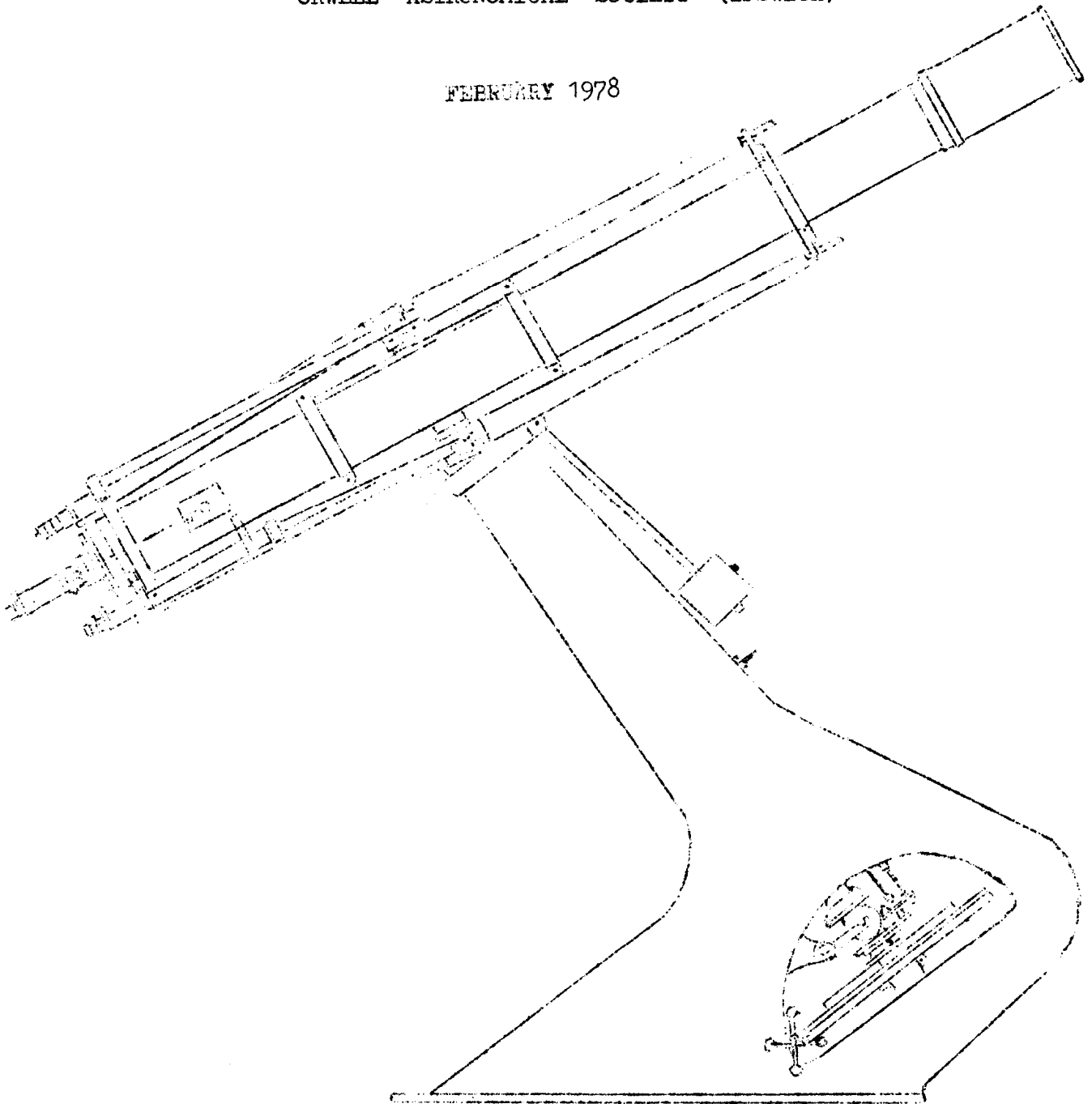


JOURNAL OF THE
ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

FEBRUARY 1978



Editor: Mr. Mark Howe,
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MINUTES OF THE ANNUAL GENERAL MEETING

of the

ORWELL ASTRONOMICAL SOCIETY (IPSWICH)

held on FRIDAY 6th JANUARY, 1978 at ORWELL PARK SCHOOL, NACTON.

1. APOLOGIES FOR ABSENCE. Received from Mr. C. Shute, Mr. DMJ Brown Mr & Mrs. Markham
2. MINUTES OF PREVIOUS ANNUAL GENERAL MEETING. were read and agreed and there were no matters arising.
3. CHAIRMAN'S REPORT FOR 1977.

Mr. R.M. Cheesman reported that during 1977 membership to the Society had remained steady with one or two members leaving and a few new members enrolled. Subscriptions had risen during the year well within the parameters authorised at the last A.G.M. The Open Day held during September was not as successful as previous years and the attendance was well below that of any other Open Day. This was perhaps due to the increasing number of organised visits by other organisations and perhaps the majority of people who were interested in astronomy had visited the Observatory during previous years. The Observatory had been opened for club nights, decorating and visits 184 times and the total organised functions by the Society was about 210.

During the year some of our members had been on the local radio in 'Talking Point' which was on astronomy. Also during the year the Committee had arranged visits to Cambridge, and two to London, these were well attended. The two loan telescopes owned by the Society together with the fireball camera were on loan to members. Club nights at the Observatory had been held regularly and the Chairman thanked the Directors of the various sections. Also the Chairman thanked the Committee for their work during 1977 and special mention was given to Mr. M. Stow the Secretary for organising an excellent lecture programme. Thanks were also expressed to Mr. D. Barnard and Mr. M. Cook for their work in redecorating the Observatory and to Mr. M. Howe for providing an excellent monthly Journal.

4. SECRETARY'S REPORT.

Mr. M. Stow expressed his thanks to the Committee for the work they had done during the year and special thanks were given to the Chairman for his enthusiasm and hard work on behalf of the Society. Thanks were also given to the Treasurer Mrs. P.A. Long. During the year seven committee meetings were held and such things as subscriptions, repairs and the general running of the Society, banking and loan instruments were discussed. Mr. Stow thanked the editor Mr. M. Howe for the excellent Journals throughout the year and he thought that our Journal was one of the best that he had seen from other Astronomical Societies. Also he thanked Mr. C. Radley and Mr. D. Barnard for their articles in the Journal throughout the year. Mr. Stow also thanked Mr. R.M. Cheesman for typing and preparing the Journal for distribution each month and thanks were expressed to members of the Society who helped to distribute the Journals. The Observatory had been opened 184 times during the year and covered many aspects of astronomy, and the total number of functions arranged during 1977 was 210. There had been 25 group visits to the Observatory arranged by Mr. Cheesman. During the year Mr. Barnard had organised 15 meteor counts which unfortunately the majority of these had to be abandoned because of bad weather.

During the year five lectures at the Friends Meeting house were arranged and two more lectures had been arranged for the Spring of 1978. Mr. Stow said that it was the committee's policy to continue with the lecture programmes and he hoped to attract many well-known lecturers providing the Society could stand the cost.

The annual Open Day at the Observatory on Saturday 24th September, 1977 was better organised than on other occasions but Mr. Stow was sad to report that our members outnumbered the visitors and receipts were low but we still made quite a bit of money to add to the Society funds. The main source of income was the Grand Draw.

During the year Mr. Cheesman organised three visits, one to Cambridge which was very well attended considering that we had only ten days notice from Cambridge that we could visit them. Two visits were made to London, one to the B.A.A. Meteor Section Meeting at Imperial College and the other to the Science Museum.

Mr. Stow also reported that during March 1977 the object lens of the telescope was removed and sent to Mr. H. Dall to clean and refigure the two inner surfaces of the lens and that the resolution and clarity of the telescope was very much improved. On April 14th four of our members were on Radio Orwell in their "talking point" which was about astronomy.

In conclusion Mr. Stow said that he thought 1977 was a successful year for the Society and the Orwell Astronomical Society (Ipswich) was becoming well-known through the Open Days, Radio Orwell, visits to the Observatory and other forms of publicity. Also Mr. Stow said that he was sorry that because of pressure of work he would have to resign as Secretary and hoped that his successor would enjoy the work as much as he had done over the last three years.

TREASURER'S REPORT.

Mrs. P. A. Long stated that during 1977 the Society's total income was £378.60p and the total expenses amounted to £338.32. The total amount of money in balance which included £250 deposited in The Britannia Building Society was £319.11p.

During questions on the accounts Mrs. Long accounted for the various amounts which went into making the expenses which included £62.99 for duplicating paper for the Journal, £25 for the cleaning of the O.G. of the Orwell Park Telescope subscriptions to other Society magazines and the cost of the Lectures at The Friends Meeting House which amounted to £19 each. In answer to Mr. C. Munford's question as to why a balance sheet had not been presented at the A.G.M. to members Mrs. Long stated that she was still awaiting bills to come in for 1977 which had arrived that day and a typed balance sheet could not be prepared to present to members present at the A.G.M. Mrs. Long said that the Balance Sheet for the Society would be in the February Journal and that she hoped that Balance Sheets of the Society would be prepared for presentation at future A.G.M.s.

COMMITTEE FOR 1978.

The following were voted to represent the Orwell Astronomical Society (Ipswich) for 1978.

Mr. R.M. Cheesman	(Chairman)
Mr. M. Stow	(caretaker Secretary until approx June 1978)
Mrs. P.A. Long	(Treasurer)
Mr. D. Barnard	(assistant Secretary to take over aprx June)
Mr. D. Bearcroft	
Mr. J. Deans	
Mr. V. Wilkes	

Mr. M. Howe would continue as editor of the Journal until approx July 1978 and Mr. P. Hart would act as assistant editor until he became editor approx July.

Mr. A. Smith would continue as Librarian.

ANY OTHER BUSINESS:1. Observing nights at the Observatory.

Mr. Bearcroft stated that although the observatory had been opened for some 184 times during 1977 very little practical observations had been done with the Orwell Park Telescope. The chairman replied that he had proposed at other A.G.M.s that more useful work was done with the telescope but members seemed quite content in just looking around the heavens. Mr. Cheesman proposed that the matter be presented to the next Committee Meeting for discussion.

2. OPEN DAY 1978. Mr. C. Radley proposed that if the Society did hold an Open Day during 1978, or even in subsequent years that the Committee invite Radio Orwell to attend. Mr. Cheesman said that this would be considered when the Open Day was discussed at Committee Meetings.

3. WEEK LONG METEOR COUNT. Mr. N. Gage stated that during 1977 he had tried to arrange a week long meteor count and initial response had been very encouraging but as the date drew near many members dropped out and the project had to be cancelled. Mr. Cheesman suggested that if such an event was proposed for 1978 Mr. Gage should arrange it via the Committee which would give as much help as possible to arranging such an event.

4. JOURNAL Mr. A. Smith reported that pages in some of the monthly Journals were badly printed and difficulty was experienced in reading. Mr. Cheesman reported that some problems had arisen in printing during the year but he hoped that the difficulties would be overcome.

5. FIREBALL CAMERA. Mr. A. Smith reported that the fireball camera would not focus correctly. Mr. Cheesman asked Mr. Smith to check the camera with other cameras of the same type so that we could find out what was wrong and then the Committee would authorise the camera to be repaired.

6. Mr. D. Barnard reported that the numbers attending meteor counts has dropped over the last few months since the venue was changed from Foxhall Heath. The drop in numbers was attributed to a. the change in venue since the closure of Foxhall Heath and b. that for the majority of the meteor counts the weather had a lot to be desired. It was appreciated that the Committee could not alter the weather conditions but it was suggested that the Committee approach Speedworth to see if we could use the Foxhall Heath again.

7. Mr. A. Smith requested an Observatory key so that he could attend to the Library. Mr. Cheesman said that he would give Mr. Smith a key within a weeks time.

As there was no other business the Chairman called the meeting to a close at 10.25p-m.

THE NIGHT SKY as seen from Orwell Park this month.

Regulus, the major star in Leo, is due South at midnight this month. To the West is the zodiacal constellation Cancer; although not a conspicuous constellation, Cancer does contain the famous open cluster M44, the Beehive, which is well seen through binoculars. Below Cancer can be seen the head of Hydra (the sea-serpent), a winding constellation which extends as far as Virgo and terminates below Libra.

THE SUN

Sunrise and Sunset are at 07h20m and 17h10m respectively, at mid-month. The Sun will then be in Capricornus.

THE MOON - Phases

New Moon	7d14h54m
First Quarter	14d22h11m
Full Moon	23d01h26m

Occultations

Star	Phase	Mag.	Time
283	D	7.0	12d19h46.9m *
404	D	5.2	13d20h22.0m
650	D	5.7	15d19h50.3m *
806	D	5.1	17d01h51.5m
1073	D	6.0	19d01h13.6m
1735	D	6.4	25d03h12.9m *
1973	R	6.2	27d05h20.9m

D=disappearance, R=reappearance, *denotes quoted time is correct for latitude and longitude of Greenwich. Stars listed according to Zodiacal Catalog (ZC) numbers.

THE PLANETS

Mercury is a morning star and will not be well seen this month. (Superior conjunction Feb 27.)

Venus will not be well seen in February.

Mars passes into Gemini this month, it's magnitude decreasing from -1.0 to -0.3.

Jupiter is still prominent in Taurus at mag. -2.1.

Saturn comes to opposition on Feb 16 when it is in Leo. It's magnitude will then be 0.3 and it's distance from the Earth 8.24 AU. The apparent diameter of the rings (major axis) will then be 45.6".

This is generally a good month for having a look at the superior planets, Mars, Jupiter and Saturn all southing between 7 pm and midnight in the second half of the month.

COMETS

The following predictions have been made for the famous Comet Schwassmann-Wachmann 1925(II):

Date	R.A. (h,m)	Dec. (°,')
Feb 1	4,52	30,32
11	4,51 $\frac{1}{2}$	30,14
21	4,52	29,58

This comet is subject to sudden flares to mag. 10-12 from it's usual mag.18. If this happens it should be visible in the whopper at Orwell Park, and it may be worthwhile keeping a lookout in the indicated areas.

Spacelab

The four Europeans chosen to undergo intensive training for the Spacelab - to be launched by NASA's spaceshuttle - will soon begin their two-year training stint at Houston, Texas. Spacelab will usher in a new era of space research, for the astronauts will be trained scientists trying out work in space, rather than trained astronauts having a bash at science, as previously.

76 experiments have been devised for the scientists to carry out, including:

Infrared observations; using lasers to measure the properties of our atmosphere; effects of weightlessness; and possibly the use of a solar telescope in the X-ray and ultra-violet regions of the spectrum (Times).

Satellite Uhuru

U

Uhuru, the X-ray satellite, has completed its fourth sky survey and a new catalogue, containing 339 X-ray sources, has just been released.

Many of these sources have been optically identified, the objects including:

Galactic; globular clusters, supernova remnants and neutron star or black hole systems.

Extragalactic; the Andromeda galaxy, quasars and Seyfert galaxies (galaxies with relatively bright nuclei and known to emit most of their radiation in the infrared), galaxy-clusters (the radiation being presumed to emanate from tenuous gas at billions of degrees Centigrade).

This gas may be able to explain the 'missing gas' - see this Journal, July 1977 - necessary to keep the Universe from expanding indefinitely (as is required by the oscillating Universe theory). (New Scientist)

Youngest Star

A star, formed possibly not more than 100 years before the birth of Christ, has been discovered by astronomers working at the Kitt Peak National Observatory, Arizona. The star, which lies in Orion, is thus 50 000 years younger than the youngest previously known star (Sunday Times).

EXO BIOLOGY pt.8

INTELLIGENT EXTRA-TERRESTRIAL LIFE and MAN

"Our preoccupation with Heaven, somewhere out there in outer space ... is a kind of homing impulse. We are drawn to where we come from." - Eric Hoffer

Whether the above statement is true or not, it certainly appears that Man is drawn to outer space. Arthur C. Clarke, the famous science fiction author (not to mention science writer), has written an imaginative essay entitled "Across the Sea of Stars" in which he suggests that Man's natural environment is a weightless one like the sea. This is based on the fact that men are subjected to fairly high gravity; we know also that zero gravity such as is found in space can help people suffering from heart disease. But to suggest that Man's future lies solely in space, as Clarke does, is rather stretching the limits of probability.

If Man were to live in outer space he would have to construct huge 'buildings', big enough to be self-sufficient. Such a building would have to have farms (of one sort or another) as well as a source of fuel to sustain all life on the 'ship'. The sheer mass of all this would

(a) be difficult to move around (it would at least have to stop off at planets for refuelling) and

(b) have a force of gravity of it's own.

So in constructing such a huge life-support system, one would have defeated the original object by inducing gravity.

The question to be asked in this section is 'How widespread is intelligent life and what are our chances of contacting it?'. The first question can be approximately answered by the same method as in the last section.

Two factors affect this: firstly, the probability of a life-form developing into intelligent life; and secondly, the fraction of a planets existence for which intelligent life will persist. The X value of the first factor is presumably 100%, since intelligence is just another facet of all animals which should, given time, develop to a level high enough to be what we would consider 'thinking'.

The second factor is very difficult to estimate; the Earth began about 4500 million years ago and thinking man has been around about a million years. What we don't know is how long this intelligent (?) phase of terrestrial life will last. It may be that Man will destroy himself and the rest of the world in a fit of rage tomorrow, in which case we might estimate this factor as $1/4500$. On the other hand, he may be wise and continue to live until the Sun becomes too hot for comfort (or possibly much longer), in which case we would have, say, $\frac{1}{2}$ as our answer. We just cannot say how X long intelligent life will last, so we will make a fairly wild guess at 0.05.

So the possible number of intelligent races in our Galaxy is something like

$$N_1 = 3 \times 10^8 \times 0.05$$
$$= 1.5 \times 10^7$$

ie 15 million.

We're not alone!



METEOR NOTES: by Mr. D. Barnard, [redacted], Ipswich.

The URSIDS meteor count on December 23rd was totally cloudy although half a dozen people turned up.

The QUADRANTIDS meteor count on January 3rd was totally cloudy with rain, to this meeting four people turned up. On the following evening, the night of the maximum, a meteor count was held at the Observatory which started off with over fifteen people, but the cold weather drew the majority of people back into the 'warmth' of the Observatory. With about six of us remaining to continue the meteor watch only two meteors were seen, one sporadic and the other shower.

A GEMINID meteor watch was held in mid-December at the observatory and eight meteors were observed four of which were shower.

There are no main meteor showers during February or March but we will be organising a SPORADIC METEOR WATCH starting at 7.30p.m. OUTSIDE the Golf Hotel Foxhall Road, Ipswich on

SATURDAY 11th FEBRUARY

REMINDER: A Sporadic meteor count organised by Mr. David Barnard has been arranged for your participation starting at 7.30p.m. Outside The Golf Hotel, Foxhall Road, Ipswich on SATURDAY 11th February so please come along even if it is only for an hour or so.

OCCULTATION BY URANUS ON 23rd DECEMBER, 1977. by Mr. A. Smith.

The occultation by Uranus took place exactly as predicted, but unfortunately it was totally obscured by cloud!

The two dummy runs were attended by only four idiots who were prepared to get up at 5a.m. but on both these two events the sky was completely clouded over, it did however stop raining once.

NOTE FOR YOUR DIARY by Wayne Brieske

Report taken from the 'Daily Mail' 10th January, 1978.

Astronomers are in a state of high excitement because they have found an infant star which is about 3,500 years old. The star will become visible to the naked eye in about 20,000 years'

Note for diary: 10th January, 21978 - look for new naked eye star.

(Our chairman regrets that he will be unable to observe this event as he has a prior engagement shovelling coal!)

Society's News:

LAST MONTH'S CROSSWORD:

The printer of last month's Journal regrets that the crossword page was printed with the answers at the top the right way up, while the crossword was printed up-side-down. At least it should have increased your chances of getting a few right!!

THIS MONTH'S LECTURE:

On Friday 10th February we have arranged for Mr. W.M. Martindale to give us an illustrated talk at the Friends Meeting House, Fonnereau Road, Ipswich starting at 8p.m.

The subject of this talk is 'U.F.O. SIGHTINGS.'

Admission is free and anybody and everybody is welcome to come along but be early as the last U.F.O. talk was very well attended and we had to turn people, including our members, away!

See poster at back of Journal and when you have read it put it in a prominent position to advertise this talk. Further posters can be obtained from Mr. R.M. Cheesman, [redacted], Ipswich or from the Observatory at Orwell Park.

SUBSCRIPTIONS 1978.

All subscriptions to our Society became due on 1st January and if you have not renewed your subscription and would like to do so please send direct to Mrs. P.A. Long, [redacted], Ipswich, Suffolk. IP2 9JH.

Rates are: Junior membership, and those still in full time education £1.50
Full membership £2.25
Family membership £3.00

Programme for February, 1978.

AT ORWELL PARK OBSERVATORY, NACTON.MONDAYS from 7.30p.m. General Observations Section

Director Mr. N. Gage, [REDACTED], Felixstowe, Tel. [REDACTED]
and Mr. S. Flory, [REDACTED], Ipswich, Tel. [REDACTED]

6th February
13th "
20th "
27th "

TUESDAYS from 8p.m. Planetary Section.

Director Mr. J. Deans, [REDACTED], Capel St. Mary Tel GT. WENHAM
and Mr. J. Hood, [REDACTED], Ipswich.

7th February
21st "

WEDNESDAYS from 7p.m. Astronomy for Beginners

This month's illustrated talk by one of our members on the 8th February
is about 'The Universe'

WEDNESDAYS from 7p.m. Solar, Lunar & Planetary Section

Director Mr. R.M. Cheesman, [REDACTED], Ipswich

1st February
15th "
22nd "

THURSDAYS from 8p.m. Double Stars Section

Director Mr. D. Bearcroft, [REDACTED], Ipswich, Tel. [REDACTED]

2nd February
16th "

FRIDAYS Variable Stars Section

Director Mr. R.S. Manning, [REDACTED], Ipswich, Tel. [REDACTED]
and Mr. M. Siggers, [REDACTED], Ipswich

3rd February
17th "

VISITS TO THE OBSERVATORY, organised by Mr. R.M. Cheesman

WEDNESDAY 1st February at 8p.m. Cub Pack
SATURDAY 4th " at 7.30p.m. Bury St. Edmund's Upper School
SATURDAY 18th " at 7p.m. St. John's Cadets
SATURDAY 25th " at 7.30p.m. Ipswich Young Conservatives

OTHER MEETINGS:

FRIDAY 10th February at 8p.m. at The Friends Meeting House, Fonnereau Rd. Ipswich
Illustrated talk by Mr. W.M. Martindale on

'U.F.O. SIGHTINGS'

Admission Free, everybody welcome

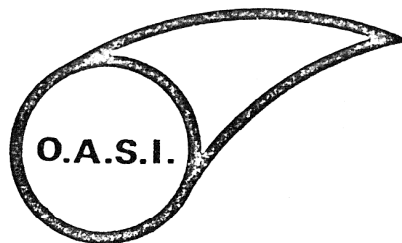
METEOR SECTION: Director Mr. D. Barnard, [REDACTED], Ipswich, Tel. [REDACTED]

SPORADIC METEOR COUNT ON SATURDAY 11th FEBRUARY from 7.30p.m.

Meet outside The Golf Hotel, Foxhall Road, Ipswich
irrespective of weather conditions.

EVERYBODY WELCOME

The skies will be CLEAR (spode permitting!)



Orwell Astronomical Society (Ipswich)
presents
a lecture entitled

U.F.O.
SIGHTINGS

by

Mr. W.M.MARTINDALE

on

FRIDAY 10th. FEBRUARY 1978

at 8p.m.

at

The Friends Meeting House
Fonnereau Road, Ipswich

REFRESHMENTS

ADMISSION FREE

Secretary: Mr. M. Stow,
13 Ladywood Road,
Ipswich.