair of white stars
 ζ MIZAR is a well observed double of white stars. Low power also takes in ALCOR, only 12 minutes away. All three are spectroscopic binaries.

URSA MAJOR



ANSWERS TO LAST MONTH'S CROSSWORD BY J. WALSH.
 ACROSS 1 JUPITER 4 SATURN 7 DWARF 9 CRATER 10 NEIL 11 URANUS
 13 COMET 16 ASTEROID 20 KINETIC 22 IO 23 CRISES 26 ORBIT
 2/ RHEA 28 NEPTUNE
 DOWN 1 JODRELLBANK 2 PLANET 3 RADAR 4 SUN 5 TITAN 6 NEBULA
 8 VENUS 12 STAR 14 MARS 15 TRAPEZIUM 17 ROCKET 18 DELMOS
 19 MERCURY 21 MOON 24 SEAS 25 SPOT

PROGRAMME FOR NOVEMBER-1992

DAYS & DATES	DIRECTORS	SECTION & ADDRESSES	PHONE INC. STD CODE
Mondays 2,9,16,23,30	from 7.30pm Mr R Newman Mr J King	GENERAL OBSERVATION SECTION Felixstowe, IP11 9DY Felixstowe, IP11 9LQ	
Tuesdays 3,10,17,24	from 7.30pm Mr R Newman Mr J King	GENERAL OBSERVATION SECTION (Address above.) (Address above.)	(Number above.) (Number above.)
Wednesdays 4,11,18,25	from 8.00pm Mr M Cook Mr D Payne	NEBULA & FAINT OBJECTS SECTION Ipswich, IP4 5PZ Wickham Market, IP13 0SD	
Thursdays 5,12,19,26	from 7.30pm Mr P Richards Mr G Marriott	OBSERVATORY VISITS FROM OUTSIDE GROUPS Nacton, Ipswich, IP10 0HS Ipswich, IP4 4JB	
Fridays 6,13,20,27	from 7.30pm (may be postponed to Saturday) Mr P Richards Mr R A Lobbett Mr G Marriott	PLANETARY & LUNAR SECTION (Address above.) Felixstowe, IP11 8UJ (Address above.)	(Number above.) (Number above.) (Number above.)

All members are welcome to come but, on nights other than Wednesdays please check with directors that the observatory will be open. Directors will also be able to tell you if a group visit is taking place. All of the sections observe anything of interest but the title of each section suggests a popular subject.

Lectures and other events: COMMITTEE MEETING

The next committee meeting will be held on the 14th November at 19.30 at the observatory. This is an open meeting for any member who would like to attend.

1992 COMMITTEE

		Home Phone:	Work Phone:
CHAIRMAN	D Payne (Address above)		
VICE CHAIRMAN & MEMBERSHIP SECRETARY	D Barnard (Address above), Ipswich, IP3 8RN		
SECRETARY	R Gooding (Address above), Ipswich, IP1 6AE		
TREASURER	M Nicholls (Address above), Capel St Mary, Ipswich, IP9 2EX		
MAINTENANCE CO-ORD	M Cook (Address above)		
JOURNAL CO-ORDINATOR	E Sims (Address above), Ipswich, IP1 4HA		
PUBLICITY & VISIT CO-ORD	P Richards (Address above)		
EQUIPMENT CURATOR	J King (Address above)		
SPECIAL EVENTS CO-ORD	A Smith (Address above), Ipswich, IP4 5RZ		