ORWELL ASTRONOMICAL SOCIETY, IPSWICH.

NIGHT SKY

All times GMT

SUN

Rises approximately at 07.50 to 08.10
Sets approximately at 16.00 to 15.50

MOON

7 th **15 th** **22 nd** **28 th**

MERCURY Mercury will be an evening sky object this month. It will be setting about an hour and a half after the sun at the end of the month. Mag. 0.7.

VENUS Venus will be very prominent in the evening sky this month. Setting about 3 hours after sunset at the end of the month. Mag. -4.0

MARS Mars remains very low down in the evening sky, setting about an hour after sunset.

JUPITER Jupiter is in conjunction with the sun on the 18th, and will not be observable this month.

SATURN Saturn is visible in the earlier part of the night this month. Setting at about 22.00 at the end of the month. Mag. 1.1

URANUS Uranus will be setting at about 17.30 by the end of the month. Mag. 5.7

Neptune Neptune will be setting a little before Uranus. Mag. 7.9

SOCIETY NEWS

1996 Committee

As usual I have included a nomination form for the 1996 committee. Please return any nomination forms to Roy Gooding by the 31st December

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 infront of the school and not near the school kitchens

Christmas Meal Wednesday 13th December

There are still a few places left for the Christmas meal. Any one interested in attending, please contact Roy Gooding. A L5 deposit will be required to book a place, as soon as possible.

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 L12.00, and there are over 15 sets of observatory keys.

Committee Meeting

The last committee meeting of the year will be held at the observatory on saturday 6th December. Starting at 19.30. this meeting is open to all members.

1996 Subscriptions

Subscriptions fro 1996 will be due from 1st of January
The rates for the new year will be:-

Junior	L8.00
Adult	L12.00
Family	L14.00

A renewal form will be included with the January newsletter. It would be appreciated if you could return this so that the society membership records can kept up to date.

1996 AGM

At the time of writing the date for the AGM has not been finalised. It will probably be saturday 14th January.

R.Gooding

OCCULTATIONS DURING DECEMBER 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)
Thu 07 Dec	18:45:42	5.4	0.99-	-27	18	ZC836, 120 Tau
Sat 09 Dec	20:50:57	3.6	0.93-	-45	21	ZC1106 Lambda Gem
Mon 11 Dec	23:19:42	4.3	0.79-	-60	26	ZC1341 Alpha Cnc
Sat 23 Dec	16:41:48	6.7	0.04+	-8	9	ZC2871 (D)
Tue 26 Dec	20:45:56	6.6	0.29+	-44	10	ZC3328 (D)
Wed 27 Dec	18:05:11	7.5	0.39+	-20	35	ZC3460, 12 Psc
Wed 27 Dec	19:26:03	7.6	0.39+	-32	29	ZC3467, 13 Psc
Thu 28 Dec	21:40:20	6.8	0.50+	-51	23	ZC53 (D)
Fri 29 Dec	20:17:07	5.2	0.60+	-39	41	ZC180 Zeta Psc (D)
Fri 29 Dec	20:18:04	7.3	0.60+	-40	41	ZC181 (D)
Sat 30 Dec	20:06:38	7.5	0.70+	-38	48	ZC301

James Appleton

Open Evenings

The open evenings at the observatory at Orwell Park School on October 27th 28th & 29th to observe Saturn with-out its rings was very successful with some people coming back a second time. More than two hundred people made the best of three consecutive clear evenings to observe Saturn as a globe with some surface markings plus a strait line through the middle and some of it moons. Also on display were several different types of telescopes, and binoculars. There was also a mirror making display showing the tools needed and blanks before the polishing has been started. During each evening Roy Gooding took groups of visitors out into the grounds of Orwell Park to point out the constellations and other things of interest.

I think three clear evenings out of three must be a record. Because these events have to be arranged several months in advance no one can predict how the weather is going to perform, so it cant be a case of the Sun shining on the righteous because this would have messed up the viewing. But a case of the devil looking after his own.

E. Sims

Is Anybody There?

David Williams puts forward a personal, and possibly controversial view. What do you think? It would be useful to hear, and publish other members' reactions.

Antony whetted our appetites with his talk about UFOs, and any consideration of this topic eventually brings us to the questions "Is there anybody there, and is there life elsewhere in the Universe?".

I present here a personal view, for I believe without question that there are other forms of life in the Universe besides our own humankind.

When we consider the ages of the Universe and of the Earth, and the age of Homo sapiens, then it is surely an act of utter conceit and egotism to suppose that we are the only life-form around. As a species we are quite young, and as a so-called civilised being we date back no more than a few thousand years - not even equivalent to a speck of dust on the floor of cosmological history!

The horizons of knowledge and understanding are being pushed further away every day. We are now accumulating data via the Space Telescope and other probes at an enormous rate. Much of it will not be analysed for years to come, so great is the information we now have. The days of considering the Earth as the centre of the Universe are gone; humankind is but one rather insignificant species of life throughout the Universe.

We are fortunate to be alive at a time when science continues to unravel many of the mysteries of the cosmos. I suppose also in one way we are less fortunate, as we have the potential at our disposal to see into the future and so imagine better than our ancestors the paths along which we may develop. This is an exciting age. We are still coming to terms with nuclear power and its uses, both peaceful and warlike. We have a better understanding of our environment and our impact upon it. Before we explore deep space, as surely we shall one day, we must firstly put our own house in order. Once that is completed I am certain humans will then explore the great mysteries of space.

The great discoveries of space lie in the future, not in my lifetime or, I suspect, in my grandchildren's (if they ever exist) lifetimes, which only puts us into the years of the mid to late 21st century. I say this as the present environmental difficulties will take their time to be resolved. However, I am certain that humans will explore deep space, and will come into contact with other life-forms - unless of course they decide to contact us first, but that I doubt, for we are still but a brash and poorly disciplined species with much to learn and to respect.

David Williams

ARIES

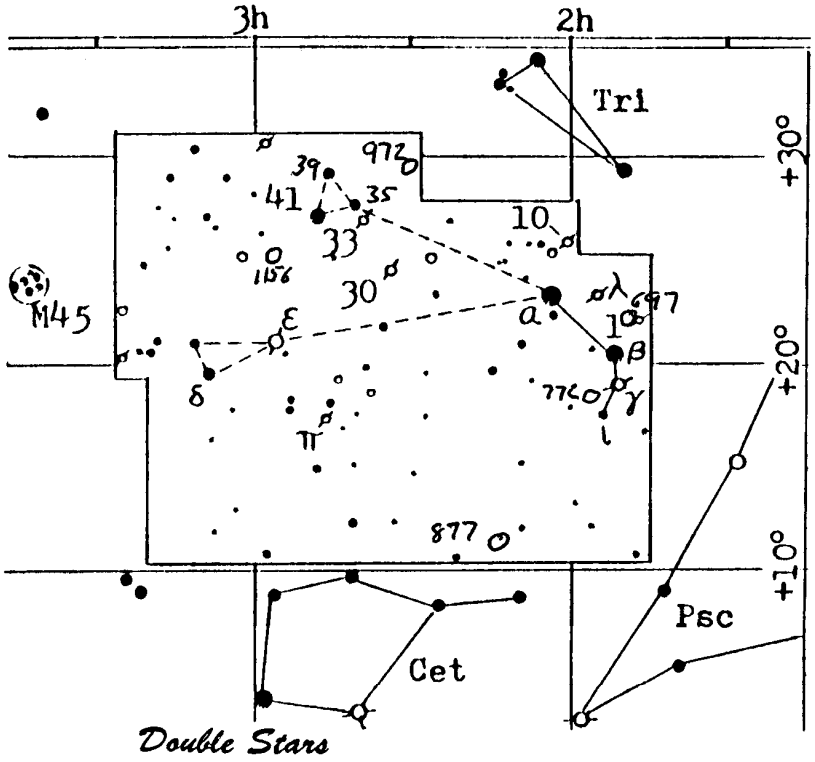
Aries is an important constellation located below Andromeda, above Cetus and west of Taurus. It is the first constellation of the ancient zodiac, where the Sun's path crossed the celestial equator during the period in which classical mythology was completed. Since then this point , called the Point of Aries, has moved owing to the Earth's precession into western Pisces. It is also called the vernal equinox and it's crossing by the Sun marks the coming of spring in the northern hemisphere (March 21st). Aries is best seen in the autumn,

Without a telescope, Aries has only a few stars of interest , principally the triangle made up of Alpha (α), Beta (β) and Gamma (γ). This triangle is about 4^{o} high and 4^{o} wide from east to west. It marks the head of the ram, which is lying facing west but with its head turned facing east. The remainder of the constellation's stars are faint and scattered randomly over the animal's body. The triangle of 35, 39, and 41 Arietis was called Musca Borealis, the Northern Fly, hovering over the ram's back, but this asterism was deleted in the 1800s. The ecliptic runs through southern Aries, so there are often planets passing through it.

A small telescope will show many beautiful pairs of stars in Aries and a medium-sized telescope of around 8-inch aperture will resolve Gamma (γ) as a first-class double, with blue-white stars of equal brightness, of 4.8 magnitude and separated by 7.8 arc seconds. Earlier measurements showed a greater separation so the two stars are slowly closing due to orbital movement. Gamma also called Mesarthim, was discovered to be a double by Robert Hook in 1664 while he was following a comet. It has a handy property for amateur astronomers in that the position angle is 0^{o} . That is the two stars are lined up exactly north south in the sky.

There are few galaxies in Aries but a good sized telescope (10 inches or larger) is needed to see them to advantage. The Best of these is NGC 772, at mag 11.1 is a spiral galaxy seen in about three-quarter view which has several suspected arms in a 12 inch aperture telescope. It has three fair bright regions one near the nucleus and two near the end of one of the widely spaced spiral arms. There is

also a star of about 13th magnitude near the western side of the nuclear area. The next in order of magnitude is NGC 972 another spiral galaxy at mag 11.3. After this we are getting really faint with NGC 877 a spiral galaxy 11.8 mag. NGC 1156 an irregular galaxy at mag 12.2 and NGC 697 a spiral bar galaxy at mag 12.5.



Double Stars

Pos.	1 m 2	D	d"	P A	No.
014722	6.3-7.4	b	2.8	166	1
5019	4.8-4.7	b	8.2	359	$\gamma^{1,2}$
5523	4.8-7.4	c	37.4	46	λ
020025	5.9-7.4	b	0.6	271	10
3424	7.3-6.5	c	38.7	274	30
3726	5.3-9.5	d	28.8	1	33
4617	5.3-8.3	c	3.2	119	π
4730	6.8-10.	d	4.7	74	OE46
5621	5.2-5.5	b	1.5	208	ε
032520	7.0-8.0	d	6.9	162	E394

γ MESARTHIM: Matched pair of white stars.
λ Yellowish-white, blue.
30 Yellow, bluish.
33 Topaz, blue.

PROGRAMME FOR DECEMBER

Mondays from 7.30pm *No Directors available for this night*	*GENERAL OBSERVATION SECTION*
Tuesdays from 7.30pm *Mr D Barnard* [redacted]	GENERAL OBSERVATION SECTION *daytime only*
Wednesdays from 7.45pm *Mr M Cook* [redacted]	NEBULA & FAINT OBJECTS SECTION *Mr D Payne* [redacted]
Thursdays from 7.30pm *Mr P Richards* [redacted]	OBSERVATORY VISITS FROM OUTSIDE GROUPS
Fridays from 7.30pm 8th 22nd *Mr J Hood* [redacted]	DOUBLE STARS *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:
Next Committee Meeting Wednesday 6th December in the club room.

e-mail enquires to oasienq@btbcs.bt.co.uk
WWW url http://www.ast.cam.ac.uk:80/~ipswich/

1995 COMMITTEE

		Home Phone	Work Phone
CHAIRMAN	D Payne	[redacted]	
SECRETARY	R Gooding		
TREASURER	M Nicholls		
MAINTENANCE CO-ORD	M Cook		
JOURNAL CO-ORDINATOR	E Sims		
PUBLICITY & VISIT CO-ORD	P Richards		
EQUIPMENT CURATOR	M Harlow		
SPECIAL EVENTS CO-ORD	M Andrews		
LIBRARIAN & COMP SOFTWARE	J Appleton		

JOURNAL ARTICLES TO — E Sims [redacted] Ipswich Suffolk IP1 4HA
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